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**TEST REPORT**

**CONCENTRIC CONSTRUCTION LIMITED**

**OPERATION OF PUBLIC FILL RECEPTION  
FACILITES AT TUEN MUN AREA 38, TSEUNG  
KWAN O AREA 137, QUARRY BAY AND MUI WO  
(CONTRACT NO.: CV/2006/02)**

**TUEN MUN AREA 38**

**MONTHLY EM&A REPORT**

**(SEPTEMBER 2006)**

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Approved by:

C. L. Lau  
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Report No.: ENA60730

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Priority  normal /  urgent

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Subject	<b>Contract No. CV/2006/02</b> <b>Operation of Public Fill Reception Facilities at Tuen Mun Area 38, TKO Area 137, Quarry Bay and Mui Wo – Tuen Mun Area 38</b>		

We refer to the first monthly EM&A report (rev. 0) that we received through email on 18 October 2006 and are pleased to confirm we have no further comment on the report.

Should you require further information, please feel free to contact us.

Best regards,

Joseph Poon  
 Independent Environmental Checker

JP/ac

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<b>TABLE OF CONTENTS</b>		<b>Page</b>
<b>EXECUTIVE SUMMARY</b>		
<b>1.0</b>	<b>INTRODUCTION</b>	1
<b>2.0</b>	<b>PROJECT INFORMATION</b>	
	2.1 Construction Programme	1
	2.2 Project Organization and Management Structure	1
	2.3 Contact Details of Key Personnel	1
<b>3.0</b>	<b>CONSTRUCTION PROGRESS IN THIS REPORTING MONTH</b>	2
<b>4.0</b>	<b>AIR QUALITY MONITORING</b>	
	4.1 Monitoring Requirement	2
	4.2 Monitoring Equipment	2
	4.3 Monitoring Parameters, Frequency and Duration	2
	4.4 Monitoring Locations and Schedule	3
	4.5 Monitoring Methodology	3 – 4
	4.6 Action and Limit levels	4
	4.7 Event-Action Plans	4
	4.8 Results and Observations	4 – 5
<b>5.0</b>	<b>MARINE WATER QUALITY MONITORING</b>	
	5.1 Monitoring Requirements	5
	5.2 Monitoring Locations	5
	5.3 Monitoring Parameters and Frequency	5
	5.4 Monitoring Methodology and Equipment Used	5 – 7
	5.5 Action and Limit Level	7
	5.6 Event and Action Plan	7
	5.7 Monitoring Duration and Period in this reporting month	7 – 8
	5.8 Marine Water Monitoring Results	8
<b>6.0</b>	<b>ENVIRONMENTAL AUDIT</b>	
	6.1 Weekly Site Inspection	9 – 10
	6.2 Review of Environmental Monitoring Procedures	10
	6.3 Status of Environmental Licensing and Permitting	10
	6.4 Implementation Status	10 – 11
<b>7.0</b>	<b>LANDSCAPE AND VISUAL</b>	11
<b>8.0</b>	<b>WASTE MANAGEMENT</b>	11
<b>9.0</b>	<b>ENVIRONMENTAL NON-CONFORMANCE</b>	
	9.1 Summary of air quality, noise and marine water quality	11
	9.2 Summary of Environmental Complaints	11
	9.3 Summary of Notification of Summons and Prosecution	12
<b>10.0</b>	<b>CONCLUSIONS AND RECOMMENDATIONS</b>	12 – 13
<b>11.0</b>	<b>FUTURE KEY ISSUE</b>	
	11.1 Construction Programme for the Coming Month	13
	11.2 Key Issues for the Coming Month	13 – 14
	11.3 Monitoring Schedule for the Coming Month	14



## APPENDIX

A	Organization Chart and Lines of Communication
B1	Calibration Certificates for Impact Air Quality Monitoring Equipment
B2	Impact Air Quality Monitoring Results
B3	Graphical Plots of Impact Air Quality Monitoring Data
C1	Calibration Certificates for Marine Water Quality Monitoring Equipment
C2	Impact Marine Water Quality Monitoring Results
C3	Graphical Plots of Impact Marine Water Quality Monitoring Data
D	Weather Condition
E	Event-Action Plans
F	Construction Programme
G	Weekly ET's Site Inspection Record
H	Implementation Schedule of Mitigation Measures
I	Site General Layout Plan
J	Monitoring Schedule for the Coming Month
K	QA/QC Results of Laboratory Analysis
L	Summary of Interim notifications of exceedance (NOEs)

## FIGURES

Figure 2	Air Quality Monitoring Stations
Figure 3	Water Quality Monitoring Stations

## TABLES

2.1	Contact Details of Key Personnel
4.1	Air Quality Monitoring Equipment
4.2	Monitoring parameters, duration and frequency of air quality monitoring
4.3	Monitoring Schedule for air quality monitoring stations
4.4	Action and Limit levels for 24-hr TSP and 1-hr TSP
5.1	Monitoring Parameters and Frequency of the marine water
5.2	Summary of testing procedures
5.3	Details of Water Quality Monitoring Equipment (In-site measurement)
5.4	Water Quality Action and Limit Levels
5.5	Time Schedule of Water Quality Monitoring
5.6	Summary of Marine Water Quality Exceedances in this reporting month
6.1	Summary of environmental licensing and permit status
6.2	Summary of Environmental Complaints and Prosecutions
8.1	Actual amounts of waste generated in September 2006



## **EXECUTIVE SUMMARY**

This is the first monthly Environmental Monitoring and Audit (EM&A) report prepared by ETS-Testconsult Ltd (ET) for the "Contract No. CV/2006/02 Operation of Public Fill Reception Facilities at Tuen Mun Area 38, Tseung Kwan O Area 137, Quarry Bay and Mui Wo" (The Project).

This report documented the findings of EM&A Works conducted during the operation phase of Fill Bank at Tuen Mun Area 38 in September 2006.

### **Construction Progress**

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

- Public filling operation; and
- Construction of Crushing Plant.

### **Environmental Monitoring Progress**

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

- 24-hour TSP Monitoring: 5 Occasions at 2 designated locations
- 1-hour TSP Monitoring: 15 Occasions at 2 designated locations
- Marine Water Quality Monitoring: 13 Occasions at 2 designated locations
- Weekly-site inspection: 4 Occasions

### **Air Monitoring**

No exceedances of Action and Limit levels were recorded for 24-hr and 1-hr TSP monitoring in the reporting month.

### **Marine Water Quality Monitoring**

According to the summary of marine water monitoring results, totally 53 exceedances of Action and Limit Level on Dissolved Oxygen were recorded in this reporting month. According to the monitoring results, it was found that dissolved oxygen content of the impact stations were found closed to that of control stations. At the same time, no abnormal site activities was observed at the Fill Bank. Therefore, the exceedance might be due to natural fluctuation of dissolved oxygen content in the water body around the area and considered not due to the Fill Bank operation. Hence, no further action was required to be taken.

### **Site Inspection**

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

<u>Concerned Parties</u>	<u>Dates of Audit / Inspection</u>
ET Weekly site inspection	06, 12, 18, 29
IEC site inspection	18

In general, performance on environmental mitigation measures implemented was found to be satisfactory in this reporting month. The major findings observed during site inspections are presented in the Section 7.0.



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

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

**Future Key Issues**

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

- Dust generation from activities on site, such as vehicular movements along unpaved area and rock crushing activities;
- Noise impact from operating equipment and machinery on site;
- Wastewater and surface runoff from the site discharged into nearby water body; and
- Storage and usage of chemicals / fuel and chemical waste / waste oil.



## 1.0 INTRODUCTION

Concentric Construction Ltd (CCL) 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 Tuen Mun Area 38, Tseung Kwan O Area 137, Quarry Bay and Mui Wo" (Contract No.: CV/2006/02) (The Project).

In accordance with the Section 4 of Environmental Permit (No.: EP-210/2005) (the EP), an EM&A programme as set out in the Project Profile should be implemented.

The EM&A programme requires environmental monitoring for air quality, water quality and environmental site inspections for air quality, 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 Profile; and
- Environmental requirements in contract documents.

This report documented the findings of EM&A Works conducted during the operation phase of Fill Bank at Tuen Mun Area 38 in September 2006.

## 2.0 PROJECT INFORMATION

### 2.1 Construction Programme

Details of construction programme are shown in Appendix F.

### 2.2 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.

### 2.3 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. Thomas Wong	Engineer	2762 5602	2714 0113
IEC (Materialab)	Mr Joseph Poon	IEC	2450 8238	2450 6138
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 CONSTRUCTION PROGRESS IN THIS REPORTING MONTH

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

- *Public filling operation; and*
- *Construction of Crushing Plant.*

### 4.0 AIR QUALITY MONITORING

#### 4.1 Monitoring Requirement

1-hr and 24-hr TSP levels were monitored in the reporting month. Table 4.4 shows the Action and Limit Levels for the environmental monitoring works.

#### 4.2 Monitoring Equipment

Both 1-hour and 24-hour TSP air quality monitoring was performed using a GMWS2310 High Volume Air Sampler (HVS) located at each of the designated monitoring station. Table 4.1 summarizes the equipment used in the air quality monitoring programme. A copy of the calibration certificates for the HVS are attached in Appendix B1.

Table 4.1 Air Quality Monitoring Equipment

<i>Equipment</i>	<i>Model and Make</i>
<i>HVS</i>	<i>Greasby GMWS2310</i>
<i>Calibrator</i>	<i>Tisch TE-5025A</i>

#### 4.3 Monitoring Parameters, Frequency and Duration

Table 4.2 summarizes the monitoring parameters, monitoring duration and frequencies of air quality monitoring.

Table 4.2 Monitoring parameters, duration, frequency of air quality monitoring

<i>Parameter</i>	<i>Duration</i>	<i>Frequency</i>
<i>24-hr TSP</i>	<i>24 hr</i>	<i>One per six days</i>
<i>1-hr TSP</i>	<i>1 hr</i>	<i>Three times per six days</i>





#### 4.4 Monitoring Locations and Schedule

In accordance with the Project Profile, two air-quality monitoring stations, namely A1 and A2, were selected for the 1-hr TSP and 24-hr TSP sampling. The locations of monitoring stations are shown in Figure 2.

During the reporting month, 1-hr and 24-hr TSP monitoring were carried out as the schedule. The details for 24-hr and 1-hr TSP monitoring carried out in this reporting month are summarized in table 4.3.

Table 4.3 Monitoring Schedule for the air quality monitoring stations

Air quality monitoring stations	Monitoring Period						
	24-hr TSP				1-hr TSP		
	Start		Finish		Date	Start	Finish
	Date	Time	Date	Time			
A1	---				06/09/06	13:00	14:00
						14:15	15:15
						15:30	16:30
					12/09/06	11:00	12:00
						13:00	14:00
						14:15	15:15
					18/09/06	13:00	14:00
						14:15	15:15
						15:30	16:30
					23/09/06	09:00	10:00
						11:00	12:00
						13:00	14:00
					29/09/06	08:30	09:30
						09:45	10:45
						11:00	12:00
A2	---				06/09/06	13:00	14:00
						14:15	15:15
						15:30	16:30
					12/09/06	11:00	12:00
						13:00	14:00
						14:15	15:15
					18/09/06	13:00	14:00
						14:15	15:15
						15:30	16:30
					23/09/06	09:00	10:00
						11:10	12:10
						13:00	14:00
					29/09/06	08:30	09:30
						09:45	10:45
						11:00	12:00
A1	06/09/06	16:45	07/09/06	16:46	---		
	12/09/06	17:00	13/09/06	17:00			
	18/09/06	16:45	19/09/06	16:45			
	23/09/06	15:00	24/09/06	15:00			
	29/09/06	13:00	30/09/06	13:00			
A2	06/09/06	16:45	07/09/06	16:45	---		
	12/09/06	17:00	13/09/06	17:00			
	18/09/06	16:45	19/09/06	16:45			
	23/09/06	15:00	24/09/06	15:00			
	29/09/06	13:00	30/09/06	13:00			

#### 4.5 Monitoring Methodology

##### Both 1-hr and 24-hr air quality monitoring (High Volume Sampler)

###### Instrumentation

High volume sampler, as HVS, (Greasby GMWS2310) complete with appropriate sampling inlets were employed for both 1-hour and 24-hour TSP monitoring. The sampler is composed of a motor, a filter holder, a flow controller and a sampling inlet and its performance specification complies with that required by USEPA standard Title 40, Code of Federation Regulations Chapter 1 (Part 50).



**Installation**

The installation of HVS refers to the requirement stated in EM&A Manual.

**Operation/Analytical Procedures**

Operating/analytical procedures for the operation of HVS are as below:

Prior to the commencement of the dust sampling, the flow rate of the high volume sampler was properly set (between 0.6m<sup>3</sup>/min and 1.7m<sup>3</sup>/min.) in accordance with the manufacturer's instruction to within the range recommended in USEPA Standard Title 40, CFR Part 50.

- For TSP sampling, fiberglass filters (GA-55) were used.
- The power supply was checked to ensure the sampler worked properly.
- On sampling, the sampler was operated 5 minutes to establish thermal equilibrium before placing any filter media at designated air monitoring station.
- The filter holding frame was then removed by loosening the four nuts and carefully a weighted and conditioned filter was centered with the stamped number upwards, on a supporting screen.
- The filter was aligned on the screen so that the gasket formed an air-tight seal on the outer edges of the filter. Then the filter holder frame was tightened to the filter holder with swing bolts. The applied pressure should be sufficient to avoid air leakage at the edges.
- The programmable timer will be set for a sampling period of 24 hours  $\pm$  1 hour. Information was recorded on the record sheet, which included the starting time, the weather condition and the filter number (the initial weight of the filter paper can be found out by using the filter number.).
- After sampling, the filter was transferred from the filter holder of the HVS to a sealed plastic bag and sent to the laboratory for weighting. The elapsed time was also recorded.
- Before weighting, all filters were equilibrated in a desiccator for 24 hour with the temperature of 25°C  $\pm$  3°C and the relative humidity (RH) <50%  $\pm$ 5%.

**Maintenance & Calibration**

- The HVS and their accessories should be maintained in good working condition, such as replacing motor brushes routinely and checking electrical wiring to ensure a continuous power supply.
- HVS should be calibrated at bi-monthly intervals.

**Wind Data Monitoring**

Wind data (wind speed and wind direction) were directly extracted from Tuen Mun Station of Hong Kong Observatory during this reporting month. The wind data are presented in Appendix D.

**4.6 Action and Limit Levels**

Table 4.4 shows the Action and Limit levels for 24-hr TSP and 1-hr TSP monitoring.

Table 4.4 Action and Limit Levels for 24-hr TSP and 1-hr TSP

Monitoring Location	24-hr TSP ( $\mu\text{g}/\text{m}^3$ )		1-hr TSP ( $\mu\text{g}/\text{m}^3$ )	
	Action Level *	Limit Level *	Action Level *	Limit Level *
A1	192	260	344	500
A2	192	260	344	500

**4.7 Event-Action Plans**

Please refer to Appendix E for details.

**4.8 Results and Observations**

Totally 5 occasions of 24-hr TSP monitoring and 15 occasions of 1-hr TSP monitoring were carried out in this reporting period. All monitoring data of both 1-hour and 24-hour TSP monitoring is provided in Appendix B2. Graphical presentation of 1-hour and 24-hour TSP monitoring results for the reporting month is shown in Appendix B3. Wind data, including wind speed and wind direction, are annexed in Appendix D.



No exceedances of Action and Limit Level of both 1-hour and 24-hour TSP monitoring results were recorded during the reporting month.

Generally, the Contractor implemented sufficient dust mitigation measures, including operation of wheel washing facilities and road dampening by water bowsers on the main haul roads and unpaved areas.

## 5.0 MARINE WATER QUALITY MONITORING

### 5.1 Monitoring Requirements

In accordance with the Project Profile, impact marine water quality monitoring was conducted three days per week. Measurements were taken at both mid-flood and mid-ebb tides at three depths (i.e. 1m below surface, mid depth and 1m from seabed) at four monitoring stations, FC1, FM1, FM2 and FC2.

### 5.2 Monitoring Locations

As stipulated in the EM&A requirement, there were four monitoring stations undertaken during the impact monitoring. Figure 3 shows the locations of the marine water quality monitoring stations.

### 5.3 Monitoring Parameters and Frequency

Monitoring of the marine water quality parameters and frequency are listed in Table 5.1.

Table 5.1 Monitoring Parameters and Frequency of the marine water

Monitoring Station	Parameter	Frequency	No. of Depths
Control Stations: FC1 and FC2	Depth (m)	3 days/week, 2 tides/day	3 (Surface, mid- depth & bottom)
	Temperature (°C)		
Impact Stations: FM1 and FM2	Dissolved Oxygen (mg/L and % saturation)		
	Turbidity (NTU)		
	Salinity (ppt)		
	Suspended solids (mg/L)		

### 5.4 Monitoring Methodology and Equipment Used

#### For Location of the monitoring stations

##### **Global Positioning System (GPS)**

A hand-held digital GPS was used to identify the designated monitoring stations prior to water sampling.

#### For Water Depth measurement

##### **Echo Sounder**

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

#### For In-situ Water Quality Measurement

All in-situ monitoring instruments were checked, calibrated and certified by a laboratory accredited under HOKLAS or any other international accreditation scheme before use, and subsequently re-calibrated at 3 monthly intervals or sometimes longer throughout all stages of the water quality monitoring.



**Dissolved Oxygen (DO) and temperature measuring equipment**

A portable, weatherproof DO-measuring meter with built-in salinity compensation (YSI model 95) was used in the impact monitoring. It can be capable for measuring:

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

This type of DO-measuring meter has a membrane electrode with automatic temperature compensation complete with a 50-foot cable. Wet bulb calibration for a DO meter was carried out before measurement at each monitoring location

**Turbidity Measurement Instrument**

A portable and weatherproof turbidity meter (HACH model 2100P) was used during impact monitoring. It has a photoelectric sensor capable of measuring turbidity between 0-1000 NTU. Response of the sensor was checked with certified standard Turbidity solutions before the start of measurement.

**Salinity Meter**

A portable salinity meter capable of measuring salinity in the range 0-40 ppt (YSI Model 30M) was provided for measuring salinity of the water at each monitoring location. It was checked with standard 30 ppt Salinity solutions before the start of measurement.

**For Water Sampling and Sample Analysis**

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

**Water Sampler**

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

**Water Container**

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

The summary of testing method of testing parameter as recommended by EIA or required by EPD, with the QA/QC results in accordance with the requirement of HOKLAS or international accredited scheme is shown in Table 5.2. For the QA/QC procedures, one QC sample, one duplicate sample and one sample spike of every batch of 20 samples were analysis. The QA/QC results are summarized in Appendix K.

Table 5.2 Summary of testing procedures

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

**In-situ measurement**

All in-situ monitoring instruments were checked, calibrated and certified by a laboratory accredited under HOKLAS or any other international accreditation scheme before use. Responses of sensors and electrodes were checked with certified standard solutions before each use. Wet bulb calibration for a DO meter was carried out before measurement at each monitoring location.



At each measurement/sampling depth, two consecutive measurements of dissolved oxygen (DO), dissolved oxygen saturation (DOS), turbidity and salinity were taken. For turbidity measurement, the sample was collected by using sampler and then transferred to the cell. The reading of turbidity of the sample was directly recorded from the Turbidimeter (HACH 2100P) after inserting the cell to the Turbidimeter. For DO, DOS and Salinity, measurements were conducted three days per week at both mid-ebb and mid-flood tides at three depths (i.e. 1m below surface, mid depth and 1m from seabed). The duplicate measurements were averaged if the difference was not greater than 25%.

Table 5.3 shows the equipment used for in-situ monitoring of water quality. The calibration certificates are attached in Appendix C1.

Table 5.3 Details of Marine Water Quality Monitoring Equipment (In-site measurement)

Parameter	Model	Date of Calibration	Due Date	Equipment No.
Coordinate of Monitoring stations	MLR GPS Navigator, SP24	----	----	EW/005/01*
Dissolved Oxygen (Saturation), Temperature	YSI Dissolved Oxygen Meter, YSI 95	22-08-2006	21-11-2006	EW/003/001*
Turbidity	HACH Model 2100P Turbid Meter	28-07-2006	28-10-2006	ET/0505/002
Salinity	YSI Model 30M	28-07-2006	28-10-2006	ET/0527/001
Water Depth	EAGLE Strata 128 Sonar	----	----	EW/002/02

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

## 5.5 Action and Limit Level

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

Table 5.4 Water Quality Action and Limit Levels

Parameter	Action Level *	Limit Level *
DO (mg/L)	<u>Surface &amp; Middle</u> <4.78 mg/L (5%-ile of baseline data)  <u>Bottom</u> <4.16 mg/L (5%-ile of baseline data)	<u>Surface &amp; Middle</u> <4.00 mg/L (1%-ile of baseline data)  <u>Bottom</u> <2.00 mg/L
SS (mg/L) (Depth-averaged)	>120% of the upstream control station's SS at the same tide on the same day	>130% of the upstream control station's SS at the same tide on the same day
Turbidity (NTU) (Depth-averaged)	>120% of the upstream control station's turbidity at the same tide on the same day	>130% of the upstream control station's turbidity at the same tide on the same day

## 5.6 Event and Action Plan

Please refer to the Appendix E for details.

## 5.7 Monitoring Duration and Period in this reporting month

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



Table 5.5 Time Schedule of Water Quality Monitoring

September 2006						
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30

Remark (▼) : Marine water quality monitoring carried out by ET

The duration of marine water quality monitoring is detailed in Appendix C2.

### 5.8 Marine Water Quality Monitoring Results

Totally 13 occasions (mid-flood and mid-ebb) of marine water quality monitoring were carried out in this reporting period. The impact water quality measurement results are detailed in Appendix C2. Appendix C3 presents the water quality monitoring data and graphical presentations of monitoring results respectively.

The summary of marine water quality exceedances is shown in Table 5.6.

Table 5.6 Summary of Marine Water Quality Exceedances in this reporting month

Tide	Station	Exceedance Level	DO		Turbidity	SS	Total
			Surface and Middle	Bottom			
Mid-Ebb	FM1	Action	2	6	0	0	8
		Limit	5	0	0	0	5
	FM2	Action	1	6	0	0	7
		Limit	6	0	0	0	6
Mid-Flood	FM1	Action	3	6	0	0	9
		Limit	5	0	0	0	5
	FM2	Action	3	6	0	0	9
		Limit	4	0	0	0	4
Total	Action		9	24	0	0	33
	Limit		20	0	0	0	20

According to the summary of marine water monitoring results, totally 53 exceedances of Action and Limit Level on Dissolved Oxygen were recorded in this reporting month. According to the monitoring results, it was found that dissolved oxygen content of the impact stations were found closed to that of control stations. At the same time, no abnormal site activities was observed at the Fill Bank. Therefore, the exceedance might be due to natural fluctuation of dissolved oxygen content in the water body around the area and considered not due to the Fill Bank operation. Hence, no further action was required to be taken.

Interim notifications of exceedance (NOEs) for all exceedances were issued to ER, IEC and the Contractor by ET. The summary of NOE is attached in Appendix L.



## 6.0 ENVIRONMENTAL AUDIT

### 6.1 Weekly Site Inspection

Weekly ET site inspections were carried out by ET to monitor the timely implementation of proper environmental pollution control and mitigation measures for the Project. In this reporting month, four weekly site inspections were conducted (06, 12, 18 and 29 September 2006). Summaries of the weekly site inspection observations and recommendations in this reporting month are described as follows:

#### **Air Quality**

- The major dust sources were dump truck movement on the unpaved haul roads and loading & unloading activities on various working platforms in the Fill Bank. The Contractor deployed water bowsers to dampen the haul roads and the working platforms;
- Water trucks served to dampen the haul roads and on the ramp to the stockpiling area;
- Wheel washing facilities were found operating during weekly site inspections;
- No potential fugitive dust from vehicle movement was observed in this reporting month. The Contractor was still reminded to water the haul road more frequently during dry season;
- The dump trucks were operating below the speed limit in the Fill Bank. There were sufficient speed limit signs on site to advise the drivers; and
- No dark smoke emission was noted from the site equipment and machinery during weekly site inspections. The Contractor was still reminded to maintain all the Powered Mechanical Equipment (PME) regularly.

#### **Noise**

- The major noise source was dump truck traffic in the Fill Bank;
- Compressors and generators were operated with door closed; and
- All site equipment and machinery were well maintained and no noise nuisance was observed during operating.

#### **Water Quality**

- Rainy water and mud were observed to have accumulated at the road side near to "CREO" during the ET weekly site inspection on 18 September 2006. The Contractor should clean up road side regularly. Since the finding was found improved during the weekly site inspection on 29 September 2006, no further verification should be required; and
- During weekly site inspection on 06 September 2006, rainy water was observed to be accumulated inside the idle tire at the Contractor's Site Office. The contractor was reminded to drain the accumulated water out and relocate the tire to an appropriate storage area. The tire was found to be removed during the subsequent weekly site inspection on 12 September 2006.

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

- The Contractor provided waste skips to collect general refuse and disposal of them regularly to the WENT Landfill; However, the waste skip at TP1 was found to be full during weekly site inspection on 06 September 2006. The Contractor was reminded to clean up the waste skip regularly. During the subsequent weekly site inspection on 12 September 2006, the rubbish had been removed;
- The chemical waste was stored in the chemical waste storage area at TP1. The Contractor should dispose chemical wastes regularly to avoid over accumulation of chemical waste on site; and
- During weekly site inspection on 18 September 2006, an oil container placed on "Crushing Plant" was found without drip tray. The Contractor should remind the site workers to provide appropriate drip trays for all oil containers. The oil container was removed during the subsequent weekly site inspection on 29 September 2006, and hence no further action was required to be taken.



**Site Practices**

- During the weekly site inspection on 18 September 2006, oil leakage was observed from a generator at TP1. The Contractor was reminded to repair the generator immediately and treated the contaminated soil as chemical waste. The contaminated soil was found to be cleaned during the subsequent weekly site inspection on 29 September 2006;and
- Sufficient rubbish skips had been provided at site by the Contractor and the site area was found tidy and clean.

**6.2 Review of Environmental Monitoring Procedures**

The monitoring works conducted by the ET were inspected internally on a regular basis. The following observations have been recorded for the monitoring works:

**Air Quality Monitoring**

- The monitoring team recorded the observations around the monitoring stations within and outside of the construction site.
- The monitoring team recorded the temperature, air pressure and general weather condition on the monitoring day.

**Water Quality Monitoring**

- The monitoring team recorded the observations around the monitoring stations, which might affect the results; and
- Major water pollution sources were identified and recorded.

**6.3 Status of Environmental Licensing and Permitting**

All permits/licenses valid in this reporting month are summarized in Table 6.1.

Table 6.1 Summary of environmental licensing and permit status

Description	Permit No.	Valid Period		Section
		From	To	
Environmental Permit	EP-210/2005	25/02/05	---	Issued
Effluent Discharge License	Application had been submitted to EPD			
Chemical Waste Producer	Application had been submitted to EPD			

**6.4 Implementation Status**

**6.4.1 Implementation Status of Environmental Mitigation Measures**

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

**6.4.2 Implementation Status of Event and Action Plan**

There was no exceedance on air quality monitoring parameters recorded in this monitoring month. Hence no further actions were required.

According to the summary of marine water monitoring results, totally 53 exceedances of Action and Limit Level on Dissolved Oxygen were recorded in this reporting month. According to the monitoring results, it was found that dissolved oxygen content of the impact stations were found closed to that of control stations. At the same time, no abnormal site activities was observed at the Fill Bank. Therefore, the exceedance might be due to natural fluctuation of dissolved oxygen content in the water body around the area and considered not due to the Fill Bank operation. Hence, no further action was required to be taken.





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

No complaints, notifications of summons and successful prosecutions were received in this reporting month. A summary of environmental complaints, notifications of summons and successful prosecutions was given in Table 6.2.

Table 6.2 Summary of Environmental Complaints and Prosecutions

Complaints logged		Summons served		Successful Prosecution	
September 2006	Cumulative	September 2006	Cumulative	September 2006	Cumulative
0	1	0	0	0	0

## 7.0 LANDSCAPE AND VISUAL

Landscape and visual site audit was carried out on a weekly basis to monitor environmental issues in order to ensure that all mitigation measures were implemented timely and properly. The findings in September 2006 were:

- The maximum stockpiling height at the Fill Bank was limited to a maximum of +40 mPD;
- The Contractor hydroseeded the outer slopes of the Fill Bank as far as practicable;
- The Contractor removed the stockpile of public fill in a sequence to allow the outer hydroseeded to be removed later than other portions as far as practicable;
- *Casuarina equisetifolia* were planted as buffer tree along the northern perimeter of the site. The height of *Casuarina equisetifolia* was maintained at least 3000mm above soil level; and
- *Lighting was set to minimize night-time glare.*

## 8.0 WASTE MANAGEMENT

The actual amounts of different types of waste generated by the activities of the Project in the month are shown in Table 8.1

Table 8.1 Actual amounts of Waste generated in September 2006

Waste Type	Actual Amount	Disposal Locations
Public Fill	0 m <sup>3</sup>	---
C&D Waste	9.42 tonne	WENT Landfill
Chemical Waste	0 L	---

## 9.0 ENVIRONMENTAL NON-CONFORMANCE

### 9.1 Summary of air quality, noise and marine water quality

No exceedances of Action and Limit Level of 24-hour and 1-hour TSP monitoring results were recorded during the reporting month.

According to the summary of marine water monitoring results, totally 53 exceedances of Action and Limit Level on Dissolved Oxygen were recorded in this reporting month. According to the monitoring results, it was found that dissolved oxygen content of the impact stations were found closed to that of control stations. At the same time, no abnormal site activities was observed at the Fill Bank. Therefore, the exceedance might be due to natural fluctuation of dissolved oxygen content in the water body around the area and considered not due to the Fill Bank operation. Hence, no further action was required to be taken.

### 9.2 Summary of Environmental Complaints

No complaint was received in this reporting month.



### 9.3 Summary of Notification of Summons and Prosecution

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

## 10.0 CONCLUSIONS AND RECOMMENDATIONS

### Conclusions

Impact monitoring of air quality were carried out at designated locations in accordance with the Profile in this reporting month.

According to the summary of air monitoring results, no exceedances of Action and Limit Level of 24-hour and 1-hour TSP monitoring results were recorded during the reporting month.

According to the summary of marine water monitoring results, totally 53 exceedances of Action and Limit Level on Dissolved Oxygen were recorded in this reporting month. According to the monitoring results, it was found that dissolved oxygen content of the impact stations were found closed to that of control stations. At the same time, no abnormal site activities was observed at the Fill Bank. Therefore, the exceedance might be due to natural fluctuation of dissolved oxygen content in the water body around the area and considered not due to the Fill Bank operation. Hence, no further action was required to be taken.

According to the weekly site inspections carried out in this reporting month, 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.

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

### Recommendations

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

#### **Air Quality**

- Ensure the frequency of water spraying on haul roads, unloading areas and stockpiles to be sufficient to suppress the dust sources;
- Provide proper maintenance for the powered mechanical equipment and barges to avoid emission of dark smoke;
- Provide water spraying onto the truckloads during inspection of fill material;
- 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 by water bowers;
- 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;
- Designate proper haul roads to ensure effective water spraying; and
- Ensure all vehicles to be washed before leaving the site egress by 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 and permanent desilting chambers regularly;
- Remove the stagnant water or provide approved pesticides 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 hydroseeded slopes properly.

## **11.0 FUTURE KEY ISSUES**

### **11.1 Construction Programme for the Coming Month**

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

- *Public filling operation;*
- *Operation of Crushing Plant.*

### **11.2 Key Issues for the Coming Month**

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

- Chemical and waste management
- Treatment of runoff and wastewater prior to discharge
- Dust generated from loading and unloading activities; and
- Dust generated from dump trucks traffic.

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

##### Air Quality Impact

- To provide adequate water spraying on haul roads and working platform;
- To operate and maintain automatic wheel washing facilities properly;
- To dampen the fill material prior to unloading or movement;
- To provide road sweeping on the haul road near site egress and the public roads outside site egress;
- To ensure implementation of the dust mitigation measures for the construction activities;
- To maintain proper operation of the mist spraying system;
- To provide proper maintenance for vehicles and machines on site; and
- To investigate any other dust sources around the air sensitive receivers.

##### Noise

- To switch off equipment if not in use;
- To operate silent equipment;
- To identify the noise sources inside and outside of the site;
- To follow up any exceedance caused by the Fill Bank operation; and
- To re-schedule the work activities in the event of valid noise exceedance.



Water Quality Impact

- To maintain the drainage system in the Fill Bank;
- To ensure the cleanliness of oil interceptor bypass tanks and all the drainage channels;
- To maintain the existing silt trap to ensure good efficiency of wheel wash facilities;
- To provide covers for the drip trays to avoid stagnant water pond due to rainfall;
- To provide proper treatment for oily water discharged from the area around air monitoring station AA1;
- To deploy a cleaning vessel to remove floating on the sea; and
- To avoid any stagnant water or provide insecticide to avoid mosquito breeding in the Fill Bank.

Chemical and Waste Management

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

**11.3 Monitoring Schedule for the Coming 3 Months**

The proposed EM&A program of the coming 3 months are attached in Appendix J.



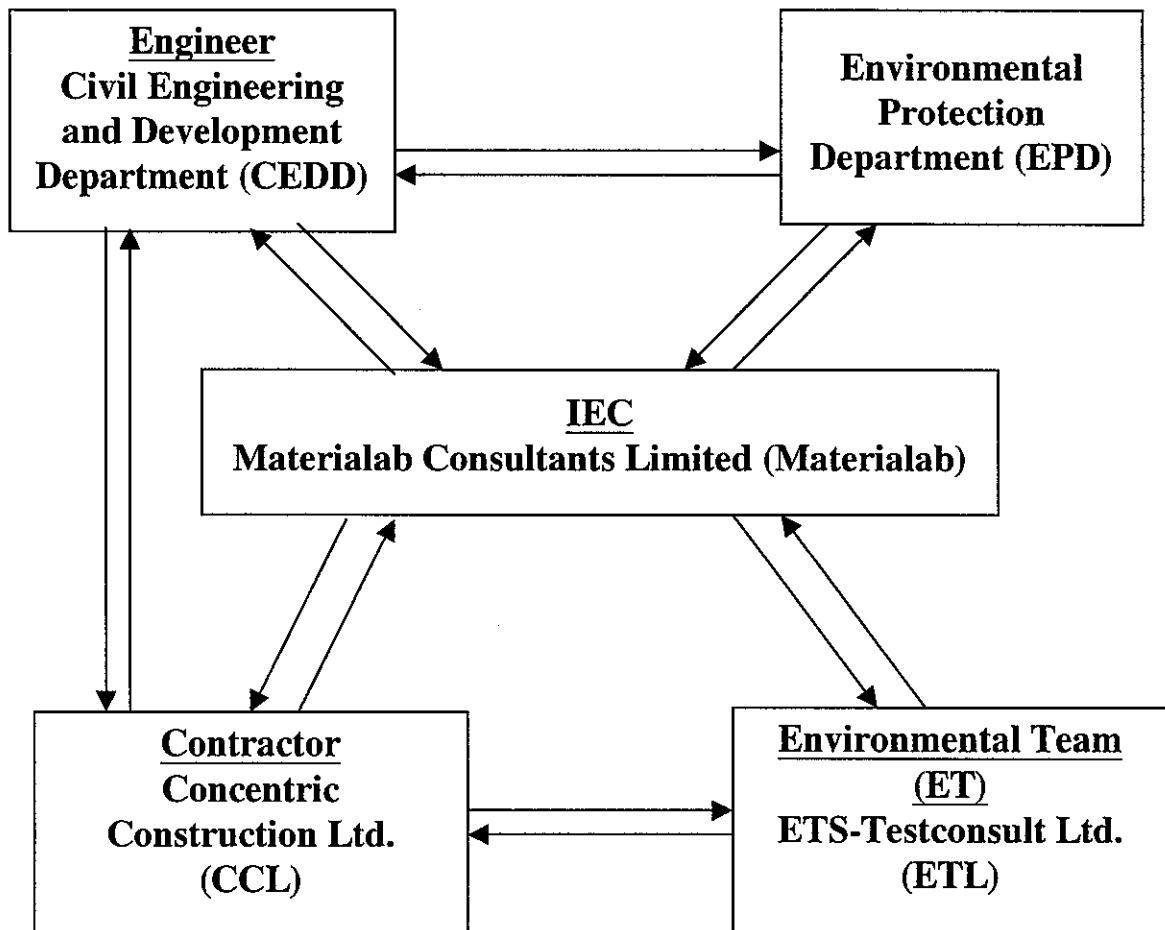
## **Appendix A**

### **Organization Chart and Lines of Communication**





# 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 Pul 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**

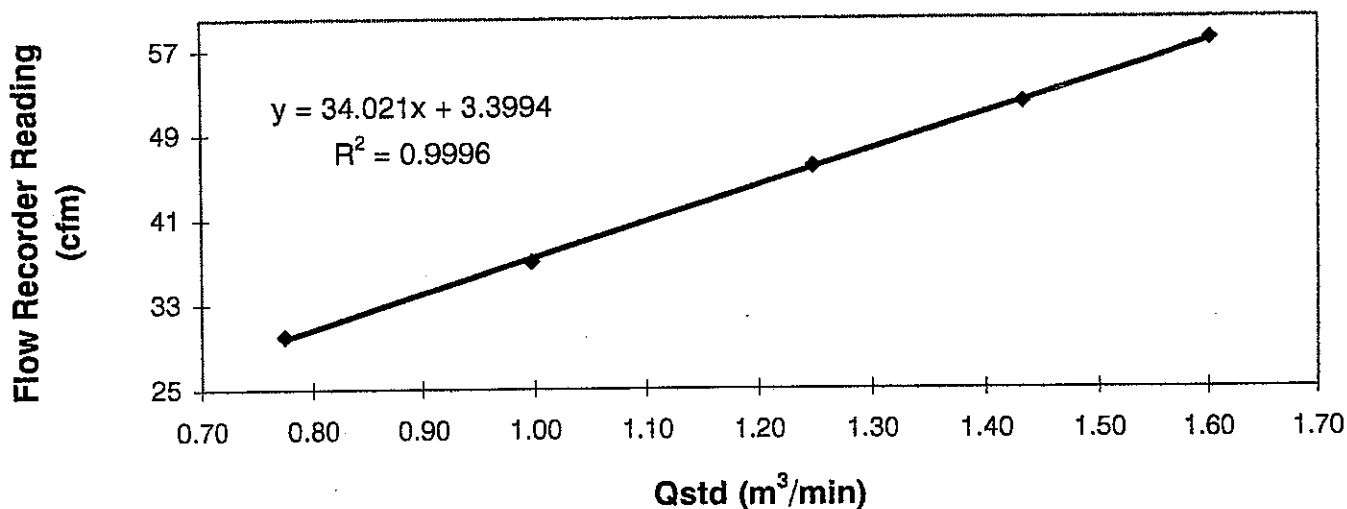
**Calibration Report**  
of  
**High Volume Air Sampler**

**Manufacturer** : Graseby GMW                      **Date of Calibration** : 06 September 2006  
**Serial No.** : 9503 ( ET / EA / 003 / 03 )                      **Calibration Due Date** : 05 November 2006  
**Method** : Based on Operations Manual for the 5-point calibration using standard calibration kit  
manufactured by Tisch TE-5025 A

**Results** :

Flow recorder reading (cfm)	58	52	46	37	30
Qstd (Actual flow rate, m <sup>3</sup> /min)	1.60	1.43	1.25	1.00	0.78
Pressure :	758.31 mm Hg			Temp. :	303 K

**Sampler 9503 Calibration Curve**  
**Site: Tuen Mun 38 (AM-1)**  
**Date of Calibration: 06 September 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)



東業德勤測試顧問有限公司  
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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**

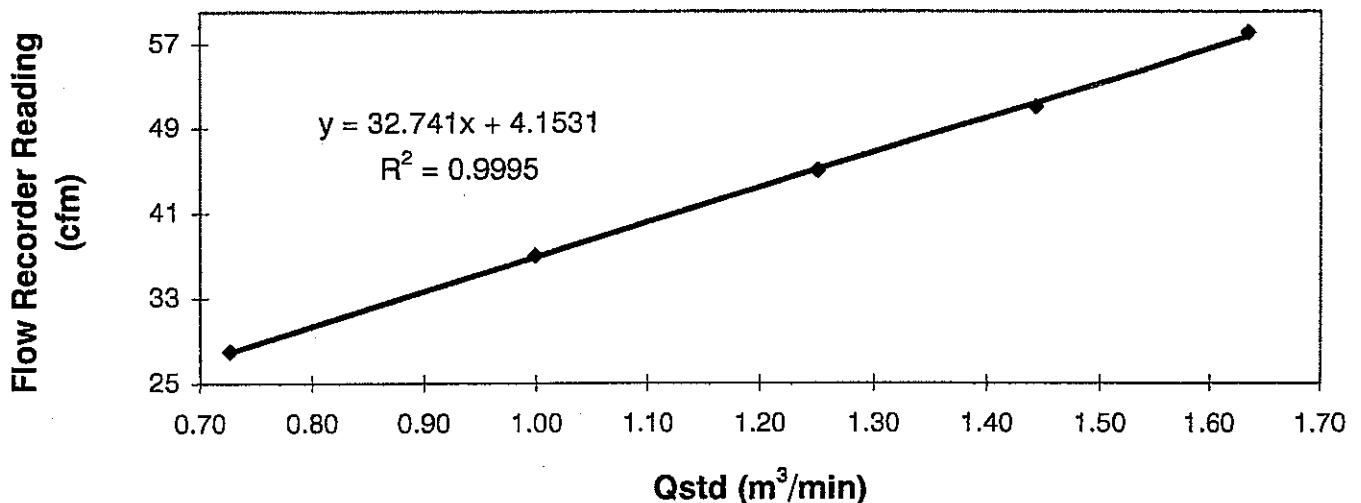
**Calibration Report**  
of  
**High Volume Air Sampler**

