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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.25**

(MAY 2012)

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ENVIRON

Ref.: WSDWHCMSEI00_0_0262L.12

8th Jun 2012

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

By Post

Attention: Mr. Johnny Ho

Dear Sir,

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. 25

Reference is made to Environment Team's submission of the Environmental Monitoring and Audit Report No. 25 by Email on 5th Jun 2012 (entitled "9/WSD/08 - Draft Monthly Report (May 12)") and subsequent submission of the revised report on 8th Jun 2012.

We are pleased to inform you that we have no comment on the captioned revised 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.25 was prepared by ETS-Testconsult Ltd (ET) for the Project. This report documented the findings of EM&A Works conducted during the Project in May 2012.

Site Activities

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

- Re-instatement of the vertical seawall (Portion J); and
- Placing of Rock Armour (Type 2) to the submarine main (Portion I).

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): 4 Occasions at KS6, 5 Occasions at KY3, CGa and RWM
- Evening-time Noise Monitoring (1900-2300): 1 Occasions at KS6, CGa, RWM and KY3
- Night-time Noise Monitoring (2300-0700 of next day): 0 Occasion at KS6, CGa, RWM and KY3
- Holiday-time Noise Monitoring (0700-1900 on Holiday): 4 Occasions at KS6, CGa, RWM and KY3
- Marine Water Quality Monitoring: 13 Occasions at 9 monitoring stations and 4 control stations
- Weekly-site inspection: 5 Occasions

Noise Monitoring

No exceedance of Action and Limit Level of noise monitoring was recorded in this reporting month.

Water Quality Monitoring

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

Site Inspection

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

| <u>Concerned Parties</u> | <u>Dates of Audit / Inspection</u> |
|-------------------------------|------------------------------------|
| ET Weekly site inspection | 03, 10, 16, 24 and 29 May 2012 |
| Monthly Joint site inspection | 16 May 2012 |

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 complaint, notification of summons and prosecution with respect to environmental issues was received in this reporting month.

Change in Environmental Aspect in this Reporting Month

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



Future Key Issues

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

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



1.0 INTRODUCTION

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

This report documented the findings of EM&A Works conducted in May 2012.

2.0 PROJECT INFORMATION

2.1 Scope of the Project

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

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

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

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

2.2 Work Programme

Details of work programme are shown in Appendix E.

2.3 Project Organization and Management Structure

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

2.4 Contact Details of Key Personnel

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

Table 2.1 Contact Details of Key Personnel

| Project Role | Organization | Name of Key Staff | Tel. No. | Fax No. |
|---------------------------|----------------|-------------------|-----------|-----------|
| Engineer's Representative | Mott MacDonald | Mr. Kelvin Ho | 2377 2823 | 2377 2900 |
| IEC | ENVIRON | Mr David Yeung | 3743 0788 | 3548 6988 |
| Contractor's Agent | WHPOJV | Mr. Danny Ho | 2695 8318 | 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:

- Re-instatement of the vertical seawall (Portion J); and
- Placing of Rock Armour (Type 2) to the submarine main (Portion I).



4.0 IMPACT NOISE MONITORING

4.1 Monitoring Requirements

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

4.2 Monitoring Equipment

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

Table 4.1 Noise Monitoring Equipment

| Equipment | Model | Equipment No. | Serial No. | Calibration Date. | Expired Date |
|------------------------|-----------------------------------|---------------|------------|-------------------|--------------|
| Sound Level Meter | Rion NL-31 Sound Level Meter | ET/EN/003/06 | 00110024 | 16/04/12 | 15/04/13 |
| | | ET/EN/003/10 | 00531142 | 24/05/11 | 23/05/12 |
| | | ET/EN/003/13 | 00593620 | 08/09/11 | 07/09/12 |
| Sound Level Calibrator | Rion NC-73 Sound Level Calibrator | ET/EN/002/01 | 10196943 | 07/11/11 | 06/11/12 |
| Anemometer | AZ Instrument AZ 8908 | ET/EN/001/03 | 9101259 | 10/11/11 | 09/11/12 |

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

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

| <i>Daytime and Holiday-time Noise monitoring station</i> | <i>Description of location</i> | <i>Type of Measurement</i> |
|---|---------------------------------------|----------------------------|
| 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 |
| <i>Evening-time and Night-time Noise monitoring station</i> | <i>Description of location</i> | <i>Type of Measurement</i> |
| 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 barking directly towards the receiver of noise level meter). If noise measurement was paused during high intrusive noise, the noise level meter would be resumed and continued the noise measurement and the observations would also be recorded. Any pause intervals were not included in the measurement time; and
- Noise monitoring would be cancelled in the presence of fog, rain, storm, wind with a steady speed exceeding 5m/s, or wind gusts exceeding 10m/s.

Maintenance and Calibration

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

4.6 Actions and Limit Levels

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

Table 4.4 Action and Limit Levels for Noise Monitoring

| Time Period | Action | Limit |
|---|---|------------|
| 0700 –1900 hrs 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

Totally 4 occasions at KS6 and 5 occasions at CGa, RWM and KY3 of day-time noise monitoring, 1 occasion of evening-time noise monitoring at KS6, CGa, RWM and KY3, 0 occasion of night-time noise monitoring and 4 occasions of holiday-time noise monitoring at KS6, CGa, RWM and KY3 were carried out in this reporting month.

No exceedance in Limit Level was recorded in this reporting month. Besides, no exceedance of Action Level of noise monitoring was recorded since no complaint on noise issue was received in this reporting month.

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

Table 4.5 Summary of Noise Daytime Monitoring Results

| Monitoring Parameter | Date | KS6 | | | |
|----------------------|----------|------------|----------|--------|---------|
| | | Start Time | End Time | Result | Exceed* |
| Day-time | 04/05/12 | 15:40 | 16:10 | 63.8 | X |
| | 07/05/12 | 13:40 | 14:10 | 63.9 | X |
| | 14/05/12 | 15:00 | 15:30 | 65.3 | X |
| | 25/05/12 | 16:15 | 16:45 | 66.4 | X |
| Evening-time | 05/05/12 | 19:50 | 19:25 | 64.3 | X |
| | 05/05/12 | 19:55 | 20:00 | 63.8 | X |
| | 05/05/12 | 20:00 | 20:05 | 63.6 | X |
| Holiday-time | 06/05/12 | 10:10 | 10:15 | 60.1 | X |
| | 06/05/12 | 10:15 | 10:20 | 59.9 | X |
| | 06/05/12 | 10:20 | 10:25 | 60.4 | X |
| | 13/05/12 | 09:25 | 09:30 | 61.2 | X |
| | 13/05/12 | 09:30 | 09:35 | 60.7 | X |
| | 13/05/12 | 09:35 | 09:40 | 60.8 | X |



| Monitoring Parameter | Date | KS6 | | | |
|----------------------|----------|------------|----------|--------|---------|
| | | Start Time | End Time | Result | Exceed* |
| Holiday-time | 20/05/12 | 13:05 | 13:10 | 66.9 | X |
| | 20/05/12 | 13:10 | 13:15 | 67.0 | X |
| | 20/05/12 | 13:15 | 13:20 | 66.8 | X |
| | 27/05/12 | 10:15 | 10:20 | 60.6 | X |
| | 27/05/12 | 10:20 | 10:25 | 60.9 | X |
| 27/05/12 | 10:25 | 10:30 | 60.0 | X | |
| Monitoring Parameter | Date | CGa | | | |
| | | Start Time | End Time | Result | Exceed* |
| Day-time | 02/05/12 | 16:15 | 16:45 | 74.9 | X |
| | 07/05/12 | 13:50 | 14:20 | 74.7 | X |
| | 14/05/12 | 15:00 | 15:30 | 70.4 | X |
| | 23/05/12 | 11:00 | 11:30 | 73.5 | X |
| | 30/05/12 | 16:30 | 17:00 | 73.2 | X |
| Evening-time | 05/05/12 | 20:35 | 20:40 | 69.1 | X |
| | 05/05/12 | 20:40 | 20:45 | 68.6 | X |
| | 05/05/12 | 20:45 | 20:50 | 69.4 | X |
| Holiday-time | 06/05/12 | 11:00 | 11:05 | 69.9 | X |
| | 06/05/12 | 11:05 | 11:10 | 67.6 | X |
| | 06/05/12 | 11:10 | 11:15 | 69.3 | X |
| | 13/05/12 | 10:10 | 10:15 | 68.0 | X |
| | 13/05/12 | 10:15 | 10:20 | 67.7 | X |
| | 13/05/12 | 10:20 | 10:25 | 67.8 | X |
| | 20/05/12 | 15:00 | 15:05 | 69.7 | X |
| | 20/05/12 | 15:05 | 15:10 | 70.0 | X |
| | 20/05/12 | 15:10 | 15:15 | 69.9 | X |
| | 27/05/12 | 11:00 | 11:05 | 68.9 | X |
| 27/05/12 | 11:05 | 11:10 | 69.4 | X | |
| 27/05/12 | 11:10 | 11:15 | 69.6 | X | |
| Monitoring Parameter | Date | RWM | | | |
| | | Start Time | End Time | Result | Exceed* |
| Day-time | 02/05/12 | 16:50 | 17:20 | 65.5 | X |
| | 07/05/12 | 14:25 | 14:55 | 65.2 | X |
| | 14/05/12 | 15:35 | 16:05 | 63.3 | X |
| | 23/05/12 | 10:30 | 11:00 | 65.6 | X |
| | 30/05/12 | 15:55 | 16:25 | 66.4 | X |
| Evening-time | 05/05/12 | 20:55 | 21:00 | 68.3 | X |
| | 05/05/12 | 21:00 | 21:05 | 68.6 | X |
| | 05/05/12 | 21:05 | 21:10 | 68.2 | X |
| Holiday-time | 06/05/12 | 11:20 | 11:25 | 62.1 | X |
| | 06/05/12 | 11:25 | 11:30 | 61.7 | X |
| | 06/05/12 | 11:30 | 11:35 | 62.4 | X |
| | 13/05/12 | 10:30 | 10:35 | 62.2 | X |
| | 13/05/12 | 10:35 | 10:40 | 61.8 | X |
| | 13/05/12 | 10:40 | 10:45 | 61.7 | X |
| | 20/05/12 | 14:40 | 14:45 | 65.1 | X |
| | 20/05/12 | 14:45 | 14:50 | 65.3 | X |
| | 20/05/12 | 14:50 | 14:55 | 65.3 | X |
| | 27/05/12 | 11:20 | 11:25 | 62.3 | X |
| 27/05/12 | 11:25 | 11:30 | 62.7 | X | |
| 27/05/12 | 11:30 | 11:35 | 62.0 | X | |
| Monitoring Parameter | Date | KY3 | | | |
| | | Start Time | End Time | Result | Exceed* |
| Day-time | 02/05/12 | 17:25 | 17:55 | 64.7 | X |
| | 07/05/12 | 16:00 | 16:30 | 64.8 | X |
| | 14/05/12 | 16:10 | 16:40 | 62.8 | X |
| | 23/05/12 | 09:55 | 10:25 | 64.1 | X |
| | 30/05/12 | 15:20 | 15:50 | 65.3 | X |
| Evening-time | 05/05/12 | 21:15 | 21:20 | 66.2 | X |
| | 05/05/12 | 21:20 | 21:25 | 65.7 | X |
| | 05/05/12 | 21:25 | 21:30 | 65.8 | X |



| Monitoring Parameter | Date | KY3 | | | |
|----------------------|----------|------------|----------|--------|---------|
| | | Start Time | End Time | Result | Exceed* |
| Holiday-time | 06/05/12 | 11:40 | 11:45 | 60.6 | X |
| | 06/05/12 | 11:45 | 11:50 | 60.1 | X |
| | 06/05/12 | 11:50 | 11:55 | 61.0 | X |
| | 13/05/12 | 10:50 | 10:55 | 63.0 | X |
| | 13/05/12 | 10:55 | 11:00 | 62.6 | X |
| | 13/05/12 | 11:00 | 11:05 | 62.9 | X |
| | 20/05/12 | 14:20 | 14:25 | 63.4 | X |
| | 20/05/12 | 14:25 | 14:30 | 63.2 | X |
| | 20/05/12 | 14:30 | 14:35 | 63.0 | X |
| | 27/05/12 | 11:45 | 11:50 | 61.3 | X |
| | 27/05/12 | 11:50 | 11:55 | 60.3 | X |
| 27/05/12 | 11:55 | 12:00 | 60.5 | 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 | 0 | 0 |
| Cumulative | 0 | 0 | 227 | 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

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

Table 5.3 Other relevant water quality parameters

| <i>Water Quality Parameters</i> | |
|--|--------------------------|
| <i>Tidal stages</i> | <i>Water depth (m)</i> |
| <i>Dissolved Oxygen saturation (%)</i> | <i>Salinity (ppt)</i> |
| <i>Temperature (°C)</i> | <i>Weather Condition</i> |

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

| <i>Frequency</i> | <i>Monitoring Depth</i> |
|-------------------------------------|---|
| <i>3 days/week, 2 tides/day</i> | <i>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)</i> |

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)

| <i>Parameter</i> | <i>Model</i> | <i>Date of Calibration</i> | <i>Due Date</i> | <i>Equipment No.</i> | <i>Serial No.</i> |
|--|---|------------------------------|------------------------------|-----------------------|---------------------|
| <i>Coordinate of Monitoring stations</i> | <i>Garmin eTrex 10</i> | ----- | ----- | <i>ET/EW/005/04</i> | <i>2DR099626</i> |
| <i>Dissolved Oxygen (Saturation), Temperature and Salinity</i> | <i>YSI Dissolved Oxygen, Salinity & Temperature Meter, YSI Pro 2030</i> | <i>13/02/12 13/05/12</i> | <i>12/05/12 12/08/12</i> | <i>ET/EW/008/004*</i> | <i>10F 101978</i> |
| <i>Turbidity</i> | <i>HACH Model 2100P Turbid Meter</i> | <i>13/04/12</i> | <i>12/07/12</i> | <i>ET/0505/007*</i> | <i>08060C030281</i> |
| <i>Water Depth</i> | <i>Speedtech Instrument SM-5A</i> | ----- | ----- | <i>ET/EW/002/04</i> | <i>56657</i> |

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



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

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

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

Table 5.6 Summary of test method

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

5.8 Action and Limit Level

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

Table 5.7 Water Quality Action and Limit Levels

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

- Notes: 1. "depth-averaged" is calculated by taking the arithmetic means of reading of all three depths.
2. For DO, non-compliance of the water quality limits occurs when monitoring result is lower than the limits.
3. For turbidity and SS, non-compliance of 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

Daily water quality monitoring duration are detailed in Appendix C2. Below is the time schedule for the water quality monitoring conducted in this reporting month.



Table 5.8 Schedule for Impact Water Quality Monitoring

| May 2012 | | | | | | |
|----------|--------|---------|-----------|----------|--------|----------|
| 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 | 24 | 25 | 26 |
| 27 | 28 | 29 | 30 | 31 | | |

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

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 03, 10, 16, 24 and 29 May 2012 by ET. Monthly joint site inspection at 16 May 2012 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 finding

According to the summary of the ET weekly site inspections carried out in May 2012, it indicated that site practices of the Contractor were generally undertaken in an environmentally acceptable manner and the overall site environmental performance was satisfactory. Summary of the site inspection findings in this reporting month is shown in Table 6.1.

Table 6.1 Summary of Site Inspection Findings

| Item | Aspect | Finding | Action(s) taken by the Contractor | ET Verification | Status of finding |
|------|---------------|--|--|--|-------------------|
| 1 | Water | Standing water was noted at a steel pile in Portion J during the weekly site inspection on 03/05/2012. | Standing water was removed from the steel pile in Portion J (Photo Ref. 1 of Follow-up action on 03/05/12) | No standing water was observed since the steel pile was collected during the weekly site inspection on 10/05/12. | Closed |
| 2 | Water | Standing water was noted at a drip tray in Portion J during the weekly site inspection on 03/05/2012. | Standing water was removed from the drip tray in Portion J (Photo Ref. 2 of Follow-up action on 03/05/12) | No standing water was observed inside the drip tray during the weekly site inspection on 10/05/12. | Closed |
| 3 | Site practice | Floating rubbish was noted in the water pond at Portion H during the weekly site inspection on 24/05/12. | Floating rubbish was removed (Photo Ref. 1 & 2 of Follow-up action on 24/05/12) | The rubbish together with the water pond was cleared during the weekly site inspection on 29/05/12 | Closed |



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;
- 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 |
| Construction Noise Permit (Sai Ying Pun) | GW-RS0338-12 | 29/03/12 | 28/09/12 | <p>Group A One Crane, mobile (diesel) (CNP 048) One Air compressor with Noise Emission Label showing a sound power level of $\leq 98\text{dB(A)}$ One Generator, silenced, $\leq 108\text{dB(A)}$ (CNP 101)</p> <p>Group B One Air compressor with Noise Emission Label showing a sound power level of $\leq 98\text{dB(A)}$ One Generator, silenced, $\leq 108\text{dB(A)}$ (CNP 101)</p> <p>Group C One Generator, silenced, $\leq 108\text{dB(A)}$ (CNP 101) One Derrick barge (CNP 061) One Guard boat One Tug boat (CNP 221)</p> <p>Group D One Generator, silenced, $\leq 108\text{dB(A)}$ (CNP 101) One Derrick barge (CNP 061) One Guard boat One Tug boat (CNP 221)</p> |
| Construction Noise Permit (Sai Ying Pun) | GW-RS0463-12 | 03/05/12 | 29/10/12 | <p>Group A One Crane, mobile (diesel) (CNP 048) One Air compressor with Noise Emission Label showing a sound power level of $\leq 98\text{dB(A)}$ One Generator, silenced, $\leq 108\text{dB(A)}$ (CNP 101)</p> <p>Group B One Air compressor with Noise Emission Label showing a sound power level of $\leq 98\text{dB(A)}$ One Generator, silenced, $\leq 108\text{dB(A)}$ (CNP 101)</p> <p>Group C Two Generator, silenced, $\leq 108\text{dB(A)}$ (CNP 101) Two Derrick barge (CNP 061) One Guard boat One Tug boat (CNP 221)</p> <p>Group D One Generator, silenced, $\leq 108\text{dB(A)}$ (CNP 101) One Derrick barge (CNP 061)</p> |



| Description | Permit No. | Valid Period | | Remarks |
|---|---|--------------|----------------|--|
| | | From | To | |
| Construction Noise Permit (West Kowloon) | GW-RE0196-12 | 16/03/12 | 15/08/12 | Group A One Generator, standard (CNP 101) One Derrick barge (CNP 061) One Guard boat Group B Two Generator, standard (CNP 101) Two Derrick barge (CNP 061) One Guard boat One Tug boat (CNP 221) Group C One Water pump, submersible (electric) (CNP283) One Generator, standard (CNP 101) Group D One Generator, standard (CNP 101) One Dredger, grab (CNP 063) One Guard boat Group E One Generator, standard (CNP 101) One Dredger, grab (CNP 063) One Guard boat One Tug boat (CNP 221) |
| 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 |
| 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 |
| 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) | 140.91 | | 17218.20 |
| | 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) | 140.91 | SENT Landfill | 17218.20 |
| C&D Waste | Metals (in kg) | 0 | --- | 0 |
| | Paper/Cardboard Packaging (in kg) | 0 | Collected by recycling company | 169 |
| | Plastics (in kg) | 0 | --- | 0 |
| | Chemical Waste (in kg) | 0 | --- | 3578 |
| | Other, e.g. General Refuse (in m ³) | 1.46 | SENT Landfill | 152.99 |
| Dredged Materials | Type 1 (in m ³) | 0 | East Ninepin Mud Disposal Ground | 160500 |
| | Type 2 (in m ³) | 0 | The East Sha Chau | 104990 |

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 exceedance of Action and Limit Level of marine water quality monitoring results was recorded during the reporting month.

No exceedance of Action and Limit Level of noise monitoring was recorded in this reporting month.

9.2 Summary of Environmental Complaints

No complaint was received in this reporting month.

9.3 Summary of Notification of Summons and Prosecution

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

10.0 IMPLEMENTATION STATUS

10.1 Implementation Status of Environmental Mitigation Measures

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

10.2 Implementation Status of Event and Action Plan

Since no exceedance of Action and Limit Level of water quality monitoring results was recorded in this reporting month, no further action was required to be taken.

No exceedance of Action and Limit Level of noise monitoring was recorded in this reporting month. Hence, no further action was required.

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

No complaint, notification of summons and successful prosecution 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

| <i>Complaints logged</i> | | <i>Summons served</i> | | <i>Successful prosecution received</i> | |
|--------------------------|-------------------|-----------------------|-------------------|--|-------------------|
| <i>May 2012</i> | <i>Cumulative</i> | <i>May 2012</i> | <i>Cumulative</i> | <i>May 2012</i> | <i>Cumulative</i> |
| 0 | 1 | 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 exceedance of Action and Limit Level of water quality monitoring results was recorded during the reporting month.

No exceedance of Action and Limit Level of noise monitoring was recorded in this reporting month.

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

No complaint, prosecution or notification of summon 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; and
- 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:

- *Re-instatement of the vertical seawall (Portion J); and*
- *Placing backfilling and armouring material (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; 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

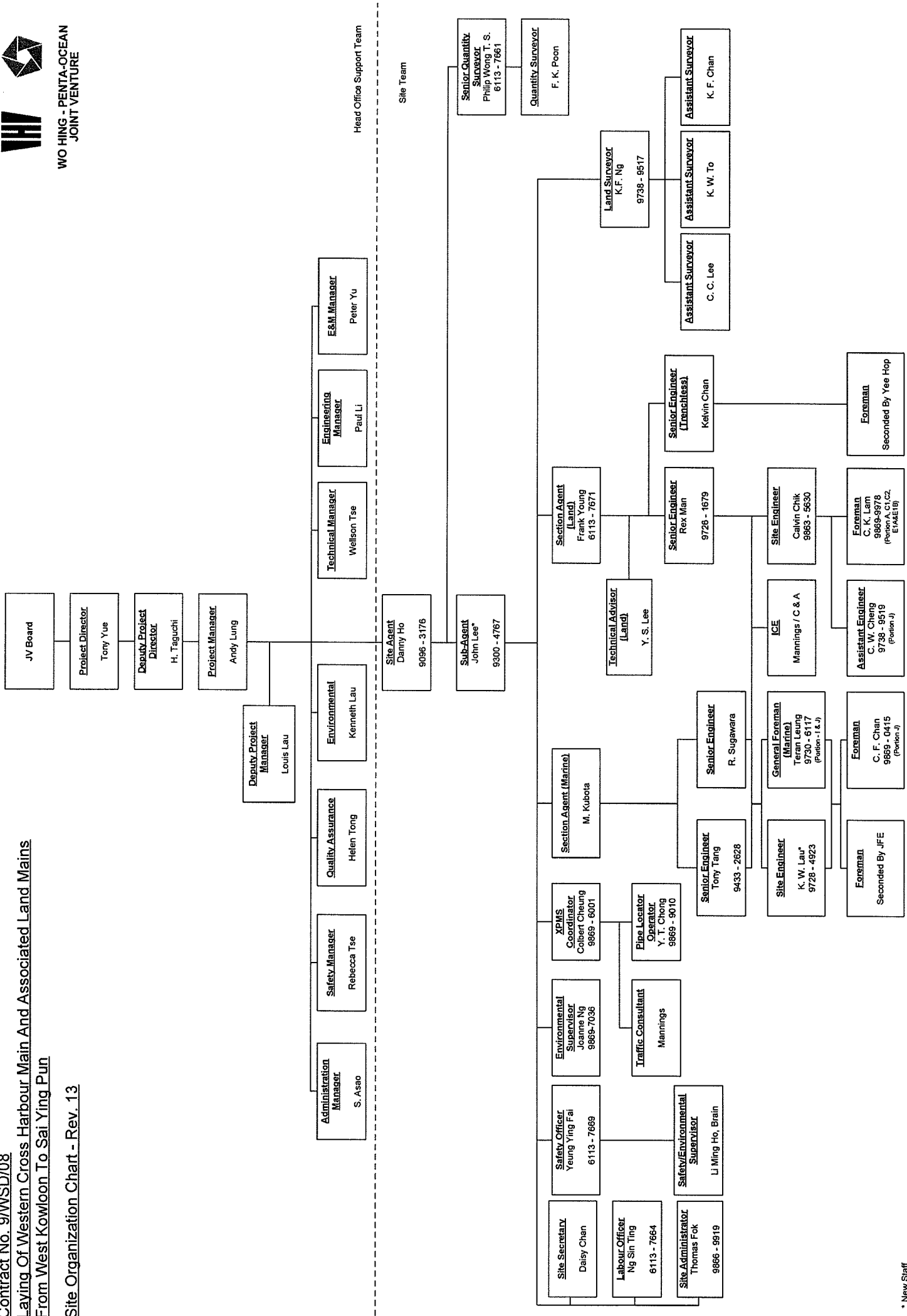
The proposed EM&A program of the coming month is attached in Appendix I.

- END OF REPORT -

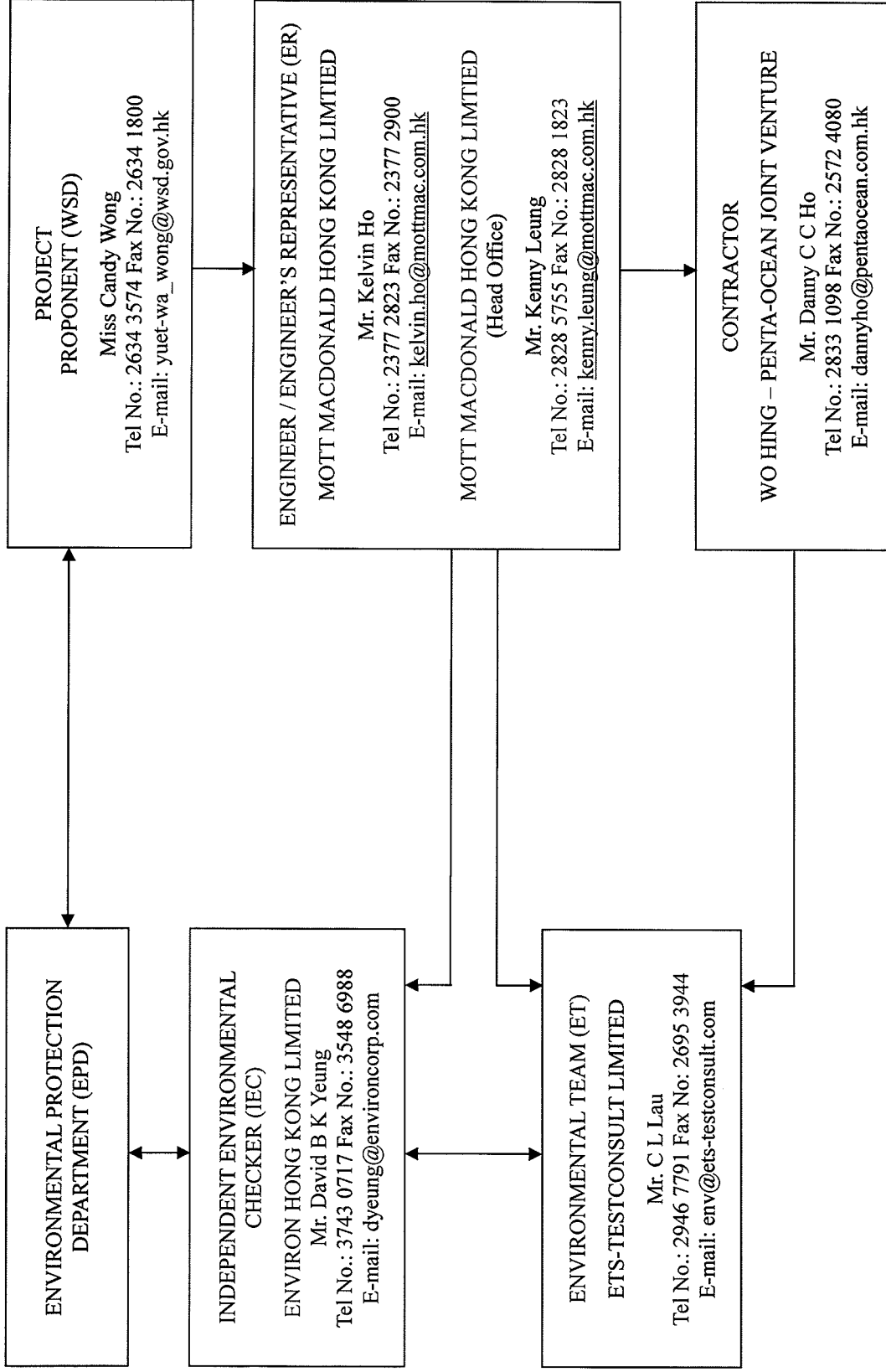


Appendix A

Organization Chart and Lines of Communication



* New Staff



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

Title Project Organization and Line of Communication

Date Dec 2009

Figure 1.3a



Appendix B1

Calibration Certificates for Impact Noise Monitoring Equipment



Calibration Certificate

Certificate No. 16576

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. : Q12677

Date of receipt : 2-Nov-11

Item Tested

Description : Anemometer

Manufacturer : AZ Instrument

Model : AZ 8908

Serial No. : 9101259

Test Conditions

Date of Test : 10-Nov-11

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 the manufacturer's specification.

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

Main Test equipment used:

| Equipment No. | Description | Cert. No. | Traceable to |
|---------------|------------------|-------------|--------------|
| S223A | Std. Thermometer | 13173 | NIM-PRC |
| S155 | Std. Anemometer | NSC20113098 | 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: 10-Nov-11

This Certificate is issued by:

Hong Kong Calibration Ltd.

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

Tel: 2425 8801 Fax: 2425 8646

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Calibration Certificate

Certificate No. 16576

Page 2 of 2 Pages

Results :

1. Velocity

| Applied Value (m/s) | UUT Reading (m/s) | Corrected Reading (UUT Reading x 1.1) (m/s) | Mfr's Spec. |
|---------------------|-------------------|---|----------------------------|
| 2.50 | 2.3 | 2.5 | ± (3 % of reading + 1 dgt) |
| 5.00 | 4.6 | 5.1 | |
| 10.00 | 9.4 | 10.3 | |
| 15.00 | 14.0 | 15.4 | |
| 20.00 | 18.8 | 20.7 | |

2. Temperature

| Applied Value (°C) | UUT Reading (°C) | Mfr's Spec. |
|--------------------|------------------|-------------|
| 5.68 | 5.7 | ± 1 °C |
| 25.98 | 25.7 | |
| 47.80 | 47.1 | |

Remark : 1. UUT: Unit-Under-Test

2. Uncertainty : ± (0.9% + 0.16 m/s) for Velocity, ± 0.25 °C for Temperature, for a confidence probability of not less than 95%.

3. Atmospheric Pressure : 1 002 hPa

----- END -----



Calibration Certificate

Certificate No. 16578

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. : Q12677

Date of receipt : 2-Nov-11

Item Tested

Description : Sound Level Calibrator

Manufacturer : Rion

Model : NC-73

Serial No. : 10196943

Test Conditions

Date of Test : 7-Nov-11

Supply Voltage : --

Ambient Temperature : (23 ± 3)°C

Relative Humidity : (50 ± 25) %

Test Specifications

Calibration check.

Ref. Document/Procedure : F21, Z02.

Test Results

All results were within the manufacturer's specification.

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

Main Test equipment used:

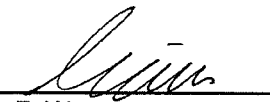
| <u>Equipment No.</u> | <u>Description</u> | <u>Cert. No.</u> | <u>Traceable to</u> |
|----------------------|------------------------|------------------|---------------------|
| S014 | Spectrum Analyzer | 13535 | NIM-PRC & SCL-HKSAR |
| S024 | Sound Level Calibrator | 15136 | NIM-PRC & SCL-HKSAR |
| S041 | Universal Counter | 15610 | SCL-HKSAR |
| S206 | Sound Level Meter | 04462 | 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.

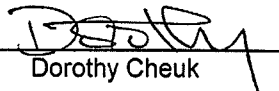
The test equipment used for calibration are traceable to International System of Units (SI).

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

Calibrated by :


P. F. Wong

Approved by :


Dorothy Cheuk

Date: 7-Nov-11

This Certificate is issued by:

Hong Kong Calibration Ltd.

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

Tel: 2425 8801 Fax: 2425 8646



Calibration Certificate

Certificate No. 16578

Page 2 of 2 Pages

Results :

1. Level Accuracy (at 1 kHz)

| UUT Nominal Value | Measured Value | Mfr's Spec. |
|-------------------|----------------|-------------|
| 94 dB | 94.21 dB | ± 1 dB |

Uncertainty : ± 0.2 dB

2. Frequency Accuracy

| UUT Nominal Value | Measured Value | Mfr's Spec. |
|-------------------|----------------|-------------|
| 1 kHz | 0.989 kHz | ± 2 % |

Uncertainty : ± 0.1 %

3. Level Stability : 0.0 dB

Uncertainty : ± 0.01 dB

4. Total Harmonic Distortion : < 0.4 %

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 : 1 005 hPa

----- END -----



Calibration Certificate

Certificate No. **22085**

Page 1 of 3 Pages

Customer : ETS-Testconsult Limited

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

Order No. : Q20865

Date of receipt : 11-Apr-12

Item Tested

Description : Precision Integrating Sound Level Meter

Manufacturer : Rion

Model : NL-31

Serial No. : 00110024

Test Conditions

Date of Test : 16-Apr-12

Supply Voltage : --

Ambient Temperature : (23 ± 3)°C

Relative Humidity : (50 ± 25) %

Test Specifications

Calibration check.

Ref. Document/Procedure : Z01.

Test Results

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


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

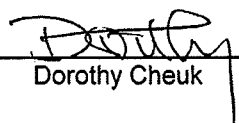
Main Test equipment used:

| <u>Equipment No.</u> | <u>Description</u> | <u>Cert. No.</u> | <u>Traceable to</u> |
|----------------------|--------------------------|------------------|---------------------|
| S017 | Multi-Function Generator | C101623 | SCL-HKSAR |
| S024 | Sound Level Calibrator | 15136 | 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: 16-Apr-12



Calibration Certificate

Certificate No. **22085**

Page 2 of 3 Pages

Results :

1. SPL Accuracy

| UUT Setting | | | Applied Value (dB) | UUT Reading (dB) |
|------------------|----------------|----------|--------------------|------------------|
| Level Range (dB) | Weight | Response | | |
| 20 – 100 | L _A | Fast | 94.0 | 94.0 |
| | | Slow | | 94.0 |
| | L _C | Fast | | 94.0 |
| | L _p | Fast | | 94.1 |
| 30 – 120 | L _A | Fast | 94.0 | 94.0 |
| | | Slow | | 94.0 |
| | L _C | Fast | | 94.0 |
| | L _p | Fast | | 94.0 |
| 30 – 120 | L _A | Fast | 114.0 | 114.1 |
| | | Slow | | 114.1 |
| | L _C | Fast | | 114.1 |
| | L _p | Fast | | 114.1 |

IEC 651 Type 1 Spec. : ± 0.7 dB

Uncertainty : ± 0.2 dB

2. Level Stability : 0.1 dB

IEC 651 Type 1 Spec. : ± 0.3 dB

Uncertainty : ± 0.1 dB

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 | 114.0 | 0.0 | ± 0.7 dB |
| 130 | 104.0 | 104.0 | 0.0 | |
| 120 | 94.0 | 94.0 (Ref.) | -- | |
| 110 | 84.0 | 84.1 | +0.1 | |
| 100 | 74.0 | 74.1 | +0.1 | |
| 90 | 64.0 | 64.1 | +0.1 | |
| 80 | 54.0 | 54.1 | +0.1 | |

Uncertainty : ± 0.1 dB



Calibration Certificate

Certificate No. **22085**

Page 3 of 3 Pages

3.2 Differential level linearity

| UUT Range (dB) | Applied Value (dB) | UUT Reading (dB) | Variation (dB) | IEC 651 Type 1 Spec. |
|----------------|--------------------|------------------|----------------|----------------------|
| 120 | 84.0 | 84.1 | +0.1 | ± 0.4 dB |
| | 94.0 | 94.0 (Ref.) | -- | |
| | 95.0 | 95.0 | 0.0 | ± 0.2 dB |

Uncertainty : ± 0.1 dB

4. Frequency Weighting

A weighting

| Frequency | Attenuation (dB) | IEC 651 Type 1 Spec. |
|-----------|------------------|-----------------------------|
| 31.5 Hz | -39.6 | - 39.4 dB, ± 1.5 dB |
| 63 Hz | -26.0 | - 26.2 dB, ± 1.5 dB |
| 125 Hz | -16.1 | - 16.1 dB, ± 1 dB |
| 250 Hz | -8.6 | - 8.6 dB, ± 1 dB |
| 500 Hz | -3.1 | - 3.2 dB, ± 1 dB |
| 1 kHz | 0.0 (Ref.) | 0 dB, ± 1 dB |
| 2 kHz | +1.4 | + 1.2 dB, ± 1 dB |
| 4 kHz | +1.2 | + 1.0 dB, ± 1 dB |
| 8 kHz | -1.0 | - 1.1 dB, + 1.5 dB ~ - 3 dB |
| 16 kHz | -6.6 | - 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 | 40.0 | 40.0 | -- |
| 1/10 | 40.0 | 39.9 | ± 0.5 dB |
| 1/10 ² | 40.0 | 39.9 | |
| 1/10 ³ | 40.0 | 40.0 | ± 1.0 dB |
| 1/10 ⁴ | 40.0 | 40.3 | |

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 : 1 005 hPa.

----- END -----



Calibration Certificate

Certificate No. **12737**

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. : Q11169

Date of receipt : 20-May-11

Item Tested

Description : Precision Integrating Sound Level Meter

Manufacturer : Rion

Model : NL-31

Serial No. : 00531142

Test Conditions

Date of Test : 24-May-11

Supply Voltage : --

Ambient Temperature : $(23 \pm 3)^\circ\text{C}$

Relative Humidity : $(50 \pm 25) \%$

Test Specifications

Calibration check.

Ref. Document/Procedure : Z01.

Test Results

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


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

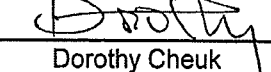
Main Test equipment used:

| <u>Equipment No.</u> | <u>Description</u> | <u>Cert. No.</u> | <u>Traceable to</u> |
|----------------------|--------------------------|------------------|---------------------|
| S017 | Multi-Function Generator | C101623 | SCL-HKSAR |
| S024 | Sound Level Calibrator | 04062 | 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: 25-May-11

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



Calibration Certificate

Certificate No. 12737

Page 2 of 4 Pages

Results :

1. SPL Accuracy

| UUT Setting | | | Applied Value (dB) | UUT Reading (dB) |
|------------------|----------------|----------------|--------------------|------------------|
| Level Range (dB) | Weight | Response | | |
| 20 – 100 | L _A | Fast | 94.0 | 94.0 |
| | | Slow | | 93.9 |
| | L _C | Fast | | 94.0 |
| | | L _p | | Fast |
| 30 – 120 | L _A | Fast | 94.0 | 94.0 |
| | | Slow | | 93.9 |
| | L _C | Fast | | 94.0 |
| | L _p | Fast | | 94.0 |
| 30 – 120 | L _A | Fast | 114.0 | 114.0 |
| | | Slow | | 113.9 |
| | L _C | Fast | | 114.0 |
| | L _p | Fast | | 114.0 |

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

Certificate No. 12737

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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 | 114.0 | 0.0 | ± 0.7 dB |
| 130 | 104.0 | 104.0 | 0.0 | |
| 120 | 94.0 | 94.0 (Ref.) | -- | |
| 110 | 84.0 | 84.0 | 0.0 | |
| 100 | 74.0 | 74.0 | 0.0 | |
| 90 | 64.0 | 64.1 | +0.1 | |
| 80 | 54.0 | 54.1 | +0.1 | |

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 | 84.0 | 0.0 | ± 0.4 dB |
| | 94.0 | 94.0 (Ref.) | -- | |
| | 95.0 | 95.0 | 0.0 | ± 0.2 dB |

Uncertainty : ± 0.1 dB

4. Frequency Weighting

A weighting

| Frequency | Attenuation (dB) | IEC 651 Type 1 Spec. |
|-----------|------------------|-----------------------------|
| 31.5 Hz | -39.6 | - 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 | -8.7 | - 8.6 dB, ± 1 dB |
| 500 Hz | -3.2 | - 3.2 dB, ± 1 dB |
| 1 kHz | 0.0 (Ref.) | 0 dB, ± 1 dB |
| 2 kHz | +1.3 | + 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 | -6.7 | - 6.6 dB, + 3 dB ~ ∞ |

Uncertainty : ± 0.1 dB



Calibration Certificate

Certificate No. 12737

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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 | 39.9 | |
| 1/10 ³ | 40.0 | 39.9 | ± 1.0 dB |
| 1/10 ⁴ | 40.0 | 39.8 | |

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 : 1 003 hPa.
4. The internal cal. Reference of UUT was drifted from 94.0 dB to 93.0 dB

----- END -----



Calibration Certificate

Certificate No. **15347**

Page 1 of 3 Pages

Customer : ETS-Testconsult Limited

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

Order No. : Q12215

Date of receipt : 7-Sep-11

Item Tested

Description : Precision Integrating Sound Level Meter (ET/EN/003/13)

Manufacturer : Rion

Model : NL-31

Serial No. : 00593620

Test Conditions

Date of Test : 8-Sep-11

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 Type1 and IEC 804 Type2 specification.

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


Main Test equipment used:

| <u>Equipment No.</u> | <u>Description</u> | <u>Cert. No.</u> | <u>Traceable to</u> |
|----------------------|--------------------------|------------------|---------------------|
| S017A | Multi-Function Generator | 07279 | SCL-HKSAR |
| S024 | Sound Level Calibrator | 04062 | 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: 8-Sep-11

This Certificate is issued by:
Hong Kong Calibration Ltd.

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



Calibration Certificate

Certificate No. **15347**

Page 2 of 3 Pages

Results :

1. SPL Accuracy

| UUT Setting | | | Applied Value (dB) | UUT Reading (dB) |
|------------------|----------------|----------|--------------------|------------------|
| Level Range (dB) | Weight | Response | | |
| 20 - 100 | L _A | Fast | 94.0 | 93.7 |
| | | Slow | | 93.7 |
| | L _C | Fast | | 93.9 |
| | L _p | Fast | | 93.9 |
| 30 - 120 | L _A | Fast | 94.0 | 93.7 |
| | | Slow | | 93.7 |
| | L _C | Fast | | 93.8 |
| | L _p | Fast | | 93.8 |
| 30 - 120 | L _A | Fast | 114.0 | 113.6 |
| | | Slow | | 113.6 |
| | L _C | Fast | | 113.7 |
| | L _p | Fast | | 113.7 |

IEC 651 Type 1 Spec. : ± 0.7 dB

Uncertainty : ± 0.1 dB

2. Level Stability : 0.1 dB

IEC 651 Type 1 Spec. : ± 0.3 dB

Uncertainty : ± 0.1 dB

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 | 113.7 | 0.0 | ± 0.7 dB |
| 130 | 104.0 | 103.7 | 0.0 | |
| 120 | 94.0 | 93.7(Ref.) | -- | |
| 110 | 84.0 | 83.7 | 0.0 | |
| 100 | 74.0 | 73.8 | +0.1 | |
| 90 | 64.0 | 63.8 | +0.1 | |
| 80 | 54.0 | 53.5 | -0.2 | |

Uncertainty : ± 0.1 dB



Calibration Certificate

Certificate No. **15347**

Page 3 of 3 Pages

3.2 Differential level linearity

| UUT Range (dB) | Applied Value (dB) | UUT Reading (dB) | Variation (dB) | IEC 651 Type 1 Spec. |
|----------------|--------------------|------------------|----------------|----------------------|
| 120 | 84.0 | 83.7 | 0.0 | ± 0.4 dB |
| | 94.0 | 93.7 (Ref.) | -- | |
| | 95.0 | 94.7 | 0.0 | ± 0.2 dB |

Uncertainty : ± 0.1 dB

4. Frequency Weighting

A weighting

| Frequency | Attenuation (dB) | IEC 651 Type 1 Spec. |
|-----------|------------------|-----------------------------|
| 31.5 Hz | -39.5 | - 39.4 dB, ± 1.5 dB |
| 63 Hz | -26.3 | - 26.2 dB, ± 1.5 dB |
| 125 Hz | -16.2 | - 16.1 dB, ± 1 dB |
| 250 Hz | -8.6 | - 8.6 dB, ± 1 dB |
| 500 Hz | -3.2 | - 3.2 dB, ± 1 dB |
| 1 kHz | 0.0 (Ref.) | 0 dB, ± 1 dB |
| 2 kHz | +1.4 | + 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 | -6.6 | - 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 | 40.0 | 40.0 | -- |
| 1/10 | 40.0 | 39.9 | ± 0.5 dB |
| 1/10 ² | 40.0 | 39.9 | |
| 1/10 ³ | 40.0 | 39.9 | ± 1.0 dB |
| 1/10 ⁴ | 40.0 | 40.0 | |

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 : 1 000 hPa.

4. The internal calibration reference of UUT was drifted from 94.0 dB to 94.5 dB



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 | |
| 04/05/12 | Cloudy | 15:40 | 16:10 | 63.8 | 65.9 | 59.4 | 0.7 |
| 07/05/12 | Fine | 13:40 | 14:10 | 63.9 | 65.7 | 61.2 | 0.7 |
| 14/05/12 | Fine | 15:00 | 15:30 | 65.3 | 67.0 | 63.8 | 0.3 |
| 25/05/12 | Cloudy | 16:15 | 16:45 | 66.4 | 68.1 | 61.5 | 0.4 |

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

| Date | Weather Condition | Start Time (hh:mm) | End Time (hh:mm) | Noise Level at the monitoring point, dB (A) | | | Wind Speed (m/s) |
|----------|-------------------|--------------------|------------------|---|------|------|------------------|
| | | | | Leq (30min) | L10 | L90 | |
| 02/05/12 | Fine | 16:15 | 16:45 | 74.9 | 77.7 | 65.6 | 0.5 |
| 07/05/12 | Fine | 13:50 | 14:20 | 74.7 | 77.3 | 65.4 | 0.4 |
| 14/05/12 | Cloudy | 15:00 | 15:30 | 70.4 | 72.0 | 67.1 | 0.9 |
| 23/05/12 | Cloudy | 11:00 | 11:30 | 73.5 | 75.7 | 68.9 | 0.5 |
| 30/05/12 | Cloudy | 16:30 | 17:00 | 73.2 | 74.9 | 68.5 | 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 | |
| 02/05/12 | Fine | 16:50 | 17:20 | 65.5 | 67.7 | 61.8 | 0.6 |
| 07/05/12 | Fine | 14:25 | 14:55 | 65.2 | 67.6 | 62.1 | 0.5 |
| 14/05/12 | Cloudy | 15:35 | 16:05 | 63.3 | 65.1 | 60.2 | 1.3 |
| 23/05/12 | Cloudy | 10:30 | 11:00 | 65.6 | 67.0 | 62.4 | 0.8 |
| 30/05/12 | Cloudy | 15:55 | 16:25 | 66.4 | 67.8 | 62.9 | 0.6 |

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

| Date | Weather Condition | Start Time (hh:mm) | End Time (hh:mm) | Noise Level at the monitoring point, dB (A) | | | Wind Speed (m/s) |
|----------|-------------------|--------------------|------------------|---|------|------|------------------|
| | | | | Leq (30min) | L10 | L90 | |
| 02/05/12 | Fine | 17:25 | 17:55 | 64.7 | 66.9 | 61.7 | 0.6 |
| 07/05/12 | Fine | 16:00 | 16:30 | 64.8 | 67.1 | 61.9 | 0.5 |
| 14/05/12 | Cloudy | 16:10 | 16:40 | 62.8 | 64.7 | 59.9 | 1.1 |
| 23/05/12 | Cloudy | 09:55 | 10:25 | 64.1 | 65.7 | 59.9 | 0.9 |
| 30/05/12 | Cloudy | 15:20 | 15:50 | 65.3 | 66.2 | 60.8 | 0.7 |



Evening-time Noise Monitoring

Monitoring Station: KS6 (Podium at the Cullinan)

| Date | Weather Condition | Start Time (hh:mm) | End Time (hh:mm) | Noise Level at the monitoring point, dB (A) | | | Wind Speed (m/s) |
|----------|-------------------|--------------------|------------------|---|------|------|------------------|
| | | | | Leq (30min) | L10 | L90 | |
| 05/05/12 | Cloudy | 19:50 | 19:25 | 64.3 | 66.5 | 58.4 | 0.4 |
| 05/05/12 | Cloudy | 19:55 | 20:00 | 63.8 | 65.7 | 58.0 | 0.4 |
| 05/05/12 | Cloudy | 20:00 | 20:05 | 63.6 | 65.4 | 57.7 | 0.4 |

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

| Date | Weather Condition | Start Time (hh:mm) | End Time (hh:mm) | Noise Level at the monitoring point, dB (A) | | | Wind Speed (m/s) |
|----------|-------------------|--------------------|------------------|---|------|------|------------------|
| | | | | Leq (30min) | L10 | L90 | |
| 05/05/12 | Cloudy | 20:35 | 20:40 | 69.1 | 72.3 | 61.6 | 0.3 |
| 05/05/12 | Cloudy | 20:40 | 20:45 | 68.6 | 72.0 | 61.5 | 0.3 |
| 05/05/12 | Cloudy | 20:45 | 20:50 | 69.4 | 72.7 | 62.0 | 0.2 |

Monitoring Station: RWM (Roof at Richwealth Mansion)

| Date | Weather Condition | Start Time (hh:mm) | End Time (hh:mm) | Noise Level at the monitoring point, dB (A) | | | Wind Speed (m/s) |
|----------|-------------------|--------------------|------------------|---|------|------|------------------|
| | | | | Leq (30min) | L10 | L90 | |
| 05/05/12 | Cloudy | 20:55 | 21:00 | 68.3 | 70.9 | 61.1 | 0.3 |
| 05/05/12 | Cloudy | 21:00 | 21:05 | 68.6 | 71.3 | 61.3 | 0.3 |
| 05/05/12 | Cloudy | 21:05 | 21:10 | 68.2 | 70.7 | 61.0 | 0.3 |

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

| Date | Weather Condition | Start Time (hh:mm) | End Time (hh:mm) | Noise Level at the monitoring point, dB (A) | | | Wind Speed (m/s) |
|----------|-------------------|--------------------|------------------|---|------|------|------------------|
| | | | | Leq (30min) | L10 | L90 | |
| 05/05/12 | Cloudy | 21:15 | 21:20 | 66.2 | 68.4 | 61.1 | 0.4 |
| 05/05/12 | Cloudy | 21:20 | 21:25 | 65.7 | 67.8 | 60.6 | 0.2 |
| 05/05/12 | Cloudy | 21:25 | 21:30 | 65.8 | 68.1 | 60.7 | 0.2 |



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 (30min) | L10 | L90 | |
| 06/05/12 | Fine | 10:10 | 10:15 | 60.1 | 62.4 | 54.7 | 0.4 |
| 06/05/12 | Fine | 10:15 | 10:20 | 59.9 | 62.1 | 54.6 | 0.4 |
| 06/05/12 | Fine | 10:20 | 10:25 | 60.4 | 62.8 | 54.9 | 0.3 |
| 13/05/12 | Drizzle | 09:25 | 09:30 | 61.2 | 62.4 | 56.6 | 1.2 |
| 13/05/12 | Drizzle | 09:30 | 09:35 | 60.7 | 61.9 | 56.0 | 1.3 |
| 13/05/12 | Drizzle | 09:35 | 09:40 | 60.8 | 62.0 | 56.2 | 1.2 |
| 20/05/12 | Cloudy | 13:05 | 13:10 | 66.9 | 67.5 | 59.4 | 0.5 |
| 20/05/12 | Cloudy | 13:10 | 13:15 | 67.0 | 68.0 | 59.7 | 0.5 |
| 20/05/12 | Cloudy | 13:15 | 13:20 | 66.8 | 67.7 | 59.5 | 0.5 |
| 27/05/12 | Cloudy | 10:15 | 10:20 | 60.6 | 62.8 | 54.5 | 0.3 |
| 27/05/12 | Cloudy | 10:20 | 10:25 | 60.9 | 63.0 | 54.7 | 0.3 |
| 27/05/12 | Cloudy | 10:25 | 10:30 | 60.0 | 62.4 | 54.4 | 0.3 |

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 | |
| 06/05/12 | Fine | 11:00 | 11:05 | 69.9 | 72.9 | 62.6 | 0.4 |
| 06/05/12 | Fine | 11:05 | 11:10 | 67.6 | 71.1 | 61.7 | 0.5 |
| 06/05/12 | Fine | 11:10 | 11:15 | 69.3 | 72.8 | 62.1 | 0.5 |
| 13/05/12 | Drizzle | 10:10 | 10:15 | 68.0 | 69.5 | 64.2 | 0.8 |
| 13/05/12 | Drizzle | 10:15 | 10:20 | 67.7 | 69.1 | 63.9 | 0.7 |
| 13/05/12 | Drizzle | 10:20 | 10:25 | 67.8 | 69.2 | 64.0 | 0.8 |
| 20/05/12 | Cloudy | 15:00 | 15:05 | 69.7 | 72.9 | 63.2 | 0.3 |
| 20/05/12 | Cloudy | 15:05 | 15:10 | 70.0 | 73.2 | 63.4 | 0.3 |
| 20/05/12 | Cloudy | 15:10 | 15:15 | 69.9 | 73.1 | 63.4 | 0.3 |
| 27/05/12 | Cloudy | 11:00 | 11:05 | 68.9 | 71.8 | 64.5 | 0.1 |
| 27/05/12 | Cloudy | 11:05 | 11:10 | 69.4 | 72.5 | 64.9 | 0.2 |
| 27/05/12 | Cloudy | 11:10 | 11:15 | 69.6 | 72.8 | 65.2 | 0.1 |

Monitoring Station: RWM (Roof at Richwealth Mansion)

| Date | Weather Condition | Start Time (hh:mm) | End Time (hh:mm) | Noise Level at the monitoring point, dB (A) | | | Wind Speed (m/s) |
|----------|-------------------|--------------------|------------------|---|------|------|------------------|
| | | | | Leq (30min) | L10 | L90 | |
| 06/05/12 | Fine | 11:20 | 11:25 | 62.1 | 64.9 | 59.7 | 0.6 |
| 06/05/12 | Fine | 11:25 | 11:30 | 61.7 | 64.4 | 59.3 | 0.6 |
| 06/05/12 | Fine | 11:30 | 11:35 | 62.4 | 65.1 | 59.8 | 0.6 |
| 13/05/12 | Drizzle | 10:30 | 10:35 | 62.2 | 63.7 | 57.4 | 1.1 |
| 13/05/12 | Drizzle | 10:35 | 10:40 | 61.8 | 63.2 | 56.9 | 1.3 |
| 13/05/12 | Drizzle | 10:40 | 10:45 | 61.7 | 63.0 | 56.4 | 1.3 |
| 20/05/12 | Cloudy | 14:40 | 14:45 | 65.1 | 66.2 | 59.5 | 0.4 |
| 20/05/12 | Cloudy | 14:45 | 14:50 | 65.3 | 66.5 | 59.7 | 0.4 |
| 20/05/12 | Cloudy | 14:50 | 14:55 | 65.3 | 66.3 | 59.5 | 0.4 |
| 27/05/12 | Cloudy | 11:20 | 11:25 | 62.3 | 64.7 | 60.2 | 0.2 |
| 27/05/12 | Cloudy | 11:25 | 11:30 | 62.7 | 65.0 | 60.3 | 0.2 |
| 27/05/12 | Cloudy | 11:30 | 11:35 | 62.0 | 64.4 | 59.7 | 0.2 |



Holiday-time Noise Monitoring

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 | |
| 06/05/12 | Fine | 11:40 | 11:45 | 60.6 | 62.7 | 58.8 | 0.5 |
| 06/05/12 | Fine | 11:45 | 11:50 | 60.1 | 62.4 | 58.5 | 0.6 |
| 06/05/12 | Fine | 11:50 | 11:55 | 61.0 | 63.1 | 59.1 | 0.5 |
| 13/05/12 | Drizzle | 10:50 | 10:55 | 63.0 | 64.8 | 58.2 | 1.2 |
| 13/05/12 | Drizzle | 10:55 | 11:00 | 62.6 | 64.4 | 57.8 | 1.0 |
| 13/05/12 | Drizzle | 11:00 | 11:05 | 62.9 | 64.7 | 58.0 | 1.1 |
| 20/05/12 | Cloudy | 14:20 | 14:25 | 63.4 | 64.1 | 58.4 | 0.4 |
| 20/05/12 | Cloudy | 14:25 | 14:30 | 63.2 | 64.0 | 58.3 | 0.4 |
| 20/05/12 | Cloudy | 14:30 | 14:35 | 63.0 | 63.8 | 58.1 | 0.4 |
| 27/05/12 | Cloudy | 11:45 | 11:50 | 61.3 | 63.0 | 59.0 | 0.2 |
| 27/05/12 | Cloudy | 11:50 | 11:55 | 60.3 | 62.6 | 58.5 | 0.2 |
| 27/05/12 | Cloudy | 11:55 | 12:00 | 60.5 | 62.7 | 58.6 | 0.2 |



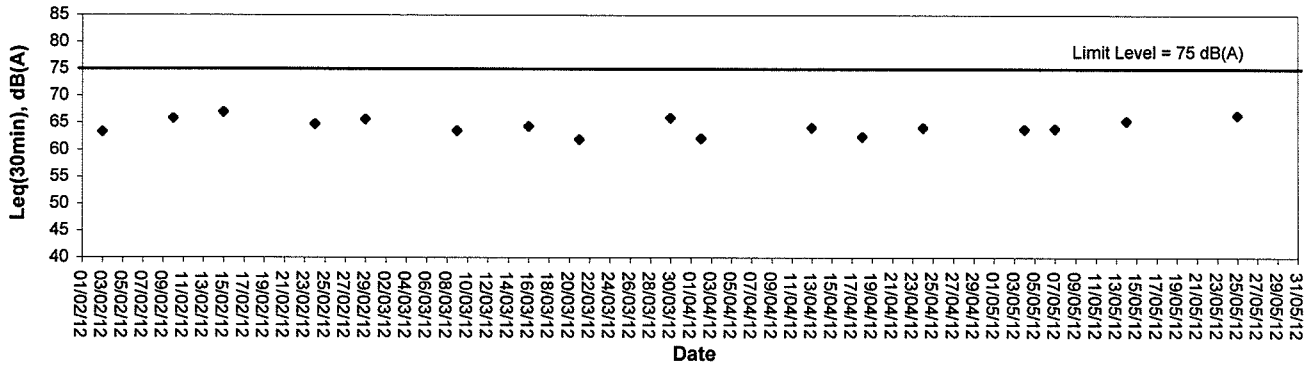
Appendix B3

Graphical Plots of Impact Noise Monitoring Data

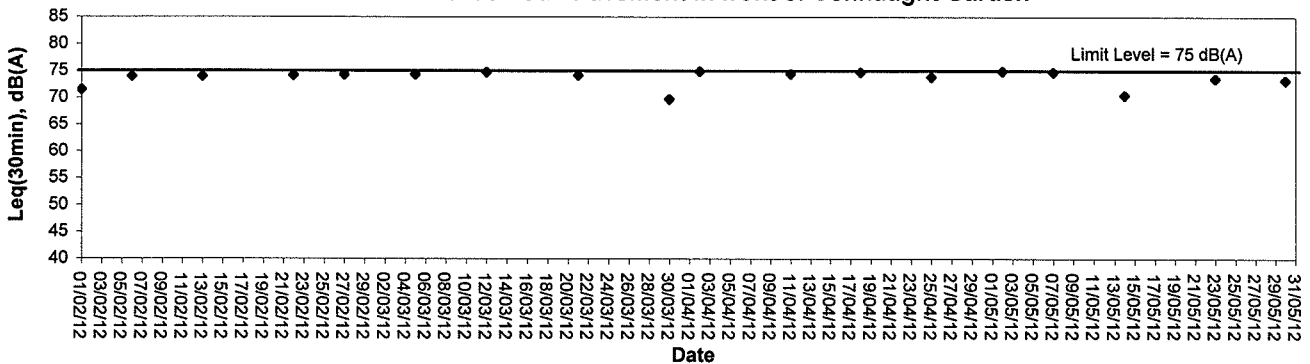


Noise Monitoring (Day-time)

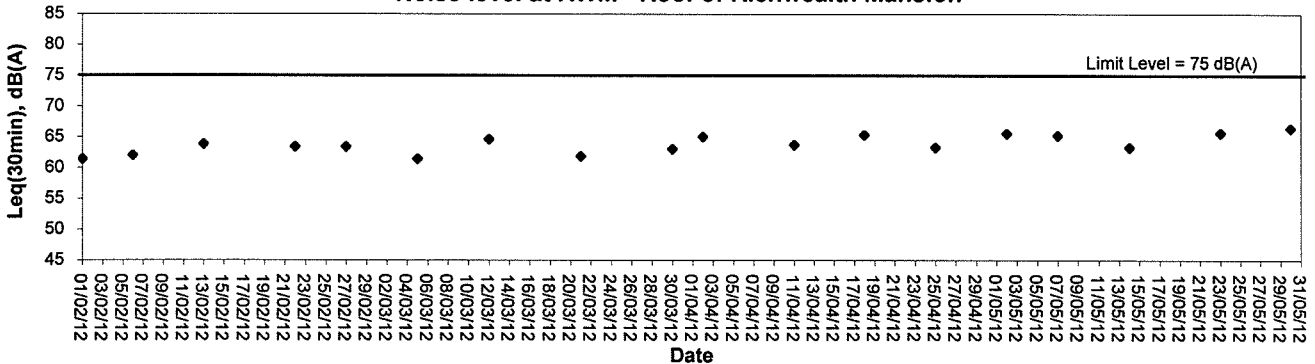
Noise level at KS6 - Podium at the Culliman



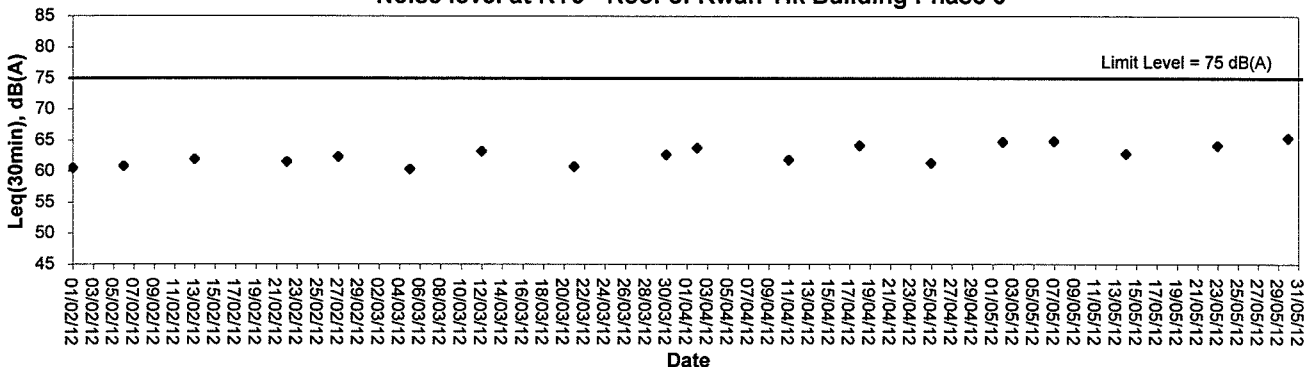
Noise level at CGa - Pavement in front of Connaught Garden



Noise level at RWM - Roof of Richwealth Mansion

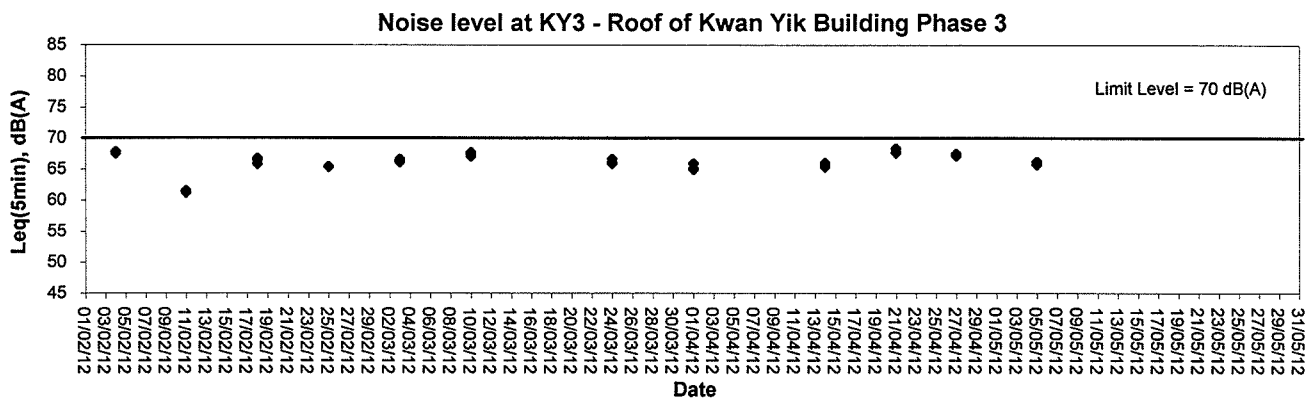
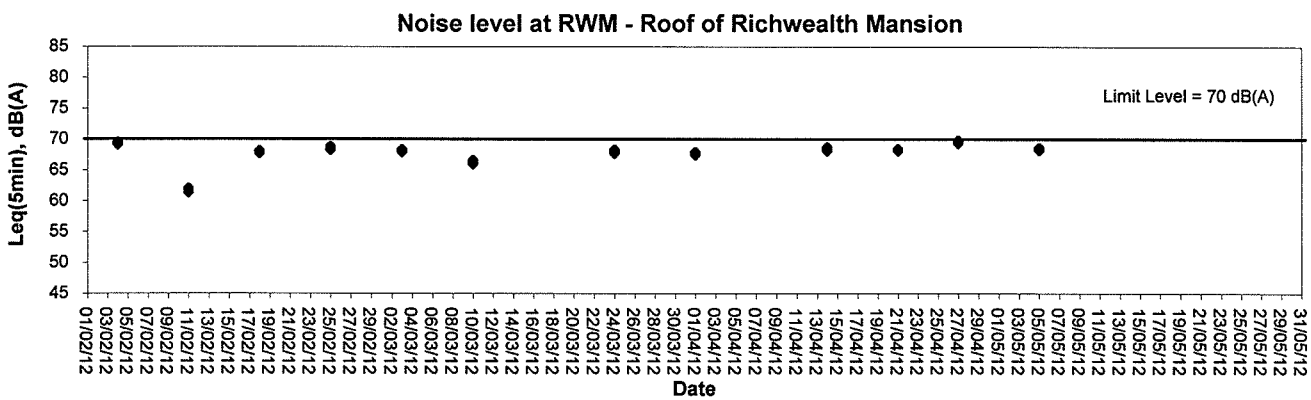
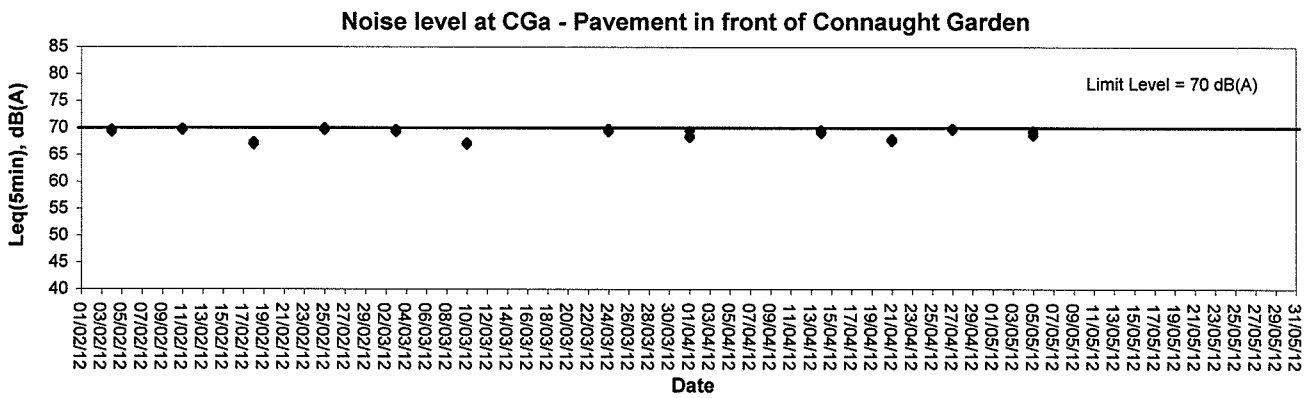
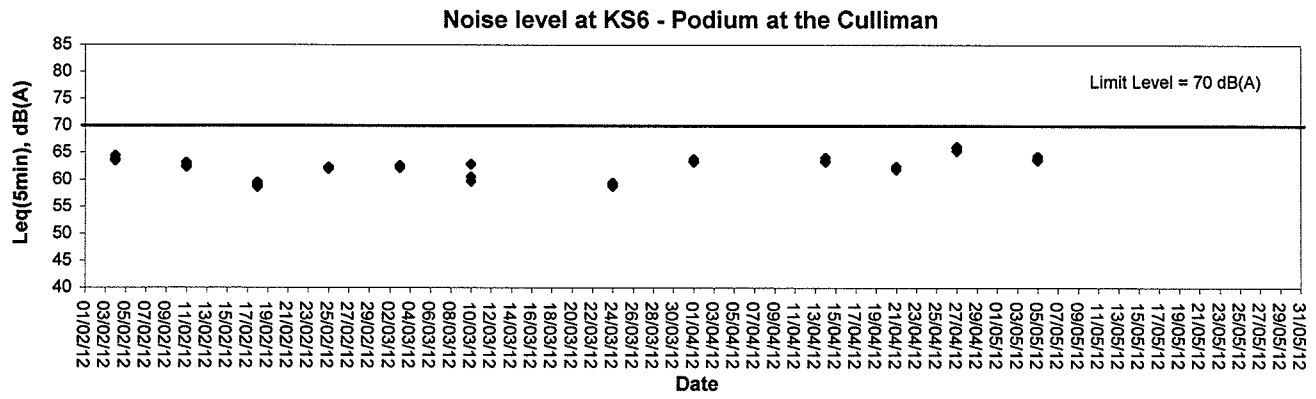


Noise level at KY3 - Roof of Kwan Yik Building Phase 3





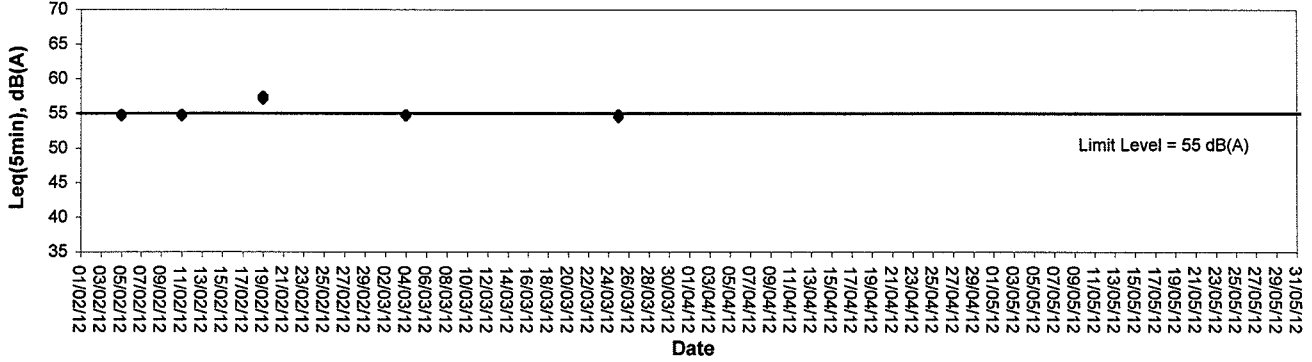
Noise Monitoring (Evening-time)



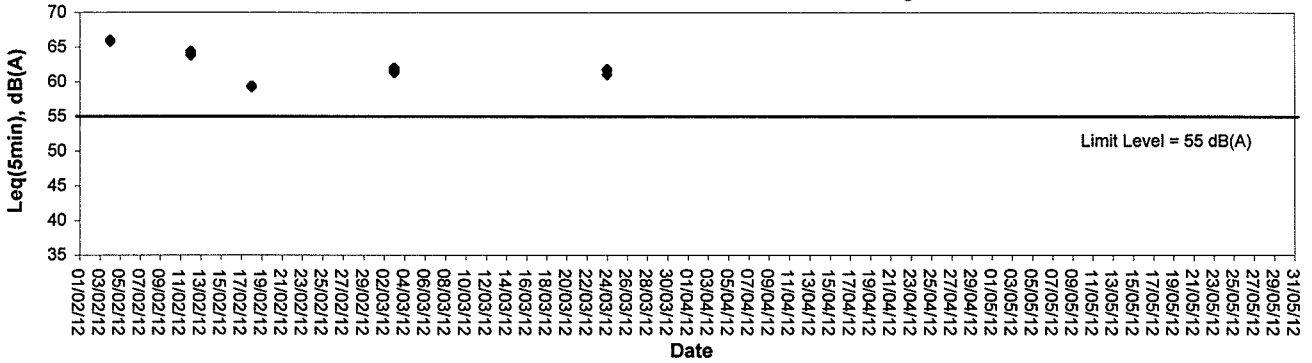


Noise Monitoring (Night-time)

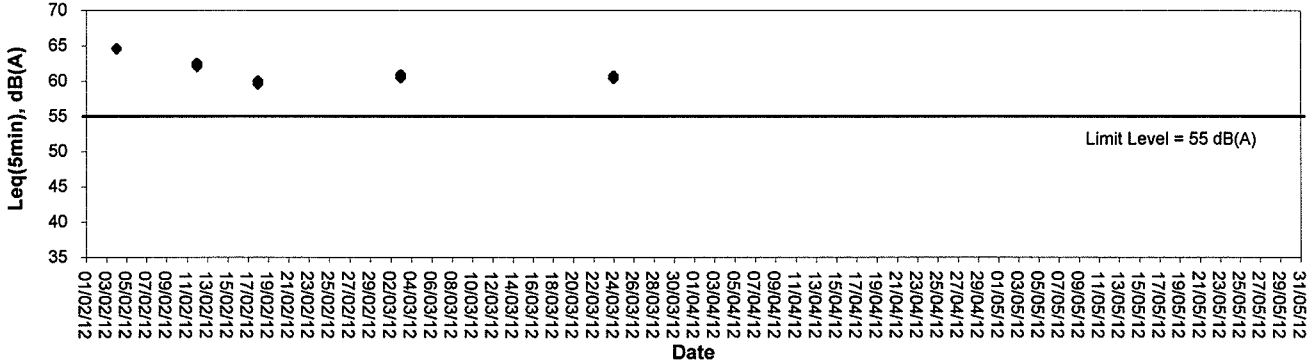
Noise level at KS6 - Podium at the Culliman



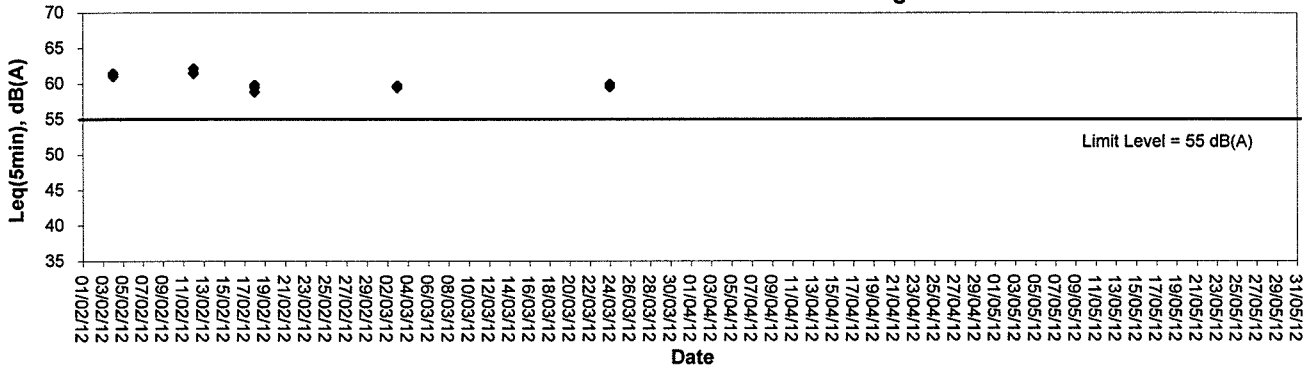
Noise level at CGa - Pavement in front of Connaught Garden



Noise level at RWM - Roof of Richwealth Mansion



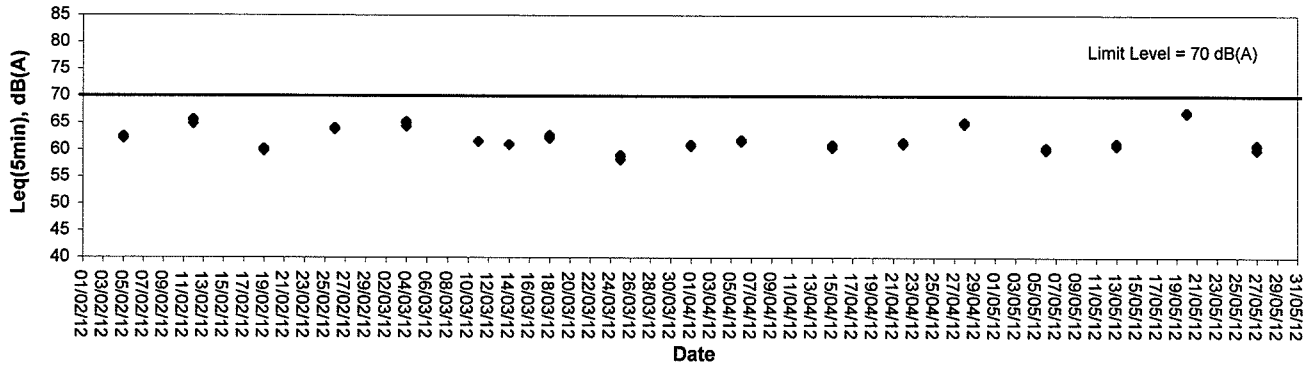
Noise level at KY3 - Roof of Kwan Yik Building Phase 3



