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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.1

(MAY 2010)

Prepared by: _____
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Checked by: _____
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Environmental Team Leader

Issued Date: 08 June 2010 *Report No.: ENA00479*

ENVIRON

Ref.: WSDWHCMSEI00_0_0059L.10

15th June, 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. 1

Reference is made to Environment Team's submission of the Environmental Monitoring and Audit Report No. 1 by Email on 8th June 2010 (entitled "9/WSD/08 - Draft Monthly Report (May 10)") and the subsequent revision of the report by Email on 15th June 2010.

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

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

Yours sincerely,

David Yeung
Independent Environmental Checker

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

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TABLE OF CONTENTS

APPENDIX

Figures

Tables

EXECUTIVE SUMMARY

Under the requirements of "Environmental Monitoring & Audit Manual – Agreement No. CE42/2005(WS) 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.1 was prepared by ETS-Testconsult Ltd (ET) for the Project. This report documented the findings of EM&A Works conducted during the Project in May 2010.

Site Activities

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

- *Dredging of Type 2 marine sediment (contaminated mud).*

Environmental Monitoring Progress

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

- *Noise Monitoring (Day-time): 4 Occasions at KS6 and 5 Occasion at CGa, RWM and KY3*
- *Marine Water Quality Monitoring: 12 Occasions at 9 monitoring stations and 4 control stations*
- *Weekly-site inspection: 4 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:

Concerned Parties	*Dates of Audit / Inspection*
ET Weekly site inspection	*06, 11, 18, 25 May 2010*
Monthly Joint site inspection	*11 May 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 7.0.

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

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) temporally 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.

Apart from this, no any other 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 Imapct 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(WS) 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 May 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 vincinty 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.

The areas of the Project present in Appendix H. Locations of environmental monitoring stations and sensitive receivers are shown in Figure 1, Figure 2, Figure 3, Figure 1.2a, Figure 1.2b and Figure 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 2 marine sediment (contaminated mud)*

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 (Lx). 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.*
Sound Level Meter	*Rion NL-31 Sound Level Meter*	*ET/EN/003/12*	*00773032*
		ET/EN/003/13	*00593620*
Sound Level Calibrator	*Rion NC-73 Sound Level Meter*	*ET/EN/002/01*	*10196943*
Anemometer	*TSI Model 8340-M Air Velocity Meter*	*ET/EN/001/03*	*9101259*

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) temporally 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 baking 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	*When one documented complaint is received*	*75 dB(A) **
1900-2300 hrs on normal weekdays		*70 dB(A)*
Restricted hours (2300-0700 hrs)		*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 4 occasions of Day-time noise monitoring at KS6 and 5 occasions of Day-time noise monitoring at CGa, RWM and KY3 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*
Noise Daytime Monitoring	07/05/10	64.0	X	05/05/10	74.1	X	62.8	X	61.5	X
	14/05/10	64.8	X	12/05/10	72.9	X	72.2	X	60.6	X
	22/05/10	62.8	X	19/05/10	69.8	X	63.8	X	60.4	X
	26/05/10	61.3	X	26/05/10	70.3	X	63.2	X	63.2	X
	---	---	---	31/05/10	71.1	X	63.8	X	60.2	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*	*09/02/10* *08/05/10*	*08/05/10* *07/08/10*	*ET/0505/006**	*06070C018334*
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 19th 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)	*Surface, Middle & Bottom* *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)*	*Surface & Middle* *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)* *Bottom* *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

May 2010						
Sunday	*Monday*	*Tuesday*	*Wednesday*	*Thursday*	*Friday*	*Saturday*
						1 Holiday
2	3	4 ▼	5	6 ▼	7	8 ▼
9	10	11 ▼	12	13 ▼	14	15 ▼
16	17	18 ▼	19	20 ▼	21 Holiday	22 ▼
23	24	25 ▼	26	27 ▼	28	29 ▼
30	31					

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 06, 11, 18 and 25 May 2010 by ET. Monthly joint site inspection at 11 May 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 11/05/10, the silt curtain for dredging work was noted damaged although no dredging works are in progress.	▪ Dredging works was suspended immediately in the early morning of 11/05/10 when we observed damages of the frame type silt curtain ; ▪ Immediate actions of maintenance and repairing works of the frame type silt curtain was arranged on the same day ; ▪ A new silt curtain was under sewing since early this week at the off-site workshop as replacement to the damaged.	During the subsequent site inspection on 18/05/10, the silt curtain was repaired and maintained properly.
2	Water	Dredged materials were noted accumulated on the deck of the barge at Portion I during site inspection on 18/05/10.	▪ To shovel the dredged material on the deck of hopper barge into the cargo hold prior each trip to the dumping site.	During the next site inspection on 25/05/10, the find was found improved since the Contractor arranged site workers to clean up the dredged materials accumulated on the deck of the barge at Portion I after dredging work.
3	Chemical	During the site inspection on 11/05/10, oily water was found inside the drip tray for chemicals at Portion J.	▪ To clear and treat the oily water as chemical waste, and cover the drip tray to prevent water accumulation during rainfall.	During the subsequent site inspection on 18/05/10, no oily water was observed inside the drip tray for chemicals at Portion J.
4	Chemical	Oil leakage was noted from a generator on the dredger at Portion I during site inspection on 18/05/10. Apart from this, the generator was also found without drip tray.	▪ The Contractor cleaned up the leak oil immediately during the same inspection and treated up the contaminated materials as chemical waste.	During the next site inspection on 25/05/10, no oil leakage was noted from a generator on the dredger at Portion I and the drip tray was found provided for this generator.
5	Chemical	A 200L oil drum with waste oil was found on the ground at Portion J during site inspection on 25/05/10.	▪ The 200L oil drum was removed off site on 25 May 2010.	During the site inspection on 01/06/10, no oil drum was noted discarded at Portion J.
6	Site Practice	During the site inspection on 11/05/10, the bins for C&D waste (e.g. steel bar and general refuse) storage on the board of dredger at Portion I were found without labels.	▪ A label to distinguish the "Scrap Metal" from general refuse has been provided on 08 May 2010.	During the subsequent site inspection on 11/05/10, label was found post on the bin for C&D waste storage on the dredger.

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)* *Groun 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)*
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)*
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^3)*	*728.75*		*3011.97*
	Broken Concrete (in m^3)	*0*	*---*	*0*
	Reused in the Contract (in m^3)	*0*	*---*	*0*
	Reused in other Projects (in m^3)	*0*	*---*	*0*
	Disposal as Public Fill (in m^3)	*728.75*	*SENT Landfill*	*3011.97*
C&D Waste	*Metals (in kg)*	*0*	*---*	*0*
	Paper/Cardboard Packaging (in kg)	*0*	*---*	*0*
	Plastics (in kg)	*0*	*---*	*0*
	Chemical Waste (in kg)	*0*	*---*	*0*
	Other, e.g. General Refuse (in m^3)	*1.81*	*SENT Landfill*	*30.03*
*Dredged Materials**	*Type 1 (in m^3)*	*0*	*---*	*0*
	Type 1D (in m^3)	*0*	*---*	*0*
	Type 2 (in m^3)	*30520*	*The East Sha Chau*	*30520*

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

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*	
May 2010	*Cumulative*	*May 2010*	*Cumulative*	*May 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 of 75dB(A). 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.

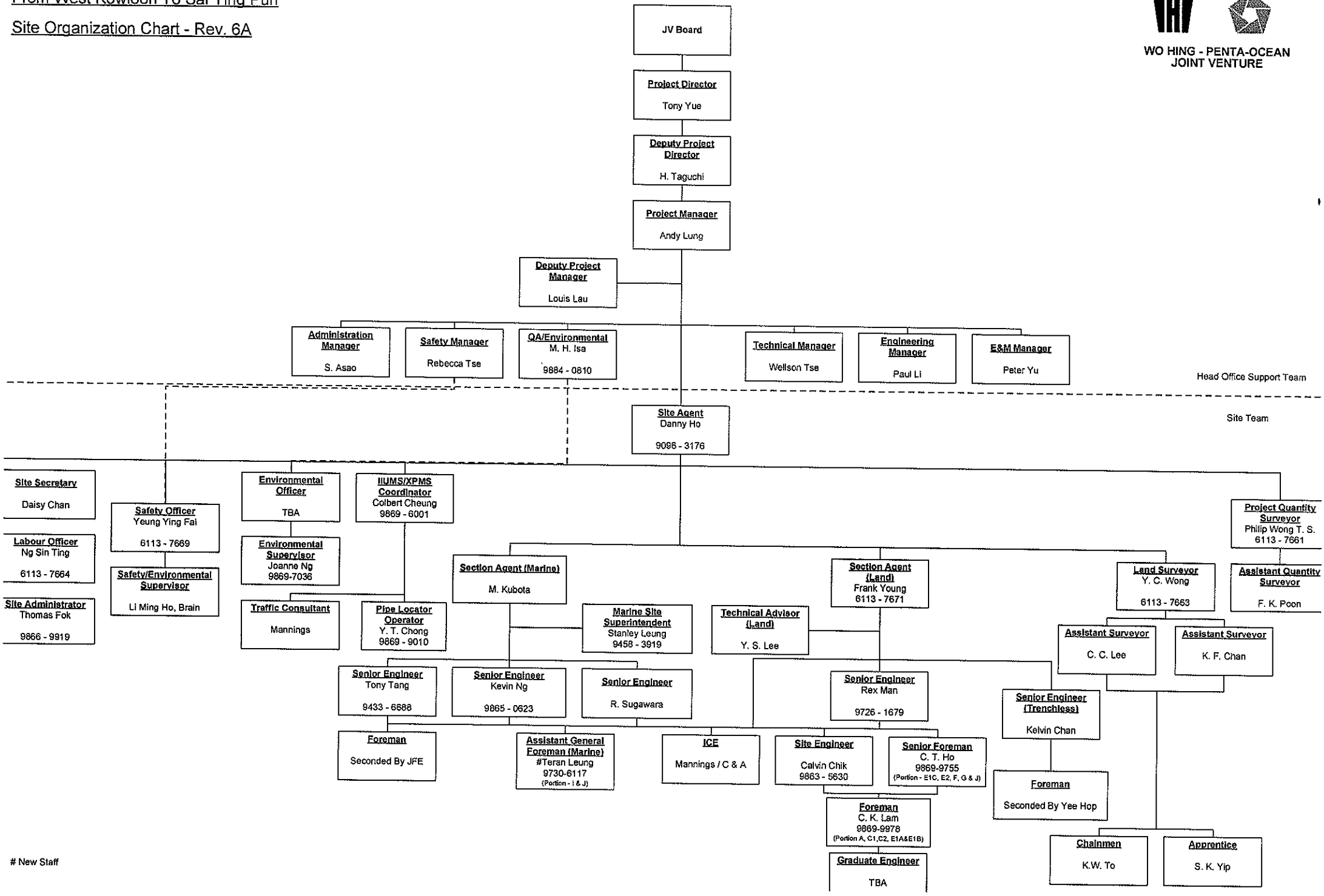
Appendix A

Organization Chart and Lines of Communication

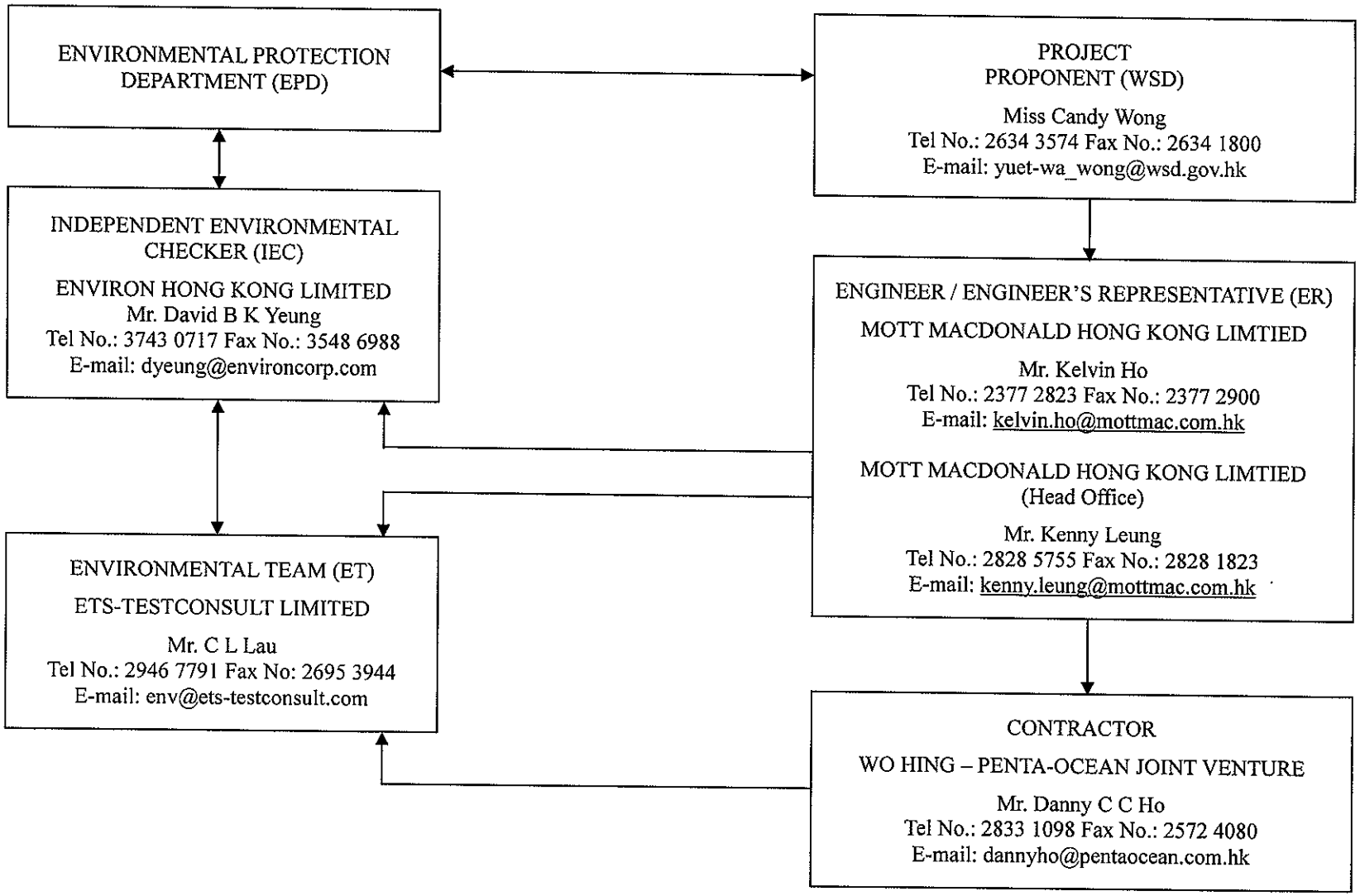
Laying Of Western Cross Harbour Main And Associated Land Mains From West Kowloon To Sai Ying Pun

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	Mott MacDonald
Title	Project Organization and Line of Communication	Figure 1.3a
Date Dec 2009		

Appendix B1

Calibration Certificates for Impact Noise Monitoring Equipment

Hong Kong Calibration Ltd.
香港校正有限公司

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:

Equipment No.	Description	Cert. No.	Due Date	Traceable to
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

Date: 16-Nov-09

This Certificate is issued by:
Hong Kong Calibration Ltd.
Unit 8B, 24/F., Well Fung Industrial Centre, No. 68-76, Ta Chuen Ping Street,Kwai Chung, NT,Hong Kong.
Tel: 2425 8801 Fax: 2425 8646

Hong Kong Calibration Ltd.
香港校正有限公司

Calibration Certificate

Certificate No. 95693

Results :

1. Level Accuracy (at 1 kHz)

UUT Nominal Value	Measured Value	Mfr's Spec.
94 dB	93.72 dB	± 1 dB

Uncertainty : ± 0.1 dB

2. Frequency Accuracy

UUT Nominal Value	Measured Value	Mfr's Spec.
1 kHz	0.991 kHz	± 2 %

Uncertainty : ± 0.0 %

3. Level Stability : 0.0 dB
Uncertainty : ± 0.01 dB

4. Total Harmonic Distortion : < 0.8 %
Mfr's Spec. : < 3 %
Uncertainty : ± 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 ----------

Hong Kong Calibration Ltd.
香港校正有限公司

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:

Equipment No.	Description	Cert. No.	Due Date	Traceable to
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. 68-76, Ta Chuen Ping Street,Kwai Chung, NT,Hong Kong.
Tel: 2425 8801 Fax: 2425 8646

Calibration Certificate

Results :

1. SPL Accuracy

UUT Setting			Applied Value (dB)	UUT Reading (dB)
Level Range (dB)	Weight	Response		
20 – 100	L_A	Fast	94.03	94.0
		Slow		94.0
	L_C	Fast		94.0
	Lp	Fast		94.1
30 – 120	L_A	Fast	94.03	93.8
		Slow		93.8
	L_C	Fast		94.0
	Lp	Fast		94.0
30 – 120	L_A	Fast	113.97	113.8
		Slow		113.8
	L_C	Fast		113.9
	Lp	Fast		113.9

IEC Type 1 Spec. : ± 0.7 dB
Uncertainty : ± 0.1 dB

2. Level Stability : 0.0 dB
IEC 651 Type 1 Spec. : ± 0.3 dB
Uncertainty : ± 0.01 dB

Calibration Certificate

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

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
$1/10^2$	40.0	40.0	
$1/10^3$	40.0	40.1	± 1.0 dB
$1/10^4$	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 ----------

RION CO., LTD.

3-20-41 Higashimotomachi Kokubunji Tokyo 185-8533
Phone:042(359)7888, Facsimile:042(359)7442

Certificate of Calibration

Name	: **Precision sound level meter**		
Model	: **NL-31**	**S/No.**	: **00593620**
Microphone	: **UC-53A**	**S/No.**	: **316148**
Preamplifier	: **NH-21**	**S/No.**	: **30382**
Date of Calibration	: **September, 18, 2009**		

We hereby certify that the above product was tested and calibrated according to the prescribed Rion procedures, and that it fulfills specification requirements.
The measuring equipment and reference devices used for testing and calibrating this unit are managed under the Rion traceability system and are traceable according to official Japanese standards and official standards of countries belonging to the International Committee of Weights and Measures.

RION CO., LTD.

Manager, Quality Control Department

Hong Kong Calibration Ltd.
香港校正有限公司

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

Main Test equipment used:

Equipment No.	Description	Cert. No.	Due Date	Traceable to
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

Date: 11-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

Hong Kong Calibration Ltd.
香 港 校 正 有限公司

Calibration Certificate

Certificate No. 95694

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	
07/05/10	Cloudy	10:40	11:10	64.0	65.4	62.3	4.0
14/05/10	Fine	10:15	10:45	64.8	65.9	63.4	2.0
22/05/10	Cloudy	10:20	10:50	62.8	64.5	60.7	2.3
26/05/10	Sunny	16:45	17:45	61.3	64.8	60.1	2.0

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	
05/05/10	Cloudy	11:15	11:45	74.1	77.2	67.4	0.8
12/05/10	Cloudy	13:43	14:13	72.9	74.9	62.6	1.2
19/05/10	Cloudy	10:00	10:30	69.8	73.2	65.6	0.9
26/05/10	Sunny	09:50	10:20	70.3	73.7	67.6	1.4
31/05/10	Cloudy	10:25	10:55	71.1	73.8	68.5	1.1

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	
05/05/10	Cloudy	11:25	11:55	62.8	64.3	60.9	1.2
12/05/10	Fine	11:23	11:53	72.2	74.1	69.7	1.9
19/05/10	Cloudy	10:35	11:05	63.8	65.0	61.7	1.4
26/05/10	Sunny	08:30	09:00	63.2	64.5	61.6	1.8
31/05/10	Cloudy	11:00	11:30	63.8	64.8	62.0	1.6

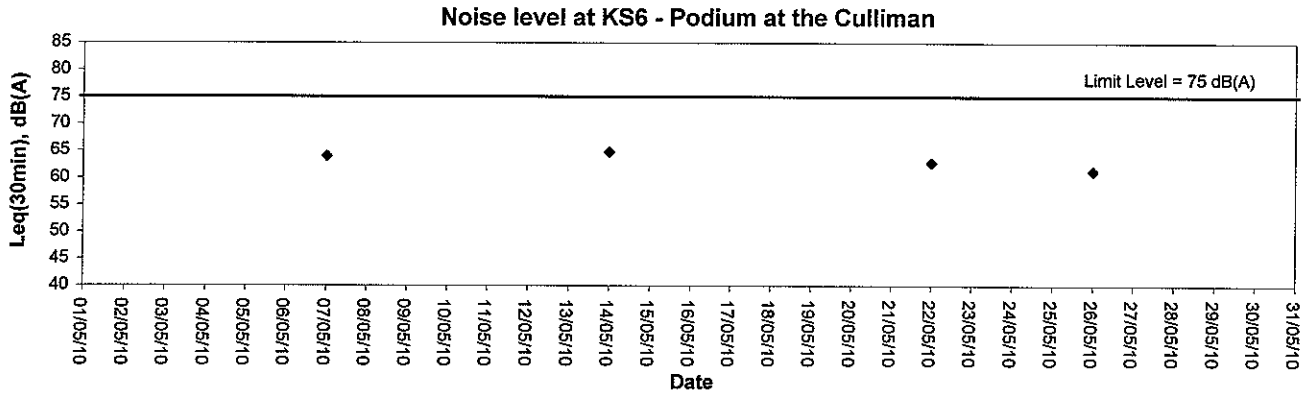
Monitoring Station: KY3 (Roof at Kwan Yik Building Phase 3)

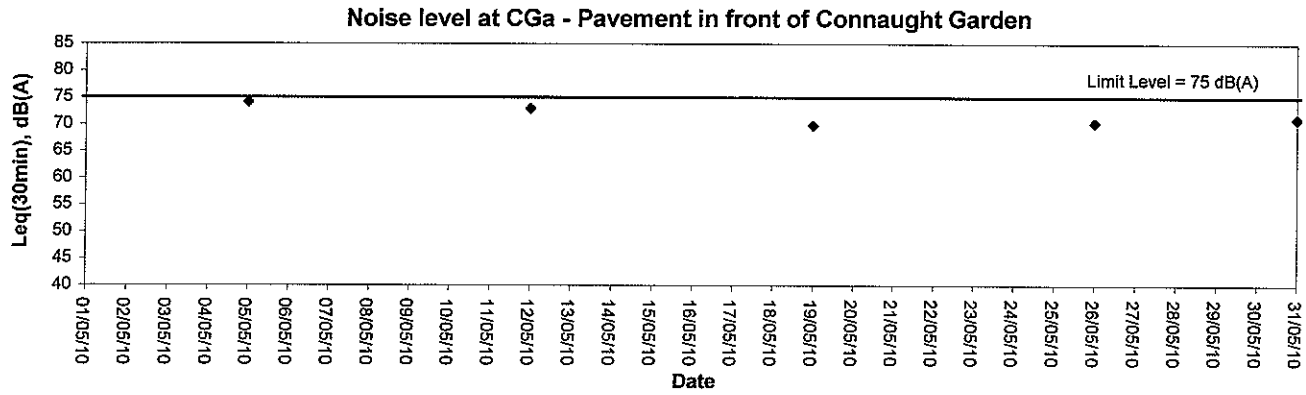
Date	Weather Condition	Start Time (hh:mm)	End Time (hh:mm)	Noise Level at the monitoring point, dB (A)			Wind Speed (m/s)
				Leq (30min)	L10	L90	
05/05/10	Cloudy	13:00	13:30	61.5	62.5	60.2	1.4
12/05/10	Fine	13:03	13:33	60.6	62.4	56.8	2.5
19/05/10	Cloudy	10:40	11:10	60.4	61.2	59.4	1.6
26/05/10	Sunny	09:10	09:40	63.2	64.7	61.2	1.6
31/05/10	Cloudy	11:35	12:05	60.2	61.3	59.6	1.7

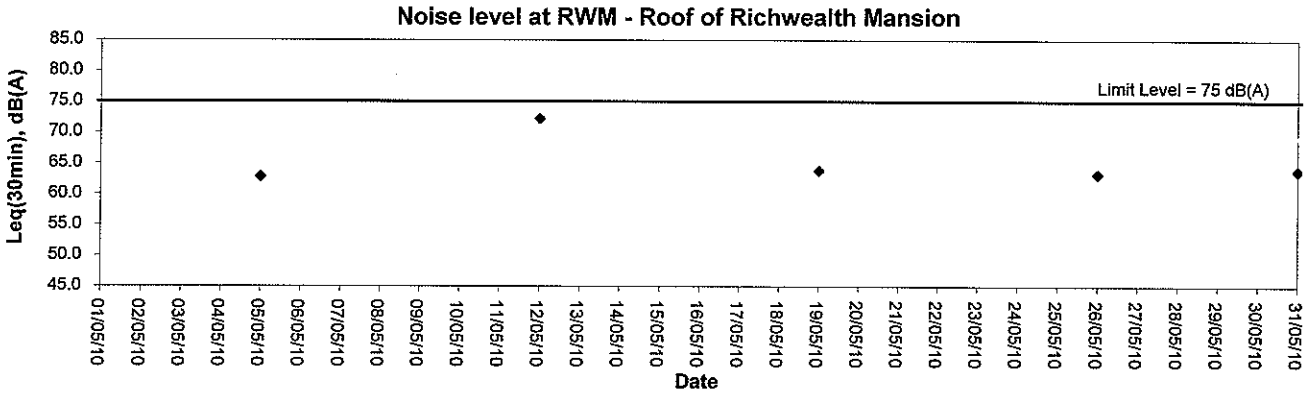
Appendix B3

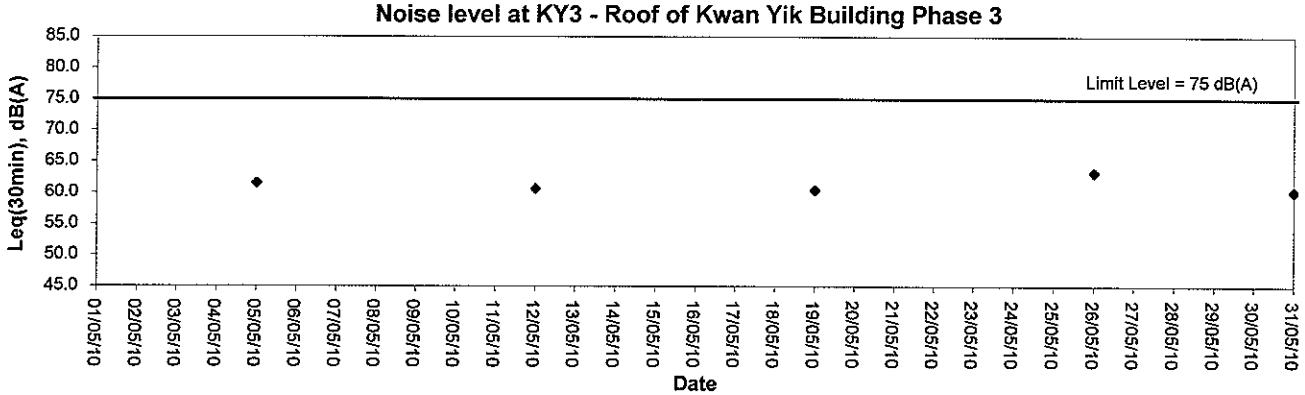
Graphical Plots of Impact Noise Monitoring Data

Noise Monitoring (Day-time)









Appendix C1

Calibration Certificates for Impact Water Quality Monitoring Equipments

東業德勤測試顧問有限公司
ETS-TESTCONSULT LIMITED

Performance Check of Turbidimeter

Equipment Ref. No. : ET/0505/006 Manufacturer : HACH

Model No. : 2100P Serial No. : 060700C018334

Date of Calibration : 9/2/10 Due Date : 8/5/10

Gelex Vial Std	Theoretical Value (NTU)	Measured Value (NTU)	Difference %
0-10 NTU	5.34	5.30	0.8
10-100 NTU	56.6	56.0	1.1
100-1000 NTU	547	546	0.2

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 : PK Approved by : Ada Lam

東業檢驗測試顧問有限公司
ETS-TESTCONSULT LIMITED

Performance Check of Turbidimeter

Equipment Ref. No. : ET/0505/006 Manufacturer : HACH

Model No. : 2100 P Serial No. : 0607000 18334

Date of Calibration : 8/5/10 Due Date : 7/8/10

Gelex Vial Std	Theoretical Value (NTU)	Measured Value (NTU)	Difference %
0-10 NTU	5.34	5.28	1.1
10-100 NTU	56.6	56.1	0.9
100-1000 NTU	547	542	0.9

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 : _____

東業德勤測試顧問有限公司
ETS-TESTCONSULT LIMITED

Performance Check of Salinity Meter

Equipment Ref. No. : ET/EW/008/003 Manufacturer : YSI

Model No. : 85 Serial No. : 08L 100716

Date of Calibration : 13/4/10 Due Date : 13/7/10

Ref. No. of Salinity Standard used (30ppt)	J362

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 : _____

東業德勤測試顧問有限公司
ETS-TESTCONSULT LIMITED

Form E/CE/R/12 Issue 7 (1/2) [09/09]

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	:	13/4/10	Calibration Due Date	:	13/7/10

Temperature Verification

Ref. No. of Reference Thermometer : ET/0521/001

Ref. No. of Water Bath : ET/0533/001

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

Standardization of sodium thiosulphate ($Na_2S_2O_3$) solution

Reagent No. of $Na_2S_2O_3$ titrant	J 373	Reagent No. of 0.025N $K_2Cr_2O_7$	J 374

	Trial 1	Trial 2
Initial Vol. of $Na_2S_2O_3$ (ml)	0.0	0.0
Final Vol. of $Na_2S_2O_3$ (ml)	40.0	40.1
Vol. of $Na_2S_2O_3$ used (ml)	40.0	40.1
Normality of $Na_2S_2O_3$ solution (N)	0.025	0.024994
Average Normality (N) of $Na_2S_2O_3$ solution (N)	0.024997	
Acceptance criteria, Deviation	Less than ± 0.001N	

Calculation: Normality of $Na_2S_2O_3$, N = 1 / ml $Na_2S_2O_3$ used

Lineality 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 $Na_2S_2O_3$ (ml)	10.70	22.40	9.10	0.00	18.20	24.50
Final Vol. of $Na_2S_2O_3$ (ml)	22.50	34.30	18.20	9.10	24.60	31.10
Vol. (V) of $Na_2S_2O_3$ 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			

東業德勤測試顧問有限公司
ETS-TESTCONSULT LIMITED

Form E/CE/R/12 Issue 7 (2/2) [09/09]

Internal Calibration Report of Dissolved Oxygen Meter

Zero Point Checking

DO meter reading, mg/L	0.00

Salinity Checking

Reagent No. of NaCl (10ppt)	T371	Reagent No. of NaCl (30ppt)	T372

Determination of dissolved oxygen content by Winkler Titration **

Salinity (ppt)	10		30	
Trial	1	2	1	2
Initial Vol. of $Na_2S_2O_3$ (ml)	11.60	0.00	23.20	17.70
Final Vol. of $Na_2S_2O_3$ (ml)	23.20	11.60	34.10	28.60
Vol. (V) of $Na_2S_2O_3$ used (ml)	11.60	11.60	10.90	10.90
Dissolved Oxygen (DO), mg/L	7.77	7.77	7.30	7.30
Acceptance criteria, Deviation	Less than + 0.3mg/L		Less than + 0.3mg/L	

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

Salinity (ppt)	DO meter reading, mg/L			Winkler Titration result**, mg/L			Difference (%) of DO Content
	1	2	Average	1	2	Average	
10	7.85	7.86	7.86	7.77	7.77	7.77	1.15
30	7.29	7.27	7.28	7.30	7.30	7.30	0.27

Acceptance Criteria

(1) Differenc between temperature readings from temperature sensor of DO probe and reference thermometer : < 0.5 °C
(2) Linear regression coefficient : >0.99
(3) Zero checking: 0.0mg/L
(4) Difference (%) of DO content from the meter reading and by winkler titration : within ± 5%

The equipment complies # / ~~does not comply~~ # with the specified requirements and is deemed acceptable # / ~~unacceptable~~ # for use.

Delete as appropriate

Calibrated 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
04/05/10	0824-0836	24/Cloudy	Surface	1.0	22.8	31.6	31.7	6.57	6.55	91.3	91.0	1.40	1.44	1.88	2.7	2.9	3.75
						31.7		6.52		90.6		1.47			3.0		
			Middle	7.6	22.4	31.9	32.0	6.29	6.27	87.4	87.1	1.90	1.89		4.0	3.9	
						32.0		6.25		86.8		1.87			3.8		
			Bottom	14.2	22.3	32.0	32.1	6.10	6.09	84.7	84.5	2.30	2.32		4.5	4.5	
						32.1		6.07		84.3		2.33			4.5		
06/05/10	1143-1158	28/Cloudy	Surface	1.0	24.3	31.7	31.7	6.47	6.45	87.1	86.8	4.84	4.87	4.74	9.5	9.7	9.52
						31.6		6.42		86.4		4.90			9.8		
			Middle	8.0	23.7	31.9	32.0	6.35	6.33	84.6	84.3	4.72	4.74		9.5	9.5	
						32.0		6.30		84.0		4.75			9.5		
			Bottom	15.0	22.9	32.2	32.2	6.15	6.13	81.5	84.2	4.61	4.62		9.3	9.4	
						32.2		6.10		86.9		4.63			9.5		
08/05/10	1615-1630	26/Cloudy	Surface	1.0	24.8	31.3	31.3	6.14	6.12	84.7	84.5	6.04	6.07	5.9	11.0	11.5	11.7
						31.3		6.10		84.2		6.10			12.0		
			Middle	7.4	24.6	31.5	31.5	6.06	6.08	83.6	83.8	5.64	5.68		11.0	11.0	
						31.5		6.09		84.0		5.72			11.0		
			Bottom	13.8	24.5	31.9	31.9	5.96	5.97	82.2	82.3	5.91	5.9		12.0	12.5	
						31.8		5.97		82.4		5.88			13.0		
11/05/10	1623-1632	26/Cloudy	Surface	1.0	23.4	31.6	31.5	6.68	6.68	90.2	90.3	2.50	2.50	2.51	5.0	5.0	4.9
						31.4		6.68		90.3		2.50			5.0		
			Middle	7.0	23.2	31.5	31.5	6.21	6.21	83.9	83.9	2.62	2.63		5.2	5.2	
						31.5		6.20		83.8		2.64			5.2		
			Bottom	13.0	23.0	31.3	31.4	6.04	6.01	81.5	81.3	2.39	2.41		4.5	4.5	
						31.4		5.98		81.0		2.43			4.5		
13/05/10	1647-1657	27/Fine	Surface	1.0	24.5	29.2	29.2	6.24	6.24	82.8	82.7	4.11	4.11	4.10	8.0	8.1	8.2
						29.2		6.23		82.5		4.11			8.2		
			Middle	7.7	24.1	29.6	29.7	6.20	6.20	82.0	82.0	4.14	4.15		8.2	8.2	
						29.7		6.20		82.0		4.15			8.2		
			Bottom	14.4	23.9	29.9	29.9	6.06	6.05	80.7	80.5	4.05	4.05		8.3	8.4	
						29.8		6.03		80.2		4.05			8.5		
15/05/10	1759-1811	24/Rainy	Surface	1.0	23.2	29.0	29.0	6.51	6.49	89.8	89.5	2.86	2.83	2.80	5.5	5.5	5.6
						28.9		6.47		89.2		2.80			5.5		
			Middle	7.6	22.9	30.8	30.8	6.21	6.19	85.6	85.4	2.63	2.62		5.2	5.3	
						30.7		6.17		85.1		2.60			5.3		
			Bottom	14.2	22.5	31.0	31.0	6.12	6.10	84.4	84.1	2.98	2.97		6.0	6.0	
						31.0		6.07		83.7		2.95			6.0		
18/05/10	0805-0815	27/Fine	Surface	1.0	24.6	31.2	31.2	6.07	6.09	83.8	84.0	3.19	3.18	3.15	6.5	6.4	6.2
						31.1		6.10		84.2		3.16			6.3		
			Middle	7.3	24.2	31.4	31.4	6.04	6.05	83.4	83.5	3.16	3.17		6.3	6.3	
						31.4		6.06		83.6		3.17			6.3		
			Bottom	13.6	23.7	31.9	31.9	5.95	5.94	82.1	82.0	3.11	3.12		6.0	6.0	
						31.9		5.93		81.9		3.13			6.0		
20/05/10	0915-0925	26/Drizzle	Surface	1.0	23.9	30.1	30.1	6.18	6.19	81.6	81.7	5.29	5.30	5.62	11.0	11.0	11.5
						30.1		6.19		81.7		5.30			11.0		
			Middle	7.5	24.2	30.2	30.2	6.05	6.05	79.6	79.6	5.52	5.53		11.0	11.5	
						30.2		6.05		79.6		5.53			12.0		
			Bottom	14.0	24.3	30.4	30.4	5.91	5.91	77.9	77.9	6.02	6.03		12.0	12.0	
						30.4		5.90		77.8		6.03			12.0		
22/05/10	1103-1115	27/Rainy	Surface	1.0	25.4	30.5	30.5	6.40	6.42	88.3	88.6	3.70	3.73	3.70	7.5	7.5	7.4
						30.4		6.44		88.8		3.75			7.5		
			Middle	7.2	25.1	31.2	31.2	6.19	6.17	85.4	85.1	3.54	3.52		7.0	7.0	
						31.1		6.15		84.8		3.49			7.0		
			Bottom	13.4	24.9	31.3	31.3	6.22	6.24	85.8	86.0	3.82	3.86		7.5	7.8	
						31.2		6.25		86.2		3.90			8.0		
25/05/10	1531-1543	28/Sunny	Surface	1.0	26.1	31.6	31.6	6.51	6.52	89.8	89.9	3.44	3.45	3.72	6.8	6.9	7.5
						31.5		6.52		89.9		3.45			7.0		
			Middle	8.1	25.5	31.8	31.8	6.24	6.25	86.1	86.2	3.74	3.75		7.4	7.6	
						31.8		6.25		86.2		3.75			7.7		
			Bottom	15.2	25.0	32.1	32.1	6.10	6.08	84.2	83.9	3.96	3.97		8.0	8.0	
						32.0		6.06		83.60		3.97			8.0		
27/05/10	1625-1638	27/Cloudy	Surface	1.0	25.1	32.0	32.0	6.10	6.08	84.7	84.3	3.05	2.96	2.93	6.0	5.9	5.9
						32.0		6.05		83.9		2.86			5.8		
			Middle	7.9	24.0	32.5	32.5	5.89	5.91	81.8	81.3	2.69	2.74		5.4	5.5	
						32.5		5.92		80.7		2.78			5.6		
			Bottom	14.8	23.2	32.8	32.8	5.67	5.70	78.1	78.0	3.05	3.11		6.2	6.4	
						32.8		5.73		77.8		3.16			6.5		
29/05/10	1800-1811	28/Rainy	Surface	1.0	27.0	30.7	30.8	6.47	6.45	89.3	89.0	2.41	2.45	2.89	4.8	4.8	5.8
						30.8		6.42		88.6		2.48			4.8		
			Middle	7.7	26.8	30.0	30.1	6.19	6.17	85.4	85.2	2.91	2.90		6.0	5.9	
						30.1		6.15		84.9		2.88			5.8		
			Bottom	14.4	25.4	32.1	32.2	6.01	5.99	82.9	82.7	3.30	3.32		6.6	6.6	
						32.2		5.97		82.4		3.34			6.5		

Mid-Flood Tide

東業德勤測試顧問有限公司
ETS-TESTCONSULT LIMITED

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
04/05/10	1134-1146	24/Cloudy	Surface	1.0	22.4	31.9	31.9	6.10	6.13	84.1	84.5	1.07	1.09	1.68	2.0	2.1	3.33
						31.9		6.15		84.8		1.11			2.2		
			Middle	8.2	22.3	32.0	32.0	5.97	5.96	82.3	82.1	1.79	1.81		3.5	3.5	
						32.0		5.94		81.9		1.83			3.5		
			Bottom	15.4	22.2	32.2	32.2	5.86	5.85	80.8	80.6	2.10	2.13		4.3	4.4	
						32.1		5.83		80.4		2.15			4.5		
06/05/10	0845-0901	28/Cloudy	Surface	1.0	24.2	31.3	31.3	6.42	6.44	86.4	86.6	3.46	3.48	3.00	7.0	7.0	5.95
						31.3		6.45		86.8		3.50			7.0		
			Middle	10.6	22.8	32.0	32.1	6.21	6.20	82.8	82.6	2.87	2.89		5.5	5.6	
						32.1		6.18		82.4		2.90			5.7		
			Bottom	20.1	22.2	32.4	32.5	6.01	5.99	79.7	79.5	2.66	2.65		5.2	5.3	
						32.5		5.97		79.2		2.63			5.3		
08/05/10	1928-1938	26/Cloudy	Surface	1.0	24.8	31.4	31.4	6.39	6.37	88.2	88.0	5.89	5.92	6.0	13.0	12.5	12.5
						31.3		6.35		87.8		5.95			12.0		
			Middle	8.4	24.7	31.7	31.8	6.18	6.16	85.2	85.0	6.00	5.99		12.0	12.5	
						31.8		6.14		84.7		5.97			13.0		
			Bottom	15.8	24.6	31.9	32.1	6.29	6.27	86.8	86.6	6.14	6.2		12.0	12.5	
						32.2		6.25		86.3		6.19			13.0		
11/05/10	1902-1912	26/Cloudy	Surface	1.0	23.3	31.7	31.7	6.60	6.60	89.3	89.3	2.81	2.86	2.95	5.5	5.6	5.8
						31.7		6.60		89.2		2.91			5.7		
			Middle	8.1	23.2	31.9	31.9	6.31	6.28	85.0	84.5	2.91	2.91		5.7	5.7	
						31.9		6.24		84.0		2.91			5.7		
			Bottom	15.2	22.8	31.6	31.6	6.11	6.13	82.4	82.5	3.08	3.08		6.0	6.2	
						31.6		6.14		82.6		3.08			6.3		
13/05/10	1925-1936	27/Fine	Surface	1.0	24.4	31.2	31.2	6.40	6.42	84.9	85.2	3.75	3.74	3.73	7.5	7.5	7.4
						31.1		6.43		85.5		3.73			7.5		
			Middle	8.5	24.1	31.4	31.4	6.20	6.21	82.3	82.4	3.56	3.57		7.0	7.1	
						31.4		6.21		82.4		3.57			7.2		
			Bottom	16.0	23.8	31.6	31.6	6.11	6.09	80.4	80.2	3.86	3.88		7.5	7.5	
						31.6		6.07		80.0		3.89			7.5		
15/05/10	2050-2100	24/Rainy	Surface	1.0	22.9	29.1	29.2	6.21	6.19	85.6	85.4	4.03	4.06	3.87	8.0	8.1	7.7
						29.2		6.17		85.1		4.09			8.2		
			Middle	8.4	22.4	31.2	31.2	6.16	6.15	84.3	84.1	3.69	3.72		7.3	7.4	
						31.2		6.13		83.9		3.74			7.5		
			Bottom	15.8	22.4	31.2	31.3	6.09	6.08	83.4	83.2	3.80	3.83		7.5	7.5	
						31.3		6.06		83.0		3.85			7.5		
18/05/10	1105-1115	27/Fine	Surface	1.0	24.8	31.4	31.4	6.05	6.07	83.5	83.8	3.19	3.18	3.19	6.5	6.5	6.5
						31.3		6.09		84.1		3.17			6.5		
			Middle	8.3	24.3	31.8	31.9	6.19	6.18	85.4	85.2	3.21	3.23		6.5	6.5	
						31.9		6.16		84.9		3.24			6.5		
			Bottom	15.6	23.8	32.3	32.3	6.22	6.20	85.8	85.5	3.18	3.17		6.5	6.5	
						32.3		6.17		85.2		3.15			6.5		
20/05/10	1206-1218	27/Cloudy	Surface	1.0	24.1	30.1	30.2	6.25	6.25	82.4	82.4	5.55	5.56	5.73	11.0	11.5	12.2
						30.2		6.25		82.4		5.56			12.0		
			Middle	8.8	23.9	30.4	30.4	6.18	6.18	82.0	82.0	5.71	5.70		12.0	12.5	
						30.4		6.18		81.9		5.68			13.0		
			Bottom	6.6	23.7	30.8	30.9	6.20	6.21	81.9	82.1	5.94	5.95		12.0	12.5	
						31.0		6.21		82.2		5.95			13.0		
22/05/10	1421-1433	27/Rainy	Surface	1.0	25.7	30.7	30.7	6.30	6.33	86.9	87.3	3.98	3.95	3.69	8.0	8.0	7.7
						30.7		6.35		87.6		3.91			8.0		
			Middle	8.4	25.1	31.4	31.4	6.06	6.04	83.0	82.7	3.60	3.63		7.2	7.3	
						31.3		6.02		82.4		3.65			7.3		
			Bottom	15.8	24.9	31.4	31.4	5.97	5.95	81.7	81.4	3.97	3.49		8.0	7.9	
						31.4		5.92		81.1		3.01			7.7		
25/05/10	1830-1839	28/Sunny	Surface	1.0	26.2	31.4	31.5	6.39	6.38	88.2	88.1	3.57	3.57	3.67	7.0	7.1	7.5
						31.5		6.37		87.9		3.56			7.2		
			Middle	8.0	25.8	32.8	32.8	6.21	6.22	85.7	85.8	3.75	3.76		7.4	7.5	
						32.7		6.22		85.8		3.76			7.6		
			Bottom	15.0	25.1	31.8	31.8	6.12	6.12	84.5	84.4	3.99	3.69		8.0	7.9	
						31.8		6.11		84.3		3.38			7.8		
27/05/10	1946-1958	27/Cloudy	Surface	1.0	24.5	32.3	32.3	6.34	6.38	87.8	87.5	2.49	2.52	2.76	5.0	5.0	5.5
						32.3		6.41		87.2		2.54			5.0		
			Middle	9.5	23.3	32.7	32.7	6.10	6.04	82.9	83.0	2.78	2.75		5.4	5.4	
						32.7		5.97		83.0		2.71			5.4		
			Bottom	17.9	23.0	32.8	32.8	5.83	5.79	79.5	79.3	2.96	3.02		6.0	6.1	
						32.8		5.74		79.0		3.08			6.2		
29/05/10	2102-2112	28/Rainy	Surface	1.0	26.8	30.0	30.5	6.01	6.03	82.9	83.2	2.07	2.10	2.68	4.0	4.1	5.3
						30.9		6.05		83.5		2.12			4.2		
			Middle	8.3	26.3	31.1	31.1	5.87	5.86	81.0	80.8	2.80	2.82		5.6	5.6	
						31.0		5.84		80.6		2.84			5.6		
			Bottom	15.6	25.3	32.3	32.3	5.76	5.75	75.3	77.2	3.11	3.14		6.0	6.1	
						32.2		5.73		79.1		3.16			6.2		

Mid-Flood Tide

東業德勤測試顧問有限公司
ETS-TESTCONSULT LIMITED

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
04/05/10	0850-0900	24/Cloudy	Surface	1.0	22.6	31.6	31.6	6.30	6.32	87.5	87.7	1.37	1.39	1.85	2.5	2.7	3.68
						31.6		6.33		87.9		1.41			2.8		
			Middle	6.8	22.4	32.0	32.0	6.15	6.17	85.4	85.7	1.72	1.70		3.5	3.5	
						32.0		6.18		85.9		1.67			3.5		
			Bottom	12.6	22.4	32.0	32.1	6.12	6.13	84.4	84.6	2.42	2.46		4.8	4.9	
						32.1		6.14		84.7		2.50			5.0		
06/05/10	1115-1129	28/Cloudy	Surface	1.0	24.2	31.8	31.8	6.50	6.52	87.5	87.7	4.46	4.50	4.04	8.8	8.9	8.08
						31.7		6.53		87.9		4.54			9.0		
			Middle	7.0	23.8	32.0	32.0	6.26	6.28	83.4	83.7	3.91	3.88		7.7	7.9	
						32.0		6.30		84.0		3.85			8.0		
			Bottom	13.0	23.0	32.2	32.2	6.09	6.11	80.7	80.9	3.72	3.74		7.5	7.5	
						32.1		6.12		81.1		3.75			7.5		
08/05/10	1644-1659	26/Cloudy	Surface	1.0	24.8	31.1	31.2	6.08	6.07	83.9	83.7	6.19	6.17	6.1	12.0	12.5	12.0
						31.2		6.06		83.4		6.15			13.0		
			Middle	6.7	24.7	31.6	31.7	6.11	6.13	84.3	84.5	5.97	5.98		11.0	11.5	
						31.7		6.14		84.7		5.99			12.0		
			Bottom	12.4	24.6	32.0	32.1	6.16	6.18	85.0	85.2	6.02	6.03		12.0	12.0	
						32.2		6.19		85.4		6.04			12.0		
11/05/10	1647-1657	26/Cloudy	Surface	1.0	23.5	31.8	31.8	6.50	6.49	87.8	87.7	3.11	3.13	3.17	6.0	6.2	6.2
						31.8		6.48		87.5		3.15			6.3		
			Middle	6.5	23.2	31.9	32.0	6.11	6.11	83.3	83.3	3.41	3.38		6.5	6.5	
						32.0		6.10		83.2		3.34			6.5		
			Bottom	12.0	23.2	32.2	32.3	6.12	6.11	83.5	83.3	3.02	3.02		6.0	6.0	
						32.3		6.10		83.0		3.01			6.0		
13/05/10	1710-1720	27/Fine	Surface	1.0	24.2	30.0	29.9	6.30	6.28	83.4	83.1	3.56	3.56	3.49	7.0	7.0	6.9
						29.8		6.25		82.7		3.56			7.0		
			Middle	7.6	23.7	30.6	30.6	6.08	6.09	81.1	81.3	3.24	3.24		6.5	6.5	
						30.5		6.10		81.4		3.24			6.5		
			Bottom	14.2	23.4	30.9	31.0	5.93	5.93	78.9	78.9	3.68	3.68		7.3	7.3	
						31.1		5.92		78.8		3.68			7.2		
15/05/10	1821-1833	24/Rainy	Surface	1.0	23.1	29.1	29.1	6.57	6.54	90.6	90.2	2.97	2.95	2.98	6.0	6.0	6.0
						29.1		6.50		89.8		2.93			6.0		
			Middle	7.0	22.8	30.7	30.7	6.44	6.42	88.8	88.6	3.06	3.09		6.0	6.2	
						30.6		6.40		88.3		3.12			6.3		
			Bottom	13.0	22.6	30.9	30.9	6.19	6.18	85.4	85.3	2.87	2.90		5.7	5.9	
						30.9		6.17		85.1		2.93			6.0		
18/05/10	0830-0842	27/Fine	Surface	1.0	24.7	31.4	31.4	6.06	6.08	83.5	84.1	3.18	3.17	3.13	6.5	6.4	6.2
						31.3		6.09		84.6		3.16			6.3		
			Middle	6.7	24.2	31.6	31.6	6.03	6.04	83.20	83.3	3.13	3.14		6.0	6.2	
						31.6		6.04		83.40		3.15			6.3		
			Bottom	12.4	23.7	31.9	31.9	6.12	6.13	84.50	84.7	3.08	3.09		6.0	6.2	
						31.8		6.14		84.80		3.10			6.3		
20/05/10	0938-0948	26/Drizzle	Surface	1.0	24.2	30.5	30.6	6.20	6.20	81.8	81.8	5.99	5.95	5.41	12.0	11.5	10.9
						30.6		6.20		81.8		5.90			11.0		
			Middle	6.7	24.0	31.0	31.0	6.15	6.15	81.2	81.3	4.86	4.88		9.5	9.6	
						31.0		6.15		81.3		4.89			9.7		
			Bottom	12.4	24.0	31.2	31.3	6.04	6.04	79.6	79.6	5.45	5.42		11.0	11.5	
						31.3		6.04		79.5		5.39			12.0		
22/05/10	1127-1139	27/Rainy	Surface	1.0	25.5	30.6	30.6	6.20	6.19	85.5	85.3	3.52	3.55	3.47	7.0	7.2	7.0
						30.5		6.17		85.1		3.58			7.3		
			Middle	6.8	25.0	31.0	31.0	6.07	6.05	83.1	82.8	3.17	3.14		6.5	6.4	
						30.9		6.02		82.4		3.11			6.3		
			Bottom	12.6	24.8	31.3	31.4	6.10	6.12	83.5	83.8	3.68	3.72		7.2	7.4	
						31.4		6.14		84.1		3.75			7.5		
25/05/10	1556-1608	28/Sunny	Surface	1.0	26.1	31.6	31.7	6.30	6.30	86.9	86.9	3.54	3.55	3.72	7.0	7.0	7.3
						31.7		6.30		86.9		3.55			7.0		
			Middle	7.3	25.6	31.8	31.8	6.15	6.17	84.9	85.2	3.68	3.70		7.0	7.1	
						31.7		6.19		85.4		3.71			7.2		
			Bottom	13.6	25.2	32.0	32.0	6.13	6.14	84.6	84.7	3.89	3.92		7.6	7.7	
						32.0		6.14		84.70		3.94			7.8		
27/05/10	1650-1701	27/Cloudy	Surface	1.0	25.0	31.5	31.5	6.10	6.12	84.0	84.0	3.43	3.52	3.77	6.8	6.9	7.5
						31.5		6.13		83.9		3.60			7.0		
			Middle	7.8	24.1	32.5	32.5	5.95	5.93	81.7	81.4	3.75	3.78		7.4	7.5	
						32.5		5.90		81.0		3.80			7.6		
			Bottom	14.6	23.3	32.8	32.8	5.70	5.72	78.2	78.3	3.92	4.02		8.0	8.1	
						32.8		5.74		78.3		4.12			8.2		
29/05/10	1824-1836	28/Rainy	Surface	1.0	27.1	30.7	30.7	6.20	6.22	85.6	85.8	2.38	2.40	2.86	4.6	4.7	5.7
						30.7		6.23		85.9		2.42			4.8		
			Middle	6.9	26.7	31.1	31.1	6.05	6.07	83.5	82.8	2.73	2.71		5.4	5.4	
						31.1		6.08		82.1		2.68			5.4		
			Bottom	12.8	25.5	32.1	32.2	6.02	6.03	81.3	82.4	3.43	3.47		6.8	6.9	
						32.2		6.04		83.4		3.51			7.0		

