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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.5

(SEPTEMBER 2010)

Prepared by: _____
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Environmental Team Leader

Issued Date: 07 October 2010 *Report No.: ENA00927*

ENVIRON

Ref.: WSDWHCMSEI00_0_0099L.10 11th Oct, 2010

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

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. 5

Reference is made to Environment Team's submission of the Environmental Monitoring and Audit Report No. 5 by Email on 7th Oct 2010 (entitled "9/WSD/08 - Draft Monthly Report (September 10)") and the subsequent revision of the report by Email on 11th Oct 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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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.5 was prepared by ETS-Testconsult Ltd (ET) for the Project. This report documented the findings of EM&A Works conducted during the Project in September 2010.

Site Activities

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

- *Dredging of Type 1 marine sediment (Portion I);*
- *Erection of steel working platform for marine piling works (Portion J);*
- *Concreting of the concrete coating of the 1200mm dia. water main (Portion H1 & H2); and*
- *Dismantling of the steel working platform (Portion H1 & H2).*

Environmental Monitoring Progress

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

- *Day-time Noise Monitoring (0700-1900 on normal weekday): 5 Occasions at KS6. CGa, RWM and KY3*
- *Evening-time Noise Monitoring (1900-2300): 1 Occasions at KS6, CGa, RWM and KY3*
- *Night-time Noise Monitoring (2300-0700 of next day): 1 Occasions at KS6, CGa, RWM and KY3*
- *Holiday-time Noise Monitoring (0700-1900 on Holiday): 1 Occasions at KS6, 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 Level of noise monitoring were recorded in this reporting month since no complaint on noise issue was received.

Eleven exceedances in Limit Level were recorded according to the results from night-time noise monitoring on 04 September 2010 (2300-2400) at CGa, RWM and KY3, and 05 September 2010 (0000-0100) at KS6. However, all of the exceedances were considered to be invalid (not project related) and no further actions were required. Interim notifications of exceedance (NOEs) for all exceedances were issued to EPD, ER, IEC and the Contractor by ET. The details of NOEs present in Appendix K.

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, 14, 21 and 28 September 2010*
Monthly Joint site inspection	*21 September 2010*

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

Environmental Complaints, Notification of summons and successful prosecutions

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

Change in Environmental Aspect in this Reporting Month

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

Future Key Issues

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

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

1.0 INTRODUCTION

Wo Hing – Penta-Ocean Joint Venture (WHPOJV) appointed Environmental Team of ETS-Testconsult Limited (ETL) to undertake the Environmental 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 in September 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.

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

2.2 Work Programme

Details of work programme are shown in Appendix E.

2.3 Project Organization and Management Structure

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

2.4 Contact Details of Key Personnel

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

Table 2.1 Contact Details of Key Personnel

Project Role	*Organization*	*Name of Key Staff*	*Tel. No.*	*Fax No.*
Engineer's Representative	*Mott MacDonald*	*Mr. Kelvin HO*	*2377 2823*	*2377 2900*
IEC	*Environ*	*Mr David Yeung*	*3743 0788*	*3548 6988*
Contractor's Agent	*WHPOJV*	*Mr. Danny HO*	*2695 8318*	*2957 8213*
ET Leader	*ET (ETL)*	*Mr C. L. Lau*	*2946 7791*	*2695 3944*

3.0 WORK PROGRESS IN THIS REPORTING MONTH

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

- *Dredging of Type 1 marine sediment (Portion I);*
- *Erection of steel working platform for marine piling works (Portion J);*
- *Concreting of the concrete coating of the 1200mm dia. water main (Portion H1 & H2); and*
- *Dismantling of the steel working platform (Portion H1 & H2).*

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

4.0 IMPACT NOISE MONITORING

4.1 Monitoring Requirements

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

4.2 Monitoring Equipment

Integrating Sound Level Meters used for impact noise monitoring were Type 1 sound level meters capable of giving a continuous readout of the noise level reading including equivalent continuous sound pressure level (L_{eq}) and percentile sound pressure level (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.*	*Calibration Date.*	*Expired Date*
Sound Level Meter	*Rion NL-31 Sound Level Meter*	*ET/EN/003/12*	*00773032*	*25/11/09*	*24/11/10*
		ET/EN/003/10	*00531142*	*09/06/10*	*08/06/11*
	Cesva SC-20C	*ET/EN/003/11*	*T222897*	*11/11/09*	*10/11/10*
Sound Level Calibrator	*Rion NC-73 Sound Level Meter*	*ET/EN/002/01*	*10196943*	*11/11/09*	*10/11/10*
Anemometer	*AZ Instrument AZ 8908*	*ET/EN/001/03*	*9101259*	*11/11/09*	*10/11/10*

4.3 Monitoring Parameters, Duration and Frequency

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

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

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

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

Table 4.2 Duration, Frequencies and Parameters of Noise Monitoring

Time period	*Duration/min*	*No. of Set(s)*	*Parameters*
Day-time: 0700-1900 hrs on normal weekday	*30*	*1*	L_{eq}, L_{10}, L_{90}
Evening-time: 1900-2300 hrs	*5*	*3*	L_{eq}, L_{10}, L_{90}
Night-time: 2300-0700 hrs of next day	*5*	*3*	L_{eq}, L_{10}, L_{90}
Holiday-time: 0700-1900 hrs on holiday	*5*	*3*	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.

Beside, the locations at the noise stations, RWM (Roof at Richwealth Mansion) and KY3 (Roof at Kwan Yik Building Phase 3), were unavailable for impact evening-time and night-time noise measurement because the building owners reject ET to carry out noise monitoring during such two periods due to security. Hence, evening-time and night-time noise monitoring at noise stations, RWM and KY3 were moved to pavement in front of Richwealth Mansion and Kwan Yik Building Phase 3 The details of noise monitoring stations are summarized in Table 4.3.

Table 4.3 Noise Monitoring Stations

Daytime and Holiday-time Noise monitoring station	*Description of location*	*Type of Measurement*
KS6	*Podium at the Culliman*	*Façade*
CGa	*Pavement in front of Connaught Garden*	*Façade*
RWM	*Roof at Richwealth Mansion*	*Free Field*
KY3	*Roof at Kwan Yik Building Phase 3*	*Free Field*
Evening-time and Night-time Noise monitoring station	*Description of location*	*Type of Measurement*
KS6	*Podium at the Culliman*	*Façade*
CGa	*Pavement in front of Connaught Garden*	*Façade*
RWM	*Pavement at Richwealth Mansion*	*Façade*
KY3	*Pavement at Kwan Yik Building Phase 3*	*Façade*

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

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

4.7 Event-Action Plans

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

4.8 Results

During this reporting month, totally 5 occasions of day-time noise monitoring, 1 occasions of evening-time noise monitoring, 1 occasions of night-time noise monitoring and 1 occasion of holiday-time noise monitoring were carried out at all four noise monitoring stations, KS6, CGa, RWM and KY3.

No exceedances of Action Level of noise monitoring were recorded in this reporting month since no complaint on noise issue was received.

Eleven exceedances in Limit Level were recorded according to the results from night-time noise monitoring on 04 September 2010 (2300-2400) at CGa, RWM and KY3, 05 September 2010 (0000-0100) at KS6. However, all of the exceedances were considered to be invalid (not project related) and no further actions were required. Interim notifications of exceedance (NOEs) for all exceedances were issued to EPD, ER, IEC and the Contractor by ET. The details of NOEs present in Appendix K.

Table 4.5 summaries the noise monitoring results in the reporting period.

Table 4.5 Summary of Noise Monitoring Results

Monitoring Parameter	Date	KS6			Date	CGa			RWM			KY3		
		Time	Result	Exceed*		Time	Result	Exceed*	Time	Result#	Exceed*	Time	Result#	Exceed*
Daytime	01/09/10	17:15	60.3	X	03/09/10	10:55	73.9	X	11:30	65.8	X	14:50	63.1	X
	10/09/10	09:25	63.3	X	10/09/10	15:35	72.6	X	15:00	68.0	X	15:15	63.2	X
	17/09/10	15:25	59.0	X	17/09/10	11:40	71.8	X	12:05	62.2	X	11:30	60.1	X
	24/09/10	16:55	63.9	X	24/09/10	11:00	70.4	X	11:35	61.4	X	13:00	60.4	X
	27/09/10	16:00	63.4	X	29/09/10	11:25	74.2	X	15:40	61.3	X	16:15	59.8	X
Evening -time	04/09/10	21:10	59.7	X	04/09/10	22:00	68.2	X	22:20	63.1	X	22:40	60.9	X
	04/09/10	21:15	61.3	X	04/09/10	22:05	67.4	X	22:25	62.6	X	22:45	61.3	X
	04/09/10	21:20	61.4	X	04/09/10	22:10	67.7	X	22:30	62.4	X	22:50	61.5	X
Night-time	05/09/10	00:15	58.6	L	04/09/10	23:00	56.4	L	23:20	55.6	L	23:40	54.9	X
	05/09/10	00:20	59.0	L	04/09/10	23:05	56.8	L	23:25	55.8	L	23:45	55.3	L
	05/09/10	00:25	58.8	L	04/09/10	23:10	55.9	L	23:30	56.0	L	23:50	55.7	L
Holiday-time	05/09/10	09:05	61.1	X	05/09/10	10:05	67.9	X	10:25	61.2	X	10:45	62.1	X
	05/09/10	09:10	61.0	X	05/09/10	10:10	68.1	X	10:30	60.9	X	10:50	61.8	X
	05/09/10	09:15	61.0	X	05/09/10	10:15	68.4	X	10:35	61.4	X	10:55	61.4	X

Remark (*): L = Limit Level exceedance, A = Action Level exceedance and X = not an Exceedance
(#): Since daytime and holiday-time noise measurements at monitoring stations RWM and KY3 were free-field, 3dB(A) correction had been added to the results.

The summary of noise exceedances is shown in Table 4.6.

Table 4.6 Summary of Impact Noise Exceedances in this reporting month

Exceedance Level	Daytime	Evening-time	Night-time	Holiday-time
Action	0	0	0	0
Cumulative	0	0	0	0
Limit	0	0	11	0
Cumulative	0	0	68	0

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*	*23/08/10*	*22/11/10*	*ET/EW/008/002**	*06C1998AD*
Turbidity	*HACH Model 2100P Turbid Meter*	*16/07/10*	*15/10/10*	*ET/0505/007**	*08060C030281*
Water Depth	*Speedtech Instrument SM-5A*	-----	-----	*ET/EW/002/04*	*56657*

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

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

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

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

Table 5.6 Summary of test method

Laboratory Analysis	*Testing Procedure*	*Method Detection Limit*
Total suspended solids	*In house method based on APHA 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 conducted in this reporting month:

Table 5.8 Schedule for Impact Water Quality Monitoring

September 2010						
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
			1	2 ▼	3	4 ▼
5	6	7 ▼	8	9 ▼	10	11 ▼
12	13	14 ▼	15	16 ▼	17	18 ▼
19	20	21 ▼	22	23 Holiday	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		Cumulative	
	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, 14, 21 and 28 September 2010 by ET. Monthly joint site inspection at 21 September 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. No environmental deficiency was observed in this reporting month.

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

Permits/licenses valid in this reporting month are summarized in Table 7.1.

Table 7.1 Summary of Environmental Licensing and Permit valid in this reporting month

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

Description	Permit No.	Valid Period		Remarks
		From	To	
Construction Noise Permit (West Kowloon)	GW-RE0188-10	01/09/10	20/10/10	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 (Sai Ying Pun)	GW-RS0234-10	22/03/10	19/09/10	One dredger, grab (CNP 063) Two Guard boat One Tug boat (CNP 221) Hopper barge
Construction Noise Permit (Sai Ying Pun)	GW-RS0756-10	12/09/10	11/03/11	One dredger, grab (CNP 063) Two Guard boat One Tug boat (CNP 221) Hopper barge
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/11-039	26/07/10	30/09/10	Bulk quantity of material approved for dumping at the East Ninepin Mud Disposal Ground denoted "LWCHMALM" within permit validity period: 251160 cu.m. (for Type 1 – Open Sea Disposal
Dumping Licence	EP/MD/11-053	06/08/10	05/09/10	Bulk quantity of material approved for dumping at the East Sha Chau Contaminated Mud Disposal Site within permit validity period: 159653 cu.m. (for Type 1 – Open Sea Disposal (Dedicated Site) and Type 2 – Confined Marine Disposal)
Dumping Licence	EP/MD/11-069	01/10/10	31/03/11	Bulk quantity of material approved for dumping at the South Cheung Chau Spoil Disposal Area denoted "LWCHMALM" within permit validity period:130,000 cu.m. (for Type 1 – Open Sea 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)	221.23		5147.64
	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)	221.23	SENT Landfill	5147.64
C&D Waste	Metals (in kg)	0	---	0
	Paper/Cardboard Packaging (in kg)	0	Collected by recycling company	52
	Plastics (in kg)	0	---	0
	Chemical Waste (in kg)	0	---	0
	Other, e.g. General Refuse (in m^3)	6.5	SENT Landfill	45.75
Dredged Materials*	Type 1 (in m^3)	15200	East Ninepin Mud Disposal Ground	84400
	Type 2 (in m^3)	0	The East Sha Chau	104990 #

Remark (*): Daily Dredging Summary for this reporting month presents in Appendix J
(#): Total amount of Type 2 marine sediment was 11550m^3 (instead of 10800m^3) in August 2010. Hence, the cumulative quantity of Type 2 marine sediment until August 2010 was 104990m^3 (instead of 104240m^3).

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.

9.0 ENVIRONMENTAL NON-CONFORMANCE

9.1 Summary of Noise and Water Quality

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

No exceedances of Action Level of noise monitoring were recorded in this reporting month since no complaint on noise issue was received.

Eleven exceedances in Limit Level were recorded according to the results from night-time noise monitoring on 04 September2010 (2300-2400) at CGa, RWM and KY3, and 05 September 2010 (0000-0100) at KS6. However, all of the exceedances were considered to be invalid (not project related) and no further actions were required.

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

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

Since no documented complaints on noise issue were received in this reporting month, no Action Level exceedances were recorded.

Eleven exceedances in Limit Level were recorded according to the results from night-time noise monitoring on 04 September 2010 (2300-2400) at CGa, RWM and KY3, and 05 September 2010 (0000-0100) at KS6. However, all of the exceedances were considered to be invalid (not project related) and no further actions were required.

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*	
September 2010	*Cumulative*	*September 2010*	*Cumulative*	*September 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.

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

No exceedances of Action Level of noise monitoring were recorded in this reporting month since no complaint on noise issue was received.

Eleven exceedances in Limit Level were recorded according to the results from night-time noise monitoring on 04 September 2010 (2300-2400) at CGa, RWM and KY3, and 05 September 2010 (0000-0100) at KS6. However, all of the exceedances were considered to be invalid (not project related) and no further actions were required.

According to the ET weekly site inspections carried out in this reporting month, the Contractor generally implemented sufficient environmental 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:

- *Dismantling of steel working platform (Portion H1 & H2);*
- *Erection of steel working platform for marine piling (Portion J);*
- *Drilling of marine pipe pile (Portion J);*
- *Dredging of Type 1 marine sediment between CH1100 and CH0 (Portion I);*
- *Dismantle existing sloping seawall in West Kowloon (Portion I); and*
- *Drilling of pipe pile (construction of cofferdam) in West Kowloon (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.

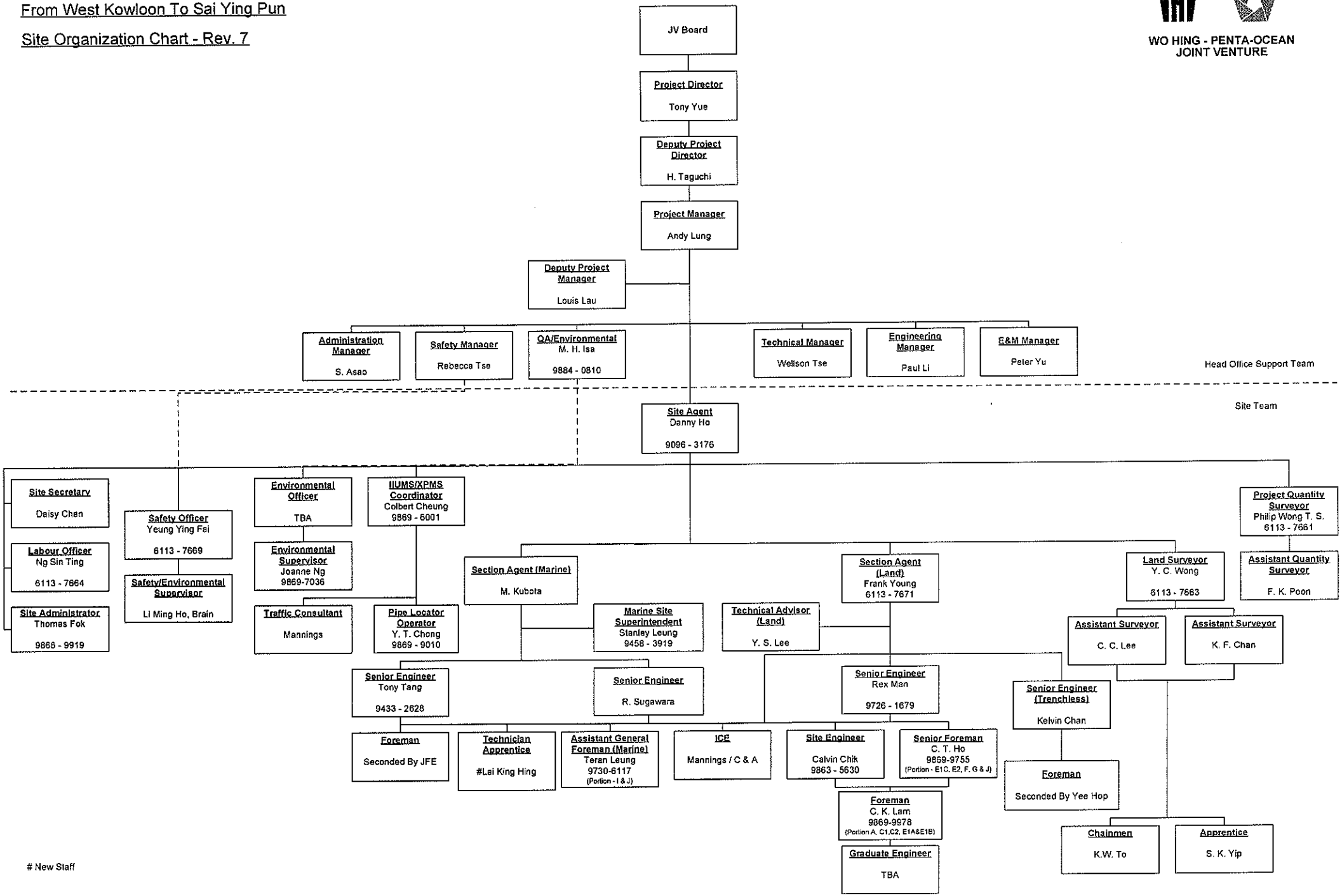
Appendix A

Organization Chart and Lines of Communication

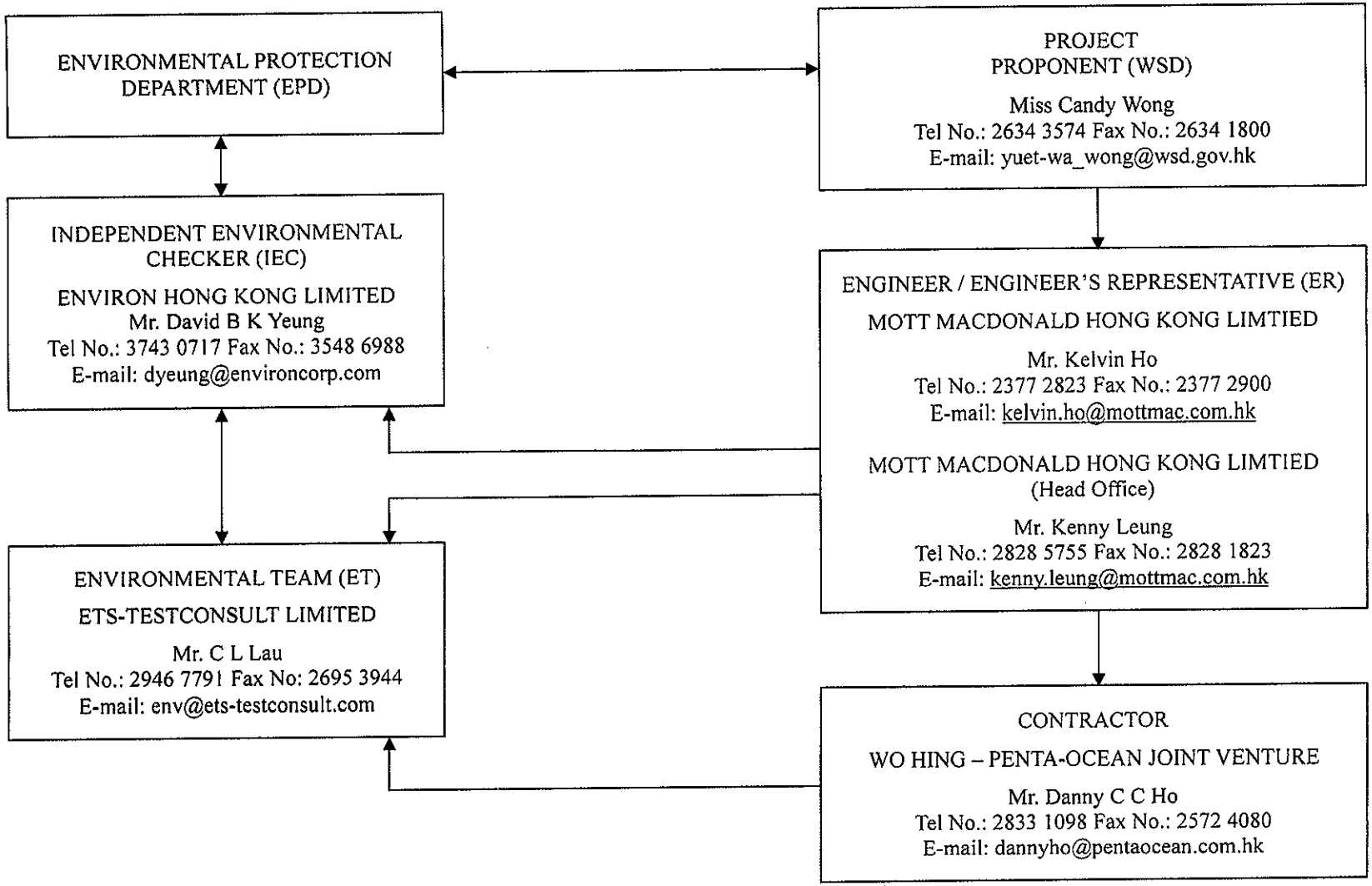
Contract No. 9/WSD/08
Laying Of Western Cross Harbour Main And Associated Land Mains
From West Kowloon To Sai Ying Pun

Site Organization Chart - Rev. 7

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. 58-76, Ta Chuen Ping Street,Kwai Chung, NT,Hong Kong.
Tel: 2425 8801 Fax: 2425 8646

Calibration Certificate

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. 95692

Customer : ETS-Testconsult Limited

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

Order No. : Q92297 **Date of receipt :** 5-Nov-09

Item Tested

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

Manufacturer : Cesva

Model : SC-20C **Serial No. :** T222897

Test Conditions

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

Ambient Temperature : (23 ± 3)°C **Relative Humidity :** (50 ± 25) %

Test Specifications

Calibration check.

Ref. Document/Procedure: Z01.

Test Results

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

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

Main Test equipment used:

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: 13-Nov-09

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

Calibration Certificate

Results :

1. SPL Accuracy

UUT Setting			Applied Value (dB)	UUT Reading (dB)
Level Range (dB)	Freq. Weight	Time Weighting		
23 ~ 140	L_A	L_F	94.03	93.8
		L_S		93.8
	L_C	L_F		93.8
		L_S		93.8
	L_A	L_F	113.97	113.8
		L_S		113.8
	L_C	L_F		113.8
		L_S		113.8

IEC 651 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

3. Linearity

Level Linearity

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

Uncertainty : ± 0.1 dB

Calibration Certificate

4. Frequency Weighting

A weighting

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

Uncertainty : ± 0.1 dB

5. Time Averaging

Applied Burst duty Factor	Applied Leq Value (dB)	UUT Reading (dB)	IEC 804 Type 1 Spec.
continuous	50.0	50.0	--
1/10		50.0	± 0.5 dB
$1/10^2$		50.0	
$1/10^3$		49.9	± 1.0 dB
$1/10^4$		49.9	

Uncertainty : ± 0.1 dB

Remark : 1. UUT : Unit-Under-Test
2. The uncertainty claimed is for a confidence probability of not less than 95%.
3. Atmospheric Pressure : 1 002 hPa.

---------- 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. 58-76, 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 ----------

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

Calibration Certificate

Certificate No. 02909A

Customer : ETS-Testconsult Limited

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

Order No. : Q01152 **Date of receipt :** 31-May-10

Item Tested

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

Manufacturer : Rion

Model : NL-31 **Serial No. :** 00531142

Test Conditions

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

Ambient Temperature : (23 ± 3)°C **Relative Humidity :** (50 ± 25) %

Test Specifications

Calibration check.

Ref. Document/Procedure : Z01.

Test Results

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

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

Main Test equipment used:

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

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

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

Calibrated by : Dorothy Cheuk

Approved by : Alan Chu

Date: 15-Jun-10

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

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	93.7
		Slow		93.7
	L_C	Fast		93.7
	Lp	Fast		93.7
30 – 120	L_A	Fast	94.03	93.7
		Slow		93.6
	L_C	Fast		93.7
	Lp	Fast		93.7
30 – 120	L_A	Fast	113.97	113.6
		Slow		113.6
	L_C	Fast		113.6
	Lp	Fast		113.6

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 : ± 0.1 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	113.9	+0.2	± 0.7 dB
130	104.0	103.9	+0.2	
120	94.0	93.7 (Ref.)	--	
110	84.0	84.1	+0.4	
100	74.0	73.7	0.0	
90	64.0	63.7	0.0	
80	54.0	53.7	0.0	

Uncertainty : ± 0.1 dB

3.2 Differential level linearity

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

Uncertainty : ± 0.1 dB

4. Frequency Weighting

A weighting

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

Uncertainty : ± 0.1 dB

Calibration Certificate

4. Time Averaging

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

Uncertainty : ± 0.1 dB

Remark : 1. UUT : Unit-Under-Test
2. The uncertainty claimed is for a confidence probability of not less than 95%.
3. Atmospheric Pressure : 1 002 hPa.
4. This certificate is to supersede our former certificate no. 02909.

---------- END ----------

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

Calibration Certificate

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	
01/09/10	Cloudy	17:15	17:45	60.3	62.4	57.7	0.2
10/09/10	Cloudy	09:25	09:55	63.3	64.3	61.9	1.3
17/09/10	Fine	15:25	15:55	59.0	60.5	57.8	<0.1
24/09/10	Fine	16:55	17:25	63.9	64.8	59.4	0.6
27/09/10	Sunny	16:00	16:30	63.4	65.4	61.3	1.3

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	
03/09/10	Cloudy	10:55	11:25	73.9	75.8	68.6	0.8
10/09/10	Cloudy	15:35	16:05	72.6	74.8	70.4	0.2
17/09/10	Sunny	11:40	12:10	71.8	72.5	67.8	0.8
24/09/10	Cloudy	11:00	11:30	70.4	72.7	66.0	1.0
29/09/10	Fine	11:25	11:55	74.2	75.4	69.8	0.5

Monitoring Station: RWM (Roof at Richwealth Mansion)

Date	Weather Condition	Start Time (hh:mm)	End Time (hh:mm)	Noise Level at the monitoring point, dB (A)			Wind Speed (m/s)
				Leq (30min)	L10	L90	
03/09/10	Cloudy	11:30	12:00	65.8	67.2	60.7	1.2
10/09/10	Cloudy	15:00	15:30	68.0	72.0	64.0	0.3
17/09/10	Cloudy	12:05	12:35	62.2	63.5	59.8	1.0
24/09/10	Cloudy	11:35	12:05	61.4	63.9	55.2	1.5
29/09/10	Fine	15:40	16:10	61.3	63.2	59.7	0.7

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	
03/09/10	Cloudy	14:50	15:20	63.1	65.8	59.7	1.5
10/09/10	Cloudy	15:15	15:45	63.2	64.3	62.0	0.3
17/09/10	Sunny	11:30	12:00	60.1	61.1	58.5	1.1
24/09/10	Cloudy	13:00	13:30	60.4	61.8	56.1	1.4
29/09/10	Fine	16:15	16:45	59.8	61.7	58.2	0.9

Evening-time Noise Monitoring

Monitoring Station: KS6 (Podium at the Culliman)

Date	Weather Condition	Start Time (hh:mm)	End Time (hh:mm)	Noise Level at the monitoring point, dB (A)			Wind Speed (m/s)
				Leq (5min)	L10	L90	
04/09/10	Fine	21:10	21:15	59.7	61.2	58.3	1.4
04/09/10	Fine	21:15	21:20	61.3	63.8	58.7	1.6
04/09/10	Fine	21:20	21:25	61.4	64.0	58.7	1.5

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

Date	Weather Condition	Start Time (hh:mm)	End Time (hh:mm)	Noise Level at the monitoring point, dB (A)			Wind Speed (m/s)
				Leq (5min)	L10	L90	
04/09/10	Fine	22:00	22:05	68.2	70.4	63.6	1.2
04/09/10	Fine	22:05	22:10	67.4	69.6	63.1	1.3
04/09/10	Fine	22:10	22:15	67.7	69.9	63.4	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 (5min)	L10	L90	
04/09/10	Fine	22:20	22:25	63.1	66.7	60.5	1.4
04/09/10	Fine	22:25	22:30	62.6	65.1	58.2	1.2
04/09/10	Fine	22:30	22:35	62.4	65.9	57.2	1.5

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

Date	Weather Condition	Start Time (hh:mm)	End Time (hh:mm)	Noise Level at the monitoring point, dB (A)			Wind Speed (m/s)
				Leq (5min)	L10	L90	
04/09/10	Fine	22:40	22:45	60.9	64.2	55.0	1.4
04/09/10	Fine	22:45	22:50	61.3	64.7	55.4	1.2
04/09/10	Fine	22:50	22:55	61.5	64.9	55.6	1.2

Night-time Noise Monitoring

Monitoring Station: KS6 (Podium at the Culliman)

Date	Weather Condition	Start Time (hh:mm)	End Time (hh:mm)	Noise Level at the monitoring point, dB (A)			Wind Speed (m/s)
				Leq (5min)	L10	L90	
05/09/10	Fine	00:15	00:20	58.6	59.8	57.1	1.6
05/09/10	Fine	00:20	00:25	59.0	60.2	57.9	1.7
05/09/10	Fine	00:25	00:30	58.8	59.9	57.3	1.5

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

Date	Weather Condition	Start Time (hh:mm)	End Time (hh:mm)	Noise Level at the monitoring point, dB (A)			Wind Speed (m/s)
				Leq (5min)	L10	L90	
04/09/10	Fine	23:00	23:05	56.4	58.9	51.7	1.4
04/09/10	Fine	23:05	23:10	56.8	59.2	52.0	1.5
04/09/10	Fine	23:10	23:15	55.9	58.4	51.1	1.3

Monitoring Station: RWM (Roof at Richwealth Mansion)

Date	Weather Condition	Start Time (hh:mm)	End Time (hh:mm)	Noise Level at the monitoring point, dB (A)			Wind Speed (m/s)
				Leq (5min)	L10	L90	
04/09/10	Fine	23:20	23:25	55.6	58.1	49.7	1.3
04/09/10	Fine	23:25	23:30	55.8	58.3	50.4	1.4
04/09/10	Fine	23:30	23:35	56.0	58.6	50.8	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 (5min)	L10	L90	
04/09/10	Fine	23:40	23:45	54.9	57.8	49.4	1.5
04/09/10	Fine	23:45	23:50	55.3	58.2	49.8	1.4
04/09/10	Fine	23:50	23:55	55.7	58.5	50.1	1.3

Holiday-time Noise Monitoring

Monitoring Station: KS6 (Podium at the Culliman)

Date	Weather Condition	Start Time (hh:mm)	End Time (hh:mm)	Noise Level at the monitoring point, dB (A)			Wind Speed (m/s)
				Leq (5min)	L10	L90	
05/09/10	Drizzle	09:05	09:10	61.1	62.3	59.8	0.8
05/09/10	Drizzle	09:10	09:15	61.0	62.2	59.5	0.9
05/09/10	Drizzle	09:15	09:20	61.0	62.1	59.6	0.7

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

Date	Weather Condition	Start Time (hh:mm)	End Time (hh:mm)	Noise Level at the monitoring point, dB (A)			Wind Speed (m/s)
				Leq (5min)	L10	L90	
05/09/10	Drizzle	10:05	10:10	67.9	70.4	62.6	0.7
05/09/10	Drizzle	10:10	10:15	68.1	70.6	62.8	0.9
05/09/10	Drizzle	10:15	10:20	68.4	70.9	63.0	1.0

Monitoring Station: RWM (Roof at Richwealth Mansion)

Date	Weather Condition	Start Time (hh:mm)	End Time (hh:mm)	Noise Level at the monitoring point, dB (A)			Wind Speed (m/s)
				Leq (5min)	L10	L90	
05/09/10	Drizzle	10:25	10:30	61.2	63.7	56.7	0.8
05/09/10	Drizzle	10:30	10:35	60.9	63.4	56.2	0.9
05/09/10	Drizzle	10:35	10:40	61.4	63.9	57.0	1.1

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

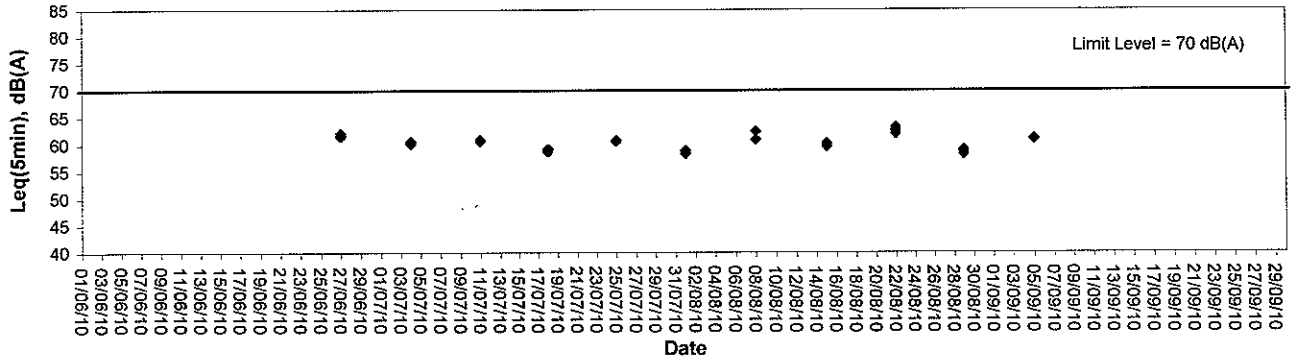
Date	Weather Condition	Start Time (hh:mm)	End Time (hh:mm)	Noise Level at the monitoring point, dB (A)			Wind Speed (m/s)
				Leq (5min)	L10	L90	
05/09/10	Drizzle	10:45	10:50	62.1	64.5	57.0	1.2
05/09/10	Drizzle	10:50	10:55	61.8	64.1	56.6	1.1
05/09/10	Drizzle	10:55	11:00	61.4	63.6	56.1	1.3

Appendix B3

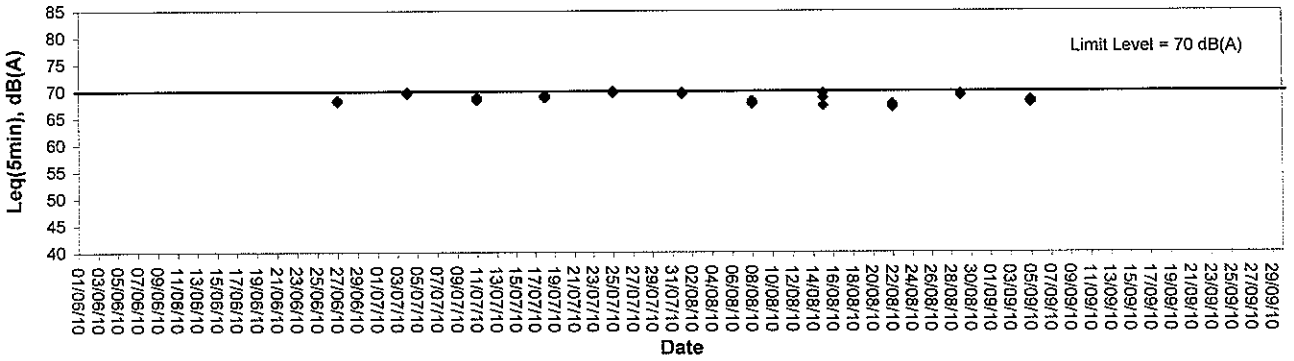
Graphical Plots of Impact Noise Monitoring Data

Noise Monitoring (Holiday-time)

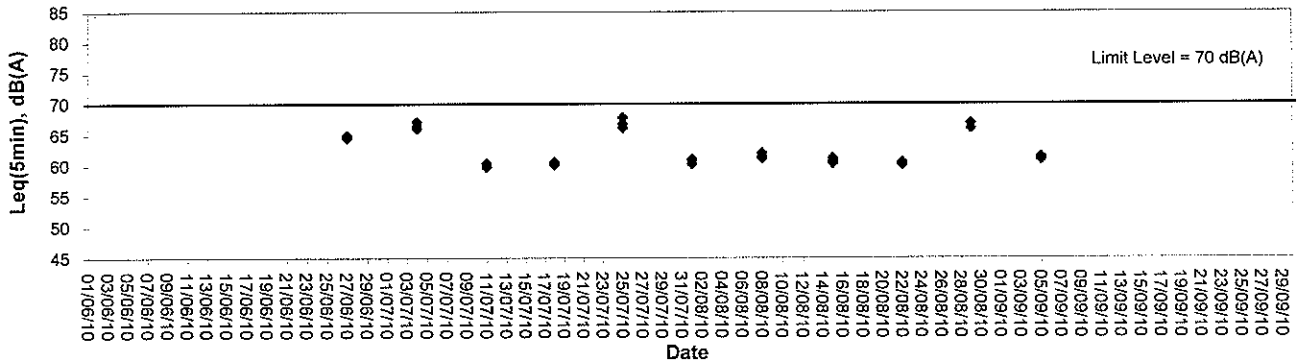
Noise level at KS6 - Podium at the Culliman



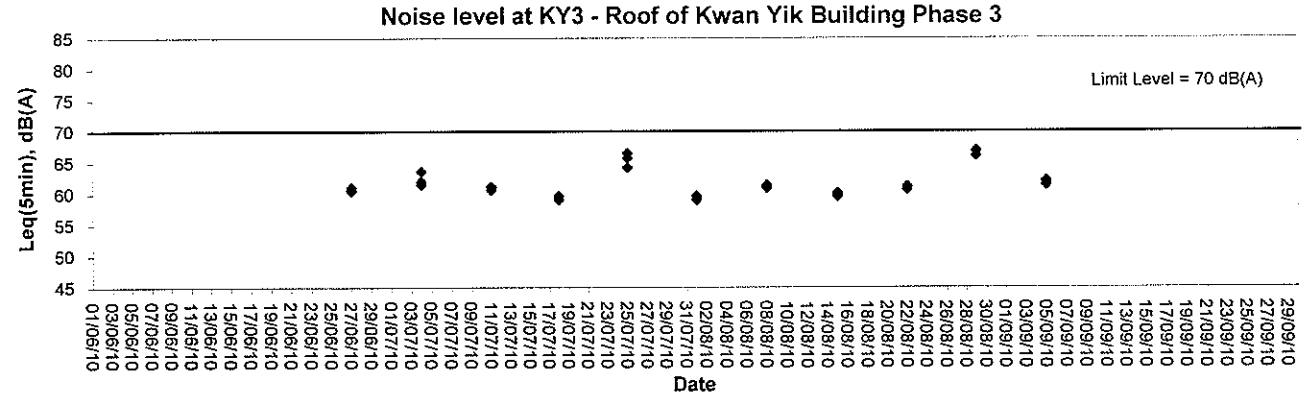
Noise level at CGa - Pavement in front of Connaught Garden



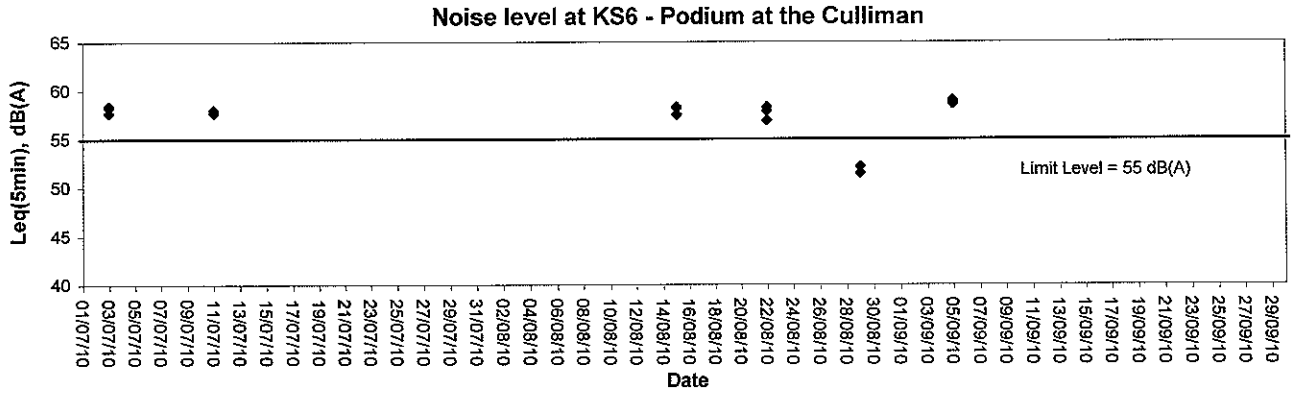
Noise level at RWM - Roof of Richwealth Mansion

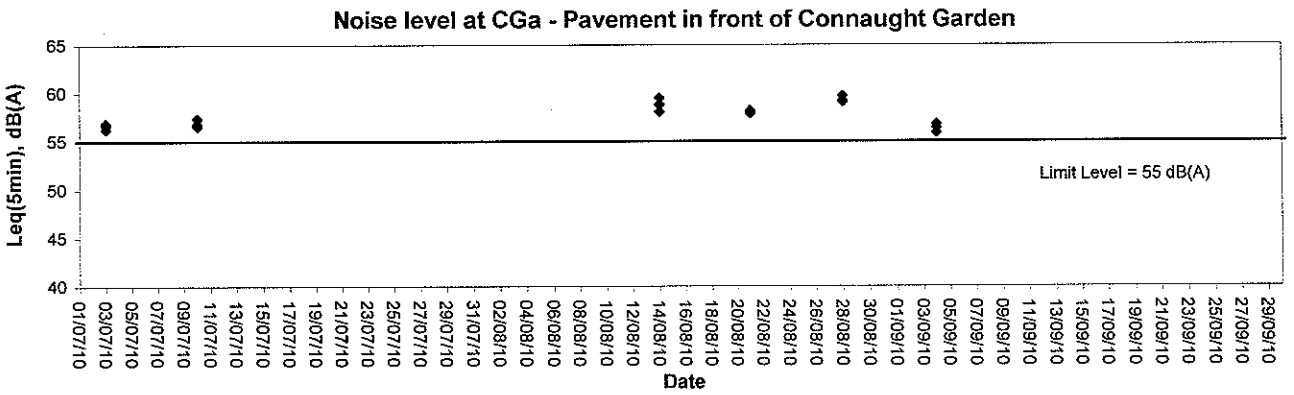


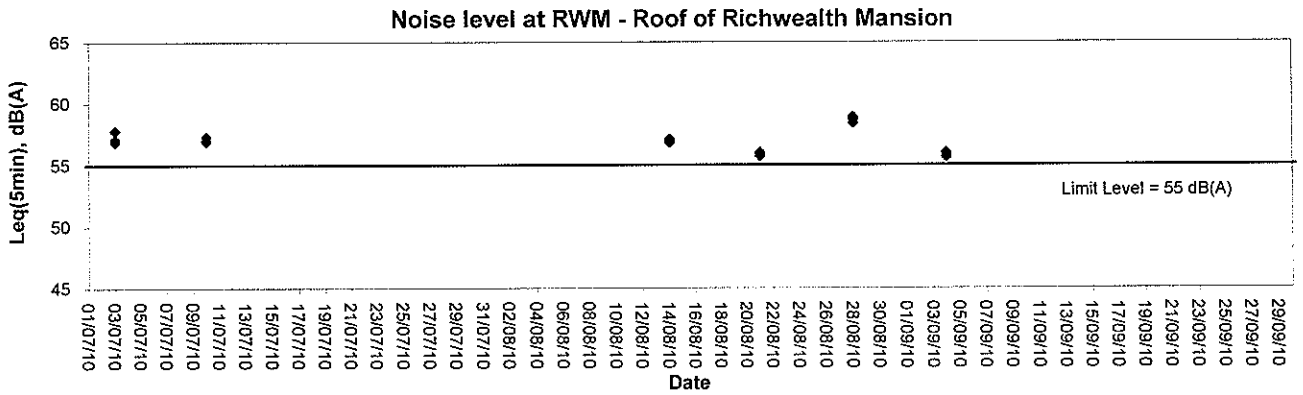
Noise level at KY3 - Roof of Kwan Yik Building Phase 3

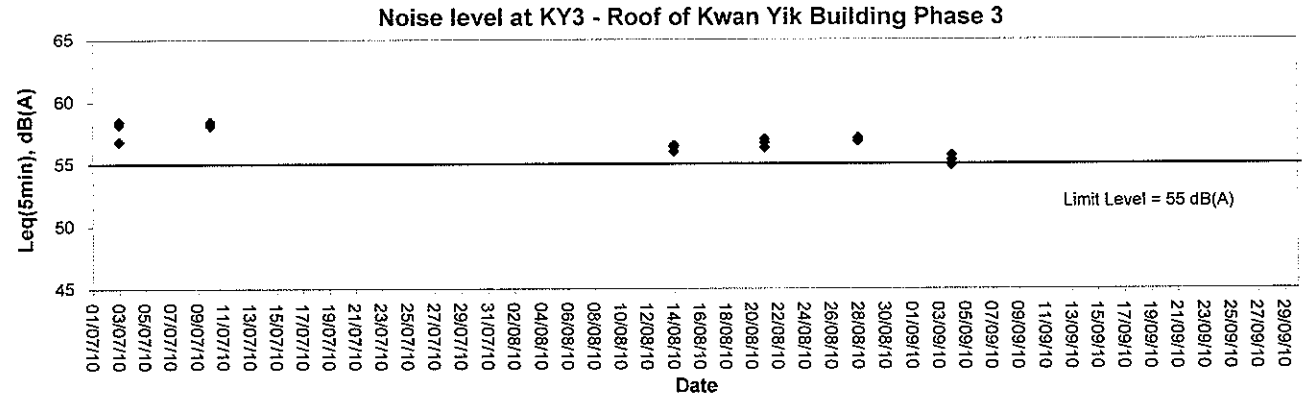


Noise Monitoring (Night-time)



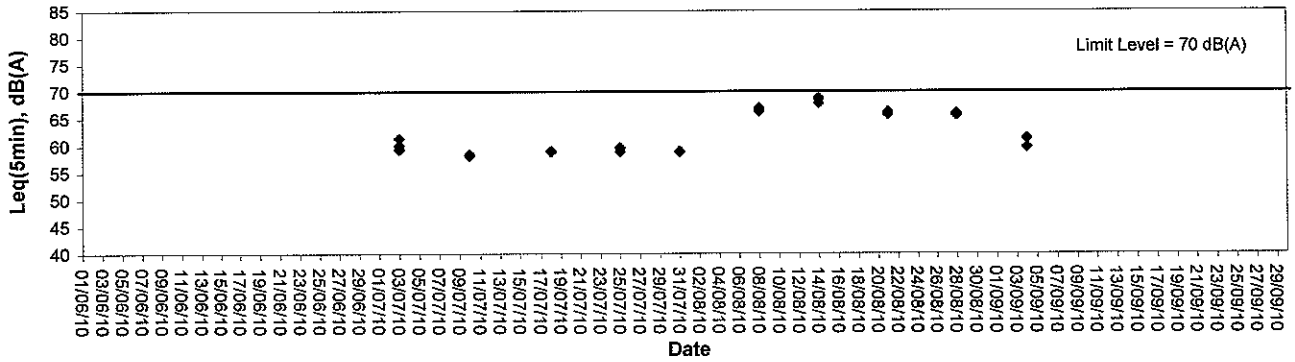




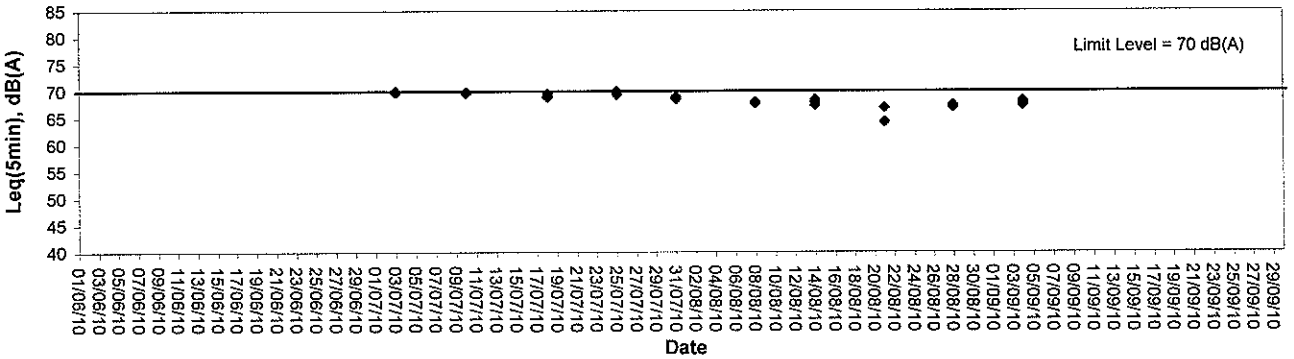


Noise Monitoring (Evening-time)

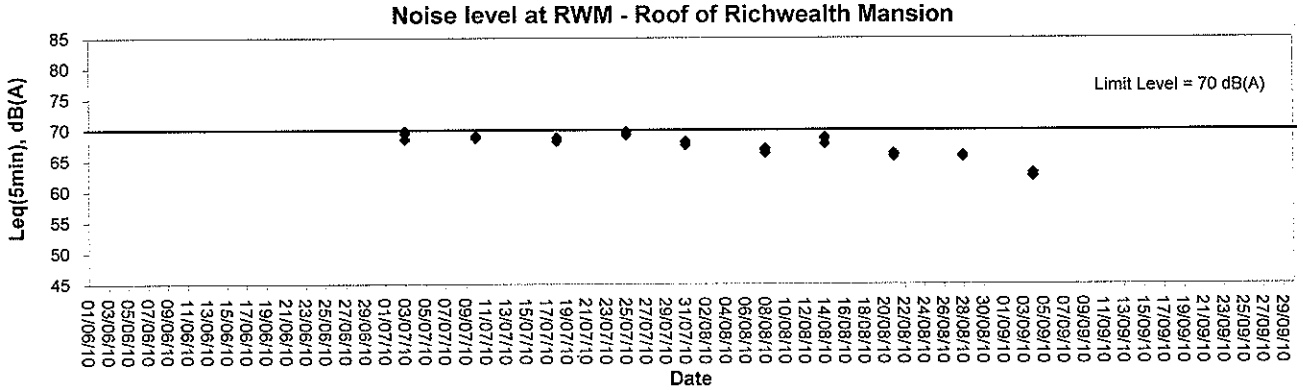
Noise level at KS6 - Podium at the Culliman



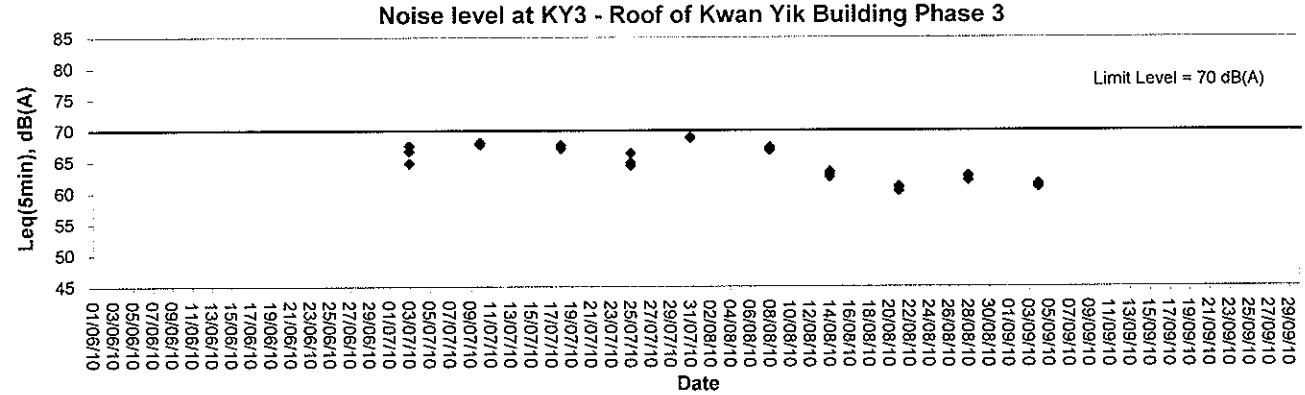
Noise level at CGa - Pavement in front of Connaught Garden



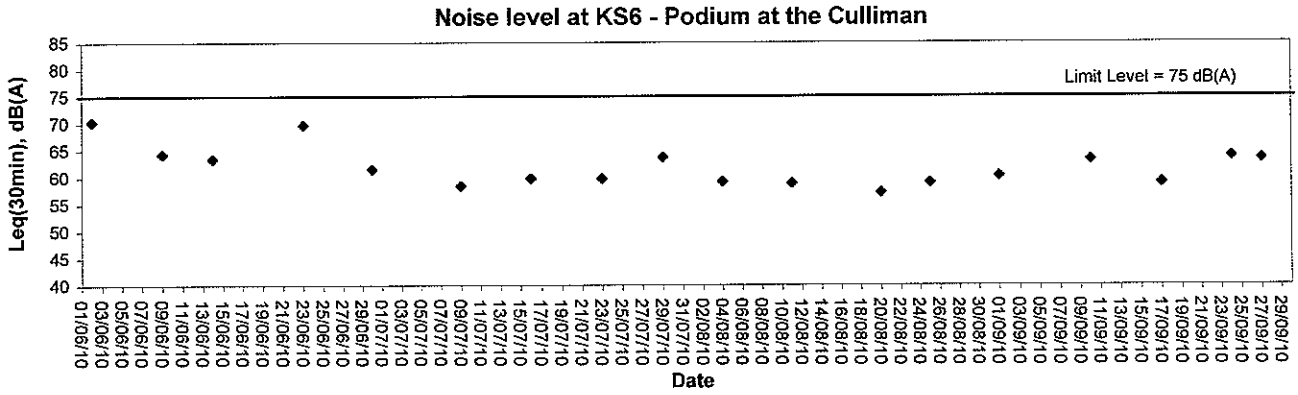
Noise level at RWM - Roof of Richwealth Mansion

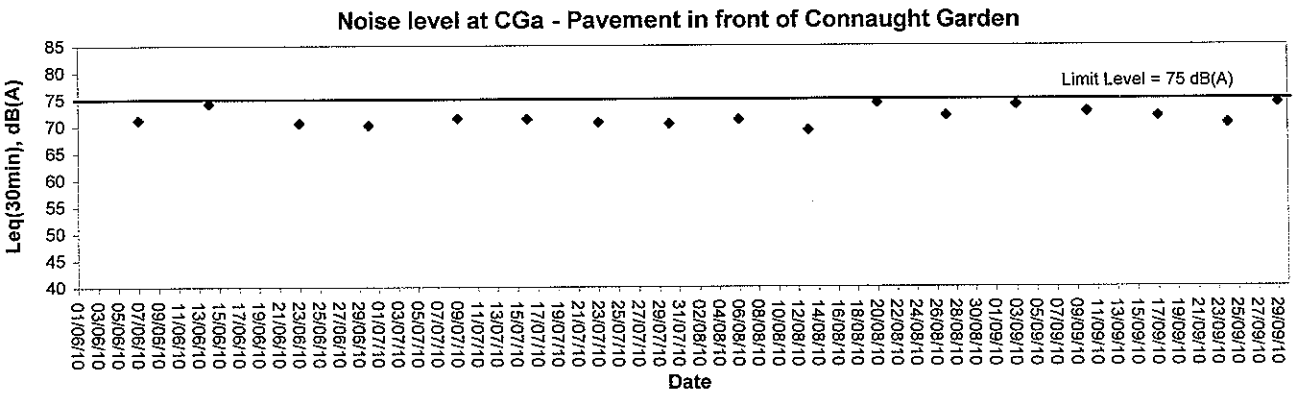


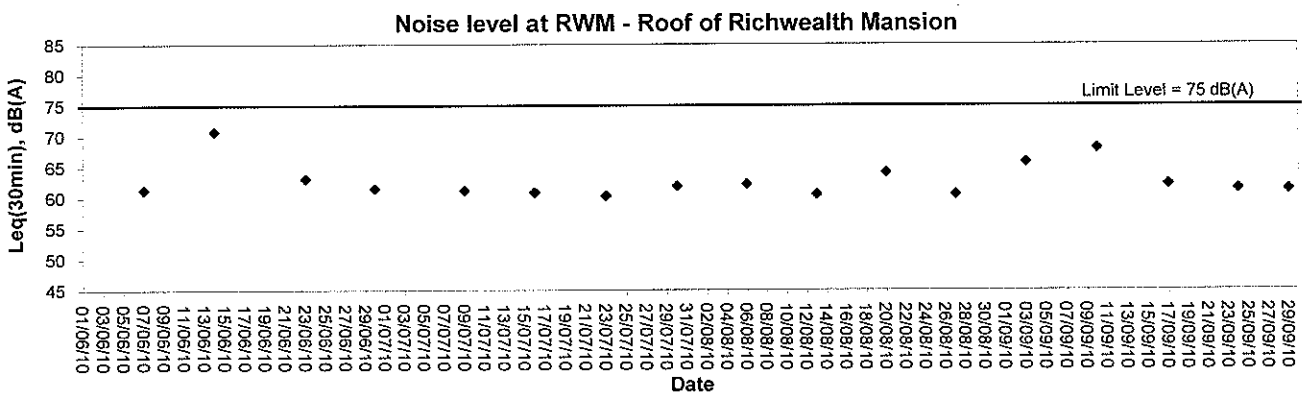
Noise level at KY3 - Roof of Kwan Yik Building Phase 3

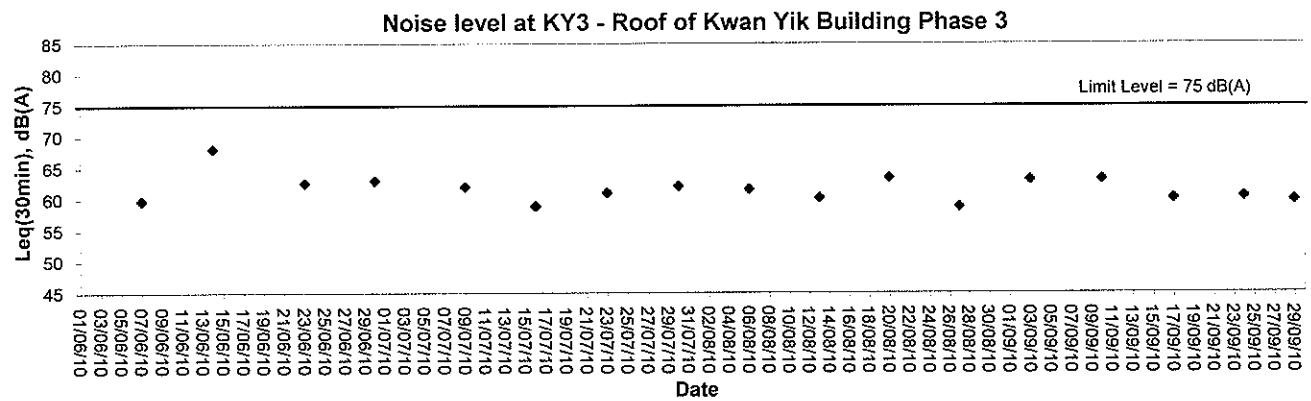


Noise Monitoring (Day-time)









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

Internal Calibration Report of Dissolved Oxygen Meter

Equipment Ref. No.	:	ET/EW/0081001	Manufacturer	:	YSI
Model No.	:	85	Serial No.	:	06C 1998 AD
Date of Calibration	:	23/8/10	Calibration Due Date	:	22/11/10

Temperature Verification

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

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

	Temperature (°C)			
Reference Thermometer reading	Measured	25.0	Corrected	25.1
DO Meter reading	Measured	25.3	Difference	0.2

