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TEST REPORT

CONCENTRIC CONSTRUCTION LIMITED

**OPERATION OF PUBLIC FILL
RECEPTION FACILITES AT TSEUNG
KWAN O AREA 137, QUARRY BAY AND
MUI WO
(CONTRACT NO.: CV/2005/12)**

TSEUNG KWAN O AREA 137

**QUARTERLY EM&A SUMMARY REPORT NO.1
(FOR JANUARY - MARCH 2006)**

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BMT Asia Pacific Limited

18 April 2006
Our Ref: 8116/2608

By Hand

Concentric Construction Limited
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Hong Kong

For the attention of Mr. Stephen Choi

Dear Sir

**Contract No. CV/2005/12
Fill Bank at Tseung Kwan O Area 137
Quarterly EM&A Report**

Following review of the Quarterly EM&A Report No. 1 for the reporting period January - March 2006, the IEC has verified the information presented.

Should you have any queries regarding the above, please do not hesitate to contact the undersigned.

Yours sincerely
BMT Asia Pacific Limited

A handwritten signature in black ink, appearing to read "R. R. Ridley".

Ben Ridley
IEC

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EXECUTIVE SUMMARY

This is the first Quarterly Environmental Monitoring and Audit (EM&A) Summary Report prepared by ETS-Testconsult Ltd (ET) for the "Contract No. CV/2005/12 Operation of Public Fill Reception Facilities at Tseung Kwan O Area 137, Quarry Bay and Mui Wo" (The Project).

This report documents the findings of EM&A Works conducted during the operation phase of Fill Bank at Tseung Kwan O Area 137 between January and March 2006.

Construction Progress

As informed by the Contractor, the construction activities in this reporting quarterly were as below:

- Manage the incoming public fill dump trucks arriving through land access;
- Transport temporary stockpiled public fill from the Barge Handling Area (BHA) to Stockpile Areas or the Sorting Facility for Penny's Bay Reclamation Stage 2 (PBR2);
- Transport stockpile public fill from Stockpile Areas to the Sorting Facility for Penny's Bay Reclamation Stage 2 (PBR2);
- Direct some incoming public fill dump trucks to the Sorting Facility for Penny's Bay Reclamation Stage 2 (PBR2) for unloading;
- Routine site cleaning and maintenance of internal haul roads and access roads; and
- Routine implementation of environmental mitigation measures such as dust suppression by water spraying, cleaning of nearby public roads by using road sweeper and collection of floating debris inside a berthing basin within the site boundary; and
- Landscaping works in the vicinity of the main entrance of the Fill Bank at Tseung Kwan O Area 137 and in front of the Engineer's Site Office.

Dump truck traffic and hauling activities at Barge Handling Area (BHA) were the major dust sources. Barge delivery of fill material was also undertaken in the reporting quarter. Besides the Fill Bank operation, the other dust sources near TKO Area 137 also included operation of C&DMSF at PBR2 Project and dumping activities at the SENT Landfill.

The desilting facilities were in proper operation to avoid silty discharge and the silt curtains were properly installed. There was no sediment plume observed during the monitoring events.

The major noise sources during the reporting quarter were the dump truck traffic and construction activities near the site egress. Noise impact on the sensitive receivers was insignificant in the reporting quarter according to the results of noise monitoring and site inspections.

Environmental Monitoring Works

Noise Monitoring

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

Air Monitoring

During the reporting quarter, no exceedances of Action and Limit levels were recorded for 24-hr and 1-hr TSP monitoring. The air quality during the operation hours of the Fill Bank was considered acceptable.

Marine Water Quality Monitoring

Marine water quality monitoring was conducted in accordance with the EM&A Manual.

According to the summary of marine water monitoring results, one exceedance of Turbidity on Action Level at Monitoring Stations M4 was recorded at 29 March 2006 (mid-ebb). According to the site observation, no abnormal site activities were observed at the Fill Bank. As there was no sediment plume observed from the Fill Bank and no wastewater discharge was noted from the Fill Bank and the TKO Basin, the exceedance was considered not due to the Fill Bank. The exceedance might be due to natural fluctuation of Turbidity in the water body around the area. Hence, no further actions were required.

Landscape and Visual

Erection of hoarding and chain link fencing was provided at the Fill Bank site boundary. The germination rate on the panel at Portion A, B, G, H and I was satisfactory in this reporting quarter. Water spraying was provided regularly on all the hydroseeding slopes.

Environmental Complaints, Notification of summons and successful prosecutions

No notification of summons and prosecutions with respect to environmental issues were received in this quarter.

One complaint was received from Public through EPD on 27 March 2006, concerning the dust and debris on Wan Po Road near TVB City Caused by dump trucks from CEDD site. In the response to the complaint, ET undertook a site investigation as stipulated in the EM&A manual. According to the site investigation, it confirmed that mitigation measures such as providing the wheel washing facilities, cleaning and watering the site regularly had been implemented by the Contractor. No violation relating to the depositing of debris and mud on haul road near the exit point and public road (e.g. Wan Po Road) was observed from the Fill Bank vehicles during the site investigation. Hence, it was concluded that the complaint was not related to the operation of Fill Bank and no further action was required to be implemented. At the same time, it was believed that traffic other than Fill Bank (such as dump tracks from the Construction Waste Sorting Facility) may have deposited the mud and debris onto the road surface as they traveled on Wan Po Road. This was reported to have been observed by the Contractor during an inspection of Wan Po Road after the complaint was received. Although the complaint was not related to the operation of Fill Bank, the Contractor was still reminded to arrange road sweeper to carry out routine cleaning the haul road and the public roads outside the Fill Bank including the section of Wan Po Road nearby the TVB City. Ad-hoc additional cleaning may be required if necessary. Since the investigation report was still being prepared at the end of the reporting month, it will be submitted to relevant parties in the coming month.

1.0 INTRODUCTION

Penta-Ocean Construction Co Ltd (POC) appointed Environmental Team (ET) of ETS-Testconsult Limited (ETL) to undertake the Environmental Monitoring and Audit (EM&A) for the "Operation of Public Fill Reception Facilities at Tseung Kwan O Area 137, Quarry Bay and Mui Wo" (Contract No.: CV/2005/12) (The Project).

In accordance with the Amended Environmental Permit (No.: EP-134/2002/E) (the EP), an EM&A programme should be implemented in accordance with the procedures and requirements in the EM&A Manual of the approved EIA report (Registration No. AEIAR-060/2002). The EM&A programme for this study as stated in Section 2.3.1 of the EM&A Manual covers the following environmental aspects during the establishment, operation and removal phases of the Fill Bank at Tseung Kwan O Area 137:

- Fugitive Dust;
- Noise generation from onsite activities;
- Water Quality; and
- Landscape and Visual.

Baseline monitoring was completed in August and September 2002 by MateriaLab. Action and Limit Levels were established for air and water quality parameters based on the baseline monitoring results.

This is the first quarterly EM&A Report of the Project. This report summarizes the findings of EM&A Works conducted during the operation phase of Fill Bank at Tseung Kwan O Area 137 for the period from January to March 2006.

2.0 PROJECT INFORMATION

2.1 Construction Progress in this reporting quarter

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

- *Manage the incoming public fill dump trucks arriving through land access;*
- *Transport temporary stockpiled public fill from the Barge Handling Area (BHA) to Stockpile Areas or the Sorting Facility for Penny's Bay Reclamation Stage 2 (PBR2);*
- *Transport stockpile public fill from Stockpile Areas to the Sorting Facility for Penny's Bay Reclamation Stage 2 (PBR2);*
- *Direct some incoming public fill dump trucks to the Sorting Facility for Penny's Bay Reclamation Stage 2 (PBR2) for unloading;*
- *Routine site cleaning and maintenance of internal haul roads and access roads; and*
- *Routine implementation of environmental mitigation measures such as dust suppression by water spraying, cleaning of nearby public roads by using road sweeper and collection of floating debris inside a berthing basin within the site boundary; and*
- *Landscaping works in the vicinity of the main entrance of the Fill Bank at Tseung Kwan O Area 137 and in front of the Engineer's Site Office.*

2.2 Site Description

Tseung Kwan O Area 137 is located at the southern end of Wan Po Road. In the vicinity of the site are other industrial uses such as SENT landfill, TKO Industrial Estate, etc. Both Island Resort and Fullview Garden are also situated at more than 1.8km from the site. Other existing ASRs and NSRs, including resident developments and schools, are located at a further distance away from TKO Area 137.

2.3 Construction Programme

Details of construction programme are shown in Appendix G.

2.4 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.

2.5 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

Organization	Name of Key Staff	Project Role	Tel. No.	Fax No.
CEDD	Mr. Roy Tse	Engineer	2623 9268	2714 0113
IEC (BMT)	Mr Ben Ridley	IEC	2815 2221	2815 3377
Contractor (CCL)	Mr. C P Lam	Project Manager	2398 8001 9212 9417	2398 8301
ET (ETL)	Mr C. L. Lau	ET Leader	2946 7791	2695 3944

3.0 SUMMARY OF EM&A REQUIREMENTS

3.1 EM&A Programme

The EM&A programme required environmental monitoring for air quality, noise and marine water quality and environmental site inspections for air quality, noise, marine water quality, landscape and visual, and waste management. The EM&A requirements for each parameter described in the following sections include:

- All monitoring parameters;
- Monitoring schedules for the reporting month and forthcoming months;
- Action and Limit levels for all environmental parameters;
- Event/Action Plans;
- Environmental mitigation measures, as recommended in the Project EIA study final report; and
- Environmental requirements in contract documents.

The advice on implementation status of environmental protection and pollution control/mitigation measures is summarized in Section 4 of the Report.

3.2 Monitoring Stations and Parameters

The EM&A Manual designates several locations to monitor environmental impacts in terms of air quality, noise and water quality due to the Project. The description and detailed locations of monitoring stations for air quality, noise and marine water quality are shown in Figures 1, 2 and 3 and relevant sections of this Report.

3.3 Monitoring Methodology and Calibration Details

All monitoring works were conducted and monitoring equipment was calibrated in accordance with the EM&A Manual. Copies of calibration certificates of monitoring equipments are attached in Appendix B1, C1 and D1.

3.4 Environmental Quality Performance Limits (Action/Limit Levels)

The environmental quality performance limits, i.e. Action/Limit Levels (AL Levels) were derived from the baseline monitoring results. If the measured environmental quality parameters exceed the AL Levels, the respective action plan will be implemented. The AL Levels for each monitoring parameter are given in Appendix E. The event action plan is given in Appendix F.

3.5 Environmental Mitigation Measures

Relevant mitigation measures were recommended in the EM&A Manual for the Contractor to implement. A list of mitigation measures is given in Appendix H.

4.0 MONITORING RESULTS

4.1 Air Quality

In accordance with the EM&A Manual, air quality monitoring, including 1-hr and 24-hr TSP, is to be conducted once every six days. In the reporting quarter, all the 1-hr and 24-hr TSP monitoring results complied with the AL Levels. The monitoring data and trend of air quality during the reporting quarter are given in Appendix B2 and B3.

Major dust sources in the Fill Bank were dump truck traffic and hauling activities at BHA.

Table 4.1 presents the number of exceedances recorded in each month of the reporting quarter. The number of monitoring event included regular monitoring events and additional ones.

Table 4.1 Summary of Number of Exceedances for 1-hr and 24-hr TSP Monitoring

Monitoring Parameter	Level of Exceedance	January 2006	February 2006	March 2006
24-hr TSP	No of monitoring events	5	5	6
	Action Level	0	0	0
	Limit Level	0	0	0
	Total	0	0	0
1-hr TSP	No of monitoring events	15	15	18
	Action Level	0	0	0
	Limit Level	0	0	0
	Total	0	0	0

Table 4.2 presents the 1-hr and 24-hr TSP averages in the baseline period and for each month in the reporting quarter. It was found that the 1-hr and 24-hr TSP averages at both stations in the reporting quarter were higher than the baseline levels but they were within the AL Levels. As a result, the Contractor should provide more mitigation measures to avoid dust generation.

Table 4.2 Comparison of Baseline and Various Period of Averaged 1-hr and 24-hr TSP Impact monitoring Results

Period	1-hr TSP ($\mu\text{g}/\text{m}^3$)		24-hr TSP ($\mu\text{g}/\text{m}^3$)	
	AA1	AA2	AA1	AA2
Baseline (29/08 – 13/09)	195			123
January 2006	326	323	181	174
February 2006	310	332	172	186
March 2006	342	336	189	183

4.2 Noise

Noise monitoring was required to be conducted at least once per month. Only daytime noise was monitored in the reporting quarter. All recorded noise levels complied with the AL Levels. The registered noise levels in the past three months are tabulated and plotted in Appendix C2 and C3.

Table 4.3 presents the limited level and average impact noise monitoring results during the reporting quarter.

Table 4.3Summary of Impact Monitoring results of Noise Daytime Monitoring

Monitoring Location	Limit Level	January 2006	February 2006	March 2006
	Leq, dB(A)			
N1	75	68.1	66.8	71.7

The major noise sources in the reporting quarter were dump truck traffic and construction activities near the site egress. The noise impact was insignificant as the Fill Bank was remote from nearby sensitive receivers.

4.3 Marine Water Quality

In accordance with the EM&A Manual, the marine water quality monitoring was conducted at the monitoring station (M4) and the control station (C1) in the reporting quarter.

Impact marine water quality monitoring was conducted three days per week. Measurements were taken at both mid-ebb and mid-flood tides at three depths (i.e. 1m below surface, mid depth and 1m above seabed). The AL Levels are included in Appendix E.

In this reporting quarter, one exceedance of Turbidity on Action Level at Monitoring Stations M4 was recorded on 29 March 2006 (mid-ebb). According to the site observation, no abnormal site activities were observed at the Fill Bank. As there was no sediment plume observed from the Fill Bank and no wastewater discharge was noted from the Fill Bank and the TKO Basin, the exceedance was considered not due to the Fill Bank. The exceedance might be due to natural fluctuation of Turbidity in the water body around the area.

Table 4.4 presents the total number of marine water quality exceedances in the reporting quarter. The trend of marine water quality in the past three months is depicted in Appendix D3.

Table 4.4 Total Number of Marine Water Quality Exceedances in the Quarter

Parameter	Exceedance Level	January 2006	February 2006	March 2006
Number of monitoring days		10	12	14
Dissolved Oxygen, DO (S&M)	Action	0	0	0
	Limit	0	0	0
	Total	0	0	0
Dissolved Oxygen, DO (B)	Action	0	0	0
	Limit	0	0	0
	Total	0	0	0
Turbidity	Action	0	0	1
	Limit	0	0	0
	Total	0	0	1
Suspended Solids, SS	Action	0	0	0
	Limit	0	0	0
	Total	0	0	0
Total Number of DO, Turbidity and SS Exceedances	Action	0	0	1
	Limit	0	0	0
	Total	0	0	1

A comparison between the quarterly mean/median of SS and the 1.3 times of the baseline mean was made for each tide at each station. The statistical analysis results are given in Appendix I and it shows that a generally better marine quality was recorded in the reporting quarter in respect to 130% of the baseline mean. Monitoring stations with significant difference ($p < 0.05$) is summarized in Table 4.5.

Table 4.5 Summary of Statistically Significant Results of SS

Monitoring Station	Significant difference?	
	Mid-ebb	Mid-flood
C1	✓	✓
M4	✓	✓

5.0 INSPECTION RESULTS

5.1 Implementation Status of Environmental Mitigation Measures

ET conducted weekly site inspections to monitor the Contractor's implementation of environmental mitigation measures. After each site inspection, the Contractor was notified of ET's observations and recommendations. A corrective action plan detailing the environmental observations was prepared by ET and the Contractor then completed this plan to propose/report their remedial works.

Air quality was the major environmental issue in the reporting quarter. The Contractor generally implemented most of the environmental mitigation measures in the reporting quarter. Dump truck traffic was the major dust source in the Fill Bank. Generally, the Contractor implemented adequate dust mitigation measures in the reporting quarter including dampening of haul roads, water spraying on the truckloads, operation of automatic wheel washing facilities and mist spraying systems, dampening of fill material prior to handling or stockpiling, etc.

Dump truck traffic and construction activities near the site egress were the major noise sources. As the Fill Bank was remote from the nearby NSRs, the noise impact was minimal. The powered mechanical equipment were generally operated and maintained properly.

As at the end of the reporting quarter, silt curtains were in place at the mouth of the TKO Basin and no obvious sediment plume was observed discharged out of the TKO Basin. However, as the silt curtain was found damaged on several occasions during the weekly site inspections in this quarter, the Contractor was reminded to check the silt curtain carefully and maintain it properly. The amount of runoff discharge was minimal in the reporting quarter. The Contractor regularly maintained the drainage system. Pesticide, such as "Anti-Malarial Oil" which meets the World Health Organization (WHO) Specification SIF/23, was applied in all the permanent desilting chambers as long as there was stagnant water. Regarding the observations about the accumulation of fill materials on the concrete pavement at the BHA in the reporting quarter, the Contractor was reminded to clean up the fill materials as soon as each unloading activity completed to avoid the fill materials from being washed into the sea. Furthermore, the Contractor should also regularly inspect and maintain the oil interceptor at the car park to ensure it properly functions.

The site toilet and shower room had been in use since October 2003. They were properly operated in the reporting quarter.

Based on the observations made during the site inspections, a number of chemical containers were found without labels and covers at the Chemical Waste Storage Shed. The Contractor was reminded to provide correct labels for all containers and store them properly. Although there were a few observations regarding improper handling of oil drums and chemical containers, such as lack of drip tray and accumulated of stagnant water in the drip tray, the Contractor rectified most of these problems. Besides, the Contractor should provide tarpaulin sheets before repairing and maintenance works and also carry out proper cleaning activities immediately after such works.

During several weekly site inspections in this quarter, food wastes and rubbish were found to be disposed on the ground near the Plant and Vehicle Maintenance Workshop. Besides, lack of rubbish bins was observed. The Contractor has been reminded to provide proper waste receptacles for food waste and pay attention on housekeeping. The situation was found improved at the end of this quarter.

The Contractor watered the slopes at Portions A, B, G, H and I two to three times daily. The germination rate on the panel at Portion A, B, G, H and I was satisfactory in this reporting quarter. The Contractor was reminded to maintain the panel properly.

5.2 Status of Environmental Licensing and Permitting

The status of licences and permits is summarized in Table 5.1.

Table 5.1 Summary of environmental licensing and permit status

Description	Permit No.	Valid Period		Section
		From	To	
Amended Environmental Permit	EP-134/2002/E	02/02/05	---	<p>(Invalid after 25/01/06)</p> <ul style="list-style-type: none"> ▪ Site clearance ▪ Construction of a temporary storm water system ▪ Stockpiling of 6 million m³ of public fill ▪ Setting up two barging points for transporting the stockpiled public fill by barges ▪ Setting up a temporary barging point at the existing Explosive Off-loading Barging Point for the period of May 2004 to December 2004 for transporting the stockpiled public fill by barge ▪ Construction of operation of a construction and Demolition Material Sorting Facility (C&DMSF) ▪ Setting up a Construction and Demolition Material Crushing Facility at the TKO Basin ▪ Remove the temporary fill bank
Amended Environmental Permit	EP-134/2002/F	26/01/06	---	<p>(Valid)</p> <ul style="list-style-type: none"> ▪ Site clearance ▪ Construction of a temporary storm water system ▪ Stockpiling of 6 million m³ of public fill ▪ Setting up two barging points for transporting the stockpiled public fill by barges ▪ Setting up a temporary barging point at the existing Explosive Off-loading Barging Point for the period of May 2004 to December 2004 for transporting the stockpiled public fill by barge ▪ Construction of operation of a construction and Demolition Material Sorting Facility (C&DMSF) ▪ Setting up a Construction and Demolition Material Crushing Facility at the TKO Basin ▪ Remove the temporary fill bank
Effluent Discharge License	TE/D1152/839/1	06/06/03	30/06/08	<ul style="list-style-type: none"> ▪ For effluent from site toilet and shower room ▪ For aerobic wastewater treatment plant
Chemical Waste Producer	5213-839-P2800-23	04/08/05	---	<ul style="list-style-type: none"> ▪ Spent Lubricating Oil ▪ Solvent & Battery ▪ Surplus Paint Bank & Fuel ▪ Contaminated Soil ▪ Empty Chemical Containers

5.3 Advice on Solids and Liquid Waste Management Status

The Contractor usually disposed of non-inert waste, including general refuse and materials segregated from the existing stockpiles, to SENT landfill. There was no disposal of metal scraps in the reporting quarter. Table 5.2 summarizes data on offsite waste disposal in the quarter.

Table 5.2 Estimated Offsite Waste Disposal In the Reporting Quarter

Waste Type	Examples	January 2006	February 2006	March 2006
C&D Waste (tons)	Domestic waste (site) collected in garbage bins and general refuse	0	8.84	4.95
Chemical Waste (L)	Waste oil	0	0	400
Recycle Material (kg)	Metal scraps	0	0	0

The site toilet and shower room and several chemical toilets were in use throughout the reporting quarter. Discharge from the site toilet and shower room was made to the additional drainage DP4 after passing through the sewage treatment system. A licensed collector also regularly collected waste from the chemical toilets.

6.0 NON-COMPLIANCE OF THE ENVIRONMENTAL QUALITY PERFORMANCE LIMITS

6.1 Summary of Non-compliance

In this reporting quarter, one exceedance of Turbidity on Action Level at Monitoring Stations M4 was recorded on 29 March 2006 (mid-ebb). No exceedances of Action and Limit Level of 24-hr and 1-hr TSP monitoring results were recorded during the reporting quarter. No day-time noise level measured at all monitoring stations exceeded the Action and Limit Level in the reporting quarter.

6.2 Review of the Reasons for and the Implications of Non-compliance

Since there was no exceedance on air quality and noise monitoring parameters recorded in this monitoring month. Hence the review of the reasons for the non-compliance was not required.

In this reporting quarter, one exceedance of Turbidity on Action Level at Monitoring Stations M4 was recorded on 29 March 2006 (mid-ebb). According to the site observation, no abnormal site activities were observed at the Fill Bank. As there was no sediment plume observed from the Fill Bank and no wastewater discharge was noted from the Fill Bank and the TKO Basin, the exceedance was considered not due to the Fill Bank. The exceedance might be due to natural fluctuation of Turbidity in the water body around the area.

6.3 Summary of Actions Taken

Since the exceedance of Turbidity on Action Level at Monitoring Stations M4 recorded on 29 March 2006 (mid-ebb) was considered not due to the Fill Bank, no further actions were required.

6.4 Summary of Environmental Complaint, Notifications of Summons and Successful Prosecutions Handling

One complaint was received in this quarter. No notifications of summons and successful prosecutions were received. A summary of environmental complaints and prosecutions was given in Table 6.1 and further details of the complaint could be found in the Complaint Log (Appendix K).

Table 6.1 Summary of Environmental Complaints and Prosecutions

Month (2006)	Complaints logged	Summon served	Successful Prosecution
January	0	0	0
February	0	0	0
March	1	0	0
Cumulative	1	0	0

A complaint was received from Public through EPD on 27 March 2006, concerning the dust and debris on Wan Po Road near TVB City Caused by dump trucks from CEDD site. In the response to the complaint, ET undertook a site investigation as stipulated in the EM&A manual. According to the site investigation, it confirmed that mitigation measures such as providing the wheel washing facilities, cleaning and watering the site regularly had been implemented by the Contractor. No violation relating to the depositing of debris and mud on haul road near the exit point and public road (e.g. Wan Po Road) was observed from the Fill Bank vehicles during the site investigation. Hence, it was concluded that the complaint was not related to the operation of Fill Bank and no further action was required to be implemented. At the same time, it was believed that traffic other than Fill Bank (such as dump tracks from the Construction Waste Sorting Facility) may have deposited the mud and debris onto the road surface as they traveled on Wan Po Road. This was reported to have been observed by the Contractor during an inspection of Wan Po Road after the complaint was received. Although the complaint was not related to the operation of Fill Bank, the Contractor was still reminded to arrange road sweeper to carry out routine cleaning the haul road and the public roads outside the Fill Bank including the section of Wan Po Road nearby the TVB City. Ad-hoc additional cleaning may be required if necessary. Since the investigation report was still being prepared at the end of the reporting month, it will be submitted to relevant parties in the coming month.

7.0 COMMENTS, CONCLUSIONS AND RECOMMENDATION

This report presents the first quarter of the Fill Bank operation. Major activity in the Fill Bank was the import and dumping of fill material. Air quality was the major environmental issue in the Fill Bank. Generally, the Contractor implemented most of the mitigation measures to minimize the dust impact.

There were no air quality and noise exceedances recorded in the reporting quarter.

In this reporting quarter, one exceedance of Turbidity on Action Level at Monitoring Stations M4 was recorded on 29 March 2006 (mid-ebb). According to the site observation, no abnormal site activities were observed at the Fill Bank. As there was no sediment plume observed from the Fill Bank and no wastewater discharge was noted from the Fill Bank and the TKO Basin, the exceedance was considered not due to the Fill Bank. The exceedance might be due to natural fluctuation of Turbidity in the water body around the area. Hence, no further actions were required.

No notification of summons and prosecutions with respect to environmental issues were received in this quarter.

One complaint was received from Public through EPD on 27 March 2006, concerning the dust and debris on Wan Po Road near TVB City Caused by dump trucks from CEDD site. In the response to the complaint, ET undertook a site investigation as stipulated in the EM&A manual. According to the site investigation, it confirmed that mitigation measures such as providing the wheel washing facilities, cleaning and watering the site regularly had been implemented by the Contractor. No violation relating to the depositing of debris and mud on haul road near the exit point and public road (e.g. Wan Po Road) was observed from the Fill Bank vehicles during the site investigation. Hence, it was concluded that the complaint was not related to the operation of Fill Bank and no further action was required to be implemented. At the same time, it was believed that traffic other than Fill Bank (such as dump tracks from the Construction Waste Sorting Facility) may have deposited the mud and debris onto the road surface as they traveled on Wan Po Road. This was reported to have been observed by the Contractor during an inspection of Wan Po Road after the complaint was received. Although the complaint was not related to the operation of Fill Bank, the Contractor was still reminded to arrange road sweeper to carry out routine cleaning the haul road and the public roads outside the Fill Bank including the section of Wan Po Road nearby the TVB City. Ad-hoc additional cleaning may be required if necessary. Since the investigation report was still being prepared at the end of the reporting month, it will be submitted to relevant parties in the coming month.

According to the ET weekly site inspection and IEC site audits carried out in this quarter, it indicated that site practices of the Contractor were generally undertaken in an environmentally acceptable manner and the overall site environmental performance was up to standard. The Contractor generally implemented sufficient dust mitigation measures, including operation of the mist spraying systems and automatic wheel washing facilities, dampening of haul roads and stockpiling areas. Although no obvious sediment plume was observed discharged out of the TKO Basin, the silt curtain in place at the mouth of the TKO Basin was found damaged on several occasions during the weekly site inspections in this quarter. The Contractor should not only repair the damaged section immediately, but also check the silt curtain regularly and maintain it properly.

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

Air Quality

- Ensure the frequency of water spraying on haul roads, unloading areas and stockpiles to be sufficient to suppress the dust sources;
- Conduct road sweeping on the public road and the main haul roads outside and near the site egress by the road sweeper. Undertake water spraying on stockpiling area;
- Provide proper maintenance for the powered mechanical equipment and barges to avoid emission of dark smoke;
- Provide water spraying onto the truckloads during inspection of fill material;
- Erect adequate speed limit signs to advise the truck drivers of the speed limit;
- Operate mist spraying systems and automatic water sprinklers in the Fill Bank;
- Implement the dust mitigation measures for the construction activities; and
- Ensure all vehicles to be washed before leaving the site egress through the provision, operation and maintenance of automatic wheel washing facilities.

Noise

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

Water Quality

- Maintain the drainage system, including the trapezoidal channels, permanent desilting chambers, DP3 & DP4 regularly;
- Operate and maintain the silt curtains regularly;
- Check and maintain the silt curtain regularly;
- Operate the cleaning vessel within the TKO Basin regularly;
- Provide proper treatment for the wastewater discharged from the area near air monitoring station AA1;
- Clean up the fill material on the concrete pavement at BHA frequently; and
- Remove the stagnant water or provide pesticide for the stagnant water in the permanent desilting chambers, 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 mesh screen on top of the additional drainage, DP3 to avoid improper dumping of rubbish;
- Maintain good housekeeping at the workshop area;
- Ensure sufficient tarpaulin sheets are provided to cover drip trays; and
- Avoid soil being polluted during oil filling and equipment maintenance; hence, properly remove and store the contaminated soil, if any.

Landscape and Visual

- Provide hydroseeding on the exposed slopes, on which the final profile has been formed;
- Erect all the site hoarding / chaining fences in accordance with agreed design at proper location; and
- Maintain the hydroseeding slopes in accordance with the Landscape Plan.