**Manufacturer** : Graseby GMW **Date of Calibration** : 06 September 2006  
**Serial No.** : 8115 ( ET / EA / 003 / 13 ) **Calibration Due Date** : 05 November 2006  
**Method** : Based on Operations Manual for the 5-point calibration using standard calibration kit manufactured by Tisch TE-5025 A

**Results** :

Flow recorder reading (cfm)	58	51	45	37	28
Qstd (Actual flow rate, m <sup>3</sup> /min)	1.63	1.44	1.25	1.00	0.73
Pressure :	758.31 mm Hg		Temp. :	302 K	

**Sampler 8115 Calibration Curve**  
**Site: Tuen Mun 38 (AM-2)**  
**Date of Calibration: 06 September 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)



## **Appendix B2**

### **Air Quality Monitoring Results**

## Summary of 24-hr TSP Monitoring Results

Monitoring Station : A1

Date	Start Time		Finish Time		Elapsed Time		Sampling Time (hrs)	Flow Rate (m <sup>3</sup> /min.)		Average (m <sup>3</sup> /min.)	Filter Weight (g)		Conc. (µg/m <sup>3</sup> )
	Date	Time	Date	Time	Initial	Final		Initial	Final		Initial	Final	
06/09/06	16:45	16:45	07/09/06	16:46	9424.10	9448.11	24.01	0.87	0.87	0.87	2.8692	3.0672	158
12/09/06	17:00	17:00	13/09/06	17:00	9451.11	9475.11	24.00	0.84	0.84	0.84	2.8541	2.9315	64
18/09/06	16:45	16:45	19/09/06	16:45	9478.11	9502.11	24.00	0.90	0.90	0.90	2.8328	2.9689	105
23/09/06	15:00	15:00	24/09/06	15:00	9505.11	9529.11	24.00	0.96	0.96	0.96	2.8835	3.0550	124
29/09/06	13:00	13:00	30/09/06	13:00	9532.11	9556.11	24.00	0.93	0.93	0.93	2.8792	3.0801	150

Monitoring Station : A2

Date	Start Time		Finish Time		Elapsed Time		Sampling Time (hrs)	Flow Rate (m <sup>3</sup> /min.)		Average (m <sup>3</sup> /min.)	Filter Weight (g)		Conc. (µg/m <sup>3</sup> )
	Date	Time	Date	Time	Initial	Final		Initial	Final		Initial	Final	
06/09/06	16:45	16:45	07/09/06	16:45	8363.84	8387.84	24.00	0.91	0.91	0.91	2.8777	3.1070	175
12/09/06	17:00	17:00	13/09/06	17:00	8390.84	8414.84	24.00	0.91	0.91	0.91	2.8712	2.9970	96
18/09/06	16:45	16:45	19/09/06	16:45	8417.84	8441.83	23.99	0.94	0.94	0.94	2.8802	3.0534	128
23/09/06	15:00	15:00	24/09/06	15:00	8444.83	8468.83	24.00	0.97	0.97	0.97	2.8755	3.0752	143
29/09/06	13:00	13:00	30/09/06	13:00	8471.83	8495.83	24.00	0.82	0.82	0.82	2.8853	3.0967	179

## Summary of 1-hr TSP Monitoring Results

Monitoring Station : AA1  
Location : Outside CEDD Site Office

Date	Time		Elapse Time		Sampling Time (hrs)	Flow Rate (m <sup>3</sup> /min.)		Average (m <sup>3</sup> /min.)	Filter Weight (g)		Conc. (µg/m <sup>3</sup> )
	Start	Finish	Initial	Final		Initial	Final		Initial	Final	
06/09/06	13:00	14:00	9421.10	9422.10	1.00	0.90	0.90	0.90	2.8512	2.8638	233
	14:15	15:15	9422.10	9423.10	1.00	0.90	0.90	0.90	2.8448	2.8604	289
	15:30	16:30	9423.10	9424.10	1.00	0.87	0.87	0.87	2.8628	2.8732	199
12/09/06	11:00	12:00	9448.11	9449.11	1.00	0.81	0.81	0.81	2.8533	2.8620	179
	13:00	14:00	9449.11	9450.11	1.00	0.81	0.81	0.81	2.8491	2.8570	163
	14:15	15:15	9450.11	9451.11	1.00	0.84	0.84	0.84	2.8678	2.8749	141
18/09/06	13:00	14:00	9475.11	9476.11	1.00	0.84	0.84	0.84	2.8323	2.8432	216
	14:15	15:15	9476.11	9477.11	1.00	0.87	0.87	0.87	2.8641	2.8758	224
	15:30	16:30	9477.11	9478.11	1.00	0.90	0.90	0.90	2.8585	2.8691	196
23/09/06	09:00	10:00	9502.11	9503.11	1.00	0.90	0.90	0.90	2.8632	2.8750	219
	11:00	12:00	9503.11	9504.11	1.00	0.90	0.90	0.90	2.8599	2.8746	272
	13:00	14:00	9504.11	9505.11	1.00	0.93	0.93	0.93	2.8342	2.8479	246
29/09/06	08:30	09:30	9529.11	9530.11	1.00	0.93	0.93	0.93	2.8845	2.8943	176
	09:45	10:45	9530.11	9531.11	1.00	0.93	0.93	0.93	2.8716	2.8860	258
	11:00	12:00	9531.11	9532.11	1.00	0.93	0.93	0.93	2.8982	2.9139	281

Monitoring Station : AA2  
Location : Site Egress

Date	Time		Elapse Time		Sampling Time (hrs)	Flow Rate (m <sup>3</sup> /min.)		Average (m <sup>3</sup> /min.)	Filter Weight (g)		Conc. (µg/m <sup>3</sup> )
	Start	Finish	Initial	Final		Initial	Final		Initial	Final	
06/09/06	13:00	14:00	8360.84	8361.84	1.00	0.94	0.94	0.94	2.8717	2.8860	254
	14:15	15:15	8361.84	8362.84	1.00	0.91	0.91	0.91	2.8634	2.8703	310
	15:30	16:30	8362.84	8363.84	1.00	0.91	0.91	0.91	2.8913	2.9037	227
12/09/06	11:00	12:00	8387.84	8388.84	1.00	0.91	0.91	0.91	2.8539	2.8645	194
	13:00	14:00	8388.84	8389.84	1.00	0.94	0.94	0.94	2.8711	2.8800	158
	14:15	15:15	8389.84	8390.84	1.00	0.91	0.91	0.91	2.8643	2.8710	123
18/09/06	13:00	14:00	8414.84	8415.84	1.00	0.91	0.91	0.91	2.8719	2.8847	234
	14:15	15:15	8415.84	8416.84	1.00	0.94	0.94	0.94	2.8030	2.8188	280
	15:30	16:30	8416.84	8417.84	1.00	0.94	0.94	0.94	2.8597	2.8597	216
23/09/06	09:00	10:00	8441.83	8442.83	1.00	0.94	0.94	0.94	2.8457	2.8594	243
	11:10	12:10	8442.83	8443.83	1.00	0.94	0.94	0.94	2.8618	2.8779	285
	13:00	14:00	8443.83	8444.83	1.00	0.94	0.94	0.94	2.8704	2.8856	270
29/09/06	08:30	09:30	8468.83	8469.83	1.00	0.82	0.82	0.82	2.8842	2.8940	199
	09:45	10:45	8469.83	8470.83	1.00	0.82	0.82	0.82	2.8679	2.8815	276
	11:00	12:00	8470.83	8470.83	1.00	0.82	0.82	0.82	2.8819	2.8969	305

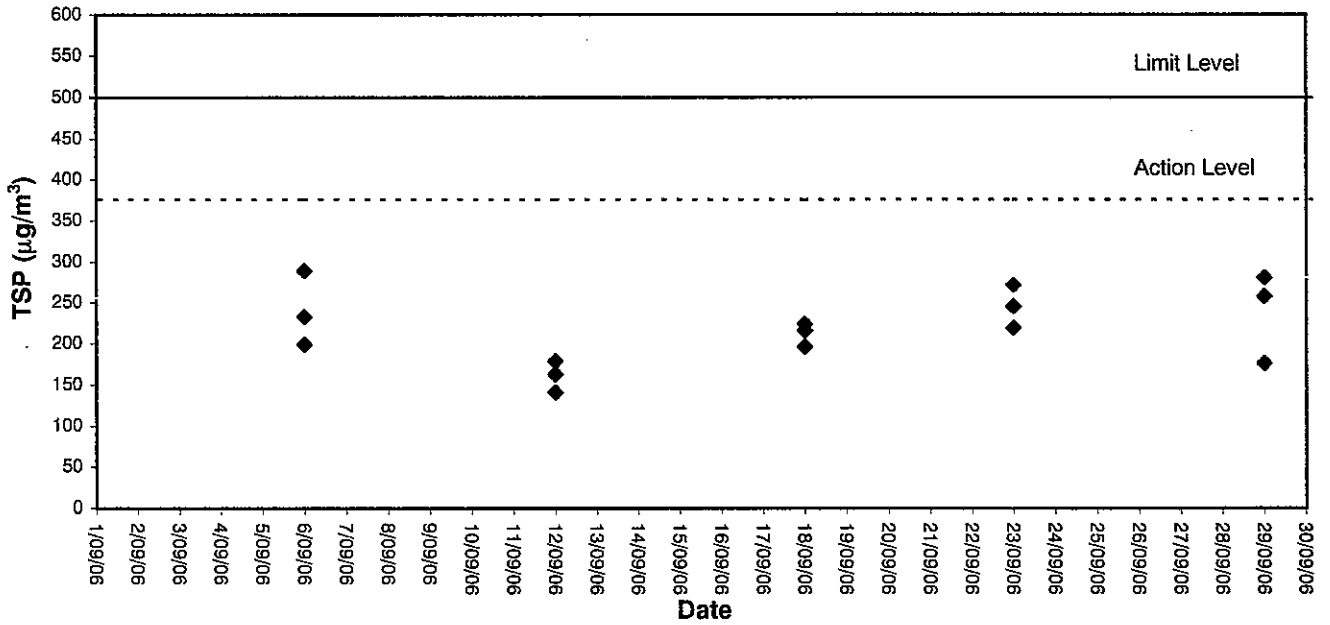


## **Appendix B3**

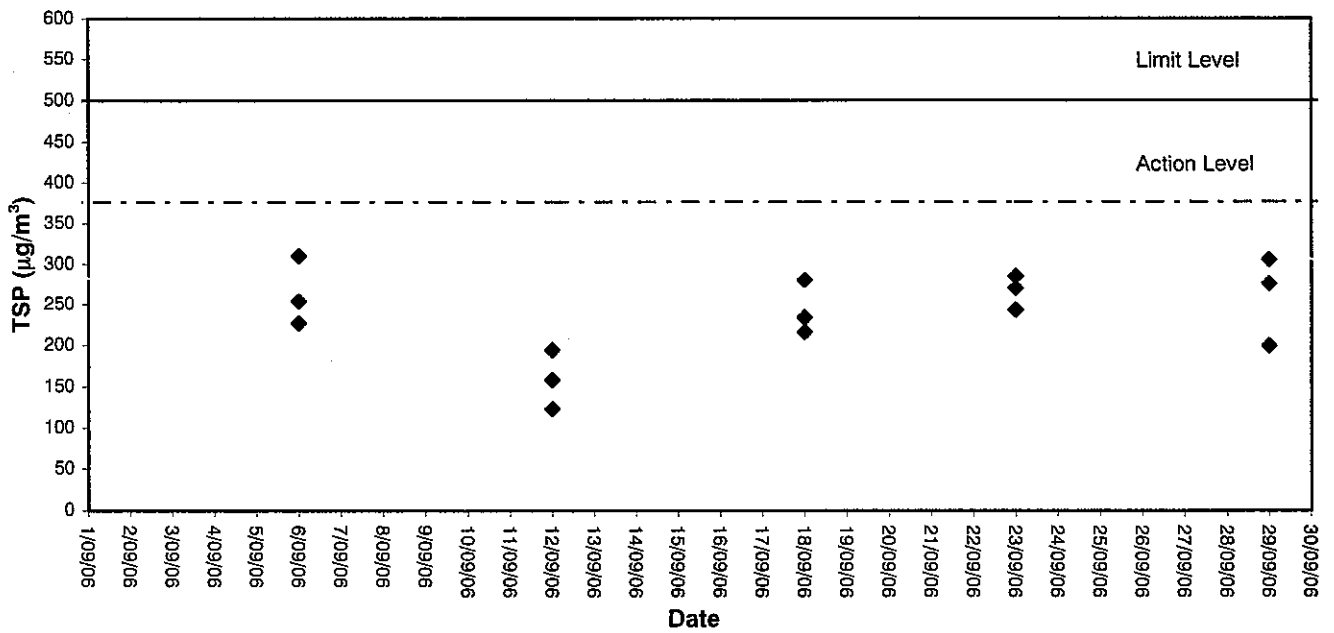
### **Graphical Plots of Air Quality Monitoring Data**



### 1-hour TSP level at A1

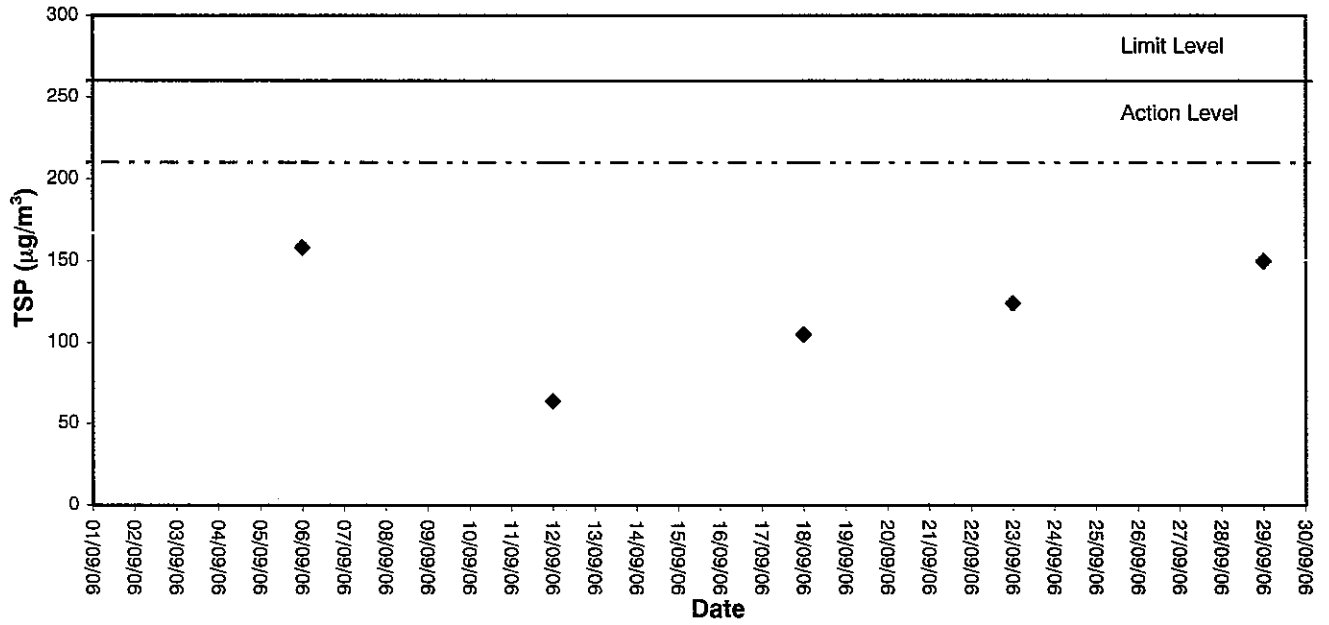


### 1-hour TSP level at A2

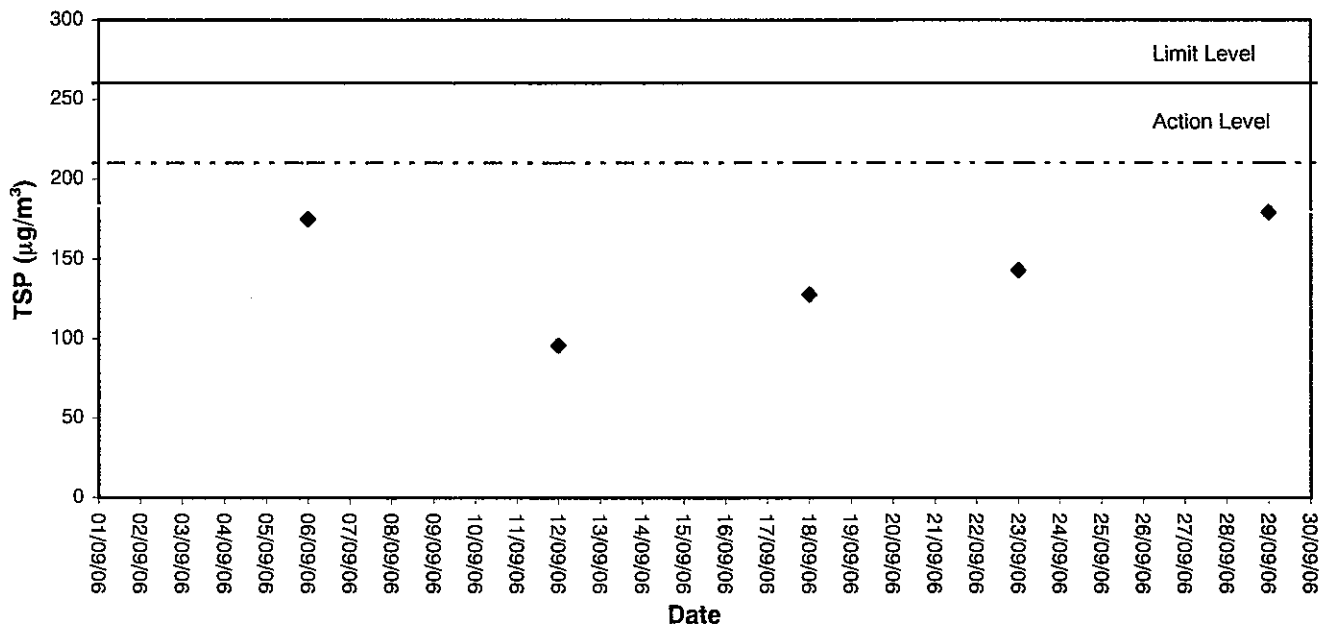




### 24-hour TSP level at A1



### 24-hour TSP level at A2







## **Appendix C1**

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



## Internal Calibration Report of Dissolved Oxygen Meter

Equipment Ref. No. : <u>ET/2W/003/001</u>	Manufacturer : <u>- YSI</u>
Model No. : <u>95</u>	Serial No. : <u>97H 04071 AD</u>
Date of Calibration : <u>22/8/06</u>	Calibration Due Date : <u>21/11/06</u>

Ref. No. of Reference Thermometer : ET/2403/01

Ref. No. of Potassium Dichromate : ET/0520/003/02

### Temperature Verification

	Temperature (°C)
Thermometer reading	20.0
Meter reading	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	7.64	7.66	7.65	7.58	7.60	7.59	0.79
5	5.54	5.56	5.55	5.46	5.44	5.45	1.82
10	3.14	3.16	3.15	3.27	3.29	3.28	4.04
Linear regression coefficient						0.9988	

### 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	7.29	7.31	7.30	7.24	7.26	7.25	0.69
30	6.99	6.97	6.98	6.89	6.87	6.88	1.44

### 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 : PK Approved by : [Signature]



## Internal Calibration Report of Turbidimeter

Equipment Ref. No. : ET/0505/002

Manufacturer : HACH

Model No. : 2100P

Serial No. : 930900003728

Date of Calibration : 28/7/06

Calibration Due : 28/10/06

### Data

(4.95) 0 - 10 NTU Gelex Vial	(49.0) 10 - 100 NTU Gelex Vial	(409) 100 - 1000 NTU Gelex Vial
4.92	48.2	405

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

\* Delete as appropriate

Calibrated by : PH

Approved by : [Signature]



## Performance Check of Salinity Meter

Equipment Ref. No. : ET/0527/001      Manufacturer : YSI  
Model No. : Model 30      Serial No. : 9961183  
Date of Calibration : 28/7/06      Due Date : 28/10/06

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

I196A

Salinity Standard (ppt)	Measured Salinity (ppt)	Difference %
30	29.5	1.7%

Acceptance Criteria

Difference : <10 %

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

Checked by : 

Approved by : 



## **Appendix C2**

### **Impact Marine Water Quality Monitoring Results**

# Mid-Flood Tide



## Monitoring Station : TM-FC2

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	Value	Average	Depth-average
02/09/06	14:00 - 14:15	31/Sunny	Surface	30.6	15.0	6.48	6.50	95.7	96.0	4.88	4.90	5.0	5.0	6.3				
			Middle	28.4	28.9	3.00	3.01	45.0	45.1	6.42	6.44	6.5	6.5					
			Bottom	27.5	30.6	2.76	2.77	40.5	40.6	6.94	6.97	7.2	7.3					
05/09/06	18:17 - 18:35	32/Sunny	Surface	29.1	17.9	6.25	6.23	93.8	93.5	7.76	7.76	7.7	7.7	8.7				
			Middle	27.3	29.4	3.87	3.84	58.1	57.7	8.92	8.93	9.0	9.0					
			Bottom	26.6	30.7	3.44	3.42	51.6	51.3	9.38	9.38	9.5	9.5					
07/09/06	18:15 - 18:31	27/Rainy	Surface	26.1	17.2	6.14	6.16	93.3	93.6	7.32	7.33	7.5	7.5	9.3				
			Middle	25.3	29.8	3.17	3.21	48.2	48.8	9.27	9.27	9.5	9.5					
			Bottom	24.3	30.8	2.92	2.95	44.4	44.9	10.30	10.35	11.0	11.0					
09/09/06	09:50 - 10:00	28/Rainy	Surface	28.1	22.6	6.19	6.15	94.1	93.5	8.87	8.87	9.0	9.0	10.3				
			Middle	26.3	24.8	4.32	4.29	65.7	65.3	9.62	9.63	9.8	9.8					
			Bottom	25.8	28.9	3.25	3.22	49.4	48.9	11.30	11.35	12.0	12.0					
12/09/06	10:05 - 10:14	22/Rainy	Surface	20.8	21.0	6.77	6.74	100.5	100.0	9.47	9.54	9.5	9.6	8.5				
			Middle	21.0	30.3	4.88	4.85	69.0	68.6	7.53	7.56	7.5	7.5					
			Bottom	21.3	30.5	3.92	3.95	55.5	55.9	8.44	8.48	8.5	8.5					
14/09/06	13:15 - 13:30	27/Rainy	Surface	25.7	15.4	6.32	6.29	96.1	95.7	6.83	6.83	7.0	7.0	8.3				
			Middle	25.1	29.7	3.46	3.43	52.6	52.1	8.10	8.11	8.2	8.3					
			Bottom	24.3	31.0	3.01	2.99	47.6	46.4	9.38	9.38	9.5	9.5					
16/09/06	15:02 - 15:12	30/Cloudy	Surface	26.1	15.4	6.44	6.43	97.8	97.6	8.58	8.58	8.5	8.5	10.5				
			Middle	24.2	29.6	4.88	4.87	73.6	73.4	10.40	10.45	11.0	11.0					
			Bottom	24.0	30.5	4.02	4.05	60.7	60.9	11.20	11.30	12.0	12.0					

# Mid-Flood Tide



東業 德動測試顧問有限公司  
ETS-TESTCONSULT LIMITED

## Monitoring Station : TM-FC2

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	Value	Average	Value	Average
19/09/06	18:05 - 18:18	28/Sunny	Surface	25.7	29.3	29.3	6.65	6.68	5.58	99.8	100.3	9.03	9.07	9.2	9.3	8.5		
			Middle	24.9	29.6	4.44	4.48	66.6	67.2	8.46	8.49	8.5	8.5					
			Bottom	24.6	30.2	4.06	4.09	61.0	61.5	7.69	7.72	7.7	7.7					
21/09/06	17:54 - 18:10	29/Fine	Surface	27.0	27.8	7.20	7.16	6.25	109.4	108.8	9.08	9.08	9.3	9.3	11.1			
			Middle	26.4	29.5	5.38	5.34	81.8	81.2	10.50	10.50	11.0	11.0					
			Bottom	26.0	30.7	4.91	4.87	74.6	74.0	12.10	12.05	13.0	13.0					
23/09/06	09:02 - 09:14	27/Sunny	Surface	25.6	27.6	7.50	7.46	6.43	111.4	110.8	9.01	8.99	9.3	9.3	9.0			
			Middle	25.4	29.0	5.43	5.40	78.0	77.6	8.25	8.21	8.5	8.5					
			Bottom	24.6	29.9	4.89	4.85	68.8	68.3	8.97	9.01	9.0	9.2					
26/09/06	09:35 - 09:45	30/Sunny	Surface	28.5	28.1	6.81	6.89	6.08	103.5	104.6	7.46	7.46	7.5	7.5	8.8			
			Middle	27.6	29.3	5.25	5.27	79.8	80.2	8.92	8.92	9.0	9.0					
			Bottom	27.1	30.7	4.69	4.72	71.3	71.8	9.74	9.75	9.8	9.8					
28/09/06	10:50 - 11:02	29/Sunny	Surface	27.3	28.2	7.09	7.13	6.72	107.8	108.3	6.94	6.94	7.0	7.0	8.3			
			Middle	27.1	29.8	6.35	6.31	96.5	95.9	8.26	8.27	8.5	8.5					
			Bottom	26.5	30.9	5.94	5.92	90.3	90.0	9.26	9.26	9.5	9.5					
30/09/06	13:45 - 13:55	30/Sunny	Surface	28.9	28.9	7.30	7.29	6.60	110.9	110.7	8.06	8.05	8.2	8.2	10.4			
			Middle	28.1	30.2	5.93	5.92	89.5	89.3	10.20	10.15	11.0	11.0					
			Bottom	27.4	30.8	5.21	5.19	78.6	78.3	11.40	11.45	12.0	12.0					

# Mid-Flood Tide



東業 羅 勘 測 試 驗 有 限 公 司  
ETS-TESTCONSULT LIMITED

## Monitoring Station : TM-FM1

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	Value	Average	Depth-average
02/09/06	14:55 - 15:10	31/Sunny	Surface	30.6	14.7	14.7	6.19	6.22	4.76	91.2	91.7	7.19	7.22	7.5	7.5	7.5		
			Middle	28.8	29.5	29.5	3.28	3.30	4.76	92.1	54.5	7.25	6.43	6.5	6.5			
			Bottom	27.6	30.7	30.7	3.32	2.82	2.84	54.8	46.8	6.45	8.23	8.21	8.5		8.4	
05/09/06	17:25 - 17:36	32/Sunny	Surface	29.2	17.1	17.2	6.08	6.10	4.90	91.2	91.5	6.44	6.45	6.5	6.5	6.5		
			Middle	27.4	29.3	29.3	3.72	3.69	4.90	91.8	55.4	6.45	9.03	9.3	9.3			
			Bottom	26.3	30.6	30.6	3.66	3.51	3.49	54.9	52.6	9.04	10.80	11.0	11.5			
07/09/06	17:26 - 17:39	27/Rainy	Surface	26.5	16.8	16.8	6.08	6.10	4.68	92.4	92.7	7.84	7.84	8.0	8.0	8.0		
			Middle	25.4	29.6	29.6	3.21	3.25	4.68	48.8	49.4	10.30	10.30	11.0	11.0			
			Bottom	24.6	30.7	30.9	3.05	3.10	3.10	50.0	47.1	10.30	11.10	12.0	12.0			
09/09/06	09:12 - 09:24	28/Rainy	Surface	27.9	22.7	22.8	5.87	5.91	5.05	89.2	89.8	7.12	7.12	7.3	7.3	7.3		
			Middle	26.1	23.5	23.5	5.94	4.20	5.05	90.3	63.8	7.12	7.94	8.0	8.1			
			Bottom	25.3	28.7	28.8	4.16	3.43	3.43	63.2	52.2	7.95	9.03	9.3	9.3			
12/09/06	09:21 - 09:34	22/Rainy	Surface	20.9	20.6	20.7	6.14	6.10	5.34	91.2	90.5	12.80	12.50	13.0	12.5	12.5		
			Middle	21.2	30.6	30.6	4.62	4.59	5.34	65.4	64.9	12.20	8.32	8.0	8.0			
			Bottom	21.4	30.7	30.7	4.55	3.78	3.82	64.4	54.0	8.40	9.23	9.5	9.5			
14/09/06	12:38 - 12:49	27/Rainy	Surface	25.8	14.8	14.9	6.28	6.37	5.17	95.5	94.9	7.11	7.11	7.3	7.3	7.3		
			Middle	24.9	29.3	29.4	4.02	3.98	5.17	51.8	51.3	8.91	8.92	9.0	9.0			
			Bottom	23.6	30.9	30.9	3.16	3.13	3.13	50.7	45.9	9.92	9.93	10.0	10.0			
16/09/06	14:20 - 14:30	30/Cloudy	Surface	25.8	15.2	15.2	6.57	6.56	5.65	99.8	99.6	8.14	8.14	8.2	8.2	8.2		
			Middle	24.2	29.5	29.5	4.76	4.75	5.65	72.3	72.1	10.30	10.35	11.0	11.0			
			Bottom	24.0	30.9	30.9	4.23	4.22	4.22	64.2	64.0	11.00	10.95	12.0	11.5			



# Mid-Flood Tide



東業德動測試顧問有限公司  
ETS-TESTCONSULT LIMITED

## Monitoring Station : TM-FM1

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	Value	Average	Depth-average
19/09/06	17:20 - 17:31	28/Sunny	Surface	25.7	29.5	29.5	6.72	6.70	5.67	101.0	100.7	7.21	7.24	7.5	7.5	7.6		
			Middle	25.2	29.6	29.6	4.66	4.63	70.1	69.7	6.93	6.91	7.0	7.0				
			Bottom	25.0	29.8	29.8	4.18	4.21	62.8	63.4	8.12	8.09	8.3	8.3				
21/09/06	17:16 - 17:25	29/Fine	Surface	27.3	27.6	27.6	7.16	7.12	6.15	108.8	108.2	9.17	9.18	9.3	9.3	10.8		
			Middle	26.8	29.4	29.4	5.21	5.19	79.2	78.8	10.60	10.60	11.0	11.0				
			Bottom	26.5	30.8	30.8	4.96	4.93	75.4	75.0	11.20	11.20	12.0	12.0				
23/09/06	08:21 - 08:33	27/Sunny	Surface	25.5	27.7	27.7	6.98	6.94	5.90	103.4	103.0	8.68	8.74	8.8	8.8	7.6		
			Middle	25.3	28.6	28.6	4.88	4.85	70.1	69.7	5.63	5.56	5.8	5.7				
			Bottom	24.7	30.0	30.0	4.29	4.26	60.3	59.9	8.06	8.11	8.2	8.2				
26/09/06	09:01 - 09:09	30/Sunny	Surface	28.3	28.6	28.6	7.14	7.11	6.31	108.5	108.1	8.21	8.21	8.5	8.5	9.7		
			Middle	27.6	29.5	29.5	5.53	5.50	84.1	83.6	9.46	9.46	9.5	9.5				
			Bottom	27.1	31.0	31.1	4.98	4.95	75.7	75.2	10.20	10.25	11.0	11.0				
28/09/06	10:11 - 10:20	29/Sunny	Surface	27.2	27.9	27.9	7.19	7.15	6.66	109.3	108.7	6.64	6.65	6.8	6.8	7.5		
			Middle	26.8	29.4	29.4	6.21	6.18	94.4	93.9	7.29	7.29	7.5	7.5				
			Bottom	26.2	31.0	31.1	5.61	5.65	85.0	85.8	8.11	8.11	8.3	8.3				
30/09/06	13:15 - 13:25	30/Sunny	Surface	29.4	29.2	29.2	7.12	7.14	6.59	108.2	108.4	8.21	8.21	8.5	8.5	9.5		
			Middle	28.2	29.9	29.9	6.02	6.04	90.9	91.1	8.96	8.96	9.0	9.0				
			Bottom	27.1	30.8	30.8	4.92	4.94	74.2	74.5	10.10	10.15	11.0	11.0				

# Mid-Flood Tide



英業德動測試驗有限公司  
ETS-TESTCONSULT LIMITED

## Monitoring Station : TM-FM2

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	Value	Average	Depth-average
02/09/06	14:35 - 14:50	31/Sunny	Surface	30.7	14.7	14.7	6.72	6.76	5.14	97.8	98.4	7.24	7.26	7.0	7.2	7.1		
			Middle	28.4	14.6	28.7	6.80	3.53	5.14	99.0	48.2	7.28	6.30	7.3	6.5			
			Bottom	27.3	28.8	28.8	3.50	3.55	2.98	48.9	43.1	6.29	6.31	6.5	6.5			
05/09/06	17:48 - 18:03	32/Sunny	Surface	29.2	31.0	31.0	2.97	2.98	2.98	43.1	43.2	7.64	7.67	7.5	7.5	9.4		
			Middle	27.5	17.2	17.2	2.98	6.09	4.91	43.2	91.4	7.70	7.58	7.5	7.7			
			Bottom	26.6	17.1	17.1	6.11	6.07	4.91	91.7	56.4	7.58	7.58	7.8	9.5			
07/09/06	17:49 - 18:04	27/Rainy	Surface	26.4	29.6	29.5	3.76	3.73	4.71	56.4	56.0	9.37	9.37	8.2	8.1	8.5		
			Middle	25.7	29.5	29.5	3.70	3.36	4.71	55.5	49.6	8.16	8.16	8.0	8.1			
			Bottom	24.6	30.7	30.7	3.25	3.00	3.00	48.8	45.6	8.15	9.38	9.5	9.5			
09/09/06	09:36 - 09:41	28/Rainy	Surface	27.7	30.9	30.8	3.02	3.00	3.00	45.9	45.3	9.38	9.37	8.3	8.3	9.8		
			Middle	26.5	17.1	17.1	2.98	6.06	4.71	91.7	92.2	7.66	7.66	7.8	7.8			
			Bottom	24.6	17.1	17.1	6.03	6.09	4.71	92.6	49.6	8.16	8.16	8.0	8.1			
09/09/06	09:36 - 09:41	28/Rainy	Surface	27.7	23.5	23.6	6.26	6.19	5.26	95.2	94.1	8.03	8.04	8.3	8.3	9.8		
			Middle	26.5	23.6	23.6	6.12	4.32	5.26	93.0	65.7	8.04	9.38	8.2	8.2			
			Bottom	25.3	25.3	25.3	4.36	4.28	3.00	66.3	45.6	9.38	9.38	9.5	9.5			
12/09/06	09:42 - 09:55	22/Rainy	Surface	21.0	25.3	25.3	3.49	3.52	3.52	53.0	53.5	10.70	10.70	11.0	11.0	9.1		
			Middle	21.1	20.6	20.6	3.55	6.28	5.21	54.0	93.3	10.70	10.70	12.0	11.5			
			Bottom	21.4	30.7	30.7	6.32	3.33	3.33	93.8	47.1	10.60	10.30	11.0	11.0			
14/09/06	13:00 - 13:10	27/Rainy	Surface	25.6	15.1	15.1	6.24	6.50	5.24	92.7	98.8	10.00	9.52	7.0	7.0	9.0		
			Middle	24.8	30.5	30.5	4.17	3.98	5.24	59.0	60.4	9.49	8.84	7.0	7.0			
			Bottom	23.8	30.5	30.5	4.09	4.67	3.13	57.9	47.5	9.55	9.52	9.5	9.5			
16/09/06	14:37 - 14:47	30/Cloudy	Surface	26.0	31.0	31.0	3.29	4.16	4.16	46.5	47.1	6.73	6.76	7.0	6.9	10.0		
			Middle	24.4	15.1	15.1	3.37	6.38	5.52	47.7	96.9	6.79	9.28	6.8	6.8			
			Bottom	24.1	15.1	15.1	6.53	4.67	4.16	97.1	70.5	6.94	9.28	7.0	7.0			

# Mid-Flood Tide

## Monitoring Station : TM-FM2

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	Value	Average	Value	Average
19/09/06	17:40 - 17:52	28/Sunny	Surface	25.6	29.4	29.4	6.93	6.91	5.94	105.0	104.6	8.10	8.13	8.2	8.3	7.8		
			Middle	25.0	29.8	29.8	4.93	4.97	74.2	74.8	7.55	7.59	7.5	7.8				
			Bottom	24.6	30.0	30.0	4.42	4.40	65.8	66.2	7.14	7.17	7.0	7.3				
21/09/06	17:34 - 17:45	29/Fine	Surface	27.2	27.5	27.4	7.37	7.34	6.22	112.0	111.5	9.02	9.03	9.3	9.3	10.4		
			Middle	26.5	29.2	29.3	5.14	5.11	77.7	78.1	9.87	9.88	10.0	10.0				
			Bottom	26.1	29.3	30.4	4.32	4.38	66.6	67.5	11.60	11.60	12.0	12.0				
23/09/06	08:41 - 08:53	27/Sunny	Surface	25.5	27.6	27.6	7.15	7.11	6.05	106.2	105.6	9.39	9.42	9.5	9.5	9.3		
			Middle	25.5	28.3	28.3	5.02	5.00	71.8	72.1	7.58	7.54	7.5	7.5				
			Bottom	24.8	29.7	29.8	4.40	4.37	61.4	60.9	10.50	10.30	11.0	11.0				
26/09/06	09:20 - 09:28	30/Sunny	Surface	28.4	28.1	28.1	6.98	6.94	6.20	106.1	105.5	7.87	7.87	8.0	8.0	9.9		
			Middle	27.2	29.6	29.6	5.41	5.45	82.8	82.2	9.59	9.59	9.5	9.8				
			Bottom	26.5	31.4	31.4	4.76	4.73	71.9	72.3	11.20	11.20	12.0	12.0				
28/09/06	10:30 - 10:42	29/Sunny	Surface	27.4	28.1	28.1	7.32	7.29	6.82	111.3	110.9	6.87	6.87	7.0	7.0	7.7		
			Middle	26.9	29.6	29.6	6.39	6.36	96.6	97.1	7.44	7.44	7.5	7.5				
			Bottom	26.5	30.8	30.8	5.72	5.76	87.6	88.2	8.26	8.26	8.5	8.5				
30/09/06	13:30 - 13:40	30/Sunny	Surface	29.1	29.0	29.0	7.17	7.16	6.50	108.9	108.7	7.95	7.94	8.0	8.0	9.6		
			Middle	28.5	30.1	30.1	5.87	5.85	88.9	89.2	9.79	9.80	9.7	9.9				
			Bottom	27.2	30.7	30.7	5.13	5.15	78.2	77.9	10.50	10.45	11.0	11.0				

# Mid-Flood Tide



東業德動測試顧問有限公司  
ETS-TESTCONSULT LIMITED

## Monitoring Station : TM-FC1

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	Value	Average	Depth-average
02/09/06	15:25 - 15:40	31/Sunny	Surface	30.6	14.5	14.5	6.24	6.25	4.64	94.5	94.7	6.68	6.70	6.5	6.7	6.8		
			Middle	28.0	29.4	29.5	3.00	3.02	4.66	46.6	46.9	5.44	5.45	5.5	5.5			
			Bottom	27.4	30.8	30.8	2.67	2.69	2.69	40.2	40.5	8.03	8.07	8.2	8.2			
05/09/06	17:00 - 17:15	32/Sunny	Surface	29.3	16.8	16.8	6.16	6.19	4.85	92.4	92.9	6.86	6.86	7.0	7.0	7.8		
			Middle	27.6	28.8	28.8	3.49	3.51	3.51	52.4	52.7	7.51	7.51	7.5	7.5			
			Bottom	26.5	30.5	30.5	3.34	3.32	3.32	50.1	49.8	8.76	8.76	8.8	8.9			
07/09/06	17:00 - 17:14	27/Rainy	Surface	26.2	16.8	16.8	6.37	6.34	5.01	96.8	96.4	8.32	8.32	8.5	8.5	9.8		
			Middle	25.3	29.6	29.6	3.72	3.68	3.68	55.5	55.9	9.16	9.17	9.3	9.3			
			Bottom	24.6	30.8	30.8	3.16	3.12	3.12	48.0	47.4	10.80	10.80	11.0	11.5			
09/09/06	08:40 - 08:53	28/Rainy	Surface	28.2	22.8	22.8	6.13	6.17	5.15	93.2	93.8	8.43	8.44	8.5	8.5	10.2		
			Middle	27.8	23.5	23.6	4.17	4.13	4.13	63.4	62.7	9.52	9.53	9.5	9.5			
			Bottom	25.1	29.5	29.5	3.62	3.65	3.65	55.0	55.5	11.80	11.75	12.0	12.5			
12/09/06	09:00 - 09:13	22/Rainy	Surface	20.9	20.5	20.5	6.80	6.76	5.55	100.9	100.4	8.24	8.17	8.5	8.4	8.2		
			Middle	21.3	30.4	30.4	4.37	4.33	4.33	61.8	61.3	7.14	7.20	7.3	7.4			
			Bottom	21.2	30.5	30.5	3.66	3.64	3.64	51.8	51.5	8.66	8.70	8.8	8.8			
14/09/06	12:15 - 12:25	27/Rainy	Surface	25.4	15.2	15.3	6.17	6.22	4.77	95.2	95.2	7.53	7.54	7.5	7.5	9.3		
			Middle	24.1	28.7	28.7	3.29	3.33	3.33	50.0	50.6	9.12	9.13	9.3	9.3			
			Bottom	23.2	30.2	30.3	3.12	3.15	3.15	47.4	47.9	10.10	10.15	11.0	11.0			
16/09/06	14:00 - 14:10	30/Cloudy	Surface	25.7	15.4	15.4	6.62	6.61	5.71	100.6	100.4	7.96	7.95	8.0	8.0	9.7		
			Middle	24.1	29.6	29.6	4.82	4.81	4.81	72.7	72.5	9.79	9.80	10.0	10.0			
			Bottom	23.9	30.8	30.8	4.46	4.45	4.45	67.3	67.1	10.50	10.45	11.0	11.0			