Standardization of sodium thiosulphate ($Na_2S_2O_3$) solution

Reagent No. of $Na_2S_2O_3$ titrant	J392	Reagent No. of 0.025N $K_2Cr_2O_7$	J393

	Trial 1	Trial 2
Initial Vol. of $Na_2S_2O_3$ (ml)	0.0	0.0
Final Vol. of $Na_2S_2O_3$ (ml)	40.3	40.1
Vol. of $Na_2S_2O_3$ used (ml)	40.3	40.1
Normality of $Na_2S_2O_3$ solution (N)	0.0249481	0.02494
Average Normality (N) of $Na_2S_2O_3$ solution (N)	0.02488	
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)	0.1	11.85	0.5	9.15	0.2	6.65
Final Vol. of $Na_2S_2O_3$ (ml)	11.95	23.90	9.65	18.4	6.65	13.25
Vol. (V) of $Na_2S_2O_3$ used (ml)	11.85	12.05	9.15	9.25	6.45	6.60
Dissolved Oxygen (DO), mg/L	7.91	8.05	6.11	6.18	4.31	4.41
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	8.12	8.04	8.08	7.91	8.05	7.98	1.25
5	6.23	6.22	6.21	6.11	6.18	6.15	0.97
10	4.29	4.23	4.26	4.31	4.41	4.36	0.93
Linear regression coefficient				0.9999			

東業儀勤測試顧問有限公司
ETS-TESTCONSULT LIMITED

Internal Calibration Report of Dissolved Oxygen Meter

Zero Point Checking

DO meter reading, mg/L	0.00

Salinity Checking

Reagent No. of NaCl (10ppt)	J390	Reagent No. of NaCl (30ppt)	J391

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)	0.5	12.15	1.2	11.10
Final Vol. of $Na_2S_2O_3$ (ml)	12.15	23.85	12.30	22.10
Vol. (V) of $Na_2S_2O_3$ used (ml)	11.65	11.70	11.10	11.00
Dissolved Oxygen (DO), mg/L	7.78	7.81	7.41	7.36
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	7.93	7.89	7.91	7.78	7.81	7.80	1.40
30	7.47	7.43	7.45	7.41	7.36	7.39	0.81

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 : Tsui

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/098/002 Manufacturer : YSI

Model No. : 85 Serial No. : 06C 1998 AD

Date of Calibration : 23/8/10 Due Date : 22/11/10

Ref. No. of Salinity Standard used (30ppt)	J402

Salinity Standard (ppt)	Measured Salinity (ppt)	Difference %
30	29.4	2%

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

Performance Check of Turbidimeter

Equipment Ref. No. : ET/050S/007 Manufacturer : HACH

Model No. : 2100 P Serial No. : 0806 000 30281

Date of Calibration : 16/7/10 Due Date : 15/10/10

Gelex Vial Std	Theoretical Value (NTU)	Measured Value (NTU)	Difference %
0-10 NTU	5.34	5.25	1.7
10-100 NTU	56.6	55.5	2.0
100-1000 NTU	547	541	1.1

Acceptance Criteria

Difference : <5 %

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

Checked by : _____ Approved by : _____

Appendix C2

Impact Water Quality Monitoring Results

Mid-Ebb Tide

東業檢動測試顧問有限公司
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
02/09/10	1026-1040	29/Fine	Surface	1.0	27.3	30.5	30.6	6.10	6.05	86.6	85.9	4.96	5.00	5.34	8.0	8.2	8.6
						30.6		6.00		85.2		5.04			8.4		
			Middle	8.3	26.5	31.0	31.0	5.91	5.90	83.9	83.7	5.32	5.35		8.6	8.6	
						31.0		5.88		83.4		5.38			8.6		
			Bottom	15.6	25.4	31.7	31.8	5.80	5.78	82.3	82.1	5.64	5.66		9.0	9.1	
						31.8		5.76		81.8		5.68			9.2		
04/09/10	1050-1105	28/Rainy	Surface	1.0	26.8	28.8	28.9	6.11	6.10	86.8	86.6	4.51	4.52	4.64	7.8	7.6	7.7
						28.9		6.08		86.3		4.53			7.4		
			Middle	8.6	25.7	30.4	30.4	5.98	5.99	84.9	85.0	4.64	4.65		8.0	7.8	
						30.3		5.99		85.1		4.66			7.6		
			Bottom	16.2	24.5	31.1	31.1	5.87	5.86	83.4	83.2	4.71	4.74		7.8	7.8	
						31.0		5.84		82.9		4.77			7.8		
07/09/10	1202-1212	30/Cloudy	Surface	1.0	28.8	30.6	30.7	6.30	6.29	89.4	89.2	5.06	5.09	5.17	8.2	8.3	8.5
						30.7		6.27		89.0		5.11			8.4		
			Middle	8.6	25.8	31.4	31.4	6.12	6.10	86.9	86.5	5.15	5.17		8.6	8.7	
						31.4		6.07		86.1		5.19			8.8		
			Bottom	16.2	25.4	31.9	31.9	5.81	5.80	81.9	81.7	5.21	5.24		8.2	8.4	
						31.8		5.78		81.4		5.27			8.6		
09/09/10	1940-1950	32/Cloudy	Surface	1.0	25.7	31.1	31.1	5.95	5.96	84.6	84.8	4.59	4.63	4.51	7.4	7.6	7.3
						31.1		5.96		84.9		4.66			7.8		
			Middle	8.0	25.1	31.3	31.3	5.81	5.83	82.9	83.0	4.60	4.61		7.2	7.4	
						31.2		5.84		83.0		4.62			7.6		
			Bottom	15.0	24.6	31.9	31.8	5.69	5.69	81.4	81.3	4.18	4.29		6.6	6.8	
						31.7		5.69		81.2		4.39			7.0		
11/09/10	1540-1550	26/Cloudy	Surface	1.0	25.5	29.8	29.7	6.13	6.14	87.0	87.1	4.66	4.67	4.92	7.4	7.3	7.8
						29.6		6.14		87.2		4.68			7.2		
			Middle	8.3	24.6	30.1	30.2	6.06	6.06	86.1	86.0	4.92	4.95		8.0	7.9	
						30.2		6.05		85.9		4.98			7.8		
			Bottom	15.6	24.1	31.4	31.4	5.88	5.90	83.5	83.7	5.13	5.15		8.4	8.3	
						31.3		5.91		83.9		5.16			8.2		
14/09/10	1903-1912	28/Cloudy	Surface	1.0	26.6	30.3	30.2	6.31	6.32	89.6	89.7	4.98	4.97	5.01	8.0	7.9	8.0
						30.1		6.32		89.7		4.96			7.8		
			Middle	8.3	25.4	31.1	31.2	6.08	6.05	86.3	85.9	4.93	4.92		7.8	7.9	
						31.2		6.02		85.4		4.90			8.0		
			Bottom	15.6	24.7	31.6	31.5	5.89	5.86	83.6	83.1	5.13	5.16		8.4	8.3	
						31.4		5.82		82.6		5.18			8.2		
16/09/10	0938-0950	29/Fine	Surface	1.0	27.6	30.5	30.5	6.17	6.16	87.2	87.3	4.41	4.42	4.55	7.2	7.1	7.4
						30.4		6.15		87.3		4.43			7.0		
			Middle	8.6	27.0	30.8	30.9	6.06	6.07	86.1	86.2	4.56	4.58		7.4	7.4	
						30.9		6.08		86.3		4.59			7.4		
			Bottom	16.2	26.0	31.5	31.5	5.96	5.95	84.6	84.5	4.68	4.67		7.8	7.7	
						31.4		5.94		84.3		4.65			7.6		
18/09/10	1105-1120	30/Fine	Surface	1.0	28.1	30.3	30.4	6.14	6.16	87.2	87.4	4.78	4.76	4.86	8.0	7.8	7.9
						30.4		6.17		87.6		4.74			7.6		
			Middle	8.5	26.7	30.7	30.7	5.93	5.94	84.2	84.3	4.85	4.87		7.8	7.8	
						30.7		5.94		84.3		4.89			7.8		
			Bottom	16.0	25.8	31.2	31.3	5.86	5.85	83.2	83.0	4.97	4.96		8.0	8.1	
						31.3		5.83		82.8		4.95			8.2		
21/09/10	1255-1306	28/Rainy	Surface	1.0	23.0	28.0	28.0	5.98	5.97	85.5	85.4	5.55	5.56	5.61	9.2	9.1	9.1
						28.0		5.96		85.3		5.57			9.0		
			Middle	8.1	22.5	29.0	28.9	5.90	5.90	84.3	84.3	5.45	5.50		8.8	8.8	
						28.8		5.89		84.2		5.54			8.8		
			Bottom	15.2	22.1	29.1	29.1	5.80	5.79	82.9	82.6	5.65	5.78		9.4	9.3	
						29.1		5.77		82.2		5.90			9.2		
25/09/10	1533-1550	30/Fine	Surface	1.0	26.7	30.8	30.9	6.01	5.99	86.5	86.2	4.98	5.01	5.26	8.0	8.1	8.5
						30.9		5.96		85.8		5.04			8.2		
			Middle	8.3	26.0	31.2	31.2	5.81	5.83	83.6	83.9	5.23	5.27		8.4	8.5	
						31.2		5.85		84.2		5.30			8.6		
			Bottom	15.6	25.0	31.7	31.8	5.69	5.73	81.9	82.4	5.48	5.50		9.0	8.9	
						31.8		5.76		82.9		5.52			8.8		
28/09/10	1606-1618	31/Fine	Surface	1.0	29.3	30.4	30.4	6.04	6.06	83.9	84.4	4.48	4.49	4.64	7.0	7.1	7.6
						30.4		6.08		84.8		4.50			7.2		
			Middle	8.9	28.3	30.9	30.9	5.93	5.95	82.4	82.6	4.66	4.67		7.8	7.7	
						30.9		5.96		82.8		4.68			7.6		
			Bottom	16.8	27.4	31.8	31.8	5.75	5.77	79.9	80.1	4.73	4.75		8.0	7.9	
						31.8		5.78		80.3		4.76			7.8		
30/09/10	1827-1840	30/Fine	Surface	1.0	28.5	30.4	30.4	6.08	6.09	87.6	87.7	4.51	4.52	4.64	7.6	7.6	8.0
						30.4		6.09		87.7		4.53			7.5		
			Middle	8.1	27.4	30.9	30.9	6.01	6.00	86.5	86.4	4.66	4.64		8.0	8.1	
						30.8		5.99		86.3		4.61			8.1		
			Bottom	16.2	26.0	31.5	31.6	5.89	5.91	84.8	85.0	4.78	4.75		8.4	8.5	
						31.6		5.92		85.2		4.72			8.5		

Mid-Ebb Tide

東業環動測試顧問有限公司
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
02/09/10	0858-0908	28/Fine	Surface	1.0	27.1	30.5	30.5	6.22	6.23	88.3	88.5	4.44	4.46	4.69	6.8	6.9	7.4
						30.5		6.24		88.6		4.48			7.0		
			Middle	6.9	26.6	31.0	31.0	6.11	6.13	86.7	87.0	4.59	4.62		7.4	7.3	
						31.0		6.15		87.3		4.65			7.2		
			Bottom	12.8	25.5	31.6	31.6	6.02	6.00	85.4	85.1	4.97	4.98		8.0	8.0	
						31.6		5.97		84.7		4.99			8.0		
04/09/10	0911-0925	27/Rainy	Surface	1.0	26.8	28.9	28.9	6.12	6.12	86.9	86.9	4.42	4.44	4.55	7.0	7.1	7.4
						28.8		6.11		86.8		4.46			7.2		
			Middle	7.0	25.8	30.3	30.4	6.06	6.05	86.1	85.9	4.53	4.56		7.6	7.5	
						30.4		6.03		85.6		4.59			7.4		
			Bottom	13.0	24.5	30.9	31.0	5.91	5.93	83.9	84.1	4.67	4.65		7.8	7.7	
						31.0		5.94		84.3		4.62			7.5		
07/09/10	1028-1040	30/Cloudy	Surface	1.0	28.5	30.7	30.7	6.20	6.19	88.0	87.8	5.02	5.05	5.10	8.2	8.1	8.2
						30.6		6.17		87.6		5.07			8.0		
			Middle	7.2	26.0	31.3	31.3	6.02	6.04	85.4	85.7	5.15	5.12		8.4	8.3	
						31.2		6.06		86.0		5.09			8.2		
			Bottom	13.4	25.4	31.8	31.8	5.89	5.91	83.0	83.3	5.09	5.13		8.4	8.2	
						31.7		5.93		83.6		5.17			8.0		
09/09/10	1815-1829	32/Cloudy	Surface	1.0	24.9	31.2	31.3	6.15	6.14	87.9	87.8	5.05	5.04	4.71	8.2	8.1	7.5
						31.3		6.12		87.7		5.02			8.0		
			Middle	7.6	25.0	31.9	31.9	5.99	5.97	85.7	85.4	4.92	4.83		8.0	7.8	
						31.9		5.95		85.0		4.74			7.6		
			Bottom	14.2	24.0	32.3	32.4	5.87	5.84	83.9	83.7	4.29	4.27		6.8	6.7	
						32.5		5.80		83.4		4.25			6.5		
11/09/10	1410-1425	26/Cloudy	Surface	1.0	25.3	29.6	29.5	6.38	6.35	90.6	90.1	4.46	4.44	4.61	6.8	6.9	7.4
						29.4		6.31		89.6		4.41			7.0		
			Middle	6.7	24.8	30.6	30.5	6.19	6.18	87.9	87.7	4.68	4.65		7.6	7.5	
						30.4		6.16		87.5		4.62			7.4		
			Bottom	12.4	24.2	31.4	31.4	6.04	6.03	85.8	85.6	4.73	4.75		8.0	7.8	
						31.3		6.01		85.3		4.76			7.5		
14/09/10	1737-1747	28/Cloudy	Surface	1.0	26.5	30.1	30.2	6.32	6.33	88.4	89.2	4.93	4.95	4.85	8.0	7.9	7.8
						30.3		6.34		90.0		4.96			7.8		
			Middle	7.1	25.5	31.2	31.2	6.01	6.03	85.3	85.6	4.72	4.74		7.6	7.8	
						31.1		6.05		85.9		4.76			8.0		
			Bottom	13.2	24.5	31.6	31.5	5.86	5.84	83.2	82.9	4.89	4.85		7.8	7.7	
						31.4		5.82		82.6		4.81			7.5		
16/09/10	0809-0822	28/Fine	Surface	1.0	27.3	30.2	30.3	6.23	6.24	88.5	88.6	4.51	4.52	4.65	7.2	7.2	7.5
						30.3		6.24		88.6		4.53			7.2		
			Middle	7.0	26.8	30.9	30.9	6.12	6.13	86.9	87.1	4.67	4.68		7.4	7.3	
						30.8		6.14		87.2		4.69			7.2		
			Bottom	13.0	25.8	31.4	31.4	6.07	6.08	86.2	86.4	4.74	4.75		7.8	7.9	
						31.3		6.09		86.5		4.76			8.0		
18/09/10	0937-0950	29/Fine	Surface	1.0	27.9	30.4	30.4	6.12	6.14	86.9	87.1	4.67	4.65	4.76	7.4	7.4	7.7
						30.3		6.15		87.3		4.63			7.4		
			Middle	7.0	26.5	30.8	30.9	6.02	5.99	85.5	85.1	4.79	4.78		7.8	7.9	
						30.9		5.96		84.6		4.77			8.0		
			Bottom	13.0	25.7	31.3	31.4	5.87	5.87	83.4	83.3	4.83	4.84		7.8	7.9	
						31.4		5.86		83.2		4.85			8.0		
21/09/10	1112-1125	28/Rainy	Surface	1.0	22.7	26.9	26.9	6.10	6.03	87.2	86.2	5.42	5.43	5.37	8.8	8.9	8.7
						26.9		5.95		85.1		5.43			9.0		
			Middle	8.4	22.4	28.4	28.4	5.83	5.82	83.3	83.4	5.32	5.42		8.6	8.7	
						28.4		5.80		83.4		5.52			8.8		
			Bottom	15.8	22.3	29.2	29.1	5.79	5.76	82.7	82.7	5.35	5.26		8.2	8.4	
						29.0		5.72		82.7		5.16			8.5		
25/09/10	1354-1409	30/Fine	Surface	1.0	27.0	30.7	30.8	6.29	6.27	90.5	90.2	4.76	4.73	4.89	7.6	7.6	7.9
						30.8		6.24		89.8		4.70			7.6		
			Middle	6.9	26.1	31.1	31.1	6.05	6.09	87.1	87.7	4.84	4.87		7.8	7.9	
						31.1		6.13		88.2		4.89			8.0		
			Bottom	12.8	25.3	31.6	31.6	5.92	5.94	85.2	85.5	5.09	5.08		8.2	8.1	
						31.6		5.96		85.8		5.06			8.0		
28/09/10	1423-1446	31/Fine	Surface	1.0	29.3	30.3	30.3	6.17	6.16	85.7	85.5	4.46	4.47	4.65	7.2	7.1	7.5
						30.3		6.14		85.3		4.48			7.0		
			Middle	7.4	28.2	31.2	31.2	5.94	5.92	82.5	82.3	4.80	4.79		8.0	7.9	
						31.2		5.90		82.0		4.78			7.8		
			Bottom	13.8	27.4	31.6	31.6	5.78	5.77	80.3	80.2	4.68	4.70		7.4	7.5	
						31.6		5.76		80.0		4.72			7.5		
30/09/10	1709-1712	30/Fine	Surface	1.0	28.4	30.4	30.4	6.09	6.08	87.7	87.6	4.42	4.44	4.53	7.5	7.5	7.8
						30.3		6.07		87.4		4.45			7.4		
			Middle	7.1	27.3	30.8	30.8	6.02	6.03	86.7	86.9	4.51	4.52		7.7	7.8	
						30.7		6.04		87.0		4.53			7.9		
			Bottom	13.2	26.1	31.3	31.4	5.96	5.95	85.8	85.7	4.63	4.64		8.0	8.1	
						31.4		5.94		85.5		4.65			8.2		

Mid-Ebb 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
02/09/10	0920-0935	28/Fine	Surface	1.0	27.1	30.6	30.6	6.20	6.19	88.0	87.8	4.46	4.49	4.67	7.6	7.6	7.7
						30.6		6.17		87.6		4.51			7.6		
			Middle	6.4	26.6	31.0	31.0	6.05	6.04	85.9	85.7	4.60	4.63		7.4	7.5	
						31.0		6.02		85.4		4.66			7.6		
			Bottom	11.8	25.5	31.6	31.6	5.93	5.91	84.2	83.8	4.88	4.90		8.0	7.9	
						31.6		5.88		83.4		4.91			7.8		
04/09/10	0937-0954	27/Rainy	Surface	1.0	26.8	28.8	28.9	6.17	6.16	87.6	87.5	4.48	4.46	4.57	7.0	6.9	7.2
						28.9		6.15		87.3		4.43			6.8		
			Middle	6.4	25.7	30.4	30.4	6.05	6.04	85.9	85.7	4.61	4.60		7.4	7.3	
						30.3		6.02		85.5		4.58			7.2		
			Bottom	11.8	24.4	31.0	31.1	5.95	5.97	84.5	84.7	4.65	4.65		7.6	7.5	
						31.1		5.98		84.9		4.64			7.4		
07/09/10	1053-1104	30/Cloudy	Surface	1.0	28.6	30.6	30.7	6.24	6.22	88.6	88.3	4.88	4.85	4.84	8.0	7.9	7.9
						30.7		6.20		88.0		4.81			7.8		
			Middle	6.6	25.9	31.3	31.3	5.94	5.92	84.3	84.0	4.74	4.71		7.6	7.8	
						31.3		5.90		83.7		4.67			8.0		
			Bottom	12.2	25.3	31.7	31.7	5.67	5.70	79.9	80.3	4.93	4.96		8.0	7.9	
						31.6		5.72		80.6		4.98			7.8		
09/09/10	1840-1853	32/Cloudy	Surface	1.0	25.0	31.4	31.4	6.15	6.14	87.9	87.8	4.90	4.90	4.72	8.0	8.1	7.8
						31.4		6.13		87.7		4.90			8.2		
			Middle	8.0	24.3	31.9	31.9	5.92	5.91	84.8	84.7	4.78	4.74		7.6	7.8	
						31.9		5.90		84.5		4.70			8.0		
			Bottom	15.0	24.0	32.5	32.5	5.80	5.80	82.9	82.6	4.51	4.53		7.6	7.5	
						32.5		5.79		82.3		4.55			7.4		
11/09/10	1435-1445	26/Cloudy	Surface	1.0	25.5	29.1	29.2	6.44	6.46	91.4	91.7	4.50	4.49	4.65	7.0	6.9	7.3
						29.3		6.48		92.0		4.48			6.8		
			Middle	6.3	24.8	30.2	30.4	6.27	6.26	89.0	88.8	4.62	4.64		7.4	7.3	
						30.6		6.24		88.6		4.66			7.2		
			Bottom	11.5	24.2	31.1	31.3	6.11	6.09	86.8	86.5	4.81	4.83		7.8	7.7	
						31.5		6.07		86.2		4.85			7.6		
14/09/10	1800-1811	28/Cloudy	Surface	1.0	26.5	30.2	30.3	6.28	6.27	89.1	88.9	4.83	4.84	4.97	7.8	8.3	8.1
						30.4		6.25		88.7		4.85			8.8		
			Middle	6.3	25.4	31.3	31.2	6.08	6.07	86.3	86.2	5.05	5.05		8.2	8.1	
						31.1		6.06		86.0		5.04			8.0		
			Bottom	11.6	24.4	31.6	31.5	5.94	5.93	84.3	84.2	5.01	5.02		7.8	7.9	
						31.3		5.92		84.0		5.02			8.0		
16/09/10	0834-0847	28/Fine	Surface	1.0	27.4	30.3	30.3	6.29	6.29	89.3	89.3	4.46	4.47	4.56	7.0	7.0	7.4
						30.2		6.28		89.2		4.48			7.0		
			Middle	6.4	26.9	30.8	30.9	6.10	6.12	86.7	87.0	4.59	4.57		7.4	7.3	
						30.9		6.14		87.2		4.55			7.2		
			Bottom	11.8	25.8	31.3	31.4	6.04	6.05	85.8	85.9	4.63	4.64		7.8	7.8	
						31.4		6.05		85.9		4.65			7.8		
18/09/10	1002-1013	29/Fine	Surface	1.0	27.9	30.3	30.4	6.14	6.15	87.2	87.4	4.65	4.65	4.75	7.4	7.6	7.8
						30.4		6.16		87.5		4.64			7.8		
			Middle	6.4	26.5	30.8	30.9	5.99	5.98	85.1	85.0	4.76	4.75		7.6	7.6	
						30.9		5.97		84.8		4.74			7.6		
			Bottom	11.8	25.8	31.4	31.5	5.85	5.84	83.1	83.0	4.87	4.87		8.0	8.1	
						31.5		5.83		82.8		4.86			8.2		
21/09/10	1140-1153	28/Rainy	Surface	1.0	23.0	27.0	27.1	6.12	6.09	87.5	87.3	5.17	5.24	5.21	8.4	8.5	8.5
						27.1		6.05		87.0		5.30			8.6		
			Middle	8.5	22.5	28.5	28.4	5.90	5.92	84.3	84.5	5.44	5.32		9.0	8.8	
						28.2		5.93		84.7		5.20			8.6		
			Bottom	16.0	22.0	29.2	29.4	5.80	5.80	82.9	82.9	5.05	5.09		8.0	8.1	
						29.5		5.80		82.9		5.12			8.2		
25/09/10	1425-1440	30/Fine	Surface	1.0	26.8	30.8	30.8	6.33	6.31	91.5	91.0	4.74	4.72	4.88	7.6	7.6	7.9
						30.8		6.28		90.4		4.69			7.6		
			Middle	6.5	26.0	31.1	31.1	6.18	6.15	88.9	88.5	4.86	4.89		7.8	7.9	
						31.0		6.12		88.1		4.91			8.0		
			Bottom	12.0	25.4	31.6	31.6	5.99	5.96	86.2	85.8	5.08	5.05		8.2	8.2	
						31.6		5.93		85.3		5.02			8.2		
28/09/10	1458-1511	31/Fine	Surface	1.0	29.2	30.4	30.4	6.14	6.15	85.3	85.5	4.52	4.54	4.70	7.2	7.3	7.6
						30.4		6.15		85.6		4.55			7.4		
			Middle	6.8	28.3	31.3	31.3	5.97	5.98	82.9	83.1	4.76	4.74		8.0	7.9	
						31.3		5.99		83.2		4.72			7.8		
			Bottom	12.6	27.5	31.7	31.7	5.98	5.96	83.1	82.8	4.80	4.82		7.8	7.7	
						31.7		5.94		82.5		4.84			7.6		
30/09/10	1724-1736	30/Fine	Surface	1.0	28.4	30.4	30.4	6.05	6.05	87.1	87.1	4.41	4.41	4.51	7.5	7.5	7.8
						30.3		6.04		87.0		4.40			7.4		
			Middle	6.4	27.3	30.7	30.8	5.94	5.95	85.5	85.7	4.52	4.53		7.9	7.8	
						30.8		5.96		85.8		4.54			7.7		
			Bottom	11.8	26.1	31.4	31.4	5.87	5.88	84.5	84.7	4.58	4.59		8.0	8.1	
						31.3		5.89		84.8		4.60			8.2		

Mid-Flood Tide

東業環動測試顧問有限公司
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
02/09/10	1626-1638	32/Fine	Surface	1.0	28.9	30.1	30.2	6.13	6.14	87.0	87.1	4.39	4.41	4.49	7.0	7.1	7.3
						30.2		6.14		87.2		4.42			7.2		
			Middle	8.3	27.7	30.6	30.7	6.04	6.06	85.8	86.1	4.50	4.50		7.0	7.2	
						30.7		6.08		86.3		4.49			7.4		
			Bottom	15.6	25.5	31.1	31.2	5.96	5.98	84.6	84.9	4.57	4.56		7.6	7.5	
						31.2		5.99		85.1		4.55			7.4		
04/09/10	1749-1800	28/Rainy	Surface	1.0	26.9	28.7	28.8	6.18	6.17	87.7	87.5	5.29	5.28	5.16	8.5	8.6	8.3
						28.8		6.15		87.3		5.27			8.6		
			Middle	8.4	25.4	30.9	30.9	5.92	5.91	84.0	83.8	5.15	5.13		8.2	8.4	
						30.8		5.89		83.6		5.11			8.6		
			Bottom	15.8	24.9	31.2	31.3	5.75	5.77	81.0	81.2	5.02	5.06		8.0	7.9	
						31.3		5.78		81.4		5.10			7.8		
07/09/10	2036-2048	29/Fine	Surface	1.0	28.8	30.3	30.3	6.20	6.20	88.0	88.0	4.29	4.32	4.44	6.5	6.8	7.2
						30.3		6.19		87.9		4.35			7.0		
			Middle	8.2	26.8	30.6	30.6	6.12	6.10	86.9	86.6	4.46	4.48		7.6	7.4	
						30.5		6.07		86.2		4.49			7.2		
			Bottom	15.4	25.3	31.3	31.4	5.99	5.98	85.1	84.9	4.48	4.52		7.4	7.5	
						31.4		5.96		84.6		4.55			7.6		
09/09/10	1526-1540	29/Cloudy	Surface	1.0	26.8	30.6	30.6	6.23	6.21	88.4	88.1	4.58	4.56	4.75	7.5	7.4	7.7
						30.6		6.18		87.7		4.53			7.2		
			Middle	8.3	26.0	31.1	31.1	6.09	6.05	86.4	85.8	4.67	4.71		7.6	7.7	
						31.0		6.00		85.2		4.74			7.8		
			Bottom	15.6	25.1	32.0	32.0	5.90	5.86	83.8	83.2	4.95	4.98		8.2	8.0	
						32.0		5.81		82.5		5.00			7.8		
11/09/10	1227-1240	27/Drizzle	Surface	1.0	25.9	29.0	29.1	6.41	6.40	91.0	90.9	4.39	4.41	4.58	7.0	6.9	7.4
						29.1		6.39		90.7		4.43			6.8		
			Middle	8.3	25.4	29.5	29.6	6.38	6.35	90.5	90.1	4.57	4.59		7.4	7.6	
						29.6		6.32		89.7		4.61			7.8		
			Bottom	15.6	24.5	30.2	30.3	6.23	6.21	88.4	88.1	4.70	4.74		7.6	7.6	
						30.3		6.18		87.7		4.78			7.6		
14/09/10	1433-1445	30/Fine	Surface	1.0	25.9	30.5	30.5	6.11	6.09	86.7	86.4	4.95	4.97	5.06	8.0	7.9	8.1
						30.4		6.07		86.1		4.99			7.8		
			Middle	8.4	26.0	31.3	31.3	5.98	5.97	84.9	84.7	5.07	5.04		8.4	8.2	
						31.2		5.95		84.4		5.01			8.0		
			Bottom	15.8	25.4	31.6	31.6	5.74	5.72	80.9	80.6	5.15	5.17		8.2	8.2	
						31.5		5.70		80.3		5.18			8.2		
16/09/10	1718-1725	31/Fine	Surface	1.0	28.6	28.9	28.8	6.46	6.45	91.7	91.6	3.49	3.50	3.58	5.5	5.7	6.3
						28.6		6.44		91.4		3.51			5.8		
			Middle	7.9	27.6	29.6	29.7	6.30	6.30	89.5	89.4	3.56	3.58		6.9	6.9	
						29.8		6.29		89.3		3.59			6.8		
			Bottom	14.8	26.4	30.2	30.3	6.21	6.22	88.2	88.3	3.66	3.68		6.2	6.3	
						30.4		6.22		88.3		3.69			6.4		
18/09/10	1823-1835	32/Fine	Surface	1.0	29.1	30.9	31.0	6.18	6.16	87.7	87.4	4.59	4.62	4.87	7.5	7.6	8.0
						31.0		6.14		87.1		4.65			7.6		
			Middle	8.4	25.9	31.8	31.8	5.90	5.92	83.7	84.0	5.02	5.07		8.0	8.2	
						31.8		5.94		84.3		5.11			8.4		
			Bottom	15.8	25.8	32.0	32.0	5.75	5.76	81.0	81.2	4.96	4.93		8.2	8.2	
						32.0		5.77		81.3		4.90			8.2		
21/09/10	1943-1955	27/Rainy	Surface	1.0	24.7	28.2	28.1	6.20	6.22	88.7	89.0	4.90	4.89	4.80	8.0	7.9	7.8
						28.0		6.24		89.2		4.88			7.8		
			Middle	8.5	23.5	28.8	28.9	6.09	6.08	87.1	86.9	4.66	4.61		7.4	7.5	
						28.9		6.06		86.7		4.56			7.6		
			Bottom	16.0	22.7	29.4	29.5	5.91	5.91	84.5	84.5	4.90	4.89		8.0	7.9	
						29.6		5.90		84.4		4.88			7.8		
25/09/10	1130-1145	29/Fine	Surface	1.0	27.8	30.3	30.3	6.14	6.13	88.4	88.3	4.31	4.32	4.43	6.8	6.7	6.9
						30.2		6.12		88.1		4.33			6.6		
			Middle	8.2	26.4	30.6	30.6	6.03	6.04	86.8	87.0	4.42	4.44		7.0	6.9	
						30.5		6.05		87.1		4.45			6.8		
			Bottom	15.4	25.8	31.3	31.4	5.97	5.98	86.0	86.2	4.53	4.53		7.0	7.0	
						31.4		5.99		86.3		4.52			7.0		
28/09/10	0855-0906	32/Fine	Surface	1.0	25.5	31.9	31.9	6.12	6.11	87.5	87.4	4.22	4.14	4.04	6.8	6.6	6.4
						31.9		6.10		87.3		4.05			6.4		
			Middle	8.4	24.8	32.2	32.2	5.90	5.95	84.3	84.6	3.92	3.89		6.4	6.2	
						32.2		5.99		84.9		3.85			6.0		
			Bottom	15.8	24.0	32.8	32.8	5.80	5.82	82.9	83.0	4.04	4.11		6.4	6.5	
						32.8		5.83		83.1		4.17			6.6		
30/09/10	1420-1435	30/Fine	Surface	1.0	28.1	30.4	30.5	6.12	6.14	88.1	88.4	4.48	4.50	4.60	7.2	7.2	7.5
						30.5		6.15		88.6		4.51			7.2		
			Middle	8.3	27.1	30.8	30.8	6.03	6.04	86.8	87.0	4.68	4.66		7.4	7.4	
						30.7		6.05		87.1		4.64			7.4		
			Bottom	15.6	25.9	31.6	31.6	6.01	5.99	86.5	86.2	4.66	4.66		7.8	7.9	
						31.5		5.97		85.9		4.65			8.0		

Mid-Flood Tide

Monitoring Station : C4

Date	Sampling Duration	Ambient Temp (°C) / Weather Condition	Monitoring Depth (m)		Temp (°C)	Salinity (ppt)		Dissolved Oxygen (mg/L)		Dissolved Oxygen Saturation (%)		Turbidity (NTU)			Suspended Solids (mg/L)		
						Value	Average	Value	Average	Value	Average	Value	Average	Depth-average	Value	Average	Depth-average
02/09/10	1605-1618	32/Fine	Surface	1.0	29.1	30.2	30.2	6.09	6.07	86.5	86.2	4.41	4.42	4.53	7.0	7.2	7.3
						30.2		6.04		85.8		4.43			7.4		
			Middle	8.4	27.6	30.7	30.8	6.01	5.99	85.3	85.0	4.52	4.54		7.0	7.0	
						30.8		5.96		84.6		4.56			7.0		
			Bottom	15.8	25.4	31.2	31.3	5.93	5.92	84.2	84.1	4.63	4.62		7.6	7.6	
						31.3		5.91		83.9		4.60			7.5		
04/09/10	1731-1741	28/Rainy	Surface	1.0	26.9	28.8	28.8	6.14	6.12	87.1	86.9	5.17	5.21	5.08	8.2	8.4	8.1
						28.7		6.10		86.6		5.24			8.6		
			Middle	8.3	25.4	30.9	30.9	5.90	5.89	83.7	83.5	4.97	4.94		8.0	7.9	
						30.9		5.87		83.3		4.91			7.8		
			Bottom	15.6	24.9	31.3	31.3	5.69	5.68	80.2	80.0	5.06	5.11		8.2	8.1	
						31.2		5.66		79.8		5.15			8.0		
07/09/10	2005-2018	29/Fine	Surface	1.0	28.8	30.2	30.3	6.15	6.16	87.3	87.5	4.30	4.32	4.50	7.0	7.1	7.4
						30.3		6.17		87.6		4.34			7.2		
			Middle	8.4	26.9	30.5	30.6	6.03	6.02	85.6	85.5	4.49	4.53		7.6	7.4	
						30.6		6.01		85.3		4.56			7.2		
			Bottom	15.8	25.4	31.3	31.4	5.98	5.97	84.9	84.7	4.68	4.66		7.4	7.7	
						31.4		5.95		84.5		4.64			8.0		
09/09/10	1502-1519	29/Cloudy	Surface	1.0	26.8	30.5	30.6	6.11	6.14	86.7	87.2	4.54	4.52	4.70	7.2	7.0	7.6
						30.6		6.17		87.6		4.49			6.8		
			Middle	8.1	26.0	31.0	31.0	6.08	6.05	86.3	85.8	4.60	4.63		7.6	7.7	
						31.0		6.01		85.3		4.65			7.8		
			Bottom	15.2	25.2	31.9	32.0	5.89	5.87	83.6	83.3	4.93	4.96		8.2	8.1	
						32.0		5.84		82.9		4.98			8.0		
11/09/10	1204-1220	27/Drizzle	Surface	1.0	25.8	28.9	29.0	6.43	6.42	91.3	91.1	4.31	4.33	4.54	6.6	6.7	7.2
						29.0		6.40		90.8		4.35			6.8		
			Middle	8.0	25.3	29.5	29.5	6.35	6.33	90.1	89.8	4.51	4.50		7.4	7.2	
						29.5		6.30		89.4		4.48			7.0		
			Bottom	15.0	24.6	30.2	30.3	6.25	6.23	88.7	88.4	4.77	4.79		7.8	7.7	
						30.3		6.20		88.0		4.81			7.5		
14/09/10	1415-1425	30/Fine	Surface	1.0	28.9	30.5	30.5	6.07	6.06	86.1	85.9	4.83	4.82	4.93	7.8	7.7	7.9
						30.5		6.04		85.7		4.80			7.6		
			Middle	8.4	26.1	31.2	31.3	5.90	5.92	83.7	84.0	4.90	4.92		8.0	7.9	
						31.3		5.94		84.3		4.93			7.8		
			Bottom	15.8	25.5	31.6	31.6	5.93	5.94	83.6	84.0	5.04	5.07		8.2	8.1	
						31.6		5.95		84.4		5.09			8.0		
16/09/10	1700-1710	31/Fine	Surface	1.0	28.4	28.8	28.7	6.44	6.43	91.4	91.3	3.45	3.46	3.56	5.6	5.7	6.0
						28.6		6.42		91.2		3.46			5.8		
			Middle	8.5	27.6	30.1	30.2	6.31	6.30	89.6	89.5	3.56	3.57		6.0	6.1	
						30.3		6.29		89.3		3.58			6.2		
			Bottom	16.0	26.3	30.6	30.5	6.21	6.21	88.2	88.1	3.63	3.64		6.4	6.2	
						30.4		6.20		88.0		3.65			6.0		
18/09/10	1803-1815	32/Fine	Surface	1.0	29.2	31.0	31.0	6.12	6.14	86.9	87.1	4.63	4.65	4.83	7.8	7.7	7.9
						30.9		6.15		87.3		4.67			7.6		
			Middle	8.4	26.0	31.8	31.8	5.94	5.92	84.3	84.0	4.90	4.87		8.0	7.9	
						31.7		5.90		83.7		4.84			7.8		
			Bottom	15.8	25.9	31.9	32.0	5.90	5.89	83.7	83.5	4.99	4.96		8.0	8.0	
						32.0		5.87		83.3		4.92			8.0		
21/09/10	1928-1930	27/Rainy	Surface	1.0	24.7	28.2	28.1	6.12	6.13	87.5	87.7	4.82	4.79	4.89	7.8	7.7	7.9
						28.0		6.14		87.8		4.76			7.6		
			Middle	8.2	23.6	28.8	28.7	6.00	6.01	85.8	86.0	4.90	4.93		8.0	8.0	
						28.6		6.02		86.1		4.96			8.0		
			Bottom	15.4	22.5	28.6	29.0	5.81	5.81	83.1	83.0	4.90	4.95		8.2	8.1	
						29.4		5.80		82.9		5.00			8.0		
25/09/10	1105-1120	29/Fine	Surface	1.0	27.8	30.4	30.4	6.17	6.16	88.8	88.7	4.28	4.27	4.37	6.6	6.7	6.9
						30.3		6.15		88.6		4.26			6.8		
			Middle	8.4	26.5	30.7	30.7	6.10	6.10	87.8	87.8	4.37	4.36		6.8	6.8	
						30.6		6.09		87.7		4.35			6.7		
			Bottom	15.8	25.9	31.4	31.5	5.94	5.94	85.5	85.5	4.49	4.47		7.0	7.1	
						31.5		5.93		85.4		4.45			7.2		
28/09/10	1246-1258	32/Fine	Surface	1.0	24.9	31.9	31.9	6.15	6.17	86.6	86.7	4.04	4.17	4.18	6.6	6.7	6.7
						31.9		6.18		86.7		4.30			6.8		
			Middle	8.4	24.1	32.5	32.5	5.99	5.98	85.8	85.8	4.23	4.22		7.0	6.8	
						32.5		5.97		85.7		4.20			6.6		
			Bottom	15.8	23.8	32.8	32.8	5.80	5.80	84.1	84.1	4.11	4.15		6.4	6.5	
						32.8		5.80		84.1		4.19			6.5		
30/09/10	1359-1412	30/Fine	Surface	1.0	27.9	30.5	30.5	6.20	6.20	89.3	89.2	4.52	4.51	4.58	7.5	7.6	7.9
						30.4		6.19		89.1		4.50			7.7		
			Middle	8.4	27.0	30.7	30.8	6.03	6.04	86.8	87.0	4.59	4.59		7.9	7.9	
						30.8		6.05		87.1		4.58			7.8		
			Bottom	15.8	25.9	31.5	31.6	5.94	5.95	85.5	85.7	4.62	4.64		8.0	8.1	
						31.6		5.96		85.8		4.65			8.2		

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
02/09/10	1405-1420	33/Cloudy	Surface	1.0	29.1	30.2	30.3	6.10	6.08	86.6	86.4	4.31	4.32	4.45	6.5	6.6	6.6
						30.3		6.06		86.1		4.33			6.6		
			Middle	8.8	27.7	30.9	30.9	5.93	5.95	84.2	84.4	4.44	4.46		7.0	6.8	
						30.8		5.96		84.6		4.47			6.6		
			Bottom	16.6	25.4	31.3	31.4	5.87	5.88	83.4	83.5	4.57	4.58		6.4	6.3	
						31.4		5.88		83.5		4.58			6.2		
04/09/10	1537-1547	28/Rainy	Surface	1.0	27.0	29.0	29.1	6.17	6.16	87.6	87.4	5.21	5.26	5.32	8.5	8.7	8.8
						29.1		6.14		87.1		5.30			8.8		
			Middle	8.8	25.4	30.8	30.8	5.83	5.82	82.7	82.5	5.15	5.13		8.2	8.3	
						30.8		5.80		82.3		5.11			8.4		
			Bottom	16.6	25.0	31.1	31.2	5.74	5.72	80.9	80.6	5.58	5.56		9.2	9.3	
						31.2		5.70		80.3		5.54			9.4		
07/09/10	1813-1825	30/Fine	Surface	1.0	29.3	30.4	30.5	6.11	6.14	86.8	87.2	4.29	4.31	4.60	7.0	7.1	7.5
						30.5		6.17		87.6		4.33			7.2		
			Middle	8.8	27.3	30.8	30.9	6.06	6.05	86.1	86.0	4.54	4.56		7.6	7.6	
						30.9		6.04		85.8		4.57			7.6		
			Bottom	16.6	25.9	31.3	31.4	5.96	5.97	84.6	84.8	4.89	4.93		8.0	7.9	
						31.4		5.98		84.9		4.96			7.8		
09/09/10	1243-1258	28/Cloudy	Surface	1.0	26.8	30.5	30.6	5.92	5.94	84.0	84.3	4.97	5.03	5.18	8.0	8.1	8.4
						30.6		5.96		84.6		5.08			8.2		
			Middle	8.6	26.1	31.0	31.0	5.90	5.88	83.7	83.5	5.21	5.18		8.6	8.4	
						31.0		5.86		83.2		5.15			8.2		
			Bottom	16.2	25.2	31.9	31.9	5.72	5.71	81.2	81.5	5.32	5.34		8.8	8.6	
						31.9		5.70		81.7		5.36			8.4		
11/09/10	0952-1007	27/Drizzle	Surface	1.0	25.6	28.8	28.9	6.17	6.16	87.6	87.5	4.60	4.62	4.77	7.5	7.5	7.8
						28.9		6.15		87.3		4.64			7.4		
			Middle	8.6	25.0	29.3	29.4	6.11	6.10	86.7	86.6	4.69	4.72		7.8	7.9	
						29.4		6.09		86.4		4.75			8.0		
			Bottom	16.2	24.4	30.3	30.4	5.99	5.97	85.0	84.7	4.98	4.96		8.0	7.9	
						30.4		5.95		84.4		4.93			7.8		
14/09/10	1220-1230	30/Fine	Surface	1.0	28.8	30.3	30.3	6.19	6.18	87.8	87.6	5.06	5.04	5.12	8.0	8.0	8.2
						30.2		6.16		87.4		5.02			8.0		
			Middle	8.7	26.0	31.0	31.0	5.96	5.98	84.6	84.8	5.17	5.19		8.4	8.3	
						31.0		5.99		85.0		5.21			8.2		
			Bottom	16.4	25.4	31.6	31.6	5.80	5.82	81.7	82.0	5.09	5.12		8.2	8.2	
						31.6		5.84		82.3		5.15			8.2		
16/09/10	1451-1504	31/Fine	Surface	1.0	28.5	29.1	29.3	6.45	6.44	91.6	91.4	3.46	3.48	3.60	6.0	5.9	6.1
						29.4		6.42		91.2		3.49			5.8		
			Middle	8.8	27.5	29.5	29.6	6.27	6.26	89.0	88.9	3.56	3.57		6.2	6.1	
						29.6		6.25		88.8		3.58			6.0		
			Bottom	16.6	26.7	30.2	30.3	6.24	6.25	88.6	88.8	3.77	3.75		6.4	6.3	
						30.4		6.26		88.9		3.73			6.2		
18/09/10	1605-1616	32/Fine	Surface	1.0	29.2	30.9	31.0	6.15	6.13	87.3	87.0	5.34	5.36	5.18	8.5	8.5	8.2
						31.0		6.11		86.7		5.38			8.4		
			Middle	8.7	26.0	31.7	31.7	6.03	6.06	85.6	86.0	5.15	5.13		8.0	8.1	
						31.6		6.09		86.4		5.11			8.2		
			Bottom	16.4	25.7	31.9	31.9	5.95	5.93	84.4	84.2	5.07	5.04		7.8	7.9	
						31.9		5.91		83.9		5.01			8.0		
21/09/10	1720-1730	27/Rainy	Surface	1.0	24.7	27.9	27.9	6.05	6.04	86.5	86.3	5.15	5.17	5.22	8.2	8.3	8.4
						27.8		6.02		86.1		5.18			8.4		
			Middle	5.6	23.7	28.9	29.0	5.91	5.93	84.5	84.7	5.06	5.05		8.0	8.0	
						29.0		5.94		84.9		5.03			8.0		
			Bottom	10.2	22.6	29.6	29.5	5.84	5.85	83.5	83.7	5.46	5.45		9.0	8.9	
						29.4		5.86		83.8		5.44			8.8		
25/09/10	0921-0932	28/Fine	Surface	1.0	27.1	30.2	30.2	6.17	6.15	88.8	88.5	4.17	4.18	4.31	6.5	6.6	6.7
						30.2		6.12		88.1		4.19			6.6		
			Middle	8.8	26.3	30.7	30.7	6.09	6.07	87.7	87.4	4.29	4.33		6.8	6.7	
						30.6		6.05		87.1		4.36			6.6		
			Bottom	16.6	25.6	31.2	31.3	5.97	5.97	86.0	85.9	4.41	4.42		7.0	6.9	
						31.3		5.96		85.8		4.43			6.8		
28/09/10	1100-1112	32/Fine	Surface	1.0	25.1	32.0	32.0	6.04	6.06	86.6	86.7	4.14	4.18	4.19	6.5	6.6	6.7
						32.0		6.07		86.7		4.21			6.6		
			Middle	7.1	24.4	32.5	32.5	5.92	5.94	84.4	84.5	4.40	4.23		7.0	6.8	
						32.5		5.96		84.6		4.05			6.6		
			Bottom	13.2	24.0	32.9	32.9	5.80	5.80	82.9	82.9	4.24	4.18		6.6	6.6	
						32.8		5.79		82.8		4.12			6.6		
30/09/10	1203-1216	29/Fine	Surface	1.0	27.7	30.3	30.4	6.21	6.22	86.1	87.9	4.23	4.26	4.35	6.8	6.8	7.3
						30.4		6.23		89.7		4.28			6.8		
			Middle	8.9	26.9	30.6	30.7	6.09	6.11	87.7	87.9	4.32	4.34		7.4	7.3	
						30.7		6.12		88.1		4.36			7.2		
			Bottom	16.8	25.8	31.5	31.5	6.02	6.02	86.7	86.6	4.47	4.46		7.6	7.7	
						31.4		6.01		86.5		4.45			7.7		

Mid-Flood Tide

Monitoring Station : R6

Date	Sampling Duration	Ambient Temp (°C) / Weather Condition	Monitoring Depth (m)		Temp (°C)	Salinity (ppt)		Dissolved Oxygen (mg/L)		Dissolved Oxygen Saturation (%)		Turbidity (NTU)			Suspended Solids (mg/L)		
						Value	Average	Value	Average	Value	Average	Value	Average	Depth-average	Value	Average	Depth-average
02/09/10	1459-1514	33/Cloudy	Surface	1.0	29.2	30.3	30.3	5.97	5.96	84.8	84.7	4.50	4.53	4.62	7.0	7.1	7.4
						30.2		5.95		84.5		4.55			7.2		
			Middle	8.4	27.6	30.8	30.9	5.81	5.83	82.5	82.8	4.64	4.62		7.6	7.4	
						30.9		5.85		83.1		4.60			7.2		
			Bottom	15.8	25.6	31.4	31.4	5.77	5.76	81.9	81.7	4.71	4.72		8.0	7.8	
						31.3		5.74		81.5		4.73			7.6		
04/09/10	1633-1644	28/Rainy	Surface	1.0	27.0	29.0	29.0	6.08	6.06	86.3	86.0	5.21	5.20	5.13	8.8	8.5	8.3
						29.0		6.04		85.7		5.18			8.2		
			Middle	8.4	25.3	30.9	30.9	5.74	5.76	80.9	81.2	5.19	5.15		8.2	8.4	
						30.8		5.78		81.4		5.11			8.6		
			Bottom	15.8	24.9	31.2	31.2	5.70	5.72	80.3	80.6	5.08	5.05		8.2	8.0	
						31.1		5.74		80.9		5.02			7.8		
07/09/10	1903-1915	30/Fine	Surface	1.0	29.2	30.4	30.5	6.07	6.08	86.2	86.3	4.32	4.35	4.52	7.0	7.2	7.5
						30.5		6.08		86.3		4.38			7.4		
			Middle	8.4	27.1	30.7	30.8	6.01	6.03	85.3	85.6	4.53	4.56		7.8	7.6	
						30.8		6.05		85.9		4.59			7.4		
			Bottom	15.8	25.6	31.6	31.6	6.02	6.00	85.5	85.2	4.66	4.64		7.6	7.6	
						31.5		5.98		84.9		4.62			7.6		
09/09/10	1342-1357	28/Cloudy	Surface	1.0	26.6	30.5	30.6	5.87	5.86	83.3	83.2	4.98	5.01	5.21	8.2	8.1	8.4
						30.6		5.85		83.0		5.04			8.0		
			Middle	8.2	25.9	30.9	31.0	5.78	5.76	82.1	81.8	5.18	5.19		8.4	8.3	
						31.0		5.74		81.5		5.20			8.2		
			Bottom	15.4	25.0	31.9	31.9	5.70	5.69	81.0	80.8	5.40	5.43		8.8	8.9	
						31.9		5.67		80.5		5.45			9.0		
11/09/10	1055-1109	27/Drizzle	Surface	1.0	25.8	28.9	28.9	6.24	6.25	88.6	88.3	4.57	4.54	4.83	7.4	7.3	7.8
						28.9		6.26		88.0		4.51			7.2		
			Middle	8.3	25.2	29.4	29.4	6.10	6.09	86.6	86.4	4.90	4.88		8.0	7.9	
						29.4		6.07		86.1		4.86			7.8		
			Bottom	15.6	24.4	30.4	30.4	5.98	5.96	84.9	84.6	5.06	5.08		8.2	8.3	
						30.4		5.93		84.2		5.10			8.4		
14/09/10	1316-1326	30/Fine	Surface	1.0	28.9	30.4	30.4	6.29	6.28	89.3	89.1	4.95	4.97	5.12	8.0	7.9	8.2
						30.3		6.26		88.8		4.99			7.8		
			Middle	8.4	26.0	31.1	31.1	5.96	5.95	84.1	84.2	5.27	5.24		8.6	8.5	
						31.1		5.94		84.3		5.21			8.4		
			Bottom	15.8	25.3	31.6	31.6	5.91	5.89	83.9	83.6	5.18	5.15		8.2	8.3	
						31.5		5.87		83.3		5.11			8.4		
16/09/10	1550-1605	31/Fine	Surface	1.0	28.5	28.7	28.9	6.45	6.43	91.6	91.3	3.48	3.47	3.61	5.6	5.7	6.0
						29.0		6.41		91.0		3.46			5.8		
			Middle	8.3	27.6	29.6	29.5	6.26	6.25	88.9	88.8	3.61	3.61		6.0	6.1	
						29.4		6.24		88.6		3.60			6.2		
			Bottom	15.6	26.8	30.1	30.3	6.18	6.19	87.8	87.9	3.76	3.75		6.4	6.3	
						30.4		6.19		87.9		3.74			6.2		
18/09/10	1703-1715	32/Fine	Surface	1.0	29.0	31.1	31.1	6.04	6.12	88.6	88.3	5.04	5.07	4.98	8.2	8.3	8.0
						31.1		6.20		88.0		5.10			8.4		
			Middle	8.4	26.1	31.8	31.8	6.10	6.12	86.6	86.9	4.87	4.90		7.6	7.7	
						31.8		6.14		87.1		4.93			7.8		
			Bottom	15.8	25.7	32.1	32.1	5.99	5.97	85.0	84.7	4.96	4.98		8.0	7.9	
						32.1		5.95		84.4		4.99			7.8		
21/09/10	1814-1824	27/Rainy	Surface	1.0	24.8	27.9	27.8	5.96	5.96	85.2	85.2	5.43	5.42	5.42	9.0	8.9	8.8
						27.7		5.95		85.1		5.40			8.8		
			Middle	8.7	23.5	28.6	28.5	5.82	5.84	83.2	83.5	5.36	5.38		8.4	8.5	
						28.4		5.86		83.8		5.40			8.6		
			Bottom	16.3	22.7	29.1	29.2	5.77	5.77	82.5	82.5	5.46	5.48		9.0	8.9	
						29.2		5.76		82.4		5.49			8.8		
25/09/10	1002-1013	28/Fine	Surface	1.0	27.3	30.3	30.3	6.19	6.18	89.2	89.0	4.30	4.32	4.43	6.8	6.9	7.0
						30.2		6.17		88.8		4.34			7.0		
			Middle	8.4	26.4	30.7	30.8	6.06	6.06	87.3	87.2	4.42	4.45		7.2	7.1	
						30.8		6.05		87.1		4.47			7.0		
			Bottom	15.8	25.6	31.3	31.4	6.02	6.03	86.7	86.9	4.51	4.52		7.2	7.1	
						31.4		6.04		87.0		4.53			7.0		
28/09/10	1158-1209	32/Fine	Surface	1.0	25.2	31.4	31.5	5.96	5.97	84.9	84.9	5.20	5.07	4.81	8.6	8.4	8.0
						31.5		5.97		84.9		4.94			8.2		
			Middle	7.4	24.2	32.0	32.0	5.84	5.82	86.6	84.8	4.60	4.43		7.4	7.4	
						32.0		5.80		83.0		4.25			7.4		
			Bottom	13.8	24.0	32.8	32.8	5.70	5.70	82.1	82.1	4.96	4.94		8.2	8.1	
						32.7		5.70		82.1		4.92			8.0		
30/09/10	1255-1308	29/Fine	Surface	1.0	27.8	30.3	30.4	6.16	6.17	88.7	88.8	4.32	4.33	4.46	6.9	7.0	7.2
						30.4		6.17		88.8		4.34			7.0		
			Middle	8.4	26.9	30.6	30.7	6.03	6.04	86.8	87.0	4.44	4.45		7.2	7.1	
						30.7		6.05		87.1		4.46			7.0		
			Bottom	15.8	25.9	31.5	31.6	5.96	5.97	85.8	85.9	4.61	4.61		7.5	7.6	
						31.6		5.97		86.0		4.60			7.7		

Mid-Flood Tide

東業檢動測試顧問有限公司
ETS-TESTCONSULT LIMITED

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
02/09/10	1517-1530	33/Cloudy	Surface	1.0	29.3	30.3	30.4	5.99	5.98	80.8	82.1	4.51	4.52	4.64	7.0	7.1	7.5
						30.4		5.96		83.4		4.53			7.2		
			Middle	9.3	27.7	30.7	30.8	5.85	5.85	83.1	83.0	4.67	4.65		8.0	7.8	
						30.8		5.84		82.9		4.63			7.6		
			Bottom	17.6	25.5	31.4	31.5	5.72	5.74	81.2	81.5	4.77	4.76		7.4	7.5	
						31.5		5.76		81.8		4.75			7.6		
04/09/10	1647-1657	28/Rainy	Surface	1.0	26.9	28.9	29.0	6.10	6.12	86.6	86.8	4.99	4.95	5.05	8.0	8.1	8.2
						29.0		6.13		87.0		4.90			8.2		
			Middle	9.3	25.3	30.9	30.9	5.81	5.80	82.3	83.0	5.07	5.05		7.8	8.0	
						30.9		5.79		83.7		5.02			8.2		
			Bottom	17.6	31.2	31.2	31.2	5.87	5.86	83.3	83.1	5.15	5.17		8.6	8.5	
						31.2		5.84		82.9		5.19			8.4		
07/09/10	1918-1930	30/Fine	Surface	1.0	29.1	30.4	30.4	6.14	6.16	87.2	87.5	4.41	4.41	4.54	7.2	7.4	7.6
						30.3		6.18		87.8		4.40			7.6		
			Middle	9.2	27.1	30.7	30.7	6.08	6.08	86.3	86.3	4.54	4.54		7.8	7.6	
						30.6		6.07		86.2		4.53			7.4		
			Bottom	17.4	25.6	31.5	31.6	6.03	6.06	85.6	86.0	4.68	4.67		7.6	7.8	
						31.6		6.08		86.3		4.66			8.0		
09/09/10	1410-1425	28/Cloudy	Surface	1.0	26.7	30.6	30.6	6.09	6.12	86.4	86.8	4.63	4.66	4.86	7.8	7.7	7.9
						30.6		6.14		87.2		4.68			7.6		
			Middle	9.2	25.8	31.1	31.1	6.03	6.00	85.6	85.0	4.83	4.86		8.0	7.9	
						31.0		5.96		84.3		4.89			7.8		
			Bottom	17.4	25.0	32.0	32.0	5.84	5.86	82.9	83.2	5.03	5.07		8.2	8.1	
						31.9		5.88		83.4		5.10			8.0		
11/09/10	1117-1130	27/Drizzle	Surface	1.0	25.8	28.9	29.0	6.37	6.39	90.4	90.7	4.38	4.36	4.55	6.8	6.8	7.3
						29.0		6.41		91.0		4.33			6.8		
			Middle	9.2	25.1	29.5	29.5	6.30	6.28	89.4	89.1	4.54	4.57		7.2	7.3	
						29.5		6.25		88.7		4.59			7.4		
			Bottom	17.4	24.3	30.5	30.5	6.08	6.11	86.3	86.7	4.76	4.73		8.0	7.8	
						30.4		6.13		87.0		4.69			7.6		
14/09/10	1330-1341	30/Fine	Surface	1.0	28.9	30.4	30.4	6.34	6.32	90.0	89.7	5.03	5.06	5.04	8.2	8.1	8.1
						30.4		6.30		89.4		5.08			8.0		
			Middle	9.4	26.0	31.1	31.2	6.02	6.04	85.4	85.7	5.09	5.12		8.2	8.3	
						31.2		6.05		85.9		5.15			8.4		
			Bottom	17.8	25.3	31.5	31.6	5.85	5.87	82.4	82.7	4.99	4.96		8.0	7.9	
						31.6		5.88		82.9		4.92			7.8		
16/09/10	1610-1625	31/Fine	Surface	1.0	28.4	28.6	28.8	6.46	6.45	91.7	91.5	3.46	3.47	3.58	5.6	5.6	6.0
						28.9		6.43		91.3		3.47			5.6		
			Middle	9.3	27.7	29.4	29.5	6.26	6.28	88.9	89.1	3.53	3.55		6.0	6.1	
						29.6		6.29		89.3		3.56			6.2		
			Bottom	17.6	26.8	30.3	30.3	6.21	6.21	88.2	88.1	3.71	3.72		6.4	6.3	
						30.2		6.20		88.0		3.72			6.2		
18/09/10	1718-1730	32/Fine	Surface	1.0	29.1	31.1	31.1	6.16	6.15	87.4	87.2	4.94	4.96	5.03	8.0	7.9	8.1
						31.0		6.13		87.0		4.98			7.8		
			Middle	9.3	26.0	31.8	31.8	6.04	6.03	85.7	85.5	5.01	5.06		8.2	8.1	
						31.7		6.01		85.3		5.10			8.0		
			Bottom	17.6	25.7	32.1	32.1	5.87	5.89	83.3	83.5	5.03	5.06		8.2	8.2	
						32.0		5.90		83.7		5.09			8.2		
21/09/10	1826-1836	27/Rainy	Surface	1.0	24.5	27.4	27.5	5.94	5.94	85.0	84.9	5.66	5.63	5.43	9.2	9.1	8.7
						27.6		5.93		84.8		5.60			9.0		
			Middle	8.6	23.5	28.6	28.6	5.86	5.85	83.8	83.7	5.42	5.41		8.8	8.5	
						28.6		5.84		83.5		5.39			8.2		
			Bottom	16.2	22.4	28.6	28.8	5.79	5.80	82.8	82.9	5.22	5.27		8.4	8.4	
						28.9		5.80		82.9		5.31			8.4		
25/09/10	1016-1030	28/Fine	Surface	1.0	27.3	30.3	30.4	6.23	6.24	89.7	89.9	4.39	4.41	4.48	6.6	6.7	6.9
						30.4		6.25		90.0		4.42			6.8		
			Middle	9.2	26.3	30.6	30.7	6.09	6.10	87.7	87.9	4.48	4.50		7.0	6.9	
						30.7		6.11		88.0		4.51			6.8		
			Bottom	17.4	25.7	31.3	31.3	6.08	6.06	87.6	87.2	4.53	4.55		7.2	7.1	
						31.2		6.03		86.8		4.57			7.0		
28/09/10	1210-1220	32/Fine	Surface	1.0	25.0	32.0	32.0	6.01	5.99	85.9	85.8	4.71	4.77	4.83	7.6	7.8	7.9
						31.9		5.97		85.7		4.83			8.0		
			Middle	7.5	24.4	32.2	32.2	5.83	5.83	84.0	84.2	4.99	5.04		8.2	8.2	
						32.2		5.82		84.3		5.08			8.2		
			Bottom	14.0	24.0	32.7	32.7	5.71	5.71	82.3	82.3	5.02	4.67		7.8	7.7	
						32.7		5.71		82.3		4.32			7.6		
30/09/10	1311-1324	29/Fine	Surface	1.0	27.9	30.4	30.4	6.13	6.14	88.3	88.5	4.30	4.33	4.44	7.5	7.5	7.7
						30.3		6.15		88.6		4.35			7.4		
			Middle	9.3	26.9	30.7	30.7	6.07	6.06	87.4	87.2	4.46	4.44		7.6	7.6	
						30.6		6.04		87.0		4.42			7.6		
			Bottom	17.6	25.8	31.6	31.6	5.95	5.97	85.7	86.0	4.56	4.56		7.9	8.0	
						31.5		5.99		86.3		4.55			8.0		