Appendix A

Organization Chart and Lines of Communication

CEDD Contract No. CV/2005/12
Operation of Public Fill Reception Facilities at
Tsing Kwan O Area 137, Quarry Bay and Mui Wo

Project Organization Chart

(Rev. 03) Ref.: 20 March 2006

PROJECT DIRECTOR	Y C LO 9123 2342
------------------	---------------------

SAFETY MANAGER	P W WONG 9410 9728
----------------	-----------------------

ENVIRONMENTAL MANAGER	M. H. ISA 9881 0910
-----------------------	------------------------

PROJECT MANAGER	C P LAN 9212 9417
-----------------	----------------------

CONSTRUCTION MANAGER	Paul P L Li 9410 9612
----------------------	--------------------------

HEAD OFFICE	SUPPORT
-------------	---------

Land Surveyor	LEE Lam Manw Scientific Engg. Survey Co. Ltd.
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Site Administrator	Ns Cherry WONG
--------------------	----------------

Head Office	Tel : 2398 8001 Fax : 2398 8301
-------------	------------------------------------

Assistant Surveyor	Tim WONG 9216 9151
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Site Office	Tel : 2491 1584 Fax : 2496 0433
-------------	------------------------------------

GENERAL FOREMAN	WONG Chin Wai 6478 0122
-----------------	----------------------------

Computer Operator & AFS	Wai Wo P F, Recepilon Facilities Coordinator FUNG Kit Hung 9492 0060
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Computer Operator & AFS	Computer Operator & AFS Lai Kwok-chiu WONG Fung-ping AES: CHANG Ah-lau CHAU Ngai-chai FU Suen-wai NG Yung-kam
-------------------------	--

Computer Operator & AFS	Computer Operator & AFS Hoi Wing HO Ting-sang LO Yue-ling AES: CHANG Ah-lau CHAU Ngai-chai FU Suen-wai NG Yung-kam
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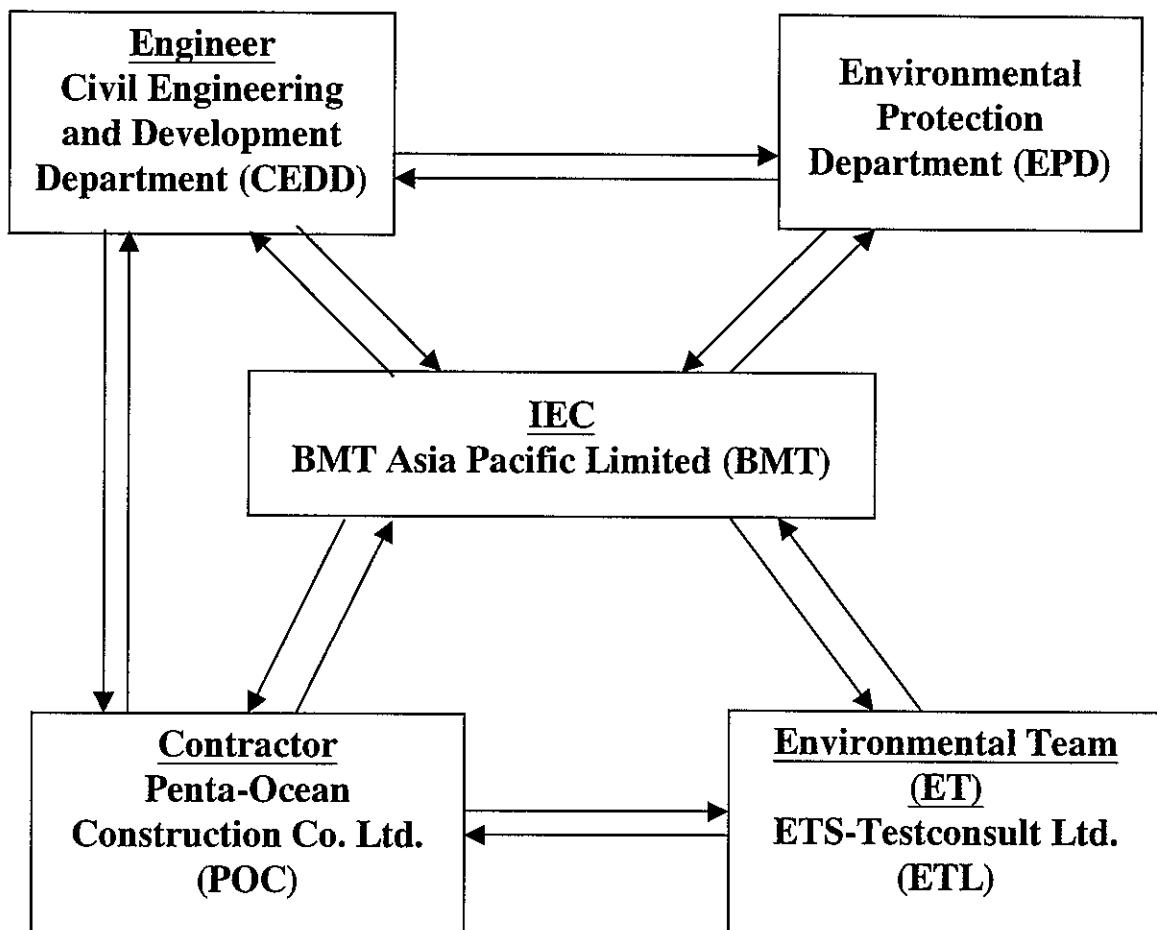
Computer Operator & AFS	Computer Operator & AFS Kwun Wah Yau Kwun Wah Yau 9010 4366
-------------------------	--

Computer Operator & AFS	FONG Mu FUNG Yiu-fung HO Chung-jam LO Yue-fung SO Wing-ien TAM Chung-yau TING Yin-hung TSANG Kwei Yuk WONG Mui YAM Siu Ying
-------------------------	--

Computer Operator & AFS	Computer Operator & AFS FONG Mu FUNG Yiu-fung HO Chung-jam LO Yue-fung SO Wing-ien TAM Chung-yau TING Yin-hung TSANG Kwei Yuk WONG Mui YAM Siu Ying
-------------------------	---

* Contractor's Agent pursuant to P.S. Cl. 1.1A(4)

Lines of Communication



Appendix B1

Calibration Certificates for Air Quality Monitoring Equipments



東業德勤測試顧問有限公司
ETS-TESTCONSULT LIMITED

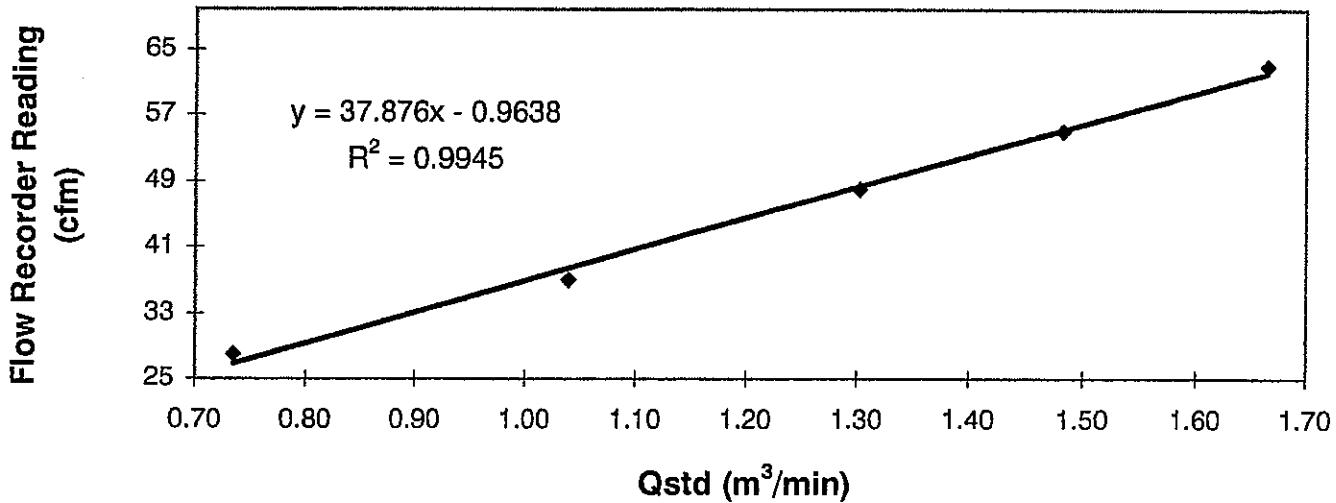
8/F, Block B, Veristrong Industrial Centre, 34-36 Au Pui Wan Street, Fotan, Hong Kong
Tel : 2695 8318 E-mail : etl@ets-testconsult.com
Fax : 2695 3944 Web site : www.ets-testconsult.com

TEST REPORT

**Calibration Report
of
High Volume Air Sampler**

Manufacturer	:	Greasby GMW	Date of Calibration	:	15 November 2005
Serial No.	:	10347 (ET / EA / 003 / 06)	Calibration Due Date	:	14 January 2006
Method	:	Based on Operations Manual for in series calibration method by TISCH ENVIRONMENTAL Model Te-5025A calibration kit			
Results	:	Flow recorder reading (cfm).	63	55	48
		Qstd (Actual flow rate, m ³ /min)	1.67	1.48	1.30
		Pressure : 763.56 mm Hg	37	1.04	0.73
			Temp. : 298 K		

**Air Sampler 10347 Calibration Curve
Site: Tseung Kwan O (AA1)
Date of Calibration: 15 November 2005**



Acceptance Criteria : Correlation coefficient (*r*) of the calibration curve greater than 0.990 after a 5 point calibration

The high volume sampler complies * / does not comply * with the specified requirements and is deemed acceptable * / unacceptable * for use.

Calibrated by : H. T. Chow
H. T. Chow
(Asst. Environmental Officer)

Approved by : Linda Law
Linda Law
(Environmental Officer)



東業德勤測試顧問有限公司

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E-mail : etl@ets-testconsult.com

Fax : 2695 3944

Web site : www.ets-testconsult.com

TEST REPORT

Calibration Report
of
High Volume Air Sampler

Manufacturer : Greasby GMW

Date of Calibration : 18 January 2006

Serial No. : 10347 (ET / EA / 003 / 06)

Calibration Due Date : 17 March 2006

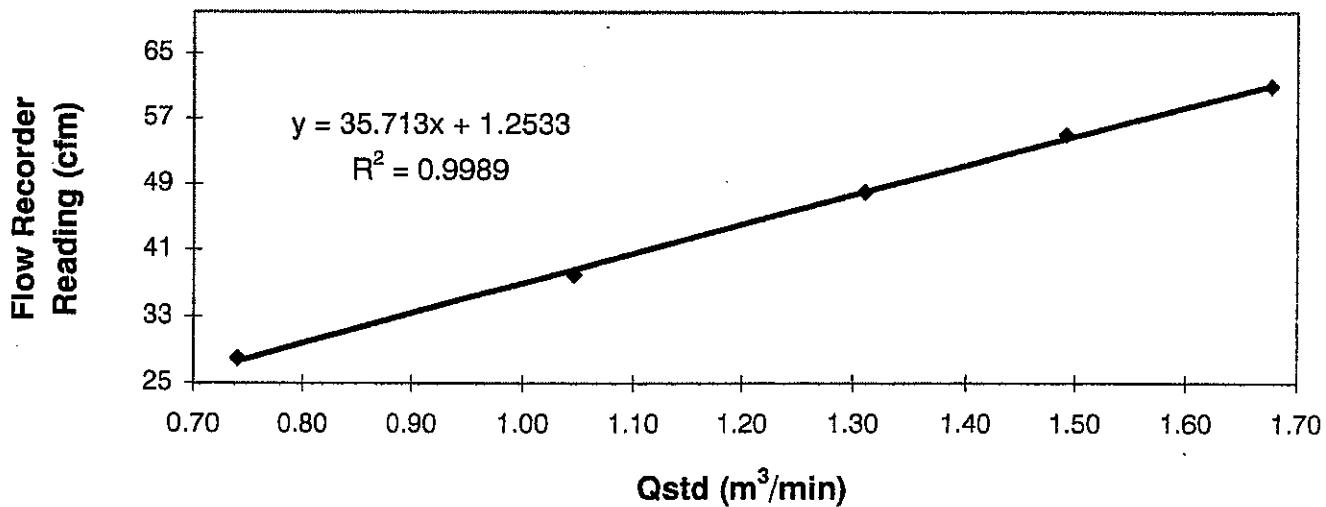
Method : Based on Operations Manual for in series calibration method by TISCH
ENVIRONMENTAL Model Te-5025A calibration kit

Results	Flow recorder reading (cfm)	61	55	48	38	28
	Qstd (Actual flow rate, m ³ /min)	1.68	1.49	1.31	1.05	0.74
	Pressure :	760.19 mm Hg		Temp. :	293 K	

Air Sampler 10347 Calibration Curve

Site: Tseung Kwan O (AA1)

Date of Calibration: 18 January 2006



Acceptance Criteria : Correlation coefficient (r) of the calibration curve greater than 0.990 after a 5 point calibration

The high volume sampler complies * / does not comply * with the specified requirements and is deemed acceptable */ unacceptable * for use.

Calibrated by : H. T. Chow

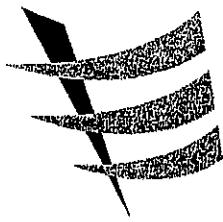
H. T. Chow

(Asst. Environmental Officer)

Approved by : Linda Law

Linda Law

(Environmental Officer)



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ETS-TESTCONSULT LIMITED

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TEST REPORT

Calibration Report
of
High Volume Air Sampler

Manufacturer : Greasby GMW Date of Calibration : 18 January 2006

Serial No. : 10347 (ET / EA / 003 / 06) Calibration Due Date : 17 March 2006

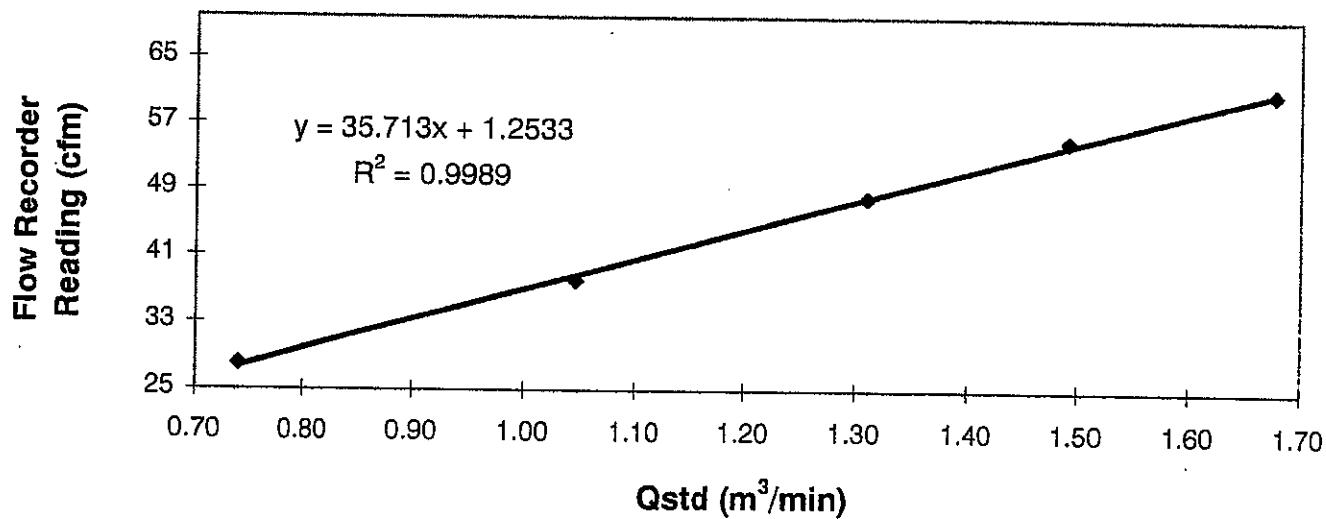
Method : Based on Operations Manual for in series calibration method by TISCH
ENVIRONMENTAL Model Te-5025A calibration kit

Results	Flow recorder reading (cfm)	61	55	48	38	28
	Qstd (Actual flow rate, m ³ /min)	1.68	1.49	1.31	1.05	0.74
	Pressure : 760.19 mm Hg	Temp. : 293 K				

Air Sampler 10347 Calibration Curve

Site: Tseung Kwan O (AA1)

Date of Calibration: 18 January 2006



Acceptance Criteria : Correlation coefficient (*r*) of the calibration curve greater than 0.990 after a 5 point calibration

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H. T. Chow
(Asst. Environmental Officer)

Approved by : Linda Law
Linda Law
(Environmental Officer)



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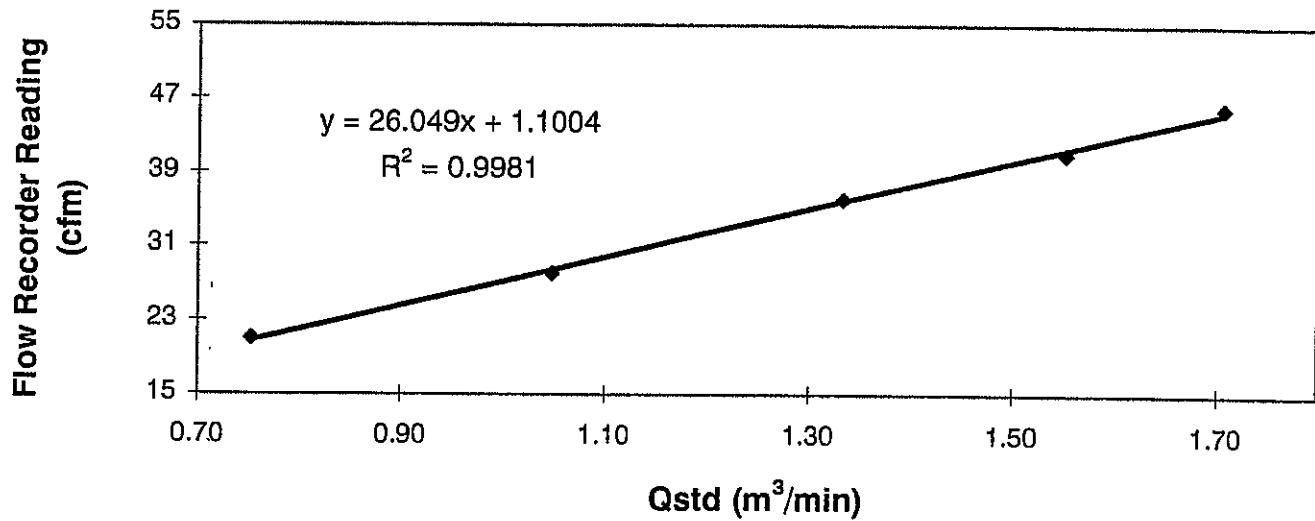
8/F, Block B, Veristrong Industrial Centre, 34-36 Au Pui Wan Street, Fotan, Hong Kong
Tel : 2695 8318 E-mail : etl@ets-testconsult.com
Fax : 2695 3944 Web site : www.ets-testconsult.com

TEST REPORT

Calibration Report
of
High Volume Air Sampler

Manufacturer	:	Greasby GMW	Date of Calibration	:	15 November 2005
Serial No.	:	1176 (ET / EA / 003 / 05)	Calibration Due Date	:	14 January 2006
Method	:	Based on Operations Manual for in series calibration method by TISCH ENVIRONMENTAL Model Te-5025A calibration kit			
Results	:	Flow recorder reading (cfm)	46	41	36
		Qstd (Actual flow rate, m ³ /min)	1.71	1.55	1.33
		Pressure :	763.56 mm Hg	Temp. :	297 K
			28	21	0.75

Air Sampler 1176 Calibration Curve
Site: Tseung Kwan O (AA2)
Date of Calibration: 15 November 2005

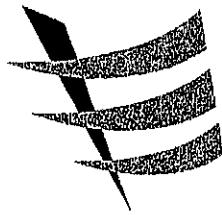


Acceptance Criteria : Correlation coefficient (*r*) of the calibration curve greater than 0.990 after a 5 point calibration

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Calibrated by : H. T. Chow
H. T. Chow
(Asst. Environmental Officer)

Approved by : Linda Law
Linda Law
(Environmental Officer)



東業德勤測試顧問有限公司
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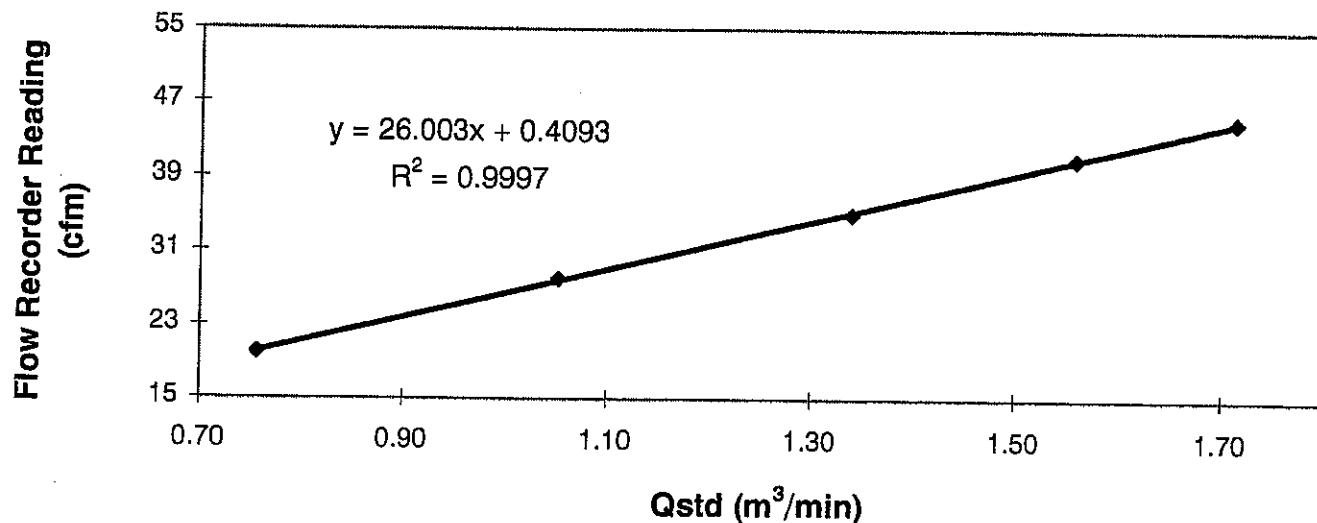
8/F, Block B, Verlstrong Industrial Centre, 34-36 Au Pui Wan Street, Fotan, Hong Kong
Tel : 2695 8318 E-mail : etl@ets-testconsult.com
Fax : 2695 3944 Web site : www.ets-testconsult.com

TEST REPORT

Calibration Report
of
High Volume Air Sampler

Manufacturer	:	Greasby GMW	Date of Calibration	:	18 January 2006
Serial No.	:	1176 (ET / EA / 003 / 05)	Calibration Due Date	:	17 March 2006
Method	:	Based on Operations Manual for in series calibration method by TISCH ENVIRONMENTAL Model Te-5025A calibration kit			
Results	:	Flow recorder reading (cfm)	45	41	35
		Qstd (Actual flow rate, m ³ /min)	1.71	1.56	1.34
		Pressure :	760.19 mm Hg	Temp. :	293 K

Air Sampler 1176 Calibration Curve
Site: Tseung Kwan O (AA2)
Date of Calibration: 18 January 2006

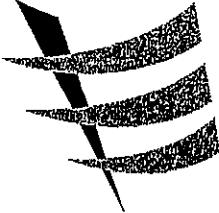


Acceptance Criteria : Correlation coefficient (*r*) of the calibration curve greater than 0.990 after a 5 point calibration

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(Environmental Officer)



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ETS-TESTCONSULT LIMITED

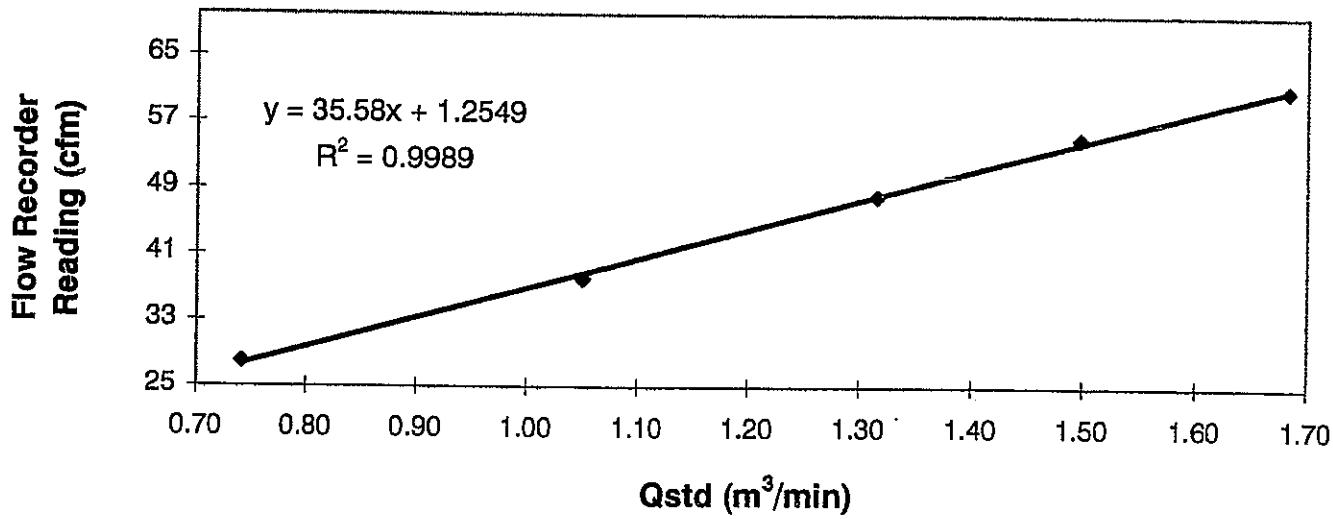
8/F, Block B, Veristrong Industrial Centre, 34-36 Au Pui Wan Street, Fotan, Hong Kong
Tel : 2695 8318 E-mail : etl@ets-testconsult.com
Fax : 2695 3944 Web site : www.ets-testconsult.com

TEST REPORT

**Calibration Report
of
High Volume Air Sampler**

Manufacturer	:	Greasby GMW	Date of Calibration	:	20 March 2006
Serial No.	:	10347 (ET / EA / 003 / 06)	Calibration Due Date	:	19 May 2006
Method	:	Based on Operations Manual for in series calibration method by TISCH ENVIRONMENTAL Model Te-5025A calibration kit			
Results	:	Flow recorder reading (cfm)	61	55	48
		Qstd (Actual flow rate, m ³ /min)	1.68	1.50	1.32
		Pressure :	761.46 mm Hg	Temp. :	291.3 K

**Air Sampler 10347 Calibration Curve
Site:Tseung Kwan O (AA1)
Date of Calibration: 20 March 2006**

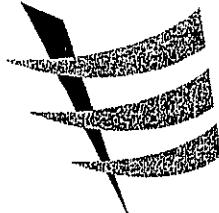


Acceptance Criteria : Correlation coefficient (*r*) of the calibration curve greater than 0.990 after a 5 point calibration

The high volume sampler complies * / does not comply * with the specified requirements and is deemed acceptable * / unacceptable * for use.

Calibrated by :
H. T. Chow
(Asst. Environmental Officer)

Approved by :
Linda Law
(Environmental Officer)



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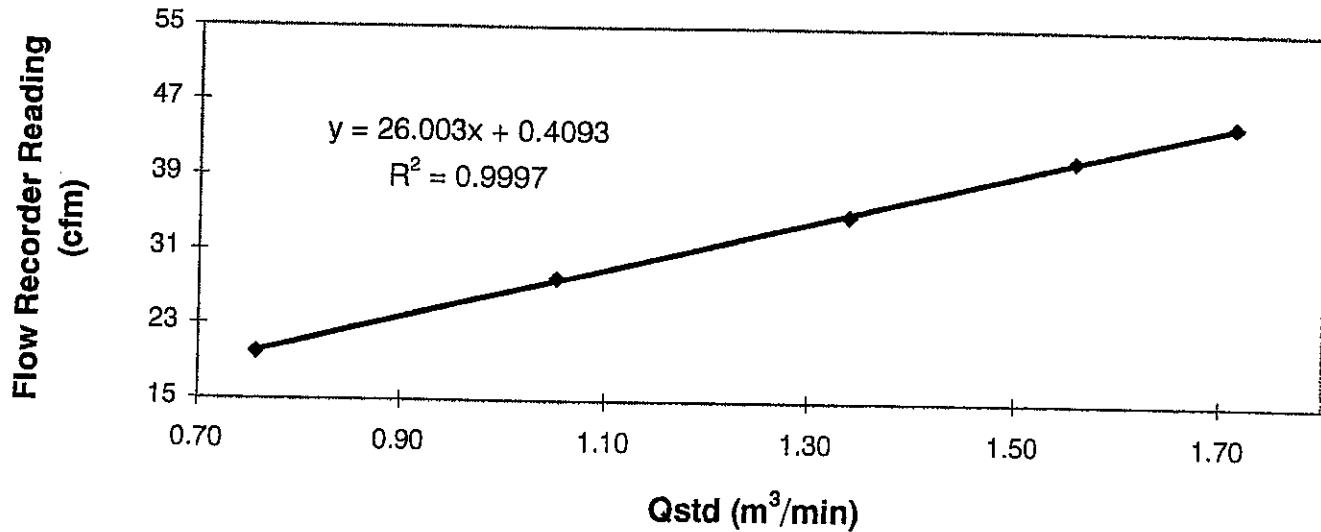
8/F, Block B, Veristrong Industrial Centre, 34-36 Au Pui Wan Street, Fotan, Hong Kong
Tel : 2695 8318 E-mail : etl@ets-testconsult.com
Fax : 2695 3944 Web site : www.ets-testconsult.com

TEST REPORT

Calibration Report
of
High Volume Air Sampler

Manufacturer	: Greasby GMW	Date of Calibration	: 18 January 2006																		
Serial No.	: 1176 (ET / EA / 003 / 05)	Calibration Due Date	: 17 March 2006																		
Method	: Based on Operations Manual for in series calibration method by TISCH ENVIRONMENTAL Model Te-5025A calibration kit																				
Results	<table border="1"><tr><td>Flow recorder reading (cfm)</td><td>45</td><td>41</td><td>35</td><td>28</td><td>20</td></tr><tr><td>Qstd (Actual flow rate, m³/min)</td><td>1.71</td><td>1.56</td><td>1.34</td><td>1.05</td><td>0.76</td></tr><tr><td>Pressure :</td><td>760.19 mm Hg</td><td>Temp. :</td><td>293 K</td><td></td><td></td></tr></table>			Flow recorder reading (cfm)	45	41	35	28	20	Qstd (Actual flow rate, m ³ /min)	1.71	1.56	1.34	1.05	0.76	Pressure :	760.19 mm Hg	Temp. :	293 K		
Flow recorder reading (cfm)	45	41	35	28	20																
Qstd (Actual flow rate, m ³ /min)	1.71	1.56	1.34	1.05	0.76																
Pressure :	760.19 mm Hg	Temp. :	293 K																		

Air Sampler 1176 Calibration Curve
Site: Tseung Kwan O (AA2)
Date of Calibration: 18 January 2006

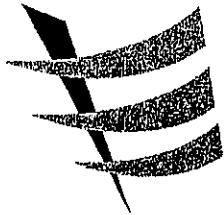


Acceptance Criteria : Correlation coefficient (*r*) of the calibration curve greater than 0.990 after a 5 point calibration

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(Asst. Environmental Officer)

Approved by :
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(Environmental Officer)



