MTR Corporation Limited

Shatin to Central Link –
Tai Wai to Hung Hom Section

Baseline Monitoring Report

(Works Contract 1108A – Kai Tak Barging Point Facilities)

(July 2012)

Verified by: 

Position: Independent Environmental Checker

Date: 31st July 2012

MTR Corporation Limited

Shatin to Central Link –
Tai Wai to Hung Hom Section

Baseline Monitoring Report

(Works Contract 1108A – Kai Tak Barging Point Facilities)

(July 2012)

Certified by: _____

Position: Environmental Team Leader

Date: 31 Jul 2012

AECOM

MTR Corporation Limited

Consultancy Agreement No. NEX/2213

Shatin to Central Link – Tai Wai to Hung Hom Section [SCL(TAW-HUH)]

Baseline Monitoring Report

(Works Contract 1108A – Kai Tak Barging Point Facilities)

July 2012

	Name	Signature
Prepared & Checked:	Joanne Tsoi	
Reviewed & Approved:	Josh Lam	

Version: A	Date: 30 July 2012

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Table of Content

Page

List of Tables

List of Figures

Appendices

EXECUTIVE SUMMARY

Shatin to Central Link – Tai Wai to Hung Hom Section [SCL (TAW-HUH)] (the Project) is an approximately 11 km long extension of the Ma On Shan Line and connects the West Rail Line at Hung Hom forming a strategic east-west rail corridor. It is a Designated Project under the Environmental Impact Assessment Ordinance (Cap. 499) (EIAO) and is currently governed by an Environmental Permit No. EP-438/2012/A for the construction and operation of the Project.

In accordance with the approved Environmental Monitoring and Audit (EM&A) Manual for the Project, baseline monitoring for marine water quality should be conducted prior to the commencement of dredging works of the Project.

The baseline monitoring for marine water quality was carried out 3 days per week for 4 weeks between 16 June 2012 and 14 July 2012 at three water quality monitoring locations prior to the commencement of dredging works. Data collected was reviewed and analysed to establish the Action and Limit Levels for water quality during impact monitoring period.

The baseline water quality is summarized in the following table:

Locations		Parameters					
		Salinity (ppt)	Dissolved Oxygen (mg/L)		pH	Turbidity (NTU)	Suspended Solids (mg/L)
			Surface & Middle	Bottom			
IS-1	Avg.	27.3	5.7	5.4	8.2	2.9	3.8
	Min.	19.7	4.4	3.7	8.1	0.4	1.3
	Max.	33.2	9.3	8.3	8.6	8.6	10.3
CS-1	Avg.	27.6	5.7	5.2	8.2	2.7	4.2
	Min.	20.3	4.3	3.4	8.1	0.7	1.3
	Max.	33.6	9.7	9.2	8.6	6.3	9.7
CS-2	Avg.	27.5	5.7	5.3	8.3	2.7	4.1
	Min.	19.3	4.6	4.2	8.1	0.6	0.8
	Max.	32.5	9.3	8.3	8.6	6.4	9.6

1 INTRODUCTION

1.1 Background

1.1.1 Shatin to Central Link – Tai Wai to Hung Hom Section [SCL(TAW-HUH)] (the Project), is an approximately 11 km long extension of the Ma On Shan Line and connects the West Rail Line at Hung Hom forming a strategic east-west rail corridor. The general alignment of SCL (TAW-HUH) alignment is shown in **Figure NEX2213/C/361/ACM/M63/001**.

1.1.2 The Environmental Impact Assessment (EIA) Report (Register No.: AEIAR-167/2012) for the Project was approved on 17 February 2012 under the Environmental Impact Assessment Ordinance (EIAO). Following the approval of the EIA Report, an Environmental Permit (EP) was granted on 22 March 2012 (EP No: EP-438/2012) for the construction and operation of the Project. Variations of environmental permit (VEP) was subsequently applied and the latest Environmental Permit (EP No: EP-438/2012/A) was issued by Director of Environmental Protection (DEP) on 12 July 2012.

1.1.3 According to the EM&A Manual, baseline monitoring for marine water quality should be conducted to establish the baseline conditions prior to the commencement of dredging works for Kai Tak Runway Barging Facility and demonstrate the suitability of the proposed impact and control monitoring stations.

1.2 Purpose of the Report

1.2.1 This Baseline Water Quality Report presents monitoring locations, equipment, period, methodology, results and observations for the baseline water quality monitoring in June and July 2012 at three monitoring stations.

1.2.2 The purposes of this Report are to:

- Summarise the findings of baseline monitoring for marine water quality; and
- Establish the Action and Limit (A/L) levels in accordance with the EM&A Manual for the subsequent impact monitoring during construction stage.

1.3 Structure of the Report

1.3.1 This Report comprises the following sections:

- Section 1 introduces the background of the Project and purpose of this Report;
- Section 2 presents the baseline monitoring requirements, methodologies and monitoring results of marine water quality; and
- Section 3 concludes the findings of baseline monitoring.

2 WATER QUALITY MONITORING

2.1 Monitoring Requirements

2.1.1 In accordance with the EM&A Manual, baseline water quality monitoring was undertaken to establish the baseline water quality levels at three monitoring stations. The baseline monitoring was conducted 3 days per week for at least 4 weeks prior to the commencement of dredging works for Kai Tak Runway Barging Facility which is tentative scheduled to commence in the 3rd / 4th quarter of 2012.

2.1.2 Measurements were taken at mid-flood and mid-ebb tides at three water depths, namely, 1 m below water surface, mid-depth and 1 m above sea bed, except where the water depth was less than 6 m, in which case the mid-depth station was omitted. If the water depth was less than 3 m, only the mid-depth station would be monitored.

2.2 Monitoring Equipment

2.2.1 Equipment used in the baseline water quality monitoring programme is summarized in **Table 2.1**. A copy of the calibration certificates for the water quality monitoring equipment are attached in **Appendix A**.

Table 2.1 Water Quality Monitoring Equipment

Equipment	Model and Make
DO and Temperature Meter, Salinity Meter, pH meter and Turbidimeter	YSI Model 6820 V2
Positioning Equipment	JRC DGPS 224 Model JLR-4341 with J-NAV 500 Model NWZ4551
Water Depth Detector	Eagle cuda 168
Water Sampler	Kahlsico Water Sampler 2 L with messenger

2.3 Monitoring Parameters, Frequency and Duration

2.3.1 **Table 2.2** summarizes the monitoring parameters, frequency and duration of the baseline water quality monitoring. The monitoring schedule is provided in **Appendix B**.

Table 2.2 Water Quality Monitoring Parameters, Frequency and Duration

Monitoring Stations	Parameter, unit	Frequency	No. of Depths
Control Stations: CS-1 and CS-2 *Impact Stations:* IS-1	• Depth, m • Temperature, ^{o}C • Salinity, ppt • pH • DO, mg/L • DO Saturation, % • Turbidity, NTU • SS, mg/L	3 days per week (12 days)	3 (Surface, Mid-Depth and Bottom)

2.4 Monitoring Locations

2.4.1 Pursuant to the EM&A Manual, the measurements were taken at all impact and control stations summarized in **Table 2.3**. The locations of the monitoring stations are shown in **Figure NEX2213/C/361/ACM/M63/030**.

Table 2.3 Locations of Water Quality Impact Stations

Station	Description	Easting	Northing
IS-1(1)	Impact Station for Dredging Activities	838499	819333
CS-1	Control Station for IS-1	838170	818903
CS-2	Control Station for IS-1	838912	818997

Note: (1) There is a slight adjustment for the monitoring station IS-1 due to the site constraint as the original monitoring location (Easting: 838450, Northing: 819399) has been occupied by barges/dredgers of other projects.

2.5 Monitoring Methodology

2.5.1 The following procedures were adopted for DO, temperature, turbidity, pH, salinity and suspended solids measurement:

Instrumentation

2.5.2 The in-situ water quality parameters, viz. dissolved oxygen, temperature, turbidity, pH and salinity were measured by a multi-parameter meter (YSI Model 6820 V2).

Operating/Analytical Procedures

2.5.3 Given that all water monitoring stations had water depths over 6 m, all in-situ measurements and samplings were conducted at 3 water depths, namely 1 m below water surface, mid-depth and 1 m above sea bed.

2.5.4 At each sampling depth, at least duplicate readings of dissolved oxygen content and turbidity were taken. The probes were retrieved out of the water after the first measurement and then re-deployed for the second measurement.

2.5.5 Three replicates of water samples for suspended solids were collected by water samplers and stored in polyethylene bottles. Sampling bottles were pre-rinsed with the same water samples. The sample bottles were then packed into a cool-box kept at 4^{o}C, and delivered to a HOKLAS accredited laboratory, ALS Technichem (HK) Pty Ltd. for the analysis of suspended solids. The results for laboratory analysis of suspended solids are presented in **Appendix C**.

Maintenance and Calibration

2.5.6 Before each round of monitoring, the dissolved oxygen probe of YSI 6820 was calibrated by the wet bulb method.

2.5.7 The monitoring instruments were checked, calibrated and certified by a laboratory accredited under HOKLAS before use and subsequently re-calibrated at 3-monthly intervals throughout all stages of the water quality monitoring.

2.6 Results and Observations

2.6.1 The baseline water quality monitoring for all the three monitoring stations was conducted between 16 June and 14 July 2012. The monitoring results are summarized in **Tables 2.4** and **2.5**. Details of water quality monitoring results are presented in **Appendix D**.

2.6.2 The weather conditions during the monitoring period were mainly sunny and cloudy. Sea conditions for the majority of monitoring days were either calm or moderate. No major pollution source and extreme weather which might affect the results were observed during the baseline monitoring.

2.6.3 According to the construction programme in the EM&A Reports of Kai Tak Cruise Terminal Development, dredging works from Kai Tak Cruise Terminal Development might be undertaken concurrently with the baseline water quality monitoring. As confirmed with CEDD, dredging works from Kai Tak Cruise Terminal Development were undertaken during the baseline monitoring period, while mitigation measures have been fully implemented during the dredging operation to minimize the water quality impact. As shown in **Appendix E**, the baseline DO, turbidity and SS levels of SCL (TAW-HUH) and Kai Kai Tak Cruise Terminal Development as well as EPD's monitoring data are in similar magnitude and significant influence from the marine works on the baseline water quality monitoring is not observed. It is therefore considered that the baseline monitoring data collected between the period of 16 June 2012 and 14 July 2012 represent the baseline for SCL (TAW-HUH).

Table 2.4 Summary of Baseline Water Quality Monitoring Results

Locations		Parameters					
		Salinity (ppt)	Dissolved Oxygen (mg/L)		pH	Turbidity (NTU)	Suspended Solids (mg/L)
			Surface & Middle	Bottom			
IS-1	Avg.	27.3	5.7	5.4	8.2	2.9	3.8
	Min.	19.7	4.4	3.7	8.1	0.4	1.3
	Max.	33.2	9.3	8.3	8.6	8.6	10.3
CS-1	Avg.	27.6	5.7	5.2	8.2	2.7	4.2
	Min.	20.3	4.3	3.4	8.1	0.7	1.3
	Max.	33.6	9.7	9.2	8.6	6.3	9.7
CS-2	Avg.	27.5	5.7	5.3	8.3	2.7	4.1
	Min.	19.3	4.6	4.2	8.1	0.6	0.8
	Max.	32.5	9.3	8.3	8.6	6.4	9.6

2.7 Action and Limit Levels

2.7.1 The Action and Limit Levels (AL levels) have been set in accordance with the derivation criteria specified in the EM&A Manual. This is shown in **Table 2.6**.

Table 2.6 Derivation of Action and Limit Levels for Water Quality

Parameters	Action	Limit
DO in mg/L (Surface & Middle, Bottom)	Surface & Middle 5 percentile of baseline data for surface and middle layer Bottom 5 percentile of baseline data for bottom layer	Surface & Middle 4 mg/L except 5 mg/L for FCZ or 1 percentile of baseline data for surface and middle layer Bottom 2 mg/L or 1 percentile of baseline data for bottom layer
SS in mg/L	95 percentile of baseline data or	99 percentile of baseline data

Parameters	Action	Limit
(depth-averaged)	120% of upstream control station's SS at the same tide of the same day	or 130% of upstream control station's SS at the same tide of the same day
Turbidity in NTU (depth-averaged)	95 percentile of baseline data or 120% of upstream control station's Turbidity at the same tide of the same day	99 percentile of baseline data or 130% of upstream control station's Turbidity at the same tide of the same day

Notes:
1. "Depth-averaged" is calculated by taking the arithmetic means of reading of all three depths.
2. For DO, non-compliance of the water quality limits occurs when monitoring result is lower than the limits.
3. For turbidity, SS, non-compliance of the water quality limits occurs when monitoring result is higher than the limits.
4. All the figures given in the table are used for reference only and the EPD may amend the figures whenever it is considered as necessary.

2.7.2 As per the EM&A Manual, owing to the possible overlapping of the baseline monitoring with the dredging works of Proposed Cruise Terminal at Kai Tak, EPD's routine monitoring data and baseline monitoring data for Kai Tak Cruise Terminal Development should be considered to be used with the monitoring data collected in this baseline monitoring to establish the Action/Limit Levels. As discussed above, the collected baseline marine water quality monitoring data in June and July 2012 represent the baseline for SCL (TAW-HUH). Based on the baseline monitoring data and the derivation criteria specified in the EM&A Manual, the Action/Limit Levels have been derived and are presented in **Table 2.7**. Details of the establishment of Action/Limit Levels are provided in **Appendix E**.

Table 2.7 Derived Action and Limit Levels for Water Quality

Parameters	Action	Limit
DO in mg/L	Surface & Middle: **4.6** (5 percentile of baseline data) Bottom: **3.9** (5 percentile of baseline data)	Surface & Middle: **4** Bottom: **2**
SS in mg/L	**6.1** (95 percentile of baseline data)	**6.3** (99 percentile of baseline data)
Turbidity in NTU	**4.8** (95 percentile of baseline data)	**5.0** (99 percentile of baseline data)

3 CONCLUSION

3.1.1 Baseline water quality monitoring was conducted between 16 June and 14 July 2012 at one impact and two control stations. Action and Limit Levels were derived based on the baseline monitoring results.

Figures

832000 E
836000 E
840000 E
844000 E
824000 N
820000 N

HIN KENG STATION
DIAMOND HILL STATION
KAI TAK STATION
TO KWA WAN STATION
MA TAU WAI STATION
HO MAN TIN STATION
HUNG HOM STATION

KWAI TSING CONTAINER TERMINALS
Naval Base
Kowloon
WANG TAU HOM
HUNG HOM
TO KWA WAN
KOWLOON BAY
NGAU TAU KOK
KWUN TONG
LAM TIN
JUNK BAY (TSEUNG KWAN O)
SAI WAN
SAI YING PUN
LITTLE GREEN ISLAND
CENTRAL DISTRICT
WAN CHAI
NORTH POINT
VICTORIA HARBOUR
MASS TRANSIT RAILWAY
Harbour Limit

LEGEND :

- PROPOSED ALIGNMENT
- KAI TAK REFUGE SIDINGS
- HHS TRACKS
- PROPOSED STATION
- HUNG HOM STABLING SIDINGS

0 200 400 600 800 1000
METRES
1 : 40000

PLOT DRV: M:\PROJECTS\60050763\CAD_ADMIN\PLOTDRIVER\WINDOWS\A3 COLOUR.pltPRINTED BY: NHP 2012/7/23 15:11:20
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REV	DESCRIPTION	BY	DATE	APPROVED	REV	DESCRIPTION	BY	DATE	APPROVED

DRAWN	NHP
DESIGNED	LCLL
CHECKED	LCLL
APPROVED	IMW
DATE	06/JUL/2012

MTR

SHATIN TO CENTRAL LINK

ORIGINATOR
AECOM

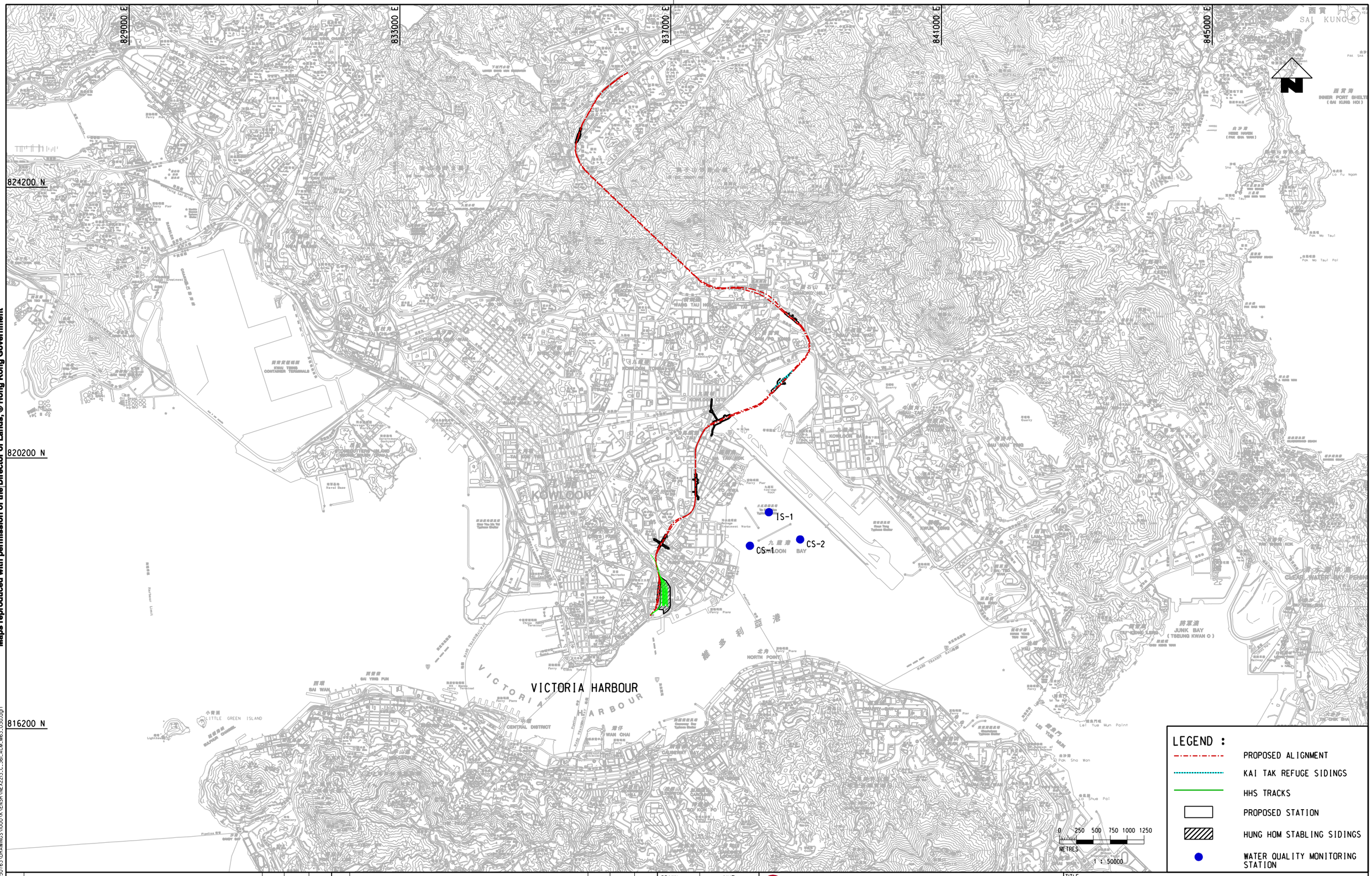
CADD REF.
NEX2213_C_361_ACM_M63_001A.dgn

TITLE
NEX/2213
SCL (TAW-HUH)
GENERAL ALIGNMENT OF SCL (TAI WAI TO HUNG HOM)

SCALE
1 : 40000 (A3)

FIGURE NO.
NEX2213/C/361/ACM/M63/001

REV.
A



PLOT DRV: MA:\PROJECTS\60050763\CAD_ADMIN\PLOTDRIVER\WINDOWS\HJ3 COLOUR.pltt
MODEL NAME: Default PRINTED BY: FENGYC 2012-7-24 15:23:04
FILENAME: MA:\projects\60050763\DRAWINGS\1000\KYENSR\NEX2213_C_361_ACM_M63_030.dgn

REV	DESCRIPTION	BY	DATE	APPROVED	REV	DESCRIPTION	BY	DATE	APPROVED

DRAWN	NHP
DESIGNED	LCLL
CHECKED	LCLL
APPROVED	IMW
DATE	09/JUL/2012

MTR

SHATIN TO CENTRAL LINK

ORIGINATOR

AECOM

CADD REF. NEX2213_C_361_ACM_M63_030.dgn

TITLE

NEX/2213
SCL (TAW-HUH)
LOCATIONS OF WATER QUALITY MONITORING STATIONS

SCALE 1 : 50000 (A3)

FIGURE NO. NEX2213/C/361/ACM/M63/030

REV. –

Appendix A

Calibration Certificates of Monitoring Equipment

ALS Technichem (HK) Pty Ltd

REPORT OF EQUIPMENT PERFORMANCE CHECK/CALIBRATION

CONTACT:	MR MIKE SHEK	**WORK ORDER:**	HK1212871
CLIENT:	AECOM ASIA COMPANY LIMITED	**LABORATORY:**	HONG KONG
ADDRESS:	11/F, TOWER 2, GRAND CENTRAL PLAZA, 138 SHATIN RURAL COMMITTEE ROAD, SHATIN, N.T., HONG KONG.	**DATE RECEIVED:**	17/05/2012
		DATE OF ISSUE:	17/05/2012
PROJECT:	--		

COMMENTS

It is certified that the item under calibration/checking has been calibrated/checked by corresponding calibrated equipment in the laboratory.
Maximum Tolerance and calibration frequency stated in the report, unless otherwise stated, the internal aceptance criteria of ALS will be followed.

Scope of Test:	pH, Turbidity, Conductivity, Dissolved Oxygen, Salinity and Temperature
Description:	Sonde
Brand Name:	YSI
Model No.:	6820 V2
Serial No.:	12A101545
Equipment No.:	R1
Date of Calibration:	17 May, 2012

NOTES

This is the Final Report and supersedes any preliminary report with this batch number.
Results apply to sample(s) as submitted. All pages of this report have been checked and approved for release.

ISSUING LABORATORY: HONG KONG

Address

ALS Technichem (HK) Pty Ltd

11/F Chung Shun Knitting Centre
1-3 Wing Yip Street
Kwai Chung
HONG KONG

Phone: 852-2610 1044
Fax: 852-2610 2021
Email: hongkong@alsglobal.com

Mr. Fung Lim Chee, Richard
General Manager -
Greater China & Hong Kong

REPORT OF EQUIPMENT PERFORMANCE CHECK/CALIBRATION

Work Order: HK1212871
Date of Issue: 17/05/2012
Client: AECOM ASIA COMPANY LIMITED

Description: Sonde
Brand Name: YSI
Model No.: 6820 V2
Serial No.: 12A101545
Equipment No.: R1
Date of Calibration: 17 May, 2012 Date of next Calibration: 17 August, 2012

Parameters:

Conductivity

Method Ref: APHA (20th edition), 2510B

Expected Reading (uS/cm)	Displayed Reading (uS/cm)	Tolerance (%)
142.6	150.0	5.2
6667	6162	-7.6
12890	12140	-5.8
58670	58500	-0.3
	Tolerance Limit (±%)	10.0

Dissolved Oxygen

Method Ref: APHA (21st edition), 4500O: G

Expected Reading (mg/L)	Displayed Reading (mg/L)	Tolerance (mg/L)
6.13	6.28	0.15
7.66	7.56	-0.10
8.06	8.11	0.05
	Tolerance Limit (±mg/L)	0.20

Salinity

Method Ref: APHA (21st edition), 2520B

Expected Reading (ppt)	Displayed Reading (ppt)	Tolerance (%)
0	0.09	--
10	9.58	-4.2
20	19.16	-4.2
30	29.42	-1.9
	Tolerance Limit (±%)	10.0

Temperature

Method Ref: Section 6 of International Accreditation New Zealand Technical Guide No. 3 Second edition March 2008: Working Thermometer Calibration Procedure.

Expected Reading (°C)	Displayed Reading (°C)	Tolerance (°C)
18.5	18.43	-0.1
27.0	26.68	-0.3
30.0	29.90	-0.1
	Tolerance Limit (°C)	2.0

Mr. Fung Lim Chee, Richard
General Manager -
Greater China & Hong Kong

REPORT OF EQUIPMENT PERFORMANCE CHECK/CALIBRATION

Work Order: HK1212871
Date of Issue: 17/05/2012
Client: AECOM ASIA COMPANY LIMITED

Description: Sonde
Brand Name: YSI
Model No.: 6820 V2
Serial No.: 12A101545
Equipment No.: R1
Date of Calibration: 17 May, 2012 Date of next Calibration: 17 August, 2012

Parameters:

pH Value

Method Ref: APHA 21st Ed. 4500H:B

Expected Reading (pH Unit)	Displayed Reading (pH Unit)	Tolerance (pH unit)
4.0	4.12	0.12
7.0	7.18	0.18
10.0	9.99	-0.01
	Tolerance Limit (±unit)	0.2

Turbidity

Method Ref: APHA (21st edition), 2130B

Expected Reading (NTU)	Displayed Reading (NTU)	Tolerance (%)
0	0.1	--
4	4.2	5.0
10	10.7	7.0
20	20.2	1.0
50	51.5	3.0
100	99.4	-0.6
	Tolerance Limit (±%)	10.0

Mr. Fung Lim Chee, Richard
General Manager -
Greater China & Hong Kong

Appendix B

Baseline Water Quality Monitoring Schedules

SCL(TAW-HUH)
Baseline Water Quality Monitoring Schedule for June 2012

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
					1-Jun	2-Jun
3-Jun	4-Jun	5-Jun	6-Jun	7-Jun	8-Jun	9-Jun
10-Jun	11-Jun	12-Jun	13-Jun	14-Jun	15-Jun	16-Jun
						Mid-Ebb 10:43 Mid-Flood 17:24
17-Jun	18-Jun	19-Jun	20-Jun	21-Jun	22-Jun	23-Jun
				Mid-Ebb 13:26 Mid-Flood 20:00		Mid-Flood 8:00 Mid-Ebb 14:41
24-Jun	25-Jun	26-Jun	27-Jun	28-Jun	29-Jun	30-Jun
		Mid-Flood 10:12 Mid-Ebb 16:47		Mid-Ebb 7:11 Mid-Flood 13:22		

SCL(TAW-HUH)
Baseline Water Quality Monitoring Schedule for July 2012

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
1-Jul	2-Jul	3-Jul	4-Jul	5-Jul	6-Jul	7-Jul
Mid-Ebb 10:10 Mid-Flood 17:21		Mid-Ebb 11:52 Mid-Flood 19:08		Mid-Flood 7:08 Mid-Ebb 13:28		Mid-Flood 8:07 Mid-Ebb 14:50
8-Jul	9-Jul	10-Jul	11-Jul	12-Jul	13-Jul	14-Jul
		Mid-Flood 10:28 Mid-Ebb 16:40		Mid-Ebb 7:38 Mid-Flood 13:15		Mid-Ebb 9:38 Mid-Flood 16:33
15-Jul	16-Jul	17-Jul	18-Jul	19-Jul	20-Jul	21-Jul
22-Jul	23-Jul	24-Jul	25-Jul	26-Jul	27-Jul	28-Jul
29-Jul	30-Jul	31-Jul				

Appendix C

Laboratory Results

CERTIFICATE OF ANALYSIS

Client	: AECOM ASIA COMPANY LIMITED	Laboratory	: ALS Technichem HK Pty Ltd	Page	: 1 of 4		
Contact	: MS LEMON LAM	Contact	: Chan Kwok Fai, Godfrey	Work Order	: HK1215612		
Address	: 11/F, TOWER 2, GRAND CENTRAL PLAZA, 138 SHATIN RURAL COMMITTEE ROAD, SHATIN, N.T. HONG KONG	Address	: 11/F., Chung Shun Knitting Centre, 1 - 3 Wing Yip Street, Kwai Chung, N.T., Hong Kong				
E-mail	: lemon.lam@aecom.com	E-mail	: Godfrey.Chan@alsglobal.com				
Telephone	: +852 2605 6262	Telephone	: +852 2610 1044				
Facsimile	: +852 2691 2649	Facsimile	: +852 2610 2021				
Project	: BASELINE WATER QUALITY MONITORING FOR SCL	Quote number	: ----	Date received	: 18-JUN-2012		
Order number	: 60050763			Date of issue	: 26-JUN-2012		
C-O-C number	: ----			No. of samples	- Received :	54	
Site	: ----				- Analysed :	54	

Report Comments

This report for ALS Technichem (HK) Pty Ltd work order reference HK1215612 supersedes any previous reports with this reference. The completion date of analysis is 26-JUN-2012. 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 HK1215612 :

The accredited LOR for suspended solids is 2mg/L. The results reported below the accredited LOR and the decimal value of the results were for reference only.
Sample(s) were picked up from client by ALS Technichem (HK) staff 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**

