POST-PROJECT MONITORING REPORT

Proposed 132kV Submarine Cable Route for Airport "A" to Castle Peak Power Station Cable Circuit

Post - Project Monitoring Report - 9th February to 15th February 2009

20th February 2009

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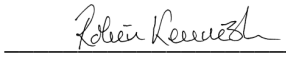
POST-PROJECT MONITORING REPORT

CLP Power

Proposed 132kV Submarine Cable Route for Airport "A" to Castle Peak Power Station Cable Circuit: *Post-Project Monitoring Report – 9th February 2009 – 15th February 2009*

February 2009

Reference 0072833

For and on behalf of ERM-Hong Kong, Limited	
Approved by:	Dr Robin Kennish
Signed:	
Position:	Director
Date:	20 February 2009

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The construction works for the Proposed 132kV Submarine Cable Route for Airport "A" to Castle Peak Power Station Cable Circuit (Application No. *DIR-143/2006*) commenced in November 2007 and completed in February 2009. This is the *Post-Project Environmental Monitoring and Audit (EM&A) Report* presenting the results of the Post-project Monitoring carried out from 9 February to 15 February 2009 in accordance with the EM&A Manual.

Water Quality

Six monitoring events were scheduled between 9 February to 15 February 2009 at the Airport and Tuen Mun landing sites. All monitoring events at all designated monitoring stations were performed on schedule, ie on 9 February, 11 February, and 13 February at the Airport side, and on 10 February, 12 February and 14 February at Tuen Mun side.

In general, the dissolved oxygen, turbidity and suspended solids levels recorded during the reporting week were mostly comparable to the results obtained during the baseline and impact monitoring periods.

No non-compliance events were noted during the impact monitoring period and the reporting week.

No complaint and summons/prosecution was received during the impact monitoring period and the reporting week.

Conclusion

The overall water quality at Tuen Mun side and the Airport side after the completion of the Project was found to be similar to that before the commencement of the Project works.

It is concluded that no deterioration of water quality was observed other than natural fluctuation or seasonal variation and hence the impact of the Project works on the water quality at the Project sites is considered to be negligible.

1 INTRODUCTION

ERM-Hong Kong, Limited (ERM) was appointed by CLP Power (CLP) as the Environmental Team (ET) to implement the Environmental Monitoring and Audit (EM&A) programme for the Proposed 132kV Submarine Cable Route for Airport "A" to Castle Peak Power Station Cable Circuit (thereinafter called the ('Project')).

1.1 PURPOSE OF THE REPORT

This is the *Post-project EM&A Report*, which summarises the Post-project Monitoring results and audit findings for the EM&A programme during the reporting period from 9 February to 15 February 2009. The Post-project Monitoring results are used to compare with the Baseline and Impact Monitoring results in order to investigate the impact of the Project works on the water quality in the vicinity of the Project sites at Tuen Mun and the Airport.

1.2 STRUCTURE OF THE REPORT

The structure of the report is as follows:

Section 1 : ***Introduction***
Details the background, purpose and structure of the report.

Section 2 : ***Project Information***
Summarises background and scope of the project, site description, project organisation and contact details, construction programme, the construction works undertaken and the status of Environmental Permits/Licenses during the reporting period.

Section 3 : ***Environmental Monitoring Requirement***
Summarises the monitoring parameters, monitoring programmes, monitoring methodologies, monitoring frequency, monitoring locations, and environmental mitigation measures as recommended in the EIA report.

Section 4 : ***Implementation Status on Environmental Mitigation Measures***
Summarises the implementation of environmental protection measures during the reporting period.

Section 5 : ***Monitoring Results***
Summarises the monitoring results obtained in the reporting period.

Section 6 : ***Conclusions***
Presents the key findings of the water quality monitoring results.

2 PROJECT INFORMATION

2.1 BACKGROUND

CLP installed a 132 kV submarine cable circuit to connect Castle Peak Power Station and Hong Kong International Airport in order to meet the electricity load growth at the Airport. The project ran from November 2007 to February 2009.

The cable route starts from Tuen Mun and extend southward crossing the Urmston Road to the Airport. The cable landing sites are located to the west of Butterfly Beach, Tuen Mun and at the northern part of the platform of the Airport (see *Figure 2.1*).

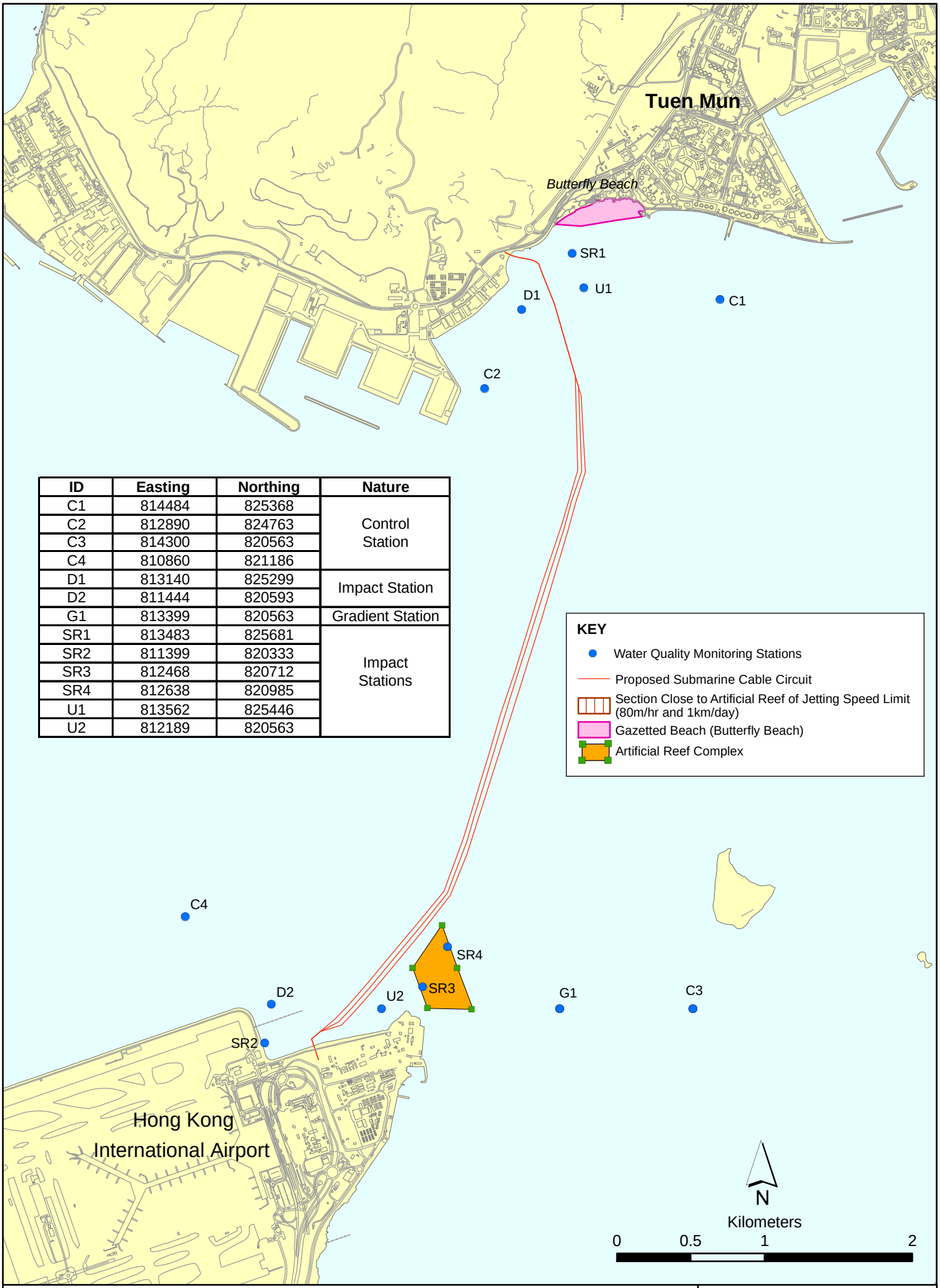
In September 2006, a Project Profile (PP) for the proposed 132kV Cable Route for Airport "A" to Castle Peak CCTS (thereinafter called the 'Project') was prepared and submitted to the Environmental Protection Department (EPD) under the *Environmental Impact Assessment Ordinance (EIAO)* for application for Permission to apply directly for Environmental Permit (EP) (Application No. *DIR-143/2006*).

An Environmental Permit (*EP-267/2007*) for the works was granted on 29 March 2007. Under the requirements of *Condition 2.12* of the EP, an EM&A programme as set out in the *Environmental Monitoring and Audit Manual (EM&A Manual)* is required to be implemented. In accordance with the *EM&A Manual*, impact monitoring of water quality is required for the Project.

Baseline Monitoring was conducted at Tuen Mun landing site between 18 October and 28 October 2007. Through communications with EPD, a silt curtain at the water intake of the Airport should already be in place during the baseline monitoring. EPD hence advised the baseline monitoring (thereinafter called *Baseline Environmental Monitoring Part B*) for the Airport East section of works should be postponed until a silt curtain is ready. The baseline monitoring for Tuen Mun section of the Project and sediment quality testing were hence undertaken first (thereinafter called *Baseline Environmental Monitoring Part A*) and the results were presented in *Part A* of the report which was submitted to EPD.

The silt curtains were installed at the Airport seawater intake on 20 December 2007 and *Baseline Environmental Monitoring Part B* was then carried out between 22 December 2007 and 2 January 2008.

Impact Monitoring was carried out at Tuen Mun landing site from 10 November 2007 to 14 June 2008, and at Airport landing site from 16 January 2008 to 30 May 2008. The marine works of the Project were initially completed on 13 June 2008 and fulfilled the burial requirement specified by the Marine Department (MD) that the cables have been buried to a depth of not less than 3 metres below the existing seabed. Water quality monitoring



ID	Easting	Northing	Nature
C1	814484	825368	Control Station
C2	812890	824763	
C3	814300	820563	
C4	810860	821186	
D1	813140	825299	Impact Station
D2	811444	820593	
G1	813399	820563	Gradient Station
SR1	813483	825681	Impact Stations
SR2	811399	820333	
SR3	812468	820712	
SR4	812638	820985	
U1	813562	825446	
U2	812189	820563	

FIGURE 2.1

Location of Water Quality Monitoring Stations

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Date: 18/02/2009

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was conducted on three days for each landing site during the week of 16 June to 22 June 2008 and then had been suspended since 23 June 2008.

After the completion of the marine works of the Project in June 2008, the Civil Engineering and Development Department (CEDD) requested the Contractor of the Project to install a protection layer such as concrete slabs on top of the buried cables at the shipping channel (ie Urmston Road).

Following the agreement between CLP and CEDD, the marine works of the Project have been resumed on 8 January 2009 for the installation of the concrete slabs at the Urmston Road. In view of the continuation of the marine works, the Impact Water Quality Monitoring has also been resumed on 6 January 2009.

The Contractor confirmed that the marine works of the Project were completed in the week of 2 February 2009. Hence, the Post-project Monitoring was carried out at the Tuen Mun and the Airport landing sites between 9 February and 15 February 2009 in accordance with the requirements of the *EM&A Manual*. This report presents the data obtained from the monitoring stations around the Tuen Mun and the Airport landing sites (*Figure 2.1)*. Results of the Post-project Monitoring are therefore compared with the findings of the *Baseline Environmental Monitoring Part A* and *Part B* as well as the *Impact Monitoring*.

2.2 SITE DESCRIPTION

The 132kV cable is located in-between Tuen Mun and the Hong Kong International Airport. The alignment of the cable is illustrated in *Figure 2.1*.

2.3 PROJECT ORGANISATION

The Project Organisation chart and contact details are shown in *Annex A.*

2.4 STATUS OF ENVIRONMENTAL APPROVAL DOCUMENTS

A summary of the relevant permits, licences, notifications and/or reports on environmental protection for this Project is presented in *Table 2.1*.

Table 2.1 ***Summary of Environmental Licensing, Notification, Permit and Reporting Status***

Permit / Licence / Notification / Report	Reference	Validity Period	Remarks
EM&A Manual	-	Throughout the construction period	submitted on 25 January 2007
Environmental Permit	EP-267/2007	Throughout the construction period	granted on 29 March 2007
Baseline Environmental Monitoring Report (Part A)	-	Throughout the construction period for Tuen Mun Section	approved by EPD on 8 November 2007
Baseline Environmental Monitoring Report (Part B)	-	Throughout the construction period for Airport Section	approved by EPD on 16 January 2008

3 ENVIRONMENTAL MONITORING REQUIREMENT

3.1 MONITORING LOCATIONS

In accordance with the *EM&A Manual*, after the completion of the Project, water quality sampling was undertaken at stations situated around the cable laying works area at Tuen Mun and the Airport. The locations of the Post-project Monitoring stations are same as those for the Baseline Monitoring and Impact Monitoring (*Figure 2.1*).

- C1 and C2 are Control Stations located over 1 km away from the Tuen Mun landing point and hence are not expected to be influenced by the construction works due to their remoteness;
- U1 and D1 are Gradient Stations situated approximately 300 m either side of the cable alignment for monitoring the effect of dredging at the Tuen Mun landing point and for identifying the source of impact; and,
- SR1 is a Sensitive Receiver used to monitor the effect of the construction works on Butterfly Beach.
- C3 and C4 are Control Stations near the Airport, which are not expected to be influenced by the construction works due to their remoteness from the construction works.
- U2 and D2 are Impact Stations located approximately 300 m either from the cable alignment for monitoring the effect of dredging at the Airport landing point.
- SR2 is Impact Station (sensitive receiver) used to monitor the effect of the construction works to the Seawater Intake at the Airport.
- SR3 and SR4 are Impact Stations (sensitive receivers) used to verify the predictions concerning sediment plume dispersion during dredging at the areas close to the Artificial Reef (AR) and at the landing sites.
- G1 is Gradient Station which is situated in between C3 and the AR. It is used to determine the source of pollutants by comparing the monitoring results with those recorded at C3, SR3 and SR4. Since G1 is located between C3 and the construction work alignment, it serves the gradient function with C3 during flood tide, but has no relationship and function with C4 during ebb tide.

The co-ordinates of these monitoring stations are listed in *Table 3.1.*

Table 3.1 Co-ordinates of Water Quality Monitoring Stations (HK Grid)

Station	Nature	Easting	Northing
C1	Control Station	814483	825367
C2	Control Station	812890	824763
C3	Control Station	814300	820563
C4	Control Station	810860	821186
U1	Impact Station	813561	825446
U2	Impact Station	812189	820563
D1	Impact Station	813140	825298
D2	Impact Station	811444	820593
SR1	Impact Station	813483	825681
SR2	Impact Station	811399	820332
SR3	Impact Station	812468	820712
SR4	Impact Station	812638	820985
G1	Gradient Station	813399	820563

3.2 MONITORING PARAMETERS AND FREQUENCY

The Post-project Water Quality Monitoring was conducted in accordance with the requirements stated in the *EM&A Manual*. These are presented below.

3.2.1 Monitoring Parameters

Parameters measured *in situ* were:

- dissolved oxygen (DO) (% saturation and mg L^{-1});
- temperature (°C);
- turbidity (NTU); and
- salinity (‰).

The only parameter measured in the laboratory was:

- suspended solids (SS) (mg L^{-1}).

In addition to the water quality parameters, other relevant data were measured and recorded in field logs, including the location of the sampling stations, water depth, time, weather conditions, sea conditions, tidal state, special phenomena and work activities undertaken around the monitoring and works area that may influence the monitoring results.

3.2.2 Monitoring Frequency

The Post-project Water Quality Monitoring was carried out three times a week. The interval between two sets of monitoring was not less than 36 hours. The monitoring was undertaken at 13 locations (eight impact monitoring stations D1, D2, U1, U2, SR1, SR2, SR3 and SR4, one gradient station G1, and four control monitoring stations C1, C2, C3 and C4), as shown

in *Figure 2.1.* Samples were taken during mid-flood and mid-ebb tidal state on each sampling occasion.

3.3 MONITORING EQUIPMENT AND METHODOLOGY

3.3.1 Monitoring Equipment

Dissolved Oxygen, Temperature, Salinity, Turbidity Measuring Equipment

The instrument was a portable, weatherproof multi-parameter measuring instrument (YSI 6820) complete with cables, multi-probe sensor, comprehensive operation manuals, and was operable from a DC power source. It was capable of measuring:

- dissolved oxygen levels in the range of 0 – 50 mg L^{-1}; and 0-500% saturation;
- temperature of -5 to 50 °C;
- turbidity levels between 0-1000 NTU (response of the sensor was checked with certified standard turbidity solutions before the start of measurement); and,
- salinity in the range of 0-40 ppt (checked with 30 ppt Salinity solutions before the start of the measurement).

Water Depth Gauge

The water depth gauge affixed to the bottom of the water quality monitoring vessel was used.

Current Velocity and Direction

Current velocity and direction was estimated by conducting float tracking.

Positioning Device

A Global Positioning System (GPS) was used (C-Navigator World DGPS, GPS 72A) during monitoring to ensure the accurate recording of the position of the monitoring vessel before taking measurements. The use of DGPS was used for positioning device, which was well calibrated at appropriate checkpoint.

Water Sampling Equipment

Water samples for suspended solids measurement were collected by the use of a multi-bottle water sampling system (General Oceanics Inc., Rosette Sampler ROS02), consisting of PVC bottles of more than two litres, which could be effectively sealed with cups at both ends. The water sampler had a positive latching system to keep it open and prevent premature closure until released by a messenger when the sampler was at the selected water depth.

3.3.2 Monitoring Methodology

Timing & Frequency

The water quality sampling was undertaken within a 3 hour window of 1.5 hours before and 1.5 hours after mid-flood and mid-ebb tides. Tidal range for flood and ebb tides was not less than 0.5 m for capturing representative tides.

Reference was made to the predicted tides at Lok On Pai, which is the tidal station nearest to the Project site, published on the website of Hong Kong Observatory(1). Based on the predicted water levels at Lok On Pai, the impact water quality monitoring was conducted following the schedule presented in *Annex B*.

Duplicate samples were collected from each of the monitoring events for *in situ* measurements and laboratory analysis.

Depths

Each station was sampled and measurements were taken at three depths, 1 m below the sea surface, mid depth and 1m above the sea bed.

Protocols

The multi-parameter measuring instrument (YSI 6820) was checked and calibrated by an HOKLAS accredited laboratory before use. Onsite calibration was also carried out to check the responses of sensors and electrodes using certified standard solutions before each use. Sufficient stocks of spare parts were maintained for replacements when necessary, and backup monitoring equipment was made available.

Water samples for SS measurements were collected in high density polythene bottles, packed in ice (cooled to 4° C without being frozen), and delivered to an HOKLAS accredited laboratory as soon as possible after collection.

Laboratory Analysis

All laboratory work was carried out by an HOKLAS accredited laboratory. Water samples of about 1,000 mL were collected at the monitoring and control stations for carrying out the laboratory determinations. The determination work started within the next working day after collection of the water samples. The analyses followed the standard methods as described in *APHA Standard Methods for the Examination of Water and Wastewater*, 19th Edition, unless otherwise specified (APHA 2540D for SS).

The QA/QC details were in accordance with requirements of HOKLAS or another internationally accredited scheme (for details refer to *Annex C*).

(1) Hong Kong Observatory (2007) http://www.hko.gov.hk/tide/eLOPtide.htm [Accessed on 13 October 2007]

4 IMPLEMENTATION STATUS OF ENVIRONMENTAL MITIGATION MEASURES

4.1 RECOMMENDED MITIGATION MEASURES

Mitigation measures for water quality control have been recommended in the Project Profile and the Environmental Permit. The Contractor is responsible for the design and implementation of the following measures.

During cable laying the following will be undertaken:

- Although the sediment loss during both grab dredging and suction dredging is expected to be quite small, the Contractor will be employing a silt curtain around the dredgers to reduce the dispersion of sediments from the landing points.
- Closed grab dredgers will be used to avoid dispersion of suspended solids into the sea.
- The maximum dredging rate at Tuen Mun shore approach will be limited to 1,500 m^3 day^{-1} for working 10 hours per day, i.e., 150 m^3 hr^{-1}.
- The maximum dredging rates of grab dredgers and suction method, whichever to be deployed by the contractor, at the Airport shore approach will be limited to 650 m^3 day^{-1} and 1,600 m^3 day^{-1} for working 16 hours per day, i.e., 41 m^3 hr^{-1} and 100 m^3 hr^{-1}.
- All barges used for the transport of dredged materials will be fitted with tight bottom seals in order to prevent leakage of material during loading and transport.
- All barges will be filled to a level, to ensure that material does not spill over during loading and transport to the disposal site and that adequate freeboard is maintained to ensure that the decks are not washed by wave action.
- The forward speed of the jetting machine will be limited to a maximum of 80 m hr^{-1} and 24 hours operation.

4.2 IMPLEMENTATION STATUS OF MITIGATION MEASURES

In addition to the regulatory requirements as mentioned in *Section 4.1* above, the Contractor had implemented a precautionary measure for the works undertaken at the inshore area. As a precautionary measure, a silt curtain had been installed at the Airport seawater intake and five silt curtains had been installed at the five AR blocks along the direction facing the cable alignment during cable installation. The silt curtain at the Airport Intake was

removed on 16 June 2008, followed by removal of silt curtains at the artificial reefs from 17 June to 19 June 2008. The photos taken during the removal of the silt curtains at the Airport Intake and the Artificial Reefs are presented in *Annex E*.

The cable laying works undertaken in the vicinity of the ARs were restricted to periods when the tidal current was moving away from the artificial reef towards the works area.

5 MONITORING RESULTS

5.1 POST-PROJECT MONITORING RESULTS

During the post-project monitoring week, six monitoring events were scheduled between 9 February and 15 February 2009 at the Airport and Tuen Mun landing sites. All monitoring events at all designated monitoring stations were performed on schedule, ie on 9 February, 11 February, and 13 February at the Airport side, and on 10 February, 12 February and 14 February at Tuen Mun side.

The post-project monitoring data are presented in *Annex D* and compared with the baseline and impact monitoring results in *Figures D1 -D8*.

In general, the levels of dissolved oxygen, turbidity and suspended solids measured during the reporting week were mostly comparable to those obtained during the baseline and impact monitoring periods. Although high concentrations of turbidity and suspended solids were recorded occasionally during the impact monitoring period, these exceedance incidents had been examined against the construction works in the previous *Weekly Impact Monitoring Reports*. They were considered to be isolated cases and unlikely related to the Project. In addition, persist occurrence of exceedance of turbidity and suspended solids was not seen.

A decreasing trend in dissolved oxygen levels was detected at all the impact and control stations during the period from March 2008 to June 2008. However, the DO levels recorded at all the impact stations were in similar magnitude to those measured at the control and gradient stations. As discussed in the past *Weekly Impact Monitoring Reports*, seasonal variation or natural fluctuation may account for the declining DO trends.