# Mid-Flood Tide



東業德動測試顧問有限公司  
ETS-TESTCONSULT LIMITED

## Monitoring Station : TM-FC1

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	Value	Average	Depth-average	
19/09/06	17:00 - 17:10	28/Sunny	Surface	25.6	29.2	29.2	6.84	6.82	5.94	102.8	102.5	8.42	8.46	8.5	8.5	9.5		
			Middle	24.8	29.6	29.6	5.10	5.07	76.7	76.0	8.97	8.94	9.0	9.0				
			Bottom	24.4	29.9	29.9	4.45	4.48	66.8	67.2	10.00	10.05	11.0	11.0				
21/09/06	17:00 - 17:11	29/Fine	Surface	27.1	28.1	28.1	7.41	7.39	6.55	112.6	112.3	8.16	8.16	8.0	8.1	9.5		
			Middle	27.0	29.5	29.5	5.74	5.71	87.2	86.8	9.28	9.28	9.5	9.5				
			Bottom	26.1	30.6	30.6	4.87	4.84	74.0	73.6	10.30	10.35	11.0	11.0				
23/09/06	08:00 - 08:12	27/Sunny	Surface	25.4	28.0	28.0	7.32	7.26	6.17	108.7	107.8	9.24	9.30	9.5	9.5	8.6		
			Middle	25.3	28.4	28.4	5.11	5.08	73.4	73.0	7.64	7.68	7.7	7.8				
			Bottom	24.9	29.9	29.9	4.62	4.58	65.0	64.4	8.52	8.49	8.5	8.5				
26/09/06	08:40 - 08:50	30/Sunny	Surface	28.2	28.4	28.4	7.28	7.24	6.57	110.7	110.1	8.76	8.76	9.0	8.9	9.9		
			Middle	27.5	29.5	29.5	5.87	5.91	89.2	89.6	9.18	9.18	9.3	9.3				
			Bottom	26.1	30.8	30.8	5.03	5.06	76.5	77.0	10.90	10.95	11.0	11.5				
28/09/06	09:50 - 10:01	29/Sunny	Surface	27.1	27.8	27.8	7.31	7.28	6.60	111.1	110.7	6.79	6.80	7.0	7.0	8.1		
			Middle	26.5	29.2	29.2	5.94	5.91	90.3	89.9	8.02	8.03	8.3	8.3				
			Bottom	26.1	30.6	30.6	5.16	5.17	78.4	78.6	8.87	8.87	9.0	9.0				
30/09/06	13:00 - 13:10	30/Sunny	Surface	29.2	28.8	28.8	7.29	7.31	6.69	110.8	111.1	9.37	9.37	9.5	9.5	10.8		
			Middle	28.0	29.8	29.8	6.09	6.08	92.5	92.3	10.40	10.35	11.0	11.0				
			Bottom	27.5	30.8	30.8	5.07	5.05	77.0	76.7	11.50	11.45	12.0	12.0				

# Mid-Ebb Tide



東業德勤測試顧問有限公司  
ETS-TESTCONSULT LIMITED

## Monitoring Station : TM-FC1

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	Value	Average	Depth-average	
02/09/06	09:25 - 09:40	32/Sunny	Surface	30.7	14.3	14.3	6.15	6.13	88.9	88.6	6.27	6.24	6.5	6.5	6.9			
			Middle	27.7	30.0	2.88	2.87	42.9	42.8	5.66	5.65	5.7	5.7					
			Bottom	27.4	29.6	2.75	2.73	41.0	40.7	8.44	8.42	8.5	8.4					
05/09/06	10:00 - 10:15	32/Sunny	Surface	29.2	16.7	16.8	6.05	6.08	92.0	92.5	6.53	6.53	6.5	6.5	9.8			
			Middle	27.8	29.2	3.58	3.61	54.4	54.9	10.37	10.38	11.0	11.0					
			Bottom	26.5	30.5	3.17	3.14	48.2	47.8	10.60	10.60	12.0	12.0					
07/09/06	11:30 - 11:42	27/Rainy	Surface	26.5	16.2	16.3	6.18	6.22	93.9	94.6	8.77	8.76	8.8	8.8	10.1			
			Middle	25.4	29.5	3.34	3.37	50.8	51.3	9.32	9.32	9.5	9.5					
			Bottom	24.1	30.7	3.16	3.14	48.0	47.6	11.50	11.50	12.0	12.0					
09/09/06	13:00 - 13:14	28/Rainy	Surface	28.1	23.6	23.7	6.25	6.22	95.0	94.5	8.56	8.57	8.5	8.5	9.9			
			Middle	27.2	24.8	4.11	4.08	62.5	62.0	9.78	9.77	9.8	9.8					
			Bottom	25.4	30.8	3.87	3.84	58.8	58.4	10.90	10.85	12.0	11.5					
12/09/06	15:00 - 15:14	23/Drizzle	Surface	21.2	18.9	19.0	6.28	6.26	90.0	89.7	6.92	6.89	7.0	7.0	8.7			
			Middle	21.5	30.0	4.10	4.07	57.3	56.9	9.55	9.59	9.5	9.6					
			Bottom	21.5	30.2	3.40	3.37	47.6	47.2	9.21	9.18	9.5	9.4					
14/09/06	16:40 - 16:50	27/Rainy	Surface	25.2	16.1	16.2	6.28	6.25	95.4	95.0	8.03	8.03	8.2	8.2	10.0			
			Middle	24.6	29.3	3.45	3.41	52.4	51.8	9.61	9.62	9.8	9.8					
			Bottom	23.9	31.2	3.03	3.00	46.1	45.6	11.00	11.05	12.0	12.0					
16/09/06	08:00 - 08:10	30/Cloudy	Surface	25.6	14.9	14.9	6.46	6.45	98.1	97.9	8.06	8.06	8.3	8.3	10.1			
			Middle	23.9	29.2	4.45	4.43	68.0	67.7	10.20	10.15	11.0	11.0					
			Bottom	23.4	30.6	4.04	4.03	61.0	60.8	10.50	10.55	11.0	11.0					

# Mid-Ebb Tide



東業 德 勤 測 試 顧 問 有 限 公 司  
ETS-TESTCONSULT LIMITED

## Monitoring Station : TM-FC1

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	Value	Average	Depth-average
19/09/06	10:45 - 10:55	30/Sunny	Surface	26.7	29.1	29.1	7.27	7.24	6.07	109.8	109.0	9.02	9.06	9.3	9.3	10.1		
			Middle	26.5	29.5	29.5	4.91	4.90	73.6	73.9	9.82	9.79	10.0	10.0				
			Bottom	26.0	29.8	29.8	4.41	4.39	66.5	66.2	10.30	10.25	11.0	11.0				
21/09/06	11:30 - 11:40	29/Fine	Surface	27.4	28.3	28.4	7.23	7.26	6.42	109.9	110.4	9.70	9.71	9.8	9.8	10.9		
			Middle	27.0	28.6	28.7	5.62	5.58	85.4	84.8	10.70	10.70	11.0	11.0				
			Bottom	26.5	29.2	29.3	4.71	4.75	71.6	72.2	11.20	11.20	12.0	12.0				
23/09/06	12:30 - 12:37	30/Sunny	Surface	27.5	28.7	28.7	6.52	6.48	5.72	97.5	96.9	9.71	9.68	9.8	9.8	8.1		
			Middle	25.7	29.2	29.3	5.00	4.96	71.8	71.2	6.83	6.80	7.0	6.9				
			Bottom	25.0	30.2	30.2	4.32	4.29	60.8	60.4	7.53	7.57	7.5	7.7				
26/09/06	14:05 - 14:13	30/Sunny	Surface	28.4	28.1	28.2	7.11	7.15	6.28	108.1	108.7	7.72	7.73	7.7	7.7	8.5		
			Middle	27.9	29.2	29.3	5.47	5.42	83.1	82.3	8.12	8.13	8.2	8.2				
			Bottom	26.6	30.6	30.7	5.15	5.11	78.3	77.6	9.24	9.24	9.5	9.5				
28/09/06	15:02 - 15:10	29/Sunny	Surface	27.4	28.1	28.1	7.14	7.17	6.56	108.5	109.0	8.12	8.12	8.2	8.3	9.2		
			Middle	27.0	29.6	29.6	5.98	5.94	90.9	90.3	9.06	9.06	9.2	9.3				
			Bottom	26.5	30.9	30.9	5.45	5.48	82.8	83.3	9.87	9.88	10.0	10.0				
30/09/06	07:30 - 07:40	30/Sunny	Surface	28.6	28.7	28.7	7.02	7.04	6.44	106.7	107.0	8.49	8.49	8.5	8.5	9.3		
			Middle	27.8	29.7	29.8	5.83	5.85	88.6	88.8	8.25	8.25	8.5	8.5				
			Bottom	26.7	30.7	30.7	5.11	5.13	77.1	77.4	10.50	10.45	11.0	11.0				

# Mid-Ebb Tide



英業德測試顧問有限公司  
ETS-TESTCONSULT LIMITED

## Monitoring Station : TM-FM1

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	Value	Average	Depth-average
02/09/06	08:50 - 09:10	32/Sunny	Surface	30.6	15.6	15.6	6.50	6.49	5.16	92.1	91.9	7.10	7.07	7.3	7.2	7.2		
			Middle	29.0	27.0	3.85	3.83	5.16	91.7	57.9	6.54	6.52	7.04	6.5	6.5			
			Bottom	27.7	30.5	3.80	2.91	2.91	43.6	43.8	7.88	7.87	7.85	8.0	8.0			
05/09/06	10:25 - 10:35	32/Sunny	Surface	29.1	16.6	16.7	5.97	6.02	4.83	90.7	91.4	6.95	6.95	7.3	7.2	10.7		
			Middle	27.7	29.2	3.68	3.65	4.83	92.1	55.5	11.70	11.70	12.0	12.0				
			Bottom	26.8	30.5	3.62	3.30	3.30	55.0	50.1	12.30	12.30	13.0	13.0				
07/09/06	11:54 - 12:09	27/Rainy	Surface	26.3	16.6	16.7	6.54	6.51	5.03	99.4	99.0	7.97	7.98	8.0	8.0	11.0		
			Middle	25.4	29.3	3.51	3.54	5.03	98.5	53.9	11.20	11.25	12.0	12.0				
			Bottom	24.8	30.5	3.57	3.05	3.05	54.3	46.4	11.30	12.55	13.0	13.0				
09/09/06	13:25 - 13:40	28/Rainy	Surface	27.4	23.5	23.5	6.06	6.09	5.08	92.1	92.6	7.43	7.44	7.5	7.5	8.3		
			Middle	25.8	26.5	4.10	4.07	5.08	93.0	61.9	7.87	7.87	8.0	8.0				
			Bottom	24.6	29.2	3.31	3.28	3.28	50.3	49.9	9.14	9.15	9.3	9.3				
12/09/06	15:23 - 15:37	23/Drizzle	Surface	21.4	19.1	19.1	6.03	5.99	4.95	86.4	85.8	7.48	7.52	7.5	7.5	9.4		
			Middle	21.5	29.9	3.94	3.92	4.95	55.1	54.8	10.50	10.35	11.0	11.0				
			Bottom	21.6	30.4	3.62	3.60	3.60	50.6	50.3	9.63	9.67	9.8	9.8				
14/09/06	17:00 - 17:12	27/Rainy	Surface	24.9	15.6	15.6	6.11	6.15	4.81	92.9	93.5	8.17	8.17	8.2	8.1	9.0		
			Middle	24.0	30.1	3.51	3.47	4.81	94.1	52.8	8.98	8.98	9.0	9.0				
			Bottom	23.4	30.1	3.43	3.23	3.23	49.6	49.1	9.73	9.74	9.7	9.8				
16/09/06	08:20 - 08:30	30/Cloudy	Surface	25.8	14.8	14.8	6.57	6.56	5.46	99.8	99.6	7.94	7.94	8.0	8.0	8.8		
			Middle	24.0	29.4	4.36	4.36	5.46	99.4	66.1	8.53	8.53	8.5	8.5				
			Bottom	23.6	31.0	4.11	4.10	4.10	62.4	62.3	9.89	9.89	10.0	10.0				



# Mid-Ebb Tide



英業德動測試顧問有限公司  
ETS-TESTCONSULT LIMITED

## Monitoring Station : TM-FM1

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	Value	Average	Depth-average
19/09/06	11:05 - 11:15	30/Sunny	Surface	26.6	29.4	29.4	6.85	6.83	103.6	103.2	7.51	7.49	7.5	7.5	8.0			
			Middle	26.2	29.6	5.12	5.09	77.4	76.7	7.71	7.76	8.0	8.0					
			Bottom	25.7	30.0	4.25	4.28	64.2	64.8	8.45	8.48	8.5	8.5					
21/09/06	11:48 - 11:59	29/Fine	Surface	27.3	27.8	27.8	7.39	7.34	112.4	111.6	8.53	8.54	8.5	8.5	11.2			
			Middle	27.1	29.2	5.53	5.56	83.6	84.3	11.80	11.70	12.0	12.0					
			Bottom	26.5	29.8	5.03	5.06	76.5	76.9	12.10	12.15	13.0	13.0					
23/09/06	12:40 - 12:52	30/Sunny	Surface	27.6	28.4	28.4	6.29	6.26	94.0	93.6	10.40	10.60	11.0	11.0	8.5			
			Middle	25.8	29.0	4.80	4.84	68.9	69.5	7.62	7.69	8.0	7.9					
			Bottom	25.0	30.0	4.50	4.47	63.3	62.9	6.52	6.51	6.5	6.5					
26/09/06	14:28 - 14:38	30/Sunny	Surface	28.3	28.8	28.8	7.26	7.23	110.4	109.9	8.14	8.14	8.2	8.1	9.8			
			Middle	27.2	29.5	5.62	5.58	85.4	84.8	9.08	9.08	9.0	9.2					
			Bottom	26.5	31.1	5.03	5.06	76.5	77.0	11.20	11.20	12.0	12.0					
28/09/06	15:17 - 15:26	29/Sunny	Surface	27.6	28.8	28.8	7.26	7.22	110.40	109.8	7.48	7.48	7.50	7.5	8.7			
			Middle	27.2	30.4	6.41	6.37	97.40	96.8	8.92	8.93	9.00	9.0					
			Bottom	26.8	31.6	5.94	5.96	90.30	90.6	9.38	9.38	9.50	9.5					
30/09/06	07:45 - 07:55	30/Sunny	Surface	28.4	29.0	29.0	7.17	7.19	108.9	109.2	7.95	7.95	8.0	8.0	9.5			
			Middle	27.8	29.8	5.76	5.78	88.5	87.8	8.37	8.37	8.5	8.5					
			Bottom	26.9	30.6	4.98	4.97	75.1	74.9	11.20	11.15	12.0	12.0					

# Mid-Ebb Tide



英業德勤測試顧問有限公司  
ETS-TESTCONSULT LIMITED

## Monitoring Station : TM-FM2

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	Value	Average	Depth-average	
02/09/06	08:30 - 08:45	32/Sunny	Surface	30.7	14.5	14.5	6.74	6.70	7.42	7.40	97.8	97.2	7.5	7.5	7.1			
			Middle	28.4	28.6	3.32	3.30	6.66	6.29	49.8	49.5	6.30	6.5	6.5				
			Bottom	27.3	30.7	3.28	2.82	49.2	7.12	7.10	42.5	42.2	7.3	7.2				
05/09/06	10:45 - 11:00	32/Sunny	Surface	29.2	16.8	16.8	6.25	6.28	6.62	6.62	95.0	95.5	6.7	6.8	11.3			
			Middle	27.5	29.5	3.31	3.34	6.31	11.80	11.80	50.3	50.8	12.0	12.5				
			Bottom	26.6	30.7	3.37	3.47	51.2	13.50	13.50	50.9	47.3	13.0	14.0		14.5		
07/09/06	12:21 - 12:37	27/Rainy	Surface	26.3	16.8	16.8	6.41	6.45	7.03	7.04	97.4	98.0	7.3	7.3	9.0			
			Middle	25.5	29.5	3.26	3.31	6.49	8.74	8.75	50.0	50.5	8.8	8.8				
			Bottom	24.6	30.7	3.35	3.11	50.9	10.50	10.50	46.8	47.3	11.0	11.0				
09/09/06	13:44 - 13:58	28/Rainy	Surface	27.3	24.4	24.4	6.53	6.50	8.12	8.13	99.3	98.8	8.2	8.2	9.9			
			Middle	25.8	25.8	4.28	4.24	6.47	9.46	65.1	64.5	9.5	9.5					
			Bottom	24.4	29.5	4.20	3.54	63.8	11.20	11.30	54.3	53.9	12.0	12.0				
12/09/06	15:46 - 15:59	23/Drizzle	Surface	21.4	19.0	19.0	6.15	6.12	7.26	7.30	88.1	87.6	7.5	7.5	8.3			
			Middle	21.6	30.1	3.88	3.85	6.08	8.87	54.3	53.9	9.0	9.0					
			Bottom	21.8	30.4	3.82	3.10	53.4	8.52	8.58	43.9	43.4	8.5	8.5				
14/09/06	17:23 - 17:34	27/Rainy	Surface	25.2	15.7	15.7	6.71	6.68	7.38	7.39	101.9	101.5	7.5	7.5	8.5			
			Middle	24.2	29.2	4.17	4.13	6.65	8.76	63.4	62.7	8.8	8.8					
			Bottom	23.5	31.1	3.38	3.34	62.0	8.98	8.97	51.4	50.8	9.2	9.3				
16/09/06	08:40 - 08:50	30/Cloudy	Surface	25.9	14.8	14.8	6.69	6.66	7.25	7.26	101.6	101.3	7.5	7.5	9.2			
			Middle	23.8	29.6	4.57	4.55	6.63	8.97	69.4	69.1	9.0	9.0					
			Bottom	23.7	31.0	4.28	4.27	64.6	10.70	10.60	64.6	64.4	11.0	11.0				

**Mid-Ebb Tide**

**Monitoring Station : TM-FM2**

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
					Value	Average	Value	Average	Depth-average	Value	Average	Depth-average	Value	Average	Depth-average	Value	Average	Depth-average	
19/09/06	11:23 - 11:34	30/Sunny	Surface	26.7	29.5	29.5	7.04	7.02	106.4	106.0	6.05	6.08	6.3	6.3	7.6				
			Middle	26.4	29.8	29.8	4.86	4.84	73.5	73.2	7.89	7.90	8.0	8.0					
			Bottom	25.9	30.6	30.6	4.37	4.40	72.8	66.5	7.91	8.37	8.5	8.5					
21/09/06	12:08 - 12:18	29/Fine	Surface	27.3	27.8	27.8	7.21	7.19	110.0	109.4	8.74	8.74	8.8	8.8	10.6				
			Middle	26.5	29.6	29.6	5.47	5.44	83.1	82.7	10.50	10.50	11.0	11.0					
			Bottom	26.2	30.0	30.0	4.94	4.91	75.1	74.7	11.60	11.60	12.0	12.0					
23/09/06	13:00 - 13:12	30/Sunny	Surface	27.8	28.6	28.6	6.34	6.32	95.0	94.6	11.70	11.85	12.0	12.5	9.5				
			Middle	26.0	29.1	29.1	5.10	5.06	73.2	72.7	8.63	8.66	8.8	8.8					
			Bottom	24.8	30.1	30.1	4.71	4.67	66.3	65.8	7.04	7.00	7.2	7.2					
26/09/06	14:42 - 14:50	30/Sunny	Surface	28.6	28.4	28.4	7.10	7.14	107.9	109.1	8.76	8.76	8.8	8.8	9.2				
			Middle	27.5	29.6	29.6	5.32	5.28	80.7	80.2	9.18	9.18	9.3	9.3					
			Bottom	27.1	30.7	30.7	4.97	4.94	75.5	75.1	9.56	9.55	9.5	9.5					
28/09/06	15:32 - 15:40	29/Sunny	Surface	27.5	28.5	28.5	7.33	7.29	111.4	110.8	7.51	7.51	7.5	7.5	8.7				
			Middle	27.1	29.3	29.3	6.26	6.22	95.2	94.6	8.84	8.84	9.0	9.0					
			Bottom	26.6	30.7	30.7	5.87	5.84	89.2	88.8	9.26	9.26	9.5	9.5					
30/09/06	08:00 - 08:10	30/Sunny	Surface	28.4	29.1	29.1	7.05	7.04	107.1	107.0	8.27	8.28	8.5	8.5	9.3				
			Middle	27.7	29.6	29.6	5.59	5.57	84.9	84.6	8.29	8.28	8.5	8.5					
			Bottom	27.0	30.6	30.6	5.07	5.09	76.5	76.8	10.60	10.65	11.0	11.0					

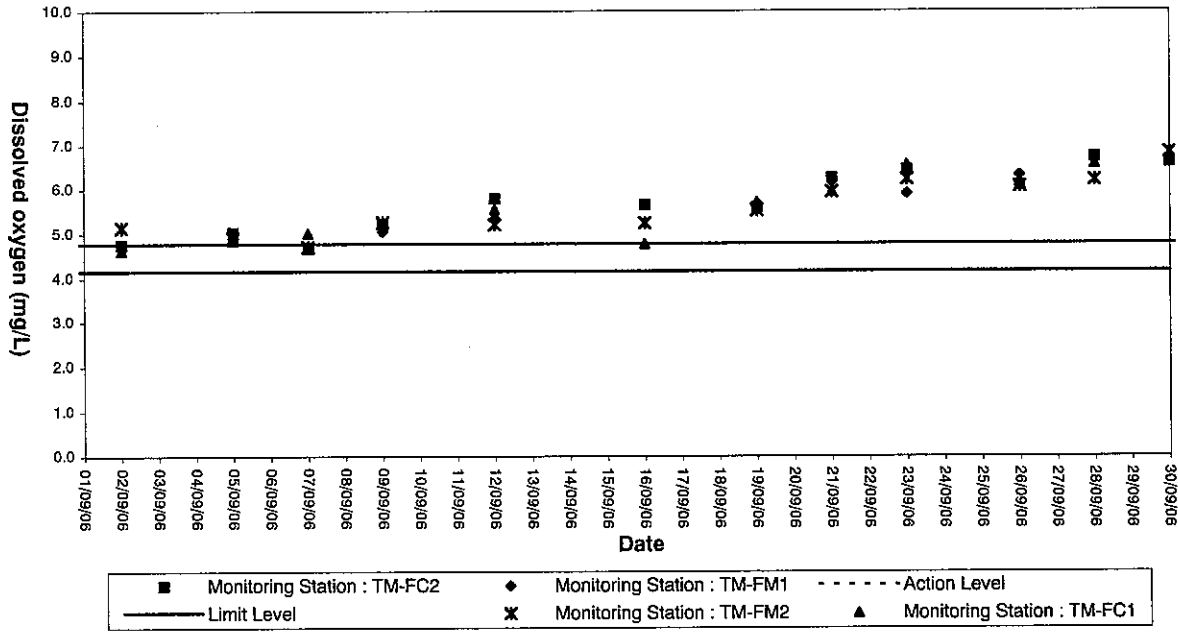


## **Appendix C3**

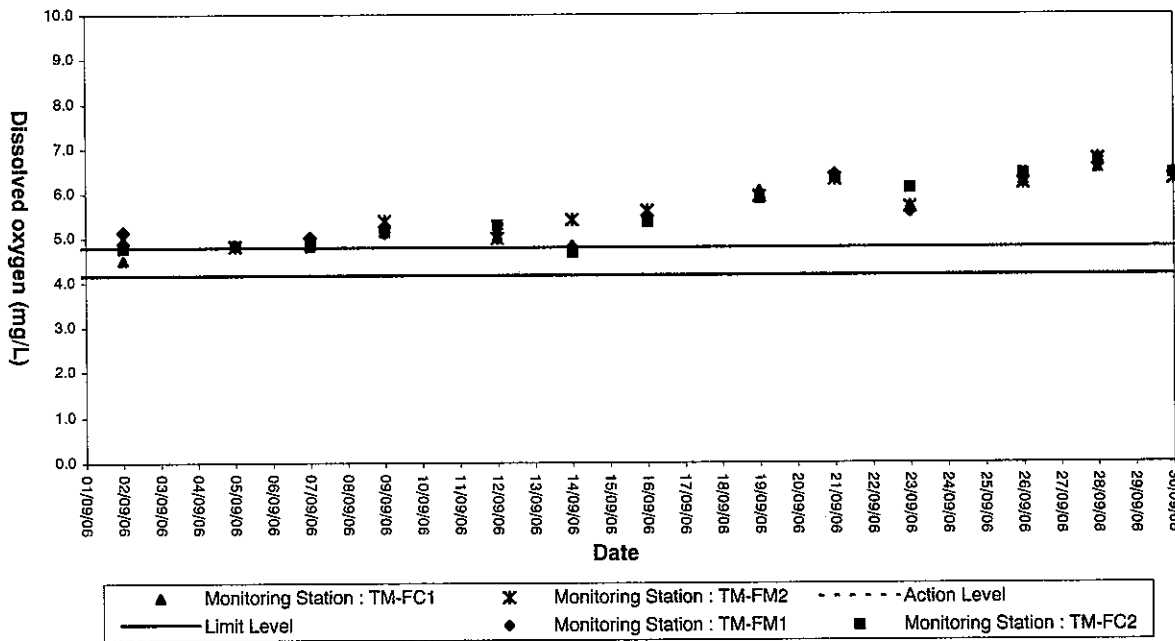
### **Graphical Plots of Impact Marine Water Quality Monitoring Data**



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

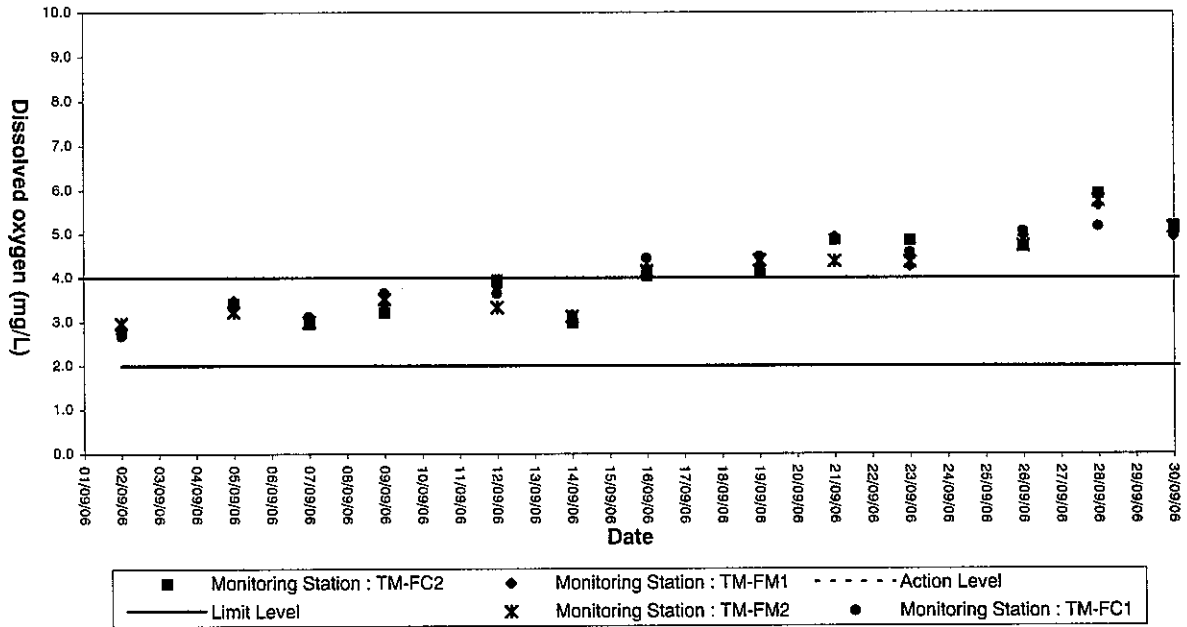


### Dissolved Oxygen (Surface & Middle) at Mid-Ebb Tide

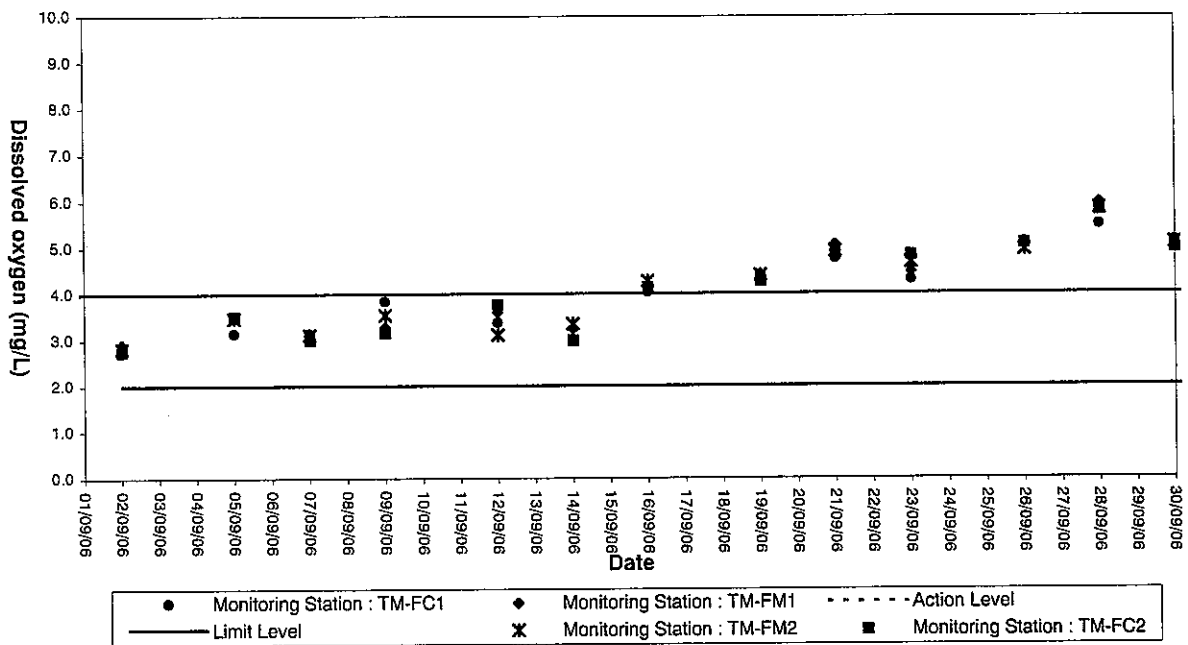




### Dissolved Oxygen (Bottom) at Mid-Flood Tide

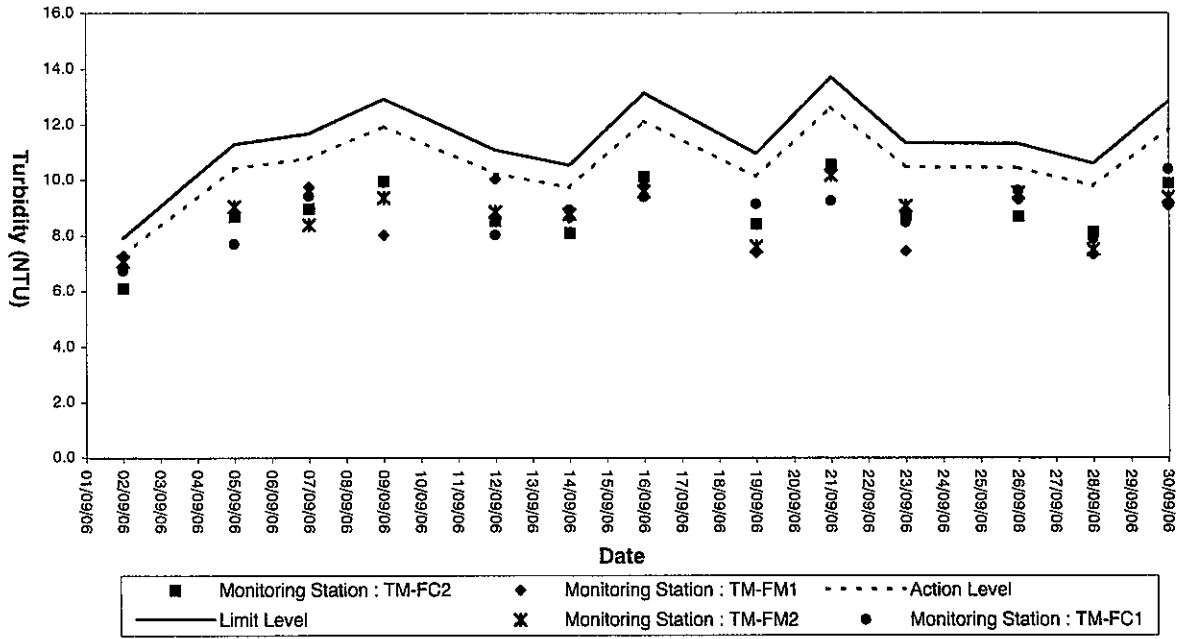


### Dissolved Oxygen (Bottom) at Mid-Ebb Tide

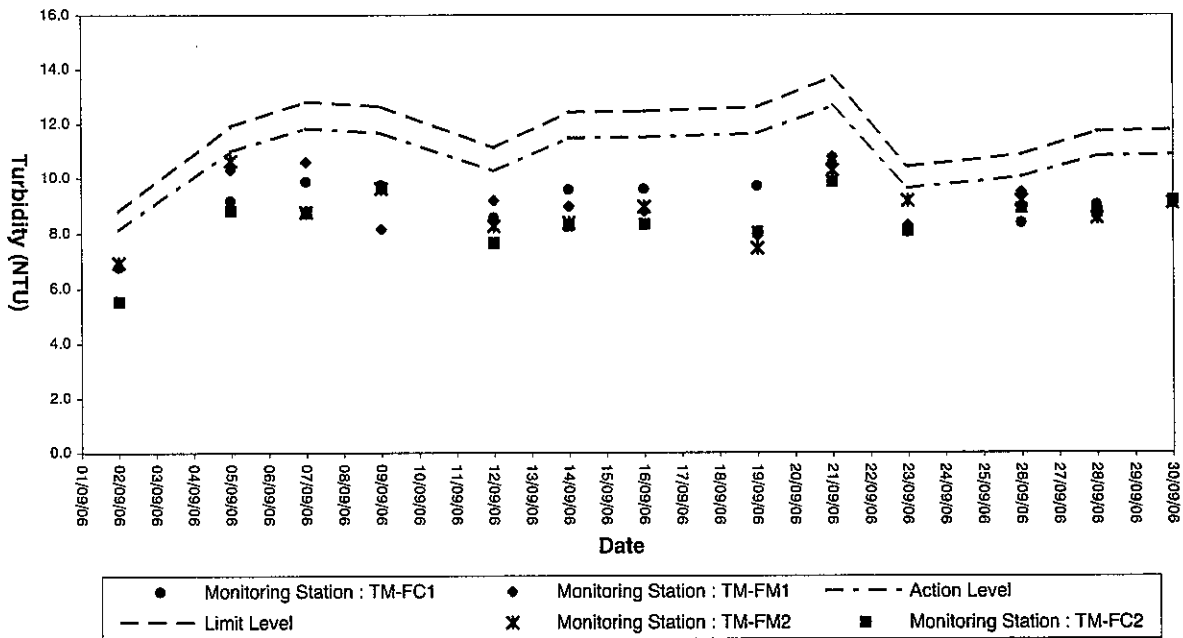




### Turbidity (Depth-average) at Mid-Flood Tide

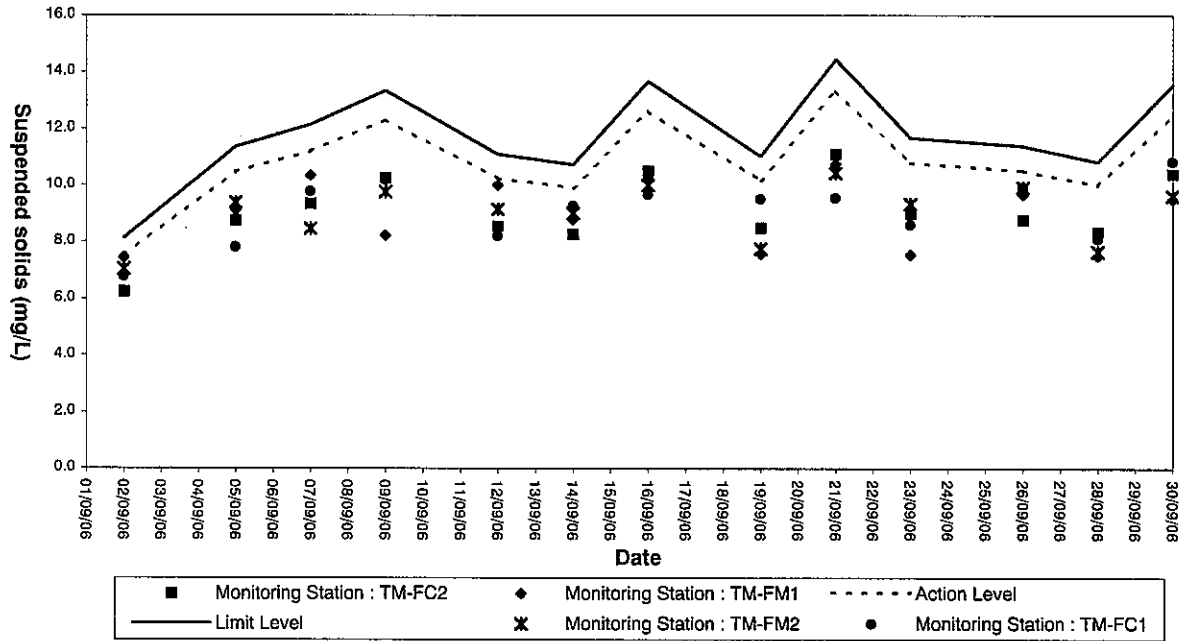


### Turbidity (Depth-average) at Mid-Ebb Tide

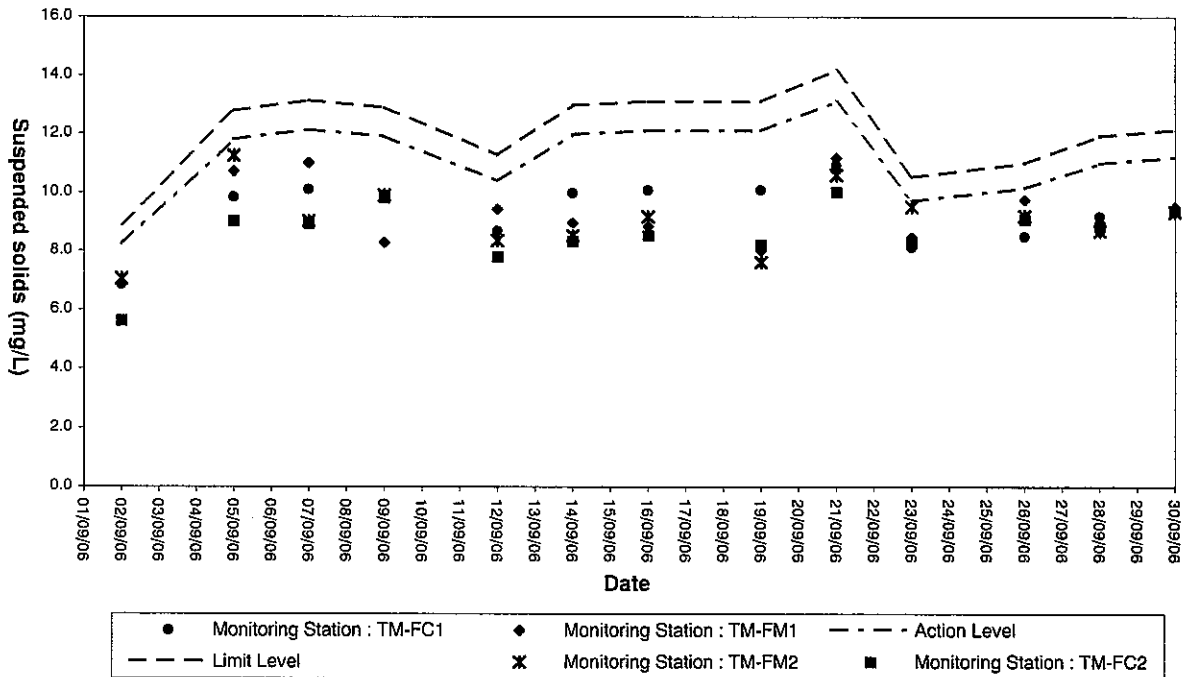




### Suspended solids (Depth-average) at Mid-Flood Tide



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







## **Appendix D**

### **Weather Condition**



香港特別行政區政府  
香港天文台



政府資訊中心 簡體版 ENGLISH

搜尋

網頁指南

主頁

最新消息

關於我們

刊物及新聞公報

公開資料

公共服務

公用表格

招標公告(英文)

