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**South-East Asia Japan Cable System (SJC)**

**Hong Kong Segment**

**Post Environmental Impact Monitoring and Site  
Audit Report**

**November 2012**


**ATKINS**

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## **EXECUTIVE SUMMARY**

The site preparation works for the SJC cable network system commenced on 21 June 2012 and all construction activities within HKSAR boundary was completed on 11 October 2012. Atkins China Limited (ACL) has been appointed as the Environmental Team (ET) to undertake environmental management and monitoring work in accordance with the EM&A Manual.

This is the Post Monitoring Report for the works specified in the Environmental Permit (EP-423/2011/A) and Environmental Monitoring and Audit (EM&A) Manual. This report summarises the findings and results of the EM&A during the reporting period of the twelve weeks of works and covers the reporting period 21 June 2012 to 14 October 2012.

### **Environmental Monitoring and Audit Progress**

The EM&A programme have been undertaken in accordance with the approved EM&A Manual. A summary of the monitoring activities performed in the reporting period is summarised below:

- Water quality monitoring was conducted on 28 June 2012, 6, 12, 14, 17 and 19 July 2012, 1, 4, 6 and 7 September, and 11 October 2012 during mid-ebb and mid-flood tide periods.
- Marine mammal monitoring was undertaken from 20 July 2012 to 21 July 2012. No marine mammals were observed during the monitoring period.

### **Exceedance of Action and Limit Levels**

During the water quality monitoring period, exceedances of Limit Level (LL) of DO were recorded on 28 June, 6, 12 and 14 July 2012. Action Level (AL) exceedances of DO were recorded on 12, 14 and 19 July 2012. AL exceedances of Turbidity were recorded on 6 July 2012 and AL exceedances of SS were recorded on 14 July. All exceedances were considered as non-project related.

### **Complaint Log**

No complaints were received in relation to environmental impact during the reporting period.

### **Notifications of Summons and Prosecutions**

No notifications of summons and prosecutions received during the reporting period.

### **Site Inspection and Audit**

Environmental site inspections for shore based works were undertaken on 22 and 25 June, 5, 13, 19, 27 and 30 July, 9, 15 and 23 August 2012.

According to Contractor and based on the site inspection on 23 August 2012. Shore based construction and reinstatements were completed and no more shore based site activities were anticipated. Therefore, no onwards site inspection was necessary undertaken for the

project.

## **1. INTRODUCTION**

### **1.1 Background of the Project**

1.1.1 South-East Asia Japan Cable System (SJC) is a submarine cable system linking South-East Asia to Japan. SJC will provide direct access and diverse routing between Singapore, the Philippines, Hong Kong, China, Brunei and Japan. The cable system will span approx. 8,900km and will be mainly composed of a seven-fibre pair high capacity submarine cable system with a design capacity of 17.9 terabits per second. The project will increase the broadband capacity of Hong Kong.

1.1.2 The Project is classified as a Designated Project under Item C12 of Part I Schedule 2 of the Environmental Impact Assessment Ordinance (EIAO): “A *dredging operation which is (a) less than 500 metres from the nearest boundary of an existing or planned (iii) bathing beach; and (vii) coastal protection area*”.

1.1.3 In accordance with the EIAO, an environmental assessment was undertaken and a Project Profile was submitted to the Environmental Protection Department (EPD) (PP-444/2011) for an Application for Permission to Apply Directly for Environmental Permit for the project (Application No. DIR-213/2011) (DIR). The DIR was granted by EPD on 1<sup>st</sup> August 2011 with conditions.

1.1.4 Atkins China Limited (ACL) has been appointed as the Environmental Team (ET) to undertake environmental management and monitoring work in accordance with the EM&A Manual and required under the Variation of Environmental Permit (No. EP-423/2011/A) issued to China Telecom (Hong Kong) International Limited in October 2011 for the Project of South-East Asia Japan Cable System (SJC) — Hong Kong Segment.

1.1.5 This is the Post Monitoring Report for the works specified in the Environmental Monitoring and Audit (EM&A) Manual. This report summarises the results and findings of the EM&A during the reporting period 21 June 2012 to 14 October 2012.

### **1.2 Summary of Impact EM&A Requirements**

1.2.1 The EM&A programme requires environmental monitoring for water quality, marine mammals and construction and demolition waste management, as specified in the EM&A Manual. This has been conducted accordingly.

### **1.3 Major Works undertaken during Reporting Period**

- Minor excavation of a trench from beach manhole to allow cable laying;
- Injection jetting works;
- Cable laying and burial works;

## 2. MONITORING RESULTS

### 2.1 Water Quality

#### *Programme*

2.1.1 The water quality monitoring programme for this reporting period is presented in **Table 2.1-** Water Quality Monitoring Programme.

**Table 2.1- Water Quality Monitoring Programme**

<b>Date of Sampling</b>	<b>Tidal State</b>	<b>Time of Sampling</b>
28 June 2012	Mid-Ebb	06:25- 09:05
	Mid-Flood	11:25- 14:05
6 July 2012	Mid-Ebb	05:35- 09:05
	Mid-Flood	12:25- 15:55
12 July 2012	Mid-Ebb	11:30- 14:10
	Mid-Flood	06:40- 09:20
14 July 2012	Mid-Ebb	08:30- 11:10
	Mid-Flood	14:50- 17:10
17 July 2012	Mid-Ebb	10:30- 11:10
	Mid-Flood	18:00- 18:40
19 July 2012	Mid-Ebb	12:30- 13:10
	Mid-Flood	19:00- 19:40
1 September 2012	Mid-Ebb	11:00- 14:30
	Mid-Flood	04:32- 08:02
4 September 2012	Mid-Ebb	12:40- 16:10
	Mid-Flood	06:37- 10:07
6 September 2012	Mid-Ebb	13:42- 17:12
	Mid-Flood	08:03- 11:33
7 September 2012	Mid-Ebb	14:11- 17:41
	Mid-Flood	08:57- 12:27
11 October 2012	Mid-Ebb	07:45-10.25
	Mid-Flood	14:20-17:00

#### *Monitoring Stations*

2.1.2 Seventeen water quality monitoring stations were sampled during the impact water quality monitoring (See **Figure 2-1**) and listed in **Table 2-2** as follows. These stations are applicable for works undertaken during installation of the cable in Stanley Bay.



**Table 2.2- Impact Water Quality Monitoring Stations**

Monitoring Station	Co-ordinates		Station Purpose
A1	839451	808265	180m from point A
A2	839511	808265	120m from point A
A3	839571	808265	60m from point A
A4	839691	808265	60m from point A
A5	839751	808265	120m from point A
A6	839811	808265	180m from point A
B1	839408	808160	180m from point B
B2	839468	808160	120m from point B
B3	839528	808160	60m from point B
B4	839648	808160	60m from point B
B5	839708	808160	120m from point B
B6	839768	808160	180m from point B
C	840081	808353	Control Station
D1	839429	808641	100m from point D
D2	839540	808552	100m from point D
D3	839453	808443	100m from point D
D4	839344	808531	100m from point D

### **Methodology**

- 2.1.3 Water quality monitoring was conducted in accordance with the methodology described in the EM&A Manual.
- 2.1.4 The water quality parameters monitored included dissolved oxygen (DO) (% saturation and mg/L), temperature, turbidity (NTU), salinity and suspended solids (SS). DO, temperature, turbidity and salinity were measured *in-situ* whereas SS was determined by laboratory analysis.
- 2.1.5 Laboratory analysis of SS was carried out at ALS Laboratory Group, a recognised HOKLAS accredited laboratory. The calibration certificates for the monitoring equipment are presented in **Annex A**.

### **Action & Limited Levels**

- 2.1.6 The calculated Action Level and Limit Levels are shown in **Table 2-3**.

**Table 2.3- Calculated Action and Limit Levels for Water Quality**

Parameter	Depth	Action Level	Limit Level
DO in mg/L	Surface & Middle	6.30	5.70
	Bottom	6.10	5.20
Turbidity in NTU*	Depth-averaged	7.41	13.7
SS in mg/L	Depth-averaged	8.00	15.46

\* Extreme Data (Turbidity > 20 NTU) were excluded when calculating the Action and Limit Levels

## **Results**

- 2.1.7 The water quality monitoring was undertaken on 28 June, 6, 12, 14, 17 and 19 July, 1, 4, 6 and 7 September and 11 October 2012.
- 2.1.8 The summarised data of the weekly water quality monitoring at each monitoring location during marine works are presented in **Annex B**. All water quality monitoring data and laboratory results at each monitoring location are provided in full in **Annex C**. The recorded field transcripts of the water quality monitoring data were checked in hard copy with the electronic version of the results and were found to be accurate.
- 2.1.9 The analysis of weekly water quality monitoring data is demonstrated as in followed:

### **Mid-Ebb**

#### **28 June 2012**

- 2.1.10 During mid-ebb survey, the range of DO level from 3.5mg/L to 8.7mg/L with and saturation level from 51.8% to 123.6%. The range of turbidity measurement was 1.5 to 6.1 NTU with SS content from <2 mg/L to 8 mg/L. The recorded temperature was within the expected range and values for these waters during the time of monitoring.
- 2.1.11 The DO Limit level and Action level exceedances were found on the middle and bottom level. A moderate thermocline and halocline was observed for the exceeding stations, which would limit water exchange with the surface and thus result in depleted oxygen levels measures on the bottom. This is a natural phenomenon common during Summer time when surface temperatures are high and surface salinities low compared with bottom waters. Therefore, the exceedances of Limit Level of DO were considered non-project related.

#### **6 July 2012**

- 2.1.12 During mid-ebb survey, the range of DO level from 6.5mg/L to 7.6mg/L with and saturation level form 95.6% to 111.3%. The range of turbidity measurement was 1.1 to 6 NTU with SS content from 2 mg/L to 9 mg/L. The recorded temperature was within the expected range and values for these waters during the time of monitoring.
- 2.1.13 The SS Action Level exceedances were found on the surface and middle level. According the site observation and contractor record, No injection jetting by cable laying vessel was conducted on the sampling day. Therefore, the exceedances of Limit Level of DO were considered non-project related.

#### **12 and 14 July 2012**

- 2.1.14 During mid-ebb survey, the range of DO level from 2.3mg/L to 10.1mg/L with and saturation level from 32.9% to 149.5%. The range of turbidity measurement was 1.1 to 6.9 NTU with SS content from <2 mg/L to 10 mg/L. The recorded temperature was within the expected range and values for these waters during the time of monitoring.
- 2.1.15 The DO Limit Level and Action Level exceedances were found on the middle and

bottom level. A moderate thermocline and halocline was observed for the exceeding stations, which would limit water exchange with the surface and thus result in depleted oxygen levels measures on the bottom. This is a natural phenomenon common during the summer when surface temperatures are high and surface salinities low compared with bottom waters. Therefore, the exceedances of Limit Level of DO were considered non-project related.

- 2.1.16 The SS Action Level exceedance was found at the bottom of D2. According the site observation and contractor record, No cable laying vessel and marine works by diver was conducted near the monitoring location on the sampling day. Therefore, the exceedances of Action Level of SS were considered non-project related.

#### **17 and 19 July 2012**

- 2.1.17 During mid-ebb survey, the range of DO level from 2.7mg/L to 8.5mg/L with a saturation level from 38.2% to 126.8%. The range of turbidity measurement was 1.1 to 3.6 NTU with SS content from <2 mg/L to 6 mg/L. The recorded temperature was within the expected range and values for these waters during the time of monitoring.

- 2.1.18 The DO Action Level exceedances were found on the middle and bottom levels at station D1, D2 and D3. Also, a Limit Level exceedance was found at the middle level of D4. A moderate thermocline and halocline was observed for the exceeding stations, which would limit water exchange with the surface and thus result in depleted oxygen levels measures on the bottom. This is a natural phenomenon common during the summer when surface temperatures are high and surface salinities low compared with bottom waters. Therefore, the exceedance of Limit Level of DO was considered non-project related.

#### **1 September 2012**

- 2.1.19 During mid-ebb survey, the range of DO level from 7.5mg/L to 7.8mg/L with an saturation level form 112.7% to 118.2%. The range of turbidity measurement was 1.0 to 2.2 NTU with SS content from 2 mg/L to 4 mg/L. The recorded temperature was within the expected range and values for these waters during the time of monitoring.
- 2.1.20 No DO and SS exceedance was found during the monitoring period.

#### **4, 6 and 7 September 2012**

- 2.1.21 During mid-ebb survey, the range of DO level from 6.7mg/L to 8mg/L with a saturation level form 100.1% to 120.1%. The range of turbidity measurement was 1.4 to 4 NTU with SS content from 2 mg/L to 5 mg/L. The recorded temperature was within the expected range and values for these waters during the time of monitoring.
- 2.1.22 No DO and SS exceedances were found during the monitoring period.

#### **11 October 2012**

- 2.1.23 No DO, Turbidity and SS Level exceedances were found during the proposed water quality monitoring.

### **Mid-Flood**

#### **28 June 2012**

- 2.1.24 During mid-flood survey, the range of DO level from 3.6mg/L to 14.5mg/L with and saturation level from 52.5% to 210.9%. The range of turbidity measurement was 1.9 to 6.7 NTU with SS content from <2 mg/L to 5 mg/L. The recorded temperature was within the expected range and values for these waters during the time of monitoring.
- 2.1.25 The DO Limit level and Action level exceedances were found on the middle and bottom level. A moderate thermocline and halocline was observed for the exceeding stations, which would limit water exchange with the surface and thus result in depleted oxygen levels measures on the bottom. This is a natural phenomenon common during the summer when surface temperatures are high and surface salinities low compared with bottom waters. Therefore, the exceedances of Limit Level of DO were considered non-project related.

#### **6 July 2012**

- 2.1.26 During mid-flood survey, the range of DO level from 3.9mg/L to 9.6mg/L with and saturation level from 56.3% to 142.0%. The range of turbidity measurement was 0.9 to 7.5 NTU with SS content from <2 mg/L to 9 mg/L. The recorded temperature was within the expected range and values for these waters during the time of monitoring.
- 2.1.27 The DO Limit Level and Action Level exceedances were found on the middle and bottom level. A moderate thermocline and halocline was observed for the exceeding stations, which would limit water exchange with the surface and thus result in depleted oxygen levels measures on the bottom. This is a natural phenomenon common during the summer when surface temperatures are high and surface salinities low compared with bottom waters. Therefore, the exceedances of Limit Level of DO were considered non-project related.
- 2.1.28 The Turbidity Action Level exceedance was found at the bottom of B6. According the site observation and contractor record, No injection jetting by cable laying vessel was conducted on the sampling day. Therefore, the exceedances of Limit Level of DO were considered non-project related.

#### **12 and 14 July 2012**

- 2.1.29 During mid-flood survey, the range of DO level from 2.3mg/L to 8.7mg/L with and saturation level from 32.9% to 126.6%. The range of turbidity measurement was 1.2 to 7 NTU with SS content from <2 mg/L to 11 mg/L. The recorded temperature was within the expected range and values for these waters during the time of monitoring.
- 2.1.30 The DO Limit Level and Action Level exceedances were found on the middle and bottom level. A moderate thermocline and halocline was observed for the exceeding stations, which would limit water exchange with the surface and thus result in depleted oxygen levels measures on the bottom. This is a natural phenomenon common during the summer when surface temperatures are high and surface salinities low compared with bottom waters. Therefore, the exceedances of Limit Level of DO were considered non-project related.

- 2.1.31 The SS Action Level exceedance was found at the bottom of D2 and B2. According to the site observation and contractor record, no cable laying vessel was conducted near the monitoring location on the monitoring period. Therefore, the exceedances of Action Level of SS were considered non-project related.

#### **17 and 19 July 2012**

- 2.1.32 During mid-flood survey, the range of DO level from 7.2mg/L to 10.2mg/L with a saturation level from 106.0% to 152.3%. The range of turbidity measurement was 1.3 to 3.0 NTU with SS content from <2 mg/L to 6 mg/L. The recorded temperature was within the expected range and values for these waters during the time of monitoring.
- 2.1.33 No DO Limit and Action Levels exceedances were found of surface, middle and bottom levels.

#### **1 September 2012**

- 2.1.34 During mid-flood survey, the range of DO level from 7.5mg/L to 8.0mg/L with a saturation level from 113.1% to 120.1%. The range of turbidity measurement was 0.8 to 2.5 NTU with SS content from 2 mg/L to 5 mg/L. The recorded temperature was within the expected range and values for these waters during the time of monitoring.
- 2.1.35 No DO and SS exceedances were found during the monitoring period.

#### **4, 6 and 7 September 2012**

- 2.1.36 During mid-flood survey, the range of DO level from 6mg/L to 7.2mg/L with a saturation level from 91.2% to 109.1%. The range of turbidity measurement was 1.3 to 3.8 NTU with SS content from 2 mg/L to 7 mg/L. The recorded temperature was within the expected range and values for these waters during the time of monitoring.
- 2.1.37 No DO and SS exceedances were found during the monitoring period.

#### **11 October 2012**

- 2.1.38 No DO, Turbidity and SS Level exceedances were found during the proposed water quality monitoring.

## **2.2 Marine Mammals**

- 2.2.1 The marine works within marine mammals inspection area in accordance with the EM&A manual were undertaken from the 20 July 2012 to 21 July 2012. This took place during cable laying works by injection jetting method on 20 July 2012 and 21 July 2012. No marine mammals were observed during the monitoring period.
- 2.2.2 The marine work was finished the section of marine mammals inspection area on 21 July 2012. No marine mammal inspection was necessary for the project.

## **2.3 Construction and Demolition Waste Management**

- 2.3.1 The weekly environmental site inspections were undertaken on 22 and 25 June, 5, 13, 19, 27 and 30 July, as well as, 9, 15 and 23 August 2012 during the reporting period.
- 2.3.2 According to the Contractor and based on the site inspection on 23 August 2012, shore-based construction and reinstatement were completed and no more shore-based site activities were anticipated. Therefore, no construction and demolition waste was generated during onwards project time.

### 3. ENVIRONMENTAL NON-COMPLIANCE AND COMPLAINTS

#### 3.1 Environmental Exceedances

##### *Water Quality*

- 3.1.1 For weekly water quality during marine works, the exceedances of DO, turbidity and SS in water quality criteria are shown in **Annex B**.
- 3.1.2 Water quality monitoring was conducted on 28 June 2012 during reporting period. Exceedances of Limit Level of DO were recorded on 28 June 2012. No injection jetting by cable laying vessel was conducted on the sampling days due to a fault in the cable. A moderate thermocline and halocline was observed for the exceeding stations, which would limit water exchange with the surface and thus result in depleted oxygen levels measures on the bottom. This is a natural phenomenon common during Summer time when surface temperatures are high and surface salinities low compared with bottom waters. Therefore, the exceedances of Limit Level of DO were considered non-project related.
- 3.1.3 Water quality monitoring was conducted on 6 July 2012. Exceedance of Action and Limit Level of DO was recorded during mid-flood tide on 6 July 2012. No injection jetting by cable laying vessel was conducted on the sampling day. A moderate thermocline and halocline was observed for the exceeding stations, which would limit water exchange with the surface and thus result in depleted oxygen levels measures on the bottom. This is a natural phenomenon common during Summer time when surface temperatures are high and surface salinities low compared with bottom waters. Therefore, the exceedance of Limit Level of DO was considered that the exceedances were not related to the project works.
- 3.1.4 The Turbidity Action Level exceedance was found at the bottom level at B6 during mid-flood tide and SS Action Level exceedances were found on the surface and middle level during mid-ebb tide. According the site observation and contractor record, No injection jetting by cable laying vessel was conducted on the sampling day. Therefore, the exceedances of Limit Level of DO were considered non-project related.
- 3.1.5 Water quality monitoring was conducted on 12 and 14 July 2012. The DO Limit Level and Action Level exceedances were found during mid-ebb tide (14 July 2012) and mid-flood tide (12 and 14 July 2012). A moderate thermocline and halocline was observed for the exceeding stations, which would limit water exchange with the surface and thus result in depleted oxygen levels measures on the bottom. This is a natural phenomenon common during the summer when surface temperatures are high and surface salinities low compared with bottom waters. Therefore, the exceedances of Limit Level of DO were considered non-project related.
- 3.1.6 The SS Action Level exceedance was found at the bottom of D2 (mid-ebb tide) and B2 (mid-flood tide) on 14 July 2012. According the site observation and contractor record, no cable laying vessel was conducted near the monitoring location on the monitoring period. Therefore, the exceedances of Action Level of SS were considered non-project related.
- 3.1.7 Water quality monitoring was conducted on 19 July 2012. During mid-ebb tide, the

DO Action Level exceedances were recorded at the middle and bottom levels of D4. On the same date and monitoring station, a Limit Level exceedance was found at the middle level. A moderate thermocline and halocline was observed for the exceeding stations, which would limit water exchange with the surface and thus result in depleted oxygen levels measures on the bottom. This is a natural phenomenon common during the summer when surface temperatures are high and surface salinities low compared with bottom waters. Therefore, the exceedance of Limit Level of DO was considered non-project related.

3.1.8 Water quality monitoring was conducted on 1 September 2012. No DO and SS exceedances were record in the reporting period.

3.1.9 Water quality monitoring was conducted on 4, 6 and 7 September 2012. No DO and SS exceedances were record in the reporting period.

3.1.10 No DO, Turbidity and SS Level exceedances were found during the proposed water quality monitoring undertaken on 11 October 2012.

### **3.2 Site Inspections**

3.2.1 A summary of findings of the environmental site inspections conducted during the monitoring is presented in **Table 3-1**. No-compliances were recorded for the reporting period.



**Table 3.1- Summary of Environmental Site Inspections**

Date of Inspection	Observation	Action
22 June 2012	Nil.	No environmental observation was found during the site inspection. The contractor was reminded to pay particular attention during fuel/chemical handling to avoid contamination.
25 June 2012	Nil.	No environmental observation was found during the site inspection. The contractor was reminded to avoid the sandy water flow to sea directly during excavation.
5 July 2012	Nil.	No environmental observation was found during the site inspection.
13 July 2012	General refuses were found in the shore area but it is not project-related.	Nil.
19 July 2012	General refuse were found in the shore area but it is not project-related.	Nil.
27 July 2012	No beach works were carried out since 20 July 2012. General refuses were found in the shore area but it is not project-related.	Nil.
30 July 2012	No beach works were carried out since 20 July 2012. General refuses were found in the shore area but it is not project-related.	Nil.
9 August 2012	The paved works were carried out since 8 August 2012. General refuses were found in the shore area but it is not project-related.	Nil.
15 August 2012	The paved works were almost completed. The general refuses were found in the shore area butt it is not project-related.	Nil.
23 August 2012	The shore based works were completed. The general refuses were found in the shore area but it is not project-related.	Nil.

3.2.2 According to Contractor and based on the site inspection on 23 August 2012, shore based construction and reinstatements were completed and no more shore based site activities were anticipated. Therefore, no onwards site inspections were undertaken for the project.

### 3.3 Environmental Complaint

3.3.1 No complaints were received in relation to environmental impact during the reporting period.

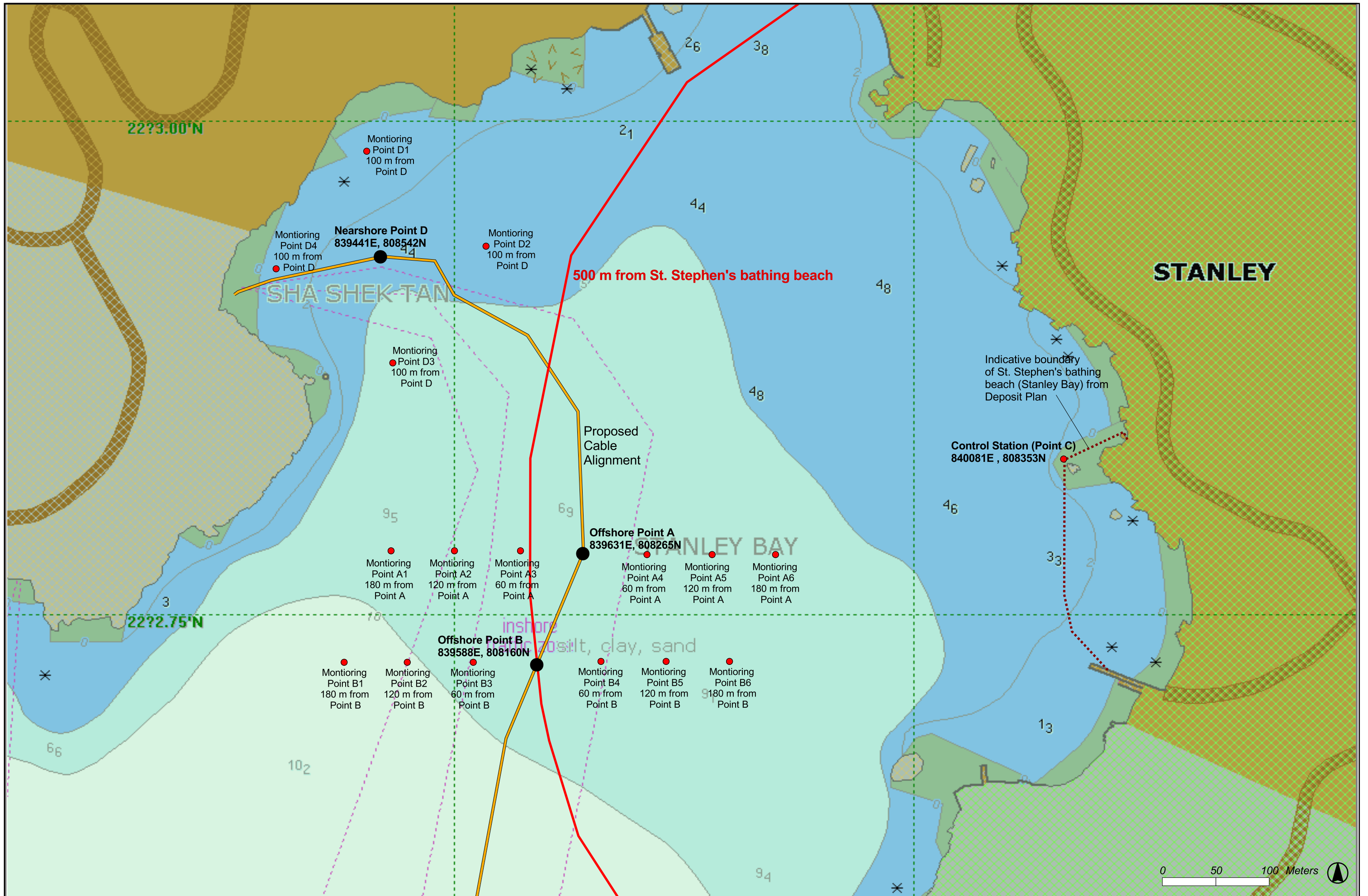
#### **4. CONCLUSION**

- 4.1.1 This is the Post t Monitoring Report prepared by Atkins China Limited (ACL), for the consultancy services for the south-East Asia Japan Cable System (SJC) Project. This report been prepared in compliance with the Environmental Permit (EP-423/2011/A) and associated EM&A Manual, and covers the reporting period 21 June 2012 to 14 October 2012.
- 4.1.2 During the water quality monitoring period, exceedances of Limit Level (LL) of DO were recorded on 28 June, 6, 12 and 14 July 2012. Action Level (AL) exceedances of DO were recorded on 12, 14 and 19 July 2012. AL exceedances of Turbidity were recorded on 6 July 2012 and AL exceedances of SS were recorded on 14 July. All exceedances were considered as non project-related.
- 4.1.3 Environmental site inspections for shore based works were undertaken on 22 and 25 June, 5, 13, 19, 27 and 30 July, 9, 15 and 23 August 2012.
- 4.1.4 No non-compliance recorded nor complaint received during the reporting period 21 June 2012 to 14 October 2012.
- 4.1.5 All construction activities within HKSAR boundary was completed on 11 October 2012
- 4.1.6 Overall, no environmental impacts were arising from the project activities. This was because of all potential environmental impacts were controlled and proposed mitigation measures were implemented during the reporting period.

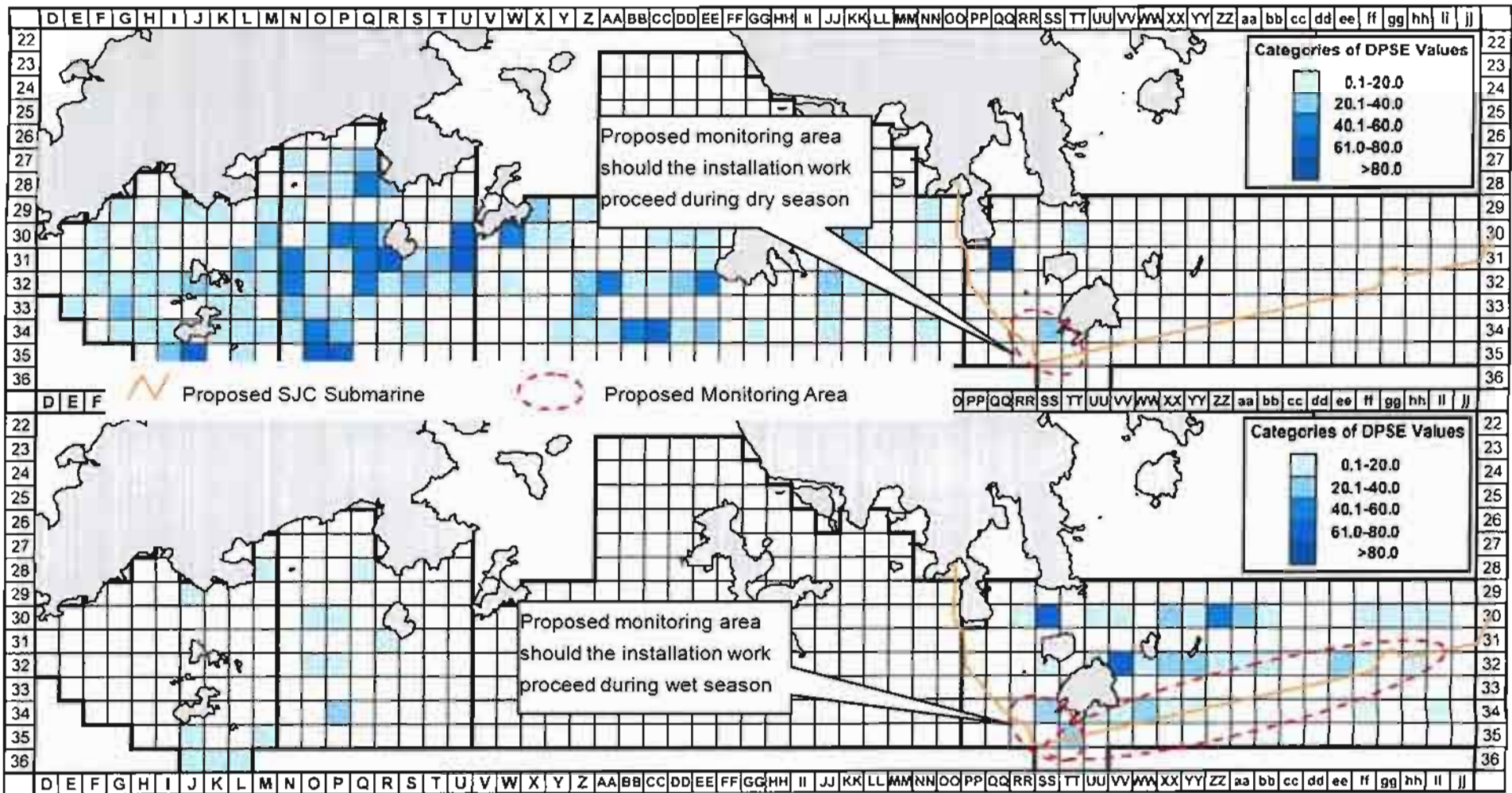
## ***Figures***

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Density of finless porpoises with corrected survey effort per km<sup>2</sup> in southern waters of Hong Kong during dry season (top) and wet season (bottom). using data collected during 2004-09 (DPSE = no. of porpoises per 100 units of survey effort)

## ***Annex A***

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# ***Calibration Certificates for Water Quality Monitoring Equipment***



## ALS Technichem (HK) Pty Ltd

### REPORT OF EQUIPMENT PERFORMANCE CHECK/CALIBRATION

**CONTACT:** MR IVAN LEUNG  
**CLIENT:** ALS TECHNICHEM (HK) PTY LTD  
**ADDRESS:** 11/F., CHUNG SHUN KNITTING CENTRE,  
1-3 WING YIP STREET,  
KWAI CHUNG,  
N.T., HONG KONG

**WORK ORDER:** HK1210017  
**LABORATORY:** HONG KONG  
**DATE RECEIVED:** 17/04/2012  
**DATE OF ISSUE:** 20/04/2012

#### COMMENTS

It is certified that the item under calibration/checking has been calibrated/checked by corresponding calibrated equipment in the laboratory.

Maximum Tolerance and calibration frequency stated in the report, unless otherwise stated, the internal acceptance criteria of ALS will be followed.