Mid-Flood Tide

東業德勤測試顧問有限公司
ETS-TESTCONSULT LIMITED

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
04/05/10	1113-1127	24/Cloudy	Surface	1.0	22.6	31.8	31.9	6.17	6.16	85.1	84.9	1.20	1.23	1.71	2.5	2.5	3.50
						31.9		6.14		84.7		1.25			2.5		
			Middle	8.4	22.4	32.0	32.1	6.03	6.01	83.2	82.9	1.98	1.94		4.0	4.0	
						32.1		5.99		82.6		1.90			4.0		
			Bottom	15.8	22.3	32.0	32.1	5.90	5.89	81.4	81.2	1.93	1.95		4.0	4.0	
						32.1		5.87		81.0		1.97			4.0		
06/05/10	0830-0843	28/Cloudy	Surface	1.0	23.6	31.1	31.2	6.32	6.31	85.0	84.9	3.12	3.13	3.15	6.3	6.4	6.35
						31.2		6.30		84.8		3.14			6.5		
			Middle	9.9	23.0	31.7	31.8	6.15	6.18	82.0	82.3	3.46	3.48		6.8	6.9	
						31.8		6.20		82.6		3.50			7.0		
			Bottom	18.8	22.5	32.1	32.1	5.92	5.90	78.5	78.2	2.81	2.83		5.5	5.8	
						32.1		5.87		77.8		2.84			6.0		
08/05/10	1908-1920	26/Cloudy	Surface	1.0	24.8	31.2	31.2	6.24	6.23	86.1	85.9	5.91	5.88	5.9	11.0	11.5	12.2
						31.1		6.21		85.7		5.85			12.0		
			Middle	8.3	24.7	31.6	31.6	6.19	6.17	85.4	85.2	5.77	5.78		13.0	12.5	
						31.5		6.15		84.9		5.79			12.0		
			Bottom	15.6	24.7	31.9	32.0	6.06	6.05	83.7	83.5	6.12	6.1		12.0	12.5	
						32.0		6.03		83.2		6.17			13.0		
11/05/10	1843-1853	26/Cloudy	Surface	1.0	23.2	31.2	31.2	6.58	6.57	88.9	88.7	2.74	2.72	2.61	5.5	5.5	5.2
						31.1		6.55		88.4		2.70			5.5		
			Middle	8.0	23.2	31.4	31.4	6.34	6.36	85.6	85.9	2.48	2.49		5.0	5.0	
						31.4		6.38		86.2		2.50			5.0		
			Bottom	15.0	22.9	31.5	31.5	6.30	6.26	85.0	85.1	2.61	2.63		5.3	5.2	
						31.5		6.22		85.1		2.64			5.0		
13/05/10	1908-1920	27/Fine	Surface	1.0	24.3	31.0	31.0	6.30	6.31	83.5	83.6	3.85	3.83	3.90	7.5	7.5	7.8
						31.0		6.31		83.6		3.80			7.5		
			Middle	8.4	24.2	31.4	31.5	6.10	6.11	80.3	80.4	3.94	3.92		8.0	8.1	
						31.5		6.11		80.4		3.90			8.2		
			Bottom	15.8	24.0	31.6	31.7	5.95	5.93	79.2	78.9	3.91	3.95		7.8	7.9	
						31.7		5.90		78.6		3.98			8.0		
15/05/10	2030-2042	24/Rainy	Surface	1.0	23.0	29.2	29.2	6.30	6.29	86.9	86.7	3.69	3.71	3.43	7.3	7.4	6.9
						29.2		6.27		86.5		3.73			7.5		
			Middle	8.3	22.4	31.2	31.2	6.18	6.16	84.6	84.4	3.43	3.46		6.8	6.8	
						31.1		6.14		84.1		3.49			6.8		
			Bottom	15.6	22.4	31.3	31.3	6.12	6.14	83.8	84.1	3.10	3.13		6.3	6.4	
						31.3		6.16		84.3		3.16			6.5		
18/05/10	1050-1100	27/Fine	Surface	1.0	24.8	31.2	31.3	6.08	6.06	83.9	83.7	3.21	3.23	3.23	6.5	6.5	6.4
						31.3		6.04		83.4		3.25			6.5		
			Middle	8.2	24.3	31.8	31.8	6.13	6.14	84.6	84.8	3.17	3.18		6.3	6.3	
						31.8		6.15		84.9		3.19			6.3		
			Bottom	15.4	23.7	32.1	32.2	6.18	6.19	85.3	85.5	3.26	3.28		6.5	6.5	
						32.2		6.20		85.6		3.29			6.5		
20/05/10	1147-1157	27/Cloudy	Surface	1.0	24.2	29.2	29.3	6.26	6.26	82.6	82.6	5.60	5.60	5.72	11.0	11.5	12.0
						29.3		6.25		82.5		5.60			12.0		
			Middle	8.6	24.1	29.5	29.6	6.18	6.17	81.6	81.5	5.53	5.54		12.0	12.5	
						29.6		6.16		81.3		5.54			13.0		
			Bottom	16.2	24.0	30.4	30.5	6.04	6.05	79.6	79.7	6.01	6.02		12.0	12.0	
						30.5		6.05		79.7		6.02			12.0		
22/05/10	1404-1416	27/Rainy	Surface	1.0	25.7	30.7	30.8	6.29	6.27	86.8	86.5	4.43	4.40	4.02	8.8	8.8	8.0
						30.8		6.25		86.2		4.37			8.8		
			Middle	8.3	25.1	31.3	31.3	6.15	6.13	84.8	84.6	3.87	3.91		7.5	7.7	
						31.2		6.11		84.3		3.94			7.8		
			Bottom	15.6	25.0	31.1	31.2	6.04	6.06	82.7	83.0	3.72	3.75		7.5	7.5	
						31.3		6.08		83.2		3.78			7.5		
25/05/10	1806-1819	28/Sunny	Surface	1.0	26.2	31.5	31.6	6.37	6.37	87.9	87.9	3.48	3.48	3.70	6.8	6.9	7.3
						31.7		6.36		87.8		3.48			7.0		
			Middle	8.4	25.4	31.9	31.9	6.20	6.21	85.6	85.7	3.67	3.69		7.2	7.3	
						31.9		6.21		85.7		3.70			7.4		
			Bottom	15.8	25.2	32.1	32.1	6.01	6.00	82.9	82.7	3.94	3.95		7.8	7.7	
						32.1		5.98		82.5		3.95			7.5		
27/05/10	1927-1939	27/Cloudy	Surface	1.0	24.7	32.5	32.5	6.31	6.33	86.7	86.8	2.69	2.67	2.82	5.4	5.4	5.7
						32.5		6.34		86.9		2.64			5.4		
			Middle	9.0	23.9	32.8	32.8	6.05	6.07	80.9	81.0	2.69	2.54		5.4	5.3	
						32.8		6.08		81.1		2.39			5.2		
			Bottom	17.0	23.0	32.8	32.8	5.92	5.91	78.9	78.9	3.25	3.25		6.4	6.5	
						32.8		5.89		78.9		3.25			6.5		
29/05/10	2042-2054	28/Rainy	Surface	1.0	26.8	30.9	31.0	6.07	6.06	83.8	83.6	2.82	2.79	2.95	4.0	4.1	5.2
						31.0		6.04		83.4		2.75			4.2		
			Middle	8.4	26.3	31.1	31.2	5.93	5.91	81.8	81.6	3.08	3.08		5.6	5.6	
						31.2		5.89		81.3		3.07			5.6		
			Bottom	15.8	25.2	32.1	32.1	5.80	5.79	80.0	79.8	3.02	3.00		6.0	6.0	
						32.0		5.77		79.6		2.98			6.0		

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
04/05/10	0915-0925	24/Cloudy	Surface	1.0	22.5	31.6	31.7	6.23	6.21	86.5	86.3	1.70	1.67	1.98	3.0	3.0	3.72
						31.7		6.19		86.0		1.63			3.0		
			Middle	8.8	22.3	31.9	31.9	6.05	6.07	83.4	83.7	1.89	1.92		3.5	3.7	
						31.8		6.09		84.0		1.94			3.8		
			Bottom	16.6	22.3	31.9	32.0	6.01	6.03	82.9	83.1	2.33	2.35		4.5	4.5	
						32.0		6.04		83.3		2.36			4.5		
06/05/10	1047-1100	28/Cloudy	Surface	1.0	23.8	32.0	32.0	6.61	6.58	88.9	88.5	4.12	4.14	3.66	8.0	8.1	7.25
						32.0		6.55		88.1		4.15			8.2		
			Middle	8.4	23.5	32.2	32.2	6.36	6.38	84.8	85.1	3.72	3.74		7.5	7.5	
						32.2		6.40		85.3		3.75			7.5		
			Bottom	15.8	23.0	32.4	32.4	6.15	6.18	81.5	81.9	3.09	3.11		6.3	6.2	
						32.4		6.20		82.2		3.12			6.0		
08/05/10	1715-1729	26/Cloudy	Surface	1.0	24.7	31.2	31.2	6.25	6.23	86.2	86.0	6.21	6.20	6.2	12.0	11.5	12.2
						31.2		6.21		85.7		6.18			11.0		
			Middle	8.8	24.6	31.4	31.5	6.14	6.13	84.7	84.6	6.10	6.07		13.0	12.5	
						31.5		6.12		84.4		6.03			12.0		
			Bottom	16.6	24.6	32.1	32.2	6.24	6.25	86.1	86.2	6.29	6.3		13.0	12.5	
						32.2		6.25		86.2		6.31			12.0		
11/05/10	1710-1720	26/Cloudy	Surface	1.0	23.4	31.5	31.5	6.68	6.67	90.5	90.4	3.03	3.04	3.04	6.0	6.0	6.0
						31.4		6.65		90.2		3.04			6.0		
			Middle	8.5	23.2	31.6	31.6	6.40	6.41	86.3	86.4	3.06	3.06		6.0	6.0	
						31.6		6.41		86.4		3.05			6.0		
			Bottom	16.0	23.0	31.7	31.8	6.21	6.21	84.1	84.1	3.02	3.02		6.0	6.0	
						31.8		6.20		84.0		3.01			6.0		
13/05/10	1733-1742	27/Fine	Surface	1.0	24.4	31.2	31.3	6.14	6.14	81.9	81.9	5.25	5.23	5.08	11.0	10.5	10.1
						31.3		6.14		81.8		5.20			10.0		
			Middle	8.8	24.0	31.5	31.6	6.03	6.03	80.2	80.2	5.08	5.08		10.0	10.0	
						31.6		6.03		80.2		5.08			10.0		
			Bottom	16.6	23.8	31.6	31.6	5.94	5.94	79.2	79.1	4.94	4.92		9.7	9.8	
						31.6		5.93		79.0		4.90			9.8		
15/05/10	1846-1858	24/Rainy	Surface	1.0	23.0	28.9	28.9	6.40	6.42	88.3	88.6	3.14	3.16	2.99	6.0	6.3	5.9
						28.9		6.44		88.8		3.17			6.5		
			Middle	8.9	22.5	30.4	30.4	6.22	6.24	85.8	86.0	2.95	2.92		6.0	5.9	
						30.4		6.25		86.2		2.89			5.7		
			Bottom	16.8	22.3	31.1	31.1	6.19	6.17	84.8	84.5	2.87	2.90		5.5	5.6	
						31.1		6.14		84.1		2.93			5.7		
18/05/10	0856-0907	27/Fine	Surface	1.0	24.8	31.2	31.2	6.06	6.07	83.6	83.8	3.22	3.24	3.23	6.5	6.5	6.5
						31.2		6.08		83.9		3.25			6.5		
			Middle	8.7	24.3	31.6	31.7	6.02	6.03	83.1	83.2	3.18	3.17		6.3	6.4	
						31.7		6.03		83.3		3.16			6.5		
			Bottom	16.4	23.8	32.2	32.2	6.21	6.20	85.7	85.5	3.28	3.29		6.5	6.5	
						32.2		6.18		85.2		3.29			6.5		
20/05/10	0958-1007	26/Drizzle	Surface	1.0	24.2	30.2	30.2	6.27	6.26	82.7	82.5	5.91	5.92	6.02	11.0	11.5	12.0
						30.1		6.25		82.3		5.92			12.0		
			Middle	8.9	24.0	30.0	30.2	6.10	6.10	80.5	80.5	6.05	6.05		12.0	12.0	
						30.4		6.10		80.5		6.04			12.0		
			Bottom	16.8	24.0	30.9	30.8	6.11	6.12	80.7	80.8	6.10	6.10		12.0	12.5	
						30.6		6.13		80.9		6.10			13.0		
22/05/10	1154-1207	27/Rainy	Surface	1.0	25.5	30.7	30.8	6.19	6.17	85.4	85.1	4.43	4.46	4.19	9.0	9.0	8.4
						30.8		6.15		84.8		4.48			9.0		
			Middle	9.0	24.9	31.1	31.2	6.11	6.09	83.7	83.4	4.10	4.06		8.2	8.1	
						31.2		6.07		83.1		4.01			8.0		
			Bottom	17.0	24.7	31.4	31.4	6.01	6.03	82.3	82.5	4.02	4.06		8.0	8.2	
						31.3		6.04		82.7		4.09			8.3		
25/05/10	1624-1634	28/Sunny	Surface	1.0	26.1	31.5	31.5	6.17	6.18	85.1	85.3	3.45	3.4	3.70	7.0	6.9	7.4
						31.5		6.19		85.4		3.44			6.8		
			Middle	9.2	25.5	31.7	31.8	6.10	6.10	84.2	84.1	3.67	3.68		7.2	7.3	
						31.8		6.09		84.0		3.68			7.4		
			Bottom	17.4	24.9	31.7	31.8	6.01	6.02	82.9	83.1	3.98	4.0		8.0	8.0	
						31.8		6.03		83.20		3.97			8.0		
27/05/10	1710-1721	27/Cloudy	Surface	1.0	24.9	31.5	31.6	6.22	6.21	86.0	86.2	3.05	3.00	3.06	6.0	6.0	6.1
						31.6		6.20		86.4		2.94			6.0		
			Middle	5.4	24.1	32.0	32.1	6.10	6.06	82.7	82.8	2.99	3.02		6.0	6.1	
						32.2		6.01		82.9		3.05			6.2		
			Bottom	9.8	23.5	32.6	32.6	5.90	5.87	80.2	80.2	3.15	3.17		6.2	6.3	
						32.6		5.83		80.1		3.18			6.4		
29/05/10	1851-1901	28/Rainy	Surface	1.0	27.1	30.7	30.8	6.13	6.11	84.6	84.3	2.71	2.68	2.65	5.5	5.4	5.3
						30.8		6.09		84.0		2.64			5.2		
			Middle	8.9	26.5	31.0	31.0	5.95	5.97	82.1	82.4	2.90	2.93		5.8	5.9	
						31.0		5.99		82.7		2.95			6.0		
			Bottom	16.8	24.6	31.9	32.0	5.91	5.93	81.5	81.7	2.34	2.35		4.6	4.6	
						32.0		5.94		81.9		2.36			4.6		

Mid-Flood Tide

東展德勤測試顧問有限公司
ETS-TESTCONSULT LIMITED

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
04/05/10	1008-1021	24/Cloudy	Surface	1.0	22.6	31.8	31.9	6.20	6.22	86.1	86.4	1.24	1.22	1.62	2.5	2.5	3.17
						31.9		6.24		86.7		1.20			2.5		
			Middle	8.4	22.3	32.0	32.0	6.10	6.09	84.1	83.9	1.57	1.58		3.0	3.0	
						31.9		6.07		83.7		1.59			3.0		
			Bottom	15.8	22.1	32.0	32.0	6.02	6.04	83.0	83.2	2.04	2.06		4.0	4.0	
						32.0		6.05		83.4		2.07			4.0		
06/05/10	0954-1009	28/Cloudy	Surface	1.0	23.7	31.5	31.5	6.50	6.53	87.5	87.8	4.72	4.76	4.72	9.3	9.4	9.47
						31.5		6.55		88.1		4.80			9.5		
			Middle	7.3	23.4	31.8	31.8	6.27	6.29	83.6	83.9	4.26	4.28		8.5	8.5	
						31.8		6.31		84.1		4.30			8.5		
			Bottom	13.5	23.1	32.0	32.0	6.16	6.17	81.7	81.8	5.12	5.13		10.0	10.5	
						32.0		6.18		81.9		5.14			11.0		
08/05/10	1810-1823	26/Cloudy	Surface	1.0	24.7	31.3	31.2	6.18	6.19	85.3	85.4	6.15	6.14	6.2	12.0	12.5	12.2
						31.1		6.19		85.5		6.12			13.0		
			Middle	8.3	24.6	31.4	31.4	6.18	6.20	85.4	85.6	6.10	6.1		11.0	11.5	
						31.4		6.21		85.7		6.13			12.0		
			Bottom	15.6	24.5	31.8	31.8	6.23	6.24	86.0	86.2	6.22	6.23		12.0	12.5	
						31.8		6.25		86.3		6.24			13.0		
11/05/10	1800-1810	26/Cloudy	Surface	1.0	23.3	31.6	31.6	6.80	6.78	91.8	91.4	2.46	2.48	2.42	4.7	4.7	4.7
						31.6		6.76		91.0		2.49			4.7		
			Middle	7.2	23.2	31.7	31.8	6.45	6.45	87.3	87.2	2.46	2.46		4.8	4.8	
						31.8		6.44		87.0		2.45			4.8		
			Bottom	13.4	23.1	32.0	32.1	6.30	6.28	85.0	84.7	2.31	2.32		4.5	4.5	
						32.2		6.25		84.4		2.33			4.5		
13/05/10	1823-1833	27/Fine	Surface	1.0	24.3	30.4	30.4	6.28	6.29	83.2	83.3	3.45	3.44	3.56	6.8	6.9	7.1
						30.3		6.29		83.3		3.43			7.0		
			Middle	8.4	23.9	30.8	30.8	6.20	6.18	81.8	81.5	3.70	3.71		7.5	7.5	
						30.8		6.16		81.1		3.71			7.5		
			Bottom	15.8	23.7	30.9	30.9	5.84	5.85	77.7	77.8	3.53	3.54		7.0	7.0	
						30.9		5.85		77.8		3.54			7.0		
15/05/10	1935-1948	24/Rainy	Surface	1.0	22.9	29.1	29.2	6.59	6.58	90.9	90.7	4.15	4.18	3.56	8.2	8.4	7.1
						29.2		6.56		90.5		4.21			8.5		
			Middle	8.4	22.5	30.8	30.8	6.36	6.35	87.7	87.5	3.06	3.10		6.3	6.3	
						30.8		6.33		87.3		3.13			6.3		
			Bottom	15.8	22.4	31.2	31.3	6.25	6.23	86.2	86.1	3.43	3.4		6.8	6.7	
						31.3		6.21		85.9		3.39			6.5		
18/05/10	0955-1005	27/Fine	Surface	1.0	24.8	31.2	31.2	6.07	6.08	83.6	83.8	3.26	3.24	3.21	6.5	6.5	6.5
						31.1		6.09		84.0		3.22			6.5		
			Middle	8.2	24.2	31.5	31.6	6.01	6.02	82.9	83.1	3.20	3.19		6.5	6.5	
						31.6		6.03		83.2		3.18			6.5		
			Bottom	15.4	23.8	32.1	32.0	6.14	6.15	84.7	84.9	3.20	3.20		6.5	6.5	
						31.9		6.16		85.0		3.19			6.5		
20/05/10	1046-1056	26/Drizzle	Surface	1.0	24.2	30.5	30.5	6.10	6.09	80.6	80.3	6.06	6.06	6.11	12.0	12.0	12.3
						30.4		6.08		80.0		6.06			12.0		
			Middle	8.1	24.1	30.7	30.7	6.02	6.03	79.1	79.2	6.12	6.12		12.0	12.5	
						30.7		6.03		79.2		6.12			13.0		
			Bottom	15.2	23.8	31.0	31.0	5.93	5.93	78.1	78.2	6.14	6.14		12.0	12.5	
						30.9		5.92		78.2		6.14			13.0		
22/05/10	1304-1317	27/Rainy	Surface	1.0	25.5	30.7	30.7	6.21	6.19	85.6	85.4	3.99	3.97	3.88	8.0	8.0	7.8
						30.7		6.17		85.1		3.95			8.0		
			Middle	8.3	25.0	31.3	31.3	6.10	6.13	83.5	83.9	3.72	3.71		7.5	7.4	
						31.2		6.15		84.2		3.69			7.3		
			Bottom	15.6	24.8	31.3	31.4	6.01	6.03	82.3	82.2	3.98	3.95		8.0	7.9	
						31.4		6.04		82.1		3.92			7.7		
25/05/10	1708-1716	28/Sunny	Surface	1.0	26.2	31.6	31.7	6.27	6.29	86.5	86.7	3.49	3.50	3.72	6.8	6.9	7.4
						31.7		6.30		86.9		3.50			7.0		
			Middle	8.5	25.6	31.7	31.8	6.16	6.17	85.0	85.1	3.72	3.73		7.4	7.4	
						31.8		6.17		85.1		3.73			7.4		
			Bottom	16.9	25.2	31.6	31.6	6.04	6.05	83.3	83.4	3.94	3.95		7.8	7.9	
						31.6		6.05		83.5		3.95			8.0		
27/05/10	1807-1819	27/Cloudy	Surface	1.0	24.8	31.4	31.4	6.14	6.15	83.3	83.2	4.05	4.03	4.07	8.2	8.1	8.1
						31.3		6.15		83.0		4.00			8.0		
			Middle	8.5	24.0	32.0	32.2	6.09	6.07	81.0	81.1	3.98	3.94		8.0	7.9	
						32.3		6.05		81.1		3.89			7.8		
			Bottom	16.0	23.4	32.7	32.7	5.79	5.84	75.7	75.7	4.25	4.24		8.4	8.4	
						32.6		5.89		75.7		4.22			8.4		
29/05/10	1942-1953	28/Rainy	Surface	1.0	26.9	30.9	31.0	6.10	6.12	84.2	84.5	2.29	2.29	2.62	4.6	4.6	5.1
						31.0		6.14		84.7		2.29			4.6		
			Middle	8.5	26.4	31.1	31.1	6.01	5.99	82.9	82.7	2.31	2.48		4.6	4.7	
						31.0		5.97		82.4		2.64			4.8		
			Bottom	16.0	24.5	32.1	32.1	5.92	5.94	81.7	81.9	3.09	3.11		6.0	6.1	
						32.1		5.95		82.1		3.12			6.2		

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
04/05/10	1025-1038	24/Cloudy	Surface	1.0	22.5	31.8	31.8	6.17	6.16	85.1	84.9	1.18	1.17	1.62	2.3	2.3	3.27
						31.8		6.14		84.7		1.15			2.3		
			Middle	9.2	22.4	32.0	32.0	6.02	6.05	83.0	83.4	1.70	1.74		3.5	3.5	
						32.0		6.07		83.7		1.77			3.5		
			Bottom	17.4	22.1	32.1	32.1	5.97	5.95	82.3	82.1	1.98	1.96		4.0	4.0	
						32.1		5.93		81.8		1.94			4.0		
06/05/10	0941-0953	28/Cloudy	Surface	1.0	23.8	31.1	31.2	6.41	6.42	86.3	86.4	4.02	4.06	4.04	8.0	8.1	8.03
						31.2		6.43		86.5		4.10			8.2		
			Middle	6.5	23.5	31.4	31.4	6.15	6.14	82.0	81.8	3.91	3.89		7.7	7.8	
						31.4		6.12		81.6		3.87			7.8		
			Bottom	11.9	23.1	31.7	31.7	5.92	5.91	78.5	78.4	4.16	4.18		8.2	8.3	
						31.6		5.90		78.2		4.20			8.3		
08/05/10	1826-1840	26/Cloudy	Surface	1.0	24.8	31.2	31.3	6.22	6.23	85.8	86.0	6.02	6.0	6.1	12.0	12.0	12.17
						31.4		6.24		86.1		5.99			12.0		
			Middle	9.3	24.7	31.6	31.6	6.10	6.11	84.2	84.3	6.20	6.2		13.0	12.5	
						31.6		6.12		84.4		6.26			12.0		
			Bottom	17.6	24.6	31.9	31.9	6.17	6.15	85.1	84.9	6.08	6.1		12.0	12.0	
						31.9		6.13		84.6		6.06			12.0		
11/05/10	1812-1820	26/Cloudy	Surface	1.0	23.3	31.3	31.3	6.63	6.63	89.4	89.4	2.23	2.29	2.74	4.3	4.3	5.4
						31.2		6.63		89.4		2.35			4.3		
			Middle	8.3	23.1	31.4	31.5	6.14	6.15	83.8	83.8	3.01	3.02		6.0	6.0	
						31.5		6.15		83.7		3.02			6.0		
			Bottom	15.6	23.0	31.5	31.6	6.08	6.11	82.5	82.7	2.95	2.93		6.0	6.0	
						31.6		6.13		82.9		2.90			6.0		
13/05/10	1834-1843	27/Fine	Surface	1.0	24.1	30.4	30.4	6.26	6.27	83.0	83.1	3.52	3.53	3.51	7.0	7.0	7.0
						30.4		6.27		83.1		3.53			7.0		
			Middle	9.7	23.8	30.6	30.7	6.15	6.15	81.0	81.0	3.41	3.42		6.7	6.8	
						30.7		6.15		81.0		3.42			6.8		
			Bottom	18.4	23.5	30.9	31.0	5.91	5.92	78.6	78.6	3.60	3.60		7.3	7.3	
						31.0		5.92		78.6		3.60			7.3		
15/05/10	1950-2002	24/Rainy	Surface	1.0	23.0	29.2	29.2	6.60	6.62	91.0	91.3	3.98	3.94	3.48	8.0	7.9	7.0
						29.2		6.64		91.6		3.90			7.8		
			Middle	9.3	22.5	30.9	30.9	6.28	6.27	86.6	86.4	3.47	3.44		6.8	6.8	
						30.9		6.25		86.2		3.41			6.8		
			Bottom	17.6	22.4	31.2	31.3	6.19	6.17	84.8	84.5	3.10	3.06		6.3	6.2	
						31.3		6.15		84.2		3.02			6.0		
18/05/10	1008-1020	27/Fine	Surface	1.0	24.7	31.2	31.2	6.10	6.11	84.2	84.4	3.23	3.25	3.23	6.5	6.4	6.4
						31.2		6.12		84.5		3.26			6.3		
			Middle	9.3	24.3	31.7	31.7	6.08	6.07	83.9	83.7	3.21	3.20		6.5	6.5	
						31.6		6.05		83.4		3.18			6.5		
			Bottom	17.6	23.7	32.1	32.1	6.13	6.15	84.5	84.8	3.24	3.25		6.3	6.4	
						32.0		6.17		85.1		3.25			6.5		
20/05/10	1058-1108	26/Drizzle	Surface	1.0	24.2	29.6	29.6	6.15	6.15	81.3	81.3	6.02	6.02	6.00	12.0	12.0	11.7
						29.6		6.15		81.2		6.01			12.0		
			Middle	9.2	24.0	29.9	29.9	6.18	6.19	81.7	81.8	6.04	6.04		11.0	11.5	
						29.8		6.19		81.8		6.04			12.0		
			Bottom	17.4	24.2	30.0	30.1	6.02	6.03	79.6	79.7	5.94	5.95		11.0	11.5	
						30.1		6.03		79.7		5.95			12.0		
22/05/10	1320-1332	27/Rainy	Surface	1.0	25.6	30.8	30.5	6.45	6.47	89.0	89.3	4.02	4.0	3.98	8.0	8.0	7.8
						30.1		6.49		89.5		4.07			8.0		
			Middle	9.4	25.1	31.1	31.1	6.29	6.28	86.8	86.7	4.01	4.0		8.0	8.0	
						31.0		6.27		86.5		4.06			8.0		
			Bottom	17.8	24.8	31.4	31.4	6.17	6.16	85.1	84.9	3.88	3.9		7.5	7.5	
						31.4		6.14		84.7		3.86			7.5		
25/05/10	1725-1738	28/Sunny	Surface	1.0	26.1	31.6	31.6	6.39	6.38	88.2	88.0	3.51	3.53	3.73	7.0	7.1	7.4
						31.6		6.36		87.8		3.54			7.2		
			Middle	9.4	25.6	31.8	31.8	6.17	6.18	85.1	85.2	3.72	3.73		7.4	7.4	
						31.8		6.18		85.3		3.73			7.4		
			Bottom	18.2	25.1	32.0	32.0	6.08	6.09	83.9	84.0	3.92	3.93		7.8	7.8	
						32.0		6.09		84.0		3.93			7.8		
27/05/10	1820-1831	27/Cloudy	Surface	1.0	25.0	31.5	31.5	6.23	6.23	84.6	84.6	3.57	3.55	3.78	7.2	7.1	7.6
						31.4		6.22		84.5		3.53			7.0		
			Middle	8.5	24.0	32.1	32.1	6.15	6.17	84.4	84.1	3.92	3.91		8.0	7.9	
						32.1		6.18		83.8		3.89			7.8		
			Bottom	16.0	23.1	32.6	32.6	6.01	6.01	80.3	80.4	3.89	3.89		7.6	7.7	
						32.6		6.00		80.5		3.89			7.8		
29/05/10	1959-2011	28/Rainy	Surface	1.0	27.0	30.9	30.9	6.07	6.06	83.8	83.6	2.23	2.22	2.69	4.4	4.4	5.3
						30.9		6.04		83.4		2.20			4.4		
			Middle	9.3	26.4	31.1	31.1	5.92	5.95	81.7	82.1	2.75	2.79		5.4	5.5	
						31.1		5.97		82.4		2.82			5.6		
			Bottom	17.6	24.6	32.2	32.2	5.87	5.85	81.0	80.8	3.13	3.06		6.2	6.1	
						32.2		5.83		80.5		2.99			6.0		

Mid-Flood Tide

東業德勤測試顧問有限公司
ETS-TESTCONSULT LIMITED

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
04/05/10	1045-1058	24/Cloudy	Surface	1.0	22.6	31.9	31.9	6.15	6.17	84.8	85.1	1.15	1.18	1.53	2.2	2.1	2.90
						31.9		6.19		85.4		1.21			2.0		
			Middle	6.7	22.4	32.1	32.1	6.07	6.06	83.7	83.5	1.60	1.63		3.0	3.1	
						32.1		6.04		83.3		1.65			3.2		
			Bottom	12.4	22.3	32.1	32.2	6.01	6.03	82.9	83.1	1.77	1.79		3.5	3.5	
						32.2		6.04		83.3		1.80			3.5		
06/05/10	0925-0940	28/Cloudy	Surface	1.0	24.2	30.8	30.8	6.52	6.54	87.7	87.9	2.79	2.81	3.3	5.5	5.5	6.50
						30.8		6.55		88.1		2.82			5.5		
			Middle	7.6	23.6	31.3	31.4	6.29	6.31	83.8	84.0	3.74	3.77		7.5	7.5	
						31.4		6.32		84.2		3.80			7.5		
			Bottom	14.1	23.0	31.6	31.6	6.12	6.11	81.1	81.0	3.26	3.28		6.5	6.5	
						31.6		6.10		80.9		3.30			6.5		
08/05/10	1846-1853	26/Cloudy	Surface	1.0	24.8	31.3	31.3	6.16	6.18	85.0	85.2	6.01	6.02	6.0	12.0	12.5	12.3
						31.3		6.19		85.4		6.03			13.0		
			Middle	6.7	24.7	31.4	31.5	5.98	6.00	82.5	82.8	5.94	5.96		12.0	12.0	
						31.5		6.02		83.1		5.98			12.0		
			Bottom	12.4	24.5	32.0	32.1	6.09	6.10	84.0	84.2	5.93	5.94		12.0	12.5	
						32.1		6.11		84.3		5.95			13.0		
11/05/10	1822-1830	26/Cloudy	Surface	1.0	23.2	31.3	31.3	6.48	6.49	87.8	87.9	2.84	2.84	2.75	5.5	5.8	5.5
						31.2		6.50		87.9		2.84			6.0		
			Middle	7.0	23.1	31.6	31.6	6.20	6.19	84.8	84.7	2.80	2.80		5.5	5.5	
						31.6		6.18		84.5		2.80			5.5		
			Bottom	13.0	23.0	31.8	31.8	6.08	6.10	82.1	82.3	2.58	2.61		5.0	5.2	
						31.7		6.12		82.4		2.64			5.3		
13/05/10	1844-1853	27/Fine	Surface	1.0	24.0	30.6	30.6	6.08	6.08	79.9	80.0	4.11	4.13	4.25	8.0	8.0	8.4
						30.6		6.08		80.0		4.14			8.0		
			Middle	6.8	23.7	30.5	30.6	6.03	6.04	79.3	79.3	4.20	4.25		8.5	8.5	
						30.6		6.04		79.3		4.29			8.5		
			Bottom	12.6	23.6	30.8	30.8	6.08	6.08	80.1	80.1	4.41	4.39		8.8	8.7	
						30.8		6.08		80.0		4.36			8.5		
15/05/10	2009-2021	24/Rainy	Surface	1.0	23.0	29.2	29.2	6.37	6.36	87.9	87.7	3.72	3.74	3.27	7.5	7.5	6.6
						29.1		6.34		87.4		3.75			7.5		
			Middle	6.9	22.4	31.0	31.1	6.20	6.19	85.5	85.3	3.15	3.13		6.0	6.2	
						31.1		6.17		85.1		3.11			6.3		
			Bottom	12.8	22.5	31.2	31.3	6.14	6.13	84.7	84.6	2.97	3.0		6.0	6.0	
						31.3		6.12		84.4		2.94			6.0		
18/05/10	1027-1037	27/Fine	Surface	1.0	24.7	31.3	31.3	6.10	6.09	84.2	84.0	3.25	3.24	3.20	6.5	6.5	6.5
						31.3		6.07		83.8		3.22			6.5		
			Middle	6.6	24.3	31.7	31.8	6.06	6.08	83.6	83.8	3.20	3.19		6.5	6.5	
						31.8		6.09		84.0		3.18			6.5		
			Bottom	12.2	23.8	32.3	32.3	6.13	6.14	84.6	84.8	3.17	3.18		6.3	6.4	
						32.2		6.15		84.9		3.19			6.5		
20/05/10	1117-1127	27/Cloudy	Surface	1.0	24.4	29.3	29.4	6.18	6.18	81.8	81.8	5.94	5.9	6.01	12.0	12.5	12.0
						29.4		6.18		81.7		5.93			13.0		
			Middle	7.2	23.9	29.8	29.8	6.15	6.15	81.3	81.3	6.02	6.0		12.0	12.0	
						29.7		6.14		81.2		6.03			12.0		
			Bottom	13.4	23.8	29.9	30.0	6.03	6.04	79.6	79.7	6.08	6.1		11.0	11.5	
						30.1		6.04		79.7		6.08			12.0		
22/05/10	1339-1351	27/Rainy	Surface	1.0	25.7	30.8	30.8	6.36	6.35	87.7	87.6	4.27	4.30	4.2	8.5	8.3	8.2
						30.7		6.34		87.4		4.32			8.0		
			Middle	6.8	25.0	31.3	31.3	6.08	6.07	83.2	83.0	4.06	4.04		8.0	8.0	
						31.2		6.05		82.8		4.01			8.0		
			Bottom	12.6	24.7	31.4	31.4	5.91	5.89	80.9	80.7	4.17	4.14		8.5	8.4	
						31.4		5.87		80.4		4.11			8.3		
25/05/10	1742-1752	28/Sunny	Surface	1.0	26.1	31.4	31.4	6.47	6.45	89.3	89.0	3.57	3.58	3.81	7.0	7.0	7.6
						31.4		6.43		88.7		3.58			7.0		
			Middle	6.9	25.8	31.8	31.8	6.27	6.27	86.5	86.5	3.83	3.84		7.5	7.7	
						31.8		6.26		86.4		3.84			7.8		
			Bottom	12.8	25.3	32.2	32.2	6.10	6.11	84.2	84.3	4.02	4.0		8.0	8.0	
						32.1		6.11		84.3		4.03			8.0		
27/05/10	1850-1905	27/Cloudy	Surface	1.0	24.9	31.0	31.0	6.25	6.28	86.0	86.5	2.94	2.9	3.41	6.0	6.0	6.9
						31.0		6.30		86.9		2.95			6.0		
			Middle	7.0	23.6	32.0	32.0	6.15	6.17	84.5	84.7	3.66	3.63		7.5	7.4	
						32.0		6.18		84.8		3.60			7.2		
			Bottom	13.0	23.2	32.7	32.7	6.02	5.98	80.3	80.2	3.65	3.67		7.2	7.3	
						32.7		5.94		80.0		3.68			7.4		
29/05/10	2016-2027	28/Rainy	Surface	1.0	26.9	30.9	31.0	6.05	6.07	83.5	83.8	2.20	2.23	2.58	4.4	4.5	5.1
						31.0		6.09		84.0		2.26			4.5		
			Middle	6.8	26.3	31.2	31.2	5.97	5.96	82.4	82.2	2.65	2.68		5.0	5.2	
						31.2		5.94		82.0		2.70			5.4		
			Bottom	12.6	24.9	32.2	32.3	5.91	5.93	81.6	81.8	2.83	2.84		5.6	5.6	
						32.3		5.94		82.0		2.85			5.6		

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
04/05/10	0806-0816	24/Cloudy	Surface	1.0	22.7	31.4	31.4	6.50	6.49	90.0	89.8	1.25	1.27	1.63	2.5	2.5	3.23
						31.4		6.47		89.5		1.29			2.5		
			Middle	5.7	22.5	31.6	31.6	6.15	6.17	85.4	85.7	1.58	1.55		3.2	3.1	
						31.6		6.19		86.0		1.51			3.0		
			Bottom	10.4	22.4	31.6	31.6	6.09	6.11	83.8	84.0	2.02	2.1		4.0	4.1	
						31.6		6.12		84.2		2.13			4.2		
06/05/10	1205-1216	28/Cloudy	Surface	1.0	24.4	31.5	31.5	6.49	6.48	87.30	87.20	8.02	8.06	7.44	10.00	10.00	10.00
						31.5		6.47		87.10		8.09			10.00		
			Middle	6.1	23.8	31.8	31.8	6.32	6.31	84.20	84.10	7.42	7.43		10.00	10.00	
						31.7		6.30		84.00		7.44			10.00		
			Bottom	11.2	22.9	31.9	32.0	5.87	5.89	77.80	78.00	6.82	6.85		10.00	10.0	
						32.1		5.90		78.20		6.87			10.00		
08/05/10	1559-1610	26/Cloudy	Surface	1.0	24.8	31.5	31.5	6.10	6.08	84.2	83.9	5.23	5.2	5.4	10.0	10.0	10.0
						31.4		6.06		83.6		5.25			10.0		
			Middle	6.6	24.7	31.7	31.7	5.96	5.97	82.2	82.3	5.33	5.4		10.0	10.0	
						31.7		5.97		82.4		5.39			10.0		
			Bottom	10.2	24.4	31.8	31.8	6.00	5.99	82.8	82.6	5.71	5.7		10.0	10.0	
						31.8		5.97		82.4		5.69			10.0		
11/05/10	1559-1610	26/Cloudy	Surface	1.0	23.8	31.1	31.2	6.35	6.35	85.7	85.7	3.04	2.97	2.73	6.0	5.9	5.4
						31.2		6.35		85.6		2.90			5.7		
			Middle	6.0	23.6	31.4	31.5	6.20	6.21	83.8	83.9	2.56	2.56		5.0	5.2	
						31.5		6.22		83.9		2.56			5.3		
			Bottom	11.0	23.1	31.8	31.7	6.05	6.05	81.7	81.7	2.64	2.65		5.2	5.3	
						31.6		6.05		81.6		2.65			5.3		
13/05/10	1620-1631	27/Fine	Surface	1.0	24.4	29.5	29.4	6.50	6.51	86.5	86.6	4.32	4.31	4.16	8.2	8.4	8.2
						29.3		6.51		86.6		4.30			8.5		
			Middle	5.3	24.3	29.5	29.6	6.39	6.37	84.9	84.6	4.24	4.24		8.5	8.5	
						29.6		6.35		84.3		4.23			8.5		
			Bottom	9.6	24.1	29.6	29.7	6.12	6.12	81.4	81.4	3.94	3.93		7.7	7.9	
						29.8		6.11		81.3		3.92			8.0		
15/05/10	1733-1745	24/Rainy	Surface	1.0	23.1	28.9	28.9	6.36	6.34	87.7	87.4	3.02	3.05	2.85	6.0	6.2	5.7
						28.9		6.31		87.0		3.08			6.3		
			Middle	5.9	22.9	30.4	30.4	6.17	6.15	85.1	84.8	2.80	2.8		5.5	5.5	
						30.4		6.12		84.4		2.71			5.5		
			Bottom	10.8	22.6	31.1	31.2	6.07	6.09	83.1	83.3	2.77	2.7		5.5	5.5	
						31.2		6.10		83.5		2.71			5.5		
18/05/10	0738-0750	27/Fine	Surface	1.0	24.7	31.0	31.1	6.05	6.06	83.4	83.6	3.16	3.15	3.14	6.3	6.3	6.3
						31.1		6.07		83.8		3.13			6.3		
			Middle	6.6	24.2	31.8	31.8	6.03	6.04	83.5	83.5	3.17	3.18		6.3	6.3	
						31.7		6.05		83.5		3.18			6.3		
			Bottom	10.2	23.7	31.8	31.9	5.99	5.98	82.7	82.6	3.09	3.1		6.0	6.2	
						32.0		5.97		82.4		3.10			6.3		
20/05/10	0850-0859	26/Drizzle	Surface	1.0	24.2	29.6	29.6	5.96	5.95	78.8	78.7	4.68	4.7	4.83	9.3	9.4	9.7
						29.6		5.94		78.5		4.69			9.5		
			Middle	5.9	24.1	29.9	29.9	5.65	5.67	74.6	74.8	5.00	5.0		10.0	9.9	
						29.9		5.69		74.9		4.94			9.8		
			Bottom	10.8	23.9	30.3	30.2	5.60	5.58	74.6	74.3	4.82	4.8		9.5	9.7	
						30.1		5.56		74.0		4.85			9.8		
22/05/10	1036-1048	27/Rainy	Surface	1.0	25.3	30.6	30.6	6.37	6.38	87.9	88.0	3.89	3.85	3.99	7.8	7.7	8.0
						30.5		6.39		88.1		3.80			7.5		
			Middle	5.8	25.0	31.0	31.1	6.25	6.26	85.6	85.3	4.21	4.19		8.5	8.4	
						31.1		6.27		85.0		4.16			8.2		
			Bottom	10.6	24.9	31.4	31.4	6.14	6.16	84.1	84.4	3.98	3.95		8.0	8.0	
						31.4		6.18		84.6		3.92			8.0		
25/05/10	1505-1515	28/Sunny	Surface	1.0	26.1	31.5	31.6	6.51	6.49	89.8	89.5	3.59	3.60	3.84	7.0	7.1	7.6
						31.6		6.46		89.1		3.60			7.2		
			Middle	6.2	25.7	31.7	31.7	6.14	6.14	84.7	84.7	3.87	3.88		7.6	7.7	
						31.7		6.13		84.6		3.89			7.8		
			Bottom	11.4	25.2	31.9	31.9	6.08	6.11	83.9	84.3	4.04	4.03		8.0	8.0	
						31.9		6.13		84.6		4.02			8.0		
27/05/10	1559-1612	27/Cloudy	Surface	1.0	25.0	31.9	31.9	6.20	6.17	86.1	86.0	3.26	3.18	3.51	6.4	6.3	7.0
						31.9		6.13		85.8		3.10			6.2		
			Middle	6.1	24.3	32.4	32.3	6.01	5.97	83.5	83.4	3.18	3.29		6.6	6.7	
						32.2		5.93		83.3		3.40			6.8		
			Bottom	11.2	23.9	32.0	32.4	5.79	5.75	80.4	80.3	3.97	4.06		8.0	8.1	
						32.8		5.71		80.1		4.14			8.2		
29/05/10	1734-1745	28/Rainy	Surface	1.0	27.2	30.5	30.5	6.40	6.39	88.3	88.1	2.26	2.28	2.64	4.4	4.5	5.2
						30.4		6.37		87.9		2.30			4.6		
			Middle	5.8	26.8	30.7	30.7	6.05	6.07	83.5	83.8	2.59	2.56		5.2	5.1	
						30.6		6.09		84.0		2.52			5.0		
			Bottom	10.6	25.5	31.7	31.7	5.99	6.01	82.7	82.9	3.03	3.09		6.0	6.1	
						31.6		6.02		83.1		3.14			6.2		

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
04/05/10	0747-0758	24/Cloudy	Surface	1.0	22.6	31.4	31.4	6.42	6.40	89.2	88.9	1.18	1.21	1.70	2.5	2.5	3.42
						31.3		6.37		88.5		1.23			2.5		
			Middle	6.4	22.4	31.8	31.8	6.09	6.11	84.0	84.2	1.70	1.73		3.5	3.5	
						31.8		6.12		84.4		1.75			3.5		
			Bottom	11.8	22.3	31.8	31.8	6.10	6.09	84.1	83.9	2.14	2.17		4.3	4.3	
						31.7		6.07		83.7		2.19			4.2		
06/05/10	1217-1229	28/Cloudy	Surface	1.0	24.4	31.8	31.8	6.42	6.41	86.4	86.3	4.36	4.38	4.16	8.5	8.7	8.22
						31.8		6.40		86.1		4.40			8.8		
			Middle	6.5	23.7	32.0	32.1	6.27	6.25	83.6	83.3	4.27	4.26		8.5	8.5	
						32.1		6.23		83.0		4.25			8.5		
			Bottom	12.0	22.7	32.3	32.3	6.15	6.13	81.5	81.2	3.82	3.84		7.5	7.5	
						32.3		6.10		80.9		3.85			7.5		
08/05/10	1538-1551	26/Cloudy	Surface	1.0	24.7	31.4	31.4	6.25	6.21	86.3	85.7	5.25	5.2	5.3	11.0	11.0	11.3
						31.3		6.17		85.1		5.21			11.0		
			Middle	6.6	24.6	31.6	31.6	6.18	6.17	85.3	85.2	5.18	5.2		11.0	11.0	
						31.6		6.16		85.0		5.16			11.0		
			Bottom	12.2	24.4	31.8	31.8	6.03	6.01	83.2	83.0	5.50	5.51		12.0	12.0	
						31.7		5.99		82.7		5.52			12.0		
11/05/10	1540-1549	26/Cloudy	Surface	1.0	23.7	31.4	31.5	6.53	6.52	88.2	88.0	2.98	3.02	3.12	6.0	6.0	6.2
						31.5		6.50		87.8		3.05			6.0		
			Middle	6.9	23.5	31.5	31.5	6.25	6.28	84.4	84.7	3.15	3.15		6.0	6.2	
						31.5		6.30		84.9		3.14			6.3		
			Bottom	12.8	22.9	31.8	31.8	6.15	6.16	84.0	84.1	3.18	3.19		6.3	6.4	
						31.8		6.17		84.1		3.20			6.5		
13/05/10	1559-1608	27/Fine	Surface	1.0	24.3	29.8	29.8	6.35	6.35	84.3	84.2	3.04	3.08	3.26	6.0	6.2	6.5
						29.7		6.34		84.1		3.11			6.3		
			Middle	6.6	23.7	29.4	29.5	6.21	6.22	82.3	82.4	3.24	3.24		6.5	6.5	
						29.6		6.22		82.4		3.24			6.5		
			Bottom	12.2	23.5	29.9	30.0	6.14	6.16	81.7	82.0	3.50	3.47		7.0	6.9	
						30.1		6.18		82.3		3.44			6.8		
15/05/10	1716-1729	24/Rainy	Surface	1.0	23.2	28.7	28.7	6.49	6.47	89.5	89.3	2.97	2.95	2.73	6.0	6.0	5.5
						28.7		6.45		89.0		2.92			6.0		
			Middle	6.8	22.8	30.2	30.2	6.30	6.32	86.9	87.2	2.63	2.62		5.2	5.3	
						30.2		6.34		87.4		2.60			5.3		
			Bottom	12.6	22.5	31.2	31.2	6.15	6.17	84.2	84.4	2.59	2.6		5.0	5.1	
						31.1		6.18		84.6		2.66			5.2		
18/05/10	0718-0730	27/Fine	Surface	1.0	24.6	30.9	31.0	6.04	6.05	83.4	83.6	3.15	3.17	3.18	6.5	6.5	6.5
						31.1		6.05		83.7		3.18			6.5		
			Middle	6.5	24.3	31.5	31.6	6.06	6.08	83.6	83.8	3.19	3.20		6.5	6.5	
						31.6		6.09		84.0		3.21			6.5		
			Bottom	12.0	23.7	31.9	31.9	5.98	5.97	82.5	82.4	3.14	3.17		6.3	6.4	
						31.9		5.96		82.2		3.19			6.5		
20/05/10	0835-0845	26/Drizzle	Surface	1.0	24.1	29.5	29.7	6.25	6.26	82.5	82.6	4.95	4.97	4.80	9.7	9.9	9.6
						29.8		6.26		82.6		4.98			10.0		
			Middle	6.8	24.0	30.0	30.0	6.10	6.11	80.4	80.5	4.41	4.42		8.8	8.8	
						30.0		6.11		80.6		4.42			8.8		
			Bottom	12.6	24.2	30.3	30.4	6.04	6.05	79.7	79.8	5.01	5.0		10.0	10.0	
						30.4		6.05		79.8		5.03			10.0		
22/05/10	1015-1028	27/Rainy	Surface	1.0	25.2	30.4	30.4	6.29	6.27	86.8	86.5	4.21	4.20	3.95	8.5	8.4	7.8
						30.4		6.24		86.1		4.18			8.2		
			Middle	6.7	24.9	31.2	31.3	6.17	6.16	85.1	84.9	3.84	3.90		7.5	7.6	
						31.3		6.14		84.7		3.95			7.7		
			Bottom	12.4	27.8	31.4	31.4	6.10	6.12	83.5	83.7	3.71	3.75		7.5	7.5	
						31.3		6.13		83.9		3.78			7.5		
25/05/10	1445-1457	28/Sunny	Surface	1.0	26.2	31.6	31.7	6.41	6.40	86.5	86.4	3.49	3.50	3.73	7.0	7.0	7.4
						31.7		6.39		86.3		3.50			7.0		
			Middle	7.4	25.4	31.7	31.7	6.08	6.11	82.1	83.4	3.67	3.69		7.2	7.3	
						31.6		6.13		84.6		3.70			7.4		
			Bottom	13.8	25.0	31.8	31.8	6.11	6.10	84.3	84.1	4.01	4.02		8.0	8.0	
						31.8		6.08		83.9		4.02			8.0		
27/05/10	1541-1552	27/Cloudy	Surface	1.0	25.1	31.5	31.5	6.22	6.21	86.4	86.2	3.29	3.3	3.44	6.6	6.6	6.8
						31.5		6.20		86.0		3.30			6.6		
			Middle	6.0	24.1	32.5	32.6	6.05	6.03	84.0	84.0	3.15	3.17		6.2	6.2	
						32.6		6.01		83.9		3.18			6.2		
			Bottom	11.0	23.1	32.7	32.7	5.84	5.87	81.1	81.4	3.90	3.9		7.8	7.7	
						32.7		5.89		81.7		3.84			7.6		
29/05/10	1715-1726	28/Rainy	Surface	1.0	27.0	30.5	30.5	6.32	6.30	87.2	86.9	2.18	2.21	2.54	4.4	4.4	5.4
						30.4		6.27		86.5		2.24			4.4		
			Middle	6.5	26.8	30.9	30.9	5.99	6.01	82.7	82.9	1.71	2.24		5.4	5.4	
						30.9		6.02		83.1		2.76			5.4		
			Bottom	12.0	25.4	31.9	31.9	6.01	5.99	82.9	82.7	3.15	3.18		6.2	6.3	
						31.8		5.97		82.4		3.20			6.4		