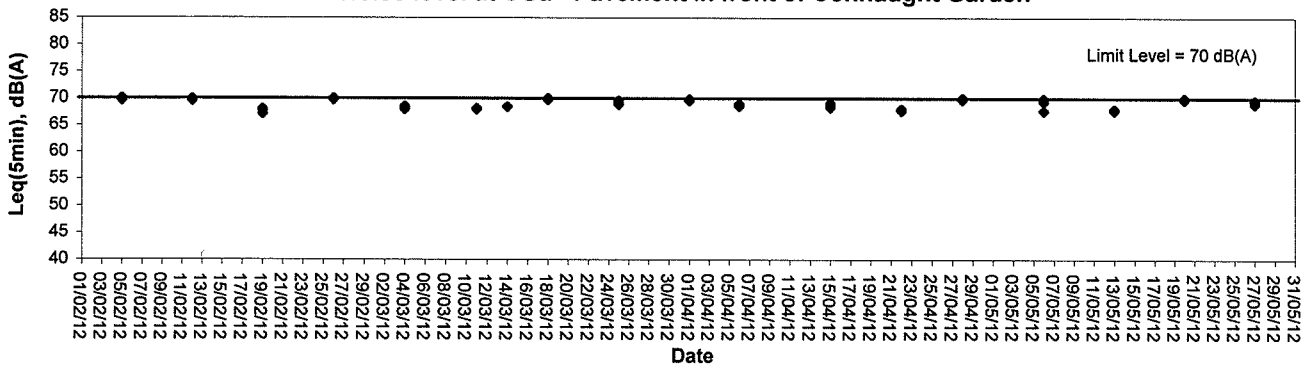


Noise Monitoring (Holiday-time)

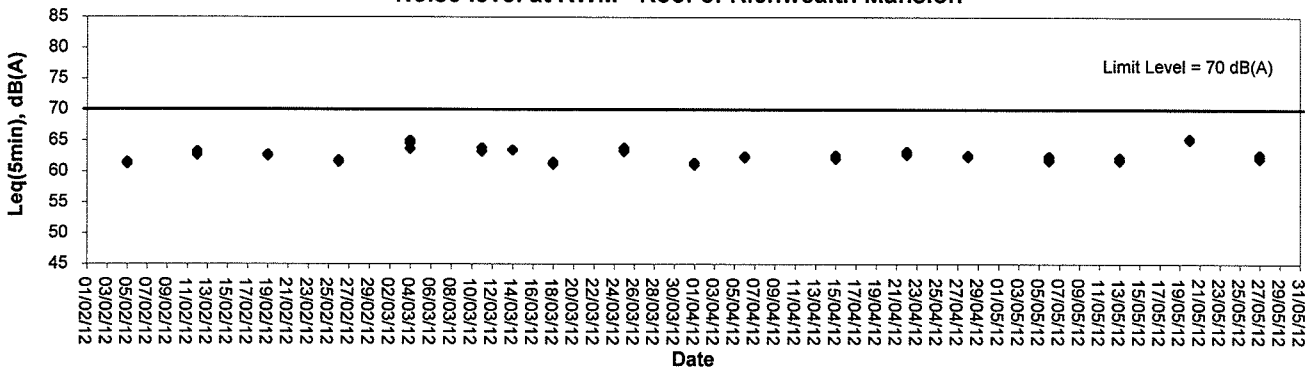
Noise level at KS6 - Podium at the Cullinan



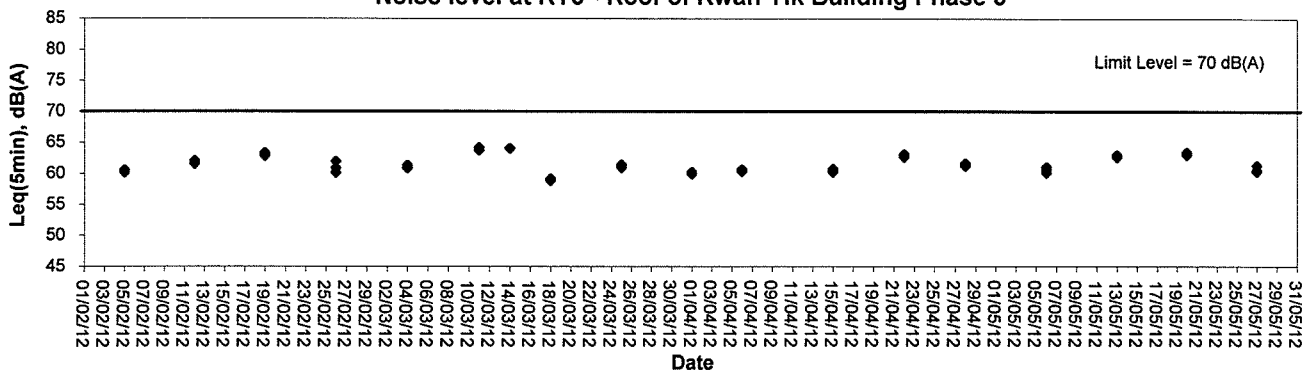
Noise level at CGa - Pavement in front of Connaught Garden



Noise level at RWM - Roof of Richwealth Mansion



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





Appendix C1

Calibration Certificates for Impact Water Quality Monitoring Equipments



Internal Calibration Report of Dissolved Oxygen Meter

| | |
|---|--|
| Equipment Ref. No. : <u>ET/EW/008/004</u> | Manufacturer : <u>YSI</u> |
| Model No. : <u>Pro 2030</u> | Serial No. : <u>10F 101978</u> |
| Date of Calibration : <u>13/02/2012</u> | Calibration Due Date : <u>12/05/2012</u> |

Temperature Verification

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

| Reference Thermometer reading | Temperature (°C) | | | |
|-------------------------------|------------------|------|------------|------|
| | Measured | 20.2 | Corrected | 19.9 |
| DO Meter reading | Measured | 19.8 | Difference | 0.1 |

Standardization of sodium thiosulphate (Na₂S₂O₃) solution

| | | | |
|---|--------------------|---|-------------------|
| Reagent No. of Na ₂ S ₂ O ₃ titrant | CPE/012/4.5/001/4 | Reagent No. of 0.025N K ₂ Cr ₂ O ₇ | CPE/012/4.4/001/7 |
| | Trial 1 | Trial 2 | |
| Initial Vol. of Na ₂ S ₂ O ₃ (ml) | 0.00 | 0.00 | |
| Final Vol. of Na ₂ S ₂ O ₃ (ml) | 40.00 | 39.50 | |
| Vol. of Na ₂ S ₂ O ₃ used (ml) | 40.00 | 39.50 | |
| Normality of Na ₂ S ₂ O ₃ solution (N) | 0.02500 | 0.02532 | |
| Average Normality (N) of Na ₂ S ₂ O ₃ solution (N) | 0.02516 | | |
| Acceptance criteria, Deviation | Less than ± 0.001N | | |

Calculation: Normality of Na₂S₂O₃, N = 1 / ml Na₂S₂O₃ used

Linearity Checking

Determination of dissolved oxygen content by Winkler Titration *

| Purging Time (min) | 2 | | 5 | | 10 | |
|---|---------------------|-------|---------------------|------|---------------------|-------|
| | 1 | 2 | 1 | 2 | 1 | 2 |
| Trial | | | | | | |
| Initial Vol. of Na ₂ S ₂ O ₃ (ml) | 0.00 | 11.10 | 22.10 | 0.00 | 7.40 | 12.20 |
| Final Vol. of Na ₂ S ₂ O ₃ (ml) | 11.10 | 22.10 | 29.60 | 7.40 | 12.20 | 17.10 |
| Vol. (V) of Na ₂ S ₂ O ₃ used (ml) | 11.10 | 11.00 | 7.50 | 7.40 | 4.80 | 4.90 |
| Dissolved Oxygen (DO), mg/L | 7.50 | 7.43 | 5.07 | 5.00 | 3.24 | 3.31 |
| 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 | 7.56 | 7.54 | 7.55 | 7.50 | 7.43 | 7.47 | 1.07 |
| 5 | 5.22 | 5.20 | 5.21 | 5.07 | 5.00 | 5.04 | 3.32 |
| 10 | 3.22 | 3.24 | 3.23 | 3.24 | 3.31 | 3.28 | 1.54 |
| Linear regression coefficient | | | | 0.99807 | | | |



Internal Calibration Report of Dissolved Oxygen Meter

Zero Point Checking

| | |
|------------------------|------|
| DO meter reading, mg/L | 0.00 |
|------------------------|------|

Salinity Checking

| | | | |
|-----------------------------|--------------------|-----------------------------|--------------------|
| Reagent No. of NaCl (10ppt) | CPE/012/4.7/001/17 | Reagent No. of NaCl (30ppt) | CPE/012/4.8/001/17 |
|-----------------------------|--------------------|-----------------------------|--------------------|

Determination of dissolved oxygen content by Winkler Titration **

| Salinity (ppt) | 10 | | 30 | |
|---|---------------------|-------|---------------------|-------|
| | 1 | 2 | 1 | 2 |
| Initial Vol. of Na ₂ S ₂ O ₃ (ml) | 0.00 | 11.50 | 23.10 | 33.60 |
| Final Vol. of Na ₂ S ₂ O ₃ (ml) | 11.50 | 23.10 | 33.60 | 44.00 |
| Vol. (V) of Na ₂ S ₂ O ₃ used (ml) | 11.50 | 11.60 | 10.50 | 10.40 |
| Dissolved Oxygen (DO), mg/L | 7.77 | 7.84 | 7.09 | 7.02 |
| Acceptance criteria, Deviation | Less than + 0.3mg/L | | Less than + 0.3mg/L | |

Calculation: $DO (mg/L) = V \times N \times 8000/298$

| Salinity (ppt) | DO meter reading, mg/L | | | Winkler Titration result**, mg/L | | | Difference (%) of DO Content |
|----------------|------------------------|------|---------|----------------------------------|------|---------|------------------------------|
| | 1 | 2 | Average | 1 | 2 | Average | |
| 10 | 7.72 | 7.76 | 7.74 | 7.77 | 7.84 | 7.81 | 0.90 |
| 30 | 7.10 | 7.08 | 7.09 | 7.09 | 7.02 | 7.06 | 0.42 |

Acceptance Criteria

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

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

Delete as appropriate

Calibrated by :

Approved by :



Performance Check of Salinity Meter

Equipment Ref. No. : ET/EW/008/004 Manufacturer : YSI
Model No. : Pro 2030 Serial No. : 10F 101978
Date of Calibration : 13/02/2012 Due Date : 12/05/2012

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


S/001/3

| Salinity Standard (ppt) | Measured Salinity (ppt) | Difference % |
|-------------------------|-------------------------|--------------|
| 30 | 30.3 | 1.00 |

Acceptance Criteria

Difference : <10 %

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

Checked by : 

Approved by : 



Internal Calibration Report of Dissolved Oxygen Meter

| | | | |
|-----------------------|----------------------|------------------------|-------------------|
| Equipment Ref. No. : | <u>ET/EW/008/004</u> | Manufacturer : | <u>YSI</u> |
| Model No. : | <u>Pro 2030</u> | Serial No. : | <u>10F 101978</u> |
| Date of Calibration : | <u>13/05/2012</u> | Calibration Due Date : | <u>12/08/2012</u> |

Temperature Verification

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

| Reference Thermometer reading | Temperature (°C) | | | |
|-------------------------------|------------------|------|------------|------|
| | Measured | 20.4 | Corrected | 20.0 |
| DO Meter reading | Measured | 19.9 | Difference | 0.1 |

Standardization of sodium thiosulphate ($Na_2S_2O_3$) solution

| | | | |
|--|--------------------------|------------------------------------|--------------------------|
| Reagent No. of $Na_2S_2O_3$ titrant | <u>CPE/012/4.5/001/5</u> | Reagent No. of 0.025N $K_2Cr_2O_7$ | <u>CPE/012/4.4/001/9</u> |
| | Trial 1 | Trial 2 | |
| Initial Vol. of $Na_2S_2O_3$ (ml) | 0.00 | 0.00 | |
| Final Vol. of $Na_2S_2O_3$ (ml) | 39.80 | 40.00 | |
| Vol. of $Na_2S_2O_3$ used (ml) | 39.80 | 40.00 | |
| Normality of $Na_2S_2O_3$ solution (N) | 0.02513 | 0.02500 | |
| Average Normality (N) of $Na_2S_2O_3$ solution (N) | 0.02507 | | |
| Acceptance criteria, Deviation | Less than $\pm 0.001N$ | | |

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

Linearity Checking

Determination of dissolved oxygen content by Winkler Titration *

| Purging Time (min) | 2 | | 5 | | 10 | |
|------------------------------------|---------------------|-------|---------------------|------|---------------------|-------|
| | 1 | 2 | 1 | 2 | 1 | 2 |
| Trial | | | | | | |
| Initial Vol. of $Na_2S_2O_3$ (ml) | 0.00 | 10.50 | 21.00 | 0.00 | 7.80 | 12.40 |
| Final Vol. of $Na_2S_2O_3$ (ml) | 10.50 | 21.00 | 28.70 | 7.80 | 12.40 | 16.90 |
| Vol. (V) of $Na_2S_2O_3$ used (ml) | 10.50 | 10.50 | 7.70 | 7.80 | 4.60 | 4.50 |
| Dissolved Oxygen (DO), mg/L | 7.07 | 7.07 | 5.18 | 5.25 | 3.10 | 3.03 |
| Acceptance criteria, Deviation | Less than + 0.3mg/L | | Less than + 0.3mg/L | | Less than + 0.3mg/L | |

Calculation: $DO (mg/L) = V \times N \times 8000/298$

| Purging time, min | DO meter reading, mg/L | | | Winkler Titration result *, mg/L | | | Difference (%) of DO Content |
|-------------------------------|------------------------|------|---------|----------------------------------|------|---------|------------------------------|
| | 1 | 2 | Average | 1 | 2 | Average | |
| 2 | 7.06 | 7.06 | 7.06 | 7.07 | 7.07 | 7.07 | 0.14 |
| 5 | 5.18 | 5.22 | 5.20 | 5.18 | 5.25 | 5.22 | 0.38 |
| 10 | 3.14 | 3.10 | 3.12 | 3.10 | 3.03 | 3.07 | 1.62 |
| Linear regression coefficient | | | | 0.99807 | | | |



Internal Calibration Report of Dissolved Oxygen Meter

Zero Point Checking

| | |
|------------------------|------|
| DO meter reading, mg/L | 0.00 |
|------------------------|------|

Salinity Checking

| | | | |
|-----------------------------|--------------------|-----------------------------|--------------------|
| Reagent No. of NaCl (10ppt) | CPE/012/4.7/001/22 | Reagent No. of NaCl (30ppt) | CPE/012/4.8/001/22 |
|-----------------------------|--------------------|-----------------------------|--------------------|

Determination of dissolved oxygen content by Winkler Titration **

| Salinity (ppt) | 10 | | 30 | |
|---|---------------------|-------|---------------------|-------|
| | 1 | 2 | 1 | 2 |
| Trial | | | | |
| Initial Vol. of Na ₂ S ₂ O ₃ (ml) | 0.00 | 11.70 | 23.30 | 34.10 |
| Final Vol. of Na ₂ S ₂ O ₃ (ml) | 11.70 | 23.30 | 34.10 | 44.80 |
| Vol. (V) of Na ₂ S ₂ O ₃ used (ml) | 11.70 | 11.60 | 10.80 | 10.70 |
| Dissolved Oxygen (DO), mg/L | 7.87 | 7.81 | 7.27 | 7.20 |
| 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 | 7.9 | 7.86 | 7.88 | 7.87 | 7.81 | 7.84 | 0.51 |
| 30 | 7.29 | 7.25 | 7.27 | 7.27 | 7.20 | 7.24 | 0.41 |

Acceptance Criteria

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

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

Delete as appropriate

Calibrated by

:

Approved by:



Performance Check of Salinity Meter

Equipment Ref. No. : ET/EW/008/004 Manufacturer : YSI
Model No. : Pro 2030 Serial No. : 10F 101978
Date of Calibration : 13/05/2012 Due Date : 12/08/2012

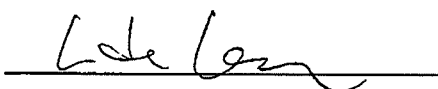
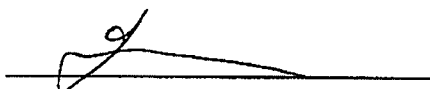
| | |
|--|---------|
| Ref. No. of Salinity Standard used (30ppt) | S/001/3 |
|--|---------|

| Salinity Standard (ppt) | Measured Salinity (ppt) | Difference % |
|-------------------------|-------------------------|--------------|
| 30 | 30.2 | 0.67 |

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 : 



Performance Check of Turbidimeter


Equipment Ref. No. : ET/0505/007 Manufacturer : HACH
Model No. : 2100P Serial No. : 08060 C 030281
Date of Calibration : 13/04/2012 Due Date : 12/07/2012


| Gelex Vial Std | Theoretical Value (NTU) | Measured Value (NTU) | Difference % |
|----------------|-------------------------|----------------------|--------------|
| 0-10 NTU | 5.34 | 5.24 | 1.87 |
| 10-100 NTU | 52.5 | 53.0 | 0.95 |
| 100-1000 NTU | 543 | 536 | 1.29 |

Acceptance Criteria

Difference : <5 %

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

Checked by : 

Approved by : 



Appendix C2

Impact Water Quality Monitoring Results

Mid-Flood Tide



Monitoring Station : 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 | | |
| 03/05/12 | 1734-1748 | 30/Cloudy | Surface | 1.0 | 25.7 | 27.1 | 27.1 | 7.29 | 7.27 | 100.6 | 100.3 | 3.75 | 3.73 | 3.86 | 5.5 | 5.6 | 5.8 | | |
| | | | | | | 27.0 | | 7.24 | | 99.9 | | 3.71 | | | 5.6 | | | | |
| | | | Middle | 7.8 | 25.6 | 27.4 | 27.4 | 7.03 | 7.05 | 97.0 | 97.2 | 3.84 | 3.86 | | 3.87 | 3.86 | | 5.8 | 5.8 |
| | | | | | | 27.3 | | 7.06 | | 97.4 | | 3.87 | | | 5.8 | | | | |
| | | | Bottom | 14.6 | 25.4 | 27.5 | 27.5 | 6.94 | 6.92 | 95.7 | 95.5 | 3.98 | 4.00 | | 4.02 | 4.00 | | 5.8 | 5.9 |
| | | | | | | 27.5 | | 6.90 | | 95.2 | | 4.02 | | | 6.0 | | | | |
| 05/05/12 | 1754-1807 | 26/Cloudy | Surface | 1.0 | 26.2 | 25.8 | 25.9 | 7.37 | 7.35 | 103.1 | 102.9 | 3.46 | 3.48 | 3.57 | 5.5 | 5.6 | 5.6 | | |
| | | | | | | 25.9 | | 7.33 | | 102.6 | | 3.49 | | | 5.6 | | | | |
| | | | Middle | 6.1 | 26.1 | 26.4 | 26.4 | 7.20 | 7.19 | 100.7 | 100.5 | 3.52 | 3.54 | | 3.54 | 3.54 | | 5.4 | 5.5 |
| | | | | | | 26.3 | | 7.17 | | 100.3 | | 3.56 | | | 5.6 | | | | |
| | | | Bottom | 11.2 | 26.0 | 27.0 | 27.0 | 7.05 | 7.04 | 98.6 | 98.4 | 3.66 | 3.69 | | 3.71 | 3.69 | | 5.6 | 5.6 |
| | | | | | | 26.9 | | 7.02 | | 98.2 | | 3.71 | | | 5.6 | | | | |
| 08/05/12 | 1057-1110 | 29/Fine | Surface | 1.0 | 26.2 | 27.6 | 27.6 | 7.11 | 7.10 | 101.6 | 101.4 | 3.49 | 3.52 | 3.64 | 5.5 | 5.6 | 5.6 | | |
| | | | | | | 27.6 | | 7.08 | | 101.2 | | 3.54 | | | 5.6 | | | | |
| | | | Middle | 8.9 | 25.9 | 27.9 | 27.9 | 7.02 | 7.04 | 100.3 | 100.6 | 3.72 | 3.76 | | 3.80 | 3.76 | | 5.6 | 5.7 |
| | | | | | | 27.8 | | 7.05 | | 100.8 | | 3.80 | | | 5.8 | | | | |
| | | | Bottom | 16.8 | 25.8 | 28.0 | 28.0 | 6.89 | 6.87 | 98.3 | 98.0 | 3.66 | 3.64 | | 3.61 | 3.64 | | 5.6 | 5.6 |
| | | | | | | 27.9 | | 6.85 | | 97.7 | | 3.61 | | | 5.6 | | | | |
| 10/05/12 | 1142-1158 | 29/Fine | Surface | 1.0 | 26.1 | 27.1 | 27.1 | 6.92 | 6.91 | 95.5 | 95.3 | 3.27 | 3.30 | 3.51 | 5.0 | 5.1 | 5.4 | | |
| | | | | | | 27.1 | | 6.89 | | 95.1 | | 3.32 | | | 5.2 | | | | |
| | | | Middle | 7.2 | 26.1 | 27.4 | 27.5 | 6.79 | 6.78 | 93.7 | 93.5 | 3.50 | 3.53 | | 3.56 | 3.53 | | 5.4 | 5.5 |
| | | | | | | 27.5 | | 6.76 | | 93.3 | | 3.56 | | | 5.6 | | | | |
| | | | Bottom | 13.4 | 26.0 | 27.5 | 27.5 | 6.60 | 6.62 | 91.1 | 91.4 | 3.69 | 3.71 | | 3.73 | 3.71 | | 5.6 | 5.6 |
| | | | | | | 27.5 | | 6.64 | | 91.6 | | 3.73 | | | 5.6 | | | | |
| 12/05/12 | 1244-1259 | 26/Drizzle | Surface | 1.0 | 26.4 | 26.1 | 26.1 | 6.85 | 6.88 | 95.9 | 96.3 | 4.13 | 4.14 | 4.33 | 6.0 | 6.1 | 6.3 | | |
| | | | | | | 26.0 | | 6.90 | | 96.6 | | 4.15 | | | 6.2 | | | | |
| | | | Middle | 8.5 | 25.8 | 26.3 | 26.3 | 6.81 | 6.80 | 95.2 | 95.1 | 4.45 | 4.46 | | 4.47 | 4.46 | | 6.4 | 6.4 |
| | | | | | | 26.3 | | 6.78 | | 94.9 | | 4.47 | | | 6.4 | | | | |
| | | | Bottom | 16.0 | 25.8 | 26.9 | 26.9 | 6.64 | 6.67 | 92.9 | 93.4 | 4.36 | 4.38 | | 4.39 | 4.38 | | 6.4 | 6.4 |
| | | | | | | 26.9 | | 6.70 | | 93.8 | | 4.39 | | | 6.4 | | | | |
| 15/05/12 | 1700-1712 | 30/Rainy | Surface | 1.0 | 26.6 | 27.2 | 27.2 | 7.07 | 7.06 | 100.3 | 100.1 | 3.91 | 3.96 | 4.22 | 6.0 | 6.1 | 6.3 | | |
| | | | | | | 27.2 | | 7.04 | | 99.9 | | 4.01 | | | 6.2 | | | | |
| | | | Middle | 8.7 | 26.1 | 27.4 | 27.4 | 6.96 | 6.95 | 98.8 | 98.6 | 4.17 | 4.14 | | 4.11 | 4.14 | | 6.2 | 6.2 |
| | | | | | | 27.4 | | 6.93 | | 98.4 | | 4.11 | | | 6.2 | | | | |
| | | | Bottom | 16.4 | 26.0 | 27.9 | 27.9 | 6.82 | 6.80 | 96.7 | 96.4 | 4.58 | 4.55 | | 4.52 | 4.55 | | 6.6 | 6.5 |
| | | | | | | 27.9 | | 6.78 | | 96.1 | | 4.52 | | | 6.4 | | | | |
| 17/05/12 | 1800-1815 | 30/Cloudy | Surface | 1.0 | 26.8 | 26.2 | 26.2 | 7.50 | 7.48 | 108.0 | 107.7 | 3.61 | 3.59 | 3.76 | 5.5 | 5.6 | 5.8 | | |
| | | | | | | 26.2 | | 7.45 | | 107.4 | | 3.57 | | | 5.6 | | | | |
| | | | Middle | 8.6 | 26.5 | 27.0 | 27.1 | 7.11 | 7.15 | 102.3 | 102.9 | 3.70 | 3.72 | | 3.74 | 3.72 | | 5.6 | 5.7 |
| | | | | | | 27.1 | | 7.18 | | 103.4 | | 3.74 | | | 5.8 | | | | |
| | | | Bottom | 16.1 | 26.1 | 28.0 | 28.0 | 7.03 | 7.00 | 100.8 | 100.5 | 3.94 | 3.97 | | 4.00 | 3.97 | | 6.0 | 6.0 |
| | | | | | | 28.0 | | 6.97 | | 100.2 | | 4.00 | | | 6.0 | | | | |
| 19/05/12 | 1325-1339 | 28/Cloudy | Surface | 1.0 | 26.5 | 26.3 | 26.3 | 7.51 | 7.53 | 107.9 | 108.2 | 3.74 | 3.77 | 3.86 | 5.5 | 5.7 | 5.8 | | |
| | | | | | | 26.2 | | 7.55 | | 108.5 | | 3.79 | | | 5.8 | | | | |
| | | | Middle | 8.8 | 26.4 | 26.6 | 26.7 | 7.36 | 7.34 | 105.8 | 105.6 | 3.85 | 3.87 | | 3.89 | 3.87 | | 5.8 | 5.8 |
| | | | | | | 26.7 | | 7.32 | | 105.3 | | 3.89 | | | 5.8 | | | | |
| | | | Bottom | 16.6 | 26.3 | 27.1 | 27.2 | 7.14 | 7.16 | 102.6 | 103.0 | 3.92 | 3.95 | | 3.97 | 3.95 | | 6.0 | 6.0 |
| | | | | | | 27.2 | | 7.18 | | 103.3 | | 3.97 | | | 6.0 | | | | |
| 22/05/12 | 2100-2114 | 26/Cloudy | Surface | 1.0 | 26.3 | 25.2 | 25.2 | 6.89 | 6.87 | 98.1 | 97.8 | 3.62 | 3.60 | 3.80 | 5.5 | 5.5 | 5.6 | | |
| | | | | | | 25.2 | | 6.84 | | 97.5 | | 3.58 | | | 5.4 | | | | |
| | | | Middle | 8.7 | 26.2 | 25.8 | 25.9 | 6.76 | 6.78 | 96.4 | 96.6 | 3.85 | 3.87 | | 3.85 | 3.87 | | 5.4 | 5.5 |
| | | | | | | 25.9 | | 6.79 | | 96.8 | | 3.89 | | | 5.6 | | | | |
| | | | Bottom | 16.4 | 26.0 | 26.9 | 27.0 | 6.62 | 6.60 | 94.3 | 94.1 | 3.92 | 3.94 | | 3.96 | 3.94 | | 5.8 | 5.7 |
| | | | | | | 27.0 | | 6.58 | | 93.8 | | 3.96 | | | 5.6 | | | | |
| 24/05/12 | 2150-2205 | 26/Cloudy | Surface | 1.0 | 26.3 | 25.7 | 25.7 | 6.51 | 6.53 | 92.6 | 93.0 | 4.03 | 4.05 | 4.16 | 6.0 | 6.1 | 6.2 | | |
| | | | | | | 25.6 | | 6.55 | | 93.3 | | 4.07 | | | 6.2 | | | | |
| | | | Middle | 8.1 | 26.1 | 26.5 | 26.5 | 6.46 | 6.44 | 91.8 | 91.6 | 4.14 | 4.16 | | 4.18 | 4.16 | | 6.0 | 6.1 |
| | | | | | | 26.4 | | 6.42 | | 91.3 | | 4.18 | | | 6.2 | | | | |
| | | | Bottom | 15.2 | 25.8 | 27.3 | 27.3 | 6.33 | 6.31 | 89.9 | 89.7 | 4.26 | 4.27 | | 4.28 | 4.27 | | 6.2 | 6.3 |
| | | | | | | 27.3 | | 6.29 | | 89.4 | | 4.28 | | | 6.4 | | | | |
| 26/05/12 | 1046-1058 | 28/Cloudy | Surface | 1.0 | 26.4 | 26.5 | 26.6 | 6.35 | 6.32 | 90.2 | 89.8 | 3.80 | 3.83 | 3.95 | 5.5 | 5.6 | 5.8 | | |
| | | | | | | 26.6 | | 6.29 | | 89.3 | | 3.85 | | | 5.6 | | | | |
| | | | Middle | 6.5 | 26.4 | 26.9 | 26.9 | 6.20 | 6.22 | 88.1 | 88.3 | 3.91 | 3.93 | | 3.95 | 3.93 | | 5.8 | 5.8 |
| | | | | | | 26.9 | | 6.23 | | 88.5 | | 3.95 | | | 5.8 | | | | |
| | | | Bottom | 12.0 | 26.3 | 27.2 | 27.2 | 5.90 | 5.92 | 83.8 | 84.0 | 4.08 | 4.11 | | 4.13 | 4.11 | | 6.0 | 6.0 |
| | | | | | | 27.1 | | 5.93 | | 84.2 | | 4.13 | | | 6.0 | | | | |
| 29/05/12 | 1321-1334 | 27/Cloudy | Surface | 1.0 | 26.3 | 25.6 | 25.6 | 6.55 | 6.57 | 93.5 | 93.8 | 3.97 | 4.00 | 4.12 | 6.0 | 6.1 | 6.2 | | |
| | | | | | | 25.6 | | 6.58 | | 94.0 | | 4.03 | | | 6.2 | | | | |
| | | | Middle | 8.3 | 26.1 | 26.3 | 26.3 | 6.41 | 6.39 | 91.4 | 91.1 | 4.11 | 4.13 | | 4.15 | 4.13 | | 6.0 | 6.1 |
| | | | | | | 26.3 | | 6.37 | | 90.8 | | 4.15 | | | 6.2 | | | | |
| | | | Bottom | 15.6 | 25.5 | 27.2 | 27.2 | 6.15 | 6.17 | 87.4 | 87.7 | 4.22 | 4.24 | | 4.25 | 4.24 | | 6.2 | 6.3 |
| | | | | | | 27.2 | | 6.19 | | 88.0 | | 4.25 | | | 6.4 | | | | |
| 31/05/12 | 1652-1706 | 28/Drizzle | Surface | 1.0 | 27.0 | 26.5 | 26.5 | 6.32 | 6.30 | 91.7 | 91.4 | 3.90 | 3.92 | 4.05 | 5.5 | 5.7 | 6.0 | | |
| | | | | | | 26.4 | | 6.27 | | 91.0 | | 3.94 | | | 5.8 | | | | |
| | | | Middle | 6.7 | 27.0 | 26.8 | 26.9 | 6.18 | 6.16 | 89.6 | 89.3 | 4.03 | 4.05 | | 4.06 | 4.05 | | 6.0 | 6.0 |
| | | | | | | 26.9 | | 6.13 | | 89.9 | | 4.06 | | | 6.0 | | | | |
| | | | Bottom | 12.4 | 26.8 | 27.0 | 27.1 | 5.96 | 5.94 | 86.4 | 86.1 | 4.15 | 4.18 | | 4.20 | 4.18 | | 6.2 | 6.2 |
| | | | | | | 27.1 | | 5.91 | | 85.8 | | 4.20 | | | 6.2 | | | | |

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 | |
| 03/05/12 | 1715-1730 | 30/Cloudy | Surface | 1.0 | 25.7 | 27.1 | 27.1 | 7.03 | 7.06 | 97.0 | 97.4 | 3.94 | 3.97 | 4.12 | 5.8 | 5.9 | 6.2 | |
| | | | | | | 27.1 | | 7.08 | | 97.7 | | 3.99 | | | 6.0 | | | |
| | | | Middle | 7.5 | 25.5 | 27.3 | 27.4 | 6.95 | 6.94 | 95.9 | 95.7 | 4.08 | | | 4.11 | | | 6.0 |
| | | | | | | 27.4 | | 6.92 | | 95.4 | | 4.13 | | | | | | 6.2 |
| | | | Bottom | 14.0 | 25.4 | 27.5 | 27.5 | 6.80 | 6.78 | 93.8 | 93.5 | 4.31 | | | 4.29 | | | 6.4 |
| | | | | | | 27.5 | | 6.76 | | 93.2 | | 4.27 | | | | | | 6.5 |
| 05/05/12 | 1735-1749 | 26/Cloudy | Surface | 1.0 | 26.2 | 25.9 | 26.0 | 7.46 | 7.48 | 104.4 | 104.7 | 3.41 | 3.52 | 3.57 | 5.4 | 5.5 | 5.5 | |
| | | | | | | 26.0 | | 7.50 | | 104.9 | | 3.45 | | | 5.4 | | | |
| | | | Middle | 9.5 | 26.1 | 26.5 | 26.5 | 7.38 | 7.36 | 103.2 | 103.0 | 3.50 | | | 3.52 | | | 5.4 |
| | | | | | | 26.4 | | 7.34 | | 102.7 | | 3.54 | | | | | | 5.6 |
| | | | Bottom | 18.0 | 25.9 | 27.1 | 27.1 | 7.30 | 7.29 | 102.1 | 101.9 | 3.73 | | | 3.75 | | | 5.6 |
| | | | | | | 27.1 | | 7.27 | | 101.7 | | 3.76 | | | | | | 5.5 |
| 08/05/12 | 1040-1050 | 29/Fine | Surface | 1.0 | 26.2 | 27.6 | 27.6 | 7.19 | 7.18 | 102.8 | 102.6 | 3.56 | 3.58 | 3.84 | 5.4 | 5.4 | 5.7 | |
| | | | | | | 27.5 | | 7.16 | | 102.3 | | 3.59 | | | 5.4 | | | |
| | | | Middle | 9.1 | 25.9 | 27.9 | 27.9 | 7.02 | 7.04 | 100.3 | 100.6 | 3.92 | | | 3.90 | | | 5.8 |
| | | | | | | 27.9 | | 7.05 | | 100.8 | | 3.87 | | | | | | 5.8 |
| | | | Bottom | 17.2 | 25.8 | 28.0 | 28.0 | 6.93 | 6.91 | 98.8 | 98.6 | 4.01 | | | 4.04 | | | 6.0 |
| | | | | | | 28.0 | | 6.89 | | 98.3 | | 4.07 | | | | | | 6.0 |
| 10/05/12 | 1121-1130 | 29/Fine | Surface | 1.0 | 26.1 | 27.2 | 27.3 | 6.94 | 6.97 | 95.8 | 96.2 | 3.33 | 3.54 | 3.54 | 5.2 | 5.4 | 5.4 | |
| | | | | | | 27.3 | | 6.99 | | 96.5 | | 3.40 | | | 5.4 | | | |
| | | | Middle | 9.0 | 26.0 | 27.5 | 27.5 | 6.88 | 6.85 | 94.9 | 94.5 | 3.49 | | | 3.51 | | | 5.4 |
| | | | | | | 27.5 | | 6.82 | | 94.1 | | 3.53 | | | | | | 5.4 |
| | | | Bottom | 17.0 | 26.0 | 27.6 | 27.7 | 6.72 | 6.71 | 92.7 | 92.5 | 3.72 | | | 3.74 | | | 5.6 |
| | | | | | | 27.7 | | 6.69 | | 92.3 | | 3.76 | | | | | | 5.5 |
| 12/05/12 | 1224-1239 | 26/Drizzle | Surface | 1.0 | 26.3 | 26.0 | 26.0 | 6.94 | 6.94 | 97.2 | 97.1 | 4.08 | 4.25 | 4.25 | 6.0 | 6.0 | 6.3 | |
| | | | | | | 25.9 | | 6.93 | | 97.0 | | 4.05 | | | 6.0 | | | |
| | | | Middle | 8.6 | 25.7 | 26.3 | 26.4 | 6.88 | 6.86 | 96.3 | 96.1 | 4.14 | | | 4.16 | | | 6.2 |
| | | | | | | 26.4 | | 6.84 | | 95.8 | | 4.18 | | | | | | 6.2 |
| | | | Bottom | 16.2 | 25.9 | 26.8 | 26.9 | 6.67 | 6.65 | 93.4 | 93.1 | 4.54 | | | 4.52 | | | 6.6 |
| | | | | | | 26.9 | | 6.63 | | 92.8 | | 4.50 | | | | | | 6.5 |
| 15/05/12 | 1641-1653 | 30/Rainy | Surface | 1.0 | 26.6 | 27.3 | 27.3 | 7.10 | 7.09 | 100.8 | 100.6 | 3.89 | 4.25 | 4.25 | 5.8 | 5.9 | 6.2 | |
| | | | | | | 27.3 | | 7.07 | | 100.3 | | 3.94 | | | 6.0 | | | |
| | | | Middle | 8.7 | 26.2 | 27.5 | 27.5 | 6.81 | 6.80 | 96.5 | 96.3 | 4.21 | | | 4.19 | | | 6.2 |
| | | | | | | 27.5 | | 6.78 | | 96.1 | | 4.16 | | | | | | 6.2 |
| | | | Bottom | 16.4 | 25.9 | 27.9 | 27.9 | 6.76 | 6.78 | 95.7 | 96.0 | 4.60 | | | 4.64 | | | 6.6 |
| | | | | | | 27.9 | | 6.79 | | 96.2 | | 4.67 | | | | | | 6.5 |
| 17/05/12 | 1740-1752 | 30/Cloudy | Surface | 1.0 | 26.8 | 26.3 | 26.3 | 7.56 | 7.54 | 108.5 | 108.2 | 3.49 | 3.67 | 3.67 | 5.4 | 5.4 | 5.6 | |
| | | | | | | 26.3 | | 7.51 | | 107.9 | | 3.53 | | | 5.4 | | | |
| | | | Middle | 9.5 | 26.5 | 27.1 | 27.2 | 7.41 | 7.38 | 106.7 | 106.3 | 3.71 | | | 3.69 | | | 5.6 |
| | | | | | | 27.2 | | 7.34 | | 105.9 | | 3.67 | | | | | | 5.6 |
| | | | Bottom | 17.9 | 26.0 | 28.2 | 28.2 | 7.18 | 7.15 | 103.3 | 103.0 | 3.79 | | | 3.81 | | | 5.8 |
| | | | | | | 28.2 | | 7.12 | | 102.6 | | 3.83 | | | | | | 6.0 |
| 19/05/12 | 1305-1319 | 28/Cloudy | Surface | 1.0 | 26.6 | 26.2 | 26.3 | 7.54 | 7.52 | 108.3 | 108.0 | 3.87 | 3.96 | 3.96 | 5.8 | 5.8 | 5.9 | |
| | | | | | | 26.3 | | 7.49 | | 107.6 | | 3.92 | | | 5.8 | | | |
| | | | Middle | 9.2 | 26.5 | 26.6 | 26.7 | 7.46 | 7.44 | 107.2 | 106.9 | 3.98 | | | 3.97 | | | 6.0 |
| | | | | | | 26.7 | | 7.42 | | 106.6 | | 3.95 | | | | | | 6.0 |
| | | | Bottom | 17.4 | 26.3 | 27.2 | 27.3 | 7.20 | 7.18 | 103.5 | 103.2 | 4.01 | | | 4.03 | | | 6.0 |
| | | | | | | 27.3 | | 7.16 | | 102.9 | | 4.05 | | | | | | 6.0 |
| 22/05/12 | 2038-2053 | 26/Cloudy | Surface | 1.0 | 26.3 | 25.3 | 25.3 | 7.04 | 7.03 | 100.3 | 100.1 | 3.50 | 3.60 | 3.60 | 5.4 | 5.4 | 5.5 | |
| | | | | | | 25.2 | | 7.01 | | 99.9 | | 3.47 | | | 5.4 | | | |
| | | | Middle | 9.2 | 26.2 | 25.7 | 25.8 | 6.90 | 6.88 | 98.3 | 98.0 | 3.54 | | | 3.57 | | | 5.6 |
| | | | | | | 25.8 | | 6.85 | | 97.7 | | 3.59 | | | | | | 5.6 |
| | | | Bottom | 17.4 | 26.1 | 26.9 | 27.0 | 6.71 | 6.73 | 95.7 | 95.9 | 3.78 | | | 3.76 | | | 5.6 |
| | | | | | | 27.0 | | 6.74 | | 96.1 | | 3.73 | | | | | | 5.5 |
| 24/05/12 | 2131-2143 | 26/Cloudy | Surface | 1.0 | 26.3 | 25.6 | 25.6 | 6.57 | 6.59 | 93.5 | 93.9 | 3.98 | 4.09 | 4.09 | 5.8 | 5.9 | 6.0 | |
| | | | | | | 25.6 | | 6.61 | | 94.2 | | 3.95 | | | 6.0 | | | |
| | | | Middle | 8.2 | 26.1 | 26.4 | 26.5 | 6.48 | 6.46 | 92.1 | 91.9 | 4.07 | | | 4.10 | | | 6.0 |
| | | | | | | 26.5 | | 6.44 | | 91.6 | | 4.12 | | | | | | 6.0 |
| | | | Bottom | 15.4 | 25.8 | 27.2 | 27.3 | 6.36 | 6.34 | 90.3 | 90.1 | 4.19 | | | 4.21 | | | 6.2 |
| | | | | | | 27.3 | | 6.32 | | 89.8 | | 4.23 | | | | | | 6.0 |
| 26/05/12 | 1028-1040 | 28/Cloudy | Surface | 1.0 | 26.4 | 26.6 | 26.7 | 6.41 | 6.40 | 91.0 | 90.8 | 3.76 | 4.04 | 4.04 | 5.8 | 6.0 | 6.0 | |
| | | | | | | 26.7 | | 6.38 | | 90.6 | | 3.81 | | | 5.8 | | | |
| | | | Middle | 8.9 | 26.3 | 27.1 | 27.1 | 6.16 | 6.14 | 87.4 | 87.2 | 4.03 | | | 4.06 | | | 6.0 |
| | | | | | | 27.1 | | 6.12 | | 86.9 | | 4.09 | | | | | | 6.0 |
| | | | Bottom | 16.8 | 26.3 | 27.5 | 27.6 | 5.85 | 5.87 | 83.1 | 83.4 | 4.26 | | | 4.29 | | | 6.2 |
| | | | | | | 27.6 | | 5.89 | | 83.6 | | 4.31 | | | | | | 6.0 |
| 29/05/12 | 1302-1314 | 27/Cloudy | Surface | 1.0 | 26.3 | 25.6 | 25.7 | 6.59 | 6.61 | 94.1 | 94.4 | 4.12 | 4.20 | 4.20 | 6.2 | 6.1 | 6.3 | |
| | | | | | | 25.7 | | 6.63 | | 94.7 | | 4.06 | | | 6.0 | | | |
| | | | Middle | 8.2 | 26.0 | 26.3 | 26.3 | 6.47 | 6.46 | 92.2 | 92.0 | 4.19 | | | 4.21 | | | 6.2 |
| | | | | | | 26.2 | | 6.44 | | 91.8 | | 4.22 | | | | | | 6.2 |
| | | | Bottom | 15.4 | 25.8 | 27.1 | 27.2 | 6.40 | 6.38 | 91.0 | 90.7 | 4.30 | | | 4.31 | | | 6.4 |
| | | | | | | 27.2 | | 6.36 | | 90.4 | | 4.32 | | | | | | 6.5 |
| 31/05/12 | 1631-1646 | 28/Drizzle | Surface | 1.0 | 27.0 | 26.5 | 26.6 | 6.35 | 6.33 | 92.1 | 91.8 | 3.79 | 3.97 | 3.97 | 5.6 | 5.6 | 5.8 | |
| | | | | | | 26.6 | | 6.30 | | 91.4 | | 3.75 | | | 5.6 | | | |
| | | | Middle | 9.0 | 26.9 | 26.9 | 26.9 | 6.20 | 6.18 | 89.9 | 89.7 | 3.95 | | | 3.94 | | | 5.8 |
| | | | | | | 26.8 | | 6.16 | | 89.4 | | 3.92 | | | | | | 5.8 |
| | | | Bottom | 17.0 | 26.9 | 27.3 | 27.4 | 5.93 | 5.91 | 86.0 | 85.7 | 4.19 | | | 4.22 | | | 6.2 |
| | | | | | | 27.4 | | 5.88 | | 85.3 | | 4.24 | | | | | | 6.0 |

Mid-Flood Tide



Monitoring Station : R5

| Date | Sampling Duration | Ambient Temp (°C) / Weather Condition | Monitoring Depth (m) | | Temp (°C) | Salinity (ppt) | | Dissolved Oxygen (mg/L) | | Dissolved Oxygen Saturation (%) | | Turbidity (NTU) | | | Suspended Solids (mg/L) | | |
|----------|-------------------|---------------------------------------|----------------------|------|-----------|----------------|---------|-------------------------|---------|---------------------------------|---------|-----------------|---------|---------------|-------------------------|---------|---------------|
| | | | | | | Value | Average | Value | Average | Value | Average | Value | Average | Depth-average | Value | Average | Depth-average |
| 03/05/12 | 1510-1525 | 30/Cloudy | Surface | 1.0 | 25.7 | 27.0 | 27.0 | 6.96 | 6.95 | 96.0 | 95.9 | 4.30 | 4.28 | 4.38 | 6.0 | 6.1 | 6.3 |
| | | | | | | 27.0 | | 6.93 | | 95.7 | | 4.25 | | | 6.2 | | |
| | | | Middle | 8.6 | 25.6 | 27.3 | 27.3 | 6.82 | 6.84 | 94.1 | 94.4 | 4.36 | 4.38 | | 6.2 | 6.3 | |
| | | | | | | 27.2 | | 6.85 | | 94.6 | | 4.40 | | | 6.4 | | |
| | | | Bottom | 16.2 | 25.5 | 27.6 | 27.6 | 6.67 | 6.65 | 92.1 | 91.8 | 4.51 | 4.49 | | 6.4 | 6.4 | |
| | | | | | | 27.5 | | 6.63 | | 91.5 | | 4.47 | | | 6.4 | | |
| 05/05/12 | 1538-1552 | 26/Cloudy | Surface | 1.0 | 26.3 | 25.8 | 25.9 | 7.39 | 7.41 | 103.4 | 103.7 | 3.25 | 3.27 | 3.44 | 5.0 | 5.1 | 5.4 |
| | | | | | | 25.9 | | 7.43 | | 103.9 | | 3.29 | | | 5.2 | | |
| | | | Middle | 8.8 | 26.2 | 26.4 | 26.5 | 7.36 | 7.35 | 103.0 | 102.8 | 3.37 | 3.39 | | 5.4 | 5.4 | |
| | | | | | | 26.5 | | 7.33 | | 102.6 | | 3.40 | | | 5.4 | | |
| | | | Bottom | 16.6 | 26.0 | 27.1 | 27.1 | 7.24 | 7.26 | 101.3 | 101.6 | 3.68 | 3.67 | | 5.6 | 5.6 | |
| | | | | | | 27.0 | | 7.28 | | 101.8 | | 3.65 | | | 5.6 | | |
| 08/05/12 | 0839-0852 | 29/Fine | Surface | 1.0 | 26.1 | 27.5 | 27.6 | 7.20 | 7.22 | 102.9 | 103.2 | 3.60 | 3.65 | 3.64 | 5.5 | aa | 5.5 |
| | | | | | | 27.6 | | 7.24 | | 103.5 | | 3.69 | | | 5.6 | | |
| | | | Middle | 8.7 | 25.8 | 27.8 | 27.8 | 7.03 | 7.07 | 100.5 | 100.4 | 3.57 | 3.56 | | 5.4 | 5.4 | |
| | | | | | | 27.8 | | 7.10 | | 100.2 | | 3.54 | | | 5.4 | | |
| | | | Bottom | 16.4 | 25.7 | 28.0 | 28.0 | 6.90 | 6.92 | 98.4 | 98.7 | 3.69 | 3.72 | | 5.6 | 5.6 | |
| | | | | | | 28.0 | | 6.94 | | 99.0 | | 3.75 | | | 5.6 | | |
| 10/05/12 | 0918-0933 | 29/Fine | Surface | 1.0 | 26.0 | 27.5 | 27.5 | 6.84 | 6.82 | 94.4 | 94.1 | 3.88 | 3.92 | 4.12 | 6.0 | 6.0 | 6.2 |
| | | | | | | 27.5 | | 6.80 | | 93.8 | | 3.95 | | | 6.0 | | |
| | | | Middle | 8.8 | 26.0 | 27.8 | 27.9 | 6.65 | 6.63 | 91.8 | 91.5 | 4.06 | 4.09 | | 6.2 | 6.1 | |
| | | | | | | 27.9 | | 6.61 | | 91.2 | | 4.11 | | | 6.0 | | |
| | | | Bottom | 16.6 | 25.9 | 28.1 | 28.1 | 6.42 | 6.44 | 88.6 | 88.8 | 4.32 | 4.35 | | 6.4 | 6.4 | |
| | | | | | | 28.1 | | 6.45 | | 89.0 | | 4.38 | | | 6.4 | | |
| 12/05/12 | 1019-1034 | 17/Drizzle | Surface | 1.0 | 26.3 | 26.0 | 26.0 | 7.12 | 7.10 | 99.7 | 99.4 | 3.84 | 3.83 | 3.96 | 6.0 | 5.9 | 5.9 |
| | | | | | | 26.0 | | 7.08 | | 99.1 | | 3.81 | | | 5.8 | | |
| | | | Middle | 8.5 | 25.8 | 26.5 | 26.6 | 6.94 | 6.92 | 97.2 | 96.9 | 3.94 | 3.93 | | 5.8 | 5.8 | |
| | | | | | | 26.6 | | 6.90 | | 96.6 | | 3.92 | | | 5.8 | | |
| | | | Bottom | 16.0 | 25.7 | 27.0 | 27.0 | 6.88 | 6.87 | 96.3 | 96.1 | 4.14 | 4.13 | | 6.2 | 6.1 | |
| | | | | | | 27.0 | | 6.85 | | 95.9 | | 4.11 | | | 6.0 | | |
| 15/05/12 | 1436-1448 | 30/Rainy | Surface | 1.0 | 26.6 | 27.2 | 27.2 | 6.90 | 6.92 | 97.9 | 98.2 | 3.87 | 3.90 | 4.36 | 5.5 | 5.7 | 6.2 |
| | | | | | | 27.2 | | 6.94 | | 98.5 | | 3.92 | | | 5.8 | | |
| | | | Middle | 8.7 | 26.2 | 27.5 | 27.5 | 6.82 | 6.84 | 96.7 | 96.9 | 4.57 | 4.60 | | 6.4 | 6.5 | |
| | | | | | | 27.5 | | 6.85 | | 97.1 | | 4.63 | | | 6.6 | | |
| | | | Bottom | 16.4 | 26.0 | 27.9 | 27.9 | 6.74 | 6.76 | 95.5 | 95.7 | 4.60 | 4.59 | | 6.6 | 6.5 | |
| | | | | | | 27.8 | | 6.77 | | 95.9 | | 4.57 | | | 6.4 | | |
| 17/05/12 | 1537-1552 | 30/Cloudy | Surface | 1.0 | 26.8 | 26.2 | 26.3 | 7.49 | 7.47 | 107.6 | 107.3 | 3.54 | 3.52 | 3.57 | 5.5 | 5.5 | 5.6 |
| | | | | | | 26.3 | | 7.44 | | 107.0 | | 3.49 | | | 5.4 | | |
| | | | Middle | 8.8 | 26.4 | 26.9 | 26.9 | 7.35 | 7.33 | 105.9 | 105.6 | 3.41 | 3.46 | | 5.4 | 5.5 | |
| | | | | | | 26.9 | | 7.31 | | 105.3 | | 3.50 | | | 5.6 | | |
| | | | Bottom | 16.6 | 26.1 | 28.1 | 28.1 | 7.10 | 7.12 | 102.1 | 102.3 | 3.72 | 3.75 | | 5.6 | 5.7 | |
| | | | | | | 28.0 | | 7.13 | | 102.4 | | 3.77 | | | 5.8 | | |
| 19/05/12 | 1104-1118 | 26/Cloudy | Surface | 1.0 | 26.6 | 26.2 | 26.2 | 7.43 | 7.42 | 106.7 | 106.5 | 3.89 | 3.87 | 3.95 | 6.0 | 5.9 | 5.9 |
| | | | | | | 26.1 | | 7.40 | | 106.3 | | 3.85 | | | 5.8 | | |
| | | | Middle | 8.7 | 26.5 | 26.7 | 26.7 | 7.32 | 7.35 | 105.2 | 105.6 | 4.03 | 4.05 | | 6.0 | 6.0 | |
| | | | | | | 26.6 | | 7.37 | | 105.9 | | 4.06 | | | 6.0 | | |
| | | | Bottom | 16.4 | 26.3 | 27.1 | 27.2 | 7.26 | 7.24 | 104.3 | 104.0 | 3.94 | 3.92 | | 5.8 | 5.8 | |
| | | | | | | 27.2 | | 7.21 | | 103.6 | | 3.90 | | | 5.8 | | |
| 22/05/12 | 1837-1851 | 27/Fine | Surface | 1.0 | 26.4 | 25.3 | 25.3 | 6.94 | 6.93 | 98.9 | 98.7 | 3.19 | 3.21 | 3.47 | 5.0 | 5.1 | 5.4 |
| | | | | | | 25.2 | | 6.91 | | 98.5 | | 3.22 | | | 5.2 | | |
| | | | Middle | 8.8 | 26.3 | 25.8 | 25.9 | 6.82 | 6.84 | 97.2 | 97.5 | 3.46 | 3.44 | | 5.4 | 5.4 | |
| | | | | | | 25.9 | | 6.86 | | 97.8 | | 3.42 | | | 5.4 | | |
| | | | Bottom | 16.6 | 26.1 | 26.6 | 26.7 | 6.69 | 6.67 | 95.4 | 95.1 | 3.78 | 3.76 | | 5.6 | 5.6 | |
| | | | | | | 26.7 | | 6.65 | | 94.7 | | 3.74 | | | 5.6 | | |
| 24/05/12 | 1935-1947 | 26/Cloudy | Surface | 1.0 | 26.2 | 25.5 | 25.6 | 6.49 | 6.51 | 92.4 | 92.7 | 4.03 | 4.01 | 4.11 | 6.0 | 6.0 | 6.1 |
| | | | | | | 25.6 | | 6.53 | | 93.0 | | 3.99 | | | 6.0 | | |
| | | | Middle | 8.8 | 26.1 | 26.3 | 26.4 | 6.40 | 6.39 | 91.0 | 90.8 | 4.09 | 4.11 | | 6.2 | 6.1 | |
| | | | | | | 26.4 | | 6.37 | | 90.6 | | 4.12 | | | 6.2 | | |
| | | | Bottom | 16.6 | 25.8 | 27.1 | 27.2 | 6.23 | 6.21 | 88.5 | 88.2 | 4.21 | 4.23 | | 6.2 | 6.3 | |
| | | | | | | 27.2 | | 6.19 | | 87.9 | | 4.24 | | | 6.4 | | |
| 26/05/12 | 0853-0904 | 28/Cloudy | Surface | 1.0 | 26.3 | 26.5 | 26.5 | 6.18 | 6.17 | 87.7 | 87.5 | 4.30 | 4.29 | 4.46 | 6.5 | 6.4 | 6.5 |
| | | | | | | 26.5 | | 6.15 | | 87.3 | | 4.27 | | | 6.2 | | |
| | | | Middle | 8.9 | 26.2 | 26.9 | 26.9 | 6.00 | 6.02 | 85.2 | 85.5 | 4.41 | 4.44 | | 6.4 | 6.4 | |
| | | | | | | 26.9 | | 6.04 | | 85.8 | | 4.46 | | | 6.4 | | |
| | | | Bottom | 16.8 | 26.2 | 27.2 | 27.3 | 5.82 | 5.83 | 82.6 | 82.8 | 4.65 | 4.67 | | 6.6 | 6.6 | |
| | | | | | | 27.3 | | 5.84 | | 82.9 | | 4.68 | | | 6.6 | | |
| 29/05/12 | 1106-1119 | 26/Cloudy | Surface | 1.0 | 26.2 | 25.6 | 25.6 | 6.60 | 6.59 | 94.2 | 94.0 | 4.07 | 4.10 | 4.21 | 6.0 | 6.1 | 6.3 |
| | | | | | | 25.5 | | 6.57 | | 93.8 | | 4.12 | | | 6.2 | | |
| | | | Middle | 8.8 | 26.0 | 26.3 | 26.3 | 6.35 | 6.37 | 90.5 | 90.8 | 4.19 | 4.21 | | 6.2 | 6.3 | |
| | | | | | | 26.2 | | 6.39 | | 91.1 | | 4.22 | | | 6.4 | | |
| | | | Bottom | 16.5 | 25.8 | 27.0 | 27.1 | 6.23 | 6.22 | 88.6 | 88.4 | 4.31 | 4.33 | | 6.4 | 6.5 | |
| | | | | | | 27.1 | | 6.20 | | 88.1 | | 4.35 | | | 6.6 | | |
| 31/05/12 | 1427-1442 | 29/Fine | Surface | 1.0 | 27.1 | 26.4 | 26.4 | 6.23 | 6.21 | 90.4 | 90.2 | 4.32 | 4.34 | 4.46 | 6.5 | aa | 6.4 |
| | | | | | | 26.3 | | 6.19 | | 89.9 | | 4.36 | | | 6.4 | | |
| | | | Middle | 9.0 | 26.9 | 26.7 | 26.8 | 6.05 | 6.07 | 87.8 | 88.0 | 4.49 | 4.47 | | 6.4 | 6.5 | |
| | | | | | | 26.8 | | 6.08 | | 88.2 | | 4.45 | | | 6.6 | | |
| | | | Bottom | 17.0 | 26.8 | 27.0 | 27.1 | 5.92 | 5.90 | 85.9 | 85.6 | 4.54 | 4.57 | | 6.6 | 6.3 | |
| | | | | | | 27.1 | | 5.87 | | 85.2 | | 4.59 | | | 6.0 | | |

Mid-Flood Tide



Monitoring Station : R6

| Date | Sampling Duration | Ambient Temp (°C) / Weather Condition | Monitoring Depth (m) | | Temp (°C) | Salinity (ppt) | | Dissolved Oxygen (mg/L) | | Dissolved Oxygen Saturation (%) | | Turbidity (NTU) | | | Suspended Solids (mg/L) | | | |
|----------|-------------------|---------------------------------------|----------------------|------|-----------|----------------|---------|-------------------------|---------|---------------------------------|---------|-----------------|---------|---------------|-------------------------|---------|---------------|-----|
| | | | | | | Value | Average | Value | Average | Value | Average | Value | Average | Depth-average | Value | Average | Depth-average | |
| 03/05/12 | 1612-1627 | 30/Cloudy | Surface | 1.0 | 25.7 | 27.0 | 27.0 | 7.17 | 7.15 | 98.9 | 98.7 | 3.89 | 3.87 | 4.02 | 5.8 | 5.8 | 6.0 | |
| | | | | | | 27.0 | | 7.13 | | 98.4 | | 3.85 | | | 5.8 | | | |
| | | | Middle | 8.1 | 25.7 | 27.1 | 27.1 | 7.08 | 7.06 | 97.7 | 97.5 | 4.03 | 4.05 | | 6.0 | | | 6.0 |
| | | | | | | 27.1 | | 7.04 | | 97.2 | | 4.06 | | | 6.0 | | | |
| | | | Bottom | 15.2 | 25.5 | 27.3 | 27.4 | 6.91 | 6.89 | 95.3 | 95.1 | 4.12 | 4.15 | | 6.2 | | | 6.2 |
| | | | | | | 27.4 | | 6.87 | | 94.8 | | 4.17 | | | 6.2 | | | |
| 05/05/12 | 1638-1652 | 26/Cloudy | Surface | 1.0 | 26.2 | 25.7 | 25.8 | 7.42 | 7.44 | 103.8 | 104.0 | 3.39 | 3.41 | 3.63 | 5.4 | 5.4 | 5.6 | |
| | | | | | | 25.8 | | 7.45 | | 104.2 | | 3.43 | | | 5.4 | | | |
| | | | Middle | 8.5 | 26.1 | 26.4 | 26.5 | 7.31 | 7.30 | 102.3 | 102.1 | 3.60 | 3.62 | | 5.6 | | | 5.6 |
| | | | | | | 26.5 | | 7.28 | | 101.9 | | 3.63 | | | 5.6 | | | |
| | | | Bottom | 16.0 | 26.0 | 26.9 | 27.0 | 7.20 | 7.22 | 100.7 | 100.9 | 3.88 | 3.86 | | 5.8 | | | 5.8 |
| | | | | | | 27.0 | | 7.23 | | 101.1 | | 3.84 | | | 5.8 | | | |
| 08/05/12 | 0939-0951 | 29/Fine | Surface | 1.0 | 26.1 | 27.5 | 27.5 | 7.23 | 7.22 | 103.3 | 103.1 | 3.69 | 3.65 | 3.85 | 5.6 | 5.6 | 5.8 | |
| | | | | | | 27.5 | | 7.20 | | 102.9 | | 3.60 | | | 5.6 | | | |
| | | | Middle | 8.4 | 25.9 | 27.8 | 27.8 | 7.10 | 7.08 | 101.5 | 101.2 | 3.90 | 3.94 | | 5.8 | | | 5.8 |
| | | | | | | 27.8 | | 7.05 | | 100.8 | | 3.98 | | | 5.8 | | | |
| | | | Bottom | 15.8 | 25.8 | 27.9 | 27.9 | 7.03 | 7.05 | 100.5 | 100.7 | 3.98 | 3.95 | | 6.0 | | | 5.9 |
| | | | | | | 27.9 | | 7.06 | | 100.9 | | 3.92 | | | 5.8 | | | |
| 10/05/12 | 1019-1035 | 29/Fine | Surface | 1.0 | 26.1 | 27.2 | 27.2 | 6.74 | 6.73 | 93.0 | 92.8 | 3.85 | 3.88 | 4.09 | 5.8 | 5.8 | 6.0 | |
| | | | | | | 27.1 | | 6.71 | | 92.6 | | 3.91 | | | 5.8 | | | |
| | | | Middle | 8.3 | 26.0 | 27.6 | 27.7 | 6.52 | 6.54 | 90.0 | 90.2 | 4.12 | 4.14 | | 6.0 | | | 6.0 |
| | | | | | | 27.7 | | 6.55 | | 90.4 | | 4.16 | | | 6.0 | | | |
| | | | Bottom | 15.6 | 25.9 | 28.1 | 28.1 | 6.30 | 6.29 | 86.9 | 86.7 | 4.20 | 4.24 | | 6.2 | | | 6.2 |
| | | | | | | 28.0 | | 6.27 | | 86.5 | | 4.27 | | | 6.2 | | | |
| 12/05/12 | 1121-1136 | 26/Drizzle | Surface | 1.0 | 26.3 | 26.0 | 26.0 | 6.82 | 6.86 | 95.5 | 96.0 | 4.05 | 4.07 | 4.22 | 6.0 | 6.0 | 6.2 | |
| | | | | | | 25.9 | | 6.89 | | 96.5 | | 4.09 | | | 6.0 | | | |
| | | | Middle | 8.4 | 25.8 | 26.3 | 26.3 | 7.05 | 7.05 | 98.7 | 98.7 | 4.23 | 4.25 | | 6.2 | | | 6.2 |
| | | | | | | 26.2 | | 7.04 | | 98.6 | | 4.26 | | | 6.2 | | | |
| | | | Bottom | 15.6 | 25.6 | 26.9 | 26.9 | 6.74 | 6.76 | 94.4 | 94.7 | 4.37 | 4.36 | | 6.4 | | | 6.4 |
| | | | | | | 26.8 | | 6.78 | | 94.9 | | 4.34 | | | 6.4 | | | |
| 15/05/12 | 1538-1550 | 30/Rainy | Surface | 1.0 | 26.6 | 27.2 | 27.2 | 7.01 | 7.04 | 99.5 | 99.9 | 3.92 | 3.95 | 4.38 | 5.8 | 5.9 | 6.3 | |
| | | | | | | 27.1 | | 7.06 | | 100.2 | | 3.98 | | | 6.0 | | | |
| | | | Middle | 8.4 | 26.2 | 27.6 | 27.6 | 6.92 | 6.94 | 98.2 | 98.4 | 4.60 | 4.64 | | 6.6 | | | 6.6 |
| | | | | | | 27.5 | | 6.95 | | 98.6 | | 4.67 | | | 6.6 | | | |
| | | | Bottom | 15.8 | 25.9 | 27.8 | 27.8 | 6.79 | 6.77 | 96.2 | 95.9 | 4.52 | 4.57 | | 6.4 | | | 6.5 |
| | | | | | | 27.8 | | 6.74 | | 95.5 | | 4.61 | | | 6.6 | | | |
| 17/05/12 | 1637-1651 | 30/Cloudy | Surface | 1.0 | 26.8 | 26.4 | 26.4 | 7.53 | 7.56 | 108.4 | 108.9 | 3.43 | 3.47 | 3.57 | 5.4 | 5.4 | 5.5 | |
| | | | | | | 26.3 | | 7.59 | | 109.4 | | 3.50 | | | 5.4 | | | |
| | | | Middle | 8.5 | 26.5 | 26.9 | 26.9 | 7.49 | 7.46 | 107.8 | 107.5 | 3.52 | 3.55 | | 5.6 | | | 5.5 |
| | | | | | | 26.8 | | 7.43 | | 107.1 | | 3.57 | | | 5.6 | | | |
| | | | Bottom | 16.0 | 26.1 | 27.9 | 27.9 | 7.22 | 7.20 | 103.7 | 103.4 | 3.72 | 3.70 | | 5.6 | | | 5.6 |
| | | | | | | 27.8 | | 7.17 | | 103.1 | | 3.68 | | | 5.6 | | | |
| 19/05/12 | 1203-1217 | 26/Cloudy | Surface | 1.0 | 26.6 | 26.2 | 26.2 | 7.51 | 7.53 | 107.9 | 108.2 | 3.72 | 3.74 | 3.76 | 5.6 | 5.6 | 5.6 | |
| | | | | | | 26.2 | | 7.55 | | 108.5 | | 3.76 | | | 5.6 | | | |
| | | | Middle | 8.6 | 26.4 | 26.8 | 26.8 | 7.42 | 7.39 | 106.6 | 106.2 | 3.70 | 3.68 | | 5.6 | | | 5.5 |
| | | | | | | 26.7 | | 7.36 | | 105.7 | | 3.66 | | | 5.4 | | | |
| | | | Bottom | 16.2 | 26.3 | 27.4 | 27.4 | 7.30 | 7.28 | 104.9 | 104.6 | 3.89 | 3.86 | | 5.8 | | | 5.8 |
| | | | | | | 27.3 | | 7.26 | | 104.3 | | 3.83 | | | 5.8 | | | |
| 22/05/12 | 1934-1947 | 27/Fine | Surface | 1.0 | 26.4 | 25.3 | 25.3 | 7.06 | 7.04 | 100.6 | 100.4 | 3.42 | 3.44 | 3.56 | 5.4 | 5.4 | 5.6 | |
| | | | | | | 25.3 | | 7.02 | | 100.1 | | 3.45 | | | 5.4 | | | |
| | | | Middle | 8.5 | 26.3 | 25.9 | 25.9 | 6.84 | 6.86 | 97.5 | 97.7 | 3.59 | 3.57 | | 5.6 | | | 5.6 |
| | | | | | | 25.8 | | 6.87 | | 97.8 | | 3.55 | | | 5.6 | | | |
| | | | Bottom | 16.0 | 26.1 | 26.8 | 26.9 | 6.78 | 6.76 | 96.6 | 96.4 | 3.66 | 3.69 | | 5.8 | | | 5.7 |
| | | | | | | 26.9 | | 6.74 | | 96.1 | | 3.71 | | | 5.8 | | | |
| 24/05/12 | 2032-2045 | 26/Cloudy | Surface | 1.0 | 26.2 | 25.6 | 25.7 | 6.55 | 6.56 | 93.2 | 93.4 | 4.08 | 4.06 | 4.19 | 6.0 | 6.0 | 6.2 | |
| | | | | | | 25.7 | | 6.57 | | 93.6 | | 4.04 | | | 6.0 | | | |
| | | | Middle | 8.6 | 26.1 | 26.4 | 26.5 | 6.48 | 6.45 | 92.1 | 91.7 | 4.17 | 4.19 | | 6.2 | | | 6.2 |
| | | | | | | 26.5 | | 6.42 | | 91.3 | | 4.20 | | | 6.2 | | | |
| | | | Bottom | 16.2 | 25.9 | 27.2 | 27.2 | 6.25 | 6.26 | 88.8 | 89.0 | 4.31 | 4.32 | | 6.2 | | | 6.3 |
| | | | | | | 27.1 | | 6.27 | | 89.1 | | 4.33 | | | 6.4 | | | |
| 26/05/12 | 0940-0953 | 28/Cloudy | Surface | 1.0 | 26.4 | 26.4 | 26.5 | 6.24 | 6.26 | 88.6 | 88.9 | 4.26 | 4.23 | 4.22 | 6.2 | 6.2 | 6.2 | |
| | | | | | | 26.5 | | 6.28 | | 89.2 | | 4.20 | | | 6.2 | | | |
| | | | Middle | 8.4 | 26.3 | 27.0 | 27.0 | 6.12 | 6.09 | 86.9 | 86.5 | 4.09 | 4.07 | | 6.0 | | | 6.0 |
| | | | | | | 27.0 | | 6.06 | | 86.1 | | 4.05 | | | 6.0 | | | |
| | | | Bottom | 15.8 | 26.3 | 27.4 | 27.4 | 5.93 | 5.91 | 84.2 | 83.9 | 4.33 | 4.36 | | 6.2 | | | 6.3 |
| | | | | | | 27.3 | | 5.88 | | 83.5 | | 4.38 | | | 6.4 | | | |
| 29/05/12 | 1204-1217 | 26/Cloudy | Surface | 1.0 | 26.3 | 25.5 | 25.6 | 6.43 | 6.46 | 91.8 | 92.2 | 4.00 | 3.99 | 4.11 | 6.0 | 5.9 | 6.0 | |
| | | | | | | 25.6 | | 6.48 | | 92.6 | | 3.97 | | | 5.8 | | | |
| | | | Middle | 8.4 | 26.1 | 26.3 | 26.3 | 6.35 | 6.34 | 90.5 | 90.4 | 4.09 | 4.11 | | 6.0 | | | 6.0 |
| | | | | | | 26.3 | | 6.33 | | 90.2 | | 4.13 | | | 6.0 | | | |
| | | | Bottom | 15.8 | 25.8 | 27.0 | 27.1 | 6.22 | 6.20 | 88.4 | 88.2 | 4.20 | 4.22 | | 6.2 | | | 6.2 |
| | | | | | | 27.1 | | 6.18 | | 87.9 | | 4.24 | | | 6.2 | | | |
| 31/05/12 | 1534-1548 | 29/Fine | Surface | 1.0 | 27.1 | 26.4 | 26.4 | 6.20 | 6.19 | 90.0 | 89.8 | 4.11 | 4.13 | 4.25 | 6.2 | 6.2 | 6.3 | |
| | | | | | | 26.3 | | 6.17 | | 89.6 | | 4.14 | | | 6.2 | | | |
| | | | Middle | 8.5 | 27.0 | 26.8 | 26.9 | 6.08 | 6.06 | 88.3 | 88.0 | 4.27 | 4.25 | | 6.2 | | | 6.2 |
| | | | | | | 26.9 | | 6.04 | | 87.7 | | 4.22 | | | 6.2 | | | |
| | | | Bottom | 16.0 | 26.8 | 27.2 | 27.3 | 5.86 | 5.89 | 85.0 | 85.4 | 4.36 | 4.38 | | 6.4 | | | 6.4 |
| | | | | | | 27.3 | | 5.91 | | 85.7 | | 4.40 | | | 6.4 | | | |