Analytical Results

Sub-Matrix: **WATER**

Client sample ID	Client sampling date / time	Laboratory sample ID	Compound	EA025: Suspended Solids (SS)				
			LOR Unit	0.1 mg/L				
				EA/ED: Physical and Aggregate Properties				
IS-1 (SURFACE) MID-EBB	[16-JUN-2012]	HK1215612-001		**2.6**				
IS-1 (SURFACE) MID-EBB	[16-JUN-2012]	HK1215612-002		**2.3**				
IS-1 (SURFACE) MID-EBB	[16-JUN-2012]	HK1215612-003		**2.5**				
IS-1 (MIDDLE) MID-EBB	[16-JUN-2012]	HK1215612-004		**2.2**				
IS-1 (MIDDLE) MID-EBB	[16-JUN-2012]	HK1215612-005		**2.9**				
IS-1 (MIDDLE) MID-EBB	[16-JUN-2012]	HK1215612-006		**2.1**				
IS-1 (BOTTOM) MID-EBB	[16-JUN-2012]	HK1215612-007		**4.1**				
IS-1 (BOTTOM) MID-EBB	[16-JUN-2012]	HK1215612-008		**3.3**				
IS-1 (BOTTOM) MID-EBB	[16-JUN-2012]	HK1215612-009		**4.0**				
CS-1 (SURFACE) MID-EBB	[16-JUN-2012]	HK1215612-010		**3.2**				
CS-1 (SURFACE) MID-EBB	[16-JUN-2012]	HK1215612-011		**3.7**				
CS-1 (SURFACE) MID-EBB	[16-JUN-2012]	HK1215612-012		**3.0**				
CS-1 (MIDDLE) MID-EBB	[16-JUN-2012]	HK1215612-013		**6.4**				
CS-1 (MIDDLE) MID-EBB	[16-JUN-2012]	HK1215612-014		**3.5**				
CS-1 (MIDDLE) MID-EBB	[16-JUN-2012]	HK1215612-015		**3.5**				
CS-1 (BOTTOM) MID-EBB	[16-JUN-2012]	HK1215612-016		**4.9**				
CS-1 (BOTTOM) MID-EBB	[16-JUN-2012]	HK1215612-017		**4.7**				
CS-1 (BOTTOM) MID-EBB	[16-JUN-2012]	HK1215612-018		**3.5**				
CS-2 (SURFACE) MID-EBB	[16-JUN-2012]	HK1215612-019		**4.1**				
CS-2 (SURFACE) MID-EBB	[16-JUN-2012]	HK1215612-020		**4.0**				
CS-2 (SURFACE) MID-EBB	[16-JUN-2012]	HK1215612-021		**3.1**				
CS-2 (MIDDLE) MID-EBB	[16-JUN-2012]	HK1215612-022		**3.1**				
CS-2 (MIDDLE) MID-EBB	[16-JUN-2012]	HK1215612-023		**4.4**				
CS-2 (MIDDLE) MID-EBB	[16-JUN-2012]	HK1215612-024		**4.0**				
CS-2 (BOTTOM) MID-EBB	[16-JUN-2012]	HK1215612-025		**3.3**				
CS-2 (BOTTOM) MID-EBB	[16-JUN-2012]	HK1215612-026		**2.6**				
CS-2 (BOTTOM) MID-EBB	[16-JUN-2012]	HK1215612-027		**4.9**				
IS-1 (SURFACE) MID-FLOOD	[16-JUN-2012]	HK1215612-028		**3.4**				
IS-1 (SURFACE) MID-FLOOD	[16-JUN-2012]	HK1215612-029		**3.0**				
IS-1 (SURFACE) MID-FLOOD	[16-JUN-2012]	HK1215612-030		**4.4**				
IS-1 (MIDDLE) MID-FLOOD	[16-JUN-2012]	HK1215612-031		**2.9**				
IS-1 (MIDDLE) MID-FLOOD	[16-JUN-2012]	HK1215612-032		**5.0**				
IS-1 (MIDDLE) MID-FLOOD	[16-JUN-2012]	HK1215612-033		**2.6**				
IS-1 (BOTTOM) MID-FLOOD	[16-JUN-2012]	HK1215612-034		**2.9**				
IS-1 (BOTTOM) MID-FLOOD	[16-JUN-2012]	HK1215612-035		**2.9**				

Sub-Matrix: **WATER**

Client sample ID	*Client sampling date / time*	*Laboratory sample ID*	*Compound*	**EA025: Suspended Solids (SS)**				
			LOR Unit	0.1 mg/L				
				EA/ED: Physical and Aggregate Properties				
IS-1 (BOTTOM) MID-FLOOD	[16-JUN-2012]	HK1215612-036		**2.9**				
CS-1 (SURFACE) MID-FLOOD	[16-JUN-2012]	HK1215612-037		**2.9**				
CS-1 (SURFACE) MID-FLOOD	[16-JUN-2012]	HK1215612-038		**3.0**				
CS-1 (SURFACE) MID-FLOOD	[16-JUN-2012]	HK1215612-039		**2.6**				
CS-1 (MIDDLE) MID-FLOOD	[16-JUN-2012]	HK1215612-040		**4.9**				
CS-1 (MIDDLE) MID-FLOOD	[16-JUN-2012]	HK1215612-041		**2.8**				
CS-1 (MIDDLE) MID-FLOOD	[16-JUN-2012]	HK1215612-042		**3.0**				
CS-1 (BOTTOM) MID-FLOOD	[16-JUN-2012]	HK1215612-043		**4.5**				
CS-1 (BOTTOM) MID-FLOOD	[16-JUN-2012]	HK1215612-044		**2.3**				
CS-1 (BOTTOM) MID-FLOOD	[16-JUN-2012]	HK1215612-045		**5.4**				
CS-2 (SURFACE) MID-FLOOD	[16-JUN-2012]	HK1215612-046		**3.2**				
CS-2 (SURFACE) MID-FLOOD	[16-JUN-2012]	HK1215612-047		**3.3**				
CS-2 (SURFACE) MID-FLOOD	[16-JUN-2012]	HK1215612-048		**3.2**				
CS-2 (MIDDLE) MID-FLOOD	[16-JUN-2012]	HK1215612-049		**5.7**				
CS-2 (MIDDLE) MID-FLOOD	[16-JUN-2012]	HK1215612-050		**5.1**				
CS-2 (MIDDLE) MID-FLOOD	[16-JUN-2012]	HK1215612-051		**3.1**				
CS-2 (BOTTOM) MID-FLOOD	[16-JUN-2012]	HK1215612-052		**2.7**				
CS-2 (BOTTOM) MID-FLOOD	[16-JUN-2012]	HK1215612-053		**2.1**				
CS-2 (BOTTOM) MID-FLOOD	[16-JUN-2012]	HK1215612-054		**3.1**				

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: 2372687)								
HK1215612-001	IS-1 (SURFACE) MID-EBB	EA025: Suspended Solids (SS)	----	0.1	mg/L	2.6	2.9	11.8
HK1215612-011	CS-1 (SURFACE) MID-EBB	EA025: Suspended Solids (SS)	----	0.1	mg/L	3.7	3.6	4.1
EA/ED: Physical and Aggregate Properties (QC Lot: 2372688)								
HK1215612-021	CS-2 (SURFACE) MID-EBB	EA025: Suspended Solids (SS)	----	0.1	mg/L	3.1	3.2	0.0
HK1215612-031	IS-1 (MIDDLE) MID-FLOOD	EA025: Suspended Solids (SS)	----	0.1	mg/L	2.9	2.7	7.2
EA/ED: Physical and Aggregate Properties (QC Lot: 2372689)								
HK1215612-041	CS-1 (MIDDLE) MID-FLOOD	EA025: Suspended Solids (SS)	----	0.1	mg/L	2.8	3.2	13.1
HK1215612-051	CS-2 (MIDDLE) MID-FLOOD	EA025: Suspended Solids (SS)	----	0.1	mg/L	3.1	3.1	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: 2372687)											
EA025: Suspended Solids (SS)	----	0.5	mg/L	<0.5	20.0 mg/L	94.5	----	85	115	----	----
EA/ED: Physical and Aggregate Properties (QCLot: 2372688)											
EA025: Suspended Solids (SS)	----	0.5	mg/L	<0.5	20.0 mg/L	99.5	----	85	115	----	----
EA/ED: Physical and Aggregate Properties (QCLot: 2372689)											
EA025: Suspended Solids (SS)	----	0.5	mg/L	<0.5	20.0 mg/L	104	----	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	: AECOM ASIA COMPANY LIMITED	Laboratory	: ALS Technichem HK Pty Ltd	Page	: 1 of 4		
Contact	: MS LEMON LAM	Contact	: Chan Kwok Fai, Godfrey	Work Order	: HK1215917		
Address	: 11/F, TOWER 2, GRAND CENTRAL PLAZA, 138 SHATIN RURAL COMMITTEE ROAD, SHATIN, N.T. HONG KONG	Address	: 11/F., Chung Shun Knitting Centre, 1 - 3 Wing Yip Street, Kwai Chung, N.T., Hong Kong				
E-mail	: lemon.lam@aecom.com	E-mail	: Godfrey.Chan@alsglobal.com				
Telephone	: +852 2605 6262	Telephone	: +852 2610 1044				
Facsimile	: +852 2691 2649	Facsimile	: +852 2610 2021				
Project	: BASELINE WATER QUALITY MONITORING FOR SCL	Quote number	: ----	Date received	: 22-JUN-2012		
Order number	: 60050763			Date of issue	: 03-JUL-2012		
C-O-C number	: ----			No. of samples	- Received	:	54
Site	: ----				- Analysed	:	54

Report Comments

This report for ALS Technichem (HK) Pty Ltd work order reference HK1215917 supersedes any previous reports with this reference. The completion date of analysis is 03-JUL-2012. 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 HK1215917 :

The accredited LOR for suspended solids is 2mg/L. The results reported below the accredited LOR and the decimal value of the results were for reference only.
Sample(s) were picked up from client by ALS Technichem (HK) staff 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**

Analytical Results

Sub-Matrix: **WATER**

Client sample ID	Client sampling date / time	Laboratory sample ID	Compound	EA025: Suspended Solids (SS)				
			LOR Unit	0.1 mg/L				
				EA/ED: Physical and Aggregate Properties				
IS-1 (SURFACE) MID-EBB	[21-JUN-2012]	HK1215917-001		**5.5**				
IS-1 (SURFACE) MID-EBB	[21-JUN-2012]	HK1215917-002		**5.8**				
IS-1 (SURFACE) MID-EBB	[21-JUN-2012]	HK1215917-003		**5.6**				
IS-1 (MIDDLE) MID-EBB	[21-JUN-2012]	HK1215917-004		**2.9**				
IS-1 (MIDDLE) MID-EBB	[21-JUN-2012]	HK1215917-005		**4.3**				
IS-1 (MIDDLE) MID-EBB	[21-JUN-2012]	HK1215917-006		**4.2**				
IS-1 (BOTTOM) MID-EBB	[21-JUN-2012]	HK1215917-007		**5.4**				
IS-1 (BOTTOM) MID-EBB	[21-JUN-2012]	HK1215917-008		**4.8**				
IS-1 (BOTTOM) MID-EBB	[21-JUN-2012]	HK1215917-009		**5.9**				
CS-1 (SURFACE) MID-EBB	[21-JUN-2012]	HK1215917-010		**8.8**				
CS-1 (SURFACE) MID-EBB	[21-JUN-2012]	HK1215917-011		**9.4**				
CS-1 (SURFACE) MID-EBB	[21-JUN-2012]	HK1215917-012		**7.7**				
CS-1 (MIDDLE) MID-EBB	[21-JUN-2012]	HK1215917-013		**4.1**				
CS-1 (MIDDLE) MID-EBB	[21-JUN-2012]	HK1215917-014		**3.2**				
CS-1 (MIDDLE) MID-EBB	[21-JUN-2012]	HK1215917-015		**3.3**				
CS-1 (BOTTOM) MID-EBB	[21-JUN-2012]	HK1215917-016		**4.9**				
CS-1 (BOTTOM) MID-EBB	[21-JUN-2012]	HK1215917-017		**3.8**				
CS-1 (BOTTOM) MID-EBB	[21-JUN-2012]	HK1215917-018		**3.2**				
CS-2 (SURFACE) MID-EBB	[21-JUN-2012]	HK1215917-019		**7.6**				
CS-2 (SURFACE) MID-EBB	[21-JUN-2012]	HK1215917-020		**9.1**				
CS-2 (SURFACE) MID-EBB	[21-JUN-2012]	HK1215917-021		**8.8**				
CS-2 (MIDDLE) MID-EBB	[21-JUN-2012]	HK1215917-022		**7.8**				
CS-2 (MIDDLE) MID-EBB	[21-JUN-2012]	HK1215917-023		**9.3**				
CS-2 (MIDDLE) MID-EBB	[21-JUN-2012]	HK1215917-024		**7.1**				
CS-2 (BOTTOM) MID-EBB	[21-JUN-2012]	HK1215917-025		**10.6**				
CS-2 (BOTTOM) MID-EBB	[21-JUN-2012]	HK1215917-026		**9.7**				
CS-2 (BOTTOM) MID-EBB	[21-JUN-2012]	HK1215917-027		**8.6**				
IS-1 (SURFACE) MID-FLOOD	[21-JUN-2012]	HK1215917-028		**5.4**				
IS-1 (SURFACE) MID-FLOOD	[21-JUN-2012]	HK1215917-029		**5.5**				
IS-1 (SURFACE) MID-FLOOD	[21-JUN-2012]	HK1215917-030		**4.2**				
IS-1 (MIDDLE) MID-FLOOD	[21-JUN-2012]	HK1215917-031		**2.9**				
IS-1 (MIDDLE) MID-FLOOD	[21-JUN-2012]	HK1215917-032		**3.2**				
IS-1 (MIDDLE) MID-FLOOD	[21-JUN-2012]	HK1215917-033		**4.4**				
IS-1 (BOTTOM) MID-FLOOD	[21-JUN-2012]	HK1215917-034		**3.0**				
IS-1 (BOTTOM) MID-FLOOD	[21-JUN-2012]	HK1215917-035		**4.6**				

Sub-Matrix: **WATER**

Client sample ID	*Client sampling date / time*	*Laboratory sample ID*	*Compound*	**EA025: Suspended Solids (SS)**				
			LOR Unit	0.1 mg/L				
				EA/ED: Physical and Aggregate Properties				
IS-1 (BOTTOM) MID-FLOOD	[21-JUN-2012]	HK1215917-036		**3.6**				
CS-1 (SURFACE) MID-FLOOD	[21-JUN-2012]	HK1215917-037		**6.8**				
CS-1 (SURFACE) MID-FLOOD	[21-JUN-2012]	HK1215917-038		**5.8**				
CS-1 (SURFACE) MID-FLOOD	[21-JUN-2012]	HK1215917-039		**5.4**				
CS-1 (MIDDLE) MID-FLOOD	[21-JUN-2012]	HK1215917-040		**2.6**				
CS-1 (MIDDLE) MID-FLOOD	[21-JUN-2012]	HK1215917-041		**4.5**				
CS-1 (MIDDLE) MID-FLOOD	[21-JUN-2012]	HK1215917-042		**3.0**				
CS-1 (BOTTOM) MID-FLOOD	[21-JUN-2012]	HK1215917-043		**4.8**				
CS-1 (BOTTOM) MID-FLOOD	[21-JUN-2012]	HK1215917-044		**3.4**				
CS-1 (BOTTOM) MID-FLOOD	[21-JUN-2012]	HK1215917-045		**4.1**				
CS-2 (SURFACE) MID-FLOOD	[21-JUN-2012]	HK1215917-046		**3.4**				
CS-2 (SURFACE) MID-FLOOD	[21-JUN-2012]	HK1215917-047		**4.7**				
CS-2 (SURFACE) MID-FLOOD	[21-JUN-2012]	HK1215917-048		**4.0**				
CS-2 (MIDDLE) MID-FLOOD	[21-JUN-2012]	HK1215917-049		**8.4**				
CS-2 (MIDDLE) MID-FLOOD	[21-JUN-2012]	HK1215917-050		**8.1**				
CS-2 (MIDDLE) MID-FLOOD	[21-JUN-2012]	HK1215917-051		**8.4**				
CS-2 (BOTTOM) MID-FLOOD	[21-JUN-2012]	HK1215917-052		**7.9**				
CS-2 (BOTTOM) MID-FLOOD	[21-JUN-2012]	HK1215917-053		**7.7**				
CS-2 (BOTTOM) MID-FLOOD	[21-JUN-2012]	HK1215917-054		**7.4**				

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: 2383667)								
HK1215917-001	IS-1 (SURFACE) MID-EBB	EA025: Suspended Solids (SS)	----	0.1	mg/L	5.5	5.0	9.6
HK1215917-011	CS-1 (SURFACE) MID-EBB	EA025: Suspended Solids (SS)	----	0.1	mg/L	9.4	8.0	16.5
EA/ED: Physical and Aggregate Properties (QC Lot: 2383668)								
HK1215917-021	CS-2 (SURFACE) MID-EBB	EA025: Suspended Solids (SS)	----	0.1	mg/L	8.8	8.1	8.3
HK1215917-031	IS-1 (MIDDLE) MID-FLOOD	EA025: Suspended Solids (SS)	----	0.1	mg/L	2.9	3.2	9.7
EA/ED: Physical and Aggregate Properties (QC Lot: 2383669)								
HK1215917-041	CS-1 (MIDDLE) MID-FLOOD	EA025: Suspended Solids (SS)	----	0.1	mg/L	4.5	3.3	# 31.0
HK1215917-051	CS-2 (MIDDLE) MID-FLOOD	EA025: Suspended Solids (SS)	----	0.1	mg/L	8.4	8.3	1.2

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: 2383667)											
EA025: Suspended Solids (SS)	----	0.5	mg/L	<0.5	20.0 mg/L	101	----	85	115	----	----
EA/ED: Physical and Aggregate Properties (QCLot: 2383668)											
EA025: Suspended Solids (SS)	----	0.5	mg/L	<0.5	20.0 mg/L	100	----	85	115	----	----
EA/ED: Physical and Aggregate Properties (QCLot: 2383669)											
EA025: Suspended Solids (SS)	----	0.5	mg/L	<0.5	20.0 mg/L	97.0	----	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	: AECOM ASIA COMPANY LIMITED	Laboratory	: ALS Technichem HK Pty Ltd	Page	: 1 of 4		
Contact	: MS LEMON LAM	Contact	: Chan Kwok Fai, Godfrey	Work Order	: HK1215919		
Address	: 11/F, TOWER 2, GRAND CENTRAL PLAZA, 138 SHATIN RURAL COMMITTEE ROAD, SHATIN, N.T. HONG KONG	Address	: 11/F., Chung Shun Knitting Centre, 1 - 3 Wing Yip Street, Kwai Chung, N.T., Hong Kong				
E-mail	: lemon.lam@aecom.com	E-mail	: Godfrey.Chan@alsglobal.com				
Telephone	: +852 2605 6262	Telephone	: +852 2610 1044				
Facsimile	: +852 2691 2649	Facsimile	: +852 2610 2021				
Project	: BASELINE WATER QUALITY MONITORING FOR SCL	Quote number	: ----	Date received	: 25-JUN-2012		
Order number	: 60050763			Date of issue	: 04-JUL-2012		
C-O-C number	: ----			No. of samples	- Received :	54	
Site	: ----				- Analysed :	54	

Report Comments

This report for ALS Technichem (HK) Pty Ltd work order reference HK1215919 supersedes any previous reports with this reference. The completion date of analysis is 04-JUL-2012. 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 HK1215919 :

The accredited LOR for suspended solids is 2mg/L. The results reported below the accredited LOR and the decimal value of the results were for reference only.
Sample(s) were picked up from client by ALS Technichem (HK) staff 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**

Analytical Results

Sub-Matrix: **WATER**

Client sample ID	Client sampling date / time	Laboratory sample ID	Compound	EA025: Suspended Solids (SS)				
			LOR Unit	0.1 mg/L				
				EA/ED: Physical and Aggregate Properties				
IS-1 (SURFACE) MID-EBB	[23-JUN-2012]	HK1215919-001		**4.0**				
IS-1 (SURFACE) MID-EBB	[23-JUN-2012]	HK1215919-002		**4.6**				
IS-1 (SURFACE) MID-EBB	[23-JUN-2012]	HK1215919-003		**4.2**				
IS-1 (MIDDLE) MID-EBB	[23-JUN-2012]	HK1215919-004		**3.7**				
IS-1 (MIDDLE) MID-EBB	[23-JUN-2012]	HK1215919-005		**3.7**				
IS-1 (MIDDLE) MID-EBB	[23-JUN-2012]	HK1215919-006		**4.0**				
IS-1 (BOTTOM) MID-EBB	[23-JUN-2012]	HK1215919-007		**4.3**				
IS-1 (BOTTOM) MID-EBB	[23-JUN-2012]	HK1215919-008		**3.6**				
IS-1 (BOTTOM) MID-EBB	[23-JUN-2012]	HK1215919-009		**3.9**				
CS-1 (SURFACE) MID-EBB	[23-JUN-2012]	HK1215919-010		**3.2**				
CS-1 (SURFACE) MID-EBB	[23-JUN-2012]	HK1215919-011		**2.9**				
CS-1 (SURFACE) MID-EBB	[23-JUN-2012]	HK1215919-012		**3.4**				
CS-1 (MIDDLE) MID-EBB	[23-JUN-2012]	HK1215919-013		**3.4**				
CS-1 (MIDDLE) MID-EBB	[23-JUN-2012]	HK1215919-014		**3.6**				
CS-1 (MIDDLE) MID-EBB	[23-JUN-2012]	HK1215919-015		**2.8**				
CS-1 (BOTTOM) MID-EBB	[23-JUN-2012]	HK1215919-016		**2.9**				
CS-1 (BOTTOM) MID-EBB	[23-JUN-2012]	HK1215919-017		**3.3**				
CS-1 (BOTTOM) MID-EBB	[23-JUN-2012]	HK1215919-018		**2.5**				
CS-2 (SURFACE) MID-EBB	[23-JUN-2012]	HK1215919-019		**3.0**				
CS-2 (SURFACE) MID-EBB	[23-JUN-2012]	HK1215919-020		**4.1**				
CS-2 (SURFACE) MID-EBB	[23-JUN-2012]	HK1215919-021		**3.6**				
CS-2 (MIDDLE) MID-EBB	[23-JUN-2012]	HK1215919-022		**3.3**				
CS-2 (MIDDLE) MID-EBB	[23-JUN-2012]	HK1215919-023		**4.1**				
CS-2 (MIDDLE) MID-EBB	[23-JUN-2012]	HK1215919-024		**4.6**				
CS-2 (BOTTOM) MID-EBB	[23-JUN-2012]	HK1215919-025		**3.0**				
CS-2 (BOTTOM) MID-EBB	[23-JUN-2012]	HK1215919-026		**2.6**				
CS-2 (BOTTOM) MID-EBB	[23-JUN-2012]	HK1215919-027		**2.9**				
IS-1 (SURFACE) MID-FLOOD	[23-JUN-2012]	HK1215919-028		**3.1**				
IS-1 (SURFACE) MID-FLOOD	[23-JUN-2012]	HK1215919-029		**3.2**				
IS-1 (SURFACE) MID-FLOOD	[23-JUN-2012]	HK1215919-030		**2.8**				
IS-1 (MIDDLE) MID-FLOOD	[23-JUN-2012]	HK1215919-031		**2.6**				
IS-1 (MIDDLE) MID-FLOOD	[23-JUN-2012]	HK1215919-032		**2.6**				
IS-1 (MIDDLE) MID-FLOOD	[23-JUN-2012]	HK1215919-033		**3.3**				
IS-1 (BOTTOM) MID-FLOOD	[23-JUN-2012]	HK1215919-034		**2.3**				
IS-1 (BOTTOM) MID-FLOOD	[23-JUN-2012]	HK1215919-035		**2.7**				

Sub-Matrix: **WATER**

Client sample ID	*Client sampling date / time*	*Laboratory sample ID*	*Compound*	**EA025: Suspended Solids (SS)**				
			LOR Unit	0.1 mg/L				
				EA/ED: Physical and Aggregate Properties				
IS-1 (BOTTOM) MID-FLOOD	[23-JUN-2012]	HK1215919-036		**2.4**				
CS-1 (SURFACE) MID-FLOOD	[23-JUN-2012]	HK1215919-037		**3.0**				
CS-1 (SURFACE) MID-FLOOD	[23-JUN-2012]	HK1215919-038		**2.9**				
CS-1 (SURFACE) MID-FLOOD	[23-JUN-2012]	HK1215919-039		**2.4**				
CS-1 (MIDDLE) MID-FLOOD	[23-JUN-2012]	HK1215919-040		**2.3**				
CS-1 (MIDDLE) MID-FLOOD	[23-JUN-2012]	HK1215919-041		**2.6**				
CS-1 (MIDDLE) MID-FLOOD	[23-JUN-2012]	HK1215919-042		**2.5**				
CS-1 (BOTTOM) MID-FLOOD	[23-JUN-2012]	HK1215919-043		**1.4**				
CS-1 (BOTTOM) MID-FLOOD	[23-JUN-2012]	HK1215919-044		**1.2**				
CS-1 (BOTTOM) MID-FLOOD	[23-JUN-2012]	HK1215919-045		**1.7**				
CS-2 (SURFACE) MID-FLOOD	[23-JUN-2012]	HK1215919-046		**3.2**				
CS-2 (SURFACE) MID-FLOOD	[23-JUN-2012]	HK1215919-047		**3.5**				
CS-2 (SURFACE) MID-FLOOD	[23-JUN-2012]	HK1215919-048		**4.9**				
CS-2 (MIDDLE) MID-FLOOD	[23-JUN-2012]	HK1215919-049		**1.9**				
CS-2 (MIDDLE) MID-FLOOD	[23-JUN-2012]	HK1215919-050		**1.4**				
CS-2 (MIDDLE) MID-FLOOD	[23-JUN-2012]	HK1215919-051		**1.3**				
CS-2 (BOTTOM) MID-FLOOD	[23-JUN-2012]	HK1215919-052		**1.7**				
CS-2 (BOTTOM) MID-FLOOD	[23-JUN-2012]	HK1215919-053		**1.3**				
CS-2 (BOTTOM) MID-FLOOD	[23-JUN-2012]	HK1215919-054		**1.0**				

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: 2384922)								
HK1215919-001	IS-1 (SURFACE) MID-EBB	EA025: Suspended Solids (SS)	----	0.1	mg/L	4.0	3.7	9.7
HK1215919-011	CS-1 (SURFACE) MID-EBB	EA025: Suspended Solids (SS)	----	0.1	mg/L	2.9	3.4	17.5
EA/ED: Physical and Aggregate Properties (QC Lot: 2384923)								
HK1215919-021	CS-2 (SURFACE) MID-EBB	EA025: Suspended Solids (SS)	----	0.1	mg/L	3.6	3.4	4.3
HK1215919-031	IS-1 (MIDDLE) MID-FLOOD	EA025: Suspended Solids (SS)	----	0.1	mg/L	2.6	2.6	0.0
EA/ED: Physical and Aggregate Properties (QC Lot: 2384924)								
HK1215919-041	CS-1 (MIDDLE) MID-FLOOD	EA025: Suspended Solids (SS)	----	0.1	mg/L	2.6	2.9	11.8
HK1215919-051	CS-2 (MIDDLE) MID-FLOOD	EA025: Suspended Solids (SS)	----	0.1	mg/L	1.3	1.4	7.4

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: 2384922)											
EA025: Suspended Solids (SS)	----	0.5	mg/L	<0.5	20.0 mg/L	102	----	85	115	----	----
EA/ED: Physical and Aggregate Properties (QCLot: 2384923)											
EA025: Suspended Solids (SS)	----	0.5	mg/L	<0.5	20.0 mg/L	99.0	----	85	115	----	----
EA/ED: Physical and Aggregate Properties (QCLot: 2384924)											
EA025: Suspended Solids (SS)	----	0.5	mg/L	<0.5	20.0 mg/L	101	----	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	: AECOM ASIA COMPANY LIMITED	Laboratory	: ALS Technichem HK Pty Ltd	Page	: 1 of 4		
Contact	: MS LEMON LAM	Contact	: Chan Kwok Fai, Godfrey	Work Order	: HK1215921		
Address	: 11/F, TOWER 2, GRAND CENTRAL PLAZA, 138 SHATIN RURAL COMMITTEE ROAD, SHATIN, N.T. HONG KONG	Address	: 11/F., Chung Shun Knitting Centre, 1 - 3 Wing Yip Street, Kwai Chung, N.T., Hong Kong				
E-mail	: lemon.lam@aecom.com	E-mail	: Godfrey.Chan@alsglobal.com				
Telephone	: +852 2605 6262	Telephone	: +852 2610 1044				
Facsimile	: +852 2691 2649	Facsimile	: +852 2610 2021				
Project	: BASELINE WATER QUALITY MONITORING FOR SCL	Quote number	: ----	Date received	: 27-JUN-2012		
Order number	: 60050763			Date of issue	: 06-JUL-2012		
C-O-C number	: ----			No. of samples	- Received :	54	
Site	: ----				- Analysed :	54	