Scope of Test: Conductivity, Dissolved Oxygen, pH, Salinity, Temperature and Turbidity  
Description: YSI Sonde  
Brand Name: YSI  
Model No.: 6920 V2  
Serial No.: 11F100014  
Equipment No.: --  
Date of Calibration: 18 April, 2012

#### NOTES

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

#### ISSUING LABORATORY: HONG KONG

##### Address

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Mr Chan Kwok Fai, Godfrey  
Laboratory Manager - Hong Kong

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# REPORT OF EQUIPMENT PERFORMANCE CHECK/CALIBRATION

**Work Order:** HK1210017  
**Date of Issue:** 20/04/2012  
**Client:** ALS TECHNICHEM (HK) PTY LTD



**Description:** YSI Sonde  
**Brand Name:** YSI  
**Model No.:** 6920 V2  
**Serial No.:** 11F100014  
**Equipment No.:** --

**Date of Calibration:** 18 April, 2012      **Date of next Calibration:** 18 July, 2012

**Parameters:**

**Conductivity**

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

Expected Reading (mS/cm)	Displayed Reading (mS/cm )	Tolerance (%)
0.1469	0.143	-2.7
6.667	6.478	-2.8
12.890	12.72	-1.3
58.670	56.04	-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)
5.35	5.26	-0.09
6.29	6.33	0.04
8.25	8.39	0.14
	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	4.01	0.01
7.0	7.10	0.10
10.0	10.10	0.10
	Tolerance Limit (±unit)	0.2

**Salinity**

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

Expected Reading (NTU)	Displayed Reading (NTU)	Tolerance (%)
0	0	--
10	10.26	2.6
20	20.59	3.0
30	31.10	3.7
	Tolerance Limit (±%)	10.0

  
 Mr. Chan Kwok Fai, Godfrey  
 Laboratory Manager - Hong Kong



# REPORT OF EQUIPMENT PERFORMANCE CHECK/CALIBRATION



**Work Order:** HK1210017  
**Date of Issue:** 20/04/2012  
**Client:** ALS TECHNICHEM (HK) PTY LTD

**Description:** YSI Sonde  
**Brand Name:** YSI  
**Model No.:** 6920 V2  
**Serial No.:** 11F100014  
**Equipment No.:** --

**Date of Calibration:** 18 April, 2012      **Date of next Calibration:** 18 July, 2012

**Parameters:**

**Temperature**

**Method Ref:** Section 6 of International Accreditation New Zealand Technical

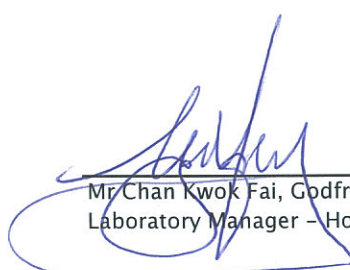
**Guide No. 3 Second edition March 2008: Working Thermometer Calibration Procedure.**

Expected Reading (°C)	Displayed Reading (°C)	Tolerance (°C)
13.5	13.11	-0.4
22.5	21.96	-0.5
39.0	38.78	-0.2
	Tolerance Limit (°C)	2.0

**Turbidity**

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

Expected Reading (NTU)	Displayed Reading (NTU)	Tolerance (%)
0	0.6	--
4	4.2	5.0
10	10.6	6.0
20	20.4	2.0
50	51.7	3.4
100	101.2	1.2
	Tolerance Limit (±%)	10.0

  
 Mr Chan Kwok Fai, Godfrey  
 Laboratory Manager - Hong Kong



## ALS Technichem (HK) Pty Ltd

### REPORT OF EQUIPMENT PERFORMANCE CHECK/CALIBRATION

**CONTACT:** MR IVAN LEUNG  
**CLIENT:** ALS TECHNICHEM (HK) PTY LTD  
**ADDRESS:** 11/F., CHUNG SHUN KNITTING CENTRE,  
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KWAI CHUNG,  
N.T., HONG KONG

**WORK ORDER:** HK1220476  
**LABORATORY:** HONG KONG  
**DATE RECEIVED:** 16/07/2012  
**DATE OF ISSUE:** 08/08/2012

#### COMMENTS

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

**Scope of Test:** Conductivity, Dissolved Oxygen, pH, Salinity, Temperature and Turbidity  
**Description:** YSI Sonde  
**Brand Name:** YSI  
**Model No.:** 6920 V2  
**Serial No.:** 11F100014  
**Equipment No.:** --  
**Date of Calibration:** 16 July, 2012

#### NOTES

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

#### ISSUING LABORATORY: HONG KONG

##### Address

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Mr Chan Kwok Fai, Godfrey  
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ADDRESS 11/F, Chung Shun Knitting Centre, 1-3 Wing Yip Street, Kwai Chung, N.T., Hong Kong PHONE +852 2610 1044 FAX +852 2610 2021  
ALS TECHNICHEM (HK) PTY LTD Part of the ALS Laboratory Group A Campbell Brothers Limited Company

# REPORT OF EQUIPMENT PERFORMANCE CHECK/CALIBRATION

**Work Order:** HK1220476  
**Date of Issue:** 08/08/2012  
**Client:** ALS TECHNICHEM (HK) PTY LTD



**Description:** YSI Sonde  
**Brand Name:** YSI  
**Model No.:** 6920 V2  
**Serial No.:** 11F100014  
**Equipment No.:** --  
**Date of Calibration:** 16 July, 2012                      **Date of next Calibration:** 15 October, 2012

**Parameters:**

**Conductivity**

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

Expected Reading (mS/cm)	Displayed Reading (mS/cm )	Tolerance (%)
0.1469	0.141	-4.0
6.667	6.453	-3.2
12.890	12.69	-1.6
58.670	56.15	-4.3
Tolerance Limit (%)		10.0

**Dissolved Oxygen**

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

Expected Reading (mg/L)	Displayed Reading (mg/L)	Tolerance (mg/L)
2.96	2.83	-0.13
6.72	6.63	-0.09
7.54	7.69	0.15
Tolerance Limit ( $\pm$ 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	4.00	0.00
7.0	7.05	0.05
10.0	10.0	0.00
Tolerance Limit ( $\pm$ unit)		0.2

**Salinity**

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

Expected Reading (NTU)	Displayed Reading (NTU)	Tolerance (%)
10	10.17	1.7
20	20.21	1.1
30	30.40	1.3
Tolerance Limit ( $\pm$ %)		10.0

  
 Mr Chan Kwok Fai, Godfrey  
 Laboratory Manager - Hong Kong

# REPORT OF EQUIPMENT PERFORMANCE CHECK/CALIBRATION



Work Order: HK1220476  
Date of Issue: 08/08/2012  
Client: ALS TECHNICHEM (HK) PTY LTD

Description: YSI Sonde  
Brand Name: YSI  
Model No.: 6920 V2  
Serial No.: 11F100014  
Equipment No.: --  
Date of Calibration: 16 July, 2012

Date of next Calibration: 15 October, 2012

## Parameters:

### 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)
11.5	10.99	-0.5
21.0	21.17	0.2
40.5	40.88	0.4
	Tolerance Limit (°C)	2.0

### Turbidity

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

Expected Reading (NTU)	Displayed Reading (NTU)	Tolerance (%)
0	0.0	--
4	4.3	7.5
40	41.2	3.0
400	417.6	4.4
	Tolerance Limit (±%)	10.0

***Annex B***

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***Summary of Weekly Water  
Quality Monitoring Data***

## Mid-Ebb - Summary of Water Quality Data

Notes: s – 1 m below the surface; m – mid depth; b – 1 m above the seabed

**XX** : Limit Level Exceedance; **XX**: Action Level Exceedance

\* – Average value of duplicate sample

28 June 2012

Station	Depth	Data Results for Mid Ebb					
		Temperature (oC)	Salinity (ppt)	DO (mg/L)	DOS (%)	Turbidity (NTU)	Suspended Solids (SS)
<b>Control Stations</b>							
<b>C</b>	<b>s</b>	N/A	N/A	N/A	N/A	N/A	N/A
	<b>m</b>	28.9	17.5	8.0	115.0	1.7	4
	<b>b</b>	N/A	N/A	N/A	N/A	N/A	N/A
<b>Marine-based Stations</b>							
<b>A1</b>	<b>s</b>	28.7	17.5	8.2	116.4	1.7	<2
	<b>m</b>	27.6	25.9	<b>5.3</b>	77.9	2.2	<2
	<b>b</b>	26.1	30.8	<b>3.5</b>	51.8	5.1	<2
<b>A2</b>	<b>s</b>	28.7	18.4	8.2	118.0	1.7	<2
	<b>m</b>	28.1	23.2	<b>6.1</b>	89.4	2.2	3
	<b>b</b>	26.2	30.6	<b>3.5</b>	52.0	6.1	<2
<b>A3</b>	<b>s</b>	28.7	17.2	8.4	119.3	1.8	<2
	<b>m</b>	28.1	23.3	<b>6.0</b>	87.8	2.9	<2
	<b>b</b>	27.2	27.2	<b>4.5</b>	66.2	3.7	<2
<b>A4</b>	<b>s</b>	28.7	17.2	8.4	119.7	2.1	3
	<b>m</b>	28.8	19.7	7.6	110.0	2.2	<2
	<b>b</b>	27.4	26.7	<b>5.0</b>	73.0	2.9	<2
<b>A5</b>	<b>s</b>	28.6	17.3	8.3	118.0	1.7	<2
	<b>m</b>	28.4	22.8	6.9	101.0	2.1	<2
	<b>b</b>	27.0	28.4	<b>4.3</b>	62.9	3.2	<2
<b>A6</b>	<b>s</b>	28.8	17.5	8.7	123.6	1.5	<2
	<b>m</b>	29.1	18.4	8.1	117.3	2.0	<2
	<b>b</b>	27.3	27.1	<b>4.9</b>	71.8	2.2	<2
<b>B1</b>	<b>s*</b>	28.7	17.4	8.0	113.1	1.6	5
	<b>m</b>	26.7	29.1	<b>4.3</b>	63.5	1.9	5
	<b>b</b>	25.5	31.5	<b>3.6</b>	51.9	4.2	8
<b>B2</b>	<b>s</b>	28.8	17.4	8.2	117.4	1.7	3
	<b>m*</b>	27.0	28.6	<b>4.4</b>	64.0	1.8	3
	<b>b</b>	25.8	31.1	<b>3.6</b>	52.3	4.5	3
<b>B3</b>	<b>s</b>	28.8	17.5	8.3	117.8	1.7	2
	<b>m</b>	27.2	27.8	<b>4.7</b>	68.7	1.7	2
	<b>b*</b>	26.3	31.1	<b>3.7</b>	54.0	3.3	<2
<b>B4</b>	<b>s*</b>	28.8	18.0	8.0	114.1	1.7	5
	<b>m</b>	27.4	26.6	<b>5.1</b>	74.0	1.8	2
	<b>b</b>	25.9	31.1	<b>3.6</b>	52.4	3.6	4
<b>B5</b>	<b>s</b>	28.7	17.8	8.1	116.1	1.8	2
	<b>m</b>	27.4	26.7	<b>5.0</b>	73.4	2.0	3
	<b>b</b>	26.3	30.8	<b>3.7</b>	54.2	3.3	2
<b>B6</b>	<b>s</b>	28.8	17.9	8.1	116.2	1.6	2
	<b>m</b>	27.4	26.6	<b>5.0</b>	73.3	2.0	5
	<b>b</b>	26.0	30.9	<b>3.5</b>	51.8	2.4	2
<b>D1</b>	<b>s</b>	N/A	N/A	N/A	N/A	N/A	N/A
	<b>m</b>	28.7	17.4	8.4	119.2	1.7	<2
	<b>b</b>	N/A	N/A	N/A	N/A	N/A	N/A
<b>D2</b>	<b>s</b>	28.8	17.5	8.6	123.0	1.6	2
	<b>m</b>	N/A	N/A	N/A	N/A	N/A	N/A
	<b>b</b>	28.5	18.5	7.0	100.2	2.3	<2
<b>D3</b>	<b>s</b>	28.7	17.3	8.5	120.8	1.7	<2
	<b>m</b>	N/A	N/A	N/A	N/A	N/A	N/A
	<b>b</b>	28.4	22.0	6.5	94.9	2.3	<2
<b>D4</b>	<b>s</b>	N/A	N/A	N/A	N/A	N/A	N/A
	<b>m</b>	28.7	17.5	8.1	115.7	1.5	<2
	<b>b</b>	N/A	N/A	N/A	N/A	N/A	N/A



6 July 2012

Station	Depth	Data Results for Mid Ebb					
		Temperature (oC)	Salinity (ppt)	DO (mg/L)	DOS (%)	Turbidity (NTU)	Suspended Solids (SS)
<b>Control Stations</b>							
<b>C</b>	<b>s</b>	N/A	N/A	N/A	N/A	N/A	N/A
	<b>m</b>	28.0	25.6	7.4	109.6	1.3	4
	<b>b</b>	N/A	N/A	N/A	N/A	N/A	N/A
<b>Marine-based Stations</b>							
<b>A1</b>	<b>s</b>	28.0	25.6	7.4	108.9	1.5	4
	<b>m</b>	27.6	25.8	7.0	102.8	1.6	4
	<b>b</b>	27.7	26.0	7.1	103.9	1.7	4
<b>A2</b>	<b>s</b>	27.8	25.6	7.4	108.9	1.3	4
	<b>m</b>	27.7	25.8	7.2	105.0	1.4	5
	<b>b</b>	27.7	26.0	7.1	104.5	1.6	4
<b>A3</b>	<b>s</b>	28.0	25.5	7.5	110.2	1.3	4
	<b>m</b>	27.8	25.7	7.3	107.2	1.4	6
	<b>b</b>	27.7	26.2	7.2	105.3	1.8	6
<b>A4</b>	<b>s</b>	28.0	25.5	7.4	109.6	1.2	5
	<b>m</b>	27.9	25.7	7.4	108.3	1.3	5
	<b>b</b>	27.7	26.3	7.1	104.1	1.6	6
<b>A5</b>	<b>s</b>	28.0	25.5	7.5	110.9	1.1	5
	<b>m</b>	27.9	25.7	7.4	108.7	1.3	6
	<b>b</b>	27.7	26.2	7.2	105.7	1.7	7
<b>A6</b>	<b>s</b>	28.1	25.4	7.6	111.3	1.3	7
	<b>m</b>	27.9	25.6	7.4	109.5	1.3	9
	<b>b</b>	27.6	26.0	7.1	103.4	1.5	7
<b>B1</b>	<b>s</b>	28.0	25.6	7.5	110.9	1.4	9
	<b>m</b>	27.7	26.0	7.1	104.0	1.5	9
	<b>b</b>	27.5	26.6	6.8	99.4	1.9	7
<b>B2</b>	<b>s</b>	28.0	25.5	7.4	109.3	6.0	6
	<b>m</b>	27.7	26.0	7.0	103.2	1.5	6
	<b>b</b>	27.6	26.5	6.8	99.2	1.8	8
<b>B3</b>	<b>s*</b>	28.0	25.6	7.4	109.2	1.4	2
	<b>m</b>	27.7	26.1	7.0	102.8	1.7	7
	<b>b</b>	27.6	26.4	6.8	99.7	1.9	5
<b>B4</b>	<b>s</b>	28.0	25.5	7.5	110.5	1.4	4
	<b>m*</b>	27.7	25.9	7.2	105.4	1.6	5
	<b>b</b>	27.6	26.2	6.9	101.4	1.5	4
<b>B5</b>	<b>s</b>	28.1	25.5	7.5	110.2	4.4	4
	<b>m</b>	27.8	25.9	7.1	104.4	1.4	6
	<b>b*</b>	27.6	26.3	6.9	101.4	1.6	4
<b>B6</b>	<b>s*</b>	28.0	25.5	7.5	110.2	1.9	7
	<b>m</b>	27.7	25.9	7.1	104.4	1.6	4
	<b>b</b>	27.6	26.5	6.5	95.6	2.7	6
<b>D1</b>	<b>s</b>	N/A	N/A	N/A	N/A	N/A	N/A
	<b>m</b>	27.6	25.6	7.1	104.5	1.1	4
	<b>b</b>	N/A	N/A	N/A	N/A	N/A	N/A
<b>D2</b>	<b>s</b>	27.8	25.6	7.3	106.8	1.3	3
	<b>m</b>	N/A	N/A	N/A	N/A	N/A	N/A
	<b>b</b>	27.6	25.6	6.9	100.2	1.3	4
<b>D3</b>	<b>s</b>	27.9	25.6	7.6	111.1	1.3	4
	<b>m</b>	N/A	N/A	N/A	N/A	N/A	N/A
	<b>b</b>	27.8	25.6	7.5	109.5	1.3	5
<b>D4</b>	<b>s</b>	N/A	N/A	N/A	N/A	N/A	N/A
	<b>m</b>	27.8	25.6	7.3	107.1	1.5	4
	<b>b</b>	N/A	N/A	N/A	N/A	N/A	N/A

12 July 2012

Station	Depth	Data Results for Mid Ebb					
		Temperature (oC)	Salinity (ppt)	DO (mg/L)	DOS (%)	Turbidity (NTU)	Suspended Solids (SS)
<b>Control Stations</b>							
<b>C</b>	<b>s</b>	N/A	N/A	N/A	N/A	N/A	N/A
	<b>m</b>	29.4	20.2	8.0	117.2	3.1	3
	<b>b</b>	N/A	N/A	N/A	N/A	N/A	N/A
<b>Marine-based Stations</b>							
<b>A1</b>	<b>s*</b>	29.5	20.6	10.0	146.6	2.2	4
	<b>m</b>	29.2	20.5	9.9	146.1	2.6	3
	<b>b</b>	28.4	24.1	8.3	122.5	5.3	6
<b>A2</b>	<b>s</b>	229.4	20.5	9.4	137.3	2.4	4
	<b>m</b>	29.0	21.1	8.8	128.3	2.5	4
	<b>b*</b>	27.9	24.7	8.3	121.3	2.6	4
<b>A3</b>	<b>s</b>	29.4	20.5	9.3	138.7	2.4	3
	<b>m*</b>	29.2	21.2	9.0	133.6	2.5	4
	<b>b</b>	29.0	20.8	8.6	126.2	2.5	3
<b>A4</b>	<b>s*</b>	29.5	20.5	9.9	146.6	2.2	4
	<b>m</b>	29.4	20.5	10.0	149.5	2.2	4
	<b>b</b>	29.2	20.7	10.1	148.2	2.1	3
<b>A5</b>	<b>s</b>	29.4	20.5	9.7	142.9	2.3	3
	<b>m</b>	29.1	20.8	9.6	140.4	2.4	3
	<b>b</b>	28.7	21.7	8.2	119.0	3.1	4
<b>A6</b>	<b>s</b>	29.4	20.4	9.3	135.1	1.9	3
	<b>m</b>	29.0	20.6	8.6	125.9	2.4	2
	<b>b</b>	28.9	21.5	8.3	122.0	2.5	4
<b>B1</b>	<b>s</b>	29.5	20.6	10.1	147.0	2.3	3
	<b>m</b>	29.0	21.1	9.2	135.5	1.7	5
	<b>b</b>	27.4	26.3	8.2	120.4	2.1	3
<b>B2</b>	<b>s</b>	29.4	20.8	9.4	137.8	2.5	4
	<b>m</b>	29.0	21.1	8.5	125.7	2.3	3
	<b>b</b>	28.4	24.6	8.1	119.3	2.1	3
<b>B3</b>	<b>s</b>	29.4	20.5	9.4	137.5	2.1	4
	<b>m</b>	28.9	21.1	9.2	135.2	2.0	3
	<b>b</b>	27.9	25.3	7.8	115.0	3.1	4
<b>B4</b>	<b>s</b>	29.3	20.4	9.2	133.6	1.9	4
	<b>m</b>	28.7	21.5	8.7	127.0	2.2	3
	<b>b</b>	27.7	25.1	7.3	106.8	2.4	3
<b>B5</b>	<b>s</b>	29.4	20.4	9.3	135.7	4.4	4
	<b>m</b>	28.8	21.1	9.3	135.6	1.4	5
	<b>b</b>	27.8	25.8	7.5	110.8	1.6	3
<b>B6</b>	<b>s</b>	29.3	20.3	9.0	131.3	2.5	4
	<b>m</b>	29.1	20.6	8.7	126.8	2.6	3
	<b>b</b>	28.0	25.1	8.0	117.4	5.9	4
<b>D1</b>	<b>s</b>	N/A	N/A	N/A	N/A	N/A	N/A
	<b>m</b>	29.5	20.4	8.1	119.3	3.7	5
	<b>b</b>	N/A	N/A	N/A	N/A	N/A	N/A
<b>D2</b>	<b>s</b>	29.4	20.5	8.8	129.4	3.3	5
	<b>m</b>	N/A	N/A	N/A	N/A	N/A	N/A
	<b>b</b>	29.4	20.6	7.7	113.6	3.6	5
<b>D3</b>	<b>s</b>	29.2	20.7	9.0	130.8	3.8	3
	<b>m</b>	N/A	N/A	N/A	N/A	N/A	N/A
	<b>b</b>	28.9	21.1	8.1	118.2	3.6	3
<b>D4</b>	<b>s</b>	N/A	N/A	N/A	N/A	N/A	N/A
	<b>m</b>	29.3	20.5	8.3	121.1	2.4	4
	<b>b</b>	N/A	N/A	N/A	N/A	N/A	N/A



14 July 2012

Station	Depth	Data Results for Mid Ebb					
		Temperature (oC)	Salinity (ppt)	DO (mg/L)	DOS (%)	Turbidity (NTU)	Suspended Solids (SS)
<b>Control Stations</b>							
<b>C</b>	<b>s</b>	N/A	N/A	N/A	N/A	N/A	N/A
	<b>m</b>	30.5	19.7	7.7	114.2	2.1	4
	<b>b</b>	N/A	N/A	N/A	N/A	N/A	N/A
Marine-based Stations							
<b>A1</b>	<b>s*</b>	29.6	20.1	9.0	132.3	1.3	<2
	<b>m</b>	29.4	20.3	8.9	130.2	1.4	<2
	<b>b</b>	26.8	27.5	<b>4.2</b>	61.3	3.1	<2
<b>A2</b>	<b>s</b>	30.1	19.9	8.5	125.8	1.4	<2
	<b>m</b>	29.5	20.5	8.8	129.0	1.1	2
	<b>b*</b>	28.9	21.6	8.2	118.4	6.1	<2
<b>A3</b>	<b>s</b>	30.1	19.8	8.6	127.4	1.4	<2
	<b>m*</b>	29.6	20.2	8.9	130.8	1.6	<2
	<b>b</b>	26.6	27.7	<b>5.5</b>	79.8	3.9	4
<b>A4</b>	<b>s*</b>	30.1	19.7	8.6	126.8	1.5	<2
	<b>m</b>	29.8	19.9	8.8	129.9	1.5	<2
	<b>b</b>	29.4	20.5	9.0	131.9	2.2	<2
<b>A5</b>	<b>s</b>	30.3	19.6	8.5	125.2	1.7	<2
	<b>m</b>	29.8	19.9	8.8	129.4	1.5	<2
	<b>b</b>	29.4	20.6	8.8	129.6	1.9	7
<b>A6</b>	<b>s</b>	30.2	19.6	8.4	123.9	1.4	<2
	<b>m</b>	29.8	19.7	8.7	127.1	1.3	4
	<b>b</b>	29.1	21.0	8.6	125.7	2.1	2
<b>B1</b>	<b>s</b>	29.6	19.7	9.0	131.2	1.2	3
	<b>m</b>	29.0	21.3	8.3	121.5	2.4	2
	<b>b</b>	26.2	28.3	<b>3.6</b>	51.6	3.8	3
<b>B2</b>	<b>s</b>	Blocked by barge, no monitoring and sampling can be done.					
	<b>m</b>						
	<b>b</b>						
<b>B3</b>	<b>s</b>						
	<b>m</b>						
	<b>b</b>						
<b>B4</b>	<b>s</b>	29.7	19.8	8.8	129.6	5.1	2
	<b>m</b>	29.6	20.2	8.8	129.6	2.2	3
	<b>b</b>	27.0	27.5	<b>4.2</b>	60.9	3.6	<2
<b>B5</b>	<b>s</b>	29.9	20.0	8.6	127.3	1.4	4
	<b>m</b>	29.0	21.6	8.2	119.6	2.8	3
	<b>b</b>	25.4	31.2	<b>2.3</b>	32.9	6.7	8
<b>B6</b>	<b>s</b>	29.7	20.1	8.8	129.7	1.5	<2
	<b>m</b>	29.2	21.0	8.6	126.0	2.4	4
	<b>b</b>	25.7	30.8	<b>3.1</b>	45.6	6.9	<2
<b>D1</b>	<b>s</b>	N/A	N/A	N/A	N/A	N/A	N/A
	<b>m</b>	30.4	19.5	7.6	113.3	3.0	2
	<b>b</b>	N/A	N/A	N/A	N/A	N/A	N/A
<b>D2</b>	<b>s</b>	30.2	19.7	8.1	119.7	2.2	2
	<b>m</b>	N/A	N/A	N/A	N/A	N/A	N/A
	<b>b</b>	29.2	20.9	8.4	123.1	6.9	<b>10</b>
<b>D3</b>	<b>s</b>	30.2	19.7	8.1	119.3	2.1	2
	<b>m</b>	N/A	N/A	N/A	N/A	N/A	N/A
	<b>b</b>	29.4	20.5	8.6	126.3	1.8	4
<b>D4</b>	<b>s</b>	N/A	N/A	N/A	N/A	N/A	N/A
	<b>m</b>	30.5	19.7	7.8	116.3	2.1	3
	<b>b</b>	N/A	N/A	N/A	N/A	N/A	N/A

17 July 2012

Station	Depth	Data Results for Mid Ebb					
		Temperature (oC)	Salinity (ppt)	DO (mg/L)	DOS (%)	Turbidity (NTU)	Suspended Solids (SS)
<b>Control Stations</b>							
<b>C</b>	<b>s</b>	N/A	N/A	N/A	N/A	N/A	N/A
	<b>m</b>	30.2*	20.8*	8.5*	126.8*	1.3*	4*
	<b>b</b>	N/A	N/A	N/A	N/A	N/A	N/A
<b>Marine-based Stations</b>							
<b>D1</b>	<b>s</b>	N/A	N/A	N/A	N/A	N/A	N/A
	<b>m</b>	30.2	21.1	8.4	124.8	2.0	6
	<b>b</b>	N/A	N/A	N/A	N/A	N/A	N/A
<b>D2</b>	<b>s</b>	30.2	21.0	8.3	122.8	1.8	4
	<b>m</b>	N/A	N/A	N/A	N/A	N/A	N/A
	<b>b</b>	29.6	21.5	8.2	121.8	3.6	3
<b>D3</b>	<b>s</b>	30.0	21.2	8.7	129.6	1.5	4
	<b>m</b>	N/A	N/A	N/A	N/A	N/A	N/A
	<b>b</b>	29.2	22.1	8.2	121.3	2.4	4
<b>D4</b>	<b>s</b>	N/A	N/A	N/A	N/A	N/A	N/A
	<b>m</b>	30.1	21.2	8.4	124.2	1.8	6
	<b>b</b>	N/A	N/A	N/A	N/A	N/A	N/A

19 July 2012

Station	Depth	Data Results for Mid Ebb					
		Temperature (oC)	Salinity (ppt)	DO (mg/L)	DOS (%)	Turbidity (NTU)	Suspended Solids (SS)
<b>Control Stations</b>							
<b>C</b>	<b>s</b>	N/A	N/A	N/A	N/A	N/A	N/A
	<b>m</b>	29.0*	24.3*	7.5*	110.5*	1.1*	2*
	<b>b</b>	N/A	N/A	N/A	N/A	N/A	N/A
<b>Marine-based Stations</b>							
<b>D1</b>	<b>s</b>	N/A	N/A	N/A	N/A	N/A	N/A
	<b>m</b>	26.6	28.2	4.8	70.4	1.9	2
	<b>b</b>	N/A	N/A	N/A	N/A	N/A	N/A
<b>D2</b>	<b>s</b>	29.3	24.9	7.0	105.3	1.5	<2
	<b>m</b>	N/A	N/A	N/A	N/A	N/A	N/A
	<b>b</b>	24.7	31.4	2.7	38.2	2.6	<2
<b>D3</b>	<b>s</b>	28.6	25.3	7.0	103.5	1.6	2
	<b>m</b>	N/A	N/A	N/A	N/A	N/A	N/A
	<b>b</b>	25.4	30.2	3.0	44.1	1.9	2
<b>D4</b>	<b>s</b>	N/A	N/A	N/A	N/A	N/A	N/A
	<b>m</b>	27.2	27.1	6.2	91.2	1.8	2
	<b>b</b>	N/A	N/A	N/A	N/A	N/A	N/A

1 September 2012

Station	Depth	Data Results for Mid Ebb					
		Temperature (oC)	Salinity (ppt)	DO (mg/L)	DOS (%)	Turbidity (NTU)	Suspended Solids (SS)
<b>Control Stations</b>							
C*	s	N/A	N/A	N/A	N/A	N/A	N/A
	m	28.9	27.7	7.8	118.2	1.5	4
	b	N/A	N/A	N/A	N/A	N/A	N/A
<b>Marine-based Stations</b>							
D1	s	N/A	N/A	N/A	N/A	N/A	
	m	28.9	27.4	7.6	115.2	1.0	2
	b	N/A	N/A	N/A	N/A	N/A	
D2	s	28.8	27.5	7.7	115.5	1.1	2
	m	N/A	N/A	N/A	N/A	N/A	
	b	28.8	27.5	7.8	118.1	1.3	2
D3	s	28.9	27.3	7.6	114.3	1.1	4
	m	N/A	N/A	N/A	N/A	N/A	
	b	28.8	27.6	7.8	117.1	1.1	3
D4	s	N/A	N/A	N/A	N/A	N/A	
	m	28.8	27.5	7.5	112.7	2.2	4
	b	N/A	N/A	N/A	N/A	N/A	

4 September 2012

Station	Depth	Data Results for Mid Ebb					
		Temperature (oC)	Salinity (ppt)	DO (mg/L)	DOS (%)	Turbidity (NTU)	Suspended Solids (SS)
<b>Control Stations</b>							
C	s	N/A	N/A	N/A	N/A	N/A	N/A
	m	28.5	27.4	7.5	113.2	1.2	4
	b	N/A	N/A	N/A	N/A	N/A	N/A
<b>Marine-based Stations</b>							
D1*	s	N/A	N/A	N/A	N/A	N/A	N/A
	m	28.6	28.3	6.9	104.4	2.2	3
	b	N/A	N/A	N/A	N/A	N/A	N/A
D2	s	28.7	27.5	7.7	116.2	2.1	3
	m	N/A	N/A	N/A	N/A	N/A	N/A
	b	28.8	27.4	7.5	113.3	4.0	4
D3	s	28.9	27.6	7.6	114.9	1.4	3
	m	N/A	N/A	N/A	N/A	N/A	N/A
	b	28.8	27.7	7.3	109.9	1.8	2
D4	s	N/A	N/A	N/A	N/A	N/A	N/A
	m	28.8	27.4	6.9	104.8	1.8	5
	b	N/A	N/A	N/A	N/A	N/A	N/A

6 September 2012

Station	Depth	Data Results for Mid Ebb					
		Temperature (oC)	Salinity (ppt)	DO (mg/L)	DOS (%)	Turbidity (NTU)	Suspended Solids (SS)
<b>Control Stations</b>							
<b>C</b>	<b>s</b>	N/A	N/A	N/A	N/A	N/A	N/A
	<b>m</b>	28.6	27.9	7.6	114.0	1.6	3
	<b>b</b>	N/A	N/A	N/A	N/A	N/A	N/A
<b>Marine-based Stations</b>							
<b>D1</b>	<b>s</b>	N/A	N/A	N/A	N/A	N/A	N/A
	<b>m</b>	28.6	27.6	7.5	113.5	1.8	2
	<b>b</b>	N/A	N/A	N/A	N/A	N/A	N/A
<b>D2</b>	<b>s</b>	28.7	27.6	7.7	116.2	2.5	4
	<b>m</b>	N/A	N/A	N/A	N/A	N/A	N/A
	<b>b</b>	28.5	27.3	6.7	100.1	3.5	4
<b>D3</b>	<b>s</b>	28.8	27.7	7.7	116.7	2.1	<2
	<b>m</b>	N/A	N/A	N/A	N/A	N/A	N/A
	<b>b</b>	28.4	27.5	6.8	102.5	2.0	<2
<b>D4*</b>	<b>s</b>	N/A	N/A	N/A	N/A	N/A	N/A
	<b>m</b>	28.7	27.6	7.8	117.4	2.2	4
	<b>b</b>	N/A	N/A	N/A	N/A	N/A	N/A

7 September 2012

Station	Depth	Data Results for Mid Ebb					
		Temperature (oC)	Salinity (ppt)	DO (mg/L)	DOS (%)	Turbidity (NTU)	Suspended Solids (SS)
<b>Control Stations</b>							
<b>C*</b>	<b>s</b>	N/A	N/A	N/A	N/A	N/A	N/A
	<b>m</b>	28.6	27.8	7.1	106.0	2.5	3
	<b>b</b>	N/A	N/A	N/A	N/A	N/A	N/A
<b>Marine-based Stations</b>							
<b>D1</b>	<b>s</b>	N/A	N/A	N/A	N/A	N/A	N/A
	<b>m</b>	28.7	27.9	7.7	116.7	3.0	3
	<b>b</b>	N/A	N/A	N/A	N/A	N/A	N/A
<b>D2</b>	<b>s</b>	28.7	27.7	7.8	118.2	3.8	3
	<b>m</b>	N/A	N/A	N/A	N/A	N/A	N/A
	<b>b</b>	28.7	27.6	6.7	101.7	3.8	5
<b>D3</b>	<b>s</b>	28.8	27.7	8.0	120.1	3.2	3
	<b>m</b>	N/A	N/A	N/A	N/A	N/A	N/A
	<b>b</b>	28.6	27.6	7.0	104.7	3.5	3
<b>D4</b>	<b>s</b>	N/A	N/A	N/A	N/A	N/A	N/A
	<b>m</b>	28.7	27.5	7.9	119.5	2.9	5
	<b>b</b>	N/A	N/A	N/A	N/A	N/A	N/A

11 October 2012

Station	Depth	Data Results for Mid Ebb					
		Temperature (oC)	Salinity (ppt)	DO (mg/L)	DOS (%)	Turbidity (NTU)	Suspended Solids (SS)
<b>Control Stations</b>							
<b>C</b>	<b>s</b>	N/A	N/A	N/A	N/A	N/A	N/A
	<b>m*</b>	25.2	28.4	6.5	91.5	3.8	3
	<b>b</b>	N/A	N/A	N/A	N/A	N/A	N/A
<b>Marine-based Stations</b>							
<b>A1</b>	<b>s</b>	25.2	28.1	6.8	97.5	2.4	4
	<b>m</b>	23.4	33.0	6.4	91.3	2.8	4
	<b>b</b>	23.4	33.8	6.3	89.0	7.0	2
<b>A2</b>	<b>s</b>	25.2	28.1	6.6	96.8	2.4	5
	<b>m</b>	23.3	33.1	6.4	91.2	4.6	4
	<b>b</b>	23.0	33.6	6.3	88.8	5.9	4
<b>A3</b>	<b>s</b>	25.2	28.2	6.8	97.2	1.8	7
	<b>m</b>	23.4	33.0	6.5	92.2	3.1	7
	<b>b</b>	23.2	33.8	6.3	88.6	6.7	4
<b>A4</b>	<b>s</b>	25.2	28.2	6.8	92.9	1.9	4
	<b>m</b>	23.5	33.0	6.4	91.3	2.9	4
	<b>b</b>	23.3	33.6	6.3	88.4	6.7	3
<b>A5</b>	<b>s</b>	25.1	28.2	6.8	97.3	1.8	3
	<b>m</b>	23.4	33.0	6.5	91.5	2.7	3
	<b>b</b>	23.1	33.6	6.3	89.3	6.9	3
<b>A6</b>	<b>s</b>	25.2	28.1	6.8	97.6	1.6	5
	<b>m</b>	23.2	33.1	6.4	90.9	4.3	6
	<b>b</b>	23.0	33.7	6.3	87.6	6.8	3
<b>B1</b>	<b>s*</b>	25.2	28.3	6.7	96.1	2.2	3
	<b>m</b>	23.2	33.2	6.4	90.5	4.0	3
	<b>b</b>	23.2	34.1	6.3	88.3	5.5	2
<b>B2</b>	<b>s</b>	25.1	28.3	6.6	94.3	2.0	3
	<b>m</b>	23.3	33.3	6.4	90.1	3.8	3
	<b>b</b>	23.1	34.2	6.3	88.0	6.4	3
<b>B3</b>	<b>s</b>	25.2	28.2	6.7	97.1	1.8	3
	<b>m</b>	23.5	33.2	6.5	92.4	2.2	3
	<b>b*</b>	23.2	34.1	6.3	88.8	5.8	2
<b>B4</b>	<b>s*</b>	25.2	28.2	6.7	96.8	0.9	4
	<b>m</b>	23.5	33.2	6.4	91.1	1.8	2
	<b>b</b>	23.0	34.2	6.3	89.3	6.9	3
<b>B5</b>	<b>s</b>	25.2	28.2	6.8	98.7	1.1	<2
	<b>m</b>	23.8	33.2	6.5	92.2	2.7	<2
	<b>b</b>	23.1	34.0	6.3	88.5	5.9	<2
<b>B6</b>	<b>s</b>	25.1	28.1	6.7	97.6	1.8	3
	<b>m</b>	23.6	33.3	6.4	91.5	2.8	2
	<b>b</b>	23.3	34.1	6.3	88.9	6.4	2
<b>D1</b>	<b>s</b>	N/A	N/A	N/A	N/A	N/A	N/A
	<b>m*</b>	25.1	28.5	6.5	92.1	2.8	3
	<b>b</b>	N/A	N/A	N/A	N/A	N/A	N/A
<b>D2</b>	<b>s*</b>	25.2	27.8	6.5	92.5	1.7	<2
	<b>m</b>	N/A	N/A	N/A	N/A	N/A	N/A
	<b>b</b>	24.1	30.0	6.3	87.8	6.2	5
<b>D3</b>	<b>s*</b>	25.2	27.8	6.5	92.5	1.6	3
	<b>m</b>	N/A	N/A	N/A	N/A	N/A	N/A
	<b>b</b>	23.9	31.7	6.3	88.0	6.6	2
<b>D4</b>	<b>s</b>	N/A	N/A	N/A	N/A	N/A	N/A
	<b>m</b>	24.8	28.7	6.5	91.9	5.5	3
	<b>b</b>	N/A	N/A	N/A	N/A	N/A	N/A