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
02/09/10	1537-1550	32/Fine	Surface	1.0	29.0	30.3	30.3	6.11	6.14	86.8	87.2	4.37	4.40	4.47	7.0	7.0	7.4
						30.2		6.17		87.6		4.42			7.0		
			Middle	6.8	27.7	30.8	30.8	6.03	6.05	85.6	85.9	4.47	4.46		7.5	7.7	
						30.7		6.06		86.1		4.45			7.8		
			Bottom	12.6	25.3	31.3	31.3	5.99	5.98	85.1	84.9	4.53	4.55		7.4	7.5	
						31.2		5.96		84.6		4.56			7.6		
04/09/10	1705-1716	28/Rainy	Surface	1.0	27.0	28.8	28.8	6.09	6.08	86.4	86.2	5.06	5.04	4.93	8.4	8.2	8.1
						28.8		6.06		86.0		5.01			8.0		
			Middle	6.8	25.4	30.9	30.9	5.89	5.87	83.6	83.3	4.88	4.85		8.0	7.9	
						30.8		5.85		83.0		4.81			7.8		
			Bottom	12.6	24.9	31.2	31.2	5.68	5.67	80.6	80.2	4.93	4.90		8.0	8.1	
						31.1		5.65		79.8		4.87			8.2		
07/09/10	1937-1950	29/Fine	Surface	1.0	28.9	30.3	30.3	6.11	6.11	86.8	86.7	4.47	4.45	4.59	7.4	7.5	7.6
						30.2		6.10		86.6		4.43			7.5		
			Middle	6.7	26.9	30.6	30.6	6.04	6.03	85.8	85.7	4.59	4.58		8.0	7.7	
						30.5		6.02		85.5		4.56			7.4		
			Bottom	12.4	25.4	31.4	31.4	5.94	5.95	84.3	84.5	4.77	4.75		7.6	7.6	
						31.3		5.96		84.6		4.72			7.6		
09/09/10	1431-1447	29/Cloudy	Surface	1.0	26.7	30.6	30.6	6.20	6.18	88.0	87.7	4.63	4.61	4.73	7.4	7.5	7.7
						30.6		6.15		87.3		4.59			7.5		
			Middle	6.5	26.1	31.0	31.0	6.17	6.12	87.6	86.8	4.68	4.70		7.5	7.7	
						30.9		6.06		86.0		4.72			7.8		
			Bottom	12.0	25.3	31.6	31.6	6.03	6.00	85.6	85.2	4.86	4.88		8.0	7.9	
						31.6		5.97		84.8		4.90			7.8		
11/09/10	1143-1158	27/Drizzle	Surface	1.0	25.8	29.0	29.0	6.46	6.48	91.7	91.9	4.40	4.38	4.55	6.8	6.9	7.4
						29.0		6.49		92.1		4.36			7.0		
			Middle	6.6	25.4	29.4	29.4	6.29	6.31	89.3	89.6	4.55	4.53		7.5	7.5	
						29.4		6.33		89.8		4.50			7.4		
			Bottom	12.2	24.7	30.1	30.1	6.19	6.21	87.8	88.1	4.71	4.73		7.8	7.7	
						30.1		6.22		88.3		4.75			7.6		
14/09/10	1348-1400	30/Fine	Surface	1.0	28.9	30.4	30.5	6.02	6.04	85.4	85.7	4.67	4.64	4.70	7.8	7.7	7.7
						30.5		6.06		86.0		4.61			7.5		
			Middle	6.9	26.1	31.2	31.2	5.82	5.80	82.0	81.7	4.52	4.50		7.0	7.2	
						31.2		5.78		81.4		4.47			7.4		
			Bottom	12.8	25.5	31.5	31.6	5.77	5.76	81.3	81.1	4.99	4.96		8.0	8.1	
						31.6		5.74		80.9		4.92			8.2		
16/09/10	1637-1650	31/Fine	Surface	1.0	28.5	28.8	28.9	6.49	6.47	92.2	91.9	3.48	3.49	3.56	5.2	5.4	5.8
						29.0		6.45		91.6		3.49			5.5		
			Middle	6.7	27.5	30.2	30.3	6.29	6.29	89.3	89.3	3.52	3.54		6.0	6.0	
						30.4		6.28		89.2		3.55			6.0		
			Bottom	12.4	26.4	30.7	30.8	6.22	6.21	88.3	88.2	3.68	3.67		6.2	6.0	
						30.8		6.20		88.0		3.66			5.8		
18/09/10	1738-1748	32/Fine	Surface	1.0	29.1	30.9	30.9	6.09	6.07	86.4	86.2	4.74	4.76	4.96	7.6	7.8	8.0
						30.9		6.05		85.9		4.78			8.0		
			Middle	6.8	26.2	31.7	31.7	5.87	5.86	82.7	82.5	4.97	4.94		8.0	8.0	
						31.7		5.84		82.3		4.91			8.0		
			Bottom	12.6	26.0	31.9	31.9	5.71	5.70	80.5	80.4	5.15	5.17		8.4	8.3	
						31.8		5.69		80.2		5.19			8.2		
21/09/10	1850-1905	27/Rainy	Surface	1.0	24.7	27.6	27.8	6.02	6.04	86.1	86.4	4.91	4.90	5.11	8.0	7.8	8.2
						27.9		6.06		86.7		4.88			7.5		
			Middle	9.0	23.5	28.3	28.3	5.89	5.91	84.2	84.5	5.15	5.16		8.5	8.3	
						28.2		5.93		84.8		5.16			8.1		
			Bottom	17.0	22.7	29.6	29.5	5.82	5.80	83.2	82.9	5.20	5.29		8.4	8.4	
						29.4		5.77		82.5		5.37			8.4		
25/09/10	1037-1050	29/Fine	Surface	1.0	27.6	30.3	30.4	6.20	6.18	89.3	89.0	4.31	4.30	4.42	6.6	6.6	6.9
						30.4		6.15		88.6		4.29			6.5		
			Middle	6.7	26.5	30.8	30.8	6.03	6.04	86.8	87.0	4.39	4.41		6.8	6.9	
						30.7		6.05		87.1		4.43			7.0		
			Bottom	12.4	25.9	31.3	31.4	5.96	5.95	85.8	85.7	4.56	4.54		7.4	7.3	
						31.4		5.94		85.5		4.51			7.2		
28/09/10	1225-1235	32/Fine	Surface	1.0	25.1	31.3	31.4	6.00	5.99	85.9	85.8	4.69	4.68	4.79	7.8	7.7	7.8
						31.4		5.97		85.7		4.66			7.5		
			Middle	8.4	24.6	31.7	31.7	5.81	5.81	84.1	84.1	4.54	4.78		7.5	7.9	
						31.7		5.81		84.1		5.01			8.2		
			Bottom	15.8	24.1	32.8	32.8	5.70	5.71	82.2	82.1	4.92	4.91		7.8	7.9	
						32.8		5.72		82.0		4.90			8.0		
30/09/10	1331-1344	30/Fine	Surface	1.0	28.0	30.4	30.4	6.29	6.28	90.6	90.5	4.46	4.44	4.54	7.5	7.5	7.6
						30.3		6.27		90.3		4.42			7.5		
			Middle	6.8	27.0	30.6	30.7	6.16	6.14	88.7	88.5	4.56	4.55		7.5	7.5	
						30.7		6.12		88.2		4.54			7.4		
			Bottom	12.6	26.0	31.6	31.6	6.02	6.04	86.7	86.9	4.62	4.63		7.8	7.9	
						31.5		6.05		87.1		4.64			7.9		

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
02/09/10	1240-1255	33/Fine	Surface	1.0	29.3	30.2	30.3	6.02	6.04	85.5	85.7	4.51	4.52	4.62	7.0	7.1	7.4
						30.3		6.05		85.9		4.53			7.2		
			Middle	5.7	27.8	30.9	30.9	5.95	5.93	84.5	84.2	4.66	4.64		7.4	7.3	
						30.9		5.91		83.9		4.61			7.2		
			Bottom	10.4	25.6	31.4	31.5	5.87	5.87	83.4	83.3	4.68	4.71		8.0	7.9	
						31.5		5.86		83.2		4.73			7.8		
04/09/10	1432-1443	28/Rainy	Surface	1.0	27.1	28.8	28.9	6.15	6.13	87.3	87.0	5.03	5.09	5.05	8.2	8.3	8.3
						28.9		6.10		86.6		5.15			8.4		
			Middle	5.9	25.3	30.5	30.6	5.92	5.94	84.0	84.3	4.98	4.96		8.0	8.1	
						30.6		5.96		84.6		4.94			8.2		
			Bottom	10.8	25.2	30.9	31.0	5.71	5.70	80.5	80.3	5.14	5.11		8.6	8.5	
						31.0		5.68		80.0		5.07			8.4		
07/09/10	1650-1703	32/Fine	Surface	1.0	29.5	30.3	30.4	6.19	6.17	87.9	87.6	4.66	4.65	4.81	7.4	7.6	7.9
						30.4		6.15		87.3		4.64			7.8		
			Middle	5.7	27.4	30.8	30.8	6.07	6.08	86.2	86.4	4.81	4.83		8.0	8.1	
						30.7		6.09		86.5		4.85			8.2		
			Bottom	10.4	26.0	31.2	31.2	5.95	5.96	84.5	84.7	4.96	4.94		8.0	7.9	
						31.1		5.97		84.8		4.91			7.8		
09/09/10	1117-1134	28/Cloudy	Surface	1.0	26.8	30.5	30.5	5.98	6.00	84.9	85.2	4.88	4.91	5.03	8.0	7.9	8.1
						30.5		6.02		85.4		4.93			7.8		
			Middle	5.6	26.5	30.8	30.9	5.91	5.89	83.9	83.6	4.99	5.01		8.0	8.2	
						30.9		5.87		83.3		5.03			8.4		
			Bottom	10.2	25.6	31.6	31.6	5.82	5.80	82.6	82.3	5.17	5.18		8.2	8.3	
						31.6		5.78		82.0		5.19			8.4		
11/09/10	0843-0857	26/Rainy	Surface	1.0	25.5	28.7	28.8	6.23	6.25	88.4	88.6	4.68	4.70	4.85	7.8	7.7	7.9
						28.8		6.26		88.8		4.72			7.6		
			Middle	5.6	25.1	29.1	29.2	6.20	6.19	88.0	87.8	4.84	4.87		8.0	7.8	
						29.2		6.17		87.6		4.89			7.6		
			Bottom	10.2	24.8	30.1	30.1	5.98	6.01	84.9	85.3	5.01	4.99		8.2	8.1	
						30.0		6.03		85.6		4.97			8.0		
14/09/10	1103-1114	30/Fine	Surface	1.0	28.6	30.1	30.2	6.23	6.25	88.4	88.7	4.53	4.55	4.18	7.4	7.3	6.8
						30.2		6.27		89.0		4.57			7.2		
			Middle	5.9	25.8	30.9	31.0	5.87	5.86	82.7	82.5	3.96	3.93		6.6	6.5	
						31.0		5.84		82.3		3.90			6.4		
			Bottom	10.8	25.3	31.5	31.5	5.90	5.92	83.1	83.4	4.02	4.05		6.4	6.5	
						31.4		5.93		83.6		4.08			6.6		
16/09/10	1335-1345	31/Fine	Surface	1.0	28.6	28.2	28.6	6.39	6.41	90.7	91.0	4.47	4.47	4.56	7.6	7.5	7.7
						28.9		6.42		91.2		4.46			7.4		
			Middle	5.8	27.5	29.4	29.7	6.32	6.31	89.7	89.6	4.52	4.54		7.8	7.7	
						29.9		6.30		89.5		4.56			7.6		
			Bottom	10.6	26.5	30.4	30.3	6.22	6.22	88.3	88.3	4.67	4.68		7.8	7.8	
						30.1		6.21		88.2		4.69			7.8		
18/09/10	1503-1510	32/Fine	Surface	1.0	29.0	30.8	30.8	6.00	6.07	86.4	86.7	5.02	5.07	5.02	8.0	8.2	8.1
						30.7		6.13		87.0		5.12			8.4		
			Middle	5.9	26.0	31.8	31.8	5.95	5.97	84.4	84.7	4.97	4.94		7.8	7.9	
						31.8		5.98		84.9		4.91			8.0		
			Bottom	10.8	25.7	32.0	32.0	5.78	5.76	81.4	81.2	5.03	5.05		8.2	8.1	
						31.9		5.74		80.9		5.07			8.0		
21/09/10	1602-1613	27/Rainy	Surface	1.0	24.6	26.7	26.6	5.66	5.64	80.9	80.7	6.58	6.60	6.70	9.8	9.8	9.6
						26.5		5.62		80.4		6.62			9.8		
			Middle	5.8	23.8	28.0	28.1	5.53	5.52	79.1	79.0	6.90	6.94		9.6	9.7	
						28.2		5.51		78.8		6.97			9.8		
			Bottom	10.5	22.6	29.0	29.0	5.42	5.41	77.5	77.4	6.56	6.58		9.2	9.3	
						28.9		5.40		77.2		6.59			9.4		
25/09/10	0817-0826	27/Cloudy	Surface	1.0	26.8	30.2	30.3	6.23	6.22	89.7	89.6	4.13	4.16	4.26	6.6	6.6	6.7
						30.3		6.21		89.4		4.19			6.6		
			Middle	5.7	25.9	30.8	30.8	6.19	6.18	89.1	89.0	4.21	4.23		6.8	6.6	
						30.7		6.17		88.8		4.24			6.4		
			Bottom	10.4	25.3	31.3	31.4	6.03	6.04	86.8	87.0	4.41	4.40		7.0	6.9	
						31.4		6.05		87.1		4.39			6.8		
28/09/10	0946-0956	32/Fine	Surface	1.0	25.5	31.1	31.1	5.90	5.91	84.4	84.5	4.95	5.38	5.43	8.0	8.5	8.5
						31.1		5.92		84.5		5.80			9.0		
			Middle	5.3	24.9	31.2	31.2	5.81	5.81	82.9	82.9	5.25	5.51		8.4	8.6	
						31.2		5.80		82.8		5.76			8.8		
			Bottom	9.6	24.0	31.5	31.5	5.89	5.80	81.3	81.7	5.10	5.40		8.2	8.3	
						31.5		5.70		82.0		5.69			8.4		
30/09/10	1059-1052	28/Fine	Surface	1.0	27.5	30.3	30.3	6.18	6.18	88.9	88.9	4.28	4.27	4.38	7.2	7.4	7.5
						30.3		6.17		88.8		4.25			7.5		
			Middle	5.8	26.7	30.5	30.6	6.04	6.04	86.9	86.9	4.35	4.37		7.2	7.3	
						30.6		6.03		86.8		4.39			7.4		
			Bottom	10.6	25.7	31.4	31.5	5.98	5.98	86.1	86.0	4.51	4.50		7.6	7.7	
						31.5		5.97		85.9		4.48			7.8		

Mid-Flood Tide

Monitoring Station : R16

Date	Sampling Duration	Ambient Temp (°C) / Weather Condition	Monitoring Depth (m)		Temp (°C)	Salinity (ppt)		Dissolved Oxygen (mg/L)		Dissolved Oxygen Saturation (%)		Turbidity (NTU)			Suspended Solids (mg/L)		
						Value	Average	Value	Average	Value	Average	Value	Average	Depth-average	Value	Average	Depth-average
02/09/10	1217-1231	33/Fine	Surface	1.0	29.3	30.3	30.3	6.11	6.13	86.8	87.0	4.39	4.40	4.51	7.0	7.2	7.4
						30.2		6.14		87.2		4.41			7.4		
			Middle	6.4	27.9	30.9	30.9	6.09	6.07	86.5	86.2	4.51	4.50		7.4	7.5	
						30.8		6.04		85.8		4.48			7.6		
			Bottom	11.8	25.5	31.3	31.4	5.99	6.00	85.1	85.2	4.65	4.64		7.8	7.6	
						31.4		6.01		85.3		4.63			7.4		
04/09/10	1414-1424	28/Rainy	Surface	1.0	27.1	28.7	28.8	6.11	6.10	86.7	86.5	4.89	4.92	5.07	7.8	7.9	8.2
						28.8		6.08		86.3		4.94			8.0		
			Middle	6.7	25.3	30.4	30.5	5.97	5.94	84.7	84.3	4.99	4.95		8.0	8.1	
						30.5		5.91		83.9		4.91			8.2		
			Bottom	12.4	25.2	31.1	31.1	5.69	5.67	80.2	79.9	5.36	5.34		8.6	8.5	
						31.0		5.64		79.6		5.32			8.4		
07/09/10	1618-1641	32/Fine	Surface	1.0	29.4	30.4	30.4	6.13	6.15	87.0	87.3	4.53	4.54	4.71	7.4	7.5	7.7
						30.3		6.17		87.6		4.55			7.6		
			Middle	6.4	27.3	30.9	30.9	6.06	6.07	86.1	86.2	4.72	4.76		7.8	7.8	
						30.8		6.08		86.3		4.79			7.8		
			Bottom	11.8	25.9	31.3	31.3	5.93	5.92	84.2	84.1	4.86	4.84		7.6	7.8	
						31.2		5.91		83.9		4.82			8.0		
09/09/10	1050-1105	28/Cloudy	Surface	1.0	26.9	30.4	30.5	6.19	6.17	87.8	87.6	4.58	4.61	4.82	7.0	7.1	7.7
						30.5		6.15		87.3		4.63			7.2		
			Middle	6.4	26.4	30.9	30.9	6.11	6.09	86.7	86.4	4.80	4.83		8.0	7.9	
						30.9		6.07		86.1		4.85			7.8		
			Bottom	11.8	25.5	31.7	31.7	5.99	5.97	85.0	84.7	5.05	5.03		8.2	8.1	
						31.7		5.95		84.4		5.00			8.0		
11/09/10	0823-0835	26/Rainy	Surface	1.0	25.6	28.9	28.9	6.44	6.46	91.4	91.7	4.41	4.39	4.54	7.4	7.3	7.5
						28.9		6.48		92.0		4.37			7.2		
			Middle	6.4	25.2	29.4	29.4	6.31	6.30	89.6	89.4	4.50	4.53		7.6	7.6	
						29.4		6.28		89.1		4.56			7.6		
			Bottom	11.8	24.7	30.4	30.4	6.19	6.17	87.8	87.5	4.68	4.70		7.8	7.6	
						30.4		6.14		87.1		4.71			7.4		
14/09/10	1043-1055	30/Fine	Surface	1.0	28.5	30.1	30.1	6.19	6.18	87.8	87.7	4.60	4.64	4.64	7.8	7.8	7.7
						30.1		6.17		87.6		4.68			7.8		
			Middle	6.7	25.8	30.8	30.9	5.99	5.97	85.0	84.7	4.70	4.73		8.0	7.9	
						30.9		5.95		84.4		4.75			7.8		
			Bottom	12.4	25.3	31.4	31.4	5.87	5.89	83.3	83.5	4.59	4.55		7.4	7.3	
						31.4		5.90		83.7		4.51			7.2		
16/09/10	1315-1325	31/Fine	Surface	1.0	28.5	28.9	29.1	6.52	6.50	92.6	92.3	3.47	3.46	3.59	5.4	5.6	5.9
						29.2		6.47		91.9		3.45			5.8		
			Middle	6.8	27.6	29.6	29.8	6.30	6.30	89.5	89.4	3.59	3.61		5.8	5.9	
						29.9		6.29		89.3		3.62			6.0		
			Bottom	12.6	26.5	30.2	30.3	6.21	6.21	88.2	88.1	3.72	3.71		6.2	6.2	
						30.4		6.20		88.0		3.70			6.2		
18/09/10	1445-1455	32/Fine	Surface	1.0	28.9	30.9	30.9	6.12	6.14	86.9	87.1	4.87	4.91	4.97	7.6	7.6	7.9
						30.9		6.15		87.3		4.94			7.6		
			Middle	6.6	26.0	31.7	31.8	5.79	5.77	81.6	81.3	4.92	4.95		8.0	7.9	
						31.8		5.75		81.0		4.98			7.8		
			Bottom	12.2	25.7	31.9	32.0	5.70	5.69	80.4	80.1	5.10	5.06		8.4	8.3	
						32.0		5.67		79.8		5.01			8.2		
21/09/10	1549-1559	27/Rainy	Surface	1.0	24.5	27.2	27.2	5.86	5.84	83.8	83.5	6.11	6.13	5.96	9.4	9.5	9.4
						27.2		5.81		83.1		6.14			9.6		
			Middle	6.9	23.6	28.2	28.1	5.78	5.76	82.7	82.4	5.92	5.89		9.6	9.4	
						28.0		5.74		82.1		5.86			9.2		
			Bottom	12.8	22.5	28.8	28.7	5.69	5.70	81.4	81.5	5.86	5.87		9.4	9.4	
						28.6		5.70		81.5		5.88			9.4		
25/09/10	0758-0808	27/Cloudy	Surface	1.0	26.8	30.3	30.3	6.17	6.18	88.8	89.0	4.29	4.27	4.34	6.6	6.7	6.9
						30.2		6.19		89.1		4.24			6.8		
			Middle	6.4	25.9	30.7	30.8	6.08	6.07	87.6	87.5	4.36	4.34		6.8	7.0	
						30.8		6.06		87.3		4.32			7.2		
			Bottom	11.8	25.2	31.3	31.4	6.01	6.02	86.5	86.6	4.39	4.40		7.0	6.9	
						31.4		6.02		86.7		4.41			6.8		
28/09/10	0931-0941	32/Fine	Surface	1.0	25.1	31.3	31.3	6.02	6.04	87.0	87.1	4.70	4.74	4.41	7.8	7.9	7.0
						31.3		6.06		87.2		4.77			8.0		
			Middle	5.3	25.2	31.7	31.7	5.93	5.94	84.2	84.3	4.27	4.25		6.8	6.6	
						31.7		5.94		84.3		4.22			6.4		
			Bottom	9.5	24.0	32.0	32.0	5.81	5.82	82.9	82.9	4.15	4.26		6.4	6.5	
						32.0		5.82		82.9		4.36			6.6		
30/09/10	1016-1029	28/Fine	Surface	1.0	27.4	30.3	30.3	6.24	6.23	89.9	89.7	4.17	4.19	4.35	7.0	6.9	7.3
						30.2		6.21		89.4		4.20			6.8		
			Middle	6.4	26.8	30.6	30.6	6.08	6.09	87.6	87.7	4.39	4.38		7.1	7.2	
						30.5		6.10		87.8		4.36			7.2		
			Bottom	11.8	25.7	31.5	31.5	6.02	6.03	86.6	86.7	4.46	4.48		7.8	7.8	
						31.5		6.03		86.8		4.49			7.7		

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
02/09/10	1200-1214	33/Fine	Surface	1.0	29.3	30.2	30.3	6.12	6.11	86.9	86.8	4.47	4.46	4.56	7.0	7.2	7.5
						30.3		6.10		86.6		4.45			7.4		
			Middle	6.3	27.9	30.8	30.9	6.07	6.05	86.2	85.9	4.54	4.55		7.8	7.7	
						30.9		6.03		85.6		4.55			7.5		
			Bottom	11.6	25.5	31.2	31.3	5.97	5.96	84.8	84.7	4.68	4.67		7.5	7.7	
						31.3		5.95		84.5		4.66			7.8		
04/09/10	1400-1411	28/Rainy	Surface	1.0	27.2	28.8	28.9	6.07	6.06	86.1	85.9	4.67	4.71	5.15	7.6	7.7	8.3
						28.9		6.04		85.7		4.74			7.8		
			Middle	6.3	25.4	30.2	30.3	5.94	5.92	84.3	84.0	5.21	5.19		8.4	8.2	
						30.3		5.90		83.7		5.17			8.0		
			Bottom	11.6	25.1	30.9	31.0	5.65	5.67	80.1	80.3	5.58	5.55		9.0	8.9	
						31.0		5.68		80.5		5.52			8.8		
07/09/10	1600-1615	32/Fine	Surface	1.0	29.5	30.4	30.4	6.28	6.29	89.2	89.4	4.51	4.54	4.67	7.2	7.4	7.7
						30.3		6.30		89.5		4.57			7.6		
			Middle	6.2	27.3	30.8	30.9	6.12	6.14	86.9	87.1	4.69	4.71		7.6	7.8	
						30.9		6.15		87.3		4.73			8.0		
			Bottom	11.4	25.9	31.2	31.3	6.09	6.07	86.5	86.2	4.78	4.77		8.0	7.8	
						31.3		6.05		85.9		4.76			7.6		
09/09/10	1030-1045	28/Cloudy	Surface	1.0	26.9	30.5	30.6	6.21	6.19	88.1	87.9	4.61	4.64	4.81	7.6	7.6	7.9
						30.6		6.17		87.6		4.66			7.6		
			Middle	6.1	26.4	30.9	31.0	6.09	6.12	86.4	86.8	4.78	4.80		7.8	7.9	
						31.0		6.14		87.1		4.81			8.0		
			Bottom	11.2	25.6	31.6	31.7	6.00	5.99	85.2	85.0	4.98	5.00		8.0	8.2	
						31.7		5.97		84.7		5.02			8.4		
11/09/10	0805-0818	26/Rainy	Surface	1.0	25.6	28.9	29.0	6.39	6.41	90.7	91.2	4.51	4.48	4.59	7.2	7.1	7.5
						29.0		6.42		91.6		4.44			7.0		
			Middle	6.2	25.2	29.3	29.4	6.30	6.32	89.4	89.6	4.49	4.53		7.4	7.5	
						29.4		6.33		89.8		4.57			7.5		
			Bottom	11.4	24.8	30.2	30.3	6.17	6.18	87.6	87.7	4.74	4.76		8.0	7.9	
						30.3		6.19		87.8		4.77			7.8		
14/09/10	1030-1040	30/Fine	Surface	1.0	28.6	30.2	30.2	6.15	6.17	87.3	87.5	4.47	4.44	4.37	6.8	6.9	6.9
						30.2		6.18		87.7		4.40			7.0		
			Middle	6.3	25.9	30.9	30.9	5.93	5.94	84.2	84.3	4.34	4.38		6.6	6.8	
						30.8		5.95		84.4		4.41			7.0		
			Bottom	11.6	25.2	31.4	31.4	5.79	5.78	81.6	81.4	4.27	4.30		7.0	7.0	
						31.3		5.76		81.2		4.32			7.0		
16/09/10	1300-1312	31/Fine	Surface	1.0	28.6	29.2	29.1	6.42	6.41	91.2	91.1	3.51	3.50	3.60	5.6	5.7	5.9
						29.0		6.40		90.9		3.48			5.8		
			Middle	6.1	27.6	29.9	30.0	6.35	6.33	90.2	89.9	3.58	3.59		6.0	5.8	
						30.1		6.31		89.6		3.60			5.5		
			Bottom	11.2	26.6	30.4	30.5	6.25	6.24	88.8	88.6	3.71	3.72		6.0	6.1	
						30.6		6.22		88.3		3.73			6.2		
18/09/10	1430-1442	32/Fine	Surface	1.0	28.9	30.8	30.8	6.07	6.06	86.1	85.9	4.98	4.95	5.08	8.0	7.9	8.0
						30.8		6.04		85.7		4.91			7.8		
			Middle	6.3	26.0	31.6	31.6	5.81	5.83	81.9	82.1	5.15	5.18		8.4	8.2	
						31.5		5.84		82.3		5.21			8.0		
			Bottom	11.6	25.6	31.9	31.9	5.67	5.65	79.9	79.6	5.06	5.11		8.0	8.0	
						31.8		5.63		79.3		5.15			8.0		
21/09/10	1535-1546	27/Rainy	Surface	1.0	24.6	27.3	27.2	5.94	5.94	42.0	63.4	6.00	6.04	6.03	9.4	9.4	9.4
						27.1		5.93		84.8		6.08			9.4		
			Middle	6.7	23.7	28.6	28.6	5.84	5.83	83.5	83.3	5.91	5.92		9.0	9.3	
						28.5		5.81		83.1		5.93			9.5		
			Bottom	12.3	22.6	29.6	29.5	5.72	5.71	81.8	84.5	6.11	6.12		9.5	9.5	
						29.4		5.70		87.2		6.12			9.4		
25/09/10	0740-0755	27/Cloudy	Surface	1.0	26.8	30.2	30.3	6.29	6.28	90.6	90.4	4.31	4.30	4.38	6.4	6.4	6.7
						30.3		6.26		90.1		4.29			6.4		
			Middle	6.2	25.9	30.8	30.8	6.09	6.09	87.7	87.7	4.37	4.38		6.8	6.7	
						30.7		6.08		87.6		4.39			6.5		
			Bottom	11.4	25.2	31.2	31.3	6.04	6.04	87.0	86.9	4.46	4.45		7.0	6.9	
						31.4		6.03		86.8		4.43			6.8		
28/09/10	0920-0930	32/Fine	Surface	1.0	25.5	31.4	31.4	5.97	6.02	85.0	85.8	4.59	4.65	4.57	7.0	7.2	7.2
						31.4		6.06		86.6		4.71			7.4		
			Middle	5.2	24.4	31.9	31.9	5.91	5.92	84.2	84.2	4.36	4.39		6.8	6.9	
						31.9		5.92		84.2		4.42			7.0		
			Bottom	9.3	24.1	32.0	32.0	5.84	5.84	83.2	83.3	4.55	4.68		7.2	7.4	
						32.0		5.84		83.3		4.80			7.6		
30/09/10	1000-1013	28/Fine	Surface	1.0	27.5	30.2	30.3	6.27	6.28	90.3	90.4	4.27	4.28	4.36	7.0	7.1	7.3
						30.3		6.28		90.4		4.29			7.2		
			Middle	6.3	26.8	30.5	30.6	6.17	6.15	88.8	88.5	4.34	4.35		7.3	7.3	
						30.6		6.12		88.1		4.36			7.3		
			Bottom	11.6	25.7	31.4	31.5	6.08	6.07	87.6	87.5	4.44	4.45		7.5	7.5	
						31.5		6.06		87.3		4.46			7.5		

Mid-Flood Tide

Monitoring Station : R28

Date	Sampling Duration	Ambient Temp (°C) / Weather Condition	Monitoring Depth (m)		Temp (°C)	Salinity (ppt)		Dissolved Oxygen (mg/L)		Dissolved Oxygen Saturation (%)		Turbidity (NTU)			Suspended Solids (mg/L)		
						Value	Average	Value	Average	Value	Average	Value	Average	Depth-average	Value	Average	Depth-average
02/09/10	1427-1440	33/Cloudy	Surface	1.0	29.1	30.3	30.3	6.09	6.07	86.5	86.2	4.46	4.48	4.55	7.2	7.3	7.5
						30.2		6.04		85.8		4.49			7.4		
			Middle	6.0	27.8	30.8	30.9	5.89	5.91	83.6	83.9	4.57	4.56		7.2	7.4	
						30.9		5.93		84.2		4.54			7.6		
			Bottom	11.0	25.4	31.4	31.4	5.81	5.83	83.9	83.4	4.63	4.62		7.8	7.7	
						31.3		5.84		82.9		4.61			7.6		
04/09/10	1554-1605	28/Rainy	Surface	1.0	27.0	28.9	29.0	6.23	6.22	88.4	88.2	5.19	5.15	5.30	8.4	8.3	8.6
						29.0		6.20		88.0		5.11			8.2		
			Middle	6.1	25.4	30.8	30.8	5.91	5.93	83.9	84.1	5.07	5.10		8.0	8.2	
						30.7		5.94		84.3		5.12			8.4		
			Bottom	11.2	25.0	31.2	31.2	5.89	5.88	83.6	83.5	5.62	5.64		9.4	9.2	
						31.1		5.87		83.3		5.66			9.0		
07/09/10	1832-1845	30/Fine	Surface	1.0	29.3	30.5	30.5	6.23	6.22	88.5	88.4	4.38	4.42	4.52	6.8	6.9	7.3
						30.4		6.21		88.2		4.45			7.0		
			Middle	6.0	27.3	30.9	30.9	6.18	6.17	87.8	87.7	4.49	4.52		7.6	7.4	
						30.8		6.16		87.5		4.55			7.2		
			Bottom	11.0	25.8	31.4	31.4	5.95	5.94	84.5	84.4	4.62	4.61		7.6	7.6	
						31.3		5.93		84.2		4.60			7.6		
09/09/10	1303-1319	28/Cloudy	Surface	1.0	26.9	30.5	30.5	5.89	5.88	83.6	83.4	4.86	4.90	5.11	7.8	7.9	8.3
						30.5		5.86		83.2		4.93			8.0		
			Middle	5.8	26.4	30.8	30.8	5.80	5.78	82.3	82.0	5.12	5.15		8.8	8.6	
						30.7		5.75		81.6		5.18			8.4		
			Bottom	10.6	25.4	31.5	31.5	5.71	5.70	81.1	80.9	5.27	5.29		8.2	8.4	
						31.5		5.68		80.6		5.30			8.6		
11/09/10	1015-1020	27/Drizzle	Surface	1.0	25.7	28.9	29.0	6.38	6.37	90.5	90.3	4.40	4.42	4.57	7.2	7.1	7.4
						29.0		6.35		90.1		4.44			7.0		
			Middle	5.9	25.2	29.3	29.3	6.30	6.28	89.4	89.1	4.52	4.55		7.4	7.3	
						29.3		6.25		88.7		4.58			7.2		
			Bottom	10.8	24.7	30.0	30.1	6.18	6.16	87.7	87.4	4.72	4.75		7.8	7.7	
						30.1		6.14		87.1		4.78			7.6		
14/09/10	1237-1248	30/Fine	Surface	1.0	28.8	30.3	30.4	6.24	6.22	88.6	88.3	5.15	5.17	5.02	8.4	8.3	8.1
						30.4		6.20		88.0		5.18			8.2		
			Middle	6.1	26.0	30.9	31.0	6.01	6.03	85.3	85.6	5.01	5.04		8.0	8.1	
						31.0		6.05		85.9		5.07			8.2		
			Bottom	11.2	25.4	31.6	31.6	5.98	5.97	84.9	84.7	4.88	4.85		8.0	7.8	
						31.5		5.95		84.4		4.81			7.6		
16/09/10	1506-1516	31/Fine	Surface	1.0	28.6	28.9	28.8	6.49	6.48	92.2	92.1	3.40	3.42	3.58	5.4	5.4	5.8
						28.7		6.47		91.9		3.44			5.4		
			Middle	5.8	27.4	29.4	29.5	6.32	6.31	89.7	89.6	3.55	3.56		6.0	5.9	
						29.6		6.30		89.5		3.57			5.8		
			Bottom	10.5	30.3	30.2	30.3	6.22	6.23	88.3	88.5	3.73	3.75		6.2	6.1	
						30.4		6.24		88.6		3.76			6.0		
18/09/10	1627-1634	32/Fine	Surface	1.0	29.2	31.0	31.0	6.17	6.16	87.6	87.4	5.19	5.22	5.28	8.6	8.6	8.6
						31.0		6.14		87.1		5.25			8.6		
			Middle	6.0	26.1	31.8	31.8	6.07	6.06	86.1	85.9	5.28	5.25		8.4	8.5	
						31.7		6.04		85.7		5.21			8.6		
			Bottom	11.0	25.6	32.0	32.0	5.95	5.93	84.4	84.2	5.33	5.38		8.8	8.6	
						31.9		5.91		83.9		5.42			8.4		
21/09/10	1740-1750	27/Rainy	Surface	1.0	24.5	28.4	28.5	6.04	6.03	86.4	86.3	5.33	5.36	5.37	8.6	8.6	8.6
						28.6		6.02		86.1		5.38			8.6		
			Middle	7.8	23.5	29.3	29.3	5.92	5.94	84.7	85.0	5.52	5.50		9.0	8.9	
						29.2		5.96		85.2		5.48			8.8		
			Bottom	14.6	22.5	29.9	29.8	5.82	5.84	83.2	83.5	5.24	5.25		8.2	8.3	
						29.7		5.86		83.8		5.26			8.4		
25/09/10	0939-0948	28/Fine	Surface	1.0	27.1	30.3	30.3	6.19	6.17	89.1	88.9	4.23	4.25	4.39	6.8	6.7	6.9
						30.2		6.15		88.6		4.27			6.6		
			Middle	6.0	26.3	30.8	30.8	6.01	6.02	86.5	86.7	4.36	4.38		6.8	6.9	
						30.7		6.03		86.8		4.40			7.0		
			Bottom	11.0	25.6	31.3	31.4	5.96	5.95	85.8	85.7	4.51	4.55		7.0	7.1	
						31.4		5.94		85.5		4.59			7.1		
28/09/10	1119-1130	32/Fine	Surface	1.0	25.2	31.7	31.7	6.03	6.02	85.8	85.9	4.02	4.06	4.07	6.6	6.5	6.5
						31.7		6.00		85.9		4.10			6.4		
			Middle	6.0	24.7	32.0	32.1	5.90	5.89	84.2	84.1	4.12	4.07		6.8	6.6	
						32.2		5.88		84.0		4.01			6.4		
			Bottom	11.0	24.1	32.8	32.8	5.79	5.79	82.9	82.9	3.97	4.10		6.4	6.5	
						32.8		5.79		82.8		4.22			6.6		
30/09/10	1223-1236	29/Fine	Surface	1.0	27.7	30.4	30.4	6.32	6.31	91.0	90.9	4.25	4.26	4.37	6.8	6.9	7.2
						30.3		6.30		90.7		4.27			7.0		
			Middle	6.1	26.9	30.7	30.7	6.27	6.26	90.3	90.2	4.35	4.37		7.0	7.1	
						30.6		6.25		90.0		4.38			7.2		
			Bottom	11.2	25.8	31.4	31.5	6.12	6.13	88.1	88.3	4.48	4.47		7.7	7.7	
						31.5		6.14		88.4		4.46			7.6		

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
02/09/10	1443-1456	33/Cloudy	Surface	1.0	29.2	30.2	30.2	6.01	5.99	85.3	85.1	4.48	4.48	4.57	7.2	7.1	7.3
						30.2		5.97		84.8		4.47			7.0		
			Middle	8.8	27.6	30.8	30.8	5.94	5.92	84.3	84.1	4.56	4.55		7.2	7.2	
						30.7		5.90		83.8		4.53			7.2		
			Bottom	16.6	25.5	31.3	31.3	5.82	5.83	81.5	82.2	4.67	4.68		7.8	7.7	
						31.2		5.84		82.9		4.69			7.6		
04/09/10	1620-1630	28/Rainy	Surface	1.0	26.9	28.8	28.9	6.15	6.13	87.3	87.0	5.43	5.47	5.43	9.0	9.1	9.3
						28.9		6.11		86.7		5.50			9.2		
			Middle	8.9	25.3	30.8	30.9	5.77	5.76	81.3	81.1	5.34	5.33		9.4	9.4	
						30.9		5.74		80.9		5.32			9.4		
			Bottom	16.8	25.0	31.2	31.2	5.82	5.84	82.0	82.3	5.51	5.49		9.2	9.3	
						31.2		5.86		82.6		5.47			9.4		
07/09/10	1848-1900	30/Fine	Surface	1.0	29.3	30.5	30.5	6.19	6.21	87.9	88.1	4.41	4.43	4.38	6.8	6.7	7.1
						30.5		6.22		88.3		4.45			6.6		
			Middle	8.8	27.2	30.8	30.8	6.13	6.15	87.0	87.3	4.43	4.44		6.8	6.7	
						30.7		6.17		87.6		4.44			6.6		
			Bottom	16.6	25.7	31.5	31.6	6.03	6.04	85.6	85.8	4.56	4.28		8.0	7.9	
						31.6		6.05		85.9		4.00			7.8		
09/09/10	1323-1338	28/Cloudy	Surface	1.0	26.7	30.6	30.6	5.94	5.92	84.3	84.0	4.88	4.92	5.18	7.8	8.0	8.4
						30.6		5.90		83.7		4.96			8.2		
			Middle	8.9	26.0	31.0	31.1	5.85	5.83	83.1	82.8	5.17	5.21		8.2	8.3	
						31.1		5.81		82.5		5.24			8.4		
			Bottom	16.8	25.1	31.9	32.0	5.77	5.76	81.9	81.7	5.38	5.41		8.6	8.8	
						32.0		5.74		81.5		5.43			9.0		
11/09/10	1026-1040	27/Drizzle	Surface	1.0	25.7	29.0	29.0	6.21	6.20	88.1	87.9	4.60	4.58	4.81	7.6	7.5	7.8
						29.0		6.18		87.7		4.55			7.4		
			Middle	8.8	25.1	29.4	29.5	6.13	6.11	87.0	86.7	4.83	4.86		8.0	7.9	
						29.5		6.09		86.4		4.88			7.8		
			Bottom	16.6	24.3	30.4	30.5	5.97	5.96	84.7	84.5	4.96	4.99		8.2	8.1	
						30.5		5.94		84.3		5.01			8.0		
14/09/10	1302-1313	30/Fine	Surface	1.0	28.9	30.4	30.4	6.33	6.32	89.8	89.6	4.99	4.98	5.02	8.0	8.1	8.1
						30.4		6.30		89.4		4.96			8.2		
			Middle	8.8	26.1	31.1	31.1	6.07	6.06	80.1	82.9	4.92	4.90		7.8	7.9	
						31.0		6.04		85.7		4.87			8.0		
			Bottom	16.6	25.4	31.6	31.6	5.88	5.87	82.9	82.7	5.15	5.18		8.4	8.4	
						31.6		5.85		82.4		5.21			8.4		
16/09/10	1520-1535	31/Fine	Surface	1.0	28.5	29.1	29.2	6.44	6.43	91.4	91.3	3.44	3.45	3.54	5.8	5.7	5.9
						29.3		6.42		91.2		3.46			5.6		
			Middle	9.0	27.4	29.6	29.7	6.31	6.31	89.6	89.6	3.49	3.51		5.6	5.8	
						29.8		6.30		89.5		3.52			6.0		
			Bottom	17.0	26.6	30.4	30.5	6.22	6.23	88.3	88.5	3.66	3.67		6.2	6.1	
						30.5		6.24		88.6		3.68			6.0		
18/09/10	1649-1700	32/Fine	Surface	1.0	29.1	31.0	31.1	6.11	6.10	86.7	86.5	5.27	5.24	5.12	8.4	8.3	8.2
						31.1		6.08		86.3		5.21			8.2		
			Middle	8.9	26.1	31.8	31.8	5.98	5.96	84.9	84.6	5.15	5.17		8.2	8.4	
						31.8		5.94		84.3		5.19			8.6		
			Bottom	16.8	25.6	32.0	32.0	5.82	5.84	82.0	82.2	4.92	4.95		7.8	7.9	
						32.0		5.85		82.4		4.97			8.0		
21/09/10	1805-1812	27/Rainy	Surface	1.0	24.6	28.4	28.2	5.96	5.95	85.2	85.1	5.54	5.56	5.56	9.0	9.2	9.1
						28.0		5.94		84.9		5.58			9.4		
			Middle	8.6	23.6	29.0	29.0	5.86	5.88	83.8	84.0	5.42	5.45		8.8	8.7	
						28.9		5.89		84.2		5.48			8.6		
			Bottom	16.1	22.6	29.3	29.3	5.79	5.79	82.8	82.8	5.62	5.66		9.4	9.3	
						29.2		5.78		82.7		5.69			9.2		
25/09/10	0951-0959	28/Fine	Surface	1.0	27.2	30.3	30.4	6.21	6.20	89.4	89.3	4.29	4.30	4.38	6.5	6.6	6.7
						30.4		6.19		89.1		4.31			6.6		
			Middle	8.8	26.3	30.7	30.7	6.10	6.09	87.8	87.7	4.37	4.38		6.8	6.7	
						30.6		6.08		87.6		4.39			6.5		
			Bottom	16.6	25.5	31.2	31.3	6.01	5.99	86.5	86.3	4.47	4.45		7.0	6.9	
						31.3		5.97		86.0		4.43			6.8		
28/09/10	1145-1156	32/Fine	Surface	1.0	25.3	31.4	31.4	5.99	5.96	85.1	85.2	4.35	4.39	4.68	6.8	6.9	7.6
						31.4		5.93		85.3		4.42			7.0		
			Middle	7.3	24.4	31.9	32.0	5.81	5.82	83.5	83.6	4.59	4.65		7.6	7.8	
						32.0		5.83		83.6		4.70			8.0		
			Bottom	13.6	24.0	32.5	32.5	5.72	5.71	82.4	82.2	4.95	5.02		8.0	8.2	
						32.5		5.70		82.0		5.08			8.4		
30/09/10	1239-1252	29/Fine	Surface	1.0	27.8	30.4	30.4	6.20	6.22	89.3	89.6	4.37	4.38	4.52	6.8	6.9	7.3
						30.4		6.24		89.9		4.38			7.0		
			Middle	8.9	26.8	30.7	30.7	6.29	6.29	90.6	90.5	4.49	4.50		7.1	7.2	
						30.6		6.28		90.4		4.51			7.3		
			Bottom	16.8	25.9	31.6	31.6	6.18	6.16	88.9	88.7	4.68	4.69		7.8	7.7	
						31.5		6.14		88.4		4.69			7.6		

Mid-Flood Tide

東業環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
02/09/10	1312-1325	33/Fine	Surface	1.0	29.4	30.3	30.3	6.08	6.07	86.3	86.2	4.51	4.50	4.52	7.0	7.2	7.3
						30.2		6.06		86.1		4.48			7.4		
			Middle	7.7	27.9	30.8	30.8	6.02	6.01	85.5	85.3	4.41	4.41		7.2	7.1	
						30.8		5.99		85.1		4.40			7.0		
			Bottom	14.4	25.5	31.5	31.6	5.86	5.86	83.5	83.2	4.68	4.66		7.6	7.6	
						31.6		5.84		82.9		4.63			7.5		
04/09/10	1448-1458	28/Rainy	Surface	1.0	27.2	28.9	28.9	6.19	6.17	87.8	87.6	5.17	5.16	5.25	8.4	8.3	8.5
						28.9		6.15		87.3		5.14			8.2		
			Middle	7.4	25.4	30.6	30.7	5.87	5.89	80.3	81.8	5.21	5.23		8.6	8.4	
						30.7		5.91		83.3		5.25			8.2		
			Bottom	13.8	25.2	31.0	31.1	5.62	5.60	79.2	78.9	5.38	5.35		8.8	8.9	
						31.1		5.58		78.6		5.32			9.0		
07/09/10	1720-1733	32/Fine	Surface	1.0	29.4	30.5	30.5	6.21	6.23	88.2	88.4	4.57	4.58	4.70	7.6	7.4	7.6
						30.4		6.24		88.6		4.59			7.2		
			Middle	7.6	27.3	30.9	30.9	6.14	6.15	87.2	87.3	4.69	4.67		7.6	7.5	
						30.8		6.15		87.3		4.64			7.4		
			Bottom	14.2	26.0	31.3	31.3	6.06	6.08	86.1	86.3	4.88	4.85		8.0	8.0	
						31.2		6.09		86.5		4.82			8.0		
09/09/10	1144-1200	28/Cloudy	Surface	1.0	26.7	30.5	30.6	6.23	6.25	88.4	88.6	4.55	4.53	4.77	7.2	7.1	7.6
						30.6		6.26		88.8		4.51			7.0		
			Middle	7.3	26.4	30.9	31.0	6.18	6.16	87.7	87.4	4.77	4.81		8.0	7.8	
						31.0		6.13		87.0		4.85			7.6		
			Bottom	13.6	25.4	31.8	31.8	6.05	6.03	85.9	85.6	4.92	4.96		8.0	8.0	
						31.8		6.01		85.3		4.99			8.0		
11/09/10	0910-0925	26/Rainy	Surface	1.0	25.6	28.8	28.9	6.45	6.43	91.5	91.3	4.31	4.34	4.51	6.8	7.0	7.3
						28.9		6.41		91.0		4.36			7.2		
			Middle	7.2	25.0	29.2	29.3	6.38	6.36	90.5	90.2	4.53	4.55		7.4	7.3	
						29.3		6.33		89.8		4.57			7.2		
			Bottom	13.4	24.6	30.2	30.3	6.15	6.13	87.3	87.0	4.61	4.64		7.8	7.7	
						30.3		6.10		86.6		4.66			7.5		
14/09/10	1129-1140	30/Fine	Surface	1.0	28.6	30.2	30.2	6.30	6.32	89.4	89.7	4.97	4.95	4.84	8.0	7.8	7.8
						30.1		6.34		90.0		4.92			7.6		
			Middle	7.6	25.7	31.0	31.1	6.02	6.05	85.4	85.8	4.71	4.73		7.6	7.7	
						31.1		6.07		86.1		4.75			7.8		
			Bottom	14.2	25.2	31.5	31.5	5.84	5.82	82.3	82.0	4.88	4.85		7.8	7.9	
						31.5		5.80		81.7		4.82			8.0		
16/09/10	1358-1410	31/Fine	Surface	1.0	28.7	28.8	28.9	6.46	6.46	91.7	91.7	3.49	3.50	3.58	5.8	5.7	5.9
						28.9		6.45		91.6		3.50			5.6		
			Middle	7.5	27.7	29.7	29.7	6.33	6.34	89.9	90.1	3.59	3.59		6.0	5.8	
						29.6		6.35		90.2		3.58			5.6		
			Bottom	14.0	26.5	30.3	30.4	6.22	6.24	88.3	88.6	3.68	3.67		6.4	6.2	
						30.5		6.25		88.8		3.66			6.0		
18/09/10	1525-1536	32/Fine	Surface	1.0	29.1	30.9	30.9	6.18	6.16	87.7	87.4	5.37	5.39	5.00	8.6	8.8	8.1
						30.9		6.14		87.1		5.41			9.0		
			Middle	7.4	26.1	31.7	31.7	6.02	6.04	85.4	85.7	4.84	4.87		7.8	7.8	
						31.6		6.06		86.0		4.89			7.8		
			Bottom	13.8	25.8	32.0	32.1	5.95	5.93	84.4	84.2	4.79	4.75		7.6	7.8	
						32.1		5.91		83.9		4.71			8.0		
21/09/10	1627-1638	27/Rainy	Surface	1.0	24.7	26.8	26.9	6.11	6.13	87.4	87.6	5.44	5.45	5.39	8.6	8.7	8.7
						27.0		6.14		87.8		5.46			8.8		
			Middle	8.9	23.7	28.6	28.5	5.82	5.81	83.2	83.1	5.33	5.41		9.2	9.1	
						28.4		5.80		82.9		5.49			9.0		
			Bottom	16.8	22.6	29.1	29.3	5.78	5.76	82.7	82.1	5.33	5.30		8.6	8.4	
						29.4		5.74		81.5		5.26			8.2		
25/09/10	0843-0854	27/Cloudy	Surface	1.0	26.9	30.3	30.3	6.31	6.32	90.9	91.0	3.98	3.98	4.07	6.4	6.4	6.5
						30.2		6.32		91.0		3.97			6.4		
			Middle	7.6	25.9	25.9	25.9	6.20	6.18	89.3	89.0	4.04	4.04		6.6	6.5	
						25.8		6.15		88.6		4.03			6.4		
			Bottom	14.2	25.3	25.2	25.3	6.01	5.99	86.5	86.3	4.19	4.21		6.5	6.7	
						25.3		5.97		86.0		4.23			6.8		
28/09/10	1017-1029	32/Fine	Surface	1.0	25.1	32.3	32.4	6.22	6.24	88.9	89.1	4.10	4.12	3.97	6.6	6.6	6.4
						32.4		6.25		89.2		4.13			6.6		
			Middle	9.4	24.3	32.8	32.8	6.01	6.02	85.9	86.0	3.81	3.83		6.2	6.3	
						32.8		6.03		86.0		3.84			6.4		
			Bottom	17.8	23.9	32.8	32.9	5.89	5.87	83.9	84.0	3.97	3.98		6.4	6.2	
						32.9		5.84		84.0		3.98			6.0		
30/09/10	1110-1123	28/Fine	Surface	1.0	27.5	30.2	30.3	6.16	6.15	88.7	88.6	4.26	4.28	4.44	6.8	6.9	7.3
						30.3		6.14		88.4		4.29			6.9		
			Middle	7.7	26.8	30.6	30.6	6.01	6.02	86.5	86.7	4.47	4.48		7.0	7.1	
						30.5		6.03		86.8		4.48			7.2		
			Bottom	14.4	25.7	31.5	31.6	5.94	5.96	85.5	85.7	4.57	4.57		7.9	7.8	
						31.6		5.97		85.9		4.56			7.7		

Mid-Flood Tide

東業檢測試驗顧問有限公司
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
02/09/10	1337-1350	33/Fine	Surface	1.0	29.3	30.4	30.4	6.01	5.98	85.3	84.9	4.37	4.40	4.53	6.8	7.0	7.3
						30.3		5.95		84.5		4.42			7.2		
			Middle	6.9	28.0	30.7	30.8	5.85	5.87	83.1	83.4	4.51	4.55		7.0	7.2	
						30.8		5.89		83.6		4.58			7.4		
			Bottom	12.8	25.6	31.6	31.6	5.78	5.79	82.1	82.3	4.65	4.64		7.6	7.7	
						31.5		5.80		82.4		4.62			7.8		
04/09/10	1511-1522	28/Rainy	Surface	1.0	27.1	29.0	29.0	6.20	6.19	88.0	87.8	5.06	5.09	5.31	8.2	8.3	8.6
						29.0		6.17		87.6		5.11			8.4		
			Middle	6.8	25.3	30.7	30.8	5.99	5.97	85.0	84.7	5.47	5.45		9.0	8.9	
						30.8		5.94		84.3		5.43			8.8		
			Bottom	12.6	25.1	31.1	31.1	5.85	5.87	83.0	83.3	5.42	5.40		8.6	8.6	
						31.0		5.89		83.6		5.37			8.6		
07/09/10	1745-1758	32/Fine	Surface	1.0	29.4	30.4	30.4	6.19	6.18	87.9	87.7	4.38	4.36	4.45	6.6	6.6	6.9
						30.3		6.16		87.5		4.33			6.6		
			Middle	6.8	27.3	30.9	31.0	6.07	6.06	86.2	86.0	4.44	4.46		6.8	6.9	
						31.0		6.04		85.8		4.48			7.0		
			Bottom	12.6	25.9	31.4	31.5	5.99	5.98	85.1	84.9	4.51	4.53		7.4	7.3	
						31.5		5.96		84.6		4.55			7.2		
09/09/10	1212-1230	28/Cloudy	Surface	1.0	26.8	30.4	30.5	6.28	6.29	89.1	89.2	4.60	4.63	4.82	7.6	7.5	7.8
						30.5		6.29		89.3		4.66			7.4		
			Middle	6.9	26.4	30.8	30.8	6.23	6.20	88.4	88.0	4.79	4.83		8.0	7.9	
						30.8		6.17		87.6		4.87			7.8		
			Bottom	12.8	25.3	31.7	31.8	6.05	6.07	85.9	86.1	4.97	4.99		8.0	8.1	
						31.8		6.08		86.3		5.01			8.2		
11/09/10	0933-0945	26/Rainy	Surface	1.0	25.6	28.9	28.9	6.51	6.49	92.4	92.1	4.35	4.37	4.52	6.6	6.8	7.2
						28.9		6.47		91.8		4.39			7.0		
			Middle	6.8	25.1	29.3	29.3	6.42	6.40	91.1	90.8	4.48	4.51		7.2	7.1	
						29.3		6.38		90.5		4.53			7.0		
			Bottom	12.6	24.7	30.2	30.2	6.19	6.23	87.8	88.3	4.67	4.69		7.6	7.7	
						30.2		6.26		88.8		4.70			7.8		
14/09/10	1153-1205	30/Fine	Surface	1.0	28.7	30.3	30.3	6.27	6.26	89.0	88.8	4.82	4.84	4.98	7.8	7.8	8.0
						30.2		6.24		88.6		4.86			7.8		
			Middle	6.9	25.7	31.1	31.1	6.07	6.06	86.1	85.9	5.03	5.06		8.2	8.1	
						31.1		6.04		85.7		5.08			8.0		
			Bottom	12.8	25.2	31.5	31.5	5.95	5.93	84.4	84.2	5.01	5.04		8.0	8.1	
						31.4		5.91		83.9		5.07			8.2		
16/09/10	1421-1436	31/Fine	Surface	1.0	28.7	28.7	28.8	6.45	6.44	91.6	91.4	3.43	3.46	3.58	5.4	5.6	5.8
						28.9		6.42		91.2		3.48			5.8		
			Middle	6.9	27.6	29.6	29.8	6.34	6.35	90.0	90.2	3.59	3.60		5.8	5.9	
						29.9		6.36		90.3		3.61			6.0		
			Bottom	12.8	26.6	30.3	30.5	6.21	6.23	88.2	88.4	3.67	3.68		6.0	5.9	
						30.6		6.24		88.6		3.68			5.8		
18/09/10	1540-1550	32/Fine	Surface	1.0	29.1	31.0	31.0	6.20	6.22	88.0	88.3	5.44	5.47	5.16	9.2	9.1	8.4
						31.0		6.24		88.6		5.49			9.0		
			Middle	6.8	26.0	31.8	31.8	5.98	5.95	84.9	84.4	5.03	5.06		8.2	8.1	
						31.8		5.91		83.9		5.08			8.0		
			Bottom	12.6	25.7	32.1	32.1	5.83	5.81	82.7	82.5	4.98	4.95		8.0	7.9	
						32.0		5.79		82.2		4.91			7.8		
21/09/10	1653-1706	27/Rainy	Surface	1.0	24.5	27.1	27.0	6.13	6.11	87.7	87.4	5.17	5.20	5.20	8.4	8.4	8.3
						26.9		6.09		87.1		5.22			8.4		
			Middle	9.1	23.5	28.3	28.4	5.91	5.90	84.5	84.4	5.44	5.37		8.6	8.5	
						28.4		5.89		84.2		5.29			8.4		
			Bottom	17.1	22.8	29.3	29.2	5.82	5.83	83.2	83.4	5.01	5.05		8.2	8.1	
						29.0		5.84		83.5		5.09			8.0		
25/09/10	0906-0917	27/Cloudy	Surface	1.0	26.9	30.2	30.2	6.20	6.20	89.3	89.2	4.08	4.09	4.07	6.6	6.6	6.5
						30.1		6.19		89.1		4.10			6.6		
			Middle	6.8	25.9	30.6	30.7	6.03	6.02	86.8	86.7	3.96	3.95		6.4	6.3	
						30.7		6.01		86.5		3.94			6.2		
			Bottom	12.6	25.4	31.4	31.4	5.97	5.96	86.0	85.9	4.18	4.17		6.6	6.7	
						31.3		5.95		85.7		4.15			6.8		
28/09/10	1039-1051	32/Fine	Surface	1.0	25.1	32.5	32.5	6.26	6.23	89.5	89.3	3.83	3.86	3.89	6.0	6.1	6.3
						32.5		6.20		89.1		3.89			6.2		
			Middle	9.0	24.3	32.9	32.9	6.06	6.04	86.6	86.5	3.76	3.79		5.8	6.1	
						32.9		6.02		86.3		3.82			6.4		
			Bottom	17.0	23.9	33.0	33.0	5.89	5.90	84.2	84.2	3.94	4.01		6.6	6.6	
						32.9		5.90		84.2		4.08			6.6		
30/09/10	1135-1148	28/Fine	Surface	1.0	27.6	30.3	30.3	6.20	6.19	89.3	89.2	4.31	4.32	4.44	7.0	7.0	7.4
						30.2		6.18		89.0		4.33			7.0		
			Middle	6.9	26.9	30.6	30.6	6.11	6.10	87.9	87.8	4.45	4.46		7.3	7.3	
						30.5		6.09		87.7		4.46			7.2		
			Bottom	12.8	25.7	31.6	31.6	5.99	5.99	86.3	86.2	4.52	4.53		7.8	7.9	
						31.5		5.98		86.1		4.54			7.9		