相關網址

天氣報告及預報

世界各地天氣信息

熱帶氣旋

航空氣象服務

海洋氣象服務

地震、授時及天文

校對電腦時鐘

輻射監測、評價及防護

氣候資料服務

> 香港氣候

> 氣象平均值

> 氣象極端值

> 氣象統計

> 氣候資料

> 警告及信號資料庫

> 天氣資料室

> 刊物及資料摘要

系列印版本

氣候資料服務 > 氣候資料 > 自動氣象站摘錄 > 觀測站: 屯門自動氣象站, 年份: 二零零六年, 月份: 九月

## 二零零六年九月屯門自動氣象站氣象觀測摘錄

日期	平均氣壓 (百帕斯卡)	氣 溫			平均露點 (攝氏度)	相 對 濕 度		
		最高 (攝氏度)	平均 (攝氏度)	最低 (攝氏度)		最高 (%)	平均 (%)	最低 (%)
9月1日	*****	35.0	31.2	28.6	26.5	90	77	56
9月2日	*****	35.3	31.0	29.4	27.2	93	81	61
9月3日	*****	31.8	29.1	27.0	26.5	97	86	75
9月4日	*****	31.1	28.8	26.3	26.2	100	86	71
9月5日	*****	32.5	30.0	28.2	26.0	91	80	64
9月6日	*****	32.3	28.7	24.5	25.8	100	85	68
9月7日	*****	28.7	27.1	25.5	25.2	100	90	70
9月8日	*****	30.3	28.1	25.2	25.2	97	84	74
9月9日	*****	29.2	26.4	23.0	25.1	100	93	84
9月10日	*****	27.8	23.9	21.1	20.5	100	82	69
9月11日	*****	26.6	24.0	21.4	19.1	85	74	66
9月12日	*****	22.5	21.5	19.7	20.3	100	93	82
9月13日	*****	24.4	22.6	20.9	22.5	100	100	96
9月14日	*****	28.6	26.3	24.2	25.0	100	93	79
9月15日	*****	30.9	27.4	25.2	24.8	100	86	67

> 為旅遊人士提供世界各地的

氣候資料

> 索取氣候資料 (表格)

> 資源中心

> 氣候變化

其他天氣資料

天文台動態

教育資源

公眾的謔言

世界氣象日(英文)

世界氣象組織-官方城市預測

世界氣象組織-全球惡劣天氣(英文)

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上一頁

9月16日	*****	31.2	27.5	25.3	22.5	85	74	62
9月17日	*****	30.9	27.2	24.1	19.2	80	63	44
9月18日	*****	30.9	26.8	24.0	19.9	80	66	56
9月19日	*****	29.9	26.8	24.1	20.0	87	67	50
9月20日	*****	30.7	26.8	24.2	19.9	80	67	55
9月21日	*****	30.3	27.1	24.4	20.0	78	66	51
9月22日	*****	31.6	27.3	24.6	21.5	83	71	50
9月23日	*****	31.9	28.0	25.2	21.1	81	67	51
9月24日	*****	28.0	26.8	25.2	21.5	83	73	66
9月25日	*****	31.0	27.5	25.6	21.3	80	70	55
9月26日	*****	30.7	26.9	24.3	20.7	81	69	54
9月27日	*****	30.9	26.9	24.5	21.2	81	72	55
9月28日	*****	30.3	26.8	24.5	21.1	80	71	55
9月29日	*****	33.7	28.4	25.0	22.3	84	70	47
9月30日	*****	31.7	27.8	25.4	22.2	91	73	57
平均	*****	30.4	27.2	24.7	22.7	90	78	63
最高	*****	35.3	31.2	29.4	27.2	100	100	96
最低	*****	22.5	21.5	19.7	19.1	78	63	44

日期	總雨量 (毫米)	盛行風向 (度)	平均風速 (公里/小時)
9月1日	*****	230	8.8
9月2日	*****	230	8.2
9月3日	*****	150	5.3
9月4日	*****	140	7.1

9月5日	*****	230	8.6
9月6日	*****	020	6.7
9月7日	*****	020	4.1
9月8日	*****	020	4.3
9月9日	*****	020	7.4
9月10日	*****	030	13.2
9月11日	*****	360	11.8
9月12日	*****	020	12.5
9月13日	*****	030	10.7
9月14日	*****	350	5.5
9月15日	*****	020	6.4
9月16日	*****	010	7.0
9月17日	*****	020	6.2
9月18日	*****	030	8.9
9月19日	*****	020	7.8
9月20日	*****	160	4.9
9月21日	*****	010	5.5
9月22日	*****	020	8.4
9月23日	*****	020	8.6
9月24日	*****	030	8.5
9月25日	*****	110	9.8
9月26日	*****	150	11.2
9月27日	*****	140	10.8
9月28日	*****	160	9.1
9月29日	*****	020	7.8
	*****	030	7.8

9月30日			
平均	-----	020	8.1
總雨量	*****	---	-----
最高	*****	---	13.2
最低	*****	---	4.1

\*\*\* 沒有數據

# 數據不完整 (當日每小時一次的飄測次數少於24)

雨量計不能測量到少於0.5毫米的雨量

2003 © | 重要告示

最近修訂日期: <2006年10月9日>



## **Appendix E**

### **Event-Action Plans**

# EVENT/ACTION PLAN FOR AIR QUALITY EXCEEDANCE

	ACTION			
EVENT	ET Leader	IC(E)	ER	Contractor
<b>ACTION LEVEL</b>				
1. Exceedance for one sample	<ol style="list-style-type: none"> <li>1. Identify source, investigate the causes of exceedance and propose remedial measures</li> <li>2. Inform ER, IC(E) and Contractor</li> <li>3. Repeat measurement to confirm finding</li> <li>4. Increase monitoring frequency to daily</li> </ol>	<ol style="list-style-type: none"> <li>1. Check monitoring data submitted by the ET</li> <li>2. Check contractor's working method</li> </ol>	<ol style="list-style-type: none"> <li>1. Notify Contractor</li> </ol>	<ol style="list-style-type: none"> <li>1. Rectify any unacceptable practise</li> <li>2. Amend working methods if appropriate</li> </ol>
2. Exceedance for two or more consecutive samples	<ol style="list-style-type: none"> <li>1. Identify source, investigate the causes of exceedance and propose remedial measures</li> <li>2. Inform IC(E) and Contractor</li> <li>3. Repeat measurements to confirm finding</li> <li>4. Increase monitoring frequency to daily</li> <li>5. Discuss with IC(E) and Contractor on remedial actions</li> <li>6. If exceedance continues, arrange meeting with IC(E) and ER.</li> <li>7. If exceedance stops, cease additional monitoring</li> </ol>	<ol style="list-style-type: none"> <li>1. Check monitoring data submitted by the ET Leader</li> <li>2. Check the Contractor's working method</li> <li>3. Discuss with ET and Contractor on possible remedial measures</li> <li>4. Advise the ER on the effectiveness of the proposed remedial measures</li> <li>5. Supervise implementation of remedial measures</li> </ol>	<ol style="list-style-type: none"> <li>1. Confirm receipt of notification of failure in writing</li> <li>2. Notify the Contractor</li> <li>3. Ensure remedial measures properly implemented</li> </ol>	<ol style="list-style-type: none"> <li>1. Submit proposals for remedial actions to IC(E) within 3 working days of notification</li> <li>2. Implement the agreed proposals</li> <li>3. Amend proposal if appropriate</li> </ol>
<b>LIMIT LEVEL</b>				
1. Exceedance for one sample	<ol style="list-style-type: none"> <li>1. Identify source, investigate the causes of exceedance and propose remedial measures</li> <li>2. Inform ER, Contractor and EPD</li> <li>3. Repeat measurement to confirm finding</li> <li>4. Increase monitoring frequency to daily</li> <li>5. Assess the effectiveness of Contractor's remedial actions and keep IC(E), EPD and ER informed of the results</li> </ol>	<ol style="list-style-type: none"> <li>1. Check monitoring data submitted by the ET Leader</li> <li>2. Check Contractor's working method</li> <li>3. Discuss with ET and Contractor on possible remedial measures</li> <li>4. Advise the ER on the effectiveness of the proposed remedial measures</li> <li>5. Supervise implementation of remedial measures</li> </ol>	<ol style="list-style-type: none"> <li>1. Confirm receipt of notification of failure in writing</li> <li>2. Notify the Contractor</li> <li>3. Ensure remedial measures properly implemented</li> </ol>	<ol style="list-style-type: none"> <li>1. Take immediate action to avoid further exceedance</li> <li>2. Submit proposals for remedial actions to IC(E) within 3 working days of notification</li> <li>3. Implement the agreed proposals</li> <li>4. Amend proposal if appropriate.</li> </ol>

## EVENT/ACTION PLAN FOR AIR QUALITY EXCEEDANCE

EVENT	ACTION			Contractor
	ET Leader	IC(E)	ER	
2. Exceedance for two or more consecutive samples	<ol style="list-style-type: none"> <li>1. Identify source, investigate the causes of exceedance and propose remedial measures</li> <li>2. Notify IC(E), ER, EPD and Contractor</li> <li>3. Repeat measurement to confirm finding</li> <li>4. Increase monitoring frequency to daily</li> <li>5. Carry out analysis of contractor's working procedures to determine possible mitigation to be implemented</li> <li>6. Arrange meeting with IC(E) and ER to discuss the remedial actions to be taken</li> <li>7. Assess effectiveness of Contractor's remedial actions and keep IC(E), EPD and ER informed of the results</li> <li>8. If exceedance stops, cease additional monitoring</li> </ol>	<ol style="list-style-type: none"> <li>1. Discuss amongst ER, ET and Contractor on the potential remedial actions</li> <li>2. Review Contractor's remedial actions whenever necessary to assure their effectiveness and advise the ER accordingly</li> <li>3. Supervise the implementation of remedial measures</li> </ol>	<ol style="list-style-type: none"> <li>1. Confirm receipt of notification of failure in writing</li> <li>2. Notify Contractor</li> <li>3. In consultation with the IC(E), agree with the Contractor on the remedial measures to be implemented</li> <li>4. Ensure remedial measures are properly implemented</li> <li>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</li> </ol>	<ol style="list-style-type: none"> <li>1. Take immediate action to avoid further exceedances</li> <li>2. Submit proposals for remedial actions to IC(E) within 3 working days of notification</li> <li>3. Implement the agreed proposals</li> <li>4. Resubmit proposals if problem still not under control</li> <li>5. Stop the relevant activity of works as determined by the ER until the exceedance is abated</li> </ol>



## EVENT AND ACTION PLAN FOR WATER QUALITY EXCEEDANCE

Event	ACTION			IEC
	ET Leader	Contractor	ER	
<p>Action level being exceeded by one sampling day</p>	<ol style="list-style-type: none"> <li>1. Identify source(s) of impact;</li> <li>2. Repeat in-situ measurement to confirm findings;</li> <li>3. Notify Contractor in writing within 24 hours of identification of the exceedance</li> <li>4. Check monitoring data, all plant, equipment and Contractor's working methods;</li> <li>5. Carry out investigation</li> <li>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</li> <li>7. Discuss mitigation measures with Contractor if exceedance is due to the construction works within 4 working days</li> <li>8. Repeat measurement on next day of exceedance if exceedance is due to the construction works</li> </ol>	<ol style="list-style-type: none"> <li>1. Notify the ER and IEC in writing within 24 hours of identification of exceedance</li> <li>2. Rectify unacceptable practice;</li> <li>3. Check all plant and equipment;</li> <li>4. Submit investigation report to IEC and ER within 3 working days of the identification of an exceedance</li> <li>5. Consider changes of working method if exceedance is due to the construction works</li> <li>6. 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</li> <li>7. Implement the agreed mitigation measures within reasonable time scale</li> </ol>	<ol style="list-style-type: none"> <li>1. Notify EPD and other relevant governmental agencies in writing within 24 hours of the identification of the exceedance</li> <li>2. Discuss with IEC, ET and Contractor on the proposed mitigation measures;</li> <li>3. Require contractor to propose remedial measures for the analysed problem if related to the construction works</li> <li>4. Ensure remedial measures are properly implemented</li> <li>5. Assess the effectiveness of the mitigation measure</li> </ol>	<ol style="list-style-type: none"> <li>1. Check monitoring data submitted by ET</li> <li>2. Confirm ET assessment if exceedance is due / not due to the works</li> <li>3. Discuss with ET, ER and Contractor on the mitigation measures</li> <li>4. Review contractor's mitigation measures whenever necessary to ensure their effectiveness and advise the ER accordingly</li> <li>5. Supervise the implementation of mitigation measures</li> </ol>

## EVENT AND ACTION PLAN FOR WATER QUALITY

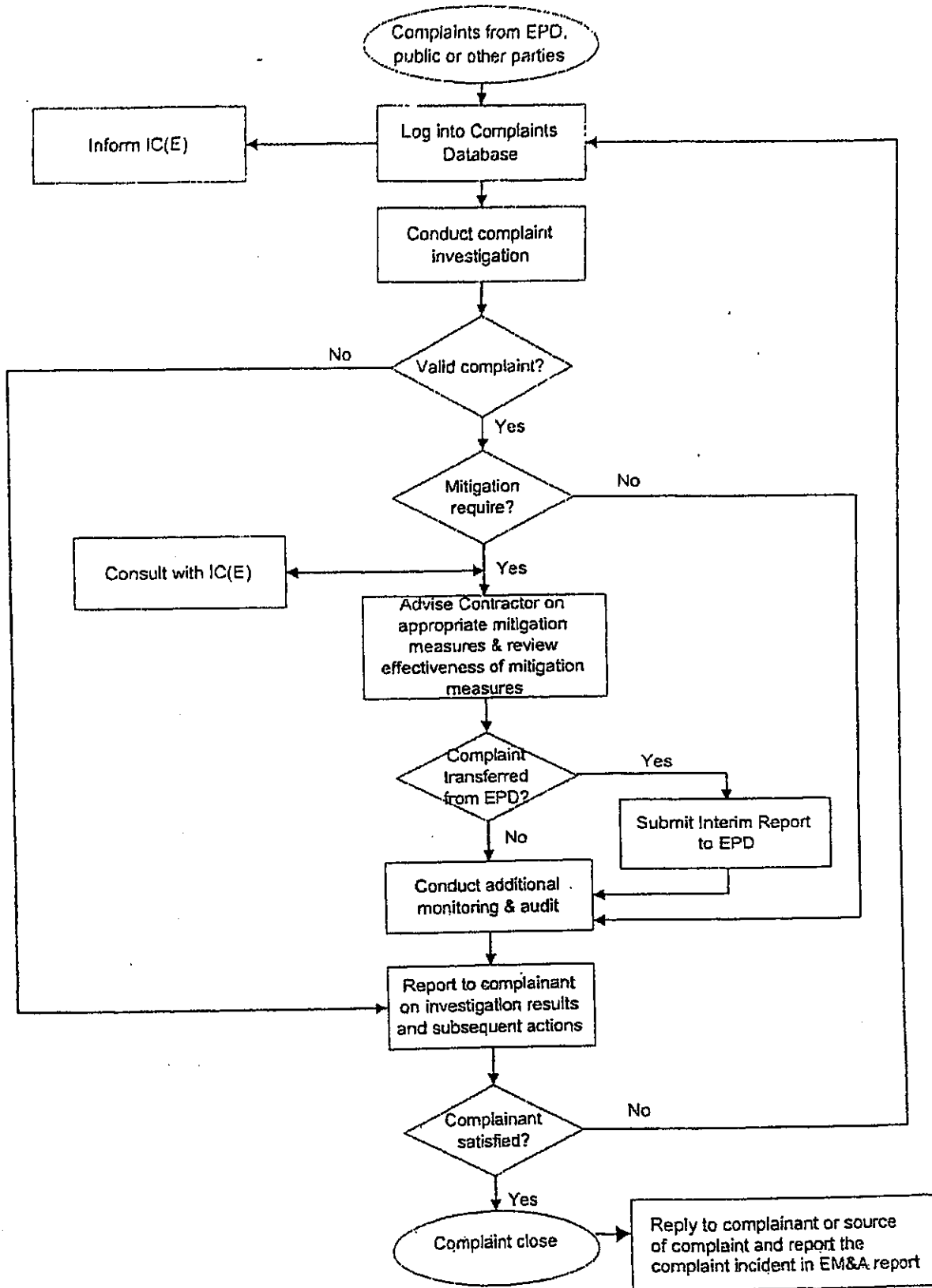
Event	ACTION			
	ET Leader	Contractor	ER	IEC
<p>Action level being exceeded by more than one consecutive sampling days</p>	<ol style="list-style-type: none"> <li>1. Identify source(s) of impact;</li> <li>2. Repeat in-situ measurement to confirm findings</li> <li>3. Notify Contractor in writing within 24 hours of identification</li> <li>4. Check monitoring data, all plant, equipment and Contractor's working methods;</li> <li>5. Carry out investigation</li> <li>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</li> <li>7. Discuss mitigation measures with IEC and Contractor within 4 working of identification of an exceedance</li> <li>8. Ensure mitigation measures are implemented;</li> <li>9. Prepare to increase the monitoring frequency to daily;</li> <li>10. Repeat measurement on next day of exceedance.</li> </ol>	<ol style="list-style-type: none"> <li>1. Notify IEC and ER in writing within 24 hours of identification of exceedance</li> <li>2. Rectify unacceptable practice;</li> <li>3. Check all plant and equipment;</li> <li>4. Consider changes of working methods;</li> <li>5. Submit the results of the investigation to IEC and ER within 3 working days of the identification of an exceedance</li> <li>6. Discuss with ET, IEC and ER and propose mitigation measures to IEC and ER within 4 working days of identification of an exceedance</li> <li>7. Implement the agreed mitigation measures within reasonable time scale</li> </ol>	<ol style="list-style-type: none"> <li>1. Notify EPD and other relevant governmental agencies in writing within 24 hours of the identification of the exceedance</li> <li>2. Discuss with IEC, ET and Contractor on the proposed mitigation measures;</li> <li>3. Require contractor to propose remedial measures for the analysed problem if related to the construction works</li> <li>4. Ensure remedial measures are properly implemented</li> <li>5. Assess the effectiveness of the mitigation measure</li> </ol>	<ol style="list-style-type: none"> <li>1. Check monitoring data submitted by ET</li> <li>2. Confirm ET assessment if exceedance is due / not due to the works</li> <li>3. Discuss with ET, ER and Contractor on the mitigation measures.</li> <li>4. Review contractor's mitigation measures whenever necessary to ensure their effectiveness and advise the ER accordingly</li> <li>5. Assess the effectiveness of the implemented mitigation measures.</li> </ol>

## EVENT AND ACTION PLAN FOR WATER QUALITY EXCEEDANCE

Event	ACTION			IEC
	ET Leader	Contractor	ER	
Limit level being exceeded by one sampling day	<ol style="list-style-type: none"> <li>1. Repeat in-situ measurement to confirm findings;</li> <li>2. Identify source(s) of impact;</li> <li>3. Notify Contractor in writing within 24 hours of identification of the exceedance</li> <li>4. Check monitoring data, all plant, equipment and Contractor's working methods;</li> <li>5. Carry out investigation</li> <li>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</li> <li>7. Discuss mitigation measures with IEC, ER and Contractor within 4 working of identification of an exceedance</li> <li>8. Ensure mitigation measures are implemented;</li> <li>9. Increase the monitoring frequency to daily until no exceedance of Limit Level.</li> </ol>	<ol style="list-style-type: none"> <li>1. Notify IEC and ER in writing; within 24 hours of the identification of the exceedance</li> <li>2. Rectify unacceptable practice;</li> <li>3. Check all plant and equipment;</li> <li>4. Consider changes of working methods;</li> <li>5. Submit the results of the investigation to IEC and ER within 3 working days of the identification of an exceedance</li> <li>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</li> <li>7. Implement the agreed mitigation measures within reasonable time scale</li> </ol>	<ol style="list-style-type: none"> <li>1. Notify EPD and other relevant governmental agencies in writing within 24 hours of identification of exceedance</li> <li>2. Discuss with IEC, ET and Contractor on the proposed mitigation measures;</li> <li>3. Request Contractor to critically review the working methods;</li> <li>4. Ensure remedial measures are properly implemented</li> <li>5. Assess the effectiveness of the implemented mitigation measures.</li> </ol>	<ol style="list-style-type: none"> <li>1. Check monitoring data submitted by ET</li> <li>2. Confirm ET assessment if exceedance is due / not due to the works</li> <li>3. Discuss with ET, ER and Contractor on the mitigation measures.</li> <li>4. Review proposals on mitigation measures submitted by Contractor and advise the ER accordingly.</li> <li>5. Assess the effectiveness of the implemented mitigation measures</li> </ol>

## EVENT AND ACTION PLAN FOR WATER QUALITY EXCEEDANCE

Event	ACTION			IEC
	ET Leader	Contractor	ER	
Limit Level being exceeded by more than one consecutive sampling days	<ol style="list-style-type: none"> <li>1. Repeat in-situ measurement to confirm findings;</li> <li>2. Identify source(s) of impact;</li> <li>3. Notify Contractor in writing within 24 hours of identification of the exceedance</li> <li>4. Check monitoring data, all plant, equipment and Contractor's working methods;</li> <li>5. Carry out investigation</li> <li>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</li> <li>7. Discuss mitigation measures with IEC, ER and Contractor;</li> <li>8. Ensure mitigation measures are implemented;</li> <li>9. Increase the monitoring frequency to daily until no exceedance of Limit Level for two consecutive days.</li> </ol>	<ol style="list-style-type: none"> <li>1. Notify ER and IEC in writing within 24 hours of the identification of the exceedance and Rectify unacceptable practice;</li> <li>3. Check all plant and equipment;</li> <li>4. Consider changes of working methods;</li> <li>8. Submit the results of the investigation to IEC and ER within 3 working days of the identification of an exceedance</li> <li>5. Discuss with ET, IEC and ER and propose mitigation measures to IEC and ER within 4 working days;</li> <li>6. Implement the agreed mitigation measures within reasonable time scale</li> <li>7. As directed by the Engineer, to slow down or to stop all or part of the marine work or construction activities.</li> </ol>	<ol style="list-style-type: none"> <li>1. Notify EPD and other relevant governmental agencies in writing within 24 hours of identification of exceedance</li> <li>2. Discuss with IEC, ET and Contractor on the proposed mitigation measures;</li> <li>3. Request Contractor to critically review the working methods;</li> <li>6. Ensure remedial measures are properly implemented</li> <li>4. Assess the effectiveness of the implemented mitigation measures;</li> <li>5. Consider and instruct, if necessary, the Contractor to slow down or to stop all or part of the marine work until no exceedance of Limit Level.</li> </ol>	<ol style="list-style-type: none"> <li>1. Check monitoring data submitted by ET</li> <li>2. Confirm ET assessment if exceedance is due / not due to the works</li> <li>3. Discuss with ER, ET and Contractor on the mitigation measures.</li> <li>4. Review proposals on mitigation measures submitted by Contractor and advise the ER accordingly.</li> <li>5. Assess the effectiveness of the implemented mitigation measures.</li> </ol>



CEDD Contract No. CV/2006/02 Operation of Public Fill Reception Facilities at Tuen Mun Area 38, Tseung Kwan O Area 137, Quarry Bay and Mui Wo

Figure 4 Environmental Complaint Handling Procedure - Tuen Mun Area 38

Scale : ---

Revised Date :  
September 2006



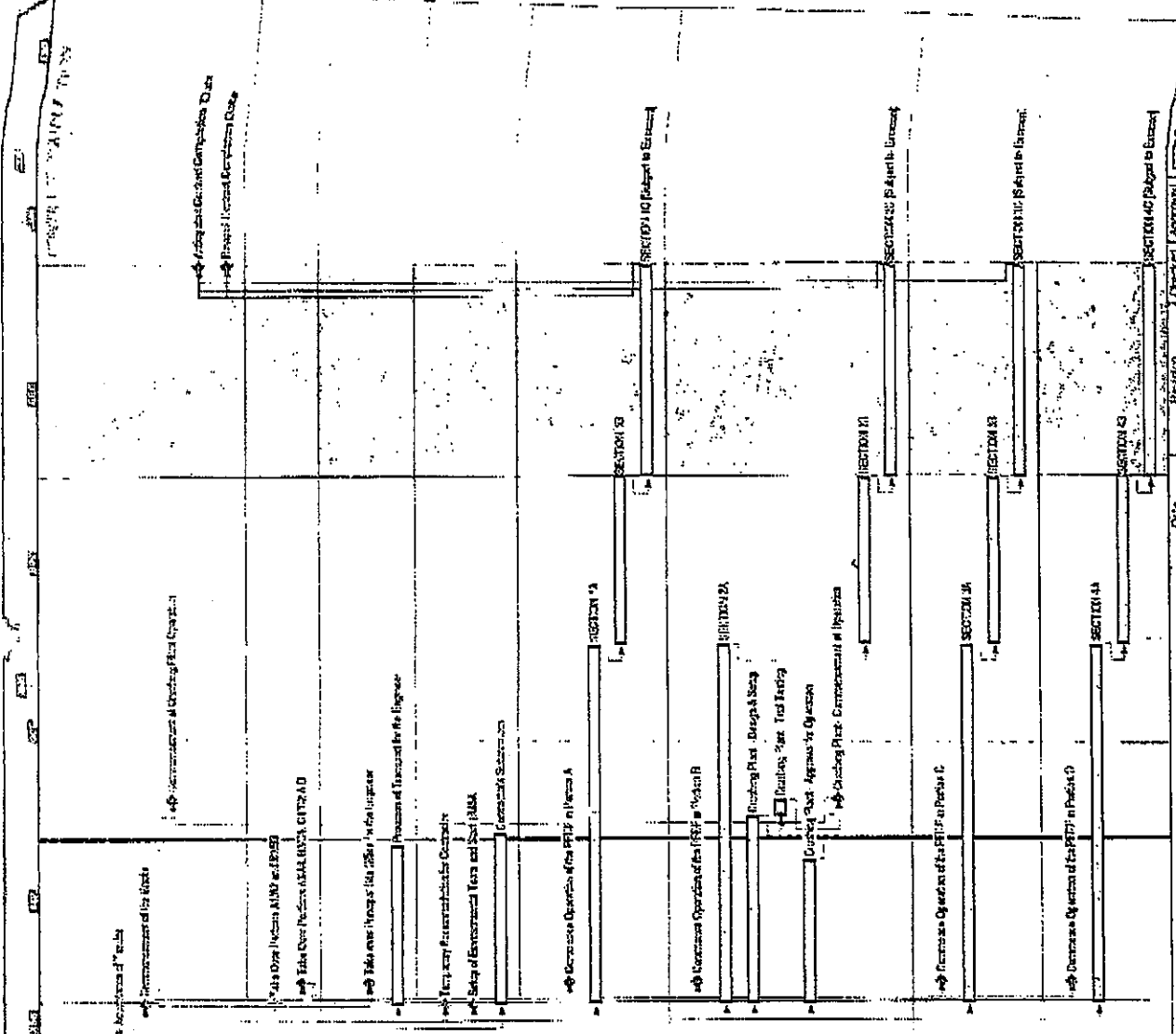
東業德動測試顧問有限公司  
ETS-TESTCONSULT LIMITED




## **Appendix F**

### **Construction Programme**

Item No.	Description	Start Date	End Date	Phase
1-100	Acceptance of Tender	20/06/04	20/06/04	1
1-101	Commencement of the Works	20/06/04	20/06/04	1
1-102	Commencement of Crushing Plant Operation	01/07/04	01/07/04	1
1-103	Acceptation of tender for Section 1-4	01/07/04	01/07/04	1
1-104	Prepared Contract Completion Date	01/07/04	01/07/04	1
1-105	Take over Positions A1, A2 and B-90	20/06/04	20/06/04	1
1-106	Take over Positions A3, A4, B1, B2, C1, C2, C3, C4, C5	01/07/04	01/07/04	1
<b>PRELIMINARIES</b>				
1-107	Take over "Pre-Work" Stage for the "Pre-work"	01/07/04	01/07/04	1
1-108	Preparation of Tender for the Engineer	01/07/04	01/07/04	1
1-109	Temporary Arrangements for Contractor	01/07/04	01/07/04	1
1-110	Setup of Environmental Team and Start EIA	01/07/04	01/07/04	1
1-111	Contractor's Submissions	01/07/04	01/07/04	1
<b>OPERATION OF PUBLIC FILL RECEPTION FACILITIES</b>				
A-101	Commence Operation of the PRF in Partion A	01/07/04	01/07/04	1
A-102	SECTION 1A	20/06/04	20/06/04	1
A-103	SECTION 1B	01/07/04	01/07/04	1
A-104	SECTION 1C (Subject to Emission)	01/07/04	01/07/04	1
B-101	Commence Operation of the PRF in Partion B	01/07/04	01/07/04	1
B-102	SECTION 2A	01/07/04	01/07/04	1
B-103	Crushing Plant Design & Set up	01/07/04	01/07/04	1
B-104	Crushing Plant Trial Testing	01/07/04	01/07/04	1
B-105	Crushing Plant Approval for Operation	01/07/04	01/07/04	1
B-106	Crushing Plant Commencement of Operation	01/07/04	01/07/04	1
B-107	SECTION 2B	01/07/04	01/07/04	1
B-108	SECTION 2C (Subject to Emission)	01/07/04	01/07/04	1
C-101	Commence Operation of the PRF in Partion C	01/07/04	01/07/04	1
C-102	SECTION 3A	01/07/04	01/07/04	1
C-103	SECTION 3B	01/07/04	01/07/04	1
C-104	SECTION 3C (Subject to Emission)	01/07/04	01/07/04	1
D-101	Commence Operation of the PRF in Partion D	01/07/04	01/07/04	1
D-102	SECTION 4A	01/07/04	01/07/04	1
D-103	SECTION 4B	01/07/04	01/07/04	1
D-104	SECTION 4C (Subject to Emission)	01/07/04	01/07/04	1




**CV/2006/02 - Operation of Public Fill Reception Facilities at Tuen Mun Area 38, Tseung Kwan O Area 137, Quarry Bay & Mui Wo**  
 Main Contractor: Concentric Construction Ltd.

Office: 01862888888  
 Fax: 27262905  
 Version: RIUT  
 Date: 01/07/04  
 Rev. D  
 Section: SC  
 Project: SC  
 Drawing: SC  
 Status: Approved for  
 Status: Operational  
 Status: Proposed for  
 Status: Boundary for  
 Status: Boundary for  
 Status: Fresh Watering Point  
 Status: Public Fill Reception Point



## **Appendix G**

### **Weekly ET's Site Inspection Record**



CEDD Contract No.: CV/2006/02  
Project: Fill Bank at Tuen Mun Area 3B

Inspection Date : 6 September 2006  
 Time : 09:30  
 Weather : Sunny / Fine / Cloudy / Overcast / Drizzle / Rain / Storm / Hazy  
 Wind : Calm (Light) Breeze / Strong  
 Temperature : 31 °C  
 Humidity : High / Moderate / Low

### Environmental Checklist

	Implementation Stages*			Remark
	Yes	No	N/A	
<b>Fugitive Dust Emission</b>				
▪ Dust control / mitigation measures shall be provided to prevent dust nuisance.	✓			
▪ Water sprays shall be provided and used to dampen materials.	✓			
▪ All stockpile of aggregate or spoil should be enclosed or covered and water applied in dry or windy condition.	✓			
▪ 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.	✓			
▪ Unpaved areas should be watered regularly to avoid dust generation.	✓			
▪ The designated site main haul road shall be paved or regular watering.	✓			
▪ The public road around the site entrance should be kept clean and free from dust.	✓			
▪ Wheel washing facilities including high-pressure water jet shall be provided at the entrance of work site.	✓			
▪ Every vehicle shall be washed to remove any dusty materials from its body and wheels before leaving the fill bank.	✓			
▪ The temporary slope surfaces shall be covered with impermeable sheet or sprayed with water.	✓			
▪ Vehicle and equipment should be switched off while not in use.	✓			
▪ All plant and equipment should be well maintained e.g. without black smoke emission.	✓			
▪ Open burning should be prohibited.	✓			
<b>Noise Impact</b>				
▪ The approved method of working, equipment and sound-reducing measures (e.g. use of silenced type of equipment, etc.) shall be adapted.	✓			
▪ The constructions works should be scheduled to minimize noise nuisance.	✓			
▪ Only well maintained plant should be operated on-site and plant should be serviced regularly during the construction works.	✓			
▪ Powered mechanical equipment (PME) should be covered or shielded by appropriate acoustic materials.	✓			
▪ Air compressors and hand held breakers should have noise labels.	✓			
▪ Compressors and generators should operate with door closed.	✓			
▪ Machines and plants that may be in intermittent use should be shut down between work periods or should be throttled down to a minimum.	✓			
▪ Noisy equipment and mobile plant shall always be site away from NSRs.	✓			

Implementation Stages*		Remark
<b>Water Quality</b>		
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	The existing / realigned intercepting channels and the sand / silt removal facilities shall be used and maintained.
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Temporary intercepting drains should be used at the stockpiling area to divert polluted stormwater to the intercepting channels. Earth bunds and sand bay barriers shall be used to assist the diversion of polluted stormwater to the intercepting channels.
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	The stormwater intercepting system shall be effective to collect of runoff and remove suspended solids before discharge.
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	The material shall be properly covered to prevent washed away especially before rainstorm.
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	The temporary slope surfaces shall be covered with impermeable sheet or sprayed with water.
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Final slope surfaces, especially those facing to the north of the site shall be treated by hydroseeding, vegetation planting or sealing with shotconcrete, latex, vinyl, bitumen, or other suitable surface stabilizer approved by CEDD.
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Existing and newly constructed Catchpits, sand and silt removal facilities and intercepting channels shall be maintained, and the deposited silt and grit shall be removed weekly and on a need basis especially at the onset of and after each rainstorm to ensure that these facilities are functioning properly at all times.
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	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.
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	The section of construction road between wheel washing bay and the public road shall be paved with concrete, bituminous materials or hardcore to reduce vehicle tracking of soil and to prevent site run-off from entering public road drains.
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Sewage from toilets shall be discharged in to a foul sewer, or chemical toilets shall be provided.
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	The chemical toilets (if use) shall be provided by a licensed contractor, who will be responsible for disposal and maintenance of these facilities.
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	The barges shall be in right size such that adequate clearance is maintained between the vessels and the seabed at all states of the tide to ensure the undue turbidity is not generated by turbulence from vessel movement or propeller wash.
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	All vessels used for transportation of fill material shall have tight fitting seals to their bottom openings to prevent leakage of material during transport.
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Barges shall not be filled to a level which may cause the overflow of material during loading or transportation. Barge effluents shall be properly collected and treated before disposal.
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Adequate environmental control measures shall be provided to prevent / avoid dropping of fill material into the sea during the transfer.
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	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.
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	A waste collection vessel shall be deployed to remove floating debris.
<b>Landscape and Visual</b>		
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	The maximum stockpiling height at the fill bank shall be limited to a maximum of +40mPD.
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Surface of outer slopes of the Fill Bank shall preferably be hydroseeded.
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Stockpile of public fill shall be removed in a sequence to allow the outer hydroseeded to be removed later than other portions as far as practicable.
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Casuarina equisetifolia were planted as buffer tree along the northern perimeter of the Site. The height of Casuarina equisetifolia was maintained at least 3m above soil level.
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Lighting shall be set to minimise night-time glare.

CEDD Contract No.: CV/2006/02  
Project: Fill Bank at Tuen Mun Area 38

<b>Waste Management</b>			
<b>Construction Waste Management</b>			
▪ Relevant licence / permits for disposal of construction waste or excavated materials available for inspection.		✓	
▪ Excavated material to be generated from construction works to be re-used on-site as far as practicable to reduce off-site disposal.		✓	
▪ Mud and debris should be removed from waterworks access roads and associated drainage systems.		✓	
▪ Provision of sufficient waste disposal points and regular collection for disposal. Appropriate measures should be employed to minimise windblown litter and dust during transportation of waste by either covering trucks or by transporting wastes in enclosed containers.		✓	
▪ Segregation and storage of different types of waste in different containers, skips or stockpiles to enhance reuse or recycling of materials and their proper disposal.		✓	
▪ Prior to disposal of C&D waste, recyclable materials should be salvaged for reuse (such as wood and metal) and inert waste utilised as public fill to minimise the quantity of waste to be disposed of to landfill.		✓	
▪ In order to monitor the disposal of C&D material and solid wastes at public filling areas and landfills, and to control fly-tipping, a trip-ticket system should be included as one of the contractual requirements.		✓	
▪ Any soil contaminated with chemicals/oils shall be removed from site and the void created shall be filled with suitable materials.		✓	
<b>Chemical Waste Management</b>			
▪ It is required to register as a chemical waste producer if chemical wastes would be produced from the construction activities. The Waste Disposal Ordinance (Cap 354) and its subsidiary regulations in particular the Waste Disposal (Chemical Waste) (General) Regulation should be observed and complied with for control of chemical wastes.		✓	
▪ After use, chemical wastes (e.g. cleaning fluids, solvents, lubrication oil and fuel) should be handled according to the Code of Practice on the Packaging, Labelling and Storage of Chemical Wastes.		✓	
▪ Spent chemicals should be stored and collected by an approved operator for disposal at the Chemical Waste Treatment Facility or other licensed facility in accordance with the Chemical Waste (General) Regulation.		✓	
▪ Chemical wastes should be separated for special handling and appropriate treatment at the Chemical Waste Treatment Facility.		✓	
▪ Chemical wastes including waste oil should be stored properly in designated areas, e.g. chemical waste storage area.		✓	
▪ The designated chemical waste storage area should only be used for storing chemical wastes.		✓	Remark (4)
▪ The set-up of chemical waste storage area should			
▪ Be suitable for the substance they are holding, resistant to corrosion, maintained in a good condition.		✓	
▪ Be enclosed on at least 3 sides and securely closed.		✓	Remark (4)
▪ Have an impermeable floor and bunding, of capacity to accommodate 110% of the volume of the largest container or 20% by volume of the chemical waste stored in that area, whichever is the greatest.		✓	
▪ Have adequate ventilation.		✓	
▪ Be covered to prevent rainfall entering (water collected within the bund must be tested and disposal as chemical waste if necessary).		✓	Remark (4)
▪ Be arranged so that incompatible materials are adequately separated.		✓	
▪ Warning panels should be displayed at the waste storage area.		✓	Remark (4)
▪ Waste storage area should be cleaned and maintained regularly.		✓	

CEDD Contract No.: CV/2006/02

Project: Fill Bank at Tuen Mun Area 3B

<ul style="list-style-type: none"> <li>Chemical waste should be transported by a registered chemical waste collector to a facility licensed to receive chemical waste.</li> </ul>	✓		
<ul style="list-style-type: none"> <li>All generators, fuel and oil storage should be within bundle areas.</li> </ul>	✓		
<ul style="list-style-type: none"> <li>Oil leakage from machinery, vehicle and plant should be prevented.</li> </ul>	✓		
<ul style="list-style-type: none"> <li>In the event of chemical waste / dangerous goods / chemicals spillage or leakage, the procedures as outlined in the Spillage Response Plan should be followed.</li> </ul>	✓		
<ul style="list-style-type: none"> <li>The dangerous goods / chemical spillage or leakage procedures (including equipments) should be in place.</li> </ul>	✓		
<b>Good Site Practices</b>			
<ul style="list-style-type: none"> <li>Nomination of approved personnel, such as site manager, to be responsible for good site practices, arrangements for collection and effective disposal to an appropriate facility, of all wastes generated at the site.</li> </ul>	✓		
<ul style="list-style-type: none"> <li>Training of site personnel in proper waste management and chemical handling procedures should be provided.</li> </ul>	✓		
<ul style="list-style-type: none"> <li>Good site practices should be adopted to clean the rubbish and litter on a regular basis so as to prevent the rubbish and litter from dropping into the nearby environment.</li> </ul>	✓		Remark ③
<ul style="list-style-type: none"> <li>Proper storage and site practices to minimise the potential for damage or contamination of construction materials.</li> </ul>	✓		
<ul style="list-style-type: none"> <li>The Environmental Permit should be displayed conspicuously on site.</li> </ul>		✓	
<ul style="list-style-type: none"> <li>Construction noise permits should be posted at site entrance or available for site inspection.</li> </ul>		✓	
<ul style="list-style-type: none"> <li>Plan and stock construction materials carefully to minimise amount of waste generated and avoid unnecessary generation of waste.</li> </ul>	✓		
<ul style="list-style-type: none"> <li>Chemical storage area provided with lock and located on sealed areas.</li> </ul>	✓		
<ul style="list-style-type: none"> <li>All chemicals should be placed at the banded area with adequate band capacity (&gt;110% of largest tank).</li> </ul>	✓		
<ul style="list-style-type: none"> <li>Any unused chemicals or those with remaining functional capacity should be recycled.</li> </ul>	✓		
<ul style="list-style-type: none"> <li>Regular cleaning and maintenance programme for waste storage area, drainage systems, silt traps, sumps and oil interceptors.</li> </ul>	✓		
<ul style="list-style-type: none"> <li>To encourage collection of aluminium cans by individual collectors, separate labelled bins should be provided to segregate this waste from other general refuse generated by the workforce.</li> </ul>	✓		
<ul style="list-style-type: none"> <li>A recording system for the amount of wastes generated, recycled and disposed (including the disposal sites) should be used, e.g. trip ticket system for chemical waste disposal. Quantities could be determined by weighing each load or other suitable methods.</li> </ul>			✓
<ul style="list-style-type: none"> <li>A collection area should be provided where waste can be stored and loaded prior to removal from site. An enclosed and covered area is preferred to reduce the occurrence of 'wind blown' light material. If an open area is unavoidable for the storage or loading/unloading of wastes, then the area should be bunded and all the polluted surface run-off collected within this area should be diverted into wastewater treatment system.</li> </ul>	✓		
<ul style="list-style-type: none"> <li>Remove wastes in a timely manner.</li> </ul>	✓		

**Summary of the Weekly Site Inspection:**

Item	Details of Follow-up Observation(s)

Item	Details of New Observation(s)
①	Unused tanks were found without covered next to the contractor's site office.
②	Rainwater was accumulated in the tire next to the contractor's site office, the Contractor was reminded to cover by canvas to prevent mosquito breeding.
③	Rubbish skip was found full load at TPL, the Contractor was reminded clean up more frequently.
④	The chemical waste storage area was found without an appropriate label and enclosed on at least 3 sides.