Report Comments

This report for ALS Technichem (HK) Pty Ltd work order reference HK1215921 supersedes any previous reports with this reference. The completion date of analysis is 06-JUL-2012. 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 HK1215921 : Sample(s) were picked up from client by ALS Technichem (HK) staff 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**

Analytical Results

Sub-Matrix: **WATER**

Client sample ID	Client sampling date / time	Laboratory sample ID	Compound: EA025: Suspended Solids (SS)				
			LOR Unit: 0.1 mg/L				
			EA/ED: Physical and Aggregate Properties				
IS-1 (SURFACE) MID-EBB	[26-JUN-2012]	HK1215921-001	**1.7**				
IS-1 (SURFACE) MID-EBB	[26-JUN-2012]	HK1215921-002	**1.8**				
IS-1 (SURFACE) MID-EBB	[26-JUN-2012]	HK1215921-003	**1.7**				
IS-1 (MIDDLE) MID-EBB	[26-JUN-2012]	HK1215921-004	**2.7**				
IS-1 (MIDDLE) MID-EBB	[26-JUN-2012]	HK1215921-005	**2.7**				
IS-1 (MIDDLE) MID-EBB	[26-JUN-2012]	HK1215921-006	**2.9**				
IS-1 (BOTTOM) MID-EBB	[26-JUN-2012]	HK1215921-007	**3.0**				
IS-1 (BOTTOM) MID-EBB	[26-JUN-2012]	HK1215921-008	**2.8**				
IS-1 (BOTTOM) MID-EBB	[26-JUN-2012]	HK1215921-009	**3.4**				
CS-1 (SURFACE) MID-EBB	[26-JUN-2012]	HK1215921-010	**2.8**				
CS-1 (SURFACE) MID-EBB	[26-JUN-2012]	HK1215921-011	**3.9**				
CS-1 (SURFACE) MID-EBB	[26-JUN-2012]	HK1215921-012	**3.2**				
CS-1 (MIDDLE) MID-EBB	[26-JUN-2012]	HK1215921-013	**1.4**				
CS-1 (MIDDLE) MID-EBB	[26-JUN-2012]	HK1215921-014	**1.7**				
CS-1 (MIDDLE) MID-EBB	[26-JUN-2012]	HK1215921-015	**0.7**				
CS-1 (BOTTOM) MID-EBB	[26-JUN-2012]	HK1215921-016	**2.8**				
CS-1 (BOTTOM) MID-EBB	[26-JUN-2012]	HK1215921-017	**3.6**				
CS-1 (BOTTOM) MID-EBB	[26-JUN-2012]	HK1215921-018	**2.9**				
CS-2 (SURFACE) MID-EBB	[26-JUN-2012]	HK1215921-019	**3.0**				
CS-2 (SURFACE) MID-EBB	[26-JUN-2012]	HK1215921-020	**3.2**				
CS-2 (SURFACE) MID-EBB	[26-JUN-2012]	HK1215921-021	**2.9**				
CS-2 (MIDDLE) MID-EBB	[26-JUN-2012]	HK1215921-022	**4.6**				
CS-2 (MIDDLE) MID-EBB	[26-JUN-2012]	HK1215921-023	**2.7**				
CS-2 (MIDDLE) MID-EBB	[26-JUN-2012]	HK1215921-024	**3.8**				
CS-2 (BOTTOM) MID-EBB	[26-JUN-2012]	HK1215921-025	**3.1**				
CS-2 (BOTTOM) MID-EBB	[26-JUN-2012]	HK1215921-026	**2.9**				
CS-2 (BOTTOM) MID-EBB	[26-JUN-2012]	HK1215921-027	**4.7**				
IS-1 (SURFACE) MID-FLOOD	[26-JUN-2012]	HK1215921-028	**2.7**				
IS-1 (SURFACE) MID-FLOOD	[26-JUN-2012]	HK1215921-029	**4.5**				
IS-1 (SURFACE) MID-FLOOD	[26-JUN-2012]	HK1215921-030	**5.1**				
IS-1 (MIDDLE) MID-FLOOD	[26-JUN-2012]	HK1215921-031	**4.2**				
IS-1 (MIDDLE) MID-FLOOD	[26-JUN-2012]	HK1215921-032	**4.0**				
IS-1 (MIDDLE) MID-FLOOD	[26-JUN-2012]	HK1215921-033	**3.0**				
IS-1 (BOTTOM) MID-FLOOD	[26-JUN-2012]	HK1215921-034	**5.8**				
IS-1 (BOTTOM) MID-FLOOD	[26-JUN-2012]	HK1215921-035	**6.2**				

Sub-Matrix: **WATER**

Client sample ID	*Client sampling date / time*	*Laboratory sample ID*	*Compound*	**EA025: Suspended Solids (SS)**				
			LOR Unit	0.1 mg/L				
				EA/ED: Physical and Aggregate Properties				
IS-1 (BOTTOM) MID-FLOOD	[26-JUN-2012]	HK1215921-036		**7.2**				
CS-1 (SURFACE) MID-FLOOD	[26-JUN-2012]	HK1215921-037		**3.6**				
CS-1 (SURFACE) MID-FLOOD	[26-JUN-2012]	HK1215921-038		**3.8**				
CS-1 (SURFACE) MID-FLOOD	[26-JUN-2012]	HK1215921-039		**5.9**				
CS-1 (MIDDLE) MID-FLOOD	[26-JUN-2012]	HK1215921-040		**7.3**				
CS-1 (MIDDLE) MID-FLOOD	[26-JUN-2012]	HK1215921-041		**5.8**				
CS-1 (MIDDLE) MID-FLOOD	[26-JUN-2012]	HK1215921-042		**3.3**				
CS-1 (BOTTOM) MID-FLOOD	[26-JUN-2012]	HK1215921-043		**5.4**				
CS-1 (BOTTOM) MID-FLOOD	[26-JUN-2012]	HK1215921-044		**4.7**				
CS-1 (BOTTOM) MID-FLOOD	[26-JUN-2012]	HK1215921-045		**3.6**				
CS-2 (SURFACE) MID-FLOOD	[26-JUN-2012]	HK1215921-046		**2.7**				
CS-2 (SURFACE) MID-FLOOD	[26-JUN-2012]	HK1215921-047		**3.4**				
CS-2 (SURFACE) MID-FLOOD	[26-JUN-2012]	HK1215921-048		**4.5**				
CS-2 (MIDDLE) MID-FLOOD	[26-JUN-2012]	HK1215921-049		**3.8**				
CS-2 (MIDDLE) MID-FLOOD	[26-JUN-2012]	HK1215921-050		**3.2**				
CS-2 (MIDDLE) MID-FLOOD	[26-JUN-2012]	HK1215921-051		**2.7**				
CS-2 (BOTTOM) MID-FLOOD	[26-JUN-2012]	HK1215921-052		**3.5**				
CS-2 (BOTTOM) MID-FLOOD	[26-JUN-2012]	HK1215921-053		**2.8**				
CS-2 (BOTTOM) MID-FLOOD	[26-JUN-2012]	HK1215921-054		**3.2**				

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: 2390423)								
HK1215921-001	IS-1 (SURFACE) MID-EBB	EA025: Suspended Solids (SS)	----	0.1	mg/L	1.7	1.6	7.6
HK1215921-011	CS-1 (SURFACE) MID-EBB	EA025: Suspended Solids (SS)	----	0.1	mg/L	3.9	3.8	0.0
EA/ED: Physical and Aggregate Properties (QC Lot: 2390424)								
HK1215921-021	CS-2 (SURFACE) MID-EBB	EA025: Suspended Solids (SS)	----	0.1	mg/L	2.9	3.1	6.7
HK1215921-031	IS-1 (MIDDLE) MID-FLOOD	EA025: Suspended Solids (SS)	----	0.1	mg/L	4.2	4.1	4.2
EA/ED: Physical and Aggregate Properties (QC Lot: 2390425)								
HK1215921-041	CS-1 (MIDDLE) MID-FLOOD	EA025: Suspended Solids (SS)	----	0.1	mg/L	5.8	4.9	17.2
HK1215921-051	CS-2 (MIDDLE) MID-FLOOD	EA025: Suspended Solids (SS)	----	0.1	mg/L	2.7	2.8	4.5

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: 2390423)											
EA025: Suspended Solids (SS)	----	0.5	mg/L	<0.5	20.0 mg/L	99.5	----	85	115	----	----
EA/ED: Physical and Aggregate Properties (QCLot: 2390424)											
EA025: Suspended Solids (SS)	----	0.5	mg/L	<0.5	20.0 mg/L	99.5	----	85	115	----	----
EA/ED: Physical and Aggregate Properties (QCLot: 2390425)											
EA025: Suspended Solids (SS)	----	0.5	mg/L	<0.5	20.0 mg/L	101	----	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	: AECOM ASIA COMPANY LIMITED	Laboratory	: ALS Technichem HK Pty Ltd	Page	: 1 of 4		
Contact	: MS LEMON LAM	Contact	: Chan Kwok Fai, Godfrey	Work Order	: HK1215922		
Address	: 11/F, TOWER 2, GRAND CENTRAL PLAZA, 138 SHATIN RURAL COMMITTEE ROAD, SHATIN, N.T. HONG KONG	Address	: 11/F., Chung Shun Knitting Centre, 1 - 3 Wing Yip Street, Kwai Chung, N.T., Hong Kong				
E-mail	: lemon.lam@aecom.com	E-mail	: Godfrey.Chan@alsglobal.com				
Telephone	: +852 2605 6262	Telephone	: +852 2610 1044				
Facsimile	: +852 2691 2649	Facsimile	: +852 2610 2021				
Project	: BASELINE WATER QUALITY MONITORING FOR SCL	Quote number	: ----	Date received	: 29-JUN-2012		
Order number	: 60050763			Date of issue	: 11-JUL-2012		
C-O-C number	: ----			No. of samples	- Received :	54	
Site	: ----				- Analysed :	54	

Report Comments

This report for ALS Technichem (HK) Pty Ltd work order reference HK1215922 supersedes any previous reports with this reference. The completion date of analysis is 10-JUL-2012. 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 HK1215922 :

Sample(s) were picked up from client by ALS Technichem (HK) staff in a chilled condition.

Water sample(s) analysed and reported on an as received basis.

The accredited LOR for suspended solids is 2mg/L. The results reported below the accredited LOR and the decimal value of the results were for reference only.

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**

Analytical Results

Sub-Matrix: **WATER**

Client sample ID	Client sampling date / time	Laboratory sample ID	Compound	EA025: Suspended Solids (SS)				
			LOR Unit	0.1 mg/L				
				EA/ED: Physical and Aggregate Properties				
IS-1 (SURFACE) MID-EBB	[28-JUN-2012]	HK1215922-001		**4.4**				
IS-1 (SURFACE) MID-EBB	[28-JUN-2012]	HK1215922-002		**4.4**				
IS-1 (SURFACE) MID-EBB	[28-JUN-2012]	HK1215922-003		**4.2**				
IS-1 (MIDDLE) MID-EBB	[28-JUN-2012]	HK1215922-004		**3.5**				
IS-1 (MIDDLE) MID-EBB	[28-JUN-2012]	HK1215922-005		**3.1**				
IS-1 (MIDDLE) MID-EBB	[28-JUN-2012]	HK1215922-006		**3.1**				
IS-1 (BOTTOM) MID-EBB	[28-JUN-2012]	HK1215922-007		**3.3**				
IS-1 (BOTTOM) MID-EBB	[28-JUN-2012]	HK1215922-008		**2.0**				
IS-1 (BOTTOM) MID-EBB	[28-JUN-2012]	HK1215922-009		**3.4**				
CS-1 (SURFACE) MID-EBB	[28-JUN-2012]	HK1215922-010		**3.8**				
CS-1 (SURFACE) MID-EBB	[28-JUN-2012]	HK1215922-011		**4.2**				
CS-1 (SURFACE) MID-EBB	[28-JUN-2012]	HK1215922-012		**3.8**				
CS-1 (MIDDLE) MID-EBB	[28-JUN-2012]	HK1215922-013		**3.4**				
CS-1 (MIDDLE) MID-EBB	[28-JUN-2012]	HK1215922-014		**3.6**				
CS-1 (MIDDLE) MID-EBB	[28-JUN-2012]	HK1215922-015		**3.4**				
CS-1 (BOTTOM) MID-EBB	[28-JUN-2012]	HK1215922-016		**2.8**				
CS-1 (BOTTOM) MID-EBB	[28-JUN-2012]	HK1215922-017		**3.2**				
CS-1 (BOTTOM) MID-EBB	[28-JUN-2012]	HK1215922-018		**3.5**				
CS-2 (SURFACE) MID-EBB	[28-JUN-2012]	HK1215922-019		**2.8**				
CS-2 (SURFACE) MID-EBB	[28-JUN-2012]	HK1215922-020		**3.3**				
CS-2 (SURFACE) MID-EBB	[28-JUN-2012]	HK1215922-021		**2.9**				
CS-2 (MIDDLE) MID-EBB	[28-JUN-2012]	HK1215922-022		**3.4**				
CS-2 (MIDDLE) MID-EBB	[28-JUN-2012]	HK1215922-023		**2.6**				
CS-2 (MIDDLE) MID-EBB	[28-JUN-2012]	HK1215922-024		**4.2**				
CS-2 (BOTTOM) MID-EBB	[28-JUN-2012]	HK1215922-025		**3.4**				
CS-2 (BOTTOM) MID-EBB	[28-JUN-2012]	HK1215922-026		**4.4**				
CS-2 (BOTTOM) MID-EBB	[28-JUN-2012]	HK1215922-027		**3.1**				
IS-1 (SURFACE) MID-FLOOD	[28-JUN-2012]	HK1215922-028		**3.1**				
IS-1 (SURFACE) MID-FLOOD	[28-JUN-2012]	HK1215922-029		**3.3**				
IS-1 (SURFACE) MID-FLOOD	[28-JUN-2012]	HK1215922-030		**2.8**				
IS-1 (MIDDLE) MID-FLOOD	[28-JUN-2012]	HK1215922-031		**4.4**				
IS-1 (MIDDLE) MID-FLOOD	[28-JUN-2012]	HK1215922-032		**3.7**				
IS-1 (MIDDLE) MID-FLOOD	[28-JUN-2012]	HK1215922-033		**4.2**				
IS-1 (BOTTOM) MID-FLOOD	[28-JUN-2012]	HK1215922-034		**4.3**				
IS-1 (BOTTOM) MID-FLOOD	[28-JUN-2012]	HK1215922-035		**5.2**				

Sub-Matrix: **WATER**

Client sample ID	*Client sampling date / time*	*Laboratory sample ID*	*Compound*	**EA025: Suspended Solids (SS)**				
			LOR Unit	0.1 mg/L				
				EA/ED: Physical and Aggregate Properties				
IS-1 (BOTTOM) MID-FLOOD	[28-JUN-2012]	HK1215922-036		**3.8**				
CS-1 (SURFACE) MID-FLOOD	[28-JUN-2012]	HK1215922-037		**3.8**				
CS-1 (SURFACE) MID-FLOOD	[28-JUN-2012]	HK1215922-038		**3.9**				
CS-1 (SURFACE) MID-FLOOD	[28-JUN-2012]	HK1215922-039		**4.2**				
CS-1 (MIDDLE) MID-FLOOD	[28-JUN-2012]	HK1215922-040		**3.3**				
CS-1 (MIDDLE) MID-FLOOD	[28-JUN-2012]	HK1215922-041		**4.1**				
CS-1 (MIDDLE) MID-FLOOD	[28-JUN-2012]	HK1215922-042		**6.4**				
CS-1 (BOTTOM) MID-FLOOD	[28-JUN-2012]	HK1215922-043		**6.3**				
CS-1 (BOTTOM) MID-FLOOD	[28-JUN-2012]	HK1215922-044		**5.2**				
CS-1 (BOTTOM) MID-FLOOD	[28-JUN-2012]	HK1215922-045		**4.5**				
CS-2 (SURFACE) MID-FLOOD	[28-JUN-2012]	HK1215922-046		**5.0**				
CS-2 (SURFACE) MID-FLOOD	[28-JUN-2012]	HK1215922-047		**5.5**				
CS-2 (SURFACE) MID-FLOOD	[28-JUN-2012]	HK1215922-048		**4.9**				
CS-2 (MIDDLE) MID-FLOOD	[28-JUN-2012]	HK1215922-049		**4.3**				
CS-2 (MIDDLE) MID-FLOOD	[28-JUN-2012]	HK1215922-050		**3.5**				
CS-2 (MIDDLE) MID-FLOOD	[28-JUN-2012]	HK1215922-051		**2.7**				
CS-2 (BOTTOM) MID-FLOOD	[28-JUN-2012]	HK1215922-052		**3.4**				
CS-2 (BOTTOM) MID-FLOOD	[28-JUN-2012]	HK1215922-053		**3.3**				
CS-2 (BOTTOM) MID-FLOOD	[28-JUN-2012]	HK1215922-054		**2.6**				

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: 2394859)								
HK1215922-001	IS-1 (SURFACE) MID-EBB	EA025: Suspended Solids (SS)	----	0.1	mg/L	4.4	4.1	5.3
HK1215922-011	CS-1 (SURFACE) MID-EBB	EA025: Suspended Solids (SS)	----	0.1	mg/L	4.2	3.2	# 29.0
EA/ED: Physical and Aggregate Properties (QC Lot: 2394860)								
HK1215922-021	CS-2 (SURFACE) MID-EBB	EA025: Suspended Solids (SS)	----	0.1	mg/L	2.9	2.8	0.0
HK1215922-031	IS-1 (MIDDLE) MID-FLOOD	EA025: Suspended Solids (SS)	----	0.1	mg/L	4.4	4.3	3.4
EA/ED: Physical and Aggregate Properties (QC Lot: 2394861)								
HK1215922-041	CS-1 (MIDDLE) MID-FLOOD	EA025: Suspended Solids (SS)	----	0.1	mg/L	4.1	5.6	# 31.0
HK1215922-051	CS-2 (MIDDLE) MID-FLOOD	EA025: Suspended Solids (SS)	----	0.1	mg/L	2.7	2.8	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: 2394859)											
EA025: Suspended Solids (SS)	----	0.5	mg/L	<0.5	20.0 mg/L	102	----	85	115	----	----
EA/ED: Physical and Aggregate Properties (QCLot: 2394860)											
EA025: Suspended Solids (SS)	----	0.5	mg/L	<0.5	20.0 mg/L	100	----	85	115	----	----
EA/ED: Physical and Aggregate Properties (QCLot: 2394861)											
EA025: Suspended Solids (SS)	----	0.5	mg/L	<0.5	20.0 mg/L	96.0	----	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	: AECOM ASIA COMPANY LIMITED	Laboratory	: ALS Technichem HK Pty Ltd	Page	: 1 of 4		
Contact	: MS LEMON LAM	Contact	: Chan Kwok Fai, Godfrey	Work Order	: HK1215915		
Address	: 11/F, TOWER 2, GRAND CENTRAL PLAZA, 138 SHATIN RURAL COMMITTEE ROAD, SHATIN, N.T. HONG KONG	Address	: 11/F., Chung Shun Knitting Centre, 1 - 3 Wing Yip Street, Kwai Chung, N.T., Hong Kong				
E-mail	: lemon.lam@aecom.com	E-mail	: Godfrey.Chan@alsglobal.com				
Telephone	: +852 2605 6262	Telephone	: +852 2610 1044				
Facsimile	: +852 2691 2649	Facsimile	: +852 2610 2021				
Project	: BASELINE WATER QUALITY MONITORING FOR SCL	Quote number	: ----	Date received	: 03-JUL-2012		
Order number	: 60050763			Date of issue	: 11-JUL-2012		
C-O-C number	: ----			No. of samples	- Received :	54	
Site	: ----				- Analysed :	54	

Report Comments

This report for ALS Technichem (HK) Pty Ltd work order reference HK1215915 supersedes any previous reports with this reference. The completion date of analysis is 10-JUL-2012. 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 HK1215915 :

Sample(s) were picked up from client by ALS Technichem (HK) staff in a chilled condition.

Water sample(s) analysed and reported on an as received basis.

The accredited LOR for suspended solids is 2mg/L. The results reported below the accredited LOR and the decimal value of the results were for reference only.

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**

Analytical Results

Sub-Matrix: **WATER**

Client sample ID	Client sampling date / time	Laboratory sample ID	Compound	EA025: Suspended Solids (SS)				
			LOR Unit	0.1 mg/L				
				EA/ED: Physical and Aggregate Properties				
IS-1 (SURFACE) MID-EBB	[01-JUL-2012]	HK1215915-001		**1.8**				
IS-1 (SURFACE) MID-EBB	[01-JUL-2012]	HK1215915-002		**1.8**				
IS-1 (SURFACE) MID-EBB	[01-JUL-2012]	HK1215915-003		**2.5**				
IS-1 (MIDDLE) MID-EBB	[01-JUL-2012]	HK1215915-004		**2.1**				
IS-1 (MIDDLE) MID-EBB	[01-JUL-2012]	HK1215915-005		**1.4**				
IS-1 (MIDDLE) MID-EBB	[01-JUL-2012]	HK1215915-006		**1.7**				
IS-1 (BOTTOM) MID-EBB	[01-JUL-2012]	HK1215915-007		**2.4**				
IS-1 (BOTTOM) MID-EBB	[01-JUL-2012]	HK1215915-008		**2.8**				
IS-1 (BOTTOM) MID-EBB	[01-JUL-2012]	HK1215915-009		**1.7**				
CS-1 (SURFACE) MID-EBB	[01-JUL-2012]	HK1215915-010		**1.7**				
CS-1 (SURFACE) MID-EBB	[01-JUL-2012]	HK1215915-011		**1.5**				
CS-1 (SURFACE) MID-EBB	[01-JUL-2012]	HK1215915-012		**1.5**				
CS-1 (MIDDLE) MID-EBB	[01-JUL-2012]	HK1215915-013		**1.8**				
CS-1 (MIDDLE) MID-EBB	[01-JUL-2012]	HK1215915-014		**1.0**				
CS-1 (MIDDLE) MID-EBB	[01-JUL-2012]	HK1215915-015		**1.7**				
CS-1 (BOTTOM) MID-EBB	[01-JUL-2012]	HK1215915-016		**1.4**				
CS-1 (BOTTOM) MID-EBB	[01-JUL-2012]	HK1215915-017		**1.3**				
CS-1 (BOTTOM) MID-EBB	[01-JUL-2012]	HK1215915-018		**1.7**				
CS-2 (SURFACE) MID-EBB	[01-JUL-2012]	HK1215915-019		**2.9**				
CS-2 (SURFACE) MID-EBB	[01-JUL-2012]	HK1215915-020		**2.0**				
CS-2 (SURFACE) MID-EBB	[01-JUL-2012]	HK1215915-021		**3.2**				
CS-2 (MIDDLE) MID-EBB	[01-JUL-2012]	HK1215915-022		**4.4**				
CS-2 (MIDDLE) MID-EBB	[01-JUL-2012]	HK1215915-023		**3.0**				
CS-2 (MIDDLE) MID-EBB	[01-JUL-2012]	HK1215915-024		**3.1**				
CS-2 (BOTTOM) MID-EBB	[01-JUL-2012]	HK1215915-025		**4.0**				
CS-2 (BOTTOM) MID-EBB	[01-JUL-2012]	HK1215915-026		**5.0**				
CS-2 (BOTTOM) MID-EBB	[01-JUL-2012]	HK1215915-027		**3.0**				
IS-1 (SURFACE) MID-FLOOD	[01-JUL-2012]	HK1215915-028		**2.3**				
IS-1 (SURFACE) MID-FLOOD	[01-JUL-2012]	HK1215915-029		**1.1**				
IS-1 (SURFACE) MID-FLOOD	[01-JUL-2012]	HK1215915-030		**1.5**				
IS-1 (MIDDLE) MID-FLOOD	[01-JUL-2012]	HK1215915-031		**2.2**				
IS-1 (MIDDLE) MID-FLOOD	[01-JUL-2012]	HK1215915-032		**2.7**				
IS-1 (MIDDLE) MID-FLOOD	[01-JUL-2012]	HK1215915-033		**3.2**				
IS-1 (BOTTOM) MID-FLOOD	[01-JUL-2012]	HK1215915-034		**2.1**				
IS-1 (BOTTOM) MID-FLOOD	[01-JUL-2012]	HK1215915-035		**1.4**				

Sub-Matrix: **WATER**

Client sample ID	*Client sampling date / time*	*Laboratory sample ID*	*Compound*	**EA025: Suspended Solids (SS)**				
			LOR Unit	0.1 mg/L				
				EA/ED: Physical and Aggregate Properties				
IS-1 (BOTTOM) MID-FLOOD	[01-JUL-2012]	HK1215915-036		**1.2**				
CS-1 (SURFACE) MID-FLOOD	[01-JUL-2012]	HK1215915-037		**1.8**				
CS-1 (SURFACE) MID-FLOOD	[01-JUL-2012]	HK1215915-038		**1.8**				
CS-1 (SURFACE) MID-FLOOD	[01-JUL-2012]	HK1215915-039		**4.9**				
CS-1 (MIDDLE) MID-FLOOD	[01-JUL-2012]	HK1215915-040		**3.6**				
CS-1 (MIDDLE) MID-FLOOD	[01-JUL-2012]	HK1215915-041		**3.5**				
CS-1 (MIDDLE) MID-FLOOD	[01-JUL-2012]	HK1215915-042		**3.6**				
CS-1 (BOTTOM) MID-FLOOD	[01-JUL-2012]	HK1215915-043		**1.5**				
CS-1 (BOTTOM) MID-FLOOD	[01-JUL-2012]	HK1215915-044		**1.5**				
CS-1 (BOTTOM) MID-FLOOD	[01-JUL-2012]	HK1215915-045		**1.4**				
CS-2 (SURFACE) MID-FLOOD	[01-JUL-2012]	HK1215915-046		**1.1**				
CS-2 (SURFACE) MID-FLOOD	[01-JUL-2012]	HK1215915-047		**1.6**				
CS-2 (SURFACE) MID-FLOOD	[01-JUL-2012]	HK1215915-048		**1.4**				
CS-2 (MIDDLE) MID-FLOOD	[01-JUL-2012]	HK1215915-049		**2.2**				
CS-2 (MIDDLE) MID-FLOOD	[01-JUL-2012]	HK1215915-050		**2.3**				
CS-2 (MIDDLE) MID-FLOOD	[01-JUL-2012]	HK1215915-051		**1.0**				
CS-2 (BOTTOM) MID-FLOOD	[01-JUL-2012]	HK1215915-052		**0.6**				
CS-2 (BOTTOM) MID-FLOOD	[01-JUL-2012]	HK1215915-053		**0.9**				
CS-2 (BOTTOM) MID-FLOOD	[01-JUL-2012]	HK1215915-054		**1.0**				

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: 2394797)								
HK1215915-001	IS-1 (SURFACE) MID-EBB	EA025: Suspended Solids (SS)	----	0.1	mg/L	1.8	1.6	10.4
HK1215915-011	CS-1 (SURFACE) MID-EBB	EA025: Suspended Solids (SS)	----	0.1	mg/L	1.5	1.7	10.8
EA/ED: Physical and Aggregate Properties (QC Lot: 2394798)								
HK1215915-021	CS-2 (SURFACE) MID-EBB	EA025: Suspended Solids (SS)	----	0.1	mg/L	3.2	3.5	8.2
HK1215915-031	IS-1 (MIDDLE) MID-FLOOD	EA025: Suspended Solids (SS)	----	0.1	mg/L	2.2	2.6	16.5
EA/ED: Physical and Aggregate Properties (QC Lot: 2394799)								
HK1215915-041	CS-1 (MIDDLE) MID-FLOOD	EA025: Suspended Solids (SS)	----	0.1	mg/L	3.5	3.6	0.0
HK1215915-051	CS-2 (MIDDLE) MID-FLOOD	EA025: Suspended Solids (SS)	----	0.1	mg/L	1.0	0.6	# 62.5

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: 2394797)											
EA025: Suspended Solids (SS)	----	0.5	mg/L	<0.5	20.0 mg/L	92.0	----	85	115	----	----
EA/ED: Physical and Aggregate Properties (QCLot: 2394798)											
EA025: Suspended Solids (SS)	----	0.5	mg/L	<0.5	20.0 mg/L	95.5	----	85	115	----	----
EA/ED: Physical and Aggregate Properties (QCLot: 2394799)											
EA025: Suspended Solids (SS)	----	0.5	mg/L	<0.5	20.0 mg/L	106	----	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	: AECOM ASIA COMPANY LIMITED	Laboratory	: ALS Technichem HK Pty Ltd	Page	: 1 of 4		
Contact	: MS LEMON LAM	Contact	: Chan Kwok Fai, Godfrey	Work Order	: HK1217044		
Address	: 11/F, TOWER 2, GRAND CENTRAL PLAZA, 138 SHATIN RURAL COMMITTEE ROAD, SHATIN, N.T. HONG KONG	Address	: 11/F., Chung Shun Knitting Centre, 1 - 3 Wing Yip Street, Kwai Chung, N.T., Hong Kong				
E-mail	: lemon.lam@aecom.com	E-mail	: Godfrey.Chan@alsglobal.com				
Telephone	: +852 2605 6262	Telephone	: +852 2610 1044				
Facsimile	: +852 2691 2649	Facsimile	: +852 2610 2021				
Project	: BASELINE WATER QUALITY MONITORING FOR SCL	Quote number	: ----	Date received	: 03-JUL-2012		
Order number	: 60050763			Date of issue	: 12-JUL-2012		
C-O-C number	: ----			No. of samples	- Received :	54	
Site	: ----				- Analysed :	54	

Report Comments

This report for ALS Technichem (HK) Pty Ltd work order reference HK1217044 supersedes any previous reports with this reference. The completion date of analysis is 12-JUL-2012. 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 HK1217044 :

Sample(s) were picked up from client by ALS Technichem (HK) staff in a chilled condition.

