Monthly Environmental Monitoring & Audit Report (January 2014)

Contract No.

CV/2012/01

Project

Sediment Removal at Yim Tin Tsai (East)

Fish Culture Zone

Client

Civil Engineering and Development

Department (CEDD)

Main Contractor:

Zhen Hua Engineering Company Limited

Certified By

Dr. Priscilla Choy (Environmental Team Leader)

Cinotech Consultants Limited Date: 14th February 2014

Verified By

Mr. Thomas Chan

(Independent Environmental Checker)

Ove Arup & Partners Hong Kong Ltd.

Date: 14th February 2014

TABLE OF CONTENTS

	Page
EXECUTIVE SUMMARY	1
Introduction	1
Environmental Monitoring and Audit Works	1
Environmental Licenses and Permits	2
Future Key Issues	2
1. INTRODUCTION	3
Background	3
Project Organizations	
Construction Programme	4
Summary of EM&A Requirements	
2. WATER QUALITY	6
Monitoring Requirements	6
Monitoring Locations	
Monitoring Equipment	
Monitoring Parameters and Frequency	
Monitoring Methodology	
Laboratory Analytical Methods	9
QA/QC Requirements	10
Results and Observation	
Event and Action Plan	10
3. CORAL MONITORING	11
Monitoring Requirement	11
Monitoring Locations	
Monitoring Frequency and Methodology	
Results and Observations	12
Summary of Coral Monitoring Results	
Event and Action Plan	14
4. ARDEIDS AND WHITE-BELLIES SEA EAGLES MONITORING	15
Monitoring Requirements	15
Monitoring Routes & Locations	15
Monitoring Frequencies & Durations	
Monitoring Methodology	15
Results & Observations	16
5. ENVIRONMENTAL AUDIT	17
Site Audits	17
Status of Environmental Licensing and Permitting	17
Implementation Status of Environmental Mitigation Measures	17
Summary of Exceedances	18
Summary of Complaint and Prosecution	
6. FUTURE KEY ISSUES	
Monitoring Schedule for the Next Month	19
7. CONCLUSIONS	20

		20
	ons	20
LIST OF T	ABLES	
Table I	Summary Table for Non-compliance Recorded in the Reporting Month	
Table II	Summary Table for Key Information in the Reporting Month	
Table 1.1	Key Project Contacts	
Table 2.1	Water Quality Monitoring Stations	
Table 2.2	Water Quality Monitoring Equipment	
Table 2.3	Impact Water Quality Monitoring Parameters and Frequency	
Table 2.4	Methods for Laboratory Analysis for Water Samples	
Table 3.1	Summary of Coral Monitoring Stations	
Table 3.2	Locations and Physical attributes of Sites for Dive Survey (T2, T3 and Site C)	
Table 3.3	Evaluation of Monitoring Results against Action and Limit Level for Coral	
m 11 41	Monitoring Surveys	
Table 4.1	Number of Ardeids and White-bellied Sea Eagle Recorded	
Table 5.1	Summary of Environmental Licensing and Permit Status	
Table 5.2	Observations and Recommendations of Site Audit	
LIST OF FI	IGURE	
Figure 1	Site Layout Plan	
Figure 2	Location of Water Quality Monitoring Stations	
Figure 3	Location of Coral Monitoring Stations	
Figure 4	Survey Area, Transect Route and Point Count Locations of Bird Count	
LIST OF A	PPENDICES	
Appendix A	Action and Limit Levels	
Appendix B	Environmental Monitoring Schedules	
Appendix C	- · ·	
Appendix D		
Appendix E	Photo records of Coral Monitoring Surveys	
Appendix F	Summary of Exceedance	
Appendix G		
Appendix H	·	
Appendix I	Complaint Log	
Appendix J	Ardeids and White-bellied Sea Eagle Monitoring Results	
Appendix K	Photographic records of Ardeids and White-bellied Sea Eagle Monitoring Copies of Calibration Certificates for Water Quality Monitoring	
Appendix L	1	
Appendix M Appendix N	Water Quality Monitoring Results Graphical Presentation of Water Quality Monitoring Results	
Appendix O	· · · · · · · · · · · · · · · · · · ·	
Appendix P	Quality Control Report for Water Quality Monitoring	
1 ippendix i	Zumity Control Report for 11 meet Zumity Monitoring	

EXECUTIVE SUMMARY

Introduction

- 1. This is the 3rd Monthly Environmental Monitoring and Audit (EM&A) Report prepared by Cinotech Consultants Limited for CEDD Contract no. CV/2012/01 "Sediment Removal at Yim Tin Tsai (East) Fish Culture Zone". This report documents the findings of EM&A Works conducted in January 2014.
- 2. The major site activities undertaken in the reporting month included:
 - Daily cleaning and weekly tidying;
 - Removing seabed sediments;
 - Relocation of the outstanding fish raft and anchors;
 - Bird and coral monitoring; and
 - Water Quality Monitoring.

Environmental Monitoring and Audit Works

3. Environmental monitoring and audit works for the Project were performed regularly as stipulated in the Environmental Monitoring and Audit Requirements in Project Profile and the results were checked and reviewed. The implementation of the environmental mitigation measures, Event Action Plans and environmental complaint handling procedures were also checked.

4. Summary of the events and action taken in the reporting month is tabulated in **Table I**.

Table I Summary Table for Non-compliance Recorded in the Reporting Month

Media/	No. of Ex	ceedances		Results of action			
Nature	Action Level	Limit Level	Action Taken	taken	Remarks		
Water Quality	Water Quality						
DO (S+M)	0	0					
DO (B)	0	0			N/A		
Turbidity	0	0					
SS	0	0	27/4	N/A			
Copper	0	0	N/A				
Zinc	0	0					
Arsenic	0	0					
Lead	0	0					
Coral Quality	Coral Quality						
Mortality (%)	0	0					
Sediment cover (%)	0	0	N/A	N/A	N/A		
Bleaching (%)	0	0					

^{* (}S), (M) and (B) represent depths of water, such as Surface (1 metre below surface), Middle (midwater depth) and Bottom (1 metre above seabed).

Water Quality

- 5. All water quality monitoring was conducted as scheduled in the reporting month. No Action/Limit Level exceedance was recorded.
- 6. No Action/Limit Level exceedance was recorded at the impact monitoring stations in the reporting month.

Coral Quality

- 7. All coral quality monitoring was conducted as scheduled in the reporting month. Level of sedimentation, bleaching and mortality on corals were monitored in accordance with the approved Proposal for Coral Monitoring.
- 8. No Action/Limit Level exceedance was recorded at the impact monitoring stations in the reporting month.
 - Ardeids & White-bellied Sea Eagles Monitoring
- 9. Ardeids & White-bellied Sea Eagles monitoring were conducted as scheduled in the reporting month.

Environmental Licenses and Permits

10. Environmental related licenses/permits granted to the Project include the Environmental Permit (EP) for the Project.

Key Information in the Reporting Month

11. Summary of key information in this reporting month is tabulated in **Table II**.

Table II Summary Table for Key Information in the Reporting Month

Event	Event Details		Action Taken	Ctatus	D	
Event	Number	Nature	Action Taken	Status	Remark	
Complaint received	0		N/A	N/A		
Changes to the assumptions and key construction / operation activities recorded	0		N/A	N/A		
Status of submissions under EP	1	2 nd Monthly EM&A Report (EP Condition 2.8)	Submitted to EPD on 13 th January 2014	N/A		
Notifications of any summons & prosecutions	0		N/A	N/A		

Future Key Issues

- 12. Major site activities for the coming two months will include:
 - Daily cleaning and weekly tidying;
 - Removing seabed sediments;
 - Relocation of the outstanding fish raft and anchors;

- Bird and coral monitoring; and
- Water Quality Monitoring.
- 13. The future environmental concerns are water quality, coral quality and impacts on ecology.

1. INTRODUCTION

Background

- 1.1 A priority list for removing sediments at the 26 Fish Culture Zones (FCZs) in Hong Kong (HK) had been prepared by the Agriculture, Fisheries and Conservation Department (AFCD). Civil Engineering and Development Department (CEDD) and AFCD consulted marine culturists' representatives on this list in May 2007. The representatives supported the government to carry out the sediment removal at the top five priority FCZs. Yim Yin Tsai (East) Fish Culture Zone was selected as one of them for improvement to the fish farming environment.
- 1.2 The works "Sediment Removal at Yim Tin Tsai (East) Fish Culture Zone" under Contract No. CV/2012/01 (hereinafter called the "Project") was awarded to Zhen Hua Engineering Company Limited (hereinafter called the "Contractor") by the Civil Engineering and Development Department (CEDD) of the Hong Kong Special Administrative Region (HKSAR).
- 1.3 Cinotech Consultants Ltd. (CINOTECH) was employed by the Contractor to serve as the Environmental Team (ET) to undertake the environmental monitoring services for the Project. Dr. Priscilla CHOY of Cinotech Consultants Ltd. was appointed as the ET Leader as per the Condition 2.1 of the EP. This is the 3rd monthly EM&A report summarizing the EM&A works for the Project in January 2014.

Project Organizations

- 1.4 Different parties with different levels of involvement in the project organization include:
 - Project Proponent / Engineer's Representative (ER) Civil Engineering and Development Department (CEDD)
 - Environmental Team (ET) Cinotech Consultants Ltd.
 - Independent Environmental Checker (IEC) Ove Arup & Partners Hong Kong Ltd.
 - Contractor Zhen Hua Engineering Co., Ltd. (Zhen Hua)
- 1.5 The Project Organization during Construction Phase is listed in Table 1.1.

Party	Role	Name	Position	Phone No.	Fax No.
CEDD	Project Proponent	Mr. Walter Wong	Engineer Representative	2762 5584	2762 4015
		Dr. Priscilla Choy	ET Leader	2151 2089	
Cinotech	Environmental Team	Ms. Ivy Tam	Project Coordinator and Audit Team Leader	2151 2090	3107 1388
		Mr. Tang Wing Kwai	Monitoring Team Leader	2151 2073	
Ove Arup	Independent Environmental Checker	Mr. Thomas Chan	Independent Environmental Checker	2268 3093	2268 3950
Zhen Hua	Contractor	Mr. Y F Cho	Senior Project Manager	2727 0128	2512 0427
		Mr. C K Li	Site Agent		

Table 1.1 Key Project Contacts

Construction Programme

- 1.6 The site activities undertaken in the reporting month were:
 - Daily cleaning and weekly tidying;
 - Removing seabed sediments;
 - Relocation of the outstanding fish raft and anchors;
 - Bird and coral monitoring; and
 - Water Quality Monitoring.

Summary of EM&A Requirements

- 1.7 The EM&A programme requires construction phase water quality monitoring and coral monitoring as well as environmental site audits. The EM&A requirements are described in the following sections, including:
 - All monitoring parameters;
 - Action and Limit levels for all environmental parameters;
 - Event / Action Plans:
 - Environmental mitigation measures, as recommended in the project EIA study final report; and
 - Environmental requirements in contract documents.
- 1.8 As set out in Specific Conditions 2.7 of the EP for this Project, a monitoring programme on ardeids and White-bellied Sea Eagles nesting at Yeung Chau was submitted and approved by the Authority. The monitoring programme will commence when the relocation of fish rafts begins until completion of subsequent relocation of fish raft to the original Fish Culture Zone after dredging.
- 1.9 The advice on the implementation status of environmental protection and pollution control/mitigation measures is summarized in Section 7 of this report.

1.10 This report presents the monitoring results, observations, locations, equipment, period, methodology and QA/QC procedures of the required monitoring parameters, namely water quality, coral quality and bird counts as well as audit works for the Project in the reporting month.

2. WATER QUALITY

Monitoring Requirements

General

- 2.1 Impact water quality monitoring shall be conducted three times per week at all the designated monitoring stations during the period of dredging. Monitoring took place two times per monitoring day during mid ebb and mid flood tides at three depths (1 meter from surface, mid depth and 1 meter from the bottom). If the water depth is less than 6m, the mid-depth measurement may be omitted. If the depth is less than 3m, only the mid-depth measurements need to be taken.
- 2.2 Duplicate *in-situ* measurements (Dissolved oxygen (DO) concentration, DO saturation, turbidity, pH, temperature and salinity) and one water sample at each depth (suspended solids (SS) and metals) shall be monitored in accordance with the requirements set out in the Project Profile.
- 2.3 For selection of tides for *in-situ* measurement and water sampling, tidal range of individual flood and ebb tides shall not be less than 0.5m.
- 2.4 Other relevant data shall also be recorded, such as monitoring location / position, time, water depth, sampling depth, tidal stages, weather conditions and any special phenomena or work underway nearby.
- 2.5 Water quality monitoring shall be conducted in accordance with the approved Proposal for Water Quality Monitoring. Action/Limit Levels for the environmental monitoring works are shown in **Appendix A**.

Monitoring Locations

2.6 The monitoring stations for water quality monitoring are shown in **Figure 2**. **Table 2.1** summarizes the water quality monitoring stations for the Project.

Table 2.1 Water Quality Monitoring Stations

Stations	Manina Watan Quality Stations	Coordinates		
Stations	Stations Marine Water Quality Stations		Northing	
F4	Relocation site for Yim Tin Tsai FCZ	840174	833468	
F5	Temporary Fish Raft Relocation site for	840303	835819	
F6	Yim Tin Tsai East FCZ	843004	835347	
F7	Existing Yim Tin Tsai FCZ	839720	834870	
F8	Existing Yim Tin Tsai East FCZ	840871	835101	
G2	Gradient Station	839760	834165	
G3	Gradient Station	840637	835503	
G4	Gradient Station	842184	835872	

Monitoring Equipment

2.7 For in-situ monitoring, a multi-parameter meter (Model YSI 6820 C-M / YSI 6920-M) was used to measure DO, DO saturation, pH, turbidity, salinity and temperature. A sampler was used to collect water samples for laboratory analysis of SS and metal levels.

Dissolved Oxygen (DO) and Temperature Measuring Equipment

- 2.8 The instrument for measuring dissolved oxygen and temperature was portable and weatherproof complete with cable, sensor, comprehensive operation manuals and use DC power source. It was capable of measuring:
 - a dissolved oxygen level in the range of 0-20 mg/L and 0-200% saturation; and
 - a temperature of 0-45 degree Celsius.
- 2.9 It has a membrane electrode with automatic temperature compensation complete with a cable.
- 2.10 Sufficient stocks of spare electrodes and cables were available for replacement where necessary.
- 2.11 Salinity compensation was built-in in the DO equipment.

Turbidity

2.12 Turbidity was measured *in situ* by the nephelometric method. The instrument was portable and weatherproof using a DC power source complete with cable, sensor and comprehensive operation manuals. The equipment was capable of measuring turbidity between 0-1000 NTU. The probe cable was not less than 25m in length.

Salinity

2.13 A portable salinometer capable of recording salinity within the range of 0-40 ppt was used for salinity measurements.

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2.14 The instrument was consisting of a potentiometer, a glass electrode, a reference electrode and a temperature-compensating device. It was readable to 0.1pH in a range of 0 to 14. Standard buffer solutions of at least pH 7 and pH 10 were used for calibration of the instrument before and after use.

Water Depth Detector

A portable, battery-operated echo sounder was used for the determination of water depth at each designated monitoring station.

Water Sampler

2.16 A water sampler, consisting of a transparent PVC cylinder of a capacity of not less that two litres which can be effectively sealed with cups at both ends was used. The water sampler should have a positive latching system to keep it open and prevent premature closure until released by a messenger when the sampler was at the selected water depth.

Monitoring Position Equipment

2.17 A hand held Global Positioning System (GPS) was used to ensure that the correction location has been selected prior to sample collection.

Sample Container and Storage

2.18 Following collection, water samples for laboratory analysis were stored in high density polythene bottles, packed in ice (cooled to 4°C without being frozen) and delivered to the HOKLAS accredited laboratory and analyzed as soon as possible after collection. Sufficient volume of samples was collected to achieve the detection limit.

Calibration of In Situ Instruments

- 2.19 All *in situ* monitoring instruments were checked, calibrated and certified by a laboratory accredited under HOKLAS or other international accreditation scheme before use, and subsequently re-calibrated at 3 monthly intervals throughout all stages of the water quality monitoring.
- 2.20 For the on-site calibration of field equipment, the BS 1427:1993, "Guide to Field and on-site test methods for the analysis of waters" was observed.
- 2.21 Before each round of monitoring, a zero check in distilled water was performed with the turbidity probe of YSI 6820-C-M / YSI 6920-M. The probe was then be calibrated with a solution of known NTU.
- 2.22 Sufficient stocks of spare parts were maintained for replacements when necessary. Backup monitoring equipment was also being made available so that monitoring can proceed uninterrupted even when some equipment is under maintenance, calibration, etc.
- 2.23 **Table 2.2** summarizes the equipment used in the water quality monitoring program. Copies of the calibration certificates of the equipment are shown in **Appendix L**.

Table 2.2 Water Quality Monitoring Equipment

Equipment	Model and Make	Qty.
Water Sampler	Kahlsico Water-Bottle Model 135DW 150	1
Multi-parameter Water Quality System	YSI 6820-C-M	2
Monitoring Position Equipment	"Magellan" Handheld GPS Model GPS- 320	1
Water Depth Detector	Fishfinder 140	1

Monitoring Parameters and Frequency

2.24 Table 2.3 summarizes the monitoring parameters, monitoring period and frequencies of the impact water quality monitoring.

Station	Key Parameters	Frequency Note 1	Depth	No. of samples events
F4 F5 F6 F7 F8 G2 G3 G4	In-situ: Dissolved oxygen (DO) concentration, DO saturation, turbidity, pH, temperature and salinity Laboratory Testing: Suspended Solids (SS), Copper (Cu), Lead (Pb), Zinc (Zn) and Arsenic (As)	3 times per week (each series of sampling / measurement should not be less than 36 hours)	 3 water depths: 1m below water surface, middepth and 1m above sea bed. If the water depth is less than 3m, middepth sampling only. If the water depth is less than 6m, omit middepth sampling. 	2 per monitoring day (1 for mid-ebb and 1 for mid-flood)

Table 2.3 Impact Water Quality Monitoring Parameters and Frequency

Notes:

- 1. For selection of tides for *in-situ* measurement and water sampling, tidal range of individual flood and ebb tides should be not less than 0.5m.
- 2.25 Monitoring location/position, time, water depth, sampling depth, pH, salinity, DO saturation, water temperature, tidal stages, weather conditions and any special phenomena or work underway nearby were recorded.

Monitoring Methodology

- 2.26 The monitoring stations were accessed using survey boat to within 3 m by the guide of a hand-held Global Positioning System (GPS). The depth of the monitoring location was measured using depth meter in order to determine the sampling depths. Afterwards, the probes of the in-situ measurement equipment was lowered to the predetermined depths (1 m below water surface, mid-depth and 1 m above seabed) and the measurements was carried out accordingly. The in-situ measurements at predetermined depths wascarried out in duplicate. In case the difference in the duplicate in-situ measurement results was larger than 25%, the third set of in-situ measurement would be carried out for result confirmation purpose.
- 2.27 Water sampler was lowered into the water to the required depths of sampling. Upon reaching the pre-determined depth, a messenger to activate the sampler was then released to travel down the wire. The water sample was sealed within the sampler before retrieving. At each station, water samples for SS and metals at three depths (1 m below water surface, mid-depth and 1 m above seabed) were collected accordingly. Water samples were stored in a cool box and kept at less than 4°C but without frozen and sent to the laboratory as soon as possible.

Laboratory Analytical Methods

2.28 The testing of all parameters were conducted by Wellab Ltd. (HOKLAS Registration No.083) and comprehensive quality assurance and control procedures in place in order to ensure quality and consistency in results. The testing method and limit of reporting are provided in **Table 2.4**.

Sediment Removal at Yim Tin Tsai (East) Fish Culture Zone
Monthly EM&A Report – January 2014

Parameters (Unit)	Proposed Method	Reporting Limit
SS (mg/L)	APHA 17e 2540 D	0.5 (See Note 1)
Copper (µg/L)	In-house method SOP 076 (ICP-	1
Zinc (µg/L)	MS)	2
Arsenic (µg/L)		1
Lead (µg/L)		1

- 1) Limit of Reporting is reported as Detection Limit for non-HOKLAS report.
- 2) The testing for the parameters in the table are HOKLAS accredited

QA/QC Requirements

Decontamination Procedures

2.29 Water sampling equipment used during the course of the monitoring programme was decontaminated by manual washing and rinsed clean seawater/distilled water after each sampling event. All disposal equipment was discarded after sampling.

Sampling Management and Supervision

2.30 Water samples were dispatched to the testing laboratory for analysis as soon as possible after the sampling. All samples were stored in a cool box and kept at less than 4°C but without frozen. All water samples were handled under chain of custody protocols and relinquished to the laboratory representatives at locations specified by the laboratory.

Results and Observation

Results

- 2.31 The established Action/Limit Levels for the water quality monitoring works for the project based on the baseline water quality monitoring results is presented in **Appendix** A.
- 2.32 All water quality monitoring was conducted as scheduled in the reporting month. No Action/Limit Level exceedance was recorded. The monitoring data and graphical presentations of water quality monitoring results are shown in Appendix M and **Appendix N** respectively.
- 2.33 No special phenomena near the monitoring stations were observed which might affect the monitoring results during the monitoring works.
- 2.34 The laboratory testing report and QC report are provided in **Appendix O and Appendix** P respectively.

Event and Action Plan

2.35 If there is Action / Limit Level exceedance in any parameters of the water quality, the actions in accordance with the Event and Action Plan as shown in **Appendix C** will be carried out.

3. CORAL MONITORING

Monitoring Requirement

- 3.1 Impact Monitoring Survey is required to determine whether impacts are occurring on the tagged corals during the construction phase. A particular focus of the Impact Monitoring will be the effects of sedimentation, bleaching and mortality on corals.
- 3.2 All monitoring surveys were conducted by a qualified marine biologist with specialist knowledge of corals and sound experience at identifying corals in the field.
- 3.3 According to Section 3.3.3 of Annex G "Environmental Monitoring and Audit Requirements" of the Project Profile, the coral monitoring programme shall comprise a baseline survey (prior to the dredging work), impact monitoring surveys (during the dredging period) and a post-project monitoring survey (after completion all the dredging works). In addition, the corals should be monitored twice a month during the first 2 months of the construction works in accordance with approved Proposal for Coral Monitoring.

Monitoring Locations

3.4 The locations plan of the impact coral monitoring stations is shown in **Figure 3**. The summary for impact coral monitoring stations is shown in **Table 3.1**.

Table 3.1 Summary of Coral Monitoring Stations

Tuble 2:1 Summary of Columnitoring Stations				
Monitoring	Nature of Monitoring Station	Monitoring ID and Location		
	Impact Coral Monitoring	T2 – North of Shuen Wan Typhoon Shelter		
Impact Monitoring	Station	T3 – Southeast of Shuen Wan Typhoon Shelter		
	Impact Coral Control Station	Site C –Whitehead Peninsula		

Monitoring Frequency and Methodology

- 3.5 For regular Impact Monitoring Survey, the tagged corals were monitored twice a month during the first 2 months of the construction works. If there is no exceedance recorded, the monitoring frequency will be adjusted to monthly during the rest of the construction phase.
- 3.6 During the Impact Monitoring Surveys, the health status of each tagged coral colony was recorded, including percentage cover (%) of (1) sedimentation; (2) bleaching and (3) mortality.
- 3.7 The condition of each tagged coral colony was recorded by taking a photograph from an angle and distance that best represents the entire colony.
- 3.8 The results of the Impact Monitoring Surveys were reviewed with reference to the findings of the Baseline Monitoring Survey and the data collected from the reference

site (i.e. Site C) during the Impact Monitoring Survey.

Results and Observations

- 3.9 Impact Coral Monitoring Survey has been conducted at two Impact Sites (Site T2 and T3) at Yam Tin Tsai and one Control Site (Site C) at Whitehead Peninsula which is away (>2km) from the area of construction work on 14 and 28 December 2013.
- 3.10 The locations of the survey sites are shown in **Figure 3**, and the coordinates of the start and end points and survey conditions are shown in **Table 3.2**.

Table 3.2 Locations and Physical attributes of Sites for Dive Survey (T2, T3 and Site C)

140	10 3.2 1		•			of Dive Surv		Sedimentation			
Sites	Co	GPS ordinates	Depth (m)	Visibility (m)	Substrate type	Weather	Tidal Condition	on Hard Substrate? (mm thickness)			
	4 January 2014										
T2	Start	N 22°27.208' E 114°12.753'	1.0 – 1.5	1.5 – 2.5	Sand with gravel, rubbles	Calm; Sunny	Flood	YES			
	End	N 22°27.161' E 114°12.727'		1.5 2.5	and boulders		11000	(2-4)			
Т3	Start	N 22°27.079' E 114°12.661'	1.0 – 1.5	1.5 – 2.5	Rubbles, boulders and Ca	Calm; Sunny	Flood	YES			
13	End	N 22°27.049' E 114°12.615'	1.0 – 1.3	1.5 – 2.5	sand with gravel	,	riood	(2 – 4)			
Site C	Start	N 22°26.184' E 114°14.229'	1.0 – 1.5	1.5 – 2.5	Rubbles, boulders and	Calm; Sunny	Flood	YES (2-4)			
	End	N 22°26.139' E 114°14.210'		1.5 – 2.5	sand with gravel						
11 January 2014											
TO	Start	N 22°27.208' E 114°12.753'	10 15	1.5 – 2.5	Sand with	C-1 C	El d	YES			
T2	End	N 22°27.161' E 114°12.727'	1.0 – 1.5	1.5 – 2.5	gravel, rubbles and boulders	Calm; Sunny	Flood	(2 – 4)			
Т3	Start	N 22°27.079' E 114°12.661'	1.0 – 1.5	10 15 15 25	Rubbles, boulders and sand with gravel	Calm; Sunny	Flood	YES (2-4)			
13	End	N 22°27.049' E 114°12.615'	1.0 – 1.3	1.5 – 2.5							
Site C	Start	N 22°26.184' E 114°14.229'	1.0 – 1.5	15_25	Rubbles,	Calm: Sunny	Flood	YES			
Sile C	End	N 22°26.139' E 114°14.210'	1.0 – 1.3	1.5 – 2.5	boulders and sand with gravel	Calm; Sunny	Flood	(2 – 4)			

- 3.11 All coral quality monitoring was conducted as scheduled in the reporting month. The monitoring coral quality monitoring results including the code, species name, area, percentage of sedimentation level, bleaching and mortality of the tagged coral colonies at each site are summarized in **Appendix D**. The photo records of coral quality surveys for the reporting month are shown in **Appendix E**. The survey team had tried to take photographs of the corals from an angle and distance that best represented the colonies but difficulties sometimes occurred as a result of low water visibility during the surveys.
- 3.12 Coral monitoring results were evaluated against Action and Limit Levels (**Appendix A**) and summarized in **Table 3.3**. Evaluation based on recorded changes in the percentages of partial mortality, sediment cover, and bleaching of the tagged corals.