Remark

Inspected by	Name	Signature	Date
	H. T. Chow	<i>[Signature]</i>	6-9-2006
Checked by	Linda Lam	<i>[Signature]</i>	6/9/06

CEDD Contract No.: CV/2006/02  
Project: Fill Bank at Tuen Mun Area 38

Inspection Date : 12 September 2006  
 Time : 11:10  
 Weather : Sunny / Fine / Cloudy / Overcast / Drizzle (Rain) Storm / Hazy  
 Wind : Calm / Light (Breeze) Strong  
 Temperature : 22 °C  
 Humidity : High / Moderate / Low

Environmental Checklist	Implementation Stages*			Remark
	Yes	No	N/A	
<b>Fugitive Dust Emission</b>				
▪ Dust control / mitigation measures shall be provided to prevent dust nuisance.	✓			
▪ Water sprays shall be provided and used to dampen materials.	✓			
▪ All stockpile of aggregate or spoil should be enclosed or covered and water applied in dry or windy condition.	✓			
▪ 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.	✓			
▪ Unpaved areas should be watered regularly to avoid dust generation.	✓			
▪ The designated site main haul road shall be paved or regular watering.	✓			
▪ The public road around the site entrance should be kept clean and free from dust.	✓			
▪ Wheel washing facilities including high-pressure water jet shall be provided at the entrance of work site.	✓			
▪ Every vehicle shall be washed to remove any dusty materials from its body and wheels before leaving the fill bank.	✓			
▪ The temporary slope surfaces shall be covered with impermeable sheet or sprayed with water.	✓			
▪ Vehicle and equipment should be switched off while not in use.	✓			
▪ All plant and equipment should be well maintained e.g. without black smoke emission.	✓			
▪ Open burning should be prohibited.	✓			
<b>Noise Impact</b>				
▪ The approved method of working, equipment and sound-reducing measures (e.g. use of silenced type of equipment, etc.) shall be adapted.	✓			
▪ The constructions works should be scheduled to minimize noise nuisance.	✓			
▪ Only well maintained plant should be operated on-site and plant should be serviced regularly during the construction works.	✓			
▪ Powered mechanical equipment (PME) should be covered or shielded by appropriate acoustic materials.	✓			
▪ Air compressors and hand held breakers should have noise labels.			✓	
▪ Compressors and generators should operate with door closed.	✓			
▪ Machines and plants that may be in intermittent use should be shut down between work periods or should be throttled down to a minimum.	✓			
▪ Noisy equipment and mobile plant shall always be site away from NSRs.	✓			

CEDD Contract No.: CV/2006/02  
Project: Fill Bank at Tuen Mun Area 38

Environmental Checklist		Implementation Stages*		Remark
		Yes	No / N/A	
<b>Water Quality</b>				
<input checked="" type="checkbox"/>	The existing / realigned intercepting channels and the sand / silt removal facilities shall be used and maintained.	<input checked="" type="checkbox"/>		
<input checked="" type="checkbox"/>	Temporary intercepting drains should be used at the stockpiling area to divert polluted stormwater to the intercepting channels. Earth bunds and sand bay barriers shall be used to assist the diversion of polluted stormwater to the intercepting channels.	<input checked="" type="checkbox"/>		
<input checked="" type="checkbox"/>	The stormwater intercepting system shall be effective to collect of runoff and remove suspended solids before discharge.	<input checked="" type="checkbox"/>		
<input checked="" type="checkbox"/>	The material shall be properly covered to prevent washed away especially before rainstorm.	<input checked="" type="checkbox"/>		
<input checked="" type="checkbox"/>	The temporary slope surfaces shall be covered with impermeable sheet or sprayed with water.	<input checked="" type="checkbox"/>		
<input checked="" type="checkbox"/>	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 shotcrete, latex, vinyl, bitumen, or other suitable surface stabilizer approved by CEDD.	<input checked="" type="checkbox"/>		
<input checked="" type="checkbox"/>	Existing and newly constructed Catchpits, sand and silt removal facilities and intercepting channels shall be maintained, and the deposited silt and grit shall be removed weekly and on a need basis especially at the onset of and after each rainstorm to ensure that these facilities are functioning properly at all times.	<input checked="" type="checkbox"/>		
<input checked="" type="checkbox"/>	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.	<input checked="" type="checkbox"/>		
<input checked="" type="checkbox"/>	The section of construction road between wheel washing bay and the public road shall be paved with concrete, bituminous materials or hardcores to reduce vehicle tracking of soil and to prevent site run-off from entering public road drains.	<input checked="" type="checkbox"/>		
<input checked="" type="checkbox"/>	Sewage from toilets shall be discharged in to a foul sewer, or chemical toilets shall be provided.	<input checked="" type="checkbox"/>		
<input checked="" type="checkbox"/>	The chemical toilets (if use) shall be provided by a licensed contractor, who will be responsible for disposal and maintenance of these facilities.	<input checked="" type="checkbox"/>		
<input checked="" type="checkbox"/>	The barges shall be in right size such that adequate clearance is maintained between the vessels and the seabed at all states of the tide to ensure the undue turbidity is not generated by turbulence from vessel movement or propeller wash.	<input checked="" type="checkbox"/>		
<input checked="" type="checkbox"/>	All vessels used for transportation of fill material shall have tight fitting seals to their bottom openings to prevent leakage of material during transport.	<input checked="" type="checkbox"/>		
<input checked="" type="checkbox"/>	Barges shall not be filled to a level which may cause the overflow of material during loading or transportation. Barge effluents shall be properly collected and treated before disposal.	<input checked="" type="checkbox"/>		
<input checked="" type="checkbox"/>	Adequate environmental control measures shall be provided to prevent / avoid dropping of fill material into the sea during the transfer.	<input checked="" type="checkbox"/>		
<input checked="" type="checkbox"/>	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.	<input checked="" type="checkbox"/>		
<input checked="" type="checkbox"/>	A waste collection vessel shall be deployed to remove floating debris.	<input checked="" type="checkbox"/>		
<b>Landscape and Visual</b>				
<input checked="" type="checkbox"/>	The maximum stockpiling height at the fill bank shall be limited to a maximum of +40mPD.	<input checked="" type="checkbox"/>		
<input checked="" type="checkbox"/>	Surface of outer slopes of the Fill Bank shall preferably be hydroseeded.	<input checked="" type="checkbox"/>		
<input checked="" type="checkbox"/>	Stockpile of public fill shall be removed in a sequence to allow the outer hydroseeded to be removed later than other portions as far as practicable.	<input checked="" type="checkbox"/>		
<input checked="" type="checkbox"/>	Casuarina equisetifolia were planted as buffer tree along the northern perimeter of the Site. The height of Casuarina equisetifolia was maintained at least 3m above soil level.	<input checked="" type="checkbox"/>		
<input checked="" type="checkbox"/>	Lighting shall be set to minimise night-time glare.	<input checked="" type="checkbox"/>		

CEDD Contract No.: CV/2006/02  
Project: Fill Bank at Tuen Mun Area 38

<b>Waste Management</b>			
<b>Construction Waste Management</b>			
▪	Relevant licence / permits for disposal of construction waste or excavated materials available for inspection.	✓	
▪	Excavated material to be generated from construction works to be re-used on-site as far as practicable to reduce off-site disposal.	✓	
▪	Mud and debris should be removed from waterworks access roads and associated drainage systems.	✓	
▪	Provision of sufficient waste disposal points and regular collection for disposal. Appropriate measures should be employed to minimise windblown litter and dust during transportation of waste by either covering trucks or by transporting wastes in enclosed containers.	✓	
▪	Segregation and storage of different types of waste in different containers, skips or stockpiles to enhance reuse or recycling of materials and their proper disposal.	✓	
▪	Prior to disposal of C&D waste, recyclable materials should be salvaged for reuse (such as wood and metal) and inert waste utilised as public fill to minimise the quantity of waste to be disposed of to landfill.	✓	
▪	In order to monitor the disposal of C&D material and solid wastes at public filling areas and landfills, and to control fly-tipping, a trip-ticket system should be included as one of the contractual requirements.	✓	
▪	Any soil contaminated with chemicals/oils shall be removed from site and the void created shall be filled with suitable materials.	✓	
<b>Chemical Waste Management</b>			
▪	It is required to register as a chemical waste producer if chemical wastes would be produced from the construction activities. The Waste Disposal Ordinance (Cap 354) and its subsidiary regulations in particular the Waste Disposal (Chemical Waste) (General) Regulation should be observed and complied with for control of chemical wastes.	✓	
▪	After use, chemical wastes (e.g. cleaning fluids, solvents, lubrication oil and fuel) should be handled according to the Code of Practice on the Packaging, Labelling and Storage of Chemical Wastes.	✓	
▪	Spent chemicals should be stored and collected by an approved operator for disposal at the Chemical Waste Treatment Facility or other licensed facility in accordance with the Chemical Waste (General) Regulation.	✓	
▪	Chemical wastes should be separated for special handling and appropriate treatment at the Chemical Waste Treatment Facility.	✓	
▪	Chemical wastes including waste oil should be stored properly in designated areas, e.g. chemical waste storage area.	✓	
▪	The designated chemical waste storage area should only be used for storing chemical wastes.	✓	
▪	The set-up of chemical waste storage area should		
▪	Be suitable for the substance they are holding, resistant to corrosion, maintained in a good condition.	✓	
▪	Be enclosed on at least 3 sides and securely closed.	✓	
▪	Have an impermeable floor and bunding, of capacity to accommodate 110% of the volume of the largest container or 20% by volume of the chemical waste stored in that area, whichever is the greatest.	✓	
▪	Have adequate ventilation.	✓	
▪	Be covered to prevent rainfall entering (water collected within the bund must be tested and disposal as chemical waste if necessary).	✓	
▪	Be arranged so that incompatible materials are adequately separated.	✓	
▪	Warning panels should be displayed at the waste storage area.	✓	
▪	Waste storage area should be cleaned and maintained regularly.	✓	





<ul style="list-style-type: none"> <li>Chemical waste should be transported by a registered chemical waste collector to a facility licensed to receive chemical waste.</li> </ul>					
<ul style="list-style-type: none"> <li>All generators, fuel and oil storage should be within bundle areas.</li> </ul>			✓		
<ul style="list-style-type: none"> <li>Oil leakage from machinery, vehicle and plant should be prevented.</li> </ul>			✓		
<ul style="list-style-type: none"> <li>In the event of chemical waste / dangerous goods / chemicals spillage or leakage, the procedures as outlined in the Spillage Response Plan should be followed.</li> </ul>				✓	
<ul style="list-style-type: none"> <li>The dangerous goods / chemical spillage or leakage procedures (including equipments) should be in place.</li> </ul>			✓		
<b>Good Site Practices</b>					
<ul style="list-style-type: none"> <li>Nomination of approved personnel, such as site manager, to be responsible for good site practices, arrangements for collection and effective disposal to an appropriate facility, of all wastes generated at the site.</li> </ul>			✓		
<ul style="list-style-type: none"> <li>Training of site personnel in proper waste management and chemical handling procedures should be provided.</li> </ul>			✓		
<ul style="list-style-type: none"> <li>Good site practices should be adopted to clean the rubbish and litter on a regular basis so as to prevent the rubbish and litter from dropping into the nearby environment.</li> </ul>			✓		
<ul style="list-style-type: none"> <li>Proper storage and site practices to minimise the potential for damage or contamination of construction materials.</li> </ul>			✓		
<ul style="list-style-type: none"> <li>The Environmental Permit should be displaced conspicuously on site.</li> </ul>					✓
<ul style="list-style-type: none"> <li>Construction noise permits should be posted at site entrance or available for site inspection.</li> </ul>					✓
<ul style="list-style-type: none"> <li>Plan and stock construction materials carefully to minimise amount of waste generated and avoid unnecessary generation of waste.</li> </ul>			✓		
<ul style="list-style-type: none"> <li>Chemical storage area provided with lock and located on sealed areas.</li> </ul>			✓		
<ul style="list-style-type: none"> <li>All chemicals should be placed at the banded area with adequate band capacity (&gt;110% of largest tank).</li> </ul>			✓		
<ul style="list-style-type: none"> <li>Any unused chemicals or those with remaining functional capacity should be recycled.</li> </ul>			✓		
<ul style="list-style-type: none"> <li>Regular cleaning and maintenance programme for waste storage area, drainage systems, silt traps, sumps and oil interceptors.</li> </ul>			✓		
<ul style="list-style-type: none"> <li>To encourage collection of aluminium cans by individual collectors, separate labelled bins should be provided to segregate this waste from other general refuse generated by the workforce.</li> </ul>			✓		
<ul style="list-style-type: none"> <li>A recording system for the amount of wastes generated, recycled and disposed (including the disposal sites) should be used, e.g. trip ticket system for chemical waste disposal. Quantities could be determined by weighing each load or other suitable methods.</li> </ul>					✓
<ul style="list-style-type: none"> <li>A collection area should be provided where waste can be stored and loaded prior to removal from site. An enclosed and covered area is preferred to reduce the occurrence of 'wind blown' light material. If an open area is unavoidable for the storage or loading/unloading of wastes, then the area should be banded and all the polluted surface run-off collected within this area should be diverted into wastewater treatment system.</li> </ul>			✓		
<ul style="list-style-type: none"> <li>Remove wastes in a timely manner.</li> </ul>			✓		

**Summary of the Weekly Site Inspection:**

Item	Details of Follow-up Observation(s)
#1	Follow up action to previous site inspection on 6-9-2006 (item ①), unused tanks at behind the contractor's site office were removed. Since the finding was completed, no further action to be taken.
#2	Follow up action to previous site inspection item ② on 6-9-06, the fire at behind contractor's site office was removed, no rain water accumulated in this place.
#3	Follow up action to previous site inspection item ③ on 6-9-06, rubbish skip at TPI was cleaned up. Since the finding was completed, no further action to be taken.
#4	Follow up action to previous site inspection item ④ on 6-9-06, the waste oil tanks were relocation to other place, but the Contractor should provide an appropriate chemical storage area as soon as possible.

Item	Details of New Observation(s)
	Others: The Contractor was reminded to provide water truck's sprinkling records for checking, and mosquito-repellent records

Remark

Name	Signature	Date
H. T. Chow		12 - 9 - 2006
Linda Lam		12/9/06

CEDD Contract No.: CV/2006/02  
Project: Fill Bank at Tuen Mun Area 38

Inspection Date : 18 September 2006  
Time : 11:00

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

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

	Implementation Stages*			Remark
	Yes	No	N/A	
<b>Environmental Checklist</b>				
<b>Fugitive Dust Emission</b>				
▪ Dust control / mitigation measures shall be provided to prevent dust nuisance.	✓			
▪ Water sprays shall be provided and used to dampen materials.	✓			
▪ All stockpile of aggregate or spoil should be enclosed or covered and water applied in dry or windy condition.	✓			
▪ 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.	✓			
▪ Unpaved areas should be watered regularly to avoid dust generation.	✓			
▪ The designated site main haul road shall be paved or regular watering.	✓			
▪ The public road around the site entrance should be kept clean and free from dust.	✓			
▪ Wheel washing facilities including high-pressure water jet shall be provided at the entrance of work site.	✓			
▪ Every vehicle shall be washed to remove any dusty materials from its body and wheels before leaving the fill bank.	✓			
▪ The temporary slope surfaces shall be covered with impermeable sheet or sprayed with water.	✓			
▪ Vehicle and equipment should be switched off while not in use.	✓			
▪ All plant and equipment should be well maintained e.g. without black smoke emission.	✓			
▪ Open burning should be prohibited.	✓			
<b>Noise Impact</b>				
▪ The approved method of working, equipment and sound-reducing measures (e.g. use of silenced type of equipment, etc.) shall be adapted.	✓			
▪ The constructions works should be scheduled to minimize noise nuisance.	✓			
▪ Only well maintained plant should be operated on-site and plant should be serviced regularly during the construction works.	✓			
▪ Powered mechanical equipment (PME) should be covered or shielded by appropriate acoustic materials.	✓			
▪ Air compressors and hand held breakers should have noise labels.			✓	
▪ Compressors and generators should operate with door closed.	✓			
▪ Machines and plants that may be in intermittent use should be shut down between work periods or should be throttled down to a minimum.	✓			
▪ Noisy equipment and mobile plant shall always be site away from NSRs.	✓			

CEDD Contract No.: CV/2006/02  
Project: Fill Bank at Tuen Mun Area 3B

Environmental Checklist	Implementation Stages*		Remark
	Yes	No	
<b>Water Quality</b>			
▪ The existing / realigned intercepting channels and the sand / silt removal facilities shall be used and maintained.	✓		
▪ Temporary intercepting drains should be used at the stockpiling area to divert polluted stormwater to the intercepting channels. Earth bunds and sand bay barriers shall be used to assist the diversion of polluted stormwater to the intercepting channels.	✓		
▪ The stormwater intercepting system shall be effective to collect of runoff and remove suspended solids before discharge.	✓		
▪ The material shall be properly covered to prevent washed away especially before rainstorm.	✓		
▪ The temporary slope surfaces shall be covered with impermeable sheet or sprayed with water.	✓		
▪ Final slope surfaces, especially those facing to the north of the site shall be treated by compaction, followed by hydrosseding, vegetation planting or sealing with shotconcrete, latex, vinyl, bitumen, or other suitable surface stabilizer approved by CEDD.	✓		
▪ Existing and newly constructed Catchpits, sand and silt removal facilities and intercepting channels shall be maintained, and the deposited silt and grit shall be removed weekly and on a need basis especially at the onset of and after each rainstorm to ensure that these facilities are functioning properly at all times.	✓		
▪ 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.	✓		
▪ The section of construction road between wheel washing bay and the public road shall be paved with concrete, bituminous materials or hardcores to reduce vehicle tracking of soil and to prevent site run-off from entering public road drains.	✓		
▪ Sewage from toilets shall be discharged in to a foul sewer, or chemical toilets shall be provided.	✓		
▪ The chemical toilets (if use) shall be provided by a licensed contractor, who will be responsible for disposal and maintenance of these facilities.	✓		
▪ The barges shall be in right size such that adequate clearance is maintained between the vessels and the seabed at all states of the tide to ensure the undue turbidity is not generated by turbulence from vessel movement or propeller wash.		✓	
▪ All vessels used for transportation of fill material shall have tight fitting seals to their bottom openings to prevent leakage of material during transport.		✓	
▪ Barges shall not be filled to a level which may cause the overflow of material during loading or transportation. Barge effluents shall be properly collected and treated before disposal.		✓	
▪ Adequate environmental control measures shall be provided to prevent / avoid dropping of fill material into the sea during the transfer.	✓		
▪ 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.	✓		
▪ A waste collection vessel shall be deployed to remove floating debris.	✓		
<b>Landscape and Visual</b>			
▪ The maximum stockpiling height at the fill bank shall be limited to a maximum of +40mPD.		✓	
▪ Surface of outer slopes of the Fill Bank shall preferably be hydrosseded.		✓	
▪ Stockpile of public fill shall be removed in a sequence to allow the outer hydrosseded to be removed later than other portions as far as practicable.		✓	
▪ Casuarina equisetifolia were planted as buffer tree along the northern perimeter of the Site. The height of Casuarina equisetifolia was maintained at least 3m above soil level.		✓	
▪ Lighting shall be set to minimise night-time glare.		✓	

CEDD Contract No.: CV/2006/02  
Project: Fill Bank at Tuen Mun Area 3B

<b>Waste Management</b>				
<b>Construction Waste Management</b>				
Relevant licence / permits for disposal of construction waste or excavated materials available for inspection.	✓			
Excavated material to be generated from construction works to be re-used on-site as far as practicable to reduce off-site disposal.	✓			
Mud and debris should be removed from waterworks access roads and associated drainage systems.	✓			Bank ①
Provision of sufficient waste disposal points and regular collection for disposal. Appropriate measures should be employed to minimise windblown litter and dust during transportation of waste by either covering trucks or by transporting wastes in enclosed containers.	✓			
Segregation and storage of different types of waste in different containers, skips or stockpiles to enhance reuse or recycling of materials and their proper disposal.	✓			
Prior to disposal of C&D waste, recyclable materials should be salvaged for reuse (such as wood and metal) and inert waste utilised as public fill to minimise the quantity of waste to be disposed of to landfill.	✓			
In order to monitor the disposal of C&D material and solid wastes at public filling areas and landfills, and to control fly-tipping, a trip-ticket system should be included as one of the contractual requirements.	✓			
Any soil contaminated with chemicals/oils shall be removed from site and the void created shall be filled with suitable materials.	✓			
<b>Chemical Waste Management</b>				
It is required to register as a chemical waste producer if chemical wastes would be produced from the construction activities. The Waste Disposal Ordinance (Cap 354) and its subsidiary regulations in particular the Waste Disposal (Chemical Waste) (General) Regulation should be observed and complied with for control of chemical wastes.	✓			
After use, chemical wastes (e.g. cleaning fluids, solvents, lubrication oil and fuel) should be handled according to the Code of Practice on the Packaging, Labelling and Storage of Chemical Wastes.	✓			
Spent chemicals should be stored and collected by an approved operator for disposal at the Chemical Waste Treatment Facility or other licensed facility in accordance with the Chemical Waste (General) Regulation.	✓			
Chemical wastes should be separated for special handling and appropriate treatment at the Chemical Waste Treatment Facility.	✓			
Chemical wastes including waste oil should be stored properly in designated areas, e.g. chemical waste storage area.	✓			
The designated chemical waste storage area should only be used for storing chemical wastes.	✓			
The set-up of chemical waste storage area should				item # 2
Be suitable for the substance they are holding, resistant to corrosion, maintained in a good condition.			✓	
Be enclosed on at least 3 sides and securely closed.			✓	
Have an impermeable floor and bunding, of capacity to accommodate 110% of the volume of the largest container or 20% by volume of the chemical waste stored in that area, whichever is the greatest.			✓	
Have adequate ventilation.			✓	
Be covered to prevent rainfall entering (water collected within the bund must be tested and disposal as chemical waste if necessary).			✓	
Be arranged so that incompatible materials are adequately separated.			✓	
Warning panels should be displayed at the waste storage area.			✓	
Waste storage area should be cleaned and maintained regularly.			✓	

<ul style="list-style-type: none"> <li>▪ Chemical waste should be transported by a registered chemical waste collector to a facility licensed to receive chemical waste.</li> </ul>	✓		
<ul style="list-style-type: none"> <li>▪ All generators, fuel and oil storage should be within bundle areas.</li> </ul>	✓		
<ul style="list-style-type: none"> <li>▪ Oil leakage from machinery, vehicle and plant should be prevented.</li> </ul>	✓		Remark ③
<ul style="list-style-type: none"> <li>▪ In the event of chemical waste / dangerous goods / chemicals spillage or leakage, the procedures as outlined in the Spillage Response Plan should be followed.</li> </ul>	✓		
<ul style="list-style-type: none"> <li>▪ The dangerous goods / chemical spillage or leakage procedures (including equipments) should be in place.</li> </ul>	✓		
<b>Good Site Practices</b>			
<ul style="list-style-type: none"> <li>▪ Nomination of approved personnel, such as site manager, to be responsible for good site practices, arrangements for collection and effective disposal to an appropriate facility, of all wastes generated at the site.</li> </ul>	✓		
<ul style="list-style-type: none"> <li>▪ Training of site personnel in proper waste management and chemical handling procedures should be provided.</li> </ul>	✓		
<ul style="list-style-type: none"> <li>▪ Good site practices should be adopted to clean the rubbish and litter on a regular basis so as to prevent the rubbish and litter from dropping into the nearby environment.</li> </ul>	✓		
<ul style="list-style-type: none"> <li>▪ Proper storage and site practices to minimise the potential for damage or contamination of construction materials.</li> </ul>	✓		
<ul style="list-style-type: none"> <li>▪ The Environmental Permit should be displaced conspicuously on site.</li> </ul>	✓		
<ul style="list-style-type: none"> <li>▪ Construction noise permits should be posted at site entrance or available for site inspection.</li> </ul>	✓		
<ul style="list-style-type: none"> <li>▪ Plan and stock construction materials carefully to minimise amount of waste generated and avoid unnecessary generation of waste.</li> </ul>	✓		
<ul style="list-style-type: none"> <li>▪ Chemical storage area provided with lock and located on sealed areas.</li> </ul>	✓		
<ul style="list-style-type: none"> <li>▪ All chemicals should be placed at the banded area with adequate band capacity (&gt;110% of largest tank).</li> </ul>	✓		
<ul style="list-style-type: none"> <li>▪ Any unused chemicals or those with remaining functional capacity should be recycled.</li> </ul>	✓		
<ul style="list-style-type: none"> <li>▪ Regular cleaning and maintenance programme for waste storage area, drainage systems, silt traps, sumps and oil interceptors.</li> </ul>	✓		
<ul style="list-style-type: none"> <li>▪ To encourage collection of aluminium cans by individual collectors, separate labelled bins should be provided to segregate this waste from other general refuse generated by the workforce.</li> </ul>	✓		
<ul style="list-style-type: none"> <li>▪ A recording system for the amount of wastes generated, recycled and disposed (including the disposal sites) should be used, e.g. trip ticket system for chemical waste disposal. Quantities could be determined by weighing each load or other suitable methods.</li> </ul>	✓		
<ul style="list-style-type: none"> <li>▪ A collection area should be provided where waste can be stored and loaded prior to removal from site. An enclosed and covered area is preferred to reduce the occurrence of 'wind blown' light material. If an open area is unavoidable for the storage or loading/unloading of wastes, then the area should be banded and all the polluted surface run-off collected within this area should be diverted into wastewater treatment system.</li> </ul>	✓		
<ul style="list-style-type: none"> <li>▪ Remove wastes in a timely manner.</li> </ul>	✓		

Summary of the Weekly Site Inspection:

Item	Details of Follow-up Observation(s)
#1	Follow up action to previous site inspection item on 12-9-2006, the water truck's sprinkling records from 1st to 17th September were inspected, but the mosquito-repellent records should be provided for checking.
#2	Follow up action to previous site inspection item #4 on 12-9-06 and item (4) on 6-9-06, the Contractor was still not provide an appropriate chemical waste storage.

Item	Details of New Observation(s)
①	Rain water and mud were accumulated on road side next to the "C.R.F.O.", the contractor was reminded to clean up more frequently.
②	Oil container was found place on "Crushing plant" without drip tray, the Contractor was reminded remove to an appropriate area.
③	Oil leakage was observed from a generator at "TP1", the Contractor should <del>be</del> <sup>be</sup> clean up the contaminated soil with chemical waste procedures.

Remark

Inspected by	Name	Signature	Date
	H.T. Chow	<i>H.T. Chow</i>	18-9-2006
Checked by	Linda Lam	<i>Linda Lam</i>	19/9/06

CEDD Contract No.: CV/2006/02  
Project: Fill Bank at Tuen Mun Area 3B

Inspection Date : 29 September 2006  
Time : 09:30

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

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

	Implementation Stages*			Remark
	Yes	No	N/A	
<b>Environmental Checklist</b>				
<b>Fugitive Dust Emission</b>				
▪ Dust control / mitigation measures shall be provided to prevent dust nuisance.	✓			
▪ Water sprays shall be provided and used to dampen materials.	✓			
▪ All stockpile of aggregate or spoil should be enclosed or covered and water applied in dry or windy condition.	✓			
▪ 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.	✓			
▪ Unpaved areas should be watered regularly to avoid dust generation.	✓			
▪ The designated site main haul road shall be paved or regular watering.	✓			
▪ The public road around the site entrance should be kept clean and free from dust.	✓			
▪ Wheel washing facilities including high-pressure water jet shall be provided at the entrance of work site.	✓			
▪ Every vehicle shall be washed to remove any dusty materials from its body and wheels before leaving the fill bank.	✓			
▪ The temporary slope surfaces shall be covered with impermeable sheet or sprayed with water.	✓			
▪ Vehicle and equipment should be switched off while not in use.	✓			
▪ All plant and equipment should be well maintained e.g. without black smoke emission.	✓			
▪ Open burning should be prohibited.	✓			
<b>Noise Impact</b>				
▪ The approved method of working, equipment and sound-reducing measures (e.g. use of silenced type of equipment, etc.) shall be adapted.	✓			
▪ The constructions works should be scheduled to minimize noise nuisance.	✓			
▪ Only well maintained plant should be operated on-site and plant should be serviced regularly during the construction works.	✓			
▪ Powered mechanical equipment (PME) should be covered or shielded by appropriate acoustic materials.	✓			
▪ Air compressors and hand held breakers should have noise labels.	✓			
▪ Compressors and generators should operate with door closed.	✓			
▪ Machines and plants that may be in intermittent use should be shut down between work periods or should be throttled down to a minimum.	✓			
▪ Noisy equipment and mobile plant shall always be site away from NSRs.	✓			



Environmental Checklist			Implementation Stages*		Remark
			Yes	No / N/A	
<b>Water Quality</b>					
	The existing / realigned intercepting channels and the sand / silt removal facilities shall be used and maintained.	✓			
	Temporary intercepting drains should be used at the stockpiling area to divert polluted stormwater to the intercepting channels. Earth bunds and sand bay barriers shall be used to assist the diversion of polluted stormwater to the intercepting channels.	✓			
	The stormwater intercepting system shall be effective to collect of runoff and remove suspended solids before discharge.	✓			
	The material shall be properly covered to prevent washed away especially before rainstorm.	✓			
	The temporary slope surfaces shall be covered with impermeable sheet or sprayed with water.	✓			
	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.	✓			
	Existing and newly constructed Catchpits, sand and silt removal facilities and intercepting channels shall be maintained, and the deposited silt and grit shall be removed weekly and on a need basis especially at the onset of and after each rainstorm to ensure that these facilities are functioning properly at all times.	✓			
	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.	✓			
	The section of construction road between wheel washing bay and the public road shall be paved with concrete, bituminous materials or hardcore to reduce vehicle tracking of soil and to prevent site run-off from entering public road drains.	✓			
	Sewage from toilets shall be discharged in to a foul sewer, or chemical toilets shall be provided.	✓			
	The chemical toilets (if use) shall be provided by a licensed contractor, who will be responsible for disposal and maintenance of these facilities.	✓			
	The barges shall be in right size such that adequate clearance is maintained between the vessels and the seabed at all states of the tide to ensure the undue turbidity is not generated by turbulence from vessel movement or propeller wash.	✓		✓	
	All vessels used for transportation of fill material shall have tight fitting seals to their bottom openings to prevent leakage of material during transport.	✓		✓	
	Barges shall not be filled to a level which may cause the overflow of material during loading or transportation. Barge effluents shall be properly collected and treated before disposal.	✓		✓	
	Adequate environmental control measures shall be provided / avoid dropping of fill material into the sea during the transfer.	✓			
	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.	✓			
	A waste collection vessel shall be deployed to remove floating debris.	✓			
<b>Landscape and Visual</b>					
	The maximum stockpiling height at the fill bank shall be limited to a maximum of +40mPD.			✓	
	Surface of outer slopes of the Fill Bank shall preferably be hydroseeded.			✓	
	Stockpile of public fill shall be removed in a sequence to allow the outer hydroseeded to be removed later than other portions as far as practicable.			✓	
	Casuarina equisetifolia were planted as buffer tree along the northern perimeter of the Site. The height of Casuarina equisetifolia was maintained at least 3m above soil level.			✓	
	Lighting shall be set to minimise night-time glare.			✓	

<b>Waste Management</b>			
<b>Construction Waste Management</b>			
▪	Relevant licence / permits for disposal of construction waste or excavated materials available for inspection.	✓	
▪	Excavated material to be generated from construction works to be re-used on-site as far as practicable to reduce off-site disposal.	✓	
▪	Mud and debris should be removed from waterworks access roads and associated drainage systems.	✓	
▪	Provision of sufficient waste disposal points and regular collection for disposal. Appropriate measures should be employed to minimise windblown litter and dust during transportation of waste by either covering trucks or by transporting wastes in enclosed containers.	✓	
▪	Segregation and storage of different types of waste in different containers, skips or stockpiles to enhance reuse or recycling of materials and their proper disposal.	✓	
▪	Prior to disposal of C&D waste, recyclable materials should be salvaged for reuse (such as wood and metal) and inert waste utilised as public fill to minimise the quantity of waste to be disposed of to landfill.	✓	
▪	In order to monitor the disposal of C&D material and solid wastes at public filling areas and landfills, and to control fly-tipping, a trip-ticket system should be included as one of the contractual requirements.	✓	
▪	Any soil contaminated with chemicals/oils shall be removed from site and the void created shall be filled with suitable materials.	✓	
<b>Chemical Waste Management</b>			
▪	It is required to register as a chemical waste producer if chemical wastes would be produced from the construction activities. The Waste Disposal Ordinance (Cap 354) and its subsidiary regulations in particular the Waste Disposal (Chemical Waste) (General) Regulation should be observed and complied with for control of chemical wastes.	✓	
▪	After use, chemical wastes (e.g. cleaning fluids, solvents, lubrication oil and fuel) should be handled according to the Code of Practice on the Packaging, Labelling and Storage of Chemical Wastes.	✓	
▪	Spent chemicals should be stored and collected by an approved operator for disposal at the Chemical Waste Treatment Facility or other licensed facility in accordance with the Chemical Waste (General) Regulation.	✓	
▪	Chemical wastes should be separated for special handling and appropriate treatment at the Chemical Waste Treatment Facility.	✓	
▪	Chemical wastes including waste oil should be stored properly in designated areas, e.g. chemical waste storage area.	✓	
▪	The designated chemical waste storage area should only be used for storing chemical wastes.	✓	
▪	The set-up of chemical waste storage area should		
▪	Be suitable for the substance they are holding, resistant to corrosion, maintained in a good condition.	✓	
▪	Be enclosed on at least 3 sides and securely closed.	✓	
▪	Have an impermeable floor and bunding, of capacity to accommodate 110% of the volume of the largest container or 20% by volume of the chemical waste stored in that area, whichever is the greatest.	✓	
▪	Have adequate ventilation.	✓	
▪	Be covered to prevent rainfall entering (water collected within the bund must be tested and disposal as chemical waste if necessary).	✓	
▪	Be arranged so that incompatible materials are adequately separated.	✓	
▪	Warning panels should be displayed at the waste storage area.	✓	
▪	Waste storage area should be cleaned and maintained regularly.	✓	

CEDD Contract No.: CV/2006/02  
Project: Fill Bank at Tuen Mun Area 38

<ul style="list-style-type: none"> <li>Chemical waste should be transported by a registered chemical waste collector to a facility licensed to receive chemical waste.</li> </ul>	✓		
<ul style="list-style-type: none"> <li>All generators, fuel and oil storage should be within bundle areas.</li> </ul>	✓		
<ul style="list-style-type: none"> <li>Oil leakage from machinery, vehicle and plant should be prevented.</li> </ul>	✓		
<ul style="list-style-type: none"> <li>In the event of chemical waste / dangerous goods / chemicals spillage or leakage, the procedures as outlined in the Spillage Response Plan should be followed.</li> </ul>	✓		
<ul style="list-style-type: none"> <li>The dangerous goods / chemical spillage or leakage procedures (including equipments) should be in place.</li> </ul>	✓		
<b>Good Site Practices</b>			
<ul style="list-style-type: none"> <li>Nomination of approved personnel, such as site manager, to be responsible for good site practices, arrangements for collection and effective disposal to an appropriate facility, of all wastes generated at the site.</li> </ul>	✓		
<ul style="list-style-type: none"> <li>Training of site personnel in proper waste management and chemical handling procedures should be provided.</li> </ul>	✓		
<ul style="list-style-type: none"> <li>Good site practices should be adopted to clean the rubbish and litter on a regular basis so as to prevent the rubbish and litter from dropping into the nearby environment.</li> </ul>	✓		
<ul style="list-style-type: none"> <li>Proper storage and site practices to minimise the potential for damage or contamination of construction materials.</li> </ul>	✓		
<ul style="list-style-type: none"> <li>The Environmental Permit should be displayed conspicuously on site.</li> </ul>		✓	
<ul style="list-style-type: none"> <li>Construction noise permits should be posted at site entrance or available for site inspection.</li> </ul>		✓	
<ul style="list-style-type: none"> <li>Plan and stock construction materials carefully to minimise amount of waste generated and avoid unnecessary generation of waste.</li> </ul>	✓		
<ul style="list-style-type: none"> <li>Chemical storage area provided with lock and located on sealed areas.</li> </ul>	✓		
<ul style="list-style-type: none"> <li>All chemicals should be placed at the banded area with adequate band capacity (&gt;110% of largest tank).</li> </ul>	✓		
<ul style="list-style-type: none"> <li>Any unused chemicals or those with remaining functional capacity should be recycled.</li> </ul>	✓		
<ul style="list-style-type: none"> <li>Regular cleaning and maintenance programme for waste storage area, drainage systems, silt traps, sumps and oil interceptors.</li> </ul>	✓		
<ul style="list-style-type: none"> <li>To encourage collection of aluminium cans by individual collectors, separate labelled bins should be provided to segregate this waste from other general refuse generated by the workforce.</li> </ul>	✓		
<ul style="list-style-type: none"> <li>A recording system for the amount of wastes generated, recycled and disposed (including the disposal sites) should be used, e.g. trip ticket system for chemical waste disposal. Quantities could be determined by weighing each load or other suitable methods.</li> </ul>		✓	
<ul style="list-style-type: none"> <li>A collection area should be provided where waste can be stored and loaded prior to removal from site. An enclosed and covered area is preferred to reduce the occurrence of 'wind blown' light material. If an open area is unavoidable for the storage or loading/unloading of wastes, then the area should be banded and all the polluted surface run-off collected within this area should be diverted into wastewater treatment system.</li> </ul>	✓		
<ul style="list-style-type: none"> <li>Remove wastes in a timely manner.</li> </ul>	✓		

**Summary of the Weekly Site Inspection:**

Item	Details of Follow-up Observation(s)
#1	Follow up action to previous site inspection item #4 (12-9-06), item #6 (6-9-06) and item #2 (18-9-06), an appropriate chemical waste storage was provided at "TP1".
#2	Follow up action to previous site inspection item ① on 18-9-06, the road side next to the "CREO" was cleaned up, no rainwater was observed to be accumulated on the ground.
#3	Follow up action to previous site inspection item ② on 18-9-06, the oil container at "crushing plant" was removed.
#4	Follow up action to previous site inspection item ③ on 18-9-06, the contaminated soil at "TP1" was cleaned up.

Item	Details of New Observation(s)
	The site conditions were satisfactory, no other remark was made during the site inspection.