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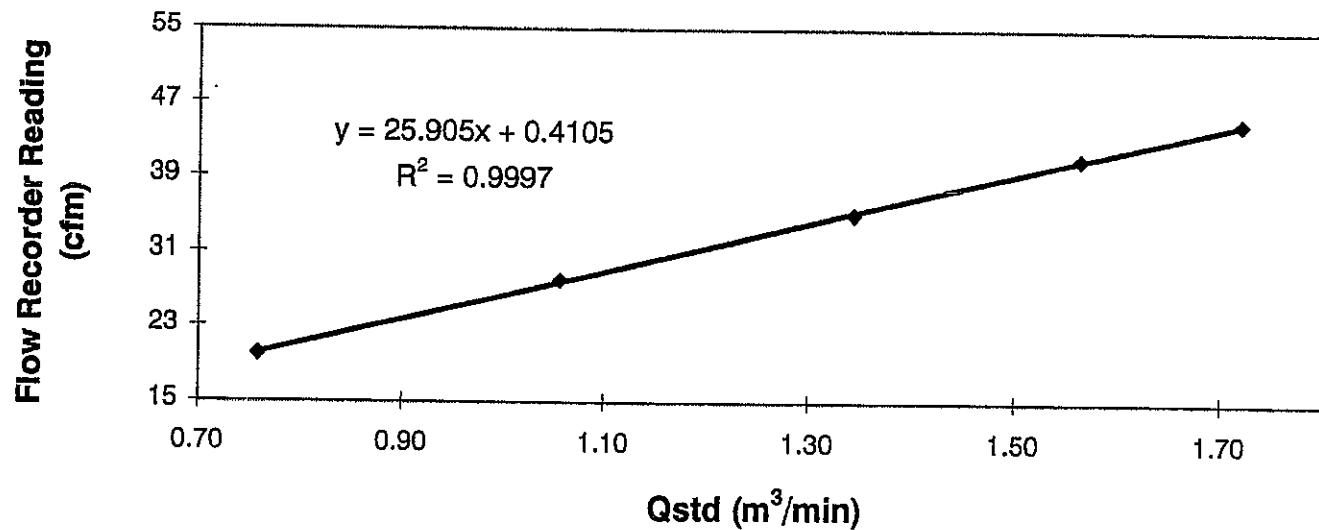
8/F, Block B, Veristrong Industrial Centre, 34-36 Au Pui Wan Street, Fotan, Hong Kong
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TEST REPORT

Calibration Report
of
High Volume Air Sampler

Manufacturer	:	Greasby GMW	Date of Calibration	:	20 March 2006																		
Serial No.	:	1176 (ET / EA / 003 / 05)	Calibration Due Date	:	19 May 2006																		
Method	:	Based on Operations Manual for in series calibration method by TISCH ENVIRONMENTAL Model Te-5025A calibration kit																					
Results	:	<table border="1"><tr><td>Flow recorder reading (cfm)</td><td>45</td><td>41</td><td>35</td><td>28</td><td>20</td></tr><tr><td>Qstd (Actual flow rate, m³/min)</td><td>1.72</td><td>1.56</td><td>1.34</td><td>1.06</td><td>0.76</td></tr><tr><td>Pressure :</td><td>761.46 mm Hg</td><td>Temp. :</td><td>291.3 K</td><td></td><td></td></tr></table>				Flow recorder reading (cfm)	45	41	35	28	20	Qstd (Actual flow rate, m ³ /min)	1.72	1.56	1.34	1.06	0.76	Pressure :	761.46 mm Hg	Temp. :	291.3 K		
Flow recorder reading (cfm)	45	41	35	28	20																		
Qstd (Actual flow rate, m ³ /min)	1.72	1.56	1.34	1.06	0.76																		
Pressure :	761.46 mm Hg	Temp. :	291.3 K																				

Air Sampler 1176 Calibration Curve
Site: Tseung Kwan O (AA2)
Date of Calibration: 20 March 2006



Acceptance Criteria : Correlation coefficient (*r*) of the calibration curve greater than 0.990 after a 5 point calibration

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Calibrated by : H. T. Chow -
H. T. Chow
(Asst. Environmental Officer)

Approved by : Linda Law
Linda Law
(Environmental Officer)



TISCH ENVIRONMENTAL, INC.
145 SOUTH MIAMI AVE.
VILLAGE OF CLEVES, OH 45002
513.467.9000
877.263.7610 TOLL FREE
513.467.9009 FAX
WWW.TISCH-ENV.COM

AIR POLLUTION MONITORING EQUIPMENT

ORIFICE TRANSFER STANDARD CERTIFICATION WORKSHEET TE-5025A

Date - Jun 24, 2005 Rootsmeter S/N 9833620 Ta (K) - 292
Operator Tisch Orifice I.D. - 0873 Pa (mm) - 761.24

PLATE OR Run #	VOLUME START (m³)	VOLUME STOP (m³)	DIFF VOLUME (m³)	DIFF TIME (min)	METER DIFF Hg (mm)	ORIFICE DIFF H₂O (in.)
1	NA	NA	1.00	1.4090	3.1	2.00
2	NA	NA	1.00	0.9980	6.2	4.00
3	NA	NA	1.00	0.8930	7.8	5.00
4	NA	NA	1.00	0.8510	8.6	5.50
5	NA	NA	1.00	0.7020	12.5	8.00

DATA TABULATION

Vstd	(x axis) Qstd	(y axis)		Va	(x axis) Qa	(y axis)
1.0180	0.7225	1.4298		0.9959	0.7068	0.8759
1.0139	1.0159	2.0221		0.9919	0.9938	1.2387
1.0118	1.1330	2.2608		0.9898	1.1084	1.3849
1.0106	1.1876	2.3711		0.9887	1.1618	1.4525
1.0054	1.4322	2.8597		0.9835	1.4010	1.7518

Qstd slope (m) = 2.01640 Qa slope (m) = 1.26264
intercept (b) = -0.02588 intercept (b) = -0.01585
coefficient (r) = 0.99998 coefficient (r) = 0.99998

y axis = SQRT[H₂O(Pa/760)(298/Ta)] y axis = SQRT[H₂O(Ta/Pa)]

CALCULATIONS

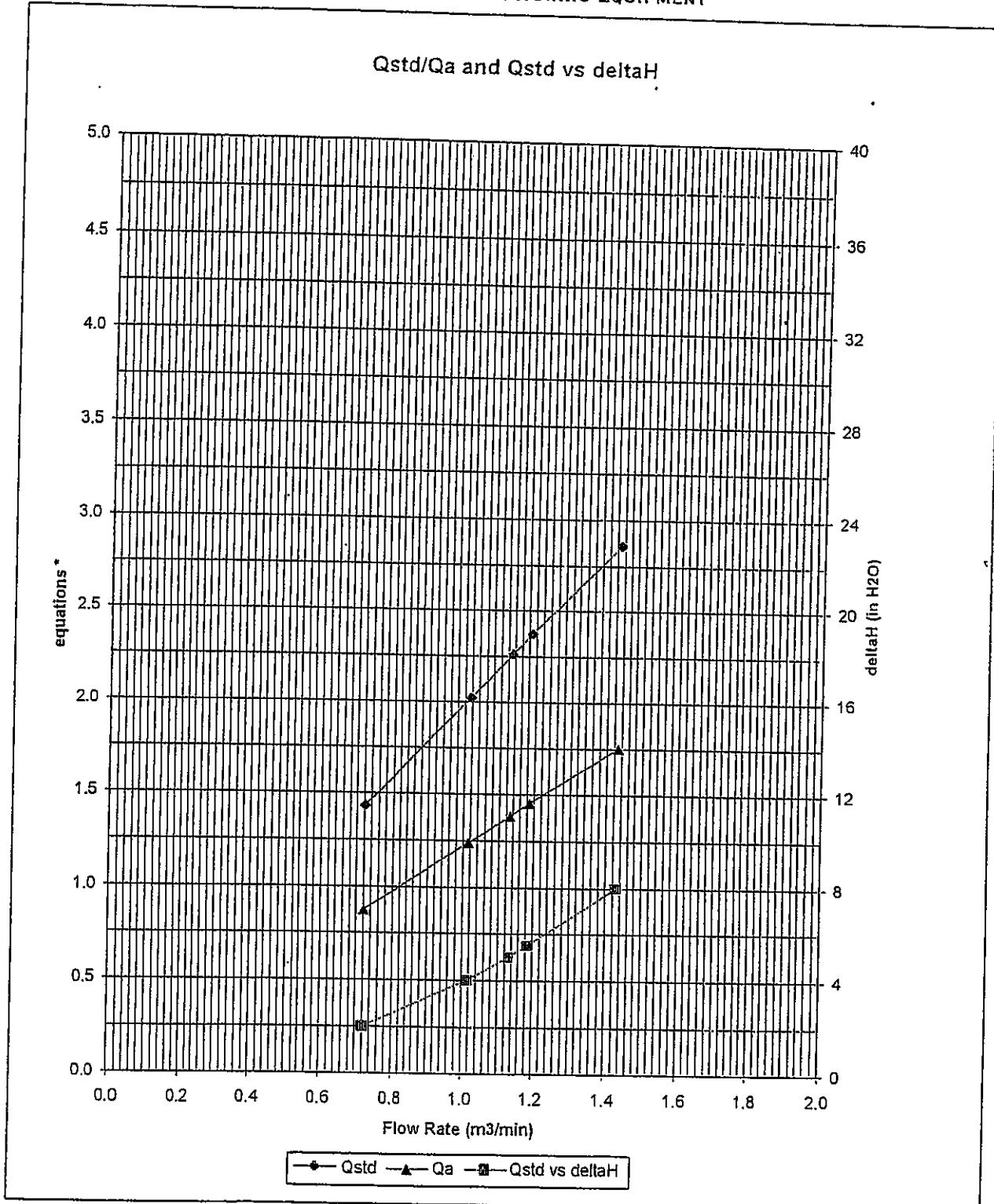
$$Vstd = \text{Diff. Vol}[(Pa - \text{Diff. Hg})/760](298/Ta)$$
$$Qstd = Vstd/\text{Time}$$

$$Va = \text{Diff Vol}[(Pa - \text{Diff Hg})/Pa]$$
$$Qa = Va/\text{Time}$$

For subsequent flow rate calculations:

$$Qstd = 1/m \{ [SQRT(H₂O(Pa/760)(298/Ta))] - b \}$$
$$Qa = 1/m \{ [SQRT H₂O(Ta/Pa)] - b \}$$

AIR POLLUTION MONITORING EQUIPMENT



* y-axis equations:

Qstd series: $\sqrt{\Delta H \left(\frac{P_a}{P_{std}} \right) \left(\frac{T_{std}}{T_a} \right)}$

Qa series: $\sqrt{(\Delta H (T_a / P_a))}$

#0873



東業德勤測試顧問有限公司
ETS-TESTCONSULT LIMITED

Appendix B2

Air Quality Monitoring Results

Summary of 24-hr TSP Monitoring Results

Monitoring Station : AA1
Location : Outside CEDD Site Office

Start Date	Time	Finish Date	Time	Elapsed Time	Sampling Time (hrs)		Flow Rate (m³/min.)	Average (m³/min.)	Filter Weight (g)	Conc. (µg/m³)
					Initial	Final				
06/01/06	14:30	07/01/06	14:34	8186.89	8210.96	24.07	1.13	1.13	1.13	2.8445
12/01/06	14:15	13/01/06	14:28	8213.96	8238.18	24.22	1.08	1.08	1.08	2.8919
18/01/06	13:00	19/01/06	13:13	8241.18	8265.31	24.13	1.08	1.08	1.08	2.8156
24/01/06	14:20	25/01/06	14:37	8268.31	8292.60	24.29	1.14	1.14	1.14	2.8376
27/01/06	14:10	28/01/06	14:05	8295.60	8319.52	23.92	1.08	1.08	1.08	2.8432
02/02/06	13:00	03/02/06	13:21	8322.52	8346.87	24.35	1.14	1.14	1.14	2.8224
08/02/06	15:30	09/02/06	15:43	8349.87	8374.09	24.22	1.08	1.08	1.08	2.8164
14/02/06	14:15	15/02/06	14:31	8377.09	8401.36	24.27	1.03	1.03	1.03	2.8115
20/02/06	12:15	21/02/06	12:59	8404.36	8429.09	24.73	1.36	1.36	1.36	2.8195
24/02/06	15:05	25/02/06	15:05	8432.09	8456.09	24.00	1.36	1.36	1.36	2.8156
02/03/06	16:15	03/03/06	16:55	8459.10	8483.77	24.67	1.39	1.39	1.39	2.8714
08/03/06	12:15	09/03/06	12:24	8486.77	8510.92	24.15	1.34	1.34	1.34	2.8536
14/03/06	17:50	15/03/06	17:42	8513.92	8537.73	23.81	1.36	1.36	1.36	2.8672
20/03/06	16:00	21/03/06	16:07	8540.78	8564.50	24.12	1.09	1.09	1.09	2.8466
24/03/06	15:04	25/03/06	15:01	8567.90	8591.85	23.95	1.09	1.09	1.09	2.8412
30/03/06	14:15	31/03/06	14:49	8594.85	8619.42	24.57	1.15	1.15	1.15	2.8785

Monitoring Station : AA2
Location : Site Egress

Start Date	Time	Finish Date	Time	Elapsed Time	Sampling Time (hrs)		Flow Rate (m³/min.)	Average (m³/min.)	Filter Weight (g)	Conc. (µg/m³)
					Initial	Final				
06/01/06	14:30	07/01/06	14:43	11476.40	11500.62	24.22	1.34	1.34	1.34	2.8522
12/01/06	14:15	13/01/06	14:20	11503.62	11527.71	24.09	1.38	1.38	1.38	2.8582
18/01/06	13:00	19/01/06	13:20	11530.71	11555.04	24.33	1.64	1.64	1.64	2.8302
24/01/06	14:10	25/01/06	14:15	11558.04	11582.12	24.08	1.56	1.56	1.56	2.8233
27/01/06	14:05	28/01/06	13:58	11585.12	11609.01	23.89	1.64	1.64	1.64	2.8162
02/02/06	13:00	03/02/06	13:13	11612.01	11636.23	24.22	1.83	1.83	1.83	2.8617
08/02/06	15:30	09/02/06	15:34	11639.23	11663.29	24.06	1.68	1.68	1.68	2.8128
14/02/06	14:15	15/02/06	14:35	11666.29	11690.62	24.33	1.79	1.79	1.79	2.8245
20/02/06	12:15	21/02/06	12:36	11693.62	11717.97	24.35	1.79	1.79	1.79	2.8336
24/02/06	15:10	25/02/06	15:10	11720.97	11744.97	24.00	1.79	1.79	1.79	2.8803
02/03/06	16:15	03/03/06	16:56	11747.98	11772.66	24.68	1.52	1.52	1.52	2.8482
08/03/06	12:15	09/03/06	12:22	11775.66	11799.77	24.11	1.52	1.52	1.52	2.8719
14/03/06	17:50	15/03/06	18:00	11802.77	11826.94	24.17	1.45	1.45	1.45	2.8599
20/03/06	16:00	21/03/06	16:50	11829.94	11854.78	24.84	1.76	1.76	1.76	2.8351
24/03/06	15:09	25/03/06	15:11	11857.78	11881.82	24.04	1.76	1.76	1.76	2.8495
30/03/06	14:15	31/03/06	14:16	11884.82	11908.84	24.02	1.45	1.45	1.45	2.8504

Summary of 1-hr TSP Monitoring Results

Monitoring Station : AA1
Location : Outside CEDD Site Office

Date	Time	Start	Finish	Elapsed Time	Sampling Time (hrs)	Flow Rate (m³/min.)	Average (m³/min.)	Filter Weight (g)		Conc. (µg/m³)
								Initial	Final	
06/01/06	08:30	09:00	8183.89	8184.89	1.00	1.13	1.13	2.8672	2.8885	314
	11:00	12:00	8184.89	8185.89	1.00	1.13	1.13	2.8553	2.8836	358
	13:00	14:00	8185.89	8186.89	1.00	1.13	1.13	2.8617	2.8849	342
	09:00	10:00	8210.96	8211.96	1.00	1.08	1.08	2.8499	2.8708	323
12/01/06	11:00	12:00	8211.96	8212.96	1.00	1.08	1.08	2.8532	2.8768	364
	13:00	14:00	8212.96	8213.96	1.00	1.08	1.08	2.8671	2.8900	353
	08:30	09:30	8238.18	8239.18	1.00	1.08	1.08	2.8726	2.8918	296
	09:45	10:45	8239.18	8240.18	1.00	1.08	1.08	2.8842	2.9071	353
18/01/06	11:00	12:00	8240.18	8241.18	1.00	1.08	1.08	2.8695	2.8908	329
	09:45	10:45	8255.31	8266.31	1.00	1.06	1.06	2.8643	2.8814	269
	11:00	12:00	8266.31	8267.31	1.00	1.06	1.06	2.8492	2.8710	343
	13:00	14:00	8267.31	8268.31	1.00	1.06	1.06	2.8557	2.8762	322
24/01/06	08:05	09:05	8292.60	8293.60	1.00	1.06	1.06	2.8527	2.8720	303
	09:07	10:07	8293.60	8294.60	1.00	1.06	1.06	2.8472	2.8679	325
	11:05	12:05	8294.60	8295.60	1.00	1.06	1.06	2.8539	2.8828	297
	08:30	09:30	8319.52	8320.52	1.00	1.14	1.14	2.8442	2.8539	288
02/02/06	09:45	10:45	8320.52	8321.52	1.00	1.14	1.14	2.8515	2.8783	304
	11:00	12:00	8321.52	8322.52	1.00	1.14	1.14	2.8691	2.8915	327
	11:00	12:00	8346.87	8347.87	1.00	1.08	1.08	2.8635	2.8864	353
	13:00	14:00	8347.87	8348.87	1.00	1.08	1.08	2.8712	2.8922	324
08/02/06	14:15	15:15	8348.87	8349.87	1.00	1.08	1.08	2.8654	2.8751	319
	08:30	10:30	8374.09	8375.09	1.00	1.00	1.00	2.8472	2.8630	263
	11:00	12:00	8375.09	8376.09	1.00	1.00	1.00	2.8559	2.8748	315
	13:00	14:00	8376.09	8377.09	1.00	1.00	1.00	2.8626	2.8799	288
20/02/06	08:30	09:30	8401.36	8402.36	1.00	1.34	1.34	2.8662	2.8864	294
	09:45	10:45	8402.36	8403.36	1.00	1.34	1.34	2.8577	2.8796	272
	11:00	12:00	8403.36	8404.36	1.00	1.34	1.34	2.8855	2.8807	313
	08:00	09:00	8429.09	8430.09	1.00	1.34	1.34	2.8546	2.8821	342
24/02/06	11:00	12:00	8430.09	8431.09	1.00	1.34	1.34	2.8692	2.8962	336
	14:00	15:00	8431.09	8432.09	1.00	1.34	1.34	2.8626	2.8862	322
	11:00	12:00	8432.09	8433.09	1.00	1.39	1.39	2.8432	2.8720	345
	13:00	14:00	8433.09	8434.09	1.00	1.34	1.34	2.8516	2.8805	359
02/03/06	15:00	16:00	8438.09	8449.10	1.00	1.39	1.39	2.8611	2.8891	336
	08:30	09:30	8483.77	8484.77	1.00	1.34	1.34	2.8614	2.8774	309
	09:40	10:40	8484.77	8485.77	1.00	1.34	1.34	2.8593	2.8646	315
	11:00	12:00	8485.77	8486.77	1.00	1.34	1.34	2.8541	2.8508	332
14/03/06	11:00	12:00	8486.77	8487.77	1.00	1.39	1.39	2.8617	2.8847	352
	15:30	16:30	8510.92	8511.92	1.00	1.36	1.36	2.8549	2.8844	362
	16:40	17:40	8512.92	8513.92	1.00	1.36	1.36	2.8677	2.8940	322
	11:00	12:00	8537.78	8538.78	1.00	1.36	1.36	2.8582	2.8633	308
24/03/06	13:15	14:15	8538.78	8539.78	1.00	1.09	1.09	2.8598	2.8917	335
	14:30	15:30	8539.78	8540.78	1.00	1.09	1.09	2.8655	2.8666	325
	11:00	12:00	8564.90	8565.90	1.00	1.09	1.09	2.8647	2.8881	358
	13:00	14:00	8565.90	8566.90	1.00	1.09	1.09	2.8723	2.8950	347
20/03/06	14:02	15:02	8566.90	8567.90	1.00	1.09	1.09	2.8694	2.8636	370
	09:45	10:45	8591.85	8592.85	1.00	1.15	1.15	2.8442	2.8849	374
	11:00	12:00	8592.85	8593.85	1.00	1.15	1.15	2.8616	2.8866	362
	13:00	14:00	8593.85	8594.85	1.00	1.15	1.15	2.8616	2.8866	362

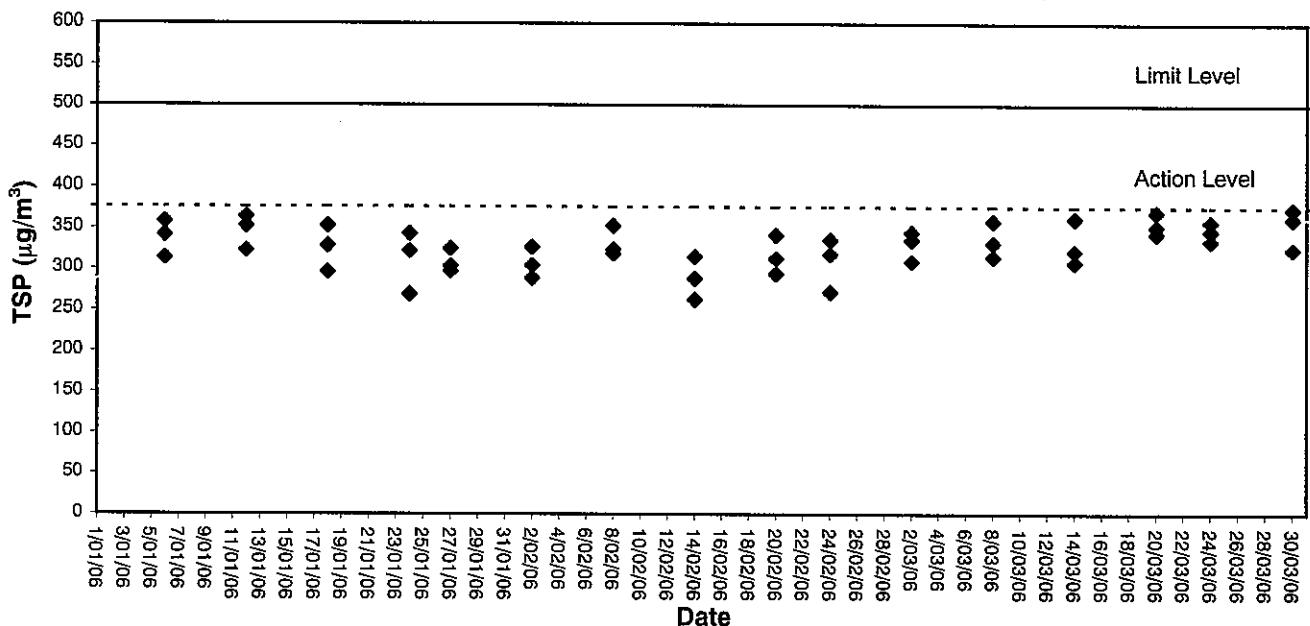
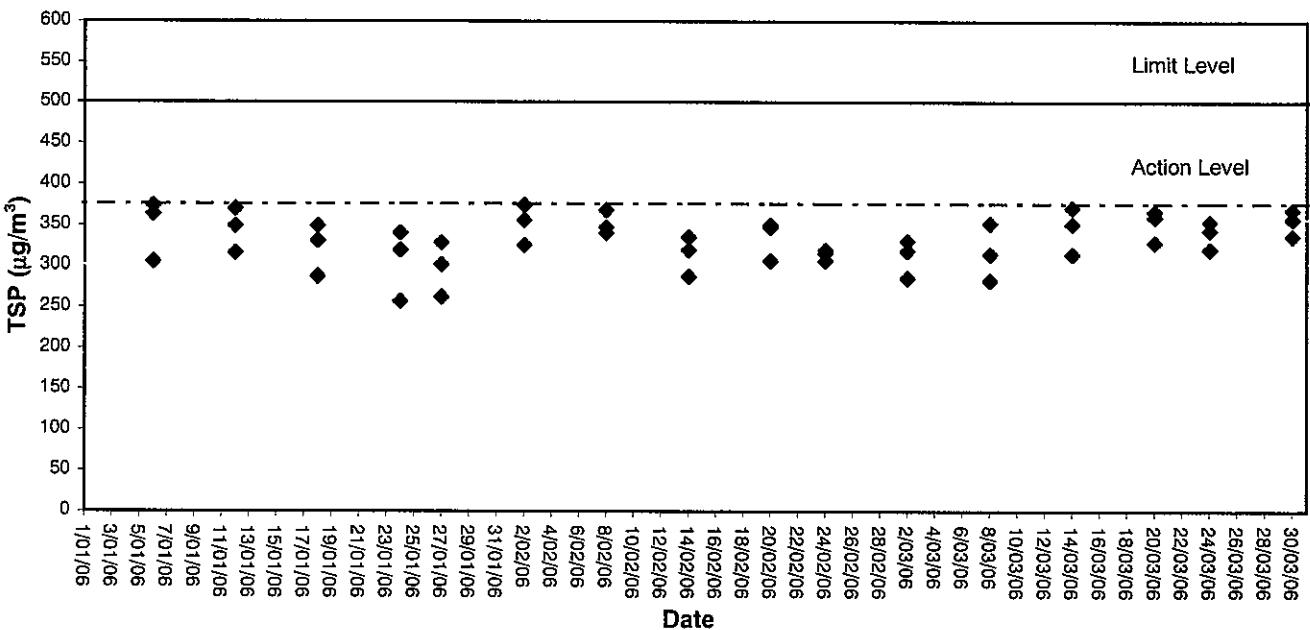
Summary of 1-hr TSP Monitoring Results

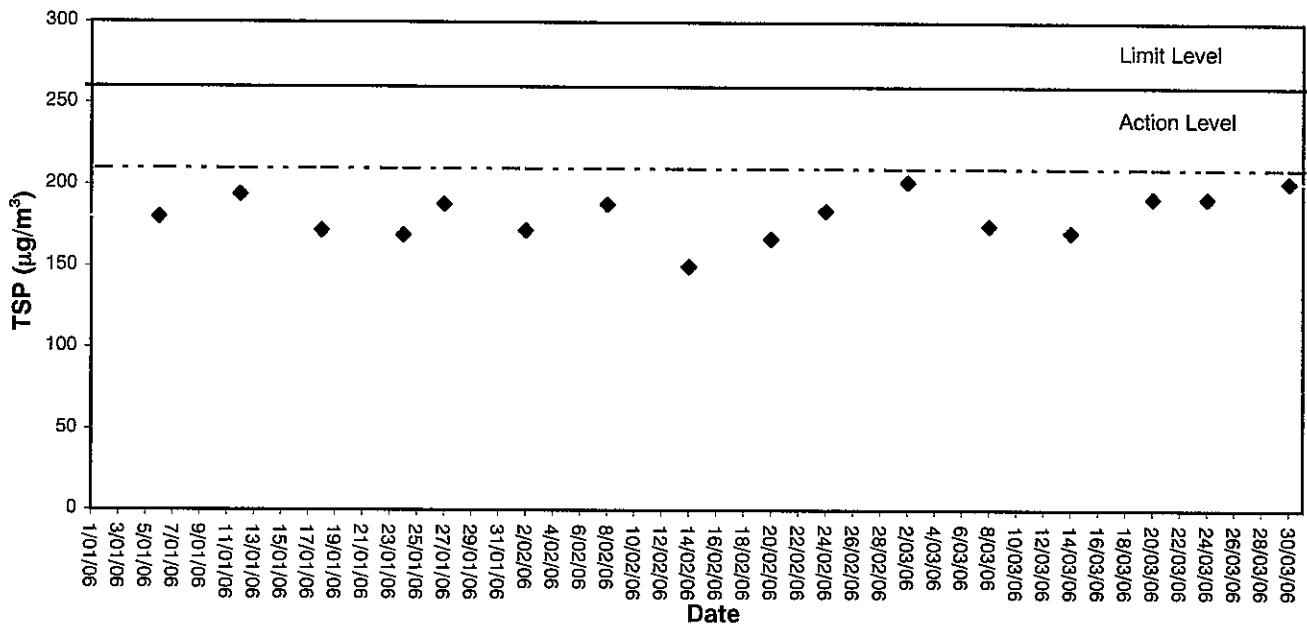
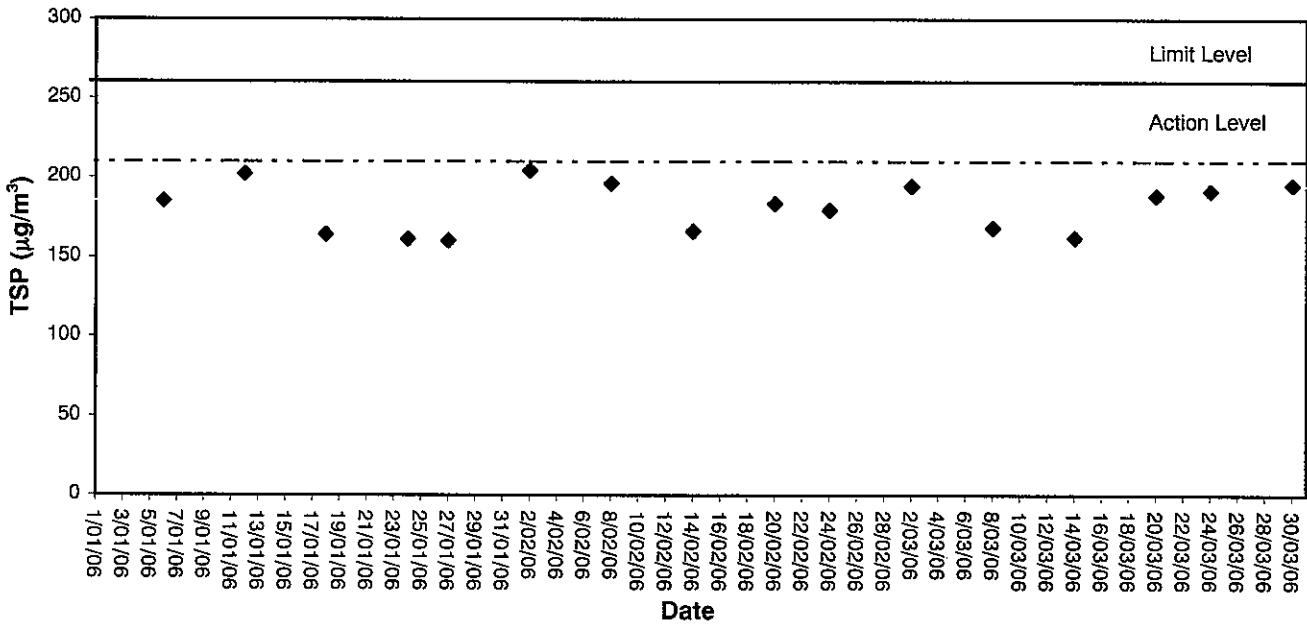
Monitoring Station : AA2
Location : Site Egress

