The Government of
The Hong Kong Special Administrative Region

Environmental Protection Department

Contract No. EP/SP/19/94

Outlying Islands Transfer Facilities Contract

Sok Kwu Wan Transfer Facility

Annual Environmental Audit Report (Operation)

April 2009 – March 2010

Checked by _____ 25. 10. 2021

Patrick YEUNG / Senior Environmental Protection Inspector
/ Environmental Protection Department

Audited by _____ 19.11.2021

Samson LO / Assistant Environmental Protection Officer
/ Environmental Protection Department

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1. INTRODUCTION

Under the requirements of Section 4 of Environmental Permit No EP-014/1998/A, the measures were undertaken to assure the Sok Kwu Wan Transfer Facility was operated in accordance with the permit.

This report documents the findings of environmental monitoring and audit works for the facility from April 2009 to March 2010.

Environmental monitoring for the odour, noise and water quality was performed in accordance with the EM&A Manual and the monitoring results were checked and reviewed. Full details of the above environmental monitoring tests are described in the **Section 2.** In addition, the environmental complaint handling procedures were also checked and reported in **Section 4** of this report.

2. DESCRIPTION OF ENVIRONMENTAL MONITORING TESTS

Table 1: Summary of Environmental Monitoring Parameters

Test	Location	Frequency	Parameter	Limits
Odour	Site Boundary See Map (**Appendix A1**)	Weekly	Odour	Odour strength not exceed "Slight" odour intensity
Noise	Nearest Sensitive Receiver See Map (**Appendix B1**)	Quarterly	LAeq (30min)	55 dBA (07:00-23:00) 45 dBA (23:00-07:00)
Marine Water	Four monitoring locations and two control sites. See Map (**Appendix C1**)	Weekly	Dissolved Oxygen (DO)	Surface & Middle 4 mg/L except 5 mg/L for FCZ or 1%-ile of baseline data for surface and middle layer Bottom 2 mg/L and or 1%-ile of baseline data for bottom layer
			Water Turbidity (Turbidity)	99%-ile of baseline or 130% of upstream control station's Turbidity at the same tide of the same day
			Suspended Solids (SS)	99%-ile of baseline or 130% of upstream control station's SS of the same tide of the same day

2.1 **Odour**

2.1.1 Monitoring Location

The monitoring takes place at the boundary of the facility. The patrol route is shown in **Appendix A1**.

2.1.2 Monitoring Frequency

The odour monitoring is conducted once or twice per week.

2.1.3 Monitoring Methodology

The odour patrol is conducted by a sensory team, which includes a representative (1) from Independent Third-party Accredited Laboratory, one (1) from the Contractor and one (1) from the EPD. The test consists of three (3) person patrolling the site boundary and recording the location and strength of odour identifiable as arising from the facility. The odour intensity is categorized into five (5) classes:

Table 2: Odour Intensity Classification

Class	**Remarks**
None	No odour perceived or an odour so weak that it cannot be readily characterized or described
Slight	Identifiable odour, slight
Moderate	Identifiable odour, moderate
Strong	Identifiable odour, strong
Extreme	Severe odour

The odour patrol record is set out in **Appendix A2**.

2.2 **Noise**

2.2.1 Monitoring Location

Noise monitoring is carried out at the nearest Noise Sensitive Receiver (NSR) in accordance with the EM&A Manual. **Appendix B1** shows the location of this monitoring position.

2.2.2 Monitoring Frequency

The noise monitoring is conducted once (1) per quarter.

2.2.3 Monitoring Methodology

The noise monitoring during the Operations phase for the SKWTF was performed in accordance with the "Technical Memorandum for the Assessment of Noise from places other than Domestic, Public or Construction Sites". The monitoring requirements are summarized as follow:

- The Sound Level Meters in compliance with the IEC61672: 2002 Class 1 and 2 for carrying out the noise monitoring.
- The Sound Level Meter will be set on a tripod at a height of 1.2 m above the ground, subject to local monitoring condition.
- The battery condition will be checked to ensure the correct functioning of the meter.
- Noise monitoring $Leq_{(30\ min)}$ to be taken on a monthly basis for daytime measurements.
- Prior to and after each noise measurement, the meter will be calibrated using a Calibrator for 94.0 dB at 1000 Hz. The measurement may be accepted as valid only if the calibration level agrees to within 1.0 dB.
- The wind speed will be frequently checked with the portable wind meter.
- Site conditions and interference noise sources will be recorded.
- Noise monitoring will be cancelled in the presence of fog, rain, and wind with a steady speed exceeding 5 m/s, or wind with gusts exceeding 10 m/s.

The Noise monitoring record is set out in **Appendix B2**.

2.3 **Water quality**

2.3.1 Monitoring Location

The number of marine water monitoring stations for Sok Kwu Wan Transfer Facility is shown in **Table 3** and **Appendix C1** shows the locations of the marine water quality monitoring stations.

Table 3: Locations of the marine water quality monitoring stations

Facility	Station ID	No. of Stations
Sok Kwu Wan	Control Stations: SC1 & SC2 Impact Stations: S1, S2, S3 & S4	6

2.3.2 Monitoring Methodology

The marine water quality monitoring during the Operations phase for the SKWTF was performed in accordance with the EM&A Manual. The following set out the methods of measurement to be used during the environmental monitoring.

Dissolved Oxygen and Turbidity

The in-situ measurements of dissolved oxygen and turbidity are carried out using an In-situ Aqua Troll 600 Multi-parameter Sonde.

Where the depth of water is less than 3m, duplicate measurements of D.O. are to be taken at one depth to obtain an average reading.

With depths between 3m and 6m, measurements will be taken at 1m below the surface and 1m above the sea bed. In each depth, duplicate readings will be taken and an average value will be calculated.

With a water depth greater than 6m, measurements will be taken at 1m below surface, the mid-depth and 1m above the sea bed. In each depth, duplicate readings will be taken and an average value will be calculated.

Suspended solids

The suspended solids monitoring is carried out in according to the in-house method (E-T-053) with reference to the standard method APHA 17ed 2540 D. The testing method is summarized as below:

A well-mixed sea water sample is filtered through a weighed standard glass-fiber filter and wash thoroughly with water to remove dissolved solids on the filter. The non-filterable residue retained on the filter is dried at 103 to 105°C. The increase in weight of the filter represents the suspended solids content.

3 RESULTS

3.1 Odour

3.1.1 Summary of Number of Monitoring Events and Exceedances for Odour monitoring

Table 4: Summary of Number of Monitoring Events and Exceedances for Odour monitoring

Monitoring Parameter	Location	No. of monitoring events	No. of Exceedance
		April 2009 – March 2010	
Odour	Point 1	65	0
	Point 2	65	0
	Point 3	65	0
	Point 4	65	0
	Point 5	65	0
	Point 6	65	0
Total		**390**	**0**

3.1.2 Conclusion

No odour could be detected during the odour patrols. The results show compliance with the odour objectives.

Please refer to the **Appendix A2** for the odour monitoring record.

3.2 Noise

3.2.1 Summary of Number of Monitoring Events and Exceedances for Noise monitoring

Table 5: Summary of Number of Monitoring Events and Exceedances for Noise monitoring

Monitoring Parameter	Location	No. of monitoring events	No. of Exceedance
		April 2009 – March 2010	
Noise	NSR	6	3
Total		**6**	**3**

3.2.2 Conclusion

During the reporting period, some of noise monitoring results have exceeded the compliance objectives. According to the notes recorded by the field operator of the Independent Third-party Accredited Laboratory, the major noise source was identified from road traffic and dump truck. Noise emanated from SKWTF was considered insignificant.

In addition, EPD site staff conducted random checking of on-site CCTV record and confirmed no operational activities were being carried out at the facility during night time. Hence, it is reasonable to believe that the night-time noise level at SKWTF is insignificant.

The noise level monitoring record taken at the NSR of SKWTF is set out in **Appendix B2**.

3.3 Water Quality

3.3.1 Summary of Number of Monitoring Events and Exceedances for Water quality monitoring

A total of 901 sets of water samples were collected in 53 sampling days during the report period. A summary of exceedance of dissolved oxygen, turbidity and suspended solids at SKWTF is shown in the following **Table 6**.

Table 6: Summary of exceedance of Marine Water Quality at SKWTF

Sampling Point	Type of Exceedance		
	DO	Turbidity	SS
S1	1	0	16
S2	3	0	14
S3	0	0	14
S4	1	0	21
Total	5	0	65

The laboratory analysis shows that there are 70 samples exceed the limit level of Dissolved Oxygen (5 exceedances) and Suspended Solids (65 exceedances).

3.3.2 Conclusion

Since there is no wastewater discharge from the SKWTF and no construction activities during the report period, the exceedance of compliance objectives for dissolved oxygen and suspended solids were not caused by the operation activities at SKWTF.

The water quality monitoring record is set out in **Appendix C2**

4 STATUS OF ENVIRONMENTAL COMPLAINT HANDLING

No verbal or written complaints were received during the reporting period.

5 CONCLUSION

Based on the monitoring results during the audit period as well as a review of our observations the following can be concluded.

The environmental protection systems that are currently in use, when combined with the existing level of environmental awareness at the facility, are sufficient to meet current regulatory constraints relating to the environment.