## Mid-Flood- Summary of Water Quality Data

Notes: s – 1 m below the surface; m – mid depth; b – 1 m above the seabed

**XX**: Limit Level Exceedance; **XX**: Action Level Exceedance

\* – Average value of duplicate sample

28 June 2012

Station	Depth	Data Results for Mid Ebb					
		Temperature (oC)	Salinity (ppt)	DO (mg/L)	DOS (%)	Turbidity (NTU)	Suspended Solids (SS)
<b>Control Stations</b>							
<b>C</b>	<b>s</b>	N/A	N/A	N/A	N/A	N/A	N/A
	<b>m</b>	29.8	17.6	14.1	205.2	2.1	3
	<b>b</b>	N/A	N/A	N/A	N/A	N/A	N/A
<b>Marine-based Stations</b>							
<b>A1</b>	<b>s*</b>	29.8	17.7	12.9	187.0	2.2	5
	<b>m</b>	27.5	26.2	<b>5.3</b>	77.9	2.2	3
	<b>b</b>	26.7	29.5	<b>4.2</b>	62.4	3.2	2
<b>A2</b>	<b>s</b>	30.0	17.7	13.2	192.1	2.0	3
	<b>m*</b>	27.3	26.6	<b>4.9</b>	71.5	2.8	4
	<b>b</b>	26.5	30.5	<b>3.9</b>	57.2	3.0	4
<b>A3</b>	<b>s</b>	29.7	17.8	12.4	180.4	2.0	3
	<b>m</b>	28.1	21.8	<b>6.0</b>	87.2	2.4	4
	<b>b*</b>	27.2	26.6	<b>4.9</b>	71.4	2.9	4
<b>A4</b>	<b>s*</b>	29.6	17.8	12.7	183.5	2.2	4
	<b>m</b>	28.2	22.5	6.4	92.8	2.2	4
	<b>b</b>	27.0	28.1	<b>4.5</b>	66.4	3.4	3
<b>A5</b>	<b>s</b>	29.7	17.7	13.0	189.0	2.1	5
	<b>m</b>	28.6	19.9	7.7	111.4	1.9	4
	<b>b</b>	28.1	22.9	<b>6.0</b>	87.2	2.3	3
<b>A6</b>	<b>s</b>	29.4	17.8	12.4	179.1	2.3	3
	<b>m</b>	28.8	18.7	8.1	116.2	2.1	3
	<b>b</b>	27.0	28.4	<b>4.6</b>	67.0	3.4	4
<b>B1</b>	<b>s</b>	29.4	17.6	11.8	170.8	2.0	3
	<b>m</b>	26.7	28.8	<b>3.9</b>	56.7	2.9	3
	<b>b</b>	25.0	32.7	<b>3.8</b>	54.7	4.1	2
<b>B2</b>	<b>s</b>	29.2	17.6	11.8	170.2	2.1	4
	<b>m</b>	28.0	22.6	<b>5.1</b>	74.0	2.6	3
	<b>b</b>	25.3	32.4	<b>3.8</b>	55.5	3.3	3
<b>B3</b>	<b>s</b>	29.2	17.8	11.4	164.2	6.1	3
	<b>m</b>	27.3	27.1	<b>4.8</b>	70.6	3.7	<2
	<b>b</b>	25.0	32.5	<b>3.8</b>	55.3	3.3	2
<b>B4</b>	<b>s</b>	29.3	17.8	11.7	169.1	2.8	3
	<b>m</b>	27.2	27.2	<b>4.8</b>	70.8	2.9	2
	<b>b</b>	25.6	32.1	<b>3.7</b>	54.9	2.8	2
<b>B5</b>	<b>s</b>	29.7	17.5	12.8	185.4	2.0	4
	<b>m</b>	26.7	29.5	<b>4.2</b>	61.5	2.8	3
	<b>b</b>	25.2	32.4	<b>3.6</b>	52.5	6.7	3
<b>B6</b>	<b>s</b>	29.3	17.6	13.5	195.1	2.2	4
	<b>m</b>	26.9	29.1	<b>4.6</b>	67.0	1.9	4
	<b>b</b>	25.6	32.2	<b>3.8</b>	56.0	3.5	4
<b>D1</b>	<b>s</b>	N/A	N/A	N/A	N/A	N/A	N/A
	<b>m</b>	29.8	17.5	14.5	210.3	2.3	4
	<b>b</b>	N/A	N/A	N/A	N/A	N/A	N/A
<b>D2</b>	<b>s</b>	30.1	17.5	14.5	210.9	2.5	<2
	<b>m</b>	N/A	N/A	N/A	N/A	N/A	N/A
	<b>b</b>	28.0	23.3	6.4	92.8	4.3	3
<b>D3</b>	<b>s</b>	30.1	17.4	13.9	202.4	2.3	3
	<b>m</b>	N/A	N/A	N/A	N/A	N/A	N/A
	<b>b</b>	27.5	26.0	5.4	79.5	2.5	2
<b>D4</b>	<b>s</b>	N/A	N/A	N/A	N/A	N/A	N/A
	<b>m</b>	29.4	18.2	11.2	162.6	2.4	2
	<b>b</b>	N/A	N/A	N/A	N/A	N/A	N/A

6 July 2012

Station	Depth	Data Results for Mid Ebb					
		Temperature (oC)	Salinity (ppt)	DO (mg/L)	DOS (%)	Turbidity (NTU)	Suspended Solids (SS)
<b>Control Stations</b>							
<b>C</b>	<b>s</b>	N/A	N/A	N/A	N/A	N/A	N/A
	<b>m</b>	28.5	25.6	9.7	143.8	1.2	4
	<b>b</b>	N/A	N/A	N/A	N/A	N/A	N/A
<b>Marine-based Stations</b>							
<b>A1</b>	<b>s</b>	28.9	25.6	9.3	138.3	1.6	6
	<b>m</b>	26.7	29.4	<b>5.5</b>	80.7	2.9	7
	<b>b</b>	26.4	29.8	<b>5.0</b>	73.9	4.5	9
<b>A2</b>	<b>s</b>	28.9	25.6	9.3	138.6	0.9	4
	<b>m</b>	26.8	29.2	<b>5.6</b>	81.9	2.5	6
	<b>b</b>	26.4	29.8	<b>5.1</b>	75.1	4.1	8
<b>A3</b>	<b>s*</b>	28.7	25.6	9.4	140.2	1.2	5
	<b>m</b>	26.7	29.3	<b>5.5</b>	81.2	2.6	5
	<b>b</b>	26.3	28.0	<b>5.0</b>	73.3	4.8	5
<b>A4</b>	<b>s</b>	28.1	26.3	8.4	124.3	1.7	6
	<b>m*</b>	27.0	28.8	<b>5.9</b>	86.6	2.5	4
	<b>b</b>	26.4	29.8	<b>5.2</b>	76.4	2.9	6
<b>A5</b>	<b>s</b>	28.8	25.6	9.1	135.6	0.9	6
	<b>m</b>	27.1	28.8	<b>6.0</b>	88.0	2.0	4
	<b>b*</b>	26.7	29.4	<b>5.5</b>	80.5	3.1	6
<b>A6</b>	<b>s*</b>	28.7	25.6	9.2	137.5	1.0	5
	<b>m</b>	27.4	28.5	<b>6.1</b>	90.6	1.6	5
	<b>b</b>	26.9	29.0	<b>5.6</b>	83.0	3.3	5
<b>B1</b>	<b>s</b>	28.9	25.6	9.0	134.7	1.0	<2
	<b>m</b>	27.0	28.8	<b>5.9</b>	86.3	1.8	4
	<b>b</b>	25.1	31.2	<b>4.2</b>	60.0	2.8	4
<b>B2</b>	<b>s</b>	28.7	25.6	9.2	136.8	1.1	3
	<b>m</b>	27.0	28.9	<b>5.9</b>	87.4	1.7	4
	<b>b</b>	24.8	31.6	<b>3.9</b>	56.3	2.5	5
<b>B3</b>	<b>s</b>	28.7	25.5	9.2	136.8	1.1	4
	<b>m</b>	27.1	28.6	<b>6.0</b>	88.2	1.9	4
	<b>b</b>	25.5	30.8	<b>4.5</b>	65.5	5.3	4
<b>B4</b>	<b>s</b>	28.3	25.7	9.2	135.4	1.4	3
	<b>m</b>	26.9	28.9	<b>5.8</b>	85.9	3.8	4
	<b>b</b>	26.1	30.1	<b>4.9</b>	71.1	3.6	4
<b>B5</b>	<b>s</b>	28.0	25.6	8.7	128.1	2.9	7
	<b>m</b>	26.8	29.0	<b>5.7</b>	83.8	2.4	6
	<b>b</b>	26.1	30.2	<b>4.9</b>	71.7	4.7	4
<b>B6</b>	<b>s</b>	28.4	25.3	9.6	142.0	1.0	5
	<b>m</b>	26.8	29.0	<b>5.5</b>	81.4	3.6	7
	<b>b</b>	25.9	30.4	<b>4.7</b>	68.6	<b>7.5</b>	7
<b>D1</b>	<b>s</b>	N/A	N/A	N/A	N/A	N/A	N/A
	<b>m</b>	28.5	26.3	8.1	120.7	2.7	5
	<b>b</b>	N/A	N/A	N/A	N/A	N/A	N/A
<b>D2</b>	<b>s</b>	28.9	25.7	8.8	131.1	2.2	6
	<b>m</b>	N/A	N/A	N/A	N/A	N/A	N/A
	<b>b</b>	26.8	29.1	<b>5.3</b>	77.5	3.1	6
<b>D3</b>	<b>s</b>	28.9	25.7	9.2	137.3	1.2	5
	<b>m</b>	N/A	N/A	N/A	N/A	N/A	N/A
	<b>b</b>	26.7	29.3	<b>5.8</b>	85.4	2.5	6
<b>D4</b>	<b>s</b>	N/A	N/A	N/A	N/A	N/A	N/A
	<b>m</b>	28.6	26.2	8.3	124.0	2.7	7
	<b>b</b>	N/A	N/A	N/A	N/A	N/A	N/A

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Station	Depth	Data Results for Mid Ebb					
		Temperature (oC)	Salinity (ppt)	DO (mg/L)	DOS (%)	Turbidity (NTU)	Suspended Solids (SS)
<b>Control Stations</b>							
<b>C</b>	<b>s</b>	N/A	N/A	N/A	N/A	N/A	N/A
	<b>m</b>	28.7	20.3	7.4	107.0	2.2	
	<b>b</b>	N/A	N/A	N/A	N/A	N/A	N/A
<b>Marine-based Stations</b>							
<b>A1</b>	<b>s</b>	28.8	20.5	8.0	117.2	3.5	5
	<b>m</b>	28.6	23.6	7.8	113.8	4.0	3
	<b>b</b>	26.8	28.5	<b>5.9</b>	86.6	5.4	2
<b>A2</b>	<b>s</b>	28.8	20.5	8.5	123.7	2.9	3
	<b>m</b>	28.8	20.6	8.2	118.6	3.1	3
	<b>b</b>	28.2	24.6	7.7	113.6	3.5	3
<b>A3</b>	<b>s</b>	28.8	20.4	8.4	121.7	2.6	3
	<b>m</b>	28.9	20.5	8.0	117.8	3.2	2
	<b>b</b>	28.6	24.3	7.9	114.8	3.3	3
<b>A4</b>	<b>s</b>	28.9	20.4	8.7	126.6	2.3	4
	<b>m</b>	28.9	20.5	8.6	125.1	2.4	5
	<b>b</b>	28.9	20.5	8.6	124.6	2.4	3
<b>A5</b>	<b>s</b>	28.9	20.3	8.5	123.3	3.0	4
	<b>m</b>	28.9	20.4	8.4	121.2	3.3	3
	<b>b</b>	28.9	20.5	8.0	116.2	4.1	5
<b>A6</b>	<b>s</b>	28.9	20.4	8.5	123.5	2.5	4
	<b>m</b>	28.9	20.4	8.1	117.6	3.1	4
	<b>b</b>	29.0	22.3	6.6	97.0	4.3	2
<b>B1</b>	<b>s*</b>	28.9	20.7	8.4	121.5	2.2	5
	<b>m</b>	28.5	22.9	8.2	119.5	2.4	4
	<b>b</b>	25.2	31.4	<b>3.2</b>	52.4	2.7	4
<b>B2</b>	<b>s</b>	28.8	20.6	7.8	116.1	2.4	4
	<b>m*</b>	28.7	25.9	7.9	114.6	2.6	3
	<b>b</b>	25.3	31.4	<b>5.6</b>	80.8	3.1	4
<b>B3</b>	<b>s</b>	28.7	20.5	8.5	122.8	2.7	3
	<b>m</b>	28.9	20.7	8.0	116.3	2.8	5
	<b>b*</b>	26.2	29.1	<b>5.5</b>	79.6	3.4	4
<b>B4</b>	<b>s*</b>	28.8	20.4	8.3	120.3	2.2	3
	<b>m</b>	29.0	20.8	7.4	107.3	2.7	4
	<b>b</b>	26.9	27.9	7.0	102.7	2.8	4
<b>B5</b>	<b>s</b>	28.6	20.6	8.2	119.7	2.2	4
	<b>m</b>	28.9	20.6	7.2	104.1	2.3	3
	<b>b</b>	27.2	27.4	6.9	100.5	2.8	3
<b>B6</b>	<b>s</b>	28.9	20.5	8.2	119.7	2.5	3
	<b>m</b>	28.9	20.5	7.7	111.6	2.8	2
	<b>b</b>	28.0	27.2	<b>5.4</b>	79.0	5.9	2
<b>D1</b>	<b>s</b>	N/A	N/A	N/A	N/A	N/A	N/A
	<b>m</b>	28.8	20.4	8.4	122.4	3.4	3
	<b>b</b>	N/A	N/A	N/A	N/A	N/A	N/A
<b>D2</b>	<b>s</b>	28.8	20.4	8.4	122.2	2.0	4
	<b>m</b>	N/A	N/A	N/A	N/A	N/A	N/A
	<b>b</b>	28.9	20.4	8.1	116.9	2.2	2
<b>D3</b>	<b>s</b>	28.8	20.5	8.4	121.5	3.0	2
	<b>m</b>	N/A	N/A	N/A	N/A	N/A	N/A
	<b>b</b>	28.9	20.6	7.7	112.1	3.3	3
<b>D4</b>	<b>s</b>	N/A	N/A	N/A	N/A	N/A	N/A
	<b>m</b>	28.8	20.5	7.7	111.1	2.3	3
	<b>b</b>	N/A	N/A	N/A	N/A	N/A	N/A



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Station	Depth	Data Results for Mid Ebb					
		Temperature (oC)	Salinity (ppt)	DO (mg/L)	DOS (%)	Turbidity (NTU)	Suspended Solids (SS)
<b>Control Stations</b>							
<b>C</b>	<b>s</b>	N/A	N/A	N/A	N/A	N/A	N/A
	<b>m</b>	29.4	19.5	7.7	112.6	1.6	6
	<b>b</b>	N/A	N/A	N/A	N/A	N/A	N/A
<b>Marine-based Stations</b>							
<b>A1</b>	<b>s</b>	29.3	19.9	8.4	122.8	1.2	3
	<b>m</b>	29.0	20.5	8.6	125.0	1.5	<2
	<b>b</b>	26.3	28.6	<b>4.5</b>	65.5	5.4	2
<b>A2</b>	<b>s</b>	29.4	19.9	8.4	121.9	1.2	3
	<b>m</b>	29.2	20.1	8.7	126.6	1.2	3
	<b>b</b>	27.5	24.5	<b>5.5</b>	79.6	6.3	4
<b>A3</b>	<b>s</b>	29.3	19.9	8.4	122.5	1.2	2
	<b>m</b>	29.2	19.9	8.6	124.8	1.2	6
	<b>b</b>	28.5	21.7	6.7	97.3	5.5	<2
<b>A4</b>	<b>s</b>	29.4	19.7	8.4	121.9	1.7	<2
	<b>m</b>	29.4	19.8	8.4	122.4	1.5	<2
	<b>b</b>	28.9	21.1	7.8	114.4	2.5	<2
<b>A5</b>	<b>s</b>	29.4	19.7	8.4	122.4	1.5	3
	<b>m</b>	29.3	19.7	8.5	123.5	1.3	<2
	<b>b</b>	29.0	21.0	7.2	105.5	3.4	3
<b>A6</b>	<b>s</b>	29.3	19.7	8.4	121.9	1.3	<2
	<b>m</b>	29.3	19.7	8.5	123.2	1.4	3
	<b>b</b>	29.0	20.9	7.7	112.6	2.3	5
<b>B1</b>	<b>s*</b>	29.2	19.8	8.4	121.8	1.4	5
	<b>m</b>	27.3	26.1	<b>4.7</b>	68.7	2.7	5
	<b>b</b>	25.2	30.9	<b>2.3</b>	32.9	6.3	6
<b>B2</b>	<b>s</b>	29.2	19.8	8.2	119.8	3.0	2
	<b>m*</b>	28.5	22.5	6.5	94.2	3.2	4
	<b>b</b>	25.0	31.4	<b>3.3</b>	48.2	5.6	<b>11</b>
<b>B3</b>	<b>s</b>	29.2	19.9	8.4	122.2	1.5	6
	<b>m</b>	28.6	21.4	6.4	92.8	2.9	4
	<b>b*</b>	24.5	32.1	<b>2.8</b>	40.4	6.1	8
<b>B4</b>	<b>s*</b>	29.2	20.0	8.5	123.8	1.3	3
	<b>m</b>	28.9	20.9	8.0	117.0	1.7	3
	<b>b</b>	25.0	31.4	<b>2.8</b>	40.3	4.5	6
<b>B5</b>	<b>s</b>	29.2	19.9	8.5	123.6	1.3	2
	<b>m</b>	28.6	21.9	7.4	107.8	2.1	6
	<b>b</b>	26.3	28.4	<b>3.6</b>	52.7	6.4	3
<b>B6</b>	<b>s</b>	29.3	19.9	8.5	123.3	1.3	3
	<b>m</b>	28.9	20.9	8.0	117.1	1.9	4
	<b>b</b>	26.7	27.5	<b>4.0</b>	58.1	7.0	4
<b>D1</b>	<b>s</b>	N/A	N/A	N/A	N/A	N/A	N/A
	<b>m</b>	29.5	19.4	7.6	110.4	1.6	4
	<b>b</b>	N/A	N/A	N/A	N/A	N/A	N/A
<b>D2</b>	<b>s</b>	29.5	19.4	7.6	111.4	2.1	6
	<b>m</b>	N/A	N/A	N/A	N/A	N/A	N/A
	<b>b</b>	29.2	20.0	8.3	120.4	2.1	5
<b>D3</b>	<b>s</b>	29.5	19.6	8.2	119.0	2.0	6
	<b>m</b>	N/A	N/A	N/A	N/A	N/A	N/A
	<b>b</b>	29.2	20.1	8.7	126.2	1.6	4
<b>D4</b>	<b>s</b>	N/A	N/A	N/A	N/A	N/A	N/A
	<b>m</b>	29.4	19.7	8.2	118.9	1.8	5
	<b>b</b>	N/A	N/A	N/A	N/A	N/A	N/A

17 July 2012

Station	Depth	Data Results for Mid Flood					
		Temperature (oC)	Salinity (ppt)	DO (mg/L)	DOS (%)	Turbidity (NTU)	Suspended Solids (SS)
<b>Control Stations</b>							
<b>C</b>	<b>s</b>	N/A	N/A	N/A	N/A	N/A	N/A
	<b>m</b>	30.5*	21.2*	9.4*	141.0*	1.7*	4.5*
	<b>b</b>	N/A	N/A	N/A	N/A	N/A	N/A
<b>Marine-based Stations</b>							
<b>D1</b>	<b>s</b>	N/A	N/A	N/A	N/A	N/A	N/A
	<b>m</b>	30.3	21.5	9.4	140.6	2.4	4
	<b>b</b>	N/A	N/A	N/A	N/A	N/A	N/A
<b>D2</b>	<b>s</b>	30.2	21.5	10.2	152.3	1.6	6
	<b>m</b>	N/A	N/A	N/A	N/A	N/A	N/A
	<b>b</b>	29.3	22.1	9.5	139.8	2.0	4
<b>D3</b>	<b>s</b>	30.2	21.5	9.7	145.4	2.1	6
	<b>m</b>	N/A	N/A	N/A	N/A	N/A	N/A
	<b>b</b>	29.5	21.9	9.7	144.1	1.9	6
<b>D4</b>	<b>s</b>	N/A	N/A	N/A	N/A	N/A	N/A
	<b>m</b>	30.4	21.4	9.6	144.4	2.0	6
	<b>b</b>	N/A	N/A	N/A	N/A	N/A	N/A

19 July 2012

Station	Depth	Data Results for Mid Flood					
		Temperature (oC)	Salinity (ppt)	DO (mg/L)	DOS (%)	Turbidity (NTU)	Suspended Solids (SS)
<b>Control Stations</b>							
<b>C</b>	<b>s</b>	N/A	N/A	N/A	N/A	N/A	N/A
	<b>m</b>	30.1*	23.8*	9.1*	137.5*	1.3*	3.5*
	<b>b</b>	N/A	N/A	N/A	N/A	N/A	N/A
<b>Marine-based Stations</b>							
<b>D1</b>	<b>s</b>	N/A	N/A	N/A	N/A	N/A	N/A
	<b>m</b>	28.9	25.3	8.5	126.6	2.1	4
	<b>b</b>	N/A	N/A	N/A	N/A	N/A	N/A
<b>D2</b>	<b>s</b>	28.8	25.3	8.4	125.8	1.7	<2
	<b>m</b>	N/A	N/A	N/A	N/A	N/A	N/A
	<b>b</b>	27.8	26.6	7.2	106.0	3.0	6
<b>D3</b>	<b>s</b>	28.8	25.3	8.4	124.4	2.0	4
	<b>m</b>	N/A	N/A	N/A	N/A	N/A	N/A
	<b>b</b>	27.7	26.8	7.4	109.5	1.5	6
<b>D4</b>	<b>s</b>	N/A	N/A	N/A	N/A	N/A	N/A
	<b>m</b>	29.1	25.1	8.7	129.6	1.7	<2
	<b>b</b>	N/A	N/A	N/A	N/A	N/A	N/A

1 September 2012

Station	Depth	Data Results for Mid Ebb					
		Temperature (oC)	Salinity (ppt)	DO (mg/L)	DOS (%)	Turbidity (NTU)	Suspended Solids (SS)
<b>Control Stations</b>							
C*	s	N/A	N/A	N/A	N/A	N/A	N/A
	m	28.9	28.0	8.0	120.1	0.9	4
	b	N/A	N/A	N/A	N/A	N/A	N/A
<b>Marine-based Stations</b>							
D1	s	N/A	N/A	N/A	N/A	N/A	N/A
	m	28.8	27.5	7.8	118.2	0.8	2
	b	N/A	N/A	N/A	N/A	N/A	N/A
D2	s	28.8	27.5	7.5	113.5	0.9	2
	m	N/A	N/A	N/A	N/A	N/A	N/A
	b	28.8	27.8	7.7	116.1	1.0	2
D3	s	28.8	27.4	7.5	113.1	2.5	5
	m	N/A	N/A	N/A	N/A	N/A	N/A
	b	28.8	27.6	7.7	116.0	1.0	3
D4	s	N/A	N/A	N/A	N/A	N/A	N/A
	m	28.8	27.5	7.8	117.0	1.0	5
	b	N/A	N/A	N/A	N/A	N/A	N/A

4 September 2012

Station	Depth	Data Results for Mid Ebb					
		Temperature (oC)	Salinity (ppt)	DO (mg/L)	DOS (%)	Turbidity (NTU)	Suspended Solids (SS)
<b>Control Stations</b>							
C	s	N/A	N/A	N/A	N/A	N/A	N/A
	m	28.6	28.7	6.6	99.2	1.3	4
	b	N/A	N/A	N/A	N/A	N/A	N/A
<b>Marine-based Stations</b>							
D1*	s	N/A	N/A	N/A	N/A	N/A	N/A
	m	28.5	28.9	6.6	99.5	1.5	4
	b	N/A	N/A	N/A	N/A	N/A	N/A
D2	s	28.6	28.7	6.8	102.8	1.4	5
	m	N/A	N/A	N/A	N/A	N/A	N/A
	b	28.5	29.0	6.2	93.9	1.9	3
D3	s	28.6	28.7	6.7	101.2	1.3	7
	m	N/A	N/A	N/A	N/A	N/A	N/A
	b	28.4	29.1	6.0	91.2	2.0	5
D4	s	N/A	N/A	N/A	N/A	N/A	N/A
	m	28.5	28.7	6.6	100.4	1.3	5
	b	N/A	N/A	N/A	N/A	N/A	N/A

6 September 2012

Station	Depth	Data Results for Mid Ebb					
		Temperature (oC)	Salinity (ppt)	DO (mg/L)	DOS (%)	Turbidity (NTU)	Suspended Solids (SS)
<b>Control Stations</b>							
<b>C</b>	<b>s</b>	N/A	N/A	N/A	N/A	N/A	N/A
	<b>m</b>	28.5	28.6	6.4	97.3	1.6	6
	<b>b</b>	N/A	N/A	N/A	N/A	N/A	N/A
<b>Marine-based Stations</b>							
<b>D1</b>	<b>s</b>	N/A	N/A	N/A	N/A	N/A	N/A
	<b>m</b>	28.4	28.9	6.6	99.8	1.7	5
	<b>b</b>	N/A	N/A	N/A	N/A	N/A	N/A
<b>D2</b>	<b>s</b>	28.4	28.6	6.4	96.4	1.6	3
	<b>m</b>	N/A	N/A	N/A	N/A	N/A	N/A
	<b>b</b>	28.5	28.7	6.3	94.7	1.5	2
<b>D3</b>	<b>s</b>	28.5	28.8	6.7	101.4	1.8	2
	<b>m</b>	N/A	N/A	N/A	N/A	N/A	N/A
	<b>b</b>	28.4	29.2	6.2	93.8	1.6	3
<b>D4*</b>	<b>s</b>	N/A	N/A	N/A	N/A	N/A	N/A
	<b>m</b>	28.7	28.0	7.2	109.1	1.9	5
	<b>b</b>	N/A	N/A	N/A	N/A	N/A	N/A

7 September 2012

Station	Depth	Data Results for Mid Ebb					
		Temperature (oC)	Salinity (ppt)	DO (mg/L)	DOS (%)	Turbidity (NTU)	Suspended Solids (SS)
<b>Control Stations</b>							
<b>C*</b>	<b>s</b>	N/A	N/A	N/A	N/A	N/A	N/A
	<b>m</b>	28.5	27.7	6.5	98.0	2.1	4
	<b>b</b>	N/A	N/A	N/A	N/A	N/A	N/A
<b>Marine-based Stations</b>							
<b>D1</b>	<b>s</b>	N/A	N/A	N/A	N/A	N/A	N/A
	<b>m</b>	28.6	27.6	6.6	99.2	2.3	5
	<b>b</b>	N/A	N/A	N/A	N/A	N/A	N/A
<b>D2</b>	<b>s</b>	28.6	27.4	6.6	99.7	2.5	3
	<b>m</b>	N/A	N/A	N/A	N/A	N/A	N/A
	<b>b</b>	28.4	27.6	6.6	97.6	3.8	2
<b>D3</b>	<b>s</b>	28.7	27.5	6.5	100.1	2.5	3
	<b>m</b>	N/A	N/A	N/A	N/A	N/A	N/A
	<b>b</b>	28.6	27.7	6.5	97.6	3.1	2
<b>D4</b>	<b>s</b>	N/A	N/A	N/A	N/A	N/A	N/A
	<b>m</b>	28.6	27.6	6.6	99.7	2.9	2
	<b>b</b>	N/A	N/A	N/A	N/A	N/A	N/A

11October 2012

Station	Depth	Data Results for Mid Ebb					
		Temperature (oC)	Salinity (ppt)	DO (mg/L)	DOS (%)	Turbidity (NTU)	Suspended Solids (SS)
<b>Control Stations</b>							
<b>C</b>	<b>s</b>	N/A	N/A	N/A	N/A	N/A	N/A
	<b>m*</b>	25.8	28.9	6.5	91.0	4.3	2
	<b>b</b>	N/A	N/A	N/A	N/A	N/A	N/A
<b>Marine-based Stations</b>							
<b>A1</b>	<b>s</b>	25.8	28.7	6.7	96.9	3.4	2
	<b>m</b>	33.6	33.6	6.4	90.5	4.4	3
	<b>b</b>	33.9	33.9	6.3	88.5	6.8	4
<b>A2</b>	<b>s</b>	28.6	28.6	6.5	95.1	2.4	3
	<b>m</b>	33.7	33.7	6.4	90.3	3.7	4
	<b>b</b>	34.1	34.1	6.3	88.0	6.3	6
<b>A3</b>	<b>s</b>	28.7	28.7	6.7	96.1	2.7	2
	<b>m</b>	33.8	33.8	6.4	91.2	4.1	6
	<b>b</b>	34.0	34.0	6.3	86.8	6.9	3
<b>A4</b>	<b>s</b>	28.7	28.7	6.7	96.2	2.4	2
	<b>m</b>	33.6	33.6	6.4	91.0	3.4	8
	<b>b</b>	34.4	34.4	6.3	86.9	5.9	4
<b>A5</b>	<b>s</b>	28.7	28.7	6.7	96.8	2.9	3
	<b>m</b>	33.6	33.6	6.5	93.5	5.0	4
	<b>b</b>	34.3	34.3	6.3	88.8	6.7	4
<b>A6</b>	<b>s</b>	28.7	28.7	6.7	96.8	4.1	3
	<b>m</b>	33.5	33.5	6.4	89.5	5.3	2
	<b>b</b>	34.1	34.1	6.3	88.2	6.7	3
<b>B1</b>	<b>s</b>	25.8	28.8	6.7	95.0	2.5	4
	<b>m</b>	34.0	34.0	6.4	89.5	4.3	2
	<b>b</b>	34.7	34.7	6.3	87.2	6.4	3
<b>B2</b>	<b>s</b>	28.8	28.8	6.6	95.5	3.0	2
	<b>m</b>	34.1	34.1	6.4	89.2	5.2	3
	<b>b</b>	34.8	34.8	6.3	87.4	5.4	4
<b>B3</b>	<b>s</b>	28.7	28.7	6.7	96.2	2.2	2
	<b>m</b>	34.1	34.1	6.5	89.0	3.2	3
	<b>b</b>	34.7	34.7	6.3	88.9	5.5	3
<b>B4</b>	<b>s</b>	28.8	28.8	6.7	95.8	1.9	4
	<b>m</b>	34.1	34.1	6.4	90.3	2.7	4
	<b>b</b>	34.8	34.8	6.3	88.8	5.9	3
<b>B5</b>	<b>s</b>	28.9	28.9	6.8	96.6	1.8	2
	<b>m</b>	34.0	34.0	6.5	90.1	2.7	3
	<b>b</b>	34.5	34.5	6.3	89.1	6.4	2
<b>B6</b>	<b>s</b>	28.8	28.8	6.7	97.2	1.8	4
	<b>m</b>	34.1	34.1	6.4	89.8	3.0	<2
	<b>b</b>	34.7	34.7	6.3	87.4	7.0	<2
<b>D1</b>	<b>s</b>	N/A	N/A	N/A	N/A	N/A	N/A
	<b>m*</b>	25.6	29.1	6.5	91.2	3.8	≤2
	<b>b</b>	N/A	N/A	N/A	N/A	N/A	N/A
<b>D2</b>	<b>s*</b>	25.8	28.1	6.5	92.2	3.2	3
	<b>m</b>	N/A	N/A	N/A	N/A	N/A	N/A
	<b>b</b>	23.9	32.5	6.3	87.3	4.4	2
<b>D3</b>	<b>s*</b>	25.7	28.3	6.5	92.6	2.7	<2
	<b>m</b>	N/A	N/A	N/A	N/A	N/A	N/A
	<b>b</b>	23.9	32.5	6.3	87.9	5.3	<2
<b>D4</b>	<b>s</b>	N/A	N/A	N/A	N/A	N/A	N/A
	<b>m</b>	25.0	28.7	6.4	90.0	6.6	<2
	<b>b</b>	N/A	N/A	N/A	N/A	N/A	N/A

## ***Annex C***

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# ***Water Quality Monitoring Data and Laboratory Result***

## Marine Water Quality Monitoring - Data Record Sheet

**Project Name:** Stanley Bay marine water monitoring

Date of Monitoring: 28/06/2012

Weather : Sunny

Tide: ebb

Sea Condition: Calm

Monitoring Equipment	Equipment No.
YSI Sonde 6920 V2	

Monitoring Location	Time	Water Depth (m)	Sampling Depth (m)	Temperature (oC)	Salinity (ppt)	DO (mg/L)	DOS (%)	Turbidity (NTU)
A1	08:25	10.2	1.0	28.7	17.5	8.2	116.4	1.7
			5.1	27.6	25.9	5.3	77.9	2.2
			9.2	26.1	30.8	3.5	51.8	5.1
A2	08:15	9.2	1.0	28.7	18.4	8.2	118.0	1.7
			4.6	28.1	23.2	6.1	89.4	2.2
			8.2	26.2	30.6	3.5	52.0	6.1
A3	08:05	8.2	1.0	28.7	17.2	8.4	119.3	1.8
			4.1	28.1	23.3	6.0	87.8	2.9
			7.2	27.2	27.2	4.5	66.2	3.7
A4	07:55	7.3	1.0	28.7	17.2	8.4	119.7	2.1
			3.7	28.8	19.7	7.6	110.0	2.2
			6.3	27.4	26.7	5.0	73.0	2.9
A5	07:45	6.4	1.0	28.6	17.3	8.3	118.0	1.7
			3.2	28.4	22.8	6.9	101.0	2.1
			5.4	27.0	28.4	4.3	62.9	3.2
A6	07:35	6.7	1.0	28.8	17.5	8.7	123.6	1.5
			3.4	29.1	18.4	8.1	117.3	2.0
			5.7	27.3	27.1	4.9	71.8	2.2

**Project Name:** Stanley Bay marine water monitoring

Date of Monitoring: 28/06/2012

Weather : Sunny

Tide: ebb

Sea Condition: Calm

Monitoring Equipment	Equipment No.
YSI Sonde 6920 V2	

Monitoring Location	Time	Water Depth (m)	Sampling Depth (m)	Temperature (oC)	Salinity (ppt)	DO (mg/L)	DOS (%)	Turbidity (NTU)
B1	06:25	12.8	1.0	28.7	17.4	8.0	114.4	1.6
			6.4	26.7	29.1	4.3	63.5	1.9
			11.8	25.5	31.5	3.6	51.9	4.2
B2	06:35	11.4	1.0	28.8	17.4	8.2	117.4	1.7
			5.7	26.8	28.9	4.4	63.9	1.9
			10.4	25.8	31.1	3.6	52.3	4.5
B3	06:45	11.7	1.0	28.8	17.5	8.3	117.8	1.7
			5.9	27.2	27.8	4.7	68.7	1.7
			10.7	26.3	31.1	3.7	54.0	3.3
B4	06:55	11.3	1.0	28.8	18.2	8.0	114.5	1.8
			5.7	27.4	26.6	5.1	74.0	1.8
			10.3	25.9	31.1	3.6	52.4	3.6
B5	07:05	10.6	1.0	28.7	17.8	8.1	116.1	1.8
			5.3	27.4	26.7	5.0	73.4	2.0
			9.6	26.3	30.8	3.7	54.2	3.3
B6	07:15	10.2	1.0	28.8	17.9	8.1	116.2	1.6
			5.1	27.4	26.6	5.0	73.3	2.0
			9.2	26.0	30.9	3.5	51.8	2.4