Mid-Flood Tide

Monitoring Station : R7

| Date | Sampling Duration | Ambient Temp (°C) / Weather Condition | Monitoring Depth (m) | | Temp (°C) | Salinity (ppt) | | Dissolved Oxygen (mg/L) | | Dissolved Oxygen Saturation (%) | | Turbidity (NTU) | | | Suspended Solids (mg/L) | | |
|----------|-------------------|---------------------------------------|----------------------|------|-----------|----------------|---------|-------------------------|---------|---------------------------------|---------|-----------------|---------|---------------|-------------------------|---------|---------------|
| | | | | | | Value | Average | Value | Average | Value | Average | Value | Average | Depth-average | Value | Average | Depth-average |
| 03/05/12 | 1633-1649 | 30/Cloudy | Surface | 1.0 | 25.7 | 26.9 | 27.0 | 7.19 | 7.21 | 99.2 | 99.4 | 3.80 | 3.78 | 3.96 | 5.8 | 5.7 | 5.9 |
| | | | | | | 27.0 | | 7.22 | | 99.6 | | 3.75 | | | 5.6 | | |
| | | | Middle | 8.9 | 25.7 | 27.4 | 27.4 | 7.07 | 7.05 | 97.5 | 97.2 | 3.96 | 3.94 | | 5.8 | 5.8 | |
| | | | | | | 27.3 | | 7.02 | | 96.9 | | 3.92 | | | 5.8 | | |
| | | | Bottom | 16.8 | 25.5 | 27.4 | 27.5 | 6.92 | 6.94 | 95.5 | 95.7 | 4.20 | 4.18 | | 6.2 | 6.2 | |
| | | | | | | 27.5 | | 6.95 | | 95.9 | | 4.15 | | | 6.2 | | |
| 05/05/12 | 1658-1711 | 26/Cloudy | Surface | 1.0 | 26.3 | 25.8 | 25.8 | 7.36 | 7.38 | 103.0 | 103.3 | 3.42 | 3.44 | 3.59 | 5.4 | 5.4 | 5.5 |
| | | | | | | 25.8 | | 7.40 | | 103.5 | | 3.46 | | | 5.4 | | |
| | | | Middle | 8.8 | 26.1 | 26.5 | 26.5 | 7.33 | 7.31 | 102.5 | 102.3 | 3.55 | 3.57 | | 5.4 | 5.5 | |
| | | | | | | 26.4 | | 7.29 | | 102.0 | | 3.59 | | | 5.6 | | |
| | | | Bottom | 16.6 | 25.9 | 27.0 | 27.1 | 7.22 | 7.24 | 101.0 | 101.2 | 3.77 | 3.75 | | 5.6 | 5.6 | |
| | | | | | | 27.1 | | 7.25 | | 101.4 | | 3.73 | | | 5.6 | | |
| 08/05/12 | 1000-1012 | 29/Fine | Surface | 1.0 | 26.1 | 27.6 | 27.6 | 7.19 | 7.17 | 102.8 | 102.5 | 3.82 | 3.80 | 3.91 | 5.8 | 5.7 | 5.8 |
| | | | | | | 27.6 | | 7.15 | | 102.2 | | 3.78 | | | 5.6 | | |
| | | | Middle | 9.3 | 25.8 | 27.8 | 27.8 | 7.02 | 7.04 | 100.3 | 100.6 | 4.01 | 4.04 | | 6.0 | 6.0 | |
| | | | | | | 27.8 | | 7.05 | | 100.8 | | 4.07 | | | 6.0 | | |
| | | | Bottom | 17.6 | 25.7 | 28.0 | 28.0 | 6.97 | 6.95 | 99.4 | 99.1 | 3.87 | 3.90 | | 5.8 | 5.8 | |
| | | | | | | 28.0 | | 6.92 | | 98.7 | | 3.93 | | | 5.8 | | |
| 10/05/12 | 1042-1057 | 29/Fine | Surface | 1.0 | 26.1 | 27.3 | 27.4 | 6.83 | 6.82 | 94.3 | 94.1 | 3.73 | 3.75 | 3.99 | 5.6 | 5.6 | 6.0 |
| | | | | | | 27.4 | | 6.80 | | 93.8 | | 3.77 | | | 5.6 | | |
| | | | Middle | 9.2 | 26.0 | 27.8 | 27.8 | 6.64 | 6.62 | 91.6 | 91.4 | 3.90 | 3.93 | | 6.2 | 6.2 | |
| | | | | | | 27.7 | | 6.60 | | 91.1 | | 3.95 | | | 6.2 | | |
| | | | Bottom | 17.4 | 26.0 | 28.2 | 28.2 | 6.56 | 6.54 | 90.5 | 90.2 | 4.25 | 4.28 | | 6.2 | 6.2 | |
| | | | | | | 28.1 | | 6.51 | | 89.8 | | 4.31 | | | 6.2 | | |
| 12/05/12 | 1140-1155 | 26/Drizzle | Surface | 1.0 | 26.3 | 25.8 | 25.8 | 6.94 | 6.95 | 97.2 | 97.3 | 3.82 | 3.86 | 4.10 | 5.8 | 5.8 | 6.0 |
| | | | | | | 25.8 | | 6.96 | | 97.4 | | 3.90 | | | 5.8 | | |
| | | | Middle | 9.0 | 25.8 | 26.3 | 26.4 | 6.82 | 6.81 | 85.5 | 90.4 | 4.28 | 4.27 | | 6.2 | 6.2 | |
| | | | | | | 26.4 | | 6.80 | | 95.2 | | 4.25 | | | 6.2 | | |
| | | | Bottom | 17.0 | 25.7 | 26.8 | 26.8 | 6.65 | 6.66 | 93.1 | 93.3 | 4.17 | 4.19 | | 6.0 | 6.1 | |
| | | | | | | 26.7 | | 6.67 | | 93.4 | | 4.20 | | | 6.2 | | |
| 15/05/12 | 1558-1610 | 30/Rainy | Surface | 1.0 | 26.6 | 27.2 | 27.2 | 7.04 | 7.06 | 99.9 | 100.1 | 4.44 | 4.42 | 4.37 | 6.4 | 6.4 | 6.3 |
| | | | | | | 27.2 | | 7.07 | | 100.3 | | 4.39 | | | 6.4 | | |
| | | | Middle | 9.2 | 26.1 | 27.5 | 27.5 | 6.85 | 6.87 | 97.1 | 97.3 | 4.17 | 4.14 | | 6.2 | 6.1 | |
| | | | | | | 27.5 | | 6.88 | | 97.5 | | 4.10 | | | 6.0 | | |
| | | | Bottom | 17.4 | 26.0 | 27.9 | 27.9 | 6.87 | 6.85 | 97.4 | 97.1 | 4.59 | 4.55 | | 6.4 | 6.4 | |
| | | | | | | 27.9 | | 6.82 | | 96.7 | | 4.51 | | | 6.4 | | |
| 17/05/12 | 1657-1709 | 30/Cloudy | Surface | 1.0 | 26.8 | 26.4 | 26.4 | 7.41 | 7.39 | 106.7 | 106.4 | 3.61 | 3.60 | 3.70 | 5.4 | 5.5 | 5.6 |
| | | | | | | 26.3 | | 7.37 | | 106.0 | | 3.58 | | | 5.6 | | |
| | | | Middle | 8.7 | 26.4 | 27.1 | 27.1 | 7.27 | 7.29 | 104.5 | 104.8 | 3.66 | 3.69 | | 5.6 | 5.6 | |
| | | | | | | 27.1 | | 7.30 | | 105.0 | | 3.71 | | | 5.6 | | |
| | | | Bottom | 16.4 | 26.0 | 28.1 | 28.1 | 7.31 | 7.34 | 105.3 | 105.7 | 3.85 | 3.82 | | 5.8 | 5.8 | |
| | | | | | | 28.0 | | 7.36 | | 106.0 | | 3.79 | | | 5.8 | | |
| 19/05/12 | 1223-1236 | 26/Cloudy | Surface | 1.0 | 26.6 | 26.2 | 26.3 | 7.40 | 7.43 | 106.3 | 106.7 | 3.91 | 3.89 | 3.89 | 5.8 | 5.8 | 5.8 |
| | | | | | | 26.3 | | 7.45 | | 107.0 | | 3.86 | | | 5.8 | | |
| | | | Middle | 8.7 | 26.5 | 26.8 | 26.8 | 7.38 | 7.36 | 106.0 | 105.8 | 3.85 | 3.83 | | 5.8 | 5.7 | |
| | | | | | | 26.7 | | 7.34 | | 105.5 | | 3.81 | | | 5.6 | | |
| | | | Bottom | 16.4 | 26.3 | 27.2 | 27.3 | 7.29 | 7.27 | 104.7 | 104.5 | 3.93 | 3.95 | | 6.0 | 6.0 | |
| | | | | | | 27.3 | | 7.25 | | 104.2 | | 3.97 | | | 6.0 | | |
| 22/05/12 | 1953-2006 | 27/Fine | Surface | 1.0 | 26.4 | 25.4 | 25.4 | 6.93 | 6.95 | 98.8 | 99.1 | 3.43 | 3.46 | 3.63 | 5.4 | 5.4 | 5.6 |
| | | | | | | 25.3 | | 6.97 | | 99.4 | | 3.48 | | | 5.4 | | |
| | | | Middle | 8.8 | 26.3 | 25.9 | 26.0 | 6.84 | 6.82 | 97.4 | 97.2 | 3.61 | 3.60 | | 5.6 | 5.5 | |
| | | | | | | 26.0 | | 6.80 | | 96.9 | | 3.58 | | | 5.4 | | |
| | | | Bottom | 16.6 | 26.1 | 26.9 | 27.0 | 6.82 | 6.79 | 97.2 | 96.8 | 3.86 | 3.84 | | 5.8 | 5.8 | |
| | | | | | | 27.0 | | 6.76 | | 96.3 | | 3.81 | | | 5.8 | | |
| 24/05/12 | 2051-2104 | 26/Cloudy | Surface | 1.0 | 26.3 | 25.7 | 25.7 | 6.60 | 6.59 | 93.9 | 93.8 | 3.90 | 3.93 | 4.08 | 5.8 | 5.8 | 6.0 |
| | | | | | | 25.6 | | 6.57 | | 93.6 | | 3.96 | | | 5.8 | | |
| | | | Middle | 9.0 | 26.0 | 26.5 | 26.5 | 6.50 | 6.48 | 92.4 | 92.2 | 4.07 | 4.09 | | 6.0 | 6.0 | |
| | | | | | | 26.5 | | 6.46 | | 91.9 | | 4.11 | | | 6.0 | | |
| | | | Bottom | 17.0 | 25.9 | 27.2 | 27.3 | 6.22 | 6.20 | 88.4 | 88.1 | 4.19 | 4.22 | | 6.2 | 6.2 | |
| | | | | | | 27.3 | | 6.18 | | 87.8 | | 4.24 | | | 6.2 | | |
| 26/05/12 | 0956-1008 | 28/Cloudy | Surface | 1.0 | 26.3 | 26.5 | 26.5 | 6.30 | 6.32 | 89.5 | 89.7 | 3.94 | 3.97 | 4.00 | 6.0 | 6.0 | 6.0 |
| | | | | | | 26.5 | | 6.33 | | 89.8 | | 4.00 | | | 6.0 | | |
| | | | Middle | 9.3 | 26.3 | 27.0 | 27.0 | 6.15 | 6.17 | 87.3 | 87.6 | 3.85 | 3.88 | | 5.8 | 5.8 | |
| | | | | | | 26.9 | | 6.19 | | 87.8 | | 3.90 | | | 5.8 | | |
| | | | Bottom | 17.6 | 26.2 | 27.4 | 27.4 | 6.03 | 6.00 | 85.6 | 85.1 | 4.12 | 4.15 | | 6.0 | 6.1 | |
| | | | | | | 27.4 | | 5.96 | | 84.6 | | 4.17 | | | 6.2 | | |
| 29/05/12 | 1223-1236 | 26/Cloudy | Surface | 1.0 | 26.2 | 25.7 | 25.7 | 6.54 | 6.52 | 93.4 | 93.1 | 3.99 | 3.96 | 4.16 | 5.8 | 5.8 | 6.1 |
| | | | | | | 25.6 | | 6.50 | | 92.8 | | 3.93 | | | 5.8 | | |
| | | | Middle | 9.2 | 25.9 | 26.3 | 26.4 | 6.38 | 6.31 | 91.0 | 90.6 | 4.14 | 4.16 | | 6.0 | 6.1 | |
| | | | | | | 26.4 | | 6.23 | | 90.1 | | 4.18 | | | 6.2 | | |
| | | | Bottom | 17.4 | 25.8 | 27.2 | 27.2 | 6.15 | 6.17 | 87.4 | 87.7 | 4.37 | 4.35 | | 6.4 | 6.3 | |
| | | | | | | 27.1 | | 6.19 | | 88.0 | | 4.33 | | | 6.2 | | |
| 31/05/12 | 1553-1607 | 29/Fine | Surface | 1.0 | 27.1 | 26.3 | 26.4 | 6.29 | 6.27 | 91.3 | 91.0 | 4.02 | 4.05 | 4.12 | 6.0 | 6.0 | 6.1 |
| | | | | | | 26.4 | | 6.25 | | 90.7 | | 4.07 | | | 6.0 | | |
| | | | Middle | 9.2 | 27.0 | 26.9 | 26.9 | 6.13 | 6.11 | 89.0 | 88.7 | 4.10 | 4.08 | | 6.2 | 6.1 | |
| | | | | | | 26.8 | | 6.09 | | 88.4 | | 4.06 | | | 6.0 | | |
| | | | Bottom | 17.4 | 26.9 | 27.2 | 27.3 | 5.99 | 5.98 | 86.9 | 86.7 | 4.22 | 4.24 | | 6.2 | 6.2 | |
| | | | | | | 27.3 | | 5.96 | | 86.5 | | 4.26 | | | 6.2 | | |

Mid-Flood Tide

Monitoring Station : R8a

| Date | Sampling Duration | Ambient Temp (°C) / Weather Condition | Monitoring Depth (m) | | Temp (°C) | Salinity (ppt) | | Dissolved Oxygen (mg/L) | | Dissolved Oxygen Saturation (%) | | Turbidity (NTU) | | | Suspended Solids (mg/L) | | | | |
|----------|-------------------|---------------------------------------|----------------------|------|-----------|----------------|---------|-------------------------|---------|---------------------------------|---------|-----------------|---------|---------------|-------------------------|---------|---------------|------|-----|
| | | | | | | Value | Average | Value | Average | Value | Average | Value | Average | Depth-average | Value | Average | Depth-average | | |
| 03/05/12 | 1655-1710 | 30/Cloudy | Surface | 1.0 | 25.7 | 27.1 | 27.2 | 7.16 | 7.18 | 98.8 | 99.0 | 3.92 | 3.90 | 4.04 | 5.8 | 5.9 | 6.0 | | |
| | | | | | | 27.2 | | 7.19 | | 99.2 | | 3.87 | | | 6.0 | | | | |
| | | | Middle | 6.3 | 25.7 | 27.3 | 27.3 | 7.08 | 7.06 | 97.7 | 97.4 | 4.06 | 4.02 | | 4.06 | | | 4.04 | 6.0 |
| | | | | | | 27.3 | | 7.04 | | 97.1 | | 4.02 | | | 6.0 | | | | |
| | | | Bottom | 11.6 | 25.5 | 27.4 | 27.4 | 6.98 | 6.96 | 96.3 | 96.0 | 4.15 | 4.21 | | 4.18 | | | 4.18 | 6.2 |
| | | | | | | 27.3 | | 6.93 | | 95.6 | | 4.21 | | | 6.2 | | | | |
| 05/05/12 | 1717-1729 | 26/Cloudy | Surface | 1.0 | 26.3 | 25.8 | 25.9 | 7.39 | 7.41 | 103.4 | 103.6 | 3.63 | 3.66 | 3.77 | 5.6 | 5.6 | 5.6 | | |
| | | | | | | 25.9 | | 7.42 | | 103.7 | | 3.68 | | | 5.5 | | | | |
| | | | Middle | 6.8 | 26.2 | 26.3 | 26.4 | 7.25 | 7.24 | 101.4 | 101.2 | 3.72 | 3.75 | | 3.74 | | | 3.74 | 5.5 |
| | | | | | | 26.4 | | 7.22 | | 100.9 | | 3.75 | | | 5.6 | | | | |
| | | | Bottom | 12.6 | 26.0 | 27.0 | 27.0 | 7.01 | 7.03 | 98.1 | 98.3 | 3.91 | 3.93 | | 3.93 | | | 3.93 | 5.8 |
| | | | | | | 26.9 | | 7.04 | | 98.4 | | 3.95 | | | 5.8 | | | | |
| 08/05/12 | 1020-1032 | 29/Fine | Surface | 1.0 | 26.1 | 27.5 | 27.5 | 7.14 | 7.16 | 102.1 | 102.3 | 3.44 | 3.46 | 3.82 | 5.4 | 5.5 | 5.8 | | |
| | | | | | | 27.5 | | 7.17 | | 102.5 | | 3.47 | | | 5.5 | | | | |
| | | | Middle | 6.9 | 25.9 | 27.9 | 27.9 | 6.94 | 6.92 | 99.0 | 98.7 | 3.99 | 3.95 | | 3.95 | | | 3.95 | 6.0 |
| | | | | | | 27.8 | | 6.90 | | 98.4 | | 3.90 | | | 5.8 | | | | |
| | | | Bottom | 12.8 | 25.8 | 28.0 | 28.0 | 6.96 | 6.94 | 99.3 | 99.0 | 4.05 | 4.09 | | 4.07 | | | 4.07 | 6.0 |
| | | | | | | 27.9 | | 6.92 | | 98.7 | | 4.09 | | | 6.0 | | | | |
| 10/05/12 | 1102-1117 | 29/Fine | Surface | 1.0 | 26.0 | 27.1 | 27.2 | 6.85 | 6.88 | 94.5 | 94.9 | 3.41 | 3.44 | 3.63 | 5.4 | 5.5 | 5.6 | | |
| | | | | | | 27.2 | | 6.90 | | 95.2 | | 3.46 | | | 5.5 | | | | |
| | | | Middle | 6.6 | 26.0 | 27.4 | 27.4 | 6.79 | 6.78 | 93.7 | 93.5 | 3.60 | 3.66 | | 3.63 | | | 3.63 | 5.5 |
| | | | | | | 27.3 | | 6.76 | | 93.2 | | 3.66 | | | 5.6 | | | | |
| | | | Bottom | 12.2 | 25.9 | 27.5 | 27.5 | 6.62 | 6.64 | 91.4 | 91.6 | 3.80 | 3.85 | | 3.83 | | | 3.83 | 5.8 |
| | | | | | | 27.5 | | 6.65 | | 91.8 | | 3.85 | | | 5.8 | | | | |
| 12/05/12 | 1203-1218 | 26/Drizzle | Surface | 1.0 | 26.3 | 26.0 | 26.0 | 7.09 | 7.05 | 99.3 | 98.7 | 4.26 | 4.23 | 4.42 | 6.2 | 6.1 | 6.4 | | |
| | | | | | | 26.0 | | 7.01 | | 98.1 | | 4.19 | | | 6.0 | | | | |
| | | | Middle | 6.5 | 25.8 | 26.4 | 26.5 | 6.59 | 6.61 | 92.3 | 92.5 | 4.36 | 4.41 | | 4.39 | | | 4.39 | 6.5 |
| | | | | | | 26.5 | | 6.62 | | 92.7 | | 4.41 | | | 6.4 | | | | |
| | | | Bottom | 12.0 | 25.8 | 26.9 | 26.9 | 6.50 | 6.53 | 91.0 | 91.4 | 4.62 | 4.66 | | 4.66 | | | 4.66 | 6.6 |
| | | | | | | 26.9 | | 6.55 | | 91.7 | | 4.70 | | | 6.6 | | | | |
| 15/05/12 | 1620-1631 | 30/Rainy | Surface | 1.0 | 26.6 | 27.2 | 27.2 | 6.98 | 6.96 | 99.1 | 98.8 | 3.72 | 3.75 | 4.47 | 6.6 | 6.6 | 6.8 | | |
| | | | | | | 27.2 | | 6.94 | | 98.5 | | 3.77 | | | 6.5 | | | | |
| | | | Middle | 6.8 | 26.3 | 27.5 | 27.5 | 6.90 | 6.92 | 97.9 | 98.2 | 4.74 | 4.72 | | 4.72 | | | 4.72 | 7.0 |
| | | | | | | 27.4 | | 6.94 | | 98.5 | | 4.69 | | | 6.8 | | | | |
| | | | Bottom | 12.6 | 25.9 | 27.8 | 27.8 | 6.85 | 6.83 | 97.1 | 96.8 | 4.93 | 4.98 | | 4.96 | | | 4.96 | 6.8 |
| | | | | | | 27.8 | | 6.81 | | 96.5 | | 4.98 | | | 6.9 | | | | |
| 17/05/12 | 1718-1732 | 30/Cloudy | Surface | 1.0 | 26.8 | 26.3 | 26.3 | 7.47 | 7.49 | 107.5 | 107.9 | 3.56 | 3.53 | 3.76 | 5.6 | 5.6 | 5.7 | | |
| | | | | | | 26.3 | | 7.51 | | 108.2 | | 3.50 | | | 5.5 | | | | |
| | | | Middle | 6.8 | 26.6 | 26.7 | 26.8 | 7.34 | 7.37 | 105.5 | 106.0 | 3.66 | 3.72 | | 3.69 | | | 3.69 | 5.5 |
| | | | | | | 26.8 | | 7.40 | | 106.5 | | 3.72 | | | 5.6 | | | | |
| | | | Bottom | 12.5 | 26.2 | 27.8 | 27.8 | 7.19 | 7.16 | 103.4 | 103.0 | 4.09 | 4.02 | | 4.06 | | | 4.06 | 6.0 |
| | | | | | | 27.7 | | 7.13 | | 102.5 | | 4.02 | | | 6.0 | | | | |
| 19/05/12 | 1244-1258 | 28/Cloudy | Surface | 1.0 | 26.7 | 26.2 | 26.3 | 7.44 | 7.47 | 106.9 | 107.4 | 3.62 | 3.64 | 3.81 | 5.4 | 5.5 | 5.7 | | |
| | | | | | | 26.3 | | 7.50 | | 107.8 | | 3.66 | | | 5.5 | | | | |
| | | | Middle | 6.7 | 26.6 | 26.4 | 26.5 | 7.32 | 7.30 | 105.2 | 104.9 | 3.70 | 3.75 | | 3.73 | | | 3.73 | 5.5 |
| | | | | | | 26.5 | | 7.28 | | 104.6 | | 3.75 | | | 5.6 | | | | |
| | | | Bottom | 12.4 | 26.4 | 27.0 | 27.1 | 7.14 | 7.12 | 102.6 | 102.3 | 4.04 | 4.08 | | 4.06 | | | 4.06 | 6.0 |
| | | | | | | 27.1 | | 7.10 | | 101.9 | | 4.08 | | | 6.0 | | | | |
| 22/05/12 | 2016-2030 | 26/Cloudy | Surface | 1.0 | 26.4 | 25.3 | 25.3 | 6.96 | 6.98 | 99.2 | 99.4 | 3.40 | 3.42 | 3.61 | 5.4 | 5.5 | 5.6 | | |
| | | | | | | 25.3 | | 6.99 | | 99.6 | | 3.44 | | | 5.5 | | | | |
| | | | Middle | 6.8 | 26.3 | 25.8 | 25.8 | 6.91 | 6.88 | 98.4 | 98.1 | 3.61 | 3.65 | | 3.63 | | | 3.63 | 5.5 |
| | | | | | | 25.7 | | 6.85 | | 97.7 | | 3.65 | | | 5.6 | | | | |
| | | | Bottom | 12.6 | 26.1 | 26.5 | 26.6 | 6.72 | 6.75 | 95.8 | 96.1 | 3.75 | 3.80 | | 3.78 | | | 3.78 | 5.6 |
| | | | | | | 26.6 | | 6.77 | | 96.4 | | 3.80 | | | 5.7 | | | | |
| 24/05/12 | 2111-2124 | 26/Cloudy | Surface | 1.0 | 26.2 | 25.6 | 25.7 | 6.66 | 6.65 | 94.8 | 94.6 | 3.87 | 3.89 | 4.01 | 5.8 | 5.9 | 6.0 | | |
| | | | | | | 25.7 | | 6.63 | | 94.4 | | 3.91 | | | 6.0 | | | | |
| | | | Middle | 7.1 | 26.1 | 26.4 | 26.4 | 6.51 | 6.49 | 92.5 | 92.3 | 3.99 | 4.03 | | 4.01 | | | 4.01 | 6.0 |
| | | | | | | 26.4 | | 6.47 | | 92.0 | | 4.03 | | | 6.0 | | | | |
| | | | Bottom | 13.2 | 25.9 | 27.1 | 27.2 | 6.31 | 6.29 | 89.6 | 89.4 | 4.12 | 4.15 | | 4.14 | | | 4.14 | 6.2 |
| | | | | | | 27.2 | | 6.27 | | 89.1 | | 4.15 | | | 6.2 | | | | |
| 26/05/12 | 1013-1025 | 28/Cloudy | Surface | 1.0 | 26.4 | 26.6 | 26.6 | 6.34 | 6.32 | 90.0 | 89.8 | 3.74 | 3.77 | 3.98 | 5.6 | 5.6 | 5.9 | | |
| | | | | | | 26.6 | | 6.30 | | 89.5 | | 3.79 | | | 5.5 | | | | |
| | | | Middle | 6.8 | 26.4 | 26.8 | 26.9 | 6.22 | 6.21 | 88.3 | 88.1 | 3.96 | 4.00 | | 3.98 | | | 3.98 | 6.0 |
| | | | | | | 26.9 | | 6.19 | | 87.9 | | 4.00 | | | 6.0 | | | | |
| | | | Bottom | 12.6 | 26.3 | 27.0 | 27.0 | 6.05 | 6.02 | 85.9 | 85.5 | 4.16 | 4.21 | | 4.19 | | | 4.19 | 6.2 |
| | | | | | | 27.0 | | 5.99 | | 85.1 | | 4.21 | | | 6.2 | | | | |
| 29/05/12 | 1244-1256 | 27/Cloudy | Surface | 1.0 | 26.3 | 25.7 | 25.7 | 6.70 | 6.69 | 95.7 | 95.5 | 4.03 | 4.06 | 4.15 | 6.0 | 6.0 | 6.2 | | |
| | | | | | | 25.7 | | 6.67 | | 95.3 | | 4.08 | | | 6.0 | | | | |
| | | | Middle | 6.9 | 26.2 | 26.3 | 26.3 | 6.27 | 6.29 | 89.4 | 89.6 | 4.14 | 4.16 | | 4.15 | | | 4.15 | 6.5 |
| | | | | | | 26.3 | | 6.30 | | 89.8 | | 4.16 | | | 6.4 | | | | |
| | | | Bottom | 12.8 | 26.0 | 27.0 | 27.0 | 6.42 | 6.44 | 91.3 | 91.6 | 4.24 | 4.27 | | 4.26 | | | 4.26 | 6.2 |
| | | | | | | 27.0 | | 6.46 | | 91.8 | | 4.27 | | | 6.2 | | | | |
| 31/05/12 | 1612-1625 | 28/Drizzle | Surface | 1.0 | 27.1 | 26.4 | 26.5 | 6.31 | 6.29 | 91.4 | 91.2 | 3.82 | 3.84 | 4.00 | 5.8 | 5.9 | 6.0 | | |
| | | | | | | 26.5 | | 6.27 | | 91.0 | | 3.86 | | | 6.0 | | | | |
| | | | Middle | 6.9 | 27.0 | 26.6 | 26.7 | 6.15 | 6.13 | 89.3 | 89.0 | 3.99 | 4.02 | | 4.01 | | | 4.01 | 6.0 |
| | | | | | | 26.7 | | 6.11 | | 88.6 | | 4.02 | | | 6.0 | | | | |
| | | | Bottom | 12.8 | 26.9 | 26.8 | 26.9 | 6.01 | 5.99 | 87.2 | 86.9 | 4.18 | 4.12 | | 4.15 | | | 4.15 | 6.2 |
| | | | | | | 26.9 | | 5.97 | | 86.6 | | 4.12 | | | 6.1 | | | | |

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 | |
| 03/05/12 | 1408-1423 | 30/Cloudy | Surface | 1.0 | 25.7 | 27.3 | 27.3 | 7.20 | 7.19 | 99.4 | 99.2 | 3.84 | 3.82 | 3.94 | 5.8 | 5.8 | 5.9 | |
| | | | | | | 27.2 | | 7.17 | | 99.0 | | 3.80 | | | 5.8 | | | |
| | | | Middle | 5.4 | 25.6 | 27.2 | 27.3 | 7.08 | 7.10 | 97.7 | 98.0 | 3.93 | 3.95 | | 5.8 | | | 5.8 |
| | | | | | | 27.3 | | 7.12 | | 98.2 | | 3.96 | | | 5.8 | | | |
| | | | Bottom | 9.8 | 25.6 | 27.3 | 27.3 | 6.95 | 6.97 | 95.9 | 96.2 | 4.03 | 4.06 | | 6.0 | | | 6.0 |
| | | | | | | 27.3 | | 6.99 | | 96.4 | | 4.08 | | | 6.0 | | | |
| 05/05/12 | 1440-1453 | 25/Cloudy | Surface | 1.0 | 26.3 | 25.8 | 25.9 | 7.29 | 7.27 | 101.9 | 101.6 | 3.55 | 3.57 | 3.70 | 5.4 | 5.5 | 5.6 | |
| | | | | | | 25.9 | | 7.24 | | 101.3 | | 3.59 | | | 5.6 | | | |
| | | | Middle | 6.2 | 26.2 | 26.3 | 26.4 | 7.13 | 7.11 | 99.7 | 99.4 | 3.67 | 3.69 | | 5.6 | | | 5.6 |
| | | | | | | 26.4 | | 7.08 | | 99.1 | | 3.70 | | | 5.6 | | | |
| | | | Bottom | 11.4 | 26.1 | 27.0 | 27.0 | 7.02 | 7.00 | 98.1 | 97.9 | 3.86 | 3.85 | | 5.8 | | | 5.8 |
| | | | | | | 27.0 | | 6.98 | | 97.7 | | 3.83 | | | 5.8 | | | |
| 08/05/12 | 0738-0751 | 29/Fine | Surface | 1.0 | 26.0 | 27.5 | 27.5 | 7.01 | 7.02 | 100.3 | 100.5 | 3.21 | 3.26 | 3.57 | 5.2 | 5.2 | 5.5 | |
| | | | | | | 27.5 | | 7.03 | | 100.6 | | 3.30 | | | 5.2 | | | |
| | | | Middle | 6.1 | 25.7 | 27.8 | 27.8 | 6.97 | 6.96 | 99.4 | 99.3 | 3.60 | 3.62 | | 5.6 | | | 5.6 |
| | | | | | | 27.8 | | 6.95 | | 99.1 | | 3.64 | | | 5.6 | | | |
| | | | Bottom | 11.2 | 25.8 | 27.9 | 27.9 | 6.90 | 6.92 | 98.4 | 98.6 | 3.88 | 3.84 | | 5.8 | | | 5.8 |
| | | | | | | 27.9 | | 6.93 | | 98.8 | | 3.80 | | | 5.8 | | | |
| 10/05/12 | 0813-0830 | 28/Fine | Surface | 1.0 | 25.9 | 27.4 | 27.4 | 6.80 | 6.79 | 93.8 | 93.6 | 3.80 | 3.83 | 3.99 | 5.8 | 5.8 | 6.0 | |
| | | | | | | 27.3 | | 6.77 | | 93.4 | | 3.85 | | | 5.8 | | | |
| | | | Middle | 5.6 | 25.8 | 27.5 | 27.5 | 6.70 | 6.72 | 92.5 | 92.7 | 3.94 | 3.97 | | 6.0 | | | 6.0 |
| | | | | | | 27.5 | | 6.73 | | 92.9 | | 3.99 | | | 6.0 | | | |
| | | | Bottom | 10.2 | 25.7 | 27.5 | 27.5 | 6.67 | 6.66 | 92.1 | 92.0 | 4.15 | 4.19 | | 6.2 | | | 6.2 |
| | | | | | | 27.5 | | 6.65 | | 91.8 | | 4.22 | | | 6.2 | | | |
| 12/05/12 | 0913-0928 | 26/Drizzle | Surface | 1.0 | 26.3 | 25.7 | 25.7 | 7.04 | 7.03 | 98.6 | 98.4 | 4.09 | 4.11 | 4.46 | 6.0 | 6.0 | 6.3 | |
| | | | | | | 25.7 | | 7.01 | | 98.1 | | 4.12 | | | 6.0 | | | |
| | | | Middle | 6.1 | 25.8 | 26.2 | 26.3 | 6.84 | 6.83 | 95.8 | 95.6 | 4.71 | 4.69 | | 6.6 | | | 6.6 |
| | | | | | | 26.3 | | 6.81 | | 95.3 | | 4.67 | | | 6.6 | | | |
| | | | Bottom | 11.2 | 25.6 | 26.8 | 26.9 | 6.43 | 6.46 | 90.0 | 90.5 | 4.59 | 4.58 | | 6.4 | | | 6.4 |
| | | | | | | 26.9 | | 6.49 | | 90.9 | | 4.56 | | | 6.4 | | | |
| 15/05/12 | 1339-1350 | 30/Rainy | Surface | 1.0 | 26.6 | 27.1 | 27.2 | 6.97 | 6.96 | 98.9 | 98.7 | 4.12 | 4.16 | 4.36 | 6.2 | 6.2 | 6.4 | |
| | | | | | | 27.2 | | 6.94 | | 98.5 | | 4.20 | | | 6.2 | | | |
| | | | Middle | 5.9 | 26.3 | 27.5 | 27.5 | 6.90 | 6.92 | 97.9 | 98.2 | 4.37 | 4.34 | | 6.4 | | | 6.4 |
| | | | | | | 27.5 | | 6.94 | | 98.5 | | 4.31 | | | 6.4 | | | |
| | | | Bottom | 10.8 | 25.9 | 27.7 | 27.8 | 6.79 | 6.77 | 96.0 | 95.8 | 4.54 | 4.57 | | 6.6 | | | 6.6 |
| | | | | | | 27.8 | | 6.75 | | 95.5 | | 4.59 | | | 6.6 | | | |
| 17/05/12 | 1439-1452 | 30/Cloudy | Surface | 1.0 | 26.8 | 26.1 | 26.2 | 7.13 | 7.15 | 102.8 | 103.1 | 3.60 | 3.62 | 3.79 | 5.6 | 5.6 | 5.8 | |
| | | | | | | 26.2 | | 7.17 | | 103.4 | | 3.64 | | | 5.6 | | | |
| | | | Middle | 6.3 | 26.4 | 26.7 | 26.7 | 7.06 | 7.04 | 101.8 | 101.4 | 3.81 | 3.83 | | 5.8 | | | 5.8 |
| | | | | | | 26.7 | | 7.01 | | 100.9 | | 3.85 | | | 5.8 | | | |
| | | | Bottom | 11.5 | 26.2 | 27.6 | 27.7 | 6.86 | 6.86 | 97.9 | 98.4 | 3.95 | 3.93 | | 6.0 | | | 6.0 |
| | | | | | | 27.7 | | 6.86 | | 98.9 | | 3.90 | | | 6.0 | | | |
| 19/05/12 | 1007-1020 | 25/Fine | Surface | 1.0 | 26.5 | 26.2 | 26.3 | 7.33 | 7.31 | 105.3 | 105.0 | 3.92 | 3.94 | 4.02 | 5.8 | 5.8 | 6.0 | |
| | | | | | | 26.3 | | 7.29 | | 104.7 | | 3.96 | | | 5.8 | | | |
| | | | Middle | 6.4 | 26.4 | 26.8 | 26.8 | 7.26 | 7.24 | 104.3 | 104.0 | 4.02 | 4.04 | | 6.0 | | | 6.0 |
| | | | | | | 26.7 | | 7.22 | | 103.7 | | 4.05 | | | 6.0 | | | |
| | | | Bottom | 11.8 | 26.4 | 27.2 | 27.3 | 6.98 | 6.96 | 100.3 | 100.0 | 4.08 | 4.10 | | 6.0 | | | 6.1 |
| | | | | | | 27.3 | | 6.94 | | 99.7 | | 4.11 | | | 6.2 | | | |
| 22/05/12 | 1738-1751 | 27/Fine | Surface | 1.0 | 26.5 | 25.3 | 25.3 | 6.63 | 6.65 | 94.5 | 94.8 | 3.37 | 3.35 | 3.59 | 5.4 | 5.3 | 5.5 | |
| | | | | | | 25.2 | | 6.67 | | 95.1 | | 3.33 | | | 5.2 | | | |
| | | | Middle | 6.2 | 26.4 | 25.8 | 25.9 | 6.55 | 6.57 | 93.4 | 93.7 | 3.48 | 3.50 | | 5.4 | | | 5.4 |
| | | | | | | 25.9 | | 6.59 | | 94.0 | | 3.51 | | | 5.4 | | | |
| | | | Bottom | 11.4 | 26.2 | 26.5 | 26.5 | 6.41 | 6.39 | 91.4 | 91.1 | 3.90 | 3.93 | | 5.8 | | | 5.8 |
| | | | | | | 26.4 | | 6.36 | | 90.7 | | 3.95 | | | 5.8 | | | |
| 24/05/12 | 1838-1850 | 27/Cloudy | Surface | 1.0 | 26.3 | 25.6 | 25.6 | 6.63 | 6.61 | 94.3 | 94.1 | 4.06 | 4.04 | 4.12 | 6.0 | 6.0 | 6.1 | |
| | | | | | | 25.6 | | 6.59 | | 93.9 | | 4.01 | | | 6.0 | | | |
| | | | Middle | 6.2 | 26.1 | 26.4 | 26.4 | 6.51 | 6.49 | 92.5 | 92.3 | 4.09 | 4.12 | | 6.0 | | | 6.1 |
| | | | | | | 26.3 | | 6.47 | | 92.0 | | 4.14 | | | 6.2 | | | |
| | | | Bottom | 11.4 | 26.0 | 27.0 | 27.0 | 6.40 | 6.39 | 90.9 | 90.8 | 4.21 | 4.22 | | 6.2 | | | 6.2 |
| | | | | | | 27.0 | | 6.38 | | 90.6 | | 4.23 | | | 6.2 | | | |
| 26/05/12 | 0756-0810 | 27/Cloudy | Surface | 1.0 | 26.3 | 26.5 | 26.6 | 6.27 | 6.26 | 89.0 | 88.8 | 3.84 | 3.86 | 3.96 | 5.8 | 5.8 | 5.9 | |
| | | | | | | 26.7 | | 6.24 | | 88.6 | | 3.88 | | | 5.8 | | | |
| | | | Middle | 5.8 | 26.3 | 26.9 | 26.9 | 6.20 | 6.19 | 88.0 | 87.8 | 3.94 | 3.93 | | 6.0 | | | 5.9 |
| | | | | | | 26.8 | | 6.17 | | 87.6 | | 3.91 | | | 5.8 | | | |
| | | | Bottom | 10.6 | 26.3 | 27.1 | 27.1 | 6.04 | 6.03 | 85.7 | 85.6 | 4.06 | 4.08 | | 6.0 | | | 6.1 |
| | | | | | | 27.1 | | 6.02 | | 85.4 | | 4.10 | | | 6.2 | | | |
| 29/05/12 | 1008-1021 | 26/Cloudy | Surface | 1.0 | 26.3 | 25.6 | 25.6 | 6.66 | 6.68 | 95.1 | 95.4 | 3.99 | 4.01 | 4.10 | 6.0 | 6.0 | 6.1 | |
| | | | | | | 25.6 | | 6.69 | | 95.6 | | 4.02 | | | 6.0 | | | |
| | | | Middle | 5.9 | 26.2 | 26.1 | 26.2 | 6.57 | 6.55 | 93.7 | 93.6 | 4.06 | 4.09 | | 6.0 | | | 6.1 |
| | | | | | | 26.2 | | 6.53 | | 93.5 | | 4.12 | | | 6.2 | | | |
| | | | Bottom | 10.8 | 26.0 | 26.9 | 26.9 | 6.45 | 6.44 | 91.7 | 91.5 | 4.23 | 4.21 | | 6.2 | | | 6.2 |
| | | | | | | 26.8 | | 6.42 | | 91.3 | | 4.19 | | | 6.2 | | | |
| 31/05/12 | 1328-1341 | 29/Fine | Surface | 1.0 | 27.1 | 26.4 | 26.5 | 6.21 | 6.23 | 90.1 | 90.4 | 3.95 | 3.93 | 4.02 | 5.8 | 5.8 | 6.0 | |
| | | | | | | 26.5 | | 6.25 | | 90.6 | | 3.91 | | | 5.8 | | | |
| | | | Middle | 5.9 | 27.0 | 26.7 | 26.7 | 6.17 | 6.15 | 89.4 | 89.1 | 3.99 | 4.01 | | 6.0 | | | 6.0 |
| | | | | | | 26.7 | | 6.12 | | 88.8 | | 4.03 | | | 6.0 | | | |
| | | | Bottom | 10.8 | 26.9 | 27.0 | 27.1 | 6.06 | 6.09 | 87.9 | 88.3 | 4.15 | 4.13 | | 6.2 | | | 6.1 |
| | | | | | | 27.1 | | 6.11 | | 88.6 | | 4.11 | | | 6.0 | | | |

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 |
| 03/05/12 | 1349-1403 | 30/Cloudy | Surface | 1.0 | 25.7 | 27.2 | 27.3 | 7.08 | 7.07 | 97.7 | 97.5 | 4.04 | 4.03 | 4.06 | 6.0 | 6.0 | 6.1 |
| | | | | 27.3 | 7.05 | 97.3 | | 4.01 | | 6.0 | | | | | | | |
| | | | Middle | 6.5 | 25.6 | 27.4 | 27.4 | 7.04 | 7.03 | 97.2 | 97.0 | 4.03 | 4.01 | | 6.0 | | |
| | | | | 27.4 | 7.01 | 96.7 | | 3.99 | | 6.0 | | | | | | | |
| | | | Bottom | 12.0 | 25.6 | 27.5 | 27.6 | 6.92 | 6.94 | 95.5 | 95.8 | 4.13 | 4.15 | | 6.2 | | |
| | | | | 27.6 | 6.96 | 96.0 | | 4.16 | | 6.2 | | | | | | | |
| 05/05/12 | 1420-1434 | 25/Cloudy | Surface | 1.0 | 26.3 | 25.7 | 25.7 | 7.32 | 7.34 | 102.3 | 102.6 | 3.51 | 3.49 | 3.64 | 5.4 | 5.4 | 5.6 |
| | | | | 25.7 | 7.36 | 102.9 | | 3.47 | | 5.4 | | | | | | | |
| | | | Middle | 6.6 | 26.3 | 26.2 | 26.3 | 7.17 | 7.16 | 100.3 | 100.1 | 3.56 | 3.58 | | 5.6 | | |
| | | | | 26.3 | 7.14 | 99.9 | | 3.60 | | 5.6 | | | | | | | |
| | | | Bottom | 12.2 | 26.0 | 26.9 | 27.0 | 7.09 | 7.10 | 99.2 | 99.3 | 3.82 | 3.84 | | 5.8 | | |
| | | | | 27.0 | 7.11 | 99.4 | | 3.85 | | 5.8 | | | | | | | |
| 08/05/12 | 0718-1730 | 29/Fine | Surface | 1.0 | 25.9 | 27.5 | 27.5 | 7.07 | 7.06 | 101.1 | 100.9 | 3.67 | 3.70 | 3.72 | 5.6 | 5.6 | 5.6 |
| | | | | 27.5 | 7.04 | 100.6 | | 3.72 | | 5.6 | | | | | | | |
| | | | Middle | 6.7 | 25.6 | 27.8 | 27.8 | 7.01 | 7.03 | 100.2 | 100.5 | 3.54 | 3.52 | | 5.4 | | |
| | | | | 27.8 | 7.05 | 100.8 | | 3.50 | | 5.4 | | | | | | | |
| | | | Bottom | 12.4 | 25.7 | 27.8 | 27.8 | 6.98 | 6.97 | 99.6 | 99.5 | 3.92 | 3.95 | | 5.8 | | |
| | | | | 27.8 | 6.96 | 99.3 | | 3.97 | | 5.8 | | | | | | | |
| 10/05/12 | 0750-0806 | 28/Fine | Surface | 1.0 | 25.8 | 27.0 | 27.0 | 6.84 | 6.86 | 94.4 | 94.7 | 3.70 | 3.73 | 3.96 | 5.6 | 5.6 | 5.9 |
| | | | | 26.9 | 6.88 | 94.9 | | 3.75 | | 5.6 | | | | | | | |
| | | | Middle | 6.7 | 25.8 | 27.3 | 27.4 | 6.79 | 6.76 | 93.7 | 93.2 | 3.98 | 4.00 | | 5.8 | | |
| | | | | 27.4 | 6.72 | 92.7 | | 4.01 | | 6.0 | | | | | | | |
| | | | Bottom | 12.4 | 25.8 | 27.5 | 27.5 | 6.62 | 6.64 | 91.4 | 91.7 | 4.12 | 4.15 | | 6.0 | | |
| | | | | 27.5 | 6.66 | 91.9 | | 4.18 | | 6.2 | | | | | | | |
| 12/05/12 | 0851-0906 | 26/Drizzle | Surface | 1.0 | 26.3 | 25.8 | 25.8 | 7.17 | 7.15 | 100.4 | 100.1 | 4.12 | 4.15 | 4.44 | 6.0 | 6.0 | 6.4 |
| | | | | 25.7 | 7.12 | 99.7 | | 4.18 | | 6.2 | | | | | | | |
| | | | Middle | 6.4 | 25.7 | 26.2 | 26.2 | 6.93 | 6.95 | 97.0 | 97.3 | 4.65 | 4.67 | | 6.6 | | |
| | | | | 26.2 | 6.97 | 97.6 | | 4.68 | | 6.6 | | | | | | | |
| | | | Bottom | 11.8 | 25.7 | 26.7 | 26.8 | 6.81 | 6.82 | 95.3 | 95.5 | 4.49 | 4.51 | | 6.4 | | |
| | | | | 26.8 | 6.83 | 95.6 | | 4.53 | | 6.4 | | | | | | | |
| 15/05/12 | 1320-1332 | 30/Rainy | Surface | 1.0 | 26.6 | 27.1 | 27.1 | 7.10 | 7.09 | 100.8 | 100.6 | 3.97 | 3.94 | 4.34 | 5.8 | 5.8 | 6.4 |
| | | | | 27.1 | 7.07 | 100.3 | | 3.91 | | 5.8 | | | | | | | |
| | | | Middle | 6.7 | 26.4 | 27.4 | 27.4 | 6.87 | 6.86 | 97.5 | 97.3 | 4.17 | 4.19 | | 6.2 | | |
| | | | | 27.4 | 6.84 | 97.1 | | 4.20 | | 6.2 | | | | | | | |
| | | | Bottom | 12.4 | 25.9 | 27.8 | 27.8 | 6.80 | 6.79 | 96.3 | 96.1 | 4.88 | 4.91 | | 7.0 | | |
| | | | | 27.8 | 6.77 | 95.8 | | 4.93 | | 7.2 | | | | | | | |
| 17/05/12 | 1420-1432 | 30/Cloudy | Surface | 1.0 | 26.7 | 26.3 | 26.3 | 7.23 | 7.21 | 104.3 | 104.0 | 3.72 | 3.74 | 3.83 | 5.4 | 5.5 | 5.7 |
| | | | | 26.2 | 7.19 | 103.6 | | 3.76 | | 5.6 | | | | | | | |
| | | | Middle | 6.7 | 26.4 | 26.9 | 26.9 | 7.10 | 7.12 | 102.5 | 102.7 | 3.83 | 3.80 | | 5.8 | | |
| | | | | 26.8 | 7.14 | 102.9 | | 3.77 | | 5.6 | | | | | | | |
| | | | Bottom | 12.3 | 26.3 | 27.8 | 27.9 | 6.87 | 6.89 | 99.1 | 99.4 | 3.96 | 3.94 | | 6.0 | | |
| | | | | 27.9 | 6.91 | 99.7 | | 3.91 | | 5.8 | | | | | | | |
| 19/05/12 | 0948-1001 | 25/Fine | Surface | 1.0 | 26.5 | 26.3 | 26.3 | 7.32 | 7.30 | 105.0 | 104.8 | 4.02 | 4.04 | 4.12 | 6.0 | 6.0 | 6.1 |
| | | | | 26.3 | 7.28 | 104.6 | | 4.06 | | 6.0 | | | | | | | |
| | | | Middle | 6.7 | 26.4 | 26.6 | 26.7 | 7.25 | 7.23 | 104.2 | 103.8 | 4.11 | 4.13 | | 6.2 | | |
| | | | | 26.7 | 7.20 | 103.4 | | 4.15 | | 6.2 | | | | | | | |
| | | | Bottom | 12.4 | 26.3 | 27.2 | 27.2 | 7.03 | 7.05 | 101.0 | 101.3 | 4.17 | 4.19 | | 6.2 | | |
| | | | | 27.1 | 7.07 | 101.6 | | 4.21 | | 6.2 | | | | | | | |
| 22/05/12 | 1718-1731 | 27/Fine | Surface | 1.0 | 26.5 | 25.2 | 25.2 | 6.81 | 6.80 | 97.1 | 96.9 | 3.36 | 3.38 | 3.58 | 5.4 | 5.4 | 5.6 |
| | | | | 25.2 | 6.78 | 96.7 | | 3.40 | | 5.4 | | | | | | | |
| | | | Middle | 6.7 | 26.5 | 25.8 | 25.8 | 6.61 | 6.63 | 94.2 | 94.5 | 3.52 | 3.54 | | 5.6 | | |
| | | | | 25.7 | 6.65 | 94.8 | | 3.56 | | 5.6 | | | | | | | |
| | | | Bottom | 12.4 | 26.2 | 26.4 | 26.5 | 6.53 | 6.52 | 93.1 | 92.9 | 3.84 | 3.82 | | 5.8 | | |
| | | | | 26.5 | 6.50 | 92.7 | | 3.80 | | 5.8 | | | | | | | |
| 24/05/12 | 1819-1831 | 27/Cloudy | Surface | 1.0 | 26.3 | 25.7 | 25.7 | 6.51 | 6.53 | 92.6 | 92.9 | 3.98 | 4.00 | 4.11 | 5.8 | 5.9 | 6.0 |
| | | | | 25.7 | 6.54 | 93.2 | | 4.02 | | 6.0 | | | | | | | |
| | | | Middle | 6.9 | 26.2 | 26.4 | 26.4 | 6.43 | 6.42 | 91.4 | 91.3 | 4.13 | 4.12 | | 6.0 | | |
| | | | | 26.4 | 6.41 | 91.2 | | 4.11 | | 6.0 | | | | | | | |
| | | | Bottom | 12.8 | 25.9 | 27.1 | 27.1 | 6.35 | 6.33 | 90.2 | 89.9 | 4.18 | 4.20 | | 6.2 | | |
| | | | | 27.0 | 6.31 | 89.6 | | 4.22 | | 6.2 | | | | | | | |
| 26/05/12 | 0737-0751 | 27/Cloudy | Surface | 1.0 | 26.2 | 26.4 | 26.4 | 6.36 | 6.39 | 90.3 | 90.7 | 4.08 | 4.11 | 4.14 | 6.0 | 6.1 | 6.1 |
| | | | | 26.4 | 6.41 | 91.0 | | 4.13 | | 6.2 | | | | | | | |
| | | | Middle | 6.5 | 26.3 | 26.7 | 26.7 | 6.29 | 6.27 | 89.3 | 89.0 | 3.99 | 4.03 | | 6.0 | | |
| | | | | 26.7 | 6.24 | 88.6 | | 4.06 | | 6.0 | | | | | | | |
| | | | Bottom | 12.0 | 26.3 | 27.1 | 27.1 | 6.12 | 6.11 | 86.9 | 86.7 | 4.28 | 4.30 | | 6.2 | | |
| | | | | 27.1 | 6.09 | 86.5 | | 4.32 | | 6.4 | | | | | | | |
| 29/05/12 | 0949-1001 | 26/Cloudy | Surface | 1.0 | 26.2 | 25.5 | 25.6 | 6.48 | 6.50 | 92.5 | 92.8 | 4.06 | 4.08 | 4.17 | 6.0 | 6.0 | 6.2 |
| | | | | 25.6 | 6.52 | 93.1 | | 4.09 | | 6.0 | | | | | | | |
| | | | Middle | 6.9 | 26.0 | 26.3 | 26.3 | 6.37 | 6.36 | 90.8 | 90.6 | 4.20 | 4.18 | | 6.2 | | |
| | | | | 26.3 | 6.34 | 90.4 | | 4.16 | | 6.2 | | | | | | | |
| | | | Bottom | 12.8 | 25.8 | 27.0 | 27.0 | 6.20 | 6.22 | 88.1 | 88.4 | 4.24 | 4.26 | | 6.4 | | |
| | | | | 26.9 | 6.24 | 88.7 | | 4.28 | | 6.4 | | | | | | | |
| 31/05/12 | 1319-1323 | 29/Fine | Surface | 1.0 | 27.1 | 26.4 | 26.4 | 6.28 | 6.31 | 91.1 | 91.5 | 4.01 | 4.00 | 4.15 | 6.0 | 5.9 | 6.1 |
| | | | | 26.4 | 6.33 | 91.8 | | 3.98 | | 5.8 | | | | | | | |
| | | | Middle | 6.6 | 27.0 | 26.6 | 26.7 | 6.31 | 6.29 | 91.3 | 91.1 | 4.08 | 4.11 | | 6.0 | | |
| | | | | 26.7 | 6.27 | 90.9 | | 4.13 | | 6.2 | | | | | | | |
| | | | Bottom | 12.2 | 26.9 | 26.9 | 27.0 | 6.14 | 6.12 | 89.0 | 88.8 | 4.36 | 4.34 | | 6.4 | | |
| | | | | 27.0 | 6.10 | 88.5 | | 4.31 | | 6.2 | | | | | | | |

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 | | |
| 03/05/12 | 1330-1344 | 30/Cloudy | Surface | 1.0 | 25.7 | 27.3 | 27.3 | 7.13 | 7.11 | 98.4 | 98.1 | 4.01 | 4.00 | 4.07 | 6.0 | 5.9 | 6.0 | | |
| | | | | | | 27.3 | | 7.09 | | 97.8 | | 3.98 | | | 5.8 | | | | |
| | | | Middle | 5.8 | 25.7 | 27.3 | 27.4 | 7.02 | 7.04 | 96.9 | 97.2 | 4.09 | 4.07 | | 4.05 | 4.14 | | 6.0 | 6.0 |
| | | | | | | 27.4 | | 7.06 | | 97.4 | | 4.05 | | | 6.0 | | | | |
| | | | Bottom | 10.6 | 25.6 | 27.6 | 27.6 | 7.03 | 7.01 | 97.0 | 96.8 | 4.11 | 96.5 | | 4.16 | 4.14 | | 6.0 | 6.1 |
| | | | | | | 27.5 | | 6.99 | | 96.5 | | 4.16 | | | 6.2 | | | | |
| 05/05/12 | 1400-1413 | 25/Cloudy | Surface | 1.0 | 26.3 | 25.8 | 25.8 | 7.35 | 7.34 | 102.8 | 102.6 | 3.22 | 3.20 | 3.34 | 5.2 | 5.2 | 5.2 | | |
| | | | | | | 25.7 | | 7.32 | | 102.4 | | 3.18 | | | 5.2 | | | | |
| | | | Middle | 6.4 | 26.2 | 26.2 | 26.2 | 7.26 | 7.24 | 101.5 | 101.2 | 3.29 | 3.31 | | 3.33 | 3.31 | | 5.2 | 5.1 |
| | | | | | | 26.1 | | 7.21 | | 100.9 | | 3.33 | | | 5.0 | | | | |
| | | | Bottom | 11.8 | 26.1 | 26.8 | 26.9 | 6.97 | 6.96 | 97.5 | 97.3 | 3.51 | 97.3 | | 3.50 | 3.50 | | 5.0 | 5.2 |
| | | | | | | 26.9 | | 6.94 | | 97.1 | | 3.48 | | | 5.4 | | | | |
| 08/05/12 | 0700-0713 | 29/Fine | Surface | 1.0 | 25.9 | 27.4 | 27.4 | 7.12 | 7.11 | 101.8 | 101.6 | 3.54 | 3.57 | 3.72 | 5.4 | 5.5 | 5.7 | | |
| | | | | | | 27.4 | | 7.09 | | 101.3 | | 3.59 | | | 5.6 | | | | |
| | | | Middle | 6.3 | 25.7 | 27.7 | 27.7 | 6.97 | 6.96 | 99.6 | 99.4 | 3.82 | 3.85 | | 3.88 | 3.85 | | 5.8 | 5.9 |
| | | | | | | 27.7 | | 6.94 | | 99.2 | | 3.88 | | | 6.0 | | | | |
| | | | Bottom | 11.6 | 25.6 | 27.8 | 27.8 | 7.02 | 7.05 | 100.3 | 100.7 | 3.77 | 100.7 | | 3.70 | 3.74 | | 5.5 | 5.6 |
| | | | | | | 27.8 | | 7.07 | | 101.1 | | 3.70 | | | 5.6 | | | | |
| 10/05/12 | 0730-0745 | 28/Fine | Surface | 1.0 | 25.9 | 27.1 | 27.2 | 6.81 | 6.80 | 93.9 | 93.8 | 3.76 | 3.79 | 3.93 | 5.6 | 5.7 | 5.9 | | |
| | | | | | | 27.2 | | 6.78 | | 93.6 | | 3.81 | | | 5.8 | | | | |
| | | | Middle | 6.3 | 25.8 | 27.4 | 27.5 | 6.70 | 6.69 | 92.5 | 92.3 | 3.92 | 92.3 | | 3.95 | 3.94 | | 6.0 | 5.9 |
| | | | | | | 27.5 | | 6.67 | | 92.0 | | 3.95 | | | 6.0 | | | | |
| | | | Bottom | 11.6 | 25.8 | 27.5 | 27.6 | 6.60 | 6.58 | 91.1 | 90.2 | 4.03 | 90.2 | | 4.09 | 4.06 | | 6.0 | 6.0 |
| | | | | | | 27.6 | | 6.56 | | 89.2 | | 4.09 | | | 6.0 | | | | |
| 12/05/12 | 0830-0845 | 26/Drizzle | Surface | 1.0 | 26.2 | 25.7 | 25.7 | 7.09 | 7.10 | 99.3 | 99.4 | 3.74 | 3.75 | 4.07 | 5.6 | 5.6 | 6.1 | | |
| | | | | | | 25.7 | | 7.11 | | 99.5 | | 3.76 | | | 5.6 | | | | |
| | | | Middle | 6.1 | 25.7 | 26.3 | 26.3 | 6.81 | 6.81 | 95.3 | 95.3 | 4.03 | 95.3 | | 4.05 | 4.04 | | 6.0 | 6.0 |
| | | | | | | 26.3 | | 6.80 | | 95.2 | | 4.05 | | | 6.0 | | | | |
| | | | Bottom | 11.2 | 25.6 | 26.8 | 26.8 | 6.62 | 6.61 | 92.7 | 92.6 | 4.41 | 92.6 | | 4.42 | 4.42 | | 6.5 | 6.6 |
| | | | | | | 26.8 | | 6.60 | | 92.4 | | 4.43 | | | 6.6 | | | | |
| 15/05/12 | 1300-1313 | 30/Rainy | Surface | 1.0 | 26.6 | 26.9 | 27.0 | 7.02 | 7.04 | 99.6 | 99.9 | 4.02 | 4.06 | 4.43 | 6.0 | 6.0 | 6.5 | | |
| | | | | | | 27.0 | | 7.05 | | 100.1 | | 4.10 | | | 6.0 | | | | |
| | | | Middle | 6.3 | 26.3 | 27.4 | 27.4 | 6.94 | 6.92 | 98.5 | 98.2 | 4.62 | 98.2 | | 4.68 | 4.65 | | 6.8 | 6.9 |
| | | | | | | 27.4 | | 6.90 | | 97.9 | | 4.68 | | | 7.0 | | | | |
| | | | Bottom | 11.6 | 26.0 | 27.8 | 27.8 | 6.76 | 6.78 | 95.3 | 95.5 | 4.57 | 95.5 | | 4.59 | 4.58 | | 6.5 | 6.6 |
| | | | | | | 27.8 | | 6.79 | | 95.7 | | 4.59 | | | 6.6 | | | | |
| 17/05/12 | 1400-1414 | 30/Cloudy | Surface | 1.0 | 26.7 | 26.2 | 26.2 | 7.30 | 7.28 | 105.7 | 104.9 | 3.21 | 3.19 | 3.34 | 5.2 | 5.2 | 5.3 | | |
| | | | | | | 26.2 | | 7.25 | | 104.1 | | 3.17 | | | 5.2 | | | | |
| | | | Middle | 6.4 | 26.4 | 26.9 | 26.9 | 7.19 | 7.21 | 103.5 | 103.9 | 3.32 | 103.9 | | 3.38 | 3.35 | | 5.0 | 5.1 |
| | | | | | | 26.9 | | 7.22 | | 104.2 | | 3.38 | | | 5.0 | | | | |
| | | | Bottom | 11.8 | 26.1 | 27.8 | 27.9 | 7.37 | 7.39 | 106.4 | 106.6 | 3.49 | 106.6 | | 3.44 | 3.47 | | 5.5 | 5.5 |
| | | | | | | 27.9 | | 7.41 | | 106.7 | | 3.44 | | | 5.4 | | | | |
| 19/05/12 | 0930-0943 | 25/Fine | Surface | 1.0 | 26.5 | 26.2 | 26.2 | 7.37 | 7.35 | 105.6 | 105.4 | 3.82 | 3.80 | 3.60 | 5.8 | 5.7 | 5.5 | | |
| | | | | | | 26.1 | | 7.33 | | 105.1 | | 3.77 | | | 5.6 | | | | |
| | | | Middle | 6.5 | 26.5 | 26.7 | 26.8 | 7.23 | 7.25 | 103.7 | 104.0 | 3.54 | 104.0 | | 3.50 | 3.52 | | 5.4 | 5.5 |
| | | | | | | 26.8 | | 7.27 | | 104.2 | | 3.50 | | | 5.5 | | | | |
| | | | Bottom | 12.0 | 26.4 | 27.1 | 27.2 | 7.18 | 7.16 | 103.0 | 102.8 | 3.51 | 102.8 | | 3.49 | 3.49 | | 5.5 | 5.5 |
| | | | | | | 27.2 | | 7.14 | | 102.5 | | 3.47 | | | 5.4 | | | | |
| 22/05/12 | 1700-1713 | 27/Fine | Surface | 1.0 | 26.6 | 25.2 | 25.3 | 6.87 | 6.86 | 97.9 | 97.7 | 3.12 | 3.14 | 3.28 | 5.0 | 5.1 | 5.2 | | |
| | | | | | | 25.3 | | 6.84 | | 97.5 | | 3.15 | | | 5.2 | | | | |
| | | | Middle | 6.0 | 26.4 | 25.6 | 25.7 | 6.73 | 6.75 | 96.0 | 96.2 | 3.29 | 96.2 | | 3.34 | 3.32 | | 5.0 | 5.1 |
| | | | | | | 25.7 | | 6.76 | | 96.4 | | 3.34 | | | 5.0 | | | | |
| | | | Bottom | 12.0 | 26.2 | 26.3 | 26.4 | 6.69 | 6.66 | 95.4 | 95.0 | 3.38 | 95.0 | | 3.42 | 3.40 | | 5.5 | 5.5 |
| | | | | | | 26.4 | | 6.63 | | 94.5 | | 3.42 | | | 5.4 | | | | |
| 24/05/12 | 1800-1813 | 27/Cloudy | Surface | 1.0 | 26.3 | 25.7 | 25.7 | 6.66 | 6.64 | 94.8 | 94.6 | 3.87 | 3.89 | 4.00 | 5.8 | 5.8 | 6.0 | | |
| | | | | | | 25.7 | | 6.62 | | 94.3 | | 3.90 | | | 5.8 | | | | |
| | | | Middle | 6.4 | 26.1 | 26.4 | 26.4 | 6.50 | 6.52 | 92.4 | 92.7 | 3.97 | 92.7 | | 4.02 | 4.00 | | 6.0 | 6.0 |
| | | | | | | 26.3 | | 6.53 | | 92.9 | | 4.02 | | | 6.0 | | | | |
| | | | Bottom | 11.8 | 26.0 | 27.0 | 27.0 | 6.32 | 6.35 | 89.8 | 90.2 | 4.10 | 90.2 | | 4.15 | 4.13 | | 6.0 | 6.1 |
| | | | | | | 27.0 | | 6.37 | | 90.5 | | 4.15 | | | 6.2 | | | | |
| 26/05/12 | 0719-0733 | 27/Cloudy | Surface | 1.0 | 26.3 | 26.4 | 26.4 | 6.37 | 6.38 | 90.0 | 90.3 | 4.04 | 4.03 | 4.05 | 6.0 | 6.0 | 5.9 | | |
| | | | | | | 26.3 | | 6.38 | | 90.6 | | 4.01 | | | 6.0 | | | | |
| | | | Middle | 6.1 | 26.3 | 26.7 | 26.7 | 6.30 | 6.29 | 89.5 | 89.4 | 3.89 | 89.4 | | 3.92 | 3.92 | | 5.8 | 5.9 |
| | | | | | | 26.6 | | 6.28 | | 89.2 | | 3.94 | | | 6.0 | | | | |
| | | | Bottom | 11.2 | 26.3 | 27.0 | 27.1 | 6.11 | 6.13 | 86.8 | 87.0 | 4.18 | 87.0 | | 4.23 | 4.21 | | 6.0 | 5.9 |
| | | | | | | 27.1 | | 6.14 | | 87.2 | | 4.23 | | | 5.8 | | | | |
| 29/05/12 | 0930-0942 | 26/Cloudy | Surface | 1.0 | 26.2 | 25.5 | 25.6 | 6.57 | 6.59 | 93.8 | 94.1 | 3.93 | 3.97 | 4.08 | 5.8 | 5.9 | 6.0 | | |
| | | | | | | 25.6 | | 6.61 | | 94.4 | | 4.00 | | | 6.0 | | | | |
| | | | Middle | 6.4 | 26.0 | 26.3 | 26.3 | 6.22 | 6.25 | 88.7 | 89.1 | 4.07 | 89.1 | | 4.11 | 4.09 | | 6.0 | 6.0 |
| | | | | | | 26.2 | | 6.27 | | 89.4 | | 4.11 | | | 6.0 | | | | |
| | | | Bottom | 11.8 | 25.8 | 27.0 | 27.0 | 6.44 | 6.45 | 91.5 | 91.7 | 4.16 | 91.7 | | 4.20 | 4.18 | | 6.0 | 6.1 |
| | | | | | | 26.9 | | 6.46 | | 91.8 | | 4.20 | | | 6.2 | | | | |
| 31/05/12 | 1300-1314 | 29/Fine | Surface | 1.0 | 27.1 | 26.4 | 26.5 | 6.32 | 6.31 | 91.6 | 91.4 | 4.12 | 4.11 | 4.12 | 6.2 | 6.1 | 6.1 | | |
| | | | | | | 26.5 | | 6.29 | | 91.2 | | 4.09 | | | 6.0 | | | | |
| | | | Middle | 6.3 | 27.0 | 26.8 | 26.8 | 6.25 | 6.23 | 90.6 | 90.3 | 4.05 | 90.3 | | 4.04 | 4.04 | | 6.0 | 6.0 |
| | | | | | | 26.7 | | 6.20 | | 89.9 | | 4.02 | | | 6.0 | | | | |
| | | | Bottom | 11.6 | 26.9 | 27.0 | 27.0 | 6.12 | 6.15 | 88.7 | 89.1 | 4.19 | 89.1 | | 4.22 | 4.22 | | 6.0 | 6.1 |
| | | | | | | 27.0 | | 6.17 | | 89.5 | | 4.24 | | | 6.2 | | | | |

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 |
| 03/05/12 | 1531-1545 | 30/Cloudy | Surface | 1.0 | 25.7 | 27.0 | 27.1 | 7.02 | 7.04 | 96.8 | 97.1 | 3.89 | 3.91 | 4.05 | 5.8 | 5.8 | 6.0 |
| | | | | 27.1 | 7.06 | 97.4 | | 3.93 | | 5.8 | | | | | | | |
| | | | Middle | 5.3 | 25.6 | 27.1 | 27.1 | 7.01 | 6.99 | 96.7 | 96.4 | 3.96 | 3.99 | | 5.8 | 5.9 | |
| | | | | 27.1 | 6.97 | 96.1 | 4.01 | 6.0 | | | | | | | | | |
| | | | Bottom | 9.6 | 25.5 | 27.3 | 27.4 | 6.92 | 6.90 | 95.4 | 95.1 | 4.26 | 4.25 | | 6.2 | 6.2 | |
| | | | | 27.4 | 6.87 | 94.8 | | 4.23 | 6.2 | | | | | | | | |
| 05/05/12 | 1558-1610 | 26/Cloudy | Surface | 1.0 | 26.3 | 25.7 | 25.8 | 7.27 | 7.25 | 101.6 | 101.4 | 3.52 | 3.54 | 3.57 | 5.4 | 5.4 | 5.5 |
| | | | | 25.8 | 7.23 | 101.2 | | 3.56 | | 5.4 | | | | | | | |
| | | | Middle | 6.0 | 26.2 | 26.3 | 26.4 | 7.19 | 7.21 | 100.6 | 100.8 | 3.59 | 3.62 | | 5.6 | 5.6 | |
| | | | | 26.4 | 7.22 | 100.9 | | 3.64 | 5.6 | | | | | | | | |
| | | | Bottom | 11.0 | 26.0 | 27.0 | 27.0 | 7.13 | 7.11 | 99.7 | 99.5 | 3.58 | 3.56 | | 5.4 | 5.5 | |
| | | | | 26.9 | 7.09 | 99.2 | | 3.54 | 5.6 | | | | | | | | |
| 08/05/12 | 0900-0912 | 29/Fine | Surface | 1.0 | 26.2 | 27.6 | 27.6 | 7.15 | 7.17 | 102.2 | 102.4 | 3.77 | 3.80 | 3.76 | 5.6 | 5.7 | 5.7 |
| | | | | 27.6 | 7.18 | 102.6 | | 3.82 | | 5.8 | | | | | | | |
| | | | Middle | 6.1 | 25.9 | 27.9 | 27.9 | 7.01 | 7.03 | 100.2 | 100.4 | 3.67 | 3.70 | | 5.6 | 5.6 | |
| | | | | 27.9 | 7.04 | 100.6 | | 3.72 | 5.6 | | | | | | | | |
| | | | Bottom | 11.2 | 25.8 | 28.0 | 28.0 | 6.99 | 6.97 | 99.9 | 99.6 | 3.82 | 3.79 | | 5.8 | 5.8 | |
| | | | | 28.0 | 6.95 | 99.3 | | 3.76 | 5.8 | | | | | | | | |
| 10/05/12 | 0937-0952 | 29/Fine | Surface | 1.0 | 26.0 | 27.2 | 27.3 | 6.72 | 6.74 | 92.7 | 93.0 | 3.70 | 3.73 | 3.92 | 5.6 | 5.6 | 5.8 |
| | | | | 27.3 | 6.76 | 93.3 | | 3.75 | | 5.6 | | | | | | | |
| | | | Middle | 6.0 | 26.0 | 27.5 | 27.6 | 6.70 | 6.68 | 92.5 | 92.2 | 3.94 | 3.92 | | 5.8 | 5.8 | |
| | | | | 27.6 | 6.66 | 91.9 | | 3.89 | 5.8 | | | | | | | | |
| | | | Bottom | 11.0 | 26.0 | 27.8 | 27.8 | 6.60 | 6.59 | 91.1 | 90.9 | 4.08 | 4.11 | | 6.0 | 6.1 | |
| | | | | 27.7 | 6.57 | 90.7 | | 4.13 | 6.2 | | | | | | | | |
| 12/05/12 | 1042 | 26/Drizzle | Surface | 1.0 | 26.3 | 26.0 | 26.0 | 6.94 | 6.96 | 97.2 | 97.5 | 4.02 | 4.05 | 4.36 | 6.0 | 6.0 | 6.3 |
| | | | | 25.9 | 6.98 | 97.7 | | 4.07 | | 6.0 | | | | | | | |
| | | | Middle | 5.9 | 25.9 | 26.4 | 26.5 | 6.85 | 6.84 | 95.9 | 95.7 | 4.23 | 4.26 | | 6.2 | 6.2 | |
| | | | | 26.5 | 6.82 | 95.5 | | 4.29 | 6.2 | | | | | | | | |
| | | | Bottom | 10.8 | 25.8 | 27.0 | 27.0 | 6.80 | 6.78 | 95.2 | 94.9 | 4.77 | 4.78 | | 6.8 | 6.8 | |
| | | | | 26.9 | 6.76 | 94.6 | | 4.78 | 6.8 | | | | | | | | |
| 15/05/12 | 1455-1507 | 30/Rainy | Surface | 1.0 | 26.6 | 27.2 | 27.2 | 6.87 | 6.86 | 97.4 | 97.2 | 3.94 | 3.97 | 4.25 | 6.0 | 6.0 | 6.2 |
| | | | | 27.2 | 6.84 | 96.9 | | 3.99 | | 6.0 | | | | | | | |
| | | | Middle | 6.2 | 26.2 | 27.6 | 27.6 | 6.77 | 6.76 | 95.8 | 95.6 | 4.37 | 4.34 | | 6.4 | 6.3 | |
| | | | | 27.6 | 6.74 | 95.4 | | 4.31 | 6.2 | | | | | | | | |
| | | | Bottom | 11.4 | 26.0 | 27.9 | 27.9 | 6.70 | 6.69 | 94.8 | 94.7 | 4.43 | 4.46 | | 6.4 | 6.4 | |
| | | | | 27.9 | 6.68 | 94.5 | | 4.48 | 6.4 | | | | | | | | |
| 17/05/12 | 1557-1610 | 30/Cloudy | Surface | 1.0 | 26.7 | 26.3 | 26.3 | 7.20 | 7.22 | 103.4 | 104.0 | 3.62 | 3.60 | 3.73 | 5.6 | 5.5 | 5.6 |
| | | | | 26.3 | 7.24 | 104.5 | | 3.57 | | 5.4 | | | | | | | |
| | | | Middle | 6.0 | 26.4 | 26.7 | 26.7 | 7.13 | 7.16 | 102.9 | 103.2 | 3.73 | 3.70 | | 5.6 | 5.6 | |
| | | | | 26.7 | 7.18 | 103.4 | | 3.66 | 5.6 | | | | | | | | |
| | | | Bottom | 10.9 | 26.3 | 27.8 | 27.8 | 7.03 | 7.01 | 101.5 | 101.2 | 3.87 | 3.90 | | 5.8 | 5.8 | |
| | | | | 27.7 | 6.99 | 100.8 | | 3.92 | 5.8 | | | | | | | | |
| 19/05/12 | 1123-1136 | 26/Cloudy | Surface | 1.0 | 26.5 | 26.3 | 26.3 | 7.23 | 7.22 | 103.9 | 103.7 | 3.79 | 3.81 | 3.94 | 5.6 | 5.7 | 5.8 |
| | | | | 26.2 | 7.20 | 103.4 | | 3.82 | | 5.8 | | | | | | | |
| | | | Middle | 6.0 | 26.4 | 26.6 | 26.6 | 7.16 | 7.14 | 102.9 | 102.6 | 3.92 | 3.94 | | 5.8 | 5.8 | |
| | | | | 26.5 | 7.12 | 102.3 | | 3.95 | 5.8 | | | | | | | | |
| | | | Bottom | 11.0 | 26.3 | 27.0 | 27.0 | 7.08 | 7.06 | 101.7 | 101.4 | 4.05 | 4.07 | | 6.0 | 6.0 | |
| | | | | 26.9 | 7.03 | 101.1 | | 4.09 | 6.0 | | | | | | | | |
| 22/05/12 | 1857-1910 | 27/Fine | Surface | 1.0 | 26.4 | 25.3 | 25.4 | 6.84 | 6.86 | 97.4 | 97.8 | 3.26 | 3.28 | 3.54 | 5.2 | 5.2 | 5.4 |
| | | | | 25.4 | 6.88 | 98.1 | | 3.29 | | 5.2 | | | | | | | |
| | | | Middle | 6.1 | 26.3 | 25.8 | 25.8 | 6.68 | 6.66 | 95.2 | 94.8 | 3.47 | 3.50 | | 5.4 | 5.4 | |
| | | | | 25.8 | 6.63 | 94.4 | | 3.52 | 5.4 | | | | | | | | |
| | | | Bottom | 11.2 | 26.1 | 26.7 | 26.8 | 6.59 | 6.62 | 93.9 | 94.3 | 3.86 | 3.85 | | 5.8 | 5.7 | |
| | | | | 26.8 | 6.64 | 94.6 | | 3.83 | 5.6 | | | | | | | | |
| 24/05/12 | 1953-2006 | 26/Cloudy | Surface | 1.0 | 26.3 | 25.5 | 25.5 | 6.64 | 6.66 | 94.5 | 94.9 | 3.89 | 3.91 | 4.01 | 5.8 | 5.8 | 6.0 |
| | | | | 25.5 | 6.68 | 95.2 | | 3.93 | | 5.8 | | | | | | | |
| | | | Middle | 5.9 | 26.1 | 26.3 | 26.3 | 6.58 | 6.57 | 93.5 | 93.4 | 3.99 | 4.01 | | 6.0 | 6.0 | |
| | | | | 26.3 | 6.55 | 93.2 | | 4.03 | 6.0 | | | | | | | | |
| | | | Bottom | 10.8 | 26.1 | 27.0 | 27.0 | 6.42 | 6.40 | 91.2 | 90.9 | 4.10 | 4.12 | | 6.0 | 6.1 | |
| | | | | 26.9 | 6.38 | 90.6 | | 4.14 | 6.2 | | | | | | | | |
| 26/05/12 | 0908-0920 | 28/Cloudy | Surface | 1.0 | 26.4 | 26.6 | 26.6 | 6.17 | 6.20 | 87.6 | 88.1 | 4.16 | 4.19 | 4.34 | 6.2 | 6.2 | 6.4 |
| | | | | 26.5 | 6.23 | 88.5 | | 4.22 | | 6.2 | | | | | | | |
| | | | Middle | 6.0 | 26.3 | 26.7 | 26.8 | 6.11 | 6.12 | 86.8 | 86.9 | 4.30 | 4.31 | | 6.4 | 6.4 | |
| | | | | 26.8 | 6.13 | 87.0 | | 4.31 | 6.4 | | | | | | | | |
| | | | Bottom | 11.0 | 26.3 | 27.0 | 27.1 | 5.95 | 5.98 | 84.5 | 84.9 | 4.54 | 4.52 | | 6.6 | 6.5 | |
| | | | | 27.1 | 6.01 | 85.3 | | 4.50 | 6.4 | | | | | | | | |
| 29/05/12 | 1125-1138 | 26/Cloudy | Surface | 1.0 | 26.3 | 25.7 | 25.7 | 6.52 | 6.53 | 93.1 | 93.3 | 4.10 | 4.09 | 4.17 | 6.0 | 6.0 | 6.1 |
| | | | | 25.6 | 6.54 | 93.4 | | 4.07 | | 6.0 | | | | | | | |
| | | | Middle | 5.8 | 26.2 | 26.1 | 26.2 | 6.44 | 6.43 | 91.8 | 91.6 | 4.15 | 4.16 | | 6.2 | 6.2 | |
| | | | | 26.2 | 6.41 | 91.4 | | 4.16 | 6.2 | | | | | | | | |
| | | | Bottom | 10.6 | 26.0 | 26.8 | 26.9 | 6.35 | 6.33 | 90.3 | 90.0 | 4.24 | 4.26 | | 6.2 | 6.2 | |
| | | | | 26.9 | 6.31 | 89.7 | | 4.28 | 6.2 | | | | | | | | |
| 31/05/12 | 1447-1500 | 29/Fine | Surface | 1.0 | 27.1 | 26.4 | 26.5 | 6.18 | 6.16 | 89.1 | 89.1 | 4.12 | 4.14 | 4.32 | 6.0 | 6.1 | 6.3 |
| | | | | 26.5 | 6.14 | 89.1 | | 4.16 | | 6.2 | | | | | | | |
| | | | Middle | 6.1 | 27.0 | 26.7 | 26.7 | 6.02 | 6.05 | 87.3 | 87.7 | 4.28 | 4.30 | | 6.2 | 6.2 | |
| | | | | 26.6 | 6.07 | 88.1 | | 4.32 | 6.2 | | | | | | | | |
| | | | Bottom | 11.2 | 26.9 | 27.0 | 27.0 | 5.90 | 5.88 | 85.6 | 85.4 | 4.49 | 4.51 | | 6.4 | 6.5 | |
| | | | | 26.9 | 5.86 | 85.1 | | 4.53 | 6.6 | | | | | | | | |