The methods and frequency of environmental monitoring produce a data base that is adequate to assist station management in making accurate and timely decisions relating to the modification of environmental systems or operational practices if needed.

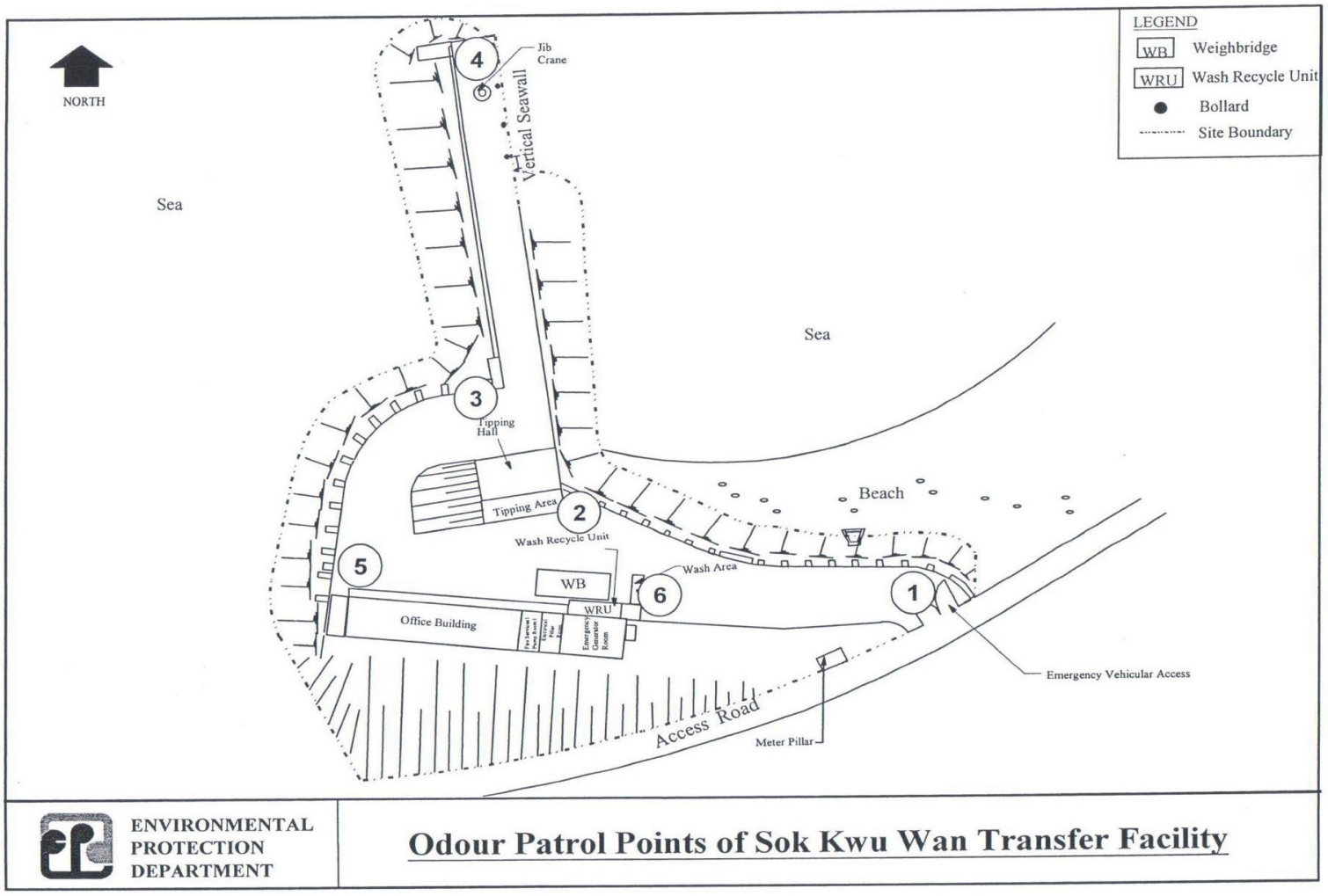
The current environmental management systems and performance provide a good foundation to develop a positive relationship with the community.

Appendix A

Appendix A1

Odour Patrol Points of Sok Kwu Wan Transfer Facility

Appendix A1


NORTH
LEGEND
WB Weighbridge
WRU Wash Recycle Unit
Bollard
Site Boundary
Sea
Jib Crane
Vertical Seawall
4
3
Tipping Hall
Tipping Area
2
Wash Recycle Unit
Sea
Beach
5
WB
Wash Area
6
1
WRU
Office Building
Emergency Vehicular Access
Access Road
Meter Pillar
ENVIRONMENTAL PROTECTION DEPARTMENT
Odour Patrol Points of Sok Kwu Wan Transfer Facility

Appendix A2

Odour Patrol Record

Appendix A2

Table 5
Odour

Location	Date	Classification	Location	Date	Classification
Mui Wo	1 Apr 2009	None	Cheung Chau	1 Apr 2009	None
	7 Apr 2009	None		7 Apr 2009	None
	14 Apr 2009	None		14 Apr 2009	None
	20 Apr 2009	None		20 Apr 2009	None
	24 Apr 2009	None		24 Apr 2009	None
	30 Apr 2009	None		30 Apr 2009	None

Location	Date	Classification	Location	Date	Classification
Peng Chau	1 Apr 2009	None	Hei Ling Chau	1 Apr 2009	None
	7 Apr 2009	None		7 Apr 2009	None
	14 Apr 2009	None		14 Apr 2009	None
	20 Apr 2009	None		20 Apr 2009	None
	24 Apr 2009	None		24 Apr 2009	None
	30 Apr 2009	None		30 Apr 2009	None

Location	Date	Classification	Location	Date	Classification
Yung Shue Wan	1 Apr 2009	None	Sok Kwu Wan	1 Apr 2009	None
	7 Apr 2009	None		7 Apr 2009	None
	14 Apr 2009	None		14 Apr 2009	None
	20 Apr 2009	None		20 Apr 2009	None
	24 Apr 2009	None		24 Apr 2009	None
	30 Apr 2009	None		30 Apr 2009	None

Table 5
Odour

Location	Date	Classification	Location	Date	Classification
Mui Wo	6 May 2009	None	Cheung Chau	6 May 2009	None
	12 May 2009	None		12 May 2009	None
	18 May 2009	None		18 May 2009	None
	22 May 2009	None		22 May 2009	None
	27 May 2009	None		27 May 2009	None

Location	Date	Classification	Location	Date	Classification
Peng Chau	6 May 2009	None	Hei Ling Chau	6 May 2009	None
	12 May 2009	None		12 May 2009	None
	18 May 2009	None		18 May 2009	None
	22 May 2009	None		22 May 2009	None
	27 May 2009	None		27 May 2009	None

Location	Date	Classification	Location	Date	Classification
Yung Shue Wan	6 May 2009	None	Sok Kwu Wan	6 May 2009	None
	12 May 2009	None		12 May 2009	None
	18 May 2009	None		18 May 2009	None
	22 May 2009	None		22 May 2009	None
	27 May 2009	None		27 May 2009	None

Table 5
Odour

Location	Date	Classification	Location	Date	Classification
Mui Wo	2 June 2009	None	Cheung Chau	2 June 2009	None
	8 June 2009	None		8 June 2009	None
	12 June 2009	None		12 June 2009	None
	18 June 2009	None		18 June 2009	None
	24 June 2009	None		24 June 2009	None
	30 June 2009	None		30 June 2009	None

Location	Date	Classification	Location	Date	Classification
Peng Chau	2 June 2009	None	Hei Ling Chau	2 June 2009	None
	8 June 2009	None		8 June 2009	None
	12 June 2009	None		12 June 2009	None
	18 June 2009	None		18 June 2009	None
	24 June 2009	None		24 June 2009	None
	30 June 2009	None		30 June 2009	None

Location	Date	Classification	Location	Date	Classification
Yung Shue Wan	2 June 2009	None	Sok Kwu Wan	2 June 2009	None
	8 June 2009	None		8 June 2009	None
	12 June 2009	None		12 June 2009	None
	18 June 2009	None		18 June 2009	None
	24 June 2009	None		24 June 2009	None
	30 June 2009	None		30 June 2009	None

Table 5
Odour

Location	Date	Classification	Location	Date	Classification
Mui Wo	6 July 2009	None	Cheung Chau	6 July 2009	None
	10 July 2009	None		10 July 2009	None
	16 July 2009	None		16 July 2009	None
	22 July 2009	None		22 July 2009	None
	28 July 2009	None		28 July 2009	None

Location	Date	Classification	Location	Date	Classification
Peng Chau	6 July 2009	None	Hei Ling Chau	6 July 2009	None
	10 July 2009	None		10 July 2009	None
	16 July 2009	None		16 July 2009	None
	22 July 2009	None		22 July 2009	None
	28 July 2009	None		28 July 2009	None

Location	Date	Classification	Location	Date	Classification
Yung Shue Wan	6 July 2009	None	Sok Kwu Wan	6 July 2009	None
	10 July 2009	None		10 July 2009	None
	16 July 2009	None		16 July 2009	None
	22 July 2009	None		22 July 2009	None
	28 July 2009	None		28 July 2009	None

Location	Date	Classification
Ma Wan	6 July 2009	None
	10 July 2009	None
	16 July 2009	None
	22 July 2009	None
	28 July 2009	None