No non-compliance events were noted during the impact monitoring period and the reporting week.

No complaint and summons/prosecution was received during the impact monitoring period and the reporting week.

This *Post-Project Monitoring Report* presents the EM&A works undertaken from 9 February to 15 February 2009 in accordance with the EM&A Manual and the requirements under *EP-267/2007*.

The overall water quality at Tuen Mun side and the Airport side after the completion of the Project was found to be similar to that before the commencement of the Project works.

Nevertheless, a number of exceedances were noted throughout the construction period but these exceedance incidents were not associated with the Project works due to the following:

- Exceedances of DO, turbidity and/or suspended solids (SS) occurred even when no marine works were undertaken or the works would not cause disturbance to the seabed such as installation of the concrete slabs. During the other days, the operations undertaken by the Contractor were checked and audited by both CLP and the ET and no environmental non-compliances were observed.

- Repeating exceedances of DO were observed during the past four months. As discussed in the weekly reports, DO levels at all the monitoring stations at both Tuen Mun and Airport sides have started to decrease since the end of Week 15 (ie 3 to 9 March 2008). The decreasing trend of DO levels continued in the following weeks. It was observed that even at the control stations, which were considered to be unlikely affected by the Project works, DO concentrations recorded at both Tuen Mun and the Airport side dropped below the Action Levels. Exceedances of DO were observed at both the control and the impact stations located either upstream or downstream of the project site.

- The ET has examined the trend of DO levels with cross-reference to the EPD routine monitoring data recorded at Station NM3 (refer to Section 5 of the weekly reports). EPD routine monitoring data show that DO level is typically at the highest during January and February and at the lowest at June, July and August throughout the years 1998 – 2006. In between February and June, a decreasing trend is observed.

- The baseline monitoring data of DO for this Project were measured at the Tuen Mun side in late October 2007 and at the Airport side in late December 2007 to early January 2008. The baseline data were used to set the Action and Limit Levels. In line with EPD routine monitoring data, the baseline data were generally higher than the impact monitoring data measured in March to June 2008. This observation could be explained by the stratification in the water column which typically occurs during the summer time between March and September.

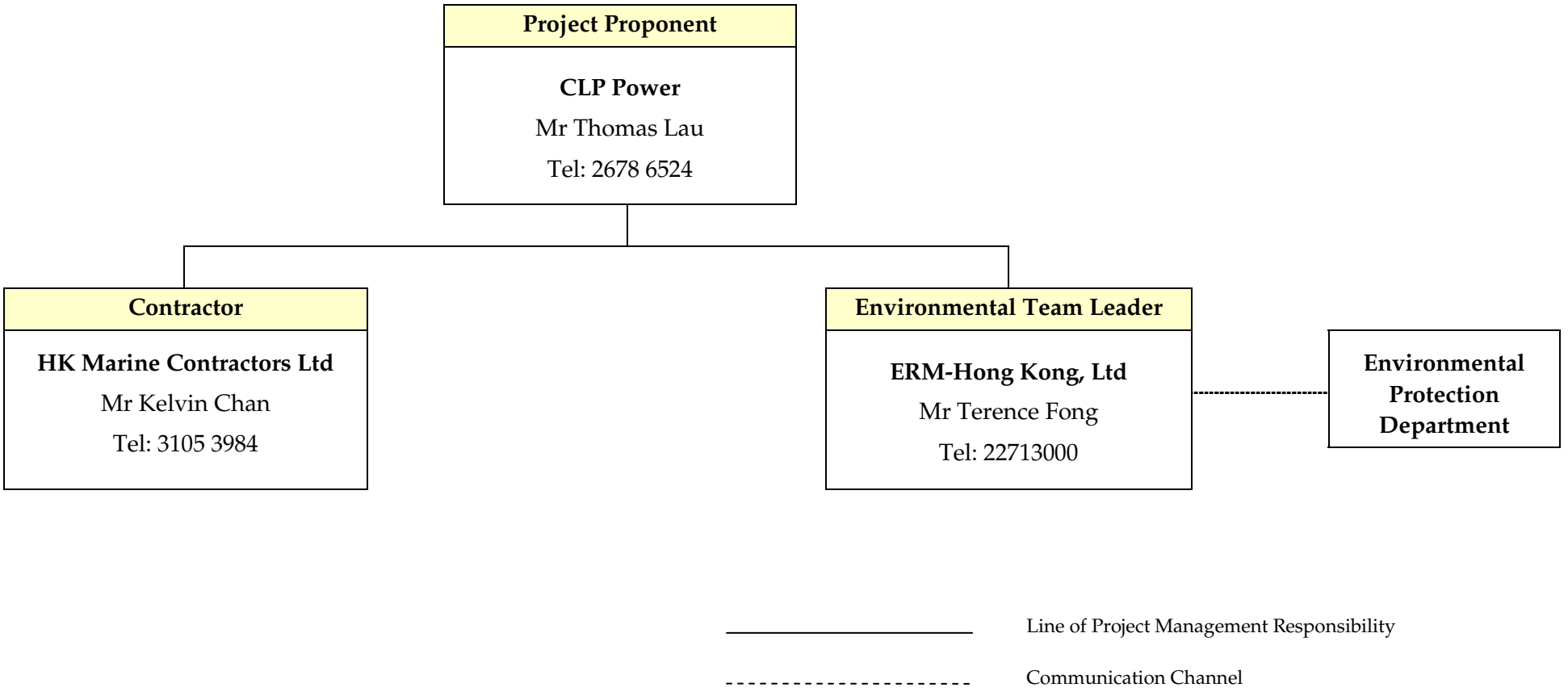
- Should the marine works cause any disturbance to the seabed resulting in the DO depletion, the SS or turbidity levels measured during the same monitoring event are expected to be high. However, no persistent trend of exceeding the Action / Limit Levels of suspended solids and turbidity was observed during the past four months. This indicates that the DO exceedances were unlikely related to the marine works of the Project.

Based on the above, the water quality in the vicinity of the Project area was likely to be susceptible to the local interference and seasonal fluctuation. It is concluded that no deterioration of water quality was observed and hence the impact of the Project works on the water quality at the Project sites is considered to be negligible.

Annex A

Project Organisation Chart (with Contact Details)

ANNEX A - PROJECT ORGANIZATION (WITH CONTACT DETAILS)



Annex B

Post-Project Monitoring Schedule

Proposed 132kV Submarine Cable Route for Airport "A" to Castle Peak Power Station Cable Circuit
Water Quality Monitoring Schedule at Tuen Mun and Airport landing site - February 2009

Reference Tidal Station: Lok On Pai (source: HK Observatory Department) as of 22 January 2009

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
1-Feb	2-Feb	3-Feb	4-Feb	5-Feb	6-Feb	7-Feb
	No marine works were carried out at both the Tuen Mun and Airport sides and hence no impact water quality monitoring					
8-Feb	9-Feb	10-Feb	11-Feb	12-Feb	13-Feb	14-Feb
	Mid-Ebb 12:58 Mid-Flood 18:20 *Post-project Monitoring (Airport)*	Mid-Flood 8:12 Mid-Ebb 13:38 *Post-project Monitoring (Tuen Mun)*	Mid-Flood 8:42 Mid-Ebb 14:15 *Post-project Monitoring (Airport)*	Mid-Flood 9:09 Mid-Ebb 14:50 *Post-project Monitoring (Tuen Mun)*	Mid-Ebb 9:32 Mid-Flood 15:24 *Post-project Monitoring (Airport)*	Mid-Flood 9:54 Mid-Ebb 16:03 *Post-project Monitoring (Tuen Mun)*
15-Feb	16-Feb	17-Feb	18-Feb	19-Feb	20-Feb	21-Feb
22-Feb	23-Feb	24-Feb	25-Feb	26-Feb	27-Feb	28-Feb

Annex C

QA/QC Results of Laboratory Testing for Suspended Solids

CERTIFICATE OF ANALYSIS

Client	: ERM HONG KONG	Laboratory	: ALS Technichem HK Pty Ltd	Page	: 1 of 9		
Contact	: MS JOANNA KWAN	Contact	: Wong Wai Man, Alice	Work Order	: HK0902263		
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Project	: EM&A FOR THE PROPOSED 132kV SUBMARINE CABLE ROUTE FOR AIRPORT "A" TO CASTLE PEAK CCTS	Quote number	: ----	Date received	: 10-FEB-2009		
Order number	: ----			Date of issue	: 11-FEB-2009		
C-O-C number	: ----			No. of samples	- Received	:	96
Site	: ----				- Analysed	:	96

Report Comments

This report for ALS Technichem (HK) Pty Ltd work order reference HK0902263 supersedes any previous reports with this reference. The completion date of analysis is 10-FEB-2009. Results apply to sample(s) as submitted. All pages of this report have been checked and approved for release. When date(s) and/or time(s) are shown bracketed, these have been assumed by the laboratory for process purposes. Abbreviations: CAS number = Chemical Abstract Services number. LOR = Limit of reporting.

Specific comments for Work Order HK0902263 : **Sample(s) were received in a chilled condition.**
Water sample(s) analysed and reported on an as received basis.

This document has been electronically signed by those names that appear on this report and are the authorised signatories. Electronic signing has been carried out in compliance with procedures specified in the 'Electronic Transactions Ordinance' of Hong Kong, Chapter 553, Section 6.

Signatory	Position	Authorised results for:-
Fung Lim Chee, Richard	**General Manager**	**Inorganics**

Laboratory Duplicate (DUP) Report

Matrix: **WATER**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report				
				LOR	Unit	Original Result	Duplicate Result	RPD (%)
EA/ED: Physical and Aggregate Properties (QC Lot: 886731)								
HK0902263-001	2009/02/09/1357/C4/B/E/ REPL.1	EA025: Suspended Solids (SS)	----	1	mg/L	64	60	6.0
HK0902263-011	2009/02/09/1317/SR3/M/E/ REPL.2	EA025: Suspended Solids (SS)	----	1	mg/L	16	16	0.0
EA/ED: Physical and Aggregate Properties (QC Lot: 886732)								
HK0902263-021	2009/02/09/1344/D2/T/E/ REPL.1	EA025: Suspended Solids (SS)	----	1	mg/L	37	35	5.8
HK0902263-031	2009/02/09/1301/SR4/B/E/ REPL.1	EA025: Suspended Solids (SS)	----	1	mg/L	10	10	0.0
EA/ED: Physical and Aggregate Properties (QC Lot: 886733)								
HK0902263-041	2009/02/09/1253/G1/M/E/ REPL.2	EA025: Suspended Solids (SS)	----	1	mg/L	13	12	12.7
HK0902263-051	2009/02/09/1845/C4/T/F/ REPL.1	EA025: Suspended Solids (SS)	----	1	mg/L	14	16	15.5
EA/ED: Physical and Aggregate Properties (QC Lot: 886734)								
HK0902263-061	2009/02/09/1812/U2/B/F/ REPL.1	EA025: Suspended Solids (SS)	----	1	mg/L	26	28	5.0
HK0902263-071	2009/02/09/1837/D2/M/F/ REPL.2	EA025: Suspended Solids (SS)	----	1	mg/L	32	31	3.7
EA/ED: Physical and Aggregate Properties (QC Lot: 886735)								
HK0902263-081	2009/02/09/1745/SR4/T/F/ REPL.1	EA025: Suspended Solids (SS)	----	1	mg/L	11	12	0.0
HK0902263-091	2009/02/09/1823/SR2/B/F/ REPL.1	EA025: Suspended Solids (SS)	----	1	mg/L	17	17	0.0

Method Blank (MB), Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report

Matrix: **WATER**

Method: Compound	CAS Number	Method Blank (MB) Report			Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report						
					Spike	Spike Recovery (%)		Recovery Limits (%)		RPDs (%)	
		LOR	Unit	Result	Concentration	LCS	DCS	Low	High	Value	Control Limit
EA/ED: Physical and Aggregate Properties (QCLot: 886731)											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	91.5	----	85	115	----	----
EA/ED: Physical and Aggregate Properties (QCLot: 886732)											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	100	----	85	115	----	----
EA/ED: Physical and Aggregate Properties (QCLot: 886733)											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	105	----	85	115	----	----
EA/ED: Physical and Aggregate Properties (QCLot: 886734)											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	102	----	85	115	----	----
EA/ED: Physical and Aggregate Properties (QCLot: 886735)											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	100	----	85	115	----	----

CERTIFICATE OF ANALYSIS

Client	: **ERM HONG KONG**	*Laboratory*	: **ALS Technichem HK Pty Ltd**	*Page*	: **1 of 6**		
Contact	: **MS JOANNA KWAN**	*Contact*	: **Wong Wai Man, Alice**	*Work Order*	: **HK0902304**		
Address	: **21/F, LINCOLN HOUSE, 979 KING`S ROAD, TAIKOO PLACE, ISLAND EAST, QUARRY BAY, HONG KONG**	*Address*	: **11/F., Chung Shun Knitting Centre, 1 - 3 Wing Yip Street, Kwai Chung, N.T., Hong Kong**				
E-mail	: **Joanna.kwan@erm.com**	*E-mail*	: **Alice.Wong@alsenviro.com**				
Telephone	: **+852 2271 3000**	*Telephone*	: **+852 2610 1044**				
Facsimile	: **+852 2723 5660**	*Facsimile*	: **+852 2610 2021**				
Project	: **EM&A FOR THE PROPOSED 132kV SUBMARINE CABLE ROUTE FOR AIRPORT "A" TO CASTLE PEAK CCTS**	*Quote number*	: **----**	*Date received*	: **10-FEB-2009**		
Order number	: **----**			*Date of issue*	: **12-FEB-2009**		
C-O-C number	: **----**			*No. of samples*	- *Received* : **60**		
Site	: **----**				- *Analysed* : **60**		

Report Comments

This report for ALS Technichem (HK) Pty Ltd work order reference HK0902304 supersedes any previous reports with this reference. The completion date of analysis is 11-FEB-2009. Results apply to sample(s) as submitted. All pages of this report have been checked and approved for release. When date(s) and/or time(s) are shown bracketed, these have been assumed by the laboratory for process purposes. Abbreviations: CAS number = Chemical Abstract Services number. LOR = Limit of reporting.

Specific comments for Work Order HK0902304 : **Sample(s) were received in a chilled condition.**
Water sample(s) analysed and reported on an as received basis.

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Signatory	*Position*	*Authorised results for:-*
Fung Lim Chee, Richard	**General Manager**	**Inorganics**

Laboratory Duplicate (DUP) Report

Matrix: **WATER**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report				
				LOR	Unit	Original Result	Duplicate Result	RPD (%)
EA/ED: Physical and Aggregate Properties (QC Lot: 888042)								
HK0902304-001	2009/02/10/1331/C1/B/E/ REPL.1	EA025: Suspended Solids (SS)	----	1	mg/L	10	11	0.0
HK0902304-011	2009/02/10/1400/SR1/M/E/ REPL.2	EA025: Suspended Solids (SS)	----	1	mg/L	10	9	15.3
EA/ED: Physical and Aggregate Properties (QC Lot: 888043)								
HK0902304-021	2009/02/10/1409/D1/T/E/ REPL.1	EA025: Suspended Solids (SS)	----	1	mg/L	10	11	0.0
HK0902304-031	2009/02/10/0814/C1/B/F/ REPL.1	EA025: Suspended Solids (SS)	----	1	mg/L	17	18	0.0
EA/ED: Physical and Aggregate Properties (QC Lot: 888044)								
HK0902304-041	2009/02/10/0844/SR1/M/F/ REPL.2	EA025: Suspended Solids (SS)	----	1	mg/L	16	17	0.0
HK0902304-051	2009/02/10/0856/D1/T/F/ REPL.1	EA025: Suspended Solids (SS)	----	1	mg/L	9	9	0.0

Method Blank (MB), Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report

Matrix: **WATER**

Method: Compound	CAS Number	Method Blank (MB) Report			Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report						
					Spike	Spike Recovery (%)		Recovery Limits (%)		RPDs (%)	
		LOR	Unit	Result	Concentration	LCS	DCS	Low	High	Value	Control Limit
EA/ED: Physical and Aggregate Properties (QCLot: 888042)											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	101	----	85	115	----	----
EA/ED: Physical and Aggregate Properties (QCLot: 888043)											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	101	----	85	115	----	----
EA/ED: Physical and Aggregate Properties (QCLot: 888044)											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	112	----	85	115	----	----

Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report

- **No Matrix Spike (MS) or Matrix Spike Duplicate (MSD) Results are required to be reported.**

CERTIFICATE OF ANALYSIS

Client	: **ERM HONG KONG**	*Laboratory*	: **ALS Technichem HK Pty Ltd**	*Page*	: **1 of 9**		
Contact	: **MS JOANNA KWAN**	*Contact*	: **Wong Wai Man, Alice**	*Work Order*	: **HK0902551**		
Address	: **21/F, LINCOLN HOUSE, 979 KING`S ROAD, TAIKOO PLACE, ISLAND EAST, QUARRY BAY, HONG KONG**	*Address*	: **11/F., Chung Shun Knitting Centre, 1 - 3 Wing Yip Street, Kwai Chung, N.T., Hong Kong**				
E-mail	: **Joanna.kwan@erm.com**	*E-mail*	: **Alice.Wong@alsenviro.com**				
Telephone	: **+852 2271 3000**	*Telephone*	: **+852 2610 1044**				
Facsimile	: **+852 2723 5660**	*Facsimile*	: **+852 2610 2021**				
Project	: **EM&A FOR THE PROPOSED 132kV SUBMARINE CABLE ROUTE FOR AIRPORT "A" TO CASTLE PEAK CCTS**	*Quote number*	: **----**	*Date received*	: **12-FEB-2009**		
Order number	: **----**			*Date of issue*	: **16-FEB-2009**		
C-O-C number	: **----**			*No. of samples*	- *Received* : **96**		
Site	: **----**				- *Analysed* : **96**		

Report Comments

This report for ALS Technichem (HK) Pty Ltd work order reference HK0902551 supersedes any previous reports with this reference. The completion date of analysis is 13-FEB-2009. Results apply to sample(s) as submitted. All pages of this report have been checked and approved for release. When date(s) and/or time(s) are shown bracketed, these have been assumed by the laboratory for process purposes. Abbreviations: CAS number = Chemical Abstract Services number. LOR = Limit of reporting.

Specific comments for Work Order HK0902551 : **Sample(s) were received in a chilled condition.**
Water sample(s) analysed and reported on an as received basis.

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Signatory	*Position*	*Authorised results for:-*
Fung Lim Chee, Richard	**General Manager**	**Inorganics**

Laboratory Duplicate (DUP) Report

Matrix: **WATER**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report				
				LOR	Unit	Original Result	Duplicate Result	RPD (%)
EA/ED: Physical and Aggregate Properties (QC Lot: 890692)								
HK0902551-001	2009/02/11/1442/C4/B/E/ REPL.1	EA025: Suspended Solids (SS)	----	1	mg/L	26	26	0.0
HK0902551-011	2009/02/11/1400/SR3/M/E/ REPL.2	EA025: Suspended Solids (SS)	----	1	mg/L	15	15	0.0
EA/ED: Physical and Aggregate Properties (QC Lot: 890693)								
HK0902551-021	2009/02/11/1428/D2/T/E/ REPL.1	EA025: Suspended Solids (SS)	----	1	mg/L	28	26	0.0
HK0902551-031	2009/02/11/1346/SR4/B/E/ REPL.1	EA025: Suspended Solids (SS)	----	1	mg/L	12	12	0.0
EA/ED: Physical and Aggregate Properties (QC Lot: 890697)								
HK0902551-041	2009/02/11/1339/G1/M/E/ REPL.2	EA025: Suspended Solids (SS)	----	1	mg/L	9	9	0.0
HK0902551-052	2009/02/11/0956/C4/B/F/ REPL.2	EA025: Suspended Solids (SS)	----	1	mg/L	30	31	4.3
EA/ED: Physical and Aggregate Properties (QC Lot: 890698)								
HK0902551-061	2009/02/11/0916/U2/B/F/ REPL.1	EA025: Suspended Solids (SS)	----	1	mg/L	26	24	7.3
HK0902551-071	2009/02/11/0946/D2/M/F/ REPL.2	EA025: Suspended Solids (SS)	----	1	mg/L	20	21	0.0
EA/ED: Physical and Aggregate Properties (QC Lot: 890699)								
HK0902551-081	2009/02/11/0857/SR4/T/F/ REPL.1	EA025: Suspended Solids (SS)	----	1	mg/L	12	12	0.0
HK0902551-091	2009/02/11/0932/SR2/B/F/ REPL.1	EA025: Suspended Solids (SS)	----	1	mg/L	23	23	0.0

Method Blank (MB), Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report

Matrix: **WATER**

Method: Compound	CAS Number	Method Blank (MB) Report			Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report						
					Spike	Spike Recovery (%)		Recovery Limits (%)		RPDs (%)	
		LOR	Unit	Result	Concentration	LCS	DCS	Low	High	Value	Control Limit
EA/ED: Physical and Aggregate Properties (QCLot: 890692)											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	95.0	----	85	115	----	----
EA/ED: Physical and Aggregate Properties (QCLot: 890693)											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	98.0	----	85	115	----	----
EA/ED: Physical and Aggregate Properties (QCLot: 890697)											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	109	----	85	115	----	----
EA/ED: Physical and Aggregate Properties (QCLot: 890698)											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	97.0	----	85	115	----	----
EA/ED: Physical and Aggregate Properties (QCLot: 890699)											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	92.5	----	85	115	----	----

ALS Technichem (HK) Pty Ltd

ALS Laboratory Group
ANALYTICAL CHEMISTRY & TESTING SERVICES

CERTIFICATE OF ANALYSIS

Client	: **ERM HONG KONG**	*Laboratory*	: **ALS Technichem HK Pty Ltd**	*Page*	: **1 of 6**		
Contact	: **MS JOANNA KWAN**	*Contact*	: **Wong Wai Man, Alice**	*Work Order*	: **HK0902605**		
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E-mail	: **Joanna.kwan@erm.com**	*E-mail*	: **Alice.Wong@alsenviro.com**				
Telephone	: **+852 2271 3000**	*Telephone*	: **+852 2610 1044**				
Facsimile	: **+852 2723 5660**	*Facsimile*	: **+852 2610 2021**				
Project	: **EM&A FOR THE PROPOSED 132kV SUBMARINE CABLE ROUTE FOR AIRPORT "A" TO CASTLE PEAK CCTS**	*Quote number*	: **----**	*Date received*	: **12-FEB-2009**		
Order number	: **----**			*Date of issue*	: **16-FEB-2009**		
C-O-C number	: **----**			*No. of samples*	- *Received* : **60**		
Site	: **----**				- *Analysed* : **60**		

Report Comments

This report for ALS Technichem (HK) Pty Ltd work order reference HK0902605 supersedes any previous reports with this reference. The completion date of analysis is 13-FEB-2009. Results apply to sample(s) as submitted. All pages of this report have been checked and approved for release. When date(s) and/or time(s) are shown bracketed, these have been assumed by the laboratory for process purposes. Abbreviations: CAS number = Chemical Abstract Services number. LOR = Limit of reporting.

