



JOB No.: TCS00874/16

**CEDD CONTRACT NO. CV/2012/05
DEVELOPMENT OF A BATHING BEACH AT LUNG MEI,
TAI PO**

**BASELINE MONITORING REPORT
(WATER QUALITY MONITORING)**

**PREPARED FOR
WELCOME CONSTRUCTION CO., LTD**

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EXECUTIVE SUMMARY

- ES.01 Civil Engineering and Development Department (hereafter referred as “CEDD”) is the Project Proponent and the Permit Holder of *Agreement No. CE 59/2005 (EP) Development of a Bathing Beach at Lung Mei, Tai Po* (hereinafter referred as “the Project”), which is a Designated Project to be implemented under Environmental Permit number EP-388/2010 (hereinafter referred as “the EP-388/2010” or “the EP”).
- ES.02 Action-United Environmental Services & Consulting (hereinafter referred as “AUES”) has been commissioned as the Environmental Team for the Project (hereinafter referred as “the ET”) to perform relevant Environmental Monitoring and Audit (EM&A) programme, including baseline and impact environmental monitoring in accordance with the EM&A Manual approved under the Environmental Impact Assessment Ordinance (EIAO).
- ES.03 According to the Approved Environmental Monitoring and Audit (EM&A) Manual [November 2007] (hereinafter referred as ‘the EM&A Manual’), air quality, construction noise and water quality monitoring should be required to be monitored during the construction phase of the Project. Moreover, baseline environmental monitoring for air quality and water quality is required to be conducted prior to commencement of the construction works/activities under the Project.
- ES.04 Baseline water quality monitoring, which comprise with 3 sampling days a week, have been undertaken at the proposed monitoring locations from **23 September 2017 to 21 October 2017**. During the baseline monitoring period, no construction activities under the Project were observed by ET. However, unknown muddy water discharged from existing box culvert at Lung Mei near lamp post AE0709 was observed by the ET at around 11:45am on 29th September 2017 as external influencing factors of significant concern. The muddy water was trapped and accumulated in inner beach of Lung Mei instead of flowing to outer harbor. Having reviewed both in-situ measurement result and laboratory testing result on 29 September 2017, no abnormal variation was found on the baseline monitoring results at the closest stations including I1, I2, I3 and W1.
- ES.05 This Baseline Monitoring Report summarizes the key findings and presents the process and rationale behind determining a set of Action and Limit Levels (A/L Levels) of water quality based on the baseline data. These A/L Levels will serve as the yardsticks for assessing the acceptability of the environmental impact during construction phase of the Project Works impact monitoring. They are statistical in nature and derived according to the criteria set out in the EM&A Manual.
- ES.06 Results of the derived Action and Limit Levels for the water quality are given in *Tables ES-1* as follows.

Table ES-1 Action and Limit Levels of Water Quality Monitoring

Monitoring Location	Depth Average of SS (mg/L)			
	Action Level		Limit Level	
I1	7.0	OR 120% of any reference stations at the same tide of the same day	7.5	OR 130% of any reference stations at the same tide of the same day
I2	7.0		8.1	
I3	8.3		15.0	
W1	8.0		8.6	
M1	10.0		11.0	
FCZ1	7.0		8.0	
Monitoring Location	Chlorophyll-a (µg/L)			
	Surface, Middle & Bottom			
	Action Level		Limit Level	
I1	11.1		12.1	
I2	11.0		13.1	
I3	11.3		14.5	
W1	11.3		16.1	
M1	16.9		42.4	
FCZ1	11.8		12.5	

Monitoring Location	Dissolved Oxygen (mg/L)			
	Depth Average of Surface and Mid-depth		Bottom	
	Action Level	Limit Level	Action Level	Limit Level
I1	5.08	4.80	N/A	N/A
I2	5.26	4.88	3.64	3.37
I3	5.03	4.77	4.09	3.19
W1	4.67	4.54	2.41	2.33
M1	4.73	4.70	N/A	N/A
FCZ1	5	5	3.43	3.18

Monitoring Location	Depth Average of Turbidity (NTU)			
	Action Level		Limit Level	
I1	2.8	OR 120% of any reference stations at the same tide of the same day	2.9	OR 130% of any reference stations at the same tide of the same day
I2	3.5		7.7	
I3	2.6		3.0	
W1	2.9		3.3	
M1	5.2		6.6	
FCZ1	3.2		3.4	

Notes:

- (a) For DO, non-compliance of water quality limits occurs when monitoring result is lower than the limits
- (b) For SS, chlorophyll-*a* and turbidity, non-compliance of the water quality limits occurs when monitoring result is higher than the limits.
- (c) In accordance with EM&A Manual Table 5.1, both Action and Limit Levels for DO (surface and middle) in the FCZ1 are less than 5 mg/L.

ES.07 In cases where exceedance of these criteria occurs, actions should be carried out in accordance with the Event and Action Plan as shown the EM&A Manual.

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1 INTRODUCTION

1.1 PROJECT BACKGROUND

- 1.1.1 Civil Engineering and Development Department (hereafter referred as “CEDD”) is the Project Proponent and the Permit Holder of *Agreement No. CE 59/2005 (EP) Development of a Bathing Beach at Lung Mei, Tai Po* (hereinafter referred as “the Project”), which is a Designated Project to be implemented under Environmental Permit number EP-388/2010 (hereinafter referred as “the EP-388/2010” or “the EP”).
- 1.1.2 The major construction activities of the Project comprise construction 200-metre long bathing beach with a groyne at each end, a shark prevention net; a public car park; retaining walls; and the associated roadworks, drainage and sewerage works. Layout plan of the Project is shown in **Appendix A**.
- 1.1.3 Furthermore, the project works is under Environmental Permit (EP) No. EP-388/2010 as a Designated Project and the designated works include:
- (i) Construction of a 200m long beach with a groyne at each end of the beach which includes dredging and sandfilling works;
 - (ii) Construction of one culvert at the eastern side of the beach and another small section of culvert and open drainage channel with gabion embankments at the western end, both to collect and divert surface runoff from upstream locations; and
 - (iii) Construction of a beach building with associated beach building facilities, kiosk and a carpark and associated road improvement works adjoining the facility.
- 1.1.4 Action-United Environmental Services & Consulting (hereinafter referred as “AUES”) has been commissioned as an Independent Environmental Team (hereinafter referred as “the ET”) to implement the relevant EM&A program in accordance with the approved EM&A Manual, as well as the associated duties. As part of the EM&A program, baseline monitoring is required to determine the ambient environmental conditions. The baseline monitoring of air quality had been undertaken on 7 June 2017 to 20 June 2017 and baseline noise monitoring had been carried out on 7 June 2017 to 23 June 2017 before construction work commencement. The baseline monitoring report (air quality and noise) (reference no.: *TCS00874/16/600/R0022v3*) was submitted by RE to EPD on 11 September 2017 after verification by IEC. With regard to the baseline water quality monitoring, it was carried from **23 September 2017 to 21 October 2017** before construction work commencement including the dredging and sandfilling activities.
- 1.1.5 During the baseline monitoring period for water quality, there were no construction activities of this project observed by the ET. However, unknown muddy water discharged from existing box culvert at Lung Mei near lamp post AE0709 was observed by the ET in the morning of 29th September 2017 as external influencing factors of significant concern. The muddy water was trapped and accumulated in inner beach of Lung Mei instead of flowing to outer harbor. Having reviewed both in-situ measurement result and laboratory testing result dated on 29 September 2017, no abnormal variation was found on the baseline monitoring results at the closest stations including I1, I2, I3 and W1.
- 1.1.6 This Baseline Monitoring Report for Water Quality presents the details of the baseline study including project background, monitoring methodology, monitoring results, summary of findings, and Action/Limit (A/L) Levels established for subsequent use in the Project construction phase EM&A program.

1.2 REPORT STRUCTURE

- 1.2.1 The Baseline Monitoring Report (Water Quality Monitoring) is structured into the following sections:-
- Section 1** Introduction
 - Section 2** Summaries of Baseline Monitoring Requirement.
 - Section 3** Baseline Monitoring Methodology
 - Section 4** Baseline Monitoring Results
 - Section 5** Conclusion and Recommendation

2 SUMMARY OF BASELINE MONITORING REQUIREMENT

2.1 GENERAL

2.1.1 The Environmental Monitoring and Audit requirements are set out in the EM&A manual. Environmental issue such as water quality was identified as the key issues during the construction phase of the Project. A summary of the baseline EM&A requirements for water quality monitoring are presented in the sub-sections below.

2.2 MONITORING PARAMETERS

2.1.2 According to the EM&A Manual, baseline monitoring shall only cover air and water quality. This is a standalone baseline report for water quality and the corresponding monitoring parameters are presented in the following sections.

2.2.1 A summary of the monitoring parameters in accordance to *EM&A Manual Sections 5.1* is presented in **Table 2-1** below.

Table 2-1 Summary of EM&A Requirements

Environmental Issue	Parameters
Water Quality	In-situ Measurements <ul style="list-style-type: none"> • Dissolved Oxygen Concentration (mg/L); • Dissolved Oxygen Saturation (%); • Salinity (mg/L); • Temperature (°C); • Turbidity (NTU); • pH unit; • Current direction (degree); • Current speed (m/s); and • Water depth (m).
	Laboratory Analysis <ul style="list-style-type: none"> • Suspended Solids (mg/L); and • Chlorophyll-a (µg/L)

2.3 MONITORING LOCATIONS

Water Quality

2.3.1 According to *EM&A Manual Sections 5.1.2*, two Reference Stations (R1 and R2), three impact stations (I1, I2 and I3), three sensitive receivers (FCZ1, W1 and M1) and one Gradient station (G1), were recommended in the *EM&A Manual Section 5.1.2* to perform water quality monitoring. Detailed and co-ordination of water quality monitoring stations is described in **Table 2-2** and the graphical is shown in **Annex B**.

Table 2-2 Location of Water Quality Monitoring Station

Station	Coordinates		Description
	Easting	Northing	
R1	842307.4	835718.4	Reference Station - for the background water quality for Tolo Harbour as it is at the channel where the water exchange between the enclosed Plover Cove and Tolo Harbour take place. It is located at south of the Project dredging/sandfilling area.
R2	840739.4	836212.4	Reference Station - for the background water quality in the Plover Cove region. It is located at southwest of the Project dredging/sandfilling area.
I1	841338.5	836588.5	Impact Station - located outside the mixing zone of dredging/sandfilling works of the Project.
I2	841590.3	836601.2	Impact Station - located outside the mixing zone of dredging/sandfilling works of the Project.
I3	841807.0	836680.9	Impact Station - located outside the mixing zone of

Station	Coordinates		Description
	Easting	Northing	
			dredging/sandfilling works of the Project.
FCZ1	841180.6	835230.8	Sensitive Receiver - located at the Yim Tin Tsai East Fish Culture Zone, which is about 1.5 km distance to the southwest of the dredging/sandfilling area.
W1	841858.9	836571.0	Sensitive Receiver - located at the Water Sport Centre, which is about 0.25 km distance to the southeast of the dredging/sandfilling area.
M1	840822.2	836416.4	Sensitive Receiver - located at the Ting Kok SSSI, which is about 0.8 km distance to the west of the dredging/sandfilling area.
G1	841483.9	835936.1	Gradient Station - to assist in the identification of the source of any impact.

2.4 MONITORING FREQUENCY AND PERIOD

2.4.1 Baseline monitoring to be carried out in the EM&A programme is basically in accordance with the requirements in *EM&A Manual Sections 5.1.3 and 5.1.4*. The monitoring requirements are listed as follows:

Water Quality Monitoring

Parameters: Duplicate in-situ measurements: water depth, temperature, Dissolved Oxygen, pH, turbidity and salinity;

HOKLAS-accredited laboratory analysis: Suspended Solids and Chlorophyll-*a*.

Frequency: Three days per week, at mid-ebb and mid-flood tides. The interval between 2 monitoring days will be more than 36 hours.

Sampling Depth: (i.) Three depths: 1m below water surface, 1m above sea bottom and at mid-depth when the water depth exceeds 6m.

(ii.) If the water depth is between 3m and 6m, two depths: 1m below water surface and 1m above sea bottom.

(iii.) If the water depth is less than 3m, 1 sample at mid-depth is taken

Duration: 4 weeks prior to the commencement of construction works

2.5 MONITORING EQUIPMENT

Water Quality Monitoring

2.5.1 For water quality monitoring, the equipment should fulfill the requirement under the *EM&A Manual Section 5.1.1*. The requirement is summarized in the following section.

2.5.2 ***Dissolved Oxygen and Temperature Measuring Equipment*** – The instrument should be a portable, weatherproof dissolved oxygen measuring instrument completed with cable, sensor, comprehensive operation manuals, and should be operable from a DC power source. It should be capable of measuring: dissolved oxygen levels in the range of 0-20 mg L⁻¹ and 0-200% saturation; and a temperature of 0-45 degrees Celsius. It should have a membrane electrode with automatic temperature compensation complete with a cable of not less than 35 m in length. Sufficient stocks of spare electrodes and cable should be available for replacement where necessary.

2.5.3 ***Turbidity Measurement Equipment*** – The instrument shall be a portable, weatherproof turbidity-measuring instrument complete with comprehensive operation manual. The equipment shall use a DC power source. It shall have a photoelectric sensor capable of measuring turbidity between 0-1000 NTU.

2.5.4 ***Salinity Measurement Instrument*** – A portable salinometer capable of measuring salinity in the range of 0-40 ppm should be provided for measuring salinity of the water at each monitoring location.

- 2.5.5 **Water Depth Detector** – A portable, battery-operated echo sounder should be used for the determination of water depth at each designated monitoring station. A detector affixed to the bottom of the works boat, if the same vessel is to be used throughout the monitoring programme, is preferred.
- 2.5.6 **Current Velocity and Direction** – No specific equipment is recommended for measuring the current velocity and direction. Hence, Valeport Ltd – Model 106 Self Recording/Direct Reading Current Meter was proposed to be used for the measurement of current velocity and direction.
- 2.5.7 **Positioning Device** – hand-held or boat-fixed type digital Global Positioning System (GPS) with way point bearing indication or other equipment instrument of similar accuracy, should be provided and used during water quality monitoring to ensure the monitoring vessel is at the correct location before taking measurements. GPS or the equivalent instrument, calibrated at appropriate checkpoint(e.g. Quarry Bay Survey Nail at Easting 840683.49, Northing 816709.55) should be provided and used to ensure the monitoring station is at the correct position before taking measurement.
- 2.5.8 **Water Sampling Equipment** – A water sampler, consisting of a transparent PVC or glass cylinder of not less than two liters, which can be effectively sealed with cups at both ends, should be used. The water sampler should have a positive latching system to keep it open and prevent premature closure until released by a messenger when the sampler is at the selected water depth.

2.6 DERIVATION OF ACTION/LIMIT (A/L) LEVELS

- 2.6.1 The baseline results form the basis for determining the environmental acceptance criteria for the impact monitoring. A summary of derivation of Action/Limit (A/L) Levels for water quality is shown in **Table 2-4** respectively.

Table 2-4 Derivation of Action and Limit Levels for Water Quality

Parameter	Action Level	Limit Level
SS in mg/L (depth-averaged ^(a) ^(c))	95%-ile of baseline data, or 20% exceedance of value at any impact station and sensitive receiver compared with corresponding data from reference stations at the same tide of the same day	99%-ile of baseline data, or 30% exceedance of value at any impact station and sensitive receiver compared with corresponding data from reference stations at the same tide of the same day and specific sensitive receiver water quality requirements
Chlorophyll- <i>a</i> in µg/L ^(c)	<u>Surface, Middle and Bottom</u> 95%-ile of baseline data	<u>Surface, Middle and Bottom</u> 10µg/L or 99%-ile of baseline data
DO in mg/L ^(b) ^(d)	<u>Surface and Middle</u> 5%-ile of baseline data for surface and middle layer <u>Bottom</u> 5%-ile of baseline data for bottom layers	<u>Surface and Middle</u> 4mg/L or 1%-ile of baseline for surface and middle layer <u>Bottom</u> 2mg/L or 1%-ile of baseline data for bottom layer
Turbidity in NTU (depth-averaged ^(a) ^(c))	95%-ile of baseline data, or 20% exceedance of value at any impact station and sensitive receiver compared with corresponding data from reference stations at the same tide of the same day	99%-ile of baseline data, or 30% exceedance of value at any impact station and sensitive receiver compared with corresponding data from reference stations at the same tide of the same day
<i>Notes:</i> (a) “Depth-averaged” is calculated by taking the arithmetic means of reading of all three depths. (b) For DO, non-compliance of the water quality limits occurs when monitoring result is lower than the limits.		

- (c) *For SS, chlorophyll-a and turbidity, non-compliance of the water quality limits occurs when monitoring result is higher than the limits.*
- (d) *Both Action and Limit Levels for DO (surface and middle) in the FCZ1 (Figure 5.1) are less than 5 mg/L.*

Event Action Plan

- 2.6.2 Should non-compliance of the environmental quality criteria occurs, remedial actions will be triggered according to the Event and Action Plan which presented in *Appendix D*.

3 BASELINE MONITORING METHDOLOGY

3.1 GENERAL

3.1.1 The baseline monitoring program of water quality was conducted from 23 September 2017 to 21 October 2017. During the baseline monitoring period, there were no construction activities of this project was observed by the ET. However, unknown muddy water discharged from existing box culvert at Lung Mei near lamp post AE0709 on the morning of 29th September 2017 was observed by the ET as external influencing factors of significant concern. It was observed that the muddy water was trapped and accumulated in inner beach of Lung Mei instead of flowing to outer harbor. Having reviewed both in-situ measurement result and laboratory testing result dated on 29 September 2017, no significant variation was found on the baseline monitoring results at I1, I2, I3 and W1 on 29 September 2017.

3.2 LOCATION OF BASELINE MONITORING

3.2.1 Baseline water quality monitoring has been undertaken at the all designated monitoring stations from **23 September 2017** to **21 October 2017**. The detailed information of monitoring stations to be referred to *Tables 2-2* and *Appendix B*.

3.3 MONITORING EQUIPMENT AT BASELINE MONITORING

3.3.1 The monitoring equipment using for the EM&A program was proposed by ET and verified by prior of baseline monitoring work commencement. The detail of equipment using for baseline monitoring is listed in *Table 3-1* as below.

Table 3-1 Water Monitoring Equipment

Equipment	Model
A Digital Global Positioning System	GPS12 Garmin
Water Depth Detector	Eagle Sonar CUDA 300
Water Sampler	A 2-litre transparent PVC cylinder with latex cups at both ends or teflon/stainless steel bailer or self-made sampler
Thermometer & DO meter	YSI ProDSS Digital Sampling System Water Quality Meter or YSI Professional Plus Multifunctional Meter
pH meter	YSI ProDSS Digital Sampling System Water Quality Meter or YSI Professional Plus Multifunctional Meter
Turbidimeter	YSI ProDSS Digital Sampling System Water Quality Meter or Hach 2100p
Salinometer	YSI ProDSS Digital Sampling System Water Quality Meter or YSI Professional Plus Multifunctional Meter
Current Meter	Valeport Ltd – Model 106 Self Recording/Direct Reading Current Meter
Sample Container	High density polythene bottles (provided by laboratory)
Storage Container	‘Willow’ 33-litter plastic cool box with Ice pad

3.4 BASELINE MONITORING PROCEDURES

Water Quality

3.4.1 Marine water quality monitoring will be conducted at the designated locations in accordance with EM&A Manual. The operating and analytical of sampling procedures are described as below:

- A Global Positioning System (GPS) will be used to ensure that the correct location was selected prior to sample collection. A portable, battery-operated echo sounder will be used for the determination of water depth at each designated monitoring station.
- The marine water sampler will be lowered into the water body at a predetermined depth. The trigger system of the sampler is activated with a messenger and opening ends of the sampler

are closed accordingly then the sample of water is collected.

- During the sampling, the sampling container will be rinsed to use a portion of the marine water sample before the water sample is transferred to the container. Upon sampling completion, the container is sealed with a screw cap.
- Before the sampling process, general information such as the date and time of sampling, weather condition and tidal condition as well as the personnel responsible for the monitoring will be recorded on the monitoring field data sheet.
- In-situ measurement including water temperature, turbidity, dissolved oxygen, salinity, pH and water depth undertake at the identified monitoring point. At each station, marine water samples are collected at three depths: 1m below water surface, 1m above sea bottom and at mid-depth when the water depth exceeds 6m. Samples at 1m below water surface and 1m above sea bottom are collected when the water depth is between 3m and 6m. Only 1 sample at mid-depth is taken when the water depth is below 3m.
- For the in-situ measurement, two consecutive measurements of sampling depth, temperature, dissolved oxygen, salinity, turbidity and pH concentration will be measured at the sea. The YSI ProDSS Multifunctional Meter is retrieved out of the water after the first measurement and then re-deployed for the second measurement. Where the difference in the value between the first and second readings of each set is more than 25% of the value of the first reading, the reading is discarded and further readings is taken.
- Water sample collection would be used the water sampler. During the water sample collected from the sea, it is fill in high-density polythene bottles. Before the water sample storage, the sampling bottles will be pre-rinsed with the same water sample. The sample bottles then is packed in cool-boxes (cooled at 4°C without being frozen), and delivered to HOKLAS accredited laboratory for the chemical analysis as followed APHA Standard Methods.
- The laboratory has be comprehensive quality assurance and quality control programmes. For QA/QC procedures, one duplicate sample of every batch of 20 samples is analyzed as followed the HOKLAS accredited requirement.

3.4.2 During marine water sampling period, all in-situ measurement equipment will be calibrated at three months interval accordingly. Except for the Current Velocity and Direction water flow meter will be calibrated every two years as recommended by the manufactory. Available calibration certificates will be issued to ensure the performance of equipment to use for in-situ measurement.

3.4.3 Before each round of monitoring, the dissolved oxygen probe will be calibrated by wet bulb method; a zero check in distilled water will be performed with the turbidity and salinity probes; 4 and 10 values of the standard solution will be undertaken to check the accuracy of pH value.

3.4.4 The calibration certificates of monitoring equipment of water quality and the HOKLAS-Accreditation certificate of the testing laboratory is shown in *Appendices D* and *E*.

LABORATORY ANALYSIS

3.4.5 All water samples included the duplicate samples, will be conducted the chemical analysis as specified in the EM&A Manual by a HOKALS accredited laboratory - ALS Technichem (HK) Pty Ltd. The chemicals analysis method and reporting limit show *Table 3-2*.

Table 3-2 Testing Method and Reporting Limit of the Chemical Analysis

Parameter	ALS Method Code	In-house Method Reference ¹	Reporting Limit
Total Suspended Solids	EA025	APHA 2540D	2 mg/L
Chlorophyll-a	EP008F	APHA 10200 H2&H3	0.1 µg/L

Note:

1. The exact method shall depend on the laboratory accredited method. APHA = Standard Methods for the Examination of Water and Wastewater by the American Public Health Association.

- 3.4.6 The determination works should start within 24 hours after collection of the water samples or within the holding time as advised by the laboratory.

Meteorological Information

- 3.4.7 The meteorological information including wind direction, wind speed, humidity, rainfall, air pressure and temperature etc. during baseline monitoring is extracted from the closest Hong Kong Observatory Station. To obtain the most appropriate meteorological information where available, Air Temperature/Pressure and Relative Humidity will be extracted from Tai Po Station and wind speed and direction will be extracted from Tai Mei Tuk Station.

3.5 DATA MANAGEMENT AND DATA QA/QC CONTROL

- 3.5.1 The baseline monitoring data were handled by the ET's in-house data recording and management system.
- 3.5.2 The monitoring data recorded in the equipment were downloaded directly from the equipment at the end of each monitoring day. The downloaded monitoring data were input into a computerized database properly maintained by the ET. The laboratory results were input directly into the computerized database and checked by personnel other than those who input the data.
- 3.5.3 For monitoring parameters that require laboratory analysis, the local laboratory shall follow the QA/QC requirements as set out under the HOKLAS scheme for the relevant laboratory tests.

4 BASELINE MONITORING RESULTS

4.1 GENERAL

4.1.1 The baseline water quality monitoring was originally conducted in the period of 23 September 2017 to 19 October 2017, since tropical cyclone warning signal No.8 was hoisted on 15 October 2017 and the monitoring event was rescheduled on 21 October 2017. The full period of baseline water quality monitoring was performed on **23 September 2017 to 21 October 2017**.

4.1.2 The baseline monitoring schedules are presented in *Appendix G* and the monitoring results are detailed in the following sub-sections.

4.2 RESULTS OF WATER QUALITY MONITORING

4.2.1 The baseline water quality monitoring at nine (9) designated monitoring stations was performed a 4 weeks as between **23 September 2017** and **21 October 2017**. The results at each designated monitoring station are presented in *Tables 4-1* and *Appendix F*.

Table 4-1 Details of Water Quality Monitoring Stations

Monitoring Station	Status	Water Depth, (m)			Co-ordnance	
		Min	Max	Ave.	East	North
G1	Gradient Station	4.4	7.2	5.7	841483.9	835936.1
I1	Impact Station	2.6	2.9	2.8	841338.5	836588.5
I2	Impact Station	4.5	5.7	4.8	841590.3	836601.2
I3	Impact Station	4.2	5.5	4.8	841807.0	836680.9
R1	Reference Station	5.1	7.3	6.2	842307.4	835718.4
R2	Reference Station	4.2	5.6	4.9	840739.4	836212.4
W1	Sensitive Receiver	6.6	8.4	7.4	841858.9	836571.0
M1	Sensitive Receiver	0.5	1.0	0.7	840822.2	836416.4
FCZ1	Sensitive Receiver	4.1	5.2	4.7	841180.6	835230.8

4.2.2 The monitoring results are summarized in *Tables 4-2*. Detailed monitoring results including in-situ measurements and laboratory analysis data are shown in *Appendix F*.

Table 4-2 Summary of Water Quality Monitoring Results

Suspended Solids – Depth Average (mg/L)	G1	I1	I2	I3	R1	R2	W1	M1	FCZ1
95%-ile	N/A	7.0	7.0	8.3	N/A	N/A	8.0	10.0	7.0
99%-ile	N/A	7.5	8.1	15.0	N/A	N/A	8.6	11.0	8.0
Average	4.1	3.7	3.9	4.2	3.9	4.1	3.8	5.4	4.3
Min	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Max	10.0	8.0	10.0	15.0	10.0	10.0	9.0	11.0	8.0
Chlorophyll-a – Depth Average (µg/L)	G1	I1	I2	I3	R1	R2	W1	M1	FCZ1
95%-ile	N/A	11.1	11.0	11.3	N/A	N/A	11.3	16.9	11.8
99%-ile	N/A	12.1	13.1	14.5	N/A	N/A	16.1	42.4	12.5
Average	4.5	4.3	3.7	4.0	3.7	7.1	4.1	6.0	5.5
Min	0.2	0.3	0.2	0.3	0.3	0.3	0.4	0.3	0.4
Max	14.8	12.5	14.2	15.3	12.4	83.8	17.1	43.5	13.5

Dissolved Oxygen – Depth Average of Surface & Mid-depth (mg/L)	G1	I1	I2	I3	R1	R2	W1	M1	FCZ1
5%-ile	N/A	5.08	5.26	5.03	N/A	N/A	4.67	4.73	5.32
1%-ile	N/A	4.80	4.88	4.77	N/A	N/A	4.54	4.70	4.86
Average	6.30	6.02	6.07	6.00	5.97	6.27	5.77	5.99	6.50
Min	5.10	4.77	4.87	4.72	4.29	5.09	4.27	4.70	4.84
Max	7.53	7.64	7.45	7.75	7.60	8.53	7.83	7.67	8.16
Dissolved Oxygen – Bottom Depth (mg/L)	G1	I1	I2	I3	R1	R2	W1	M1	FCZ1
5%-ile	N/A	N/A	3.64	4.09	N/A	N/A	2.41	N/A	3.43
1%-ile	N/A	N/A	3.37	3.19	N/A	N/A	2.33	N/A	3.18
Average	4.76	N/A	4.93	4.95	4.46	4.74	3.87	N/A	5.25
Min	2.63	N/A	3.35	3.18	2.82	2.09	2.30	N/A	3.15
Max	7.53	N/A	6.24	5.94	5.71	7.28	5.90	N/A	7.71
Turbidity – Depth Average (NTU)	G1	I1	I2	I3	R1	R2	W1	M1	FCZ1
95%-ile	N/A	2.8	3.5	2.6	N/A	N/A	2.9	5.2	3.2
99%-ile	N/A	2.9	7.7	3.0	N/A	N/A	3.3	6.6	3.4
Average	1.9	1.7	1.9	1.6	1.7	1.9	1.7	2.9	1.8
Min	0.1	0.2	0.1	0.1	0.1	0.2	0.1	1.0	0.03
Max	4.1	2.9	7.8	3.0	4.8	3.3	3.6	7.3	3.5

N/A: Not applicable

4.2.3 During the baseline monitoring period, no construction activities under the Project were observed by ET. However, unknown muddy water discharged from existing box culvert at Lung Mei near lamp post AE0709 was observed by the ET at around 11:45am on 29th September 2017 as external influencing factors of significant concern. The muddy water was trapped and accumulated in inner beach of Lung Mei instead of flowing to outer harbor. Having reviewed both in-situ measurement result and laboratory testing result on 29 September 2017, no abnormal variation was found on the baseline monitoring results at the closest stations including I1, I2, I3 and W1.

4.2.4 The meteorological data during the baseline monitoring period are summarized in *Appendix H*.

Action/Limit Levels for Water Quality

4.2.5 The Action and Limit Levels for water quality based on the results of the baseline monitoring are presented in *Table 4-3*. The proposed environmental performance criteria are recommended according to *Table 2-4* of this report.

Table 4-3 Action and Limit Levels for Water Quality Monitoring

Monitoring Location	Depth Average of SS (mg/L)			
	Action Level		Limit Level	
I1	7.0	OR 120% of any reference stations at the same tide of the same day	7.5	OR 130% of any reference stations at the same tide of the same day
I2	7.0		8.1	
I3	8.3		15.0	
W1	8.0		8.6	
M1	10.0		11.0	
FCZ1	7.0		8.0	

Monitoring Location	Chlorophyll- <i>a</i> (µg/L)			
	Surface, Middle & Bottom			
	Action Level		Limit Level	
I1	11.1		12.1	
I2	11.0		13.1	
I3	11.3		14.5	
W1	11.3		16.1	
M1	16.9		42.4	
FCZ1	11.8		12.5	

Monitoring Location	Dissolved Oxygen (mg/L)			
	Depth Average of Surface and Mid-depth		Bottom	
	Action Level	Limit Level	Action Level	Limit Level
I1	5.08	4.80	N/A	N/A
I2	5.26	4.88	3.64	3.37
I3	5.03	4.77	4.09	3.19
W1	4.67	4.54	2.41	2.33
M1	4.73	4.70	N/A	N/A
FCZ1	5	5	3.43	3.18

Monitoring Location	Depth Average of Turbidity (NTU)			
	Action Level		Limit Level	
	I1	2.8	OR 120% of any reference stations at the same tide of the same day	2.9
I2	3.5	7.7		
I3	2.6	3.0		
W1	2.9	3.3		
M1	5.2	6.6		
FCZ1	3.2	3.4		

Notes:

- (a) For DO, non-compliance of water quality limits occurs when monitoring result is lower than the limits
- (b) For SS, chlorophyll-*a* and turbidity, non-compliance of the water quality limits occurs when monitoring result is higher than the limits.
- (c) Both Action and Limit Levels for DO (surface and middle) in the FCZ1 are less than 5 mg/L according to Table 2-4.

4.3 DISCUSSION AND RECOMMENDATIONS

Water Quality

Environmental Performance Criteria of DO, SS, and Turbidity

- 4.3.1 The baseline suspended solids (SS) and turbidity levels reflect typical water quality at the monitoring locations during wet seasons (March to October next year). The established environmental performance criteria, i.e. Action & Limit Levels, are therefore applicable to the Event and Action Plan in Hong Kong during wet season immediately prior to the commencement of the construction activities of the Project. Similarly, this applies to dissolved oxygen (DO) which is influenced by the same seasonable changes as SS and turbidity.
- 4.3.2 It is important to point out that the baseline SS and turbidity conditions at the monitoring locations may differ significantly during raining, in particular under high tide flow conditions. Therefore, it is recommended to regularly review the water quality baseline conditions, in particular during season changes. The environmental performance criteria may need to be re-established if it is evident that the baseline conditions have changed significantly. An updated baseline data should then be sought for re-establishment of the updated environmental performance criteria for the Event and Action Plan to be smoothly implemented.

5 CONCLUSIONS AND RECOMMENTATIONS

5.1 CONCLUSIONS

5.1.1 The baseline monitoring program for water quality monitoring was carried out during the period between 23 September 2017 and 21 October 2017 at the designated monitoring locations by the ET according to the EM&A Manual.

5.1.2 During the baseline monitoring period, no construction activities under the Project were observed by ET. However, unknown muddy water discharged from existing box culvert at Lung Mei near lamp post AE0709 was observed by the ET in the morning of 29th September 2017 as external influencing factors of significant concern. The muddy water was trapped and accumulated in inner beach of Lung Mei instead of flowing to outer harbor. Having reviewed both in-situ measurement result and laboratory testing result on 29 September 2017, no abnormal variation was found on the baseline monitoring results at the closest stations including I1, I2, I3 and W1.

5.1.3 Based on the baseline monitoring results, the recommended environmental performance criteria for water quality monitoring are summarized as follows:

Recommended Action & Limit Levels of Water Quality				
Monitoring Location	Depth Average of SS (mg/L)			
	Action Level		Limit Level	
I1	7.0	OR 120% of any reference stations at the same tide of the same day	7.5	OR 130% of any reference stations at the same tide of the same day
I2	7.0		8.1	
I3	8.3		15.0	
W1	8.0		8.6	
M1	10.0		11.0	
FCZ1	7.0		8.0	
Monitoring Location	Chlorophyll-a (µg/L)			
	Surface, Middle & Bottom			
Monitoring Location	Action Level		Limit Level	
	I1	11.1	12.1	
I2	11.0		13.1	
I3	11.3		14.5	
W1	11.3		16.1	
M1	16.9		42.4	
FCZ1	11.8		12.5	
Monitoring Location	Dissolved Oxygen (mg/L)			
	Depth Average of Surface and Mid-depth		Bottom	
	Action Level	Limit Level	Action Level	Limit Level
I1	5.08	4.80	N/A	N/A
I2	5.26	4.88	3.64	3.37
I3	5.03	4.77	4.09	3.19
W1	4.67	4.54	2.41	2.33
M1	4.73	4.70	N/A	N/A
FCZ1	5	5	3.43	3.18
Monitoring Location	Depth Average of Turbidity (NTU)			
	Action Level		Limit Level	
I1	2.8	OR 120% of any reference stations at the same tide of the same day	2.9	OR 130% of any reference stations at the same tide of the same day
I2	3.5		7.7	
I3	2.6		3.0	
W1	2.9		3.3	
M1	5.2		6.6	
FCZ1	3.2		3.4	

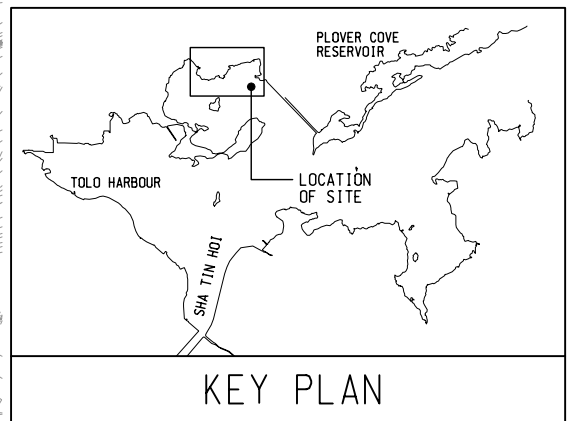
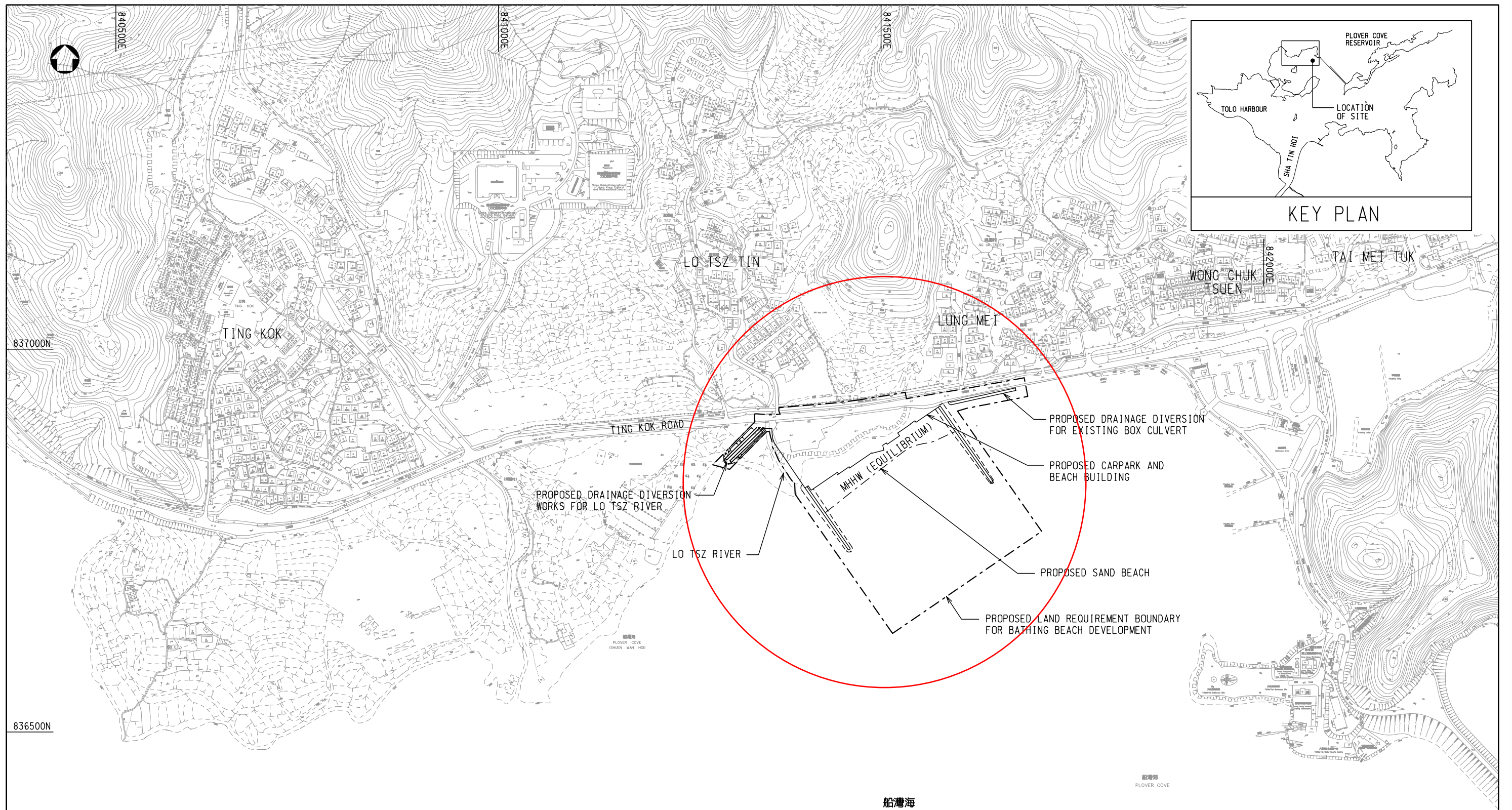
Notes:

- (a) For DO, non-compliance of water quality limits occurs when monitoring result is lower than the limits
- (b) For SS, chlorophyll-*a* and turbidity, non-compliance of the water quality limits occurs when monitoring result is higher than the limits.
- (c) In accordance with EM&A Manual Table 5.1, both Action and Limit Levels for DO (surface and middle) in the FCZ1 are less than 5 mg/L.