Remark	
--------	--

Inspected by	Name	Signature	Date
	H.T. Chow	<i>H.T. Chow</i>	29-9-2006
Checked by	Name	Signature	Date
	Linnda Lam	<i>Linnda Lam</i>	30/09/06



## **Appendix H**

### **Implementation Schedule of Mitigation Measures**



	Location	Implementation Status		
		Implemented	Partially implemented	Not implemented
<b>Water Quality</b>				
<ul style="list-style-type: none"> <li>▪ The existing / realigned intercepting channels and the sand / silt removal facilities shall be used and maintained.</li> <li>▪ Temporary intercepting drains should be used at the stockpiling area to divert polluted stormwater to the intercepting channels. Earth bunds and sand bay barriers shall be used to assist the diversion of polluted stormwater to the intercepting channels.</li> <li>▪ The stormwater intercepting system shall be effective to collect of runoff and remove suspended solids before discharge.</li> <li>▪ The material shall be properly covered to prevent washed away especially before rainstorm.</li> <li>▪ The temporary slope surfaces shall be covered with impermeable sheet or sprayed with water.</li> <li>▪ Existing and newly constructed Catchpits, sand and silt removal facilities and intercepting channels shall be maintained, and the deposited silt and grit shall be removed weekly and on a need basis especially at the onset of and after each rainstorm to ensure that these facilities are functioning properly at all times.</li> <li>▪ 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.</li> <li>▪ The section of construction road between wheel washing bay and the public road shall be paved with concrete, bituminous materials or hardcores to reduce vehicle tracking of soil and to prevent site run-off from entering public road drains.</li> <li>▪ Sewage from toilets shall be discharged in to a foul sewer, or chemical toilets shall be provided.</li> <li>▪ The chemical toilets (if use) shall be provided by a licensed contractor, who will be responsible for disposal and maintenance of these facilities.</li> <li>▪ Adequate environmental control measures shall be provided to prevent / avoid dropping of fill material into the sea during the transfer.</li> <li>▪ A waste collection vessel shall be deployed to remove floating debris.</li> </ul>	✓			
<b>Landscape and Visual</b>				
<ul style="list-style-type: none"> <li>• The maximum stockpiling height at the fill bank shall be limited to a maximum of +40mPD.</li> <li>• Surface of outer slopes of the Fill Bank shall preferably be hydroseeded.</li> <li>• Stockpile of public fill shall be removed in a sequence to allow the outer hydroseeded to be removed later than other portions as far as practicable.</li> <li>• Casuarina equisetifolia were planted as buffer tree along the northern perimeter of the Site. The height of Casuarina equisetifolia was maintained at least 3m above soil level.</li> <li>• Lighting shall be set to minimise night-time glare.</li> </ul>	✓			
<b>Waste Management</b>				
<b>Construction Waste Management</b>				
<ul style="list-style-type: none"> <li>▪ Relevant licence / permits for disposal of construction waste or excavated materials available for inspection.</li> <li>▪ Excavated material to be generated from construction works to be re-used on-site as far as practicable to reduce off-site disposal.</li> <li>▪ Mud and debris should be removed from waterworks access roads and associated drainage systems.</li> </ul>	✓			

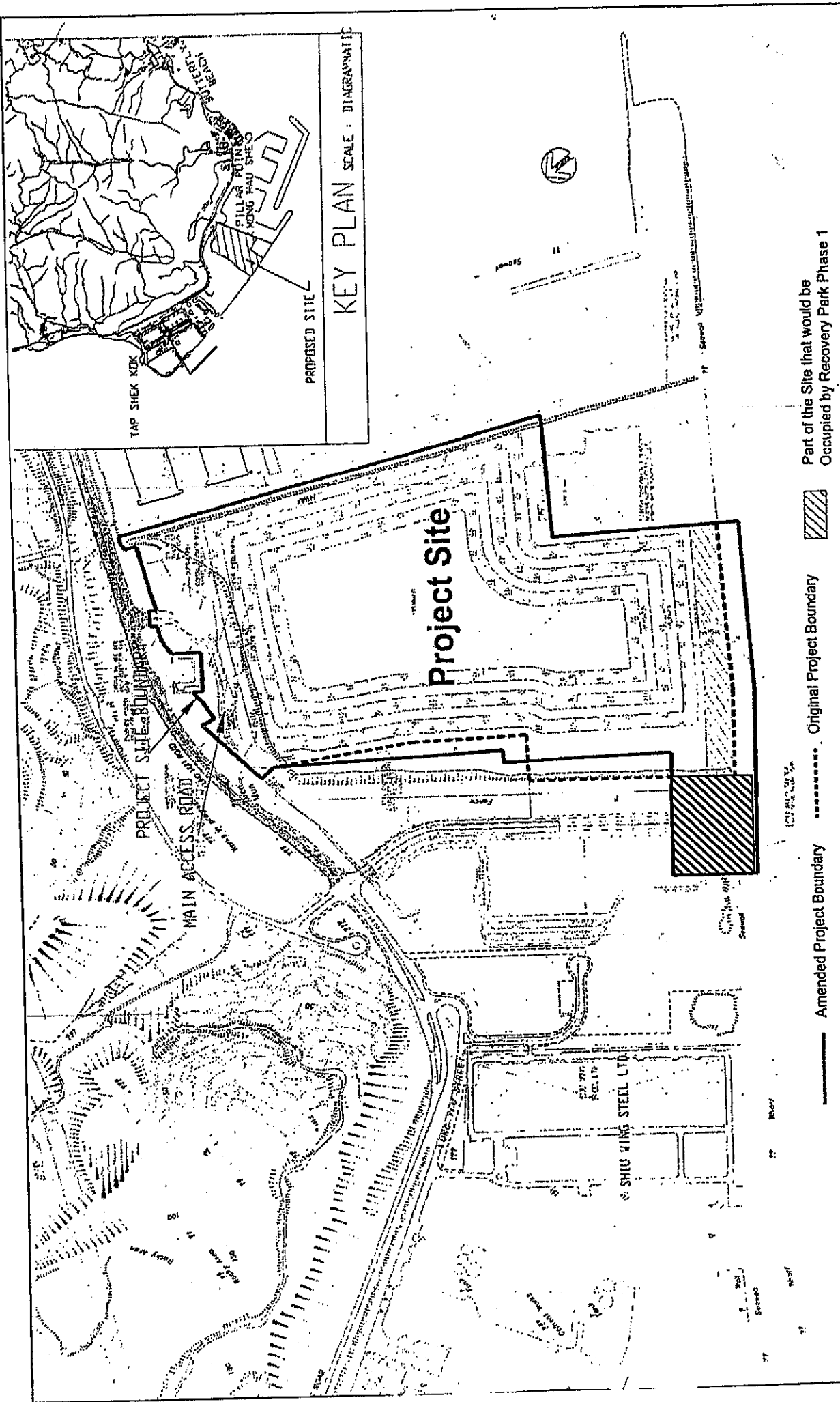








**Appendix I**  
**Site General Layout plan**

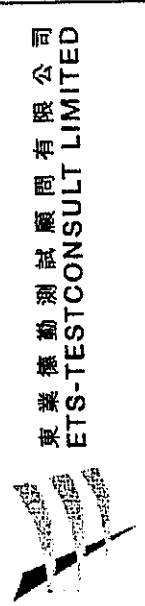


CEDD Contract No. CV/2006/02 Operation of Public Fill Reception Facilities at Tuen Mun Area 38, Tseung Kwan O Area 137, Quarry Bay and Mui Wo

Figure 1 Site Layout Plan - Tuen Mun Area 38

Scale : ---

Revised Date :  
September  
2006



Part of the Site that would be Occupied by Recovery Park Phase 1



## **Appendix J**

### **Monitoring Schedule for the Coming 3 Months**

**Contract No. CV/2006/02**

Operation of Public Fill Reception Facilities at Tuen Mun Area 38,  
Tseung Kwan O Area 137, Quarry Bay and Mui Wo

**Tuen Mun Area 38**

**Time Schedule for Water Quality Impact Monitoring (WQM),  
Impact Air Monitoring (1-hr TSP & 24-hr TSP) and Weekly Site Inspection (Weekly SI)**

**October 2006**

Sun	Mon	Tue	Wed	Thu	Fri	Sat
1	2 Public Holiday	3 <b>WQM</b> Mid-ebb (08:30-10:30) Mid-flood (16:15-18:15)	4	5 <b>WQM</b> Mid-ebb (10:30-12:30) Mid-flood (17:15-19:15)  <u>1-hr TSP,</u> <u>24-hr TSP</u>  Weekly SI	6	7 Public Holiday
8	9	10 <b>WQM</b> Mid-flood (08:15-10:15) Mid-ebb (14:00-16:00)	11 <u>1-hr TSP,</u> <u>24-hr TSP</u>  Weekly SI	12 <b>WQM</b> Mid-flood (10:30-12:30) Mid-ebb (15:00-17:00)	13	14 <b>WQM</b> Mid-ebb (07:00-09:00) Mid-flood (17:00-19:00)
15	16	17 <b>WQM</b> Mid-ebb (09:00-11:00) Mid-flood (16:00-18:00)  <u>1-hr TSP,</u> <u>24-hr TSP</u>  Weekly SI	18	19 <b>WQM</b> Mid-ebb (10:30-12:30) Mid-flood (16:00-18:00)	20	21 <b>WQM</b> Mid-ebb (11:30-13:30) Mid-flood (17:30-19:30)
22	23 <u>1-hr TSP,</u> <u>24-hr TSP</u>  Weekly SI	24 <b>WQM</b> Mid-flood (07:30-09:30) Mid-ebb (13:00-15:00)	25	26 <b>WQM</b> Mid-flood (09:00-11:00) Mid-ebb (14:00-16:00)	27	28 <b>WQM</b> Mid-ebb (07:00-08:15) Mid-flood (14:30-16:30)  <u>1-hr TSP,</u> <u>24-hr TSP</u> Weekly SI
29	30 Public Holiday	31 <b>WQM</b> Mid-ebb (07:30-09:30) Mid-flood (15:00-17:00)				

**Contract No. CV/2006/02**

Operation of Public Fill Reception Facilities at Tuen Mun Area 38,  
Tseung Kwan O Area 137, Quarry Bay and Mui Wo

**Tuen Mun Area 38**

**Time Schedule for Water Quality Impact Monitoring (WQM),  
Impact Air Monitoring (1-hr TSP & 24-hr TSP) and Weekly Site Inspection (Weekly SI)**

**November 2006**

Sun	Mon	Tue	Wed	Thu	Fri	Sat
			1	2 WQM Mid-ebb (09:00-10:00) Mid-flood (16:00-17:00)	3 1-hr TSP, 24-hr TSP Weekly SI	4 WQM Mid-ebb (11:00-12:00) Mid-flood (17:00-18:00)
5	6	7 WQM Mid-ebb (13:30-15:00) Mid-flood (18:00-19:00)	8	9 WQM Mid-ebb (14:30-15:30) Mid-flood (09:30-11:00) 1-hr TSP, 24-hr TSP Weekly SI	10	11 WQM Mid-flood (14:00-16:00) Mid-ebb (06:00-07:00)
12	13	14 WQM Mid-flood (15:30-17:00) Mid-ebb (07:30-09:00)	15 1-hr TSP, 24-hr TSP Weekly SI	16 WQM Mid-flood (16:00-17:30) Mid-ebb (08:30-09:30)	17	18 WQM Mid-ebb (10:30-12:00) Mid-flood (16:30-18:00)
19	20	21 WQM Mid-ebb (13:00-14:30) Mid-flood (07:30-09:30) 1-hr TSP, 24-hr TSP Weekly SI	22	23 WQM Mid-flood (08:00-09:30) Mid-ebb (14:30-15:00)	24	25 WQM Mid-flood (09:30-11:00) Mid-ebb (14:30-16:30)
26	27 1-hr TSP, 24-hr TSP Weekly SI	28 WQM Mid-ebb (06:00-07:30) Mid-flood (13:00-15:30)	29	30 WQM Mid-ebb (09:45-11:45) Mid-flood (13:30-15:00)		



**Contract No. CV/2006/02**

Operation of Public Fill Reception Facilities at Tuen Mun Area 38,  
Tseung Kwan O Area 137, Quarry Bay and Mui Wo

**Tuen Mun Area 38**

**Time Schedule for Water Quality Impact Monitoring (WQM),  
Impact Air Monitoring (1-hr TSP & 24-hr TSP) and Weekly Site Inspection (Weekly SI)**

**December 2006**

Sun	Mon	Tue	Wed	Thu	Fri	Sat
					1	2 WQM Mid-flood (16:00-17:00) Mid-ebb (09:00-10:00) <u>1-hr TSP</u> <u>24-hr TSP</u> Weekly SI
3	4	5 WQM Mid-flood (07:15-08:30) Mid-ebb (11:00-14:00)	6	7 WQM Mid-flood (08:30-09:30) Mid-ebb (13:00-15:00)	8 <u>1-hr TSP</u> <u>24-hr TSP</u> Weekly SI	9 WQM Mid-flood (10:00-12:00) Mid-ebb (14:30-16:30)
10	11	12 WQM Mid-ebb  Mid-flood (13:00-14:00)	13	14 WQM Mid-ebb (06:00-07:00) Mid-flood (14:00-15:00)  <u>1-hr TSP</u> <u>24-hr TSP</u> Weekly SI	15	16 WQM Mid-ebb (09:30-10:30) Mid-flood (15:00-16:30)
17	18	19 WQM Mid-flood (16:30-17:30) Mid-ebb (11:00-13:00)	20 <u>1-hr TSP</u> <u>24-hr TSP</u> Weekly SI	21 WQM Mid-flood (08:00-09:00) Mid-ebb (13:00-14:00)	22	23 WQM Mid-flood (09:00-10:15) Mid-ebb (14:30-16:30)
24/31	25 Public Holiday	26 Public Holiday	27 WQM Mid-flood (11:30-13:30) Mid-ebb (18:00-19:00)  <u>1-hr TSP</u> <u>24-hr TSP</u> Weekly SI	28	29	30 WQM Mid-flood (14:30-15:30) Mid-ebb (08:00-09:00)



## **Appendix K**

### **QA/QC Results of Laboratory Analysis**





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

Sampling Date	QC Sample Analysis	Sample Duplicate		Sample Spike	
	% Recovery *	Sample ID	% Error #	Sample ID	% Recovery @
07/09/06	105.2	FC1-S	0.0	FM2-M	102.6
	101.0	FM2-B	0.0	EM1-S	105.2
	103.2	EM1-M	0.0	EC2-B	104.3
09/09/06	104.2	FC1-S	0.0	FM2-M	102.6
	98.2	FM2-B	0.0	EM1-S	100.1
	101.3	EM1-M	0.0	EC2-B	105.3
11/09/06	104.2	FC1-S	0.0	FM2-M	107.2
	95.8	FM2-B	0.0	EM1-S	104.3
	105.3	EM1-M	0.0	EC2-B	102.9
14/09/06	104.0	FC1-S	0.0	FM2-M	108.8
	93.0	FM2-B	0.0	EM1-S	102.0
	102.9	EM1-M	0.0	EC2-B	100.0
16/09/06	94.4	FC1-S	0.0	FM2-M	102.9
	102.1	FM2-B	0.0	EM1-S	98.4
	102.3	EM1-M	0.0	EC2-B	101.7
18/09/06	95.0	FC1-S	0.0	FM2-M	98.5
	104.4	FM2-B	0.0	EM1-S	103.7
	97.9	EM1-M	0.0	EC2-B	100.0
21/09/06	105.7	FC1-S	0.0	FM2-M	100.0
	100.0	FM2-B	0.0	EM1-S	94.6
	104.0	EM1-M	0.0	EC2-B	94.1
23/09/06	95.4	FC1-S	0.0	FM2-M	109.2
	99.8	FM2-B	0.0	EM1-S	97.1
	104.0	EM1-M	0.0	EC2-B	104.6
25/09/06	99.3	FC1-S	0.0	FM2-M	101.6
	98.6	FM2-B	0.0	EM1-S	95.4
	100.8	EM1-M	0.0	EC2-B	106.3
28/09/06	104.1	FC1-S	0.0	FM2-M	96.5
	92.7	FM2-B	0.0	EM1-S	101.9
	107.1	EM1-M	0.0	EC2-B	107.1
30/09/06	93.3	FC1-S	0.0	FM2-M	100.0
	99.4	FM2-B	0.0	EM1-S	98.6
	93.0	EM1-M	0.0	EC2-B	100.0

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



## **Appendix L**

### **Summary of Interim notifications of exceedance (NOEs)**

**Fill Bank at Tuen Mun Area 38**  
**Date of Water Quality Impact Monitoring: 02 September 2006**

Dissolved Oxygen (Middle)		Possible Reason(S) for the Exceedance	Action taken to be taken	Remarks
Monitoring Location <sup>1</sup>	Tide Mode	Measured Value (mg/L)	Action Level (mg/L)	Limit Level (mg/L)
TM-FC2	Mid-Flood	3.01	4.78	4.16
TM-FC1	Mid-Flood	3.02	4.78	4.16
TM-FM1	Flood	3.30		
TM-FM2		3.53		
TM-FC1	Mid-Ebb	2.87	4.78	4.16
TM-FC2	Mid-Ebb	2.91	4.78	4.16
TM-FM1		3.83		
TM-FM2		3.30		

Possible Reason(S) for the Exceedance

Exceedance was not due to the operation of the Fill Bank as the monitoring station TM-FC2 was located upstream to the works area.

According to the monitoring results, it was found that dissolved oxygen content of the impact stations TM-FC1, TM-FM1 and TM-FM2 was found closed to that of control station TM-FC2. At the same time, no abnormal site activities was observed at the Fill Bank. Therefore, the exceedance might be due to natural fluctuation of dissolved oxygen content in the water body around the area and considered not due to the Fill Bank operation.

Exceedance was not due to the operation of the Fill Bank as the monitoring station TM-FC1 was located upstream to the works area.

According to the monitoring results, it was found that dissolved oxygen content of the impact stations TM-FC2, TM-FM1 and TM-FM2 was found closed to that of control station TM-FC1. At the same time, no abnormal site activities was observed at the Fill Bank. Therefore, the exceedance might be due to natural fluctuation of dissolved oxygen content in the water body around the area and considered not due to the Fill Bank operation.

Dissolved Oxygen (Bottom)		Possible Reason(S) for the Exceedance	Action taken to be taken	Remarks
Monitoring Location <sup>1</sup>	Tide Mode	Measured Value (mg/L)	Action Level (mg/L)	Limit Level (mg/L)
TM-FC2	Mid-Flood	2.77	4.00	2.00
TM-FC1	Mid-Flood	2.69	4.00	2.00
TM-FM1		2.84		
TM-FM2		2.98		
TM-FC1	Mid-Ebb	2.73	4.00	2.00
TM-FC2	Mid-Ebb	2.75	4.00	2.00
TM-FM1		2.91		
TM-FM2		2.82		

Possible Reason(S) for the Exceedance

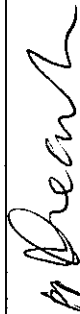
Exceedance was not due to the operation of the Fill Bank as the monitoring station TM-FC2 was located upstream to the works area.

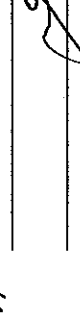
According to the monitoring results, it was found that dissolved oxygen content of the impact stations TM-FC1, TM-FM1 and TM-FM2 was found closed to that of control station TM-FC2. At the same time, no abnormal site activities was observed at the Fill Bank. Therefore, the exceedance might be due to natural fluctuation of dissolved oxygen content in the water body around the area and considered not due to the Fill Bank operation.

Exceedance was not due to the operation of the Fill Bank as the monitoring station TM-FC1 was located upstream to the works area.

According to the monitoring results, it was found that dissolved oxygen content of the impact stations TM-FC2, TM-FM1 and TM-FM2 was found closed to that of control station TM-FC1. At the same time, no abnormal site activities was observed at the Fill Bank. Therefore, the exceedance might be due to natural fluctuation of dissolved oxygen content in the water body around the area and considered not due to the Fill Bank operation.

**Attachment**  
 Marine water monitoring data sheet (02 September 2006)

**Prepared by:**  (Linda Law) **Date:** 07 September 2006

**Checked by:**  (C. L. Lau) **Date:** 07 September 2006

<sup>1</sup> Monitoring Location indicated as: TM-FC represents control stations no 1 and no 2 while TM-FM represents monitoring stations no 1 and no 2. FC1 is the control point at mid-ebb whilst FC2 is the control point at mid-flood

Contract No. : CV/2006/02  
 Operation of Public Fill Reception Facilities at Tuen Mun Area 38, TKO Area 137, Quarry Bay and Mui Wo

**Water Quality Monitoring - Data Record Sheet (Tuen Mun Area 38)**

Sampling Date: 2-9-06 Station: FC1 Weather Condition: Sunny Ambient Temperature (°C): 31 Tide status: Mid-Fllood  
 Duration: 15:25 to 15:40 Depth of Water (meter): 23.4

Parameter	SURFACE		MIDDLE		BOTTOM		DEPTH AVERAGE	REMARK
	Ave.	Stdev	Ave.	Stdev	Ave.	Stdev		
Depth (meter)	30.6	11.7	27.4	27.4	27.4	27.4	* AL	exceedance
Temp. (°C)	28.0	28.0	27.4	27.4	27.4	27.4	# LL	exceedance
Salinity (ppt)	30.5	28.0	30.8	30.8	30.8	30.8		
D.O. (mg/L)	6.25	3.04	2.67	2.70	2.67	2.67		
D.O.S. (%)	94.5	46.6	40.2	40.7	40.2	40.5		
Turbidity (NTU)	6.68	5.44	8.03	8.10	8.03	8.07		
S.S. (mg/L)	6.5	5.5	8.2	8.2	8.2	8.2		

Station: FC1 Duration: 14:35 to 15:10 Depth of Water (meter): 17.0

Parameter	SURFACE		MIDDLE		BOTTOM		DEPTH AVERAGE	REMARK
	Ave.	Stdev	Ave.	Stdev	Ave.	Stdev		
Depth (meter)	30.6	8.5	27.6	27.6	27.6	27.6	* AL	exceedance
Temp. (°C)	28.8	28.8	30.7	30.7	30.7	30.7	# LL	exceedance
Salinity (ppt)	14.7	29.5	2.86	2.86	2.86	2.86		
D.O. (mg/L)	6.17	3.28	4.1	4.1	4.1	4.1		
D.O.S. (%)	91.2	44.2	8.23	8.23	8.23	8.23		
Turbidity (NTU)	7.19	6.43	8.5	8.5	8.5	8.5		
S.S. (mg/L)	7.5	6.5	8.2	8.2	8.2	8.2		

Station: FC2 Duration: 14:35 to 14:50 Depth of Water (meter): 17.5

Parameter	SURFACE		MIDDLE		BOTTOM		DEPTH AVERAGE	REMARK
	Ave.	Stdev	Ave.	Stdev	Ave.	Stdev		
Depth (meter)	30.7	8.8	27.3	27.3	27.3	27.3	* AL	exceedance
Temp. (°C)	14.7	28.8	31.0	31.0	31.0	31.0	# LL	exceedance
Salinity (ppt)	6.72	3.50	3.17	3.17	3.17	3.17		
D.O. (mg/L)	97.8	48.6	7.64	7.64	7.64	7.64		
D.O.S. (%)	7.24	6.29	7.5	7.5	7.5	7.5		
Turbidity (NTU)	7.0	6.5	7.5	7.5	7.5	7.5		
S.S. (mg/L)	7.0	6.5	7.5	7.5	7.5	7.5		

Station: FC2 Duration: 14:00 to 14:15 Depth of Water (meter): 18.2

Parameter	SURFACE		MIDDLE		BOTTOM		DEPTH AVERAGE	REMARK
	Ave.	Stdev	Ave.	Stdev	Ave.	Stdev		
Depth (meter)	30.6	9.1	27.5	27.5	27.5	27.5	* AL	exceedance
Temp. (°C)	14.9	28.4	30.6	30.6	30.6	30.6	# LL	exceedance
Salinity (ppt)	6.48	3.00	3.01	3.01	3.01	3.01		
D.O. (mg/L)	95.1	45.0	6.94	6.94	6.94	6.94		
D.O.S. (%)	4.88	6.42	7.2	7.2	7.2	7.2		
Turbidity (NTU)	5.0	6.5	6.5	6.5	6.5	6.5		
S.S. (mg/L)	5.0	6.5	6.5	6.5	6.5	6.5		

Parameter	Surface & Middle: <4.78 mg/L	Action Level*	Bottom: <4.16 mg/L	Limit Level*
DO (mg/L)	>120% of the upstream control station's SS at the same tide on the same day		>130% of the upstream control station's SS at the same tide on the same day	Bottom: <2.00 mg/L
SS (mg/L) (Depth-averaged)	>120% of the upstream control station's turbidity at the same tide on the same day		>130% of the upstream control station's turbidity at the same tide on the same day	
Turbidity (NTU) (Depth-averaged)				
Name	Field Operator	Checked by	Laboratory Staff	Checked by
Signature	<i>K.C. Leung</i>	<i>Linda Lam</i>	<i>Renee Lizi</i>	<i>Linda Lam</i>
Date	<i>2-9-06</i>	<i>02/09/06</i>	<i>4/9/06</i>	<i>6/9/06</i>

**Water Quality Monitoring - Data Record Sheet (Tuen Mun Area 38)**

Sampling Date: 2-9-06. Station: FCI  
 Weather Condition: Sunny Duration: 09:25 to 09:40 Ambient Temperature (°C): 32  
 Tide status: Mid-Ebb Depth of Water (meter): 22.8

Depth (meter)	SURFACE			MIDDLE			BOTTOM			DEPTH AVERAGE	REMARK
	Ave.	Ave.	Ave.	Ave.	Ave.	Ave.	Ave.	Ave.	Ave.		
3.6	30.7	27.7	27.4	27.4	27.4	27.4	27.4	27.4	27.4	* AL	
4.3	14.3	30.0	29.6	30.0	29.6	29.6	29.6	29.6	29.6	# LL	
6.1	6.13	2.88	2.87	2.87	2.87	2.87	2.87	2.87	2.87	* AL	
8.2	8.2	42.9	42.8	42.8	42.8	42.8	42.8	42.8	42.8	# LL	
6.27	6.23	5.66	5.65	5.65	5.65	5.65	5.65	5.65	5.65	# LL	
6.5	6.5	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	# LL	

Station: FMI Duration: 08:50 to 09:10

Depth (meter)	SURFACE			MIDDLE			BOTTOM			DEPTH AVERAGE	REMARK
	Ave.	Ave.	Ave.	Ave.	Ave.	Ave.	Ave.	Ave.	Ave.		
3.6	30.6	29.0	28.9	28.9	28.9	28.9	28.9	28.9	28.9	* AL	
4.3	15.6	27.0	27.0	27.0	27.0	27.0	27.0	27.0	27.0	# LL	
6.1	6.44	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	* AL	
8.2	8.2	41.9	41.9	41.9	41.9	41.9	41.9	41.9	41.9	# LL	
7.1	7.04	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4	# LL	
7.3	7.0	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	# LL	

Station: FM2 Duration: 08:30 to 08:45

Depth (meter)	SURFACE			MIDDLE			BOTTOM			DEPTH AVERAGE	REMARK
	Ave.	Ave.	Ave.	Ave.	Ave.	Ave.	Ave.	Ave.	Ave.		
3.6	30.7	28.4	28.4	28.4	28.4	28.4	28.4	28.4	28.4	* AL	
4.3	14.5	28.6	28.6	28.6	28.6	28.6	28.6	28.6	28.6	# LL	
6.1	6.66	3.32	3.32	3.32	3.32	3.32	3.32	3.32	3.32	* AL	
8.2	8.2	49.8	49.2	49.2	49.2	49.2	49.2	49.2	49.2	# LL	
7.1	7.38	6.28	6.28	6.28	6.28	6.28	6.28	6.28	6.28	# LL	
7.5	7.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	# LL	

Station: FC2 Duration: 08:00 to 08:15

Depth (meter)	SURFACE			MIDDLE			BOTTOM			DEPTH AVERAGE	REMARK
	Ave.	Ave.	Ave.	Ave.	Ave.	Ave.	Ave.	Ave.	Ave.		
3.6	30.5	28.5	28.5	28.5	28.5	28.5	28.5	28.5	28.5	* AL	
4.3	14.7	30.2	30.1	30.1	30.1	30.1	30.1	30.1	30.1	# LL	
6.1	6.62	3.92	3.90	3.90	3.90	3.90	3.90	3.90	3.90	* AL	
8.2	8.2	44.7	44.3	44.3	44.3	44.3	44.3	44.3	44.3	# LL	
7.1	7.32	6.28	6.28	6.28	6.28	6.28	6.28	6.28	6.28	# LL	
7.5	7.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	# LL	

Parameter	Action Level*	Limit Level*
DO (mg/L)	Surface & Middle: <4.78 mg/L	Bottom: <4.00 mg/L
SS (mg/L) (Depth-averaged)	>120% of the upstream control station's SS at the same tide on the same day	>130% of the upstream control station's SS at the same tide on the same day
Turbidity (NTU) (Depth-averaged)	>120% of the upstream control station's turbidity at the same tide on the same day	>130% of the upstream control station's turbidity at the same tide on the same day
Name	Field Operator	Linda Lam
Signature	M.L. Lam	Linda Lam
Date	2-9-06	6/9/06

**Fill Bank at Tuen Mun Area 38**  
**Date of Water Quality Impact Monitoring: 05 September 2006**

**Dissolved Oxygen (Middle)**

Monitoring Location <sup>1</sup>	Tide Mode	Measured Value (mg/L)	Action Level (mg/L)	Limit Level (mg/L)	Possible Reason(S) for the Exceedance	Action taken to be taken	Remarks
TM-FC2	Mid-Flood	3.84	4.78	4.16	Exceedance was not due to the operation of the Fill Bank as the monitoring station TM-C2 was located upstream to the works area. According to the monitoring results, it was found that dissolved oxygen content of the impact stations TM-FC1, TM-FM1 and TM-FM2 was found closed to that of control station TM-FC2. At the same time, no abnormal site activities was observed at the Fill Bank. Therefore, the exceedance might be due to natural fluctuation of dissolved oxygen content in the water body around the area and considered not due to the Fill Bank operation.	Nil	Nil
TM-FC1	Mid-Flood	3.51	4.78	4.16		Nil	Nil
TM-FM1		3.69					
TM-FM2		3.73					
TM-FC1	Mid-Ebb	3.61	4.78	4.16	Exceedance was not due to the operation of the Fill Bank as the monitoring station TM-C1 was located upstream to the works area. According to the monitoring results, it was found that dissolved oxygen content of the impact stations TM-FC2, TM-FM1 and TM-FM2 was found closed to that of control station TM-FC1. At the same time, no abnormal site activities was observed at the Fill Bank. Therefore, the exceedance might be due to natural fluctuation of dissolved oxygen content in the water body around the area and considered not due to the Fill Bank operation.	Nil	Nil
TM-FC2	Mid-Ebb	3.44	4.78	4.16		Nil	Nil
TM-FM1		3.65					
TM-FM2		3.37					

**Dissolved Oxygen (Bottom)**

Monitoring Location <sup>1</sup>	Tide Mode	Measured Value (mg/L)	Action Level (mg/L)	Limit Level (mg/L)	Possible Reason(S) for the Exceedance	Action taken to be taken	Remarks
TM-FC2	Mid-Flood	3.42	4.00	2.00	Exceedance was not due to the operation of the Fill Bank as the monitoring station TM-FC2 was located upstream to the works area. According to the monitoring results, it was found that dissolved oxygen content of the impact stations TM-FC1, TM-FM1 and TM-FM2 was found closed to that of control station TM-FC2. At the same time, no abnormal site activities was observed at the Fill Bank. Therefore, the exceedance might be due to natural fluctuation of dissolved oxygen content in the water body around the area and considered not due to the Fill Bank operation.	Nil	Nil
TM-FC1	Mid-Flood	3.32	4.00	2.00		Nil	Nil
TM-FM1		3.49					
TM-FM2		3.23					
TM-FC1	Mid-Ebb	3.14	4.00	2.00	Exceedance was not due to the operation of the Fill Bank as the monitoring station TM-FC1 was located upstream to the works area. According to the monitoring results, it was found that dissolved oxygen content of the impact stations TM-FC2, TM-FM1 and TM-FM2 was found closed to that of control station TM-FC1. At the same time, no abnormal site activities was observed at the Fill Bank. Therefore, the exceedance might be due to natural fluctuation of dissolved oxygen content in the water body around the area and considered not due to the Fill Bank operation.	Nil	Nil
TM-FC2	Mid-Ebb	3.50	4.00	2.00		Nil	Nil
TM-FM1		3.29					
TM-FM2		3.47					

**Attachment**

Marine water monitoring data sheet (05 September 2006)

Prepared by: *Linda Law* (Linda Law)

Date: 07 September 2006

Checked by: *C. L. Lau* (C. L. Lau)

Date: 07 September 2006

<sup>1</sup> Monitoring Location indicated as: TM-FC represents control stations no 1 and no 2 while TM-FM represents monitoring stations no 1 and no 2. FC1 is the control point at mid-ebb whilst FC2 is the control point at mid-flood.

Contract No.: CV/2006/02  
 Operation of Public Fill Reception Facilities at Tuen Mun Area 38, TKO Area 137, Quarry Bay and Mui Wo

**Water Quality Monitoring - Data Record Sheet (Tuen Mun Area 38)**

Sampling Date: 5-9-06 Weather Condition: Sunny Ambient Temperature (°C): 32 Depth of Water (meter): 24.8  
 Station: FC1 Duration: 1:00 to 1:15 Tide Status: Mid-Flood

Depth (meter)	SURFACE			MIDDLE			BOTTOM			DEPTH AVERAGE	REMARK
	Ave.	Ave.	Ave.	Ave.	Ave.	Ave.	Ave.	Ave.	Ave.		
Temp. (°C)	29.4	27.6	27.6	27.6	27.6	26.5	26.5	26.5	26.5	26.5	* AL Exceedance
Salinity (ppt)	16.8	28.8	28.8	28.8	28.8	30.5	30.5	30.5	30.5	30.5	# LL Exceedance
D.O. (mg/L)	6.22	3.49	3.49	3.49	3.49	3.30	3.30	3.30	3.30	3.30	# LL Exceedance
D.O.S. (%)	92.4	52.6	53.0	53.0	53.0	50.1	50.1	50.1	50.1	50.1	
Turbidity (NTU)	6.85	7.57	7.51	7.51	7.51	8.76	8.76	8.76	8.76	8.76	
S.S. (mg/L)	7.0	7.5	7.5	7.5	7.5	8.8	8.8	8.8	8.8	8.8	
Station: <u>FC1</u> Duration: <u>1:25</u> to <u>1:36</u> Depth of Water (meter): <u>17.0</u>											

Depth (meter)	SURFACE			MIDDLE			BOTTOM			DEPTH AVERAGE	REMARK
	Ave.	Ave.	Ave.	Ave.	Ave.	Ave.	Ave.	Ave.			
Temp. (°C)	29.2	27.4	27.4	27.4	27.4	26.2	26.2	26.2	26.2	26.2	* AL Exceedance
Salinity (ppt)	6.08	28.3	28.3	28.3	28.3	30.6	30.6	30.6	30.6	30.6	# LL Exceedance
D.O. (mg/L)	91.2	54.9	54.9	54.9	54.9	52.7	52.7	52.7	52.7	52.7	
D.O.S. (%)	6.44	9.3	9.3	9.3	9.3	10.8	10.8	10.8	10.8	10.8	
Turbidity (NTU)	6.5	9.3	9.3	9.3	9.3	11	11	11	11	11	
S.S. (mg/L)	6.5	9.3	9.3	9.3	9.3	12	12	12	12	12	
Station: <u>FC1</u> Duration: <u>1:48</u> to <u>1:53</u> Depth of Water (meter): <u>17.2</u>											

Depth (meter)	SURFACE			MIDDLE			BOTTOM			DEPTH AVERAGE	REMARK
	Ave.	Ave.	Ave.	Ave.	Ave.	Ave.	Ave.	Ave.			
Temp. (°C)	28.3	27.5	27.5	27.5	27.5	26.6	26.6	26.6	26.6	26.6	* AL Exceedance
Salinity (ppt)	6.11	28.6	28.6	28.6	28.6	32.7	32.7	32.7	32.7	32.7	# LL Exceedance
D.O. (mg/L)	91.1	56.4	56.4	56.4	56.4	48.8	48.8	48.8	48.8	48.8	
D.O.S. (%)	7.58	9.37	9.37	9.37	9.37	10.2	10.2	10.2	10.2	10.2	
Turbidity (NTU)	7.5	9.5	9.5	9.5	9.5	11	11	11	11	11	
S.S. (mg/L)	7.5	9.5	9.5	9.5	9.5	11	11	11	11	11	
Station: <u>FC2</u> Duration: <u>1:57</u> to <u>1:58</u> Depth of Water (meter): <u>18.2</u>											

Depth (meter)	SURFACE			MIDDLE			BOTTOM			DEPTH AVERAGE	REMARK
	Ave.	Ave.	Ave.	Ave.	Ave.	Ave.	Ave.	Ave.			
Temp. (°C)	28.2	28.1	28.1	28.1	28.1	26.5	26.5	26.5	26.5	26.5	* AL Exceedance
Salinity (ppt)	17.9	29.4	29.4	29.4	29.4	30.7	30.7	30.7	30.7	30.7	# LL Exceedance
D.O. (mg/L)	6.25	3.87	3.87	3.87	3.87	3.64	3.64	3.64	3.64	3.64	
D.O.S. (%)	93.8	58.1	58.1	58.1	58.1	51.3	51.3	51.3	51.3	51.3	
Turbidity (NTU)	7.7	8.92	8.92	8.92	8.92	9.38	9.38	9.38	9.38	9.38	
S.S. (mg/L)	7.7	9.0	9.0	9.0	9.0	9.5	9.5	9.5	9.5	9.5	
Station: <u>FC2</u> Duration: <u>2:00</u> to <u>2:01</u> Depth of Water (meter): <u>18.2</u>											

Parameter	Action Level*		Limit Level*
DO (mg/L)	Surface & Middle: <4.78 mg/L	Bottom: <4.00 mg/L	Bottom: <2.00 mg/L
SS (mg/L) (Depth-averaged)	>120% of the upstream control station's SS at the same tide on the same day		
Turbidity (NTU) (Depth-averaged)	>120% of the upstream control station's turbidity at the same tide on the same day		
Name	Field Operator	Checked by	Laboratory Staff
Signature	<u>[Signature]</u>	<u>[Signature]</u>	<u>[Signature]</u>
Date	<u>5-9-06</u>	<u>5/9/06</u>	<u>5/9/06</u>

Contract No.: CV/2006/02  
 Operation of Public Fill Reception Facilities at Tuen Mun Area 38, TKO Area 137, Quarry Bay and Mui Wo

**Water Quality Monitoring - Data Record Sheet (Tuen Mun Area 38)**

Sampling Date: 5-9-06 Weather Condition: Sunny Ambient Temperature (°C): 32 Tide status: Mid-Low

Station: FCI Duration: 1000 to 1015

Parameter	SURFACE		MIDDLE		BOTTOM		DEPTH AVERAGE	REMARK
	Ave.	Stdev	Ave.	Stdev	Ave.	Stdev		
Depth (meter)	1.0		1.2		23.2			* AL Exceedance
Temp. (°C)	29.2	19.1	27.8	27.8	26.5	26.5		
Salinity (ppt)	16.7	16.1	29.2	29.2	30.5	30.5		# LL Exceedance
D.O. (mg/L)	4.25	6.01	3.58	3.64	3.17	3.14		
D.O.S. (%)	6.53	9.24	84.4	85.3	48.2	41.3		
Turbidity (NTU)	6.5	6.5	10.3	10.3	15.6	10.6		
S.S. (mg/L)	6.5	6.5	11	11	7.0	7.0		

Depth of Water (meter): 12.6

Station: FM1 Duration: 1025 to 1035

Parameter	SURFACE		MIDDLE		BOTTOM		DEPTH AVERAGE	REMARK
	Ave.	Stdev	Ave.	Stdev	Ave.	Stdev		
Depth (meter)	1.0		8.3		15.6			* AL Exceedance
Temp. (°C)	28.1	28.1	27.7	27.7	26.8	26.8		# LL Exceedance
Salinity (ppt)	16.7	16.6	29.2	29.2	30.5	30.5		
D.O. (mg/L)	4.25	6.01	3.68	3.62	3.25	3.29		
D.O.S. (%)	6.53	9.24	85.0	85.0	49.4	50.1		
Turbidity (NTU)	6.5	6.5	11.7	11.7	12.3	12.3		
S.S. (mg/L)	7.3	7.3	12	12	13	13		

Depth of Water (meter): 17.8

Station: FM2 Duration: 1045 to 1100

Parameter	SURFACE		MIDDLE		BOTTOM		DEPTH AVERAGE	REMARK
	Ave.	Stdev	Ave.	Stdev	Ave.	Stdev		
Depth (meter)	1.0		8.9		16.6			* AL Exceedance
Temp. (°C)	28.2	28.2	27.5	27.5	26.6	26.6		# LL Exceedance
Salinity (ppt)	16.8	16.8	29.5	29.5	30.7	30.7		
D.O. (mg/L)	4.31	6.31	3.31	3.37	3.44	3.47		
D.O.S. (%)	4.50	9.5	80.3	81.2	50.7	52.7		
Turbidity (NTU)	6.62	6.62	11.8	11.8	13.5	13.5		
S.S. (mg/L)	6.7	6.7	12	12	15	15		

Depth of Water (meter): 18.6

Station: FC2 Duration: 1110 to 1125

Parameter	SURFACE		MIDDLE		BOTTOM		DEPTH AVERAGE	REMARK
	Ave.	Stdev	Ave.	Stdev	Ave.	Stdev		
Depth (meter)	1.0		9.3		17.6			* AL Exceedance
Temp. (°C)	29.2	29.2	27.9	27.9	26.8	26.8		# LL Exceedance
Salinity (ppt)	17.1	17.1	29.4	29.4	30.6	30.6		
D.O. (mg/L)	4.18	6.21	3.47	3.41	3.52	3.50		
D.O.S. (%)	4.39	9.44	82.7	81.8	52.2	53.2		
Turbidity (NTU)	6.40	6.41	9.22	9.22	10.8	10.8		
S.S. (mg/L)	6.5	6.5	9.5	9.5	11	11		

Depth of Water (meter): 18.6

Parameter	Action Level*	Bottom	Limit Level*
DO (mg/L)	< 4.78 mg/L	< 4.16 mg/L	< 2.00 mg/L
SS (mg/L) (Depth-averaged)	> 120% of the upstream control station's SS at the same tide on the same day	> 130% of the upstream control station's SS at the same tide on the same day	> 130% of the upstream control station's turbidity at the same tide on the same day
Turbidity (NTU) (Depth-averaged)	> 120% of the upstream control station's turbidity at the same tide on the same day	> 130% of the upstream control station's turbidity at the same tide on the same day	> 130% of the upstream control station's turbidity at the same tide on the same day
Field Operator	<u>K. Fung</u>	<u>Linda Lam</u>	<u>Linda Lam</u>
Name	<u>K. Fung</u>	<u>Linda Lam</u>	<u>Linda Lam</u>
Signature	<u>[Signature]</u>	<u>[Signature]</u>	<u>[Signature]</u>
Date	<u>5-9-06</u>	<u>5/9/06</u>	<u>7/9/06</u>