Date	Time	Start	Finish	Eloose Time	Sampling Time (hrs)	Flow Rate (m³/min.)	Average (m³/min.)	Filter Weight. [g]	Conc. (ug/m³)
		Initial	Final			Initial	Final	Initial	Final
06/01/06	08:30	11473.40	11474.40	1.00	1.34	1.34	1.34	2.8534	2.8779
	11:00	11474.40	11475.50	1.00	1.34	1.34	1.34	2.8666	2.8967
	13:00	11475.40	11476.50	1.00	1.34	1.34	1.34	2.8342	2.8635
	09:00	10:00	11500.62	11501.62	1.00	1.42	1.42	2.8304	2.8573
12/01/06	11:00	12:00	11501.62	11502.62	1.00	1.42	1.42	2.8611	2.8926
	13:00	14:00	11502.62	11503.62	1.00	1.42	1.42	2.8208	2.8505
	08:30	09:30	11527.71	11528.71	1.00	1.64	1.64	2.8232	2.8905
18/01/06	09:45	10:45	11528.71	11529.71	1.00	1.64	1.64	2.8771	2.9114
	11:00	12:00	11529.71	11530.71	1.00	1.64	1.64	2.8534	2.8860
24/01/06	09:45	10:45	11555.04	11556.04	1.00	1.56	1.56	2.8016	2.8647
	11:00	12:00	11556.04	11557.04	1.00	1.56	1.56	2.8615	2.8933
	13:00	14:00	11557.04	11558.04	1.00	1.56	1.56	2.8593	2.8892
	08:00	09:00	11582.12	11583.12	1.00	1.56	1.56	2.8716	2.8961
27/01/06	09:02	10:02	11583.12	11584.12	1.00	1.56	1.56	2.8597	2.8704
	11:00	12:00	11584.12	11585.12	1.00	1.56	1.56	2.8584	2.8866
	08:30	09:30	11609.01	11610.01	1.00	1.83	1.83	2.8654	2.9011
02/02/06	09:45	10:45	11611.01	11612.01	1.00	1.83	1.83	2.8433	2.8824
	11:00	12:00	11611.01	11612.01	1.00	1.83	1.83	2.8519	2.8930
08/02/06	11:00	12:00	11636.23	11637.23	1.00	1.68	1.68	2.8617	2.8988
	13:00	14:00	11637.23	11638.23	1.00	1.68	1.68	2.8533	2.8883
	14:15	15:15	11638.23	11639.23	1.00	1.68	1.68	2.8662	2.9005
	09:30	10:30	11663.29	11664.29	1.00	1.83	1.83	2.8438	2.8733
14/02/06	11:00	12:00	11664.29	11665.29	1.00	1.83	1.83	2.8117	2.8485
	13:00	14:00	11665.29	11666.29	1.00	1.83	1.83	2.893	2.8643
20/02/06	08:30	09:30	11690.62	11691.62	1.00	1.79	1.79	2.8467	2.8796
	09:45	10:45	11691.62	11692.62	1.00	1.79	1.79	2.8323	2.8696
	11:00	12:00	11692.62	11693.62	1.00	1.79	1.79	2.8612	2.8988
	08:05	09:05	11717.97	11718.97	1.00	1.79	1.79	2.8531	2.8850
24/02/06	11:05	12:05	11718.97	11719.97	1.00	1.79	1.79	2.8598	2.8941
	14:05	15:05	11719.97	11720.97	1.00	1.79	1.79	2.8617	2.8955
	11:00	12:00	11744.97	11745.97	1.00	1.52	1.52	2.8392	2.8633
02/03/06	13:00	14:00	11745.97	11746.98	1.00	1.52	1.52	2.8647	2.8940
	11:00	12:00	11746.98	11747.98	1.00	1.52	1.52	2.8455	2.8715
14/03/06	15:00	16:00	11746.98	11747.98	1.00	1.45	1.45	2.8517	2.8840
	08:30	09:30	11772.66	11773.66	1.00	1.45	1.45	2.8751	2.8796
08/03/06	09:40	10:40	11773.66	11774.66	1.00	1.45	1.45	2.8335	2.8608
	11:00	12:00	11774.66	11775.66	1.00	1.52	1.52	2.8323	2.8818
20/03/06	13:15	14:15	11827.94	11828.94	1.00	1.76	1.76	2.8116	2.8496
	11:00	12:00	11799.77	11800.77	1.00	1.45	1.45	2.8329	2.8675
	13:00	14:00	11801.77	11801.77	1.00	1.76	1.76	2.8751	2.9125
24/03/06	12:00	13:00	11854.78	11855.78	1.00	1.45	1.45	2.8491	2.8796
	14:05	15:05	11855.78	11856.78	1.00	1.76	1.76	2.8810	2.9172
	14:07	15:07	11856.78	11857.78	1.00	1.76	1.76	2.8433	2.8831
	09:45	10:45	11881.82	11882.82	1.00	1.45	1.45	2.8532	2.8824
30/03/06	11:00	12:00	11882.82	11883.82	1.00	1.45	1.45	2.8710	2.9030
	13:00	14:00	11883.82	11884.82	1.00	1.45	1.45	2.8644	2.8955

Appendix B3

Graphical Plots of Air Quality Monitoring Data

1-hour TSP level at AA1 (Outside CEDD Site Office)1-hour TSP level at AA2 (Site Egress)

24-hour TSP level at AA1 (Outside CEDD Site Office)24-hour TSP level at AA2 (Site Egress)

Appendix C1

Calibration Certificates for Noise Monitoring Equipments



Calibration Certificate

Certificate No. 51473

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. : Q50535

Date of receipt : 7-Apr-05

Item Tested

Description : Sound Level Calibrator (Eqip No.: ET/0527/004)

Manufacturer : Rion

Model : NC-73

Serial No. : 10196943

Test Conditions

Date of Test : 20-Apr-05

Supply Voltage : --

Ambient Temperature : (22.5 ± 2.5)°C

Relative Humidity : (50 ± 20) %

Test Specifications

Calibration check according to customer's requirement.

Calibration procedure : F21, Z02.

Test Results

All results were within the manufacturer's specification.

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

Test equipment used:

<u>Equipment No.</u>	<u>Cert. No.</u>	<u>Due Date</u>	<u>Traceable to</u>
S014	43147	7-Jul-05	PRC-NIM
S024	S41431	22-May-05	PRC-NIM
S041	43734	12-Aug-05	PRC-NIM

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 :

Approved by :

Alan Chu - Manager

This Certificate is issued by:
Hong Kong Calibration Ltd.

Date: 20-Apr-05

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. 51473

Page 2 of 2 Pages

Results :

1. Level Accuracy (at 1 kHz)

UUT Nominal Value	Measured Value	Mfr's Spec.
94 dB	94.1 dB	± 1 dB

Uncertainty : ± 0.2 dB

2. Frequency Accuracy

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

Uncertainty : ± 0.1 %

3. Level Stability : 0.0 dB

Uncertainty : ± 0.01 dB

4. Total Harmonic Distortion : < 0.3 %

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. Atmospheric Pressure : 1 000 hPa

4. The above measured values are the mean of 3 measurement.

----- END -----



Calibration Certificate

Certificate No. 51472

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. : Q50535

Date of receipt : 7-Apr-05

Item Tested

Description : Precision Integrating Sound Level Meter

Manufacturer : Rion

Model : NL-31

Serial No. : 00531142

Test Conditions

Date of Test : 20-Apr-05

Supply Voltage : --

Ambient Temperature : (22.5 ± 2.5)°C

Relative Humidity : (50 ± 20) %

Test Specifications

Calibration check according to customer's requirement.

Calibration procedure : Z01.

Test Results

All results were within the manufacturer's, IEC 651 Type 1, IEC 804 Type 1 specification.

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

Test equipment used:

<u>Equipment No.</u>	<u>Cert. No.</u>	<u>Due Date</u>	<u>Traceable to</u>
S017	C051022	21-Mar-06	PRC-NIM
S024	S41431	22-May-05	PRC-NIM

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 : Rion

Approved by : Alan Chu
Alan Chu - Manager

This Certificate is issued by:
Hong Kong Calibration Ltd.

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

Date: 20-Apr-05



Hong Kong Calibration Ltd.

香港校正有限公司

Calibration Certificate

Certificate No. 51472

Page 2 of 3 Pages

Results :

1. SPL Accuracy

UUT Setting			UUT Reading (dB)	Correction (dB)
Level Range (dB)	Weight	Response		
20 - 100	LA	Fast	94.0	+ 0.1
		Slow		+ 0.1
	LC	Fast		0.0
	Lp	Fast		0.0
30 - 120	LA	Fast	94.0	+ 0.1
		Slow		+ 0.1
	LC	Fast		+ 0.1
	Lp	Fast		+ 0.1
30 - 120	LA	Fast	114.0	+ 0.1
		Slow		+ 0.1
	LC	Fast		0.0
	Lp	Fast		0.0

IEC 651 Type 1 Spec. : ± 0.7 dB

Uncertainty : ± 0.2 dB

2. Level Stability : 0.0 dB

IEC 651 Type 1 Spec. : ± 0.3 dB

Uncertainty : ± 0.01 dB



Calibration Certificate

Certificate No. 51472

Page 3 of 3 Pages

3. 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
5 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

4. Time Averaging

Applied Burst duty Factor	UUT Reading (dB)	Correction (dB)	IEC 804 Type 1 Spec.
continuous	40.0	--	--
1/10	39.9	+ 0.1	± 0.5 dB
1/10 ²	39.9	+ 0.1	
1/10 ³	39.9	+ 0.1	± 1.0 dB
1/10 ⁴	39.8	+ 0.2	

Uncertainty : ± 0.1 dB

Remark : 1. UUT : Unit-Under-Test

2. True Value = UUT Reading + Correction.

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

4. Atmospheric Pressure : 1 000 hPa.

----- END -----

Appendix C2

Noise Monitoring Results



Day-time Noise Monitoring

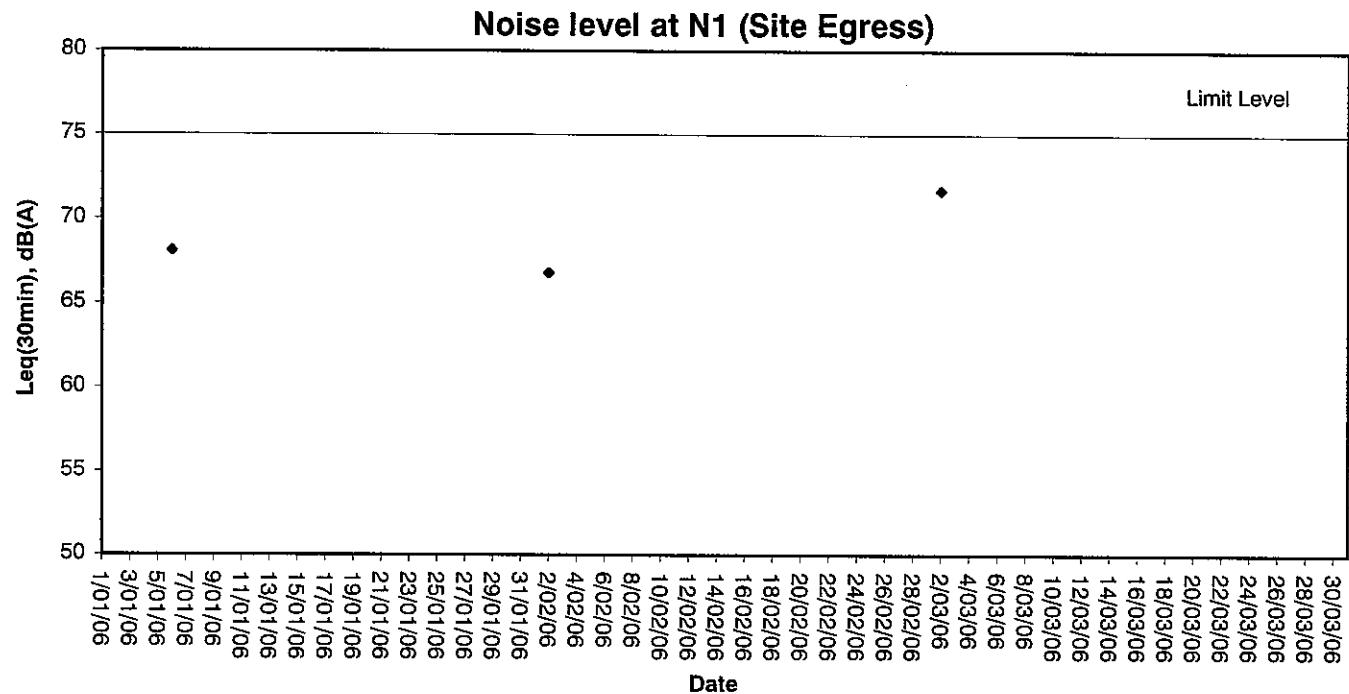
Monitoring Location: N1 (Site Egress)

Date	Start Sampling Time (hh:mm)	Noise Level dB (A)			Wind Speed (m/s)	Weather Condition
		$L_{eq(30min)}$	L_{10}	L_{90}		
06/01/06	10:16	68.1	71.5	58.2	3.5	Cloudy
02/02/06	10:07	66.8	70.4	55.5	2.7	Sunny
02/03/06	10:18	71.7	75.8	59.8	0.7	Fine

Appendix C3

Graphical Plots of Noise Monitoring Data

Noise Monitoring (Day-time)



Appendix D1

Calibration Certificates for Marine Water Quality Monitoring Equipments



Internal Calibration Report of Turbidimeter

Equipment Ref. No. : ET/0505/002 Manufacturer : HACH

Model No. : 2100 P Serial No. : 930900003728

Date of Calibration : 27/10/05 Calibration Due : 26.11.06

Data

(X. 95)	(X9.0)	(X09)
0 - 10 NTU Gelex Vial	10 - 100 NTU Gelex Vial	100 - 1000 NTU Gelex Vial
4.94	48.3	407

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

* Delete as appropriate

Calibrated by : RH

Approved by : Judie Lam

Internal Calibration Report of Turbidimeter

Equipment Ref. No. : ET/05051002

Manufacturer : HACH

Model No. : 2100 P

Serial No. : 930900003728

Date of Calibration : 27/11/06

Calibration Due : 28/12/06

Data

(4.95)	(49.0)	(409)
0 - 10 NTU Gelex Vial	10 - 100 NTU Gelex Vial	100 - 1000 NTU Gelex Vial
4.93	48.5	40.5

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

* Delete as appropriate

Calibrated by : PL

Approved by : LJL Lam



Performance Check of Salinity Meter

Equipment Ref. No. : E7/0527/001 Manufacturer : YSI

Model No. : Model 30 Serial No. : 99G 1183

Date of Calibration : 27 Oct. 2005 Due Date : 26 Jan. 2006

Ref. No. of Salinity Standard used (30ppt)	J196A
--	-------

Salinity Standard (ppt)	Measured Salinity (ppt)	Difference %
30	29.4	2.0%

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 : RH

Approved by : Chia Lan



Performance Check of Salinity Meter

Equipment Ref. No. : ET 105271001 Manufacturer : YSI

Model No. : Model 30 Serial No. : 9961183

Date of Calibration : 27/11/06 Due Date : 28/14/06

Ref. No. of Salinity Standard used (30ppt)	J 196A
--	--------

Salinity Standard (ppt)	Measured Salinity (ppt)	Difference %
30	29.6	1.3%

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 : PL

Approved by : W.L. Lam



Internal Calibration Report of Dissolved Oxygen Meter

Equipment Ref. No.	: ET/EW/003/001	Manufacturer	: YSI
Model No.	: 95	Serial No.	: 97H 04071 AD
Date of Calibration	: 01/12/05	Calibration Due Date	: 28/02/06

Ref. No. of Reference Thermometer : ET/2403/01
Ref. No. of Potassium Dichromate : ET/0520/003/02

Temperature Verification

Thermometer reading	Temperature (°C)		
	1	2	Average
Meter reading		20.0	
		20.0	

Linearity Checking

Purging time, min	DO meter reading, mg/L			Winkler Titration result, mg/L			Difference (%) of DO Content
	1	2	Average	1	2	Average	
2	7.00	7.02	7.01	7.11	7.09	7.10	1.28
5	5.44	5.46	5.45	5.36	5.38	5.37	1.48
10	3.56	3.54	3.55	3.61	3.63	3.62	1.95
Linear regression coefficient				0.9972			

Zero Point Checking

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

Salinity Checking

Salinity (ppt)	DO meter reading, mg/L			Winkler Titration result, mg/L			Difference (%) of DO Content
	1	2	Average	1	2	Average	
10	6.94	6.96	6.95	6.81	6.83	6.82	1.89
30	6.34	6.36	6.35	6.22	6.20	6.21	2.23

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

: Linda Lam

Approved by :

Internal Calibration Report of Dissolved Oxygen Meter

Equipment Ref. No.	: ET/EW/003/001	Manufacturer	: YSI
Model No.	: 95	Serial No.	: 97H 04071 AD
Date of Calibration	: 01/03/06	Calibration Due Date	: 31/05/06

Ref. No. of Reference Thermometer : ET/2403/01
 Ref. No. of Potassium Dichromate : ET/0526/003/02

Temperature Verification

Thermometer reading	Temperature (°C)		
	1	2	Average
Meter reading		20.0	20.0

Linearity Checking

Purging time, min	DO meter reading, mg/L			Winkler Titration result, mg/L			Difference (%) of DO Content
	1	2	Average	1	2	Average	
2	7.46	7.44	7.45	7.31	7.29	7.30	2.03
5	5.66	5.64	5.65	5.66	5.64	5.65	0.00
10	4.01	3.99	4.00	3.82	3.80	3.81	4.87
Linear regression coefficient				0.9968			

Zero Point Checking

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

Salinity Checking

Salinity (ppt)	DO meter reading, mg/L			Winkler Titration result, mg/L			Difference (%) of DO Content
	1	2	Average	1	2	Average	
10	7.16	7.14	7.15	7.01	7.01	7.01	1.18
30	6.56	6.54	6.55	6.32	6.30	6.31	3.73

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

: Cinda Lam

Approved by :

Appendix D2

Impact Marine Water Quality Monitoring Results

Mid-Flood Tide

Monitoring Station : C1

Date	Sampling Duration	Ambient Temp (°C) / Weather Condition	Monitoring Depth (m)	Temp (°C)	Salinity (ppt)		Dissolved Oxygen (mg/L)		Dissolved Oxygen Saturation (%)		Turbidity (NTU)		Suspended Solids (mg/L)			
					Value	Average	Value	Average	Depth-average	Value	Average	Depth-average	Value	Average	Depth-average	
06/01/06	12:00 - 12:15	14/Cloudy	Surface	1.0	17.9	33.2	6.71	6.66	94.9	94.5	3.11	3.06	3.5	3.3	3.4	
			Middle	10.7	18.0	33.6	6.21	6.26	6.46	87.9	88.4	3.41	3.36	3.0	3.0	3.1
			Bottom	20.4	18.2	33.4	6.11	6.06	6.06	86.5	86.0	3.58	3.54	3.0	3.0	
09/01/06	13:00 - 13:13	15/Cloudy	Surface	1.0	18.2	32.7	6.77	6.75	6.75	102.9	102.6	3.12	3.13	3.5	3.4	
			Middle	10.0	17.9	33.3	6.57	6.56	6.66	99.8	99.5	2.97	2.97	3.06	3.0	3.1
			Bottom	19.0	17.5	33.4	6.55	6.55	6.56	101.2	100.7	2.44	2.42	2.7	2.7	
11/01/06	16:00 - 16:15	15/Cloudy	Surface	1.0	15.4	33.7	6.60	6.52	6.56	100.2	100.2	2.40	2.40	2.5	2.5	
			Middle	11.4	15.6	34.0	6.33	6.30	6.45	98.1	97.7	3.07	3.08	3.0	3.0	
			Bottom	21.8	15.7	34.1	6.06	6.06	6.03	92.8	92.0	1.90	1.85	2.5	2.5	
13/01/06	15:30 - 15:43	20/Sunny	Surface	1.0	20.3	32.6	6.77	6.76	6.76	100.8	100.6	2.31	2.26	2.18	2.18	2.4
			Middle	10.0	20.0	33.1	6.41	6.44	6.43	96.0	96.3	2.21	2.21	2.5	2.5	
			Bottom	19.0	19.8	33.4	6.36	6.32	6.34	94.1	93.8	2.95	2.95	2.5	2.5	
16/01/06	8:00 - 8:16	19/Sunny	Surface	1.0	18.0	33.3	6.69	6.64	6.64	87.6	87.3	2.67	2.64	2.5	2.5	
			Middle	11.0	18.2	33.4	6.18	6.18	6.39	87.0	86.0	2.91	2.91	2.95	2.95	
			Bottom	21.0	18.4	33.5	6.07	6.04	6.04	79.6	79.3	3.07	3.12	3.0	3.0	
18/01/06	8:30 - 8:46	20/Cloudy	Surface	1.0	19.8	32.7	6.70	6.68	6.68	99.2	98.7	3.84	3.87	3.5	3.5	
			Middle	10.5	19.4	33.3	6.37	6.34	6.36	6.52	94.3	3.25	3.21	3.30	3.2	3.2
			Bottom	20.0	18.6	33.4	6.43	6.42	6.42	95.2	95.0	2.84	2.82	3.0	3.0	
20/01/06	09:30 - 09:43	18/Cloudy	Surface	1.0	17.5	33.7	7.62	7.64	7.64	97.7	97.9	3.30	3.31	4.0	4.0	
			Middle	9.9	17.4	33.7	7.59	7.58	7.61	98.1	98.3	3.02	3.02	3.5	3.5	
			Bottom	18.8	17.4	33.7	7.71	7.70	7.70	98.5	98.3	2.34	2.34	3.0	3.0	

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	Depth-average	Value	Average	Depth-average	Value	Average	Depth-average	Value	Average	Depth-average	Value	Average	Depth-average
23/01/06 11:10 - 11:23	14/Cloudy		Surface	1.0	33.7	33.7	7.67	7.66	7.65	95.1	94.9	1.98	2.06	2.5	2.5	2.5	2.5	2.5	2.5
			Middle	10.4	15.7	33.5	7.67	7.64	94.5	94.2	1.34	1.33	1.53	2.3	2.3	2.3	2.3	2.3	2.3
			Bottom	19.8	15.9	33.5	7.61	7.64	93.9	92.6	1.18	1.19	2.0	2.0	2.0	2.0	2.0	2.0	2.0
25/01/06 13:00 - 13:17	15/Cloudy		Surface	1.0	17.1	33.4	33.4	6.80	6.75	6.75	95.2	94.7	3.51	3.46	4.0	4.0	4.0	4.0	4.0
			Middle	10.5	17.0	33.4	33.4	6.44	6.44	6.39	94.2	90.3	3.41	3.21	3.16	3.36	3.5	3.5	3.6
			Bottom	20.0	16.5	33.5	33.5	6.27	6.24	6.24	87.9	87.5	3.50	3.45	3.3	3.3	3.3	3.3	3.3
27/01/06 14:15 - 14:29	17/Cloudy		Surface	28.0	17.4	33.0	33.0	7.86	7.85	7.72	105.3	105.0	3.07	3.08	3.5	3.5	3.4	3.4	3.4
			Middle	37.0	17.1	33.4	33.4	7.60	7.57	7.59	105.0	101.8	3.08	3.08	3.3	3.3	3.4	3.4	3.4
			Bottom	46.0	16.9	33.5	33.5	7.40	7.42	7.42	99.1	99.3	2.82	2.82	2.84	3.0	3.0	3.0	3.1
01/02/06 8:00 - 8:15	18/Cloudy		Surface	1.0	16.9	33.1	33.1	6.51	6.47	6.47	91.9	91.5	2.81	2.81	2.82	3.0	3.0	3.0	3.0
			Middle	11.0	17.1	33.3	33.3	6.21	6.18	6.18	91.0	91.3	2.63	2.63	2.64	3.0	3.0	3.0	3.0
			Bottom	21.0	17.0	33.6	33.6	6.07	6.12	6.12	86.7	87.4	2.64	2.64	2.65	3.0	3.0	3.0	3.1
03/02/06 9:15 - 9:28	20/Cloudy		Surface	1.0	17.6	33.6	33.6	7.28	7.28	7.28	93.5	93.4	2.30	2.29	2.5	2.5	2.5	2.5	2.5
			Middle	9.6	17.4	33.4	33.4	7.42	7.39	7.39	94.6	94.4	2.28	2.28	2.29	2.5	2.5	2.5	2.5
			Bottom	18.2	17.3	33.4	33.4	7.50	7.49	7.49	95.5	95.3	3.07	3.10	3.13	2.7	2.7	2.7	2.7
06/02/06 11:45 - 12:00	18/Cloudy		Surface	1.0	20.1	33.1	33.1	6.44	6.49	6.49	92.2	92.7	2.10	2.06	2.5	2.5	2.4	2.4	2.4
			Middle	10.9	19.8	33.4	33.4	6.27	6.24	6.24	93.2	93.0	1.89	1.85	2.09	2.5	2.5	2.5	2.4
			Bottom	20.8	19.6	33.6	33.6	5.99	6.04	6.04	85.7	86.2	2.41	2.36	2.31	2.3	2.3	2.3	2.3
08/02/06 9:00 - 9:15	20/Sunny		Surface	1.0	18.6	32.4	32.4	7.34	7.32	7.21	92.7	93.0	3.06	3.07	3.5	3.4	3.4	3.4	3.4
			Middle	10.0	18.4	33.0	33.1	7.12	7.10	7.10	91.1	90.9	2.87	2.88	2.97	3.0	3.0	3.0	3.1
			Bottom	19.0	18.0	33.2	33.2	6.90	6.88	6.88	88.3	88.1	2.97	2.96	3.0	3.0	3.0	3.0	3.0

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)		
			Surface	Middle	Value	Average	Value	Average	Depth-average	Value	Average	Value	Depth-average	Value	Average	Depth-average	
10/02/06	11:00 - 11:15	19/Sunny	Surface	1.0	19.2	32.1	6.81	6.76	6.62	89.5	89.0	91.9	2.87	3.0	3.0	3.0	
			Middle	11.0	19.1	32.6	6.52	6.48	6.44	85.6	85.3	2.29	2.20	2.25	2.62	2.5	2.8
			Bottom	21.0	18.6	32.4	6.19	6.23	6.23	81.3	81.8	2.80	2.70	2.75	2.8	2.8	
13/02/06	8:00 - 8:15	19/Cloudy	Surface	1.0	18.6	32.7	6.96	6.94	6.94	89.7	89.5	3.26	3.26	3.26	3.5	3.5	
			Middle	10.0	18.4	33.0	6.76	6.75	6.75	86.5	86.4	2.89	2.88	2.89	3.05	3.0	
			Bottom	19.0	18.0	33.2	6.82	6.81	6.81	87.2	87.1	3.01	3.01	3.02	3.2	3.2	
15/02/06	8:00 - 8:15	19/Cloudy	Surface	1.0	19.0	32.1	6.52	6.47	6.47	89.6	89.3	2.77	2.77	2.82	2.5	2.5	
			Middle	10.7	19.0	32.4	6.30	6.22	6.22	85.6	86.1	2.56	2.50	2.53	2.59	2.3	
			Bottom	20.4	18.9	32.6	6.19	6.14	6.14	85.1	84.6	2.37	2.42	2.47	2.5	2.5	
17/02/06	8:00 - 8:13	16/Cloudy	Surface	1.0	17.2	33.3	7.16	7.15	7.15	90.6	90.4	3.22	3.22	3.21	3.2	3.4	
			Middle	10.1	17.2	33.4	7.33	7.35	7.35	92.8	93.0	2.61	2.61	2.61	2.99	3.0	
			Bottom	19.2	17.2	33.5	7.33	7.32	7.32	92.9	92.8	3.14	3.15	3.15	3.0	3.0	
20/02/06	9:45 - 9:59	17/Fine	Surface	1.0	17.2	33.4	6.75	6.73	6.73	86.0	85.7	3.53	3.56	3.59	4.0	3.9	
			Middle	9.9	17.5	33.4	6.85	6.83	6.83	87.3	87.1	3.24	3.26	3.28	3.35	3.8	
			Bottom	18.8	17.6	33.6	7.08	7.10	7.10	90.1	89.8	3.19	3.22	3.25	3.5	3.5	
22/02/06	16:00 - 16:16	19/Sunny	Surface	1.0	18.6	33.3	6.70	6.68	6.68	85.4	85.2	3.81	3.83	3.84	4.0	4.2	
			Middle	9.8	17.7	33.5	6.31	6.28	6.28	80.4	80.1	3.17	3.20	3.49	3.5	3.5	
			Bottom	18.6	17.2	33.7	6.04	6.03	6.03	76.9	76.6	3.44	3.46	3.47	4.0	4.0	
24/02/06	9:00 - 9:13	21/Cloudy	Surface	1.0	18.4	32.9	7.19	7.17	7.17	94.9	94.6	3.78	3.77	4.0	4.0	4.0	
			Middle	10.1	18.2	33.1	7.06	7.05	7.05	93.1	92.9	3.17	3.16	3.16	3.33	3.5	
			Bottom	19.2	17.8	33.1	6.98	6.97	6.97	91.9	91.7	3.06	3.06	3.05	3.2	3.2	

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	Depth-average	Value	Average	Depth-average	Value	Average	Depth-average
27/02/06 17:15 - 17:30	16/Cloudy		Surface	1.0	18.0	33.0	7.08	7.04	7.19	95.0	94.5	2.77	2.74	3.0	3.1
			Middle	11.5	17.9	33.2	7.36	7.33	7.30	96.4	95.9	2.68	2.73	2.57	3.0
			Bottom	22.0	18.3	33.0	6.57	6.54	6.54	88.1	87.6	2.29	2.25	2.5	2.5
01/03/06 17:30 - 17:45	11/Cloudy		Surface	1.0	18.3	32.5	6.95	6.93	6.93	95.9	95.6	3.26	3.26	3.5	3.5
			Middle	10.0	18.0	32.8	6.80	6.82	6.82	93.8	94.0	2.94	2.93	3.09	3.0
			Bottom	19.0	17.8	33.1	6.77	6.76	6.76	93.4	93.2	3.06	3.07	3.2	3.2
03/03/06 08:00 - 08:15	16/Sunny		Surface	1.0	18.1	33.1	7.17	7.14	7.14	102.9	102.5	2.97	3.02	3.0	3.2
			Middle	10.5	18.3	33.2	6.90	6.94	6.94	100.2	99.7	3.07	3.07	3.3	3.2
			Bottom	20.0	18.2	33.4	6.72	6.68	6.68	96.4	95.9	2.73	2.68	3.0	3.0
06/03/06 09:00 - 09:15	19/Cloudy		Surface	1.0	18.7	32.7	6.89	6.87	6.87	95.0	94.8	3.87	3.87	4.5	4.4
			Middle	10.1	18.5	33.0	6.70	6.72	6.72	92.4	92.6	3.63	3.63	3.74	4.0
			Bottom	19.2	18.5	33.1	6.77	6.76	6.76	93.4	93.2	3.72	3.72	4.0	4.0
08/03/06 08:00 - 08:15	16/Cloudy		Surface	1.0	17.8	32.7	6.99	7.04	7.09	92.7	92.2	2.21	2.16	2.64	2.5
			Middle	11.0	17.9	32.6	7.10	7.17	7.14	91.7	91.4	2.11	2.11	2.68	2.5
			Bottom	21.0	17.9	32.8	6.89	6.85	6.85	90.4	90.9	3.52	3.57	4.0	4.0
10/03/06 09:00 - 09:15	21/Cloudy		Surface	1.0	18.6	31.8	6.69	6.68	6.68	91.6	91.4	3.26	3.26	3.5	3.5
			Middle	10.1	18.7	32.5	6.54	6.53	6.53	89.5	89.4	3.10	3.11	3.15	3.2
			Bottom	19.2	18.5	32.4	6.60	6.62	6.62	89.7	89.9	3.07	3.08	3.0	3.0
13/03/06 17:17 - 17:35	12/Cloudy		Surface	1.0	17.2	31.6	7.51	7.46	7.25	100.3	99.8	2.95	3.00	3.0	3.2
			Middle	11.0	17.3	32.0	7.09	7.05	7.05	94.7	94.4	2.88	2.84	2.99	3.0
			Bottom	21.0	17.5	32.4	6.81	6.76	6.76	90.9	90.5	3.12	3.17	3.2	3.2