5.2 RECOMMENDATIONS

- 5.2.1 The baseline suspended solids (SS) and turbidity levels reflect typical water quality at the monitoring locations during wet seasons (March to October next year). The established environmental performance criteria, i.e. Action & Limit Levels, are therefore applicable to the Event and Action Plan in Hong Kong during wet season immediately prior to the commencement of the construction activities of the Project. Similarly, this applies to dissolved oxygen (DO) which is influenced by the same seasonable changes as SS and turbidity.

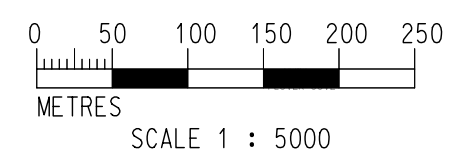
Appendix A
Layout Plan of the Project



船灣海
PLOVER COVE
(SHUEN WAN HOI)

LEGEND :

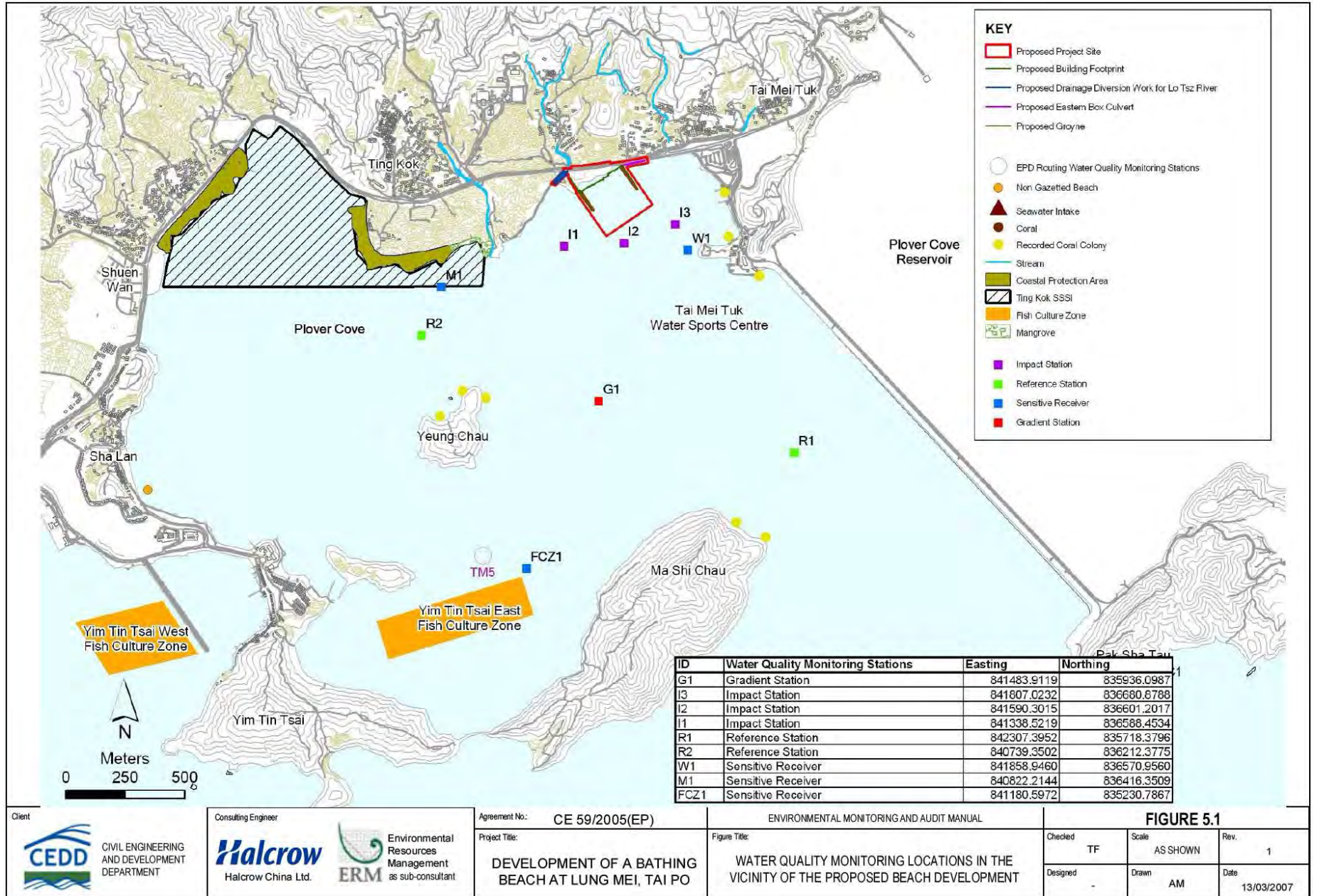
----- PROPOSED LAND REQUIREMENT BOUNDARY FOR BATHING BEACH DEVELOPMENT



			Agreement No. : CE 59/2005 (EP)	ENVIRONMENTAL IMPACT ASSESSMENT REPORT	FIGURE 1.1		
			Project Title: DEVELOPMENT OF A BATHING BEACH AT LUNG MEI, TAI PO	Figure Title: SITE LOCATION PLAN AND GENERAL LAYOUT	Checked PS Designed YC	Scale 1:5000 @ A3 Drawn PF	Rev. 2 Date 14/03/2007

Appendix B

**Designated Monitoring Locations of
Water Quality Monitoring**



Client CIVIL ENGINEERING AND DEVELOPMENT DEPARTMENT	Consulting Engineer Halcrow China Ltd.	Environmental Resources Management as sub-consultant	Agreement No.: CE 59/2005(EP)	ENVIRONMENTAL MONITORING AND AUDIT MANUAL	FIGURE 5.1		
			Project Title: DEVELOPMENT OF A BATHING BEACH AT LUNG MEI, TAI PO	Figure Title: WATER QUALITY MONITORING LOCATIONS IN THE VICINITY OF THE PROPOSED BEACH DEVELOPMENT	Checked: TF Designed: -	Scale: AS SHOWN Drawn: AM	Rev.: 1 Date: 13/03/2007

Appendix C

Event and Action Plan

Event and Action Plan for Water Quality

EVENT	ACTION			
	ET	IEC	ER	Contractor
Action Level being exceeded by one sampling day	<ol style="list-style-type: none"> 1. Repeat <i>in-situ</i> measurement to confirm findings; 2. Identify source(s) of impact; 3. Inform the IEC and the Contractor; 4. Check monitoring data, all plant, equipment and the Contractor's working methods; 5. Discuss mitigation measures with the IEC and the Contractor; 	<ol style="list-style-type: none"> 1. Discuss with the ET and the Contractor on the mitigation measures; 2. Review proposals on mitigation measures submitted by the Contractor; 3. Assess the effectiveness of the implemented mitigation measures. 	<ol style="list-style-type: none"> 1. Discuss with the IEC on the proposed mitigation measures; 2. Make agreement on the mitigation measures to be implemented. 	<ol style="list-style-type: none"> 1. Inform the ER and confirm notification of the non-compliance in writing; 2. Rectify unacceptable practice; 3. Check all plant and equipment; 4. Consider changes of working methods; 5. Discuss with the ET and the IEC and propose mitigation measures to the IEC and ER; 6. Implement the agreed mitigation measures.
Action Level being exceeded by more than one consecutive sampling days	<ol style="list-style-type: none"> 1. Repeat <i>in-situ</i> measurement to confirm findings; 2. Identify source(s) of impact; 3. Inform the IEC and the Contractor; 4. Check monitoring data, all plant, equipment and Contractor's working methods; 5. Discuss mitigation measures with the IEC and the Contractor; 6. Ensure mitigation measures are implemented; 	<ol style="list-style-type: none"> 1. Discuss with the ET and the Contractor on the mitigation measures; 2. Review proposals on mitigation measures submitted by the Contractor accordingly; 3. Assess the effectiveness of the implemented mitigation measures. 	<ol style="list-style-type: none"> 1. Discuss with the IEC on the proposed mitigation measures; 2. Make agreement on the mitigation measures to be implemented; 3. Assess effectiveness of the implemented mitigation measures. 	<ol style="list-style-type: none"> 1. Inform the ER and confirm notification of the noncompliance in writing; 2. Rectify unacceptable practice; 3. Check all plant and equipment; 4. Consider changes of working methods; 5. Discuss with the ET and the IEC and propose mitigation measures to the IEC and ER within 3 working days; 6. Implement the agreed mitigation measures.
Limit Level being exceeded by one consecutive sampling day	<ol style="list-style-type: none"> 1. Repeat <i>in-situ</i> measurement to confirm findings; 2. Identify source(s) of impact; 3. Inform the IEC, the Contractor and the DEP; 4. Check monitoring data, all plant, equipment and the Contractor's working methods; 	<ol style="list-style-type: none"> 1. Discuss with the ET / Contractor on the mitigation measures; 2. Review proposals on mitigation measures submitted by the Contractor and advise the ER accordingly; 3. Assess the effectiveness of the implemented mitigation 	<ol style="list-style-type: none"> 1. Discuss with the IEC, the ET and the Contractor on the proposed mitigation measures; 2. Request the Contractor to critically review the working methods; 3. Make agreement on the mitigation measures to be 	<ol style="list-style-type: none"> 1. Inform the ER and confirm notification of the noncompliance in writing; 2. Rectify unacceptable practice; 3. Check all plant and equipment; 4. Consider changes of working methods; 5. Discuss with the ET, the IEC and

EVENT	ACTION			
	ET	IEC	ER	Contractor
	5. Discuss mitigation measures with the IEC, the ER and the Contractor; 6. Ensure mitigation measures are implemented.	measures.	implemented; 4. Assess the effectiveness of the implemented mitigation measures.	the ER and propose mitigation measures to the IEC and the ER within 3 working days; 6. Implement the agreed mitigation measures.
Limit Level being exceeded by more than one consecutive sampling days	1. Repeat <i>in-situ</i> measurement to confirm findings; 2. Identify source(s) of impact; 3. Inform the IEC, the Contractor and DEP; 4. Check monitoring data, all plant, equipment and Contractor's working methods; 5. Discuss mitigation measures with the IEC, the ER and the Contractor; 6. Ensure mitigation measures are implemented;	1. Discuss with ET and Contractor on the mitigation measures; 2. Review proposals on mitigation measures submitted by the Contractor and advise the ER accordingly; 3. Assess the effectiveness of the implemented mitigation measures.	1. Discuss with the IEC, the ET and the Contractor on the proposed mitigation measures; 2. Request Contractor to critically review working methods; 3. Make agreement on the mitigation measures to be implemented; 4. Assess effectiveness of the implemented mitigation measures; 5. Consider and instruct, if necessary, the Contractor to slow down or to stop all or part of the marine work until no exceedance of Limit Level.	1. Inform the ER and confirm notification of the non-compliance in writing; 2. Rectify unacceptable practice; 3. Check all plant and equipment; 4. Consider changes of working methods; 5. Discuss with the ET, the IEC and the ER and propose mitigation measures to the IEC and the ER within 3 working days; 6. Implement the agreed mitigation measures; 7. As directed by the ER, slow down or stop all or part of the construction activities.

Appendix D

Valid Calibration Certificate of Monitoring Equipment

MONITORING EQUIPMENT CALIBRATION CERTIFICATES

Items	Aspect	Description of Equipment	Date of Calibration	Date of Next Calibration
1	Water	YSI Multifunctional Meter – Model: Professional DSS (Serial Number: 15H102620/15H103928)	20 Jul 2017	20 Oct 2017
2		YSI Multifunctional Meter – Model: Professional DSS (Serial Number: 17B102764/17B100758)	12 Oct 2017	12 Jan 2018
3		Valeport Ltd – Model: 106 Self Recording/Direct Reading Current Meter (Serial Number: 60011)	16 Jun 2017	16 Jun 2019



REPORT OF EQUIPMENT PERFORMANCE CHECK / CALIBRATION

CONTACT:	MR BEN TAM	WORK ORDER:	HK1731337
CLIENT:	ACTION UNITED ENVIRONMENT SERVICES AND CONSULTING	SUB-BATCH:	0
ADDRESS:	RM A 20/F., GOLD KING IND BLDG, NO. 35- 41 TAI LIN PAI ROAD, KWAI CHUNG, N.T., HONG KONG.	LABORATORY:	HONG KONG
		DATE RECEIVED:	20/07/2017
		DATE OF ISSUE:	28/07/2017

COMMENTS

The performance of the equipment stated in this report is checked with independent reference material and results compared against a calibrated secondary source.
The "Tolerance Limit" quoted is the acceptance criteria applicable for similar equipment used by the ALS Hong Kong laboratory or quoted from relevant international standards.
The "Next Calibration Date" is recommended according to best practice principals as practised by the ALS Hong Kong laboratory or quoted from relevant international standards.

Scope of Test: Conductivity, Dissolved Oxygen, pH, Salinity, Temperature and Turbidity
Equipment Type: Multifunctional Meter
Brand Name: YSI
Model No.: PROFESSIONAL DSS
Serial No.: 17B102764/17B100758
Equipment No.: EQW019
Date of Calibration: 20 July, 2017

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.

Mr Chan Siu Ming, Vice
Manager - Inorganics

REPORT OF EQUIPMENT PERFORMANCE CHECK/CALIBRATION

Work Order: HK1731337
Sub-Batch: 0
Date of Issue: 28/07/2017
Client: ACTION UNITED ENVIRONMENT SERVICES AND CONSULTING



Equipment Type: Multifunctional Meter
Brand Name: YSI
Model No.: PROFESSIONAL DSS
Serial No.: 17B102764/17B100758
Equipment No.: EQW019
Date of Calibration: 20 July, 2017 **Date of next Calibration:** 20 October, 2017

Parameters:

Conductivity

Method Ref: APHA (21st edition), 2510B

Expected Reading (uS/cm)	Displayed Reading (uS/cm)	Tolerance (%)
146.9	136.8	- 6.9
6667	6318	- 5.2
12890	12573	- 2.5
58670	55947	- 4.6
Tolerance Limit (%)		± 10.0

Dissolved Oxygen

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

Expected Reading (mg/L)	Displayed Reading (mg/L)	Tolerance (mg/L)
2.39	2.52	+ 0.13
5.03	5.01	- 0.02
7.41	7.29	- 0.12
Tolerance Limit (mg/L)		± 0.20

pH Value

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

Expected Reading (pH Unit)	Displayed Reading (pH Unit)	Tolerance (pH unit)
4.0	3.96	- 0.04
7.0	7.02	+ 0.02
10.0	10.06	+ 0.06
Tolerance Limit (pH unit)		± 0.20

Remark: "Displayed Reading" presents the figures shown on item under calibration / checking regardless of equipment precision or significant figures.


 Mr Chan Siu Ming, *Vice*
 Manager - Inorganics

REPORT OF EQUIPMENT PERFORMANCE CHECK / CALIBRATION

Work Order: HK1731337
Sub-Batch: 0
Date of Issue: 28/07/2017
Client: ACTION UNITED ENVIRONMENT SERVICES AND CONSULTING



Equipment Type: Multifunctional Meter
Brand Name: YSI
Model No.: PROFESSIONAL DSS
Serial No.: 17B102764/17B100758
Equipment No.: EQW019
Date of Calibration: 20 July, 2017 **Date of next Calibration:** 20 October, 2017

Parameters:

Salinity

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

Expected Reading (ppt)	Displayed Reading (ppt)	Tolerance (%)
0	0.03	--
10	10.08	+ 0.8
20	20.40	+ 2.0
30	32.19	+ 7.3
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)
9.0	9.8	+ 0.8
24.0	24.4	+ 0.4
37.0	36.2	- 0.8
Tolerance Limit (°C)		± 2.0

Turbidity

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

Expected Reading (NTU)	Displayed Reading (NTU)	Tolerance (%)
0	0.5	--
4	3.8	- 5.0
40	38.6	- 3.5
80	76.8	- 4.0
400	401.1	+ 0.3
800	774.9	- 3.1
Tolerance Limit (%)		± 10.0

Remark: "Displayed Reading" presents the figures shown on item under calibration / checking regardless of equipment precision or significant figures.


 Mr Chan Siu Ming, Vice
 Manager - Inorganics



REPORT OF EQUIPMENT PERFORMANCE CHECK/CALIBRATION

CONTACT:	MR BEN TAM	WORK ORDER:	HK1770625
CLIENT:	ACTION UNITED ENVIRONMENT SERVICES AND CONSULTING	SUB-BATCH:	0
ADDRESS:	RM A 20/F., GOLD KING IND BLDG, NO. 35- 41 TAI LIN PAI ROAD, Kwai Chung, N.T., HONG KONG.	LABORATORY:	HONG KONG
		DATE RECEIVED:	11/10/2017
		DATE OF ISSUE:	16/10/2017

COMMENTS

The performance of the equipment stated in this report is checked with independent reference material and results compared against a calibrated secondary source.

The "Tolerance Limit" quoted is the acceptance criteria applicable for similar equipment used by the ALS Hong Kong laboratory or quoted from relevant international standards.

The "Next Calibration Date" is recommended according to best practice principals as practised by the ALS Hong Kong laboratory or quoted from relevant international standards.

Scope of Test: Conductivity, Dissolved Oxygen, pH, Salinity, Temperature and Turbidity
Equipment Type: Multifunctional Meter
Brand Name: YSI
Model No.: Professional DDS
Serial No.: 15H102620/15H103928
Equipment No.: EQW018
Date of Calibration: 12 October, 2017

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.

Mr Chan Siu Ming, Vice
Manager - Inorganics

REPORT OF EQUIPMENT PERFORMANCE CHECK/CALIBRATION

Work Order: HK1770625
Sub-Batch: 0
Date of Issue: 16/10/2017
Client: ACTION UNITED ENVIRONMENT SERVICES AND CONSULTING



Equipment Type: Multifunctional Meter
Brand Name: YSI
Model No.: Professional DDS
Serial No.: 15H102620/15H103928
Equipment No.: EQW018
Date of Calibration: 12 October, 2017 **Date of next Calibration:** 12 January, 2018

Parameters:

Conductivity

Method Ref: APHA (21st edition), 2510B

Expected Reading (uS/cm)	Displayed Reading (uS/cm)	Tolerance (%)
146.9	157.7	+ 7.4
6667	6698	+ 0.5
12890	13249	+ 2.8
58670	61297	+ 4.5
Tolerance Limit (%)		± 10.0

Dissolved Oxygen

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

Expected Reading (mg/L)	Displayed Reading (mg/L)	Tolerance (mg/L)
4.19	4.08	- 0.11
5.58	5.57	- 0.01
7.66	7.51	- 0.15
Tolerance Limit (mg/L)		± 0.20

pH Value

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

Expected Reading (pH Unit)	Displayed Reading (pH Unit)	Tolerance (pH unit)
4.0	3.91	- 0.09
7.0	7.01	+ 0.01
10.0	9.96	- 0.04
Tolerance Limit (pH unit)		± 0.20

Remark: "Displayed Reading" presents the figures shown on item under calibration / checking regardless of equipment precision or significant figures.


 Mr Chan Siu Ming, *Vice*
 Manager - Inorganics

REPORT OF EQUIPMENT PERFORMANCE CHECK/CALIBRATION

Work Order: HK1770625
Sub-Batch: 0
Date of Issue: 16/10/2017
Client: ACTION UNITED ENVIRONMENT SERVICES AND CONSULTING



Equipment Type: Multifunctional Meter
Brand Name: YSI
Model No.: Professional DDS
Serial No.: 15H102620/15H103928
Equipment No.: EQW018
Date of Calibration: 12 October, 2017 **Date of next Calibration:** 12 January, 2018

Parameters:

Salinity

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

Expected Reading (ppt)	Displayed Reading (ppt)	Tolerance (%)
0	0.00	--
10	10.32	+3.2
20	21.39	+7.0
30	31.97	+6.6
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)
9.0	9.2	+0.2
19.5	18.6	-0.9
36.0	35.1	-0.9
Tolerance Limit (°C)		± 2.0

Turbidity

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

Expected Reading (NTU)	Displayed Reading (NTU)	Tolerance (%)
0	0.3	--
4	3.8	-5.0
40	38.9	-2.8
80	84.7	+5.9
400	433.1	+8.3
800	851.2	+6.4
Tolerance Limit (%)		± 10.0

Remark: "Displayed Reading" presents the figures shown on item under calibration / checking regardless of equipment precision or significant figures.


 Mr Chan Siu Ming, Vice
 Manager - Inorganics

VALEPORT

This document certifies that the instrument detailed below has been calibrated according to Valeport Limited's Standard Procedures, using equipment with calibrations traceable to UKAS or National Standards.

Calibration Certificate Number: 49714

Instrument Type: 106

Instrument Serial Number: 60011

Calibrated By: L.Bicknell

Date: 16/06/2017

Signed: 

Full details of the results from the calibration procedure applied to each fitted sensor are available, on request, via email. This summary certificate should be kept with the instrument.



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Appendix E

HOKLAS-accreditation Certificate of the Testing Laboratory



Hong Kong Accreditation Service
香港認可處

Certificate of Accreditation
認可證書

This is to certify that
特此證明

ALS TECHNICHEM (HK) PTY LIMITED

11/F., Chung Shun Knitting Centre, 1-3 Wing Yip Street, Kwai Chung, New Territories, Hong Kong
香港新界葵涌永業街1-3號忠信針織中心11樓

has been accepted by the HKAS Executive, on the recommendation of the Accreditation Advisory Board, as a
為香港認可處執行機關根據認可諮詢委員會建議而接受的

HOKLAS Accredited Laboratory
「香港實驗所認可計劃」認可實驗所

This laboratory meets the requirements of ISO / IEC 17025 : 2005 – General requirements for the competence of testing and calibration laboratories and it has been accredited for performing specific tests or calibrations as listed in the HOKLAS Directory of Accredited Laboratories within the test category of
此實驗所符合ISO / IEC 17025 : 2005 –《測試及校正實驗所能力的通用規定》所訂的要求，獲認可進行載於香港實驗所認可計劃《認可實驗所名冊》內下述測試類別中的指定
測試或校正工作

Environmental Testing
環境測試

This laboratory is accredited in accordance with the recognised International Standard ISO / IEC 17025 : 2005.
本實驗所乃根據公認的國際標準 ISO / IEC 17025 : 2005 獲得認可。

This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality management system (see joint IAF-ILAC-ISO Communiqué).
這項認可資格演示在指定範疇所需的技術能力及實驗所質量管理體系的運作
(見國際認可論壇·國際實驗所認可合作組織及國際標準化組織的聯合公報)。

The common seal of the Hong Kong Accreditation Service is affixed hereto by the authority of the HKAS Executive
香港認可處根據認可處執行機關的權限在此蓋上通用印章

CHAN Sing Sing, Terence, Executive Administrator
執行幹事 陳成城
Issue Date : 5 May 2009
簽發日期：二零零九年五月五日

Registration Number : **HOKLAS 066**
註冊號碼：

Date of First Registration : 15 September 1995
首次註冊日期：一九九五年九月十五日



Appendix F

**In-situ Measurements and
Laboratory Analysis Data of Water Quality**

Baseline Monitoring																
Sampling Date: 29-Sep-17																
Date / Time	Location	Tide*	Co-ordinates		Water Depth m	Sampling Depth m	Current Direction degrees	Current Speed m/s	Temp	DO Conc	DO Saturation	Turbidity	Salinity	pH	SS	Chlorophyll-a
			°C	mg/L					%	NTU	ppt	unit	mg/L	µg/L		
East	North															
8:20	G1	ME	841469	835942	5.5	1.00	197	0.212	31.7	5.88	94.5	1.98	29.73	8.23	<2	0.7
						31.7			5.89	94.5	1.98	29.73	8.23	<2	0.7	
						30.6			3.79	60.1	3.08	30.5	8.18	<2	0.9	
						30.5			3.77	59.7	3.26	30.55	8.17	<2	0.7	
7:23	I1	ME	841332	836581	2.8	1.40	110	0.314	32.6	5.76	93.4	2.74	29.3	8.2	<2	0.6
						32.5			5.76	93.5	2.68	29.3	8.2	<2	0.4	
7:18	I2	ME	841582	836596	4.7	1.00	170	0.070	32.2	5.72	92.3	2.16	29.46	8.17	<2	0.6
						32.2			5.72	92.3	2.18	29.46	8.17	<2	0.3	
						31.1			5.18	82.7	1.98	30.18	8.17	3	0.8	
7:13	I3	ME	841796	836672	4.3	1.00	135	0.038	30.9	5.18	82.4	1.92	30.33	8.17	4	0.8
						32.1			5.82	93.7	2.6	29.47	7.99	4	0.5	
						32.1			5.8	93.5	2.57	29.46	8	3	0.6	
8:30	R1	ME	842296	835706	5.1	1.00	189	0.323	30.8	5.15	81.8	1.99	30.42	8.11	4	0.7
						30.7			5.14	81.6	1.98	30.44	8.11	4	0.7	
						31.8			5.96	95.8	2.74	29.7	8.23	2	1	
						31.8			5.95	95.6	2.54	29.71	8.23	3	1.1	
7:59	R2	ME	840735	836215	4.8	1.00	73	0.065	30.4	4.01	63.3	2.35	30.62	8.15	2	1
						30.3			3.99	62.9	2.42	30.63	8.15	2	1.1	
						32.1			5.8	93.6	2.1	29.49	8.23	3	0.3	
						32.1			5.81	93.7	2.1	29.49	8.22	3	0.6	
8:37	W1	ME	841852	836561	7.3	1.00	215	0.245	30.7	2.82	44.8	2.16	30.33	8.08	4	0.7
						30.6			2.77	43.8	2.17	30.42	8.08	3	0.7	
						32.2			5.83	94.1	2.09	29.55	8.23	<2	0.5	
						32.2			5.83	94.2	2.08	29.55	8.23	<2	0.8	
7:37	M1	ME	840813	836401	0.8	0.40	172	0.011	30.6	4.99	79.1	1.79	30.48	8.21	<2	0.6
						30.6			4.96	78.6	1.79	30.51	8.2	<2	0.7	
						30			3.6	56.6	1.98	30.78	8.14	2	1.5	
						30			3.57	56.1	2.01	30.78	8.14	2	1.5	
8:14	FCZ1	ME	841176	835221	4.1	1.00	183	0.038	32.3	5.66	91.4	7.25	29.43	8.21	2	0.5
						32.3			5.63	91.1	3.26	29.44	8.2	3	0.7	
						32.2			5.93	95.9	1.99	29.56	8.24	3	0.6	
15:21	G1	MF	841465	835931	4.4	1.00	298	0.193	32.2	5.94	96	2.02	29.56	8.24	3	1.1
						31.6			4.27	68.6	1.95	29.9	8.22	4	1.1	
						31.2			4.15	66.3	1.89	30.13	8.21	3	0.6	
14:53	I1	MF	841329	836584	2.7	1.35	62	0.234	31.7	5.69	91.3	1.97	29.75	8.15	<2	1.5
						31.7			5.71	91.6	1.96	29.75	8.16	<2	1.1	
						30.9			3.78	60.2	2.9	30.29	8.18	<2	1.6	
14:49	I2	MF	841576	836587	4.5	1.00	237	0.190	30.7	3.75	59.4	3.13	30.43	8.17	<2	0.8
						32.6			5.78	93.7	2.92	29.3	8.2	4	1.6	
						32.5			5.78	93.8	2.94	29.31	8.2	4	0.8	
14:43	I3	MF	841806	836676	4.7	1.00	288	0.105	32.1	5.65	91	2.25	29.53	8.17	4	1.6
						32.1			5.66	91.3	2.24	29.53	8.17	2	1.4	
						30.6			5.15	81.5	1.87	30.52	8.18	4	0.9	
15:31	R1	MF	842309	835709	5.7	1.00	281	0.277	30.6	5.14	81.4	1.87	30.52	8.17	3	0.9
						32			5.77	93	2.54	29.5	8.03	<2	1.8	
						32			5.77	92.9	2.48	29.51	8.04	<2	1.8	
15:00	R2	MF	840731	836203	5	1.00	216	0.138	30.8	5.12	81.2	2	30.38	8.12	3	1.5
						30.8			5.12	81.2	1.99	30.38	8.12	2	1.2	
						31.8			5.7	91.6	2.19	29.7	8.15	<2	2	
						31.8			5.72	91.9	2.19	29.7	8.16	<2	1.6	
15:40	W1	MF	841851	836546	7.6	1.00	341	0.141	30.7	4.29	67.9	2.22	30.44	8.18	<2	2.1
						30.5			4.58	72.5	2.17	30.54	8.18	<2	1.6	
						32.1			5.74	92.6	2.09	29.51	8.19	<2	1	
						32.1			5.75	92.8	2.1	29.51	8.19	<2	2	
14:57	M1	MF	840806	836408	0.6	0.30	67	0.148	31.1	4.1	65.2	2.33	30.16	8.16	<2	2.1
						31			3.65	58.2	2.35	30.19	8.15	<2	3	
15:15	FCZ1	MF	841189	835221	4.4	1.00	298	0.193	32.1	5.74	92.6	2.04	29.62	8.18	<2	1.6
						32.1			5.75	92.8	2.05	29.62	8.19	<2	1.6	

Remarks: MF - Middle Flood tide
 ME - Middle Ebb tide
 For SS, if the monitoring result is less than Limit of Report 2mg/L, the result value will be assumed as 2 for the calculation
 For Chlorophyll-a, if the monitoring result is less than Limit of Report 0.1µg/L, the result value will be assumed as 0.1 for the calculation

Baseline Monitoring																
Sampling Date: 1-Oct-17																
Date / Time	Location	Tide*	Co-ordinates		Water Depth m	Sampling Depth m	Current Direction degrees	Current Speed m/s	Temp	DO Conc	DO Saturation	Turbidity	Salinity	pH	SS	Chlorophyll-a
			°C	mg/L					%	NTU	ppt	unit	mg/L	µg/L		
East	North															
9:57	G1	ME	841468	835924	5.5	1.00	270	0.450	30.3	5.61	87.5	1.88	29.28	8.21	<2	0.4
						30.3			5.59	87.3	1.88	29.28	8.21	<2	0.4	
						30.6			4.22	66.5	3.39	30.02	8.17	<2	0.2	
						30.6			3.98	62.7	3.84	30.08	8.15	<2	0.4	
9:32	I1	ME	841324	836574	2.8	1.40	29	0.162	30.1	5.34	83.1	2.01	29.15	8.21	2	0.3
						30.1			5.31	82.5	1.97	29.15	8.21	2	0.3	
9:27	I2	ME	841576	836593	4.9	1.00	267	0.159	30.1	5.3	82.6	3.08	29.49	8.22	3	0.2
						30.2			5.24	81.8	3.22	29.42	8.21	2	0.3	
						30.6			4.49	70.8	2.52	29.92	8.18	2	0.2	
9:23	I3	ME	841803	836664	5.1	1.00	172	0.110	30.4	5.16	80.8	1.88	29.62	8.28	<2	0.4
						30.4			5.11	80.1	1.87	29.62	8.28	<2	0.4	
						30.6			4.7	74	2.78	29.84	8.22	<2	0.3	
10:03	R1	ME	842295	835712	5.5	1.00	270	0.450	30.3	5.47	85.6	1.75	29.53	8.19	<2	0.3
						30.3			5.47	85.5	1.75	29.53	8.19	<2	0.3	
						30.5			5.07	79.7	1.91	30.02	8.18	2	0.3	
9:40	R2	ME	840736	836201	5.3	1.00	203	0.208	30.3	5.16	80.3	2.2	28.96	8.17	3	0.3
						30.3			5.09	79.3	2.16	28.96	8.17	3	0.3	
						30.7			3.73	58.9	2.24	29.95	8.14	3	0.3	
10:27	W1	ME	841856	836572	7.3	1.00	327	0.212	30.3	5.28	82.5	2.37	29.56	8.15	<2	0.5
						30.3			5.27	82.5	2.11	29.57	8.15	<2	0.8	
						30.3			5.26	82.3	1.69	29.6	8.15	<2	0.4	
						30.3			5.25	82.2	1.68	29.61	8.15	<2	0.4	
9:37	M1	ME	840806	836408	0.7	0.35	279	0.433	30.1	4.99	77.5	4.29	29.08	8.16	4	0.3
						30.1			4.98	77.4	4.25	29.08	8.15	5	0.3	
9:50	FCZ1	ME	841168	835329	4.2	1.00	332	0.108	30.7	5.38	84.6	1.8	29.27	8.19	3	0.5
						30.7			5.35	84.1	1.81	29.28	8.19	2	0.6	
						30.8			5.08	80.2	1.83	29.84	8.18	3	0.5	
17:29	G1	MF	841468	835931	5	1.00	194	0.121	30.4	5.62	88.5	2.23	29.59	8.2	2	1.2
						30.4			5.61	88.3	2.24	29.59	8.2	2	1.1	
						30.4			5.55	87.3	2.04	29.6	8.18	3	1.2	
17:00	I1	MF	841328	836591	2.9	1.45	212	0.109	30.4	5.62	88.2	2.07	29.27	8.19	2	0.7
						30.4			5.59	87.7	2.06	29.28	8.18	2	0.8	
16:53	I2	MF	841581	836603	5.1	1.00	69	0.227	30.3	5.65	88.7	1.97	29.42	8.18	<2	0.7
						30.3			5.65	88.7	2.01	29.42	8.18	<2	0.7	
						30.7			4.41	69.8	2.37	29.97	8.16	<2	0.5	
16:45	I3	MF	841788	836675	4.9	1.00	108	0.050	30.4	5.58	87.7	2.1	29.53	8.13	<2	1
						30.4			5.56	87.4	1.9	29.54	8.14	<2	1	
						30.5			5.01	78.9	1.8	29.76	8.15	<2	0.6	
17:38	R1	MF	842296	835705	6.7	1.00	34	0.146	30.3	5.68	89.3	2.15	29.71	8.21	<2	0.8
						30.3			5.67	89.1	2.15	29.71	8.21	<2	0.9	
						30.4			4.32	68.2	2.18	30.3	8.17	<2	0.8	
						30.4			4.29	67.7	2.18	30.34	8.16	<2	0.8	
17:10	R2	MF	840724	836208	4.8	1.00	337	0.057	30.2	3.53	55.7	2.52	30.58	8.11	<2	0.3
						30.2			3.54	55.7	2.55	30.63	8.11	<2	0.6	
						30.3			5.68	89.1	2.05	29.2	8.18	<2	1.2	
						30.3			5.66	88.7	1.98	29.22	8.18	<2	1	
17:52	W1	MF	841869	836553	7.2	1.00	210	0.198	30.3	5.62	88.1	1.92	29.26	8.17	<2	1.2
						30.3			5.62	88.1	1.91	29.26	8.17	<2	1.4	
						30.4			5.57	87.7	2.73	29.56	8.19	<2	0.9	
						30.4			5.54	87.1	2.71	29.57	8.19	<2	0.6	
17:05	M1	MF	840801	836402	0.6	0.30	266	0.130	30.6	4.71	74.5	1.9	29.94	8.16	<2	0.8
						30.6			4.75	75.1	1.94	29.96	8.16	<2	0.7	
						30.6			3.21	50.8	2.93	30.22	8.05	<2	0.6	
						30.5			3.28	51.9	2.77	30.23	8.05	<2	0.6	
17:22	FCZ1	MF	841169	835206	4.8	1.00	259	0.226	30.1	5.44	84.4	2.99	28.18	8.17	3	0.4
						30.1			5.43	84.3	2.84	28.26	8.17	3	0.7	
						30.6			5.78	91.1	1.89	29.39	8.2	<2	1.7	
									30.6	5.77	91	1.9	29.39	8.2	<2	1.9
									30.7	5.36	84.7	2.05	29.58	8.18	<2	1.2
									30.7	5.41	85.5	2.03	29.59	8.18	<2	1.3

Remarks: MF - Middle Flood tide

ME - Middle Ebb tide

For SS, if the monitoring result is less than Limit of Report 2mg/L, the result value will be assumed as 2 for the calculation.

For Chlorophyll-a, if the monitoring result is less than Limit of Report 0.1µg/L, the result value will be assumed as 0.1 for the calculation.

Baseline Monitoring																
Sampling Date: 3-Oct-17																
Date / Time	Location	Tide*	Co-ordinates		Water Depth m	Sampling Depth m	Current Direction degrees	Current Speed m/s	Temp	DO Conc	DO Saturation	Turbidity	Salinity	pH	SS	Chlorophyll-a
			°C	mg/L					%	NTU	ppt	unit	mg/L	µg/L		
			East	North												
11:12	G1	ME	841467	835924	5.9	1.00	263	0.128	30.5	6.71	104.9	2.12	29.1	8.26	<2	9.3
						30.5			6.68	104.5	2.11	29.14	8.26	<2	9.9	
						30.6			3.31	52.1	4.03	30.08	8.1	3	5.6	
						30.6			3.32	52.4	4.1	30.1	8.1	2	6.7	
10:45	I1	ME	841325	836574	2.9	1.45	256	0.208	30.6	5.62	88.3	1.83	29.29	8.2	<2	2.8
						30.6			5.65	88.6	1.83	29.3	8.2	<2	2.7	
10:40	I2	ME	841582	836598	4.7	1.00	244	0.078	30.7	5.85	92	1.64	29.46	8.24	<2	2.4
						30.7			5.86	92.1	1.64	29.46	8.23	<2	2.4	
						3.70										
10:33	I3	ME	841802	836668	4.6	1.00	350	0.057	31	5.48	86.7	1.82	29.67	8.3	<2	2.4
						31			5.49	86.8	1.81	29.64	8.28	<2	2.7	
						3.60										
11:22	R1	ME	842298	835705	5.9	1.00	231	0.127	30.5	6.18	97	2.07	29.51	8.28	<2	3.8
						30.6			6.2	97.5	2.06	29.42	8.27	<2	4.4	
						4.90										
10:54	R2	ME	840725	836201	4.3	1.00	332	0.112	30.8	6.33	99.3	2.12	28.76	8.23	<2	7.5
						30.8			6.36	99.8	2.1	28.79	8.22	<2	7.3	
						3.30										
11:34	W1	ME	841869	836564	6.8	1.00	126	0.135	30.7	6.03	94.9	2.07	29.6	8.24	<2	2.1
						30.7			6.03	95	2.07	29.61	8.24	<2	2.2	
						30.7			5.08	80.2	2.44	29.89	8.19	<2	3.2	
						30.7			5.21	82.2	2.35	29.84	8.18	<2	2.9	
10:50	M1	ME	840810	836429	0.7	0.35	269	0.126	31.1	5.82	91.7	2.8	28.71	8.2	4	3.5
						31.1			5.81	91.5	2.78	28.7	8.19	2	3.2	
11:03	FCZ1	ME	841465	835219	4.6	1.00	263	0.128	30.7	6.58	103.2	2.18	28.86	8.28	4	9.4
						30.7			6.67	104.7	2.17	28.85	8.28	2	9	
						3.60										
17:29	G1	MF	841462	835942	5.8	1.00	208	0.195	31.3	7.38	117.5	2.19	29.4	8.33	3	4.7
						31.3			7.43	118.2	2.19	29.4	8.32	3	4.9	
						4.80										
17:05	I1	MF	841328	836572	2.9	1.45	276	0.078	31.7	7.21	115.5	2.34	29.33	8.31	4	6.6
						31.7			7.25	116.1	2.29	29.34	8.31	3	6.5	
16:59	I2	MF	841593	836584	4.8	1.00	291	0.259	31.5	7.14	114	2.24	29.38	8.34	3	5.4
						31.5			7.16	114.4	2.23	29.38	8.34	2	5.4	
						3.80										
16:54	I3	MF	841785	836669	5.1	1.00	58	0.257	31.6	6.93	110.8	2.41	29.5	8.35	3	5.8
						31.5			6.96	111.2	2.39	29.48	8.35	2	5.4	
						4.10										
17:37	R1	MF	842295	835709	6.8	1.00	138	0.260	31	7.07	112.1	2.19	29.54	8.32	3	3.5
						31			7.09	112.4	2.2	29.54	8.31	3	3.8	
						30.5			5	78.9	2.87	30.12	8.22	2	3.3	
						30.5			5.05	79.7	2.82	30.11	8.2	2	3.7	
17:14	R2	MF	840735	836197	4.2	1.00	127	0.195	31.8	7.74	123.9	2.6	29.04	8.34	4	7.4
						31.8			7.76	124.3	2.57	29.05	8.34	3	7	
						3.20										
17:45	W1	MF	841861	836572	7.3	1.00	306	0.100	31.4	6.99	111.6	2.65	29.54	8.28	<2	6.8
						31.3			7.02	111.8	2.63	29.54	8.28	<2	6.9	
						30.8			6.33	100.3	2.57	29.77	8.26	3	7.3	
						30.8			6.22	98.5	2.6	29.78	8.25	4	7.4	
17:10	M1	MF	840816	836426	0.7	0.35	77	0.103	32	7.4	119.1	4.75	29.14	8.32	4	8.5
						32.1			7.42	119.4	4.43	29.14	8.31	4	3.7	
17:21	FCZ1	MF	841165	835221	4.4	1.00	156	0.090	31.5	7.96	127	3.19	29.13	8.36	3	7.3
						31.5			8	127.7	3.17	29.14	8.36	3	7.7	
						3.40										
17:21	FCZ1	MF	841165	835221	4.4	1.00	156	0.090	30.9	5.85	92.8	3.5	29.88	8.22	3	9.1
									30.9	5.88	93.2	3.42	29.88	8.22	3	8.6

Remarks: MF - Middle Flood tide

ME - Middle Ebb tide

For SS, if the monitoring result is less than Limit of Report 2mg/L, the result value will be assumed as 2 for the calculation.