Mid-Flood Tide

Monitoring Station : R29

| Date | Sampling Duration | Ambient Temp (°C) / Weather Condition | Monitoring Depth (m) | | Temp (°C) | Salinity (ppt) | | Dissolved Oxygen (mg/L) | | Dissolved Oxygen Saturation (%) | | Turbidity (NTU) | | | Suspended Solids (mg/L) | | | |
|----------|-------------------|---------------------------------------|----------------------|------|-----------|----------------|---------|-------------------------|---------|---------------------------------|---------|-----------------|---------|---------------|-------------------------|---------|---------------|-----|
| | | | | | | Value | Average | Value | Average | Value | Average | Value | Average | Depth-average | Value | Average | Depth-average | |
| 03/05/12 | 1550-1605 | 30/Cloudy | Surface | 1.0 | 25.7 | 27.0 | 27.0 | 6.98 | 6.96 | 96.3 | 96.1 | 4.16 | 4.14 | 4.23 | 6.2 | 6.1 | 6.2 | |
| | | | | | | 26.9 | | 6.94 | | 95.8 | | 4.12 | | | 6.0 | | | |
| | | | Middle | 8.5 | 25.6 | 27.2 | 27.3 | 6.92 | 6.90 | 95.4 | 95.2 | 4.15 | 4.18 | | 6.2 | | | 6.2 |
| | | | | | | 27.3 | | 6.88 | | 95.0 | | 4.20 | | | 6.2 | | | |
| | | | Bottom | 16.0 | 25.4 | 27.4 | 27.5 | 6.77 | 6.79 | 93.4 | 93.6 | 4.40 | 4.38 | | 6.4 | | | 6.4 |
| | | | | | | 27.5 | | 6.80 | | 93.8 | | 4.36 | | | 6.4 | | | |
| 05/05/12 | 1618-1632 | 26/Cloudy | Surface | 1.0 | 26.3 | 25.8 | 25.8 | 7.49 | 7.47 | 104.7 | 104.5 | 3.56 | 3.58 | 3.69 | 5.4 | 5.5 | 5.6 | |
| | | | | | | 25.8 | | 7.45 | | 104.2 | | 3.60 | | | 5.6 | | | |
| | | | Middle | 8.9 | 26.2 | 26.3 | 26.4 | 7.33 | 7.35 | 102.6 | 102.8 | 3.64 | 3.66 | | 5.6 | | | 5.6 |
| | | | | | | 26.4 | | 7.37 | | 103.0 | | 3.68 | | | 5.6 | | | |
| | | | Bottom | 16.8 | 25.9 | 27.1 | 27.1 | 7.21 | 7.23 | 100.9 | 101.1 | 3.86 | 3.84 | | 5.8 | | | 5.8 |
| | | | | | | 27.0 | | 7.24 | | 101.2 | | 3.82 | | | 5.8 | | | |
| 08/05/12 | 0918-0930 | 29/Fine | Surface | 1.0 | 26.2 | 27.6 | 27.6 | 7.19 | 7.17 | 102.8 | 102.5 | 3.54 | 3.56 | 3.77 | 5.4 | 5.4 | 5.7 | |
| | | | | | | 27.6 | | 7.15 | | 102.2 | | 3.58 | | | 5.4 | | | |
| | | | Middle | 8.9 | 25.9 | 27.9 | 27.9 | 7.05 | 7.07 | 100.8 | 101.1 | 3.94 | 3.92 | | 5.8 | | | 5.8 |
| | | | | | | 27.9 | | 7.09 | | 101.3 | | 3.90 | | | 5.8 | | | |
| | | | Bottom | 16.8 | 25.7 | 28.0 | 28.0 | 6.95 | 6.97 | 99.2 | 99.5 | 3.80 | 3.82 | | 5.8 | | | 5.8 |
| | | | | | | 28.0 | | 6.99 | | 99.8 | | 3.84 | | | 5.8 | | | |
| 10/05/12 | 0959-1015 | 29/Fine | Surface | 1.0 | 26.0 | 27.4 | 27.4 | 6.81 | 6.80 | 94.0 | 93.8 | 3.78 | 3.81 | 4.00 | 5.6 | 5.7 | 5.9 | |
| | | | | | | 27.4 | | 6.78 | | 93.6 | | 3.83 | | | 5.8 | | | |
| | | | Middle | 9.1 | 25.9 | 27.8 | 27.8 | 6.59 | 6.61 | 90.9 | 91.2 | 3.99 | 4.01 | | 5.8 | | | 5.9 |
| | | | | | | 27.8 | | 6.63 | | 91.5 | | 4.02 | | | 6.0 | | | |
| | | | Bottom | 17.2 | 25.9 | 28.2 | 28.3 | 6.34 | 6.36 | 87.5 | 87.9 | 4.16 | 4.18 | | 6.0 | | | 6.1 |
| | | | | | | 28.3 | | 6.37 | | 88.2 | | 4.20 | | | 6.2 | | | |
| 12/05/12 | 1102-1117 | 26/Drizzle | Surface | 1.0 | 26.3 | 25.9 | 25.9 | 7.09 | 7.10 | 99.3 | 99.4 | 4.12 | 4.10 | 4.30 | 6.2 | 6.1 | 6.3 | |
| | | | | | | 25.9 | | 7.11 | | 99.5 | | 4.08 | | | 6.0 | | | |
| | | | Middle | 8.6 | 25.9 | 26.4 | 26.4 | 7.01 | 7.02 | 98.1 | 98.3 | 4.19 | 4.17 | | 6.2 | | | 6.1 |
| | | | | | | 26.4 | | 7.03 | | 98.4 | | 4.15 | | | 6.0 | | | |
| | | | Bottom | 16.2 | 25.7 | 26.8 | 26.8 | 6.91 | 6.93 | 96.7 | 97.0 | 4.63 | 4.62 | | 6.6 | | | 6.6 |
| | | | | | | 26.8 | | 6.94 | | 97.2 | | 4.60 | | | 6.6 | | | |
| 15/05/12 | 1517-1529 | 30/Rainy | Surface | 1.0 | 26.6 | 27.1 | 27.2 | 6.94 | 6.92 | 98.5 | 98.2 | 4.07 | 4.04 | 4.58 | 6.0 | 6.0 | 6.6 | |
| | | | | | | 27.2 | | 6.90 | | 97.9 | | 4.01 | | | 6.0 | | | |
| | | | Middle | 8.9 | 26.2 | 27.6 | 27.6 | 6.84 | 6.82 | 96.9 | 96.7 | 4.82 | 4.86 | | 6.8 | | | 6.8 |
| | | | | | | 27.6 | | 6.80 | | 96.4 | | 4.90 | | | 6.8 | | | |
| | | | Bottom | 16.8 | 25.9 | 27.9 | 27.9 | 6.77 | 6.76 | 95.9 | 95.7 | 4.89 | 4.85 | | 7.0 | | | 6.9 |
| | | | | | | 27.9 | | 6.74 | | 95.5 | | 4.81 | | | 6.8 | | | |
| 17/05/12 | 1618-1631 | 30/Cloudy | Surface | 1.0 | 26.8 | 26.4 | 26.4 | 7.60 | 7.59 | 109.4 | 109.3 | 3.48 | 3.46 | 3.63 | 5.4 | 5.4 | 5.6 | |
| | | | | | | 26.4 | | 7.58 | | 109.2 | | 3.44 | | | 5.4 | | | |
| | | | Middle | 8.8 | 26.5 | 26.9 | 26.9 | 7.34 | 7.37 | 105.9 | 106.2 | 3.63 | 3.67 | | 5.6 | | | 5.6 |
| | | | | | | 26.9 | | 7.39 | | 106.4 | | 3.70 | | | 5.6 | | | |
| | | | Bottom | 16.6 | 26.1 | 28.1 | 28.1 | 7.33 | 7.30 | 105.5 | 105.1 | 3.80 | 3.78 | | 5.8 | | | 5.8 |
| | | | | | | 28.0 | | 7.27 | | 104.7 | | 3.75 | | | 5.8 | | | |
| 19/05/12 | 1143-1157 | 26/Cloudy | Surface | 1.0 | 26.5 | 26.2 | 26.3 | 7.48 | 7.46 | 107.5 | 107.2 | 3.84 | 3.82 | 3.93 | 5.8 | 5.8 | 5.9 | |
| | | | | | | 26.3 | | 7.44 | | 106.9 | | 3.80 | | | 5.8 | | | |
| | | | Middle | 8.7 | 26.4 | 26.7 | 26.7 | 7.37 | 7.35 | 105.9 | 105.6 | 3.90 | 3.92 | | 6.0 | | | 6.0 |
| | | | | | | 26.6 | | 7.33 | | 105.3 | | 3.93 | | | 6.0 | | | |
| | | | Bottom | 16.4 | 26.3 | 27.3 | 27.3 | 7.25 | 7.23 | 104.2 | 103.8 | 4.06 | 4.04 | | 6.0 | | | 6.0 |
| | | | | | | 27.2 | | 7.20 | | 103.4 | | 4.02 | | | 6.0 | | | |
| 22/05/12 | 1916-1929 | 27/Fine | Surface | 1.0 | 26.4 | 25.2 | 25.3 | 7.03 | 7.01 | 100.2 | 99.9 | 3.37 | 3.39 | 3.62 | 5.2 | 5.3 | 5.6 | |
| | | | | | | 25.3 | | 6.98 | | 99.5 | | 3.41 | | | 5.4 | | | |
| | | | Middle | 8.9 | 26.3 | 25.8 | 25.9 | 6.89 | 6.91 | 98.2 | 98.4 | 3.56 | 3.58 | | 5.4 | | | 5.5 |
| | | | | | | 25.9 | | 6.92 | | 98.6 | | 3.60 | | | 5.6 | | | |
| | | | Bottom | 16.8 | 26.1 | 26.7 | 26.8 | 6.73 | 6.75 | 95.9 | 96.2 | 3.86 | 3.88 | | 5.8 | | | 5.9 |
| | | | | | | 26.8 | | 6.77 | | 96.5 | | 3.90 | | | 6.0 | | | |
| 24/05/12 | 2013-2025 | 26/Cloudy | Surface | 1.0 | 26.2 | 25.6 | 25.6 | 6.53 | 6.55 | 92.9 | 93.3 | 3.97 | 4.00 | 4.13 | 5.8 | 5.9 | 6.1 | |
| | | | | | | 25.5 | | 6.57 | | 93.6 | | 4.02 | | | 6.0 | | | |
| | | | Middle | 8.6 | 26.0 | 26.4 | 26.4 | 6.44 | 6.43 | 91.5 | 91.4 | 4.11 | 4.13 | | 6.0 | | | 6.1 |
| | | | | | | 26.4 | | 6.41 | | 91.2 | | 4.15 | | | 6.2 | | | |
| | | | Bottom | 16.2 | 25.8 | 27.2 | 27.2 | 6.30 | 6.27 | 89.5 | 89.1 | 4.25 | 4.27 | | 6.2 | | | 6.3 |
| | | | | | | 27.2 | | 6.24 | | 88.7 | | 4.28 | | | 6.4 | | | |
| 26/05/12 | 0924-0936 | 28/Cloudy | Surface | 1.0 | 26.4 | 26.6 | 26.6 | 6.10 | 6.12 | 86.6 | 86.9 | 4.31 | 4.34 | 4.33 | 6.2 | 6.3 | 6.3 | |
| | | | | | | 26.6 | | 6.14 | | 87.2 | | 4.36 | | | 6.4 | | | |
| | | | Middle | 9.1 | 26.3 | 27.0 | 27.0 | 5.93 | 5.96 | 84.2 | 84.6 | 4.19 | 4.22 | | 6.2 | | | 6.3 |
| | | | | | | 26.9 | | 5.98 | | 84.9 | | 4.25 | | | 6.4 | | | |
| | | | Bottom | 17.2 | 26.3 | 27.3 | 27.3 | 5.84 | 5.86 | 82.9 | 83.1 | 4.44 | 4.42 | | 6.4 | | | 6.4 |
| | | | | | | 27.3 | | 5.87 | | 83.3 | | 4.40 | | | 6.4 | | | |
| 29/05/12 | 1145-1157 | 26/Cloudy | Surface | 1.0 | 26.3 | 25.5 | 25.6 | 6.64 | 6.66 | 94.8 | 95.1 | 4.04 | 4.05 | 4.18 | 6.0 | 6.0 | 6.2 | |
| | | | | | | 25.6 | | 6.67 | | 95.3 | | 4.06 | | | 6.0 | | | |
| | | | Middle | 8.9 | 26.0 | 26.3 | 26.3 | 6.56 | 6.55 | 93.5 | 93.3 | 4.20 | 4.19 | | 6.2 | | | 6.2 |
| | | | | | | 26.2 | | 6.53 | | 93.1 | | 4.17 | | | 6.2 | | | |
| | | | Bottom | 16.8 | 25.7 | 27.1 | 27.1 | 6.44 | 6.44 | 91.5 | 91.5 | 4.27 | 4.29 | | 6.2 | | | 6.3 |
| | | | | | | 27.1 | | 6.43 | | 91.4 | | 4.31 | | | 6.4 | | | |
| 31/05/12 | 1515-1529 | 29/Fine | Surface | 1.0 | 27.1 | 26.5 | 26.5 | 6.15 | 6.14 | 89.2 | 89.0 | 4.19 | 4.22 | 4.32 | 6.2 | 6.2 | 6.3 | |
| | | | | | | 26.5 | | 6.12 | | 88.8 | | 4.24 | | | 6.2 | | | |
| | | | Middle | 9.1 | 27.0 | 26.8 | 26.9 | 6.06 | 6.05 | 87.8 | 87.6 | 4.29 | 4.31 | | 6.2 | | | 6.3 |
| | | | | | | 26.9 | | 6.03 | | 87.4 | | 4.33 | | | 6.4 | | | |
| | | | Bottom | 17.2 | 26.6 | 27.1 | 27.2 | 5.94 | 5.92 | 86.1 | 85.8 | 4.42 | 4.45 | | 6.4 | | | 6.5 |
| | | | | | | 27.2 | | 5.89 | | 85.5 | | 4.47 | | | 6.6 | | | |

Mid-Flood Tide

Monitoring Station : C1

| Date | Sampling Duration | Ambient Temp (°C) / Weather Condition | Monitoring Depth (m) | | Temp (°C) | Salinity (ppt) | | Dissolved Oxygen (mg/L) | | Dissolved Oxygen Saturation (%) | | Turbidity (NTU) | | | Suspended Solids (mg/L) | | | |
|----------|-------------------|---------------------------------------|----------------------|------|-----------|----------------|---------|-------------------------|---------|---------------------------------|---------|-----------------|---------|---------------|-------------------------|---------|---------------|-----|
| | | | | | | Value | Average | Value | Average | Value | Average | Value | Average | Depth-average | Value | Average | Depth-average | |
| 03/05/12 | 1429-1444 | 30/Cloudy | Surface | 1.0 | 25.7 | 27.2 | 27.2 | 7.22 | 7.20 | 99.6 | 99.4 | 4.03 | 4.05 | 4.13 | 6.0 | 6.0 | 6.1 | |
| | | | | | | 27.2 | | 7.18 | | 99.1 | | 4.06 | | | 6.0 | | | |
| | | | Middle | 7.1 | 25.6 | 27.3 | 27.3 | 7.15 | 7.13 | 98.6 | 98.3 | 4.08 | 4.10 | | 6.0 | | | 6.1 |
| | | | | | | 27.3 | | 7.10 | | 98.0 | | 4.12 | | | 6.2 | | | |
| | | | Bottom | 13.2 | 25.5 | 27.4 | 27.4 | 6.94 | 6.92 | 95.7 | 95.5 | 4.26 | 4.25 | | 6.2 | | | 6.1 |
| | | | | | | 27.3 | | 6.90 | | 95.3 | | 4.23 | | | 6.0 | | | |
| 05/05/12 | 1459-1512 | 25/Cloudy | Surface | 1.0 | 26.3 | 25.8 | 25.8 | 7.28 | 7.31 | 101.9 | 102.2 | 3.62 | 3.64 | 3.74 | 5.6 | 5.6 | 5.7 | |
| | | | | | | 25.8 | | 7.33 | | 102.5 | | 3.66 | | | 5.6 | | | |
| | | | Middle | 6.1 | 26.2 | 26.5 | 26.5 | 7.25 | 7.24 | 101.4 | 101.2 | 3.71 | 3.73 | | 5.6 | | | 5.7 |
| | | | | | | 26.4 | | 7.22 | | 101.0 | | 3.75 | | | 5.8 | | | |
| | | | Bottom | 11.2 | 26.1 | 27.0 | 27.1 | 7.16 | 7.14 | 100.1 | 99.9 | 3.88 | 3.86 | | 5.8 | | | 5.9 |
| | | | | | | 27.1 | | 7.12 | | 99.6 | | 3.84 | | | 6.0 | | | |
| 08/05/12 | 0759-0811 | 29/Fine | Surface | 1.0 | 26.1 | 27.5 | 27.5 | 7.15 | 7.13 | 102.2 | 101.9 | 3.98 | 3.97 | 3.89 | 6.0 | 6.0 | 5.9 | |
| | | | | | | 27.4 | | 7.10 | | 101.5 | | 3.95 | | | 6.0 | | | |
| | | | Middle | 7.6 | 25.7 | 27.9 | 27.9 | 7.02 | 7.04 | 100.3 | 100.6 | 3.74 | 3.78 | | 5.6 | | | 5.7 |
| | | | | | | 27.9 | | 7.05 | | 100.8 | | 3.81 | | | 5.8 | | | |
| | | | Bottom | 14.2 | 25.8 | 27.9 | 27.9 | 6.99 | 6.98 | 99.8 | 99.7 | 3.94 | 3.92 | | 5.8 | | | 5.9 |
| | | | | | | 27.9 | | 6.97 | | 99.5 | | 3.90 | | | 6.0 | | | |
| 10/05/12 | 0836-0850 | 28/Fine | Surface | 1.0 | 25.9 | 27.1 | 27.2 | 6.75 | 6.73 | 93.8 | 93.2 | 3.55 | 3.58 | 3.79 | 5.4 | 5.5 | 5.8 | |
| | | | | | | 27.2 | | 6.70 | | 92.5 | | 3.60 | | | 5.6 | | | |
| | | | Middle | 7.4 | 25.8 | 27.5 | 27.6 | 6.63 | 6.61 | 91.5 | 91.2 | 3.81 | 3.84 | | 5.8 | | | 5.8 |
| | | | | | | 27.6 | | 6.58 | | 90.8 | | 3.86 | | | 5.8 | | | |
| | | | Bottom | 13.8 | 25.7 | 27.7 | 27.8 | 6.50 | 6.47 | 89.7 | 89.3 | 3.97 | 3.95 | | 6.0 | | | 6.0 |
| | | | | | | 27.8 | | 6.44 | | 88.9 | | 3.92 | | | 6.0 | | | |
| 12/05/12 | 0935-0950 | 26/Drizzle | Surface | 1.0 | 26.2 | 25.9 | 25.9 | 6.91 | 6.93 | 96.7 | 97.0 | 3.82 | 3.84 | 4.16 | 5.8 | 5.8 | 6.2 | |
| | | | | | | 25.8 | | 6.95 | | 97.3 | | 3.85 | | | 5.8 | | | |
| | | | Middle | 6.9 | 25.8 | 26.2 | 26.2 | 6.42 | 6.45 | 89.9 | 90.3 | 4.13 | 4.16 | | 6.2 | | | 6.2 |
| | | | | | | 26.2 | | 6.48 | | 90.7 | | 4.18 | | | 6.2 | | | |
| | | | Bottom | 12.8 | 25.7 | 26.7 | 26.8 | 6.36 | 6.38 | 89.0 | 89.3 | 4.49 | 4.48 | | 6.4 | | | 6.5 |
| | | | | | | 26.8 | | 6.39 | | 89.5 | | 4.46 | | | 6.5 | | | |
| 15/05/12 | 1358-1410 | 30/Rainy | Surface | 1.0 | 26.5 | 27.1 | 27.1 | 6.99 | 6.98 | 99.2 | 99.0 | 4.67 | 4.70 | 4.82 | 6.6 | 6.6 | 6.6 | |
| | | | | | | 27.1 | | 6.96 | | 98.8 | | 4.72 | | | 6.6 | | | |
| | | | Middle | 7.4 | 26.3 | 27.5 | 27.5 | 6.85 | 6.87 | 97.1 | 97.3 | 4.74 | 4.71 | | 6.6 | | | 6.3 |
| | | | | | | 27.5 | | 6.88 | | 97.5 | | 4.68 | | | 6.0 | | | |
| | | | Bottom | 13.8 | 25.9 | 27.8 | 27.8 | 6.88 | 6.86 | 97.5 | 97.3 | 5.01 | 5.05 | | 7.0 | | | 7.0 |
| | | | | | | 27.8 | | 6.84 | | 97.0 | | 5.08 | | | 7.0 | | | |
| 17/05/12 | 1458-1510 | 30/Cloudy | Surface | 1.0 | 26.7 | 26.4 | 26.4 | 7.18 | 7.16 | 103.4 | 103.1 | 3.65 | 3.63 | 3.83 | 5.6 | 5.6 | 5.8 | |
| | | | | | | 26.4 | | 7.13 | | 102.7 | | 3.60 | | | 5.6 | | | |
| | | | Middle | 7.0 | 26.4 | 26.9 | 26.9 | 6.99 | 7.01 | 100.4 | 100.9 | 3.80 | 3.82 | | 5.8 | | | 5.8 |
| | | | | | | 26.9 | | 7.03 | | 101.3 | | 3.84 | | | 5.8 | | | |
| | | | Bottom | 13.0 | 26.1 | 28.0 | 28.0 | 6.80 | 6.84 | 97.9 | 98.5 | 4.02 | 4.04 | | 6.0 | | | 6.0 |
| | | | | | | 27.9 | | 6.88 | | 99.1 | | 4.06 | | | 6.0 | | | |
| 19/05/12 | 1026-1039 | 25/Fine | Surface | 1.0 | 26.5 | 26.2 | 26.2 | 7.22 | 7.25 | 103.7 | 104.1 | 3.93 | 3.92 | 4.03 | 5.8 | 5.8 | 6.0 | |
| | | | | | | 26.2 | | 7.27 | | 104.4 | | 3.90 | | | 5.8 | | | |
| | | | Middle | 6.9 | 26.4 | 26.8 | 26.9 | 7.18 | 7.16 | 103.2 | 102.8 | 3.99 | 4.02 | | 6.0 | | | 6.0 |
| | | | | | | 26.9 | | 7.13 | | 102.4 | | 4.04 | | | 6.0 | | | |
| | | | Bottom | 12.8 | 26.3 | 26.3 | 26.3 | 7.06 | 7.08 | 101.4 | 101.7 | 4.15 | 4.17 | | 6.2 | | | 6.1 |
| | | | | | | 26.3 | | 7.10 | | 102.0 | | 4.19 | | | 6.0 | | | |
| 22/05/12 | 1757-1811 | 27/Fine | Surface | 1.0 | 26.4 | 25.4 | 25.5 | 6.68 | 6.66 | 95.2 | 95.0 | 3.63 | 3.62 | 3.73 | 5.6 | 5.6 | 5.7 | |
| | | | | | | 25.5 | | 6.64 | | 94.7 | | 3.60 | | | 5.6 | | | |
| | | | Middle | 7.1 | 26.4 | 25.9 | 26.0 | 6.47 | 6.49 | 92.2 | 92.5 | 3.77 | 3.75 | | 5.8 | | | 5.7 |
| | | | | | | 26.0 | | 6.50 | | 92.7 | | 3.73 | | | 5.6 | | | |
| | | | Bottom | 13.2 | 26.2 | 26.6 | 26.6 | 6.33 | 6.36 | 90.3 | 90.7 | 3.81 | 3.83 | | 5.8 | | | 5.9 |
| | | | | | | 26.5 | | 6.38 | | 91.0 | | 3.85 | | | 6.0 | | | |
| 24/05/12 | 1857-1910 | 27/Cloudy | Surface | 1.0 | 26.3 | 25.7 | 25.7 | 6.44 | 6.47 | 91.6 | 92.1 | 3.90 | 3.93 | 4.04 | 5.8 | 5.8 | 6.0 | |
| | | | | | | 25.6 | | 6.50 | | 92.5 | | 3.95 | | | 5.8 | | | |
| | | | Middle | 7.3 | 26.1 | 26.4 | 26.5 | 6.36 | 6.34 | 90.4 | 90.2 | 4.02 | 4.04 | | 6.0 | | | 6.0 |
| | | | | | | 26.5 | | 6.32 | | 89.9 | | 4.06 | | | 6.0 | | | |
| | | | Bottom | 13.6 | 25.9 | 27.1 | 27.2 | 6.23 | 6.22 | 88.5 | 88.3 | 4.13 | 4.15 | | 6.2 | | | 6.1 |
| | | | | | | 27.2 | | 6.20 | | 88.1 | | 4.17 | | | 6.0 | | | |
| 26/05/12 | 0816-0830 | 27/Cloudy | Surface | 1.0 | 26.3 | 26.7 | 26.7 | 6.29 | 6.31 | 89.3 | 89.5 | 4.21 | 4.19 | 4.32 | 6.2 | 6.2 | 6.4 | |
| | | | | | | 26.7 | | 6.32 | | 89.7 | | 4.17 | | | 6.2 | | | |
| | | | Middle | 7.3 | 26.3 | 26.9 | 27.0 | 6.05 | 6.07 | 85.9 | 86.1 | 4.42 | 4.44 | | 6.4 | | | 6.5 |
| | | | | | | 27.0 | | 6.08 | | 86.3 | | 4.45 | | | 6.6 | | | |
| | | | Bottom | 13.6 | 26.2 | 27.3 | 27.3 | 5.91 | 5.92 | 83.9 | 84.1 | 4.32 | 4.34 | | 6.4 | | | 6.5 |
| | | | | | | 27.2 | | 5.93 | | 84.2 | | 4.36 | | | 6.5 | | | |
| 29/05/12 | 1027-1039 | 26/Cloudy | Surface | 1.0 | 26.3 | 25.6 | 25.6 | 6.55 | 6.57 | 93.5 | 93.8 | 3.92 | 3.94 | 4.11 | 5.8 | 5.8 | 6.0 | |
| | | | | | | 25.5 | | 6.58 | | 94.0 | | 3.96 | | | 5.8 | | | |
| | | | Middle | 7.3 | 26.0 | 26.3 | 26.4 | 6.38 | 6.39 | 91.0 | 91.1 | 4.11 | 4.13 | | 6.0 | | | 6.1 |
| | | | | | | 26.4 | | 6.40 | | 91.2 | | 4.14 | | | 6.2 | | | |
| | | | Bottom | 13.6 | 25.8 | 27.1 | 27.1 | 6.28 | 6.25 | 89.3 | 88.9 | 4.25 | 4.27 | | 6.2 | | | 6.1 |
| | | | | | | 27.0 | | 6.22 | | 88.4 | | 4.29 | | | 6.0 | | | |
| 31/05/12 | 1347-1402 | 29/Fine | Surface | 1.0 | 27.1 | 26.6 | 26.6 | 6.24 | 6.26 | 90.5 | 90.8 | 4.17 | 4.15 | 4.30 | 6.2 | 6.1 | 6.3 | |
| | | | | | | 26.5 | | 6.28 | | 91.0 | | 4.12 | | | 6.0 | | | |
| | | | Middle | 7.2 | 26.9 | 26.9 | 26.9 | 6.16 | 6.15 | 89.3 | 89.1 | 4.37 | 4.36 | | 6.4 | | | 6.3 |
| | | | | | | 26.8 | | 6.13 | | 88.9 | | 4.34 | | | 6.2 | | | |
| | | | Bottom | 13.4 | 26.9 | 27.1 | 27.2 | 6.04 | 6.03 | 87.6 | 87.4 | 4.38 | 4.41 | | 6.4 | | | 6.5 |
| | | | | | | 27.2 | | 6.01 | | 87.2 | | 4.43 | | | 6.5 | | | |

Mid-Flood Tide

Monitoring Station : C3

| Date | Sampling Duration | Ambient Temp (°C) / Weather Condition | Monitoring Depth (m) | | Temp (°C) | Salinity (ppt) | | Dissolved Oxygen (mg/L) | | Dissolved Oxygen Saturation (%) | | Turbidity (NTU) | | | Suspended Solids (mg/L) | | | | |
|----------|-------------------|---------------------------------------|----------------------|------|-----------|----------------|---------|-------------------------|---------|---------------------------------|---------|-----------------|---------|---------------|-------------------------|---------|---------------|-----|-----|
| | | | | | | Value | Average | Value | Average | Value | Average | Value | Average | Depth-average | Value | Average | Depth-average | | |
| 03/05/12 | 1449-1503 | 30/Cloudy | Surface | 1.0 | 25.7 | 27.1 | 27.1 | 6.95 | 6.97 | 95.9 | 96.2 | 4.07 | 4.09 | 4.19 | 6.0 | 6.0 | 6.2 | | |
| | | | | | | 27.1 | | 6.99 | | 96.4 | | 4.10 | | | 6.0 | | | | |
| | | | Middle | 6.5 | 25.6 | 27.2 | 27.2 | 6.92 | 6.94 | 95.5 | 95.8 | 4.17 | 4.19 | | 4.21 | 4.19 | | 6.2 | 6.2 |
| | | | | | | 27.1 | | 6.96 | | 96.0 | | 4.21 | | | 6.2 | | | | |
| | | | Bottom | 12.0 | 25.5 | 27.3 | 27.3 | 6.87 | 6.86 | 94.8 | 94.6 | 4.26 | 4.28 | | 4.30 | 4.28 | | 6.2 | 6.3 |
| | | | | | | 27.2 | | 6.84 | | 94.3 | | 4.30 | | | 6.4 | | | | |
| 05/05/12 | 1518-1531 | 25/Cloudy | Surface | 1.0 | 26.3 | 25.9 | 25.9 | 7.38 | 7.37 | 103.2 | 103.0 | 3.58 | 3.56 | 3.64 | 5.4 | 5.4 | 5.5 | | |
| | | | | | | 25.8 | | 7.35 | | 102.8 | | 3.54 | | | 5.4 | | | | |
| | | | Middle | 6.8 | 26.2 | 26.3 | 26.4 | 7.24 | 7.22 | 101.2 | 101.0 | 3.61 | 3.64 | | 3.66 | 3.64 | | 5.6 | 5.6 |
| | | | | | | 26.4 | | 7.20 | | 100.7 | | 3.66 | | | 5.6 | | | | |
| | | | Bottom | 12.6 | 26.0 | 27.0 | 27.1 | 7.16 | 7.15 | 100.2 | 100.0 | 3.69 | 3.71 | | 3.73 | 3.71 | | 5.6 | 5.6 |
| | | | | | | 27.1 | | 7.13 | | 99.8 | | 3.73 | | | 5.6 | | | | |
| 08/05/12 | 0818-0830 | 29/Fine | Surface | 1.0 | 26.1 | 27.5 | 27.5 | 7.04 | 7.06 | 100.6 | 100.9 | 3.89 | 3.92 | 3.78 | 5.8 | 5.8 | 5.7 | | |
| | | | | | | 27.5 | | 7.08 | | 101.2 | | 3.94 | | | 5.8 | | | | |
| | | | Middle | 7.0 | 25.9 | 27.9 | 27.9 | 7.01 | 7.03 | 100.2 | 100.4 | 3.67 | 3.69 | | 3.71 | 3.69 | | 5.6 | 5.6 |
| | | | | | | 27.8 | | 7.04 | | 100.6 | | 3.71 | | | 5.6 | | | | |
| | | | Bottom | 13.0 | 25.8 | 27.9 | 27.9 | 6.94 | 6.92 | 99.0 | 98.7 | 3.70 | 3.72 | | 3.74 | 3.72 | | 5.6 | 5.6 |
| | | | | | | 27.9 | | 6.90 | | 98.4 | | 3.74 | | | 5.6 | | | | |
| 10/05/12 | 0854-0910 | 28/Fine | Surface | 1.0 | 26.0 | 27.4 | 27.4 | 6.83 | 6.81 | 94.3 | 94.0 | 3.63 | 3.66 | 3.77 | 5.6 | 5.6 | 5.7 | | |
| | | | | | | 27.3 | | 6.79 | | 93.7 | | 3.68 | | | 5.6 | | | | |
| | | | Middle | 6.8 | 25.9 | 27.5 | 27.5 | 6.70 | 6.69 | 92.5 | 92.3 | 3.72 | 3.75 | | 3.77 | 3.75 | | 5.8 | 5.7 |
| | | | | | | 27.5 | | 6.67 | | 92.0 | | 3.77 | | | 5.8 | | | | |
| | | | Bottom | 12.6 | 25.8 | 27.6 | 27.7 | 6.58 | 6.56 | 90.8 | 90.5 | 3.89 | 3.91 | | 3.93 | 3.91 | | 5.8 | 5.9 |
| | | | | | | 27.7 | | 6.53 | | 90.1 | | 3.93 | | | 6.0 | | | | |
| 12/05/12 | 0958-1013 | 26/Drizzle | Surface | 1.0 | 26.3 | 25.8 | 25.8 | 6.82 | 6.85 | 95.5 | 95.9 | 4.04 | 4.07 | 4.33 | 6.0 | 6.0 | 6.3 | | |
| | | | | | | 25.8 | | 6.88 | | 96.3 | | 4.10 | | | 6.0 | | | | |
| | | | Middle | 6.5 | 25.8 | 26.3 | 26.3 | 6.81 | 6.80 | 95.3 | 95.2 | 4.40 | 4.39 | | 4.37 | 4.39 | | 6.4 | 6.3 |
| | | | | | | 26.3 | | 6.79 | | 95.1 | | 4.37 | | | 6.2 | | | | |
| | | | Bottom | 12.0 | 25.7 | 26.9 | 26.9 | 6.50 | 6.54 | 91.1 | 91.5 | 4.52 | 4.54 | | 4.55 | 4.54 | | 6.6 | 6.6 |
| | | | | | | 26.8 | | 6.57 | | 91.9 | | 4.55 | | | 6.6 | | | | |
| 15/05/12 | 1415-1428 | 30/Rainy | Surface | 1.0 | 26.5 | 27.1 | 27.1 | 7.01 | 7.03 | 99.5 | 99.7 | 4.50 | 4.53 | 4.54 | 6.4 | 6.5 | 6.6 | | |
| | | | | | | 27.1 | | 7.04 | | 99.9 | | 4.55 | | | 6.6 | | | | |
| | | | Middle | 7.1 | 26.3 | 27.5 | 27.5 | 6.91 | 6.89 | 98.1 | 97.8 | 4.12 | 4.15 | | 4.18 | 4.15 | | 6.2 | 6.2 |
| | | | | | | 27.5 | | 6.87 | | 97.5 | | 4.18 | | | 6.2 | | | | |
| | | | Bottom | 13.2 | 26.0 | 27.8 | 27.8 | 6.87 | 6.86 | 97.5 | 97.3 | 4.99 | 4.96 | | 4.92 | 4.96 | | 7.0 | 7.0 |
| | | | | | | 27.8 | | 6.84 | | 97.1 | | 4.92 | | | 7.0 | | | | |
| 17/05/12 | 1516-1530 | 30/Cloudy | Surface | 1.0 | 26.7 | 26.3 | 26.3 | 7.10 | 7.13 | 102.5 | 102.7 | 3.56 | 3.54 | 3.73 | 5.4 | 5.4 | 5.6 | | |
| | | | | | | 26.2 | | 7.15 | | 102.9 | | 3.52 | | | 5.4 | | | | |
| | | | Middle | 6.7 | 26.6 | 26.8 | 26.9 | 6.99 | 7.01 | 106.4 | 106.9 | 3.76 | 3.78 | | 3.80 | 3.78 | | 5.6 | 5.7 |
| | | | | | | 26.9 | | 7.03 | | 107.3 | | 3.80 | | | 5.8 | | | | |
| | | | Bottom | 12.4 | 26.2 | 27.9 | 27.9 | 6.93 | 6.91 | 99.8 | 99.6 | 3.82 | 3.86 | | 3.89 | 3.86 | | 5.8 | 5.8 |
| | | | | | | 27.8 | | 6.89 | | 99.4 | | 3.89 | | | 5.8 | | | | |
| 19/05/12 | 1045-1058 | 25/Fine | Surface | 1.0 | 26.5 | 26.3 | 26.3 | 7.12 | 7.10 | 102.3 | 102.0 | 3.77 | 3.79 | 3.90 | 5.6 | 5.7 | 5.8 | | |
| | | | | | | 26.3 | | 7.08 | | 101.7 | | 3.81 | | | 5.8 | | | | |
| | | | Middle | 6.7 | 26.4 | 26.9 | 26.9 | 6.94 | 6.93 | 99.7 | 99.5 | 3.94 | 3.92 | | 3.90 | 3.92 | | 5.8 | 5.8 |
| | | | | | | 26.8 | | 6.91 | | 99.3 | | 3.90 | | | 5.8 | | | | |
| | | | Bottom | 12.4 | 26.2 | 27.3 | 27.4 | 6.88 | 6.87 | 98.8 | 98.6 | 3.96 | 3.99 | | 4.01 | 3.99 | | 6.0 | 6.0 |
| | | | | | | 27.4 | | 6.85 | | 98.4 | | 4.01 | | | 6.0 | | | | |
| 22/05/12 | 1817-1830 | 27/Fine | Surface | 1.0 | 26.4 | 25.5 | 25.5 | 6.72 | 6.74 | 95.8 | 96.0 | 3.56 | 3.58 | 3.66 | 5.4 | 5.5 | 5.6 | | |
| | | | | | | 25.4 | | 6.75 | | 96.2 | | 3.60 | | | 5.6 | | | | |
| | | | Middle | 6.9 | 26.3 | 25.9 | 25.9 | 6.58 | 6.56 | 93.8 | 93.5 | 3.62 | 3.64 | | 3.66 | 3.64 | | 5.6 | 5.6 |
| | | | | | | 25.8 | | 6.54 | | 93.2 | | 3.66 | | | 5.6 | | | | |
| | | | Bottom | 12.8 | 26.1 | 26.7 | 26.7 | 6.45 | 6.47 | 92.0 | 92.3 | 3.74 | 3.77 | | 3.79 | 3.77 | | 5.8 | 5.8 |
| | | | | | | 26.6 | | 6.49 | | 92.5 | | 3.79 | | | 5.8 | | | | |
| 24/05/12 | 1916-1929 | 27/Cloudy | Surface | 1.0 | 26.2 | 25.6 | 25.6 | 6.71 | 6.70 | 95.5 | 95.4 | 3.84 | 3.86 | 3.98 | 5.8 | 5.8 | 5.9 | | |
| | | | | | | 25.6 | | 6.68 | | 95.2 | | 3.88 | | | 5.8 | | | | |
| | | | Middle | 6.9 | 26.1 | 26.5 | 26.5 | 6.59 | 6.57 | 93.7 | 93.5 | 3.97 | 3.99 | | 4.00 | 3.99 | | 5.8 | 5.9 |
| | | | | | | 26.4 | | 6.55 | | 93.2 | | 4.00 | | | 6.0 | | | | |
| | | | Bottom | 12.8 | 25.9 | 27.1 | 27.1 | 6.47 | 6.46 | 91.9 | 91.7 | 4.07 | 4.09 | | 4.11 | 4.09 | | 6.0 | 6.0 |
| | | | | | | 27.1 | | 6.44 | | 91.5 | | 4.11 | | | 6.0 | | | | |
| 26/05/12 | 0835-0850 | 27/Cloudy | Surface | 1.0 | 26.3 | 26.4 | 26.5 | 6.21 | 6.23 | 88.2 | 88.5 | 4.23 | 4.25 | 4.31 | 6.4 | 6.4 | 6.4 | | |
| | | | | | | 26.5 | | 6.25 | | 88.8 | | 4.26 | | | 6.4 | | | | |
| | | | Middle | 6.7 | 26.3 | 26.7 | 26.8 | 6.14 | 6.12 | 87.2 | 86.9 | 4.36 | 4.38 | | 4.39 | 4.38 | | 6.6 | 6.6 |
| | | | | | | 26.8 | | 6.10 | | 86.6 | | 4.39 | | | 6.6 | | | | |
| | | | Bottom | 12.4 | 26.2 | 27.0 | 27.0 | 5.96 | 5.93 | 84.6 | 84.2 | 4.28 | 4.30 | | 4.31 | 4.30 | | 6.2 | 6.3 |
| | | | | | | 27.0 | | 5.90 | | 83.8 | | 4.31 | | | 6.4 | | | | |
| 29/05/12 | 1046-1059 | 27/Cloudy | Surface | 1.0 | 26.3 | 25.6 | 25.6 | 6.69 | 6.66 | 95.5 | 95.1 | 4.05 | 4.08 | 4.20 | 6.0 | 6.0 | 6.2 | | |
| | | | | | | 25.6 | | 6.63 | | 94.7 | | 4.10 | | | 6.0 | | | | |
| | | | Middle | 6.9 | 26.1 | 26.3 | 26.4 | 6.57 | 6.56 | 93.7 | 93.5 | 4.20 | 4.22 | | 4.23 | 4.22 | | 6.2 | 6.2 |
| | | | | | | 26.4 | | 6.54 | | 93.2 | | 4.23 | | | 6.2 | | | | |
| | | | Bottom | 12.8 | 25.9 | 27.1 | 27.1 | 6.36 | 6.35 | 90.4 | 90.2 | 4.31 | 4.32 | | 4.33 | 4.32 | | 6.2 | 6.3 |
| | | | | | | 27.0 | | 6.33 | | 90.0 | | 4.33 | | | 6.4 | | | | |
| 31/05/12 | 1407-1422 | 29/Fine | Surface | 1.0 | 27.1 | 26.4 | 26.4 | 6.19 | 6.21 | 89.8 | 90.0 | 4.20 | 4.22 | 4.31 | 6.2 | 6.2 | 6.3 | | |
| | | | | | | 26.4 | | 6.22 | | 90.2 | | 4.24 | | | 6.2 | | | | |
| | | | Middle | 6.6 | 27.0 | 26.7 | 26.7 | 6.08 | 6.10 | 88.2 | 88.5 | 4.30 | 4.32 | | 4.33 | 4.32 | | 6.4 | 6.3 |
| | | | | | | 26.6 | | 6.12 | | 88.8 | | 4.33 | | | 6.2 | | | | |
| | | | Bottom | 12.2 | 26.9 | 26.9 | 27.0 | 5.98 | 5.96 | 86.7 | 86.5 | 4.36 | 4.39 | | 4.41 | 4.39 | | 6.4 | 6.4 |
| | | | | | | 27.0 | | 5.94 | | 86.2 | | 4.41 | | | 6.4 | | | | |

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 |
| 03/05/12 | 1209-1223 | 28/Cloudy | Surface | 1.0 | 25.6 | 27.0 | 27.0 | 7.03 | 7.07 | 95.6 | 95.7 | 3.84 | 3.86 | 4.13 | 6.0 | 5.9 | 6.1 |
| | | | | | | 27.0 | | 7.10 | | 95.7 | | 3.88 | | | 5.8 | | |
| | | | Middle | 7.7 | 25.5 | 27.4 | 27.5 | 6.86 | 6.88 | 93.3 | 93.6 | 4.11 | 4.14 | | 6.0 | 6.1 | |
| | | | | | | 27.5 | | 6.90 | | 93.8 | | 4.17 | | | 6.2 | | |
| | | | Bottom | 14.4 | 25.5 | 27.5 | 27.6 | 6.72 | 6.74 | 91.4 | 91.6 | 4.38 | 4.40 | | 6.4 | 6.4 | |
| | | | | | | 27.6 | | 6.75 | | 91.8 | | 4.42 | | | 6.4 | | |
| 05/05/12 | 1246-1258 | 26/Cloudy | Surface | 1.0 | 26.4 | 25.8 | 25.8 | 7.29 | 7.26 | 101.9 | 101.7 | 3.62 | 3.64 | 3.78 | 5.5 | 5.6 | 5.7 |
| | | | | | | 25.8 | | 7.23 | | 101.4 | | 3.66 | | | 5.6 | | |
| | | | Middle | 5.9 | 26.2 | 26.2 | 26.3 | 7.08 | 7.10 | 99.0 | 99.3 | 3.90 | 3.92 | | 5.8 | 5.8 | |
| | | | | | | 26.3 | | 7.12 | | 99.6 | | 3.94 | | | 5.8 | | |
| | | | Bottom | 10.8 | 25.9 | 26.8 | 26.8 | 7.00 | 6.98 | 97.9 | 97.6 | 3.75 | 3.77 | | 5.6 | 5.7 | |
| | | | | | | 26.8 | | 6.95 | | 97.3 | | 3.78 | | | 5.8 | | |
| 08/05/12 | 1646-1659 | 30/Fine | Surface | 1.0 | 26.4 | 27.7 | 27.7 | 6.97 | 6.99 | 99.6 | 99.9 | 3.72 | 3.70 | 3.84 | 5.5 | 5.6 | 6.5 |
| | | | | | | 27.6 | | 7.01 | | 100.1 | | 3.67 | | | 5.6 | | |
| | | | Middle | 8.6 | 26.2 | 27.9 | 28.0 | 6.92 | 6.94 | 98.8 | 99.0 | 3.93 | 3.96 | | 8.0 | 8.0 | |
| | | | | | | 28.0 | | 6.95 | | 99.2 | | 3.99 | | | 8.0 | | |
| | | | Bottom | 16.2 | 26.0 | 28.0 | 28.0 | 6.74 | 6.76 | 96.3 | 96.6 | 3.87 | 3.85 | | 5.8 | 5.8 | |
| | | | | | | 28.0 | | 6.77 | | 96.9 | | 3.83 | | | 5.8 | | |
| 10/05/12 | 1711-1726 | 31/Fine | Surface | 1.0 | 26.1 | 27.2 | 27.2 | 6.64 | 6.66 | 92.9 | 93.1 | 3.59 | 3.62 | 3.86 | 5.5 | 5.6 | 5.8 |
| | | | | | | 27.1 | | 6.67 | | 93.3 | | 3.64 | | | 5.6 | | |
| | | | Middle | 7.1 | 26.0 | 27.5 | 27.6 | 6.58 | 6.56 | 92.2 | 91.9 | 3.87 | 3.85 | | 5.8 | 5.8 | |
| | | | | | | 27.6 | | 6.54 | | 91.5 | | 3.82 | | | 5.8 | | |
| | | | Bottom | 13.2 | 25.9 | 27.7 | 27.7 | 6.38 | 6.36 | 89.3 | 89.0 | 4.11 | 4.13 | | 6.0 | 6.0 | |
| | | | | | | 27.7 | | 6.33 | | 88.6 | | 4.14 | | | 6.0 | | |
| 12/05/12 | 1808-1819 | 28/Rainy | Surface | 1.0 | 26.4 | 26.2 | 26.2 | 7.18 | 7.17 | 102.1 | 101.9 | 3.74 | 3.71 | 4.23 | 5.5 | 5.6 | 6.2 |
| | | | | | | 26.1 | | 7.15 | | 101.7 | | 3.68 | | | 5.6 | | |
| | | | Middle | 8.4 | 25.9 | 26.9 | 26.9 | 6.77 | 6.76 | 96.2 | 96.0 | 4.52 | 4.50 | | 6.4 | 6.4 | |
| | | | | | | 26.9 | | 6.74 | | 95.7 | | 4.47 | | | 6.4 | | |
| | | | Bottom | 15.8 | 25.6 | 27.2 | 27.2 | 6.79 | 6.81 | 96.4 | 96.7 | 4.47 | 4.50 | | 6.4 | 6.5 | |
| | | | | | | 27.1 | | 6.83 | | 97.0 | | 4.52 | | | 6.6 | | |
| 15/05/12 | 1100-1115 | 28/Cloudy | Surface | 1.0 | 26.5 | 27.2 | 27.2 | 7.01 | 7.04 | 98.1 | 98.5 | 4.12 | 4.14 | 4.24 | 6.0 | 6.1 | 6.2 |
| | | | | | | 27.1 | | 7.06 | | 98.8 | | 4.16 | | | 6.2 | | |
| | | | Middle | 8.6 | 26.2 | 27.4 | 27.4 | 6.94 | 6.93 | 97.2 | 97.0 | 4.20 | 4.18 | | 6.2 | 6.2 | |
| | | | | | | 27.3 | | 6.91 | | 96.7 | | 4.15 | | | 6.2 | | |
| | | | Bottom | 16.2 | 26.1 | 27.8 | 27.8 | 6.70 | 6.71 | 93.8 | 93.9 | 4.39 | 4.40 | | 6.4 | 6.4 | |
| | | | | | | 27.8 | | 6.71 | | 93.9 | | 4.41 | | | 6.4 | | |
| 17/05/12 | 1226-1239 | 28/Cloudy | Surface | 1.0 | 26.7 | 26.3 | 26.3 | 7.35 | 7.34 | 105.9 | 105.7 | 3.72 | 3.74 | 3.90 | 5.5 | 5.6 | 5.8 |
| | | | | | | 26.2 | | 7.32 | | 105.5 | | 3.76 | | | 5.6 | | |
| | | | Middle | 8.4 | 26.4 | 27.0 | 27.0 | 7.04 | 7.02 | 101.4 | 101.1 | 3.89 | 3.91 | | 5.8 | 5.8 | |
| | | | | | | 26.9 | | 7.00 | | 100.8 | | 3.92 | | | 5.8 | | |
| | | | Bottom | 15.8 | 26.2 | 27.9 | 28.0 | 6.93 | 6.91 | 99.7 | 99.3 | 4.02 | 4.05 | | 6.0 | 6.0 | |
| | | | | | | 28.0 | | 6.88 | | 98.9 | | 4.07 | | | 6.0 | | |
| 19/05/12 | 1854-1910 | 31/Cloudy | Surface | 1.0 | 26.4 | 26.1 | 26.1 | 7.27 | 7.29 | 103.9 | 104.2 | 3.90 | 3.93 | 4.09 | 6.0 | 6.0 | 6.2 |
| | | | | | | 26.0 | | 7.30 | | 104.4 | | 3.95 | | | 6.0 | | |
| | | | Middle | 8.6 | 26.3 | 26.5 | 26.6 | 7.02 | 7.04 | 100.4 | 100.6 | 4.06 | 4.08 | | 6.2 | 6.2 | |
| | | | | | | 26.6 | | 7.05 | | 100.8 | | 4.10 | | | 6.2 | | |
| | | | Bottom | 16.2 | 26.2 | 27.1 | 27.1 | 6.82 | 6.84 | 97.5 | 97.8 | 4.25 | 4.27 | | 6.2 | 6.3 | |
| | | | | | | 27.1 | | 6.85 | | 98.0 | | 4.29 | | | 6.4 | | |
| 22/05/12 | 1532-1546 | 28/Fine | Surface | 1.0 | 26.5 | 25.3 | 25.3 | 6.61 | 6.63 | 94.3 | 94.5 | 3.66 | 3.69 | 3.89 | 5.5 | 5.6 | 5.8 |
| | | | | | | 25.2 | | 6.64 | | 94.7 | | 3.71 | | | 5.6 | | |
| | | | Middle | 8.4 | 26.3 | 26.1 | 26.1 | 6.51 | 6.49 | 92.7 | 92.4 | 3.99 | 3.96 | | 6.0 | 5.9 | |
| | | | | | | 26.0 | | 6.46 | | 92.0 | | 3.92 | | | 5.8 | | |
| | | | Bottom | 15.8 | 26.1 | 27.1 | 27.1 | 6.25 | 6.28 | 89.2 | 89.6 | 3.98 | 4.02 | | 6.0 | 6.0 | |
| | | | | | | 27.1 | | 6.30 | | 89.9 | | 4.05 | | | 6.0 | | |
| 24/05/12 | 1628-1643 | 27/Cloudy | Surface | 1.0 | 26.3 | 25.7 | 25.8 | 6.48 | 6.50 | 92.0 | 92.3 | 4.03 | 4.01 | 4.19 | 6.0 | 5.9 | 6.1 |
| | | | | | | 25.8 | | 6.52 | | 92.5 | | 3.98 | | | 5.8 | | |
| | | | Middle | 8.2 | 26.2 | 26.6 | 26.6 | 6.31 | 6.32 | 89.6 | 89.7 | 4.17 | 4.20 | | 6.2 | 6.2 | |
| | | | | | | 26.6 | | 6.33 | | 89.8 | | 4.22 | | | 6.2 | | |
| | | | Bottom | 15.4 | 26.2 | 27.1 | 27.2 | 6.21 | 6.23 | 88.1 | 88.4 | 4.34 | 4.36 | | 6.2 | 6.3 | |
| | | | | | | 27.2 | | 6.24 | | 88.6 | | 4.38 | | | 6.4 | | |
| 26/05/12 | 1627-1640 | 26/Cloudy | Surface | 1.0 | 26.5 | 26.6 | 26.6 | 6.27 | 6.25 | 89.2 | 88.9 | 3.98 | 4.00 | 4.14 | 6.0 | 6.0 | 6.2 |
| | | | | | | 26.6 | | 6.22 | | 88.6 | | 4.01 | | | 6.0 | | |
| | | | Middle | 6.1 | 26.3 | 27.0 | 27.1 | 6.12 | 6.10 | 87.1 | 86.9 | 4.15 | 4.17 | | 6.2 | 6.2 | |
| | | | | | | 27.1 | | 6.08 | | 86.6 | | 4.19 | | | 6.2 | | |
| | | | Bottom | 11.6 | 26.2 | 27.2 | 27.3 | 5.87 | 5.85 | 83.5 | 83.2 | 4.28 | 4.27 | | 6.4 | 6.4 | |
| | | | | | | 27.3 | | 5.82 | | 82.8 | | 4.25 | | | 6.4 | | |
| 29/05/12 | 1900-1914 | 26/Cloudy | Surface | 1.0 | 26.3 | 25.7 | 25.7 | 6.27 | 6.30 | 89.5 | 90.0 | 4.15 | 4.14 | 4.26 | 6.0 | 6.1 | 6.3 |
| | | | | | | 25.6 | | 6.33 | | 90.4 | | 4.12 | | | 6.2 | | |
| | | | Middle | 8.1 | 26.0 | 26.4 | 26.4 | 6.19 | 6.22 | 88.4 | 88.8 | 4.29 | 4.27 | | 6.4 | 6.3 | |
| | | | | | | 26.3 | | 6.25 | | 89.2 | | 4.25 | | | 6.2 | | |
| | | | Bottom | 16.2 | 25.7 | 27.2 | 27.2 | 5.98 | 6.02 | 85.2 | 85.8 | 4.38 | 4.36 | | 6.4 | 6.4 | |
| | | | | | | 27.2 | | 6.06 | | 86.4 | | 4.34 | | | 6.4 | | |
| 31/05/12 | 1121-1135 | 27/Cloudy | Surface | 1.0 | 27.0 | 26.6 | 26.6 | 6.13 | 6.14 | 88.3 | 88.4 | 3.68 | 3.69 | 4.03 | 5.5 | 5.6 | 6.0 |
| | | | | | | 26.5 | | 6.14 | | 88.4 | | 3.70 | | | 5.6 | | |
| | | | Middle | 6.4 | 27.0 | 27.1 | 27.1 | 6.02 | 6.05 | 86.7 | 87.1 | 4.11 | 4.10 | | 6.2 | 6.1 | |
| | | | | | | 27.1 | | 6.07 | | 87.5 | | 4.08 | | | 6.0 | | |
| | | | Bottom | 11.8 | 26.9 | 27.2 | 27.2 | 5.92 | 5.91 | 85.2 | 85.1 | 4.31 | 4.30 | | 6.4 | 6.3 | |
| | | | | | | 27.2 | | 5.90 | | 84.9 | | 4.28 | | | 6.2 | | |

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 |
| 03/05/12 | 0948-1003 | 28/Cloudy | Surface | 1.0 | 25.7 | 26.9 | 27.0 | 6.73 | 6.75 | 91.5 | 91.8 | 4.34 | 4.37 | 4.61 | 6.5 | 6.5 | 6.6 |
| | | | | | | 27.0 | | 6.77 | | 92.0 | | 4.40 | | | 6.4 | | |
| | | | Middle | 8.4 | 25.5 | 27.4 | 27.4 | 6.54 | 6.56 | 88.9 | 89.1 | 4.58 | 4.63 | | 6.6 | 6.6 | |
| | | | | | | 27.3 | | 6.57 | | 89.3 | | 4.63 | | | 6.6 | | |
| | | | Bottom | 15.8 | 25.5 | 27.6 | 27.7 | 6.39 | 6.43 | 86.9 | 87.4 | 4.86 | 4.85 | | 6.8 | 6.8 | |
| | | | | | | 27.7 | | 6.46 | | 87.8 | | 4.85 | | | 6.8 | | |
| 05/05/12 | 1035-1048 | 25/Cloudy | Surface | 1.0 | 26.3 | 25.7 | 25.8 | 7.36 | 7.35 | 102.9 | 102.7 | 3.37 | 3.39 | 3.56 | 5.0 | 5.2 | 5.4 |
| | | | | | | 25.8 | | 7.33 | | 102.5 | | 3.41 | | | 5.4 | | |
| | | | Middle | 8.6 | 26.1 | 26.4 | 26.4 | 7.18 | 7.20 | 100.4 | 100.7 | 3.54 | 3.58 | | 5.4 | 5.5 | |
| | | | | | | 26.4 | | 7.22 | | 100.9 | | 3.58 | | | 5.6 | | |
| | | | Bottom | 16.2 | 25.8 | 27.0 | 27.0 | 7.09 | 7.07 | 99.3 | 98.9 | 3.72 | 3.76 | | 5.6 | 5.6 | |
| | | | | | | 27.0 | | 7.04 | | 98.5 | | 3.76 | | | 5.6 | | |
| 08/05/12 | 1418-1432 | 30/Fine | Surface | 1.0 | 26.4 | 27.6 | 27.7 | 7.08 | 7.07 | 101.0 | 100.7 | 3.91 | 3.88 | 3.88 | 6.0 | 5.9 | 5.8 |
| | | | | | | 27.8 | | 7.05 | | 100.4 | | 3.84 | | | 5.8 | | |
| | | | Middle | 8.5 | 26.0 | 27.7 | 27.8 | 6.87 | 6.85 | 98.1 | 97.7 | 3.76 | 3.81 | | 5.6 | 5.6 | |
| | | | | | | 27.8 | | 6.83 | | 97.2 | | 3.81 | | | 5.6 | | |
| | | | Bottom | 15.9 | 25.8 | 28.0 | 28.0 | 6.77 | 6.76 | 96.6 | 96.4 | 3.96 | 4.01 | | 5.8 | 5.9 | |
| | | | | | | 28.0 | | 6.74 | | 96.1 | | 4.01 | | | 6.0 | | |
| 10/05/12 | 1446-1502 | 32/Fine | Surface | 1.0 | 26.1 | 27.6 | 27.6 | 6.63 | 6.61 | 92.7 | 92.5 | 4.09 | 4.11 | 4.28 | 6.0 | 6.1 | 6.3 |
| | | | | | | 27.5 | | 6.59 | | 92.2 | | 4.13 | | | 6.2 | | |
| | | | Middle | 8.6 | 26.0 | 27.9 | 27.9 | 6.47 | 6.45 | 90.5 | 90.2 | 4.23 | 4.26 | | 6.2 | 6.2 | |
| | | | | | | 27.8 | | 6.42 | | 89.8 | | 4.26 | | | 6.2 | | |
| | | | Bottom | 16.2 | 25.9 | 28.0 | 28.1 | 6.28 | 6.26 | 87.9 | 87.6 | 4.51 | 4.46 | | 6.6 | 6.5 | |
| | | | | | | 28.1 | | 6.23 | | 87.2 | | 4.46 | | | 6.4 | | |
| 12/05/12 | 1541-1553 | 28/Rainy | Surface | 1.0 | 26.4 | 26.0 | 26.1 | 7.15 | 7.13 | 101.8 | 101.5 | 3.61 | 3.68 | 3.96 | 5.5 | 5.6 | 5.9 |
| | | | | | | 26.1 | | 7.11 | | 101.2 | | 3.74 | | | 5.6 | | |
| | | | Middle | 8.3 | 25.9 | 26.7 | 26.7 | 6.87 | 6.86 | 97.6 | 97.4 | 3.98 | 3.90 | | 5.8 | 5.8 | |
| | | | | | | 26.7 | | 6.84 | | 97.1 | | 3.90 | | | 5.8 | | |
| | | | Bottom | 15.6 | 25.8 | 27.0 | 27.0 | 6.90 | 6.89 | 98.0 | 97.8 | 4.30 | 4.25 | | 6.2 | 6.2 | |
| | | | | | | 26.9 | | 6.87 | | 97.6 | | 4.25 | | | 6.2 | | |
| 15/05/12 | 0844-0859 | 27/Drizzle | Surface | 1.0 | 26.5 | 27.1 | 27.2 | 6.92 | 6.93 | 96.9 | 97.1 | 3.82 | 3.85 | 4.08 | 6.0 | 5.9 | 6.1 |
| | | | | | | 27.2 | | 6.94 | | 97.2 | | 3.88 | | | 5.8 | | |
| | | | Middle | 8.5 | 26.4 | 27.4 | 27.5 | 6.72 | 6.75 | 94.1 | 94.5 | 4.02 | 4.12 | | 6.0 | 6.0 | |
| | | | | | | 27.5 | | 6.77 | | 94.8 | | 4.12 | | | 6.0 | | |
| | | | Bottom | 16.0 | 26.1 | 27.8 | 27.9 | 6.59 | 6.56 | 92.3 | 91.8 | 4.32 | 4.33 | | 6.2 | 6.3 | |
| | | | | | | 27.9 | | 6.52 | | 91.3 | | 4.33 | | | 6.4 | | |
| 17/05/12 | 1005-1018 | 28/Cloudy | Surface | 1.0 | 26.7 | 26.2 | 26.2 | 7.33 | 7.35 | 105.6 | 105.9 | 3.42 | 3.40 | 3.60 | 5.5 | 5.5 | 5.6 |
| | | | | | | 26.2 | | 7.37 | | 106.1 | | 3.37 | | | 5.4 | | |
| | | | Middle | 8.6 | 26.4 | 26.9 | 27.0 | 7.23 | 7.22 | 104.1 | 103.9 | 3.51 | 3.57 | | 5.4 | 5.5 | |
| | | | | | | 27.0 | | 7.20 | | 103.7 | | 3.57 | | | 5.6 | | |
| | | | Bottom | 16.2 | 26.2 | 28.0 | 28.0 | 7.01 | 7.03 | 100.8 | 101.0 | 3.84 | 3.86 | | 5.8 | 5.8 | |
| | | | | | | 27.9 | | 7.04 | | 101.2 | | 3.86 | | | 5.8 | | |
| 19/05/12 | 1635-1649 | 31/Drizzle | Surface | 1.0 | 26.5 | 26.1 | 26.1 | 7.25 | 7.28 | 103.7 | 104.1 | 4.01 | 3.99 | 4.12 | 6.0 | 5.9 | 6.1 |
| | | | | | | 26.1 | | 7.30 | | 104.4 | | 3.97 | | | 5.8 | | |
| | | | Middle | 8.5 | 26.4 | 26.2 | 26.4 | 7.18 | 7.16 | 102.7 | 102.4 | 4.11 | 4.15 | | 6.0 | 6.1 | |
| | | | | | | 26.6 | | 7.14 | | 102.1 | | 4.15 | | | 6.2 | | |
| | | | Bottom | 16.0 | 26.3 | 27.1 | 27.1 | 7.02 | 7.00 | 100.4 | 100.1 | 4.21 | 4.24 | | 6.2 | 6.3 | |
| | | | | | | 27.1 | | 6.97 | | 99.7 | | 4.24 | | | 6.4 | | |
| 22/05/12 | 1309-1322 | 28/Fine | Surface | 1.0 | 26.4 | 25.2 | 25.2 | 6.63 | 6.66 | 94.4 | 94.9 | 3.30 | 3.34 | 3.58 | 5.0 | 5.1 | 5.4 |
| | | | | | | 25.1 | | 6.69 | | 95.3 | | 3.37 | | | 5.2 | | |
| | | | Middle | 8.5 | 26.3 | 26.0 | 26.1 | 6.54 | 6.56 | 93.2 | 93.5 | 3.59 | 3.53 | | 5.4 | 5.4 | |
| | | | | | | 26.1 | | 6.58 | | 93.8 | | 3.53 | | | 5.4 | | |
| | | | Bottom | 16.0 | 26.2 | 26.9 | 27.0 | 6.35 | 6.38 | 90.4 | 91.0 | 3.81 | 3.87 | | 5.6 | 5.7 | |
| | | | | | | 27.0 | | 6.41 | | 91.6 | | 3.87 | | | 5.8 | | |
| 24/05/12 | 1410-1425 | 27/Cloudy | Surface | 1.0 | 26.3 | 25.8 | 25.9 | 6.64 | 6.62 | 94.2 | 94.0 | 3.87 | 3.90 | 4.14 | 6.0 | 5.9 | 6.1 |
| | | | | | | 25.9 | | 6.60 | | 93.7 | | 3.93 | | | 5.8 | | |
| | | | Middle | 8.4 | 26.2 | 26.5 | 26.6 | 6.38 | 6.40 | 90.5 | 90.8 | 4.14 | 4.18 | | 6.0 | 6.1 | |
| | | | | | | 26.6 | | 6.41 | | 91.0 | | 4.18 | | | 6.2 | | |
| | | | Bottom | 15.8 | 26.1 | 27.1 | 27.1 | 6.22 | 6.24 | 88.3 | 88.5 | 4.32 | 4.37 | | 6.2 | 6.3 | |
| | | | | | | 27.1 | | 6.25 | | 88.7 | | 4.37 | | | 6.4 | | |
| 26/05/12 | 1404-1419 | 26/Cloudy | Surface | 1.0 | 26.4 | 26.6 | 26.6 | 6.11 | 6.09 | 87.1 | 86.7 | 4.36 | 4.34 | 4.54 | 6.5 | 6.5 | 6.6 |
| | | | | | | 26.5 | | 6.06 | | 86.3 | | 4.31 | | | 6.4 | | |
| | | | Middle | 8.7 | 26.4 | 27.0 | 27.0 | 5.93 | 5.92 | 84.5 | 84.3 | 4.52 | 4.55 | | 6.6 | 6.6 | |
| | | | | | | 26.9 | | 5.90 | | 84.1 | | 4.55 | | | 6.6 | | |
| | | | Bottom | 16.4 | 26.3 | 27.3 | 27.3 | 5.73 | 5.75 | 81.6 | 81.9 | 4.73 | 4.77 | | 6.8 | 6.8 | |
| | | | | | | 27.2 | | 5.77 | | 82.1 | | 4.77 | | | 6.8 | | |
| 29/05/12 | 1638-1650 | 27/Cloudy | Surface | 1.0 | 26.3 | 25.6 | 25.6 | 6.44 | 6.48 | 92.0 | 92.5 | 4.14 | 4.17 | 4.35 | 6.5 | 6.4 | 6.4 |
| | | | | | | 25.5 | | 6.51 | | 92.9 | | 4.20 | | | 6.2 | | |
| | | | Middle | 8.5 | 26.0 | 26.2 | 26.2 | 6.19 | 6.17 | 88.4 | 88.1 | 4.39 | 4.35 | | 6.4 | 6.3 | |
| | | | | | | 26.2 | | 6.15 | | 87.8 | | 4.35 | | | 6.2 | | |
| | | | Bottom | 16.0 | 25.7 | 27.1 | 27.1 | 5.99 | 6.02 | 85.5 | 85.9 | 4.52 | 4.47 | | 6.6 | 6.5 | |
| | | | | | | 27.0 | | 6.04 | | 86.3 | | 4.47 | | | 6.4 | | |
| 31/05/12 | 0858-1930 | 27/Cloudy | Surface | 1.0 | 26.9 | 26.4 | 26.4 | 6.09 | 6.10 | 87.7 | 87.8 | 4.47 | 4.45 | 4.62 | 6.5 | 6.5 | 6.6 |
| | | | | | | 26.4 | | 6.10 | | 87.8 | | 4.42 | | | 6.4 | | |
| | | | Middle | 8.8 | 26.9 | 26.9 | 26.9 | 5.81 | 5.83 | 83.7 | 83.9 | 4.59 | 4.57 | | 6.6 | 6.6 | |
| | | | | | | 26.9 | | 5.84 | | 84.1 | | 4.57 | | | 6.6 | | |
| | | | Bottom | 16.6 | 26.9 | 27.1 | 27.2 | 5.80 | 5.80 | 83.5 | 83.5 | 4.82 | 4.84 | | 6.8 | 6.8 | |
| | | | | | | 27.2 | | 5.79 | | 83.4 | | 4.84 | | | 6.8 | | |

Mid-Ebb Tide

Monitoring Station : R6

| Date | Sampling Duration | Ambient Temp (°C) / Weather Condition | Monitoring Depth (m) | | Temp (°C) | Salinity (ppt) | | Dissolved Oxygen (mg/L) | | Dissolved Oxygen Saturation (%) | | Turbidity (NTU) | | | Suspended Solids (mg/L) | | | |
|----------|-------------------|---------------------------------------|----------------------|------|-----------|----------------|---------|-------------------------|---------|---------------------------------|---------|-----------------|---------|---------------|-------------------------|---------|---------------|-----|
| | | | | | | Value | Average | Value | Average | Value | Average | Value | Average | Depth-average | Value | Average | Depth-average | |
| 03/05/12 | 1047-1102 | 28/Cloudy | Surface | 1.0 | 25.7 | 27.0 | 27.0 | 6.93 | 6.96 | 94.2 | 94.7 | 3.93 | 3.96 | 4.21 | 5.8 | 5.9 | 6.2 | |
| | | | | | | 26.9 | | 6.99 | | 95.1 | | 3.98 | | | 6.0 | | | |
| | | | Middle | 7.9 | 25.6 | 27.1 | 27.2 | 6.74 | 6.73 | 91.6 | 91.5 | 4.24 | 4.27 | | 4.24 | 6.2 | | 6.2 |
| | | | | | | 27.2 | | 6.71 | | 91.3 | | 4.29 | | | 6.2 | | | |
| | | | Bottom | 14.8 | 25.6 | 27.4 | 27.5 | 6.55 | 6.57 | 89.1 | 88.3 | 4.40 | 4.44 | | 4.40 | 6.4 | | 6.4 |
| | | | | | | 27.5 | | 6.58 | | 87.4 | | 4.44 | | | 6.4 | | | |
| 05/05/12 | 1132-1146 | 25/Cloudy | Surface | 1.0 | 26.3 | 25.8 | 25.8 | 7.33 | 7.35 | 102.5 | 102.8 | 3.52 | 3.54 | 3.83 | 5.4 | 5.4 | 5.7 | |
| | | | | | | 25.8 | | 7.36 | | 103.0 | | 3.55 | | | 5.4 | | | |
| | | | Middle | 8.3 | 26.1 | 26.5 | 26.5 | 7.17 | 7.15 | 100.2 | 100.0 | 3.86 | 3.89 | | 3.86 | 5.8 | | 5.8 |
| | | | | | | 26.4 | | 7.13 | | 99.7 | | 3.91 | | | 5.8 | | | |
| | | | Bottom | 15.6 | 25.8 | 27.1 | 27.2 | 7.24 | 7.26 | 101.3 | 101.6 | 4.04 | 4.06 | | 4.04 | 6.0 | | 6.0 |
| | | | | | | 27.2 | | 7.27 | | 101.9 | | 4.07 | | | 6.0 | | | |
| 08/05/12 | 1522-1536 | 30/Fine | Surface | 1.0 | 26.4 | 27.3 | 27.4 | 7.17 | 7.15 | 102.4 | 102.1 | 3.81 | 3.85 | 4.03 | 5.8 | 5.8 | 6.0 | |
| | | | | | | 27.4 | | 7.13 | | 101.8 | | 3.89 | | | 5.8 | | | |
| | | | Middle | 8.1 | 26.2 | 27.9 | 27.9 | 6.93 | 6.95 | 99.2 | 99.5 | 4.18 | 4.14 | | 4.18 | 6.2 | | 6.1 |
| | | | | | | 27.8 | | 6.97 | | 99.8 | | 4.10 | | | 6.0 | | | |
| | | | Bottom | 15.2 | 26.0 | 27.8 | 27.8 | 6.89 | 6.91 | 98.7 | 99.0 | 4.07 | 4.10 | | 4.07 | 6.0 | | 6.1 |
| | | | | | | 27.8 | | 6.93 | | 99.3 | | 4.13 | | | 6.2 | | | |
| 10/05/12 | 1549-1605 | 32/Fine | Surface | 1.0 | 26.2 | 27.2 | 27.3 | 6.44 | 6.42 | 90.1 | 89.8 | 4.07 | 4.05 | 4.24 | 6.0 | 6.0 | 6.2 | |
| | | | | | | 27.3 | | 6.40 | | 89.5 | | 4.03 | | | 6.0 | | | |
| | | | Middle | 8.1 | 26.1 | 27.7 | 27.7 | 6.32 | 6.30 | 88.3 | 88.0 | 4.22 | 4.24 | | 4.22 | 6.2 | | 6.2 |
| | | | | | | 27.7 | | 6.27 | | 87.7 | | 4.25 | | | 6.2 | | | |
| | | | Bottom | 15.2 | 25.9 | 27.9 | 28.0 | 6.12 | 6.14 | 85.6 | 85.9 | 4.46 | 4.44 | | 4.46 | 6.4 | | 6.4 |
| | | | | | | 28.0 | | 6.16 | | 86.2 | | 4.41 | | | 6.4 | | | |
| 12/05/12 | 1642-1655 | 28/Rainy | Surface | 1.0 | 26.4 | 26.0 | 26.0 | 7.19 | 7.18 | 102.3 | 102.1 | 4.24 | 4.28 | 4.18 | 6.2 | 6.2 | 6.1 | |
| | | | | | | 25.9 | | 7.16 | | 101.9 | | 4.31 | | | 6.2 | | | |
| | | | Middle | 8.1 | 26.0 | 26.9 | 26.9 | 6.72 | 6.71 | 95.4 | 95.2 | 4.09 | 4.12 | | 4.09 | 6.0 | | 6.0 |
| | | | | | | 26.9 | | 6.69 | | 94.9 | | 4.14 | | | 6.0 | | | |
| | | | Bottom | 15.2 | 25.8 | 27.0 | 27.1 | 6.69 | 6.67 | 94.9 | 94.6 | 4.18 | 4.14 | | 4.18 | 6.2 | | 6.1 |
| | | | | | | 27.1 | | 6.64 | | 94.2 | | 4.10 | | | 6.0 | | | |
| 15/05/12 | 0940-0955 | 27/Drizzle | Surface | 1.0 | 26.5 | 27.2 | 27.2 | 6.78 | 6.80 | 94.9 | 95.2 | 3.68 | 3.70 | 3.92 | 5.6 | 5.6 | 5.8 | |
| | | | | | | 27.2 | | 6.82 | | 95.5 | | 3.72 | | | 5.6 | | | |
| | | | Middle | 8.3 | 26.4 | 27.4 | 27.4 | 6.53 | 6.53 | 91.4 | 91.4 | 3.96 | 3.97 | | 3.96 | 5.8 | | 5.8 |
| | | | | | | 27.4 | | 6.52 | | 91.3 | | 3.97 | | | 5.8 | | | |
| | | | Bottom | 15.6 | 25.9 | 27.8 | 27.8 | 6.40 | 6.39 | 89.6 | 89.4 | 4.11 | 4.10 | | 4.11 | 6.0 | | 6.0 |
| | | | | | | 27.8 | | 6.37 | | 89.2 | | 4.09 | | | 6.0 | | | |
| 17/05/12 | 1103-1115 | 28/Cloudy | Surface | 1.0 | 26.7 | 26.2 | 26.3 | 7.35 | 7.37 | 105.8 | 106.1 | 3.54 | 3.56 | 3.65 | 5.4 | 5.5 | 5.6 | |
| | | | | | | 26.3 | | 7.38 | | 106.3 | | 3.58 | | | 5.6 | | | |
| | | | Middle | 8.3 | 26.4 | 26.8 | 26.8 | 7.24 | 7.23 | 104.2 | 104.0 | 3.62 | 3.64 | | 3.62 | 5.6 | | 5.6 |
| | | | | | | 26.8 | | 7.21 | | 103.7 | | 3.66 | | | 5.6 | | | |
| | | | Bottom | 15.6 | 26.1 | 28.0 | 28.0 | 7.13 | 7.11 | 102.6 | 102.3 | 3.75 | 3.76 | | 3.75 | 5.8 | | 5.8 |
| | | | | | | 27.9 | | 7.09 | | 102.0 | | 3.77 | | | 5.8 | | | |
| 19/05/12 | 1735-1748 | 31/Drizzle | Surface | 1.0 | 26.5 | 26.1 | 26.1 | 7.20 | 7.22 | 103.0 | 103.3 | 4.00 | 4.03 | 4.18 | 6.0 | 6.0 | 6.2 | |
| | | | | | | 26.1 | | 7.24 | | 103.5 | | 4.05 | | | 6.0 | | | |
| | | | Middle | 8.5 | 26.4 | 26.4 | 26.5 | 7.05 | 7.07 | 100.8 | 101.1 | 4.14 | 4.18 | | 4.14 | 6.2 | | 6.2 |
| | | | | | | 26.5 | | 7.09 | | 101.4 | | 4.21 | | | 6.2 | | | |
| | | | Bottom | 16.0 | 26.4 | 27.0 | 27.0 | 6.94 | 6.93 | 99.2 | 99.0 | 4.32 | 4.35 | | 4.32 | 6.4 | | 6.4 |
| | | | | | | 27.0 | | 6.91 | | 98.8 | | 4.37 | | | 6.4 | | | |
| 22/05/12 | 1407-1420 | 28/Fine | Surface | 1.0 | 26.4 | 25.3 | 25.3 | 6.82 | 6.79 | 97.2 | 96.8 | 3.58 | 3.61 | 3.69 | 5.6 | 5.6 | 5.7 | |
| | | | | | | 25.2 | | 6.76 | | 96.4 | | 3.63 | | | 5.6 | | | |
| | | | Middle | 8.3 | 26.4 | 25.9 | 26.0 | 6.58 | 6.55 | 93.9 | 93.4 | 3.72 | 3.70 | | 3.72 | 5.8 | | 5.7 |
| | | | | | | 26.0 | | 6.52 | | 92.8 | | 3.67 | | | 5.6 | | | |
| | | | Bottom | 15.5 | 26.2 | 27.1 | 27.1 | 6.44 | 6.47 | 91.8 | 92.3 | 3.80 | 3.78 | | 3.80 | 5.8 | | 5.7 |
| | | | | | | 27.0 | | 6.50 | | 92.7 | | 3.75 | | | 5.6 | | | |
| 24/05/12 | 1511-1525 | 27/Cloudy | Surface | 1.0 | 26.3 | 25.8 | 25.8 | 6.68 | 6.69 | 94.8 | 95.0 | 3.74 | 3.77 | 3.93 | 5.6 | 5.6 | 5.8 | |
| | | | | | | 25.8 | | 6.70 | | 95.1 | | 3.79 | | | 5.6 | | | |
| | | | Middle | 7.9 | 26.2 | 26.5 | 26.5 | 6.57 | 6.55 | 93.2 | 92.9 | 3.88 | 3.91 | | 3.88 | 5.8 | | 5.8 |
| | | | | | | 26.5 | | 6.52 | | 92.5 | | 3.93 | | | 5.8 | | | |
| | | | Bottom | 14.8 | 26.1 | 27.0 | 27.0 | 6.36 | 6.38 | 90.3 | 90.5 | 4.09 | 4.12 | | 4.09 | 6.0 | | 6.0 |
| | | | | | | 27.0 | | 6.39 | | 90.7 | | 4.15 | | | 6.0 | | | |
| 26/05/12 | 1505-1519 | 26/Cloudy | Surface | 1.0 | 26.5 | 26.6 | 26.6 | 6.14 | 6.12 | 87.4 | 87.1 | 4.38 | 4.37 | 4.39 | 6.4 | 6.4 | 6.4 | |
| | | | | | | 26.5 | | 6.10 | | 86.8 | | 4.35 | | | 6.4 | | | |
| | | | Middle | 8.1 | 26.4 | 26.8 | 26.9 | 6.02 | 6.04 | 85.7 | 85.9 | 4.28 | 4.30 | | 4.28 | 6.2 | | 6.2 |
| | | | | | | 26.9 | | 6.05 | | 86.1 | | 4.31 | | | 6.2 | | | |
| | | | Bottom | 15.2 | 26.3 | 27.3 | 27.4 | 5.84 | 5.82 | 83.1 | 82.9 | 4.47 | 4.50 | | 4.47 | 6.4 | | 6.5 |
| | | | | | | 27.4 | | 5.80 | | 82.6 | | 4.53 | | | 6.6 | | | |
| 29/05/12 | 1737-1751 | 27/Cloudy | Surface | 1.0 | 26.2 | 25.6 | 25.6 | 6.28 | 6.30 | 89.7 | 90.1 | 4.10 | 4.13 | 4.25 | 6.0 | 6.1 | 6.2 | |
| | | | | | | 25.6 | | 6.32 | | 90.4 | | 4.16 | | | 6.2 | | | |
| | | | Middle | 8.15 | 26.1 | 26.4 | 26.4 | 6.26 | 6.24 | 89.3 | 89.1 | 4.22 | 4.26 | | 4.22 | 6.2 | | 6.2 |
| | | | | | | 26.3 | | 6.22 | | 88.8 | | 4.29 | | | 6.2 | | | |
| | | | Bottom | 15.3 | 25.7 | 27.1 | 27.2 | 6.09 | 6.07 | 86.9 | 86.7 | 4.38 | 4.36 | | 4.38 | 6.4 | | 6.4 |
| | | | | | | 27.2 | | 6.05 | | 86.4 | | 4.33 | | | 6.4 | | | |
| 31/05/12 | 0959-1014 | 27/Cloudy | Surface | 1.0 | 27.0 | 26.6 | 26.6 | 6.21 | 6.23 | 89.4 | 89.7 | 4.34 | 4.33 | 4.54 | 6.2 | 6.2 | 6.4 | |
| | | | | | | 26.6 | | 6.24 | | 89.9 | | 4.31 | | | 6.2 | | | |
| | | | Middle | 8.2 | 26.9 | 26.8 | 26.8 | 6.08 | 6.10 | 87.6 | 87.9 | 4.51 | 4.55 | | 4.51 | 6.4 | | 6.4 |
| | | | | | | 26.8 | | 6.12 | | 88.1 | | 4.58 | | | 6.4 | | | |
| | | | Bottom | 15.4 | 26.8 | 27.3 | 27.3 | 5.88 | 5.86 | 84.7 | 84.3 | 4.72 | 4.76 | | 4.72 | 6.6 | | 6.7 |
| | | | | | | 27.2 | | 5.83 | | 83.9 | | 4.79 | | | 6.8 | | | |