Table 3.3 Evaluation of Monitoring Results against Action and Limit Level for Coral Monitoring Surveys.

or Coral Monitoring Surveys.									
7 th Coral Monitoring Survey on 4 January 2014									
Exceedance		entation		ching	Mort	tality			
	Action	Limit	Action	Limit	Action	Limit			
Site	Level	Level	Level	Level	Level	Level			
Site C	No	No	No	No	No	No			
Site T2	No	No	No	No	No	No			
Site T3	No	No	No	No	No	No			
8 th Coral Monitoring Survey on 11 January 2014									
						tality			
	Action	Limit	Action	Limit	Action	Limit			
Site	Level	Level	Level	Level	Level	Level			
Site C	No	No	No	No	No	No			
Site T2	No	No	No	No	No	No			

Note: Definition of Action/Limit levels are listed in Appendix A. "No" indicates NO exceedance.

3.13 Overall, the healthy status of the tagged coral colonies was normal, with usual level of sedimentation. No action/limit level of mortality was exceeded in the monitoring survey conducted in January 2014.

Summary of Coral Monitoring Results

4 January 2014

- Site C (Reference site)
- 3.14 Sedimentation cover on the coral colonies ranged from 0 to 10%, with thickness ~2 to 4mm. When compared with baseline data in August 2013, increased sedimentation cover was recorded on 9 colonies (C1, C2, C4, C5, C6, C7, C8, C9 and C10) by 5 to 10%. No cover of bleaching or mortality was recorded.
 - Site T2
- 3.15 Sedimentation cover on the coral colonies ranged from 0 to 10%, with thickness ~2mm. When compared with baseline data in August 2013, increased sedimentation cover was recorded on 3 colonies (A4, A7 and A8) by 5%. No cover of bleaching or mortality was recorded.
 - Site T3
- 3.16 Sedimentation cover ranged from 0 to 5%, with thickness ~2mm. When compared with baseline data in August 2013, increased sedimentation cover was recorded on 3 colonies (B4, B5 and B9) by 5%. No cover of bleaching or mortality was recorded.

11 January 2014

- Site C (Reference site)
- 3.17 Sedimentation cover on the coral colonies ranged from 0 to 10%, with thickness ~2mm. When compared with baseline data in August 2013, increased sedimentation cover was recorded on 9 colonies (C1, C2, C4, C5, C6, C7, C8, C9 and C10) by 5 to 10%. No

cover of bleaching or mortality was recorded.

- Site T2
- 3.18 Sedimentation cover on the coral colonies ranged from 0 to 10%, with thickness ~2mm. When compared with baseline data in August 2013, increased sedimentation cover was recorded on 4 colonies (A1, A2, A3 and A5) by 5%. No cover of bleaching or mortality was recorded.
 - Site T3
- 3.19 Sedimentation cover ranged from 0 to 5%, with thickness ~2mm. When compared with baseline data in August 2013, increased sedimentation cover was recorded on 4 colonies (B3, B4, B5, B9 and B10) by 5%. No cover of bleaching or mortality was recorded.
- 3.20 In the monitoring surveys conducted on 4 and 11 January 2014, from both Impact Sites T2 and T3 and the Reference Site C, the change in level of sedimentation on the tagged colonies was less than 15% when compared with the baseline data in Aug 2013. As the sedimentation occurred at all sites including the Reference Site C, the small change in sedimentation was likely a natural fluctuation as a result of tidal current, wave, northeast monsoon, disturbance by wave during low tide period, etc. No increment in level of blenching or partial mortality suggested minor adverse effect was observed.
- 3.21 The data from both monitoring surveys showed no significant enhancement in sedimentation, bleaching or mortality in both Sites T2 and T3 and the Reference Site C. Hence, no adverse impact by the construction activity on the coral community was observed.

Event and Action Plan

3.22 Upon action level being exceeded, appropriate actions should be taken to review the dredging operation and additional measures such as slowing down, or rescheduling of works should be implemented as necessary, with the agreement from the ET and AFCD. Upon limit level being exceeded, the Contractor shall suspend all works affecting the corals until an effective solution is identified. Once the solution has been identified and agreed by the ET and AFCD, construction works affecting seabed may recommence.

4. ARDEIDS AND WHITE-BELLIES SEA EAGLES MONITORING

Monitoring Requirements

- 4.1 In accordance with the approved monitoring programme under condition 2.7 of Environmental Permit No. EP-419/2011/A, surveys by counts on ardeids and White-bellied Sea Eagles should be conducted to quantify their existence in vicinity of the proposed dredging area and temporary relocation sites for fish rafts as well as to monitor ardeids and White-bellied Sea Eagles nesting at Yeung Chau. Their nests will be monitored if identified. The survey results enable comparison of their populations before, during and after construction works.
- 4.2 By comparison and evaluation of the survey results, any impact on the target species could be verified.

Monitoring Routes & Locations

4.3 Transect route with some vantage points is shown in **Figure 4**. There are a total of 9 point count locations. The counting vantage points are selected with at least 500m distance with each other to avoid double-counting. The main focus areas of survey are the location of existing fish rafts before and after dredging works and Yeung Chau, where ardeids were observed in the past records.

Monitoring Frequencies & Durations

4.4 The bird count was conducted at monthly intervals since the relocation of fish rafts begins. The survey would be carried out until completion of subsequent relocation of fish raft to the original Fish Culture Zone after dredging. Counts normally started after sunrise and last for 2-3 hours (normally before 10:00). Bird count should be postponed when it is on inclement weather.

Monitoring Methodology

- 4.5 The target species were surveyed quantitatively by transect count and point count method covering the survey area. Birds heard or seen within the survey area were identified to species and counted. They were counted directly from vantage points or along the edge of a colony with the use of 10x binoculars or by the naked-eye, depending on the proximity between the surveyor and the colony. It is advisable to travel with a pace of 10 km/hr by small boat for transect method, and point count was last for less than or equal to 10 mins for each station. The quantitatively monitoring results were undertaken by experienced bird watchers. Photographic records were taken when possible.
- 4.6 Furthermore, during each survey (both transect and point counting), nests of ardeids and White-bellied Sea Eagles were counted by tracking the landing locations of the found species at Yeung Chau. Similar to the method mentioned above, active nests, determined by the presence of incubating adults or chicks, were counted directly from vantage points or along the edge of the colony. If they were invisible due to dense vegetation, their landing locations were recorded and repeated landings around the same

location were considered as one nest.

Results & Observations

- 4.7 Bird counts were conducted on 13 January 2014. The species and number of birds observed, the nature of construction works within works area conducting during the impact monitoring visit were recorded. Also, weather condition and other noticeable activities occurring within the survey area were recorded. The data sheet showing the results was attached in **Appendix J**. The photographic records were attached in **Appendix K**.
- 4.8 A total of 46 and 1 individuals of Ardeids and White-bellied Sea Eagle were recorded respectively from the transect count and point count locations in the reporting month (**Table 4.1** refers).

Table 4.1 Number of Ardeids and White-bellied Sea Eagle recorded

Data of Survey	Abur	ndance		Nest of ardeids and White-	
	Ardeids	White- bellied Sea Eagle	bitus	Bellied Sea Eagles	
13 January 2014	46	1	47	1 (1 nest of White-Bellied Sea Eagles)	

5. ENVIRONMENTAL AUDIT

Site Audits

- 5.1 Site audits were carried out by ET to monitor the timely implementation of proper environmental management practices and mitigation measures in the Project site.
- 5.2 Site audits were conducted by ET on 2, 10, 16, 23 and 27 January 2014. The details of observations during site audit can refer to **Table 5.2**.

Status of Environmental Licensing and Permitting

5.3 All permits/licenses obtained for the Project are summarized in **Table 5.1**.

 Table 5.1
 Summary of Environmental Licensing and Permit Status

Permit / License	Valid Period From To		Details	Status	
No.			Betans	Status	
Environmental Peri	mit (EP)				
EP-419/2011/A	30/3/2012	N/A	Sediment Removal at Yim Tin Tsai (East) Fish Culture Zone: (a) A dredging operation within a Fish Culture Zone and relocation of existing fish rafts and setting up of temporary sites for the relocated fish rafts; (b) To remove seabed sediments at the Yim Tin Tsai (East) Fish Culture Zone for a depth of 2m.	Valid	

Implementation Status of Environmental Mitigation Measures

- 5.4 According to the EIA Study Report, Environmental Permit and the Project Profile of the Project, the mitigation measures detailed in the documents are recommended to be implemented during the construction phase. A summary of the EMIS is provided in **Appendix G**.
- 5.5 During site inspection in the reporting month, no non-conformance was identified. The observations and recommendations made during the audit sessions are summarized in **Table 5.2**. The summaries of site audits are attached in **Appendix H**.

Table 5.2 Observations and Recommendations of Site Audit

Parameters	Date	Observations and	Follow-up
		Recommendations	
	2/1/2014	No environmental deficiency was identified during the site inspection.	N/A
	10/1/2014	No environmental deficiency was identified during the site inspection.	N/A
	16/1/2014	No environmental deficiency was identified during the site inspection.	N/A
Waste / Chemical Management	23/1/2014	Reminder: Properly provide chemical labels to oil drums.	The observation was observed to be improved/rectified by the Contractor during the audit session on 27 Jan 2014.
	27/1/2014	No environmental deficiency was identified during the site inspection.	N/A

Summary of Exceedances

5.6 No exceedance of monitoring results was recorded in the reporting month. Summary of exceedance is provided in **Appendix F**.

Summary of Complaint and Prosecution

- 5.7 No environmental related complaint, prosecution or notification of summons was received in the reporting month.
- 5.8 There was no environmental complaint, prosecution or notification of summons received since the Project commencement. The Complaint Log is attached in **Appendix I**.

6. FUTURE KEY ISSUES

- 6.1 The major construction activities in the coming month will include:
 - Daily cleaning and weekly tidying;
 - Removing seabed sediments;
 - Relocation of the outstanding fish raft and anchors;
 - Bird and coral monitoring; and
 - Water Quality Monitoring.

Monitoring Schedule for the Next Month

6.2 The tentative environmental monitoring schedule for the next month is shown in **Appendix B**.

7. CONCLUSIONS

Conclusions

- 7.1 Environmental monitoring and audit works were conducted in the reporting month. Site inspections were conducted on 2, 10, 16, 23 and 27 January 2014. The results were reviewed and checked.
- 7.2 No exceedance of monitoring results was recorded in the reporting month.
- 7.3 There was no environmental complaint, prosecution or notification of summons received.

Recommendations

7.4 According to the environmental audit performed in the reporting month and site activities in coming month, the following recommendations were made:

Dust Impact

- To prohibit any open burning on site.
- To regularly maintain the machinery and vessels on site.

Noise Impact

- To inspect the noise sources inside the site.
- To space out noisy equipment and position the equipment as far away as possible from sensitive receivers.

Water Impact

- To identify any wastewater discharges from site.
- To provide silt curtain surrounding the dredging works.
- To check the holding tank should be fitted with a tight fitting seal.
- To ensure the excavator grab seal is tightly closed.

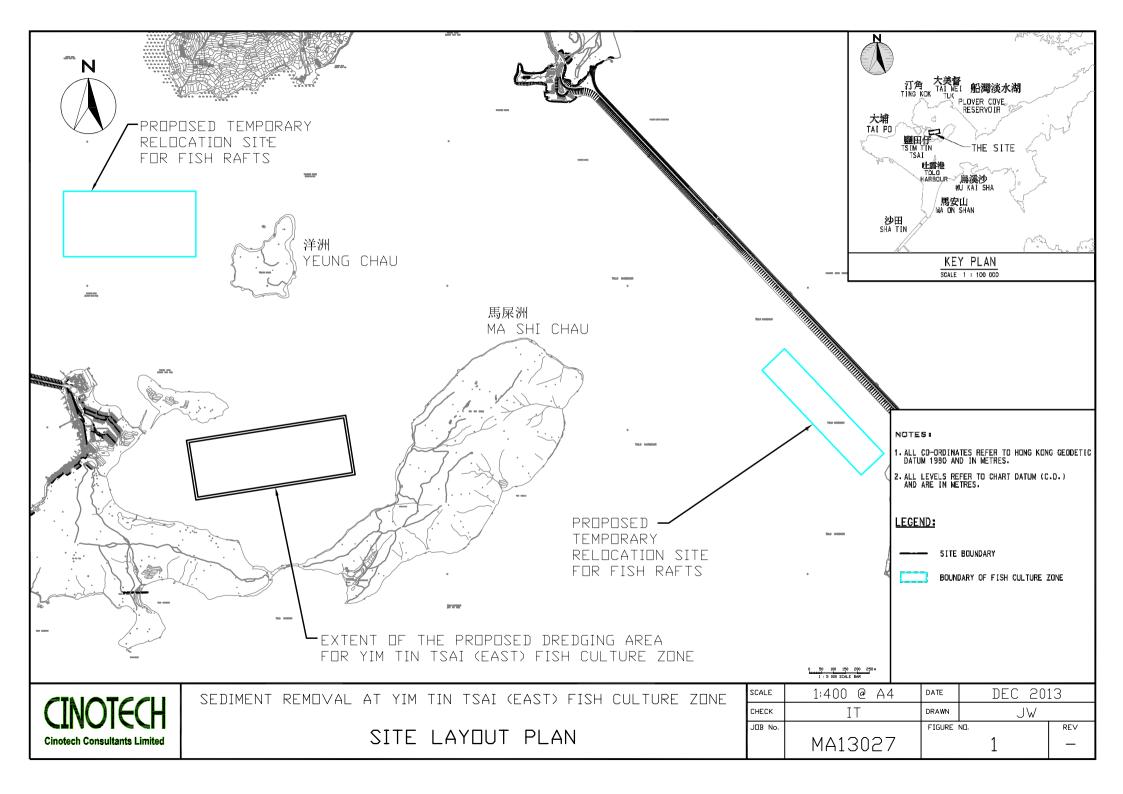
Waste/Chemical Management

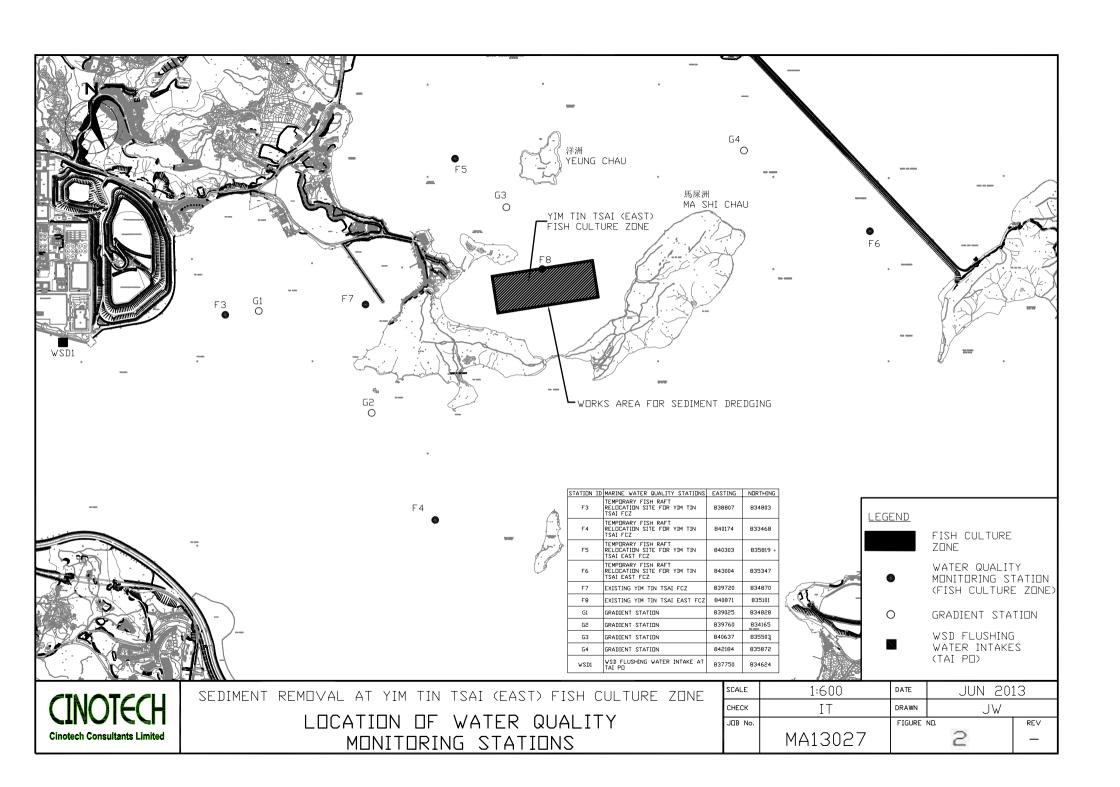
- To check for any accumulation of waste materials or rubbish on site.
- To avoid any discharge or accidental spillage of chemical waste or oil directly from the site
- To avoid improper handling or storage of oil drum on site.

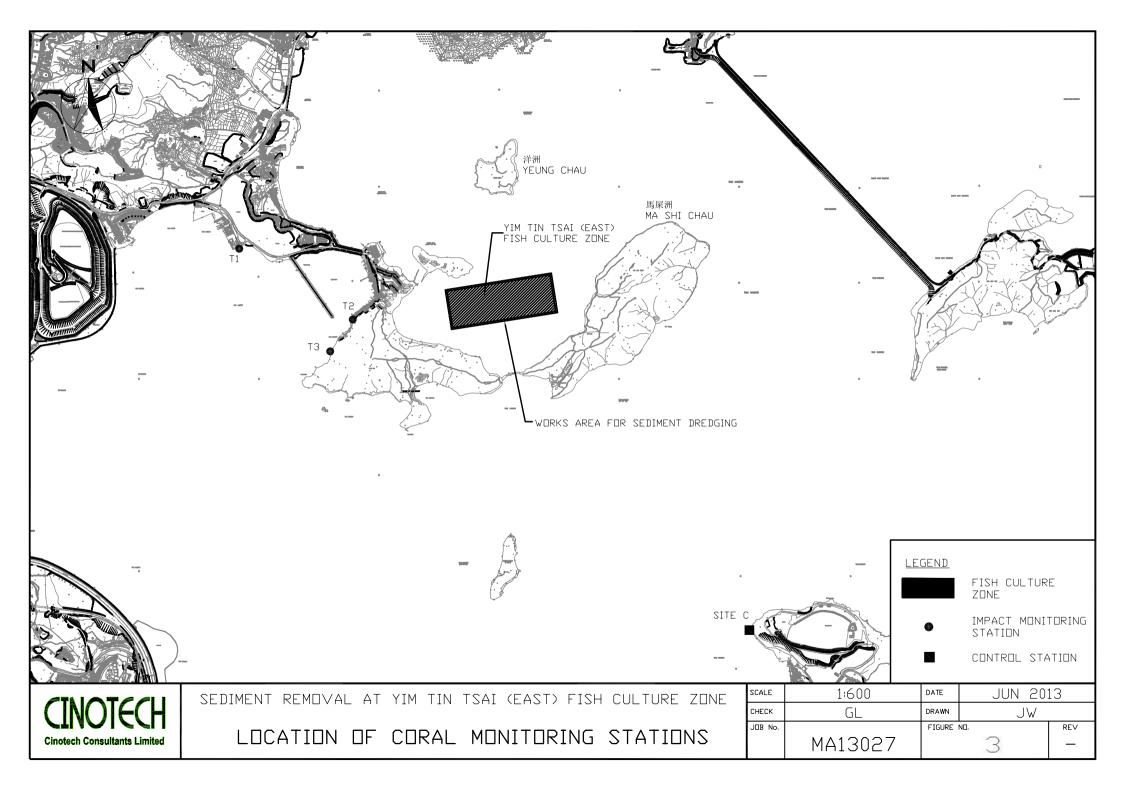
Ecology

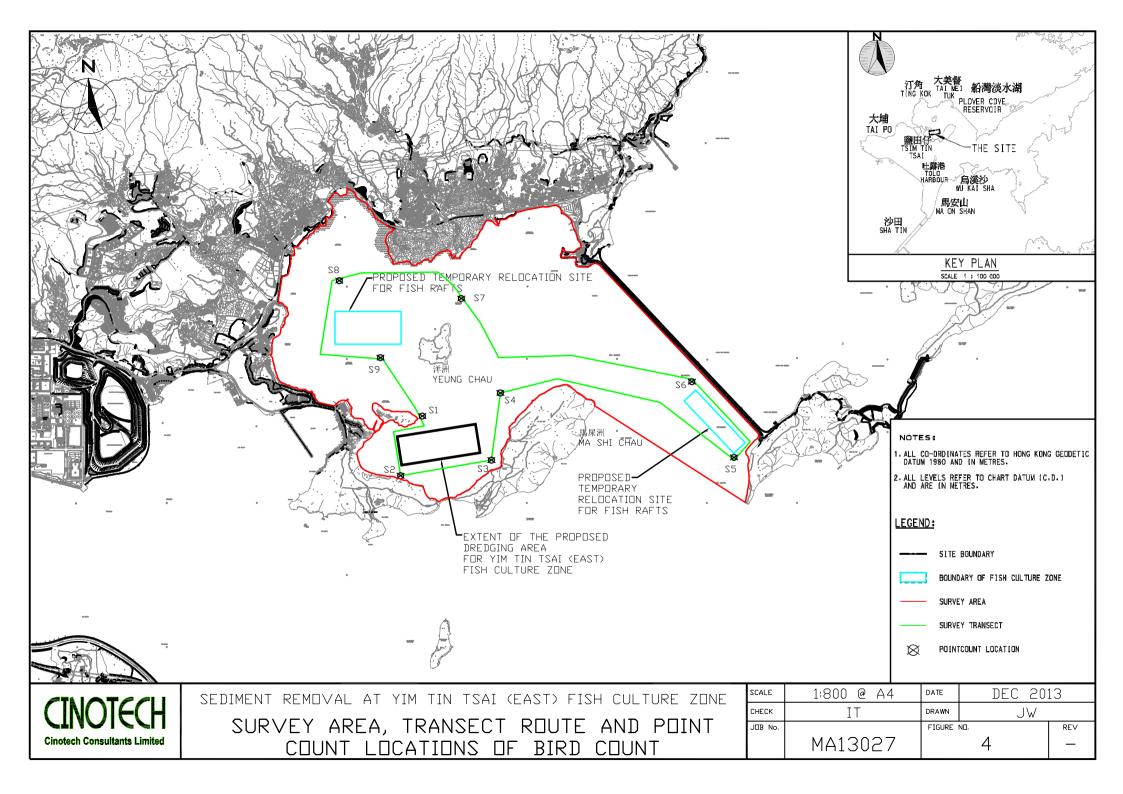
To provide silt curtain, checked and maintenance throughout the construction period

FIGURE(S)









APPENDIX A ACTION AND LIMIT LEVELS

Appendix A

Guidelines for Establishment of Action and Limit Levels

Parameter (unit)	Action Level	Limit Level		
	For Stations F4 and F7	For Stations F4 and F7		
	Surface or Mid-Depth 5 percentile of baseline surface / mid-depth data or <4mg/L	Surface or Mid-Depth 1 percentile of baseline surface / mid-depth data or <4mg/L		
DO in mg/L (See Note 1)	Bottom 5 percentile of baseline bottom data or <2mg/L	Bottom 1 percentile of baseline bottom data or <2mg/L		
2 5 111 111 9 2	For Stations F5, F6, F8	For Stations F5, F6, F8		
	Surface or Mid-Depth 5 percentile of baseline surface / mid-depth data or <4mg/L	Surface or Mid-Depth 1 percentile of baseline surface / mid-depth data or <4mg/L		
	Bottom 5 percentile of baseline bottom data or <3mg/L Bottom 1 percentile of baseline bottom or <3mg/L			
Turbidity in NTU (See Note 2)	95 percentile of baseline data	99 percentile of baseline data		
SS in mg/L (See Note 2)	95 percentile of baseline data or 10mg/L	99 percentile of baseline data or 10mg/L		
Copper in µg/L (See Note 2 and 4)	95 percentile of baseline data or 4.8µg/L	99 percentile of baseline data or 4.8µg/L		
Zinc in µg/L (See Note 2 and 4)	95 percentile of baseline data or 40µg/L	99 percentile of baseline data or 40µg/L		
Arsenic in µg/L (See Note 2 and 4)	95 percentile of baseline data or 25µg/L	99 percentile of baseline data or 25µg/L		

|--|

Notes:

- 1. For DO, non-compliance of the water quality limits occurs when monitoring result is lower than the limits.
- 2. For turbidity, SS and metals, non-compliance of the water quality limits occurs when monitoring result is higher than the limits.
- 3. All the figures given in the table are used for reference only and EPD may amend the figures whenever it is considered as necessary.
- 4. Action and limit values of metals are based on the assessment criteria adopted under the water quality impact assessment (refer to Appendix B of Project Profile).

Calculated Action and Limit Levels for Water Quality

		Action	n Level		Limit Level			
Parameter (unit)	<u>Depth</u>	For Stations F4, F7 and G2	For Stations F5, F6, F8, G3 and G4		For Stations F4, F7 and G2	For Stations F5, F6, F8, G3 and G4		
	Surface	5.4mg/L	4.0m	g/L	5.0mg/L	3.8mg/L		
	Middle	4.3mg/L	3.8mg/L		4.0mg/L	3.5mg/L		
DO in mg/L (See Note 1 and 4)	Bottom	2.2mg/L	For Stations F5, G3 2.2mg/L	For Stations F6, F8 and G4 2.8mg/L	1.9mg/L	For Stations F5, G3 1.8mg/L For Stations F6, F8 and G4 2.4mg/L		
Turbidity in NTU (See Note 2 and 4)	Depth- averaged	4.5NTU		4.7NTU				
SS in mg/L (See Note 2 and 4)	Depth- averaged	11.2	mg/L		11.9mg/L			
Copper in µg/L (See Note 2 and 4)	Depth- averaged	8.0μ	ıg/L		8.4µg/L			
Zinc in μg/L (See Note 2 and 4)	Depth- averaged	22.0	μg/L		26.4µg/L			
Arsenic in μg/L (See Note 2 and 4)	Depth- averaged	24.0	μg/L		25.5μg/L			
Lead in mg/L (See Note 2 and 4)	Depth- averaged	1.0μ	ug/L		1.0μg/L			

Notes:

- 1. For DO, non-compliance of the water quality limits occurs when monitoring result is lower than the limits.
- 2. For turbidity, SS and metals, non-compliance of the water quality limits occurs when monitoring result is higher than the limits.
- 3. All the figures given in the table are used for reference only and EPD may amend the figures whenever it is considered as necessary.
- 4. Action and limit values are derived based on baseline water quality monitoring results to show the actual baseline water quality condition.

Action and Limit Level for Coral Monitoring

Parameter	Action Level Definition	Limit Level Definition
Sedimentation	If during Impact Monitoring a 20% increase in the percentage of sediment cover on hard corals occurs at more than 20% of the tagged coral at any one Impact Monitoring Site that is not recorded at the Control Site, then the Action Level is exceeded.	If during the Impact Monitoring a 25% increase in the percentage of sediment cover occurs at more than 20% of the tagged coral at any one Impact Monitoring Site that is not recorded at the Control Site, then the Limit Level is exceeded.
Bleaching	If during Impact Monitoring a 15% increase in the percentage of bleaching (bleached white) on hard corals occurs at more than 20% of the tagged coral at any one Impact Monitoring Site that is not recorded at the Control Site, then the Action Level is exceeded.	If during the Impact Monitoring a 25% increase in the percentage of bleaching (bleached white) occurs at more than 20% of the tagged coral at any one Impact Monitoring Site that is not recorded at the Control Site, then the Limit Level is exceeded.
Mortality	If during Impact Monitoring a 15% increase in the percentage of partial mortality on hard corals occurs at more than 20% of the tagged coral at any one Impact Monitoring Site that is not recorded at the Control Site, then the Action Level is exceeded.	If during the Impact Monitoring a 25% increase in the percentage of partial mortality occurs at more than 20% of the tagged coral at any one Impact Monitoring Site that is not recorded at the Control Site, then the Limit Level is exceeded.