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
04/05/10	0730-0743	24/Cloudy	Surface	1.0	22.7	31.5	31.5	6.37	6.36	88.5	88.3	1.09	1.12	1.48	2.2	2.3	2.92
						31.4		6.34		88.1		1.14			2.3		
			Middle	6.2	22.4	31.7	31.8	6.16	6.18	85.6	85.8	1.45	1.45		2.7	2.9	
						31.8		6.19		86.0		1.44			3.0		
			Bottom	11.4	22.4	31.7	31.8	6.04	6.06	83.3	83.6	1.86	1.88		3.5	3.7	
						31.8		6.08		83.9		1.89			3.8		
06/05/10	1230-1242	28/Cloudy	Surface	1.0	24.3	31.7	31.7	6.39	6.41	86.0	86.2	3.71	3.73	4.09	7.5	7.5	8.22
						31.7		6.42		86.4		3.75			7.5		
			Middle	6.3	23.8	31.8	31.9	6.22	6.25	82.9	83.3	4.16	4.18		8.5	8.5	
						31.9		6.28		83.70		4.20			8.5		
			Bottom	11.6	22.8	32.1	32.1	6.02	6.04	79.8	80.1	4.33	4.35		8.5	8.7	
						32.1		6.06		80.3		4.36			8.8		
08/05/10	1530-1534	26/Cloudy	Surface	1.0	24.7	31.2	31.2	6.19	6.17	85.4	85.2	5.09	5.1	5.1	10.0	10.5	10.67
						31.2		6.15		84.9		5.12			11.0		
			Middle	6.2	24.6	31.6	31.7	6.16	6.15	85.0	84.8	5.24	5.2		11.0	11.5	
						31.7		6.13		84.6		5.21			12.0		
			Bottom	11.4	24.4	31.4	31.5	6.06	6.08	83.6	83.8	5.01	5.0		10.0	10.0	
						31.5		6.09		84.0		4.98			10.0		
11/05/10	1530-1538	26/Cloudy	Surface	1.0	23.3	31.6	31.6	6.13	6.13	82.8	82.9	3.40	3.38	3.20	6.8	6.7	6.3
						31.6		6.13		82.9		3.35			6.5		
			Middle	6.6	23.1	31.7	31.8	5.94	5.95	80.4	80.5	3.05	3.08		6.0	6.0	
						31.8		5.95		80.5		3.10			6.0		
			Bottom	12.2	23.9	32.0	32.0	6.02	6.03	81.3	81.4	3.14	3.14		6.0	6.2	
						32.0		6.03		81.4		3.13			6.3		
13/05/10	1546-1556	27/Fine	Surface	1.0	23.9	30.0	29.9	6.42	6.41	85.4	85.3	3.64	3.62	3.34	7.2	7.2	6.7
						29.7		6.40		85.1		3.60			7.2		
			Middle	6.4	23.6	29.9	29.9	6.24	6.25	82.9	83.0	2.98	3.03		6.0	6.0	
						29.8		6.25		83.0		3.08			6.0		
			Bottom	11.8	23.5	30.1	30.2	6.34	6.34	84.3	84.2	3.41	3.38		7.0	7.0	
						30.2		6.33		84.1		3.34			7.0		
15/05/10	1700-1713	24/Rainy	Surface	1.0	23.0	28.8	28.9	6.37	6.38	87.9	88.0	3.40	3.38	2.98	6.8	6.7	5.9
						28.9		6.39		88.1		3.35			6.5		
			Middle	6.2	22.8	29.8	29.8	6.24	6.22	86.1	85.8	2.86	2.84		5.5	5.5	
						29.8		6.20		85.5		2.81			5.5		
			Bottom	11.4	22.7	30.9	31.0	6.11	6.09	84.3	84.0	2.75	2.7		5.5	5.5	
						31.0		6.07		83.7		2.71			5.5		
18/05/10	0700-0715	27/Fine	Surface	1.0	24.6	31.1	31.2	6.05	6.04	83.5	83.4	3.12	3.13	3.13	6.3	6.3	6.2
						31.3		6.03		83.2		3.14			6.3		
			Middle	6.1	24.3	31.5	31.5	6.01	6.00	82.9	82.8	3.18	3.19		6.3	6.4	
						31.5		5.99		82.6		3.19			6.5		
			Bottom	11.2	23.8	31.9	32.0	5.96	5.96	82.2	82.1	3.06	3.07		6.0	6.0	
						32.0		5.95		82.0		3.08			6.0		
20/05/10	0820-0833	26/Drizzle	Surface	1.0	24.2	30.0	30.0	6.23	6.23	82.2	82.2	4.85	4.87	4.72	9.5	9.7	9.4
						29.9		6.22		82.2		4.89			9.8		
			Middle	6.6	24.4	30.1	30.2	6.09	6.09	80.4	80.5	4.95	4.97		9.8	9.9	
						30.2		6.09		80.5		4.98			10.0		
			Bottom	12.2	24.3	30.5	30.6	5.95	5.96	78.5	78.6	4.35	4.3		9.0	8.8	
						30.6		5.96		78.6		4.30			8.5		
22/05/10	1000-1012	27/Rainy	Surface	1.0	25.2	30.2	30.2	6.43	6.41	88.7	88.4	4.06	4.11	4.01	8.0	8.1	7.9
						30.2		6.39		88.1		4.15			8.2		
			Middle	6.2	24.8	31.1	31.2	6.21	6.19	85.6	85.4	3.78	3.8		7.5	7.5	
						31.2		6.17		85.1		3.83			7.5		
			Bottom	11.4	24.7	31.3	31.4	6.03	6.05	83.2	83.4	4.10	4.1		8.0	8.2	
						31.4		6.06		83.6		4.15			8.3		
25/05/10	1430-1442	28/Sunny	Surface	1.0	26.1	31.6	31.6	6.27	6.27	86.5	86.5	3.51	3.52	3.76	7.0	7.0	7.5
						31.5		6.27		86.5		3.52			7.0		
			Middle	6.6	25.5	31.7	31.7	6.17	6.17	85.3	85.2	3.78	3.79		7.4	7.5	
						31.7		6.16		85.0		3.80			7.5		
			Bottom	12.2	25.2	31.8	31.9	6.03	6.05	83.2	83.5	3.99	3.99		8.0	8.0	
						31.9		6.07		83.7		3.98			8.0		
27/05/10	1525-1539	27/Cloudy	Surface	1.0	25.0	31.3	31.4	6.12	6.09	85.0	84.8	3.27	3.2	3.74	6.4	6.3	7.5
						31.4		6.06		84.6		3.13			6.2		
			Middle	6.0	24.2	32.5	32.5	5.90	5.93	82.0	82.1	3.59	3.7		7.4	7.5	
						32.5		5.95		82.2		3.80			7.5		
			Bottom	11.0	23.3	32.8	32.8	5.73	5.71	79.4	79.5	4.40	4.3		9.0	8.8	
						32.8		5.69		79.6		4.26			8.6		
29/05/10	1700-1712	28/Rainy	Surface	1.0	27.1	30.4	30.4	6.27	6.26	86.5	85.4	2.10	2.13	2.49	4.2	4.3	5.0
						30.4		6.24		84.2		2.15			4.4		
			Middle	6.3	26.8	30.7	30.7	6.06	6.08	83.6	83.8	2.46	2.46		4.8	4.9	
						30.7		6.09		84.0		2.45			5.0		
			Bottom	11.6	25.5	31.8	31.9	5.94	5.96	80.2	81.4	2.87	2.89		5.5	5.7	
						31.9		5.98		82.5		2.90			5.8		

Mid-Flood Tide

東業檢動測試顧問有限公司
ETS-TESTCONSULT LIMITED

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
04/05/10	0933-0946	24/Cloudy	Surface	1.0	22.7	31.5	31.6	6.30	6.29	87.5	87.3	1.43	1.40	1.69	2.7	2.6	3.33
						31.6		6.27		87.1		1.37			2.5		
			Middle	6.0	22.4	31.9	32.0	6.12	6.14	84.4	84.6	1.74	1.76		3.5	3.5	
						32.0		6.15		84.8		1.77			3.5		
			Bottom	11.0	22.4	32.0	32.0	6.02	5.99	83.0	82.6	1.86	1.90		3.8	3.9	
						32.0		5.96		82.2		1.94			4.0		
06/05/10	1031-1044	28/Cloudy	Surface	1.0	23.7	31.5	31.5	6.46	6.49	86.9	87.3	5.11	5.09	4.62	11.0	10.5	9.45
						31.5		6.52		87.7		5.07			10.0		
			Middle	6.5	23.4	31.8	31.8	6.12	6.11	81.6	81.5	4.62	4.49		9.2	9.4	
						31.8		6.10		81.3		4.35			9.5		
			Bottom	12.0	22.9	32.2	32.2	5.85	5.88	77.6	78.0	4.27	4.29		8.5	8.5	
						32.1		5.91		78.4		4.30			8.5		
08/05/10	1736-1740	26/Cloudy	Surface	1.0	24.8	31.4	31.3	6.35	6.33	87.6	87.4	6.28	6.3	6.3	13.0	12.5	12.50
						31.2		6.30		87.1		6.31			12.0		
			Middle	5.8	24.7	31.6	31.6	6.16	6.15	85.0	84.9	6.22	6.2		12.0	12.5	
						31.5		6.14		84.8		6.26			13.0		
			Bottom	10.6	24.6	31.9	32.0	6.11	6.12	84.3	84.5	6.34	6.4		13.0	12.5	
						32.0		6.13		84.6		6.37			12.0		
11/05/10	1724-1733	26/Cloudy	Surface	1.0	23.3	31.3	31.3	6.51	6.51	88.2	88.1	2.95	2.96	2.92	6.0	6.0	5.9
						31.2		6.50		88.0		2.96			6.0		
			Middle	5.4	23.1	31.7	31.7	6.30	6.28	85.1	84.8	2.99	2.98		6.0	6.0	
						31.6		6.26		84.4		2.96			6.0		
			Bottom	9.8	23.1	31.2	31.2	6.10	6.11	83.0	83.1	2.81	2.82		5.7	5.7	
						31.2		6.11		83.1		2.82			5.7		
13/05/10	1746-1755	27/Fine	Surface	1.0	24.4	29.9	29.9	6.64	6.62	88.3	88.1	3.94	3.94	3.81	7.8	7.8	7.6
						29.9		6.60		87.8		3.93			7.8		
			Middle	6.0	23.9	30.2	30.2	6.19	6.21	81.7	82.0	3.85	3.86		7.5	7.5	
						30.1		6.22		82.3		3.86			7.5		
			Bottom	11.0	23.6	30.8	30.8	6.04	6.05	80.5	80.5	3.62	3.63		7.3	7.4	
						30.8		6.05		80.4		3.64			7.5		
15/05/10	1905-1917	24/Rainy	Surface	1.0	23.1	28.8	28.8	6.32	6.30	87.2	86.9	3.49	3.53	3.18	6.8	6.9	6.3
						28.7		6.27		86.5		3.57			7.0		
			Middle	6.2	22.4	30.6	30.6	6.15	6.13	84.2	84.0	3.06	3.04		6.0	6.0	
						30.5		6.11		83.7		3.01			6.0		
			Bottom	11.4	22.4	31.2	31.2	6.11	6.09	83.7	83.4	2.94	3.0		6.0	6.0	
						31.2		6.07		83.1		2.99			6.0		
18/05/10	0914-0924	27/Fine	Surface	1.0	24.7	31.1	31.2	6.09	6.10	84.0	84.2	3.21	3.23	3.22	6.5	6.5	6.5
						31.2		6.11		84.3		3.24			6.5		
			Middle	5.8	24.3	31.4	31.5	6.07	6.06	83.8	83.7	3.17	3.18		6.3	6.4	
						31.5		6.05		83.5		3.19			6.5		
			Bottom	10.6	23.9	31.9	31.8	6.15	6.16	84.9	85.0	3.25	3.26		6.5	6.5	
						31.7		6.17		85.1		3.27			6.5		
20/05/10	1011-1021	26/Drizzle	Surface	1.0	24.3	30.0	30.0	6.24	6.25	82.3	82.4	6.00	6.02	5.96	12.0	12.0	12.0
						29.9		6.25		82.4		6.04			12.0		
			Middle	6.0	24.0	30.3	30.3	6.11	6.12	80.7	80.8	5.95	5.95		11.0	11.5	
						30.2		6.12		80.9		5.94			12.0		
			Bottom	11.0	23.8	30.4	30.5	6.05	6.06	80.0	80.0	5.90	5.90		12.0	12.5	
						30.5		6.06		80.0		5.90			13.0		
22/05/10	1223-1235	27/Rainy	Surface	1.0	25.4	30.7	30.7	6.25	6.23	86.2	85.9	4.57	4.54	4.23	9.0	9.0	8.5
						30.7		6.21		85.6		4.50			9.0		
			Middle	5.9	25.0	31.1	31.1	6.03	6.05	82.6	82.9	3.98	3.95		8.0	8.0	
						31.1		6.07		83.1		3.91			8.0		
			Bottom	10.8	24.6	31.4	31.4	5.95	5.93	81.5	81.2	4.18	4.21		8.2	8.4	
						31.4		5.90		80.8		4.24			8.5		
25/05/10	1631-1640	28/Sunny	Surface	1.0	26.1	31.4	31.4	6.31	6.29	87.1	86.8	3.39	3.40	3.63	6.8	6.8	7.2
						31.3		6.26		86.4		3.40			6.8		
			Middle	6.6	25.6	31.8	31.8	6.12	6.14	84.5	84.7	3.58	3.60		7.0	7.1	
						31.8		6.15		84.9		3.61			7.2		
			Bottom	12.2	25.0	31.8	31.8	6.01	6.02	82.9	83.0	3.89	3.90		7.6	7.7	
						31.7		6.02		83.1		3.90			7.8		
27/05/10	1725-1738	27/Cloudy	Surface	1.0	24.5	31.4	31.4	6.20	6.23	85.9	85.6	4.47	4.49	4.83	8.8	8.9	9.8
						31.4		6.25		85.3		4.50			9.0		
			Middle	5.1	24.0	32.0	32.1	6.15	6.12	81.7	81.8	4.92	4.94		9.8	9.9	
						32.1		6.09		81.9		4.96			10.0		
			Bottom	9.2	23.2	32.6	32.6	5.93	5.95	79.2	79.3	5.05	5.06		10.0	10.5	
						32.6		5.97		79.4		5.06			11.0		
29/05/10	1904-1914	28/Rainy	Surface	1.0	26.9	30.6	30.7	6.20	6.19	85.6	85.4	2.44	2.46	2.71	4.8	4.8	5.3
						30.7		6.17		85.1		2.48			4.8		
			Middle	6.1	26.3	31.0	31.1	6.10	6.08	84.2	83.9	2.75	2.77		5.4	5.4	
						31.1		6.05		83.5		2.78			5.4		
			Bottom	11.2	24.6	32.1	32.1	5.92	5.89	81.7	81.3	2.87	2.91		5.6	5.7	
						32.1		5.86		80.9		2.95			5.8		

Mid-Flood Tide

東業德勤測試顧問有限公司
ETS-TESTCONSULT LIMITED

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
04/05/10	0950-1003	24/Cloudy	Surface	1.0	22.7	31.7	31.8	6.15	6.13	84.8	84.6	1.51	1.47	1.77	3.0	3.0	3.50
						31.8		6.11		84.3		1.42			3.0		
			Middle	8.8	22.3	31.8	31.9	6.06	6.05	83.6	83.5	1.80	1.83		3.5	3.5	
						31.9		6.04		83.3		1.86			3.5		
			Bottom	16.6	22.2	32.1	32.1	5.97	5.95	82.3	82.1	1.99	2.03		4.0	4.0	
						32.1		5.93		81.8		2.06			4.0		
06/05/10	1010-1022	28/Cloudy	Surface	1.0	23.8	31.6	31.6	6.38	6.40	85.8	86.1	3.51	3.53	3.46	7.0	7.2	6.92
						31.6		6.41		86.3		3.54			7.3		
			Middle	7.4	23.5	31.8	31.8	6.26	6.28	83.4	83.7	3.56	3.58		7.0	7.1	
						31.8		6.30		84.00		3.60			7.2		
			Bottom	13.8	23.1	32.2	32.2	6.12	6.11	81.1	81.0	3.26	3.29		6.5	6.5	
						32.1		6.10		80.9		3.31			6.5		
08/05/10	1755-1807	26/Cloudy	Surface	1.0	24.8	31.2	31.3	6.28	6.27	86.7	86.6	6.26	6.28	6.3	13.0	12.5	12.50
						31.3		6.26		86.4		6.29			12.0		
			Middle	8.9	24.7	31.5	31.5	6.15	6.14	84.9	84.8	6.19	6.20		12.0	12.5	
						31.5		6.13		84.6		6.21			13.0		
			Bottom	16.8	24.6	31.8	31.9	6.05	6.06	83.5	83.6	6.31	6.32		13.0	12.5	
						31.9		6.06		83.6		6.33			12.0		
11/05/10	1745-1755	26/Cloudy	Surface	1.0	23.4	31.2	31.2	6.35	6.34	85.9	85.8	2.40	2.45	2.51	4.7	4.9	5.0
						31.1		6.33		85.6		2.50			5.0		
			Middle	7.6	23.3	31.4	31.4	6.25	6.25	84.0	84.0	2.45	2.44		4.8	4.8	
						31.3		6.24		84.0		2.43			4.8		
			Bottom	14.2	23.1	31.5	31.5	6.14	6.15	83.5	83.6	2.64	2.64		5.2	5.2	
						31.4		6.15		83.6		2.63			5.2		
13/05/10	1809-1820	27/Fine	Surface	1.0	24.5	30.5	30.5	6.30	6.31	83.6	83.7	3.52	3.52	3.62	7.0	7.0	7.2
						30.5		6.32		83.8		3.52			7.0		
			Middle	9.0	24.0	30.6	30.7	6.15	6.15	81.0	80.9	3.64	3.65		7.3	7.3	
						30.8		6.14		80.8		3.65			7.2		
			Bottom	17.0	23.4	30.5	30.6	5.93	5.94	78.8	78.9	3.68	3.71		7.2	7.4	
						30.6		5.94		78.9		3.73			7.5		
15/05/10	1920-1932	24/Rainy	Surface	1.0	23.0	29.0	29.1	6.41	6.42	89.2	89.0	4.06	4.09	3.70	8.0	8.2	7.3
						29.1		6.43		88.7		4.12			8.3		
			Middle	9.1	22.4	30.6	30.6	6.29	6.28	86.8	86.6	3.43	3.46		6.7	6.8	
						30.6		6.26		86.3		3.48			6.8		
			Bottom	17.2	22.4	31.1	31.2	6.22	6.19	85.8	85.4	3.58	3.5		7.0	7.0	
						31.2		6.16		85.0		3.51			7.0		
18/05/10	0939-0951	27/Fine	Surface	1.0	24.7	31.1	31.2	6.09	6.10	84.0	84.1	3.22	3.23	3.23	6.5	6.5	6.5
						31.2		6.11		84.2		3.24			6.5		
			Middle	5.8	24.3	31.4	31.5	6.07	6.06	83.4	83.7	3.19	3.20		6.5	6.5	
						31.5		6.05		83.9		3.20			6.5		
			Bottom	10.6	23.9	31.9	31.8	6.15	6.16	85.4	85.6	3.26	3.25		6.5	6.5	
						31.7		6.17		85.7		3.24			6.5		
20/05/10	1035-1045	26/Drizzle	Surface	1.0	24.3	29.5	29.6	6.18	6.17	81.5	81.4	6.18	6.18	6.16	12.0	12.5	12.3
						29.6		6.16		81.2		6.18			13.0		
			Middle	8.7	23.8	29.9	29.9	6.04	6.04	79.5	79.4	6.20	6.22		12.0	12.5	
						29.8		6.03		79.3		6.24			13.0		
			Bottom	16.4	23.5	30.2	30.2	5.96	5.97	78.6	78.8	6.10	6.1		12.0	12.0	
						30.1		5.98		78.9		6.08			12.0		
22/05/10	1248-1301	27/Rainy	Surface	1.0	25.4	30.8	30.8	6.33	6.31	87.3	87.1	4.06	4.04	4.19	8.0	8.0	8.3
						30.8		6.29		86.8		4.01			8.0		
			Middle	9.1	25.1	31.2	31.3	6.17	6.16	84.5	84.3	4.21	4.25		8.5	8.5	
						31.3		6.14		84.1		4.28			8.5		
			Bottom	17.2	24.7	31.4	31.4	6.10	6.09	83.5	83.3	4.30	4.28		8.5	8.5	
						31.3		6.07		83.1		4.25			8.5		
25/05/10	1655-1703	28/Sunny	Surface	1.0	26.0	31.4	31.4	6.37	6.40	87.9	88.3	3.41	3.42	3.61	6.8	6.8	7.2
						31.4		6.42		88.6		3.43			6.8		
			Middle	8.9	25.5	31.6	31.6	6.20	6.19	85.6	85.5	3.62	3.63		7.2	7.2	
						31.6		6.18		85.3		3.63			7.2		
			Bottom	16.8	25.2	31.6	31.6	6.09	6.10	84.0	84.1	3.78	3.80		7.4	7.5	
						31.6		6.10		84.2		3.81			7.6		
27/05/10	1753-1805	27/Cloudy	Surface	1.0	24.7	31.5	31.5	6.20	6.19	83.9	84.0	4.20	4.30	4.33	8.4	8.5	8.6
						31.5		6.17		84.0		4.40			8.6		
			Middle	8.5	24.0	32.4	32.4	6.00	6.03	80.5	80.6	4.29	4.33		8.6	8.7	
						32.4		6.05		80.6		4.36			8.8		
			Bottom	16.0	23.0	32.8	32.8	5.88	5.85	76.4	76.6	4.32	4.36		8.6	8.6	
						32.8		5.81		76.7		4.39			8.6		
29/05/10	1928-1939	28/Rainy	Surface	1.0	26.9	30.8	30.9	6.05	6.03	83.5	83.2	2.56	2.52	2.83	5.0	5.0	5.7
						30.9		6.01		82.9		2.47			5.0		
			Middle	8.9	26.4	31.9	32.0	5.96	5.95	82.2	82.1	2.85	2.88		5.8	5.9	
						32.0		5.94		82.0		2.91			6.0		
			Bottom	16.8	24.3	32.2	32.2	5.87	5.85	81.0	80.8	3.05	3.08		6.0	6.1	
						32.2		5.83		80.5		3.11			6.2		

Mid-Ebb Tide

東業德勤測試顧問有限公司
ETS-TESTCONSULT LIMITED

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
04/05/10	1330-1342	24/Cloudy	Surface	1.0	22.6	30.4	30.5	6.71	6.68	90.5	90.1	1.87	1.88	1.95	3.5	3.5	3.77
						30.5		6.64		89.6		1.89			3.5		
			Middle	6.9	22.5	30.1	30.4	6.52	6.53	88.2	88.2	1.92	1.93		3.8	3.8	
						30.7		6.53		88.2		1.94			3.8		
			Bottom	12.8	22.4	30.8	30.9	6.20	6.20	83.7	83.6	2.04	2.05		4.0	4.0	
						30.9		6.19		83.5		2.05			4.0		
06/05/10	1638-1653	24/Cloudy	Surface	1.0	23.7	31.5	31.6	6.51	6.54	87.6	87.9	3.24	3.25	3.17	6.5	6.5	6.32
						31.6		6.56		88.2		3.25			6.5		
			Middle	7.7	23.5	31.8	31.8	6.28	6.30	83.6	83.9	3.12	3.14		6.3	6.3	
						31.8		6.32		84.2		3.15			6.3		
			Bottom	14.4	23.0	31.9	31.9	6.17	6.18	82.7	82.3	3.14	3.14		6.3	6.2	
						31.9		6.19		81.8		3.13			6.0		
08/05/10	1038-1047	27/Cloudy	Surface	1.0	23.6	31.2	31.3	6.09	6.08	84.0	83.8	5.94	5.94	5.8	11.0	11.5	11.8
						31.3		6.07		83.6		5.93			12.0		
			Middle	7.0	23.3	31.4	31.4	6.02	6.03	83.2	83.2	5.72	5.72		12.0	12.5	
						31.4		6.03		83.1		5.72			13.0		
			Bottom	13.0	23.2	31.5	31.5	5.84	5.84	80.5	80.5	5.82	5.8		11.0	11.5	
						31.5		5.84		80.5		5.81			12.0		
11/05/10	0825-0837	24/Cloudy	Surface	1.0	22.8	31.3	31.3	6.23	6.21	85.1	85.3	2.48	2.49	2.90	4.8	4.9	5.7
						31.2		6.19		85.4		2.49			5.0		
			Middle	7.0	22.7	31.7	31.8	6.06	6.07	82.8	83.3	2.90	2.89		5.7	5.7	
						31.8		6.07		83.8		2.87			5.7		
			Bottom	12.4	22.4	31.8	31.8	6.02	6.02	83.1	83.1	3.30	3.32		6.5	6.5	
						31.7		6.02		83.1		3.33			6.5		
13/05/10	0947-0959	25/Cloudy	Surface	1.0	24.4	29.2	29.3	6.28	6.29	83.5	83.7	3.24	3.24	3.20	6.5	6.5	6.4
						29.3		6.30		83.8		3.23			6.5		
			Middle	6.9	23.8	29.5	29.5	6.26	6.26	83.3	83.3	3.20	3.21		6.5	6.5	
						29.5		6.26		83.2		3.21			6.5		
			Bottom	12.8	23.4	29.8	29.8	6.23	6.24	82.8	83.0	3.16	3.17		6.3	6.2	
						29.7		6.25		83.1		3.18			6.0		
15/05/10	1030-1043	24/Rainy	Surface	1.0	22.8	29.7	29.7	6.47	6.47	89.3	88.8	3.17	3.13	3.46	6.5	6.4	6.9
						29.7		6.47		88.3		3.09			6.3		
			Middle	6.8	22.6	30.4	30.5	6.31	6.30	87.0	86.9	3.29	3.31		6.5	6.5	
						30.6		6.28		86.8		3.32			6.5		
			Bottom	12.5	22.1	32.0	32.1	6.27	6.25	86.5	86.2	3.89	3.95		7.5	7.8	
						32.1		6.22		85.8		4.01			8.0		
18/05/10	1330-1343	29/Sunny	Surface	1.0	24.9	31.0	31.1	6.33	6.33	87.4	87.4	3.35	3.35	3.46	6.5	6.5	6.8
						31.1		6.33		87.4		3.34			6.5		
			Middle	6.9	24.7	31.4	31.4	6.14	6.14	84.7	84.8	3.45	3.45		6.8	6.8	
						31.4		6.14		84.8		3.45			6.8		
			Bottom	12.8	23.2	32.0	32.0	6.02	6.03	83.1	83.2	3.58	3.58		7.0	7.0	
						32.0		6.03		83.2		3.57			7.0		
20/05/10	1445-1457	27/Fine	Surface	1.0	24.4	31.0	31.0	6.30	6.28	86.9	86.6	5.68	5.70	5.40	12.0	12.5	11.5
						31.0		6.25		86.2		5.72			13.0		
			Middle	7.2	24.0	31.4	31.4	6.14	6.11	84.7	84.3	5.43	5.46		12.0	12.0	
						31.4		6.08		83.9		5.48			12.0		
			Bottom	13.4	23.4	31.7	31.7	5.76	5.79	79.5	79.9	5.02	5.04		10.0	10.0	
						31.7		5.82		80.3		5.06			10.0		
22/05/10	1800-1812	27/Rainy	Surface	1.0	24.7	29.7	29.7	6.33	6.34	87.1	87.2	4.14	4.15	4.19	8.5	8.4	8.4
						29.7		6.35		87.3		4.16			8.3		
			Middle	7.0	24.2	30.4	30.4	6.21	6.19	85.4	85.2	4.26	4.28		8.5	8.5	
						30.4		6.17		84.9		4.30			8.5		
			Bottom	13.0	23.9	31.0	31.0	6.08	6.06	83.6	83.4	4.13	4.14		8.2	8.4	
						31.0		6.04		83.1		4.15			8.5		
25/05/10	0830-0843	27/Cloudy	Surface	1.0	25.4	30.1	30.1	6.23	6.25	86.1	86.3	3.49	3.5	3.76	7.0	7.0	7.5
						30.1		6.27		86.5		3.52			7.0		
			Middle	6.9	24.4	30.9	30.9	6.20	6.22	85.6	85.8	3.82	3.79		7.6	7.6	
						30.9		6.23		85.9		3.76			7.6		
			Bottom	12.8	23.8	31.2	31.3	6.17	6.14	85.2	84.8	3.96	4.0		8.0	8.0	
						31.3		6.11		84.30		4.01			8.0		
27/05/10	0948-1000	26/Cloudy	Surface	1.0	24.7	31.0	31.0	6.27	6.30	86.5	87.0	3.59	3.57	3.82	7.0	7.0	7.6
						30.9		6.33		87.4		3.54			7.0		
			Middle	6.9	23.9	31.8	31.9	6.21	6.24	85.7	86.1	3.88	3.86		7.8	7.7	
						31.9		6.26		86.4		3.84			7.6		
			Bottom	12.8	23.1	32.5	32.5	6.13	6.15	84.6	84.9	4.05	4.02		8.0	8.0	
						32.5		6.17		85.1		3.99			8.0		
29/05/10	1059-1114	28/Cloudy	Surface	1.0	23.9	32.3	32.3	6.05	6.11	82.0	82.5	2.55	2.54	2.71	5.2	5.2	5.5
						32.3		6.16		82.9		2.52			5.2		
			Middle	7.0	23.6	32.8	32.8	5.90	5.86	80.1	80.2	2.60	2.60		5.2	5.2	
						32.8		5.81		80.2		2.60			5.2		
			Bottom	13.0	23.0	32.8	32.8	5.73	5.71	77.9	77.7	2.97	3.00		6.0	6.0	
						32.8		5.69		77.4		3.03			6.0		

Mid-Ebb Tide

東業德檢測試顧問有限公司
ETS-TESTCONSULT LIMITED

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
04/05/10	1727-1738	24/Cloudy	Surface	1.0	22.9	30.9	30.9	6.17	6.18	85.1	85.2	1.28	1.30	1.61	2.5	2.5	3.18
						30.8		6.18		85.2		1.31			2.5		
			Middle	7.3	22.7	31.4	31.6	6.10	6.11	84.1	84.3	1.67	1.66		3.3	3.4	
						31.8		6.12		84.4		1.65			3.5		
			Bottom	13.6	22.4	30.9	30.9	6.03	6.04	83.2	83.3	1.84	1.88		3.5	3.7	
						30.8		6.05		83.4		1.91			3.8		
06/05/10	1330-1338	28/Cloudy	Surface	1.0	23.3	32.2	32.5	6.19	6.18	86.2	86.0	2.23	2.24	2.23	4.5	4.5	4.50
						32.8		6.17		85.8		2.24			4.5		
			Middle	8.2	23.2	32.6	32.6	6.20	6.19	86.4	86.3	2.14	2.13		4.5	4.5	
						32.6		6.18		86.1		2.12			4.5		
			Bottom	15.4	22.8	31.8	31.8	6.21	6.22	85.8	85.9	2.33	2.33		4.5	4.5	
						31.8		6.23		85.9		2.32			4.5		
08/05/10	1325-1335	27/Cloudy	Surface	1.0	24.3	31.8	31.8	6.35	6.35	87.6	87.6	6.02	6.04	5.8	12.0	11.5	11.3
						31.7		6.35		87.5		6.05			11.0		
			Middle	8.0	24.1	32.0	32.0	6.12	6.12	84.6	84.7	6.08	5.99		12.0	11.5	
						32.0		6.12		84.8		5.89			11.0		
			Bottom	15.0	24.0	31.7	31.8	6.15	6.15	85.0	85.0	5.27	5.3		11.0	11.0	
						31.8		6.15		85.0		5.30			11.0		
11/05/10	1136-1147	24/Cloudy	Surface	1.0	22.8	31.4	31.4	6.44	6.51	88.2	89.5	2.01	2.07	2.55	4.0	4.0	4.9
						31.3		6.58		90.8		2.12			4.0		
			Middle	7.4	22.6	31.5	31.6	6.31	6.37	86.1	87.4	2.79	2.90		5.7	5.9	
						31.6		6.42		88.6		3.01			6.0		
			Bottom	13.8	22.4	31.7	31.8	6.13	6.12	84.6	84.5	2.49	2.68		4.8	4.9	
						31.8		6.11		84.3		2.86			5.0		
13/05/10	1313-1324	25/Cloudy	Surface	1.0	24.3	29.3	29.4	6.23	6.22	82.8	82.7	3.30	3.29	3.29	6.5	6.5	6.5
						29.4		6.21		82.5		3.28			6.5		
			Middle	7.8	23.9	29.6	29.7	6.25	6.26	83.1	83.2	3.27	3.27		6.5	6.5	
						29.7		6.26		83.3		3.26			6.5		
			Bottom	14.6	23.7	29.8	29.8	6.26	6.27	83.4	83.6	3.32	3.31		6.5	6.5	
						29.8		6.28		83.7		3.29			6.5		
15/05/10	1426-1437	23/Rainy	Surface	1.0	22.7	29.0	28.9	6.49	6.49	89.6	89.5	3.19	3.23	3.57	6.5	6.5	7.1
						28.8		6.48		89.4		3.27			6.5		
			Middle	7.1	22.5	30.8	30.9	6.28	6.29	86.7	86.8	3.45	3.46		6.8	6.8	
						30.9		6.30		86.9		3.47			6.8		
			Bottom	13.2	22.0	31.8	31.9	6.17	6.15	85.1	84.8	4.01	4.02		8.0	8.0	
						32.0		6.12		84.5		4.02			8.0		
18/05/10	1628-1639	29/Cloudy	Surface	1.0	24.6	31.3	31.4	6.46	6.46	89.1	89.1	3.18	3.18	3.30	6.5	6.4	6.6
						31.4		6.45		89.0		3.17			6.3		
			Middle	7.1	24.2	31.7	31.7	6.20	6.21	85.6	85.7	3.28	3.27		6.5	6.5	
						31.7		6.21		85.7		3.26			6.5		
			Bottom	13.2	23.0	32.0	32.0	6.04	6.04	83.4	83.3	3.45	3.45		6.8	6.8	
						32.0		6.03		83.2		3.44			6.8		
20/05/10	1749-1800	27/Fine	Surface	1.0	24.4	30.9	30.9	6.20	6.19	85.5	85.4	5.62	5.60	5.29	12.0	12.5	11.3
						30.9		6.18		85.3		5.58			13.0		
			Middle	8.2	24.0	31.3	31.3	6.04	6.05	83.3	83.5	5.32	5.29		12.0	11.5	
						31.3		6.06		83.6		5.26			11.0		
			Bottom	15.4	23.6	31.6	31.6	5.82	5.79	80.3	79.9	5.02	4.99		10.0	10.0	
						31.6		5.76		79.5		4.96			10.0		
22/05/10	2121-2130	27/Rainy	Surface	1.0	24.6	29.6	29.6	6.16	6.18	84.7	85.0	3.88	3.90	4.14	7.5	7.6	8.2
						29.6		6.20		85.3		3.92			7.7		
			Middle	8.1	24.2	30.3	30.3	6.11	6.12	84.0	84.2	4.12	4.14		8.2	8.4	
						30.3		6.13		84.3		4.16			8.5		
			Bottom	15.2	24.0	30.8	30.8	6.05	6.07	83.2	83.4	4.35	4.37		8.5	8.5	
						30.8		6.08		83.6		4.38			8.5		
25/05/10	1135-1150	27/Fine	Surface	1.0	25.5	29.8	29.8	6.21	6.24	85.7	86.2	3.56	3.59	3.71	7.0	7.1	7.4
						29.7		6.27		86.6		3.62			7.2		
			Middle	7.6	24.3	30.8	30.8	6.15	6.17	84.9	85.2	3.72	3.74		7.4	7.5	
						30.7		6.19		85.4		3.76			7.6		
			Bottom	14.2	23.6	31.4	31.5	6.10	6.08	84.2	84.0	3.79	3.81		7.4	7.5	
						31.5		6.06		83.7		3.83			7.6		
27/05/10	1309-1325	26/Cloudy & Drizzle	Surface	1.0	24.7	30.9	31.0	6.31	6.33	87.1	87.3	3.59	3.62	3.70	7.0	7.1	7.4
						31.0		6.34		87.5		3.64			7.2		
			Middle	7.7	23.8	31.8	31.9	6.24	6.27	86.1	86.5	3.68	3.70		7.2	7.3	
						31.9		6.29		86.8		3.72			7.4		
			Bottom	14.4	23.0	32.8	32.8	6.20	6.21	85.6	85.7	3.81	3.80		7.8	7.7	
						32.8		6.21		85.8		3.78			7.6		
29/05/10	0920-0935	28/Cloudy	Surface	1.0	24.3	30.6	30.6	6.33	6.32	86.7	86.8	1.25	1.25	1.98	2.5	2.5	4.0
						30.6		6.30		86.9		1.25			2.4		
			Middle	9.5	23.4	31.3	31.4	6.05	6.03	83.0	83.0	1.73	1.77		3.4	3.5	
						31.4		6.01		82.9		1.80			3.6		
			Bottom	18.0	22.0	31.7	31.7	5.71	5.75	77.3	77.6	2.97	2.91		6.0	5.9	
						31.7		5.79		77.9		2.85			5.8		

Mid-Ebb 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
04/05/10	1355-1407	24/Cloudy	Surface	1.0	22.7	30.1	30.2	6.78	6.79	91.5	91.6	1.59	1.61	1.81	3.2	3.2	3.57
						30.2		6.79		91.6		1.63			3.2		
			Middle	7.9	22.5	30.4	30.5	6.45	6.42	87.1	86.7	1.78	1.79		3.5	3.5	
						30.5		6.39		86.2		1.80			3.5		
			Bottom	14.9	22.4	30.6	30.7	6.27	6.23	84.6	84.0	2.01	2.02		4.0	4.0	
						30.8		6.18		83.4		2.02			4.0		
06/05/10	1610-1624	24/Cloudy	Surface	1.0	23.8	32.2	32.2	6.42	6.43	86.4	86.5	2.39	2.49	2.61	4.8	4.8	4.55
						32.1		6.44		86.5		2.59			4.8		
			Middle	6.6	23.4	32.0	32.0	6.16	6.14	82.0	81.8	2.43	2.44		4.7	3.3	
						32.0		6.12		81.6		2.45			1.8		
			Bottom	12.2	22.8	31.9	31.9	5.92	5.91	78.5	78.4	2.84	2.89		5.5	5.6	
						31.9		5.90		78.2		2.94			5.7		
08/05/10	1058-1108	27/Cloudy	Surface	1.0	23.5	30.8	30.8	6.04	6.05	83.2	83.3	6.04	6.04	6.0	12.0	12.0	12.0
						30.8		6.05		83.4		6.03			12.0		
			Middle	6.6	23.4	31.0	31.2	6.14	6.14	84.4	84.4	5.92	5.93		11.0	11.5	
						31.3		6.13		84.3		5.93			12.0		
			Bottom	12.2	23.1	31.2	31.2	5.94	5.94	81.9	82.0	5.96	6.0		12.0	12.5	
						31.2		5.94		82.0		5.96			13.0		
11/05/10	0851-0901	24/Cloudy	Surface	1.0	22.8	31.2	31.2	6.32	6.30	87.2	86.9	2.38	2.40	2.85	4.5	4.6	5.6
						31.1		6.27		86.5		2.42			4.7		
			Middle	8.0	22.7	31.4	31.5	6.13	6.27	84.6	86.6	2.72	2.69		5.5	5.4	
						31.5		6.41		88.5		2.66			5.2		
			Bottom	14.2	22.6	31.8	31.8	6.17	6.18	85.1	85.2	3.42	3.46		6.8	6.9	
						31.7		6.18		85.3		3.50			7.0		
13/05/10	1013-1025	25/Cloudy	Surface	1.0	24.4	29.5	29.5	6.27	6.28	83.4	83.6	3.24	3.25	3.20	6.5	6.5	6.4
						29.5		6.29		83.7		3.26			6.5		
			Middle	6.3	24.1	29.4	29.6	6.27	6.27	83.3	83.4	3.19	3.18		6.3	6.4	
						29.7		6.26		83.5		3.17			6.5		
			Bottom	11.6	23.6	29.6	29.7	6.25	6.25	83.1	83.1	3.19	3.18		6.5	6.4	
						29.7		6.25		83.0		3.16			6.3		
15/05/10	1056-1108	24/Rainy	Surface	1.0	22.8	29.8	29.8	6.52	6.52	88.0	88.5	3.28	3.29	3.65	6.5	6.5	7.1
						29.7		6.52		89.0		3.29			6.5		
			Middle	8.0	22.6	30.2	30.1	6.30	6.31	87.0	87.1	3.59	3.63		7.0	6.9	
						29.9		6.32		87.2		3.67			6.8		
			Bottom	15.0	22.1	31.2	31.3	6.21	6.23	85.7	85.9	4.03	4.03		8.0	8.0	
						31.4		6.24		86.1		4.02			8.0		
18/05/10	1356-1408	29/Sunny	Surface	1.0	24.8	31.1	31.1	6.38	6.39	88.0	88.2	3.29	3.30	3.46	6.5	6.5	6.9
						31.1		6.40		88.3		3.30			6.5		
			Middle	7.5	24.5	31.5	31.5	6.18	6.19	85.3	85.4	3.49	3.50		6.8	6.9	
						31.5		6.19		85.4		3.50			7.0		
			Bottom	14.0	23.2	32.1	32.1	6.01	6.02	82.9	83.0	3.60	3.60		7.2	7.3	
						32.0		6.02		83.1		3.59			7.3		
20/05/10	1510-1522	27/Fine	Surface	1.0	24.3	30.9	30.9	6.20	6.18	85.5	85.3	5.58	5.61	5.81	11.0	11.0	11.8
						30.9		6.16		85.0		5.64			11.0		
			Middle	6.6	23.9	31.3	31.3	6.02	6.00	83.1	82.8	5.74	5.77		12.0	12.5	
						31.3		5.98		82.5		5.80			13.0		
			Bottom	12.2	23.6	31.7	31.7	5.66	5.69	78.1	78.5	6.02	6.04		12.0	12.0	
						31.7		5.72		78.9		6.06			12.0		
22/05/10	1824-1835	27/Rainy	Surface	1.0	24.8	29.6	29.6	6.14	6.16	84.5	84.8	4.33	4.35	4.16	8.5	8.5	8.3
						29.6		6.18		85.0		4.37			8.5		
			Middle	6.7	24.3	30.3	30.3	6.02	6.00	82.8	82.6	4.14	4.14		8.5	8.5	
						30.3		5.98		82.3		4.13			8.5		
			Bottom	12.4	24.0	30.8	30.8	5.84	5.83	80.3	80.2	4.00	3.99		8.0	8.0	
						30.8		5.82		80.1		3.98			8.0		
25/05/10	0847-0859	27/Cloudy	Surface	1.0	25.3	29.9	30.0	6.19	6.22	85.4	85.8	3.50	3.5	3.76	7.0	7.0	7.4
						30.1		6.24		86.1		3.54			7.0		
			Middle	6.1	24.3	30.8	30.9	6.16	6.14	85.1	84.7	3.79	3.77		7.4	7.4	
						30.9		6.11		84.3		3.75			7.4		
			Bottom	11.2	23.7	31.2	31.3	6.09	6.11	84.0	84.3	3.96	4.0		8.0	7.9	
						31.3		6.12		84.50		3.99			7.8		
27/05/10	1013-1026	26/Cloudy	Surface	1.0	24.6	30.9	30.9	6.30	6.33	86.9	87.4	3.58	3.61	3.81	7.0	7.1	7.6
						30.9		6.36		87.8		3.63			7.2		
			Middle	6.2	23.8	31.9	32.0	6.25	6.27	86.3	86.5	3.81	3.83		7.6	7.6	
						32.1		6.28		86.7		3.85			7.6		
			Bottom	11.4	23.2	32.6	32.6	6.19	6.17	85.4	85.1	3.98	4.01		8.0	8.0	
						32.5		6.14		84.7		4.03			8.0		
29/05/10	1124-1135	28/Cloudy	Surface	1.0	24.1	32.4	32.4	6.44	6.42	88.9	88.7	2.59	2.64	2.89	5.2	5.2	5.8
						32.4		6.40		88.5		2.68			5.2		
			Middle	6.6	23.7	32.8	32.8	6.16	6.18	85.6	85.4	2.95	2.94		6.0	6.0	
						32.8		6.20		85.2		2.93			6.0		
			Bottom	12.2	23.0	32.8	32.9	6.01	5.95	81.3	81.1	3.06	3.09		6.0	6.1	
						32.9		5.89		80.9		3.11			6.2		

Mid-Ebb Tide

東業德勤測試顧問有限公司
ETS-TESTCONSULT LIMITED

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
04/05/10	1705-1717	24/Cloudy	Surface	1.0	22.8	31.0	30.9	6.31	6.40	87.0	88.2	1.27	1.29	1.60	2.5	2.5	3.12
						30.8		6.48		89.4		1.30			2.5		
			Middle	7.9	22.5	31.2	31.3	6.30	6.29	86.9	86.7	1.58	1.60		3.0	3.1	
						31.3		6.27		86.5		1.62			3.2		
			Bottom	14.8	22.1	30.4	30.6	6.08	6.09	83.9	84.0	1.89	1.91		3.5	3.8	
						30.8		6.09		84.0		1.92			4.0		
06/05/10	1344-1352	28/Cloudy	Surface	1.0	23.2	32.4	32.3	6.12	6.11	84.8	84.5	2.89	2.91	2.97	5.5	5.6	5.92
						32.1		6.10		84.1		2.93			5.7		
			Middle	8.3	23.1	32.0	32.1	6.12	6.11	82.1	82.0	3.01	3.07		6.0	6.2	
						32.1		6.09		81.8		3.12			6.3		
			Bottom	15.6	22.8	32.0	32.1	5.87	5.89	78.3	78.4	2.91	2.92		6.0	6.0	
						32.2		5.90		78.4		2.93			6.0		
08/05/10	1308-1318	27/Cloudy	Surface	1.0	24.5	31.9	31.9	6.17	6.17	85.1	85.1	5.38	5.39	5.4	11.0	11.0	11.3
						31.8		6.17		85.1		5.40			11.0		
			Middle	8.1	24.2	31.5	31.6	6.10	6.10	84.3	84.3	5.42	5.43		11.0	11.5	
						31.7		6.10		84.2		5.43			12.0		
			Bottom	15.2	24.0	32.0	32.1	5.94	5.94	81.9	81.9	5.51	5.5		12.0	11.5	
						32.1		5.94		81.8		5.52			11.0		
11/05/10	1115-1129	24/Cloudy	Surface	1.0	22.8	31.4	31.4	6.48	6.45	89.4	89.0	2.46	2.62	2.84	5.0	5.0	5.7
						31.4		6.41		88.5		2.78			5.0		
			Middle	7.5	22.7	31.8	31.8	6.17	6.18	85.1	85.3	2.98	2.94		6.0	6.0	
						31.7		6.19		85.4		2.90			6.0		
			Bottom	14.2	22.5	31.8	31.8	6.02	6.02	83.1	83.0	2.94	2.96		6.0	6.0	
						31.7		6.01		82.9		2.98			6.0		
13/05/10	1255-1305	25/Cloudy	Surface	1.0	24.3	29.4	29.4	6.27	6.27	83.4	83.3	3.29	3.29	3.29	6.5	6.5	6.5
						29.3		6.26		83.2		3.29			6.5		
			Middle	7.9	23.9	29.6	29.6	6.25	6.24	83.1	83.0	3.25	3.26		6.5	6.5	
						29.6		6.23		82.8		3.27			6.5		
			Bottom	14.8	23.8	29.8	29.8	6.27	6.28	83.3	83.5	3.31	3.32		6.5	6.5	
						29.7		6.29		83.7		3.33			6.5		
15/05/10	1405-1418	23/Rainy	Surface	1.0	22.8	28.4	28.5	6.51	6.52	89.8	89.9	3.07	3.10	3.52	6.3	6.3	7.1
						28.6		6.52		89.9		3.12			6.3		
			Middle	7.3	22.6	30.7	30.8	6.28	6.26	86.7	86.4	3.45	3.48		7.0	7.0	
						30.8		6.24		86.1		3.51			7.0		
			Bottom	13.5	22.1	32.0	32.1	6.17	6.18	85.1	85.2	3.97	3.98		7.7	7.9	
						32.1		6.18		85.3		3.99			8.0		
18/05/10	1607-1618	29/Cloudy	Surface	1.0	24.6	31.3	31.3	6.51	6.51	89.8	89.8	3.27	3.27	3.41	6.5	6.5	6.8
						31.3		6.50		89.7		3.27			6.5		
			Middle	9.2	24.2	31.5	31.5	6.31	6.32	87.0	87.1	3.39	3.39		6.8	6.8	
						31.5		6.32		87.2		3.39			6.8		
			Bottom	17.2	23.1	32.0	32.0	6.01	6.02	82.9	83.0	3.57	3.57		7.0	7.0	
						32.0		6.02		83.1		3.56			7.0		
20/05/10	1730-1741	27/Fine	Surface	1.0	24.3	30.8	30.8	6.12	6.10	84.4	84.2	5.74	5.73	5.51	12.0	12.5	12.2
						30.8		6.08		83.9		5.72			13.0		
			Middle	8.1	24.0	31.2	31.2	5.92	5.91	81.7	81.6	5.62	5.59		13.0	12.5	
						31.2		5.90		81.4		5.56			12.0		
			Bottom	17.2	23.6	31.7	31.7	5.72	5.70	78.9	78.7	5.23	5.22		11.0	11.5	
						31.7		5.68		78.4		5.20			12.0		
22/05/10	2055-2116	27/Rainy	Surface	1.0	24.7	29.5	29.5	6.14	6.16	84.4	84.7	4.22	4.20	4.07	8.5	8.5	8.2
						29.5		6.18		85.0		4.18			8.5		
			Middle	8.0	24.3	30.4	30.4	6.20	6.23	85.3	85.7	3.95	3.97		8.0	8.0	
						30.4		6.26		86.1		3.99			8.0		
			Bottom	15.0	23.9	30.9	30.9	6.00	6.02	82.5	82.8	4.02	4.04		8.0	8.0	
						30.9		6.04		83.1		4.06			8.0		
25/05/10	1115-1130	27/Fine	Surface	1.0	25.5	29.7	29.7	6.19	6.21	85.4	85.8	3.59	3.58	3.71	7.0	7.1	7.4
						29.7		6.23		86.1		3.56			7.2		
			Middle	7.4	24.4	30.9	30.9	6.16	6.14	85.1	84.8	3.71	3.70		7.4	7.4	
						30.8		6.11		84.4		3.69			7.4		
			Bottom	15.8	23.7	31.5	31.5	6.08	6.06	84.1	83.8	3.81	3.84		7.6	7.8	
						31.5		6.04		83.50		3.87			8.0		
27/05/10	1250-1300	26/Cloudy & Drizzle	Surface	1.0	24.6	30.9	30.9	6.33	6.30	87.3	86.9	3.60	3.63	3.72	7.2	7.3	7.4
						30.9		6.26		86.4		3.65			7.4		
			Middle	7.4	23.8	31.7	31.8	6.21	6.20	85.7	85.6	3.71	3.73		7.4	7.4	
						31.8		6.19		85.4		3.75			7.4		
			Bottom	13.8	23.0	32.7	32.8	6.13	6.12	84.6	84.9	3.79	3.81		7.6	7.6	
						32.9		6.10		85.1		3.83			7.5		
29/05/10	1358-1412	28/Cloudy	Surface	1.0	23.9	30.6	30.7	6.28	6.25	87.2	87.1	1.25	1.27	1.53	2.4	2.4	3.0
						30.7		6.22		87.0		1.29			2.4		
			Middle	8.4	23.0	31.5	31.5	6.10	6.06	84.5	84.6	1.16	1.23		2.6	2.6	
						31.5		6.02		84.7		1.30			2.6		
			Bottom	15.7	22.3	31.9	31.9	5.88	5.88	81.7	81.7	2.05	2.09		4.0	4.0	
						31.9		5.88		81.7		2.12			4.0		