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	Depth-average	Value	Average	Depth-average	Value	Average	Depth-average	
15/03/06 17:45 - 17:58	15/Cloudy		Surface	1.0	17.5	32.6	6.62	6.61	90.6	90.4	3.16	3.17	3.5	3.2	3.4	
			Middle	9.9	17.4	32.6	6.59	6.36	87.1	86.8	2.92	2.93	3.05	3.0	3.0	
			Bottom	18.8	17.2	33.0	6.31	6.34	86.4	86.4	3.06	3.04	3.05	3.2	3.2	
17/03/06 08:32 - 08:47	15/Cloudy		Surface	1.0	18.9	33.6	5.61	5.56	73.9	73.5	3.21	3.16	3.5	3.5	3.5	
			Middle	10.6	19.1	33.7	5.78	5.74	76.2	75.7	3.53	3.48	4.08	4.0	4.0	
			Bottom	20.2	19.2	34.1	6.12	6.07	80.9	80.5	5.65	5.60	5.55	5.5	5.5	
20/03/06 08:00 - 08:13	23/Cloudy		Surface	1.0	20.4	32.7	6.67	6.66	91.3	91.1	3.94	3.94	4.0	4.0	4.2	
			Middle	10.0	19.9	33.0	6.30	6.32	64.9	66.3	3.45	3.47	3.46	3.55	3.5	
			Bottom	19.0	19.8	33.1	6.07	6.06	82.5	82.3	3.27	3.26	3.27	3.2	3.2	
22/03/06 08:00 - 08:15	18/Cloudy		Surface	1.0	19.5	32.2	6.91	6.86	94.6	94.3	2.71	2.66	3.0	3.0	3.0	
			Middle	10.5	19.4	32.4	6.49	6.54	6.70	88.9	89.4	2.92	2.87	2.78	3.0	3.0
			Bottom	20.0	19.4	32.6	6.41	6.45	87.8	88.3	2.77	2.82	2.8	2.8	2.8	
24/03/06 07:30 - 07:43	20/Rainy		Surface	1.0	19.7	32.7	6.76	6.75	92.6	92.4	3.92	3.91	4.5	4.3	4.4	
			Middle	10.2	19.6	33.0	6.73	6.70	6.52	86.3	86.2	3.67	3.65	3.80	3.8	3.8
			Bottom	19.4	19.4	33.2	6.11	6.08	6.10	83.0	82.6	3.84	3.82	3.83	4.0	4.0
27/03/06 16:35 - 16:50	17/Cloudy		Surface	1.0	17.9	32.4	6.92	6.87	95.1	94.6	2.70	2.65	3.0	2.8	2.9	
			Middle	10.6	18.4	33.0	6.69	6.65	6.76	92.0	91.5	2.81	2.76	2.83	3.0	3.1
			Bottom	20.2	18.2	33.1	6.37	6.32	6.32	87.1	86.6	3.11	3.07	3.07	3.2	3.3
29/03/06 17:30 - 17:43	23/Cloudy		Surface	1.0	19.7	33.7	7.12	7.10	7.06	93.9	93.7	2.94	2.95	3.0	3.2	3.1
			Middle	10.3	19.4	33.7	7.04	7.03	7.03	92.9	92.7	2.67	2.68	2.84	3.0	3.1
			Bottom	19.6	19.4	33.8	7.13	7.17	7.17	93.9	94.2	2.89	2.90	3.2	3.0	3.1

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)
31/03/06 07:30 - 07:45	22/Cloudy	Surface	1.0	19.6	32.7	7.10	7.06	97.1	96.6
					32.7	7.01		96.1	2.62
						6.96			3.0
		Middle	11.0	19.6	33.0	6.91	6.86	94.5	2.52
					33.0	6.81		93.5	2.55
						6.27			2.8
		Bottom	21.0	19.4	33.1	6.32	6.32	85.8	2.47
					33.1	6.37		86.3	2.42
									2.7
									2.5
									2.5
									2.5

Mid-Flood Tide

Monitoring Station : M4

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	Depth-average	Value	Average	Depth-average	Value	Average	Depth-average	Value	Average	Depth-average	
06/01/06	12:45 - 13:00	14/Cloudy	Surface	1.0	18.0	33.3	33.3	6.60	6.55	93.5	93.0	2.91	2.86	3.0	3.0	3.0	3.0	
			Middle	4.1	18.0	33.7	33.7	6.50	6.40	92.5	89.1	2.81	2.82	3.0	3.0	3.0	3.1	
			Bottom	7.2	18.1	33.5	33.5	6.20	6.25	88.1	88.6	2.72	2.77	2.88	3.0	3.0	3.0	
		15/Cloudy	Surface	1.0	18.3	32.7	32.7	6.19	6.15	6.15	87.6	87.3	2.96	3.01	3.2	3.2	3.2	3.2
			Middle	4.7	17.8	33.3	33.3	6.10	6.10	87.0	87.0	3.06	3.06	3.2	3.2	3.2	3.2	
			Bottom	8.4	17.4	33.5	33.5	6.80	6.82	6.82	103.3	103.6	2.63	2.63	3.0	3.0	3.0	3.0
09/01/06	13:43 - 13:53	15/Cloudy	Surface	1.0	14.9	33.9	33.9	6.63	6.62	6.72	100.7	100.5	2.42	2.42	2.54	2.54	2.5	2.8
			Middle	4.4	15.0	34.2	34.2	6.20	6.25	6.20	100.3	100.3	2.41	2.41	2.42	2.42	2.5	2.5
			Bottom	7.8	15.0	34.1	34.1	6.11	6.17	6.14	98.1	97.8	2.58	2.58	2.59	2.59	3.0	3.0
		15:15 - 15:28	Surface	1.0	20.4	32.6	32.6	6.46	6.48	6.48	97.5	97.5	2.59	2.59	3.0	3.0	3.0	3.0
			Middle	4.5	19.9	33.2	33.2	6.30	6.30	6.30	96.5	96.0	1.76	1.76	2.0	2.0	2.0	2.0
			Bottom	8.0	19.8	33.4	33.4	6.29	6.35	6.32	95.5	95.5	1.70	1.70	2.0	2.0	2.0	2.1
11/01/06	16:13 - 16:23	20/Sunny	Surface	1.0	32.6	6.83	6.83	6.80	6.82	6.82	94.5	94.0	1.90	1.85	2.0	2.0	2.0	2.1
			Middle	4.5	32.2	6.55	6.55	6.58	6.57	6.32	93.5	93.5	1.80	1.80	2.0	2.0	2.0	2.1
			Bottom	8.0	32.6	6.83	6.83	6.80	6.82	6.82	97.3	96.8	1.66	1.66	2.3	2.3	2.2	2.2
		19/Sunny	Surface	1.0	17.9	32.7	32.7	6.48	6.48	6.48	101.3	101.5	2.63	2.63	3.0	3.0	3.0	3.0
			Middle	4.0	18.1	33.0	33.0	6.23	6.18	6.18	101.7	101.7	2.64	2.64	3.0	3.0	3.0	3.0
			Bottom	7.0	18.1	33.4	33.4	6.13	6.13	6.13	96.9	96.9	1.72	1.72	2.77	2.77	2.5	2.8
13/01/06	8:50 - 9:05	20/Cloudy	Surface	1.0	32.7	6.48	6.48	6.44	6.44	6.44	95.6	95.6	2.43	2.43	2.8	2.8	2.8	2.8
			Middle	4.0	32.7	6.40	6.40	6.35	6.31	6.31	84.1	84.1	3.56	3.56	3.3	3.3	3.3	3.3
			Bottom	8.0	32.7	6.03	6.03	6.08	6.08	6.08	79.5	80.0	3.50	3.50	3.2	3.2	3.2	3.2
		18/Cloudy	Surface	1.0	19.7	32.7	32.7	6.75	6.76	6.76	91.7	91.7	81.4	81.4	3.42	3.42	3.3	3.2
			Middle	4.6	19.3	33.2	33.2	6.40	6.38	6.38	94.2	94.2	94.5	94.5	2.98	2.98	3.20	3.1
			Bottom	8.2	18.9	33.2	33.2	6.51	6.49	6.49	95.8	95.8	2.76	2.76	2.74	2.74	3.0	3.0
18/01/06	8:59 - 9:11	18/Cloudy	Surface	1.0	17.4	33.6	33.6	7.83	7.82	7.82	100.1	99.9	3.07	3.07	3.2	3.2	3.2	3.2
			Middle	4.6	17.4	33.2	33.2	6.35	6.38	6.38	99.7	99.6	3.09	3.09	3.2	3.2	3.0	2.9
		20/01/06	Bottom	8.2	17.4	33.2	33.2	7.86	7.88	7.88	100.6	100.1	2.67	2.67	2.68	2.68	3.0	2.9
			Surface	1.0	17.4	33.6	33.6	7.80	7.81	7.81	100.9	100.9	2.29	2.29	2.29	2.29	2.5	2.5

Mid-Flood Tide

Monitoring Station : M4

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)	Depth-average		
23/01/06	12:00 - 12:10	14/Cloudy	Surface	1.0	15.8	33.6	7.57	93.7	93.3	1.48		
			Surface		33.5	33.6	7.50	92.8	1.49	2.2		
			Middle	5.0	15.9	33.4	7.52	93.6	1.40	2.2		
	Bottom		Bottom	9.0	16.0	33.4	7.49	93.1	1.35	1.52		
			Surface	1.0	16.8	33.2	7.55	93.8	1.72	2.0		
			Middle	4.0	16.8	33.2	7.51	93.3	1.68	2.0		
25/01/06	14:00 - 14:15	15/Cloudy	Surface	1.0	16.8	33.2	6.51	91.3	90.8	2.86		
			Surface		33.2	6.43	6.47	90.3	2.80	2.83		
			Middle	4.0	16.8	33.2	6.26	87.8	87.4	2.94		
	Bottom		Bottom	7.0	16.7	33.2	6.20	87.0	87.0	2.90		
			Surface	1.0	17.9	32.9	6.07	85.1	84.6	3.22		
			Middle	4.6	17.6	33.2	6.04	84.1	84.6	3.17		
27/01/06	14:55 - 15:06	17/Cloudy	Bottom	8.2	17.6	33.5	6.00	84.1	84.1	3.12		
			Surface		32.9	7.97	7.95	106.7	106.6	2.77		
			Middle	4.6	17.6	33.5	7.59	7.76	106.5	2.76		
	Bottom		Bottom	8.2	17.6	33.5	7.54	7.57	101.7	2.60		
			Surface	1.0	17.1	33.2	7.63	7.62	101.4	2.61		
			Middle	3.9	17.1	33.5	7.60	7.62	101.8	2.62		
01/02/06	8:46 - 9:01	18/Cloudy	Bottom	6.8	17.2	33.7	6.27	6.24	101.1	2.62		
			Surface		33.2	6.39	6.43	90.2	90.7	3.09		
			Middle	3.9	17.1	33.5	6.18	6.28	87.2	2.66		
	Bottom		Bottom	6.8	17.2	33.7	6.20	6.24	88.6	2.61		
			Surface	1.0	17.5	33.8	7.79	7.76	99.5	3.15		
			Middle	4.7	17.4	33.5	7.77	7.75	98.8	3.18		
03/02/06	10:00 - 10:15	20/Cloudy	Bottom	8.4	17.4	33.5	7.74	7.75	99.3	2.95		
			Surface	1.0	20.0	33.5	6.58	6.54	94.2	2.96		
			Middle	4.1	19.5	33.4	6.31	6.41	90.3	2.97		
	Bottom		Bottom	7.2	19.6	33.8	6.18	6.14	88.5	2.89		
			Surface		33.8	6.10	6.10	87.5	88.0	2.47		
			Middle	4.6	18.4	33.1	7.07	7.09	90.4	2.44		
08/02/06	9:30 - 9:43	20/Sunny	Bottom	8.2	18.3	33.2	6.98	6.97	89.3	2.66		
			Surface	1.0	18.7	32.5	7.27	7.29	93.0	2.74		
			Middle		32.4	7.30	7.19	93.4	2.83	2.75		
08/02/06			Bottom	8.2	18.3	33.4	6.95	6.97	88.9	2.65		
			Surface		33.4	6.10	6.10	87.5	88.0	2.40		
			Middle	4.6	18.4	33.1	7.07	7.09	90.4	2.44		
08/02/06			Bottom	8.2	18.3	33.3	6.95	6.97	89.1	2.66		
			Surface		33.4	6.10	6.10	88.0	88.5	2.40		
			Middle	4.6	18.4	33.1	7.07	7.09	90.4	2.44		

Mid-Flood Tide

Monitoring Station : M4

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	Depth-average	Value	Average	Value	Average	Value	Depth-average	Value	Average	Value	Depth-average	
10/02/06	10:15 - 10:31	19/Sunny	Surface	1.0	19.4	31.9	6.67	6.64	86.8	86.4	1.99	2.04	2.3	2.3	2.3	2.3	2.3	2.3	
			Middle	4.0	19.1	31.9	6.60	6.49	86.0	81.9	2.09	2.17	2.14	2.24	2.2	2.2	2.2	2.2	
			Bottom	7.0	19.0	32.2	6.29	6.34	82.9	82.4	2.10	2.10	2.14	2.24	2.2	2.2	2.2	2.2	
		19/Cloudy	Surface	1.0	18.5	32.2	6.08	6.04	79.1	78.6	2.56	2.53	2.50	2.53	2.5	2.5	2.5	2.5	
			Middle	4.7	18.2	33.1	6.76	6.78	87.7	87.5	2.74	2.75	2.75	2.75	2.8	2.8	2.8	2.8	
			Bottom	8.4	18.0	33.2	6.71	6.70	85.8	85.7	2.53	2.53	2.53	2.53	2.5	2.5	2.5	2.5	
13/02/06	8:40 - 8:53	19/Cloudy	Surface	1.0	19.1	32.4	6.43	6.47	88.4	88.9	2.30	2.30	2.25	2.25	2.3	2.3	2.3	2.3	
			Middle	4.1	18.9	32.4	6.50	6.35	89.4	88.9	2.20	2.20	2.20	2.20	2.3	2.3	2.3	2.3	
			Bottom	7.2	18.8	32.2	6.08	6.04	86.4	86.4	2.62	2.62	2.57	2.48	2.5	2.5	2.5	2.5	
		19/Cloudy	Surface	1.0	17.4	33.4	7.29	7.30	83.7	83.4	2.66	2.66	2.63	2.63	2.5	2.5	2.5	2.5	
			Middle	4.8	17.2	33.5	7.16	7.18	90.2	90.5	2.59	2.59	2.60	2.73	2.7	2.7	2.7	2.7	
			Bottom	8.6	17.0	33.5	7.20	7.22	90.8	91.0	2.73	2.73	2.74	2.74	2.7	2.7	2.7	2.7	
17/02/06	8:43 - 8:53	16/Cloudy	Surface	1.0	17.4	33.4	7.31	7.30	91.8	92.0	2.86	2.86	2.85	2.85	3.0	3.0	3.0	3.0	
			Middle	4.8	17.2	33.5	7.16	7.18	90.2	90.7	2.60	2.60	2.60	2.73	2.7	2.7	2.7	2.7	
			Bottom	8.6	17.0	33.5	7.23	7.22	91.1	91.0	2.74	2.74	2.74	2.74	2.7	2.7	2.7	2.7	
		17/Fine	Surface	1.0	17.1	33.3	7.13	7.14	90.9	90.8	3.44	3.44	3.46	3.46	3.8	3.8	3.8	3.8	
			Middle	5.0	17.4	33.3	7.14	7.13	90.6	90.6	3.52	3.52	3.55	3.44	3.5	3.5	3.5	3.5	
			Bottom	9.0	17.4	33.5	7.12	7.14	90.8	90.7	3.29	3.29	3.30	3.30	3.2	3.2	3.2	3.2	
20/02/06	10:35 - 10:48	19/Sunny	Surface	1.0	18.5	33.1	6.86	6.85	87.4	87.2	4.01	4.01	4.05	4.05	4.5	4.5	4.5	4.5	
			Middle	5.0	18.0	33.3	6.43	6.42	81.9	81.7	3.73	3.73	3.76	3.76	4.0	4.0	4.0	4.0	
			Bottom	9.0	17.5	33.6	6.27	6.25	80.0	79.7	3.25	3.25	3.24	3.24	3.5	3.5	3.5	3.5	
		21/Cloudy	Surface	1.0	18.3	32.8	7.06	7.05	93.1	93.0	3.43	3.43	3.44	3.44	3.5	3.5	3.5	3.5	
			Middle	4.8	18.1	33.1	7.12	7.10	92.9	93.2	3.44	3.44	3.45	3.45	3.2	3.2	3.2	3.2	
			Bottom	8.6	18.0	33.1	6.95	6.93	91.0	90.8	2.99	2.99	3.04	3.04	3.0	3.0	3.0	3.0	
24/02/06	9:30 - 9:42	16:50 - 17:04	Surface	1.0	18.3	32.8	7.04	7.08	90.7	90.5	3.03	3.03	3.15	3.15	4.0	4.0	4.0	4.0	
			Middle	4.8	18.1	33.1	7.08	7.10	92.7	93.0	3.03	3.03	3.04	3.04	3.0	3.0	3.0	3.0	

Mid-Flood Tide

Monitoring Station : M4

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	Depth-average	Value	Average	Value	Average	Depth-average
27/02/06	16:30 - 16:44	16/Cloudy	Surface	1.0	17.9	32.6	6.88	6.93	6.63	91.1	91.6	2.91	2.96	3.0
			Middle	4.4	17.9	32.9	6.27	6.32	6.44	92.1	93.01	3.01	3.0	3.0
			Bottom	7.8	17.8	32.8	6.49	6.45	6.45	84.4	84.9	2.50	2.55	2.5
01/03/06	18:15 - 18:28	11/Cloudy	Surface	1.0	18.3	32.5	7.11	7.10	7.01	85.4	87.2	2.60	2.63	2.2
			Middle	4.6	18.1	32.8	6.91	6.93	6.93	86.2	86.7	2.43	2.38	2.5
			Bottom	8.2	18.0	33.1	6.89	6.87	6.87	98.1	97.9	2.33	2.33	2.5
03/03/06	08:46 - 08:59	16/Sunny	Surface	1.0	18.4	32.7	6.99	6.95	6.95	94.6	94.9	2.94	2.95	3.0
			Middle	4.0	18.2	32.9	6.70	6.66	6.80	94.3	94.1	2.85	2.85	3.0
			Bottom	7.0	18.2	32.9	6.81	6.76	6.76	101.0	100.6	2.84	2.79	3.0
06/03/06	09:40 - 09:50	19/Cloudy	Surface	1.0	18.8	32.7	6.97	6.95	6.95	93.8	93.7	2.57	2.56	2.7
			Middle	4.8	18.6	33.0	6.82	6.84	6.84	97.0	96.7	2.55	2.55	2.9
			Bottom	8.6	18.4	33.1	6.90	6.92	6.92	100.2	97.0	2.53	2.53	2.5
08/03/06	08:47 - 09:05	16/Cloudy	Surface	1.0	17.9	32.2	6.77	6.74	6.75	96.2	97.2	2.82	2.77	2.5
			Middle	4.2	17.9	32.7	6.81	6.76	6.76	96.0	96.5	2.72	2.77	3.0
			Bottom	7.4	18.0	32.6	6.21	6.16	6.16	97.0	96.5	2.42	2.37	2.5
10/03/06	09:45 - 09:55	21/Cloudy	Surface	1.0	18.5	32.4	6.73	6.75	6.75	95.5	95.5	2.32	2.32	2.5
			Middle	4.8	18.4	32.5	6.69	6.67	6.75	90.4	89.9	2.32	2.32	2.5
			Bottom	8.6	18.4	32.6	6.50	6.52	6.52	92.6	92.4	2.79	2.75	2.7
13/03/06	16:30 - 16:46	12/Cloudy	Surface	1.0	17.3	32.1	7.30	7.35	7.11	91.6	91.4	2.64	2.71	2.8
			Middle	4.2	17.5	32.1	6.91	6.86	6.81	92.1	91.1	2.76	2.73	2.5
			Bottom	7.4	17.6	32.0	6.59	6.64	6.64	88.8	89.3	2.86	2.83	2.8

Monitoring Station : M4

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	Depth-average	Value	Average	Depth-average	Value	Average	Depth-average
15/03/06	18:28 - 18:43	15/Cloudy	Surface	1.0	17.6	32.6	6.79	6.78	6.65	93.0	92.8	2.85	2.86	3.0	3.0
			Middle	4.6	17.5	32.6	6.76	6.76	6.54	92.6	92.6	2.86	2.86	3.0	3.0
			Bottom	8.2	17.4	33.0	6.51	6.51	6.53	89.5	89.3	2.77	2.78	2.8	2.8
	17/03/06	09:13 - 09:30	Surface	1.0	19.0	33.0	6.18	6.20	6.20	85.0	84.8	2.43	2.44	2.5	2.5
			Middle	4.7	19.1	33.0	6.00	6.03	6.06	84.6	84.6	2.45	2.45	2.5	2.5
			Bottom	8.4	19.3	34.0	5.97	5.94	5.90	78.8	78.4	2.11	2.16	3.2	3.2
20/03/06	08:43 - 08:56	23/Cloudy	Surface	1.0	20.4	34.0	6.12	6.07	6.07	81.0	80.5	2.69	2.65	3.05	3.0
			Middle	4.6	20.0	33.0	6.02	6.02	6.02	80.0	80.0	2.60	2.60	3.0	3.0
			Bottom	8.2	19.8	33.1	6.11	6.10	6.10	83.0	82.6	3.38	3.34	3.5	3.5
	22/03/06	08:46 - 09:00	Surface	1.0	19.5	32.5	6.77	6.74	6.74	92.0	91.8	3.87	3.88	4.0	4.0
			Middle	4.3	19.4	32.7	6.31	6.26	6.21	91.6	91.6	3.89	3.89	4.0	4.0
			Bottom	7.6	19.3	32.1	6.19	6.24	6.24	85.6	85.6	3.62	3.62	3.5	3.5
24/03/06	08:13 - 08:26	20/Rainy	Surface	1.0	19.8	32.7	6.84	6.83	6.51	93.7	93.5	3.21	3.16	3.0	3.0
			Middle	4.8	19.6	33.0	6.20	6.19	6.17	86.4	85.9	3.42	3.46	3.29	3.2
			Bottom	8.6	19.3	33.2	6.34	6.32	6.26	85.4	85.4	3.50	3.50	3.2	3.1
	27/03/06	17:16 - 17:30	Surface	1.0	17.8	33.0	6.83	6.78	6.73	92.7	92.4	3.30	3.25	3.0	3.1
			Middle	4.3	18.0	33.1	6.62	6.67	6.72	91.3	90.8	3.10	3.11	3.2	3.2
			Bottom	7.6	18.1	33.2	6.50	6.45	6.40	88.3	87.8	2.69	2.65	2.5	2.5
29/03/06	18:13 - 18:26	23/Cloudy	Surface	1.0	19.0	33.6	7.28	7.27	7.25	96.0	95.9	2.87	2.88	3.0	3.0
			Middle	4.8	18.9	33.6	7.19	7.17	7.15	94.9	94.6	2.94	2.94	3.00	3.0
			Bottom	8.6	18.6	33.7	7.22	7.21	7.19	95.3	95.1	3.17	3.19	3.2	3.1
										94.9	94.9	2.93	2.93	3.0	3.0

Mid-Flood Tide

Monitoring Station : M4

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)	Depth-average
31/03/06	08:20 - 08:35	22/Cloudy	Surface	1.0	19.5	32.2	7.52	102.9	102.5	3.11
			Middle	4.1	19.4	32.2	7.42	102.0	102.0	3.01
			Bottom	7.2	19.5	32.4	6.86	93.9	94.4	2.76

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)			Turbidity (NTU)			Suspended Solids (mg/L)		
						Value	Average	Depth-average	Value	Average	Depth-average	Value	Average	Depth-average
06/01/06 17:30 - 17:45	14/Cloudy	Surface	1.0	17.6	33.4	6.22	6.27	6.31	87.1	87.6	3.51	3.46	3.2	3.2
		Middle	11.0	18.0	33.5	6.32	6.40	6.35	88.1	89.5	3.41	3.41	3.2	3.2
		Bottom	21.0	18.1	33.6	6.00	5.90	5.95	83.9	83.5	3.92	3.87	3.55	3.5
	15/Cloudy	Surface	1.0	17.9	32.7	6.89	6.87	6.95	83.0	83.5	3.82	3.87	3.65	3.4
		Middle	9.8	17.8	33.2	6.64	6.64	6.64	104.7	104.4	3.63	3.63	3.55	3.5
		Bottom	18.6	17.5	33.5	6.50	6.48	6.48	98.1	97.8	3.60	3.60	3.55	3.5
09/01/06 07:30 - 07:43	14/Cloudy	Surface	1.0	14.9	34.1	6.81	6.75	6.78	102.8	102.0	2.71	2.76	3.26	3.2
		Middle	10.8	15.1	34.4	6.44	6.22	6.26	6.52	6.52	2.61	2.61	3.0	2.9
		Bottom	20.6	15.9	34.1	6.11	6.01	6.06	91.2	91.7	2.30	2.30	3.0	3.0
	15/Cloudy	Surface	1.0	19.8	32.5	6.85	6.83	6.83	94.7	94.3	2.40	2.45	2.48	2.5
		Middle	9.7	19.6	33.0	6.62	6.62	6.64	92.2	91.7	2.37	2.34	2.5	2.5
		Bottom	18.4	19.2	33.3	6.48	6.50	6.50	102.0	101.7	2.30	2.34	2.5	2.5
13/01/06 10:45 - 10:55	20/Sunny	Surface	1.0	18.1	32.5	6.81	6.81	6.83	101.4	101.7	2.30	2.30	2.5	2.5
		Middle	9.7	19.6	33.0	6.62	6.62	6.64	97.9	98.2	2.12	2.12	2.5	2.5
		Bottom	18.4	19.2	33.3	6.51	6.50	6.50	95.9	96.1	2.12	2.12	2.5	2.5
	20/Sunny	Surface	1.0	18.1	32.5	6.49	6.45	6.34	85.1	84.6	2.07	2.07	2.48	2.48
		Middle	10.7	18.1	33.6	6.27	6.20	6.24	84.1	82.3	1.9	1.9	2.48	2.48
		Bottom	20.4	18.3	33.4	6.10	6.02	6.06	80.1	79.6	1.9	1.9	2.48	2.48
16/01/06 14:06 - 14:22	20/Cloudy	Surface	1.0	19.9	32.5	6.86	6.85	6.85	101.6	101.4	2.90	2.90	3.2	3.2
		Middle	9.9	19.6	33.0	6.53	6.49	6.51	6.68	6.68	2.90	2.90	3.2	3.2
		Bottom	18.8	18.8	33.3	6.51	6.50	6.46	95.8	95.5	2.90	2.90	3.2	3.2
	18/Cloudy	Surface	1.0	17.0	33.3	7.48	7.46	7.58	94.8	94.6	2.42	2.42	2.5	2.5
		Middle	10.3	16.9	33.4	7.44	7.68	7.70	94.4	97.3	2.44	2.44	3.03	3.03
		Bottom	19.6	17.0	33.6	7.84	7.84	7.84	99.2	97.7	2.07	2.07	2.89	2.89
20/01/06 15:50 - 16:05	18/Cloudy	Surface	1.0	17.0	33.3	7.48	7.46	7.58	94.8	94.6	2.42	2.42	2.5	2.5
		Bottom	19.6	17.0	33.4	7.84	7.84	7.84	99.3	97.7	2.42	2.42	2.5	2.5

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	Depth-average	Value	Average	Depth-average	Value	Average	Depth-average
23/01/06	17:00 - 17:13	14/Cloudy	Surface	1.0	16.4	33.7	7.46	7.45	92.5	92.3	2.26	2.27	3.0	3.0	3.0
			Middle	9.8	16.0	33.5	7.40	7.42	92.1	92.1	2.27	2.27	3.0	3.0	3.0
			Bottom	18.6	15.8	33.5	7.37	7.39	91.0	90.8	1.74	1.75	1.84	2.5	2.5
25/01/06	8:00 - 8:15	15/Cloudy	Surface	1.0	17.0	33.6	7.06	7.01	90.6	90.8	1.75	1.75	1.84	2.5	2.5
			Middle	11.0	16.7	33.7	6.81	6.89	90.1	90.3	1.53	1.52	1.52	2.3	2.3
			Bottom	21.0	16.4	33.2	6.71	6.76	90.5	90.3	1.51	1.51	1.52	2.3	2.3
27/01/06	10:00 - 10:14	17/Cloudy	Surface	1.0	17.8	33.0	7.67	7.65	98.3	98.8	2.91	2.86	3.0	3.1	3.1
			Middle	9.8	17.6	33.5	7.63	7.63	98.3	98.8	2.81	2.81	3.0	3.2	3.2
			Bottom	18.6	17.4	33.5	7.63	7.62	102.7	102.5	2.81	2.81	3.0	3.0	3.0
01/02/06	13:45 - 14:00	18/Cloudy	Surface	1.0	17.0	33.0	6.66	6.63	90.2	89.7	4.16	4.13	4.0	4.0	4.0
			Middle	11.5	17.2	33.6	6.42	6.37	102.2	102.5	2.64	2.65	2.65	3.0	3.0
			Bottom	22.0	17.3	33.5	6.32	6.31	7.59	101.0	4.10	4.10	4.0	4.0	4.0
03/02/06	15:15 - 15:28	20/Cloudy	Surface	1.0	18.2	33.6	7.45	7.44	94.0	93.5	2.46	2.47	2.40	2.5	2.5
			Middle	9.4	17.9	33.4	7.37	7.39	90.6	90.3	3.17	3.17	3.17	3.2	3.2
			Bottom	17.8	17.5	33.4	7.40	7.42	94.3	94.1	2.46	2.47	2.47	2.5	2.5
06/02/06	18:15 - 18:30	17/Cloudy	Surface	1.0	19.8	33.3	6.68	6.64	93.5	93.7	2.40	2.41	2.41	2.5	2.5
			Middle	11.5	19.5	33.5	6.41	6.37	93.9	93.9	2.42	2.42	2.41	2.5	2.5
			Bottom	22.0	19.2	33.4	6.24	6.19	88.4	88.9	3.46	3.43	3.43	3.0	3.0
08/02/06	18:30 - 18:45	20/Sunny	Surface	1.0	18.8	32.5	7.45	7.45	95.3	95.1	2.77	2.78	3.0	3.0	3.0
			Middle	9.8	18.4	33.2	7.20	7.19	94.9	94.9	2.78	2.78	3.0	3.0	3.0
			Bottom	18.6	18.2	33.2	7.08	7.10	88.9	89.9	3.02	2.97	2.97	2.7	2.7