APPENDIX B ENVIRONMENTAL MONITORING SCHEDULES

Contract No. CV/2012/01 - Sediment Removal at Yim Tin Tsai (East) Fish Culture Zone Impact Coral Monitoring Schedule in January 2014

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
·	·	·	1-Jan			
						Impact Coral Monitoring
5-Jan	6-Jan	7-Jan	8-Jan	9-Jan	10-Jan	11-Jan
						Impact Coral Monitoring
12-Jan	13-Jan	14-Jan	15-Jan	16-Jan	17-Jan	18-Jan
19-Jan	20-Jan	21-Jan	22-Jan	23-Jan	24-Jan	25-Jan
26-Jan	27-Jan	28-Jan	29-Jan	30-Jan	31-Jan	

Contract No. CV/2012/01 - Sediment Removal at Yim Tin Tsai (East) Fish Culture Zone Tentative Impact Coral Monitoring Schedule in February 2014

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
		-	-		-	1-Feb
2 F.L	2 F.L	4 F.1	£ E.1.	(E.I.	7 E.L	0 F.I.
2-Feb	3-Feb	4-Feb	5-Feb	6-Feb	7-Feb	8-Feb
						Impact Coral Monitoring
9-Feb	10-Feb	11-Feb	12-Feb	13-Feb	14-Feb	15-Feb
1671	45.71	10.71	10.71	20.71	24.77.1	22.7
16-Feb	17-Feb	18-Feb	19-Feb	20-Feb	21-Feb	22-Feb
Impact Coral Monitoring						Impact Coral Monitoring
impact coral Montoring						
23-Feb	24-Feb	25-Feb				
	1200	2 2 2 2				

The schedule may be changed due to unforeseen circumstances (adverse weather, etc)

Note: The 2nd coral monitoring for the month will be conducted on either 16 or 22 February 2014

Contract No. CV/2012/01 - Sediment Removal at Yim Tin Tsai (East) Fish Culture Zone Ardeids & White-bellied Sea Eagles Nesting Monitoring Schedule in January 2014

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
1-Dec			1-Jan			
5-Jan	6-Jan	7-Jan	8-Jan	9-Jan	10-Jan	11-Jan
12-Jan	13-Jan	14-Jan	15-Jan	16-Jan	17-Jan	18-Jan
	Ardeids & White-bellied Sea Eagles Nesting Monitoring					
19-Jan	20-Jan	21-Jan	22-Jan	23-Jan	24-Jan	25-Jan
26-Jan	27-Jan	28-Jan	29-Jan	30-Jan	31-Jan	

The schedule may be changed due to unforeseen circumstances (adverse weather, etc)

Contract No. CV/2012/01 - Sediment Removal at Yim Tin Tsai (East) Fish Culture Zone Tentative Ardeids & White-bellied Sea Eagles Nesting Monitoring Schedule in February 2014

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
	j	·	·	j	•	1-Feb
2 E. I	2.5.1	4.5.1	5.5.1	(F.1	7.5.1	0.51
2-Feb	3-Feb	4-Feb	5-Feb	6-Feb	7-Feb	8-Feb
9-Feb	10-Feb	11-Feb	12-Feb	13-Feb	14-Feb	15-Feb
	Ardeids & White-bellied Sea					
	Eagles Nesting Monitoring					
16-Feb	17-Feb	18-Feb	19-Feb	20-Feb	21-Feb	22-Feb
23-Feb	24-Feb	25-Feb				
25-1-00	24-100	23-100				

Contract No. CV/2012/01 - Sediment Removal at Yim Tin Tsai (East) Fish Culture Zone Impact Water Quality Monitoring in January 2014

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
		,	1-Jan	·		
5-Jan	6-Jan	7-Jan	8-Jan	9-Jan	10-Jan	
S-Jan	0-5411	7-3411	0-3411	<i>y-</i> 5an	10-3411	11-3411
		Water Quality Monitoring		Water Quality Monitoring		Water Quality Monitoring
		Mid-Flood 11:34		Mid-Ebb 06:48		Mid-Ebb 09:06
		Mid-Ebb 17:41		Mid-Flood 13:21		Mid-Flood 15:08
12-Jan	13-Jan	14-Jan	15-Jan	16-Jan	17-Jan	18-Jan
	Water Quality Monitoring			Water Quality Monitoring		Water Quality Monitoring
	Mid-Ebb 10:58 Mid-Flood 16:48	l .		Mid-Ebb 12:41 Mid-Flood 18:34		Mid-Flood 08:38 Mid-Ebb 13:55
	10.46			10.54		WIIG-E00 13.33
19-Jan	20-Jan	21-Jan	22-Jan	23-Jan	24-Jan	25-Jan
		Water Quality Monitoring		Water Quality Monitoring		Water Quality Monitoring
						-
		Mid-Flood 10:18		Mid-Flood 11:38		Mid-Ebb 07:08
		Mid-Ebb 16:07		Mid-Ebb 17:48		Mid-Flood 13:15
26-Jan	27-Jan	28-Jan	29-Jan	30-Jan	31-Jan	
	Water O. die Meriterier		Water Oath Marketin			
	Water Quality Monitoring		Water Quality Monitoring			
	Mid-Ebb 09:32		Mid-Ebb 11:27			
	Mid-Flood 15:09		Mid-Flood 17:13			

Remark: Reference was made to the tidal information of Hong Kong Observatory

Contract No. CV/2012/01 - Sediment Removal at Yim Tin Tsai (East) Fish Culture Zone Tentative Impact Water Quality Monitoring in February 2014

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
	_	_				1-Feb
2-Feb	3-Feb	4-Feb	5-Feb	6-Feb	7-Feb	9 Eab
2-Feb	5-re 0	4-160	3-160	0-160	/-reo	8-Feb
		Water Quality Monitoring		Water Quality Monitoring		Water Quality Monitoring
		Mid-Flood 10:10		Mid Flood 11.41		M: J ELL 07.07
		Mid-Flood 10:10 Mid-Ebb 16:16		Mid-Flood 11:41 Mid-Ebb 18:06		Mid-Ebb 07:07 Mid-Flood 13:11
		10.10		10.00		15.11
9-Feb	10-Feb	11-Feb	12-Feb	13-Feb	14-Feb	15-Feb
		Water Quality Monitoring		Water Quality Monitoring		Water Quality Monitoring
		Mid-Ebb 10:38		Mid-Ebb 12:07		Mid-Ebb 13:20
		Mid-Flood 16:19		Mid-Flood 17:58		Mid-Flood 19:17
16-Feb	17-Feb	18-Feb	19-Feb	20-Feb	21-Feb	22-Feb
	W. O. P. M. S.		W. O. P. M. S.		W. O. D. M. C.	
	Water Quality Monitoring		Water Quality Monitoring		Water Quality Monitoring	
	Mid-Flood 08:37		Mid-Flood 09:43		Mid-Flood 10:57	
	Mid-Ebb 14:29		Mid-Ebb 15:45		Mid-Ebb 17:17	
22 Esh	24 Feb	25 Eals	26 Fab	27 Esh	20 Feb	
23-Feb	24-Feb	25-Feb	26-Feb	27-Feb	28-Feb	
	Water Quality Monitoring		Water Quality Monitoring		Water Quality Monitoring	
	Mid-Ebb 07:51		Mid-Ebb 10:23		Mid-Ebb 12:09	
	Mid-Flood 13:36		Mid-Flood 15:57		Mid-Flood 18:04	
	10.00		20107		10.01	

The schedule may be changed due to unforeseen circumstances (adverse weather, etc)
Remark: Reference was made to the tidal information of Hong Kong Observatory

APPENDIX C EVENT ACTION PLAN FOR WATER QUALITY

Appendix C Event and Action Plan for Water Quality

EVENT		ACTION		
	ET	IEC	ER	CONTRACTOR
Action level being exceeded by one sampling day	 Repeat in-situ measurement to confirm findings; Identify source(s) of impact; Inform IEC and Contractor; Check monitoring data, all plant, equipment and Contractor's working methods; Discuss mitigation measures with IEC and Contractor; (The above actions should be taken within 1 working day after the exceedance is identified) Repeat measurement on next day of exceedance. 	1. Discuss with ET and Contractor on the mitigation measures; 2. Review proposals on mitigation measures submitted by Contractor and advise the ER accordingly; 3. Assess the effectiveness of the implemented mitigation measures. 4. (The above actions should be taken within 1 working day after the exceedance is identified)	Discuss with IEC on the proposed mitigation measures; Make agreement on the mitigation measures to be implemented. The above actions should be taken within 1 working day after the exceedance is identified)	1. Inform the ER and confirm notification of the non-compliance in writing; 2. Rectify unacceptable practice; 3. Check all plant and equipment; 4. Review the working methods and consider additional measures such as slowing down, or rescheduling of works; 5. Discuss with ET and IEC and propose mitigation measures to IEC and ER; 6. Implement the agreed mitigation measures. 7. (The above actions should be taken within 1 working day after the exceedance is identified)
Action level being exceeded by more than one consecutive sampling days	 Identify source(s) of impact; Inform IEC and Contractor; Check monitoring data, all plant, equipment and Contractor's working methods; Discuss mitigation measures with IEC and Contractor; Ensure mitigation measures are implemented; Prepare to increase the monitoring 	Discuss with ET and Contractor on the mitigation measures; Review proposals on mitigation measures submitted by Contractor and advise the ER accordingly; Assess the effectiveness of the implemented mitigation	Discuss with IEC on the proposed mitigation measures; Make agreement on the mitigation measures to be implemented; Assess the effectiveness of the implemented mitigation measures. 4. (The above actions should	Inform the Engineer and confirm notification of the non-compliance in writing; Rectify unacceptable practice; Check all plant and equipment; Review the working methods and consider

MA13027\Monthly

Appendix C

EVENT		ACTION			
	ET	IEC	ER	CONTRACTOR	
	frequency to daily; 7. (The above actions should be taken within 1 working day after the exceedance is identified) 8. Repeat measurement on next working day of exceedance.	measures. 4. (The above actions should be taken within 1 working day after the exceedance is identified)	be taken within 1 working day after the exceedance is identified)	additional measures such as slowing down, or rescheduling of works; 5. Discuss with ET and IEC and propose mitigation measures to IEC and ER within 3 working days; 6. Implement the agreed mitigation measures. 7. (The above actions should be taken within 1 working day after the exceedance is identified)	

MA13027\Monthly

Appendix C

APPENDIX D CORAL MONITORING RESULTS

Appendix D **Impact Coral Monitoring Results**

Site C (Reference site) – Percentage of Sedimentation, Bleaching and Mortality of the Tagged Coral Colonies

Code	Coral Species	Size (length x width, cm)			ess, mm)			Bleac	hing, %			Morta	ality, %	
			Baseline	6 th	7 th		Baseline		7 th		Baseline	6 th	7 th	8 th
			(10Aug)	(28Dec)	(04Jan)	(11 J an)	(10Aug)	(28Dec)	(04Jan)	(11 J an)	(10Aug)	(28Dec)	(04Jan)	(11 Jan)
C1	Oulastrea crispata	5 x 2	5 (2)	5 (2)	10 (2)	10 (2)	0	0	0	0	0	0	0	0
C2	Oulastrea crispata	5 x 4	0	10 (2)	10 (2)	10 (4)	0	0	0	0	0	0	0	0
C3	Oulastrea crispata	3 x 3	0	0	0	0	0	0	0	0	0	0	0	0
C4	Oulastrea crispata	3 x 3	0	5 (2) ▲	5 (2) ▲	5 (2) ▲	0	0	0	0	0	0	0	0
C5	Oulastrea crispata	3 x 4	5 (2)	5 (2)	10 (2)	10 (2)	0	0	0	0	0	0	0	0
C6	Oulastrea crispata	6 x 2	0	5 (2) ▲	5 (2) ▲	5 (2) ▲	0	0	0	0	0	0	0	0
C7	Oulastrea crispata	5 x 4	0	5 (2) ▲	5 (2) ▲	5 (2) ▲	0	0	0	0	0	0	0	0
C8	Oulastrea crispata	4 x 3	0	5 (2) ▲	5 (2) ▲	5 (2) ▲	0	0	0	0	0	0	0	0
C9	Oulastrea crispata	6 x 4	0	<i>5</i> (2) ▲	5 (2) ▲	5 (2)	0	0	0	0	0	0	0	0
C10	Oulastrea crispata	15 x 7	5 (2)	10 (2)	10 (2)	10 (2)	0	0	0	0	0	0	0	0

Note:

MA13027\Monthly Appendix D

Baseline Coral Monitoring Survey (10 Aug 2013), the 6th (28 Dec 2013), 7th (04 Jan 2014) and 8th (11 Jan 2014) Coral Monitoring Surveys.
 "▲" and "▼" indicate increased and decreased in percentage, respectively, when compared with the baseline data.

Site T2 - Percentage of Sedimentation, Bleaching and Mortality of the Tagged Coral Colonies

Code	Coral Species	Size (length x width, cm)			tation, % ess, mm)			Bleacl	ning, %			Morta	lity, %	
			Baseline (10Aug)	6 th (28Dec)	7 th (04Jan)	8 th (11Jan)		v	7 th (04Jan)		245011110	6 th (28Dec)	7 th (04Jan)	8 th (11Jan)
A1	Oulastrea crispata	15 x 8	(1 0Aug)	0	(04Ja II)	5 (2) ▲	(10Aug)	(28Dec)	() 4.j an)	(11 Ja 11)	(10Aug) ()	0	(0 43 a11)	(11 Ja 11)
A2	Oulastrea crispata	8 x 4	5 (2)	5 (2)	5 (2)	10 (2)	0	0	0	0	0	0	0	0
A3	Oulastrea crispata	4 x 4	0	0	0	5 (2) ▲	0	0	0	0	0	0	0	0
A4	Oulastrea crispata	15 x 4	0	0	5 (2) ▲	0	0	0	0	0	0	0	0	0
A5	Oulastrea crispata	5 x 3	0	0	0	<i>5</i> (2) ▲	0	0	0	0	0	0	0	0
A6	Oulastrea crispata	8 x 4	0	0	0	0	0	0	0	0	0	0	0	0
A7	Oulastrea crispata	8 x 4	5 (2)	5 (2)	10(2)	5 (2)	0	0	0	0	0	0	0	0
A8	Oulastrea crispata	5 x 4	0	5 (2) ▲	5 (2) ▲	0	0	0	0	0	0	0	0	0
A9	Oulastrea crispata	3 x 3	0	0	0	0	0	0	0	0	0	0	0	0
A10	Oulastrea crispata	7 x 4	0	0	0	0	0	0	0	0	0	0	0	0

Note:

Baseline Coral Monitoring Survey (10 Aug 2013), the 6th (28 Dec 2013), 7th (04 Jan 2014) and 8th (11 Jan 2014) Coral Monitoring Surveys.
 "▲" and "▼" indicate increased and decreased in percentage, respectively, when compared with the baseline data.

MA13027\Monthly Appendix D

Site T3 – Percentage of Sedimentation, Bleaching and Mortality of the Tagged Coral Colonies

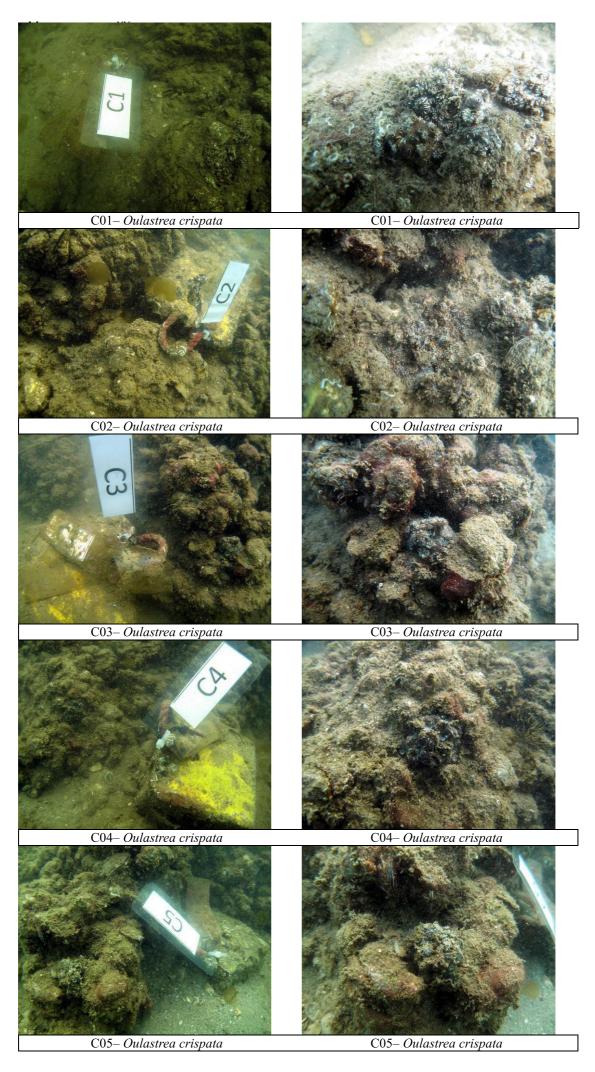
Code	Coral Species	Size (length x width, cm)			tation, %			Bleach	ning, %			Morta	llity, %	
			Baseline (10Aug)	6 th (28Dec)	7 th (04Jan)	8 th (11Jan)	Baseline (10Aug)	v	7 th (04Jan)		Dascillic	6 th (28Dec)	7 th (04Jan)	8 th (11Jan)
B1	Oulastrea crispata	5 x 2	0	0	0	0	0	0	0	0	0	0	0	0
B2	Oulastrea crispata	10 x 8	0	0	0	0	0	0	0	0	0	0	0	0
В3	Oulastrea crispata	5 x 3	0	0	0	<i>5</i> (2) ▲	0	0	0	0	0	0	0	0
B4	Oulastrea crispata	5 x 3	0	5 (2) ▲	5 (2) ▲	<i>5</i> (2) ▲	0	0	0	0	0	0	0	0
B5	Oulastrea crispata	3 x 3	0	0	5 (2) ▲	<i>5</i> (2) ▲	0	0	0	0	0	0	0	0
В6	Oulastrea crispata	4 x 4	0	0	0	0	0	0	0	0	0	0	0	0
В7	Oulastrea crispata	5 x 4	0	5 (2) ▲	0	0	0	0	0	0	0	0	0	0
В8	Oulastrea crispata	8 x 3	5 (2)	5 (2)	5 (2)	5 (2)	0	0	0	0	0	0	0	0
В9	Oulastrea crispata	4 x 4	0	0	5 (2) ▲	5 (2) ▲	0	0	0	0	0	0	0	0
B10	Oulastrea crispata	5 x 4	0	0	0	5 (2) ▲	0	0	0	0	0	0	0	0

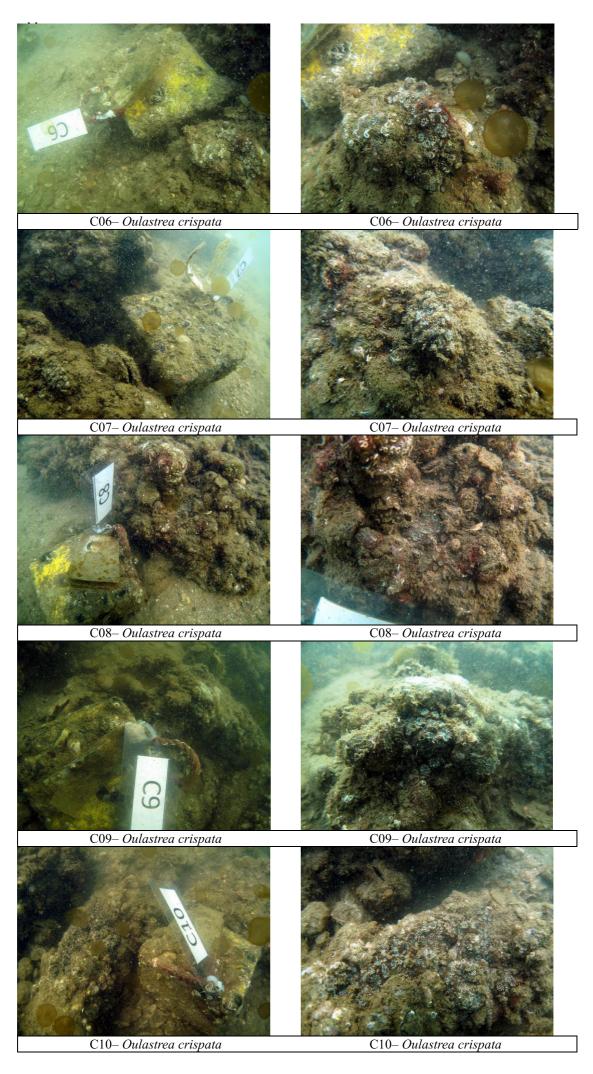
Note:

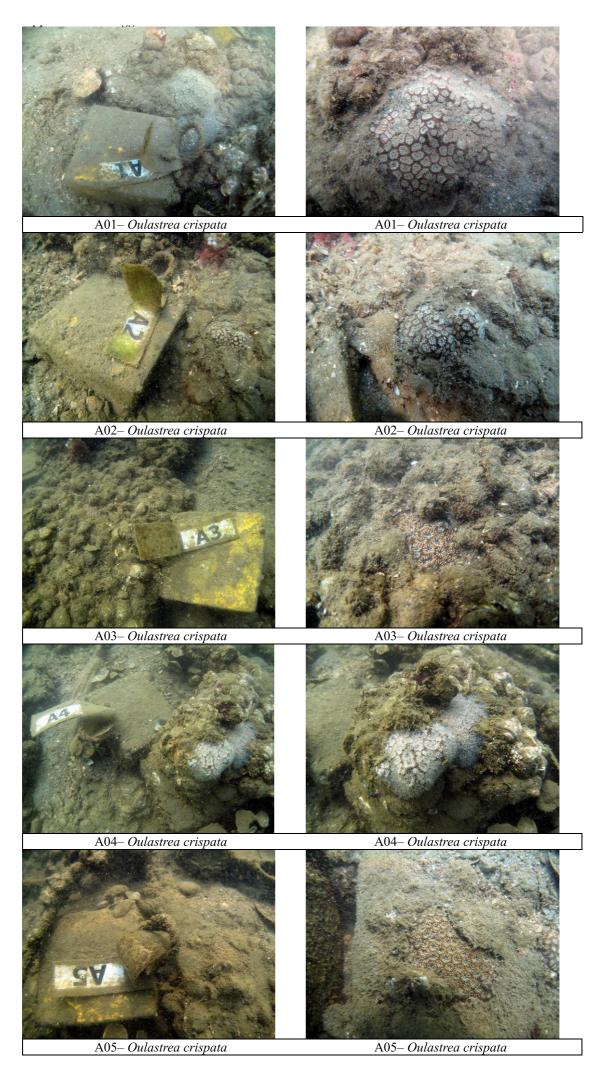
MA13027\Monthly Appendix D

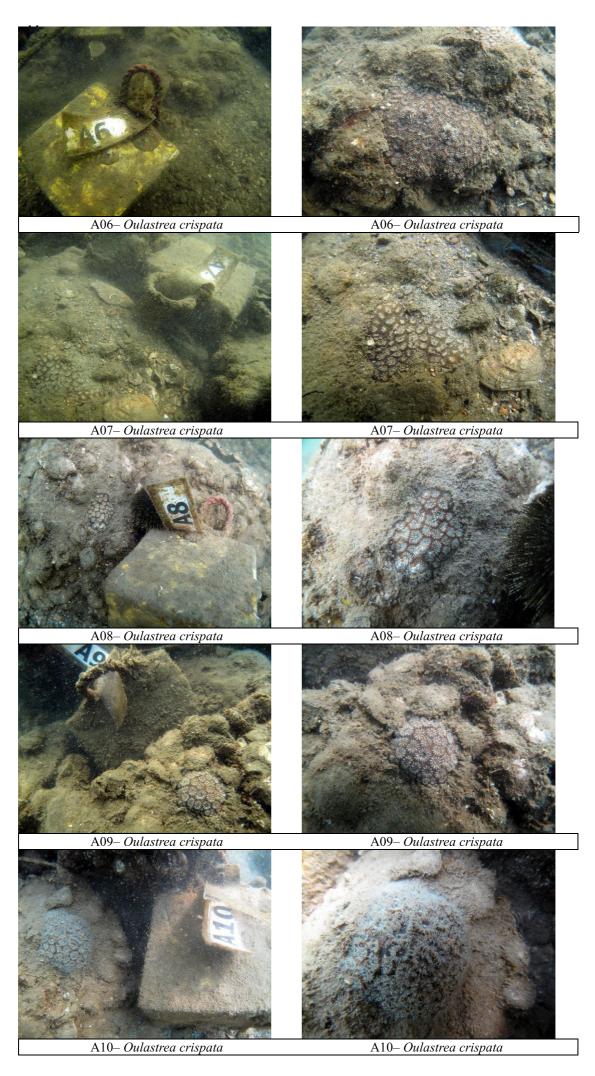
Baseline Coral Monitoring Survey (10 Aug 2013), the 6th (28 Dec 2013), 7th (04 Jan 2014) and 8th (11 Jan 2014) Coral Monitoring Surveys.
 "▲" and "▼" indicate increased and decreased in percentage, respectively, when compared with the baseline data.