Specific comments for Work Order HK0902605 : **Sample(s) were received in a chilled condition.**
Water sample(s) analysed and reported on an as received basis.

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Signatory	*Position*	*Authorised results for:-*
Fung Lim Chee, Richard	**General Manager**	**Inorganics**

Laboratory Duplicate (DUP) Report

Matrix: **WATER**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report				
				LOR	Unit	Original Result	Duplicate Result	RPD (%)
EA/ED: Physical and Aggregate Properties (QC Lot: 891152)								
HK0902605-001	2009/02/12/1450/C1/B/E/ REPL. 1	EA025: Suspended Solids (SS)	----	1	mg/L	11	12	11.1
HK0902605-011	2009/02/12/1517/SR1/M/E/ REPL. 2	EA025: Suspended Solids (SS)	----	1	mg/L	9	8	0.0
EA/ED: Physical and Aggregate Properties (QC Lot: 891153)								
HK0902605-021	2009/02/12/1526/D1/T/E/ REPL. 1	EA025: Suspended Solids (SS)	----	1	mg/L	11	10	0.0
HK0902605-031	2009/02/12/0900/C1/B/F/ REPL. 1	EA025: Suspended Solids (SS)	----	1	mg/L	16	15	0.0
EA/ED: Physical and Aggregate Properties (QC Lot: 891154)								
HK0902605-041	2009/02/12/0926/SR1/M/F/ REPL. 2	EA025: Suspended Solids (SS)	----	1	mg/L	13	12	8.6
HK0902605-051	2009/02/12/0939/D1/T/F/ REPL. 1	EA025: Suspended Solids (SS)	----	1	mg/L	8	9	0.0

Method Blank (MB), Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report

Matrix: **WATER**

Method: Compound	CAS Number	Method Blank (MB) Report			Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report						
					Spike	Spike Recovery (%)		Recovery Limits (%)		RPDs (%)	
		LOR	Unit	Result	Concentration	LCS	DCS	Low	High	Value	Control Limit
EA/ED: Physical and Aggregate Properties (QCLot: 891152)											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	90.0	----	85	115	----	----
EA/ED: Physical and Aggregate Properties (QCLot: 891153)											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	105	----	85	115	----	----
EA/ED: Physical and Aggregate Properties (QCLot: 891154)											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	108	----	85	115	----	----

Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report

- **No Matrix Spike (MS) or Matrix Spike Duplicate (MSD) Results are required to be reported.**

CERTIFICATE OF ANALYSIS

Client	: ERM HONG KONG	Laboratory	: ALS Technichem HK Pty Ltd	Page	: 1 of 9		
Contact	: MS JOANNA KWAN	Contact	: Wong Wai Man, Alice	Work Order	: HK0902739		
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E-mail	: Joanna.kwan@erm.com	E-mail	: Alice.Wong@alsenviro.com				
Telephone	: +852 2271 3000	Telephone	: +852 2610 1044				
Facsimile	: +852 2723 5660	Facsimile	: +852 2610 2021				
Project	: EM&A FOR THE PROPOSED 132kV SUBMARINE CABLE ROUTE FOR AIRPORT "A" TO CASTLE PEAK CCTS	Quote number	: ----	Date received	: 13-FEB-2009		
Order number	: ----			Date of issue	: 19-FEB-2009		
C-O-C number	: ----			No. of samples	- Received	:	96
Site	: ----				- Analysed	:	96

Report Comments

This report for ALS Technichem (HK) Pty Ltd work order reference HK0902739 supersedes any previous reports with this reference. The completion date of analysis is 17-FEB-2009. Results apply to sample(s) as submitted. All pages of this report have been checked and approved for release. When date(s) and/or time(s) are shown bracketed, these have been assumed by the laboratory for process purposes. Abbreviations: CAS number = Chemical Abstract Services number. LOR = Limit of reporting.

Specific comments for Work Order HK0902739 : **Sample(s) were received in a chilled condition.**
Water sample(s) analysed and reported on an as received basis.

This document has been electronically signed by those names that appear on this report and are the authorised signatories. Electronic signing has been carried out in compliance with procedures specified in the 'Electronic Transactions Ordinance' of Hong Kong, Chapter 553, Section 6.

Signatory	Position	Authorised results for:-
Fung Lim Chee, Richard	**General Manager**	**Inorganics**

Laboratory Duplicate (DUP) Report

Matrix: **WATER**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report				
				LOR	Unit	Original Result	Duplicate Result	RPD (%)
EA/ED: Physical and Aggregate Properties (QC Lot: 893896)								
HK0902739-001	2009/02/13/1037/C4/B/E/ REPL.1	EA025: Suspended Solids (SS)	----	1	mg/L	30	31	3.3
HK0902739-011	2009/02/13/0959/SR3/M/E/ REPL.2	EA025: Suspended Solids (SS)	----	1	mg/L	14	14	0.0
EA/ED: Physical and Aggregate Properties (QC Lot: 893897)								
HK0902739-021	2009/02/13/1028/D2/T/E/ REPL.1	EA025: Suspended Solids (SS)	----	1	mg/L	16	15	0.0
HK0902739-031	2009/02/13/0944/SR4/B/E/ REPL.1	EA025: Suspended Solids (SS)	----	1	mg/L	35	37	4.5
EA/ED: Physical and Aggregate Properties (QC Lot: 893898)								
HK0902739-041	2009/02/13/1103/G1/M/E/ REPL.2	EA025: Suspended Solids (SS)	----	1	mg/L	13	12	15.8
HK0902739-051	2009/02/13/1716/C4/T/F/ REPL.1	EA025: Suspended Solids (SS)	----	1	mg/L	11	8	33.5
EA/ED: Physical and Aggregate Properties (QC Lot: 893900)								
HK0902739-061	2009/02/13/1643/U2/B/F/ REPL.1	EA025: Suspended Solids (SS)	----	1	mg/L	54	47	13.4
HK0902739-071	2009/02/13/1707/D2/M/F/ REPL.2	EA025: Suspended Solids (SS)	----	1	mg/L	16	16	0.0
EA/ED: Physical and Aggregate Properties (QC Lot: 893901)								
HK0902739-081	2009/02/13/1622/SR4/T/F/ REPL.1	EA025: Suspended Solids (SS)	----	1	mg/L	9	7	30.1
HK0902739-091	2009/02/13/1654/SR2/B/F/ REPL.1	EA025: Suspended Solids (SS)	----	1	mg/L	21	24	13.6

Method Blank (MB), Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report

Matrix: **WATER**

Method: Compound	CAS Number	Method Blank (MB) Report			Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report						
					Spike	Spike Recovery (%)		Recovery Limits (%)		RPDs (%)	
		LOR	Unit	Result	Concentration	LCS	DCS	Low	High	Value	Control Limit
EA/ED: Physical and Aggregate Properties (QCLot: 893896)											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	100	----	85	115	----	----
EA/ED: Physical and Aggregate Properties (QCLot: 893897)											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	108	----	85	115	----	----
EA/ED: Physical and Aggregate Properties (QCLot: 893898)											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	100	----	85	115	----	----
EA/ED: Physical and Aggregate Properties (QCLot: 893900)											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	102	----	85	115	----	----
EA/ED: Physical and Aggregate Properties (QCLot: 893901)											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	104	----	85	115	----	----

CERTIFICATE OF ANALYSIS

Client	: **ERM HONG KONG**	*Laboratory*	: **ALS Technichem HK Pty Ltd**	*Page*	: **1 of 6**		
Contact	: **MS JOANNA KWAN**	*Contact*	: **Wong Wai Man, Alice**	*Work Order*	: **HK0902754**		
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E-mail	: **Joanna.kwan@erm.com**	*E-mail*	: **Alice.Wong@alsenviro.com**				
Telephone	: **+852 2271 3000**	*Telephone*	: **+852 2610 1044**				
Facsimile	: **+852 2723 5660**	*Facsimile*	: **+852 2610 2021**				
Project	: **EM&A FOR THE PROPOSED 132kV SUBMARINE CABLE ROUTE FOR AIRPORT "A" TO CASTLE PEAK CCTS**	*Quote number*	: **----**	*Date received*	: **16-FEB-2009**		
Order number	: **----**			*Date of issue*	: **19-FEB-2009**		
C-O-C number	: **----**			*No. of samples*	- *Received* : **60**		
Site	: **----**				- *Analysed* : **60**		

Report Comments

This report for ALS Technichem (HK) Pty Ltd work order reference HK0902754 supersedes any previous reports with this reference. The completion date of analysis is 17-FEB-2009. Results apply to sample(s) as submitted. All pages of this report have been checked and approved for release. When date(s) and/or time(s) are shown bracketed, these have been assumed by the laboratory for process purposes. Abbreviations: CAS number = Chemical Abstract Services number. LOR = Limit of reporting.

Specific comments for Work Order HK0902754 : **Sample(s) were received in a chilled condition.**
Water sample(s) analysed and reported on an as received basis.

This document has been electronically signed by those names that appear on this report and are the authorised signatories. Electronic signing has been carried out in compliance with procedures specified in the 'Electronic Transactions Ordinance' of Hong Kong, Chapter 553, Section 6.

Signatory	*Position*	*Authorised results for:-*
Fung Lim Chee, Richard	**General Manager**	**Inorganics**

Laboratory Duplicate (DUP) Report

Matrix: **WATER**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report				
				LOR	Unit	Original Result	Duplicate Result	RPD (%)
EA/ED: Physical and Aggregate Properties (QC Lot: 893902)								
HK0902754-001	2009/02/14/1555/C1/B/E/ REPL. 1	EA025: Suspended Solids (SS)	----	1	mg/L	18	17	0.0
HK0902754-011	2009/02/14/1625/SR1/M/E/ REPL. 2	EA025: Suspended Solids (SS)	----	1	mg/L	9	11	19.5
EA/ED: Physical and Aggregate Properties (QC Lot: 893903)								
HK0902754-021	2009/02/14/1633/D1/T/E/ REPL. 1	EA025: Suspended Solids (SS)	----	1	mg/L	6	7	0.0
HK0902754-031	2009/02/14/1001/C1/B/F/ REPL. 1	EA025: Suspended Solids (SS)	----	1	mg/L	25	23	7.8
EA/ED: Physical and Aggregate Properties (QC Lot: 893904)								
HK0902754-041	2009/02/14/1059/SR1/M/F/ REPL. 2	EA025: Suspended Solids (SS)	----	1	mg/L	34	31	8.5
HK0902754-051	2009/02/14/1027/D1/T/F/ REPL. 1	EA025: Suspended Solids (SS)	----	1	mg/L	11	13	10.7

Method Blank (MB), Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report

Matrix: **WATER**

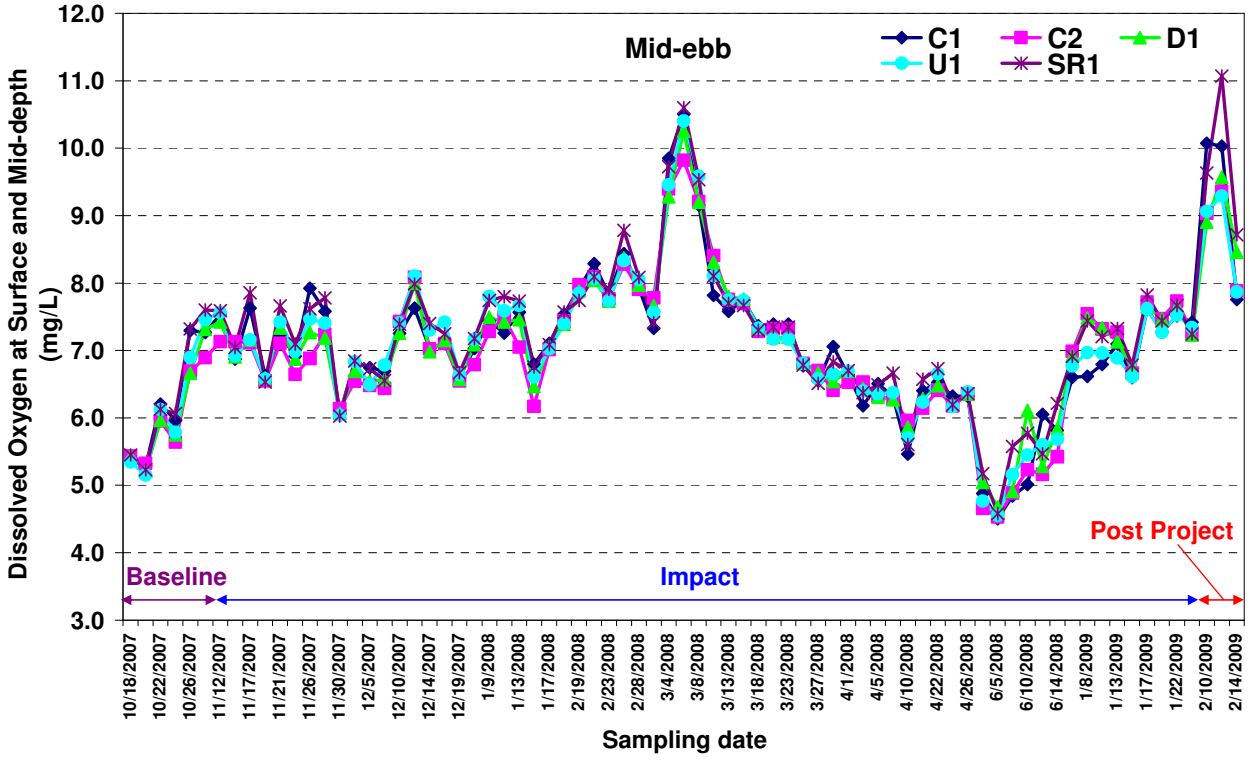
Method: Compound	CAS Number	Method Blank (MB) Report			Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report						
					Spike	Spike Recovery (%)		Recovery Limits (%)		RPDs (%)	
		LOR	Unit	Result	Concentration	LCS	DCS	Low	High	Value	Control Limit
EA/ED: Physical and Aggregate Properties (QCLot: 893902)											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	105	----	85	115	----	----
EA/ED: Physical and Aggregate Properties (QCLot: 893903)											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	90.5	----	85	115	----	----
EA/ED: Physical and Aggregate Properties (QCLot: 893904)											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	89.5	----	85	115	----	----

Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report

- **No Matrix Spike (MS) or Matrix Spike Duplicate (MSD) Results are required to be reported.**

Annex D

Post-Project Water Quality Monitoring Results



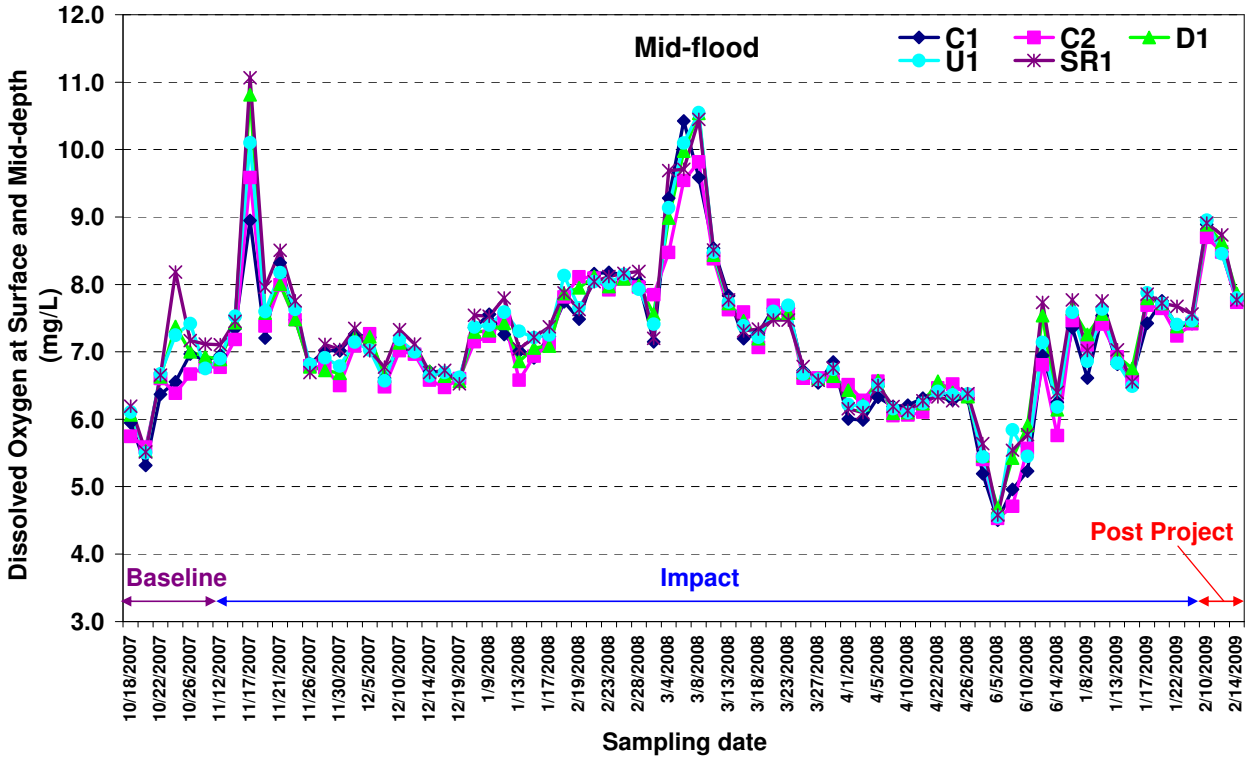


Figure D1 Dissolved oxygen concentration (mean of surface and mid-depth) (mg/L) of water samples from the five sampling locations near Tuen Mun at mid-ebb and mid-flood between 18 October 2007 and 14 February 2009

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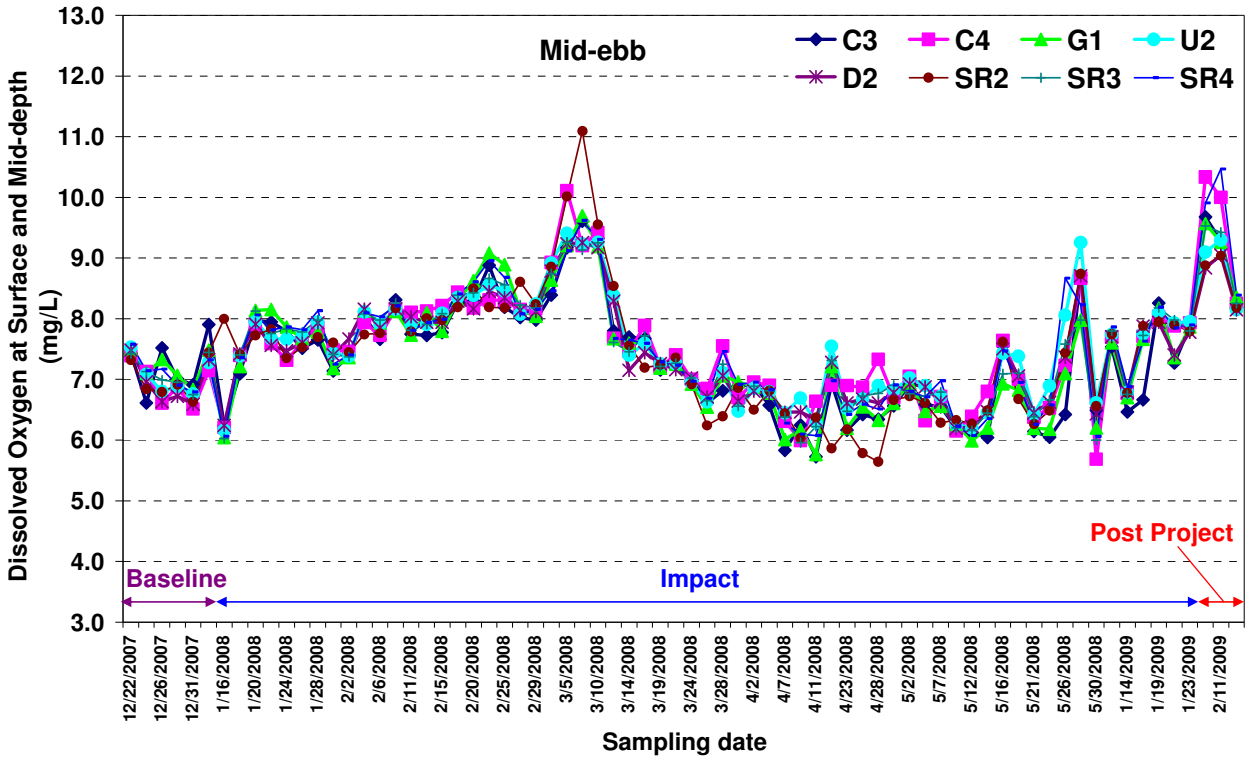

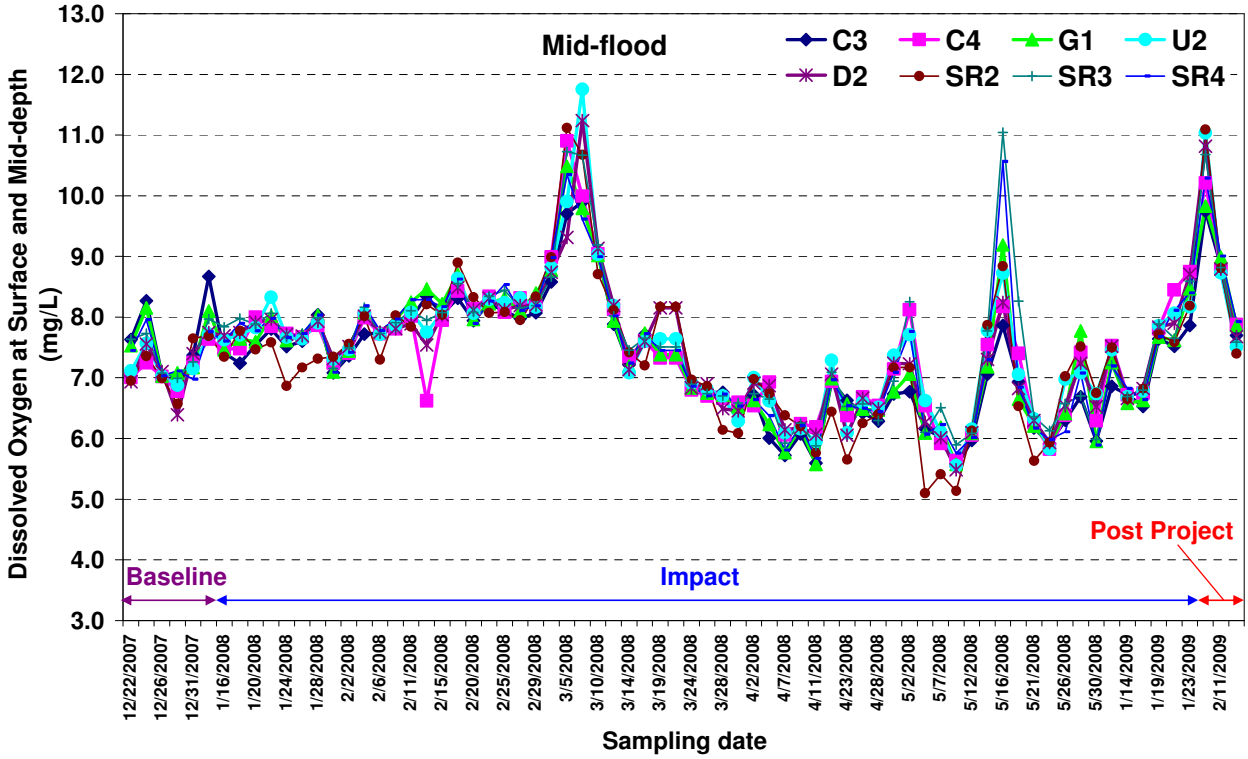

Figure D2 Dissolved oxygen concentration (mean of surface and mid-depth) (mg/L) of water samples from the eight sampling locations near the airport at mid-ebb and mid-flood between 22 December 2007 and 13 February 2009