**Project Name:** Stanley Bay marine water monitoring

Date of Monitoring: 28/06/2012

Weather : Sunny

Tide: ebb

Sea Condition: Calm

Monitoring Equipment	Equipment No.
YSI Sonde 6920 V2	

Monitoring Location	Time	Water Depth (m)	Sampling Depth (m)	Temperature (oC)	Salinity (ppt)	DO (mg/L)	DOS (%)	Turbidity (NTU)
C	07:25	2.6						
			1.3	28.9	17.5	8.0	115.0	1.7
D1	09:05	2.5						
			1.3	28.7	17.4	8.4	119.2	1.7
D2	08:55	5.0	1.0	28.8	17.5	8.6	123.0	1.6
			4.0	28.5	18.5	7.0	100.2	2.3
D3	08:35	5.3	1.0	28.7	17.3	8.5	120.8	1.7
			4.3	28.4	22.0	6.5	94.9	2.3
D4	08:45	2.6						
			1.3	28.7	17.5	8.1	115.7	1.5

## Marine Water Quality Monitoring - Data Record Sheet

**Project Name:** Stanley Bay marine water monitoring

Date of Monitoring: 28/06/2012

Weather : Cloudy

Tide: Flood

Sea Condition: Calm

Monitoring Equipment	Equipment No.
YSI Sonde 6920 V2	

Monitoring Location	Time	Water Depth (m)	Sampling Depth (m)	Temperature (oC)	Salinity (ppt)	DO (mg/L)	DOS (%)	Turbidity (NTU)
A1	13:25	9.2	1.0	29.8	17.6	13.2	192.1	2.2
			4.6	27.5	26.2	5.3	77.9	2.2
			8.2	26.7	29.5	4.2	62.4	3.2
A2	13:15	9.2	1.0	30.0	17.7	13.2	192.1	2.0
			4.6	28.0	22.9	6.1	88.7	2.4
			8.2	26.5	30.5	3.9	57.2	3.0
A3	13:05	9.0	1.0	29.7	17.8	12.4	180.4	2.0
			4.5	28.1	21.8	6.0	87.2	2.4
			8.0	26.3	30.3	3.7	54.0	3.2
A4	12:55	7.5	1.0	29.4	17.9	12.1	174.9	2.2
			3.8	28.2	22.5	6.4	92.8	2.2
			6.5	27.0	28.1	4.5	66.4	3.4
A5	12:45	6.4	1.0	29.7	17.7	13.0	189.0	2.1
			3.2	28.6	19.9	7.7	111.4	1.9
			5.4	28.1	22.9	6.0	87.2	2.3
A6	12:35	6.4	1.0	29.4	17.8	12.4	179.1	2.3
			3.2	28.8	18.7	8.1	116.2	2.1
			5.4	27.0	28.4	4.6	67.0	3.4

**Project Name:** Stanley Bay marine water monitoring

Date of Monitoring: 28/06/2012

Weather : Cloudy

Tide: Flood

Sea Condition: Calm

Monitoring Equipment	Equipment No.
YSI Sonde 6920 V2	

Monitoring Location	Time	Water Depth (m)	Sampling Depth (m)	Temperature (oC)	Salinity (ppt)	DO (mg/L)	DOS (%)	Turbidity (NTU)
B1	11:25	12.4	1.0	29.4	17.6	11.8	170.8	2.0
			6.2	26.7	28.8	3.9	56.7	2.9
			11.4	25.0	32.7	3.8	54.7	4.1
B2	11:35	10.8	1.0	29.2	17.6	11.8	170.2	2.1
			5.4	28.0	22.6	5.1	74.0	2.6
			9.8	25.3	32.4	3.8	55.5	3.3
B3	11:45	11.3	1.0	29.2	17.8	11.4	164.2	6.1
			5.7	27.3	27.1	4.8	70.6	3.7
			10.3	25.0	32.5	3.8	55.3	3.3
B4	11:55	10.4	1.0	29.3	17.8	11.7	169.1	2.8
			5.2	27.2	27.2	4.8	70.8	2.9
			9.4	25.6	32.1	3.7	54.9	2.8
B5	12:05	12.4	1.0	29.7	17.5	12.8	185.4	2.0
			6.2	26.7	29.5	4.2	61.5	2.8
			11.4	25.2	32.4	3.6	52.5	6.7
B6	12:15	10.1	1.0	29.3	17.6	13.5	195.1	2.2
			5.1	26.9	29.1	4.6	67.0	1.9
			9.1	25.6	32.2	3.8	56.0	3.5

**Project Name:** Stanley Bay marine water monitoring

Date of Monitoring: 28/06/2012

Weather : Cloudy

Tide: Flood

Sea Condition: Calm

Monitoring Equipment	Equipment No.
YSI Sonde 6920 V2	

Monitoring Location	Time	Water Depth (m)	Sampling Depth (m)	Temperature (oC)	Salinity (ppt)	DO (mg/L)	DOS (%)	Turbidity (NTU)
C	12:25	2.4						
			1.2	29.8	17.6	14.1	205.2	2.1
D1	14:05	1.2						
			0.6	29.8	17.5	14.5	210.3	2.3
D2	13:55	5.1	1.0	30.1	17.5	14.5	210.9	2.5
			4.1	28.0	23.3	6.4	92.8	4.3
D3	13:35	5.1	1.0	30.1	17.4	13.9	202.4	2.3
			4.1	27.5	26.0	5.4	79.5	2.5
D4	13:45	2.5						
			1.3	29.4	18.2	11.2	162.6	2.4





## CERTIFICATE OF ANALYSIS

<i>Client</i>	: ATKINS CHINA LTD	<i>Laboratory</i>	: ALS Technichem HK Pty Ltd	<i>Page</i>	: 1 of 5
<i>Contact</i>	: MS ENID YUNG	<i>Contact</i>	: Chan Kwok Fai, Godfrey	<i>Work Order</i>	: <b>HK1216512</b>
<i>Address</i>	: 5TH FLOOR, WHARF T&T CENTRE, HARBOUR CITY, TSIM SHA TSUI 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>Facsimile</i>	: +852 2890 6343	<i>Facsimile</i>	: +852 2610 2021		
<i>Project</i>	: QUOTATION OF WATER TEST - STANLEY	<i>Quote number</i>	: ---	<i>Date received</i>	: 28-JUN-2012
<i>Order number</i>	: ---			<i>Date of issue</i>	: 06-JUL-2012
<i>C-O-C number</i>	: ---			<i>No. of samples</i>	- <i>Received</i> : 94
<i>Site</i>	: ---				- <i>Analysed</i> : 94

### Report Comments

This report for ALS Technichem (HK) Pty Ltd work order reference HK1216512 supersedes any previous reports with this reference. The completion date of analysis is 06-JUL-2012. Results apply to sample(s) as submitted. All pages of this report have been checked and approved for release. When date(s) and/or time(s) are shown bracketed, these have been assumed by the laboratory for process purposes. Abbreviations: CAS number = Chemical Abstract Services number. LOR = Limit of reporting.

Specific comments for Work Order HK1216512 :  
Sample(s) were collected by ALS Technichem (HK) staff on 28/06/2012.  
Temperature, Salinity, Dissolved Oxygen and Turbidity were measured on-site by ALS Technichem (HK) staff.  
Water sample(s) analysed and reported on an as received basis.

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

<i>Signatory</i>	<i>Position</i>	<i>Authorised results for:-</i>
Fung Lim Chee, Richard	General Manager	Inorganics
Fung Lim Chee, Richard	General Manager	Sampling

### ALS Laboratory Group

Trading Name: **ALS Technichem (HK) Pty Ltd**

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A Campbell Brothers Limited Company



### Analytical Results

Sub-Matrix: MARINE WATER

Client sample ID	Client sampling date / time	Laboratory sample ID	Compound	EA025: Suspended Solids (SS)	EA012-SAMP: Temperature	EA020-SAMP: Salinity	EA045-SAMP: Turbidity	EP025-SAMP: Dissolved Oxygen
			LOR Unit	2 mg/L	0.1 °C	0.1 g/L	1 NTU	0.1 mg/L
				EA/ED: Physical and Aggregate Properties	OS: On-Site Measurement	OS: On-Site Measurement	OS: On-Site Measurement	OS: On-Site Measurement
A1-S MID-EBB	28-JUN-2012 08:25	HK1216512-001		<2	28.7	17.5	2	8.2
A1-M MID-EBB	28-JUN-2012 08:25	HK1216512-002		<2	27.6	25.9	2	5.3
A1-B MID-EBB	28-JUN-2012 08:25	HK1216512-003		<2	26.1	30.8	5	3.5
A2-S MID-EBB	28-JUN-2012 08:15	HK1216512-004		<2	28.7	18.4	2	8.2
A2-M MID-EBB	28-JUN-2012 08:15	HK1216512-005		3	28.1	23.2	2	6.1
A2-B MID-EBB	28-JUN-2012 08:15	HK1216512-006		<2	26.2	30.6	6	3.5
A3-S MID-EBB	28-JUN-2012 08:05	HK1216512-007		<2	28.7	17.2	2	8.4
A3-M MID-EBB	28-JUN-2012 08:05	HK1216512-008		<2	28.1	23.3	3	6.0
A3-B MID-EBB	28-JUN-2012 08:05	HK1216512-009		<2	27.2	27.2	4	4.5
A4-S MID-EBB	28-JUN-2012 07:55	HK1216512-010		3	28.7	17.2	2	8.4
A4-M MID-EBB	28-JUN-2012 07:55	HK1216512-011		<2	28.8	19.7	2	7.6
A4-B MID-EBB	28-JUN-2012 07:55	HK1216512-012		<2	27.4	26.7	3	5.0
A5-S MID-EBB	28-JUN-2012 07:45	HK1216512-013		<2	28.6	17.3	2	8.3
A5-M MID-EBB	28-JUN-2012 07:45	HK1216512-014		<2	28.4	22.8	2	6.9
A5-B MID-EBB	28-JUN-2012 07:45	HK1216512-015		<2	27.0	28.4	3	4.3
A6-S MID-EBB	28-JUN-2012 07:35	HK1216512-016		<2	28.8	17.5	2	8.7
A6-M MID-EBB	28-JUN-2012 07:35	HK1216512-017		<2	29.1	18.4	2	8.1
A6-B MID-EBB	28-JUN-2012 07:35	HK1216512-018		<2	27.3	27.1	2	4.9
B1-S MID-EBB	28-JUN-2012 06:25	HK1216512-019		6	28.7	17.4	2	8.0
B1-M MID-EBB	28-JUN-2012 06:25	HK1216512-020		5	26.7	29.1	2	4.3
B1-B MID-EBB	28-JUN-2012 06:25	HK1216512-021		8	25.5	31.5	4	3.6
B2-S MID-EBB	28-JUN-2012 06:35	HK1216512-022		3	28.8	17.4	2	8.2
B2-M MID-EBB	28-JUN-2012 06:35	HK1216512-023		2	26.8	28.9	2	4.4
B2-B MID-EBB	28-JUN-2012 06:35	HK1216512-024		3	25.8	31.1	4	3.6
B3-S MID-EBB	28-JUN-2012 06:45	HK1216512-025		2	28.8	17.5	2	8.3
B3-M MID-EBB	28-JUN-2012 06:45	HK1216512-026		2	27.2	27.8	2	4.7
B3-B MID-EBB	28-JUN-2012 06:45	HK1216512-027		<2	26.3	31.1	3	3.7
B4-S MID-EBB	28-JUN-2012 06:55	HK1216512-028		5	28.8	18.2	2	8.0
B4-M MID-EBB	28-JUN-2012 06:55	HK1216512-029		2	27.4	26.6	2	5.1
B4-B MID-EBB	28-JUN-2012 06:55	HK1216512-030		4	25.9	31.1	4	3.6
B5-S MID-EBB	28-JUN-2012 07:05	HK1216512-031		2	28.7	17.8	2	8.1
B5-M MID-EBB	28-JUN-2012 07:05	HK1216512-032		3	27.4	26.7	2	5.0
B5-B MID-EBB	28-JUN-2012 07:05	HK1216512-033		2	26.3	30.8	3	3.7
B6-S MID-EBB	28-JUN-2012 07:15	HK1216512-034		2	28.8	17.9	2	8.1
B6-M MID-EBB	28-JUN-2012 07:15	HK1216512-035		5	27.4	26.6	2	5.0



Sub-Matrix: MARINE WATER

Client sample ID	Client sampling date / time	Laboratory sample ID	Compound	EA025: Suspended Solids (SS)	EA012-SAMP: Temperature	EA020-SAMP: Salinity	EA045-SAMP: Turbidity	EP025-SAMP: Dissolved Oxygen
			LOR Unit	2 mg/L	0.1 °C	0.1 g/L	1 NTU	0.1 mg/L
			EA/ED: Physical and Aggregate Properties	OS: On-Site Measurement	OS: On-Site Measurement	OS: On-Site Measurement	OS: On-Site Measurement	OS: On-Site Measurement
B6-B MID-EBB	28-JUN-2012 07:15	HK1216512-036		2	26.0	30.9	2	3.5
CM MID-EBB	28-JUN-2012 07:25	HK1216512-037		4	28.9	17.5	2	8.0
D1-M MID-EBB	28-JUN-2012 09:05	HK1216512-038		<2	28.7	17.4	2	8.4
D2-S MID-EBB	28-JUN-2012 08:55	HK1216512-039		2	28.8	17.5	2	8.6
D2-B MID-EBB	28-JUN-2012 08:55	HK1216512-040		<2	28.5	18.5	2	7.0
D3-S MID-EBB	28-JUN-2012 08:35	HK1216512-041		<2	28.7	17.3	2	8.5
D3-B MID-EBB	28-JUN-2012 08:35	HK1216512-042		<2	28.4	22.0	2	6.5
D4-M MID-EBB	28-JUN-2012 08:45	HK1216512-043		<2	28.7	17.5	2	8.1
A1-S MID-FLOOD	28-JUN-2012 13:25	HK1216512-044		4	29.8	17.6	2	13.2
A1-M MID-FLOOD	28-JUN-2012 13:25	HK1216512-045		3	27.5	26.2	2	5.3
A1-B MID-FLOOD	28-JUN-2012 13:25	HK1216512-046		2	26.7	29.5	3	4.2
A2-S MID-FLOOD	28-JUN-2012 13:15	HK1216512-047		3	30.0	17.7	2	13.2
A2-M MID-FLOOD	28-JUN-2012 13:15	HK1216512-048		3	28.0	22.9	2	6.1
A2-B MID-FLOOD	28-JUN-2012 13:15	HK1216512-049		4	26.5	30.5	3	3.9
A3-S MID-FLOOD	28-JUN-2012 13:05	HK1216512-050		3	29.7	17.8	2	12.4
A3-M MID-FLOOD	28-JUN-2012 13:05	HK1216512-051		4	28.1	21.8	2	6.0
A3-B MID-FLOOD	28-JUN-2012 13:05	HK1216512-052		4	26.3	30.3	3	3.7
A4-S MID-FLOOD	28-JUN-2012 12:55	HK1216512-053		5	29.4	17.9	2	12.1
A4-M MID-FLOOD	28-JUN-2012 12:55	HK1216512-054		4	28.2	22.5	2	6.4
A4-B MID-FLOOD	28-JUN-2012 12:55	HK1216512-055		3	27.0	28.1	3	4.5
A5-S MID-FLOOD	28-JUN-2012 12:45	HK1216512-056		5	29.7	17.7	2	13.0
A5-M MID-FLOOD	28-JUN-2012 12:45	HK1216512-057		4	28.6	19.9	2	7.7
A5-B MID-FLOOD	28-JUN-2012 12:45	HK1216512-058		3	28.1	22.9	2	6.0
A6-S MID-FLOOD	28-JUN-2012 12:35	HK1216512-059		3	29.4	17.8	2	12.4
A6-M MID-FLOOD	28-JUN-2012 12:35	HK1216512-060		3	28.8	18.7	2	8.1
A6-B MID-FLOOD	28-JUN-2012 12:35	HK1216512-061		4	27.0	28.4	3	4.6
B1-S MID-FLOOD	28-JUN-2012 11:25	HK1216512-062		3	29.4	17.6	2	11.8
B1-M MID-FLOOD	28-JUN-2012 11:25	HK1216512-063		3	26.7	28.8	3	3.9
B1-B MID-FLOOD	28-JUN-2012 11:25	HK1216512-064		2	25.0	32.7	4	3.8
B2-S MID-FLOOD	28-JUN-2012 11:35	HK1216512-065		4	29.2	17.6	2	11.8
B2-M MID-FLOOD	28-JUN-2012 11:35	HK1216512-066		3	28.0	22.6	3	5.1
B2-B MID-FLOOD	28-JUN-2012 11:35	HK1216512-067		3	25.3	32.4	3	3.8
B3-S MID-FLOOD	28-JUN-2012 11:45	HK1216512-068		3	29.2	17.8	6	11.4
B3-M MID-FLOOD	28-JUN-2012 11:45	HK1216512-069		<2	27.3	27.1	4	4.8
B3-B MID-FLOOD	28-JUN-2012 11:45	HK1216512-070		2	25.0	32.5	3	3.8





Sub-Matrix: MARINE WATER

			Compound	EA025: Suspended Solids (SS)	EA012-SAMP: Temperature	EA020-SAMP: Salinity	EA045-SAMP: Turbidity	EP025-SAMP: Dissolved Oxygen
			LOR Unit	2 mg/L	0.1 °C	0.1 g/L	1 NTU	0.1 mg/L
Client sample ID	Client sampling date / time	Laboratory sample ID		EA/ED: Physical and Aggregate Properties	OS: On-Site Measurement	OS: On-Site Measurement	OS: On-Site Measurement	OS: On-Site Measurement
B4-S MID-FLOOD	28-JUN-2012 11:55	HK1216512-071		3	29.3	17.8	3	11.7
B4-M MID-FLOOD	28-JUN-2012 11:55	HK1216512-072		2	27.2	27.2	3	4.8
B4-B MID-FLOOD	28-JUN-2012 11:55	HK1216512-073		2	25.6	32.1	3	3.7
B5-S MID-FLOOD	28-JUN-2012 12:05	HK1216512-074		4	29.7	17.5	2	12.8
B5-M MID-FLOOD	28-JUN-2012 12:05	HK1216512-075		3	26.7	29.5	3	4.2
B5-B MID-FLOOD	28-JUN-2012 12:05	HK1216512-076		3	25.2	32.4	7	3.6
B6-S MID-FLOOD	28-JUN-2012 12:15	HK1216512-077		4	29.3	17.6	2	13.5
B6-M MID-FLOOD	28-JUN-2012 12:15	HK1216512-078		4	26.9	29.1	2	4.6
B6-B MID-FLOOD	28-JUN-2012 12:15	HK1216512-079		4	25.6	32.2	4	3.8
CM MID-FLOOD	28-JUN-2012 12:25	HK1216512-080		3	29.8	17.6	2	14.1
D1-M MID-FLOOD	28-JUN-2012 14:05	HK1216512-081		4	29.8	17.5	2	14.5
D2-S MID-FLOOD	28-JUN-2012 13:55	HK1216512-082		<2	30.1	17.5	2	14.5
D2-B MID-FLOOD	28-JUN-2012 13:55	HK1216512-083		3	28.0	23.3	4	6.4
D3-S MID-FLOOD	28-JUN-2012 13:35	HK1216512-084		3	30.1	17.4	2	13.9
D3-B MID-FLOOD	28-JUN-2012 13:35	HK1216512-085		2	27.5	26.0	2	5.4
D4-M MID-FLOOD	28-JUN-2012 13:45	HK1216512-086		2	29.4	18.2	2	11.2
B1-S-E FIELD DUPLICATE	[28-JUN-2012]	HK1216512-087		4	28.6	17.3	2	7.9
B2-M-E FIELD DUPLICATE	[28-JUN-2012]	HK1216512-088		3	27.1	28.2	2	4.4
B3-B-E FIELD DUPLICATE	[28-JUN-2012]	HK1216512-089		<2	26.3	31.1	3	3.7
B4-S-E FIELD DUPLICATE	[28-JUN-2012]	HK1216512-090		4	28.7	17.7	2	8.0
A1-S-F FIELD DUPLICATE	[28-JUN-2012]	HK1216512-091		5	29.8	17.6	2	13.2
A2-M-F FIELD DUPLICATE	[28-JUN-2012]	HK1216512-092		4	28.0	22.9	2	6.1
A3-B-F FIELD DUPLICATE	[28-JUN-2012]	HK1216512-093		3	26.5	30.3	3	3.7
A4-S-F FIELD DUPLICATE	[28-JUN-2012]	HK1216512-094		3	29.7	17.8	2	12.5



### 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 (%)
<b>EA/ED: Physical and Aggregate Properties (QC Lot: 2388098)</b>								
HK1216512-001	A1-S MID-EBB	EA025: Suspended Solids (SS)	----	2	mg/L	<2	<2	0.0
HK1216512-011	A4-M MID-EBB	EA025: Suspended Solids (SS)	----	2	mg/L	<2	<2	0.0
<b>EA/ED: Physical and Aggregate Properties (QC Lot: 2388099)</b>								
HK1216512-021	B1-B MID-EBB	EA025: Suspended Solids (SS)	----	2	mg/L	8	7	0.0
HK1216512-031	B5-S MID-EBB	EA025: Suspended Solids (SS)	----	2	mg/L	2	3	38.2
<b>EA/ED: Physical and Aggregate Properties (QC Lot: 2388100)</b>								
HK1216512-041	D3-S MID-EBB	EA025: Suspended Solids (SS)	----	2	mg/L	<2	<2	0.0
HK1216512-051	A3-M MID-FLOOD	EA025: Suspended Solids (SS)	----	2	mg/L	4	6	45.4
<b>EA/ED: Physical and Aggregate Properties (QC Lot: 2388101)</b>								
HK1216512-061	A6-B MID-FLOOD	EA025: Suspended Solids (SS)	----	2	mg/L	4	3	0.0
HK1216512-071	B4-S MID-FLOOD	EA025: Suspended Solids (SS)	----	2	mg/L	3	5	34.4
<b>EA/ED: Physical and Aggregate Properties (QC Lot: 2388102)</b>								
HK1216512-081	D1-M MID-FLOOD	EA025: Suspended Solids (SS)	----	2	mg/L	4	3	35.0
HK1216512-091	A1-S-F FIELD DUPLICATE	EA025: Suspended Solids (SS)	----	2	mg/L	5	3	40.2

### 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
<b>EA/ED: Physical and Aggregate Properties (QCLot: 2388098)</b>											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	100	----	85	113	----	----
<b>EA/ED: Physical and Aggregate Properties (QCLot: 2388099)</b>											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	102	----	85	113	----	----
<b>EA/ED: Physical and Aggregate Properties (QCLot: 2388100)</b>											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	99.5	----	85	113	----	----
<b>EA/ED: Physical and Aggregate Properties (QCLot: 2388101)</b>											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	99.5	----	85	113	----	----
<b>EA/ED: Physical and Aggregate Properties (QCLot: 2388102)</b>											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	103	----	85	113	----	----

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

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

## Marine Water Quality Monitoring - Data Record Sheet

**Project Name:** Stanley Bay marine water monitoring

Date of Monitoring: 28/06/2012

Weather : Sunny

Tide: ebb

Sea Condition: Calm

Monitoring Equipment	Equipment No.
YSI Sonde 6920 V2	

Monitoring Location	Time	Water Depth (m)	Sampling Depth (m)	Temperature (oC)	Salinity (ppt)	DO (mg/L)	DOS (%)	Turbidity (NTU)
A1	08:25	10.2	1.0	28.7	17.5	8.2	116.4	1.7
			5.1	27.6	25.9	5.3	77.9	2.2
			9.2	26.1	30.8	3.5	51.8	5.1
A2	08:15	9.2	1.0	28.7	18.4	8.2	118.0	1.7
			4.6	28.1	23.2	6.1	89.4	2.2
			8.2	26.2	30.6	3.5	52.0	6.1
A3	08:05	8.2	1.0	28.7	17.2	8.4	119.3	1.8
			4.1	28.1	23.3	6.0	87.8	2.9
			7.2	27.2	27.2	4.5	66.2	3.7
A4	07:55	7.3	1.0	28.7	17.2	8.4	119.7	2.1
			3.7	28.8	19.7	7.6	110.0	2.2
			6.3	27.4	26.7	5.0	73.0	2.9
A5	07:45	6.4	1.0	28.6	17.3	8.3	118.0	1.7
			3.2	28.4	22.8	6.9	101.0	2.1
			5.4	27.0	28.4	4.3	62.9	3.2
A6	07:35	6.7	1.0	28.8	17.5	8.7	123.6	1.5
			3.4	29.1	18.4	8.1	117.3	2.0
			5.7	27.3	27.1	4.9	71.8	2.2

**Project Name:** Stanley Bay marine water monitoring

Date of Monitoring: 28/06/2012

Weather : Sunny

Tide: ebb

Sea Condition: Calm

Monitoring Equipment	Equipment No.
YSI Sonde 6920 V2	

Monitoring Location	Time	Water Depth (m)	Sampling Depth (m)	Temperature (oC)	Salinity (ppt)	DO (mg/L)	DOS (%)	Turbidity (NTU)
B1	06:25	12.8	1.0	28.7	17.4	8.0	114.4	1.6
			6.4	26.7	29.1	4.3	63.5	1.9
			11.8	25.5	31.5	3.6	51.9	4.2
B2	06:35	11.4	1.0	28.8	17.4	8.2	117.4	1.7
			5.7	26.8	28.9	4.4	63.9	1.9
			10.4	25.8	31.1	3.6	52.3	4.5
B3	06:45	11.7	1.0	28.8	17.5	8.3	117.8	1.7
			5.9	27.2	27.8	4.7	68.7	1.7
			10.7	26.3	31.1	3.7	54.0	3.3
B4	06:55	11.3	1.0	28.8	18.2	8.0	114.5	1.8
			5.7	27.4	26.6	5.1	74.0	1.8
			10.3	25.9	31.1	3.6	52.4	3.6
B5	07:05	10.6	1.0	28.7	17.8	8.1	116.1	1.8
			5.3	27.4	26.7	5.0	73.4	2.0
			9.6	26.3	30.8	3.7	54.2	3.3
B6	07:15	10.2	1.0	28.8	17.9	8.1	116.2	1.6
			5.1	27.4	26.6	5.0	73.3	2.0
			9.2	26.0	30.9	3.5	51.8	2.4

**Project Name:** Stanley Bay marine water monitoring

Date of Monitoring: 28/06/2012

Weather : Sunny

Tide: ebb

Sea Condition: Calm

Monitoring Equipment	Equipment No.
YSI Sonde 6920 V2	

Monitoring Location	Time	Water Depth (m)	Sampling Depth (m)	Temperature (oC)	Salinity (ppt)	DO (mg/L)	DOS (%)	Turbidity (NTU)
C	07:25	2.6						
			1.3	28.9	17.5	8.0	115.0	1.7
D1	09:05	2.5						
			1.3	28.7	17.4	8.4	119.2	1.7
D2	08:55	5.0	1.0	28.8	17.5	8.6	123.0	1.6
			4.0	28.5	18.5	7.0	100.2	2.3
D3	08:35	5.3	1.0	28.7	17.3	8.5	120.8	1.7
			4.3	28.4	22.0	6.5	94.9	2.3
D4	08:45	2.6						
			1.3	28.7	17.5	8.1	115.7	1.5

## Marine Water Quality Monitoring - Data Record Sheet

**Project Name:** Stanley Bay marine water monitoring

Date of Monitoring: 28/06/2012

Weather : Cloudy

Tide: Flood

Sea Condition: Calm

Monitoring Equipment	Equipment No.
YSI Sonde 6920 V2	

Monitoring Location	Time	Water Depth (m)	Sampling Depth (m)	Temperature (oC)	Salinity (ppt)	DO (mg/L)	DOS (%)	Turbidity (NTU)
A1	13:25	9.2	1.0	29.8	17.6	13.2	192.1	2.2
			4.6	27.5	26.2	5.3	77.9	2.2
			8.2	26.7	29.5	4.2	62.4	3.2
A2	13:15	9.2	1.0	30.0	17.7	13.2	192.1	2.0
			4.6	28.0	22.9	6.1	88.7	2.4
			8.2	26.5	30.5	3.9	57.2	3.0
A3	13:05	9.0	1.0	29.7	17.8	12.4	180.4	2.0
			4.5	28.1	21.8	6.0	87.2	2.4
			8.0	26.3	30.3	3.7	54.0	3.2
A4	12:55	7.5	1.0	29.4	17.9	12.1	174.9	2.2
			3.8	28.2	22.5	6.4	92.8	2.2
			6.5	27.0	28.1	4.5	66.4	3.4
A5	12:45	6.4	1.0	29.7	17.7	13.0	189.0	2.1
			3.2	28.6	19.9	7.7	111.4	1.9
			5.4	28.1	22.9	6.0	87.2	2.3
A6	12:35	6.4	1.0	29.4	17.8	12.4	179.1	2.3
			3.2	28.8	18.7	8.1	116.2	2.1
			5.4	27.0	28.4	4.6	67.0	3.4

**Project Name:** Stanley Bay marine water monitoring

Date of Monitoring: 28/06/2012

Weather : Cloudy

Tide: Flood

Sea Condition: Calm

Monitoring Equipment	Equipment No.
YSI Sonde 6920 V2	

Monitoring Location	Time	Water Depth (m)	Sampling Depth (m)	Temperature (oC)	Salinity (ppt)	DO (mg/L)	DOS (%)	Turbidity (NTU)
B1	11:25	12.4	1.0	29.4	17.6	11.8	170.8	2.0
			6.2	26.7	28.8	3.9	56.7	2.9
			11.4	25.0	32.7	3.8	54.7	4.1
B2	11:35	10.8	1.0	29.2	17.6	11.8	170.2	2.1
			5.4	28.0	22.6	5.1	74.0	2.6
			9.8	25.3	32.4	3.8	55.5	3.3
B3	11:45	11.3	1.0	29.2	17.8	11.4	164.2	6.1
			5.7	27.3	27.1	4.8	70.6	3.7
			10.3	25.0	32.5	3.8	55.3	3.3
B4	11:55	10.4	1.0	29.3	17.8	11.7	169.1	2.8
			5.2	27.2	27.2	4.8	70.8	2.9
			9.4	25.6	32.1	3.7	54.9	2.8
B5	12:05	12.4	1.0	29.7	17.5	12.8	185.4	2.0
			6.2	26.7	29.5	4.2	61.5	2.8
			11.4	25.2	32.4	3.6	52.5	6.7
B6	12:15	10.1	1.0	29.3	17.6	13.5	195.1	2.2
			5.1	26.9	29.1	4.6	67.0	1.9
			9.1	25.6	32.2	3.8	56.0	3.5

**Project Name:** Stanley Bay marine water monitoring

Date of Monitoring: 28/06/2012

Weather : Cloudy

Tide: Flood

Sea Condition: Calm

Monitoring Equipment	Equipment No.
YSI Sonde 6920 V2	

Monitoring Location	Time	Water Depth (m)	Sampling Depth (m)	Temperature (oC)	Salinity (ppt)	DO (mg/L)	DOS (%)	Turbidity (NTU)
C	12:25	2.4						
			1.2	29.8	17.6	14.1	205.2	2.1
D1	14:05	1.2						
			0.6	29.8	17.5	14.5	210.3	2.3
D2	13:55	5.1	1.0	30.1	17.5	14.5	210.9	2.5
			4.1	28.0	23.3	6.4	92.8	4.3
D3	13:35	5.1	1.0	30.1	17.4	13.9	202.4	2.3
			4.1	27.5	26.0	5.4	79.5	2.5
D4	13:45	2.5						
			1.3	29.4	18.2	11.2	162.6	2.4







## CERTIFICATE OF ANALYSIS

<i>Client</i>	: ATKINS CHINA LTD	<i>Laboratory</i>	: ALS Technichem HK Pty Ltd	<i>Page</i>	: 1 of 5
<i>Contact</i>	: MS ENID YUNG	<i>Contact</i>	: Chan Kwok Fai, Godfrey	<i>Work Order</i>	: <b>HK1216512</b>
<i>Address</i>	: 5TH FLOOR, WHARF T&T CENTRE, HARBOUR CITY, TSIM SHA TSUI 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>	: enid.yung@atkinsglobal.com	<i>E-mail</i>	: Godfrey.Chan@alsglobal.com		
<i>Telephone</i>	: +852 2972 1802	<i>Telephone</i>	: +852 2610 1044		
<i>Facsimile</i>	: +852 2890 6343	<i>Facsimile</i>	: +852 2610 2021		
<i>Project</i>	: QUOTATION OF WATER TEST - STANLEY	<i>Quote number</i>	: ---	<i>Date received</i>	: 28-JUN-2012
<i>Order number</i>	: ---			<i>Date of issue</i>	: 06-JUL-2012
<i>C-O-C number</i>	: ---			<i>No. of samples</i>	- Received : 94
<i>Site</i>	: ---				- Analysed : 94

### Report Comments

This report for ALS Technichem (HK) Pty Ltd work order reference HK1216512 supersedes any previous reports with this reference. The completion date of analysis is 06-JUL-2012. Results apply to sample(s) as submitted. All pages of this report have been checked and approved for release. When date(s) and/or time(s) are shown bracketed, these have been assumed by the laboratory for process purposes. Abbreviations: CAS number = Chemical Abstract Services number. LOR = Limit of reporting.

Specific comments for Work Order HK1216512 :  
Sample(s) were collected by ALS Technichem (HK) staff on 28/06/2012.  
Temperature, Salinity, Dissolved Oxygen and Turbidity were measured on-site by ALS Technichem (HK) staff.  
Water sample(s) analysed and reported on an as received basis.