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 | |
| 03/05/12 | 1107-1122 | 28/Cloudy | Surface | 1.0 | 25.7 | 26.8 | 26.9 | 7.01 | 7.03 | 95.3 | 95.6 | 3.86 | 3.89 | 4.20 | 5.8 | 5.8 | 6.1 | |
| | | | | | | 26.9 | | 7.05 | | 95.9 | | 3.91 | | | 5.8 | | | |
| | | | Middle | 8.7 | 25.6 | 27.3 | 27.4 | 6.88 | 6.86 | 93.5 | 93.3 | 4.17 | 4.22 | | 4.20 | | | 6.0 |
| | | | | | | 27.4 | | 6.84 | | 93.0 | | 4.22 | | | 6.2 | | | |
| | | | Bottom | 16.4 | 25.6 | 27.5 | 27.5 | 6.67 | 6.69 | 90.7 | 91.0 | 4.49 | 4.54 | | 4.52 | | | 6.4 |
| | | | | | | 27.5 | | 6.71 | | 91.2 | | 4.54 | | | 6.4 | | | |
| 05/05/12 | 1153-1205 | 25/Cloudy | Surface | 1.0 | 26.4 | 25.8 | 25.9 | 7.23 | 7.24 | 101.2 | 101.3 | 3.65 | 3.67 | 3.66 | 5.6 | 5.6 | 5.6 | |
| | | | | | | 25.9 | | 7.25 | | 101.4 | | 3.69 | | | 5.6 | | | |
| | | | Middle | 8.6 | 26.1 | 26.5 | 26.5 | 7.35 | 7.33 | 102.9 | 102.7 | 3.44 | 3.40 | | 3.42 | | | 5.4 |
| | | | | | | 26.5 | | 7.31 | | 102.5 | | 3.40 | | | 5.4 | | | |
| | | | Bottom | 16.2 | 25.8 | 27.2 | 27.2 | 7.16 | 7.15 | 100.1 | 100.0 | 3.85 | 3.90 | | 3.88 | | | 5.8 |
| | | | | | | 27.2 | | 7.13 | | 99.9 | | 3.90 | | | 5.8 | | | |
| 08/05/12 | 1545-1557 | 30/Fine | Surface | 1.0 | 26.4 | 27.6 | 27.7 | 7.10 | 7.09 | 101.9 | 101.7 | 4.06 | 4.03 | 4.13 | 6.0 | 6.0 | 6.1 | |
| | | | | | | 27.7 | | 7.07 | | 101.5 | | 4.00 | | | 6.0 | | | |
| | | | Middle | 9.2 | 25.9 | 27.8 | 27.8 | 6.89 | 6.91 | 98.8 | 99.0 | 4.26 | 4.31 | | 4.29 | | | 6.2 |
| | | | | | | 27.8 | | 6.93 | | 99.2 | | 4.31 | | | 6.2 | | | |
| | | | Bottom | 17.4 | 25.9 | 28.2 | 28.2 | 6.78 | 6.80 | 97.1 | 97.5 | 4.04 | 4.11 | | 4.08 | | | 6.0 |
| | | | | | | 28.1 | | 6.82 | | 97.8 | | 4.11 | | | 6.0 | | | |
| 10/05/12 | 1611-1626 | 32/Fine | Surface | 1.0 | 26.2 | 27.4 | 27.4 | 6.53 | 6.55 | 91.3 | 91.5 | 3.95 | 3.97 | 4.17 | 5.8 | 5.9 | 6.1 | |
| | | | | | | 27.4 | | 6.56 | | 91.7 | | 3.99 | | | 6.0 | | | |
| | | | Middle | 9.0 | 26.1 | 27.7 | 27.8 | 6.38 | 6.40 | 89.3 | 89.6 | 4.12 | 4.09 | | 4.11 | | | 6.2 |
| | | | | | | 27.8 | | 6.42 | | 89.8 | | 4.09 | | | 6.0 | | | |
| | | | Bottom | 17.0 | 25.8 | 28.1 | 28.2 | 6.22 | 6.20 | 87.0 | 86.7 | 4.46 | 4.43 | | 4.45 | | | 6.4 |
| | | | | | | 28.2 | | 6.17 | | 86.3 | | 4.43 | | | 6.4 | | | |
| 12/05/12 | 1705-1718 | 28/Rainy | Surface | 1.0 | 26.4 | 26.0 | 26.0 | 7.21 | 7.20 | 102.6 | 102.4 | 4.15 | 4.13 | 4.18 | 6.2 | 6.1 | 6.1 | |
| | | | | | | 26.0 | | 7.18 | | 102.2 | | 4.10 | | | 6.0 | | | |
| | | | Middle | 8.8 | 26.0 | 26.9 | 26.9 | 6.83 | 6.81 | 96.9 | 96.7 | 3.97 | 4.04 | | 4.01 | | | 5.8 |
| | | | | | | 26.8 | | 6.79 | | 96.4 | | 4.04 | | | 6.0 | | | |
| | | | Bottom | 16.6 | 25.8 | 27.1 | 27.1 | 6.85 | 6.87 | 97.2 | 97.5 | 4.44 | 4.39 | | 4.42 | | | 6.4 |
| | | | | | | 27.1 | | 6.89 | | 97.8 | | 4.39 | | | 6.4 | | | |
| 15/05/12 | 1000-1015 | 27/Drizzle | Surface | 1.0 | 26.5 | 27.1 | 27.1 | 6.93 | 6.92 | 97.0 | 96.8 | 4.23 | 4.22 | 4.49 | 6.2 | 6.2 | 6.5 | |
| | | | | | | 27.1 | | 6.90 | | 96.6 | | 4.21 | | | 6.2 | | | |
| | | | Middle | 9.0 | 26.3 | 27.5 | 27.6 | 6.75 | 6.74 | 94.5 | 94.3 | 4.59 | 4.56 | | 4.58 | | | 6.6 |
| | | | | | | 27.6 | | 6.72 | | 94.1 | | 4.56 | | | 6.6 | | | |
| | | | Bottom | 17.0 | 26.0 | 27.8 | 27.9 | 6.78 | 6.79 | 94.9 | 95.1 | 4.63 | 4.69 | | 4.66 | | | 6.6 |
| | | | | | | 27.9 | | 6.80 | | 95.2 | | 4.69 | | | 6.8 | | | |
| 17/05/12 | 1121-1134 | 28/Cloudy | Surface | 1.0 | 26.7 | 26.3 | 26.3 | 7.26 | 7.28 | 104.5 | 104.8 | 3.70 | 3.68 | 3.80 | 5.6 | 5.6 | 5.8 | |
| | | | | | | 26.3 | | 7.30 | | 105.1 | | 3.65 | | | 5.6 | | | |
| | | | Middle | 8.6 | 26.4 | 27.0 | 27.0 | 7.18 | 7.16 | 101.9 | 102.3 | 3.77 | 3.81 | | 3.79 | | | 5.8 |
| | | | | | | 26.9 | | 7.13 | | 102.6 | | 3.81 | | | 5.8 | | | |
| | | | Bottom | 16.2 | 26.1 | 28.1 | 28.1 | 7.24 | 7.23 | 104.2 | 104.0 | 3.90 | 3.94 | | 3.92 | | | 6.0 |
| | | | | | | 28.0 | | 7.21 | | 103.7 | | 3.94 | | | 6.0 | | | |
| 19/05/12 | 1753-1808 | 31/Drizzle | Surface | 1.0 | 26.4 | 26.1 | 26.1 | 7.21 | 7.25 | 103.8 | 104.0 | 3.98 | 4.01 | 4.10 | 5.8 | 5.9 | 6.1 | |
| | | | | | | 26.1 | | 7.29 | | 104.2 | | 4.04 | | | 6.0 | | | |
| | | | Middle | 8.4 | 26.3 | 26.5 | 26.6 | 7.11 | 7.10 | 101.7 | 101.5 | 4.20 | 4.16 | | 4.18 | | | 6.2 |
| | | | | | | 26.6 | | 7.08 | | 101.2 | | 4.16 | | | 6.2 | | | |
| | | | Bottom | 15.8 | 26.3 | 27.0 | 27.0 | 6.89 | 6.91 | 98.5 | 98.7 | 4.08 | 4.12 | | 4.10 | | | 6.0 |
| | | | | | | 26.9 | | 6.92 | | 98.9 | | 4.12 | | | 6.2 | | | |
| 22/05/12 | 1426-1440 | 28/Fine | Surface | 1.0 | 26.5 | 25.4 | 25.4 | 6.70 | 6.68 | 95.5 | 95.3 | 3.69 | 3.66 | 3.80 | 5.6 | 5.6 | 5.7 | |
| | | | | | | 25.4 | | 6.66 | | 95.0 | | 3.63 | | | 5.6 | | | |
| | | | Middle | 8.6 | 26.3 | 26.0 | 26.1 | 6.52 | 6.56 | 93.0 | 93.6 | 3.78 | 3.82 | | 3.80 | | | 5.8 |
| | | | | | | 26.1 | | 6.59 | | 94.2 | | 3.82 | | | 5.8 | | | |
| | | | Bottom | 16.2 | 26.1 | 27.1 | 27.2 | 6.48 | 6.51 | 92.4 | 92.8 | 3.96 | 3.90 | | 3.93 | | | 5.8 |
| | | | | | | 27.2 | | 6.53 | | 93.1 | | 3.90 | | | 5.8 | | | |
| 24/05/12 | 1530-1544 | 27/Cloudy | Surface | 1.0 | 26.2 | 25.8 | 25.8 | 6.55 | 6.58 | 93.0 | 93.4 | 3.89 | 3.92 | 4.19 | 5.8 | 5.8 | 6.1 | |
| | | | | | | 25.7 | | 6.60 | | 93.7 | | 3.95 | | | 5.8 | | | |
| | | | Middle | 8.7 | 26.2 | 26.4 | 26.5 | 6.41 | 6.43 | 91.0 | 91.2 | 4.25 | 4.29 | | 4.27 | | | 6.2 |
| | | | | | | 26.5 | | 6.44 | | 91.4 | | 4.29 | | | 6.2 | | | |
| | | | Bottom | 16.4 | 26.1 | 27.1 | 27.1 | 6.27 | 6.29 | 89.0 | 89.3 | 4.40 | 4.36 | | 4.38 | | | 6.4 |
| | | | | | | 27.1 | | 6.31 | | 89.6 | | 4.36 | | | 6.4 | | | |
| 26/05/12 | 1524-1539 | 26/Cloudy | Surface | 1.0 | 26.4 | 26.6 | 26.6 | 6.22 | 6.24 | 88.5 | 88.8 | 4.12 | 4.14 | 4.18 | 6.2 | 6.2 | 6.2 | |
| | | | | | | 26.5 | | 6.26 | | 89.1 | | 4.15 | | | 6.2 | | | |
| | | | Middle | 9.0 | 26.4 | 26.9 | 27.0 | 6.10 | 6.08 | 86.9 | 86.6 | 4.10 | 4.06 | | 4.08 | | | 6.0 |
| | | | | | | 27.0 | | 6.05 | | 86.2 | | 4.06 | | | 6.0 | | | |
| | | | Bottom | 17.0 | 26.2 | 27.4 | 27.4 | 5.98 | 5.96 | 85.1 | 84.8 | 4.34 | 4.28 | | 4.31 | | | 6.4 |
| | | | | | | 27.3 | | 5.93 | | 84.4 | | 4.28 | | | 6.2 | | | |
| 29/05/12 | 1756-1811 | 27/Cloudy | Surface | 1.0 | 26.2 | 25.7 | 25.7 | 6.41 | 6.38 | 91.4 | 90.9 | 4.05 | 4.09 | 4.29 | 6.0 | 6.0 | 6.3 | |
| | | | | | | 25.7 | | 6.35 | | 90.4 | | 4.13 | | | 6.0 | | | |
| | | | Middle | 9.0 | 25.9 | 26.4 | 26.5 | 6.18 | 6.22 | 88.2 | 88.7 | 4.33 | 4.27 | | 4.30 | | | 6.4 |
| | | | | | | 26.5 | | 6.25 | | 89.2 | | 4.27 | | | 6.2 | | | |
| | | | Bottom | 17.0 | 25.7 | 27.2 | 27.2 | 6.06 | 6.04 | 86.5 | 86.3 | 4.45 | 4.51 | | 4.48 | | | 6.6 |
| | | | | | | 27.2 | | 6.02 | | 86.0 | | 4.51 | | | 6.4 | | | |
| 31/05/12 | 1017-1032 | 27/Cloudy | Surface | 1.0 | 27.0 | 26.6 | 26.6 | 6.09 | 6.11 | 87.7 | 87.9 | 4.38 | 4.40 | 4.61 | 6.2 | 6.3 | 6.6 | |
| | | | | | | 26.5 | | 6.12 | | 88.1 | | 4.41 | | | 6.4 | | | |
| | | | Middle | 8.9 | 26.9 | 26.8 | 26.8 | 5.94 | 5.97 | 85.5 | 85.9 | 4.62 | 4.60 | | 4.61 | | | 6.6 |
| | | | | | | 26.7 | | 5.99 | | 86.3 | | 4.60 | | | 6.6 | | | |
| | | | Bottom | 16.8 | 26.8 | 27.2 | 27.2 | 5.74 | 5.73 | 82.7 | 82.6 | 4.81 | 4.83 | | 4.82 | | | 6.8 |
| | | | | | | 27.2 | | 5.72 | | 82.4 | | 4.83 | | | 6.8 | | | |

Mid-Ebb Tide



Monitoring Station : R8a

| Date | Sampling Duration | Ambient Temp (°C) / Weather Condition | Monitoring Depth (m) | | Temp (°C) | Salinity (ppt) | | Dissolved Oxygen (mg/L) | | Dissolved Oxygen Saturation (%) | | Turbidity (NTU) | | | Suspended Solids (mg/L) | | | | |
|----------|-------------------|---------------------------------------|----------------------|------|-----------|----------------|---------|-------------------------|---------|---------------------------------|---------|-----------------|---------|---------------|-------------------------|---------|---------------|-----|-----|
| | | | | | | Value | Average | Value | Average | Value | Average | Value | Average | Depth-average | Value | Average | Depth-average | | |
| 03/05/12 | 1129-1145 | 28/Cloudy | Surface | 1.0 | 25.6 | 27.0 | 27.1 | 6.95 | 6.98 | 94.5 | 94.9 | 3.98 | 3.95 | 4.29 | 5.8 | 5.9 | 6.2 | | |
| | | | | | | 27.1 | | 7.00 | | 95.2 | | 3.92 | | | 6.0 | | | | |
| | | | Middle | 6.1 | 25.6 | 27.4 | 27.4 | 6.86 | 6.83 | 93.2 | 92.8 | 4.30 | 4.28 | | 4.30 | 4.28 | | 6.0 | 6.1 |
| | | | | | | 27.3 | | 6.80 | | 92.4 | | 4.25 | | | 6.2 | | | | |
| | | | Bottom | 11.2 | 25.5 | 27.4 | 27.4 | 6.67 | 6.65 | 90.7 | 90.4 | 4.62 | 4.65 | | 4.62 | 4.65 | | 6.6 | 6.6 |
| | | | | | | 27.4 | | 6.63 | | 90.1 | | 4.67 | | | 6.6 | | | | |
| 05/05/12 | 1211-1223 | 26/Cloudy | Surface | 1.0 | 26.3 | 25.7 | 25.7 | 7.33 | 7.31 | 102.8 | 102.4 | 3.77 | 3.79 | 3.97 | 5.6 | 5.6 | 5.9 | | |
| | | | | | | 25.7 | | 7.29 | | 101.9 | | 3.81 | | | 5.5 | | | | |
| | | | Middle | 6.6 | 26.1 | 26.2 | 26.3 | 7.14 | 7.12 | 99.9 | 99.5 | 3.96 | 3.98 | | 3.96 | 3.98 | | 6.0 | 6.0 |
| | | | | | | 26.3 | | 7.09 | | 99.1 | | 4.00 | | | 6.0 | | | | |
| | | | Bottom | 12.2 | 25.9 | 26.9 | 27.0 | 6.92 | 6.94 | 96.7 | 97.0 | 4.11 | 4.13 | | 4.11 | 4.13 | | 6.0 | 6.1 |
| | | | | | | 27.0 | | 6.95 | | 97.2 | | 4.15 | | | 6.2 | | | | |
| 08/05/12 | 1605-1618 | 30/Fine | Surface | 1.0 | 26.5 | 27.7 | 27.7 | 6.98 | 7.00 | 99.6 | 99.9 | 3.69 | 3.65 | 4.00 | 5.6 | 5.6 | 6.0 | | |
| | | | | | | 27.6 | | 7.02 | | 100.2 | | 3.61 | | | 5.5 | | | | |
| | | | Middle | 6.6 | 26.1 | 27.8 | 27.8 | 6.83 | 6.81 | 97.6 | 97.4 | 4.07 | 4.11 | | 4.07 | 4.11 | | 6.0 | 6.1 |
| | | | | | | 27.8 | | 6.79 | | 97.1 | | 4.15 | | | 6.2 | | | | |
| | | | Bottom | 12.2 | 26.0 | 27.9 | 27.9 | 6.80 | 6.77 | 97.2 | 96.6 | 4.22 | 4.25 | | 4.22 | 4.25 | | 6.2 | 6.2 |
| | | | | | | 27.9 | | 6.74 | | 96.0 | | 4.28 | | | 6.2 | | | | |
| 10/05/12 | 1631-1645 | 31/Fine | Surface | 1.0 | 26.1 | 27.2 | 27.2 | 6.51 | 6.54 | 91.1 | 91.5 | 3.77 | 3.79 | 3.92 | 5.6 | 5.6 | 5.7 | | |
| | | | | | | 27.1 | | 6.56 | | 91.8 | | 3.81 | | | 5.5 | | | | |
| | | | Middle | 6.5 | 26.0 | 27.4 | 27.5 | 6.47 | 6.45 | 90.5 | 90.3 | 3.89 | 3.92 | | 3.89 | 3.92 | | 5.5 | 5.7 |
| | | | | | | 27.5 | | 6.43 | | 90.0 | | 3.94 | | | 5.8 | | | | |
| | | | Bottom | 12.0 | 25.9 | 27.5 | 27.6 | 6.36 | 6.34 | 89.0 | 88.7 | 4.08 | 4.06 | | 4.08 | 4.06 | | 6.0 | 6.0 |
| | | | | | | 27.6 | | 6.32 | | 88.4 | | 4.03 | | | 6.0 | | | | |
| 12/05/12 | 1728-1739 | 28/Rainy | Surface | 1.0 | 26.5 | 26.1 | 26.1 | 7.09 | 7.07 | 100.8 | 100.6 | 3.92 | 3.95 | 4.05 | 5.8 | 5.9 | 6.0 | | |
| | | | | | | 26.1 | | 7.05 | | 100.3 | | 3.98 | | | 6.0 | | | | |
| | | | Middle | 6.3 | 25.8 | 26.9 | 26.9 | 6.74 | 6.72 | 95.7 | 95.4 | 4.17 | 4.14 | | 4.17 | 4.14 | | 6.0 | 6.0 |
| | | | | | | 26.9 | | 6.70 | | 95.1 | | 4.10 | | | 6.0 | | | | |
| | | | Bottom | 11.6 | 25.7 | 27.2 | 27.2 | 6.82 | 6.81 | 96.8 | 96.6 | 4.02 | 4.06 | | 4.02 | 4.06 | | 6.0 | 6.0 |
| | | | | | | 27.1 | | 6.79 | | 96.4 | | 4.09 | | | 6.0 | | | | |
| 15/05/12 | 1020-1035 | 28/Cloudy | Surface | 1.0 | 26.5 | 27.1 | 27.1 | 7.08 | 7.07 | 99.1 | 98.9 | 3.81 | 3.83 | 4.13 | 5.8 | 5.9 | 6.1 | | |
| | | | | | | 27.1 | | 7.05 | | 98.7 | | 3.85 | | | 6.0 | | | | |
| | | | Middle | 6.6 | 26.2 | 27.4 | 27.4 | 6.87 | 6.87 | 96.2 | 96.6 | 4.01 | 4.05 | | 4.01 | 4.05 | | 6.0 | 6.0 |
| | | | | | | 27.4 | | 6.87 | | 97.0 | | 4.08 | | | 6.0 | | | | |
| | | | Bottom | 12.2 | 26.0 | 27.7 | 27.7 | 6.76 | 6.78 | 94.6 | 94.9 | 4.49 | 4.53 | | 4.49 | 4.53 | | 6.4 | 6.5 |
| | | | | | | 27.6 | | 6.79 | | 95.1 | | 4.56 | | | 6.6 | | | | |
| 17/05/12 | 1143-1156 | 28/Cloudy | Surface | 1.0 | 26.7 | 26.3 | 26.3 | 7.41 | 7.40 | 106.8 | 106.6 | 3.66 | 3.64 | 3.80 | 5.6 | 5.6 | 5.8 | | |
| | | | | | | 26.2 | | 7.38 | | 106.3 | | 3.62 | | | 5.5 | | | | |
| | | | Middle | 6.6 | 26.5 | 26.7 | 26.7 | 7.26 | 7.25 | 104.5 | 104.3 | 3.83 | 3.81 | | 3.83 | 3.81 | | 6.0 | 5.9 |
| | | | | | | 26.7 | | 7.23 | | 104.1 | | 3.79 | | | 5.8 | | | | |
| | | | Bottom | 12.2 | 26.2 | 27.7 | 27.7 | 7.14 | 7.12 | 102.7 | 102.4 | 3.94 | 3.96 | | 3.94 | 3.96 | | 6.0 | 6.0 |
| | | | | | | 27.6 | | 7.09 | | 102.0 | | 3.98 | | | 6.0 | | | | |
| 19/05/12 | 1815-1829 | 31/Cloudy | Surface | 1.0 | 26.5 | 26.1 | 26.2 | 7.33 | 7.31 | 104.8 | 104.5 | 3.81 | 3.84 | 3.97 | 5.8 | 5.9 | 6.0 | | |
| | | | | | | 26.2 | | 7.29 | | 104.2 | | 3.86 | | | 6.0 | | | | |
| | | | Middle | 6.5 | 26.4 | 26.4 | 26.5 | 7.15 | 7.14 | 101.8 | 102.0 | 3.90 | 3.93 | | 3.90 | 3.93 | | 6.0 | 6.0 |
| | | | | | | 26.5 | | 7.12 | | 102.2 | | 3.95 | | | 6.0 | | | | |
| | | | Bottom | 12.0 | 26.4 | 26.9 | 27.0 | 6.92 | 6.94 | 98.9 | 99.2 | 4.13 | 4.15 | | 4.13 | 4.15 | | 6.2 | 6.2 |
| | | | | | | 27.0 | | 6.96 | | 99.5 | | 4.17 | | | 6.2 | | | | |
| 22/05/12 | 1449-1502 | 28/Fine | Surface | 1.0 | 26.5 | 25.4 | 25.4 | 6.74 | 6.71 | 96.0 | 95.6 | 3.56 | 3.60 | 3.79 | 5.6 | 5.6 | 5.7 | | |
| | | | | | | 25.3 | | 6.68 | | 95.1 | | 3.63 | | | 5.5 | | | | |
| | | | Middle | 6.7 | 26.3 | 25.8 | 25.8 | 6.58 | 6.60 | 93.9 | 94.2 | 3.79 | 3.81 | | 3.79 | 3.81 | | 5.5 | 5.6 |
| | | | | | | 25.7 | | 6.62 | | 94.4 | | 3.83 | | | 5.6 | | | | |
| | | | Bottom | 12.3 | 26.0 | 26.8 | 26.8 | 6.46 | 6.48 | 92.0 | 92.3 | 3.92 | 3.96 | | 3.92 | 3.96 | | 5.8 | 5.9 |
| | | | | | | 26.7 | | 6.50 | | 92.5 | | 4.00 | | | 6.0 | | | | |
| 24/05/12 | 1550-1605 | 27/Cloudy | Surface | 1.0 | 26.3 | 25.8 | 25.8 | 6.43 | 6.45 | 91.3 | 91.6 | 3.96 | 3.98 | 4.11 | 5.8 | 5.9 | 6.0 | | |
| | | | | | | 25.8 | | 6.47 | | 91.8 | | 4.00 | | | 6.0 | | | | |
| | | | Middle | 6.2 | 26.3 | 26.3 | 26.3 | 6.40 | 6.39 | 90.8 | 90.6 | 4.07 | 4.04 | | 4.07 | 4.04 | | 6.0 | 6.0 |
| | | | | | | 26.2 | | 6.37 | | 90.4 | | 4.01 | | | 6.0 | | | | |
| | | | Bottom | 11.4 | 26.2 | 26.8 | 26.9 | 6.22 | 6.24 | 88.3 | 88.5 | 4.27 | 4.30 | | 4.27 | 4.30 | | 6.2 | 6.2 |
| | | | | | | 26.9 | | 6.25 | | 88.7 | | 4.32 | | | 6.2 | | | | |
| 26/05/12 | 1548-1602 | 26/Cloudy | Surface | 1.0 | 26.5 | 26.6 | 26.7 | 6.20 | 6.23 | 88.3 | 88.6 | 3.92 | 3.94 | 4.14 | 5.8 | 5.9 | 6.1 | | |
| | | | | | | 26.7 | | 6.25 | | 88.9 | | 3.96 | | | 6.0 | | | | |
| | | | Middle | 6.6 | 26.4 | 26.9 | 26.9 | 6.14 | 6.13 | 87.4 | 87.2 | 4.17 | 4.15 | | 4.17 | 4.15 | | 6.0 | 6.0 |
| | | | | | | 26.9 | | 6.11 | | 87.0 | | 4.13 | | | 6.0 | | | | |
| | | | Bottom | 12.2 | 26.3 | 27.1 | 27.2 | 6.01 | 5.98 | 85.5 | 85.1 | 4.36 | 4.34 | | 4.36 | 4.34 | | 6.4 | 6.3 |
| | | | | | | 27.2 | | 5.95 | | 84.7 | | 4.32 | | | 6.2 | | | | |
| 29/05/12 | 1819-1831 | 26/Cloudy | Surface | 1.0 | 26.3 | 25.8 | 25.8 | 6.51 | 6.54 | 93.1 | 93.4 | 4.17 | 4.14 | 4.25 | 6.2 | 6.1 | 6.2 | | |
| | | | | | | 25.7 | | 6.56 | | 93.7 | | 4.11 | | | 6.0 | | | | |
| | | | Middle | 6.7 | 26.1 | 26.4 | 26.5 | 6.06 | 6.09 | 86.5 | 86.9 | 4.25 | 4.24 | | 4.25 | 4.24 | | 6.0 | 6.1 |
| | | | | | | 26.5 | | 6.11 | | 87.2 | | 4.22 | | | 6.2 | | | | |
| | | | Bottom | 12.4 | 25.8 | 27.1 | 27.1 | 6.18 | 6.21 | 88.0 | 88.5 | 4.41 | 4.39 | | 4.41 | 4.39 | | 6.4 | 6.4 |
| | | | | | | 27.0 | | 6.23 | | 88.9 | | 4.36 | | | 6.4 | | | | |
| 31/05/12 | 1040-1055 | 27/Cloudy | Surface | 1.0 | 27.1 | 26.7 | 26.7 | 6.27 | 6.24 | 90.3 | 89.9 | 3.47 | 3.48 | 3.72 | 5.4 | 5.5 | 5.7 | | |
| | | | | | | 26.6 | | 6.21 | | 89.4 | | 3.48 | | | 5.5 | | | | |
| | | | Middle | 6.5 | 27.0 | 26.8 | 26.8 | 6.02 | 6.05 | 86.7 | 87.2 | 3.62 | 3.66 | | 3.62 | 3.66 | | 5.5 | 5.6 |
| | | | | | | 26.8 | | 6.08 | | 87.6 | | 3.69 | | | 5.6 | | | | |
| | | | Bottom | 12.0 | 26.9 | 27.0 | 27.0 | 6.04 | 6.07 | 86.9 | 87.3 | 4.01 | 4.03 | | 4.01 | 4.03 | | 6.0 | 6.0 |
| | | | | | | 27.0 | | 6.09 | | 87.7 | | 4.05 | | | 6.0 | | | | |

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 |
| 03/05/12 | 0841-0858 | 27/Cloudy | Surface | 1.0 | 25.6 | 27.1 | 27.1 | 6.98 | 7.01 | 94.9 | 95.3 | 4.01 | 3.99 | 4.14 | 6.0 | 6.0 | 6.1 |
| | | | | | | 27.1 | | 7.03 | | 95.6 | | 3.97 | | | 6.0 | | |
| | | | Middle | 5.3 | 25.6 | 27.1 | 27.2 | 6.90 | 6.89 | 93.8 | 93.6 | 4.10 | 4.13 | | 6.0 | | |
| 27.2 | 6.87 | 93.4 | | | | 4.16 | | 6.2 | | | | | | | | | |
| 05/05/12 | 0939-0951 | 24/Cloudy | Surface | 1.0 | 26.3 | 25.8 | 25.8 | 7.12 | 7.10 | 99.5 | 99.3 | 3.74 | 3.73 | 3.83 | 5.6 | 5.6 | 5.7 |
| | | | | | | 25.7 | | 7.08 | | 99.0 | | 3.71 | | | 5.6 | | |
| | | | Middle | 6.0 | 26.1 | 26.5 | 26.5 | 6.93 | 6.95 | 96.9 | 97.2 | 3.81 | 3.83 | | 5.8 | | |
| 26.4 | 6.97 | 97.5 | | | | 3.85 | | 5.8 | | | | | | | | | |
| 08/05/12 | 1313-1326 | 30/Fine | Surface | 1.0 | 26.3 | 27.7 | 27.6 | 6.92 | 6.94 | 96.8 | 98.1 | 3.43 | 3.40 | 3.72 | 5.4 | 5.4 | 5.6 |
| | | | | | | 27.5 | | 6.95 | | 99.3 | | 3.95 | | | 5.4 | | |
| | | | Middle | 5.8 | 26.1 | 27.8 | 27.8 | 6.79 | 6.81 | 96.8 | 97.1 | 3.72 | 3.75 | | 5.6 | | |
| 27.7 | 6.82 | 97.3 | | | | 3.77 | | 5.6 | | | | | | | | | |
| 10/05/12 | 1342-1358 | 31/Fine | Surface | 1.0 | 26.1 | 27.3 | 27.4 | 6.62 | 6.64 | 92.6 | 92.8 | 3.97 | 3.99 | 4.17 | 5.8 | 5.9 | 6.1 |
| | | | | | | 27.4 | | 6.65 | | 93.0 | | 4.01 | | | 6.0 | | |
| | | | Middle | 5.5 | 26.0 | 27.5 | 27.5 | 6.58 | 6.56 | 92.1 | 91.8 | 4.22 | 4.21 | | 6.2 | | |
| 27.4 | 6.53 | 91.4 | | | | 4.19 | | 6.2 | | | | | | | | | |
| 12/05/12 | 1440-1453 | 28/Rainy | Surface | 1.0 | 26.4 | 25.8 | 25.9 | 7.09 | 7.07 | 100.8 | 100.6 | 3.94 | 4.00 | 4.30 | 5.8 | 5.9 | 6.3 |
| | | | | | | 25.9 | | 7.05 | | 100.3 | | 4.06 | | | 6.0 | | |
| | | | Middle | 5.9 | 25.8 | 26.7 | 26.7 | 6.77 | 6.78 | 96.1 | 96.3 | 4.06 | 4.04 | | 6.0 | | |
| 26.7 | 6.79 | 96.4 | | | | 4.01 | | 6.0 | | | | | | | | | |
| 15/05/12 | 0747-0803 | 26/Drizzle | Surface | 1.0 | 26.5 | 27.1 | 27.2 | 6.87 | 6.86 | 96.2 | 96.0 | 4.12 | 4.15 | 4.36 | 6.2 | 6.2 | 6.4 |
| | | | | | | 27.2 | | 6.84 | | 95.8 | | 4.18 | | | 6.2 | | |
| | | | Middle | 5.7 | 26.4 | 27.4 | 27.4 | 6.76 | 6.74 | 94.6 | 94.4 | 4.43 | 4.42 | | 6.4 | | |
| 27.4 | 6.72 | 94.1 | | | | 4.41 | | 6.4 | | | | | | | | | |
| 17/05/12 | 0909-0922 | 28/Cloudy | Surface | 1.0 | 26.7 | 26.2 | 26.2 | 6.96 | 6.98 | 100.2 | 100.5 | 3.77 | 3.79 | 3.94 | 5.6 | 5.7 | 5.9 |
| | | | | | | 26.2 | | 7.00 | | 100.8 | | 3.80 | | | 5.8 | | |
| | | | Middle | 6.0 | 26.5 | 26.7 | 26.8 | 6.92 | 6.91 | 99.6 | 99.4 | 3.98 | 3.97 | | 6.0 | | |
| 26.8 | 6.89 | 99.2 | | | | 3.96 | | 6.0 | | | | | | | | | |
| 19/05/12 | 1536-1550 | 30/Cloudy | Surface | 1.0 | 26.4 | 26.2 | 26.2 | 7.11 | 7.13 | 101.7 | 101.9 | 4.03 | 4.06 | 4.15 | 6.0 | 6.0 | 6.1 |
| | | | | | | 26.2 | | 7.14 | | 102.1 | | 4.09 | | | 6.0 | | |
| | | | Middle | 6.3 | 26.4 | 26.6 | 26.7 | 7.00 | 7.03 | 100.1 | 100.5 | 4.15 | 4.18 | | 6.2 | | |
| 26.7 | 7.05 | 100.8 | | | | 4.20 | | 6.2 | | | | | | | | | |
| 22/05/12 | 1211-1225 | 28/Fine | Surface | 1.0 | 26.5 | 25.4 | 25.4 | 6.37 | 6.41 | 90.9 | 91.5 | 3.65 | 3.69 | 3.92 | 5.6 | 5.6 | 5.8 |
| | | | | | | 25.3 | | 6.45 | | 92.0 | | 3.72 | | | 5.6 | | |
| | | | Middle | 6.0 | 26.2 | 25.9 | 26.0 | 6.23 | 6.20 | 88.7 | 88.2 | 3.89 | 3.92 | | 5.8 | | |
| 26.0 | 6.16 | 87.7 | | | | 3.95 | | 5.8 | | | | | | | | | |
| 24/05/12 | 1309-1324 | 27/Fine | Surface | 1.0 | 26.2 | 25.6 | 25.7 | 6.50 | 6.52 | 92.3 | 92.6 | 3.86 | 3.89 | 4.06 | 5.8 | 5.8 | 6.0 |
| | | | | | | 25.7 | | 6.54 | | 92.8 | | 3.91 | | | 5.8 | | |
| | | | Middle | 6.0 | 26.2 | 26.2 | 26.2 | 6.46 | 6.42 | 91.7 | 91.1 | 4.02 | 4.04 | | 6.0 | | |
| 26.2 | 6.38 | 90.5 | | | | 4.06 | | 6.0 | | | | | | | | | |
| 26/05/12 | 1306-1319 | 26/Rainy | Surface | 1.0 | 26.5 | 26.6 | 26.7 | 6.17 | 6.16 | 87.8 | 87.6 | 3.97 | 3.99 | 4.08 | 5.8 | 5.9 | 6.0 |
| | | | | | | 26.7 | | 6.14 | | 87.4 | | 4.01 | | | 6.0 | | |
| | | | Middle | 5.7 | 26.4 | 27.0 | 27.0 | 6.12 | 6.10 | 87.1 | 86.8 | 4.03 | 4.06 | | 6.0 | | |
| 26.9 | 6.08 | 86.5 | | | | 4.08 | | 6.0 | | | | | | | | | |
| 29/05/12 | 1539-1553 | 27/Cloudy | Surface | 1.0 | 26.2 | 25.6 | 25.6 | 6.49 | 6.51 | 92.6 | 93.0 | 4.20 | 4.18 | 4.29 | 6.2 | 6.2 | 6.4 |
| | | | | | | 25.5 | | 6.53 | | 93.3 | | 4.15 | | | 6.2 | | |
| | | | Middle | 5.8 | 26.1 | 26.2 | 26.2 | 6.40 | 6.37 | 91.4 | 91.0 | 4.22 | 4.22 | | 6.4 | | |
| 26.2 | 6.34 | 90.5 | | | | 4.21 | | 6.4 | | | | | | | | | |
| 31/05/12 | 0754-0809 | 26/Cloudy | Surface | 1.0 | 26.9 | 26.5 | 26.6 | 6.13 | 6.12 | 88.3 | 88.1 | 3.80 | 3.82 | 4.05 | 5.8 | 5.8 | 6.0 |
| | | | | | | 26.6 | | 6.10 | | 87.8 | | 3.84 | | | 5.8 | | |
| | | | Middle | 5.6 | 27.0 | 26.9 | 26.9 | 6.04 | 6.06 | 86.9 | 87.2 | 4.12 | 4.11 | | 6.0 | | |
| 26.8 | 6.07 | 87.4 | | | | 4.10 | | 6.0 | | | | | | | | | |
| Bottom | 10.2 | 26.9 | 27.0 | 27.0 | 5.90 | 5.92 | 84.9 | 85.2 | 4.25 | 4.23 | 6.2 | 6.2 | | | | | |
| | | | 27.0 | | 5.94 | | 85.5 | | 4.21 | | 6.2 | | | | | | |

Mid-Ebb Tide



Monitoring Station : R16

| Date | Sampling Duration | Ambient Temp (°C) / Weather Condition | Monitoring Depth (m) | | Temp (°C) | Salinity (ppt) | | Dissolved Oxygen (mg/L) | | Dissolved Oxygen Saturation (%) | | Turbidity (NTU) | | | Suspended Solids (mg/L) | | |
|----------|-------------------|---------------------------------------|----------------------|------|-----------|----------------|---------|-------------------------|---------|---------------------------------|---------|-----------------|---------|---------------|-------------------------|---------|---------------|
| | | | | | | Value | Average | Value | Average | Value | Average | Value | Average | Depth-average | Value | Average | Depth-average |
| 03/05/12 | 0819-0835 | 27/Cloudy | Surface | 1.0 | 25.6 | 27.1 | 27.2 | 6.88 | 6.90 | 93.7 | 93.9 | 4.03 | 4.05 | 4.24 | 6.0 | 6.0 | 6.2 |
| | | | | | | 27.2 | | 6.92 | | 94.1 | | 4.07 | | | 6.0 | | |
| | | | Middle | 6.4 | 25.6 | 27.3 | 27.4 | 6.85 | 6.82 | 93.2 | 92.8 | 4.21 | 4.23 | | 6.2 | 6.2 | |
| | | | | | | 27.4 | | 6.79 | | 92.3 | | 4.25 | | | 6.2 | | |
| | | | Bottom | 11.8 | 25.5 | 27.5 | 27.6 | 6.70 | 6.72 | 91.4 | 91.6 | 4.40 | 4.43 | | 6.4 | 6.4 | |
| | | | | | | 27.6 | | 6.73 | | 91.8 | | 4.45 | | | 6.4 | | |
| 05/05/12 | 0919-0932 | 24/Cloudy | Surface | 1.0 | 26.2 | 25.9 | 25.9 | 7.10 | 7.13 | 99.4 | 99.7 | 3.61 | 3.64 | 3.75 | 5.6 | 5.6 | 5.7 |
| | | | | | | 25.8 | | 7.15 | | 100.0 | | 3.66 | | | 5.6 | | |
| | | | Middle | 6.4 | 26.1 | 26.4 | 26.4 | 7.02 | 7.00 | 98.2 | 97.9 | 3.70 | 3.72 | | 5.6 | 5.6 | |
| | | | | | | 26.4 | | 6.98 | | 97.6 | | 3.73 | | | 5.6 | | |
| | | | Bottom | 11.8 | 25.9 | 27.1 | 27.1 | 7.22 | 7.20 | 101.4 | 101.0 | 3.92 | 3.90 | | 5.8 | 5.8 | |
| | | | | | | 27.1 | | 7.17 | | 100.5 | | 3.88 | | | 5.8 | | |
| 08/05/12 | 1249-1305 | 30/Fine | Surface | 1.0 | 26.4 | 27.7 | 27.7 | 7.00 | 6.99 | 100.2 | 99.8 | 3.88 | 3.91 | 3.92 | 5.8 | 5.8 | 5.8 |
| | | | | | | 27.6 | | 6.97 | | 99.4 | | 3.93 | | | 5.8 | | |
| | | | Middle | 6.6 | 25.9 | 28.0 | 28.0 | 6.93 | 6.91 | 99.1 | 98.8 | 3.75 | 3.72 | | 5.6 | 5.6 | |
| | | | | | | 28.0 | | 6.89 | | 98.4 | | 3.69 | | | 5.6 | | |
| | | | Bottom | 12.1 | 25.9 | 27.8 | 27.8 | 6.88 | 6.85 | 98.0 | 97.6 | 4.11 | 4.14 | | 6.0 | 6.1 | |
| | | | | | | 27.8 | | 6.82 | | 97.1 | | 4.17 | | | 6.2 | | |
| 10/05/12 | 1321-1336 | 31/Fine | Surface | 1.0 | 26.1 | 27.1 | 27.2 | 6.68 | 6.71 | 93.5 | 93.9 | 3.88 | 3.86 | 4.11 | 5.8 | 5.8 | 6.1 |
| | | | | | | 27.2 | | 6.73 | | 94.2 | | 3.83 | | | 5.8 | | |
| | | | Middle | 6.5 | 26.0 | 27.4 | 27.5 | 6.60 | 6.58 | 92.3 | 92.1 | 4.11 | 4.13 | | 6.0 | 6.1 | |
| | | | | | | 27.5 | | 6.56 | | 91.8 | | 4.15 | | | 6.2 | | |
| | | | Bottom | 12.0 | 25.9 | 27.5 | 27.6 | 6.47 | 6.49 | 90.5 | 90.8 | 4.36 | 4.34 | | 6.4 | 6.3 | |
| | | | | | | 27.6 | | 6.51 | | 91.1 | | 4.32 | | | 6.2 | | |
| 12/05/12 | 1420-1433 | 28/Rainy | Surface | 1.0 | 26.4 | 25.8 | 25.8 | 7.17 | 7.16 | 102.1 | 101.9 | 4.07 | 4.04 | 4.39 | 6.0 | 6.0 | 5.7 |
| | | | | | | 25.8 | | 7.14 | | 101.6 | | 4.01 | | | 6.0 | | |
| | | | Middle | 6.2 | 25.9 | 26.6 | 26.6 | 6.84 | 6.82 | 97.1 | 96.8 | 4.74 | 4.71 | | 5.8 | 5.7 | |
| | | | | | | 26.6 | | 6.80 | | 96.5 | | 4.68 | | | 5.6 | | |
| | | | Bottom | 11.4 | 25.7 | 26.9 | 27.0 | 6.79 | 6.77 | 96.4 | 96.1 | 4.39 | 4.42 | | 5.4 | 5.4 | |
| | | | | | | 27.0 | | 6.75 | | 95.8 | | 4.44 | | | 5.4 | | |
| 15/05/12 | 0724-0739 | 26/Drizzle | Surface | 1.0 | 26.5 | 27.0 | 27.0 | 6.94 | 6.97 | 97.2 | 97.6 | 3.84 | 3.83 | 4.24 | 5.8 | 5.8 | 6.1 |
| | | | | | | 27.0 | | 6.99 | | 97.9 | | 3.81 | | | 5.8 | | |
| | | | Middle | 6.5 | 26.3 | 27.3 | 27.3 | 6.75 | 6.74 | 94.5 | 94.3 | 4.34 | 4.37 | | 6.2 | 6.2 | |
| | | | | | | 27.2 | | 6.72 | | 94.1 | | 4.39 | | | 6.2 | | |
| | | | Bottom | 12.0 | 25.9 | 27.6 | 27.6 | 6.51 | 6.54 | 91.1 | 91.5 | 4.54 | 4.53 | | 6.4 | 6.4 | |
| | | | | | | 27.5 | | 6.57 | | 91.9 | | 4.52 | | | 6.4 | | |
| 17/05/12 | 0849-0901 | 28/Cloudy | Surface | 1.0 | 26.6 | 28.2 | 26.2 | 7.09 | 7.11 | 102.1 | 102.3 | 3.82 | 3.84 | 3.95 | 5.8 | 5.8 | 5.9 |
| | | | | | | 26.1 | | 7.12 | | 102.5 | | 3.86 | | | 5.8 | | |
| | | | Middle | 6.4 | 26.4 | 26.8 | 26.8 | 7.00 | 6.98 | 100.8 | 100.5 | 3.93 | 3.95 | | 6.0 | 6.0 | |
| | | | | | | 26.8 | | 6.96 | | 100.2 | | 3.97 | | | 6.0 | | |
| | | | Bottom | 11.8 | 26.2 | 27.8 | 27.8 | 6.80 | 6.79 | 97.7 | 97.6 | 4.05 | 4.07 | | 6.0 | 6.0 | |
| | | | | | | 27.8 | | 6.77 | | 97.4 | | 4.09 | | | 6.0 | | |
| 19/05/12 | 1518-1531 | 30/Cloudy | Surface | 1.0 | 26.4 | 26.1 | 26.1 | 7.17 | 7.19 | 102.6 | 102.9 | 4.11 | 4.14 | 4.15 | 6.0 | 6.1 | 6.1 |
| | | | | | | 26.1 | | 7.21 | | 103.2 | | 4.16 | | | 6.2 | | |
| | | | Middle | 6.5 | 26.4 | 26.7 | 26.7 | 7.10 | 7.12 | 101.5 | 101.8 | 4.24 | 4.26 | | 6.2 | 6.2 | |
| | | | | | | 26.7 | | 7.13 | | 102.0 | | 4.27 | | | 6.2 | | |
| | | | Bottom | 12.0 | 26.3 | 27.1 | 27.2 | 6.87 | 6.89 | 98.2 | 98.5 | 4.04 | 4.06 | | 6.0 | 6.0 | |
| | | | | | | 27.2 | | 6.91 | | 98.8 | | 4.08 | | | 6.0 | | |
| 22/05/12 | 1150-1203 | 28/Fine | Surface | 1.0 | 26.5 | 25.1 | 25.2 | 6.53 | 6.56 | 93.0 | 93.3 | 3.56 | 3.54 | 3.74 | 5.6 | 5.5 | 5.6 |
| | | | | | | 25.2 | | 6.58 | | 93.5 | | 3.52 | | | 5.4 | | |
| | | | Middle | 6.4 | 26.3 | 25.9 | 25.9 | 6.33 | 6.35 | 90.2 | 90.5 | 3.77 | 3.74 | | 5.6 | 5.6 | |
| | | | | | | 25.8 | | 6.36 | | 90.7 | | 3.70 | | | 5.6 | | |
| | | | Bottom | 11.8 | 26.2 | 27.0 | 27.1 | 6.21 | 6.20 | 88.4 | 88.2 | 3.98 | 3.96 | | 5.8 | 5.8 | |
| | | | | | | 27.1 | | 6.18 | | 88.0 | | 3.93 | | | 5.8 | | |
| 24/05/12 | 1249-1303 | 27/Fine | Surface | 1.0 | 26.3 | 25.7 | 25.7 | 6.41 | 6.40 | 91.0 | 90.9 | 3.78 | 3.80 | 4.00 | 5.6 | 5.7 | 5.9 |
| | | | | | | 25.7 | | 6.39 | | 90.7 | | 3.82 | | | 5.8 | | |
| | | | Middle | 6.3 | 26.2 | 26.3 | 26.4 | 6.30 | 6.29 | 89.5 | 89.3 | 3.95 | 3.98 | | 5.8 | 5.9 | |
| | | | | | | 26.4 | | 6.27 | | 89.0 | | 4.00 | | | 6.0 | | |
| | | | Bottom | 11.6 | 26.1 | 26.7 | 26.8 | 6.14 | 6.15 | 87.1 | 87.3 | 4.20 | 4.22 | | 6.2 | 6.2 | |
| | | | | | | 26.8 | | 6.16 | | 87.4 | | 4.24 | | | 6.2 | | |
| 26/05/12 | 1248-1301 | 26/Rainy | Surface | 1.0 | 26.4 | 26.5 | 26.5 | 6.20 | 6.22 | 88.3 | 88.5 | 4.20 | 4.23 | 4.24 | 6.2 | 6.2 | 6.2 |
| | | | | | | 26.4 | | 6.23 | | 88.7 | | 4.25 | | | 6.2 | | |
| | | | Middle | 6.3 | 26.3 | 26.8 | 26.8 | 6.18 | 6.16 | 88.0 | 87.8 | 4.13 | 4.15 | | 6.0 | 6.0 | |
| | | | | | | 26.7 | | 6.14 | | 87.5 | | 4.16 | | | 6.0 | | |
| | | | Bottom | 11.6 | 26.2 | 27.2 | 27.2 | 6.04 | 6.03 | 86.0 | 85.8 | 4.33 | 4.36 | | 6.4 | 6.4 | |
| | | | | | | 27.1 | | 6.01 | | 85.5 | | 4.38 | | | 6.4 | | |
| 29/05/12 | 1520-1533 | 27/Cloudy | Surface | 1.0 | 26.2 | 25.5 | 25.6 | 6.36 | 6.38 | 90.7 | 91.1 | 4.20 | 4.24 | 4.37 | 6.2 | 6.2 | 6.4 |
| | | | | | | 25.6 | | 6.40 | | 91.4 | | 4.27 | | | 6.2 | | |
| | | | Middle | 6.65 | 26.0 | 26.3 | 26.4 | 6.21 | 6.24 | 88.7 | 88.9 | 4.36 | 4.39 | | 6.4 | 6.4 | |
| | | | | | | 26.4 | | 6.26 | | 89.1 | | 4.41 | | | 6.4 | | |
| | | | Bottom | 12.3 | 25.7 | 27.0 | 27.1 | 6.00 | 6.04 | 85.5 | 86.1 | 4.50 | 4.48 | | 6.6 | 6.6 | |
| | | | | | | 27.1 | | 6.08 | | 86.7 | | 4.45 | | | 6.6 | | |
| 31/05/12 | 0734-0749 | 26/Cloudy | Surface | 1.0 | 26.9 | 26.4 | 26.4 | 6.19 | 6.17 | 89.1 | 88.9 | 4.27 | 4.26 | 4.29 | 6.2 | 6.2 | 6.3 |
| | | | | | | 26.4 | | 6.15 | | 88.6 | | 4.25 | | | 6.2 | | |
| | | | Middle | 6.4 | 26.9 | 26.7 | 26.7 | 6.05 | 6.07 | 87.1 | 87.4 | 4.07 | 4.08 | | 6.0 | 6.0 | |
| | | | | | | 26.7 | | 6.09 | | 87.7 | | 4.09 | | | 6.0 | | |
| | | | Bottom | 11.8 | 26.9 | 27.1 | 27.1 | 6.01 | 6.03 | 86.5 | 86.7 | 4.55 | 4.53 | | 6.6 | 6.6 | |
| | | | | | | 27.1 | | 6.04 | | 86.9 | | 4.50 | | | 6.6 | | |

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 | |
| 03/05/12 | 0800-0815 | 27/Cloudy | Surface | 1.0 | 25.6 | 27.2 | 27.3 | 6.91 | 6.94 | 93.9 | 94.0 | 4.18 | 4.21 | 4.39 | 6.2 | 6.2 | 6.4 | |
| | | | | | | 27.3 | | 6.96 | | 94.0 | | 4.24 | | | 6.2 | | | |
| | | | Middle | 5.7 | 25.6 | 27.5 | 27.5 | 6.82 | 6.84 | 92.7 | 93.0 | 4.31 | 4.35 | | 4.33 | 6.2 | | 6.4 |
| | | | | | | 27.4 | | 6.85 | | 93.2 | | 4.35 | | | 6.5 | | | |
| | | | Bottom | 10.4 | 25.6 | 27.6 | 27.6 | 6.80 | 6.79 | 92.5 | 92.3 | 4.61 | 4.66 | | 4.64 | 6.5 | | 6.6 |
| | | | | | | 27.6 | | 6.77 | | 92.1 | | 4.66 | | | 6.6 | | | |
| 05/05/12 | 0900-0912 | 24/Cloudy | Surface | 1.0 | 26.3 | 25.8 | 25.8 | 7.21 | 7.20 | 100.8 | 100.6 | 3.37 | 3.39 | 3.53 | 5.2 | 5.3 | 5.4 | |
| | | | | | | 25.8 | | 7.18 | | 100.3 | | 3.40 | | | 5.4 | | | |
| | | | Middle | 6.2 | 26.1 | 26.5 | 26.5 | 7.10 | 7.08 | 99.3 | 99.0 | 3.53 | 3.49 | | 3.51 | 5.4 | | 5.5 |
| | | | | | | 26.4 | | 7.06 | | 98.7 | | 3.49 | | | 5.5 | | | |
| | | | Bottom | 11.4 | 25.9 | 27.0 | 27.1 | 6.83 | 6.85 | 94.9 | 95.5 | 3.68 | 3.72 | | 3.70 | 5.5 | | 5.6 |
| | | | | | | 27.1 | | 6.87 | | 96.1 | | 3.72 | | | 5.6 | | | |
| 08/05/12 | 1230-1244 | 30/Fine | Surface | 1.0 | 26.3 | 27.5 | 27.5 | 7.04 | 7.02 | 100.8 | 100.3 | 3.72 | 3.75 | 3.89 | 5.6 | 5.6 | 5.9 | |
| | | | | | | 27.4 | | 7.00 | | 99.8 | | 3.77 | | | 5.6 | | | |
| | | | Middle | 6.1 | 26.2 | 27.6 | 27.6 | 6.88 | 6.86 | 98.7 | 97.9 | 4.03 | 3.99 | | 4.01 | 6.0 | | 6.0 |
| | | | | | | 27.6 | | 6.83 | | 97.0 | | 3.99 | | | 6.0 | | | |
| | | | Bottom | 11.2 | 26.0 | 27.7 | 27.7 | 6.87 | 6.90 | 98.2 | 98.7 | 3.88 | 3.94 | | 3.91 | 6.0 | | 6.0 |
| | | | | | | 27.7 | | 6.92 | | 99.1 | | 3.94 | | | 6.0 | | | |
| 10/05/12 | 1300-1315 | 31/Fine | Surface | 1.0 | 26.1 | 27.2 | 27.2 | 6.43 | 6.42 | 90.0 | 89.8 | 3.87 | 3.89 | 4.07 | 5.8 | 5.8 | 6.0 | |
| | | | | | | 27.2 | | 6.40 | | 89.5 | | 3.90 | | | 5.8 | | | |
| | | | Middle | 6.1 | 26.0 | 27.5 | 27.5 | 6.35 | 6.37 | 88.8 | 89.1 | 4.16 | 4.12 | | 4.14 | 6.2 | | 6.1 |
| | | | | | | 27.4 | | 6.39 | | 89.4 | | 4.12 | | | 6.0 | | | |
| | | | Bottom | 11.2 | 26.0 | 27.6 | 27.6 | 6.21 | 6.24 | 86.9 | 87.3 | 4.20 | 4.17 | | 4.19 | 6.0 | | 6.1 |
| | | | | | | 27.6 | | 6.26 | | 87.6 | | 4.17 | | | 6.2 | | | |
| 12/05/12 | 1400-1413 | 28/Rainy | Surface | 1.0 | 26.4 | 25.6 | 25.7 | 7.10 | 7.08 | 101.0 | 100.7 | 3.82 | 3.80 | 4.22 | 5.8 | 5.7 | 6.1 | |
| | | | | | | 25.7 | | 7.06 | | 100.4 | | 3.78 | | | 5.6 | | | |
| | | | Middle | 5.9 | 25.8 | 26.4 | 26.5 | 6.67 | 6.66 | 94.7 | 94.5 | 4.37 | 4.31 | | 4.34 | 6.2 | | 6.1 |
| | | | | | | 26.5 | | 6.64 | | 94.2 | | 4.31 | | | 6.0 | | | |
| | | | Bottom | 10.8 | 25.7 | 26.9 | 26.9 | 6.59 | 6.61 | 93.5 | 93.8 | 4.53 | 4.50 | | 4.52 | 6.5 | | 6.5 |
| | | | | | | 26.9 | | 6.63 | | 94.1 | | 4.50 | | | 6.4 | | | |
| 15/05/12 | 0700-0715 | 26/Drizzle | Surface | 1.0 | 26.5 | 27.0 | 27.1 | 7.14 | 7.12 | 99.9 | 99.7 | 4.11 | 4.13 | 4.33 | 6.0 | 6.1 | 6.3 | |
| | | | | | | 27.1 | | 7.10 | | 99.5 | | 4.15 | | | 6.2 | | | |
| | | | Middle | 6.1 | 26.4 | 27.3 | 27.4 | 6.84 | 6.83 | 95.8 | 95.7 | 4.40 | 4.37 | | 4.39 | 6.4 | | 6.5 |
| | | | | | | 27.4 | | 6.82 | | 95.5 | | 4.37 | | | 6.5 | | | |
| | | | Bottom | 11.2 | 26.0 | 27.7 | 27.8 | 6.89 | 6.85 | 96.5 | 95.9 | 4.48 | 4.45 | | 4.47 | 6.5 | | 6.5 |
| | | | | | | 27.8 | | 6.80 | | 95.2 | | 4.45 | | | 6.4 | | | |
| 17/05/12 | 0830-0843 | 28/Cloudy | Surface | 1.0 | 26.6 | 26.1 | 26.2 | 7.14 | 7.16 | 102.8 | 103.0 | 3.34 | 3.36 | 3.49 | 5.4 | 5.4 | 5.5 | |
| | | | | | | 26.2 | | 7.17 | | 103.2 | | 3.37 | | | 5.4 | | | |
| | | | Middle | 6.2 | 26.4 | 26.8 | 26.9 | 7.03 | 7.04 | 101.2 | 101.4 | 3.45 | 3.49 | | 3.47 | 5.4 | | 5.5 |
| | | | | | | 26.9 | | 7.05 | | 101.5 | | 3.49 | | | 5.5 | | | |
| | | | Bottom | 11.4 | 26.2 | 27.7 | 27.8 | 7.20 | 7.22 | 103.5 | 103.8 | 3.61 | 3.66 | | 3.64 | 5.5 | | 5.6 |
| | | | | | | 27.8 | | 7.24 | | 104.1 | | 3.66 | | | 5.6 | | | |
| 19/05/12 | 1500-1514 | 30/Cloudy | Surface | 1.0 | 26.4 | 26.1 | 26.1 | 7.24 | 7.22 | 103.5 | 103.2 | 3.91 | 3.93 | 3.84 | 5.8 | 5.8 | 5.8 | |
| | | | | | | 26.1 | | 7.20 | | 102.9 | | 3.94 | | | 5.8 | | | |
| | | | Middle | 6.4 | 26.4 | 26.6 | 26.7 | 7.14 | 7.16 | 102.1 | 102.3 | 3.72 | 3.76 | | 3.74 | 5.6 | | 5.6 |
| | | | | | | 26.7 | | 7.17 | | 102.5 | | 3.76 | | | 5.5 | | | |
| | | | Bottom | 11.8 | 26.3 | 27.1 | 27.1 | 6.99 | 7.01 | 99.9 | 100.2 | 3.83 | 3.88 | | 3.86 | 6.0 | | 5.9 |
| | | | | | | 27.0 | | 7.03 | | 100.5 | | 3.88 | | | 5.8 | | | |
| 22/05/12 | 1130-1144 | 28/Fine | Surface | 1.0 | 26.6 | 25.3 | 25.3 | 6.58 | 6.56 | 93.8 | 93.6 | 3.27 | 3.31 | 3.41 | 5.2 | 5.2 | 5.3 | |
| | | | | | | 25.2 | | 6.54 | | 93.3 | | 3.35 | | | 5.2 | | | |
| | | | Middle | 6.3 | 26.4 | 25.7 | 25.7 | 6.42 | 6.45 | 91.6 | 91.9 | 3.40 | 3.37 | | 3.39 | 5.4 | | 5.2 |
| | | | | | | 25.6 | | 6.47 | | 92.2 | | 3.37 | | | 5.0 | | | |
| | | | Bottom | 11.6 | 26.1 | 26.9 | 26.9 | 6.37 | 6.35 | 96.7 | 93.4 | 3.56 | 3.51 | | 3.54 | 5.5 | | 5.5 |
| | | | | | | 26.8 | | 6.32 | | 90.0 | | 3.51 | | | 5.4 | | | |
| 24/05/12 | 1230-1245 | 27/Fine | Surface | 1.0 | 26.2 | 25.7 | 25.7 | 6.43 | 6.45 | 91.3 | 91.6 | 3.84 | 3.87 | 3.99 | 5.8 | 5.8 | 5.9 | |
| | | | | | | 25.6 | | 6.47 | | 91.8 | | 3.89 | | | 5.8 | | | |
| | | | Middle | 5.9 | 26.2 | 26.2 | 26.3 | 6.39 | 6.38 | 90.7 | 90.5 | 3.93 | 3.97 | | 3.95 | 5.8 | | 5.9 |
| | | | | | | 26.3 | | 6.36 | | 90.3 | | 3.97 | | | 6.0 | | | |
| | | | Bottom | 10.8 | 26.1 | 26.5 | 26.6 | 6.19 | 6.22 | 87.8 | 88.2 | 4.12 | 4.16 | | 4.14 | 6.0 | | 6.1 |
| | | | | | | 26.6 | | 6.24 | | 88.6 | | 4.16 | | | 6.2 | | | |
| 26/05/12 | 1230-1243 | 26/Rainy | Surface | 1.0 | 26.4 | 26.3 | 26.3 | 6.26 | 6.24 | 89.2 | 88.8 | 4.17 | 4.20 | 4.24 | 6.0 | 6.1 | 6.2 | |
| | | | | | | 26.3 | | 6.21 | | 88.4 | | 4.22 | | | 6.2 | | | |
| | | | Middle | 6.0 | 26.4 | 26.8 | 26.8 | 6.24 | 6.22 | 88.8 | 88.5 | 4.23 | 4.19 | | 4.21 | 6.2 | | 6.1 |
| | | | | | | 26.7 | | 6.20 | | 88.2 | | 4.19 | | | 6.0 | | | |
| | | | Bottom | 11.0 | 26.3 | 27.1 | 27.1 | 6.02 | 6.05 | 85.7 | 86.1 | 4.32 | 4.29 | | 4.31 | 6.5 | | 6.5 |
| | | | | | | 27.1 | | 6.07 | | 86.4 | | 4.29 | | | 6.4 | | | |
| 29/05/12 | 1500-1514 | 27/Cloudy | Surface | 1.0 | 26.2 | 25.5 | 25.5 | 6.45 | 6.43 | 92.0 | 91.7 | 4.09 | 4.11 | 4.26 | 6.0 | 6.1 | 6.3 | |
| | | | | | | 25.5 | | 6.41 | | 91.4 | | 4.13 | | | 6.2 | | | |
| | | | Middle | 6.2 | 26.1 | 26.2 | 26.3 | 6.13 | 6.10 | 87.3 | 86.9 | 4.30 | 4.27 | | 4.29 | 6.4 | | 6.5 |
| | | | | | | 26.3 | | 6.06 | | 86.4 | | 4.27 | | | 6.5 | | | |
| | | | Bottom | 11.4 | 25.8 | 27.1 | 27.1 | 6.27 | 6.29 | 89.3 | 89.5 | 4.41 | 4.36 | | 4.39 | 6.5 | | 6.5 |
| | | | | | | 27.0 | | 6.30 | | 89.7 | | 4.36 | | | 6.4 | | | |
| 31/05/12 | 0715-0730 | 26/Cloudy | Surface | 1.0 | 27.0 | 26.3 | 26.4 | 6.16 | 6.18 | 88.7 | 88.9 | 4.11 | 4.10 | 4.24 | 6.2 | 6.1 | 6.2 | |
| | | | | | | 26.4 | | 6.19 | | 89.1 | | 4.09 | | | 6.0 | | | |
| | | | Middle | 6.1 | 26.9 | 26.8 | 26.8 | 6.14 | 6.12 | 88.4 | 88.1 | 4.20 | 4.22 | | 4.21 | 6.2 | | 6.1 |
| | | | | | | 26.8 | | 6.10 | | 87.8 | | 4.22 | | | 6.0 | | | |
| | | | Bottom | 11.2 | 26.9 | 27.2 | 27.2 | 6.08 | 6.05 | 87.6 | 87.2 | 4.42 | 4.39 | | 4.41 | 6.5 | | 6.5 |
| | | | | | | 27.1 | | 6.02 | | 86.7 | | 4.39 | | | 6.4 | | | |

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 | |
| 03/05/12 | 1008-1022 | 28/Cloudy | Surface | 1.0 | 25.6 | 26.7 | 26.8 | 6.85 | 6.87 | 93.2 | 93.5 | 4.05 | 4.07 | 4.34 | 6.0 | 6.0 | 6.3 | |
| | | | | | | 26.8 | | 6.89 | | 93.7 | | 4.09 | | | 6.0 | | | |
| | | | Middle | 5.2 | 25.6 | 27.1 | 27.1 | 6.76 | 6.74 | 91.9 | 91.6 | 4.27 | 4.31 | | 6.2 | | | 6.2 |
| | | | | | | 27.1 | | 6.71 | | 91.2 | | 4.35 | | | 6.2 | | | |
| | | | Bottom | 9.4 | 25.6 | 27.3 | 27.4 | 6.50 | 6.52 | 89.4 | 89.1 | 4.60 | 4.63 | | 6.6 | | | 6.6 |
| | | | | | | 27.4 | | 6.53 | | 88.8 | | 4.66 | | | 6.6 | | | |
| 05/05/12 | 1054-1106 | 25/Cloudy | Surface | 1.0 | 26.3 | 25.7 | 25.7 | 7.14 | 7.16 | 99.8 | 100.0 | 3.61 | 3.64 | 3.62 | 5.6 | 5.6 | 5.5 | |
| | | | | | | 25.7 | | 7.17 | | 100.2 | | 3.66 | | | 5.6 | | | |
| | | | Middle | 5.9 | 26.2 | 26.3 | 26.3 | 7.23 | 7.25 | 101.1 | 101.4 | 3.72 | 3.74 | | 5.6 | | | 5.6 |
| | | | | | | 26.2 | | 7.27 | | 101.7 | | 3.76 | | | 5.6 | | | |
| | | | Bottom | 10.8 | 25.9 | 26.9 | 26.9 | 7.01 | 7.04 | 97.9 | 98.4 | 3.47 | 3.50 | | 5.4 | | | 5.4 |
| | | | | | | 26.9 | | 7.06 | | 98.8 | | 3.52 | | | 5.4 | | | |
| 08/05/12 | 1440-1453 | 30/Fine | Surface | 1.0 | 26.4 | 27.7 | 27.7 | 7.04 | 7.02 | 100.8 | 100.4 | 4.01 | 4.04 | 4.00 | 6.0 | 6.0 | 5.9 | |
| | | | | | | 27.6 | | 7.00 | | 100.0 | | 4.07 | | | 6.0 | | | |
| | | | Middle | 6.0 | 26.1 | 28.0 | 28.0 | 6.90 | 6.88 | 98.6 | 98.4 | 3.96 | 3.93 | | 5.8 | | | 5.8 |
| | | | | | | 27.9 | | 6.86 | | 98.1 | | 3.90 | | | 5.8 | | | |
| | | | Bottom | 10.9 | 25.9 | 28.2 | 28.2 | 6.77 | 6.79 | 96.8 | 97.1 | 3.99 | 4.03 | | 6.0 | | | 6.0 |
| | | | | | | 28.1 | | 6.81 | | 97.4 | | 4.06 | | | 6.0 | | | |
| 10/05/12 | 1507-1521 | 32/Fine | Surface | 1.0 | 26.1 | 27.3 | 27.4 | 6.54 | 6.53 | 91.5 | 91.3 | 3.89 | 3.91 | 4.09 | 5.8 | 5.8 | 6.0 | |
| | | | | | | 27.4 | | 6.51 | | 91.1 | | 3.93 | | | 5.8 | | | |
| | | | Middle | 5.9 | 26.1 | 27.5 | 27.5 | 6.42 | 6.44 | 89.7 | 90.0 | 4.10 | 4.12 | | 6.0 | | | 6.0 |
| | | | | | | 27.5 | | 6.45 | | 90.2 | | 4.13 | | | 6.0 | | | |
| | | | Bottom | 10.8 | 26.0 | 27.8 | 27.9 | 6.32 | 6.35 | 88.4 | 88.8 | 4.26 | 4.24 | | 6.2 | | | 6.2 |
| | | | | | | 27.9 | | 6.37 | | 89.1 | | 4.22 | | | 6.2 | | | |
| 12/05/12 | 1600-1611 | 28/Rainy | Surface | 1.0 | 26.4 | 26.1 | 26.1 | 7.18 | 7.17 | 102.2 | 102.0 | 3.94 | 3.92 | 4.13 | 5.8 | 5.8 | 6.1 | |
| | | | | | | 26.8 | | 7.15 | | 101.8 | | 3.89 | | | 5.8 | | | |
| | | | Middle | 5.7 | 26.0 | 26.8 | 26.8 | 6.77 | 6.79 | 96.1 | 96.4 | 4.15 | 4.12 | | 6.2 | | | 6.1 |
| | | | | | | 26.7 | | 6.81 | | 96.7 | | 4.09 | | | 6.0 | | | |
| | | | Bottom | 10.4 | 25.7 | 27.0 | 27.0 | 6.75 | 6.77 | 95.8 | 96.0 | 4.40 | 4.36 | | 6.4 | | | 6.3 |
| | | | | | | 27.0 | | 6.78 | | 96.2 | | 4.32 | | | 6.2 | | | |
| 15/05/12 | 0904-0919 | 27/Drizzle | Surface | 1.0 | 26.4 | 27.0 | 27.1 | 7.01 | 7.02 | 98.1 | 98.3 | 4.01 | 4.03 | 4.27 | 6.0 | 6.0 | 6.3 | |
| | | | | | | 27.1 | | 7.03 | | 98.4 | | 4.04 | | | 6.0 | | | |
| | | | Middle | 6.1 | 26.3 | 27.4 | 27.4 | 6.94 | 6.93 | 97.2 | 97.0 | 4.23 | 4.26 | | 6.2 | | | 6.2 |
| | | | | | | 27.4 | | 6.91 | | 96.7 | | 4.28 | | | 6.2 | | | |
| | | | Bottom | 11.2 | 26.0 | 27.8 | 27.8 | 6.62 | 6.66 | 92.7 | 92.8 | 4.53 | 4.54 | | 6.6 | | | 6.6 |
| | | | | | | 27.8 | | 6.69 | | 92.9 | | 4.54 | | | 6.6 | | | |
| 17/05/12 | 1025-1038 | 28/Cloudy | Surface | 1.0 | 26.6 | 26.3 | 26.3 | 7.18 | 7.17 | 103.4 | 103.3 | 3.65 | 3.67 | 3.81 | 5.6 | 5.6 | 5.7 | |
| | | | | | | 26.2 | | 7.16 | | 103.1 | | 3.69 | | | 5.6 | | | |
| | | | Middle | 5.8 | 26.5 | 26.7 | 26.7 | 7.05 | 7.07 | 101.5 | 101.8 | 3.77 | 3.79 | | 5.8 | | | 5.8 |
| | | | | | | 26.6 | | 7.09 | | 102.1 | | 3.81 | | | 5.8 | | | |
| | | | Bottom | 10.6 | 26.3 | 27.7 | 27.7 | 6.93 | 6.94 | 99.7 | 99.9 | 3.95 | 3.97 | | 6.0 | | | 5.8 |
| | | | | | | 27.6 | | 6.95 | | 100.0 | | 3.99 | | | 5.6 | | | |
| 19/05/12 | 1653-1708 | 31/Drizzle | Surface | 1.0 | 26.4 | 26.1 | 26.2 | 7.05 | 7.07 | 100.8 | 101.1 | 3.95 | 3.97 | 4.04 | 5.8 | 5.9 | 6.0 | |
| | | | | | | 26.2 | | 7.09 | | 101.4 | | 3.99 | | | 6.0 | | | |
| | | | Middle | 5.9 | 26.4 | 26.2 | 26.2 | 7.00 | 6.99 | 100.1 | 99.9 | 4.03 | 4.00 | | 6.0 | | | 5.9 |
| | | | | | | 26.2 | | 6.97 | | 99.7 | | 3.96 | | | 5.8 | | | |
| | | | Bottom | 10.8 | 26.4 | 26.7 | 26.8 | 6.78 | 6.81 | 96.9 | 97.3 | 4.12 | 4.15 | | 6.2 | | | 6.2 |
| | | | | | | 26.8 | | 6.83 | | 97.7 | | 4.17 | | | 6.2 | | | |
| 22/05/12 | 1329-1343 | 28/Fine | Surface | 1.0 | 26.4 | 25.3 | 25.3 | 6.60 | 6.58 | 94.2 | 93.8 | 3.61 | 3.58 | 3.77 | 5.6 | 5.5 | 5.7 | |
| | | | | | | 25.3 | | 6.55 | | 93.4 | | 3.55 | | | 5.4 | | | |
| | | | Middle | 5.9 | 26.2 | 25.8 | 25.8 | 6.37 | 6.40 | 90.8 | 91.2 | 3.79 | 3.77 | | 5.8 | | | 5.7 |
| | | | | | | 25.7 | | 6.43 | | 91.6 | | 3.74 | | | 5.6 | | | |
| | | | Bottom | 10.8 | 26.0 | 26.9 | 26.9 | 6.32 | 6.30 | 90.1 | 89.8 | 3.98 | 3.95 | | 5.8 | | | 5.8 |
| | | | | | | 26.8 | | 6.27 | | 89.4 | | 3.92 | | | 5.8 | | | |
| 24/05/12 | 1429-1444 | 27/Cloudy | Surface | 1.0 | 26.3 | 25.7 | 25.7 | 6.73 | 6.71 | 95.5 | 95.2 | 3.56 | 3.58 | 3.76 | 5.4 | 5.5 | 5.7 | |
| | | | | | | 25.7 | | 6.68 | | 94.8 | | 3.60 | | | 5.6 | | | |
| | | | Middle | 5.4 | 26.3 | 25.9 | 26.0 | 6.62 | 6.64 | 94.0 | 94.2 | 3.66 | 3.69 | | 5.6 | | | 5.6 |
| | | | | | | 26.0 | | 6.65 | | 94.4 | | 3.72 | | | 5.6 | | | |
| | | | Bottom | 9.8 | 26.2 | 26.6 | 26.7 | 6.37 | 6.39 | 90.4 | 90.7 | 3.98 | 4.02 | | 5.8 | | | 5.9 |
| | | | | | | 26.7 | | 6.41 | | 91.0 | | 4.05 | | | 6.0 | | | |
| 26/05/12 | 1424-1437 | 26/Cloudy | Surface | 1.0 | 26.5 | 26.6 | 26.7 | 6.05 | 6.07 | 86.1 | 86.4 | 4.34 | 4.32 | 4.45 | 6.4 | 6.4 | 6.5 | |
| | | | | | | 26.7 | | 6.09 | | 86.7 | | 4.30 | | | 6.4 | | | |
| | | | Middle | 5.9 | 26.4 | 26.8 | 26.9 | 6.04 | 6.03 | 86.0 | 85.8 | 4.38 | 4.41 | | 6.4 | | | 6.5 |
| | | | | | | 26.9 | | 6.01 | | 85.6 | | 4.43 | | | 6.6 | | | |
| | | | Bottom | 10.8 | 26.3 | 27.1 | 27.2 | 5.92 | 5.90 | 84.2 | 83.9 | 4.59 | 4.61 | | 6.6 | | | 6.6 |
| | | | | | | 27.2 | | 5.87 | | 83.6 | | 4.63 | | | 6.6 | | | |
| 29/05/12 | 1657-1710 | 27/Cloudy | Surface | 1.0 | 26.2 | 25.8 | 25.8 | 6.40 | 6.38 | 91.4 | 91.0 | 4.26 | 4.24 | 4.34 | 6.2 | 6.2 | 6.4 | |
| | | | | | | 25.7 | | 6.35 | | 90.6 | | 4.21 | | | 6.2 | | | |
| | | | Middle | 5.7 | 26.1 | 26.2 | 26.2 | 6.25 | 6.23 | 89.2 | 89.0 | 4.32 | 4.34 | | 6.4 | | | 6.4 |
| | | | | | | 26.2 | | 6.21 | | 88.7 | | 4.35 | | | 6.4 | | | |
| | | | Bottom | 10.4 | 25.9 | 27.0 | 27.0 | 6.08 | 6.11 | 86.7 | 87.0 | 4.41 | 4.44 | | 6.6 | | | 6.6 |
| | | | | | | 26.9 | | 6.13 | | 87.3 | | 4.46 | | | 6.6 | | | |
| 31/05/12 | 0920-0935 | 27/Cloudy | Surface | 1.0 | 27.0 | 26.5 | 26.5 | 6.11 | 6.13 | 87.9 | 88.2 | 4.17 | 4.19 | 4.42 | 6.2 | 6.2 | 6.4 | |
| | | | | | | 26.5 | | 6.14 | | 88.4 | | 4.21 | | | 6.2 | | | |
| | | | Middle | 6.0 | 26.0 | 26.8 | 26.8 | 6.07 | 6.08 | 87.4 | 87.6 | 4.38 | 4.36 | | 6.4 | | | 6.4 |
| | | | | | | 26.8 | | 6.09 | | 87.7 | | 4.34 | | | 6.4 | | | |
| | | | Bottom | 11.0 | 26.9 | 26.9 | 27.0 | 5.97 | 5.96 | 85.9 | 85.8 | 4.71 | 4.70 | | 6.8 | | | 6.7 |
| | | | | | | 27.0 | | 5.95 | | 85.7 | | 4.68 | | | 6.6 | | | |