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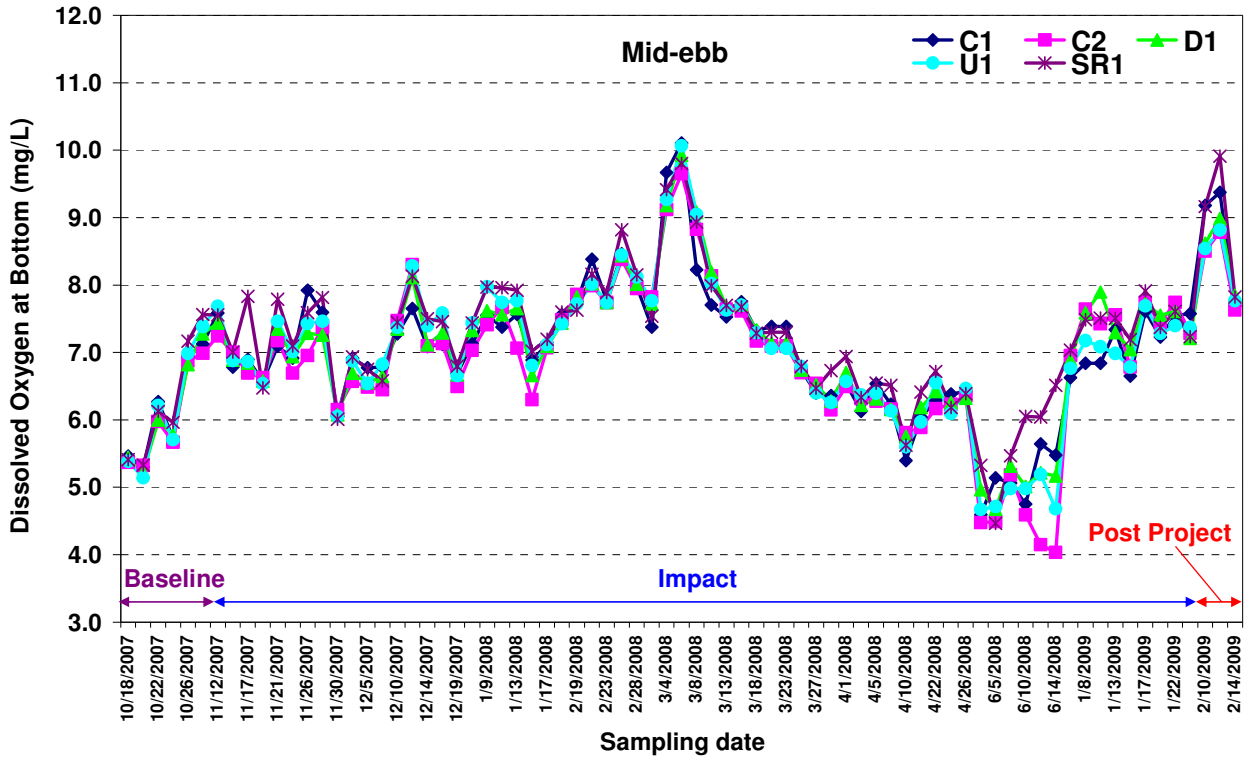

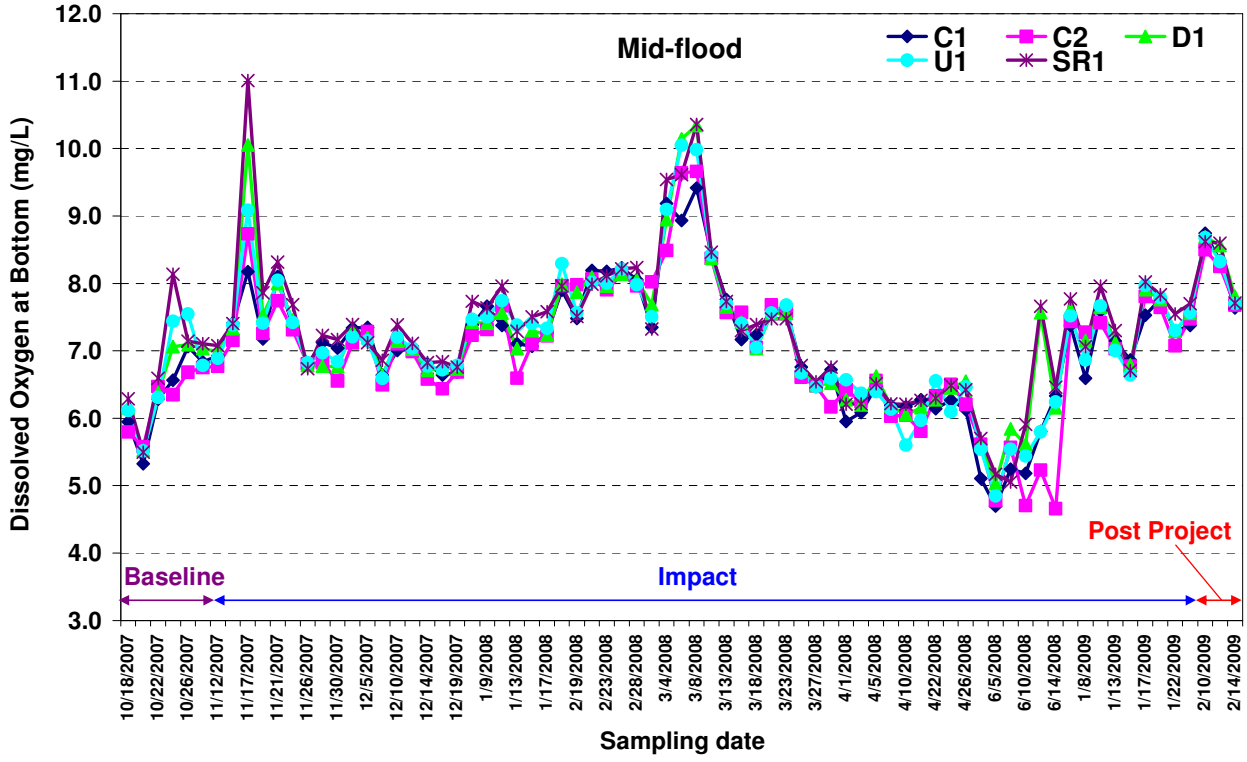

Figure D3 Dissolved oxygen concentration (bottom) (mg/L) of water samples from the five sampling locations near Tuen Mun at mid-ebb and mid-flood between 18 October 2007 and 14 February 2009

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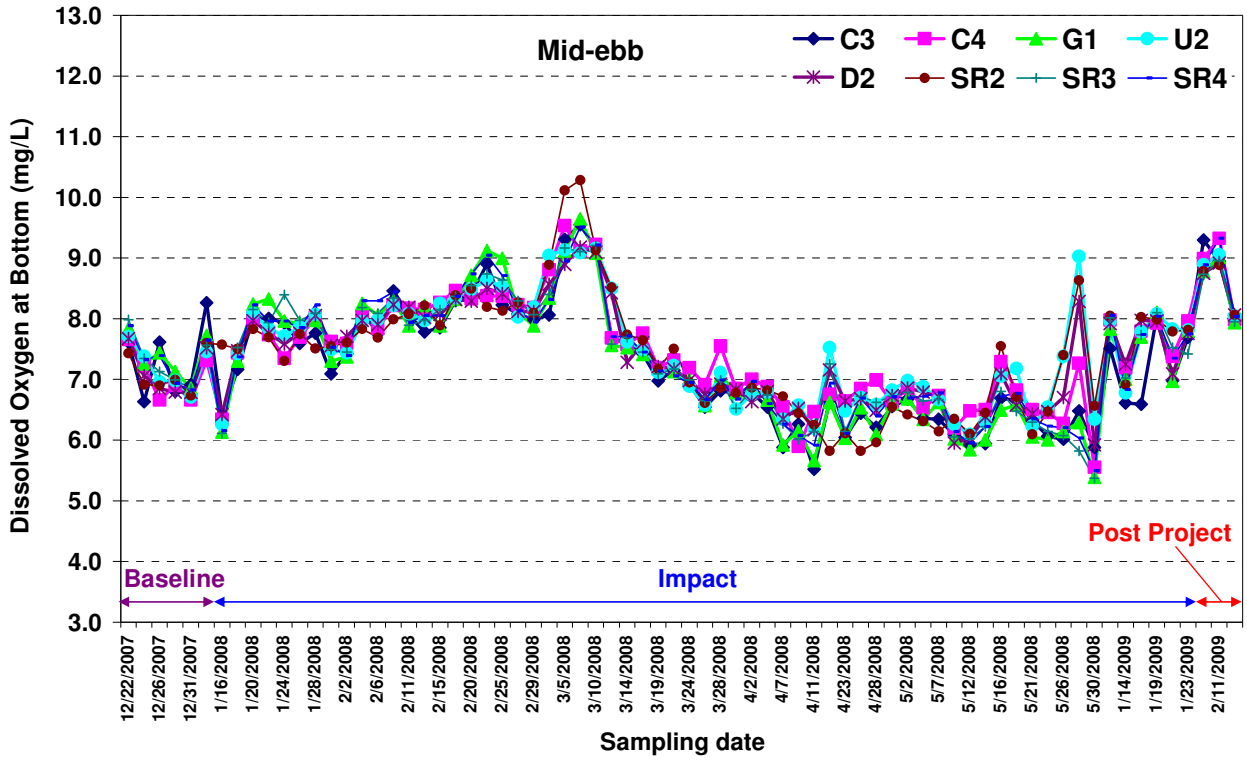

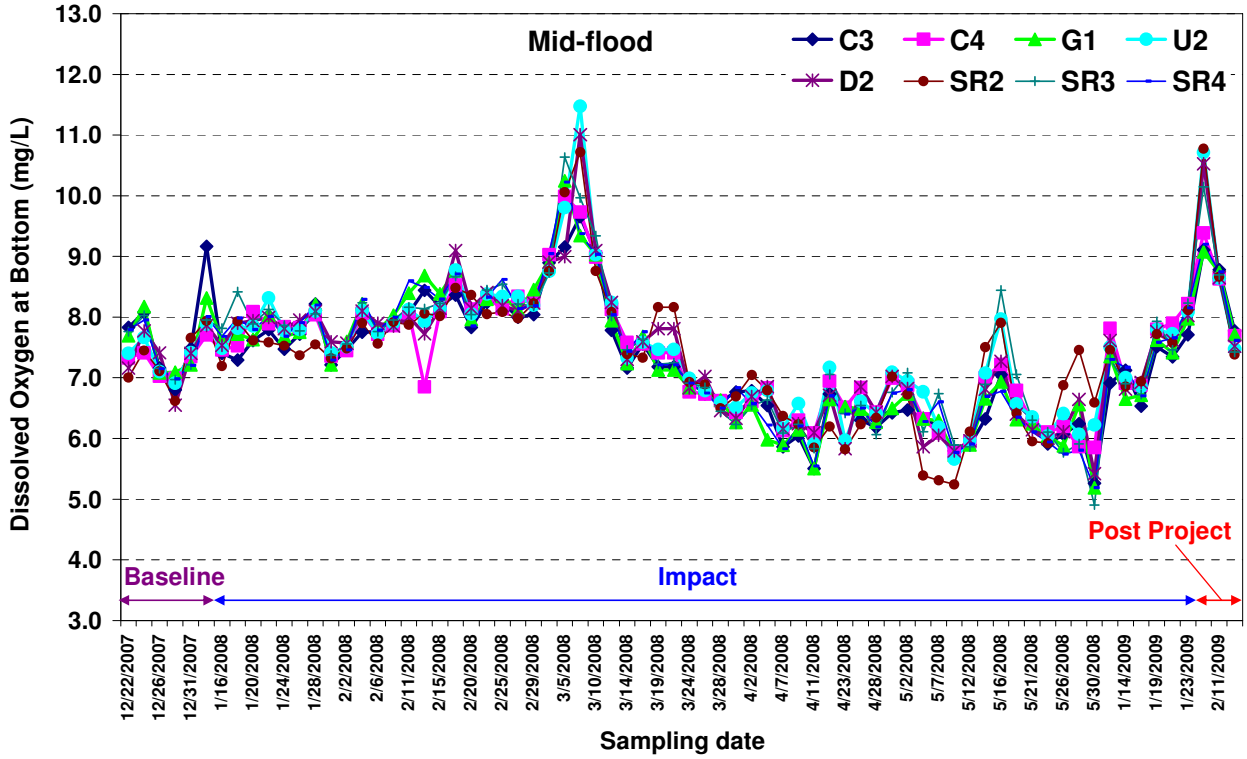

Figure D4 Dissolved oxygen concentration (bottom) (mg/L) of water samples from the eight sampling locations near the airport at mid-ebb and mid-flood between 22 December 2007 and 13 February 2009

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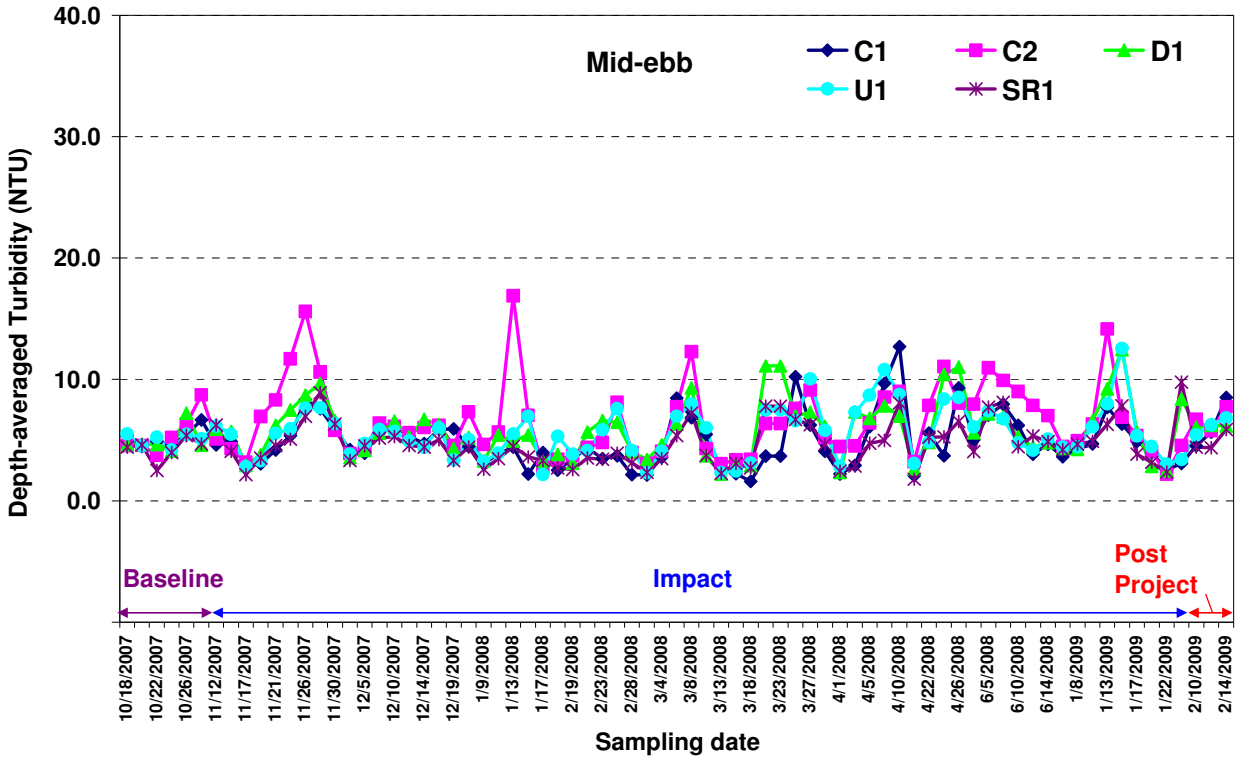

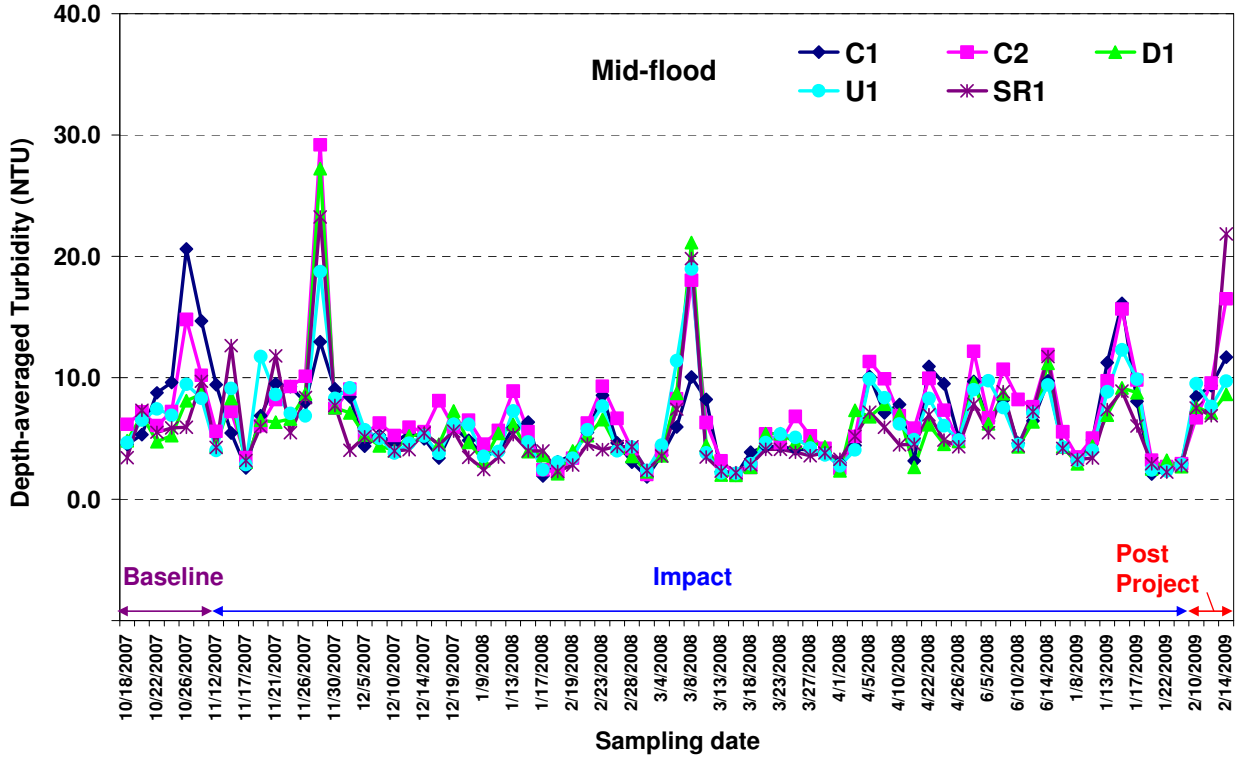

Figure D5 Depth-averaged turbidity (NTU) of water samples from the five sampling locations near Tuen Mun at mid-ebb and mid-flood between 18 October 2007 and 14 February 2009

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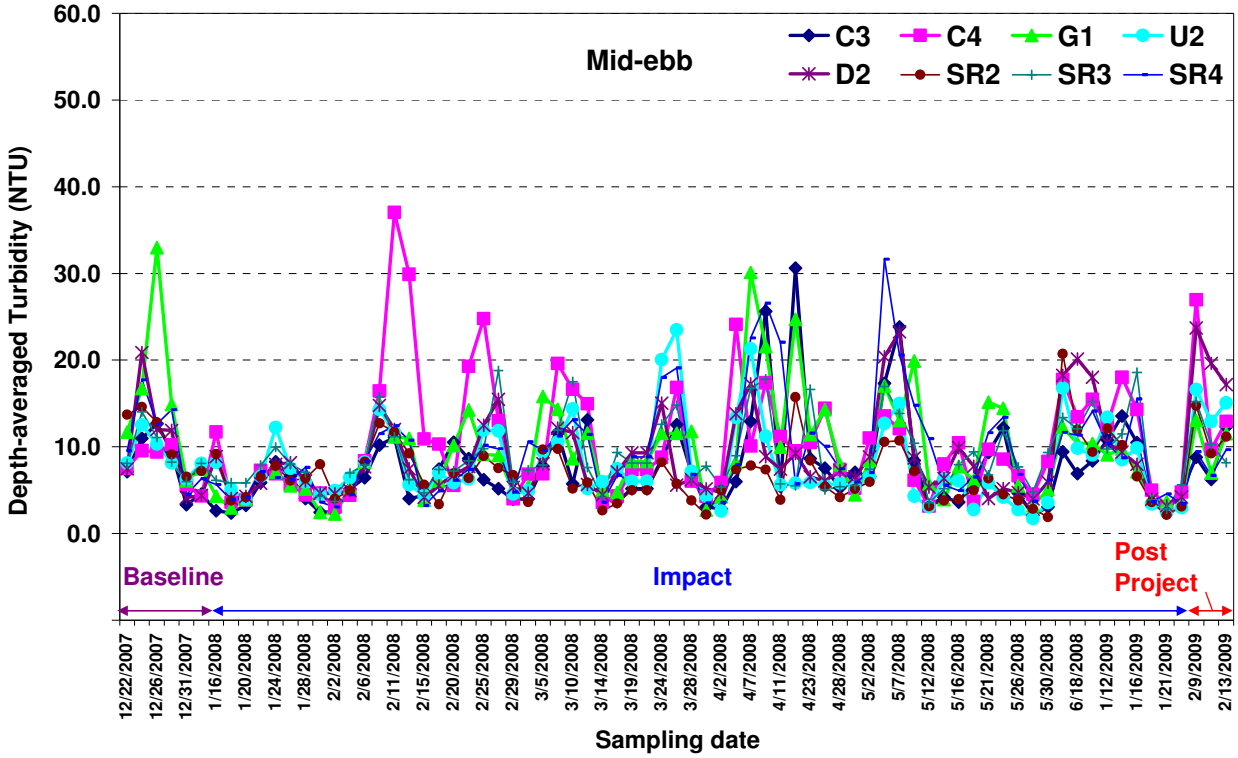