Mid-Ebb Tide

東業德勤測試顧問有限公司
ETS-TESTCONSULT LIMITED

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
04/05/10	1423-1433	24/Cloudy	Surface	1.0	22.7	30.1	30.3	6.41	6.46	86.5	87.2	1.89	1.85	1.87	3.5	3.7	3.65
						30.4		6.51		87.8		1.80			3.8		
			Middle	8.2	22.4	31.2	31.3	6.47	6.43	87.3	86.8	1.85	1.83		3.5	3.5	
						31.3		6.39		86.2		1.80			3.5		
			Bottom	15.4	22.2	30.9	31.1	6.28	6.27	84.7	84.5	1.92	1.95		3.8	3.8	
						31.2		6.25		84.3		1.98			3.8		
06/05/10	1537-1550	24/Cloudy	Surface	1.0	23.4	31.8	31.8	6.32	6.31	85.0	84.9	3.18	3.19	2.96	6.5	6.5	5.98
						31.8		6.30		84.8		3.20			6.5		
			Middle	7.7	23.2	31.2	31.2	6.15	6.17	82.0	82.0	2.89	2.90		5.5	5.6	
						31.2		6.19		82.0		2.90			5.7		
			Bottom	14.4	22.9	31.3	31.3	5.93	5.91	78.5	78.2	3.01	2.80		6.0	5.9	
						31.3		5.88		77.8		2.59			5.7		
08/05/10	1121-1131	27/Cloudy	Surface	1.0	23.7	31.3	31.4	6.34	6.33	87.6	87.4	6.08	6.08	6.0	11.0	11.5	11.3
						31.4		6.32		87.1		6.08			12.0		
			Middle	8.4	23.6	31.6	31.7	6.24	6.22	86.2	86.0	6.01	6.01		12.0	11.5	
						31.7		6.20		85.7		6.01			11.0		
			Bottom	15.8	23.5	31.8	31.8	6.15	6.16	84.8	84.9	6.04	6.1		11.0	11.0	
						31.8		6.17		84.9		6.07			11.0		
11/05/10	0916-0926	24/Cloudy	Surface	1.0	22.8	31.3	31.3	6.77	6.73	91.4	90.8	2.70	2.69	2.74	5.5	5.5	5.4
						31.3		6.68		90.1		2.67			5.5		
			Middle	8.4	22.7	31.5	31.5	6.43	6.47	86.8	88.3	2.85	2.92		5.7	5.9	
						31.5		6.51		89.8		2.98			6.0		
			Bottom	15.8	22.5	31.8	31.8	6.28	6.25	86.6	86.2	2.43	2.62		4.8	4.9	
						31.7		6.22		85.8		2.81			5.0		
13/05/10	1040-1050	25/Cloudy	Surface	1.0	24.3	29.3	29.2	6.30	6.29	83.8	83.7	3.22	3.23	3.23	6.5	6.5	6.5
						29.1		6.28		83.5		3.23			6.5		
			Middle	8.2	24.1	29.5	29.6	6.25	6.26	83.1	83.2	3.18	3.19		6.3	6.4	
						29.7		6.26		83.3		3.20			6.5		
			Bottom	15.4	23.7	29.7	29.8	6.28	6.27	83.4	83.3	3.26	3.27		6.5	6.5	
						29.9		6.26		83.2		3.28			6.5		
15/05/10	1124-1134	23/Cloudy	Surface	1.0	22.8	29.9	29.9	6.32	6.35	85.3	86.6	3.54	3.51	3.81	7.0	6.9	7.5
						29.8		6.37		87.9		3.47			6.8		
			Middle	8.1	22.6	31.2	31.2	6.21	6.22	85.8	85.8	3.87	3.87		7.5	7.5	
						31.2		6.22		85.8		3.86			7.5		
			Bottom	15.2	22.2	32.4	32.4	6.17	6.18	85.1	85.2	3.99	4.05		8.0	8.1	
						32.4		6.18		85.2		4.10			8.2		
18/05/10	1424-1434	29/Cloudy	Surface	1.0	24.7	31.2	31.2	6.24	6.24	86.1	86.0	3.29	3.29	3.43	6.5	6.4	6.7
						31.2		6.23		85.9		3.28			6.3		
			Middle	8.2	24.3	31.4	31.5	6.09	6.09	84.0	84.0	3.40	3.41		6.7	6.7	
						31.5		6.09		84.0		3.41			6.7		
			Bottom	15.4	23.1	32.1	32.1	5.89	5.90	81.3	81.4	3.59	3.59		7.0	7.1	
						32.0		5.90		81.4		3.58			7.2		
20/05/10	1537-1547	27/Fine	Surface	1.0	24.4	30.8	30.8	6.16	6.18	85.0	85.3	5.82	5.86	6.11	12.0	12.5	12.5
						30.8		6.20		85.5		5.90			13.0		
			Middle	8.6	24.0	31.3	31.3	6.00	5.98	82.8	82.5	6.14	6.16		12.0	12.5	
						31.3		5.96		82.2		6.18			13.0		
			Bottom	16.2	23.6	31.8	31.8	5.74	5.72	79.2	78.9	6.32	6.30		12.0	12.5	
						31.8		5.70		78.6		6.28			13.0		
22/05/10	1850-1903	27/Rainy	Surface	1.0	24.7	29.7	29.7	6.22	6.23	85.5	85.7	4.25	4.27	4.07	8.5	8.4	8.0
						29.7		6.24		85.8		4.29			8.3		
			Middle	8.8	24.3	30.3	30.3	6.12	6.13	84.2	84.3	4.04	4.06		8.0	8.1	
						30.3		6.14		84.4		4.08			8.2		
			Bottom	16.6	24.0	30.8	30.8	6.05	6.03	83.2	82.9	3.84	3.87		7.5	7.6	
						30.8		6.00		82.5		3.90			7.7		
25/05/10	0916-0926	27/Fine	Surface	1.0	25.4	29.8	29.8	6.27	6.29	86.5	86.7	3.55	3.6	3.74	7.0	7.1	7.4
						29.8		6.30		86.9		3.59			7.2		
			Middle	8.1	24.6	30.7	30.8	6.20	6.22	85.7	85.9	3.79	3.77		7.4	7.5	
						30.8		6.23		86.1		3.75			7.6		
			Bottom	15.2	23.7	31.4	31.4	6.14	6.12	84.7	84.4	3.86	3.9		7.6	7.7	
						31.4		6.09		84.10		3.91			7.8		
27/05/10	1039-1051	26/Cloudy	Surface	1.0	24.5	30.9	30.9	6.33	6.35	87.4	87.7	3.55	3.57	3.75	7.0	7.1	7.4
						30.9		6.37		87.9		3.59			7.2		
			Middle	8.1	23.8	31.8	31.8	6.27	6.26	86.5	86.3	3.73	3.76		7.4	7.5	
						31.8		6.24		86.1		3.78			7.6		
			Bottom	15.2	23.1	32.6	32.6	6.18	6.16	85.3	85.0	3.89	3.92		7.6	7.7	
						32.6		6.13		84.6		3.94			7.8		
29/05/10	1144-1156	28/Cloudy	Surface	1.0	24.2	32.6	32.6	6.25	6.23	85.8	85.8	2.18	2.19	2.39	4.5	4.5	4.8
						32.6		6.20		85.7		2.20			4.4		
			Middle	8.1	23.7	32.7	32.8	6.13	6.11	83.2	83.1	2.17	2.12		4.4	4.3	
						32.8		6.09		83.0		2.06			4.2		
			Bottom	15.2	23.0	32.8	32.8	5.93	5.94	80.2	80.3	2.80	2.85		5.6	5.7	
						32.8		5.94		80.4		2.90			5.8		

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
04/05/10	1607-1617	24/Cloudy	Surface	1.0	22.8	30.7	31.0	6.27	6.20	84.6	83.7	1.29	1.30	1.56	2.5	2.5	3.13
						31.2		6.13		82.7		1.31			2.5		
			Middle	7.7	22.4	32.1	32.1	6.17	6.18	83.2	83.3	1.47	1.49		3.0	3.0	
						32.0		6.18		83.4		1.51			3.0		
			Bottom	14.4	22.2	31.9	31.9	6.20	6.16	83.7	83.2	1.89	1.90		3.8	3.9	
						31.8		6.12		82.6		1.90			4.0		
06/05/10	1445-1500	24/Cloudy	Surface	1.0	23.2	31.4	31.5	6.39	6.41	86.1	86.3	3.12	3.14	3.60	6.3	6.4	7.23
						31.5		6.42		86.5		3.15			6.5		
			Middle	6.7	23.1	31.8	31.8	6.22	6.25	82.9	83.3	3.27	3.29		6.5	6.4	
						31.7		6.28		83.7		3.30			6.3		
			Bottom	12.4	22.9	32.1	32.1	6.02	6.04	79.8	80.1	4.50	4.38		9.0	8.9	
						32.0		6.06		80.3		4.25			8.8		
08/05/10	1222-1231	27/Cloudy	Surface	1.0	24.1	31.2	31.3	6.14	6.14	84.4	84.4	6.05	6.05	6.1	11.0	11.5	11.7
						31.3		6.14		84.4		6.04			12.0		
			Middle	7.9	23.5	31.4	31.5	6.10	6.10	83.5	83.5	6.08	6.1		12.0	11.5	
						31.5		6.10		83.4		6.07			11.0		
			Bottom	14.8	23.3	31.7	31.7	6.21	6.21	85.4	85.4	6.14	6.14		12.0	12.0	
						31.7		6.21		85.3		6.14			12.0		
11/05/10	1006-1020	24/Cloudy	Surface	1.0	22.7	31.2	31.3	6.77	6.78	90.0	90.6	2.24	2.23	2.63	4.5	4.5	5.2
						31.3		6.79		91.2		2.21			4.5		
			Middle	7.5	22.7	31.6	31.7	6.52	6.48	89.9	89.3	2.59	2.59		5.0	5.2	
						31.7		6.43		88.7		2.58			5.3		
			Bottom	14.0	22.4	31.8	31.8	6.21	6.25	85.7	86.2	3.04	3.07		6.0	6.0	
						31.8		6.28		86.6		3.09			6.0		
13/05/10	1155-1205	25/Cloudy	Surface	1.0	24.4	29.4	29.4	6.29	6.30	83.7	83.8	3.19	3.20	3.23	6.5	6.5	6.5
						29.4		6.30		83.9		3.21			6.5		
			Middle	7.8	23.9	29.7	29.7	6.26	6.27	83.2	83.4	3.21	3.22		6.5	6.5	
						29.7		6.28		83.5		3.23			6.5		
			Bottom	14.6	23.9	29.9	29.9	6.32	6.31	84.0	83.9	3.25	3.26		6.5	6.5	
						29.8		6.30		83.7		3.27			6.5		
15/05/10	1208-1218	23/Cloudy	Surface	1.0	22.7	29.7	29.8	6.56	6.52	90.5	90.0	3.37	3.38	3.65	6.5	6.5	7.2
						29.8		6.48		89.4		3.38			6.5		
			Middle	7.6	22.6	30.7	30.8	6.30	6.31	86.9	87.1	3.55	3.56		7.0	7.0	
						30.9		6.32		87.2		3.56			7.0		
			Bottom	14.2	22.2	31.8	31.9	6.28	6.10	86.6	84.2	4.01	4.0		8.0	8.0	
						31.9		5.92		81.7		4.02			8.0		
18/05/10	1507-1517	29/Cloudy	Surface	1.0	24.7	31.4	31.4	6.49	6.49	89.6	89.5	3.30	3.30	3.38	6.5	6.5	6.7
						31.4		6.48		89.4		3.29			6.5		
			Middle	7.6	24.3	31.8	31.8	6.27	6.26	86.5	86.3	3.36	3.38		6.5	6.6	
						31.7		6.24		86.1		3.40			6.7		
			Bottom	14.2	23.2	32.1	32.1	6.07	6.07	83.8	83.7	3.45	3.45		6.8	6.9	
						32.1		6.06		83.6		3.45			7.0		
20/05/10	1631-1642	27/Fine	Surface	1.0	24.4	30.9	30.9	6.18	6.19	85.3	85.4	5.72	5.70	5.36	12.0	12.5	11.8
						30.9		6.20		85.5		5.68			13.0		
			Middle	8.1	24.1	31.1	31.1	6.11	6.09	84.3	84.0	5.34	5.36		12.0	12.5	
						31.1		6.07		83.7		5.38			13.0		
			Bottom	15.2	23.6	31.5	31.5	5.92	5.90	81.7	81.4	5.04	5.01		10.0	10.5	
						31.5		5.88		81.1		4.98			11.0		
22/05/10	2003-2014	27/Rainy	Surface	1.0	24.8	29.6	29.6	6.32	6.34	86.9	87.2	4.28	4.31	4.14	8.5	8.5	8.3
						29.6		6.36		87.5		4.33			8.5		
			Middle	8.1	24.3	30.4	30.4	6.08	6.10	83.6	83.9	4.12	4.14		8.5	8.5	
						30.4		6.12		84.2		4.16			8.5		
			Bottom	15.2	24.0	30.9	30.9	5.99	6.01	82.4	82.6	4.00	3.98		8.0	8.0	
						30.9		6.02		82.8		3.96			8.0		
25/05/10	1014-1025	27/Fine	Surface	1.0	25.3	29.8	29.9	6.19	6.22	85.4	85.8	3.51	3.55	3.72	7.0	7.1	7.4
						29.9		6.24		86.1		3.58			7.2		
			Middle	7.9	24.6	30.7	30.8	6.16	6.18	85.1	85.4	3.73	3.75		7.4	7.5	
						30.8		6.20		85.6		3.77			7.6		
			Bottom	14.8	23.7	31.5	31.6	6.08	6.10	84.0	84.3	3.85	3.87		7.6	7.7	
						31.6		6.12		84.5		3.88			7.8		
27/05/10	1140-1153	26/Cloudy & Drizzle	Surface	1.0	24.7	31.1	31.1	6.27	6.31	86.5	87.0	3.52	3.6	3.72	7.0	7.1	7.4
						31.1		6.34		87.5		3.58			7.2		
			Middle	8.0	23.8	32.2	32.2	6.22	6.20	85.8	85.5	3.68	3.7		7.2	7.3	
						32.1		6.17		85.2		3.73			7.4		
			Bottom	15.0	23.0	32.8	32.9	6.10	6.12	84.2	84.5	3.88	3.9		7.8	7.9	
						32.9		6.14		84.7		3.93			8.0		
29/05/10	1245-1255	28/Cloudy	Surface	1.0	24.3	31.3	31.3	5.92	5.91	80.2	80.5	3.56	3.53	4.30	7.2	7.1	8.6
						31.3		5.90		80.8		3.50			7.0		
			Middle	8.7	23.6	31.7	31.7	5.90	5.87	80.1	80.3	4.40	4.41		8.8	8.8	
						31.7		5.83		80.4		4.42			8.8		
			Bottom	16.4	23.0	31.9	32.0	5.70	5.70	77.2	77.3	4.89	4.96		9.8	9.9	
						32.0		5.70		77.3		5.03			10.0		

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
04/05/10	1624-1636	24/Cloudy	Surface	1.0	22.3	31.2	31.3	6.33	6.34	87.3	87.4	1.87	1.88	1.94	3.8	3.8	3.93
						31.4		6.34		87.4		1.88			3.8		
			Middle	8.6	22.1	31.6	31.7	6.59	6.61	90.9	91.2	1.92	1.94		4.0	4.0	
						31.7		6.63		91.4		1.95			4.0		
			Bottom	16.2	22.0	30.5	30.5	6.48	6.44	89.4	88.9	2.01	2.02		4.0	4.0	
						30.4		6.40		88.3		2.03			4.0		
06/05/10	1432-1444	24/Cloudy	Surface	1.0	23.2	32.4	32.4	6.42	6.41	86.4	86.3	3.51	3.52	3.27	7.0	7.0	6.57
						32.3		6.40		86.1		3.52			7.0		
			Middle	5.6	23.2	31.8	31.8	6.27	6.25	83.7	83.4	3.21	3.18		6.5	6.4	
						31.8		6.23		83.1		3.14			6.3		
			Bottom	10.2	22.8	32.1	32.2	6.15	6.13	81.6	81.8	3.12	3.11		6.3	6.3	
						32.2		6.10		81.9		3.10			6.3		
08/05/10	1233-1243	27/Cloudy	Surface	1.0	24.0	31.4	31.4	6.20	6.20	85.5	85.5	6.08	6.1	6.1	11.0	11.5	11.83
						31.3		6.20		85.4		6.08			12.0		
			Middle	9.0	23.6	31.4	31.4	6.02	6.03	82.8	82.9	6.15	6.2		12.0	12.5	
						31.4		6.03		82.9		6.15			13.0		
			Bottom	17.0	23.4	31.7	31.8	6.25	6.25	86.0	86.0	6.02	6.0		11.0	11.5	
						31.8		6.25		86.0		6.03			12.0		
11/05/10	1026-1038	24/Cloudy	Surface	1.0	22.9	31.2	31.2	6.71	6.66	90.5	90.8	2.20	2.23	2.64	4.5	4.5	5.3
						31.2		6.60		91.0		2.25			4.5		
			Middle	8.4	22.8	31.4	31.5	6.53	6.43	88.7	87.0	2.70	2.74		5.5	5.5	
						31.5		6.32		85.3		2.77			5.5		
			Bottom	15.8	22.5	31.8	31.8	6.18	6.19	85.3	84.4	2.98	2.96		6.0	6.0	
						31.7		6.19		83.5		2.94			6.0		
13/05/10	1208-1220	25/Cloudy	Surface	1.0	24.4	29.4	29.5	6.29	6.28	83.6	83.5	3.24	3.25	3.23	6.5	6.5	6.5
						29.5		6.27		83.3		3.26			6.5		
			Middle	8.9	24.0	29.7	29.8	6.31	6.31	83.9	83.8	3.24	3.23		6.5	6.5	
						29.8		6.30		83.7		3.22			6.5		
			Bottom	16.8	23.8	29.9	29.8	6.33	6.32	84.2	84.1	3.21	3.20		6.5	6.4	
						29.7		6.31		83.9		3.19			6.3		
15/05/10	1225-1237	23/Cloudy	Surface	1.0	22.8	29.4	29.6	6.61	6.60	91.2	91.0	3.47	3.49	3.78	6.7	6.9	7.6
						29.7		6.58		90.8		3.50			7.0		
			Middle	8.6	22.6	31.1	31.1	6.41	6.45	88.4	89.0	3.74	3.75		7.5	7.5	
						31.0		6.49		89.5		3.76			7.5		
			Bottom	16.2	22.2	32.0	32.0	6.20	6.19	85.6	85.4	4.10	4.11		8.2	8.4	
						32.0		6.17		85.1		4.12			8.5		
18/05/10	1525-1535	29/Cloudy	Surface	1.0	24.6	31.3	31.3	6.57	6.57	90.7	90.6	3.29	3.29	3.38	6.5	6.5	6.7
						31.3		6.56		90.5		3.28			6.5		
			Middle	8.7	24.3	31.7	31.7	6.25	6.24	86.2	86.1	3.40	3.39		6.7	6.6	
						31.7		6.23		86.0		3.38			6.5		
			Bottom	16.3	23.1	32.0	32.0	6.11	6.10	84.3	84.1	3.46	3.47		6.8	6.9	
						32.0		6.08		83.9		3.47			7.0		
20/05/10	1645-1656	27/Fine	Surface	1.0	24.5	30.8	30.8	6.23	6.21	86.0	85.7	5.64	5.66	5.44	11.0	11.5	11.3
						30.8		6.18		85.3		5.68			12.0		
			Middle	9.2	24.0	31.2	31.2	6.07	6.09	83.7	84.0	5.50	5.48		11.0	11.0	
						31.2		6.11		84.3		5.45			11.0		
			Bottom	17.3	23.6	31.6	31.6	5.84	5.86	80.6	80.9	5.21	5.19		11.0	11.5	
						31.6		5.88		81.1		5.16			12.0		
22/05/10	2018-2031	27/Rainy	Surface	1.0	24.7	29.5	29.5	6.28	6.30	86.4	86.6	4.10	4.13	4.02	8.2	8.4	8.0
						29.5		6.31		86.8		4.16			8.5		
			Middle	9.3	24.4	30.2	30.2	6.12	6.15	84.2	84.6	3.84	3.86		7.5	7.6	
						30.2		6.17		84.9		3.88			7.7		
			Bottom	17.6	23.9	30.8	30.8	6.01	6.03	82.7	82.9	4.05	4.07		8.0	8.1	
						30.8		6.04		83.1		4.09			8.2		
25/05/10	1028-1040	27/Fine	Surface	1.0	25.4	29.7	29.7	6.22	6.25	85.8	86.3	3.53	3.55	3.75	7.0	7.1	7.4
						29.7		6.28		86.7		3.57			7.2		
			Middle	8.6	24.5	30.9	30.9	6.19	6.20	85.4	85.6	3.75	3.77		7.4	7.5	
						30.9		6.21		85.7		3.79			7.6		
			Bottom	16.2	23.7	31.4	31.4	6.15	6.13	84.9	84.6	3.89	3.92		7.6	7.7	
						31.4		6.10		84.2		3.95			7.8		
27/05/10	1201-1214	26/Cloudy & Drizzle	Surface	1.0	24.6	31.0	31.0	6.30	6.33	86.9	87.3	3.56	3.6	3.78	7.0	7.1	7.5
						30.9		6.36		87.7		3.61			7.2		
			Middle	8.6	23.7	31.9	32.0	6.21	6.20	85.7	85.5	3.75	3.78		7.4	7.5	
						32.0		6.18		85.3		3.81			7.6		
			Bottom	16.2	23.2	32.9	33.0	6.15	6.17	84.9	85.2	3.96	4.0		8.0	8.0	
						33.1		6.19		85.4		4.01			8.0		
29/05/10	1257-1313	28/Cloudy	Surface	1.0	24.3	31.6	31.6	5.99	6.01	81.2	81.4	3.23	3.17	3.80	6.4	6.3	7.6
						31.6		6.02		81.6		3.10			6.2		
			Middle	8.3	23.8	31.7	31.7	5.84	5.85	80.0	79.9	3.29	3.33		6.6	6.6	
						31.7		5.86		79.7		3.36			6.6		
			Bottom	15.5	23.2	32.0	32.0	5.71	5.70	77.9	77.6	4.97	4.92		10.0	9.9	
						32.0		5.69		77.3		4.87			9.8		

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
04/05/10	1641-1651	24/Cloudy	Surface	1.0	22.7	31.2	31.1	6.32	6.32	87.2	87.1	1.17	1.18	1.45	2.5	2.5	2.90
						31.0		6.31		87.0		1.18			2.5		
			Middle	8.6	22.6	30.9	30.9	6.22	6.17	85.8	85.1	1.43	1.43		3.0	2.9	
						30.8		6.12		84.4		1.42			2.7		
			Bottom	16.2	22.3	30.4	30.6	6.07	6.08	83.7	83.9	1.69	1.74		3.5	3.4	
						30.8		6.09		84.0		1.78			3.2		
06/05/10	1416-1431	24/Cloudy	Surface	1.0	23.3	31.8	31.8	6.49	6.48	87.3	87.2	2.43	2.33	2.9	4.7	4.9	5.83
						31.8		6.47		87.1		2.23			5.0		
			Middle	7.3	23.1	31.2	31.3	6.32	6.31	84.2	84.1	3.14	3.17		6.5	6.5	
						31.4		6.30		84.0		3.20			6.5		
			Bottom	13.5	22.9	31.4	31.4	5.87	5.89	77.8	78.0	3.11	3.07		6.3	6.2	
						31.4		5.90		78.2		3.02			6.0		
08/05/10	1247-1256	27/Cloudy	Surface	1.0	24.1	31.4	31.5	6.24	6.24	86.2	86.3	5.58	5.59	5.8	11.0	11.5	11.3
						31.6		6.24		86.3		5.60			12.0		
			Middle	6.2	23.9	31.7	31.8	6.03	6.03	83.4	83.4	5.94	5.9		11.0	11.0	
						31.8		6.03		83.3		5.94			11.0		
			Bottom	11.4	23.4	31.8	31.8	6.08	6.08	84.0	84.0	5.90	5.9		12.0	11.5	
						31.8		6.08		83.9		5.87			11.0		
11/05/10	1046-1057	24/Cloudy	Surface	1.0	22.8	31.2	31.3	6.28	6.28	86.7	86.7	2.12	2.16	2.56	4.3	4.2	5.1
						31.3		6.28		86.7		2.20			4.0		
			Middle	8.4	22.7	31.2	31.2	6.31	6.30	85.6	86.2	2.57	2.62		5.0	5.2	
						31.2		6.29		86.8		2.67			5.3		
			Bottom	15.8	22.6	31.1	31.1	6.14	6.12	84.7	84.5	2.78	2.89		5.8	5.9	
						31.1		6.10		84.2		2.99			6.0		
13/05/10	1228-1242	25/Cloudy	Surface	1.0	24.4	29.4	29.4	6.22	6.23	82.7	82.9	3.27	3.28	3.25	6.5	6.5	6.5
						29.4		6.24		83.0		3.29			6.5		
			Middle	6.3	24.0	29.5	29.6	6.26	6.25	83.2	83.1	3.24	3.25		6.5	6.5	
						29.6		6.24		82.9		3.25			6.5		
			Bottom	11.6	23.7	29.7	29.7	6.26	6.27	83.3	83.4	3.23	3.24		6.5	6.5	
						29.7		6.27		83.4		3.24			6.5		
15/05/10	1342-1352	23/Rainy	Surface	1.0	22.8	28.9	28.8	6.57	6.58	90.6	90.8	3.39	3.40	3.63	6.5	6.8	7.2
						28.7		6.59		90.9		3.41			7.0		
			Middle	8.4	22.5	30.8	30.9	6.40	6.39	88.3	88.1	3.51	3.54		7.0	7.0	
						30.9		6.37		87.9		3.57			7.0		
			Bottom	15.8	22.2	31.9	32.0	6.27	6.28	86.5	85.7	3.87	3.9		7.7	7.9	
						32.0		6.28		84.8		4.01			8.0		
18/05/10	1542-1552	29/Cloudy	Surface	1.0	24.5	31.2	31.2	6.42	6.42	88.6	88.6	3.28	3.27	3.38	6.5	6.5	6.7
						31.2		6.41		88.5		3.25			6.5		
			Middle	8.6	24.3	31.4	31.4	6.30	6.30	86.9	86.9	3.37	3.38		6.5	6.7	
						31.4		6.29		86.8		3.38			6.8		
			Bottom	16.2	23.0	32.0	32.0	6.06	6.06	83.6	83.6	3.49	3.50		6.8	6.9	
						32.0		6.05		83.5		3.50			7.0		
20/05/10	1705-1715	27/Fine	Surface	1.0	24.4	30.9	30.9	6.18	6.16	87.3	86.0	5.82	5.8	5.62	13.0	12.5	12.0
						30.9		6.14		84.7		5.80			12.0		
			Middle	6.5	24.1	31.3	31.3	5.96	5.95	82.2	82.1	5.66	5.6		13.0	12.5	
						31.3		5.94		82.0		5.62			12.0		
			Bottom	12.0	23.7	31.8	31.8	5.82	5.80	80.3	80.0	5.42	5.4		11.0	11.0	
						31.8		5.78		79.7		5.38			11.0		
22/05/10	2037-2048	27/Rainy	Surface	1.0	24.6	29.4	29.4	6.27	6.29	86.2	86.5	4.02	4.04	4.2	8.0	8.0	8.3
						29.4		6.31		86.8		4.06			8.0		
			Middle	6.7	24.2	30.3	30.3	6.11	6.09	84.0	83.8	4.17	4.20		8.0	8.3	
						30.3		6.07		83.5		4.23			8.5		
			Bottom	12.4	23.8	31.0	31.0	5.89	5.91	81.0	81.3	4.33	4.35		8.5	8.5	
						31.0		5.93		81.6		4.37			8.5		
25/05/10	1048-1059	27/Fine	Surface	1.0	25.4	29.8	29.8	6.21	6.23	85.7	86.0	3.57	3.59	3.72	7.2	7.1	7.4
						29.7		6.25		86.2		3.61			7.0		
			Middle	6.4	24.3	30.7	30.7	6.18	6.17	85.3	85.1	3.77	3.75		7.5	7.5	
						30.7		6.15		84.9		3.73			7.4		
			Bottom	11.8	23.6	31.6	31.6	6.09	6.10	84.1	84.3	3.79	3.81		7.4	7.5	
						31.5		6.11		84.4		3.82			7.6		
27/05/10	1222-1235	26/Cloudy & Drizzle	Surface	1.0	24.6	31.0	30.9	6.29	6.31	86.8	87.0	3.57	3.6	3.71	7.0	7.0	7.3
						30.8		6.32		87.2		3.62			7.0		
			Middle	5.9	23.7	31.9	31.9	6.23	6.21	85.9	85.7	3.69	3.71		7.0	7.2	
						31.9		6.19		85.4		3.73			7.4		
			Bottom	11.8	23.1	32.5	32.6	6.16	6.14	85.1	84.7	3.81	3.84		7.6	7.7	
						32.6		6.11		84.3		3.86			7.8		
29/05/10	1320-1335	28/Cloudy	Surface	1.0	23.7	31.1	31.1	6.15	6.13	83.4	83.6	2.95	2.93	3.45	6.0	6.0	6.0
						31.1		6.11		83.8		2.90			6.0		
			Middle	7.6	23.1	31.3	31.3	6.00	5.96	82.4	82.4	2.92	4.37		6.0	5.9	
						31.3		5.91		82.3		5.82			5.8		
			Bottom	14.2	22.5	31.9	31.9	5.70	5.71	77.2	77.6	2.98	3.04		6.0	6.1	
						31.9		5.71		78.0		3.10			6.2		

Mid-Ebb 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
04/05/10	1304-1314	24/Cloudy	Surface	1.0	22.7	30.1	30.3	6.21	6.22	85.7	85.8	1.49	1.51	1.74	3.0	3.0	3.45
						30.4		6.23		85.9		1.53			3.0		
			Middle	5.2	22.6	30.8	30.8	6.12	6.13	84.5	84.6	1.69	1.70		3.2	3.4	
						30.8		6.14		84.7		1.71			3.5		
			Bottom	9.4	22.6	31.0	31.0	6.08	6.08	83.9	83.9	2.01	2.0		4.0	4.0	
						31.0		6.07		83.8		2.02			4.0		
06/05/10	1705-1718	24/Cloudy	Surface	1.0	23.6	31.8	31.7	6.48	6.45	85.9	86.10	5.41	5.40	4.58	10.00	10.00	8.87
						31.5		6.42		86.3		5.39			10.00		
			Middle	5.4	23.4	31.3	31.4	6.27	6.29	83.4	83.70	4.38	4.28		8.50	8.50	
						31.4		6.31		84.0		4.18			8.50		
			Bottom	9.8	22.8	32.0	32.0	6.13	6.12	81.2	81.10	4.02	4.05		8.00	8.1	
						32.0		6.11		81.0		4.08			8.20		
08/05/10	1014-1021	27/Cloudy	Surface	1.0	23.7	31.2	31.2	6.14	6.14	84.5	84.6	5.14	5.2	5.2	10.0	10.0	10.0
						31.2		6.14		84.7		5.18			10.0		
			Middle	5.7	23.5	31.4	31.4	6.00	6.00	82.8	82.7	5.24	5.2		10.0	10.0	
						31.3		5.99		82.6		5.20			10.0		
			Bottom	10.4	23.4	31.5	31.5	5.88	5.89	81.1	81.3	5.10	5.1		10.0	10.0	
						31.5		5.90		81.4		5.11			10.0		
11/05/10	0805-0815	24/Cloudy	Surface	1.0	22.8	31.2	31.2	6.10	6.13	82.4	83.6	2.25	2.27	2.33	4.5	4.5	4.6
						31.2		6.15		84.9		2.29			4.5		
			Middle	5.4	22.6	31.6	31.7	5.97	5.96	82.3	81.3	2.68	2.60		5.2	5.1	
						31.7		5.94		80.2		2.52			5.0		
			Bottom	9.8	22.5	31.7	31.8	5.86	5.87	80.9	81.0	2.02	2.13		4.0	4.2	
						31.8		5.87		81.0		2.23			4.3		
13/05/10	0920-0932	25/Cloudy	Surface	1.0	24.3	29.3	29.2	6.31	6.32	83.9	84.1	3.23	3.24	3.22	6.3	6.4	6.4
						29.1		6.33		84.2		3.25			6.5		
			Middle	5.9	23.9	29.4	29.3	6.22	6.23	82.7	82.9	3.21	3.23		6.3	6.4	
						29.2		6.24		83.0		3.25			6.5		
			Bottom	10.8	23.5	29.6	29.6	6.19	6.21	82.3	82.5	3.17	3.18		6.3	6.3	
						29.5		6.22		82.7		3.19			6.3		
15/05/10	1005-1015	24/Rainy	Surface	1.0	23.1	29.4	29.4	6.57	6.57	88.6	88.6	3.28	3.30	3.66	6.5	6.5	7.2
						29.4		6.56		88.5		3.31			6.5		
			Middle	5.3	22.7	30.7	30.8	6.37	6.37	87.9	86.9	3.68	3.7		7.2	7.2	
						30.8		6.36		85.8		3.67			7.2		
			Bottom	9.5	22.1	32.0	32.0	6.17	6.23	85.1	85.9	4.01	4.0		8.0	8.0	
						32.0		6.28		86.7		4.02			8.0		
18/05/10	1305-1314	29/Sunny	Surface	1.0	24.9	31.0	31.1	6.32	6.33	87.2	87.3	3.41	3.42	3.55	6.8	6.8	7.1
						31.1		6.33		87.4		3.42			6.7		
			Middle	5.2	24.8	31.4	31.5	6.19	6.19	85.4	85.7	3.54	3.55		7.0	7.1	
						31.5		6.19		86.0		3.55			7.2		
			Bottom	9.4	23.1	32.0	32.0	6.07	6.07	83.8	83.8	3.69	3.7		7.3	7.4	
						32.0		6.07		83.8		3.70			7.5		
20/05/10	1419-1430	27/Fine	Surface	1.0	24.4	30.9	30.9	6.25	6.27	86.2	86.4	5.33	5.3	5.10	10.0	10.0	9.9
						30.9		6.28		86.6		5.31			10.0		
			Middle	5.6	23.9	31.3	31.3	6.04	6.02	83.3	83.1	5.11	5.1		10.0	10.0	
						31.3		6.00		82.8		5.07			10.0		
			Bottom	10.2	23.5	31.6	31.6	5.84	5.82	80.6	80.3	4.86	4.9		9.5	9.7	
						31.6		5.80		80.0		4.90			9.8		
22/05/10	1734-1746	27/Rainy	Surface	1.0	24.6	29.8	29.8	6.34	6.36	87.2	87.4	4.10	4.1	4.16	8.2	8.2	8.3
						29.8		6.37		87.6		4.12			8.2		
			Middle	5.7	24.4	30.2	30.2	6.12	6.13	84.2	84.4	4.33	4.34		8.5	8.5	
						30.2		6.14		84.5		4.35			8.5		
			Bottom	10.4	23.8	30.6	30.6	6.03	6.04	82.9	83.1	4.02	4.0		8.0	8.1	
						30.6		6.05		83.2		4.06			8.2		
25/05/10	0804-0815	27/Cloudy	Surface	1.0	25.4	29.8	29.9	6.25	6.27	86.3	86.5	3.51	3.5	3.78	7.0	7.1	7.5
						29.9		6.28		86.7		3.55			7.2		
			Middle	5.3	24.3	30.8	30.8	6.19	6.21	85.4	85.7	3.78	3.8		7.4	7.5	
						30.8		6.23		86.0		3.81			7.6		
			Bottom	9.6	23.8	31.2	31.2	6.11	6.14	84.3	84.7	3.99	4.0		8.0	8.0	
						31.2		6.16		85.1		4.03			8.0		
27/05/10	0923-0933	26/Cloudy	Surface	1.0	24.7	30.9	30.9	6.31	6.34	87.1	87.5	3.55	3.6	3.78	7.0	7.1	7.5
						30.9		6.37		87.9		3.58			7.2		
			Middle	5.4	23.7	31.9	32.0	6.25	6.27	86.3	86.6	3.76	3.8		7.4	7.5	
						32.0		6.29		86.8		3.83			7.6		
			Bottom	9.8	23.0	32.6	32.6	6.21	6.19	85.7	85.4	3.97	4.0		8.0	8.0	
						32.6		6.16		85.1		4.01			8.0		
29/05/10	1031-1045	28/Cloudy	Surface	1.0	24.0	31.3	31.5	5.93	5.89	80.2	80.3	4.05	4.08	3.55	8.0	8.1	7.1
						31.6		5.84		80.4		4.10			8.2		
			Middle	5.5	23.4	31.9	32.1	5.60	5.63	76.9	76.8	3.67	3.49		7.2	7.1	
						32.2		5.66		76.7		3.30			7.0		
			Bottom	10.0	22.9	32.1	32.1	5.41	5.37	69.5	69.3	3.09	3.09		6.2	6.2	
						32.1		5.32		69.1		3.09			6.2		

Mid-Ebb Tide

東業德檢測試顧問有限公司
ETS-TESTCONSULT LIMITED

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
04/05/10	1245-1256	24/Cloudy	Surface	1.0	22.8	29.9	29.9	6.34	6.38	85.6	86.1	1.39	1.40	1.62	2.5	2.6	3.12
						29.8		6.41		86.5		1.40			2.7		
			Middle	6.2	22.7	30.1	30.1	6.09	6.09	82.2	82.2	1.57	1.58		3.0	3.1	
						30.1		6.08		82.1		1.59			3.2		
			Bottom	11.4	22.6	30.8	30.9	6.02	6.03	81.3	81.4	1.89	1.90		3.5	3.7	
						30.9		6.03		81.4		1.90			3.8		
06/05/10	1720-1730	24/Cloudy	Surface	1.0	23.8	31.4	31.5	6.51	6.52	87.5	87.7	2.41	2.36	2.44	4.8	4.7	4.80
						31.5		6.53		87.9		2.30			4.5		
			Middle	5.8	23.4	31.3	31.3	6.26	6.28	83.4	83.7	2.87	2.83		5.5	5.5	
						31.3		6.30		84.0		2.78			5.5		
			Bottom	10.6	23.1	31.2	31.2	6.09	6.11	80.7	81.0	2.12	2.15		4.3	4.3	
						31.2		6.13		81.2		2.18			4.2		
08/05/10	0953-1004	27/Cloudy	Surface	1.0	23.5	31.1	31.2	6.29	6.27	86.9	86.7	5.41	5.4	5.3	12.0	11.5	11.3
						31.2		6.25		86.4		5.43			11.0		
			Middle	6.2	23.5	31.4	31.4	6.30	6.30	86.9	87.0	5.35	5.3		12.0	11.5	
						31.3		6.30		87.0		5.34			11.0		
			Bottom	11.4	23.3	31.5	31.5	6.10	6.09	84.2	84.1	5.25	5.25		11.0	11.0	
						31.5		6.07		84.0		5.24			11.0		
11/05/10	0748-0759	24/Cloudy	Surface	1.0	22.8	31.3	31.3	6.29	6.27	85.6	85.9	2.22	2.23	2.38	4.5	4.5	4.8
						31.2		6.24		86.1		2.23			4.5		
			Middle	6.0	22.6	31.5	31.5	6.04	6.01	83.4	82.9	2.78	2.78		5.5	5.5	
						31.5		5.97		82.4		2.77			5.5		
			Bottom	10.4	22.5	31.7	31.7	5.99	5.93	82.6	81.8	2.10	2.14		4.3	4.3	
						31.7		5.86		80.9		2.17			4.3		
13/05/10	0900-0912	25/Cloudy	Surface	1.0	24.2	29.1	29.1	6.29	6.30	83.6	83.7	3.20	3.21	3.19	6.5	6.5	6.4
						29.1		6.30		83.8		3.22			6.5		
			Middle	6.0	23.9	29.3	29.4	6.26	6.27	83.5	83.4	3.19	3.20		6.5	6.4	
						29.4		6.26		83.3		3.20			6.3		
			Bottom	11.0	23.4	29.2	29.4	6.24	6.23	82.9	82.7	3.19	3.18		6.3	6.4	
						29.5		6.21		82.5		3.16			6.5		
15/05/10	0946-0958	24/Rainy	Surface	1.0	23.2	29.2	29.3	6.67	6.64	92.0	91.3	3.17	3.12	3.43	6.3	6.2	6.8
						29.4		6.61		90.5		3.07			6.0		
			Middle	6.6	22.8	30.1	30.3	6.48	6.50	89.4	89.6	3.32	3.37		6.5	6.7	
						30.4		6.51		89.8		3.41			6.8		
			Bottom	12.1	22.2	32.1	32.2	6.28	6.29	86.7	86.8	3.81	3.8		7.5	7.5	
						32.2		6.30		86.9		3.79			7.5		
18/05/10	1244-1257	29/Sunny	Surface	1.0	25.0	31.3	31.3	6.32	6.36	87.2	87.8	3.60	3.61	3.71	7.3	7.3	7.4
						31.2		6.40		88.3		3.61			7.3		
			Middle	6.2	24.6	31.5	31.5	6.18	6.19	85.3	85.4	3.70	3.72		7.5	7.5	
						31.4		6.19		85.4		3.74			7.5		
			Bottom	11.4	23.2	32.0	32.1	6.08	6.09	83.9	84.0	3.80	3.81		7.5	7.5	
						32.1		6.09		84.0		3.82			7.5		
20/05/10	1400-1411	27/Fine	Surface	1.0	24.3	31.0	31.0	6.21	6.20	85.7	85.6	5.22	5.20	4.91	11.0	11.0	10.1
						31.0		6.19		85.4		5.18			11.0		
			Middle	6.4	23.8	31.4	31.4	6.09	6.10	84.0	84.1	4.88	4.90		9.8	9.9	
						31.4		6.10		84.2		4.92			10.0		
			Bottom	11.8	23.2	31.8	31.8	5.94	5.95	82.0	82.1	4.62	4.6		9.3	9.4	
						31.8		5.96		82.2		4.66			9.5		
22/05/10	1713-1726	27/Rainy	Surface	1.0	24.7	29.7	29.7	6.41	6.39	88.2	87.9	3.86	3.87	3.99	7.5	7.7	8.0
						29.7		6.37		87.6		3.88			7.8		
			Middle	6.5	24.3	30.3	30.3	6.20	6.18	85.3	85.0	4.12	4.14		8.2	8.2	
						30.3		6.16		84.7		4.16			8.2		
			Bottom	12.0	24.0	30.7	30.7	5.99	6.01	82.4	82.6	3.95	3.97		8.0	8.0	
						30.7		6.02		82.8		3.98			8.0		
25/05/10	0745-0755	27/Cloudy	Surface	1.0	25.3	29.7	29.7	6.26	6.25	86.4	86.3	3.49	3.5	3.72	7.0	7.0	7.4
						29.7		6.23		86.1		3.46			7.0		
			Middle	6.0	24.3	30.7	30.8	6.18	6.19	85.3	85.5	3.74	3.8		7.4	7.4	
						30.8		6.20		85.7		3.77			7.4		
			Bottom	11.0	23.7	31.3	31.2	6.13	6.12	84.6	84.4	3.89	3.9		7.6	7.7	
						31.1		6.10		84.2		3.96			7.8		
27/05/10	0902-0915	26/Cloudy	Surface	1.0	24.7	30.8	30.9	6.28	6.30	86.7	87.0	3.57	3.6	3.81	7.0	7.0	7.5
						30.9		6.32		87.2		3.59			7.0		
			Middle	6.0	23.8	31.8	31.8	6.23	6.25	85.9	86.2	3.79	3.82		7.4	7.5	
						31.8		6.27		86.5		3.84			7.6		
			Bottom	11.0	23.0	32.3	32.3	6.16	6.14	85.1	84.7	4.02	4.0		8.0	8.1	
						32.3		6.11		84.3		4.06			8.2		
29/05/10	1012-1024	28/Cloudy	Surface	1.0	24.1	31.1	31.2	6.05	6.04	84.0	84.0	1.80	1.78	1.95	3.6	3.6	3.9
						31.3		6.02		83.9		1.75			3.6		
			Middle	6.5	23.4	31.4	31.5	5.87	5.89	81.5	81.6	1.79	1.85		3.6	3.7	
						31.5		5.90		81.7		1.90			3.8		
			Bottom	12.0	22.6	31.9	32.1	5.67	5.69	77.8	77.5	2.24	2.22		4.4	4.4	
						32.2		5.71		77.1		2.20			4.4		

Mid-Ebb Tide

東業德勤測試顧問有限公司
ETS-TESTCONSULT LIMITED

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
04/05/10	1230-1242	24/Cloudy	Surface	1.0	22.8	28.9	28.9	6.28	6.25	84.4	84.8	1.80	1.79	1.97	3.5	3.5	3.85
						28.8		6.21		85.1		1.78			3.5		
			Middle	5.6	22.6	29.2	29.3	6.08	6.10	82.1	82.6	1.89	1.89		3.8	3.9	
						29.4		6.12		83.0		1.89			4.0		
			Bottom	10.2	22.6	29.4	29.6	6.13	6.15	82.7	83.0	2.19	2.22		4.0	4.2	
						29.8		6.17		83.2		2.24			4.3		
06/05/10	1731-1743	24/Cloudy	Surface	1.0	23.7	32.1	32.1	6.47	6.50	86.9	87.3	2.08	2.07	2.44	4.0	4.0	4.78
						32.1		6.53		87.7		2.05			4.0		
			Middle	5.2	23.5	31.9	31.9	6.12	6.12	81.6	81.5	2.48	2.50		4.7	4.9	
						31.9		6.12		81.40		2.51			5.0		
			Bottom	9.4	22.9	32.2	32.2	5.85	5.89	77.7	78.1	2.72	2.77		5.5	5.5	
						32.2		5.93		78.4		2.81			5.5		
08/05/10	0940-0949	27/Cloudy	Surface	1.0	23.6	30.7	30.7	6.24	6.23	86.1	86.1	4.95	5.0	5.1	10.0	9.9	10.30
						30.6		6.22		86.0		4.98			9.8		
			Middle	5.9	23.4	30.9	30.9	6.18	6.18	85.3	85.3	5.10	5.1		10.0	10.5	
						30.9		6.18		85.2		5.12			11.0		
			Bottom	10.8	23.4	31.1	31.1	6.05	6.05	83.5	83.6	5.18	5.2		11.0	10.5	
						31.1		6.05		83.6		5.19			10.0		
11/05/10	0730-0744	24/Cloudy	Surface	1.0	22.8	31.2	31.3	6.12	6.15	84.4	84.8	2.08	2.09	2.47	4.0	4.2	4.8
						31.3		6.17		85.1		2.09			4.3		
			Middle	6.0	22.5	31.6	31.6	6.02	6.03	83.1	83.3	2.45	2.45		4.7	4.9	
						31.6		6.03		83.4		2.44			5.0		
			Bottom	10.4	22.5	31.7	31.8	6.02	6.03	83.1	83.3	2.86	2.87		5.5	5.5	
						31.8		6.04		83.4		2.88			5.5		
13/05/10	0845-0857	25/Cloudy	Surface	1.0	24.3	29.2	29.1	6.32	6.32	84.1	84.0	3.21	3.24	3.21	6.5	6.5	6.5
						29.0		6.31		83.9		3.27			6.5		
			Middle	5.9	23.8	29.4	29.5	6.27	6.26	83.4	83.3	3.22	3.21		6.5	6.5	
						29.5		6.25		83.1		3.20			6.5		
			Bottom	10.8	23.5	29.5	29.6	6.26	6.27	83.3	83.4	3.19	3.19		6.5	6.5	
						29.7		6.28		83.5		3.19			6.5		
15/05/10	0930-0942	24/Rainy	Surface	1.0	23.1	28.9	28.9	6.57	6.57	90.6	90.6	3.24	3.26	3.47	6.5	6.5	6.9
						28.9		6.57		90.6		3.28			6.5		
			Middle	5.9	22.8	29.7	29.8	6.47	6.48	89.3	89.4	3.47	3.48		6.8	6.9	
						29.9		6.48		89.4		3.48			7.0		
			Bottom	10.7	22.2	32.0	32.0	6.32	6.32	87.2	86.2	3.67	3.7		7.0	7.2	
						32.0		6.31		85.2		3.68			7.3		
18/05/10	1230-1243	29/Sunny	Surface	1.0	24.9	31.2	31.2	6.27	6.28	86.5	86.6	3.56	3.57	3.70	7.0	7.0	7.3
						31.2		6.28		86.7		3.57			7.0		
			Middle	5.5	24.6	31.4	31.5	6.18	6.18	85.3	85.2	3.67	3.68		7.3	7.2	
						31.5		6.17		85.1		3.68			7.0		
			Bottom	10.0	23.2	32.0	32.0	6.02	6.03	83.1	83.2	3.87	3.87		7.5	7.6	
						32.0		6.03		83.2		3.86			7.7		
20/05/10	1345-1357	27/Fine	Surface	1.0	24.5	31.1	31.1	6.10	6.11	84.2	84.3	5.42	5.44	5.10	11.0	11.5	10.5
						31.1		6.12		84.4		5.46			12.0		
			Middle	6.0	24.0	31.4	31.4	6.02	6.00	83.1	82.8	5.11	5.13		10.0	10.5	
						31.4		5.98		82.5		5.15			11.0		
			Bottom	11.0	23.5	31.8	31.8	5.72	5.74	78.9	79.2	4.72	4.7		9.5	9.5	
						31.8		5.76		79.5		4.76			9.5		
22/05/10	1700-1710	27/Rainy	Surface	1.0	24.8	29.7	29.7	6.26	6.28	86.1	86.4	4.26	4.28	4.07	8.5	8.5	8.1
						29.7		6.30		86.7		4.30			8.5		
			Middle	6.0	24.3	30.3	30.3	6.10	6.09	83.9	83.8	4.10	4.1		8.2	8.1	
						30.3		6.08		83.6		4.06			8.0		
			Bottom	11.0	24.0	30.7	30.7	5.84	5.86	80.3	80.6	3.84	3.9		7.5	7.6	
						30.7		5.88		80.9		3.88			7.7		
25/05/10	0730-0742	27/Cloudy	Surface	1.0	25.3	29.8	29.8	6.28	6.25	86.7	86.3	3.52	3.5	3.76	7.0	7.0	7.5
						29.8		6.22		85.8		3.48			7.0		
			Middle	5.4	24.4	30.9	30.9	6.21	6.20	85.6	85.5	3.76	3.78		7.4	7.5	
						30.9		6.19		85.3		3.80			7.5		
			Bottom	10.8	23.7	31.2	31.2	6.15	6.13	84.9	84.7	3.98	4.0		8.0	8.0	
						31.2		6.11		84.4		4.02			8.0		
27/05/10	0845-0858	26/Cloudy	Surface	1.0	24.6	30.8	30.8	6.31	6.33	87.1	87.4	3.58	3.6	3.82	7.0	7.1	7.6
						30.8		6.35		87.6		3.62			7.2		
			Middle	6.0	23.8	31.9	31.9	6.25	6.23	86.3	86.0	3.82	3.8		7.6	7.8	
						31.8		6.20		85.6		3.87			8.0		
			Bottom	11.0	23.1	32.2	32.3	6.11	6.10	84.3	84.1	3.99	4.0		8.0	8.0	
						32.4		6.08		83.9		4.04			8.0		
29/05/10	0955-1010	28/Cloudy	Surface	1.0	24.0	31.1	31.2	6.13	6.12	83.2	83.5	1.66	1.63	2.04	3.2	3.2	4.1
						31.2		6.10		83.7		1.60			3.2		
			Middle	6.1	23.6	31.6	31.6	5.93	5.90	81.2	81.3	1.96	1.99		4.0	4.0	
						31.6		5.87		81.4		2.02			4.0		
			Bottom	11.2	23.1	32.0	32.1	5.69	5.69	77.9	77.9	2.55	2.50		5.0	5.0	
						32.2		5.69		77.9		2.45			5.0		