Checked by: Linda Lam (FC2)





**Fill Bank at Tuen Mun Area 38**  
**Date of Water Quality Impact Monitoring: 07 September 2006**

Dissolved Oxygen (Middle)		Measured Value (mg/L)	Action Level (mg/L)	Limit Level (mg/L)	Possible Reason(S) for the Exceedance	Action taken to be taken	Remarks
Monitoring Location <sup>1</sup>	Tide Mode						
TM-FC2	Mid-Flood	3.21	4.78	4.16	Exceedance was not due to the operation of the Fill Bank as the monitoring station TM-FC2 was located upstream to the works area.	Nil	Nil
TM-FC1	Mid-Flood	3.68	4.78	4.16	According to the monitoring results, it was found that dissolved oxygen content of the impact stations TM-FC1, TM-FM1 and TM-FM2 was found closed to that of control station TM-FC2. At the same time, no abnormal site activities was observed at the Fill Bank. Therefore, the exceedance might be due to natural fluctuation of dissolved oxygen content in the water body around the area and considered not due to the Fill Bank operation.	Nil	Nil
TM-FM1		3.25					
TM-FM2		3.36					
TM-FC1	Mid-Ebb	3.37	4.78	4.16	Exceedance was not due to the operation of the Fill Bank as the monitoring station TM-FC1 was located upstream to the works area.	Nil	Nil
TM-FC2	Mid-Ebb	3.47	4.78	4.16	According to the monitoring results, it was found that dissolved oxygen content of the impact stations TM-FC2, TM-FM1 and TM-FM2 was found closed to that of control station TM-FC1. At the same time, no abnormal site activities was observed at the Fill Bank. Therefore, the exceedance might be due to natural fluctuation of dissolved oxygen content in the water body around the area and considered not due to the Fill Bank operation.	Nil	Nil
TM-FM1		3.54					
TM-FM2		3.31					

Dissolved Oxygen (Bottom)		Measured Value (mg/L)	Action Level (mg/L)	Limit Level (mg/L)	Possible Reason(S) for the Exceedance	Action taken to be taken	Remarks
Monitoring Location <sup>1</sup>	Tide Mode						
TM-FC2	Mid-Flood	2.95	4.00	2.00	Exceedance was not due to the operation of the Fill Bank as the monitoring station TM-FC2 was located upstream to the works area.	Nil	Nil
TM-FC1	Mid-Flood	3.12	4.00	2.00	According to the monitoring results, it was found that dissolved oxygen content of the impact stations TM-FC1, TM-FM1 and TM-FM2 was found closed to that of control station TM-FC2. At the same time, no abnormal site activities was observed at the Fill Bank. Therefore, the exceedance might be due to natural fluctuation of dissolved oxygen content in the water body around the area and considered not due to the Fill Bank operation.	Nil	Nil
TM-FM1		3.10					
TM-FM2		3.00					
TM-FC1	Mid-Ebb	3.14	4.00	2.00	Exceedance was not due to the operation of the Fill Bank as the monitoring station TM-FC1 was located upstream to the works area.	Nil	Nil
TM-FC2	Mid-Ebb	3.00	4.00	2.00	According to the monitoring results, it was found that dissolved oxygen content of the impact stations TM-FC2, TM-FM1 and TM-FM2 was found closed to that of control station TM-FC1. At the same time, no abnormal site activities was observed at the Fill Bank. Therefore, the exceedance might be due to natural fluctuation of dissolved oxygen content in the water body around the area and considered not due to the Fill Bank operation.	Nil	Nil
TM-FM1		3.05					
TM-FM2		3.11					

**Attachment**  
 Marine water monitoring data sheet (07 September 2006)

Prepared by:  (Linda Law) Date: 11 September 2006  
 Checked by:  (C. L. Lau) Date: 11 September 2006

<sup>1</sup> Monitoring Location indicated as: TM-FC represents control stations no 1 and no 2 while TM-FM represents monitoring stations no 1 and no 2. FC1 is the control point at mid-ebb whilst FC2 is the control point at mid-flood

**Water Quality Monitoring - Data Record Sheet (Tuen Mun Area 38)**

Sampling Date: 7-9-06 Weather Condition: Rainy Ambient Temperature (°C): 27 Tide status: Mid - Flood

Station: FC1 Duration: 17:00 to 17:14 Depth of Water (meter): 2.3-8

Depth (meter)	SURFACE			MIDDLE			BOTTOM			REMARK
	Ave.	Ave.	Ave.	Ave.	Ave.	Ave.	Ave.	Ave.		
Temp. (°C)	16.2	16.1	16.1	15.3	15.3	15.3	24.5	24.5	24.5	* AL Exceedance
Salinity (ppt)	16.9	16.8	16.7	16.6	16.6	16.6	30.8	30.8	30.8	# LL Exceedance
D.O. (mg/L)	6.37	6.31	6.34	3.72	3.64	3.58	3.08	3.12	3.12	
D.O.S. (%)	86.1	85.9	86.4	55.5	55.3	55.9	46.8	47.4	47.4	
Turbidity (NTU)	8.32	8.32	8.32	9.16	9.17	9.17	10.8	10.8	10.8	
S.S. (mg/L)	8.5	8.5	8.5	9.3	9.3	9.3	11	11	11	

Station: FM1 Duration: 17:26 to 17:39 Depth of Water (meter): 17.0

Depth (meter)	SURFACE			MIDDLE			BOTTOM			REMARK
	Ave.	Ave.	Ave.	Ave.	Ave.	Ave.	Ave.	Ave.		
Temp. (°C)	16.5	16.8	16.8	16.4	16.5	16.5	24.6	24.6	24.6	* AL Exceedance
Salinity (ppt)	16.8	16.8	16.8	19.5	19.5	19.5	30.7	30.8	30.8	# LL Exceedance
D.O. (mg/L)	6.08	6.12	6.10	3.21	3.29	3.29	3.05	3.10	3.10	
D.O.S. (%)	91.4	93.0	92.7	48.8	50.6	50.6	46.4	47.1	47.1	
Turbidity (NTU)	7.84	7.84	7.84	10.3	10.3	10.3	11.1	11.1	11.1	
S.S. (mg/L)	8.0	8.0	8.0	11	11	11	12	12	12	

Station: FM2 Duration: 17:49 to 18:04 Depth of Water (meter): 17.8

Depth (meter)	SURFACE			MIDDLE			BOTTOM			REMARK
	Ave.	Ave.	Ave.	Ave.	Ave.	Ave.	Ave.	Ave.		
Temp. (°C)	16.4	16.3	16.4	16.7	16.6	16.6	24.6	24.6	24.6	* AL Exceedance
Salinity (ppt)	17.1	17.1	17.1	19.6	19.5	19.5	30.9	30.8	30.8	# LL Exceedance
D.O. (mg/L)	6.03	6.03	6.06	3.40	3.32	3.32	3.02	3.08	3.08	
D.O.S. (%)	91.7	92.6	92.1	51.7	47.4	47.4	45.9	45.6	45.6	
Turbidity (NTU)	7.66	7.66	7.66	8.16	8.15	8.15	9.38	9.38	9.38	
S.S. (mg/L)	7.7	7.8	7.8	8.2	8.0	8.0	9.5	9.5	9.5	

Station: FC2 Duration: 18:15 to 18:31 Depth of Water (meter): 18.2

Depth (meter)	SURFACE			MIDDLE			BOTTOM			REMARK
	Ave.	Ave.	Ave.	Ave.	Ave.	Ave.	Ave.	Ave.		
Temp. (°C)	16.1	16.0	16.1	16.3	16.3	16.3	24.2	24.3	24.3	* AL Exceedance
Salinity (ppt)	17.2	17.3	17.3	19.8	19.8	19.8	30.8	30.8	30.8	# LL Exceedance
D.O. (mg/L)	5.14	5.18	5.16	3.17	3.15	3.15	2.92	2.98	2.98	
D.O.S. (%)	83.9	83.3	83.6	48.1	48.4	48.4	44.4	44.8	44.8	
Turbidity (NTU)	7.82	7.33	7.33	9.27	9.27	9.27	10.5	10.4	10.4	
S.S. (mg/L)	7.5	7.5	7.5	9.5	9.5	9.5	11	11	11	

Parameter	Action Level*		Limit Level*	
	Surface & Middle: <4.78 mg/L	Bottom: <4.16 mg/L	Surface & Middle: <4.00 mg/L	Bottom: <2.00 mg/L
DO (mg/L) (Depth-averaged)	>120% of the upstream control station's SS at the same tide on the same day	>130% of the upstream control station's turbidity at the same tide on the same day	>130% of the upstream control station's SS at the same tide on the same day	>130% of the upstream control station's turbidity at the same tide on the same day
Turbidity (NTU) (Depth-averaged)	>120% of the upstream control station's turbidity at the same tide on the same day	>130% of the upstream control station's turbidity at the same tide on the same day	>130% of the upstream control station's turbidity at the same tide on the same day	>130% of the upstream control station's turbidity at the same tide on the same day
Name	Checked by		Checked by	
Signature	K. HUNG		FONG LAM	
Date	7-9-06		11/9/06	

**Water Quality Monitoring - Data Record Sheet (Tuen Mun Area 38)**

Sampling Date: 7-9-06 Weather Condition: Rainy Ambient Temperature (°C): 27 Tide status: Mid-Zbb.

Station: FC1 Duration: 1130 to 1142 Depth of Water (meter): 24.4

Parameter	SURFACE		MIDDLE		BOTTOM		DEPTH AVERAGE	REMARK
	Ave.	Stdev.	Ave.	Stdev.	Ave.	Stdev.		
Depth (meter)	1.0		12.2		23.4			
Temp. (°C)	26.5	26.3	25.4	25.4	24.1	24.1	Ave.: 24.1	* AL Exceedance
Salinity (ppt)	16.3	16.3	17.5	17.5	30.7	30.7	Ave.: 30.7	# LL Exceedance
D.O. (mg/L)	6.26	3.34	3.40	3.37	3.16	3.11	Ave.: 3.11	
D.O.S. (%)	93.9	98.2	51.7	41.2	41.2	41.2	Ave.: 41.2	
Turbidity (NTU)	8.77	9.32	9.32	9.32	11.5	11.5	Ave.: 11.5	
S.S. (mg/L)	8.8	9.5	9.5	9.5	12	12	Ave.: 12	

Station: FM1 Duration: 1154 to 1209 Depth of Water (meter): 17.6

Parameter	SURFACE		MIDDLE		BOTTOM		DEPTH AVERAGE	REMARK
	Ave.	Stdev.	Ave.	Stdev.	Ave.	Stdev.		
Depth (meter)	1.0		8.8		16.6			
Temp. (°C)	26.3	26.1	25.4	25.4	24.8	24.8	Ave.: 24.8	* AL Exceedance
Salinity (ppt)	16.6	16.7	17.3	17.3	30.5	30.5	Ave.: 30.5	# LL Exceedance
D.O. (mg/L)	6.54	6.51	3.57	3.54	3.02	3.02	Ave.: 3.02	
D.O.S. (%)	91.4	91.0	53.4	53.8	46.9	46.9	Ave.: 46.9	
Turbidity (NTU)	7.97	7.98	11.2	11.2	12.5	12.5	Ave.: 12.5	
S.S. (mg/L)	8.0	8.0	12	12	13	13	Ave.: 13	

Station: FM2 Duration: 1221 to 1237 Depth of Water (meter): 17.2

Parameter	SURFACE		MIDDLE		BOTTOM		DEPTH AVERAGE	REMARK
	Ave.	Stdev.	Ave.	Stdev.	Ave.	Stdev.		
Depth (meter)	1.0		8.8		16.2			
Temp. (°C)	26.2	26.3	25.5	25.5	24.6	24.6	Ave.: 24.6	* AL Exceedance
Salinity (ppt)	16.8	16.7	17.4	17.4	30.7	30.7	Ave.: 30.7	# LL Exceedance
D.O. (mg/L)	6.41	6.45	3.35	3.31	3.14	3.11	Ave.: 3.11	
D.O.S. (%)	97.4	98.0	50.0	50.3	47.7	47.7	Ave.: 47.7	
Turbidity (NTU)	7.03	7.04	8.74	8.74	10.5	10.5	Ave.: 10.5	
S.S. (mg/L)	7.3	7.3	8.8	8.8	11	11	Ave.: 11	

Station: FC2 Duration: 1244 to 1258 Depth of Water (meter): 18.8

Parameter	SURFACE		MIDDLE		BOTTOM		DEPTH AVERAGE	REMARK
	Ave.	Stdev.	Ave.	Stdev.	Ave.	Stdev.		
Depth (meter)	1.0		9.4		17.8			
Temp. (°C)	26.4	26.4	25.3	25.3	24.4	24.4	Ave.: 24.4	* AL Exceedance
Salinity (ppt)	17.1	17.1	28.5	28.5	31.0	31.0	Ave.: 31.0	# LL Exceedance
D.O. (mg/L)	6.30	6.34	3.44	3.47	2.94	2.94	Ave.: 2.94	
D.O.S. (%)	95.8	96.4	52.3	52.7	44.7	44.7	Ave.: 44.7	
Turbidity (NTU)	7.11	7.12	9.25	9.26	9.84	9.84	Ave.: 9.84	
S.S. (mg/L)	7.3	7.3	9.5	9.5	10	10	Ave.: 10	

Parameter	Action Level*		Limit Level*	
	Surface & Middle	Bottom	Surface & Middle	Bottom
DO (mg/L)	<4.78 mg/L	<4.16 mg/L	<4.00 mg/L	<2.00 mg/L
SS (mg/L) (Depth-averaged)	>120% of the upstream control station's SS at the same tide on the same day	>130% of the upstream control station's SS at the same tide on the same day	>130% of the upstream control station's SS at the same tide on the same day	>130% of the upstream control station's SS at the same tide on the same day
Turbidity (NTU) (Depth-averaged)	>120% of the upstream control station's turbidity at the same tide on the same day	>120% of the upstream control station's turbidity at the same tide on the same day	>130% of the upstream control station's turbidity at the same tide on the same day	>130% of the upstream control station's turbidity at the same tide on the same day
Name	Field Operator: <u>K Hin-yang</u>	Checked by: <u>Linda Lam</u>	Laboratory Staff: <u>Rexy</u>	Checked by: <u>Linda Lam</u>
Signature	<u>[Signature]</u>	<u>[Signature]</u>	<u>[Signature]</u>	<u>[Signature]</u>
Date	<u>7-9-06</u>	<u>7/9/06</u>	<u>8/9/06</u>	<u>11/9/06</u>

**Fill Bank at Tuen Mun Area 38**  
**Date of Water Quality Impact Monitoring: 09 September 2006**

**Dissolved Oxygen (Middle)**

Monitoring Location <sup>1</sup>	Tide Mode	Measured Value (mg/L)	Action Level (mg/L)	Limit Level (mg/L)	Possible Reason(S) for the Exceedance	Action taken to be taken	Remarks
TM-FC2	Mid-Flood	4.29	4.78	4.16	Exceedance was not due to the operation of the Fill Bank as the monitoring station TM-FC2 was located upstream to the works area.	Nil	Nil
TM-FC1	Mid-Flood	4.13	4.78	4.16	According to the monitoring results, it was found that dissolved oxygen content of the impact stations TM-FC1, TM-FM1 and TM-FM2 was found closed to that of control station TM-FC2. At the same time, no abnormal site activities was observed at the Fill Bank. Therefore, the exceedance might be due to natural fluctuation of dissolved oxygen content in the water body around the area and considered not due to the Fill Bank operation.	Nil	Nil
TM-FM1		4.20					
TM-FM2		4.32					
TM-FC1	Mid-Ebb	4.08	4.78	4.16	Exceedance was not due to the operation of the Fill Bank as the monitoring station TM-FC1 was located upstream to the works area.	Nil	Nil
TM-FC2	Mid-Ebb	4.14	4.78	4.16	According to the monitoring results, it was found that dissolved oxygen content of the impact stations TM-FC2, TM-FM1 and TM-FM2 was found closed to that of control station TM-FC1. At the same time, no abnormal site activities was observed at the Fill Bank. Therefore, the exceedance might be due to natural fluctuation of dissolved oxygen content in the water body around the area and considered not due to the Fill Bank operation.	Nil	Nil
TM-FM1		4.07					
TM-FM2		4.24					

**Dissolved Oxygen (Bottom)**

Monitoring Location <sup>1</sup>	Tide Mode	Measured Value (mg/L)	Action Level (mg/L)	Limit Level (mg/L)	Possible Reason(S) for the Exceedance	Action taken to be taken	Remarks
TM-FC2	Mid-Flood	3.22	4.00	2.00	Exceedance was not due to the operation of the Fill Bank as the monitoring station TM-FC2 was located upstream to the works area.	Nil	Nil
TM-FC1	Mid-Flood	3.65	4.00	2.00	According to the monitoring results, it was found that dissolved oxygen content of the impact stations TM-FC1, TM-FM1 and TM-FM2 was found closed to that of control station TM-FC2. At the same time, no abnormal site activities was observed at the Fill Bank. Therefore, the exceedance might be due to natural fluctuation of dissolved oxygen content in the water body around the area and considered not due to the Fill Bank operation.	Nil	Nil
TM-FM1		3.43					
TM-FM2		3.52					
TM-FC1	Mid-Ebb	3.84	4.00	2.00	Exceedance was not due to the operation of the Fill Bank as the monitoring station TM-FC1 was located upstream to the works area.	Nil	Nil
TM-FC2	Mid-Ebb	3.15	4.00	2.00	According to the monitoring results, it was found that dissolved oxygen content of the impact stations TM-FC2, TM-FM1 and TM-FM2 was found closed to that of control station TM-FC1. At the same time, no abnormal site activities was observed at the Fill Bank. Therefore, the exceedance might be due to natural fluctuation of dissolved oxygen content in the water body around the area and considered not due to the Fill Bank operation.	Nil	Nil
TM-FM1		3.28					
TM-FM2		3.54					

**Attachment**

Marine water monitoring data sheet (09 September 2006)

Prepared by: 

(Linda Law)

Date: 12 September 2006

Checked by: 

(C. L. Lau)

Date: 12 September 2006

<sup>1</sup> Monitoring Location indicated as: TM-FC represents control stations no 1 and no 2 while TM-FM represents monitoring stations no 1 and no 2. FC1 is the control point at mid-ebb whilst FC2 is the control point at mid-flood

**Water Quality Monitoring - Data Record Sheet (Tuen Mun Area 38)**

Sampling Date: 7-9-06 Weather Condition: Rainy Ambient Temperature (°C): 28 Tide status: Mid - ebb  
 Station: TM-FCI Duration: 13:50 to 13:14 Depth of Water (meter): 2.2-8

Depth (meter)	SURFACE		MIDDLE		BOTTOM		DEPTH AVERAGE	REMARK
	Ave.	Stdev	Ave.	Stdev	Ave.	Stdev		
2.8-0	27.2	27.1	25.3	25.4	25.4	25.4	* AL Exceedance	
2.3-6	24.7	24.8	30.8	30.7	30.8	30.8	# LL Exceedance	
6.2-5	6.11	6.04	4.08	3.87	3.84	3.84		
7.5	9.45	6.14	6.25	5.79	5.84	5.84		
8.5	8.57	9.78	9.76	10.9	10.9	10.9		
8.5	8.5	9.7	9.7	11	11	11		
Station: <u>TM-FMI</u>		Duration: <u>13:25</u>		to <u>13:45</u>		Depth of Water (meter): <u>17.2</u>		

Depth (meter)	SURFACE		MIDDLE		BOTTOM		DEPTH AVERAGE	REMARK
	Ave.	Stdev	Ave.	Stdev	Ave.	Stdev		
2.1-4	25.8	25.8	24.6	24.6	24.6	24.6	* AL Exceedance	
2.3-5	23.5	26.4	26.5	29.1	29.2	29.2	# LL Exceedance	
6.0-6	6.07	4.04	4.07	3.31	3.28	3.28		
7.3-0	7.26	6.23	6.18	4.84	4.89	4.89		
7.4-3	7.44	7.87	7.87	9.14	9.15	9.15		
7.5	7.5	8.0	8.0	9.3	9.3	9.3		
Station: <u>TM-FM2</u>		Duration: <u>13:44</u>		to <u>13:58</u>		Depth of Water (meter): <u>17.4</u>		

Depth (meter)	SURFACE		MIDDLE		BOTTOM		DEPTH AVERAGE	REMARK
	Ave.	Stdev	Ave.	Stdev	Ave.	Stdev		
2.7-3	25.7	25.8	24.4	24.4	24.4	24.4	* AL Exceedance	
2.4-4	24.4	25.8	25.8	29.4	29.5	29.5		
6.5-3	6.47	4.28	4.14	3.57	3.54	3.54		
9.3-3	9.33	8.51	8.44	5.43	5.34	5.34		
8.1-3	8.13	9.46	9.44	11.2	11.3	11.3		
8.2	8.2	9.5	9.5	12	12	12		
Station: <u>TM-FC2</u>		Duration: <u>14:13</u>		to <u>14:27</u>		Depth of Water (meter): <u>17.6</u>		

Depth (meter)	SURFACE		MIDDLE		BOTTOM		DEPTH AVERAGE	REMARK
	Ave.	Stdev	Ave.	Stdev	Ave.	Stdev		
2.7-7	25.9	25.8	24.2	24.2	24.2	24.2	* AL Exceedance	
2.3-0	23.1	25.1	25.2	29.6	29.6	29.6	# LL Exceedance	
6.0-7	6.15	4.18	4.11	3.11	3.19	3.19		
9.2-3	9.29	6.35	6.29	4.73	4.88	4.88		
8.3-2	8.33	9.78	9.79	10.8	10.8	10.8		
8.5	8.5	9.8	9.8	11	11	11		
Station: <u>TM-FC1</u>		Duration: <u>14:13</u>		to <u>14:27</u>		Depth of Water (meter): <u>17.6</u>		

Parameter	Action Level (*)	Limit Level (*)
DO (mg/L)	Surface & Middle: <4.78 mg/L	Bottom: <2.00 mg/L
SS (mg/L) (Depth-averaged)	>120% of the upstream control station's SS at the same tide on the same day	>130% of the upstream control station's SS at the same tide on the same day
Turbidity (NTU) (Depth-averaged)	>120% of the upstream control station's turbidity at the same tide on the same day	>130% of the upstream control station's turbidity at the same tide on the same day
Name	Field Operator	Checked by
Signature	<u>K-HWong</u>	Laboratory Staff
Date	<u>9-9-06</u>	<u>9/9/06</u>
		Checked by
		<u>Linda Lam</u>
		<u>Code Lam</u>
		<u>12/9/06</u>

Water Quality Monitoring - Data Record Sheet (Tuen Mun Area 38)

Sampling Date: 9-9-06  
Weather Condition: Rainy  
Ambient Temperature (°C): 28  
Tide status: High - Flood  
Station: TM-FCI  
Duration: 0940 to 0853  
Depth of Water (meter): 23.6

Depth (meter)	SURFACE			MIDDLE			BOTTOM			DEPTH AVERAGE	REMARK
	Ave.	Ave.	Ave.	Ave.	Ave.	Ave.	Ave.	Ave.	Ave.		
28.1	28.2	27.8	27.7	27.8	27.8	27.8	27.8	27.8	27.8	* AL Exceedance	
27.8	27.8	27.8	27.8	27.8	27.8	27.8	27.8	27.8			
6.13	6.17	4.17	4.08	4.13	4.13	4.13	4.13	4.13	# LL Exceedance		
93.2	94.4	83.4	82.0	83.8	83.8	83.8	83.8	83.8			
8.43	8.44	9.52	9.53	9.53	9.53	9.53	9.53	9.53			
8.5	8.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5			
Duration: 0924											

Depth (meter)	SURFACE			MIDDLE			BOTTOM			DEPTH AVERAGE	REMARK
	Ave.	Ave.	Ave.	Ave.	Ave.	Ave.	Ave.	Ave.	Ave.		
27.9	27.9	26.1	26.1	26.1	26.1	26.1	26.1	26.1	26.1	* AL Exceedance	
27.7	27.7	23.5	23.5	23.5	23.5	23.5	23.5	23.5			
5.94	5.94	4.23	4.16	4.23	4.23	4.23	4.23	4.23	# LL Exceedance		
89.1	90.3	64.3	63.2	63.8	63.8	63.8	63.8	63.8			
7.12	7.12	7.94	7.95	7.95	7.95	7.95	7.95	7.95			
7.3	7.3	8.0	8.2	8.1	8.1	8.1	8.1	8.1			
Duration: 0936											

Depth (meter)	SURFACE			MIDDLE			BOTTOM			DEPTH AVERAGE	REMARK
	Ave.	Ave.	Ave.	Ave.	Ave.	Ave.	Ave.	Ave.	Ave.		
27.7	27.7	26.4	26.5	26.5	26.5	26.5	26.5	26.5	26.5	* AL Exceedance	
23.5	23.5	25.2	25.3	25.3	25.3	25.3	25.3	25.3			
6.16	6.19	4.36	4.28	4.32	4.32	4.32	4.32	4.32	# LL Exceedance		
94.2	93.0	86.3	85.0	85.7	85.7	85.7	85.7	85.7			
8.03	8.04	9.38	9.38	9.38	9.38	9.38	9.38	9.38			
8.3	8.3	9.5	9.5	9.5	9.5	9.5	9.5	9.5			
Duration: 0941											

Depth (meter)	SURFACE			MIDDLE			BOTTOM			DEPTH AVERAGE	REMARK
	Ave.	Ave.	Ave.	Ave.	Ave.	Ave.	Ave.	Ave.	Ave.		
28.1	28.1	26.2	26.3	26.3	26.3	26.3	26.3	26.3	26.3	* AL Exceedance	
27.6	27.6	24.8	24.8	24.8	24.8	24.8	24.8	24.8			
6.19	6.17	4.32	4.26	4.28	4.28	4.28	4.28	4.28	# LL Exceedance		
94.1	92.9	85.7	84.8	85.2	85.2	85.2	85.2	85.2			
8.87	8.87	9.62	9.63	9.63	9.63	9.63	9.63	9.63			
9.0	9.0	9.8	9.7	9.8	9.8	9.8	9.8	9.8			
Duration: 0950											

Parameter	Action Level (*)	
	Surface & Middle	Bottom
DO (mg/L)	<4.78 mg/L	<4.00 mg/L
SS (mg/L) (Depth-averaged)	>120% of the upstream control station's SS at the same tide on the same day	>130% of the upstream control station's SS at the same tide on the same day
Turbidity (NTU) (Depth-averaged)	>120% of the upstream control station's turbidity at the same tide on the same day	>130% of the upstream control station's turbidity at the same tide on the same day
Name	Field Operator	Laboratory Staff
Signature	K. HUNG	RENEE LIM
Date	9-9-06	11/9/06

**Fill Bank at Tuen Mun Area 38**  
**Date of Water Quality Impact Monitoring: 12 September 2006**

**Dissolved Oxygen (Middle)**

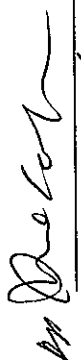
Monitoring Location <sup>1</sup>	Tide Mode	Measured Value (mg/L)	Action Level (mg/L)	Limit Level (mg/L)	Possible Reason(S) for the Exceedance	Action taken to be taken	Remarks
TM-FC2	Mid-Flood	4.85	4.78	4.16	Exceedance was not due to the operation of the Fill Bank as the monitoring station TM-FC2 was located upstream to the works area.	Nil	Nil
TM-FC1	Mid-Flood	4.33	4.78	4.16	According to the monitoring results, it was found that dissolved oxygen content of the impact stations TM-FC1, TM-FM1 and TM-FM2 was found closed to that of control station TM-FC2. At the same time, no abnormal site activities was observed at the Fill Bank. Therefore, the exceedance might be due to natural fluctuation of dissolved oxygen content in the water body around the area and considered not due to the Fill Bank operation.	Nil	Nil
TM-FM1		4.59					
TM-FM2		4.13					
TM-FC1	Mid-Ebb	4.07	4.78	4.16	Exceedance was not due to the operation of the Fill Bank as the monitoring station TM-FC1 was located upstream to the works area.	Nil	Nil
TM-FC2	Mid-Ebb	4.21	4.78	4.16	According to the monitoring results, it was found that dissolved oxygen content of the impact stations TM-FC2, TM-FM1 and TM-FM2 was found closed to that of control station TM-FC1. At the same time, no abnormal site activities was observed at the Fill Bank. Therefore, the exceedance might be due to natural fluctuation of dissolved oxygen content in the water body around the area and considered not due to the Fill Bank operation.	Nil	Nil
TM-FM1		3.92					
TM-FM2		3.85					

**Dissolved Oxygen (Bottom)**

Monitoring Location <sup>1</sup>	Tide Mode	Measured Value (mg/L)	Action Level (mg/L)	Limit Level (mg/L)	Possible Reason(S) for the Exceedance	Action taken to be taken	Remarks
TM-FC2	Mid-Flood	3.95	4.00	2.00	Exceedance was not due to the operation of the Fill Bank as the monitoring station TM-FC2 was located upstream to the works area.	Nil	Nil
TM-FC1	Mid-Flood	3.64	4.00	2.00	According to the monitoring results, it was found that dissolved oxygen content of the impact stations TM-FC1, TM-FM1 and TM-FM2 was found closed to that of control station TM-FC2. At the same time, no abnormal site activities was observed at the Fill Bank. Therefore, the exceedance might be due to natural fluctuation of dissolved oxygen content in the water body around the area and considered not due to the Fill Bank operation.	Nil	Nil
TM-FM1		3.82					
TM-FM2		3.33					
TM-FC1	Mid-Ebb	3.37	4.00	2.00	Exceedance was not due to the operation of the Fill Bank as the monitoring station TM-FC1 was located upstream to the works area.	Nil	Nil
TM-FC2	Mid-Ebb	3.76	4.00	2.00	According to the monitoring results, it was found that dissolved oxygen content of the impact stations TM-FC2, TM-FM1 and TM-FM2 was found closed to that of control station TM-FC1. At the same time, no abnormal site activities was observed at the Fill Bank. Therefore, the exceedance might be due to natural fluctuation of dissolved oxygen content in the water body around the area and considered not due to the Fill Bank operation.	Nil	Nil
TM-FM1		3.60					
TM-FM2		3.10					

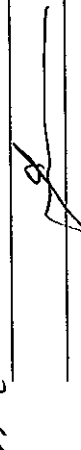
**Attachment**

Marine water monitoring data sheet (12 September 2006)

Prepared by: 

(Linda Law)

Date: 14 September 2006

Checked by: 

(C. L. Lau)

Date: 14 September 2006

<sup>1</sup> Monitoring Location indicated as: TM-FC represents control stations no 1 and no 2 while TM-FM represents monitoring stations no 1 and no 2. FC1 is the control point at mid-ebb whilst FC2 is the control point at mid-flood.

Contract No. : CV/2006/02  
 Operation of Public Fill Reception Facilities at Tuen Mun Area 38, TKO Area 137, Quarry Bay and Mui Wo

**Water Quality Monitoring - Data Record Sheet (Tuen Mun Area 38)**

Sampling Date: 12 September 2006  
 Station: TM-FC1  
 Weather Condition: Rainy  
 Ambient Temperature (°C): 22  
 Duration: 09:00 to 09:13  
 Tide status: Mid-Hood  
 Depth of Water (meter): 25.0

Parameter	SURFACE		MIDDLE		BOTTOM		DEPTH AVERAGE	REMARK
	Value	Ave.	Value	Ave.	Value	Ave.		
Depth (meter)	10		12.5		24.0			
Temp. (°C)	20.8	20.9	21.3	21.2	21.2	21.2	21.2	* AL Exceedance
Salinity (ppt)	20.5	20.5	30.4	30.4	30.5	30.5	30.5	
D.O. (mg/L)	6.80	6.72	4.37	4.29	3.66	3.62	3.64	
D.O.S. (%)	100.9	99.8	61.8	60.7	51.8	51.2	51.5	
Turbidity (NTU)	8.24	8.09	7.14	7.25	8.66	8.74	8.70	8.02
S.S. (mg/L)	8.5	8.4	7.3	7.5	8.8	8.8	8.8	8.2

Station: TM-FM1  
 Duration: 09:21 to 09:34

Parameter	SURFACE		MIDDLE		BOTTOM		DEPTH AVERAGE	REMARK
	Value	Ave.	Value	Ave.	Value	Ave.		
Depth (meter)	10		8.7		16.4			
Temp. (°C)	20.9	20.9	21.2	21.4	21.4	21.4	21.4	* AL Exceedance
Salinity (ppt)	20.6	20.7	30.6	30.7	30.7	30.7	30.7	
D.O. (mg/L)	6.14	6.10	4.62	4.55	3.78	3.85	3.82	
D.O.S. (%)	91.2	89.8	65.4	64.9	54.5	54.5	54.0	
Turbidity (NTU)	12.8	12.5	8.32	8.40	9.25	9.27	9.25	10.0
S.S. (mg/L)	13	12	8.0	8.0	9.5	9.5	9.5	10.2

Station: TM-FM2  
 Duration: 09:42 to 09:55

Parameter	SURFACE		MIDDLE		BOTTOM		DEPTH AVERAGE	REMARK
	Value	Ave.	Value	Ave.	Value	Ave.		
Depth (meter)	10		8.6		16.2			
Temp. (°C)	21.0	21.0	21.1	21.4	21.4	21.4	21.4	* AL Exceedance
Salinity (ppt)	20.6	20.6	30.5	30.7	30.7	30.7	30.7	
D.O. (mg/L)	6.32	6.28	4.17	4.09	3.29	3.37	3.33	# LL Exceedance
D.O.S. (%)	93.8	93.3	59.0	57.9	46.5	47.7	47.1	
Turbidity (NTU)	10.6	10.3	9.49	9.85	6.73	6.79	6.76	8.86
S.S. (mg/L)	11	11	9.5	9.5	7.0	6.8	6.9	9.1

Station: TM-FC2  
 Duration: 10:05 to 10:14

Parameter	SURFACE		MIDDLE		BOTTOM		DEPTH AVERAGE	REMARK
	Value	Ave.	Value	Ave.	Value	Ave.		
Depth (meter)	10		9.3		17.6			
Temp. (°C)	20.8	20.8	20.9	21.0	21.3	21.3	21.3	* AL Exceedance
Salinity (ppt)	21.0	21.0	30.3	30.3	30.5	30.5	30.5	
D.O. (mg/L)	6.77	6.74	4.88	4.82	3.92	3.98	3.95	
D.O.S. (%)	100.5	100.0	69.5	68.2	55.5	56.5	56.1	
Turbidity (NTU)	9.47	9.60	7.53	7.59	8.44	8.51	8.48	8.55
S.S. (mg/L)	9.5	9.6	7.5	7.5	8.5	8.5	8.5	

Parameter	Action Level (*)	Limit Level (*)
DO (mg/L)	Surface & Middle: <4.78 mg/L	Surface & Middle: <4.16 mg/L
SS (mg/L) (Depth-averaged)	>120% of the upstream control station's SS at the same tide on the same day	>130% of the upstream control station's SS at the same tide on the same day
Turbidity (NTU) (Depth-averaged)	>120% of the upstream control station's turbidity at the same tide on the same day	>130% of the upstream control station's turbidity at the same tide on the same day
Name	Field Operator: H.T. Cheng	Laboratory Staff: Revise Lin
Signature	[Signature]	[Signature]
Date	12-9-2006	13/9/06



Contract No.: CV/2006/02  
 Operation of Public Fill Reception Facilities at Tuen Mun Area 38, TKO Area 137, Quarry Bay and Mui Wo

**Water Quality Monitoring - Data Record Sheet (Tuen Mun Area 38)**

Sampling Date: 12 September 2006  
 Station: TM-FCI  
 Weather Condition: Drizzle  
 Ambient Temperature (°C): 23  
 Duration: 15:00 to 15:14  
 Tide status: Mid-Ebb  
 Depth of Water (meter): 24.6

Depth (meter)	SURFACE			MIDDLE			BOTTOM			DEPTH AVERAGE	REMARK
	Ave.	Min	Max	Ave.	Min	Max	Ave.	Min	Max		
21.2	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	* AL Exceedance
18.9	19.0	19.0	19.0	29.9	29.9	29.9	30.2	30.2	30.2	30.2	# LL Exceedance
6.28	6.26	6.26	6.26	4.10	4.93	4.93	3.34	3.34	3.34	3.34	# LL Exceedance
9.0	8.94	8.94	8.94	8.13	8.64	8.64	4.76	4.76	4.76	4.76	
6.92	6.88	6.88	6.88	9.5	9.62	9.62	9.14	9.14	9.14	9.14	
7.0	7.0	7.0	7.0	9.7	9.7	9.7	9.5	9.5	9.5	9.5	

Station: TM-FM1  
 Duration: 15:23 to 15:37  
 Depth of Water (meter): 17.2

Depth (meter)	SURFACE			MIDDLE			BOTTOM			DEPTH AVERAGE	REMARK
	Ave.	Min	Max	Ave.	Min	Max	Ave.	Min	Max		
21.4	21.4	21.4	21.4	21.6	21.6	21.6	21.6	21.6	21.6	21.6	* AL Exceedance
19.1	19.1	19.1	19.1	3.9	3.9	3.9	3.64	3.64	3.64	3.64	# LL Exceedance
6.03	6.03	6.03	6.03	8.1	8.1	8.1	4.97	4.97	4.97	4.97	# LL Exceedance
8.64	8.64	8.64	8.64	10.2	10.2	10.2	9.63	9.63	9.63	9.63	
7.48	7.48	7.48	7.48	11	11	11	9.71	9.71	9.71	9.71	
7.5	7.5	7.5	7.5	9.8	9.8	9.8	9.8	9.8	9.8	9.8	

Station: TM-FM2  
 Duration: 15:46 to 15:59  
 Depth of Water (meter): 17.0

Depth (meter)	SURFACE			MIDDLE			BOTTOM			DEPTH AVERAGE	REMARK
	Ave.	Min	Max	Ave.	Min	Max	Ave.	Min	Max		
21.4	21.4	21.4	21.4	21.6	21.6	21.6	21.8	21.8	21.8	21.8	* AL Exceedance
19.0	19.0	19.0	19.0	3.82	3.82	3.82	3.14	3.14	3.14	3.14	# LL Exceedance
6.15	6.12	6.12	6.12	8.34	8.34	8.34	4.34	4.34	4.34	4.34	# LL Exceedance
8.81	8.76	8.76	8.76	9.45	9.45	9.45	8.52	8.52	8.52	8.52	
7.27	7.33	7.33	7.33	9.0	9.0	9.0	8.5	8.5	8.5	8.5	
7.5	7.5	7.5	7.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	

Station: TM-FC2  
 Duration: 16:08 to 16:24  
 Depth of Water (meter): 18.4

Depth (meter)	SURFACE			MIDDLE			BOTTOM			DEPTH AVERAGE	REMARK
	Ave.	Min	Max	Ave.	Min	Max	Ave.	Min	Max		
21.3	21.3	21.3	21.3	21.6	21.6	21.6	21.8	21.8	21.8	21.8	* AL Exceedance
18.9	18.9	18.9	18.9	3.02	3.02	3.02	3.03	3.03	3.03	3.03	# LL Exceedance
6.40	6.36	6.36	6.36	4.17	4.17	4.17	3.73	3.73	3.73	3.73	# LL Exceedance
9.17	9.14	9.14	9.14	8.3	8.3	8.3	7.94	7.94	7.94	7.94	
6.8	6.72	6.72	6.72	8.5	8.5	8.5	8.0	8.0	8.0	8.0	
7.0	6.7	6.7	6.7	8.5	8.5	8.5	8.0	8.0	8.0	8.0	

Parameter	Aciton Level (*)	Limit Level (*)
DO (mg/L)	Surface & Middle: <4.78 mg/L	Bottom: <2.00 mg/L
SS (mg/L) (Depth-averaged)	>120% of the upstream control station's SS at the same tide on the same day	>130% of the upstream control station's SS at the same tide on the same day
Turbidity (NTU) (Depth-averaged)	>120% of the upstream control station's turbidity at the same tide on the same day	>130% of the upstream control station's turbidity at the same tide on the same day
Name	Field Operator	Checked by
Signature	H. T. Chow	Rose Lim
Date	12-9-2006	12/9/06
		Laboratory Staff
		Checked by
		Hinda Lam
		Yada Lam
		14/9/06

**Fill Bank at Tuen Mun Area 38  
Date of Water Quality Impact Monitoring: 14 September 2006**

**Dissolved Oxygen (Middle)**

Monitoring Location	Tide Mode	Measured Value (mg/L)	Action Level (mg/L)	Limit Level (mg/L)	Possible Reason(S) for the Exceedance	Action taken to be taken	Remarks
TM-FC2	Mid-Flood	3.43	4.78	4.16	Exceedance was not due to the operation of the Fill Bank as the monitoring station TM-FC2 was located upstream to the works area.	Nil	Nil
TM-FC1	Mid-Flood	3.33	4.78	4.16	According to the monitoring results, it was found that dissolved oxygen content of the impact stations TM-FC1, TM-FM1 and TM-FM2 was found closed to that of control station TM-FC2. At the same time, no abnormal site activities was observed at the Fill Bank. Therefore, the exceedance might be due to natural fluctuation of dissolved oxygen content in the water body around the area and considered not due to the Fill Bank operation.	Nil	Nil
TM-FM1		3.38					
TM-FM2		3.98					
TM-FC1	Mid-Ebb	3.41	4.78	4.16	Exceedance was not due to the operation of the Fill Bank as the monitoring station TM-FC1 was located upstream to the works area.	Nil	Nil
TM-FC2	Mid-Ebb	3.18	4.78	4.16	According to the monitoring results, it was found that dissolved oxygen content of the impact stations TM-FC2, TM-FM1 and TM-FM2 was found closed to that of control station TM-FC1. At the same time, no abnormal site activities was observed at the Fill Bank. Therefore, the exceedance might be due to natural fluctuation of dissolved oxygen content in the water body around the area and considered not due to the Fill Bank operation.	Nil	Nil
TM-FM1		3.47					
TM-FM2		4.13					

**Dissolved Oxygen (Bottom)**

Monitoring Location	Tide Mode	Measured Value (mg/L)	Action Level (mg/L)	Limit Level (mg/L)	Possible Reason(S) for the Exceedance	Action taken to be taken	Remarks
TM-FC2	Mid-Flood	2.99	4.00	2.00	Exceedance was not due to the operation of the Fill Bank as the monitoring station TM-FC2 was located upstream to the works area.	Nil	Nil
TM-FC1	Mid-Flood	3.15	4.00	2.00	According to the monitoring results, it was found that dissolved oxygen content of the impact stations TM-FC1, TM-FM1 and TM-FM2 was found closed to that of control station TM-FC2. At the same time, no abnormal site activities was observed at the Fill Bank. Therefore, the exceedance might be due to natural fluctuation of dissolved oxygen content in the water body around the area and considered not due to the Fill Bank operation.	Nil	Nil
TM-FM1		3.02					
TM-FM2		3.13					
TM-FC1	Mid-Ebb	3.00	4.00	2.00	Exceedance was not due to the operation of the Fill Bank as the monitoring station TM-FC1 was located upstream to the works area.	Nil	Nil
TM-FC2	Mid-Ebb	2.98	4.00	2.00	According to the monitoring results, it was found that dissolved oxygen content of the impact stations TM-FC2, TM-FM1 and TM-FM2 was found closed to that of control station TM-FC1. At the same time, no abnormal site activities was observed at the Fill Bank. Therefore, the exceedance might be due to natural fluctuation of dissolved oxygen content in the water body around the area and considered not due to the Fill Bank operation.	Nil	Nil
TM-FM1		3.23					
TM-FM2		3.34					

**Attachment**

Marine water monitoring data sheet (14 September 2006)

Prepared by:  (Linda Law)

Date: 19 September 2006

Checked by:  (C. L. Lau)

Date: 19 September 2006

<sup>1</sup> Monitoring Location indicated as: TM-FC represents control stations no 1 and no 2 while TM-FM represents monitoring stations no 1 and no 2. FC1 is the control point at mid-ebb whilst FC2 is the control point at mid-flood.