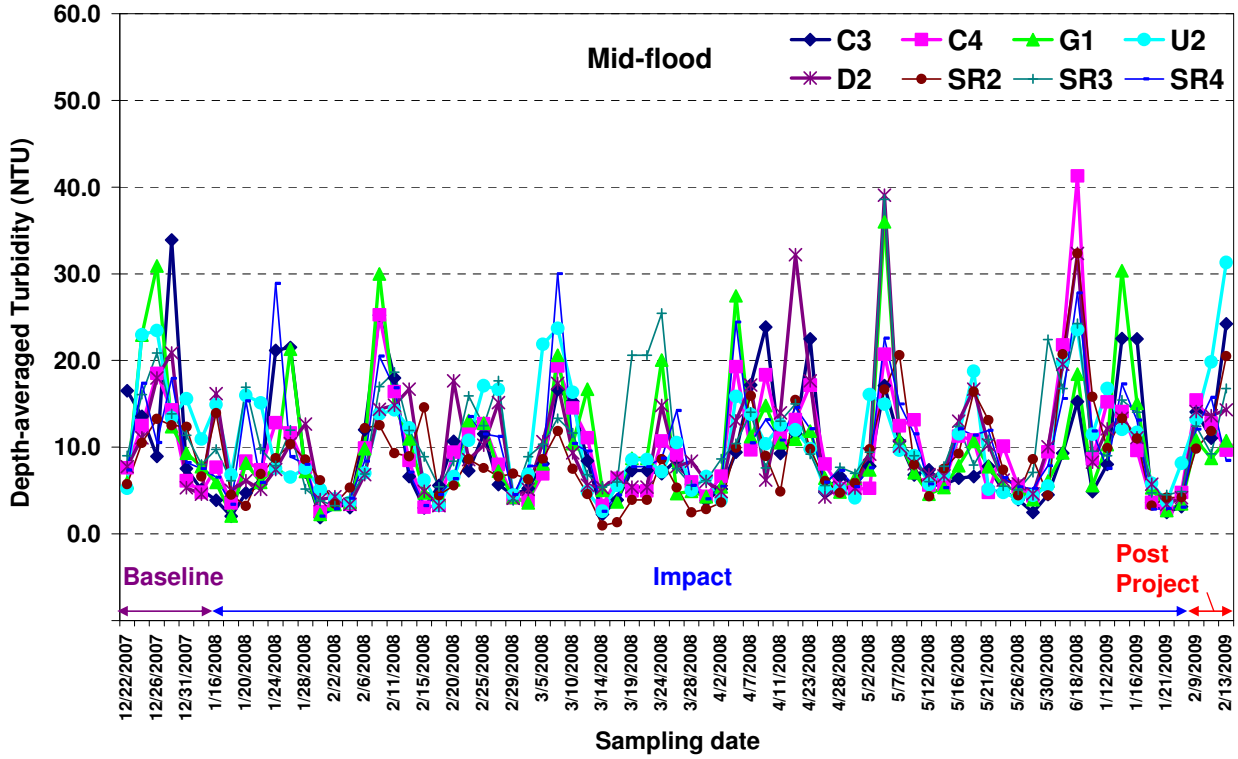

Figure D6 Depth-averaged turbidity (NTU) of water samples from the eight sampling locations near the airport at mid-ebb and mid-flood between 22 December 2007 and 13 February 2009

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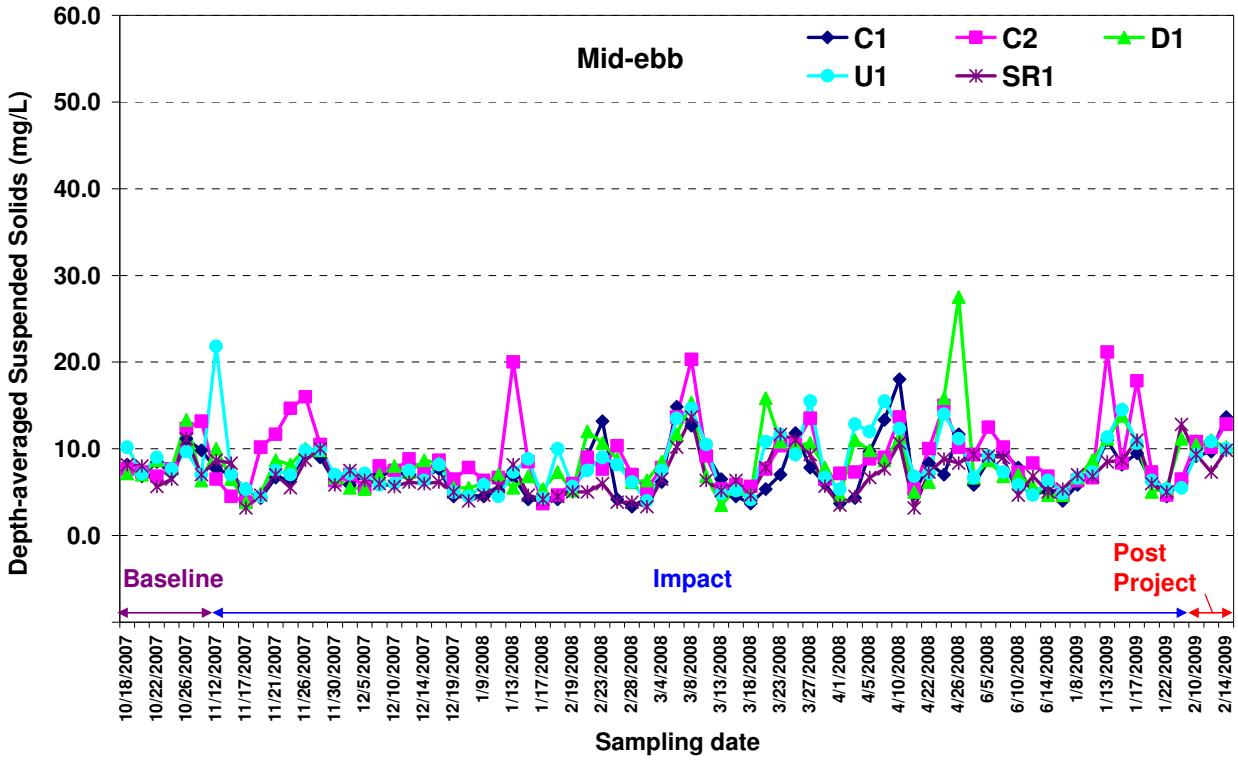

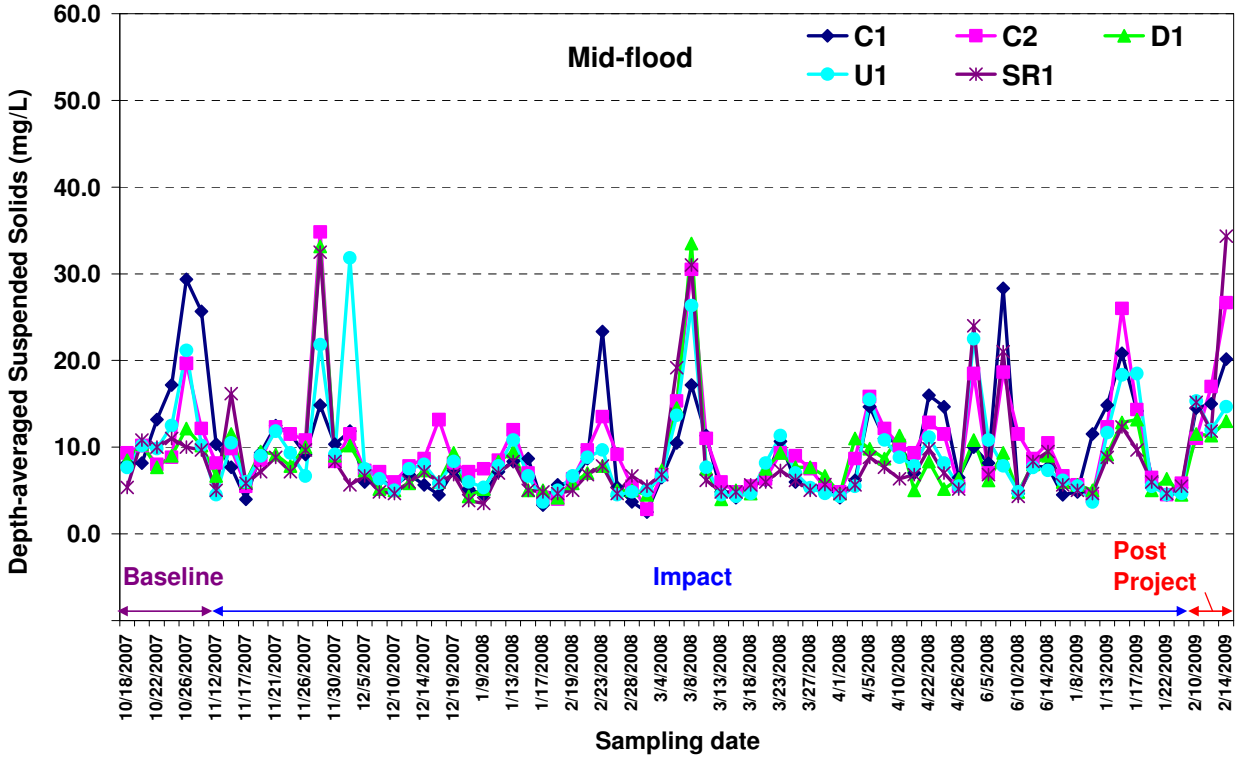

Figure D7 Depth-averaged suspended solids concentration (mg/L) of water samples from the five sampling locations near Tuen Mun at mid-ebb and mid-flood between 18 October 2007 and 14 February 2009

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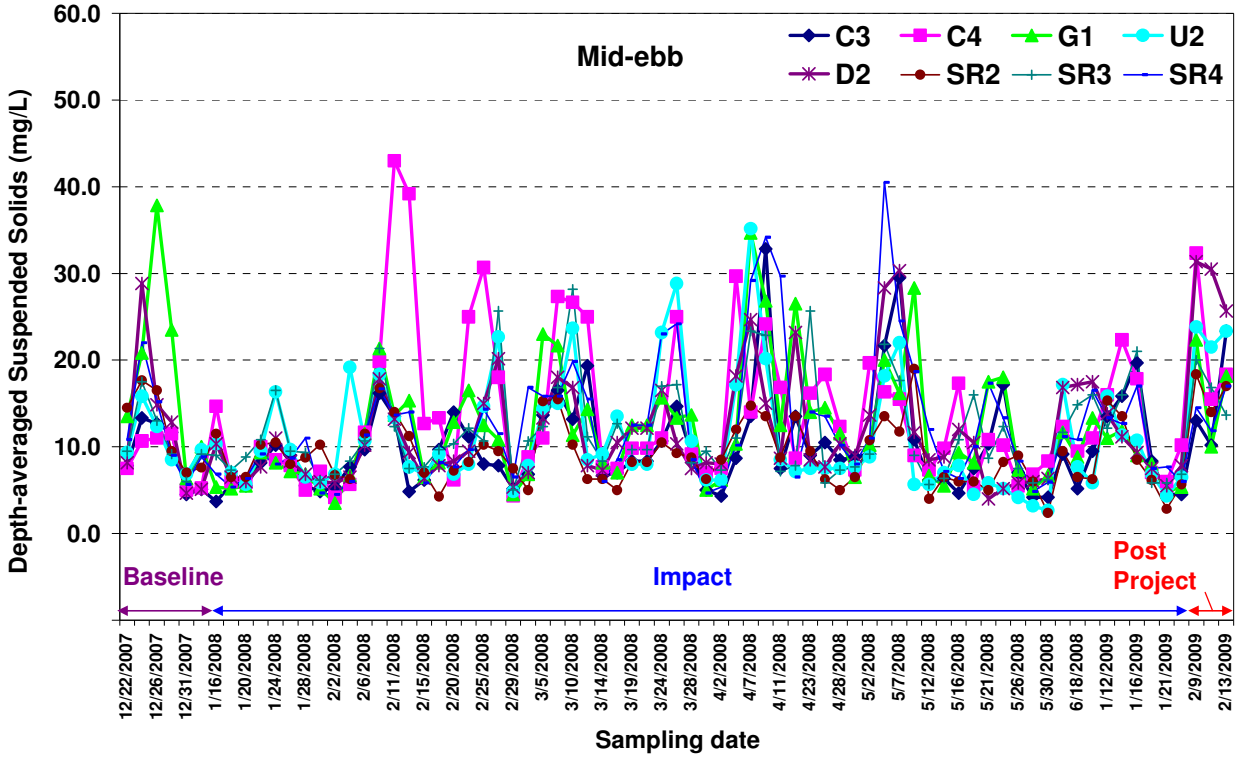

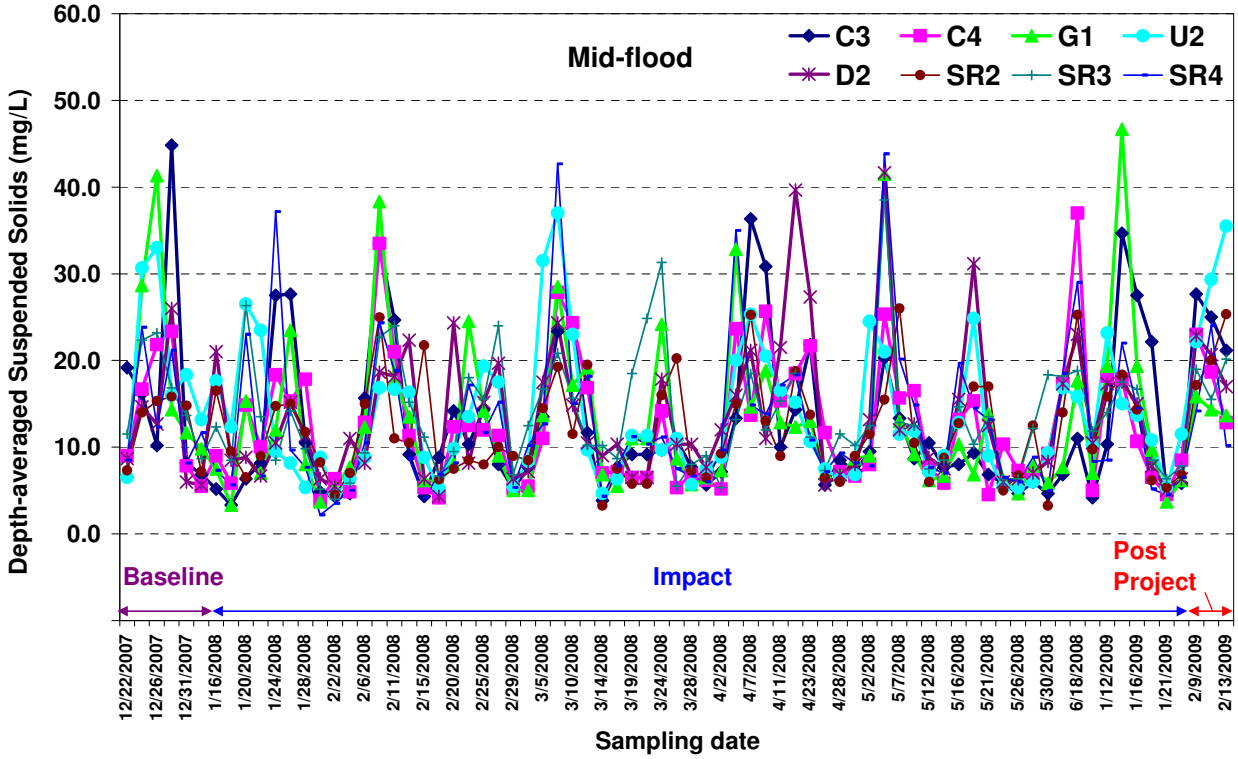

Figure D8 Depth-averaged suspended solids concentration (mg/L) of water samples from the eight sampling locations near the airport at mid-ebb and mid-flood between 22 December 2007 and 13 February 2009

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Annex E1 - Water Quality Results at Airport during mid-ebb tide for 9 February 2009

Sampling Date	2/9/2009
Weather & Ambient Temperature	Sunny

Mid-Ebb

Station	C3								
Time (hh:mm)	12:28-12:33								
Water Depth (m)	10.90								
Monitoring Depth (m)	1.40		5.20		10.00				
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	***Depth-averaged***	***Bottom***	***Surface&Middle***
Water Temperature (℃)	18.7	18.8	18.5	18.5	18.4	18.4	18.54	-	
Salinity (ppt)	29.5	29.4	29.9	29.9	30.1	30.2	29.84	-	
pH	7.8	7.9	7.8	7.9	7.8	7.8	7.83		
D.O. Saturation (%)	124.0	127.4	121.3	121.7	117.9	119.2	121.88	-	
D.O. (mg/L)	9.70	9.95	9.51	9.55	9.25	9.35	9.55	9.30	9.68
Turbidity (NTU)	9.50	9.00	9.10	8.50	8.30	8.40	8.80	-	
SS (mg/L)	14.0	13.0	13.0	10.0	15.0	13.0	13.00	-	
Remarks									

Station	U2								
Time (hh:mm)	13:23-13:27								
Water Depth (m)	7.10								
Monitoring Depth (m)	1.20		3.60		6.10				
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	***Depth-averaged***	***Bottom***	***Surface&Middle***
Water Temperature (℃)	18.5	18.5	18.3	18.4	18.4	18.3	18.39	-	
Salinity (ppt)	29.1	29.1	29.5	29.5	29.5	29.5	29.37	-	
pH	7.9	7.9	7.9	7.9	7.9	7.9	7.92		
D.O. Saturation (%)	117.6	117.3	113.5	113.6	111.9	113.7	114.60	-	
D.O. (mg/L)	9.27	9.24	8.94	8.95	8.82	8.96	9.03	8.89	9.10
Turbidity (NTU)	12.80	12.80	18.00	18.70	18.20	19.00	16.60	-	
SS (mg/L)	16.0	21.0	26.0	22.0	28.0	30.0	23.83	-	
Remarks									

Station	C4								
Time (hh:mm)	13:57-14:03								
Water Depth (m)	9.20								
Monitoring Depth (m)	1.10		4.70		7.70				
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	***Depth-averaged***	***Bottom***	***Surface&Middle***
Water Temperature (℃)	19.5	19.6	18.4	19.1	18.3	18.4	18.89	-	
Salinity (ppt)	28.6	28.2	29.5	28.7	29.7	29.5	29.04	-	
pH	8.0	8.2	7.9	8.0	7.9	7.9	7.99		
D.O. Saturation (%)	131.1	158.3	114.4	126.8	112.9	115.4	126.49	-	
D.O. (mg/L)	10.16	12.27	9.01	9.90	8.89	9.09	9.89	8.99	10.34
Turbidity (NTU)	9.10	11.40	37.50	14.10	46.70	43.00	26.96	-	
SS (mg/L)	22.0	19.0	12.0	18.0	64.0	59.0	32.33	-	
Remarks									

Station	SR2								
Time (hh:mm)	13:33-13:37								
Water Depth (m)	5.10								
Monitoring Depth (m)	1.20		2.50		4.00				
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	***Depth-averaged***	***Bottom***	***Surface&Middle***
Water Temperature (℃)	19.6	19.3	18.8	18.8	18.9	18.6	18.99	-	
Salinity (ppt)	29.8	29.8	29.8	29.8	29.9	29.9	29.83	-	
pH	7.9	7.9	7.9	7.9	8.0	7.9	7.94		
D.O. Saturation (%)	115.6	115.8	112.5	114.3	112.2	113.0	113.89	-	
D.O. (mg/L)	8.88	8.95	8.77	8.92	8.72	8.85	8.85	8.79	8.88
Turbidity (NTU)	12.30	13.90	14.90	16.30	14.00	17.20	14.74	-	
SS (mg/L)	15.0	17.0	21.0	23.0	18.0	16.0	18.33	-	
Remarks									

Station	D2								
Time (hh:mm)	13:42-13:47								
Water Depth (m)	7.10								
Monitoring Depth (m)	1.80		3.50		6.00				
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	***Depth-averaged***	***Bottom***	***Surface&Middle***
Water Temperature (℃)	18.4	18.4	18.4	18.4	18.5	18.4	18.39	-	
Salinity (ppt)	29.4	29.2	29.4	29.5	29.8	29.7	29.49	-	
pH	7.9	7.9	7.9	7.9	7.9	7.9	7.92		
D.O. Saturation (%)	111.7	112.3	112.2	112.5	110.4	112.2	111.88	-	
D.O. (mg/L)	8.80	8.86	8.84	8.86	8.67	8.83	8.81	8.75	8.84
Turbidity (NTU)	20.80	25.50	24.60	27.50	19.60	24.30	23.71	-	
SS (mg/L)	37.0	32.0	37.0	33.0	22.0	27.0	31.33	-	
Remarks									

Station	SR3								
Time (hh:mm)	13:10-13:18								
Water Depth (m)	12.00								
Monitoring Depth (m)	0.90		6.10		11.00				
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	***Depth-averaged***	***Bottom***	***Surface&Middle***
Water Temperature (℃)	18.9	18.9	18.3	18.4	18.3	18.3	18.51	-	
Salinity (ppt)	28.8	28.8	29.9	29.8	30.0	30.0	29.55	-	
pH	8.0	8.0	7.9	7.9	7.9	7.9	7.93		
D.O. Saturation (%)	128.7	128.9	112.8	115.5	110.6	111.5	118.00	-	
D.O. (mg/L)	10.09	10.09	8.87	9.08	8.70	8.77	9.27	8.74	9.53
Turbidity (NTU)	9.40	9.50	14.50	11.60	21.60	24.60	15.20	-	
SS (mg/L)	16.0	18.0	14.0	16.0	30.0	26.0	20.00	-	
Remarks									