Monitoring Station : C1

Date	Sampling Duration	Ambient Temp (°C) / Weather Condition	Monitoring Depth (m)	Temp (°C)	Salinity (ppt)			Dissolved Oxygen (mg/L)			Turbidity (NTU)			Suspended Solids (mg/L)		
					Value	Average	Depth-average	Value	Average	Depth-average	Value	Average	Depth-average	Value	Average	Depth-average
10/02/06	20:47 - 21:07	17/Cloudy	Surface	1.0	18.4	32.0	6.59	6.55	86.5	86.0	2.50	2.45	2.7	2.7	2.7	2.7
			Middle	10.5	18.5	32.4	6.50	6.44	85.5	85.5	2.40	2.37	2.5	2.5	2.5	2.6
			Bottom	20.0	18.6	32.7	6.36	6.33	83.5	83.0	2.30	2.34	2.47	2.5	2.5	2.6
13/02/06	11:45 - 11:58	19/Cloudy	Surface	1.0	19.3	32.7	6.30	6.28	82.5	82.4	2.26	2.26	2.63	2.7	2.7	2.7
			Middle	9.9	18.9	33.1	6.27	6.24	81.4	81.9	2.20	2.20	2.60	2.7	2.7	2.7
			Bottom	18.8	18.7	33.2	7.06	7.05	6.98	6.98	2.17	2.17	2.72	2.65	3.0	2.9
15/02/06	13:45 - 13:59	19/Cloudy	Surface	1.0	19.2	32.4	6.93	6.92	89.3	89.2	2.17	2.17	2.71	3.0	3.0	3.0
			Middle	11.0	19.1	32.6	6.90	6.89	89.0	89.0	2.16	2.16	2.60	2.61	2.8	2.8
			Bottom	21.0	18.8	32.4	6.74	6.74	87.3	87.1	2.14	2.14	2.62	2.61	2.7	2.7
17/02/06	13:45 - 13:58	16/Cloudy	Surface	1.0	17.3	32.6	6.60	6.60	91.1	90.6	2.11	2.11	2.51	2.5	2.5	2.5
			Middle	10.4	17.1	33.2	6.40	6.40	87.0	87.0	2.09	2.09	2.44	2.45	2.3	2.5
			Bottom	19.8	17.2	33.4	6.32	6.32	86.0	86.0	2.08	2.08	2.45	2.45	2.3	2.5
20/02/06	16:30 - 16:46	17/Fine	Surface	1.0	17.0	33.2	6.24	6.24	84.9	84.9	2.07	2.07	2.41	2.41	2.3	2.5
			Middle	10.4	17.3	33.3	6.20	6.20	84.0	84.0	2.06	2.06	2.40	2.40	2.3	2.5
			Bottom	19.4	17.6	33.4	7.23	7.25	7.25	7.25	2.05	2.05	2.39	2.39	2.3	2.5
22/02/06	8:00 - 8:18	19/Sunny	Surface	1.0	18.5	33.2	7.25	7.24	91.7	91.5	2.04	2.04	2.38	2.38	2.3	3.3
			Middle	10.1	17.4	33.4	7.21	7.19	7.19	7.19	2.03	2.03	2.37	2.37	3.2	3.3
			Bottom	19.2	17.1	33.5	7.17	7.17	7.12	7.12	2.02	2.02	2.36	2.36	3.2	3.3
24/02/06	18:00 - 18:14	21/Cloudy	Surface	1.0	18.1	32.9	7.29	7.32	7.31	7.23	2.01	2.01	2.35	2.35	3.2	3.2
			Middle	9.8	17.8	33.1	7.17	7.17	7.15	7.15	2.00	2.00	2.34	2.34	3.0	3.1
			Bottom	18.6	17.9	33.1	6.85	6.88	6.87	6.87	1.99	1.99	2.75	2.74	3.0	3.0

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	Depth-average	Value	Average	Depth-average	Value	Average	Depth-average
27/02/06	12:17 - 12:30	17/Cloudy	Surface	1.0	18.1	32.7	6.89	6.85	91.7	91.4	2.11	2.06	2.5	2.5	2.5
			Middle	11.0	18.0	32.7	6.80	6.95	91.0	91.0	2.01	2.01	2.5	2.3	2.4
			Bottom	21.0	18.2	33.1	7.11	7.06	94.6	94.3	1.98	1.94	2.06	2.2	2.3
01/03/06	12:30 - 12:45	11/Cloudy	Surface	1.0	18.4	32.4	7.11	7.10	96.0	94.0	1.90	1.90	2.21	2.5	2.5
			Middle	9.7	18.0	32.9	6.89	6.87	94.5	94.8	2.14	2.18	2.4	2.5	2.5
			Bottom	18.4	17.9	33.0	6.80	6.82	93.1	93.4	3.07	3.06	3.06	3.2	3.2
03/03/06	13:30 - 13:44	16/Sunny	Surface	1.0	18.5	33.0	6.93	6.88	98.1	97.1	3.05	3.05	3.05	3.2	3.2
			Middle	11.0	18.3	32.6	6.83	6.78	97.6	97.1	3.07	3.06	3.06	3.2	3.2
			Bottom	21.0	18.3	33.1	6.52	6.56	92.3	92.8	3.21	3.21	3.26	3.5	3.5
06/03/06	16:30 - 16:45	19/Cloudy	Surface	1.0	18.9	32.8	7.07	7.09	95.0	94.5	3.11	3.11	3.06	3.2	3.2
			Middle	9.8	18.8	33.1	6.89	6.87	94.0	94.0	3.01	3.01	3.08	3.2	3.2
			Bottom	18.6	18.5	33.1	6.85	6.77	92.7	92.5	3.05	3.05	3.06	3.0	3.0
08/03/06	18:30 - 18:46	16/Cloudy	Surface	1.0	18.1	32.5	6.72	6.67	88.2	87.7	2.44	2.44	2.49	2.8	2.9
			Middle	10.5	18.1	32.9	6.62	6.71	87.2	89.2	2.54	2.54	2.54	2.8	2.8
			Bottom	20.0	18.2	33.1	6.41	6.36	84.1	83.6	2.71	2.71	2.76	3.3	3.3
10/03/06	19:00 - 19:15	21/Cloudy	Surface	1.0	18.3	32.1	6.40	6.42	88.3	88.5	2.95	2.95	2.95	3.2	3.2
			Middle	9.8	18.2	32.4	6.27	6.26	85.8	86.0	2.57	2.57	2.54	2.5	2.5
			Bottom	18.6	18.0	32.4	6.30	6.32	86.9	87.1	2.67	2.67	2.66	2.7	2.7
13/03/06	12:00 - 12:16	12/Cloudy	Surface	1.0	17.4	32.1	7.39	7.35	98.9	98.5	2.74	2.74	2.78	3.0	3.0
			Middle	10.4	17.5	32.1	6.98	6.94	97.1	93.9	2.69	2.69	2.74	2.7	2.7
			Bottom	19.8	17.6	32.2	6.57	6.54	87.4	87.0	2.86	2.86	2.83	3.0	3.0

Mid-Ebb Tide

Monitoring Station : C1

Date	Sampling Duration	Ambient Temp (°C) / Weather Condition	Monitoring Depth (m)	Temp (°C)	Salinity (ppt)	Dissolved Oxygen (mg/L)	Dissolved Oxygen Saturation (%)	Turbidity (NTU)	Suspended Solids (mg/L)
				Value	Average	Depth-average	Value	Value	Depth-average
15/03/06 11:45 - 11:58		15/Cloudy	Surface	1.0	17.8	32.4	6.73	92.2	3.47
			Middle	9.7	17.6	32.4	6.70	91.7	3.46
			Bottom	18.4	17.5	32.8	6.40	87.6	3.06
17/03/06 13:49 - 14:04		15/Cloudy	Surface	1.0	19.0	33.1	6.07	88.2	3.07
			Middle	11.0	19.2	33.1	6.09	82.5	2.95
			Bottom	21.0	19.3	34.0	5.81	83.0	2.94
20/03/06 14:15 - 14:28		23/Cloudy	Surface	1.0	20.8	32.8	5.71	78.0	3.41
			Middle	9.8	20.2	33.0	5.90	77.1	3.36
			Bottom	18.6	19.9	33.1	5.92	80.0	3.31
22/03/06 16:46 - 17:00		18/Cloudy	Surface	1.0	19.7	32.1	6.05	79.0	3.16
			Middle	11.0	19.6	32.1	6.12	79.2	3.15
			Bottom	21.0	19.5	32.4	6.14	78.7	3.10
24/03/06 18:30 - 18:43		20/Rainy	Surface	1.0	18.7	31.7	7.11	89.7	3.15
			Middle	9.8	19.6	33.1	7.01	84.2	3.04
			Bottom	18.6	19.4	33.2	6.09	90.2	3.03
27/03/06 11:00 - 11:16		17/Cloudy	Surface	1.0	18.7	31.7	7.17	83.4	3.04
			Middle	11.0	18.7	32.4	6.22	82.9	3.04
			Bottom	21.0	18.9	32.6	6.25	87.6	3.04
29/03/06 11:15 - 11:28		23/Cloudy	Surface	1.0	19.5	33.8	7.09	96.2	3.05
			Middle	10.0	19.0	33.7	7.03	92.9	3.02
			Bottom	19.0	19.3	33.6	7.08	93.6	3.01

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	Depth-average	Value	Average	Depth-average	Value	Average	Depth-average
31/03/06	13:46 - 14:03	22/Cloudy	Surface	1.0	19.4	32.1	32.1	6.93	6.88	95.5	95.0	2.61	2.56	3.0	3.0
			Middle	10.5	19.4	32.4	32.4	6.72	6.67	94.5	92.6	2.51	2.77	3.0	3.0
			Bottom	20.0	19.2	32.6	32.6	6.42	6.47	92.0	92.3	2.74	2.70	2.55	3.0

Mid-Ebb Tide

Monitoring Station : M4

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	Depth-average	Value	Average	Depth-average	Value	Average	Depth-average	
06/01/06	18:15 - 18:30	14/Cloudy	Surface	1.0	17.6	33.7	6.51	6.46	6.35	91.0	90.5	3.50	3.45	3.3	3.4	
			Middle	4.4	17.9	33.7	6.41	6.27	6.24	87.7	87.4	3.27	3.24	3.5	3.5	
			Bottom	7.8	18.1	33.7	6.20	6.30	6.25	87.0	87.5	3.20	3.42	3.5	3.3	
09/01/06	08:13 - 08:23	15/Cloudy	Surface	1.0	18.0	32.7	6.97	6.96	6.25	88.0	87.5	3.51	3.56	3.0	3.0	
			Middle	4.1	17.6	33.2	6.94	6.72	6.71	105.9	105.7	105.4	2.94	2.94	2.5	
			Bottom	7.2	17.5	33.5	6.62	6.60	6.60	102.1	101.9	101.6	2.53	2.54	2.5	
11/01/06	11:14 - 11:30	15/Cloudy	Surface	1.0	15.2	34.3	6.49	6.49	6.54	97.9	98.3	1.91	1.86	2.2	2.2	
			Middle	4.1	14.9	34.5	6.31	6.21	6.26	6.40	95.2	94.7	1.47	1.44	2.3	2.3
			Bottom	7.2	15.8	34.2	6.19	6.12	6.16	6.16	93.4	92.9	1.31	1.26	2.5	2.5
13/01/06	11:25 - 11:35	20/Sunny	Surface	1.0	20.1	32.6	6.92	6.93	6.93	103.1	103.3	3.04	3.05	3.2	3.4	
			Middle	4.3	19.7	33.1	6.57	6.55	6.55	6.74	97.8	97.5	2.88	2.88	3.0	3.1
			Bottom	7.6	19.5	33.3	6.39	6.41	6.41	94.5	94.8	95.0	2.97	2.97	3.0	3.0
16/01/06	13:20 - 13:35	20/Sunny	Surface	1.0	18.0	32.6	6.36	6.33	6.22	83.4	82.9	3.48	3.44	3.0	3.0	
			Middle	3.8	18.1	33.4	6.15	6.10	6.05	80.7	80.4	3.21	3.16	3.0	3.0	
			Bottom	6.6	18.0	33.4	6.30	6.22	6.26	82.7	82.4	3.26	3.34	3.2	3.2	
18/01/06	14:18 - 14:36	20/Cloudy	Surface	1.0	19.9	32.6	6.92	6.90	6.87	102.5	102.3	3.14	3.16	3.2	3.2	
			Middle	4.3	19.5	33.2	6.54	6.57	6.57	102.1	102.1	3.18	3.16	3.2	3.2	
			Bottom	7.6	19.1	33.3	6.54	6.52	6.52	96.3	95.8	96.1	2.85	2.88	3.0	3.0
20/01/06	15:00 - 15:15	18/Cloudy	Surface	1.0	17.1	33.6	7.74	7.72	7.72	98.3	98.1	3.78	3.79	3.2	3.1	
			Middle	4.9	17.1	33.5	7.77	7.75	7.75	97.8	98.7	1.92	1.91	2.87	2.5	2.9
			Bottom	8.8	17.0	33.5	7.79	7.78	7.78	98.8	98.6	2.93	2.93	3.0	3.0	

Mid-Ebb Tide

Monitoring Station : M4

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	Depth-average	Value	Average	Depth-average	Value	Average	Depth-average	Value	Average	Depth-average	Value	Average	Depth-average
23/01/06	17:43 - 17:53	14/CLOUDY	Surface	1.0	16.3	33.7	7.39	7.37	7.35	7.35	91.6	91.4	1.69	2.3	2.2	2.0	2.0	2.2	
			Middle	4.7	16.0	33.5	7.35	7.32	7.34	90.7	91.1	1.67	2.5	2.4	2.3	2.3	2.4	2.2	
			Bottom	8.4	15.9	33.4	7.29	7.28	7.28	89.6	89.4	1.88	2.0	2.0	2.0	2.0	2.0	2.0	
			Surface	1.0	16.8	33.1	6.67	6.64	6.64	94.2	93.7	2.51	3.0	3.0	3.0	3.0	3.0	3.0	
25/01/06	8:45 - 9:00	15/CLOUDY	Middle	4.3	16.7	33.4	6.50	6.46	6.46	91.8	91.4	2.77	2.68	2.68	3.0	3.0	3.0	2.8	
			Bottom	7.6	16.6	33.4	6.42	6.42	6.42	91.0	91.0	2.70	2.74	2.74	3.0	3.0	3.0	2.8	
			Surface	1.0	17.9	33.1	7.89	7.89	7.87	105.7	105.4	2.90	2.85	2.85	2.5	2.5	2.5	2.5	
			Middle	4.1	17.6	33.4	7.62	7.62	7.74	105.1	105.1	2.53	2.54	2.54	2.5	2.5	2.5	2.5	
27/01/06	10:30 - 10:41	17/CLOUDY	Middle	4.1	17.6	33.4	7.59	7.61	7.61	101.3	101.1	2.43	2.44	2.44	2.0	2.0	2.0	2.1	
			Bottom	7.2	17.5	33.5	7.48	7.51	7.50	7.50	99.4	99.6	1.97	2.3	2.3	2.3	2.3	2.3	2.3
			Surface	1.0	17.1	33.4	6.27	6.27	6.24	88.5	88.0	1.81	2.5	2.5	2.5	2.5	2.5	2.5	
			Middle	4.1	17.2	33.5	6.38	6.38	6.34	6.29	90.1	89.6	2.07	2.12	2.12	2.5	2.5	2.5	2.5
01/02/06	14:50 - 15:09	18/CLOUDY	Bottom	7.2	17.2	33.2	6.02	6.02	5.97	85.1	84.6	2.43	2.38	2.38	2.5	2.5	2.5	2.5	
			Surface	1.0	18.1	33.5	7.62	7.64	7.64	97.5	97.7	2.60	2.59	2.59	2.5	2.5	2.5	2.5	
			Middle	4.3	17.8	33.5	7.58	7.55	7.57	97.0	96.8	2.77	2.78	2.78	2.5	2.5	2.5	2.5	
			Bottom	7.6	17.5	33.3	7.51	7.47	7.49	95.3	95.1	2.82	2.82	2.82	2.5	2.5	2.5	2.5	
03/02/06	15:58 - 16:20	20/CLOUDY	Surface	1.0	19.6	33.5	6.71	6.66	6.66	94.7	94.4	3.51	3.46	3.46	3.0	3.0	3.0	3.0	
			Middle	4.3	19.5	33.7	6.50	6.45	6.45	91.8	91.4	2.88	2.93	2.93	2.5	2.5	2.5	2.5	
			Bottom	7.6	19.3	33.8	6.29	6.33	6.33	88.8	89.3	2.68	2.73	2.73	2.8	2.8	2.8	2.8	
			Surface	1.0	18.6	32.5	7.59	7.58	7.58	97.1	96.9	2.77	2.76	2.76	3.0	3.0	3.0	3.0	
06/02/06	17:15 - 17:30	17/CLOUDY	Middle	4.3	19.5	33.7	6.40	6.40	6.40	91.0	91.0	2.98	3.04	3.04	2.4	2.4	2.4	2.7	
			Bottom	7.6	19.3	33.8	6.37	6.37	6.37	89.8	89.8	2.78	2.78	2.78	2.7	2.7	2.7	2.7	
			Surface	1.0	18.3	33.2	7.14	7.16	7.16	90.6	90.9	2.52	2.53	2.53	2.8	2.8	2.8	2.9	
			Middle	4.2	18.4	33.4	6.97	6.98	6.98	88.5	88.6	2.83	2.82	2.82	3.0	3.0	3.0	3.0	
08/02/06	19:15 - 19:30	20/SUNNY	Bottom	7.4	18.4	33.3	6.99	6.99	6.99	88.7	88.7	2.81	2.81	2.81	3.0	3.0	3.0	3.0	

Monitoring Station : M4

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	Depth-average	Value	Average	Value	Average	Depth-average
10/02/06	20:00 - 20:16	17/Cloudy	Surface	1.0	18.3	33.1	6.52	6.47	6.42	84.9	84.5	2.44	2.39	2.5
			Middle	3.7	18.4	33.0	6.42	6.33	6.40	84.0	82.4	2.34	2.34	2.5
			Bottom	6.4	18.5	33.0	6.40	6.37	6.17	83.4	82.9	2.60	2.55	2.6
	13/02/06	19/Cloudy	Surface	1.0	19.3	32.8	7.12	7.10	6.14	80.3	79.8	2.89	2.93	2.5
			Middle	4.3	19.0	33.1	6.88	6.85	6.85	79.3	79.3	2.97	2.97	2.8
			Bottom	7.6	19.0	33.2	6.91	6.90	6.90	91.8	91.6	2.70	2.70	3.0
15/02/06	13:00 - 13:15	19/Cloudy	Surface	1.0	19.1	32.2	6.54	6.52	6.46	88.4	88.2	2.69	2.69	3.0
			Middle	4.3	18.9	32.4	6.34	6.32	6.26	88.0	88.0	2.44	2.44	2.5
			Bottom	7.6	18.9	32.6	6.17	6.10	6.14	88.7	88.3	2.42	2.43	2.57
	17/02/06	16/Cloudy	Surface	1.0	17.2	33.3	7.32	7.29	7.26	87.4	87.9	2.10	2.14	2.5
			Middle	5.2	17.2	33.0	7.29	7.27	7.28	88.4	87.9	2.17	2.17	2.8
			Bottom	9.4	17.2	33.2	7.37	7.32	7.32	92.4	92.2	2.14	2.14	2.0
20/02/06	17:10 - 17:25	17/Fine	Surface	1.0	16.9	33.1	7.20	7.18	7.12	92.0	92.0	2.10	2.10	2.0
			Middle	5.3	17.5	33.2	7.09	7.06	7.06	91.7	91.7	2.47	2.47	2.0
			Bottom	9.6	17.5	33.4	7.12	7.09	7.09	90.0	89.7	2.69	2.69	2.0
	22/02/06	19/Sunny	Surface	1.0	18.3	33.1	6.93	6.90	6.87	88.3	88.0	3.94	3.95	3.0
			Middle	5.2	17.8	33.2	6.64	6.63	6.64	87.6	87.6	3.95	3.95	3.0
			Bottom	9.4	17.4	33.4	6.17	6.14	6.16	84.6	84.5	3.60	3.63	3.0
24/02/06	18:34 - 18:44	21/Cloudy	Surface	1.0	18.0	32.9	7.28	7.27	7.25	96.0	95.8	2.94	2.94	3.0
			Middle	4.2	17.8	33.1	7.06	7.04	7.05	93.1	93.0	2.88	2.88	3.0
	17:44 - 17:50	23/Fine	Bottom	7.4	17.9	33.1	6.84	6.83	6.83	89.6	89.4	2.95	2.95	2.7
			Bottom	11.0	17.5	33.1	6.81	6.81	6.81	89.2	89.2	2.93	2.93	2.7

Mid-Ebb Tide

Monitoring Station : M4

Date	Sampling Duration	Ambient Temp (°C) / Weather Condition	Monitoring Depth (m)	Salinity (ppt)			Dissolved Oxygen (mg/L)			Dissolved Oxygen Saturation (%)			Turbidity (NTU)			Suspended Solids (mg/L)		
				Value	Average	Depth-average	Value	Average	Depth-average	Value	Average	Depth-average	Value	Average	Depth-average	Value	Average	Depth-average
27/02/06	13:00 - 13:15	17/Cloudy	Surface	1.0	17.9	32.4	6.76	6.73	6.60	89.9	89.5	2.51	2.46	2.2	2.4			
			Middle	4.0	18.0	32.7	6.52	6.47	6.42	89.0	86.7	2.41	2.29	2.5				
			Bottom	7.0	17.9	33.0	6.21	6.16	6.16	86.0	82.6	2.22	2.26	2.0	2.0		2.2	
01/03/06	13:15 - 13:28	11/Cloudy	Surface	1.0	18.3	32.5	7.24	7.26	7.27	99.9	98.7	100.1	100.3	3.25				
			Middle	4.2	18.1	32.8	6.89	6.91	6.92	94.8	94.6	3.18	3.17	3.18	3.30		3.2	
			Bottom	7.4	18.1	33.0	6.84	6.83	6.81	94.3	93.7	93.5	94.6	3.17	3.0		3.0	
03/03/06	14:13 - 14:28	16/Sunny	Surface	1.0	18.6	33.1	6.82	6.86	6.86	96.6	97.1	97.6	97.1	3.22				
			Middle	3.7	18.4	33.4	6.67	6.64	6.67	94.4	93.9	93.9	93.9	3.05	3.0		3.0	
			Bottom	6.4	18.3	33.2	6.49	6.45	6.45	90.6	90.3	90.3	90.3	3.42	3.37		3.3	
06/03/06	17:15 - 17:28	19/Cloudy	Surface	1.0	18.9	32.8	7.24	7.23	7.21	99.9	99.4	99.7	99.7	2.98				
			Middle	4.2	18.7	33.0	7.10	7.09	7.08	97.2	97.1	96.9	97.1	2.88	2.87			
			Bottom	7.4	18.5	33.1	6.85	6.83	6.81	93.8	93.5	93.2	93.5	3.01	3.02		3.2	
08/03/06	19:17 - 19:38	16/Cloudy	Surface	1.0	18.0	32.4	6.49	6.45	6.40	85.7	85.4	85.0	85.4	2.20	2.15		2.5	
			Middle	3.9	18.1	32.6	6.61	6.56	6.51	86.7	86.4	86.0	86.4	2.10	2.10		2.5	
			Bottom	6.8	18.0	33.0	6.29	6.34	6.39	82.5	83.5	83.0	83.0	2.39	2.35		2.2	
10/03/06	19:45 - 19:58	21/Cloudy	Surface	1.0	18.4	32.3	6.51	6.50	6.49	89.8	89.7	89.5	89.7	2.84				
			Middle	4.4	18.1	32.5	6.42	6.41	6.39	86.5	88.1	88.3	86.0	2.77	2.77		2.3	
			Bottom	7.8	18.0	32.6	6.28	6.27	6.25	86.0	85.8	85.6	85.6	2.76	2.76		2.3	
13/03/06	12:45 - 13:00	12/Cloudy	Surface	1.0	17.3	32.0	7.60	7.55	7.50	101.5	101.0	100.5	101.0	3.11	3.06		3.0	
			Middle	3.7	17.4	32.4	7.31	7.26	7.21	97.6	97.3	97.0	97.3	3.17	3.14		3.0	
			Bottom	6.4	17.4	32.5	7.06	7.03	7.00	94.3	93.8	93.3	93.8	2.99	2.95		2.9	

Monitoring Station : M4

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	Depth-average	Value	Average	Depth-average	Value	Average	Depth-average
15/03/06	12:28 - 12:43	15/Cloudy	Surface	1.0	17.8	32.7	6.69	6.67	6.50	91.6	91.4	2.99	3.01	3.0	3.0
			Middle	4.1	17.6	32.9	6.65	6.35	6.31	91.1	91.1	3.02	3.01	3.0	3.0
			Bottom	7.2	17.6	32.8	6.31	6.13	6.12	86.9	86.7	2.74	2.75	2.86	2.8
	17/03/06	14:16 - 14:45	Surface	1.0	19.1	33.6	6.11	6.06	6.12	83.3	83.1	2.83	2.84	2.84	2.9
			Middle	4.3	19.1	33.7	5.93	5.98	6.10	82.9	82.9	2.84	2.84	2.84	2.8
			Bottom	7.6	19.2	34.1	6.07	6.04	6.04	79.8	79.4	3.06	3.03	3.03	3.0
20/03/06	14:58 - 15:12	23/Cloudy	Surface	1.0	20.8	32.8	6.63	6.62	6.60	90.8	90.6	2.89	2.88	2.88	3.0
			Middle	4.4	20.2	33.0	6.20	6.23	6.22	90.4	90.4	2.87	2.87	2.87	3.0
			Bottom	7.8	20.0	33.1	6.04	6.03	6.03	84.7	85.0	2.74	2.74	2.74	2.9
	22/03/06	16:00 - 16:15	Surface	1.0	19.6	32.4	6.99	7.04	7.04	82.7	82.5	2.62	2.62	2.62	2.9
			Middle	4.0	19.5	32.1	6.81	6.71	6.76	85.3	85.0	2.73	2.73	2.73	2.9
			Bottom	7.0	19.6	32.3	6.54	6.49	6.49	82.3	82.3	2.61	2.61	2.61	2.7
24/03/06	19:13 - 19:26	20/Rainy	Surface	1.0	19.9	32.8	6.97	6.96	6.73	94.0	94.5	3.07	3.04	3.04	3.0
			Middle	4.4	19.6	33.1	6.52	6.51	6.49	90.6	90.3	3.08	3.08	3.08	3.0
			Bottom	7.8	19.5	33.2	6.30	6.32	6.32	95.0	95.4	3.13	3.13	3.13	3.0
	27/03/06	10:15 - 10:30	Surface	1.0	18.1	32.5	7.47	7.44	7.25	91.0	91.4	3.11	3.06	3.08	3.0
			Middle	4.0	18.2	32.6	7.11	7.06	7.06	97.1	97.6	2.70	2.70	2.70	2.9
			Bottom	7.0	18.2	32.4	6.89	6.85	6.85	95.1	94.6	2.86	2.86	2.86	2.8
29/03/06	11:58 - 12:08	23/Cloudy	Surface	1.0	18.9	33.5	7.38	7.36	7.34	98.1	96.9	3.04	3.03	3.03	3.0
			Middle	4.5	18.9	33.7	7.41	7.40	7.38	94.1	93.9	3.24	3.23	3.23	3.1
	11:58 - 12:08		Bottom	8.0	18.7	33.6	7.50	7.52	7.52	93.7	98.1	3.77	3.78	3.78	3.5
										98.4	98.3	3.79	3.79	3.79	3.4

Mid-Ebb Tide

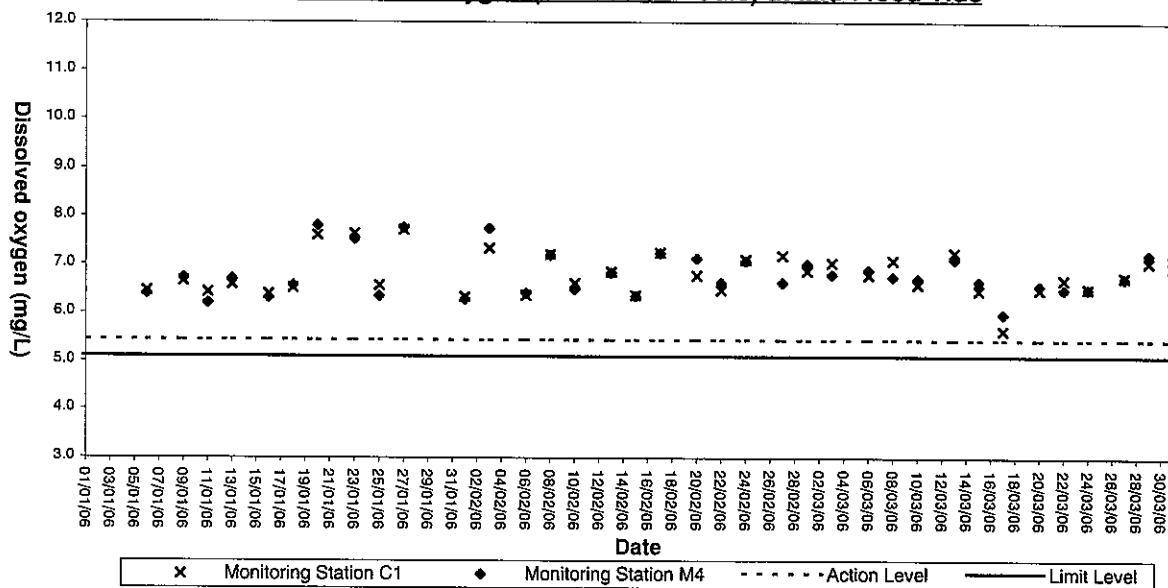
Monitoring Station : M4

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	Depth-average	Value	Average	Depth-average	Value	Average	Depth-average	Value	Average	Depth-average	Value	Average	Depth-average
31/03/06 13:00 - 13:15	22/CLOUDY	Surface	1.0	19.5	32.2	32.2	7.07	7.04	6.90	97.5	97.0	2.67	2.72	2.7	2.7	2.6	2.9		
					32.2	32.2	7.00			96.5	96.5	2.77			2.5				
					32.0	32.0	6.80	6.76	6.72	93.7	93.4	2.89	2.85	2.81	3.0	3.0			
		Middle			32.0	32.0	6.80			93.0	93.0	2.80			3.0	3.0	2.9		
					32.2	32.2	6.72	6.51	6.46	89.7	89.4	2.91	2.86	2.81	3.0	3.0			
					32.2	32.2	6.41			89.0	89.0	2.81			3.0	3.0			