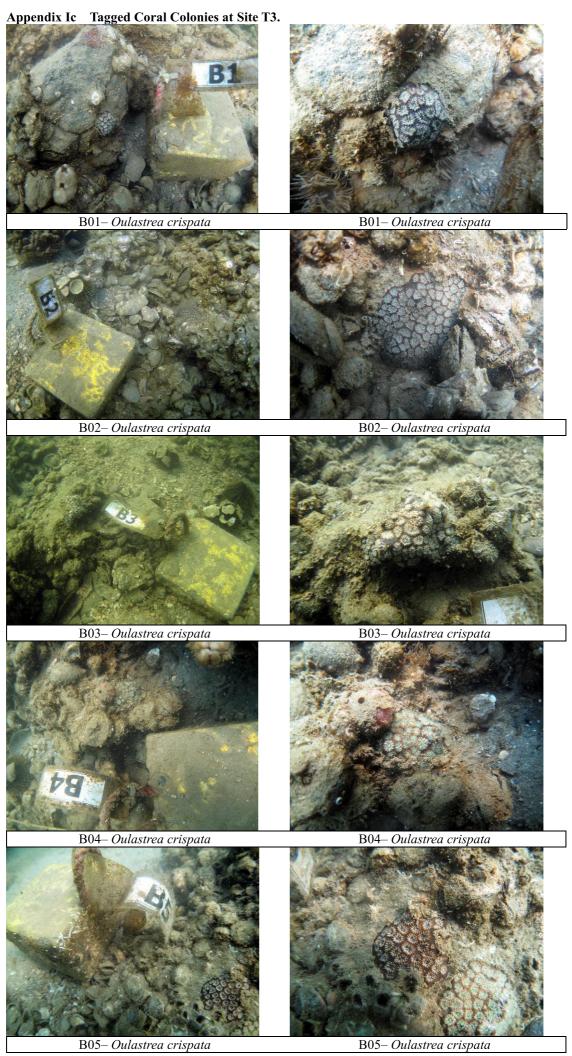
APPENDIX E PHOTO RECORDS OF CORAL MONITORING SURVEYS

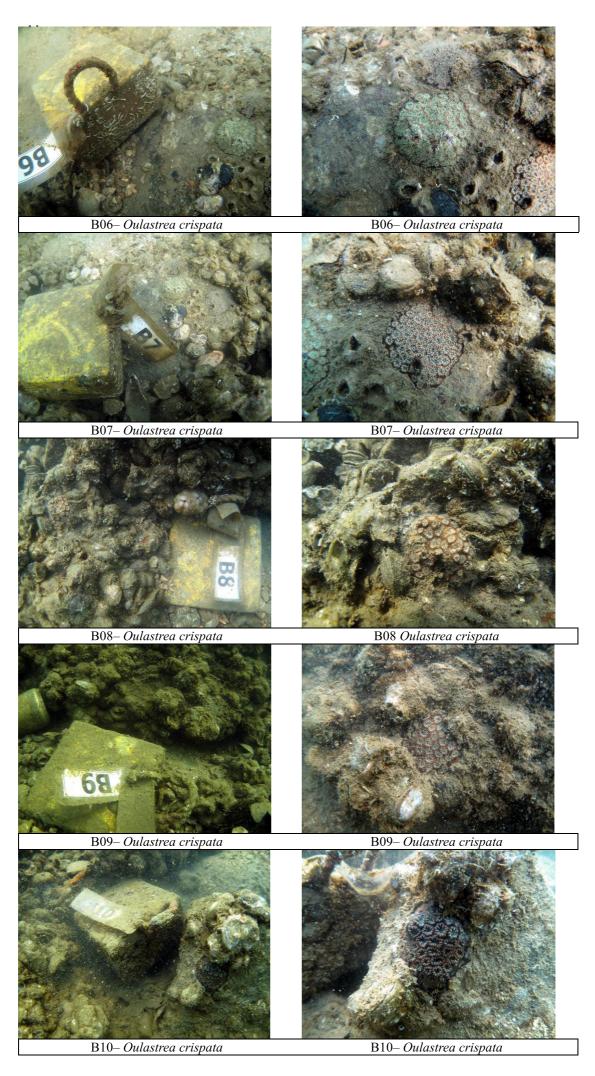


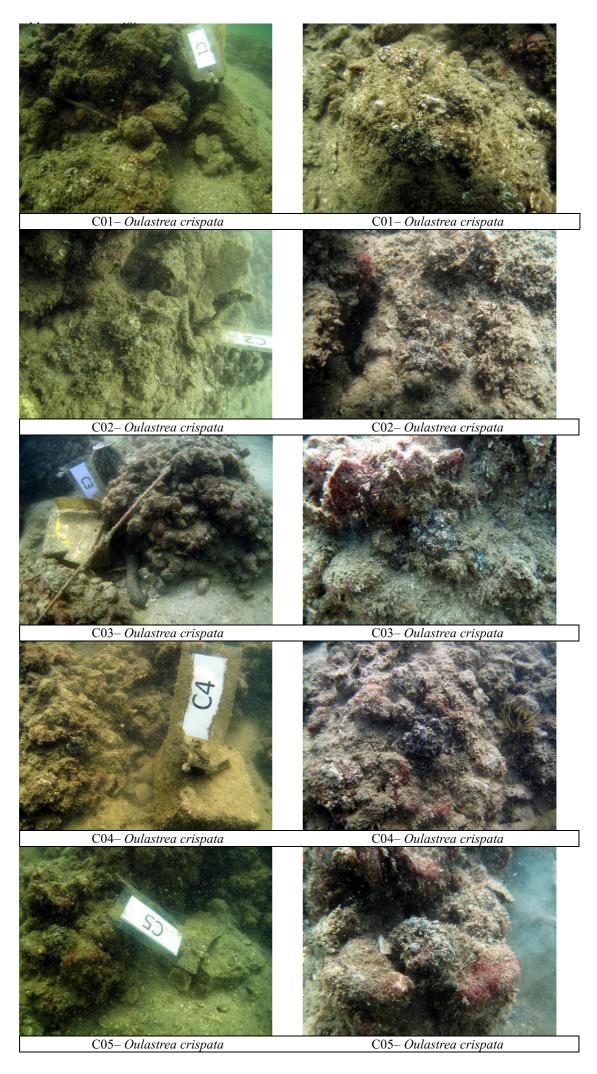


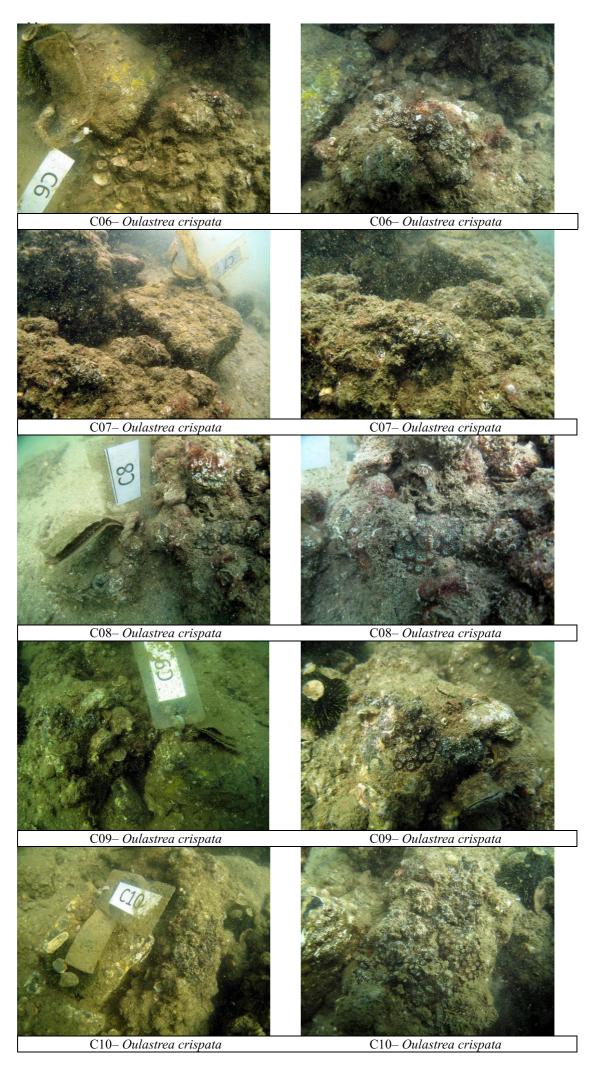


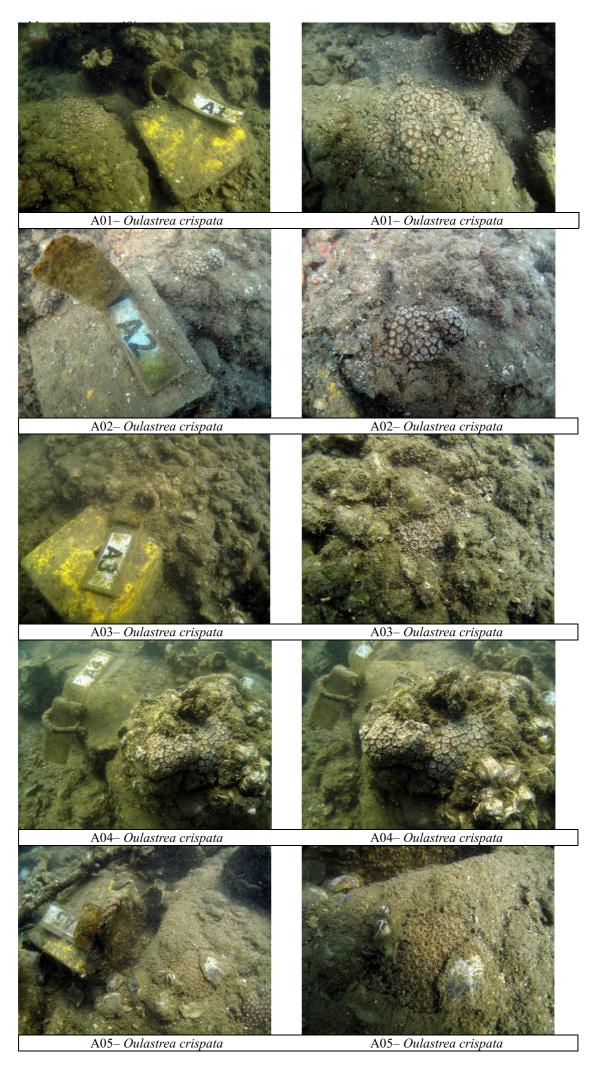


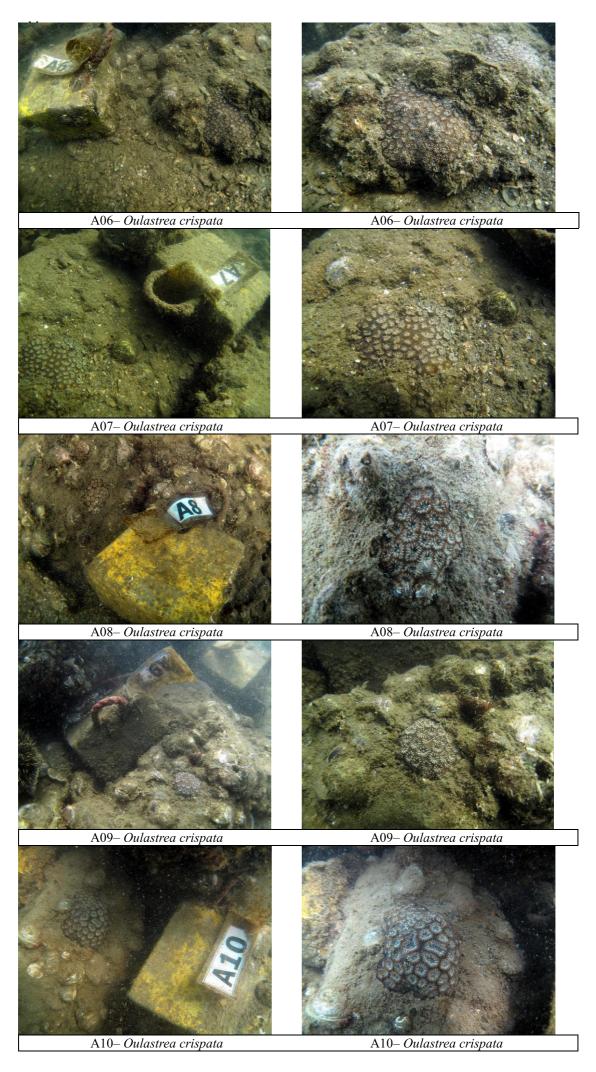


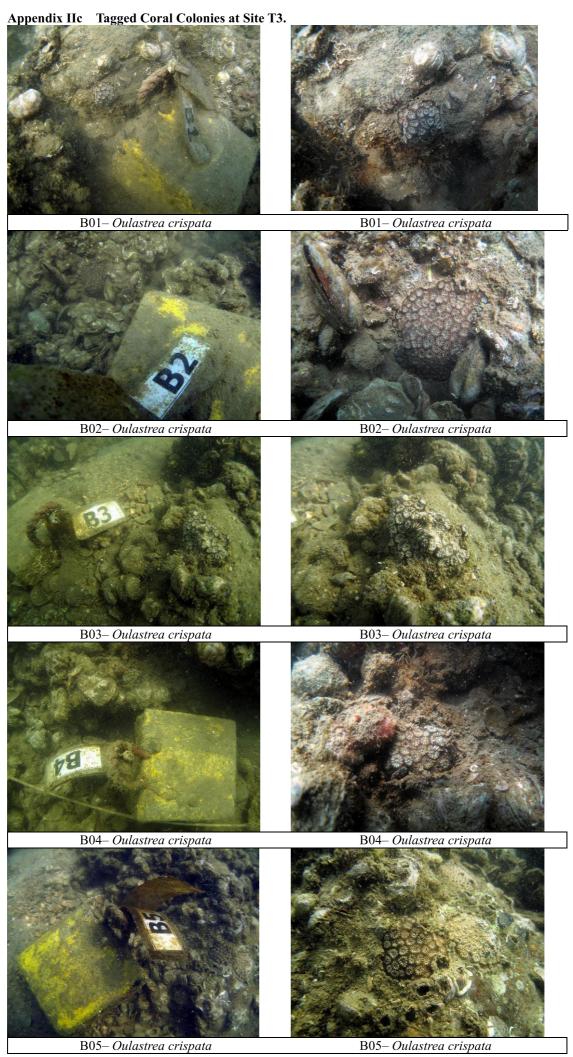


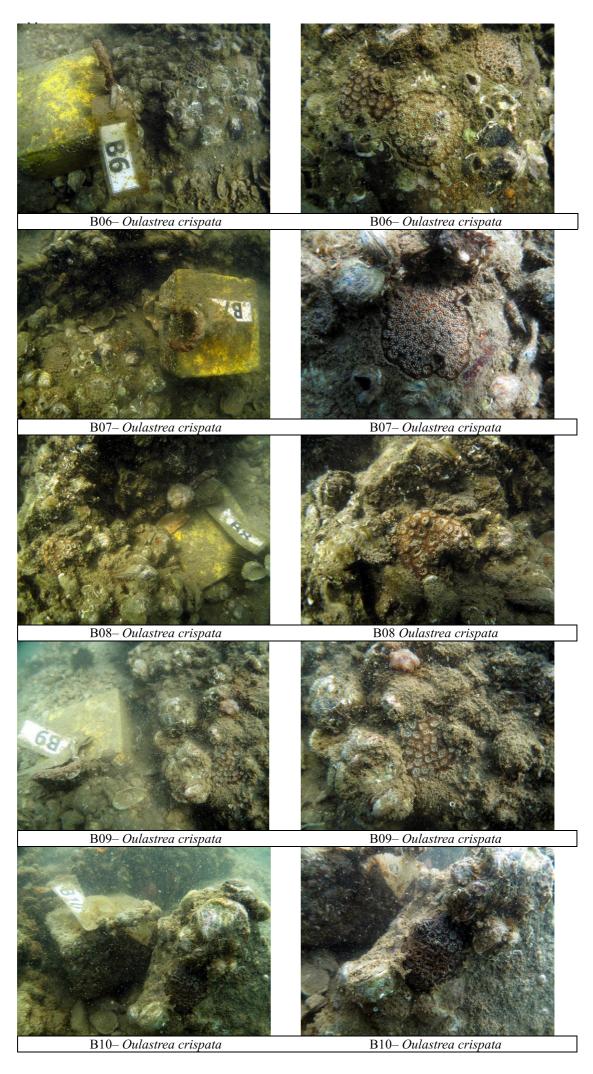












APPENDIX F SUMMARY OF EXCEEDANCE

Exceedance Report

- (A) Exceedance Report for Water Quality (NIL in the reporting period)
- (B) Exceedance Report for Coral Monitoring (NIL in the reporting period)

APPENDIX G ENVIRONMENTAL MITIGATION IMPLEMENTATION SCHEDULE

<u>Appendix G – Environmental Mitigation and Implementation Schedule</u>

Project Stage / Location	Potential Environmental Impact	Mitigation Measure	Implementation Agent
Construction / Construction Site and along the dredged sediment transportation route	Air quality	 (1) The dredged sediment placed on barge will be properly covered as far as practicable. (2) Requirements of the Air Pollution Control (Construction Dust) Regulation, where relevant, will be adhered to during the construction period. (3) Ultra low sulphur diesel fuel should be used for all diesel-operated plants and equipment on-site. 	Contractor
Construction / Construction Site	Construction Noise	 Only well-maintained plantswill be operated on-site and plants should be serviced regularly during the construction program. Plants will be sited as far away from nearby NSRs as possible. 	Contractor
Construction / Construction Site	Water quality impact	 (1) Closed grab will be used for dredging to minimize release of fines and contaminants. (2) The maximum production rates as indicated in the approved Project Profile will be adopted for the proposed dredging activities. (3) Silt curtains will be deployed around the dredging operation. (4) Good site practices (as outlined in Section 5.7 above) will be adopted during dredging and during transportation and disposal of dredged sediments. (5) Discharge of sewage effluent into drainage and water environment is not allowed. Appropriate numbers of portable chemical toilets will be provided by a licensed contractor as necessary to serve the construction workers. (6) Collection and removal of floating refuse will be performed at regular intervals on a daily basis at or near the dredging sites. (7) Water quality monitoring will be undertaken before, during and after the dredging works 	Contractor

Construction / Construction Site	Waste management	 (1) Disposal of dredged sediment will follow the requirements and procedures specified under the ETWB TCW No. 34/2002. (2) All chemical wastes from equipment maintenance will be handled, stored and disposed of in accordance with the requirements of the Waste Disposal (Chemical Waste) Regulation. (3) General refuse will be stored and disposed of separately from general construction waste and chemical waste. The storage bins for general refuse will be provided with lids, which will be kept closed to avoid odour nuisance and wind blown litter. The general refuse would be removed regularly and disposed of to licensed landfills. 	Contractor
Construction / Construction Site	Ecological impact	 Mitigation measures to control water quality, i.e. constriction of dredging rate, use of closed grab for dredging and deployment of silt curtains, proposed in the water quality impact assessment will be adopted. Standard good site practice and management proposed in the water quality impact assessment, such as tight fitting seals to bottom openings of barges/dredgers, effective site drainage, and provision of chemical toilets will be adopted. Good site practices on noise control proposed in the noise impact assessment will be adopted. The health status of the nearby coral colonies will be regularly monitored during the construction phase 	Contractor
Construction / Construction Site	Fisheries impact	 Mitigation measures to control water quality, i.e. constriction of dredging rate, use of closed grab for dredging and deployment of silt curtains, proposed in the water quality impact assessment will be adopted. Standard good site practice and management proposed in the water quality impact assessment, such as tight fitting seals to bottom openings of barges/dredgers, effective site drainage, and provision of chemical toilets will be adopted. 	Contractor
Construction / Construction Site	Visual impact	 (1) All construction plants would be sited as far away from nearby shoreline as possible. (2) All the sediment removal works will be carried out in day time (7:00 to 19:00) to minimize the use of night-time lighting. (3) Lighting will be carefully controlled if required 	Contractor

Construction / Construction Site	Cultural heritage impact	Antiquities and Monuments Office should be informed of any discovery of antiquities or supposed antiquities in the course of dredging work at all the Project sites in accordance with the Antiquities and Monuments Ordinance.	
Construction / Construction Site	Air quality, noise, water quality, ecology, fisheries, visual and cultural heritage	An environmental monitoring and audit programme as recommended in the approved Project Profile should be followed.	Contractor

Remarks: No environmental complaint was received in the reporting month.

APPENDIX H SITE AUDIT SUMMARY

Contract No. CV/2012/01

Sediment Removal at Yim Tin Tsai (East) Fish Culture Zone

Checklist Reference Number	140102
Date	2 January 2014 (Thursday)
Time	14:00-15:00

		Related
Ref. No.	Non-Compliance	Item No.
-	None identified	
		Related
Ref. No.	Remarks/Observations	Item No.
	A. Water Quality	
	No environmental deficiency was identified during site inspection.	
	B. Ecology	
	No environmental deficiency was identified during site inspection.	
	C. Air Quality	· · · · · · · · · · · · · · · · · · ·
	No environmental deficiency was identified during site inspection.	
	D. Noise	
	No environmental deficiency was identified during site inspection.	
	E. Waste / Chemical Management	
	No environmental deficiency was identified during site inspection.	
	F. Permits/Licences	
	No environmental deficiency was identified during site inspection.	
	G. Others	
	• Follow-up on previous site audit session (Ref. No. 131224), no environmental deficiencies were identified during the site inspection.	

	Name	Signature	Date
Recorded by	Ivy Tam	Tuk	2 January 2014
Checked by	Dr. Priscilla Choy	NL	2 January 2014

Sediment Removal at Yim Tin Tsai (East) Fish Culture Zone

Checklist Reference Number	140110
Date	10 January 2014 (Friday)
Time	10:30-11:15

Ref. No.	Non-Compliance	Related
Kei. No.	None identified	Item No.
	TYONG (UCHUMEC)	-
D.C.N.	D . 1 /OI	Related
Ref. No.	Remarks/Observations	Item No.
	A. Water Quality	
	No environmental deficiency was identified during site inspection.	
	B. Ecology	
	No environmental deficiency was identified during site inspection.	
	C. Air Quality	
	No environmental deficiency was identified during site inspection.	
	D. Noise	
	No environmental deficiency was identified during site inspection.	
	E. Waste / Chemical Management	
	No environmental deficiency was identified during site inspection.	
	F. Permits/Licences	
	No environmental deficiency was identified during site inspection.	
	G. Others	
•	• Follow-up on previous site audit session (Ref. No. 140102), no environmental deficiencies were identified during the site inspection.	

	Name	Signature	Date
Recorded by	Johnny Fung	12	10 January 2014
Checked by	Dr. Priscilla Choy	WI	10 January 2014

Contract No. CV/2012/01

Sediment Removal at Yim Tin Tsai (East) Fish Culture Zone

Checklist Reference Number	140116
Date	16 January 2014 (Thursday)
Time	10:00-11:00

		Related
Ref. No.	Non-Compliance	Item No.
-	None identified	-
Ref. No.	Remarks/Observations	Related Item No.
	A. Water Quality	
	No environmental deficiency was identified during site inspection.	
	B. Ecology	
	No environmental deficiency was identified during site inspection.	
	C. Air Quality	
	No environmental deficiency was identified during site inspection.	
	D. Noise	
	No environmental deficiency was identified during site inspection.	
	E. Waste / Chemical Management	
	No environmental deficiency was identified during site inspection.	
	F. Permits/Licences	
	No environmental deficiency was identified during site inspection.	
	G. Others	
	• Follow-up on previous site audit session (Ref. No. 140110), no environmental deficiencies were identified during the site inspection.	

	Name	Signature	Date
Recorded by	Johnny Fung	100	16 January 2014
Checked by	Dr. Priscilla Choy	WL	16 January 2014
		7	

Contract No. CV/2012/01

Sediment Removal at Yim Tin Tsai (East) Fish Culture Zone

Checklist Reference Number	140123
Date	23 January 2014 (Thursday)
Time	10:30-11:45

n e N	V 0 "	Related
Ref. No.	Non-Compliance	Item No.
-	None identified	-
Ref. No.	Remarks/Observations	Related Item No.
101.110.	A. Water Quality	Teem ivo.
	No environmental deficiency was identified during site inspection.	
	B. Ecology	
	No environmental deficiency was identified during site inspection.	
	C. Air Quality	
	No environmental deficiency was identified during site inspection.	
	D. Noise	
	No environmental deficiency was identified during site inspection.	
	E. Waste / Chemical Management	
140123-R01	Properly provide chemical labels to oil drums.	F 4
	F. Permits/Licences	
	No environmental deficiency was identified during site inspection.	
	G. Others	
	Follow-up on previous site audit session (Ref. No. 140116), no environmental deficiencies were identified during the site inspection.	

	Name	Signature	Date
Recorded by	Johnny Fung	100	23 January 2014
Checked by	Dr. Priscilla Choy	WF	23 January 2014

Sediment Removal at Yim Tin Tsai (East) Fish Culture Zone

Weekly Site Inspection Record Summary Inspection Information

inspection tritor matter	
Checklist Reference Number	140127
Date	27 January 2014 (Monday)
Time	10:00-11:00

T. 0.37		Related Item No.
Ref. No.	Non-Compliance	Item No.
-	None identified	
		Related
Ref. No.	Remarks/Observations	Item No.
	A. Water Quality	
	No environmental deficiency was identified during site inspection.	
	B. Ecology	
	No environmental deficiency was identified during site inspection.	
	C. Air Quality	
	No environmental deficiency was identified during site inspection.	
	D. Noise	
	No environmental deficiency was identified during site inspection.	
	E. Waste / Chemical Management	
	No environmental deficiency was identified during site inspection.	
	F. Permits/Licences	
	No environmental deficiency was identified during site inspection.	
	G. Others	
	• Follow-up on previous site audit session (Ref. No. 140123), all environmental deficiency was observed improved/rectified by the Contractor.	

	Name	Signature	Date
Recorded by	Johnny Fung	12	27 January 2014
Checked by	Dr. Priscilla Choy	WIL	27 January 2014

APPENDIX I COMPLAINT LOG

<u>Appendix I – Complaint Log</u>

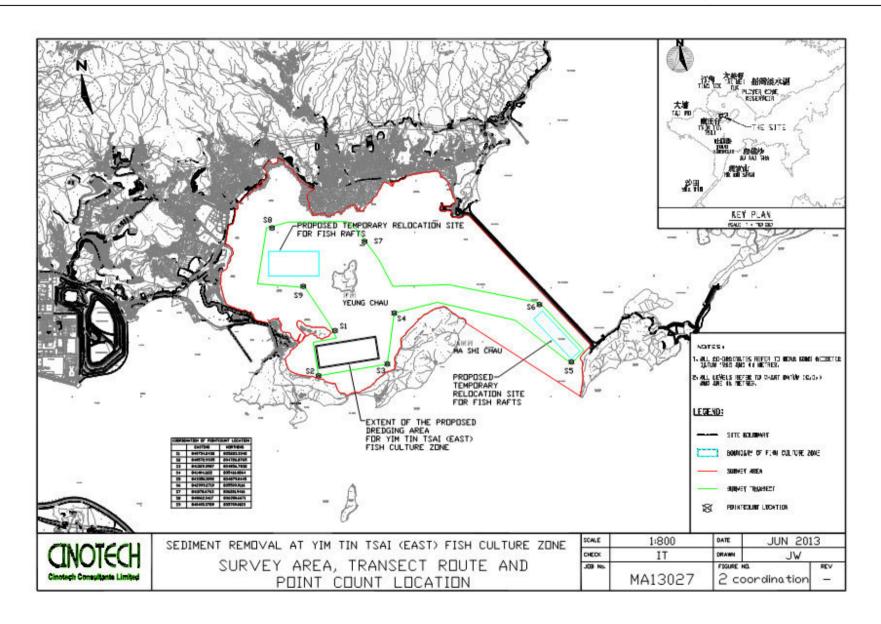
Log Ref.	Location	Received Date	Details of Complaint	Investigation/Mitigation Action	Status
N/A	N/A	N/A	N/A	N/A	N/A

Remarks: No environmental complaint was received in the reporting month.