Table 5
Odour

Location	Date	Classification	Location	Date	Classification
Mui Wo	3 Aug 2009	None	Cheung Chau	3 Aug 2009	None
	7 Aug 2009	None		7 Aug 2009	None
	13 Aug 2009	None		13 Aug 2009	None
	19 Aug 2009	None		19 Aug 2009	None
	25 Aug 2009	None		25 Aug 2009	None
	31 Aug 2009	None		31 Aug 2009	None

Location	Date	Classification	Location	Date	Classification
Peng Chau	3 Aug 2009	None	Hei Ling Chau	3 Aug 2009	None
	7 Aug 2009	None		7 Aug 2009	None
	13 Aug 2009	None		13 Aug 2009	None
	19 Aug 2009	None		19 Aug 2009	None
	25 Aug 2009	None		25 Aug 2009	None
	31 Aug 2009	None		31 Aug 2009	None

Location	Date	Classification	Location	Date	Classification
Yung Shue Wan	3 Aug 2009	None	Sok Kwu Wan	3 Aug 2009	None
	7 Aug 2009	None		7 Aug 2009	None
	13 Aug 2009	None		13 Aug 2009	None
	19 Aug 2009	None		19 Aug 2009	None
	25 Aug 2009	None		25 Aug 2009	None
	31 Aug 2009	None		31 Aug 2009	None

Table 5
Odour

Location	Date	Classification	Location	Date	Classification
Mui Wo	4 Sep 2009	None	Cheung Chau	4 Sep 2009	None
	10 Sep 2009	None		10 Sep 2009	None
	16 Sep 2009	None		16 Sep 2009	None
	22 Sep 2009	None		22 Sep 2009	None
	28 Sep 2009	None		28 Sep 2009	None

Location	Date	Classification	Location	Date	Classification
Peng Chau	4 Sep 2009	None	Hei Ling Chau	4 Sep 2009	None
	10 Sep 2009	None		10 Sep 2009	None
	16 Sep 2009	None		16 Sep 2009	None
	22 Sep 2009	None		22 Sep 2009	None
	28 Sep 2009	None		28 Sep 2009	None

Location	Date	Classification	Location	Date	Classification
Yung Shue Wan	4 Sep 2009	None	Sok Kwu Wan	4 Sep 2009	None
	10 Sep 2009	None		10 Sep 2009	None
	16 Sep 2009	None		16 Sep 2009	None
	22 Sep 2009	None		22 Sep 2009	None
	28 Sep 2009	None		28 Sep 2009	None

Location	Date	Classification	Location	Date	Classification
Peng Chau	2 Oct 2009	None	Hei Ling Chau	2 Oct 2009	None
	8 Oct 2009	None		8 Oct 2009	None
	14 Oct 2009	None		14 Oct 2009	None
	20 Oct 2009	None		20 Oct 2009	None
	27 Oct 2009	None		27 Oct 2009	None

Location	Date	Classification	Location	Date	Classification
Yung Shue Wan	2 Oct 2009	None	Sok Kwu Wan	2 Oct 2009	None
	8 Oct 2009	None		8 Oct 2009	None
	14 Oct 2009	None		14 Oct 2009	None
	20 Oct 2009	None		20 Oct 2009	None
	27 Oct 2009	None		27 Oct 2009	None

Location	Date	Classification
Ma Wan	2 Oct 2009	None
	8 Oct 2009	None
	14 Oct 2009	None
	20 Oct 2009	None
	27 Oct 2009	None

4 GENERAL

- Equipment, including Terbergs, JCB, and compactors, functioned properly enabling Swire SITA to provide uninterrupted waste service to station users throughout the month of October 2009.
- Mosquito elimination treatment has been carried out at all facilities.
- Tool Box Talks on prevention of Atypical Pneumonia and Influenza A(H1N1) were given to all staff.
- Additional cleaning materials and equipment were obtained. Housekeeping measures were increased.

Table 5
Odour

Location	Date	Classification	Location	Date	Classification
Mui Wo	2 Nov 2009	None	Cheung Chau	2 Nov 2009	None
	6 Nov 2009	None		6 Nov 2009	None
	12 Nov 2009	None		12 Nov 2009	None
	16 Nov 2009	None		16 Nov 2009	None
	26 Nov 2009	None		26 Nov 2009	None

Location	Date	Classification	Location	Date	Classification
Peng Chau	2 Nov 2009	None	Hei Ling Chau	2 Nov 2009	None
	6 Nov 2009	None		6 Nov 2009	None
	12 Nov 2009	None		12 Nov 2009	None
	16 Nov 2009	None		16 Nov 2009	None
	26 Nov 2009	None		26 Nov 2009	None

Location	Date	Classification	Location	Date	Classification
Yung Shue Wan	2 Nov 2009	None	Sok Kwu Wan	2 Nov 2009	None
	5 Nov 2009	None		5 Nov 2009	None
	13 Nov 2009	None		13 Nov 2009	None
	20 Nov 2009	None		20 Nov 2009	None
	26 Nov 2009	None		26 Nov 2009	None

Table 5
Odour

Location	Date	Classification	Location	Date	Classification
Mui Wo	2 Dec 2009	None	Cheung Chau	2 Dec 2009	None
	8 Dec 2009	None		8 Dec 2009	None
	14 Dec 2009	None		14 Dec 2009	None
	18 Dec 2009	None		18 Dec 2009	None
	24 Dec 2009	None		24 Dec 2009	None
	30 Dec 2009	None		30 Dec 2009	None

Location	Date	Classification	Location	Date	Classification
Peng Chau	2 Dec 2009	None	Hei Ling Chau	2 Dec 2009	None
	8 Dec 2009	None		8 Dec 2009	None
	14 Dec 2009	None		14 Dec 2009	None
	18 Dec 2009	None		18 Dec 2009	None
	24 Dec 2009	None		24 Dec 2009	None
	30 Dec 2009	None		30 Dec 2009	None

Location	Date	Classification	Location	Date	Classification
Yung Shue Wan	2 Dec 2009	None	Sok Kwu Wan	2 Dec 2009	None
	8 Dec 2009	None		8 Dec 2009	None
	14 Dec 2009	None		14 Dec 2009	None
	18 Dec 2009	None		18 Dec 2009	None
	24 Dec 2009	None		24 Dec 2009	None
	30 Dec 2009	None		30 Dec 2009	None

Odour

Location	Date	Classification	Location	Date	Classification
Mui Wo	5 Jan 2010	None	Cheung Chau	5 Jan 2010	None
	11 Jan 2010	None		11 Jan 2010	None
	15 Jan 2010	None		15 Jan 2010	None
	21 Jan 2010	None		21 Jan 2010	None
	27 Jan 2010	None		27 Jan 2010	None

Location	Date	Classification	Location	Date	Classification
Peng Chau	5 Jan 2010	None	Hei Ling Chau	5 Jan 2010	None
	11 Jan 2010	None		11 Jan 2010	None
	15 Jan 2010	None		15 Jan 2010	None
	21 Jan 2010	None		21 Jan 2010	None
	27 Jan 2010	None		27 Jan 2010	None

Location	Date	Classification	Location	Date	Classification
Yung Shue Wan	5 Jan 2010	None	Sok Kwu Wan	5 Jan 2010	None
	11 Jan 2010	None		11 Jan 2010	None
	15 Jan 2010	None		15 Jan 2010	None
	21 Jan 2010	None		21 Jan 2010	None
	27 Jan 2010	None		27 Jan 2010	None

Location	Date	Classification
Ma Wan	5 Jan 2010	None
	11 Jan 2010	None
	15 Jan 2010	None
	21 Jan 2010	None
	27 Jan 2010	None

Odour

Location	Date	Classification	Location	Date	Classification
Mui Wo	2 Feb 2010	None	Cheung Chau	2 Feb 2010	None
	8 Feb 2010	None		8 Feb 2010	None
	12 Feb 2010	None		12 Feb 2010	None
	18 Feb 2010	None		18 Feb 2010	None
	24 Feb 2010	None		24 Feb 2010	None

Location	Date	Classification	Location	Date	Classification
Peng Chau	2 Feb 2010	None	Hei Ling Chau	2 Feb 2010	None
	8 Feb 2010	None		8 Feb 2010	None
	12 Feb 2010	None		12 Feb 2010	None
	18 Feb 2010	None		18 Feb 2010	None
	24 Feb 2010	None		24 Feb 2010	None

Location	Date	Classification	Location	Date	Classification
Yung Shue Wan	2 Feb 2010	None	Sok Kwu Wan	2 Feb 2010	None
	8 Feb 2010	None		8 Feb 2010	None
	12 Feb 2010	None		12 Feb 2010	None
	18 Feb 2010	None		18 Feb 2010	None
	24 Feb 2010	None		24 Feb 2010	None

Location	Date	Classification
Ma Wan	2 Feb 2010	None
	8 Feb 2010	None
	12 Feb 2010	None
	18 Feb 2010	None
	24 Feb 2010	None

Location	Date	Classification	Location	Date	Classification
Mui Wo	2 Mar 2010	None	Cheung Chau	2 Mar 2010	None
	8 Mar 2010	None		8 Mar 2010	None
	12 Mar 2010	None		12 Mar 2010	None
	18 Mar 2010	None		18 Mar 2010	None
	24 Mar 2010	None		24 Mar 2010	None
	30 Mar 2010	None		30 Mar 2010	None