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 |
| 03/05/12 | 1026-1040 | 28/Cloudy | Surface | 1.0 | 25.7 | 26.7 | 26.7 | 6.75 | 6.78 | 91.8 | 92.2 | 4.27 | 4.30 | 4.50 | 6.2 | 6.2 | 6.4 |
| | | | | | | 26.7 | | 6.80 | | 92.5 | | 4.32 | | | 6.2 | | |
| | | | Middle | 8.3 | 25.5 | 27.3 | 27.3 | 6.62 | 6.61 | 90.0 | 89.8 | 4.45 | 4.48 | | 6.4 | 6.4 | |
| | | | | | | 27.3 | | 6.59 | | 89.6 | | 4.51 | | | 6.4 | | |
| | | | Bottom | 15.6 | 25.5 | 27.6 | 27.6 | 6.48 | 6.46 | 88.1 | 87.8 | 4.75 | 4.73 | | 6.6 | 6.6 | |
| | | | | | | 27.6 | | 6.43 | | 87.4 | | 4.70 | | | 6.6 | | |
| 05/05/12 | 1113-1126 | 25/Cloudy | Surface | 1.0 | 26.3 | 25.8 | 25.8 | 7.42 | 7.40 | 103.8 | 103.5 | 3.72 | 3.70 | 3.71 | 5.6 | 5.6 | 5.6 |
| | | | | | | 25.7 | | 7.38 | | 103.2 | | 3.68 | | | 5.6 | | |
| | | | Middle | 8.7 | 26.1 | 26.4 | 26.5 | 7.29 | 7.26 | 101.9 | 101.4 | 3.53 | 3.52 | | 5.4 | 5.4 | |
| | | | | | | 26.5 | | 7.22 | | 100.9 | | 3.51 | | | 5.4 | | |
| | | | Bottom | 16.4 | 25.8 | 27.1 | 27.1 | 7.14 | 7.12 | 99.8 | 99.6 | 3.92 | 3.90 | | 5.8 | 5.8 | |
| | | | | | | 27.1 | | 7.10 | | 99.3 | | 3.87 | | | 5.8 | | |
| 08/05/12 | 1459-1513 | 30/Fine | Surface | 1.0 | 26.5 | 27.7 | 27.7 | 7.01 | 7.03 | 100.1 | 100.5 | 3.70 | 3.73 | 3.92 | 5.6 | 5.6 | 5.8 |
| | | | | | | 27.6 | | 7.05 | | 100.8 | | 3.76 | | | 5.6 | | |
| | | | Middle | 8.7 | 26.1 | 27.9 | 28.0 | 6.99 | 6.97 | 99.8 | 99.5 | 4.11 | 4.07 | | 6.0 | 6.0 | |
| | | | | | | 28.1 | | 6.95 | | 99.1 | | 4.03 | | | 6.0 | | |
| | | | Bottom | 16.3 | 25.8 | 28.0 | 28.0 | 6.84 | 6.86 | 97.9 | 98.3 | 3.92 | 3.96 | | 5.8 | 5.9 | |
| | | | | | | 28.0 | | 6.88 | | 98.6 | | 4.00 | | | 6.0 | | |
| 10/05/12 | 1528-1544 | 32/Fine | Surface | 1.0 | 26.1 | 27.4 | 27.4 | 6.53 | 6.55 | 91.4 | 91.6 | 4.06 | 4.04 | 4.19 | 6.0 | 6.0 | 6.2 |
| | | | | | | 27.3 | | 6.56 | | 91.8 | | 4.02 | | | 6.0 | | |
| | | | Middle | 8.9 | 26.0 | 27.8 | 27.9 | 6.34 | 6.32 | 88.7 | 88.4 | 4.15 | 4.17 | | 6.2 | 6.2 | |
| | | | | | | 27.9 | | 6.30 | | 88.1 | | 4.19 | | | 6.2 | | |
| | | | Bottom | 16.8 | 25.9 | 28.1 | 28.2 | 6.20 | 6.23 | 86.7 | 87.1 | 4.37 | 4.35 | | 6.4 | 6.3 | |
| | | | | | | 28.2 | | 6.25 | | 87.4 | | 4.33 | | | 6.2 | | |
| 12/05/12 | 1619-1632 | 28/Rainy | Surface | 1.0 | 26.4 | 26.1 | 26.1 | 7.24 | 7.22 | 103.0 | 102.8 | 4.05 | 4.07 | 4.19 | 6.0 | 6.0 | 6.1 |
| | | | | | | 26.0 | | 7.20 | | 102.5 | | 4.09 | | | 6.0 | | |
| | | | Middle | 8.4 | 26.0 | 26.8 | 26.8 | 6.94 | 6.92 | 98.7 | 98.4 | 4.11 | 4.07 | | 6.0 | 6.0 | |
| | | | | | | 26.8 | | 6.90 | | 98.1 | | 4.02 | | | 6.0 | | |
| | | | Bottom | 15.8 | 25.8 | 26.9 | 27.0 | 6.88 | 6.87 | 97.9 | 97.7 | 4.47 | 4.44 | | 6.4 | 6.4 | |
| | | | | | | 27.0 | | 6.85 | | 97.4 | | 4.41 | | | 6.4 | | |
| 15/05/12 | 0922-0937 | 27/Drizzle | Surface | 1.0 | 26.5 | 27.1 | 27.1 | 6.99 | 6.99 | 97.9 | 97.8 | 4.12 | 4.14 | 4.42 | 6.0 | 6.0 | 6.4 |
| | | | | | | 27.1 | | 6.98 | | 97.7 | | 4.15 | | | 6.0 | | |
| | | | Middle | 8.7 | 26.3 | 27.5 | 27.5 | 6.76 | 6.75 | 94.6 | 94.5 | 4.36 | 4.39 | | 6.4 | 6.4 | |
| | | | | | | 27.5 | | 6.74 | | 94.4 | | 4.41 | | | 6.4 | | |
| | | | Bottom | 16.4 | 26.0 | 27.7 | 27.8 | 6.53 | 6.51 | 91.4 | 91.2 | 4.72 | 4.74 | | 6.8 | 6.7 | |
| | | | | | | 27.8 | | 6.49 | | 90.9 | | 4.76 | | | 6.6 | | |
| 17/05/12 | 1044-1057 | 28/Cloudy | Surface | 1.0 | 26.7 | 26.1 | 26.2 | 7.44 | 7.46 | 107.1 | 107.4 | 3.61 | 3.63 | 3.74 | 5.6 | 5.6 | 5.7 |
| | | | | | | 26.2 | | 7.48 | | 107.7 | | 3.64 | | | 5.6 | | |
| | | | Middle | 8.7 | 26.4 | 26.8 | 26.9 | 7.26 | 7.28 | 104.5 | 104.8 | 3.70 | 3.72 | | 5.8 | 5.7 | |
| | | | | | | 26.9 | | 7.30 | | 105.0 | | 3.74 | | | 5.8 | | |
| | | | Bottom | 16.4 | 26.1 | 28.0 | 28.0 | 7.20 | 7.19 | 103.6 | 103.4 | 3.86 | 3.87 | | 5.8 | 5.8 | |
| | | | | | | 28.0 | | 7.17 | | 103.2 | | 3.87 | | | 5.8 | | |
| 19/05/12 | 1714-1730 | 31/Drizzle | Surface | 1.0 | 26.5 | 26.2 | 26.2 | 7.18 | 7.21 | 102.7 | 103.0 | 3.93 | 3.91 | 4.06 | 5.8 | 5.8 | 6.0 |
| | | | | | | 26.2 | | 7.23 | | 103.3 | | 3.89 | | | 5.8 | | |
| | | | Middle | 8.5 | 26.5 | 26.5 | 26.5 | 7.03 | 7.00 | 100.5 | 100.0 | 4.06 | 4.08 | | 6.0 | 6.0 | |
| | | | | | | 26.5 | | 6.96 | | 99.5 | | 4.10 | | | 6.0 | | |
| | | | Bottom | 16.0 | 26.4 | 27.1 | 27.1 | 6.88 | 6.87 | 98.4 | 98.2 | 4.20 | 4.18 | | 6.2 | 6.2 | |
| | | | | | | 27.0 | | 6.85 | | 98.0 | | 4.16 | | | 6.2 | | |
| 22/05/12 | 1349-1401 | 28/Fine | Surface | 1.0 | 26.5 | 25.2 | 25.2 | 6.75 | 6.73 | 96.2 | 95.9 | 3.72 | 3.69 | 3.78 | 5.6 | 5.6 | 5.7 |
| | | | | | | 25.2 | | 6.71 | | 95.6 | | 3.66 | | | 5.6 | | |
| | | | Middle | 8.7 | 26.3 | 25.9 | 26.0 | 6.56 | 6.58 | 93.7 | 93.9 | 3.76 | 3.74 | | 5.8 | 5.6 | |
| | | | | | | 26.0 | | 6.59 | | 94.1 | | 3.71 | | | 5.6 | | |
| | | | Bottom | 16.4 | 26.2 | 27.0 | 27.0 | 6.44 | 6.47 | 91.5 | 92.1 | 3.94 | 3.91 | | 5.8 | 5.8 | |
| | | | | | | 27.0 | | 6.50 | | 92.6 | | 3.88 | | | 5.8 | | |
| 24/05/12 | 1450-1504 | 27/Cloudy | Surface | 1.0 | 26.2 | 25.7 | 25.8 | 6.57 | 6.60 | 93.2 | 93.6 | 3.65 | 3.68 | 3.99 | 5.6 | 5.6 | 5.9 |
| | | | | | | 25.8 | | 6.62 | | 94.0 | | 3.70 | | | 5.6 | | |
| | | | Middle | 8.6 | 26.1 | 26.6 | 26.6 | 6.33 | 6.34 | 89.8 | 90.0 | 3.96 | 3.99 | | 6.0 | 5.9 | |
| | | | | | | 26.5 | | 6.35 | | 90.1 | | 4.01 | | | 6.0 | | |
| | | | Bottom | 16.2 | 26.1 | 27.0 | 27.1 | 6.20 | 6.22 | 88.0 | 88.3 | 4.29 | 4.32 | | 6.2 | 6.2 | |
| | | | | | | 27.1 | | 6.24 | | 88.6 | | 4.34 | | | 6.2 | | |
| 26/05/12 | 1444-1459 | 26/Cloudy | Surface | 1.0 | 26.5 | 26.7 | 26.7 | 6.03 | 6.05 | 85.9 | 86.2 | 4.39 | 4.41 | 4.43 | 6.6 | 6.7 | 6.6 |
| | | | | | | 26.6 | | 6.07 | | 86.4 | | 4.42 | | | 6.8 | | |
| | | | Middle | 8.9 | 26.4 | 26.9 | 27.0 | 5.86 | 5.84 | 83.4 | 83.2 | 4.34 | 4.36 | | 6.4 | 6.4 | |
| | | | | | | 27.0 | | 5.82 | | 82.9 | | 4.37 | | | 6.4 | | |
| | | | Bottom | 16.8 | 26.3 | 27.3 | 27.4 | 5.80 | 5.78 | 82.6 | 82.4 | 4.52 | 4.54 | | 6.8 | 6.7 | |
| | | | | | | 27.4 | | 5.76 | | 82.1 | | 4.56 | | | 6.6 | | |
| 29/05/12 | 1717-1730 | 27/Cloudy | Surface | 1.0 | 26.3 | 25.5 | 25.6 | 6.46 | 6.48 | 92.3 | 92.5 | 4.18 | 4.20 | 4.34 | 6.0 | 6.1 | 6.3 |
| | | | | | | 25.6 | | 6.50 | | 92.7 | | 4.22 | | | 6.2 | | |
| | | | Middle | 8.7 | 26.0 | 26.3 | 26.3 | 6.37 | 6.34 | 90.9 | 90.4 | 4.37 | 4.34 | | 6.4 | 6.3 | |
| | | | | | | 26.3 | | 6.31 | | 89.9 | | 4.31 | | | 6.2 | | |
| | | | Bottom | 16.4 | 25.8 | 27.0 | 27.1 | 6.20 | 6.23 | 89.9 | 89.5 | 4.44 | 4.47 | | 6.4 | 6.5 | |
| | | | | | | 27.1 | | 6.25 | | 89.1 | | 4.50 | | | 6.6 | | |
| 31/05/12 | 0938-0953 | 27/Cloudy | Surface | 1.0 | 27.0 | 26.7 | 26.7 | 6.18 | 6.17 | 88.9 | 88.8 | 4.23 | 4.26 | 4.41 | 6.2 | 6.2 | 6.4 |
| | | | | | | 26.7 | | 6.15 | | 88.6 | | 4.28 | | | 6.2 | | |
| | | | Middle | 8.8 | 26.9 | 26.9 | 26.9 | 6.10 | 6.13 | 87.8 | 88.3 | 4.30 | 4.32 | | 6.4 | 6.3 | |
| | | | | | | 26.8 | | 6.16 | | 88.7 | | 4.33 | | | 6.4 | | |
| | | | Bottom | 16.6 | 26.8 | 27.2 | 27.2 | 6.06 | 6.05 | 87.3 | 87.1 | 4.66 | 4.65 | | 6.6 | 6.6 | |
| | | | | | | 27.2 | | 6.04 | | 86.9 | | 4.63 | | | 6.6 | | |

Mid-Ebb Tide

Monitoring Station : C1

| Date | Sampling Duration | Ambient Temp (°C) / Weather Condition | Monitoring Depth (m) | | Temp (°C) | Salinity (ppt) | | Dissolved Oxygen (mg/L) | | Dissolved Oxygen Saturation (%) | | Turbidity (NTU) | | | Suspended Solids (mg/L) | | | | |
|----------|-------------------|---------------------------------------|----------------------|------|-----------|----------------|---------|-------------------------|---------|---------------------------------|---------|-----------------|---------|---------------|-------------------------|---------|---------------|------|-----|
| | | | | | | Value | Average | Value | Average | Value | Average | Value | Average | Depth-average | Value | Average | Depth-average | | |
| 03/05/12 | 0905-0920 | 27/Cloudy | Surface | 1.0 | 25.6 | 27.0 | 27.1 | 6.93 | 6.95 | 94.2 | 94.5 | 4.12 | 4.14 | 4.33 | 6.0 | 6.1 | 6.3 | | |
| | | | | | | 27.1 | | 6.97 | | 94.7 | | 4.16 | | | 6.2 | | | | |
| | | | Middle | 6.9 | 25.6 | 27.2 | 27.3 | 6.81 | 6.83 | 92.6 | 92.8 | 4.28 | 4.31 | | 4.28 | | | 4.31 | 6.2 |
| | | | | | | 27.3 | | 6.84 | | 93.0 | | 4.34 | | | 6.2 | | | | |
| | | | Bottom | 12.8 | 25.5 | 27.4 | 27.5 | 6.67 | 6.69 | 90.7 | 91.0 | 4.50 | 4.53 | | 4.50 | | | 4.53 | 6.4 |
| | | | | | | 27.5 | | 6.71 | | 91.3 | | 4.56 | | | 6.5 | | | | |
| 05/05/12 | 0957-1010 | 24/Cloudy | Surface | 1.0 | 26.4 | 25.7 | 25.8 | 7.26 | 7.28 | 101.6 | 101.9 | 3.77 | 3.80 | 3.66 | 5.6 | 5.7 | 5.6 | | |
| | | | | | | 25.8 | | 7.29 | | 102.1 | | 3.82 | | | 5.8 | | | | |
| | | | Middle | 6.8 | 26.1 | 26.4 | 26.5 | 7.20 | 7.19 | 100.6 | 100.4 | 3.64 | 3.65 | | 3.64 | | | 3.65 | 5.6 |
| | | | | | | 26.5 | | 7.17 | | 100.2 | | 3.66 | | | 5.6 | | | | |
| | | | Bottom | 12.6 | 25.8 | 27.2 | 27.2 | 7.04 | 7.02 | 98.4 | 98.2 | 3.53 | 3.55 | | 3.53 | | | 3.55 | 5.4 |
| | | | | | | 27.2 | | 7.00 | | 97.9 | | 3.56 | | | 5.5 | | | | |
| 08/05/12 | 1334-1349 | 30/Fine | Surface | 1.0 | 26.4 | 27.6 | 27.6 | 6.99 | 6.98 | 100.0 | 99.9 | 4.13 | 4.17 | 4.11 | 6.2 | 6.2 | 6.1 | | |
| | | | | | | 27.5 | | 6.97 | | 99.7 | | 4.20 | | | 6.2 | | | | |
| | | | Middle | 7.4 | 26.0 | 27.8 | 27.9 | 6.98 | 6.95 | 99.9 | 99.5 | 4.00 | 3.98 | | 4.00 | | | 3.98 | 6.0 |
| | | | | | | 27.9 | | 6.92 | | 99.0 | | 3.96 | | | 6.0 | | | | |
| | | | Bottom | 13.8 | 25.9 | 28.0 | 28.1 | 6.92 | 6.90 | 98.8 | 98.6 | 4.16 | 4.19 | | 4.16 | | | 4.19 | 6.2 |
| | | | | | | 28.1 | | 6.87 | | 98.3 | | 4.22 | | | 6.0 | | | | |
| 10/05/12 | 1404-1419 | 31/Fine | Surface | 1.0 | 26.2 | 27.2 | 27.3 | 6.60 | 6.58 | 92.4 | 92.1 | 3.82 | 3.80 | 4.00 | 5.8 | 6.0 | 6.0 | | |
| | | | | | | 27.3 | | 6.56 | | 91.7 | | 3.78 | | | 5.8 | | | | |
| | | | Middle | 7.4 | 26.0 | 27.6 | 27.6 | 6.34 | 6.37 | 88.7 | 89.1 | 4.04 | 4.06 | | 4.04 | | | 4.06 | 6.0 |
| | | | | | | 27.5 | | 6.39 | | 89.4 | | 4.08 | | | 6.0 | | | | |
| | | | Bottom | 13.4 | 25.9 | 27.7 | 27.7 | 6.31 | 6.30 | 88.3 | 88.1 | 4.13 | 4.15 | | 4.13 | | | 4.15 | 6.2 |
| | | | | | | 27.7 | | 6.28 | | 87.9 | | 4.16 | | | 6.0 | | | | |
| 12/05/12 | 1503-1515 | 28/Rainy | Surface | 1.0 | 26.3 | 25.9 | 26.0 | 7.23 | 7.21 | 102.9 | 102.6 | 4.14 | 4.18 | 4.15 | 6.0 | 6.1 | 6.1 | | |
| | | | | | | 26.0 | | 7.19 | | 102.3 | | 4.21 | | | 6.2 | | | | |
| | | | Middle | 6.7 | 25.9 | 26.8 | 26.8 | 6.90 | 6.92 | 98.0 | 98.3 | 4.07 | 4.10 | | 4.07 | | | 4.10 | 6.0 |
| | | | | | | 26.8 | | 6.94 | | 98.6 | | 4.13 | | | 6.2 | | | | |
| | | | Bottom | 12.4 | 25.8 | 27.0 | 27.0 | 6.82 | 6.84 | 96.9 | 97.2 | 4.13 | 4.17 | | 4.13 | | | 4.17 | 6.0 |
| | | | | | | 27.0 | | 6.86 | | 97.4 | | 4.20 | | | 6.0 | | | | |
| 15/05/12 | 0810-0825 | 26/Drizzle | Surface | 1.0 | 26.5 | 27.1 | 27.1 | 6.90 | 6.92 | 96.6 | 96.9 | 4.45 | 4.47 | 4.70 | 6.4 | 6.4 | 6.7 | | |
| | | | | | | 27.1 | | 6.94 | | 97.2 | | 4.49 | | | 6.4 | | | | |
| | | | Middle | 7.1 | 26.5 | 27.5 | 27.5 | 6.57 | 6.55 | 91.9 | 91.6 | 4.66 | 4.67 | | 4.66 | | | 4.67 | 6.6 |
| | | | | | | 27.4 | | 6.52 | | 91.3 | | 4.68 | | | 6.6 | | | | |
| | | | Bottom | 13.2 | 25.8 | 27.8 | 27.8 | 6.47 | 6.46 | 90.2 | 90.2 | 4.93 | 4.97 | | 4.93 | | | 4.97 | 7.0 |
| | | | | | | 27.8 | | 6.44 | | 90.2 | | 5.01 | | | 7.0 | | | | |
| 17/05/12 | 0928-0940 | 28/Cloudy | Surface | 1.0 | 26.6 | 26.3 | 26.3 | 6.92 | 6.94 | 99.6 | 99.9 | 3.83 | 3.84 | 4.00 | 5.8 | 6.0 | 6.0 | | |
| | | | | | | 26.2 | | 6.95 | | 100.1 | | 3.85 | | | 5.8 | | | | |
| | | | Middle | 6.8 | 26.5 | 26.8 | 26.9 | 6.84 | 6.82 | 98.5 | 98.2 | 4.01 | 4.03 | | 4.01 | | | 4.03 | 6.0 |
| | | | | | | 26.9 | | 6.80 | | 97.9 | | 4.04 | | | 6.0 | | | | |
| | | | Bottom | 12.6 | 26.2 | 27.8 | 27.9 | 6.66 | 6.64 | 95.8 | 95.5 | 4.12 | 4.13 | | 4.12 | | | 4.13 | 6.2 |
| | | | | | | 27.9 | | 6.62 | | 95.2 | | 4.14 | | | 6.0 | | | | |
| 19/05/12 | 1555-1610 | 30/Cloudy | Surface | 1.0 | 26.5 | 26.1 | 26.1 | 7.06 | 7.04 | 101.0 | 100.7 | 4.05 | 4.08 | 4.20 | 6.0 | 6.1 | 6.3 | | |
| | | | | | | 26.1 | | 7.02 | | 100.4 | | 4.11 | | | 6.2 | | | | |
| | | | Middle | 6.7 | 26.4 | 26.7 | 26.7 | 6.96 | 6.94 | 99.5 | 99.2 | 4.18 | 4.21 | | 4.18 | | | 4.21 | 6.2 |
| | | | | | | 26.7 | | 6.91 | | 98.8 | | 4.23 | | | 6.2 | | | | |
| | | | Bottom | 12.4 | 26.3 | 27.2 | 27.2 | 6.74 | 6.77 | 96.4 | 96.8 | 4.28 | 4.30 | | 4.28 | | | 4.30 | 6.4 |
| | | | | | | 27.2 | | 6.79 | | 97.1 | | 4.32 | | | 6.5 | | | | |
| 22/05/12 | 1231-1244 | 28/Fine | Surface | 1.0 | 26.5 | 25.4 | 25.4 | 6.40 | 6.38 | 91.1 | 90.8 | 3.85 | 3.84 | 3.91 | 5.8 | 5.7 | 5.8 | | |
| | | | | | | 25.4 | | 6.35 | | 90.4 | | 3.83 | | | 5.6 | | | | |
| | | | Middle | 6.9 | 26.2 | 25.9 | 26.0 | 6.17 | 6.19 | 87.8 | 88.2 | 3.84 | 3.87 | | 3.84 | | | 3.87 | 5.6 |
| | | | | | | 26.0 | | 6.21 | | 88.6 | | 3.90 | | | 5.8 | | | | |
| | | | Bottom | 12.8 | 26.1 | 27.1 | 27.1 | 6.07 | 6.09 | 86.5 | 86.8 | 4.00 | 4.03 | | 4.00 | | | 4.03 | 6.0 |
| | | | | | | 27.0 | | 6.10 | | 87.0 | | 4.06 | | | 6.0 | | | | |
| 24/05/12 | 1329-1344 | 27/Fine | Surface | 1.0 | 26.2 | 25.7 | 25.7 | 6.63 | 6.65 | 94.1 | 94.4 | 3.55 | 3.58 | 3.75 | 5.4 | 5.6 | 5.7 | | |
| | | | | | | 25.7 | | 6.67 | | 94.7 | | 3.61 | | | 5.6 | | | | |
| | | | Middle | 7.0 | 26.2 | 26.4 | 26.4 | 6.58 | 6.55 | 93.4 | 93.0 | 3.72 | 3.74 | | 3.72 | | | 3.74 | 5.6 |
| | | | | | | 26.4 | | 6.52 | | 92.5 | | 3.76 | | | 5.6 | | | | |
| | | | Bottom | 13.0 | 26.1 | 26.9 | 27.0 | 6.38 | 6.36 | 90.5 | 90.3 | 3.90 | 3.93 | | 3.90 | | | 3.93 | 5.8 |
| | | | | | | 27.0 | | 6.34 | | 90.0 | | 3.95 | | | 6.0 | | | | |
| 26/05/12 | 1324-1338 | 26/Rainy | Surface | 1.0 | 26.5 | 26.7 | 26.8 | 6.13 | 6.12 | 87.3 | 87.1 | 4.28 | 4.30 | 4.52 | 6.2 | 6.2 | 6.5 | | |
| | | | | | | 26.8 | | 6.10 | | 86.9 | | 4.31 | | | 6.2 | | | | |
| | | | Middle | 7.0 | 26.3 | 26.9 | 27.0 | 6.01 | 5.99 | 85.6 | 85.4 | 4.58 | 4.60 | | 4.58 | | | 4.60 | 6.6 |
| | | | | | | 27.0 | | 5.97 | | 85.1 | | 4.62 | | | 6.8 | | | | |
| | | | Bottom | 13.0 | 26.3 | 27.2 | 27.3 | 5.88 | 5.86 | 83.8 | 83.5 | 4.67 | 4.65 | | 4.67 | | | 4.65 | 6.6 |
| | | | | | | 27.3 | | 5.84 | | 83.2 | | 4.63 | | | 6.5 | | | | |
| 29/05/12 | 1558-1610 | 27/Cloudy | Surface | 1.0 | 26.3 | 25.6 | 25.6 | 6.38 | 6.35 | 91.1 | 90.6 | 4.06 | 4.09 | 4.28 | 6.0 | 6.1 | 6.3 | | |
| | | | | | | 25.6 | | 6.31 | | 90.0 | | 4.11 | | | 6.2 | | | | |
| | | | Middle | 7.1 | 26.1 | 26.5 | 26.5 | 6.16 | 6.19 | 87.8 | 88.3 | 4.27 | 4.30 | | 4.27 | | | 4.30 | 6.2 |
| | | | | | | 26.4 | | 6.22 | | 88.7 | | 4.33 | | | 6.4 | | | | |
| | | | Bottom | 13.2 | 25.8 | 27.0 | 27.0 | 6.28 | 6.25 | 89.3 | 89.0 | 4.49 | 4.46 | | 4.49 | | | 4.46 | 6.6 |
| | | | | | | 27.0 | | 6.22 | | 88.7 | | 4.42 | | | 6.6 | | | | |
| 31/05/12 | 0814-0828 | 26/Cloudy | Surface | 1.0 | 27.0 | 26.7 | 26.7 | 6.09 | 6.08 | 87.7 | 87.5 | 4.10 | 4.14 | 4.36 | 6.0 | 6.1 | 6.4 | | |
| | | | | | | 26.7 | | 6.06 | | 87.4 | | 4.17 | | | 6.2 | | | | |
| | | | Middle | 6.9 | 26.9 | 26.9 | 26.9 | 6.02 | 6.03 | 86.7 | 86.8 | 4.36 | 4.38 | | 4.36 | | | 4.38 | 6.4 |
| | | | | | | 26.9 | | 6.04 | | 86.9 | | 4.40 | | | 6.4 | | | | |
| | | | Bottom | 12.8 | 26.9 | 27.1 | 27.1 | 5.85 | 5.84 | 84.2 | 84.0 | 4.56 | 4.57 | | 4.56 | | | 4.57 | 6.6 |
| | | | | | | 27.1 | | 5.82 | | 83.8 | | 4.57 | | | 6.5 | | | | |

Mid-Ebb Tide

Monitoring Station : C3

| Date | Sampling Duration | Ambient Temp (°C) / Weather Condition | Monitoring Depth (m) | | Temp (°C) | Salinity (ppt) | | Dissolved Oxygen (mg/L) | | Dissolved Oxygen Saturation (%) | | Turbidity (NTU) | | | Suspended Solids (mg/L) | | | |
|----------|-------------------|---------------------------------------|----------------------|------|-----------|----------------|---------|-------------------------|---------|---------------------------------|---------|-----------------|---------|---------------|-------------------------|---------|---------------|-----|
| | | | | | | Value | Average | Value | Average | Value | Average | Value | Average | Depth-average | Value | Average | Depth-average | |
| 03/05/12 | 0925-0940 | 27/Cloudy | Surface | 1.0 | 25.6 | 27.0 | 27.0 | 6.74 | 6.77 | 91.6 | 92.0 | 4.27 | 4.31 | 4.45 | 6.2 | 6.2 | 6.4 | |
| | | | | | | 26.9 | | 6.79 | | 92.3 | | 4.35 | | | 6.2 | | | |
| | | | Middle | 6.3 | 25.6 | 27.1 | 27.1 | 6.70 | 6.69 | 91.1 | 90.9 | 4.39 | 4.41 | | 6.4 | | | 6.4 |
| | | | | | | 27.0 | | 6.67 | | 90.7 | | 4.43 | | | 6.4 | | | |
| | | | Bottom | 11.6 | 25.5 | 27.3 | 27.3 | 6.60 | 6.59 | 89.8 | 89.6 | 4.59 | 4.62 | | 6.6 | | | 6.6 |
| | | | | | | 27.3 | | 6.57 | | 89.3 | | 4.64 | | | 6.6 | | | |
| 05/05/12 | 1016-1028 | 24/Cloudy | Surface | 1.0 | 26.3 | 25.8 | 25.8 | 7.21 | 7.23 | 100.9 | 101.1 | 3.67 | 3.70 | 3.68 | 5.6 | 5.6 | 5.6 | |
| | | | | | | 25.8 | | 7.24 | | 101.3 | | 3.72 | | | 5.6 | | | |
| | | | Middle | 6.6 | 26.1 | 26.5 | 26.5 | 7.34 | 7.36 | 102.7 | 102.9 | 3.54 | 3.57 | | 5.4 | | | 5.4 |
| | | | | | | 26.4 | | 7.37 | | 103.1 | | 3.59 | | | 5.4 | | | |
| | | | Bottom | 12.2 | 25.9 | 27.2 | 27.2 | 7.13 | 7.10 | 99.7 | 99.3 | 3.77 | 3.78 | | 5.6 | | | 5.7 |
| | | | | | | 27.1 | | 7.07 | | 98.8 | | 3.79 | | | 5.8 | | | |
| 08/05/12 | 1356-1409 | 30/Fine | Surface | 1.0 | 26.4 | 27.5 | 27.5 | 6.99 | 6.98 | 99.8 | 99.5 | 4.06 | 4.03 | 3.89 | 6.0 | 6.0 | 5.9 | |
| | | | | | | 27.4 | | 6.96 | | 99.1 | | 4.00 | | | 6.0 | | | |
| | | | Middle | 6.8 | 26.0 | 27.9 | 27.9 | 6.89 | 6.92 | 98.3 | 98.8 | 3.82 | 3.81 | | 5.8 | | | 5.8 |
| | | | | | | 27.9 | | 6.94 | | 99.2 | | 3.79 | | | 5.8 | | | |
| | | | Bottom | 12.5 | 25.9 | 28.1 | 28.1 | 6.82 | 6.85 | 97.4 | 97.8 | 3.81 | 3.84 | | 5.8 | | | 5.8 |
| | | | | | | 28.0 | | 6.87 | | 98.2 | | 3.86 | | | 5.8 | | | |
| 10/05/12 | 1424-1439 | 31/Fine | Surface | 1.0 | 26.2 | 27.3 | 27.4 | 6.57 | 6.56 | 91.9 | 91.7 | 3.91 | 3.89 | 4.03 | 5.8 | 5.8 | 6.0 | |
| | | | | | | 27.4 | | 6.54 | | 91.5 | | 3.86 | | | 5.8 | | | |
| | | | Middle | 6.7 | 26.0 | 27.5 | 27.6 | 6.50 | 6.48 | 90.9 | 90.7 | 4.07 | 4.05 | | 6.0 | | | 6.0 |
| | | | | | | 27.6 | | 6.46 | | 90.4 | | 4.03 | | | 6.0 | | | |
| | | | Bottom | 12.4 | 25.8 | 27.7 | 27.7 | 6.33 | 6.35 | 88.5 | 88.8 | 4.18 | 4.16 | | 6.2 | | | 6.2 |
| | | | | | | 27.7 | | 6.37 | | 89.1 | | 4.14 | | | 6.2 | | | |
| 12/05/12 | 1522-1533 | 28/Rainy | Surface | 1.0 | 26.3 | 26.0 | 26.0 | 7.18 | 7.16 | 102.2 | 101.9 | 4.06 | 4.10 | 4.32 | 6.0 | 6.1 | 6.3 | |
| | | | | | | 25.9 | | 7.14 | | 101.6 | | 4.13 | | | 6.2 | | | |
| | | | Middle | 6.3 | 25.8 | 26.8 | 26.9 | 6.85 | 6.87 | 97.3 | 97.5 | 4.33 | 4.31 | | 6.4 | | | 6.3 |
| | | | | | | 26.9 | | 6.88 | | 97.7 | | 4.28 | | | 6.2 | | | |
| | | | Bottom | 11.6 | 25.6 | 27.1 | 27.1 | 6.67 | 6.69 | 94.7 | 95.0 | 4.59 | 4.55 | | 6.6 | | | 6.6 |
| | | | | | | 27.1 | | 6.71 | | 95.2 | | 4.51 | | | 6.6 | | | |
| 15/05/12 | 0828-0841 | 26/Drizzle | Surface | 1.0 | 26.5 | 27.0 | 27.0 | 7.12 | 7.12 | 99.7 | 99.6 | 4.62 | 4.65 | 4.92 | 6.6 | 6.6 | 6.9 | |
| | | | | | | 27.0 | | 7.11 | | 99.5 | | 4.68 | | | 6.6 | | | |
| | | | Middle | 6.9 | 26.4 | 27.4 | 27.4 | 6.94 | 6.95 | 97.2 | 97.3 | 4.93 | 4.96 | | 7.0 | | | 7.0 |
| | | | | | | 27.4 | | 6.96 | | 97.4 | | 4.98 | | | 7.0 | | | |
| | | | Bottom | 12.8 | 26.1 | 27.7 | 27.7 | 6.90 | 6.92 | 96.6 | 96.8 | 5.12 | 5.15 | | 7.2 | | | 7.2 |
| | | | | | | 27.7 | | 6.93 | | 97.0 | | 5.17 | | | 7.2 | | | |
| 17/05/12 | 0946-0958 | 28/Cloudy | Surface | 1.0 | 26.7 | 26.2 | 26.3 | 7.03 | 7.05 | 101.2 | 101.6 | 3.62 | 3.63 | 3.83 | 5.6 | 5.6 | 5.8 | |
| | | | | | | 26.3 | | 7.07 | | 101.9 | | 3.64 | | | 5.6 | | | |
| | | | Middle | 6.6 | 26.5 | 26.7 | 26.8 | 6.95 | 6.93 | 100.1 | 99.8 | 3.88 | 3.86 | | 5.8 | | | 5.8 |
| | | | | | | 26.8 | | 6.91 | | 99.5 | | 3.84 | | | 5.8 | | | |
| | | | Bottom | 12.2 | 26.2 | 27.7 | 27.8 | 6.84 | 6.83 | 98.4 | 98.2 | 3.97 | 4.00 | | 6.0 | | | 6.0 |
| | | | | | | 27.8 | | 6.81 | | 97.9 | | 4.02 | | | 6.0 | | | |
| 19/05/12 | 1616-1630 | 30/Cloudy | Surface | 1.0 | 26.4 | 26.2 | 26.2 | 7.02 | 7.00 | 100.4 | 100.1 | 3.98 | 4.00 | 4.03 | 5.8 | 5.9 | 6.0 | |
| | | | | | | 26.2 | | 6.97 | | 99.7 | | 4.02 | | | 6.0 | | | |
| | | | Middle | 6.5 | 26.3 | 26.8 | 26.8 | 6.90 | 6.88 | 98.7 | 98.4 | 4.06 | 4.00 | | 6.0 | | | 5.9 |
| | | | | | | 26.8 | | 6.86 | | 98.1 | | 3.93 | | | 5.8 | | | |
| | | | Bottom | 12.0 | 26.3 | 27.2 | 27.3 | 6.70 | 6.73 | 95.8 | 96.2 | 4.07 | 4.10 | | 6.0 | | | 6.1 |
| | | | | | | 27.3 | | 6.75 | | 96.5 | | 4.12 | | | 6.2 | | | |
| 22/05/12 | 1250-1302 | 28/Fine | Surface | 1.0 | 26.5 | 25.3 | 25.3 | 6.38 | 6.41 | 90.9 | 91.3 | 3.62 | 3.64 | 3.81 | 5.4 | 5.5 | 5.8 | |
| | | | | | | 25.2 | | 6.44 | | 91.7 | | 3.66 | | | 5.6 | | | |
| | | | Middle | 6.6 | 26.3 | 25.8 | 25.9 | 6.27 | 6.29 | 89.2 | 89.5 | 3.87 | 3.84 | | 5.8 | | | 5.8 |
| | | | | | | 25.9 | | 6.31 | | 89.8 | | 3.81 | | | 5.8 | | | |
| | | | Bottom | 12.2 | 26.1 | 26.8 | 26.8 | 6.12 | 6.14 | 87.3 | 87.6 | 3.90 | 3.94 | | 6.0 | | | 6.0 |
| | | | | | | 26.8 | | 6.16 | | 87.8 | | 3.98 | | | 6.0 | | | |
| 24/05/12 | 1350-1404 | 27/Fine | Surface | 1.0 | 26.3 | 25.8 | 25.8 | 6.58 | 6.60 | 93.4 | 93.6 | 3.73 | 3.75 | 3.98 | 5.6 | 5.6 | 5.9 | |
| | | | | | | 25.7 | | 6.61 | | 93.8 | | 3.77 | | | 5.6 | | | |
| | | | Middle | 6.4 | 26.3 | 25.8 | 25.9 | 6.49 | 6.47 | 92.1 | 91.8 | 4.01 | 4.00 | | 6.0 | | | 6.0 |
| | | | | | | 25.9 | | 6.44 | | 91.4 | | 3.98 | | | 6.0 | | | |
| | | | Bottom | 11.8 | 26.2 | 26.3 | 26.4 | 6.37 | 6.35 | 90.4 | 90.1 | 4.18 | 4.21 | | 6.2 | | | 6.2 |
| | | | | | | 26.4 | | 6.32 | | 89.7 | | 4.23 | | | 6.2 | | | |
| 26/05/12 | 1343-1358 | 26/Rainy | Surface | 1.0 | 26.4 | 26.6 | 26.7 | 6.17 | 6.15 | 87.9 | 87.6 | 4.38 | 4.36 | 4.41 | 6.4 | 6.3 | 6.4 | |
| | | | | | | 26.7 | | 6.12 | | 87.2 | | 4.33 | | | 6.2 | | | |
| | | | Middle | 6.5 | 26.4 | 26.9 | 26.9 | 6.05 | 6.07 | 86.2 | 86.4 | 4.46 | 4.44 | | 6.4 | | | 6.4 |
| | | | | | | 26.9 | | 6.08 | | 86.6 | | 4.41 | | | 6.4 | | | |
| | | | Bottom | 12.0 | 26.3 | 27.1 | 27.2 | 5.91 | 5.89 | 84.2 | 83.9 | 4.42 | 4.45 | | 6.4 | | | 6.5 |
| | | | | | | 27.2 | | 5.87 | | 83.6 | | 4.48 | | | 6.6 | | | |
| 29/05/12 | 1617-1631 | 27/Cloudy | Surface | 1.0 | 26.3 | 25.6 | 25.6 | 6.47 | 6.50 | 92.3 | 92.8 | 4.18 | 4.21 | 4.34 | 6.2 | 6.2 | 6.3 | |
| | | | | | | 25.5 | | 6.53 | | 93.3 | | 4.23 | | | 6.2 | | | |
| | | | Middle | 6.75 | 26.0 | 26.4 | 26.5 | 6.32 | 6.36 | 90.4 | 90.8 | 4.40 | 4.37 | | 6.4 | | | 6.3 |
| | | | | | | 26.5 | | 6.39 | | 91.1 | | 4.33 | | | 6.2 | | | |
| | | | Bottom | 12.5 | 25.8 | 27.1 | 27.1 | 6.12 | 6.15 | 87.2 | 87.8 | 4.41 | 4.44 | | 6.4 | | | 6.5 |
| | | | | | | 27.1 | | 6.18 | | 88.4 | | 4.47 | | | 6.6 | | | |
| 31/05/12 | 0834-0849 | 26/Cloudy | Surface | 1.0 | 26.9 | 26.5 | 26.6 | 6.21 | 6.21 | 89.4 | 89.4 | 4.17 | 4.16 | 4.30 | 6.2 | 6.2 | 6.4 | |
| | | | | | | 26.6 | | 6.20 | | 89.3 | | 4.15 | | | 6.2 | | | |
| | | | Middle | 6.4 | 26.9 | 26.8 | 26.8 | 6.13 | 6.11 | 88.3 | 88.0 | 4.30 | 4.32 | | 6.4 | | | 6.4 |
| | | | | | | 26.7 | | 6.09 | | 87.7 | | 4.33 | | | 6.4 | | | |
| | | | Bottom | 11.8 | 26.8 | 26.9 | 26.9 | 5.97 | 5.96 | 85.9 | 85.8 | 4.41 | 4.43 | | 6.6 | | | 6.6 |
| | | | | | | 26.9 | | 5.95 | | 85.7 | | 4.45 | | | 6.6 | | | |

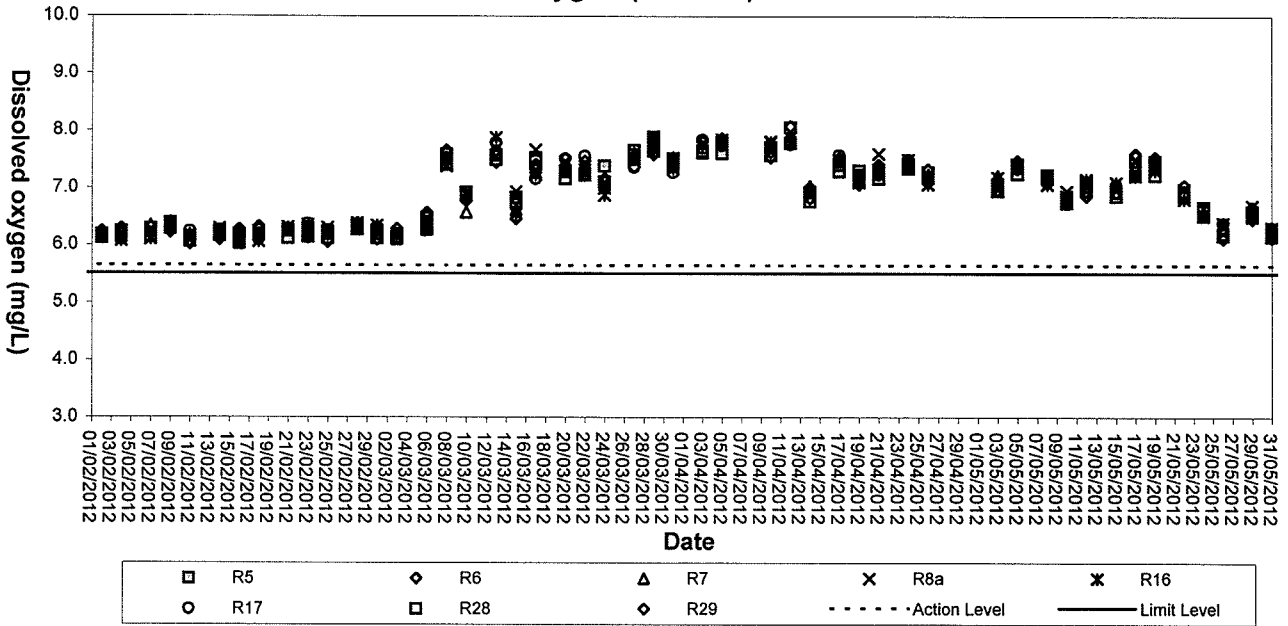


Appendix C3

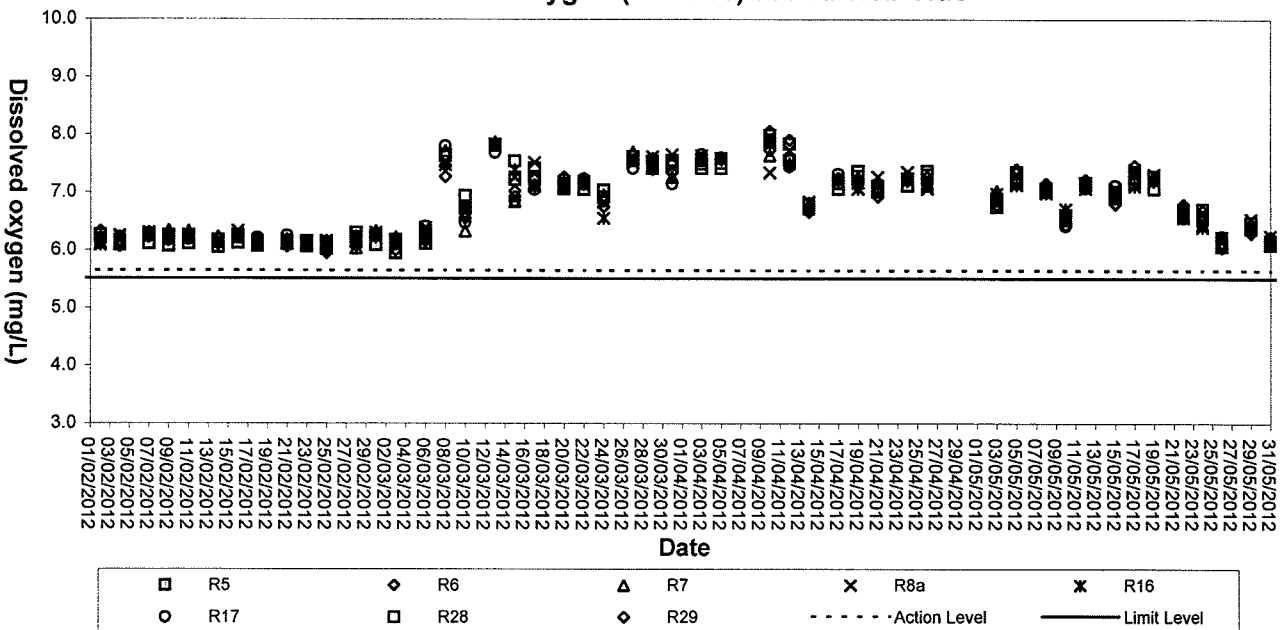
Graphical Plots of Impact Water Quality Monitoring Data