For Chlorophyll-a, if the monitoring result is less than Limit of Report 0.1µg/L, the result value will be assumed as 0.1 for the calculation.

Baseline Monitoring																	
Sampling Date: 5-Oct-17																	
Date / Time	Location	Tide*	Co-ordinates		Water Depth m	Sampling Depth m	Current Direction degrees	Current Speed m/s	Temp °C	DO Conc mg/L	DO Saturation %	Turbidity NTU	Salinity ppt	pH unit	SS mg/L	Chlorophyll-a µg/L	
			East	North													
12:26	G1	ME	841465	835921	4.7	1.00	339	0.135	30.6	6.13	96.2	2.29	29.5	8.26	4	4.5	
						30.6			6.13	96.3	2.28	29.5	8.26	6	4.1		
						30.3			5.91	92.5	2.54	29.67	8.22	10	4.5		
						30.3			5.9	92.4	2.58	29.67	8.22	8	4.4		
12:04	I1	ME	841325	836572	2.6	1.30	117	0.084	30.5	5.71	89.6	2.84	29.53	8.23	5	2.8	
						30.5			5.68	89.1	2.82	29.53	8.23	5	3.2		
						30.5			5.88	92.2	2.51	29.63	8.26	6	3.3		
						30.5			5.85	91.8	2.52	29.62	8.26	4	3.8		
12:00	I2	ME	841593	836598	4.7	1.00	170	0.067	30.3	5.34	83.5	2.81	29.71	8.22	6	3.6	
						30.3			5.31	83	2.82	29.72	8.22	4	3.2		
						30.6			5.61	88.1	2.31	29.67	8.17	4	3.2		
						30.6			5.61	88.2	2.33	29.68	8.17	3	3		
11:46	I3	ME	841802	836672	4.3	1.00	243	0.248	30.3	5.2	81.4	2.49	29.77	8.17	3	2.9	
						30.3			5.16	80.8	2.55	29.77	8.17	5	2.7		
						30.4			5.99	93.9	2.45	29.68	8.23	5	3.6		
						30.4			6	94	2.41	29.68	8.23	3	3.7		
12:33	R1	ME	842302	835704	5.9	1.00	314	0.053	30.1	3.97	62	4.8	30.01	8.11	4	3.5	
						30.1			3.85	60.2	4.64	30.02	8.1	4	3.8		
						30.6			6.21	97.4	2.81	29.2	8.26	4	5.3		
						30.6			6.23	97.7	2.81	29.2	8.26	4	5.4		
12:13	R2	ME	840721	836201	5.2	1.00	57	0.144	30.4	5.2	81.5	3.32	29.54	8.21	5	6.1	
						30.4			5.2	81.4	3.3	29.54	8.21	5	5.6		
						30.5			5.87	92.2	2.41	29.66	8.24	5	2.9		
						30.5			5.88	92.3	2.4	29.66	8.24	6	3.6		
12:43	W1	ME	841834	836572	6.9	1.00	115	0.090	30.2	5.5	86	2.52	29.72	8.21	6	3.1	
						30.2			5.47	85.6	2.55	29.72	8.2	6	2.4		
						30.2			4.56	71.3	2.49	29.87	8.15	6	3.2		
						30.2			4.58	71.7	2.57	29.88	8.15	6	2.1		
12:10	M1	ME	840821	836428	0.7	0.35	99	0.088	30.2	5.8	90.2	3.77	28.96	8.23	6	8	
						30.2			5.79	90.2	3.77	28.97	8.22	6	7.7		
						30.4			6.76	105.7	2.43	29.22	8.31	3	8.5		
						30.4			6.76	105.7	2.45	29.24	8.31	4	8		
12:20	FCZ1	ME	841172	835221	4.7	1.00	339	0.135	30.2	5.45	85.2	3.27	29.68	8.24	6	4.4	
						30.2			5.4	84.4	3.32	29.68	8.23	8	3.4		
						30.4			6.34	99.5	2.64	29.6	8.29	3	4		
						30.4			6.37	100	2.63	29.6	8.29	4	4.2		
18:17	G1	MF	841471	835924	6.2	3.10	209	0.359	30.3	5.85	91.7	2.57	29.67	8.25	6	4.7	
						30.3			5.84	91.6	2.58	29.68	8.25	5	4.9		
						30.2			4.96	77.8	3.48	29.82	8.19	10	4.4		
						30.2			4.92	77.1	3.47	29.82	8.18	9	4.9		
17:46	I1	MF	841332	836572	2.9	1.45	323	0.078	30.9	6.66	105.4	2.71	29.39	8.3	3	6	
						30.8			6.7	105.8	2.6	29.39	8.3	4	5.8		
						30.6			6.49	102.1	2.47	29.42	8.34	6	6.2		
						30.6			6.54	103	2.49	29.42	8.34	4	5.4		
17:36	I2	MF	841582	836593	4.7	1.00	74	0.079	30.4	5.59	87.7	3.15	29.74	8.26	6	5.8	
						30.4			5.57	87.4	2.94	29.73	8.25	8	6.4		
						30.6			6.4	100.9	2.39	29.56	8.41	4	5.2		
						30.6			6.44	101.4	2.41	29.56	8.39	6	5.3		
17:28	I3	MF	841805	836671	4.9	1.00	191	0.064	30.5	5.91	93.1	2.51	29.71	8.23	7	4.5	
						30.5			5.92	93.2	2.5	29.71	8.24	6	4.6		
						30.4			6.28	98.4	2.21	29.55	8.27	4	2.8		
						30.4			6.3	98.8	2.21	29.55	8.27	3	3		
18:30	R1	MF	842298	835702	6.8	3.40	120	0.359	30.5	6.37	100.1	2.27	29.68	8.25	8	3.4	
						30.5			6.38	100.4	2.31	29.71	8.25	10	3.3		
						30.1			4.42	69.3	2.41	30.24	8.16	7	3.5		
						30.1			4.4	68.9	2.33	30.24	8.15	9	3.7		
17:58	R2	MF	840724	836211	5.3	1.00	350	0.079	30.7	6.73	106	2.53	29.31	8.31	8	6.6	
						30.7			6.79	106.9	2.52	29.31	8.31	8	7.2		
						30.4			5.63	88.5	3.2	29.57	8.28	8	5.8		
						30.4			5.63	88.4	3.24	29.57	8.26	10	7.4		
18:46	W1	MF	841845	836562	7.9	1.00	115	0.091	30.7	6.49	102.4	2.35	29.65	8.24	5	6.2	
						30.7			6.49	102.4	2.34	29.65	8.23	4	5.9		
						30.4			5.8	91.1	2.4	29.76	8.21	5	5.2		
						30.4			5.77	90.6	2.32	29.77	8.21	7	5.3		
17:53	M1	MF	840815	836404	0.8	0.40	78	0.082	30.2	3.37	52.8	2.87	30.04	8.07	6	2.9	
						30.2			3.25	50.9	2.88	30.05	8.07	6	3		
						30.8			6.29	99.2	4.01	29.37	8.27	6	5.5		
						30.8			6.3	99.4	4.04	29.37	8.27	6	5.4		
18:08	FCZ1	MF	841169	835210	4.9	1.00	135	0.085	30.5	7.27	114.1	2.35	29.17	8.33	4	7.5	
						30.5			7.31	114.6	2.34	29.15	8.33	4	7.9		
						30.3			6.53	102.4	2.65	29.52	8.28	4	6.2		
						30.3			6.57	102.9	2.58	29.46	8.27	3	7.2		

Remarks: MF - Middle Flood tide
 ME - Middle Ebb tide

For SS, if the monitoring result is less than Limit of Report 2mg/L, the result value will be assumed as 2 for the calculator
 For Chlorophyll-a, if the monitoring result is less than Limit of Report 0.1µg/L, the result value will be assumed as 0.1 for the calculator

Baseline Monitoring																	
Sampling Date: 7-Oct-17																	
Date / Time	Location	Tide*	Co-ordinates		Water Depth m	Sampling Depth m	Current Direction degrees	Current Speed m/s	Temp	DO Conc	DO Saturation	Turbidity	Salinity	pH	SS	Chlorophyll-a	
			°C	mg/L					%	NTU	ppt	unit	mg/L	µg/L			
East	North																
13:27	G1	ME	841472	835931	5.7	1.00	97	0.190	30.5	6.48	101.7	1.51	29.6	8.26	5	3.6	
						30.5			6.51	102.3	1.52	29.6	8.25	4	3.6		
						30.3			6.37	99.6	1.54	29.6	8.23	6	3.5		
						30.3			6.41	100.3	1.55	29.6	8.23	6	3.6		
13:06	I1	ME	841327	836571	2.6	1.30	43	0.152	30.6	6.14	96.4	1.77	29.53	8.21	8	2.6	
						30.6			6.17	96.8	1.73	29.53	8.21	6	2.5		
13:00	I2	ME	841571	836583	4.5	1.00	216	0.148	30.4	6.04	94.7	1.42	29.76	8.25	5	2.9	
						30.5			6.03	94.8	1.42	29.69	8.25	7	2.9		
						3.50											
12:56	I3	ME	841793	836668	4.7	1.00	261	0.067	30.4	5.22	81.5	1.73	29.87	8.18	5	3.1	
						30.2			5.2	81.3	1.67	29.88	8.17	5	3.4		
						30.4			5.78	90.6	1.57	29.87	8.12	6	2.1		
						30.3			5.74	89.9	1.61	29.87	8.13	6	1.6		
13:35	R1	ME	842295	835701	5.5	1.00	245	0.177	30.5	6.21	97.4	1.46	29.76	8.24	5	2.7	
						30.5			6.23	97.7	1.49	29.76	8.24	4	2.9		
						4.50											
13:12	R2	ME	840721	836220	4.4	1.00	285	0.170	30.4	6.18	96.8	1.86	29.34	8.25	4	3.2	
						30.5			6.2	97.1	1.86	29.33	8.24	2	4		
						3.40											
13:44	W1	ME	841839	836562	7.6	1.00	163	0.129	30.5	6.04	95	1.65	29.72	8.2	2	2.1	
						30.5			6.06	95.2	1.62	29.72	8.2	3	2.1		
						30.1			5.97	93.2	1.76	29.78	8.2	5	3.4		
						30.1			5.97	93.2	1.76	29.78	8.2	4	3.1		
13:10	M1	ME	840811	836398	0.7	0.35	46	0.041	30.7	6.11	96.1	2.83	29.45	8.23	5	1.4	
						30.9			6.1	96.2	2.9	29.33	8.22	3	1.7		
13:20	FCZ1	ME	841174	835218	4.6	1.00	307	0.141	30.5	6.42	100.7	1.5	29.4	8.26	4	4.5	
						30.5			6.48	101.7	1.5	29.39	8.26	4	3.8		
						3.60											
8:42	G1	MF	841472	835921	5.8	1.00	255	0.124	30	5.88	91.5	1.57	29.56	8.19	4	1.1	
						30			5.87	91.4	1.57	29.56	8.19	3	1.5		
						4.80											
8:20	I1	MF	841339	836569	2.8	1.40	249	0.050	29.9	4.57	71.2	2.02	29.84	8.11	7	1.9	
						29.9			4.72	73.5	1.95	29.84	8.11	6	1.7		
8:14	I2	MF	841596	836593	4.9	1.00	228	0.123	30	5.9	92	1.53	29.61	8.17	4	1	
						30			5.89	91.7	1.53	29.61	8.17	5	1.5		
						3.90											
8:07	I3	MF	841806	836682	4.8	1.00	303	0.066	30	5.85	90.9	1.42	29.56	8.12	4	1.1	
						29.9			5.85	90.9	1.46	29.57	8.12	5	0.8		
						3.80											
8:49	R1	MF	842318	835705	6.2	1.00	312	0.087	29.9	5.69	88.5	1.48	29.83	8.2	4	0.8	
						29.9			5.65	87.9	1.48	29.84	8.2	2	1.1		
						29.9			5.71	88.9	1.51	29.88	8.17	3	0.7		
						29.9			5.71	88.9	1.51	29.88	8.17	4	1.2		
8:27	R2	MF	840735	836205	5.2	1.00	151	0.056	29.9	5.28	82.2	1.49	29.95	8.16	2	0.7	
						29.9			5.32	82.8	1.48	29.95	8.16	3	0.8		
						30			5.97	92.9	2.08	29.43	8.19	5	2.8		
						30			5.96	92.7	2.06	29.43	8.19	4	1.8		
8:55	W1	MF	841872	836563	6.6	1.00	185	0.089	30.1	4.8	74.9	2.11	29.67	8.13	7	1.7	
						30.1			4.77	74.4	2.15	29.68	8.12	5	1.7		
						30			5.91	92.1	1.49	29.59	8.21	3	1.3		
						30			5.91	92.1	1.49	29.6	8.2	4	1.4		
8:24	M1	MF	840813	836403	0.7	0.35	208	0.122	30.1	5.07	79.2	1.42	29.82	8.13	4	1.6	
						30.1			5.07	79.2	1.42	29.83	8.13	6	1.7		
						30.1			4.65	72.6	1.49	29.91	8.13	4	1.4		
						30.1			4.58	71.6	1.5	29.95	8.12	4	1.8		
8:36	FCZ1	MF	841168	835221	4.5	1.00	193	0.153	29.8	5.66	87.7	2.92	29.14	8.17	10	0.5	
						29.8			5.62	87.1	2.89	29.14	8.16	8	0.4		
						3.50											
									30	5.81	90.4	1.56	29.5	8.19	5	1.9	
									30	5.78	90	1.6	29.5	8.19	3	1.9	
									30.1	5.15	80.3	3.01	29.7	8.14	7	1.5	
									30.1	5.2	81.1	2.24	29.63	8.13	6	1.1	

Remarks: MF - Middle Flood tide
ME - Middle Ebb tide

For SS, if the monitoring result is less than Limit of Report 2mg/L, the result value will be assumed as 2 for the calculator
For Chlorophyll-a, if the monitoring result is less than Limit of Report 0.1µg/L, the result value will be assumed as 0.1 for the calculator

Baseline Monitoring																		
Sampling Dates 9-Oct-17																		
Date / Time	Location	Tide*	Co-ordinates		Water Depth m	Sampling Depth m	Current Direction degrees	Current Speed m/s	Temp	DO Conc	DO Saturation	Turbidity	Salinity	pH	SS	Chlorophyll-a		
			°C	mg/L					%	NTU	ppt	unit	mg/L	µg/L				
14:32	G1	ME	841483	835939	5.8	1.00	85	0.229	5.86	91.8	1.83	1.83	29.74	8.26	4	5.1		
						3.00			5.85	91.7	1.82	29.74	8.26	3	4.1			
						4.80												
						3.00			3.83	60.1	3.48	29.94	8.14	3	4.3			
14:06	I1	ME	841341	836593	2.6	1.30	79	0.174	3.04	5.9	93.1	2.03	29.75	8.26	<2	6.7		
						3.04			5.94	93.6	1.97	29.75	8.26	<2	7.1			
13:59	I2	ME	841593	836593	4.8	1.00	233	0.252	30.2	6.07	95.4	1.52	29.83	8.32	3	8.8		
						3.02			6.07	95.4	1.51	29.83	8.31	3	8.3			
						3.80			30.2	5.45	85.8	1.66	29.93	8.26	2	2.2		
13:53	I3	ME	841809	836683	4.7	1.00	59	0.160	30.4	5.97	94.1	1.48	29.88	8.33	3	9.1		
						3.04			6	94.6	1.48	29.88	8.33	2	8.3			
						3.70			30.2	4.92	77.4	1.48	30.05	8.27	3	6.6		
14:42	R1	ME	842321	835713	6.6	1.00	90	0.206	30.2	6.07	95.2	1.67	29.84	8.24	2	6.7		
						3.01			6.06	95.1	1.7	29.84	8.25	3	7.2			
						3.01			5.71	89.5	1.86	29.88	8.23	3	7.4			
						5.60			30.1	5.67	89	1.9	29.89	8.22	3	7.1		
14:15	R2	ME	840725	836206	4.9	1.00	330	0.108	29.9	3.01	47.2	3.88	30.35	8.08	4	0.9		
						3.02			2.96	46.4	4.25	30.38	8.08	5	1.2			
						3.90			30.2	6.02	94.3	1.95	29.56	8.28	<2	7.5		
14:55	W1	ME	841852	836562	7.2	1.00	245	0.310	30.2	6.01	94.3	1.94	29.55	8.27	<2	6.1		
						3.01			6.12	96	1.58	29.71	8.27	<2	5.9			
						3.01			6.13	96.1	1.56	29.71	8.26	<2	5.6			
						6.20			30.1	6.05	94.9	1.57	29.73	8.25	<2	5.6		
14:11	M1	ME	840816	836403	0.9	0.45	90	0.244	30.1	6.07	95.3	1.58	29.72	8.25	<2	5.8		
									30.2	3.88	61	1.67	30.15	8.16	<2	4.2		
									30.2	3.88	61.1	1.66	30.15	8.15	<2	3.8		
									30.3	6.76	106.2	3.98	29.7	8.31	4	13.3		
14:24	FCZ1	ME	841479	835938	5.1	1.00	350	0.115	30.3	6.79	106.7	3.67	29.7	8.31	4	14.2		
						4.10												
									30.2	4.89	76.8	2.4	29.74	8.23	3	5		
									30.2	4.84	76	2.43	29.75	8.22	3	4.6		
10:23	G1	MF	842309	835726	5.8	1.00	236	0.105	30.1	6.12	96	1.58	29.71	8.27	<2	5.9		
						4.80			30.1	6.13	96.1	1.56	29.71	8.26	<2	5.6		
									30.1	6.05	94.9	1.57	29.73	8.25	<2	5.6		
									30.1	6.07	95.3	1.58	29.72	8.25	<2	5.8		
9:41	I1	MF	841332	836583	2.8	1.40	245	0.182	30.2	3.88	61	1.67	30.15	8.16	<2	4.2		
									30.2	3.88	61.1	1.66	30.15	8.15	<2	3.8		
									30.3	6.76	106.2	3.98	29.7	8.31	4	13.3		
									30.3	6.79	106.7	3.67	29.7	8.31	4	14.2		
9:31	I2	MF	841593	836605	5.5	1.00	128	0.249	30.2	4.89	76.8	2.4	29.74	8.23	3	5		
						4.50			30.2	4.84	76	2.43	29.75	8.22	3	4.6		
									30.1	5.34	83.7	2.47	29.63	8.24	3	5.6		
9:18	I3	MF	841786	836671	5.2	1.00	187	0.072	30.1	5.4	84.6	2.55	29.64	8.23	5	5.2		
						4.20												
									29.9	5.99	93.5	1.36	29.67	8.29	<2	4.3		
									29.9	5.98	93.3	1.38	29.67	8.28	<2	5.1		
10:34	R1	MF	842309	835724	6.7	1.00	284	0.221	29.9	6	93.5	1.39	29.68	8.29	<2	4.1		
						3.35			29.9	6	93.6	1.4	29.69	8.27	<2	3.9		
						5.70												
									30.1	3.39	53	3.52	30.03	8.06	5	0.2		
9:55	R2	MF	840746	836208	4.8	1.00	279	0.196	30.1	3.35	52.5	3.88	30.05	8.06	3	0.4		
						3.80			30	5.89	91.9	1.4	29.69	8.21	<2	1.1		
									30	5.89	91.9	1.42	29.69	8.21	<2	1.9		
									30.1	3.2	50.2	1.74	30.23	8.06	<2	0.9		
10:45	W1	MF	841843	836559	7.2	1.00	230	0.136	30.1	3.18	49.9	1.68	30.25	8.06	<2	1.3		
						3.60			30	5.92	92.5	1.43	29.79	8.26	<2	2.4		
						6.20			30	5.88	91.9	1.37	29.8	8.25	<2	2.6		
									30	4.92	76.9	1.35	30.07	8.21	<2	2.6		
9:49	M1	MF	840826	836429	0.8	0.40	145	0.107	30	4.88	76.4	1.36	30.12	8.2	<2	2.2		
									29.9	2.84	44.5	1.49	30.6	8.08	<2	0.8		
									29.9	2.82	44.2	1.49	30.6	8.07	<2	0.8		
									29.8	5.92	92	1.63	29.2	8.23	<2	3.3		
10:13	FCZ1	MF	841472	835921	5.2	1.00	266	0.128	29.9	5.91	91.8	1.64	29.22	8.22	<2	2.8		
						4.20												
									29.9	5.79	90.2	1.79	29.54	8.21	<2	4		
									29.9	5.83	90.8	1.68	29.53	8.21	<2	3.7		
9:55	I1	MF	841332	836583	2.8	1.40	245	0.182	30.1	6.15	96.2	1.44	29.71	8.25	<2	7.9		
									30.1	6.15	96.3	1.42	29.71	8.25	<2	8.8		
									30.1	6.14	96.1	1.44	29.72	8.24	<2	7.4		
									30.1	6.14	96	1.43	29.72	8.24	<2	6.8		
10:23	G1	MF	842309	835726	5.8	1.00	236	0.105	29.9	2.62	41	3.41	30.53	8.06	<2	3.9		
						4.80			29.9	2.58	40.3	3.58	30.53	8.06	<2	3.6		
									29.4	5.47	84.2	2.44	28.88	8.21	<2	1.6		
9:55	I1	MF	841332	836583	2.8	1.40	245	0.182	29.4	5.43	83.6	2.41	28.87	8.2	<2	1.2		
									29.9	6.33	98.4	1.31	29.28	8.33	<2	2.9		
9:55	I1	MF	841332	836583	2.8	1.40	245	0.182	29.9	6.33	98.4	1.36	29.28	8.3	<2	2.7		
									29.9	5.26	82	3.24	29.64	8.23	<2	3.4		
9:55	I1	MF	841332	836583	2.8	1.40	245	0.182	29.9	5.21	81.3	3.18	29.64	8.22	<2	3.2		

Remarks: MF - Middle Flood tida

ME - Middle Ebb tida

For SS, if the monitoring result is less than Limit of Report 2mg/L, the result value will be assumed as 2 for the calculator

For Chlorophyll-a, if the monitoring result is less than Limit of Report 0.1µg/L, the result value will be assumed as 0.1 for the calculator

Baseline Monitoring																	
Sampling Date: 13-Oct-17																	
Date / Time	Location	Tide*	Co-ordinates		Water Depth m	Sampling Depth m	Current Direction degrees	Current Speed m/s	Temp	DO Conc	DO Saturation	Turbidity	Salinity	pH	SS	Chlorophyll-a	
			East	North					°C	mg/L	%	NTU	ppt	unit	mg/L	µg/L	
7:44	G1	ME	841486	835949	6.1	1.00	171	0.239	29.7	7.03	109.3	1.35	29.51	8.35	4	4.2	
						3.05			29.7	7.05	109.6	1.33	29.51	8.35	5	4	
						5.10			29.9	6.12	95.7	1.43	29.92	8.29	5	4.7	
									29.9	6.4	99.9	1.44	29.85	8.29	4	4.8	
									29.8	2.7	42.3	2.19	30.77	8.1	8	2.1	
7:15	I1	ME	841335	836593	2.8	1.40	258	0.188	29.8	5.61	87.4	1.51	29.85	8.22	6	2.8	
									29.8	5.59	87.2	1.49	29.86	8.22	6	3.2	
7:09	I2	ME	841593	836608	4.7	1.00	129	0.216	29.7	5.93	92.2	1.52	29.62	8.22	5	3.8	
									29.7	5.92	92.1	1.52	29.63	8.22	4	3.6	
7:02	I3	ME	841792	836674	4.8	1.00	190	0.236	29.7	6.07	94.4	1.44	29.64	8.23	5	2.4	
									29.7	6.07	94.4	1.45	29.63	8.23	4	2.3	
7:53	R1	ME	842319	835705	6.4	1.00	52	0.156	29.8	4.85	75.8	1.62	30.02	8.12	7	1.9	
									29.8	4.9	76.4	1.57	29.99	8.12	8	1.9	
									29.6	6.64	103.1	1.32	29.7	8.33	4	2.4	
7:26	R2	ME	840732	836215	5.1	1.00	220	0.130	29.9	2.09	32.8	2.57	30.6	8	9	3.4	
									29.9	2.11	33.1	2.25	30.54	7.99	9	4.4	
									29.9	6.29	98	1.31	29.58	8.29	8	4.2	
8:04	W1	ME	841861	836579	6.9	1.00	202	0.133	29.9	6.3	98.2	1.29	29.58	8.29	8	4.5	
									29.8	4.55	71	1.49	29.97	8.19	8	3	
									29.8	4.27	66.7	1.51	30.07	8.18	8	3.1	
7:21	M1	ME	840816	836408	0.7	0.35	110	0.090	29.7	4.75	73.8	2.22	29.51	8.19	4	1.3	
									29.7	4.7	73	2.24	29.5	8.18	6	1.3	
7:36	FCZ1	ME	841196	835221	4.8	1.00	245	0.256	29.7	6.75	104.8	1.44	29.37	8.32	4	4.7	
									29.7	6.75	104.7	1.45	29.37	8.32	6	4.9	
13:50	G1	MF	841475	835941	6.3	1.00	301	0.108	30.2	6.83	107.3	1.28	29.62	8.35	4	7.6	
									30.2	7.02	110.3	1.33	29.64	8.34	6	6.9	
									30	6.62	103.8	1.39	29.77	8.33	6	7.7	
									30	6.66	104.4	1.31	29.76	8.31	5	7.2	
									29.9	3.04	47.9	2.98	30.66	8.05	4	3.6	
13:20	I1	MF	841352	836571	2.7	1.35	191	0.116	30.3	6.4	100.7	1.7	29.62	8.27	6	5.1	
									30.3	6.46	101.7	1.69	29.62	8.27	7	5	
13:13	I2	MF	841586	836579	5	1.00	290	0.083	30.2	6.33	99.4	1.34	29.64	8.21	2	5.4	
									30.2	6.5	102.1	1.54	29.65	8.22	4	6	
13:06	I3	MF	841813	836668	4.6	1.00	124	0.091	30.4	6.41	101.1	1.11	29.8	8.15	4	4.8	
									30.4	6.5	102.5	1.18	29.74	8.17	4	5.5	
14:01	R1	MF	842284	835709	6.7	1.00	241	0.108	30	5.04	79.3	1.31	30.28	8.18	4	5.8	
									30	5.11	80.3	1.4	30.19	8.17	6	6.1	
									29.9	4.59	72.2	1.23	30.35	8.23	3	3.6	
13:32	R2	MF	840753	836204	5.5	1.00	235	0.160	30.3	6.1	96	1.57	29.5	8.25	5	6.8	
									30.3	6.1	95.9	1.48	29.53	8.24	3	5.9	
14:13	W1	MF	841853	836582	7.2	1.00	85	0.054	30.1	5.19	81.7	1.75	30.02	8.17	7	10.6	
									30.1	5.2	81.8	1.73	30.01	8.17	7	10.4	
									30.2	6.64	104.5	1.18	29.66	8.32	4	5	
13:28	M1	MF	840820	836406	0.5	0.25	174	0.218	30.2	6.75	106.1	1.29	29.7	8.31	4	5.7	
									29.9	5.39	84.8	1.25	30.34	8.25	3	3.8	
									29.9	5.42	85.1	1.21	30.3	8.21	3	3.9	
13:40	FCZ1	MF	841176	835224	5.1	1.00	193	0.290	30.4	7.61	119.9	1.47	29.5	8.35	6	10.7	
									30.4	7.73	121.8	1.42	29.51	8.36	4	11.5	

Remarks: MF - Middle Flood tide
 ME - Middle Ebb tide
 For SS, if the monitoring result is less than Limit of Report 2mg/L, the result value will be assumed as 2 for the calculator
 For Chlorophyll-a, if the monitoring result is less than Limit of Report 0.1µg/L, the result value will be assumed as 0.1 for the calculator

Baseline Monitoring																
Sampling Date: 17-Oct-17																
Date / Time	Location	Tide ^a	Co-ordinates		Water Depth m	Sampling Depth m	Current Direction degrees	Current Speed m/s	Temp	DO Conc	DO Saturation	Turbidity	Salinity	pH	SS	Chlorophyll- <i>a</i>
			°C	mg/L					%	NTU	ppt	unit	mg/L	µg/L		
East	North															
10:54	G1	ME	841501	835920	5.5	1.00	265	0.173	26.7	5.1	76.6	0.38	32.75	7.67	3	11.3
						26.7			5.11	76.7	0.31	32.75	7.68	3	9.6	
						26.7			4.95	74.3	0.27	32.8	7.7	3	10.3	
						26.7			4.94	74.2	0.17	32.8	7.71	3	8.8	
10:25	I1	ME	841305	836562	2.8	1.40	233	0.094	26.8	5.09	76.6	0.21	32.72	7.94	<2	6.4
						26.8			5.07	76.5	0.23	32.72	7.94	<2	6.6	
						26.9			4.9	73.8	0.08	32.69	8.12	<2	4.4	
						27			4.87	73.3	0.08	32.7	8.1	<2	4	
10:18	I2	ME	841576	836593	4.8	1.00	87	0.148	27.1	4.47	67.5	0.62	32.99	8.02	2	1.8
						27.1			4.45	67.3	0.55	33	8.02	2	1.6	
						27			4.82	72.7	0.14	32.77	8.21	<2	4.2	
						27			4.72	71.3	0.24	32.86	8.22	<2	4.5	
10:09	I3	ME	841792	836666	4.7	1.00	251	0.218	27.1	4.49	68	0.3	33.04	8.1	<2	1.6
						27.1			4.49	68	0.27	33.04	8.11	<2	1.6	
						26.8			5.06	76.2	0.19	32.87	7.55	<2	5.2	
						26.8			5.05	76	0.22	32.87	7.56	<2	4.5	
11:04	R1	ME	841302	835701	5.7	1.00	137	0.257	26.8	4.93	74.2	0.57	32.88	7.7	<2	5.5
						26.8			4.92	74.1	0.56	32.88	7.7	<2	4.9	
						26.7			5.17	77.5	0.15	32.56	7.73	<2	5.1	
						26.7			5.15	77.2	0.15	32.57	7.73	<2	5.5	
10:36	R2	ME	840721	836206	5	1.00	223	0.227	26.8	4.75	71.3	1.04	32.69	7.72	3	12.6
						26.9			4.71	70.9	1.8	32.71	7.72	3	13.8	
						27.1			4.79	72.4	0.05	32.85	7.73	<2	4	
						27.1			4.76	72	0.05	32.85	7.73	<2	4.1	
11:16	W1	ME	841842	836572	7.2	1.00	196	0.172	27.1	4.67	70.5	0.11	32.91	7.71	3	2.6
						27.1			4.67	70.6	0.14	32.92	7.71	2	2.5	
						27.1			4.57	69.1	0.31	33	7.7	2	1.5	
						27.1			4.55	68.8	0.31	33.01	7.7	3	1.4	
10:31	M1	ME	840826	836402	0.5	0.25	335	0.173	26.7	4.72	70.4	2.72	31.96	7.87	3	8
						26.7			4.71	70.4	1.97	31.97	7.8	2	8.2	
10:44	FCZ1	ME	841162	835215	4.1	1.00	263	0.195	26.4	5.62	83.5	0.05	32.02	7.7	4	11.8
						26.4			5.6	83.3	0.03	32.02	7.68	4	11.7	
						26.5			5.1	76.2	0.24	32.58	7.65	5	7.3	
						26.4			5.26	78.5	0.24	32.42	7.67	6	6.9	
16:38	G1	MF	841496	835915	5.5	1.00	160.2	0.067	26.9	5.77	86.9	0.18	32.74	7.68	2	4
						26.9			5.74	86.6	0.1	32.73	7.67	4	3.9	
						26.9			5.55	83.8	0.6	32.75	7.68	5	4	
						26.9			5.4	81.5	0.65	32.76	7.7	4	3.8	
16:14	I1	MF	841325	836576	2.7	1.35	64.8	0.123	27.1	4.83	73.2	1.04	32.86	7.81	<2	5.5
						27.1			4.77	72.3	1.07	32.86	7.82	<2	5.9	
16:09	I2	MF	841576	836599	4.7	1.00	97.2	0.142	27	5.32	80.5	0.2	32.76	8.13	2	2.8
						27.1			5.33	80.6	0.17	32.76	8.12	2	1.9	
						27.2			4.4	66.8	0.88	33	8.03	4	1.6	
						27.1			4.57	69.3	0.82	32.92	8.02	4	1.3	
16:04	I3	MF	841823	836674	4.2	1.00	188.1	0.133	26.8	5.02	75.6	0.33	32.76	8.1	<2	2.4
						26.8			5.06	76.2	0.31	32.73	8.09	<2	2.5	
						26.9			4.5	67.9	0.9	32.83	7.87	3	1.5	
						26.9			4.46	67.4	1.01	32.83	7.89	5	1.6	
16:45	R1	MF	842322	835711	6.3	1.00	75.9	0.176	27	5.33	80.6	0.1	32.86	7.68	3	4.4
						27			5.31	80.3	0.1	32.87	7.66	2	3.7	
						26.8			5.50	79.5	0.3	32.86	7.65	4	4.3	
						26.8			5.52	79.6	0.3	32.86	7.65	3	4.4	
						27			5.22	78.9	0.62	32.89	7.69	2	4.9	
						27			5.2	78.6	0.65	32.89	7.7	2	4.9	
16:22	R2	MF	840749	836204	4.8	1.00	213.3	0.112	27.1	5.48	82.8	0.38	32.56	8.24	2	3
						27.1			5.44	82.3	0.35	32.59	8.23	3	4.5	
						26.9			4.88	73.6	1.06	32.73	8.14	3	2.5	
						26.9			4.82	72.7	1.03	32.73	8.13	2	2.7	
16:53	W1	MF	841867	836563	7.6	1.00	190.3	0.183	26.9	5.26	79.2	0.22	32.68	7.75	3	1.5
						26.9			5.18	78.2	0.31	32.69	7.73	4	2	
						26.9			4.98	75.2	0.36	32.79	7.68	3	3.2	
						26.9			4.99	75.2	0.38	32.78	7.69	3	2.8	
						27.2			4.32	65.7	0.63	33.06	7.78	2	1	
						27.2			4.33	65.7	0.58	33.04	7.77	3	1	
16:19	M1	MF	840838	836429	0.8	0.40	342.4	0.110	27.2	5.61	84.8	1.04	32.36	8.3	10	0.9
						27.2			5.59	84.6	0.95	32.3	8.29	11	0.9	
16:29	FCZ1	MF	841186	835209	4.1	1.00	199.9	0.217	26.7	6.36	95.3	0.07	32.17	7.97	6	6.1
						26.8			6.3	94.5	0.05	32.26	7.96	6	9.8	
						26.6			5.8	87	0.45	32.46	7.93	6	8.7	
						26.6			5.74	86.1	0.49	32.47	7.93	5	11.9	

Remarks: MF - Middle Flood tide
 ME - Middle Ebb tide
 For SS, if the monitoring result is less than Limit of Report 2mg/L, the result value will be assumed as 2 for the calculation
 For Chlorophyll-*a*, if the monitoring result is less than Limit of Report 0.1µg/L, the result value will be assumed as 0.1 for the calculation