Mid-Ebb Tide

東業檢動測試顧問有限公司
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
02/09/10	1202-1214	30/Fine	Surface	1.0	27.7	30.7	30.7	6.14	6.13	87.1	87.0	4.55	4.53	4.68	6.5	6.5	7.0
						30.6		6.12		86.9		4.51			6.4		
			Middle	7.2	26.3	30.8	30.8	6.05	6.06	85.9	86.0	4.62	4.66		6.6	6.5	
						30.8		6.06		86.0		4.69			6.4		
			Bottom	13.4	25.5	31.1	31.1	5.94	5.96	84.3	84.6	4.84	4.85		8.0	7.9	
						31.1		5.98		84.9		4.86			7.8		
04/09/10	1235-1247	28/Rainy	Surface	1.0	27.1	28.8	28.9	6.14	6.15	87.2	87.4	4.62	4.64	4.76	8.0	7.7	7.9
						28.9		6.16		87.5		4.65			7.4		
			Middle	7.5	25.9	30.3	30.4	6.03	6.04	85.6	85.8	4.75	4.75		8.0	7.9	
						30.4		6.05		85.9		4.74			7.8		
			Bottom	14.0	24.5	31.1	31.2	5.91	5.93	83.9	84.1	4.89	4.90		7.8	8.0	
						31.2		5.94		84.3		4.90			8.2		
07/09/10	1337-1349	30/Cloudy	Surface	1.0	29.0	30.6	30.7	6.23	6.22	88.4	88.2	5.34	5.36	5.26	9.0	8.8	8.5
						30.7		6.20		88.0		5.38			8.6		
			Middle	8.2	25.9	31.3	31.3	5.90	5.93	83.7	84.1	5.11	5.09		8.2	8.3	
						31.3		5.95		84.4		5.07			8.4		
			Bottom	15.4	25.4	31.8	31.8	5.72	5.75	80.6	81.0	5.29	5.32		8.6	8.4	
						31.8		5.77		81.3		5.34			8.2		
09/09/10	2125-2140	32/Cloudy	Surface	1.0	25.1	31.4	31.4	6.22	6.23	88.9	89.0	4.70	4.74	4.46	8.0	8.0	7.3
						31.4		6.23		89.0		4.77			8.0		
			Middle	8.0	24.2	31.2	31.4	6.03	6.04	86.0	86.1	4.12	4.22		6.8	6.9	
						31.5		6.05		86.1		4.32			7.0		
			Bottom	15.0	23.9	31.9	32.0	5.90	5.90	84.3	84.3	4.68	4.44		7.6	7.1	
						32.1		5.90		84.3		4.19			6.6		
11/09/10	1732-1742	26/Cloudy	Surface	1.0	25.8	29.6	29.7	6.33	6.35	89.9	90.1	4.46	4.48	4.70	7.0	7.0	7.5
						29.7		6.36		90.3		4.50			7.0		
			Middle	7.4	24.8	30.2	30.2	6.22	6.22	88.3	88.3	4.77	4.78		7.6	7.7	
						30.1		6.21		88.2		4.79			7.8		
			Bottom	13.8	24.1	31.5	31.5	6.01	6.03	85.3	85.6	4.81	4.85		8.0	7.9	
						31.4		6.05		85.9		4.88			7.8		
14/09/10	2045-2052	28/Cloudy	Surface	1.0	26.5	30.6	30.5	6.12	6.11	86.9	86.7	4.95	4.97	5.06	8.0	8.0	8.2
						30.3		6.09		86.4		4.98			8.0		
			Middle	7.8	25.7	31.2	31.3	5.99	5.98	85.0	84.8	5.07	5.06		8.4	8.3	
						31.4		5.96		84.6		5.04			8.2		
			Bottom	14.6	24.7	31.6	31.7	5.73	5.74	81.3	81.4	5.14	5.15		8.6	8.4	
						31.7		5.74		81.5		5.16			8.2		
16/09/10	1115-1128	30/Fine	Surface	1.0	27.9	30.3	30.3	6.11	6.14	86.8	87.2	4.41	4.43	4.54	7.0	6.9	7.1
						30.2		6.17		87.6		4.45			6.8		
			Middle	7.4	27.1	30.9	30.9	6.03	6.05	85.6	85.9	4.54	4.56		7.2	7.1	
						30.8		6.07		86.2		4.58			7.0		
			Bottom	13.8	26.0	31.5	31.5	5.95	5.95	84.5	84.4	4.62	4.63		7.4	7.3	
						31.4		5.94		84.3		4.64			7.2		
18/09/10	1244-1259	31/Fine	Surface	1.0	28.3	30.4	30.5	6.06	6.05	86.1	86.0	4.79	4.81	4.92	8.0	7.9	7.9
						30.5		6.04		85.8		4.82			7.8		
			Middle	7.4	26.7	30.8	30.8	5.95	5.94	84.6	84.4	4.91	4.93		8.0	7.8	
						30.7		5.93		84.2		4.94			7.6		
			Bottom	13.8	25.9	31.4	31.5	5.85	5.84	83.1	82.9	5.01	5.02		8.2	8.1	
						31.5		5.82		82.6		5.03			8.0		
21/09/10	1420-1432	28/Rainy	Surface	1.0	23.4	28.1	28.1	6.20	6.20	88.6	88.6	4.91	4.87	4.79	8.0	7.9	7.8
						28.1		6.20		88.6		4.82			7.8		
			Middle	8.1	22.7	28.7	28.7	6.05	6.04	86.5	86.4	4.66	4.60		7.4	7.5	
						28.7		6.02		86.2		4.54			7.6		
			Bottom	15.1	22.2	29.6	29.7	5.90	5.87	84.3	84.2	4.97	4.90		8.0	8.0	
						29.7		5.84		84.0		4.82			8.0		
25/09/10	1720-1730	29/Fine	Surface	1.0	26.6	30.8	30.8	6.16	6.18	88.7	88.9	4.80	4.84	5.01	8.0	7.9	8.1
						30.8		6.19		89.1		4.87			7.8		
			Middle	7.4	25.9	31.3	31.3	6.04	5.99	86.9	86.2	4.98	5.01		8.0	8.1	
						31.3		5.94		85.5		5.03			8.2		
			Bottom	13.8	25.1	31.8	31.9	5.87	5.86	84.5	84.3	5.16	5.19		8.4	8.3	
						31.9		5.84		84.1		5.22			8.2		
28/09/10	1744-1757	31/Fine	Surface	1.0	29.3	30.3	30.3	6.08	6.10	84.5	84.7	4.27	4.28	4.53	6.5	6.7	7.2
						30.3		6.11		84.9		4.29			6.8		
			Middle	8.3	28.5	31.1	31.1	5.88	5.87	81.7	81.6	4.53	4.56		7.2	7.1	
						31.1		5.86		81.4		4.58			7.0		
			Bottom	15.6	27.6	31.6	31.6	5.72	5.72	79.5	79.6	4.74	4.75		7.8	7.9	
						31.6		5.72		79.7		4.76			8.0		
30/09/10	2018-2030	29/Cloudy	Surface	1.0	28.0	30.5	30.6	6.14	6.13	88.4	88.3	4.28	4.30	4.40	7.0	7.1	7.6
						30.6		6.12		88.1		4.32			7.2		
			Middle	7.4	27.0	30.8	30.8	6.04	6.03	87.0	86.9	4.47	4.47		7.4	7.5	
						30.8		6.02		86.7		4.46			7.6		
			Bottom	13.8	25.7	31.8	31.8	5.93	5.92	85.4	85.2	4.46	4.44		8.3	8.2	
						31.7		5.90		85.0		4.42			8.0		

Mid-Ebb Tide

東業檢動測試顧問有限公司
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
02/09/10	1145-1155	30/Fine	Surface	1.0	27.7	30.5	30.6	6.12	6.13	86.9	87.0	4.44	4.47	4.59	7.2	7.1	7.6
						30.7		6.13		87.0		4.49			7.0		
			Middle	7.9	26.2	30.8	30.8	6.04	6.03	85.7	85.6	4.56	4.55		7.6	7.6	
						30.8		6.02		85.4		4.53			7.6		
			Bottom	14.8	25.4	31.2	31.2	5.96	5.97	84.6	84.7	4.72	4.75		8.0	8.0	
						31.2		5.97		84.7		4.78			8.0		
04/09/10	1215-1227	28/Rainy	Surface	1.0	27.0	28.8	28.9	6.17	6.18	87.6	87.8	4.64	4.65	4.76	2.6	2.6	6.2
						28.9		6.19		87.9		4.66			2.6		
			Middle	8.1	25.9	30.4	30.4	6.07	6.08	86.2	86.3	4.79	4.76		8.0	7.9	
						30.3		6.08		86.3		4.73			7.8		
			Bottom	15.2	24.5	31.0	31.1	5.99	5.98	85.1	85.0	4.88	4.86		8.0	8.0	
						31.1		5.97		84.8		4.83			8.0		
07/09/10	1319-1329	30/Cloudy	Surface	1.0	29.1	30.6	30.6	6.18	6.16	87.7	87.4	5.15	5.13	5.17	8.4	8.3	8.4
						30.6		6.14		87.1		5.11			8.2		
			Middle	8.1	26.0	31.3	31.3	5.77	5.76	81.3	81.1	5.02	5.06		8.0	8.2	
						31.2		5.74		80.9		5.09			8.4		
			Bottom	15.2	25.5	31.7	31.8	5.63	5.61	79.3	79.1	5.34	5.32		8.6	8.6	
						31.8		5.59		78.8		5.29			8.5		
09/09/10	2055-2110	32/Cloudy	Surface	1.0	25.0	31.3	31.5	6.15	6.18	87.9	87.9	4.81	4.81	4.53	8.0	7.9	7.3
						31.6		6.20		87.9		4.80			7.8		
			Middle	8.1	24.4	31.6	31.7	6.01	6.01	85.8	85.5	4.39	4.47		7.2	7.1	
						31.7		6.00		85.2		4.54			7.0		
			Bottom	15.2	24.1	32.0	32.0	5.90	5.89	84.3	84.2	4.19	4.32		6.6	6.8	
						32.0		5.88		84.0		4.44			7.0		
11/09/10	1712-1722	26/Cloudy	Surface	1.0	25.5	29.8	29.8	6.34	6.33	90.0	89.9	4.43	4.45	4.67	6.8	6.9	7.5
						29.7		6.32		89.7		4.46			7.0		
			Middle	7.6	24.9	30.3	30.3	6.22	6.23	88.3	88.4	4.73	4.73		7.6	7.6	
						30.2		6.23		88.5		4.72			7.6		
			Bottom	14.1	24.2	31.2	31.3	6.13	6.14	87.0	87.2	4.88	4.85		8.0	8.0	
						31.3		6.15		87.3		4.82			8.0		
14/09/10	2015-2030	28/Cloudy	Surface	1.0	26.6	30.2	30.3	6.06	6.05	86.0	85.9	4.82	4.83	4.94	7.8	7.7	7.9
						30.3		6.04		85.7		4.84			7.6		
			Middle	7.8	25.7	31.3	31.2	5.93	5.94	84.2	84.3	4.91	4.93		8.0	7.9	
						31.1		5.94		84.3		4.95			7.8		
			Bottom	14.6	24.7	31.7	31.6	5.96	5.96	84.6	84.5	5.06	5.05		8.2	8.1	
						31.5		5.95		84.4		5.04			8.0		
16/09/10	1055-1107	30/Fine	Surface	1.0	27.8	30.2	30.3	6.16	6.15	87.5	87.4	4.39	4.41	4.47	7.0	6.9	7.0
						30.3		6.14		87.2		4.42			6.8		
			Middle	8.0	27.1	30.8	30.9	6.05	6.03	85.9	85.6	4.48	4.47		6.8	7.0	
						30.9		6.01		85.3		4.46			7.2		
			Bottom	15.0	26.0	31.4	31.5	5.94	5.95	84.3	84.5	4.55	4.54		7.4	7.2	
						31.5		5.96		84.6		4.53			7.0		
18/09/10	1221-1236	31/Fine	Surface	1.0	28.3	30.5	30.5	6.04	6.05	85.8	86.0	4.84	4.85	4.95	7.8	7.9	8.1
						30.4		6.06		86.1		4.86			8.0		
			Middle	8.0	26.7	30.7	30.8	5.94	5.96	84.3	84.6	4.93	4.95		8.2	8.1	
						30.8		5.98		84.9		4.96			8.0		
			Bottom	15.0	25.9	31.5	31.5	5.83	5.85	82.8	83.0	5.05	5.07		8.4	8.2	
						31.4		5.86		83.2		5.08			8.0		
21/09/10	1358-1411	28/Rainy	Surface	1.0	23.5	28.0	28.0	6.16	6.15	88.1	88.1	4.84	4.72	4.87	8.0	7.8	7.9
						28.0		6.14		88.0		4.60			7.6		
			Middle	7.8	22.4	28.8	28.8	6.00	5.99	85.2	85.2	4.90	4.95		8.0	8.0	
						28.8		5.98		85.1		4.99			8.0		
			Bottom	14.5	22.0	29.9	29.8	5.80	5.79	82.9	82.8	4.83	4.93		7.6	7.8	
						29.7		5.77		82.6		5.03			8.0		
25/09/10	1701-1715	29/Fine	Surface	1.0	26.6	30.8	30.9	6.21	6.22	89.4	89.6	4.68	4.72	4.95	7.4	7.5	7.7
						30.9		6.23		89.7		4.76			7.6		
			Middle	7.9	25.9	31.3	31.3	6.08	6.02	87.5	86.6	4.88	4.92		7.0	7.5	
						31.3		5.95		85.6		4.95			7.9		
			Bottom	14.8	25.0	31.9	31.9	5.86	5.83	84.3	83.9	5.25	5.23		8.0	8.1	
						31.9		5.80		83.5		5.20			8.2		
28/09/10	1723-1736	31/Fine	Surface	1.0	29.2	30.3	30.3	6.07	6.09	84.3	84.5	4.38	4.40	4.65	7.0	7.1	7.6
						30.3		6.10		84.7		4.42			7.2		
			Middle	8.2	28.4	31.1	31.1	5.99	5.98	83.2	83.0	4.64	4.66		7.8	7.7	
						31.1		5.96		82.8		4.68			7.6		
			Bottom	15.4	27.5	31.6	31.6	5.78	5.80	80.3	80.6	4.85	4.88		8.0	7.9	
						31.6		5.82		80.9		4.90			7.7		
30/09/10	1947-2008	29/Cloudy	Surface	1.0	28.1	30.6	30.6	6.21	6.19	89.4	89.1	4.36	4.37	4.46	7.2	7.2	7.7
						30.5		6.16		88.7		4.37			7.2		
			Middle	8.1	27.1	30.8	30.9	6.05	6.06	87.1	87.3	4.48	4.49		7.7	7.7	
						30.9		6.07		87.4		4.49			7.6		
			Bottom	15.2	25.8	31.7	31.7	5.97	5.97	86.0	85.9	4.52	4.53		8.0	8.1	
						31.7		5.96		85.8		4.53			8.2		

Mid-Ebb 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
02/09/10	0943-0958	29/Fine	Surface	1.0	27.1	30.6	30.7	6.04	6.01	85.7	85.3	5.43	5.46	5.59	8.5	8.8	8.8
						30.7		5.98		84.9		5.49			9.0		
			Middle	8.2	26.2	31.2	31.3	5.87	5.85	83.3	83.0	5.55	5.58		8.8	8.7	
						31.3		5.83		82.7		5.60			8.6		
			Bottom	15.4	25.4	31.8	31.9	5.77	5.76	81.9	81.7	5.71	5.74		9.0	8.9	
						31.9		5.74		81.5		5.77			8.8		
04/09/10	1011-1025	28/Rainy	Surface	1.0	26.9	28.8	28.8	6.23	6.22	88.5	88.3	4.47	4.49	4.58	7.5	7.6	7.6
						28.7		6.20		88.0		4.51			7.6		
			Middle	8.4	25.8	30.2	30.3	6.17	6.15	87.6	87.3	4.56	4.58		7.8	7.6	
						30.3		6.13		87.0		4.60			7.4		
			Bottom	15.8	24.5	31.1	31.1	6.06	6.05	86.1	86.0	4.67	4.68		7.6	7.7	
						31.0		6.04		85.8		4.69			7.8		
07/09/10	1119-1129	30/Cloudy	Surface	1.0	28.8	30.7	30.7	6.18	6.17	87.7	87.5	5.23	5.26	5.11	8.5	8.5	8.2
						30.6		6.15		87.3		5.28			8.4		
			Middle	8.4	25.9	31.3	31.3	5.95	5.94	84.4	84.3	5.06	5.04		8.0	8.1	
						31.2		5.93		84.2		5.01			8.2		
			Bottom	15.8	25.4	31.7	31.8	5.83	5.82	82.7	82.5	5.01	5.05		8.2	8.1	
						31.8		5.80		82.3		5.09			8.0		
09/09/10	1901-1911	32/Cloudy	Surface	1.0	25.3	30.9	30.9	5.95	5.95	85.1	85.1	4.92	4.91	4.47	8.0	7.9	7.1
						30.8		5.95		85.1		4.90			7.8		
			Middle	5.1	25.3	31.5	31.5	5.81	5.81	82.9	82.9	4.17	4.19		6.8	6.7	
						31.5		5.81		82.9		4.20			6.6		
			Bottom	9.2	24.4	31.7	31.7	5.69	5.70	81.3	81.5	4.30	4.32		7.0	6.8	
						31.7		5.70		81.6		4.34			6.6		
11/09/10	1500-1515	26/Cloudy	Surface	1.0	25.8	29.6	29.6	6.13	6.12	87.0	86.9	4.77	4.76	4.93	8.0	7.8	8.1
						29.5		6.11		86.8		4.75			7.6		
			Middle	8.3	25.0	30.2	30.3	6.01	6.03	85.3	85.6	4.88	4.90		8.0	8.1	
						30.4		6.05		85.9		4.91			8.2		
			Bottom	15.5	24.5	31.3	31.3	5.88	5.90	83.5	83.7	5.12	5.14		8.4	8.3	
						31.2		5.91		83.9		5.15			8.2		
14/09/10	1826-1836	28/Cloudy	Surface	1.0	26.5	30.1	30.2	6.19	6.18	87.9	87.8	5.05	5.06	5.10	8.5	8.4	8.4
						30.3		6.17		87.6		5.06			8.2		
			Middle	8.2	25.6	31.1	31.1	5.95	5.97	84.4	84.7	5.13	5.14		8.6	8.5	
						31.0		5.98		84.9		5.15			8.4		
			Bottom	15.4	24.8	31.6	31.6	5.81	5.82	82.5	82.6	5.08	5.10		8.2	8.2	
						31.6		5.83		82.7		5.11			8.2		
16/09/10	0902-0915	29/Fine	Surface	1.0	27.5	30.4	30.4	6.26	6.25	88.9	88.7	4.37	4.37	4.46	7.0	6.9	7.1
						30.3		6.23		88.5		4.36			6.8		
			Middle	8.3	26.9	30.9	31.0	6.12	6.14	86.9	87.1	4.45	4.47		7.2	7.1	
						31.0		6.15		87.3		4.48			7.0		
			Bottom	15.6	25.9	31.5	31.5	6.07	6.08	86.2	86.4	4.56	4.55		7.4	7.3	
						31.4		6.09		86.5		4.54			7.2		
18/09/10	1028-1042	30/Fine	Surface	1.0	27.9	30.3	30.4	6.08	6.07	86.3	86.1	4.79	4.80	4.91	8.0	7.9	8.0
						30.4		6.05		85.9		4.81			7.8		
			Middle	8.3	26.6	30.7	30.8	5.94	5.96	84.3	84.6	4.90	4.92		8.0	7.9	
						30.8		5.97		84.8		4.93			7.8		
			Bottom	15.6	25.7	31.2	31.3	5.89	5.88	83.6	83.5	4.99	5.01		8.2	8.1	
						31.3		5.87		83.4		5.02			8.0		
21/09/10	1209-1219	28/Rainy	Surface	1.0	22.9	28.0	28.0	6.06	6.05	86.6	86.5	5.15	5.19	5.23	8.2	8.1	8.2
						27.9		6.03		86.3		5.22			8.0		
			Middle	5.1	22.1	28.9	29.1	5.90	5.93	84.3	84.5	5.05	5.04		7.8	7.9	
						29.2		5.95		84.7		5.03			8.0		
			Bottom	9.2	21.5	29.5	29.5	5.83	5.83	83.3	83.5	5.44	5.46		8.6	8.7	
						29.5		5.82		83.6		5.47			8.8		
25/09/10	1450-1505	30/Fine	Surface	1.0	26.7	30.9	30.9	6.10	6.08	87.8	87.5	4.95	4.98	5.21	8.0	8.1	8.5
						30.9		6.05		87.1		5.01			8.2		
			Middle	7.8	26.0	31.2	31.2	5.88	5.86	84.6	84.3	5.19	5.21		8.6	8.5	
						31.2		5.83		83.9		5.22			8.4		
			Bottom	15.6	25.1	31.7	31.7	5.70	5.72	82.1	82.4	5.40	5.43		9.0	8.9	
						31.7		5.74		82.6		5.46			8.8		
28/09/10	1528-1540	31/Fine	Surface	1.0	29.2	30.3	30.3	6.08	6.08	84.5	84.5	4.54	4.55	4.57	7.0	7.4	7.5
						30.3		6.08		84.5		4.56			7.8		
			Middle	8.7	28.1	31.0	31.0	5.94	5.95	82.5	82.7	4.73	4.73		8.0	7.9	
						31.0		5.96		82.8		4.72			7.8		
			Bottom	16.4	27.2	31.8	31.8	5.81	5.79	80.7	80.5	4.44	4.45		7.0	7.1	
						31.8		5.77		80.2		4.45			7.2		
30/09/10	1751-1804	30/Fine	Surface	1.0	28.4	30.5	30.5	6.21	6.20	89.4	89.2	4.36	4.37	4.46	7.0	7.2	7.7
						30.4		6.18		88.9		4.37			7.4		
			Middle	8.4	27.4	30.8	30.8	6.07	6.06	87.4	87.2	4.49	4.48		7.9	7.9	
						30.7		6.04		86.9		4.47			7.8		
			Bottom	15.8	26.1	31.6	31.6	5.91	5.93	85.1	85.3	4.56	4.55		8.0	8.1	
						31.5		5.94		85.5		4.53			8.2		

Mid-Ebb Tide

東業檢動測試顧問有限公司
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
02/09/10	1044-1100	29/Fine	Surface	1.0	27.3	30.6	30.7	6.07	6.04	86.1	85.7	4.98	5.02	5.32	8.0	7.9	8.4
						30.7		6.01		85.3		5.06			7.8		
			Middle	7.8	26.6	31.1	31.1	5.86	5.83	83.2	82.8	5.33	5.36		8.6	8.5	
						31.0		5.80		82.3		5.38			8.4		
			Bottom	14.6	25.5	31.6	31.7	5.75	5.73	81.6	81.3	5.60	5.58		9.0	8.9	
						31.7		5.70		80.9		5.56			8.8		
04/09/10	1108-1123	28/Rainy	Surface	1.0	26.9	28.9	28.9	6.11	6.12	86.8	86.9	4.49	4.51	4.60	7.0	7.1	7.5
						28.8		6.13		87.0		4.52			7.2		
			Middle	7.9	25.8	30.3	30.3	5.88	5.87	83.4	83.3	4.59	4.58		7.8	7.6	
						30.3		5.86		83.2		4.57			7.4		
			Bottom	14.8	24.5	31.0	31.1	5.79	5.80	82.2	82.4	4.68	4.71		7.8	7.9	
						31.1		5.81		82.5		4.73			8.0		
07/09/10	1220-1231	30/Cloudy	Surface	1.0	28.8	30.7	30.7	6.27	6.26	89.0	88.8	5.29	5.31	5.12	8.6	8.5	8.2
						30.7		6.24		88.6		5.33			8.4		
			Middle	8.1	25.7	31.4	31.5	6.07	6.06	85.5	85.3	5.07	5.10		8.0	8.1	
						31.5		6.04		85.1		5.12			8.2		
			Bottom	15.2	25.4	31.9	31.9	5.90	5.92	83.1	83.4	4.99	4.96		8.0	8.0	
						31.9		5.93		83.6		4.92			8.0		
09/09/10	1952-2003	32/Cloudy	Surface	1.0	25.8	31.1	31.1	5.90	5.91	85.0	85.1	4.47	4.51	4.80	7.0	7.2	7.3
						31.1		5.91		85.2		4.55			7.4		
			Middle	7.5	25.1	31.2	31.2	5.79	5.79	82.9	82.9	4.68	4.79		7.6	7.8	
						31.2		5.79		82.8		4.90			8.0		
			Bottom	14.0	24.3	31.7	31.7	5.69	5.68	81.2	81.2	5.05	5.10		6.6	6.8	
						31.7		5.67		81.2		5.15			7.0		
11/09/10	1615-1625	26/Cloudy	Surface	1.0	25.6	29.9	29.8	6.19	6.16	87.9	87.4	4.66	4.66	4.93	7.4	7.5	8.0
						29.7		6.12		86.9		4.65			7.6		
			Middle	7.8	24.7	30.1	30.3	6.02	6.04	85.5	85.8	4.96	4.98		8.0	8.1	
						30.4		6.06		86.1		4.99			8.2		
			Bottom	14.5	24.2	31.4	31.3	5.91	5.90	83.9	83.8	5.12	5.15		8.4	8.4	
						31.2		5.89		83.6		5.18			8.4		
14/09/10	1915-1925	28/Cloudy	Surface	1.0	26.7	30.4	30.3	6.28	6.28	89.1	89.1	4.96	4.97	5.12	8.0	8.1	8.4
						30.2		6.27		89.0		4.98			8.2		
			Middle	7.6	25.5	31.2	31.1	5.96	5.97	84.6	84.8	5.24	5.23		8.6	8.5	
						31.0		5.98		84.9		5.22			8.4		
			Bottom	14.6	24.9	31.5	31.6	5.94	5.92	84.3	84.0	5.18	5.16		8.4	8.5	
						31.6		5.90		83.7		5.14			8.6		
16/09/10	0953-1005	29/Fine	Surface	1.0	27.7	30.4	30.5	6.21	6.23	88.2	88.4	4.43	4.44	4.55	7.0	6.9	6.9
						30.5		6.24		88.6		4.45			6.8		
			Middle	7.8	26.9	30.9	31.0	6.19	6.18	87.9	87.8	4.59	4.58		6.8	6.7	
						31.0		6.17		87.6		4.56			6.6		
			Bottom	14.6	25.9	31.4	31.5	6.08	6.07	85.9	85.9	4.60	4.62		7.2	7.1	
						31.5		6.05		85.9		4.64			7.0		
18/09/10	1123-1134	30/Fine	Surface	1.0	28.0	30.4	30.4	6.11	6.10	86.8	86.6	4.73	4.74	4.85	7.6	7.7	7.9
						30.3		6.08		86.3		4.75			7.8		
			Middle	7.8	26.6	30.8	30.8	6.03	6.00	85.6	85.1	4.87	4.88		8.0	7.9	
						30.7		5.96		84.6		4.89			7.8		
			Bottom	14.6	25.8	31.2	31.2	5.87	5.86	83.4	83.2	4.94	4.93		8.2	8.1	
						31.2		5.84		82.9		4.92			8.0		
21/09/10	1307-1317	28/Rainy	Surface	1.0	23.0	27.7	27.7	5.97	5.96	85.3	85.5	5.40	5.34	5.41	8.4	8.4	8.7
						27.7		5.95		85.7		5.28			8.4		
			Middle	8.2	22.6	28.7	28.5	5.83	5.84	83.3	83.5	5.36	5.38		8.6	8.7	
						28.3		5.85		83.7		5.40			8.8		
			Bottom	15.4	22.2	29.0	29.0	5.75	5.77	82.2	82.4	5.48	5.50		9.2	9.1	
						29.0		5.79		82.6		5.52			9.0		
25/09/10	1554-1610	30/Fine	Surface	1.0	26.6	30.8	30.8	6.05	6.04	87.1	86.9	4.96	4.99	5.28	8.2	8.1	8.5
						30.8		6.02		86.6		5.01			8.0		
			Middle	7.7	26.0	31.2	31.3	5.92	5.90	85.2	84.9	5.28	5.32		8.6	8.5	
						31.3		5.88		84.6		5.35			8.4		
			Bottom	14.4	25.1	31.8	31.8	5.71	5.75	82.2	82.7	5.51	5.54		9.0	8.9	
						31.8		5.78		83.2		5.56			8.8		
28/09/10	1622-1634	31/Fine	Surface	1.0	29.2	30.3	30.3	6.11	6.12	84.9	85.1	4.58	4.60	4.59	7.4	7.3	7.3
						30.3		6.13		85.2		4.61			7.2		
			Middle	8.2	28.4	31.0	31.0	5.88	5.86	81.7	81.4	4.37	4.40		6.8	6.8	
						31.0		5.84		81.1		4.42			6.8		
			Bottom	15.4	27.5	31.7	31.7	5.68	5.69	78.9	79.1	4.75	4.77		8.0	7.8	
						31.7		5.70		79.2		4.79			7.6		
30/09/10	1843-1856	30/Fine	Surface	1.0	28.4	30.5	30.5	6.03	6.04	86.8	87.0	4.48	4.46	4.54	7.4	7.5	7.7
						30.4		6.05		87.1		4.44			7.5		
			Middle	7.8	27.3	30.9	30.9	5.96	5.95	85.8	85.7	4.51	4.52		7.3	7.4	
						30.8		5.94		85.5		4.53			7.4		
			Bottom	14.6	25.9	31.6	31.7	5.86	5.88	84.4	84.6	4.65	4.65		8.2	8.2	
						31.7		5.89		84.8		4.64			8.1		

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
02/09/10	1110-1123	29/Fine	Surface	1.0	27.3	30.5	30.6	6.25	6.23	88.7	88.4	4.61	4.64	4.84	7.6	7.5	7.8
						30.6		6.20		88.0		4.67			7.4		
			Middle	8.8	26.6	31.0	31.1	6.07	6.06	86.1	85.9	4.79	4.82		8.0	7.8	
						31.1		6.04		85.7		4.84			7.6		
			Bottom	16.6	25.5	31.7	31.7	5.95	5.93	84.4	84.2	5.03	5.06		8.0	8.0	
						31.7		5.91		83.9		5.09			8.0		
04/09/10	1126-1140	28/Rainy	Surface	1.0	26.9	28.8	28.9	6.12	6.16	86.9	87.4	4.44	4.45	4.55	6.8	7.0	7.2
						28.9		6.19		87.9		4.46			7.2		
			Middle	8.9	25.8	30.4	30.4	6.07	6.08	86.2	86.3	4.53	4.54		7.2	7.1	
						30.3		6.08		86.3		4.55			7.0		
			Bottom	16.8	24.4	31.1	31.2	5.94	5.94	84.3	84.3	4.66	4.65		7.6	7.5	
						31.2		5.93		84.2		4.63			7.4		
07/09/10	1234-1246	30/Cloudy	Surface	1.0	28.9	30.8	30.8	6.19	6.18	87.8	87.6	5.37	5.34	5.43	8.6	8.5	8.5
						30.7		6.16		87.4		5.31			8.4		
			Middle	8.9	25.7	31.5	31.5	6.04	6.03	85.7	85.5	5.43	5.41		8.6	8.6	
						31.4		6.01		85.3		5.39			8.6		
			Bottom	16.8	25.4	31.9	31.9	5.85	5.83	82.4	82.2	5.50	5.54		8.2	8.4	
						31.9		5.81		81.9		5.57			8.6		
09/09/10	2005-2015	32/Cloudy	Surface	1.0	25.6	31.0	31.0	5.90	5.91	85.2	85.5	4.92	5.00	4.88	8.0	8.1	7.9
						31.0		5.92		85.7		5.08			8.2		
			Middle	7.4	25.1	31.3	31.3	5.79	5.79	82.9	82.9	5.02	5.11		8.0	8.3	
						31.2		5.79		82.9		5.20			8.6		
			Bottom	13.8	24.4	31.6	31.6	5.69	5.69	81.2	81.1	4.49	4.54		7.0	7.2	
						31.6		5.69		81.0		4.59			7.4		
11/09/10	1632-1642	26/Cloudy	Surface	1.0	25.7	29.7	29.8	6.39	6.37	90.7	90.4	4.40	4.43	4.64	6.8	6.9	7.4
						29.8		6.34		90.0		4.46			7.0		
			Middle	8.8	24.7	30.2	30.4	6.29	6.27	89.3	89.1	4.61	4.64		7.4	7.3	
						30.5		6.25		88.8		4.66			7.2		
			Bottom	16.5	24.3	31.4	31.5	6.02	6.03	85.5	85.7	4.82	4.87		8.0	7.9	
						31.5		6.04		85.8		4.91			7.8		
14/09/10	1929-1939	28/Cloudy	Surface	1.0	26.6	30.4	30.4	6.33	6.32	89.8	89.7	5.02	5.04	5.05	8.2	8.1	8.2
						30.3		6.31		89.6		5.05			8.0		
			Middle	8.8	25.5	31.1	31.2	6.02	6.04	85.4	85.7	5.10	5.13		8.4	8.3	
						31.2		6.06		86.0		5.16			8.2		
			Bottom	16.6	24.7	31.6	31.6	5.83	5.85	82.7	83.0	4.95	4.97		8.0	8.1	
						31.5		5.87		83.3		4.99			8.2		
16/09/10	1008-1020	29/Fine	Surface	1.0	27.7	30.5	30.5	6.19	6.21	87.9	88.2	4.29	4.32	4.44	6.6	6.5	6.7
						30.4		6.23		88.5		4.34			6.4		
			Middle	8.8	26.9	31.0	31.0	6.12	6.13	86.9	87.1	4.43	4.44		7.0	6.8	
						30.9		6.14		87.2		4.45			6.6		
			Bottom	16.6	25.8	31.6	31.6	6.04	6.03	85.8	85.6	4.57	4.56		6.8	6.9	
						31.5		6.01		85.3		4.54			7.0		
18/09/10	1137-1148	30/Fine	Surface	1.0	28.1	30.3	30.4	6.09	6.08	86.5	86.3	4.68	4.69	4.82	7.6	7.5	7.8
						30.4		6.06		86.1		4.70			7.4		
			Middle	8.8	26.6	30.7	30.8	5.99	5.98	85.1	85.0	4.83	4.84		7.8	7.9	
						30.8		5.97		84.8		4.85			8.0		
			Bottom	16.6	25.8	31.3	31.4	5.85	5.83	83.1	82.8	4.92	4.93		8.0	7.9	
						31.4		5.81		82.5		4.94			7.8		
21/09/10	1319-1330	28/Rainy	Surface	1.0	23.1	27.6	27.6	5.96	5.94	85.2	85.1	5.61	5.40	5.36	9.2	8.8	8.6
						27.6		5.92		85.0		5.19			8.4		
			Middle	8.1	22.5	28.4	28.4	5.84	5.84	83.5	83.5	5.43	5.33		8.6	8.5	
						28.4		5.84		83.5		5.22			8.4		
			Bottom	15.2	22.1	28.2	28.5	5.80	5.76	82.9	82.3	5.27	5.35		8.2	8.4	
						28.8		5.72		81.7		5.43			8.6		
25/09/10	1618-1635	30/Fine	Surface	1.0	26.7	30.9	30.9	6.34	6.32	91.2	90.9	4.76	4.79	5.03	7.8	7.9	8.2
						30.9		6.29		90.5		4.81			8.0		
			Middle	8.8	25.9	31.3	31.3	6.11	6.08	87.9	87.4	4.99	5.02		8.0	8.2	
						31.3		6.04		86.9		5.05			8.4		
			Bottom	16.6	25.0	31.8	31.9	5.82	5.84	83.8	84.1	5.26	5.28		8.6	8.5	
						31.9		5.86		84.3		5.30			8.4		
28/09/10	1636-1648	31/Fine	Surface	1.0	29.2	30.2	30.2	6.40	6.27	84.7	85.0	4.42	4.44	4.55	6.8	6.7	7.1
						30.2		6.14		85.3		4.46			6.6		
			Middle	9.3	28.3	30.9	30.9	5.95	5.96	82.1	82.5	4.53	4.56		7.2	7.1	
						30.9		5.97		82.9		4.58			7.0		
			Bottom	17.6	27.4	31.8	31.8	5.71	5.73	79.3	79.5	4.68	4.66		7.6	7.6	
						31.8		5.74		79.7		4.64			7.6		
30/09/10	1859-1912	30/Fine	Surface	1.0	28.3	30.4	30.5	6.14	6.12	88.4	88.1	4.42	4.44	4.56	7.5	7.5	7.8
						30.5		6.10		87.8		4.45			7.5		
			Middle	8.8	27.3	30.8	30.8	5.98	5.97	86.1	86.0	4.57	4.58		7.9	7.9	
						30.7		5.96		85.8		4.59			7.8		
			Bottom	16.6	25.9	31.5	31.5	5.82	5.83	83.8	84.0	4.68	4.67		8.2	8.2	
						31.4		5.84		84.1		4.66			8.1		

Mid-Ebb Tide

東業檢動測試顧問有限公司
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
02/09/10	1128-1138	30/Fine	Surface	1.0	27.8	30.6	30.6	6.13	6.14	87.0	87.2	4.58	4.56	4.65	7.6	7.6	7.6
						30.5		6.15		87.3		4.53			7.5		
			Middle	6.0	26.1	30.9	30.9	6.01	6.03	85.3	85.5	4.61	4.62		7.5	7.5	
						30.9		6.04		85.7		4.63			7.4		
			Bottom	11.0	25.5	31.1	31.1	5.98	5.97	84.9	84.8	4.81	4.79		8.0	7.8	
						31.1		5.96		84.6		4.76			7.6		
04/09/10	1147-1200	28/Rainy	Surface	1.0	27.0	28.9	28.9	6.12	6.11	86.9	86.8	4.57	4.60	4.74	7.4	7.7	7.8
						28.8		6.10		86.6		4.63			8.0		
			Middle	6.3	25.9	30.3	30.4	6.06	6.05	86.1	85.9	4.77	4.76		8.0	7.9	
						30.4		6.03		85.6		4.74			7.8		
			Bottom	11.6	24.5	31.1	31.1	5.95	5.95	84.5	84.4	4.86	4.88		7.6	7.8	
						31.0		5.94		84.3		4.89			8.0		
07/09/10	1254-1304	30/Cloudy	Surface	1.0	29.0	30.6	30.6	6.22	6.21	88.3	88.1	5.01	5.05	4.94	8.2	8.4	8.1
						30.5		6.19		87.8		5.08			8.5		
			Middle	6.6	26.1	31.2	31.2	5.87	5.86	82.7	82.5	4.96	4.94		8.0	7.8	
						31.1		5.84		82.3		4.91			7.6		
			Bottom	12.2	25.6	31.6	31.7	5.71	5.73	80.5	80.8	4.88	4.85		7.8	8.0	
						31.7		5.75		81.0		4.81			8.2		
09/09/10	2019-2031	32/Cloudy	Surface	1.0	25.5	31.0	31.0	5.98	5.98	85.5	85.5	4.97	5.14	5.15	8.2	8.4	8.3
						30.9		5.97		85.5		5.31			8.5		
			Middle	8.3	25.0	31.1	31.1	5.84	5.84	83.5	83.5	5.05	5.07		8.0	8.0	
						31.1		5.83		83.5		5.09			8.0		
			Bottom	15.6	24.1	31.3	31.3	5.72	5.71	81.5	81.5	5.20	5.25		8.6	8.4	
						31.3		5.70		81.5		5.30			8.2		
11/09/10	1654-1705	26/Cloudy	Surface	1.0	25.6	29.7	29.7	6.33	6.34	89.9	90.1	4.48	4.47	4.69	7.0	7.0	7.4
						29.6		6.35		90.2		4.46			7.0		
			Middle	6.2	24.8	30.2	30.3	6.28	6.26	89.2	88.9	4.71	4.74		7.5	7.5	
						30.4		6.24		88.6		4.76			7.4		
			Bottom	11.3	24.1	31.1	31.2	6.14	6.13	87.2	87.1	4.83	4.86		8.0	7.8	
						31.2		6.12		87.0		4.89			7.6		
14/09/10	1946-1958	28/Cloudy	Surface	1.0	26.5	30.5	30.5	6.04	6.05	85.7	85.8	4.66	4.66	4.71	7.4	7.5	7.6
						30.4		6.05		85.9		4.65			7.5		
			Middle	5.9	25.8	31.2	31.3	5.83	5.83	82.7	82.7	4.53	4.52		7.0	7.1	
						31.3		5.82		82.6		4.50			7.2		
			Bottom	11.8	24.7	31.5	31.5	5.76	5.77	81.7	81.9	4.98	4.96		8.0	8.1	
						31.4		5.78		82.0		4.94			8.2		
16/09/10	1027-1040	30/Fine	Surface	1.0	27.7	30.2	30.3	6.16	6.15	87.5	87.4	4.39	4.41	4.47	7.0	6.9	7.0
						30.3		6.14		87.2		4.42			6.8		
			Middle	6.2	27.1	30.8	30.9	6.05	6.03	85.9	85.6	4.48	4.47		6.8	7.0	
						30.9		6.01		85.3		4.46			7.2		
			Bottom	11.4	26.0	31.4	31.5	5.94	5.95	84.3	84.5	4.55	4.54		7.4	7.2	
						31.5		5.96		84.6		4.53			7.0		
18/09/10	1155-1206	31/Fine	Surface	1.0	28.2	30.4	30.5	6.07	6.06	86.2	86.1	4.81	4.82	4.94	8.0	8.0	8.0
						30.5		6.05		85.9		4.83			8.0		
			Middle	6.4	26.7	30.8	30.8	5.93	5.95	84.2	84.4	4.95	4.96		8.0	7.9	
						30.7		5.96		84.6		4.97			7.8		
			Bottom	11.4	25.9	31.4	31.5	5.82	5.83	82.6	82.8	5.04	5.05		8.2	8.1	
						31.5		5.84		82.9		5.06			8.0		
21/09/10	1336-1346	28/Rainy	Surface	1.0	23.3	27.7	27.8	6.03	6.06	86.2	86.6	4.92	4.91	5.08	8.0	7.9	8.1
						27.9		6.08		86.9		4.89			7.7		
			Middle	8.5	22.6	28.4	28.4	5.89	5.90	84.2	84.3	5.11	5.13		8.0	8.2	
						28.4		5.91		84.3		5.14			8.4		
			Bottom	16.0	22.1	29.5	29.5	5.80	5.79	82.9	82.8	5.05	5.21		8.0	8.3	
						29.5		5.78		82.7		5.37			8.6		
25/09/10	1640-1655	29/Fine	Surface	1.0	26.6	30.9	30.9	6.27	6.29	90.2	90.5	4.70	4.68	4.85	7.6	7.6	7.8
						30.9		6.30		90.7		4.66			7.5		
			Middle	6.1	26.0	31.2	31.2	6.14	6.12	88.4	88.1	4.86	4.83		7.7	7.9	
						31.1		6.10		87.8		4.80			8.0		
			Bottom	11.2	25.3	31.5	31.5	5.91	5.94	85.1	85.5	5.00	5.03		8.0	7.9	
						31.5		5.96		85.8		5.06			7.8		
28/09/10	1655-1708	31/Fine	Surface	1.0	28.2	30.3	30.3	6.14	6.15	85.3	85.5	4.33	4.35	4.50	6.8	6.8	7.1
						30.3		6.16		85.6		4.36			6.8		
			Middle	6.6	28.3	31.2	31.2	5.97	5.98	82.9	83.1	4.45	4.47		7.0	6.9	
						31.2		5.99		83.2		4.48			6.8		
			Bottom	12.2	27.5	31.5	31.5	5.74	5.72	79.7	79.6	4.66	4.68		7.4	7.5	
						31.5		5.70		79.5		4.69			7.6		
30/09/10	1919-1932	29/Cloudy	Surface	1.0	28.1	30.5	30.6	6.19	6.18	89.1	89.0	4.46	4.44	4.55	7.4	7.4	7.7
						30.6		6.17		88.8		4.41			7.3		
			Middle	6.3	27.2	30.9	30.9	6.04	6.05	87.0	87.2	4.56	4.55		7.5	7.4	
						30.8		6.06		87.3		4.54			7.3		
			Bottom	11.6	25.9	31.7	31.7	5.95	5.94	85.7	85.6	4.64	4.65		8.2	8.3	
						31.6		5.93		85.4		4.66			8.4		

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
02/09/10	0830-0845	28/Fine	Surface	1.0	27.1	30.4	30.4	6.12	6.10	86.9	86.6	5.41	5.44	5.53	8.6	8.5	8.6
						30.4		6.08		86.3		5.46			8.4		
			Middle	5.3	26.6	30.9	30.9	6.00	5.96	85.2	84.6	5.49	5.51		8.6	8.4	
						30.8		5.91		83.9		5.53			8.2		
			Bottom	9.6	25.7	31.2	31.3	5.84	5.82	82.9	82.6	5.66	5.64		9.0	8.9	
						31.3		5.80		82.3		5.61			8.8		
04/09/10	0840-0854	27/Rainy	Surface	1.0	26.7	28.7	28.8	6.07	6.08	86.2	86.4	4.52	4.54	4.65	7.2	7.2	7.5
						28.8		6.09		86.5		4.55			7.2		
			Middle	5.3	25.7	30.4	30.5	5.91	5.93	83.9	84.1	4.63	4.66		7.8	7.7	
						30.5		5.94		84.3		4.68			7.6		
			Bottom	5.3	24.5	31.0	31.0	5.87	5.88	83.4	83.5	4.77	4.76		7.4	7.6	
						30.9		5.89		83.6		4.74			7.8		
07/09/10	1002-1013	30/Cloudy	Surface	1.0	28.5	30.8	30.8	6.11	6.09	86.7	86.4	4.59	4.62	4.73	7.6	7.7	7.7
						30.7		6.07		86.1		4.64			7.8		
			Middle	5.7	26.1	31.3	31.4	5.97	5.96	84.7	84.5	4.72	4.75		7.4	7.6	
						31.4		5.94		84.3		4.77			7.8		
			Bottom	10.4	25.2	31.8	31.8	5.82	5.81	82.0	81.8	4.81	4.84		8.0	7.9	
						31.8		5.79		81.6		4.86			7.8		
09/09/10	1749-1800	32/Cloudy	Surface	1.0	25.1	30.5	30.5	6.00	5.97	85.8	85.5	5.30	5.32	5.33	8.4	8.3	8.5
						30.5		5.93		85.2		5.33			8.2		
			Middle	4.4	25.2	30.9	30.9	5.85	5.83	83.6	83.6	5.37	5.40		8.6	8.8	
						30.9		5.80		83.5		5.43			9.0		
			Bottom	7.8	24.1	31.1	31.1	5.61	5.58	80.9	80.5	5.42	5.27		8.8	8.5	
						31.1		5.54		80.0		5.12			8.2		
11/09/10	1344-1356	26/Cloudy	Surface	1.0	25.6	29.3	29.5	6.17	6.17	87.6	87.6	4.81	4.81	4.93	8.0	7.8	7.7
						29.6		6.16		87.5		4.80			7.6		
			Middle	5.3	24.9	30.5	30.5	6.02	6.04	85.5	85.8	4.92	4.93		8.0	7.9	
						30.4		6.06		86.1		4.94			7.8		
			Bottom	9.5	24.4	31.1	31.3	5.91	5.93	83.9	84.1	5.03	5.05		8.0	7.5	
						31.4		5.94		84.3		5.06			7.0		
14/09/10	1713-1723	28/Cloudy	Surface	1.0	26.5	30.3	30.3	6.23	6.25	88.4	88.6	4.52	4.55	4.18	7.0	7.2	6.7
						30.3		6.26		88.8		4.58			7.4		
			Middle	5.4	25.6	30.9	31.0	5.88	5.89	83.5	83.6	3.92	3.93		6.4	6.4	
						31.1		5.90		83.7		3.94			6.4		
			Bottom	9.8	24.3	31.5	31.6	5.92	5.93	84.0	84.1	4.07	4.06		6.6	6.5	
						31.6		5.93		84.2		4.05			6.4		
16/09/10	0739-0752	28/Fine	Surface	1.0	27.4	30.3	30.4	6.13	6.14	87.0	87.2	4.57	4.58	4.66	7.2	7.3	7.6
						30.4		6.15		87.3		4.59			7.4		
			Middle	5.3	26.9	30.8	30.8	6.07	6.06	86.2	86.1	4.63	4.65		7.8	7.6	
						30.8		6.05		85.9		4.66			7.4		
			Bottom	9.6	25.9	31.5	31.5	6.01	6.00	85.3	85.1	4.78	4.77		8.0	7.8	
						31.4		5.98		84.9		4.75			7.6		
18/09/10	0908-0920	29/Fine	Surface	1.0	27.8	30.2	30.3	6.09	6.08	86.5	86.3	4.78	4.80	4.92	7.8	7.7	8.0
						30.3		6.06		86.1		4.81			7.6		
			Middle	5.3	26.6	30.9	30.9	5.96	5.96	84.6	84.6	4.90	4.91		8.0	7.9	
						30.8		5.95		84.5		4.92			7.8		
			Bottom	9.6	25.8	31.4	31.4	5.85	5.84	83.1	83.0	5.03	5.04		8.4	8.3	
						31.3		5.83		82.8		5.05			8.2		
21/09/10	1046-1057	28/Rainy	Surface	1.0	22.8	26.5	26.5	5.65	5.63	80.7	80.5	6.59	6.63	6.74	9.8	9.7	9.6
						26.5		5.60		80.2		6.67			9.6		
			Middle	5.2	22.5	28.1	28.1	5.52	5.51	78.9	78.6	6.90	6.95		9.4	9.6	
						28.1		5.50		78.3		6.99			9.8		
			Bottom	9.4	22.4	28.9	28.9	5.44	5.42	77.7	75.0	6.57	6.65		9.4	9.4	
						28.9		5.39		72.3		6.72			9.4		
25/09/10	1332-1347	30/Fine	Surface	1.0	26.9	30.6	30.7	6.07	6.05	87.4	87.1	5.15	5.18	5.39	8.4	8.3	8.6
						30.7		6.03		86.8		5.20			8.2		
			Middle	5.3	26.4	30.9	30.9	5.95	5.92	85.6	85.2	5.33	5.36		8.6	8.5	
						30.9		5.89		84.8		5.38			8.4		
			Bottom	9.6	25.6	31.3	31.3	5.78	5.80	83.2	83.4	5.60	5.64		9.0	9.1	
						31.3		5.81		83.6		5.67			9.2		
28/09/10	1406-1418	31/Fine	Surface	1.0	29.2	30.3	30.3	6.20	6.21	86.1	86.3	4.53	4.55	4.75	7.2	7.2	7.7
						30.3		6.22		86.4		4.56			7.2		
			Middle	5.5	28.4	31.0	31.0	6.03	6.04	83.8	83.9	4.71	4.74		7.8	7.7	
						31.0		6.05		84.0		4.77			7.6		
			Bottom	10.0	27.7	31.4	31.4	5.80	5.81	80.6	80.8	4.96	4.98		8.0	8.1	
						31.4		5.82		80.9		4.99			8.2		
30/09/10	1639-1652	30/Fine	Surface	1.0	28.3	30.5	30.5	6.04	6.05	87.0	87.2	4.39	4.40	4.48	7.0	7.1	7.6
						30.4		6.06		87.3		4.41			7.1		
			Middle	5.4	27.4	30.8	30.9	6.01	5.98	86.5	86.0	4.46	4.48		7.6	7.6	
						30.9		5.94		85.5		4.49			7.6		
			Bottom	9.8	26.1	31.3	31.3	5.89	5.88	84.8	84.7	4.56	4.58		7.9	8.0	
						31.2		5.87		84.5		4.59			8.1		

Mid-Ebb Tide

Monitoring Station : R16

Date	Sampling Duration	Ambient Temp (°C) / Weather Condition	Monitoring Depth (m)		Temp (°C)	Salinity (ppt)		Dissolved Oxygen (mg/L)		Dissolved Oxygen Saturation (%)		Turbidity (NTU)			Suspended Solids (mg/L)		
						Value	Average	Value	Average	Value	Average	Value	Average	Depth-average	Value	Average	Depth-average
02/09/10	0805-0820	28/Fine	Surface	1.0	27.0	30.5	30.5	6.18	6.21	87.8	88.1	4.53	4.56	4.76	7.6	7.6	7.8
						30.5		6.23		88.4		4.59			7.6		
			Middle	6.1	26.4	31.0	31.0	6.14	6.12	87.1	86.8	4.74	4.77		8.0	7.9	
						31.0		6.09		86.4		4.80			7.8		
			Bottom	11.2	25.6	31.6	31.6	5.98	5.96	84.9	84.6	4.91	4.94		8.0	8.0	
						31.6		5.93		84.2		4.96			8.0		
04/09/10	0817-0831	27/Rainy	Surface	1.0	26.7	28.8	28.9	6.23	6.22	88.5	88.3	4.49	4.50	4.56	7.0	7.2	7.4
						28.9		6.20		88.0		4.51			7.4		
			Middle	6.0	25.8	30.3	30.3	6.07	6.08	86.2	86.4	4.59	4.57		7.2	7.2	
						30.3		6.09		86.5		4.54			7.2		
			Bottom	11.0	24.4	31.0	31.1	5.93	5.94	84.2	84.4	4.61	4.62		7.6	7.8	
						31.1		5.95		84.5		4.63			8.0		
07/09/10	0944-0954	30/Cloudy	Surface	1.0	28.6	30.9	30.9	6.19	6.17	87.8	87.5	4.71	4.73	4.85	8.0	7.8	7.9
						30.8		6.14		87.1		4.75			7.6		
			Middle	6.4	26.0	31.4	31.4	6.03	6.05	85.6	85.9	4.87	4.90		7.8	7.7	
						31.4		6.07		86.1		4.93			7.6		
			Bottom	11.8	25.3	31.8	31.8	5.77	5.76	81.3	81.2	4.94	4.92		8.0	8.1	
						31.7		5.75		81.0		4.90			8.2		
09/09/10	1735-1746	32/Cloudy	Surface	1.0	25.6	30.8	30.8	6.02	6.03	86.0	86.3	5.10	5.13	5.25	8.4	8.3	8.6
						30.8		6.04		86.6		5.16			8.2		
			Middle	5.4	25.1	31.3	31.3	5.90	5.89	84.3	84.0	5.22	5.24		8.6	8.5	
						31.3		5.88		83.7		5.26			8.4		
			Bottom	9.8	24.3	31.9	31.9	5.70	5.73	81.5	81.6	5.25	5.38		8.6	8.9	
						31.9		5.75		81.7		5.50			9.2		
11/09/10	1324-1337	26/Cloudy	Surface	1.0	25.4	29.6	29.6	6.39	6.41	90.7	91.0	4.51	4.50	4.65	7.0	6.9	7.4
						29.5		6.42		91.2		4.48			6.8		
			Middle	5.8	25.0	30.4	30.6	6.28	6.27	89.2	89.1	4.66	4.66		7.4	7.4	
						30.8		6.26		88.9		4.65			7.4		
			Bottom	10.5	24.7	31.3	31.4	6.11	6.10	86.8	86.7	4.77	4.79		8.0	7.8	
						31.5		6.09		86.5		4.81			7.6		
14/09/10	1658-1707	28/Cloudy	Surface	1.0	26.5	30.3	30.2	6.18	6.19	87.7	87.8	4.62	4.64	4.65	7.6	7.5	7.5
						30.1		6.19		87.9		4.66			7.4		
			Middle	6.2	25.5	30.8	30.9	5.98	5.97	84.9	84.8	4.71	4.73		8.0	7.8	
						30.9		5.96		84.6		4.74			7.6		
			Bottom	11.4	24.8	31.6	31.5	5.88	5.89	83.5	83.6	4.56	4.57		7.2	7.3	
						31.4		5.90		83.7		4.58			7.4		
16/09/10	0718-0730	28/Fine	Surface	1.0	27.4	30.3	30.3	6.19	6.21	87.9	88.1	4.45	4.44	4.54	7.0	6.9	7.2
						30.2		6.22		88.3		4.43			6.8		
			Middle	6.2	26.8	30.9	30.9	6.11	6.13	86.8	87.0	4.55	4.54		7.2	7.1	
						30.8		6.14		87.2		4.52			7.0		
			Bottom	11.4	25.8	31.3	31.4	6.08	6.07	86.3	86.1	4.65	4.65		7.6	7.5	
						31.4		6.05		85.9		4.64			7.4		
18/09/10	0846-0859	29/Fine	Surface	1.0	27.8	30.3	30.3	6.18	6.17	87.8	87.7	4.69	4.71	4.85	7.4	7.5	7.8
						30.2		6.16		87.5		4.73			7.6		
			Middle	6.2	26.5	30.7	30.8	5.94	5.95	84.3	84.5	4.85	4.86		8.0	7.8	
						30.8		5.96		84.6		4.87			7.6		
			Bottom	11.4	25.7	31.3	31.3	5.89	5.88	83.6	83.5	4.96	4.98		8.2	8.1	
						31.2		5.87		83.4		4.99			8.0		
21/09/10	1033-1043	28/Rainy	Surface	1.0	22.5	27.0	27.0	5.88	5.85	84.0	84.1	6.11	6.12	5.96	9.2	9.3	9.4
						27.0		5.82		84.1		6.13			9.4		
			Middle	6.4	22.1	28.1	28.1	5.80	5.79	82.9	83.0	5.92	5.86		9.6	9.4	
						28.1		5.77		83.0		5.79			9.2		
			Bottom	11.8	21.8	28.6	28.6	5.69	5.69	80.9	81.1	5.90	5.89		9.4	9.4	
						28.6		5.68		81.2		5.88			9.4		
25/09/10	1307-1322	30/Fine	Surface	1.0	26.9	30.6	30.6	6.25	6.23	90.0	89.7	4.89	4.92	5.09	7.8	7.9	8.3
						30.6		6.21		89.4		4.94			8.0		
			Middle	6.1	26.1	30.9	31.0	6.15	6.13	88.5	88.2	5.02	5.05		8.2	8.3	
						31.0		6.11		87.9		5.08			8.4		
			Bottom	11.2	25.5	31.4	31.4	6.01	6.00	86.5	86.3	5.28	5.30		8.6	8.6	
						31.4		5.98		86.1		5.32			8.6		
28/09/10	1345-1358	31/Fine	Surface	1.0	29.1	30.4	30.4	6.11	6.09	84.9	84.6	4.64	4.63	4.86	7.4	7.3	7.8
						30.4		6.07		84.3		4.62			7.2		
			Middle	6.4	28.3	31.1	31.1	5.92	5.93	82.2	82.4	4.88	4.89		7.8	7.9	
						31.1		5.94		82.5		4.90			8.0		
			Bottom	11.8	27.5	31.5	31.5	5.78	5.79	80.3	80.5	5.03	5.05		8.2	8.2	
						31.5		5.80		80.6		5.07			8.2		
30/09/10	1616-1629	30/Fine	Surface	1.0	28.3	30.4	30.5	6.12	6.13	88.1	88.3	4.36	4.36	4.45	7.4	7.3	7.6
						30.5		6.14		88.4		4.35			7.2		
			Middle	6.2	27.3	30.9	30.9	6.02	6.03	86.7	86.8	4.42	4.44		7.5	7.6	
						30.8		6.03		86.8		4.45			7.6		
			Bottom	11.4	26.1	31.4	31.4	5.97	5.96	86.0	85.9	4.57	4.56		8.0	8.0	
						31.3		5.95		85.7		4.55			7.9		