Dissolved Oxygen (Surface) at Mid-Flood Tide

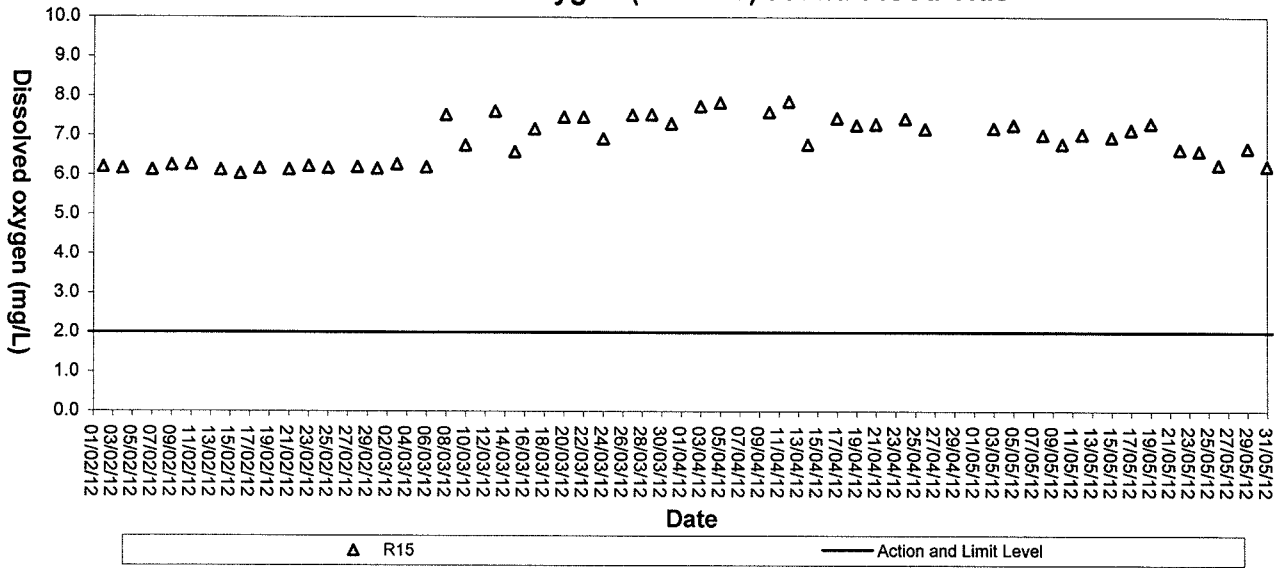


Dissolved Oxygen (Surface) at Mid-Ebb Tide

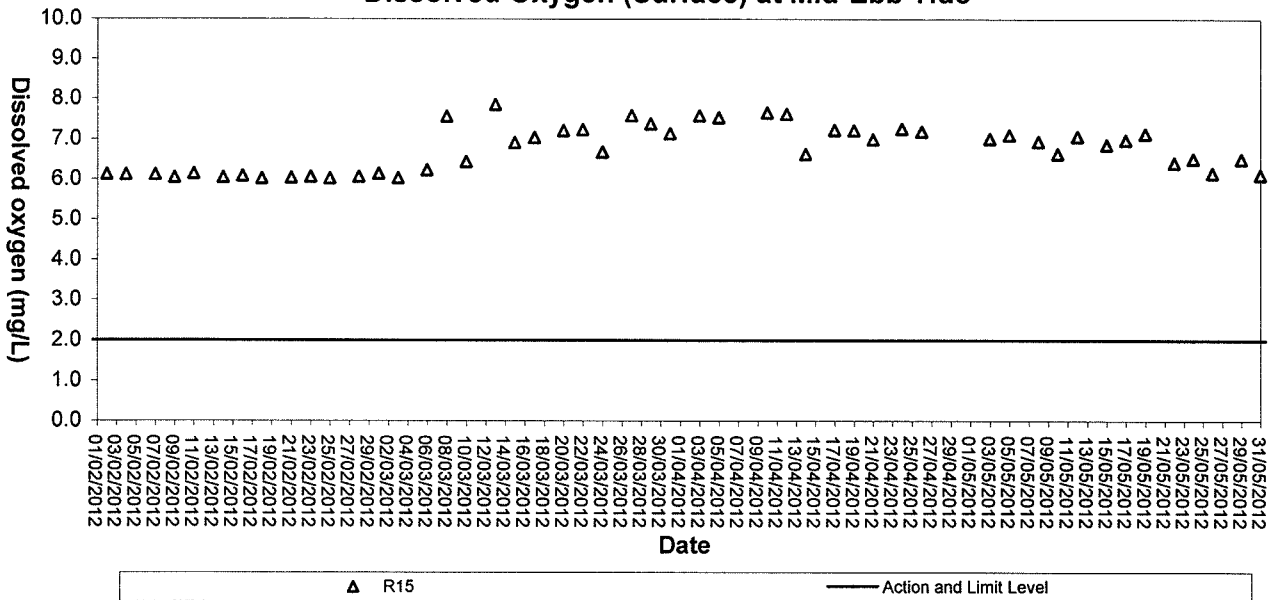




Dissolved Oxygen (Surface) at Mid-Flood Tide

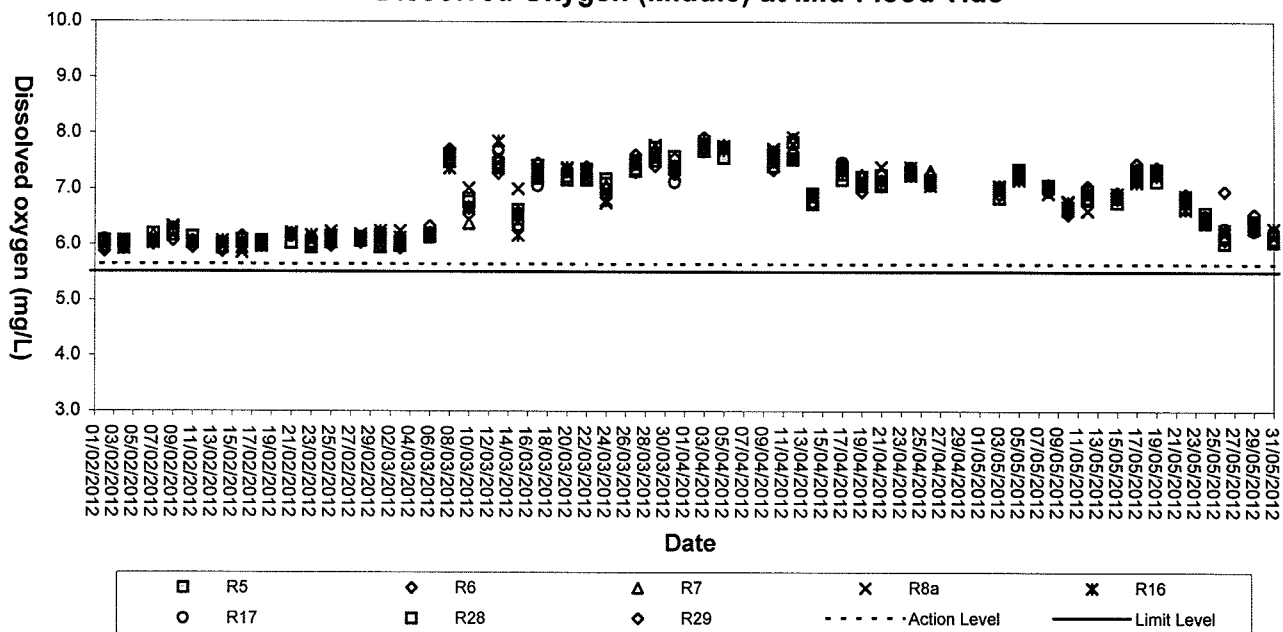


Dissolved Oxygen (Surface) at Mid-Ebb Tide

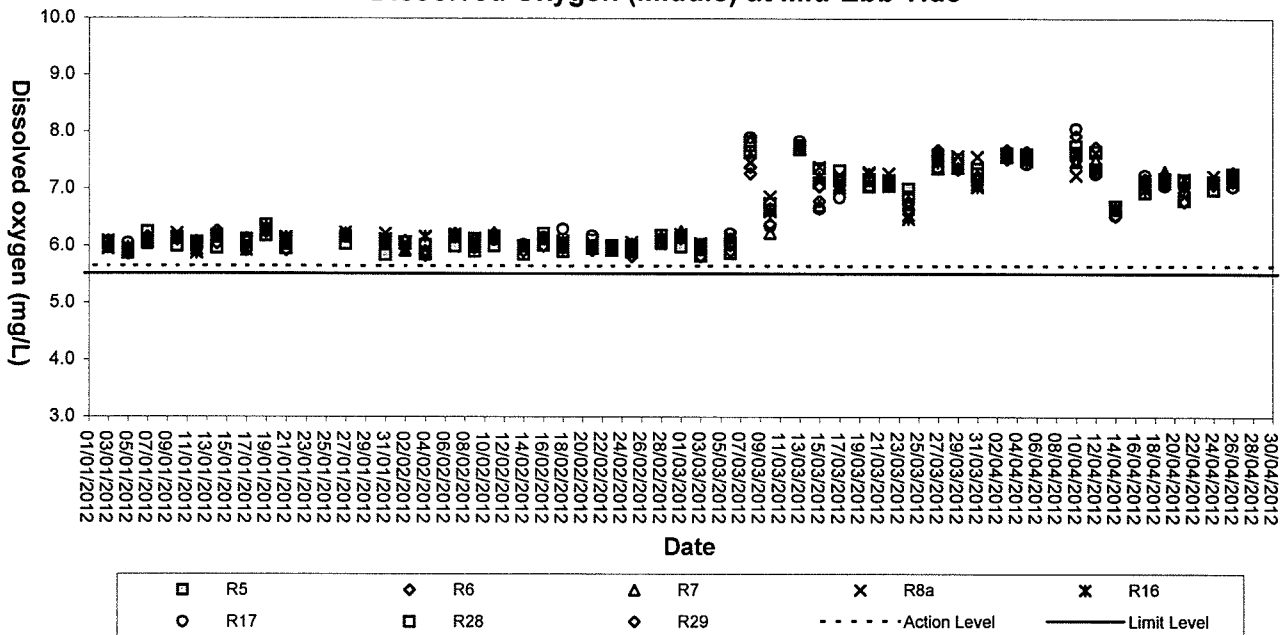




Dissolved Oxygen (Middle) at Mid-Flood Tide

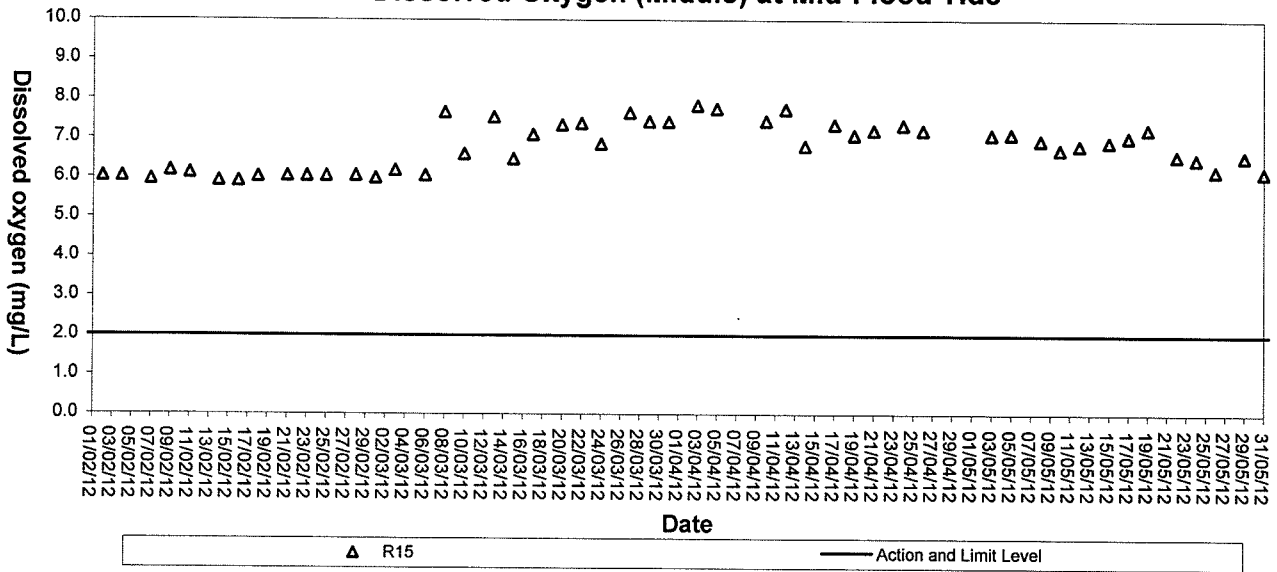


Dissolved Oxygen (Middle) at Mid-Ebb Tide

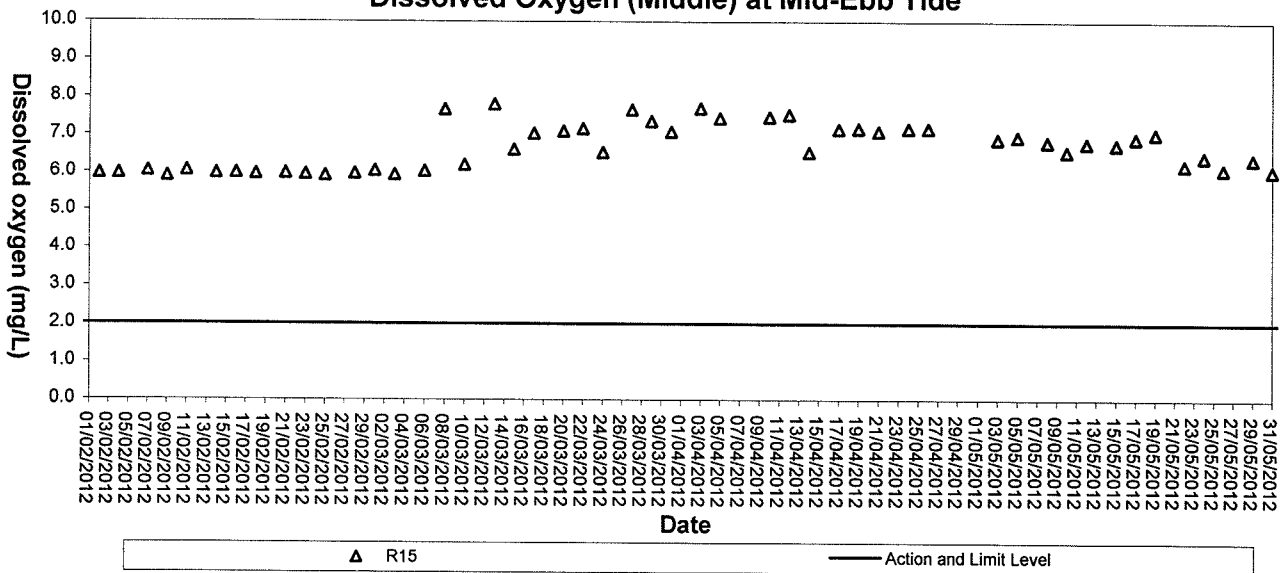




Dissolved Oxygen (Middle) at Mid-Flood Tide

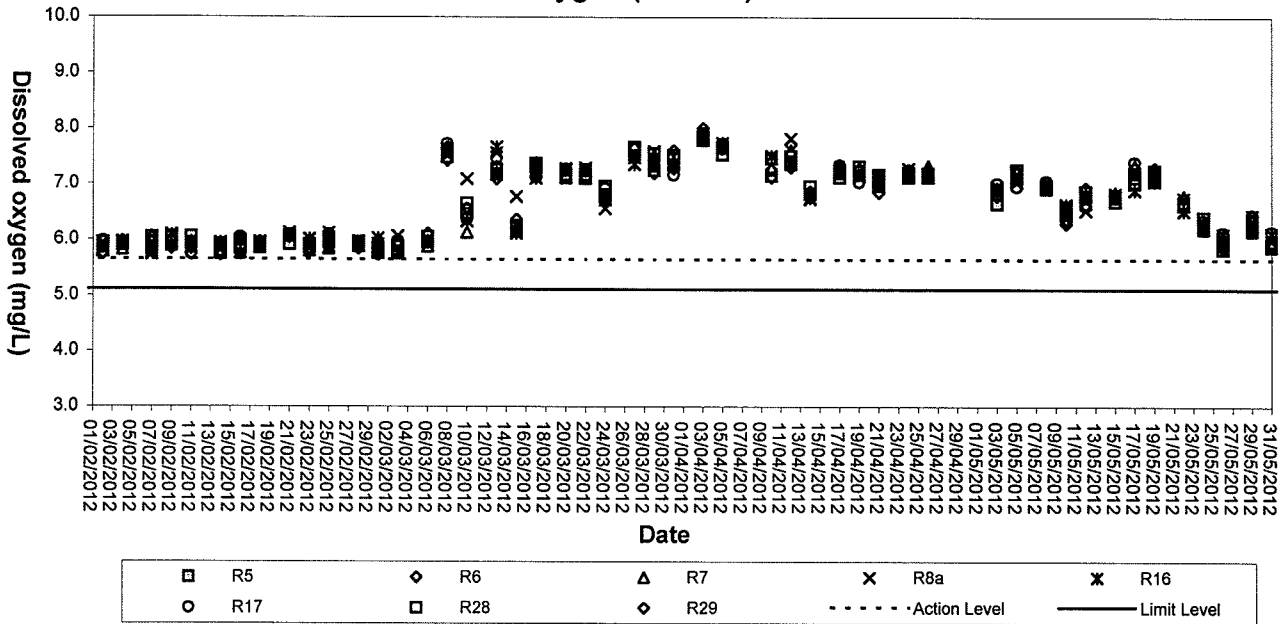


Dissolved Oxygen (Middle) at Mid-Ebb Tide

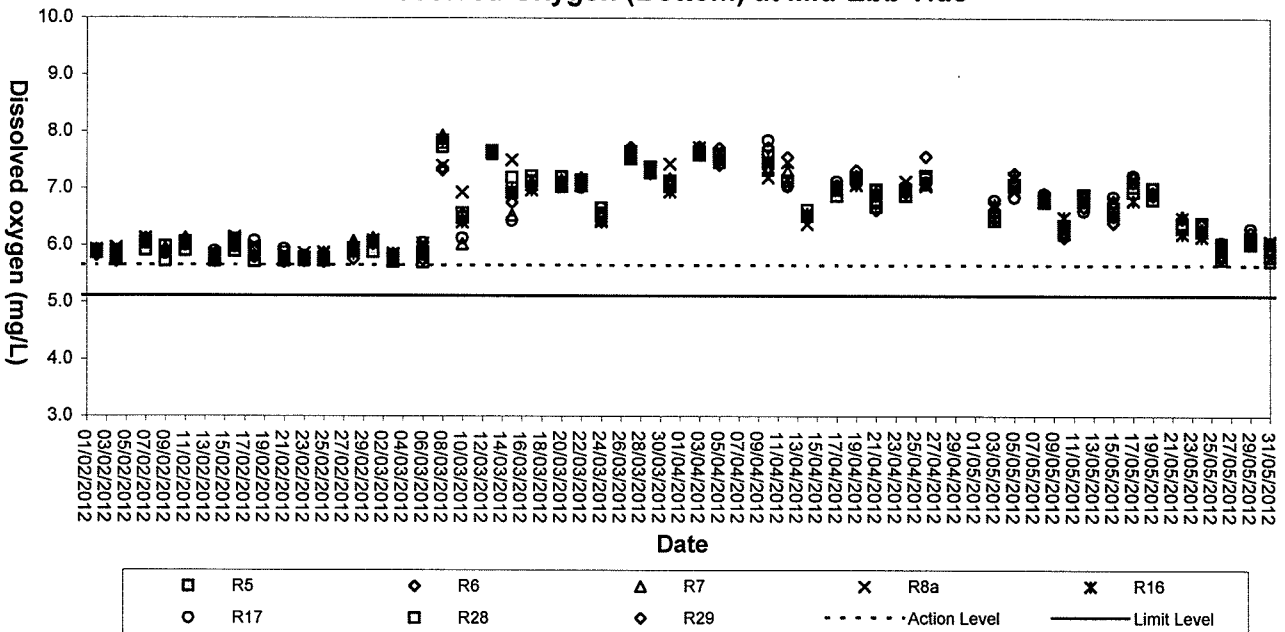




Dissolved Oxygen (Bottom) at Mid-Flood Tide

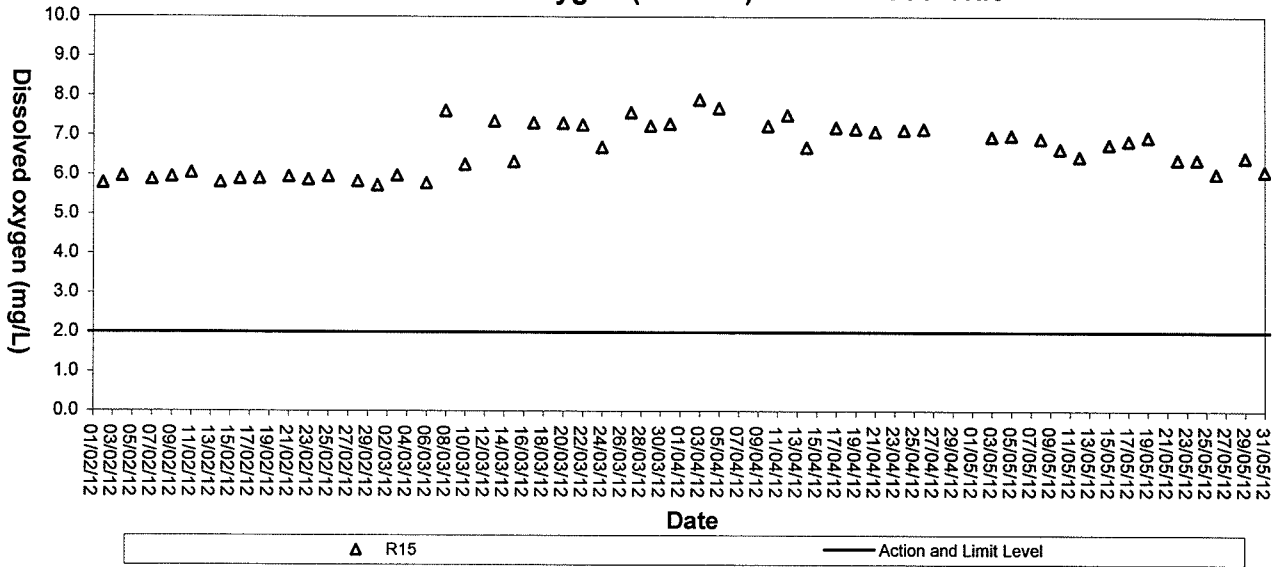


Dissolved Oxygen (Bottom) at Mid-Ebb Tide

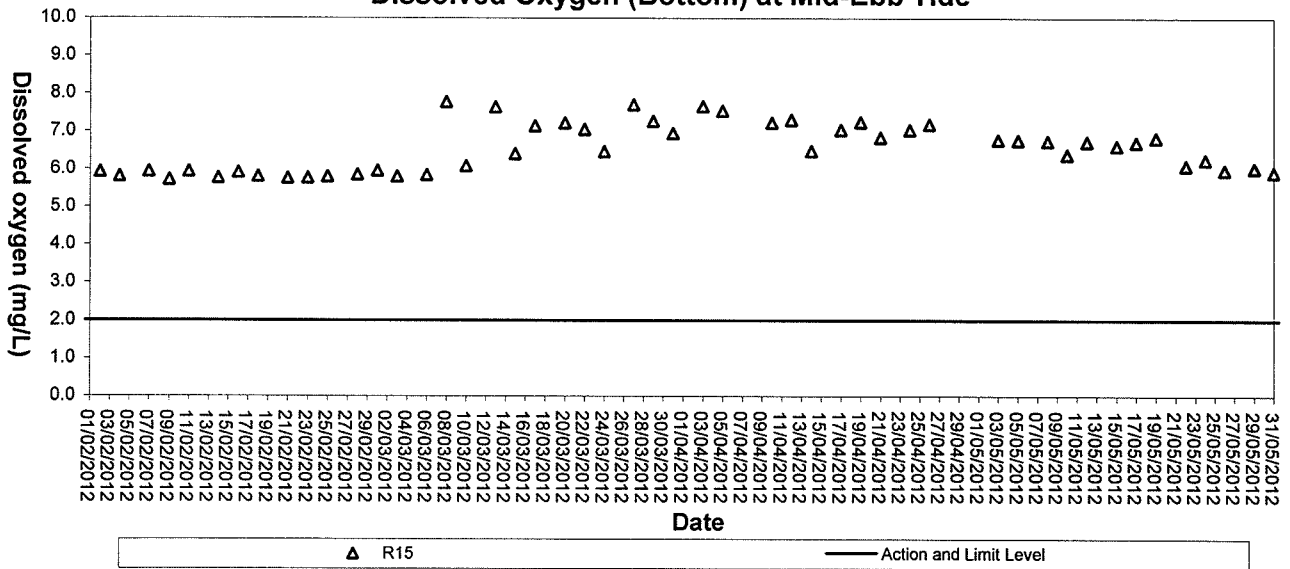




Dissolved Oxygen (Bottom) at Mid-Flood Tide

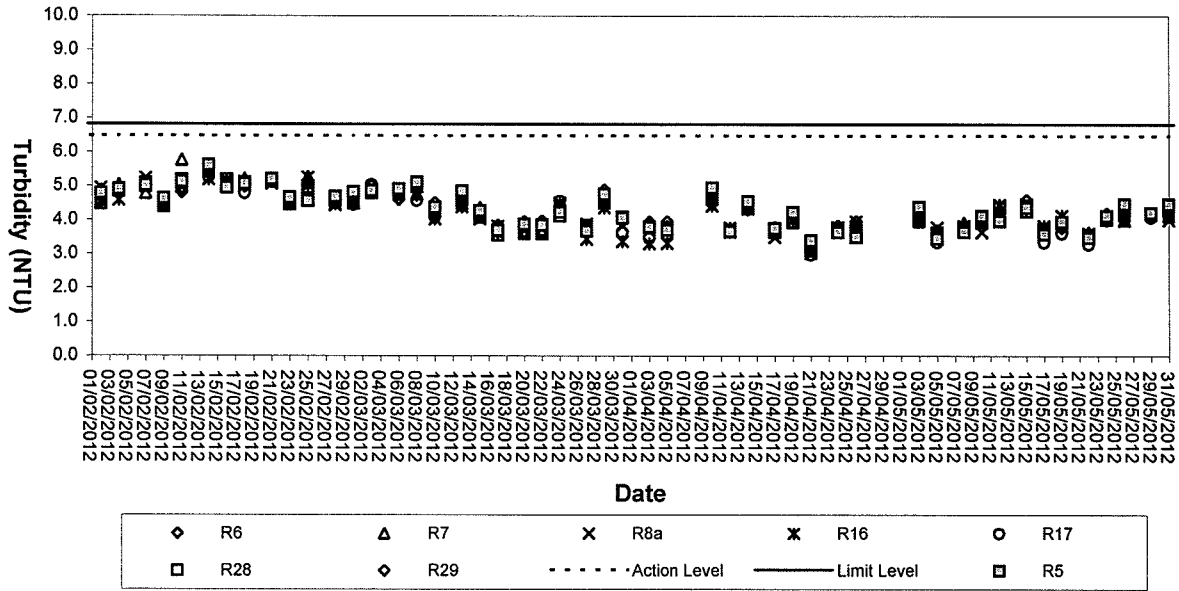


Dissolved Oxygen (Bottom) at Mid-Ebb Tide

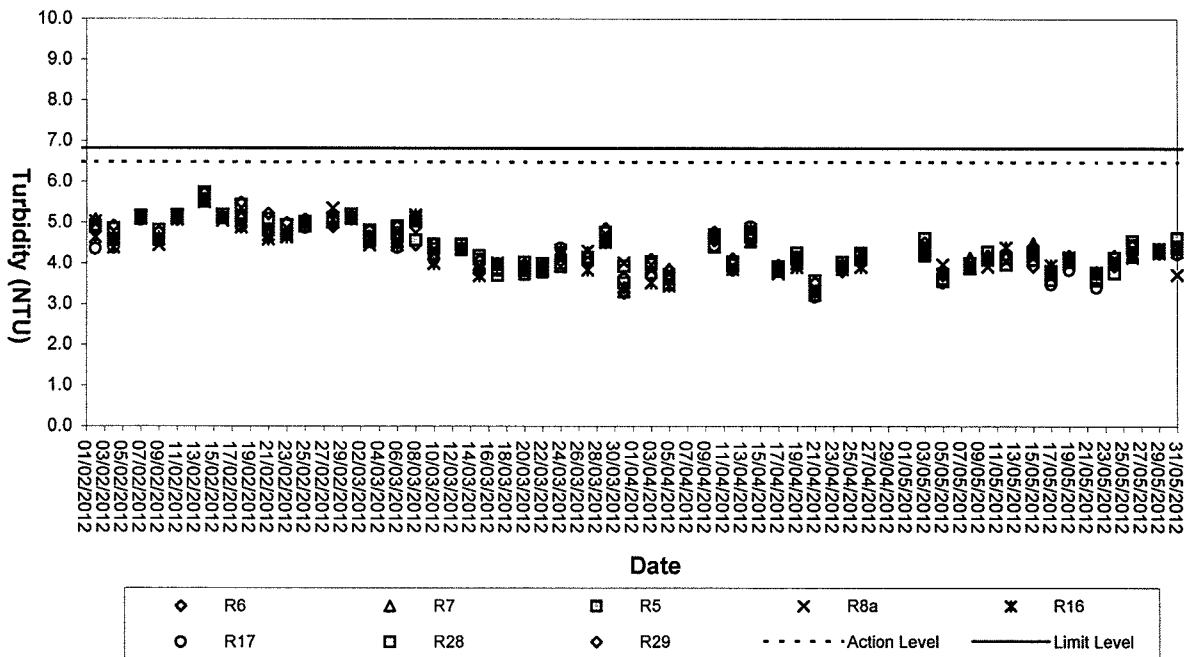




Turbidity (Depth-average) at Mid-Flood Tide

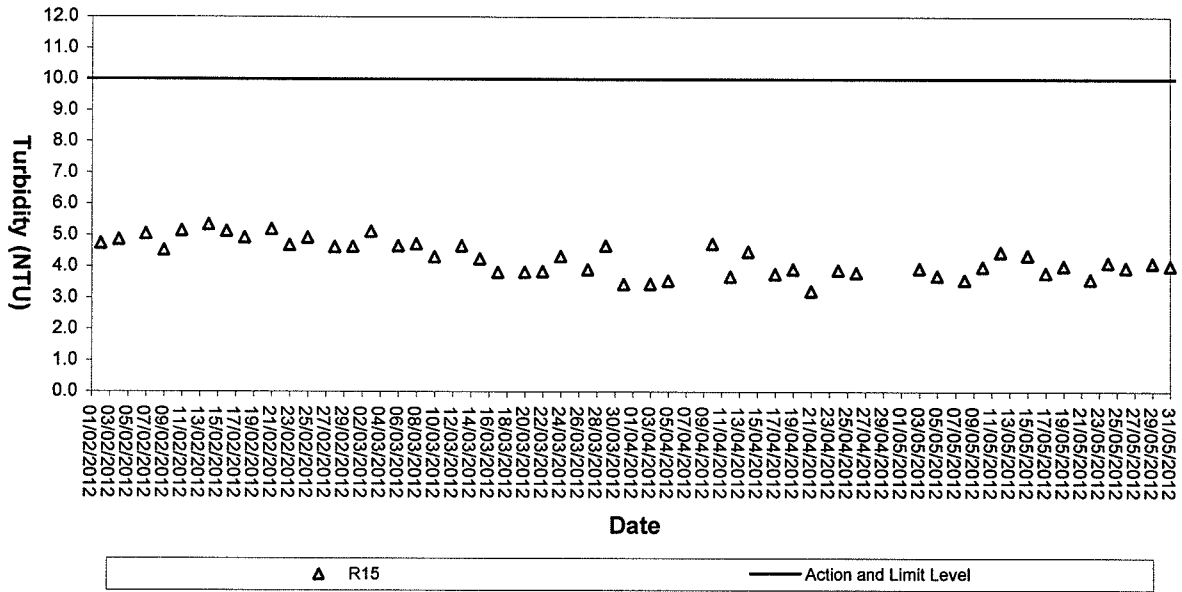


Turbidity (Depth-average) at Mid-Ebb Tide

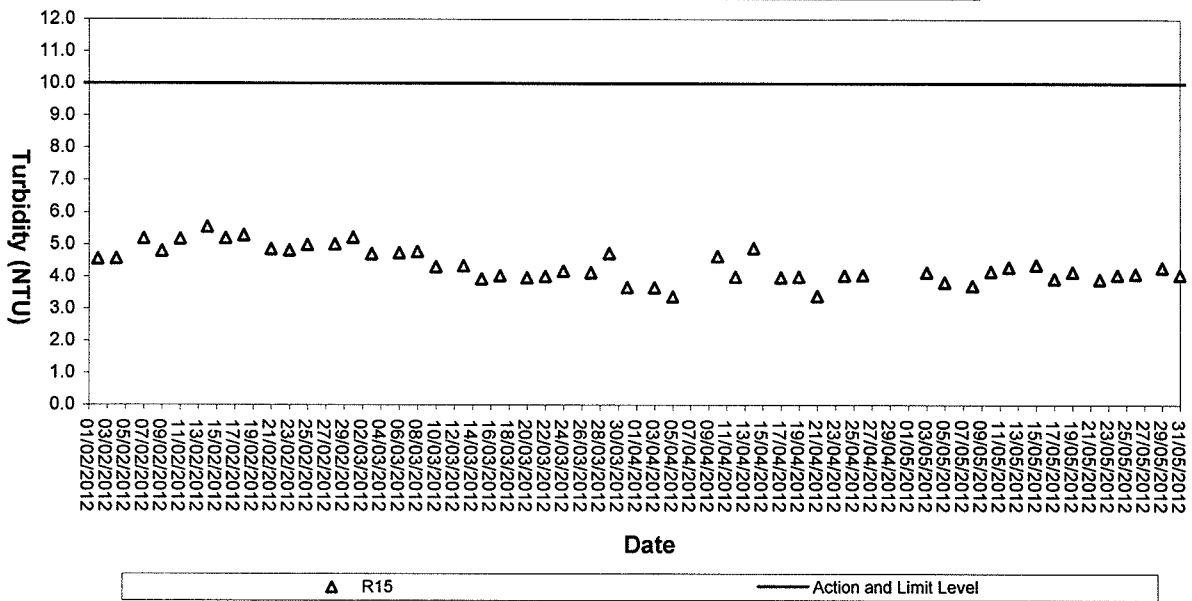




Turbidity (Depth-average) of R15 at Mid-Flood Tide

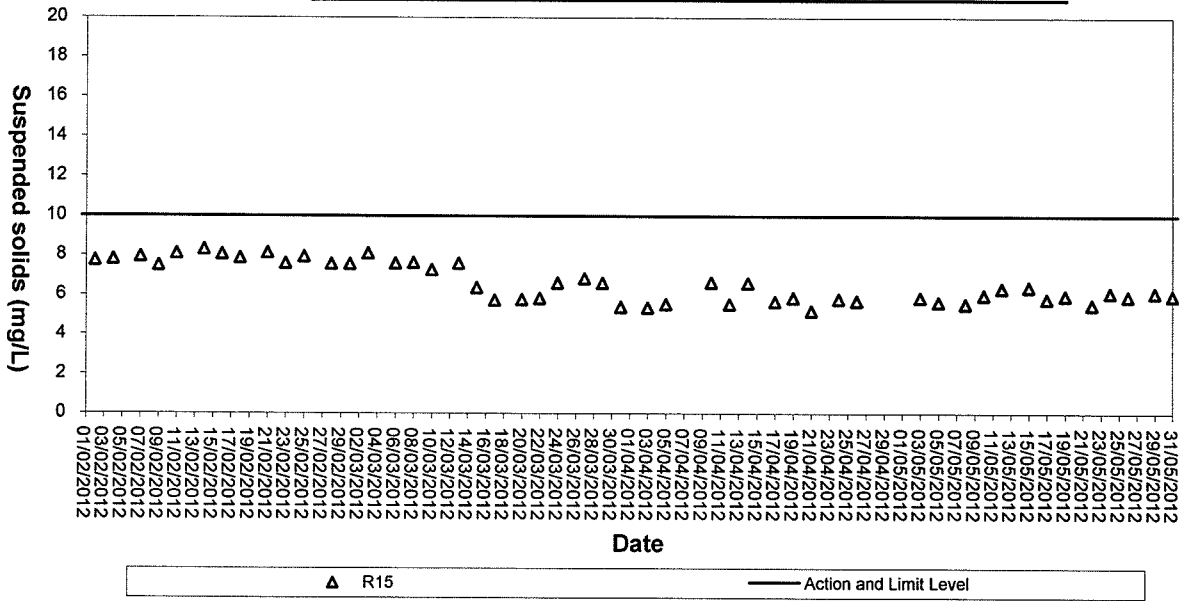


Turbidity (Depth-average) of R15 at Mid-Ebb Tide

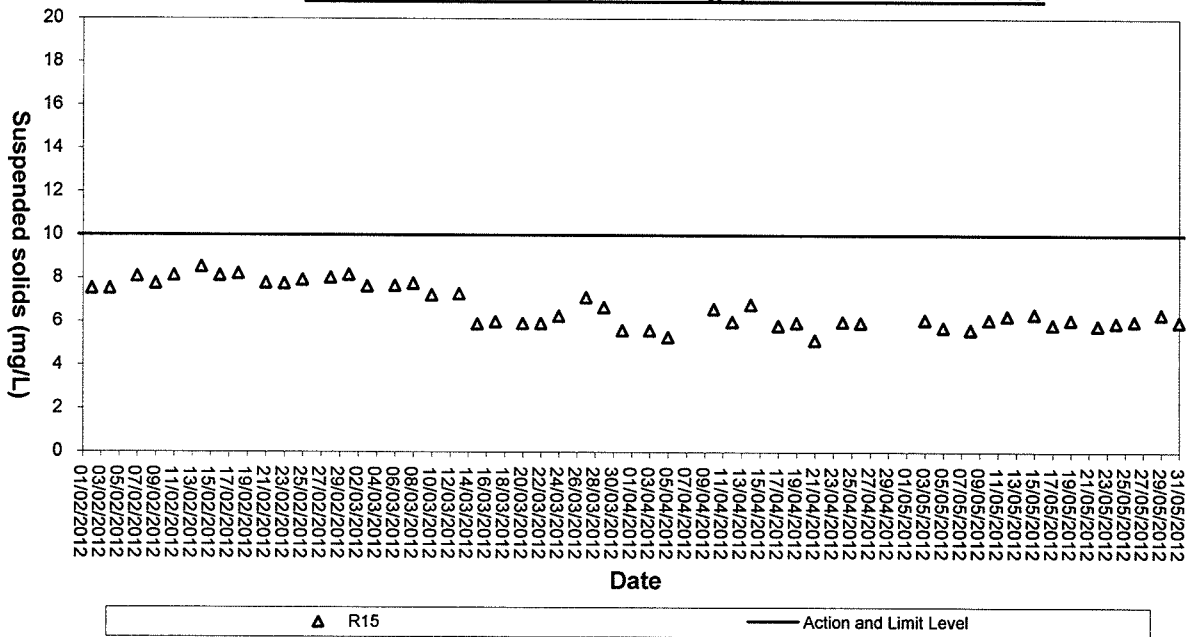




Suspended solids (Depth-average) of R15 at Mid-Flood Tide



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 @ |
| 03/05/12 | 107.4 | R5FS | 8.0 | R8FS | 104.2 |
| | 105.0 | R8FM | 0.0 | R17FM | 106.0 |
| | 103.2 | R17FB | 0.0 | C1FB | 102.0 |
| | 106.1 | C2FS | 0.0 | C4FB | 95.8 |
| | 101.4 | R5ES | 0.0 | R8ES | 100.0 |
| | 100.6 | R8EM | 8.0 | R17EM | 102.0 |
| | 107.2 | R17EB | 0.0 | C1EB | 100.0 |
| | 102.8 | C2ES | 0.0 | C4EB | 95.7 |
| 05/05/12 | 99.8 | R5FS | 0.0 | R8FS | 100.0 |
| | 102.1 | R8FM | 8.7 | R17FM | 96.0 |
| | 104.3 | R17FB | 0.0 | C1FB | 94.1 |
| | 93.2 | C2FS | 0.0 | C4FB | 107.8 |
| | 95.4 | R5ES | 0.0 | R8ES | 93.6 |
| | 103.6 | R8EM | 0.0 | R17EM | 95.8 |
| | 92.2 | R17EB | 0.0 | C1EB | 100.0 |
| | 100.8 | C2ES | 0.0 | C4EB | 95.8 |
| 08/05/12 | 100.4 | R5FS | 0.0 | R8FS | 104.1 |
| | 99.0 | R8FM | 8.0 | R17FM | 105.9 |
| | 107.0 | R17FB | 0.0 | C1FB | 104.1 |
| | 98.6 | C2FS | 0.0 | C4FB | 93.8 |
| | 99.6 | R5ES | 0.0 | R8ES | 102.1 |
| | 97.0 | R8EM | 0.0 | R17EM | 94.3 |
| | 96.1 | R17EB | 8.7 | C1EB | 95.8 |
| | 106.2 | C2ES | 0.0 | C4EB | 95.8 |
| 10/05/12 | 98.4 | R5FS | 0.0 | R8FS | 102.0 |
| | 104.8 | R8FM | 0.0 | R17FM | 101.9 |
| | 104.1 | R17FB | 8.0 | C1FB | 94.1 |
| | 101.7 | C2FS | 9.5 | C4FB | 92.2 |
| | 98.5 | R5ES | 0.0 | R8ES | 100.0 |
| | 99.0 | R8EM | 8.7 | R17EM | 104.2 |
| | 103.5 | R17EB | 0.0 | C1EB | 100.0 |
| | 94.6 | C2ES | 0.0 | C4EB | 93.9 |
| 12/05/12 | 101.8 | R5FS | 8.0 | R8FS | 102.0 |
| | 98.0 | R8FM | 0.0 | R17FM | 105.8 |
| | 96.0 | R17FB | 7.4 | C1FB | 102.0 |
| | 96.7 | C2FS | 0.0 | C4FB | 91.8 |
| | 107.0 | R5ES | 0.0 | R8ES | 98.0 |
| | 97.9 | R8EM | 0.0 | R17EM | 97.9 |
| | 96.7 | R17EB | 0.0 | C1EB | 106.1 |
| | 107.4 | C2ES | 0.0 | C4EB | 106.1 |
| 15/05/12 | 99.8 | R5FS | 0.0 | R8FS | 93.6 |
| | 101.3 | R8FM | 7.4 | R17FM | 107.8 |
| | 100.8 | R17FB | 0.0 | C1FB | 94.2 |
| | 105.9 | C2FS | 0.0 | C4FB | 102.0 |
| | 100.2 | R5ES | 0.0 | R8ES | 107.8 |
| | 106.6 | R8EM | 0.0 | R17EM | 103.8 |
| | 98.1 | R17EB | 8.0 | C1EB | 100.0 |
| | 98.4 | C2ES | 0.0 | C4EB | 98.1 |

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 @ |
| 17/05/12 | 96.1 | R5FS | 0.0 | R8FS | 104.1 |
| | 104.1 | R8FM | 0.0 | R17FM | 93.9 |
| | 97.8 | R17FB | 0.0 | C1FB | 102.1 |
| | 103.8 | C2FS | 0.0 | C4FB | 100.0 |
| | 98.4 | R5ES | 0.0 | R8ES | 100.0 |
| | 94.1 | R8EM | 0.0 | R17EM | 98.1 |
| | 93.1 | R17EB | 0.0 | C1EB | 100.0 |
| | 103.9 | C2ES | 0.0 | C4EB | 102.0 |
| 19/05/12 | 96.5 | R5FS | 0.0 | R8FS | 102.1 |
| | 102.9 | R8FM | 0.0 | R17FM | 95.8 |
| | 106.3 | R17FB | 0.0 | C1FB | 95.9 |
| | 106.5 | C2FS | 8.7 | C4FB | 96.2 |
| | 97.2 | R5ES | 0.0 | R8ES | 107.5 |
| | 93.1 | R8EM | 0.0 | R17EM | 94.0 |
| | 97.5 | R17EB | 0.0 | C1EB | 105.8 |
| | 99.8 | C2ES | 0.0 | C4EB | 105.7 |
| 22/05/12 | 106.5 | R5FS | 0.0 | R8FS | 107.8 |
| | 102.4 | R8FM | 0.0 | R17FM | 102.0 |
| | 95.3 | R17FB | 0.0 | C1FB | 103.8 |
| | 100.0 | C2FS | 0.0 | C4FB | 102.0 |
| | 104.7 | R5ES | 0.0 | R8ES | 92.3 |
| | 107.5 | R8EM | 0.0 | R17EM | 97.9 |
| | 101.8 | R17EB | 0.0 | C1EB | 102.0 |
| | 107.2 | C2ES | 0.0 | C4EB | 101.9 |
| 24/05/12 | 101.6 | R5FS | 0.0 | R8FS | 105.9 |
| | 95.4 | R8FM | 8.0 | R17FM | 98.0 |
| | 101.2 | R17FB | 0.0 | C1FB | 102.0 |
| | 104.5 | C2FS | 0.0 | C4FB | 108.2 |
| | 97.7 | R5ES | 8.7 | R8ES | 93.8 |
| | 99.0 | R8EM | 0.0 | R17EM | 100.0 |
| | 103.7 | R17EB | 8.0 | C1EB | 104.2 |
| | 99.4 | C2ES | 0.0 | C4EB | 102.1 |
| 26/05/12 | 94.6 | R5FS | 7.4 | R8FS | 94.2 |
| | 95.0 | R8FM | 0.0 | R17FM | 106.3 |
| | 101.9 | R17FB | 0.0 | C1FB | 102.1 |
| | 104.8 | C2FS | 0.0 | C4FB | 98.0 |
| | 107.8 | R5ES | 0.0 | R8ES | 104.2 |
| | 103.7 | R8EM | 0.0 | R17EM | 95.7 |
| | 94.3 | R17EB | 8.0 | C1EB | 106.4 |
| | 93.0 | C2ES | 0.0 | C4EB | 96.0 |
| 29/05/12 | 107.9 | R5FS | 0.0 | R8FS | 100.0 |
| | 100.6 | R8FM | 0.0 | R17FM | 100.0 |
| | 94.5 | R17FB | 0.0 | C1FB | 100.0 |
| | 107.0 | C2FS | 0.0 | C4FB | 108.0 |
| | 97.3 | R5ES | 7.4 | R8ES | 106.1 |
| | 100.8 | R8EM | 0.0 | R17EM | 98.0 |
| | 105.3 | R17EB | 0.0 | C1EB | 102.1 |
| | 107.2 | C2ES | 0.0 | C4EB | 104.2 |

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



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 © |
| 31/05/12 | 97.2 | R5FS | 8.0 | R8FS | 98.0 |
| | 94.0 | R8FM | 0.0 | R17FM | 98.0 |
| | 106.3 | R17FB | 8.0 | C1FB | 106.1 |
| | 101.0 | C2FS | 0.0 | C4FB | 100.0 |
| | 95.2 | R5ES | 0.0 | R8ES | 94.2 |
| | 99.0 | R8EM | 0.0 | R17EM | 95.9 |
| | 96.9 | R17EB | 7.4 | C1EB | 102.1 |
| | 96.7 | C2ES | 0.0 | C4EB | 108.0 |

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



Appendix D

Event-Action Plans



Event and Action Plan for Construction Noise

| Event | Action | | | |
|---------------------|--|--|---|--|
| | ET Leader | IEC | ER | Contractor |
| Action Level | <ol style="list-style-type: none"> 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. | <ol style="list-style-type: none"> 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. | <ol style="list-style-type: none"> 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. | <ol style="list-style-type: none"> 1. Submit noise mitigation proposals to IEC. 2. Implement noise mitigation proposals. |
| Limit Level | <ol style="list-style-type: none"> 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. | <ol style="list-style-type: none"> 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. | <ol style="list-style-type: none"> 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. | <ol style="list-style-type: none"> 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 | <ol style="list-style-type: none"> 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. | <ol style="list-style-type: none"> 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. | <ol style="list-style-type: none"> 1. Discuss with IEC on the proposed mitigation measures; and 2. Make agreement on the mitigation measures to be implemented. | <ol style="list-style-type: none"> 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 | <ol style="list-style-type: none"> 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. | <ol style="list-style-type: none"> 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. | <ol style="list-style-type: none"> 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. | <ol style="list-style-type: none"> 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 | <ol style="list-style-type: none"> 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. | <ol style="list-style-type: none"> 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. | <ol style="list-style-type: none"> 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. | <ol style="list-style-type: none"> 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 | <ol style="list-style-type: none"> 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. | <ol style="list-style-type: none"> 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. | <ol style="list-style-type: none"> 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. | <ol style="list-style-type: none"> 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.9WSD/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 |
|--------|-------------|----------|-------------|--------------|------------|
| | | 1156 | 07SEP09 A | 05NOV12 | 07SEP09 A |

2009
O D J F M A M J J A S O N D J F M A M J

2010
O D J F M A M J J A S O N D J F M A M J

2011
O D J F M A M J J A S O N D J F M A M J

2012
O D J F M A M J J A S O N D J F M A M J

General Information

| Key Dates | Contract Commencement Date | Contract Completion | Works Period of Section 1 Works (791Days) | Works Period of Section 2 Works (426Days) | Works Period of Section 4 Works (549Days) | Works Period of Section 5 Works (1156Days) |
|-----------|----------------------------|---------------------|---|---|---|--|
| KD-1010 | 07SEP09 A | 0 | 07SEP09 A | 05NOV12 * | 07SEP09 A | 07SEP09 A |
| KD-1020 | 07SEP09 A | 0 | 07SEP09 A | 06NOV11 | 07SEP09 A | 07SEP09 A |
| KD-1030 | 07SEP09 A | 830 | 07SEP09 A | 06NOV10 | 07SEP09 A | 07SEP09 A |
| KD-1040 | 07SEP09 A | 449 | 07SEP09 A | 09MAR11 | 07SEP09 A | 07SEP09 A |
| KD-1050 | 07SEP09 A | 576 | 07SEP09 A | 05NOV12 | 07SEP09 A | 07SEP09 A |
| KD-1060 | 07SEP09 A | 1156 | 07SEP09 A | | 07SEP09 A | 07SEP09 A |

| Preliminaries | Activity | Duration | Start | Finish |
|---------------|---|----------|-----------|-----------|
| B1-1000 | Mobilization | 90 | 07SEP09 A | 06DEC09 A |
| B1-1110 | Site Office | 60 | 16NOV09 A | 16JAN10 |
| B1-1120 | Maintenance/Service of Preliminary Items | 936 | 17JAN10 | 09AUG12 |
| B1-1130 | Clearance & Demobilisation | 88 | 10AUG12 | 05NOV12 |
| B1-1140 | Environmental Monitoring | 1026 | 28DEC09 A | 18OCT12 |
| B1-1150 | Material Approval For Water Mains & Accessories | 100 | 07SEP09 A | 18FEB10 |
| B1-1160 | Material Procurement & Delivery Start | 60 | 28DEC09 A | 01FEB10 |
| B1-1160B | Delivery of Valve, Actuators, Flow Meter & E&M | 400 | 14JUN10 | 18JUL11 * |
| B1-1170 | CCTV & Monitoring Of Existing DSD Drainage | 610 | 18JAN10 | 19SEP11 |
| B1-1180 | Monitoring of Hyd Structure | 610 | 06MAR10 | 05NOV11 |

| Section 1 | Activity | Duration | Start | Finish |
|-----------|----------|----------|-----------|---------|
| | | 937 | 07SEP09 A | 31MAR12 |

| Land Works | Activity | Duration | Start | Finish |
|------------|---|----------|-----------|-----------|
| General | | | | |
| S1-1010 | Approval & Consent - XP, TTA, MS & Temp Works. | 180 | 07SEP09 A | 05MAR10 |
| S1-1020 | Trial Pit & Utilities Detection (Except E2 & K) | 120 | 01DEC09 A | 16MAR10 |
| S1-1030 | Portion H2 Cycle Track & Footpath Proposal | 40 | 07SEP09 A | 08OCT09 A |
| S1-1040 | Portion H2 Diversion Route For Cycle Track | 60 | 07OCT09 A | 28NOV09 A |
| S1-1050 | Portion H2 Submission For Hoarding Mural Design | 90 | 07SEP09 A | 17FEB10 |
| S1-1060 | Portion H2 Set Up For Hoarding Approved Design | 30 | 18FEB10 | 19MAR10 |
| S1-1080 | Initial & Utilities Survey (Except E2 & K) | 120 | 05OCT09 A | 04MAR10 |

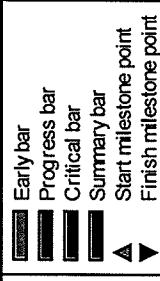
| Start date | Finish date | Data date | Run date | Page number | Page number |
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| 07SEP09 | 05NOV12 | 04JAN10 | 04JUN12 | 1A | 1A |

3 Months Rolling Program (June 2012)

Wo Hing - Penta-Ocean Joint Venture

| Act ID | Description | Orig Dur | Early Start | Early Finish | Late Start | 2009 O D J F M A M J J A S O N D J F M A M J | 2010 J J A S O N D J F M A M J J A S O N D J F M A M J | 2012 J F M A M J | |
|--------------------|--|----------|-------------|--------------|------------|---|---|---------------------|--|
| S1-2010 | Final Pipe Testing & Reinstatement | 45 | 16FEB12 | 31MAR12 | 01NOV11 | | | | Final P |
| S1-2020 | Completion of Section 1 Works | 0 | | 15DEC11* | | | | | Completion of S |
| Portion C1 | | | | | | | | | |
| S1-3010 | MTRCL Consent For Works Commencement | 180 | 07SEP09 A | 05MAR10 | 07SEP09 A | | | | MTRCL Consent For Works Commencement |
| S1-3020 | MTRCL Structure Stability Monitoring | 270 | 28MAY10 | 21FEB11 | 05JAN11 | | | | MTRCL Structure Stability Monitoring |
| S1-3030 | Portion C1 Pipe Works CH195.0-237.5 (O) | 90 | 24JUN10 | 21SEP10 | 19MAR11 | | | | Portion C1 Pipe Works CH195.0-237.5 (O) |
| S1-3030A10 | Preparation & Submission of Risk Assessment | 40 | 22FEB10* | 02APR10 | 02NOV10 | | | | Preparation & Submission of Risk Assessment |
| S1-3030A20 | Preparation & Submission of Method Statement | 40 | 22FEB10 | 02APR10 | 02NOV10 | | | | Preparation & Submission of Method Statement |
| S1-3030A30 | Preparation & Submission of Temp. Design | 40 | 22FEB10 | 02APR10 | 02NOV10 | | | | Preparation & Submission of Temp. Design |
| S1-3030B10 | Excavation & Shoring | 80 | 28MAY10 | 15AUG10 | 12DEC10 | | | | Excavation & Shoring |
| S1-3030B20 | Pipe Laying & Welding | 50 | 17JUL10 | 04SEP10 | 31JAN11 | | | | Pipe Laying & Welding |
| S1-3030B30 | Backfilling & Reinstatement | 10 | 05SEP10 | 14SEP10 | 22MAR11 | | | | Backfilling & Reinstatement |
| S1-3040 | Portion C1 Trough Construction CH237.5-290.0 | 60 | 06MAR10 | 04MAY10 | 15APR10 | | | | Portion C1 Trough Construction CH237.5-290.0 |
| S1-3040A20 | Preparation & Submission Of Risk Assessment | 28 | 17JUL10 | 13AUG10 | 15MAR11 | | | | Preparation & Submission Of Risk Assessment |
| S1-3040A30 | Preparation & Submission Of Method Statement | 28 | 17JUL10 | 13AUG10 | 15MAR11 | | | | Preparation & Submission Of Method Statement |
| S1-3040A40 | Preparation & Submission Of Temp. Works | 28 | 17JUL10 | 13AUG10 | 15MAR11 | | | | Preparation & Submission Of Temp. Works |
| S1-3040B10 | Installation Of Settlement Marker | 3 | 31JUL10 | 02AUG10 | 29MAR11 | | | | Installation Of Settlement Marker |
| S1-3040B20 | Excavation & Shoring For Pipe Trough (Stage 1) | 15 | 15SEP10 | 29SEP10 | 01APR11 | | | | Excavation & Shoring For Pipe Trough (Stage 1) |
| S1-3040B30 | Formation & Blinding For Trough | 3 | 30SEP10 | 02OCT10 | 16APR11 | | | | Formation & Blinding For Trough |
| S1-3040B40 | Formwork & Reinforcement For Trough | 10 | 03OCT10 | 12OCT10 | 19APR11 | | | | Formwork & Reinforcement For Trough |
| S1-3040B50 | Concreting Of Pipe Trough | 3 | 13OCT10 | 15OCT10 | 29APR11 | | | | Concreting Of Pipe Trough |
| S1-3040C10 | Excavation & Shoring For Watermain | 15 | 16OCT10 | 30OCT10 | 02MAY11 | | | | Excavation & Shoring For Watermain |
| S1-3050 | Portion C1 Pipe Works CH237.5-290 (PT) | 50 | 05MAY10 | 23JUN10 | 22DEC10 | | | | Portion C1 Pipe Works CH237.5-290 (PT) |
| S1-3050B10 | Pipe Laying & Connection (Welding) | 10 | 31OCT10 | 09NOV10 | 17MAY11 | | | | Pipe Laying & Connection (Welding) |
| S1-3050B20 | Concrete Surround for Installed Watermain | 6 | 10NOV10 | 15NOV10 | 27MAY11 | | | | Concrete Surround for Installed Watermain |
| S1-3050B30 | Backfilling Of Pipe Trough | 5 | 16NOV10 | 20NOV10 | 02JUN11 | | | | Backfilling Of Pipe Trough |
| S1-3050B40 | Backfilling & Reinstatement | 10 | 21NOV10 | 30NOV10 | 07JUN11 | | | | Backfilling & Reinstatement |
| S1-3060 | Portion C1 Pipe Works CH290.0-325.5 (O) | 83 | 01DEC10 | 21FEB11 | 17JUN11 | | | | Portion C1 Pipe Works CH290.0-325.5 (O) |
| S1-3070 | Area C1 Portional Pipe Testing | 30 | 22FEB11 | 23MAR11 | 02OCT11 | | | | Area C1 Portional Pipe Testing |
| Portion E1A | | | | | | | | | |
| S1-4020 | Portion E1A Pipe Works CH387.5-576.9 (O) | 180 | 17MAR10 | 12SEP10 | 24AUG10 | | | | Portion E1A Pipe Works CH387.5-576.9 (O) |
| S1-4020A20 | Preparation & Submission Of Risk Assessment | 40 | 03MAR10 | 11APR10 | 10AUG10 | | | | Preparation & Submission Of Risk Assessment |
| S1-4020A30 | Preparation & Submission Of Method Statement | 40 | 03MAR10 | 11APR10 | 10AUG10 | | | | Preparation & Submission Of Method Statement |

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| Finish date | 05NOV12 |
| Data date | 04JAN10 |
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3 Months Rolling Program (June 2012)







Wo Hing - Penta-Ocean Joint Venture

Contract No. 9W5D/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 | 2008 | | 2009 | | 2010 | | 2011 | | 2012 | |
|-----------------------------|--|----------|-------------|--------------|---------|---|------|---|------|---|------|---|------|---|
| | | | | | O | D | O | D | O | D | O | D | O | D |
| S1-4020A40 | Preparation & Submission Of Temp. Works | 40 | 03MAR10 | 11APR10 | 10AUG10 | | | | | | | | | |
| S1-4020B10 | Stage 1 U/D & Trial Pit (CH380-420) | 52 | 03MAY10 | 23JUN10 | 10OCT10 | | | | | | | | | |
| S1-4020B20 | Fabrication of Access Shaft | 30 | 12SEP10 | 11OCT10 | 19FEB11 | | | | | | | | | |
| S1-4020B30 | Excavation & Support for Trenchless Works | 45 | 12OCT10 | 25NOV10 | 21MAR11 | | | | | | | | | |
| S1-4020B40 | Pipe Laying & Joint Connection | 20 | 26NOV10 | 15DEC10 | 05MAY11 | | | | | | | | | |
| S1-4020B50 | Backfilling & Reinstatement | 7 | 16DEC10 | 22DEC10 | 25MAY11 | | | | | | | | | |
| S1-4020C05 | Existing Trees Relocation | 4 | 19AUG10* | 22AUG10 | 03JUN11 | | | | | | | | | |
| S1-4020C10 | Stage 2 U/D & Trial Pit (CH420-CH480) | 10 | 23AUG10 | 01SEP10 | 07JUN11 | | | | | | | | | |
| S1-4020C20 | Excavation & Shoring | 50 | 02SEP10 | 21OCT10 | 17JUN11 | | | | | | | | | |
| S1-4020C30 | Pipe Laying & Connection (Welding) | 25 | 22OCT10 | 15NOV10 | 08AUG11 | | | | | | | | | |
| S1-4020C40 | Backfilling & Reinstatement | 7 | 16NOV10 | 22NOV10 | 31AUG11 | | | | | | | | | |
| S1-4020D10 | Stage 3 U/D & Trial Pit (CH480-576.9) | 6 | 01JUN11* | 06JUN11 | 01JUN11 | | | | | | | | | |
| S1-4020D20 | Excavation & Shoring | 92 | 07JUN11 | 06SEP11 | 07JUN11 | | | | | | | | | |
| S1-4020D30 | Pipe Laying & Connection (Welding) | 25 | 07SEP11 | 01OCT11 | 07SEP11 | | | | | | | | | |
| S1-4020D40 | Backfilling & Reinstatement | 16 | 02OCT11 | 17OCT11 | 02OCT11 | | | | | | | | | |
| S1-4030 | Portion E1A Pipe Works CH576.9-585.9 (TL-B) | 108 | 23FEB11* | 10JUN11 | 02JUL11 | | | | | | | | | |
| S1-4030B10 | Fabrication of Access Shaft | 55 | 27SEP10* | 20NOV10 | 12MAR11 | | | | | | | | | |
| S1-4030B20 | Excavation & Support for Trenchless Works | 50 | 21NOV10 | 09JAN11 | 06MAY11 | | | | | | | | | |
| S1-4030B30 | Pipe Laying & Joint Connection | 15 | 10JAN11 | 24JAN11 | 25JUN11 | | | | | | | | | |
| S1-4030B40 | Backfilling & Reinstatement | 8 | 25JAN11 | 01FEB11 | 10OCT11 | | | | | | | | | |
| S1-4050 | Area E1A Portional Pipe Testing | 14 | 18OCT11 | 31OCT11 | 18OCT11 | | | | | | | | | |
| Portion E1B + E2 SMM | | | | | | | | | | | | | | |
| S1-4010 | Portion E1B Diversion of Existing Storm Drain | 50 | 13SEP10 | 01NOV10 | 06MAY11 | | | | | | | | | |
| S1-4010A10 | Trees Transplanting (LCSD Consent Required) | 5 | 09SEP10* | 13SEP10 | 26JAN11 | | | | | | | | | |
| S1-4010A20 | Temporary Relocation of Irrigation Pipe | 60 | 14SEP10 | 12NOV10 | 31JAN11 | | | | | | | | | |
| S1-4010A30 | Temporary Relocation of Existing Storm Drain | 60 | 14SEP10 | 12NOV10 | 31JAN11 | | | | | | | | | |
| S1-4010A50 | Excavation for Irrigation Pipe Perm. Diversion | 20 | 29NOV11 | 18DEC11 | 24AUG11 | | | | | | | | | |
| S1-4010A60 | Irrigation Pipe Installation | 10 | 19DEC11 | 28DEC11 | 28SEP11 | | | | | | | | | |
| S1-4010A70 | Excavation for Storm Drain Diversion | 20 | 29NOV11 | 18DEC11 | 24AUG11 | | | | | | | | | |
| S1-4010A80 | Pipe Laying & MH Construction | 25 | 19DEC11 | 22JAN12 | 13SEP11 | | | | | | | | | |
| S1-4010A90 | Backfilling & Reinstatement | 10 | 13JAN12 | 22JAN12 | 08OCT11 | | | | | | | | | |
| S1-4040 | Portion E1B Pipe Works CH585.9-660.5 (O) | 115 | 02NOV10 | 24FEB11 | 25JUN11 | | | | | | | | | |
| S1-4040B10 | Excavation & Shoring For Pipe Trough (Stage 1) | 40 | 13NOV10 | 22DEC10 | 01APR11 | | | | | | | | | |

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

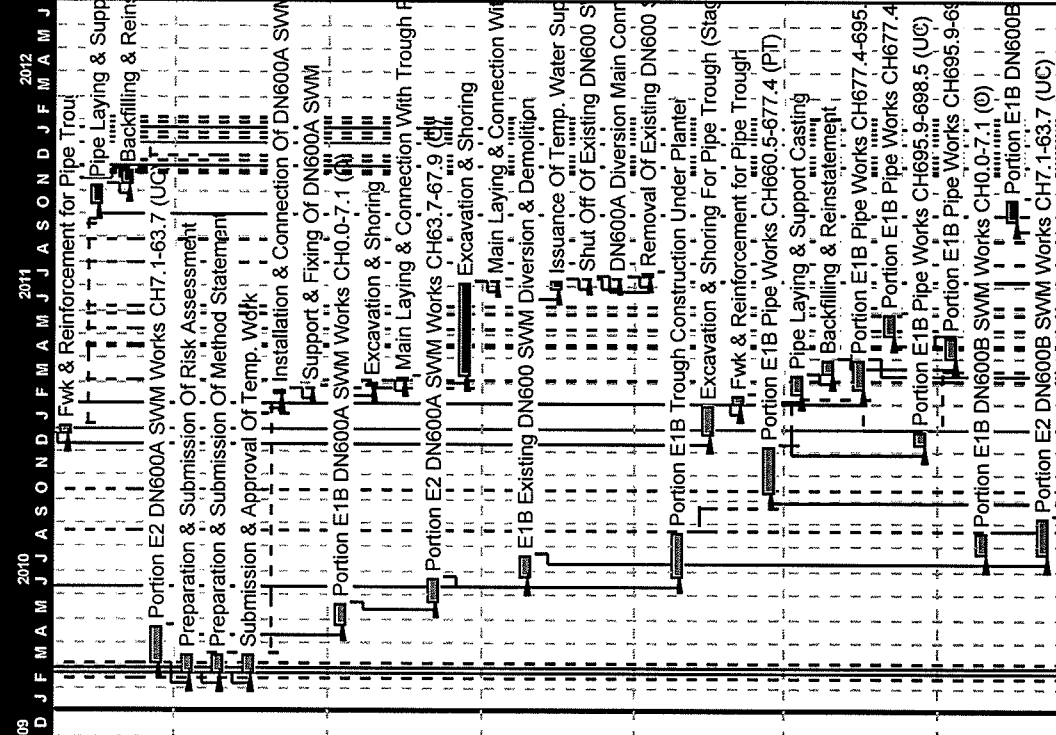
3 Months Rolling Program (June 2012)

Wo Hing - Penta-Ocean Joint Venture

Contract No.9WSD/08

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

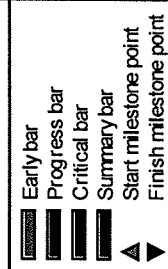
| Act ID | Description | Orig Dur | Early Start | Early Finish | Late Start |
|------------|--|----------|-------------|--------------|------------|
| S1-4040B20 | Fwk & Reinforcement for Pipe Trough | 15 | 23DEC10 | 06JAN11 | 25JUN11 |
| S1-4040B30 | Pipe Laying & Support Casting | 25 | 15OCT11 | 08NOV11 | 10JUL11 |
| S1-4040B40 | Backfilling & Reinstatement | 20 | 09NOV11 | 28NOV11 | 04AUG11 |
| S1-4410 | Portion E2 DN600A SWM Works CH7.1-63.7 (UC) | 50 | 05MAR10 | 23APR10 | 03SEP10 |
| S1-4410A10 | Preparation & Submission Of Risk Assessment | 28 | 19FEB10 | 18MAR10 | 02OCT10 |
| S1-4410A20 | Preparation & Submission Of Method Statement | 28 | 19FEB10 | 18MAR10 | 02OCT10 |
| S1-4410A30 | Submission & Approval Of Temp. Work | 28 | 19FEB10 | 18MAR10 | 02OCT10 |
| S1-4410B10 | Installation & Connection Of DN600A SWM | 8 | 14FEB11* | 21FEB11 | 30OCT10 |
| S1-4410B20 | Support & Fixing Of DN600A SWM | 3 | 22FEB11 | 24FEB11 | 07NOV10 |
| S1-4420 | Portion E1B DN600A SWM Works CH0.0-7.1 (O) | 30 | 24APR10 | 23MAY10 | 23OCT10 |
| S1-4420B10 | Excavation & Shoring | 6 | 25FEB11 | 02MAR11 | 10NOV10 |
| S1-4420B20 | Main Laying & Connection With Trough Portion | 8 | 03MAR11 | 10MAR11 | 16NOV10 |
| S1-4430 | Portion E2 DN600A SWM Works CH63.7-67.9 (O) | 30 | 24MAY10 | 22JUN10 | 22NOV10 |
| S1-4430B10 | Excavation & Shoring | 120 | 11MAR11 | 08JUL11 | 24NOV10 |
| S1-4430B20 | Main Laying & Connection With Trough Portion | 4 | 09JUL11 | 12JUL11 | 24MAR11 |
| S1-4440 | E1B Existing DN600 SWM Diversion & Demolition | 30 | 23JUN10 | 22JUL10 | 22DEC10 |
| S1-4440A10 | Issuance Of Temp. Water Supply Suspension Notice | 14 | 29JUN11 | 12JUL11 | 14MAR11 |
| S1-4440B10 | Shut Off Of Existing DN600 SWM | 2 | 13JUL11 | 14JUL11 | 28MAR11 |
| S1-4440B20 | DN600A Diversion Main Connect To Existing | 2 | 13JUL11 | 14JUL11 | 28MAR11 |
| S1-4440B30 | Removal Of Existing DN600 SWM | 6 | 15JUL11 | 20JUL11 | 30MAR11 |
| S1-4445 | Portion E1B Trough Construction Under Planter | 60 | 24JUN10 | 22AUG10 | 10FEB11 |
| S1-4445B10 | Excavation & Shoring For Pipe Trough (Stage 2) | 40 | 23DEC10 | 31JAN11 | 11MAY11 |
| S1-4445B20 | Fwk & Reinforcement for Pipe Trough | 15 | 01FEB11 | 19FEB11 | 20JUN11 |
| S1-4450 | Portion E1B Pipe Works CH660.5-677.4 (PT) | 60 | 11OCT10 | 09DEC10 | 11APR11 |
| S1-4450B10 | Pipe Laying & Support Casting | 25 | 16FEB11 | 12MAR11 | 05JUL11 |
| S1-4450B20 | Backfilling & Reinstatement | 20 | 13MAR11 | 01APR11 | 30JUL11 |
| S1-4460 | Portion E1B Pipe Works CH677.4-695.9 (O) | 40 | 22FEB11 | 02APR11 | 08SEP11 |
| S1-4460B10 | Portion E1B Pipe Works CH677.4-695.9(O) | 30 | 02MAY11 | 31MAY11 | 18SEP11 |
| S1-4470 | Portion E1B Pipe Works CH695.9-698.5 (UC) | 20 | 10DEC10 | 29DEC10 | 10JUN11 |
| S1-4470B10 | Portion E1B Pipe Works CH695.9-698.5 (UC) | 30 | 02APR11 | 01MAY11 | 19AUG11 |
| S1-4480 | Portion E1B DN600B SWM Works CH0.0-7.1 (O) | 30 | 23JUL10 | 21AUG10 | 10FEB11 |
| S1-4480B10 | Portion E1B DN600B SWM Works CH0.0-7.1 (O) | 30 | 25SEP11 | 24OCT11 | 18SEP11 |
| S1-4490 | Portion E2 DN600B SWM Works CH7.1-63.7 (UC) | 50 | 23JUL10 | 10SEP10 | 21JAN11 |



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3 Months Rolling Program (June 2012)

Wo Hing - Penta-Ocean Joint Venture

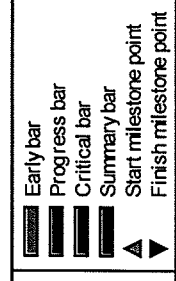


Contract No.9W5SD/08

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 | 2009 O D J F M A M J J A S O N D J F M A M J | 2010 O D J F M A M J J A S O N D J F M A M J | 2011 O D J F M A M J J A S O N D J F M A M J | 2012 O D J F M A M J |
|--------------------------|--|----------|-------------|--------------|------------|---|---|---|--|
| S1-4490B10 | Portion E2 DN600B SWM Works CH7.1-63.7 (UC) | 66 | 21JUL11 | 24SEP11 | 05APR11 | | | | Portion E2 DN600B SWM Works CH7.1-63.7 (UC) |
| S1-4500 | Portion E2 DN600B SWM Works 63.7-67.9 (O) | 30 | 11SEP10 | 10OCT10 | 12MAR11 | | | | Portion E2 DN600B SWM Works 63.7-67.9 (O) |
| S1-4500B10 | Portion E2 DN600B SWM 63.7-67.9 (O) | 20 | 25SEP11 | 14OCT11 | 10JUN11 | | | | Portion E2 DN600B SWM 63.7-67.9 (O) |
| S1-4510 | Area E1B+E2 SWM Portional Pipe Testing | 14 | 03APR11 | 16APR11 | 18OCT11 | | | | Area E1B+E2 SWM Portional Pipe Testing |
| S1-4510B10 | Area E1B+E2 SWM Portional Pipe Testing | 14 | 23JAN12 | 05FEB12 | 18OCT11 | | | | Area E1B+E2 SWM Portional Pipe Testing |
| Portion E1C + E1D | | | | | | | | | |
| S1-4710 | Portion E1C DN300 FWM Works CH0.0-50.0 (UC) | 50 | 05MAR10 | 23APR10 | 27SEP10 | | | | Portion E1C DN300 FWM Works CH0.0-50.0 (UC) |
| S1-4710A10 | Submission & Approval Of Risk Assessment | 28 | 19FEB10 | 18MAR10 | 13SEP10 | | | | Submission & Approval Of Risk Assessment |
| S1-4710A20 | Submission & Approval Of Method Statement | 28 | 19FEB10 | 18MAR10 | 13SEP10 | | | | Submission & Approval Of Method Statement |
| S1-4710A30 | Submission & Approval Of Temp. Work | 28 | 19FEB10 | 18MAR10 | 13SEP10 | | | | Submission & Approval Of Temp. Work |
| S1-4710B10 | Installation & Connection Of DN300 FWM | 50 | 17MAY10* | 05JUL10 | 11OCT10 | | | | Installation & Connection Of DN300 FWM |
| S1-4710B20 | Support & Fixing Of DN300 FWM | 40 | 06JUL10 | 14AUG10 | 30NOV10 | | | | Support & Fixing Of DN300 FWM |
| S1-4720 | E1C DN300 FWM Diversion Main Testing | 8 | 24APR10 | 01MAY10 | 03APR11 | | | | E1C DN300 FWM Diversion Main Testing |
| S1-4720B10 | E1C Exist. DN300 FWM Diversion & Demolition | 8 | 15AUG10 | 22AUG10 | 09JAN11 | | | | E1C Exist. DN300 FWM Diversion & Demolition |
| S1-4730 | E1C Exist. DN300 FWM Diversion & Demolition | 30 | 02MAY10 | 31MAY10 | 11APR11 | | | | E1C Exist. DN300 FWM Diversion & Demolition |
| S1-4730A10 | Issuance Of Temp. Water Supply Suspension Notice | 14 | 22SEP10 | 05OCT10 | 16FEB11 | | | | Issuance Of Temp. Water Supply Suspension Notice |
| S1-4730A20 | Shut Off Existing DN300 FWM | 2 | 06OCT10 | 07OCT10 | 02MAR11 | | | | Shut Off Existing DN300 FWM |
| S1-4730A30 | DN300 Diversion Main Connect To Existing | 2 | 06OCT10 | 07OCT10 | 02MAR11 | | | | DN300 Diversion Main Connect To Existing |
| S1-4730A40 | Removal Of Existing DN300 FWM | 28 | 08OCT10 | 04NOV10 | 04MAR11 | | | | Removal Of Existing DN300 FWM |
| S1-4740 | Portion E1C DN800 SWM Works CH0.0-52.0 (UC) | 80 | 05NOV10 | 23JAN11 | 11MAY11 | | | | Portion E1C DN800 SWM Works CH0.0-52.0 (UC) |
| S1-4740B10 | Portion E1C DN800 SWM Works CH0.0-52.0 (UC) | 120 | 05NOV10 | 04MAR11 | 01APR11 | | | | Portion E1C DN800 SWM Works CH0.0-52.0 (UC) |
| S1-4750 | Portion E1C DN800 SWM Works CH52.0-90.0 (O) | 80 | 01FEB11 | 21APR11 | 30JUL11 | | | | Portion E1C DN800 SWM Works CH52.0-90.0 (O) |
| S1-4750B10 | Portion E1C DN800 SWM Works CH52.0-90.0 (UC) | 80 | 05MAR11 | 23MAY11 | 30JUL11 | | | | Portion E1C DN800 SWM Works CH52.0-90.0 (UC) |
| S1-4760 | Area E1C Portional Pipe Testing | 14 | 22APR11 | 05MAY11 | 18OCT11 | | | | Area E1C Portional Pipe Testing |
| S1-4760B10 | Area E1C Portional Pipe Testing | 14 | 24MAY11 | 06JUN11 | 18OCT11 | | | | Area E1C Portional Pipe Testing |
| Portion E2 | | | | | | | | | |
| S1-5010 | Portion E2 Marine Dept Advance Notice | 90 | 07OCT09 A | 20FEB10 | 07OCT09 A | | | | Portion E2 Marine Dept Advance Notice |
| S1-5020 | WHTCL Consent For Works Within Tunnel Area | 120 | 07SEP09 A | 20FEB10 | 07SEP09 A | | | | WHTCL Consent For Works Within Tunnel Area |
| S1-5030 | Chamber Modification - 180 Days of Portion E2 | 65 | 07JAN10 A | 14MAR10 A | 07JAN10 A | | | | Chamber Modification - 180 Days of Portion E2 |
| S1-5040 | Portion E2 Trial Run | 60 | 09NOV09 A | 14NOV09 A | 09NOV09 A | | | | Portion E2 Trial Run |
| S1-5050 | Portion E2 Trial Pit & Utilities Detection | 15 | 21FEB10 | 07MAR10 | 21FEB10 | | | | Portion E2 Trial Pit & Utilities Detection |
| S1-5060 | Portion E2 Initial & Utilities Survey | 15 | 21FEB10 | 07MAR10 | 21FEB10 | | | | Portion E2 Initial & Utilities Survey |
| S1-5070 | Portion E2 Pipe Works CH698.5-752.5 (UC) | 80 | 27MAR11 | 14JUN11 | 30JUN11 | | | | Portion E2 Pipe Works CH698.5-752.5 (UC) |

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| Finish date | 05NOV12 |
| Data date | 04JAN10 |
| Run date | 04JUN12 |
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| c Primavera Systems, Inc. | |



3 Months Rolling Program (June 2012)

Wo Hing - Penta-Ocean Joint Venture

Contract No.9W5D/08
Laying of Western Cross Harbour Main & Associated Land Mains from West Kowloon to Sai Ying Pun

| Act ID | Description | Orig Dur | 2009 | | 2010 | | 2011 | | 2012 | |
|------------|--|----------|-----------|---------|-----------|--------|-------|--------|-------|--------|
| | | | Start | Finish | Start | Finish | Start | Finish | Start | Finish |
| S1-5130A30 | Preparation & Submission of Temp. Design | 60 | 06FEB10 | 06APR10 | 08DEC10 | | | | | |
| S1-5130B10 | Jacking Pit (A3) Modification & Set-up (TL-F) | 14 | 18SEP10 | 01OCT10 | 06FEB11 | | | | | |
| S1-5130C10 | Sleeve Pipe Installation by Jacking | 30 | 18SEP10 | 17OCT10 | 11JAN11 | | | | | |
| S1-5135 | TL-F DN800 SWM Pipe Installation CH252.0-432.0 | 50 | 01FEB11 | 22MAR11 | 06APR11 | | | | | |
| S1-5135B10 | Pipe Laying & Connection | 25 | 07NOV10 | 01DEC10 | 10FEB11 | | | | | |
| S1-5135B20 | Sleeve Pipe Grouting | 10 | 02DEC10 | 11DEC10 | 09AUG11 | | | | | |
| S1-5135B30 | Backfilling & Reinstatement | 30 | 12DEC10 | 10JAN11 | 19AUG11 | | | | | |
| S1-5140 | Area E2 Portional Pipe Testing | 14 | 02FEB12 | 15FEB12 | 18OCT11 | | | | | |
| S1-5140B10 | Area E2 Portional Pipe Testing | 14 | 01APR11 | 14APR11 | 18OCT11 | | | | | |
| Portion F | | | | | | | | | | |
| S1-6010 | Portion F Pipe Works CH995.5-1240.5 (O) | 180 | 23NOV10 | 21MAY11 | 23NOV10 | | | | | |
| S1-6010B10 | Stage 1 Excavation & Shoring CH1060-1240.5 | 100 | 24MAR10* | 01JUL10 | 02MAR11 | | | | | |
| S1-6010B20 | Formation Trimming | 10 | 02JUL10 | 11JUL10 | 10JUN11 | | | | | |
| S1-6010B30 | Pipe Laying & Connection (Welding) | 30 | 12JUL10 | 10AUG10 | 20JUN11 | | | | | |
| S1-6010B40 | Backfilling & Reinstatement | 50 | 11AUG10 | 29SEP10 | 20JUL11 | | | | | |
| S1-6010C10 | Stage 2 Excavation & Shoring CH995.5-1060 | 40 | 02DEC10 | 10JAN11 | 08SEP11 | | | | | |
| S1-6020 | Portion F DN800 SWM Works CH432.0-494.7 (O) | 120 | 26JUL10 | 22NOV10 | 26JUL10 | | | | | |
| S1-6020A10 | Portion F DN800 SWM Works CH432.0-494.7 | 120 | 12NOV10 | 11MAR11 | 20JUN11 | | | | | |
| S1-6030 | Area F Portional Pipe Testing | 14 | 22MAY11 | 04JUN11 | 18OCT11 | | | | | |
| Portion H1 | | | | | | | | | | |
| S1-7010 | Portion H1 Temporary Assess Road | 80 | 26DEC09 A | 31JAN10 | 26DEC09 A | | | | | |
| S1-7020 | Portion H1 Pipe Works CH1466.5-1516.5 (O) | 40 | 20JUL11 | 28AUG11 | 20JUL11 | | | | | |
| S1-7030 | Portion H1 Pipe Works CH1516.5-1544.7 (O-S wall) | 50 | 29AUG11 | 17OCT11 | 29AUG11 | | | | | |
| S1-7040 | Area H1 Portional Pipe Testing | 14 | 18OCT11 | 31OCT11 | 18OCT11 | | | | | |
| Portion J | | | | | | | | | | |
| S1-8010 | Portion J Pipe Works CH0.0-48.0 (O-S Wall) | 40 | 29JUL11 | 06SEP11 | 08SEP11 | | | | | |
| S1-8020 | Portion J Pipe Works CH48.0-339.0 (O) | 300 | 02OCT10 | 28JUL11 | 12NOV10 | | | | | |
| S1-8020B10 | Stage 1 Excavation & Shoring CH250-290 S1 | 55 | 22JUN10* | 15AUG10 | 29AUG10 | | | | | |
| S1-8020B20 | Pipe Laying & Connection (Welding) | 20 | 16AUG10 | 04SEP10 | 23OCT10 | | | | | |
| S1-8020B30 | Associated Chamber Construction | 30 | 05SEP10 | 04OCT10 | 12NOV10 | | | | | |
| S1-8020B40 | Backfilling & Reinstatement | 15 | 05OCT10 | 19OCT10 | 12DEC10 | | | | | |
| S1-8020B50 | Stage 1 Excavation & Shoring CH250-290 S2 | 20 | 27FEB11 | 18MAR11 | 06MAY11 | | | | | |
| S1-8020B60 | Associated Chamber Construction | 30 | 19MAR11 | 17APR11 | 26MAY11 | | | | | |

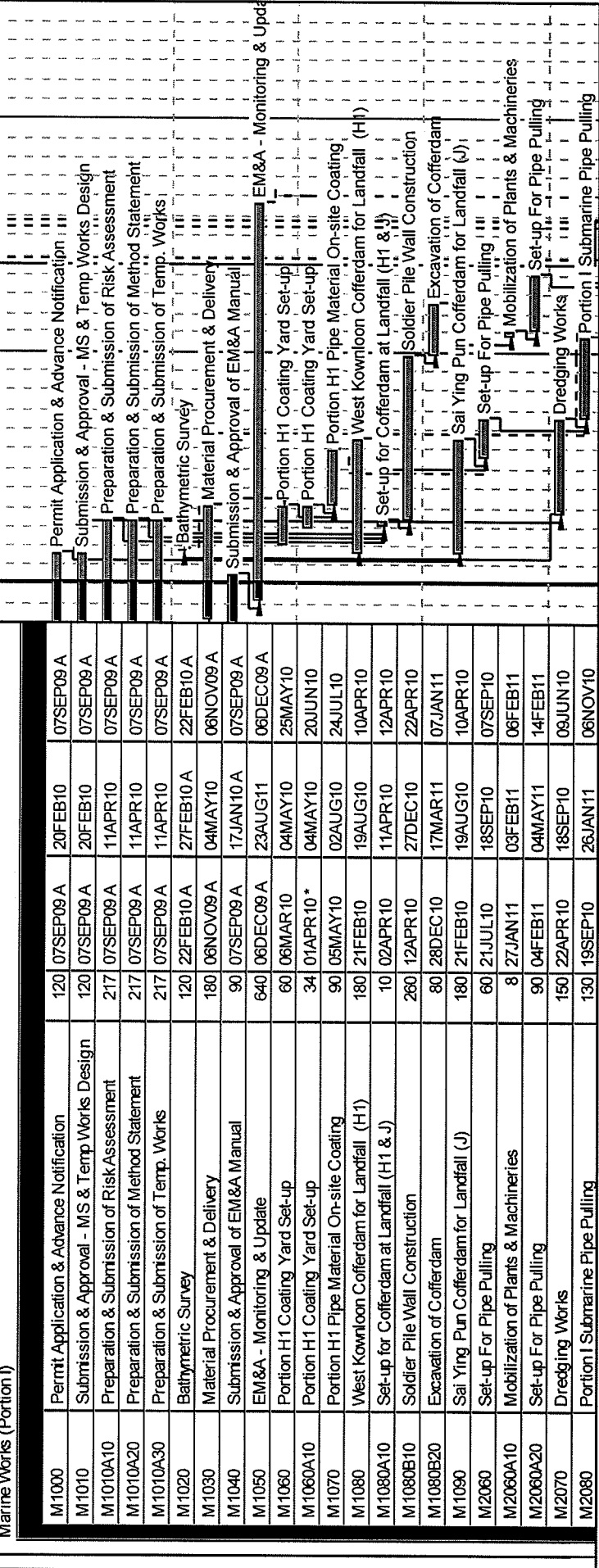
| | | | |
|-------------|---------|--|------------------------|
| Start date | 07SEP09 | | Early bar |
| Finish date | 05NOV12 | | Progress bar |
| Data date | 04JAN10 | | Critical bar |
| Run date | 04JUN12 | | Summary bar |
| Page number | 7A | | Start milestone point |
| | | | Finish milestone point |

3 Months Rolling Program (June 2012)

Wo Hing - Penta-Ocean Joint Venture

Contract No.9MWSD/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 | Year | | | | | | | | | | | | | | | | | | | | |
|------------|--|----------|-------------|--------------|------------|------|------|------|------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | 2009 | 2010 | 2011 | 2012 | O | D | J | F | M | A | M | J | J | A | S | O | N | D | D | F | A |
| S1-9020 | Portion K Initial Survey | 15 | 08SEP10 | 23SEP10 | 11DEC10 | | | | | | | | | | | | | | | | | | | | | |
| S1-9030 | Portion K Utilities Detection & Trial Pit | 20 | 24SEP10 | 13OCT10 | 26DEC10 | | | | | | | | | | | | | | | | | | | | | |
| S1-9030B10 | Portion K Utilities Detection & Trial Pit | 10 | 16MAY11 * | 25MAY11 * | 16MAY11 * | | | | | | | | | | | | | | | | | | | | | |
| S1-9040 | Portion K Pipe Works (Construction of MBV) | 200 | 14OCT10 | 01MAY11 | 15JAN11 | | | | | | | | | | | | | | | | | | | | | |
| S1-9040B10 | MBV Installation & Associated Duct Works | 90 | 26MAY11 | 23AUG11 | 19JUN11 | | | | | | | | | | | | | | | | | | | | | |
| S1-9050 | Portion K Kiosk for RTU & Connect To SCADA | 30 | 02MAY11 | 31MAY11 | 03AUG11 | | | | | | | | | | | | | | | | | | | | | |
| S1-9050B10 | Portion K Kiosk for RTU & Connect To SCADA | 30 | 24AUG11 | 22SEP11 | 17SEP11 | | | | | | | | | | | | | | | | | | | | | |
| S1-9060 | Area K Constructed MBV Testing | 60 | 01JUN11 | 30JUL11 | 02SEP11 | | | | | | | | | | | | | | | | | | | | | |
| S1-9060B10 | Area K Constructed MBV Testing | 60 | 23SEP11 | 21NOV11 | 17OCT11 | | | | | | | | | | | | | | | | | | | | | |



| | |
|-------------|---------|
| Start date | 07SEP09 |
| Finish date | 05NOV12 |
| Data date | 04JAN10 |
| Run date | 04JUN12 |
| Page number | 9A |

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

3 Months Rolling Program (June 2012)

Wo Hing - Penta-Ocean Joint Venture



Appendix F

ET Weekly Site Inspection Records

WEEKLY SITE INSPECTION CHECKLIST

| | | | | | | |
|-----------------|-------------|--------------|----|-----|------------|----------|
| Inspection Date | 03 May 2012 | Inspected by | RE | IEC | Contractor | ET |
| Time | 09:30 | Name | | | JING | C.L. Lan |

Weather

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

Temperature : 29°C
Humidity : High / Moderate / Low

Environmental Checklist

Fugitive Dust Emission

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

| Implementation Stages* | Remark | | | |
|---|--------|----|--------------------------------|--------------------------------|
| | Yes | No | Not Obs | |
| Environmental Checklist | | | | |
| Noise Impact | | | | |
| <ul style="list-style-type: none"> ▪ 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 | | | | |
| <ul style="list-style-type: none"> ▪ Dredging should be undertaken using one grab dredger only with a maximum production rate of 4,000m³ 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 ▪ Dredging 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 | √ | √ | No dredging work was observed. | |
| | | | √ | No dredging work was observed. |


| Environmental Checklist | | Implementation Stages* | | | Remark |
|--|--|------------------------|----|---------|--------|
| | | Yes | No | Not Obs | |
| 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 | √ | | | |
| ▪ | 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 | √ | | | |
| ▪ | 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 194). All discharges from the construction site should be controlled to comply with the standards for effluents discharged into the Victoria Harbour WCZ under the TM-DSS. | √ | | | |
| ▪ | Unnecessary water retained in receptacles and standing water should be avoided to prevent mosquito breeding. | | √ | | Item 1 |
| ▪ | 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 | | | √ | |
| 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 | |
| Waste Management | | | | |
| General Refuse | | | | |
| General refuse should be stored in enclosed bins or compaction units separate from C&D material. | ✓ | | | |
| A reputable waste collector should be employed by the contractor to remove general refuse from the site, separately from C&D material. | ✓ | | | |
| An enclosed and covered area should be provided to reduce the occurrence of 'wind blown' light material. | ✓ | | | |
| Marine Dredged Sediment (During transportation and disposal) | | | | |
| Bottom opening of barges shall be fitted with tight fitting seals to prevent leakage of material. Excess material shall be cleaned from the decks and exposed fittings of barges and dredgers before the vessel is moved | | | ✓ | No dredging work was observed. |
| Monitoring of the barge loading shall be conducted to ensure that loss of material does not take place during transportation. Transport barges or vessels shall be equipped with automatic self-monitoring devices as specified by the EPD | | | ✓ | No dredging work was observed. |
| Barges or hopper barges shall not be filled to a level that would cause the overflow of materials or sediment laden water during loading or transportation. | | | ✓ | No dredging work was observed. |
| 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 | ✓ | | | |

Summary of the Weekly Site Inspection:

| Item | Details of defective works or observations | Status of the item (closed / continue follow-up) | Proposed Follow Up Action (if required) | Photo Ref. | Target Completion Date |
|------|--|--|--|------------|------------------------|
| 1. | Standing water was noted at a steel pile in Portion J. | Follow-up | To clean up standing water to prevent mosquito breeding. | 120503_001 | 10/05/2012 |
| 2. | Standing water was noted at a drip tray in Portion J. | Follow-up | To clean up standing water to prevent mosquito breeding. | 120503_002 | 10/05/2012 |
| | | | | | |
| | | | | | |

Remark

| | | | |
|--------------|-------------------|--|---------------------|
| Inspected by | Name C. L. Lau | Signature  | Date 03 May 2012 |
|--------------|-------------------|--|---------------------|

| 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. | | | √ | No dredging work was observed. |
| ▪ | Deployment of frame type silt curtain to fully enclose the grab while dredging works are in progress. | | | √ | No dredging work was observed. |
| ▪ | 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. | √ | | | |
| ▪ | Oil leakage from machinery, vehicle and plant should be prevented. | √ | | | |
| ▪ | Regular cleaning and maintenance programme for waste storage area, drainage systems, silt traps, sumps and oil interceptors. | √ | | | |
| ▪ | A collection area should be provided where waste can be stored and loaded prior to removal from site. An enclosed and covered area is preferred to reduce the occurrence of 'wind blown' light material. If an open area is unavoidable for the storage or loading/unloading of wastes, then the area should be banded and all the polluted surface run-off collected within this area should be diverted into wastewater treatment system. | √ | | | |

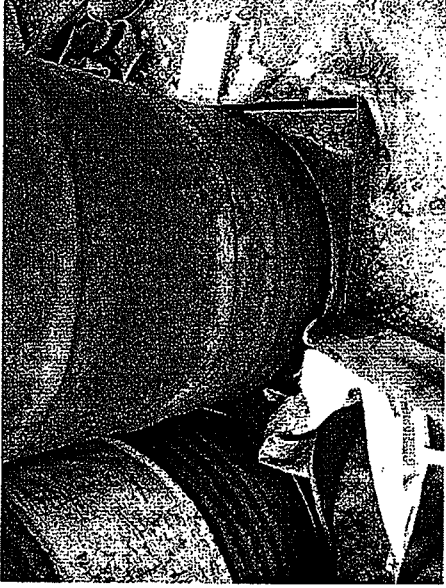
Contract No. 9/WSD/08

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

Photos



Photo_120503_001 (Standing water was noted at a steel pile in Portion J.)



Photo_120503_002 (Standing water was noted at a drip tray in Portion J.)

WEEKLY SITE INSPECTION CHECKLIST

| | | | | | | |
|-----------------|------------|--------------|----------------------------------|-----|------------|----------|
| Inspection Date | 10/05/2012 | Inspected by | RE | IEC | Contractor | ET |
| Time | 09:45 | Name | <i>Richard King</i> (10/5/12) | ✓ | JNG | Lobe Lam |

Weather : Sunny / Fine / cloudy / Drizzle / Rain / Storm / Hazy
 Condition : Calm (Light) Breeze / Strong
 Wind : High (Moderate) / Low
 Temperature : 33 °C
 Humidity :

| 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 sealed with concrete and kept clear of dusty materials or sprayed with water so as to maintain the entire road surface wet. | ✓ | | | |
| ▪ The portion of road leading only to a construction site that is within 30m of a designated vehicle entrance or exit should be kept clear of dusty materials. | ✓ | | | |
| ▪ All dusty materials should be sprayed with water prior to any loading, unloading or transfer operation so as to maintain the dusty material wet. | ✓ | | | |
| ▪ Vehicle speed should be limited to 10 kph except on completed access roads. | ✓ | | | |
| ▪ Every vehicle should be washed to remove any dusty materials from its body and wheels before leaving the construction sites. | | | ✓ | |
| ▪ The public road around the site entrance should be kept clean and free from dust. | ✓ | | | |
| ▪ Vehicle and equipment should be switched off while not in use. | ✓ | | | |
| ▪ All plant and equipment should be well maintained e.g. without black smoke emission. | ✓ | | | |
| ▪ Open burning should be prohibited. | ✓ | | | |



| Environmental Checklist | | Implementation Stages* | | | | Remark |
|---|--|-------------------------------------|----|-------------------------------------|-------------------------------------|--------------------------------|
| | | Yes | No | Not Obs | N/A | |
| Noise Impact | | | | | | |
| <input checked="" type="checkbox"/> | The approved method of working, equipment and sound-reducing measures (e.g. use of silenced type of equipment, etc.) shall be adapted. | <input checked="" type="checkbox"/> | | | | |
| <input checked="" type="checkbox"/> | 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. | <input checked="" type="checkbox"/> | | | | |
| <input checked="" type="checkbox"/> | Noisy equipment and mobile plant shall always be site away from NSRs. | <input checked="" type="checkbox"/> | | | | |
| <input checked="" type="checkbox"/> | Machines and plant that may be in intermittent use should be shut down between work periods or should be throttled down to a minimum. | <input checked="" type="checkbox"/> | | | | |
| <input checked="" type="checkbox"/> | Powered mechanical equipment (PME) should be covered or shielded by appropriate acoustic materials. | <input checked="" type="checkbox"/> | | | | |
| <input checked="" type="checkbox"/> | 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. | <input checked="" type="checkbox"/> | | | | |
| <input checked="" type="checkbox"/> | 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. | <input checked="" type="checkbox"/> | | | | |
| <input checked="" type="checkbox"/> | Well maintained plant should be operated on-site and plant should be serviced regularly during the construction works. | <input checked="" type="checkbox"/> | | | | |
| <input checked="" type="checkbox"/> | Air compressors and hand held breakers should have noise labels. | <input checked="" type="checkbox"/> | | | | |
| <input checked="" type="checkbox"/> | Compressors and generators should operate with door closed. | <input checked="" type="checkbox"/> | | | | |
| <input checked="" type="checkbox"/> | Material stockpiles and other structures should be effectively utilised, where practicable, to screen noise from on-site construction activities. | <input checked="" type="checkbox"/> | | | | |
| Water Quality | | | | | | |
| Mitigation Measures for Dredging | | | | | | |
| <input checked="" type="checkbox"/> | Dredging should be undertaken using one grab dredger only with a maximum production rate of 4,000m ³ per day. | <input checked="" type="checkbox"/> | | <input checked="" type="checkbox"/> | | No dredging work was observed. |
| <input checked="" type="checkbox"/> | Deployment of frame type silt curtain should be fully enclosed the grab while dredging works are in progress. | <input checked="" type="checkbox"/> | | <input checked="" type="checkbox"/> | | No dredging work was observed. |
| <input checked="" type="checkbox"/> | Deployment of silt screen should be at the sea water intake at Kowloon South Salt Water Pumping Station while dredging works are in progress | <input checked="" type="checkbox"/> | | | | |
| <input checked="" type="checkbox"/> | 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. | <input checked="" type="checkbox"/> | | | | |
| <input checked="" type="checkbox"/> | 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 | <input checked="" type="checkbox"/> | | | | |
| <input checked="" type="checkbox"/> | The decks of all vessels should be kept tidy and free of oil or other substances that might be accidentally or otherwise washed overboard | <input checked="" type="checkbox"/> | | | | |
| <input checked="" type="checkbox"/> | Adequate free board shall be maintained on barges to ensure that decks are not washed by wave action. | <input checked="" type="checkbox"/> | | | | |
| <input checked="" type="checkbox"/> | 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 | <input checked="" type="checkbox"/> | | | | |
| <input checked="" type="checkbox"/> | Dredging 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 | <input checked="" type="checkbox"/> | | | <input checked="" type="checkbox"/> | No dredging work was observed. |
| <input checked="" type="checkbox"/> | 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 | <input checked="" type="checkbox"/> | | | | |
| <input checked="" type="checkbox"/> | The speed of vessels should be controlled within the works area to prevent propeller wash from stirring up the seabed sediments | <input checked="" type="checkbox"/> | | | | |

| 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 sited 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 | ✓ | | | |
| ▪ | 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 | ✓ | | | |
| ▪ | Fuel tanks and storage areas should be provided with locks and be located on sealed areas, within bunds of a capacity equal to 110% of the storage capacity of the largest tank, to prevent spilled fuel oils from reaching the coastal waters of the Victoria Harbour and Western Harbour WCs | ✓ | | | |
| ▪ | 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 IM-DSS. | ✓ | | | |
| ▪ | Unnecessary water retained in receptacles and standing water should be avoided to prevent mosquito breeding. | ✓ | | | |
| ▪ | 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 | | | | ✓ |
| Waste Management | | | | | |
| C&D Materials | | | | | |
| ▪ | Excavated materials should be reused on-site as backfilling material and for landscaping works as far as practicable. | | | ✓ | |
| ▪ | C&D material generated from excavation works should be disposed of at public fill reception facilities for other beneficial uses. | | | ✓ | |
| ▪ | A recording system for the amount of wastes generated, recycled and disposed (including the disposal sites) should be proposed | | | ✓ | |
| ▪ | A recording system for the amount of wastes generated, recycled and disposed (including the disposal sites) should be used, e.g. trip ticket system for chemical waste disposal. Quantities could be determined by weighing each load or other suitable methods. | | | ✓ | |
| Chemical Waste | | | | | |
| ▪ | Good quality containers compatible with the chemical wastes should be used, and incompatible chemicals should be stored separately. | ✓ | | | |
| ▪ | Appropriate labels should be securely attached on each chemical waste container indicating the corresponding chemical characteristics of the chemical waste, such as explosive, flammable, oxidizing, irritant, toxic, harmful, corrosive, etc. | ✓ | | | |
| ▪ | The Contractor shall use a licensed collector to transport and dispose of the chemical wastes, to either the approved Chemical Waste Treatment Centre, or another licensed facility. | ✓ | | | |



| Environmental Checklist | Implementation Stages* | | | Remark |
|--|------------------------|----|-------------|--------------------------------|
| | Yes | No | Not Obs N/A | |
| Waste Management | | | | |
| General Refuse | | | | |
| General refuse should be stored in enclosed bins or compaction units separate from C&D material. | ✓ | | | |
| A reputable waste collector should be employed by the contractor to remove general refuse from the site, separately from C&D material. | ✓ | | | |
| An enclosed and covered area should be provided to reduce the occurrence of 'wind blown' light material. | ✓ | | | |
| Marine Dredged Sediment (During transportation and disposal) | | | | |
| Bottom opening of barges shall be fitted with tight fitting seals to prevent leakage of material. Excess material shall be cleaned from the decks and exposed fittings of barges and dredgers before the vessel is moved | | | ✓ | No dredging work was observed. |
| Monitoring of the barge loading shall be conducted to ensure that loss of material does not take place during transportation. Transport barges or vessels shall be equipped with automatic self-monitoring devices as specified by the EPD | | | ✓ | No dredging work was observed. |
| Barges or hopper barges shall not be filled to a level that would cause the overflow of materials or sediment laden water during loading or transportation. | | | ✓ | No dredging work was observed. |
| 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. | | | √ | No dredging work was observed. |
| Deployment of frame type silt curtain to fully enclose the grab while dredging works are in progress. | | | √ | No dredging work was observed. |
| 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. | √ | | | |
| Oil leakage from machinery, vehicle and plant should be prevented. | √ | | | |
| Regular cleaning and maintenance programme for waste storage area, drainage systems, silt traps, sumps and oil interceptors. | √ | | | |
| A collection area should be provided where waste can be stored and loaded prior to removal from site. An enclosed and covered area is preferred to reduce the occurrence of 'wind blown' light material. If an open area is unavoidable for the storage or loading/unloading of wastes, then the area should be banded and all the polluted surface run-off collected within this area should be diverted into wastewater treatment system. | √ | | | |

Contract No. 9M/SD/08

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



東 亞 檢 驗 測 試 顧 問 有 限 公 司
ETS-TESTCONSULT LIMITED

Summary of the Weekly Site Inspection:

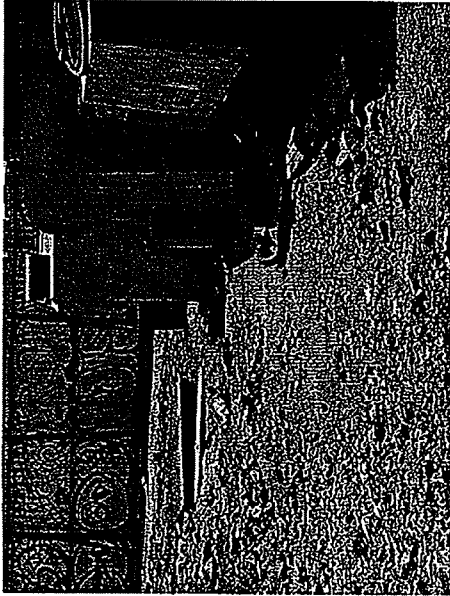
| Item | Details of defective works or observations | Status of the item (closed / continue follow-up) | Proposed Follow Up Action (if required) | Photo Ref. | Target Completion Date |
|------|--|--|---|------------|------------------------------|
| 1. | Follow up action of item 1 on 03/05/12, no standing water was noted at a steel pile in Portion J since the steel pile was collected. | Closed | -- | 120510_001 | -- |
| 2 | Follow up action of item 2 on 03/05/12, no standing water was noted at a drip tray in Portion J. | Closed | -- | 120510_002 | -- |

Remark

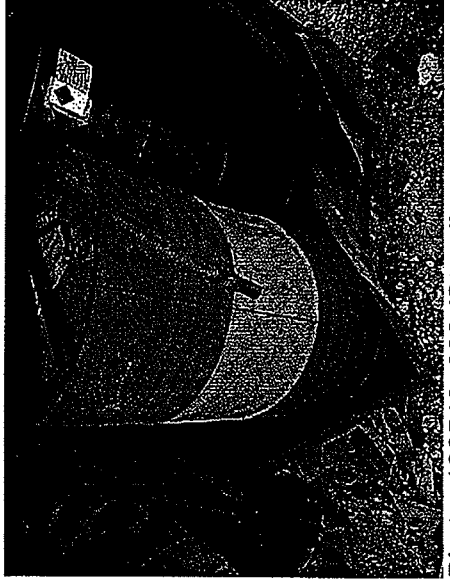
| |
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| | | | |
|--------------|-------------------|-------------------------------|---------------------|
| Inspected by | Name Linda Law | Signature <i>L. De Lan</i> | Date 10 May 2012 |
|--------------|-------------------|-------------------------------|---------------------|

Photos



Photo_120510_001 (Standing water was noted at a steel pile in Portion J.)