Location	Date	Classification	Location	Date	Classification
Peng Chau	2 Mar 2010	None	Hei Ling Chau	2 Mar 2010	None
	8 Mar 2010	None		8 Mar 2010	None
	12 Mar 2010	None		12 Mar 2010	None
	18 Mar 2010	None		18 Mar 2010	None
	24 Mar 2010	None		24 Mar 2010	None
	30 Mar 2010	None		30 Mar 2010	None

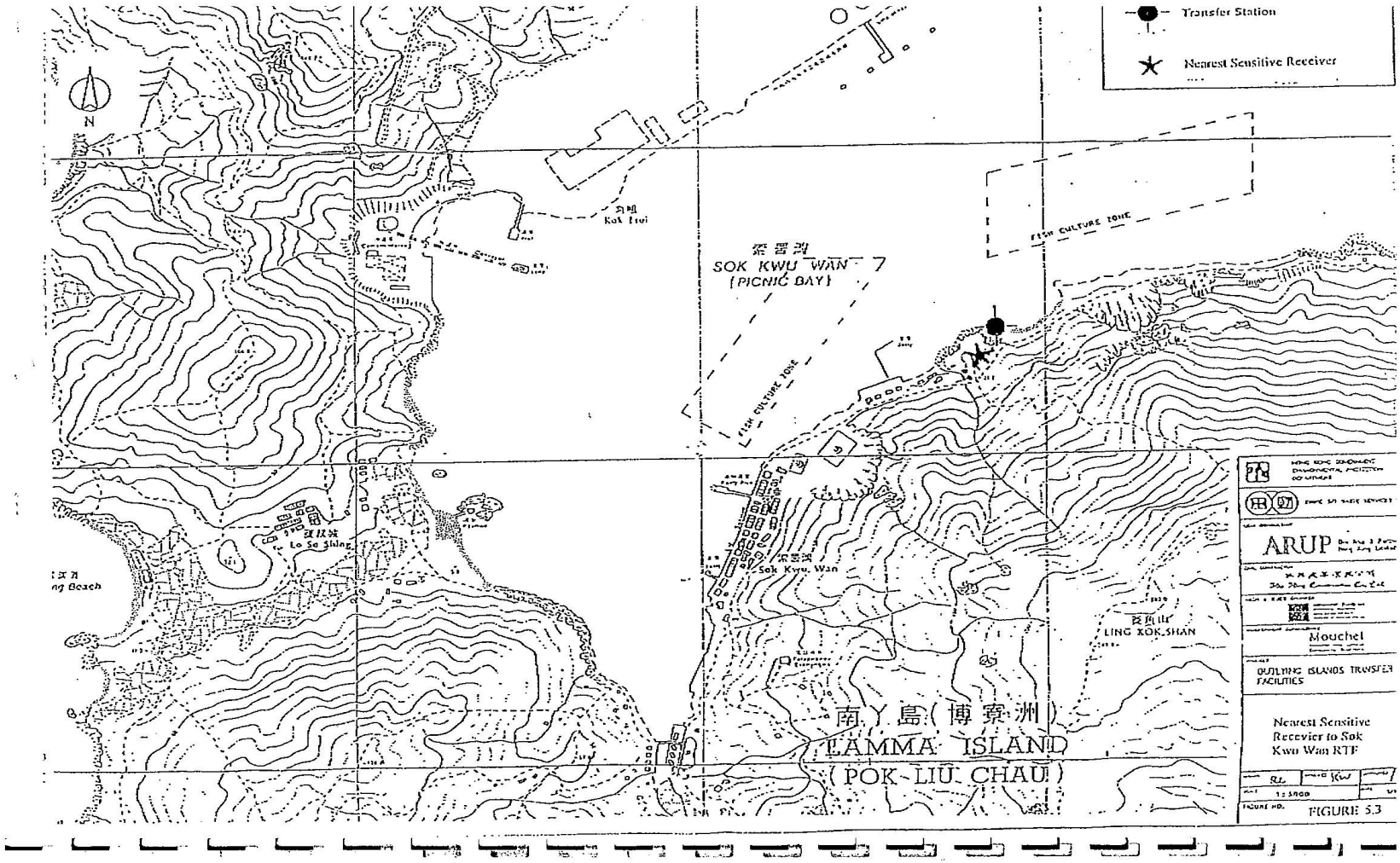
Location	Date	Classification	Location	Date	Classification
Yung Shue Wan	2 Mar 2010	None	Sok Kwu Wan	2 Mar 2010	None
	8 Mar 2010	None		8 Mar 2010	None
	12 Mar 2010	None		12 Mar 2010	None
	18 Mar 2010	None		18 Mar 2010	None
	24 Mar 2010	None		24 Mar 2010	None
	30 Mar 2010	None		30 Mar 2010	None

Appendix B

Appendix B1

Location of Noise Sensitive Receiver (NSR)

Appendix B1


Transfer Station
Nearest Sensitive Receiver
N
SOK KWU WAN
(PICNIC BAY)
FISH CULTURE ZONE
Kok Tsui
Lo So Shing
Sok Kwu Wan
LING KOK SHAN
南丫島(博寮洲)
LAMMA ISLAND
(POK LIU CHAU)
ARUP
Mouchel
OUTLYING ISLANDS TRANSFER FACILITIES
Nearest Sensitive Receiver to Sok Kwu Wan RTF
FIGURE 5.3

Appendix B2

Noise Monitoring Record (NSR)

Appendix B2 – Noise Monitoring Record (NSR)
Sok Kwu Wan Transfer Facility

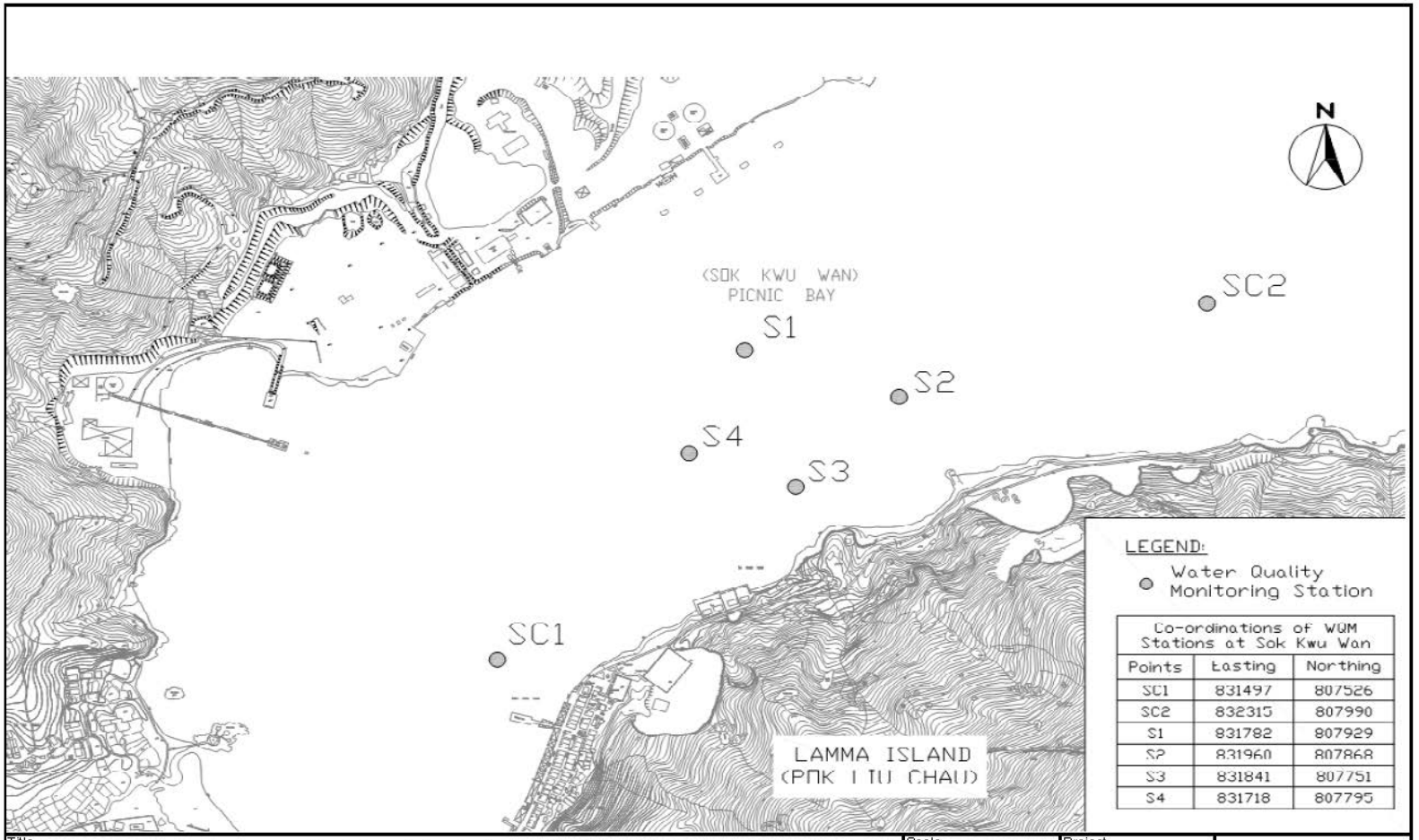
Measurement Date and Time	Noise Level Leq A (30min) / (dB(A))	Remarks
24 June 2009 (15:50 – 16:20)	54.1	---
24 June 2009 (23:00 – 23:30)	**45.5**	The major noise source identified was road traffic and dump truck. The noise generated by the Transfer Facility was considered insignificant.
10 Sep 2009 (14:55 – 15:25)	**61.0**	The major noise source identified was road traffic and dump truck. The noise generated by the Transfer Facility was considered insignificant.
14 Dec 2009 (14:45 – 15:15)	54.7	---
14 Dec 2009 (23:00 – 23:30)	**45.9**	The major noise source identified was road traffic and dump truck. The noise generated by the Transfer Facility was considered insignificant.
18 Mar 2010 (14:55 – 15:25)	48.9	---