Water sample(s) analysed and reported on an as received basis.

The accredited LOR for suspended solids is 2mg/L. The results reported below the accredited LOR and the decimal value of the results were for reference only.

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**

Analytical Results

Sub-Matrix: **WATER**

Client sample ID	Client sampling date / time	Laboratory sample ID	Compound	EA025: Suspended Solids (SS)				
			LOR Unit	0.1 mg/L				
				EA/ED: Physical and Aggregate Properties				
IS-1 (SURFACE) MID-EBB	[03-JUL-2012]	HK1217044-001		**3.5**				
IS-1 (SURFACE) MID-EBB	[03-JUL-2012]	HK1217044-002		**2.9**				
IS-1 (SURFACE) MID-EBB	[03-JUL-2012]	HK1217044-003		**2.8**				
IS-1 (MIDDLE) MID-EBB	[03-JUL-2012]	HK1217044-004		**1.6**				
IS-1 (MIDDLE) MID-EBB	[03-JUL-2012]	HK1217044-005		**1.9**				
IS-1 (MIDDLE) MID-EBB	[03-JUL-2012]	HK1217044-006		**1.5**				
IS-1 (BOTTOM) MID-EBB	[03-JUL-2012]	HK1217044-007		**1.5**				
IS-1 (BOTTOM) MID-EBB	[03-JUL-2012]	HK1217044-008		**1.3**				
IS-1 (BOTTOM) MID-EBB	[03-JUL-2012]	HK1217044-009		**1.2**				
CS-1 (SURFACE) MID-EBB	[03-JUL-2012]	HK1217044-010		**1.8**				
CS-1 (SURFACE) MID-EBB	[03-JUL-2012]	HK1217044-011		**1.2**				
CS-1 (SURFACE) MID-EBB	[03-JUL-2012]	HK1217044-012		**1.5**				
CS-1 (MIDDLE) MID-EBB	[03-JUL-2012]	HK1217044-013		**4.6**				
CS-1 (MIDDLE) MID-EBB	[03-JUL-2012]	HK1217044-014		**2.8**				
CS-1 (MIDDLE) MID-EBB	[03-JUL-2012]	HK1217044-015		**2.7**				
CS-1 (BOTTOM) MID-EBB	[03-JUL-2012]	HK1217044-016		**2.3**				
CS-1 (BOTTOM) MID-EBB	[03-JUL-2012]	HK1217044-017		**2.5**				
CS-1 (BOTTOM) MID-EBB	[03-JUL-2012]	HK1217044-018		**3.0**				
CS-2 (SURFACE) MID-EBB	[03-JUL-2012]	HK1217044-019		**5.6**				
CS-2 (SURFACE) MID-EBB	[03-JUL-2012]	HK1217044-020		**3.8**				
CS-2 (SURFACE) MID-EBB	[03-JUL-2012]	HK1217044-021		**4.8**				
CS-2 (MIDDLE) MID-EBB	[03-JUL-2012]	HK1217044-022		**3.3**				
CS-2 (MIDDLE) MID-EBB	[03-JUL-2012]	HK1217044-023		**3.5**				
CS-2 (MIDDLE) MID-EBB	[03-JUL-2012]	HK1217044-024		**4.0**				
CS-2 (BOTTOM) MID-EBB	[03-JUL-2012]	HK1217044-025		**4.6**				
CS-2 (BOTTOM) MID-EBB	[03-JUL-2012]	HK1217044-026		**3.8**				
CS-2 (BOTTOM) MID-EBB	[03-JUL-2012]	HK1217044-027		**2.6**				
IS-1 (SURFACE) MID-FLOOD	[03-JUL-2012]	HK1217044-028		**3.4**				
IS-1 (SURFACE) MID-FLOOD	[03-JUL-2012]	HK1217044-029		**2.3**				
IS-1 (SURFACE) MID-FLOOD	[03-JUL-2012]	HK1217044-030		**2.5**				
IS-1 (MIDDLE) MID-FLOOD	[03-JUL-2012]	HK1217044-031		**3.0**				
IS-1 (MIDDLE) MID-FLOOD	[03-JUL-2012]	HK1217044-032		**2.1**				
IS-1 (MIDDLE) MID-FLOOD	[03-JUL-2012]	HK1217044-033		**2.8**				
IS-1 (BOTTOM) MID-FLOOD	[03-JUL-2012]	HK1217044-034		**2.7**				
IS-1 (BOTTOM) MID-FLOOD	[03-JUL-2012]	HK1217044-035		**3.1**				

Sub-Matrix: **WATER**

Client sample ID	*Client sampling date / time*	*Laboratory sample ID*	*Compound*	**EA025: Suspended Solids (SS)**				
			LOR Unit	0.1 mg/L				
				EA/ED: Physical and Aggregate Properties				
IS-1 (BOTTOM) MID-FLOOD	[03-JUL-2012]	HK1217044-036		**2.5**				
CS-1 (SURFACE) MID-FLOOD	[03-JUL-2012]	HK1217044-037		**2.7**				
CS-1 (SURFACE) MID-FLOOD	[03-JUL-2012]	HK1217044-038		**4.4**				
CS-1 (SURFACE) MID-FLOOD	[03-JUL-2012]	HK1217044-039		**3.9**				
CS-1 (MIDDLE) MID-FLOOD	[03-JUL-2012]	HK1217044-040		**3.7**				
CS-1 (MIDDLE) MID-FLOOD	[03-JUL-2012]	HK1217044-041		**3.6**				
CS-1 (MIDDLE) MID-FLOOD	[03-JUL-2012]	HK1217044-042		**3.2**				
CS-1 (BOTTOM) MID-FLOOD	[03-JUL-2012]	HK1217044-043		**4.0**				
CS-1 (BOTTOM) MID-FLOOD	[03-JUL-2012]	HK1217044-044		**3.5**				
CS-1 (BOTTOM) MID-FLOOD	[03-JUL-2012]	HK1217044-045		**4.0**				
CS-2 (SURFACE) MID-FLOOD	[03-JUL-2012]	HK1217044-046		**2.3**				
CS-2 (SURFACE) MID-FLOOD	[03-JUL-2012]	HK1217044-047		**2.9**				
CS-2 (SURFACE) MID-FLOOD	[03-JUL-2012]	HK1217044-048		**2.3**				
CS-2 (MIDDLE) MID-FLOOD	[03-JUL-2012]	HK1217044-049		**4.9**				
CS-2 (MIDDLE) MID-FLOOD	[03-JUL-2012]	HK1217044-050		**4.7**				
CS-2 (MIDDLE) MID-FLOOD	[03-JUL-2012]	HK1217044-051		**4.8**				
CS-2 (BOTTOM) MID-FLOOD	[03-JUL-2012]	HK1217044-052		**4.9**				
CS-2 (BOTTOM) MID-FLOOD	[03-JUL-2012]	HK1217044-053		**2.9**				
CS-2 (BOTTOM) MID-FLOOD	[03-JUL-2012]	HK1217044-054		**3.8**				

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: 2399455)								
HK1217044-001	IS-1 (SURFACE) MID-EBB	EA025: Suspended Solids (SS)	----	0.1	mg/L	3.5	3.4	3.6
HK1217044-011	CS-1 (SURFACE) MID-EBB	EA025: Suspended Solids (SS)	----	0.1	mg/L	1.2	1.3	14.1
EA/ED: Physical and Aggregate Properties (QC Lot: 2399456)								
HK1217044-021	CS-2 (SURFACE) MID-EBB	EA025: Suspended Solids (SS)	----	0.1	mg/L	4.8	4.7	2.1
HK1217044-031	IS-1 (MIDDLE) MID-FLOOD	EA025: Suspended Solids (SS)	----	0.1	mg/L	3.0	2.6	11.6
EA/ED: Physical and Aggregate Properties (QC Lot: 2399457)								
HK1217044-041	CS-1 (MIDDLE) MID-FLOOD	EA025: Suspended Solids (SS)	----	0.1	mg/L	3.6	4.3	17.0
HK1217044-051	CS-2 (MIDDLE) MID-FLOOD	EA025: Suspended Solids (SS)	----	0.1	mg/L	4.8	4.9	3.1

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: 2399455)											
EA025: Suspended Solids (SS)	----	0.5	mg/L	<0.5	20.0 mg/L	106	----	85	115	----	----
EA/ED: Physical and Aggregate Properties (QCLot: 2399456)											
EA025: Suspended Solids (SS)	----	0.5	mg/L	<0.5	20.0 mg/L	107	----	85	115	----	----
EA/ED: Physical and Aggregate Properties (QCLot: 2399457)											
EA025: Suspended Solids (SS)	----	0.5	mg/L	<0.5	20.0 mg/L	105	----	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	: AECOM ASIA COMPANY LIMITED	Laboratory	: ALS Technichem HK Pty Ltd	Page	: 1 of 4		
Contact	: MS LEMON LAM	Contact	: Chan Kwok Fai, Godfrey	Work Order	: HK1217046		
Address	: 11/F, TOWER 2, GRAND CENTRAL PLAZA, 138 SHATIN RURAL COMMITTEE ROAD, SHATIN, N.T. HONG KONG	Address	: 11/F., Chung Shun Knitting Centre, 1 - 3 Wing Yip Street, Kwai Chung, N.T., Hong Kong				
E-mail	: lemon.lam@aecom.com	E-mail	: Godfrey.Chan@alsglobal.com				
Telephone	: +852 2605 6262	Telephone	: +852 2610 1044				
Facsimile	: +852 2691 2649	Facsimile	: +852 2610 2021				
Project	: BASELINE WATER QUALITY MONITORING FOR SCL	Quote number	: ----	Date received	: 05-JUL-2012		
Order number	: 60050763			Date of issue	: 16-JUL-2012		
C-O-C number	: ----			No. of samples	- Received :	54	
Site	: ----				- Analysed :	54	

Report Comments

This report for ALS Technichem (HK) Pty Ltd work order reference HK1217046 supersedes any previous reports with this reference. The completion date of analysis is 16-JUL-2012. 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 HK1217046 :

Sample(s) were picked up from client by ALS Technichem (HK) staff in a chilled condition.

Water sample(s) analysed and reported on an as received basis.

The accredited LOR for suspended solids is 2mg/L. The results reported below the accredited LOR and the decimal value of the results were for reference only.

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**

Analytical Results

Sub-Matrix: **WATER**

Client sample ID	Client sampling date / time	Laboratory sample ID	Compound: EA025: Suspended Solids (SS)				
			LOR Unit: 0.1 mg/L				
			EA/ED: Physical and Aggregate Properties				
IS-1 (SURFACE) MID-EBB	[05-JUL-2012]	HK1217046-001	**2.2**				
IS-1 (SURFACE) MID-EBB	[05-JUL-2012]	HK1217046-002	**2.4**				
IS-1 (SURFACE) MID-EBB	[05-JUL-2012]	HK1217046-003	**1.7**				
IS-1 (MIDDLE) MID-EBB	[05-JUL-2012]	HK1217046-004	**1.3**				
IS-1 (MIDDLE) MID-EBB	[05-JUL-2012]	HK1217046-005	**2.0**				
IS-1 (MIDDLE) MID-EBB	[05-JUL-2012]	HK1217046-006	**2.2**				
IS-1 (BOTTOM) MID-EBB	[05-JUL-2012]	HK1217046-007	**2.1**				
IS-1 (BOTTOM) MID-EBB	[05-JUL-2012]	HK1217046-008	**2.1**				
IS-1 (BOTTOM) MID-EBB	[05-JUL-2012]	HK1217046-009	**2.3**				
CS-1 (SURFACE) MID-EBB	[05-JUL-2012]	HK1217046-010	**2.4**				
CS-1 (SURFACE) MID-EBB	[05-JUL-2012]	HK1217046-011	**3.3**				
CS-1 (SURFACE) MID-EBB	[05-JUL-2012]	HK1217046-012	**3.1**				
CS-1 (MIDDLE) MID-EBB	[05-JUL-2012]	HK1217046-013	**2.7**				
CS-1 (MIDDLE) MID-EBB	[05-JUL-2012]	HK1217046-014	**3.8**				
CS-1 (MIDDLE) MID-EBB	[05-JUL-2012]	HK1217046-015	**1.8**				
CS-1 (BOTTOM) MID-EBB	[05-JUL-2012]	HK1217046-016	**2.2**				
CS-1 (BOTTOM) MID-EBB	[05-JUL-2012]	HK1217046-017	**3.2**				
CS-1 (BOTTOM) MID-EBB	[05-JUL-2012]	HK1217046-018	**4.0**				
CS-2 (SURFACE) MID-EBB	[05-JUL-2012]	HK1217046-019	**4.4**				
CS-2 (SURFACE) MID-EBB	[05-JUL-2012]	HK1217046-020	**5.1**				
CS-2 (SURFACE) MID-EBB	[05-JUL-2012]	HK1217046-021	**3.0**				
CS-2 (MIDDLE) MID-EBB	[05-JUL-2012]	HK1217046-022	**2.4**				
CS-2 (MIDDLE) MID-EBB	[05-JUL-2012]	HK1217046-023	**4.1**				
CS-2 (MIDDLE) MID-EBB	[05-JUL-2012]	HK1217046-024	**3.2**				
CS-2 (BOTTOM) MID-EBB	[05-JUL-2012]	HK1217046-025	**3.4**				
CS-2 (BOTTOM) MID-EBB	[05-JUL-2012]	HK1217046-026	**2.7**				
CS-2 (BOTTOM) MID-EBB	[05-JUL-2012]	HK1217046-027	**3.9**				
IS-1 (SURFACE) MID-FLOOD	[05-JUL-2012]	HK1217046-028	**2.3**				
IS-1 (SURFACE) MID-FLOOD	[05-JUL-2012]	HK1217046-029	**3.3**				
IS-1 (SURFACE) MID-FLOOD	[05-JUL-2012]	HK1217046-030	**3.2**				
IS-1 (MIDDLE) MID-FLOOD	[05-JUL-2012]	HK1217046-031	**2.3**				
IS-1 (MIDDLE) MID-FLOOD	[05-JUL-2012]	HK1217046-032	**2.2**				
IS-1 (MIDDLE) MID-FLOOD	[05-JUL-2012]	HK1217046-033	**2.9**				
IS-1 (BOTTOM) MID-FLOOD	[05-JUL-2012]	HK1217046-034	**2.6**				
IS-1 (BOTTOM) MID-FLOOD	[05-JUL-2012]	HK1217046-035	**3.1**				

Sub-Matrix: **WATER**

Client sample ID	*Client sampling date / time*	*Laboratory sample ID*	*Compound*	**EA025: Suspended Solids (SS)**				
			LOR Unit	0.1 mg/L				
				EA/ED: Physical and Aggregate Properties				
IS-1 (BOTTOM) MID-FLOOD	[05-JUL-2012]	HK1217046-036		**4.0**				
CS-1 (SURFACE) MID-FLOOD	[05-JUL-2012]	HK1217046-037		**3.4**				
CS-1 (SURFACE) MID-FLOOD	[05-JUL-2012]	HK1217046-038		**4.0**				
CS-1 (SURFACE) MID-FLOOD	[05-JUL-2012]	HK1217046-039		**2.8**				
CS-1 (MIDDLE) MID-FLOOD	[05-JUL-2012]	HK1217046-040		**4.6**				
CS-1 (MIDDLE) MID-FLOOD	[05-JUL-2012]	HK1217046-041		**3.2**				
CS-1 (MIDDLE) MID-FLOOD	[05-JUL-2012]	HK1217046-042		**3.2**				
CS-1 (BOTTOM) MID-FLOOD	[05-JUL-2012]	HK1217046-043		**3.3**				
CS-1 (BOTTOM) MID-FLOOD	[05-JUL-2012]	HK1217046-044		**2.8**				
CS-1 (BOTTOM) MID-FLOOD	[05-JUL-2012]	HK1217046-045		**2.6**				
CS-2 (SURFACE) MID-FLOOD	[05-JUL-2012]	HK1217046-046		**2.3**				
CS-2 (SURFACE) MID-FLOOD	[05-JUL-2012]	HK1217046-047		**4.0**				
CS-2 (SURFACE) MID-FLOOD	[05-JUL-2012]	HK1217046-048		**3.2**				
CS-2 (MIDDLE) MID-FLOOD	[05-JUL-2012]	HK1217046-049		**2.7**				
CS-2 (MIDDLE) MID-FLOOD	[05-JUL-2012]	HK1217046-050		**2.4**				
CS-2 (MIDDLE) MID-FLOOD	[05-JUL-2012]	HK1217046-051		**3.2**				
CS-2 (BOTTOM) MID-FLOOD	[05-JUL-2012]	HK1217046-052		**3.9**				
CS-2 (BOTTOM) MID-FLOOD	[05-JUL-2012]	HK1217046-053		**2.3**				
CS-2 (BOTTOM) MID-FLOOD	[05-JUL-2012]	HK1217046-054		**3.6**				

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: 2403791)								
HK1217046-001	IS-1 (SURFACE) MID-EBB	EA025: Suspended Solids (SS)	----	0.1	mg/L	2.2	2.1	5.7
HK1217046-011	CS-1 (SURFACE) MID-EBB	EA025: Suspended Solids (SS)	----	0.1	mg/L	3.3	3.4	3.0
EA/ED: Physical and Aggregate Properties (QC Lot: 2403794)								
HK1217046-021	CS-2 (SURFACE) MID-EBB	EA025: Suspended Solids (SS)	----	0.1	mg/L	3.0	2.9	0.0
HK1217046-031	IS-1 (MIDDLE) MID-FLOOD	EA025: Suspended Solids (SS)	----	0.1	mg/L	2.3	2.2	6.7
EA/ED: Physical and Aggregate Properties (QC Lot: 2403796)								
HK1217046-041	CS-1 (MIDDLE) MID-FLOOD	EA025: Suspended Solids (SS)	----	0.1	mg/L	3.2	3.9	18.9
HK1217046-051	CS-2 (MIDDLE) MID-FLOOD	EA025: Suspended Solids (SS)	----	0.1	mg/L	3.2	2.8	13.3

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: 2403791)											
EA025: Suspended Solids (SS)	----	0.5	mg/L	<0.5	20.0 mg/L	98.5	----	85	115	----	----
EA/ED: Physical and Aggregate Properties (QCLot: 2403794)											
EA025: Suspended Solids (SS)	----	0.5	mg/L	<0.5	20.0 mg/L	100	----	85	115	----	----
EA/ED: Physical and Aggregate Properties (QCLot: 2403796)											
EA025: Suspended Solids (SS)	----	0.5	mg/L	<0.5	20.0 mg/L	102	----	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.**

ALS Technichem (HK) Pty Ltd

ALS Laboratory Group
ANALYTICAL CHEMISTRY & TESTING SERVICES

CERTIFICATE OF ANALYSIS

Client	: AECOM ASIA COMPANY LIMITED	Laboratory	: ALS Technichem HK Pty Ltd	Page	: 1 of 4		
Contact	: MS LEMON LAM	Contact	: Chan Kwok Fai, Godfrey	Work Order	: HK1217047		
Address	: 11/F, TOWER 2, GRAND CENTRAL PLAZA, 138 SHATIN RURAL COMMITTEE ROAD, SHATIN, N.T. HONG KONG	Address	: 11/F., Chung Shun Knitting Centre, 1 - 3 Wing Yip Street, Kwai Chung, N.T., Hong Kong				
E-mail	: lemon.lam@aecom.com	E-mail	: Godfrey.Chan@alsglobal.com				
Telephone	: +852 2605 6262	Telephone	: +852 2610 1044				
Facsimile	: +852 2691 2649	Facsimile	: +852 2610 2021				
Project	: BASELINE WATER QUALITY MONITORING FOR SCL	Quote number	: ----	Date received	: 09-JUL-2012		
Order number	: 60050763			Date of issue	: 17-JUL-2012		
C-O-C number	: ----			No. of samples	- Received :	54	
Site	: ----				- Analysed :	54	

Report Comments

This report for ALS Technichem (HK) Pty Ltd work order reference HK1217047 supersedes any previous reports with this reference. The completion date of analysis is 17-JUL-2012. 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 HK1217047 :

Sample(s) were picked up from client by ALS Technichem (HK) staff in a chilled condition.

Water sample(s) analysed and reported on an as received basis.

The accredited LOR for suspended solids is 2mg/L. The results reported below the accredited LOR and the decimal value of the results were for reference only.

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**

Analytical Results

Sub-Matrix: **WATER**

Client sample ID	Client sampling date / time	Laboratory sample ID	Compound: EA025: Suspended Solids (SS)				
			LOR Unit: 0.1 mg/L				
			EA/ED: Physical and Aggregate Properties				
IS-1 (SURFACE) MID-EBB	[07-JUL-2012]	HK1217047-001	**5.1**				
IS-1 (SURFACE) MID-EBB	[07-JUL-2012]	HK1217047-002	**4.7**				
IS-1 (SURFACE) MID-EBB	[07-JUL-2012]	HK1217047-003	**5.0**				
IS-1 (MIDDLE) MID-EBB	[07-JUL-2012]	HK1217047-004	**6.2**				
IS-1 (MIDDLE) MID-EBB	[07-JUL-2012]	HK1217047-005	**4.3**				
IS-1 (MIDDLE) MID-EBB	[07-JUL-2012]	HK1217047-006	**3.8**				
IS-1 (BOTTOM) MID-EBB	[07-JUL-2012]	HK1217047-007	**9.2**				
IS-1 (BOTTOM) MID-EBB	[07-JUL-2012]	HK1217047-008	**8.8**				
IS-1 (BOTTOM) MID-EBB	[07-JUL-2012]	HK1217047-009	**9.4**				
CS-1 (SURFACE) MID-EBB	[07-JUL-2012]	HK1217047-010	**3.5**				
CS-1 (SURFACE) MID-EBB	[07-JUL-2012]	HK1217047-011	**2.9**				
CS-1 (SURFACE) MID-EBB	[07-JUL-2012]	HK1217047-012	**4.7**				
CS-1 (MIDDLE) MID-EBB	[07-JUL-2012]	HK1217047-013	**2.8**				
CS-1 (MIDDLE) MID-EBB	[07-JUL-2012]	HK1217047-014	**3.4**				
CS-1 (MIDDLE) MID-EBB	[07-JUL-2012]	HK1217047-015	**3.0**				
CS-1 (BOTTOM) MID-EBB	[07-JUL-2012]	HK1217047-016	**5.4**				
CS-1 (BOTTOM) MID-EBB	[07-JUL-2012]	HK1217047-017	**4.0**				
CS-1 (BOTTOM) MID-EBB	[07-JUL-2012]	HK1217047-018	**3.7**				
CS-2 (SURFACE) MID-EBB	[07-JUL-2012]	HK1217047-019	**3.8**				
CS-2 (SURFACE) MID-EBB	[07-JUL-2012]	HK1217047-020	**4.6**				
CS-2 (SURFACE) MID-EBB	[07-JUL-2012]	HK1217047-021	**4.5**				
CS-2 (MIDDLE) MID-EBB	[07-JUL-2012]	HK1217047-022	**3.9**				
CS-2 (MIDDLE) MID-EBB	[07-JUL-2012]	HK1217047-023	**3.3**				
CS-2 (MIDDLE) MID-EBB	[07-JUL-2012]	HK1217047-024	**4.1**				
CS-2 (BOTTOM) MID-EBB	[07-JUL-2012]	HK1217047-025	**4.1**				
CS-2 (BOTTOM) MID-EBB	[07-JUL-2012]	HK1217047-026	**5.4**				
CS-2 (BOTTOM) MID-EBB	[07-JUL-2012]	HK1217047-027	**4.0**				
IS-1 (SURFACE) MID-FLOOD	[07-JUL-2012]	HK1217047-028	**4.4**				
IS-1 (SURFACE) MID-FLOOD	[07-JUL-2012]	HK1217047-029	**2.9**				
IS-1 (SURFACE) MID-FLOOD	[07-JUL-2012]	HK1217047-030	**2.8**				
IS-1 (MIDDLE) MID-FLOOD	[07-JUL-2012]	HK1217047-031	**5.5**				
IS-1 (MIDDLE) MID-FLOOD	[07-JUL-2012]	HK1217047-032	**5.8**				
IS-1 (MIDDLE) MID-FLOOD	[07-JUL-2012]	HK1217047-033	**3.6**				
IS-1 (BOTTOM) MID-FLOOD	[07-JUL-2012]	HK1217047-034	**10.8**				
IS-1 (BOTTOM) MID-FLOOD	[07-JUL-2012]	HK1217047-035	**8.9**				

Sub-Matrix: **WATER**

Client sample ID	*Client sampling date / time*	*Laboratory sample ID*	*Compound*	**EA025: Suspended Solids (SS)**				
			LOR Unit	0.1 mg/L				
				EA/ED: Physical and Aggregate Properties				
IS-1 (BOTTOM) MID-FLOOD	[07-JUL-2012]	HK1217047-036		**11.3**				
CS-1 (SURFACE) MID-FLOOD	[07-JUL-2012]	HK1217047-037		**6.5**				
CS-1 (SURFACE) MID-FLOOD	[07-JUL-2012]	HK1217047-038		**5.6**				
CS-1 (SURFACE) MID-FLOOD	[07-JUL-2012]	HK1217047-039		**6.2**				
CS-1 (MIDDLE) MID-FLOOD	[07-JUL-2012]	HK1217047-040		**5.4**				
CS-1 (MIDDLE) MID-FLOOD	[07-JUL-2012]	HK1217047-041		**6.1**				
CS-1 (MIDDLE) MID-FLOOD	[07-JUL-2012]	HK1217047-042		**5.9**				
CS-1 (BOTTOM) MID-FLOOD	[07-JUL-2012]	HK1217047-043		**6.4**				
CS-1 (BOTTOM) MID-FLOOD	[07-JUL-2012]	HK1217047-044		**7.2**				
CS-1 (BOTTOM) MID-FLOOD	[07-JUL-2012]	HK1217047-045		**7.4**				
CS-2 (SURFACE) MID-FLOOD	[07-JUL-2012]	HK1217047-046		**7.1**				
CS-2 (SURFACE) MID-FLOOD	[07-JUL-2012]	HK1217047-047		**6.8**				
CS-2 (SURFACE) MID-FLOOD	[07-JUL-2012]	HK1217047-048		**8.4**				
CS-2 (MIDDLE) MID-FLOOD	[07-JUL-2012]	HK1217047-049		**4.4**				
CS-2 (MIDDLE) MID-FLOOD	[07-JUL-2012]	HK1217047-050		**5.5**				
CS-2 (MIDDLE) MID-FLOOD	[07-JUL-2012]	HK1217047-051		**6.1**				
CS-2 (BOTTOM) MID-FLOOD	[07-JUL-2012]	HK1217047-052		**5.7**				
CS-2 (BOTTOM) MID-FLOOD	[07-JUL-2012]	HK1217047-053		**4.7**				
CS-2 (BOTTOM) MID-FLOOD	[07-JUL-2012]	HK1217047-054		**5.2**				

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: 2406138)								
HK1217047-001	IS-1 (SURFACE) MID-EBB	EA025: Suspended Solids (SS)	----	0.1	mg/L	5.1	4.8	6.6
HK1217047-011	CS-1 (SURFACE) MID-EBB	EA025: Suspended Solids (SS)	----	0.1	mg/L	2.9	2.8	3.5
EA/ED: Physical and Aggregate Properties (QC Lot: 2406139)								
HK1217047-021	CS-2 (SURFACE) MID-EBB	EA025: Suspended Solids (SS)	----	0.1	mg/L	4.5	4.4	2.2
HK1217047-031	IS-1 (MIDDLE) MID-FLOOD	EA025: Suspended Solids (SS)	----	0.1	mg/L	5.5	5.4	0.0
EA/ED: Physical and Aggregate Properties (QC Lot: 2406140)								
HK1217047-041	CS-1 (MIDDLE) MID-FLOOD	EA025: Suspended Solids (SS)	----	0.1	mg/L	6.1	6.2	1.6
HK1217047-051	CS-2 (MIDDLE) MID-FLOOD	EA025: Suspended Solids (SS)	----	0.1	mg/L	6.1	5.9	3.8

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: 2406138)											
EA025: Suspended Solids (SS)	----	0.5	mg/L	<0.5	20.0 mg/L	102	----	85	115	----	----
EA/ED: Physical and Aggregate Properties (QCLot: 2406139)											
EA025: Suspended Solids (SS)	----	0.5	mg/L	<0.5	20.0 mg/L	100	----	85	115	----	----
EA/ED: Physical and Aggregate Properties (QCLot: 2406140)											
EA025: Suspended Solids (SS)	----	0.5	mg/L	<0.5	20.0 mg/L	102	----	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	: AECOM ASIA COMPANY LIMITED	Laboratory	: ALS Technichem HK Pty Ltd	Page	: 1 of 4		
Contact	: MS LEMON LAM	Contact	: Chan Kwok Fai, Godfrey	Work Order	: HK1215923		
Address	: 11/F, TOWER 2, GRAND CENTRAL PLAZA, 138 SHATIN RURAL COMMITTEE ROAD, SHATIN, N.T. HONG KONG	Address	: 11/F., Chung Shun Knitting Centre, 1 - 3 Wing Yip Street, Kwai Chung, N.T., Hong Kong				
E-mail	: lemon.lam@aecom.com	E-mail	: Godfrey.Chan@alsglobal.com				
Telephone	: +852 2605 6262	Telephone	: +852 2610 1044				
Facsimile	: +852 2691 2649	Facsimile	: +852 2610 2021				
Project	: BASELINE WATER QUALITY MONITORING FOR SCL	Quote number	: ----	Date received	: 10-JUL-2012		
Order number	: 60050763			Date of issue	: 19-JUL-2012		
C-O-C number	: ----			No. of samples	- Received :	54	
Site	: ----				- Analysed :	54	

Report Comments

This report for ALS Technichem (HK) Pty Ltd work order reference HK1215923 supersedes any previous reports with this reference. The completion date of analysis is 19-JUL-2012. 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 HK1215923 :

Sample(s) were picked up from client by ALS Technichem (HK) staff in a chilled condition.