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
02/09/10	0745-0758	28/Fine	Surface	1.0	27.0	30.5	30.6	6.18	6.16	87.7	87.4	4.51	4.54	4.72	7.6	7.5	7.8
						30.6		6.14		87.1		4.56			7.4		
			Middle	5.5	26.3	30.9	31.0	6.10	6.08	86.6	86.3	4.70	4.73		8.0	8.0	
						31.0		6.06		86.0		4.75			8.0		
			Bottom	10.0	25.6	31.5	31.6	5.91	5.93	83.9	84.2	4.93	4.91		8.0	8.0	
						31.6		5.95		84.4		4.89			8.0		
04/09/10	0800-0814	27/Rainy	Surface	1.0	26.7	28.9	28.9	6.17	6.16	87.6	87.5	4.45	4.46	4.57	7.2	7.3	7.2
						28.8		6.15		87.3		4.47			7.4		
			Middle	5.8	25.8	30.3	30.4	6.02	6.03	85.5	85.6	4.57	4.57		7.0	7.3	
						30.4		6.03		85.6		4.56			7.5		
			Bottom	10.6	24.4	30.9	31.0	5.97	5.98	84.8	85.0	4.66	4.67		7.0	7.1	
						31.0		5.99		85.1		4.68			7.2		
07/09/10	0930-0941	30/Cloudy	Surface	1.0	28.7	30.8	30.8	6.15	6.13	87.3	87.0	4.62	4.66	4.91	7.6	7.6	8.0
						30.7		6.11		86.7		4.70			7.6		
			Middle	6.1	25.8	31.4	31.4	5.95	5.94	84.4	84.2	5.12	5.14		8.4	8.2	
						31.3		5.92		84.0		5.15			8.0		
			Bottom	11.2	25.4	31.7	31.8	5.65	5.67	79.6	79.8	4.98	4.95		8.0	8.1	
						31.8		5.68		80.0		4.91			8.2		
09/09/10	1720-1732	32/Cloudy	Surface	1.0	25.6	30.9	30.9	6.06	6.04	86.0	85.9	5.25	5.23	5.27	8.4	8.3	8.5
						30.9		6.02		85.8		5.20			8.2		
			Middle	5.5	25.0	31.2	31.2	5.90	5.87	84.3	84.2	5.10	5.14		8.0	8.3	
						31.2		5.83		84.0		5.17			8.5		
			Bottom	10.0	24.2	31.9	31.9	5.77	5.78	82.5	82.3	5.44	5.44		9.0	8.9	
						31.9		5.79		82.1		5.43			8.8		
11/09/10	1305-1320	26/Cloudy	Surface	1.0	25.5	29.4	29.4	6.31	6.33	89.6	89.9	4.57	4.58	4.69	7.0	7.2	7.5
						29.3		6.35		90.1		4.59			7.4		
			Middle	5.7	24.9	30.3	30.4	6.29	6.27	89.3	89.1	4.61	4.63		7.4	7.5	
						30.5		6.25		88.8		4.65			7.5		
			Bottom	10.3	24.7	31.2	31.3	6.11	6.13	86.8	87.0	4.83	4.85		8.0	7.8	
						31.4		6.14		87.2		4.86			7.6		
14/09/10	1645-1655	28/Cloudy	Surface	1.0	26.4	30.3	30.4	6.14	6.15	87.1	87.3	4.44	4.45	4.37	6.8	6.9	6.8
						30.4		6.16		87.4		4.46			7.0		
			Middle	5.8	25.5	30.9	31.0	5.92	5.94	84.0	84.2	4.33	4.37		6.6	6.8	
						31.0		5.95		84.4		4.40			7.0		
			Bottom	10.6	24.9	31.4	31.4	5.77	5.76	81.9	81.8	4.28	4.29		6.5	6.7	
						31.3		5.75		81.6		4.30			6.8		
16/09/10	0700-0715	28/Fine	Surface	1.0	27.4	30.2	30.3	6.24	6.23	88.6	88.4	4.47	4.48	4.57	6.8	6.9	7.1
						30.3		6.21		88.2		4.49			7.0		
			Middle	5.6	26.8	30.8	30.9	6.17	6.18	87.6	87.8	4.56	4.57		7.4	7.2	
						30.9		6.19		87.9		4.57			7.0		
			Bottom	10.2	25.9	31.4	31.4	6.06	6.05	86.1	85.9	4.68	4.66		7.0	7.1	
						31.3		6.03		85.6		4.64			7.2		
18/09/10	0830-0843	29/Fine	Surface	1.0	27.8	30.2	30.3	6.12	6.11	86.9	86.8	4.78	4.76	4.85	7.8	7.8	7.9
						30.3		6.10		86.6		4.74			7.8		
			Middle	5.6	26.5	30.8	30.8	5.97	5.96	84.8	84.7	4.86	4.85		8.0	7.8	
						30.7		5.95		84.5		4.83			7.5		
			Bottom	10.2	25.7	31.2	31.3	5.88	5.87	83.5	83.4	4.95	4.94		8.0	8.1	
						31.3		5.86		83.2		4.92			8.2		
21/09/10	1020-1031	28/Rainy	Surface	1.0	22.5	27.1	27.1	5.90	5.91	84.5	84.6	6.02	6.06	6.04	9.2	9.3	9.3
						27.0		5.91		84.6		6.10			9.4		
			Middle	6.1	22.0	28.4	28.4	5.82	5.81	83.2	83.2	5.94	5.93		9.2	9.3	
						28.4		5.80		83.2		5.92			9.3		
			Bottom	11.2	21.9	29.2	29.2	5.70	5.70	81.1	81.2	6.10	6.13		9.5	9.5	
						29.2		5.69		81.2		6.15			9.4		
25/09/10	1248-1303	30/Fine	Surface	1.0	26.9	30.5	30.6	6.31	6.29	90.8	90.5	4.81	4.84	5.06	8.0	7.9	8.2
						30.6		6.27		90.2		4.87			7.8		
			Middle	5.6	26.1	30.9	30.9	6.20	6.19	89.2	89.0	4.98	5.01		8.0	8.1	
						30.9		6.17		88.8		5.03			8.2		
			Bottom	10.2	25.5	31.3	31.4	6.09	6.07	87.6	87.4	5.31	5.33		8.5	8.6	
						31.4		6.05		87.1		5.35			8.6		
28/09/10	1330-1342	31/Fine	Surface	1.0	29.2	30.4	30.4	6.12	6.13	85.0	85.2	4.72	4.74	4.94	7.6	7.7	8.1
						30.4		6.14		85.3		4.76			7.8		
			Middle	6.1	28.4	31.1	31.1	5.84	5.83	81.1	81.0	4.95	4.96		8.2	8.1	
						31.1		5.82		80.9		4.97			8.0		
			Bottom	11.2	27.6	31.5	31.5	5.72	5.73	79.5	79.6	5.12	5.13		8.5	8.5	
						31.5		5.74		79.7		5.13			8.4		
30/09/10	1600-1613	30/Fine	Surface	1.0	28.3	30.5	30.5	6.19	6.17	89.1	88.9	4.48	4.47	4.55	7.6	7.6	7.8
						30.4		6.15		88.6		4.45			7.5		
			Middle	5.7	27.4	30.8	30.9	6.06	6.05	87.3	87.1	4.57	4.55		7.4	7.5	
						30.9		6.03		86.8		4.53			7.5		
			Bottom	10.4	26.1	31.3	31.4	5.92	5.93	85.2	85.4	4.61	4.63		8.2	8.3	
						31.4		5.94		85.5		4.64			8.4		

Mid-Ebb Tide

東業檢動測試顧問有限公司
ETS-TESTCONSULT LIMITED

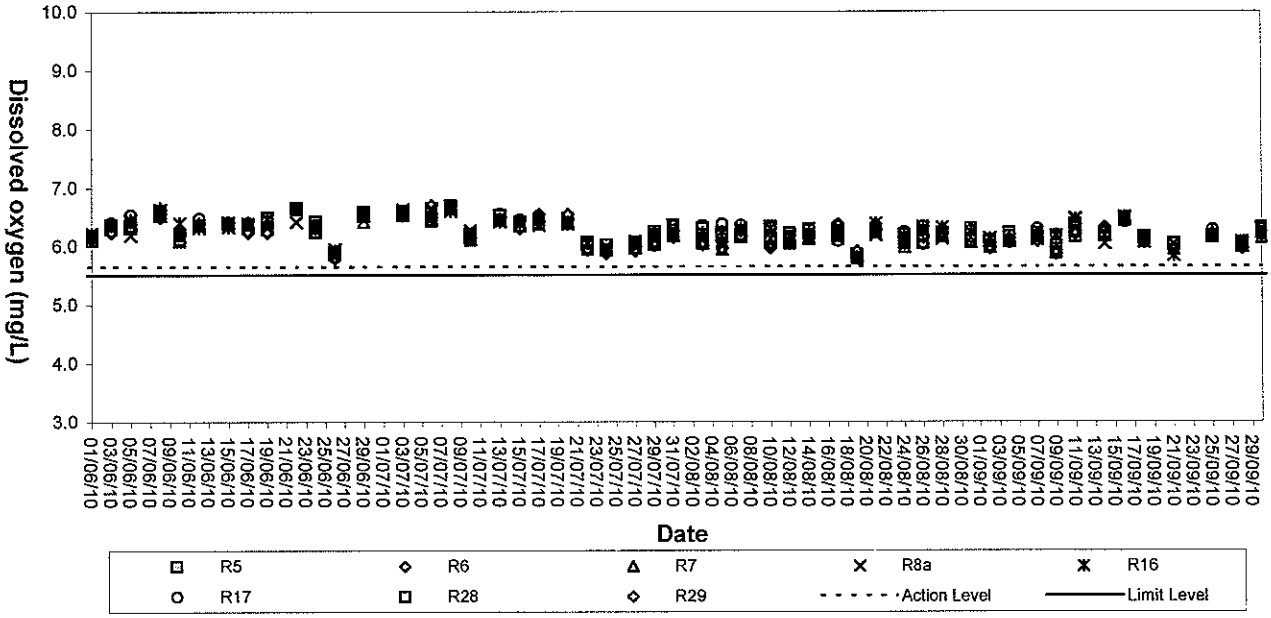
Monitoring Station : R28

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
02/09/10	1005-1020	29/Fine	Surface	1.0	27.2	30.7	30.7	6.21	6.19	88.1	87.8	4.53	4.57	4.68	7.4	7.5	7.7
						30.7		6.16		87.4		4.60			7.6		
			Middle	5.2	26.6	30.9	31.0	6.14	6.11	87.1	86.6	4.57	4.62		7.6	7.8	
						31.0		6.07		86.1		4.66			8.0		
			Bottom	9.4	25.9	31.3	31.4	5.93	5.92	84.2	84.1	4.87	4.86		8.0	7.9	
						31.4		5.90		83.9		4.84			7.8		
04/09/10	1032-1047	28/Rainy	Surface	1.0	26.9	28.7	28.8	6.12	6.15	86.9	87.3	4.56	4.55	4.66	7.2	7.4	7.5
						28.8		6.17		87.6		4.54			7.6		
			Middle	5.3	25.8	30.3	30.3	6.01	6.03	85.3	85.6	4.67	4.65		7.8	7.6	
						30.2		6.05		85.9		4.63			7.4		
			Bottom	9.6	24.5	31.0	31.0	5.96	5.94	84.6	84.4	4.79	4.77		7.6	7.6	
						30.9		5.92		84.1		4.75			7.6		
07/09/10	1136-1147	30/Cloudy	Surface	1.0	28.8	30.6	30.6	6.26	6.25	88.8	88.6	5.17	5.19	5.35	8.4	8.3	8.4
						30.5		6.23		88.4		5.21			8.2		
			Middle	5.7	25.8	31.3	31.4	6.01	6.04	85.3	85.7	5.37	5.34		8.6	8.6	
						31.4		6.06		86.0		5.31			8.6		
			Bottom	10.4	25.3	31.8	31.9	5.79	5.77	81.6	81.3	5.48	5.52		8.6	8.4	
						31.9		5.75		81.0		5.55			8.2		
09/09/10	1918-1928	32/Cloudy	Surface	1.0	25.3	31.0	31.0	5.92	5.91	84.6	84.4	4.82	4.81	4.43	8.0	8.1	7.2
						31.0		5.90		84.1		4.80			8.2		
			Middle	7.2	25.0	31.9	31.9	5.80	5.80	82.9	82.9	4.15	4.17		6.6	6.7	
						31.9		5.80		82.9		4.19			6.8		
			Bottom	13.4	24.4	32.0	32.0	5.70	5.70	81.4	81.5	4.21	4.32		6.6	6.8	
						32.0		5.69		81.6		4.43			7.0		
11/09/10	1520-1535	26/Cloudy	Surface	1.0	25.5	29.6	29.7	6.33	6.34	89.9	90.1	4.53	4.52	4.66	7.0	7.1	7.5
						29.8		6.35		90.2		4.51			7.2		
			Middle	5.3	24.8	30.3	30.2	6.26	6.28	88.9	89.1	4.62	4.64		7.8	7.6	
						30.1		6.29		89.3		4.66			7.4		
			Bottom	9.5	24.2	31.2	31.1	6.11	6.13	86.8	87.1	4.80	4.81		8.0	7.8	
						31.0		6.15		87.3		4.82			7.6		
14/09/10	1842-1851	28/Cloudy	Surface	1.0	26.4	30.3	30.3	6.25	6.25	88.7	88.7	5.14	5.16	5.01	8.4	8.3	8.1
						30.2		6.24		88.6		5.17			8.2		
			Middle	5.6	25.4	30.8	30.9	6.02	6.03	85.4	85.6	5.03	5.04		8.0	8.1	
						30.9		6.04		85.7		5.04			8.2		
			Bottom	10.2	24.8	31.4	31.5	5.97	5.96	84.7	84.6	4.87	4.85		7.8	7.9	
						31.5		5.95		84.4		4.83			8.0		
16/09/10	0922-0935	29/Fine	Surface	1.0	27.6	30.4	30.4	6.11	6.12	86.8	86.9	4.49	4.49	4.57	7.2	7.1	7.4
						30.4		6.13		87.0		4.48			7.0		
			Middle	5.2	26.9	30.9	30.9	6.09	6.08	86.5	86.3	4.54	4.56		7.4	7.4	
						30.8		6.06		86.1		4.58			7.4		
			Bottom	9.4	25.9	31.4	31.5	6.01	5.99	85.3	85.1	4.64	4.65		7.8	7.6	
						31.5		5.97		84.8		4.66			7.4		
18/09/10	1049-1102	30/Fine	Surface	1.0	28.1	30.4	30.4	6.12	6.13	86.9	87.1	4.77	4.76	4.85	7.4	7.4	7.7
						30.3		6.14		87.2		4.75			7.4		
			Middle	5.2	26.7	30.8	30.8	5.96	5.97	84.6	84.8	4.86	4.85		7.8	7.7	
						30.7		5.98		84.9		4.83			7.6		
			Bottom	9.4	25.8	31.3	31.3	5.86	5.88	83.2	83.4	4.96	4.95		8.0	8.0	
						31.2		5.89		83.6		4.94			8.0		
21/09/10	1228-1239	28/Rainy	Surface	1.0	23.0	28.2	28.2	6.02	6.01	86.0	86.1	5.36	5.38	5.33	8.4	8.5	8.5
						28.2		6.00		86.1		5.39			8.6		
			Middle	7.4	22.4	29.0	29.0	5.90	5.91	84.7	84.8	5.50	5.40		9.0	8.6	
						29.0		5.92		84.8		5.29			8.2		
			Bottom	13.8	21.8	29.7	29.7	5.81	5.82	83.0	83.2	5.22	5.22		8.4	8.3	
						29.7		5.83		83.3		5.21			8.2		
25/09/10	1510-1527	30/Fine	Surface	1.0	26.6	30.8	30.8	6.28	6.25	90.4	90.0	4.86	4.82	4.95	7.6	7.7	7.9
						30.8		6.22		89.5		4.78			7.8		
			Middle	5.2	26.1	31.0	31.1	6.13	6.15	88.2	88.5	4.89	4.92		8.0	7.8	
						31.1		6.17		88.8		4.95			7.6		
			Bottom	9.4	25.5	31.5	31.5	6.04	6.01	86.9	86.4	5.09	5.12		8.2	8.3	
						31.5		5.97		85.9		5.14			8.4		
28/09/10	1548-1602	31/Fine	Surface	1.0	29.2	30.2	30.2	6.08	6.09	84.5	84.6	4.36	4.37	4.60	6.8	6.8	7.3
						30.2		6.10		84.7		4.38			6.8		
			Middle	5.8	28.5	30.9	30.9	5.88	5.90	81.2	81.7	4.58	4.61		7.2	7.3	
						30.9		5.92		82.2		4.64			7.4		
			Bottom	10.6	27.6	31.4	31.4	5.72	5.71	79.5	79.4	4.81	4.82		8.0	7.9	
						31.4		5.70		79.2		4.83			7.8		
30/09/10	1811-1824	30/Fine	Surface	1.0	28.4	30.4	30.5	6.12	6.13	88.1	88.2	4.47	4.46	4.54	7.0	6.9	7.4
						30.5		6.13		88.3		4.44			6.8		
			Middle	5.3	27.4	30.8	30.8	6.04	6.03	87.0	86.9	4.54	4.54		7.3	7.4	
						30.7		6.02		86.7		4.53			7.4		
			Bottom	9.5	26.0	31.4	31.5	5.90	5.91	84.9	85.1	4.61	4.63		7.9	8.0	
						31.5		5.92		85.2		4.64			8.0		

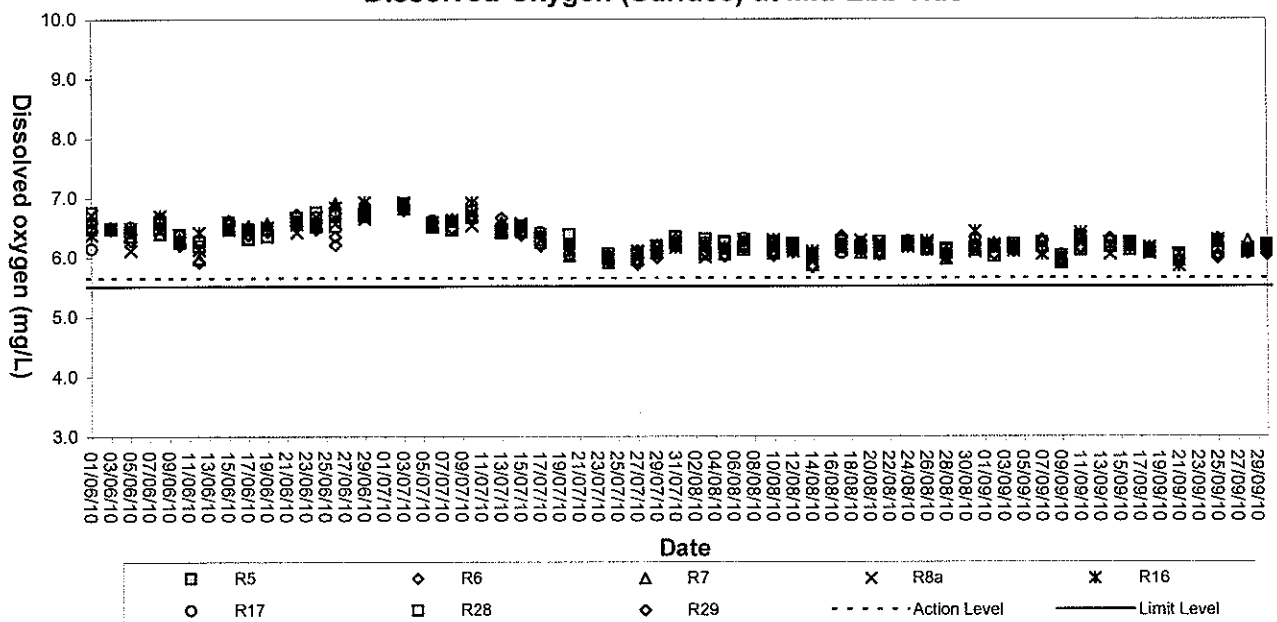
Appendix C3

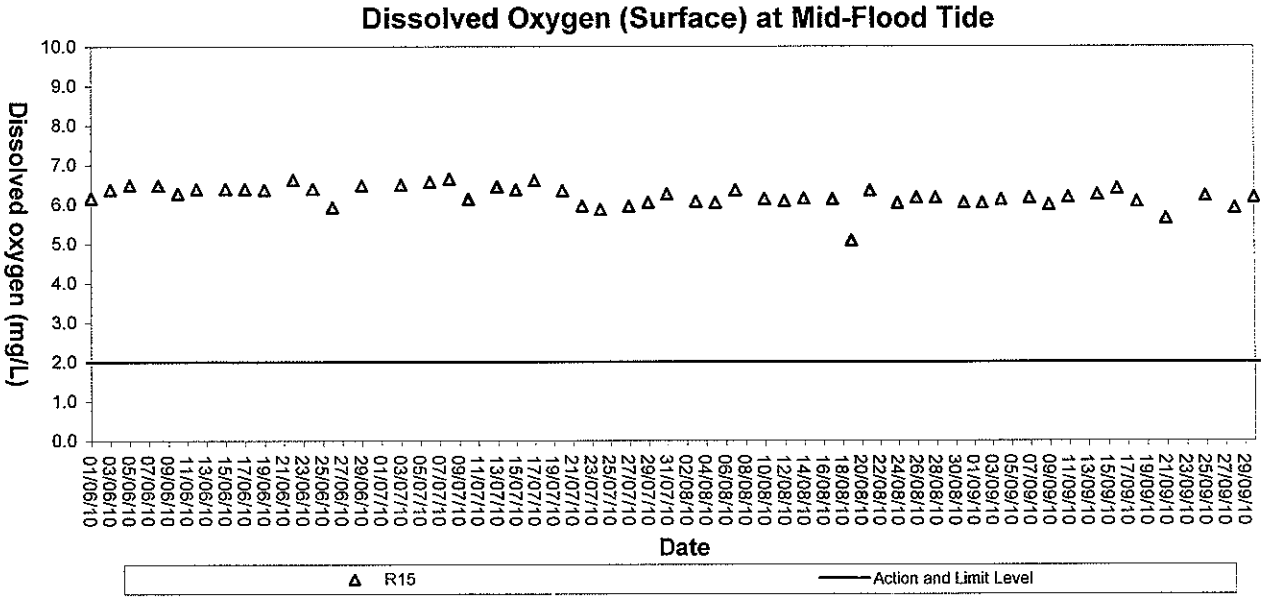
Graphical Plots of Impact Water Quality Monitoring Data

Dissolved Oxygen (Surface) at Mid-Flood Tide



Dissolved Oxygen (Surface) at Mid-Ebb Tide




Dissolved Oxygen (Surface) at Mid-Flood Tide
Dissolved oxygen (mg/L)
10.0
9.0
8.0
7.0
6.0
5.0
4.0
3.0
2.0
1.0
0.0
01/06/10
03/06/10
05/06/10
07/06/10
09/06/10
11/06/10
13/06/10
15/06/10
17/06/10
19/06/10
21/06/10
23/06/10
25/06/10
27/06/10
29/06/10
01/07/10
03/07/10
05/07/10
07/07/10
09/07/10
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13/07/10
15/07/10
17/07/10
19/07/10
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27/07/10
29/07/10
31/07/10
02/08/10
04/08/10
06/08/10
08/08/10
10/08/10
12/08/10
14/08/10
16/08/10
18/08/10
20/08/10
22/08/10
24/08/10
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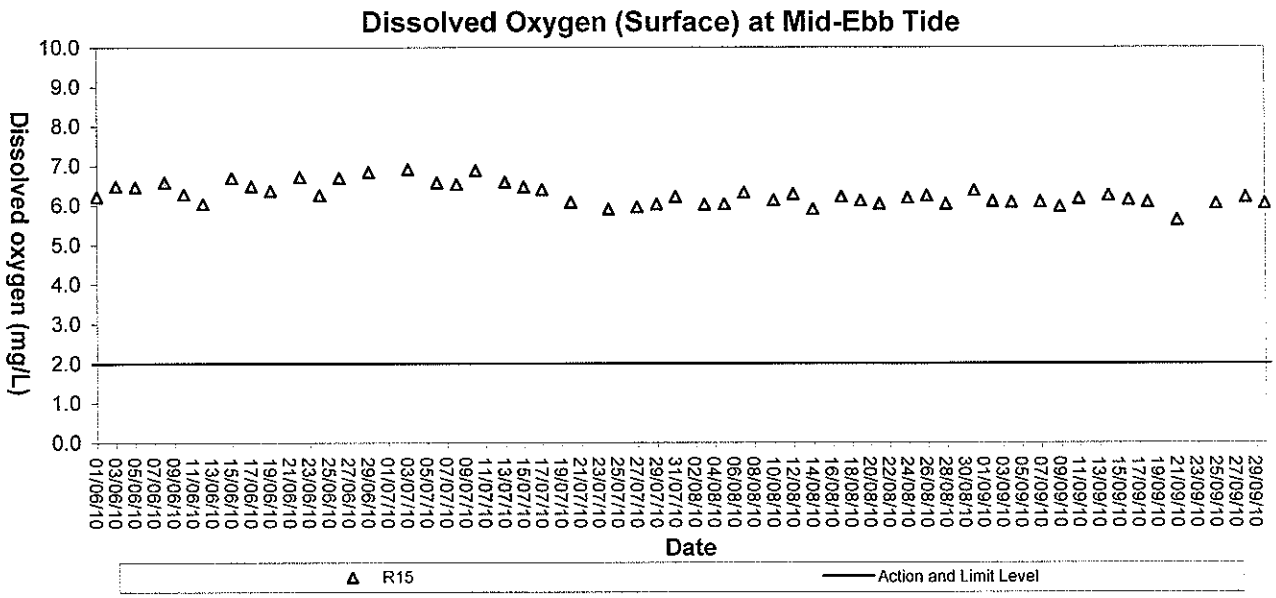
27/09/10
29/09/10
Date
R15
Action and Limit Level


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
01/06/10
03/06/10
05/06/10
07/06/10
09/06/10
11/06/10
13/06/10
15/06/10
17/06/10
19/06/10
21/06/10
23/06/10
25/06/10
27/06/10
29/06/10
01/07/10
03/07/10
05/07/10
07/07/10
09/07/10
11/07/10
13/07/10
15/07/10
17/07/10
19/07/10
21/07/10
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29/07/10
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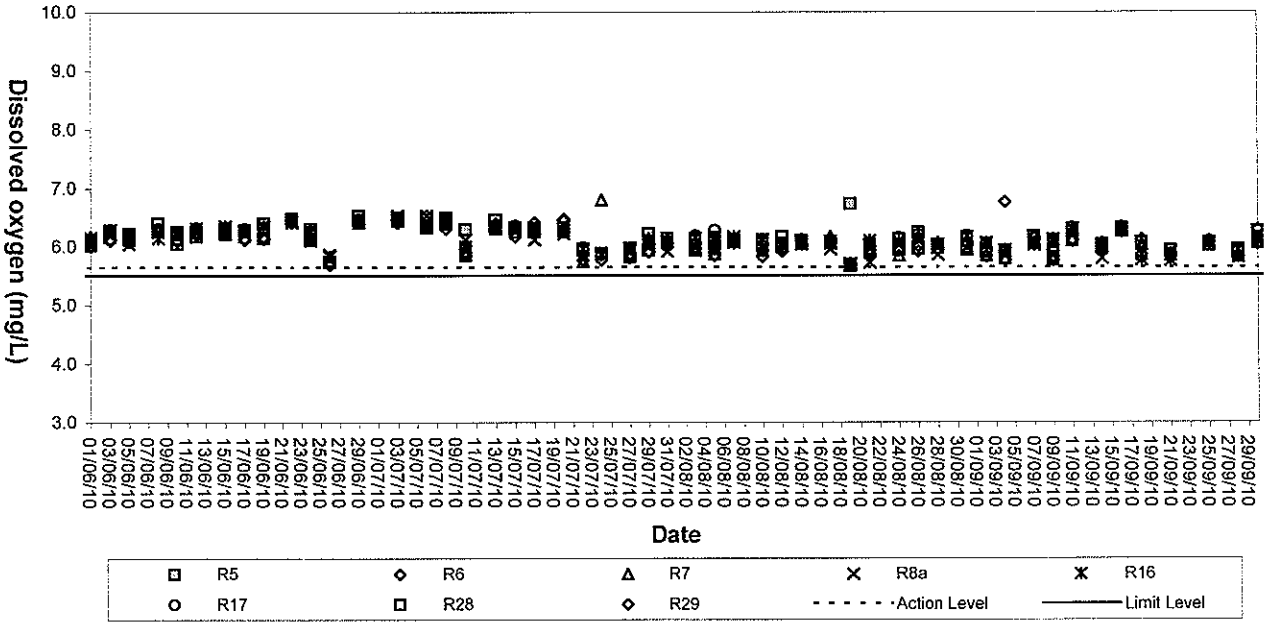
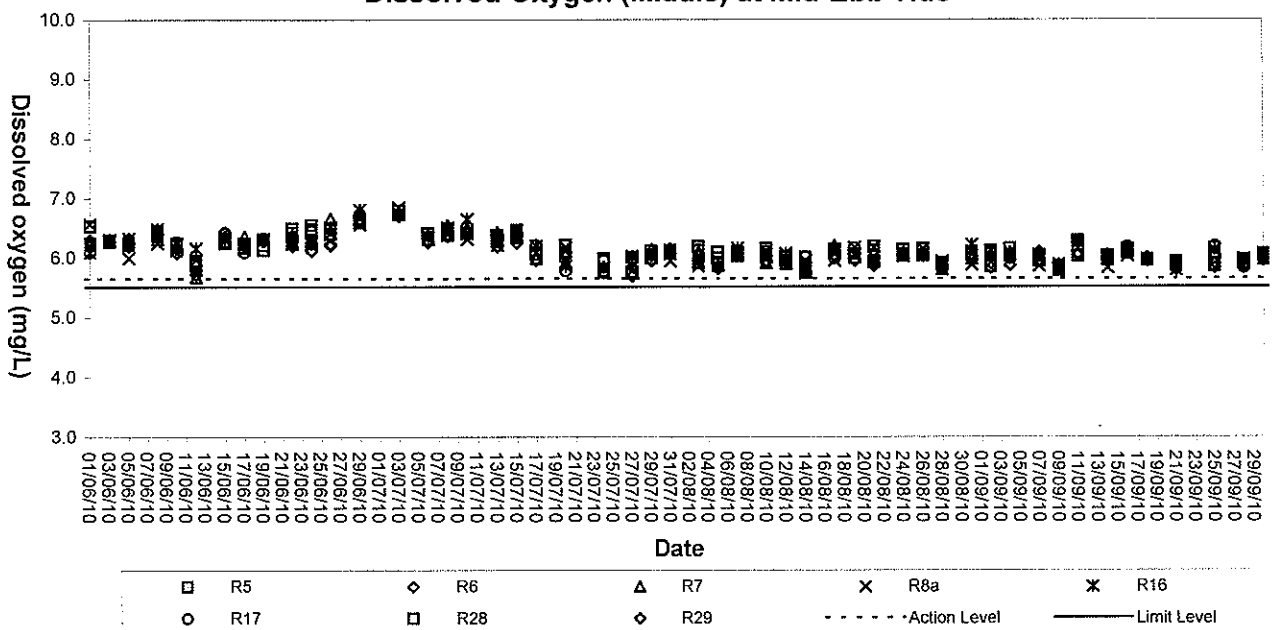
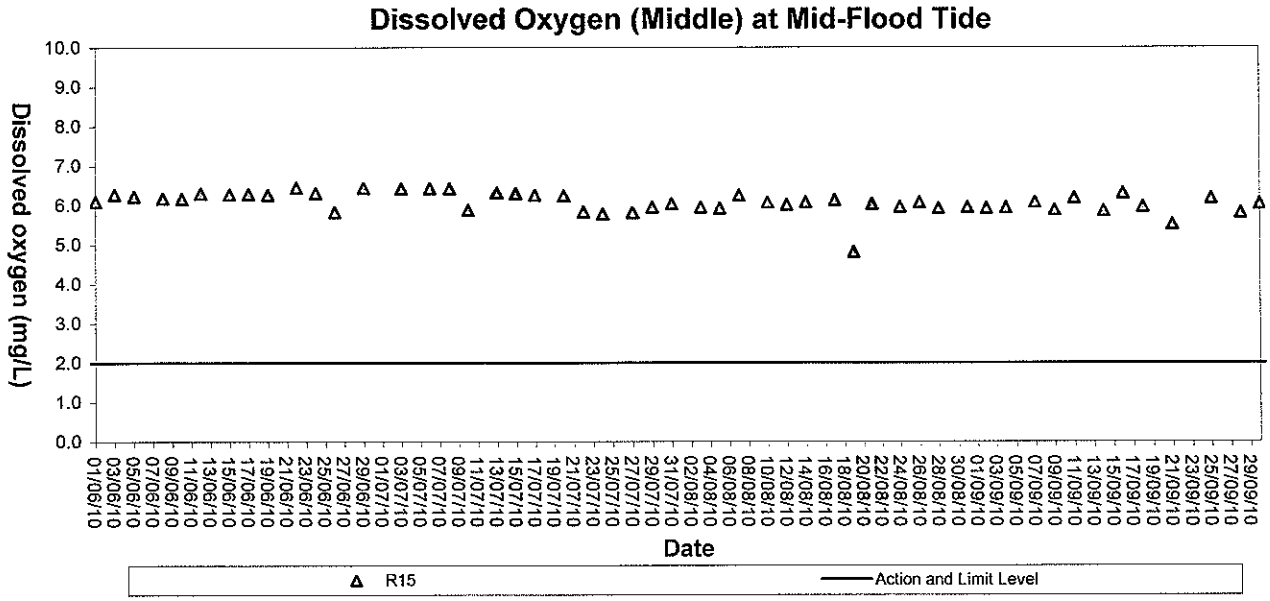
15/09/10
17/09/10
19/09/10
21/09/10
23/09/10
25/09/10
27/09/10
29/09/10
Date
R15
Action and Limit Level

Dissolved Oxygen (Middle) at Mid-Flood Tide



Dissolved Oxygen (Middle) at Mid-Ebb Tide




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
01/06/10
03/06/10
05/06/10
07/06/10
09/06/10
11/06/10
13/06/10
15/06/10
17/06/10
19/06/10
21/06/10
23/06/10
25/06/10
27/06/10
29/06/10
01/07/10
03/07/10
05/07/10
07/07/10
09/07/10
11/07/10
13/07/10
15/07/10
17/07/10
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04/08/10
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08/08/10
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12/08/10
14/08/10
16/08/10
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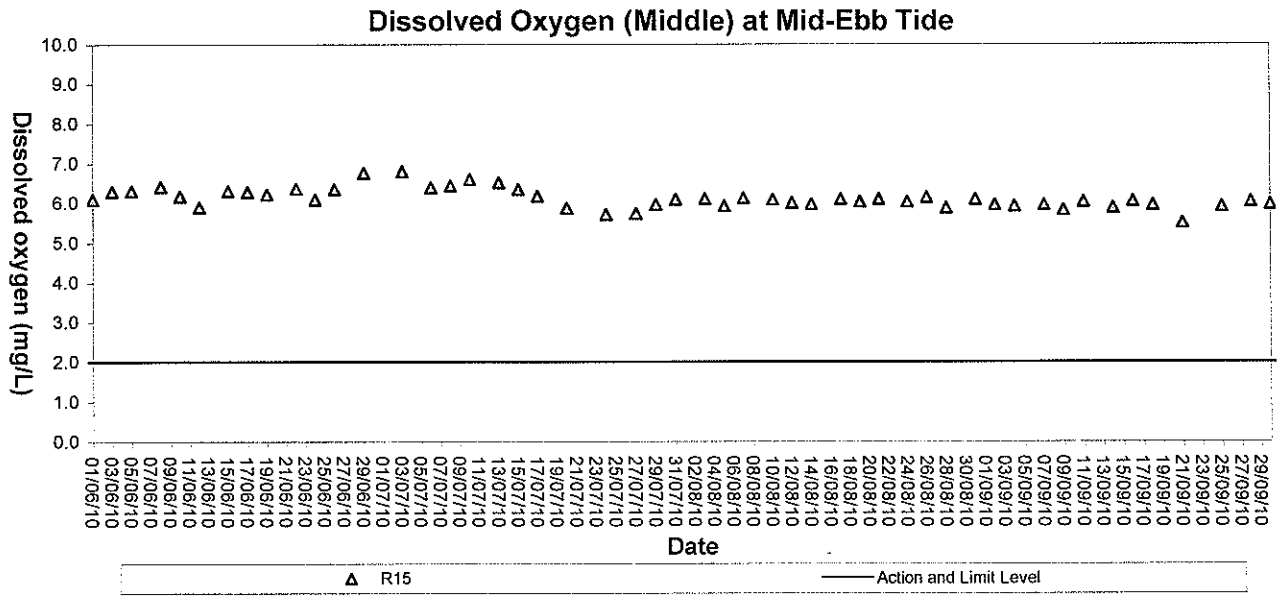
27/09/10
29/09/10
Date
R15
Action and Limit Level


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
01/06/10
03/06/10
05/06/10
07/06/10
09/06/10
11/06/10
13/06/10
15/06/10
17/06/10
19/06/10
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23/09/10
25/09/10
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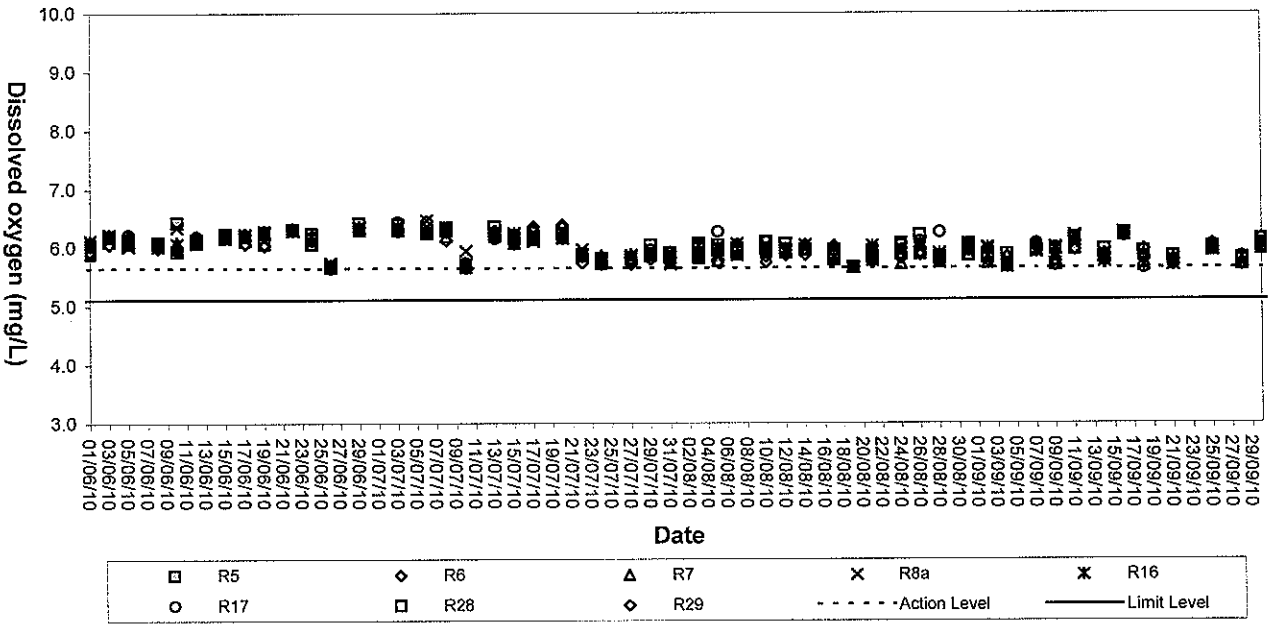
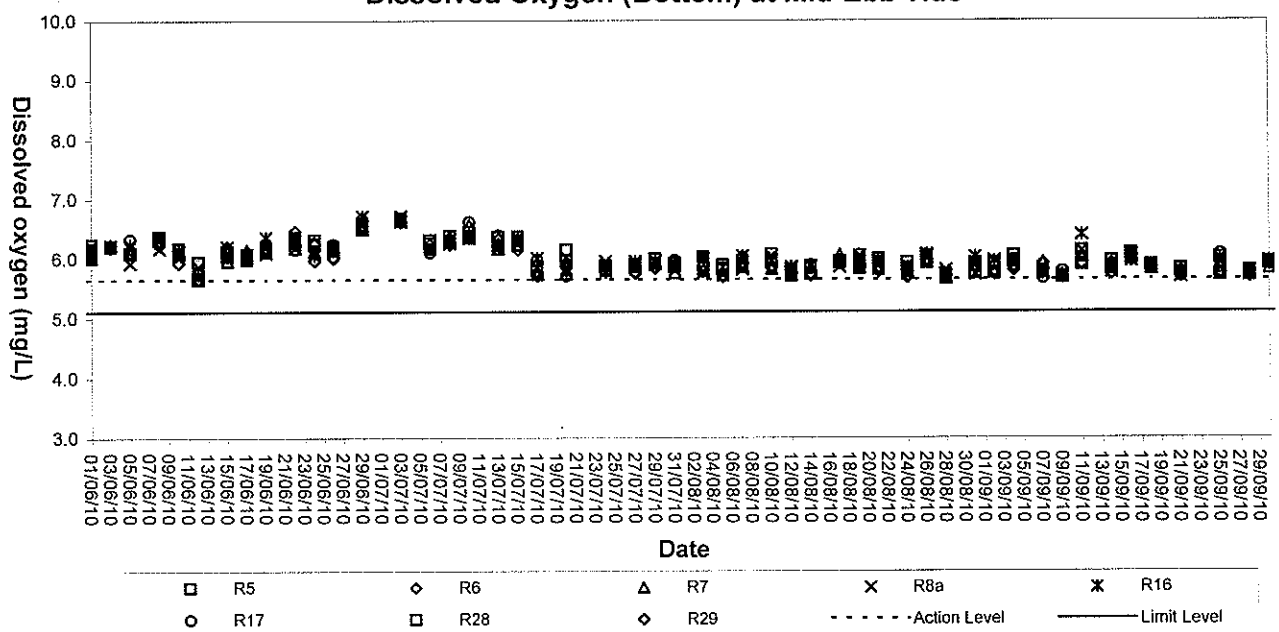
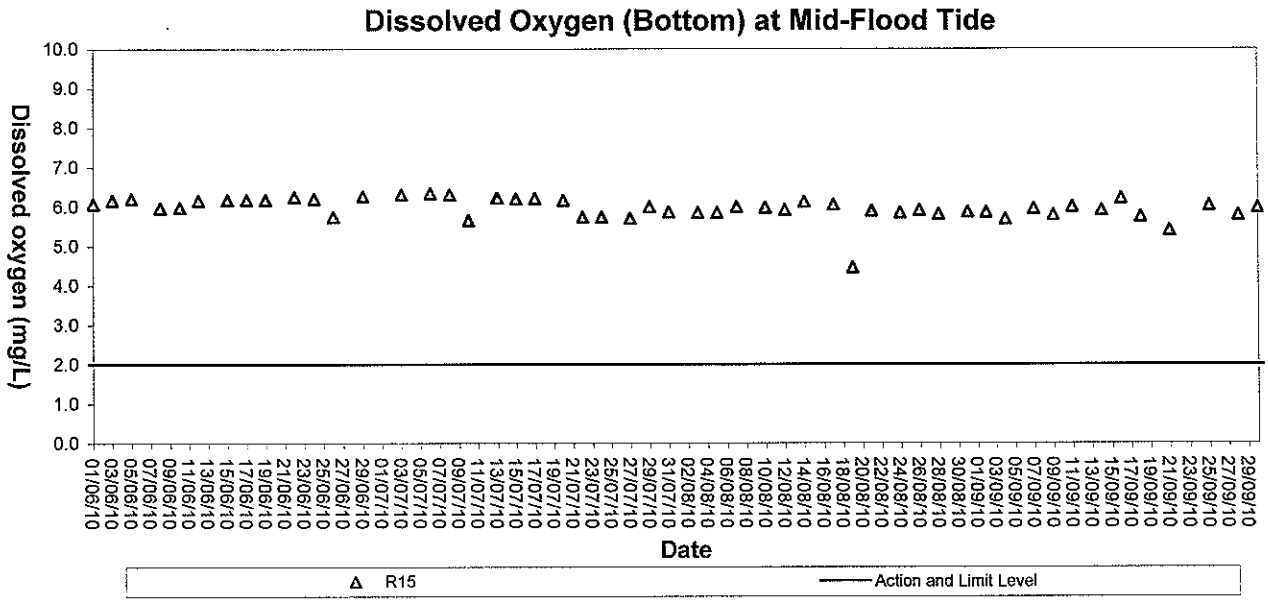
29/09/10
Date
R15
Action and Limit Level

Dissolved Oxygen (Bottom) at Mid-Flood Tide



Dissolved Oxygen (Bottom) at Mid-Ebb Tide




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
01/06/10
03/06/10
05/06/10
07/06/10
09/06/10
11/06/10
13/06/10
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19/06/10
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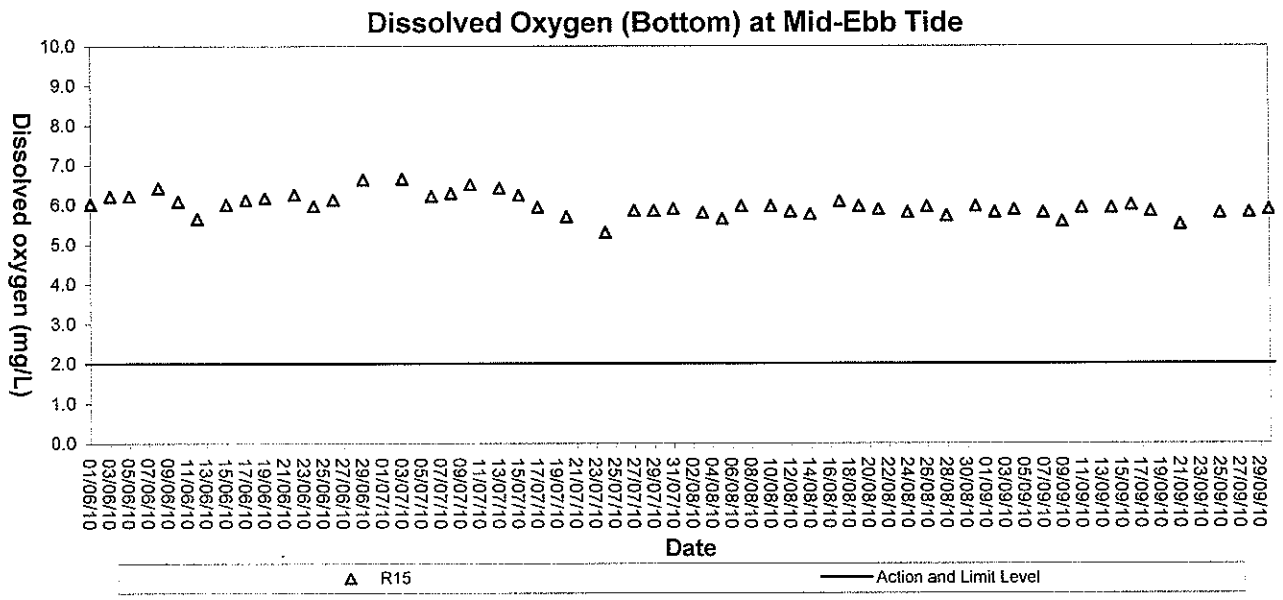
Date
R15
Action and Limit Level


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
01/06/10
03/06/10
05/06/10
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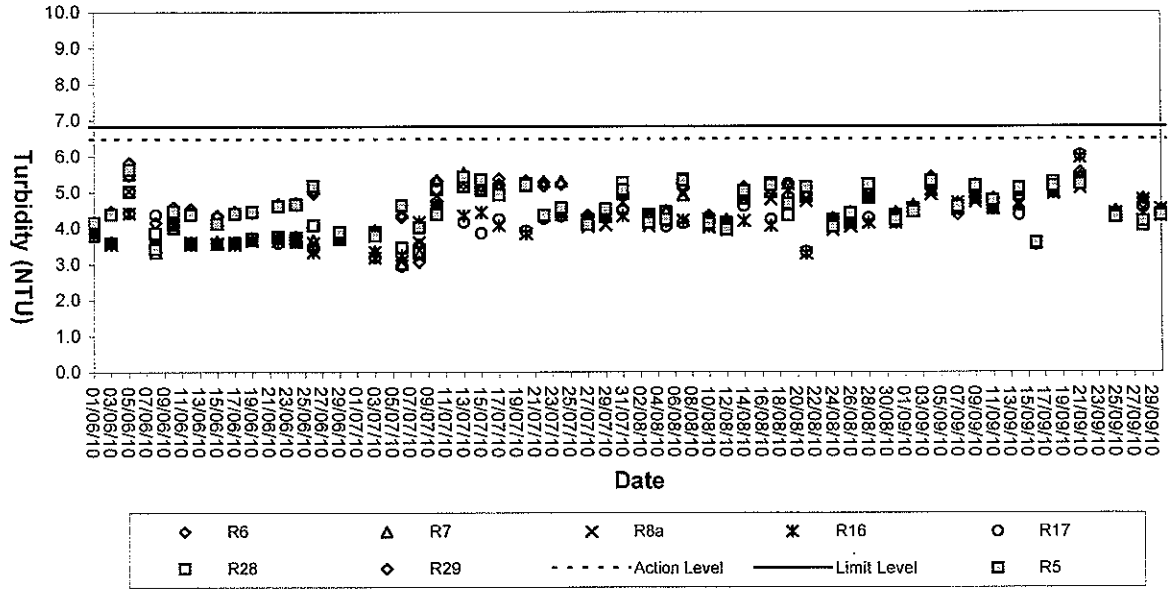
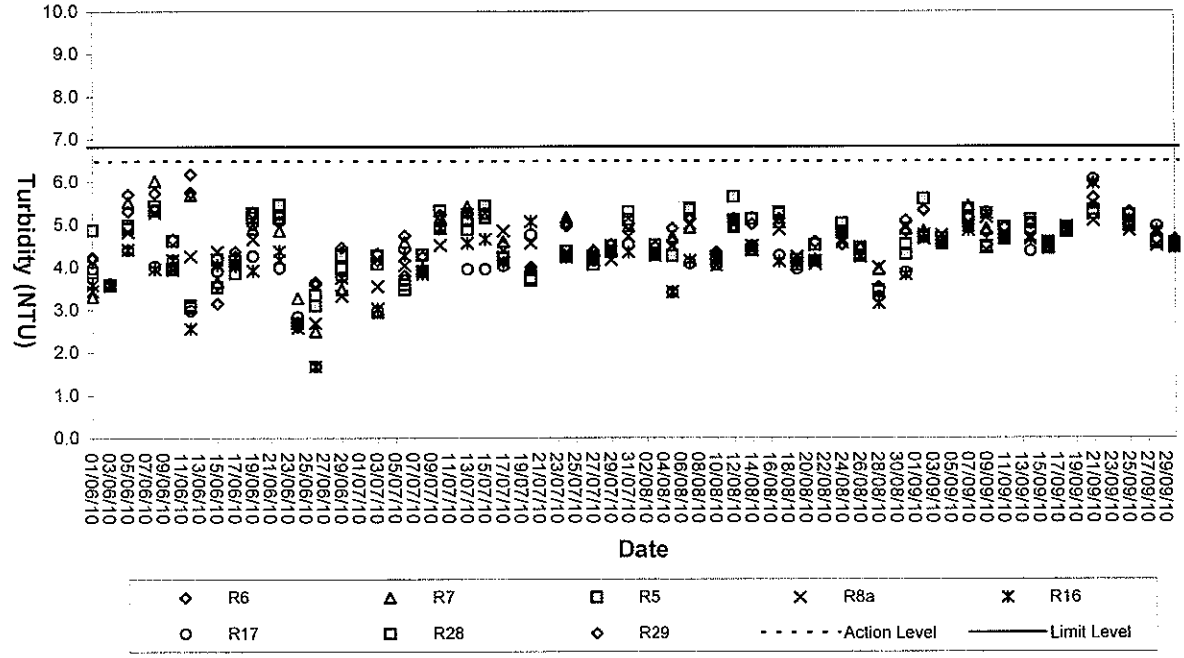
17/09/10
19/09/10
21/09/10
23/09/10
25/09/10
27/09/10
29/09/10
Date
R15
Action and Limit Level

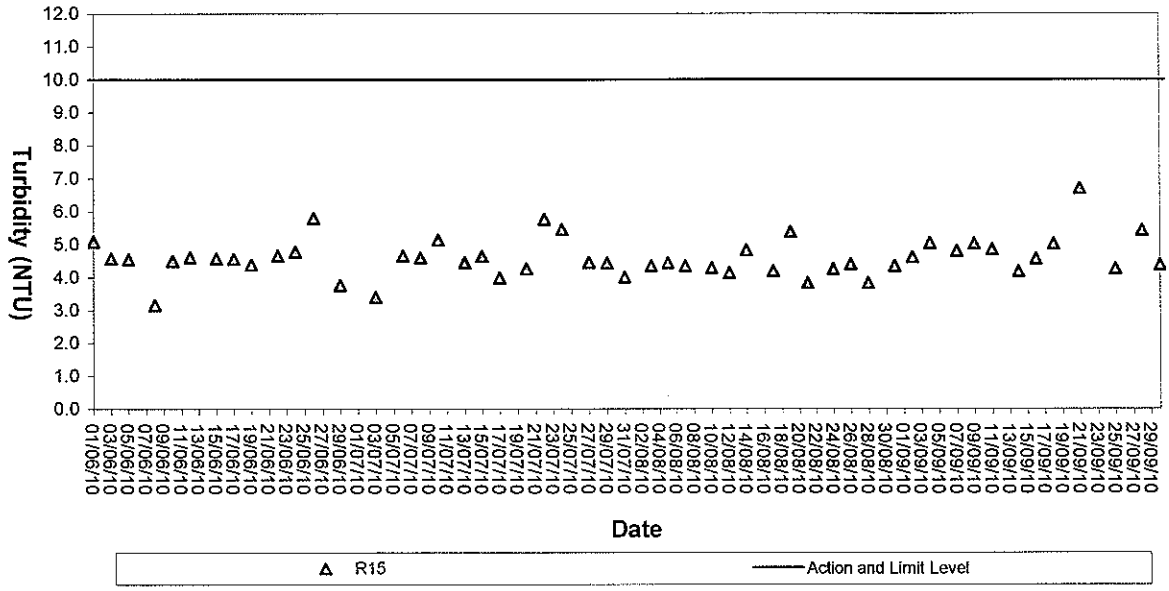
Turbidity (Depth-average) at Mid-Flood Tide



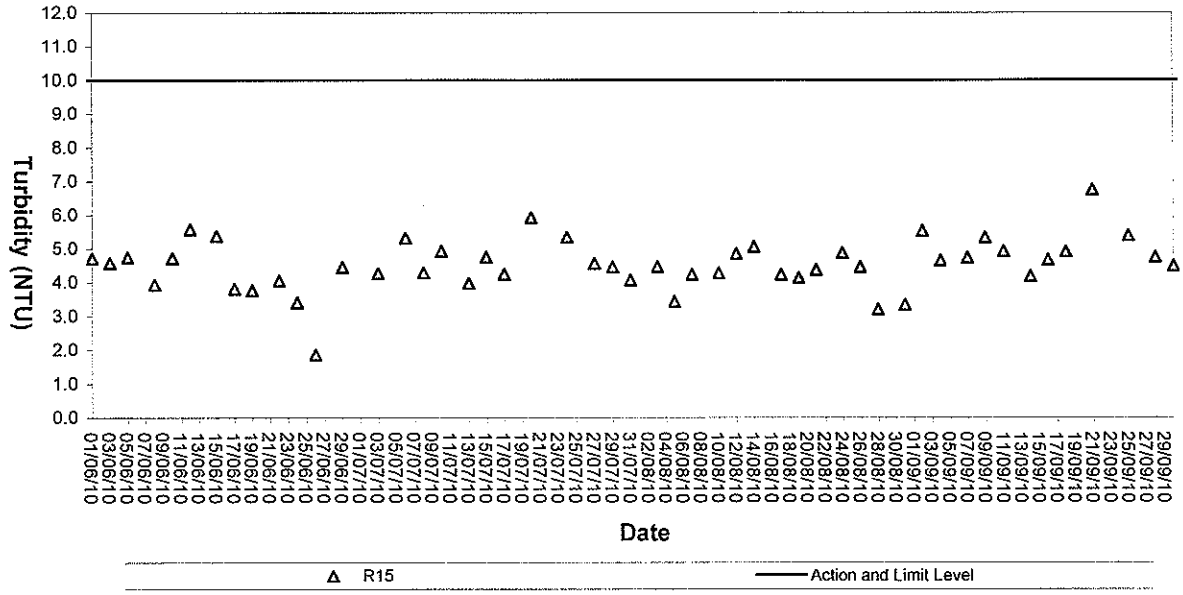
Turbidity(Depth-average) at Mid-Ebb Tide



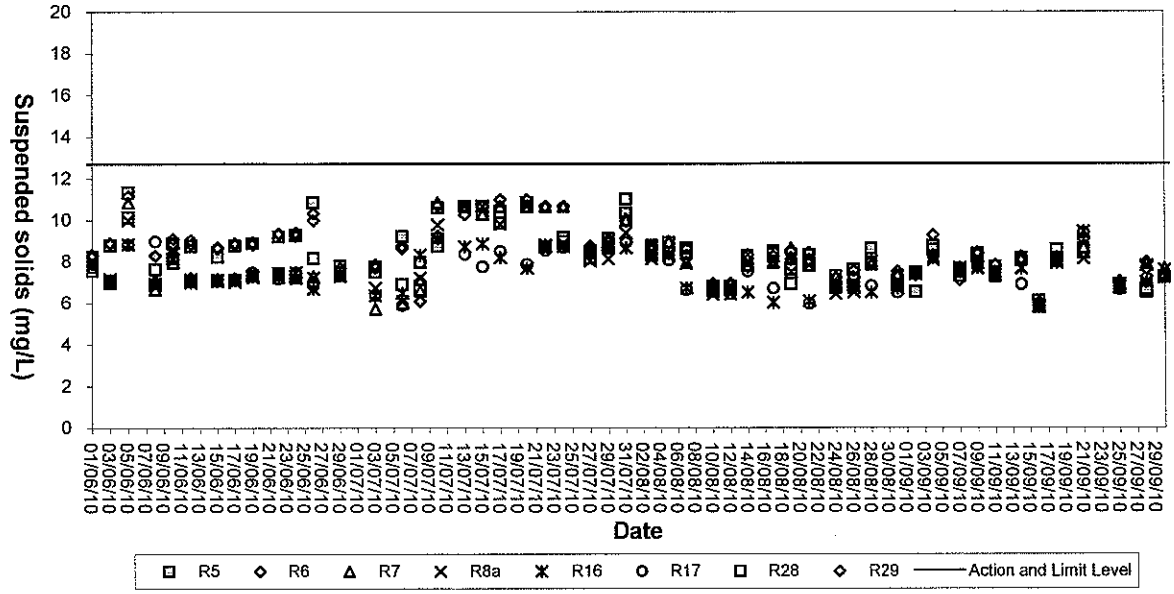
Turbidity (Depth-average) of R15 at Mid-Flood Tide



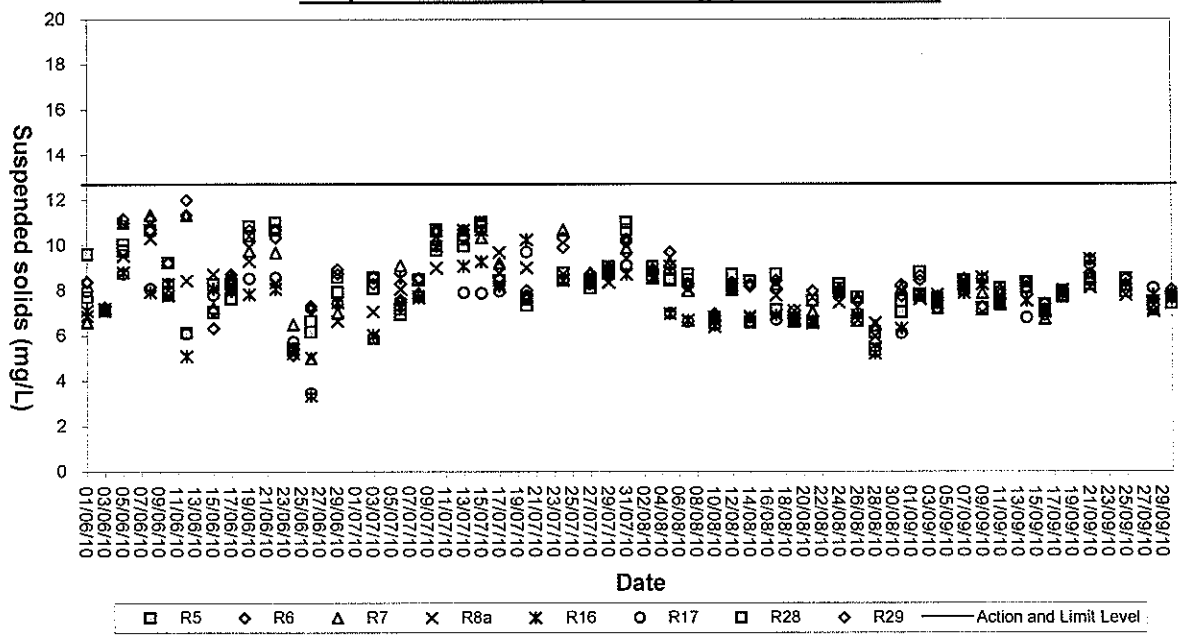
Turbidity(Depth-average) of R15 at Mid-Ebb Tide



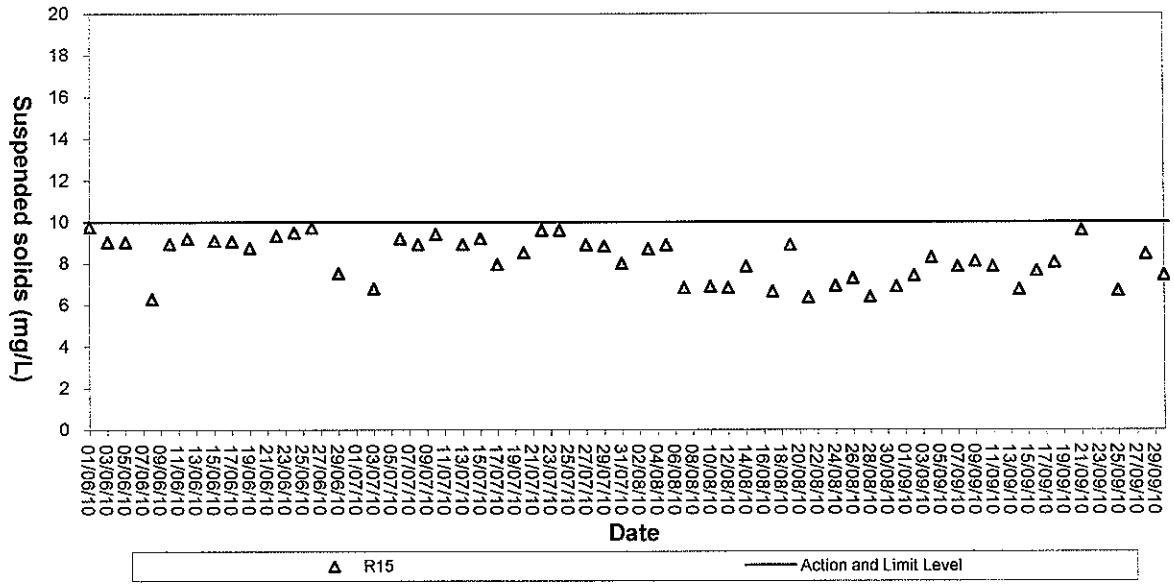
Suspended solids (Depth-average) at Mid-Flood Tide