Appendix C

Appendix C1

Location of Marine Water Monitoring Stations

Appendix C1



Co-ordinations of WQM Stations at Sok Kwu Wan

Points	Easting	Northing
SC1	831497	807526
SC2	832315	807990
S1	831782	807929
S2	831960	807868
S3	831841	807751
S4	831718	807795

Title	Scale	Project No.
Outlying Islands Transfer Facilities	N.T.S	E13013
Location of Water Quality Monitoring Stations (Sok Kwu Wan)	Date: Mar-13	Figure: 1a

Appendix C

Appendix C2

Marine Water Monitoring Record

Appendix C2

Location	Measurement Point	Dissolved Oxygen (mg/L / %)		Turbidity (NTU)	Suspended Solids (mg/L)	Temperature (℃)	
		Average	At 2m above Seabed	Average	Average	Air	Water
Sok Kwu Wan	SC1	6.4/95.2	6.2/93.2	3.5	5.7	19.9	21.5
1 April 2009	SC2	6.4/90.8	5.9/88.4	3.5	4.0	19.9	21.6
(11:30-12:20)	S1	6.2/91.9	6.1/90.5	3.3	7.0	19.9	21.6
mid-flood	S2	5.9/87.5	5.8/86.8	3.1	5.7	19.9	21.3
	S3	6.2/92.1	6.0/90.0	3.3	6.5	19.9	21.5
	S4	6.2/92.9	6.0/89.4	3.0	5.7	19.9	21.8
Sok Kwu Wan	SC1	7.2/96.4	7.1/94.7	3.6	8.7	16.9	19.7
7 April 2009	SC2	7.0/94.1	6.8/91.2	3.5	9.0	16.9	19.7
(13:05-13:45)	S1	7.1/96.0	7.0/94.2	3.6	9.3	16.9	19.6
mid-ebb	S2	7.1/94.2	6.9/91.0	3.6	10.0	16.9	19.6
	S3	7.3/96.7	7.1/94.3	3.4	8.0	16.9	19.7
	S4	7.1/95.8	7.0/93.8	3.6	9.7	16.9	19.6
Sok Kwu Wan	SC1	7.0/95.9	6.9/93.5	4.1	10.3	21.9	20.5
14 April 2009	SC2	6.9/94.0	6.8/91.9	4.1	10.3	21.9	20.4
(13:05-13:45)	S1	7.1/96.1	6.9/93.5	3.5	10.0	21.9	20.4
*mid-ebb *	S2	7.0/95.9	6.8/92.6	3.6	9.7	21.9	20.5
	S3	7.1/96.7	7.0/95.0	3.3	10.5	21.9	20.7
	S4	7.0/95.2	6.9/93.3	3.6	10.3	21.9	20.6
Sok Kwu Wan	SC1	6.4/85.0	6.5/85.9	1.5	13.3	25.6	20.6
20 April 2009	SC2	6.6/85.6	6.8/89.4	1.5	9.7	25.6	20.4
(14:20-14:50)	S1	6.5/86.1	6.7/88.7	1.6	10.0	25.6	20.5
mid-fllood	S2	6.5/86.5	6.6/87.5	1.8	13.3	25.6	20.6
	S3	6.6/88.5	6.5/87.5	1.6	9.5	25.6	20.7
	S4	6.6/86.6	6.5/84.1	1.6	9.3	25.6	20.6
Sok Kwu Wan	SC1	6.4/95.0	6.3/93.0	4.1	11.3	20.9	24.1
30 April 2009	SC2	6.2/90.6	6.0/88.2	4.1	9.7	20.9	24.2
(10:20-11:25)	S1	6.2/91.7	6.1/90.3	3.9	14.7	20.9	24.2
mid-flood	S2	5.9/87.3	5.9/87.9	3.7	15.0	20.9	23.9
	S3	6.3/91.9	6.1/89.8	3.9	12.0	20.9	24.1
	S4	6.2/92.7	6.0/89.2	3.6	11.0	20.9	24.4

Location	Measurement Point	Dissolved Oxygen (mg/L / %)		Turbidity (NTU)	Suspended Solids (mg/L)	Temperature (℃)	
		Average	At 2m above Seabed	Average	Average	Air	Water
Sok Kwu Wan	SC1	7.1/87.4	7.2/88.3	1.6	7.3	23.5	26.7
6 May 2009	SC2	7.4/87.8	7.4/91.6	1.7	6.0	23.5	26.3
(13:45-12:15)	S1	7.3/90.3	7.6/92.9	1.8	14.0	23.5	26.6
mid-flood	S2	7.3/90.1	7.3/89.9	1.8	15.7	23.5	26.7
	S3	7.4/90.7	7.3/89.7	1.8	8.5	23.5	26.7
	S4	7.2/89.0	7.0/86.4	1.9	11.3	23.5	26.7
Sok Kwu Wan	SC1	6.6/97.9	6.5/95.9	3.6	7.3	27.0	28.4
12 May 2009	SC2	6.4/93.5	6.2/91.1	3.6	7.0	27.0	28.4
(11:10-12:15)	S1	6.5/94.6	6.4/93.2	3.4	7.0	27.0	28.4
mid-ebb	S2	6.1/90.2	6.1/90.8	3.2	11.0	27.0	28.2
	S3	6.5/94.8	6.3/92.7	3.4	11.5	27.0	28.4
	S4	6.4/95.6	6.2/92.1	3.1	10.7	27.0	28.7
Sok Kwu Wan	SC1	6.1/86.6	5.9/83.6	4.0	9.0	28.5	27.1
18 May 2009	SC2	6.4/90.3	6.2/86.6	4.0	10.7	28.5	27.2
(15:05-15:55)	S1	6.2/88.5	6.0/85.4	4.3	8.3	28.5	27.0
*mid-ebb *	S2	6.0/84.3	5.7/79.3	4.2	12.3	28.5	27.0
	S3	6.5/91.2	6.3/88.6	3.8	8.5	28.5	27.1
	S4	6.0/85.6	5.9/83.1	4.2	14.0	28.5	27.0
Sok Kwu Wan	SC1	6.2/87.1	6.0/84.0	4.1	4.7	25.5	24.2
27 May 2009	SC2	6.4/90.7	6.2/87.0	4.1	5.3	25.5	24.3
(16:00-16:45)	S1	6.3/88.9	6.1/85.8	4.4	5.0	25.5	24.1
mid-ebb	S2	6.0/84.7	5.7/79.7	4.3	5.7	25.5	24.1
	S3	6.6/91.6	6.4/89.0	3.9	4.0	25.5	24.2
	S4	6.1/86.0	5.9/83.5	4.4	5.7	25.5	24.1

Location	Measurement Point	Dissolved Oxygen (mg/L / %)		Turbidity (NTU)	Suspended Solids (mg/L)	Temperature (℃)	
		Average	At 2m above Seabed	Average	Average	Air	Water
Sok Kwu Wan	SC1	6.5/94.9	6.5/93.3	3.8	14.3	27.1	26.6
2 June 2009	SC2	6.4/92.8	6.4/90.8	3.8	13.7	27.1	26.4
(13:45-14:25)	S1	6.5/94.7	6.4/93.1	3.5	12.7	27.1	26.5
mid-flood	S2	6.6/96.2	6.5/94.1	3.5	18.0	27.1	26.6
	S3	6.4/92.5	6.3/91.2	3.3	11.5	27.1	26.6
	S4	6.3/92.1	6.3/90.9	3.5	11.3	27.1	26.6
Sok Kwu Wan	SC1	6.4/92.4	6.3/90.9	4.4	6.3	27.5	26.7
8 June 2009	SC2	6.4/92.3	6.3/90.2	4.2	6.0	27.5	26.8
(09:55-10:40)	S1	6.5/92.9	6.3/89.8	4.4	9.7	27.5	26.7
mid-ebb	S2	6.3/91.3	6.1/88.1	4.5	6.7	27.5	26.7
	S3	6.5/92.5	6.4/90.8	4.2	8.5	27.5	26.8
	S4	6.3/90.9	6.1/89.2	4.4	9.3	27.5	26.7
Sok Kwu Wan	SC1	5.7/85.3	5.5/82.1	3.9	7.0	29.8	27.7
18 June 2009	SC2	6.0/89.0	5.8/85.2	3.3	6.0	29.8	28.0
(13:05-14:05)	S1	5.9/87.2	5.7/84.0	4.0	8.7	29.8	27.6
mid-flood	S2	5.6/82.8	5.3/77.7	3.5	7.0	29.8	27.6
	S3	6.1/89.9	5.9/87.2	3.6	8.0	29.8	27.7
	S4	5.6/84.1	5.5/81.6	4.0	6.3	29.8	27.6
Sok Kwu Wan	SC1	6.6/90.2	6.6/89.6	3.6	7.7	29.1	26.2
24 June 2009	SC2	6.7/89.5	6.6/89.1	3.5	9.7	29.1	26.0
(14:25-15:25)	S1	7.0/93.3	7.0/92.9	3.1	10.0	29.1	26.0
*mid-ebb *	S2	6.7/90.7	6.6/89.0	3.2	8.0	29.1	26.0
	S3	6.8/91.1	6.6/89.0	2.9	8.0	29.1	26.1
	S4	6.6/89.6	6.4/86.7	3.1	8.0	29.1	26.2
Sok Kwu Wan	SC1	6.3/84.1	6.4/85.1	1.3	17.0	29.6	28.3
30 June 2009	SC2	6.6/84.5	6.7/88.4	1.4	9.7	29.6	28.0
(12:45-13:55)	S1	6.5/85.2	6.7/87.8	1.6	8.7	29.6	28.2
mid-flood	S2	6.5/85.6	6.6/86.7	1.6	13.7	29.6	28.3
	S3	6.6/87.5	6.5/86.5	1.5	11.5	29.6	28.3
	S4	6.5/85.7	6.3/83.1	1.6	16.0	29.6	28.3