Water sample(s) analysed and reported on an as received basis.

The accredited LOR for suspended solids is 2mg/L. The results reported below the accredited LOR of the results was for reference only.

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**

Analytical Results

Sub-Matrix: **WATER**

Client sample ID	Client sampling date / time	Laboratory sample ID	Compound: EA025: Suspended Solids (SS)				
		LOR Unit	0.1 mg/L				
			EA/ED: Physical and Aggregate Properties				
IS-1 (SURFACE) MID-EBB	[10-JUL-2012]	HK1215923-001	**5.3**				
IS-1 (SURFACE) MID-EBB	[10-JUL-2012]	HK1215923-002	**5.0**				
IS-1 (SURFACE) MID-EBB	[10-JUL-2012]	HK1215923-003	**6.1**				
IS-1 (MIDDLE) MID-EBB	[10-JUL-2012]	HK1215923-004	**7.9**				
IS-1 (MIDDLE) MID-EBB	[10-JUL-2012]	HK1215923-005	**7.3**				
IS-1 (MIDDLE) MID-EBB	[10-JUL-2012]	HK1215923-006	**7.2**				
IS-1 (BOTTOM) MID-EBB	[10-JUL-2012]	HK1215923-007	**2.8**				
IS-1 (BOTTOM) MID-EBB	[10-JUL-2012]	HK1215923-008	**3.1**				
IS-1 (BOTTOM) MID-EBB	[10-JUL-2012]	HK1215923-009	**3.7**				
CS-1 (SURFACE) MID-EBB	[10-JUL-2012]	HK1215923-010	**4.5**				
CS-1 (SURFACE) MID-EBB	[10-JUL-2012]	HK1215923-011	**5.5**				
CS-1 (SURFACE) MID-EBB	[10-JUL-2012]	HK1215923-012	**4.9**				
CS-1 (MIDDLE) MID-EBB	[10-JUL-2012]	HK1215923-013	**8.1**				
CS-1 (MIDDLE) MID-EBB	[10-JUL-2012]	HK1215923-014	**8.0**				
CS-1 (MIDDLE) MID-EBB	[10-JUL-2012]	HK1215923-015	**8.3**				
CS-1 (BOTTOM) MID-EBB	[10-JUL-2012]	HK1215923-016	**4.3**				
CS-1 (BOTTOM) MID-EBB	[10-JUL-2012]	HK1215923-017	**4.0**				
CS-1 (BOTTOM) MID-EBB	[10-JUL-2012]	HK1215923-018	**3.6**				
CS-2 (SURFACE) MID-EBB	[10-JUL-2012]	HK1215923-019	**4.5**				
CS-2 (SURFACE) MID-EBB	[10-JUL-2012]	HK1215923-020	**4.0**				
CS-2 (SURFACE) MID-EBB	[10-JUL-2012]	HK1215923-021	**4.6**				
CS-2 (MIDDLE) MID-EBB	[10-JUL-2012]	HK1215923-022	**6.4**				
CS-2 (MIDDLE) MID-EBB	[10-JUL-2012]	HK1215923-023	**6.4**				
CS-2 (MIDDLE) MID-EBB	[10-JUL-2012]	HK1215923-024	**6.8**				
CS-2 (BOTTOM) MID-EBB	[10-JUL-2012]	HK1215923-025	**7.8**				
CS-2 (BOTTOM) MID-EBB	[10-JUL-2012]	HK1215923-026	**6.7**				
CS-2 (BOTTOM) MID-EBB	[10-JUL-2012]	HK1215923-027	**8.2**				
IS-1 (SURFACE) MID-FLOOD	[10-JUL-2012]	HK1215923-028	**5.0**				
IS-1 (SURFACE) MID-FLOOD	[10-JUL-2012]	HK1215923-029	**4.6**				
IS-1 (SURFACE) MID-FLOOD	[10-JUL-2012]	HK1215923-030	**4.8**				
IS-1 (MIDDLE) MID-FLOOD	[10-JUL-2012]	HK1215923-031	**6.2**				
IS-1 (MIDDLE) MID-FLOOD	[10-JUL-2012]	HK1215923-032	**7.1**				
IS-1 (MIDDLE) MID-FLOOD	[10-JUL-2012]	HK1215923-033	**5.0**				
IS-1 (BOTTOM) MID-FLOOD	[10-JUL-2012]	HK1215923-034	**6.0**				
IS-1 (BOTTOM) MID-FLOOD	[10-JUL-2012]	HK1215923-035	**7.0**				

Sub-Matrix: **WATER**

Client sample ID	*Client sampling date / time*	*Laboratory sample ID*	*Compound*	**EA025: Suspended Solids (SS)**				
			LOR Unit	0.1 mg/L				
				EA/ED: Physical and Aggregate Properties				
IS-1 (BOTTOM) MID-FLOOD	[10-JUL-2012]	HK1215923-036		**4.9**				
CS-1 (SURFACE) MID-FLOOD	[10-JUL-2012]	HK1215923-037		**10.2**				
CS-1 (SURFACE) MID-FLOOD	[10-JUL-2012]	HK1215923-038		**9.0**				
CS-1 (SURFACE) MID-FLOOD	[10-JUL-2012]	HK1215923-039		**9.9**				
CS-1 (MIDDLE) MID-FLOOD	[10-JUL-2012]	HK1215923-040		**8.0**				
CS-1 (MIDDLE) MID-FLOOD	[10-JUL-2012]	HK1215923-041		**7.0**				
CS-1 (MIDDLE) MID-FLOOD	[10-JUL-2012]	HK1215923-042		**8.2**				
CS-1 (BOTTOM) MID-FLOOD	[10-JUL-2012]	HK1215923-043		**6.8**				
CS-1 (BOTTOM) MID-FLOOD	[10-JUL-2012]	HK1215923-044		**6.3**				
CS-1 (BOTTOM) MID-FLOOD	[10-JUL-2012]	HK1215923-045		**4.8**				
CS-2 (SURFACE) MID-FLOOD	[10-JUL-2012]	HK1215923-046		**5.4**				
CS-2 (SURFACE) MID-FLOOD	[10-JUL-2012]	HK1215923-047		**5.0**				
CS-2 (SURFACE) MID-FLOOD	[10-JUL-2012]	HK1215923-048		**3.8**				
CS-2 (MIDDLE) MID-FLOOD	[10-JUL-2012]	HK1215923-049		**4.5**				
CS-2 (MIDDLE) MID-FLOOD	[10-JUL-2012]	HK1215923-050		**4.7**				
CS-2 (MIDDLE) MID-FLOOD	[10-JUL-2012]	HK1215923-051		**4.2**				
CS-2 (BOTTOM) MID-FLOOD	[10-JUL-2012]	HK1215923-052		**4.4**				
CS-2 (BOTTOM) MID-FLOOD	[10-JUL-2012]	HK1215923-053		**4.2**				
CS-2 (BOTTOM) MID-FLOOD	[10-JUL-2012]	HK1215923-054		**5.7**				

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: 2410624)								
HK1215923-001	IS-1 (SURFACE) MID-EBB	EA025: Suspended Solids (SS)	----	0.1	mg/L	5.3	4.6	15.2
HK1215923-011	CS-1 (SURFACE) MID-EBB	EA025: Suspended Solids (SS)	----	0.1	mg/L	5.5	4.8	12.6
EA/ED: Physical and Aggregate Properties (QC Lot: 2410625)								
HK1215923-021	CS-2 (SURFACE) MID-EBB	EA025: Suspended Solids (SS)	----	0.1	mg/L	4.6	5.2	11.8
HK1215923-031	IS-1 (MIDDLE) MID-FLOOD	EA025: Suspended Solids (SS)	----	0.1	mg/L	6.2	6.7	8.9
EA/ED: Physical and Aggregate Properties (QC Lot: 2410626)								
HK1215923-041	CS-1 (MIDDLE) MID-FLOOD	EA025: Suspended Solids (SS)	----	0.1	mg/L	7.0	7.7	10.2
HK1215923-051	CS-2 (MIDDLE) MID-FLOOD	EA025: Suspended Solids (SS)	----	0.1	mg/L	4.2	4.3	3.6

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: 2410624)											
EA025: Suspended Solids (SS)	----	0.5	mg/L	<0.5	20.0 mg/L	97.5	----	85	115	----	----
EA/ED: Physical and Aggregate Properties (QCLot: 2410625)											
EA025: Suspended Solids (SS)	----	0.5	mg/L	<0.5	20.0 mg/L	94.5	----	85	115	----	----
EA/ED: Physical and Aggregate Properties (QCLot: 2410626)											
EA025: Suspended Solids (SS)	----	0.5	mg/L	<0.5	20.0 mg/L	100	----	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	: AECOM ASIA COMPANY LIMITED	Laboratory	: ALS Technichem HK Pty Ltd	Page	: 1 of 4		
Contact	: MS LEMON LAM	Contact	: Chan Kwok Fai, Godfrey	Work Order	: HK1217048		
Address	: 11/F, TOWER 2, GRAND CENTRAL PLAZA, 138 SHATIN RURAL COMMITTEE ROAD, SHATIN, N.T. HONG KONG	Address	: 11/F., Chung Shun Knitting Centre, 1 - 3 Wing Yip Street, Kwai Chung, N.T., Hong Kong				
E-mail	: lemon.lam@aecom.com	E-mail	: Godfrey.Chan@alsglobal.com				
Telephone	: +852 2605 6262	Telephone	: +852 2610 1044				
Facsimile	: +852 2691 2649	Facsimile	: +852 2610 2021				
Project	: BASELINE WATER QUALITY MONITORING FOR SCL	Quote number	: ----	Date received	: 12-JUL-2012		
Order number	: 60050763			Date of issue	: 21-JUL-2012		
C-O-C number	: ----			No. of samples	- Received	:	54
Site	: ----				- Analysed	:	54

Report Comments

This report for ALS Technichem (HK) Pty Ltd work order reference HK1217048 supersedes any previous reports with this reference. The completion date of analysis is 21-JUL-2012. 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 HK1217048 :

Sample(s) were picked up from client by ALS Technichem (HK) staff in a chilled condition.

Water sample(s) analysed and reported on an as received basis.

The accredited LOR for suspended solids is 2mg/L. The results reported below the accredited LOR of the results was for reference only.

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**

Analytical Results

Sub-Matrix: **WATER**

Client sample ID	Client sampling date / time	Laboratory sample ID	Compound: EA025: Suspended Solids (SS)				
			LOR Unit: 0.1 mg/L				
			EA/ED: Physical and Aggregate Properties				
IS-1 (SURFACE) MID-EBB	[12-JUL-2012]	HK1217048-001	**3.7**				
IS-1 (SURFACE) MID-EBB	[12-JUL-2012]	HK1217048-002	**3.6**				
IS-1 (SURFACE) MID-EBB	[12-JUL-2012]	HK1217048-003	**5.7**				
IS-1 (MIDDLE) MID-EBB	[12-JUL-2012]	HK1217048-004	**4.0**				
IS-1 (MIDDLE) MID-EBB	[12-JUL-2012]	HK1217048-005	**4.5**				
IS-1 (MIDDLE) MID-EBB	[12-JUL-2012]	HK1217048-006	**3.5**				
IS-1 (BOTTOM) MID-EBB	[12-JUL-2012]	HK1217048-007	**4.0**				
IS-1 (BOTTOM) MID-EBB	[12-JUL-2012]	HK1217048-008	**2.9**				
IS-1 (BOTTOM) MID-EBB	[12-JUL-2012]	HK1217048-009	**4.5**				
CS-1 (SURFACE) MID-EBB	[12-JUL-2012]	HK1217048-010	**5.0**				
CS-1 (SURFACE) MID-EBB	[12-JUL-2012]	HK1217048-011	**5.4**				
CS-1 (SURFACE) MID-EBB	[12-JUL-2012]	HK1217048-012	**5.3**				
CS-1 (MIDDLE) MID-EBB	[12-JUL-2012]	HK1217048-013	**6.1**				
CS-1 (MIDDLE) MID-EBB	[12-JUL-2012]	HK1217048-014	**5.3**				
CS-1 (MIDDLE) MID-EBB	[12-JUL-2012]	HK1217048-015	**5.5**				
CS-1 (BOTTOM) MID-EBB	[12-JUL-2012]	HK1217048-016	**5.5**				
CS-1 (BOTTOM) MID-EBB	[12-JUL-2012]	HK1217048-017	**7.3**				
CS-1 (BOTTOM) MID-EBB	[12-JUL-2012]	HK1217048-018	**5.6**				
CS-2 (SURFACE) MID-EBB	[12-JUL-2012]	HK1217048-019	**5.8**				
CS-2 (SURFACE) MID-EBB	[12-JUL-2012]	HK1217048-020	**4.5**				
CS-2 (SURFACE) MID-EBB	[12-JUL-2012]	HK1217048-021	**4.5**				
CS-2 (MIDDLE) MID-EBB	[12-JUL-2012]	HK1217048-022	**4.9**				
CS-2 (MIDDLE) MID-EBB	[12-JUL-2012]	HK1217048-023	**5.2**				
CS-2 (MIDDLE) MID-EBB	[12-JUL-2012]	HK1217048-024	**6.3**				
CS-2 (BOTTOM) MID-EBB	[12-JUL-2012]	HK1217048-025	**5.3**				
CS-2 (BOTTOM) MID-EBB	[12-JUL-2012]	HK1217048-026	**4.8**				
CS-2 (BOTTOM) MID-EBB	[12-JUL-2012]	HK1217048-027	**5.2**				
IS-1 (SURFACE) MID-FLOOD	[12-JUL-2012]	HK1217048-028	**4.7**				
IS-1 (SURFACE) MID-FLOOD	[12-JUL-2012]	HK1217048-029	**4.0**				
IS-1 (SURFACE) MID-FLOOD	[12-JUL-2012]	HK1217048-030	**4.7**				
IS-1 (MIDDLE) MID-FLOOD	[12-JUL-2012]	HK1217048-031	**4.8**				
IS-1 (MIDDLE) MID-FLOOD	[12-JUL-2012]	HK1217048-032	**4.8**				
IS-1 (MIDDLE) MID-FLOOD	[12-JUL-2012]	HK1217048-033	**4.5**				
IS-1 (BOTTOM) MID-FLOOD	[12-JUL-2012]	HK1217048-034	**3.3**				
IS-1 (BOTTOM) MID-FLOOD	[12-JUL-2012]	HK1217048-035	**3.9**				

Sub-Matrix: **WATER**

Client sample ID	*Client sampling date / time*	*Laboratory sample ID*	*Compound*	**EA025: Suspended Solids (SS)**				
			LOR Unit	0.1 mg/L				
				EA/ED: Physical and Aggregate Properties				
IS-1 (BOTTOM) MID-FLOOD	[12-JUL-2012]	HK1217048-036		**3.4**				
CS-1 (SURFACE) MID-FLOOD	[12-JUL-2012]	HK1217048-037		**5.9**				
CS-1 (SURFACE) MID-FLOOD	[12-JUL-2012]	HK1217048-038		**6.1**				
CS-1 (SURFACE) MID-FLOOD	[12-JUL-2012]	HK1217048-039		**6.0**				
CS-1 (MIDDLE) MID-FLOOD	[12-JUL-2012]	HK1217048-040		**4.9**				
CS-1 (MIDDLE) MID-FLOOD	[12-JUL-2012]	HK1217048-041		**6.0**				
CS-1 (MIDDLE) MID-FLOOD	[12-JUL-2012]	HK1217048-042		**5.7**				
CS-1 (BOTTOM) MID-FLOOD	[12-JUL-2012]	HK1217048-043		**6.0**				
CS-1 (BOTTOM) MID-FLOOD	[12-JUL-2012]	HK1217048-044		**7.4**				
CS-1 (BOTTOM) MID-FLOOD	[12-JUL-2012]	HK1217048-045		**5.0**				
CS-2 (SURFACE) MID-FLOOD	[12-JUL-2012]	HK1217048-046		**3.5**				
CS-2 (SURFACE) MID-FLOOD	[12-JUL-2012]	HK1217048-047		**3.4**				
CS-2 (SURFACE) MID-FLOOD	[12-JUL-2012]	HK1217048-048		**3.5**				
CS-2 (MIDDLE) MID-FLOOD	[12-JUL-2012]	HK1217048-049		**3.1**				
CS-2 (MIDDLE) MID-FLOOD	[12-JUL-2012]	HK1217048-050		**3.8**				
CS-2 (MIDDLE) MID-FLOOD	[12-JUL-2012]	HK1217048-051		**2.6**				
CS-2 (BOTTOM) MID-FLOOD	[12-JUL-2012]	HK1217048-052		**2.1**				
CS-2 (BOTTOM) MID-FLOOD	[12-JUL-2012]	HK1217048-053		**2.4**				
CS-2 (BOTTOM) MID-FLOOD	[12-JUL-2012]	HK1217048-054		**2.0**				

Laboratory Duplicate (DUP) Report

Matrix: **WATER**

				Laboratory Duplicate (DUP) Report				
Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)
EA/ED: Physical and Aggregate Properties (QC Lot: 2413791)								
HK1217048-001	IS-1 (SURFACE) MID-EBB	EA025: Suspended Solids (SS)	----	0.1	mg/L	3.7	4.4	17.2
HK1217048-011	CS-1 (SURFACE) MID-EBB	EA025: Suspended Solids (SS)	----	0.1	mg/L	5.4	4.8	10.3
EA/ED: Physical and Aggregate Properties (QC Lot: 2413792)								
HK1217048-021	CS-2 (SURFACE) MID-EBB	EA025: Suspended Solids (SS)	----	0.1	mg/L	4.5	4.7	4.4
HK1217048-031	IS-1 (MIDDLE) MID-FLOOD	EA025: Suspended Solids (SS)	----	0.1	mg/L	4.8	5.6	14.5
EA/ED: Physical and Aggregate Properties (QC Lot: 2413793)								
HK1217048-041	CS-1 (MIDDLE) MID-FLOOD	EA025: Suspended Solids (SS)	----	0.1	mg/L	6.0	5.0	17.8
HK1217048-051	CS-2 (MIDDLE) MID-FLOOD	EA025: Suspended Solids (SS)	----	0.1	mg/L	2.6	3.1	16.6

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

Matrix: **WATER**

		Method Blank (MB) Report			Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report						
					Spike	Spike Recovery (%)		Recovery Limits (%)		RPDs (%)	
Method: Compound	CAS Number	LOR	Unit	Result	Concentration	LCS	DCS	Low	High	Value	Control Limit
EA/ED: Physical and Aggregate Properties (QCLot: 2413791)											
EA025: Suspended Solids (SS)	----	0.5	mg/L	<0.5	20.0 mg/L	100	----	85	115	----	----
EA/ED: Physical and Aggregate Properties (QCLot: 2413792)											
EA025: Suspended Solids (SS)	----	0.5	mg/L	<0.5	20.0 mg/L	92.5	----	85	115	----	----
EA/ED: Physical and Aggregate Properties (QCLot: 2413793)											
EA025: Suspended Solids (SS)	----	0.5	mg/L	<0.5	20.0 mg/L	94.5	----	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.**

CERTIFICATE OF ANALYSIS

Client	: **AECOM ASIA COMPANY LIMITED**	*Laboratory*	: **ALS Technichem HK Pty Ltd**	*Page*	: **1 of 4**		
Contact	: **MS LEMON LAM**	*Contact*	: **Chan Kwok Fai, Godfrey**	*Work Order*	: **HK1217050**		
Address	: **11/F, TOWER 2, GRAND CENTRAL PLAZA, 138 SHATIN RURAL COMMITTEE ROAD, SHATIN, N.T. HONG KONG**	*Address*	: **11/F., Chung Shun Knitting Centre, 1 - 3 Wing Yip Street, Kwai Chung, N.T., Hong Kong**				
E-mail	: **lemon.lam@aecom.com**	*E-mail*	: **Godfrey.Chan@alsglobal.com**				
Telephone	: **+852 2605 6262**	*Telephone*	: **+852 2610 1044**				
Facsimile	: **+852 2691 2649**	*Facsimile*	: **+852 2610 2021**				
Project	: **BASELINE WATER QUALITY MONITORING FOR SCL**	*Quote number*	: **----**	*Date received*	: **16-JUL-2012**		
Order number	: **60050763**			*Date of issue*	: **21-JUL-2012**		
C-O-C number	: **----**			*No. of samples*	- *Received* :	**54**	
Site	: **----**				- *Analysed* :	**54**	

Report Comments

This report for ALS Technichem (HK) Pty Ltd work order reference HK1217050 supersedes any previous reports with this reference. The completion date of analysis is 21-JUL-2012. 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 HK1217050 :

Sample(s) were picked up from client by ALS Technichem (HK) staff in a chilled condition.

Water sample(s) analysed and reported on an as received basis.

The accredited LOR for suspended solids is 2mg/L. The results reported below the accredited LOR and the decimal value of the results were for reference only.

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**

Analytical Results

Sub-Matrix: **WATER**

Client sample ID	Client sampling date / time	Laboratory sample ID	Compound: EA025: Suspended Solids (SS)				
			LOR Unit: 0.1 mg/L				
			EA/ED: Physical and Aggregate Properties				
IS-1 (SURFACE) MID-EBB	[14-JUL-2012]	HK1217050-001	**3.7**				
IS-1 (SURFACE) MID-EBB	[14-JUL-2012]	HK1217050-002	**3.8**				
IS-1 (SURFACE) MID-EBB	[14-JUL-2012]	HK1217050-003	**3.7**				
IS-1 (MIDDLE) MID-EBB	[14-JUL-2012]	HK1217050-004	**4.1**				
IS-1 (MIDDLE) MID-EBB	[14-JUL-2012]	HK1217050-005	**5.4**				
IS-1 (MIDDLE) MID-EBB	[14-JUL-2012]	HK1217050-006	**3.4**				
IS-1 (BOTTOM) MID-EBB	[14-JUL-2012]	HK1217050-007	**3.6**				
IS-1 (BOTTOM) MID-EBB	[14-JUL-2012]	HK1217050-008	**3.5**				
IS-1 (BOTTOM) MID-EBB	[14-JUL-2012]	HK1217050-009	**3.6**				
CS-1 (SURFACE) MID-EBB	[14-JUL-2012]	HK1217050-010	**4.3**				
CS-1 (SURFACE) MID-EBB	[14-JUL-2012]	HK1217050-011	**3.6**				
CS-1 (SURFACE) MID-EBB	[14-JUL-2012]	HK1217050-012	**4.1**				
CS-1 (MIDDLE) MID-EBB	[14-JUL-2012]	HK1217050-013	**5.1**				
CS-1 (MIDDLE) MID-EBB	[14-JUL-2012]	HK1217050-014	**5.3**				
CS-1 (MIDDLE) MID-EBB	[14-JUL-2012]	HK1217050-015	**4.1**				
CS-1 (BOTTOM) MID-EBB	[14-JUL-2012]	HK1217050-016	**4.8**				
CS-1 (BOTTOM) MID-EBB	[14-JUL-2012]	HK1217050-017	**4.3**				
CS-1 (BOTTOM) MID-EBB	[14-JUL-2012]	HK1217050-018	**3.7**				
CS-2 (SURFACE) MID-EBB	[14-JUL-2012]	HK1217050-019	**5.4**				
CS-2 (SURFACE) MID-EBB	[14-JUL-2012]	HK1217050-020	**3.3**				
CS-2 (SURFACE) MID-EBB	[14-JUL-2012]	HK1217050-021	**3.8**				
CS-2 (MIDDLE) MID-EBB	[14-JUL-2012]	HK1217050-022	**3.5**				
CS-2 (MIDDLE) MID-EBB	[14-JUL-2012]	HK1217050-023	**4.4**				
CS-2 (MIDDLE) MID-EBB	[14-JUL-2012]	HK1217050-024	**4.0**				
CS-2 (BOTTOM) MID-EBB	[14-JUL-2012]	HK1217050-025	**3.6**				
CS-2 (BOTTOM) MID-EBB	[14-JUL-2012]	HK1217050-026	**3.9**				
CS-2 (BOTTOM) MID-EBB	[14-JUL-2012]	HK1217050-027	**3.7**				
IS-1 (SURFACE) MID-FLOOD	[14-JUL-2012]	HK1217050-028	**4.9**				
IS-1 (SURFACE) MID-FLOOD	[14-JUL-2012]	HK1217050-029	**4.4**				
IS-1 (SURFACE) MID-FLOOD	[14-JUL-2012]	HK1217050-030	**6.0**				
IS-1 (MIDDLE) MID-FLOOD	[14-JUL-2012]	HK1217050-031	**4.5**				
IS-1 (MIDDLE) MID-FLOOD	[14-JUL-2012]	HK1217050-032	**4.9**				
IS-1 (MIDDLE) MID-FLOOD	[14-JUL-2012]	HK1217050-033	**6.2**				
IS-1 (BOTTOM) MID-FLOOD	[14-JUL-2012]	HK1217050-034	**5.2**				
IS-1 (BOTTOM) MID-FLOOD	[14-JUL-2012]	HK1217050-035	**6.3**				

Sub-Matrix: **WATER**

Client sample ID	*Client sampling date / time*	*Laboratory sample ID*	*Compound*	**EA025: Suspended Solids (SS)**				
			LOR Unit	0.1 mg/L				
				EA/ED: Physical and Aggregate Properties				
IS-1 (BOTTOM) MID-FLOOD	[14-JUL-2012]	HK1217050-036		**4.7**				
CS-1 (SURFACE) MID-FLOOD	[14-JUL-2012]	HK1217050-037		**7.1**				
CS-1 (SURFACE) MID-FLOOD	[14-JUL-2012]	HK1217050-038		**5.6**				
CS-1 (SURFACE) MID-FLOOD	[14-JUL-2012]	HK1217050-039		**6.1**				
CS-1 (MIDDLE) MID-FLOOD	[14-JUL-2012]	HK1217050-040		**5.5**				
CS-1 (MIDDLE) MID-FLOOD	[14-JUL-2012]	HK1217050-041		**7.2**				
CS-1 (MIDDLE) MID-FLOOD	[14-JUL-2012]	HK1217050-042		**5.7**				
CS-1 (BOTTOM) MID-FLOOD	[14-JUL-2012]	HK1217050-043		**5.9**				
CS-1 (BOTTOM) MID-FLOOD	[14-JUL-2012]	HK1217050-044		**5.7**				
CS-1 (BOTTOM) MID-FLOOD	[14-JUL-2012]	HK1217050-045		**4.4**				
CS-2 (SURFACE) MID-FLOOD	[14-JUL-2012]	HK1217050-046		**4.8**				
CS-2 (SURFACE) MID-FLOOD	[14-JUL-2012]	HK1217050-047		**3.3**				
CS-2 (SURFACE) MID-FLOOD	[14-JUL-2012]	HK1217050-048		**4.4**				
CS-2 (MIDDLE) MID-FLOOD	[14-JUL-2012]	HK1217050-049		**3.5**				
CS-2 (MIDDLE) MID-FLOOD	[14-JUL-2012]	HK1217050-050		**4.8**				
CS-2 (MIDDLE) MID-FLOOD	[14-JUL-2012]	HK1217050-051		**4.2**				
CS-2 (BOTTOM) MID-FLOOD	[14-JUL-2012]	HK1217050-052		**3.8**				
CS-2 (BOTTOM) MID-FLOOD	[14-JUL-2012]	HK1217050-053		**5.1**				
CS-2 (BOTTOM) MID-FLOOD	[14-JUL-2012]	HK1217050-054		**3.8**				