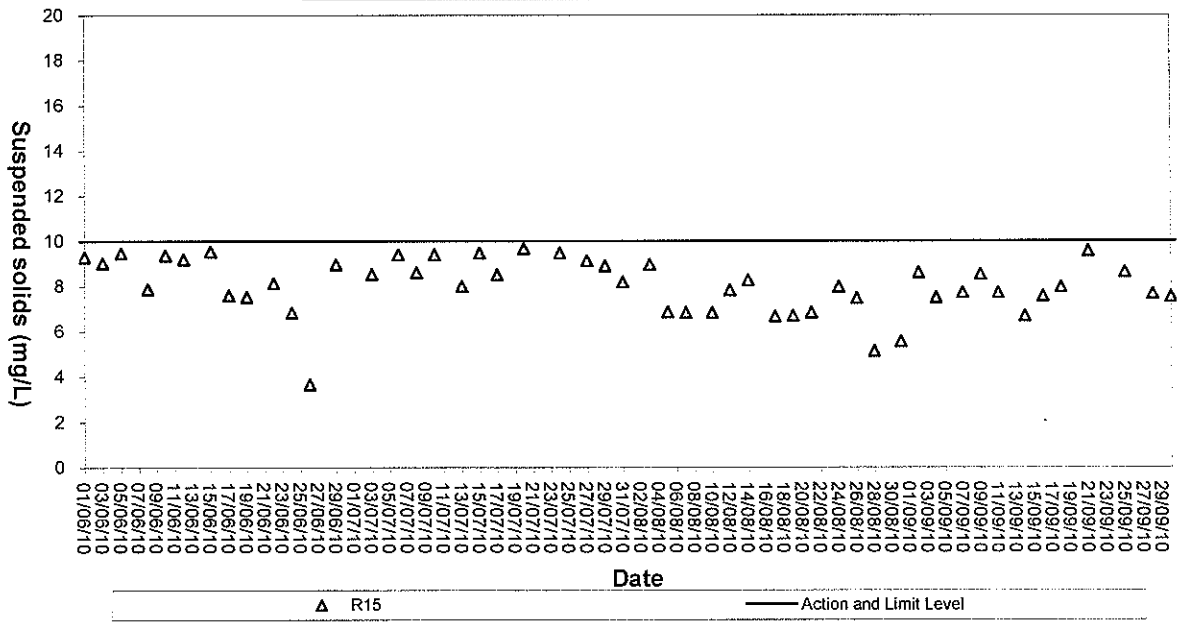
Suspended Solids (Depth-average) at Mid-Ebb Tide



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



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



Appendix C4

QA/QC Results of Laboratory Analysis for Water Samples

QA/QC Results of Laboratory Analysis of Total Suspended Solids

Sampling Date	QC Sample	Sample Duplicate		Sample Spike	
	% Recovery *	Sample ID	% Error #	Sample ID	% Recovery @
02/09/10	106.3	R5FS	3.1	R8FS	105.9
	107.2	R8FM	2.9	R17FM	107.8
	97.1	R17FB	2.6	C1FB	103.8
	101.5	C2FS	5.6	C4FB	92.2
	105.0	R5ES	2.4	R8ES	91.7
	97.5	R8EM	6.9	R17EM	100.0
	94.4	R17EB	5.1	C1EB	98.0
	93.7	C2ES	1.5	C4EB	103.8
04/09/10	106.4	R5FS	3.6	R8FS	95.7
	95.4	R8FM	1.2	R17FM	107.5
	101.0	R17FB	3.3	C1FB	94.0
	101.4	C2FS	2.3	C4FB	93.6
	95.3	R5ES	1.3	R8ES	93.9
	99.0	R8EM	2.5	R17EM	104.0
	105.9	R17EB	2.8	C1EB	101.9
	94.7	C2ES	6.5	C4EB	102.0
07/09/10	104.9	R5FS	2.8	R8FS	97.9
	101.8	R8FM	2.5	R17FM	101.9
	102.4	R17FB	2.5	C1FB	102.1
	100.4	C2FS	7.4	C4FB	93.9
	97.9	R5ES	2.4	R8ES	104.1
	102.7	R8EM	6.5	R17EM	106.1
	99.4	R17EB	2.5	C1EB	96.0
	99.2	C2ES	4.6	C4EB	97.9
09/09/10	97.9	R5FS	6.1	R8FS	104.1
	101.0	R8FM	6.5	R17FM	98.1
	94.5	R17FB	2.5	C1FB	107.7
	104.7	C2FS	3.9	C4FB	100.0
	96.8	R5ES	2.5	R8ES	92.3
	93.2	R8EM	4.9	R17EM	108.5
	98.4	R17EB	2.2	C1EB	102.0
	105.5	C2ES	5.1	C4EB	104.1
11/09/10	93.6	R5FS	1.3	R8FS	106.0
	101.7	R8FM	3.9	R17FM	100.0
	99.2	R17FB	2.5	C1FB	102.0
	105.3	C2FS	2.8	C4FB	98.0
	97.8	R5ES	6.5	R8ES	96.2
	106.4	R8EM	6.9	R17EM	103.9
	100.8	R17EB	5.1	C1EB	94.1
	105.9	C2ES	2.9	C4EB	101.9
14/09/10	96.1	R5FS	4.9	R8FS	102.0
	101.0	R8FM	5.6	R17FM	98.1
	98.8	R17FB	2.8	C1FB	107.7
	92.2	C2FS	5.1	C4FB	100.0
	98.4	R5ES	6.1	R8ES	105.8
	100.6	R8EM	2.8	R17EM	98.1
	101.6	R17EB	7.4	C1EB	100.0
	96.4	C2ES	2.5	C4EB	105.7

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 @
16/09/10	107.2	R5FS	3.3	R8FS	98.0
	96.0	R8FM	3.4	R17FM	102.1
	97.1	R17FB	6.5	C1FB	102.0
	94.0	C2FS	8.7	C4FB	94.0
	99.8	R5ES	2.9	R8ES	93.9
	108.0	R8EM	5.6	R17EM	94.2
	93.8	R17EB	5.6	C1EB	104.3
	102.2	C2ES	2.8	C4EB	104.0
18/09/10	102.1	R5FS	1.2	R8FS	105.8
	103.0	R8FM	2.5	R17FM	102.0
	106.3	R17FB	2.5	C1FB	96.0
	92.6	C2FS	1.3	C4FB	104.1
	103.5	R5ES	4.9	R8ES	98.1
	100.4	R8EM	2.5	R17EM	102.1
	98.0	R17EB	2.5	C1EB	100.8
	100.8	C2ES	2.5	C4EB	94.0
21/09/10	102.2	R5FS	1.8	R8FS	112.2
	102.1	R8FM	0.0	R17FM	95.9
	106.4	R17FB	3.1	C1FB	100.0
	97.1	C2FS	2.5	C4FB	96.1
	103.5	R5ES	0.0	R8ES	105.9
	104.4	R8EM	6.1	R17EM	104.2
	102.7	R17EB	1.1	C1EB	108.0
	97.6	C2ES	2.5	C4EB	98.0
25/09/10	95.5	R5FS	7.4	R8FS	105.9
	93.9	R8FM	3.6	R17FM	108.2
	105.4	R17FB	2.8	C1FB	100.0
	92.2	C2FS	3.6	C4FB	104.3
	95.6	R5ES	3.1	R8ES	108.0
	107.9	R8EM	0.6	R17EM	105.9
	103.5	R17EB	6.1	C1EB	96.0
	99.8	C2ES	2.5	C4EB	106.0
28/09/10	108.0	R5FS	7.4	R8FS	100.0
	104.9	R8FM	6.5	R17FM	94.2
	104.5	R17FB	0.7	C1FB	97.9
	104.3	C2FS	9.2	C4FB	100.0
	104.6	R5ES	3.5	R8ES	95.8
	93.0	R8EM	2.8	R17EM	106.0
	101.6	R17EB	6.1	C1EB	107.8
	92.1	C2ES	4.7	C4EB	100.0
30/09/10	104.9	R5FS	3.6	R8FS	104.2
	103.9	R8FM	2.6	R17FM	98.0
	101.9	R17FB	4.1	C1FB	100.0
	94.2	C2FS	2.1	C4FB	100.0
	99.2	R5ES	3.5	R8ES	98.0
	100.2	R8EM	1.3	R17EM	104.2
	104.6	R17EB	3.1	C1EB	91.7
	98.0	C2ES	2.9	C4EB	97.9

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

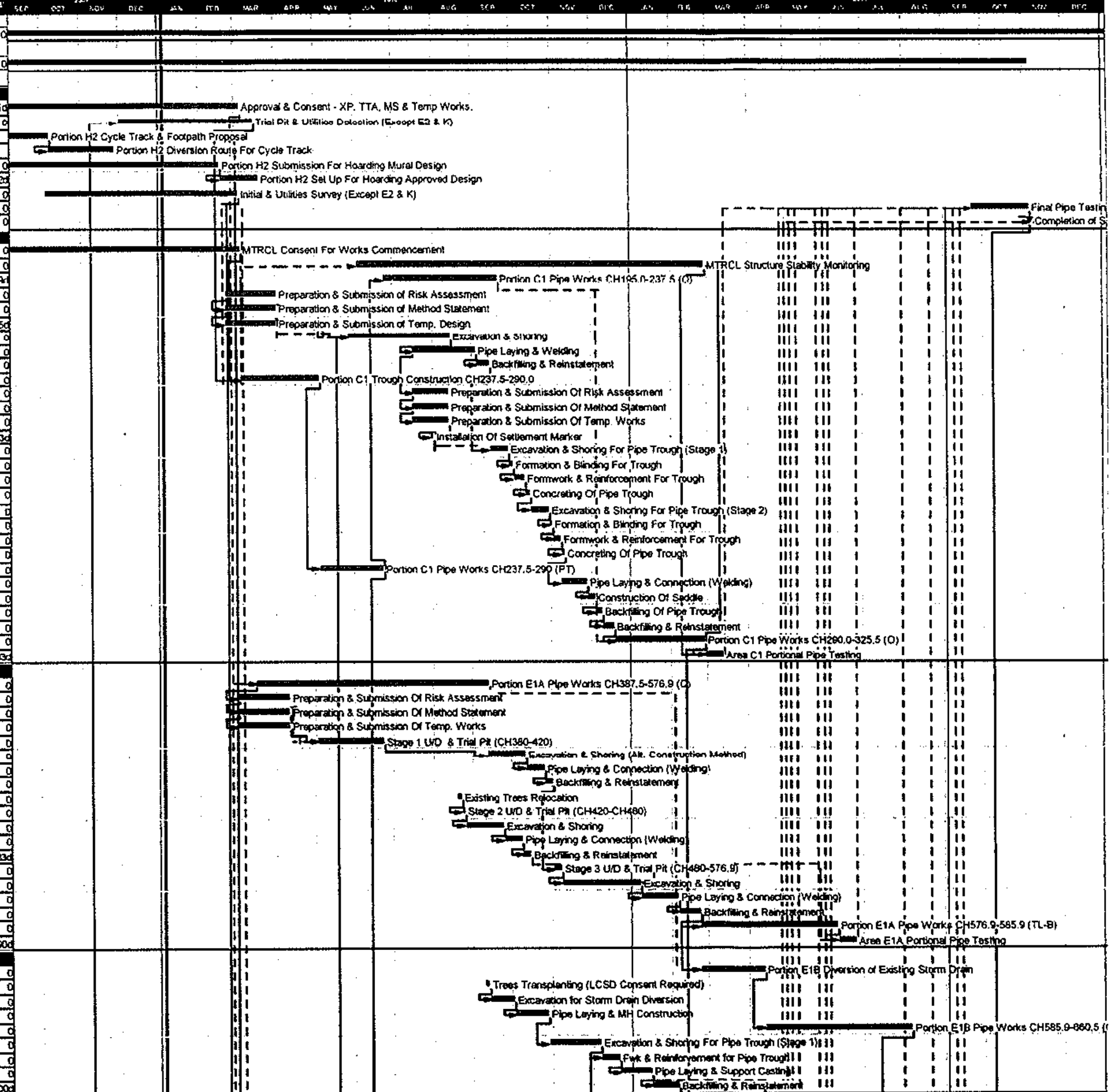
Event	Action			
	ET Leader	**IEC**	**ER**	**Contractor**
Limit Level				
Exceedance for one sample	1. Repeat in-situ measurement to confirm finding; 2. Identify source(s) of impact; 3. Inform IEC, Contractor and EPD; 4. Check monitoring data, all plant, equipment and Contractor's working methods; 5. 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 A	05NOV12	07SEP09 A	05NOV12	0	0
Section 1								
		791	07SEP09 A	06NOV11	07SEP09 A	06NOV11	0	0
Land Works								
General								
S1-1010	Approval & Consent - XP, TTA, MS & Temp	180	07SEP09 A	05MAR10	07SEP09 A	18MAR10	13d	11d
S1-1020	Trial Pit & Utilities Detection (Except E2 & K)	120	01DEC09 A	16MAR10	01DEC09 A	17MAR10	1d	0
S1-1030	Portion H2 Cycle Track & Footpath Proposal	40	07SEP09 A	08OCT09 A	07SEP09 A	08OCT09 A		
S1-1040	Portion H2 Diversion Route For Cycle Track	60	07OCT09 A	28NOV09 A	07OCT09 A	28NOV09 A		
S1-1050	Portion H2 Submission For Hoarding Mural Design	90	07SEP09 A	17FEB10	07SEP09 A	06NOV10	262d	0
S1-1060	Portion H2 Set Up For Hoarding Approved Design	30	18FEB10	19MAR10	07NOV10	06DEC10	262d	262d
S1-1080	Initial & Utilities Survey (Except E2 & K)	120	05OCT09 A	04MAR10	05OCT09 A	06MAR10	2d	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 A	05MAR10	07SEP09 A	06MAR10	1d	0
S1-3020	MTRCL Structure Stability Monitoring	270	03JUN10	27FEB11	13DEC10	08SEP11	193d	0
S1-3030	Portion C1 Pipe Works CH195.0-237.5 (O)	90	24JUN10	21SEP10	21FEB11	21MAY11	242d	89d
S1-3030A10	Preparation & Submission of Risk Assessment	40	22FEB10 *	02APR10	18SEP10	27OCT10	208d	0
S1-3030A20	Preparation & Submission of Method Statement	40	22FEB10	02APR10	18SEP10	27OCT10	208d	0
S1-3030A30	Preparation & Submission of Temp. Design	40	22FEB10	02APR10	18SEP10	27OCT10	208d	55d
S1-3030B10	Excavation & Shoring	60	28MAY10	13AUG10	26OCT10	13JAN11	153d	0
S1-3030B20	Pipe Laying & Welding	50	17JUL10	04SEP10	17DEC10	04FEB11	153d	0
S1-3030B30	Backfilling & Reinstatement	10	05SEP10	14SEP10	05FEB11	14FEB11	153d	0
S1-3040	Portion C1 Trough Construction CH237.5-290.0	60	06MAR10	04MAY10	07MAR10	05MAY10	1d	0
S1-3040A20	Preparation & Submission Of Risk Assessment	28	17JUL10	13AUG10	29JAN11	25FEB11	196d	0
S1-3040A30	Preparation & Submission Of Method Statement	28	17JUL10	13AUG10	29JAN11	25FEB11	196d	0
S1-3040A40	Preparation & Submission Of Temp. Works	28	17JUL10	13AUG10	29JAN11	25FEB11	196d	0
S1-3040B10	Installation Of Settlement Marker	3	31JUL10	02AUG10	12FEB11	14FEB11	195d	43d
S1-3040B20	Excavation & Shoring For Pipe Trough (Stage 1)	15	15SEP10	29SEP10	15FEB11	01MAR11	153d	0
S1-3040B30	Formation & Binding For Trough	3	30SEP10	02OCT10	02MAR11	04MAR11	153d	0
S1-3040B40	Formwork & Reinforcement For Trough	10	03OCT10	12OCT10	05MAR11	14MAR11	153d	0
S1-3040B50	Concreting Of Pipe Trough	3	13OCT10	15OCT10	15MAR11	17MAR11	153d	0
S1-3040C10	Excavation & Shoring For Pipe Trough (Stage 2)	15	16OCT10	30OCT10	18MAR11	01APR11	153d	0
S1-3040C20	Formation & Binding For Trough	3	31OCT10	02NOV10	02APR11	04APR11	153d	0
S1-3040C30	Formwork & Reinforcement For Trough	6	03NOV10	08NOV10	05APR11	10APR11	153d	0
S1-3040C40	Concreting Of Pipe Trough	3	09NOV10	11NOV10	11APR11	13APR11	153d	0
S1-3050	Portion C1 Pipe Works CH237.5-290 (PT)	50	05MAY10	23JUN10	13NOV10	01JAN11	192d	0
S1-3050B10	Pipe Laying & Connection (Welding)	20	09NOV10	28NOV10	11APR11	30APR11	153d	0
S1-3050B20	Construction Of Saddle	6	29NOV10	04DEC10	01MAY11	06MAY11	153d	0
S1-3050B30	Backfilling Of Pipe Trough	5	05DEC10	09DEC10	07MAY11	11MAY11	153d	0
S1-3050B40	Backfilling & Reinstatement	10	10DEC10	19DEC10	12MAY11	21MAY11	153d	0
S1-3060	Portion C1 Pipe Works CH290.0-325.5 (O)	70	20DEC10	27FEB11	22MAY11	30JUL11	153d	0
S1-3070	Area C1 Portional Pipe Testing	14	28FEB11	13MAR11	09SEP11	22SEP11	193d	193d
Portion E1A								
S1-4020	Portion E1A Pipe Works CH387.5-576.9 (O)	180	17MAR10	12SEP10	19APR10	15OCT10	33d	0
S1-4020A20	Preparation & Submission Of Risk Assessment	40	03MAR10	11APR10	05APR10	14MAY10	33d	0
S1-4020A30	Preparation & Submission Of Method Statement	40	03MAR10	11APR10	05APR10	14MAY10	33d	0
S1-4020A40	Preparation & Submission Of Temp. Works	40	03MAR10	11APR10	05APR10	14MAY10	33d	0
S1-4020B10	Stage 1 U/D & Trial Pit (CH380-420)	52	03MAY10	23JUN10	05JUN10	26JUL10	33d	0
S1-4020B20	Excavation & Shoring (Alt. Construction Method)	30	12SEP10	11OCT10	16OCT10	13NOV10	33d	0
S1-4020B30	Pipe Laying & Connection (Welding)	15	12OCT10	26OCT10	14NOV10	28NOV10	33d	0
S1-4020B40	Backfilling & Reinstatement	7	27OCT10	02NOV10	29NOV10	05DEC10	33d	0
S1-4020C05	Existing Trees Relocation	4	19AUG10 *	22AUG10	13DEC10	16DEC10	116d	0
S1-4020C10	Stage 2 U/D & Trial Pit (CH420-CH480)	3	23AUG10	25AUG10	17DEC10	19DEC10	116d	0
S1-4020C20	Excavation & Shoring	30	26AUG10	24SEP10	20DEC10	18JAN11	116d	0
S1-4020C30	Pipe Laying & Connection (Welding)	15	25SEP10	09OCT10	19JAN11	02FEB11	116d	0
S1-4020C40	Backfilling & Reinstatement	7	10OCT10	16OCT10	03FEB11	09FEB11	116d	83d
S1-4020D10	Stage 3 U/D & Trial Pit (CH480-576.9)	6	03NOV10	08NOV10	06DEC10	11DEC10	33d	0
S1-4020D20	Excavation & Shoring	60	09NOV10	07JAN11	12DEC10	09FEB11	33d	0
S1-4020D30	Pipe Laying & Connection (Welding)	30	08JAN11	06FEB11	10FEB11	11MAR11	33d	0
S1-4020D40	Backfilling & Reinstatement	16	07FEB11	22FEB11	12MAR11	27MAR11	33d	0
S1-4030	Portion E1A Pipe Works CH576.9-585.9 (TL-B)	108	23FEB11	10JUN11	24MAY11	08SEP11	90d	0
S1-4050	Area E1A Portional Pipe Testing	14	11JUN11	24JUN11	09SEP11	22SEP11	90d	90d
Portion E1B - E2 SWM								
S1-4010	Portion E1B Diversion of Existing Storm Drain	50	23FEB11	13APR11	28MAR11	16MAY11	33d	0
S1-4010A10	Trees Transplanting (LCSD Consent Required)	5	09SEP10 *	13SEP10	02JAN11	06JAN11	115d	0
S1-4010A20	Excavation for Storm Drain Diversion	20	14SEP10	03OCT10	07JAN11	26JAN11	115d	0
S1-4010A30	Pipe Laying & MH Construction	25	04OCT10	28OCT10	27JAN11	20FEB11	115d	0
S1-4040	Portion E1B Pipe Works CH585.9-660.5 (O)	115	14APR11	06AUG11	17MAY11	08SEP11	33d	0
S1-4040B10	Excavation & Shoring For Pipe Trough (Stage 1)	40	29OCT10	07DEC10	21FEB11	01APR11	115d	0
S1-4040B20	Fwk & Reinforvement for Pipe Trough	15	08DEC10	22DEC10	11JUL11	25JUL11	215d	0
S1-4040B30	Pipe Laying & Support Casting	25	23DEC10	18JAN11	26JUL11	19AUG11	215d	0
S1-4040B40	Backfilling & Reinstatement	20	17JAN11	05FEB11	20AUG11	08SEP11	215d	100d



Start date	07SEP09
Finish date	05NOV12
Data date	04JAN10
Run date	10SEP10
Page number	1A

Wo Hing - Penta-Ocean Joint Venture

3 Months Rolling Program (September 2010)

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

Contract No 6/WSD/08
Laying of Western Cross Harbour 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
S1-4410	Portion E2 DN600A SWM Works CH7.1-63.7	93	05MAR10	23APR10	26JUL10	13SEP10	143d	0
S1-4410A10	Preparation & Submission Of Risk Assessment	28	19FEB10	18MAR10	30SEP10	27OCT10	223d	0
S1-4410A20	Preparation & Submission Of Method Statement	28	19FEB10	18MAR10	30SEP10	27OCT10	223d	0
S1-4410A30	Submission & Approval Of Temp. Work	28	19FEB10	18MAR10	30SEP10	27OCT10	223d	171d
S1-4410B10	Installation & Connection Of DN600A SWM	26	06SEP10 *	03OCT10	28OCT10	24NOV10	52d	0
S1-4410B20	Support & Fixing Of DN600A SWM	8	04OCT10	11OCT10	25NOV10	02DEC10	52d	0
S1-4420	Portion E1B DN600A SWM Works CH0.0-7.1 (O)	30	24APR10	23MAY10	14SEP10	13OCT10	143d	0
S1-4420B10	Excavation & Shoring	20	12OCT10	31OCT10	09DEC10	22DEC10	52d	0
S1-4420B20	Main Laying & Connection With Trough Portion	19	01NOV10	10NOV10	23DEC10	01JAN11	52d	0
S1-4430	Portion E2 DN600A SWM Works CH63.7-67.9	30	24MAY10	22JUN10	14OCT10	12NOV10	143d	0
S1-4430B10	Excavation & Shoring	20	11NOV10	30NOV10	02JAN11	21JAN11	52d	0
S1-4430B20	Main Laying & Connection With Trough Portion	19	01DEC10	10DEC10	22JAN11	31JAN11	52d	0
S1-4440	E1B Existing DN600 SWM Diversion & Demolition	30	23JUN10	22JUL10	13NOV10	12DEC10	143d	0
S1-4440A10	Issuance Of Temp. Water Supply Suspension	14	27NOV10	10DEC10	18JAN11	31JAN11	52d	0
S1-4440B10	Shut Off Of Existing DN600 SWM	2	11DEC10	12DEC10	01FEB11	02FEB11	52d	0
S1-4440B20	DN600A Diversion Main Connect To Existing	2	11DEC10	12DEC10	01FEB11	02FEB11	52d	0
S1-4440B30	Removal Of Existing DN600 SWM	28	13DEC10	09JAN11	03FEB11	02MAR11	52d	0
S1-4445	Portion E1B Trough Construction Under Planter	60	24JUN10	22AUG10	02JAN11	02MAR11	192d	49d
S1-4445B10	Excavation & Shoring For Pipe Trough (Stage 2)	40	06DEC10	16JAN11	02APR11	11MAY11	115d	0
S1-4445B20	Fwk & Reinforcement for Pipe Trough	15	17JAN11	31JAN11	12MAY11	26MAY11	115d	0
S1-4450	Portion E1B Pipe Works CH660.5-677.4 (PT)	60	11OCT10	09DEC10	03MAR11	01MAY11	143d	0
S1-4450B10	Pipe Laying & Support Casting	25	01FEB11	25FEB11	27MAY11	20JUN11	115d	0
S1-4450B20	Backfilling & Reinstatement	20	28OCT10	17MAR11	31JUN11	10JUL11	115d	0
S1-4460	Portion E1B Pipe Works CH677.4-695.9 (O)	40	28FEB11	08APR11	31JUL11	08SEP11	153d	120d
S1-4460B10	Portion E1B Pipe Works CH677.4-695.9(O)	30	17APR11	18MAY11	10AUG11	08SEP11	115d	0
S1-4470	Portion E1B Pipe Works CH695.9-698.5 (UC)	20	10DEC10	29DEC10	02MAY11	21MAY11	143d	60d
S1-4470B10	Portion E1B Pipe Works CH695.9-698.5 (UC)	30	18MAR11	15APR11	11JUL11	09AUG11	115d	0
S1-4480	Portion E1B DN600B SWM Works CH0.0-7.1 (O)	30	23JUL10	21AUG10	02JAN11	31JAN11	163d	20d
S1-4480B10	Portion E1B DN600B SWM Works CH0.0-7.1 (O)	30	01MAR11	30MAR11	10AUG11	08SEP11	162d	47d
S1-4490	Portion E2 DN600B SWM Works CH7.1-63.7	50	23JUL10	10SEP10	13DEC10	31JAN11	143d	0
S1-4490B10	Portion E2 DN600B SWM Works CH7.1-63.7	50	10JAN11	28FEB11	03MAR11	21APR11	52d	0
S1-4500	Portion E2 DN600B SWM Works 63.7-67.9 (O)	30	11SEP10	10OCT10	01FEB11	02MAR11	143d	0
S1-4500B10	Portion E2 DN600B SWM 63.7-67.9 (O)	30	01MAR11	30MAR11	22APR11	21MAY11	52d	0
S1-4510	Area E1B+E2 SWM Portional Pipe Testing	14	07AUG11	20AUG11	09SEP11	22SEP11	33d	33d
S1-4510B10	Area E1B+E2 SWM Portional Pipe Testing	14	17MAY11	30MAY11	09SEP11	22SEP11	115d	115d
Package E1C + E1D								
S1-4710	Portion E1C DN300 FWM Works CH0.0-50.0	50	05MAR10	23APR10	28SEP10	16NOV10	207d	0
S1-4710A10	Submission & Approval Of Risk Assessment	28	19FEB10	18MAR10	14SEP10	11OCT10	207d	0
S1-4710A20	Submission & Approval Of Method Statement	28	19FEB10	18MAR10	14SEP10	11OCT10	207d	59d
S1-4710A30	Submission & Approval Of Temp. Work	28	19FEB10	18MAR10	14SEP10	11OCT10	207d	59d
S1-4710B10	Installation & Connection Of DN300 FWM	50	17MAY10 *	05JUL10	12OCT10	30NOV10	148d	0
S1-4710B20	Support & Fixing Of DN300 FWM	40	08JUL10	14AUG10	01DEC10	09JAN11	148d	0
S1-4720	E1C DN300 FWM Diversion Main Testing	8	24APR10	01MAY10	23FEB11	02MAR11	305d	0
S1-4720B10	E1C Exist. DN300 FWM Diversion & Demolition	8	15AUG10	22AUG10	10JAN11	17JAN11	148d	0
S1-4730	E1C Exist. DN300 FWM Diversion & Demolition	30	02MAY10	31MAY10	03MAR11	01APR11	305d	157d
S1-4730A10	Issuance Of Temp. Water Supply Suspension	14	22SEP10	05OCT10	17FEB11	02MAR11	148d	0
S1-4730A20	Shut Off Existing DN300 FWM	2	06OCT10	07OCT10	03MAR11	04MAR11	148d	0
S1-4730A30	DN300 Diversion Main Connect To Existing	2	06OCT10	07OCT10	03MAR11	04MAR11	148d	0
S1-4730A40	Removal Of Existing DN300 FWM	28	08OCT10	04NOV10	05MAR11	01APR11	148d	0
S1-4740	Portion E1C DN600 SWM Works CH0.0-52.0	80	05NOV10	23JAN11	02APR11	20JUN11	148d	8d
S1-4740B10	Portion E1C DN600 SWM Works CH0.0-52.0	60	05NOV10	23JAN11	02APR11	20JUN11	148d	0
S1-4750	Portion E1C DN600 SWM Works CH52.0-90.0	60	01FEB11	21APR11	21JUN11	08SEP11	140d	0
S1-4750B10	Portion E1C DN600 SWM Works CH52.0-90.0	60	24JAN11	13APR11	21JUN11	08SEP11	148d	0
S1-4760	Area E1C Portional Pipe Testing	14	22APR11	09MAY11	09SEP11	22SEP11	140d	140d
S1-4760B10	Area E1C Portional Pipe Testing	14	14APR11	27APR11	09SEP11	22SEP11	148d	148d
Package E2								
S1-5010	Portion E2 Marine Dept Advance Notice	90	07OCT09 A	20FEB10	07OCT09 A	20FEB10	0	0
S1-5020	WHTCL Consent For Works Within Tunnel Area	120	07SEP09 A	20FEB10	07SEP09 A	20FEB10	0	0
S1-5030	Chamber Modification - 180 Days of Portion E2	65	07JAN10 A	14MAR10 A	07JAN10 A	14MAR10 A		
S1-5040	Portion E2 Trial Run	60	09NOV09 A	14NOV09 A	09NOV09 A	14NOV09 A		
S1-5050	Portion E2 Trial Pit & Utilities Detection	15	21FEB10	07MAR10	21FEB10	07MAR10	0	0
S1-5060	Portion E2 Initial & Utilities Survey	15	21FEB10	07MAR10	21FEB10	07MAR10	0	0
S1-5070	Portion E2 Pipe Works CH698.5-752.5 (UC)	80	21APR11	09JUL11	22MAY11	09AUG11	31d	31d
S1-5070B10	Portion E2 Pipe Works CH698.5-752.5 (UC)	60	31MAR11	18JUN11	22MAY11	09AUG11	52d	0
S1-5080	Portion E2 Pipe Works CH752.5-790.5 (O)	30	10AUG11	08SEP11	10AUG11	08SEP11	0	0
S1-5080A	Portion E2 Pipe Works CH752.5-790.5 (O)	30	19JUN11	18JUL11	10AUG11	08SEP11	52d	52d
S1-5090	TL-C FWM Sleeve Jacking CH790.5-977.7	70	26JUL10	03OCT10	26JUL10	03OCT10	0	0
S1-5090A10	Preparation & Submission of Risk Assessment	60	09FEB10 *	05APR10	27MAY10	25JUL10	110d	0
S1-5090A20	Preparation & Submission of Method Statement	60	09FEB10	05APR10	27MAY10	25JUL10	110d	0
S1-5090A30	Preparation & Submission of Temp. Design	60	09FEB10	05APR10	27MAY10	25JUL10	110d	0
S1-5090B10	Excavation & Shoring for Jacking Pit (A3)	70	07APR10	15JUN10	26JUL10	03OCT10	110d	64d
S1-5090B20	Jacking Pit Set-up (TL-C)	10	19AUG10	26AUG10	04OCT10	13OCT10	46d	0
S1-5090C10	Sleeve Pipe Installation by Jacking	25	29AUG10	22SEP10	14OCT10	07NOV10	46d	0
S1-5095	TL-C FWM Pipe Installation CH790.5-977.7	40	05JUN11	15JUL11	05JUN11	15JUL11	0	0
S1-5095B10	Pipe Laying & Connection	55	27DEC10	14FEB11	27JAN11	17MAR11	31d	0

Start date	07SEP09
Finish date	09NOV12
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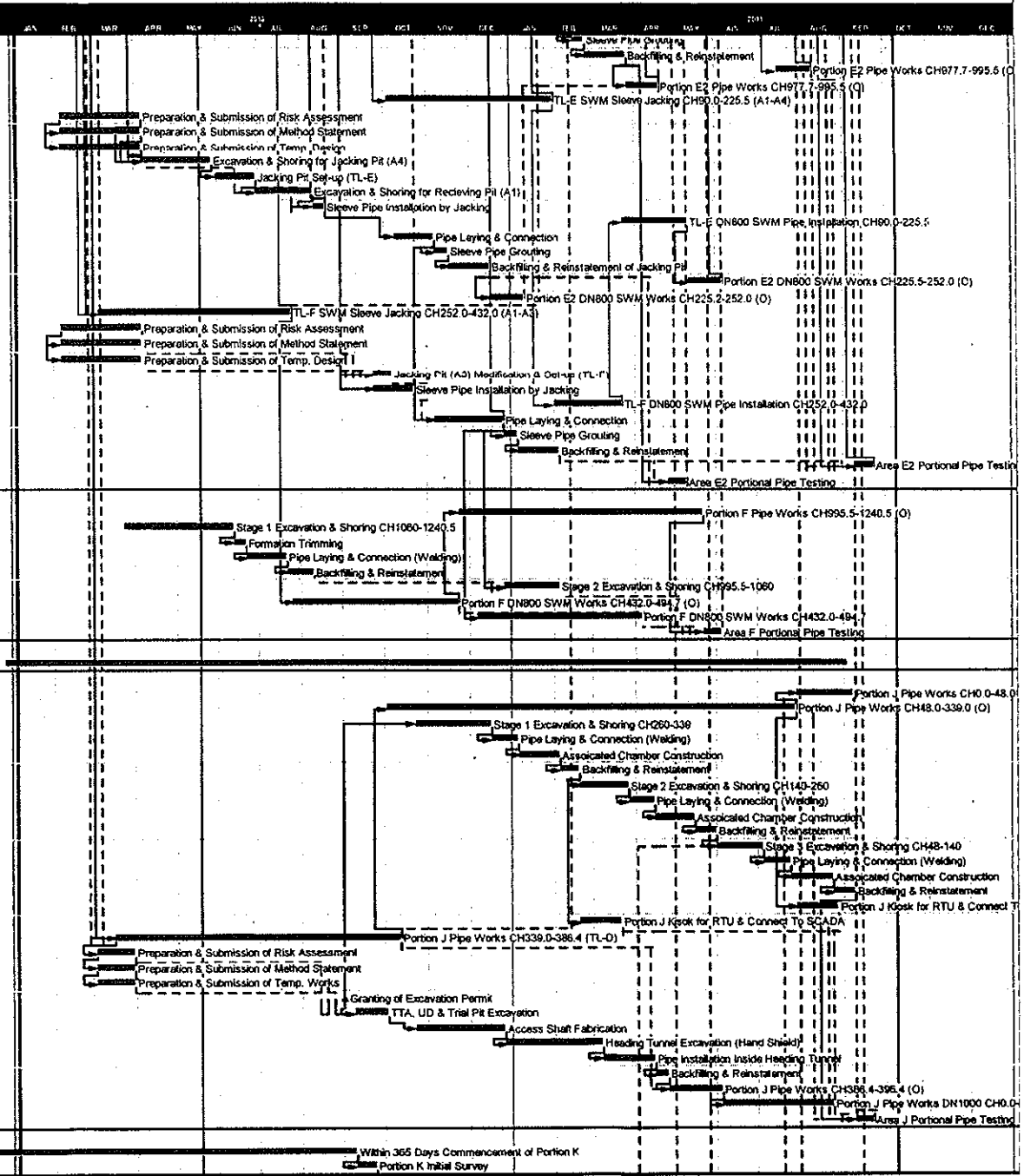
Wo Hing - Penta-Ocean Joint Venture

3 Months Rolling Program (September 2010)

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

Contract No.6WSD08
Laying of Western Cross Harbour 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
S1-5085B20	Sleeve Pipe Grouting	10	15FEB11	24FEB11	16MAR11	27MAR11	31d	0
S1-5085B30	Backfilling & Reinstatement	30	25FEB11	26MAR11	28MAR11	26APR11	31d	0
S1-5100	Portion E2 Pipe Works CH977.7-995.5 (O)	25	16JUL11	09AUG11	16JUL11	09AUG11	0d	0
S1-5100A	Portion E2 Pipe Works CH977.7-995.5 (O)	25	27MAR11	29APR11	27APR11	31MAY11	31d	0
S1-5110	TL-E SWM Sleeve Jacking CH90.0-225.5 (A1-A4)	120	04OCT10	31JAN11	04OCT10	31JAN11	0d	0
S1-5110A10	Preparation & Submission of Risk Assessment	60	05FEB10 *	05APR10	09MAR10	07MAY10	31d	0
S1-5110A20	Preparation & Submission of Method Statement	60	05FEB10	05APR10	09MAR10	07MAY10	31d	0
S1-5110A30	Preparation & Submission of Temp. Design	60	05FEB10	05APR10	09MAR10	07MAY10	31d	0
S1-5110B10	Excavation & Shoring for Jacking Pit (A4)	50	07APR10	26MAY10	08MAY10	26JUN10	31d	0
S1-5110B20	Jacking Pit Set-up (TL-E)	30	30MAY10	28JUN10	30JUN10	29JUL10	31d	0
S1-5110B30	Excavation & Shoring for Recieving Pit (A1)	42	29JUN10	09AUG10	30JUL10	09SEP10	31d	0
S1-5110C10	Sleeve Pipe Installation by Jacking	9	10AUG10	18AUG10	10SEP10	18SEP10	31d	0
S1-5115	TL-E DN800 SWM Pipe Installation CH90.0-225.5	50	23MAR11	11MAY11	23MAR11	11MAY11	0d	0
S1-5115B10	Pipe Laying & Connection	30	09OCT10	06NOV10	08NOV10	07DEC10	31d	0
S1-5115B20	Sleeve Pipe Grouting	10	07NOV10	19NOV10	21FEB11	02MAR11	105d	0
S1-5115B30	Backfilling & Reinstatement of Jacking Pit	30	17NOV10	15DEC10	03MAR11	01APR11	105d	0
S1-5120	Portion E2 DN800 SWM Works CH225.5-252.0	25	12MAY11	05JUN11	12MAY11	05JUN11	0d	0
S1-5120A	Portion E2 DN800 SWM Works CH225.5-252.0	25	17DEC10	10JAN11	02APR11	26APR11	106d	75d
S1-5130	TL-F SWM Sleeve Jacking CH252.0-432.0	142	05MAR10	25JUL10	05MAR10	25JUL10	0d	0
S1-5130A10	Preparation & Submission of Risk Assessment	60	05FEB10 *	06APR10	05OCT10	03DEC10	241d	0
S1-5130A20	Preparation & Submission of Method Statement	60	05FEB10	06APR10	05OCT10	03DEC10	241d	169d
S1-5130A30	Preparation & Submission of Temp. Design	60	05FEB10	06APR10	05OCT10	03DEC10	241d	169d
S1-5130B10	Jacking Pit (A3) Modification & Set-up (TL-F)	14	23OCT10	09NOV10	04DEC10	17DEC10	75d	29d
S1-5130C10	Sleeve Pipe Installation by Jacking	30	23SEP10	22OCT10	08NOV10	07DEC10	46d	15d
S1-5135	TL-F DN800 SWM Pipe Installation	50	01FEB11	22MAR11	01FEB11	22MAR11	0d	0
S1-5135B10	Pipe Laying & Connection	50	07NOV10	26DEC10	08DEC10	26JAN11	31d	0
S1-5135B20	Sleeve Pipe Grouting	10	27DEC10	05JAN11	01JUL11	10JUL11	186d	0
S1-5135B30	Backfilling & Reinstatement	30	06JAN11	04FEB11	11JUL11	09AUG11	186d	50d
S1-5140	Area E2 Portional Pipe Testing	14	09SEP11	22SEP11	09SEP11	22SEP11	0d	0
S1-5140B10	Area E2 Portional Pipe Testing	14	26APR11	09MAY11	09SEP11	22SEP11	136d	136d
Portion F								
S1-6010	Portion F Pipe Works CH995.5-1240.5 (O)	180	23NOV10	21MAY11	13DEC10	10JUN11	20d	0
S1-6010B10	Stage 1 Excavation & Shoring CH1060-1240.5	80	24MAR10 *	11JUN10	13MAR11	31MAY11	354d	0
S1-6010B20	Formation Trimming	10	12JUN10	21JUN10	01JUN11	10JUN11	354d	0
S1-6010B30	Pipe Laying & Connection (Welding)	30	22JUN10	21JUL10	11JUN11	10JUL11	334d	0
S1-6010B40	Backfilling & Reinstatement	20	22JUL10	10AUG10	11JUL11	30JUL11	354d	138d
S1-6010C10	Stage 2 Excavation & Shoring CH995.5-1060	40	27DEC10	04FEB11	31JUL11	08SEP11	216d	105d
S1-6020	Portion F DN800 SWM Works CH432.0-494.7	120	26JUL10	22NOV10	15AUG10	12DEC10	20d	0
S1-6020A10	Portion F DN800 SWM Works CH432.0-494.7	120	07DEC10	05APR11	12MAY11	08SEP11	156d	46d
S1-6030	Area F Portional Pipe Testing	14	22MAY11	04JUN11	09SEP11	22SEP11	110d	110d
Portion H								
		816	26DEC09 A	02SEP11	26DEC09 A	22SEP11	20d	0
Portion J								
S1-8010	Portion J Pipe Works CH0.0-48.0 (O-S Wall)	40	29JUL11	08SEP11	31JUL11	08SEP11	2d	1d
S1-8020	Portion J Pipe Works CH48.0-339.0 (O)	300	02OCT10	28JUL11	04OCT10	30JUL11	2d	0
S1-8020B10	Stage 1 Excavation & Shoring CH260-339	55	23OCT10	16DEC10	24OCT10	17DEC10	1d	0
S1-8020B20	Pipe Laying & Connection (Welding)	20	17DEC10	05JAN11	18DEC10	06JAN11	1d	0
S1-8020B30	Associated Chamber Construction	30	06JAN11	04FEB11	07JAN11	05FEB11	1d	0
S1-8020B40	Backfilling & Reinstatement	15	05FEB11	19FEB11	06FEB11	20FEB11	1d	0
S1-8020C10	Stage 2 Excavation & Shoring CH140-260	35	20FEB11	26MAR11	21FEB11	27MAR11	1d	0
S1-8020C20	Pipe Laying & Connection (Welding)	20	27MAR11	15APR11	28MAR11	16APR11	1d	0
S1-8020C30	Associated Chamber Construction	30	16APR11	15MAY11	17APR11	16MAY11	1d	0
S1-8020C40	Backfilling & Reinstatement	15	16MAY11	30MAY11	17MAY11	31MAY11	1d	0
S1-8020D10	Stage 3 Excavation & Shoring CH48-140	35	31MAY11	04JUL11	01JUN11	05JUL11	1d	0
S1-8020D20	Pipe Laying & Connection (Welding)	20	05JUL11	24JUL11	06JUL11	25JUL11	1d	0
S1-8020D30	Associated Chamber Construction	30	25JUL11	23AUG11	26JUL11	24AUG11	1d	0
S1-8020D40	Backfilling & Reinstatement	15	24AUG11	07SEP11	25AUG11	08SEP11	1d	0
S1-8030	Portion J Kiosk for RTU & Connect To SCADA	30	29JUL11	27AUG11	10AUG11	08SEP11	12d	11d
S1-8030B10	Portion J Kiosk for RTU & Connect To SCADA	30	20FEB11	21MAR11	10AUG11	08SEP11	171d	170d
S1-8040	Portion J Pipe Works CH339.0-386.4 (TL-D)	209	17MAR10	11OCT10	19MAR10	13OCT10	2d	0
S1-8040A10	Preparation & Submission of Risk Assessment	28	03MAR10	30MAR10	27AUG10	23SEP10	177d	0
S1-8040A20	Preparation & Submission of Method Statement	28	03MAR10	30MAR10	27AUG10	23SEP10	177d	0
S1-8040A30	Preparation & Submission of Temp. Works	28	03MAR10	30MAR10	27AUG10	23SEP10	177d	161d
S1-8040A40	Granting of Excavation Permit	0	01SEP10 *		02SEP10		1d	0
S1-8040B10	TTA, UD & Trial Pit Excavation	25	06SEP10	02OCT10	24SEP10	18OCT10	16d	0
S1-8040B20	Access Shaft Fabrication	65	23OCT10	26DEC10	08NOV10	11JAN11	16d	0
S1-8040B30	Heading Tunnel Excavation (Hand Shield)	70	27DEC10	09MAR11	12JAN11	22MAR11	16d	0
S1-8040B40	Pipe Installation Inside Heading Tunnel	40	07MAR11	15APR11	23MAR11	01MAY11	16d	0
S1-8040B50	Backfilling & Reinstatement	10	16APR11	25APR11	02MAY11	11MAY11	16d	0
S1-8050	Portion J Pipe Works CH386.4-396.4 (O)	40	26APR11	04JUN11	12MAY11	20JUN11	16d	0
S1-8060	Portion J Pipe Works DN1000 CH0.0-22.7 (O)	80	05JUN11	23AUG11	21JUN11	08SEP11	16d	15d
S1-8070	Area J Portional Pipe Testing	14	09SEP11	21SEP11	09SEP11	22SEP11	1d	1d
Portion K								
S1-9010	Within 365 Days Commencement of Portion K	365	07SEP09 A	06SEP10	07SEP09 A	01NOV10	54d	0
S1-9020	Portion K Initial Survey	15	09SEP10	23SEP10	02NOV10	16NOV10	54d	0



Start date	07SEP09
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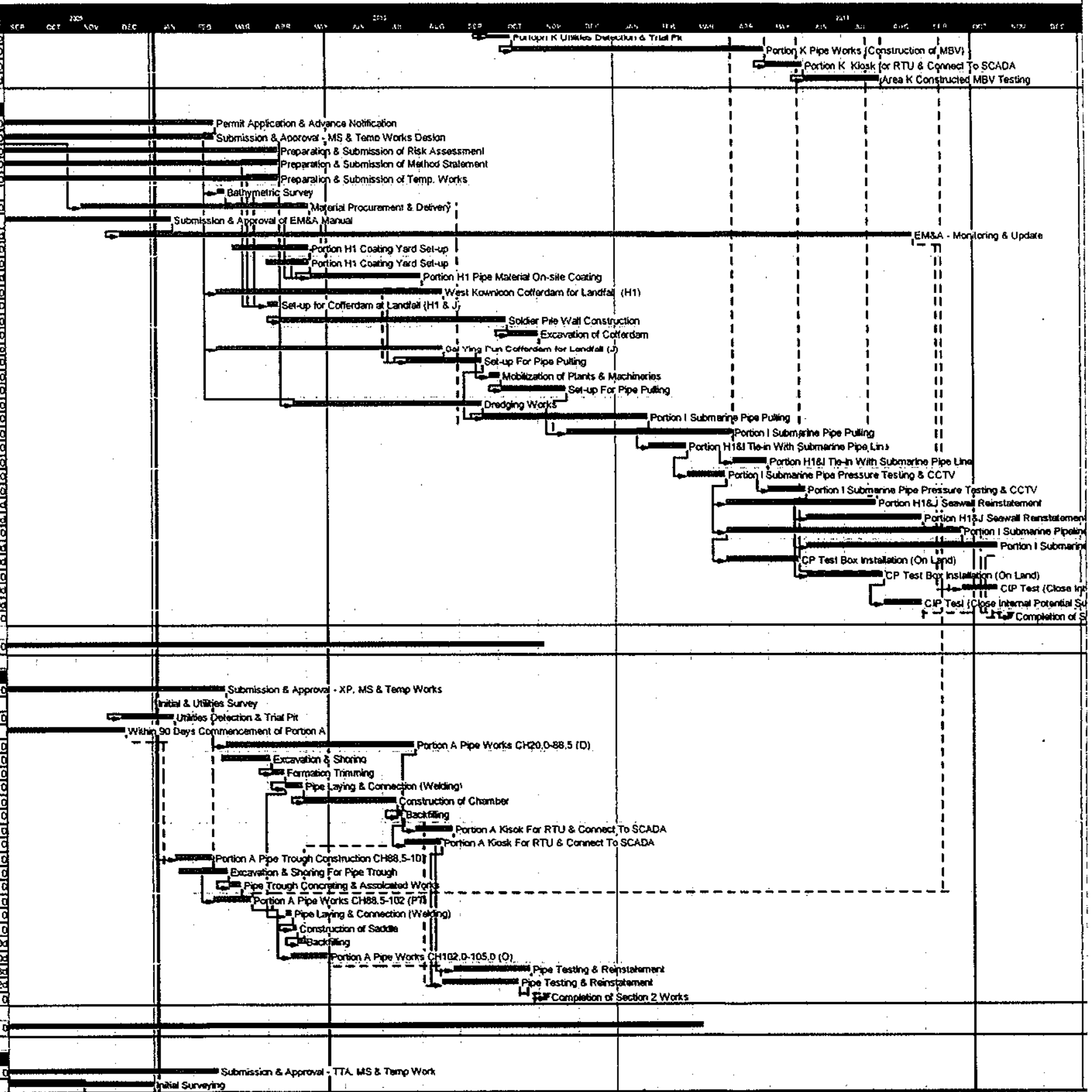
Wo Hing - Penta-Ocean Joint Venture

3 Months Rolling Program (September 2010)

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

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	Portion K Utilities Detection & Trial Pit	20	24SEP10	13OCT10	17NOV10	06DEC10	54d	0
S1-9040	Portion K Pipe Works (Construction of MBV)	200	14OCT10	01MAY11	07DEC10	24JUN11	54d	0
S1-9050	Portion K Kiosk for RTU & Connect To SCADA	30	02MAY11	31MAY11	25JUN11	24JUL11	54d	0
S1-9060	Area K Constructed MBV Testing	60	01JUN11	30JUL11	25JUL11	22SEP11	54d	54d
Marine Works (Portion I)								
M1000	Permit Application & Advance Notification	120	07SEP09 A	20FEB10	07SEP09 A	01MAR10	9d	0
M1010	Submission & Approval - MS & Temp Works	120	07SEP09 A	20FEB10	07SEP09 A	02APR10	41d	0
M1010A10	Preparation & Submission of Risk Assessment	217	07SEP09 A	11APR10	07SEP09 A	20APR10	9d	0
M1010A20	Preparation & Submission of Method Statement	217	07SEP09 A	11APR10	07SEP09 A	20APR10	9d	0
M1010A30	Preparation & Submission of Temp. Works	217	07SEP09 A	11APR10	07SEP09 A	20APR10	9d	0
M1020	Bathymetric Survey	130	22FEB10 A	27FEB10 A	22FEB10 A	27FEB10 A		
M1030	Material Procurement & Delivery	180	06NOV09 A	04MAY10	06NOV09 A	14JUN10	41d	0
M1040	Submission & Approval of EM&A Manual	90	07SEP09 A	17JAN10 A	07SEP09 A	17JAN10 A		
M1050	EM&A - Monitoring & Update	640	06DEC09 A	23AUG11	06DEC09 A	07OCT11	45d	36d
M1060	Portion H1 Coating Yard Set-up	60	06MAR10	04MAY10	15APR10	14JUN10	41d	0
M1060A10	Portion H1 Coating Yard Set-up	34	01APR10 *	04MAY10	12MAY10	14JUN10	41d	0
M1070	Portion H1 Pipe Material On-site Coating	90	05MAY10	02AUG10	15JUN10	12SEP10	41d	32d
M1080	West Kowloon Cofferdam for Landfall (H1)	180	21FEB10	19AUG10	02MAR10	28AUG10	9d	0
M1080A10	Set-up for Cofferdam at Landfall (H1 & J)	10	02APR10	11APR10	11APR10	20APR10	9d	0
M1080B10	Solder Pile Wall Construction	180	12APR10	08OCT10	21APR10	17OCT10	9d	0
M1080B20	Excavation of Cofferdam	25	09OCT10	02NOV10	18OCT10	11NOV10	9d	0
M1090	Sai Ying Pun Cofferdam for Landfall (J)	180	21FEB10	19AUG10	02MAR10	28AUG10	9d	0
M2080	Set-up For Pipe Pulling	60	21JUL10	18SEP10	30JUL10	27SEP10	9d	0
M2060A10	Mobilization of Plants & Machineries	10	24SEP10	03OCT10	03OCT10	12OCT10	9d	0
M2060A20	Set-up For Pipe Pulling	50	04OCT10	22NOV10	13OCT10	01DEC10	9d	0
M2070	Dredging Works	150	22APR10	18SEP10	01MAY10	27SEP10	9d	0
M2080	Portion I Submarine Pipe Pulling	130	19SEP10	26JAN11	28SEP10	04FEB11	9d	0
M2080B10	Portion I Submarine Pipe Pulling	130	23NOV10	01APR11	02DEC10	10APR11	9d	0
M2090	Portion H1&I Tie-in With Submarine Pipe Line	30	27JAN11	25FEB11	05FEB11	06MAR11	9d	0
M2090A10	Portion H1&I Tie-in With Submarine Pipe Line	30	02APR11	01MAY11	11APR11	10MAY11	9d	0
M2100	Portion I Submarine Pipe Pressure Testing &	30	26FEB11	27MAR11	07MAR11	05APR11	9d	0
M2100A10	Portion I Submarine Pipe Pressure Testing &	30	02MAY11	31MAY11	11MAY11	09JUN11	9d	0
M2110	Portion H1&J Seawall Reinstatement	120	28MAR11	25JUL11	20APR11	17AUG11	23d	3d
M2110A10	Portion H1&J Seawall Reinstatement	90	01JUN11	29AUG11	09AUG11	06NOV11	69d	69d
M2120	Portion I Submarine Pipeline Backfilling	185	28MAR11	28SEP11	08APR11	07OCT11	9d	0
M2120A10	Portion I Submarine Pipeline Backfilling	150	01JUN11	28OCT11	10JUN11	06NOV11	9d	9d
M2130	CP Test Box Installation (On Land)	60	28MAR11	26MAY11	25JUL11	22SEP11	119d	119d
M2130A10	CP Test Box Installation (On Land)	60	01JUN11	30JUL11	09AUG11	07OCT11	69d	0
M2140	CIP Test (Close Internal Potential Survey)	30	29SEP11	28OCT11	08OCT11	06NOV11	9d	9d
M2140A10	CIP Test (Close Internal Potential Survey)	30	31JUL11	29AUG11	08OCT11	06NOV11	69d	69d
M2150	Completion of Section 1 Works	0		06NOV11 *		06NOV11 *	0	0
Section 2								
		426	07SEP09 A	06NOV10	07SEP09 A	06NOV10	0	0
Land Works								
S2-1010	Submission & Approval - XP, MS & Temp Works	180	07SEP09 A	26FEB10	07SEP09 A	05MAR10	7d	0
S2-1020	Initial & Utilities Survey	90	02JAN10 A	02JAN10 A	02JAN10 A	02JAN10 A		
S2-1030	Utilities Detection & Trial Pit	30	06DEC09 A	17JAN10	06DEC09 A	03FEB10	17d	0
S2-1040	Within 90 Days Commencement of Portion A	90	07SEP09 A	09DEC09 A	07SEP09 A	09DEC09 A		
S2-2010	Portion A Pipe Works CH20.0-88.5 (O)	150	27FEB10	26JUL10	06MAR10	02AUG10	7d	0
S2-2010B10	Excavation & Shoring	40	23FEB10 *	03APR10	17MAR10	25APR10	22d	0
S2-2010B20	Formation Trimming	10	04APR10	13APR10	26APR10	05MAY10	22d	0
S2-2010B30	Pipe Laying & Connection (Welding)	15	14APR10	28APR10	06MAY10	20MAY10	22d	0
S2-2010B40	Construction of Chamber	75	29APR10	12JUL10	21MAY10	03AUG10	22d	0
S2-2010B50	Backfilling	5	13JUL10	17JUL10	04AUG10	08AUG10	22d	0
S2-2020	Portion A Kisok For RTU & Connect To SCADA	30	27JUL10	25AUG10	09AUG10	07SEP10	13d	0
S2-2020A10	Portion A Kiosk For RTU & Connect To SCADA	30	18JUL10	16AUG10	09AUG10	07SEP10	22d	0
S2-2030	Portion A Pipe Trough Construction CH88.5-102	30	18JAN10	16FEB10	04FEB10	05MAR10	17d	0
S2-2030B10	Excavation & Shoring For Pipe Trough	40	20JAN10 *	28FEB10	05JUN10	14JUL10	136d	0
S2-2030B20	Pipe Trough Concreting & Associated Works	10	01MAR10	10MAR10	15JUL10	24JUL10	136d	0
S2-2040	Portion A Pipe Works CH88.5-102 (PT)	30	17FEB10	18MAR10	10JUN10	09JUL10	113d	0
S2-2040B10	Pipe Laying & Connection (Welding)	5	14APR10	18APR10	25JUL10	29JUL10	102d	0
S2-2040B20	Construction of Saddle	5	19APR10	23APR10	30JUL10	03AUG10	102d	0
S2-2040B30	Backfilling	5	24APR10	28APR10	04AUG10	08AUG10	102d	80d
S2-2050	Portion A Pipe Works CH102.0-105.0 (O)	30	18APR10	17MAY10	09AUG10	07SEP10	113d	100d
S2-2060	Pipe Testing & Reinstatement	60	26AUG10	24OCT10	08SEP10	06NOV10	13d	13d
S2-2060A10	Pipe Testing & Reinstatement	60	17AUG10	15OCT10	08SEP10	06NOV10	22d	22d
S2-3010	Completion of Section 2 Works	0		06NOV10 *		06NOV10 *	0	0
Section 4								
		549	07SEP09 A	09MAR11	07SEP09 A	09MAR11	0	0
Land Works								
S4-1010	Submission & Approval - TTA, MS & Temp Work	120	07SEP09 A	20FEB10	07SEP09 A	17AUG10	178d	0
S4-1020	Initial Surveying	90	07SEP09 A	31DEC09 A	07SEP09 A	31DEC09 A		



Start date	07SEP09
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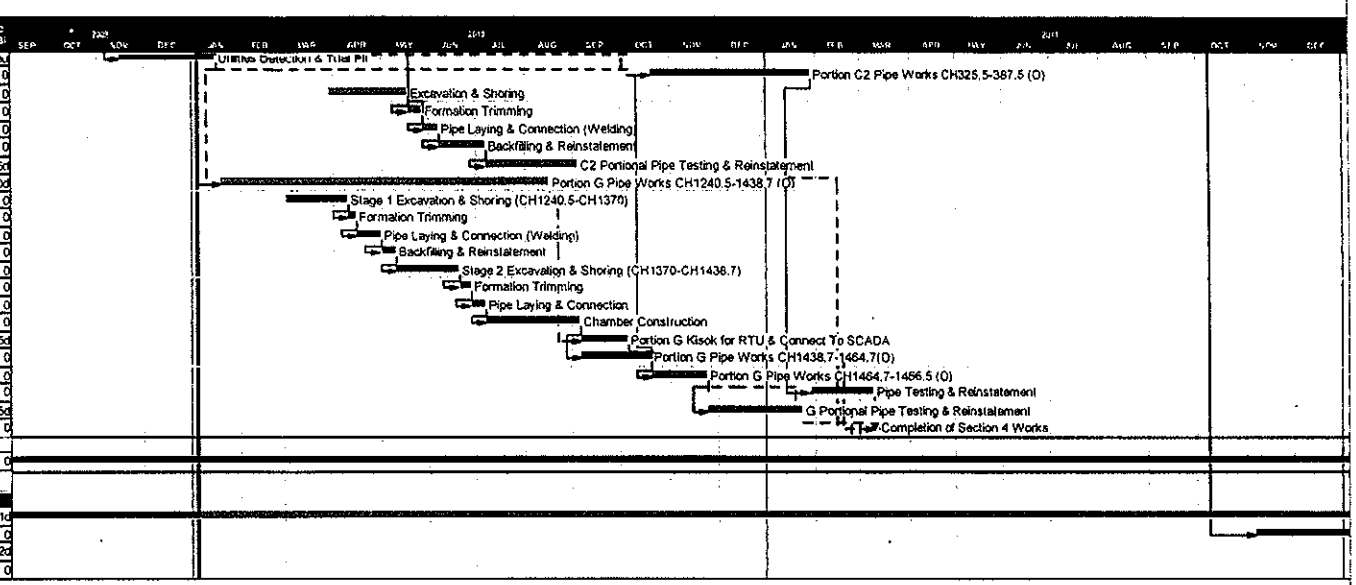
Wo Hing - Penta-Ocean Joint Venture

3 Months Rolling Program (September 2010)

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

Contract No. 6/WSD/08
Laying of Western Cross Harbour 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
S4-1030	Utilities Detection & Trial Pit	20	10NOV09 A	13JAN10	10NOV09 A	12JUL10	176d	3d
S4-2010	Portion C2 Pipe Works CH325.5-387.5 (O)	100	21OCT10	28JAN11	21OCT10	28JAN11	0	0
S4-2010B10	Excavation & Shoring	50	29MAR10 *	17MAY10	29AUG10	17OCT10	153d	0
S4-2010B20	Formation Trimming	10	18MAY10	27MAY10	18OCT10	27OCT10	153d	0
S4-2010B30	Pipe Laying & Connection (Welding)	10	28MAY10	06JUN10	30NOV10	09DEC10	186d	0
S4-2010B40	Backfilling & Reinstatement	30	07JUN10	06JUL10	10DEC10	08JAN11	186d	0
S4-2010B50	C2 Portional Pipe Testing & Reinstatement	60	07JUL10	04SEP10	09JAN11	09MAR11	186d	186d
S4-2020	Portion G Pipe Works CH1240.5-1438.7 (O)	210	19JAN10	16AUG10	13JUL10	07FEB11	175d	20d
S4-2020B10	Stage 1 Excavation & Shoring	40	02MAR10 *	10APR10	02MAR10	10APR10	0	0
S4-2020B20	Formation Trimming	5	11APR10	15APR10	11APR10	15APR10	0	0
S4-2020B30	Pipe Laying & Connection (Welding)	15	16APR10	30APR10	16APR10	30APR10	0	0
S4-2020B40	Backfilling & Reinstatement	10	01MAY10	10MAY10	01MAY10	10MAY10	0	0
S4-2020B50	Stage 2 Excavation & Shoring	40	11MAY10	18JUN10	11MAY10	18JUN10	0	0
S4-2020B60	Formation Trimming	8	20JUN10	27JUN10	20JUN10	27JUN10	0	0
S4-2020B70	Pipe Laying & Connection	10	28JUN10	07JUL10	28JUN10	07JUL10	0	0
S4-2020B80	Chamber Construction	60	08JUL10	05SEP10	08JUL10	05SEP10	0	0
S4-2030	Portion G Kiosk for RTU & Connect To SCADA	30	06SEP10	05OCT10	08FEB11	09MAR11	155d	155d
S4-2040	Portion G Pipe Works CH1438.7-1464.7(O)	45	06SEP10	20OCT10	06SEP10	20OCT10	0	0
S4-2050	Portion G Pipe Works CH1464.7-1466.5 (O)	35	21OCT10	24NOV10	05DEC10	08JAN11	45d	0
S4-3010	Pipe Testing & Reinstatement	40	29JAN11	09MAR11	29JAN11	09MAR11	0	0
S4-3010A10	G Portional Pipe Testing & Reinstatement	60	25NOV10	23JAN11	09JAN11	09MAR11	45d	45d
S4-3020	Completion of Section 4 Works	0		09MAR11 *		09MAR11 *	0	0
Section 5		1156	07SEP09 A	05NOV12	07SEP09 A	05NOV12	0	0
Landscape Softworks and Establishment Works								
B9-9010	Landscape works	845	07SEP09 A	28APR12	07SEP09 A	05NOV12	191d	191d
B9-9020	Reinstatement of Portion H1 & H2	203	07NOV11	27MAY12	17APR12	05NOV12	162d	0
B9-9030	Promenade of Portion H1 & H2 Handover to	0		27MAY12		05NOV12	162d	162d
B9-9300	Completion of Section 5 Works	0		05NOV12 *		05NOV12 *	0	0



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Wo Hing - Penta-Ocean Joint Venture

3 Months Rolling Program (September 2010)

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

Appendix F

ET Weekly Site Inspection Records

WEEKLY SITE INSPECTION CHECKLIST

Inspection Date	6/9/2010	Inspected by	RE	IEC	Contractor	ET
Time	13:30	Name	Peter Ying	/	JNG	Linda Law

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

Temperature : 32°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 enclosed the grab while dredging works are in progress.	√				
▪ Deployment of silt screen should be at the sea water intake at Kowloon South Salt Water Pumping Station while dredging works are in progress	√				
▪ Tight-closing grabs should be used to minimize the loss of sediment to suspension during dredging works. For dredging of any contaminated mud, closed watertight grabs must be used.	√				
▪ All vessels should be sized so that adequate clearance is maintained between vessels and the seabed in all tide conditions, to ensure that undue turbidity is not generated by turbulence from vessel movement or propeller wash	√				
▪ The decks of all vessels should be kept tidy and free of oil or other substances that might be accidentally or otherwise washed overboard	√				
▪ Adequate free board shall be maintained on barges to ensure that decks are not washed by wave action.	√				
▪ All barges used for the transport of dredged materials should be fitted with tight bottom seals to prevent leakage of material during loading and transport	√				
▪ Construction activities should not cause foam, oil, grease, scum, litter or other objectionable matter to be present in the water within the site or dumping grounds	√				
▪ Loading of barges should be controlled to prevent splashing of material into the surrounding waters. Barges should not be filled to a level that would cause the overflow of materials or sediment laden water during loading or transportation	√				
▪ The speed of vessels should be controlled within the works area to prevent propeller wash from stirring up the seabed sediments	√				

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.	√				
▪ 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.	√				

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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
---	---	---	---	---	---

Remark

	Name	Signature	Date
Inspected by	Linda Law	Linda Law	06 September 2010

WEEKLY SITE INSPECTION CHECKLIST

Inspection Date	14/09/10	Inspected by	RE	IEC	Contractor	ET
Time	09:40	Name	Peter Yung	/	JNG ES WHPOC	

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

Temperature : 29 °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 enclosed the grab while dredging works are in progress.			√		Maintenance (No dredging works noted)
▪ 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.			√		Maintenance (No dredging works noted)
▪ 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.	√				
▪ 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.	√				

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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
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Remark

No environmental deficiency was observed.