Photo_120510_002 (Standing water was noted at a drip tray in Portion J.)

WEEKLY SITE INSPECTION CHECKLIST

| | | | | | | |
|-----------------|-------------|--------------|---------------|-----|------------|----------|
| Inspection Date | 16 May 2012 | Inspected by | RE | IEC | Contractor | ET |
| Time | 14:00 | Name | Edward Cheung | | JMG | C.L. Lau |

Weather : Sunny / Fine / Cloudy / Drizzle / Rain / Storm / Hazy
 Condition : Calm / Light / Breeze / Strong
 Wind : 28°C
 Humidity : High / Moderate / Low

Environmental Checklist

Fugitive Dust Emission

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



| Environmental Checklist | | Implementation Stages* | | | Remark |
|---|--|------------------------|----|---------|--------------------------------|
| | | Yes | No | Not Obs | |
| 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. | | | ✓ | No dredging work was observed. |
| ▪ | Deployment of frame type silt curtain should be fully enclosed the grab while dredging works are in progress. | | | ✓ | No dredging work was observed. |
| ▪ | 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 | ✓ | | | |
| ▪ | Dredging 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 | ✓ | | | No dredging work was observed. |
| ▪ | 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 | |
| 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 | √ | | | |
| ▪ | 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 | √ | | | |
| ▪ | Fuel tanks and storage areas should be provided with locks and be located on sealed areas, within bunds of a capacity equal to 110% of the storage capacity of the largest tank, to prevent spilled fuel oils from reaching the coastal waters of the Victoria Harbour and Western Harbour WCs | √ | | | |
| ▪ | 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 1794). 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. | √ | | | |
| ▪ | 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 | | | | √ |
| 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 | |
| Waste Management | | | | | |
| General Refuse | | | | | |
| | General refuse should be stored in enclosed bins or compaction units separate from C&D material. | √ | | | |
| | A reputable waste collector should be employed by the contractor to remove general refuse from the site, separately from C&D material. | √ | | | |
| | An enclosed and covered area should be provided to reduce the occurrence of 'wind blown' light material. | √ | | | |
| Marine Dredged Sediment (During transportation and disposal) | | | | | |
| | Bottom opening of barges shall be fitted with tight fitting seals to prevent leakage of material. Excess material shall be cleaned from the decks and exposed fittings of barges and dredgers before the vessel is moved | | | √ | No dredging work was observed. |
| | Monitoring of the barge loading shall be conducted to ensure that loss of material does not take place during transportation. Transport barges or vessels shall be equipped with automatic self-monitoring devices as specified by the EPD | | | √ | No dredging work was observed. |
| | Barges or hopper barges shall not be filled to a level that would cause the overflow of materials or sediment laden water during loading or transportation. | | | √ | No dredging work was observed. |
| 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 | |
| Marine Ecology | | | | | |
| ▪ | Use of one grab dredger only with a maximum production rate of 4,000m ³ per day for dredging. | | | √ | No dredging work was observed. |
| ▪ | Deployment of frame type silt curtain to fully enclose the grab while dredging works are in progress. | | | √ | No dredging work was observed. |
| ▪ | 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. | √ | | | |
| ▪ | Oil leakage from machinery, vehicle and plant should be prevented. | √ | | | |
| ▪ | Regular cleaning and maintenance programme for waste storage area, drainage systems, silt traps, sumps and oil interceptors. | √ | | | |
| ▪ | A collection area should be provided where waste can be stored and loaded prior to removal from site. An enclosed and covered area is preferred to reduce the occurrence of 'wind blown' light material. If an open area is unavoidable for the storage or loading/unloading of wastes, then the area should be banded and all the polluted surface run-off collected within this area should be diverted into wastewater treatment system. | √ | | | |


Summary of the Weekly Site Inspection:

| Item | Details of defective works or observations | Status of the item (closed / continue follow-up) | Proposed Follow Up Action (if required) | Photo Ref. | Target Completion Date |
|------|--|--|---|------------|------------------------|
| | | | | | |

Remark

No new item was found during the site inspection and audit on 16/05/2012.

The contractor was reminded to clean the standing water on the unused steel piles and drip trays after rained.

| | | | |
|--------------|-----------|--|-------------|
| Inspected by | Name | Signature | Date |
| | C. L. Lau |  | 16 May 2012 |



WEEKLY SITE INSPECTION CHECKLIST

| | | | | | | |
|-----------------|-------------|--------------|-------------|-------------|------------|----------|
| Inspection Date | 24 May 2012 | Inspected by | RE | IEC | Contractor | ET |
| Time | 09:30 | Name | [Signature] | [Signature] | JNG | C.L. Lan |

Weather Condition Wind : Sunny / Fine / Cloudy / Drizzle / Rain / Storm / Hazy
 : Calm / Light / Breeze / Strong
 Temperature : 25 °C
 Humidity : High / Moderate / Low

Environmental Checklist

Fugitive Dust Emission

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



| Environmental Checklist | | Implementation Stages* | | | Remark |
|---|--|------------------------|----|---------|--------------------------------|
| | | Yes | No | Not Obs | |
| 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. | | | ✓ | No dredging work was observed. |
| ▪ | Deployment of frame type silt curtain should be fully enclosed the grab while dredging works are in progress. | | | ✓ | No dredging work was observed. |
| ▪ | 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 | ✓ | | | |
| ▪ | Dredging 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 | ✓ | | | No dredging work was observed. |
| ▪ | 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 | |
| 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 | ✓ | | | |
| ▪ | 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 | ✓ | | | |
| ▪ | 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. | ✓ | | | |
| ▪ | 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 | | | | ✓ |
| 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 | |
| Waste Management | | | | | |
| General Refuse | | | | | |
| | General refuse should be stored in enclosed bins or compaction units separate from C&D material. | √ | | | |
| | A reputable waste collector should be employed by the contractor to remove general refuse from the site, separately from C&D material. | √ | | | |
| | An enclosed and covered area should be provided to reduce the occurrence of 'wind blown' light material. | √ | | | |
| Marine Dredged Sediment (During transportation and disposal) | | | | | |
| | Bottom opening of barges shall be fitted with tight fitting seals to prevent leakage of material. Excess material shall be cleaned from the decks and exposed fittings of barges and dredgers before the vessel is moved | | | √ | No dredging work was observed. |
| | Monitoring of the barge loading shall be conducted to ensure that loss of material does not take place during transportation. Transport barges or vessels shall be equipped with automatic self-monitoring devices as specified by the EPD | | | √ | No dredging work was observed. |
| | Barges or hopper barges shall not be filled to a level that would cause the overflow of materials or sediment laden water during loading or transportation. | | | √ | No dredging work was observed. |
| 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. | | √ | | Item 1 |
| | 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 | |
| Marine Ecology | | | | | |
| | Use of one grab dredger only with a maximum production rate of 4,000m ³ per day for dredging. | | | √ | No dredging work was observed. |
| | Deployment of frame type silt curtain to fully enclose the grab while dredging works are in progress. | | | √ | No dredging work was observed. |
| | 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. | √ | | | |
| | Oil leakage from machinery, vehicle and plant should be prevented. | √ | | | |
| | Regular cleaning and maintenance programme for waste storage area, drainage systems, silt traps, sumps and oil interceptors. | √ | | | |
| | A collection area should be provided where waste can be stored and loaded prior to removal from site. An enclosed and covered area is preferred to reduce the occurrence of 'wind blown' light material. If an open area is unavoidable for the storage or loading/unloading of wastes, then the area should be bunded and all the polluted surface run-off collected within this area should be diverted into wastewater treatment system. | √ | | | |

Summary of the Weekly Site Inspection:

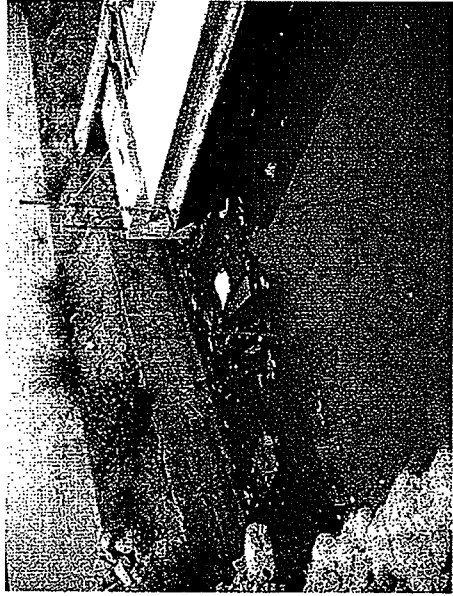
| Item | Details of defective works or observations | Status of the item (closed / continue follow-up) | Proposed Follow Up Action (if required) | Photo Ref. | Target Completion Date |
|------|--|--|--|------------|------------------------|
| 1. | Floating rubbish was noted in Portion H. | Follow-up | To collect the floating rubbish regularly to keep good site practices. | 120524_001 | 29/05/2012 |
| | | | | | |
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Remark

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|--------------|-------------|
| | |
| Inspected by | |
| C. L. Lau | |
| | Signature |
| | Date |
| | 24 May 2012 |

Photos



Photo_120524_001 (Floating rubbish was noted in Portion H.)

WEEKLY SITE INSPECTION CHECKLIST

| | | | | | | |
|-----------------|-------------|--------------|-------------------------|-----|------------|----------|
| Inspection Date | 29 May 2012 | Inspected by | RE | IEC | Contractor | ET |
| Time | 09:30 | Name | M. P. ... 18/05/2012 | | ONG ... | C.L. ... |

Weather Condition : Sunny / Fine / Cloudy / Drizzle / Rain / Storm / Hazy
 Wind : Calm / Light / (Breeze) Strong
 Temperature : 25°C
 Humidity : High / (Moderate) Low

Environmental Checklist

Fugitive Dust Emission

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

| Environmental Checklist | | Implementation Stages* | | | Remark |
|---|--|------------------------|----|---------|--------------------------------|
| | | Yes | No | Not Obs | |
| 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. | | | ✓ | No dredging work was observed. |
| | Deployment of frame type silt curtain should be fully enclosed the grab while dredging works are in progress. | | | ✓ | No dredging work was observed. |
| | 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 | ✓ | | | |
| | Dredging 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 | ✓ | | | No dredging work was observed. |
| | 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 | |
| Water Quality | | | | | |
| Mitigation Measures for other Construction Activities | | | | | |
| | <ul style="list-style-type: none"> Sedimentation tanks with sufficient capacity, constructed from pre-formed individual cells of approximately 6 to 8 m³ 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. 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. Fuel tanks and storage areas should be provided with locks and be located on sealed areas, within bunds of a capacity equal to 110% of the storage capacity of the largest tank, to prevent spilled fuel oils from reaching the coastal waters of the Victoria Harbour and Western Harbour W CZs. 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. 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. | √ | | | |
| Waste Management | | | | | |
| C&D Materials | | | | | |
| | <ul style="list-style-type: none"> 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 | | | | | |
| | <ul style="list-style-type: none"> 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 | |
| Waste Management | | | | | |
| General Refuse | | | | | |
| <input checked="" type="checkbox"/> | General refuse should be stored in enclosed bins or compaction units separate from C&D material. | | | | |
| <input checked="" type="checkbox"/> | A reputable waste collector should be employed by the contractor to remove general refuse from the site, separately from C&D material. | | | | |
| <input checked="" type="checkbox"/> | An enclosed and covered area should be provided to reduce the occurrence of 'wind blown' light material. | | | | |
| Marine Dredged Sediment (During transportation and disposal) | | | | | |
| <input checked="" type="checkbox"/> | 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 | | | <input checked="" type="checkbox"/> | No dredging work was observed. |
| <input checked="" type="checkbox"/> | 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 | | | <input checked="" type="checkbox"/> | No dredging work was observed. |
| <input checked="" type="checkbox"/> | 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. | | | <input checked="" type="checkbox"/> | No dredging work was observed. |
| Site Practices | | | | | |
| <input checked="" type="checkbox"/> | 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 | | | | |
| <input checked="" type="checkbox"/> | Training of site personnel in proper waste management and chemical handling procedures | | | | |
| <input checked="" type="checkbox"/> | Provision of sufficient waste disposal points and regular collection of waste | | | | |
| <input checked="" type="checkbox"/> | 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. | | | | |
| <input checked="" type="checkbox"/> | 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 | | | | | |
| <input checked="" type="checkbox"/> | Sort C&D material from demolition and decommissioning of the existing facilities to recover recyclable portions such as metals | | | | |
| <input checked="" type="checkbox"/> | 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 | | | | |
| <input checked="" type="checkbox"/> | 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 | | | | |
| <input checked="" type="checkbox"/> | Proper storage and site practices to minimise the potential for damage or contamination of construction materials | | | | |
| <input checked="" type="checkbox"/> | 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. | | | √ | No dredging work was observed. |
| ▪ Deployment of frame type silt curtain to fully enclose the grab while dredging works are in progress. | | | √ | No dredging work was observed. |
| ▪ 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. | √ | | | |
| ▪ Oil leakage from machinery, vehicle and plant should be prevented. | √ | | | |
| ▪ Regular cleaning and maintenance programme for waste storage area, drainage systems, silt traps, sumps and oil interceptors. | √ | | | |
| ▪ A collection area should be provided where waste can be stored and loaded prior to removal from site. An enclosed and covered area is preferred to reduce the occurrence of 'wind blown' light material. If an open area is unavoidable for the storage or loading/unloading of wastes, then the area should be banded and all the polluted surface run-off collected within this area should be diverted into wastewater treatment system. | √ | | | |

Summary of the Weekly Site Inspection:

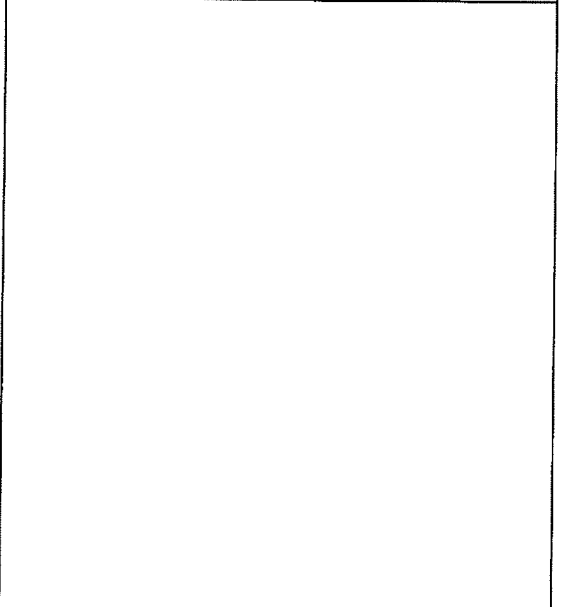
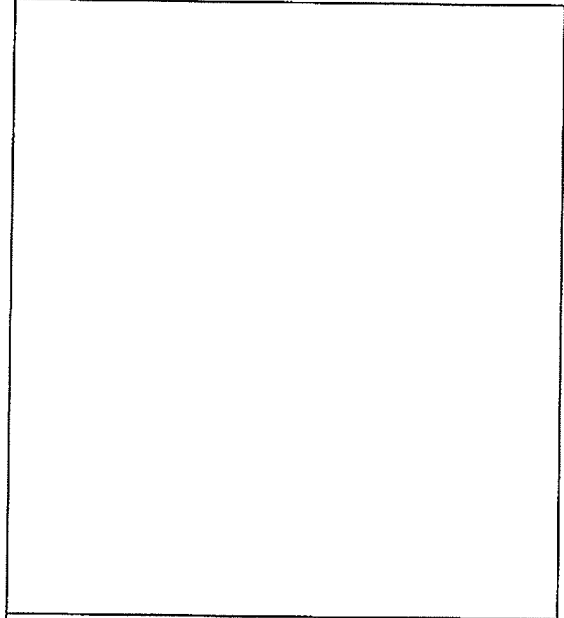
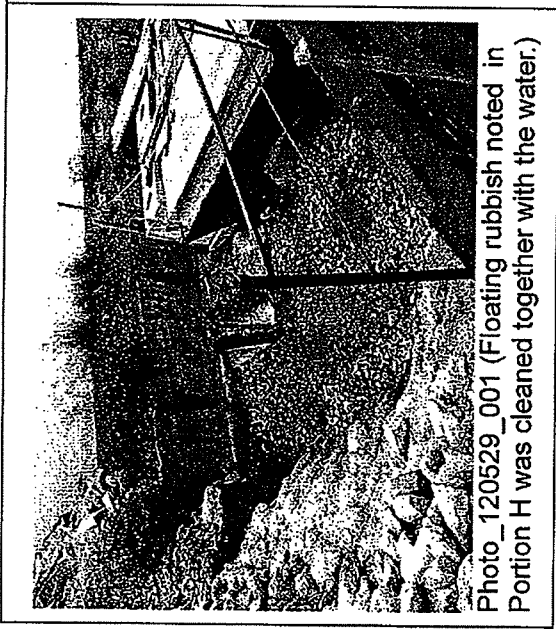
| Item | Details of defective works or observations | Status of the item (closed / continue follow-up) | Proposed Follow Up Action (if required) | Photo Ref. | Target Completion Date |
|------|--|--|---|------------|------------------------|
| 1. | Floating rubbish noted in Portion H was cleaned together with the pond of water. | -- | -- | 120529_001 | -- |
| | | | | | |
| | | | | | |
| | | | | | |

Remark

No new item was found during the site audit on 29 May 2012 but the contractor was reminded to improve the site practices, e.g. collection of C&D materials properly from demolition and disposal of bags of rubbish etc.

| | | | |
|--------------|-------------------|---|---------------------|
| Inspected by | Name C. L. Lau | Signature  | Date 29 May 2012 |
|--------------|-------------------|---|---------------------|

Photos





Appendix G

Implementation Schedule of Mitigation Measures



| | Location | Implementation Status | | | |
|--|-----------|-----------------------|-----------------------|-----------------|----------------|
| | | Implemented | Partially implemented | Not implemented | Not Applicable |
| Environmental Protection Measures | | | | | |
| 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 | ✓ | | | |



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



Appendix H

Site General Layout plan

NOTES

1. THIS DRAWING SHALL BE USED IN CONJUNCTION WITH DRAWING NOS. 241239/01/0201 AND 241239/02/0201.
2. THE LEGEND SHALL REFER TO DRAWING NO. 241239/02/0201.

| | | | |
|-----------|-------|-----------------------|-----------|
| 02 APR 00 | 1 | TENDER ADDENDUM NO. 4 | 21/1/02 |
| 01 MAR 00 | 1 | TENDER ADDENDUM NO. 3 | 41/02/00 |
| 0 DEC 00 | 1 | ISSUE FOR TENDER | 01/01/00 |
| Date | Issue | Description | Issue No. |

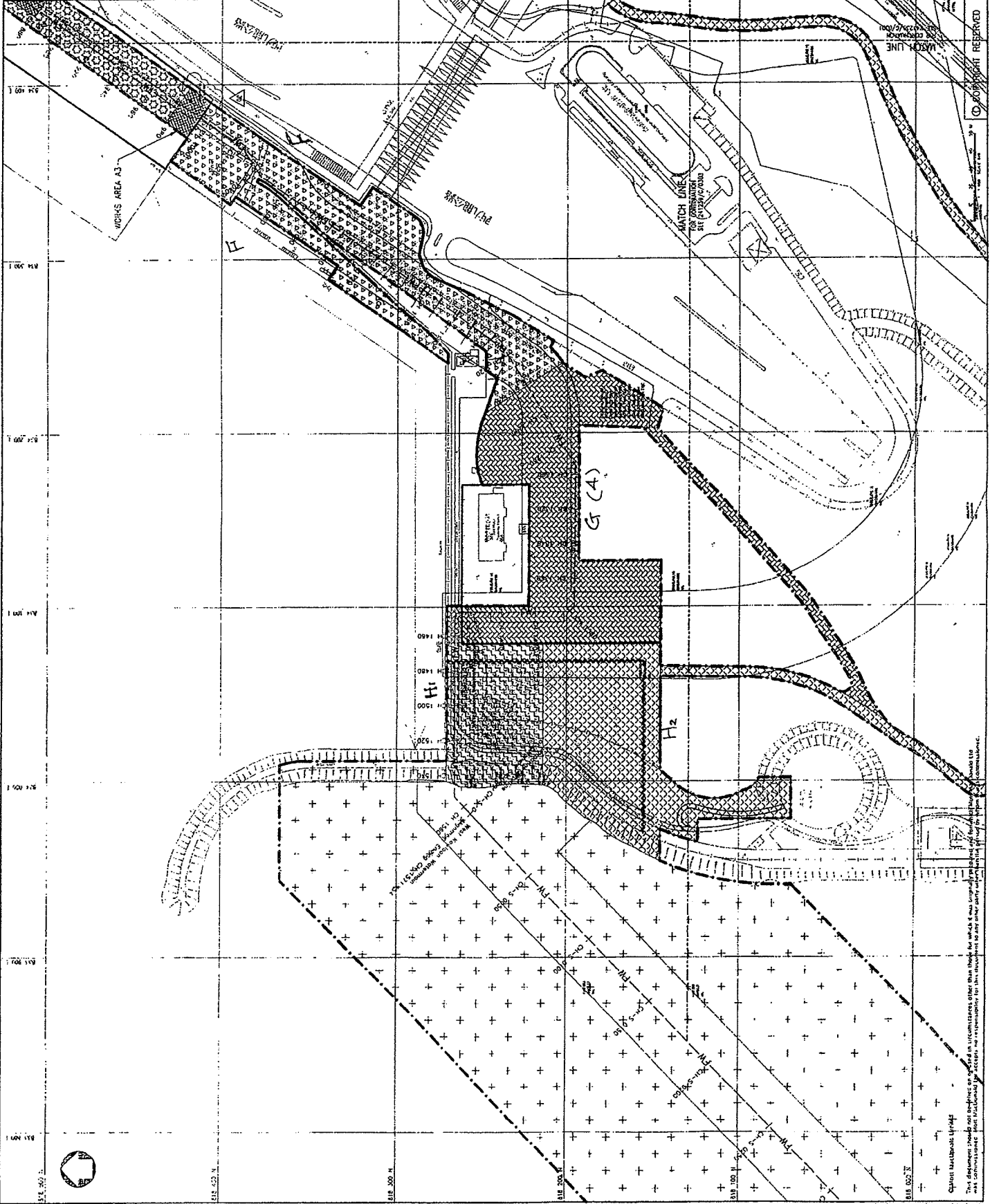
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THE GOVERNMENT OF THE HONG KONG
 SPECIAL ADMINISTRATIVE REGION
 WATER SUPPLIES DEPARTMENT

9/19SD/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)

| | | | |
|-------------|----------------|-------------|----------------|
| Project | 9/19SD/08 | Rev | 02 |
| Drawn | PL | Checked | SKC |
| Project | PL | Approved | SKC |
| Scale | 1:1000 @A1 | Drawn No. | 241239 |
| Sheet | 10 | Project No. | 241239/02/0201 |
| Drawing No. | 241239/02/0202 | Scale | TEN |



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NOTES :

1. THIS DRAWING SHALL BE USED IN CONNECTION WITH DRAWING NO. 241239/03/001 TO 0302 AND 0303 TO 0305.
2. THE LEGEND SHALL REFER TO DRAWING NO. 241239/03/001.

| | | | | |
|----|------|----------|----------|--|
| 01 | DATE | 21/11/08 | REVISION | |
| 02 | DATE | 11/12/08 | REVISION | |
| 03 | DATE | 11/12/08 | REVISION | |
| 04 | DATE | 11/12/08 | REVISION | |
| 05 | DATE | 11/12/08 | REVISION | |

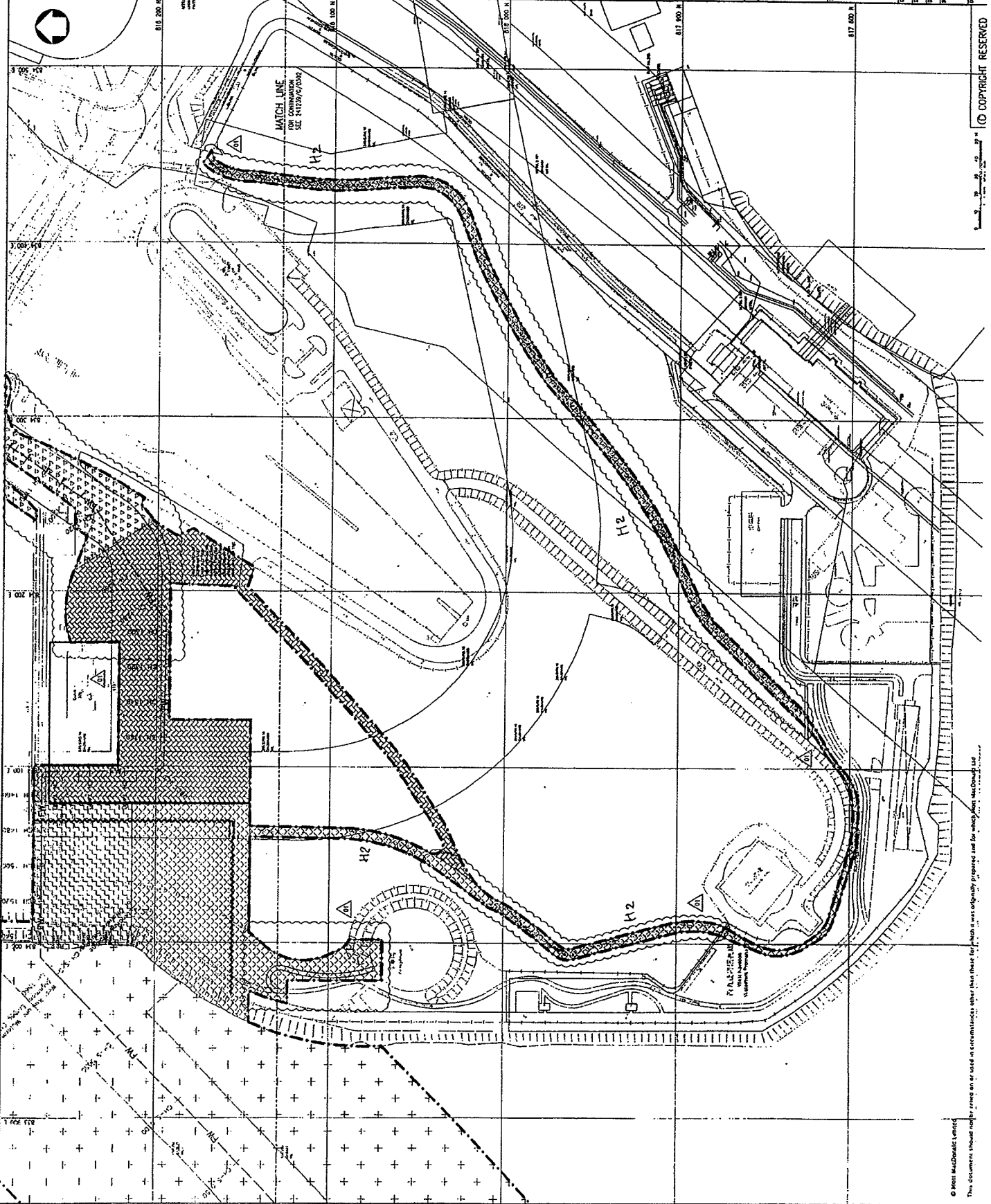
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**THE GOVERNMENT OF THE HONG KONG
 SPECIAL ADMINISTRATIVE REGION
 WATER SUPPLIES DEPARTMENT**

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

POSSESSION OF SITE
 (SHEET 3 OF 5)

| | | | |
|-------------|---------------|------------|----------|
| Scale | 1:1000 0A1 | Date | 21/12/08 |
| Author | FL | Check | FL |
| Designer | FL | Supervisor | FL |
| Project | 9/NSD/08 | Sheet | TEN |
| Drawing No. | 241239/03/001 | Sheet No. | 01 |



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NOTES

1. THIS DRAWING SHALL BE READ IN CONJUNCTION WITH DRAWING NOS. 241239/0300 TO 0304.
2. THE LEGEND SHALL REFER TO DRAWING NO. 241239/0300.

| | | | | | |
|-----------|----|------------------|-------|------|----------|
| 02 FEB 08 | PL | REVISION | NO. 1 | DATE | 24/11/07 |
| 01 JAN 08 | PL | REVISION | NO. 1 | DATE | 14/11/07 |
| 00 DEC 08 | PL | ISSUE FOR TENDER | | DATE | 14/11/07 |

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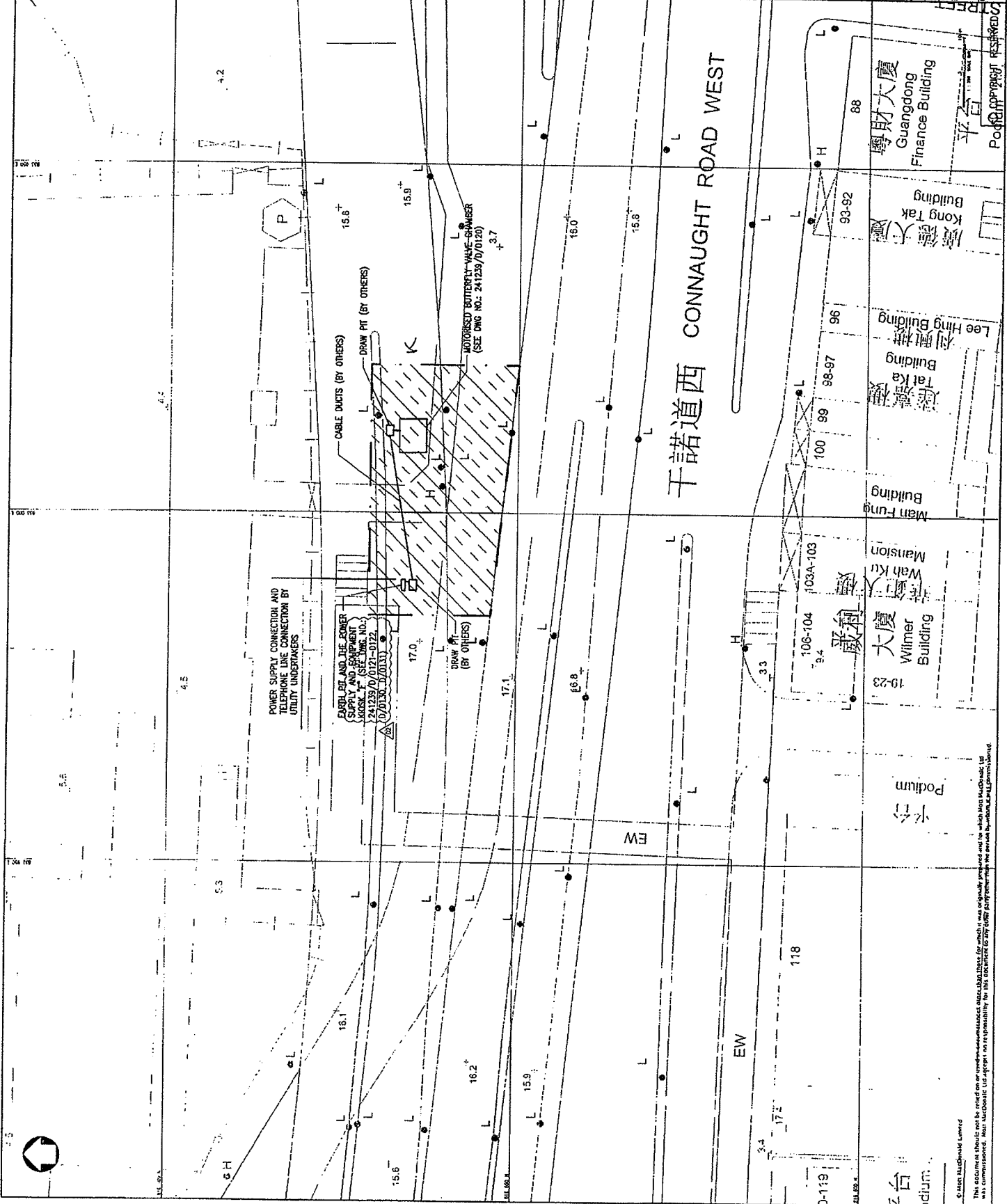
THE GOVERNMENT OF THE HONG KONG
SPECIAL ADMINISTRATIVE REGION
WATER SUPPLIES DEPARTMENT

Project No. 9/WSD/08

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

POSSESSION OF SITE
(SHEET 5 OF 5)

| | |
|---------------------|----------|
| Project No. | 9/WSD/08 |
| Sheet No. | 5 OF 5 |
| Scale | 1:250 |
| Date | 24/11/07 |
| Drawn by | KL |
| Checked by | SKC |
| Approved by | SKC |
| Project Manager | SKC |
| Project Engineer | SKC |
| Project Surveyor | SKC |
| Project Draughtsman | SKC |
| Project Checker | SKC |
| Project Approver | SKC |
| Project Supervisor | SKC |
| Project Director | SKC |
| Project Manager | SKC |
| Project Engineer | SKC |
| Project Surveyor | SKC |
| Project Draughtsman | SKC |
| Project Checker | SKC |
| Project Approver | SKC |
| Project Supervisor | SKC |
| Project Director | SKC |



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Appendix I

Monitoring Schedule for this Month and Coming Month

Contract No. 9/WSD/08

**Laying of Western Cross Harbour Main & Associated Land Mains from West Kowloon to Sai Ying Pun
Time Schedule for Impact Marine Water Quality Monitoring (WQM), Noise Monitoring (NM) and Weekly Site Inspection (SI)
May 2012**

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

Contract No. 9/WSD/08

**Laying of Western Cross Harbour Main & Associated Land Mains from West Kowloon to Sai Ying Pun
Time Schedule for Impact Marine Water Quality Monitoring (WQM), Noise Monitoring (NM) and Weekly Site Inspection (SI)
June 2012**

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



Appendix J

Daily Dredging Summary

Wo Hing - Penta-Ocean Joint Venture

Contract no. 9/WSD/08

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

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

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

Wo Hing - Penta-Ocean Joint Venture

Contract no. 9/WSD/08

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

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

| Date | Dumping qty (m ³) | Barge Load per day | Accumulated Dumping Qty. (bulk volume) | Target Dumping qty (m ³) | Target Barge Load per day | Target Accumulated Dumping Qty. (bulk volume) | Permit No. |
|-----------------|----------------------------------|-----------------------|--|--|---------------------------------|--|---------------|
| 18 July, 2010 | | | 32,800 | 2,100 | 3 | 73,500 | EP/MD/10-085 |
| 19 July, 2010 | | | 32,800 | 2,100 | 3 | 75,600 | EP/MD/10-085 |
| 20 July, 2010 | | | 32,800 | 2,100 | 3 | 77,700 | EP/MD/10-085 |
| 21 July, 2010 | | | 32,800 | 2,100 | 3 | 79,800 | EP/MD/10-085 |
| 22 July, 2010 | | | 32,800 | 2,100 | 3 | 81,900 | EP/MD/10-085 |
| 23 July, 2010 | | | 32,800 | 2,100 | 3 | 84,000 | EP/MD/10-085 |
| 24 July, 2010 | | | 32,800 | 2,100 | 3 | 86,100 | EP/MD/10-085 |
| 25 July, 2010 | | | 32,800 | 2,100 | 3 | 88,200 | EP/MD/10-085 |
| 26 July, 2010 | | | 32,800 | 2,100 | 3 | 90,300 | EP/MD/10-085 |
| 27 July, 2010 | | | 32,800 | 2,100 | 3 | 92,400 | EP/MD/10-085 |
| 28 July, 2010 | | | 32,800 | 2,100 | 3 | 94,500 | EP/MD/10-085 |
| 29 July, 2010 | | | 32,800 | 2,100 | 3 | 96,600 | EP/MD/10-085 |
| 30 July, 2010 | | | 32,800 | 2,100 | 3 | 98,700 | EP/MD/10-085 |
| 31 July, 2010 | | | 32,800 | 2,100 | 3 | 100,800 | EP/MD/10-085 |
| 1 August, 2010 | | | 32,800 | 2,100 | 3 | 102,900 | EP/MD/10-085 |
| 2 August, 2010 | | | 32,800 | 2,100 | 3 | 105,000 | EP/MD/10-085 |
| 3 August, 2010 | | | 32,800 | 2,100 | 3 | 107,100 | EP/MD/10-085 |
| 4 August, 2010 | | | 32,800 | 2,100 | 3 | 109,200 | EP/MD/10-085 |
| 5 August, 2010 | | | 32,800 | 2,100 | 3 | 111,300 | EP/MD/10-085 |
| 6 August, 2010 | | | 32,800 | 2,100 | 3 | 113,400 | EP/MD/10-085 |
| 7 August, 2010 | | | 32,800 | 2,100 | 3 | 115,500 | EP/MD/10-085 |
| 8 August, 2010 | | | 32,800 | 2,100 | 3 | 117,600 | EP/MD/10-085 |
| 9 August, 2010 | | | 32,800 | 2,100 | 3 | 119,700 | EP/MD/10-085 |
| 10 August, 2010 | | | 32,800 | 2,100 | 3 | 121,800 | EP/MD/10-085 |
| 11 August, 2010 | | | 32,800 | 2,100 | 3 | 123,900 | EP/MD/10-085 |
| 12 August, 2010 | | | 32,800 | 2,100 | 3 | 126,000 | EP/MD/10-085 |
| 13 August, 2010 | | | 32,800 | 2,100 | 3 | 128,100 | EP/MD/10-085 |
| 14 August, 2010 | | | 32,800 | 2,100 | 3 | 130,200 | EP/MD/10-085 |
| 15 August, 2010 | | | 32,800 | 2,100 | 3 | 132,300 | EP/MD/10-085 |
| 16 August, 2010 | | | 32,800 | 2,100 | 3 | 134,400 | EP/MD/10-085 |
| 17 August, 2010 | | | 32,800 | 2,100 | 3 | 136,500 | EP/MD/10-085 |
| 18 August, 2010 | | | 32,800 | 2,100 | 3 | 138,600 | EP/MD/10-085 |
| 19 August, 2010 | | | 32,800 | 2,100 | 3 | 140,700 | EP/MD/10-085 |
| 20 August, 2010 | | | 32,800 | 2,100 | 3 | 142,800 | EP/MD/10-085 |
| 21 August, 2010 | | | 32,800 | 2,100 | 3 | 144,900 | 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. | Target Dumping qty (m ³) | Target Barge Load per day | Target Accumulated Dumping Qty. | Permit No. |
| | | | (bulk volume) | | | (bulk volume) | |
| 22 August, 2010 | | | 32,800 | 2,100 | 3 | 147,000 | EP/MD/10-085 |
| 23 August, 2010 | | | 32,800 | 2,100 | 3 | 149,100 | EP/MD/10-085 |
| 24 August, 2010 | | | 32,800 | 2,100 | 3 | 151,200 | EP/MD/10-085 |
| 25 August, 2010 | | | 32,800 | 2,100 | 3 | 153,300 | EP/MD/10-085 |
| 26 August, 2010 | | | 32,800 | 2,100 | 3 | 155,400 | EP/MD/10-085 |
| 27 August, 2010 | | | 32,800 | 2,100 | 3 | 157,500 | EP/MD/10-085 |
| 28 August, 2010 | | | 32,800 | 2,100 | 3 | 159,600 | EP/MD/10-085 |
| 29 August, 2010 | | | 32,800 | 2,100 | 3 | 161,700 | EP/MD/10-085 |
| 30 August, 2010 | | | 32,800 | 2,100 | 3 | 163,800 | EP/MD/10-085 |
| 31 August, 2010 | | | 32,800 | 2,100 | 3 | 165,900 | EP/MD/10-085 |
| 1 September, 2010 | | | 32,800 | 2,100 | 3 | 168,000 | EP/MD/10-085 |
| 2 September, 2010 | | | 32,800 | 2,100 | 3 | 170,100 | EP/MD/10-085 |
| 3 September, 2010 | | | 32,800 | 2,100 | 3 | 172,200 | EP/MD/10-085 |
| 4 September, 2010 | | | 32,800 | 2,100 | 3 | 174,300 | EP/MD/10-085 |
| 5 September, 2010 | | | 32,800 | 2,100 | 3 | 176,400 | EP/MD/10-085 |
| 6 September, 2010 | | | 32,800 | 2,100 | 3 | 178,500 | EP/MD/10-085 |
| 7 September, 2010 | | | 32,800 | 2,100 | 3 | 180,600 | EP/MD/10-085 |
| 8 September, 2010 | | | 32,800 | 2,100 | 3 | 182,700 | EP/MD/10-085 |
| 9 September, 2010 | | | 32,800 | 2,100 | 3 | 184,800 | EP/MD/10-085 |
| 10 September, 2010 | | | 32,800 | 2,100 | 3 | 186,900 | EP/MD/10-085 |
| 11 September, 2010 | | | 32,800 | 2,100 | 3 | 189,000 | EP/MD/10-085 |
| 12 September, 2010 | | | 32,800 | 2,100 | 3 | 191,100 | EP/MD/10-085 |
| 13 September, 2010 | | | 32,800 | 2,100 | 3 | 193,200 | EP/MD/10-085 |
| 14 September, 2010 | | | 32,800 | 2,100 | 3 | 195,300 | EP/MD/10-085 |
| 15 September, 2010 | | | 32,800 | 2,100 | 3 | 197,400 | EP/MD/10-085 |
| 16 September, 2010 | | | 32,800 | 2,100 | 3 | 199,500 | EP/MD/10-085 |
| 17 September, 2010 | | | 32,800 | 2,100 | 3 | 201,600 | EP/MD/10-085 |
| 18 September, 2010 | | | 32,800 | 2,100 | 3 | 203,700 | EP/MD/10-085 |
| | 32,800 | 47 | | 203,700 | 291 | | |

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

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

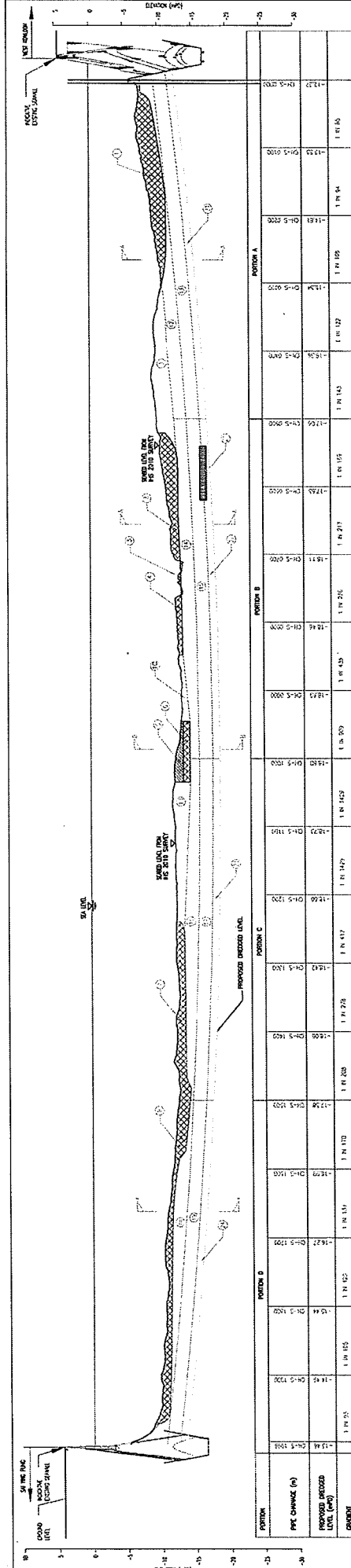
| Date | Dumping qty (m ³) | Barge Load per day | Accumulated Dumping Qty. (bulk volume) | Target Dumping qty (m ³) | Target Barge Load per day | Target Accumulated Dumping Qty. (bulk volume) | Permit No. |
|---------------|-------------------------------|--------------------|---|--------------------------------------|---------------------------|--|--------------|
| 5 May, 2010 | 440 | 1 | 440 | 1,260 | 2 | 1,260 | EP/MD/10-086 |
| 6 May, 2010 | 1,280 | 3 | 1,720 | 1,260 | 2 | 2,520 | EP/MD/10-086 |
| 7 May, 2010 | 0 | 0 | 1,720 | 1,260 | 2 | 3,780 | EP/MD/10-086 |
| 8 May, 2010 | 0 | 0 | 1,720 | 1,260 | 2 | 5,040 | EP/MD/10-086 |
| 9 May, 2010 | 1,400 | 2 | 3,120 | 1,260 | 2 | 6,300 | EP/MD/10-086 |
| 10 May, 2010 | 1,400 | 2 | 4,520 | 1,260 | 2 | 7,560 | EP/MD/10-086 |
| 11 May, 2010 | 1,300 | 2 | 5,820 | 1,260 | 2 | 8,820 | EP/MD/10-086 |
| 12 May, 2010 | 1,800 | 3 | 7,620 | 1,260 | 2 | 10,080 | EP/MD/10-086 |
| 13 May, 2010 | 1,200 | 2 | 8,820 | 1,260 | 2 | 11,340 | EP/MD/10-086 |
| 14 May, 2010 | 0 | 0 | 8,820 | 1,260 | 2 | 12,600 | EP/MD/10-086 |
| 15 May, 2010 | 0 | 0 | 8,820 | 1,260 | 2 | 13,860 | EP/MD/10-086 |
| 16 May, 2010 | 600 | 1 | 9,420 | 1,260 | 2 | 15,120 | EP/MD/10-086 |
| 17 May, 2010 | 1,200 | 2 | 10,620 | 1,260 | 2 | 16,380 | EP/MD/10-086 |
| 18 May, 2010 | 700 | 1 | 11,320 | 1,260 | 2 | 17,640 | EP/MD/10-086 |
| 19 May, 2010 | 2,000 | 3 | 13,320 | 1,260 | 2 | 18,900 | EP/MD/10-086 |
| 20 May, 2010 | 1,400 | 2 | 14,720 | 1,260 | 2 | 20,160 | EP/MD/10-086 |
| 21 May, 2010 | 1,400 | 2 | 16,120 | 1,260 | 2 | 21,420 | EP/MD/10-086 |
| 22 May, 2010 | 2,100 | 3 | 18,220 | 1,260 | 2 | 22,680 | EP/MD/10-086 |
| 23 May, 2010 | 1,400 | 2 | 19,620 | 1,260 | 2 | 23,940 | EP/MD/10-086 |
| 24 May, 2010 | 1,400 | 2 | 21,020 | 1,260 | 2 | 25,200 | EP/MD/10-086 |
| 25 May, 2010 | 1,300 | 2 | 22,320 | 1,260 | 2 | 26,460 | EP/MD/10-086 |
| 26 May, 2010 | 1,400 | 2 | 23,720 | 1,260 | 2 | 27,720 | EP/MD/10-086 |
| 27 May, 2010 | 1,300 | 2 | 25,020 | 1,260 | 2 | 28,980 | EP/MD/10-086 |
| 28 May, 2010 | 1,400 | 2 | 26,420 | 1,260 | 2 | 30,240 | EP/MD/10-086 |
| 29 May, 2010 | 600 | 1 | 27,020 | 1,260 | 2 | 31,500 | EP/MD/10-086 |
| 30 May, 2010 | 2,100 | 3 | 29,120 | 1,260 | 2 | 32,760 | EP/MD/11-012 |
| 31 May, 2010 | 700 | 1 | 29,820 | 1,260 | 2 | 34,020 | EP/MD/11-012 |
| 1 June, 2010 | 1,900 | 3 | 31,720 | 1,260 | 2 | 35,280 | EP/MD/11-012 |
| 2 June, 2010 | 1,220 | 2 | 32,940 | 1,260 | 2 | 36,540 | EP/MD/11-012 |
| 3 June, 2010 | 1,300 | 2 | 34,240 | 1,260 | 2 | 37,800 | EP/MD/11-012 |
| 4 June, 2010 | 1,200 | 2 | 35,440 | 1,260 | 2 | 39,060 | EP/MD/11-012 |
| 5 June, 2010 | 1,400 | 2 | 36,840 | 1,260 | 2 | 40,320 | EP/MD/11-012 |
| 6 June, 2010 | 600 | 1 | 37,440 | 1,260 | 2 | 41,580 | EP/MD/11-012 |
| 7 June, 2010 | 0 | 0 | 37,440 | 1,260 | 2 | 42,840 | EP/MD/11-012 |
| 8 June, 2010 | 500 | 1 | 37,940 | 1,260 | 2 | | EP/MD/11-012 |
| 9 June, 2010 | 0 | 0 | 37,940 | 1,260 | 2 | | EP/MD/11-012 |
| 10 June, 2010 | 600 | 1 | 38,540 | 1,260 | 2 | | EP/MD/11-012 |
| 11 June, 2010 | 1,200 | 2 | 39,740 | 1,260 | 2 | | EP/MD/11-012 |
| 12 June, 2010 | 1,400 | 2 | 41,140 | 1,260 | 2 | | EP/MD/11-012 |
| 13 June, 2010 | 1,400 | 2 | 42,540 | 1,260 | 2 | | EP/MD/11-012 |
| 14 June, 2010 | 0 | 0 | 42,540 | 0 | 0 | | EP/MD/11-012 |
| 15 June, 2010 | 0 | 0 | 42,540 | 0 | 0 | | EP/MD/11-012 |
| 16 June, 2010 | 0 | 0 | 42,540 | 0 | 0 | | EP/MD/11-012 |
| 17 June, 2010 | 0 | 0 | 42,540 | 0 | 0 | | EP/MD/11-012 |
| 18 June, 2010 | 0 | 0 | 42,540 | 0 | 0 | | EP/MD/11-012 |
| 19 June, 2010 | 0 | 0 | 42,540 | 0 | 0 | | EP/MD/11-012 |

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 → ⑫ → ⑬ → ⑭ → ⑮ → ⑯ → ⑰ → ⑱ → ⑲ → ⑳
- STAGE 3 - TYPE 1 MARINE SEDIMENT
⑳ → ㉑ → ㉒ → ㉓ → ㉔ → ㉕ → ㉖ → ㉗ → ㉘ → ㉙ → ㉚ → ㉛ → ㉜
- STAGE 4 - TYPE 1D MARINE SEDIMENT
㉝ → ㉞ → ㉟ → ㊱ → ㊲ → ㊳ → ㊴ → ㊵ → ㊶ → ㊷ → ㊸ → ㊹ → ㊺
- STAGE 5 - TYPE 1 MARINE SEDIMENT
㊻ → ㊼ → ㊽ → ㊾ → ㊿ → ① → ② → ③ → ④ → ⑤ → ⑥ → ⑦ → ⑧

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 ㉚



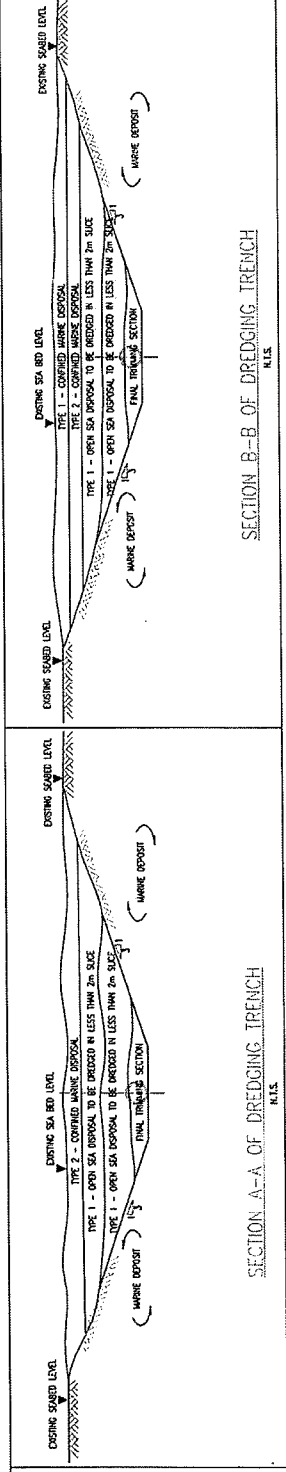
Sai Ying Pun

West Kowloon

LONGITUDINAL SECTION OF DREDGING TRENCH

LEGEND:

- TYPE 1 - OPEN SEA DISPOSAL
- TYPE 1D - OPEN SEA DISPOSAL (DEDICATED SITES)
- TYPE 2 - CONFINED MARINE DISPOSAL
- TYPE 1 - CONFINED MARINE DISPOSAL



THE NUMBER INDICATE THE SEQUENCE OF DREDGING

| | | | | |
|------------|--|---|---------------|-------------------|
| CONTRACTOR | 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 | DRAWING TITLE | DREDGING LOGISTIC |
| DRAWN BY | TONY TANG | CHECKED BY | STANLEY LEUNG | DATE |
| SCALE | NTS | DWG No. | SK-D-002 | REVISION |
| | | | | D |



Appendix K

Complaint Log

Complaint Log

| Log Ref. | Location | Received Date | Details of Complaint | Investigation / Mitigation Action | Status |
|----------|--------------------------------|---------------|---|---|--------|
| 001 | Portion I – Launch Barge | 08/07/2011 | One complaint received on 23 June 2011 was forwarded by the Engineer's Representatives on 08 July 2011 through internet from a citizen against urinating into the sea from the Launching Barge which caused by site workers. The complainant complained that that caused an environmental nuisance. | <p><u>Details of ET Follow up Action(s):</u> During the weekly site inspection on 08 July 2010, the Contractor has provided portable chemical toilet and warning notice on the barge. No urinating was observed during the weekly site inspection.</p> <p><u>Details of Action(s) Taken by the Contractor:</u></p> <ol style="list-style-type: none"> 1. Meeting has been arranged on 29 June 2011 to discuss the safety and environmental issues on launching barge. 2. New disciplinary system has been in place to prevent the same inappropriate act of workers from happening. 3. Additional sanitary facilities have been added on the barge and the nearby area to facilitate the workers need. | Closed |



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ETS-TESTCONSULT LIMITED

Appendix L

Contractor's Follow up Actions to ET Weekly Site Inspections

Contract No. 9/MWSD/08

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

Photo of Follow-up Action



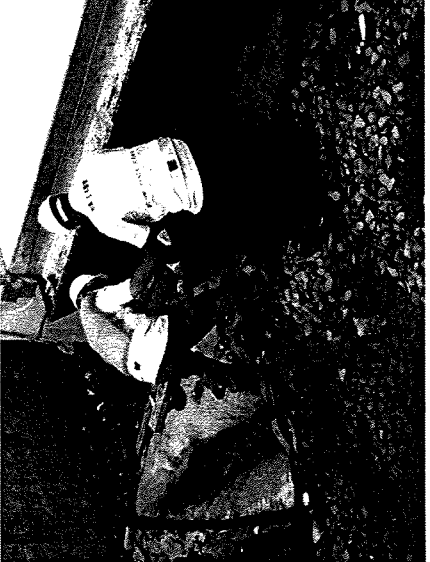
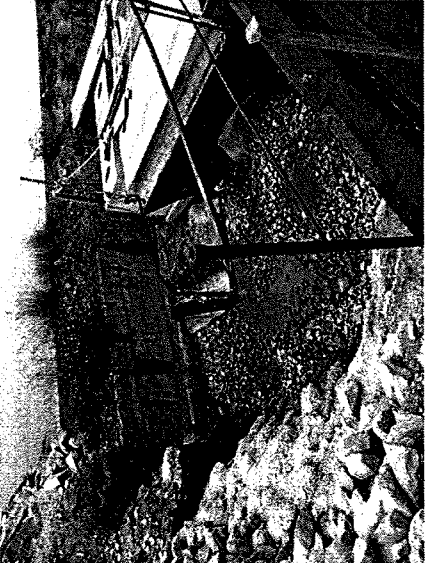
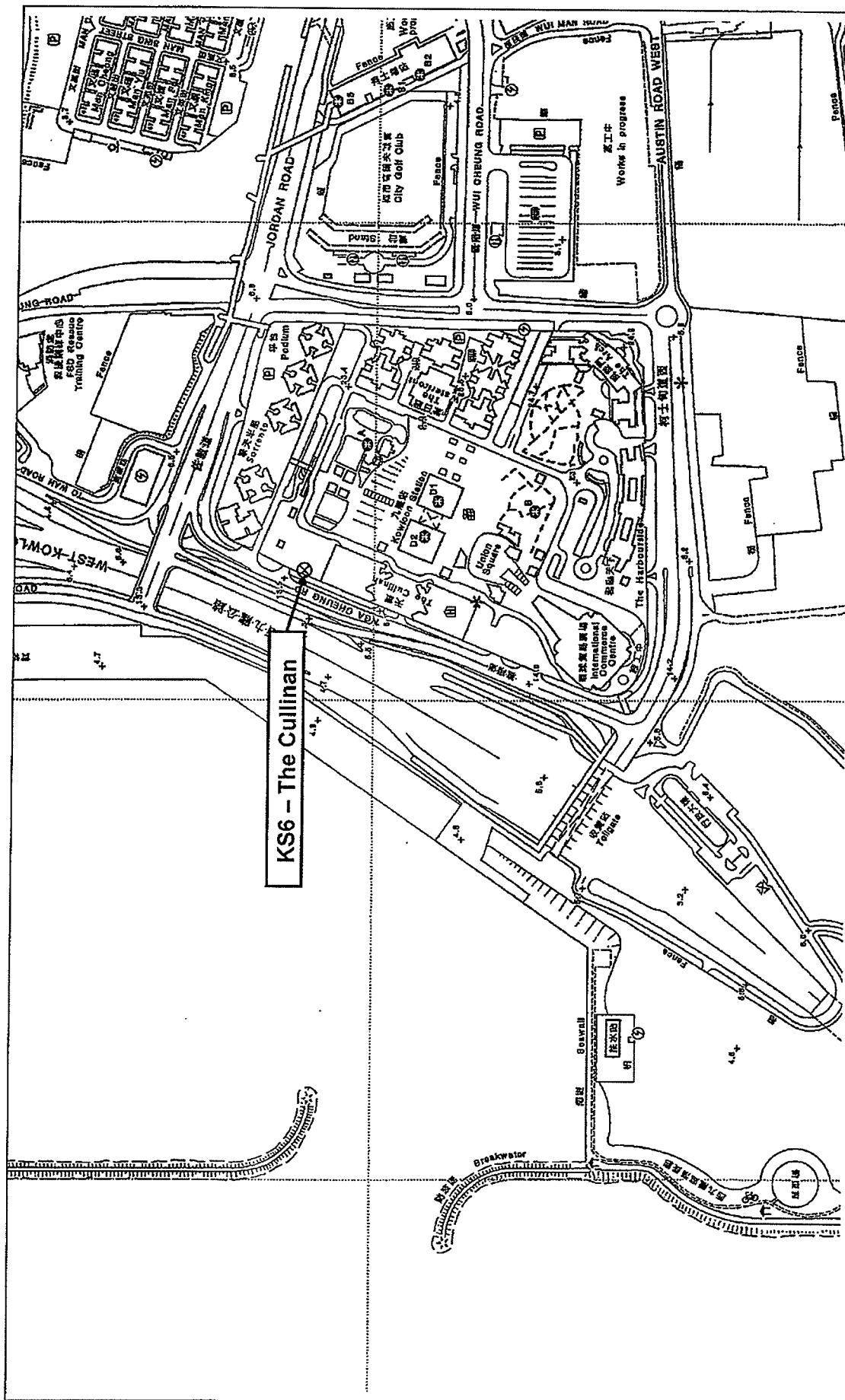
| | | |
|---|--|--|
|  <p>Photo ref. 1</p> |  <p>Photo ref. 2</p> | |
| | | |

Photo of Follow-up Action

| | | | | | |
|---|--|--|--|--|--|
|  <p>Photo ref. 1</p> |  <p>Photo ref. 2</p> | | | | |
|---|--|--|--|--|--|

Figures



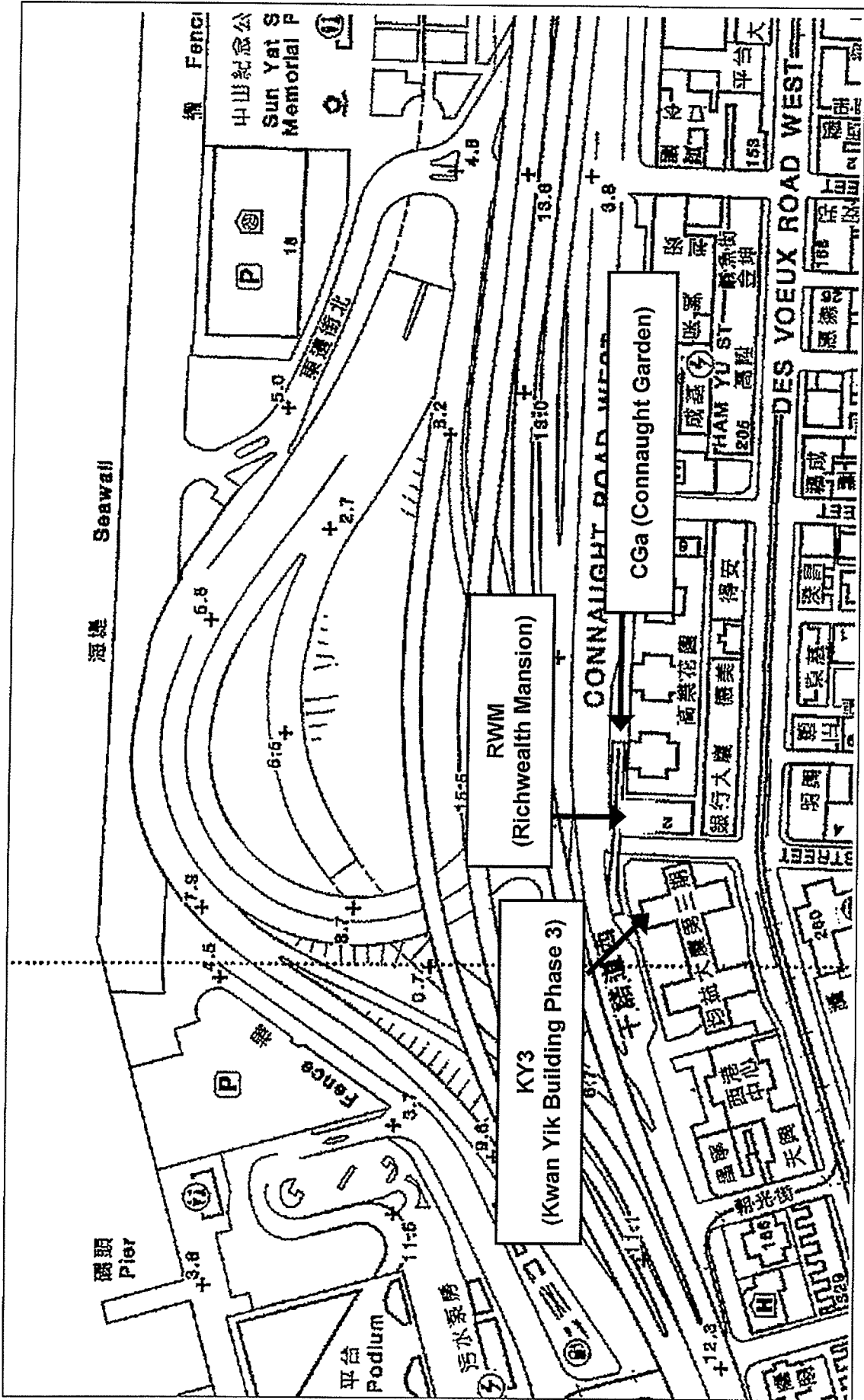
Contract No. 9/WSD/08 Laying of Western Cross Harbour Main and Associated Land Mains for West Kowloon to Sai Ying Pun

Figure 1

Location of Noise Monitoring Station at West Kowloon



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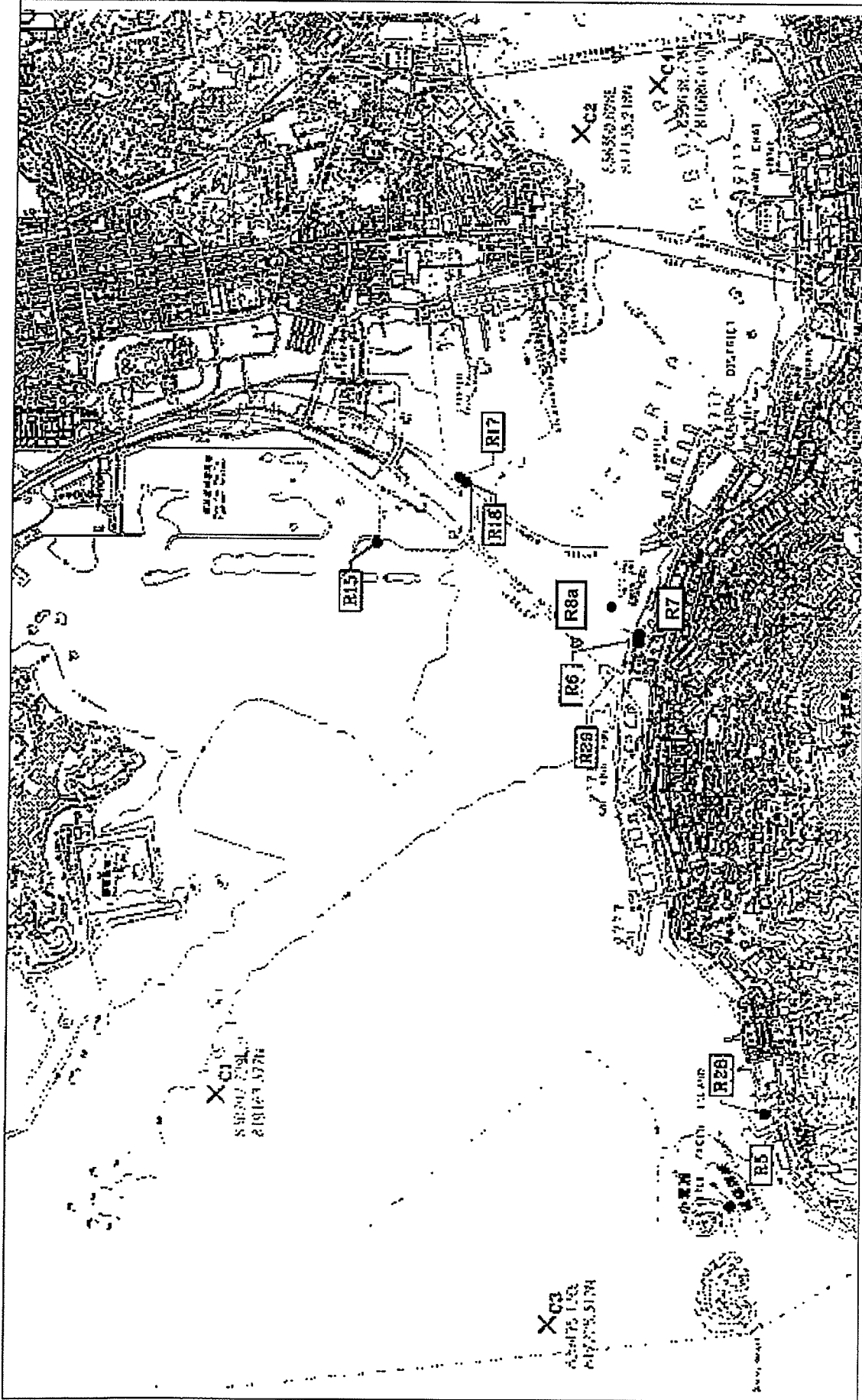
Contract No. 9/WSD/08 Laying of Western Cross Harbour Main and Associated Land Mains for West Kowloon to Sai Ying Pun

Figure 2

Locations of Noise Monitoring Stations at Sai Ying Pun

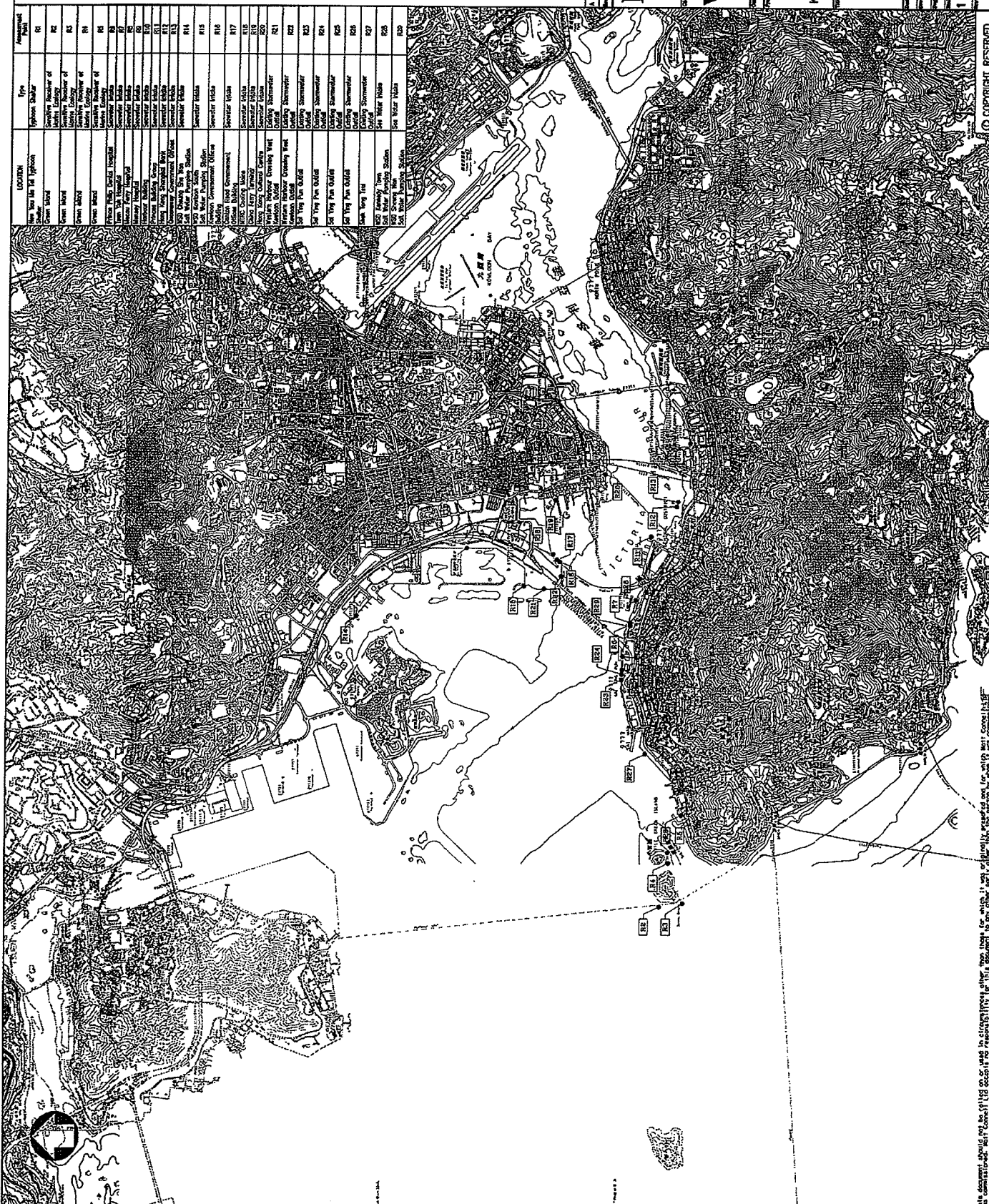


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Contract No. 9/WSD/08 Laying of Western Cross Harbour Main and Associated Land Mains for West Kowloon to Sai Ying Pun

Figure 3
Locations of Water Quality Monitoring Stations



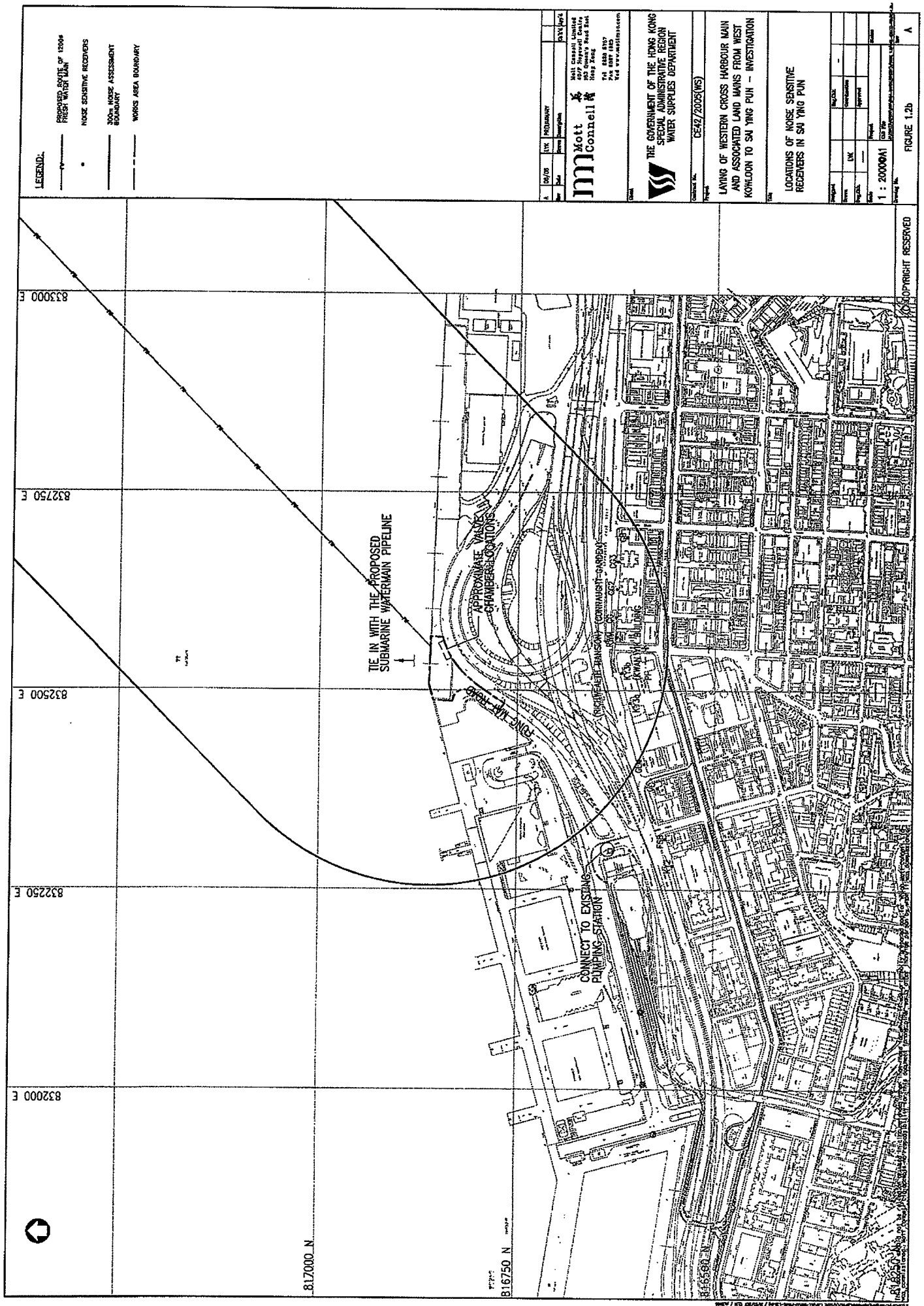
| | | | | | |
|---|---------|------|-------------|---------|-------------------|
| DATE | 1/18 | TYPE | PRELIMINARY | SCALE | 1:25000 |
| BY | MM | CHKD | MM | DATE | 1/18 |
| | | | | | |
| Mott MacDonald Limited 11th Floor, 111 Des Voeux Road East Hong Kong Tel: 852 2579 7000 Fax: 852 2579 7001 E-mail: hkg@mottmac.com | | | | | |
| | | | | | |
| THE GOVERNMENT OF THE HONG KONG SPECIAL ADMINISTRATIVE REGION WATER SUPPLIES DEPARTMENT | | | | | |
| PROJECT NO. CE 42 / 2003 (WS) | | | | | |
| LAYING OF WESTERN CROSS HARBOUR MAIN AND ASSOCIATED LAND MAINS FROM WEST KOWLOON TO SA YING PUN - INVESTIGATION | | | | | |
| LOCATIONS OF WATER SENSITIVE RECEIVERS AND STORMWATER OUTFALLS AT WESTERN HARBOUR | | | | | |
| SCALE | 1:25000 | DATE | 1/18 | PROJECT | CE 42 / 2003 (WS) |
| BY | MM | CHKD | MM | DATE | 1/18 |

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FIGURE 1.2a

A

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LEGEND.

- PROPOSED COVER OF 1200 ϕ FRESH WATER MAIN
- NOISE SENSITIVE RECEIVERS
- 500m NOISE ASSESSMENT BOUNDARY
- WORKS AREA BOUNDARY

Mott
 MacDonald
 301 Canton Road
 25/F, Canton Centre
 Hong Kong
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 Fax: 852 2105
 www.mottmac.com

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

GE42/2005(WG)
 LAYING OF WESTERN CROSS HARBOUR MAIN
 AND ASSOCIATED LAND MAINS FROM WEST
 KOWLOON TO SAI YING PUN - INVESTIGATION

LOCATIONS OF NOISE SENSITIVE
 RECEIVERS IN SAI YING PUN

| | |
|--------------|---------------|
| Scale: | 1 : 20000/1 |
| Sheet No.: | GE42/2005(WG) |
| Revision: | |
| Drawn by: | |
| Checked by: | |
| Approved by: | |
| Date: | |

FIGURE 1.2b

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LEGEND:

- PROPOSED ROUTE OF 1200# PRESSURE WATER MAIN
- NOISE SENSITIVE RECEIVERS
- TEMPORARY PLATFORM
- 300M NOISE ASSESSMENT BOUNDARY
- WORKS AREA BOUNDARY

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

DE42/2005(VS)

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

LOCATION OF NOISE SENSITIVE
 RECEIVERS IN WEST KOWLOON

| | |
|-------------|-------------|
| Project No. | 4000061 |
| Scale | 1 : 4000061 |
| Sheet No. | A |
| Revision | |
| Checked | |
| Approved | |

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