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: 2413794)								
HK1217050-001	IS-1 (SURFACE) MID-EBB	EA025: Suspended Solids (SS)	----	0.1	mg/L	3.7	3.9	4.6
HK1217050-011	CS-1 (SURFACE) MID-EBB	EA025: Suspended Solids (SS)	----	0.1	mg/L	3.6	3.0	19.8
EA/ED: Physical and Aggregate Properties (QC Lot: 2413795)								
HK1217050-021	CS-2 (SURFACE) MID-EBB	EA025: Suspended Solids (SS)	----	0.1	mg/L	3.8	4.4	14.7
HK1217050-031	IS-1 (MIDDLE) MID-FLOOD	EA025: Suspended Solids (SS)	----	0.1	mg/L	4.5	4.7	4.9
EA/ED: Physical and Aggregate Properties (QC Lot: 2413796)								
HK1217050-041	CS-1 (MIDDLE) MID-FLOOD	EA025: Suspended Solids (SS)	----	0.1	mg/L	7.2	7.3	0.0
HK1217050-051	CS-2 (MIDDLE) MID-FLOOD	EA025: Suspended Solids (SS)	----	0.1	mg/L	4.2	4.5	5.7

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: 2413794)											
EA025: Suspended Solids (SS)	----	0.5	mg/L	<0.5	20.0 mg/L	96.0	----	85	115	----	----
EA/ED: Physical and Aggregate Properties (QCLot: 2413795)											
EA025: Suspended Solids (SS)	----	0.5	mg/L	<0.5	20.0 mg/L	100	----	85	115	----	----
EA/ED: Physical and Aggregate Properties (QCLot: 2413796)											
EA025: Suspended Solids (SS)	----	0.5	mg/L	<0.5	20.0 mg/L	100	----	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.**

Appendix D

Baseline Water Quality Monitoring Results

Water Quality Monitoring Results at IS-1 - Mid-Ebb Tide

Date	Weather Condition	Sea Condition**	Sampling Time	Depth (m)		Temperature (^{o}C)		Salinity (ppt)		pH		DO Saturation (%)		Dissolved Oxygen (mg/L)			Turbidity(NTU)			Suspended Solids (mg/L)		
						Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*
16-Jun-12	Cloudy/Rainy	Calm	10:30	Surface	1	27.6		30.0		8.2		91.5		6.1			1.0			2.6		
						27.7	27.6	30.2	30.1	8.3	8.2	90.8	91.2	6.0	6.1		1.1	1.1		2.3	2.5	
						-		-		-		-		-		6.0	-			2.5		
				Middle	4.3	27.6		30.5		8.3		88.0		5.9			1.9			2.2		
						27.7	27.6	30.4	30.4	8.2	8.2	90.3	89.2	6.0	5.9		1.8	1.9	3.8	2.9	2.4	2.9
						-		-		-		-		-			-			2.1		
				Bottom	7.6	27.6		30.7		8.3		90.2		6.0			8.5			4.1		
						27.6	27.6	30.7	30.7	8.3	8.3	91.7	91.0	6.1	6.0	6.0	8.6	8.6		3.3	3.8	
						-		-		-		-		-			-			4.0		
21-Jun-12	Cloudy/Rainy	Calm	13:22	Surface	1	28.3		29.4		8.2		71.0		4.7			1.7			5.5		
						28.3	28.3	29.4	29.4	8.2	8.2	69.8	70.5	4.6	4.7		1.6	1.6		5.8	5.6	
						28.3		29.4		8.2		70.7		4.7		4.7	1.6			5.6		
				Middle	5.2	28.3		29.6		8.2		72.8		4.8			3.6			2.9		
						28.2	28.3	29.7	29.7	8.2	8.2	72.6	71.7	4.8	4.7		3.7	3.6	3.5	4.3	3.8	4.9
						28.2		29.6		8.2		69.6		4.6			3.6			4.2		
				Bottom	9.3	28.0		30.0		8.2		71.6		4.7			5.2			5.4		
						28.1	28.1	29.9	29.9	8.2	8.2	72.6	71.8	4.8	4.8	4.8	5.1	5.1		4.8	5.4	
						28.2		29.7		8.2		71.2		4.7			5.1			5.9		
23-Jun-12	Cloudy	Calm	14:28	Surface	1	28.4		27.7		8.2		69.8		4.7			1.9			4.0		
						28.3	28.3	27.8	27.7	8.2	8.2	69.2	69.4	4.6	4.6		2.0	1.9		4.6	4.3	
						28.3		27.8		8.2		69.2		4.6		4.6	1.8			4.2		
				Middle	4.1	28.3		27.8		8.2		68.8		4.6			2.3			3.7		
						28.3	28.3	27.9	27.8	8.2	8.2	68.4	68.6	4.6	4.6		2.2	2.2	2.2	3.7	3.8	4.0
						28.3		27.8		8.2		68.5		4.6			2.1			4.0		
				Bottom	7.1	28.2		28.0		8.2		68.2		4.6			2.4			4.3		
						28.2	28.2	28.0	28.0	8.2	8.2	68.2	68.2	4.6	4.6	4.6	2.4	2.4		3.6	3.9	
						28.2		28.1		8.1		68.3		4.6			2.5			3.9		
26-Jun-12	Sunny	Calm	17:12	Surface	1	28.2		23.0		8.2		80.6		5.5			0.8			1.7		
						28.3	28.2	23.1	23.1	8.2	8.2	80.6	80.6	5.5	5.5		0.7	0.7		1.8	1.7	
						28.2		23.1		8.2		80.5		5.5		5.5	0.7			1.7		
				Middle	4.4	28.2		23.3		8.1		79.6		5.4			1.1			2.7		
						28.2	28.2	23.2	23.2	8.2	8.2	79.4	79.7	5.5	5.4		1.1	1.1	1.8	2.7	2.8	2.5
						28.2		23.2		8.2		80.2		5.5			1.0			2.9		
				Bottom	7.7	27.8		24.8		8.1		72.3		4.8			3.6			3.0		
						28.1	28.0	23.8	24.3	8.1	8.1	76.9	74.5	5.3	5.2	5.2	3.4	3.5		2.8	3.1	
						28.0		24.5		8.1		74.3		5.7			3.4			3.4		
28-Jun-12	Sunny	Moderate	7:27	Surface	1	28.2		19.9		8.2		80.9		5.6			0.8			4.4		
						28.2	28.2	19.7	19.7	8.2	8.2	81.0	80.8	5.6	5.6		0.8	0.8		4.4	4.3	
						28.3		19.6		8.2		80.4		5.6		5.5	0.7			4.2		
				Middle	4.3	28.0		20.6		8.2		77.7		5.4			1.3			3.5		
						28.0	28.0	20.7	20.6	8.2	8.2	77.6	77.6	5.4	5.4		1.4	1.3	1.4	3.1	3.2	3.5
						28.0		20.6		8.2		77.4		5.4			1.3			3.1		
				Bottom	7.6	27.8		21.5		8.2		72.5		5.0			2.0			3.3		
						27.7	27.8	21.9	21.6	8.2	8.2	72.7	72.8	5.1	5.1	5.1	1.8	2.0		2.0	2.9	
						27.8		21.5		8.2		73.3		5.1			2.2			3.4		
1-Jul-12	Fine	Calm	10:33	Surface	1	26.7		31.8		8.2		71.3		4.8			1.0			1.8		
						26.7	26.7	31.9	31.9	8.2	8.2	70.9	71.0	4.7	4.7		0.9	1.0		1.8	2.0	
						26.7		31.9		8.2		70.9		4.7		4.7	1.0			2.5		
				Middle	4.3	26.6		32.1		8.2		70.3		4.7			1.9			2.1		
						26.5	26.6	32.0	32.0	8.2	8.2	70.0	70.2	4.5	4.6		1.9	1.9	2.4	1.4	1.7	2.0
						26.6		31.8		8.2		70.2		4.7			2.0			1.7		
				Bottom	7.5	26.4		32.3		8.2		68.6		4.9			4.5			2.4		
						26.5	26.4	32.0	32.2	8.2	8.2	67.5	67.6	4.5	4.7	4.7	4.2	4.3		2.8	2.3	
						26.3		32.2		8.2		66.6		4.8			4.3			1.7		

Remark: * DA: Depth-Averaged

**** Calm: Small or no wave; Moderate: Between calm and rough; Rough: White capped or rougher**

Water Quality Monitoring Results at IS-1 - Mid-Ebb Tide

Date	Weather Condition	Sea Condition**	Sampling Time	Depth (m)		Temperature (^{o}C)		Salinity (ppt)		pH		DO Saturation (%)		Dissolved Oxygen (mg/L)			Turbidity(NTU)			Suspended Solids (mg/L)		
						Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*
3-Jul-12	Sunny	Calm	11:38	Surface	1	28.3	28.3	31.0	29.4	8.2	8.2	72.6	72.7	4.9	4.9	4.8	0.9	0.9	1.8	3.5	3.1	2.0
						28.3		30.9		8.2		72.2		4.8			0.9			2.9		
						28.4		26.2		8.2		73.2		4.9			0.8			2.8		
				Middle	4.2	28.3	28.3	31.2	30.5	8.2	8.2	71.4	71.4	4.7	4.8		1.1	1.1		1.6	1.7	
						28.3		31.2		8.2		71.3		4.8			1.2			1.9		
						28.3		29.1		8.2		71.6		4.8			1.1			1.5		
				Bottom	7.4	28.2	28.2	30.6	30.7	8.2	8.1	70.8	70.9	5.0	4.8	4.8	3.5	3.5		1.5	1.3	
						28.2		30.9		8.1		70.8		4.7			3.4			1.3		
						28.3		30.7		8.1		71.2		4.8			3.5			1.2		
5-Jul-12	Cloudy	Moderate	13:14	Surface	1	28.3	28.3	29.6	29.6	8.2	8.2	90.4	86.6	6.3	6.1	6.1	2.6	2.6	2.6	2.2	2.1	2.0
						28.3		29.7		8.2		85.1		6.0			2.6			2.4		
						28.3		29.6		8.2		84.3		5.9			2.6			1.7		
				Middle	4.9	28.3	28.3	29.7	29.7	8.2	8.2	90.7	88.4	6.3	6.2		2.6	2.6		1.3	1.8	
						28.3		29.7		8.2		87.2		6.1			2.6			2.0		
						28.2		29.6		8.2		87.4		6.1			2.6			2.2		
				Bottom	8.8	28.3	28.3	29.7	29.7	8.2	8.2	92.8	90.7	6.5	6.3	6.3	2.6	2.6		2.1	2.2	
						28.3		29.6		8.2		90.1		6.3			2.6			2.1		
						28.3		29.7		8.2		89.1		6.2			2.6			2.3		
7-Jul-12	Cloudy	Moderate	14:45	Surface	1	28.0	28.1	28.7	28.7	8.2	8.2	88.6	84.8	6.1	5.8	5.9	2.7	2.7	2.7	5.1	4.9	6.3
						28.1		28.7		8.2		82.5		5.7			2.8			4.7		
						28.2		28.8		8.2		83.3		5.8			2.8			5.0		
				Middle	4.7	28.1	28.1	29.0	28.9	8.2	8.2	85.4	86.7	5.9	6.0		2.8	2.8		6.2	4.8	
						28.0		28.8		8.2		85.9		5.9			2.8			4.3		
						28.1		28.8		8.2		88.9		6.1			2.8			3.8		
				Bottom	8.4	28.1	28.1	29.0	28.8	8.2	8.2	91.0	88.9	6.3	6.1	6.1	2.7	2.7		9.2	9.1	
						28.1		28.8		8.3		87.3		6.0			2.7			8.8		
						28.1		28.7		8.2		88.3		6.1			2.8			9.4		
10-Jul-12	Sunny	Calm	16:55	Surface	1	28.1	28.2	24.7	24.7	8.4	8.4	80.2	79.4	6.8	6.8	6.4	2.8	2.7	3.7	5.3	5.5	5.4
						28.3		24.6		8.4		78.3		6.5			2.6			5.0		
						28.2		24.8		8.4		79.8		7.0			2.6			6.1		
				Middle	4.3	27.7	27.4	25.1	25.7	8.3	8.3	77.9	76.4	6.1	6.0		3.7	3.6		7.9	7.5	
						27.1		26.4		8.2		74.7		5.8			3.7			7.3		
						27.4		25.7		8.3		76.5		6.1			3.5			7.2		
				Bottom	7.6	26.2	26.2	28.5	28.5	8.2	8.2	72.6	71.3	5.5	5.2	5.2	4.8	4.9		2.8	3.2	
						26.0		28.9		8.2		70.6		4.9			4.9			3.1		
						26.4		28.2		8.2		70.6		5.4			4.9			3.7		
12-Jul-12	Sunny	Calm	7:23	Surface	1	28.5	28.5	21.8	21.8	8.5	8.5	135.4	131.5	9.3	9.0	8.6	2.5	2.5	4.6	3.7	4.3	4.0
						28.5		21.9		8.5		129.7		8.9			2.6			3.6		
						28.5		21.8		8.5		129.3		8.9			2.5			5.7		
				Middle	4.1	28.2	28.1	22.3	22.3	8.4	8.4	123.4	117.7	8.5	8.1		5.0	4.8		4.0	4.0	
						28.1		22.3		8.4		115.4		8.0			4.8			4.5		
						28.1		22.3		8.4		114.2		7.9			4.7			3.5		
				Bottom	7.2	28.0	27.9	23.2	23.6	8.4	8.4	120.0	120.9	8.3	8.3	8.3	6.3	6.5		4.0	3.8	
						27.9		23.5		8.4		124.1		8.5			6.5			2.9		
						27.7		24.1		8.3		118.6		8.2			6.6			4.5		
14-Jul-12	Sunny	Calm	9:39	Surface	1	29.1	29.2	20.2	20.2	8.6	8.6	71.7	72.4	5.1	5.2	4.8	2.3	2.3	4.8	3.7	3.7	3.9
						29.2		20.2		8.6		72.7		5.2			2.4			3.8		
						29.2		20.2		8.6		72.9		5.4			2.2			3.7		
				Middle	4.3	28.2	27.9	21.0	21.9	8.4	8.4	67.5	67.8	4.3	4.4		5.9	5.8		4.1	4.3	
						27.6		22.7		8.3		67.9		4.3			5.8			5.4		
						27.9		21.9		8.4		67.9		4.5			5.6			3.4		
				Bottom	7.6	24.6	25.3	30.0	28.4	8.1	8.1	61.2	62.2	3.6	3.7	3.7	6.2	6.3		3.6	3.6	
						25.7		27.5		8.1		62.8		3.6			6.2			3.5		
						25.6		27.8		8.2		62.5		3.8			6.5			3.6		

Remark: * DA: Depth-Averaged

**** Calm: Small or no wave; Moderate: Between calm and rough; Rough: White capped or rougher**

Water Quality Monitoring Results on IS-1 - Mid-Flood Tide

Location	Weather Condition	Sea Condition**	Sampling Time	Depth (m)		Temperature (^{0}C)		Salinity (ppt)		pH		DO Saturation (%)		Dissolved Oxygen (mg/L)			Turbidity(NTU)			Suspended Solids (mg/L)		
						Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*
16-Jun-12	Cloudy/Rainy	Calm	17:03	Surface	1	27.5	27.5	29.4	29.3	8.3	8.3	95.2	94.7	6.4	6.3		1.3	1.3		3.4	3.6	
						27.5		28.9		8.3		93.8		6.3			1.3			3.0		
						27.6		29.7		8.3		95.0		6.4		6.1	1.4			4.4		
				Middle	4.2	27.6	27.6	30.5	30.5	8.3	8.3	88.2	88.0	5.9	5.9		3.1	3.2	3.6	2.9	3.5	3.3
						27.6		30.5		8.3		87.8		5.8			3.2			5.0		
						27.6		30.5		8.2		88.1		5.9			3.3			2.6		
				Bottom	7.3	27.6	27.6	30.7	30.7	8.3	8.3	87.7	87.6	5.8	5.8	5.8	6.4	6.3		2.9	2.9	
						27.6		30.8		8.3		87.1		5.8			6.3			2.9		
						27.6		30.7		8.3		88.1		5.9			6.3			2.9		
21-Jun-12	Cloudy/Rainy	Calm	19:41	Surface	1	28.3	28.3	29.5	29.5	8.2	8.2	72.4	72.2	4.8	4.8		1.9	1.9		5.4	5.0	
						28.3		29.5		8.2		72.2		4.8			1.8			5.5		
						28.3		29.5		8.2		72.1		4.8		4.8	2.0			4.2		
				Middle	4.9	28.2	28.2	29.6	29.6	8.2	8.2	71.8	71.9	4.8	4.8		2.8	2.8	2.5	2.9	3.5	4.1
						28.2		29.6		8.2		71.9		4.8			2.8			3.2		
						28.2		29.6		8.2		72.0		4.8			2.9			4.4		
				Bottom	8.8	28.2	28.2	29.7	29.7	8.2	8.2	71.0	71.6	4.7	4.7	4.7	2.8	2.9		3.0	3.7	
						28.2		29.7		8.2		71.8		4.8			2.9			4.6		
						28.2		29.7		8.2		72.0		4.8			2.9			3.6		
23-Jun-12	Cloudy	Calm	7:49	Surface	1	28.2	28.2	27.1	27.2	8.2	8.1	71.4	70.0	4.8	4.7		1.6	1.6		3.1	3.0	
						28.2		27.1		8.1		70.6		4.7			1.7			3.2		
						28.1		27.4		8.1		68.1		4.4		4.6	1.6			2.8		
				Middle	4.6	28.1	28.1	27.7	27.8	8.1	8.1	67.3	66.8	4.5	4.5		2.8	2.7	3.0	2.6	2.8	2.8
						28.1		27.8		8.1		66.9		4.5			2.5			2.6		
						28.1		28.0		8.1		66.1		4.4			2.8			3.3		
				Bottom	8.2	28.1	28.1	28.3	28.3	8.1	8.1	65.0	65.5	4.3	4.4	4.4	4.6	4.6		2.3	2.5	
						28.1		28.3		8.1		66.0		4.4			4.5			2.7		
						28.1		28.2		8.1		65.4		4.4			4.7			2.4		
26-Jun-12	Sunny	Calm	10:20	Surface	2	28.2	28.2	22.9	23.1	8.2	8.2	76.2	76.2	5.2	5.2		0.4	0.4		2.7	4.1	
						28.2		23.0		8.2		76.2		5.2			0.4			4.5		
						28.2		23.4		8.2		76.1		5.2		5.1	0.3			5.1		
				Middle	4.5	28.2	28.2	23.4	23.3	8.2	8.2	74.4	73.3	5.1	5.0		1.2	1.1	1.6	4.2	3.7	4.7
						28.2		23.4		8.2		72.0		4.9			1.1			4.0		
						28.2		23.3		8.2		73.4		5.0			1.0			3.0		
				Bottom	7.9	27.9	27.9	25.3	24.9	8.1	8.1	67.6	70.1	4.6	4.8	4.8	3.4	3.3		5.8	6.4	
						28.1		24.2		8.2		74.0		5.1			3.1			6.2		
						27.9		25.2		8.1		68.8		4.7			3.4			7.2		
28-Jun-12	Sunny	Moderate	13:11	Surface	1	28.5	28.5	20.3	20.3	8.3	8.3	84.1	84.0	5.8	5.8		0.9	0.9		3.1	3.1	
						28.5		20.3		8.3		83.9		5.8			0.9			3.3		
						28.5		20.2		8.3		83.9		5.8		5.6	0.8			2.8		
				Middle	4.3	28.1	28.1	21.2	21.1	8.3	8.3	78.9	78.4	5.5	5.4		2.3	2.1	2.0	4.4	4.1	3.9
						28.1		21.1		8.3		78.2		5.4			2.1			3.7		
						28.2		21.1		8.3		78.1		5.4			2.0			4.2		
				Bottom	7.5	27.9	27.9	22.7	22.8	8.3	8.3	75.8	75.5	5.3	5.2	5.2	2.7	2.9		4.3	4.4	
						28.0		22.7		8.3		75.0		5.2			2.9			5.2		
						27.9		22.8		8.3		75.8		5.3			3.0			3.8		
1-Jul-12	Fine	Calm	17:01	Surface	1	26.7	26.7	32.2	32.1	8.2	8.2	76.4	76.1	5.1	5.1		1.1	1.2		2.3	1.6	
						26.8		32.3		8.2		74.2		5.0			1.2			1.1		
						26.7		31.8		8.2		77.7		5.2		5.1	1.2			1.5		
				Middle	4.5	26.6	26.6	32.3	32.3	8.2	8.2	77.7	76.0	5.2	5.1		2.0	1.9	2.3	2.2	2.7	2.0
						26.6		32.3		8.2		76.3		5.1			1.9			2.7		
						26.6		32.4		8.2		74.0		5.0			1.9			3.2		
				Bottom	7.9	26.5	26.5	32.4	32.4	8.1	8.2	75.2	73.8	5.8	5.2	5.2	3.8	3.7		2.1	1.6	
						26.5		32.5		8.2		72.5		4.9			3.6			1.4		
						26.5		32.4		8.2		73.7		4.9			3.8			1.2		

Remark: * DA: Depth-Averaged

**** Calm: Small or no wave; Moderate: Between calm and rough; Rough: White capped or rougher**

Water Quality Monitoring Results on IS-1 - Mid-Flood Tide

Location	Weather Condition	Sea Condition**	Sampling Time	Depth (m)		Temperature (^{o}C)		Salinity (ppt)		pH		DO Saturation (%)		Dissolved Oxygen (mg/L)			Turbidity(NTU)			Suspended Solids (mg/L)		
						Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*
3-Jul-12	Sunny	Calm	18:41	Surface	1	28.2	28.2	33.6	33.2	8.1	8.1	72.4	72.2	4.8	4.8	4.8	1.1	1.1	2.4	3.4	2.7	2.7
						28.2		32.2		8.1		72.2		4.8			1.1			2.3		
						28.2		33.8		8.1		72.1		4.8			1.0			2.5		
				Middle	4.3	28.1	28.1	32.5	32.9	8.2	8.2	72.0	71.9	4.8	4.8		2.3	2.2		3.0	2.6	
						28.1		33.5		8.2		71.9		4.8			2.3			2.1		
						28.1		32.6		8.2		71.8		4.8			2.1			2.8		
				Bottom	7.6	28.1	28.1	31.9	32.3	8.2	8.1	71.0	71.6	4.7	4.7	4.7	3.8	3.9		2.7	2.8	
						28.2		31.9		8.1		72.0		4.8			3.8			3.1		
						28.1		33.0		8.2		71.8		4.8			4.0			2.5		
5-Jul-12	Cloudy	Moderate	7:06	Surface	1	28.2	28.3	29.4	29.3	8.2	8.2	94.0	93.0	6.6	6.5	6.5	2.5	2.5	2.6	2.3	2.9	2.9
						28.3		29.3		8.2		92.9		6.5			2.5			3.3		
						28.3		29.3		8.2		92.0		6.4			2.5			3.2		
				Middle	5.1	28.1	28.1	29.8	29.8	8.2	8.2	94.2	93.3	6.6	6.5		2.6	2.6		2.3	2.5	
						28.1		29.8		8.2		93.5		6.5			2.6			2.2		
						28.1		29.7		8.2		92.3		6.4			2.6			2.9		
				Bottom	9.1	27.9	28.0	30.0	30.0	8.2	8.2	94.9	94.0	6.6	6.6	6.6	2.6	2.6		2.6	3.2	
						27.9		30.1		8.2		94.7		6.6			2.6			3.1		
						28.1		30.0		8.2		92.5		6.5			2.6			4.0		
7-Jul-12	Cloudy	Moderate	8:08	Surface	1	28.0	28.0	28.5	28.6	8.2	8.2	90.2	91.2	6.2	6.3	6.3	2.7	2.7	2.7	4.4	3.4	6.2
						28.1		28.6		8.2		91.1		6.3			2.7			2.9		
						27.9		28.7		8.2		92.2		6.4			2.7			2.8		
				Middle	4.3	27.8	27.8	29.0	29.1	8.2	8.2	90.5	91.5	6.2	6.3		2.7	2.7		5.5	5.0	
						27.8		29.2		8.2		92.4		6.3			2.7			5.8		
						27.8		29.0		8.2		91.7		6.3			2.7			3.6		
				Bottom	7.5	27.8	27.7	29.3	29.3	8.3	8.3	90.9	92.4	6.2	6.4	6.4	2.7	2.7		10.8	10.3	
						27.6		29.4		8.3		93.1		6.4			2.7			8.9		
						27.7		29.3		8.3		93.1		6.4			2.8			11.3		
10-Jul-12	Sunny	Calm	10:50	Surface	1	27.9	27.9	24.8	24.7	8.3	8.3	81.3	81.2	7.4	7.2	6.9	1.7	1.7	2.5	5.0	4.8	5.6
						27.9		24.7		8.3		80.9		7.2			1.8			4.6		
						28.0		24.6		8.3		81.5		7.1			1.7			4.8		
				Middle	4.5	27.7	27.6	24.9	25.0	8.3	8.3	78.4	77.3	6.9	6.6		2.6	2.6		6.2	6.1	
						27.6		25.0		8.3		77.3		6.5			2.5			7.1		
						27.6		25.1		8.3		76.3		6.4			2.6			5.0		
				Bottom	7.9	27.3	27.2	25.8	26.0	8.2	8.2	75.6	75.3	6.5	6.2	6.2	3.3	3.2		6.0	6.0	
						27.1		26.3		8.2		75.4		6.3			3.2			7.0		
						27.3		25.9		8.2		74.8		5.9			3.2			4.9		
12-Jul-12	Sunny	Calm	13:14	Surface	1	28.5	28.6	22.0	22.0	8.5	8.5	137.2	135.0	9.4	9.3	8.7	2.8	2.8	5.1	4.7	4.5	4.2
						28.6		22.0		8.5		133.1		9.1			2.8			4.0		
						28.7		21.9		8.5		134.8		9.2			2.7			4.7		
				Middle	4.1	28.1	28.1	22.4	22.4	8.4	8.4	115.5	118.2	8.0	8.2		5.5	5.5		4.8	4.7	
						28.2		22.3		8.4		120.5		8.3			5.4			4.8		
						28.2		22.4		8.4		118.7		8.2			5.5			4.5		
				Bottom	7.1	28.0	28.0	23.2	23.2	8.4	8.4	113.6	116.6	7.8	8.0	8.0	6.9	6.9		3.3	3.5	
						28.0		23.2		8.4		118.9		8.2			6.8			3.9		
						28.0		23.2		8.4		117.3		8.1			7.1			3.4		
14-Jul-12	Sunny	Calm	16:41	Surface	1	29.0	29.0	20.2	20.2	8.6	8.6	73.0	74.0	4.9	5.9	5.2	2.1	2.2	4.7	4.9	5.1	5.2
						29.0		20.2		8.6		74.3		7.8			2.2			4.4		
						29.0		20.2		8.7		74.7		5.1			2.2			6.0		
				Middle	4.4	26.4	26.7	25.5	24.7	8.2	8.2	68.2	67.8	4.4	4.5		5.4	5.5		4.5	5.2	
						27.2		23.8		8.3		68.1		4.4			5.4			4.9		
						26.7		24.7		8.2		67.2		4.7			5.6			6.2		
				Bottom	7.8	24.3	24.2	30.6	30.6	8.1	8.1	62.4	63.4	3.8	3.8	3.8	6.5	6.3		5.2	5.4	
						24.2		30.6		8.1		63.8		3.9			6.3			6.3		
						24.2		30.7		8.1		63.9		3.8			6.2			4.7		