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
04/05/10	1430-1440	24/Cloudy	Surface	1.0	22.4	30.2	30.2	6.23	6.24	84.1	84.2	1.88	1.89	1.94	3.5	3.7	3.85
						30.1		6.25		84.3		1.89			3.8		
			Middle	5.1	22.3	31.2	31.2	6.16	6.15	83.1	82.9	1.90	1.92		3.8	3.9	
						31.1		6.13		82.7		1.94			4.0		
			Bottom	9.2	22.1	31.4	31.4	6.02	6.03	81.2	81.3	2.01	2.02		4.0	4.0	
						31.3		6.03		81.4		2.03			4.0		
06/05/10	1522-1535	24/Cloudy	Surface	1.0	23.8	32.4	32.4	6.53	6.55	87.7	88.0	4.02	4.02	3.66	8.0	8.0	7.23
						32.3		6.56		88.2		4.01			8.0		
			Middle	5.9	23.5	31.9	32.0	6.29	6.31	83.8	84.0	3.32	3.37		6.5	6.5	
						32.0		6.32		84.20		3.41			6.5		
			Bottom	10.9	23.1	32.3	32.3	6.13	6.13	81.2	80.7	3.57	3.59		7.2	7.2	
						32.2		6.12		80.2		3.60			7.2		
08/05/10	1139-1149	27/Cloudy	Surface	1.0	23.7	31.6	31.6	6.32	6.33	87.2	87.3	6.24	6.2	6.2	12.0	12.5	12.17
						31.6		6.33		87.3		6.24			13.0		
			Middle	5.9	23.6	31.4	31.4	6.11	6.11	84.0	83.9	6.15	6.2		12.0	11.5	
						31.3		6.10		83.8		6.15			11.0		
			Bottom	10.8	23.4	31.7	31.7	5.97	5.97	82.2	82.3	6.25	6.3		12.0	12.5	
						31.7		5.97		82.3		6.25			13.0		
11/05/10	0935-0945	24/Cloudy	Surface	1.0	22.8	31.2	31.2	6.65	6.66	91.7	90.5	2.43	2.45	2.70	4.8	4.8	5.4
						31.2		6.67		89.3		2.47			4.8		
			Middle	5.0	22.7	31.5	31.6	6.31	6.37	87.0	87.8	2.75	2.75		5.5	5.5	
						31.6		6.42		88.5		2.75			5.5		
			Bottom	9.0	22.5	31.7	31.8	6.04	6.06	83.4	82.7	2.85	2.90		5.7	5.9	
						31.8		6.08		82.0		2.94			6.0		
13/05/10	1105-1115	25/Cloudy	Surface	1.0	24.3	29.2	29.3	6.32	6.34	84.1	84.3	3.23	3.24	3.22	6.5	6.5	6.4
						29.3		6.35		84.5		3.25			6.5		
			Middle	5.4	23.9	29.6	29.7	6.28	6.29	83.5	83.6	3.19	3.19		6.3	6.4	
						29.7		6.29		83.7		3.18			6.5		
			Bottom	9.8	23.8	29.9	29.9	6.30	6.30	83.9	84.0	3.21	3.23		6.3	6.3	
						29.9		6.29		84.1		3.24			6.3		
15/05/10	1132-1140	23/Cloudy	Surface	1.0	22.8	30.1	30.2	6.61	6.59	90.5	90.6	3.31	3.36	3.68	6.5	6.7	7.3
						30.2		6.57		90.6		3.40			6.8		
			Middle	5.2	22.6	31.8	31.8	6.28	6.30	86.7	87.0	3.53	3.60		7.0	7.2	
						31.8		6.32		87.2		3.67			7.3		
			Bottom	9.4	22.1	32.1	32.1	6.18	6.19	85.3	85.5	4.08	4.1		8.0	8.0	
						32.0		6.20		85.6		4.07			8.0		
18/05/10	1430-1440	29/Cloudy	Surface	1.0	24.8	31.2	31.2	6.38	6.38	88.0	88.0	3.28	3.28	3.38	6.5	6.5	6.7
						31.1		6.37		88.0		3.27			6.5		
			Middle	5.2	24.3	31.4	31.4	6.08	6.08	83.9	83.9	3.39	3.39		6.8	6.8	
						31.4		6.07		83.8		3.38			6.7		
			Bottom	9.4	23.0	32.0	32.0	5.98	5.97	82.5	82.3	3.47	3.48		6.8	6.8	
						32.0		5.95		82.1		3.48			6.7		
20/05/10	1554-1604	27/Fine	Surface	1.0	24.6	30.7	30.7	6.12	6.15	84.4	84.9	5.64	5.66	5.33	12.0	11.5	11.0
						30.7		6.18		85.3		5.68			11.0		
			Middle	5.7	24.2	31.1	31.1	6.02	6.03	83.1	83.2	5.23	5.24		11.0	11.0	
						31.1		6.04		83.3		5.25			11.0		
			Bottom	10.4	23.8	31.5	31.5	5.88	5.90	81.1	81.4	5.10	5.1		11.0	10.5	
						31.5		5.92		81.7		5.06			10.0		
22/05/10	1920-1932	27/Rainy	Surface	1.0	24.6	29.6	29.6	6.30	6.29	86.7	86.6	4.45	4.48	4.22	8.8	8.9	8.4
						29.6		6.28		86.4		4.50			9.0		
			Middle	5.7	24.2	30.4	30.4	6.04	6.07	83.1	83.5	4.20	4.2		8.5	8.4	
						30.4		6.10		83.9		4.16			8.2		
			Bottom	10.4	24.1	30.9	30.9	5.88	5.91	80.9	81.3	4.02	4.0		8.0	8.0	
						30.9		5.94		81.7		4.00			8.0		
25/05/10	0933-0945	27/Fine	Surface	1.0	25.4	29.7	29.8	6.24	6.27	86.1	86.5	3.53	3.55	3.74	7.0	7.0	7.4
						29.8		6.29		86.8		3.57			7.0		
			Middle	5.2	24.6	30.8	30.9	6.21	6.20	85.7	85.6	3.77	3.75		7.4	7.4	
						30.9		6.19		85.4		3.73			7.4		
			Bottom	9.4	23.6	31.4	31.5	6.12	6.14	84.5	84.7	3.89	3.91		7.6	7.7	
						31.5		6.15		84.9		3.93			7.8		
27/05/10	1059-1110	26/Cloudy & Drizzle	Surface	1.0	24.6	30.8	30.8	6.29	6.32	86.8	87.2	3.53	3.6	3.73	7.0	7.0	7.4
						30.8		6.34		87.5		3.57			7.0		
			Middle	5.3	23.9	31.9	31.9	6.22	6.20	85.8	85.6	3.76	3.7		7.4	7.4	
						31.9		6.18		85.3		3.69			7.4		
			Bottom	9.6	23.2	32.7	32.7	6.14	6.12	84.7	84.5	3.87	3.9		7.8	7.9	
						32.6		6.10		84.2		3.95			8.0		
29/05/10	1206-1217	28/Cloudy	Surface	1.0	24.3	32.2	32.2	6.28	6.29	87.0	87.0	2.05	1.99	1.98	4.0	4.0	4.0
						32.2		6.30		86.9		1.93			4.0		
			Middle	5.7	23.9	32.8	32.8	6.11	6.11	84.2	84.1	1.89	1.89		3.8	3.8	
						32.8		6.11		83.9		1.88			3.8		
			Bottom	10.4	23.3	32.8	32.8	5.89	5.90	80.1	80.4	2.05	2.08		4.0	4.1	
						32.7		5.91		80.7		2.10			4.2		

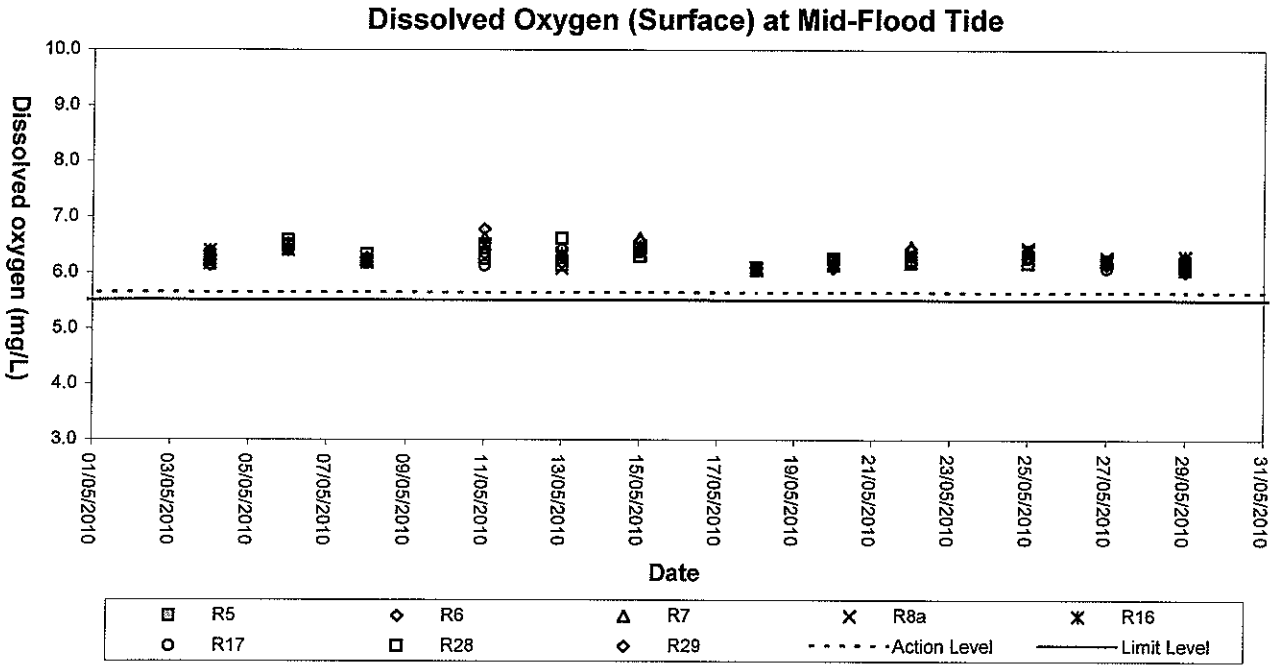
Mid-Ebb Tide

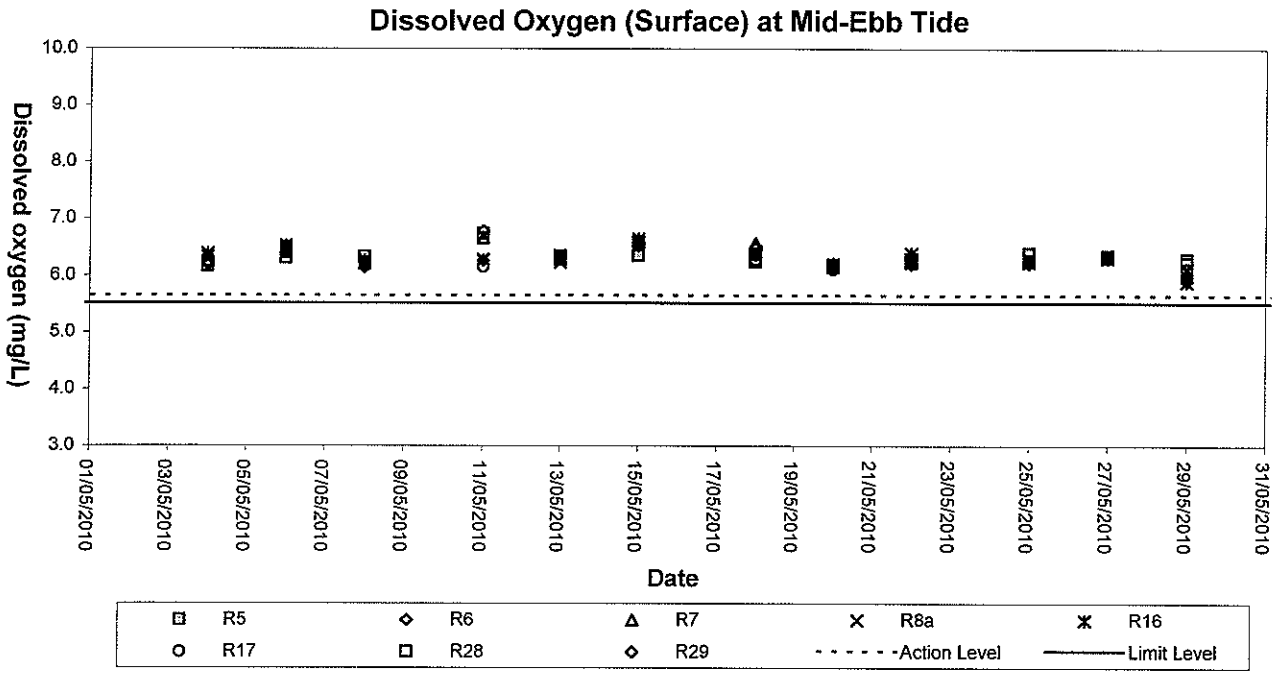
Monitoring Station : R29

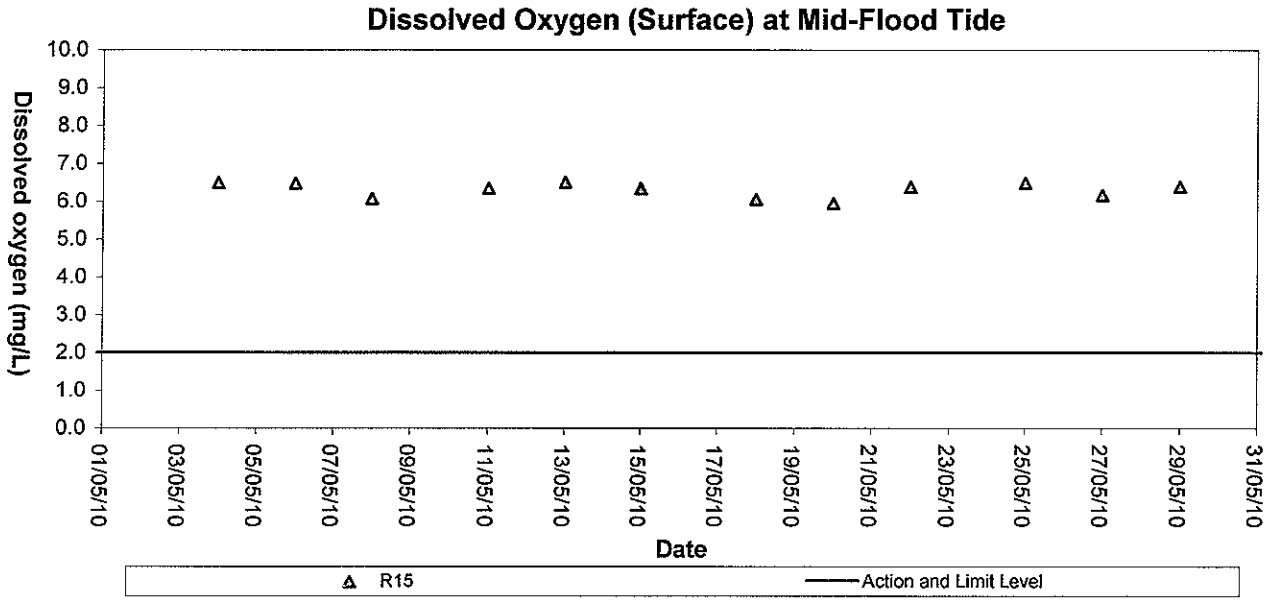
Date	Sampling Duration	Ambient Temp (°C) / Weather Condition	Monitoring Depth (m)		Temp (°C)	Salinity (ppt)		Dissolved Oxygen (mg/L)		Dissolved Oxygen Saturation (%)		Turbidity (NTU)			Suspended Solids (mg/L)		
						Value	Average	Value	Average	Value	Average	Value	Average	Depth-average	Value	Average	Depth-average
04/05/10	1454-1604	24/Cloudy	Surface	1.0	22.8	31.2	31.1	6.17	6.19	83.2	83.5	1.72	1.73	1.84	3.5	3.5	3.67
						30.9		6.21		83.8		1.73			3.5		
			Middle	8.4	22.3	30.8	31.0	6.17	6.18	83.2	83.3	1.82	1.80		3.5	3.5	
						31.1		6.18		83.4		1.78			3.5		
			Bottom	15.8	22.1	31.2	31.3	6.09	6.08	82.2	82.1	1.99	1.98		4.0	4.0	
						31.3		6.07		81.9		1.97			4.0		
06/05/10	1501-1513	24/Cloudy	Surface	1.0	23.6	31.4	31.5	6.43	6.45	86.5	86.7	2.81	2.77	2.45	5.5	5.5	4.80
						31.5		6.46		86.8		2.72			5.5		
			Middle	6.4	22.9	31.8	31.9	6.22	6.21	82.8	82.5	2.32	2.31		4.5	4.5	
						31.9		6.19		82.15		2.30			4.5		
			Bottom	11.8	22.7	32.1	32.2	6.02	6.00	79.7	79.5	2.23	2.27		4.3	4.4	
						32.2		5.97		79.2		2.31			4.5		
08/05/10	1208-1218	27/Cloudy	Surface	1.0	23.8	31.4	31.4	6.21	6.21	85.8	84.4	6.24	6.2	6.1	12.0	12.0	11.67
						31.4		6.21		82.9		6.24			12.0		
			Middle	9.0	23.4	31.5	31.5	6.11	6.11	83.8	83.8	6.02	6.0		11.0	11.5	
						31.5		6.11		83.8		6.01			12.0		
			Bottom	17.0	23.2	31.8	31.8	6.01	6.01	82.6	82.6	6.14	6.1		12.0	11.5	
						31.8		6.01		82.6		6.14			11.0		
11/05/10	0949-1002	24/Cloudy	Surface	1.0	22.8	31.4	31.4	6.23	6.26	86.0	86.4	2.50	2.47	2.79	5.0	5.0	5.5
						31.3		6.29		86.8		2.43			5.0		
			Middle	8.0	22.7	31.5	31.5	6.22	6.21	85.8	85.3	2.87	2.87		5.5	5.5	
						31.5		6.20		84.7		2.86			5.5		
			Bottom	14.9	22.6	31.7	31.7	6.10	6.10	84.2	84.1	2.99	3.03		6.0	6.0	
						31.7		6.09		84.0		3.06			6.0		
13/05/10	1140-1152	25/Cloudy	Surface	1.0	24.4	29.3	29.4	6.33	6.35	84.3	84.5	3.21	3.23	3.21	6.5	6.5	6.5
						29.4		6.36		84.7		3.24			6.5		
			Middle	8.5	24.0	29.7	29.8	6.30	6.31	83.8	83.9	3.20	3.19		6.5	6.4	
						29.9		6.31		84.0		3.18			6.3		
			Bottom	16.0	23.9	29.9	30.0	6.27	6.28	83.3	83.5	3.19	3.21		6.5	6.5	
						30.0		6.29		83.7		3.22			6.5		
15/05/10	1155-1205	23/Cloudy	Surface	1.0	22.7	29.8	29.8	6.57	6.58	90.6	90.7	3.28	3.24	3.46	6.5	6.5	6.8
						29.7		6.58		90.8		3.19			6.5		
			Middle	8.3	22.5	30.8	30.9	6.42	6.42	88.6	88.6	3.31	3.30		6.5	6.5	
						30.9		6.42		88.5		3.29			6.5		
			Bottom	15.5	22.1	32.0	32.0	6.29	6.09	86.8	84.0	3.89	3.9		7.5	7.5	
						32.0		5.89		81.2		3.81			7.5		
18/05/10	1454-1504	29/Cloudy	Surface	1.0	24.7	31.3	31.3	6.51	6.51	89.8	89.8	3.29	3.29	3.36	6.5	6.5	6.6
						31.3		6.50		89.7		3.28			6.5		
			Middle	8.2	24.4	31.5	31.5	6.12	6.13	84.5	84.6	3.32	3.33		6.5	6.5	
						31.5		6.13		84.6		3.33			6.5		
			Bottom	15.4	23.2	32.0	32.0	6.01	6.02	82.9	83.0	3.45	3.46		6.8	6.8	
						32.0		6.02		83.0		3.46			6.8		
20/05/10	1618-1628	27/Fine	Surface	1.0	24.5	30.7	30.7	6.14	6.14	84.7	84.7	5.88	5.86	5.50	12.0	12.0	11.2
						30.7		6.14		84.7		5.84			12.0		
			Middle	8.8	24.1	32.1	31.6	5.96	5.97	82.2	82.4	5.62	5.59		11.0	11.5	
						31.1		5.98		82.5		5.56			12.0		
			Bottom	16.6	23.7	31.5	31.5	5.84	5.86	80.6	80.9	5.02	5.0		10.0	10.0	
						31.5		5.88		81.1		5.06			10.0		
22/05/10	1945-1958	27/Rainy	Surface	1.0	24.7	29.7	29.7	6.16	6.20	84.7	85.2	4.34	4.32	4.13	8.8	8.7	8.2
						29.7		6.23		85.7		4.30			8.5		
			Middle	9.0	24.2	30.5	30.5	6.02	6.04	82.8	83.1	4.16	4.1		8.5	8.4	
						30.5		6.06		83.3		4.12			8.3		
			Bottom	17.0	23.8	31.0	31.0	5.94	5.96	81.7	82.0	3.89	3.9		7.5	7.6	
						31.0		5.98		82.2		3.94			7.7		
25/05/10	0959-1010	27/Fine	Surface	1.0	25.4	29.7	29.7	6.21	6.24	85.7	86.1	3.53	3.56	3.71	7.0	7.0	7.3
						29.7		6.26		86.4		3.59			7.0		
			Middle	8.2	24.5	30.8	30.8	6.18	6.17	85.3	85.2	3.71	3.74		7.4	7.4	
						30.8		6.16		85.0		3.76			7.4		
			Bottom	15.4	23.6	31.5	31.5	6.11	6.10	84.3	84.1	3.82	3.85		7.6	7.6	
						31.5		6.09		83.9		3.87			7.6		
27/05/10	1124-1135	26/Cloudy & Drizzle	Surface	1.0	24.6	30.9	31.0	6.31	6.34	87.1	87.4	3.54	3.6	3.74	7.0	7.1	7.5
						31.0		6.36		87.7		3.57			7.2		
			Middle	8.2	23.9	32.0	32.0	6.25	6.23	86.3	86.0	3.71	3.7		7.4	7.4	
						31.9		6.21		85.7		3.77			7.4		
			Bottom	15.4	23.1	32.7	32.7	6.19	6.16	85.4	85.0	3.91	3.9		7.8	7.9	
						32.7		6.13		84.6		3.96			8.0		
29/05/10	1233-1244	28/Cloudy	Surface	1.0	24.3	31.0	31.0	5.97	5.98	80.2	80.5	3.60	3.65	4.22	7.2	7.3	8.5
						31.0		5.99		80.8		3.69			7.4		
			Middle	8.4	23.7	31.7	31.7	5.83	5.82	79.0	79.4	4.05	4.10		8.0	8.1	
						31.7		5.81		79.8		4.14			8.2		
			Bottom	15.8	23.2	31.7	31.7	5.65	5.66	75.5	75.4	4.90	4.93		10.0	10.0	
						31.6		5.67		75.3		4.96			10.0		

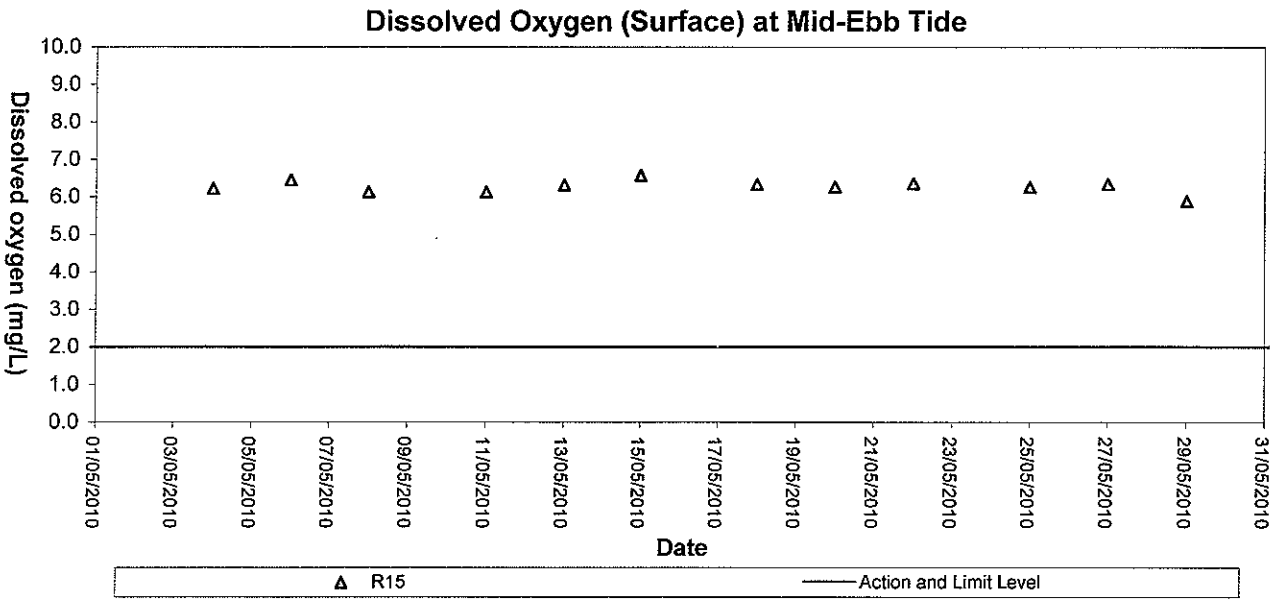
Appendix C3

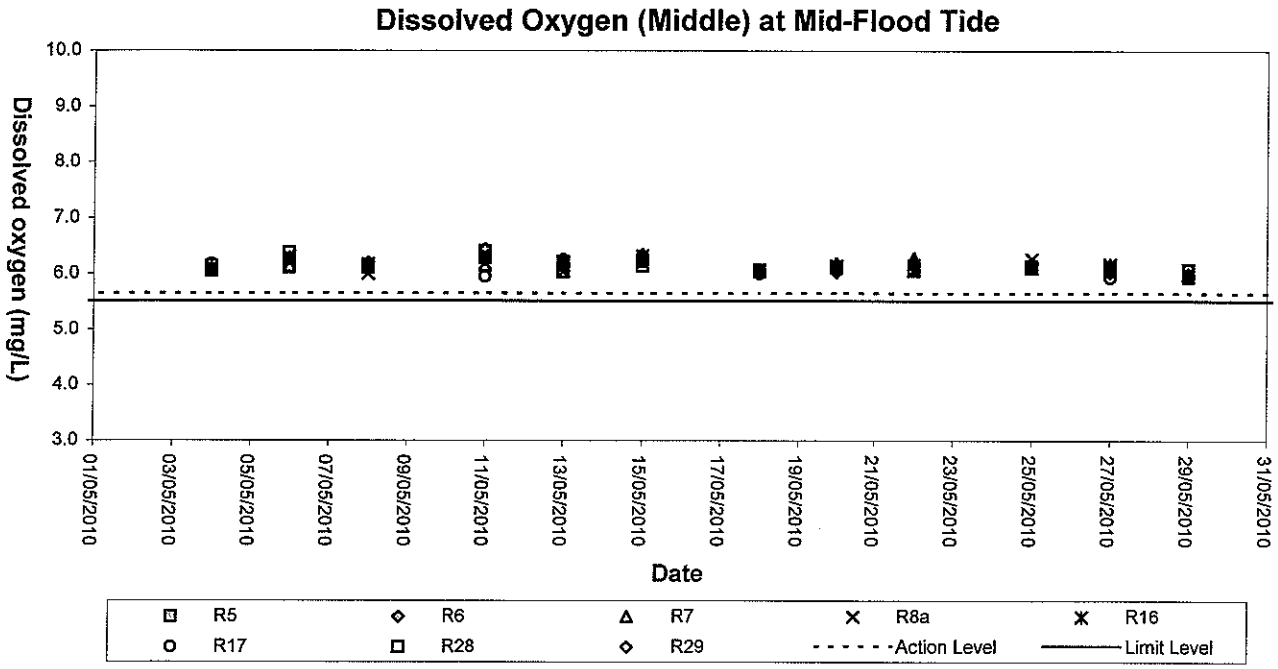
Graphical Plots of Impact Water Quality Monitoring Data

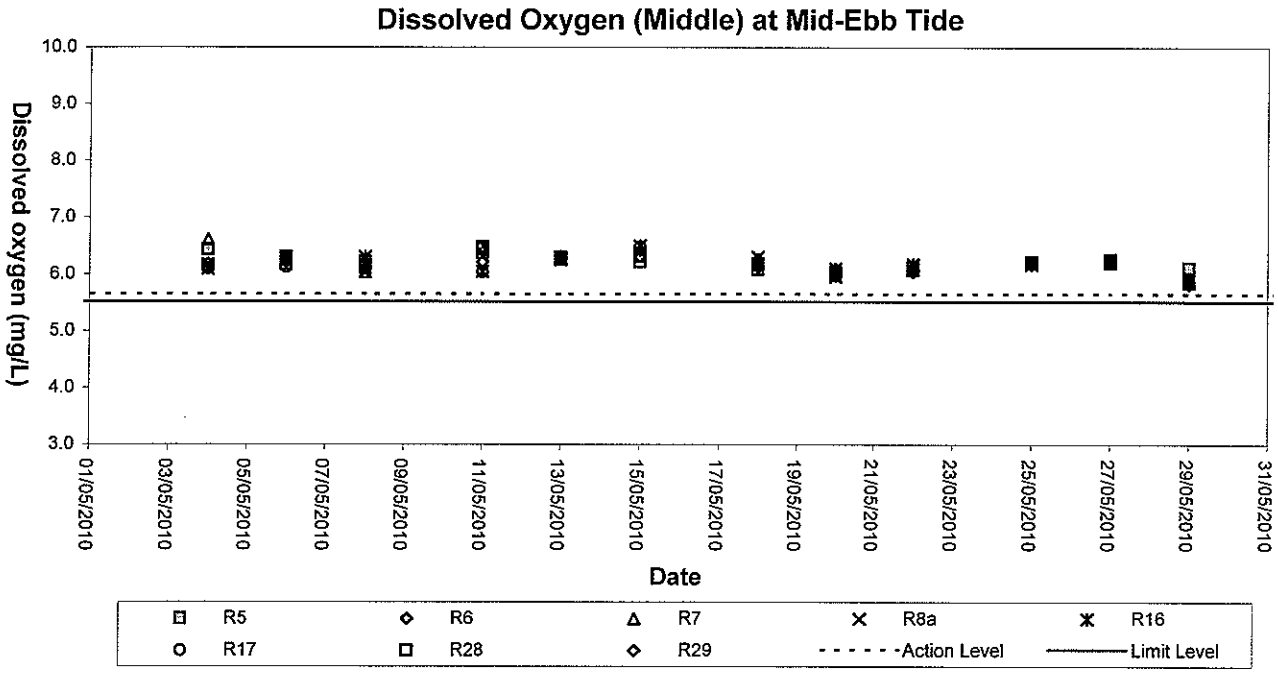

Dissolved Oxygen (Surface) at Mid-Flood Tide
Dissolved oxygen (mg/L)
10.0
9.0
8.0
7.0
6.0
5.0
4.0
3.0
01/05/2010
03/05/2010
05/05/2010
07/05/2010
09/05/2010
11/05/2010
13/05/2010
15/05/2010
17/05/2010
19/05/2010
21/05/2010
23/05/2010
25/05/2010
27/05/2010
29/05/2010
31/05/2010
Date
R5
R6
R7
R8a
R16
R17
R28
R29
Action Level
Limit Level

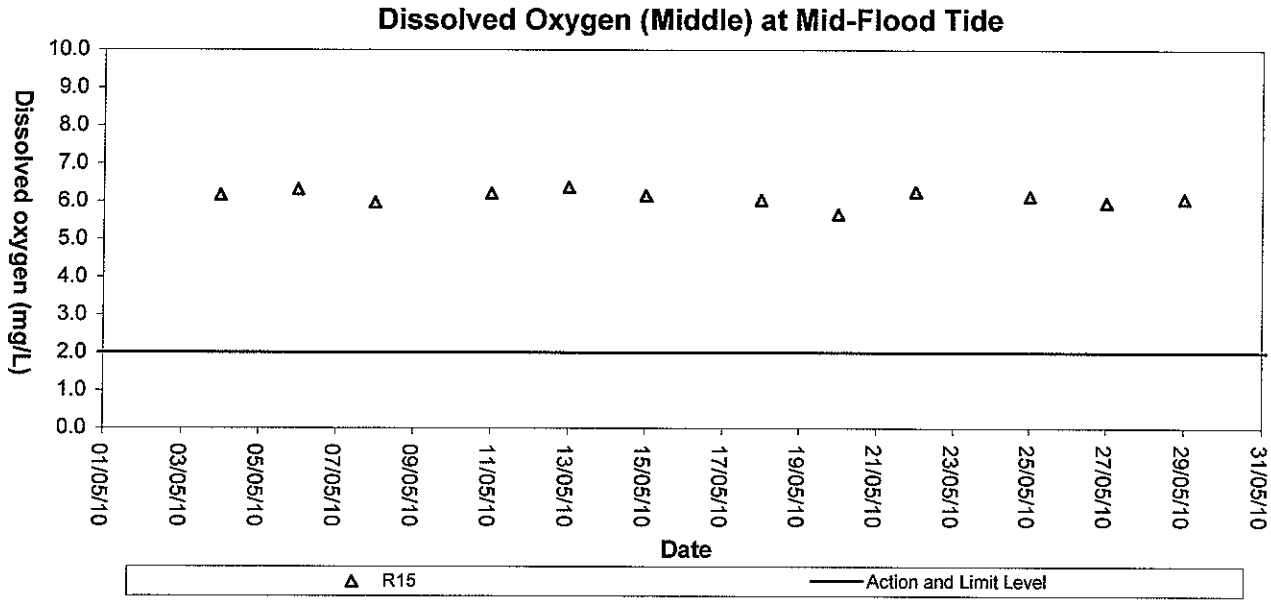

Dissolved Oxygen (Surface) at Mid-Ebb Tide
Dissolved oxygen (mg/L)
10.0
9.0
8.0
7.0
6.0
5.0
4.0
3.0
01/05/2010
03/05/2010
05/05/2010
07/05/2010
09/05/2010
11/05/2010
13/05/2010
15/05/2010
17/05/2010
19/05/2010
21/05/2010
23/05/2010
25/05/2010
27/05/2010
29/05/2010
31/05/2010
Date
R5
R6
R7
R8a
R16
R17
R28
R29
Action Level
Limit Level

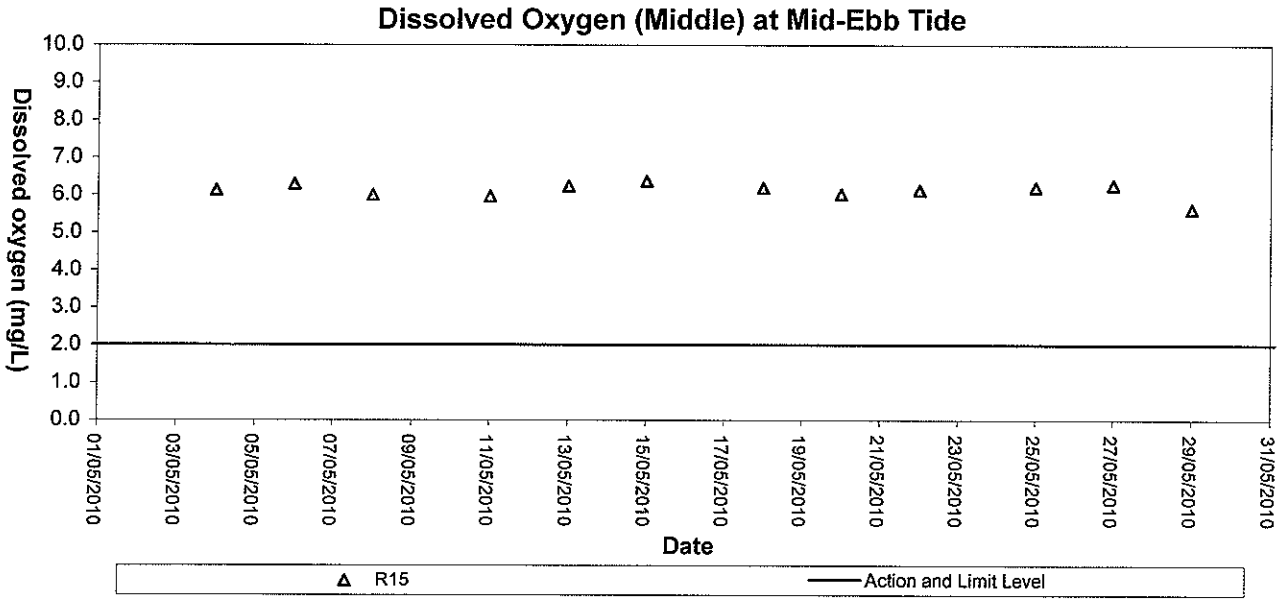

Dissolved Oxygen (Surface) at Mid-Flood Tide
Dissolved oxygen (mg/L)
10.0
9.0
8.0
7.0
6.0
5.0
4.0
3.0
2.0
1.0
0.0
01/05/10
03/05/10
05/05/10
07/05/10
09/05/10
11/05/10
13/05/10
15/05/10
17/05/10
19/05/10
21/05/10
23/05/10
25/05/10
27/05/10
29/05/10
31/05/10
Date
R15
Action and Limit Level


Dissolved Oxygen (Surface) at Mid-Ebb Tide
Dissolved oxygen (mg/L)
10.0
9.0
8.0
7.0
6.0
5.0
4.0
3.0
2.0
1.0
0.0
01/05/2010
03/05/2010
05/05/2010
07/05/2010
09/05/2010
11/05/2010
13/05/2010
15/05/2010
17/05/2010
19/05/2010
21/05/2010
23/05/2010
25/05/2010
27/05/2010
29/05/2010
31/05/2010
Date
R15
Action and Limit Level


Dissolved Oxygen (Middle) at Mid-Flood Tide
Dissolved oxygen (mg/L)
10.0
9.0
8.0
7.0
6.0
5.0
4.0
3.0
01/05/2010
03/05/2010
05/05/2010
07/05/2010
09/05/2010
11/05/2010
13/05/2010
15/05/2010
17/05/2010
19/05/2010
21/05/2010
23/05/2010
25/05/2010
27/05/2010
29/05/2010
31/05/2010
Date
R5
R6
R7
R8a
R16
R17
R28
R29
Action Level
Limit Level


Dissolved Oxygen (Middle) at Mid-Ebb Tide
Dissolved oxygen (mg/L)
10.0
9.0
8.0
7.0
6.0
5.0
4.0
3.0
01/05/2010
03/05/2010
05/05/2010
07/05/2010
09/05/2010
11/05/2010
13/05/2010
15/05/2010
17/05/2010
19/05/2010
21/05/2010
23/05/2010
25/05/2010
27/05/2010
29/05/2010
31/05/2010
Date
R5
R6
R7
R8a
R16
R17
R28
R29
Action Level
Limit Level


Dissolved Oxygen (Middle) at Mid-Flood Tide
Dissolved oxygen (mg/L)
10.0
9.0
8.0
7.0
6.0
5.0
4.0
3.0
2.0
1.0
0.0
01/05/10
03/05/10
05/05/10
07/05/10
09/05/10
11/05/10
13/05/10
15/05/10
17/05/10
19/05/10
21/05/10
23/05/10
25/05/10
27/05/10
29/05/10
31/05/10
Date
R15
Action and Limit Level


Dissolved Oxygen (Middle) at Mid-Ebb Tide
Dissolved oxygen (mg/L)
10.0
9.0
8.0
7.0
6.0
5.0
4.0
3.0
2.0
1.0
0.0
01/05/2010
03/05/2010
05/05/2010
07/05/2010
09/05/2010
11/05/2010
13/05/2010
15/05/2010
17/05/2010
19/05/2010
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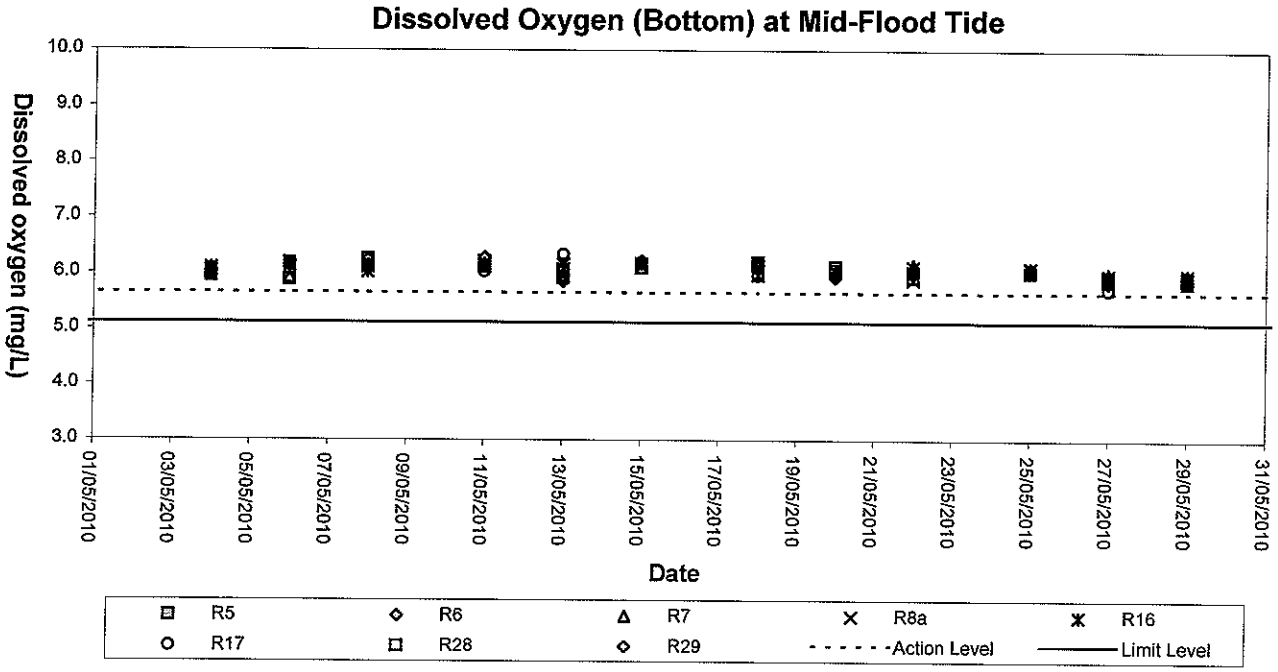
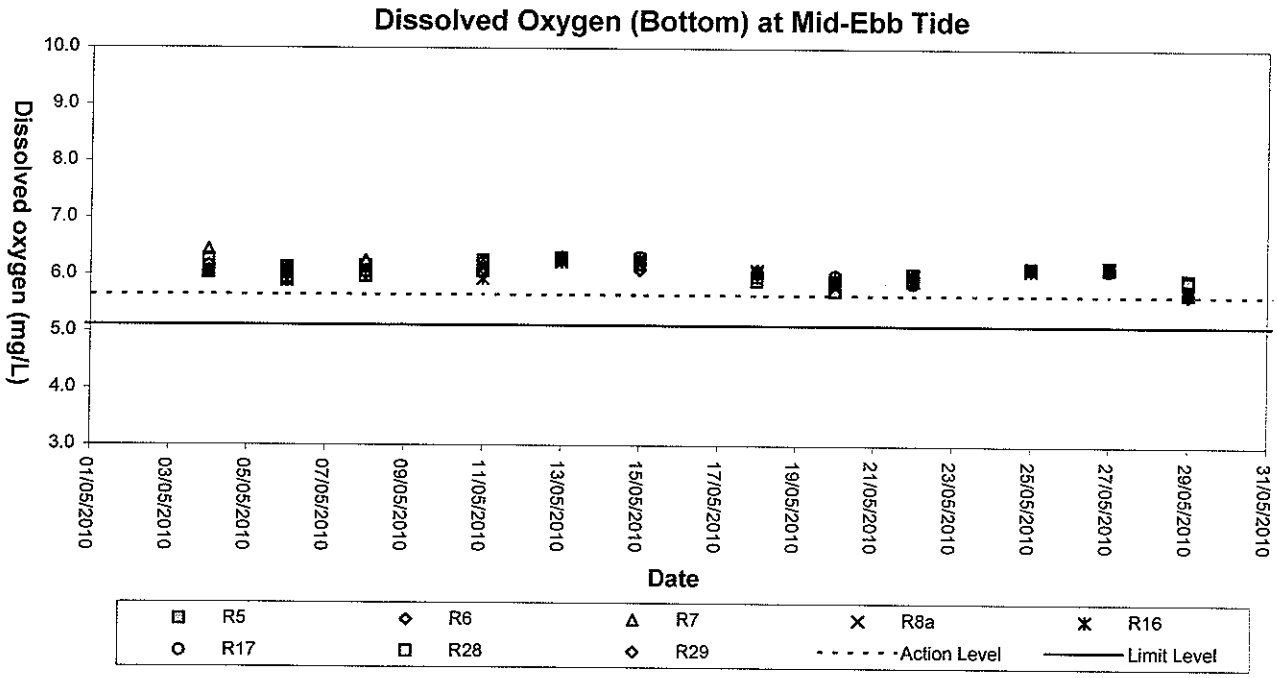
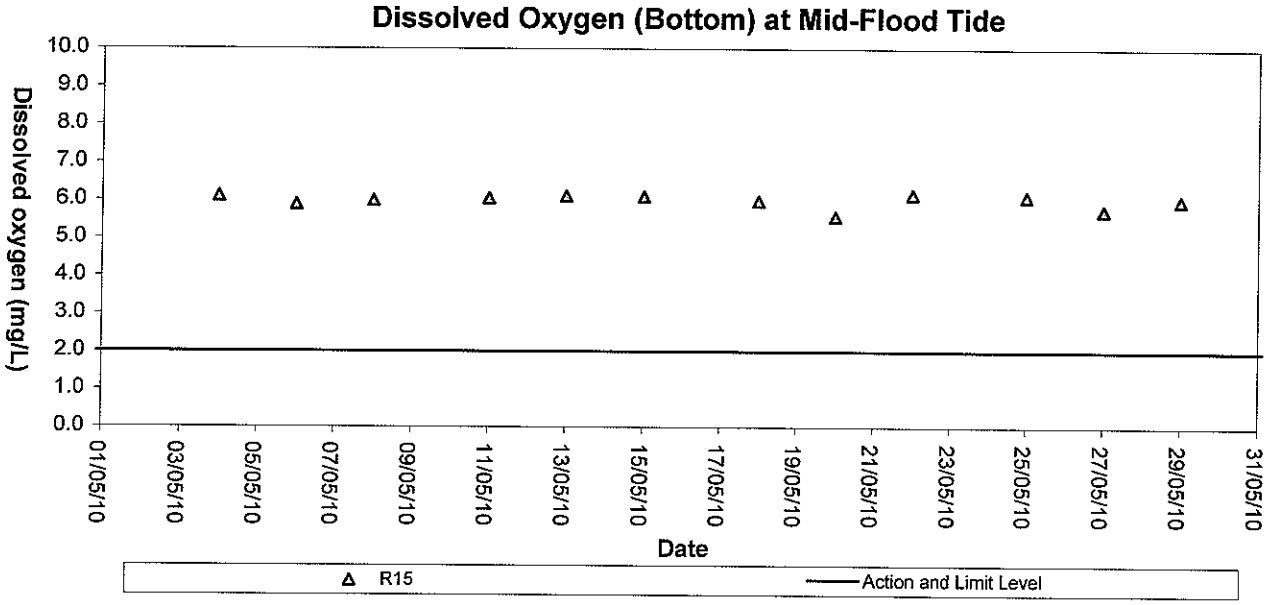
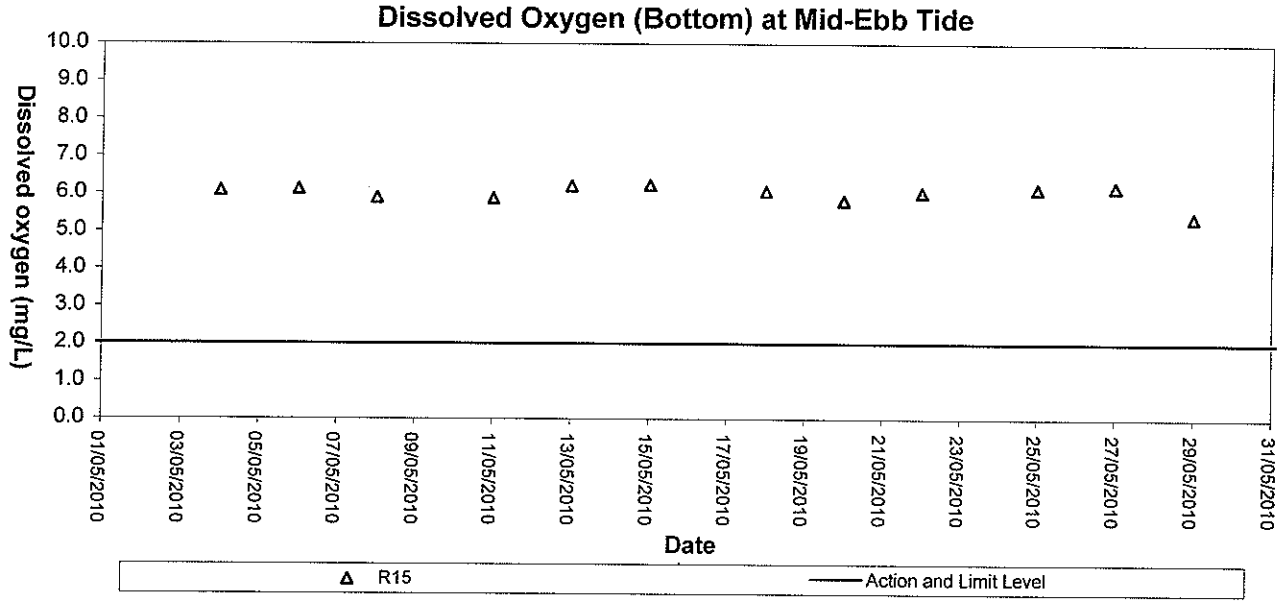
27/05/2010
29/05/2010
31/05/2010
Date
R15
Action and Limit Level