**Water Quality Monitoring - Data Record Sheet (Tuen Mun Area 38)**

Sampling Date: 14-9-06. Weather Condition: Rainy. Ambient Temperature (°C): 27. Tide status: High Flood. Station: TM-FCI. Duration: 12:15 to 12:25. Depth of Water (meter): 23.6

Depth (meter)	SURFACE			MIDDLE			BOTTOM			DEPTH AVERAGE	REMARK
	Ave.	Ave.	Ave.	Ave.	Ave.	Ave.	Ave.	Ave.	Ave.		
Temp. (°C)	25.4	25.4	24.1	24.0	24.1	23.2	23.2	23.2	23.2	*AL Exceedance	
Salinity (ppt)	18.2	18.3	18.7	18.6	18.7	30.2	30.2	30.3	30.3	#LL Exceedance	
D.O. (mg/L)	6.17	6.22	3.29	3.37	3.33	3.12	3.12	3.18	3.18		
D.O.S. (%)	98.2	98.5	50.0	51.2	50.6	47.4	47.4	48.3	47.9		
Turbidity (NTU)	7.53	7.54	9.12	9.13	9.13	10.1	10.1	10.2	10.2		
S.S. (mg/L)	7.5	7.5	9.3	9.3	9.3	11	11	11	11		

Station: TM-FM1. Duration: 12:38 to 12:49. Depth of Water (meter): 17.2

Depth (meter)	SURFACE			MIDDLE			BOTTOM			DEPTH AVERAGE	REMARK
	Ave.	Ave.	Ave.	Ave.	Ave.	Ave.	Ave.	Ave.	Ave.		
Temp. (°C)	25.8	25.8	24.9	24.8	24.9	23.6	23.6	23.6	23.6	*AL Exceedance	
Salinity (ppt)	14.8	14.9	28.3	28.4	28.4	30.9	30.9	30.9	30.9	#LL Exceedance	
D.O. (mg/L)	6.28	6.24	3.41	3.34	3.38	2.98	2.98	3.06	3.06		
D.O.S. (%)	95.5	94.8	51.2	50.7	51.4	45.3	45.3	45.9	45.9		
Turbidity (NTU)	7.11	7.11	8.92	8.92	8.92	9.93	9.93	9.93	9.93		
S.S. (mg/L)	7.3	7.3	9.0	9.0	9.0	10	10	10	10		

Station: TM-FM2. Duration: 13:50 to 13:50. Depth of Water (meter): 17.4

Depth (meter)	SURFACE			MIDDLE			BOTTOM			DEPTH AVERAGE	REMARK
	Ave.	Ave.	Ave.	Ave.	Ave.	Ave.	Ave.	Ave.	Ave.		
Temp. (°C)	25.1	25.6	24.8	24.8	24.8	23.8	23.8	23.8	23.8	*AL Exceedance	
Salinity (ppt)	15.1	15.1	29.5	29.6	29.6	31.0	31.0	31.1	31.1	#LL Exceedance	
D.O. (mg/L)	6.53	6.46	4.02	3.97	3.98	3.16	3.16	3.13	3.13		
D.O.S. (%)	98.3	98.8	61.1	61.1	60.5	48.0	48.0	47.6	47.6		
Turbidity (NTU)	6.94	6.95	8.74	8.84	8.84	10.6	10.6	10.6	10.6		
S.S. (mg/L)	7.0	7.0	9.0	9.0	9.0	11	11	11	11		

Station: TM-FC2. Duration: 13:15 to 13:30. Depth of Water (meter): 16.0

Depth (meter)	SURFACE			MIDDLE			BOTTOM			DEPTH AVERAGE	REMARK
	Ave.	Ave.	Ave.	Ave.	Ave.	Ave.	Ave.	Ave.	Ave.		
Temp. (°C)	25.7	25.7	25.1	25.1	25.1	24.2	24.2	24.3	24.3	*AL Exceedance	
Salinity (ppt)	15.4	15.5	29.7	29.7	29.7	30.9	30.9	31.0	31.0	#LL Exceedance	
D.O. (mg/L)	6.37	6.27	3.46	3.39	3.43	3.01	3.01	2.97	2.97		
D.O.S. (%)	96.1	96.2	52.6	51.5	52.0	47.6	47.6	45.1	45.1		
Turbidity (NTU)	6.83	6.83	8.10	8.11	8.11	9.38	9.38	9.38	9.38		
S.S. (mg/L)	7.0	7.0	8.2	8.3	8.3	9.5	9.5	9.5	9.5		

Parameter	Action Level (*)	Limit Level (*)
DO (mg/L)	Surface & Middle: <4.78 mg/L	Surface & Middle: <4.16 mg/L
SS (mg/L) (Depth-averaged)	>120% of the upstream control station's SS at the same tide on the same day	>130% of the upstream control station's SS at the same tide on the same day
Turbidity (NTU) (Depth-averaged)	>120% of the upstream control station's turbidity at the same tide on the same day	>130% of the upstream control station's turbidity at the same tide on the same day
Name	Field Operator	Laboratory Staff
Signature	<i>[Signature]</i>	<i>[Signature]</i>
Date	14/9/06	15/9/06
Checked by	Hinda Lam	Hinda Lam

**Water Quality Monitoring - Data Record Sheet (Tuen Mun Area 38)**

Sampling Date: 14/9/06 Weather Condition: Rainy Ambient Temperature (°C): 27 Tide status: Mid-ebb  
 Station: TM-FC1 Duration: 16:40 to 18:50 Depth of Water (meter): 24.0

Depth (meter)	SURFACE			MIDDLE			BOTTOM			DEPTH AVERAGE	REMARK
	Ave.	Ave.	Ave.	Ave.	Ave.	Ave.	Ave.	Ave.	Ave.		
Temp. (°C)	26.2	24.6	24.6	24.6	24.6	23.9	23.9	23.9	23.9	* AL Exceedance	
Salinity (ppt)	16.1	29.3	29.3	29.3	29.3	31.2	31.2	31.2	31.2	# LL Exceedance	
D.O. (mg/L)	6.22	3.45	3.37	3.37	3.37	3.03	2.97	2.97	2.97	* AL Exceedance	
D.O.S. (%)	95.4	52.4	51.2	51.2	51.2	46.1	45.1	45.1	45.1		
Turbidity (NTU)	8.03	9.61	9.62	9.62	9.62	11.0	11.1	11.1	11.1		
S.S. (mg/L)	8.2	9.8	9.7	9.7	9.7	12	12	12	12		

Station: TM-FM1 Duration: 17:00 to 17:12 Depth of Water (meter): 17.4

Depth (meter)	SURFACE			MIDDLE			BOTTOM			DEPTH AVERAGE	REMARK
	Ave.	Ave.	Ave.	Ave.	Ave.	Ave.	Ave.	Ave.	Ave.		
Temp. (°C)	24.9	24.0	24.0	24.0	24.0	23.4	23.4	23.4	23.4	* AL Exceedance	
Salinity (ppt)	16.6	30.1	30.1	30.1	30.1	30.8	30.9	30.9	30.9	# LL Exceedance	
D.O. (mg/L)	6.11	3.51	3.43	3.43	3.43	3.26	3.19	3.19	3.19	* AL Exceedance	
D.O.S. (%)	92.9	53.4	52.1	52.1	52.1	48.5	47.5	47.5	47.5		
Turbidity (NTU)	8.17	8.98	8.98	8.98	8.98	9.73	9.74	9.74	9.74		
S.S. (mg/L)	8.2	9.0	9.0	9.0	9.0	9.7	9.8	9.8	9.8		

Station: TM-FM2 Duration: 17:23 to 17:34 Depth of Water (meter): 17.6

Depth (meter)	SURFACE			MIDDLE			BOTTOM			DEPTH AVERAGE	REMARK
	Ave.	Ave.	Ave.	Ave.	Ave.	Ave.	Ave.	Ave.	Ave.		
Temp. (°C)	26.2	24.2	24.2	24.2	24.2	23.5	23.5	23.5	23.5	* AL Exceedance	
Salinity (ppt)	15.7	29.1	29.2	29.2	29.2	31.0	31.0	31.0	31.0	# LL Exceedance	
D.O. (mg/L)	6.65	4.17	4.08	4.08	4.08	3.38	3.30	3.30	3.30	* AL Exceedance	
D.O.S. (%)	101.9	63.4	62.0	62.0	62.0	51.4	50.2	50.2	50.2		
Turbidity (NTU)	7.38	8.76	8.75	8.75	8.75	8.98	8.97	8.97	8.97		
S.S. (mg/L)	7.5	8.8	8.8	8.8	8.8	9.2	9.3	9.3	9.3		

Station: TM-FC2 Duration: 17:46 to 17:57 Depth of Water (meter): 17.8

Depth (meter)	SURFACE			MIDDLE			BOTTOM			DEPTH AVERAGE	REMARK
	Ave.	Ave.	Ave.	Ave.	Ave.	Ave.	Ave.	Ave.	Ave.		
Temp. (°C)	24.9	24.9	24.9	24.9	24.9	23.6	23.6	23.6	23.6	* AL Exceedance	
Salinity (ppt)	16.1	28.7	28.7	28.7	28.7	30.6	30.7	30.7	30.7	# LL Exceedance	
D.O. (mg/L)	6.13	3.21	3.15	3.15	3.15	2.94	2.94	2.94	2.94	* AL Exceedance	
D.O.S. (%)	93.2	41.8	41.9	41.9	41.9	44.7	45.9	45.9	45.9		
Turbidity (NTU)	6.91	8.72	8.72	8.72	8.72	9.16	9.17	9.17	9.17		
S.S. (mg/L)	7.0	8.8	8.8	8.8	8.8	9.3	9.0	9.0	9.0		

Parameter	Action Level (*)	Limit Level (†)
DO (mg/L)	Surface & Middle: <4.78 mg/L	Surface & Middle: <4.16 mg/L
SS (mg/L) (Depth-averaged)	>120% of the upstream control station's SS at the same tide on the same day	>130% of the upstream control station's SS at the same tide on the same day
Turbidity (NTU) (Depth-averaged)	>120% of the upstream control station's turbidity at the same tide on the same day	>130% of the upstream control station's turbidity at the same tide on the same day
Name	Field Operator	Laboratory Staff
Signature	<u>Kenny Lam</u>	<u>Renee Lam</u>
Date	<u>14/9/06</u>	<u>15/9/06</u>

# Fill Bank at Tuen Mun Area 38

Date of Water Quality Impact Monitoring: 16 September 2006

## Dissolved Oxygen (Middle)

Monitoring Location <sup>1</sup>	Tide Mode	Measured Value (mg/L)	Action Level (mg/L)	Limit Level (mg/L)	Possible Reason(S) for the Exceedance	Action taken to be taken	Remarks
TM-FC1	Mid-Flood	4.75	4.78	4.16	According to the monitoring results, it was found that dissolved oxygen content of the impact stations TM-FC1 and TM-FM1 were found closed to that of control station TM-FC2 (4.87mg/L). At the same time, no abnormal site activities was observed at the Fill Bank. Therefore, the exceedance might be due to natural fluctuation of dissolved oxygen content in the water body around the area and considered not due to the Fill Bank operation.	Nil	Nil
TM-FM1		4.67					
TM-FC1	Mid-Ebb	4.43	4.78	4.16	Exceedance was not due to the operation of the Fill Bank as the monitoring station TM-FC1 was located upstream to the works area.	Nil	Nil
TM-FC2	Mid-Ebb	4.27	4.78	4.16	According to the monitoring results, it was found that dissolved oxygen content of the impact stations TM-FC2, TM-FM1 and TM-FM2 were found closed to that of control station TM-FC1. At the same time, no abnormal site activities was observed at the Fill Bank. Therefore, the exceedance might be due to natural fluctuation of dissolved oxygen content in the water body around the area and considered not due to the Fill Bank operation.	Nil	Nil
TM-FM1		4.36					
TM-FM2		4.55					

## Attachment

Marine water monitoring data sheet (16 September 2006)

Prepared by:  (Linda Law)      Date: **19 September 2006**  
 Checked by:  (C. L. Lau)      Date: **19 September 2006**

<sup>1</sup> Monitoring Location indicated as: TM-FC represents control stations no 1 and no 2 while TM-FM represents monitoring stations no 1 and no 2. FC1 is the control point at mid-ebb whilst FC2 is the control point at mid-flood.

**Water Quality Monitoring - Data Record Sheet (Tuen Mun Area 38)**

Sampling Date: 16/9/06  
 Station: TM-FCI  
 Weather Condition: Partly Cloudy  
 Ambient Temperature (°C): 30  
 Duration: 14:50 to 15:10  
 Tide status: mid-flood  
 Depth of Water (meter): 24.8

Depth (meter)	SURFACE			MIDDLE			BOTTOM			DEPTH AVERAGE	REMARK
	Ave.	Min	Max	Ave.	Min	Max	Ave.	Min	Max		
Temp. (°C)	25.7	25.7	25.7	24.1	24.1	24.1	23.8	23.8	23.8	23.8	
Salinity (ppt)	15.24	15.24	15.24	29.6	29.6	29.6	30.8	30.8	30.8	30.8	
D.O. (mg/L)	6.62	6.54	6.61	4.82	4.79	4.79	4.40	4.40	4.40	4.40	
D.O.S. (%)	100.1	100.1	100.1	72.7	72.3	72.3	66.2	66.2	66.2	66.2	
Turbidity (NTU)	9.16	7.14	9.16	9.79	9.80	9.80	10.2	10.2	10.2	10.2	
S.S. (mg/L)	8.0	8.0	8.0	1.0	1.0	1.0	1.1	1.1	1.1	1.1	

Station: TM-FM1  
 Duration: 14:50 to 15:30  
 Depth of Water (meter): 18.0

Depth (meter)	SURFACE			MIDDLE			BOTTOM			DEPTH AVERAGE	REMARK
	Ave.	Min	Max	Ave.	Min	Max	Ave.	Min	Max		
Temp. (°C)	25.8	25.1	25.8	24.2	24.2	24.2	24.0	24.0	24.0	24.0	
Salinity (ppt)	15.22	15.22	15.22	29.5	29.4	29.5	30.0	30.0	30.0	30.0	
D.O. (mg/L)	6.57	6.54	6.56	4.73	4.73	4.73	4.23	4.20	4.20	4.20	
D.O.S. (%)	99.2	99.2	99.2	72.3	72.3	72.3	64.2	63.8	63.8	63.8	
Turbidity (NTU)	8.14	8.13	8.14	10.4	10.4	10.4	11.0	10.9	10.9	10.9	
S.S. (mg/L)	8.2	8.2	8.2	1.1	1.1	1.1	1.2	1.1	1.1	1.1	

Station: TM-FM2  
 Duration: 14:37 to 15:17  
 Depth of Water (meter): 18.2

Depth (meter)	SURFACE			MIDDLE			BOTTOM			DEPTH AVERAGE	REMARK
	Ave.	Min	Max	Ave.	Min	Max	Ave.	Min	Max		
Temp. (°C)	26.0	26.0	26.0	24.4	24.4	24.4	24.1	24.1	24.1	24.1	
Salinity (ppt)	15.8	15.1	15.8	29.7	29.7	29.7	31.0	31.0	31.0	31.0	
D.O. (mg/L)	6.39	6.36	6.39	4.69	4.65	4.65	4.11	4.11	4.11	4.11	
D.O.S. (%)	97.1	96.8	97.1	70.2	70.2	70.2	63.3	62.9	62.9	62.9	
Turbidity (NTU)	9.27	9.28	9.28	9.34	9.34	9.34	10.2	10.1	10.1	10.1	
S.S. (mg/L)	9.5	9.5	9.5	9.5	9.5	9.5	1.1	1.1	1.1	1.1	

Station: TM-FC2  
 Duration: 15:02 to 15:12  
 Depth of Water (meter): 18.6

Depth (meter)	SURFACE			MIDDLE			BOTTOM			DEPTH AVERAGE	REMARK
	Ave.	Min	Max	Ave.	Min	Max	Ave.	Min	Max		
Temp. (°C)	26.1	26.1	26.1	24.2	24.2	24.2	24.0	24.0	24.0	24.0	
Salinity (ppt)	15.24	15.24	15.24	29.6	29.6	29.6	30.5	30.5	30.5	30.5	
D.O. (mg/L)	6.41	6.41	6.41	4.85	4.81	4.81	4.07	4.07	4.07	4.07	
D.O.S. (%)	97.8	97.4	97.8	73.2	73.2	73.2	60.7	60.7	60.7	60.7	
Turbidity (NTU)	8.58	8.57	8.58	10.4	10.5	10.5	11.2	11.2	11.2	11.2	
S.S. (mg/L)	8.5	8.5	8.5	1.1	1.1	1.1	1.2	1.2	1.2	1.2	

Parameter	Action Level (*)		Limit Level (*)
	Surface & Middle: <4.78 mg/L	Bottom: <4.16 mg/L	
DO (mg/L)	>120% of the upstream control station's SS at the same tide on the same day	>130% of the upstream control station's SS at the same tide on the same day	<2.00 mg/L
SS (mg/L) (Depth-averaged)	>120% of the upstream control station's turbidity at the same tide on the same day	>130% of the upstream control station's turbidity at the same tide on the same day	
Turbidity (NTU) (Depth-averaged)			
Name	Field Operator	Laboratory Staff	Checked by
Signature	Max Yoi Tsai	Renee Lim	First Low Tide Low
Date	16/9/06	18/9/06	19/9/06

**Water Quality Monitoring - Data Record Sheet (Tuen Mun Area 38)**

Sampling Date: 16/9/06 Weather Condition: Partly Cloudy Ambient Temperature (°C): 30 Tide status: High - 8:00  
 Station: TM-FC1 Duration: 8:00 to 8:10 Depth of Water (meter): 27.2

Depth (meter)	SURFACE			MIDDLE			BOTTOM			DEPTH AVERAGE	REMARK
	Ave.	Stdev	Min	Ave.	Stdev	Min	Ave.	Stdev	Min		
1.0	25.6	1.0	23.9	23.4	23.4	23.4	23.2	23.2	23.2		
2.5	14.9	14.9	79.2	29.2	29.2	30.6	30.6	30.6	30.6	* AL Exceedance	
4.0	6.3	6.3	44.5	44.5	44.5	40.4	40.4	40.4	40.4		
6.0	9.1	9.1	68.0	68.0	68.0	61.0	61.0	61.0	61.0		
8.0	8.0	8.0	10.2	10.2	10.2	10.5	10.5	10.5	10.5	9.62	
10.0	8.3	8.3	11	11	11	11	11	11	11	10.1	

Station: TM-FM1 Duration: 8:20 to 8:30 Depth of Water (meter): 17.8

Depth (meter)	SURFACE			MIDDLE			BOTTOM			DEPTH AVERAGE	REMARK
	Ave.	Stdev	Min	Ave.	Stdev	Min	Ave.	Stdev	Min		
1.0	25.8	1.0	24.0	24.0	24.0	23.6	23.6	23.6	23.6		
2.5	14.8	14.8	29.4	29.4	29.4	31.0	31.0	31.0	31.0	* AL Exceedance	
4.0	6.5	6.5	42.3	42.3	42.3	41.1	41.1	41.1	41.1		
6.0	9.9	9.9	66.2	66.2	66.2	62.5	62.5	62.5	62.5		
8.0	7.9	7.9	8.5	8.5	8.5	9.8	9.8	9.8	9.8	8.79	
10.0	8.0	8.0	8.5	8.5	8.5	10	10	10	10	8.8	

Station: TM-FM2 Duration: 8:40 to 8:50 Depth of Water (meter): 17.8

Depth (meter)	SURFACE			MIDDLE			BOTTOM			DEPTH AVERAGE	REMARK
	Ave.	Stdev	Min	Ave.	Stdev	Min	Ave.	Stdev	Min		
1.0	25.9	1.0	23.8	23.8	23.8	23.7	23.7	23.7	23.7		
2.5	14.8	14.8	29.6	29.6	29.6	31.1	31.1	31.1	31.1	* AL Exceedance	
4.0	6.5	6.5	42.3	42.3	42.3	41.1	41.1	41.1	41.1		
6.0	9.9	9.9	66.2	66.2	66.2	62.5	62.5	62.5	62.5		
8.0	7.9	7.9	8.5	8.5	8.5	10.7	10.7	10.7	10.7	8.97	
10.0	8.0	8.0	8.5	8.5	8.5	11	11	11	11	9.2	

Station: TM-FC2 Duration: 9:05 to 9:15 Depth of Water (meter): 18.2

Depth (meter)	SURFACE			MIDDLE			BOTTOM			DEPTH AVERAGE	REMARK
	Ave.	Stdev	Min	Ave.	Stdev	Min	Ave.	Stdev	Min		
1.0	25.8	1.0	24.1	24.1	24.1	23.4	23.4	23.4	23.4		
2.5	15.2	15.2	29.4	29.4	29.4	30.8	30.8	30.8	30.8	* AL Exceedance	
4.0	6.3	6.3	44.5	44.5	44.5	41.5	41.5	41.5	41.5		
6.0	9.1	9.1	68.0	68.0	68.0	62.5	62.5	62.5	62.5		
8.0	8.0	8.0	10.2	10.2	10.2	10.5	10.5	10.5	10.5	8.33	
10.0	8.3	8.3	11	11	11	11	11	11	11	8.53	

Parameter	Surface & Middle: <4.78 mg/L	Action Level (*)	Surface & Middle: <4.16 mg/L	Limit Level (*)
DO (mg/L)	>120% of the upstream control station's SS at the same tide on the same day	>120% of the upstream control station's SS at the same tide on the same day	>130% of the upstream control station's SS at the same tide on the same day	Bottom: <2.00 mg/L
SS (mg/L) (Depth-averaged)	>120% of the upstream control station's turbidity at the same tide on the same day	>120% of the upstream control station's turbidity at the same tide on the same day	>130% of the upstream control station's turbidity at the same tide on the same day	
Turbidity (NTU) (Depth-averaged)				
Name	Field Operator	Checked by	Laboratory Staff	Checked by
Signature	Shab Joo Waa	Loke Lan	Reece Lin	Funder Lam
Date	16/9/06	16/9/06	16/9/06	19/9/06

# Fill Bank at Tuen Mun Area 38

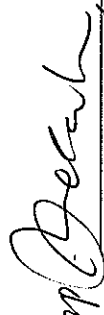
Date of Water Quality Impact Monitoring: 19 September 2006

## Dissolved Oxygen (Middle)

Monitoring Location	Tide Mode	Measured Value (mg/L)	Action Level (mg/L)	Limit Level (mg/L)	Possible Reason(S) for the Exceedance	Action taken to be taken	Remarks
TM-FC2	Mid-Flood	4.48	4.78	4.16	Exceedance was not due to the operation of the Fill Bank as the monitoring station TM-FC2 was located upstream to the works area.	Nil	Nil
TM-FM1	Mid-Flood	4.63	4.78	4.16	According to the monitoring results, it was found that dissolved oxygen content of the impact stations TM-FM1 was found closed to that of control station TM-FC2. At the same time, no abnormal site activities was observed at the Fill Bank. Therefore, the exceedance might be due to natural fluctuation of dissolved oxygen content in the water body around the area and considered not due to the Fill Bank operation.	Nil	Nil

## Attachment

Marine water monitoring data sheet (19 September 2006)

Prepared by:  (Linda Law)

Date: 21 September 2006

Checked by:  (C. L. Lau)

Date: 21 September 2006

<sup>1</sup> Monitoring Location indicated as: TM-FC represents control stations no 1 and no 2 while TM-FM represents monitoring stations no 1 and no 2. FC1 is the control point at mid-ebb whilst FC2 is the control point at mid-flood.



Water Quality Monitoring - Data Record Sheet (Tuen Mun Area 38)

Sampling Date: 19/9/06 Weather Condition: Sunny Ambient Temperature (°C): 28 Tide status: High Flood
Station: TM-FCI Duration: 17:00 to 17:10 Depth of Water (meter): 2.8

Table with columns: Depth (meter), Temp. (°C), Salinity (ppt), D.O. (mg/L), D.O.S. (%), Turbidity (NTU), S.S. (mg/L). Rows for SURFACE, MIDDLE, and BOTTOM measurements.

Table for Station: TM-FM1. Columns: Depth (meter), Temp. (°C), Salinity (ppt), D.O. (mg/L), D.O.S. (%), Turbidity (NTU), S.S. (mg/L). Rows for SURFACE, MIDDLE, and BOTTOM measurements.

Table for Station: TM-FM2. Columns: Depth (meter), Temp. (°C), Salinity (ppt), D.O. (mg/L), D.O.S. (%), Turbidity (NTU), S.S. (mg/L). Rows for SURFACE, MIDDLE, and BOTTOM measurements.

Table for Station: TM-FC2. Columns: Depth (meter), Temp. (°C), Salinity (ppt), D.O. (mg/L), D.O.S. (%), Turbidity (NTU), S.S. (mg/L). Rows for SURFACE, MIDDLE, and BOTTOM measurements.

Summary table with columns: Parameter, Action Level (°), Surface & Middle, Bottom, Limit Level (°). Includes rows for DO, SS, and Turbidity, and a signature section for Field Operator and Laboratory Staff.

**Water Quality Monitoring - Data Record Sheet (Tuen Mun Area 38)**

Sampling Date: 19.9.06 Weather Condition: Sunny Ambient Temperature (°C): 30 Tide status: Mid Ebb

Station: TM-FCI Duration: 10:25-10:55 Depth of Water (meter): 2.2

Depth (meter)	SURFACE			MIDDLE			BOTTOM			DEPTH AVERAGE	REMARK
	Ave.	Stdev	1.0	Ave.	Stdev	12.1	Ave.	Stdev	23.2		
Temp. (°C)	26.7	26.7	26.5	26.5	26.5	26.5	26.5	26.5	26.0	Ave.: 26.0	
Salinity (ppt)	29.1	29.1	29.5	29.5	29.5	29.5	29.5	29.5	29.8	Ave.: 29.8	
D.O. (mg/L)	7.27	7.27	7.47	7.47	7.47	7.47	7.47	7.47	7.58	Ave.: 7.58	
D.O.S. (%)	109.8	109.8	109.0	109.0	109.0	109.0	109.0	109.0	108.8	Ave.: 108.8	
Turbidity (NTU)	7.02	7.02	7.76	7.76	7.76	7.76	7.76	7.76	10.3	Ave.: 10.3	
S.S. (mg/L)	9.3	9.3	1.0	1.0	1.0	1.0	1.0	1.0	11	Ave.: 11	

Station: TM-FM1 Duration: 11:05-11:15 Depth of Water (meter): 12.4

Depth (meter)	SURFACE			MIDDLE			BOTTOM			DEPTH AVERAGE	REMARK
	Ave.	Stdev	1.0	Ave.	Stdev	8.7	Ave.	Stdev	16.5		
Temp. (°C)	26.6	26.6	26.2	26.2	26.2	26.2	26.2	26.2	25.7	Ave.: 25.7	
Salinity (ppt)	29.4	29.4	29.6	29.6	29.6	29.6	29.6	29.6	30.0	Ave.: 30.0	
D.O. (mg/L)	6.85	6.85	7.12	7.12	7.12	7.12	7.12	7.12	7.25	Ave.: 7.25	
D.O.S. (%)	102.8	102.8	103.2	103.2	103.2	103.2	103.2	103.2	104.4	Ave.: 104.4	
Turbidity (NTU)	7.51	7.51	7.72	7.72	7.72	7.72	7.72	7.72	8.48	Ave.: 8.48	
S.S. (mg/L)	7.5	7.5	8.0	8.0	8.0	8.0	8.0	8.0	8.5	Ave.: 8.5	

Station: TM-FM2 Duration: 11:23-11:34 Depth of Water (meter): 17.6

Depth (meter)	SURFACE			MIDDLE			BOTTOM			DEPTH AVERAGE	REMARK
	Ave.	Stdev	1.0	Ave.	Stdev	8.8	Ave.	Stdev	15.6		
Temp. (°C)	26.7	26.7	26.4	26.4	26.4	26.4	26.4	26.4	24.9	Ave.: 24.9	
Salinity (ppt)	29.5	29.5	29.8	29.8	29.8	29.8	29.8	29.8	30.6	Ave.: 30.6	
D.O. (mg/L)	7.04	7.04	7.86	7.86	7.86	7.86	7.86	7.86	8.37	Ave.: 8.37	
D.O.S. (%)	106.4	106.4	105.6	105.6	105.6	105.6	105.6	105.6	106.8	Ave.: 106.8	
Turbidity (NTU)	6.45	6.45	7.89	7.89	7.89	7.89	7.89	7.89	8.40	Ave.: 8.40	
S.S. (mg/L)	6.3	6.3	8.0	8.0	8.0	8.0	8.0	8.5	8.5	Ave.: 8.5	

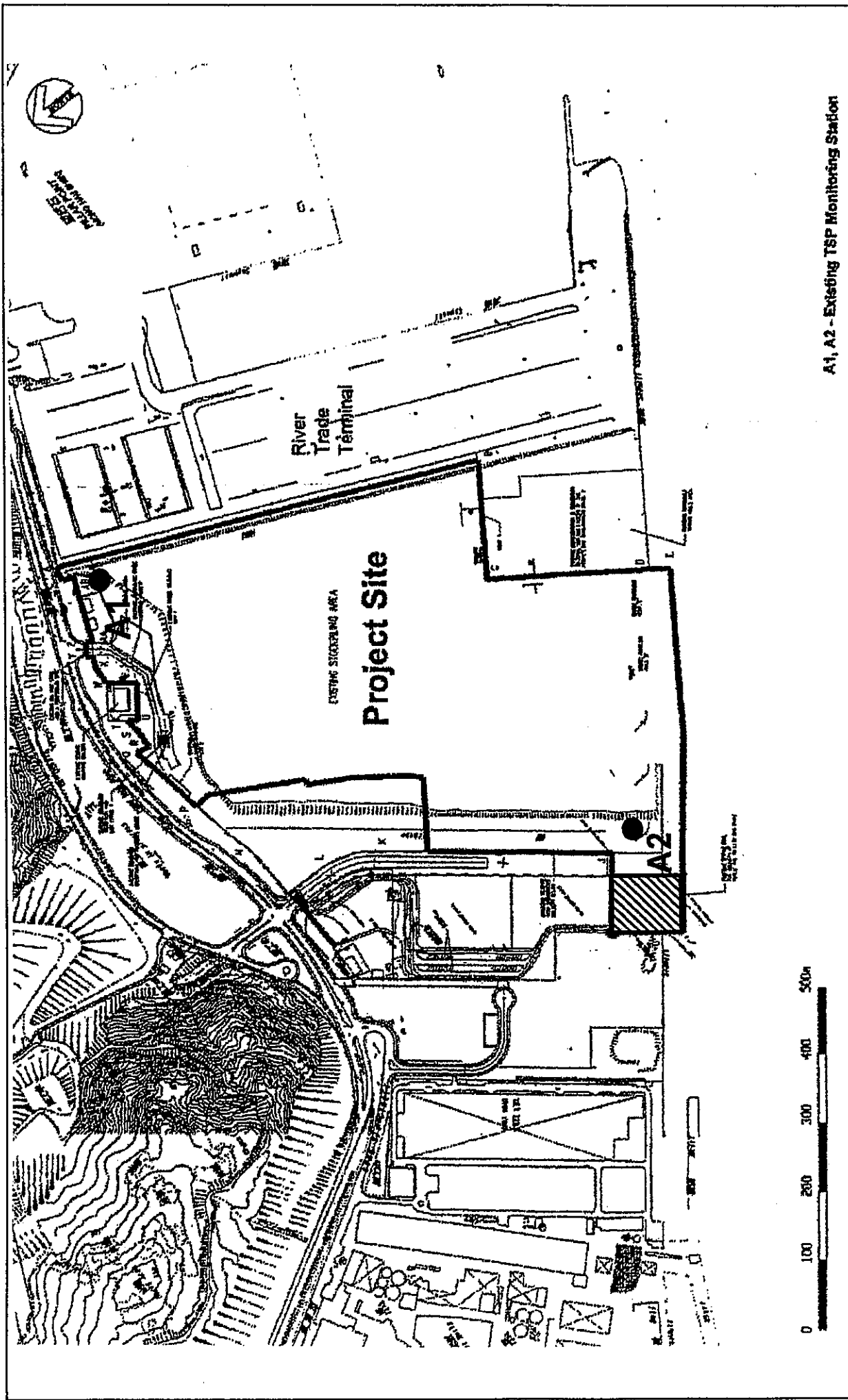
Station: TM-FC2 Duration: 11:50-12:02 Depth of Water (meter): 18.0

Depth (meter)	SURFACE			MIDDLE			BOTTOM			DEPTH AVERAGE	REMARK
	Ave.	Stdev	1.0	Ave.	Stdev	9.0	Ave.	Stdev	17.0		
Temp. (°C)	26.6	26.6	26.1	26.1	26.1	26.1	26.1	26.1	24.8	Ave.: 24.8	
Salinity (ppt)	29.2	29.2	29.6	29.6	29.6	29.6	29.6	29.6	30.4	Ave.: 30.4	
D.O. (mg/L)	6.90	6.90	7.86	7.86	7.86	7.86	7.86	7.86	8.22	Ave.: 8.22	
D.O.S. (%)	103.5	103.5	103.7	103.7	103.7	103.7	103.7	103.7	103.8	Ave.: 103.8	
Turbidity (NTU)	6.34	6.34	8.45	8.45	8.45	8.45	8.45	8.45	9.26	Ave.: 9.26	
S.S. (mg/L)	6.5	6.5	8.5	8.5	8.5	8.5	8.5	8.5	9.5	Ave.: 9.5	


Parameter	Action Level (*)	Limit Level (*)
DO (mg/L)	Surface & Middle: <4.78 mg/L	Surface & Middle: <4.16 mg/L
SS (mg/L) (Depth-averaged)	>120% of the upstream control station's SS at the same tide on the same day	>130% of the upstream control station's SS at the same tide on the same day
Turbidity (NTU) (Depth-averaged)	>120% of the upstream control station's turbidity at the same tide on the same day	>130% of the upstream control station's turbidity at the same tide on the same day
Name	Field Operator	Laboratory Staff
Signature	Bob	Retree Lim
Date	19/9/06	20/9/06
		Checked by: Linda Lam
		Linda Lam
		21/9/06

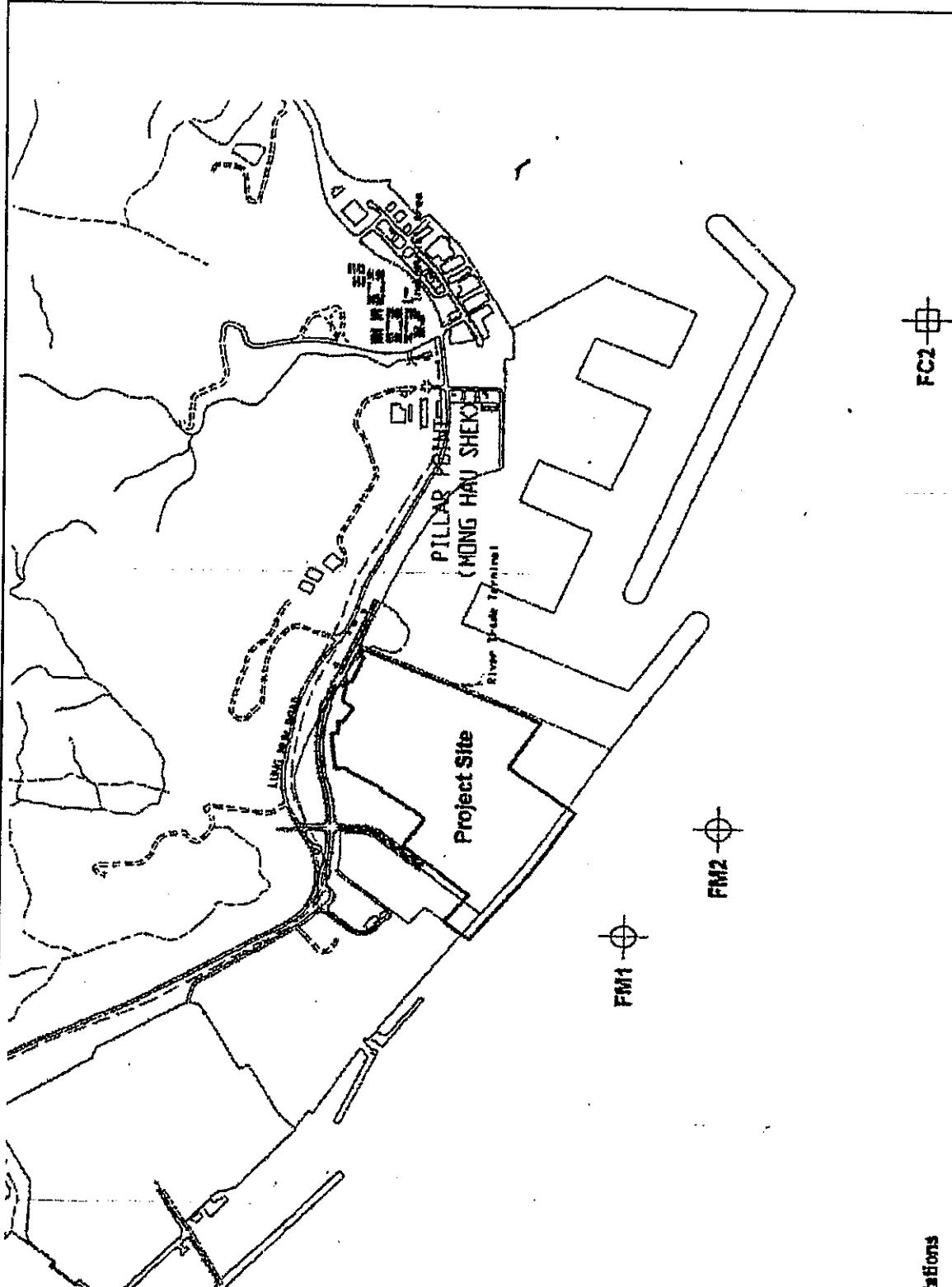


## Figures



A1, A2 - Existing TSP Monitoring Station

CEDD Contract No. CV/2006/02 Operation of Public Fill Reception Facilities at Tuen Mun Area 38, Tseung Kwan O Area 137, Quarry Bay and Mui Wo		Scale : ---  Revised Date : September 2006	 東業德勤測別試顧問有限公司 ETS-TESTCONSULT LIMITED
Figure 2 Air Quality Monitoring Stations - Tuen Mun Area 38			



FM1, FM2 - Impact Monitoring Stations  
 FC1, FC2 - Control Stations

CEDD Contract No. CV/2006/02 Operation of Public Fill Reception Facilities  
 at Tuen Mun Area 38, Tseung Kwan O Area 137, Quarry Bay and Mui Wo

Figure 3 Water Quality Monitoring Stations - Tuen Mun Area 38

Scale : ---

Revised Date :  
 September  
 2006



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