	Name	Signature	Date
Inspected by	Linda Law	Linda Law	14 September 2010

WEEKLY SITE INSPECTION CHECKLIST

Inspection Date	21/09/2010	Inspected by	RE	IEC	Contractor	ET
Time	13:30	Name	21/9/10	Justin Ye	JNG	Linda Law

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

Temperature : 26°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 enclosed the grab while dredging works are in progress.			√		Maintenance (No dredging works noted)
▪ 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.			√		Maintenance (No dredging works noted)
▪ 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.	√				
▪ 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.	√				

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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
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Remark

No environmental deficiency was observed.

	Name	Signature	Date
Inspected by	Linda Law	Linda Law	21 September 2010

WEEKLY SITE INSPECTION CHECKLIST

Inspection Date	28/09/10	Inspected by	RE	IEC	Contractor	ET
Time	10:00	Name	Peter Yung		JNG	Linda Law

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

Temperature :
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.	√				
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▪ 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 enclosed the grab while dredging works are in progress.	√				(No dredging works noted)
▪ 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.	√				(No dredging works noted)
▪ 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.	√				
▪ 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.	√				

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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
---	---	---	---	---	---

Remark

No environmental deficiency was observed.

	Name	Signature	Date
Inspected by	Linda Law	Linda Law	28 September 2010

Appendix G

Implementation Schedule of Mitigation Measures

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

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	√			

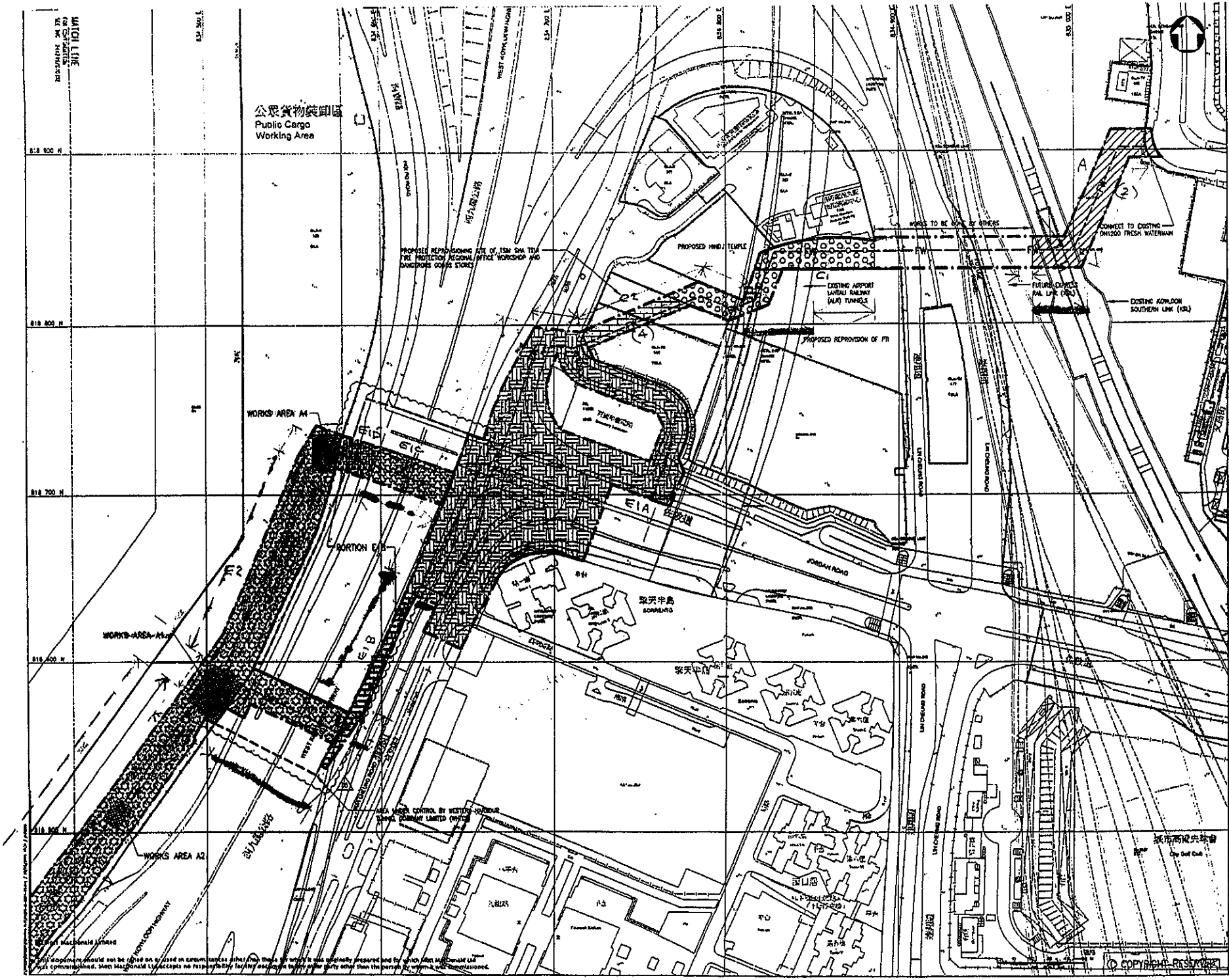
Contract No. 9/WSD/08
Laying of Western Cross Harbour Main and Associated Land Mains
From West Kowloon to Sai Ying Pun

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
- CIA / STT
- PORTION A (SECTION 2)
- PORTION C1
- PORTION C2 (SECTION 4)
- PORTION E1A
- PORTION E1B
- PORTION E1C
- PORTION E1D
- PORTION G (SECTION 4)
- WORKS AREA WITHIN NEW YAU MA TEI PUBLIC CARGO WORKING AREA FORMING PART OF PORTION E2 OF THE SITE TO BE FENCED OFF BY CONCRETE BARRIERS AS PART OF TEMPORARY TRAFFIC ARRANGEMENT BY THE CONTRACTOR, DETAIL REFER TO HyD STANDARD DRAWING NO. H2104)

Section 1
Section 2
Section 4

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

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Client

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

Contract No. 9/WSD/08

Project

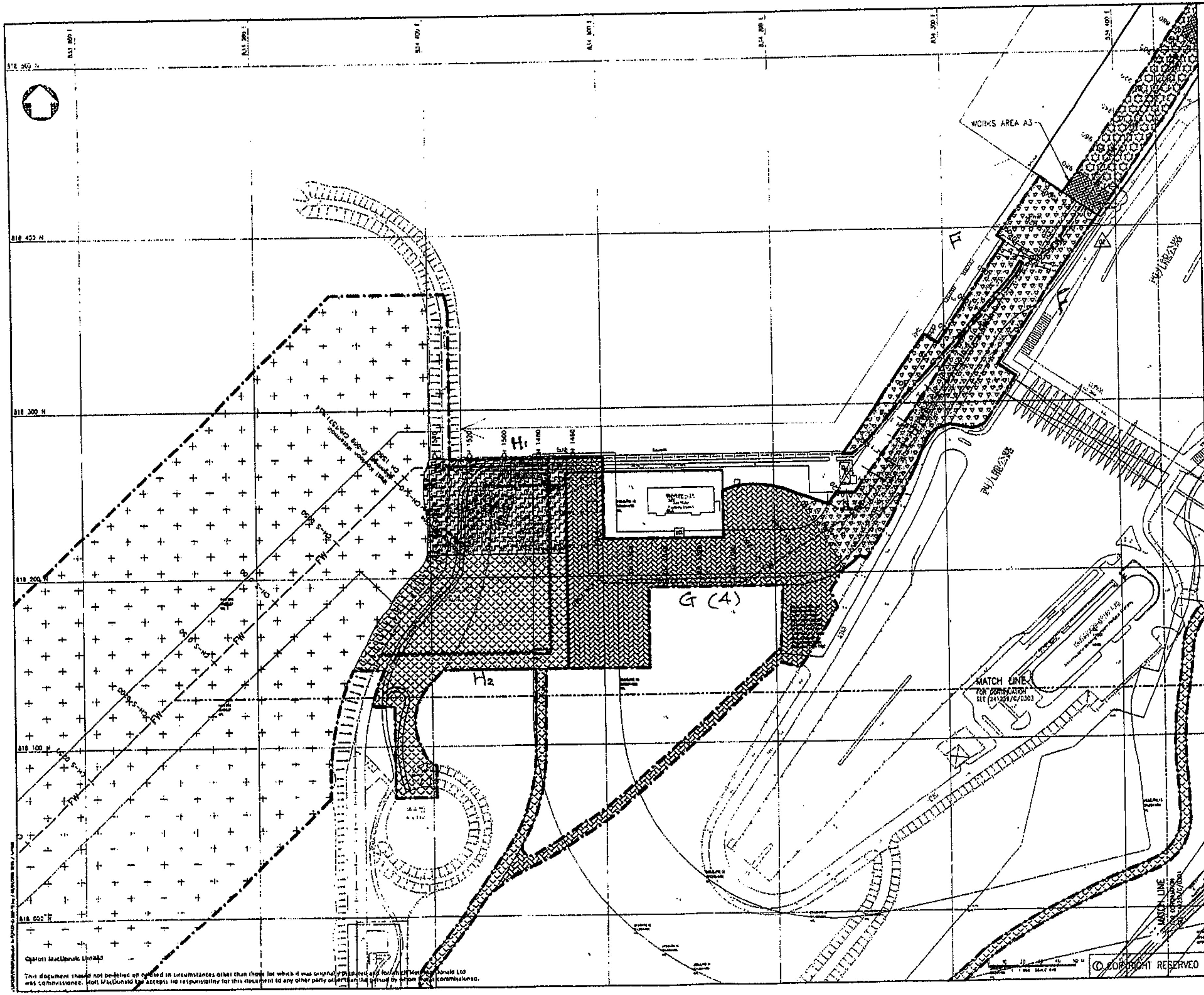
LAYING OF WESTERN CROSS HARBOUR MAIN AND ASSOCIATED LAND MAINS FROM WEST KOWLOON TO SAI YING PUN

Title

POSSESSION OF SITE
(SHEET 1 OF 5)

Designed	KSC		Eng Chk	KL	
Drawn	PL		Dept Manager	SHC	
Eng Chk	KL		Approved	SHC	
Scale	1:1000 @A1	Project	241239	Status	TEN
		CAD File			

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

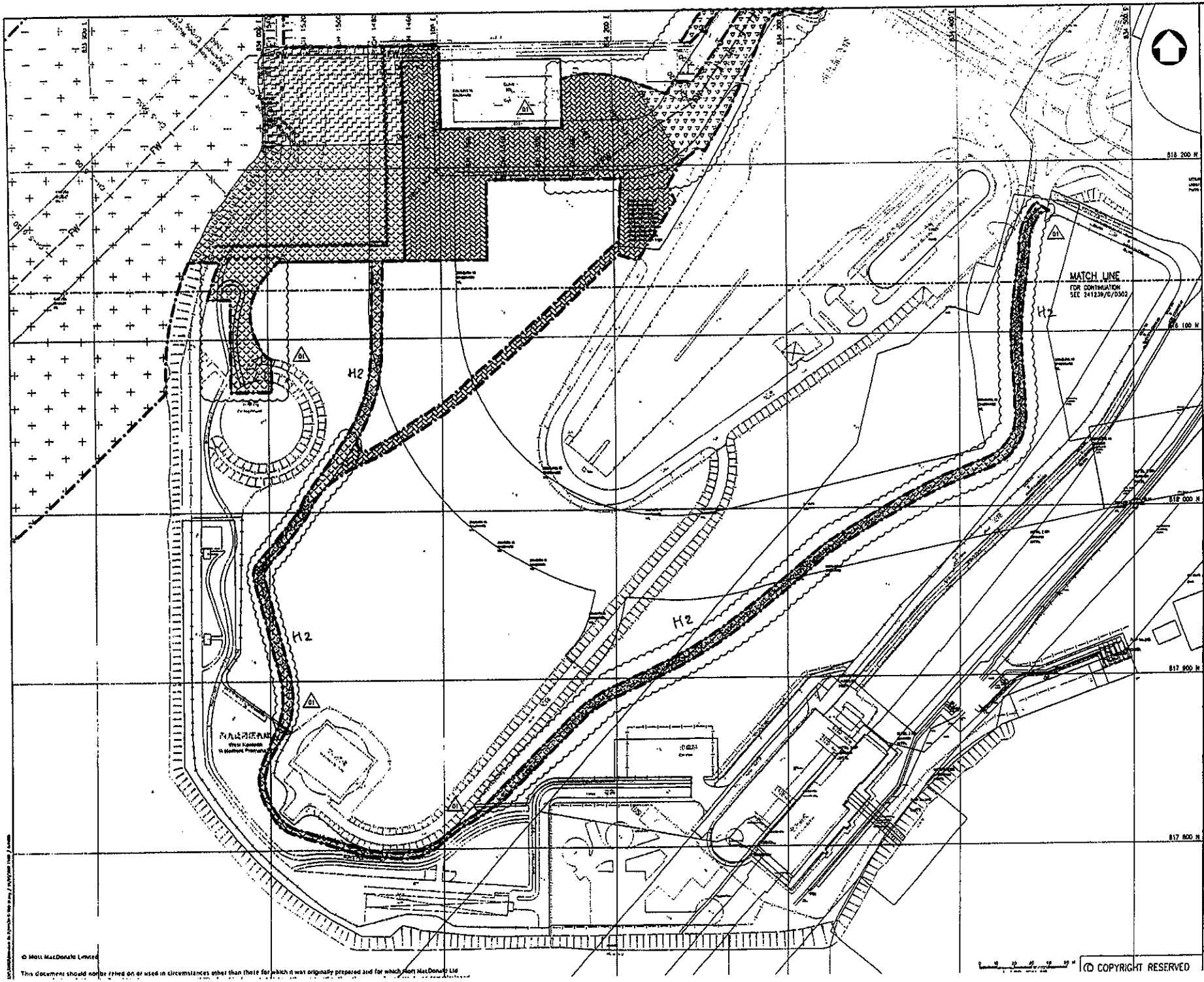
THE GOVERNMENT OF THE HONG KONG SPECIAL ADMINISTRATIVE REGION WATER SUPPLIES DEPARTMENT

Contract No. 9/WSD/08

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

POSSESSION OF SITE (SHEET 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/C/0301 TO 0302 AND 0304 TO 0305.
2. THE LEGEND SHALL REFER TO DRAWING NO. 241239/C/0301.

01	MAR 09		TENDER ADDENDUM NO. 3		
0	DEC 08	PL	ISSUE FOR TENDER	XL	SHC
Rev	Date	Drwn.	Description	Ch'k'd	App'd

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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 3 OF 5)

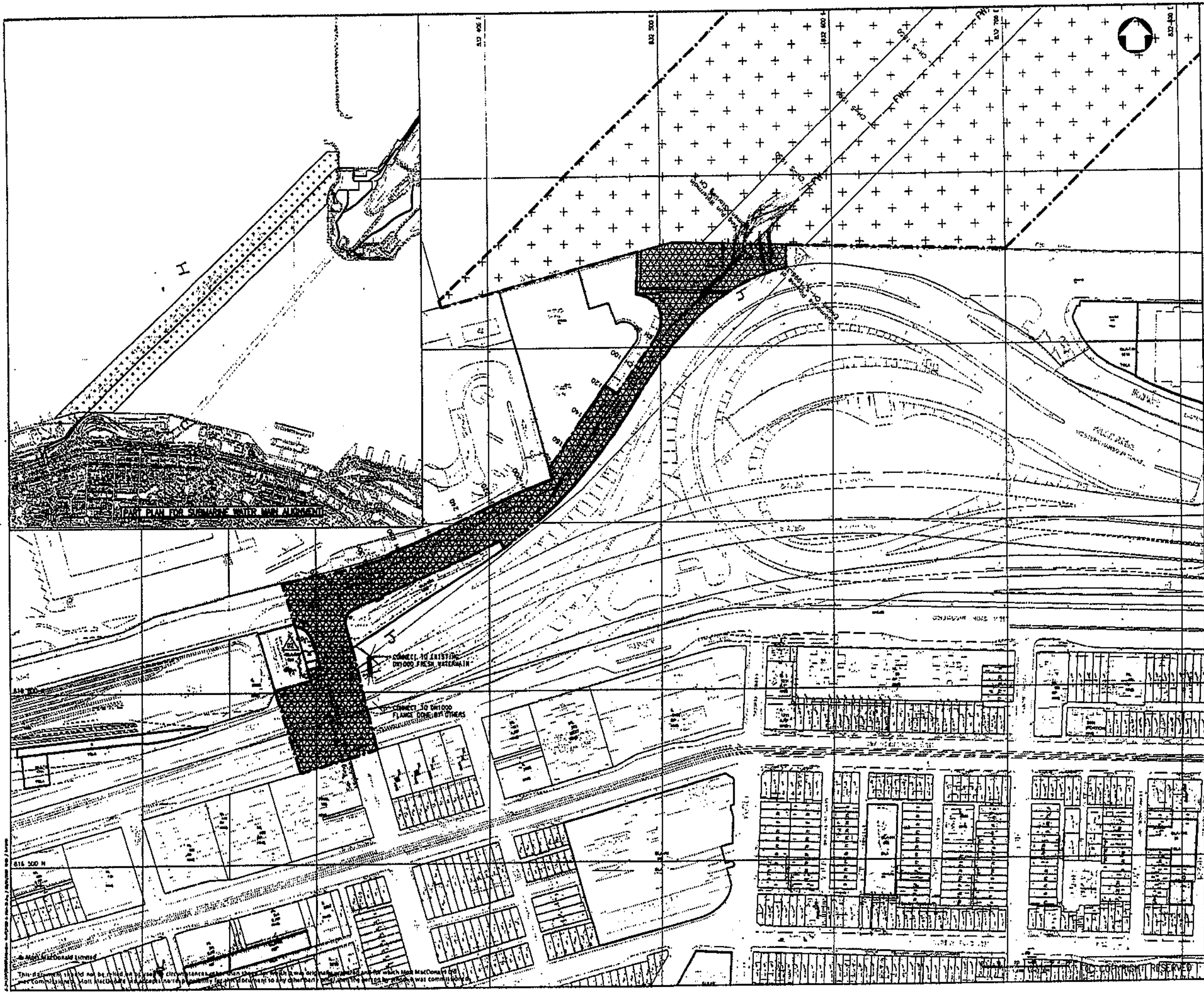
Designed	KSC		Dwg Chk.	XL	
Drawn	PL		Coordinated	SHC	
Dwg Chk.	XL		Approved	SHC	

Scale 1:1000 @A1 | Project 241239 | Sub No. | Status TEN

Drawing No. 241239/C/0303 | Rev 01

NOTES :

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

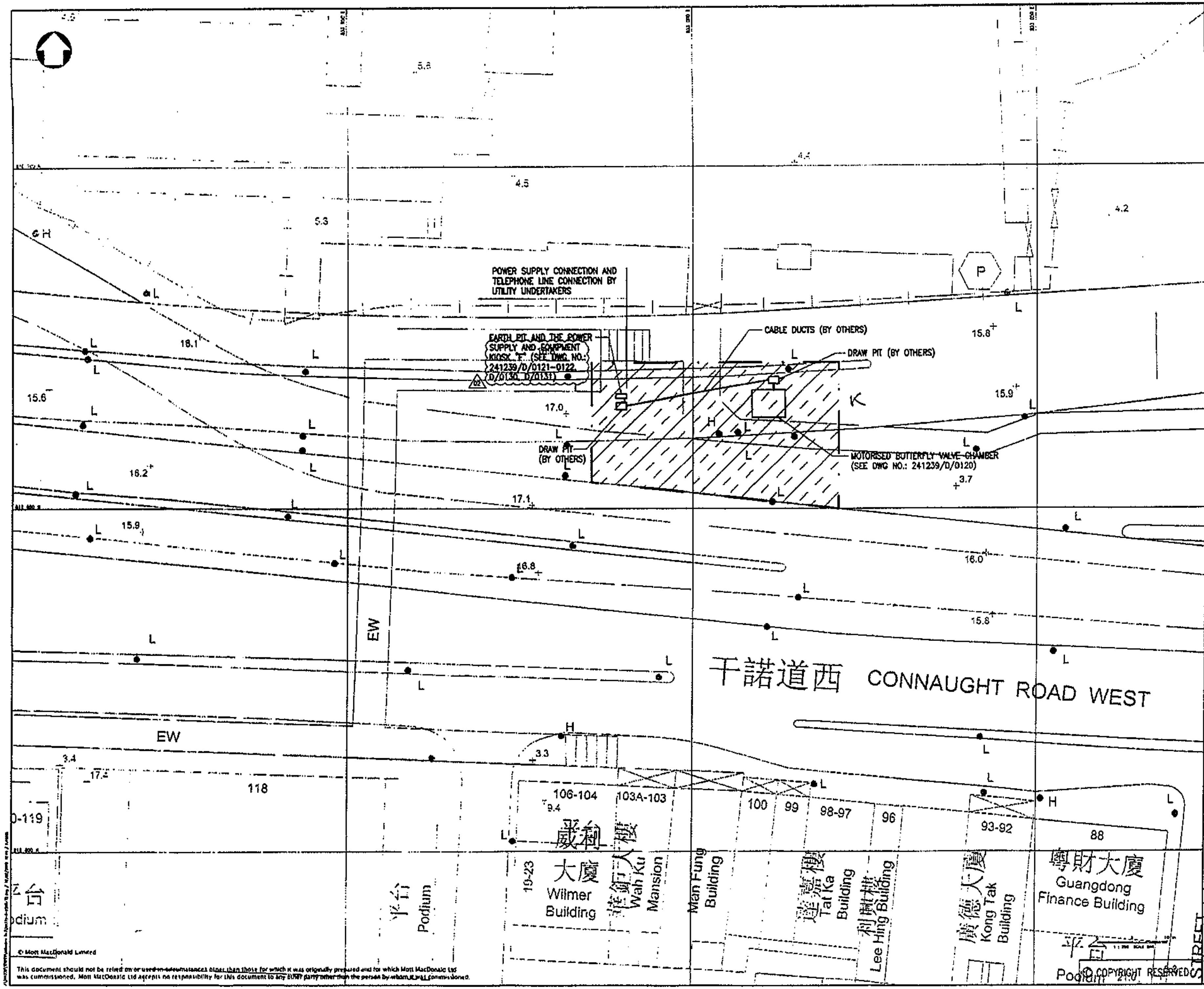
Contract No. 9/WSD/08

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/C/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

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 5 OF 5)

Designed	KSC	Eng Chk'd	KL
Drawn	PL	Coordination	SHC
Dwg Chk'd	KL	Approved	SHC

Scale 1:250 @A1 | Project 241239 | Status TEN

Drawing No. 241239/G/0305 | Rev 02

Appendix I

Monitoring Schedule for this Month and 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)

September 2010

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

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)
October 2010

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

Appendix J

Daily Dredging Summary

Wo Hing - Penta-Ocean Joint Venture

Contract no. 9/WSD/08

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

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

Date	Dumping qty (m^3)	Barge Load per day	Accumulated Dumping Qty.	Permit No.
			(bulk volume)	
30-Apr-2010	0	0	0	EP/MD/10-085
01-May-2010	0	0	0	EP/MD/10-085
02-May-2010	0	0	0	EP/MD/10-085
03-May-2010	0	0	0	EP/MD/10-085
04-May-2010	0	0	0	EP/MD/10-085
05-May-2010	0	0	0	EP/MD/10-085
06-May-2010	0	0	0	EP/MD/10-085
07-May-2010	0	0	0	EP/MD/10-085
08-May-2010	0	0	0	EP/MD/10-085
09-May-2010	0	0	0	EP/MD/10-085
10-May-2010	0	0	0	EP/MD/10-085
11-May-2010	0	0	0	EP/MD/10-085
12-May-2010	0	0	0	EP/MD/10-085
13-May-2010	0	0	0	EP/MD/10-085
14-May-2010	0	0	0	EP/MD/10-085
15-May-2010	0	0	0	EP/MD/10-085
16-May-2010	0	0	0	EP/MD/10-085
17-May-2010	0	0	0	EP/MD/10-085
18-May-2010	0	0	0	EP/MD/10-085
19-May-2010	0	0	0	EP/MD/10-085
20-May-2010	0	0	0	EP/MD/10-085
21-May-2010	0	0	0	EP/MD/10-085
22-May-2010	0	0	0	EP/MD/10-085
23-May-2010	0	0	0	EP/MD/10-085
24-May-2010	0	0	0	EP/MD/10-085
25-May-2010	0	0	0	EP/MD/10-085
26-May-2010	0	0	0	EP/MD/10-085
27-May-2010	0	0	0	EP/MD/10-085
28-May-2010	0	0	0	EP/MD/10-085
29-May-2010	0	0	0	EP/MD/10-085
30-May-2010	0	0	0	EP/MD/10-085
31-May-2010	0	0	0	EP/MD/10-085
01-Jun-2010	0	0	0	EP/MD/10-085
02-Jun-2010	0	0	0	EP/MD/10-085
03-Jun-2010	0	0	0	EP/MD/10-085
04-Jun-2010	0	0	0	EP/MD/10-085
05-Jun-2010	0	0	0	EP/MD/10-085
06-Jun-2010	0	0	0	EP/MD/10-085
07-Jun-2010	0	0	0	EP/MD/10-085
08-Jun-2010	0	0	0	EP/MD/10-085
09-Jun-2010	0	0	0	EP/MD/10-085
10-Jun-2010	0	0	0	EP/MD/10-085
11-Jun-2010	0	0	0	EP/MD/10-085
12-Jun-2010	0	0	0	EP/MD/10-085
13-Jun-2010	0	0	0	EP/MD/10-085
14-Jun-2010	1,400	2	1,400	EP/MD/10-085
15-Jun-2010	1,400	2	2,800	EP/MD/10-085
16-Jun-2010	2,100	3	4,900	EP/MD/10-085
17-Jun-2010	2,800	4	7,700	EP/MD/10-085
18-Jun-2010	2,100	3	9,800	EP/MD/10-085
19-Jun-2010	2,700	4	12,500	EP/MD/10-085
20-Jun-2010	2,800	4	15,300	EP/MD/10-085
21-Jun-2010	2,100	3	17,400	EP/MD/10-085
22-Jun-2010	2,800	4	20,200	EP/MD/10-085
23-Jun-2010	2,100	3	22,300	EP/MD/10-085
24-Jun-2010	2,100	3	24,400	EP/MD/10-085
25-Jun-2010	2,100	3	26,500	EP/MD/10-085

Wo Hing - Penta-Ocean Joint Venture

Contract no. 9/WSD/08

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

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

Date	Dumping qty (m^3)	Barge Load per day	Accumulated Dumping Qty. (bulk volume)	Permit No.
26-Jun-2010	2,100	3	28,600	EP/MD/10-085
27-Jun-2010	700	1	29,300	EP/MD/10-085
28-Jun-2010	2,100	3	31,400	EP/MD/10-085
29-Jun-2010	1,400	2	32,800	EP/MD/10-085
30-Jun-2010	0	0	32,800	EP/MD/10-085
01-Jul-2010	0	0	32,800	EP/MD/10-085
02-Jul-2010	0	0	32,800	EP/MD/10-085
03-Jul-2010	0	0	32,800	EP/MD/10-085
04-Jul-2010	0	0	32,800	EP/MD/10-085
05-Jul-2010	0	0	32,800	EP/MD/10-085
06-Jul-2010	0	0	32,800	EP/MD/10-085
07-Jul-2010	0	0	32,800	EP/MD/10-085
08-Jul-2010	0	0	32,800	EP/MD/10-085
09-Jul-2010	0	0	32,800	EP/MD/10-085
10-Jul-2010	0	0	32,800	EP/MD/10-085
11-Jul-2010	0	0	32,800	EP/MD/10-085
12-Jul-2010	0	0	32,800	EP/MD/10-085
13-Jul-2010	0	0	32,800	EP/MD/10-085
14-Jul-2010	0	0	32,800	EP/MD/10-085
15-Jul-2010	0	0	32,800	EP/MD/10-085
16-Jul-2010	0	0	32,800	EP/MD/10-085
17-Jul-2010	0	0	32,800	EP/MD/10-085
18-Jul-2010	0	0	32,800	EP/MD/10-085
19-Jul-2010	0	0	32,800	EP/MD/10-085
20-Jul-2010	0	0	32,800	EP/MD/10-085
21-Jul-2010	0	0	32,800	EP/MD/10-085
22-Jul-2010	0	0	32,800	EP/MD/10-085
23-Jul-2010	0	0	32,800	EP/MD/10-085
24-Jul-2010	0	0	32,800	EP/MD/10-085
25-Jul-2010	0	0	32,800	EP/MD/10-085
26-Jul-2010	0	0	32,800	EP/MD/11-039
27-Jul-2010	0	0	32,800	EP/MD/11-039
28-Jul-2010	0	0	32,800	EP/MD/11-039
29-Jul-2010	0	0	32,800	EP/MD/11-039
30-Jul-2010	700	1	33,500	EP/MD/11-039
31-Jul-2010	1,400	2	34,900	EP/MD/11-039
01-Aug-2010	2,100	3	37,000	EP/MD/11-039
02-Aug-2010	1,400	2	38,400	EP/MD/11-039
03-Aug-2010	700	1	39,100	EP/MD/11-039
04-Aug-2010	700	1	39,800	EP/MD/11-039
05-Aug-2010	700	1	40,500	EP/MD/11-039
06-Aug-2010	0	0	40,500	EP/MD/11-039
07-Aug-2010	0	0	40,500	EP/MD/11-039
08-Aug-2010	0	0	40,500	EP/MD/11-039
09-Aug-2010	0	0	40,500	EP/MD/11-039
10-Aug-2010	0	0	40,500	EP/MD/11-039
11-Aug-2010	0	0	40,500	EP/MD/11-039
12-Aug-2010	1,400	2	41,900	EP/MD/11-039
13-Aug-2010	1,400	2	43,300	EP/MD/11-039
14-Aug-2010	2,100	3	45,400	EP/MD/11-039
15-Aug-2010	2,100	3	47,500	EP/MD/11-039
16-Aug-2010	2,100	3	49,600	EP/MD/11-039
17-Aug-2010	700	1	50,300	EP/MD/11-039
18-Aug-2010	1,400	2	51,700	EP/MD/11-039
19-Aug-2010	1,400	2	53,100	EP/MD/11-039
20-Aug-2010	2,100	3	55,200	EP/MD/11-039
21-Aug-2010	1,400	2	56,600	EP/MD/11-039

Wo Hing - Penta-Ocean Joint Venture

Contract no. 9/WSD/08

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

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

Date	Dumping qty (m^3)	Barge Load per day	Accumulated Dumping Qty.	Permit No.
			(bulk volume)	
22-Aug-2010	700	1	57,300	EP/MD/11-039
23-Aug-2010	0	0	57,300	EP/MD/11-039
24-Aug-2010	1,400	2	58,700	EP/MD/11-039
25-Aug-2010	1,400	2	60,100	EP/MD/11-039
26-Aug-2010	2,100	3	62,200	EP/MD/11-039
27-Aug-2010	2,100	3	64,300	EP/MD/11-039
28-Aug-2010	0	0	64,300	EP/MD/11-039
29-Aug-2010	1,400	2	65,700	EP/MD/11-039
30-Aug-2010	1,400	2	67,100	EP/MD/11-039
31-Aug-2010	2,100	3	69,200	EP/MD/11-039
01-Sep-2010	1,400	2	70,600	EP/MD/11-039
02-Sep-2010	2,100	3	72,700	EP/MD/11-039
03-Sep-2010	2,100	3	74,800	EP/MD/11-039
04-Sep-2010	2,800	4	77,600	EP/MD/11-039
05-Sep-2010	2,100	3	79,700	EP/MD/11-039
06-Sep-2010	1,400	2	81,100	EP/MD/11-039
07-Sep-2010	0	0	81,100	EP/MD/11-039
08-Sep-2010	700	1	81,800	EP/MD/11-039
09-Sep-2010	1,400	2	83,200	EP/MD/11-039
10-Sep-2010	0	0	83,200	EP/MD/11-039
11-Sep-2010	0	0	83,200	EP/MD/11-039
12-Sep-2010	0	0	83,200	EP/MD/11-039
13-Sep-2010	0	0	83,200	EP/MD/11-039
14-Sep-2010	0	0	83,200	EP/MD/11-039
15-Sep-2010	0	0	83,200	EP/MD/11-039
16-Sep-2010	0	0	83,200	EP/MD/11-039
17-Sep-2010	0	0	83,200	EP/MD/11-039
18-Sep-2010	0	0	83,200	EP/MD/11-039
19-Sep-2010	0	0	83,200	EP/MD/11-039
20-Sep-2010	0	0	83,200	EP/MD/11-039
21-Sep-2010	0	0	83,200	EP/MD/11-039
22-Sep-2010	700	1	83,900	EP/MD/11-039
23-Sep-2010	0	0	83,900	EP/MD/11-039
24-Sep-2010	0	0	83,900	EP/MD/11-039
25-Sep-2010	0	0	83,900	EP/MD/11-039
26-Sep-2010	0	0	83,900	EP/MD/11-039
27-Sep-2010	0	0	83,900	EP/MD/11-039
28-Sep-2010	0	0	83,900	EP/MD/11-039
29-Sep-2010	500	1	84,400	EP/MD/11-039
30-Sep-2010	0	0	84,400	EP/MD/11-039
	84,400	119		

Wo Hing - Penta-Ocean Joint Venture

Contract no. 9/WSD/08

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

Summary of Dumping Qty. of Type 2 Marine Sediment

Date	Dumping qty (m^3)	Barge Load per day	Accumulated Dumping Qty.	Permit No.
			(bulk volume)	
05-May-2010	440	1	440	EP/MD/10-086
06-May-2010	1,280	3	1,720	EP/MD/10-086
07-May-2010	0	0	1,720	EP/MD/10-086
08-May-2010	0	0	1,720	EP/MD/10-086
09-May-2010	1,400	2	3,120	EP/MD/10-086
10-May-2010	1,400	2	4,520	EP/MD/10-086
11-May-2010	1,300	2	5,820	EP/MD/10-086
12-May-2010	1,800	3	7,620	EP/MD/10-086
13-May-2010	1,200	2	8,820	EP/MD/10-086
14-May-2010	0	0	8,820	EP/MD/10-086
15-May-2010	0	0	8,820	EP/MD/10-086
16-May-2010	600	1	9,420	EP/MD/10-086
17-May-2010	1,200	2	10,620	EP/MD/10-086
18-May-2010	700	1	11,320	EP/MD/10-086
19-May-2010	2,000	3	13,320	EP/MD/10-086
20-May-2010	1,400	2	14,720	EP/MD/10-086
21-May-2010	1,400	2	16,120	EP/MD/10-086
22-May-2010	2,100	3	18,220	EP/MD/10-086
23-May-2010	1,400	2	19,620	EP/MD/10-086
24-May-2010	1,400	2	21,020	EP/MD/10-086
25-May-2010	1,300	2	22,320	EP/MD/10-086
26-May-2010	1,400	2	23,720	EP/MD/10-086
27-May-2010	1,300	2	25,020	EP/MD/10-086
28-May-2010	1,400	2	26,420	EP/MD/10-086
29-May-2010	600	1	27,020	EP/MD/10-086
30-May-2010	2,100	3	29,120	EP/MD/11-012
31-May-2010	700	1	29,820	EP/MD/11-012
01-Jun-2010	1,900	3	31,720	EP/MD/11-012
02-Jun-2010	1,220	2	32,940	EP/MD/11-012
03-Jun-2010	1,300	2	34,240	EP/MD/11-012
04-Jun-2010	1,200	2	35,440	EP/MD/11-012
05-Jun-2010	1,400	2	36,840	EP/MD/11-012
06-Jun-2010	600	1	37,440	EP/MD/11-012
07-Jun-2010	0	0	37,440	EP/MD/11-012
08-Jun-2010	500	1	37,940	EP/MD/11-012
09-Jun-2010	0	0	37,940	EP/MD/11-012
10-Jun-2010	600	1	38,540	EP/MD/11-012
11-Jun-2010	1,200	2	39,740	EP/MD/11-012
12-Jun-2010	1,400	2	41,140	EP/MD/11-012
13-Jun-2010	1,400	2	42,540	EP/MD/11-012
14-Jun-2010	0	0	42,540	EP/MD/11-012
15-Jun-2010	0	0	42,540	EP/MD/11-012
16-Jun-2010	0	0	42,540	EP/MD/11-012
17-Jun-2010	0	0	42,540	EP/MD/11-012
18-Jun-2010	0	0	42,540	EP/MD/11-012
19-Jun-2010	0	0	42,540	EP/MD/11-012
20-Jun-2010	0	0	42,540	EP/MD/11-012
21-Jun-2010	0	0	42,540	EP/MD/11-012

Wo Hing - Penta-Ocean Joint Venture

Contract no. 9/WSD/08

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

Summary of Dumping Qty. of Type 2 Marine Sediment

Date	Dumping qty (m^3)	Barge Load per day	Accumulated Dumping Qty.	Permit No.
			(bulk volume)	
22-Jun-2010	0	0	42,540	EP/MD/11-012
23-Jun-2010	0	0	42,540	EP/MD/11-012
24-Jun-2010	0	0	42,540	EP/MD/11-012
25-Jun-2010	0	0	42,540	EP/MD/11-012
26-Jun-2010	0	0	42,540	EP/MD/11-012
27-Jun-2010	0	0	42,540	EP/MD/11-012
28-Jun-2010	0	0	42,540	EP/MD/11-012
29-Jun-2010	0	0	42,540	EP/MD/11-012
30-Jun-2010	1,200	2	43,740	EP/MD/11-024
01-Jul-2010	2,600	4	46,340	EP/MD/11-024
02-Jul-2010	2,800	4	49,140	EP/MD/11-024
03-Jul-2010	1,400	2	50,540	EP/MD/11-024
04-Jul-2010	2,100	3	52,640	EP/MD/11-024
05-Jul-2010	2,850	4	55,490	EP/MD/11-024
06-Jul-2010	1,400	2	56,890	EP/MD/11-024
07-Jul-2010	1,400	2	58,290	EP/MD/11-024
08-Jul-2010	2,700	4	60,990	EP/MD/11-024
09-Jul-2010	2,100	3	63,090	EP/MD/11-024
10-Jul-2010	2,100	3	65,190	EP/MD/11-024
11-Jul-2010	1,400	2	66,590	EP/MD/11-024
12-Jul-2010	2,150	3	68,740	EP/MD/11-024
13-Jul-2010	2,100	3	70,840	EP/MD/11-024
14-Jul-2010	700	1	71,540	EP/MD/11-024
15-Jul-2010	2,100	3	73,640	EP/MD/11-024
16-Jul-2010	2,100	3	75,740	EP/MD/11-024
17-Jul-2010	700	1	76,440	EP/MD/11-024
18-Jul-2010	700	1	77,140	EP/MD/11-024
19-Jul-2010	2,100	3	79,240	EP/MD/11-024
20-07-2010 '(18 July 2010)	2,100	3	81,340	EP/MD/11-024
21-Jul-2010	700	1	82,040	EP/MD/11-024
22-Jul-2010	600	1	82,640	EP/MD/11-024
23-Jul-2010	1,400	2	84,040	EP/MD/11-024
24-Jul-2010	1,400	2	85,440	EP/MD/11-024
25-Jul-2010	1,400	2	86,840	EP/MD/11-024
26-Jul-2010	1,450	2	88,290	EP/MD/11-024
27-Jul-2010	2,200	3	90,490	EP/MD/11-024
28-Jul-2010	1,450	2	91,940	EP/MD/11-024
29-Jul-2010	1,500	2	93,440	EP/MD/11-024
30-Jul-2010	0	0	93,440	- -
31-Jul-2010	0	0	93,440	- -
01-Aug-2010	0	0	93,440	- -
02-Aug-2010	0	0	93,440	- -
03-Aug-2010	0	0	93,440	- -
04-Aug-2010	0	0	93,440	- -
05-08-2010 (dump on 06-Aug-10)	700	1	94,140	- -
06-Aug-2010	1,500	2	95,640	EP/MD/11-053

Wo Hing - Penta-Ocean Joint Venture

Contract no. 9/WSD/08

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

Summary of Dumping Qty. of Type 2 Marine Sediment

Date	Dumping qty (m^3)	Barge Load per day	Accumulated Dumping Qty.	Permit No.
			(bulk volume)	
07-Aug-2010	700	1	96,340	EP/MD/11-053
08-Aug-2010	2,100	3	98,440	EP/MD/11-053
09-Aug-2010	1,500	2	99,940	EP/MD/11-053
10-Aug-2010	1,500	2	101,440	EP/MD/11-053
11-Aug-2010	700	1	102,140	EP/MD/11-053
12-Aug-2010	0	0	102,140	EP/MD/11-053
13-Aug-2010	0	0	102,140	EP/MD/11-053
14-Aug-2010	0	0	102,140	EP/MD/11-053
15-Aug-2010	0	0	102,140	EP/MD/11-053
16-Aug-2010	0	0	102,140	EP/MD/11-053
17-Aug-2010	0	0	102,140	EP/MD/11-053
18-Aug-2010	0	0	102,140	EP/MD/11-053
19-Aug-2010	0	0	102,140	EP/MD/11-053
20-Aug-2010	0	0	102,140	EP/MD/11-053
21-Aug-2010	0	0	102,140	EP/MD/11-053
22-Aug-2010	0	0	102,140	EP/MD/11-053
23-Aug-2010	0	0	102,140	EP/MD/11-053
24-Aug-2010	0	0	102,140	EP/MD/11-053
25-Aug-2010	0	0	102,140	EP/MD/11-053
26-Aug-2010	0	0	102,140	EP/MD/11-053
27-Aug-2010	0	0	102,140	EP/MD/11-053
28-Aug-2010	1,400	2	103,540	EP/MD/11-053
29-Aug-2010	700	1	104,240	EP/MD/11-053
30-Aug-2010	0	0	104,240	EP/MD/11-053
31-Aug-2010	750	1	104,990	EP/MD/11-053
01-Sep-2010	0	0	104,990	EP/MD/11-053
02-Sep-2010	0	0	104,990	EP/MD/11-053
03-Sep-2010	0	0	104,990	EP/MD/11-053
04-Sep-2010	0	0	104,990	EP/MD/11-053
05-Sep-2010	0	0	104,990	EP/MD/11-053
	104,990	155		

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

Dredging Location of GD "Shun Tat 20" during Overtime Hours 19:00 – 07:00 (next day)

	Working Hour fm 07:00 to 23:00 or 07:00 to 07:00 (next day)						Working Hour for overtime fm 19:00 to 23:00 or 19:00 to 07:00 (next day)					
Date	W Hours fm	W Hours to	Chainage fm	Chainage to	Offset fm	Offset to	OT Hours fm	OT Hours to	Chainage fm	Chainage to	Offset fm	Offset to
03-05-2010	-	-					-	-				
04-05-2010	07:00	23:00	1238	1244	0	+17	22:00	23:00	1238	1244	0	+17
05-05-2010	07:00	23:00	1244	1276	0	+17	19:00	23:00	1264	1276	0	+17
06-05-2010	07:00	23:00	1276	1280	0	+17	19:00	23:00	1252	1264	0	-17
			1238	1264	0	-17						
07-05-2010	07:00	19:00	1264	1264	0	-17	19:00	19:00				
08-05-2010	07:00	19:00	1264	1276	0	+17	19:00	19:00				
09-05-2010	07:00	23:00	1276	1304	0	-17	19:00	23:00	1284	1304	0	-17
10-05-2010	07:00	23:00	1304	1316	0	-17	19:00	23:00	1304	1316	0	-17
			1280	1316	0	+17						
11-05-2010	07:00	23:00	1316	1368	0	+17	19:00	23:00	1348	1368	0	+17
12-05-2010	07:00	23:00	1320	1368	0	-17	19:00	23:00	1348	1368	0	-17
13-05-2010	07:00	23:00	1368	1424	0	-17	19:00	23:00	1400	1424	0	-17
14-05-2010	-	-					-	-				
15-05-2010	07:00	23:00	1368	1376	0	+17	19:00	23:00	1368	1376	0	+17
16-05-2010	07:00	23:00	1376	1392	0	+17	19:00	23:00	1380	1392	0	+17
17-05-2010	07:00	23:00	1392	1416	0	+15.5	19:00	23:00	1416	1432	0	-15.5
			1416	1432	0	-15.5						
18-05-2010	07:00	23:00	1432	1468	0	+15	19:00	23:00	1452	1468	0	+15
19-05-2010	07:00	23:00	1424	1484	0	-15	19:00	23:00	1476	1484	0	-15
20-05-2010	07:00	23:00	1480	1500	0	+12.7	19:00	22:00	1480	1496	0	+14.1
			1472	1496	0	+14.1						
21-05-2010	07:00	23:00	1496	1536	0	+12.9	19:00	23:00	1496	1516	0	-12.9
			1496	1516	0	-12.9						
22-05-2010	07:00	23:00	1516	1572	0	-14.0	19:00	23:00	1564	1572	0	-14.0
			1536	1540	0	+13.1			1536	1540	0	+13.1
23-05-2010	07:00	23:00	1540	1592	0	+16.6	19:00	23:00	1580	1592	0	+16.6
24-05-2010	07:00	23:00	1572	1620	0	-17	19:00	23:00	1592	1620	0	-17
25-05-2010	07:00	23:00	1620	1656	0	+17	19:00	23:00	1608	1636	0	-17
			1608	1636	0	-17						
26-05-2010	07:00	23:00	1636	1660	0	-17	19:00	23:00	1664	1680	0	+17
			1656	1680	0	+17						
27-05-2010	07:00	23:00	1660	1708	0	-17	19:00	23:00	1680	1692	0	+16.8
			1680	1692	0	+16.8						
28-05-2010	07:00	23:00	1692	1712	0	+17	19:00	23:00	1716	1736	0	-16
			1708	1736	0	-16						
29-05-2010	07:00	23:00	1712	1752	0	+16	19:00	23:00	1748	1752	0	+16
			1736	1756	0	-16			1736	1756	0	-16
30-05-2010	07:00	23:00	1656	1800	0	-15	19:00	23:00	1752	1780	0	+16
			1752	1780	0	+16						
31-05-2010	07:00	23:00	1780	1820	0	+15	19:00	23:00	1800	1824	0	-15
			1800	1824	0	-15						
01-06-2010	07:00	23:00	1824	1848	0	-14	19:00	23:00	1820	1844	0	+14
			1820	1844	0	+14						
02-06-2010	07:00	23:00	1844	1876	0	+14	19:00	23:00	1848	1864	0	-14
			1848	1864	0	-14						
03-06-2010	07:00	23:00	1872	1908	0	+13	19:00	19:45	1864	1868	0	-13
			1864	1876	0	-13						
04-06-2010	07:00	23:00	1868	1932	0	-13	19:00	23:00	1868	1932	0	-13
05-06-2010	07:00	23:00	1908	1960	0	+12	19:00	23:00	1944	1960	0	+12
06-06-2010	07:00	23:00	1932	1960	0	-12	19:00	21:00	1960	1970	0	+12
			1960	1970	0	+12						
07-06-2010	07:00	23:00	1960	1970	0	-16	19:00	20:00	1974	1980	0	+12
			1970	1980	0	+12						
08-06-2010	07:00	14:40	1250	1300	0	+19	-	-				
09-06-2010	07:00	23:00	-	-			-	-				
10-06-2010	07:00	23:00	1300	1390	+19	-19	19:00	23:00	1300	1390	+4	+19
11-06-2010	07:00	23:00	1390	1530	+16	-16	19:00	23:00	1490	1530	+16	-16
12-06-2010	07:00	23:00	1530	1665	+18	-18	19:00	23:00	1630	1665	+18	-18
13-06-2010	07:00	23:00	1665	1780	+18	-18	19:00	23:00	1750	1780	+18	-18
	23:00	07:00	1130	1142	-4	-21	23:00	07:00	1130	1142	-4	-21
14-06-2010	07:00	07:00	1142	1174	-4.7	-20.7	19:00	07:00	1162	1174	-4.7	-20.7
15-06-2010	07:00	07:00	1130	1162	+4.7	+20.7	19:00	07:00	1142	1162	+4.7	+20.7
16-06-2010	07:00	07:00	1162	1214	+4.7	+20.7	19:00	07:00	1182	1214	+4.7	+20.7
17-06-2010	07:00	07:00	1214	1222	+4.7	+20.7						
			1174	1210	-4.7	-20.7	19:00	07:00	1186	1210	-4.7	-20.7
18-06-2010	07:00	07:00	1130	1190	+8	-8	19:00	07:00	1158	1190	+8	-8
19-06-2010	07:00	07:00	1190	1238	+8.5	-8.5	19:00	07:00	1214	1238	+8.5	-8.5
20-06-2010	07:00	07:00	1266	1210	-4.5	-20.5	19:00	07:00	1222	1210	-4.5	-20.5
			1226	1250	+4.5	+20.5			1226	1250	+4.5	+20.5
21-06-2010	07:00	07:00	1250	1282	+5.5	+20.5						
			1238	1150	+8.5	-8.5	19:00	07:00	1262	1150	+8.5	-8.5
22-06-2010	07:00	07:00	1266	1302	-5.5	-20.5	19:00	07:00	1266	1302	-5.5	-20.5
			1262	1298	+8.5	-8.5			1262	1298	+8.5	-8.5
			1150	1162	+8.5	-8.5			1150	1162	+8.5	-8.5
23-06-2010	07:00	07:00	1282	1326	+5.5	+20.5						
			1298	1338	+8.5	-8.5	19:00	07:00	1324	1338	+8.5	-8.5
			1162	1188	+8.5	-8.5			1162	1188	+8.5	-8.5
24-06-2010	07:00	07:00	1346	1358	-5.5	-20.5						
			1338	1364	+7.5	-7.5	19:00	07:00	1350	1364	+7.5	-7.5
			1188	1208	+8.5	-8.5			1188	1208	+8.5	-8.5
25-06-2010	07:00	07:00	1364	1412	+7.5	-7.5	19:00	07:00	1392	1412	+7.5	-7.5

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

Dredging Location of GD "Shun Tat 20" during Overtime Hours 19:00 ~ 07:00 (next day)

Date	Working Hour fm 07:00 to 23:00 or 07:00 to 07:00 (next day)						Working Hour for overtime fm 19:00 to 23:00 or 19:00 to 07:00 (next day)					
	W Hours fm	W Hours to	Chainage fm	Chainage to	Offset fm	Offset to	OT Hours fm	OT Hours to	Chainage fm	Chainage to	Offset fm	Offset to
			1206	1250	+8.5	-8.5			1206	1250	+8.5	-8.5
26-06-2010	07:00	23:00	1306	1400	-7.5	-20.5	19:00	23:00	1380	1400	-7.5	-20.5
			1412	1444	+7.5	-7.5			1412	1444	+7.5	-7.5
			1362	1356	+5	+20			1362	1366	+5	+20
27-06-2010	07:00	23:00	1326	1448	+7.5	+20.5	19:00	23:00	1400	1448	+7.5	+20.5
			1400	1436	-7.5	-20.5			1400	1436	-7.5	-20.5
28-06-2010	07:00	23:00	1448	1480	+7.5	+20						
			1444	1468	+7.5	-7.5	19:00	23:00	1448	1468	+7.5	-7.5
			1436	1456	-7.5	-20			1436	1456	-7.5	-20
29-06-2010	07:00	23:00	1456	1500	-7.5	-20						
			1468	1500	+7.5	-7.5	19:00	20:00	1496	1500	+7.5	-7.5
	23:00	07:00	1076	1100	0	-16	23:00	07:00	1076	1100	0	-16
30-06-2010	07:00	07:00	1048	1076	0	-16						
			1064	1100	0	+16	19:00	07:00	1064	1100	0	+16
01-07-2010	07:00	07:00	1020	1064	0	+16	19:00	07:00	1020	1048	0	+16
			1032	1048	0	-16			1032	1036	0	-16
02-07-2010	07:00	07:00	1000	1032	0	16	19:00	07:00	1000	1008	0	16
			992	1020	0	+16			992	1020	0	+16
03-07-2010	07:00	18:00	968	992	0	+16	-	-				
04-07-2010	07:00	07:00	944	968	0	+16						
			956	1000	0	-16	19:00	07:00	956	1000	0	-16
05-07-2010	07:00	07:00	944	976	0	-16						
			798	850	0	+17	19:00	07:00	798	832	0	+17
			838	850	0	-17			838	850	0	-17
06-07-2010	07:00	07:00	782	838	0	-17	20:50	07:00	782	826	0	-17
07-07-2010	07:00	07:00	758	782	0	-16	19:00	07:00	758	774	0	-16
			774	798	0	+16			774	798	0	+16
08-07-2010	07:00	07:00	728	774	0	+17						
			696	750	0	-17	19:00	07:00	696	750	0	-17
09-07-2010	07:00	07:00	666	710	0	+17	19:00	07:00	666	670	0	+17
			682	710	0	-17			682	710	0	-17
10-07-2010	07:00	07:00	654	682	0	-17	19:00	07:00	654	662	0	-17
			634	666	0	+17			634	666	0	+17
11-07-2010	07:00	07:00	622	654	0	-17	20:55	01:10	622	642	0	-17
12-07-2010	07:00	07:00	602	622	0	-17						
			602	634	0	+17	19:00	07:00	602	626	0	+17
13-07-2010	07:00	07:00	570	602	0	+17	19:00	07:00	570	598	0	+17
			574	602	0	-17			574	582	0	-17
14-07-2010	07:00	07:00	558	570	0	+17	21:00	07:00	558	570	0	+17
			562	574	0	-17			562	574	0	-17
15-07-2010	07:00	07:00	546	562	0	-17						
			530	558	0	+17	21:15	07:00	530	558	0	+17
16-07-2010	07:00	07:00	526	546	0	-17	19:00	07:00	526	538	0	-17
			526	536	0	+17			526	530	0	+17
17-07-2010	07:00	19:00	-	-			-	-				
18-07-2010	07:00	23:00	260	300	0	-17	19:00	23:00	260	276	0	-17
19-07-2010	07:00	23:00	248	300	0	+17	19:00	21:15	248	256	0	+17
20-07-2010	07:00	23:00	232	260	0	-15						
			224	248	0	+15	19:00	23:00	224	236	0	+15
21-07-2010	07:00	19:00	216	232	0	-15	-	-				
22-07-2010	07:00	19:00	-	-			-	-				
23-07-2010	07:00	23:00	200	216	0	-15						
			208	224	0	+15						
			204	224	0	+15	19:00	23:00	204	224	0	+15
24-07-2010	07:00	23:00	176	200	0	-15						
			176	184	0	-15	19:00	20:50	176	184	0	-15
			172	176	0	-15	21:00	23:00	172	176	0	-15
			200	204	0	+15	21:00	23:00	200	204	0	+15
25-07-2010	07:00	23:00	172	200	0	+15				-		
			172	192	0	+15	19:00	22:40	172	192	0	+15
26-07-2010	07:00	23:00	168	172	0	+15						
			148	172	0	-15						
			152	168	0	+15	19:20	23:00	152	168	0	+15
27-07-2010	07:00	23:00	128	152	0	+15						
			128	136	0	+15	19:00	21:00	128	136	0	+15
			124	128	0	+15	21:45	23:00	124	128	0	+15
28-07-2010	07:00	23:00	124	148	0	-15						
			124	136	0	-15	19:00	20:20	124	136	0	-15
			116	124	0	-15	20:30	23:00	116	124	0	-15
29-07-2010	07:00	23:00	88	116	0	-15						
			88	100	0	-15	19:00	20:45	88	100	0	-15
30-07-2010	07:00	23:00	1480	1528	+5	+20.5						
			1480	1528	+5	+20.5	19:00	22:45	1480	1528	+5	+20.5
			1500	1508	+7.5	-7.5	19:00	22:45	1500	1508	+7.5	-7.5
31-07-2010	07:00	23:00	1500	1548	-5	-20.5						
			1508	1516	+7.5	-7.5						
			1516	1540	+7.5	-7.5						
			1516	1540	+7.5	-7.5	19:00	20:45	1516	1540	+7.5	-7.5
			1540	1548	+7.5	-7.5	20:30	23:00	1540	1548	7.5	-7.5
01-08-2010	07:00	23:00	1528	1572	+5	+20.5						
			1548	1568	-5	-20.5						
			1548	1556	+7.5	-7.5						