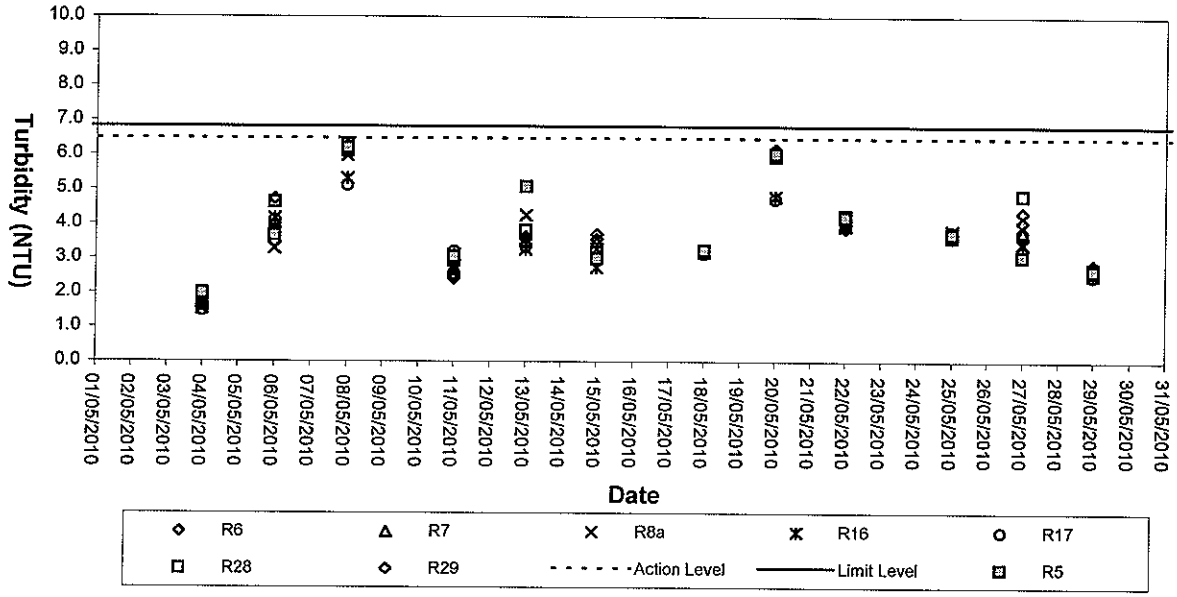

Dissolved Oxygen (Bottom) at Mid-Flood Tide
Dissolved oxygen (mg/L)
10.0
9.0
8.0
7.0
6.0
5.0
4.0
3.0
01/05/2010
03/05/2010
05/05/2010
07/05/2010
09/05/2010
11/05/2010
13/05/2010
15/05/2010
17/05/2010
19/05/2010
21/05/2010
23/05/2010
25/05/2010
27/05/2010
29/05/2010
31/05/2010
Date
R5
R6
R7
R8a
R16
R17
R28
R29
Action Level
Limit Level


Dissolved Oxygen (Bottom) at Mid-Ebb Tide
Dissolved oxygen (mg/L)
10.0
9.0
8.0
7.0
6.0
5.0
4.0
3.0
01/05/2010
03/05/2010
05/05/2010
07/05/2010
09/05/2010
11/05/2010
13/05/2010
15/05/2010
17/05/2010
19/05/2010
21/05/2010
23/05/2010
25/05/2010
27/05/2010
29/05/2010
31/05/2010
Date
R5
R6
R7
R8a
R16
R17
R28
R29
Action Level
Limit Level

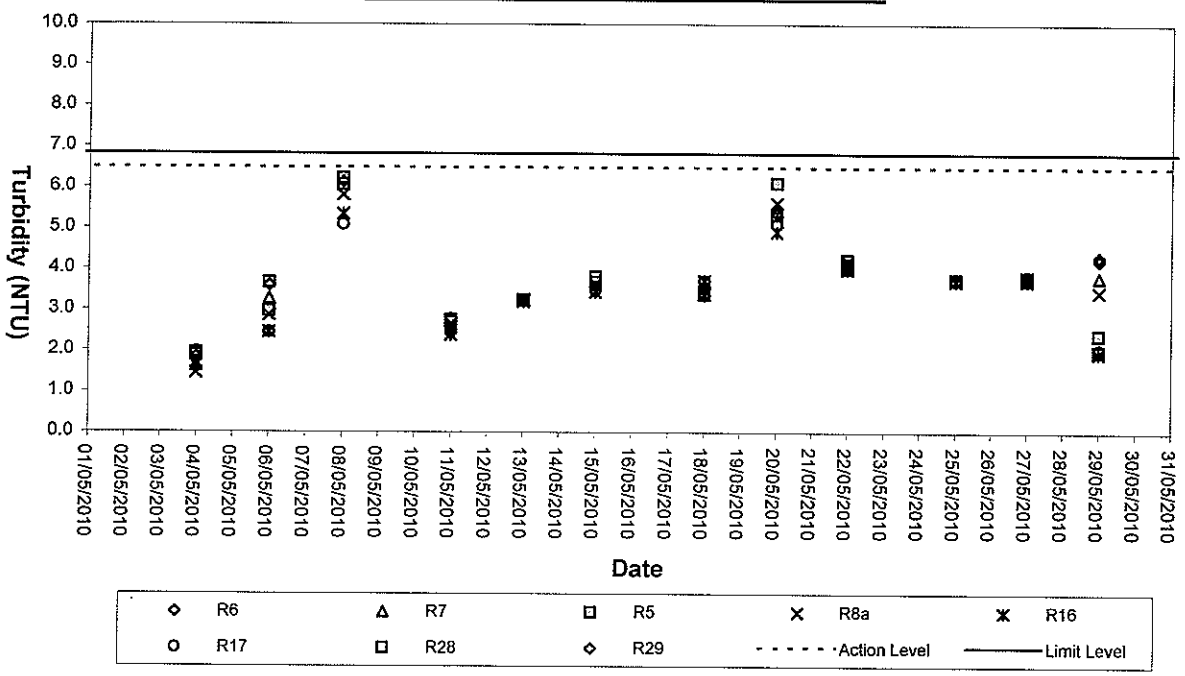

Dissolved Oxygen (Bottom) at Mid-Flood Tide
Dissolved oxygen (mg/L)
10.0
9.0
8.0
7.0
6.0
5.0
4.0
3.0
2.0
1.0
0.0
01/05/10
03/05/10
05/05/10
07/05/10
09/05/10
11/05/10
13/05/10
15/05/10
17/05/10
19/05/10
21/05/10
23/05/10
25/05/10
27/05/10
29/05/10
31/05/10
Date
R15
Action and Limit Level


Dissolved Oxygen (Bottom) at Mid-Ebb Tide
Dissolved oxygen (mg/L)
10.0
9.0
8.0
7.0
6.0
5.0
4.0
3.0
2.0
1.0
0.0
01/05/2010
03/05/2010
05/05/2010
07/05/2010
09/05/2010
11/05/2010
13/05/2010
15/05/2010
17/05/2010
19/05/2010
21/05/2010
23/05/2010
25/05/2010
27/05/2010
29/05/2010
31/05/2010
Date
R15
Action and Limit Level

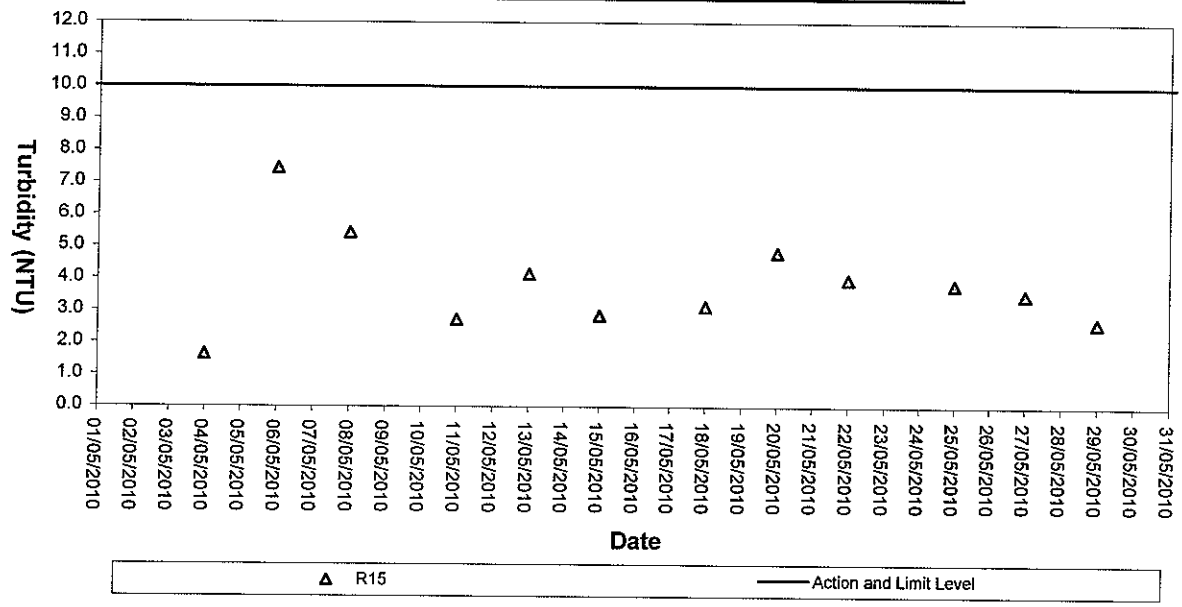
Turbidity (Depth-average) at Mid-Flood Tide



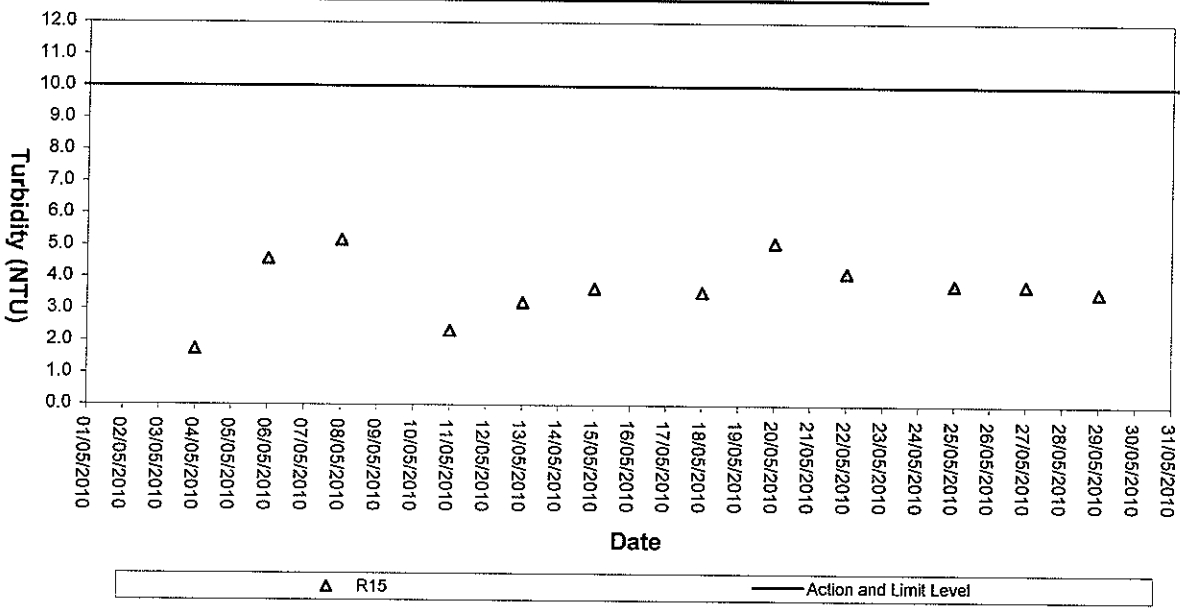
Turbidity(Depth-average) at Mid-Ebb Tide

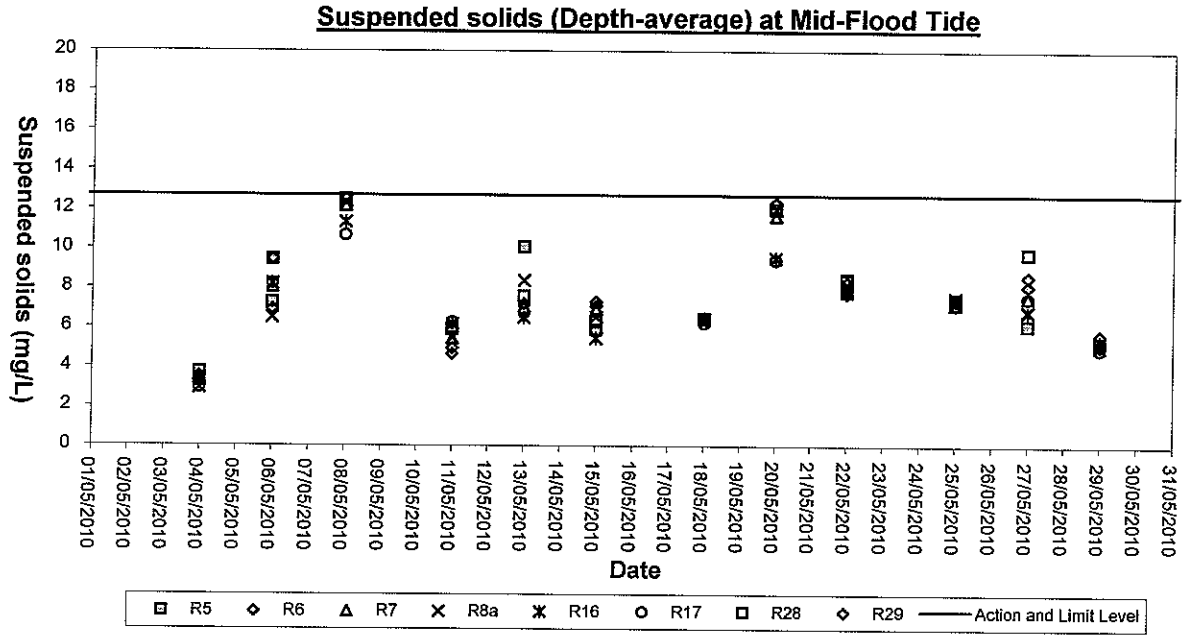


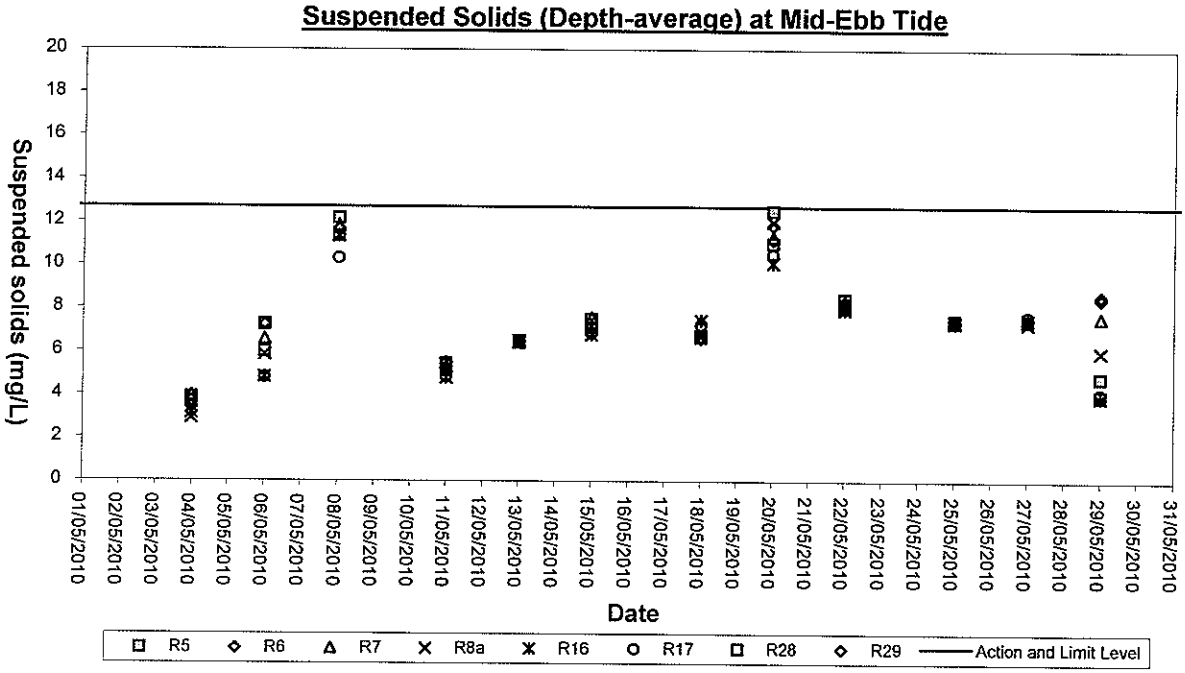
Turbidity (Depth-average) of R15 at Mid-Flood Tide

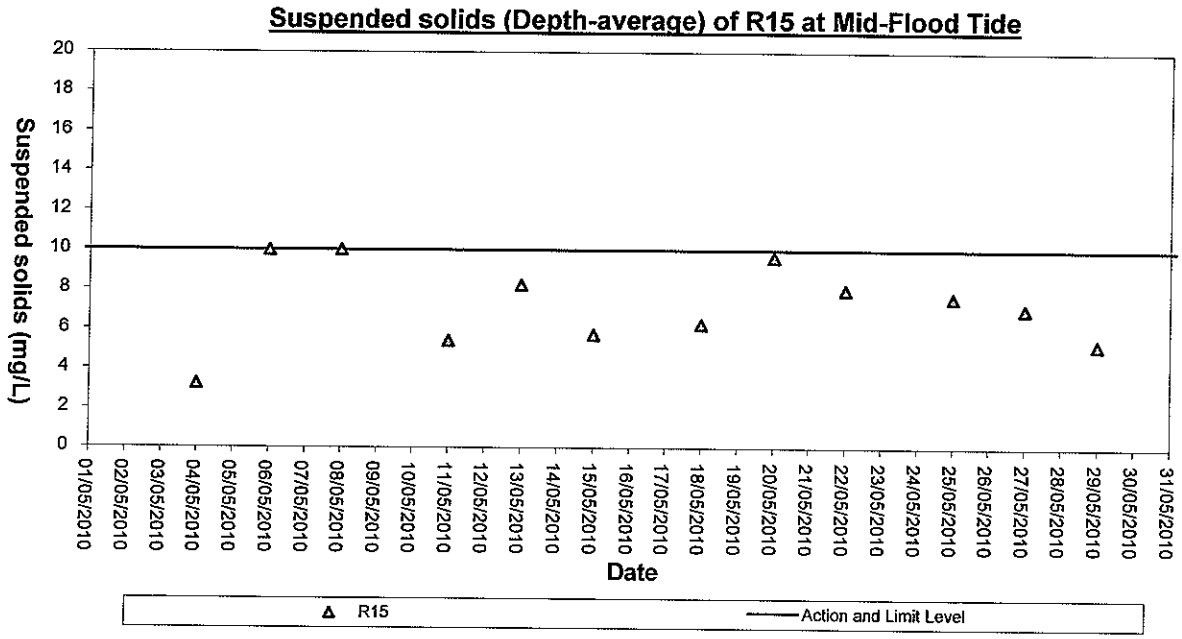


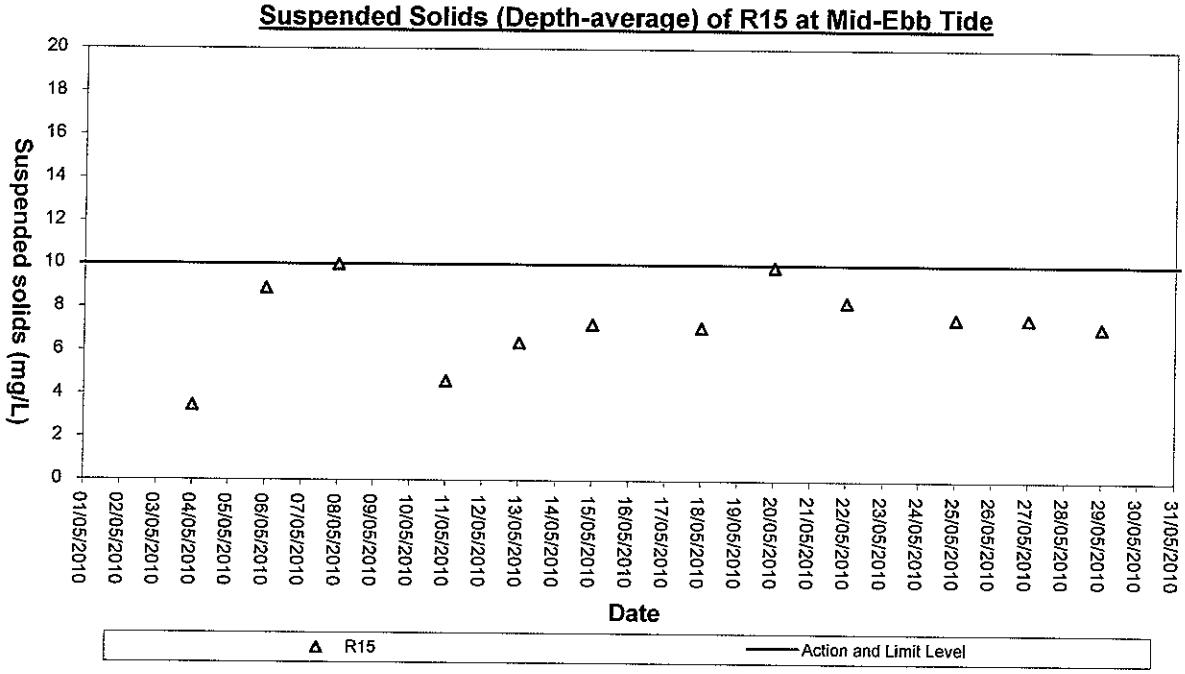
Turbidity(Depth-average) of R15 at Mid-Ebb Tide




Suspended solids (Depth-average) at Mid-Flood Tide
Suspended solids (mg/L)
Date
R5
R6
R7
R8a
R16
R17
R28
R29
Action and Limit Level


Suspended Solids (Depth-average) at Mid-Ebb Tide
Suspended solids (mg/L)
Date
R5
R6
R7
R8a
R16
R17
R28
R29
Action and Limit Level


Suspended solids (Depth-average) of R15 at Mid-Flood Tide
Suspended solids (mg/L)
Date
R15
Action and Limit Level


Suspended Solids (Depth-average) of R15 at Mid-Ebb Tide
Suspended solids (mg/L)
Date
R15
Action and Limit Level

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 @
04/05/10	101.2	R5FS	0.0	R8FS	102.1
	106.5	R8FM	0.0	R17FM	106.1
	94.1	R17FB	0.0	C1FB	97.9
	107.9	C2FS	0.0	C4FB	102.1
	99.6	R5ES	0.0	R8ES	94.2
	97.0	R8EM	0.0	R17EM	105.7
	93.5	R17EB	0.0	C1EB	102.1
	97.1	C2ES	0.0	C4EB	103.8
06/05/10	107.6	R5FS	0.0	R8FS	100.0
	105.6	R8FM	0.0	R17FM	93.8
	97.2	R17FB	5.7	C1FB	95.9
	95.2	C2FS	0.0	C4FB	108.3
	101.6	R5ES	0.0	R8ES	102.1
	100.6	R8EM	0.0	R17EM	102.0
	104.8	R17EB	0.0	C1EB	104.2
	103.7	C2ES	0.0	C4EB	102.0
08/05/10	98.2	R5FS	8.7	R8FS	96.0
	97.4	R8FM	8.7	R17FM	92.0
	96.2	R17FB	0.0	C1FB	109.8
	104.3	C2FS	8.0	C4FB	98.0
	97.5	R5ES	8.7	R8ES	100.0
	101.0	R8EM	8.7	R17EM	102.0
	103.7	R17EB	9.5	C1EB	106.4
	104.2	C2ES	8.7	C4EB	108.3
11/05/10	106.6	R5FS	0.0	R8FS	98.0
	92.2	R8FM	0.0	R17FM	103.8
	107.6	R17FB	8.0	C1FB	100.0
	98.8	C2FS	8.7	C4FB	96.2
	93.4	R5ES	0.0	R8ES	96.2
	107.9	R8EM	0.0	R17EM	94.3
	96.9	R17EB	0.0	C1EB	103.9
	103.6	C2ES	0.0	C4EB	106.4
13/05/10	93.7	R5FS	9.5	R8FS	94.1
	99.0	R8FM	0.0	R17FM	107.7
	100.6	R17FB	0.0	C1FB	107.8
	95.6	C2FS	6.9	C4FB	100.0
	94.4	R5ES	0.0	R8ES	110.4
	106.6	R8EM	0.0	R17EM	107.5
	93.8	R17EB	0.0	C1EB	98.0
	97.9	C2ES	0.0	C4EB	100.0
15/05/10	97.7	R5FS	8.0	R8FS	94.0
	105.1	R8FM	0.0	R17FM	95.9
	104.0	R17FB	0.0	C1FB	104.2
	97.2	C2FS	0.0	C4FB	96.1
	106.7	R5ES	0.0	R8ES	104.2
	103.1	R8EM	0.0	R17EM	98.0
	104.2	R17EB	6.9	C1EB	98.0
	103.1	C2ES	0.0	C4EB	104.0

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 @
18/05/10	92.7	R5FS	0.0	R8FS	97.9
	102.1	R8FM	0.0	R17FM	98.0
	100.2	R17FB	8.0	C1FB	104.0
	93.4	C2FS	0.0	C4FB	108.2
	103.4	R5ES	0.0	R8ES	103.9
	107.8	R8EM	7.4	R17EM	94.1
	92.6	R17EB	6.5	C1EB	100.0
	108.4	C2ES	0.0	C4EB	98.0
20/05/10	94.1	R5FS	8.7	R8FS	97.9
	96.9	R8FM	0.0	R17FM	102.0
	100.8	R17FB	5.7	C1FB	93.9
	97.6	C2FS	8.7	C4FB	105.9
	94.1	R5ES	8.0	R8ES	96.0
	99.8	R8EM	8.0	R17EM	100.0
	101.2	R17EB	0.0	C1EB	96.2
	102.6	C2ES	8.0	C4EB	98.0
22/05/10	104.5	R5FS	0.0	R8FS	110.2
	98.8	R8FM	0.0	R17FM	100.0
	99.2	R17FB	0.0	C1FB	100.0
	105.6	C2FS	0.0	C4FB	100.0
	92.8	R5ES	0.0	R8ES	102.1
	106.7	R8EM	6.1	R17EM	104.2
	97.6	R17EB	6.5	C1EB	102.0
	101.2	C2ES	6.5	C4EB	106.1
25/05/10	106.4	R5FS	0.0	R8FS	103.8
	102.9	R8FM	6.5	R17FM	98.1
	93.0	R17FB	0.0	C1FB	92.0
	93.9	C2FS	0.0	C4FB	94.2
	92.8	R5ES	0.0	R8ES	96.2
	93.0	R8EM	0.0	R17EM	96.1
	100.4	R17EB	6.1	C1EB	92.3
	104.3	C2ES	0.0	C4EB	93.6
27/05/10	92.7	R5FS	0.0	R8FS	98.0
	106.1	R8FM	6.9	R17FM	100.0
	105.5	R17FB	5.7	C1FB	108.2
	93.3	C2FS	0.0	C4FB	102.1
	95.7	R5ES	0.0	R8ES	97.9
	94.2	R8EM	6.9	R17EM	96.0
	108.1	R17EB	0.0	C1EB	94.1
	107.9	C2ES	0.0	C4EB	98.1
29/05/10	93.6	R5FS	0.0	R8FS	97.9
	97.1	R8FM	0.0	R17FM	93.9
	99.6	R17FB	8.7	C1FB	105.8
	105.1	C2FS	0.0	C4FB	100.0
	93.6	R5ES	0.0	R8ES	100.0
	99.0	R8EM	0.0	R17EM	101.9
	101.3	R17EB	0.0	C1EB	102.0
	97.9	C2ES	0.0	C4EB	96.2

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**
Action Level	1. Notify IEC and the Contractor. 2. Carry out investigation. 3. Report the results of investigation to IEC and the Contractor. 4. Discuss with the Contractor and formulate remedial measures. 5. Increase monitoring frequency to check mitigation measures.	1. Review with analysed results submitted by ET. 2. Review the proposed remedial measures by the Contractor and advise ER accordingly. 3. Supervise the implement of remedial measures.	1. Confirm receipt of notification of exceedance in writing. 2. Notify the Contractor. 3. Require the Contractor to propose remedial measures for the analysed noise problem. 4. Ensure remedial measures are properly implemented.	1. Submit noise mitigation proposals to IEC. 2. Implement noise mitigation proposals.
Limit Level	1. Identify the source. 2. Notify IEC, ER, EPD and the Contractor. 3. Repeat measurement to confirm findings. 4. Increase monitoring frequency. 5. Carry out analysis of Contractor's working procedures to determine possible mitigation to be implemented. 6. Inform IEC, ER, and EPD the causes & actions taken for the exceedances. 7. Assess effectiveness of the Contractor's remedial actions and keep IEC, EPD and ER informed of the results. 8. If exceedance stops, cease additional monitoring.	1. Discuss amongst ER, ET Leader and the Contractor on the potential remedial actions. 2. Review the Contractor's remedial actions whenever necessary to assure their effectiveness and advise ER accordingly. 3. Supervise the implementation of remedial measures.	1. Confirm receipt of notification of exceedance in writing. 2. Notify the Contractor. 3. Require the Contractor to propose remedial measures for the analysed noise problem. 4. Ensure remedial measures are properly implemented. 5. If exceedance continues, consider what activity of the work is responsible and instruct the Contractor to stop that activity of work until the exceedance is abated.	1. Take immediate action to avoid further exceedance. 2. Submit proposals for remedial actions to IEC within 3 working days of notification. 3. Implement the agreed proposals. 4. Resubmit proposals if problem still not under control. 5. Stop the relevant activity of works as determined by the ER until the exceedance is abated.

Event and Action Plan for Water Quality for Construction Phase

Event	Action			
	ET Leader	**IEC**	**ER**	**Contractor**
Action Level				
Exceedance for one sample	1. Repeat in-situ measurement to confirm finding; 2. Identify source(s) of impact; 3. Inform IEC and Contractor; 4. Check monitoring data, all plant, equipment and Contractor's working methods; 5. Discuss mitigation measures with IEC and Contractor; and 6. Repeat measurement on next day of exceedance.	1. Discuss with ET and Contractor on the mitigation measures; 2. Review proposals on mitigation measures submitted by Contractor and advise the ER accordingly; and 3. Assess the effectiveness of the implemented mitigation measures.	1. Discuss with IEC on the proposed mitigation measures; and 2. Make agreement on the mitigation measures to be implemented.	1. Inform the ER and confirm notification of the non-compliance in writing; 2. Rectify unacceptable practice; 3. Check all plant and equipment; 4. Consider changes of working methods; 5. Discuss with ET and IEC and propose mitigation measures to IEC and ER; and 6. Implement the agreed mitigation measures.
Exceedance for two or more consecutive samples	1. Repeat in-situ measurement to confirm finding; 2. Identify source(s) of impact; 3. Inform IEC and Contractor; 4. Check monitoring data, all plant, equipment and Contractor's working methods; 5. Discuss mitigation measures with IEC and Contractor; 6. Ensure mitigation measures are implemented; 7. Prepare to increase the monitoring frequency to daily; and 8. Repeat measurement on next day of exceedance.	1. Discuss with ET and Contractor on the mitigation measures; 2. Review proposals on mitigation measures submitted by Contractor and advise the ER accordingly; and 3. Assess the effectiveness of the implemented mitigation measures.	1. Discuss with IEC on the proposed mitigation measures; 2. Make agreement on the mitigation measures to be implemented; and 3. Assess the effectiveness of the implemented mitigation measures.	1. Inform the Engineer and confirm notification of the non-compliance in writing; 2. Rectify unacceptable practice; 3. Check all plant and equipment; 4. Consider changes of working methods; 5. Discuss with ET and IEC and propose mitigation measures to IEC and ER within 3 working days; and 6. Implement the agreed mitigation measures.

Event and Action Plan for Water Quality for Construction Phase

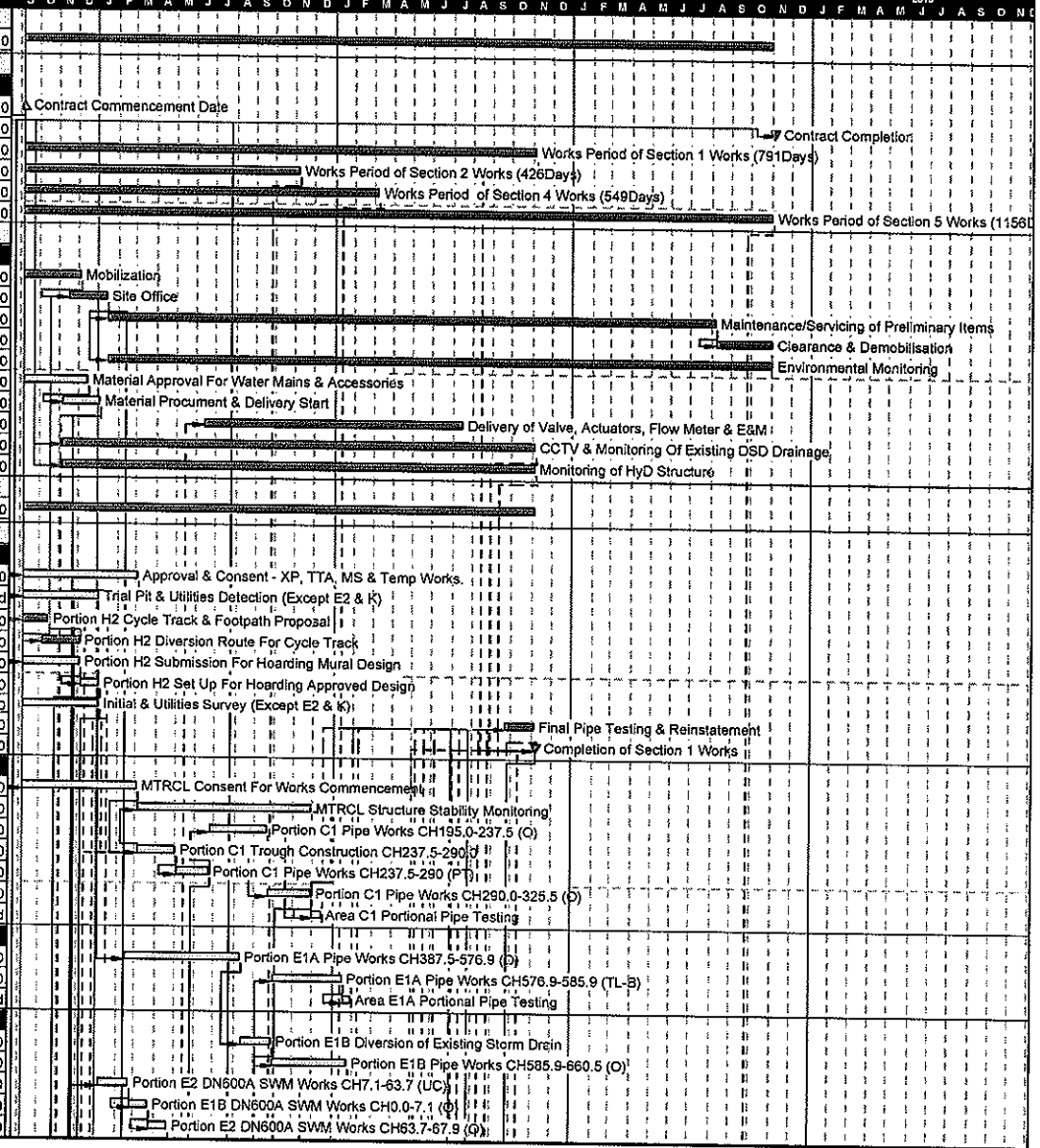
Event	Action			
	ET Leader	IEC	ER	Contractor
Limit Level				
Exceedance for one sample	1. Repeat in-situ measurement to confirm finding; 2. Identify source(s) of impact; 3. Inform IEC, Contractor and EPD; 4. Check monitoring data, all plant, equipment and Contractor's working methods; 5. Discuss mitigation measures with IEC, ER and Contractor; 6. Ensure mitigation measures are implemented; and 7. Increase the monitoring frequency to daily until no exceedance of Limit level.	1. Discuss with ET and Contractor on the mitigation measures; 2. Review proposals on mitigation measures submitted by Contractor and advise the ER accordingly; and 3. Assess the effectiveness of the implemented mitigation measures.	1. Discuss with IEC, ET and Contractor on the proposed mitigation measures; and 2. Request Contractor to critically review the working methods; 3. Make agreement on the mitigation measures to be implemented; and 4. Assess the effectiveness of the implemented mitigation measures.	1. Inform the Engineer and confirm notification of the non-compliance in writing; 2. Rectify unacceptable practice; 3. Check all plant and equipment; 4. Consider changes of working methods; 5. Discuss with ET and IEC and ER and propose mitigation measures to IEC and ER within 3 working days; and 6. Implement the agreed mitigation measures.
Exceedance for two or more consecutive samples	1. Repeat in-situ measurement to confirm finding; 2. Identify source(s) of impact; 3. Inform IEC, Contractor and EPD; 4. Check monitoring data, all plant, equipment and Contractor's working methods; 5. Discuss mitigation measures with IEC, ER and Contractor; 6. Ensure mitigation measures are implemented; and 7. Increase the monitoring frequency to daily until no exceedance of Limit level for two consecutive days.	1. Discuss with ET and Contractor on the mitigation measures; 2. Review proposals on mitigation measures submitted by Contractor and advise the ER accordingly; and 3. Assess the effectiveness of the implemented mitigation measures.	1. Discuss with IEC, ET and Contractor on the proposed mitigation measures; and 2. Request Contractor to critically review the working methods; 3. Make agreement on the mitigation measures to be implemented; 4. Assess the effectiveness of the implemented mitigation measures; and 5. Consider and instruct, if necessary, the Contractor to slow down or to stop all or part of the marine work until no exceedance of Limit Level.	1. Inform the ER and confirm notification of the non-compliance in writing; 2. Rectify unacceptable practice; 3. Check all plant and equipment; 4. Consider changes of working methods; 5. Discuss with ET and IEC and ER and propose mitigation measures to IEC and ER within 3 working days; 6. Implement the agreed mitigation measures; and 7. As directed by the Engineer, to slow down or to stop all or part of the marine work or construction activities.

Appendix E

Work Programme

Contract No.9/WSD/08
Laying of Western Cross Habour Main & Associated Land Mains from West Kowloon to Sai Ying Pun

Act ID	Description	Orig Dur	Early Start	Early Finish	Late Start	Late Finish	Total Float	Free Float
General Information								
		1156	07SEP09	05NOV12	07SEP09	05NOV12	0	0
Key Dates								
KD-1010	Contract Commencement Date	0	07SEP09		07SEP09		0	0
KD-1020	Contract Completion	0		05NOV12		05NOV12	0	0
KD-1030	Works Period of Section 1 Works (791Days)	791	07SEP09	06NOV11	07SEP09	06NOV11	0	0
KD-1040	Works Period of Section 2 Works (426Days)	426	07SEP09	06NOV10	07SEP09	06NOV10	0	0
KD-1050	Works Period of Section 4 Works (549Days)	549	07SEP09	09MAR11	07SEP09	09MAR11	0	0
KD-1060	Works Period of Section 5 Works (1156Days)	1156	07SEP09	05NOV12	07SEP09	05NOV12	0	0
Preliminaries								
B1-1000	Mobilization	90	07SEP09	05DEC09	07SEP09	05DEC09	0	0
B1-1110	Site Office	60	16NOV09	14JAN10	16NOV09	14JAN10	0	0
B1-1120	Maintenance/Servicing of Preliminary Items	938	15JAN10	09AUG12	15JAN10	09AUG12	0	0
B1-1130	Clearance & Demobilisation	88	10AUG12	05NOV12	10AUG12	05NOV12	0	0
B1-1140	Environmental Monitoring	1026	15JAN10	05NOV12	15JAN10	05NOV12	0	0
B1-1150	Material Approval For Water Mains & Accessories	100	07SEP09	15DEC09	21SEP09	29DEC09	14d	0
B1-1160	Material Procument & Delivery Start	60	06NOV09	04JAN10	20NOV09	18JAN10	14d	0
B1-1160B	Delivery of Valve, Actuators, Flow Meter & E&M	400	14JUN10	18JUL11*	14JUN10	18JUL11*	0	0
B1-1170	CCTV & Monitoring Of Existing DSD Drainage	731	06NOV09	06NOV11	06NOV09	06NOV11	0	0
B1-1180	Monitoring of HyD Structure	731	06NOV09	06NOV11	06NOV09	06NOV11	0	0
Section 1								
		791	07SEP09	06NOV11	07SEP09	06NOV11	0	0
Land Works								
General								
S1-1010	Approval & Consent - XP, TTA, MS & Temp Works.	180	07SEP09	05MAR10	10SEP09	08MAR10	3d	0
S1-1020	Trial Pit & Utilities Detection (Except E2 & K)	120	07SEP09	04JAN10	09NOV09	08MAR10	63d	40d
S1-1030	Portion H2 Cycle Track & Footpath Proposal	40	07SEP09	16OCT09	07SEP09	16OCT09	0	0
S1-1040	Portion H2 Diversion Route For Cycle Track	60	07OCT09	05DEC09	07OCT09	05DEC09	0	0
S1-1050	Portion H2 Submission For Hoarding Mural Design	90	07SEP09	05DEC09	17SEP09	15DEC09	10d	0
S1-1060	Portion H2 Set Up For Hoarding Approved Design	30	06DEC09	04JAN10	16DEC09	14JAN10	10d	0
S1-1080	Initial & Utilities Survey (Except E2 & K)	120	07SEP09	04JAN10	09NOV09	08MAR10	63d	0
S1-2010	Final Pipe Testing & Reinstatement	45	23SEP11	06NOV11	23SEP11	06NOV11	0	0
S1-2020	Completion of Section 1 Works	0		06NOV11*		06NOV11*	0	0
Portion C1								
S1-3010	MTRCL Consent For Works Commencement	180	07SEP09	05MAR10	18MAR10	13SEP10	192d	0
S1-3020	MTRCL Structure Stability Monitoring	270	06MAR10	30NOV10	13DEC10	08SEP11	282d	0
S1-3030	Portion C1 Pipe Works CH195.0-237.5 (O)	90	24JUN10	21SEP10	21FEB11	21MAY11	242d	0
S1-3040	Portion C1 Trough Construction CH237.5-290.0	60	06MAR10	04MAY10	14SEP10	12NOV10	192d	0
S1-3050	Portion C1 Pipe Works CH237.5-290 (PT)	50	05MAY10	23JUN10	13NOV10	01JAN11	192d	0
S1-3060	Portion C1 Pipe Works CH290.0-325.5 (O)	70	22SEP10	30NOV10	22MAY11	30JUL11	242d	0
S1-3070	Area C1 Portional Pipe Testing	14	01DEC10	14DEC10	09SEP11	22SEP11	282d	282d
Portion E1A								
S1-4020	Portion E1A Pipe Works CH387.5-576.9 (O)	180	14FEB10	12AUG10	29SEP10	27MAR11	227d	0
S1-4030	Portion E1A Pipe Works CH576.9-585.9 (TL-B)	108	01OCT10	16JAN11	24MAY11	08SEP11	235d	0
S1-4050	Area E1A Portional Pipe Testing	14	17JAN11	30JAN11	09SEP11	22SEP11	235d	235d
Portion E1B + E2 SWM								
S1-4010	Portion E1B Diversion of Existing Storm Drain	50	13AUG10	01OCT10	28MAR11	16MAY11	227d	0
S1-4040	Portion E1B Pipe Works CH585.9-660.5 (O)	115	02OCT10	24JAN11	17MAY11	08SEP11	227d	0
S1-4410	Portion E2 DN600A SWM Works CH7.1-63.7 (UC)	50	05JAN10	23FEB10	26JUL10	13SEP10	202d	0
S1-4420	Portion E1B DN600A SWM Works CH0.0-7.1 (O)	30	24FEB10	25MAR10	14SEP10	13OCT10	202d	0
S1-4430	Portion E2 DN600A SWM Works CH63.7-67.9 (O)	30	26MAR10	24APR10	14OCT10	12NOV10	202d	0



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Data date	07SEP09
Run date	02NOV09
Page number	1A
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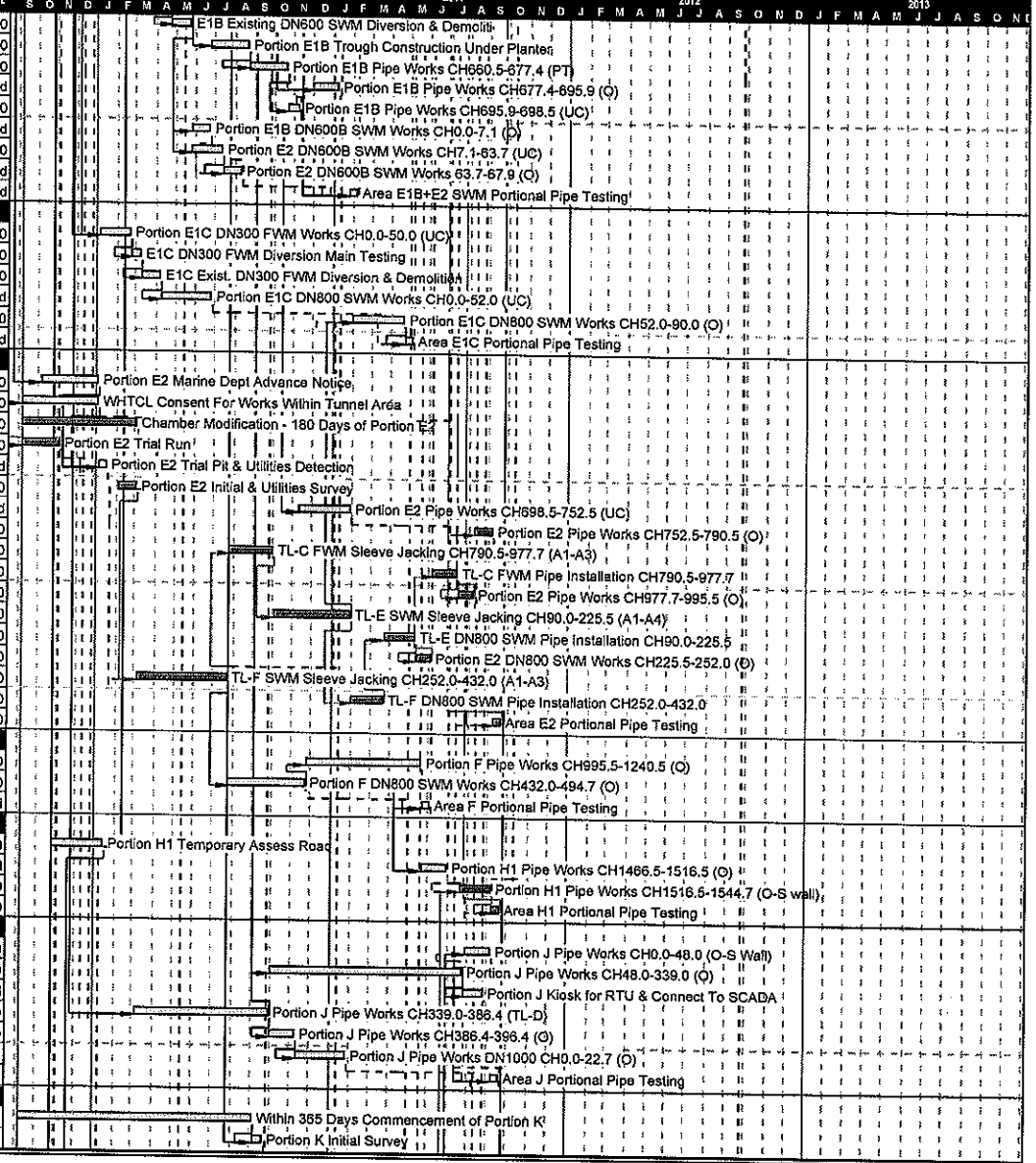
Wo Hing - Penta-Ocean Joint Venture

Master Programme Rev. B1

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

Contract No.9/WSD/08
Laying of Western Cross Habour Main & Associated Land Mains from West Kowloon to Sai Ying Pun

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	02JAN11	02MAR11	192d	0
S1-4450	Portion E1B Pipe Works CH660.5-677.4 (PT)	60	23AUG10	21OCT10	03MAR11	01MAY11	192d	0
S1-4460	Portion E1B Pipe Works CH677.4-695.9 (O)	40	01DEC10	09JAN11	31JUL11	08SEP11	242d	15d
S1-4470	Portion E1B Pipe Works CH695.9-698.5 (UC)	20	22OCT10	10NOV10	02MAY11	21MAY11	192d	0
S1-4480	Portion E1B DN600B SWM Works CH0.0-7.1 (O)	30	25MAY10	23JUN10	02JAN11	31JAN11	222d	20d
S1-4490	Portion E2 DN600B SWM Works CH7.1-63.7 (UC)	50	25MAY10	13JUL10	13DEC10	31JAN11	202d	0
S1-4500	Portion E2 DN600B SWM Works 63.7-67.9 (O)	30	14JUL10	12AUG10	01FEB11	02MAR11	202d	10d
S1-4510	Area E1B+E2 SWM Portional Pipe Testing	14	25JAN11	07FEB11	09SEP11	22SEP11	227d	227d
Portion E1C + E1D								
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	09MAR10	17FEB11	02MAR11	358d	0
S1-4730	E1C Exist. DN300 FWM Diversion & Demolition	30	10MAR10	08APR10	03MAR11	01APR11	358d	0
S1-4740	Portion E1C DN800 SWM Works CH0.0-52.0 (UC)	80	09APR10	27JUN10	02APR11	20JUN11	358d	218d
S1-4750	Portion E1C DN800 SWM Works CH52.0-90.0 (O)	80	01FEB11	21APR11	21JUN11	08SEP11	140d	0
S1-4760	Area E1C Portional Pipe Testing	14	22APR11	05MAY11	09SEP11	22SEP11	140d	140d
Portion E2								
S1-5010	Portion E2 Marine Dept Advance Notice	90	07OCT09	04JAN10	21NOV09	18FEB10	45d	0
S1-5020	WHTCL 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 Pit & 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 CH698.5-752.5 (UC)	80	11NOV10	29JAN11	22MAY11	09AUG11	192d	192d
S1-5080	Portion E2 Pipe Works CH752.5-790.5 (O)	30	10AUG11	08SEP11	10AUG11	08SEP11	0	0
S1-5090	TL-C FWM Sleeve Jacking CH790.5-977.7 (A1-A3)	70	26JUL10	03OCT10	26JUL10	03OCT10	0	0
S1-5095	TL-C FWM Pipe Installation CH790.5-977.7	40	06JUN11	15JUL11	06JUN11	15JUL11	0	0
S1-5100	Portion E2 Pipe Works CH977.7-995.5 (O)	25	16JUL11	09AUG11	16JUL11	09AUG11	0	0
S1-5110	TL-E SWM Sleeve Jacking CH90.0-225.5 (A1-A4)	120	04OCT10	31JAN11	04OCT10	31JAN11	0	0
S1-5115	TL-E DN800 SWM Pipe Installation CH90.0-225.5	50	23MAR11	11MAY11	23MAR11	11MAY11	0	0
S1-5120	Portion E2 DN800 SWM Works CH225.5-252.0 (O)	25	12MAY11	05JUN11	12MAY11	05JUN11	0	0
S1-5130	TL-F SWM Sleeve Jacking CH252.0-432.0 (A1-A3)	142	06MAR10	25JUL10	06MAR10	25JUL10	0	0
S1-5135	TL-F DN800 SWM Pipe Installation CH252.0-432.0	50	01FEB11	22MAR11	01FEB11	22MAR11	0	0
S1-5140	Area E2 Portional Pipe Testing	14	09SEP11	22SEP11	09SEP11	22SEP11	0	0
Portion F								
S1-6010	Portion F Pipe Works CH995.5-1240.5 (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	09SEP11	22SEP11	110d	110d
Portion H1								
S1-7010	Portion H1 Temporary Assess Road	80	27OCT09	14JAN10	31OCT09	18JAN10	4d	0
S1-7020	Portion H1 Pipe Works CH1466.5-1516.5 (O)	40	22MAY11	30JUN11	11JUN11	20JUL11	20d	20d
S1-7030	Portion H1 Pipe Works CH1516.5-1544.7 (O-S wall)	50	21JUL11	08SEP11	21JUL11	08SEP11	0	0
S1-7040	Area H1 Portional Pipe Testing	14	09SEP11	22SEP11	09SEP11	22SEP11	0	0
Portion J								
S1-8010	Portion J Pipe Works CH0.0-48.0 (O-S Wall)	40	29JUL11	06SEP11	31JUL11	08SEP11	2d	0
S1-8020	Portion J Pipe Works CH48.0-339.0 (O)	300	01OCT10	27JUL11	04OCT10	30JUL11	3d	0
S1-8030	Portion J Kiosk for RTU & Connect To SCADA	30	28JUL11	26AUG11	10AUG11	08SEP11	13d	11d
S1-8040	Portion J Pipe Works CH339.0-386.4 (TL-D)	209	06MAR10	30SEP10	09MAR10	03OCT10	3d	0
S1-8050	Portion J Pipe Works CH386.4-396.4 (O)	40	01OCT10	09NOV10	12MAY11	20JUN11	223d	0
S1-8060	Portion J Pipe Works DN1000 CH0.0-22.7 (O)	80	10NOV10	28JAN11	21JUN11	08SEP11	223d	221d
S1-8070	Area J Portional Pipe Testing	14	07SEP11	20SEP11	09SEP11	22SEP11	2d	2d
Portion K								
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