APPENDIX J ARDEIDS AND WHITE-BELLIED SEA EAGLE MONITORING RESULTS

Appendix J - Ardeids and White-bellied Sea Eagle Monitoring Results

Date	Time	Location	Construction Works within Works Area	Weather Conditions	Observed Activities outside Works Area
13/01/14	7:00-9:45	 Point Count Location S1 – S9 Survey Transect Route (Refer to figure below) 	Removal of seabed sediments at the Dredging Area	Cloudy	Not Observed



Point count

Species	Point 1	Point 2	Point 3	Point 4	Point 5	Point 6	Point 7	Point 8	Point 9	Subtotal	Walk Transect
Ardeids										46	
Great Egret	4	2	0	0	1	1	2	3	4	17	
Little Egret	2	3	1	0	0	0	0	5	4	15	
Grey Heron	0	1	0	0	0	0	0	1	2	4	
Chinese Pond Heron	0	4	0	0	0	0	0	0	6	10	
White-bellied Sea Eagle	0	0	0	0	0	0	1	0	0	1	
No. of Birds at Each Point:	6	10	1	0	1	1	3	9	16		
No. of Birds recorded from Point Count:		47									
No. of Nests at Yeung Chau	Great Egret Little Egret Black-crowned Night Heron Cattle Egret					Egret	White-b Sea Eag		Other: (Specify)		
			_1	Not O	bserved		<u> </u>			1	Not Observed

Transect Count

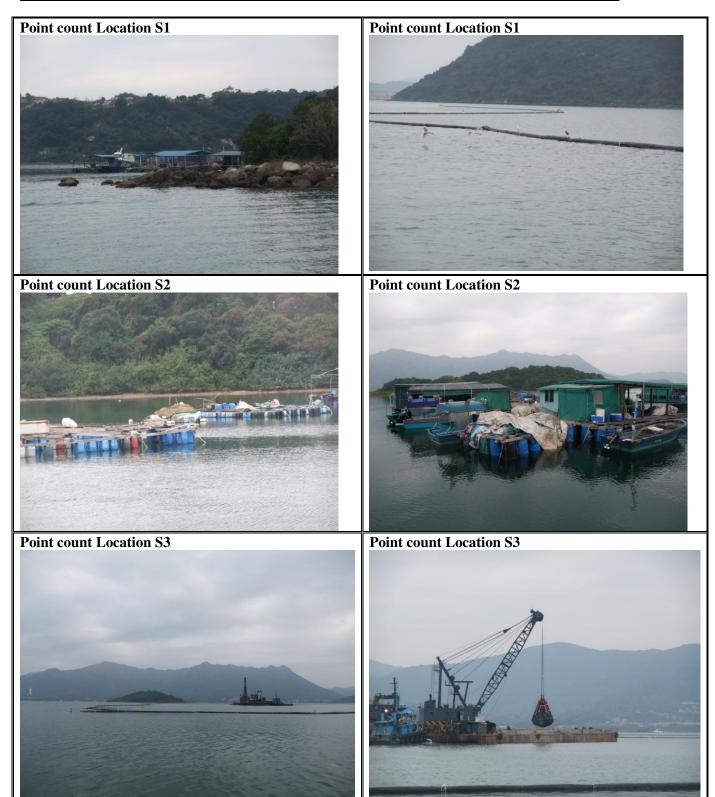
Species	Transect 1→2	Transect 2→3	Transect 3→4	Transect 4→5	Transect 5→6	Transect 6→7	Transect 7→8	Transect 8→9	Transect 9→1	Subtotal
Ardeids										40
Great Egret	4	2	0	1	0	0	4	4	3	18
Little Egret	2	2	0	0	0	1	4	3	4	16
Grey Heron	1	0	0	0	0	0	1	2	0	4
Chinese Pond Heron	2	0	0	0	0	0	0	0	0	2
White-bellied Sea Eagle	0	0	0	0	0	0	0	0	0	0

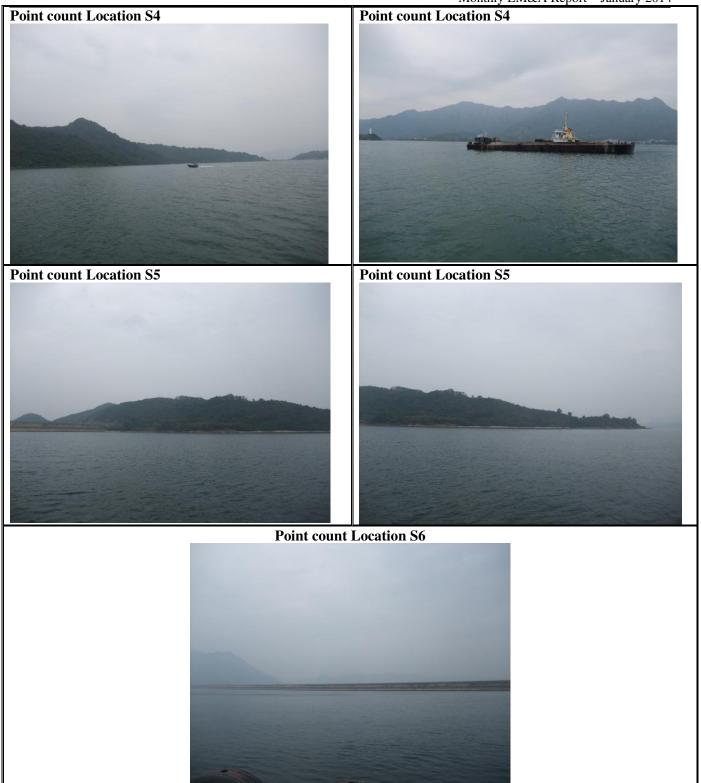
Summaries of total of Ardeids,, White-bellied Sea Eagles and Nests recorded each month

	Species	Nov 2013	Dec 2013	Jan 2014			
	Ardeids	54	45	46			
	Great Egret	36	17	17			
	Little Egret	14	18	15			
Point count	Grey Heron	4	5	4			
1 omit count	Chinese Pond Heron	0	4	10			
	Little Green Heron	0	1	0			
	White-bellied Sea Eagle	2	2	1			
	No. of Nests at Yeung Chau	0	1	1			
	Ardeids	56	43	40			
	Great Egret	25	21	18			
Transect Count	Little Egret	26	18	16			
Transect Count	Grey Heron	3	4	4			
	Chinese Pond Heron	2	0	2			
	White-bellied Sea Eagle	0	0	0			

APPENDIX K
PHOTOGRAPHIC RECORDS OF
ARDEIDS AND WHITE-BELLIED
SEA EAGLE MONITORING

Appendix K - Photographic records of Ardeids and White-bellied Sea Eagle Monitoring







APPENDIX L
COPIES OF CALIBRATION
CERTIFICATES FOR WATER
QUALITY MONITORING



WELLAB LIMITED

Rms 816, 1516 & 1701, Technology Park, 18 On Lai Street, Shatin, N.T, Hong Kong. Tel: 2898 7388 Fax: 2898 7076 Website: www.wellab.com.hk

TEST REPORT

APPLICANT: Cinotech Consultants Limited

Room 1710, Technology Park,

18 On Lai Street,

Shatin, NT, Hong Kong

Test Report No.:	C/W/131116-1
Date of Issue:	2013-11-16
Date Received:	2013-11-16
Date Tested:	2013-11-16
Date Completed:	2013-11-16
Next Due Date:	2014-02-15

ATTN:

Mr. W.K. Tang

Page: 1 of 2

Certificate of Calibration

Item for calibration:

Description : Sonde Environmental Monitoring System

Manufacturer : YSI

Model No. : 6820-C-M
Serial No. : 11J101089
Equipment No. : W.03.10

Test conditions:

Room Temperature : 19 degree Celsius

Relative Humidity : 55%

Test Specifications:

Conductivity & Salinity Sensor, Model: 6560, L/N: 11J100023

1. Conductivity performance check with Potassium Chloride standard solution

2. Salinity performance check with Sodium Chloride standard solution

Dissolved Oxygen Sensor, Model: 6562, L/N: 11J100272

1. Performance check against Winkler titration Turbidity Sensor, Model: 6136, S/N: 11J100474

1. Calibration check with Formazin standard solution

pH Meter, Model: 6561, L/N: 11H

1. Calibration check with standard pH buffer

Depth Meter

1. Calibration check at 1m water level depth

Methodologies:

- 1. YSI 6-Series Sonde Environmental Monitoring System Instruction Manual
- 2. In-house method with reference to APHA and ISO standards

PREPARED AND CHECKED BY:

For and On Behalf of WELLAB Ltd.

PATRICK TSE Laboratory Manager



TEST REPORT

Test Report No.: C/W/131116-1
Date of Issue: 2013-11-16
Date Received: 2013-11-16
Date Tested: 2013-11-16
Date Completed: 2013-11-16
Next Due Date: 2014-02-15

Page:

2 of 2

Results:

1. Conductivity performance check

I. Collaboration product			
Specific (Conductivity, µS/cm	Correction, µS/cm	Acceptable range
Salinity Meter (C1)	Theoretical Value (C2)	D = C1 - C2	
1420 1420		0	1420 ± 20

2. Salinity Performance check

Salir	ity, ppt	Correction, ppt	Acceptable range
Instrument Reading Theoretical Value			
30.0	30.0	0.0	30.0 ± 3

3. Dissolved Oxygen check

5. Dissolved Oxygen eneck								
Oxygen level in	Dissolved Ox	kygen, mg O ₂ /L	Correction, mg	Acceptable				
water at 20°C	D.O. Meter	Winkler Titration	O ₂ /L	range				
Saturated	9.1	9.1	0.0	± 0.2				
Half-saturated	5.6	5.6	0.0	± 0.2				
Zero	0.0	0.0	0.0	± 0.2				

4. Turbidity check

T. I dividity check			
Turbidity value in solution, NTU	Calibration Value, NTU	Correction, NTU	Acceptable range
0.00	0.00	0.00	0.00 ± 0.05
100	100	0	100 ± 5
1000	1000	0	1000 ± 100

5. pH Meter check

Test Parameters	Performance characteristic	Acceptable range
Liquid junction error ΔpH _i , pH unit	0.01	Less than 0.05
Shift on stirring ΔpH _s , pH unit	0.01	Less than 0.02
Noise ΔpH _n , pH unit	0.00	Less than 0.02

6. Depth Meter check

Instrument Reading, m	Calibration Value, m	Correction, m	Acceptable range		
1.0	1.00	0.00	1.00 ± 0.05		



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Rms 816, 1516 & 1701, Technology Park, 18 On Lai Street, Shatin, N.T, Hong Kong. Tel: 2898 7388 Fax: 2898 7076

Website: www.wellab.com.hk

TEST REPORT

APPLICANT: Cinotech Consultants Limited

Room 1710, Technology Park,

18 On Lai Street,

Shatin, NT, Hong Kong

Test Report No.:	C/W/131116-2
Date of Issue:	2013-11-16
Date Received:	2013-11-16
Date Tested:	2013-11-16
Date Completed:	2013-11-16
Next Due Date:	2014-02-15

ATTN:

Mr. W.K. Tang

Page:

1 of 2

Certificate of Calibration

Item for calibration:

Description

: Sonde Environmental Monitoring System

Manufacturer

: YSI

Model No.

: 6820-C-M

Serial No. Equipment No.

: 11J101088 : W.03.11

Test conditions:

Room Temperature

: 19 degree Celsius

Relative Humidity

: 55%

Test Specifications:

Conductivity & Salinity Sensor, Model: 6560, L/N: 11J100023

1. Conductivity performance check with Potassium Chloride standard solution

2. Salinity performance check with Sodium Chloride standard solution

Dissolved Oxygen Sensor, Model: 6562, L/N: 11J100272

1. Performance check against Winkler titration

Turbidity Sensor, Model: 6136, S/N: 11J100474

1. Calibration check with Formazin standard solution

pH Meter, Model: 6561, L/N: 11H

1. Calibration check with standard pH buffer

Depth Meter

1. Calibration check at 1m water level depth

Methodologies:

1. YSI 6-Series Sonde Environmental Monitoring System Instruction Manual

2. In-house method with reference to APHA and ISO standards

PREPARED AND CHECKED BY:

For and On Behalf of WELLAB Ltd.

PATRICK TSE

Laboratory Manager

WELLAB LIMITED

Rms 816, 1516 & 1701, Technology Park, 18 On Lai Street, Shatin, N.T, Hong Kong. Tel: 2898 7388 Fax: 2898 7076

Website: www.wellab.com.hk

TEST REPORT

 Test Report No.:
 C/W/131116-2

 Date of Issue:
 2013-11-16

 Date Received:
 2013-11-16

 Date Tested:
 2013-11-16

 Date Completed:
 2013-11-16

 Next Due Date:
 2014-02-15

Page:

2 of 2

Results:

1. Conductivity performance check

z. conductivity pozzoz			
Specific (Conductivity, µS/cm	Correction, µS/cm	Acceptable range
Salinity Meter (C1)	Theoretical Value (C2)	D = C1 - C2	
1420	1420	0	1420 ± 20

2. Salinity Performance check

Salin	ity, ppt	Correction, ppt	Acceptable range		
Instrument Reading	Theoretical Value				
30.0	30.0	0.0	30.0 ± 3		

3. Dissolved Oxygen check

J. Dissurved Oxygo	CII CIICCK			
Oxygen level in	Dissolved O	xygen, mg O ₂ /L	Correction, mg	Acceptable
water at 20°C	D.O. Meter	Winkler Titration	O_2/L	range
Saturated	9.1	9.1	0.0	± 0.2
Half-saturated	5.6	5.6	0.0	± 0.2
Zero	0.0	0.0	0.0	± 0.2

4 Turbidity check

Turbidity value in solution, NTU	Calibration Value, NTU	Correction, NTU	Acceptable range
0.00	0.00	0.00	0.00 ± 0.05
100	100	0	100 ± 5
1000	1000	0	1000 ± 100

5. pH Meter check

Test Parameters	Performance characteristic	Acceptable range
Liquid junction error ΔpH _i , pH unit	0.01	Less than 0.05
Shift on stirring ΔpH _s , pH unit	0.01	Less than 0.02
Noise ΔpH _n , pH unit	0.00	Less than 0.02

6. Depth Meter check

Instrument Reading, m	Calibration Value, m	Correction, m	Acceptable range		
1.0	1.00	0.00	1.00 ± 0.05		

APPENDIX M WATER QUALITY MONITORING RESULTS

Water Quality Monitoring Results at F4 - Mid-Ebb Tide

Date	Weather	Sea	Sampling	Dent	Depth (m) Temperature		iture (°C)	PC) pH		Salinity ppt		DO Saturation (%)		Dissolved Oxygen (mg/L)		Turbidity(NTU)			Suspended Solids (mg/L)		
Date	Condition	Condition**	Time	БСРІ	()	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	DA*
				Surface	1	17.3 17.3	17.3	8.2 8.2	8.2	32.2 32.2	32.2	104.6 104.8	104.7	8.3 8.3	8.3		1.3 1.2	1.3		5.6	
7-Jan-14	Cloudy	Calm	17:53	Middle	4.5	17.1 17.1	17.1	8.2 8.2	8.2	32.4 32.4	32.4	103.4 103.3	103.4	8.2 8.2	8.2	8.3	0.7 0.7	0.7	1.1	7.4	9.2
				Bottom	8	17.1 17.2 17.1	17.2	8.0 8.0	8.0	32.8 32.8	32.8	79.4 78.1	78.8	6.3 6.2	6.3	6.3	1.5 1.3	1.4		14.5	
				Surface	1	17.0 17.0	17.0	8.1 8.1	8.1	29.1 29.2	29.2	97.1 97.1	97.1	7.9 7.9	7.9		1.0	1.1		2.7	
9-Jan-14	Cloudy	Calm	07:52	Middle	4.5	17.0 17.1 17.1	17.1	8.1 8.1	8.1	29.2 29.2 29.2	29.2	95.4 95.4	95.4	7.7 7.7	7.7	7.8	1.1	1.1	1.8	5.4	4.7
				Bottom	8	16.9 16.9	16.9	8.0 8.0	8.0	29.7 29.6	29.7	77.9 76.9	77.4	6.3 6.2	6.3	6.3	3.3 3.3	3.3		6.1	
				Surface	1	16.8 16.9	16.9	8.1 8.1	8.1	32.3 32.3	32.3	100.0 99.3	99.7	8.0 7.9	8.0		1.5 1.5	1.5		7.6	
11-Jan-14	Sunny	Calm	09:59	Middle	4.5	16.7 16.7	16.7	8.1 8.1	8.1	32.4 32.4	32.4	97.7 96.6	97.2	7.8 7.7	7.8	7.9	1.3	1.4	1.3	5.9	8.0
				Bottom	8	16.8 16.8	16.8	8.1 8.1	8.1	32.6 32.6	32.6	94.5 93.4	94.0	7.5 7.4	7.5	7.5	1.1	1.1		10.5	1
				Surface	1	17.0 17.0	17.0	8.2 8.2	8.2	31.6 31.6	31.6	98.5 97.7	98.1	7.9 7.8	7.9		1.3 1.3	1.3		9.2	
13-Jan-14	Sunny	Calm	10:13	Middle	4.5	16.9 16.9	16.9	8.1 8.1	8.1	32.1 32.0	32.1	91.8 89.9	90.9	7.3 7.2	7.3	7.6	1.3 1.1	1.2	1.8	12.3	9.5
				Bottom	8	17.0 17.0	17.0	8.0 8.0	8.0	32.5 32.6	32.6	78.3 77.6	78.0	6.2 6.2	6.2	6.2	2.7 2.8	2.8		7.1	
				Surface	1	16.4 16.5	16.5	8.2 8.2	8.2	32.1 32.1	32.1	95.2 96.3	95.8	7.7 7.8	7.8	7.9	0.9 0.9	0.9		4.6	
16-Jan-14	Sunny	Calm	12:54	Middle	4.5	16.5 16.5	16.5	8.2 8.2	8.2	32.4 32.3	32.4	97.0 99.5	98.3	7.8 8.0	7.9	7.0	1.3 1.1	1.2	1.5	6.3	6.0
				Bottom	8	16.7 16.7	16.7	8.1 8.1	8.1	32.8 32.8	32.8	92.1 92.7	92.4	7.3 7.4	7.4	7.4	2.4 2.4	2.4		7.1	
				Surface	1	17.1 17.2	17.2	8.2 8.2	8.2	32.2 32.2	32.2	93.9 94.5	94.2	7.5 7.5	7.5	7.5	1.4 1.5	1.5		5.0	
18-Jan-14	Sunny	Calm	14:18	Middle	4.5	16.5 16.5	16.5	8.2 8.2	8.2	32.5 32.5	32.5	93.9 93.8	93.9	7.5 7.5	7.5	7.5	1.4 1.4	1.4	2.4	2.8	3.9
				Bottom	8	16.7 16.7	16.7	8.1 8.1	8.1	32.9 32.9	32.9	84.9 84.2	84.6	6.8 6.7	6.8	6.8	4.1 4.3	4.2		3.8	
				Surface	1	16.7 16.7	16.7	8.2 8.2	8.2	32.6 32.6	32.6	86.8 83.9	85.4	6.9 6.7	6.8	6.8	1.4 1.3	1.4		5.7	
21-Jan-14	Sunny	Calm	15:38	Middle	4.5	16.5 16.5	16.5	8.2 8.2	8.2	32.8 32.7	32.8	85.4 84.0	84.7	6.8	6.8		2.2	2.2	2.2	7.6	6.9
				Bottom	8	16.7 16.7	16.7	8.1 8.1	8.1	32.9 32.9	32.9	83.7 82.6	83.2	6.7 6.6	6.7	6.7	2.9 3.1	3.0		7.4	
				Surface	1	16.4 16.4	16.4	8.2 8.2	8.2	32.0 32.0	32.0	87.1 87.4	87.3	7.0 7.0	7.0	7.1	1.0	1.1		11.4	.4
23-Jan-14	Cloudy	Calm	16:33	Middle	4.5	16.1 16.2	16.2	8.2 8.2	8.2	32.2 32.2	32.2	88.2 88.0	88.1	7.1 7.1	7.1		1.2 1.1	1.2	1.7	10.8	8.8
				Bottom	8	16.0 16.0	16.0	8.2 8.2	8.2	32.3 32.3	32.3	86.9 87.2	87.1	7.1 7.1	7.1	7.1	2.7 2.7	2.7		4.3	

Remarks: *DA: Depth-Averaged

Water Quality Monitoring Results at F4 - Mid-Ebb Tide

Date	Weather	Sea	Sampling	Dent	Depth (m)		ature (°C)	ŗ	Н	Salir	nity ppt	DO Satu	ration (%)	Dissol	ved Oxygen	(mg/L)	Turbidity(NTU)			Suspended Solids (mg/L)					
Date	Condition	Condition**	Time	БСРІ	(111)	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	DA*				
				Surface	1	16.4 16.4	16.4	7.8 7.8	7.8	31.4 31.4	31.4	90.7 91.0	90.9	7.3 7.4	7.4	7.4	0.9 0.9	0.9		11.3					
25-Jan-14	Sunny	Calm 08:17	08:17	Middle	4.5	16.4 16.4	16.4	7.8 7.8	7.8	31.6 31.6	31.6	90.9 90.8	90.9	7.3 7.3	7.3	7.4	0.1 0.1	0.1	0.9	8.4	9.9				
				Bottom	8	16.1 16.1	16.1	7.8 7.8	7.8	31.9 31.9	31.9	85.2 84.3	84.8	6.9 6.8	6.9	6.9	1.8 1.8	1.8		10.1					
			Calm 09:58					Surface	1	16.8 16.8	16.8	7.6 7.6	7.6	31.5 31.5	31.5	102.1 102.4	102.3	8.2 8.2	8.2	8.3	0.9 1.1	1.0		4.3	
27-Jan-14	Sunny	Calm 09:58		Middle	4.5	16.7 16.7	16.7	7.6 7.6	7.6	31.6 31.6	31.6	102.7 102.5	102.6	8.3 8.2	8.3	0.3	1.0 0.9	1.0	1.0	6.7	5.1				
								Bottom	8	16.4 16.4	16.4	7.6 7.6	7.6	31.8 31.8	31.8	99.2 99.2	99.2	8.0 8.0	8.0	8.0	0.9 0.9	0.9		4.3	
				Surface	1	17.9 18.3	18.1	7.6 7.6	7.6	31.5 31.4	31.5	104.8 105.3	105.1	8.2 8.2	8.2	8.2	1.2 1.3	1.3		12.4					
29-Jan-14	Sunny	Calm	12:32	12:32	Middle	4.5	16.8 16.8	16.8	7.7 7.7	7.7	31.8 31.8	31.8	101.4 101.0	101.2	8.1 8.1	8.1	0.2	1.1 1.1	1.1	2.9	3.7	9.5			
				Bottom	8	16.4 16.4	16.4	7.7 7.7	7.7	31.9 31.9	31.9	84.8 84.0	84.4	6.8 6.8	6.8	6.8	6.2 6.3	6.3		12.4	2.4				

Water Quality Monitoring Results at F4 - Mid-Flood Tide

Date	Weather	Sea	Sampling	Dent	h (m)	Tempera	ature (°C)	ŗ	Н	Salin	ity ppt	DO Satu	ration (%)	Dissol	ved Oxygen	(mg/L)	-	Turbidity(NTL	J)	Suspended S	Solids (mg/L)
Date	Condition	Condition**	Time	Бері	.11 (111)	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	DA*
				Surface	1	17.1 17.1	17.1	8.2 8.1	8.2	32.3 32.3	32.3	100.9 101.2	101.1	8.0 8.0	8.0		1.2 1.0	1.1		12.4	
7-Jan-14	Cloudy	Calm	12:32	Middle	4.5	17.1 17.1	17.1	8.1 8.1	8.1	32.4 32.4	32.4	100.6 100.4	100.5	8.0 8.0	8.0	8.0	0.8 0.7	0.8	1.5	9.0	9.6
				Bottom	8	17.4 17.4	17.4	7.9 7.9	7.9	32.9 32.9	32.9	68.2 66.8	67.5	5.4 5.3	5.4	5.4	2.3 2.8	2.6		7.4	
				Surface	1	17.1 17.1	17.1	8.1 8.1	8.1	32.3 32.3	32.3	96.4 96.8	96.6	7.6 7.7	7.7		1.4 1.3	1.4		4.9	
9-Jan-14	Cloudy	Calm	13:11	Middle	4.5	17.1 17.1	17.1	8.1 8.1	8.1	32.3 32.3	32.3	96.5 96.3	96.4	7.7 7.6	7.7	7.7	1.2 1.3	1.3	2.7	5.9	7.3
				Bottom	8	17.0 17.0	17.0	8.0 8.0	8.0	32.9 32.9	32.9	69.3 68.8	69.1	5.5 5.5	5.5	5.5	5.4 5.1	5.3		11.0	
				Surface	1	17.5 17.5	17.5	8.1 8.1	8.1	32.0 32.0	32.0	107.2 106.8	107.0	8.5 8.4	8.5	8.2	1.4 1.5	1.5		4.2	
11-Jan-14	Sunny	Calm	14:16	Middle	4.5	16.9 16.8	16.9	8.1 8.1	8.1	32.3 32.2	32.3	97.9 97.1	97.5	7.8 7.8	7.8	0.2	1.1 0.9	1.0	2.0	4.1	4.7
				Bottom	8	17.1 17.1	17.1	8.0 8.0	8.0	32.4 32.4	32.4	88.9 87.1	88.0	7.1 6.9	7.0	7.0	3.7 3.5	3.6		5.9	
				Surface	1	17.1 17.1	17.1	8.2 8.2	8.2	32.4 32.4	32.4	99.7 98.1	98.9	7.9 7.8	7.9	7.8	1.3 1.3	1.3		4.2	
13-Jan-14	Sunny	Calm	17:09	Middle	5	17.0 17.0	17.0	8.2 8.2	8.2	32.5 32.5	32.5	96.2 97.0	96.6	7.6 7.7	7.7		1.9 1.9	1.9	1.7	4.1	5.6
				Bottom	9	16.8 16.8	16.8	8.0 8.0	8.0	33.1 33.1	33.1	77.4 77.5	77.5	6.2 6.2	6.2	6.2	1.6 2.0	1.8		8.4	
				Surface	1	16.7 16.7	16.7	8.2 8.2	8.2	32.3 32.3	32.3	90.0 90.5	90.3	7.2 7.2	7.2	7.3	1.4 1.3	1.4		5.3	
16-Jan-14	Fine	Calm	18:26	Middle	5	16.5 16.5	16.5	8.2 8.2	8.2	32.5 32.5	32.5	91.1 91.0	91.1	7.3 7.3	7.3		1.4 1.5	1.5	1.9	4.4	6.0
				Bottom	9	16.6 16.6	16.6	8.1 8.1	8.1	33.0 33.0	33.0	83.8 82.6	83.2	6.7 6.6	6.7	6.7	2.7 2.7	2.7		8.2	
				Surface	1	16.7 16.7	16.7	8.2 8.2	8.2	32.2 32.1	32.2	92.6 93.2	92.9	7.4 7.5	7.5	7.5	1.3 1.5	1.4		8.1	
18-Jan-14	Sunny	Calm	09:27	Middle	4.5	16.5 16.5	16.5	8.2 8.2	8.2	32.4 32.3	32.4	91.6 92.9	92.3	7.4 7.5	7.5		0.9 1.1	1.0	2.5	6.2	7.3
				Bottom	8	16.5 16.5	16.5	8.1 8.1	8.1	32.9 32.9	32.9	81.8 81.9	81.9	6.6 6.6	6.6	6.6	4.6 5.4	5.0		7.7	
				Surface	1	16.5 16.5	16.5	8.2 8.2	8.2	32.3 32.3	32.3	88.0 87.0	87.5	7.1 7.0	7.1	7.1	0.6 0.6	0.6		4.2	
21-Jan-14	Sunny	Moderate	10:29	Middle	4.5	16.5 16.4	16.5	8.2 8.2	8.2	32.4 32.3	32.4	87.9 87.9	87.9	7.1 7.1	7.1		0.8	0.8	1.6	6.5	4.5
				Bottom	8	16.7 16.6	16.7	8.1 8.1	8.1	32.7 32.5	32.6	85.9 86.8	86.4	6.9 6.9	6.9	6.9	3.3 3.4	3.4		2.7	
				Surface	1	16.3 16.3	16.3	8.2 8.2	8.2	32.2 32.2	32.2	86.2 87.7	87.0	7.0 7.1	7.1	7.1	1.2	1.2		11.4	
23-Jan-14	Cloudy	Calm	12:47	Middle	5	16.2 16.2	16.2	8.2 8.2	8.2	32.4 32.4	32.4	87.1 88.0	87.6	7.0 7.1	7.1		1.2	1.3	1.5	14.6	10.7
				Bottom	9	15.9 16.0	16.0	8.2 8.2	8.2	32.5 32.5	32.5	86.7 87.2	87.0	7.0 7.1	7.1	7.1	2.0 2.1	2.1		6.1	