Baseline Monitoring																
Sampling Date: 19-Oct-17																
Date / Time	Location	Tide*	Co-ordinates		Water Depth m	Sampling Depth m	Current Direction degrees	Current Speed m/s	Temp	DO Conc	DO Saturation	Turbidity	Salinity	pH	SS	Chlorophyll- <i>a</i>
			°C	mg/L					%	NTU	ppt	unit	mg/L	µg/L		
East	North															
13:15	G1	ME	841481	835932	5.4	1.00	33.5	0.196	27	7.49	118.7	0.19	32.02	7.87	4	14.8
						27			7.42	111.8	0.08	32.12	7.85	2	11.5	
						27.2			4.07	61.6	1.4	32.86	7.73	3	8.8	
						27.1			4.26	64.6	1.42	32.82	7.73	4	8.4	
12:52	I1	ME	841312	836575	2.8	1.40	195.0	0.071	26.9	6.87	102.9	0.56	32.13	8.19	2	10.8
						26.9			6.76	101.5	0.52	32.02	8.19	3	12.5	
						26.9			7.38	110.7	0.35	31.88	8.23	4	13	
						26.9			7.45	111.8	0.4	31.95	8.2	2	14.2	
12:46	I2	ME	841582	836586	4.5	1.00	221.8	0.083	27	5.6	84.5	0.59	32.6	8.17	4	11
						27			5.24	79.1	0.61	32.62	8.15	5	11.1	
						26.9			7.13	107.1	0.44	32.13	8.12	5	15.3	
						26.9			7.42	111.4	0.41	32	8.13	3	14.5	
12:41	I3	ME	841801	836671	4.6	1.00	191.3	0.231	27.1	4.62	69.8	0.75	32.72	8.14	3	10.8
						27.1			4.67	70.6	0.76	32.73	8.14	3	9.4	
						26.9			7.29	109.7	0.18	32.25	8.04	3	11.2	
						27			7.36	110.8	0.17	32.25	8.02	3	11.1	
13:21	R1	ME	842302	835702	5.6	1.00	307.6	0.157	27	5.49	82.9	0.22	32.73	7.91	3	6.9
						27			5.5	83	0.21	32.74	7.92	4	7.2	
						27.2			6.84	100.1	1.54	31.96	8.49	4	83.8	
						27.3			6.82	99	1.65	31.88	8.5	5	76.8	
13:01	R2	ME	840726	836201	4.4	1.00	107.3	0.454	27.2	4.42	66.8	1.24	32.55	8.49	5	40
						27.2			3.66	55.4	1.21	32.71	8.48	4	39.6	
						27			7.15	107.7	0.38	32.28	7.71	<2	11.3	
						27			7.25	109.3	0.37	32.28	7.7	<2	10.8	
13:31	W1	ME	841852	836575	7.1	1.00	176.8	0.183	27.1	5.43	82.1	0.33	32.69	7.64	4	15.9
						27			5.2	80.7	0.25	32.78	7.62	3	14.9	
						27.4			3.52	54	2.83	34.08	7.57	3	16.2	
						27.4			3.44	52.8	2.79	34.06	7.57	4	17.1	
12:57	M1	ME	840821	836412	0.5	0.25	154.1	0.506	27.7	7.46	113.5	1.15	31.97	8.38	3	41.1
						27.7			7.51	114.1	1.25	31.86	8.33	3	43.5	
						26.9			7.96	119.4	0.48	31.92	8.31	2	11.4	
						26.8			7.91	118.4	0.49	31.94	8.3	3	12.1	
13:07	FCZ1	ME	841183	835224	5.1	1.00	388.2	0.151	27.2	3.93	59.6	2.06	32.96	8.13	2	6.5
						27.2			3.82	58	2.13	32.91	8.1	3	5.1	
						27.1			6.99	105.6	0.64	32.38	7.69	3	9.2	
						27.1			7.09	107.1	0.58	32.4	7.69	5	10	
17:51	G1	MF	841471	835921	5.3	1.00	199.4	0.109	27.3	4.78	72.7	2.41	33.03	7.5	3	8.6
						27.2			4.75	72.2	2.27	33	7.49	4	8.6	
						27.2			7.59	114.6	0.67	32	8.05	3	11.7	
						27.2			7.64	115.4	0.67	32	8.07	2	11.2	
17:23	I2	MF	841583	836609	4.9	1.00	364.3	0.162	27.1	6.42	97.1	0.61	32.52	8.03	3	11.3
						27			6.5	98.2	0.62	32.52	8.02	3	11	
						27.2			3.82	58	1.58	32.95	8.15	3	7.6	
						27.2			3.7	56.2	1.56	32.95	8.14	2	7.6	
17:18	I3	MF	841786	836674	4.8	1.00	197.3	0.097	27.1	6.27	95	0.63	32.65	8.09	3	11.4
						27.1			6.16	93.3	0.61	32.64	8.08	3	12	
						27.2			4.35	66.2	1.04	33.01	8.02	4	7.9	
						27.2			4.32	65.6	1.16	33.01	8.03	3	9.4	
17:58	R1	MF	842296	835702	5.7	1.00	117.3	0.206	26.9	7.14	107.5	0.24	32.36	7.69	4	11.2
						26.9			7.21	108.7	0.17	32.37	7.65	4	11.2	
						27.4			4.66	71.6	0.5	34.59	7.49	4	12	
						27.4			4.55	70	0.53	34.58	7.46	4	12.4	
17:38	R2	MF	840732	836201	4.5	1.00	245.0	0.193	27.2	8.49	128.2	0.59	31.92	8.07	2	11.6
						27.2			8.53	128.8	0.55	31.89	8.05	3	10.9	
						27.2			4.6	69.7	1.1	32.67	7.93	2	12.1	
						27.2			4.48	67.9	1.2	32.68	7.92	4	10.3	
18:06	W1	MF	841831	836546	7.6	1.00	123.4	0.084	26.9	6.9	103.9	0.51	32.4	7.64	4	11.8
						26.9			6.9	104	0.54	32.41	7.63	3	9.4	
						27.2			4.66	70.9	0.64	33.12	7.48	2	10.7	
						27.2			4.59	69.8	0.74	33.23	7.48	2	11.6	
17:34	M1	MF	840816	836408	0.7	0.35	94.3	0.043	27.4	3.87	59.3	1.86	34.06	7.33	8	4.2
						27.4			3.82	58.6	1.89	34.05	7.34	6	3.8	
						27.8			7.44	113.5	1.4	31.96	7.8	4	17.2	
						27.6			7.67	116.7	1.31	31.99	7.79	4	16.4	
17:45	FCZ1	MF	841172	835212	4.3	1.00	198.2	0.140	27	7.48	112.8	0.36	32.26	7.79	7	10.2
						27.1			7.76	117.3	0.34	32.27	7.79	6	10.2	
						27.2			7.71	116.6	0.4	32.29	7.67	5	8.6	
						27.2			7.62	115.2	0.41	32.31	7.67	5	9.2	

Remarks: MF - Middle Flood tide
 ME - Middle Ebb tide
 For SS, if the monitoring result is less than Limit of Report 2mg/L, the result value will be assumed as 2 for the calculator
 For Chlorophyll-*a*, if the monitoring result is less than Limit of Report 0.1µg/L, the result value will be assumed as 0.1 for the calculator

Baseline Monitoring																
Sampling Date: 21-Oct-17																
Date / Time	Location	Tide*	Co-ordinates		Water Depth m	Sampling Depth m	Current Direction degrees	Current Speed m/s	Temp	DO Conc	DO Saturation	Turbidity	Salinity	pH	SS	Chlorophyll-a
			°C	mg/L					%	NTU	ppt	unit	mg/L	µg/L		
East	North															
13:06	G1	ME	841469	835921	5.8	1.00	257	0.142	26.5	7.39	110.6	0.39	32.4	7.63	5	9.6
						26.6			7.53	112.8	0.35	32.4	7.63	4	9.8	
						26.5			7.39	110.6	0.39	32.4	7.65	6	5.9	
						26.6			7.53	112.8	0.35	32.4	7.64	6	6.6	
12:42	I1	ME	841342	836575	2.8	1.40	259	0.110	26.6	7.04	105.3	0.64	32.27	8.17	4	7.9
						26.5			7.11	106.2	0.6	32.29	8.15	4	8.3	
						26.7			7.38	110.7	0.29	32.51	8.08	6	4.7	
						26.6			7.4	110.9	0.3	32.52	8.06	4	3.8	
12:35	I2	ME	841596	836593	5.3	1.00	243	0.042	27	5.84	88.6	0.34	33.32	7.48	8	4.3
						27			5.74	87.1	0.28	33.32	7.47	10	2.9	
						26.7			7.74	116.1	0.17	32.5	7.94	5	10.8	
						26.7			7.75	116.2	0.16	32.49	7.96	6	11.8	
12:29	I3	ME	841795	836696	5.1	1.00	196	0.199	27	5.91	89.5	0.36	33.26	7.54	4	10.9
						27			5.9	89.3	0.38	33.26	7.55	7	11.2	
						26.6			7.56	113.2	0.25	32.47	7.67	3	10.1	
						26.6			7.6	113.8	0.22	32.47	7.67	4	11.1	
13:13	R1	ME	842315	835729	6.5	3.25	162	0.080	26.6	7.34	109.9	0.22	32.5	7.62	4	9.4
						26.6			7.39	110.7	0.26	32.52	7.61	3	9.8	
						26.9			4.81	72.8	1.61	33.46	7.57	6	8.5	
						27			4.74	72	1.82	33.62	7.56	5	8.2	
12:50	R2	ME	840748	836229	5.6	1.00	264	0.102	26.5	7.98	119.3	0.73	32.25	8.02	4	13.9
						26.6			8.03	120.1	0.68	32.25	8.01	4	14.2	
						27.1			2.95	44.8	1.06	33.36	7.82	2	7.9	
						27.1			2.71	41.1	1.04	33.33	7.82	3	8.8	
13:24	W1	ME	841868	836578	7.6	1.00	210	0.103	26.7	7.82	117.3	0.25	32.49	7.55	3	12.2
						26.7			7.83	117.4	0.23	32.48	7.54	3	10.6	
						27			6.07	91.9	0.32	33.24	7.39	5	10.8	
						27			6.01	91	0.42	33.24	7.39	5	11	
12:47	M1	ME	840829	836421	1	0.50	206	0.170	26.7	7.53	112.9	2.19	32.3	8.15	6	12.4
						26.7			7.54	112.9	2.12	32.29	8.15	5	10.1	
						26.6			8.12	121.5	0.47	32.24	7.98	4	12.4	
						26.6			8.16	122.1	0.46	32.24	7.97	4	11.6	
12:58	FCZ1	ME	841192	835249	4.9	1.00	279	0.106	26.9	5.04	76.1	1.65	33.14	7.86	4	8.4
						26.9			4.99	75.4	1.73	33.14	7.84	6	7.9	
						26.1			7.02	104	0.77	32.35	7.89	3	8.1	
						26.1			7.09	105.1	0.84	32.36	7.88	4	8	
8:58	G1	MF	841492	835941	7.2	3.60	72	0.250	26.2	7.13	105.8	0.38	32.37	7.7	4	11
						26.2			6.97	103.3	0.34	32.39	7.69	4	10.4	
						27.1			3.63	55.2	2.58	34.05	7.56	6	3.6	
						27.3			3.53	53.9	2.42	34.26	7.57	4	2.8	
8:30	I1	MF	841342	836601	2.9	1.45	71	0.138	25.8	6.32	93.2	0.46	32.26	8.1	3	5.9
						25.9			6.29	92.8	0.4	32.25	8.09	4	6.8	
						25.6			6.76	99.2	1.07	32.14	8.3	7	6.1	
						25.6			6.8	99.8	1.02	32.14	8.29	6	5.8	
8:24	I2	MF	841601	836593	5.7	1.00	137	0.149	27.2	3.82	58.2	1.34	33.9	7.82	5	2.5
						27.2			3.79	57.8	1.31	33.89	7.81	6	2	
						26.1			7.13	105.5	0.46	32.3	7.61	4	10.3	
						26.1			7.16	106	0.38	32.33	7.62	4	8	
8:14	I3	MF	841806	836682	5.5	1.00	212	0.282	27.1	4.51	68.4	0.38	33.57	7.64	4	2
						27.2			4.32	65.7	0.37	33.63	7.63	5	1.9	
						26.2			6.81	101.1	0.26	32.49	7.59	3	6.1	
						26.2			6.85	101.8	0.23	32.5	7.58	4	7.9	
9:06	R1	MF	842306	835728	7.3	3.65	384	0.184	26.6	6.14	91.9	0.13	32.78	7.46	5	6
						26.6			6.16	92.2	0.11	32.79	7.46	3	6.7	
						27.1			3.87	59.1	2.01	35.02	7.37	3	5.1	
						27.2			3.83	58.7	2.14	34.95	7.36	5	3	
8:45	R2	MF	840751	836209	5.6	1.00	27	0.054	26.2	7.23	107.3	0.71	32.36	7.84	4	10.8
						26.2			7.31	108.5	0.66	32.35	7.83	6	10.9	
						26.9			4.25	64.2	0.51	33.22	7.53	4	4.1	
						27			4.21	63.6	0.56	33.29	7.53	4	2.8	
9:15	W1	MF	841862	836562	8.4	1.00	196	0.266	26	7.25	107.3	0.89	32.28	7.7	3	7
						26			7.36	108.8	0.74	32.29	7.69	5	8.1	
						26.6			5.22	78.3	0.3	33.05	7.59	5	6.3	
						26.8			5.25	79	0.28	33.19	7.57	6	5.6	
8:41	M1	MF	840829	836425	0.7	0.35	135	0.442	27.3	3.11	47.6	2.95	34.73	7.43	9	1.1
						27.3			3.11	47.7	2.91	34.73	7.44	8	1.4	
						25.9			7.23	106.6	1.33	32.19	7.68	6	4.8	
						25.9			7.24	106.8	1.35	32.18	7.67	6	6.5	
8:51	FCZ1	MF	841186	835221	4.9	1.00	21	0.202	26.3	7.55	112.1	0.51	32.25	8.02	5	10.6
						26.3			7.66	113.8	0.63	32.26	8.01	6	11.2	
						26.5			6.28	93.6	0.62	32.47	7.66	5	9.9	
						26.6			6.29	94	0.55	32.59	7.67	6	10.5	

MF - Middle Flood tide
 ME - Middle Ebb tide
 For SS, if the monitoring result is less than Limit of Report 2mg/L, the result value will be assumed as 2 for the calculation
 For Chlorophyll-a, if the monitoring result is less than Limit of Report 0.1µg/L, the result value will be assumed as 0.1 for the calculation



CERTIFICATE OF ANALYSIS

<i>Client</i>	: ACTION UNITED ENVIRONMENT SERVICES AND CONSULTING	<i>Laboratory</i>	: ALS Technichem (HK) Pty Ltd	<i>Page</i>	: 1 of 7
<i>Contact</i>	: MR T W TAM	<i>Contact</i>	: Richard Fung	<i>Work Order</i>	: HK1767511
<i>Address</i>	: RM A 20/F., GOLD KING IND BLDG, NO. 35-41 TAI LIN PAI ROAD, KWAI CHUNG, N.T. HONG KONG	<i>Address</i>	: 11/F., Chung Shun Knitting Centre, 1 - 3 Wing Yip Street, Kwai Chung, N.T., Hong Kong		
<i>E-mail</i>	: Twtam@fordbusiness.com	<i>E-mail</i>	: richard.fung@alsglobal.com	<i>Date received</i>	: 23-Sep-2017
<i>Telephone</i>	: +852 2959 6059	<i>Telephone</i>	: +852 2610 1044	<i>Date of issue</i>	: 30-Sep-2017
<i>Facsimile</i>	: +852 2959 6079	<i>Facsimile</i>	: +852 2610 2021	<i>No. of samples</i>	- Received : 74
<i>Project</i>	: TCS00874/16 - BATHING BEACH AT LUNG MEI, TAI PO	<i>Quote number</i>	: HK/5386g/2016		- Analysed : 74
<i>Order number</i>	: —				
<i>C-O-C number</i>	: —				
<i>Site</i>	: —				

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This document has been signed by those names that appear on this report and are the authorised signatories.

Signatory

Fung Lim Chee, Richard

Position

General Manager

Authorised results for:

Inorganics



Report Comments

This report for ALS Technichem (HK) Pty Ltd work order reference HK1767511 supersedes any previous reports with this reference. Testing period is from 23-Sep-2017 to 29-Sep-2017. 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 HK1767511 :

Sample(s) were received in chilled condition.

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

In marine and freshwater samples, chlorophyll b, if present, will cause some interference to the analysis of chlorophyll a.



Analytical Results

Sub-Matrix: MARINE WATER			Compound	EA025: Suspended Solids (SS)	EP008F: Chlorophyll a	----	----	----
			LOR Unit	2 mg/L	0.1 µg/L	----	----	----
Client sample ID	Client sampling date / time	Laboratory sample ID	EA/ED: Physical and Aggregate Properties	EP: Aggregate Organics	----	----	----	----
G1/S/MID-EBB	[23-Sep-2017]	HK1767511-001	5	1.6	----	----	----	
G1/S/MID-EBB - Duplicate	[23-Sep-2017]	HK1767511-002	6	1.6	----	----	----	
G1/B/MID-EBB	[23-Sep-2017]	HK1767511-005	7	2.0	----	----	----	
G1/B/MID-EBB- Duplicate	[23-Sep-2017]	HK1767511-006	5	2.0	----	----	----	
I1/M/MID-EBB	[23-Sep-2017]	HK1767511-009	7	1.9	----	----	----	
I1/M/MID-EBB- Duplicate	[23-Sep-2017]	HK1767511-010	7	1.4	----	----	----	
I2/S/MID-EBB	[23-Sep-2017]	HK1767511-013	5	2.5	----	----	----	
I2/S/MID-EBB- Duplicate	[23-Sep-2017]	HK1767511-014	6	2.6	----	----	----	
I2/B/MID-EBB	[23-Sep-2017]	HK1767511-017	6	2.0	----	----	----	
I2/B/MID-EBB- Duplicate	[23-Sep-2017]	HK1767511-018	5	1.7	----	----	----	
I3/S/MID-EBB	[23-Sep-2017]	HK1767511-019	5	1.2	----	----	----	
I3/S/MID-EBB- Duplicate	[23-Sep-2017]	HK1767511-020	7	2.2	----	----	----	
I3/B/MID-EBB	[23-Sep-2017]	HK1767511-023	9	2.0	----	----	----	
I3/B/MID-EBB- Duplicate	[23-Sep-2017]	HK1767511-024	7	1.3	----	----	----	
R1/S/MID-EBB	[23-Sep-2017]	HK1767511-025	7	0.6	----	----	----	
R1/S/MID-EBB- Duplicate	[23-Sep-2017]	HK1767511-026	9	1.9	----	----	----	
R1/M/MID-EBB	[23-Sep-2017]	HK1767511-027	8	2.0	----	----	----	
R1/M/MID-EBB- Duplicate	[23-Sep-2017]	HK1767511-028	7	1.3	----	----	----	
R1/B/MID-EBB	[23-Sep-2017]	HK1767511-029	7	1.3	----	----	----	
R1/B/MID-EBB- Duplicate	[23-Sep-2017]	HK1767511-030	7	1.2	----	----	----	
R2/S/MID-EBB	[23-Sep-2017]	HK1767511-031	4	1.5	----	----	----	
R2/S/MID-EBB- Duplicate	[23-Sep-2017]	HK1767511-032	2	1.6	----	----	----	
R2/B/MID-EBB	[23-Sep-2017]	HK1767511-035	4	2.2	----	----	----	
R2/B/MID-EBB- Duplicate	[23-Sep-2017]	HK1767511-036	3	2.2	----	----	----	
W1/S/MID-EBB	[23-Sep-2017]	HK1767511-037	2	1.6	----	----	----	
W1/S/MID-EBB- Duplicate	[23-Sep-2017]	HK1767511-038	3	1.6	----	----	----	
W1/M/MID-EBB	[23-Sep-2017]	HK1767511-039	7	1.5	----	----	----	
W1/M/MID-EBB- Duplicate	[23-Sep-2017]	HK1767511-040	5	1.7	----	----	----	
W1/B/MID-EBB	[23-Sep-2017]	HK1767511-041	6	2.0	----	----	----	
W1/B/MID-EBB- Duplicate	[23-Sep-2017]	HK1767511-042	5	1.9	----	----	----	



Sub-Matrix: MARINE WATER

Client sample ID	Client sampling date / time	Laboratory sample ID	Compound	EA025: Suspended Solids (SS)	EP008F: Chlorophyll a	---	---	---
			LOR Unit	2 mg/L	0.1 µg/L	---	---	---
			EA/ED: Physical and Aggregate Properties	EP: Aggregate Organics	---	---	---	---
M1/M/MID-EBB	[23-Sep-2017]	HK1767511-045		6	1.2	---	---	---
M1/M/MID-EBB- Duplicate	[23-Sep-2017]	HK1767511-046		6	2.3	---	---	---
FCZ1/S/MID-EBB	[23-Sep-2017]	HK1767511-049		5	1.7	---	---	---
FCZ1/S/MID-EBB- Duplicate	[23-Sep-2017]	HK1767511-050		6	1.1	---	---	---
FCZ1/B/MID-EBB	[23-Sep-2017]	HK1767511-053		5	1.2	---	---	---
FCZ1/B/MID-EBB- Duplicate	[23-Sep-2017]	HK1767511-054		5	1.7	---	---	---
G1/S/MID-FLOOD	[23-Sep-2017]	HK1767511-055		4	1.7	---	---	---
G1/S/MID-FLOOD - Duplicate	[23-Sep-2017]	HK1767511-056		3	1.4	---	---	---
G1/M/MID-FLOOD	[23-Sep-2017]	HK1767511-057		6	1.4	---	---	---
G1/M/MID-FLOOD - Duplicate	[23-Sep-2017]	HK1767511-058		5	1.4	---	---	---
G1/B/MID-FLOOD	[23-Sep-2017]	HK1767511-059		4	1.6	---	---	---
G1/B/MID-FLOOD - Duplicate	[23-Sep-2017]	HK1767511-060		4	1.7	---	---	---
I1/M/MID-FLOOD	[23-Sep-2017]	HK1767511-063		4	1.7	---	---	---
I1/M/MID-FLOOD - Duplicate	[23-Sep-2017]	HK1767511-064		5	2.0	---	---	---
I2/S/MID-FLOOD	[23-Sep-2017]	HK1767511-067		<2	1.9	---	---	---
I2/S/MID-FLOOD - Duplicate	[23-Sep-2017]	HK1767511-068		<2	1.5	---	---	---
I2/B/MID-FLOOD	[23-Sep-2017]	HK1767511-071		6	1.9	---	---	---
I2/B/MID-FLOOD - Duplicate	[23-Sep-2017]	HK1767511-072		8	1.8	---	---	---
I3/S/MID-FLOOD	[23-Sep-2017]	HK1767511-073		6	2.1	---	---	---
I3/S/MID-FLOOD - Duplicate	[23-Sep-2017]	HK1767511-074		7	2.4	---	---	---
I3/B/MID-FLOOD	[23-Sep-2017]	HK1767511-077		15	2.4	---	---	---
I3/B/MID-FLOOD - Duplicate	[23-Sep-2017]	HK1767511-078		15	2.4	---	---	---
R1/S/MID-FLOOD	[23-Sep-2017]	HK1767511-079		9	1.9	---	---	---



Sub-Matrix: MARINE WATER			Compound	EA025: Suspended Solids (SS)	EP008F: Chlorophyll a	----	----	----
			LOR Unit	2 mg/L	0.1 µg/L	----	----	----
Client sample ID	Client sampling date / time	Laboratory sample ID	EA/ED: Physical and Aggregate Properties	EP: Aggregate Organics	----	----	----	----
R1/S/MID-FLOOD-Duplicate	[23-Sep-2017]	HK1767511-080	8	1.8	----	----	----	----
R1/M/MID-FLOOD	[23-Sep-2017]	HK1767511-081	9	1.7	----	----	----	----
R1/M/MID-FLOOD - Duplicate	[23-Sep-2017]	HK1767511-082	7	1.5	----	----	----	----
R1/B/MID-FLOOD	[23-Sep-2017]	HK1767511-083	9	1.5	----	----	----	----
R1/B/MID-FLOOD-Duplicate	[23-Sep-2017]	HK1767511-084	9	1.5	----	----	----	----
R2/S/MID-FLOOD	[23-Sep-2017]	HK1767511-085	2	1.7	----	----	----	----
R2/S/MID-FLOOD-Duplicate	[23-Sep-2017]	HK1767511-086	4	1.7	----	----	----	----
R2/B/MID-FLOOD	[23-Sep-2017]	HK1767511-089	4	1.6	----	----	----	----
R2/B/MID-FLOOD-Duplicate	[23-Sep-2017]	HK1767511-090	6	1.6	----	----	----	----
W1/S/MID-FLOOD	[23-Sep-2017]	HK1767511-091	4	2.0	----	----	----	----
W1/S/MID-FLOOD-Duplicate	[23-Sep-2017]	HK1767511-092	2	1.6	----	----	----	----
W1/M/MID-FLOOD	[23-Sep-2017]	HK1767511-093	5	1.7	----	----	----	----
W1/M/MID-FLOOD-Duplicate	[23-Sep-2017]	HK1767511-094	5	1.8	----	----	----	----
W1/B/MID-FLOOD	[23-Sep-2017]	HK1767511-095	9	1.7	----	----	----	----
W1/B/MID-FLOOD-Duplicate	[23-Sep-2017]	HK1767511-096	7	1.8	----	----	----	----
M1/M/MID-FLOOD	[23-Sep-2017]	HK1767511-099	11	1.1	----	----	----	----
M1/M/MID-FLOOD-Duplicate	[23-Sep-2017]	HK1767511-100	9	1.6	----	----	----	----
FCZ1/S/MID-FLOOD	[23-Sep-2017]	HK1767511-103	3	1.3	----	----	----	----
FCZ1/S/MID-FLOOD-Duplicate	[23-Sep-2017]	HK1767511-104	4	1.3	----	----	----	----
FCZ1/B/MID-FLOOD	[23-Sep-2017]	HK1767511-107	7	1.6	----	----	----	----
FCZ1/B/MID-FLOOD-Duplicate	[23-Sep-2017]	HK1767511-108	8	1.1	----	----	----	----



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: 1135813)								
HK1767511-001	G1/S/MID-EBB	EA025: Suspended Solids (SS)	----	2	mg/L	5	6	0.00
HK1767511-019	I3/S/MID-EBB	EA025: Suspended Solids (SS)	----	2	mg/L	5	5	0.00
EA/ED: Physical and Aggregate Properties (QC Lot: 1135814)								
HK1767511-032	R2/S/MID-EBB- Duplicate	EA025: Suspended Solids (SS)	----	2	mg/L	2	2	0.00
HK1767511-045	M1/M/MID-EBB	EA025: Suspended Solids (SS)	----	2	mg/L	6	5	19.8
EA/ED: Physical and Aggregate Properties (QC Lot: 1135815)								
HK1767511-059	G1/B/MID-FLOOD	EA025: Suspended Solids (SS)	----	2	mg/L	4	5	0.00
HK1767511-077	I3/B/MID-FLOOD	EA025: Suspended Solids (SS)	----	2	mg/L	15	16	6.64
EA/ED: Physical and Aggregate Properties (QC Lot: 1135816)								
HK1767511-089	R2/B/MID-FLOOD	EA025: Suspended Solids (SS)	----	2	mg/L	4	5	20.7
HK1767511-103	FCZ1/S/MID-FLOOD	EA025: Suspended Solids (SS)	----	2	mg/L	3	3	0.00
EP: Aggregate Organics (QC Lot: 1137536)								
HK1767225-089	Anonymous	EP008F: Chlorophyll a	----	0.1	mg/m ³	1.4 µg/L	1.6	17.9
EP: Aggregate Organics (QC Lot: 1137537)								
HK1767511-031	R2/S/MID-EBB	EP008F: Chlorophyll a	----	0.1	mg/m ³	1.5 µg/L	1.8	15.7
EP: Aggregate Organics (QC Lot: 1137538)								
HK1767797-001	Anonymous	EP008F: Chlorophyll a	----	0.1	mg/m ³	4.1 µg/L	4.0	0.00
EP: Aggregate Organics (QC Lot: 1143070)								
HK1767511-059	G1/B/MID-FLOOD	EP008F: Chlorophyll a	----	0.1	mg/m ³	1.6 µg/L	1.8	10.3
EP: Aggregate Organics (QC Lot: 1143071)								
HK1767511-089	R2/B/MID-FLOOD	EP008F: Chlorophyll a	----	0.1	mg/m ³	1.6 µg/L	1.8	10.9

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			
Method: Compound	CAS Number	LOR	Unit	Result	Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPDs (%)					
						LCS	DCS	Low	High	Value	Control Limit				
EA/ED: Physical and Aggregate Properties (QCLot: 1135813)															
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	111	----	85	115	----	----				
EA/ED: Physical and Aggregate Properties (QCLot: 1135814)															
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	112	----	85	115	----	----				
EA/ED: Physical and Aggregate Properties (QCLot: 1135815)															
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	104	----	85	115	----	----				
EA/ED: Physical and Aggregate Properties (QCLot: 1135816)															
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	101	----	85	115	----	----				
EP: Aggregate Organics (QCLot: 1137536)															



Matrix: WATER		Method Blank (MB) Report			Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report						
Method: Compound	CAS Number	LOR	Unit	Result	Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPDs (%)	
						LCS	DCS	Low	High	Value	Control Limit
EP: Aggregate Organics (QCLot: 1137536) - continued											
EP008F: Chlorophyll a	----	0.1	mg/m ³	<0.1	9.8 mg/m ³	105	----	85	115	----	----
EP: Aggregate Organics (QCLot: 1137537)											
EP008F: Chlorophyll a	----	0.1	mg/m ³	<0.1	9.8 mg/m ³	104	----	85	115	----	----
EP: Aggregate Organics (QCLot: 1137538)											
EP008F: Chlorophyll a	----	0.1	mg/m ³	<0.1	9.8 mg/m ³	106	----	85	115	----	----
EP: Aggregate Organics (QCLot: 1143070)											
EP008F: Chlorophyll a	----	0.1	mg/m ³	<0.1	9.8 mg/m ³	106	----	85	115	----	----
EP: Aggregate Organics (QCLot: 1143071)											
EP008F: Chlorophyll a	----	0.1	mg/m ³	<0.1	9.8 mg/m ³	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

<i>Client</i>	: ACTION UNITED ENVIRONMENT SERVICES AND CONSULTING	<i>Laboratory</i>	: ALS Technichem (HK) Pty Ltd	<i>Page</i>	: 1 of 7
<i>Contact</i>	: MR T W TAM	<i>Contact</i>	: Richard Fung	<i>Work Order</i>	: HK1767961
<i>Address</i>	: RM A 20/F., GOLD KING IND BLDG, NO. 35-41 TAI LIN PAI ROAD, KWAI CHUNG, N.T. HONG KONG	<i>Address</i>	: 11/F., Chung Shun Knitting Centre, 1 - 3 Wing Yip Street, Kwai Chung, N.T., Hong Kong		
<i>E-mail</i>	: Twtam@fordbusiness.com	<i>E-mail</i>	: richard.fung@alsglobal.com	<i>Date received</i>	: 25-Sep-2017
<i>Telephone</i>	: +852 2959 6059	<i>Telephone</i>	: +852 2610 1044	<i>Date of issue</i>	: 06-Oct-2017
<i>Facsimile</i>	: +852 2959 6079	<i>Facsimile</i>	: +852 2610 2021	<i>No. of samples</i>	- Received : 72
<i>Project</i>	: TCS (ALL WATER SAMPLES) - 2017	<i>Quote number</i>	: HK/5386g/2016		- Analysed : 72
<i>Order number</i>	: —				
<i>C-O-C number</i>	: —				
<i>Site</i>	: —				

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This document has been signed by those names that appear on this report and are the authorised signatories.

Signatory

Fung Lim Chee, Richard

Position

General Manager

Authorised results for:

Inorganics



Report Comments

This report for ALS Technichem (HK) Pty Ltd work order reference HK1767961 supersedes any previous reports with this reference. Testing period is from 25-Sep-2017 to 06-Oct-2017. 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 HK1767961 :

Sample(s) were received in chilled condition.

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

In marine and freshwater samples, chlorophyll b, if present, will cause some interference to the analysis of chlorophyll a.



Analytical Results

Sub-Matrix: MARINE WATER			Compound	EA025: Suspended Solids (SS)	EP008F: Chlorophyll a	----	----	----
			LOR Unit	2 mg/L	0.1 µg/L	----	----	----
Client sample ID	Client sampling date / time	Laboratory sample ID	EA/ED: Physical and Aggregate Properties	EP: Aggregate Organics	----	----	----	----
G1/S/MID-EBB	25-Sep-2017	HK1767961-001	2	3.3	----	----	----	
G1/S/MID-EBB - Duplicate	25-Sep-2017	HK1767961-002	3	3.6	----	----	----	
G1/B/MID-EBB	25-Sep-2017	HK1767961-005	2	3.7	----	----	----	
G1/B/MID-EBB- Duplicate	25-Sep-2017	HK1767961-006	4	3.4	----	----	----	
I1/M/MID-EBB	25-Sep-2017	HK1767961-007	4	3.4	----	----	----	
I1/M/MID-EBB- Duplicate	25-Sep-2017	HK1767961-008	5	3.1	----	----	----	
I2/S/MID-EBB	25-Sep-2017	HK1767961-009	4	4.0	----	----	----	
I2/S/MID-EBB- Duplicate	25-Sep-2017	HK1767961-010	3	3.9	----	----	----	
I2/B/MID-EBB	25-Sep-2017	HK1767961-011	6	3.5	----	----	----	
I2/B/MID-EBB- Duplicate	25-Sep-2017	HK1767961-012	5	3.9	----	----	----	
I3/S/MID-EBB	25-Sep-2017	HK1767961-013	5	3.6	----	----	----	
I3/S/MID-EBB- Duplicate	25-Sep-2017	HK1767961-014	4	3.8	----	----	----	
I3/B/MID-EBB	25-Sep-2017	HK1767961-015	4	3.5	----	----	----	
I3/B/MID-EBB- Duplicate	25-Sep-2017	HK1767961-016	5	3.8	----	----	----	
R1/S/MID-EBB	25-Sep-2017	HK1767961-017	4	5.0	----	----	----	
R1/S/MID-EBB- Duplicate	25-Sep-2017	HK1767961-018	4	5.2	----	----	----	
R1/M/MID-EBB	25-Sep-2017	HK1767961-019	4	4.5	----	----	----	
R1/M/MID-EBB- Duplicate	25-Sep-2017	HK1767961-020	5	4.1	----	----	----	
R1/B/MID-EBB	25-Sep-2017	HK1767961-021	4	3.0	----	----	----	
R1/B/MID-EBB- Duplicate	25-Sep-2017	HK1767961-022	3	3.0	----	----	----	
R2/S/MID-EBB	25-Sep-2017	HK1767961-023	4	3.4	----	----	----	
R2/S/MID-EBB- Duplicate	25-Sep-2017	HK1767961-024	4	3.3	----	----	----	
R2/B/MID-EBB	25-Sep-2017	HK1767961-025	6	3.0	----	----	----	
R2/B/MID-EBB- Duplicate	25-Sep-2017	HK1767961-026	5	3.6	----	----	----	
W1/S/MID-EBB	25-Sep-2017	HK1767961-027	5	4.4	----	----	----	
W1/S/MID-EBB- Duplicate	25-Sep-2017	HK1767961-028	4	4.3	----	----	----	
W1/M/MID-EBB	25-Sep-2017	HK1767961-029	6	4.1	----	----	----	
W1/M/MID-EBB- Duplicate	25-Sep-2017	HK1767961-030	5	4.6	----	----	----	
W1/B/MID-EBB	25-Sep-2017	HK1767961-031	4	4.3	----	----	----	
W1/B/MID-EBB- Duplicate	25-Sep-2017	HK1767961-032	4	4.2	----	----	----	



Sub-Matrix: MARINE WATER

			Compound	EA025: Suspended Solids (SS)	EP008F: Chlorophyll a	----	----	----
			LOR Unit	2 mg/L	0.1 µg/L	----	----	----
Client sample ID	Client sampling date / time	Laboratory sample ID		EA/ED: Physical and Aggregate Properties	EP: Aggregate Organics	----	----	----
M1/M/MID-EBB	25-Sep-2017	HK1767961-033		3	3.4	----	----	----
M1/M/MID-EBB- Duplicate	25-Sep-2017	HK1767961-034		5	3.4	----	----	----
FCZ1/S/MID-EBB	25-Sep-2017	HK1767961-035		6	2.8	----	----	----
FCZ1/S/MID-EBB- Duplicate	25-Sep-2017	HK1767961-036		5	3.5	----	----	----
FCZ1/B/MID-EBB	25-Sep-2017	HK1767961-037		6	5.0	----	----	----
FCZ1/B/MID-EBB- Duplicate	25-Sep-2017	HK1767961-038		8	4.2	----	----	----
G1/S/MID-FLOOD	25-Sep-2017	HK1767961-039		7	2.4	----	----	----
G1/S/MID-FLOOD - Duplicate	25-Sep-2017	HK1767961-040		6	2.7	----	----	----
G1/B/MID-FLOOD	25-Sep-2017	HK1767961-043		5	2.8	----	----	----
G1/B/MID-FLOOD - Duplicate	25-Sep-2017	HK1767961-044		6	2.8	----	----	----
I1/M/MID-FLOOD	25-Sep-2017	HK1767961-045		5	2.8	----	----	----
I1/M/MID-FLOOD - Duplicate	25-Sep-2017	HK1767961-046		4	2.6	----	----	----
I2/S/MID-FLOOD	25-Sep-2017	HK1767961-047		3	2.7	----	----	----
I2/S/MID-FLOOD - Duplicate	25-Sep-2017	HK1767961-048		4	2.6	----	----	----
I2/B/MID-FLOOD	25-Sep-2017	HK1767961-049		3	2.8	----	----	----
I2/B/MID-FLOOD - Duplicate	25-Sep-2017	HK1767961-050		4	2.5	----	----	----
I3/S/MID-FLOOD	25-Sep-2017	HK1767961-051		5	2.8	----	----	----
I3/S/MID-FLOOD - Duplicate	25-Sep-2017	HK1767961-052		4	3.1	----	----	----
I3/B/MID-FLOOD	25-Sep-2017	HK1767961-053		3	3.0	----	----	----
I3/B/MID-FLOOD - Duplicate	25-Sep-2017	HK1767961-054		5	3.4	----	----	----
R1/S/MID-FLOOD	25-Sep-2017	HK1767961-055		5	2.8	----	----	----
R1/S/MID-FLOOD- Duplicate	25-Sep-2017	HK1767961-056		5	3.0	----	----	----
R1/M/MID-FLOOD	25-Sep-2017	HK1767961-057		4	3.1	----	----	----



Sub-Matrix: MARINE WATER

			Compound	EA025: Suspended Solids (SS)	EP008F: Chlorophyll a	----	----	----
			LOR Unit	2 mg/L	0.1 µg/L	----	----	----
Client sample ID	Client sampling date / time	Laboratory sample ID	EA/ED: Physical and Aggregate Properties	EP: Aggregate Organics	----	----	----	----
R1/M/MID-FLOOD - Duplicate	25-Sep-2017	HK1767961-058	5	3.2	----	----	----	----
R1/B/MID-FLOOD	25-Sep-2017	HK1767961-059	6	2.9	----	----	----	----
R1/B/MID-FLOOD-Duplicate	25-Sep-2017	HK1767961-060	4	2.7	----	----	----	----
R2/S/MID-FLOOD	25-Sep-2017	HK1767961-061	8	3.9	----	----	----	----
R2/S/MID-FLOOD-Duplicate	25-Sep-2017	HK1767961-062	6	4.0	----	----	----	----
R2/B/MID-FLOOD	25-Sep-2017	HK1767961-063	6	3.0	----	----	----	----
R2/B/MID-FLOOD-Duplicate	25-Sep-2017	HK1767961-064	6	3.0	----	----	----	----
W1/S/MID-FLOOD	25-Sep-2017	HK1767961-065	7	3.4	----	----	----	----
W1/S/MID-FLOOD-Duplicate	25-Sep-2017	HK1767961-066	6	3.1	----	----	----	----
W1/M/MID-FLOOD	25-Sep-2017	HK1767961-067	6	3.3	----	----	----	----
W1/M/MID-FLOOD-Duplicate	25-Sep-2017	HK1767961-068	7	2.9	----	----	----	----
W1/B/MID-FLOOD	25-Sep-2017	HK1767961-069	5	3.4	----	----	----	----
W1/B/MID-FLOOD-Duplicate	25-Sep-2017	HK1767961-070	5	3.3	----	----	----	----
M1/M/MID-FLOOD	25-Sep-2017	HK1767961-071	10	2.6	----	----	----	----
M1/M/MID-FLOOD-Duplicate	25-Sep-2017	HK1767961-072	8	2.4	----	----	----	----
FCZ1/S/MID-FLOOD	25-Sep-2017	HK1767961-073	5	3.0	----	----	----	----
FCZ1/S/MID-FLOOD-Duplicate	25-Sep-2017	HK1767961-074	4	2.8	----	----	----	----
FCZ1/B/MID-FLOOD	25-Sep-2017	HK1767961-075	6	2.8	----	----	----	----
FCZ1/B/MID-FLOOD-Duplicate	25-Sep-2017	HK1767961-076	5	2.8	----	----	----	----



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: 1138760)								
HK1767961-011	I2/B/MID-EBB	EA025: Suspended Solids (SS)	----	2	mg/L	6	6	0.00
HK1767961-012	I2/B/MID-EBB- Duplicate	EA025: Suspended Solids (SS)	----	2	mg/L	5	4	0.00
EA/ED: Physical and Aggregate Properties (QC Lot: 1138761)								
HK1767961-029	W1/M/MID-EBB	EA025: Suspended Solids (SS)	----	2	mg/L	6	5	19.5
HK1767961-032	W1/B/MID-EBB- Duplicate	EA025: Suspended Solids (SS)	----	2	mg/L	4	5	0.00
EA/ED: Physical and Aggregate Properties (QC Lot: 1138762)								
HK1767961-062	R2/S/MID-FLOOD- Duplicate	EA025: Suspended Solids (SS)	----	2	mg/L	6	5	19.0
HK1767961-055	R1/S/MID-FLOOD	EA025: Suspended Solids (SS)	----	2	mg/L	5	6	0.00
EA/ED: Physical and Aggregate Properties (QC Lot: 1138763)								
HK1767961-065	W1/S/MID-FLOOD	EA025: Suspended Solids (SS)	----	2	mg/L	7	6	22.0
HK1767961-075	FCZ1/B/MID-FLOOD	EA025: Suspended Solids (SS)	----	2	mg/L	6	5	24.0
EP: Aggregate Organics (QC Lot: 1143072)								
HK1767961-001	G1/S/MID-EBB	EP008F: Chlorophyll a	----	0.1	mg/m ³	3.3 µg/L	3.5	4.13
EP: Aggregate Organics (QC Lot: 1143073)								
HK1767961-023	R2/S/MID-EBB	EP008F: Chlorophyll a	----	0.1	mg/m ³	3.4 µg/L	3.3	0.00
EP: Aggregate Organics (QC Lot: 1143074)								
HK1767961-045	I1/M/MID-FLOOD	EP008F: Chlorophyll a	----	0.1	mg/m ³	2.8 µg/L	3.2	12.3
EP: Aggregate Organics (QC Lot: 1143075)								
HK1767961-065	W1/S/MID-FLOOD	EP008F: Chlorophyll a	----	0.1	mg/m ³	3.4 µg/L	3.1	11.1

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					
Method: Compound	CAS Number	LOR	Unit	Result	Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPDs (%)		
						LCS	DCS	Low	High	Value	Control Limit	
EA/ED: Physical and Aggregate Properties (QCLot: 1138760)												
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	88.5	----	85	115	----	----	
EA/ED: Physical and Aggregate Properties (QCLot: 1138761)												
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	114	----	85	115	----	----	
EA/ED: Physical and Aggregate Properties (QCLot: 1138762)												
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	110	----	85	115	----	----	
EA/ED: Physical and Aggregate Properties (QCLot: 1138763)												
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	108	----	85	115	----	----	
EP: Aggregate Organics (QCLot: 1143072)												
EP008F: Chlorophyll a	----	0.1	mg/m ³	<0.1	9.8 mg/m ³	102	----	85	115	----	----	



Matrix: WATER		Method Blank (MB) Report			Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report						
Method: Compound	CAS Number	LOR	Unit	Result	Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPDs (%)	
						LCS	DCS	Low	High	Value	Control Limit
EP: Aggregate Organics (QCLot: 1143073)											
EP008F: Chlorophyll a	----	0.1	mg/m ³	<0.1	9.65 mg/m ³	102	----	85	115	----	----
EP: Aggregate Organics (QCLot: 1143074)											
EP008F: Chlorophyll a	----	0.1	mg/m ³	<0.1	9.65 mg/m ³	99.6	----	85	115	----	----
EP: Aggregate Organics (QCLot: 1143075)											
EP008F: Chlorophyll a	----	0.1	mg/m ³	<0.1	9.65 mg/m ³	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

<i>Client</i>	: ACTION UNITED ENVIRONMENT SERVICES AND CONSULTING	<i>Laboratory</i>	: ALS Technichem (HK) Pty Ltd	<i>Page</i>	: 1 of 7
<i>Contact</i>	: MR T W TAM	<i>Contact</i>	: Richard Fung	<i>Work Order</i>	: HK1767962
<i>Address</i>	: RM A 20/F., GOLD KING IND BLDG, NO. 35-41 TAI LIN PAI ROAD, KWAI CHUNG, N.T. HONG KONG	<i>Address</i>	: 11/F., Chung Shun Knitting Centre, 1 - 3 Wing Yip Street, Kwai Chung, N.T., Hong Kong		
<i>E-mail</i>	: Twtam@fordbusiness.com	<i>E-mail</i>	: richard.fung@alsglobal.com		
<i>Telephone</i>	: +852 2959 6059	<i>Telephone</i>	: +852 2610 1044		
<i>Facsimile</i>	: +852 2959 6079	<i>Facsimile</i>	: +852 2610 2021		
<i>Project</i>	: TCS00874/16 - BATHING BEACH AT LUNG MEI, TAI PO	<i>Quote number</i>	: HK/5386g/2016	<i>Date received</i>	: 29-Sep-2017
<i>Order number</i>	: —			<i>Date of issue</i>	: 12-Oct-2017
<i>C-O-C number</i>	: —			<i>No. of samples</i>	- Received : 68
<i>Site</i>	: —				- Analysed : 68

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This document has been signed by those names that appear on this report and are the authorised signatories.