Location	Measurement Point	Dissolved Oxygen (mg/L / %)		Turbidity (NTU)	Suspended Solids (mg/L)	Temperature (℃)	
		Average	At 2m above Seabed	Average	Average	Air	Water
Sok Kwu Wan	SC1	6.6/87.2	6.7/88.2	1.8	16.7	27.8	28.7
6 July 2009	SC2	6.9/87.6	7.0/91.5	1.9	17.7	27.8	28.4
(11:15-12:00)	S1	6.7/88.3	6.9/90.9	2.0	15.3	27.8	28.6
mid-ebb	S2	6.8/88.7	6.9/89.8	2.0	14.7	27.8	28.7
	S3	6.9/90.6	6.8/89.6	1.9	9.5	27.8	28.7
	S4	6.7/88.8	6.5/86.2	2.0	15.7	27.8	28.7
Sok Kwu Wan	SC1	6.3/92.0	6.1/89.0	3.4	4.7	29.2	28.3
16 July 2009	SC2	6.5/95.7	6.3/91.7	3.4	7.0	29.2	28.5
(14:15-15:15)	S1	6.4/93.9	6.2/90.8	3.8	8.0	29.2	28.2
mid-flood	S2	6.1/89.6	5.8/84.3	3.6	8.0	29.2	28.2
	S3	6.7/96.8	6.5/94.0	3.1	9.0	29.2	28.3
	S4	6.2/89.5	5.9/84.0	4.0	7.7	29.2	24.7
Sok Kwu Wan	SC1	6.2/86.2	5.9/81.9	3.9	14.7	28.9	28.0
22 July 2009	SC2	6.6/92.3	6.4/89.7	3.8	17.7	28.9	28.3
(13:25-17:00)	S1	6.2/85.9	5.8/80.8	4.3	13.0	28.9	28.0
mid-ebb	S2	6.4/90.0	6.0/83.8	4.1	11.7	28.9	28.2
	S3	6.5/90.5	6.4/88.9	4.1	12.5	28.9	28.2
	S4	6.2/86.6	5.8/81.0	4.0	16.7	28.9	28.0
Sok Kwu Wan	SC1	6.2/89.1	6.0/85.4	3.6	11.0	29.3	28.1
28 July 2009	SC2	6.6/94.0	6.4/90.7	3.6	10.3	29.3	28.4
(11:05-12:05)	S1	6.3/89.9	6.0/85.8	4.0	11.3	29.3	28.1
mid-flood	S2	6.3/89.8	5.9/84.0	3.9	10.3	29.3	28.2
	S3	6.6/93.6	6.4/91.4	3.6	10.0	29.3	28.3
	S4	6.2/88.0	5.9/82.5	3.9	14.7	29.3	26.3

Location	Measurement Point	Dissolved Oxygen (mg/L / %)		Turbidity (NTU)	Suspended Solids (mg/L)	Temperature (℃)	
		Average	At 2m above Seabed	Average	Average	Air	Water
Sok Kwu Wan	SC1	6.0/86.6	5.9/84.2	5.2	12.0	29.9	29.5
3 Aug 2009	SC2	6.3/91.0	6.2/89.0	5.2	13.7	29.9	29.4
(11:35-12:30)	S1	6.1/87.7	6.0/86.3	5.0	7.0	29.9	29.4
mid-ebb	S2	5.8/83.3	5.8/83.9	4.8	10.0	29.9	29.2
	S3	6.1/87.9	5.9/85.8	5.0	12.5	29.9	29.4
	S4	6.1/88.7	5.9/85.2	4.7	7.7	29.9	29.7
Sok Kwu Wan	SC1	6.5/93.2	6.3/91.2	5.9	15.7	26.4	31.0
13 Aug 2009	SC2	6.2/88.8	6.0/86.4	5.9	17.0	26.4	31.0
(14:25-15:25)	S1	6.3/89.9	6.2/88.5	5.7	17.3	26.4	31.0
mid-ebb	S2	5.9/85.5	5.9/86.1	5.5	14.3	26.4	30.8
	S3	6.3/90.1	6.1/88.0	5.7	12.5	26.4	30.9
	S4	6.3/90.9	6.0/87.4	5.4	15.3	26.4	31.2
Sok Kwu Wan	SC1	6.5/91.9	6.3/89.9	4.2	3.3	29.4	30.0
19 Aug 2009	SC2	6.2/87.5	6.0/85.1	4.4	3.3	29.4	30.1
(13:30-14:25)	S1	6.3/88.6	6.2/87.2	4.3	6.7	29.4	30.0
mid-ebb	S2	6.0/84.2	6.0/84.8	4.2	4.0	29.4	29.8
	S3	6.3/88.8	6.1/86.7	4.7	5.0	29.4	30.0
	S4	6.3/89.6	6.1/86.1	4.6	8.0	29.4	30.3
Sok Kwu Wan	SC1	6.7/94.1	6.5/92.1	5.2	8.0	29.9	30.0
25 Aug 2009	SC2	6.6/93.3	6.6/93.0	5.2	5.7	29.9	30.1
(13:15-14:05)	S1	6.2/86.9	6.1/85.7	5.0	13.3	29.9	30.0
mid-ebb	S2	6.2/86.7	6.0/84.0	4.8	10.7	29.9	29.8
	S3	6.3/88.6	6.3/88.3	5.0	9.5	29.9	30.0
	S4	6.4/89.7	6.2/87.3	4.7	13.0	29.9	30.3
Sok Kwu Wan	SC1	6.4/93.8	6.3/91.8	4.0	10.0	29.9	29.7
31 Aug 2009	SC2	6.2/89.4	6.0/87.0	4.0	7.7	29.9	29.8
(13:35-14:20)	S1	6.2/90.5	6.1/89.1	3.8	11.7	29.9	29.7
mid-flood	S2	5.9/86.1	5.9/86.7	3.6	14.3	29.9	29.5
	S3	6.3/90.7	6.1/88.6	3.8	9.5	29.9	29.7
	S4	6.2/91.5	6.0/88.0	3.5	13.7	29.6	30.0

Location	Measurement Point	Dissolved Oxygen (mg/L / %)		Turbidity (NTU)	Suspended Solids (mg/L)	Temperature (℃)	
		Average	At 2m above Seabed	Average	Average	Air	Water
Sok Kwu Wan	SC1	6.6/94.0	6.4/92.0	4.6	9.7	28.8	29.0
10 Sep 2009	SC2	6.3/89.6	6.1/87.2	4.6	7.3	28.8	29.0
(14:25-15:20)	S1	6.4/90.7	6.3/89.3	4.4	6.7	28.8	29.0
mid-ebb	S2	6.1/86.3	6.1/86.9	4.2	9.0	28.8	28.8
	S3	6.4/90.9	6.2/88.8	4.4	9.0	28.8	29.0
	S4	6.4/91.7	6.2/88.2	4.1	19.0	28.8	29.3
Sok Kwu Wan	SC1	6.3/90.3	6.2/88.3	6.9	7.8	27.9	27.1
16 Sep 2009	SC2	6.0/85.9	5.9/83.5	6.9	6.5	27.9	27.2
(15:25-16:35)	S1	6.1/87.0	6.0/85.6	6.7	8.7	27.9	27.2
mid-flood	S2	5.8/82.6	5.8/81.9	6.5	10.2	27.9	26.9
	S3	6.1/87.2	5.9/85.1	6.7	9.2	27.9	27.1
	S4	6.1/88.0	5.9/84.5	6.4	11.7	27.9	27.4
Sok Kwu Wan	SC1	6.5/85.2	6.6/86.1	1.5	12.7	28.2	25.6
22 Sep 2009	SC2	6.8/85.5	6.9/89.4	1.6	13.0	28.2	25.3
(13:40-14:10)	S1	6.6/86.3	6.9/88.8	1.7	14.0	28.2	25.5
mid-ebb	S2	6.6/86.6	6.7/87.6	1.7	16.0	28.2	25.6
	S3	6.9/88.5	6.8/87.5	1.6	18.0	28.2	25.7
	S4	6.7/86.8	6.5/84.1	1.8	14.7	28.2	25.6
Sok Kwu Wan	SC1	6.5/85.1	6.6/86.0	1.5	5.0	26.2	25.5
28 Sep 2009	SC2	6.8/85.5	6.8/89.4	1.6	5.3	26.2	25.3
(13:20-13:50)	S1	6.7/86.3	6.9/88.9	1.7	9.0	26.2	25.5
mid-flood	S2	6.6/86.6	6.8/87.6	1.8	7.3	26.2	25.5
	S3	6.8/88.5	6.7/87.5	1.7	7.5	26.2	25.7
	S4	6.7/86.8	6.4/84.1	1.8	8.0	26.2	25.6