Remarks: *DA: Depth-Averaged

Water Quality Monitoring Results at F4 - Mid-Flood Tide

Date	Weather	Sea	Sampling	Dent	th (m)	Tempera	nture (°C)	ŗ	Н	Salir	ity ppt	DO Satu	ration (%)	Dissol	ved Oxygen	(mg/L)		Turbidity(NTL)	Suspended	Solids (mg/L)
Date	Condition	Condition**	Time	БСРІ	(111)	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	DA*
				Surface	1	17.1 17.1	17.1	7.8 7.8	7.8	31.4 31.4	31.4	98.9 98.9	98.9	7.9 7.9	7.9	7.9	0.5 0.4	0.5		10.5	
25-Jan-14	Sunny	Calm	14:13	Middle	4.5	16.4 16.4	16.4	7.8 7.8	7.8	31.7 31.7	31.7	98.2 97.4	97.8	7.9 7.9	7.9	7.9	0.5 0.5	0.5	0.6	7.8	10.8
				Bottom	8	16.1 16.1	16.1	7.8 7.8	7.8	31.9 31.9	31.9	93.7 92.6	93.2	7.6 7.5	7.6	7.6	0.8 0.8	0.8		14.0	
				Surface	1	17.8 17.8	17.8	7.8 7.8	7.8	31.5 31.5	31.5	105.6 106.6	106.1	8.3 8.4	8.4	8.5	0.9 0.9	0.9		6.4	
27-Jan-14	Sunny	Calm	15:17	Middle	4.5	16.7 16.7	16.7	7.8 7.8	7.8	31.7 31.7	31.7	105.6 105.1	105.4	8.5 8.4	8.5	0.5	0.9 0.8	0.9	1.0	3.4	4.1
				Bottom	8	16.4 16.4	16.4	7.9 7.9	7.9	31.9 31.9	31.9	102.7 101.1	101.9	8.3 8.2	8.3	8.3	1.2 1.2	1.2		2.6	
				Surface	1	18.2 18.2	18.2	7.7 7.7	7.7	31.5 31.5	31.5	103.1 103.4	103.3	8.1 8.1	8.1	8.1	1.2 1.2	1.2		6.5	
29-Jan-14	Fine	Calm	17:32	Middle	5	17.0 17.0	17.0	7.8 7.8	7.8	31.8 31.8	31.8	100.9 100.8	100.9	8.1 8.0	8.1	0.1	1.0 1.0	1.0	2.5	3.3	6.2
				Bottom	9	16.4 16.4	16.4	7.8 7.8	7.8	31.9 31.9	31.9	86.5 85.8	86.2	7.0 6.9	7.0	7.0	5.1 5.4	5.3		8.7	

Water Quality Monitoring Results at F5 - Mid-Ebb Tide

Date	Weather	Sea	Sampling	Dent	h (m)	Tempera	ature (°C)	р	Н	Salin	ity ppt	DO Satu	ration (%)	Dissol	ved Oxygen	(mg/L)	-	Turbidity(NTL	J)	Suspended S	Solids (mg/L)
Date	Condition	Condition**	Time	Бері	11 (111)	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	DA*
				Surface	1	17.4 17.4	17.4	8.1 8.1	8.1	31.6 31.6	31.6	106.1 106.3	106.2	8.4 8.4	8.4		0.9 1.0	1.0		6.3	
7-Jan-14	Cloudy	Calm	16:34	Middle	3.5	17.2 17.2	17.2	8.1 8.1	8.1	31.8 31.8	31.8	105.7 105.2	105.5	8.4 8.4	8.4	8.4	1.3	1.4	1.6	12.3	9.9
				Bottom	6	17.4 17.4	17.4	8.0 8.0	8.0	32.2 32.2	32.2	84.2 83.8	84.0	6.7 6.6	6.7	6.7	2.3 2.6	2.5		11.1	
				Surface	1	17.2 17.2	17.2	8.0 8.1	8.1	28.1 28.2	28.2	97.8 97.3	97.6	8.0 7.9	8.0	7.5	1.1 1.2	1.2		6.0	
9-Jan-14	Cloudy	Calm	06:47	Middle	3	17.4 17.4	17.4	8.0 8.0	8.0	28.5 28.5	28.5	86.9 86.7	86.8	7.0 7.0	7.0	7.5	1.7 1.7	1.7	1.8	6.7	6.5
				Bottom	5	17.2 17.2	17.2	8.0 8.0	8.0	28.9 28.9	28.9	76.5 76.1	76.3	6.2 6.2	6.2	6.2	2.4 2.5	2.5		6.9	
				Surface	1	16.6 16.7	16.7	8.0 8.0	8.0	31.9 31.9	31.9	94.2 93.3	93.8	7.6 7.5	7.6	7.6	1.3 1.3	1.3		11.4	
11-Jan-14	Sunny	Calm	08:24	Middle	3.5	16.7 16.7	16.7	8.1 8.1	8.1	32.0 32.0	32.0	94.6 95.1	94.9	7.6 7.6	7.6	7.0	1.7 1.7	1.7	1.5	8.4	8.3
				Bottom	6	16.8 16.8	16.8	8.0 8.0	8.0	32.1 32.1	32.1	93.6 92.4	93.0	7.5 7.4	7.5	7.5	1.5 1.6	1.6		5.1	
				Surface	1	17.3 17.3	17.3	8.1 8.1	8.1	32.5 32.5	32.5	93.8 92.4	93.1	7.4 7.3	7.4	7.3	1.9 2.3	2.1		9.5	
13-Jan-14	Sunny	Calm	12:11	Middle	3.5	17.1 17.1	17.1	8.1 8.1	8.1	32.6 32.6	32.6	90.1 90.8	90.5	7.1 7.2	7.2	7.5	1.5 1.7	1.6	2.0	11.3	10.0
				Bottom	6	17.0 17.0	17.0	8.1 8.1	8.1	32.9 32.8	32.9	83.0 81.6	82.3	6.6 6.5	6.6	6.6	2.3 2.5	2.4		9.3	
				Surface	1	16.9 17.0	17.0	8.1 8.1	8.1	32.1 32.1	32.1	80.4 82.6	81.5	6.4 6.6	6.5	6.6	1.2 1.2	1.2		9.3	
16-Jan-14	Sunny	Calm	12:04	Middle	3.5	16.7 16.7	16.7	8.1 8.1	8.1	32.1 32.2	32.2	81.5 82.1	81.8	6.5 6.6	6.6	0.0	1.7 1.9	1.8	2.1	7.6	7.9
				Bottom	6	16.6 16.6	16.6	8.1 8.1	8.1	32.2 32.2	32.2	81.1 81.7	81.4	6.5 6.6	6.6	6.6	3.0 3.5	3.3		6.8	
				Surface	1	17.2 17.2	17.2	8.1 8.1	8.1	32.0 32.1	32.1	85.3 84.1	84.7	6.8 6.7	6.8	6.7	1.6 1.6	1.6		14.1	
18-Jan-14	Sunny	Calm	13:00	Middle	3.5	16.9 16.8	16.9	8.1 8.1	8.1	32.1 32.1	32.1	83.2 82.5	82.9	6.6 6.6	6.6	0.7	2.0 2.3	2.2	2.1	6.1	8.7
				Bottom	6	16.7 16.7	16.7	8.1 8.1	8.1	32.1 32.1	32.1	83.1 83.0	83.1	6.7 6.7	6.7	6.7	2.5 2.6	2.6		5.9	
				Surface	1	16.8 16.8	16.8	8.1 8.1	8.1	32.7 32.7	32.7	89.0 87.0	88.0	7.1 6.9	7.0	7.1	1.4 1.4	1.4		6.5	
21-Jan-14	Sunny	Calm	14:56	Middle	3.5	16.6 16.6	16.6	8.1 8.1	8.1	32.7 32.7	32.7	88.5 87.2	87.9	7.1 7.0	7.1		1.5 1.5	1.5	2.1	8.9	7.3
				Bottom	6	16.4 16.4	16.4	8.1 8.1	8.1	32.7 32.7	32.7	88.2 90.3	89.3	7.1 7.3	7.2	7.2	3.4 3.2	3.3		6.4	
				Surface	1	16.2 16.2	16.2	8.1 8.2	8.2	32.6 32.6	32.6	83.8 85.5	84.7	6.8 6.9	6.9	7.0	1.2 1.3	1.3		10.5	
23-Jan-14	Cloudy	Calm	17:31	Middle	3.5	16.2 16.2	16.2	8.2 8.2	8.2	32.6 32.6	32.6	85.0 86.5	85.8	6.9 7.0	7.0		1.0 1.1	1.1	1.7	11.0	10.7
				Bottom	6	16.0 16.1	16.1	8.2 8.2	8.2	32.6 32.6	32.6	85.7 86.6	86.2	6.9 7.0	7.0	7.0	2.8 2.5	2.7		10.5	

Remarks: *DA: Depth-Averaged

Water Quality Monitoring Results at F5 - Mid-Ebb Tide

Date	Weather	Sea	Sampling	Dent	h (m)	Tempera	ature (°C)	p	Н	Salir	ity ppt	DO Satu	ration (%)	Dissol	ved Oxygen	(mg/L)		Turbidity(NTL	1)	Suspended 9	Solids (mg/L)
Date	Condition	Condition**	Time	Бері	.11 (111)	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	DA*
				Surface	1	16.6 16.6	16.6	7.1 7.1	7.1	31.6 31.6	31.6	85.3 84.8	85.1	6.9 6.8	6.9	6.9	0.8 0.8	0.8		4.4	
25-Jan-14	Sunny	Calm	07:20	Middle	3.5	16.4 16.4	16.4	7.1 7.1	7.1	31.7 31.7	31.7	85.5 85.8	85.7	6.9 6.9	6.9	0.9	0.6 0.6	0.6	1.3	4.1	6.3
				Bottom	6	16.2 16.2	16.2	7.1 7.1	7.1	31.7 31.7	31.7	84.2 82.7	83.5	6.8 6.7	6.8	6.8	2.5 2.5	2.5		10.3	
				Surface	1	17.5 17.6	17.6	6.8 6.8	6.8	31.6 31.6	31.6	95.6 94.6	95.1	7.6 7.5	7.6	7.7	1.5 1.6	1.6		9.6	
27-Jan-14	Sunny	Calm	09:15	Middle	3.5	17.2 17.2	17.2	6.9 6.9	6.9	31.7 31.7	31.7	94.9 97.0	96.0	7.6 7.7	7.7	1.1	1.0 1.0	1.0	1.4	11.0	9.7
				Bottom	6	17.0 17.0	17.0	6.9 6.9	6.9	31.7 31.7	31.7	98.2 98.3	98.3	7.8 7.9	7.9	7.9	1.4 1.6	1.5		8.4	
				Surface	1	17.8 17.9	17.9	7.1 7.2	7.2	31.6 31.6	31.6	95.1 92.6	93.9	7.5 7.3	7.4	7.5	1.5 1.4	1.5		6.6	
29-Jan-14	Sunny	Calm	11:33	Middle	3.5	17.5 17.5	17.5	7.2 7.2	7.2	31.7 31.7	31.7	94.2 93.3	93.8	7.5 7.4	7.5	7.5	1.8 1.8	1.8	2.1	6.5	7.3
				Bottom	6	16.9 16.9	16.9	7.3 7.3	7.3	31.8 31.8	31.8	93.5 93.0	93.3	7.5 7.4	7.5	7.5	2.9 2.8	2.9		8.8	

Water Quality Monitoring Results at F5 - Mid-Flood Tide

Date	Weather	Sea	Sampling	Dent	h (m)	Tempera	iture (°C)	р	Н	Salini	ty ppt	DO Satu	ration (%)	Dissol	ved Oxygen	(mg/L)		Turbidity(NTL	J)	Suspended S	Solids (mg/L)
Date	Condition	Condition**	Time	Бері	.11 (111)	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	DA*
				Surface	1	17.2 17.2	17.2	8.1 8.0	8.1	31.2 31.2	31.2	102.6 102.9	102.8	8.2 8.2	8.2		0.8 0.8	0.8		7.3	
7-Jan-14	Cloudy	Calm	10:56	Middle	3.5	17.2 17.2	17.2	8.1 8.0	8.1	31.4 31.4	31.4	101.1 101.0	101.1	8.1 8.1	8.1	8.2	1.7 1.4	1.6	1.3	10.1	9.8
				Bottom	6	17.4 17.4	17.4	8.0 8.0	8.0	31.8 31.8	31.8	93.6 93.3	93.5	7.4 7.4	7.4	7.4	1.6 1.4	1.5		11.9	
				Surface	1	17.2 17.2	17.2	8.1 8.1	8.1	32.0 32.0	32.0	99.9 99.7	99.8	7.9 7.9	7.9		1.9	1.9		7.2	
9-Jan-14	Cloudy	Calm	12:29	Middle	3.5	17.2 17.3 17.2	17.3	8.1 8.1	8.1	32.1 32.1	32.1	98.3 98.0	98.2	7.8 7.8	7.8	7.9	1.3	1.2	1.6	8.9	8.3
				Bottom	6	17.2 17.3	17.3	8.0 8.0	8.0	32.5 32.5	32.5	76.7 75.8	76.3	6.1 6.0	6.1	6.1	1.6 1.6	1.6		8.8	
				Surface	1	17.3 17.3	17.3	8.1 8.1	8.1	32.4 32.4	32.4	107.4 106.8	107.1	8.5 8.4	8.5		0.8 1.0	0.9		6.2	
11-Jan-14	Sunny	Calm	15:41	Middle	3.5	17.0 17.0	17.0	8.1 8.1	8.1	32.4 32.4	32.4	107.0 107.2	107.1	8.5 8.5	8.5	8.5	1.1	1.2	1.6	9.9	7.7
				Bottom	6	16.9 16.9	16.9	8.1 8.1	8.1	32.6 32.6	32.6	98.0 96.6	97.3	7.8 7.7	7.8	7.8	2.8 2.6	2.7		7.1	
				Surface	1	17.2 17.2	17.2	8.1 8.1	8.1	32.5 32.5	32.5	89.6 86.0	87.8	7.1 6.8	7.0	7.0	1.5 1.5	1.5		6.0	
13-Jan-14	Sunny	Calm	16:09	Middle	4	17.2 17.2	17.2	8.1 8.1	8.1	32.5 32.5	32.5	89.2 86.9	88.1	7.1 6.9	7.0	7.0	1.4 1.2	1.3	1.9	12.1	8.5
				Bottom	7	17.0 17.1	17.1	8.1 8.1	8.1	32.8 32.7	32.8	83.6 84.3	84.0	6.6 6.7	6.7	6.7	2.7 2.9	2.8		7.3	
				Surface	1	17.1 17.1	17.1	8.1 8.1	8.1	32.4 32.4	32.4	66.3 64.8	65.6	5.3 5.1	5.2	5.3	1.7 1.8	1.8		8.0	
16-Jan-14	Fine	Calm	17:35	Middle	4	16.8 16.8	16.8	8.1 8.1	8.1	32.4 32.4	32.4	67.3 66.0	66.7	5.4 5.3	5.4	5.5	1.6 1.4	1.5	1.9	5.8	6.0
				Bottom	7	16.7 16.7	16.7	8.1 8.1	8.1	32.5 32.5	32.5	66.4 63.7	65.1	5.3 5.1	5.2	5.2	2.6 2.3	2.5		4.3	
				Surface	1	16.8 16.9	16.9	8.1 8.1	8.1	31.9 31.9	31.9	80.4 78.2	79.3	6.4 6.3	6.4	6.4	1.0 0.9	1.0		4.0	
18-Jan-14	Sunny	Calm	08:32	Middle	3.5	16.8 16.8	16.8	8.1 8.1	8.1	32.0 32.0	32.0	78.7 77.3	78.0	6.3 6.2	6.3	0.4	2.5 2.5	2.5	3.6	10.4	9.4
				Bottom	6	16.9 16.9	16.9	8.0 8.0	8.0	32.0 32.0	32.0	75.0 73.5	74.3	6.0 5.9	6.0	6.0	6.6 7.7	7.2		13.8	
				Surface	1	16.5 16.5	16.5	8.1 8.1	8.1	32.1 32.1	32.1	93.1 93.0	93.1	7.5 7.5	7.5	7.5	1.3 1.1	1.2		4.2	
21-Jan-14	Sunny	Moderate	09:30	Middle	4	16.5 16.5	16.5	8.1 8.1	8.1	32.1 32.1	32.1	92.9 93.0	93.0	7.5 7.5	7.5	-	1.0 1.1	1.1	1.3	16.8	10.9
				Bottom	7	16.4 16.4	16.4	8.1 8.1	8.1	32.1 32.1	32.1	95.6 95.6	95.6	7.7 7.7	7.7	7.7	1.8 1.6	1.7		11.8	
				Surface	1	16.1 16.1	16.1	8.1 8.1	8.1	31.9 32.0	32.0	86.6 87.5	87.1	7.0 7.1	7.1	7.1	1.0 1.2	1.1		6.6	
23-Jan-14	Cloudy	Calm	11:52	Middle	3.5	15.9 15.9	15.9	8.2 8.2	8.2	32.0 32.0	32.0	87.3 87.6	87.5	7.1 7.1	7.1		1.2 1.1	1.2	1.3	9.0	9.3
				Bottom	6	15.8 15.8	15.8	8.2 8.2	8.2	32.0 32.0	32.0	88.0 87.4	87.7	7.2 7.1	7.2	7.2	1.6 1.3	1.5		12.4	

Remarks: *DA: Depth-Averaged

Water Quality Monitoring Results at F5 - Mid-Flood Tide

Date	Weather	Sea	Sampling	Dent	th (m)	Tempera	ature (°C)	p	Н	Salir	ity ppt	DO Satu	ration (%)	Disso	ved Oxygen	(mg/L)	7	Turbidity(NTL	1)	Suspended 9	Solids (mg/L)
Date	Condition	Condition**	Time	БСРІ	ui (iii)	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	DA*
				Surface	1	17.1 17.0	17.1	7.0 7.1	7.1	31.6 31.6	31.6	87.0 86.9	87.0	6.9 6.9	6.9	7.0	0.7 0.8	0.8		5.0	
25-Jan-14	Sunny	Calm	12:58	Middle	3	16.4 16.4	16.4	7.1 7.1	7.1	31.7 31.7	31.7	87.9 88.2	88.1	7.1 7.1	7.1	7.0	0.6 0.6	0.6	0.7	8.9	8.1
				Bottom	5	16.3 16.3	16.3	7.2 7.2	7.2	31.7 31.7	31.7	88.5 88.6	88.6	7.2 7.2	7.2	7.2	0.7 0.7	0.7		10.5	
				Surface	1	18.1 18.1	18.1	7.3 7.3	7.3	31.7 31.7	31.7	98.8 97.2	98.0	7.7 7.6	7.7	7.7	1.2 1.0	1.1		12.8	
27-Jan-14	Sunny	Calm	14:34	Middle	3.5	17.4 17.4	17.4	7.4 7.4	7.4	31.7 31.7	31.7	97.4 97.5	97.5	7.7 7.7	7.7	1.1	1.3 1.2	1.3	1.4	7.4	9.7
				Bottom	6	17.0 17.0	17.0	7.5 7.5	7.5	31.8 31.8	31.8	97.0 96.1	96.6	7.7 7.7	7.7	7.7	1.9 1.9	1.9		8.8	
				Surface	1	18.4 18.4	18.4	6.7 6.9	6.8	31.5 31.5	31.5	95.1 94.5	94.8	7.4 7.4	7.4	7.5	1.4 1.4	1.4		4.4	
29-Jan-14	Fine	Calm	16:38	Middle	4	17.9 17.8	17.9	6.7 6.9	6.8	31.7 31.7	31.7	95.8 94.8	95.3	7.5 7.5	7.5	7.5	1.8 1.8	1.8	2.1	6.7	5.2
				Bottom	7	17.0 17.0	17.0	7.0 7.0	7.0	31.8 31.8	31.8	88.9 88.4	88.7	7.1 7.1	7.1	7.1	3.2 3.2	3.2		4.5	

Water Quality Monitoring Results at F6 - Mid-Ebb Tide

Condition Cond	Date	Weather	Sea	Sampling	Dent	h (m)	Tempera	ture (°C)	р	Н	Salin	ity ppt	DO Satu	ration (%)	Dissol	ved Oxygen	(mg/L)		Turbidity(NTL	J)	Suspended S	Solids (mg/L)
Pain	Date	Condition	Condition**	Time	БСРІ	()	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	DA*
Table Course Co					Surface	1		17.2		8.2		32.5		103.2		8.2			1.5		10.3	
Surface Couly Caim Part Couly Part Couly Caim Part Couly Part	7-Jan-14	Cloudy	Calm	17:37	Middle	5	17.1	17.1	8.1	8.1	32.6	32.6	103.0	103.0	8.2	8.2	8.2	1.2	1.2	2.0	10.0	10.2
Sum Part P					Bottom	9	16.9	17.0	8.1	8.1	32.8	32.8	87.6	87.4	7.0	7.0	7.0	3.5	3.4		10.3	
Summary Calimary					Surface	1	17.0	17.0	8.1	8.1	29.3	29.3	99.0	99.1	8.0	8.0		1.0	1.1		9.5	
Betton 9 16.9 16.9 16.9 8.0 8.0 8.0 29.5 29.6 86.4 86.3 7.0 7.0 7.0 7.7 1.7 1.7 7.6	9-Jan-14	Cloudy	Calm	07:38	Middle	5	17.2	17.2	8.1	8.1	29.3	29.4	97.2	97.6	7.9	7.9	8.0	1.2	1.3	1.4	10.9	9.3
11-Jan-14 Sunny Calm Og-39 Middle 5 16.9 16.9 8.1 8.1 32.6 32.6 94.2 94.4 7.5 7.5 7.5 1.1 1.1 1.1 1.2 1.8 6.9 7.1		,			Bottom	9	16.9	16.9	8.0	8.0	29.5	29.6	86.4	86.3	7.0	7.0	7.0	1.7	1.7		7.6	
Surface 1 16.9 10.9 8.1 8.1 32.6 32					Bottom	Ů		10.0		0.0		20.0		00.0		7.0						
11-Jan-14 Sunny Calm 08:39 Middle 5 16.8 16.8 8.1 8.1 32.6 32.6 34.2 94.4 7.5 7.5 1.2 1.2 1.8 6.9 7.1					Surface	1		16.9		8.1		32.6		93.9		7.5	7.5		1.1		6.2	
Suny Calm	11-Jan-14	Sunny	Calm	09:39	Middle	5		16.8		8.1		32.6		94.4		7.5	7.5		1.2	1.8	6.9	7.1
13-Jan-14 Sunny Calm 10.57 Middle 5 16.8 6.8 6.2 6.2 32.6 32.7 90.1 88.6 6.9 7.1 7.2 7.1					Bottom	9		17.0		8.0		32.8		81.6		6.5	6.5		3.0		8.1	
13-Jan-14 Sunny Calm 10.57 Middle 5 16.8 8.1 16.8 8.1 8.1 32.7 90.1 88.6 6.9 7.2 7.1 1.2 1.3 1.3 1.3 2.8 5.9 8.5 8.1 8.1 32.6 32.7 90.1 88.6 7.2 7.1 1.2 1.3 1.3 1.3 2.8 5.9 8.5 8.1 8.1 32.8 32.9 75.3 74.4 6.0 6.0 6.0 6.0 6.4 5.9 1.3 1.3 1.3 2.8 5.9 8.5 8.1 8.1 32.9 32.9 75.3 74.4 6.0 6.0 6.0 6.0 6.4 5.9 1.3 1.3 1.3 2.8 5.9 8.1 8.1 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1					Surface	1		16.8		8.2		32.6		90.4		7.3			1.1		11.5	
Bottom 9 16.8 16.8 8.1 8.1 32.9 32.9 75.3 74.4 6.0 6.0 6.0 6.4 5.9 8.1	13-Jan-14	Sunny	Calm	10:57	Middle	5	16.8	16.8	8.1	8.1	32.7	32.7	87.0	88.6	6.9	7.1	7.2	1.3	1.3	2.8	5.9	8.5
16-Jan-14 Sunny Calm 12:41 Sunny Calm 14:04 Sunny Calm 15:27 Surface 1 16.5 6.5 6.5 8.2 8.2 32.8					Bottom	9	16.8	16.8	8.0	8.1	32.9	32.9	75.3	74.4	6.0	6.0	6.0	6.4	5.9		8.1	
16-Jan-14 Sunny Calm 12:41 Middle 5 16.6 16.6 8.2 32.7 32.7 91.8 92.7 7.3 7.4 7.1 1.2 1.3 1.5 8.0 7.5					Surface	1	16.9	16.9	8.2	8.2	32.6	32.6	90.5	91.2	7.2	7.3		1.1	1.0		5.1	
Bottom 9 16.5 16.5 8.1 8.1 32.8 32.8 86.9 87.9 7.0 7.1 7.1 7.1 2.0 2.1 9.4	16-Jan-14	Sunny	Calm	12:41	Middle	5	16.6	16.6	8.2	8.2	32.7	32.7	91.8	92.7	7.3	7.4	7.4	1.2	1.3	1.5	8.0	7.5
18-Jan-14 Sunny Calm 14:04 Surface 1 16:5 16:5 16:5 8.2 8.2 32.7 32.7 39.4 89.4 7.1 7.1 7.1 7.1 7.1 7.2 1.3 1.3 4.9	10 00.11	Cumy	ou														7 1					7.10
18-Jan-14 Sunny Calm 14:04 Middle 5 16.5 16.5 8.2 8.2 32.7 32.7 32.7 90.3 90.2 7.2 7.2 7.2 1.3 1.3 1.3 1.4 1.4 1.4 1.4 5.7 5.6 16.5 8.2 8.2 32.8 32.9 32.9 32.9 32.9 88.5 88.9 7.1 7.1 7.1 7.1 1.3 1.5 1.5 5.6 16.5 8.2 8.2 32.9 32.9 32.9 32.9 32.9 32.9 32.9 32																	7.1				 	
18-Jan-14 Sunny Calm 14:04 Middle 5 16.5 16.5 8.2 8.2 32.7 32.7 90.1 90.2 7.2 7.2 7.2 1.4 1.4 1.4 1.4 1.5 5.6							16.7		8.2		32.7		89.4		7.1		7.2	1.3				
Surface 1 16.5 16.5 8.2 8.2 32.9 32.9 88.5 88.9 7.1 7.1 7.1 1.6 1.5 5.6	18-Jan-14	Sunny	Calm	14:04	Middle		16.5	16.5	8.2		32.7		90.1		7.2	7.2		1.4		1.4		5.4
21-Jan-14 Sunny Calm 15:27 Middle 5 16.3 16.4 8.2 8.2 32.9 32.9 84.6 84.7 6.8 6.8 6.8 6.8 6.8 1.1 1.1 1.1 9.3 10.8 11.5 10.8 1					Bottom	9	16.5	16.5	8.2	8.2	32.9	32.9	88.5	88.9	7.1	7.1	7.1	1.6	1.5		5.6	
21-Jan-14 Sunny Calm 15:27 Middle 5 16.3 16.4 8.2 8.2 32.9 32.9 32.9 85.1 84.8 6.8 6.8 6.8 1.1 1.1 1.1 2.3 11.5 10.8 81.6 82 82 82 82 82 82 82 82 82 82 82 82 82					Surface	1	16.5	16.5	8.2	8.2	32.9	32.9		84.7	6.8	6.8	6.8	1.1	1.1		9.3	
Surface 1 16.2 16.2 8.2 8.2 32.5 32.5 88.9 89.6 7.2 7.3 7.3 1.4 1.5 7.5 8.9 8.2 8.2 32.5 32.5 88.9 89.6 7.2 7.3 7.3 1.4 1.4 1.5 7.5 8.9 8.2 8.2 8.2 32.5 32.5 32.5 88.9 89.6 7.2 7.3 7.3 1.4 1.5 7.5 8.9 8.9 8.2 8.2 32.5 32.5 32.5 88.9 89.6 7.2 7.3 7.3 1.4 1.5 7.5 8.9 8.9 8.9 8.9 8.9 8.9 8.9 8.9 8.9 8.9	21-Jan-14	Sunny	Calm	15:27	Middle	5		16.4		8.2		32.9		84.8		6.8	0.0		1.1	2.3	11.5	10.8
23-Jan-14 Cloudy Calm 16:47 Middle 4.5 15.9 15.9 8.2 8.2 8.2 32.5 32.5 32.5 88.9 90.2 89.6 7.2 7.3 7.3 1.8 1.8 8.5 8.9 8.9 8.9 8.9 8.9 8.9 8.9 8.9 8.9 8.9					Bottom	9		16.3		8.2		33.0		84.3		6.8	6.8		4.6		11.6	
23-Jan-14 Cloudy Calm 16:47 Middle 4.5 15.9 15.9 8.2 8.2 32.5 32.5 88.9 89.6 7.2 7.3 7.3 1.3 1.4 1.5 7.5 8.9 8.1 8.9 8.2 8.2 32.5 32.5 32.5 89.1 89.7 7.2 7.3 7.3 1.2 1.3 1.4 1.5 7.5 8.9 8.9 8.9 8.9 8.9 8.9 8.9 8.9 8.9 8.9					Surface	1		16.2		8.2		32.4		88.8		7.2	7.0		1.8		8.5	
Bottom 8 15.9 15.9 8.2 8.2 32.5 32.6 89.1 89.7 7.2 7.3 7.3 1.2 1.3 10.7	23-Jan-14	Cloudy	Calm	16:47	Middle	4.5	15.9	15.9	8.2	8.2	32.5	32.5	88.9	89.6	7.2	7.3	7.3	1.3	1.4	1.5	7.5	8.9
					Bottom	8		15.9		8.2		32.6		89.7		7.3	7.3		1.3		10.7	