Station	G1								
Time (hh:mm)	12:47-12:53								
Water Depth (m)	11.00								
Monitoring Depth (m)	1.30		5.10		10.00				
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	***Depth-averaged***	***Bottom***	***Surface&Middle***
Water Temperature (℃)	18.7	18.7	18.4	18.7	18.3	18.3	18.51	-	
Salinity (ppt)	29.3	29.3	29.8	29.3	30.1	30.1	29.65	-	
pH	7.9	7.9	7.9	7.9	7.9	7.9	7.90		
D.O. Saturation (%)	125.0	125.5	116.0	121.3	111.8	111.6	118.52	-	
D.O. (mg/L)	9.80	9.84	9.12	9.51	8.79	8.77	9.31	8.78	9.57
Turbidity (NTU)	9.40	9.30	11.00	11.10	14.90	22.60	13.04	-	
SS (mg/L)	19.0	15.0	16.0	13.0	43.0	28.0	22.33	-	
Remarks									

Station	SR4								
Time (hh:mm)	13:01-13:05								
Water Depth (m)	10.00								
Monitoring Depth (m)	1.10		5.00		9.00				
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	***Depth-averaged***	***Bottom***	***Surface&Middle***
Water Temperature (℃)	19.2	19.1	18.5	18.5	18.3	18.3	18.63	-	
Salinity (ppt)	29.1	29.2	29.7	29.8	30.0	30.0	29.63	-	
pH	8.0	8.0	7.9	7.9	7.9	7.9	7.94		
D.O. Saturation (%)	139.0	135.6	119.8	112.8	111.9	114.0	122.16	-	
D.O. (mg/L)	10.81	10.57	9.40	8.85	8.80	8.97	9.57	8.89	9.91
Turbidity (NTU)	9.70	9.70	8.10	9.50	8.10	11.40	9.42	-	
SS (mg/L)	21.0	19.0	12.0	15.0	10.0	10.0	14.50	-	
Remarks									

Annex E2 - Water Quality Results at Airport during mid-flood tide for 9 February 2009

Sampling Date	2/9/2009
Weather & Ambient Temperature	Sunny

Mid-Flood

Station	C3								
Time (hh:mm)	17:20-17:25								
Water Depth (m)	10.70								
Monitoring Depth (m)	1.10		5.60		9.80				
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*	*Surface&Middle*
Water Temperature (℃)	18.9	18.9	18.4	18.4	18.3	18.3	18.53	-	
Salinity (ppt)	28.9	29.2	29.8	29.7	30.1	30.1	29.66	-	
pH	7.8	7.9	7.8	7.8	7.7	7.8	7.79		
D.O. Saturation (%)	132.9	131.6	115.2	117.5	113.4	118.4	121.49	-	
D.O. (mg/L)	10.41	10.29	9.05	9.23	8.91	9.30	9.53	9.11	9.75
Turbidity (NTU)	8.80	10.90	12.60	11.90	19.80	20.20	14.06	-	
SS (mg/L)	25.0	20.0	15.0	15.0	51.0	40.0	27.67	-	
Remarks									

Station	U2								
Time (hh:mm)	18:12-18:18								
Water Depth (m)	8.00								
Monitoring Depth (m)	1.20		4.10		7.00				
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*	*Surface&Middle*
Water Temperature (℃)	19.3	19.2	19.3	19.2	19.2	19.2	19.21	-	
Salinity (ppt)	28.5	28.4	29.1	29.2	29.6	29.4	29.04	-	
pH	8.0	8.0	8.0	8.0	8.0	8.0	8.00		
D.O. Saturation (%)	144.5	139.5	141.9	141.3	137.5	138.8	140.57	-	
D.O. (mg/L)	11.26	10.90	11.01	10.97	10.66	10.77	10.93	10.72	11.04
Turbidity (NTU)	7.10	7.30	9.80	15.80	23.20	16.20	13.21	-	
SS (mg/L)	10.0	16.0	25.0	24.0	26.0	32.0	22.17	-	
Remarks									

Station	C4								
Time (hh:mm)	18:44-18:50								
Water Depth (m)	9.10								
Monitoring Depth (m)	1.00		4.50		8.00				
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*	*Surface&Middle*
Water Temperature (℃)	18.9	18.9	19.0	19.0	18.7	18.6	18.83	-	
Salinity (ppt)	28.9	29.0	29.1	29.2	29.8	29.7	29.26	-	
pH	8.0	8.0	8.0	8.0	7.9	7.9	7.96		
D.O. Saturation (%)	131.3	130.3	130.2	130.9	120.4	119.5	127.09	-	
D.O. (mg/L)	10.27	10.20	10.17	10.21	9.42	9.36	9.94	9.39	10.21
Turbidity (NTU)	10.10	11.00	10.90	11.60	25.30	23.70	15.44	-	
SS (mg/L)	14.0	17.0	15.0	15.0	38.0	39.0	23.00	-	
Remarks									

Station	SR2								
Time (hh:mm)	18:23-18:27								
Water Depth (m)	5.10								
Monitoring Depth (m)	1.00		2.60		4.00				
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*	*Surface&Middle*
Water Temperature (℃)	19.6	19.5	19.6	19.5	19.4	19.6	19.52	-	
Salinity (ppt)	28.2	28.3	28.3	28.4	28.4	28.3	28.32	-	
pH	8.0	8.0	8.0	8.0	8.0	8.0	8.00		
D.O. Saturation (%)	144.6	143.4	142.2	141.4	135.2	142.3	141.54	-	
D.O. (mg/L)	11.22	11.14	11.03	10.98	10.51	11.04	10.99	10.78	11.09
Turbidity (NTU)	8.40	10.10	10.30	10.60	9.80	9.60	9.81	-	
SS (mg/L)	14.0	19.0	13.0	16.0	17.0	24.0	17.17	-	
Remarks									

Station	D2								
Time (hh:mm)	18:32-18:38								
Water Depth (m)	8.10								
Monitoring Depth (m)	1.20		3.80		7.10				
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*	*Surface&Middle*
Water Temperature (℃)	19.2	19.2	19.2	19.1	19.2	19.2	19.19	-	
Salinity (ppt)	29.1	29.0	29.2	29.4	29.3	29.4	29.21	-	
pH	8.0	8.0	8.0	8.0	8.0	8.0	8.02		
D.O. Saturation (%)	139.8	140.8	138.2	138.0	132.3	138.7	137.94	-	
D.O. (mg/L)	10.86	10.95	10.73	10.73	10.28	10.77	10.72	10.53	10.82
Turbidity (NTU)	12.60	11.40	14.60	16.50	14.70	15.00	14.12	-	
SS (mg/L)	16.0	17.0	31.0	32.0	18.0	23.0	22.83	-	
Remarks									

Station	SR3								
Time (hh:mm)	17:58-18:06								
Water Depth (m)	12.20								
Monitoring Depth (m)	1.20		6.10		10.80				
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*	*Surface&Middle*
Water Temperature (℃)	19.1	19.1	19.2	19.2	18.9	19.1	19.10	-	
Salinity (ppt)	28.7	28.8	28.9	29.1	29.8	29.8	29.17	-	
pH	8.0	8.0	8.0	8.0	7.9	8.0	7.96		
D.O. Saturation (%)	138.1	137.4	137.6	134.8	127.9	133.3	134.87	-	
D.O. (mg/L)	10.79	10.72	10.71	10.49	9.95	10.34	10.50	10.15	10.68
Turbidity (NTU)	9.00	9.70	8.60	10.60	17.50	19.00	12.40	-	
SS (mg/L)	11.0	15.0	19.0	20.0	23.0	26.0	19.00	-	
Remarks									

Station	G1								
Time (hh:mm)	17:31-17:36								
Water Depth (m)	12.00								
Monitoring Depth (m)	1.20		6.00		11.00				
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*	*Surface&Middle*
Water Temperature (℃)	18.9	19.0	18.4	18.4	18.3	18.3	18.55	-	
Salinity (ppt)	28.6	28.7	29.7	29.6	30.0	30.0	29.42	-	
pH	7.9	7.9	7.8	7.8	7.8	7.8	7.84		
D.O. Saturation (%)	135.4	134.2	114.8	116.5	113.3	117.4	121.96	-	
D.O. (mg/L)	10.62	10.51	9.03	9.16	8.91	9.24	9.58	9.08	9.83
Turbidity (NTU)	8.20	9.20	11.40	11.90	11.60	12.50	10.82	-	
SS (mg/L)	18.0	18.0	13.0	10.0	19.0	17.0	15.83	-	
Remarks									

Station	SR4								
Time (hh:mm)	17:42-17:48								
Water Depth (m)	10.00								
Monitoring Depth (m)	1.30		4.90		9.00				
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*	*Surface&Middle*
Water Temperature (℃)	18.9	18.9	19.0	19.0	18.4	18.5	18.77	-	
Salinity (ppt)	28.6	28.7	29.5	29.3	29.8	29.8	29.26	-	
pH	7.9	7.9	7.9	7.9	7.9	7.9	7.90		
D.O. Saturation (%)	134.8	133.9	127.9	130.0	115.0	119.3	126.80	-	
D.O. (mg/L)	10.58	10.50	9.96	10.12	9.04	9.36	9.93	9.20	10.29
Turbidity (NTU)	9.30	9.20	13.40	11.80	12.10	16.60	12.07	-	
SS (mg/L)	11.0	10.0	13.0	16.0	20.0	15.0	14.17	-	
Remarks									

Annex E3 - Water Quality Results at Tuen Mun during mid-ebb tide for 10 February 2009

Date	2/10/2009							
Station	C1							
Time (hh:mm)	13:31-13:39							
Ambient Temperature (℃)								
Weather	Cloudy							
Water Depth (m)	7.00							
Monitoring Depth (m)	1.00		3.50		6.10			
Tide	Ebb							
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	19.0	19.1	18.9	18.9	18.6	18.6	18.84	-
Salinity (ppt)	29.7	29.8	30.0	30.0	30.0	30.0	29.94	-
pH	8.1	8.1	8.0	8.1	8.0	8.0	8.06	
D.O. Saturation (%)	134.0	134.8	122.9	126.5	114.5	120.5	125.52	-
D.O. (mg/L)	10.41	10.46	9.56	9.85	8.95	9.41	9.77	9.18
Turbidity (NTU)	3.62	3.52	4.02	3.52	6.34	6.04	4.51	-
SS (mg/L)	12.0	7.0	7.0	10.0	10.0	9.0	9.17	-
Remarks	-							

Date	2/10/2009							
Station	U1							
Time (hh:mm)	13:46-13:52							
Ambient Temperature (℃)								
Weather	Cloudy							
Water Depth (m)	8.10							
Monitoring Depth (m)	1.20		4.00		7.10			
Tide	Ebb							
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	18.8	18.7	18.6	18.6	18.5	18.5	18.61	-
Salinity (ppt)	30.0	30.0	30.1	30.1	30.1	30.1	30.06	-
pH	8.1	8.1	8.0	8.0	8.0	8.0	8.04	
D.O. Saturation (%)	119.1	116.6	113.6	114.7	110.2	108.1	113.72	-
D.O. (mg/L)	9.28	9.10	8.89	8.97	8.62	8.46	8.89	8.54
Turbidity (NTU)	4.43	4.23	5.53	4.63	6.34	7.34	5.42	-
SS (mg/L)	8.0	7.0	12.0	10.0	10.0	9.0	9.33	-
Remarks	-							

Date	2/10/2009							
Station	C2							
Time (hh:mm)	14:19-14:26							
Ambient Temperature (℃)								
Weather	Cloudy							
Water Depth (m)	13.00							
Monitoring Depth (m)	1.10		6.50		12.10			
Tide	Ebb							
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	18.7	18.8	18.6	18.6	18.5	18.5	18.62	-
Salinity (ppt)	30.0	30.0	30.0	30.0	30.2	30.3	30.09	-
pH	8.1	8.1	8.0	8.0	8.0	8.0	8.04	
D.O. Saturation (%)	117.9	119.2	113.3	112.8	108.1	109.2	113.40	-
D.O. (mg/L)	9.19	9.28	8.85	8.83	8.46	8.55	8.86	8.51
Turbidity (NTU)	5.03	3.92	5.83	5.83	9.05	10.56	6.70	-
SS (mg/L)	10.0	13.0	9.0	7.0	13.0	13.0	10.83	-
Remarks	-							

Date	2/10/2009							
Station	SR1							
Time (hh:mm)	13:57-14:01							
Ambient Temperature (℃)								
Weather	Cloudy							
Water Depth (m)	4.00							
Monitoring Depth (m)	1.10		2.00		3.00			
Tide	Ebb							
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	18.8	18.9	18.8	18.8	18.7	18.6	18.76	-
Salinity (ppt)	29.8	29.8	29.8	29.9	29.9	30.0	29.88	-
pH	8.1	8.1	8.1	8.1	8.1	8.0	8.08	
D.O. Saturation (%)	127.6	128.6	122.3	115.8	115.3	119.3	121.46	-
D.O. (mg/L)	9.95	10.01	9.54	9.02	9.00	9.33	9.48	9.17
Turbidity (NTU)	3.92	3.92	4.02	5.33	4.53	4.73	4.41	-
SS (mg/L)	10.0	9.0	8.0	10.0	11.0	8.0	9.33	-
Remarks	-							

Date	2/10/2009							
Station	D1							
Time (hh:mm)	14:07-14:13							
Ambient Temperature (℃)								
Weather	Cloudy							
Water Depth (m)	8.20							
Monitoring Depth (m)	1.10		4.00		7.10			
Tide	Ebb							
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	18.7	18.7	18.6	18.6	18.5	18.5	18.60	-
Salinity (ppt)	30.0	30.1	30.1	30.1	30.2	30.2	30.10	-
pH	8.1	8.1	8.0	8.0	8.0	8.0	8.04	
D.O. Saturation (%)	114.7	115.3	112.1	113.9	108.2	112.1	112.71	-
D.O. (mg/L)	8.96	8.99	8.76	8.90	8.46	8.78	8.81	8.62
Turbidity (NTU)	5.03	5.33	5.94	5.23	7.55	7.34	6.07	-
SS (mg/L)	10.0	8.0	8.0	9.0	14.0	14.0	10.50	-
Remarks	-							

Annex E4 - Water Quality Results at Tuen Mun during mid-flood tide for 10 February 2009

Date	2/10/2009							
Station	C1							
Time (hh:mm)	08:14-08:18							
Ambient Temperature (℃)								
Weather	Cloudy							
Water Depth (m)	7.00							
Monitoring Depth (m)	1.20		3.60		6.10			
Tide	Flood							
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	18.5	18.5	18.4	18.4	18.4	18.4	18.44	-
Salinity (ppt)	29.7	29.9	30.2	30.2	30.2	30.3	30.06	-
pH	8.0	8.0	8.0	8.0	8.0	8.0	7.99	
D.O. Saturation (%)	115.0	113.8	112.0	112.7	110.4	112.8	112.77	-
D.O. (mg/L)	9.03	8.92	8.78	8.83	8.65	8.84	8.84	8.75
Turbidity (NTU)	5.94	6.54	9.36	8.75	9.46	10.66	8.45	-
SS (mg/L)	11.0	10.0	16.0	16.0	17.0	17.0	14.50	-
Remarks	-							

Date	2/10/2009							
Station	U1							
Time (hh:mm)	08:25-08:32							
Ambient Temperature (℃)								
Weather	Cloudy							
Water Depth (m)	8.10							
Monitoring Depth (m)	1.20		3.90		6.90			
Tide	Flood							
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	18.5	18.5	18.4	18.4	18.4	18.4	18.44	-
Salinity (ppt)	29.2	29.1	30.3	30.3	30.4	30.4	29.95	-
pH	8.1	8.1	8.0	8.0	8.0	8.0	8.04	
D.O. Saturation (%)	116.0	117.2	111.3	111.5	109.8	111.8	112.93	-
D.O. (mg/L)	9.13	9.23	8.72	8.73	8.60	8.76	8.86	8.68
Turbidity (NTU)	6.84	6.84	7.34	6.94	13.78	15.39	9.52	-
SS (mg/L)	9.0	8.0	13.0	16.0	22.0	24.0	15.33	-
Remarks	-							

Date	2/10/2009							
Station	C2							
Time (hh:mm)	09:04-09:09							
Ambient Temperature (℃)								
Weather	Cloudy							
Water Depth (m)	13.00							
Monitoring Depth (m)	1.10		6.30		12.10			
Tide	Flood							
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	18.5	18.5	18.4	18.4	18.4	18.4	18.43	-
Salinity (ppt)	29.8	29.9	30.2	30.2	30.4	30.4	30.16	-
	8.1	8.1	8.0	8.0	8.0	8.0	8.04	
D.O. Saturation (%)	112.3	112.1	109.6	109.8	107.7	109.4	110.13	-
D.O. (mg/L)	8.81	8.79	8.59	8.60	8.43	8.57	8.63	8.50
Turbidity (NTU)	6.54	6.34	7.75	7.85	6.34	5.43	6.71	-
SS (mg/L)	13.0	13.0	11.0	12.0	8.0	9.0	11.00	-
Remarks	-							

Date	2/10/2009							
Station	SR1							
Time (hh:mm)	08:37-08:44							
Ambient Temperature (℃)								
Weather	Cloudy							
Water Depth (m)	4.00							
Monitoring Depth (m)	1.10		2.00		3.00			
Tide	Flood							
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	18.5	18.5	18.4	18.4	18.4	18.4	18.43	-
Salinity (ppt)	29.5	29.8	30.2	30.0	30.3	30.2	29.99	-
pH	8.1	8.1	8.0	8.0	8.0	8.0	8.04	
D.O. Saturation (%)	116.4	114.0	111.0	112.5	107.6	112.4	112.31	-
D.O. (mg/L)	9.15	8.95	8.70	8.83	8.43	8.81	8.81	8.62
Turbidity (NTU)	5.73	5.94	8.45	7.65	9.26	7.95	7.50	-
SS (mg/L)	10.0	14.0	15.0	16.0	18.0	18.0	15.17	-
Remarks	-							

Date	2/10/2009							
Station	D1							
Time (hh:mm)	08:54-08:59							
Ambient Temperature (℃)								
Weather	Cloudy							
Water Depth (m)	8.20							
Monitoring Depth (m)	1.10		4.00		7.10			
Tide	Flood							
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	18.6	18.6	18.4	18.4	18.4	18.4	18.48	-
Salinity (ppt)	29.1	29.1	30.0	30.1	30.1	30.1	29.76	-
pH	8.1	8.1	8.0	8.0	8.0	8.0	8.05	
D.O. Saturation (%)	115.8	114.3	110.8	111.7	109.1	112.7	112.41	-
D.O. (mg/L)	9.11	8.99	8.69	8.76	8.55	8.83	8.82	8.69
Turbidity (NTU)	6.44	6.44	8.55	7.75	8.35	7.95	7.58	-
SS (mg/L)	9.0	10.0	11.0	13.0	13.0	13.0	11.50	-
Remarks	-							

Annex E5 - Water Quality Results at Airport during mid-ebb tide for 11 February 2009

Sampling Date	2/11/2009
Weather & Ambient Temperature	Sunny

Mid-Ebb

Station	C3								
Time (hh:mm)	13:23-13:28								
Water Depth (m)	11.00								
Monitoring Depth (m)	1.20		5.60		10.00				
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*	*Surface&Middle*
Water Temperature (℃)	19.3	19.3	18.9	18.9	18.9	18.9	19.04	-	
Salinity (ppt)	29.1	29.1	29.7	29.7	30.1	30.1	29.62	-	
pH	8.1	8.1	8.0	8.0	8.0	8.0	8.02		
D.O. Saturation (%)	123.0	121.7	116.1	116.7	112.9	117.3	117.93	-	
D.O. (mg/L)	9.54	9.44	9.04	9.09	8.78	9.12	9.17	8.95	9.28
Turbidity (NTU)	6.40	6.30	6.60	7.10	5.50	5.30	6.24	-	
SS (mg/L)	10.0	10.0	12.0	11.0	9.0	9.0	10.17	-	
Remarks									

Station	U2								
Time (hh:mm)	14:05-14:11								
Water Depth (m)	8.10								
Monitoring Depth (m)	1.20		4.00		7.10				
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*	*Surface&Middle*
Water Temperature (℃)	19.3	19.1	19.1	19.1	19.0	19.0	19.10	-	
Salinity (ppt)	29.1	29.1	29.2	29.2	29.2	29.3	29.17	-	
pH	8.1	8.1	8.1	8.1	8.1	8.1	8.08		
D.O. Saturation (%)	121.3	119.6	118.3	118.6	113.5	119.0	118.38	-	
D.O. (mg/L)	9.42	9.31	9.21	9.24	8.84	9.27	9.22	9.06	9.30
Turbidity (NTU)	9.30	11.70	13.10	14.10	15.70	13.70	12.91	-	
SS (mg/L)	15.0	18.0	23.0	22.0	26.0	25.0	21.50	-	
Remarks									

Station	C4								
Time (hh:mm)	14:42-14:49								
Water Depth (m)	8.10								
Monitoring Depth (m)	1.20		4.00		7.00				
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*	*Surface&Middle*
Water Temperature (℃)	20.0	19.6	19.7	19.6	19.1	19.2	19.51	-	
Salinity (ppt)	28.4	28.5	28.6	28.6	29.5	29.3	28.81	-	
pH	8.2	8.1	8.1	8.1	8.1	8.1	8.10		
D.O. Saturation (%)	135.3	128.9	124.0	129.4	116.1	123.8	126.27	-	
D.O. (mg/L)	10.41	9.99	9.58	10.02	9.03	9.62	9.78	9.33	10.00
Turbidity (NTU)	5.50	6.30	6.60	6.20	17.70	15.80	9.71	-	
SS (mg/L)	12.0	11.0	8.0	10.0	26.0	26.0	15.50	-	
Remarks									

Station	SR2								
Time (hh:mm)	14:17-14:21								
Water Depth (m)	5.10								
Monitoring Depth (m)	1.10		2.50		4.10				
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*	*Surface&Middle*
Water Temperature (℃)	19.7	19.8	19.5	19.7	19.4	19.3	19.55	-	
Salinity (ppt)	29.5	29.4	29.5	29.4	29.6	29.4	29.45	-	
pH	8.1	8.1	8.1	8.1	8.1	8.1	8.07		
D.O. Saturation (%)	118.2	118.7	114.8	118.4	112.9	117.0	116.65	-	
D.O. (mg/L)	9.08	9.11	8.86	9.10	8.72	9.06	8.99	8.89	9.04
Turbidity (NTU)	8.00	7.70	10.40	8.60	10.80	10.10	9.22	-	
SS (mg/L)	12.0	14.0	12.0	14.0	16.0	16.0	14.00	-	
Remarks									