Location	Measurement Point	Dissolved Oxygen (mg/L / %)		Turbidity (NTU)	Suspended Solids (mg/L)	Temperature (℃)	
		Average	At 2m above Seabed	Average	Average	Air	Water
Sok Kwu Wan	SC1	6.4/94.5	6.2/92.5	5.7	15.0	26.2	28.1
8 Oct 2009	SC2	6.1/90.1	5.9/87.7	5.7	15.7	26.2	28.1
(14:25-15:20)	S1	6.2/91.2	6.1/89.8	5.5	17.0	26.2	28.1
mid-ebb	S2	5.9/86.8	5.9/87.4	5.3	13.7	26.2	27.9
	S3	6.2/91.4	6.0/89.3	5.5	15.0	26.2	28.1
	S4	6.2/92.2	6.0/88.7	5.2	17.7	26.2	28.4
Sok Kwu Wan	SC1	7.0/98.4	6.8/96.4	5.0	9.3	25.6	26.0
14 Oct 2009	SC2	6.9/97.6	6.9/97.3	5.0	9.7	25.6	26.1
(11:15-12:05)	S1	6.5/91.2	6.4/90.0	4.8	5.0	25.6	26.1
mid-flood	S2	6.5/91.0	6.3/88.3	4.6	5.7	25.6	25.8
	S3	6.6/92.9	6.6/92.6	4.8	4.5	25.6	26.0
	S4	6.7/94.0	6.5/91.6	4.5	9.7	25.6	26.3
Sok Kwu Wan	SC1	6.7/98.8	6.5/96.8	4.1	18.0	24.5	24.8
20 Oct 2009	SC2	6.4/94.4	6.2/92.0	4.1	19.7	24.5	24.8
(11:55-12:40)	S1	6.5/95.5	6.4/94.1	3.9	20.0	24.5	24.8
mid-ebb	S2	6.2/91.1	6.2/91.7	3.7	15.3	24.5	24.6
	S3	6.5/95.7	6.3/93.6	3.9	13.0	24.5	24.8
	S4	6.5/96.5	6.3/93.0	3.6	20.7	24.5	25.1
Sok Kwu Wan	SC1	6.4/94.6	6.2/92.6	3.7	8.0	24.4	23.9
27 Oct 2009	SC2	6.1/90.2	5.9/87.8	3.7	8.0	24.4	24.0
(11:25-12:10)	S1	6.2/91.3	6.1/89.9	3.5	13.3	24.4	23.9
mid-ebb	S2	5.8/86.9	5.8/86.2	3.3	12.3	24.4	33.7
	S3	6.2/91.5	6.0/89.4	3.5	9.5	24.4	23.9
	S4	6.3/92.3	5.9/88.8	3.2	9.7	24.4	24.2

Location	Measurement Point	Dissolved Oxygen (mg/L / %)		Turbidity (NTU)	Suspended Solids (mg/L)	Temperature (℃)	
		Average	At 2m above Seabed	Average	Average	Air	Water
Sok Kwu Wan	SC1	6.2/92.0	6.2/92.5	4.6	10.0	21.0	25.2
4 Nov 2009	SC2	6.2/92.2	6.2/92.0	4.9	10.3	21.0	25.3
(14:25-15:20)	S1	6.2/92.5	6.2/92.1	4.0	17.7	21.0	25.4
mid-ebb	S2	6.2/91.9	6.1/91.1	3.9	16.3	21.0	25.3
	S3	6.2/91.8	6.2/92.6	4.3	9.0	21.0	25.4
	S4	6.3/93.0	6.2/ 92.2	4.0	13.3	21.0	25.4
Sok Kwu Wan	SC1	7.2/95.9	7.4/ 97.0	2.1	12.3	26.2	27.5
11 Nov 2009	SC2	7.6/96.3	7.7/100.6	2.1	7.0	26.2	27.2
(12:20-13:10)	S1	7.4/ 97.1	7.6/99.9	2.3	12.7	26.2	27.4
mid-flood	S2	7.4/ 97.6	7.5/98.7	2.3	8.7	26.2	27.5
	S3	7.5/99.6	7.4/ 98.5	2.2	11.5	26.2	27.5
	S4	7.2 /95.9	7.4/97.0	2.1	12.3	26.2	27.5
Sok Kwu Wan	SC1	6.3/93.5	6.1/90.5	3.2	9.0	15.5	25.9
16 Nov 2009	SC2	6.6/97.2	6.3/93.2	3.2	9.0	15.5	26.1
(15:30-16:13)	S1	6.4/ 95.4	6.2/ 92.3	3.6	5.3	15.5	25.8
mid-flood	S2	6.2/91.1	5.8/85.8	3.4	9.0	15.5	25.9
	S3	6.7/98.3	6.5/95.5	2.9	7.5	15.5	26.0
	S4	6.2/91.0	6.0/85.5	3.8	7.7	15.5	25.7
Sok Kwu Wan	SC1	7.2/ 95.8	7.3 /96.9	2.7	14.3	21.2	25.2
26 Nov 2009	SC2	7.3/96.8	7.4/ 97.9	2.5	14.0	21.2	24.9
(10:20-11:05)	S1	7.5/98.8	7.4/97.5	2.6	17.0	21.2	25.0
mid-flood	S2	7.4/ 98.5	7.2/ 95.7	2.4	17.7	21.2	25.1
	S3	7.6/100.6	7.5/99.4	2.4	13.5	21.2	25.2
	S4	7.4/ 97.5	7.2/94.7	2.5	16.3	21.2	25.1

Location	Measurement Point	Dissolved Oxygen (mg/L / %)		Turbidity (NTU)	Suspended Solids (mg/L)	Temperature (℃)	
		Average	At 2m above Seabed	Average	Average	Air	Water
Sok Kwu Wan	SC1	6.3/90.7	6.1/88.3	3.7	14.7	19.8	22.8
2 Dec 2009	SC2	6.4/91.5	6.2/88.5	3.7	16.7	19.8	22.6
(13:15-14:00)	S1	6.5/93.3	63/90.6	3.5	15.0	19.8	22.6
mid-ebb	S2	6.6/94.6	6.3/90.5	3.5	12.3	19.8	22.6
	S3	6.2/89.9	6.0/87.2	3.3	9.5	19.8	22.9
	S4	6.2/89.5	6.0/86.9	3.4	11.0	19.8	22.8
Sok Kwu Wan	SC1	6.5/95.4	6.3/92.4	3.4	10.3	18.6	27.0
8 Dec 2009	SC2	6.8/99.1	6.5/95.1	3.4	11.7	18.6	27.2
(16:05-17:05)	S1	6.6/97.3	6.4/94.2	3.8	12.0	18.6	26.9
mid-ebb	S2	6.4/93.0	6.0/87.7	3.6	14.0	18.6	27.0
	S3	6.9/100.2	6.7/97.4	3.1	7.5	18.6	27.1
	S4	6.4/92.9	6.2/87.4	4.0	14.7	18.6	26.7
Sok Kwu Wan	SC1	6.5/92.6	6.3/90.6	3.9	9.0	19.8	19.6
14 Dec 2009	SC2	6.2/88.2	6.0/85.8	3.9	7.7	19.8	19.6
(13:35-14:20)	S1	6.3/89.3	6.2/87.9	3.7	11.3	19.8	19.6
mid-flood	S2	6.0/84.9	5.9/84.2	3.5	8.3	19.8	19.4
	S3	6.3/89.5	6.1/87.4	3.7	15.5	19.8	19.5
	S4	6.3/90.3	6.1/86.8	3.4	10.7	19.8	19.8
Sok Kwu Wan	SC1	7.1/93.8	6.9/91.3	2.6	9.0	20.0	18.8
24 Dec 2009	SC2	7.0/92.0	7.1/93.1	2.7	5.7	20.0	18.6
(12:50-13:40)	S1	7.0/92.5	7.4/96.7	2.6	6.3	20.0	18.7
mid-flood	S2	7.1/93.2	7.3 /95.9	2.6	7.3	20.0	18.9
	S3	7.3/95.6	7.2/94.5	2.5	8.0	20.0	18.8
	S4	7.8/93.6	7.2/94.7	2.7	8.0	20.0	18.8
Sok Kwu Wan	SC1	7.1/93.3	6.9/90.1	4.3	9.7	17.2	20.5
30 Dec 2009	SC2	7.0/91.4	6.6/87.0	4.1	9.0	17.2	20.4
(11:50-12:30)	S1	7.1/94.0	6.9/90.5	4.2	9.7	17.2	20.4
mid-ebb	S2	7.3/96.2	6.9/90.4	3.9	4.0	17.2	20.4
	S3	7.2/93.9	6.9/91.0	3.5	3.5	17.2	20.5
	S4	7.0/92.1	6.7/88.7	3.8	14.3	17.2	20.5