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Finish date	05NOV12
Data date	07SEP09
Run date	02NOV09
Page number	2A
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Summary bar
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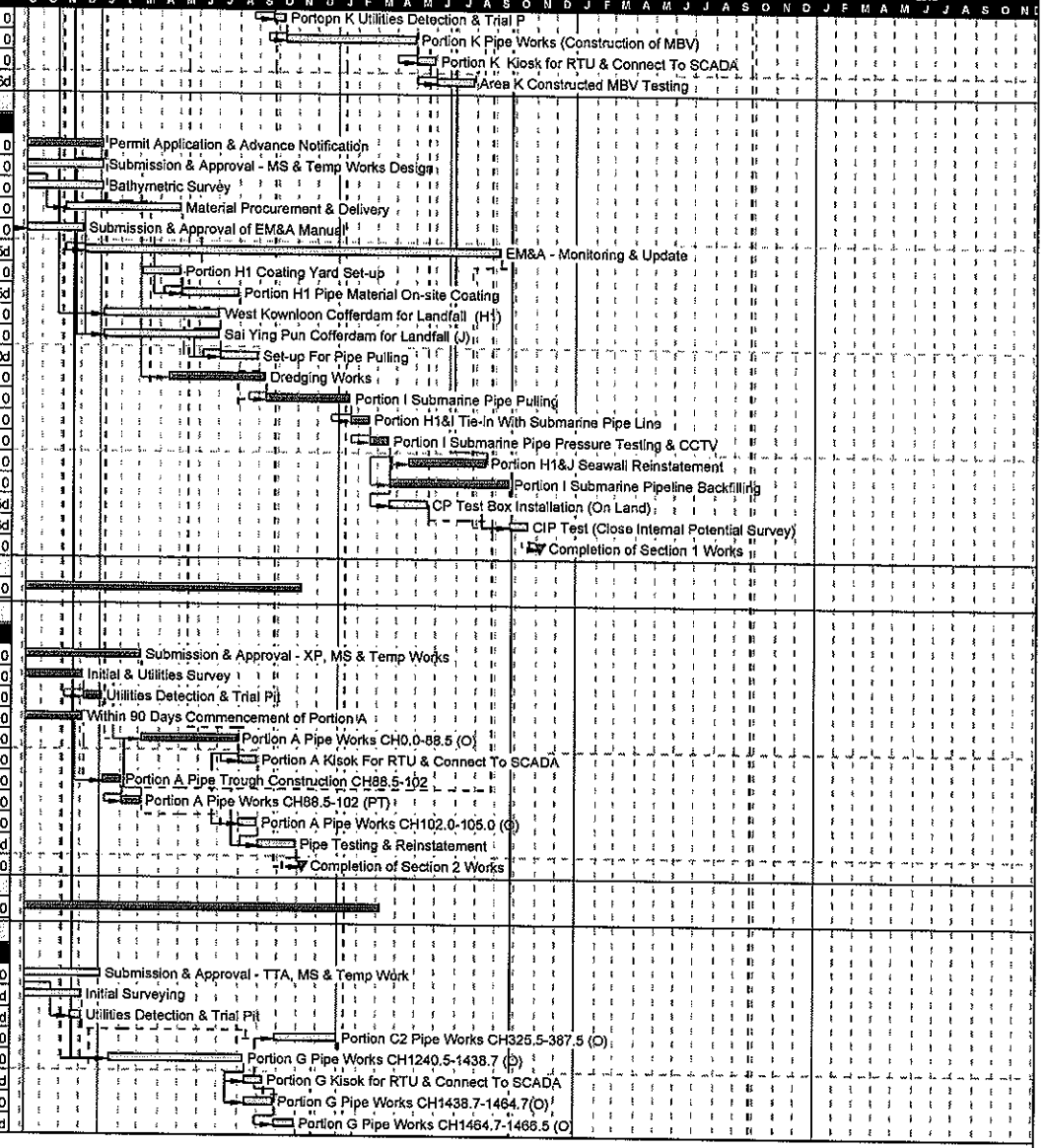
Finish milestone point

Contract No.9/WSD/08

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

Act ID	Description	Orig Dur	Early Start	Early Finish	Late Start	Late Finish	Total Float	Free Float
S1-9030	Portopn K Utilities Detection & Trial Pit	20	22SEP10	11OCT10	17NOV10	06DEC10	56d	0
S1-9040	Portion K Pipe Works (Construction of MBV)	200	12OCT10	29APR11	07DEC10	24JUN11	56d	0
S1-9050	Portion K Kiosk for RTU & Connect To SCADA	30	30APR11	29MAY11	25JUN11	24JUL11	56d	0
S1-9060	Area K Constructed MBV Testing	60	30MAY11	28JUL11	25JUL11	22SEP11	56d	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	17SEP09	14JAN10	10d	0
S1-M1030	Material Procurement & Delivery	180	06NOV09	04MAY10	01DEC09	29MAY10	25d	0
S1-M1040	Submission & Approval of EM&A Manual	90	07SEP09	05DEC09	08OCT09	05JAN10	31d	0
S1-M1050	EM&A - Monitoring & Update	640	06DEC09	06SEP11	06JAN10	07OCT11	31d	15d
S1-M1060	Portion H1 Coating Yard Set-up	60	06MAR10	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 Landfall (H1)	180	05JAN10	03JUL10	15JAN10	13JUL10	10d	0
S1-M1090	Sai Ying Pun Cofferdam for Landfall (J)	180	05JAN10	03JUL10	15JAN10	13JUL10	10d	0
S1-M2060	Set-up For Pipe Pulling	60	04JUL10	01SEP10	14JUL10	11SEP10	10d	10d
S1-M2070	Dredging Works	150	15APR10	11SEP10	15APR10	11SEP10	0	0
S1-M2080	Portion I Submarine Pipe Pulling	130	12SEP10	19JAN11	12SEP10	19JAN11	0	0
S1-M2090	Portion H1&I Tie-in With Submarine Pipe Line	30	20JAN11	18FEB11	20JAN11	18FEB11	0	0
S1-M2100	Portion I Submarine Pipe Pressure Testing & CCTV	30	19FEB11	20MAR11	19FEB11	20MAR11	0	0
S1-M2110	Portion H1&J Seawall Reinstatement	120	20APR11	17AUG11	20APR11	17AUG11	0	0
S1-M2120	Portion I Submarine Pipeline Backfilling	185	21MAR11	21SEP11	21MAR11	21SEP11	0	0
S1-M2130	CP Test Box Installation (On Land)	60	21MAR11	19MAY11	25JUL11	22SEP11	126d	125d
S1-M2140	CIP Test (Close Internal Potential Survey)	30	22SEP11	21OCT11	08OCT11	06NOV11	16d	16d
S1-M2150	Completion of Section 1 Works	0		06NOV11*		06NOV11*	0	0
Section 2								
		426	07SEP09	06NOV10	07SEP09	06NOV10	0	0
Land Works								
S2-1010	Submission & Approval - XP, MS & Temp Works	180	07SEP09	05MAR10	07SEP09	05MAR10	0	0
S2-1020	Initial & Utilities Survey	90	07SEP09	05DEC09	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	90	07SEP09	05DEC09*	07SEP09	05DEC09*	0	0
S2-2010	Portion A Pipe Works CH0.0-88.5 (O)	150	06MAR10	02AUG10	06MAR10	02AUG10	0	0
S2-2020	Portion A Kisok 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	05MAR10	04FEB10	05MAR10	0	0
S2-2050	Portion A Pipe Works CH102.0-105.0 (O)	30	03AUG10	01SEP10	09AUG10	07SEP10	6d	0
S2-2060	Pipe Testing & Reinstatement	60	02SEP10	31OCT10	08SEP10	06NOV10	6d	6d
S2-3010	Completion of Section 2 Works	0		06NOV10*		06NOV10*	0	0
Section 4								
		549	07SEP09	09MAR11	21OCT09	09MAR11	0	0
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	16NOV09	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	16AUG10	4d	0
S4-2030	Portion G Kisok for RTU & Connect To SCADA	30	13AUG10	11SEP10	08FEB11	09MAR11	179d	179d
S4-2040	Portion G Pipe Works CH1438.7-1464.7(O)	45	13AUG10	26SEP10	17AUG10	30SEP10	4d	0
S4-2050	Portion G Pipe Works CH1464.7-1466.5 (O)	35	27SEP10	31OCT10	05DEC10	08JAN11	69d	65d



Start date	07SEP09
Finish date	05NOV12
Data date	07SEP09
Run date	02NOV09
Page number	3A
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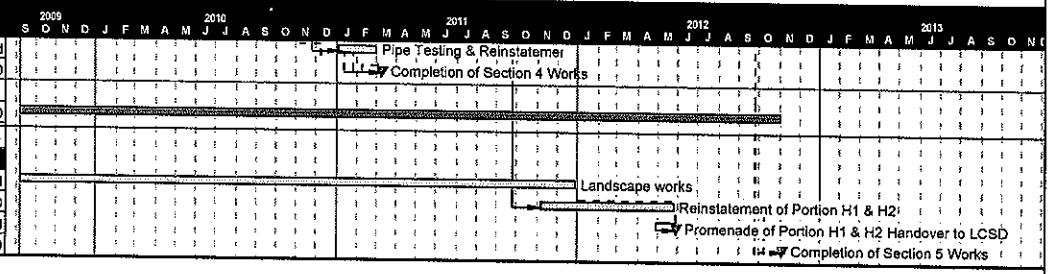
Contract No.9/WSD/08
Laying of Western Cross Habour Main & Associated Land Mains from West Kowloon to Sai Ying Pun

Act ID	Description	Orig Dur	Early Start	Early Finish	Late Start	Late Finish	Total Float	Free Float
S4-3010	Pipe Testing & Reinstatement	60	05JAN11	05MAR11	09JAN11	09MAR11	4d	4d
S4-3020	Completion of Section 4 Works	0		09MAR11 *		09MAR11 *	0	0
Section 5								
		1156	07SEP09	05NOV12	14JUL10	05NOV12	0	0
Landscape Softworks and Establishment Works								
B9-9010	Landscape works	846	07SEP09	31DEC11	14JUL10	05NOV12	310d	310d
B9-9020	Reinstatement of Portion H1 & H2	203	07NOV11	27MAY12	17APR12	05NOV12	162d	0
B9-9030	Promenade of Portion H1 & H2 Handover to LCSD	0		27MAY12		05NOV12	162d	162d
B9-9300	Completion of Section 5 Works	0		05NOV12 *		05NOV12 *	0	0



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Finish date	05NOV12
Data date	07SEP09
Run date	02NOV09
Page number	4A
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Early bar
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Appendix F

ET Weekly Site Inspection Records

WEEKLY SITE INSPECTION CHECKLIST

Inspection Date	06/5/2010	Inspected by	RE	IEC	Contractor	ET
Time	10:30	Name	Nelson Chan	/	Tony Tang	Linda Law

Weather
Condition : Sunny / ~~Fine~~ / Overcast / Drizzle / Rain / Storm / Hazy
Wind : Calm / Light / Breeze / Strong

Temperature : 28 °C
Humidity : High / Moderate / Low

Environmental Checklist	Implementation Stages* Yes	No	N/A	Remark
Fugitive Dust Emission				
▪ 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 scaled 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	N/A	
Noise Impact				
▪ 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.	√			
Water Quality				
Mitigation Measures for Dredging				
▪ Dredging should be undertaken using one grab dredger only with a maximum production rate of 4,000m^3 per day.	√			
▪ 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	N/A	
Water Quality				
Mitigation Measures for other Construction Activities				
▪ Sedimentation tanks with sufficient capacity, constructed from pre-formed individual cells of approximately 6 to 8 m^3 capacities, are recommended as a general mitigation measure which can be used for settling surface runoff prior to disposal. The system capacity should be flexible and able to handle multiple inputs from a variety of sources and suited to applications where the influent is pumped	√			
▪ 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 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.	√			
▪ 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.	√			
▪ 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	√			
▪ 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	√			
▪ Portable chemical toilets should be used to handle construction workforce sewage prior to discharge to the existing trunk sewer. Sufficient numbers of portable toilets shall be provided by a licensed contractor to serve the construction workers. The Contractor shall also be responsible for waste disposal and maintenance practices.	√			
▪ Construction site runoff should be prevented or minimised in accordance with the guidelines stipulated in the EPD's Practice Note for Professional Persons, Construction Site Drainage (ProPECC PN 1/94). All discharges from the construction site should be controlled to comply with the standards for effluents discharged into the Victoria Harbour WCZ under the TM-DSS.	√			
Waste Management				
C&D Materials				
▪ Excavated materials should be reused on-site as backfilling material and for landscaping works as far as practicable.	√			
▪ C&D material generated from excavation works should be disposed of at public fill reception facilities for other beneficial uses.	√			
▪ A recording system for the amount of wastes generated, recycled and disposed (including the disposal sites) should be proposed	√			
▪ A recording system for the amount of wastes generated, recycled and disposed (including the disposal sites) should be used, e.g. trip ticket system for chemical waste disposal. Quantities could be determined by weighing each load or other suitable methods.	√			
Chemical Waste				
▪ Good quality containers compatible with the chemical wastes should be used, and incompatible chemicals should be stored separately.	√			
▪ Appropriate labels should be securely attached on each chemical waste container indicating the corresponding chemical characteristics of the chemical waste, such as explosive, flammable, oxidizing, irritant, toxic, harmful, corrosive, etc.	√			
▪ The Contractor shall use a licensed collector to transport and dispose of the chemical wastes, to either the approved Chemical Waste Treatment Centre, or another licensed facility.	√			

Environmental Checklist	Implementation Stages*			Remark
	Yes	No	N/A	
Waste Management				
General Refuse				
▪ General refuse should be stored in enclosed bins or compaction units separate from C&D material.		√		Item 1
▪ 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.	√			
Marine Dredged Sediment (During transportation and disposal)				
▪ 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.	√			
Good Site Practices				
▪ 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	√			
Waste Reduction Measures				
▪ 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	N/A	
Marine Ecology				
▪ Use of one grab dredger only with a maximum production rate of 4,000m^3 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.	√			
Good Site Practices				
• 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.	√			
▪ 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	No labels were found post on the bins for C&D waste (e.g. steel bar and general refuse) storage on the grab dredger.	Continue Follow-up	Appropriate labelled bins should be provided to segregate the waste.	100506_001	18/05/10

Remark

	Name	Signature	Date
Inspected by	Linda Law		06 May 2010

Photos

Photo 100506_001

WEEKLY SITE INSPECTION CHECKLIST

Inspection Date	11/5/10	Inspected by	RE 11/5/2010	IEC 11/5/2010	Contractor	ET
Time	10:15	Name	Nelson Chan	Justin Ye	Joanne Ng	

Weather Condition : Cloudy ~~Sunny / Fine / Overcast / Drizzle / Rain / Storm / Hazy~~
Wind : Calm / Light / Breeze / Strong (Breeze circled)

Temperature : 27°C
Humidity : High / Moderate / Low (High circled)

Environmental Checklist	Implementation Stages*				Remark
	Yes	No	Not Obs	N/A	
Fugitive Dust Emission					
▪ 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 scaled 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	
Noise Impact					
▪ 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.	√				
Water Quality					
Mitigation Measures for Dredging					
▪ Dredging should be undertaken using one grab dredger only with a maximum production rate of 4,000m^3 per day.	√				
▪ Deployment of frame type silt curtain should be fully enclose the grab while dredging works are in progress.		√			Item 2
▪ 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	
Water Quality					
Mitigation Measures for other Construction Activities					
▪ Sedimentation tanks with sufficient capacity, constructed from pre-formed individual cells of approximately 6 to 8 m^3 capacities, are recommended as a general mitigation measure which can be used for settling surface runoff prior to disposal. The system capacity should be flexible and able to handle multiple inputs from a variety of sources and suited to applications where the influent is pumped	√				
▪ 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 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.				√	
▪ 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.				√	
▪ 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				√	
▪ 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	√				
▪ Portable chemical toilets should be used to handle construction workforce sewage prior to discharge to the existing trunk sewer. Sufficient numbers of portable toilets shall be provided by a licensed contractor to serve the construction workers. The Contractor shall also be responsible for waste disposal and maintenance practices.	√				
▪ Construction site runoff should be prevented or minimised in accordance with the guidelines stipulated in the EPD's Practice Note for Professional Persons, Construction Site Drainage (ProPECC PN 1/94). All discharges from the construction site should be controlled to comply with the standards for effluents discharged into the Victoria Harbour WCZ under the TM-DSS.	√				
▪ Unnecessary water retained in receptacles and standing water should be avoided to prevent mosquito breeding.		√			Item 3
Waste Management					
C&D Materials					
▪ Excavated materials should be reused on-site as backfilling material and for landscaping works as far as practicable.			√		
▪ C&D material generated from excavation works should be disposed of at public fill reception facilities for other beneficial uses.			√		
▪ A recording system for the amount of wastes generated, recycled and disposed (including the disposal sites) should be proposed			√		
▪ A recording system for the amount of wastes generated, recycled and disposed (including the disposal sites) should be used, e.g. trip ticket system for chemical waste disposal. Quantities could be determined by weighing each load or other suitable methods.			√		
Chemical Waste					
▪ Good quality containers compatible with the chemical wastes should be used, and incompatible chemicals should be stored separately.	√				
▪ Appropriate labels should be securely attached on each chemical waste container indicating the corresponding chemical characteristics of the chemical waste, such as explosive, flammable, oxidizing, irritant, toxic, harmful, corrosive, etc.	√				
▪ The Contractor shall use a licensed collector to transport and dispose of the chemical wastes, to either the approved Chemical Waste Treatment Centre, or another licensed facility.	√				

Environmental Checklist	Implementation Stages*				Remark
	Yes	No	Not Obs	N/A	
Waste Management					
General Refuse					
▪ 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.	√				
Marine Dredged Sediment (During transportation and disposal)					
▪ 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			√		(No dredging work was carried out at Portion I)
▪ 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			√		(No dredging work was carried out at Portion I)
▪ 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.			√		(No dredging work was carried out at Portion I)
Good Site Practices					
▪ 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	√				
Waste Reduction Measures					
▪ 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	
Marine Ecology					
▪ Use of one grab dredger only with a maximum production rate of 4,000m^3 per day for dredging.	√				
▪ Deployment of frame type silt curtain to fully enclose the grab while dredging works are in progress.		√			Item 2
▪ 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.	√				
Good Site Practices					
• 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.	√				
▪ 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 item1 on 06/05/10, labels were found post on the bins for C&D waste storage on the grab dredger.	Closed	---	100511_001	---
2	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.	100511_002	18/05/10
3	Oily water was found inside the drip tray for chemicals at Portion J.	Continue follow-up	Clear and treat the oily water as chemical waste, and cover the drip tray to prevent water accumulation during rainfall.	100511_003	18/05/10

Remark

	Name	Signature	Date
Inspected by	C.K.Li		11 May 2010

Photos

Photo 100511_001

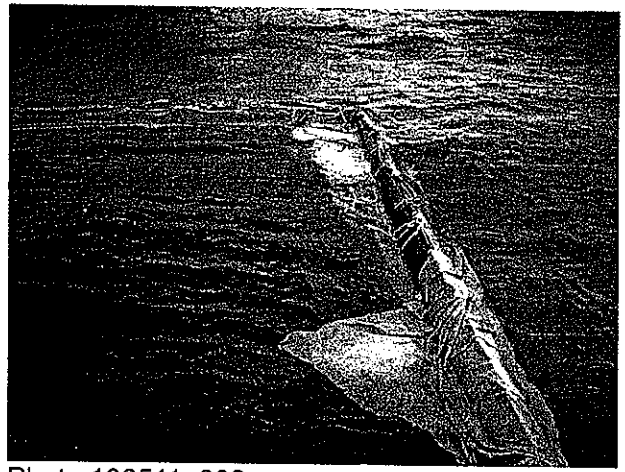


Photo 100511_002

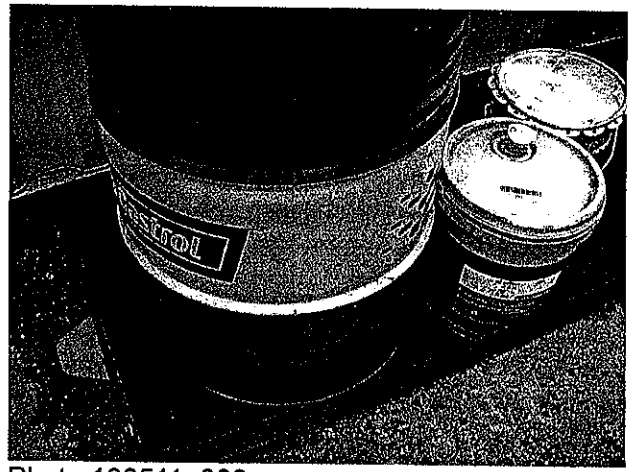


Photo 100511_003

WEEKLY SITE INSPECTION CHECKLIST

Inspection Date	18/5/2010	Inspected by	RE	IEC	Contractor	ET
Time	10:00	Name	Nelson CHAU Nelson	/	Johnny Eric ...	Linda Law Linda

Weather
Condition : (Sunny) / Fine / cloudy / Drizzle / Rain / Storm / Hazy
Wind : Calm / (Light) / Breeze / Strong

Temperature : 30°C
Humidity : (High) / Moderate / Low

Environmental Checklist	Implementation Stages*				Remark
	Yes	No	Not Obs	N/A	
Fugitive Dust Emission					
▪ 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 scaled 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	
Noise Impact					
▪ 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.	√				
Water Quality					
Mitigation Measures for Dredging					
▪ Dredging should be undertaken using one grab dredger only with a maximum production rate of 4,000m^3 per day.	√				
▪ 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		√			Item 4
▪ 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	
Water Quality					
Mitigation Measures for other Construction Activities					
▪ Sedimentation tanks with sufficient capacity, constructed from pre-formed individual cells of approximately 6 to 8 m^3 capacities, are recommended as a general mitigation measure which can be used for settling surface runoff prior to disposal. The system capacity should be flexible and able to handle multiple inputs from a variety of sources and suited to applications where the influent is pumped	√				
▪ 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 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.				√	
▪ 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.				√	
▪ 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				√	
▪ 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	√				
▪ Portable chemical toilets should be used to handle construction workforce sewage prior to discharge to the existing trunk sewer. Sufficient numbers of portable toilets shall be provided by a licensed contractor to serve the construction workers. The Contractor shall also be responsible for waste disposal and maintenance practices.	√				
▪ Construction site runoff should be prevented or minimised in accordance with the guidelines stipulated in the EPD's Practice Note for Professional Persons, Construction Site Drainage (ProPECC PN 1/94). All discharges from the construction site should be controlled to comply with the standards for effluents discharged into the Victoria Harbour WCZ under the TM-DSS.	√				
▪ Unnecessary water retained in receptacles and standing water should be avoided to prevent mosquito breeding.	√				
Waste Management					
C&D Materials					
▪ Excavated materials should be reused on-site as backfilling material and for landscaping works as far as practicable.			√		
▪ C&D material generated from excavation works should be disposed of at public fill reception facilities for other beneficial uses.			√		
▪ A recording system for the amount of wastes generated, recycled and disposed (including the disposal sites) should be proposed			√		
▪ A recording system for the amount of wastes generated, recycled and disposed (including the disposal sites) should be used, e.g. trip ticket system for chemical waste disposal. Quantities could be determined by weighing each load or other suitable methods.			√		
Chemical Waste					
▪ Good quality containers compatible with the chemical wastes should be used, and incompatible chemicals should be stored separately.	√				
▪ Appropriate labels should be securely attached on each chemical waste container indicating the corresponding chemical characteristics of the chemical waste, such as explosive, flammable, oxidizing, irritant, toxic, harmful, corrosive, etc.	√				
▪ The Contractor shall use a licensed collector to transport and dispose of the chemical wastes, to either the approved Chemical Waste Treatment Centre, or another licensed facility.	√				

Environmental Checklist	Implementation Stages*				Remark
	Yes	No	Not Obs	N/A	
Waste Management					
General Refuse					
▪ 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.	√				
Marine Dredged Sediment (During transportation and disposal)					
▪ 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.	√				
Good Site Practices					
▪ 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	√				
Waste Reduction Measures					
▪ 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	
Marine Ecology					
▪ Use of one grab dredger only with a maximum production rate of 4,000m^3 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.	√				
Good Site Practices					
• 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.		√			Item 3
▪ 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 item2 on 11/05/10, the silt curtain was repaired and maintained properly.	Close	---	100518_001	---
2	Follow up action to item3 on 11/05/10, no oily water was observed inside the drip tray for chemicals at Portion J.	Close	---	100518_002	---
3	Oil leakage is noted from a generator on the dredger at Portion I. Apart from this, the generator was also found without drip tray. Hence, the Contractor cleaned up the leak oil immediately during the inspection and treated up the contaminated materials as chemical waste.	Continue follow-up	To provide drip tray for all generator. Besides, maintain the generator properly in order to prevent any oil leakage.	100518_003 & 100518_004	25/05/10
4	Dredged materials were noted accumulated on the deck of the barge at Portion I.	Continue follow-up	To remind the Contractor to clean up all the dredged materials especially before each transport.	100518_005	25/05/10

Remark

	Name	Signature	Date
Inspected by	Linda Law	Linda Law	18 May 2010

Photos


Photo 100518_001


Photo 100518_002


Photo 100518_003


Photo 100518_004


Photo 100518_005

東業環動測試顧問有限公司
ETS-TESTCONSULT LIMITED

WEEKLY SITE INSPECTION CHECKLIST

Inspection Date	25-May-2010	Inspected by	RE	IEC	Contractor	ET
Time	09:45	Name	Nelson CHAU		Joanne Ng	C.K. Li

Weather
Condition : (Sunny) / Fine / cloudy / Drizzle / Rain / Storm / Hazy
Wind : Calm / (Light) Breeze / Strong

Temperature : 30°C
Humidity : High / (Moderate) / Low

Environmental Checklist	Implementation Stages*				Remark
	Yes	No	Not Obs	N/A	
Fugitive Dust Emission					
▪ 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 scaled 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	
Noise Impact					
▪ 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.	√				
Water Quality					
Mitigation Measures for Dredging					
▪ Dredging should be undertaken using one grab dredger only with a maximum production rate of 4,000m^3 per day.	√				
▪ 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	
Water Quality					
Mitigation Measures for other Construction Activities					
▪ Sedimentation tanks with sufficient capacity, constructed from pre-formed individual cells of approximately 6 to 8 m^3 capacities, are recommended as a general mitigation measure which can be used for settling surface runoff prior to disposal. The system capacity should be flexible and able to handle multiple inputs from a variety of sources and suited to applications where the influent is pumped	√				
▪ 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 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.				√	
▪ 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.				√	
▪ 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				√	
▪ 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	√				
▪ Portable chemical toilets should be used to handle construction workforce sewage prior to discharge to the existing trunk sewer. Sufficient numbers of portable toilets shall be provided by a licensed contractor to serve the construction workers. The Contractor shall also be responsible for waste disposal and maintenance practices.	√				
▪ Construction site runoff should be prevented or minimised in accordance with the guidelines stipulated in the EPD's Practice Note for Professional Persons, Construction Site Drainage (ProPECC PN 1/94). All discharges from the construction site should be controlled to comply with the standards for effluents discharged into the Victoria Harbour WCZ under the TM-DSS.	√				
▪ Unnecessary water retained in receptacles and standing water should be avoided to prevent mosquito breeding.	√				
Waste Management					
C&D Materials					
▪ Excavated materials should be reused on-site as backfilling material and for landscaping works as far as practicable.			√		
▪ C&D material generated from excavation works should be disposed of at public fill reception facilities for other beneficial uses.			√		
▪ A recording system for the amount of wastes generated, recycled and disposed (including the disposal sites) should be proposed			√		
▪ A recording system for the amount of wastes generated, recycled and disposed (including the disposal sites) should be used, e.g. trip ticket system for chemical waste disposal. Quantities could be determined by weighing each load or other suitable methods.			√		
Chemical Waste					
▪ Good quality containers compatible with the chemical wastes should be used, and incompatible chemicals should be stored separately.	√				
▪ Appropriate labels should be securely attached on each chemical waste container indicating the corresponding chemical characteristics of the chemical waste, such as explosive, flammable, oxidizing, irritant, toxic, harmful, corrosive, etc.	√				
▪ The Contractor shall use a licensed collector to transport and dispose of the chemical wastes, to either the approved Chemical Waste Treatment Centre, or another licensed facility.	√				

Environmental Checklist	Implementation Stages*				Remark
	Yes	No	Not Obs	N/A	
Waste Management					
General Refuse					
▪ 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.	√				
Marine Dredged Sediment (During transportation and disposal)					
▪ 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.	√				
Good Site Practices					
▪ 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	√				
Waste Reduction Measures					
▪ 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	
Marine Ecology					
▪ Use of one grab dredger only with a maximum production rate of 4,000m^3 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.	√				
Good Site Practices					
• 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).		√			Item 3
▪ 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 3 on 18/05/2010, no oil leakage was noted from a generator on the dredger at Portion I and the drip tray was found provided for this generator.	Closed	---	100525_001	---
2	Follow up action to item 4 on 18/05/2010, the Contractor arranged site worker to clean up the dredged materials accumulated on the deck of the barge at Portion I after dredging work.	Closed	---	100525_002& 100525_003	---
3	A 200L oil drum with waste oil was found on the ground at Portion J.	Continue follow-up	The Contractor should place the oil tank in chemical storage area or provide an appropriate drip tray for temporally storage.	100525_004	01/06/10

Remark

	Name	Signature	Date
Inspected by	C.K.Li		25 May 2010

Photos

Photo 100525_001

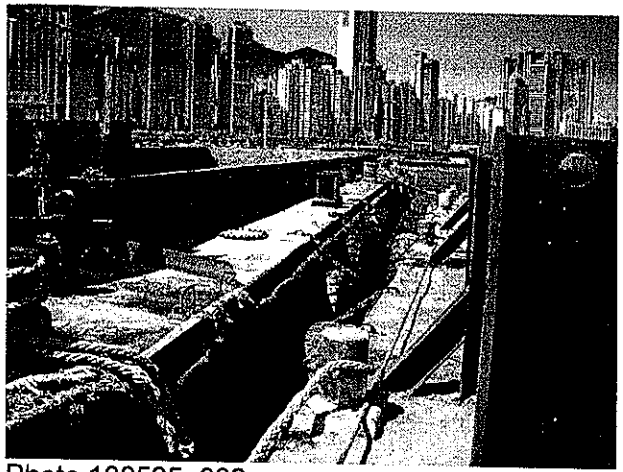


Photo 100525_002

Photo 100525_003

Photo 100525_004

Appendix G

Implementation Schedule of Mitigation Measures

Environmental Mitigation Implementation Schedule

Environmental Protection Measures	Location	Implementation Status			
		Implemented	Partially implemented	Not implemented	Not Applicable
Air Quality					
▪ Dust control / mitigation measures shall be provided to prevent dust nuisance.	All areas	√			
▪ 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.	All areas	√			
▪ 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.	All areas	√			
▪ 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	All areas	√			
▪ 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;.	All areas	√			
▪ 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.	Site Egress				√
▪ Every main haul road should be scaled with concrete and kept clear of dusty materials or sprayed with water so as to maintain the entire road surface wet.	All haul roads	√			
▪ 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 areas	√			
▪ All dusty materials should be sprayed with water prior to any loading, unloading or transfer operation so as to maintain the dusty material wet.	All areas	√			
▪ Vehicle speed should be limited to 10 kph except on completed access roads.	All areas	√			
▪ Every vehicle should be washed to remove any dusty materials from its body and wheels before leaving the construction sites.	All areas	√			
▪ The public road around the site entrance should be kept clean and free from dust.	All areas	√			
▪ Vehicle and equipment should be switched off while not in use.	All areas	√			
▪ All plant and equipment should be well maintained e.g. without black smoke emission.	All areas	√			
▪ Open burning should be prohibited.	All areas	√			
Noise Impact					
▪ The approved method of working, equipment and sound-reducing measures (e.g. use of silenced type of equipment, etc.) shall be adapted.	All areas	√			
▪ 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.	All areas	√			
▪ Noisy equipment and mobile plant shall always be site away from NSRs.	All areas	√			
▪ Machines and plant that may be in intermittent use should be shut down between work periods or should be throttled down to a minimum.	All areas	√			
▪ Powered mechanical equipment (PME) should be covered or shielded by appropriate acoustic materials.	All areas	√			
▪ 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.	All areas	√			
▪ 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.	All areas	√			

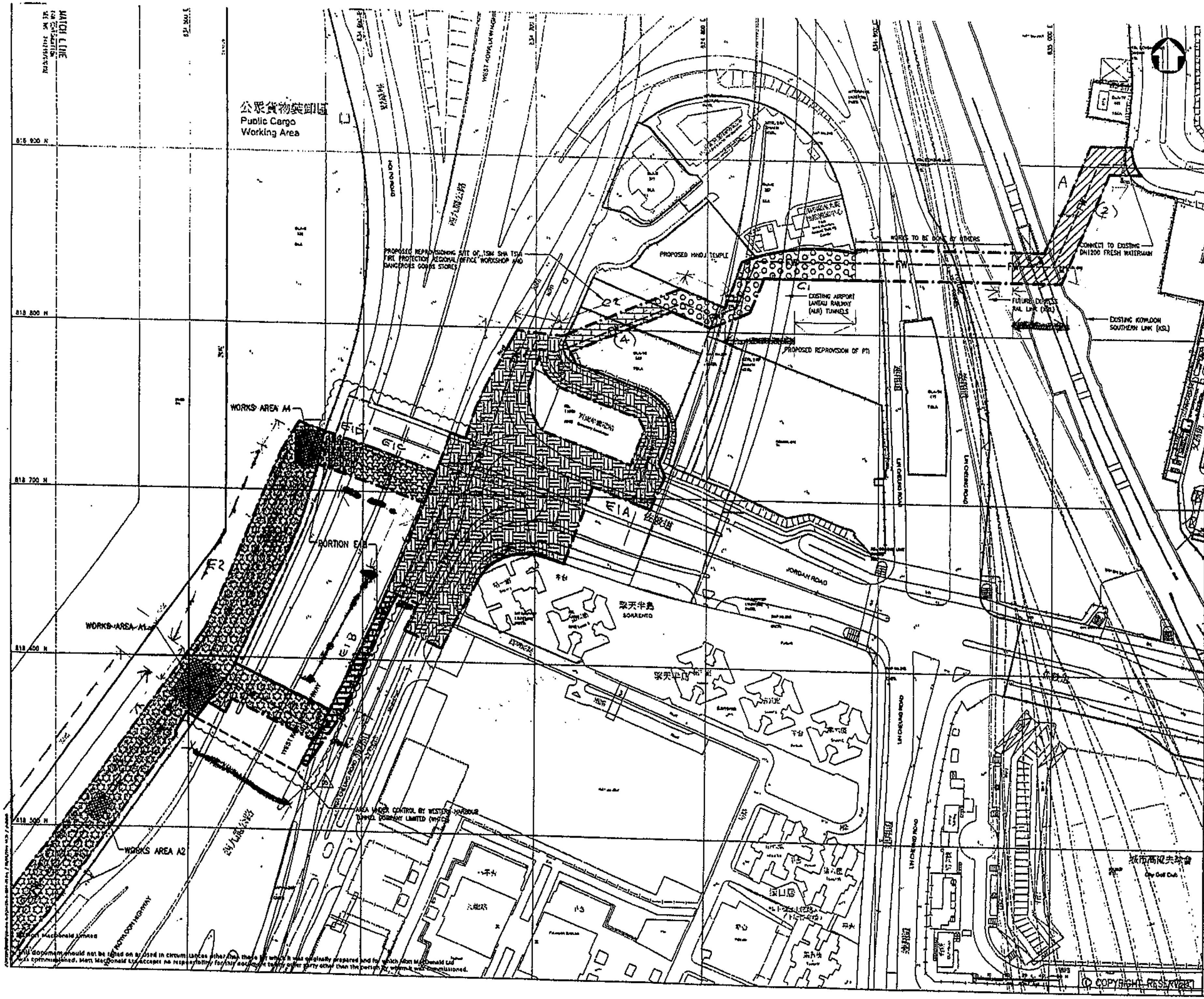
Environmental Protection Measures	Location	Implementation Status			
		Implemented	Partially implemented	Not implemented	Not Applicable
Noise Impact					
▪ Well maintained plant should be operated on-site and plant should be serviced regularly during the construction works.	All areas	√			
▪ Air compressors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

Environmental Protection Measures	Location	Implementation Status			
		Implemented	Partially implemented	Not implemented	Not Applicable
Water Quality					
Mitigation Measures for other Construction Activities					
▪ 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	√			
Waste Management					
C&D Materials					
▪ 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	√			
Chemical Waste					
▪ 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	√			
General Refuse					
▪ 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	√			
Marine Dredged Sediment (During transportation and disposal)					
▪ 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	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	√			
Good Site Practices					
▪ 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	√			

Environmental Protection Measures	Location	Implementation Status			
		Implemented	Partially implemented	Not implemented	Not Applicable
Waste Management					
Good Site Practices					
▪ 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.	All areas	√			
▪ Appropriate measures to minimise windblown litter and dust during transportation of waste by either covering trucks or by transporting wastes in enclosed containers	All areas	√			
Waste Reduction Measures					
▪ Sort C&D material from demolition and decommissioning of the existing facilities to recover recyclable portions such as metals	All areas	√			
▪ 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	All areas	√			
▪ 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	All areas	√			
▪ Proper storage and site practices to minimise the potential for damage or contamination of construction materials	All areas	√			
▪ Plan and stock construction materials carefully to minimise amount of waste generated and avoid unnecessary generation of waste	All areas	√			
Marine Ecology					
▪ Use of one grab dredger only with a maximum production rate of 4,000m^3 per day for dredging.	Marine	√			
▪ Deployment of frame type silt curtain to fully enclose the grab while dredging works are in progress.	Marine		√		
▪ Deployment of silt screen at the sea water intake at Kowloon South Salt Water Pumping Station while dredging works are in progress.	Marine	√			
▪ Good site practices to avoid silt runoff from construction works associated with the construction of the submarine watermain.	Marine		√		
Good Site Practices					
▪ The Environmental Permit should be displaced conspicuously on site.	All areas	√			
▪ Construction noise permits should be posted at site entrance or available for site inspection.	All areas	√			
▪ Chemical storage area provided with lock and located on sealed areas.	All areas	√			
▪ All chemicals should be placed at the banded area with adequate band capacity (>110% of largest tank).	All areas		√		
▪ Any unused chemicals or those with remaining functional capacity should be recycled.	All areas	√			
▪ All generators, fuel and oil storage are within bundle areas.	All areas		√		
▪ Regular cleaning and maintenance programme for waste storage area, drainage systems, silt traps, sumps and oil interceptors.	All areas	√			
▪ 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.	All areas	√			

Appendix H

Site General Layout plan



NOTES :

1. THIS DRAWING SHALL BE READ IN CONJUNCTION WITH DRAWING NOS. 241239/G/0302 TO 0305.

LEGEND :

- PROPOSED FRESH WATERMAIN
- PROPOSED SALT WATERMAIN
- PROPOSED WORKS LIMIT
- GLA / STT
- PORTION A (Section 2)
- PORTION C1
- PORTION C2 (Section 4)
- PORTION E1A
- PORTION E1B
- PORTION E1C
- PORTION E1D
- PORTION E2
- PORTION F
- PORTION G (Section 4)
- PORTION H1
- PORTION H2
- PORTION I
- PORTION J
- PORTION K
- WORKS AREA WITHIN NEW YAU MA TEI PUBLIC CARGO WORKING AREA FORMING PART OF PORTION C2 OF THE SITE (TO BE FENCED OFF BY CONCRETE BARRIERS AS PART OF TEMPORARY TRAFFIC ARRANGEMENT BY THE CONTRACTOR, DETAILS REFER TO HyD STANDARD DRAWING NO. H2104)

Section 1
Section 2
Section 4

Rev	Date	Drawn	Description	Ch'k'd	App'd
05	MAY 09		TENDER ADDENDUM NO. 6		SHC
04	APR 09	PL	TENDER ADDENDUM NO. 5	KL	SHC
03	APR 09	PL	TENDER ADDENDUM NO. 4	KL	SHC
02	MAR 09	PL	TENDER ADDENDUM NO. 3	KL	SHC
01	FEB 09	PL	TENDER ADDENDUM NO. 2	KL	SHC
0	DEC 08	PL	ISSUE FOR TENDER	KL	SHC

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Web www.mottmac.com.hk

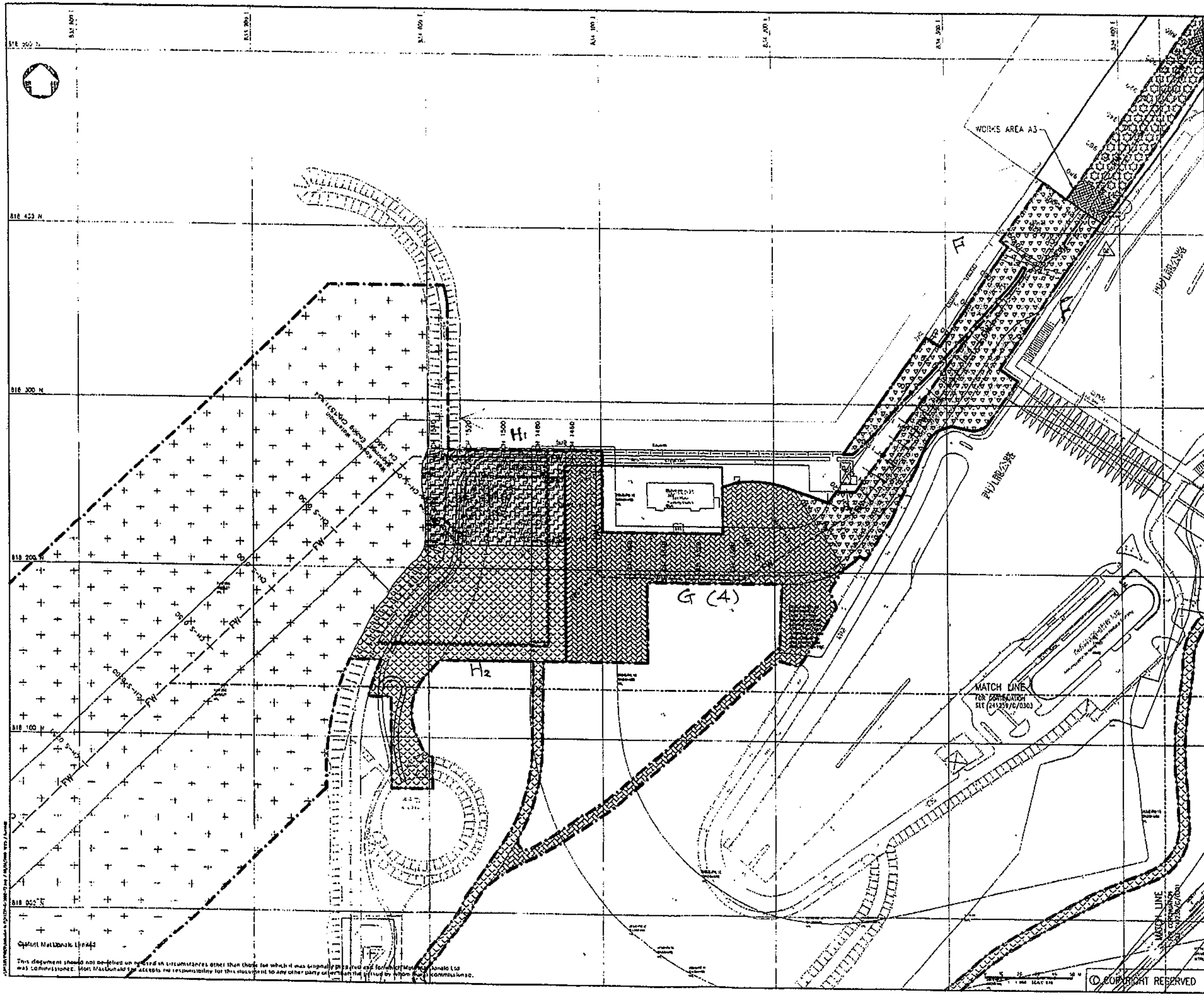
Client: THE GOVERNMENT OF THE HONG KONG SPECIAL ADMINISTRATIVE REGION WATER SUPPLIES DEPARTMENT

Contract No. 9/WSD/08

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

Title: POSSESSION OF SITE (SHEET 1 OF 5)

Designed	KSC	Eng Chk	KL	
Drawn	PL	Coordination	SHC	
Dwg Chk	KL	Approved	SHC	
Scale 1:1000 @A1		Project 241239		Status TEN
Drawing No. 241239/G/0301				Rev 05



NOTES :
1. THIS DRAWING SHALL BE READ IN CONJUNCTION WITH DRAWING NOS 241239/G/0301 AND 0303 TO 0305
2. THE LEGEND SHALL REFER TO DRAWING NO 241239/G/0301

Rev	Date	Drawn	Description	Ch'k'd	App'd
02	APR 09		TENDER ADDENDUM NO. 4		
01	MAR 09	PL	TENDER ADDENDUM NO. 3	KL	SHC
0	DEC 08	PL	ISSUE FOR TENDER	KL	SHC

Mott MacDonald

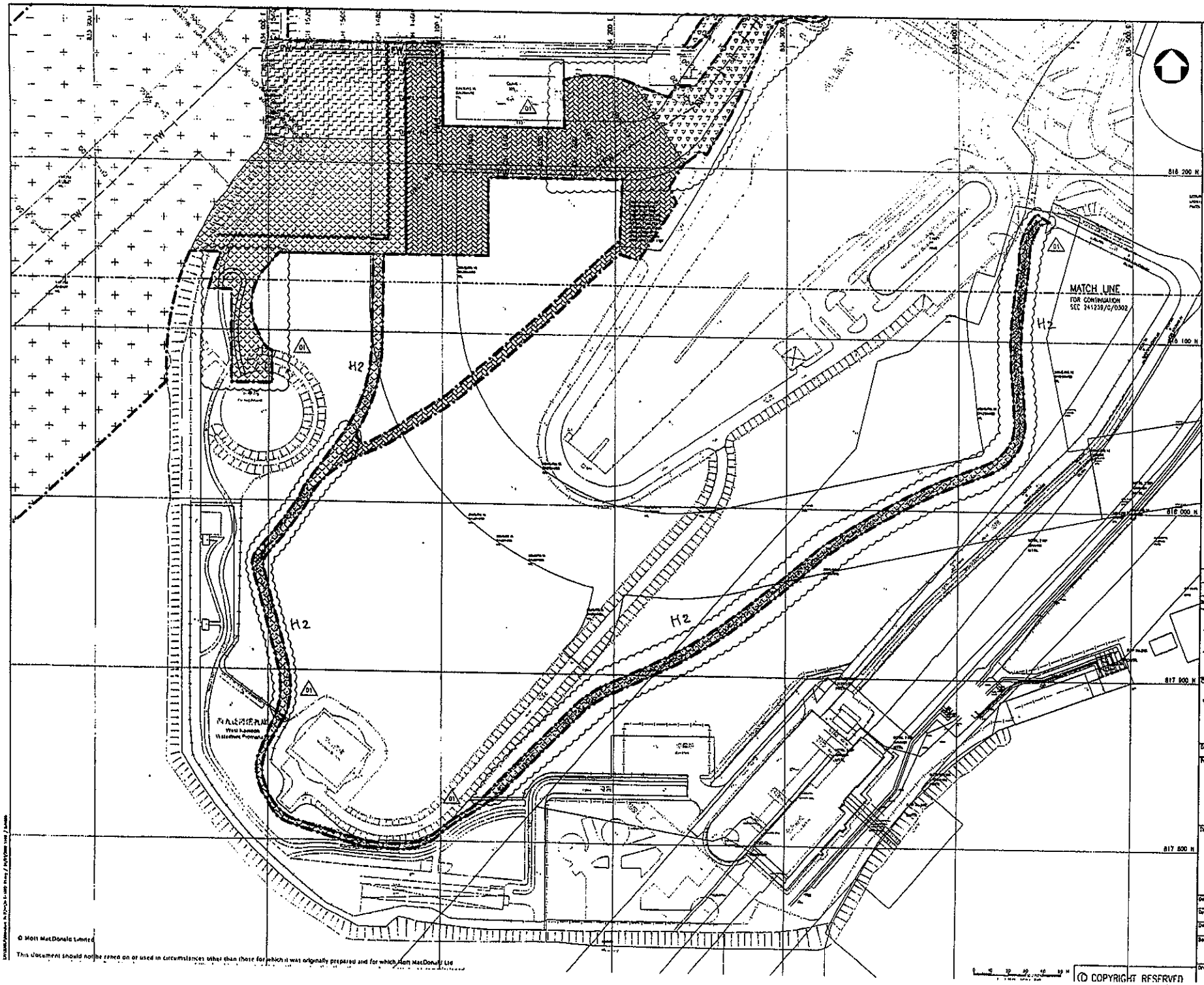
Client: THE GOVERNMENT OF THE HONG KONG SPECIAL ADMINISTRATIVE REGION WATER SUPPLIES DEPARTMENT

Contract No. 9/WSD/08

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

Title: POSSESSION OF SITE (SHEET 2 OF 5)

Designed	KSC		Eng Chk	KL	
Drawn	PL		Coordination	SHC	
Dwg Chk	KL		Approved	SHC	
Scale	1:1000 @A1	Project	241239	Status	TEN
Drawing No.	241239/G/0302			Rev	02



NOTES :

1. THIS DRAWING SHALL BE READ IN CONJUNCTION WITH DRAWING NOS. 241239/G/0301 TO 0302 AND 0304 TO 0305.
2. THE LEGEND SHALL REFER TO DRAWING NO. 241239/G/0301.