Remarks: *DA: Depth-Averaged

Water Quality Monitoring Results at F6 - Mid-Ebb Tide

Date	Weather	Sea	Sampling	Dent	th (m)	Tempera	ature (°C)	ŗ	Н	Salir	ity ppt	DO Satu	ration (%)	Dissol	ved Oxygen	(mg/L)	7	Turbidity(NTL	1)	Suspended 9	Solids (mg/L)
Date	Condition	Condition**	Time	Бері	ui (iii <i>)</i>	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	DA*
				Surface	1	16.3 16.3	16.3	7.7 7.7	7.7	31.7 31.7	31.7	88.5 88.9	88.7	7.2 7.2	7.2	7.2	0.5 0.5	0.5		10.5	
25-Jan-14	Sunny	Calm	08:04	Middle	5	16.2 16.2	16.2	7.7 7.7	7.7	31.7 31.8	31.8	87.4 87.0	87.2	7.1 7.1	7.1	1.2	0.9 0.9	0.9	1.5	6.7	8.2
				Bottom	9	15.9 15.9	15.9	7.7 7.7	7.7	32.0 32.0	32.0	84.4 83.6	84.0	6.9 6.8	6.9	6.9	3.0 2.9	3.0		7.4	
				Surface	1	16.9 16.9	16.9	7.5 7.5	7.5	31.7 31.7	31.7	100.1 99.8	100.0	8.0 8.0	8.0	8.0	1.1 1.0	1.1		8.5	
27-Jan-14	Sunny	Calm	09:47	Middle	5	16.7 16.7	16.7	7.5 7.5	7.5	31.8 31.8	31.8	100.0 99.5	99.8	8.0 8.0	8.0	6.0	0.9 0.9	0.9	1.4	4.6	10.4
				Bottom	9	16.3 16.3	16.3	7.5 7.5	7.5	31.9 31.9	31.9	95.4 93.6	94.5	7.7 7.6	7.7	7.7	2.3 2.3	2.3		18.0	
				Surface	1	17.4 17.6	17.5	7.6 7.6	7.6	31.7 31.7	31.7	99.6 98.8	99.2	7.9 7.8	7.9	8.0	1.5 1.5	1.5		7.7	
29-Jan-14	Sunny	Calm	12:18	Middle	4.5	16.8 17.0	16.9	7.6 7.6	7.6	31.8 31.8	31.8	99.3 99.5	99.4	8.0 7.9	8.0	0.0	1.4 1.3	1.4	1.8	4.7	8.1
				Bottom	8	16.4 16.4	16.4	7.7 7.6	7.7	32.0 31.9	32.0	93.9 93.9	93.9	7.6 7.6	7.6	7.6	2.6 2.1	2.4		11.8	

Water Quality Monitoring Results at F6 - Mid-Flood Tide

Date	Weather	Sea	Sampling	Dent	h (m)	Tempera	ature (°C)	ŗ	Н	Salir	ity ppt	DO Satu	ration (%)	Disso	lved Oxygen	(mg/L)		Turbidity(NTL	J)	Suspended S	Solids (mg/L)
Date	Condition	Condition**	Time	Бері	.11 (111)	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	DA*
				Surface	1	17.0 17.0	17.0	8.1 8.1	8.1	32.6 32.6	32.6	99.1 99.3	99.2	7.9 7.9	7.9	7.0	1.4 1.4	1.4		7.3	
7-Jan-14	Cloudy	Calm	12:16	Middle	5	16.9 16.9	16.9	8.1 8.1	8.1	32.8 32.8	32.8	92.1 91.7	91.9	7.3 7.3	7.3	7.6	1.4 1.5	1.5	1.6	8.6	7.6
				Bottom	9	16.8 16.8	16.8	8.0 8.0	8.0	32.9 32.9	32.9	83.9 83.7	83.8	6.7 6.7	6.7	6.7	1.9 1.6	1.8		6.9	
				Surface	1	17.0 17.0	17.0	8.2 8.2	8.2	32.4 32.4	32.4	100.2 100.5	100.4	8.0 8.0	8.0		0.5 0.5	0.5		9.7	
9-Jan-14	Cloudy	Calm	12:56	Middle	5	17.0	17.0	8.1	8.1	32.8	32.8	88.8	88.3	7.1	7.1	7.6	2.6	2.5	2.0	4.2	7.6
				Bottom	9	17.0 16.8	16.8	8.1	8.0	32.8 32.9	32.9	87.8 80.2	80.1	7.0 6.4	6.4	6.4	2.4	3.1		9.0	
		+		Surface	1	16.8 17.1	17.1	8.0 8.1	8.1	32.9 32.5	32.5	80.0 102.5	102.4	6.4 8.1	8.1	-	3.2 1.3	1.2		5.7	
				Ouriacc	'	17.1	17.1	8.1	0.1	32.5	32.3	102.3	102.4	8.1	0.1	7.8	1.1	1.2		5.7	
11-Jan-14	Sunny	Calm	14:35	Middle	5	16.9 16.8	16.9	8.1 8.1	8.1	32.5 32.6	32.6	93.9 94.3	94.1	7.5 7.5	7.5		1.2 1.1	1.2	2.0	8.4	8.5
				Bottom	9	16.7 16.7	16.7	8.0 8.0	8.0	32.8 32.8	32.8	93.7 92.3	93.0	7.5 7.4	7.5	7.5	3.3 3.6	3.5		11.3	
				Surface	1	16.9 16.9	16.9	8.2 8.1	8.2	32.9 32.9	32.9	91.4 90.4	90.9	7.3 7.2	7.3	7.1	0.9 1.1	1.0		9.2	
13-Jan-14	Sunny	Calm	16:54	Middle	5.5	16.7 16.7	16.7	8.1 8.1	8.1	33.0 33.0	33.0	84.0 86.3	85.2	6.7 6.9	6.8	7.1	1.3 1.1	1.2	1.5	5.0	7.8
				Bottom	10	16.6 16.7	16.7	8.1 8.1	8.1	33.1 33.1	33.1	79.0 78.6	78.8	6.3 6.3	6.3	6.3	2.1 2.3	2.2		9.1	
				Surface	1	16.8 16.8	16.8	8.2 8.2	8.2	32.7 32.7	32.7	84.9 85.2	85.1	6.8 6.8	6.8		1.5 1.3	1.4		7.2	
16-Jan-14	Fine	Calm	18:16	Middle	5.5	16.7 16.7	16.7	8.2 8.2	8.2	32.7 32.7	32.7	86.2 86.0	86.1	6.9 6.9	6.9	6.9	1.4 1.3	1.4	2.6	9.7	8.2
				Bottom	10	16.5 16.5	16.5	8.1 8.1	8.1	33.0 33.0	33.0	79.1 78.0	78.6	6.3 6.2	6.3	6.3	4.9 5.2	5.1		7.7	
				Surface	1	16.4	16.4	8.2	8.2	32.6	32.6	82.9	83.2	6.7	6.7		1.3	1.4		7.7	
18-Jan-14	Sunny	Calm	09:14	Middle	5	16.4 16.4	16.4	8.2 8.1	8.1	32.6 32.8	32.8	83.4 82.9	83.2	6.7	6.7	6.7	1.4	1.3	1.6	4.6	6.4
	Í			Bottom	9	16.4 16.3	16.3	8.1 8.1	8.1	32.8 32.8	32.8	83.5 79.9	80.5	6.7 6.4	6.5	6.5	1.3 2.1	2.2		6.8	
				Surface	1	16.3 16.2	16.2	8.1 8.1	8.2	32.8 32.5	32.5	81.1 88.4	88.0	6.5 7.1	7.1	0.0	0.8	0.8		8.1	
21-Jan-14	Sunny	Moderate	10:14	Middle	5.5	16.2 16.1	16.1	8.2 8.1	8.1	32.5 32.7	32.7	87.6 87.4	87.5	7.1 7.1	7.1	7.1	0.8 1.4	1.5	1.8	7.9	9.4
∠1-Jan-14	Suring	wouerate	10.14	Middle	5.5	16.1 16.1	10.1	8.1 8.1	0.1	32.6 32.6	32.1	87.5 86.4	67.5	7.1 7.0	7.1		1.5 3.0	1.5	1.0	7.9	9.4
				Bottom	10	16.1	16.1	8.1	8.1	32.6	32.6	86.6	86.5	7.0	7.0	7.0	3.1	3.1		12.1	
				Surface	1	16.1 16.1	16.1	8.2 8.2	8.2	32.3 32.3	32.3	89.3 90.5	89.9	7.2 7.3	7.3	7.4	0.8 0.8	0.8		13.6	
23-Jan-14	Cloudy	Calm	12:34	Middle	5	15.8 15.9	15.9	8.2 8.2	8.2	32.5 32.5	32.5	89.6 90.8	90.2	7.3 7.4	7.4	1.4	1.8 1.9	1.9	1.4	7.0	9.8
				Bottom	9	15.8 15.8	15.8	8.2 8.2	8.2	32.6 32.6	32.6	89.6 90.3	90.0	7.3 7.3	7.3	7.3	1.5 1.5	1.5		8.7	

Water Quality Monitoring Results at F6 - Mid-Flood Tide

Date	Weather	Sea	Sampling	Dent	th (m)	Tempera	ature (°C)	p	Н	Salir	ity ppt	DO Satu	ration (%)	Dissol	ved Oxygen	(mg/L)	7	Turbidity(NTU	J)	Suspended 9	Solids (mg/L)
Date	Condition	Condition**	Time	Бері	ui (iii <i>)</i>	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	DA*
				Surface	1	16.7 16.8	16.8	7.7 7.7	7.7	31.8 31.8	31.8	94.1 94.8	94.5	7.6 7.6	7.6	7.6	0.1 0.1	0.1		9.9	
25-Jan-14	Sunny	Calm	14:00	Middle	5	16.1 16.1	16.1	7.8 7.8	7.8	31.9 31.9	31.9	93.6 93.4	93.5	7.6 7.6	7.6	7.0	0.2 0.2	0.2	1.3	9.1	9.6
				Bottom	9	15.9 15.9	15.9	7.8 7.8	7.8	32.0 32.0	32.0	89.8 89.0	89.4	7.3 7.2	7.3	7.3	3.4 3.5	3.5		9.7	
				Surface	1	17.0 17.0	17.0	7.7 7.7	7.7	31.8 31.8	31.8	99.8 100.3	100.1	8.0 8.0	8.0	8.1	0.8 0.8	0.8		9.7	
27-Jan-14	Sunny	Calm	15:07	Middle	5	16.7 16.7	16.7	7.8 7.8	7.8	31.8 31.8	31.8	101.3 101.2	101.3	8.1 8.1	8.1	0.1	0.7 0.6	0.7	8.0	7.4	8.6
				Bottom	9	16.3 16.3	16.3	7.8 7.8	7.8	31.9 31.9	31.9	99.6 99.2	99.4	8.1 8.0	8.1	8.1	0.8 0.8	0.8		8.7	
				Surface	1	17.4 17.4	17.4	7.7 7.7	7.7	31.7 31.7	31.7	99.7 100.0	99.9	7.9 7.9	7.9	8.0	1.2 1.1	1.2		5.4	
29-Jan-14	Fine	Calm	17:22	Middle	5.5	16.9 16.9	16.9	7.7 7.7	7.7	31.8 31.8	31.8	99.9 99.7	99.8	8.0 8.0	8.0	0.0	1.0 1.1	1.1	1.1	7.3	6.9
				Bottom	10	16.5 16.5	16.5	7.7 7.7	7.7	31.9 31.9	31.9	97.8 97.3	97.6	7.9 7.8	7.9	7.9	1.1 1.1	1.1		8.0	

Water Quality Monitoring Results at F7 - Mid-Ebb Tide

Date	Weather	Sea	Sampling	Dent	h (m)	Tempera	iture (°C)	р	Н	Salin	ity ppt	DO Satu	ration (%)	Dissol	ved Oxygen	(mg/L)	٦	Turbidity(NTL	J)	Suspended 9	Solids (mg/L)
Date	Condition	Condition**	Time	Бери	.11 (111)	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	DA*
				Surface	1	17.4 17.4	17.4	8.1 8.1	8.1	32.3 32.3	32.3	93.0 92.9	93.0	7.3 7.3	7.3		0.8 0.9	0.9		6.8	
7-Jan-14	Cloudy	Calm	18:15	Middle	3.5	17.4 17.4	17.4	8.1 8.1	8.1	32.3 32.3	32.3	94.5 95.2	94.9	7.5 7.5	7.5	7.4	0.4 0.4	0.4	0.8	9.4	7.8
				Bottom	6	17.2 17.2	17.2	8.1 8.1	8.1	32.3 32.3	32.3	98.8 99.0	98.9	7.8 7.8	7.8	7.8	1.0	1.1		7.2	
				Surface	1	17.1 17.1	17.1	8.1 8.1	8.1	28.9 29.0	29.0	88.6 88.0	88.3	7.2 7.1	7.2		1.0	1.0		8.1	
9-Jan-14	Cloudy	Calm	08:10	Middle	3	17.3 17.3	17.3	8.0	8.0	29.4 29.4	29.4	65.3 64.7	65.0	5.3 5.2	5.3	6.3	1.8	1.8	2.1	8.9	8.0
				Bottom	5	17.2 17.2	17.2	7.9 7.9	7.9	29.4 29.4	29.4	62.1 61.5	61.8	5.0 5.0	5.0	5.0	3.5 3.6	3.6		7.1	
				Surface	1	16.8 16.8	16.8	8.1 8.1	8.1	32.3 32.3	32.3	92.7 92.0	92.4	7.4 7.3	7.4	7.4	1.1 1.0	1.1		4.9	
11-Jan-14	Sunny	Calm	10:28	Middle	3.5	16.7 16.7	16.7	8.1 8.1	8.1	32.3 32.3	32.3	91.1 90.5	90.8	7.3 7.2	7.3	7.4	1.3 1.3	1.3	1.4	4.1	5.6
				Bottom	6	16.9 16.9	16.9	8.0 8.0	8.0	32.4 32.4	32.4	95.4 94.0	94.7	7.6 7.5	7.6	7.6	1.7 2.1	1.9		7.9	
				Surface	1	17.2 17.2	17.2	8.1 8.1	8.1	30.8 30.8	30.8	110.2 105.7	108.0	8.8 8.5	8.7	8.6	1.3 1.5	1.4		9.0	
13-Jan-14	Sunny	Calm	09:58	Middle	3.5	17.3 17.3	17.3	8.1 8.1	8.1	31.5 31.6	31.6	108.1 105.8	107.0	8.6 8.4	8.5	0.0	1.3 1.3	1.3	1.6	4.4	5.8
				Bottom	6	17.1 17.1	17.1	8.0 8.0	8.0	32.1 32.1	32.1	94.7 99.1	96.9	7.5 7.9	7.7	7.7	2.0 1.9	2.0		4.1	
				Surface	1	16.6 16.6	16.6	8.2 8.2	8.2	32.1 32.0	32.1	92.3 91.8	92.1	7.4 7.4	7.4	7.2	1.5 1.5	1.5		6.0	
16-Jan-14	Sunny	Calm	13:10	Middle	3.5	16.6 16.6	16.6	8.1 8.1	8.1	32.4 32.4	32.4	87.2 86.8	87.0	7.0 7.0	7.0		1.1 1.2	1.2	1.5	9.4	6.6
				Bottom	6	16.7 16.7	16.7	8.1 8.1	8.1	32.5 32.5	32.5	83.8 83.5	83.7	6.7 6.7	6.7	6.7	1.7 2.0	1.9		4.3	
				Surface	1	16.8 16.8	16.8	8.2 8.2	8.2	32.1 32.1	32.1	89.3 90.1	89.7	7.1 7.2	7.2	7.2	1.4	1.4		6.3	
18-Jan-14	Sunny	Calm	14:41	Middle	3.5	16.7 16.7	16.7	8.2 8.2	8.2	32.4 32.4	32.4	90.3 90.2	90.3	7.2 7.2	7.2		1.5 1.5	1.5	2.0	5.2	6.8
				Bottom	6	16.8 16.8	16.8	8.1 8.1	8.1	32.6 32.6	32.6	81.2 80.7	81.0	6.5 6.4	6.5	6.5	3.1 2.8	3.0		8.8	
				Surface	1	16.7 16.7 16.6	16.7	8.2 8.2 8.2	8.2	32.4 32.4 32.5	32.4	84.0 83.4 84.0	83.7	6.7 6.7 6.7	6.7	6.7	1.1 1.2 1.2	1.2		8.4	
21-Jan-14	Sunny	Calm	15:52	Middle	3.5	16.6 16.5	16.6	8.2 8.1	8.2	32.5 32.6	32.5	84.1 81.5	84.1	6.7 6.5	6.7		1.1	1.2	1.7	9.8	8.6
				Bottom	6	16.5 16.4	16.5	8.1 8.1	8.1	32.7 31.8	32.7	81.6 86.5	81.6	6.5 7.0	6.5	6.5	2.8	2.8		7.7	
				Surface	1	16.4 16.2	16.4	8.1 8.2	8.1	31.8 31.9	31.8	86.1 85.8	86.3	7.0 7.0 7.0	7.0	7.0	1.7	1.6		9.7	
23-Jan-14	Cloudy	Calm	16:18	Middle	3.5	16.2 16.2	16.2	8.2 8.2	8.2	31.9 31.9 32.0	31.9	86.1 85.8	86.0	7.0 7.0 6.9	7.0		1.2	1.1	1.4	10.9	11.0
				Bottom	6	16.2	16.2	8.2	8.2	32.0	32.0	85.5	85.7	6.9	6.9	6.9	1.3	1.4		12.4	

Remarks: *DA: Depth-Averaged

Water Quality Monitoring Results at F7 - Mid-Ebb Tide

Date	Weather	Sea	Sampling	Dent	:h (m)	Tempera	ature (°C)	p	Н	Salin	ity ppt	DO Satu	ration (%)	Dissol	ved Oxygen	(mg/L)	7	Turbidity(NTL	J)	Suspended	Solids (mg/L)
Date	Condition	Condition**	Time	БСРІ	(!!!)	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	DA*
				Surface	1	16.7 16.7	16.7	7.8 7.8	7.8	31.6 31.6	31.6	80.7 80.7	80.7	6.5 6.5	6.5	6.6	0.9 1.0	1.0		10.3	
25-Jan-14	Sunny	Calm	08:33	Middle	3.5	16.6 16.6	16.6	7.8 7.8	7.8	31.6 31.6	31.6	82.6 83.1	82.9	6.7 6.7	6.7	0.0	0.3 0.3	0.3	1.2	10.5	8.6
				Bottom	6	16.4 16.4	16.4	7.8 7.8	7.8	31.8 31.7	31.8	84.2 84.3	84.3	6.8 6.8	6.8	6.8	2.3 2.0	2.2		5.1	
				Surface	1	17.3 17.3	17.3	7.6 7.6	7.6	31.5 31.5	31.5	98.8 98.6	98.7	7.9 7.8	7.9	7.9	1.3 1.1	1.2		5.2	
27-Jan-14	Sunny	Calm	10:11	Middle	3.5	17.2 17.2	17.2	7.6 7.6	7.6	31.6 31.6	31.6	98.2 97.9	98.1	7.8 7.8	7.8	7.9	1.4 1.4	1.4	1.2	3.9	6.1
				Bottom	6	17.2 17.2	17.2	7.6 7.6	7.6	31.6 31.6	31.6	96.7 95.7	96.2	7.7 7.6	7.7	7.7	1.0 0.9	1.0		9.1	
				Surface	1	17.9 17.8	17.9	7.7 7.7	7.7	31.5 31.5	31.5	96.6 93.0	94.8	7.6 7.3	7.5	7.5	1.5 1.3	1.4		6.1	
29-Jan-14	Sunny	Calm	12:50	Middle	3.5	17.2 17.2	17.2	7.7 7.7	7.7	31.6 31.6	31.6	93.6 92.7	93.2	7.4 7.4	7.4	7.5	1.4 1.4	1.4	2.8	4.8	7.5
				Bottom	6	16.7 16.7	16.7	7.7 7.7	7.7	31.8 31.8	31.8	81.6 82.1	81.9	6.6 6.6	6.6	6.6	5.1 6.0	5.6		11.5	

Water Quality Monitoring Results at F7 - Mid-Flood Tide

Date	Date Weather S		Sea Sampling		h (m)	Temperature (°C)		p	Н	Salinity ppt		DO Saturation (%)		Dissolved Oxygen		(mg/L)		Turbidity(NTL	J)	Suspended S	Solids (mg/L)
50.0	Condition	Condition**	Time	Бері	11 (111)	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	DA*
	Cloudy			Surface	1	17.3 17.3	17.3	8.1 8.1	8.1	32.2 32.2	32.2	97.5 98.0	97.8	7.7 7.8	7.8		0.8 0.7	0.8		7.9	6.5
7-Jan-14		Calm	12:54	Middle	3.5	17.2 17.2	17.2	8.1 8.1	8.1	32.2 32.2	32.2	99.9 100.0	100.0	7.9 7.9	7.9	7.9	1.1 1.2	1.2	2.1	6.1	
				Bottom	6	17.5 17.5	17.5	8.0 8.0	8.0	32.6 32.6	32.6	64.8 63.9	64.4	5.1 5.0	5.1	5.1	4.3 4.2	4.3		5.4	
				Surface	1	17.1 17.1	17.1	8.1 8.1	8.1	32.3 32.3	32.3	91.4 91.9	91.7	7.3 7.3	7.3	7.2	1.5 1.5	1.5		5.3	
9-Jan-14	Cloudy	Calm	13:26	Middle	3.5	17.1 17.1	17.1	8.1 8.1	8.1	32.4 32.4	32.4	89.5 89.2	89.4	7.1 7.1	7.1	1.2	1.5 1.5	1.5	1.2	7.9	7.0
				Bottom	6	17.3 17.3	17.3	8.0 8.0	8.0	32.6 32.6	32.6	79.3 78.5	78.9	6.3 6.2	6.3	6.3	0.6 0.5	0.6		7.9	
				Surface	1	17.0 17.0	17.0	8.0 8.0	8.0	31.4 31.4	31.4	109.0 107.3	108.2	8.7 8.6	8.7	8.5	1.0 1.1	1.1		9.2	
11-Jan-14	Sunny	Calm	13:51	Middle	3.5	16.8 16.8	16.8	8.0 8.0	8.0	31.5 31.5	31.5	103.4 101.9	102.7	8.3 8.2	8.3	0.0	1.4 1.6	1.5	2.2	6.6	7.2
				Bottom	6	17.0 17.0	17.0	8.0 8.0	8.0	31.7 31.7	31.7	108.9 106.2	107.6	8.7 8.5	8.6	8.6	3.8 4.0	3.9		5.9	
	Sunny	Calm		Surface	1	17.4 17.2	17.3	8.2 8.2	8.2	32.2 32.1	32.2	100.0 98.7	99.4	7.9 7.8	7.9	7.6	1.9 1.7	1.8		4.6	7.4
13-Jan-14			17:26	Middle	3.5	17.3 17.3	17.3	8.1 8.1	8.1	32.6 32.6	32.6	92.0 90.6	91.3	7.3 7.2	7.3		1.7 2.0	1.9	2.2	6.9	
				Bottom	6	17.1 17.1	17.1	8.0 8.0	8.0	32.9 32.9	32.9	77.3 72.5	74.9	6.1 5.7	5.9	5.9	2.9 2.8	2.9		10.8	
	Fine	Calm		Surface	1	16.7 16.7	16.7	8.2 8.2	8.2	32.3 32.3	32.3	88.1 88.7	88.4	7.1 7.1	7.1	7.1	1.0 1.1	1.1	_	9.0	6.7
16-Jan-14			18:42	Middle	4	16.6 16.6	16.6	8.2 8.1	8.2	32.5 32.5	32.5	88.5 88.4	88.5	7.1 7.1	7.1		1.3 1.5	1.4	2.1	5.6	
				Bottom	7	16.9 16.9	16.9	8.1 8.1	8.1	32.9 32.9	32.9	80.4 79.7	80.1	6.4 6.3	6.4	6.4	3.9 3.8	3.9		5.6	
		Calm		Surface	1	16.5 16.5	16.5	8.1 8.1	8.1	32.1 32.1	32.1	88.2 88.7	88.5	7.1 7.1	7.1	7.2	1.6 1.7	1.7	1.5	9.9	7.3
18-Jan-14	Sunny		09:45	Middle	3.5	16.5 16.5	16.5	8.1 8.1	8.1	32.2 32.2	32.2	88.6 89.1	88.9	7.1 7.2	7.2		1.3 1.2	1.3		4.7	
				Bottom	6	16.6 16.6	16.6	8.1 8.1	8.1	32.3 32.3	32.3	87.8 87.6	87.7	7.0 7.0	7.0	7.0	1.7 1.4	1.6		7.2	
				Surface	1	16.4 16.4	16.4	8.2 8.2	8.2	32.1 32.1	32.1	87.5 86.7	87.1	7.1 7.0	7.1	7.1	2.0	2.1		10.5	
21-Jan-14	Sunny	Moderate	10:46	Middle	3.5	16.5 16.5	16.5	8.2 8.2	8.2	32.2 32.2	32.2	88.5 88.0	88.3	7.1 7.1	7.1		1.3 1.4	1.4	2.6	8.8	10.9
				Bottom	6	16.5 16.5	16.5	8.1 8.1	8.1	32.5 32.5	32.5	86.7 85.9	86.3	7.0 6.9	7.0	7.0	4.1	4.2		13.5	
	Cloudy			Surface	1	16.4 16.4	16.4	8.2 8.2	8.2	32.4 32.4	32.4	88.5 89.8	89.2	7.1 7.2	7.2	7.3	1.3 1.2	1.3		9.4	
23-Jan-14		Calm	13:05	Middle	3.5	16.3 16.3	16.3	8.2 8.2	8.2	32.4 32.5	32.5	89.3 90.6	90.0	7.2 7.3	7.3		2.0 1.7	1.9	2.7	9.8	9.3
				Bottom	6	16.2 16.2	16.2	8.2 8.2	8.2	32.6 32.7	32.7	90.4 91.1	90.8	7.3 7.4	7.4	7.4	4.9 5.1	5.0		8.7	