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

<i>Signatory</i>	<i>Position</i>	<i>Authorised results for:-</i>
Fung Lim Chee, Richard	General Manager	Inorganics
Fung Lim Chee, Richard	General Manager	Sampling



### Analytical Results

Sub-Matrix: MARINE WATER

Client sample ID	Client sampling date / time	Laboratory sample ID	Compound	EA025: Suspended Solids (SS)	EA012-SAMP: Temperature	EA020-SAMP: Salinity	EA045-SAMP: Turbidity	EP025-SAMP: Dissolved Oxygen
			LOR Unit	2 mg/L	0.1 °C	0.1 g/L	1 NTU	0.1 mg/L
				EA/ED: Physical and Aggregate Properties	OS: On-Site Measurement	OS: On-Site Measurement	OS: On-Site Measurement	OS: On-Site Measurement
A1-S MID-EBB	28-JUN-2012 08:25	HK1216512-001		<2	28.7	17.5	2	8.2
A1-M MID-EBB	28-JUN-2012 08:25	HK1216512-002		<2	27.6	25.9	2	5.3
A1-B MID-EBB	28-JUN-2012 08:25	HK1216512-003		<2	26.1	30.8	5	3.5
A2-S MID-EBB	28-JUN-2012 08:15	HK1216512-004		<2	28.7	18.4	2	8.2
A2-M MID-EBB	28-JUN-2012 08:15	HK1216512-005		3	28.1	23.2	2	6.1
A2-B MID-EBB	28-JUN-2012 08:15	HK1216512-006		<2	26.2	30.6	6	3.5
A3-S MID-EBB	28-JUN-2012 08:05	HK1216512-007		<2	28.7	17.2	2	8.4
A3-M MID-EBB	28-JUN-2012 08:05	HK1216512-008		<2	28.1	23.3	3	6.0
A3-B MID-EBB	28-JUN-2012 08:05	HK1216512-009		<2	27.2	27.2	4	4.5
A4-S MID-EBB	28-JUN-2012 07:55	HK1216512-010		3	28.7	17.2	2	8.4
A4-M MID-EBB	28-JUN-2012 07:55	HK1216512-011		<2	28.8	19.7	2	7.6
A4-B MID-EBB	28-JUN-2012 07:55	HK1216512-012		<2	27.4	26.7	3	5.0
A5-S MID-EBB	28-JUN-2012 07:45	HK1216512-013		<2	28.6	17.3	2	8.3
A5-M MID-EBB	28-JUN-2012 07:45	HK1216512-014		<2	28.4	22.8	2	6.9
A5-B MID-EBB	28-JUN-2012 07:45	HK1216512-015		<2	27.0	28.4	3	4.3
A6-S MID-EBB	28-JUN-2012 07:35	HK1216512-016		<2	28.8	17.5	2	8.7
A6-M MID-EBB	28-JUN-2012 07:35	HK1216512-017		<2	29.1	18.4	2	8.1
A6-B MID-EBB	28-JUN-2012 07:35	HK1216512-018		<2	27.3	27.1	2	4.9
B1-S MID-EBB	28-JUN-2012 06:25	HK1216512-019		6	28.7	17.4	2	8.0
B1-M MID-EBB	28-JUN-2012 06:25	HK1216512-020		5	26.7	29.1	2	4.3
B1-B MID-EBB	28-JUN-2012 06:25	HK1216512-021		8	25.5	31.5	4	3.6
B2-S MID-EBB	28-JUN-2012 06:35	HK1216512-022		3	28.8	17.4	2	8.2
B2-M MID-EBB	28-JUN-2012 06:35	HK1216512-023		2	26.8	28.9	2	4.4
B2-B MID-EBB	28-JUN-2012 06:35	HK1216512-024		3	25.8	31.1	4	3.6
B3-S MID-EBB	28-JUN-2012 06:45	HK1216512-025		2	28.8	17.5	2	8.3
B3-M MID-EBB	28-JUN-2012 06:45	HK1216512-026		2	27.2	27.8	2	4.7
B3-B MID-EBB	28-JUN-2012 06:45	HK1216512-027		<2	26.3	31.1	3	3.7
B4-S MID-EBB	28-JUN-2012 06:55	HK1216512-028		5	28.8	18.2	2	8.0
B4-M MID-EBB	28-JUN-2012 06:55	HK1216512-029		2	27.4	26.6	2	5.1
B4-B MID-EBB	28-JUN-2012 06:55	HK1216512-030		4	25.9	31.1	4	3.6
B5-S MID-EBB	28-JUN-2012 07:05	HK1216512-031		2	28.7	17.8	2	8.1
B5-M MID-EBB	28-JUN-2012 07:05	HK1216512-032		3	27.4	26.7	2	5.0
B5-B MID-EBB	28-JUN-2012 07:05	HK1216512-033		2	26.3	30.8	3	3.7
B6-S MID-EBB	28-JUN-2012 07:15	HK1216512-034		2	28.8	17.9	2	8.1
B6-M MID-EBB	28-JUN-2012 07:15	HK1216512-035		5	27.4	26.6	2	5.0



Sub-Matrix: MARINE WATER

Client sample ID	Client sampling date / time	Laboratory sample ID	Compound	EA025: Suspended Solids (SS)	EA012-SAMP: Temperature	EA020-SAMP: Salinity	EA045-SAMP: Turbidity	EP025-SAMP: Dissolved Oxygen
			LOR Unit	2 mg/L	0.1 °C	0.1 g/L	1 NTU	0.1 mg/L
			EA/ED: Physical and Aggregate Properties	OS: On-Site Measurement	OS: On-Site Measurement	OS: On-Site Measurement	OS: On-Site Measurement	OS: On-Site Measurement
B6-B MID-EBB	28-JUN-2012 07:15	HK1216512-036		2	26.0	30.9	2	3.5
CM MID-EBB	28-JUN-2012 07:25	HK1216512-037		4	28.9	17.5	2	8.0
D1-M MID-EBB	28-JUN-2012 09:05	HK1216512-038		<2	28.7	17.4	2	8.4
D2-S MID-EBB	28-JUN-2012 08:55	HK1216512-039		2	28.8	17.5	2	8.6
D2-B MID-EBB	28-JUN-2012 08:55	HK1216512-040		<2	28.5	18.5	2	7.0
D3-S MID-EBB	28-JUN-2012 08:35	HK1216512-041		<2	28.7	17.3	2	8.5
D3-B MID-EBB	28-JUN-2012 08:35	HK1216512-042		<2	28.4	22.0	2	6.5
D4-M MID-EBB	28-JUN-2012 08:45	HK1216512-043		<2	28.7	17.5	2	8.1
A1-S MID-FLOOD	28-JUN-2012 13:25	HK1216512-044		4	29.8	17.6	2	13.2
A1-M MID-FLOOD	28-JUN-2012 13:25	HK1216512-045		3	27.5	26.2	2	5.3
A1-B MID-FLOOD	28-JUN-2012 13:25	HK1216512-046		2	26.7	29.5	3	4.2
A2-S MID-FLOOD	28-JUN-2012 13:15	HK1216512-047		3	30.0	17.7	2	13.2
A2-M MID-FLOOD	28-JUN-2012 13:15	HK1216512-048		3	28.0	22.9	2	6.1
A2-B MID-FLOOD	28-JUN-2012 13:15	HK1216512-049		4	26.5	30.5	3	3.9
A3-S MID-FLOOD	28-JUN-2012 13:05	HK1216512-050		3	29.7	17.8	2	12.4
A3-M MID-FLOOD	28-JUN-2012 13:05	HK1216512-051		4	28.1	21.8	2	6.0
A3-B MID-FLOOD	28-JUN-2012 13:05	HK1216512-052		4	26.3	30.3	3	3.7
A4-S MID-FLOOD	28-JUN-2012 12:55	HK1216512-053		5	29.4	17.9	2	12.1
A4-M MID-FLOOD	28-JUN-2012 12:55	HK1216512-054		4	28.2	22.5	2	6.4
A4-B MID-FLOOD	28-JUN-2012 12:55	HK1216512-055		3	27.0	28.1	3	4.5
A5-S MID-FLOOD	28-JUN-2012 12:45	HK1216512-056		5	29.7	17.7	2	13.0
A5-M MID-FLOOD	28-JUN-2012 12:45	HK1216512-057		4	28.6	19.9	2	7.7
A5-B MID-FLOOD	28-JUN-2012 12:45	HK1216512-058		3	28.1	22.9	2	6.0
A6-S MID-FLOOD	28-JUN-2012 12:35	HK1216512-059		3	29.4	17.8	2	12.4
A6-M MID-FLOOD	28-JUN-2012 12:35	HK1216512-060		3	28.8	18.7	2	8.1
A6-B MID-FLOOD	28-JUN-2012 12:35	HK1216512-061		4	27.0	28.4	3	4.6
B1-S MID-FLOOD	28-JUN-2012 11:25	HK1216512-062		3	29.4	17.6	2	11.8
B1-M MID-FLOOD	28-JUN-2012 11:25	HK1216512-063		3	26.7	28.8	3	3.9
B1-B MID-FLOOD	28-JUN-2012 11:25	HK1216512-064		2	25.0	32.7	4	3.8
B2-S MID-FLOOD	28-JUN-2012 11:35	HK1216512-065		4	29.2	17.6	2	11.8
B2-M MID-FLOOD	28-JUN-2012 11:35	HK1216512-066		3	28.0	22.6	3	5.1
B2-B MID-FLOOD	28-JUN-2012 11:35	HK1216512-067		3	25.3	32.4	3	3.8
B3-S MID-FLOOD	28-JUN-2012 11:45	HK1216512-068		3	29.2	17.8	6	11.4
B3-M MID-FLOOD	28-JUN-2012 11:45	HK1216512-069		<2	27.3	27.1	4	4.8
B3-B MID-FLOOD	28-JUN-2012 11:45	HK1216512-070		2	25.0	32.5	3	3.8



Sub-Matrix: MARINE WATER

			Compound	EA025: Suspended Solids (SS)	EA012-SAMP: Temperature	EA020-SAMP: Salinity	EA045-SAMP: Turbidity	EP025-SAMP: Dissolved Oxygen
			LOR Unit	2 mg/L	0.1 °C	0.1 g/L	1 NTU	0.1 mg/L
Client sample ID	Client sampling date / time	Laboratory sample ID		EA/ED: Physical and Aggregate Properties	OS: On-Site Measurement	OS: On-Site Measurement	OS: On-Site Measurement	OS: On-Site Measurement
B4-S MID-FLOOD	28-JUN-2012 11:55	HK1216512-071		3	29.3	17.8	3	11.7
B4-M MID-FLOOD	28-JUN-2012 11:55	HK1216512-072		2	27.2	27.2	3	4.8
B4-B MID-FLOOD	28-JUN-2012 11:55	HK1216512-073		2	25.6	32.1	3	3.7
B5-S MID-FLOOD	28-JUN-2012 12:05	HK1216512-074		4	29.7	17.5	2	12.8
B5-M MID-FLOOD	28-JUN-2012 12:05	HK1216512-075		3	26.7	29.5	3	4.2
B5-B MID-FLOOD	28-JUN-2012 12:05	HK1216512-076		3	25.2	32.4	7	3.6
B6-S MID-FLOOD	28-JUN-2012 12:15	HK1216512-077		4	29.3	17.6	2	13.5
B6-M MID-FLOOD	28-JUN-2012 12:15	HK1216512-078		4	26.9	29.1	2	4.6
B6-B MID-FLOOD	28-JUN-2012 12:15	HK1216512-079		4	25.6	32.2	4	3.8
CM MID-FLOOD	28-JUN-2012 12:25	HK1216512-080		3	29.8	17.6	2	14.1
D1-M MID-FLOOD	28-JUN-2012 14:05	HK1216512-081		4	29.8	17.5	2	14.5
D2-S MID-FLOOD	28-JUN-2012 13:55	HK1216512-082		<2	30.1	17.5	2	14.5
D2-B MID-FLOOD	28-JUN-2012 13:55	HK1216512-083		3	28.0	23.3	4	6.4
D3-S MID-FLOOD	28-JUN-2012 13:35	HK1216512-084		3	30.1	17.4	2	13.9
D3-B MID-FLOOD	28-JUN-2012 13:35	HK1216512-085		2	27.5	26.0	2	5.4
D4-M MID-FLOOD	28-JUN-2012 13:45	HK1216512-086		2	29.4	18.2	2	11.2
B1-S-E FIELD DUPLICATE	[28-JUN-2012]	HK1216512-087		4	28.6	17.3	2	7.9
B2-M-E FIELD DUPLICATE	[28-JUN-2012]	HK1216512-088		3	27.1	28.2	2	4.4
B3-B-E FIELD DUPLICATE	[28-JUN-2012]	HK1216512-089		<2	26.3	31.1	3	3.7
B4-S-E FIELD DUPLICATE	[28-JUN-2012]	HK1216512-090		4	28.7	17.7	2	8.0
A1-S-F FIELD DUPLICATE	[28-JUN-2012]	HK1216512-091		5	29.8	17.6	2	13.2
A2-M-F FIELD DUPLICATE	[28-JUN-2012]	HK1216512-092		4	28.0	22.9	2	6.1
A3-B-F FIELD DUPLICATE	[28-JUN-2012]	HK1216512-093		3	26.5	30.3	3	3.7
A4-S-F FIELD DUPLICATE	[28-JUN-2012]	HK1216512-094		3	29.7	17.8	2	12.5



### 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 (%)
<b>EA/ED: Physical and Aggregate Properties (QC Lot: 2388098)</b>								
HK1216512-001	A1-S MID-EBB	EA025: Suspended Solids (SS)	----	2	mg/L	<2	<2	0.0
HK1216512-011	A4-M MID-EBB	EA025: Suspended Solids (SS)	----	2	mg/L	<2	<2	0.0
<b>EA/ED: Physical and Aggregate Properties (QC Lot: 2388099)</b>								
HK1216512-021	B1-B MID-EBB	EA025: Suspended Solids (SS)	----	2	mg/L	8	7	0.0
HK1216512-031	B5-S MID-EBB	EA025: Suspended Solids (SS)	----	2	mg/L	2	3	38.2
<b>EA/ED: Physical and Aggregate Properties (QC Lot: 2388100)</b>								
HK1216512-041	D3-S MID-EBB	EA025: Suspended Solids (SS)	----	2	mg/L	<2	<2	0.0
HK1216512-051	A3-M MID-FLOOD	EA025: Suspended Solids (SS)	----	2	mg/L	4	6	45.4
<b>EA/ED: Physical and Aggregate Properties (QC Lot: 2388101)</b>								
HK1216512-061	A6-B MID-FLOOD	EA025: Suspended Solids (SS)	----	2	mg/L	4	3	0.0
HK1216512-071	B4-S MID-FLOOD	EA025: Suspended Solids (SS)	----	2	mg/L	3	5	34.4
<b>EA/ED: Physical and Aggregate Properties (QC Lot: 2388102)</b>								
HK1216512-081	D1-M MID-FLOOD	EA025: Suspended Solids (SS)	----	2	mg/L	4	3	35.0
HK1216512-091	A1-S-F FIELD DUPLICATE	EA025: Suspended Solids (SS)	----	2	mg/L	5	3	40.2

### 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
<b>EA/ED: Physical and Aggregate Properties (QCLot: 2388098)</b>											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	100	----	85	113	----	----
<b>EA/ED: Physical and Aggregate Properties (QCLot: 2388099)</b>											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	102	----	85	113	----	----
<b>EA/ED: Physical and Aggregate Properties (QCLot: 2388100)</b>											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	99.5	----	85	113	----	----
<b>EA/ED: Physical and Aggregate Properties (QCLot: 2388101)</b>											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	99.5	----	85	113	----	----
<b>EA/ED: Physical and Aggregate Properties (QCLot: 2388102)</b>											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	103	----	85	113	----	----

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

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

## Marine Water Quality Monitoring - Data Record Sheet

**Project Name:** Stanley Bay marine water monitoring

Date of Monitoring: 12/07/2012

Weather : Fine

Tide: Ebb

Sea Condition: Calm

Monitoring Equipment	Equipment No.
YSI Sonde 6920 V2	

Monitoring Location	Time	Water Depth (m)	Sampling Depth (m)	Temperature (oC)	Salinity (ppt)	DO (mg/L)	DOS (%)	Turbidity (NTU)
A1	13:30	10.0	1.0	29.5	20.6	10.1	147.0	2.3
			5.0	29.2	20.5	9.9	146.1	2.6
			9.0	28.4	24.1	8.3	122.5	5.3
A2	13:20	9.0	1.0	229.4	20.5	9.4	137.3	2.4
			4.5	29.0	21.1	8.8	128.3	2.5
			8.0	27.9	25.0	7.9	116.3	2.8
A3	13:10	6.9	1.0	29.4	20.5	9.3	138.7	2.4
			3.5	29.5	20.5	9.0	135.3	2.4
			5.9	29.0	20.8	8.6	126.2	2.5
A4	13:00	6.5	1.0	29.5	20.5	9.9	146.6	2.1
			3.3	29.4	20.5	10.0	149.5	2.2
			5.5	29.2	20.7	10.1	148.2	2.1
A5	12:50	6.0	1.0	29.4	20.5	9.7	142.9	2.3
			3.0	29.1	20.8	9.6	140.4	2.4
			5.0	28.7	21.7	8.2	119.0	3.1
A6	12:40	6.7	1.0	29.4	20.4	9.3	135.1	1.9
			3.4	29.0	20.6	8.6	125.9	2.4
			5.7	28.9	21.5	8.3	122.0	2.5

**Project Name:** Stanley Bay marine water monitoring

Date of Monitoring: 12/07/2012

Weather : Fine

Tide: Ebb

Sea Condition: Calm

Monitoring Equipment	Equipment No.
YSI Sonde 6920 V2	

Monitoring Location	Time	Water Depth (m)	Sampling Depth (m)	Temperature (oC)	Salinity (ppt)	DO (mg/L)	DOS (%)	Turbidity (NTU)
B1	11:30	11.4	1.0	29.8	21.0	9.7	141.6	1.5
			5.7	29.0	21.1	9.2	135.5	1.7
			10.4	27.4	26.3	8.2	120.4	2.1
B2	11:40	11.1	1.0	29.4	20.8	9.4	137.8	2.5
			5.6	29.0	21.1	8.5	125.7	2.3
			10.1	28.4	24.6	8.1	119.3	2.1
B3	11:50	11.1	1.0	29.4	20.5	9.4	137.5	2.1
			5.6	28.9	21.1	9.2	135.2	2.0
			10.1	27.9	25.3	7.8	115.0	3.1
B4	12:00	10.8	1.0	29.3	20.4	9.2	133.6	1.9
			5.4	28.7	21.5	8.7	127.0	2.2
			9.8	27.7	25.1	7.3	106.8	2.4
B5	12:10	10.3	1.0	29.4	20.4	9.3	135.7	4.4
			5.2	28.8	21.1	9.3	135.6	1.4
			9.3	27.8	25.8	7.5	110.8	1.6
B6	12:20	10.5	1.0	29.3	20.3	9.0	131.3	2.5
			5.3	29.1	20.6	8.7	126.8	2.6
			9.5	28.0	25.1	8.0	117.4	5.9



**Project Name:** Stanley Bay marine water monitoring

Date of Monitoring: 12/07/2012

Weather : Fine

Tide: Ebb

Sea Condition: Calm

Monitoring Equipment	Equipment No.
YSI Sonde 6920 V2	

Monitoring Location	Time	Water Depth (m)	Sampling Depth (m)	Temperature (oC)	Salinity (ppt)	DO (mg/L)	DOS (%)	Turbidity (NTU)
C	12:30	2.3						
			1.2	29.4	20.2	8.0	117.2	3.1
D1	14:10	2.6						
			1.3	29.5	20.4	8.1	119.3	3.7
D2	14:00	4.7	1.0	29.4	20.5	8.8	129.4	3.3
			3.7	29.4	20.6	7.7	113.6	3.6
D3	13:40	5.3	1.0	29.2	20.7	9.0	130.8	3.8
			4.3	28.9	21.1	8.1	118.2	3.6
D4	13:50	2.6						
			1.3	29.3	20.5	8.3	121.1	2.4

## Marine Water Quality Monitoring - Data Record Sheet

**Project Name:** Stanley Bay marine water monitoring

Date of Monitoring: 12/07/2012

Weather : Fine

Tide: Flood

Sea Condition: Calm

Monitoring Equipment	Equipment No.
YSI Sonde 6920 V2	

Monitoring Location	Time	Water Depth (m)	Sampling Depth (m)	Temperature (oC)	Salinity (ppt)	DO (mg/L)	DOS (%)	Turbidity (NTU)
A1	08:40	10.3	1.0	28.8	20.5	8.0	117.2	3.5
			5.2	28.6	23.6	7.8	113.8	4.0
			9.3	26.8	28.5	5.9	86.6	5.4
A2	08:30	8.7	1.0	28.8	20.5	8.5	123.7	2.9
			4.4	28.8	20.6	8.2	118.6	3.1
			7.7	28.2	24.6	7.7	113.6	3.5
A3	08:20	7.8	1.0	28.8	20.4	8.4	121.7	2.6
			3.9	28.9	20.5	8.0	117.8	3.2
			6.8	28.6	24.3	7.9	114.8	3.3
A4	08:10	8.5	1.0	28.9	20.4	8.7	126.6	2.3
			4.3	28.9	20.5	8.6	125.1	2.4
			7.5	28.9	20.5	8.6	124.6	2.4
A5	08:00	8.9	1.0	28.9	20.3	8.5	123.3	3.0
			4.5	28.9	20.4	8.4	121.2	3.3
			7.9	28.9	20.5	8.0	116.2	4.1
A6	07:50	8.8	1.0	28.9	20.4	8.5	123.5	2.5
			4.4	28.9	20.4	8.1	117.6	3.1
			7.8	29.0	22.3	6.6	97.0	4.3

**Project Name:** Stanley Bay marine water monitoring

Date of Monitoring: 12/07/2012

Weather : Fine

Tide: Flood

Sea Condition: Calm

Monitoring Equipment	Equipment No.
YSI Sonde 6920 V2	

Monitoring Location	Time	Water Depth (m)	Sampling Depth (m)	Temperature (oC)	Salinity (ppt)	DO (mg/L)	DOS (%)	Turbidity (NTU)
B1	06:40	12.0	1.0	28.8	20.7	8.4	121.5	2.2
			6.0	28.5	22.9	8.2	119.5	2.4
			11.0	25.2	31.4	3.2	52.4	2.7
B2	06:50	11.1	1.0	28.8	20.6	7.8	116.1	2.4
			5.6	28.5	26.0	7.7	112.3	2.7
			10.1	25.3	31.4	5.6	80.8	3.1
B3	07:00	12.0	1.0	28.7	20.5	8.5	122.8	2.7
			6.0	28.9	20.7	8.0	116.3	2.8
			11.0	26.1	29.1	5.4	77.9	3.4
B4	07:10	10.8	1.0	28.8	20.4	8.3	120.3	2.2
			5.4	29.0	20.8	7.4	107.3	2.7
			9.8	26.9	27.9	7.0	102.7	2.8
B5	07:20	10.3	1.0	28.6	20.6	8.2	119.7	2.2
			5.2	28.9	20.6	7.2	104.1	2.3
			9.3	27.2	27.4	6.9	100.5	2.8
B6	07:30	10.5	1.0	28.9	20.5	8.2	119.7	2.5
			5.3	28.9	20.5	7.7	111.6	2.8
			9.5	28.0	27.2	5.4	79.0	5.9

**Project Name:** Stanley Bay marine water monitoring

Date of Monitoring: 12/07/2012

Weather : Fine

Tide: Flood

Sea Condition: Calm

Monitoring Equipment	Equipment No.
YSI Sonde 6920 V2	

Monitoring Location	Time	Water Depth (m)	Sampling Depth (m)	Temperature (oC)	Salinity (ppt)	DO (mg/L)	DOS (%)	Turbidity (NTU)
C	07:40	2.2						
			1.1	28.7	20.3	7.4	107.0	2.2
D1	09:20	2.4						
			1.2	28.8	20.4	8.4	122.4	3.4
D2	09:10	5.3	1.0	28.8	20.4	8.4	122.2	2.0
			4.3	28.9	20.4	8.1	116.9	2.2
D3	08:50	5.2	1.0	28.8	20.5	8.4	121.5	3.0
			4.2	28.9	20.6	7.7	112.1	3.3
D4	09:00	2.7						
			1.4	28.8	20.5	7.7	111.1	2.3



## Marine Water Quality Monitoring - Data Record Sheet

**Project Name:** Stanley Bay marine water monitoring

Date of Monitoring: 14/07/2012

Weather : Fine

Tide: Flood

Sea Condition: Moderate

Monitoring Equipment	Equipment No.
YSI Sonde 6920 V2	

Monitoring Location	Time	Water Depth (m)	Sampling Depth (m)	Temperature (oC)	Salinity (ppt)	DO (mg/L)	DOS (%)	Turbidity (NTU)
A1	10:30	9.0	1.0	29.3	19.9	8.4	122.8	1.2
			4.5	29.0	20.5	8.6	125.0	1.5
			8.0	26.3	28.6	4.5	65.5	5.4
A2	10:20	8.7	1.0	29.4	19.9	8.4	121.9	1.2
			4.4	29.2	20.1	8.7	126.6	1.2
			7.7	27.5	24.5	5.5	79.6	6.3
A3	10:10	7.4	1.0	29.3	19.9	8.4	122.5	1.2
			3.7	29.2	19.9	8.6	124.8	1.2
			6.4	28.5	21.7	6.7	97.3	5.5
A4	10:00	6.6	1.0	29.4	19.7	8.4	121.9	1.7
			3.3	29.4	19.8	8.4	122.4	1.5
			5.6	28.9	21.1	7.8	114.4	2.5
A5	09:50	6.5	1.0	29.4	19.7	8.4	122.4	1.5
			3.3	29.3	19.7	8.5	123.5	1.3
			5.5	29.0	21.0	7.2	105.5	3.4
A6	09:40	6.1	1.0	29.3	19.7	8.4	121.9	1.3
			3.1	29.3	19.7	8.5	123.2	1.4
			5.1	29.0	20.9	7.7	112.6	2.3

**Project Name:** Stanley Bay marine water monitoring

Date of Monitoring: 14/07/2012

Weather : Fine

Tide: Flood

Sea Condition: Moderate

Monitoring Equipment	Equipment No.
YSI Sonde 6920 V2	

Monitoring Location	Time	Water Depth (m)	Sampling Depth (m)	Temperature (oC)	Salinity (ppt)	DO (mg/L)	DOS (%)	Turbidity (NTU)
B1	08:30	11.2	1.0	29.2	19.8	8.4	121.8	1.4
			5.6	27.3	26.1	4.7	68.7	2.7
			10.2	25.2	30.9	2.3	32.9	6.3
B2	08:40	11.6	1.0	29.2	19.8	8.2	119.8	3.0
			5.8	28.5	22.5	6.5	94.2	3.2
			10.6	25.0	31.4	3.3	48.2	5.6
B3	08:50	11.2	1.0	29.2	19.9	8.4	122.2	1.5
			5.6	28.6	21.4	6.4	92.8	2.9
			10.2	24.5	32.1	2.8	40.4	6.1
B4	09:00	9.6	1.0	29.2	20.0	8.5	123.8	1.3
			4.8	28.9	20.9	8.0	117.0	1.7
			8.6	25.0	31.4	2.8	40.3	4.5
B5	09:10	11.0	1.0	29.2	19.9	8.5	123.6	1.3
			5.5	28.6	21.9	7.4	107.8	2.1
			10.0	26.3	28.4	3.6	52.7	6.4
B6	09:20	9.4	1.0	29.3	19.9	8.5	123.3	1.3
			4.7	28.9	20.9	8.0	117.1	1.9
			8.4	26.7	27.5	4.0	58.1	7.0

**Project Name:** Stanley Bay marine water monitoring

Date of Monitoring: 14/07/2012

Weather : Fine

Tide: Flood

Sea Condition: Moderate

Monitoring Equipment	Equipment No.
YSI Sonde 6920 V2	

Monitoring Location	Time	Water Depth (m)	Sampling Depth (m)	Temperature (oC)	Salinity (ppt)	DO (mg/L)	DOS (%)	Turbidity (NTU)
C	09:30	2.2						
			1.1	29.4	19.5	7.7	112.6	1.6
D1	11:10	2.3						
			1.2	29.5	19.4	7.6	110.4	1.6
D2	11:00	5.2	1.0	29.5	19.4	7.6	111.4	2.1
			4.2	29.2	20.0	8.3	120.4	2.1
D3	10:40	4.8	1.0	29.5	19.6	8.2	119.0	2.0
			3.8	29.2	20.1	8.7	126.2	1.6
D4	10:50	2.4						
			1.2	29.4	19.7	8.2	118.9	1.8



## Marine Water Quality Monitoring - Data Record Sheet

**Project Name:** Stanley Bay marine water monitoring

Date of Monitoring: 14/07/2012

Weather : Cloudy

Tide: Ebb

Sea Condition: Calm

Monitoring Equipment	Equipment No.
YSI Sonde 6920 V2	

Monitoring Location	Time	Water Depth (m)	Sampling Depth (m)	Temperature (oC)	Salinity (ppt)	DO (mg/L)	DOS (%)	Turbidity (NTU)
A1	16:30	9.5	1.0	29.6	20.1	9.0	131.4	1.2
			4.8	29.4	20.3	8.9	130.2	1.4
			8.5	26.8	27.5	4.2	61.3	3.1
A2	16:20	8.8	1.0	30.1	19.9	8.5	125.8	1.4
			4.4	29.5	20.5	8.8	129.0	1.1
			7.8	28.9	21.6	8.2	119.2	6.2
A3	16:10	7.6	1.0	30.1	19.8	8.6	127.4	1.4
			3.8	29.6	20.2	8.9	130.4	1.7
			6.6	26.6	27.7	5.5	79.8	3.9
A4	16:00	6.6	1.0	30.1	19.7	8.6	126.6	1.4
			3.3	29.8	19.9	8.8	129.9	1.5
			5.6	29.4	20.5	9.0	131.9	2.2
A5	15:50	6.2	1.0	30.3	19.6	8.5	125.2	1.7
			3.1	29.8	19.9	8.8	129.4	1.5
			5.2	29.4	20.6	8.8	129.6	1.9
A6	15:40	6.2	1.0	30.2	19.6	8.4	123.9	1.4
			3.1	29.8	19.7	8.7	127.1	1.3
			5.2	29.1	21.0	8.6	125.7	2.1

**Project Name:** Stanley Bay marine water monitoring

Date of Monitoring: 14/07/2012

Weather : Cloudy

Tide: Ebb

Sea Condition: Calm

Monitoring Equipment	Equipment No.
YSI Sonde 6920 V2	

Monitoring Location	Time	Water Depth (m)	Sampling Depth (m)	Temperature (oC)	Salinity (ppt)	DO (mg/L)	DOS (%)	Turbidity (NTU)
B1	14:50	11.0	1.0	29.6	19.7	9.0	131.2	1.2
			5.5	29.0	21.3	8.3	121.5	2.4
			10.0	26.2	28.3	3.6	51.6	3.8
B2	Blocked by barge, no monitoring and sampling can be done.							
B3								
B4	15:00	8.8	1.0	29.7	19.8	8.8	129.6	5.1
			4.4	29.6	20.2	8.8	129.6	2.2
			7.8	27.0	27.5	4.2	60.9	3.6
B5	15:10	11.4	1.0	29.9	20.0	8.6	127.3	1.4
			5.7	29.0	21.6	8.2	119.6	2.8
			10.4	25.4	31.2	2.3	32.9	6.7
B6	15:20	9.6	1.0	29.7	20.1	8.8	129.7	1.5
			4.8	29.2	21.0	8.6	126.0	2.4
			8.6	25.7	30.8	3.1	45.6	6.9

**Project Name:** Stanley Bay marine water monitoring

Date of Monitoring: 14/07/2012

Weather : Cloudy

Tide: Ebb

Sea Condition: Calm

Monitoring Equipment	Equipment No.
YSI Sonde 6920 V2	

Monitoring Location	Time	Water Depth (m)	Sampling Depth (m)	Temperature (oC)	Salinity (ppt)	DO (mg/L)	DOS (%)	Turbidity (NTU)
C	15:30	2.4						
			1.2	30.5	19.7	7.7	114.2	2.1
D1	17:10	2.5						
			1.3	30.4	19.5	7.6	113.3	3.0
D2	17:00	5.3	1.0	30.2	19.7	8.1	119.7	2.2
			4.3	29.2	20.9	8.4	123.1	6.9
D3	16:40	5.0	1.0	30.2	19.7	8.1	119.3	2.1
			4.0	29.4	20.5	8.6	126.3	1.8
D4	16:50	2.5						
			1.3	30.5	19.7	7.8	116.3	2.1





## CERTIFICATE OF ANALYSIS

<i>Client</i>	: ATKINS CHINA LTD	<i>Laboratory</i>	: ALS Technichem HK Pty Ltd	<i>Page</i>	: 1 of 5
<i>Contact</i>	: MS ENID YUNG	<i>Contact</i>	: Chan Kwok Fai, Godfrey	<i>Work Order</i>	: <b>HK1218383</b>
<i>Address</i>	: 5TH FLOOR, WHARF T&T CENTRE, HARBOUR CITY, TSIM SHA TSUI 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>	: enid.yung@atkinsglobal.com	<i>E-mail</i>	: Godfrey.Chan@alsglobal.com		
<i>Telephone</i>	: +852 2972 1802	<i>Telephone</i>	: +852 2610 1044		
<i>Facsimile</i>	: +852 2890 6343	<i>Facsimile</i>	: +852 2610 2021		
<i>Project</i>	: QUOTATION OF WATER TEST - STANLEY	<i>Quote number</i>	: ---	<i>Date received</i>	: 12-JUL-2012
<i>Order number</i>	: ---			<i>Date of issue</i>	: 20-JUL-2012
<i>C-O-C number</i>	: ---			<i>No. of samples</i>	- <i>Received</i> : 94
<i>Site</i>	: STANLEY BAY				- <i>Analysed</i> : 94

### Report Comments

This report for ALS Technichem (HK) Pty Ltd work order reference HK1218383 supersedes any previous reports with this reference. The completion date of analysis is 20-JUL-2012. Results apply to sample(s) as submitted. All pages of this report have been checked and approved for release. When date(s) and/or time(s) are shown bracketed, these have been assumed by the laboratory for process purposes. Abbreviations: CAS number = Chemical Abstract Services number. LOR = Limit of reporting.

Specific comments for Work Order HK1218383 :  
Sample(s) were collected by ALS Technichem (HK) staff on 12 July, 2012.  
Water sample(s) analysed and reported on an as received basis.  
Temperature, Salinity, Dissolved Oxygen and Turbidity were measured on-site by ALS Technichem (HK) staff.