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Dredging Location of GD "Shun Tat 20" during Overtime Hours 19:00 – 07:00 (next day)

Date	Working Hour fm 07:00 to 23:00 or 07:00 to 07:00 (next day)						Working Hour for overtime fm 19:00 to 23:00 or 19:00 to 07:00 (next day)					
	W Hours fm	W Hours to	Chainage fm	Chainage to	Offset fm	Offset to	OT Hours fm	OT Hours to	Chainage fm	Chainage to	Offset fm	Offset to
			1556	1576	7.5	-7.5						
			1556	1576	7.5	-7.5	19:00	23:00	1556	1576	7.5	-7.5
02-08-2010	07:00	19:00	1572	1608	+5	+20.5						
			1576	1596	+7.5	-7.5						
03-08-2010	07:00	23:00	1568	1620	-5	-20.5						
			1596	1604	-7.5	+7.5	21:10	23:00	1596	1604	-7.5	+7.5
04-08-2010	07:00	23:00	1604	1612	-7.5	+7.5	19:00	21:40	1604	1612	-7.5	+7.5
05-08-2010	07:00	19:00	1608	1636	+7.5	+20.5						
06-08-2010	07:00	23:00	112	124	0	+15						
			84	112	0	+15	19:00	23:00	84	112	0	+15
07-08-2010	07:00	23:00	76	84	0	+15	19:00	23:00	76	84	0	+15
			68	76	0	+15			68	76	0	+15
08-08-2010	07:00	23:00	60	68	0	+15						
			72	88	0	-15						
			56	72	0	-15	19:00	23:00	56	72	0	-15
			52	56	0	-15			52	56	0	-15
09-08-2010	07:00	23:00	36	52	0	-15						
			20	36	0	-15	19:00	23:00	20	36	0	-15
			56	60	0	+15			56	60	0	+15
10-08-2010	07:00	19:00	54	56	0	+15						
			32	49	0	+15						
11-08-2010	07:00	07:00	0	32	0	+15	19:00	22:55	0	32	0	+15
			0	20	0	-15			0	20	0	-15
			1118	1130	-5	-20	01:30	07:00	1118	1130	-5	-20
12-08-2010	07:00	07:00	1110	1118	-5	-20						
			1122	1130	+7.5	-7.5						
			1110	1122	+7.5	-7.5	19:00	07:00	1110	1122	+7.5	-7.5
			1122	1130	+5	+20			1122	1130	+5	+20
13-08-2010	07:00	07:00	1114	1122	+5	+20						
			1086	1114	+5	+20	19:00	07:00	1086	1114	+5	+20
14-08-2010	07:00	07:00	1102	1110	+7.5	-7.5						
			1098	1110	-5	-20	19:00	21:30	1098	1110	-5	-20
			1078	1086	-5	-20			1078	1086	-5	-20
			1078	1102	+7.5	-7.5	23:30	07:00	1078	1102	+7.5	-7.5
15-08-2010	07:00	07:00	1070	1078	+7.5	-7.5						
			1070	1098	-5	-20	19:00	20:10	1070	1098	-5	-20
			1066	1078	+5	+20	20:20	02:30	1066	1078	+5	+20
			1066	1070	+7.5	-7.5			1066	1070	+7.5	-7.5
			1058	1066	+7.5	-7.5	03:25	07:00	1058	1066	+7.5	-7.5
16-08-2010	07:00	07:00	1026	1070	-5	-17.5						
			1046	1058	+7.5	-7.5	21:55	02:30	1046	1058	+7.5	-7.5
17-08-2010	07:00	07:00	1030	1046	-7.5	+7.5	02:30	07:00	1030	1046	-7.5	+7.5
18-08-2010	07:00	07:00	1026	1036	-7.5	+7.5						
			1038	1066	+5	+17.5	19:00	23:05	1038	1066	+5	+17.5
			1018	1038	+5	+17.5	02:35	07:00	1018	1038	+5	+17.5
19-08-2010	07:00	07:00	1018	1026	-7.5	+7.5						
			986	1018	+5	+17.5	19:00	20:50	986	1018	+5	+17.5
			1006	1026	-5	-17.5	20:55	02:50	1006	1026	-5	-17.5
			1010	1018	-7.5	+7.5			1010	1018	-7.5	+7.5
			1002	1010	-7.5	+7.5	03:25	06:00	1002	1010	-7.5	+7.5
20-08-2010	07:00	07:00	994	1002	+7.5	-7.5						
			978	994	+7.5	-7.5	19:00	07:00	978	994	+7.5	-7.5
			966	1006	-5	-17.5			966	1006	-5	-17.5
21-08-2010	07:00	07:00	958	986	+5	+17.5						
			970	978	+7.5	-7.5						
			950	970	+7.5	-7.5	19:00	07:00	950	970	+7.5	-7.5
			942	950	+7.5	-7.5			942	950	+7.5	-7.5
22-08-2010	07:00	07:00	938	942	+7.5	-7.5						
			942	966	-5	-17.5	19:00	01:35	942	966	-5	-17.5
			938	958	+5	+17.5			938	958	+5	+17.5
23-08-2010	07:00	19:00	-	-			-	-				
24-08-2010	07:00	07:00	628	640	+7.5	-7.5						
			612	628	+7.5	-7.5	21:10	02:15	612	628	+7.5	-7.5
25-08-2010	07:00	07:00	596	620	+7.5	-7.5						
			580	596	+7.5	-7.5	22:10	03:15	572	596	+7.5	-7.5
			572	580	+7.5	-7.5	03:35	07:00	572	580	+7.5	-7.5
26-08-2010	07:00	07:00	552	572	+7.5	-7.5						
			536	552	+7.5	-7.5	19:55	01:50	536	552	+7.5	-7.5
			528	536	+7.5	-7.5	02:30	07:00	528	536	+7.5	-7.5
27-08-2010	07:00	07:00	520	528	+7.5	-7.5						
			564	572	-20	-5						
			588	620	+7.5	-7.5	19:00	00:50	588	620	+7.5	-7.5
28-08-2010	07:00	07:00	564	588	+7.5	-7.5						
			540	564	+7.5	-7.5	00:00	07:00	540	564	+7.5	-7.5
			552	564	-5	-20			552	564	-5	-20
29-08-2010	07:00	07:00	520	552	-5	-20						
			564	580	+5	+20						
			520	564	+5	+20	19:00	22:20	520	564	+5	+20
			512	520	-7	+7	22:25	07:00	512	520	-7	+7
			508	512	-7	+7			508	512	-7	+7
30-08-2010	07:00	07:00	500	508	-7	-5						
			850	870	0	+17.5	19:00	00:50	850	870	0	+17.5

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

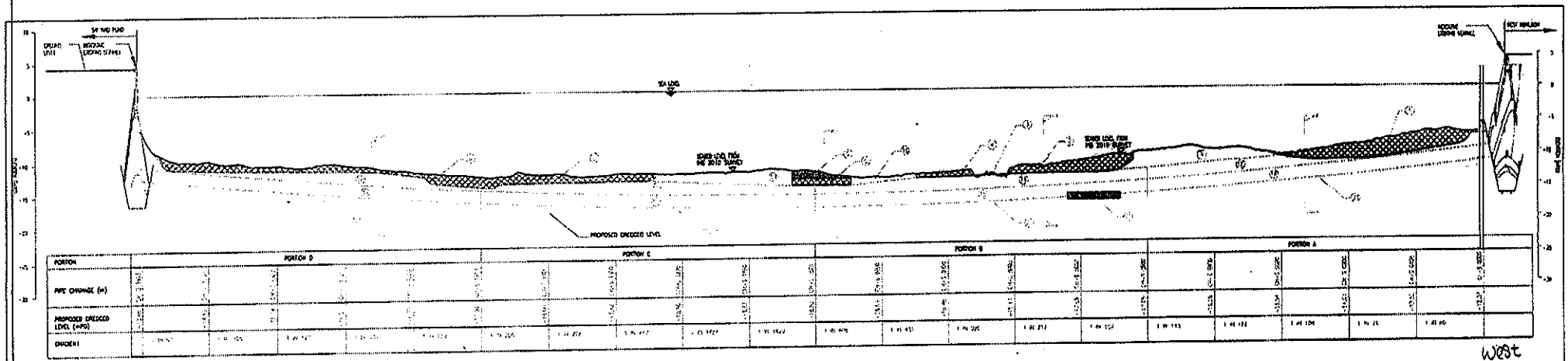
Dredging Location of GD "Shun Tat 20" during Overtime Hours 19:00 – 07:00 (next day)

Date	Working Hour fm 07:00 to 23:00 or 07:00 to 07:00 (next day)						Working Hour for overtime fm 19:00 to 23:00 or 19:00 to 07:00 (next day)					
	W Hours fm	W Hours to	Chainage fm	Chainage to	Offset fm	Offset to	OT Hours fm	OT Hours to	Chainage fm	Chainage to	Offset fm	Offset to
			850	870	0	-17.5			850	870	0	-17.5
			914	922	+7.5	-7.5	01:00	06:00	914	922	+7.5	-7.5
31-08-2010	07:00	07:00	914	938	+5	+17.5	19:00	07:00	914	938	+5	+17.5
			910	914	+5	+17.5			910	914	+5	+17.5
			918	938	+7.5	-7.5			918	938	+7.5	-7.5
			926	938	-5	-17.5			926	938	-5	-17.5
01-09-2010	07:00	07:00	910	926	-5	-17.5	19:00	21:15	910	926	-5	-17.5
			902	918	+7.5	-7.5	22:35	03:45	902	918	+7.5	-7.5
			902	914	+5	-17.5	05:05	07:00	902	914	+5	-17.5
02-09-2010	07:00	07:00	878	902	+5	+17.5						
			902	910	-5	-17.5						
			882	902	-5	-17.5	19:35	01:15	882	902	-5	-17.5
			894	902	+7.5	-7.5	04:25	07:00	894	902	+7.5	-7.5
03-09-2010	07:00	07:00	870	894	+7.5	-7.5						
			850	878	+5	+17.5	19:35	07:00	850	878	+5	+17.5
			858	882	-5	-17.5			858	882	-5	-17.5
04-09-2010	07:00	07:00	846	858	-5	-17.5						
			854	870	+7.5	-7.5	19:00	07:00	854	870	+7.5	-7.5
			822	846	-5	-17.5			822	846	-5	-17.5
			834	850	+5	+17.5			834	850	+5	+17.5
05-09-2010	07:00	06:00	822	834	+5	+17.5						
			834	854	+7.5	-7.5	19:00	06:00	834	854	+7.5	-7.5
			814	834	+7.5	-7.5			814	834	+7.5	-7.5
			798	822	-5	-17.5			798	822	-5	-17.5
06-09-2010	07:00	07:00	810	822	+5	+17.5						
			810	814	+5	+17.5	19:00	07:00	810	814	+5	+17.5
			794	814	+7.5	-7.5			794	814	+7.5	-7.5
			778	794	+7.5	-7.5			778	794	+7.5	-7.5
			778	798	-5	-17.5			778	798	-5	-17.5
07-09-2010	07:00	23:00	766	778	+7.5	-7.5						
			778	798	+5	+17.5	19:00	20:55	778	798	+5	+17.5
08-09-2010	07:00	19:00	-	-			-	-				
09-09-2010	07:00	19:00	-	-			-	-				
10-09-2010	07:00	19:00	-	-			-	-				
11-09-2010	07:00	19:00	-	-			-	-				
12-09-2010	07:00	19:00	-	-			-	-				
13-09-2010	07:00	19:00	-	-			-	-				
14-09-2010	07:00	19:00	-	-			-	-				
15-09-2010	07:00	19:00	-	-			-	-				
16-09-2010	07:00	19:00	-	-			-	-				
17-09-2010	07:00	19:00	-	-			-	-				
18-09-2010	07:00	19:00	-	-			-	-				
19-09-2010	07:00	19:00	-	-			-	-				
20-09-2010	07:00	19:00	-	-			-	-				
21-09-2010	07:00	07:00	444	452	+7.5	-7.5	20:30	04:30	444	452	+7.5	-7.5
22-09-2010	07:00	19:00	-	-			-	-				
23-09-2010	07:00	19:00	-	-			-	-				
24-09-2010	07:00	19:00	-	-			-	-				
25-09-2010	07:00	19:00	-	-			-	-				
26-09-2010	07:00	19:00	-	-			-	-				
27-09-2010	07:00	23:00	440	444	+7.5	-7.5	20:35	21:00	440	444	+7.5	-7.5
28-09-2010	07:00	19:00	-	-			-	-				
29-09-2010	07:00	23:00	432	444	+7.5	-7.5	19:00	23:00	432	444	+7.5	-7.5
30-09-2010	07:00	19:00	-	-			-	-				

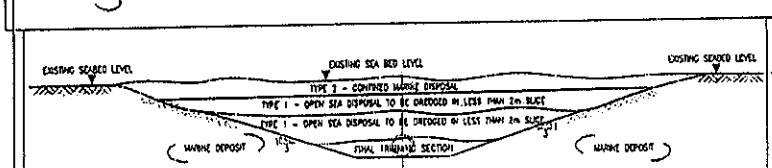
NOTE:

LOGISTIC OF DREDGING
STAGE 1 – TYPE 2 MARINE SEDIMENT
① -> ② -> ③ -> ④ -> ⑤ -> ⑥ -> ⑦ -> ⑧
STAGE 2 – TYPE 1 MARINE SEDIMENT
⑨ -> ⑩ -> ⑪
STAGE 3 – TYPE 1 MARINE SEDIMENT
⑫ -> ⑬ -> ⑭ -> ⑮ -> ⑯ ->
⑰ -> ⑱ -> ⑲
STAGE 4 – TYPE 1D MARINE SEDIMENT
⑳
STAGE 5 – TYPE 1 MARINE SEDIMENT
㉑ -> ㉒ -> ㉓ -> ㉔

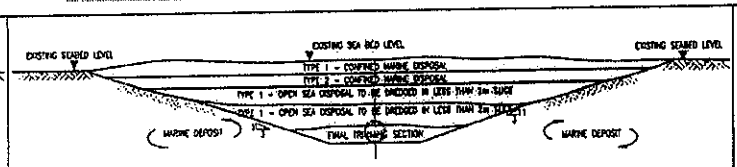
IF SIMILAR DISPOSAL SITE IS DEDICATED FOR TYPE 1D AND TYPE 1, MARINE SEDIMENT DREDGING LOGISTIC AT ⑳ WILL BE DELETED AND INCLUDED IN ⑮ AND ㉒.



LONGITUDINAL SECTION OF DREDGING TRENCH



SECTION A-A OF DREDGING TRENCH
N.T.S.

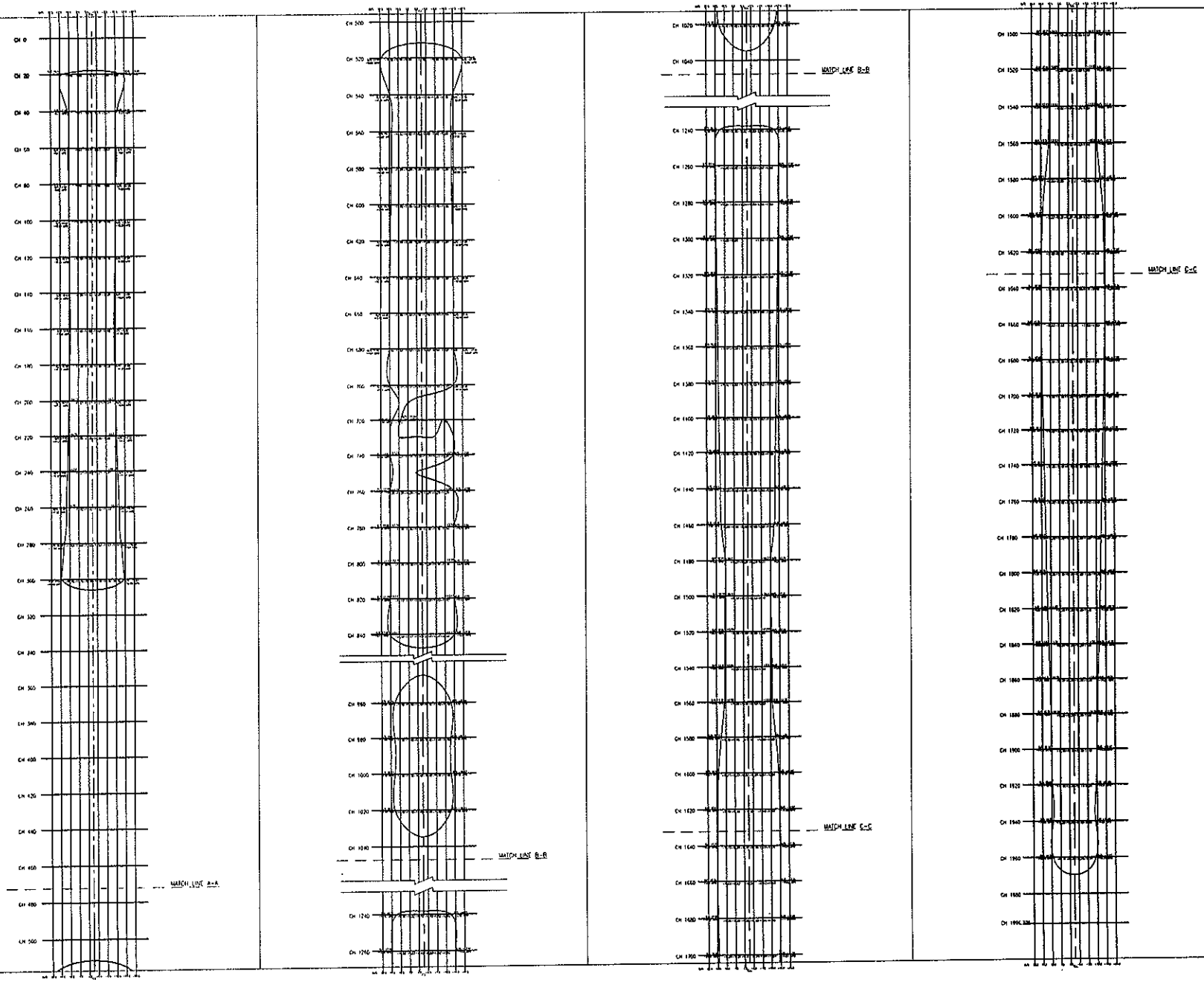


SECTION B-B OF DREDGING TRENCH
N.T.S.

LEGEND :

- TYPE 1 – OPEN SEA DISPOSAL
- TYPE 1D – OPEN SEA DISPOSAL (DEDICATED SITES)
- TYPE 2 – CONFINED MARINE DISPOSAL
- TYPE 1 – CONFINED MARINE DISPOSAL
- ⑤ THE NUMBER INDICATE THE SEQUENCE OF DREDGING

CONTRACT WO HING-PENTAOCEAN JOINT VENTURE 和興五洋聯營	CONTRACT NO. 9/WSD/08 Laying of Western Cross Harbour Main and Associated Land Mains from West Kowloon to Sai Ying Pun 合約編號 9/WSD/08 敷設由西九龍至西營盤之西區過海海水管及與其相關的地下喉管	DRAW BY	TONY TANG	SCALE	NTS
		CHECKED BY	STANLEY LEUNG	DWG No:	SK-D-002
	DRAWING TITLE DREDGING LOGISTIC	DATE	08 Apr 2010	REVISION	D



NOTES :

NO.	DATE	REMARK	DESCRIPTION	CHECKED	APPROVED
0	12-APR-2010	T.T.	FIRST ISSUE	T.T.	K.K.

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

CONTRACT TITLE :

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

(CONTRACT NO. 9/WSD/08)

Title

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

Consultant

Mott MacDonald

Mott MacDonald Hong Kong Limited

Main Contractor

WO HING - PENTA-OCEAN JOINT VENTURE

Scale :	NTS (A1)	Date :	12 APRIL 2010

Drg. No. SK-D-011

Appendix K

Details of Interim Notifications of Exceedance (NOEs) in this reporting month

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 & Associated Land Mains from West Kowloon to Sai Ying Pun
Notification of Exceedance (NOE)

Date and Time of Noise Monitoring: 04 September 2010 (2300-2400) at KY3, RWM and CGa & 05 September 2010 (0000-0100) at KS6

Construction Works carried out during the monitoring: Dredging of Type 1 marine sediment at Point I (CH846 to CH822)

Corresponding CNP: GW-RE0188-10 (01 September 2010 to 20 October 2010)

Monitoring Location	Measured Value, dB(A)	Action Level	Limit Level, dB(A)	Possible Reason(s) for the Exceedance	Action to be taken	Remark
KY3	54.9 55.3 55.7	When one documented complaint is received	55	Dredging works were carried out by using one grab dredger (with one split hopper barge) at CH846 to CH822, which fulfill the requirement described in corresponding CNP. Refer to the observation during the monitoring, main source of noise impact was due to local traffic along Connaught Road West and Western Harbour Crossing. According to the summary of baseline noise monitoring, the average background noise level from 2300-2400 * is 58.5dB(A) which is higher than the limit level 55dB(A) and the monitoring results were found below 58.5dB(A). Hence, the exceedance recorded is considered invalid and no related to the construction works.	Nil	Nil
RWM	55.6 55.8 56.0	When one documented complaint is received	55	Dredging works were carried out by using one grab dredger (with one split hopper barge) at CH846 to CH822, which fulfill the requirement described in corresponding CNP. Refer to the observation during the monitoring, main source of noise impact was due to local traffic along Connaught Road West and Western Harbour Crossing. According to the summary of baseline noise monitoring, the average background noise level from 2300-2400 * is 60.5dB(A) which is higher than the limit level 55dB(A) and the monitoring results were found below 60.5dB(A). Hence, the exceedance recorded is considered invalid and no related to the construction works.	Nil	Nil
CGa	56.4 56.8 55.9	When one documented complaint is received	55	Dredging works were carried out by using one grab dredger (with one split hopper barge) at CH846 to CH822, which fulfill the requirement described in corresponding CNP. Refer to the observation during the monitoring, main source of noise impact was due to local traffic along Connaught Road West and Western Harbour Crossing. According to the summary of baseline noise monitoring, the average background noise level from 2300-2400 * is 63.3dB(A) which is higher than the limit level 55dB(A) and the monitoring results were found below 63.3dB(A). Hence, the exceedance recorded is considered invalid and no related to the construction works.	Nil	Nil
KS6	58.6 59.0 58.8	When one documented complaint is received	55	Dredging works were carried out by using one grab dredger (with one split hopper barge) at CH846 to CH822, which fulfill the requirement described in corresponding CNP. Refer to the observation during the monitoring, main source of noise impact was due to local traffic along West Kowloon Highway. According to the summary of baseline noise monitoring, the average and range of background noise level from 0000-0100 * is 58.5dB(A) and between 55.1dB(A) and 62.9dB(A). The impact monitoring results were found closed to 58.5dB(A) and within the range of baseline noise level. Hence, the exceedance recorded is considered invalid and no related to the construction works.	Nil	Nil

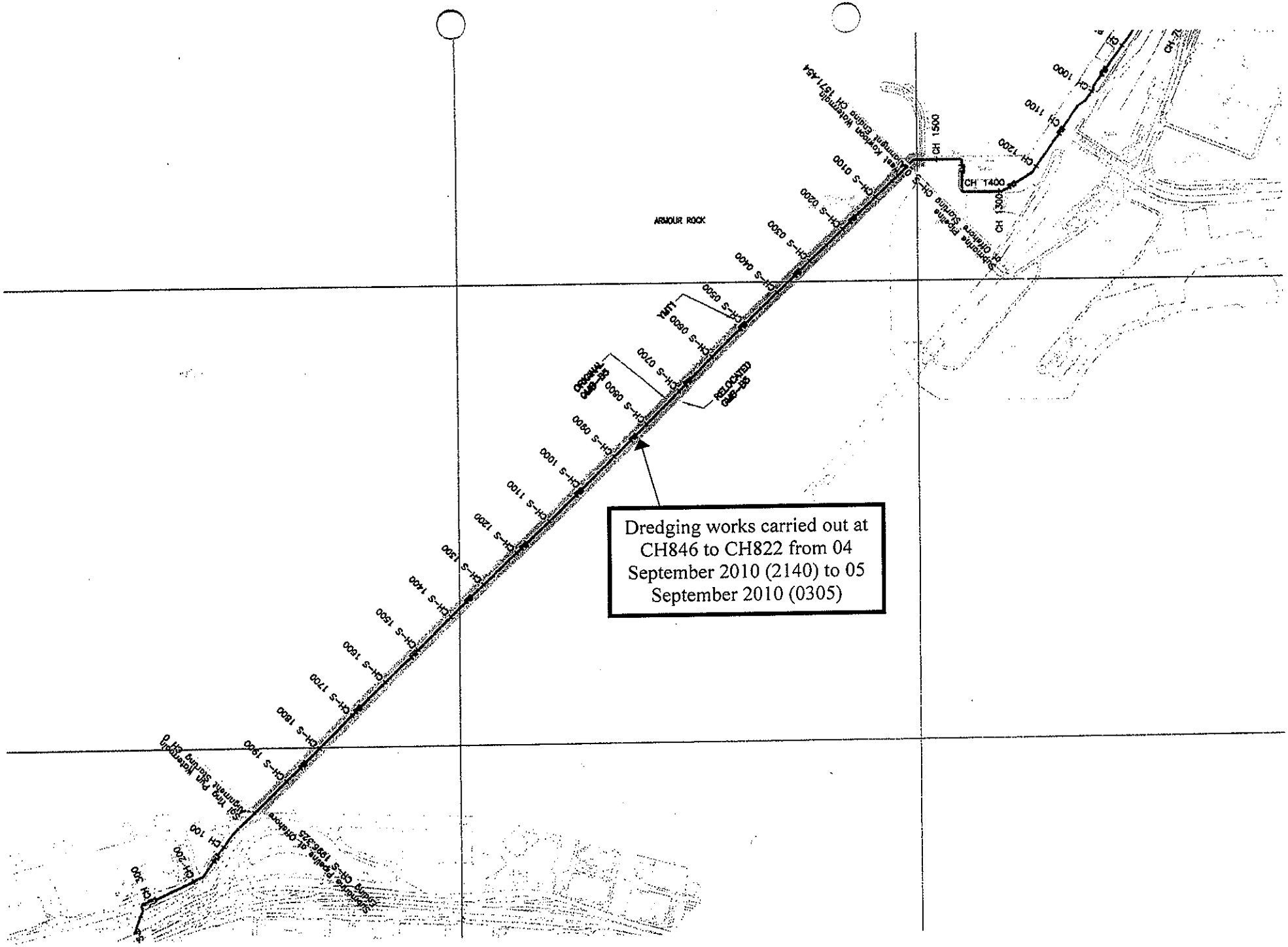
Remark (*): Refer to the baseline data, it shows that the range of noise level during 2300-0700 is very large (around from 52dB(A) to 67dB(A)) and noise from 2300-0100 is in high level (greater than 60dB(A)) at all monitoring stations. As a result, baseline noise data measured between 2300-2400 at CGa, RWM, KY3 and 0000-0100 at KS6 are more suitable for being as background indicator (instead of 2300-0700 of next day).

Attachment

Night-time Noise monitoring data sheet (04 to 05 September 2010)
Summary of Baseline Noise Monitoring at KY3, RWM and CGa (2300-2400) & at KS6 (0000-0100)
Location plan shown the construction works carried out during the period from 04 September 2010 (2140) to 05 September 2010 (0305)

Prepared by: Linda Law **(Linda Law) (Senor Environmental Officer)** **Date: 06 September 2010**

Checked by: **(C. L. Lau) (Environmental Teamer Leader)** **Date: 06 September 2010**


ARMOUR ROCK
CH 1500
CH 1400
CH 1300
Dredging works carried out at CH846 to CH822 from 04 September 2010 (2140) to 05 September 2010 (0305)

Agreement No. CE 42/2005 (WS)
Laying of Western Cross Harbour Main and Associated Land Mains
From West Kowloon to Sai Ying Pun - Investigation

Impact Noise Monitoring at Sai Ying Pun during 1900-2300 / 2300-0700 / 0700-1900 (Holiday)
Data Record Sheet

Date of Monitoring		4/9/10								
Monitoring Location **For 1900-2300**		CGa - Pavement at Connaught Garden			RWM – Pavement at Richwealth Mansion			KY3 – Pavement at Kwan Yik Building Phase 3		
Monitoring Location **For 2300-0700 and 0700-1900 (Holiday)**		CGa - Pavement at Connaught Garden			RWM – Roof at Richwealth Mansion Mak			KY3 – Roof at Kwan Yik Building Phase 3 Mak		
Sound Level Meter (Model and Serial No.)		Rion NL-31 (S/N: 00773032)			Rion NL-31 (S/N: 00773032)			Rion NL-31 (S/N: 00773032)		
Sound Pressure Calibrator (Model and Serial No.)		Rion NC-73 (S/N: 10196943)			Rion NC-73 (S/N: 10196943)			Rion NC-73 (S/N: 10196943)		
Weather Condition		Fine			Fine			Fine		
Temperature (°C)		28			28			28		
Type of Measurement		Free Field / Façade			Free Field / Façade			Free Field / Façade		
Measurement Period (min)		5			5			5		
Calibration before Measurement, dB(A)	Before	94.0			94.0			94.0		
	After	94.0			94.0			94.0		
Measurement Time	From	23:00	23:05	23:10	23:20	23:25	23:30	23:40	23:45	23:50
	To	23:05	23:10	23:15	23:25	23:30	23:35	23:45	23:50	23:55
Wind Strength (m/s)		1.4	1.5	1.3	1.3	1.4	1.6	1.5	1.4	1.3
L_{eq}, dB(A)		56.4	56.8	55.9	55.6	55.8	56.0	54.9	55.3	55.7
L_{10}, dB(A)		58.9	59.2	58.4	58.1	58.3	58.6	57.8	58.2	58.5
L_{90}, dB(A)		51.7	52.0	51.1	49.7	50.4	50.8	49.4	49.8	50.1
Major Construction Noise Source(s) During Measurement		/			/			/		
Other Noise Source(s) During Measurement		Vehicles passing by			→			→		
Remarks		The result was / was not exceeded the Limit Level.			The result was / was not exceeded the Limit Level.			The result was / was not exceeded the Limit Level.		

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)*
0700-1900 hrs on holidays		*70 dB(A)*
Restricted hrs (2300-0700 hrs)		*55 dB(A)*

	Name	Signature	Date
Recorded by	Mak Yiu Wai	Mak	4/9/10
Checked by	Linda Law	Linda Law	4/9/10

Agreement No. CE 42/2005 (WS)
Laying of Western Cross Harbour Main and Associated Land Mains
From West Kowloon to Sai Ying Pun - Investigation

Impact Noise Monitoring at West Kowloon during 1900-2300 / 2300-0700 / 0700-1900 (Holiday)
Data Record Sheet

Date of Monitoring		5/9/10					
Monitoring Location		KS6 - Podium at the Cullinan			KS4b - Footpath of West Kowloon Waterfront Promenade		
Sound Level Meter (Model and Serial No.)		Rion NL-31 (S/N: 00773032)			Rion NL-31 (S/N: 00773032)		
Sound Pressure Calibrator (Model and Serial No.)		Rion NC-73 (S/N: 10196943)			Rion NC-73 (S/N: 10196943)		
Weather Condition		Fine			Fine		
Temperature (°C)		28			28		
Type of Measurement		Free Field / Façade			Free Field / Façade		
Measurement Period (min)		5			5		
Calibration before Measurement, dB(A)	Before	94.0			94.0		
	After	94.0			94.0		
Measurement Time	From	00:15	00:20	00:25	00:35	00:40	00:45
	To	00:20	00:25	00:30	00:40	00:45	00:50
Wind Strength (m/s)		1.6	1.7	1.5	1.2	1.3	1.1
L_{eq}, dB(A)		58.6	59.0	58.8	54.1	54.5	53.9
L_{10}, dB(A)		59.8	60.2	59.9	56.7	57.0	56.3
L_{90}, dB(A)		57.1	57.9	57.3	48.9	49.4	48.5
Major Construction Noise Source(s) During Measurement		/			/		
Other Noise Source(s) During Measurement		/			Vehicles passing by		
Remarks		The result was / was not exceeded the Limit Level.			The result was / was not exceeded the Limit Level.		

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)*
0700-1900 hrs on holiday		*70 dB(A)*
Restricted hours (2300-0700 hrs)		*55 dB(A)*

	Name	Signature	Date
Recorded by	Mak Kai Wai	Mak	5/9/10
Checked by	Linda Lam	Linda Lam	5/9/10

Summary of Baseline Noise Monitoring (Night-time:0000-0100) - KS6 (The Cullinan)

Date	28/12/09	29/12/09	30/12/09	31/12/09	01/01/10	02/01/10	03/01/10	04/01/10	05/01/10	06/01/10	07/01/10	08/01/10	09/01/10	10/01/10
Daily Average, Leq(5min)	57.0	57.1	62.3	56.8	56.8	59.2	56.6	56.3	60.6	56.7	57.4	60.1	59.0	56.8
Max Leq(5min)	58.5	58.5	63.6	59.5	59.5	60.5	58.3	57.8	61.1	58.2	58.9	61.4	64.7	58.3
Min Leq(5min)	54.7	55.7	60.4	55.2	55.2	57.6	54.2	54.7	59.6	55.1	55.7	59.2	56.0	55.0

Overall Average, Leq(5-min)	*58.5*	dB(A)
Max	*64.7*	dB(A)
Min	*54.2*	dB(A)

Summary of Baseline Noise Monitoring (Night-time:2300-2400) - CG (Connaught Garden)

Date	11/01/10	12/01/10	13/01/10	14/01/10	15/01/10	16/01/10	17/01/10	18/01/10	19/01/10	20/01/10	21/01/10	22/01/10	23/01/10	24/01/10
Daily Average, Leq(5min)	63.7	63.3	63.3	63.5	64.0	64.1	63.5	63.1	62.5	62.2	61.7	64.2	63.9	63.0
Max Leq(5min)	64.6	64.7	64.4	64.2	65.0	66.1	64.6	63.7	63.6	63.0	63.6	64.7	65.3	64.0
Min Leq(5min)	62.7	61.3	61.9	62.2	63.0	63.3	62.4	62.0	61.4	60.6	60.2	63.1	62.9	61.9

Overall Average, Leq(5-min)	*63.3*	dB(A)
Max	*66.1*	dB(A)
Min	*60.2*	dB(A)

Summary of Baseline Noise Monitoring (Night-time:2300-2400) - RWM (Richwealth Mansion)

Date	11/01/10	12/01/10	13/01/10	14/01/10	15/01/10	16/01/10	17/01/10	18/01/10	19/01/10	20/01/10	21/01/10	22/01/10	23/01/10	24/01/10
Daily Average, Leq(5min)	60.7	61.4	60.1	65.0	61.5	66.9	55.2	58.5	56.3	58.5	58.2	57.5	62.9	61.9
Max Leq(5min)	62.0	64.1	61.9	67.3	62.3	57.7	57.0	59.3	57.3	59.4	62.1	58.5	64.7	63.6
Min Leq(5min)	59.3	58.3	58.4	61.4	60.0	56.0	52.8	57.5	55.7	56.9	55.7	56.3	60.9	60.2

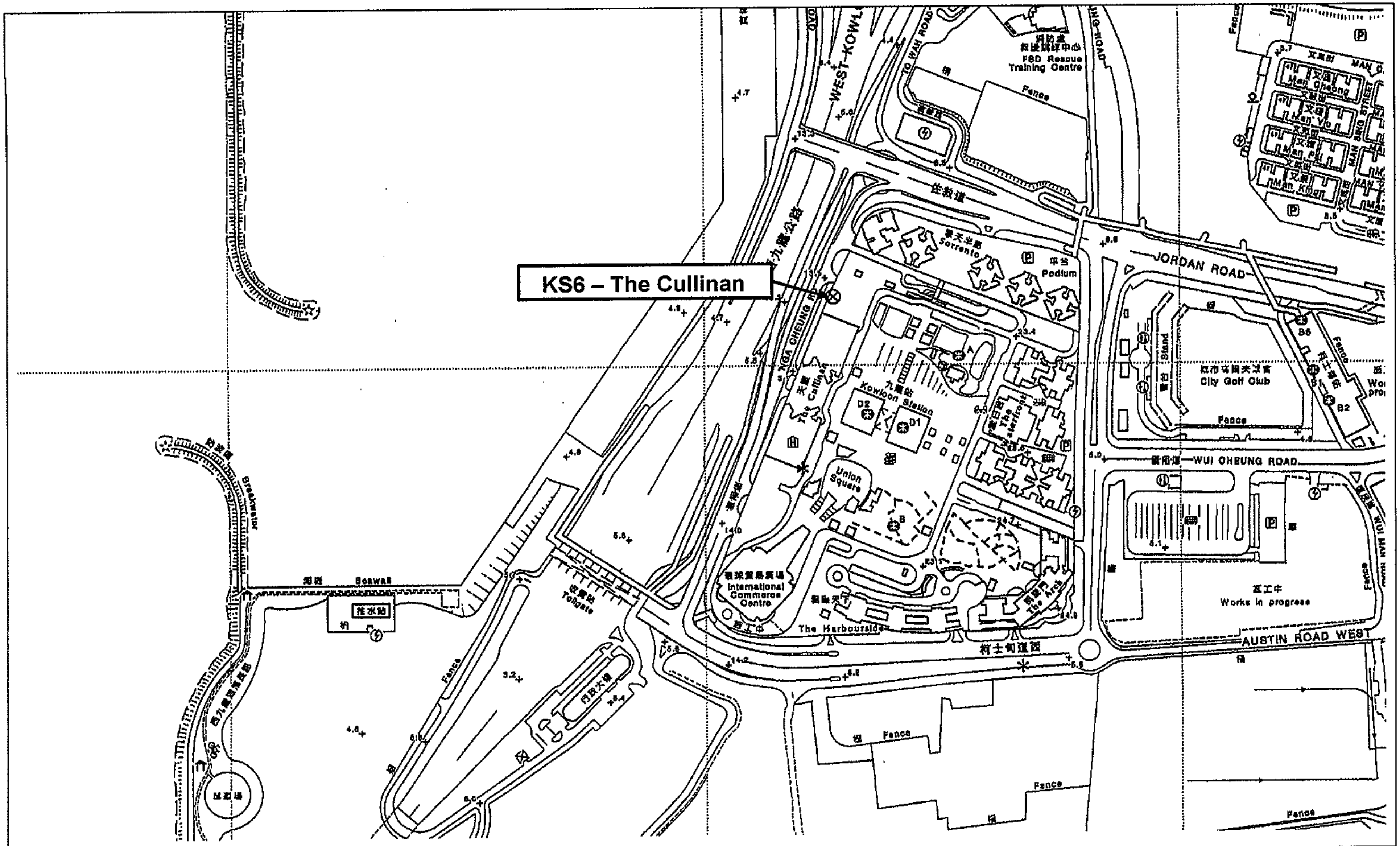
Overall Average, Leq(5-min)	*60.5*	dB(A)
Max	*67.3*	dB(A)
Min	*52.8*	dB(A)

Summary of Baseline Noise Monitoring (Night-time:2300-2400) - KY3 (Kwan Yik Building Phase 3)

Date	11/01/10	12/01/10	13/01/10	14/01/10	15/01/10	16/01/10	17/01/10	18/01/10	19/01/10	20/01/10	21/01/10	22/01/10	23/01/10	24/01/10
Daily Average, Leq(5min)	57.5	60.4	57.0	61.4	58.0	57.7	57.6	57.5	57.7	60.0	57.4	58.5	57.9	57.4
Max Leq(5min)	59.8	61.5	59.4	62.9	59.4	59.4	60.2	58.4	59.7	61.6	59.1	61.5	59.4	59.2
Min Leq(5min)	56.5	59.0	55.1	59.6	56.6	56.2	56.1	56.7	56.6	59.2	55.9	56.6	56.3	55.4

Overall Average, Leq(5-min)	*58.5*	dB(A)
Max	*62.9*	dB(A)
Min	*55.1*	dB(A)

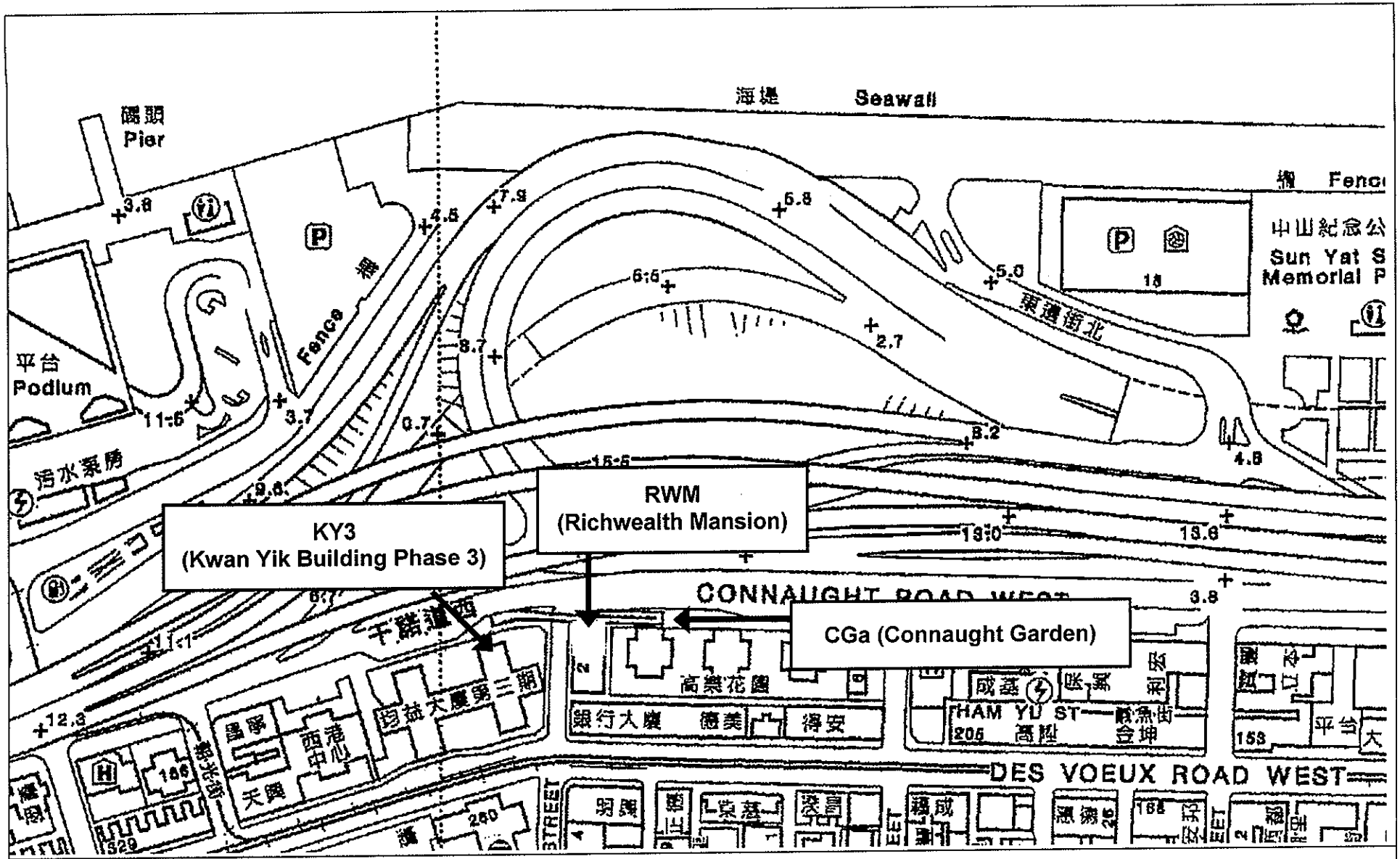
Figures



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 2

Locations of Noise Monitoring Stations at Sai Ying Pun

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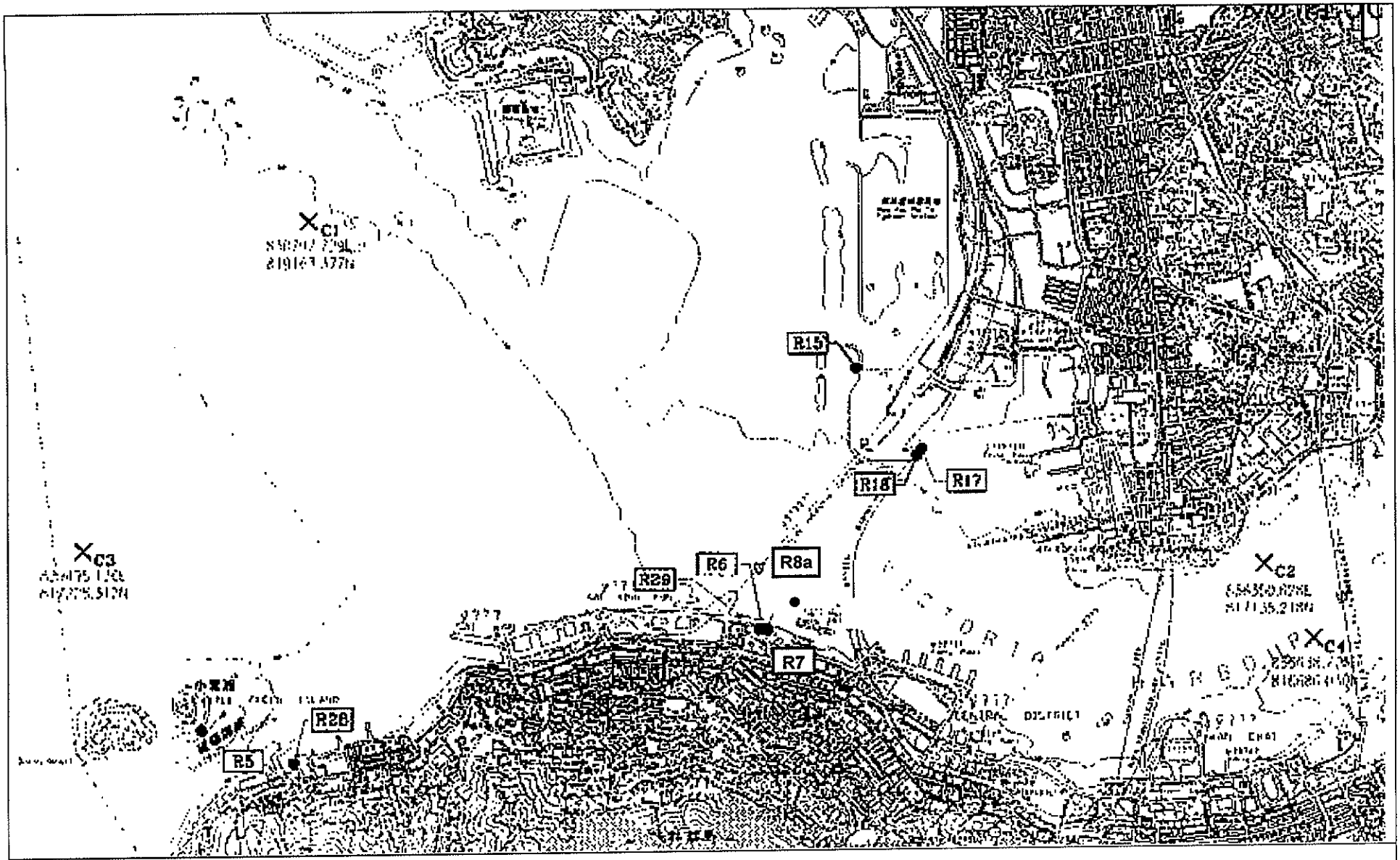

Contract No. 9/WSD/08 Laying of Western Cross Harbour Main and Associated Land Mains for West Kowloon to Sai Ying Pun

Figure 3

Locations of Water Quality Monitoring Stations

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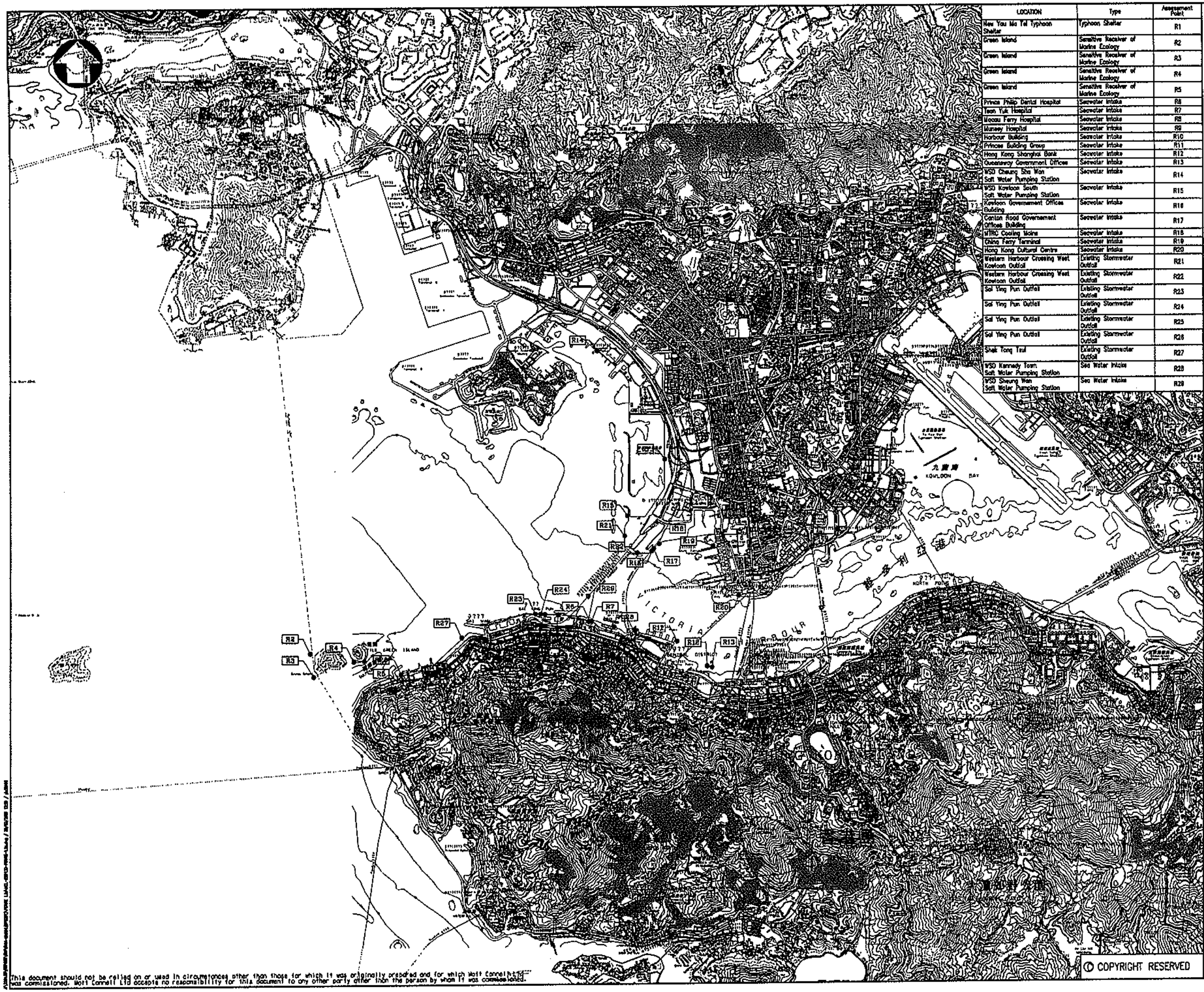

LOCATION	Type	Assessment Point
New Yau Ma Tei Typhoon Shelter	Typhoon Shelter	R1
Green Island	Sensitive Receiver of Marine Ecology	R2
Green Island	Sensitive Receiver of Marine Ecology	R3
Green Island	Sensitive Receiver of Marine Ecology	R4
Green Island	Sensitive Receiver of Marine Ecology	R5
Prince Philip 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	08/05	LYK	PRELIMINARY		

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

Contract No. CE42/2005(WS)

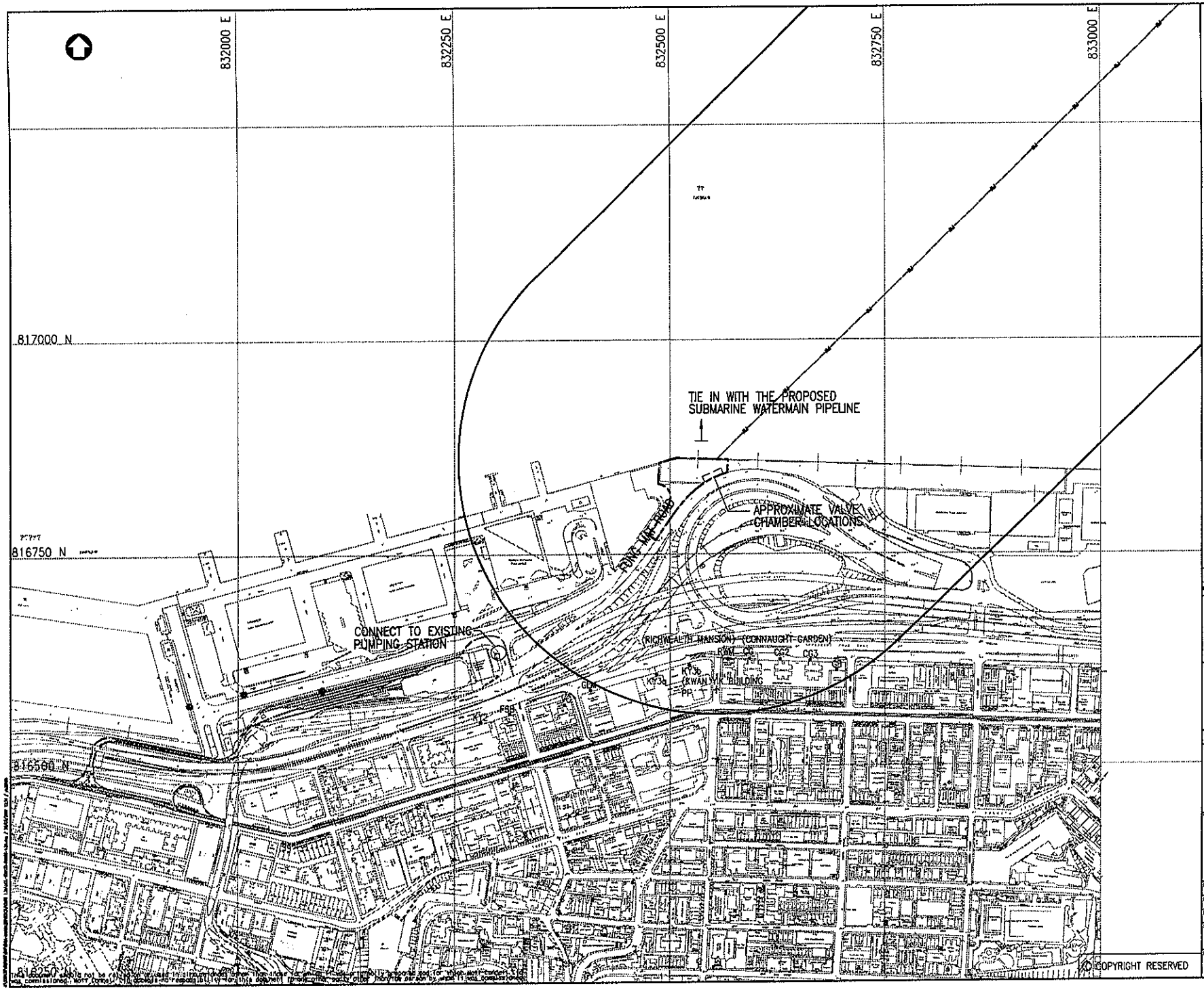
Project: LAYING OF WESTERN CROSS HARBOUR MAIN AND ASSOCIATED LAND MAINS FROM WEST KOWLOON TO SAI YING PUN – INVESTIGATION

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

Designed: | Drawn: LYK | Dwg Chk: — | Eng Chk: | Coordination: - | Approved:

Scale: 1 : 25000@A1 | Project: 228133

Drawing No. FIGURE 1.2a | Rev A



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

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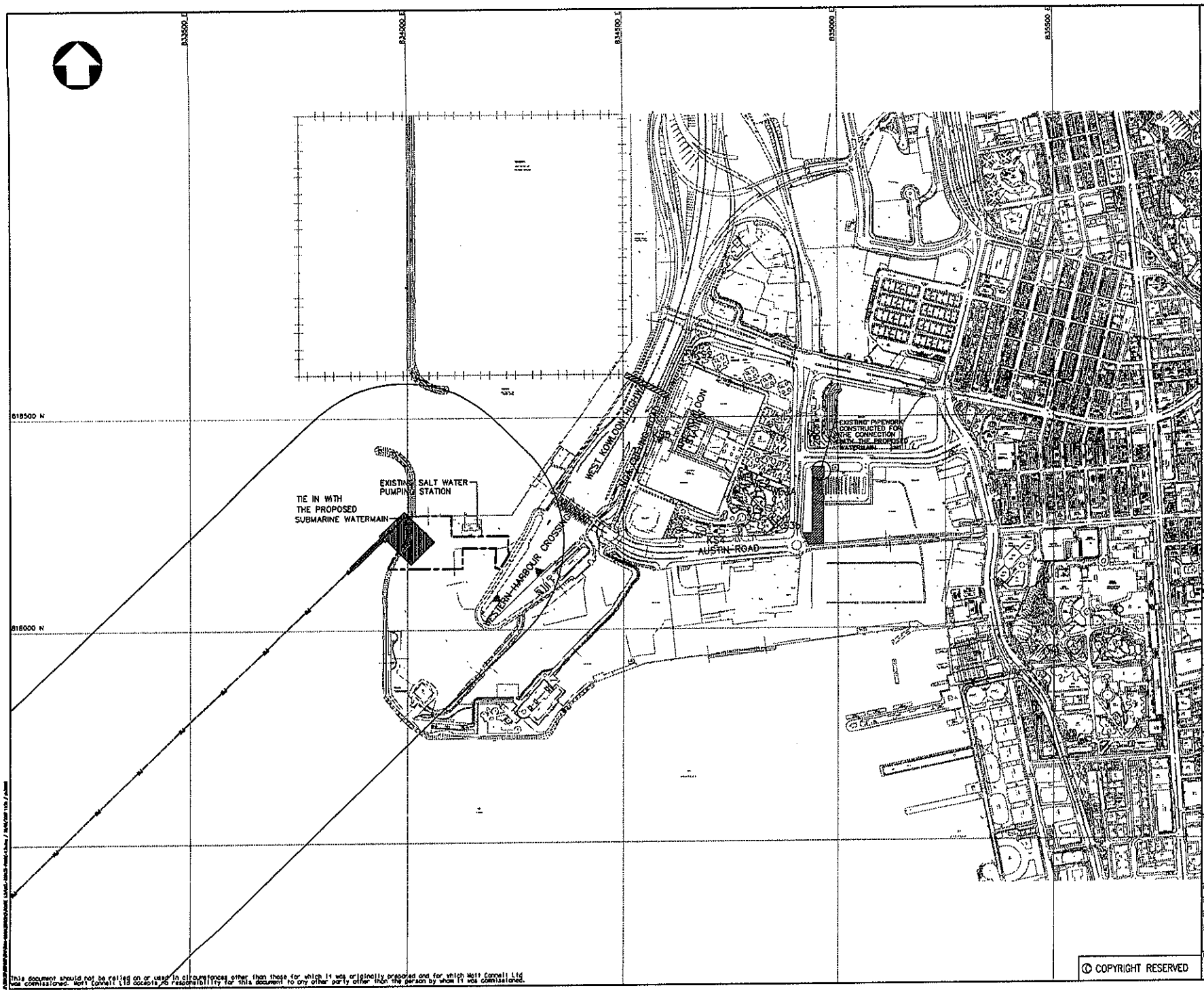
Client
THE GOVERNMENT OF THE HONG KONG SPECIAL ADMINISTRATIVE REGION
WATER SUPPLIES DEPARTMENT

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			Eng.Chk.	-
Drawn	LYK		Coordination	
Eng.Chk.	—		Approved	
Scale	1 : 2000@A1	Project		Number
Drawing No.	FIGURE 1.2b			Rev A



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

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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
LOCATION OF NOISE SENSITIVE RECEIVERS IN WEST KOWLOON

Designed			Eng./Ch'k.		
Drawn	LYK		Coordination	–	
Eng./Ch'k.	—		Approved		

Scale 1 : 4000@A1

Drawing No. FIGURE 1.2c

Rev A