Station	D2								
Time (hh:mm)	14:27-14:31								
Water Depth (m)	6.80								
Monitoring Depth (m)	1.10		3.50		5.90				
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*	*Surface&Middle*
Water Temperature (℃)	18.9	18.9	18.9	18.9	18.9	18.9	18.91	-	
Salinity (ppt)	29.2	29.2	29.3	29.3	29.3	29.4	29.28	-	
pH	8.1	8.1	8.1	8.1	8.1	8.1	8.07		
D.O. Saturation (%)	115.7	116.3	115.6	115.9	113.2	115.2	115.32	-	
D.O. (mg/L)	9.04	9.08	9.03	9.05	8.84	8.99	9.01	8.92	9.05
Turbidity (NTU)	18.60	16.60	18.70	18.40	23.00	22.30	19.62	-	
SS (mg/L)	28.0	31.0	25.0	29.0	36.0	34.0	30.50	-	
Remarks									

Station	SR3								
Time (hh:mm)	13:56-14:01								
Water Depth (m)	12.10								
Monitoring Depth (m)	1.30		6.10		11.00				
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*	*Surface&Middle*
Water Temperature (℃)	19.6	19.5	18.8	18.9	18.8	18.8	19.07	-	
Salinity (ppt)	28.6	28.7	29.6	29.5	29.7	29.7	29.31	-	
pH	8.1	8.1	8.1	8.1	8.1	8.1	8.08		
D.O. Saturation (%)	125.4	128.2	115.0	116.5	112.2	117.3	119.11	-	
D.O. (mg/L)	9.70	9.93	8.98	9.09	8.76	9.15	9.27	8.96	9.43
Turbidity (NTU)	6.20	6.50	9.10	8.30	15.40	16.00	10.25	-	
SS (mg/L)	12.0	12.0	12.0	15.0	28.0	22.0	16.83	-	
Remarks									

Station	G1								
Time (hh:mm)	13:35-13:40								
Water Depth (m)	10.90								
Monitoring Depth (m)	1.30		5.40		9.90				
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*	*Surface&Middle*
Water Temperature (℃)	19.0	19.0	18.9	18.9	18.9	18.9	18.90	-	
Salinity (ppt)	29.3	29.3	29.7	29.7	29.7	29.8	29.59	-	
pH	8.1	8.1	8.1	8.1	8.1	8.1	8.07		
D.O. Saturation (%)	120.6	122.3	115.9	116.3	114.8	116.6	117.75	-	
D.O. (mg/L)	9.40	9.53	9.04	9.07	8.95	9.08	9.18	9.02	9.26
Turbidity (NTU)	6.40	6.60	7.00	6.90	7.40	7.30	6.97	-	
SS (mg/L)	10.0	10.0	9.0	9.0	12.0	10.0	10.00	-	
Remarks									

Station	SR4								
Time (hh:mm)	13:46-13:51								
Water Depth (m)	9.90								
Monitoring Depth (m)	1.20		5.00		9.00				
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*	*Surface&Middle*
Water Temperature (℃)	19.9	19.9	18.8	19.1	18.8	18.8	19.20	-	
Salinity (ppt)	29.3	29.2	29.7	29.5	29.7	29.8	29.54	-	
pH	8.2	8.3	8.1	8.1	8.1	8.1	8.14		
D.O. Saturation (%)	138.6	166.4	115.2	122.3	113.6	125.4	130.23	-	
D.O. (mg/L)	10.62	12.76	8.99	9.50	8.87	9.78	10.09	9.33	10.47
Turbidity (NTU)	5.70	6.30	6.40	5.10	7.90	8.80	6.71	-	
SS (mg/L)	14.0	14.0	10.0	8.0	12.0	13.0	11.83	-	
Remarks									

Annex E6 - Water Quality Results at Airport during mid-flood tide for 11 February 2009

Sampling Date	2/11/2009
Weather & Ambient Temperature	Cloudy

Mid-Flood

Station	C3								
Time (hh:mm)	08:18-08:22								
Water Depth (m)	10.20								
Monitoring Depth (m)	1.10		5.30		9.10				
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*	*Surface&Middle*
Water Temperature (℃)	18.8	18.7	18.8	18.8	18.8	18.8	18.75	-	
Salinity (ppt)	29.7	29.7	29.8	29.9	29.8	29.9	29.78	-	
pH	8.1	8.1	8.1	8.1	8.1	8.1	8.09		
D.O. Saturation (%)	113.5	114.2	112.8	112.7	112.5	112.6	113.01	-	
D.O. (mg/L)	8.86	8.92	8.80	8.79	8.78	8.78	8.82	8.78	8.84
Turbidity (NTU)	7.40	5.90	11.20	11.90	15.80	14.00	11.03	-	
SS (mg/L)	22.0	20.0	22.0	26.0	32.0	28.0	25.00	-	
Remarks									

Station	U2								
Time (hh:mm)	09:16-09:22								
Water Depth (m)	8.00								
Monitoring Depth (m)	1.10		4.10		7.00				
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*	*Surface&Middle*
Water Temperature (℃)	18.9	18.9	18.9	18.9	18.9	18.9	18.91	-	
Salinity (ppt)	29.2	29.3	29.2	29.2	29.4	29.3	29.27	-	
pH	8.1	8.1	8.1	8.1	8.1	8.1	8.08		
D.O. Saturation (%)	111.5	111.8	111.4	112.2	109.5	111.8	111.34	-	
D.O. (mg/L)	8.71	8.73	8.70	8.76	8.55	8.73	8.70	8.64	8.73
Turbidity (NTU)	17.50	19.90	18.30	15.90	21.90	25.60	19.85	-	
SS (mg/L)	24.0	26.0	34.0	35.0	26.0	31.0	29.33	-	
Remarks									

Station	C4								
Time (hh:mm)	09:53-09:57								
Water Depth (m)	9.10								
Monitoring Depth (m)	1.20		4.30		7.90				
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*	*Surface&Middle*
Water Temperature (℃)	18.9	18.9	18.8	18.8	18.8	18.8	18.82	-	
Salinity (ppt)	29.3	29.4	29.7	29.7	29.8	29.8	29.59	-	
pH	8.1	8.1	8.1	8.1	8.1	8.1	8.08		
D.O. Saturation (%)	113.6	113.4	111.6	112.0	109.3	111.8	111.97	-	
D.O. (mg/L)	8.87	8.85	8.71	8.75	8.53	8.73	8.74	8.63	8.80
Turbidity (NTU)	7.10	8.30	11.90	12.00	18.80	18.50	12.76	-	
SS (mg/L)	11.0	11.0	13.0	20.0	27.0	30.0	18.67	-	
Remarks									

Station	SR2								
Time (hh:mm)	09:32-09:37								
Water Depth (m)	5.10								
Monitoring Depth (m)	1.10		2.50		4.00				
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*	*Surface&Middle*
Water Temperature (℃)	18.9	18.9	18.9	18.9	18.8	18.9	18.86	-	
Salinity (ppt)	29.3	29.5	29.5	29.5	29.6	29.5	29.50	-	
pH	8.1	8.1	8.1	8.1	8.1	8.1	8.09		
D.O. Saturation (%)	112.9	113.1	112.7	112.7	109.6	112.6	112.23	-	
D.O. (mg/L)	8.81	8.83	8.79	8.79	8.55	8.78	8.76	8.67	8.81
Turbidity (NTU)	11.80	11.80	12.00	11.20	12.10	12.40	11.85	-	
SS (mg/L)	17.0	18.0	20.0	20.0	23.0	22.0	20.00	-	
Remarks									

Station	D2								
Time (hh:mm)	09:41-09:46								
Water Depth (m)	7.00								
Monitoring Depth (m)	1.10		3.50		6.00				
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*	*Surface&Middle*
Water Temperature (℃)	18.9	18.9	18.8	18.9	18.8	18.8	18.84	-	
Salinity (ppt)	29.4	29.4	29.6	29.6	29.7	29.7	29.58	-	
pH	8.1	8.1	8.1	8.1	8.1	8.1	8.08		
D.O. Saturation (%)	112.7	113.2	112.2	112.3	110.0	111.6	112.04	-	
D.O. (mg/L)	8.80	8.84	8.76	8.76	8.59	8.71	8.74	8.65	8.79
Turbidity (NTU)	10.30	9.80	12.60	13.50	18.00	17.70	13.63	-	
SS (mg/L)	14.0	15.0	23.0	20.0	28.0	24.0	20.67	-	
Remarks									

Station	SR3								
Time (hh:mm)	09:07-09:11								
Water Depth (m)	12.20								
Monitoring Depth (m)	1.20		6.10		11.10				
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*	*Surface&Middle*
Water Temperature (℃)	18.8	18.8	18.9	18.9	19.0	19.0	18.88	-	
Salinity (ppt)	29.4	29.4	29.4	29.4	29.6	29.6	29.46	-	
pH	8.1	8.1	8.1	8.1	8.1	8.1	8.08		
D.O. Saturation (%)	112.7	112.5	112.9	113.3	110.6	112.8	112.45	-	
D.O. (mg/L)	8.80	8.79	8.82	8.85	8.61	8.78	8.78	8.70	8.82
Turbidity (NTU)	10.00	10.00	8.50	7.80	10.20	9.20	9.24	-	
SS (mg/L)	17.0	17.0	12.0	14.0	18.0	15.0	15.50	-	
Remarks									

Station	G1								
Time (hh:mm)	10:12-10:17								
Water Depth (m)	11.80								
Monitoring Depth (m)	1.20		5.90		10.90				
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*	*Surface&Middle*
Water Temperature (℃)	18.9	18.9	18.8	18.8	18.8	18.8	18.83	-	
Salinity (ppt)	29.7	29.7	29.8	29.8	29.8	29.8	29.79	-	
pH	8.1	8.1	8.1	8.1	8.1	8.1	8.10		
D.O. Saturation (%)	115.7	120.9	111.0	113.6	110.4	113.8	114.22	-	
D.O. (mg/L)	9.01	9.41	8.66	8.86	8.61	8.87	8.90	8.74	8.99
Turbidity (NTU)	6.40	5.10	9.10	8.10	10.80	12.90	8.72	-	
SS (mg/L)	12.0	9.0	14.0	12.0	21.0	18.0	14.33	-	
Remarks									

Station	SR4								
Time (hh:mm)	08:55-09:01								
Water Depth (m)	10.10								
Monitoring Depth (m)	1.10		5.10		8.90				
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*	*Surface&Middle*
Water Temperature (℃)	18.7	18.8	18.8	18.8	18.8	18.8	18.75	-	
Salinity (ppt)	29.3	29.4	29.7	29.7	29.8	29.8	29.63	-	
pH	8.1	8.1	8.1	8.1	8.1	8.1	8.09		
D.O. Saturation (%)	117.6	118.2	112.6	112.5	111.9	112.0	114.14	-	
D.O. (mg/L)	9.21	9.24	8.79	8.79	8.74	8.75	8.92	8.75	9.01
Turbidity (NTU)	6.30	6.20	13.10	13.60	27.90	27.30	15.73	-	
SS (mg/L)	12.0	12.0	14.0	27.0	44.0	35.0	24.00	-	
Remarks									

Annex E7 - Water Quality Results at Tuen Mun during mid-ebb tide for 12 February 2009

Date	2/12/2009							
Station	C1							
Time (hh:mm)	14:49-14:54							
Ambient Temperature (℃)								
Weather	Sunny							
Water Depth (m)	7.10							
Monitoring Depth (m)	1.10		3.50		6.10			
Tide	Ebb							
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	19.5	19.6	19.5	19.5	19.2	19.3	19.44	-
Salinity (ppt)	29.7	29.7	29.7	29.7	29.8	29.8	29.72	-
pH	8.0	8.1	8.0	8.1	8.0	8.0	8.02	
D.O. Saturation (%)	132.0	131.7	128.4	129.1	113.0	129.6	127.30	-
D.O. (mg/L)	10.16	10.13	9.89	9.94	8.74	10.01	9.81	9.38
Turbidity (NTU)	6.74	4.93	5.23	5.13	6.74	5.13	5.65	-
SS (mg/L)	11.0	10.0	8.0	8.0	11.0	10.0	9.67	-
Remarks	-							

Date	2/12/2009							
Station	U1							
Time (hh:mm)	15:03-15:08							
Ambient Temperature (℃)								
Weather	Sunny							
Water Depth (m)	8.10							
Monitoring Depth (m)	1.20		4.10		7.10			
Tide	Ebb							
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	19.3	19.3	19.1	19.2	19.1	19.1	19.21	-
Salinity (ppt)	29.8	29.8	29.9	29.8	29.9	29.9	29.86	-
pH	8.1	8.1	8.0	8.0	8.0	8.0	8.02	
D.O. Saturation (%)	123.7	124.1	114.0	119.0	111.8	115.8	118.07	-
D.O. (mg/L)	9.56	9.58	8.83	9.20	8.66	8.97	9.13	8.82
Turbidity (NTU)	6.14	6.84	6.14	5.83	6.34	6.24	6.26	-
SS (mg/L)	10.0	13.0	9.0	11.0	10.0	12.0	10.83	-
Remarks	-							

Date	2/12/2009							
Station	C2							
Time (hh:mm)	15:41-15:46							
Ambient Temperature (℃)								
Weather	Sunny							
Water Depth (m)	12.90							
Monitoring Depth (m)	1.00		6.50		11.90			
Tide	Ebb							
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	19.4	19.4	19.2	19.2	19.1	19.1	19.23	-
Salinity (ppt)	29.7	29.6	29.9	29.9	30.0	30.0	29.85	-
pH	8.1	8.1	8.1	8.1	8.0	8.0	8.06	
D.O. Saturation (%)	124.0	128.3	114.2	117.9	109.5	117.3	118.54	-
D.O. (mg/L)	9.58	9.91	8.84	9.12	8.49	9.08	9.17	8.79
Turbidity (NTU)	5.73	5.53	5.33	5.43	6.34	6.34	5.78	-
SS (mg/L)	10.0	11.0	10.0	8.0	10.0	12.0	10.17	-
Remarks	-							

Date	2/12/2009							
Station	SR1							
Time (hh:mm)	15:14-15:18							
Ambient Temperature (℃)								
Weather	Sunny							
Water Depth (m)	4.10							
Monitoring Depth (m)	1.10		2.10		3.10			
Tide	Ebb							
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	19.7	19.6	19.7	19.3	19.3	19.4	19.50	-
Salinity (ppt)	29.6	29.6	29.6	29.7	29.7	29.7	29.66	-
pH	8.2	8.2	8.2	8.1	8.1	8.1	8.13	
D.O. Saturation (%)	155.2	143.0	147.5	130.0	120.4	136.4	138.73	-
D.O. (mg/L)	11.92	10.99	11.32	10.05	9.30	10.52	10.68	9.91
Turbidity (NTU)	4.12	3.92	4.12	5.13	4.23	4.73	4.38	-
SS (mg/L)	7.0	7.0	6.0	9.0	8.0	7.0	7.33	-
Remarks	-							

Date	2/12/2009							
Station	D1							
Time (hh:mm)	15:24-15:28							
Ambient Temperature (℃)								
Weather	Sunny							
Water Depth (m)	8.20							
Monitoring Depth (m)	1.00		4.10		7.00			
Tide	Ebb							
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	19.3	19.3	19.2	19.3	19.2	19.2	19.26	-
Salinity (ppt)	29.8	29.8	29.9	29.8	29.9	29.9	29.84	-
pH	8.1	8.1	8.1	8.1	8.0	8.0	8.07	
D.O. Saturation (%)	125.4	127.6	117.8	124.6	112.0	120.2	121.27	-
D.O. (mg/L)	9.68	9.85	9.11	9.63	8.67	9.30	9.37	8.99
Turbidity (NTU)	5.63	6.24	5.63	5.94	7.65	6.14	6.21	-
SS (mg/L)	11.0	14.0	9.0	10.0	10.0	12.0	11.00	-
Remarks	-							

Annex E8 - Water Quality Results at Tuen Mun during mid-flood tide for 12 February 2009

Date	2/12/2009							
Station	C1							
Time (hh:mm)	09:00-09:06							
Ambient Temperature (℃)								
Weather	Sunny							
Water Depth (m)	7.20							
Monitoring Depth (m)	1.10		3.60		6.10			
Tide	Flood							
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	19.1	19.0	19.0	19.0	18.9	18.9	18.98	-
Salinity (ppt)	29.3	29.4	29.9	29.8	29.9	29.9	29.70	-
pH	8.0	8.0	8.0	8.0	8.0	8.0	8.00	
D.O. Saturation (%)	110.4	110.0	107.5	108.2	105.9	108.5	108.42	-
D.O. (mg/L)	8.59	8.56	8.36	8.41	8.23	8.44	8.43	8.34
Turbidity (NTU)	5.33	5.23	10.16	9.96	12.88	12.58	9.36	-
SS (mg/L)	14.0	8.0	18.0	19.0	16.0	15.0	15.00	-
Remarks	-							

Date	2/12/2009							
Station	U1							
Time (hh:mm)	09:13-09:18							
Ambient Temperature (℃)								
Weather	Sunny							
Water Depth (m)	8.10							
Monitoring Depth (m)	1.10		3.50		7.00			
Tide	Flood							
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	19.0	19.0	19.0	19.0	19.0	19.0	18.97	-
Salinity (ppt)	29.8	29.6	29.9	29.9	30.0	30.0	29.86	-
pH	8.0	8.0	8.0	8.0	8.0	8.0	8.03	
D.O. Saturation (%)	109.2	109.7	107.9	108.4	105.8	108.5	108.25	-
D.O. (mg/L)	8.49	8.53	8.38	8.42	8.22	8.43	8.41	8.33
Turbidity (NTU)	6.34	6.04	7.55	8.45	8.45	9.05	7.65	-
SS (mg/L)	9.0	10.0	14.0	12.0	12.0	15.0	12.00	-
Remarks	-							

Date	2/12/2009							
Station	C2							
Time (hh:mm)	10:01-10:06							
Ambient Temperature (℃)								
Weather	Sunny							
Water Depth (m)	13.10							
Monitoring Depth (m)	1.00		6.50		12.10			
Tide	Flood							
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	19.1	19.0	19.0	19.0	19.0	19.0	19.04	-
Salinity (ppt)	29.5	29.6	29.8	29.7	29.8	29.8	29.70	-
	8.1	8.0	8.1	8.0	8.1	8.0	8.05	
D.O. Saturation (%)	109.4	110.9	106.9	109.3	104.1	108.3	108.15	-
D.O. (mg/L)	8.50	8.62	8.30	8.50	8.09	8.41	8.40	8.25
Turbidity (NTU)	5.83	6.94	11.57	8.85	12.88	11.27	9.56	-
SS (mg/L)	14.0	10.0	16.0	19.0	23.0	20.0	17.00	-
Remarks	-							

Date	2/12/2009							
Station	SR1							
Time (hh:mm)	09:23-09:28							
Ambient Temperature (℃)								
Weather	Sunny							
Water Depth (m)	5.00							
Monitoring Depth (m)	1.20		2.50		4.00			
Tide	Flood							
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	19.1	19.1	19.1	19.1	19.0	19.0	19.05	-
Salinity (ppt)	29.7	29.5	29.8	29.8	29.9	30.0	29.76	-
pH	8.1	8.1	8.1	8.0	8.1	8.0	8.05	
D.O. Saturation (%)	112.4	113.8	111.5	112.2	109.7	111.9	111.92	-
D.O. (mg/L)	8.73	8.84	8.66	8.71	8.51	8.68	8.69	8.60
Turbidity (NTU)	6.04	5.53	7.24	6.84	7.55	8.05	6.88	-
SS (mg/L)	9.0	11.0	11.0	13.0	15.0	12.0	11.83	-
Remarks	-							

Date	2/12/2009							
Station	D1							
Time (hh:mm)	09:37-09:42							
Ambient Temperature (℃)								
Weather	Sunny							
Water Depth (m)	8.00							
Monitoring Depth (m)	1.20		4.20		7.00			
Tide	Flood							
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	19.1	19.1	19.0	19.0	19.0	19.0	19.03	-
Salinity (ppt)	29.5	29.5	29.9	29.8	29.9	29.9	29.75	-
pH	8.1	8.1	8.0	8.0	8.1	8.0	8.05	
D.O. Saturation (%)	112.1	112.5	110.0	109.7	109.8	110.9	110.83	-
D.O. (mg/L)	8.71	8.74	8.54	8.52	8.52	8.61	8.61	8.57
Turbidity (NTU)	5.43	5.94	7.85	6.94	9.15	7.44	7.13	-
SS (mg/L)	8.0	8.0	12.0	12.0	14.0	14.0	11.33	-
Remarks	-							

Annex E9 - Water Quality Results at Airport during mid-ebb tide for 13 February 2009

Sampling Date	2/13/2009
Weather & Ambient Temperature	Cloudy

Mid-Ebb

Station	C3								
Time (hh:mm)	09:14-09:19								
Water Depth (m)	10.00								
Monitoring Depth (m)	0.90		4.90		9.00				
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*	*Surface&Middle*
Water Temperature (℃)	19.5	19.5	19.4	19.4	19.4	19.4	19.46	-	
Salinity (ppt)	28.8	28.8	29.6	29.5	29.9	30.0	29.42	-	
pH	7.9	7.9	7.9	7.9	7.9	7.9	7.88		
D.O. Saturation (%)	106.8	107.9	104.0	105.5	101.9	105.4	105.22	-	
D.O. (mg/L)	8.26	8.35	8.02	8.14	7.85	8.11	8.12	7.98	8.19
Turbidity (NTU)	5.80	5.60	7.20	9.30	20.50	25.40	12.31	-	
SS (mg/L)	8.0	8.0	19.0	9.0	42.0	54.0	23.33	-	
Remarks									

Station	U2								
Time (hh:mm)	10:04-10:10								
Water Depth (m)	8.10								
Monitoring Depth (m)	1.20		4.00		7.00				
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*	*Surface&Middle*
Water Temperature (℃)	19.8	19.8	19.6	19.6	19.6	19.6	19.65	-	
Salinity (ppt)	28.3	28.4	28.5	28.5	28.7	28.6	28.50	-	
pH	8.0	8.0	8.0	8.0	8.0	8.0	7.96		
D.O. Saturation (%)	105.2	105.4	104.9	105.7	102.9	104.9	104.84	-	
D.O. (mg/L)	8.13	8.14	8.12	8.19	7.96	8.13	8.11	8.05	8.15
Turbidity (NTU)	12.50	14.00	11.70	10.20	17.40	24.80	15.07	-	
SS (mg/L)	21.0	18.0	24.0	15.0	35.0	27.0	23.33	-	
Remarks									