Signatory

Fung Lim Chee, Richard

Position

General Manager

Authorised results for:

Inorganics



Report Comments

This report for ALS Technichem (HK) Pty Ltd work order reference HK1767962 supersedes any previous reports with this reference. Testing period is from 29-Sep-2017 to 11-Oct-2017. 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 HK1767962 :

Sample(s) were received in chilled condition.

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

In marine and freshwater samples, chlorophyll b, if present, will cause some interference to the analysis of chlorophyll a.



Analytical Results

Sub-Matrix: MARINE WATER			Compound	EA025: Suspended Solids (SS)	EP008F: Chlorophyll a	----	----	----
			LOR Unit	2 mg/L	0.1 µg/L	----	----	----
Client sample ID	Client sampling date / time	Laboratory sample ID	EA/ED: Physical and Aggregate Properties	EP: Aggregate Organics	----	----	----	----
G1/S/MID-EBB	29-Sep-2017	HK1767962-001	<2	0.7	----	----	----	
G1/S/MID-EBB - Duplicate	29-Sep-2017	HK1767962-002	<2	0.7	----	----	----	
G1/B/MID-EBB	29-Sep-2017	HK1767962-005	<2	0.9	----	----	----	
G1/B/MID-EBB- Duplicate	29-Sep-2017	HK1767962-006	<2	0.7	----	----	----	
I1/M/MID-EBB	29-Sep-2017	HK1767962-007	<2	0.6	----	----	----	
I1/M/MID-EBB- Duplicate	29-Sep-2017	HK1767962-008	<2	0.4	----	----	----	
I2/S/MID-EBB	29-Sep-2017	HK1767962-009	<2	0.6	----	----	----	
I2/S/MID-EBB- Duplicate	29-Sep-2017	HK1767962-010	<2	0.3	----	----	----	
I2/B/MID-EBB	29-Sep-2017	HK1767962-011	3	0.8	----	----	----	
I2/B/MID-EBB- Duplicate	29-Sep-2017	HK1767962-012	4	0.8	----	----	----	
I3/S/MID-EBB	29-Sep-2017	HK1767962-013	4	0.5	----	----	----	
I3/S/MID-EBB- Duplicate	29-Sep-2017	HK1767962-014	3	0.6	----	----	----	
I3/B/MID-EBB	29-Sep-2017	HK1767962-015	4	0.7	----	----	----	
I3/B/MID-EBB- Duplicate	29-Sep-2017	HK1767962-016	4	0.7	----	----	----	
R1/S/MID-EBB	29-Sep-2017	HK1767962-017	2	1.0	----	----	----	
R1/S/MID-EBB- Duplicate	29-Sep-2017	HK1767962-018	3	1.1	----	----	----	
R1/B/MID-EBB	29-Sep-2017	HK1767962-021	2	1.0	----	----	----	
R1/B/MID-EBB- Duplicate	29-Sep-2017	HK1767962-022	2	1.1	----	----	----	
R2/S/MID-EBB	29-Sep-2017	HK1767962-023	3	0.3	----	----	----	
R2/S/MID-EBB- Duplicate	29-Sep-2017	HK1767962-024	3	0.6	----	----	----	
R2/B/MID-EBB	29-Sep-2017	HK1767962-025	4	0.7	----	----	----	
R2/B/MID-EBB- Duplicate	29-Sep-2017	HK1767962-026	3	0.7	----	----	----	
W1/S/MID-EBB	29-Sep-2017	HK1767962-027	<2	0.5	----	----	----	
W1/S/MID-EBB- Duplicate	29-Sep-2017	HK1767962-028	<2	0.8	----	----	----	
W1/M/MID-EBB	29-Sep-2017	HK1767962-029	<2	0.6	----	----	----	
W1/M/MID-EBB- Duplicate	29-Sep-2017	HK1767962-030	<2	0.7	----	----	----	
W1/B/MID-EBB	29-Sep-2017	HK1767962-031	2	1.5	----	----	----	
W1/B/MID-EBB- Duplicate	29-Sep-2017	HK1767962-032	2	1.5	----	----	----	
M1/M/MID-EBB	29-Sep-2017	HK1767962-033	2	0.5	----	----	----	
M1/M/MID-EBB- Duplicate	29-Sep-2017	HK1767962-034	3	0.7	----	----	----	



Sub-Matrix: MARINE WATER

Client sample ID	Client sampling date / time	Laboratory sample ID	Compound	EA025: Suspended Solids (SS)	EP008F: Chlorophyll a	----	----	----
			LOR Unit	2 mg/L	0.1 µg/L	----	----	----
			EA/ED: Physical and Aggregate Properties	EP: Aggregate Organics	----	----	----	----
FCZ1/S/MID-EBB	29-Sep-2017	HK1767962-035		3	0.6	----	----	----
FCZ1/S/MID-EBB-Duplicate	29-Sep-2017	HK1767962-036		3	1.1	----	----	----
FCZ1/B/MID-EBB	29-Sep-2017	HK1767962-037		4	1.1	----	----	----
FCZ1/B/MID-EBB-Duplicate	29-Sep-2017	HK1767962-038		3	0.6	----	----	----
G1/S/MID-FLOOD	29-Sep-2017	HK1767962-039		<2	1.5	----	----	----
G1/S/MID-FLOOD - Duplicate	29-Sep-2017	HK1767962-040		<2	1.1	----	----	----
G1/B/MID-FLOOD	29-Sep-2017	HK1767962-041		<2	1.6	----	----	----
G1/B/MID-FLOOD - Duplicate	29-Sep-2017	HK1767962-042		<2	0.8	----	----	----
I1/M/MID-FLOOD	29-Sep-2017	HK1767962-043		4	1.6	----	----	----
I1/M/MID-FLOOD - Duplicate	29-Sep-2017	HK1767962-044		4	0.8	----	----	----
I2/S/MID-FLOOD	29-Sep-2017	HK1767962-045		4	1.6	----	----	----
I2/S/MID-FLOOD - Duplicate	29-Sep-2017	HK1767962-046		2	1.4	----	----	----
I2/B/MID-FLOOD	29-Sep-2017	HK1767962-047		4	0.9	----	----	----
I2/B/MID-FLOOD - Duplicate	29-Sep-2017	HK1767962-048		3	0.9	----	----	----
I3/S/MID-FLOOD	29-Sep-2017	HK1767962-049		<2	1.8	----	----	----
I3/S/MID-FLOOD - Duplicate	29-Sep-2017	HK1767962-050		<2	1.8	----	----	----
I3/B/MID-FLOOD	29-Sep-2017	HK1767962-051		3	1.5	----	----	----
I3/B/MID-FLOOD - Duplicate	29-Sep-2017	HK1767962-052		2	1.2	----	----	----
R1/S/MID-FLOOD	29-Sep-2017	HK1767962-053		<2	2.0	----	----	----
R1/S/MID-FLOOD-Duplicate	29-Sep-2017	HK1767962-054		<2	1.6	----	----	----
R1/B/MID-FLOOD	29-Sep-2017	HK1767962-057		<2	2.1	----	----	----
R1/B/MID-FLOOD-Duplicate	29-Sep-2017	HK1767962-058		<2	1.6	----	----	----
R2/S/MID-FLOOD	29-Sep-2017	HK1767962-059		<2	1.0	----	----	----



Sub-Matrix: MARINE WATER

			Compound	EA025: Suspended Solids (SS)	EP008F: Chlorophyll a	----	----	----
			LOR Unit	2 mg/L	0.1 µg/L	----	----	----
Client sample ID	Client sampling date / time	Laboratory sample ID	EA/ED: Physical and Aggregate Properties	EP: Aggregate Organics	----	----	----	----
R2/S/MID-FLOOD-Duplicate	29-Sep-2017	HK1767962-060	<2	2.0	----	----	----	----
R2/B/MID-FLOOD	29-Sep-2017	HK1767962-061	<2	2.1	----	----	----	----
R2/B/MID-FLOOD-Duplicate	29-Sep-2017	HK1767962-062	<2	3.0	----	----	----	----
W1/S/MID-FLOOD	29-Sep-2017	HK1767962-063	<2	1.6	----	----	----	----
W1/S/MID-FLOOD-Duplicate	29-Sep-2017	HK1767962-064	<2	1.6	----	----	----	----
W1/M/MID-FLOOD	29-Sep-2017	HK1767962-065	<2	1.7	----	----	----	----
W1/M/MID-FLOOD-Duplicate	29-Sep-2017	HK1767962-066	<2	1.3	----	----	----	----
W1/B/MID-FLOOD	29-Sep-2017	HK1767962-067	<2	1.9	----	----	----	----
W1/B/MID-FLOOD-Duplicate	29-Sep-2017	HK1767962-068	<2	1.3	----	----	----	----
M1/M/MID-FLOOD	29-Sep-2017	HK1767962-069	8	1.1	----	----	----	----
M1/M/MID-FLOOD-Duplicate	29-Sep-2017	HK1767962-070	9	1.8	----	----	----	----
FCZ1/S/MID-FLOOD	29-Sep-2017	HK1767962-071	3	1.7	----	----	----	----
FCZ1/S/MID-FLOOD-Duplicate	29-Sep-2017	HK1767962-072	3	2.1	----	----	----	----
FCZ1/B/MID-FLOOD	29-Sep-2017	HK1767962-073	2	1.4	----	----	----	----
FCZ1/B/MID-FLOOD-Duplicate	29-Sep-2017	HK1767962-074	3	1.2	----	----	----	----



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: 1150746)								
HK1767962-001	G1/S/MID-EBB	EA025: Suspended Solids (SS)	----	2	mg/L	<2	<2	0.00
HK1767962-013	I3/S/MID-EBB	EA025: Suspended Solids (SS)	----	2	mg/L	4	3	0.00
EA/ED: Physical and Aggregate Properties (QC Lot: 1150747)								
HK1767962-025	R2/B/MID-EBB	EA025: Suspended Solids (SS)	----	2	mg/L	4	4	0.00
HK1767962-035	FCZ1/S/MID-EBB	EA025: Suspended Solids (SS)	----	2	mg/L	3	2	0.00
EA/ED: Physical and Aggregate Properties (QC Lot: 1150748)								
HK1767962-045	I2/S/MID-FLOOD	EA025: Suspended Solids (SS)	----	2	mg/L	4	2	40.6
HK1767962-057	R1/B/MID-FLOOD	EA025: Suspended Solids (SS)	----	2	mg/L	<2	<2	0.00
EA/ED: Physical and Aggregate Properties (QC Lot: 1150749)								
HK1767962-067	W1/B/MID-FLOOD	EA025: Suspended Solids (SS)	----	2	mg/L	<2	<2	0.00
EP: Aggregate Organics (QC Lot: 1159067)								
HK1767962-001	G1/S/MID-EBB	EP008F: Chlorophyll a	----	0.1	mg/m ³	0.7 µg/L	0.7	0.00
EP: Aggregate Organics (QC Lot: 1159068)								
HK1767962-025	R2/B/MID-EBB	EP008F: Chlorophyll a	----	0.1	mg/m ³	0.7 µg/L	0.6	0.00
EP: Aggregate Organics (QC Lot: 1159069)								
HK1767962-045	I2/S/MID-FLOOD	EP008F: Chlorophyll a	----	0.1	mg/m ³	1.6 µg/L	1.5	8.36
EP: Aggregate Organics (QC Lot: 1167058)								
HK1767962-067	W1/B/MID-FLOOD	EP008F: Chlorophyll a	----	0.1	mg/m ³	1.9 µg/L	1.9	0.00

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						
Method: Compound	CAS Number	LOR	Unit	Result	Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPDs (%)	
						LCS	DCS	Low	High	Value	Control Limit
EA/ED: Physical and Aggregate Properties (QCLot: 1150746)											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	112	----	85	115	----	----
EA/ED: Physical and Aggregate Properties (QCLot: 1150747)											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	109	----	85	115	----	----
EA/ED: Physical and Aggregate Properties (QCLot: 1150748)											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	90.0	----	85	115	----	----
EA/ED: Physical and Aggregate Properties (QCLot: 1150749)											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	94.5	----	85	115	----	----
EP: Aggregate Organics (QCLot: 1159067)											
EP008F: Chlorophyll a	----	0.1	mg/m ³	<0.1	9.98 mg/m ³	101	----	85	115	----	----
EP: Aggregate Organics (QCLot: 1159068)											
EP008F: Chlorophyll a	----	0.1	mg/m ³	<0.1	9.98 mg/m ³	95.4	----	85	115	----	----



Matrix: WATER		Method Blank (MB) Report			Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report						
Method: Compound	CAS Number	LOR	Unit	Result	Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPDs (%)	
						LCS	DCS	Low	High	Value	Control Limit
EP: Aggregate Organics (QCLot: 1159069)											
EP008F: Chlorophyll a	----	0.1	mg/m ³	<0.1	9.98 mg/m ³	92.8	----	85	115	----	----
EP: Aggregate Organics (QCLot: 1167058)											
EP008F: Chlorophyll a	----	0.1	mg/m ³	<0.1	9.98 mg/m ³	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

<i>Client</i>	: ACTION UNITED ENVIRONMENT SERVICES AND CONSULTING	<i>Laboratory</i>	: ALS Technichem (HK) Pty Ltd	<i>Page</i>	: 1 of 7
<i>Contact</i>	: MR T W TAM	<i>Contact</i>	: Richard Fung	<i>Work Order</i>	: HK1767963
<i>Address</i>	: RM A 20/F., GOLD KING IND BLDG, NO. 35-41 TAI LIN PAI ROAD, KWAI CHUNG, N.T. HONG KONG	<i>Address</i>	: 11/F., Chung Shun Knitting Centre, 1 - 3 Wing Yip Street, Kwai Chung, N.T., Hong Kong	<i>Amendment No.</i>	: 1
<i>E-mail</i>	: Twtam@fordbusiness.com	<i>E-mail</i>	: richard.fung@alsglobal.com	<i>Date received</i>	: 01-Oct-2017
<i>Telephone</i>	: +852 2959 6059	<i>Telephone</i>	: +852 2610 1044	<i>Date of issue</i>	: 24-Oct-2017
<i>Facsimile</i>	: +852 2959 6079	<i>Facsimile</i>	: +852 2610 2021	<i>No. of samples</i>	- Received : 70
<i>Project</i>	: TCS00874/16 - BATHING BEACH AT LUNG MEI, TAI PO	<i>Quote number</i>	: HK/5386g/2016		- Analysed : 70
<i>Order number</i>	: —				
<i>C-O-C number</i>	: —				
<i>Site</i>	: —				

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This document has been signed by those names that appear on this report and are the authorised signatories.

Signatory

Fung Lim Chee, Richard

Position

General Manager

Authorised results for:

Inorganics



Report Comments

This report for ALS Technichem (HK) Pty Ltd work order reference HK1767963, Amendment 1 supersedes any previous reports with this reference. Testing period is from 01-Oct-2017 to 11-Oct-2017. 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 HK1767963 :

Sample(s) were received in chilled condition.

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

In marine and freshwater samples, chlorophyll b, if present, will cause some interference to the analysis of chlorophyll a.



Analytical Results

Sub-Matrix: MARINE WATER			Compound	EA025: Suspended Solids (SS)	EP008F: Chlorophyll a	----	----	----
			LOR Unit	2 mg/L	0.1 µg/L	----	----	----
Client sample ID	Client sampling date / time	Laboratory sample ID	EA/ED: Physical and Aggregate Properties	EP: Aggregate Organics	----	----	----	----
G1/S/MID-EBB	01-Oct-2017	HK1767963-001	<2	0.4	----	----	----	----
G1/S/MID-EBB - Duplicate	01-Oct-2017	HK1767963-002	<2	0.4	----	----	----	----
G1/B/MID-EBB	01-Oct-2017	HK1767963-005	<2	0.2	----	----	----	----
G1/B/MID-EBB- Duplicate	01-Oct-2017	HK1767963-006	<2	0.4	----	----	----	----
I1/M/MID-EBB	01-Oct-2017	HK1767963-007	2	0.3	----	----	----	----
I1/M/MID-EBB- Duplicate	01-Oct-2017	HK1767963-008	2	0.3	----	----	----	----
I2/S/MID-EBB	01-Oct-2017	HK1767963-009	3	0.2	----	----	----	----
I2/S/MID-EBB- Duplicate	01-Oct-2017	HK1767963-010	2	0.3	----	----	----	----
I2/B/MID-EBB	01-Oct-2017	HK1767963-011	2	0.2	----	----	----	----
I2/B/MID-EBB- Duplicate	01-Oct-2017	HK1767963-012	3	0.2	----	----	----	----
I3/S/MID-EBB	01-Oct-2017	HK1767963-013	<2	0.4	----	----	----	----
I3/S/MID-EBB- Duplicate	01-Oct-2017	HK1767963-014	<2	0.4	----	----	----	----
I3/B/MID-EBB	01-Oct-2017	HK1767963-015	<2	0.3	----	----	----	----
I3/B/MID-EBB- Duplicate	01-Oct-2017	HK1767963-016	<2	0.3	----	----	----	----
R1/S/MID-EBB	01-Oct-2017	HK1767963-017	<2	0.3	----	----	----	----
R1/S/MID-EBB- Duplicate	01-Oct-2017	HK1767963-018	<2	0.3	----	----	----	----
R1/B/MID-EBB	01-Oct-2017	HK1767963-021	2	0.3	----	----	----	----
R1/B/MID-EBB- Duplicate	01-Oct-2017	HK1767963-022	2	0.3	----	----	----	----
R2/S/MID-EBB	01-Oct-2017	HK1767963-023	3	0.3	----	----	----	----
R2/S/MID-EBB- Duplicate	01-Oct-2017	HK1767963-024	3	0.3	----	----	----	----
R2/B/MID-EBB	01-Oct-2017	HK1767963-025	3	0.3	----	----	----	----
R2/B/MID-EBB- Duplicate	01-Oct-2017	HK1767963-026	3	0.3	----	----	----	----
W1/S/MID-EBB	01-Oct-2017	HK1767963-027	<2	0.5	----	----	----	----
W1/S/MID-EBB- Duplicate	01-Oct-2017	HK1767963-028	<2	0.8	----	----	----	----
W1/M/MID-EBB	01-Oct-2017	HK1767963-029	<2	0.4	----	----	----	----
W1/M/MID-EBB- Duplicate	01-Oct-2017	HK1767963-030	<2	0.4	----	----	----	----
W1/B/MID-EBB	01-Oct-2017	HK1767963-031	<2	0.5	----	----	----	----
W1/B/MID-EBB- Duplicate	01-Oct-2017	HK1767963-032	<2	0.6	----	----	----	----
M1/M/MID-EBB	01-Oct-2017	HK1767963-033	4	0.3	----	----	----	----
M1/M/MID-EBB- Duplicate	01-Oct-2017	HK1767963-034	5	0.3	----	----	----	----



Sub-Matrix: MARINE WATER

			Compound	EA025: Suspended Solids (SS)	EP008F: Chlorophyll a	----	----	----
			LOR Unit	2 mg/L	0.1 µg/L	----	----	----
Client sample ID	Client sampling date / time	Laboratory sample ID		EA/ED: Physical and Aggregate Properties	EP: Aggregate Organics	----	----	----
FCZ1/S/MID-EBB	01-Oct-2017	HK1767963-035		3	0.5	----	----	----
FCZ1/S/MID-EBB-Duplicate	01-Oct-2017	HK1767963-036		2	0.6	----	----	----
FCZ1/B/MID-EBB	01-Oct-2017	HK1767963-037		3	0.5	----	----	----
FCZ1/B/MID-EBB-Duplicate	01-Oct-2017	HK1767963-038		2	0.4	----	----	----
G1/S/MID-FLOOD	01-Oct-2017	HK1767963-039		2	1.2	----	----	----
G1/S/MID-FLOOD - Duplicate	01-Oct-2017	HK1767963-040		2	1.1	----	----	----
G1/B/MID-FLOOD	01-Oct-2017	HK1767963-041		3	1.2	----	----	----
G1/B/MID-FLOOD - Duplicate	01-Oct-2017	HK1767963-042		3	1.0	----	----	----
I1/M/MID-FLOOD	01-Oct-2017	HK1767963-043		2	0.7	----	----	----
I1/M/MID-FLOOD - Duplicate	01-Oct-2017	HK1767963-044		2	0.8	----	----	----
I2/S/MID-FLOOD	01-Oct-2017	HK1767963-045		<2	0.7	----	----	----
I2/S/MID-FLOOD - Duplicate	01-Oct-2017	HK1767963-046		<2	0.7	----	----	----
I2/B/MID-FLOOD	01-Oct-2017	HK1767963-047		<2	0.5	----	----	----
I2/B/MID-FLOOD - Duplicate	01-Oct-2017	HK1767963-048		<2	0.5	----	----	----
I3/S/MID-FLOOD	01-Oct-2017	HK1767963-049		<2	1.0	----	----	----
I3/S/MID-FLOOD - Duplicate	01-Oct-2017	HK1767963-050		<2	1.0	----	----	----
I3/B/MID-FLOOD	01-Oct-2017	HK1767963-051		<2	0.6	----	----	----
I3/B/MID-FLOOD - Duplicate	01-Oct-2017	HK1767963-052		<2	0.6	----	----	----
R1/S/MID-FLOOD	01-Oct-2017	HK1767963-053		<2	0.8	----	----	----
R1/S/MID-FLOOD-Duplicate	01-Oct-2017	HK1767963-054		<2	0.9	----	----	----
R1/M/MID-FLOOD	01-Oct-2017	HK1767963-055		<2	0.8	----	----	----
R1/M/MID-FLOOD - Duplicate	01-Oct-2017	HK1767963-056		<2	0.8	----	----	----
R1/B/MID-FLOOD	01-Oct-2017	HK1767963-057		<2	0.3	----	----	----



Sub-Matrix: MARINE WATER

			Compound	EA025: Suspended Solids (SS)	EP008F: Chlorophyll a	----	----	----
			LOR Unit	2 mg/L	0.1 µg/L	----	----	----
Client sample ID	Client sampling date / time	Laboratory sample ID	EA/ED: Physical and Aggregate Properties	EP: Aggregate Organics	----	----	----	----
R1/B/MID-FLOOD-Duplicate	01-Oct-2017	HK1767963-058	<2	0.6	----	----	----	----
R2/S/MID-FLOOD	01-Oct-2017	HK1767963-059	<2	1.2	----	----	----	----
R2/S/MID-FLOOD-Duplicate	01-Oct-2017	HK1767963-060	<2	1.0	----	----	----	----
R2/B/MID-FLOOD	01-Oct-2017	HK1767963-061	<2	1.2	----	----	----	----
R2/B/MID-FLOOD-Duplicate	01-Oct-2017	HK1767963-062	<2	1.4	----	----	----	----
W1/S/MID-FLOOD	01-Oct-2017	HK1767963-063	<2	0.9	----	----	----	----
W1/S/MID-FLOOD-Duplicate	01-Oct-2017	HK1767963-064	<2	0.6	----	----	----	----
W1/M/MID-FLOOD	01-Oct-2017	HK1767963-065	<2	0.8	----	----	----	----
W1/M/MID-FLOOD-Duplicate	01-Oct-2017	HK1767963-066	<2	0.7	----	----	----	----
W1/B/MID-FLOOD	01-Oct-2017	HK1767963-067	<2	0.6	----	----	----	----
W1/B/MID-FLOOD-Duplicate	01-Oct-2017	HK1767963-068	<2	0.6	----	----	----	----
M1/M/MID-FLOOD	01-Oct-2017	HK1767963-069	3	0.4	----	----	----	----
M1/M/MID-FLOOD-Duplicate	01-Oct-2017	HK1767963-070	3	0.7	----	----	----	----
FCZ1/S/MID-FLOOD	01-Oct-2017	HK1767963-071	<2	1.7	----	----	----	----
FCZ1/S/MID-FLOOD-Duplicate	01-Oct-2017	HK1767963-072	<2	1.9	----	----	----	----
FCZ1/B/MID-FLOOD	01-Oct-2017	HK1767963-073	<2	1.2	----	----	----	----
FCZ1/B/MID-FLOOD-Duplicate	01-Oct-2017	HK1767963-074	<2	1.3	----	----	----	----



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: 1160950)								
HK1767963-001	G1/S/MID-EBB	EA025: Suspended Solids (SS)	----	2	mg/L	<2	<2	0.00
HK1767963-013	I3/S/MID-EBB	EA025: Suspended Solids (SS)	----	2	mg/L	<2	<2	0.00
EA/ED: Physical and Aggregate Properties (QC Lot: 1160951)								
HK1767963-025	R2/B/MID-EBB	EA025: Suspended Solids (SS)	----	2	mg/L	3	2	0.00
HK1767963-035	FCZ1/S/MID-EBB	EA025: Suspended Solids (SS)	----	2	mg/L	3	3	0.00
EA/ED: Physical and Aggregate Properties (QC Lot: 1160952)								
HK1767963-045	I2/S/MID-FLOOD	EA025: Suspended Solids (SS)	----	2	mg/L	<2	<2	0.00
HK1767963-055	R1/M/MID-FLOOD	EA025: Suspended Solids (SS)	----	2	mg/L	<2	<2	0.00
EA/ED: Physical and Aggregate Properties (QC Lot: 1160953)								
HK1767963-065	W1/M/MID-FLOOD	EA025: Suspended Solids (SS)	----	2	mg/L	<2	<2	0.00
EP: Aggregate Organics (QC Lot: 1167058)								
HK1767962-067	Anonymous	EP008F: Chlorophyll a	----	0.1	mg/m ³	1.9 µg/L	1.9	0.00
EP: Aggregate Organics (QC Lot: 1167059)								
HK1767963-025	R2/B/MID-EBB	EP008F: Chlorophyll a	----	0.1	mg/m ³	0.3 µg/L	0.4	0.00
EP: Aggregate Organics (QC Lot: 1167060)								
HK1767963-045	I2/S/MID-FLOOD	EP008F: Chlorophyll a	----	0.1	mg/m ³	0.7 µg/L	0.8	0.00
EP: Aggregate Organics (QC Lot: 1167061)								
HK1767963-065	W1/M/MID-FLOOD	EP008F: Chlorophyll a	----	0.1	mg/m ³	0.8 µg/L	0.8	0.00
EP: Aggregate Organics (QC Lot: 1167062)								
HK1768728-001	Anonymous	EP008F: Chlorophyll a	----	0.1	mg/m ³	9.3 µg/L	9.6	2.33

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						
Method: Compound	CAS Number	LOR	Unit	Result	Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPDs (%)	
						LCS	DCS	Low	High	Value	Control Limit
EA/ED: Physical and Aggregate Properties (QCLot: 1160950)											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	90.0	----	85	115	----	----
EA/ED: Physical and Aggregate Properties (QCLot: 1160951)											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	106	----	85	115	----	----
EA/ED: Physical and Aggregate Properties (QCLot: 1160952)											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	89.5	----	85	115	----	----
EA/ED: Physical and Aggregate Properties (QCLot: 1160953)											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	90.0	----	85	115	----	----
EP: Aggregate Organics (QCLot: 1167058)											
EP008F: Chlorophyll a	----	0.1	mg/m ³	<0.1	9.98 mg/m ³	102	----	85	115	----	----



Matrix: WATER		Method Blank (MB) Report			Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report						
Method: Compound	CAS Number	LOR	Unit	Result	Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPDs (%)	
						LCS	DCS	Low	High	Value	Control Limit
EP: Aggregate Organics (QCLot: 1167059)											
EP008F: Chlorophyll a	----	0.1	mg/m ³	<0.1	9.98 mg/m ³	102	----	85	115	----	----
EP: Aggregate Organics (QCLot: 1167060)											
EP008F: Chlorophyll a	----	0.1	mg/m ³	<0.1	9.98 mg/m ³	101	----	85	115	----	----
EP: Aggregate Organics (QCLot: 1167061)											
EP008F: Chlorophyll a	----	0.1	mg/m ³	<0.1	9.98 mg/m ³	94.8	----	85	115	----	----
EP: Aggregate Organics (QCLot: 1167062)											
EP008F: Chlorophyll a	----	0.1	mg/m ³	<0.1	9.98 mg/m ³	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

<i>Client</i>	: ACTION UNITED ENVIRONMENT SERVICES AND CONSULTING	<i>Laboratory</i>	: ALS Technichem (HK) Pty Ltd	<i>Page</i>	: 1 of 7
<i>Contact</i>	: MR T W TAM	<i>Contact</i>	: Richard Fung	<i>Work Order</i>	: HK1768728
<i>Address</i>	: RM A 20/F., GOLD KING IND BLDG, NO. 35-41 TAI LIN PAI ROAD, KWAI CHUNG, N.T. HONG KONG	<i>Address</i>	: 11/F., Chung Shun Knitting Centre, 1 - 3 Wing Yip Street, Kwai Chung, N.T., Hong Kong		
<i>E-mail</i>	: Twtam@fordbusiness.com	<i>E-mail</i>	: richard.fung@alsglobal.com		
<i>Telephone</i>	: +852 2959 6059	<i>Telephone</i>	: +852 2610 1044		
<i>Facsimile</i>	: +852 2959 6079	<i>Facsimile</i>	: +852 2610 2021		
<i>Project</i>	: TCS00874/16 - BATHING BEACH AT LUNG MEI, TAI PO	<i>Quote number</i>	: HK/5386g/2016	<i>Date received</i>	: 03-Oct-2017
<i>Order number</i>	: —			<i>Date of issue</i>	: 11-Oct-2017
<i>C-O-C number</i>	: —			<i>No. of samples</i>	- Received : 70
<i>Site</i>	: —				- Analysed : 70

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This document has been signed by those names that appear on this report and are the authorised signatories.

Signatory

Fung Lim Chee, Richard

Position

General Manager

Authorised results for:

Inorganics



Report Comments

This report for ALS Technichem (HK) Pty Ltd work order reference HK1768728 supersedes any previous reports with this reference. Testing period is from 03-Oct-2017 to 11-Oct-2017. 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 HK1768728 :

Sample(s) were received in chilled condition.

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

In marine and freshwater samples, chlorophyll b, if present, will cause some interference to the analysis of chlorophyll a.