Location	Measurement Point	Dissolved Oxygen (mg/L / %)		Turbidity (NTU)	Suspended Solids (mg/L)	Temperature (℃)	
		Average	At 2m above Seabed	Average	Average	Air	Water
Sok Kwu Wan	SC1	6.6/89.0	6.4 /86.4	4.3	11.7	17.3	18.9
5 Jan 2010	SC2	6.9/92.1	6.8/90.1	4.2	13.7	17.3	19.3
(14:00-14:45)	S1	6.6/88.2	6.4/ 85.7	3.8	11.7	17.3	19.9
mid-ebb	S2	6.8/90.1	6.6/87.3	4.0	12.0	17.3	19.5
	S3	6.8/91.1	6.6/88.7	4.2	11.0	17.3	19.6
	S4	6.6/87.7	6.2/82.3	4.3	12.7	17.3	19.1
Sok Kwu Wan	SC1	6.2/85.6	6.0/82.7	4.0	10.7	15.0	17.9
11 Jan 2010	SC2	6.4 /87.8	6.1/84.3	4.0	11.0	15.0	18.0
(12:40-13:25)	S1	6.5/89.6	6.3/86.3	3.9	12.0	15.0	18.2
mid-flood	S2	6.6/90.9	6.2/ 85.7	3.9	12.7	15.0	18.2
	S3	6.2/85.6	5.9/82.2	3.7	11.5	15.0	18.4
	S4	6.1/ 85.2	5.9/81.9	3.7	12.7	15.0	18.2
Sok Kwu Wan	SC1	7.3 /95.6	7.1 /93.1	3.3	14.7	22.3	18.3
21 Jan 2010	SC2	7.2/94.0	7.5/97.6	3.0	6.7	22.3	18.3
(11:20-12:10)	S1	7.2/94.4	7.4/ 96.8	3.0	7.7	22.3	18.5
mid-flood	S2	7.2/94.5	7.3/95.6	3.3	7.3	22.3	18.6
	S3	7.4/ 96.5	7.3/95.4	3.1	10.0	22.3	18.6
	S4	7.1 /94.1	7.2/94.9	3.4	7.0	22.3	18.6
Sok Kwu Wan	SC1	6.6/89.4	6.4/ 86.4	3.8	7.7	16.9	18.1
27 Jan 2010	SC2	6.7/89.6	6.4/ 85.6	3.7	5.0	16.9	18.1
(11:40-12:25)	S1	6.8/91.8	6.6/88.4	3.7	5.8	16.9	18.2
mid-flood	S2	6.9/93.5	6.5/88.0	3.6	8.0	16.9	18.2
	S3	6.7/89.8	6.4/ 86.6	3.3	4.5	16.9	18.3
	S4	6.5/88.7	6.3/85.3	3.4	7.0	16.9	18.2

Location	Measurement Point	Dissolved Oxygen (mg/L / %)		Turbidity (NTU)	Suspended Solids (mg/L)	Temperature (℃)	
		Average	At 2m above Seabed	Average	Average	Air	Water
Sok Kwu Wan	SC1	6.6/95.1	6.5/92.8	3.6	6.3	19.0	18.3
2 Feb 2010	SC2	6.5/94.1	6.3/91.2	3.5	5.3	19.0	18.2
(11:50-12:35)	S1	6.7/96.2	6.5/93.7	3.4	7.3	19.0	18.2
mid-ebb	S2	6.8/97.8	6.5/94.0	3.4	6.7	19.0	18.3
	S3	6.6/94.1	6.4/ 91.8	3.1	12.0	19.0	18.3
	S4	6.4/ 93.3	6.3 /91.0	3.2	13.0	19.0	18.3
Sok Kwu Wan	SC1	6.2/87.9	6.0/85.2	4.3	12.0	18.0	17.6
8 Feb 2010	SC2	6.5/90.9	6.4/ 89.2	3.9	9.7	18.0	17.6
(11:05-11:50)	S1	6.3/89.3	6.2/86.8	3.7	9.3	18.0	17.4
mid-flood	S2	6.5/91.0	6.2/86.8	4.2	9.7	18.0	17.7
	S3	6.2/89.0	6.0/85.5	3.9	11.0	18.0	17.8
	S4	6.1/87.0	5.8/82.7	4.1	11.0	18.0	17.6
Sok Kwu Wan	SC1	7.5/98.4	7.7/100.5	3.5	7.3	9.1	17.9
18 Feb 2010	SC2	7.4/ 96.9	7.7/99.9	3.2	12.3	9.1	17.9
(11:40-12:30)	S1	7.4/ 97.8	7.3/98.8	3.4	10.3	9.1	18.0
mid-ebb	S2	7.4/ 97.4	7.6/99.7	3.5	9.7	9.1	18.2
	S3	7.6/99.3	7.7/100.4	3.3	9.0	9.1	18.1
	S4	7.4/ 96.9	7.7/100.5	4.1	8.3	9.1	18.1
Sok Kwu Wan	SC1	6.5/92.9	6.4 /91.5	3.8	7.7	22.3	17.2
24 Feb 2010	SC2	6.5/94.0	6.5/93.1	3.7	10.3	22.3	17.3
(10:00-10:35)	S1	6.5/93.6	6.3/91.3	3.7	7.7	22.3	17.4
mid-flood	S2	6.4 /93.0	6.3/90.9	3.8	7.0	22.3	17.3
	S3	6.5/93.3	6.4/ 91.5	3.9	5.5	22.3	17.3
	S4	6.4/ 92.1	6.2/89.5	3.9	11.3	22.3	17.2

Location	Measurement Point	Dissolved Oxygen (mg/L / %)		Turbidity (NTU)	Suspended Solids (mg/L)	Temperature (℃)	
		Average	At 2m above Seabed	Average	Average	Air	Water
Sok Kwu Wan	SC1	6.6/95.0	6.5/93.0	3.8	11.7	24.6	20.4
2 Mar 2010	SC2	6.4/93.5	6.3 /91.0	3.8	6.0	24.6	20.3
(12:05-12:50)	S1	6.6/95.4	6.4/93.4	3.5	10.0	24.6	20.4
mid-ebb	S2	6.7/97.0	6.5/94.0	3.5	8.7	24.6	20.4
	S3	6.5/93.3	6.3/91.5	3.4	13.5	24.6	20.5
	S4	6.4/ 92.7	6.3/90.9	3.4	9.3	24.6	20.4
Sok Kwu Wan	SC1	6.8/95.5	6.7/93.2	3.8	5.3	16.7	17.4
8 Mar 2010	SC2	6.7/94.1	6.5 /91.5	3.6	6.3	16.7	17.3
(10:35-11:15)	S1	6.9/96.1	6.7/93.6	3.3	4.3	16.7	17.4
mid-flood	S2	6.9/96.9	6.7/93.3	3.4	2.8	16.7	17.5
	S3	6.8/95.4	6.7/93.4	3.3	5.0	16.7	17.6
	S4	6.7/94.3	6.6/92.1	3.4	6.3	16.7	17.5
Sok Kwu Wan	SC1	6.6/93.5	6.4/ 91.5	4.2	7.3	20.9	23.9
18 Mar 2010	SC2	6.3 / 89.1	6.1/86.7	4.2	6.7	20.9	24.0
(13:35-14:20)	S1	6.4/90.2	6.3/ 88.8	4.0	11.7	20.9	23.9
mid-ebb	S2	6.1 /85.8	6.0/85.1	3.8	12.0	20.9	23.7
	S3	6.4 /90.4	6.2 /88.3	4.0	14.0	20.9	23.9
	S4	6.4/91.2	6.2/87.7	3.7	8.3	20.9	24.2
Sok Kwu Wan	SC1	8.2/ 110.7	8.1/109.2	4.0	7.7	24.4	19.9
24 Mar 2010	SC2	7.4/ 100.6	7.4/ 100.0	4.1	6.0	24.4	19.9
(11:15-12:00)	S1	7.6/103.0	7.5/101..6	3.9	14.3	24.4	19.9
mid-flood	S2	7.6/103.2	7.6/102.9	3.6	8.3	24.4	19.8
	S3	7.4/99.2	7.2/97.2	3.8	8.5	24.4	19.9
	S4	8.0/107.7	7.9/107.4	3.6	10.7	24.4	19.9
Sok Kwu Wan	SC1	7.6/99.7	7.9/102.8	3.7	8.3	19.0	19.4
30 Mar 2010	SC2	7.8/101.4	7.9/103.6	3.4	7.0	19.0	19.4
(10:40-11:30)	S1	7.7/101.6	7.6/102.7	3.8	10.7	19.0	19.6
mid-ebb	S2	7.6/99.7	7.9/103.5	3.6	8.0	19.0	19.5
	S3	7.9/103.3	8.0/104.4	3.5	7.0	19.0	19.6
	S4	7.7/101.3	7.9/103.5	4.7	8.7	19.0	19.6