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

<i>Signatory</i>	<i>Position</i>	<i>Authorised results for:-</i>
Fung Lim Chee, Richard	General Manager	Inorganics
Fung Lim Chee, Richard	General Manager	Sampling



### Analytical Results

Sub-Matrix: MARINE WATER

Client sample ID	Client sampling date / time	Laboratory sample ID	Compound	EA025: Suspended Solids (SS)	EA012-SAMP: Temperature	EA020-SAMP: Salinity	EA045-SAMP: Turbidity	EP025-SAMP: Dissolved Oxygen
			LOR Unit	2 mg/L	0.1 °C	0.1 g/L	1 NTU	0.1 mg/L
				EA/ED: Physical and Aggregate Properties	OS: On-Site Measurement	OS: On-Site Measurement	OS: On-Site Measurement	OS: On-Site Measurement
A1-S MID-EBB	12-JUL-2012 13:30	HK1218383-001		3	29.5	20.6	2	10.1
A1-M MID-EBB	12-JUL-2012 13:30	HK1218383-002		3	29.2	20.5	3	9.9
A1-B MID-EBB	12-JUL-2012 13:30	HK1218383-003		6	28.4	24.1	5	8.3
A2-S MID-EBB	12-JUL-2012 13:20	HK1218383-004		4	29.4	20.5	2	9.4
A2-M MID-EBB	12-JUL-2012 13:20	HK1218383-005		4	29.0	21.1	2	8.8
A2-B MID-EBB	12-JUL-2012 13:20	HK1218383-006		4	27.9	25.0	3	7.9
A3-S MID-EBB	12-JUL-2012 13:10	HK1218383-007		3	29.4	20.5	2	9.3
A3-M MID-EBB	12-JUL-2012 13:10	HK1218383-008		3	29.5	20.5	2	9.0
A3-B MID-EBB	12-JUL-2012 13:10	HK1218383-009		3	29.0	20.8	2	8.6
A4-S MID-EBB	12-JUL-2012 13:00	HK1218383-010		4	29.5	20.5	2	9.9
A4-M MID-EBB	12-JUL-2012 13:00	HK1218383-011		4	29.4	20.5	2	10.0
A4-B MID-EBB	12-JUL-2012 13:00	HK1218383-012		3	29.2	20.7	2	10.1
A5-S MID-EBB	12-JUL-2012 12:50	HK1218383-013		3	29.4	20.5	2	9.7
A5-M MID-EBB	12-JUL-2012 12:50	HK1218383-014		3	29.1	20.8	2	9.6
A5-B MID-EBB	12-JUL-2012 12:50	HK1218383-015		4	28.7	21.7	3	8.2
A6-S MID-EBB	12-JUL-2012 12:40	HK1218383-016		3	29.4	20.4	2	9.3
A6-M MID-EBB	12-JUL-2012 12:40	HK1218383-017		2	29.0	20.6	2	8.6
A6-B MID-EBB	12-JUL-2012 12:40	HK1218383-018		4	28.9	21.5	2	8.3
B1-S MID-EBB	12-JUL-2012 11:30	HK1218383-019		3	29.8	21.0	2	9.7
B1-M MID-EBB	12-JUL-2012 11:30	HK1218383-020		5	29.0	21.1	2	9.2
B1-B MID-EBB	12-JUL-2012 11:30	HK1218383-021		3	27.4	26.3	2	8.2
B2-S MID-EBB	12-JUL-2012 11:40	HK1218383-022		4	29.4	20.8	2	9.4
B2-M MID-EBB	12-JUL-2012 11:40	HK1218383-023		3	29.0	21.1	2	8.5
B2-B MID-EBB	12-JUL-2012 11:40	HK1218383-024		3	28.4	24.6	2	8.1
B3-S MID-EBB	12-JUL-2012 11:50	HK1218383-025		4	29.4	20.5	2	9.4
B3-M MID-EBB	12-JUL-2012 11:50	HK1218383-026		3	28.9	21.1	2	9.2
B3-B MID-EBB	12-JUL-2012 11:50	HK1218383-027		4	27.9	25.3	3	7.8
B4-S MID-EBB	12-JUL-2012 12:00	HK1218383-028		4	29.3	20.4	2	9.2
B4-M MID-EBB	12-JUL-2012 12:00	HK1218383-029		3	28.7	21.5	2	8.7
B4-B MID-EBB	12-JUL-2012 12:00	HK1218383-030		3	27.7	25.1	2	7.3
B5-S MID-EBB	12-JUL-2012 12:10	HK1218383-031		4	29.4	20.4	4	9.3
B5-M MID-EBB	12-JUL-2012 12:10	HK1218383-032		5	28.8	21.1	1	9.3
B5-B MID-EBB	12-JUL-2012 12:10	HK1218383-033		3	27.8	25.8	2	7.5
B6-S MID-EBB	12-JUL-2012 12:20	HK1218383-034		4	29.3	20.3	2	9.0
B6-M MID-EBB	12-JUL-2012 12:20	HK1218383-035		3	29.1	20.6	3	8.7



Sub-Matrix: MARINE WATER

Client sample ID	Client sampling date / time	Laboratory sample ID	Compound	EA025: Suspended Solids (SS)	EA012-SAMP: Temperature	EA020-SAMP: Salinity	EA045-SAMP: Turbidity	EP025-SAMP: Dissolved Oxygen
			LOR Unit	2 mg/L	0.1 °C	0.1 g/L	1 NTU	0.1 mg/L
				EA/ED: Physical and Aggregate Properties	OS: On-Site Measurement	OS: On-Site Measurement	OS: On-Site Measurement	OS: On-Site Measurement
B6-B MID-EBB	12-JUL-2012 12:20	HK1218383-036		4	28.0	25.1	6	8.0
CM MID-EBB	12-JUL-2012 12:30	HK1218383-037		3	29.4	20.2	3	8.0
D1-M MID-EBB	12-JUL-2012 14:10	HK1218383-038		5	29.5	20.4	4	8.1
D2-S MID-EBB	12-JUL-2012 14:00	HK1218383-039		5	29.4	20.5	3	8.8
D2-B MID-EBB	12-JUL-2012 14:00	HK1218383-040		5	29.4	20.6	4	7.7
D3-S MID-EBB	12-JUL-2012 13:40	HK1218383-041		3	29.2	20.7	4	9.0
D3-B MID-EBB	12-JUL-2012 13:40	HK1218383-042		3	28.9	21.1	4	8.1
D4-M MID-EBB	12-JUL-2012 13:50	HK1218383-043		4	29.3	20.5	2	8.3
A1-S MID-FLOOD	12-JUL-2012 08:40	HK1218383-044		5	28.8	20.5	4	8.0
A1-M MID-FLOOD	12-JUL-2012 08:40	HK1218383-045		3	28.6	23.6	4	7.8
A1-B MID-FLOOD	12-JUL-2012 08:40	HK1218383-046		2	26.8	28.5	5	5.9
A2-S MID-FLOOD	12-JUL-2012 08:30	HK1218383-047		3	28.8	20.5	3	8.5
A2-M MID-FLOOD	12-JUL-2012 08:30	HK1218383-048		3	28.8	20.6	3	8.2
A2-B MID-FLOOD	12-JUL-2012 08:30	HK1218383-049		3	28.2	24.6	4	7.7
A3-S MID-FLOOD	12-JUL-2012 08:20	HK1218383-050		3	28.8	20.4	3	8.4
A3-M MID-FLOOD	12-JUL-2012 08:20	HK1218383-051		2	28.9	20.5	3	8.0
A3-B MID-FLOOD	12-JUL-2012 08:20	HK1218383-052		3	28.6	24.3	3	7.9
A4-S MID-FLOOD	12-JUL-2012 08:10	HK1218383-053		4	28.9	20.4	2	8.7
A4-M MID-FLOOD	12-JUL-2012 08:10	HK1218383-054		5	28.9	20.5	2	8.6
A4-B MID-FLOOD	12-JUL-2012 08:10	HK1218383-055		3	28.9	20.5	2	8.6
A5-S MID-FLOOD	12-JUL-2012 08:00	HK1218383-056		4	28.9	20.3	3	8.5
A5-M MID-FLOOD	12-JUL-2012 08:00	HK1218383-057		3	28.9	20.4	3	8.4
A5-B MID-FLOOD	12-JUL-2012 08:00	HK1218383-058		5	28.9	20.5	4	8.0
A6-S MID-FLOOD	12-JUL-2012 07:50	HK1218383-059		4	28.9	20.4	2	8.5
A6-M MID-FLOOD	12-JUL-2012 07:50	HK1218383-060		4	28.9	20.4	3	8.1
A6-B MID-FLOOD	12-JUL-2012 07:50	HK1218383-061		3	29.0	22.3	4	6.6
B1-S MID-FLOOD	12-JUL-2012 06:40	HK1218383-062		4	28.8	20.7	22	8.4
B1-M MID-FLOOD	12-JUL-2012 06:40	HK1218383-063		4	28.5	22.9	2	8.2
B1-B MID-FLOOD	12-JUL-2012 06:40	HK1218383-064		4	25.2	31.4	3	3.2
B2-S MID-FLOOD	12-JUL-2012 06:50	HK1218383-065		4	28.8	20.6	2	7.8
B2-M MID-FLOOD	12-JUL-2012 06:50	HK1218383-066		4	28.5	26.0	3	7.7
B2-B MID-FLOOD	12-JUL-2012 06:50	HK1218383-067		4	25.3	31.4	3	5.6
B3-S MID-FLOOD	12-JUL-2012 07:00	HK1218383-068		3	28.7	20.5	3	8.5
B3-M MID-FLOOD	12-JUL-2012 07:00	HK1218383-069		5	28.9	20.7	3	8.0
B3-B MID-FLOOD	12-JUL-2012 07:00	HK1218383-070		4	26.1	29.1	3	5.4



Sub-Matrix: MARINE WATER

Compound

LOR Unit

			EA025: Suspended Solids (SS)	EA012-SAMP: Temperature	EA020-SAMP: Salinity	EA045-SAMP: Turbidity	EP025-SAMP: Dissolved Oxygen
			2 mg/L	0.1 °C	0.1 g/L	1 NTU	0.1 mg/L
Client sample ID	Client sampling date / time	Laboratory sample ID	EA/ED: Physical and Aggregate Properties	OS: On-Site Measurement	OS: On-Site Measurement	OS: On-Site Measurement	OS: On-Site Measurement
B4-S MID-FLOOD	12-JUL-2012 07:10	HK1218383-071	3	28.8	20.4	2	8.3
B4-M MID-FLOOD	12-JUL-2012 07:10	HK1218383-072	4	29.0	20.8	3	7.4
B4-B MID-FLOOD	12-JUL-2012 07:10	HK1218383-073	4	26.9	27.9	3	7.0
B5-S MID-FLOOD	12-JUL-2012 07:20	HK1218383-074	4	28.6	20.6	2	8.2
B5-M MID-FLOOD	12-JUL-2012 07:20	HK1218383-075	3	28.9	20.6	2	7.2
B5-B MID-FLOOD	12-JUL-2012 07:20	HK1218383-076	3	27.2	27.4	3	6.9
B6-S MID-FLOOD	12-JUL-2012 07:30	HK1218383-077	3	28.9	20.5	2	8.2
B6-M MID-FLOOD	12-JUL-2012 07:30	HK1218383-078	2	28.9	20.5	3	7.7
B6-B MID-FLOOD	12-JUL-2012 07:30	HK1218383-079	2	28.0	27.2	6	5.4
CM MID-FLOOD	12-JUL-2012 07:40	HK1218383-080	2	28.7	20.3	2	7.4
D1-M MID-FLOOD	12-JUL-2012 09:20	HK1218383-081	3	28.8	20.4	3	8.4
D2-S MID-FLOOD	12-JUL-2012 09:10	HK1218383-082	4	28.8	20.4	2	8.4
D2-B MID-FLOOD	12-JUL-2012 09:10	HK1218383-083	2	28.9	20.4	2	8.1
D3-S MID-FLOOD	12-JUL-2012 08:50	HK1218383-084	2	28.8	20.5	3	8.4
D3-B MID-FLOOD	12-JUL-2012 08:50	HK1218383-085	3	28.9	20.6	3	7.7
D4-M MID-FLOOD	12-JUL-2012 09:00	HK1218383-086	3	28.8	20.5	2	7.7
B1-S-F FIELD DUPLICATE	[12-JUL-2012]	HK1218383-087	5	28.9	20.7	2	8.4
B2-M-F FIELD DUPLICATE	[12-JUL-2012]	HK1218383-088	2	28.8	25.8	2	8.0
B3-B-F FIELD DUPLICATE	[12-JUL-2012]	HK1218383-089	3	26.2	29.1	3	5.6
B4-S-F FIELD DUPLICATE	[12-JUL-2012]	HK1218383-090	3	28.9	20.4	2	8.3
A4-S-E FIELD DUPLICATE	[12-JUL-2012]	HK1218383-091	3	29.5	20.5	2	10.0
A3-M-E FIELD DUPLICATE	[12-JUL-2012]	HK1218383-092	4	28.8	21.9	2	9.0
A2-B-E FIELD DUPLICATE	[12-JUL-2012]	HK1218383-093	3	27.9	24.3	2	8.6
A1-S-E FIELD DUPLICATE	[12-JUL-2012]	HK1218383-094	4	29.5	20.6	2	9.9





### 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 (%)
<b>EA/ED: Physical and Aggregate Properties (QC Lot: 2412327)</b>								
HK1218383-001	A1-S MID-EBB	EA025: Suspended Solids (SS)	----	2	mg/L	3	3	0.0
HK1218383-011	A4-M MID-EBB	EA025: Suspended Solids (SS)	----	2	mg/L	4	3	0.0
<b>EA/ED: Physical and Aggregate Properties (QC Lot: 2412328)</b>								
HK1218383-021	B1-B MID-EBB	EA025: Suspended Solids (SS)	----	2	mg/L	3	3	0.0
HK1218383-031	B5-S MID-EBB	EA025: Suspended Solids (SS)	----	2	mg/L	4	5	0.0
<b>EA/ED: Physical and Aggregate Properties (QC Lot: 2412329)</b>								
HK1218383-041	D3-S MID-EBB	EA025: Suspended Solids (SS)	----	2	mg/L	3	3	0.0
HK1218383-051	A3-M MID-FLOOD	EA025: Suspended Solids (SS)	----	2	mg/L	2	3	0.0
<b>EA/ED: Physical and Aggregate Properties (QC Lot: 2412330)</b>								
HK1218383-061	A6-B MID-FLOOD	EA025: Suspended Solids (SS)	----	2	mg/L	3	4	34.4
HK1218383-071	B4-S MID-FLOOD	EA025: Suspended Solids (SS)	----	2	mg/L	3	4	35.9
<b>EA/ED: Physical and Aggregate Properties (QC Lot: 2412331)</b>								
HK1218383-081	D1-M MID-FLOOD	EA025: Suspended Solids (SS)	----	2	mg/L	3	4	0.0
HK1218383-091	A4-S-E FIELD DUPLICATE	EA025: Suspended Solids (SS)	----	2	mg/L	3	4	0.0

### 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
<b>EA/ED: Physical and Aggregate Properties (QCLot: 2412327)</b>											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	101	----	85	113	----	----
<b>EA/ED: Physical and Aggregate Properties (QCLot: 2412328)</b>											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	102	----	85	113	----	----
<b>EA/ED: Physical and Aggregate Properties (QCLot: 2412329)</b>											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	101	----	85	113	----	----
<b>EA/ED: Physical and Aggregate Properties (QCLot: 2412330)</b>											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	99.0	----	85	113	----	----
<b>EA/ED: Physical and Aggregate Properties (QCLot: 2412331)</b>											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	101	----	85	113	----	----

### 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>	: ATKINS CHINA LTD	<i>Laboratory</i>	: ALS Technichem HK Pty Ltd	<i>Page</i>	: 1 of 5
<i>Contact</i>	: MS ENID YUNG	<i>Contact</i>	: Chan Kwok Fai, Godfrey	<i>Work Order</i>	: <b>HK1218386</b>
<i>Address</i>	: 5TH FLOOR, WHARF T&T CENTRE, HARBOUR CITY, TSIM SHA TSUI 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>Telephone</i>	: +852 2972 1802	<i>Telephone</i>	: +852 2610 1044		
<i>Facsimile</i>	: +852 2890 6343	<i>Facsimile</i>	: +852 2610 2021		
<i>Project</i>	: QUOTATION OF WATER TEST - STANLEY	<i>Quote number</i>	: ---	<i>Date received</i>	: 16-JUL-2012
<i>Order number</i>	: ---			<i>Date of issue</i>	: 25-JUL-2012
<i>C-O-C number</i>	: ---			<i>No. of samples</i>	- Received : 88
<i>Site</i>	: STANLEY BAY				- Analysed : 88

### Report Comments

This report for ALS Technichem (HK) Pty Ltd work order reference HK1218386 supersedes any previous reports with this reference. The completion date of analysis is 23-JUL-2012. Results apply to sample(s) as submitted. All pages of this report have been checked and approved for release. When date(s) and/or time(s) are shown bracketed, these have been assumed by the laboratory for process purposes. Abbreviations: CAS number = Chemical Abstract Services number. LOR = Limit of reporting.

Specific comments for Work Order HK1218386 :  
Sample(s) were collected by ALS Technichem (HK) staff on 14 July, 2012.  
Water sample(s) analysed and reported on an as received basis.  
Temperature, Salinity, Dissolved Oxygen and Turbidity were measured on-site by ALS Technichem (HK) staff.

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

<i>Signatory</i>	<i>Position</i>	<i>Authorised results for:-</i>
Fung Lim Chee, Richard	General Manager	Inorganics
Fung Lim Chee, Richard	General Manager	Sampling



### Analytical Results

Sub-Matrix: MARINE WATER

Client sample ID	Client sampling date / time	Laboratory sample ID	Compound	EA025: Suspended Solids (SS)	EA012-SAMP: Temperature	EA020-SAMP: Salinity	EA045-SAMP: Turbidity	EP025-SAMP: Dissolved Oxygen
			LOR Unit	2 mg/L	0.1 °C	0.1 g/L	1 NTU	0.1 mg/L
				EA/ED: Physical and Aggregate Properties	OS: On-Site Measurement	OS: On-Site Measurement	OS: On-Site Measurement	OS: On-Site Measurement
A1-S MID-EBB	14-JUL-2012 16:30	HK1218386-001		<2	29.6	20.1	1	9.0
A1-M MID-EBB	14-JUL-2012 16:30	HK1218386-002		<2	29.4	20.3	1	8.9
A1-B MID-EBB	14-JUL-2012 16:30	HK1218386-003		<2	26.8	27.5	3	4.2
A2-S MID-EBB	14-JUL-2012 16:20	HK1218386-004		<2	30.1	19.9	1	8.5
A2-M MID-EBB	14-JUL-2012 16:20	HK1218386-005		2	29.5	20.5	1	8.8
A2-B MID-EBB	14-JUL-2012 16:20	HK1218386-006		<2	28.9	21.6	6	8.2
A3-S MID-EBB	14-JUL-2012 16:10	HK1218386-007		<2	30.1	19.8	1	8.6
A3-M MID-EBB	14-JUL-2012 16:10	HK1218386-008		<2	29.6	20.2	2	8.9
A3-B MID-EBB	14-JUL-2012 16:10	HK1218386-009		4	26.6	27.7	4	5.5
A4-S MID-EBB	14-JUL-2012 16:00	HK1218386-010		<2	30.1	19.7	1	8.6
A4-M MID-EBB	14-JUL-2012 16:00	HK1218386-011		<2	29.8	19.9	2	8.8
A4-B MID-EBB	14-JUL-2012 16:00	HK1218386-012		<2	29.4	20.5	2	9.0
A5-S MID-EBB	14-JUL-2012 15:50	HK1218386-013		<2	30.3	19.6	2	8.5
A5-M MID-EBB	14-JUL-2012 15:50	HK1218386-014		<2	29.8	19.9	2	8.8
A5-B MID-EBB	14-JUL-2012 15:50	HK1218386-015		7	29.4	20.6	2	8.8
A6-S MID-EBB	14-JUL-2012 15:40	HK1218386-016		<2	30.2	19.6	1	8.4
A6-M MID-EBB	14-JUL-2012 15:40	HK1218386-017		4	29.8	19.7	1	8.7
A6-B MID-EBB	14-JUL-2012 15:40	HK1218386-018		2	29.1	21.0	2	8.6
B1-S MID-EBB	14-JUL-2012 14:50	HK1218386-019		3	29.6	19.7	1	9.0
B1-M MID-EBB	14-JUL-2012 14:50	HK1218386-020		2	29.0	21.3	2	8.3
B1-B MID-EBB	14-JUL-2012 14:50	HK1218386-021		3	26.2	28.3	4	3.6
B4-S MID-EBB	14-JUL-2012 15:00	HK1218386-028		2	29.7	19.8	5	8.8
B4-M MID-EBB	14-JUL-2012 15:00	HK1218386-029		3	29.6	20.2	2	8.8
B4-B MID-EBB	14-JUL-2012 15:00	HK1218386-030		<2	27.0	27.5	4	4.2
B5-S MID-EBB	14-JUL-2012 15:10	HK1218386-031		4	29.9	20.0	1	8.6
B5-M MID-EBB	14-JUL-2012 15:10	HK1218386-032		3	29.0	21.6	3	8.2
B5-B MID-EBB	14-JUL-2012 15:10	HK1218386-033		8	25.4	31.2	7	2.3
B6-S MID-EBB	14-JUL-2012 15:20	HK1218386-034		<2	29.7	20.1	2	8.8
B6-M MID-EBB	14-JUL-2012 15:20	HK1218386-035		4	29.2	21.0	2	8.6
B6-B MID-EBB	14-JUL-2012 15:20	HK1218386-036		<2	25.7	30.8	7	3.1
CM MID-EBB	14-JUL-2012 15:30	HK1218386-037		4	30.5	19.7	2	7.7
D1-M MID-EBB	14-JUL-2012 17:10	HK1218386-038		2	30.4	19.5	3	7.6
D2-S MID-EBB	14-JUL-2012 17:00	HK1218386-039		2	30.2	19.7	2	8.1
D2-B MID-EBB	14-JUL-2012 17:00	HK1218386-040		10	29.2	20.9	7	8.4
D3-S MID-EBB	14-JUL-2012 16:40	HK1218386-041		2	30.2	19.7	2	8.1



Sub-Matrix: MARINE WATER

Client sample ID	Client sampling date / time	Laboratory sample ID	Compound	EA025: Suspended Solids (SS)	EA012-SAMP: Temperature	EA020-SAMP: Salinity	EA045-SAMP: Turbidity	EP025-SAMP: Dissolved Oxygen
			LOR Unit	2 mg/L	0.1 °C	0.1 g/L	1 NTU	0.1 mg/L
			EA/ED: Physical and Aggregate Properties	OS: On-Site Measurement	OS: On-Site Measurement	OS: On-Site Measurement	OS: On-Site Measurement	OS: On-Site Measurement
D3-B MID-EBB	14-JUL-2012 16:40	HK1218386-042		4	29.4	20.5	2	8.6
D4-M MID-EBB	14-JUL-2012 16:50	HK1218386-043		3	30.5	19.7	2	7.8
A1-S MID-FLOOD	14-JUL-2012 10:30	HK1218386-044		3	29.3	19.9	1	8.4
A1-M MID-FLOOD	14-JUL-2012 10:30	HK1218386-045		<2	29.0	20.5	2	8.6
A1-B MID-FLOOD	14-JUL-2012 10:30	HK1218386-046		2	26.3	28.6	5	4.5
A2-S MID-FLOOD	14-JUL-2012 10:20	HK1218386-047		3	29.4	19.9	1	8.4
A2-M MID-FLOOD	14-JUL-2012 10:20	HK1218386-048		3	29.2	20.1	1	8.7
A2-B MID-FLOOD	14-JUL-2012 10:20	HK1218386-049		4	27.5	24.5	6	5.5
A3-S MID-FLOOD	14-JUL-2012 10:10	HK1218386-050		2	29.3	19.9	1	8.4
A3-M MID-FLOOD	14-JUL-2012 10:10	HK1218386-051		6	29.2	19.9	1	8.6
A3-B MID-FLOOD	14-JUL-2012 10:10	HK1218386-052		<2	28.5	21.7	6	6.7
A4-S MID-FLOOD	14-JUL-2012 10:00	HK1218386-053		<2	29.4	19.7	2	8.4
A4-M MID-FLOOD	14-JUL-2012 10:00	HK1218386-054		<2	29.4	19.8	2	8.4
A4-B MID-FLOOD	14-JUL-2012 10:00	HK1218386-055		<2	28.9	21.1	2	7.8
A5-S MID-FLOOD	14-JUL-2012 09:50	HK1218386-056		3	29.4	19.7	2	8.4
A5-M MID-FLOOD	14-JUL-2012 09:50	HK1218386-057		<2	29.3	19.7	1	8.5
A5-B MID-FLOOD	14-JUL-2012 09:50	HK1218386-058		3	29.0	21.0	3	7.2
A6-S MID-FLOOD	14-JUL-2012 09:40	HK1218386-059		<2	29.3	19.7	1	8.4
A6-M MID-FLOOD	14-JUL-2012 09:40	HK1218386-060		3	29.3	19.7	1	8.5
A6-B MID-FLOOD	14-JUL-2012 09:40	HK1218386-061		5	29.0	20.9	2	7.7
B1-S MID-FLOOD	14-JUL-2012 08:30	HK1218386-062		5	29.2	19.8	1	8.4
B1-M MID-FLOOD	14-JUL-2012 08:30	HK1218386-063		5	27.3	26.1	3	4.7
B1-B MID-FLOOD	14-JUL-2012 08:30	HK1218386-064		6	25.2	30.9	6	2.3
B2-S MID-FLOOD	14-JUL-2012 08:40	HK1218386-065		2	29.2	19.8	3	8.2
B2-M MID-FLOOD	14-JUL-2012 08:40	HK1218386-066		3	28.5	22.5	3	6.5
B2-B MID-FLOOD	14-JUL-2012 08:40	HK1218386-067		11	25.0	31.4	6	3.3
B3-S MID-FLOOD	14-JUL-2012 08:50	HK1218386-068		6	29.2	19.9	2	8.4
B3-M MID-FLOOD	14-JUL-2012 08:50	HK1218386-069		4	28.6	21.4	3	6.4
B3-B MID-FLOOD	14-JUL-2012 08:50	HK1218386-070		7	24.5	32.1	6	2.8
B4-S MID-FLOOD	14-JUL-2012 09:00	HK1218386-071		3	29.2	20.0	1	8.5
B4-M MID-FLOOD	14-JUL-2012 09:00	HK1218386-072		3	28.9	20.9	2	8.0
B4-B MID-FLOOD	14-JUL-2012 09:00	HK1218386-073		6	25.0	31.4	4	2.8
B5-S MID-FLOOD	14-JUL-2012 09:10	HK1218386-074		2	29.2	19.9	1	8.5
B5-M MID-FLOOD	14-JUL-2012 09:10	HK1218386-075		6	28.6	21.9	2	7.4
B5-B MID-FLOOD	14-JUL-2012 09:10	HK1218386-076		3	26.3	28.4	6	3.6



Sub-Matrix: MARINE WATER

Client sample ID	Client sampling date / time	Laboratory sample ID	Compound	EA025: Suspended Solids (SS)	EA012-SAMP: Temperature	EA020-SAMP: Salinity	EA045-SAMP: Turbidity	EP025-SAMP: Dissolved Oxygen
			LOR Unit	2 mg/L	0.1 °C	0.1 g/L	1 NTU	0.1 mg/L
			EA/ED: Physical and Aggregate Properties	OS: On-Site Measurement	OS: On-Site Measurement	OS: On-Site Measurement	OS: On-Site Measurement	OS: On-Site Measurement
B6-S MID-FLOOD	14-JUL-2012 09:20	HK1218386-077		3	29.3	19.9	1	8.5
B6-M MID-FLOOD	14-JUL-2012 09:20	HK1218386-078		4	28.9	20.9	2	8.0
B6-B MID-FLOOD	14-JUL-2012 09:20	HK1218386-079		4	26.7	27.5	7	4.0
CM MID-FLOOD	14-JUL-2012 09:30	HK1218386-080		6	29.4	19.5	2	7.7
D1-M MID-FLOOD	14-JUL-2012 11:10	HK1218386-081		4	29.5	19.4	2	7.6
D2-S MID-FLOOD	14-JUL-2012 11:00	HK1218386-082		6	29.5	19.4	2	7.6
D2-B MID-FLOOD	14-JUL-2012 11:00	HK1218386-083		5	29.2	20.0	2	8.3
D3-S MID-FLOOD	14-JUL-2012 10:40	HK1218386-084		6	29.5	19.6	2	8.2
D3-B MID-FLOOD	14-JUL-2012 10:40	HK1218386-085		4	29.2	20.1	2	8.7
D4-M MID-FLOOD	14-JUL-2012 10:50	HK1218386-086		5	29.4	19.7	2	8.2
B1-S-F FIELD DUPLICATE	[14-JUL-2012]	HK1218386-087		4	29.2	19.8	1	8.4
B2-M-F FIELD DUPLICATE	[14-JUL-2012]	HK1218386-088		4	28.5	22.5	3	6.5
B3-B-F FIELD DUPLICATE	[14-JUL-2012]	HK1218386-089		8	24.5	32.1	6	2.8
B4-S-F FIELD DUPLICATE	[14-JUL-2012]	HK1218386-090		2	29.2	20.0	1	8.5
A4-S-E FIELD DUPLICATE	[14-JUL-2012]	HK1218386-091		2	30.1	19.7	2	8.6
A3-M-E FIELD DUPLICATE	[14-JUL-2012]	HK1218386-092		2	29.6	20.2	2	8.9
A2-B-E FIELD DUPLICATE	[14-JUL-2012]	HK1218386-093		4	28.6	21.6	6	8.2
A1-S-E FIELD DUPLICATE	[14-JUL-2012]	HK1218386-094		3	29.6	20.1	1	9.0



### Laboratory Duplicate (DUP) Report

Matrix: WATER				Laboratory Duplicate (DUP) Report				
Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)
<b>EA/ED: Physical and Aggregate Properties (QC Lot: 2415184)</b>								
HK1218386-001	A1-S MID-EBB	EA025: Suspended Solids (SS)	----	2	mg/L	<2	<2	0.0
HK1218386-011	A4-M MID-EBB	EA025: Suspended Solids (SS)	----	2	mg/L	<2	<2	0.0
<b>EA/ED: Physical and Aggregate Properties (QC Lot: 2415185)</b>								
HK1218386-021	B1-B MID-EBB	EA025: Suspended Solids (SS)	----	2	mg/L	3	3	0.0
HK1218386-037	CM MID-EBB	EA025: Suspended Solids (SS)	----	2	mg/L	4	4	0.0
<b>EA/ED: Physical and Aggregate Properties (QC Lot: 2415186)</b>								
HK1218386-047	A2-S MID-FLOOD	EA025: Suspended Solids (SS)	----	2	mg/L	3	4	0.0
HK1218386-057	A5-M MID-FLOOD	EA025: Suspended Solids (SS)	----	2	mg/L	<2	<2	0.0
<b>EA/ED: Physical and Aggregate Properties (QC Lot: 2415187)</b>								
HK1218386-067	B2-B MID-FLOOD	EA025: Suspended Solids (SS)	----	2	mg/L	11	12	0.0
HK1218386-077	B6-S MID-FLOOD	EA025: Suspended Solids (SS)	----	2	mg/L	3	3	0.0
<b>EA/ED: Physical and Aggregate Properties (QC Lot: 2415188)</b>								
HK1218386-087	B1-S-F FIELD DUPLICATE	EA025: Suspended Solids (SS)	----	2	mg/L	4	5	26.7

### 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
<b>EA/ED: Physical and Aggregate Properties (QCLot: 2415184)</b>											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	94.5	----	85	113	----	----
<b>EA/ED: Physical and Aggregate Properties (QCLot: 2415185)</b>											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	102	----	85	113	----	----
<b>EA/ED: Physical and Aggregate Properties (QCLot: 2415186)</b>											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	100	----	85	113	----	----
<b>EA/ED: Physical and Aggregate Properties (QCLot: 2415187)</b>											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	92.5	----	85	113	----	----
<b>EA/ED: Physical and Aggregate Properties (QCLot: 2415188)</b>											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	93.0	----	85	113	----	----

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

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

**Project Name:** Stanley Bay marine water monitoring

Date of Monitoring: 17/07/2012

Weather : Fine

Tide: Ebb

Sea Condition: Calm

Monitoring Equipment	Equipment No.
YSI Sonde 6920 V2	

Monitoring Location	Time	Water Depth (m)	Sampling Depth (m)	Temperature (oC)	Salinity (ppt)	DO (mg/L)	DOS (%)	Turbidity (NTU)
C	10:30	2.2						
			1.1	30.2	20.8	8.5	126.8	1.3
D1	10:40	2.4						
			1.2	30.2	21.1	8.4	124.8	2.0
D2	10:50	5.1	1.0	30.2	21.0	8.3	122.8	1.8
			4.1	29.6	21.5	8.2	121.8	1.8
D3	11:00	5.3	1.0	30.0	21.2	8.7	129.6	1.5
			4.3	29.2	22.1	8.2	121.3	2.4
D4	11:10	2.6						
			1.3	30.1	21.2	8.4	124.2	1.8

**Project Name:** Stanley Bay marine water monitoring

Date of Monitoring: 17/07/2012

Weather : Fine

Tide: Flood

Sea Condition: Calm

Monitoring Equipment	Equipment No.
YSI Sonde 6920 V2	

Monitoring Location	Time	Water Depth (m)	Sampling Depth (m)	Temperature (oC)	Salinity (ppt)	DO (mg/L)	DOS (%)	Turbidity (NTU)
C	18:00	2.4						
			1.2	30.4	21.2	9.4	141.0	1.7
D1	18:10	2.5						
			1.3	30.3	21.5	9.4	140.6	2.4
D2	18:20	5.2	1.0	30.2	21.5	10.2	152.3	1.6
			4.2	29.3	22.1	9.5	139.8	2.0
D3	18:30	5.4	1.0	30.2	21.5	9.7	145.4	2.1
			4.4	29.5	21.9	9.7	144.1	1.9
D4	18:40	2.5						
			1.3	30.4	21.4	9.6	144.4	2.0







## CERTIFICATE OF ANALYSIS

<i>Client</i>	: ATKINS CHINA LTD	<i>Laboratory</i>	: ALS Technichem HK Pty Ltd	<i>Page</i>	: 1 of 3
<i>Contact</i>	: MS ENID YUNG	<i>Contact</i>	: Chan Kwok Fai, Godfrey	<i>Work Order</i>	: <b>HK1217798</b>
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<i>Project</i>	: QUOTATION OF WATER TEST - STANLEY	<i>Quote number</i>	: ---	<i>Date received</i>	: 17-JUL-2012
<i>Order number</i>	: ---			<i>Date of issue</i>	: 26-JUL-2012
<i>C-O-C number</i>	: ---			<i>No. of samples</i>	- Received : 16
<i>Site</i>	: STANLEY BAY				- Analysed : 16

### Report Comments

This report for ALS Technichem (HK) Pty Ltd work order reference HK1217798 supersedes any previous reports with this reference. The completion date of analysis is 26-JUL-2012. Results apply to sample(s) as submitted. All pages of this report have been checked and approved for release. When date(s) and/or time(s) are shown bracketed, these have been assumed by the laboratory for process purposes. Abbreviations: CAS number = Chemical Abstract Services number. LOR = Limit of reporting.

Specific comments for Work Order HK1217798 :  
Sample(s) were collected by ALS Technichem (HK) staff on 17 July, 2012.  
Water sample(s) analysed and reported on an as received basis.  
Temperature, Salinity, Dissolved Oxygen and Turbidity were measured on-site by ALS Technichem (HK) staff.

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<i>Signatory</i>	<i>Position</i>	<i>Authorised results for:-</i>
Fung Lim Chee, Richard	General Manager	Inorganics
Fung Lim Chee, Richard	General Manager	Sampling



### Analytical Results

Sub-Matrix: MARINE WATER

Client sample ID	Client sampling date / time	Laboratory sample ID	Compound	EA025: Suspended Solids (SS)	EA012-SAMP: Temperature	EA020-SAMP: Salinity	EA045-SAMP: Turbidity	EP025-SAMP: Dissolved Oxygen
			LOR Unit	2 mg/L	0.1 °C	0.1 g/L	1 NTU	0.1 mg/L
			EA/ED: Physical and Aggregate Properties	OS: On-Site Measurement	OS: On-Site Measurement	OS: On-Site Measurement	OS: On-Site Measurement	OS: On-Site Measurement
D1-M MID-EBB	17-JUL-2012 10:40	HK1217798-001		5	30.2	21.1	2	8.4
D2-S MID-EBB	17-JUL-2012 10:50	HK1217798-002		4	30.2	21.0	2	8.3
D2-B MID-EBB	17-JUL-2012 10:50	HK1217798-003		3	29.6	21.5	2	8.2
D3-S MID-EBB	17-JUL-2012 11:00	HK1217798-004		4	30.0	21.2	2	8.7
D3-B MID-EBB	17-JUL-2012 11:00	HK1217798-005		4	29.2	22.1	2	8.2
D4-M MID-EBB	17-JUL-2012 11:10	HK1217798-006		5	30.1	21.2	2	8.4
D1-M MID-FLOOD	17-JUL-2012 18:10	HK1217798-007		4	30.3	21.5	2	9.4
D2-S MID-FLOOD	17-JUL-2012 18:20	HK1217798-008		5	30.2	21.5	2	10.2
D2-B MID-FLOOD	17-JUL-2012 18:20	HK1217798-009		4	29.3	22.1	2	9.5
D3-S MID-FLOOD	17-JUL-2012 18:30	HK1217798-010		5	30.2	21.5	2	9.7
D3-B MID-FLOOD	17-JUL-2012 18:30	HK1217798-011		5	29.5	21.9	2	9.7
D4-M MID-FLOOD	17-JUL-2012 18:40	HK1217798-012		5	30.4	21.4	2	9.6
C-M-E	17-JUL-2012 10:30	HK1217798-013		4	30.2	20.8	1	8.5
C-M-F	17-JUL-2012 18:00	HK1217798-014		5	30.4	21.2	2	9.4
C-M-E FIELD DUPLICATE	[17-JUL-2012]	HK1217798-015		4	30.2	20.8	1	8.5
C-M-F FIELD DUPLICATE	[17-JUL-2012]	HK1217798-016		3	30.5	21.2	2	9.4



**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 (%)
<b>EA/ED: Physical and Aggregate Properties (QC Lot: 2421140)</b>								
HK1217798-001	D1-M MID-EBB	EA025: Suspended Solids (SS)	----	2	mg/L	5	4	0.0
HK1217798-011	D3-B MID-FLOOD	EA025: Suspended Solids (SS)	----	2	mg/L	5	6	25.5

**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
<b>EA/ED: Physical and Aggregate Properties (QCLot: 2421140)</b>											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	101	----	85	113	----	----

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

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

**Project Name:** Stanley Bay marine water monitoring

Date of Monitoring: 19/07/2012

Weather : Sunny

Tide: Ebb

Sea Condition: Calm

Monitoring Equipment	Equipment No.
YSI Sonde 6920 V2	

Monitoring Location	Time	Water Depth (m)	Sampling Depth (m)	Temperature (oC)	Salinity (ppt)	DO (mg/L)	DOS (%)	Turbidity (NTU)
C	12:30	2.3						
			1.2	29.7	23.1	7.8	116.2	1.0
D1	12:50	2.4						
			1.2	26.6	28.2	4.8	70.4	1.9
D2	13:00	5.2	1.0	29.3	24.9	7.0	105.3	1.5
			4.2	24.7	31.4	2.7	38.2	2.6
D3	13:10	5.1	1.0	28.6	25.3	7.0	103.5	1.6
			4.1	25.4	30.2	3.0	44.1	1.9
D4	12:40	2.6						
			1.3	27.2	27.1	6.2	91.2	1.8

**Project Name:** Stanley Bay marine water monitoring

Date of Monitoring: 19/07/2012

Weather : Sunny

Tide: Ebb

Sea Condition: Calm

Monitoring Equipment	Equipment No.
YSI Sonde 6920 V2	

Monitoring Location	Time	Water Depth (m)	Sampling Depth (m)	Temperature (oC)	Salinity (ppt)	DO (mg/L)	DOS (%)	Turbidity (NTU)
C	19:00	2.4						
			1.2	30.1	23.7	9.1	137.7	1.3
D1	19:20	2.3						
			1.2	28.9	25.3	8.5	126.6	2.1
D2	19:30	5.1	1.0	28.8	25.3	8.4	125.8	1.7
			4.1	27.8	26.6	7.2	106.0	3.0
D3	19:40	5.6	1.0	28.8	25.3	8.4	124.4	3.1
			4.6	27.7	26.8	7.4	109.5	1.5
D4	19:10	2.2						
			1.1	29.1	25.1	8.7	129.6	1.7





## CERTIFICATE OF ANALYSIS

<i>Client</i>	: ATKINS CHINA LTD	<i>Laboratory</i>	: ALS Technichem HK Pty Ltd	<i>Page</i>	: 1 of 3
<i>Contact</i>	: MS ENID YUNG	<i>Contact</i>	: Chan Kwok Fai, Godfrey	<i>Work Order</i>	: <b>HK1219037</b>
<i>Address</i>	: 5TH FLOOR, WHARF T&T CENTRE, HARBOUR CITY, TSIM SHA TSUI 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>Telephone</i>	: +852 2972 1802	<i>Telephone</i>	: +852 2610 1044		
<i>Facsimile</i>	: +852 2890 6343	<i>Facsimile</i>	: +852 2610 2021		
<i>Project</i>	: QUOTATION OF WATER TEST - STANLEY	<i>Quote number</i>	: ---	<i>Date received</i>	: 19-JUL-2012
<i>Order number</i>	: ---			<i>Date of issue</i>	: 30-JUL-2012
<i>C-O-C number</i>	: ---			<i>No. of samples</i>	- <i>Received</i> : 16
<i>Site</i>	: STANLEY BAY				- <i>Analysed</i> : 16

### Report Comments

This report for ALS Technichem (HK) Pty Ltd work order reference HK1219037 supersedes any previous reports with this reference. The completion date of analysis is 30-JUL-2012. Results apply to sample(s) as submitted. All pages of this report have been checked and approved for release. When date(s) and/or time(s) are shown bracketed, these have been assumed by the laboratory for process purposes. Abbreviations: CAS number = Chemical Abstract Services number. LOR = Limit of reporting.