Analytical Results

Sub-Matrix: MARINE WATER

			Compound	EA025: Suspended Solids (SS)	EP008F: Chlorophyll a	----	----	----
			LOR Unit	2 mg/L	0.1 µg/L	----	----	----
Client sample ID	Client sampling date / time	Laboratory sample ID	EA/ED: Physical and Aggregate Properties	EP: Aggregate Organics	----	----	----	----
G1/S/MID-EBB	[03-Oct-2017]	HK1768728-001	<2	9.3	----	----	----	----
G1/S/MID-EBB - Duplicate	[03-Oct-2017]	HK1768728-002	<2	9.9	----	----	----	----
G1/B/MID-EBB	[03-Oct-2017]	HK1768728-005	3	5.6	----	----	----	----
G1/B/MID-EBB- Duplicate	[03-Oct-2017]	HK1768728-006	2	6.7	----	----	----	----
I1/M/MID-EBB	[03-Oct-2017]	HK1768728-007	<2	2.8	----	----	----	----
I1/M/MID-EBB- Duplicate	[03-Oct-2017]	HK1768728-008	<2	2.7	----	----	----	----
I2/S/MID-EBB	[03-Oct-2017]	HK1768728-009	<2	2.4	----	----	----	----
I2/S/MID-EBB- Duplicate	[03-Oct-2017]	HK1768728-010	<2	2.4	----	----	----	----
I2/B/MID-EBB	[03-Oct-2017]	HK1768728-011	3	3.0	----	----	----	----
I2/B/MID-EBB- Duplicate	[03-Oct-2017]	HK1768728-012	3	2.9	----	----	----	----
I3/S/MID-EBB	[03-Oct-2017]	HK1768728-013	<2	2.4	----	----	----	----
I3/S/MID-EBB- Duplicate	[03-Oct-2017]	HK1768728-014	<2	2.7	----	----	----	----
I3/B/MID-EBB	[03-Oct-2017]	HK1768728-015	6	2.5	----	----	----	----
I3/B/MID-EBB- Duplicate	[03-Oct-2017]	HK1768728-016	5	2.6	----	----	----	----
R1/S/MID-EBB	[03-Oct-2017]	HK1768728-017	<2	3.8	----	----	----	----
R1/S/MID-EBB- Duplicate	[03-Oct-2017]	HK1768728-018	<2	4.4	----	----	----	----
R1/B/MID-EBB	[03-Oct-2017]	HK1768728-021	2	4.0	----	----	----	----
R1/B/MID-EBB- Duplicate	[03-Oct-2017]	HK1768728-022	2	4.2	----	----	----	----
R2/S/MID-EBB	[03-Oct-2017]	HK1768728-023	<2	7.5	----	----	----	----
R2/S/MID-EBB- Duplicate	[03-Oct-2017]	HK1768728-024	<2	7.3	----	----	----	----
R2/B/MID-EBB	[03-Oct-2017]	HK1768728-025	3	7.0	----	----	----	----
R2/B/MID-EBB- Duplicate	[03-Oct-2017]	HK1768728-026	2	5.4	----	----	----	----
W1/S/MID-EBB	[03-Oct-2017]	HK1768728-027	<2	2.1	----	----	----	----
W1/S/MID-EBB- Duplicate	[03-Oct-2017]	HK1768728-028	<2	2.2	----	----	----	----
W1/M/MID-EBB	[03-Oct-2017]	HK1768728-029	<2	3.2	----	----	----	----
W1/M/MID-EBB- Duplicate	[03-Oct-2017]	HK1768728-030	<2	2.9	----	----	----	----
W1/B/MID-EBB	[03-Oct-2017]	HK1768728-031	4	3.7	----	----	----	----
W1/B/MID-EBB- Duplicate	[03-Oct-2017]	HK1768728-032	3	3.9	----	----	----	----
M1/M/MID-EBB	[03-Oct-2017]	HK1768728-033	4	3.5	----	----	----	----
M1/M/MID-EBB- Duplicate	[03-Oct-2017]	HK1768728-034	2	3.2	----	----	----	----



Sub-Matrix: MARINE WATER

Client sample ID	Client sampling date / time	Laboratory sample ID	Compound	EA025: Suspended Solids (SS)	EP008F: Chlorophyll a	----	----	----
			LOR Unit	2 mg/L	0.1 µg/L	----	----	----
			EA/ED: Physical and Aggregate Properties	EP: Aggregate Organics	----	----	----	----
FCZ1/S/MID-EBB	[03-Oct-2017]	HK1768728-035	4	9.4	----	----	----	----
FCZ1/S/MID-EBB-Duplicate	[03-Oct-2017]	HK1768728-036	2	9.0	----	----	----	----
FCZ1/B/MID-EBB	[03-Oct-2017]	HK1768728-037	4	9.1	----	----	----	----
FCZ1/B/MID-EBB-Duplicate	[03-Oct-2017]	HK1768728-038	3	9.0	----	----	----	----
G1/S/MID-FLOOD	[03-Oct-2017]	HK1768728-039	3	4.7	----	----	----	----
G1/S/MID-FLOOD - Duplicate	[03-Oct-2017]	HK1768728-040	3	4.9	----	----	----	----
G1/B/MID-FLOOD	[03-Oct-2017]	HK1768728-043	4	4.8	----	----	----	----
G1/B/MID-FLOOD - Duplicate	[03-Oct-2017]	HK1768728-044	3	4.5	----	----	----	----
I1/M/MID-FLOOD	[03-Oct-2017]	HK1768728-045	4	6.6	----	----	----	----
I1/M/MID-FLOOD - Duplicate	[03-Oct-2017]	HK1768728-046	3	6.5	----	----	----	----
I2/S/MID-FLOOD	[03-Oct-2017]	HK1768728-047	3	5.4	----	----	----	----
I2/S/MID-FLOOD - Duplicate	[03-Oct-2017]	HK1768728-048	2	5.4	----	----	----	----
I2/B/MID-FLOOD	[03-Oct-2017]	HK1768728-049	3	6.4	----	----	----	----
I2/B/MID-FLOOD - Duplicate	[03-Oct-2017]	HK1768728-050	4	8.0	----	----	----	----
I3/S/MID-FLOOD	[03-Oct-2017]	HK1768728-051	3	5.8	----	----	----	----
I3/S/MID-FLOOD - Duplicate	[03-Oct-2017]	HK1768728-052	2	5.4	----	----	----	----
I3/B/MID-FLOOD	[03-Oct-2017]	HK1768728-053	3	6.7	----	----	----	----
I3/B/MID-FLOOD - Duplicate	[03-Oct-2017]	HK1768728-054	4	8.2	----	----	----	----
R1/S/MID-FLOOD	[03-Oct-2017]	HK1768728-055	3	3.5	----	----	----	----
R1/S/MID-FLOOD-Duplicate	[03-Oct-2017]	HK1768728-056	3	3.8	----	----	----	----
R1/M/MID-FLOOD	[03-Oct-2017]	HK1768728-057	2	3.3	----	----	----	----
R1/M/MID-FLOOD - Duplicate	[03-Oct-2017]	HK1768728-058	2	3.7	----	----	----	----
R1/B/MID-FLOOD	[03-Oct-2017]	HK1768728-059	2	3.7	----	----	----	----



Sub-Matrix: MARINE WATER			Compound	EA025: Suspended Solids (SS)	EP008F: Chlorophyll a	----	----	----
			LOR Unit	2 mg/L	0.1 µg/L	----	----	----
Client sample ID	Client sampling date / time	Laboratory sample ID	EA/ED: Physical and Aggregate Properties	EP: Aggregate Organics	----	----	----	----
R1/B/MID-FLOOD-Duplicate	[03-Oct-2017]	HK1768728-060	3	3.5	----	----	----	----
R2/S/MID-FLOOD	[03-Oct-2017]	HK1768728-061	4	7.4	----	----	----	----
R2/S/MID-FLOOD-Duplicate	[03-Oct-2017]	HK1768728-062	3	7.0	----	----	----	----
R2/B/MID-FLOOD	[03-Oct-2017]	HK1768728-063	6	10.8	----	----	----	----
R2/B/MID-FLOOD-Duplicate	[03-Oct-2017]	HK1768728-064	4	11.0	----	----	----	----
W1/S/MID-FLOOD	[03-Oct-2017]	HK1768728-065	<2	6.8	----	----	----	----
W1/S/MID-FLOOD-Duplicate	[03-Oct-2017]	HK1768728-066	<2	6.9	----	----	----	----
W1/M/MID-FLOOD	[03-Oct-2017]	HK1768728-067	3	7.3	----	----	----	----
W1/M/MID-FLOOD-Duplicate	[03-Oct-2017]	HK1768728-068	4	7.4	----	----	----	----
W1/B/MID-FLOOD	[03-Oct-2017]	HK1768728-069	3	7.3	----	----	----	----
W1/B/MID-FLOOD-Duplicate	[03-Oct-2017]	HK1768728-070	2	7.2	----	----	----	----
M1/M/MID-FLOOD	[03-Oct-2017]	HK1768728-071	4	8.5	----	----	----	----
M1/M/MID-FLOOD-Duplicate	[03-Oct-2017]	HK1768728-072	4	3.7	----	----	----	----
FCZ1/S/MID-FLOOD	[03-Oct-2017]	HK1768728-073	3	7.3	----	----	----	----
FCZ1/S/MID-FLOOD-Duplicate	[03-Oct-2017]	HK1768728-074	3	7.7	----	----	----	----
FCZ1/B/MID-FLOOD	[03-Oct-2017]	HK1768728-075	3	9.1	----	----	----	----
FCZ1/B/MID-FLOOD-Duplicate	[03-Oct-2017]	HK1768728-076	3	8.6	----	----	----	----



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: 1157681)								
HK1768728-001	G1/S/MID-EBB	EA025: Suspended Solids (SS)	----	2	mg/L	<2	<2	0.00
HK1768728-013	I3/S/MID-EBB	EA025: Suspended Solids (SS)	----	2	mg/L	<2	<2	0.00
EA/ED: Physical and Aggregate Properties (QC Lot: 1157682)								
HK1768728-025	R2/B/MID-EBB	EA025: Suspended Solids (SS)	----	2	mg/L	3	3	0.00
HK1768728-035	FCZ1/S/MID-EBB	EA025: Suspended Solids (SS)	----	2	mg/L	4	3	0.00
EA/ED: Physical and Aggregate Properties (QC Lot: 1157683)								
HK1768728-047	I2/S/MID-FLOOD	EA025: Suspended Solids (SS)	----	2	mg/L	3	4	0.00
HK1768728-057	R1/M/MID-FLOOD	EA025: Suspended Solids (SS)	----	2	mg/L	2	2	0.00
EA/ED: Physical and Aggregate Properties (QC Lot: 1157684)								
HK1768728-067	W1/M/MID-FLOOD	EA025: Suspended Solids (SS)	----	2	mg/L	3	3	0.00
EP: Aggregate Organics (QC Lot: 1167062)								
HK1768728-001	G1/S/MID-EBB	EP008F: Chlorophyll a	----	0.1	mg/m ³	9.3 µg/L	9.6	2.33
EP: Aggregate Organics (QC Lot: 1167063)								
HK1768728-025	R2/B/MID-EBB	EP008F: Chlorophyll a	----	0.1	mg/m ³	7.0 µg/L	7.9	11.9
EP: Aggregate Organics (QC Lot: 1167064)								
HK1768728-047	I2/S/MID-FLOOD	EP008F: Chlorophyll a	----	0.1	mg/m ³	5.4 µg/L	5.3	0.00
EP: Aggregate Organics (QC Lot: 1167065)								
HK1768728-067	W1/M/MID-FLOOD	EP008F: Chlorophyll a	----	0.1	mg/m ³	7.3 µg/L	7.2	0.00

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						
Method: Compound	CAS Number	LOR	Unit	Result	Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPDs (%)	
						LCS	DCS	Low	High	Value	Control Limit
EA/ED: Physical and Aggregate Properties (QC Lot: 1157681)											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	89.0	----	85	115	----	----
EA/ED: Physical and Aggregate Properties (QC Lot: 1157682)											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	93.5	----	85	115	----	----
EA/ED: Physical and Aggregate Properties (QC Lot: 1157683)											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	98.0	----	85	115	----	----
EA/ED: Physical and Aggregate Properties (QC Lot: 1157684)											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	86.5	----	85	115	----	----
EP: Aggregate Organics (QC Lot: 1167062)											
EP008F: Chlorophyll a	----	0.1	mg/m ³	<0.1	9.98 mg/m ³	97.0	----	85	115	----	----
EP: Aggregate Organics (QC Lot: 1167063)											
EP008F: Chlorophyll a	----	0.1	mg/m ³	<0.1	9.98 mg/m ³	90.7	----	85	115	----	----



Matrix: WATER		Method Blank (MB) Report			Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report						
Method: Compound	CAS Number	LOR	Unit	Result	Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPDs (%)	
						LCS	DCS	Low	High	Value	Control Limit
EP: Aggregate Organics (QCLot: 1167064)											
EP008F: Chlorophyll a	----	0.1	mg/m ³	<0.1	9.66 mg/m ³	104	----	85	115	----	----
EP: Aggregate Organics (QCLot: 1167065)											
EP008F: Chlorophyll a	----	0.1	mg/m ³	<0.1	9.66 mg/m ³	96.1	----	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

<i>Client</i>	: ACTION UNITED ENVIRONMENT SERVICES AND CONSULTING	<i>Laboratory</i>	: ALS Technichem (HK) Pty Ltd	<i>Page</i>	: 1 of 7
<i>Contact</i>	: MR T W TAM	<i>Contact</i>	: Richard Fung	<i>Work Order</i>	: HK1768729
<i>Address</i>	: RM A 20/F., GOLD KING IND BLDG, NO. 35-41 TAI LIN PAI ROAD, KWAI CHUNG, N.T. HONG KONG	<i>Address</i>	: 11/F., Chung Shun Knitting Centre, 1 - 3 Wing Yip Street, Kwai Chung, N.T., Hong Kong	<i>Amendment No.</i>	: 1
<i>E-mail</i>	: Twtam@fordbusiness.com	<i>E-mail</i>	: richard.fung@alsglobal.com	<i>Date received</i>	: 05-Oct-2017
<i>Telephone</i>	: +852 2959 6059	<i>Telephone</i>	: +852 2610 1044	<i>Date of issue</i>	: 24-Oct-2017
<i>Facsimile</i>	: +852 2959 6079	<i>Facsimile</i>	: +852 2610 2021	<i>No. of samples</i>	- Received : 72
<i>Project</i>	: TCS00874/16 - BATHING BEACH AT LUNG MEI, TAI PO	<i>Quote number</i>	: HK/5386g/2016		- Analysed : 72
<i>Order number</i>	: —				
<i>C-O-C number</i>	: —				
<i>Site</i>	: —				

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This document has been signed by those names that appear on this report and are the authorised signatories.

Signatory

Fung Lim Chee, Richard

Position

General Manager

Authorised results for:

Inorganics



Report Comments

This report for ALS Technichem (HK) Pty Ltd work order reference HK1768729, Amendment 1 supersedes any previous reports with this reference. Testing period is from 05-Oct-2017 to 16-Oct-2017. 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 HK1768729 :

Sample(s) were received in chilled condition.

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

In marine and freshwater samples, chlorophyll b, if present, will cause some interference to the analysis of chlorophyll a.



Analytical Results

Sub-Matrix: MARINE WATER			Compound	EA025: Suspended Solids (SS)	EP008F: Chlorophyll a	----	----	----
			LOR Unit	2 mg/L	0.1 µg/L	----	----	----
Client sample ID	Client sampling date / time	Laboratory sample ID	EA/ED: Physical and Aggregate Properties	EP: Aggregate Organics	----	----	----	----
G1/S/MID-EBB	[05-Oct-2017]	HK1768729-001	4	4.5	----	----	----	----
G1/S/MID-EBB - Duplicate	[05-Oct-2017]	HK1768729-002	6	4.1	----	----	----	----
G1/B/MID-EBB	[05-Oct-2017]	HK1768729-005	10	4.5	----	----	----	----
G1/B/MID-EBB- Duplicate	[05-Oct-2017]	HK1768729-006	8	4.4	----	----	----	----
I1/M/MID-EBB	[05-Oct-2017]	HK1768729-007	5	2.8	----	----	----	----
I1/M/MID-EBB- Duplicate	[05-Oct-2017]	HK1768729-008	5	3.2	----	----	----	----
I2/S/MID-EBB	[05-Oct-2017]	HK1768729-009	6	3.3	----	----	----	----
I2/S/MID-EBB- Duplicate	[05-Oct-2017]	HK1768729-010	4	3.8	----	----	----	----
I2/B/MID-EBB	[05-Oct-2017]	HK1768729-011	6	3.6	----	----	----	----
I2/B/MID-EBB- Duplicate	[05-Oct-2017]	HK1768729-012	4	3.2	----	----	----	----
I3/S/MID-EBB	[05-Oct-2017]	HK1768729-013	4	3.2	----	----	----	----
I3/S/MID-EBB- Duplicate	[05-Oct-2017]	HK1768729-014	3	3.0	----	----	----	----
I3/B/MID-EBB	[05-Oct-2017]	HK1768729-015	3	2.9	----	----	----	----
I3/B/MID-EBB- Duplicate	[05-Oct-2017]	HK1768729-016	5	2.7	----	----	----	----
R1/S/MID-EBB	[05-Oct-2017]	HK1768729-017	5	3.6	----	----	----	----
R1/S/MID-EBB- Duplicate	[05-Oct-2017]	HK1768729-018	3	3.7	----	----	----	----
R1/B/MID-EBB	[05-Oct-2017]	HK1768729-021	4	3.5	----	----	----	----
R1/B/MID-EBB- Duplicate	[05-Oct-2017]	HK1768729-022	4	3.8	----	----	----	----
R2/S/MID-EBB	[05-Oct-2017]	HK1768729-023	4	5.3	----	----	----	----
R2/S/MID-EBB- Duplicate	[05-Oct-2017]	HK1768729-024	4	5.4	----	----	----	----
R2/B/MID-EBB	[05-Oct-2017]	HK1768729-025	5	6.1	----	----	----	----
R2/B/MID-EBB- Duplicate	[05-Oct-2017]	HK1768729-026	5	5.6	----	----	----	----
W1/S/MID-EBB	[05-Oct-2017]	HK1768729-027	5	2.9	----	----	----	----
W1/S/MID-EBB- Duplicate	[05-Oct-2017]	HK1768729-028	6	3.6	----	----	----	----
W1/M/MID-EBB	[05-Oct-2017]	HK1768729-029	6	3.1	----	----	----	----
W1/M/MID-EBB- Duplicate	[05-Oct-2017]	HK1768729-030	6	2.4	----	----	----	----
W1/B/MID-EBB	[05-Oct-2017]	HK1768729-031	6	3.2	----	----	----	----
W1/B/MID-EBB- Duplicate	[05-Oct-2017]	HK1768729-032	6	2.1	----	----	----	----
M1/M/MID-EBB	[05-Oct-2017]	HK1768729-033	6	8.0	----	----	----	----
M1/M/MID-EBB- Duplicate	[05-Oct-2017]	HK1768729-034	6	7.7	----	----	----	----



Sub-Matrix: MARINE WATER			Compound	EA025: Suspended Solids (SS)	EP008F: Chlorophyll a	----	----	----
			LOR Unit	2 mg/L	0.1 µg/L	----	----	----
Client sample ID	Client sampling date / time	Laboratory sample ID		EA/ED: Physical and Aggregate Properties	EP: Aggregate Organics	----	----	----
FCZ1/S/MID-EBB	[05-Oct-2017]	HK1768729-035		3	8.5	----	----	----
FCZ1/S/MID-EBB-Duplicate	[05-Oct-2017]	HK1768729-036		4	8.0	----	----	----
FCZ1/B/MID-EBB	[05-Oct-2017]	HK1768729-037		6	4.4	----	----	----
FCZ1/B/MID-EBB-Duplicate	[05-Oct-2017]	HK1768729-038		8	3.4	----	----	----
G1/S/MID-FLOOD	[05-Oct-2017]	HK1768729-039		3	4.0	----	----	----
G1/S/MID-FLOOD - Duplicate	[05-Oct-2017]	HK1768729-040		4	4.2	----	----	----
G1/M/MID-FLOOD	[05-Oct-2017]	HK1768729-041		6	4.7	----	----	----
G1/M/MID-FLOOD - Duplicate	[05-Oct-2017]	HK1768729-042		5	4.9	----	----	----
G1/B/MID-FLOOD	[05-Oct-2017]	HK1768729-043		10	4.4	----	----	----
G1/B/MID-FLOOD - Duplicate	[05-Oct-2017]	HK1768729-044		9	4.9	----	----	----
I1/M/MID-FLOOD	[05-Oct-2017]	HK1768729-045		3	6.0	----	----	----
I1/M/MID-FLOOD - Duplicate	[05-Oct-2017]	HK1768729-046		4	5.8	----	----	----
I2/S/MID-FLOOD	[05-Oct-2017]	HK1768729-047		6	6.2	----	----	----
I2/S/MID-FLOOD - Duplicate	[05-Oct-2017]	HK1768729-048		4	5.4	----	----	----
I2/B/MID-FLOOD	[05-Oct-2017]	HK1768729-049		6	5.8	----	----	----
I2/B/MID-FLOOD - Duplicate	[05-Oct-2017]	HK1768729-050		8	6.4	----	----	----
I3/S/MID-FLOOD	[05-Oct-2017]	HK1768729-051		4	5.2	----	----	----
I3/S/MID-FLOOD - Duplicate	[05-Oct-2017]	HK1768729-052		6	5.3	----	----	----
I3/B/MID-FLOOD	[05-Oct-2017]	HK1768729-053		7	4.5	----	----	----
I3/B/MID-FLOOD - Duplicate	[05-Oct-2017]	HK1768729-054		6	4.6	----	----	----
R1/S/MID-FLOOD	[05-Oct-2017]	HK1768729-055		4	2.8	----	----	----
R1/S/MID-FLOOD-Duplicate	[05-Oct-2017]	HK1768729-056		3	3.0	----	----	----
R1/M/MID-FLOOD	[05-Oct-2017]	HK1768729-057		8	3.4	----	----	----



Sub-Matrix: MARINE WATER

			Compound	EA025: Suspended Solids (SS)	EP008F: Chlorophyll a	----	----	----
			LOR Unit	2 mg/L	0.1 µg/L	----	----	----
Client sample ID	Client sampling date / time	Laboratory sample ID	EA/ED: Physical and Aggregate Properties	EP: Aggregate Organics	----	----	----	----
R1/M/MID-FLOOD - Duplicate	[05-Oct-2017]	HK1768729-058	10	3.3	----	----	----	----
R1/B/MID-FLOOD	[05-Oct-2017]	HK1768729-059	7	3.5	----	----	----	----
R1/B/MID-FLOOD-Duplicate	[05-Oct-2017]	HK1768729-060	9	3.7	----	----	----	----
R2/S/MID-FLOOD	[05-Oct-2017]	HK1768729-061	8	6.6	----	----	----	----
R2/S/MID-FLOOD-Duplicate	[05-Oct-2017]	HK1768729-062	8	7.2	----	----	----	----
R2/B/MID-FLOOD	[05-Oct-2017]	HK1768729-063	8	5.8	----	----	----	----
R2/B/MID-FLOOD-Duplicate	[05-Oct-2017]	HK1768729-064	10	7.4	----	----	----	----
W1/S/MID-FLOOD	[05-Oct-2017]	HK1768729-065	5	6.2	----	----	----	----
W1/S/MID-FLOOD-Duplicate	[05-Oct-2017]	HK1768729-066	4	5.9	----	----	----	----
W1/M/MID-FLOOD	[05-Oct-2017]	HK1768729-067	5	5.2	----	----	----	----
W1/M/MID-FLOOD-Duplicate	[05-Oct-2017]	HK1768729-068	7	5.3	----	----	----	----
W1/B/MID-FLOOD	[05-Oct-2017]	HK1768729-069	6	2.9	----	----	----	----
W1/B/MID-FLOOD-Duplicate	[05-Oct-2017]	HK1768729-070	6	3.0	----	----	----	----
M1/M/MID-FLOOD	[05-Oct-2017]	HK1768729-071	6	5.5	----	----	----	----
M1/M/MID-FLOOD-Duplicate	[05-Oct-2017]	HK1768729-072	6	5.4	----	----	----	----
FCZ1/S/MID-FLOOD	[05-Oct-2017]	HK1768729-073	4	7.5	----	----	----	----
FCZ1/S/MID-FLOOD-Duplicate	[05-Oct-2017]	HK1768729-074	4	7.9	----	----	----	----
FCZ1/B/MID-FLOOD	[05-Oct-2017]	HK1768729-075	4	6.2	----	----	----	----
FCZ1/B/MID-FLOOD-Duplicate	[05-Oct-2017]	HK1768729-076	3	7.2	----	----	----	----



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: 1160956)								
HK1768729-008	I1/M/MID-EBB- Duplicate	EA025: Suspended Solids (SS)	----	2	mg/L	5	4	0.00
HK1768729-011	I2/B/MID-EBB	EA025: Suspended Solids (SS)	----	2	mg/L	6	5	0.00
EA/ED: Physical and Aggregate Properties (QC Lot: 1160957)								
HK1768729-028	W1/S/MID-EBB- Duplicate	EA025: Suspended Solids (SS)	----	2	mg/L	6	6	0.00
HK1768729-040	G1/S/MID-FLOOD - Duplicate	EA025: Suspended Solids (SS)	----	2	mg/L	4	4	0.00
EA/ED: Physical and Aggregate Properties (QC Lot: 1160958)								
HK1768729-045	I1/M/MID-FLOOD	EA025: Suspended Solids (SS)	----	2	mg/L	3	4	0.00
HK1768729-055	R1/S/MID-FLOOD	EA025: Suspended Solids (SS)	----	2	mg/L	4	4	0.00
EA/ED: Physical and Aggregate Properties (QC Lot: 1160960)								
HK1768729-065	W1/S/MID-FLOOD	EA025: Suspended Solids (SS)	----	2	mg/L	5	6	19.8
HK1768729-075	FCZ1/B/MID-FLOOD	EA025: Suspended Solids (SS)	----	2	mg/L	4	4	0.00
EP: Aggregate Organics (QC Lot: 1167065)								
HK1768728-067	Anonymous	EP008F: Chlorophyll a	----	0.1	mg/m ³	7.3 µg/L	7.2	0.00
EP: Aggregate Organics (QC Lot: 1167066)								
HK1768729-025	R2/B/MID-EBB	EP008F: Chlorophyll a	----	0.1	mg/m ³	6.1 µg/L	5.6	7.99
EP: Aggregate Organics (QC Lot: 1167067)								
HK1768729-045	I1/M/MID-FLOOD	EP008F: Chlorophyll a	----	0.1	mg/m ³	6.0 µg/L	6.0	0.00
EP: Aggregate Organics (QC Lot: 1167068)								
HK1768729-065	W1/S/MID-FLOOD	EP008F: Chlorophyll a	----	0.1	mg/m ³	6.2 µg/L	6.7	7.29
EP: Aggregate Organics (QC Lot: 1171079)								
HK1768733-001	Anonymous	EP008F: Chlorophyll a	----	0.1	mg/m ³	3.6 µg/L	3.9	6.91

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						
Method: Compound	CAS Number	LOR	Unit	Result	Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPDs (%)	
						LCS	DCS	Low	High	Value	Control Limit
EA/ED: Physical and Aggregate Properties (QCLot: 1160956)											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	108	----	85	115	----	----
EA/ED: Physical and Aggregate Properties (QCLot: 1160957)											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	99.5	----	85	115	----	----
EA/ED: Physical and Aggregate Properties (QCLot: 1160958)											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	112	----	85	115	----	----
EA/ED: Physical and Aggregate Properties (QCLot: 1160960)											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	114	----	85	115	----	----



Matrix: WATER		Method Blank (MB) Report			Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report						
Method: Compound	CAS Number	LOR	Unit	Result	Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPDs (%)	
						LCS	DCS	Low	High	Value	Control Limit
EP: Aggregate Organics (QCLot: 1167065)											
EP008F: Chlorophyll a	----	0.1	mg/m ³	<0.1	9.66 mg/m ³	96.1	----	85	115	----	----
EP: Aggregate Organics (QCLot: 1167066)											
EP008F: Chlorophyll a	----	0.1	mg/m ³	<0.1	9.66 mg/m ³	96.5	----	85	115	----	----
EP: Aggregate Organics (QCLot: 1167067)											
EP008F: Chlorophyll a	----	0.1	mg/m ³	<0.1	9.66 mg/m ³	105	----	85	115	----	----
EP: Aggregate Organics (QCLot: 1167068)											
EP008F: Chlorophyll a	----	0.1	mg/m ³	<0.1	9.66 mg/m ³	92.5	----	85	115	----	----
EP: Aggregate Organics (QCLot: 1171079)											
EP008F: Chlorophyll a	----	0.1	mg/m ³	<0.1	9.66 mg/m ³	91.9	----	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

<i>Client</i>	: ACTION UNITED ENVIRONMENT SERVICES AND CONSULTING	<i>Laboratory</i>	: ALS Technichem (HK) Pty Ltd	<i>Page</i>	: 1 of 7
<i>Contact</i>	: MR T W TAM	<i>Contact</i>	: Richard Fung	<i>Work Order</i>	: HK1768733
<i>Address</i>	: RM A 20/F., GOLD KING IND BLDG, NO. 35-41 TAI LIN PAI ROAD, KWAI CHUNG, N.T. HONG KONG	<i>Address</i>	: 11/F., Chung Shun Knitting Centre, 1 - 3 Wing Yip Street, Kwai Chung, N.T., Hong Kong	<i>Amendment No.</i>	: 1
<i>E-mail</i>	: Twtam@fordbusiness.com	<i>E-mail</i>	: richard.fung@alsglobal.com	<i>Date received</i>	: 07-Oct-2017
<i>Telephone</i>	: +852 2959 6059	<i>Telephone</i>	: +852 2610 1044	<i>Date of issue</i>	: 24-Oct-2017
<i>Facsimile</i>	: +852 2959 6079	<i>Facsimile</i>	: +852 2610 2021	<i>No. of samples</i>	- Received : 70
<i>Project</i>	: TCS00874/16 - BATHING BEACH AT LUNG MEI, TAI PO	<i>Quote number</i>	: HK/5386g/2016		- Analysed : 70
<i>Order number</i>	: —				
<i>C-O-C number</i>	: —				
<i>Site</i>	: —				

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This document has been signed by those names that appear on this report and are the authorised signatories.

Signatory

Fung Lim Chee, Richard

Position

General Manager

Authorised results for:

Inorganics



Report Comments

This report for ALS Technichem (HK) Pty Ltd work order reference HK1768733, Amendment 1 supersedes any previous reports with this reference. Testing period is from 07-Oct-2017 to 17-Oct-2017. 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 HK1768733 :

Sample(s) were received in chilled condition.

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

In marine and freshwater samples, chlorophyll b, if present, will cause some interference to the analysis of chlorophyll a.



Analytical Results

Sub-Matrix: MARINE WATER			Compound	EA025: Suspended Solids (SS)	EP008F: Chlorophyll a	----	----	----
			LOR Unit	2 mg/L	0.1 µg/L	----	----	----
Client sample ID	Client sampling date / time	Laboratory sample ID	EA/ED: Physical and Aggregate Properties	EP: Aggregate Organics	----	----	----	----
G1/S/MID-EBB	[07-Oct-2017]	HK1768733-001	5	3.6	----	----	----	
G1/S/MID-EBB - Duplicate	[07-Oct-2017]	HK1768733-002	4	3.6	----	----	----	
G1/B/MID-EBB	[07-Oct-2017]	HK1768733-005	6	3.5	----	----	----	
G1/B/MID-EBB- Duplicate	[07-Oct-2017]	HK1768733-006	6	3.6	----	----	----	
I1/M/MID-EBB	[07-Oct-2017]	HK1768733-007	8	2.6	----	----	----	
I1/M/MID-EBB- Duplicate	[07-Oct-2017]	HK1768733-008	6	2.3	----	----	----	
I2/S/MID-EBB	[07-Oct-2017]	HK1768733-009	5	2.9	----	----	----	
I2/S/MID-EBB- Duplicate	[07-Oct-2017]	HK1768733-010	7	2.9	----	----	----	
I2/B/MID-EBB	[07-Oct-2017]	HK1768733-011	5	3.1	----	----	----	
I2/B/MID-EBB- Duplicate	[07-Oct-2017]	HK1768733-012	5	3.4	----	----	----	
I3/S/MID-EBB	[07-Oct-2017]	HK1768733-013	6	2.1	----	----	----	
I3/S/MID-EBB- Duplicate	[07-Oct-2017]	HK1768733-014	6	1.6	----	----	----	
I3/B/MID-EBB	[07-Oct-2017]	HK1768733-015	11	3.6	----	----	----	
I3/B/MID-EBB- Duplicate	[07-Oct-2017]	HK1768733-016	9	3.5	----	----	----	
R1/S/MID-EBB	[07-Oct-2017]	HK1768733-017	5	2.7	----	----	----	
R1/S/MID-EBB- Duplicate	[07-Oct-2017]	HK1768733-018	4	2.9	----	----	----	
R1/B/MID-EBB	[07-Oct-2017]	HK1768733-021	4	2.9	----	----	----	
R1/B/MID-EBB- Duplicate	[07-Oct-2017]	HK1768733-022	6	2.7	----	----	----	
R2/S/MID-EBB	[07-Oct-2017]	HK1768733-023	4	3.2	----	----	----	
R2/S/MID-EBB- Duplicate	[07-Oct-2017]	HK1768733-024	2	4.0	----	----	----	
R2/B/MID-EBB	[07-Oct-2017]	HK1768733-025	8	1.8	----	----	----	
R2/B/MID-EBB- Duplicate	[07-Oct-2017]	HK1768733-026	7	1.4	----	----	----	
W1/S/MID-EBB	[07-Oct-2017]	HK1768733-027	2	2.1	----	----	----	
W1/S/MID-EBB- Duplicate	[07-Oct-2017]	HK1768733-028	3	2.1	----	----	----	
W1/M/MID-EBB	[07-Oct-2017]	HK1768733-029	5	3.4	----	----	----	
W1/M/MID-EBB- Duplicate	[07-Oct-2017]	HK1768733-030	4	3.1	----	----	----	
W1/B/MID-EBB	[07-Oct-2017]	HK1768733-031	4	4.9	----	----	----	
W1/B/MID-EBB- Duplicate	[07-Oct-2017]	HK1768733-032	5	3.9	----	----	----	
M1/M/MID-EBB	[07-Oct-2017]	HK1768733-033	5	1.4	----	----	----	
M1/M/MID-EBB- Duplicate	[07-Oct-2017]	HK1768733-034	3	1.7	----	----	----	



Sub-Matrix: MARINE WATER			Compound	EA025: Suspended Solids (SS)	EP008F: Chlorophyll a	----	----	----
			LOR Unit	2 mg/L	0.1 µg/L	----	----	----
Client sample ID	Client sampling date / time	Laboratory sample ID	EA/ED: Physical and Aggregate Properties	EP: Aggregate Organics	----	----	----	----
FCZ1/S/MID-EBB	[07-Oct-2017]	HK1768733-035	4	4.5	----	----	----	----
FCZ1/S/MID-EBB-Duplicate	[07-Oct-2017]	HK1768733-036	4	3.8	----	----	----	----
FCZ1/B/MID-EBB	[07-Oct-2017]	HK1768733-037	6	4.6	----	----	----	----
FCZ1/B/MID-EBB-Duplicate	[07-Oct-2017]	HK1768733-038	7	4.7	----	----	----	----
G1/S/MID-FLOOD	[07-Oct-2017]	HK1768733-039	4	1.1	----	----	----	----
G1/S/MID-FLOOD - Duplicate	[07-Oct-2017]	HK1768733-040	3	1.5	----	----	----	----
G1/B/MID-FLOOD	[07-Oct-2017]	HK1768733-043	7	1.9	----	----	----	----
G1/B/MID-FLOOD - Duplicate	[07-Oct-2017]	HK1768733-044	6	1.7	----	----	----	----
I1/M/MID-FLOOD	[07-Oct-2017]	HK1768733-045	4	1.0	----	----	----	----
I1/M/MID-FLOOD - Duplicate	[07-Oct-2017]	HK1768733-046	3	1.3	----	----	----	----
I2/S/MID-FLOOD	[07-Oct-2017]	HK1768733-047	4	1.0	----	----	----	----
I2/S/MID-FLOOD - Duplicate	[07-Oct-2017]	HK1768733-048	5	1.5	----	----	----	----
I2/B/MID-FLOOD	[07-Oct-2017]	HK1768733-049	6	0.8	----	----	----	----
I2/B/MID-FLOOD - Duplicate	[07-Oct-2017]	HK1768733-050	4	1.8	----	----	----	----
I3/S/MID-FLOOD	[07-Oct-2017]	HK1768733-051	4	1.1	----	----	----	----
I3/S/MID-FLOOD - Duplicate	[07-Oct-2017]	HK1768733-052	5	0.8	----	----	----	----
I3/B/MID-FLOOD	[07-Oct-2017]	HK1768733-053	6	1.0	----	----	----	----
I3/B/MID-FLOOD - Duplicate	[07-Oct-2017]	HK1768733-054	6	1.0	----	----	----	----
R1/S/MID-FLOOD	[07-Oct-2017]	HK1768733-055	4	0.8	----	----	----	----
R1/S/MID-FLOOD-Duplicate	[07-Oct-2017]	HK1768733-056	2	1.1	----	----	----	----
R1/M/MID-FLOOD	[07-Oct-2017]	HK1768733-057	3	0.7	----	----	----	----
R1/M/MID-FLOOD - Duplicate	[07-Oct-2017]	HK1768733-058	4	1.2	----	----	----	----
R1/B/MID-FLOOD	[07-Oct-2017]	HK1768733-059	2	0.7	----	----	----	----



Sub-Matrix: MARINE WATER

			Compound	EA025: Suspended Solids (SS)	EP008F: Chlorophyll a	----	----	----
			LOR Unit	2 mg/L	0.1 µg/L	----	----	----
Client sample ID	Client sampling date / time	Laboratory sample ID	EA/ED: Physical and Aggregate Properties	EP: Aggregate Organics	----	----	----	----
R1/B/MID-FLOOD-Duplicate	[07-Oct-2017]	HK1768733-060	3	0.8	----	----	----	----
R2/S/MID-FLOOD	[07-Oct-2017]	HK1768733-061	5	2.8	----	----	----	----
R2/S/MID-FLOOD-Duplicate	[07-Oct-2017]	HK1768733-062	4	1.8	----	----	----	----
R2/B/MID-FLOOD	[07-Oct-2017]	HK1768733-063	7	1.7	----	----	----	----
R2/B/MID-FLOOD-Duplicate	[07-Oct-2017]	HK1768733-064	5	1.7	----	----	----	----
W1/S/MID-FLOOD	[07-Oct-2017]	HK1768733-065	3	1.3	----	----	----	----
W1/S/MID-FLOOD-Duplicate	[07-Oct-2017]	HK1768733-066	4	1.4	----	----	----	----
W1/M/MID-FLOOD	[07-Oct-2017]	HK1768733-067	4	1.6	----	----	----	----
W1/M/MID-FLOOD-Duplicate	[07-Oct-2017]	HK1768733-068	6	1.7	----	----	----	----
W1/B/MID-FLOOD	[07-Oct-2017]	HK1768733-069	4	1.4	----	----	----	----
W1/B/MID-FLOOD-Duplicate	[07-Oct-2017]	HK1768733-070	4	1.8	----	----	----	----
M1/M/MID-FLOOD	[07-Oct-2017]	HK1768733-071	10	0.5	----	----	----	----
M1/M/MID-FLOOD-Duplicate	[07-Oct-2017]	HK1768733-072	8	0.4	----	----	----	----
FCZ1/S/MID-FLOOD	[07-Oct-2017]	HK1768733-073	5	1.9	----	----	----	----
FCZ1/S/MID-FLOOD-Duplicate	[07-Oct-2017]	HK1768733-074	3	1.9	----	----	----	----
FCZ1/B/MID-FLOOD	[07-Oct-2017]	HK1768733-075	7	1.5	----	----	----	----
FCZ1/B/MID-FLOOD-Duplicate	[07-Oct-2017]	HK1768733-076	6	1.1	----	----	----	----



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: 1163821)								
HK1768733-001	G1/S/MID-EBB	EA025: Suspended Solids (SS)	----	2	mg/L	5	4	0.00
HK1768733-013	I3/S/MID-EBB	EA025: Suspended Solids (SS)	----	2	mg/L	6	6	0.00
EA/ED: Physical and Aggregate Properties (QC Lot: 1163822)								
HK1768733-025	R2/B/MID-EBB	EA025: Suspended Solids (SS)	----	2	mg/L	8	8	0.00
HK1768733-035	FCZ1/S/MID-EBB	EA025: Suspended Solids (SS)	----	2	mg/L	4	5	0.00
EA/ED: Physical and Aggregate Properties (QC Lot: 1163823)								
HK1768733-047	I2/S/MID-FLOOD	EA025: Suspended Solids (SS)	----	2	mg/L	4	4	0.00
HK1768733-057	R1/M/MID-FLOOD	EA025: Suspended Solids (SS)	----	2	mg/L	3	2	38.2
EA/ED: Physical and Aggregate Properties (QC Lot: 1163824)								
HK1768733-067	W1/M/MID-FLOOD	EA025: Suspended Solids (SS)	----	2	mg/L	4	4	0.00
EP: Aggregate Organics (QC Lot: 1171079)								
HK1768733-001	G1/S/MID-EBB	EP008F: Chlorophyll a	----	0.1	mg/m ³	3.6 µg/L	3.9	6.91
EP: Aggregate Organics (QC Lot: 1171080)								
HK1768733-025	R2/B/MID-EBB	EP008F: Chlorophyll a	----	0.1	mg/m ³	1.8 µg/L	1.8	5.56
EP: Aggregate Organics (QC Lot: 1171081)								
HK1768733-047	I2/S/MID-FLOOD	EP008F: Chlorophyll a	----	0.1	mg/m ³	1.0 µg/L	1.0	0.00
EP: Aggregate Organics (QC Lot: 1171082)								
HK1768733-067	W1/M/MID-FLOOD	EP008F: Chlorophyll a	----	0.1	mg/m ³	1.6 µg/L	1.8	10.8

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						
Method: Compound	CAS Number	LOR	Unit	Result	Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPDs (%)	
						LCS	DCS	Low	High	Value	Control Limit
EA/ED: Physical and Aggregate Properties (QCLot: 1163821)											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	114	----	85	115	----	----
EA/ED: Physical and Aggregate Properties (QCLot: 1163822)											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	90.5	----	85	115	----	----
EA/ED: Physical and Aggregate Properties (QCLot: 1163823)											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	100	----	85	115	----	----
EA/ED: Physical and Aggregate Properties (QCLot: 1163824)											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	110	----	85	115	----	----
EP: Aggregate Organics (QCLot: 1171079)											
EP008F: Chlorophyll a	----	0.1	mg/m ³	<0.1	9.66 mg/m ³	91.9	----	85	115	----	----
EP: Aggregate Organics (QCLot: 1171080)											
EP008F: Chlorophyll a	----	0.1	mg/m ³	<0.1	9.66 mg/m ³	94.0	----	85	115	----	----



Matrix: WATER		Method Blank (MB) Report			Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report						
Method: Compound	CAS Number	LOR	Unit	Result	Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPDs (%)	
						LCS	DCS	Low	High	Value	Control Limit
EP: Aggregate Organics (QCLot: 1171081)											
EP008F: Chlorophyll a	----	0.1	mg/m ³	<0.1	9.66 mg/m ³	88.0	----	85	115	----	----
EP: Aggregate Organics (QCLot: 1171082)											
EP008F: Chlorophyll a	----	0.1	mg/m ³	<0.1	9.66 mg/m ³	90.7	----	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

<i>Client</i>	: ACTION UNITED ENVIRONMENT SERVICES AND CONSULTING	<i>Laboratory</i>	: ALS Technichem (HK) Pty Ltd	<i>Page</i>	: 1 of 7
<i>Contact</i>	: MR T W TAM	<i>Contact</i>	: Richard Fung	<i>Work Order</i>	: HK1768769
<i>Address</i>	: RM A 20/F., GOLD KING IND BLDG, NO. 35-41 TAI LIN PAI ROAD, KWAI CHUNG, N.T. HONG KONG	<i>Address</i>	: 11/F., Chung Shun Knitting Centre, 1 - 3 Wing Yip Street, Kwai Chung, N.T., Hong Kong		
<i>E-mail</i>	: Twtam@fordbusiness.com	<i>E-mail</i>	: richard.fung@alsglobal.com		
<i>Telephone</i>	: +852 2959 6059	<i>Telephone</i>	: +852 2610 1044		
<i>Facsimile</i>	: +852 2959 6079	<i>Facsimile</i>	: +852 2610 2021		
<i>Project</i>	: TCS00874/16 - BATHING BEACH AT LUNG MEI, TAI PO	<i>Quote number</i>	: HK/5386g/2016	<i>Date received</i>	: 09-Oct-2017
<i>Order number</i>	: —			<i>Date of issue</i>	: 18-Oct-2017
<i>C-O-C number</i>	: —			<i>No. of samples</i>	- Received : 72
<i>Site</i>	: —				- Analysed : 72

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This document has been signed by those names that appear on this report and are the authorised signatories.

Signatory

Fung Lim Chee, Richard

Position

General Manager

Authorised results for:

Inorganics



Report Comments

This report for ALS Technichem (HK) Pty Ltd work order reference HK1768769 supersedes any previous reports with this reference. Testing period is from 09-Oct-2017 to 18-Oct-2017. 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 HK1768769 :

Sample(s) were received in chilled condition.