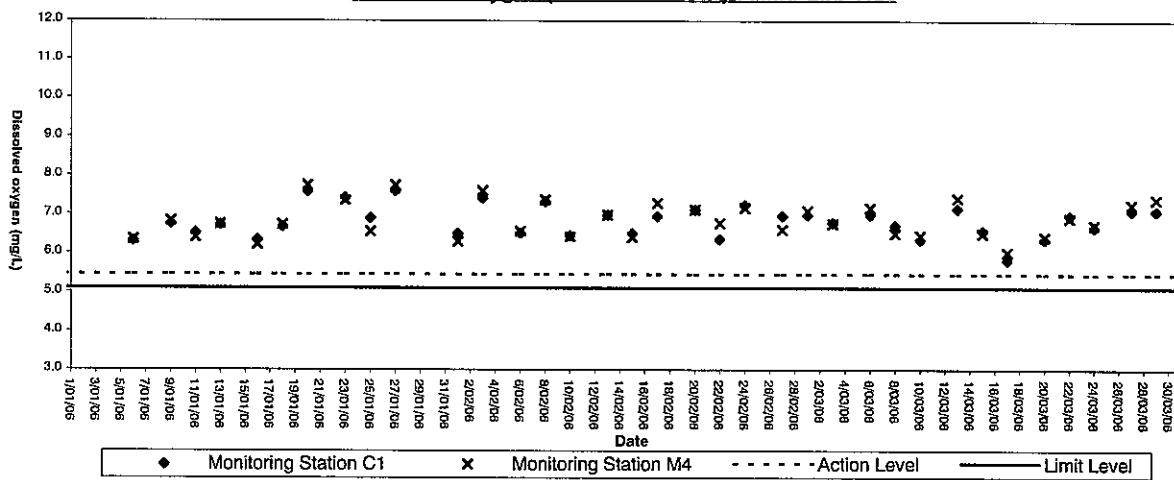
Appendix D3

Graphical Plots of Impact Marine Water Quality Monitoring Data

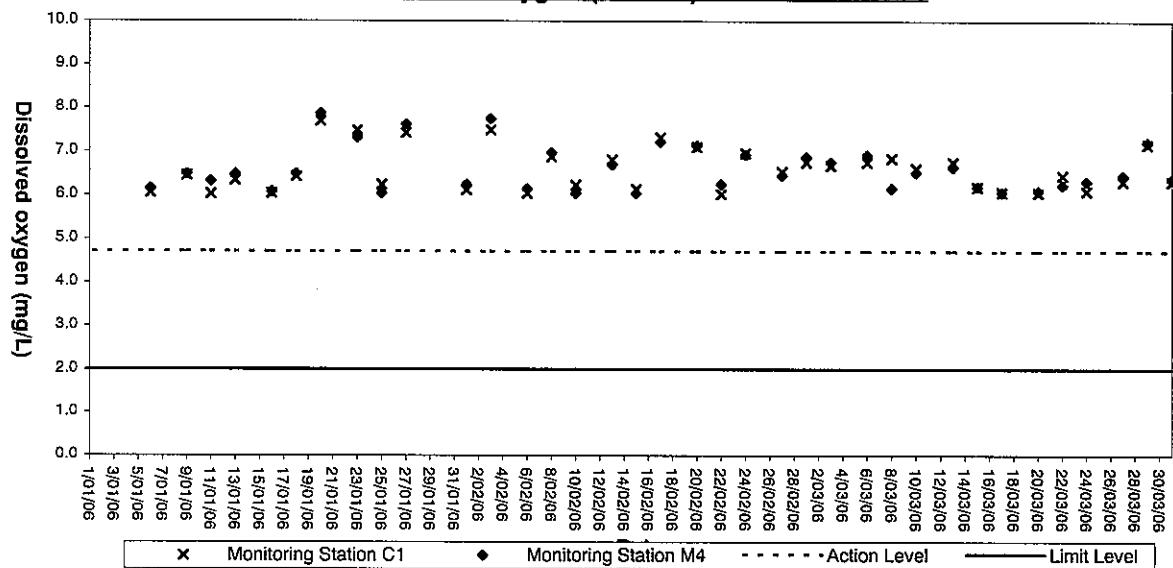
Dissolved Oxygen (Surface & Middle) at Mid-Flood Tide



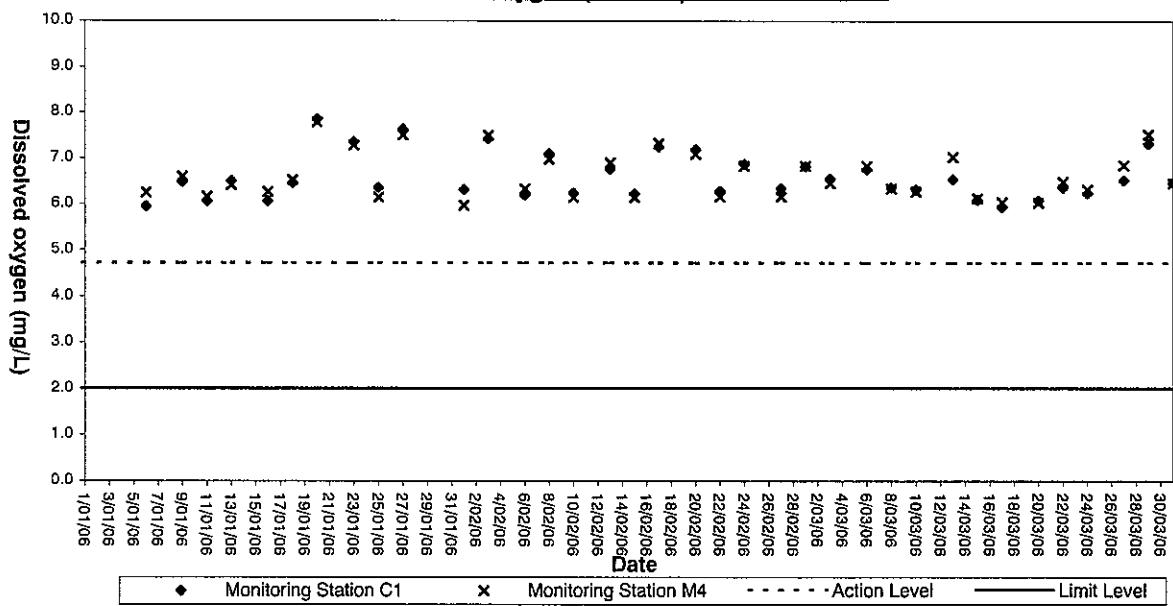
Dissolved Oxygen (Surface & Middle) at Mid-Ebb Tide



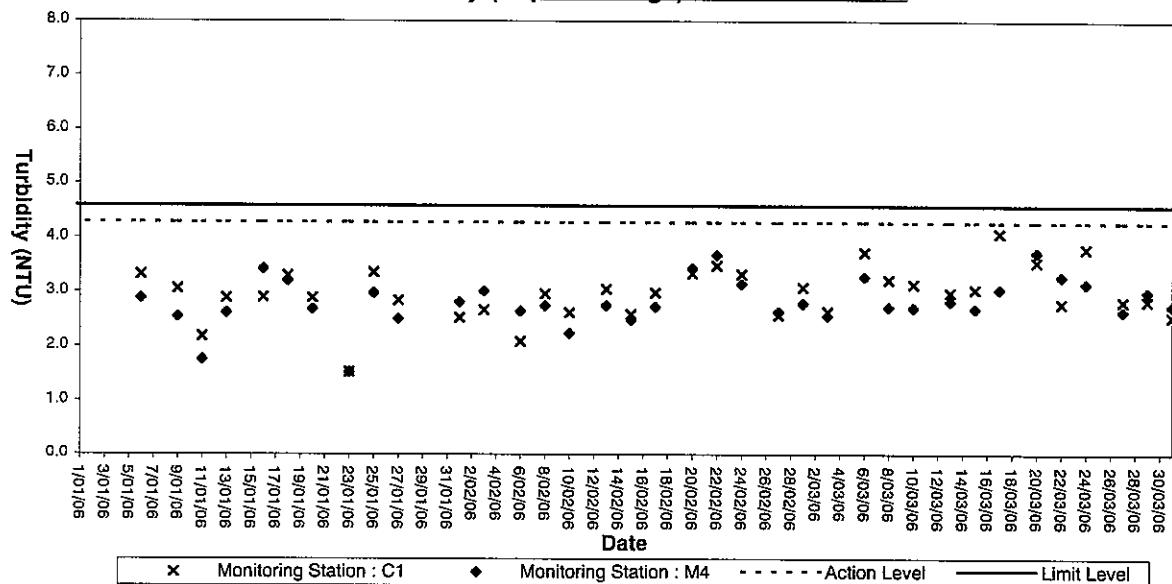
Dissolved Oxygen (Bottom) at Mid-Flood Tide



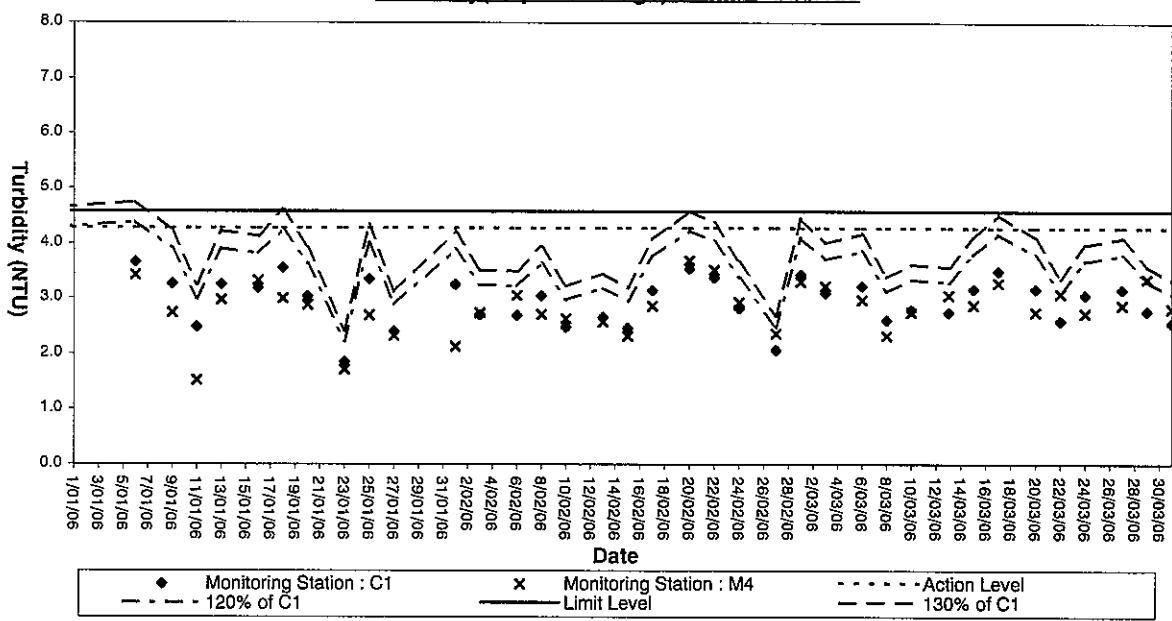
Dissolved Oxygen (Bottom) at Mid-Ebb Tide



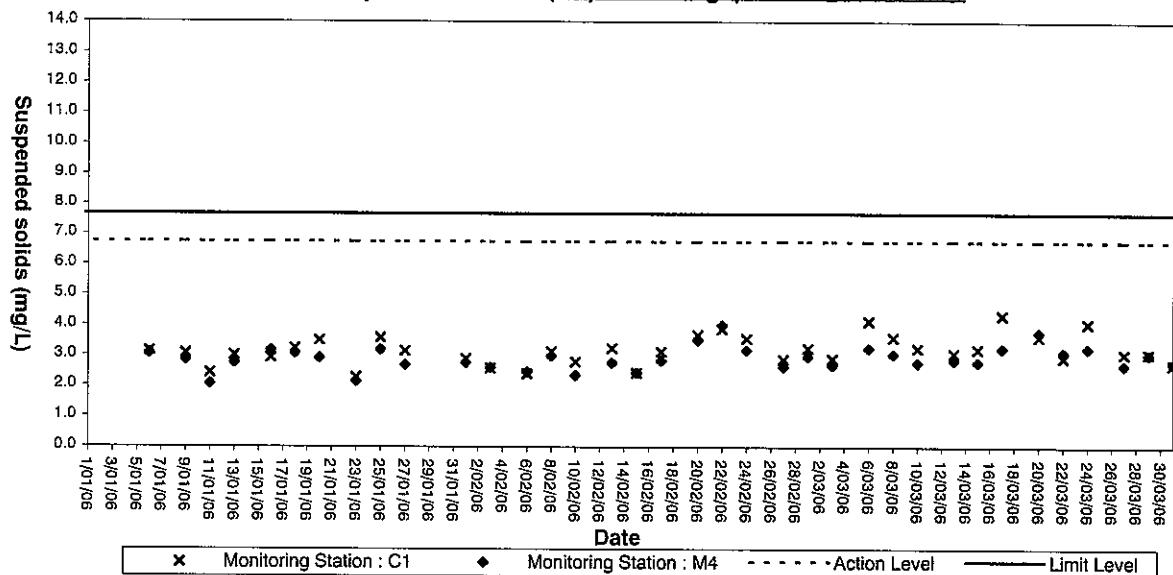
Turbidity (Depth-average) at Mid-Flood Tide



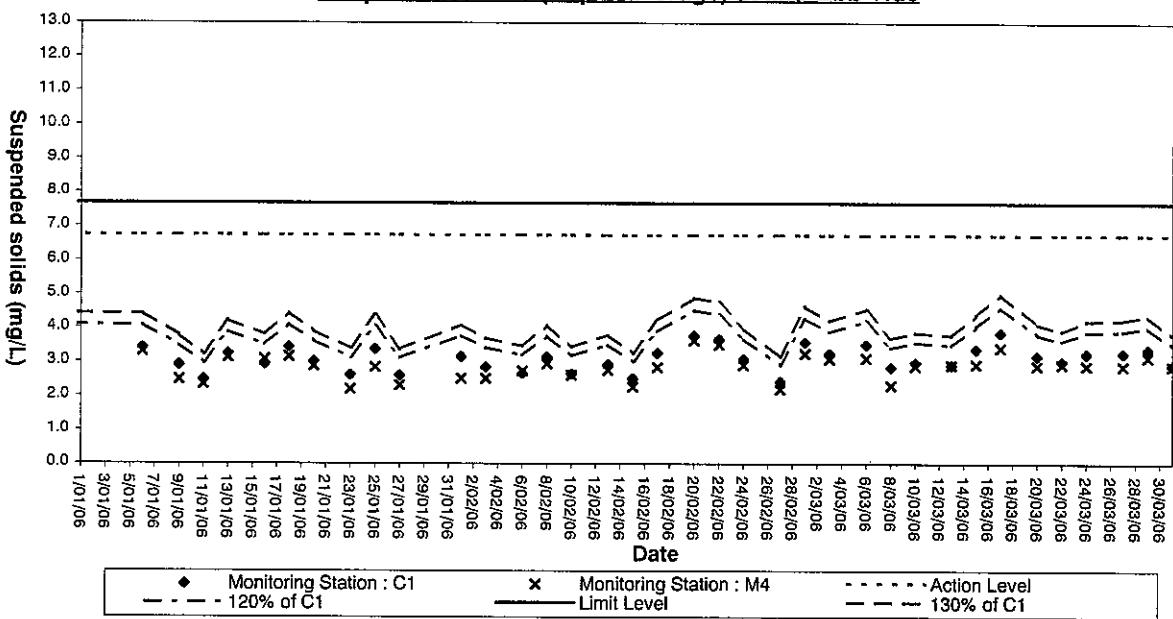
Turbidity(Depth-average) at Mid-Ebb Tide



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



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



Appendix E

Environmental Quality Performance (Action / Limit Levels)

Action and Limit Levels for Air Quality

Action and Limit Levels for 1-Hour TSP

Location	Action Level, $\mu\text{g}/\text{m}^3$	Limit Level, $\mu\text{g}/\text{m}^3$
AA1		
AA2	376	500

Action and Limit Levels for 24-Hour TSP

Location	Action Level, $\mu\text{g}/\text{m}^3$	Limit Level, $\mu\text{g}/\text{m}^3$
AA1		
AA2	210	260

Action and Limit Levels for Noise

Time Period	Action	Limit
0900-2100 hrs on all days	When one documented complaint is received	75*dB(A)

Action and Limit Levels for Water Quality

Parameters	Action	Limit
Dissolved oxygen, DO mg/L (Surface, Middle & Bottom)	<u>Surface & Middle</u> DO < 5.45 (5%-ile of baseline data) <u>Bottom</u> DO < 4.72 (5%-ile of baseline data)	<u>Surface & Middle</u> DO < 5.10 (1%-ile of baseline data) <u>Bottom</u> 2 mg/L
Suspended solids, SS mg/L (Depth-averaged)	SS > 6.74 (95%-ile of baseline data or SS > 120% of upstream control stations SS at the same tide of the same day)	SS > 7.67 (99%-ile of baseline data or SS > 130% of upstream control stations SS at the same tide of the same day)
Turbidity, Tby NTU (Depth-averaged)	Tby > 4.28 (95%-ile of baseline data or Tby > 120% of upstream control stations Tby at the same tide of the same day)	Tby > 4.58 (99%-ile of baseline data or Tby > 130% of upstream control stations Tby at the same tide of the same day)



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Appendix F

Event-Action Plans

EVENT/ACTION PLAN FOR AIR QUALITY EXCEEDANCE

EVENT	ACTION	ACTION LEVEL		Contractor
		ET Leader	IC(E)	
1. Exceedance for one sample	1. Identify source, investigate the causes of exceedance and propose remedial measures Inform ER, IC(E) and Contractor Repeat measurement to confirm finding Increase monitoring frequency to daily	1. Check monitoring data submitted by the ET 2. Check contractor's working method	1. Notify Contractor	1. Rectify any unacceptable practise 2. Amend working methods if appropriate
2. Exceedance for two or more consecutive samples	1. Identify source, investigate the causes of exceedance and propose remedial measures Inform IC(E) and Contractor Repeat measurements to confirm finding Increase monitoring frequency to daily Discuss with IC(E) and Contractor on remedial actions If exceedance continues, arrange meeting with IC(E) and ER, If exceedance stops, cease additional monitoring	1. Check monitoring data submitted by the ET Leader 2. Check the Contractor's working method 3. Discuss with ET and Contractor on possible remedial measures 4. Advise the ER on the effectiveness of the proposed remedial measures 5. Supervise implementation of remedial measures	1. Confirm receipt of notification of failure in writing 2. Notify the Contractor 3. Ensure remedial measures properly implemented	1. Submit proposals for remedial actions to IC(E) within 3 working days of notification 2. Implement the agreed proposals 3. Amend proposal if appropriate
1. Exceedance for one sample	1. Identify source, investigate the causes of exceedance and propose remedial measures Inform ER, Contractor and EPD Repeat measurement to confirm finding Increase monitoring frequency to daily Assess the effectiveness of Contractor's remedial actions and keep IC(E), EPD and ER informed of the results	1. Check monitoring data submitted by the ET Leader 2. Check Contractor's working method 3. Discuss with ET and Contractor on possible remedial measures 4. Advise the ER on the effectiveness of the proposed remedial measures 5. Supervise implementation of remedial measures	1. Confirm receipt of notification of failure in writing 2. Notify the Contractor 3. Ensure remedial measures properly implemented	1. Take immediate action to avoid further exceedance 2. Submit proposals for remedial actions to IC(E) within 3 working days of notification 3. Implement the agreed proposals 4. Amend proposal if appropriate.

EVENT/ACTION PLAN FOR AIR QUALITY EXCEEDANCE

EVENT	ACTION		
	ET Leader	IC(E)	ER
2. Exceedance for two or more consecutive samples	<p>1. Identify source, investigate the causes of exceedance and propose remedial measures</p> <p>2. Notify IC(E), ER, EPD and Contractor</p> <p>3. Repeat measurement to confirm finding</p> <p>4. Increase monitoring frequency to daily</p> <p>5. Carry out analysis of contractor's working procedures to determine possible mitigation to be implemented</p> <p>6. Arrange meeting with IC(E) and ER to discuss the remedial actions to be taken</p> <p>7. Assess effectiveness of Contractor's remedial actions and keep IC(E), EPD and ER informed of the results</p> <p>8. If exceedance stops, cease additional monitoring</p>	<p>1. Discuss amongst ER, ET and Contractor on the potential remedial actions</p> <p>2. Review Contractor's remedial actions whenever necessary to assure their effectiveness and advise the ER accordingly</p> <p>3. Supervise the implementation of remedial measures</p>	<p>1. Confirm receipt of notification of failure in writing</p> <p>2. Notify Contractor</p> <p>3. In consultation with the IC(E), agree with the Contractor on the remedial measures to be implemented</p> <p>4. Ensure remedial measures are properly implemented</p> <p>5. If exceedances continues, consider what portion of the work is responsible and instruct the Contractor to stop that portion of work until the exceedance is abated</p>

EVENT/ACTION PLAN FOR NOISE EXCEEDANCE

EVENT	ACTION		
	ET Leader	IC(E)	ER
Action Level	1. Notify the IC(E) and the Contractor. 2. Carry out investigation. 3. Report the results of investigation to the IC(E) and the Contractor. 4. Discuss with the Contractor and formulate remedial measures. 5. Increase monitoring frequency to check mitigation effectiveness.	1. Review the analysed results submitted by the ET. 2. Review the proposed remedial measures by the Contractor and advise the ER accordingly. 3. Supervise the implementation of remedial measures.	1. Confirm receipt of notification of failure 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.
Limit Level	1. Notify the IC(E), the ER, the EPD and the Contractor. 2. Identify source. 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 the IC(E), the ER and the EPD the causes & actions taken for the exceedances. 7. Assess effectiveness of Contractor's remedial actions and keep the IC(E), the EPD and the ER informed of the results 8. If exceedance due to the construction works stops, cease additional monitoring	1. Discuss amongst the ER, the 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 the ER accordingly. 3. Supervise the implementation of remedial measures.	1. Confirm receipt of notification of failure 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 exceedances continue, consider what activity of the work is responsible and instruct the Contractor to stop that activity of work until the exceedances is abated. 6. Stop the relevant activity of works as determined by the ER until the exceedances is abated.

EVENT AND ACTION PLAN FOR WATER QUALITY EXCEEDANCE

Event	ET Leader	ACTION	ER	IEC
			Contractor	
Action level being exceeded by one sampling day	<p>1. Identify source(s) of impact;</p> <p>2. Repeat in-situ measurement to confirm findings;</p> <p>3. Notify Contractor in writing within 24 hours of identification of the exceedance.</p> <p>4. Check monitoring data, all plant, equipment and Contractor's working methods;</p> <p>5. Carry out investigation</p> <p>6. Report the results of investigation to the Contractor within 3 working days of identification of exceedance and advise contractor if exceedance is due to contractor's construction works</p> <p>7. Discuss mitigation measures with Contractor if exceedance is due to the construction works within 4 working days</p> <p>8. Repeat measurement on next day of exceedance if exceedance is due to the construction works</p>	<p>1. Notify the ER and IEC in writing within 24 hours of identification of exceedance</p> <p>2. Rectify unacceptable practice; Check all plant and equipment; Submit investigation report to IEC and ER within 3 working days of the identification of an exceedance</p> <p>3. Consider changes of working method if exceedance is due to the construction works</p> <p>4. Discuss with ET, IEC and ER and propose mitigation measures to IEC and ER if exceedance is due to the construction works within 4 working days of identification of an exceedance</p> <p>5. Discuss mitigation measures with Contractor if exceedance is due to the construction works within 4 working days</p> <p>6. Repeat measurement on next day of exceedance if exceedance is due to the construction works</p>	<p>1. Notify EPD and other relevant governmental agencies in writing within 24 hours of the identification of the exceedance</p> <p>2. Discuss with IEC, ET and Contractor on the proposed mitigation measures;</p> <p>3. Require contractor to propose remedial measures for the analysed problem if related to the construction works</p> <p>4. Ensure remedial measures are properly implemented</p> <p>5. Assess the effectiveness of the mitigation measure</p> <p>7. Implement the agreed mitigation measures within reasonable time scale</p>	<p>1. Check monitoring data submitted by ET</p> <p>2. Confirm ET assessment if exceedance is due / not due to the works</p> <p>3. Discuss with ET, ER and Contractor on the mitigation measures</p> <p>4. Review contractor's mitigation measures whenever necessary to ensure their effectiveness and advise the ER accordingly</p> <p>5. Supervise the implementation of mitigation measures</p>

EVENT AND ACTION PLAN FOR WATER QUALITY

Event	ACTION			
	ET Leader	Contractor	ER	IEC
Action level being exceeded by more than one consecutive sampling days	<ol style="list-style-type: none"> Identify source(s) of impact; Repeat in situ measurement to confirm findings Notify Contractor in writing within 24 hours of identification Check monitoring data, all plant, equipment and Contractor's working methods; Carry out investigation Report the results of investigation to the Contractor within 3 working days of identification of exceedance and advise contractor if exceedance is due to contractor's construction works Discuss mitigation measures with IEC and Contractor within 4 working of identification of an exceedance Ensure mitigation measures are implemented; Prepare to increase the monitoring frequency to daily; Repeat measurement on next day of exceedance. 	<ol style="list-style-type: none"> Notify IEC and ER in writing within 24 hours of identification of exceedance Rectify unacceptable practice; Check all plant and equipment; Consider changes of working methods; Submit the results of the investigation to IEC and ER within 3 working days of the identification of an exceedance Discuss with ET, IEC and ER and propose mitigation measures to IEC and ER within 4 working days of identification of an exceedance Implement the agreed mitigation measures within reasonable time scale 	<ol style="list-style-type: none"> Notify EPD and other relevant governmental agencies in writing within 24 hours of the identification of the exceedance Discuss with IEC, ET and Contractor on the proposed mitigation measures; Require contractor to propose remedial measures for the analysed problem if related to the construction works Ensure remedial measures are properly implemented Assess the effectiveness of the mitigation measure 	<ol style="list-style-type: none"> Check monitoring data submitted by ET Confirm ET assessment if exceedance is due / not due to the works Discuss with ET, ER and Contractor on the mitigation measures. Review contractor's mitigation measures whenever necessary to ensure their effectiveness and advise the ER accordingly Assess the effectiveness of the implemented mitigation measures.