Specific comments for Work Order HK1219037 :  
Sample(s) were collected by ALS Technichem (HK) staff on 19 July, 2012.  
Water sample(s) analysed and reported on an as received basis.  
Temperature, Salinity, Dissolved Oxygen and Turbidity were measured on-site by ALS Technichem (HK) staff.

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<i>Signatory</i>	<i>Position</i>	<i>Authorised results for:-</i>
Fung Lim Chee, Richard	General Manager	Inorganics
Fung Lim Chee, Richard	General Manager	Sampling





### Analytical Results

Sub-Matrix: MARINE WATER

			Compound	EA025: Suspended Solids (SS)	EA012-SAMP: Temperature	EA020-SAMP: Salinity	EA045-SAMP: Turbidity	EP025-SAMP: Dissolved Oxygen
			LOR Unit	2 mg/L	0.1 °C	0.1 g/L	1 NTU	0.1 mg/L
Client sample ID	Client sampling date / time	Laboratory sample ID		EA/ED: Physical and Aggregate Properties	OS: On-Site Measurement	OS: On-Site Measurement	OS: On-Site Measurement	OS: On-Site Measurement
C-M MID-EBB	19-JUL-2012 12:30	HK1219037-001		2	29.7	23.1	1	7.8
D1-M MID-EBB	19-JUL-2012 12:50	HK1219037-002		2	26.6	28.2	2	4.8
D2-S MID-EBB	19-JUL-2012 13:00	HK1219037-003		<2	29.3	24.9	2	7.0
D2-B MID-EBB	19-JUL-2012 13:00	HK1219037-004		<2	24.7	31.4	3	2.7
D3-S MID-EBB	19-JUL-2012 13:10	HK1219037-005		2	28.6	25.3	2	7.0
D3-B MID-EBB	19-JUL-2012 13:10	HK1219037-006		2	25.4	30.2	2	3.0
D4-M MID-EBB	19-JUL-2012 12:40	HK1219037-007		2	27.2	27.1	2	6.2
C-M MID-FLOOD	19-JUL-2012 19:00	HK1219037-008		2	30.1	23.7	1	9.1
D1-M MID-FLOOD	19-JUL-2012 19:20	HK1219037-009		4	28.9	25.3	2	8.5
D2-S MID-FLOOD	19-JUL-2012 19:30	HK1219037-010		<2	28.8	25.3	2	8.4
D2-B MID-FLOOD	19-JUL-2012 19:30	HK1219037-011		5	27.8	26.6	3	7.2
D3-S MID-FLOOD	19-JUL-2012 19:40	HK1219037-012		4	28.8	25.3	3	8.4
D3-B MID-FLOOD	19-JUL-2012 19:40	HK1219037-013		5	27.7	26.8	2	7.4
D4-M MID-FLOOD	19-JUL-2012 19:10	HK1219037-014		<2	29.1	25.1	2	8.7
C-M-F FIELD DUPLICATE	[19-JUL-2012]	HK1219037-015		3	30.1	23.8	1	9.1
C-M-E FIELD DUPLICATE	[19-JUL-2012]	HK1219037-016		2	28.2	25.4	1	7.1



**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 (%)
<b>EA/ED: Physical and Aggregate Properties (QC Lot: 2424848)</b>								
HK1219037-001	C-M MID-EBB	EA025: Suspended Solids (SS)	----	2	mg/L	2	2	0.0
HK1219037-011	D2-B MID-FLOOD	EA025: Suspended Solids (SS)	----	2	mg/L	5	5	0.0

**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
<b>EA/ED: Physical and Aggregate Properties (QCLot: 2424848)</b>											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	102	----	85	113	----	----

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

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

**Project Name:** Stanley Bay marine water monitoring

Date of Monitoring 01/09/2012

Weather : Sunny

Tide: Flood

Sea Condition: Calm

Monitoring Equipment	Equipment No.
YSI Sonde 6920 V2	

Monitoring Location	Time	Water Depth (m)	Sampling Depth (m)	Temperature (oC)	Salinity (ppt)	DO (mg/L)	DOS (%)	Turbidity (NTU)
C	06:15	2.7						
			1.4	28.9	27.9	7.9	119.7	1.0
D1	06:25	2.6						
			1.3	28.8	27.5	7.8	118.2	0.8
D2	06:35	5.1	1.0	28.8	27.5	7.5	113.5	0.9
			4.1	28.8	27.8	7.7	116.1	1.0
D3	06:45	4.5	1.0	28.8	27.4	7.5	113.1	2.5
			3.5	28.8	27.6	7.7	116.0	1.0
D4	06:55	2.6						
			1.3	28.8	27.5	7.8	117.0	1.0

**Project Name:** Stanley Bay marine water monitoring

Date of Monitoring 01/09/2012

Weather : Sunny

Tide: Ebb

Sea Condition: Calm

Monitoring Equipment	Equipment No.
YSI Sonde 6920 V2	

Monitoring Location	Time	Water Depth (m)	Sampling Depth (m)	Temperature (oC)	Salinity (ppt)	DO (mg/L)	DOS (%)	Turbidity (NTU)
C	12:30	2.6						
			1.3	28.9	27.7	7.7	116.8	1.8
D1	12:40	2.8						
			1.4	28.9	27.4	7.6	115.2	1.0
D2	12:50	5.3	1.0	28.8	27.5	7.7	115.5	1.1
			4.3	28.8	27.5	7.8	118.1	1.3
D3	13:00	5.3	1.0	28.9	27.3	7.6	114.3	1.1
			4.3	28.8	27.6	7.8	117.1	1.1
D4	13:05	2.6						
			1.3	28.8	27.5	7.5	112.7	2.2





## CERTIFICATE OF ANALYSIS

<i>Client</i>	: ATKINS CHINA LTD	<i>Laboratory</i>	: ALS Technichem HK Pty Ltd	<i>Page</i>	: 1 of 3
<i>Contact</i>	: MS ENID YUNG	<i>Contact</i>	: Chan Kwok Fai, Godfrey	<i>Work Order</i>	: <b>HK1223143</b>
<i>Address</i>	: 5TH FLOOR, WHARF T&T CENTRE, HARBOUR CITY, TSIM SHA TSUI 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>	: enid.yung@atkinsglobal.com	<i>E-mail</i>	: Godfrey.Chan@alsglobal.com		
<i>Telephone</i>	: +852 2972 1802	<i>Telephone</i>	: +852 2610 1044		
<i>Facsimile</i>	: +852 2890 6343	<i>Facsimile</i>	: +852 2610 2021		
<i>Project</i>	: QUOTATION OF WATER TEST - STANLEY	<i>Quote number</i>	: ---	<i>Date received</i>	: 01-SEP-2012
<i>Order number</i>	: ---			<i>Date of issue</i>	: 11-SEP-2012
<i>C-O-C number</i>	: ---			<i>No. of samples</i>	- <i>Received</i> : 16
<i>Site</i>	: STANLEY BAY				- <i>Analysed</i> : 16

### Report Comments

This report for ALS Technichem (HK) Pty Ltd work order reference HK1223143 supersedes any previous reports with this reference. The completion date of analysis is 07-SEP-2012. Results apply to sample(s) as submitted. All pages of this report have been checked and approved for release. When date(s) and/or time(s) are shown bracketed, these have been assumed by the laboratory for process purposes. Abbreviations: CAS number = Chemical Abstract Services number. LOR = Limit of reporting.

Specific comments for Work Order HK1223143 :  
Water sample(s) analysed and reported on an as received basis.  
Sample(s) were collected by ALS Technichem (HK) staff on 01 September, 2012  
Temperature, Salinity, Dissolved Oxygen and Turbidity were measured on-site by ALS Technichem (HK) staff.

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<i>Signatory</i>	<i>Position</i>	<i>Authorised results for:-</i>
Fung Lim Chee, Richard	General Manager	Inorganics
Fung Lim Chee, Richard	General Manager	Sampling

### ALS Laboratory Group

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### Analytical Results

Sub-Matrix: MARINE WATER

Client sample ID	Client sampling date / time	Laboratory sample ID	Compound	EA025: Suspended Solids (SS)	EA012-SAMP: Temperature	EA020-SAMP: Salinity	EA045-SAMP: Turbidity	EP025-SAMP: Dissolved Oxygen
			LOR Unit	2 mg/L	0.1 °C	0.1 g/L	1 NTU	0.1 mg/L
				EA/ED: Physical and Aggregate Properties	OS: On-Site Measurement	OS: On-Site Measurement	OS: On-Site Measurement	OS: On-Site Measurement
<b>C-M MID-EBB</b>	01-SEP-2012 12:30	HK1223143-001		4	28.9	27.7	2	7.7
<b>D1-M MID-EBB</b>	01-SEP-2012 12:40	HK1223143-002		2	28.9	27.4	1	7.6
<b>D2-S MID-EBB</b>	01-SEP-2012 12:50	HK1223143-003		2	28.8	27.5	1	7.7
<b>D2-B MID-EBB</b>	01-SEP-2012 12:50	HK1223143-004		2	28.8	27.5	1	7.8
<b>D3-S MID-EBB</b>	01-SEP-2012 13:00	HK1223143-005		4	28.9	27.3	1	7.6
<b>D3-B MID-EBB</b>	01-SEP-2012 13:00	HK1223143-006		3	28.8	27.6	1	7.8
<b>D4-M MID-EBB</b>	01-SEP-2012 13:05	HK1223143-007		4	28.8	27.5	2	7.5
<b>C-M MID-FLOOD</b>	01-SEP-2012 06:15	HK1223143-008		2	28.9	27.9	1	7.9
<b>D1-M MID-FLOOD</b>	01-SEP-2012 06:25	HK1223143-009		2	28.8	27.5	<1	7.8
<b>D2-S MID-FLOOD</b>	01-SEP-2012 06:35	HK1223143-010		2	28.8	27.5	<1	7.5
<b>D2-B MID-FLOOD</b>	01-SEP-2012 06:35	HK1223143-011		2	28.8	27.8	1	7.7
<b>D3-S MID-FLOOD</b>	01-SEP-2012 06:45	HK1223143-012		5	28.8	27.4	2	7.5
<b>D3-B MID-FLOOD</b>	01-SEP-2012 06:45	HK1223143-013		3	28.8	27.6	1	7.7
<b>D4-M MID-FLOOD</b>	01-SEP-2012 06:55	HK1223143-014		5	28.8	27.5	1	7.8
<b>C-M-MID-EBB FIELD DUPLICATE</b>	[01-SEP-2012]	HK1223143-015		4	28.9	27.7	1	7.9
<b>C-M-MID-FLOOD FIELD DUPLICATE</b>	[01-SEP-2012]	HK1223143-016		5	28.9	28.0	<1	8.0



**Laboratory Duplicate (DUP) Report**

Matrix: WATER

				Laboratory Duplicate (DUP) Report				
Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)
<b>EA/ED: Physical and Aggregate Properties (QC Lot: 2483444)</b>								
HK1223143-001	C-M MID-EBB	EA025: Suspended Solids (SS)	----	2	mg/L	4	3	0.0
HK1223143-011	D2-B MID-FLOOD	EA025: Suspended Solids (SS)	----	2	mg/L	2	3	0.0

**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
<b>EA/ED: Physical and Aggregate Properties (QCLot: 2483444)</b>											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	102	----	85	113	----	----

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

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



**Project Name:** Stanley Bay marine water monitoring

Date of Monitoring: 04/09/2012

Weather : Cloudy

Tide: Flood

Sea Condition: Calm

Monitoring Equipment	Equipment No.
YSI Sonde 6920 V2	

Monitoring Location	Time	Water Depth (m)	Sampling Depth (m)	Temperature (oC)	Salinity (ppt)	DO (mg/L)	DOS (%)	Turbidity (NTU)
C	08:00	2.5						
			1.3	28.6	28.7	6.6	99.2	1.3
D1	08:10	2.6						
			1.3	28.5	28.8	6.6	99.7	1.5
D2	08:20	5.3	1.0	28.6	28.7	6.8	102.8	1.4
			4.3	28.5	29.0	6.2	93.9	1.9
D3	08:30	5.3	1.0	28.6	28.7	6.7	101.2	1.3
			4.3	28.4	29.1	6.0	91.2	2.0
D4	08:40	2.5						
			1.3	28.5	28.7	6.6	100.4	1.3

**Project Name:** Stanley Bay marine water monitoring

Date of Monitoring: 04/09/2012

Weather : Cloudy

Tide: Ebb

Sea Condition: Calm

Monitoring Equipment	Equipment No.
YSI Sonde 6920 V2	

Monitoring Location	Time	Water Depth (m)	Sampling Depth (m)	Temperature (oC)	Salinity (ppt)	DO (mg/L)	DOS (%)	Turbidity (NTU)
C	14:00	2.4						
			1.2	28.5	27.4	7.5	113.2	1.2
D1	14:10	2.6						
			1.3	28.6	27.5	7.6	114.5	2.2
D2	14:20	5.2	1.0	28.7	27.5	7.7	116.2	2.1
			4.2	28.8	27.4	7.5	113.3	4.0
D3	14:30	5.4	1.0	28.9	27.6	7.6	114.9	1.4
			4.4	28.8	27.7	7.3	109.9	1.8
D4	14:40	2.5						
			1.3	28.8	27.4	6.9	104.8	1.8



**Project Name:** Stanley Bay marine water monitoring

Date of Monitoring: 06/09/2012

Weather : Sunny

Tide: Flood

Sea Condition: Calm

Monitoring Equipment	Equipment No.
YSI Sonde 6920 V2	

Monitoring Location	Time	Water Depth (m)	Sampling Depth (m)	Temperature (oC)	Salinity (ppt)	DO (mg/L)	DOS (%)	Turbidity (NTU)
C	09:15	2.4						
			1.2	28.5	28.6	6.4	97.3	1.6
D1	09:25	2.5						
			1.3	28.4	28.9	6.6	99.8	1.7
D2	09:35	5.3	1.0	28.4	28.6	6.4	96.4	1.6
			4.3	28.5	28.7	6.3	94.7	1.5
D3	09:45	5.4	1.0	28.5	28.8	6.7	101.4	1.8
			4.4	28.4	29.2	6.2	93.8	1.6
D4	09:55	2.2						
			1.1	28.6	28.5	6.6	100.5	1.4

**Project Name:** Stanley Bay marine water monitoring

Date of Monitoring: 06/09/2012

Weather : Sunny

Tide: Ebb

Sea Condition: Calm

Monitoring Equipment	Equipment No.
YSI Sonde 6920 V2	

Monitoring Location	Time	Water Depth (m)	Sampling Depth (m)	Temperature (oC)	Salinity (ppt)	DO (mg/L)	DOS (%)	Turbidity (NTU)
C	15:00	2.4						
			1.2	28.6	27.9	7.6	114.0	1.6
D1	15:10	2.5						
			1.3	28.6	27.6	7.5	113.5	1.8
D2	15:20	5.4	1.0	28.7	27.6	7.7	116.2	2.5
			4.4	28.5	27.3	6.7	100.1	3.5
D3	15:30	5.5	1.0	28.8	27.7	7.7	116.7	2.1
			4.5	28.4	27.5	6.8	102.5	2.0
D4	15:40	2.5						
			1.3	28.7	27.6	7.8	117.2	2.1



**Project Name:** Stanley Bay marine water monitoring

Date of Monitoring: 07/09/2012

Weather : Sunny

Tide: Flood

Sea Condition: Moderate

Monitoring Equipment	Equipment No.
YSI Sonde 6920 V2	

Monitoring Location	Time	Water Depth (m)	Sampling Depth (m)	Temperature (oC)	Salinity (ppt)	DO (mg/L)	DOS (%)	Turbidity (NTU)
C	10:15	2.6						
			1.3	28.4	27.6	6.5	97.8	2.0
D1	10:25	2.6						
			1.3	28.6	27.6	6.6	99.2	2.3
D2	10:35	5.3	1.0	28.6	27.4	6.6	99.7	2.5
			4.3	28.4	27.6	6.6	97.6	3.8
D3	10:45	5.2	1.0	28.7	27.5	6.5	100.1	2.5
			4.2	28.6	27.7	6.5	97.6	3.1
D4	10:55	2.6						
			1.3	28.6	27.6	6.6	99.7	2.9

**Project Name:** Stanley Bay marine water monitoring

Date of Monitoring: 07/09/2012

Weather : Sunny

Tide: Ebb

Sea Condition: Moderate

Monitoring Equipment	Equipment No.
YSI Sonde 6920 V2	

Monitoring Location	Time	Water Depth (m)	Sampling Depth (m)	Temperature (oC)	Salinity (ppt)	DO (mg/L)	DOS (%)	Turbidity (NTU)
C	15:30	2.6						
			1.3	28.6	27.9	7.6	113.8	2.8
D1	15:40	2.8						
			1.4	28.7	27.9	7.7	116.7	3.0
D2	15:50	5.2	1.0	28.7	27.7	7.8	118.2	3.8
			4.2	28.7	27.6	6.7	101.7	3.8
D3	16:00	5.3	1.0	28.8	27.7	8.0	120.1	3.2
			4.3	28.6	27.6	7.0	104.7	3.5
D4	16:10	2.4						
			1.2	28.7	27.5	7.9	119.5	2.9







## CERTIFICATE OF ANALYSIS

<i>Client</i>	: ATKINS CHINA LTD	<i>Laboratory</i>	: ALS Technichem HK Pty Ltd	<i>Page</i>	: 1 of 3
<i>Contact</i>	: MS ENID YUNG	<i>Contact</i>	: Chan Kwok Fai, Godfrey	<i>Work Order</i>	: <b>HK1223147</b>
<i>Address</i>	: 5TH FLOOR, WHARF T&T CENTRE, HARBOUR CITY, TSIM SHA TSUI 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>	: enid.yung@atkinsglobal.com	<i>E-mail</i>	: Godfrey.Chan@alsglobal.com		
<i>Telephone</i>	: +852 2972 1802	<i>Telephone</i>	: +852 2610 1044		
<i>Facsimile</i>	: +852 2890 6343	<i>Facsimile</i>	: +852 2610 2021		
<i>Project</i>	: QUOTATION OF WATER TEST - STANLEY	<i>Quote number</i>	: ---	<i>Date received</i>	: 05-SEP-2012
<i>Order number</i>	: ---			<i>Date of issue</i>	: 13-SEP-2012
<i>C-O-C number</i>	: ---			<i>No. of samples</i>	- Received : 16
<i>Site</i>	: STANLEY BAY				- Analysed : 16

### Report Comments

This report for ALS Technichem (HK) Pty Ltd work order reference HK1223147 supersedes any previous reports with this reference. The completion date of analysis is 07-SEP-2012. Results apply to sample(s) as submitted. All pages of this report have been checked and approved for release. When date(s) and/or time(s) are shown bracketed, these have been assumed by the laboratory for process purposes. Abbreviations: CAS number = Chemical Abstract Services number. LOR = Limit of reporting.

Specific comments for Work Order HK1223147 :  
Water sample(s) analysed and reported on an as received basis.  
Sample(s) were collected by ALS Technichem (HK) staff on 4 September, 2012  
Temperature, Salinity, Dissolved Oxygen and Turbidity were measured on-site by ALS Technichem (HK) staff.

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<i>Signatory</i>	<i>Position</i>	<i>Authorised results for:-</i>
Fung Lim Chee, Richard	General Manager	Inorganics
Fung Lim Chee, Richard	General Manager	Sampling

### ALS Laboratory Group

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### Analytical Results

Sub-Matrix: MARINE WATER

			Compound	EA025: Suspended Solids (SS)	EA012-SAMP: Temperature	EA020-SAMP: Salinity	EA045-SAMP: Turbidity	EP025-SAMP: Dissolved Oxygen
			LOR Unit	2 mg/L	0.1 °C	0.1 g/L	1 NTU	0.1 mg/L
Client sample ID	Client sampling date / time	Laboratory sample ID		EA/ED: Physical and Aggregate Properties	OS: On-Site Measurement	OS: On-Site Measurement	OS: On-Site Measurement	OS: On-Site Measurement
<b>C-M MID-EBB</b>	04-SEP-2012 14:00	HK1223147-001		4	28.5	27.4	1	7.5
<b>D1-M MID-EBB</b>	04-SEP-2012 14:10	HK1223147-002		2	28.6	27.5	2	7.6
<b>D2-S MID-EBB</b>	04-SEP-2012 14:20	HK1223147-003		3	28.7	27.5	2	7.7
<b>D2-B MID-EBB</b>	04-SEP-2012 14:20	HK1223147-004		4	28.8	27.4	4	7.5
<b>D3-S MID-EBB</b>	04-SEP-2012 14:30	HK1223147-005		3	28.9	27.6	1	7.6
<b>D3-B MID-EBB</b>	04-SEP-2012 14:30	HK1223147-006		2	28.8	27.7	2	7.3
<b>D4-M MID-EBB</b>	04-SEP-2012 14:40	HK1223147-007		5	28.8	27.4	2	6.9
<b>C-M MID-FLOOD</b>	04-SEP-2012 08:00	HK1223147-008		4	28.6	28.7	1	6.6
<b>D1-M MID-FLOOD</b>	04-SEP-2012 08:10	HK1223147-009		3	28.5	28.8	2	6.6
<b>D2-S MID-FLOOD</b>	04-SEP-2012 08:20	HK1223147-010		5	28.6	28.7	1	6.8
<b>D2-B MID-FLOOD</b>	04-SEP-2012 08:20	HK1223147-011		3	28.5	29.0	2	6.2
<b>D3-S MID-FLOOD</b>	04-SEP-2012 08:30	HK1223147-012		7	28.6	28.7	1	6.7
<b>D3-B MID-FLOOD</b>	04-SEP-2012 08:30	HK1223147-013		5	28.4	29.1	2	6.0
<b>D4-M MID-FLOOD</b>	04-SEP-2012 08:40	HK1223147-014		5	28.5	28.7	1	6.6
<b>D1-M-E FIELD DUPLICATE</b>	[04-SEP-2012]	HK1223147-015		4	28.5	29.0	2	6.2
<b>D1-M-F FIELD DUPLICATE</b>	[04-SEP-2012]	HK1223147-016		4	28.5	28.9	2	6.6



**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 (%)
<b>EA/ED: Physical and Aggregate Properties (QC Lot: 2487801)</b>								
HK1223147-001	C-M MID-EBB	EA025: Suspended Solids (SS)	----	2	mg/L	4	3	0.0
HK1223147-011	D2-B MID-FLOOD	EA025: Suspended Solids (SS)	----	2	mg/L	3	3	0.0

**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
<b>EA/ED: Physical and Aggregate Properties (QCLot: 2487801)</b>											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	106	----	85	113	----	----

**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>	: ATKINS CHINA LTD	<i>Laboratory</i>	: ALS Technichem HK Pty Ltd	<i>Page</i>	: 1 of 3
<i>Contact</i>	: MS ENID YUNG	<i>Contact</i>	: Chan Kwok Fai, Godfrey	<i>Work Order</i>	: <b>HK1223221</b>
<i>Address</i>	: 5TH FLOOR, WHARF T&T CENTRE, HARBOUR CITY, TSIM SHA TSUI 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>	: enid.yung@atkinsglobal.com	<i>E-mail</i>	: Godfrey.Chan@alsglobal.com		
<i>Telephone</i>	: +852 2972 1802	<i>Telephone</i>	: +852 2610 1044		
<i>Facsimile</i>	: +852 2890 6343	<i>Facsimile</i>	: +852 2610 2021		
<i>Project</i>	: QUOTATION OF WATER TEST - STANLEY	<i>Quote number</i>	: ---	<i>Date received</i>	: 06-SEP-2012
<i>Order number</i>	: ---			<i>Date of issue</i>	: 14-SEP-2012
<i>C-O-C number</i>	: ---			<i>No. of samples</i>	- <i>Received</i> : 16
<i>Site</i>	: STANLEY BAY				- <i>Analysed</i> : 16

### Report Comments

This report for ALS Technichem (HK) Pty Ltd work order reference HK1223221 supersedes any previous reports with this reference. The completion date of analysis is 13-SEP-2012. Results apply to sample(s) as submitted. All pages of this report have been checked and approved for release. When date(s) and/or time(s) are shown bracketed, these have been assumed by the laboratory for process purposes. Abbreviations: CAS number = Chemical Abstract Services number. LOR = Limit of reporting.

Specific comments for Work Order HK1223221 :  
Sample(s) were collected by ALS Technichem (HK) staff on 06 September, 2012.  
Water sample(s) analysed and reported on an as received basis.  
Temperature, Salinity, Dissolved Oxygen and Turbidity were measured on-site by ALS Technichem (HK) staff.

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<i>Signatory</i>	<i>Position</i>	<i>Authorised results for:-</i>
Fung Lim Chee, Richard	General Manager	Inorganics
Fung Lim Chee, Richard	General Manager	Sampling



### Analytical Results

Sub-Matrix: MARINE WATER

			Compound	EA025: Suspended Solids (SS)	EA012-SAMP: Temperature	EA020-SAMP: Salinity	EA045-SAMP: Turbidity	EP025-SAMP: Dissolved Oxygen
			LOR Unit	2 mg/L	0.1 °C	0.1 g/L	1 NTU	0.1 mg/L
Client sample ID	Client sampling date / time	Laboratory sample ID		EA/ED: Physical and Aggregate Properties	OS: On-Site Measurement	OS: On-Site Measurement	OS: On-Site Measurement	OS: On-Site Measurement
C-M MID-EBB	06-SEP-2012 15:00	HK1223221-001		3	28.6	27.9	2	7.6
D1-M MID-EBB	06-SEP-2012 15:10	HK1223221-002		2	28.6	27.6	2	7.5
D2-S MID-EBB	06-SEP-2012 15:20	HK1223221-003		4	28.7	27.6	2	7.7
D2-B MID-EBB	06-SEP-2012 15:20	HK1223221-004		4	28.5	27.3	4	6.7
D3-S MID-EBB	06-SEP-2012 15:30	HK1223221-005		<2	28.8	27.7	2	7.7
D3-B MID-EBB	06-SEP-2012 15:30	HK1223221-006		<2	28.4	27.5	2	6.8
D4-M MID-EBB	06-SEP-2012 15:40	HK1223221-007		2	28.7	27.6	2	7.8
C-M MID-FLOOD	06-SEP-2012 09:15	HK1223221-008		6	28.5	28.6	2	6.4
D1-M MID-FLOOD	06-SEP-2012 09:25	HK1223221-009		5	28.4	28.9	2	6.6
D2-S MID-FLOOD	06-SEP-2012 09:35	HK1223221-010		3	28.4	28.6	2	6.4
D2-B MID-FLOOD	06-SEP-2012 09:35	HK1223221-011		2	28.5	28.7	2	6.3
D3-S MID-FLOOD	06-SEP-2012 09:45	HK1223221-012		2	28.5	28.8	2	6.7
D3-B MID-FLOOD	06-SEP-2012 09:45	HK1223221-013		3	28.4	29.2	2	6.2
D4-M MID-FLOOD	06-SEP-2012 09:55	HK1223221-014		4	28.6	28.5	1	6.6
D4-M-F FIELD DUPLICATE	[06-SEP-2012]	HK1223221-015		6	28.7	27.5	2	7.8
D4-M-F FIELD DUPLICATE	[06-SEP-2012]	HK1223221-016		5	28.5	28.5	2	6.6



**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 (%)
<b>EA/ED: Physical and Aggregate Properties (QC Lot: 2489393)</b>								
HK1223221-001	C-M MID-EBB	EA025: Suspended Solids (SS)	----	2	mg/L	3	3	0.0
HK1223221-011	D2-B MID-FLOOD	EA025: Suspended Solids (SS)	----	2	mg/L	2	4	50.7

**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
<b>EA/ED: Physical and Aggregate Properties (QCLot: 2489393)</b>											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	100	----	85	113	----	----

**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>	: ATKINS CHINA LTD	<i>Laboratory</i>	: ALS Technichem HK Pty Ltd	<i>Page</i>	: 1 of 3
<i>Contact</i>	: MS ENID YUNG	<i>Contact</i>	: Chan Kwok Fai, Godfrey	<i>Work Order</i>	: <b>HK1223222</b>
<i>Address</i>	: 5TH FLOOR, WHARF T&T CENTRE, HARBOUR CITY, TSIM SHA TSUI 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>	: enid.yung@atkinsglobal.com	<i>E-mail</i>	: Godfrey.Chan@alsglobal.com		
<i>Telephone</i>	: +852 2972 1802	<i>Telephone</i>	: +852 2610 1044		
<i>Facsimile</i>	: +852 2890 6343	<i>Facsimile</i>	: +852 2610 2021		
<i>Project</i>	: QUOTATION OF WATER TEST - STANLEY	<i>Quote number</i>	: ---	<i>Date received</i>	: 07-SEP-2012
<i>Order number</i>	: ---			<i>Date of issue</i>	: 17-SEP-2012
<i>C-O-C number</i>	: ---			<i>No. of samples</i>	- <i>Received</i> : 16
<i>Site</i>	: STANLEY BAY				- <i>Analysed</i> : 16

### Report Comments

This report for ALS Technichem (HK) Pty Ltd work order reference HK1223222 supersedes any previous reports with this reference. The completion date of analysis is 13-SEP-2012. Results apply to sample(s) as submitted. All pages of this report have been checked and approved for release. When date(s) and/or time(s) are shown bracketed, these have been assumed by the laboratory for process purposes. Abbreviations: CAS number = Chemical Abstract Services number. LOR = Limit of reporting.

Specific comments for Work Order HK1223222 :  
Sample(s) were collected by ALS Technichem (HK) staff on 07 September, 2012.  
Water sample(s) analysed and reported on an as received basis.  
Temperature, Salinity, Dissolved Oxygen and Turbidity were measured on-site by ALS Technichem (HK) staff.