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

In marine and freshwater samples, chlorophyll b, if present, will cause some interference to the analysis of chlorophyll a.



Analytical Results

Sub-Matrix: MARINE WATER			Compound	EA025: Suspended Solids (SS)	EP008F: Chlorophyll a	----	----	----
			LOR Unit	2 mg/L	0.1 µg/L	----	----	----
Client sample ID	Client sampling date / time	Laboratory sample ID	EA/ED: Physical and Aggregate Properties	EP: Aggregate Organics	----	----	----	----
G1/S/MID-EBB	[09-Oct-2017]	HK1768769-001	4	5.1	----	----	----	
G1/S/MID-EBB - Duplicate	[09-Oct-2017]	HK1768769-002	3	4.1	----	----	----	
G1/B/MID-EBB	[09-Oct-2017]	HK1768769-005	3	4.3	----	----	----	
G1/B/MID-EBB- Duplicate	[09-Oct-2017]	HK1768769-006	4	4.7	----	----	----	
I1/M/MID-EBB	[09-Oct-2017]	HK1768769-007	<2	6.7	----	----	----	
I1/M/MID-EBB- Duplicate	[09-Oct-2017]	HK1768769-008	<2	7.1	----	----	----	
I2/S/MID-EBB	[09-Oct-2017]	HK1768769-009	3	8.8	----	----	----	
I2/S/MID-EBB- Duplicate	[09-Oct-2017]	HK1768769-010	3	8.3	----	----	----	
I2/B/MID-EBB	[09-Oct-2017]	HK1768769-011	2	2.2	----	----	----	
I2/B/MID-EBB- Duplicate	[09-Oct-2017]	HK1768769-012	2	8.0	----	----	----	
I3/S/MID-EBB	[09-Oct-2017]	HK1768769-013	3	9.1	----	----	----	
I3/S/MID-EBB- Duplicate	[09-Oct-2017]	HK1768769-014	2	8.3	----	----	----	
I3/B/MID-EBB	[09-Oct-2017]	HK1768769-015	3	6.6	----	----	----	
I3/B/MID-EBB- Duplicate	[09-Oct-2017]	HK1768769-016	2	5.6	----	----	----	
R1/S/MID-EBB	[09-Oct-2017]	HK1768769-017	2	6.7	----	----	----	
R1/S/MID-EBB- Duplicate	[09-Oct-2017]	HK1768769-018	3	7.2	----	----	----	
R1/M/MID-EBB	[09-Oct-2017]	HK1768769-019	3	7.4	----	----	----	
R1/M/MID-EBB- Duplicate	[09-Oct-2017]	HK1768769-020	3	7.1	----	----	----	
R1/B/MID-EBB	[09-Oct-2017]	HK1768769-021	4	0.9	----	----	----	
R1/B/MID-EBB- Duplicate	[09-Oct-2017]	HK1768769-022	5	1.2	----	----	----	
R2/S/MID-EBB	[09-Oct-2017]	HK1768769-023	<2	7.5	----	----	----	
R2/S/MID-EBB- Duplicate	[09-Oct-2017]	HK1768769-024	<2	6.1	----	----	----	
R2/B/MID-EBB	[09-Oct-2017]	HK1768769-025	2	6.3	----	----	----	
R2/B/MID-EBB- Duplicate	[09-Oct-2017]	HK1768769-026	2	6.4	----	----	----	
W1/S/MID-EBB	[09-Oct-2017]	HK1768769-027	<2	5.9	----	----	----	
W1/S/MID-EBB- Duplicate	[09-Oct-2017]	HK1768769-028	<2	5.6	----	----	----	
W1/M/MID-EBB	[09-Oct-2017]	HK1768769-029	<2	5.6	----	----	----	
W1/M/MID-EBB- Duplicate	[09-Oct-2017]	HK1768769-030	<2	5.8	----	----	----	
W1/B/MID-EBB	[09-Oct-2017]	HK1768769-031	<2	4.2	----	----	----	
W1/B/MID-EBB- Duplicate	[09-Oct-2017]	HK1768769-032	<2	3.8	----	----	----	



Sub-Matrix: MARINE WATER

Client sample ID	Client sampling date / time	Laboratory sample ID	Compound	EA025: Suspended Solids (SS)	EP008F: Chlorophyll a	----	----	----
			LOR Unit	2 mg/L	0.1 µg/L	----	----	----
			EA/ED: Physical and Aggregate Properties	EP: Aggregate Organics	----	----	----	----
M1/M/MID-EBB	[09-Oct-2017]	HK1768769-033		4	13.3	----	----	----
M1/M/MID-EBB- Duplicate	[09-Oct-2017]	HK1768769-034		4	14.2	----	----	----
FCZ1/S/MID-EBB	[09-Oct-2017]	HK1768769-035		3	5.0	----	----	----
FCZ1/S/MID-EBB- Duplicate	[09-Oct-2017]	HK1768769-036		3	4.6	----	----	----
FCZ1/B/MID-EBB	[09-Oct-2017]	HK1768769-037		3	5.6	----	----	----
FCZ1/B/MID-EBB- Duplicate	[09-Oct-2017]	HK1768769-038		5	5.2	----	----	----
G1/S/MID-FLOOD	[09-Oct-2017]	HK1768769-039		<2	4.3	----	----	----
G1/S/MID-FLOOD - Duplicate	[09-Oct-2017]	HK1768769-040		<2	5.1	----	----	----
G1/B/MID-FLOOD	[09-Oct-2017]	HK1768769-043		3	1.6	----	----	----
G1/B/MID-FLOOD - Duplicate	[09-Oct-2017]	HK1768769-044		3	1.5	----	----	----
I1/M/MID-FLOOD	[09-Oct-2017]	HK1768769-045		2	3.8	----	----	----
I1/M/MID-FLOOD - Duplicate	[09-Oct-2017]	HK1768769-046		2	3.4	----	----	----
I2/S/MID-FLOOD	[09-Oct-2017]	HK1768769-047		<2	4.1	----	----	----
I2/S/MID-FLOOD - Duplicate	[09-Oct-2017]	HK1768769-048		<2	3.9	----	----	----
I2/B/MID-FLOOD	[09-Oct-2017]	HK1768769-049		5	0.2	----	----	----
I2/B/MID-FLOOD - Duplicate	[09-Oct-2017]	HK1768769-050		3	0.4	----	----	----
I3/S/MID-FLOOD	[09-Oct-2017]	HK1768769-051		<2	1.1	----	----	----
I3/S/MID-FLOOD - Duplicate	[09-Oct-2017]	HK1768769-052		<2	1.9	----	----	----
I3/B/MID-FLOOD	[09-Oct-2017]	HK1768769-053		<2	0.9	----	----	----
I3/B/MID-FLOOD - Duplicate	[09-Oct-2017]	HK1768769-054		<2	1.3	----	----	----
R1/S/MID-FLOOD	[09-Oct-2017]	HK1768769-055		<2	2.4	----	----	----
R1/S/MID-FLOOD- Duplicate	[09-Oct-2017]	HK1768769-056		<2	2.6	----	----	----
R1/M/MID-FLOOD	[09-Oct-2017]	HK1768769-057		<2	2.6	----	----	----



Sub-Matrix: MARINE WATER			Compound	EA025: Suspended Solids (SS)	EP008F: Chlorophyll a	----	----	----
			LOR Unit	2 mg/L	0.1 µg/L	----	----	----
Client sample ID	Client sampling date / time	Laboratory sample ID	EA/ED: Physical and Aggregate Properties	EP: Aggregate Organics	----	----	----	----
R1/M/MID-FLOOD - Duplicate	[09-Oct-2017]	HK1768769-058	<2	2.2	----	----	----	----
R1/B/MID-FLOOD	[09-Oct-2017]	HK1768769-059	<2	0.8	----	----	----	----
R1/B/MID-FLOOD-Duplicate	[09-Oct-2017]	HK1768769-060	<2	0.8	----	----	----	----
R2/S/MID-FLOOD	[09-Oct-2017]	HK1768769-061	<2	3.3	----	----	----	----
R2/S/MID-FLOOD-Duplicate	[09-Oct-2017]	HK1768769-062	<2	2.8	----	----	----	----
R2/B/MID-FLOOD	[09-Oct-2017]	HK1768769-063	<2	4.0	----	----	----	----
R2/B/MID-FLOOD-Duplicate	[09-Oct-2017]	HK1768769-064	<2	3.7	----	----	----	----
W1/S/MID-FLOOD	[09-Oct-2017]	HK1768769-065	<2	7.9	----	----	----	----
W1/S/MID-FLOOD-Duplicate	[09-Oct-2017]	HK1768769-066	<2	8.8	----	----	----	----
W1/M/MID-FLOOD	[09-Oct-2017]	HK1768769-067	<2	7.4	----	----	----	----
W1/M/MID-FLOOD-Duplicate	[09-Oct-2017]	HK1768769-068	<2	6.8	----	----	----	----
W1/B/MID-FLOOD	[09-Oct-2017]	HK1768769-069	<2	3.9	----	----	----	----
W1/B/MID-FLOOD-Duplicate	[09-Oct-2017]	HK1768769-070	<2	3.6	----	----	----	----
M1/M/MID-FLOOD	[09-Oct-2017]	HK1768769-071	<2	1.6	----	----	----	----
M1/M/MID-FLOOD-Duplicate	[09-Oct-2017]	HK1768769-072	<2	1.2	----	----	----	----
FCZ1/S/MID-FLOOD	[09-Oct-2017]	HK1768769-073	<2	2.9	----	----	----	----
FCZ1/S/MID-FLOOD-Duplicate	[09-Oct-2017]	HK1768769-074	<2	2.7	----	----	----	----
FCZ1/B/MID-FLOOD	[09-Oct-2017]	HK1768769-075	<2	3.4	----	----	----	----
FCZ1/B/MID-FLOOD-Duplicate	[09-Oct-2017]	HK1768769-076	<2	3.2	----	----	----	----



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: 1169618)								
HK1768769-001	G1/S/MID-EBB	EA025: Suspended Solids (SS)	----	2	mg/L	4	4	0.00
HK1768769-013	I3/S/MID-EBB	EA025: Suspended Solids (SS)	----	2	mg/L	3	3	0.00
EA/ED: Physical and Aggregate Properties (QC Lot: 1169619)								
HK1768769-023	R2/S/MID-EBB	EA025: Suspended Solids (SS)	----	2	mg/L	<2	<2	0.00
HK1768769-033	M1/M/MID-EBB	EA025: Suspended Solids (SS)	----	2	mg/L	4	4	0.00
EA/ED: Physical and Aggregate Properties (QC Lot: 1169620)								
HK1768769-045	I1/M/MID-FLOOD	EA025: Suspended Solids (SS)	----	2	mg/L	2	3	0.00
HK1768769-055	R1/S/MID-FLOOD	EA025: Suspended Solids (SS)	----	2	mg/L	<2	<2	0.00
EA/ED: Physical and Aggregate Properties (QC Lot: 1169621)								
HK1768769-065	W1/S/MID-FLOOD	EA025: Suspended Solids (SS)	----	2	mg/L	<2	<2	0.00
HK1768769-075	FCZ1/B/MID-FLOOD	EA025: Suspended Solids (SS)	----	2	mg/L	<2	<2	0.00
EP: Aggregate Organics (QC Lot: 1171083)								
HK1768769-001	G1/S/MID-EBB	EP008F: Chlorophyll a	----	0.1	mg/m ³	5.1 µg/L	4.5	12.2
EP: Aggregate Organics (QC Lot: 1171084)								
HK1768769-023	R2/S/MID-EBB	EP008F: Chlorophyll a	----	0.1	mg/m ³	7.5 µg/L	6.6	12.5
EP: Aggregate Organics (QC Lot: 1171085)								
HK1768769-045	I1/M/MID-FLOOD	EP008F: Chlorophyll a	----	0.1	mg/m ³	3.8 µg/L	4.0	4.93
EP: Aggregate Organics (QC Lot: 1178028)								
HK1768769-065	W1/S/MID-FLOOD	EP008F: Chlorophyll a	----	0.1	mg/m ³	7.9 µg/L	8.8	11.3
EP: Aggregate Organics (QC Lot: 1182314)								
HK1769453-001	Anonymous	EP008F: Chlorophyll a	----	0.1	mg/m ³	4.2 µg/L	4.8	14.5

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			
Method: Compound	CAS Number	LOR	Unit	Result	Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPDs (%)					
						LCS	DCS	Low	High	Value	Control Limit				
EA/ED: Physical and Aggregate Properties (QCLot: 1169618)															
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	87.0	----	85	115	----	----				
EA/ED: Physical and Aggregate Properties (QCLot: 1169619)															
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	100	----	85	115	----	----				
EA/ED: Physical and Aggregate Properties (QCLot: 1169620)															
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	114	----	85	115	----	----				
EA/ED: Physical and Aggregate Properties (QCLot: 1169621)															
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	108	----	85	115	----	----				
EP: Aggregate Organics (QCLot: 1171083)															



Matrix: WATER		Method Blank (MB) Report			Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report						
Method: Compound	CAS Number	LOR	Unit	Result	Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPDs (%)	
						LCS	DCS	Low	High	Value	Control Limit
EP: Aggregate Organics (QCLot: 1171083) - continued											
EP008F: Chlorophyll a	----	0.1	mg/m ³	<0.1	9.66 mg/m ³	91.2	----	85	115	----	----
EP: Aggregate Organics (QCLot: 1171084)											
EP008F: Chlorophyll a	----	0.1	mg/m ³	<0.1	9.66 mg/m ³	107	----	85	115	----	----
EP: Aggregate Organics (QCLot: 1171085)											
EP008F: Chlorophyll a	----	0.1	mg/m ³	<0.1	9.66 mg/m ³	92.0	----	85	115	----	----
EP: Aggregate Organics (QCLot: 1178028)											
EP008F: Chlorophyll a	----	0.1	mg/m ³	<0.1	9.66 mg/m ³	93.1	----	85	115	----	----
EP: Aggregate Organics (QCLot: 1182314)											
EP008F: Chlorophyll a	----	0.1	mg/m ³	<0.1	9.66 mg/m ³	91.3	----	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

<i>Client</i>	: ACTION UNITED ENVIRONMENT SERVICES AND CONSULTING	<i>Laboratory</i>	: ALS Technichem (HK) Pty Ltd	<i>Page</i>	: 1 of 7
<i>Contact</i>	: MR T W TAM	<i>Contact</i>	: Richard Fung	<i>Work Order</i>	: HK1769453
<i>Address</i>	: RM A 20/F., GOLD KING IND BLDG, NO. 35-41 TAI LIN PAI ROAD, KWAI CHUNG, N.T. HONG KONG	<i>Address</i>	: 11/F., Chung Shun Knitting Centre, 1 - 3 Wing Yip Street, Kwai Chung, N.T., Hong Kong		
<i>E-mail</i>	: Twtam@fordbusiness.com	<i>E-mail</i>	: richard.fung@alsglobal.com		
<i>Telephone</i>	: +852 2959 6059	<i>Telephone</i>	: +852 2610 1044		
<i>Facsimile</i>	: +852 2959 6079	<i>Facsimile</i>	: +852 2610 2021		
<i>Project</i>	: TCS00874/16 - BATHING BEACH AT LUNG MEI, TAI PO	<i>Quote number</i>	: HK/5386g/2016	<i>Date received</i>	: 13-Oct-2017
<i>Order number</i>	: —			<i>Date of issue</i>	: 23-Oct-2017
<i>C-O-C number</i>	: —			<i>No. of samples</i>	- Received : 76
<i>Site</i>	: —				- Analysed : 76

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This document has been signed by those names that appear on this report and are the authorised signatories.

Signatory

Fung Lim Chee, Richard

Position

General Manager

Authorised results for:

Inorganics



Report Comments

This report for ALS Technichem (HK) Pty Ltd work order reference HK1769453 supersedes any previous reports with this reference. Testing period is from 13-Oct-2017 to 23-Oct-2017. 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 HK1769453 :

Sample(s) were received in chilled condition.

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

In marine and freshwater samples, chlorophyll b, if present, will cause some interference to the analysis of chlorophyll a.



Analytical Results

Sub-Matrix: MARINE WATER			Compound	EA025: Suspended Solids (SS)	EP008F: Chlorophyll a	----	----	----
			LOR Unit	2 mg/L	0.1 µg/L	----	----	----
Client sample ID	Client sampling date / time	Laboratory sample ID	EA/ED: Physical and Aggregate Properties	EP: Aggregate Organics	----	----	----	----
G1/S/MID-EBB	[13-Oct-2017]	HK1769453-001	4	4.2	----	----	----	
G1/S/MID-EBB - Duplicate	[13-Oct-2017]	HK1769453-002	5	4.0	----	----	----	
G1/M/MID-EBB	[13-Oct-2017]	HK1769453-003	5	4.7	----	----	----	
G1/M/MID-EBB- Duplicate	[13-Oct-2017]	HK1769453-004	4	4.8	----	----	----	
G1/B/MID-EBB	[13-Oct-2017]	HK1769453-005	8	2.1	----	----	----	
G1/B/MID-EBB- Duplicate	[13-Oct-2017]	HK1769453-006	6	2.3	----	----	----	
I1/M/MID-EBB	[13-Oct-2017]	HK1769453-007	6	2.8	----	----	----	
I1/M/MID-EBB- Duplicate	[13-Oct-2017]	HK1769453-008	6	3.2	----	----	----	
I2/S/MID-EBB	[13-Oct-2017]	HK1769453-009	5	3.8	----	----	----	
I2/S/MID-EBB- Duplicate	[13-Oct-2017]	HK1769453-010	4	3.6	----	----	----	
I2/B/MID-EBB	[13-Oct-2017]	HK1769453-011	5	3.1	----	----	----	
I2/B/MID-EBB- Duplicate	[13-Oct-2017]	HK1769453-012	4	3.5	----	----	----	
I3/S/MID-EBB	[13-Oct-2017]	HK1769453-013	5	2.4	----	----	----	
I3/S/MID-EBB- Duplicate	[13-Oct-2017]	HK1769453-014	4	2.3	----	----	----	
I3/B/MID-EBB	[13-Oct-2017]	HK1769453-015	7	1.9	----	----	----	
I3/B/MID-EBB- Duplicate	[13-Oct-2017]	HK1769453-016	8	1.9	----	----	----	
R1/S/MID-EBB	[13-Oct-2017]	HK1769453-017	4	2.4	----	----	----	
R1/S/MID-EBB- Duplicate	[13-Oct-2017]	HK1769453-018	5	2.8	----	----	----	
R1/M/MID-EBB	[13-Oct-2017]	HK1769453-019	5	3.2	----	----	----	
R1/M/MID-EBB- Duplicate	[13-Oct-2017]	HK1769453-020	6	2.9	----	----	----	
R1/B/MID-EBB	[13-Oct-2017]	HK1769453-021	8	1.6	----	----	----	
R1/B/MID-EBB- Duplicate	[13-Oct-2017]	HK1769453-022	8	1.6	----	----	----	
R2/S/MID-EBB	[13-Oct-2017]	HK1769453-023	10	4.2	----	----	----	
R2/S/MID-EBB- Duplicate	[13-Oct-2017]	HK1769453-024	9	3.4	----	----	----	
R2/B/MID-EBB	[13-Oct-2017]	HK1769453-025	9	3.4	----	----	----	
R2/B/MID-EBB- Duplicate	[13-Oct-2017]	HK1769453-026	9	4.4	----	----	----	
W1/S/MID-EBB	[13-Oct-2017]	HK1769453-027	8	4.2	----	----	----	
W1/S/MID-EBB- Duplicate	[13-Oct-2017]	HK1769453-028	8	4.5	----	----	----	
W1/M/MID-EBB	[13-Oct-2017]	HK1769453-029	8	3.0	----	----	----	
W1/M/MID-EBB- Duplicate	[13-Oct-2017]	HK1769453-030	8	3.1	----	----	----	



Sub-Matrix: MARINE WATER

			Compound	EA025: Suspended Solids (SS)	EP008F: Chlorophyll a	----	----	----
			LOR Unit	2 mg/L	0.1 µg/L	----	----	----
Client sample ID	Client sampling date / time	Laboratory sample ID		EA/ED: Physical and Aggregate Properties	EP: Aggregate Organics	----	----	----
W1/B/MID-EBB	[13-Oct-2017]	HK1769453-031		8	1.9	----	----	----
W1/B/MID-EBB - Duplicate	[13-Oct-2017]	HK1769453-032		8	2.1	----	----	----
M1/M/MID-EBB	[13-Oct-2017]	HK1769453-033		4	1.3	----	----	----
M1/M/MID-EBB - Duplicate	[13-Oct-2017]	HK1769453-034		6	1.3	----	----	----
FCZ1/S/MID-EBB	[13-Oct-2017]	HK1769453-035		4	4.7	----	----	----
FCZ1/S/MID-EBB - Duplicate	[13-Oct-2017]	HK1769453-036		6	4.9	----	----	----
FCZ1/B/MID-EBB	[13-Oct-2017]	HK1769453-037		5	3.2	----	----	----
FCZ1/B/MID-EBB - Duplicate	[13-Oct-2017]	HK1769453-038		6	3.7	----	----	----
G1/S/MID-FLOOD	[13-Oct-2017]	HK1769453-039		4	7.6	----	----	----
G1/S/MID-FLOOD - Duplicate	[13-Oct-2017]	HK1769453-040		6	6.9	----	----	----
G1/M/MID-FLOOD	[13-Oct-2017]	HK1769453-041		6	7.7	----	----	----
G1/M/MID-FLOOD - Duplicate	[13-Oct-2017]	HK1769453-042		5	7.2	----	----	----
G1/B/MID-FLOOD	[13-Oct-2017]	HK1769453-043		4	3.6	----	----	----
G1/B/MID-FLOOD - Duplicate	[13-Oct-2017]	HK1769453-044		5	4.0	----	----	----
I1/M/MID-FLOOD	[13-Oct-2017]	HK1769453-045		6	5.1	----	----	----
I1/M/MID-FLOOD - Duplicate	[13-Oct-2017]	HK1769453-046		7	5.0	----	----	----
I2/S/MID-FLOOD	[13-Oct-2017]	HK1769453-047		2	5.4	----	----	----
I2/S/MID-FLOOD - Duplicate	[13-Oct-2017]	HK1769453-048		4	6.0	----	----	----
I2/B/MID-FLOOD	[13-Oct-2017]	HK1769453-049		4	5.8	----	----	----
I2/B/MID-FLOOD - Duplicate	[13-Oct-2017]	HK1769453-050		6	6.1	----	----	----
I3/S/MID-FLOOD	[13-Oct-2017]	HK1769453-051		4	4.8	----	----	----
I3/S/MID-FLOOD - Duplicate	[13-Oct-2017]	HK1769453-052		4	5.5	----	----	----
I3/B/MID-FLOOD	[13-Oct-2017]	HK1769453-053		3	4.4	----	----	----
I3/B/MID-FLOOD - Duplicate	[13-Oct-2017]	HK1769453-054		4	5.5	----	----	----



Sub-Matrix: MARINE WATER

			Compound	EA025: Suspended Solids (SS)	EP008F: Chlorophyll a	----	----	----
			LOR Unit	2 mg/L	0.1 µg/L	----	----	----
Client sample ID	Client sampling date / time	Laboratory sample ID	EA/ED: Physical and Aggregate Properties	EP: Aggregate Organics	----	----	----	----
R1/S/MID-FLOOD	[13-Oct-2017]	HK1769453-055	4	4.8	----	----	----	----
R1/S/MID-FLOOD-Duplicate	[13-Oct-2017]	HK1769453-056	4	4.2	----	----	----	----
R1/M/MID-FLOOD	[13-Oct-2017]	HK1769453-057	3	3.6	----	----	----	----
R1/M/MID-FLOOD - Duplicate	[13-Oct-2017]	HK1769453-058	3	4.2	----	----	----	----
R1/B/MID-FLOOD	[13-Oct-2017]	HK1769453-059	4	2.0	----	----	----	----
R1/B/MID-FLOOD-Duplicate	[13-Oct-2017]	HK1769453-060	6	2.1	----	----	----	----
R2/S/MID-FLOOD	[13-Oct-2017]	HK1769453-061	5	6.8	----	----	----	----
R2/S/MID-FLOOD-Duplicate	[13-Oct-2017]	HK1769453-062	3	5.9	----	----	----	----
R2/B/MID-FLOOD	[13-Oct-2017]	HK1769453-063	7	10.6	----	----	----	----
R2/B/MID-FLOOD-Duplicate	[13-Oct-2017]	HK1769453-064	7	10.4	----	----	----	----
W1/S/MID-FLOOD	[13-Oct-2017]	HK1769453-065	4	5.0	----	----	----	----
W1/S/MID-FLOOD-Duplicate	[13-Oct-2017]	HK1769453-066	4	5.7	----	----	----	----
W1/M/MID-FLOOD	[13-Oct-2017]	HK1769453-067	3	3.8	----	----	----	----
W1/M/MID-FLOOD-Duplicate	[13-Oct-2017]	HK1769453-068	3	3.9	----	----	----	----
W1/B/MID-FLOOD	[13-Oct-2017]	HK1769453-069	3	2.7	----	----	----	----
W1/B/MID-FLOOD-Duplicate	[13-Oct-2017]	HK1769453-070	2	4.0	----	----	----	----
M1/M/MID-FLOOD	[13-Oct-2017]	HK1769453-071	9	6.0	----	----	----	----
M1/M/MID-FLOOD-Duplicate	[13-Oct-2017]	HK1769453-072	8	6.0	----	----	----	----
FCZ1/S/MID-FLOOD	[13-Oct-2017]	HK1769453-073	6	10.7	----	----	----	----
FCZ1/S/MID-FLOOD-Duplicate	[13-Oct-2017]	HK1769453-074	4	11.5	----	----	----	----
FCZ1/B/MID-FLOOD	[13-Oct-2017]	HK1769453-075	8	12.3	----	----	----	----
FCZ1/B/MID-FLOOD-Duplicate	[13-Oct-2017]	HK1769453-076	6	13.5	----	----	----	----



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: 1179147)								
HK1769453-001	G1/S/MID-EBB	EA025: Suspended Solids (SS)	----	2	mg/L	4	4	0.00
HK1769453-011	I2/B/MID-EBB	EA025: Suspended Solids (SS)	----	2	mg/L	5	5	0.00
EA/ED: Physical and Aggregate Properties (QC Lot: 1179148)								
HK1769453-021	R1/B/MID-EBB	EA025: Suspended Solids (SS)	----	2	mg/L	8	10	14.8
HK1769453-031	W1/B/MID-EBB	EA025: Suspended Solids (SS)	----	2	mg/L	8	8	0.00
EA/ED: Physical and Aggregate Properties (QC Lot: 1179149)								
HK1769453-041	G1/M/MID-FLOOD	EA025: Suspended Solids (SS)	----	2	mg/L	6	5	0.00
HK1769453-051	I3/S/MID-FLOOD	EA025: Suspended Solids (SS)	----	2	mg/L	4	3	41.4
EA/ED: Physical and Aggregate Properties (QC Lot: 1179150)								
HK1769453-061	R2/S/MID-FLOOD	EA025: Suspended Solids (SS)	----	2	mg/L	5	5	0.00
HK1769453-071	M1/M/MID-FLOOD	EA025: Suspended Solids (SS)	----	2	mg/L	9	7	17.7
EP: Aggregate Organics (QC Lot: 1182314)								
HK1769453-001	G1/S/MID-EBB	EP008F: Chlorophyll a	----	0.1	mg/m ³	4.2 µg/L	4.8	14.5
EP: Aggregate Organics (QC Lot: 1182922)								
HK1769453-021	R1/B/MID-EBB	EP008F: Chlorophyll a	----	0.1	mg/m ³	1.6 µg/L	1.8	6.45
EP: Aggregate Organics (QC Lot: 1182923)								
HK1769453-041	G1/M/MID-FLOOD	EP008F: Chlorophyll a	----	0.1	mg/m ³	7.7 µg/L	6.7	13.7
EP: Aggregate Organics (QC Lot: 1182924)								
HK1769453-061	R2/S/MID-FLOOD	EP008F: Chlorophyll a	----	0.1	mg/m ³	6.8 µg/L	6.0	13.2
EP: Aggregate Organics (QC Lot: 1182925)								
HK1770791-001	Anonymous	EP008F: Chlorophyll a	----	0.1	mg/m ³	1.4 µg/L	1.6	12.6

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			
Method: Compound	CAS Number	LOR	Unit	Result	Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPDs (%)					
						LCS	DCS	Low	High	Value	Control Limit				
EA/ED: Physical and Aggregate Properties (QCLot: 1179147)															
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	98.5	----	85	115	----	----				
EA/ED: Physical and Aggregate Properties (QCLot: 1179148)															
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	109	----	85	115	----	----				
EA/ED: Physical and Aggregate Properties (QCLot: 1179149)															
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	108	----	85	115	----	----				
EA/ED: Physical and Aggregate Properties (QCLot: 1179150)															
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	88.5	----	85	115	----	----				
EP: Aggregate Organics (QCLot: 1182314)															



Matrix: WATER		Method Blank (MB) Report			Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report						
Method: Compound	CAS Number	LOR	Unit	Result	Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPDs (%)	
						LCS	DCS	Low	High	Value	Control Limit
EP: Aggregate Organics (QCLot: 1182314) - continued											
EP008F: Chlorophyll a	----	0.1	mg/m ³	<0.1	9.66 mg/m ³	91.3	----	85	115	----	----
EP: Aggregate Organics (QCLot: 1182922)											
EP008F: Chlorophyll a	----	0.1	mg/m ³	<0.1	9.66 mg/m ³	94.5	----	85	115	----	----
EP: Aggregate Organics (QCLot: 1182923)											
EP008F: Chlorophyll a	----	0.1	mg/m ³	<0.1	9.66 mg/m ³	90.7	----	85	115	----	----
EP: Aggregate Organics (QCLot: 1182924)											
EP008F: Chlorophyll a	----	0.1	mg/m ³	<0.1	9.66 mg/m ³	105	----	85	115	----	----
EP: Aggregate Organics (QCLot: 1182925)											
EP008F: Chlorophyll a	----	0.1	mg/m ³	<0.1	9.62 mg/m ³	114	----	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

<i>Client</i>	: ACTION UNITED ENVIRONMENT SERVICES AND CONSULTING	<i>Laboratory</i>	: ALS Technichem (HK) Pty Ltd	<i>Page</i>	: 1 of 7
<i>Contact</i>	: MR T W TAM	<i>Contact</i>	: Richard Fung	<i>Work Order</i>	: HK1770220
<i>Address</i>	: RM A 20/F., GOLD KING IND BLDG, NO. 35-41 TAI LIN PAI ROAD, KWAI CHUNG, N.T. HONG KONG	<i>Address</i>	: 11/F., Chung Shun Knitting Centre, 1 - 3 Wing Yip Street, Kwai Chung, N.T., Hong Kong		
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<i>Project</i>	: TCS00874/16 - BATHING BEACH AT LUNG MEI, TAI PO	<i>Quote number</i>	: HK/5386g/2016	<i>Date received</i>	: 17-Oct-2017
<i>Order number</i>	: —			<i>Date of issue</i>	: 23-Oct-2017
<i>C-O-C number</i>	: —			<i>No. of samples</i>	- Received : 70
<i>Site</i>	: —				- Analysed : 70

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This document has been signed by those names that appear on this report and are the authorised signatories.

Signatory

Fung Lim Chee, Richard

Position

General Manager

Authorised results for:

Inorganics



Report Comments

This report for ALS Technichem (HK) Pty Ltd work order reference HK1770220 supersedes any previous reports with this reference. Testing period is from 17-Oct-2017 to 23-Oct-2017. 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 HK1770220 :

Sample(s) were received in chilled condition.

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

In marine and freshwater samples, chlorophyll b, if present, will cause some interference to the analysis of chlorophyll a.



Analytical Results

Sub-Matrix: MARINE WATER			Compound	EA025: Suspended Solids (SS)	EP008F: Chlorophyll a	----	----	----
			LOR Unit	2 mg/L	0.1 µg/L	----	----	----
Client sample ID	Client sampling date / time	Laboratory sample ID	EA/ED: Physical and Aggregate Properties	EP: Aggregate Organics	----	----	----	----
G1/S/MID-EBB	17-Oct-2017 16:00	HK1770220-001	3	11.3	----	----	----	
G1/S/MID-EBB - Duplicate	17-Oct-2017 16:00	HK1770220-002	3	9.6	----	----	----	
G1/B/MID-EBB	17-Oct-2017 16:00	HK1770220-005	3	10.3	----	----	----	
G1/B/MID-EBB- Duplicate	17-Oct-2017 16:00	HK1770220-006	3	8.8	----	----	----	
I1/M/MID-EBB	17-Oct-2017 16:00	HK1770220-007	<2	6.4	----	----	----	
I1/M/MID-EBB- Duplicate	17-Oct-2017 16:00	HK1770220-008	<2	6.6	----	----	----	
I2/S/MID-EBB	17-Oct-2017 16:00	HK1770220-009	<2	4.4	----	----	----	
I2/S/MID-EBB- Duplicate	17-Oct-2017 16:00	HK1770220-010	<2	4.0	----	----	----	
I2/B/MID-EBB	17-Oct-2017 16:00	HK1770220-011	2	1.8	----	----	----	
I2/B/MID-EBB- Duplicate	17-Oct-2017 16:00	HK1770220-012	2	1.6	----	----	----	
I3/S/MID-EBB	17-Oct-2017 16:00	HK1770220-013	<2	4.2	----	----	----	
I3/S/MID-EBB- Duplicate	17-Oct-2017 16:00	HK1770220-014	<2	4.5	----	----	----	
I3/B/MID-EBB	17-Oct-2017 16:00	HK1770220-015	<2	1.6	----	----	----	
I3/B/MID-EBB- Duplicate	17-Oct-2017 16:00	HK1770220-016	<2	1.6	----	----	----	
R1/S/MID-EBB	17-Oct-2017 16:00	HK1770220-017	<2	5.2	----	----	----	
R1/S/MID-EBB- Duplicate	17-Oct-2017 16:00	HK1770220-018	<2	4.5	----	----	----	
R1/B/MID-EBB	17-Oct-2017 16:00	HK1770220-021	<2	5.5	----	----	----	
R1/B/MID-EBB- Duplicate	17-Oct-2017 16:00	HK1770220-022	<2	4.9	----	----	----	
R2/S/MID-EBB	17-Oct-2017 16:00	HK1770220-023	<2	5.1	----	----	----	
R2/S/MID-EBB- Duplicate	17-Oct-2017 16:00	HK1770220-024	<2	5.5	----	----	----	
R2/B/MID-EBB	17-Oct-2017 16:00	HK1770220-025	3	12.6	----	----	----	
R2/B/MID-EBB- Duplicate	17-Oct-2017 16:00	HK1770220-026	3	13.8	----	----	----	
W1/S/MID-EBB	17-Oct-2017 16:00	HK1770220-027	<2	4.0	----	----	----	
W1/S/MID-EBB- Duplicate	17-Oct-2017 16:00	HK1770220-028	<2	4.1	----	----	----	
W1/M/MID-EBB	17-Oct-2017 16:00	HK1770220-029	3	2.6	----	----	----	
W1/M/MID-EBB- Duplicate	17-Oct-2017 16:00	HK1770220-030	2	2.5	----	----	----	
W1/B/MID-EBB	17-Oct-2017 16:00	HK1770220-031	2	1.5	----	----	----	
W1/B/MID-EBB- Duplicate	17-Oct-2017 16:00	HK1770220-032	3	1.4	----	----	----	
M1/M/MID-EBB	17-Oct-2017 09:40	HK1770220-033	3	8.0	----	----	----	
M1/M/MID-EBB- Duplicate	17-Oct-2017 09:40	HK1770220-034	2	8.2	----	----	----	



Sub-Matrix: MARINE WATER

Client sample ID	Client sampling date / time	Laboratory sample ID	Compound	EA025: Suspended Solids (SS)	EP008F: Chlorophyll a	----	----	----
			LOR Unit	2 mg/L	0.1 µg/L	----	----	----
			EA/ED: Physical and Aggregate Properties	EP: Aggregate Organics	----	----	----	----
FCZ1/S/MID-EBB	17-Oct-2017 09:40	HK1770220-035		4	11.8	----	----	----
FCZ1/S/MID-EBB-Duplicate	17-Oct-2017 09:40	HK1770220-036		4	11.7	----	----	----
FCZ1/B/MID-EBB	17-Oct-2017 09:40	HK1770220-037		5	7.3	----	----	----
FCZ1/B/MID-EBB-Duplicate	17-Oct-2017 09:40	HK1770220-038		6	6.9	----	----	----
G1/S/MID-FLOOD	17-Oct-2017 09:40	HK1770220-039		2	4.0	----	----	----
G1/S/MID-FLOOD - Duplicate	17-Oct-2017 09:40	HK1770220-040		4	3.9	----	----	----
G1/B/MID-FLOOD	17-Oct-2017 09:40	HK1770220-043		5	4.0	----	----	----
G1/B/MID-FLOOD - Duplicate	17-Oct-2017 09:40	HK1770220-044		4	3.8	----	----	----
I1/M/MID-FLOOD	17-Oct-2017 09:40	HK1770220-045		<2	5.5	----	----	----
I1/M/MID-FLOOD - Duplicate	17-Oct-2017 09:40	HK1770220-046		<2	5.9	----	----	----
I2/S/MID-FLOOD	17-Oct-2017 09:40	HK1770220-047		2	2.8	----	----	----
I2/S/MID-FLOOD - Duplicate	17-Oct-2017 09:40	HK1770220-048		2	1.9	----	----	----
I2/B/MID-FLOOD	17-Oct-2017 09:40	HK1770220-049		4	1.6	----	----	----
I2/B/MID-FLOOD - Duplicate	17-Oct-2017 09:40	HK1770220-050		4	1.3	----	----	----
I3/S/MID-FLOOD	17-Oct-2017 09:40	HK1770220-051		<2	2.4	----	----	----
I3/S/MID-FLOOD - Duplicate	17-Oct-2017 09:40	HK1770220-052		<2	2.5	----	----	----
I3/B/MID-FLOOD	17-Oct-2017 09:40	HK1770220-053		3	1.5	----	----	----
I3/B/MID-FLOOD - Duplicate	17-Oct-2017 09:40	HK1770220-054		5	1.6	----	----	----
R1/S/MID-FLOOD	17-Oct-2017 09:40	HK1770220-055		3	4.4	----	----	----
R1/S/MID-FLOOD-Duplicate	17-Oct-2017 09:40	HK1770220-056		2	3.7	----	----	----
R1/M/MID-FLOOD	17-Oct-2017 09:40	HK1770220-057		4	4.3	----	----	----
R1/M/MID-FLOOD - Duplicate	17-Oct-2017 09:40	HK1770220-058		3	4.4	----	----	----
R1/B/MID-FLOOD	17-Oct-2017 09:40	HK1770220-059		2	4.9	----	----	----



Sub-Matrix: MARINE WATER

			Compound	EA025: Suspended Solids (SS)	EP008F: Chlorophyll a	----	----	----
			LOR Unit	2 mg/L	0.1 µg/L	----	----	----
Client sample ID	Client sampling date / time	Laboratory sample ID	EA/ED: Physical and Aggregate Properties	EP: Aggregate Organics	----	----	----	----
R1/B/MID-FLOOD-Duplicate	17-Oct-2017 09:40	HK1770220-060	2	4.9	----	----	----	----
R2/S/MID-FLOOD	17-Oct-2017 09:40	HK1770220-061	2	3.0	----	----	----	----
R2/S/MID-FLOOD-Duplicate	17-Oct-2017 09:40	HK1770220-062	3	4.5	----	----	----	----
R2/B/MID-FLOOD	17-Oct-2017 09:40	HK1770220-063	3	2.5	----	----	----	----
R2/B/MID-FLOOD-Duplicate	17-Oct-2017 09:40	HK1770220-064	2	2.7	----	----	----	----
W1/S/MID-FLOOD	17-Oct-2017 09:40	HK1770220-065	3	1.5	----	----	----	----
W1/S/MID-FLOOD-Duplicate	17-Oct-2017 09:40	HK1770220-066	4	2.0	----	----	----	----
W1/M/MID-FLOOD	17-Oct-2017 09:40	HK1770220-067	3	3.2	----	----	----	----
W1/M/MID-FLOOD-Duplicate	17-Oct-2017 09:40	HK1770220-068	3	2.8	----	----	----	----
W1/B/MID-FLOOD	17-Oct-2017 09:40	HK1770220-069	2	1.0	----	----	----	----
W1/B/MID-FLOOD-Duplicate	17-Oct-2017 09:40	HK1770220-070	3	1.0	----	----	----	----
M1/M/MID-FLOOD	17-Oct-2017 09:40	HK1770220-071	10	0.9	----	----	----	----
M1/M/MID-FLOOD-Duplicate	17-Oct-2017 09:40	HK1770220-072	11	0.9	----	----	----	----
FCZ1/S/MID-FLOOD	17-Oct-2017 09:40	HK1770220-073	6	6.1	----	----	----	----
FCZ1/S/MID-FLOOD-Duplicate	17-Oct-2017 09:40	HK1770220-074	6	9.8	----	----	----	----
FCZ1/B/MID-FLOOD	17-Oct-2017 09:40	HK1770220-075	6	8.7	----	----	----	----
FCZ1/B/MID-FLOOD-Duplicate	17-Oct-2017 09:40	HK1770220-076	5	11.9	----	----	----	----



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: 1184899)								
HK1770220-001	G1/S/MID-EBB	EA025: Suspended Solids (SS)	----	2	mg/L	3	3	0.00
HK1770220-013	I3/S/MID-EBB	EA025: Suspended Solids (SS)	----	2	mg/L	<2	<2	0.00
EA/ED: Physical and Aggregate Properties (QC Lot: 1184900)								
HK1770220-025	R2/B/MID-EBB	EA025: Suspended Solids (SS)	----	2	mg/L	3	2	0.00
HK1770220-035	FCZ1/S/MID-EBB	EA025: Suspended Solids (SS)	----	2	mg/L	4	3	0.00
EA/ED: Physical and Aggregate Properties (QC Lot: 1184901)								
HK1770220-047	I2/S/MID-FLOOD	EA025: Suspended Solids (SS)	----	2	mg/L	2	3	0.00
HK1770220-057	R1/M/MID-FLOOD	EA025: Suspended Solids (SS)	----	2	mg/L	4	4	0.00
EA/ED: Physical and Aggregate Properties (QC Lot: 1184902)								
HK1770220-067	W1/M/MID-FLOOD	EA025: Suspended Solids (SS)	----	2	mg/L	3	3	0.00
EP: Aggregate Organics (QC Lot: 1186691)								
HK1770220-001	G1/S/MID-EBB	EP008F: Chlorophyll a	----	0.1	mg/m ³	11.3 µg/L	10.6	6.68
EP: Aggregate Organics (QC Lot: 1186692)								
HK1770220-025	R2/B/MID-EBB	EP008F: Chlorophyll a	----	0.1	mg/m ³	12.6 µg/L	12.4	2.08
EP: Aggregate Organics (QC Lot: 1186693)								
HK1770220-047	I2/S/MID-FLOOD	EP008F: Chlorophyll a	----	0.1	mg/m ³	2.8 µg/L	2.7	5.11
EP: Aggregate Organics (QC Lot: 1186694)								
HK1770220-067	W1/M/MID-FLOOD	EP008F: Chlorophyll a	----	0.1	mg/m ³	3.2 µg/L	3.4	4.54

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						
Method: Compound	CAS Number	LOR	Unit	Result	Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPDs (%)	
						LCS	DCS	Low	High	Value	Control Limit
EA/ED: Physical and Aggregate Properties (QCLot: 1184899)											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	108	----	85	115	----	----
EA/ED: Physical and Aggregate Properties (QCLot: 1184900)											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	114	----	85	115	----	----
EA/ED: Physical and Aggregate Properties (QCLot: 1184901)											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	92.5	----	85	115	----	----
EA/ED: Physical and Aggregate Properties (QCLot: 1184902)											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	98.0	----	85	115	----	----
EP: Aggregate Organics (QCLot: 1186691)											
EP008F: Chlorophyll a	----	0.1	mg/m ³	<0.1	9.62 mg/m ³	114	----	85	115	----	----
EP: Aggregate Organics (QCLot: 1186692)											
EP008F: Chlorophyll a	----	0.1	mg/m ³	<0.1	9.62 mg/m ³	114	----	85	115	----	----



Matrix: WATER		Method Blank (MB) Report			Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report						
Method: Compound	CAS Number	LOR	Unit	Result	Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPDs (%)	
						LCS	DCS	Low	High	Value	Control Limit
EP: Aggregate Organics (QCLot: 1186693)											
EP008F: Chlorophyll a	----	0.1	mg/m ³	<0.1	9.62 mg/m ³	97.9	----	85	115	----	----
EP: Aggregate Organics (QCLot: 1186694)											
EP008F: Chlorophyll a	----	0.1	mg/m ³	<0.1	9.62 mg/m ³	97.7	----	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

<i>Client</i>	: ACTION UNITED ENVIRONMENT SERVICES AND CONSULTING	<i>Laboratory</i>	: ALS Technichem (HK) Pty Ltd	<i>Page</i>	: 1 of 7
<i>Contact</i>	: MR T W TAM	<i>Contact</i>	: Richard Fung	<i>Work Order</i>	: HK1770222
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<i>Project</i>	: TCS00874/16 - BATHING BEACH AT LUNG MEI, TAI PO	<i>Quote number</i>	: HK/5386g/2016	<i>Date received</i>	: 19-Oct-2017
<i>Order number</i>	: —			<i>Date of issue</i>	: 27-Oct-2017
<i>C-O-C number</i>	: —			<i>No. of samples</i>	- Received : 68
<i>Site</i>	: —				- Analysed : 68

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This document has been signed by those names that appear on this report and are the authorised signatories.