Event

EVENT AND ACTION PLAN FOR WATER QUALITY EXCEEDANCE

		ACTION	ET Leader	Contractor	ER	IEC
Limit level being exceeded by one sampling day	<p>1. Repeat in-situ measurement to confirm findings;</p> <p>2. Identify source(s) of impact;</p> <p>3. Notify Contractor in writing within 24 hours of identification of the exceedance</p> <p>4. Check monitoring data, all plant, equipment and Contractor's working methods;</p> <p>5. Carry out investigation</p> <p>6. Report the results of investigation to the Contractor within 3 working days of identification of exceedance and advise contractor if exceedance is due to contractor's construction works</p> <p>7. Discuss mitigation measures with IEC, ER and Contractor within 4 working days of identification of an exceedance</p> <p>8. Ensure mitigation measures are implemented;</p> <p>9. Increase the monitoring frequency to daily until no exceedance of Limit Level.</p>	<p>1. Notify IEC and ER in writing; within 24 hours of the identification of the exceedance</p> <p>2. Rectify unacceptable practice; Check all plant and equipment;</p> <p>3. Consider changes of working methods;</p> <p>5. Submit the results of the investigation to IEC and ER within 3 working days of the identification of an exceedance</p> <p>6. Discuss with ET, IEC and ER and propose mitigation measures to IEC and ER within 4 working days of the identification of an exceedance</p> <p>7. Implement the agreed mitigation measures within reasonable time scale</p>	<p>1. Notify EPD and other relevant governmental agencies in writing within 24 hours of identification of exceedance</p> <p>2. Discuss with ET, ER and Contractor on the proposed mitigation measures;</p> <p>3. Request Contractor to critically review the working methods;</p> <p>4. Ensure remedial measures are properly implemented</p> <p>5. Assess the effectiveness of the implemented mitigation measures.</p>	<p>1. Notify EPD and other relevant governmental agencies in writing within 24 hours of identification of exceedance</p> <p>2. Confirm ET assessment if exceedance is due / not due to the works</p> <p>3. Discuss with ET, ER and Contractor on the mitigation measures.</p>	<p>1. Check monitoring data submitted by ET</p> <p>2. Confirm ET assessment if exceedance is due / not due to the works</p> <p>3. Discuss with ET, ER and Contractor on the mitigation measures.</p>	<p>1. Review proposals on mitigation measures submitted by Contractor and advise the ER accordingly.</p> <p>5. Assess the effectiveness of the implemented mitigation measures</p>

EVENT AND ACTION PLAN FOR WATER QUALITY EXCEEDANCE

Event	ET Leader	ACTION		
		Contractor	ER	IEC
Limit Level being exceeded by more than one consecutive sampling days	<p>1. Repeat in-situ measurement to confirm findings;</p> <p>2. Identify source(s) of impact;</p> <p>3. Notify Contractor in writing within 24 hours of identification of the exceedance</p> <p>4. Check monitoring data, all plant, equipment and Contractor's working methods;</p> <p>5. Carry out investigation</p> <p>6. Report the results of investigation to the Contractor within 3 working days of identification of exceedance and advise contractor if exceedance is due to contractor's construction works</p> <p>7. Discuss mitigation measures with IEC, ER and Contractor;</p> <p>8. Ensure mitigation measures are implemented;</p> <p>9. Increase the monitoring frequency to daily until no exceedance of Limit Level for two consecutive days.</p>	<p>1. Notify ER and IEC in writing within 24 hours of the identification of the exceedance and rectify unacceptable practice;</p> <p>2. Check all plant and equipment;</p> <p>3. Consider changes of working methods;</p> <p>4. Submit the results of the investigation to IEC and ER within 3 working days of the identification of an exceedance</p> <p>5. Discuss with ET, IEC and ER and propose mitigation measures to IEC and ER within 4 working days;</p> <p>6. Implement the agreed mitigation measures within reasonable time scale</p> <p>7. As directed by the Engineer, to slow down or to stop all or part of the marine work until no exceedance of Limit Level.</p>	<p>1. Notify EPD and other relevant government agencies in writing within 24 hours of identification of exceedance;</p> <p>2. Discuss with IEC, ET and Contractor on the proposed mitigation measures;</p> <p>3. Request Contractor to critically review the working methods;</p> <p>4. Ensure remedial measures are properly implemented</p> <p>5. Assess the effectiveness of the implemented mitigation measures;</p> <p>6. Assess the effectiveness of the implemented mitigation measures.</p>	<p>1. Check monitoring data submitted by ET</p> <p>2. Confirm ET assessment if exceedance is due / not due to the works</p> <p>3. Discuss with ER, ET and Contractor on the mitigation measures.</p> <p>4. Review proposals on mitigation measures submitted by Contractor and advise the ER accordingly.</p> <p>5. Assess the effectiveness of the implemented mitigation measures.</p>



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Appendix G

Construction Programme

Act ID	Description	Early Start	Early Finish	Days	% 2005 DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV																	
GCC Clause 16 Programme																																	
KEYDATES & SUMMARY																																	
KD-001 Contract Commencement																																	
KD-002 Commencement of the Works		0	30DEC05 A	100																													
PRELIMINARIES																																	
1-0100 Take over Principal Site Office for the Engineer		0	31DEC05 A	100																													
1-0200 Provision of Transport for the Engineer		7	30DEC05 A	05JAN06 A	100																												
1-1100 Contractor's Submissions		28	30DEC05 A	26JAN06 A	100																												
1-1200 Setup of Environmental Team for EM&A Monitoring		7	30DEC05 A	05JAN06 A	100																												
1-1300 Temporary Accommodation for Contractor		21	31DEC05 A	20JAN06 A	100																												
OPERATION OF PUBLIC FILL RECEPTION FACILITIES																																	
B1-0000 Take over the Site and Facilities at Portion B		0	31DEC05 A	100																													
B1-0100 SECTION B1		121	01JAN06 A	30APR06	75																												
B2-0100 SECTION B2		31	01MAY06 *	31MAY06	0												SECTION B2																
B3-0100 SECTION B3 [Subject to Excision]		30	01JUN06	30JUN06	0												SECTION B3 [Subject to Excision]																
B4-0100 SECTION B4 [Subject to Excision]		31	01JUL06	31JUL06	0												SECTION B4 [Subject to Excision]																
B5-0100 SECTION B5 [Subject to Excision]		31	01AUG06	31AUG06	0												SECTION B5 [Subject to Excision]																
C1-0000 Take over the Site and Facilities at Portion C		0	31DEC05 A	100																													
C1-0100 SECTION C1		121	01JAN06 A	30APR06	75												SECTION C1																
C2-0100 SECTION C2		31	01MAY06 *	31MAY06	0												SECTION C2																
C3-0100 SECTION C3 [Subject to Excision]		30	01JUN06	30JUN06	0												SECTION C3 [Subject to Excision]																
C4-0100 SECTION C4 [Subject to Excision]		31	01JUL06	31JUL06	0												SECTION C4 [Subject to Excision]																
C5-0100 SECTION C5 [Subject to Excision]		31	01AUG06	31AUG06	0												SECTION C5 [Subject to Excision]																
D1-0000 Take over the Site and Facilities at Portion D		0	31DEC05 A	100																													
D1-0100 SECTION D1		121	01JAN06 A	30APR06	75												SECTION D1																
D2-0100 SECTION D2		31	01MAY06 *	31MAY06	0												SECTION D2																
D3-0100 SECTION D3 [Subject to Excision]		30	01JUN06	30JUN06	0												SECTION D3 [Subject to Excision]																
D4-0100 SECTION D4 [Subject to Excision]		31	01JUL06	31JUL06	0												SECTION D4 [Subject to Excision]																
D5-0100 SECTION D5 [Subject to Excision]		31	01AUG06	31AUG06	0												SECTION D5 [Subject to Excision]																
Approved																																	
1-1JAN06 Rev. 0																																	
31MAY06 Rev. 1																																	
Checked																																	
CPL																																	
Start milestones point																																	
Finish milestones point																																	
Contractor: Concentric Construction Ltd.																																	
CEDD Contract No. CV/2005/12																																	
Operation of Public Fill Reception Facilities at Tsueung Kwan O Area 137, Quarry Bay and Mui Wo																																	



Main Contractor: Concentric Construction Ltd.

Appendix H

Implementation Schedule of Environmental Mitigation Measures (EMIS)

Environmental Mitigation Implementation Schedule

	Environmental Protection Measures	Location	Implementation Status		
			January 2006	February 2006	March 2006
Air Quality					
- Dust control / mitigation measures shall be provided to prevent dust nuisance.		All areas	✓	✓	✓
- A buffer zone of at least 100m shall be maintained between the edge of the stockpiling area and the nearest ASRs at the TKO Industrial Estate. Within the buffer zone, no dusty material shall be stockpiled and no loading / unloading and similar activities should be allowed.	Northern Site Boundary	✓	✓	✓	✓
- Water sprays shall be provided and used to dampen materials.	All areas	✓	✓	✓	✓
- Regular cleaning and watering the site shall be provided to minimize the fugitive dust emissions.	All areas	✓	✓	✓	✓
- All vehicles shall be restrict to a maximum speed of 10 km per hour.	All areas	✓	✓	✓	✓
- Any vehicle with open load carrying area used for moving materials which has the potential to create dust shall have properly fitting side and tail boards. Material having the potential to create dust shall not be loaded to a level higher than the side and tail boards, and shall be covered by a clean tarpaulin.	Site Egress	✓	✓	✓	✓
- The designated site main haul rout shall be paved or regular watering.	All Haul roads	✓	✓	✓	✓
- Frequent watering of work site shall be at least three times per day.	All areas	✓	✓	✓	✓
- Wheel washing facilities including high pressure water jet shall be provided at the entrance of work site.	Site Egress	✓	✓	✓	✓
- Every vehicle shall be washed to remove any dusty materials from its body and wheels before leaving the fill bank.	Site Egress	✓	✓	✓	✓
- The temporary slope surfaces, especially those facing to the north of the site shall be covered with impermeable sheet or sprayed with water or protected by other method approved by CEDD.	All areas	✓	✓	✓	✓
- Final slope surfaces, especially those facing to the north of the site shall be treated by compaction, followed by hydroseeding, vegetation planting or sealing with shotconcrete, latex, vinyl, bitumen, or other suitable surface stabilizer approved by CEDD.	All areas	✓	✓	✓	✓
- When fill material is transfer by belt conveyor systems, the conveyors shall be enclosed on top and 2 sides.	C&DMFS	N/A	N/A	N/A	N/A
- The belt scraper shall be equipped with bottom plates or other similar means to prevent falling of material from the return belt.	C&DMFS	N/A	N/A	N/A	N/A
- The level of stockpiling belt conveyor shall be adjustable such that the vertical distance between the belt conveyor and the material landing point is maintained at no more than 1m.	C&DMFS	N/A	N/A	N/A	N/A
Noise Impact					
- The approved method of working, equipment and sound-reducing measures (e.g. use of silenced type of equipment, etc.) shall be adapted.	All areas	✓			
- Only well maintained plant should be operated on-site and plant should be serviced regularly during the construction works.	All areas	✓			
- Powered mechanical equipment (PME) should be covered or shielded by appropriate acoustic materials.	All areas	✓			
- Air compressors and hand held breakers should have noise labels.	All areas	✓			
- Machines and plants that may be in intermittent use should be shut down between work periods or should be throttled down to a minimum.	All areas	✓			
- Noisy equipment and mobile plant shall always be site away from NSRs.	All areas	✓			

Remark: ✓ = Implemented, ▽ = Partially Implemented X = Not Implemented N/A = Not Applicable

Environmental Protection Measures		Location	Implementation Status		
			January 2006	February 2006	March 2006
Water Quality					
- The existing / realigned intercepting channels and the sand / silt removal facilities shall be used and maintained regularly.	All areas	✓	✓	✓	
- A buffer distance of at least 100m shall be maintained between the boundary of the public fill stockpiling area and the sea front.	Along the seafront	✓	✓	✓	
- A buffer distance of at least 20m shall be maintained between the boundary of the C&DMFS and the seafront.	C&DMFS	N/A	N/A	N/A	
- The stormwater intercepting system shall be effective to collect of runoff and remove suspended solids before discharge.	All areas	✓	✓	✓	
- The material shall be properly covered to prevent washed away especially before rainstorm.	All areas	✓	✓	✓	
- The temporary slope surfaces, especially those facing to the north of the site shall be covered with impermeable sheet or sprayed with water or protected by other method approved by CEDD.	Temporary Slopes	✓	✓	✓	
- A wheel washing bay shall be provided at the site exit and wash-water shall have sand and silt settled out or removed before being discharged into storm drains.	Wheel Washing facility	✓	✓	✓	
- Obtain Discharge License	Site Office	✓	✓	✓	
- Adequate environmental control measures shall be provided to prevent / avoid dropping of till material into the sea during the transfer.	Barge Handling Area (BHA)	✓	✓	✓	
- The work activities shall not cause any visible foam, oil, grease, scum, litter or other objectionable matters to be present on the water in the vicinity of the barging facilities.	Barge Handling Area (BHA)	✓	✓	✓	
- A waste collection vessel shall be deployed to remove floating debris.	Barge Handling Area (BHA)	✓	✓	✓	
Landscape and Visual					
- Construction of lighting to avoid spillage and glare	All areas	✓	✓	✓	
- Hydroseeding	Completed slopes	✓	✓	✓	
- Hoarding erection	Site boundary	✓	✓	✓	
- Damage to surrounding area avoided	All areas	✓	✓	✓	
Other Environmental Factors					
- C&D waste sorted from mixed C&D material shall be transfer to SENT landfill for disposal.	All areas	✓	✓	✓	
- Plan and stock construction materials carefully to minimise generation of waste.	All areas	✓	✓	✓	
- Any unused materials or those with remaining functional capacity should be recycled.	All areas	✓	✓	✓	
- All generators, fuel and oil storage are within bunded areas.	All areas	✓	✓	✓	
- Oil leakage from machinery, vehicle and plant is prevented.	All areas	✓	✓	✓	
- Bund chemical storage area to 110% capacity.	All areas	✓	✓	✓	
- Prevent disposal of hazardous materials to air, soil and water body	All areas	✓	✓	✓	
- Provide rubbish skips at all work areas	All areas	✓	✓	✓	

Remark: ✓ = Implemented, √ = Partially Implemented X = Not Implemented N/A = Not Applicable

Appendix I

Statistical Analysis of the Trend of Suspended Solids in the Quarter

Statistical Analysis of the Trend of Suspended Solids

For Mid-Flood Tide

Station: M4

t-test

Group Name	N	Missing	Mean	Std Dev	SE
130% Baseline Mean	12	0	6.969	1.069	0.322
Quarterly Mean	36	0	2.894	0.400	0.068

Result:

Probability that two variances are equal (f-test) = 0

Difference between means = 4.075 (Std Dev = 1.096 and SE = 0.3157)
(95% CI : 3.4562 < Diff < 4.6938)

t-value of difference = 12.907 (45 degrees of freedom)
P = <0.001

Conclusion:

There is a statistically significant difference between the groups.

Station: C1

t-test

Group Name	N	Missing	Mean	Std Dev	SE
130% Baseline Mean	12	0	6.969	0.950	0.286
Quarterly Mean	36	0	3.163	0.491	0.083

Result:

Probability that two variances are equal (f-test) = 0.00137

Difference between means = 3.806 (Std Dev = 1.0324 and SE = 0.2862)
(95% CI : 3.2451 < Diff < 4.3669)

t-value of difference = 13.299 (45 degrees of freedom)
P = <0.001

Conclusion:

There is a statistically significant difference between the groups.



Statistical Analysis of the Trend of Suspended Solids For Mid-Ebb Tide

Station: M4

t-test

Group Name	N	Missing	Mean	Std Dev	SE
130% Baseline Mean	12	0	6.897	1.449	0.4369
Quarterly Mean	36	0	2.840	0.366	0.0619

Result:

Probability that two variances are equal (f-test) = 0

Difference between means = 4.057 (Std Dev = 1.4317 and SE = 0.4227)
(95% CI : 3.2285 < Diff < 4.8855)

t-value of difference = 9.579 (45 degrees of freedom)
 $P = <0.001$

Conclusion:

There is a statistically significant difference between the groups.

Station: C1

t-test

Group Name	N	Missing	Mean	Std Dev	SE
130% Baseline Mean	12	0	6.933	1.045	0.315
Quarterly Mean	36	0	3.082	0.368	0.062

Result:

Probability that two variances are equal (f-test) = 0

Difference between means = 3.851 (Std Dev = 1.0629 and SE = 0.3078)
(95% CI : 3.2476 < Diff < 4.4594)

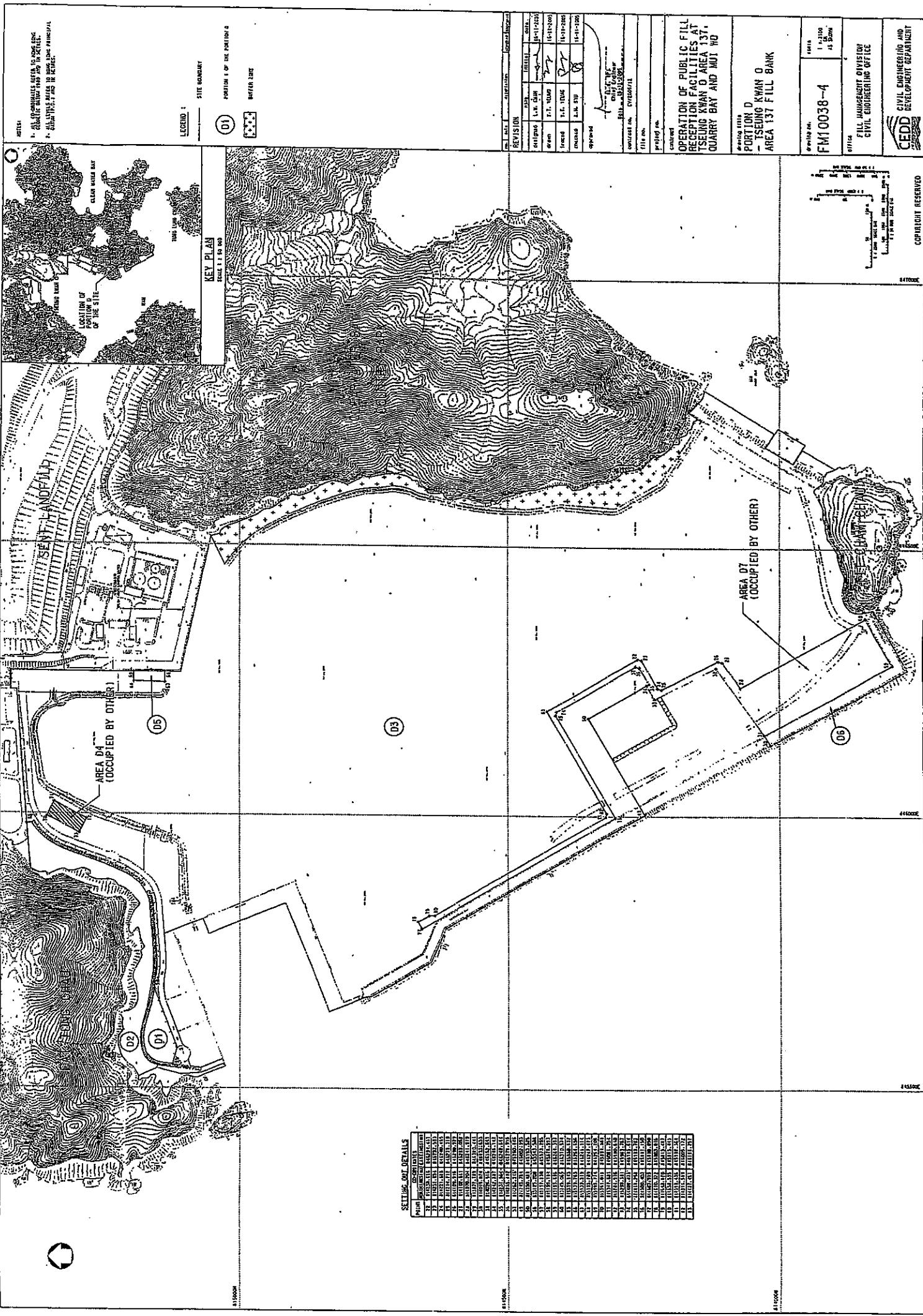
t-value of difference = 12.51 (45 degrees of freedom)
 $P = <0.001$

Conclusion:

There is a statistically significant difference between the groups.

Appendix J

Site General Layout plan



Appendix K

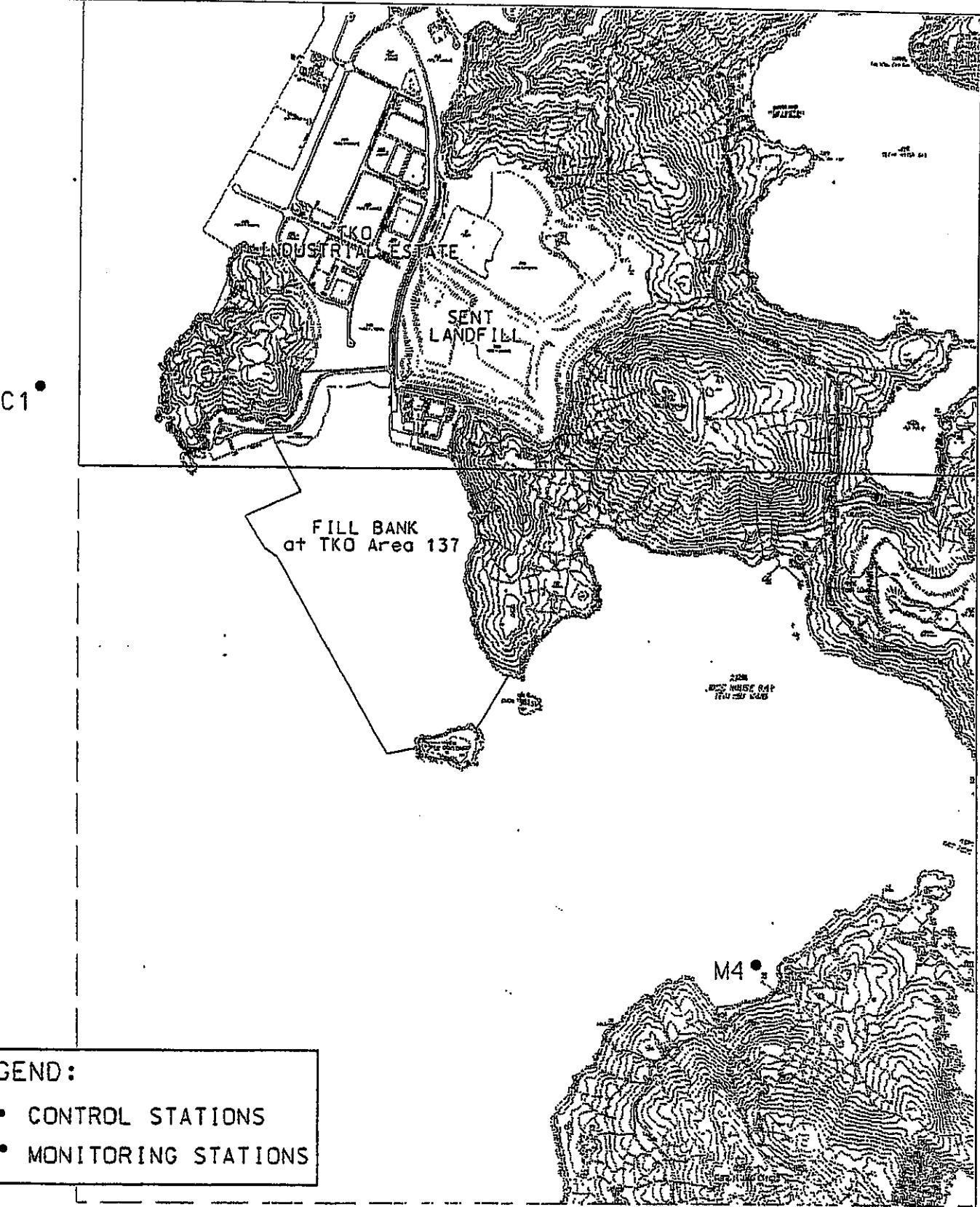
Complaint Log

Complaint Logs

Log Ref.	Location	Received Date	Details of Complaint	Investigation / Mitigation Action	Status
001	Wan Po Road near TVB City	27 March 2006	A complaint was received by EPD on 27 March 2006, concerning the dust and debris on Wan Po Road near TVB City Caused by dump trucks from CEDD site.	<p>In response to the complaint, EPD, RE and Contractor had taken a joint site investigation on 27 March 2006. During this joint site investigation, the performance of the wheel washing facilities was found satisfactory in cleaning the wheels of outgoing dump tracks. Besides, the area where vehicle washing takes place and the section of the road between the washing facilities and the exit point was paved with concrete. It is no evidence to show the complaint was not related to the Fill Bank and it is believed that traffic other than Fill Bank (such as dump tracks from the Construction Waste Sorting Facility) deposited the mud and debris to road surface as they travel through Wan Po Road.</p> <p>Although the complaint was not related to the operation of Fill Bank, some mitigation measures has been taken by the Contractor to maintain the haul road and Public road:</p> <ul style="list-style-type: none"> The Contractor arranged water lorries to carry out ad-hoc additional washings on the section of Wan Po Road as well as the access road concerned during and after the joint site visit; The Contractor arranged road sweeper to carry out routine cleaning the haul road and the public roads outside the Fill Bank including the section of Wan Po Road nearby TVB City; All dump tracks and other vehicle were washed and removed all dusty materials from its body and wheels through wheel washing facilities before leaving the Fill Bank; and Main haul road was sprayed with water by using mist-spraying system to maintain the road surface wet. 	Closed



Figures



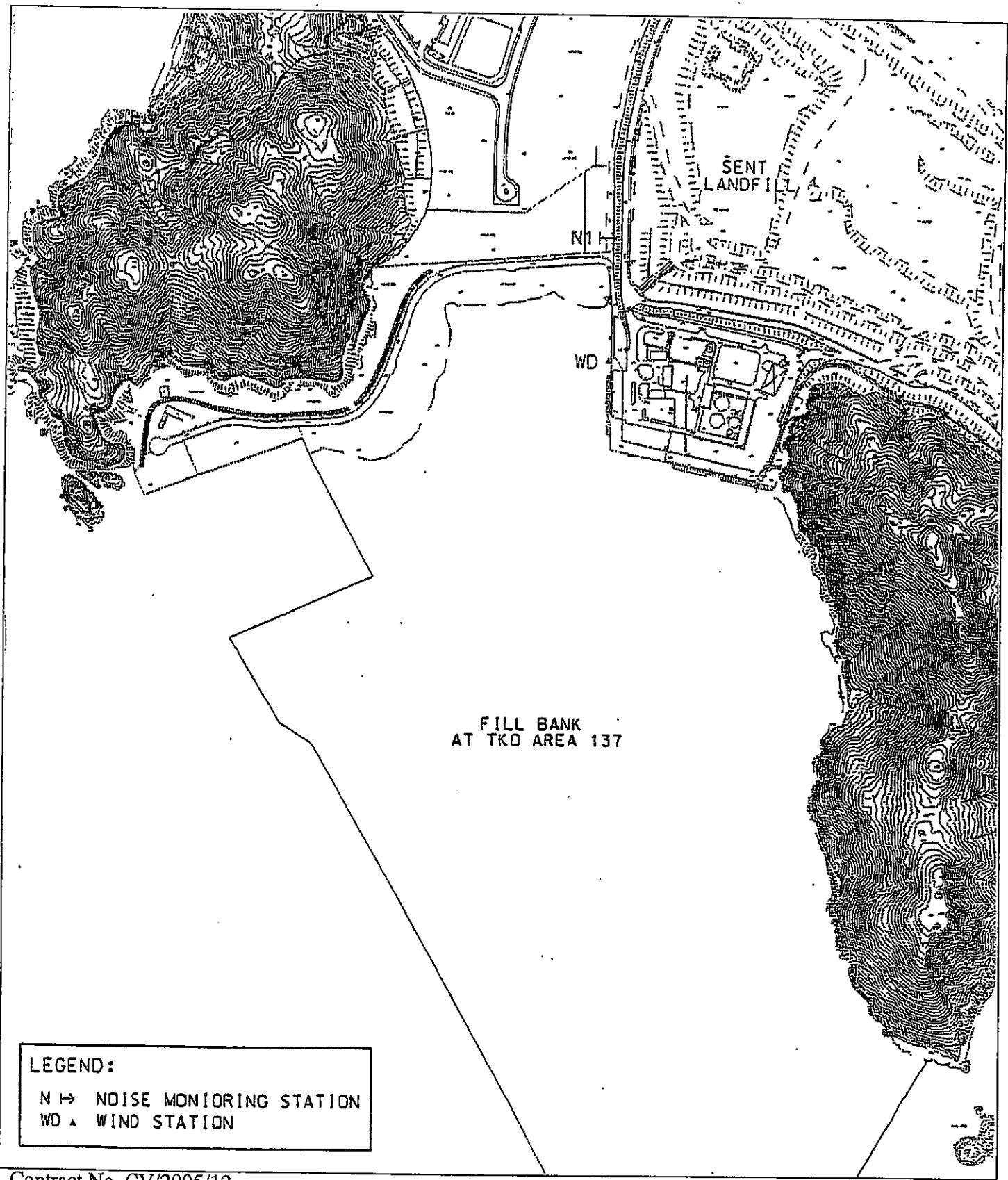
Contract No. CV/2005/12

Operation of Public Fill Reception Facilities at Tseung Kwan O Area 137, Quarry Bay and Mui Wo

Figure 1

Locations of Water Quality Monitoring Stations –
Fill Bank at Tseung Kwan O Area 137

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Contract No. CV/2005/12

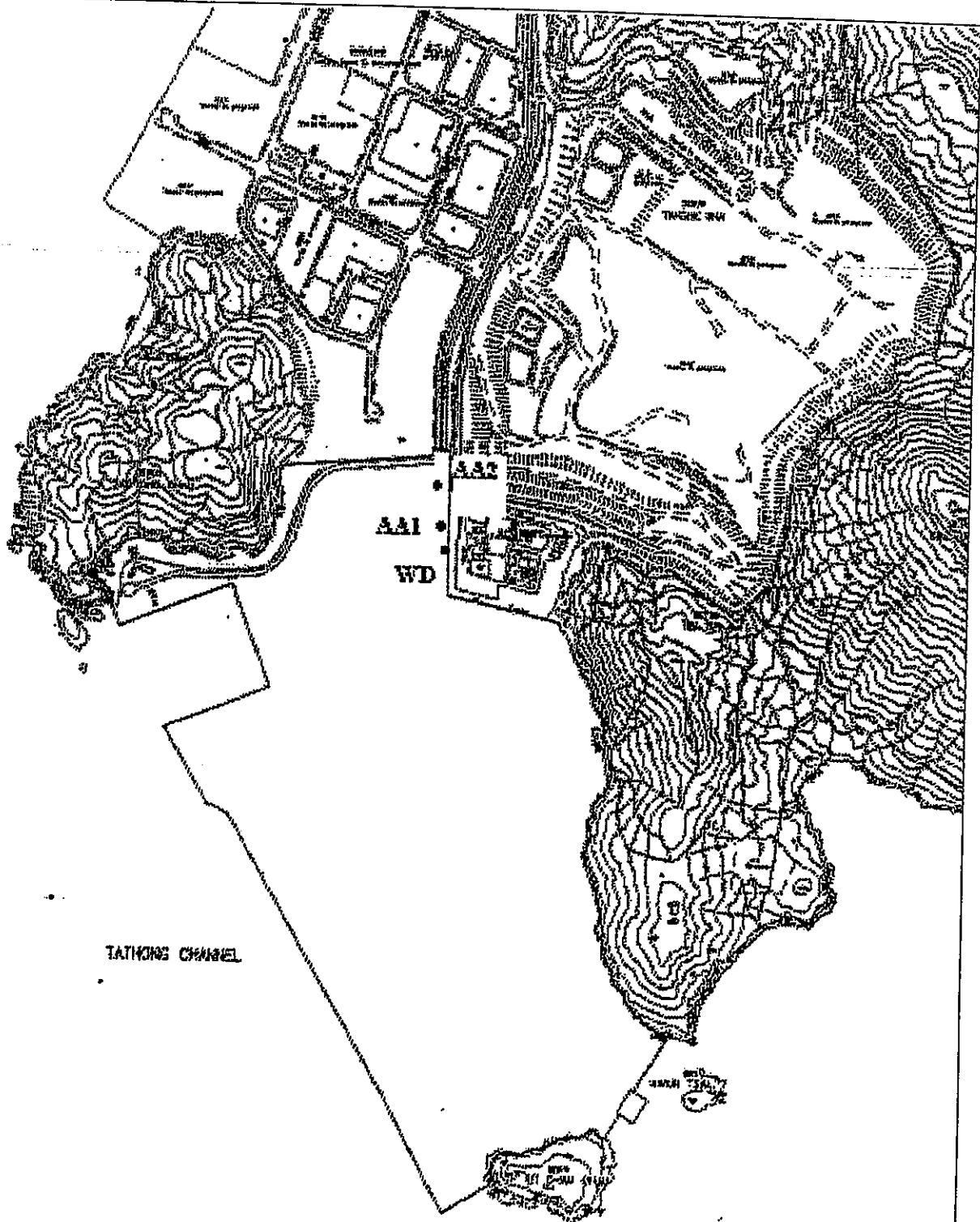
Operation of Public Fill Reception Facilities at Tseung Kwan O Area 137, Quarry Bay and Mui Wo

Figure 2

Locations of Noise Monitoring Station –
Fill Bank at Tseung Kwan O Area 137

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N
W



Legend:

AA * Air Monitoring Stations

WD ■ Wind Station

Contract No. CV/2005/12

Operation of Public Fill Reception Facilities at Tseung Kwan O Area 137, Quarry Bay and Mui Wo

Figure 3

Locations of Air Quality Monitoring Stations –
Fill Bank at Tseung Kwan O Area 137

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