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<i>Signatory</i>	<i>Position</i>	<i>Authorised results for:-</i>
Fung Lim Chee, Richard	General Manager	Inorganics
Fung Lim Chee, Richard	General Manager	Sampling





**Analytical Results**

Sub-Matrix: MARINE WATER

			Compound	EA025: Suspended Solids (SS)	EA012-SAMP: Temperature	EA020-SAMP: Salinity	EA045-SAMP: Turbidity	EP025-SAMP: Dissolved Oxygen
			LOR Unit	2 mg/L	0.1 °C	0.1 g/L	1 NTU	0.1 mg/L
Client sample ID	Client sampling date / time	Laboratory sample ID		EA/ED: Physical and Aggregate Properties	OS: On-Site Measurement	OS: On-Site Measurement	OS: On-Site Measurement	OS: On-Site Measurement
C-M MID-EBB	07-SEP-2012 15:30	HK1223222-001		2	28.6	27.9	3	7.6
D1-M MID-EBB	07-SEP-2012 15:40	HK1223222-002		3	28.7	27.9	3	7.7
D2-S MID-EBB	07-SEP-2012 15:50	HK1223222-003		3	28.7	27.7	4	7.8
D2-B MID-EBB	07-SEP-2012 15:50	HK1223222-004		5	28.7	27.6	4	6.7
D3-S MID-EBB	07-SEP-2012 16:00	HK1223222-005		3	28.8	27.7	3	8.0
D3-B MID-EBB	07-SEP-2012 16:00	HK1223222-006		3	28.6	27.6	4	7.0
D4-M MID-EBB	07-SEP-2012 16:10	HK1223222-007		5	28.7	27.5	3	7.9
C-M MID-FLOOD	07-SEP-2012 10:15	HK1223222-008		3	28.4	27.6	2	6.5
D1-M MID-FLOOD	07-SEP-2012 10:25	HK1223222-009		5	529	27.6	2	6.6
D2-S MID-FLOOD	07-SEP-2012 10:35	HK1223222-010		3	28.6	27.4	2	6.6
D2-B MID-FLOOD	07-SEP-2012 10:35	HK1223222-011		2	28.4	27.6	4	6.6
D3-S MID-FLOOD	07-SEP-2012 10:45	HK1223222-012		3	28.7	27.5	2	6.5
D3-B MID-FLOOD	07-SEP-2012 10:45	HK1223222-013		2	28.6	27.7	3	6.5
D4-M MID-FLOOD	07-SEP-2012 10:55	HK1223222-014		2	28.6	27.6	3	6.6
C-M-F FIELD DUPLICATE	[07-SEP-2012]	HK1223222-015		3	28.5	27.7	2	6.5
C-M-E FIELD DUPLICATE	[07-SEP-2012]	HK1223222-016		4	28.5	27.9	3	7.6



**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 (%)
<b>EA/ED: Physical and Aggregate Properties (QC Lot: 2492347)</b>								
HK1223222-001	C-M MID-EBB	EA025: Suspended Solids (SS)	----	2	mg/L	2	4	42.7
HK1223222-011	D2-B MID-FLOOD	EA025: Suspended Solids (SS)	----	2	mg/L	2	3	0.0

**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
<b>EA/ED: Physical and Aggregate Properties (QCLot: 2492347)</b>											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	98.0	----	85	113	----	----

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

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

# Marine Water Quality Monitoring - Data Record Sheet

**Project Name:** Stanley Bay marine water monitoring

Date of Monitoring: 11/10/2012

Weather: Sunny

Tide: Ebb

Sea Condition: Mild

Monitoring Equipment	Equipment No.
YSI Sonde 6920 V2	

Monitoring Location	Time	Water Depth (m)	Sampling Depth (m)	Temperature (oC)	Salinity (ppt)	DO (mg/L)	DOS (%)	Turbidity (NTU)
A1	9:45	7.5	1.0	25.2	28.1	6.8	97.5	2.4
			3.8	23.4	33.0	6.4	91.3	2.8
			6.5	23.4	33.8	6.3	89.0	7.0
A2	9:35	9.1	1.0	25.2	28.1	6.6	96.8	2.4
			4.6	23.3	33.1	6.4	91.2	4.6
			8.1	23.0	33.6	6.3	88.8	5.9
A3	9:25	8.2	1.0	25.2	28.2	6.8	97.2	1.8
			4.1	23.4	33.0	6.5	92.2	3.1
			7.2	23.2	33.8	6.3	88.6	6.7
A4	9:15	7.6	1.0	25.2	28.2	6.8	96.9	1.9
			3.8	23.5	33.0	6.4	91.3	2.9
			6.6	23.3	33.6	6.3	88.4	6.7
A5	9:05	6.8	1.0	25.1	28.2	6.8	97.3	1.8
			3.4	23.4	33.0	6.5	91.5	2.7
			5.8	23.1	33.6	6.3	89.3	6.9
A6	8:55	6.8	1.0	25.2	28.1	6.8	97.6	1.6
			3.4	23.2	33.1	6.4	90.9	4.3
			5.8	23.0	33.7	6.3	87.6	6.8

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**Project Name:** Stanley Bay marine water monitoring

Date of Monitoring: 11/10/2012

Weather: Sunny

Tide: Ebb

Sea Condition: Mild

Monitoring Equipment	Equipment No.
YSI Sonde 6920 V2	

Monitoring Location	Time	Water Depth (m)	Sampling Depth (m)	Temperature (oC)	Salinity (ppt)	DO (mg/L)	DOS (%)	Turbidity (NTU)
B1	7:45	11.8	1.0	25.2	28.3	6.7	96.1	2.2
			5.9	23.2	33.2	6.4	90.5	4.0
			10.8	23.2	34.1	6.3	88.3	5.5
B2	7:55	11.8	1.0	25.1	28.3	6.6	94.3	2.0
			5.9	23.3	33.3	6.4	90.1	3.8
			10.8	23.1	34.2	6.3	88.0	6.4
B3	8:05	11.2	1.0	25.2	28.2	6.7	97.1	1.8
			5.6	23.5	33.2	6.5	92.4	2.2
			10.2	23.2	34.1	6.3	88.8	5.8
B4	8:15	10.6	1.0	25.2	28.2	6.7	95.8	0.9
			5.3	23.5	33.2	6.4	91.1	1.8
			9.6	23.0	34.2	6.3	89.3	6.9
B5	8:25	11.2	1.0	25.2	28.2	6.8	98.7	1.1
			5.6	23.8	33.2	6.5	92.2	2.7
			10.2	23.1	34.0	6.3	88.5	5.9
B6	8:35	12.0	1.0	25.1	28.1	6.7	97.6	1.8
			6.0	23.6	33.3	6.4	91.5	2.8
			11.0	23.3	34.1	6.3	88.9	6.4

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**Project Name:** Stanley Bay marine water monitoring

Date of Monitoring: 11/10/2012

Weather: Sunny

Tide: Ebb

Sea Condition: Mild

Monitoring Equipment	Equipment No.
YSI Sonde 6920 V2	

Monitoring Location	Time	Water Depth (m)	Sampling Depth (m)	Temperature (oC)	Salinity (ppt)	DO (mg/L)	DOS (%)	Turbidity (NTU)
C	8:45	2.7						
			1.4	25.2	28.4	6.5	91.5	3.8
D1	9:55	2.6						
			1.3	25.1	28.5	6.5	92.1	2.7
D2	10:25	5.0	1.0	25.2	27.8	6.5	92.6	1.6
			4.0	24.1	30.0	6.3	87.8	6.2
D3	10:15	5.6	1.0	25.2	27.8	6.5	92.7	1.6
			4.6	23.9	31.7	6.3	88.0	6.6
D4	10:05	2.8						
			1.4	24.8	28.7	6.5	91.9	5.5

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## Marine Water Quality Monitoring - Data Record Sheet

**Project Name:** Stanley Bay marine water monitoring

Date of Monitoring: 11/10/2012

Weather: Sunny

Tide: Flood

Sea Condition: Mild

Monitoring Equipment	Equipment No.
YSI Sonde 6920 V2	

Monitoring Location	Time	Water Depth (m)	Sampling Depth (m)	Temperature (oC)	Salinity (ppt)	DO (mg/L)	DOS (%)	Turbidity (NTU)
A1	16:20	11.2	1.0	25.8	28.7	6.7	96.9	3.4
			5.6	23.7	33.6	6.4	90.5	4.4
			10.2	23.5	33.9	6.3	88.5	6.8
A2	16:10	10.2	1.0	25.8	28.6	6.5	95.1	2.4
			5.1	23.7	33.7	6.4	90.3	3.7
			9.2	23.5	34.1	6.3	88.0	6.3
A3	16:00	9.0	1.0	25.8	28.7	6.7	96.1	2.7
			4.5	23.6	33.8	6.4	91.2	4.1
			8.0	23.4	34.0	6.3	86.8	6.9
A4	15:50	7.0	1.0	26.0	28.7	6.7	96.2	2.4
			3.5	23.7	33.6	6.4	91.0	3.4
			6.0	23.6	34.4	6.3	86.9	5.9
A5	15:40	6.4	1.0	25.8	28.7	6.7	96.8	2.9
			3.2	23.8	33.6	6.5	93.5	5.0
			5.4	23.4	34.3	6.3	88.8	6.7
A6	15:30	6.8	1.0	25.7	28.7	6.7	96.8	4.1
			3.4	23.7	33.5	6.4	89.5	5.3
			5.8	23.3	34.1	6.3	88.2	6.7

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**Project Name:** Stanley Bay marine water monitoring

Date of Monitoring: 11/10/2012      Weather: Sunny      Tide: Flood      Sea Condition: Mild

Monitoring Equipment	Equipment No.
YSI Sonde 6920 V2	

Monitoring Location	Time	Water Depth (m)	Sampling Depth (m)	Temperature (oC)	Salinity (ppt)	DO (mg/L)	DOS (%)	Turbidity (NTU)	
B1	14:20	12.0	1.0	25.8	28.8	6.7	95.0	2.5	62
			6.0	23.8	34.0	6.4	89.5	4.3	63
			11.0	23.6	34.7	6.3	87.2	6.4	64
B2	14:30	12.2	1.0	25.8	28.8	6.6	95.5	3.0	65
			6.1	23.7	34.1	6.4	89.2	5.2	66
			11.2	23.6	34.8	6.3	87.4	5.4	67
B3	14:40	11.4	1.0	25.8	28.7	6.7	96.2	2.2	68
			5.7	23.7	34.1	6.5	89.0	3.2	69
			10.4	23.7	34.7	6.3	86.9	5.5	70
B4	14:50	11.4	1.0	25.9	28.8	6.7	95.8	1.9	71
			5.7	23.6	34.1	6.4	90.3	2.7	72
			10.4	23.4	34.8	6.3	88.8	5.9	73
B5	15:00	10.0	1.0	25.8	28.9	6.8	96.6	1.8	74
			5.0	23.8	34.0	6.5	90.1	2.7	75
			9.0	23.5	34.5	6.3	89.1	6.4	76
B6	15:10	10.2	1.0	25.7	28.8	6.7	97.2	1.8	77
			5.1	23.6	34.1	6.4	89.8	3.0	78
			9.2	23.4	34.7	6.3	87.4	7.0	79

**Project Name:** Stanley Bay marine water monitoring

Date of Monitoring: 11/10/2012

Weather: Sunny

Tide: Flood

Sea Condition: Mild

Monitoring Equipment	Equipment No.
YSI Sonde 6920 V2	

Monitoring Location	Time	Water Depth (m)	Sampling Depth (m)	Temperature (oC)	Salinity (ppt)	DO (mg/L)	DOS (%)	Turbidity (NTU)
C	15:20	2.9						
			1.5	25.8	28.9	6.5	90.9	4.3
D1	16:30	3.0						
			1.5	25.6	29.1	6.5	91.2	3.8
D2	17:00	5.4	1.0	25.8	28.1	6.5	92.2	3.2
			4.4	23.9	32.5	6.3	87.3	4.4
D3	16:50	5.8	1.0	25.7	28.3	6.5	92.7	2.8
D4	16:40	3.0						
			1.5	25.0	28.7	6.4	90.0	6.6

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**Project Name:** Stanley Bay marine water monitoring

Date of Monitoring: \_\_\_\_\_ Weather : \_\_\_\_\_ Tide: \_\_\_\_\_ Sea Condition: \_\_\_\_\_

Monitoring Equipment	Equipment No.
YSI Sonde 6920 V2	

Monitoring Location	Time	Water Depth (m)	Sampling Depth (m)	Temperature (oC)	Salinity (ppt)	DO (mg/L)	DOS (%)	Turbidity (NTU)
C-M-E			middle	25.2	28.4	6.5	91.5	3.8
D1-M-E			middle	25.1	28.5	6.5	92.0	2.9
D2-S-E			surface	25.2	27.8	6.5	92.3	1.8
D3-S-E			surface	25.2	27.8	6.5	92.3	1.6
C-M-F			middle	25.8	28.9	6.5	91.1	4.4
D1-M-F			middle	25.6	29.1	6.5	91.2	3.7
D2-S-F			surface	25.8	28.2	6.5	92.1	3.3
D3-S-F			surface	25.7	28.3	6.5	92.5	2.6

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## CERTIFICATE OF ANALYSIS

<i>Client</i>	: ATKINS CHINA LTD	<i>Laboratory</i>	: ALS Technichem HK Pty Ltd	<i>Page</i>	: 1 of 8
<i>Contact</i>	: MS ENID YUNG	<i>Contact</i>	: Chan Kwok Fai, Godfrey	<i>Work Order</i>	: <b>HK1227116</b>
<i>Address</i>	: 5TH FLOOR, WHARF T&T CENTRE, HARBOUR CITY, TSIM SHA TSUI 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>	: enid.yung@atkinsglobal.com	<i>E-mail</i>	: Godfrey.Chan@alsglobal.com		
<i>Telephone</i>	: +852 2972 1802	<i>Telephone</i>	: +852 2610 1044		
<i>Facsimile</i>	: +852 2890 6343	<i>Facsimile</i>	: +852 2610 2021		
<i>Project</i>	: QUOTATION OF WATER TEST - STANLEY	<i>Quote number</i>	: ---	<i>Date received</i>	: 11-OCT-2012
<i>Order number</i>	: ---			<i>Date of issue</i>	: 22-OCT-2012
<i>C-O-C number</i>	: ---			<i>No. of samples</i>	- Received : 94
<i>Site</i>	: STANLEY BAY				- Analysed : 94

### Report Comments

This report for ALS Technichem (HK) Pty Ltd work order reference HK1227116 supersedes any previous reports with this reference. The completion date of analysis is 17-OCT-2012. Results apply to sample(s) as submitted. All pages of this report have been checked and approved for release. When date(s) and/or time(s) are shown bracketed, these have been assumed by the laboratory for process purposes. Abbreviations: CAS number = Chemical Abstract Services number. LOR = Limit of reporting.

Specific comments for Work Order HK1227116 :  
Sample(s) were collected by ALS Technichem (HK) staff on 11 October, 2012.  
Water sample(s) analysed and reported on an as received basis.  
Temperature, Salinity, Dissolved Oxygen and Turbidity were measured on-site by ALS Technichem (HK) staff.

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

<i>Signatory</i>	<i>Position</i>	<i>Authorised results for:-</i>
<b>Fung Lim Chee, Richard</b>	<b>General Manager</b>	<b>Inorganics</b>
<b>Fung Lim Chee, Richard</b>	<b>General Manager</b>	<b>Sampling</b>



### Analytical Results

Sub-Matrix: WATER

Client sample ID	Client sampling date / time	Laboratory sample ID	Compound	EA025: Suspended Solids (SS)	EA012-SAMP: Temperature	EA020-SAMP: Salinity	EA045-SAMP: Turbidity	EP025-SAMP: Dissolved Oxygen
			LOR Unit	2 mg/L	0.1 °C	0.1 g/L	1 NTU	0.1 mg/L
				EA/ED: Physical and Aggregate Properties	OS: On-Site Measurement	OS: On-Site Measurement	OS: On-Site Measurement	OS: On-Site Measurement
A1-S MID-EBB	[11-OCT-2012]	HK1227116-001		4	25.2	28.1	2	6.8
A1-M MID-EBB	[11-OCT-2012]	HK1227116-002		4	23.4	33.0	3	6.4
A1-B MID-EBB	[11-OCT-2012]	HK1227116-003		2	23.4	33.8	7	6.3
A2-S MID-EBB	[11-OCT-2012]	HK1227116-004		5	25.2	28.1	2	6.6
A2-M MID-EBB	[11-OCT-2012]	HK1227116-005		4	23.3	33.1	5	6.4
A2-B MID-EBB	[11-OCT-2012]	HK1227116-006		4	23.0	33.6	6	6.3
A3-S MID-EBB	[11-OCT-2012]	HK1227116-007		7	25.2	28.2	2	6.8
A3-M MID-EBB	[11-OCT-2012]	HK1227116-008		7	23.4	33.0	3	6.5
A3-B MID-EBB	[11-OCT-2012]	HK1227116-009		4	23.2	33.8	7	6.3
A4-S MID-EBB	[11-OCT-2012]	HK1227116-010		4	25.2	28.2	2	6.8
A4-M MID-EBB	[11-OCT-2012]	HK1227116-011		4	23.5	33.0	3	6.4
A4-B MID-EBB	[11-OCT-2012]	HK1227116-012		3	23.3	33.6	7	6.3
A5-S MID-EBB	[11-OCT-2012]	HK1227116-013		3	25.1	28.2	2	6.8
A5-M MID-EBB	[11-OCT-2012]	HK1227116-014		3	23.4	33.0	3	6.5
A5-B MID-EBB	[11-OCT-2012]	HK1227116-015		3	23.1	33.6	7	6.3
A6-S MID-EBB	[11-OCT-2012]	HK1227116-016		5	25.2	28.1	2	6.8
A6-M MID-EBB	[11-OCT-2012]	HK1227116-017		6	23.2	33.1	4	6.4
A6-B MID-EBB	[11-OCT-2012]	HK1227116-018		3	23.0	33.7	7	6.3
B1-S MID-EBB	[11-OCT-2012]	HK1227116-019		3	25.2	28.3	2	6.7
B1-M MID-EBB	[11-OCT-2012]	HK1227116-020		3	23.2	33.2	4	6.4
B1-B MID-EBB	[11-OCT-2012]	HK1227116-021		2	23.2	34.1	6	6.3
B2-S MID-EBB	[11-OCT-2012]	HK1227116-022		3	25.1	28.3	2	6.6
B2-M MID-EBB	[11-OCT-2012]	HK1227116-023		3	23.3	33.3	4	6.4
B2-B MID-EBB	[11-OCT-2012]	HK1227116-024		3	23.1	34.2	6	6.3
B3-S MID-EBB	[11-OCT-2012]	HK1227116-025		3	25.2	28.2	2	6.7
B3-M MID-EBB	[11-OCT-2012]	HK1227116-026		3	23.5	33.2	2	6.5
B3-B MID-EBB	[11-OCT-2012]	HK1227116-027		2	23.2	34.1	6	6.3
B4-S MID-EBB	[11-OCT-2012]	HK1227116-028		4	25.2	28.2	<1	6.7
B4-M MID-EBB	[11-OCT-2012]	HK1227116-029		2	23.5	33.2	2	6.4
B4-B MID-EBB	[11-OCT-2012]	HK1227116-030		3	23.0	34.2	7	6.3
B5-S MID-EBB	[11-OCT-2012]	HK1227116-031		<2	25.2	28.2	1	6.8
B5-M MID-EBB	[11-OCT-2012]	HK1227116-032		<2	23.8	33.2	3	6.5
B5-B MID-EBB	[11-OCT-2012]	HK1227116-033		<2	23.1	34.0	6	6.3
B6-S MID-EBB	[11-OCT-2012]	HK1227116-034		3	25.1	28.1	2	6.7
B6-M MID-EBB	[11-OCT-2012]	HK1227116-035		2	23.6	33.3	3	6.4



Sub-Matrix: WATER

Client sample ID	Client sampling date / time	Laboratory sample ID	Compound	EA025: Suspended Solids (SS)	EA012-SAMP: Temperature	EA020-SAMP: Salinity	EA045-SAMP: Turbidity	EP025-SAMP: Dissolved Oxygen
			LOR Unit	2 mg/L	0.1 °C	0.1 g/L	1 NTU	0.1 mg/L
			EA/ED: Physical and Aggregate Properties	OS: On-Site Measurement	OS: On-Site Measurement	OS: On-Site Measurement	OS: On-Site Measurement	OS: On-Site Measurement
B6-B MID-EBB	[11-OCT-2012]	HK1227116-036		2	23.0	34.1	6	6.3
CM MID-EBB	[11-OCT-2012]	HK1227116-037		4	25.2	28.4	4	6.5
D1-M MID-EBB	[11-OCT-2012]	HK1227116-038		4	25.1	28.5	3	6.5
D2-S MID-EBB	[11-OCT-2012]	HK1227116-039		3	25.2	27.8	2	6.5
D2-B MID-EBB	[11-OCT-2012]	HK1227116-040		5	24.1	30.0	6	6.3
D3-S MID-EBB	[11-OCT-2012]	HK1227116-041		3	25.2	27.8	2	6.5
D3-B MID-EBB	[11-OCT-2012]	HK1227116-042		2	23.9	31.7	7	6.3
D4-M MID-EBB	[11-OCT-2012]	HK1227116-043		3	24.8	28.7	6	6.5
A1-S MID-FLOOD	[11-OCT-2012]	HK1227116-044		2	25.8	28.7	3	6.7
A1-M MID-FLOOD	[11-OCT-2012]	HK1227116-045		3	23.7	33.6	4	6.4
A1-B MID-FLOOD	[11-OCT-2012]	HK1227116-046		4	23.5	33.9	7	6.3
A2-S MID-FLOOD	[11-OCT-2012]	HK1227116-047		3	25.8	28.6	2	6.5
A2-M MID-FLOOD	[11-OCT-2012]	HK1227116-048		4	23.7	33.7	4	6.4
A2-B MID-FLOOD	[11-OCT-2012]	HK1227116-049		6	23.5	34.1	6	6.3
A3-S MID-FLOOD	[11-OCT-2012]	HK1227116-050		2	25.8	28.7	3	6.7
A3-M MID-FLOOD	[11-OCT-2012]	HK1227116-051		6	23.6	33.8	4	6.4
A3-B MID-FLOOD	[11-OCT-2012]	HK1227116-052		3	23.4	34.0	7	6.3
A4-S MID-FLOOD	[11-OCT-2012]	HK1227116-053		2	26.0	28.7	2	6.7
A4-M MID-FLOOD	[11-OCT-2012]	HK1227116-054		8	23.7	33.6	3	6.4
A4-B MID-FLOOD	[11-OCT-2012]	HK1227116-055		4	23.6	34.4	6	6.3
A5-S MID-FLOOD	[11-OCT-2012]	HK1227116-056		3	25.8	28.7	3	6.7
A5-M MID-FLOOD	[11-OCT-2012]	HK1227116-057		4	23.8	33.6	5	6.5
A5-B MID-FLOOD	[11-OCT-2012]	HK1227116-058		4	23.4	34.3	7	6.3
A6-S MID-FLOOD	[11-OCT-2012]	HK1227116-059		3	25.7	28.7	4	6.7
A6-M MID-FLOOD	[11-OCT-2012]	HK1227116-060		2	23.7	33.5	5	6.4
A6-B MID-FLOOD	[11-OCT-2012]	HK1227116-061		3	23.3	34.1	7	6.3
B1-S MID-FLOOD	[11-OCT-2012]	HK1227116-062		4	25.8	28.8	2	6.7
B1-M MID-FLOOD	[11-OCT-2012]	HK1227116-063		2	23.8	34.0	4	6.4
B1-B MID-FLOOD	[11-OCT-2012]	HK1227116-064		3	23.6	34.7	6	6.3
B2-S MID-FLOOD	[11-OCT-2012]	HK1227116-065		2	25.8	28.8	3	6.6
B2-M MID-FLOOD	[11-OCT-2012]	HK1227116-066		3	23.7	34.1	5	6.4
B2-B MID-FLOOD	[11-OCT-2012]	HK1227116-067		4	23.6	34.8	5	6.3
B3-S MID-FLOOD	[11-OCT-2012]	HK1227116-068		2	25.8	28.7	2	6.7
B3-M MID-FLOOD	[11-OCT-2012]	HK1227116-069		3	23.7	34.1	3	6.5
B3-B MID-FLOOD	[11-OCT-2012]	HK1227116-070		3	23.7	34.7	6	6.3



Sub-Matrix: WATER

Compound

LOR Unit

			<b>EA025: Suspended Solids (SS)</b>	<b>EA012-SAMP: Temperature</b>	<b>EA020-SAMP: Salinity</b>	<b>EA045-SAMP: Turbidity</b>	<b>EP025-SAMP: Dissolved Oxygen</b>
			2 mg/L	0.1 °C	0.1 g/L	1 NTU	0.1 mg/L
<i>Client sample ID</i>	<i>Client sampling date / time</i>	<i>Laboratory sample ID</i>	EA/ED: Physical and Aggregate Properties	OS: On-Site Measurement	OS: On-Site Measurement	OS: On-Site Measurement	OS: On-Site Measurement
<b>B4-S MID-FLOOD</b>	[11-OCT-2012]	HK1227116-071	4	25.9	28.8	2	6.7
<b>B4-M MID-FLOOD</b>	[11-OCT-2012]	HK1227116-072	4	23.6	34.1	3	6.4
<b>B4-B MID-FLOOD</b>	[11-OCT-2012]	HK1227116-073	3	23.4	34.8	6	6.3
<b>B5-S MID-FLOOD</b>	[11-OCT-2012]	HK1227116-074	2	25.8	28.9	2	6.8
<b>B5-M MID-FLOOD</b>	[11-OCT-2012]	HK1227116-075	3	23.8	34.0	3	6.5
<b>B5-B MID-FLOOD</b>	[11-OCT-2012]	HK1227116-076	2	23.5	34.5	6	6.3
<b>B6-S MID-FLOOD</b>	[11-OCT-2012]	HK1227116-077	4	25.7	28.8	2	6.7
<b>B6-M MID-FLOOD</b>	[11-OCT-2012]	HK1227116-078	<2	23.6	34.1	3	6.4
<b>B6-B MID-FLOOD</b>	[11-OCT-2012]	HK1227116-079	<2	23.4	34.7	7	6.3
<b>CM MID-FLOOD</b>	[11-OCT-2012]	HK1227116-080	2	25.8	28.9	4	6.5
<b>D1-M MID-FLOOD</b>	[11-OCT-2012]	HK1227116-081	<2	25.6	29.1	4	6.5
<b>D2-S MID-FLOOD</b>	[11-OCT-2012]	HK1227116-082	2	25.8	28.1	3	6.5
<b>D2-B MID-FLOOD</b>	[11-OCT-2012]	HK1227116-083	2	23.9	32.5	4	6.3
<b>D3-S MID-FLOOD</b>	[11-OCT-2012]	HK1227116-084	<2	25.7	28.3	3	6.5
<b>D3-B MID-FLOOD</b>	[11-OCT-2012]	HK1227116-085	<2	23.9	32.5	5	6.3
<b>D4-M MID-FLOOD</b>	[11-OCT-2012]	HK1227116-086	<2	25.0	28.7	7	6.4
<b>C-M-E</b>	[11-OCT-2012]	HK1227116-087	2	25.2	28.4	4	6.5
<b>D1-M-E</b>	[11-OCT-2012]	HK1227116-088	<2	25.1	28.5	3	6.5
<b>D2-S-E</b>	[11-OCT-2012]	HK1227116-089	<2	25.2	27.8	2	6.5
<b>D3-S-E</b>	[11-OCT-2012]	HK1227116-090	3	25.2	27.8	2	6.5
<b>C-M-F</b>	[11-OCT-2012]	HK1227116-091	3	25.8	28.9	4	6.5
<b>D1-M-F</b>	[11-OCT-2012]	HK1227116-092	2	25.6	29.1	4	6.5
<b>D2-S-F</b>	[11-OCT-2012]	HK1227116-093	4	25.8	28.2	3	6.5
<b>D3-S-F</b>	[11-OCT-2012]	HK1227116-094	<2	25.7	28.3	3	6.5



Sub-Matrix: WATER

Compound

			EP025-SAMP: Dissolved Oxygen - % Saturation				
			LOR Unit				
Client sample ID	Client sampling date / time	Laboratory sample ID	OS: On-Site Measurement				
A1-S MID-EBB	[11-OCT-2012]	HK1227116-001	97.5				
A1-M MID-EBB	[11-OCT-2012]	HK1227116-002	91.3				
A1-B MID-EBB	[11-OCT-2012]	HK1227116-003	89.0				
A2-S MID-EBB	[11-OCT-2012]	HK1227116-004	96.8				
A2-M MID-EBB	[11-OCT-2012]	HK1227116-005	91.2				
A2-B MID-EBB	[11-OCT-2012]	HK1227116-006	88.8				
A3-S MID-EBB	[11-OCT-2012]	HK1227116-007	97.2				
A3-M MID-EBB	[11-OCT-2012]	HK1227116-008	92.2				
A3-B MID-EBB	[11-OCT-2012]	HK1227116-009	88.6				
A4-S MID-EBB	[11-OCT-2012]	HK1227116-010	96.9				
A4-M MID-EBB	[11-OCT-2012]	HK1227116-011	91.3				
A4-B MID-EBB	[11-OCT-2012]	HK1227116-012	88.4				
A5-S MID-EBB	[11-OCT-2012]	HK1227116-013	97.3				
A5-M MID-EBB	[11-OCT-2012]	HK1227116-014	91.5				
A5-B MID-EBB	[11-OCT-2012]	HK1227116-015	89.3				
A6-S MID-EBB	[11-OCT-2012]	HK1227116-016	97.6				
A6-M MID-EBB	[11-OCT-2012]	HK1227116-017	90.9				
A6-B MID-EBB	[11-OCT-2012]	HK1227116-018	87.6				
B1-S MID-EBB	[11-OCT-2012]	HK1227116-019	96.1				
B1-M MID-EBB	[11-OCT-2012]	HK1227116-020	90.5				
B1-B MID-EBB	[11-OCT-2012]	HK1227116-021	88.3				
B2-S MID-EBB	[11-OCT-2012]	HK1227116-022	94.3				
B2-M MID-EBB	[11-OCT-2012]	HK1227116-023	90.1				
B2-B MID-EBB	[11-OCT-2012]	HK1227116-024	88.0				
B3-S MID-EBB	[11-OCT-2012]	HK1227116-025	97.1				
B3-M MID-EBB	[11-OCT-2012]	HK1227116-026	92.4				
B3-B MID-EBB	[11-OCT-2012]	HK1227116-027	88.8				
B4-S MID-EBB	[11-OCT-2012]	HK1227116-028	95.8				
B4-M MID-EBB	[11-OCT-2012]	HK1227116-029	91.1				
B4-B MID-EBB	[11-OCT-2012]	HK1227116-030	89.3				
B5-S MID-EBB	[11-OCT-2012]	HK1227116-031	98.7				
B5-M MID-EBB	[11-OCT-2012]	HK1227116-032	92.2				
B5-B MID-EBB	[11-OCT-2012]	HK1227116-033	88.5				
B6-S MID-EBB	[11-OCT-2012]	HK1227116-034	97.6				



Sub-Matrix: WATER

Compound

LOR Unit

			EP025-SAMP: Dissolved Oxygen - % Saturation				
			0.1 %				
Client sample ID	Client sampling date / time	Laboratory sample ID	OS: On-Site Measurement				
B6-M MID-EBB	[11-OCT-2012]	HK1227116-035	91.5				
B6-B MID-EBB	[11-OCT-2012]	HK1227116-036	88.9				
CM MID-EBB	[11-OCT-2012]	HK1227116-037	91.5				
D1-M MID-EBB	[11-OCT-2012]	HK1227116-038	92.1				
D2-S MID-EBB	[11-OCT-2012]	HK1227116-039	92.6				
D2-B MID-EBB	[11-OCT-2012]	HK1227116-040	87.8				
D3-S MID-EBB	[11-OCT-2012]	HK1227116-041	92.7				
D3-B MID-EBB	[11-OCT-2012]	HK1227116-042	88.0				
D4-M MID-EBB	[11-OCT-2012]	HK1227116-043	91.9				
A1-S MID-FLOOD	[11-OCT-2012]	HK1227116-044	96.9				
A1-M MID-FLOOD	[11-OCT-2012]	HK1227116-045	90.5				
A1-B MID-FLOOD	[11-OCT-2012]	HK1227116-046	88.5				
A2-S MID-FLOOD	[11-OCT-2012]	HK1227116-047	95.1				
A2-M MID-FLOOD	[11-OCT-2012]	HK1227116-048	90.3				
A2-B MID-FLOOD	[11-OCT-2012]	HK1227116-049	88.0				
A3-S MID-FLOOD	[11-OCT-2012]	HK1227116-050	96.1				
A3-M MID-FLOOD	[11-OCT-2012]	HK1227116-051	91.2				
A3-B MID-FLOOD	[11-OCT-2012]	HK1227116-052	86.8				
A4-S MID-FLOOD	[11-OCT-2012]	HK1227116-053	96.2				
A4-M MID-FLOOD	[11-OCT-2012]	HK1227116-054	91.0				
A4-B MID-FLOOD	[11-OCT-2012]	HK1227116-055	86.9				
A5-S MID-FLOOD	[11-OCT-2012]	HK1227116-056	96.8				
A5-M MID-FLOOD	[11-OCT-2012]	HK1227116-057	93.5				
A5-B MID-FLOOD	[11-OCT-2012]	HK1227116-058	88.8				
A6-S MID-FLOOD	[11-OCT-2012]	HK1227116-059	96.8				
A6-M MID-FLOOD	[11-OCT-2012]	HK1227116-060	89.5				
A6-B MID-FLOOD	[11-OCT-2012]	HK1227116-061	88.2				
B1-S MID-FLOOD	[11-OCT-2012]	HK1227116-062	95.0				
B1-M MID-FLOOD	[11-OCT-2012]	HK1227116-063	89.5				
B1-B MID-FLOOD	[11-OCT-2012]	HK1227116-064	87.2				
B2-S MID-FLOOD	[11-OCT-2012]	HK1227116-065	95.5				
B2-M MID-FLOOD	[11-OCT-2012]	HK1227116-066	89.2				
B2-B MID-FLOOD	[11-OCT-2012]	HK1227116-067	87.4				
B3-S MID-FLOOD	[11-OCT-2012]	HK1227116-068	96.2				



Sub-Matrix: WATER

Compound

LOR Unit

			EP025-SAMP: Dissolved Oxygen - % Saturation				
			0.1 %				
Client sample ID	Client sampling date / time	Laboratory sample ID	OS: On-Site Measurement				
B3-M MID-FLOOD	[11-OCT-2012]	HK1227116-069	89.0				
B3-B MID-FLOOD	[11-OCT-2012]	HK1227116-070	86.9				
B4-S MID-FLOOD	[11-OCT-2012]	HK1227116-071	95.8				
B4-M MID-FLOOD	[11-OCT-2012]	HK1227116-072	90.3				
B4-B MID-FLOOD	[11-OCT-2012]	HK1227116-073	88.8				
B5-S MID-FLOOD	[11-OCT-2012]	HK1227116-074	96.6				
B5-M MID-FLOOD	[11-OCT-2012]	HK1227116-075	90.1				
B5-B MID-FLOOD	[11-OCT-2012]	HK1227116-076	89.1				
B6-S MID-FLOOD	[11-OCT-2012]	HK1227116-077	97.2				
B6-M MID-FLOOD	[11-OCT-2012]	HK1227116-078	89.8				
B6-B MID-FLOOD	[11-OCT-2012]	HK1227116-079	87.4				
CM MID-FLOOD	[11-OCT-2012]	HK1227116-080	90.9				
D1-M MID-FLOOD	[11-OCT-2012]	HK1227116-081	91.2				
D2-S MID-FLOOD	[11-OCT-2012]	HK1227116-082	92.2				
D2-B MID-FLOOD	[11-OCT-2012]	HK1227116-083	87.3				
D3-S MID-FLOOD	[11-OCT-2012]	HK1227116-084	92.7				
D3-B MID-FLOOD	[11-OCT-2012]	HK1227116-085	87.9				
D4-M MID-FLOOD	[11-OCT-2012]	HK1227116-086	90.0				
C-M-E	[11-OCT-2012]	HK1227116-087	91.5				
D1-M-E	[11-OCT-2012]	HK1227116-088	92.0				
D2-S-E	[11-OCT-2012]	HK1227116-089	92.3				
D3-S-E	[11-OCT-2012]	HK1227116-090	92.3				
C-M-F	[11-OCT-2012]	HK1227116-091	91.1				
D1-M-F	[11-OCT-2012]	HK1227116-092	91.2				
D2-S-F	[11-OCT-2012]	HK1227116-093	92.1				
D3-S-F	[11-OCT-2012]	HK1227116-094	92.5				





### 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 (%)
<b>EA/ED: Physical and Aggregate Properties (QC Lot: 2550574)</b>								
HK1227116-001	A1-S MID-EBB	EA025: Suspended Solids (SS)	----	2	mg/L	4	5	23.1
HK1227116-011	A4-M MID-EBB	EA025: Suspended Solids (SS)	----	2	mg/L	4	2	0.0
<b>EA/ED: Physical and Aggregate Properties (QC Lot: 2550575)</b>								
HK1227116-021	B1-B MID-EBB	EA025: Suspended Solids (SS)	----	2	mg/L	2	2	0.0
HK1227116-031	B5-S MID-EBB	EA025: Suspended Solids (SS)	----	2	mg/L	<2	<2	0.0
<b>EA/ED: Physical and Aggregate Properties (QC Lot: 2550576)</b>								
HK1227116-041	D3-S MID-EBB	EA025: Suspended Solids (SS)	----	2	mg/L	3	3	0.0
HK1227116-051	A3-M MID-FLOOD	EA025: Suspended Solids (SS)	----	2	mg/L	6	7	15.8
<b>EA/ED: Physical and Aggregate Properties (QC Lot: 2550577)</b>								
HK1227116-061	A6-B MID-FLOOD	EA025: Suspended Solids (SS)	----	2	mg/L	3	3	0.0
HK1227116-071	B4-S MID-FLOOD	EA025: Suspended Solids (SS)	----	2	mg/L	4	4	0.0
<b>EA/ED: Physical and Aggregate Properties (QC Lot: 2550578)</b>								
HK1227116-081	D1-M MID-FLOOD	EA025: Suspended Solids (SS)	----	2	mg/L	<2	<2	0.0
HK1227116-091	C-M-F	EA025: Suspended Solids (SS)	----	2	mg/L	3	4	44.8

### 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
<b>EA/ED: Physical and Aggregate Properties (QCLot: 2550574)</b>											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	98.5	----	85	113	----	----
<b>EA/ED: Physical and Aggregate Properties (QCLot: 2550575)</b>											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	87.5	----	85	113	----	----
<b>EA/ED: Physical and Aggregate Properties (QCLot: 2550576)</b>											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	103	----	85	113	----	----
<b>EA/ED: Physical and Aggregate Properties (QCLot: 2550577)</b>											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	94.0	----	85	113	----	----
<b>EA/ED: Physical and Aggregate Properties (QCLot: 2550578)</b>											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	101	----	85	113	----	----

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

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