Signatory

Fung Lim Chee, Richard

Position

General Manager

Authorised results for:

Inorganics



Report Comments

This report for ALS Technichem (HK) Pty Ltd work order reference HK1770222 supersedes any previous reports with this reference. Testing period is from 19-Oct-2017 to 27-Oct-2017. 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 HK1770222 :

Sample(s) were received in chilled condition.

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

In marine and freshwater samples, chlorophyll b, if present, will cause some interference to the analysis of chlorophyll a.



Analytical Results

Sub-Matrix: MARINE WATER			Compound	EA025: Suspended Solids (SS)	EP008F: Chlorophyll a	----	----	----
			LOR Unit	2 mg/L	0.1 µg/L	----	----	----
Client sample ID	Client sampling date / time	Laboratory sample ID	EA/ED: Physical and Aggregate Properties	EP: Aggregate Organics	----	----	----	----
G1/S/MID-EBB	[19-Oct-2017]	HK1770222-001	4	14.8	----	----	----	
G1/S/MID-EBB - Duplicate	[19-Oct-2017]	HK1770222-002	2	11.5	----	----	----	
G1/B/MID-EBB	[19-Oct-2017]	HK1770222-005	3	8.8	----	----	----	
G1/B/MID-EBB- Duplicate	[19-Oct-2017]	HK1770222-006	4	8.4	----	----	----	
I1/M/MID-EBB	[19-Oct-2017]	HK1770222-007	2	10.8	----	----	----	
I1/M/MID-EBB- Duplicate	[19-Oct-2017]	HK1770222-008	3	12.5	----	----	----	
I2/S/MID-EBB	[19-Oct-2017]	HK1770222-009	4	13.0	----	----	----	
I2/S/MID-EBB- Duplicate	[19-Oct-2017]	HK1770222-010	2	14.2	----	----	----	
I2/B/MID-EBB	[19-Oct-2017]	HK1770222-011	4	11.0	----	----	----	
I2/B/MID-EBB- Duplicate	[19-Oct-2017]	HK1770222-012	5	11.1	----	----	----	
I3/S/MID-EBB	[19-Oct-2017]	HK1770222-013	5	15.3	----	----	----	
I3/S/MID-EBB- Duplicate	[19-Oct-2017]	HK1770222-014	3	14.5	----	----	----	
I3/B/MID-EBB	[19-Oct-2017]	HK1770222-015	3	10.8	----	----	----	
I3/B/MID-EBB- Duplicate	[19-Oct-2017]	HK1770222-016	3	9.4	----	----	----	
R1/S/MID-EBB	[19-Oct-2017]	HK1770222-017	3	11.2	----	----	----	
R1/S/MID-EBB- Duplicate	[19-Oct-2017]	HK1770222-018	3	11.1	----	----	----	
R1/B/MID-EBB	[19-Oct-2017]	HK1770222-021	3	6.9	----	----	----	
R1/B/MID-EBB- Duplicate	[19-Oct-2017]	HK1770222-022	4	7.2	----	----	----	
R2/S/MID-EBB	[19-Oct-2017]	HK1770222-023	4	83.8	----	----	----	
R2/S/MID-EBB- Duplicate	[19-Oct-2017]	HK1770222-024	5	76.8	----	----	----	
R2/B/MID-EBB	[19-Oct-2017]	HK1770222-025	5	40.0	----	----	----	
R2/B/MID-EBB- Duplicate	[19-Oct-2017]	HK1770222-026	4	39.6	----	----	----	
W1/S/MID-EBB	[19-Oct-2017]	HK1770222-027	<2	11.3	----	----	----	
W1/S/MID-EBB- Duplicate	[19-Oct-2017]	HK1770222-028	<2	10.8	----	----	----	
W1/M/MID-EBB	[19-Oct-2017]	HK1770222-029	4	15.9	----	----	----	
W1/M/MID-EBB- Duplicate	[19-Oct-2017]	HK1770222-030	3	14.9	----	----	----	
W1/B/MID-EBB	[19-Oct-2017]	HK1770222-031	3	16.2	----	----	----	
W1/B/MID-EBB- Duplicate	[19-Oct-2017]	HK1770222-032	4	17.1	----	----	----	
M1/M/MID-EBB	[19-Oct-2017]	HK1770222-033	3	41.1	----	----	----	
M1/M/MID-EBB- Duplicate	[19-Oct-2017]	HK1770222-034	3	43.5	----	----	----	



Sub-Matrix: MARINE WATER

			Compound	EA025: Suspended Solids (SS)	EP008F: Chlorophyll a	----	----	----
			LOR Unit	2 mg/L	0.1 µg/L	----	----	----
Client sample ID	Client sampling date / time	Laboratory sample ID		EA/ED: Physical and Aggregate Properties	EP: Aggregate Organics	----	----	----
FCZ1/S/MID-EBB	[19-Oct-2017]	HK1770222-035		2	11.4	----	----	----
FCZ1/S/MID-EBB-Duplicate	[19-Oct-2017]	HK1770222-036		3	12.1	----	----	----
FCZ1/B/MID-EBB	[19-Oct-2017]	HK1770222-037		2	6.5	----	----	----
FCZ1/B/MID-EBB-Duplicate	[19-Oct-2017]	HK1770222-038		3	5.1	----	----	----
G1/S/MID-FLOOD	[19-Oct-2017]	HK1770222-039		3	9.2	----	----	----
G1/S/MID-FLOOD - Duplicate	[19-Oct-2017]	HK1770222-040		5	10.0	----	----	----
G1/B/MID-FLOOD	[19-Oct-2017]	HK1770222-043		3	8.8	----	----	----
G1/B/MID-FLOOD - Duplicate	[19-Oct-2017]	HK1770222-044		4	8.6	----	----	----
I1/M/MID-FLOOD	[19-Oct-2017]	HK1770222-045		3	11.7	----	----	----
I1/M/MID-FLOOD - Duplicate	[19-Oct-2017]	HK1770222-046		2	11.2	----	----	----
I2/S/MID-FLOOD	[19-Oct-2017]	HK1770222-047		3	11.3	----	----	----
I2/S/MID-FLOOD - Duplicate	[19-Oct-2017]	HK1770222-048		3	11.0	----	----	----
I2/B/MID-FLOOD	[19-Oct-2017]	HK1770222-049		3	7.6	----	----	----
I2/B/MID-FLOOD - Duplicate	[19-Oct-2017]	HK1770222-050		2	7.6	----	----	----
I3/S/MID-FLOOD	[19-Oct-2017]	HK1770222-051		3	11.4	----	----	----
I3/S/MID-FLOOD - Duplicate	[19-Oct-2017]	HK1770222-052		3	12.0	----	----	----
I3/B/MID-FLOOD	[19-Oct-2017]	HK1770222-053		4	7.9	----	----	----
I3/B/MID-FLOOD - Duplicate	[19-Oct-2017]	HK1770222-054		3	9.4	----	----	----
R1/S/MID-FLOOD	[19-Oct-2017]	HK1770222-055		4	11.2	----	----	----
R1/S/MID-FLOOD-Duplicate	[19-Oct-2017]	HK1770222-056		4	11.2	----	----	----
R1/B/MID-FLOOD	[19-Oct-2017]	HK1770222-059		4	12.0	----	----	----
R1/B/MID-FLOOD-Duplicate	[19-Oct-2017]	HK1770222-060		4	12.4	----	----	----
R2/S/MID-FLOOD	[19-Oct-2017]	HK1770222-061		2	11.6	----	----	----



Sub-Matrix: MARINE WATER			Compound	EA025: Suspended Solids (SS)	EP008F: Chlorophyll a	----	----	----
			LOR Unit	2 mg/L	0.1 µg/L	----	----	----
Client sample ID	Client sampling date / time	Laboratory sample ID	EA/ED: Physical and Aggregate Properties	EP: Aggregate Organics	----	----	----	----
R2/S/MID-FLOOD-Duplicate	[19-Oct-2017]	HK1770222-062	3	10.9	----	----	----	----
R2/B/MID-FLOOD	[19-Oct-2017]	HK1770222-063	2	12.1	----	----	----	----
R2/B/MID-FLOOD-Duplicate	[19-Oct-2017]	HK1770222-064	4	10.3	----	----	----	----
W1/S/MID-FLOOD	[19-Oct-2017]	HK1770222-065	4	11.8	----	----	----	----
W1/S/MID-FLOOD-Duplicate	[19-Oct-2017]	HK1770222-066	3	9.4	----	----	----	----
W1/M/MID-FLOOD	[19-Oct-2017]	HK1770222-067	2	10.7	----	----	----	----
W1/M/MID-FLOOD-Duplicate	[19-Oct-2017]	HK1770222-068	2	11.6	----	----	----	----
W1/B/MID-FLOOD	[19-Oct-2017]	HK1770222-069	8	4.2	----	----	----	----
W1/B/MID-FLOOD-Duplicate	[19-Oct-2017]	HK1770222-070	6	3.8	----	----	----	----
M1/M/MID-FLOOD	[19-Oct-2017]	HK1770222-071	4	17.2	----	----	----	----
M1/M/MID-FLOOD-Duplicate	[19-Oct-2017]	HK1770222-072	4	16.4	----	----	----	----
FCZ1/S/MID-FLOOD	[19-Oct-2017]	HK1770222-073	7	10.2	----	----	----	----
FCZ1/S/MID-FLOOD-Duplicate	[19-Oct-2017]	HK1770222-074	6	10.2	----	----	----	----
FCZ1/B/MID-FLOOD	[19-Oct-2017]	HK1770222-075	5	8.6	----	----	----	----
FCZ1/B/MID-FLOOD-Duplicate	[19-Oct-2017]	HK1770222-076	5	9.2	----	----	----	----



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: 1189974)								
HK1770222-001	G1/S/MID-EBB	EA025: Suspended Solids (SS)	----	2	mg/L	4	4	0.00
HK1770222-013	I3/S/MID-EBB	EA025: Suspended Solids (SS)	----	2	mg/L	5	5	0.00
EA/ED: Physical and Aggregate Properties (QC Lot: 1189975)								
HK1770222-025	R2/B/MID-EBB	EA025: Suspended Solids (SS)	----	2	mg/L	5	3	44.4
HK1770222-035	FCZ1/S/MID-EBB	EA025: Suspended Solids (SS)	----	2	mg/L	2	2	0.00
EA/ED: Physical and Aggregate Properties (QC Lot: 1189976)								
HK1770222-047	I2/S/MID-FLOOD	EA025: Suspended Solids (SS)	----	2	mg/L	3	2	0.00
HK1770222-059	R1/B/MID-FLOOD	EA025: Suspended Solids (SS)	----	2	mg/L	4	3	0.00
EA/ED: Physical and Aggregate Properties (QC Lot: 1189977)								
HK1770222-069	W1/B/MID-FLOOD	EA025: Suspended Solids (SS)	----	2	mg/L	8	7	13.9
EP: Aggregate Organics (QC Lot: 1204194)								
HK1769454-063	Anonymous	EP008F: Chlorophyll a	----	0.1	mg/m ³	4.1 µg/L	4.6	10.6
EP: Aggregate Organics (QC Lot: 1204195)								
HK1770222-025	R2/B/MID-EBB	EP008F: Chlorophyll a	----	0.1	mg/m ³	40.0 µg/L	41.8	4.38
EP: Aggregate Organics (QC Lot: 1204196)								
HK1770222-047	I2/S/MID-FLOOD	EP008F: Chlorophyll a	----	0.1	mg/m ³	11.3 µg/L	10.9	3.97
EP: Aggregate Organics (QC Lot: 1204197)								
HK1770222-069	W1/B/MID-FLOOD	EP008F: Chlorophyll a	----	0.1	mg/m ³	4.2 µg/L	4.8	12.9
EP: Aggregate Organics (QC Lot: 1204198)								
HK1772344-001	Anonymous	EP008F: Chlorophyll a	----	0.1	mg/m ³	5.3 µg/L	5.7	7.05

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						
Method: Compound	CAS Number	LOR	Unit	Result	Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPDs (%)	
						LCS	DCS	Low	High	Value	Control Limit
EA/ED: Physical and Aggregate Properties (QCLot: 1189974)											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	102	----	85	115	----	----
EA/ED: Physical and Aggregate Properties (QCLot: 1189975)											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	108	----	85	115	----	----
EA/ED: Physical and Aggregate Properties (QCLot: 1189976)											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	90.0	----	85	115	----	----
EA/ED: Physical and Aggregate Properties (QCLot: 1189977)											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	106	----	85	115	----	----
EP: Aggregate Organics (QCLot: 1204194)											
EP008F: Chlorophyll a	----	0.1	mg/m ³	<0.1	10.1 mg/m ³	105	----	85	115	----	----



Matrix: WATER		Method Blank (MB) Report			Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report						
Method: Compound	CAS Number	LOR	Unit	Result	Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPDs (%)	
						LCS	DCS	Low	High	Value	Control Limit
EP: Aggregate Organics (QCLot: 1204195)											
EP008F: Chlorophyll a	----	0.1	mg/m ³	<0.1	9.62 mg/m ³	104	----	85	115	----	----
EP: Aggregate Organics (QCLot: 1204196)											
EP008F: Chlorophyll a	----	0.1	mg/m ³	<0.1	9.62 mg/m ³	109	----	85	115	----	----
EP: Aggregate Organics (QCLot: 1204197)											
EP008F: Chlorophyll a	----	0.1	mg/m ³	<0.1	9.62 mg/m ³	103	----	85	115	----	----
EP: Aggregate Organics (QCLot: 1204198)											
EP008F: Chlorophyll a	----	0.1	mg/m ³	<0.1	10.41 mg/m ³	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

<i>Client</i>	: ACTION UNITED ENVIRONMENT SERVICES AND CONSULTING	<i>Laboratory</i>	: ALS Technichem (HK) Pty Ltd	<i>Page</i>	: 1 of 7
<i>Contact</i>	: MR T W TAM	<i>Contact</i>	: Richard Fung	<i>Work Order</i>	: HK1769454
<i>Address</i>	: RM A 20/F., GOLD KING IND BLDG, NO. 35-41 TAI LIN PAI ROAD, KWAI CHUNG, N.T. HONG KONG	<i>Address</i>	: 11/F., Chung Shun Knitting Centre, 1 - 3 Wing Yip Street, Kwai Chung, N.T., Hong Kong		
<i>E-mail</i>	: Twtam@fordbusiness.com	<i>E-mail</i>	: richard.fung@alsglobal.com		
<i>Telephone</i>	: +852 2959 6059	<i>Telephone</i>	: +852 2610 1044		
<i>Facsimile</i>	: +852 2959 6079	<i>Facsimile</i>	: +852 2610 2021		
<i>Project</i>	: TCS00874/16 - BATHING BEACH AT LUNG MEI, TAI PO	<i>Quote number</i>	: HK/5386g/2016	<i>Date received</i>	: 21-Oct-2017
<i>Order number</i>	: —			<i>Date of issue</i>	: 27-Oct-2017
<i>C-O-C number</i>	: —			<i>No. of samples</i>	- Received : 74
<i>Site</i>	: —				- Analysed : 74

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This document has been signed by those names that appear on this report and are the authorised signatories.

Signatory

Fung Lim Chee, Richard

Position

General Manager

Authorised results for:

Inorganics



Report Comments

This report for ALS Technichem (HK) Pty Ltd work order reference HK1769454 supersedes any previous reports with this reference. Testing period is from 21-Oct-2017 to 27-Oct-2017. 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 HK1769454 :

Sample(s) were received in chilled condition.

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

In marine and freshwater samples, chlorophyll b, if present, will cause some interference to the analysis of chlorophyll a.



Analytical Results

Sub-Matrix: MARINE WATER			Compound	EA025: Suspended Solids (SS)	EP008F: Chlorophyll a	----	----	----
			LOR Unit	2 mg/L	0.1 µg/L	----	----	----
Client sample ID	Client sampling date / time	Laboratory sample ID	EA/ED: Physical and Aggregate Properties	EP: Aggregate Organics	----	----	----	----
G1/S/MID-EBB	[21-Oct-2017]	HK1769454-001	5	9.6	----	----	----	
G1/S/MID-EBB - Duplicate	[21-Oct-2017]	HK1769454-002	4	9.8	----	----	----	
G1/B/MID-EBB	[21-Oct-2017]	HK1769454-005	6	5.9	----	----	----	
G1/B/MID-EBB- Duplicate	[21-Oct-2017]	HK1769454-006	6	6.6	----	----	----	
I1/M/MID-EBB	[21-Oct-2017]	HK1769454-007	4	7.9	----	----	----	
I1/M/MID-EBB- Duplicate	[21-Oct-2017]	HK1769454-008	4	8.3	----	----	----	
I2/S/MID-EBB	[21-Oct-2017]	HK1769454-009	6	4.7	----	----	----	
I2/S/MID-EBB- Duplicate	[21-Oct-2017]	HK1769454-010	4	3.8	----	----	----	
I2/B/MID-EBB	[21-Oct-2017]	HK1769454-011	8	4.3	----	----	----	
I2/B/MID-EBB- Duplicate	[21-Oct-2017]	HK1769454-012	10	2.9	----	----	----	
I3/S/MID-EBB	[21-Oct-2017]	HK1769454-013	5	10.8	----	----	----	
I3/S/MID-EBB- Duplicate	[21-Oct-2017]	HK1769454-014	6	11.8	----	----	----	
I3/B/MID-EBB	[21-Oct-2017]	HK1769454-015	4	10.9	----	----	----	
I3/B/MID-EBB- Duplicate	[21-Oct-2017]	HK1769454-016	7	11.2	----	----	----	
R1/S/MID-EBB	[21-Oct-2017]	HK1769454-017	3	10.1	----	----	----	
R1/S/MID-EBB- Duplicate	[21-Oct-2017]	HK1769454-018	4	11.1	----	----	----	
R1/M/MID-EBB	[21-Oct-2017]	HK1769454-019	4	9.4	----	----	----	
R1/M/MID-EBB- Duplicate	[21-Oct-2017]	HK1769454-020	3	9.8	----	----	----	
R1/B/MID-EBB	[21-Oct-2017]	HK1769454-021	6	8.5	----	----	----	
R1/B/MID-EBB- Duplicate	[21-Oct-2017]	HK1769454-022	5	8.2	----	----	----	
R2/S/MID-EBB	[21-Oct-2017]	HK1769454-023	4	13.9	----	----	----	
R2/S/MID-EBB- Duplicate	[21-Oct-2017]	HK1769454-024	4	14.2	----	----	----	
R2/B/MID-EBB	[21-Oct-2017]	HK1769454-025	2	7.9	----	----	----	
R2/B/MID-EBB- Duplicate	[21-Oct-2017]	HK1769454-026	3	8.8	----	----	----	
W1/S/MID-EBB	[21-Oct-2017]	HK1769454-027	3	12.2	----	----	----	
W1/S/MID-EBB- Duplicate	[21-Oct-2017]	HK1769454-028	3	10.6	----	----	----	
W1/M/MID-EBB	[21-Oct-2017]	HK1769454-029	5	10.8	----	----	----	
W1/M/MID-EBB- Duplicate	[21-Oct-2017]	HK1769454-030	5	11.8	----	----	----	
W1/B/MID-EBB	[21-Oct-2017]	HK1769454-031	7	5.4	----	----	----	
W1/B/MID-EBB- Duplicate	[21-Oct-2017]	HK1769454-032	7	6.2	----	----	----	



Sub-Matrix: MARINE WATER			Compound	EA025: Suspended Solids (SS)	EP008F: Chlorophyll a	----	----	----
			LOR Unit	2 mg/L	0.1 µg/L	----	----	----
Client sample ID	Client sampling date / time	Laboratory sample ID	EA/ED: Physical and Aggregate Properties	EP: Aggregate Organics	----	----	----	----
M1/M/MID-EBB	[21-Oct-2017]	HK1769454-033	6	12.4	----	----	----	
M1/M/MID-EBB- Duplicate	[21-Oct-2017]	HK1769454-034	5	10.1	----	----	----	
FCZ1/S/MID-EBB	[21-Oct-2017]	HK1769454-035	4	12.4	----	----	----	
FCZ1/S/MID-EBB- Duplicate	[21-Oct-2017]	HK1769454-036	4	11.6	----	----	----	
FCZ1/B/MID-EBB	[21-Oct-2017]	HK1769454-037	4	8.4	----	----	----	
FCZ1/B/MID-EBB- Duplicate	[21-Oct-2017]	HK1769454-038	6	7.9	----	----	----	
G1/S/MID-FLOOD	[21-Oct-2017]	HK1769454-039	3	8.1	----	----	----	
G1/S/MID-FLOOD - Duplicate	[21-Oct-2017]	HK1769454-040	4	8.0	----	----	----	
G1/M/MID-FLOOD	[21-Oct-2017]	HK1769454-041	4	11.0	----	----	----	
G1/M/MID-FLOOD - Duplicate	[21-Oct-2017]	HK1769454-042	4	10.4	----	----	----	
G1/B/MID-FLOOD	[21-Oct-2017]	HK1769454-043	6	3.6	----	----	----	
G1/B/MID-FLOOD - Duplicate	[21-Oct-2017]	HK1769454-044	4	2.8	----	----	----	
I1/M/MID-FLOOD	[21-Oct-2017]	HK1769454-045	3	5.9	----	----	----	
I1/M/MID-FLOOD - Duplicate	[21-Oct-2017]	HK1769454-046	4	6.8	----	----	----	
I2/S/MID-FLOOD	[21-Oct-2017]	HK1769454-047	7	6.1	----	----	----	
I2/S/MID-FLOOD - Duplicate	[21-Oct-2017]	HK1769454-048	6	5.8	----	----	----	
I2/B/MID-FLOOD	[21-Oct-2017]	HK1769454-049	5	2.5	----	----	----	
I2/B/MID-FLOOD - Duplicate	[21-Oct-2017]	HK1769454-050	6	2.0	----	----	----	
I3/S/MID-FLOOD	[21-Oct-2017]	HK1769454-051	4	10.3	----	----	----	
I3/S/MID-FLOOD - Duplicate	[21-Oct-2017]	HK1769454-052	4	8.0	----	----	----	
I3/B/MID-FLOOD	[21-Oct-2017]	HK1769454-053	4	2.0	----	----	----	
I3/B/MID-FLOOD - Duplicate	[21-Oct-2017]	HK1769454-054	5	1.9	----	----	----	
R1/S/MID-FLOOD	[21-Oct-2017]	HK1769454-055	3	6.1	----	----	----	



Sub-Matrix: MARINE WATER

			Compound	EA025: Suspended Solids (SS)	EP008F: Chlorophyll a	----	----	----
			LOR Unit	2 mg/L	0.1 µg/L	----	----	----
Client sample ID	Client sampling date / time	Laboratory sample ID	EA/ED: Physical and Aggregate Properties	EP: Aggregate Organics	----	----	----	----
R1/S/MID-FLOOD-Duplicate	[21-Oct-2017]	HK1769454-056	4	7.9	----	----	----	----
R1/M/MID-FLOOD	[21-Oct-2017]	HK1769454-057	5	6.0	----	----	----	----
R1/M/MID-FLOOD - Duplicate	[21-Oct-2017]	HK1769454-058	3	6.7	----	----	----	----
R1/B/MID-FLOOD	[21-Oct-2017]	HK1769454-059	3	5.1	----	----	----	----
R1/B/MID-FLOOD-Duplicate	[21-Oct-2017]	HK1769454-060	5	3.0	----	----	----	----
R2/S/MID-FLOOD	[21-Oct-2017]	HK1769454-061	4	10.8	----	----	----	----
R2/S/MID-FLOOD-Duplicate	[21-Oct-2017]	HK1769454-062	6	10.9	----	----	----	----
R2/B/MID-FLOOD	[21-Oct-2017]	HK1769454-063	4	4.1	----	----	----	----
R2/B/MID-FLOOD-Duplicate	[21-Oct-2017]	HK1769454-064	4	2.8	----	----	----	----
W1/S/MID-FLOOD	[21-Oct-2017]	HK1769454-065	3	7.0	----	----	----	----
W1/S/MID-FLOOD-Duplicate	[21-Oct-2017]	HK1769454-066	5	8.1	----	----	----	----
W1/M/MID-FLOOD	[21-Oct-2017]	HK1769454-067	5	6.3	----	----	----	----
W1/M/MID-FLOOD-Duplicate	[21-Oct-2017]	HK1769454-068	6	5.6	----	----	----	----
W1/B/MID-FLOOD	[21-Oct-2017]	HK1769454-069	9	1.1	----	----	----	----
W1/B/MID-FLOOD-Duplicate	[21-Oct-2017]	HK1769454-070	8	1.4	----	----	----	----
M1/M/MID-FLOOD	[21-Oct-2017]	HK1769454-071	6	4.8	----	----	----	----
M1/M/MID-FLOOD-Duplicate	[21-Oct-2017]	HK1769454-072	6	6.5	----	----	----	----
FCZ1/S/MID-FLOOD	[21-Oct-2017]	HK1769454-073	5	10.6	----	----	----	----
FCZ1/S/MID-FLOOD-Duplicate	[21-Oct-2017]	HK1769454-074	6	11.2	----	----	----	----
FCZ1/B/MID-FLOOD	[21-Oct-2017]	HK1769454-075	5	9.9	----	----	----	----
FCZ1/B/MID-FLOOD-Duplicate	[21-Oct-2017]	HK1769454-076	6	10.5	----	----	----	----



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: 1198005)								
HK1769454-001	G1/S/MID-EBB	EA025: Suspended Solids (SS)	----	2	mg/L	5	6	0.00
HK1769454-013	I3/S/MID-EBB	EA025: Suspended Solids (SS)	----	2	mg/L	5	6	0.00
EA/ED: Physical and Aggregate Properties (QC Lot: 1198006)								
HK1769454-023	R2/S/MID-EBB	EA025: Suspended Solids (SS)	----	2	mg/L	4	4	0.00
HK1769454-033	M1/M/MID-EBB	EA025: Suspended Solids (SS)	----	2	mg/L	6	6	0.00
EA/ED: Physical and Aggregate Properties (QC Lot: 1198007)								
HK1769454-043	G1/B/MID-FLOOD	EA025: Suspended Solids (SS)	----	2	mg/L	6	6	0.00
HK1769454-053	I3/B/MID-FLOOD	EA025: Suspended Solids (SS)	----	2	mg/L	4	4	0.00
EA/ED: Physical and Aggregate Properties (QC Lot: 1198008)								
HK1769454-063	R2/B/MID-FLOOD	EA025: Suspended Solids (SS)	----	2	mg/L	4	5	0.00
HK1769454-073	FCZ1/S/MID-FLOOD	EA025: Suspended Solids (SS)	----	2	mg/L	5	6	0.00
EP: Aggregate Organics (QC Lot: 1204191)								
HK1769454-001	G1/S/MID-EBB	EP008F: Chlorophyll a	----	0.1	mg/m ³	9.6 µg/L	9.5	0.00
EP: Aggregate Organics (QC Lot: 1204192)								
HK1769454-023	R2/S/MID-EBB	EP008F: Chlorophyll a	----	0.1	mg/m ³	13.9 µg/L	15.8	12.8
EP: Aggregate Organics (QC Lot: 1204193)								
HK1769454-043	G1/B/MID-FLOOD	EP008F: Chlorophyll a	----	0.1	mg/m ³	3.6 µg/L	3.9	9.32
EP: Aggregate Organics (QC Lot: 1204194)								
HK1769454-063	R2/B/MID-FLOOD	EP008F: Chlorophyll a	----	0.1	mg/m ³	4.1 µg/L	4.6	10.6

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						
Method: Compound	CAS Number	LOR	Unit	Result	Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPDs (%)	
						LCS	DCS	Low	High	Value	Control Limit
EA/ED: Physical and Aggregate Properties (QC Lot: 1198005)											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	106	----	85	115	----	----
EA/ED: Physical and Aggregate Properties (QC Lot: 1198006)											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	110	----	85	115	----	----
EA/ED: Physical and Aggregate Properties (QC Lot: 1198007)											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	110	----	85	115	----	----
EA/ED: Physical and Aggregate Properties (QC Lot: 1198008)											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	114	----	85	115	----	----
EP: Aggregate Organics (QC Lot: 1204191)											
EP008F: Chlorophyll a	----	0.1	mg/m ³	<0.1	10.1 mg/m ³	93.9	----	85	115	----	----
EP: Aggregate Organics (QC Lot: 1204192)											



Matrix: WATER		Method Blank (MB) Report			Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report						
Method: Compound	CAS Number	LOR	Unit	Result	Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPDs (%)	
						LCS	DCS	Low	High	Value	Control Limit
EP: Aggregate Organics (QCLot: 1204192) - continued											
EP008F: Chlorophyll a	----	0.1	mg/m ³	<0.1	10.1 mg/m ³	104	----	85	115	----	----
EP: Aggregate Organics (QCLot: 1204193)											
EP008F: Chlorophyll a	----	0.1	mg/m ³	<0.1	10.1 mg/m ³	90.6	----	85	115	----	----
EP: Aggregate Organics (QCLot: 1204194)											
EP008F: Chlorophyll a	----	0.1	mg/m ³	<0.1	10.1 mg/m ³	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.

Appendix G

Baseline Monitoring Schedules

Baseline Marine Water Quality Monitoring Schedule

Scheduled Monitoring Day			Tides of Tai Po Kau		Proposed Sampling Time (#)	
			Mid-Ebb	Mid-Flood	Mid-Ebb	Mid-Flood
1st week	23-Sep-17	Sat	14:53	08:44	13:23 – 16:23	07:14 – 10:14
2 nd week	25-Sep-17	Mon	16:02	10:05	14:32 – 17:32	08:35 – 11:35
	29-Sep-17	Fri	07:56	16:11	06:26 – 09:26	14:41 – 17:41
	1-Oct-17	Sun	09:17	17:16	07:47 – 10:47	15:46 – 18:46
3 rd week	3-Oct-17	Tue	10:49	17:56	09:19 – 12:19	16:26 – 19:26
	5-Oct-17	Thu	12:38	18:57	11:08 – 14:08	17:27 – 20:27
	7-Oct-17	Sat	13:59	07:50	12:29 – 15:29	06:20 – 09:20
4 th week	9-Oct-17	Mon	15:16	09:20	13:46 – 16:56	07:50 – 10:50
	13-Oct-17	Fri	06:48	13:43	05:18 – 08:18	12:13 – 15:13
	15-Oct-17 *	Sun	Canceled			
5 th week	17-Oct-17	Tue	11:07	17:28	09:37 – 12:37	15:58 – 18:58
	19-Oct-17	Thu	12:35	18:43	11:05 – 14:05	17:13 – 20:13
	21-Oct-17	Sat	13:50	07:47	12:20 – 15:20	06:17 – 09:17

Remark:

(#) The water quality sampling will be undertaken within a 3-hour window of 1.5 hour before and 1.5 hour after mid flood and mid-ebb tides.

(*) Canceled due to the Tropical Cyclone Warning Signal No. 8 (KHANUN) issued on 15th Oct 2017; remedy monitoring is therefore scheduled on 21st Oct 2017.

Designated Water Quality Monitoring Location

Station	Coordinates		Description
	Easting	Northing	
R1	842307.4	835718.4	Reference Station - for the background water quality for Tolo Harbour as it is at the channel where the water exchange between the enclosed Plover Cove and Tolo Harbour take place. It is located at south of the Project dredging/sandfilling area.
R2	840739.4	836212.4	Reference Station - for the background water quality in the Plover Cove region. It is located at southwest of the Project dredging/sandfilling area.
I1	841338.5	836588.5	Impact Station - located outside the mixing zone of dredging/sandfilling works of the Project.
I2	841590.3	836601.2	Impact Station - located outside the mixing zone of dredging/sandfilling works of the Project.
I3	841807.0	836680.9	Impact Station - located outside the mixing zone of dredging/sandfilling works of the Project.
FCZ1	841180.6	835230.8	Sensitive Receiver - located at the Yim Tin Tsai East Fish Culture Zone, which is about 1.5 km distance to the southwest of the dredging/sandfilling area.
W1	841858.9	836571.0	Sensitive Receiver - located at the Water Sport Centre, which is about 0.25 km distance to the southeast of the dredging/sandfilling area.
M1	840822.2	836416.4	Sensitive Receiver - located at the Ting Kok SSSI, which is about 0.8 km distance to the west of the dredging/sandfilling area.
G1	841483.9	835936.1	Gradient Station - to assist in the identification of the source of any impact.

Appendix H

Meteorological Data during Baseline Monitoring (Tai Po Station / Tai Mei Tuk Station)

Meteorological Data during Baseline Monitoring

Date		Weather	Total Rainfall (mm)	Tai Po Station	Tai Mei Tuk Station		
				Mean Relative Humidity (%)	Mean Air Temp. (°C)	Wind Speed (km/h)	Wind Direction (degrees)
23-Sep-17	Sat	Very hot with sunny periods	33.4	87	28.7	20.3	060
25-Sep-17	Mon	Hot with sunny periods and a few showers.	0.5	85#	28.5	11.0	120
29-Sep-17	Fri	Mainly cloudy with a few showers.	Trace	81	29.5	16.4	090
1-Oct-17	Sun	Mainly cloudy with a few showers.	6.6	90	27.2	17.7	050
3-Oct-17	Tue	Mainly cloudy with a few showers.	0	83	29.1	11.6	040
5-Oct-17	Thu	Moderate east to northeasterly winds	Trace	78	28.2	19.8	100
7-Oct-17	Sat	Moderate to fresh easterly winds	0	78	28.8	21.3	100
9-Oct-17	Mon	Moderate east to northeasterly winds	Trace	75	29.1	27.1	060
13-Oct-17	Fri	Fresh north to northeasterly winds,	0	64	25.8	16.3	030
17-Oct-17	Tue	Mainly cloudy with a few showers.	41.3	92	24.6	18.7	040
19-Oct-17	Thu	Moderate east to northeasterly winds	0	71	24.0	12.7	010
21-Oct-17	Sat	Mainly fine and dry	0	63	22.9	16.8	030

* Unavailable

Data is incomplete