Remark: * DA: Depth-Averaged

**** Calm: Small or no wave; Moderate: Between calm and rough; Rough: White capped or rougher**

Water Quality Monitoring Results at CS-1 - Mid-Ebb Tide

Date	Weather Condition	Sea Condition**	Sampling Time	Depth (m)		Temperature (^{0}C)		Salinity (ppt)		pH		DO Saturation (%)		Dissolved Oxygen (mg/L)			Turbidity(NTU)			Suspended Solids (mg/L)		
						Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*
16-Jun-12	Cloudy/Rainy	Calm	10:46	Surface	1	27.7	27.7	30.2	30.2	8.3	8.3	97.1	96.6	6.5	6.4	6.3	1.4	1.4	4.0	3.2	3.3	4.0
						27.7		30.2		8.3		96.0		6.4			1.4			3.7		
						-		-		-		-		-			-			3.0		
				Middle	5.5	27.6	27.6	30.6	30.7	8.3	8.3	92.7	91.7	6.2	6.1		4.2	4.3		6.4	4.5	
						27.6		30.7		8.3		90.7		6.0			4.3			3.5		
						-		-		-		-		-			-			3.5		
				Bottom	10.0	27.4	27.4	31.1	31.1	8.2	8.2	73.3	74.5	4.9	5.0	5.0	6.4	6.3		4.9	4.4	
						27.4		31.1		8.2		75.7		5.0			6.2			4.7		
						-		-		-		-		-			-			3.5		
21-Jun-12	Cloudy/Rainy	Calm	13:41	Surface	1	28.3	28.3	29.2	29.2	8.2	8.2	70.3	69.7	4.7	4.6	4.6	1.6	1.6	2.4	8.8	8.6	5.4
						28.3		29.2		8.2		69.2		4.6			1.6			9.4		
						28.3		29.2		8.2		69.5		4.6			1.7			7.7		
				Middle	5.2	28.2	28.2	29.7	29.6	8.2	8.2	68.8	69.2	4.6	4.6		2.2	2.3		4.1	3.5	
						28.2		29.6		8.2		70.3		4.7			2.3			3.2		
						28.2		29.6		8.2		68.4		4.5			2.3			3.3		
				Bottom	9.3	28.1	28.0	29.9	29.9	8.3	8.3	73.1	72.3	4.8	4.8	4.8	3.3	3.4		4.9	4.0	
						28.1		29.9		8.3		71.2		4.7			3.5			3.8		
						28.0		29.9		8.3		72.7		4.8			3.5			3.2		
23-Jun-12	Cloudy	Calm	14:38	Surface	1	28.5	28.4	27.4	27.5	8.2	8.2	70.9	70.8	4.7	4.7	4.5	1.2	1.2	2.4	3.2	3.2	3.1
						28.4		27.6		8.2		70.1		4.7			1.2			2.9		
						28.4		27.5		8.2		71.4		4.8			1.1			3.4		
				Middle	5.3	28.2	28.2	28.3	28.2	8.2	8.2	64.7	65.2	4.3	4.3		2.7	2.6		3.4	3.3	
						28.2		28.1		8.2		65.3		4.4			2.6			3.6		
						28.2		28.3		8.2		65.6		4.3			2.5			2.8		
				Bottom	9.5	28.1	28.1	28.4	28.5	8.2	8.2	64.9	64.6	4.3	4.3	4.3	3.3	3.3		2.9	2.9	
						28.2		28.4		8.2		64.8		4.4			3.3			3.3		
						28.1		28.5		8.2		64.1		4.3			3.4			2.5		
26-Jun-12	Sunny	Calm	16:31	Surface	1	28.3	28.3	23.2	23.2	8.1	8.1	83.9	81.9	5.7	5.6	5.3	0.7	0.7	2.7	2.8	3.3	2.6
						28.3		23.2		8.1		80.4		5.5			0.7			3.9		
						28.3		23.3		8.1		81.5		5.6			0.6			3.2		
				Middle	5.1	28.2	28.2	23.5	23.5	8.1	8.1	73.8	71.8	5.1	4.9		2.2	2.2		1.4	1.3	
						28.2		23.5		8.1		69.5		4.8			2.3			1.7		
						28.2		23.5		8.1		72.1		4.9			2.2			0.7		
				Bottom	9.2	27.3	27.1	27.8	28.2	8.1	8.1	64.6	63.6	4.4	4.3	4.3	5.3	5.3		2.8	3.1	
						27.2		28.0		8.1		62.4		4.2			5.4			3.6		
						27.0		28.9		8.0		63.9		4.3			5.3			2.9		
28-Jun-12	Sunny	Moderate	6:58	Surface	1	28.3	28.4	20.3	20.4	8.2	8.2	82.1	81.7	5.7	5.6	5.3	0.6	0.7	1.5	3.8	3.9	3.5
						28.4		20.4		8.2		81.4		5.6			0.6			4.2		
						28.4		20.6		8.2		81.5		5.6			0.8			3.8		
				Middle	5.3	27.9	27.9	21.0	21.0	8.2	8.2	72.1	71.9	5.0	5.0		1.7	1.6		3.4	3.5	
						27.9		21.0		8.2		72.4		5.0			1.6			3.6		
						27.9		20.9		8.2		71.2		4.9			1.6			3.4		
				Bottom	9.6	26.8	26.8	24.9	25.3	8.1	8.1	59.5	59.4	4.1	4.1	4.1	2.1	2.1		2.8	3.2	
						26.7		26.1		8.1		59.3		4.1			2.2			3.2		
						26.8		25.0		8.1		59.5		4.1			2.0			3.5		
1-Jul-12	Fine	Calm	9:53	Surface	1	26.9	26.9	23.2	24.0	8.1	8.1	80.5	78.2	5.8	5.5	5.2	1.2	1.2	2.4	1.7	1.6	1.5
						26.8		24.8		8.1		78.3		5.5			1.1			1.5		
						26.9		24.2		8.2		75.7		5.1			1.2			1.5		
				Middle	5.3	26.4	26.4	26.2	27.1	8.1	8.1	71.2	72.2	5.0	5.0		2.2	2.3		1.8	1.5	
						26.4		27.2		8.1		72.7		5.1			2.4			1.0		
						26.5		27.9		8.1		72.8		4.9			2.3			1.7		
				Bottom	9.6	26.2	26.2	30.0	29.4	8.2	8.1	71.0	71.3	4.9	4.9	4.9	3.6	3.7		1.4	1.5	
						26.1		29.1		8.1		70.7		5.0			3.7			1.3		
						26.2		29.1		8.1		72.3		5.0			3.8			1.7		

Remark: * DA: Depth-Averaged

**** Calm: Small or no wave; Moderate: Between calm and rough; Rough: White capped or rougher**

Water Quality Monitoring Results at CS-1 - Mid-Ebb Tide

Date	Weather Condition	Sea Condition**	Sampling Time	Depth (m)		Temperature (^{o}C)		Salinity (ppt)		pH		DO Saturation (%)		Dissolved Oxygen (mg/L)			Turbidity(NTU)			Suspended Solids (mg/L)		
						Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*
3-Jul-12	Sunny	Calm	11:49	Surface	1	28.4	28.4	31.2	30.1	8.2	8.2	69.2	69.7	4.6	4.6	4.6	1.1	1.0	2.7	1.8	1.5	2.5
						28.5		27.9		8.2		70.3		4.7			1.0			1.2		
						28.4		31.2		8.2		69.5		4.6			1.0			1.5		
				Middle	5.3	28.2	28.2	29.1	30.0	8.2	8.2	68.4	69.2	4.5	4.6		2.4	2.3		4.6	3.4	
						28.2		30.0		8.2		68.8		4.6			2.3			2.8		
						28.2		30.9		8.2		70.3		4.7			2.3			2.7		
				Bottom	9.5	28.1	28.1	24.8	26.3	8.2	8.2	72.7	72.3	4.8	4.8	4.8	4.8	4.8		2.3	2.6	
						28.2		30.9		8.2		71.2		4.7			4.9			2.5		
						28.1		23.2		8.2		73.1		4.8			4.8			3.0		
5-Jul-12	Cloudy	Moderate	13:00	Surface	1	28.3	28.4	29.5	29.5	8.2	8.2	83.9	84.3	5.6	5.6	5.6	2.8	2.8	2.8	2.4	2.9	2.9
						28.4		29.5		8.2		83.2		5.6			2.9			3.3		
						28.4		29.6		8.2		85.8		5.7			2.8			3.1		
				Middle	4.8	28.3	28.3	29.7	29.7	8.2	8.2	87.6	83.4	5.8	5.6		2.8	2.8		2.7	2.8	
						28.3		29.6		8.2		81.7		5.5			2.8			3.8		
						28.4		29.7		8.2		81.0		5.4			2.8			1.8		
				Bottom	8.6	28.3	28.3	29.8	29.7	8.2	8.2	84.3	83.1	5.6	5.5	5.5	2.9	2.9		2.2	3.1	
						28.2		29.7		8.2		82.8		5.5			2.9			3.2		
						28.3		29.5		8.2		82.3		5.5			2.8			4.0		
7-Jul-12	Cloudy	Moderate	14:32	Surface	1	28.2	28.2	28.9	28.8	8.2	8.2	87.3	86.0	5.9	5.8	5.8	2.9	3.0	3.0	3.5	3.7	3.7
						28.1		28.7		8.2		85.7		5.8			3.0			2.9		
						28.2		28.8		8.2		85.0		5.8			3.0			4.7		
				Middle	4.4	28.1	28.1	29.0	28.9	8.3	8.3	89.4	85.2	6.1	5.8		3.0	3.0		2.8	3.1	
						28.1		29.0		8.3		82.8		5.6			3.0			3.4		
						28.1		28.8		8.3		83.3		5.7			3.0			3.0		
				Bottom	7.8	28.1	28.1	29.0	29.0	8.3	8.3	84.1	84.9	5.7	5.8	5.8	3.0	3.0		5.4	4.4	
						27.9		29.0		8.3		84.6		5.7			3.0			4.0		
						28.2		29.1		8.3		86.1		5.8			3.0			3.7		
10-Jul-12	Sunny	Calm	16:21	Surface	1	28.3	28.3	24.9	24.9	8.4	8.4	86.9	85.5	7.8	7.8	6.5	2.4	2.5	3.6	4.5	5.0	5.7
						28.2		25.0		8.4		86.4		7.6			2.5			5.5		
						28.2		24.9		8.4		83.2		8.1			2.5			4.9		
				Middle	5.4	26.9	26.8	26.9	27.0	8.2	8.2	74.1	74.7	5.1	5.1		3.8	3.8		8.1	8.1	
						26.8		27.2		8.2		75.4		5.2			3.7			8.0		
						26.8		27.1		8.2		74.5		5.1			3.8			8.3		
				Bottom	9.7	27.8	27.6	31.2	31.3	8.2	8.2	59.3	60.4	4.1	4.5	4.5	4.5	4.6		4.3	4.0	
						27.5		31.5		8.2		61.5		4.3			4.5			4.0		
						27.6		31.3		8.2		60.3		5.2			4.7			3.6		
12-Jul-12	Sunny	Calm	7:09	Surface	1	28.4	28.4	22.1	22.1	8.5	8.5	141.7	141.3	9.7	9.7	9.4	2.4	2.4	2.4	5.0	5.2	5.7
						28.4		22.1		8.5		140.2		9.6			2.3			5.4		
						28.5		22.2		8.5		142.1		9.8			2.5			5.3		
				Middle	4.3	28.3	28.3	22.3	22.3	8.5	8.5	131.7	132.8	9.1	9.1		2.4	2.4		6.1	5.6	
						28.3		22.3		8.5		133.9		9.2			2.3			5.3		
						28.3		22.4		8.5		132.8		9.1			2.5			5.5		
				Bottom	7.6	28.1	28.1	23.0	22.9	8.4	8.4	124.7	129.8	8.6	8.9	8.9	2.5	2.4		5.5	6.1	
						28.2		22.9		8.4		133.8		9.2			2.3			7.3		
						28.1		22.9		8.4		130.8		9.0			2.5			5.6		
14-Jul-12	Sunny	Calm	9:19	Surface	1	29.3	29.2	20.3	20.3	8.6	8.6	78.3	79.1	6.1	6.2	5.6	2.1	2.1	3.7	4.3	4.0	4.4
						29.2		20.4		8.6		79.3		6.2			2.1			3.6		
						29.2		20.4		8.5		79.6		6.3			2.1			4.1		
				Middle	5.2	25.9	25.9	26.9	27.0	8.1	8.1	74.7	74.1	5.0	5.1		3.2	3.3		5.1	4.8	
						25.9		26.9		8.1		73.2		5.0			3.2			5.3		
						25.8		27.2		8.1		74.5		5.2			3.4			4.1		
				Bottom	9.4	24.0	23.9	30.9	31.0	8.0	8.1	57.3	57.6	3.6	3.4	3.4	5.6	5.6		4.8	4.3	
						23.9		31.1		8.1		56.9		3.0			5.4			4.3		
						23.9		31.2		8.1		58.6		3.7			5.8			3.7		

Remark: * DA: Depth-Averaged

**** Calm: Small or no wave; Moderate: Between calm and rough; Rough: White capped or rougher**

Water Quality Monitoring Results on CS-1 - Mid-Flood Tide

Location	Weather Condition	Sea Condition**	Sampling Time	Depth (m)		Temperature (^{0}C)		Salinity (ppt)		pH		DO Saturation (%)		Dissolved Oxygen (mg/L)			Turbidity(NTU)			Suspended Solids (mg/L)		
						Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*
16-Jun-12	Cloudy/Rainy	Calm	17:30	Surface	1	27.5	27.5	29.6	29.6	8.3	8.3	85.2	84.7	5.7	5.7	5.7	1.5	1.5	2.3	2.9	2.8	3.5
						27.5		29.7		8.3		84.7		5.7			1.5			3.0		
						27.5		29.7		8.3		84.3		5.6			1.5			2.6		
				Middle	5.4	27.5	27.5	30.0	29.9	8.3	8.3	84.6	85.1	5.6	5.7		2.3	2.2		4.9	3.6	
						27.6		30.0		8.3		85.9		5.7			2.2			2.8		
						27.5		29.9		8.3		84.9		5.7			2.1			3.0		
				Bottom	9.8	27.6	27.6	30.6	30.6	8.3	8.3	85.2	85.7	5.7	5.7	5.7	3.1	3.2		4.5	4.1	
						27.6		30.6		8.3		84.1		5.6			3.2			2.3		
						27.6		30.6		8.3		87.9		5.8			3.2			5.4		
21-Jun-12	Cloudy/Rainy	Calm	20:18	Surface	1	28.3	28.3	29.3	29.4	8.2	8.2	68.9	68.8	4.6	4.6	4.5	1.8	1.8	3.4	6.8	6.0	4.5
						28.3		29.4		8.2		68.7		4.6			1.7			5.8		
						28.2		29.5		8.2		68.9		4.6			1.9			5.4		
				Middle	5.1	28.2	28.2	29.5	29.6	8.2	8.2	68.1	68.4	4.5	4.5		2.8	2.9		2.6	3.4	
						28.2		29.5		8.2		68.0		4.5			2.9			4.5		
						28.1		29.7		8.2		69.1		4.6			3.0			3.0		
				Bottom	9.2	28.1	28.1	29.8	29.8	8.2	8.2	68.2	69.2	4.5	4.6	4.6	5.6	5.5		4.8	4.1	
						28.1		29.8		8.2		71.0		4.7			5.3			3.4		
						28.2		29.7		8.2		68.3		4.5			5.5			4.1		
23-Jun-12	Cloudy	Calm	8:08	Surface	1	28.2	28.2	27.2	27.2	8.2	8.2	69.7	70.2	4.7	4.7	4.6	2.0	2.0	2.7	3.0	2.8	2.2
						28.2		27.1		8.2		71.0		4.8			1.8			2.9		
						28.2		27.2		8.2		69.9		4.7			2.1			2.4		
				Middle	5.8	28.1	28.1	28.0	28.0	8.2	8.2	66.5	66.6	4.5	4.4		2.7	2.7		2.3	2.5	
						28.1		28.0		8.2		66.7		4.4			2.9			2.6		
						28.1		28.0		8.2		66.6		4.4			2.6			2.5		
				Bottom	10.5	28.1	28.1	28.4	28.4	8.2	8.2	66.4	66.2	4.7	4.5	4.5	3.2	3.4		1.4	1.4	
						28.1		28.5		8.2		66.3		4.4			3.6			1.2		
						28.1		28.3		8.2		65.9		4.4			3.5			1.7		
26-Jun-12	Sunny	Calm	9:52	Surface	1	28.2	28.2	23.2	23.2	8.2	8.2	77.3	75.0	5.3	5.1	5.0	1.1	1.1	2.9	3.6	4.4	4.8
						28.2		23.2		8.2		72.6		5.0			1.2			3.8		
						28.2		23.3		8.2		75.1		5.2			1.0			5.9		
				Middle	5.5	28.1	28.1	23.8	23.8	8.1	8.1	70.5	71.2	4.8	4.9		2.0	1.9		7.3	5.5	
						28.1		23.7		8.1		71.5		4.9			1.9			5.8		
						28.1		23.8		8.2		71.5		4.9			1.9			3.3		
				Bottom	9.9	27.7	27.6	26.0	26.3	8.1	8.1	66.9	65.7	4.6	4.5	4.5	5.7	5.7		5.4	4.6	
						27.7		26.1		8.1		64.1		4.4			5.8			4.7		
						27.5		26.9		8.1		66.0		4.5			5.7			3.6		
28-Jun-12	Sunny	Moderate	13:40	Surface	1	28.7	28.7	20.8	20.8	8.4	8.4	83.3	83.3	5.7	5.7	5.3	0.9	1.0	1.6	3.8	4.0	4.6
						28.7		20.8		8.4		83.7		5.8			1.0			3.9		
						28.6		20.8		8.4		82.8		5.7			1.0			4.2		
				Middle	5.5	27.9	27.9	23.5	23.5	8.3	8.3	69.2	69.2	4.8	4.8		1.7	1.6		3.3	4.6	
						27.9		23.5		8.3		70.0		4.9			1.6			4.1		
						27.9		23.5		8.3		68.4		4.7			1.4			6.4		
				Bottom	10.0	25.9	26.0	28.6	28.5	8.3	8.3	51.3	51.7	3.6	3.6	3.6	2.3	2.2		6.3	5.3	
						26.0		28.5		8.3		51.5		3.6			2.1			5.2		
						26.0		28.5		8.3		52.2		3.6			2.2			4.5		
1-Jul-12	Fine	Calm	17:46	Surface	1	27.4	27.2	31.9	32.3	8.2	8.2	75.2	76.7	4.9	5.1	5.0	1.0	0.9	1.9	1.8	2.8	2.6
						27.1		32.6		8.2		76.6		5.1			0.9			1.8		
						27.0		32.5		8.2		78.2		5.2			0.9			4.9		
				Middle	5.6	27.0	27.0	32.9	33.0	8.2	8.2	73.7	73.0	4.9	4.8		1.4	1.4		3.6	3.6	
						27.0		33.0		8.2		71.8		4.8			1.5			3.5		
						27.1		33.0		8.2		73.6		4.9			1.4			3.6		
				Bottom	10.2	26.5	26.5	33.6	33.6	8.2	8.2	71.0	71.4	4.7	4.7	4.7	3.4	3.4		1.5	1.5	
						26.5		33.8		8.2		70.9		4.7			3.3			1.5		
						26.6		33.5		8.2		72.2		4.8			3.5			1.4		

Remark: * DA: Depth-Averaged

**** Calm: Small or no wave; Moderate: Between calm and rough; Rough: White capped or rougher**

Water Quality Monitoring Results on CS-1 - Mid-Flood Tide

Location	Weather Condition	Sea Condition**	Sampling Time	Depth (m)		Temperature (^{o}C)		Salinity (ppt)		pH		DO Saturation (%)		Dissolved Oxygen (mg/L)			Turbidity(NTU)			Suspended Solids (mg/L)		
						Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*
3-Jul-12	Sunny	Calm	19:18	Surface	1	28.2		32.2		8.2		68.9		4.6			1.5			2.7		
						28.2	28.2	31.9	32.0	8.2	8.2	68.7	68.8	4.6	4.6		1.5	1.5		4.4	3.7	
						28.2		32.0		8.2		68.9		4.6		4.5	1.4			3.9		
				Middle	5.6	28.2		31.8		8.2		68.1		4.5			3.5			3.7		
						28.2	28.2	31.9	31.4	8.1	8.2	68.0	68.4	4.5	4.5		3.5	3.5	3.3	3.6	3.5	3.7
						28.2		30.6		8.2		69.1		4.6			3.6			3.2		
				Bottom	10.1	28.0		29.8		8.2		71.0		4.7			5.1			4.0		
						28.1	28.1	31.8	31.2	8.1	8.1	68.2	69.2	4.5	4.6	4.6	5.0	5.0		3.5	3.8	
						28.2		32.0		8.1		68.3		4.5			4.8			4.0		
5-Jul-12	Cloudy	Moderate	6:46	Surface	1	28.1		29.6		8.1		93.5		6.4			2.4			3.4		
						28.1	28.1	29.6	29.6	8.1	8.1	90.4	91.3	6.1	6.3		2.5	2.5		4.0	3.4	
						28.1		29.6		8.1		90.0		6.3		6.3	2.5			2.8		
				Middle	5.3	28.1		29.8		8.1		94.1		6.4			2.6			4.6		
						28.1	28.1	29.9	29.9	8.2	8.2	92.9	92.7	6.3	6.4		2.5	2.5	2.5	3.2	3.7	3.3
						28.1		30.0		8.2		91.1		6.4			2.5			3.2		
				Bottom	9.6	28.0		29.9		8.2		93.1		6.3			2.5			3.3		
						27.9	27.9	30.1	30.1	8.2	8.2	93.0	93.2	6.3	6.4	6.4	2.5	2.5		2.8	2.9	
						27.9		30.2		8.2		93.5		6.5			2.6			2.6		
7-Jul-12	Cloudy	Moderate	7:48	Surface	1	27.8		28.7		8.2		91.7		6.1			2.6			6.5		
						27.8	27.8	28.9	28.9	8.2	8.2	88.2	89.5	6.1	6.0		2.6	2.6		5.6	6.1	
						27.8		29.0		8.2		88.6		5.9		6.1	2.6			6.2		
				Middle	5.0	27.8		29.5		8.2		89.4		6.2			2.7			5.4		
						27.9	27.9	29.2	29.3	8.2	8.2	91.4	91.0	6.1	6.1		2.7	2.7	2.7	6.1	5.8	6.3
						27.9		29.1		8.2		92.3		6.2			2.7			5.9		
				Bottom	8.9	27.6		29.4		8.3		91.2		6.1			2.7			6.4		
						27.7	27.6	29.2	29.4	8.2	8.3	91.3	91.4	6.1	6.2	6.2	2.7	2.7		7.2	7.0	
						27.5		29.7		8.3		91.7		6.3			2.7			7.4		
10-Jul-12	Sunny	Calm	10:17	Surface	1	27.9		24.9		8.3		83.7		7.7			2.6			10.2		
						28.0	27.9	24.9	24.9	8.4	8.3	84.6	84.6	7.3	7.1		2.5	2.6		9.0	9.7	
						27.8		24.9		8.3		85.4		6.4		6.2	2.6			9.9		
				Middle	5.5	26.9		26.4		8.2		76.5		5.3			2.8			8.0		
						27.0	26.9	26.5	26.7	8.2	8.2	80.1	77.2	5.5	5.3		2.7	2.7	3.1	7.0	7.7	7.8
						26.7		27.3		8.2		75.0		5.2			2.7			8.2		
				Bottom	10.0	26.5		27.7		8.2		73.5		5.1			3.9			6.8		
						26.5	26.5	27.8	27.8	8.2	8.2	79.0	75.3	5.5	5.2	5.2	3.9	3.9		6.3	6.0	
						26.4		27.9		8.2		73.4		5.1			3.8			4.8		
12-Jul-12	Sunny	Calm	12:50	Surface	1	28.5		22.2		8.5		139.3		9.6			2.4			5.9		
						28.5	28.5	22.1	22.1	8.5	8.5	142.9	141.7	9.8	9.7		2.4	2.4		6.1	6.0	
						28.5		22.0		8.5		142.9		9.8		9.4	2.4			6.0		
				Middle	4.7	28.3		22.4		8.5		133.2		9.2			2.4			4.9		
						28.3	28.3	22.5	22.4	8.5	8.5	134.7	133.0	9.3	9.1		2.4	2.4	2.4	6.0	5.5	5.9
						28.3		22.3		8.5		131.1		9.0			2.4			5.7		
				Bottom	8.4	28.2		22.9		8.4		135.9		9.3			2.3			6.0		
						28.2	28.2	22.8	22.9	8.4	8.4	136.8	133.2	9.4	9.2	9.2	2.4	2.4		7.4	6.1	
						28.1		22.9		8.4		126.8		8.7			2.5			5.0		
14-Jul-12	Sunny	Calm	16:57	Surface	1	29.1		20.3		8.6		80.1		5.7			1.8			7.1		
						29.1	29.1	20.3	20.3	8.6	8.6	81.6	80.6	5.8	5.8		1.8	1.8		5.6	6.3	
						29.1		20.3		8.7		80.2		5.7		5.3	1.8			6.1		
				Middle	5.6	26.0		27.2		8.1		75.9		5.0			3.3			5.5		
						24.7	25.0	30.2	29.2	8.1	8.1	76.0	75.8	5.0	4.9		3.3	3.4	3.3	7.2	6.1	5.9
						24.3		30.3		8.1		75.6		4.9			3.5			5.7		
				Bottom	10.1	23.3		32.0		8.1		67.5		4.3			4.5			5.9		
						23.3	23.3	32.1	32.0	8.1	8.1	65.9	66.9	4.3	4.3	4.3	4.8	4.6		5.7	5.3	
						23.3		32.0		8.1		67.3		4.4			4.5			4.4		

Remark: * DA: Depth-Averaged

**** Calm: Small or no wave; Moderate: Between calm and rough; Rough: White capped or rougher**

Water Quality Monitoring Results at CS-2 - Mid-Ebb Tide

Date	Weather Condition	Sea Condition**	Sampling Time	Depth (m)		Temperature (^{o}C)		Salinity (ppt)		pH		DO Saturation (%)		Dissolved Oxygen (mg/L)			Turbidity(NTU)			Suspended Solids (mg/L)		
						Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*
16-Jun-12	Cloudy/Rainy	Calm	11:00	Surface	1	27.7	27.7	30.4	30.4	8.3	8.3	98.4	98.6	6.5	6.6	6.4	2.4	2.5	2.6	4.1	3.7	3.7
						27.7		30.4		8.3		98.7		6.6			2.6			4.0		
						-		-		-		-		-			-			3.1		
				Middle	4.1	27.6	27.6	30.5	30.5	8.4	8.4	95.2	95.0	6.3	6.3		1.6	1.6		3.1		
						27.6		30.5		8.4		94.8		6.3			1.6			4.4	3.8	
						-		-		-		-		-			-			4.0		
				Bottom	7.1	27.4	27.4	31.0	31.0	8.3	8.3	79.4	79.3	5.3	5.3	5.3	3.8	3.7		3.3	3.6	
						27.4		31.1		8.3		79.2		5.3			3.5			2.6		
						-		-		-		-		-			-			4.9		
21-Jun-12	Cloudy/Rainy	Calm	14:01	Surface	1	28.2	28.2	29.6	29.6	8.2	8.2	71.8	71.7	4.8	4.7	4.7	3.9	3.8	4.3	7.6	8.5	8.7
						28.2		29.6		8.2		71.9		4.8			3.9			9.1		
						28.2		29.5		8.2		71.4		4.7			3.7			8.8		
				Middle	4.9	28.2	28.2	29.6	29.6	8.2	8.2	71.2	71.2	4.7	4.7		3.8	3.9		7.8	8.1	
						28.2		29.6		8.2		71.0		4.7			3.9			9.3		
						28.2		29.6		8.2		71.4		4.7			4.0			7.1		
				Bottom	8.7	28.2	28.2	29.6	29.6	8.2	8.2	71.6	71.3	4.7	4.7	4.7	5.2	5.1		10.6	9.6	
						28.2		29.6		8.2		71.2		4.7			5.1			9.7		
						28.2		29.6		8.2		71.0		4.7			5.0			8.6		
23-Jun-12	Cloudy	Calm	15:16	Surface	1	28.3	28.3	27.5	27.6	8.2	8.2	70.0	70.1	4.7	4.7	4.7	1.9	2.0	2.4	3.0	3.6	3.5
						28.3		27.6		8.2		70.1		4.7			2.0			4.1		
						28.3		27.7		8.2		70.3		4.7			2.0			3.6		
				Middle	4.1	28.3	28.3	27.6	27.6	8.2	8.2	69.7	69.8	4.7	4.7		2.1	2.2		3.3	4.0	
						28.3		27.7		8.2		69.8		4.7			2.2			4.1		
						28.3		27.7		8.2		69.8		4.7			2.4			4.6		
				Bottom	7.1	28.3	28.3	27.8	27.7	8.2	8.2	69.6	69.6	4.7	4.7	4.7	3.1	2.9		3.0	2.8	
						28.3		27.7		8.2		69.7		4.7			2.9			2.6		
						28.3		27.6		8.2		69.6		4.7			2.8			2.9		
26-Jun-12	Sunny	Calm	16:48	Surface	1	28.3	28.3	23.4	23.4	8.2	8.2	82.5	81.8	5.7	5.6	5.5	0.6	0.6	2.0	3.0	3.0	3.4
						28.2		23.3		8.2		81.2		5.6			0.7			3.2		
						28.3		23.4		8.2		81.8		5.6			0.6			2.9		
				Middle	4.1	28.2	28.2	23.4	23.5	8.2	8.1	78.7	78.7	5.4	5.4		1.7	1.7		4.6	3.7	
						28.2		23.4		8.2		79.0		5.4			1.7			2.7		
						28.2		23.5		8.1		78.3		5.4			1.6			3.8		
				Bottom	7.2	27.9	27.9	24.5	24.5	8.1	8.1	74.9	76.3	5.1	5.2	5.2	3.5	3.6		3.1	3.6	
						27.9		24.7		8.1		75.2		5.1			3.8			2.9		
						28.0		24.3		8.1		78.8		5.4			3.6			4.7		
28-Jun-12	Sunny	Moderate	7:13	Surface	1	28.5	28.5	19.3	19.3	8.2	8.2	82.3	83.0	5.7	5.8	5.5	0.6	0.6	0.8	2.8	3.0	3.3
						28.5		19.1		8.2		82.8		5.8			0.6			3.3		
						28.5		19.4		8.2		83.9		5.8			0.6			2.9		
				Middle	4.0	28.0	28.0	20.8	20.5	8.2	8.2	74.0	74.3	5.1	5.2		0.8	0.7		3.4	3.4	
						28.0		20.4		8.2		74.1		5.2			0.7			2.6		
						28.0		20.2		8.2		74.7		5.2			0.6			4.2		
				Bottom	7.0	27.6	27.6	22.7	22.5	8.2	8.2	68.6	69.2	4.8	4.8	4.8	1.1	1.1		3.4	3.6	
						27.6		22.5		8.2		69.6		4.8			1.2			4.4		
						27.6		22.3		8.2		69.3		4.8			1.0			3.1		
1-Jul-12	Fine	Calm	10:17	Surface	1	26.6	26.6	30.9	30.7	8.2	8.2	71.4	71.2	4.8	4.8	4.8	1.5	1.4	2.6	2.9	2.7	3.4
						26.6		30.6		8.2		70.9		4.8			1.4			2.0		
						26.5		30.7		8.2		71.2		4.8			1.4			3.2		
				Middle	4.1	26.5	26.5	30.9	30.9	8.2	8.2	71.2	70.9	4.8	4.8		2.7	2.8		4.4	3.5	
						26.5		30.9		8.2		70.3		4.8			2.8			3.0		
						26.5		31.0		8.2		71.3		4.8			2.8			3.1		
				Bottom	7.2	26.2	26.4	31.4	31.3	8.2	8.2	69.8	71.2	4.9	4.9	4.9	3.6	3.5		4.0	4.0	
						26.5		31.2		8.2		72.6		4.9			3.5			5.0		
						26.5		31.2		8.2		71.2		4.8			3.5			3.0		