01	MAR 09		TENDER ADDENDUM NO. 3		
B	DEC 08	PL	ISSUE FOR TENDER	KL	SHC
Rev	Date	Drawn	Description	Ch'k'd	App'd

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

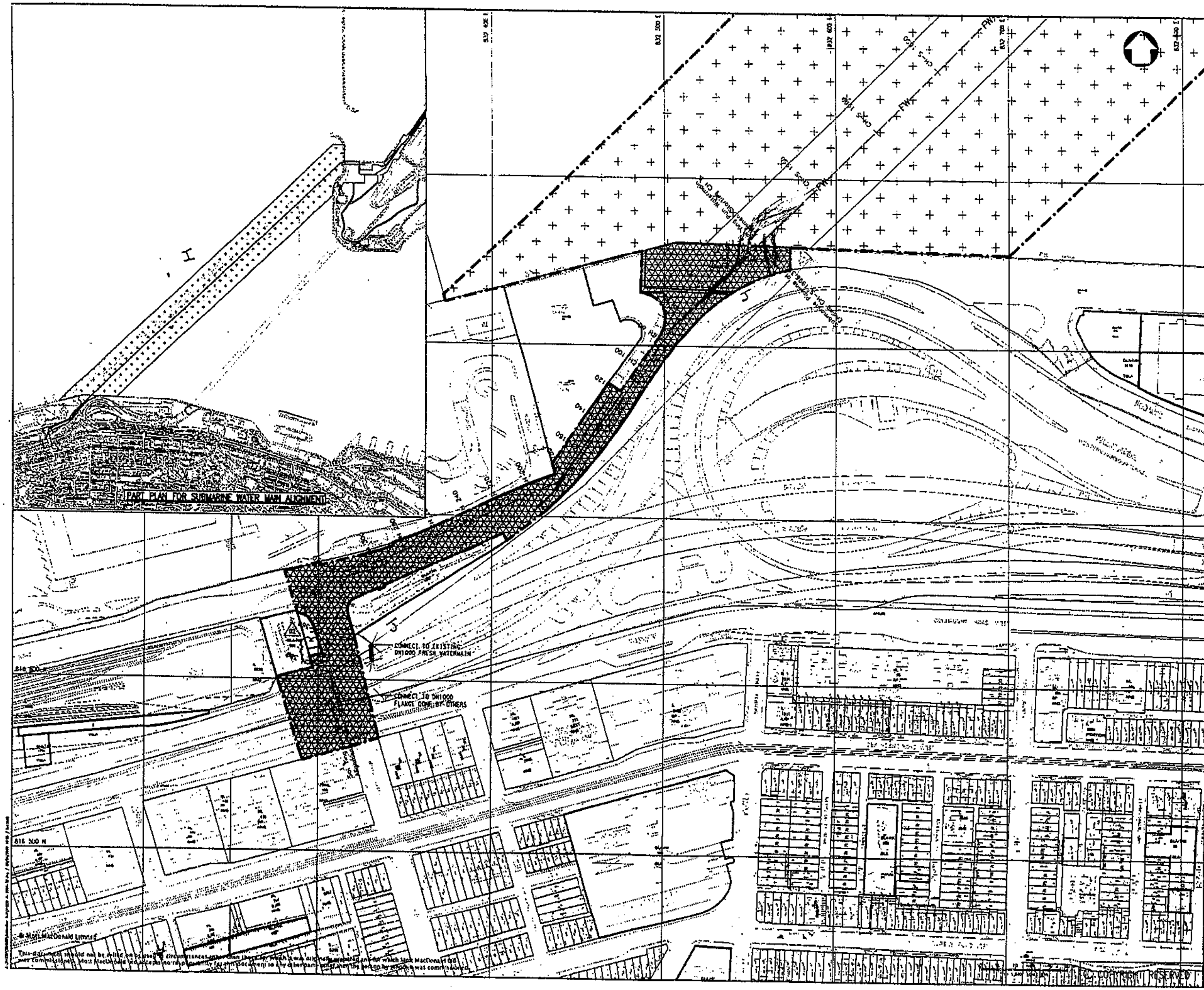
Contract No. 9/WSD/08

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

Title
POSSESSION OF SITE
(SHEET 3 OF 5)

Designed	KSC		Dsg Chk'd	KL	
Drawn	PL		Construction	SHC	
Dsg Chk'd	KL		Approved	SHC	

Scale 1:1000 @A1 | Project 241239 | Status TEN | Drawing No. 241239/G/0303 | Rev 01



NOTES :

1. THIS DRAWING SHALL BE READ IN CONJUNCTION WITH DRAWING NOS. 241239/G/0301 TO 0303 AND 0305.
2. THE LEGEND SHALL REFER TO DRAWING NO. 241239/G/0301.

Rev	Date	Drawn	Description	Ch'k'd	App'd
02	APR 09		TENDER ADDENDUM NO. 4		
01	MAR 09	PL	TENDER ADDENDUM NO. 3	CF	SHC
0	DEC 08	PL	ISSUE FOR TENDER	CF	SHC

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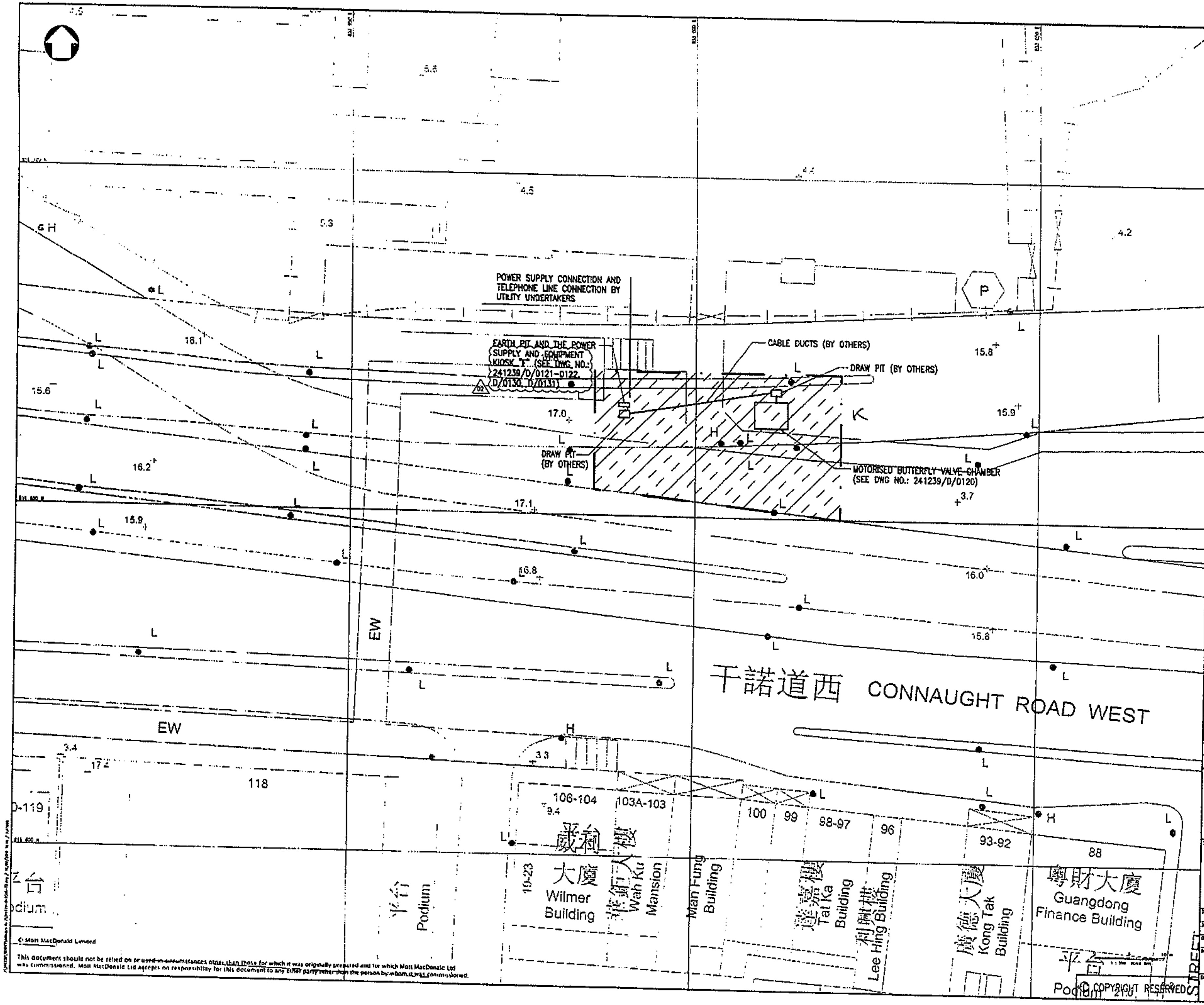
Client: THE GOVERNMENT OF THE HONG KONG SPECIAL ADMINISTRATIVE REGION WATER SUPPLIES DEPARTMENT

Contract No. 9/WSD/08

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

Title: POSSESSION OF SITE (SHEET 4 OF 5)

Designed	KSC		Eng Chk	KL	
Drawn	PL		Coordination	SHC	
Dwg Chk	KL		Approved	SHC	
Scale	1:1000 @A1	Project	241239	Status	TEN
Drawing No.	241239/G/0304			Rev	02



NOTES

1. THIS DRAWING SHALL BE READ IN CONJUNCTION WITH DRAWING NOS. 241239/G/0301 TO 0304.
2. THE LEGEND SHALL REFER TO DRAWING NO. 241239/G/0301.

Rev	Date	Drawn	Description	Ch'k'd	App'd
02	FEB 09		TENDER ADDENDUM NO. 2		
01	JAN 09	PL	TENDER ADDENDUM NO. 1	KL	SHC
0	DEC 08	PL	ISSUE FOR TENDER	KL	SHC

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

Contract No. 9/WSD/08

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

Title: POSSESSION OF SITE (SHEET 5 OF 5)

Designed	KSC		Eng Chk	KL	
Drawn	PL		Coordination	SHC	
Dwg Chk	KL		Approved	SHC	
Scale	1:250 @A1	Project	241239	Status	TEN
Drawing No.	241239/G/0305			Rev	02

Appendix I

Monitoring Schedule for the Coming Month

Contract No. 9/WSD/08

Laying of Western Cross Habour 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
	NM (Sai Ying Pun)	**WQM** Mid-Flood 07:00 - 11:30 Mid-Ebb 12:30 - 17:00 **SI**	**NM** (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 (Sai Ying Pun)	**WQM** Mid-Ebb 08:00 - 12:30 Mid-Flood 13:30 - 18:00 **SI**	**NM** (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 (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	**NM** (West Kowloon)	**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** (Sai Ying Pun)	**WQM** Mid-Ebb 09:00- 13:30 Mid-Flood 15:00 - 19:30	**NM** (West Kowloon)	**WQM** Mid-Ebb 10:30- 15:00 Mid-Flood 16:30 - 20:45
27-Jun	28-Jun	29-Jun	30-Jun			
	NM (Sai Ying Pun)	**WQM** Mid-Flood 06:30 - 10:00 Mid-Ebb 11:30 - 16:00 **SI**	**NM** (Sai Ying Pun)			

Appendix J

Daily Dredging Summary

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

Date : 04-Jun-2010

Summary of Disposal of Type 2 Marine Sediment of May, 2010

Date	Chainage	Offset	Daily Disposal Volume (m^3) (Bulk)	Disposal Site	Dumping Permit No.
30-Apr-2010	--	--	--	East of Sha Chau	EP/MD/10-086
01-May-2010	--	--	--	East of Sha Chau	EP/MD/10-086
02-May-2010	--	--	--	East of Sha Chau	EP/MD/10-086
03-May-2010	--	--	--	East of Sha Chau	EP/MD/10-086
04-May-2010	1238 ~ 1244	0m ~ +17m	--	East of Sha Chau	EP/MD/10-086
05-May-2010	1244 ~ 1264 1264 ~ 1276	0m ~ +17m 0m ~ +17m	440	East of Sha Chau	EP/MD/10-086
06-May-2010	1276 ~ 1280 1278 ~ 1252 1252 ~ 1264	0m ~ +17m 0m ~ -17m 0m ~ -17m	1,280	East of Sha Chau	EP/MD/10-086
07-May-2010	1264 ~ 1264	0m ~ -17m	0	East of Sha Chau	EP/MD/10-086
08-May-2010	1264 ~ 1276	0m ~ -17m	0	East of Sha Chau	EP/MD/10-086
09-May-2010	1276 ~ 1284 1284 ~ 1300 1300 ~ 1304	0m ~ -17m 0m ~ -17m 0m ~ -17m	1,400	East of Sha Chau	EP/MD/10-086
10-May-2010	1304 ~ 1316 1280 ~ 1304 1304 ~ 1316	0m ~ -17m 0m ~ +17m 0m ~ +17m	1,400	East of Sha Chau	EP/MD/10-086
11-May-2010	1316 ~ 1328 1328 ~ 1348 1348 ~ 1368	0m ~ +17m 0m ~ +17m 0m ~ +17m	1,300	East of Sha Chau	EP/MD/10-086
12-May-2010	1320 ~ 1332 1332 ~ 1348 1348 ~ 1368	0m ~ -17m 0m ~ -17m 0m ~ -17m	1,800	East of Sha Chau	EP/MD/10-086
13-May-2010	1368 ~ 1400 1400 ~ 1420 1420 ~ 1424	0m ~ -17m 0m ~ -17m 0m ~ -17m	1,200	East of Sha Chau	EP/MD/10-086
14-May-2010	--	--	0	East of Sha Chau	EP/MD/10-086
15-May-2010	1368 ~ 1376	0m ~ +17m	0	East of Sha Chau	EP/MD/10-086
16-May-2010	1376 ~ 1380 1380 ~ 1392	0m ~ +17m 0m ~ +17m	600	East of Sha Chau	EP/MD/10-086
17-May-2010	1392 ~ 1416 1416 ~ 1432	0m ~ +15.5m 0m ~ -15.5m	1,200	East of Sha Chau	EP/MD/10-086
18-May-2010	1432 ~ 1452 1452 ~ 1468	0m ~ +15.0m 0m ~ +15.0m	700	East of Sha Chau	EP/MD/10-086
19-May-2010	1424 ~ 1456 1456 ~ 1480 1480 ~ 1484	0m ~ -15m 0m ~ -15m 0m ~ -12.7m 0m ~ -12.7m	2,000	East of Sha Chau	EP/MD/10-086

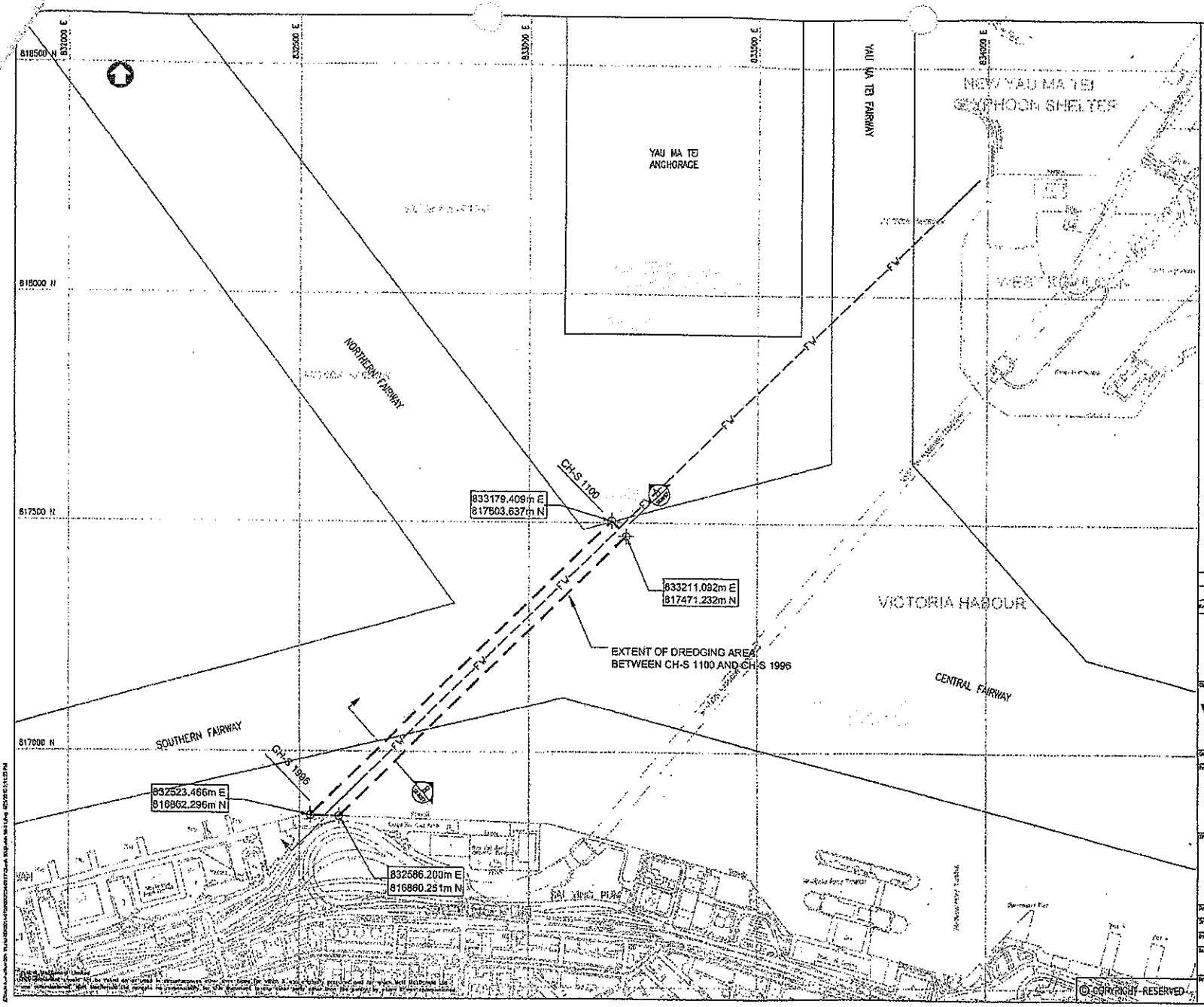
Wo Hing - Penta-Ocean Joint Venture

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

Date : 04-Jun-2010

Summary of Disposal of Type 2 Marine Sediment of May, 2010

Date	Chainage	Offset	Daily Disposal Volume (m^3) (Bulk)	Disposal Site	Dumping Permit No.
20-May-2010	1480 ~ 1496 1496 ~ 1500 1472 ~ 1492 1492 ~ 1496	0m ~ -12.7m 0m ~ -12.7m 0m ~ +14.1m 0m ~ +12.7m	1,400	East of Sha Chau	EP/MD/10-086
21-May-2010	1496 ~ 1512 1512 ~ 1536 1496 ~ 1516	0m ~ +12.7m 0m ~ +12.9m 0m ~ -12.7m 0m ~ -12.9m	1,400	East of Sha Chau	EP/MD/10-086
22-May-2010	1516 ~ 1520 1520 ~ 1548 1548 ~ 1572 1536 ~ 1540	0m ~ -12.9m 0m ~ -13.1m 0m ~ -14.0m 0m ~ +13.1m	2,100	East of Sha Chau	EP/MD/10-086
23-May-2010	1540 ~ 1556 1556 ~ 1584 1584 ~ 1592	0m ~ +13.1m 0m ~ +13.3m 0m ~ +15.5m 0m ~ +16.6m	1,400	East of Sha Chau	EP/MD/10-086
24-May-2010	1572 ~ 1588 1588 ~ 1608 1592 ~ 1620	0m ~ -14.4m 0m ~ +16.0m 0m ~ -15.5m 0m ~ -16.8m 0m ~ -17.0m	1,400	East of Sha Chau	EP/MD/10-086
25-May-2010	1620 ~ 1628 1628 ~ 1656 1608 ~ 1636	0m ~ +17.0m 0m ~ +17.3m 0m ~ -17.0m	1,300	East of Sha Chau	EP/MD/10-086
26-May-2010	1636 ~ 1660 1656 ~ 1664 1664 ~ 1680	0m ~ -17.0m 0m ~ +17.0m 0m ~ +17.0m	1,400	East of Sha Chau	EP/MD/10-086
27-May-2010	1660 ~ 1680 1680 ~ 1708 1680 ~ 1692	0m ~ -17.0m 0m ~ -11.5m 0m ~ +16.8m	1,300	East of Sha Chau	EP/MD/10-086
28-May-2010	1692 ~ 1712 1708 ~ 1736	0m ~ +17m 0m ~ -16m	1,400	East of Sha Chau	EP/MD/10-086
29-May-2010	1712 ~ 1748 1748 ~ 1752 1736 ~ 1756	0m ~ +16m 0m ~ +16m 0m ~ -16m	600	East of Sha Chau	EP/MD/11-012
30-May-2010	1656 ~ 1764 1764 ~ 1796 1796 ~ 1800 1752 ~ 1780	0m ~ -16m 0m ~ -15m 0m ~ -15m 0m ~ +16m	1,400	East of Sha Chau	EP/MD/11-012
31-May-2010	1780 ~ 1816 1816 ~ 1820 1800 ~ 1824	0m ~ +15m 0m ~ +14m 0m ~ -15m	1,400	East of Sha Chau	EP/MD/11-012



01	APR 10	MC	FOR CONSTRUCTION	MC	KH
0	APR 10	MC	FOR CONSTRUCTION	MC	KH
Rev	Date	Drawn	Description	Ch'k'd	App'd

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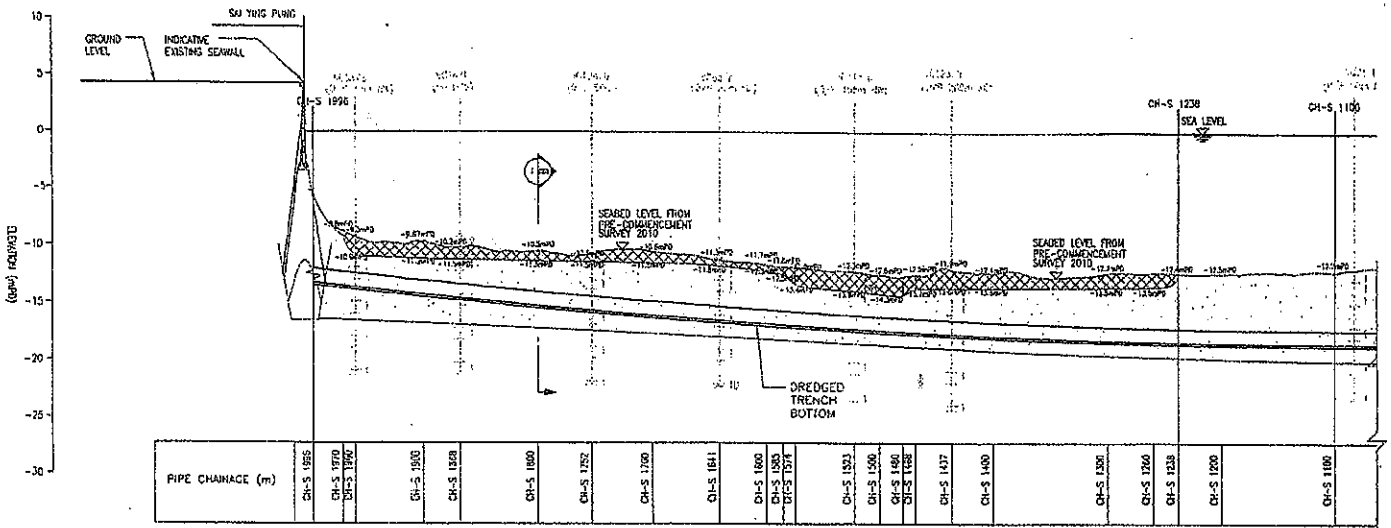
THE GOVERNMENT OF THE HONG KONG SPECIAL ADMINISTRATIVE REGION
WATER SUPPLIES DEPARTMENT

Contract No. 9/WSD/08

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

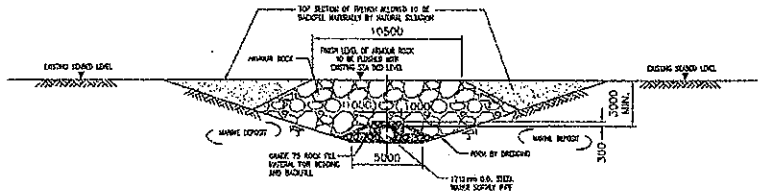
Title
PROPOSED DREDGING PLAN (BETWEEN CH-S 1100 AND CH-S 1996)

Designed	MC		Eng'd/Ck'd	KH	
Drawn	WCC		Commissioned	KH	
Eng'd/Ck'd	MC		Approved	KH	
Scale	1:7500@A3	Project	241239	Status	CON
Drawing No.	SKETCH 0056	CAD File		Rev	01



SECTION A - A
(PROFILE OF DN1200 SUBMARINE PIPELINE)

VERTICAL SCALE 1 : 400
HORIZONTAL SCALE 1 : 4000



SECTION B - B
(TYPICAL SECTION OF SUBMARINE PIPELINE)

N.T.S.

NOTE :

1. DATA TAKEN WITHIN 300m OFFSET ON EACH SIDE OF THE PROPOSED ALIGNMENT FROM THE CENTER LINE
2. THICKNESS OF ALLUVIUM MAY VARY CONSIDERABLY AT BURIED CHANNEL (SHEET 8, SOLID AND SUPERFICIAL GEOLOGY, GCO, 1988)
3. DEEP ROCKHEAD AT SAI WAN PUN AREA (LAU, 2004)
4. SEABED LEVEL AS SHOWN IN THIS CROSS SECTION IS ALONG THE PROPOSED ALIGNMENT AND WAS PLOTTED BASED ON DATA GATHERED FROM EXISTING PRE-COMMENCEMENT SURVEY. HYDROCORES AS SHOWN IN THIS FIGURE WERE TAKEN WITHIN 300m OFF SET ON EACH SIDE OF THE PROPOSED ALIGNMENT FROM THE CENTRE LINE.

LEGEND:

TYPE 1 = OPEN SEA DISPOSAL

TYPE 2 = CONFINED MARINE DISPOSAL

10^3 DUE TO DREDGING PRACTICALITY TYPE 1D IS CONSIDERED AS TYPE 2

10^4 DEPOSIT CONSIDERED AS TYPE 1D

01	APR 10	WCC	FOR CONSTRUCTION	KC	KH
0	APR 10	MC	FOR CONSTRUCTION	KC	KH
Ver	Date	Drawn	Description	Ch'k'd	App'd

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

Contract No. 9/WSD/08

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

Title
SEDIMENT CLASSIFICATION PLAN
(BETWEEN CH-S 1100 AND CH-S 1996)

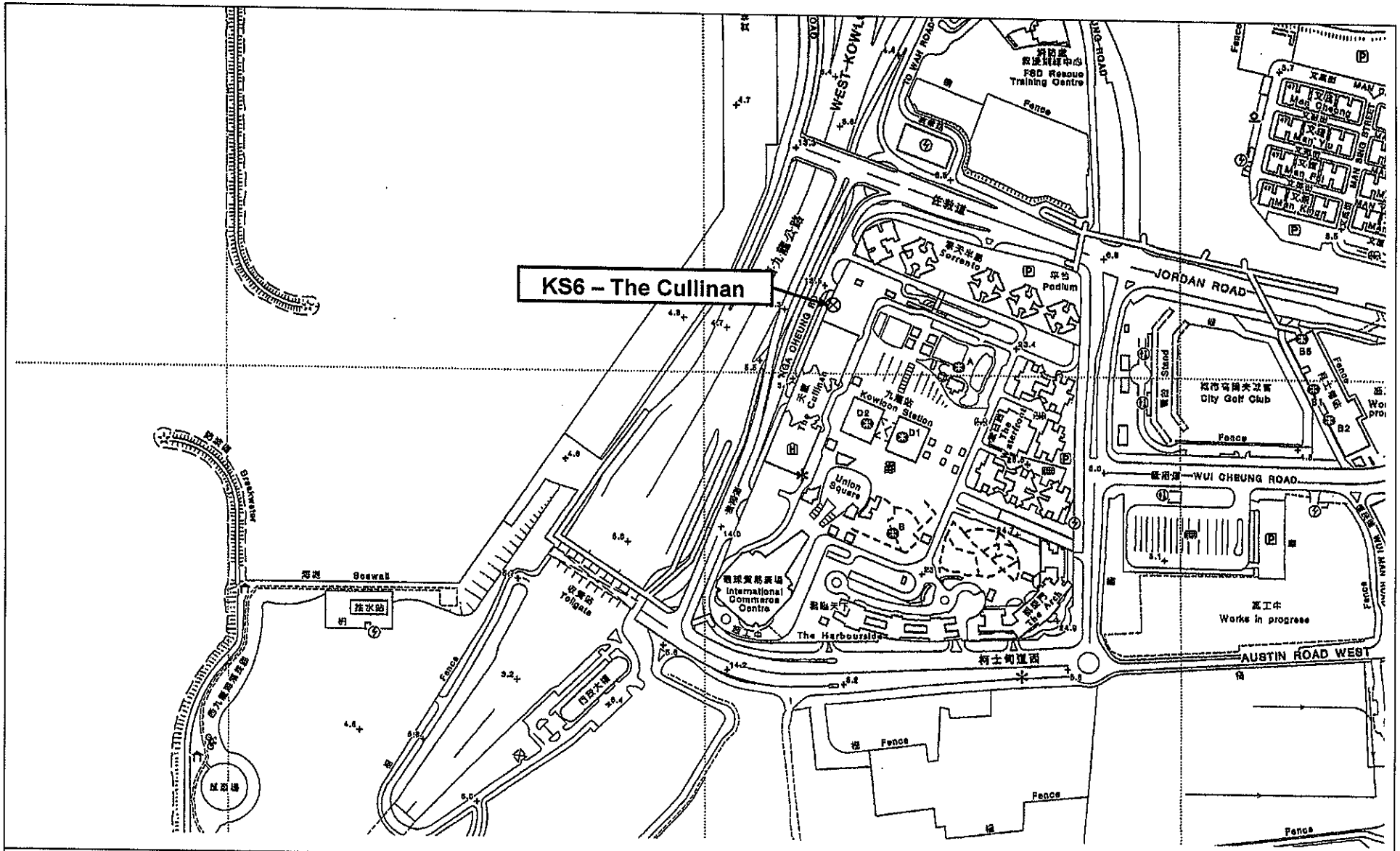
Designed	KC		Eng Mgr	KH	
Drawn	WCC		Checked	KH	
Projects	KC		Approved	KH	

Scale: AS SHOWN@A3 | Project: 241339 | Status: CON

Drawing No.: SKETCH 0057 | Rev: 01

FOR CONSTRUCTION

Figures

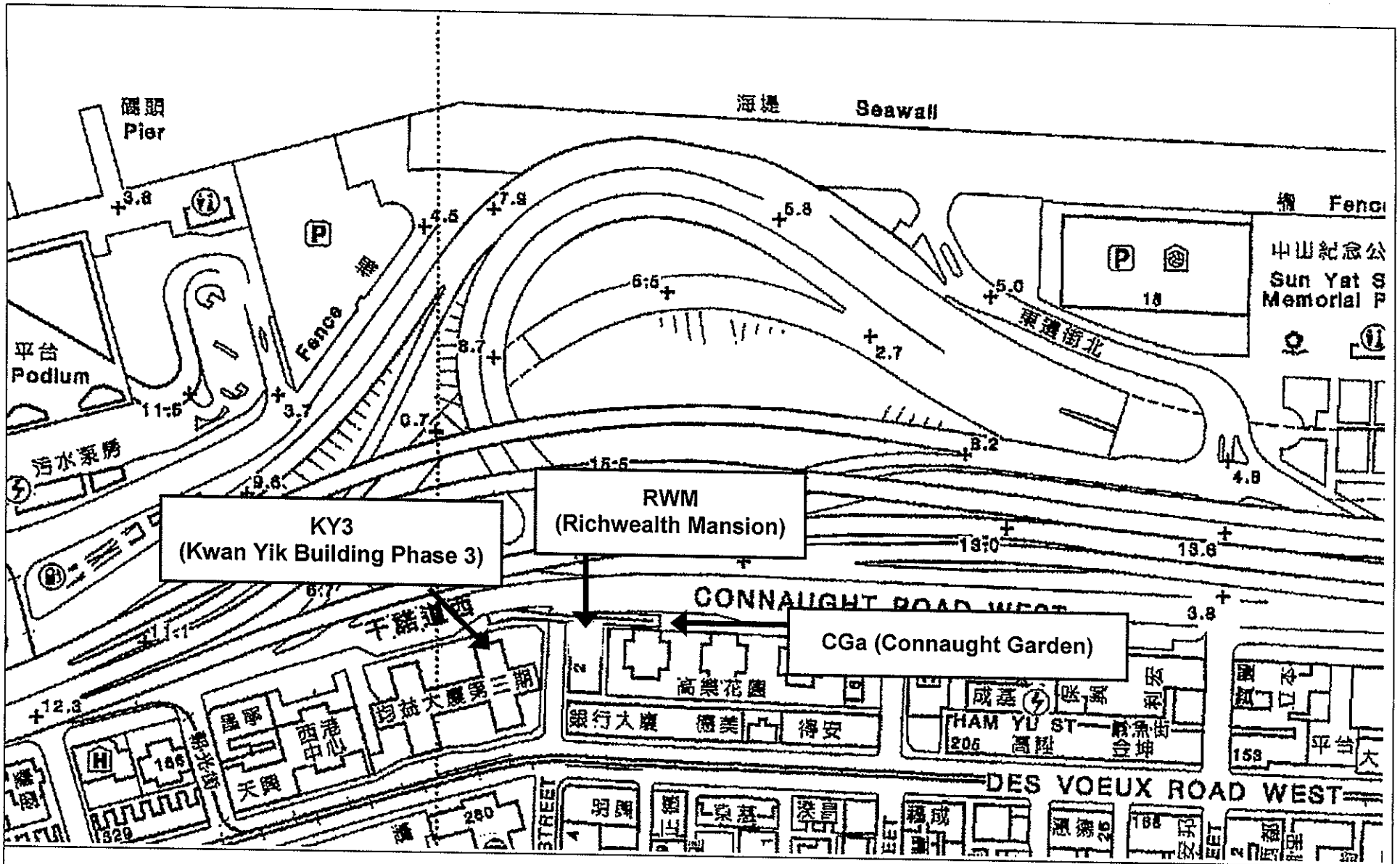


Contract No. 9/WSD/08 Laying of Western Cross Harbour Main and Associated Land Mains for West Kowloon to Sai Ying Pun

Figure 1

Location of Noise Monitoring Station at West Kowloon

東業德檢測試顧問有限公司
ETS-TESTCONSULT LIMITED

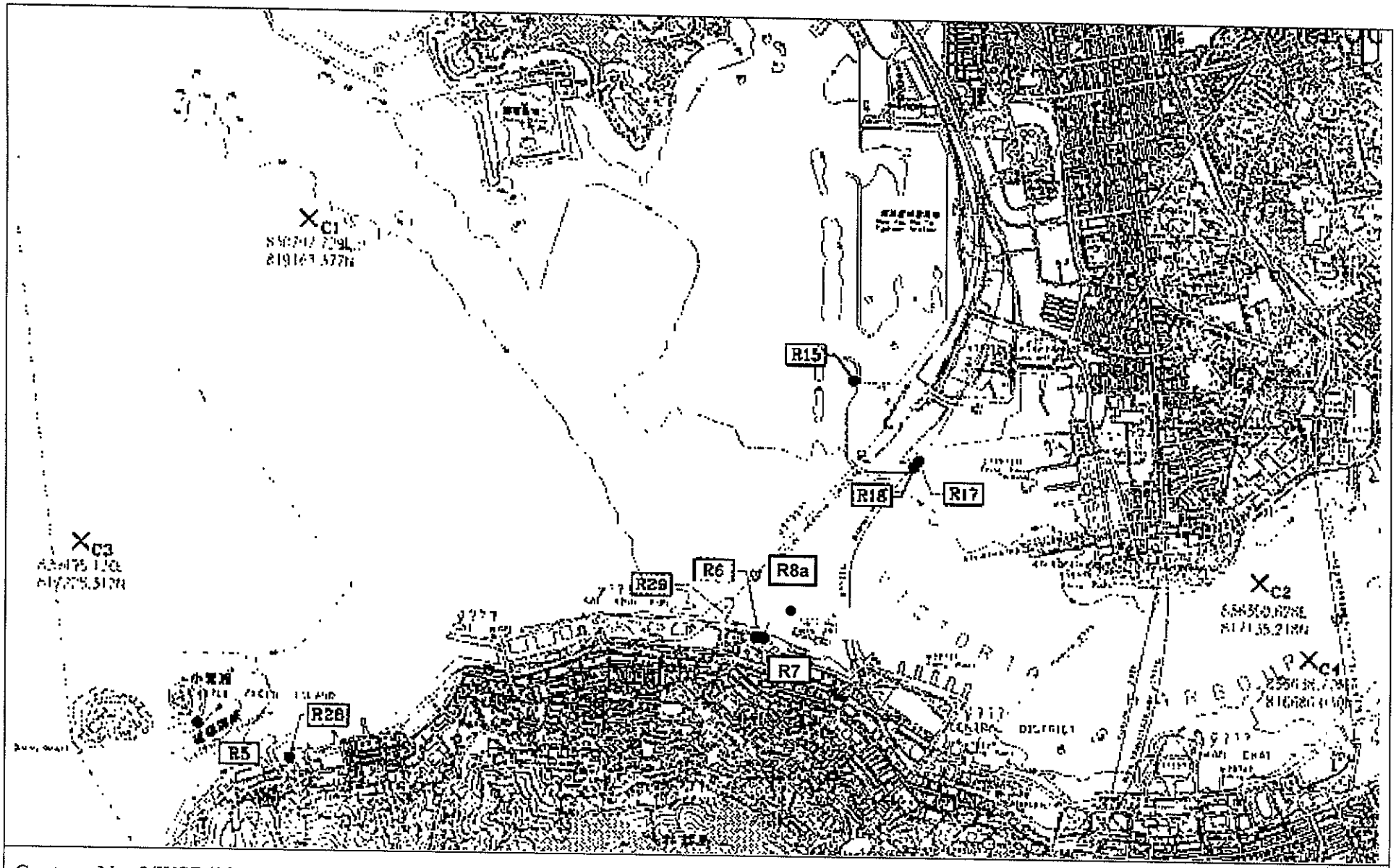


Contract No. 9/WSD/08 Laying of Western Cross Harbour Main and Associated Land Mains for West Kowloon to Sai Ying Pun

Figure 2

Locations of Noise Monitoring Stations at Sai Ying Pun

東業德勤測試顧問有限公司
ETS-TESTCONSULT LIMITED

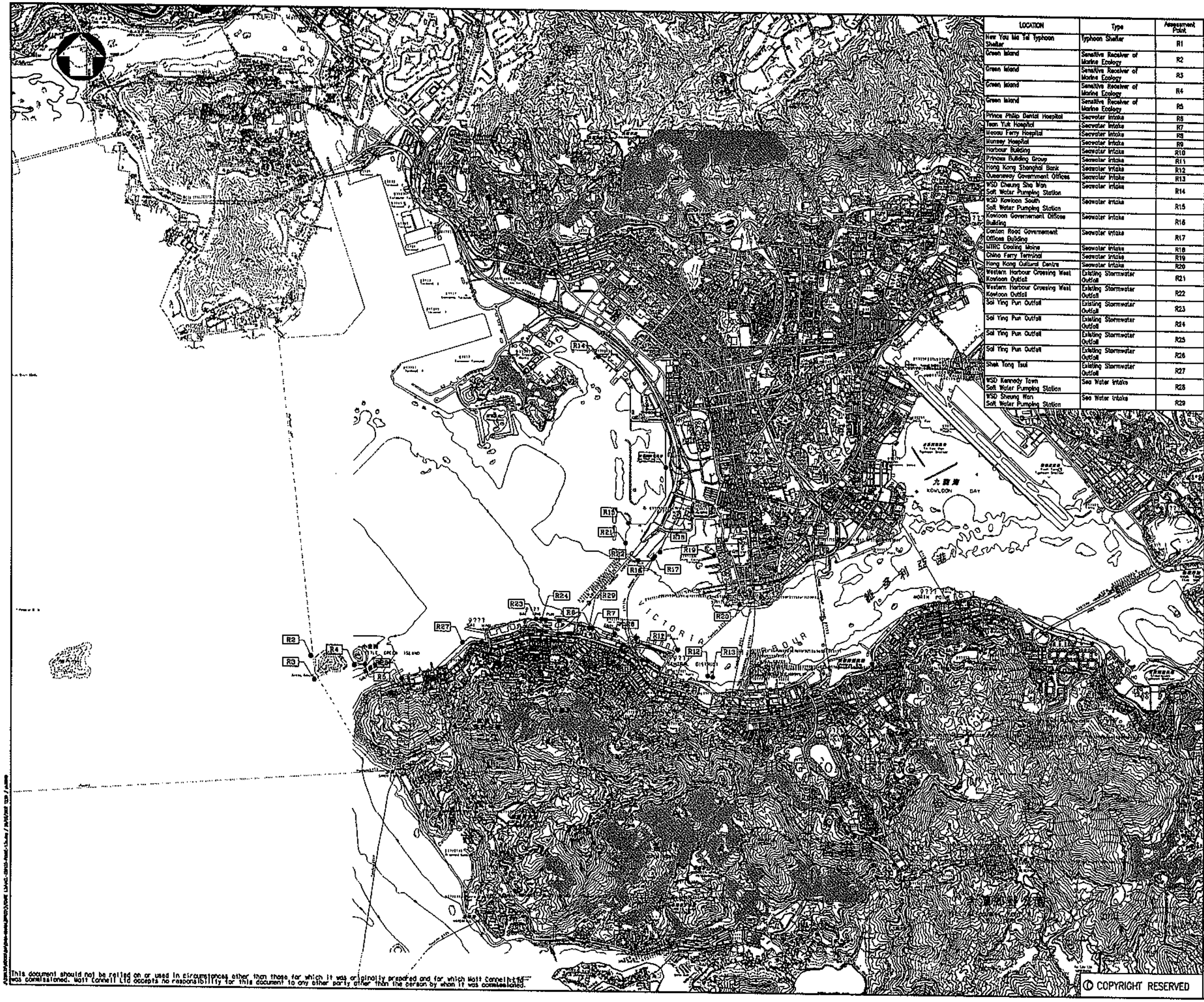


Contract No. 9/WSD/08 Laying of Western Cross Harbour Main and Associated Land Mains for West Kowloon to Sai Ying Pun

Figure 3

Locations of Water Quality Monitoring Stations

東業領動測試顧問有限公司
ETS-TESTCONSULT LIMITED



LOCATION	Type	Assessment Point
New Yau Ma Tei Typhoon Shelter	Typhoon Shelter	R1
Green Island	Sensitive Receiver of Marine Ecology	R2
Green Island	Sensitive Receiver of Marine Ecology	R3
Green Island	Sensitive Receiver of Marine Ecology	R4
Green Island	Sensitive Receiver of Marine Ecology	R5
Prince Philip Dental Hospital	Seawater Intake	R6
Tsan Yuk Hospital	Seawater Intake	R7
Macau Ferry Hospital	Seawater Intake	R8
Munsey Hospital	Seawater Intake	R9
Harbour Building	Seawater Intake	R10
Princes Building Group	Seawater Intake	R11
Hong Kong Shanghai Bank	Seawater Intake	R12
Queensway Government Offices	Seawater Intake	R13
WSD Cheung Sha Wan Salt Water Pumping Station	Seawater Intake	R14
WSD Kowloon South Salt Water Pumping Station	Seawater Intake	R15
Kowloon Government Offices Building	Seawater Intake	R16
Canton Road Government Offices Building	Seawater Intake	R17
MTRC Cooling Mains	Seawater Intake	R18
China Ferry Terminal	Seawater Intake	R19
Hong Kong Cultural Centre	Seawater Intake	R20
Western Harbour Crossing West Kowloon Outfall	Existing Stormwater Outfall	R21
Western Harbour Crossing West Kowloon Outfall	Existing Stormwater Outfall	R22
Sai Ying Pun Outfall	Existing Stormwater Outfall	R23
Sai Ying Pun Outfall	Existing Stormwater Outfall	R24
Sai Ying Pun Outfall	Existing Stormwater Outfall	R25
Sai Ying Pun Outfall	Existing Stormwater Outfall	R26
Shek Tong Tsui	Existing Stormwater Outfall	R27
WSD Kennedy Town Salt Water Pumping Station	Sea Water Intake	R28
WSD Sheung Wan Salt Water Pumping Station	Sea Water Intake	R29

Rev	Date	Drawn	Description	Ch'k'd	App'd
A	06/05	LYK	PRELIMINARY		

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

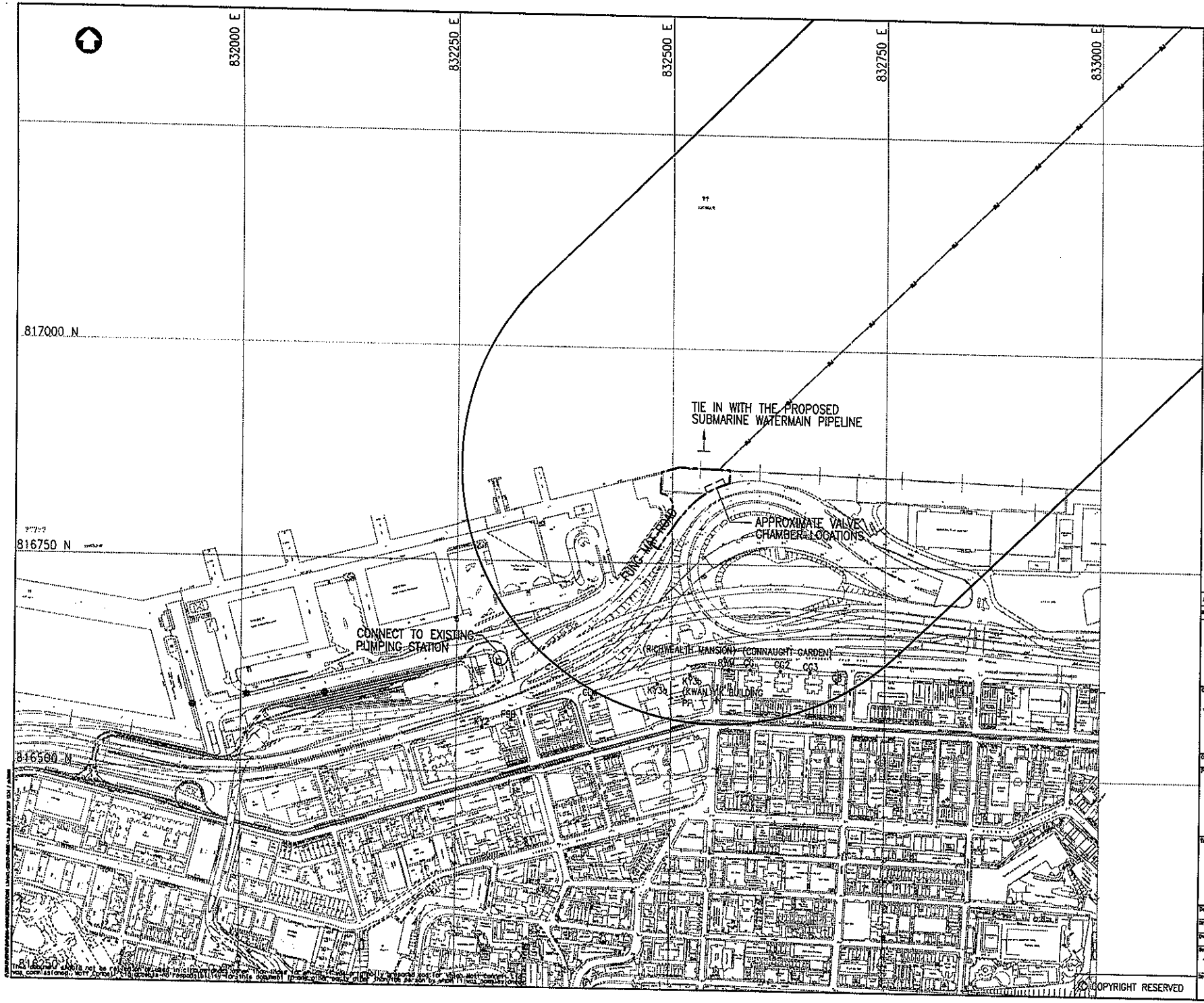
Contract No. CE42/2005(WS)

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

Title
LOCATIONS OF WATER SENSITIVE RECEIVERS AND STORMWATER OUTFALLS AT WESTERN HARBOUR

Designed		Eng.Chk.	
Drawn	LYK	Coordination	–
Dwg.Chk.	—	Approved	
Scale 1 : 25000@A1		Project 226133	Status

Drawing No. FIGURE 1.2a Rev A



Rev	Date	Drwng	Description	Ch'k'd	App'd
A	05/06	LYK	PRELIMINARY		

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Client:

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

Contract No. CE42/2005(WS)

Project:

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

Title:

LOCATIONS OF NOISE SENSITIVE RECEIVERS IN SAI YING PUN

Designed			Dwg Ckd.		
Drawn	LYK		Cross-Checked		
Dwg Ckd.	—		Approved		

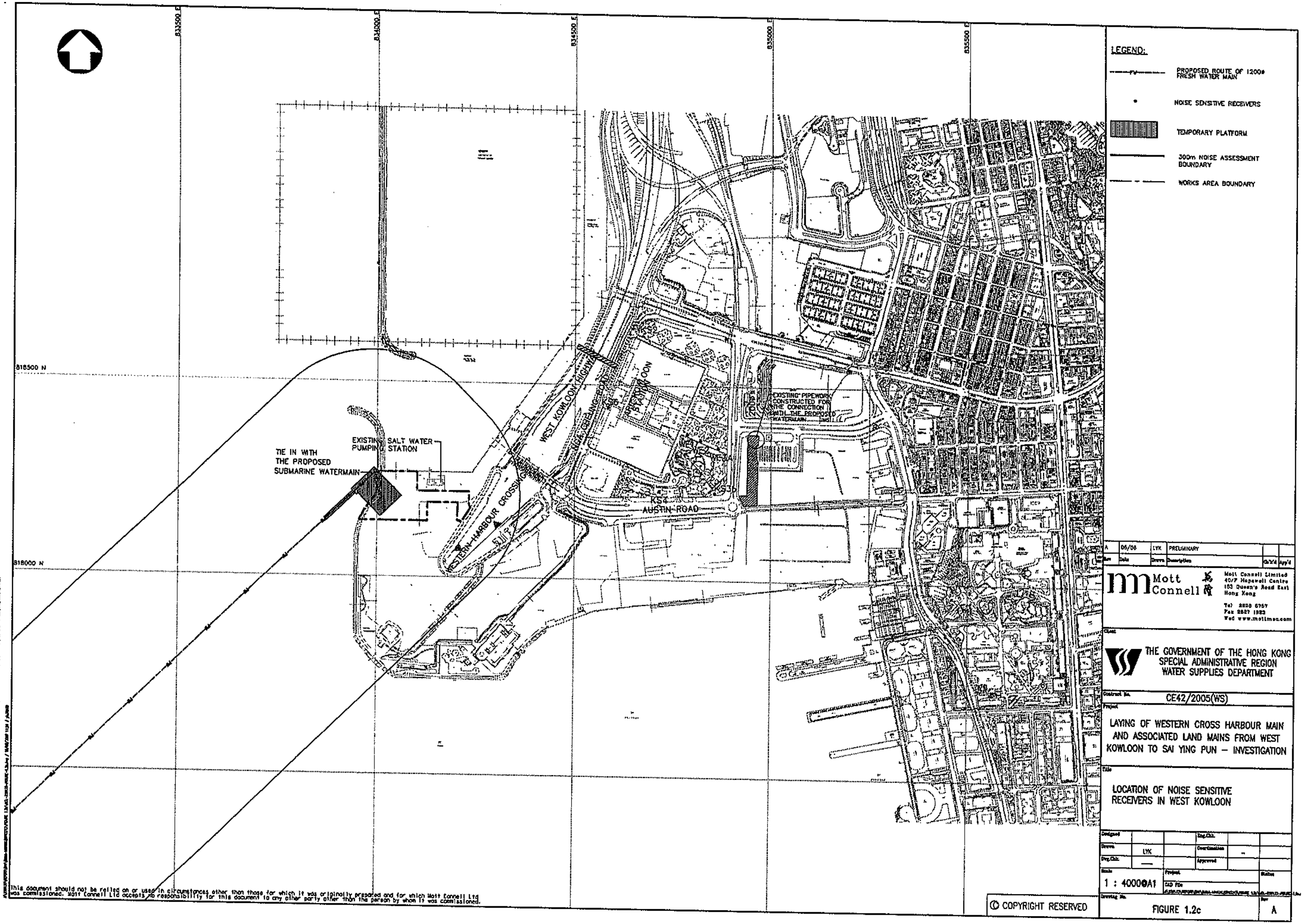
Scale: 1 : 2000@A1

Project:

CAD File:

Drawing No.: FIGURE 1.2b

Rev: A


833500 E
834000 E
834500 E
835000 E
835500 E
818500 N
818000 N
TIE IN WITH
THE PROPOSED
SUBMARINE WATERMAIN
EXISTING SALT WATER
PUMPING STATION
WEST KOWLOON HIGHWAY
WESTERN HARBOUR CROSSING
AUSTIN ROAD
KS4
KS5
EXISTING PIPEWORK
CONSTRUCTED FOR
THE CONNECTION
WITH THE PROPOSED
WATERMAIN
LEGEND:
PROPOSED ROUTE OF 1200ø FRESH WATER MAIN
NOISE SENSITIVE RECEIVERS
TEMPORARY PLATFORM
300m NOISE ASSESSMENT BOUNDARY
WORKS AREA BOUNDARY
A 06/06 LYK PRELIMINARY
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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
KOWLOON TO SAI YING PUN – INVESTIGATION
LOCATION OF NOISE SENSITIVE
RECEIVERS IN WEST KOWLOON
Drawn LYK
1 : 4000@A1
FIGURE 1.2c
A
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