Station	C4								
Time (hh:mm)	10:37-10:43								
Water Depth (m)	9.00								
Monitoring Depth (m)	1.10		4.30		7.90				
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*	*Surface&Middle*
Water Temperature (℃)	19.6	19.6	19.5	19.6	19.5	19.4	19.53	-	
Salinity (ppt)	28.8	28.7	29.2	28.9	29.5	29.6	29.11	-	
pH	8.0	8.0	8.0	8.0	8.0	8.0	7.99		
D.O. Saturation (%)	107.2	108.0	105.3	106.4	102.0	105.0	105.66	-	
D.O. (mg/L)	8.29	8.35	8.14	8.23	7.87	8.10	8.16	7.99	8.25
Turbidity (NTU)	7.60	7.20	12.50	9.00	21.10	20.20	12.93	-	
SS (mg/L)	12.0	9.0	17.0	12.0	30.0	30.0	18.33	-	
Remarks									

Station	SR2								
Time (hh:mm)	10:15-10:21								
Water Depth (m)	5.00								
Monitoring Depth (m)	1.20		2.60		4.00				
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*	*Surface&Middle*
Water Temperature (℃)	19.6	19.6	19.6	19.6	19.6	19.6	19.59	-	
Salinity (ppt)	28.6	28.6	28.6	28.7	28.6	28.8	28.64	-	
pH	8.0	8.0	8.0	8.0	8.0	8.0	7.97		
D.O. Saturation (%)	105.7	106.1	105.0	106.1	102.7	105.7	105.19	-	
D.O. (mg/L)	8.18	8.20	8.13	8.21	7.95	8.18	8.14	8.07	8.18
Turbidity (NTU)	10.40	11.10	10.50	11.20	10.50	13.50	11.17	-	
SS (mg/L)	15.0	17.0	17.0	17.0	14.0	22.0	17.00	-	
Remarks									

Station	D2								
Time (hh:mm)	10:26-10:31								
Water Depth (m)	8.00								
Monitoring Depth (m)	1.20		4.10		7.00				
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*	*Surface&Middle*
Water Temperature (℃)	19.6	19.6	19.5	19.5	19.5	19.5	19.54	-	
Salinity (ppt)	28.7	28.7	29.2	29.4	29.2	29.4	29.08	-	
pH	8.0	8.0	8.0	8.0	8.0	8.0	7.98		
D.O. Saturation (%)	105.7	106.8	104.0	105.3	103.6	105.2	105.10	-	
D.O. (mg/L)	8.17	8.26	8.03	8.13	8.00	8.12	8.12	8.06	8.15
Turbidity (NTU)	8.80	9.00	18.20	23.30	21.70	21.90	17.15	-	
SS (mg/L)	16.0	16.0	24.0	36.0	25.0	37.0	25.67	-	
Remarks									

Station	SR3								
Time (hh:mm)	09:54-10:00								
Water Depth (m)	11.90								
Monitoring Depth (m)	1.20		5.60		11.00				
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*	*Surface&Middle*
Water Temperature (℃)	19.6	19.6	19.5	19.5	19.6	19.6	19.56	-	
Salinity (ppt)	28.5	28.5	28.9	28.9	29.2	29.2	28.88	-	
pH	8.0	8.0	8.0	8.0	8.0	8.0	7.97		
D.O. Saturation (%)	107.9	107.3	105.1	106.1	104.4	101.6	105.41	-	
D.O. (mg/L)	8.36	8.31	8.13	8.21	8.06	7.84	8.15	7.95	8.25
Turbidity (NTU)	5.60	6.00	10.30	9.00	8.30	10.00	8.18	-	
SS (mg/L)	10.0	18.0	12.0	14.0	16.0	12.0	13.67	-	
Remarks									

Station	G1								
Time (hh:mm)	10:58-11:04								
Water Depth (m)	11.90								
Monitoring Depth (m)	1.10		5.70		10.50				
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*	*Surface&Middle*
Water Temperature (℃)	19.6	19.7	19.4	19.5	19.4	19.4	19.51	-	
Salinity (ppt)	29.1	29.1	29.5	29.4	29.5	29.5	29.33	-	
pH	8.0	8.1	8.0	8.0	8.0	8.0	8.02		
D.O. Saturation (%)	110.0	113.6	103.3	106.3	101.4	104.1	106.45	-	
D.O. (mg/L)	8.48	8.76	7.98	8.20	7.83	8.04	8.22	7.94	8.36
Turbidity (NTU)	4.70	5.20	12.70	8.50	21.90	16.20	11.54	-	
SS (mg/L)	7.0	9.0	19.0	13.0	34.0	27.0	18.17	-	
Remarks									

Station	SR4								
Time (hh:mm)	09:44-09:50								
Water Depth (m)	9.90								
Monitoring Depth (m)	1.10		5.10		9.00				
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*	*Surface&Middle*
Water Temperature (℃)	19.6	19.7	19.5	19.5	19.4	19.4	19.52	-	
Salinity (ppt)	28.8	28.6	29.2	29.0	29.6	29.7	29.16	-	
pH	8.0	8.0	8.0	8.0	8.0	8.0	7.96		
D.O. Saturation (%)	109.8	112.6	105.3	106.3	103.8	104.5	107.04	-	
D.O. (mg/L)	8.49	8.70	8.14	8.22	8.01	8.06	8.27	8.04	8.39
Turbidity (NTU)	5.70	5.50	6.90	6.00	13.80	20.00	9.67	-	
SS (mg/L)	8.0	10.0	10.0	9.0	35.0	30.0	17.00	-	
Remarks									

Annex E10 - Water Quality Results at Airport during mid-flood tide for 13 February 2009

Sampling Date	2/13/2009
Weather & Ambient Temperature	Cloudy

Mid-Flood

Station	**C3**								
Time (hh:mm)	15:57-16:06								
Water Depth (m)	10.40								
Monitoring Depth (m)	1.30		5.20		8.60				
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	***Depth-averaged***	***Bottom***	***Surface&Middle***
Water Temperature (℃)	19.7	19.7	19.5	19.6	19.5	19.6	19.57	-	
Salinity (ppt)	29.3	29.2	29.6	29.8	29.6	30.0	29.58	-	
pH	7.7	7.7	7.7	7.7	7.7	7.7	7.70		
D.O. Saturation (%)	99.8	101.2	99.1	100.1	98.5	103.6	100.36	-	
D.O. (mg/L)	7.68	7.79	7.64	7.70	7.60	7.95	7.73	7.78	7.70
Turbidity (NTU)	11.30	9.30	28.00	17.90	31.40	47.50	24.21	-	
SS (mg/L)	9.0	18.0	16.0	30.0	18.0	36.0	21.17	-	
Remarks									

Station	**U2**								
Time (hh:mm)	16:43-16:49								
Water Depth (m)	7.10								
Monitoring Depth (m)	1.20		3.60		5.50				
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	***Depth-averaged***	***Bottom***	***Surface&Middle***
Water Temperature (℃)	19.7	19.7	19.7	19.7	19.7	19.7	19.72	-	
Salinity (ppt)	30.5	30.7	31.2	30.9	31.2	31.2	30.94	-	
pH	7.8	7.8	7.8	7.8	7.8	7.8	7.76		
D.O. Saturation (%)	98.4	98.6	98.3	98.8	98.0	98.6	98.45	-	
D.O. (mg/L)	7.51	7.52	7.48	7.52	7.45	7.50	7.50	7.48	7.51
Turbidity (NTU)	20.80	22.10	39.80	21.50	46.70	36.70	31.29	-	
SS (mg/L)	24.0	19.0	26.0	42.0	54.0	48.0	35.50	-	
Remarks									

Station	**C4**								
Time (hh:mm)	17:14-17:21								
Water Depth (m)	8.00								
Monitoring Depth (m)	1.20		3.90		6.60				
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	***Depth-averaged***	***Bottom***	***Surface&Middle***
Water Temperature (℃)	19.9	19.8	19.9	19.8	19.9	19.9	19.85	-	
Salinity (ppt)	28.1	27.9	29.7	28.8	30.2	29.8	29.11	-	
pH	7.8	7.8	7.8	7.8	7.8	7.8	7.78		
D.O. Saturation (%)	102.2	103.5	101.2	102.4	99.8	101.8	101.83	-	
D.O. (mg/L)	7.89	8.00	7.74	7.89	7.61	7.78	7.82	7.70	7.88
Turbidity (NTU)	6.40	6.50	11.10	8.00	15.10	10.80	9.64	-	
SS (mg/L)	11.0	8.0	13.0	14.0	19.0	12.0	12.83	-	
Remarks									

Station	**SR2**								
Time (hh:mm)	16:54-16:58								
Water Depth (m)	4.20								
Monitoring Depth (m)	1.00		2.00		3.10				
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	***Depth-averaged***	***Bottom***	***Surface&Middle***
Water Temperature (℃)	19.8	19.8	19.7	19.7	19.8	19.7	19.74	-	
Salinity (ppt)	29.9	30.0	30.4	30.2	30.1	30.3	30.13	-	
pH	7.8	7.8	7.8	7.8	7.8	7.8	7.76		
D.O. Saturation (%)	96.6	97.1	96.3	96.8	96.5	96.4	96.64	-	
D.O. (mg/L)	7.39	7.43	7.36	7.41	7.38	7.38	7.39	7.38	7.40
Turbidity (NTU)	18.10	18.40	25.10	20.80	18.60	22.00	20.51	-	
SS (mg/L)	23.0	23.0	31.0	25.0	21.0	29.0	25.33	-	
Remarks									

Station	**D2**								
Time (hh:mm)	17:03-17:08								
Water Depth (m)	6.90								
Monitoring Depth (m)	1.30		3.70		6.00				
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	***Depth-averaged***	***Bottom***	***Surface&Middle***
Water Temperature (℃)	19.9	19.9	19.8	19.9	19.7	19.9	19.84	-	
Salinity (ppt)	29.5	29.5	29.9	29.8	30.8	30.0	29.90	-	
pH	7.8	7.8	7.8	7.8	7.8	7.8	7.77		
D.O. Saturation (%)	100.4	102.5	97.4	101.2	96.0	101.0	99.74	-	
D.O. (mg/L)	7.68	7.84	7.45	7.74	7.33	7.71	7.63	7.52	7.68
Turbidity (NTU)	12.40	12.10	16.30	12.70	20.20	12.20	14.30	-	
SS (mg/L)	18.0	14.0	18.0	16.0	26.0	10.0	17.00	-	
Remarks									

Station	**SR3**								
Time (hh:mm)	16:30-16:36								
Water Depth (m)	10.90								
Monitoring Depth (m)	1.50		4.70		8.90				
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	***Depth-averaged***	***Bottom***	***Surface&Middle***
Water Temperature (℃)	19.8	19.9	19.8	19.8	19.7	19.8	19.81	-	
Salinity (ppt)	30.2	29.7	30.4	30.5	31.2	30.7	30.44	-	
pH	7.7	7.8	7.7	7.7	7.8	7.8	7.75		
D.O. Saturation (%)	98.3	102.6	97.8	99.0	96.6	98.6	98.79	-	
D.O. (mg/L)	7.51	7.84	7.46	7.54	7.35	7.50	7.53	7.43	7.59
Turbidity (NTU)	15.40	11.60	14.30	13.30	32.60	13.50	16.77	-	
SS (mg/L)	21.0	13.0	15.0	16.0	42.0	14.0	20.17	-	
Remarks									

Station	**G1**								
Time (hh:mm)	17:32-17:37								
Water Depth (m)	9.90								
Monitoring Depth (m)	1.20		4.60		8.90				
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	***Depth-averaged***	***Bottom***	***Surface&Middle***
Water Temperature (℃)	19.8	19.8	19.9	19.9	19.9	19.9	19.86	-	
Salinity (ppt)	27.9	27.9	29.4	29.4	29.7	29.7	29.01	-	
pH	7.8	7.8	7.8	7.8	7.8	7.8	7.78		
D.O. Saturation (%)	101.9	102.6	101.6	102.4	100.8	100.9	101.68	-	
D.O. (mg/L)	7.88	7.94	7.78	7.85	7.71	7.72	7.81	7.72	7.86
Turbidity (NTU)	6.70	6.50	9.70	12.20	14.10	15.40	10.76	-	
SS (mg/L)	7.0	11.0	14.0	12.0	17.0	21.0	13.67	-	
Remarks									

Station	**SR4**								
Time (hh:mm)	16:20-16:25								
Water Depth (m)	10.20								
Monitoring Depth (m)	1.90		5.00		8.90				
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	***Depth-averaged***	***Bottom***	***Surface&Middle***
Water Temperature (℃)	20.0	20.0	19.9	20.0	19.9	19.9	19.94	-	
Salinity (ppt)	28.8	28.8	29.5	29.5	30.0	30.1	29.44	-	
pH	7.8	7.8	7.7	7.7	7.8	7.7	7.75		
D.O. Saturation (%)	105.9	105.9	100.7	101.3	99.4	100.1	102.22	-	
D.O. (mg/L)	8.13	8.13	7.70	7.75	7.59	7.64	7.82	7.62	7.93
Turbidity (NTU)	7.30	7.30	8.50	8.60	9.50	9.70	8.47	-	
SS (mg/L)	9.0	9.0	14.0	8.0	10.0	11.0	10.17	-	
Remarks									

Annex E11 - Water Quality Results at Tuen Mun during mid-ebb tide for 14 February 2009

Date	2/14/2009							
Station	C1							
Time (hh:mm)	15:55-16:02							
Ambient Temperature (℃)								
Weather	Cloudy							
Water Depth (m)	6.80							
Monitoring Depth (m)	1.20		3.50		5.90			
Tide	Ebb							
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	19.7	19.8	19.6	19.7	19.6	19.6	19.67	-
Salinity (ppt)	29.5	29.3	29.6	29.6	29.7	29.7	29.56	-
pH	7.8	7.8	7.8	7.8	7.8	7.8	7.81	
D.O. Saturation (%)	100.4	102.9	99.4	101.1	98.9	101.3	100.66	-
D.O. (mg/L)	7.72	7.90	7.64	7.77	7.60	7.78	7.74	7.69
Turbidity (NTU)	7.85	6.74	10.06	8.35	7.95	10.16	8.52	-
SS (mg/L)	11.0	10.0	16.0	12.0	18.0	15.0	13.67	-
Remarks	-							

Date	2/14/2009							
Station	U1							
Time (hh:mm)	16:09-16:15							
Ambient Temperature (℃)								
Weather	Cloudy							
Water Depth (m)	7.80							
Monitoring Depth (m)	1.20		3.70		6.90			
Tide	Ebb							
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	19.8	19.8	19.8	19.7	19.6	19.7	19.72	-
Salinity (ppt)	29.4	29.4	29.4	29.4	29.7	29.6	29.48	-
pH	7.9	7.9	7.9	7.9	7.9	7.9	7.87	
D.O. Saturation (%)	102.5	102.5	102.8	102.0	100.0	102.2	102.00	-
D.O. (mg/L)	7.87	7.87	7.89	7.84	7.69	7.85	7.84	7.77
Turbidity (NTU)	5.83	6.04	6.34	6.54	9.05	7.14	6.82	-
SS (mg/L)	10.0	8.0	9.0	9.0	13.0	11.0	10.00	-
Remarks	-							

Date	2/14/2009							
Station	C2							
Time (hh:mm)	16:42-16:47							
Ambient Temperature (℃)								
Weather	Cloudy							
Water Depth (m)	13.00							
Monitoring Depth (m)	1.20		6.50		12.10			
Tide	Ebb							
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	19.8	19.8	19.8	19.8	19.6	19.6	19.73	-
Salinity (ppt)	29.3	29.2	29.4	29.4	29.8	29.8	29.49	-
pH	7.9	7.9	7.9	7.9	7.9	7.9	7.91	
D.O. Saturation (%)	102.7	102.7	102.5	103.1	99.1	99.4	101.58	-
D.O. (mg/L)	7.88	7.88	7.87	7.91	7.62	7.64	7.80	7.63
Turbidity (NTU)	6.44	6.24	7.34	7.44	9.15	9.86	7.75	-
SS (mg/L)	14.0	10.0	11.0	12.0	15.0	15.0	12.83	-
Remarks	-							

Date	2/14/2009							
Station	SR1							
Time (hh:mm)	16:21-16:26							
Ambient Temperature (℃)								
Weather	Cloudy							
Water Depth (m)	3.80							
Monitoring Depth (m)	1.10		1.90		2.90			
Tide	Ebb							
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	20.0	20.0	20.0	20.0	19.7	19.7	19.89	-
Salinity (ppt)	29.3	29.3	29.3	29.3	29.5	29.5	29.35	-
pH	7.9	7.9	7.9	7.9	7.9	7.9	7.92	
D.O. Saturation (%)	114.6	114.5	112.4	114.1	100.7	103.1	109.89	-
D.O. (mg/L)	8.77	8.76	8.61	8.73	7.73	7.92	8.42	7.83
Turbidity (NTU)	5.73	6.24	5.63	5.83	5.83	6.04	5.88	-
SS (mg/L)	10.0	9.0	10.0	9.0	9.0	12.0	9.83	-
Remarks	-							

Date	2/14/2009							
Station	D1							
Time (hh:mm)	16:31-16:36							
Ambient Temperature (℃)								
Weather	Cloudy							
Water Depth (m)	7.80							
Monitoring Depth (m)	1.00		4.00		6.80			
Tide	Ebb							
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	20.1	20.0	19.8	19.8	19.6	19.6	19.82	-
Salinity (ppt)	29.2	29.2	29.4	29.3	29.8	29.8	29.44	-
pH	8.0	8.0	7.9	7.9	7.9	7.9	7.92	
D.O. Saturation (%)	119.9	112.6	104.8	104.5	101.9	102.2	107.64	-
D.O. (mg/L)	9.16	8.61	8.05	8.01	7.83	7.86	8.25	7.85
Turbidity (NTU)	4.53	4.43	6.64	6.44	7.24	7.75	6.17	-
SS (mg/L)	6.0	7.0	10.0	13.0	13.0	12.0	10.17	-
Remarks	-							

Annex E12 - Water Quality Results at Tuen Mun during mid-flood tide for 14 February 2009

Date	2/14/2009							
Station	C1							
Time (hh:mm)	10:01-10:06							
Ambient Temperature (℃)								
Weather	Cloudy							
Water Depth (m)	8.00							
Monitoring Depth (m)	0.80		3.70		6.90			
Tide	Flood							
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	19.8	19.8	19.6	19.6	19.6	19.6	19.68	-
Salinity (ppt)	29.3	29.2	29.4	29.4	29.4	29.4	29.37	-
pH	7.9	7.9	7.9	7.9	7.9	7.9	7.89	
D.O. Saturation (%)	100.9	103.2	99.1	100.4	98.7	99.7	100.32	-
D.O. (mg/L)	7.75	7.92	7.63	7.73	7.59	7.68	7.72	7.64
Turbidity (NTU)	7.04	6.94	13.68	13.38	13.98	15.29	11.72	-
SS (mg/L)	17.0	14.0	21.0	22.0	25.0	22.0	20.17	-
Remarks	-							

Date	2/14/2009							
Station	U1							
Time (hh:mm)	10:13-10:21							
Ambient Temperature (℃)								
Weather	Cloudy							
Water Depth (m)	7.90							
Monitoring Depth (m)	1.20		3.90		6.80			
Tide	Flood							
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	19.7	19.7	19.7	19.7	19.7	19.7	19.71	-
Salinity (ppt)	29.3	29.3	29.3	29.3	29.3	29.3	29.31	-
pH	7.9	7.9	7.9	7.9	7.9	7.9	7.94	
D.O. Saturation (%)	101.7	101.5	101.2	101.2	99.4	100.9	100.98	-
D.O. (mg/L)	7.82	7.81	7.78	7.78	7.64	7.76	7.77	7.70
Turbidity (NTU)	8.65	8.55	9.36	10.16	10.56	11.07	9.73	-
SS (mg/L)	12.0	15.0	14.0	14.0	16.0	17.0	14.67	-
Remarks	-							

Date	2/14/2009							
Station	C2							
Time (hh:mm)	10:37-10:43							
Ambient Temperature (℃)								
Weather	Cloudy							
Water Depth (m)	13.20							
Monitoring Depth (m)	1.10		6.50		12.00			
Tide	Flood							
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	19.7	19.7	19.7	19.7	19.8	19.7	19.72	-
Salinity (ppt)	29.4	29.4	29.3	29.4	29.3	29.3	29.35	-
	8.0	8.0	8.0	8.0	8.0	8.0	7.96	
D.O. Saturation (%)	100.7	100.7	100.8	100.3	99.1	100.7	100.39	-
D.O. (mg/L)	7.74	7.74	7.75	7.71	7.62	7.74	7.72	7.68
Turbidity (NTU)	12.07	15.79	17.30	17.71	17.61	18.61	16.52	-
SS (mg/L)	32.0	28.0	24.0	32.0	28.0	16.0	26.67	-
Remarks	-							

Date	2/14/2009							
Station	SR1							
Time (hh:mm)	10:55-11:00							
Ambient Temperature (℃)								
Weather	Cloudy							
Water Depth (m)	3.80							
Monitoring Depth (m)	1.10		2.00		2.80			
Tide	Flood							
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	19.8	19.8	19.8	19.8	19.8	19.8	19.80	-
Salinity (ppt)	29.3	29.3	29.3	29.3	29.3	29.3	29.30	-
pH	8.0	8.0	8.0	8.0	8.0	8.0	7.96	
D.O. Saturation (%)	101.3	101.3	100.7	101.3	99.5	101.3	100.89	-
D.O. (mg/L)	7.78	7.78	7.73	7.78	7.64	7.78	7.75	7.71
Turbidity (NTU)	20.72	17.30	25.55	21.03	21.43	25.05	21.85	-
SS (mg/L)	35.0	34.0	33.0	34.0	37.0	33.0	34.33	-
Remarks	-							

Date	2/14/2009							
Station	D1							
Time (hh:mm)	10:26-10:30							
Ambient Temperature (℃)								
Weather	Cloudy							
Water Depth (m)	8.00							
Monitoring Depth (m)	1.20		3.90		6.90			
Tide	Flood							
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	19.8	19.8	19.8	19.8	19.8	19.8	19.78	-
Salinity (ppt)	29.3	29.3	29.3	29.3	29.3	29.3	29.29	-
pH	8.0	8.0	8.0	8.0	8.0	8.0	7.95	
D.O. Saturation (%)	102.5	102.3	102.5	102.4	101.0	102.2	102.14	-
D.O. (mg/L)	7.87	7.86	7.87	7.86	7.76	7.85	7.85	7.81
Turbidity (NTU)	8.65	8.05	8.15	8.65	9.15	9.15	8.63	-
SS (mg/L)	11.0	13.0	13.0	15.0	12.0	14.0	13.00	-
Remarks	-							

Annex E

Photos taken during the Removal of Silt Curtains at the Airport Intake and the Artificial Reefs

 A.R. silt curtain being floated on the surface	 Recovering of A.R. silt curtain (1)
 Recovering of A.R. silt curtain (2)	 Recovered A.R. silt curtain

Recovering of Curtain from Water Intake

Recovered Curtain from Water Intake

Recovered Curtain from Water Intake and A.R.