Remark: * DA: Depth-Averaged

**** Calm: Small or no wave; Moderate: Between calm and rough; Rough: White capped or rougher**

Water Quality Monitoring Results at CS-2 - Mid-Ebb Tide

Date	Weather Condition	Sea Condition**	Sampling Time	Depth (m)		Temperature (^{o}C)		Salinity (ppt)		pH		DO Saturation (%)		Dissolved Oxygen (mg/L)			Turbidity(NTU)			Suspended Solids (mg/L)		
						Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*
3-Jul-12	Sunny	Calm	12:12	Surface	1	28.3	28.3	32.0	32.1	8.2	8.2	71.4	71.2	4.8	4.8	4.8	1.3	1.4	2.7	5.6	4.7	4.0
						28.3		32.0		8.2		71.2		4.8			1.4			3.8		
						28.3		32.2		8.2		70.9		4.8			1.4			4.8		
				Middle	4.2	28.3	28.3	31.8	31.6	8.2	8.2	71.2	70.9	4.8	4.8		2.9	2.9		3.3	3.6	
						28.3		32.5		8.2		71.3		4.8			2.8			3.5		
						28.3		30.6		8.2		70.3		4.8			2.9			4.0		
				Bottom	7.4	28.3	28.3	31.8	31.5	8.2	8.2	71.2	71.2	4.8	4.9	4.9	3.8	3.8		4.6	3.7	
						28.3		31.8		8.2		72.6		4.9			3.7			3.8		
						28.3		31.0		8.2		69.8		4.9			3.9			2.6		
5-Jul-12	Cloudy	Moderate	13:26	Surface	1	28.3	28.3	29.5	29.4	8.2	8.2	88.8	86.1	5.9	5.8	5.9	2.4	2.5	2.4	4.4	4.2	3.6
						28.3		29.4		8.2		85.6		6.0			2.5			5.1		
						28.3		29.4		8.2		84.0		5.6			2.4			3.0		
				Middle	5.2	28.2	28.3	29.7	29.6	8.2	8.2	89.1	87.3	5.9	5.9		2.5	2.5		2.4	3.2	
						28.3		29.6		8.2		87.6		6.1			2.5			4.1		
						28.3		29.6		8.2		85.3		5.7			2.4			3.2		
				Bottom	9.4	28.1	28.1	29.9	29.8	8.2	8.2	90.0	88.6	6.0	5.9	5.9	2.4	2.4		3.4	3.3	
						28.1		29.8		8.2		88.5		5.9			2.4			2.7		
						28.2		29.8		8.2		87.4		5.8			2.4			3.9		
7-Jul-12	Cloudy	Moderate	14:57	Surface	1	28.1	28.1	28.6	28.7	8.2	8.2	87.0	84.3	5.7	5.6	5.7	2.6	2.6	2.6	3.8	4.3	4.2
						28.1		28.9		8.2		82.2		5.4			2.6			4.6		
						28.1		28.5		8.2		83.8		5.8			2.7			4.5		
				Middle	4.5	28.2	28.1	28.7	28.8	8.2	8.2	83.8	85.7	5.5	5.7		2.6	2.6		3.9	3.8	
						28.0		29.0		8.3		87.4		5.7			2.6			3.3		
						28.0		28.8		8.2		85.9		5.9			2.6			4.1		
				Bottom	7.9	28.0	28.0	29.0	29.0	8.3	8.3	85.6	86.8	5.6	5.7	5.7	2.6	2.6		4.1	4.5	
						27.9		28.9		8.3		86.7		5.7			2.6			5.4		
						28.0		29.0		8.3		88.2		5.8			2.6			4.0		
10-Jul-12	Sunny	Calm	16:38	Surface	1	28.1	28.1	24.7	24.7	8.4	8.4	78.4	79.4	6.7	7.8	6.8	1.7	1.7	2.8	4.5	4.4	6.2
						28.0		24.8		8.4		80.1		8.1			1.7			4.0		
						28.2		24.6		8.5		79.8		8.6			1.8			4.6		
				Middle	4.0	27.3	27.4	25.7	25.6	8.3	8.3	75.3	75.1	5.9	5.9		2.8	2.7		6.4	6.5	
						27.4		25.6		8.3		74.3		5.6			2.7			6.4		
						27.4		25.6		8.3		75.6		6.2			2.7			6.8		
				Bottom	7.0	25.0	25.8	30.9	29.3	8.2	8.2	72.8	72.1	5.0	5.2	5.2	3.9	4.0		7.8	7.6	
						25.3		30.4		8.2		70.3		4.9			4.0			6.7		
						27.0		26.8		8.2		73.2		5.6			4.0			8.2		
12-Jul-12	Sunny	Calm	7:38	Surface	1	28.4	28.5	21.6	21.5	8.5	8.5	134.9	135.5	9.3	9.3	8.9	2.5	2.5	2.7	5.8	4.9	5.2
						28.5		21.5		8.5		136.6		9.4			2.6			4.5		
						28.5		21.5		8.5		135.1		9.3			2.5			4.5		
				Middle	4.4	28.2	28.2	22.1	22.1	8.5	8.5	124.2	123.5	8.6	8.5		2.7	2.7		4.9	5.5	
						28.2		22.1		8.5		123.3		8.5			2.8			5.2		
						28.2		22.0		8.5		122.9		8.5			2.7			6.3		
				Bottom	7.7	27.9	27.9	22.9	23.2	8.4	8.4	123.2	121.1	8.5	8.3	8.3	2.9	2.8		5.3	5.1	
						27.9		22.9		8.4		116.2		8.0			2.7			4.8		
						27.7		23.8		8.4		123.9		8.5			2.8			5.2		
14-Jul-12	Sunny	Calm	9:54	Surface	1	28.7	29.0	20.4	20.2	8.6	8.6	79.3	79.7	5.6	5.7	5.3	1.6	1.7	3.1	5.4	4.2	4.0
						29.0		20.2		8.6		79.5		5.6			1.7			3.3		
						29.1		20.1		8.7		80.2		5.7			1.7			3.8		
				Middle	4.2	27.4	27.1	23.0	23.9	8.3	8.3	74.2	75.0	5.0	5.0		3.3	3.4		3.5	4.0	
						27.0		24.4		8.3		75.2		5.0			3.5			4.4		
						26.9		24.5		8.3		75.6		5.0			3.3			4.0		
				Bottom	7.3	23.3	23.2	32.0	32.1	8.1	8.1	68.9	67.9	4.4	4.2	4.2	4.5	4.4		3.6	3.7	
						23.2		32.1		8.1		67.9		4.1			4.3			3.9		
						23.2		32.2		8.1		66.8		4.1			4.3			3.7		

Remark: * DA: Depth-Averaged

**** Calm: Small or no wave; Moderate: Between calm and rough; Rough: White capped or rougher**

Water Quality Monitoring Results on CS-2 - Mid-Flood Tide

Location	Weather Condition	Sea Condition**	Sampling Time	Depth (m)		Temperature (^{0}C)		Salinity (ppt)		pH		DO Saturation (%)		Dissolved Oxygen (mg/L)			Turbidity(NTU)			Suspended Solids (mg/L)		
						Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*
16-Jun-12	Cloudy/Rainy	Calm	17:18	Surface	1	27.5	27.5	29.9	29.8	8.3	8.3	85.0	84.7	5.7	5.7		2.7	2.6		3.2	3.2	
						27.5		29.8		8.3		84.6		5.7			2.5			3.3		
						27.5		29.9		8.3		84.6		5.7		5.6	2.6			3.2		
				Middle	4.1	27.6	27.6	30.4	30.4	8.3	8.3	83.1	82.5	5.5	5.5		4.4	4.4	4.1	5.7	4.6	3.5
						27.6		30.4		8.2		82.7		5.5			4.6			5.1		
						27.6		30.4		8.3		81.6		5.4			4.3			3.1		
				Bottom	7.2	27.6	27.6	30.4	30.4	8.3	8.3	82.0	83.1	5.5	5.5	5.5	5.4	5.4		2.7	2.6	
						27.6		30.4		8.3		83.8		5.6			5.4			2.1		
						27.6		30.4		8.3		83.4		5.6			5.4			3.1		
21-Jun-12	Cloudy/Rainy	Calm	19:59	Surface	1	28.2	28.2	29.6	29.6	8.2	8.2	72.4	72.8	4.8	4.8		2.9	2.9		3.4	4.0	
						28.2		29.6		8.2		72.7		4.8			2.9			4.7		
						28.2		29.6		8.2		73.3		4.9		4.8	2.8			4.0		
				Middle	5.0	28.2	28.2	29.6	29.6	8.2	8.2	73.0	72.5	4.8	4.8		5.3	5.4	4.9	8.4	8.3	6.7
						28.2		29.6		8.2		72.4		4.8			5.5			8.1		
						28.2		29.6		8.2		72.2		4.8			5.3			8.4		
				Bottom	9.0	28.2	28.2	29.6	29.6	8.2	8.2	74.3	72.9	4.9	4.8	4.8	6.4	6.4		7.9	7.7	
						28.2		29.6		8.2		72.3		4.8			6.5			7.7		
						28.2		29.6		8.2		72.1		4.8			6.3			7.4		
23-Jun-12	Cloudy	Calm	8:24	Surface	1	28.2	28.2	27.0	27.0	8.2	8.2	70.0	70.9	4.7	4.8		2.4	2.4		3.2	3.9	
						28.2		26.9		8.2		71.8		4.8			2.4			3.5		
						28.2		26.9		8.2		70.8		4.8		4.7	2.3			4.9		
				Middle	4.6	28.2	28.2	27.3	27.3	8.2	8.2	68.0	68.3	4.6	4.6		3.0	3.1	3.4	1.9	1.5	2.2
						28.2		27.3		8.2		68.1		4.5			3.1			1.4		
						28.2		27.3		8.2		68.9		4.6			3.1			1.3		
				Bottom	8.2	28.0	28.0	29.2	29.1	8.2	8.2	66.9	66.4	4.5	4.5	4.5	4.9	4.6		1.7	1.3	
						28.0		29.2		8.2		66.2		4.7			4.3			1.3		
						28.0		29.1		8.2		66.0		4.4			4.7			1.0		
26-Jun-12	Sunny	Calm	10:12	Surface	1	28.2	28.2	22.5	22.5	8.2	8.2	74.2	76.1	5.1	5.2		0.9	0.9		2.7	3.5	
						28.2		22.7		8.2		77.2		5.3			0.9			3.4		
						28.2		22.5		8.2		76.9		5.3		4.9	0.8			4.5		
				Middle	4.3	28.0	28.0	24.1	24.1	8.2	8.2	66.8	66.9	4.6	4.6		2.0	2.1	2.1	3.8	3.2	3.3
						28.0		24.0		8.2		66.4		4.6			2.3			3.2		
						28.0		24.1		8.2		67.5		4.6			2.0			2.7		
				Bottom	7.5	27.5	27.6	26.7	26.7	8.2	8.1	66.2	67.6	4.5	4.6	4.6	3.6	3.5		3.5	3.2	
						27.6		26.6		8.1		67.4		4.6			3.4			2.8		
						27.6		26.7		8.2		69.2		4.7			3.4			3.2		
28-Jun-12	Sunny	Moderate	13:26	Surface	1	28.8	28.8	19.8	19.8	8.4	8.4	82.8	82.7	5.7	5.7		0.7	0.7		5.0	5.1	
						28.8		19.8		8.4		83.4		5.8			0.7			5.5		
						28.8		19.8		8.4		81.9		5.7		5.2	0.8			4.9		
				Middle	4.1	27.9	27.8	22.5	22.6	8.3	8.3	66.3	66.2	4.6	4.6		1.0	1.1	1.1	4.3	3.5	3.9
						27.8		22.6		8.3		65.8		4.6			1.1			3.5		
						27.8		22.6		8.3		66.4		4.6			1.2			2.7		
				Bottom	7.2	26.8	26.8	26.1	26.1	8.3	8.2	60.9	60.7	4.2	4.2	4.2	1.6	1.6		3.4	3.1	
						26.8		26.1		8.3		60.6		4.2			1.4			3.3		
						26.9		26.0		8.2		60.7		4.2			1.7			2.6		
1-Jul-12	Fine	Calm	17:23	Surface	1	26.8	26.8	31.9	31.9	8.2	8.2	73.2	72.7	4.9	4.9		0.9	0.9		1.1	1.4	
						26.8		31.9		8.2		72.6		4.9			0.8			1.6		
						26.8		31.8		8.2		72.2		4.8		4.8	0.9			1.4		
				Middle	4.3	26.6	26.6	32.0	32.1	8.2	8.2	71.3	71.4	4.8	4.8		1.9	1.8	1.9	2.2	1.8	1.3
						26.6		32.2		8.2		71.6		4.8			1.8			2.3		
						26.5		32.2		8.2		71.4		4.7			1.8			1.0		
				Bottom	7.6	26.6	26.5	32.5	32.5	8.2	8.2	70.8	70.9	5.0	4.8	4.8	2.9	2.9		0.6	0.8	
						26.5		32.4		8.2		71.2		4.8			2.9			0.9		
						26.5		32.5		8.2		70.8		4.7			2.8			1.0		

Remark: * DA: Depth-Averaged

**** Calm: Small or no wave; Moderate: Between calm and rough; Rough: White capped or rougher**

Water Quality Monitoring Results on CS-2 - Mid-Flood Tide

Location	Weather Condition	Sea Condition**	Sampling Time	Depth (m)		Temperature (^{o}C)		Salinity (ppt)		pH		DO Saturation (%)		Dissolved Oxygen (mg/L)			Turbidity(NTU)			Suspended Solids (mg/L)		
						Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*
3-Jul-12	Sunny	Calm	19:00	Surface	1	28.2	28.2	32.3	32.3	8.2	8.2	75.1	75.0	5.2	5.1	5.0	1.2	1.1	2.0	2.3	2.5	3.7
						28.2		32.4		8.2		72.6		5.0			1.1			2.9		
						28.2		32.2		8.2		77.3		5.3			1.1			2.3		
				Middle	4.5	28.1	28.1	31.9	31.9	8.2	8.2	70.5	71.2	4.8	4.9		1.5	1.5		4.9	4.8	
						28.1		31.9		8.2		71.5		4.9			1.5			4.7		
						28.1		31.9		8.2		71.5		4.9			1.6			4.8		
				Bottom	7.9	28.1	28.1	32.1	32.3	8.2	8.2	66.9	65.7	4.6	4.5	4.5	3.3	3.4		4.9	3.9	
						28.1		32.0		8.2		66.0		4.5			3.4			2.9		
						28.1		32.9		8.2		64.1		4.4			3.5			3.8		
5-Jul-12	Cloudy	Moderate	7:19	Surface	1	28.2	28.2	29.6	29.6	8.2	8.2	95.4	94.2	6.5	6.4	6.4	2.8	2.8	2.8	2.3	3.2	3.1
						28.2		29.6		8.2		95.1		6.4			2.8			4.0		
						28.2		29.5		8.2		92.0		6.2			2.9			3.2		
				Middle	4.6	28.1	28.1	29.7	29.6	8.2	8.2	96.1	94.9	6.5	6.4	6.4	2.8	2.8		2.7	2.8	
						28.1		29.6		8.2		95.8		6.5			2.8			2.4		
						28.2		29.6		8.2		92.8		6.3			2.8			3.2		
				Bottom	8.2	28.1	28.1	29.7	29.7	8.2	8.2	97.9	96.9	6.6	6.6	6.6	2.9	2.8		3.9	3.3	
						28.2		29.7		8.2		97.4		6.6			2.8			2.3		
						28.1		29.7		8.2		95.4		6.5			2.8			3.6		
7-Jul-12	Cloudy	Moderate	8:20	Surface	1	27.9	27.9	28.9	28.9	8.3	8.3	93.6	92.4	6.3	6.2	6.2	2.9	3.0	3.0	7.1	7.4	6.0
						27.9		29.0		8.3		93.3		6.2			3.0			6.8		
						27.9		28.8		8.3		90.2		6.0			3.0			8.4		
				Middle	4.6	27.8	27.8	28.9	29.0	8.3	8.3	94.3	93.2	6.3	6.2		2.9	3.0		4.4	5.3	
						27.7		28.9		8.3		94.0		6.3			3.0			5.5		
						28.0		29.1		8.3		91.2		6.1			3.0			6.1		
				Bottom	8.2	27.8	27.8	29.0	28.9	8.3	8.3	93.6	95.1	6.3	6.4	6.4	3.0	3.0		5.7	5.2	
						27.9		28.8		8.3		95.7		6.4			3.0			4.7		
						27.6		29.0		8.3		96.1		6.4			3.0			5.2		
10-Jul-12	Sunny	Calm	10:35	Surface	1	28.1	28.0	24.2	24.3	8.4	8.4	89.6	87.0	8.1	7.2	6.4	1.8	1.9	3.0	5.4	4.7	4.7
						27.8		24.4		8.3		85.7		6.4			2.0			5.0		
						28.0		24.3		8.4		85.7		7.2			1.8			3.8		
				Middle	4.3	27.2	27.1	25.8	25.9	8.3	8.2	82.1	82.1	5.6	5.6		2.6	2.6		4.5	4.5	
						27.1		25.9		8.3		82.5		5.7			2.7			4.7		
						27.0		26.1		8.2		81.6		5.6			2.6			4.2		
				Bottom	7.6	26.3	26.1	28.4	28.8	8.2	8.2	78.5	78.4	5.4	5.7	5.7	4.2	4.4		4.4	4.8	
						26.0		29.0		8.2		79.3		5.7			4.5			4.2		
						25.9		29.2		8.2		77.3		6.1			4.5			5.7		
12-Jul-12	Sunny	Calm	13:40	Surface	1	28.4	28.4	21.5	21.6	8.5	8.5	138.4	134.1	9.5	9.2	8.8	1.8	1.9	2.3	3.5	3.5	2.9
						28.4		21.5		8.5		133.6		9.2			1.9			3.4		
						28.4		21.6		8.5		130.4		9.0			1.9			3.5		
				Middle	4.5	28.3	28.2	22.1	22.3	8.5	8.5	123.8	120.9	8.5	8.3		2.5	2.5		3.1	3.2	
						28.1		22.4		8.4		119.3		8.2			2.4			3.8		
						28.2		22.2		8.4		119.5		8.2			2.5			2.6		
				Bottom	7.9	28.0	27.9	22.9	23.0	8.4	8.4	115.6	118.0	8.0	8.1	8.1	2.4	2.4		2.1	2.2	
						28.0		22.9		8.4		119.6		8.3			2.5			2.4		
						27.8		23.2		8.4		118.7		8.2			2.4			2.0		
14-Jul-12	Sunny	Calm	16:17	Surface	1	29.1	28.9	20.2	20.4	8.6	8.6	75.8	75.3	4.8	4.8	4.8	2.0	2.1	3.4	4.8	4.2	4.2
						28.8		20.5		8.6		74.9		4.8			2.1			3.3		
						28.9		20.6		8.6		75.2		4.9			2.1			4.4		
				Middle	4.4	27.4	27.3	23.2	23.6	8.3	8.3	73.2	74.1	4.7	4.8		3.7	3.6		3.5	4.2	
						27.4		23.3		8.3		74.3		4.8			3.5			4.8		
						27.2		24.3		8.3		74.7		4.8			3.5			4.2		
				Bottom	7.7	23.2	23.3	32.1	32.0	8.1	8.2	68.2	67.7	4.2	4.2	4.2	4.6	4.6		3.8	4.2	
						23.4		32.0		8.2		67.8		4.2			4.5			5.1		
						23.3		32.0		8.2		67.2		4.1			4.8			3.8		

Remark: * DA: Depth-Averaged

**** Calm: Small or no wave; Moderate: Between calm and rough; Rough: White capped or rougher**

Appendix E

Establishment of Action and Limit Levels for Water Quality

Appendix E Establishment of Action/Limit Levels for Water Quality

Figures 1 and **2** illustrate the locations of baseline water quality monitoring stations of Kai Tak Cruise Terminal Development and the EPD's Marine Water Monitoring Stations, respectively. As indicated in the figures, EPD's monitoring station VM4 and the Cruise Terminal's monitoring station WSD9 are the closest monitoring stations to the water quality monitoring stations (IS-1, CS-1 and CS2) of SCL (TAW-HUH).

Figure 1 Locations of Water Quality Monitoring Stations of Kai Tak Cruise Terminal Development

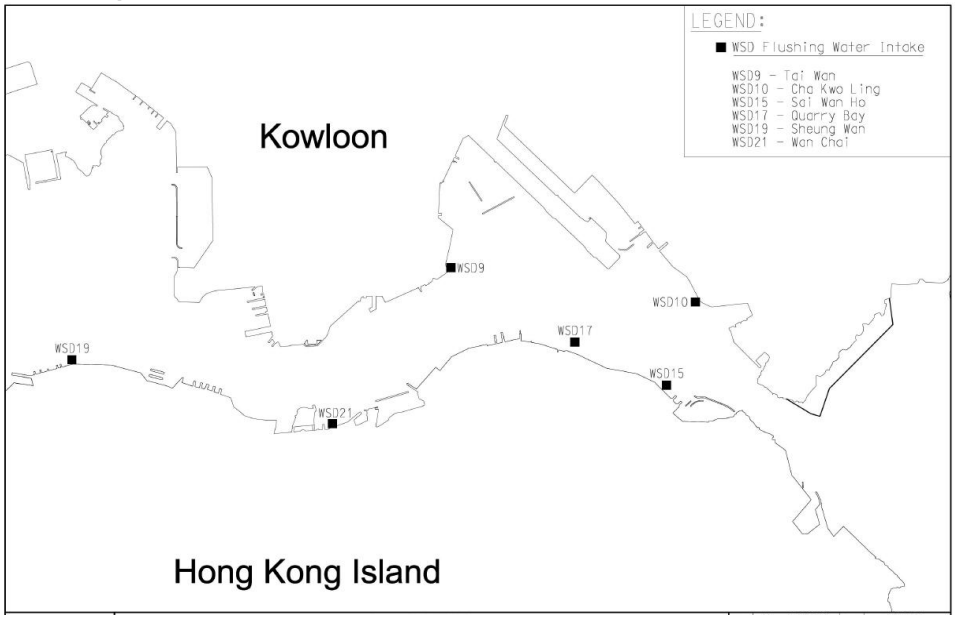
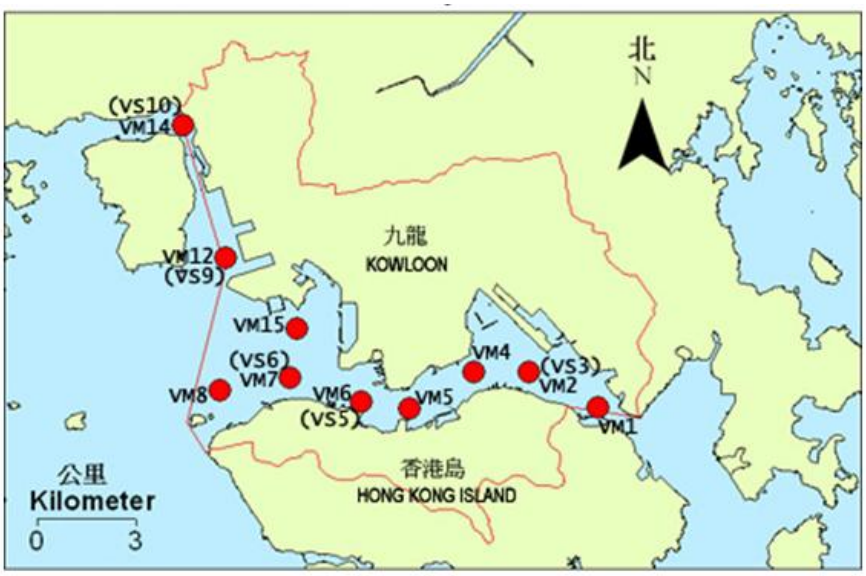


Figure 2 Locations of EPD's Marine Water and Sediment Monitoring Stations in Victoria Harbour Water Control Zone



Overlaying with **Figure NEX2213/C/361/ACM/M63/030**, the monitoring stations of SCL (TAW-HUH) are considered correlated with VM4 and WSD9 in view of their closeness. As such, EPD's monitoring data collected at VM4 and the baseline monitoring data at WSD9 collected in baseline water quality

monitoring for Kai Tak Cruise Terminal Development have been reviewed for the purpose of Action/Limit Levels derivation.

Table 1 shows EPD's marine water quality monitoring data at VM4 from January 2009 to March 2010 and the baseline water quality monitoring results extracted from the Baseline Water Quality Monitoring Report for Kai Tak Cruise Terminal Development[1]. According to the construction programme in the EM&A Reports of Kai Tak Cruise Terminal Development, dredging works from Kai Tak Cruise Terminal Development might be undertaken concurrently with the baseline water quality monitoring. As confirmed with CEDD, dredging works from Kai Tak Cruise Terminal Development were undertaken during the baseline monitoring period, while mitigation measures have been fully implemented during the dredging operation to minimize the water quality impact. As shown in **Table 1**, the EPD's marine water quality data, the baseline marine water quality measured in the Kai Tak Cruise Terminal Development and SCL (TAW-HUH) are in similar magnitude. It is therefore considered that the baseline monitoring data collected between the period of 16 June 2012 and 14 July 2012 represent the baseline for SCL (TAW-HUH).

Table 1 Baseline Water Quality Monitoring Results from EPD Monitoring Data (Jan 2009 – Mar 2010), Kai Tak Cruise Terminal Development (Feb – Mar 2010) and SCL (TAW-HUH)

Parameter		EPD Monitoring Data (Jan 2009-Mar 2010)	Kai Tak Cruise Terminal Development(1) (Feb-Mar 2010)	SCL (TAW-HUH) (Jun-Jul 2012)		
		VM4	WSD9	IS-1	CS-1	CS-2
Dissolved Oxygen (mg/L)	Avg.	5.5	5.8	5.7	5.7	5.7
	Min.	2.6	2.1	4.4	4.3	4.6
	Max.	6.8	9.1	9.3	9.7	9.3
Turbidity (NTU)	Avg.	4.7	3.8	2.9	2.7	2.7
	Min.	1.4	1.7	0.4	0.7	0.6
	Max.	10.7	14.2	8.6	6.3	6.4
Suspended Solids (mg/L)	Avg.	5.1	4.3	3.8	4.2	4.1
	Min.	0.7	2.0	1.3	1.3	0.8
	Max.	9.3	8.0	10.3	9.7	9.6

Note: (1) Monitoring data extracted from the Baseline Water Quality Monitoring Report for Kai Tak Cruise Terminal Development

As discussed above, the collected baseline marine water quality monitoring data in June and July 2012 represent the baseline for SCL (TAW-HUH). Based on the baseline monitoring data and the derivation criteria specified in the EM&A Manual, the Action and Limit Levels for SCL (TAW-HUH) have been derived as shown in **Table 2** below.

Table 2 Derived Action and Limit Levels for Water Quality

Parameters	Action	Limit
DO in mg/L	Surface & Middle: **4.6** (5 percentile of baseline data) Bottom: **3.9** (5 percentile of baseline data)	Surface & Middle: **4** Bottom: **2**

[1] Penta Ocean Construction Co., Ltd., Site Formation for Kai Tak Cruise Terminal Development, Baseline Water Quality Monitoring Report (February to March 2010)

Parameters	Action	Limit
SS in mg/L	**6.1** (95 percentile of baseline data)	**6.3** (99 percentile of baseline data)
Turbidity in NTU	**4.8** (95 percentile of baseline data)	**5.0** (99 percentile of baseline data)