Remarks: *DA: Depth-Averaged

Water Quality Monitoring Results at F7 - Mid-Flood Tide

Date	Weather	Sea	Sampling	Depth (m)		Denth (m)		Depth (m) Temperature (°C)		ŗ	Н	Salir	ity ppt	DO Satu	ration (%)	Dissol	lved Oxygen	(mg/L)	1	Turbidity(NTL	J)	Suspended Solids (mg/L)						
Date	Condition	Condition**	Time			Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	DA*							
	Sunny			Surface	1	16.9 16.9	16.9	7.8 7.8	7.8	31.6 31.6	31.6	111.2 111.7	111.5	8.9 8.9	8.9	9.2	0.4 0.4	0.4		5.7								
25-Jan-14		Calm	14:27	Middle	3.5	16.5 16.5	16.5	7.8 7.8	7.8	31.7 31.7	31.7	115.2 116.3	115.8	9.3 9.4	9.4	9.2	0.4 0.4	0.4	1.2	9.1	6.9							
				Bottom	6	16.4 16.3	16.4	7.8 7.8	7.8	31.9 31.9	31.9	116.5 114.6	115.6	9.4 9.3	9.4	9.4	2.8 2.8	2.8		5.9								
	Sunny		15:29	Surface	1	17.5 17.5	17.5	7.8 7.8	7.8	31.6 31.6	31.6	98.4 98.7	98.6	7.8 7.8	7.8	7.8	1.8 1.7	1.8	2.1	7.2								
27-Jan-14		Calm		Middle	3.5	17.2 17.2	17.2	7.8 7.8	7.8	31.6 31.6	31.6	97.1 96.2	96.7	7.7 7.6	7.7	7.0	2.3 2.2	2.3		2.1	8.2	9.7						
				Bottom	6	17.0 17.0	17.0	7.8 7.8	7.8	31.7 31.7	31.7	95.7 95.3	95.5	7.6 7.6	7.6	7.6	2.3 2.3	2.3		13.8								
				Surface	1	17.7 17.7	17.7	7.7 7.7	7.7	31.5 31.5	31.5	96.5 96.8	96.7	7.6 7.6	7.6	7.7	1.2 1.2	1.2		7.6								
29-Jan-14	Fine	Calm	17:43	17:43	17:43	17:43	17:43	17:43	17:43	17:43	Middle	4	17.1 17.1	17.1	7.7 7.7	7.7	31.7 31.7	31.7	96.1 95.4	95.8	7.7 7.6	7.7		1.5 1.6	1.6	3.4	9.4	7.2
				Bottom	7	16.7 16.8	16.8	7.8 7.8	7.8	31.8 31.8	31.8	83.3 82.6	83.0	6.7 6.6	6.7	6.7	7.2 7.4	7.3		4.6								

Water Quality Monitoring Results at F8 - Mid-Ebb Tide

Date	Weather	Sea	Sampling	Dent	h (m)	Tempera	Temperature (°C)		рН		Salinity ppt		DO Saturation (%)		lved Oxygen	(mg/L)	-	Turbidity(NTl	Suspended Solids (mg/L)		
Date	Condition	Condition**	Time	Бері	.11 (111)	Value Average		Value Average		Value Average		Value Average		Value Average		DA*	Value	Average DA*		Value	DA*
	Cloudy			Surface	1	17.2 17.2	17.2	8.1 8.1	8.1	32.1 32.1	32.1	104.8 105.0	104.9	8.3 8.3	8.3		1.1 1.1	1.1		3.5	5.9
7-Jan-14		Calm	17:16	Middle	-	-	-		-	-	-	-	-		-	8.3	-		2.1	-	
				Bottom	4	17.2 17.2	17.2	8.1 8.1	8.1	32.2 32.2	32.2	98.7 99.0	98.9	7.8 7.9	7.9	7.9	2.9 3.1	3.0		8.2	
				Surface	1	17.2 17.2	17.2	8.1 8.1	8.1	29.6 30.1	29.9	97.8 97.3	97.6	7.9 7.8	7.9	7.9	0.9 1.1	1.0		7.1	
9-Jan-14	Cloudy	Calm	07:20	Middle	-	-	-	-	-	-	-	-	-	-	-	7.9	-	-	1.3	-	7.3
				Bottom	3.2	17.4 17.4	17.4	8.0 8.0	8.0	29.2 29.2	29.2	85.2 84.3	84.8	6.9 6.8	6.9	6.9	1.5 1.6	1.6		7.4	
				Surface	1	16.7 16.7	16.7	8.1 8.1	8.1	32.3 32.3	32.3	99.9 99.9	99.9	8.0 8.0	8.0	8.0	1.8 1.6	1.7		10.3	
11-Jan-14	Sunny	Calm	09:10	Middle	-	-	-	-	-	-	-	-	-	-	-	0.0	-	-	2.6	-	9.1
				Bottom	3.5	16.7 16.7	16.7	8.1 8.1	8.1	32.3 32.3	32.3	95.3 94.1	94.7	7.6 7.5	7.6	7.6	3.5 3.4	3.5		6.9	
	Sunny			Surface	1	17.1 17.1	17.1	8.1 8.1	8.1	32.6 32.6	32.6	90.6 90.7	90.7	7.2 7.2	7.2	7.2	1.3 1.4	1.4	2.4	8.3	
13-Jan-14		Calm	11:42	Middle	-		-	-	-	-	-	-	-	-	-		-	-		-	
				Bottom	4	17.0 17.0	17.0	8.1 8.1	8.1	32.6 32.6	32.6	92.2 91.3	91.8	7.3 7.3	7.3	7.3	3.5 3.0	3.3		9.9	
	Sunny			Surface	1	17.0 16.9	17.0	8.1 8.1	8.1	32.4 32.4	32.4	90.2 91.1	90.7	7.2 7.3	7.3	7.3	1.7 2.0	1.9		8.9	9.6
16-Jan-14		Calm	12:27	Middle	-	-	-	-	-	-	-	-	-	-	-		-	-	3.0	-	
				Bottom	3.8	16.5 16.5	16.5	8.1 8.1	8.1	32.4 32.4	32.4	91.4 91.8	91.6	7.3 7.4	7.4	7.4	3.9 4.3	.3 4.1		10.3	
				Surface	1	17.0 17.0	17.0	8.2 8.1	8.2	32.5 32.5	32.5	83.3 85.7	84.5	6.6 6.8	6.7	6.7	2.7 2.8	2.8		6.3	7.0
18-Jan-14	Sunny	Calm	13:53	Middle	-	- - 16.8	-		-	32.5	-	- - 85.3	-	-	-	6.9 3.3 3.3	-	-	3.1	-	
				Bottom	3.6	16.8	16.8	8.1 8.2	8.2	32.5	32.5	86.3	85.8	6.8 6.9	6.9		3.3	3.3		7.6	
				Surface	1	16.1 16.1	16.1	8.2 8.2	8.2	32.5 32.5	32.5	85.9 86.0	86.0	7.0 7.0	7.0	7.0	2.0	2.0		14.4	
23-Jan-14	Cloudy	Calm	17:04	Middle	-	- - 16.1	-	8.2	-	32.5	-	- - 85.5	-	6.9	-		2.3	-	2.2	-	10.6
				Bottom	3.5	16.1	16.1	8.2	8.2	32.5	32.5	86.5	86.0	7.0	7.0	7.0	2.2	2.3		6.8	
	Sunny			Surface	1	16.3 16.3	16.3	7.6 7.6	7.6	31.7 31.7	31.7	85.3 84.9	85.1	6.9 6.9	6.9	6.9		1.5		5.4	
25-Jan-14		Calm	07:48	Middle	-	- - 16.2	-	- - 7.6	-	31.8	-	- - 82.5	-	6.7	-		3.2	-	2.3	-	4.7
				Bottom	3.5	16.2	16.2	7.6	7.6	31.8	31.8	82.3	82.4	6.7	6.7	6.7	2.8	3.0		3.9	

Remarks: *DA: Depth-Averaged

Water Quality Monitoring Results at F8 - Mid-Flood Tide

Date	Weather	Sea	Sampling	Dept	h (m)	Temper	ature (°C)	ŗ	Н	Salin	ity ppt	DO Satu	ration (%)	Disso	lved Oxygen	(mg/L)		Turbidity(NTL	J)	Suspended	Solids (mg/L)
Date	Condition	Condition**	Time	Бері	11 (111)	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	DA*
				Surface	1	17.1 17.1	17.1	8.1 8.1	8.1	32.1 32.1	32.1	101.9 102.2	102.1	8.1 8.1	8.1	8.1	1.2 1.4	1.3		7.4	
7-Jan-14	Cloudy	Calm	11:58	Middle	-	-	-	-	-	-	-	-	-	-	-	0.1	-	-	1.4	-	9.0
				Bottom	3.7	17.1 17.1	17.1	8.1 8.1	8.1	32.2 32.2	32.2	100.3 100.1	100.2	8.0 8.0	8.0	8.0	1.3 1.6	1.5		10.6	
				Surface	1	17.2 17.2	17.2	8.1 8.1	8.1	32.5 32.5	32.5	110.9 110.8	110.9	8.8 8.8	8.8	0.0	2.1 2.3	2.2		7.4	
11-Jan-14	Sunny	Calm	15:03	Middle	-		-	-	-		-		-		-	8.8	-	-	3.7	-	10.9
				Bottom	4.2	16.9 16.9	16.9	8.1 8.1	8.1	32.5 32.5	32.5	106.3 104.5	105.4	8.5 8.3	8.4	8.4	5.3 5.1	5.2		14.3	
				Surface	1	17.3 17.3	17.3	8.1 8.1	8.1	32.6 32.6	32.6	93.1 90.4	91.8	7.4 7.1	7.3		2.2 2.4	2.3		6.9	
13-Jan-14	Sunny	Calm	16:37	Middle	-	-	-	-	-	-	-	-	-	-	-	7.3	-	-	3.7	-	7.1
				Bottom	4.6	17.1 17.1	17.1	8.1 8.1	8.1	32.6 32.6	32.6	89.3 88.1	88.7	7.1 7.0	7.1	7.1	4.5 5.4	5.0		7.2	1
				Surface	1	17.1 17.1	17.1	8.2 8.2	8.2	32.6 32.6	32.6	75.7 76.7	76.2	6.0 6.1	6.1		2.4 2.6	2.5		9.6	
16-Jan-14	Fine	Calm	18:01	Middle	-	-	-	-	-	-	-	-	-	-	-	6.1	-	-	3.0	-	8.7
				Bottom	4.5	16.6 16.6	16.6	8.2 8.2	8.2	32.6 32.6	32.6	77.9 78.2	78.1	6.2 6.3	6.3	6.3	3.6 3.4	3.5		7.8	1
				Surface	1	16.0 16.0	16.0	8.2 8.2	8.2	32.4 32.4	32.4	89.2 89.6	89.4	7.2 7.3	7.3		2.4 2.9	2.7		11.3	
23-Jan-14	Cloudy	Calm	12:19	Middle	-		-	-	-	-	-	-	-	-	-	7.3	-	-	2.8	-	9.9
				Bottom	3.9	15.8 15.8	15.8	8.2 8.2	8.2	32.4 32.3	32.4	89.9 93.5	91.7	7.3 7.6	7.5	7.5	2.6 3.0	2.8		8.5	1
				Surface	1	16.7 16.7	16.7	7.7 7.7	7.7	31.8 31.8	31.8	93.3 93.4	93.4	7.5 7.5	7.5		1.8 1.6	1.7		11.5	
25-Jan-14	Sunny	Calm	13:52	Middle	-	-	-	-	-	-	-	-	-	-	-	7.5	-	-	2.7	-	9.4
				Bottom	4.6	16.4 16.4	16.4	7.8 7.8	7.8	31.8 31.8	31.8	92.3 92.2	92.3	7.5 7.4	7.5	7.5	3.3 3.8	3.6		7.2	1
				Surface	1	18.4 18.4	18.4	7.5 7.5	7.5	31.7 31.7	31.7	97.3 97.2	97.3	7.6 7.6	7.6	7.0	3.2 3.9	3.6		7.0	
29-Jan-14	Fine	Calm	17:07	Middle	-		-	-	-	-	-	-	-	-	-	7.6	-	-	4.2	-	5.8
				Bottom	4.6	17.4 17.4	17.4	7.5 7.6	7.6	31.7 31.8	31.8	95.0 95.0	95.0	7.5 7.5	7.5	7.5	4.9 4.7	4.8		4.5	

Water Quality Monitoring Results at G2 - Mid-Ebb Tide

Date	Weather	Sea	Sampling	Depti	h (m)	Tempera	ature (°C)	p	Н	Salin	ity ppt	DO Satu	ration (%)	Dissol	lved Oxygen	(mg/L)	7	Turbidity(NTL	J)	Suspended	Solids (mg/L)
Date	Condition	Condition**	Time	Бери	11 (111)	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	DA*
				Surface	1	17.4 17.4	17.4	8.2 8.2	8.2	32.2 32.2	32.2	102.9 103.2	103.1	8.1 8.2	8.2		1.2 1.1	1.2		10.5	
7-Jan-14	Cloudy	Calm	18:04	Middle	4.5	17.2 17.2	17.2	8.1 8.1	8.1	32.4 32.4	32.4	100.6 100.4	100.5	8.0 8.0	8.0	8.1	1.5	1.5	2.2	8.6	7.4
				Bottom	8	17.3 17.3	17.3	8.0 8.0	8.0	32.9 32.9	32.9	67.5 66.9	67.2	5.3 5.3	5.3	5.3	4.0 3.8	3.9		3.2	
				Surface	1	16.9 16.9	16.9	8.1 8.1	8.1	32.2 32.2	32.2	93.1 93.1	93.1	7.4 7.4	7.4	7.5	1.2 1.3	1.3		4.1	
9-Jan-14	Cloudy	Calm	08:01	Middle	4.5	16.9 16.9	16.9	8.1 8.1	8.1	32.2 32.1	32.2	92.7 95.1	93.9	7.4 7.6	7.5	7.5	1.5 1.5	1.5	1.6	6.6	5.5
				Bottom	8	17.0 17.0	17.0	8.0 8.0	8.0	32.6 32.6	32.6	78.5 77.9	78.2	6.2 6.2	6.2	6.2	1.9 2.0	2.0		5.9	
				Surface	1	16.9 16.9	16.9	8.1 8.1	8.1	32.3 32.3	32.3	100.1 100.0	100.1	8.0 8.0	8.0	8.0	1.6 1.4	1.5		7.8	
11-Jan-14	Sunny	Calm	10:12	Middle	4.5	16.7 16.7	16.7	8.1 8.1	8.1	32.4 32.4	32.4	98.6 98.1	98.4	7.9 7.8	7.9	0.0	1.8 1.9	1.9	2.3	5.4	6.4
				Bottom	8	16.9 16.9	16.9	8.1 8.0	8.1	32.7 32.7	32.7	87.0 85.8	86.4	6.9 6.8	6.9	6.9	3.3 3.6	3.5		5.9	
				Surface	1	17.1 17.2	17.2	8.2 8.2	8.2	31.4 31.3	31.4	101.0 97.4	99.2	8.1 7.8	8.0	7.9	1.3 1.5	1.4		5.3	
13-Jan-14	Sunny	Calm	10:05	Middle	4.5	17.1 17.1	17.1	8.2 8.1	8.2	32.0 32.0	32.0	99.4 96.8	98.1	7.9 7.7	7.8		1.6 1.6	1.6	1.6	5.9	5.2
				Bottom	8	16.9 16.9	16.9	8.0 8.0	8.0	32.4 32.4	32.4	83.1 88.9	86.0	6.6 7.1	6.9	6.9	1.8 1.9	1.9		4.4	
				Surface	1	16.4 16.4	16.4	8.2 8.2	8.2	31.9 32.0	32.0	95.2 94.8	95.0	7.7 7.6	7.7	7.7	0.7 0.8	0.8		8.4	
16-Jan-14	Sunny	Calm	13:02	Middle	4.5	16.5 16.5	16.5	8.2 8.2	8.2	32.4 32.4	32.4	94.3 92.9	93.6	7.6 7.5	7.6		1.0 1.0	1.0	1.6	7.2	8.5
				Bottom	8	16.8 16.7	16.8	8.1 8.1	8.1	32.8 32.8	32.8	84.5 86.3	85.4	6.7 6.9	6.8	6.8	2.9 2.9	2.9		9.8	
				Surface	1	17.0 17.0	17.0	8.2 8.2	8.2	32.2 32.3	32.3	95.2 95.4	95.3	7.6 7.6	7.6	7.5	1.2 1.2	1.2		5.2	
18-Jan-14	Sunny	Calm	14:29	Middle	4.5	16.6 16.6	16.6	8.2 8.2	8.2	32.4 32.4	32.4	92.5 92.3	92.4	7.4 7.4	7.4	-	1.3 1.4	1.4	2.5	6.6	7.9
				Bottom	8	16.7 16.7	16.7	8.1 8.1	8.1	32.9 32.9	32.9	80.6 80.1	80.4	6.4 6.4	6.4	6.4	4.9 4.6	4.8		12.0	
				Surface	1	16.7 16.7	16.7	8.2 8.2	8.2	32.5 32.5	32.5	84.7 84.2	84.5	6.8 6.7	6.8	6.8	1.0 1.2	1.1		9.2	
21-Jan-14	Sunny	Calm	15:45	Middle	4.5	16.7 16.7	16.7	8.2 8.2	8.2	32.7 32.7	32.7	84.8 84.7	84.8	6.8 6.8	6.8		1.3 1.2	1.3	2.4	6.5	9.3
				Bottom	8	16.5 16.5	16.5	8.1 8.1	8.1	32.8 32.8	32.8	81.4 81.3	81.4	6.5 6.5	6.5	6.5	4.5 5.0	4.8		12.2	
				Surface	1	16.5 16.5	16.5	8.2 8.2	8.2	31.9 31.8	31.9	89.0 89.1	89.1	7.2 7.2	7.2	7.3	1.7	1.8		8.7	
23-Jan-14	Cloudy	Calm	16:26	Middle	5	16.2 16.2 16.1	16.2	8.2 8.2 8.2	8.2	32.1 32.1 32.2	32.1	90.7 89.9 89.1	90.3	7.3 7.3 7.2	7.3		1.0 1.1 2.0	1.1	1.7	10.2	10.8
				Bottom	9	16.1	16.1	8.2	8.2	32.2 32.2	32.2	89.1 88.2	88.7	7.2 7.2	7.2	7.2	2.0	2.1		13.5	

Remarks: *DA: Depth-Averaged

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

Water Quality Monitoring Results at G2 - Mid-Ebb Tide

Date	Weather	Sea	Sampling	Dent	:h (m)	Tempera	ature (°C)	p	Н	Salin	ity ppt	DO Satu	ration (%)	Dissol	ved Oxygen	(mg/L)	7	Turbidity(NTL	J)	Suspended	Solids (mg/L)
Date	Condition	Condition**	Time	БСРІ	()	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	DA*
				Surface	1	16.5 16.5	16.5	7.8 7.8	7.8	31.4 31.4	31.4	91.6 92.1	91.9	7.4 7.4	7.4	7.4	0.8 0.7	0.8		6.4	
25-Jan-14	Sunny	Calm	08:25	Middle	4.5	16.4 16.4	16.4	7.8 7.8	7.8	31.7 31.7	31.7	90.3 90.2	90.3	7.3 7.3	7.3	7.4	0.2 0.2	0.2	0.8	8.0	7.8
				Bottom	8	16.1 16.1	16.1	7.8 7.8	7.8	31.9 31.9	31.9	85.0 84.6	84.8	6.9 6.9	6.9	6.9	1.6 1.4	1.5		9.1	
				Surface	1	17.3 17.3	17.3	7.6 7.6	7.6	31.6 31.6	31.6	98.8 98.2	98.5	7.9 7.8	7.9	7.8	1.1 1.2	1.2		8.3	
27-Jan-14	Sunny	Calm	10:04	Middle	4.5	17.0 17.0	17.0	7.6 7.6	7.6	31.7 31.7	31.7	95.4 94.7	95.1	7.6 7.6	7.6	7.0	2.1 2.2	2.2	1.9	9.6	7.7
				Bottom	8	16.7 16.7	16.7	7.6 7.6	7.6	31.8 31.8	31.8	94.1 93.2	93.7	7.6 7.5	7.6	7.6	2.2 2.1	2.2		5.2	
				Surface	1	17.9 17.9	17.9	7.6 7.7	7.7	31.6 31.6	31.6	102.1 101.1	101.6	8.0 7.9	8.0	8.1	1.3 1.3	1.3		4.0	
29-Jan-14	Sunny	Calm	12:41	Middle	4.5	16.9 16.9	16.9	7.7 7.7	7.7	31.8 31.8	31.8	100.7 100.2	100.5	8.1 8.0	8.1	0.1	1.1 1.1	1.1	1.6	6.5	6.7
				Bottom	8	16.4 16.4	16.4	7.7 7.7	7.7	31.9 31.9	31.9	93.4 90.1	91.8	7.5 7.3	7.4	7.4	2.4 2.5	2.5		9.5	

Water Quality Monitoring Results at G2 - Mid-Flood Tide

Date	Weather	Sea	Sampling	Dent	th (m)	Tempera	ature (°C)	р	Н	Salin	ity ppt	DO Satu	ration (%)	Disso	lved Oxygen	(mg/L)	-	Turbidity(NTl	J)	Suspended	Solids (mg/L)
Date	Condition	Condition**	Time	БСРІ	()	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	DA*
				Surface	1	17.3 17.3	17.3	8.2 8.2	8.2	32.2 32.2	32.2	101.2 101.5	101.4	8.0 8.0	8.0		1.4 1.3	1.4		7.9	
7-Jan-14	Cloudy	Calm	12:42	Middle	4.5	17.3 17.2 17.2	17.2	8.1 8.1	8.1	32.3 32.3	32.3	99.5 99.3	99.4	7.9 7.9	7.9	8.0	1.3 1.4 1.3	1.4	1.6	5.1	5.7
				Bottom	8	17.1 17.1	17.1	8.0 8.0	8.0	32.9 32.9	32.9	78.9 79.1	79.0	6.2 6.3	6.3	6.3	1.9 1.8	1.9		4.2	
				Surface	1	17.2 17.2	17.2	8.2 8.2	8.2	32.2 32.2	32.2	97.8 98.1	98.0	7.8 7.8	7.8	7.0	1.4 1.3	1.4		5.5	
9-Jan-14	Cloudy	Calm	13:20	Middle	4.5	17.1 17.1	17.1	8.2 8.2	8.2	32.3 32.3	32.3	97.6 97.6	97.6	7.8 7.7	7.8	7.8	1.0 1.1	1.1	1.4	5.5	4.8
				Bottom	8	17.1 17.1	17.1	8.1 8.1	8.1	32.4 32.4	32.4	91.3 90.9	91.1	7.3 7.2	7.3	7.3	1.5 1.6	1.6		3.3	
				Surface	1	17.3 17.3	17.3	8.1 8.1	8.1	31.8 31.8	31.8	110.5 110.4	110.5	8.8 8.8	8.8	8.7	1.2 1.2	1.2		5.1	
11-Jan-14	Sunny	Calm	14:03	Middle	4.5	16.7 16.8	16.8	8.1 8.1	8.1	31.9 31.8	31.9	107.0 106.2	106.6	8.6 8.5	8.6	5	1.0	1.1	1.5	8.4	6.9
				Bottom	8	16.9 16.9	16.9	8.0 8.0	8.0	32.2 32.2	32.2	104.7 102.6	103.7	8.4 8.2	8.3	8.3	1.9 2.2	2.1		7.3	
				Surface	1	17.1 17.1	17.1	8.2 8.2	8.2	32.3 32.3	32.3	99.5 99.2	99.4	7.9 7.9	7.9	7.8	1.5 1.5	1.5		2.6	
13-Jan-14	Sunny	Calm	17:18	Middle	5	17.1 17.1 16.8	17.1	8.2 8.2 8.1	8.2	32.7 32.7 33.0	32.7	97.6 97.3 82.4	97.5	7.7 7.7 6.6	7.7		1.6 1.6 3.3	1.6	2.2	9.3	6.3
				Bottom	9	16.8	16.8	8.1 8.2	8.1	33.0 32.4	33.0	81.9 90.5	82.2	6.5 7.2	6.6	6.6	3.9 1.1	3.6		7.1	
				Surface	1	16.8 16.8	16.8	8.2 8.2	8.2	32.4 32.4 32.5	32.4	91.0 92.7	90.8	7.2 7.3 7.4	7.3	7.4	1.1	1.2		9.2	
16-Jan-14	Fine	Calm	18:34	Middle	5	16.8 16.6	16.8	8.2 8.1	8.2	32.5 32.5 32.9	32.5	92.7 92.6 82.7	92.7	7.4 7.4 6.6	7.4		1.0 1.2 4.1	1.1	2.1	4.4	6.0
				Bottom	9	16.6 16.5	16.6	8.1	8.1	32.9	32.9	81.7	82.2	6.5	6.6	6.6	4.0	4.1		4.4	
				Surface	1	16.5 16.6	16.5	8.2 8.2 8.2	8.2	32.0 32.0 32.2	32.0	90.5 90.9 93.1	90.7	7.3 7.3 7.5	7.3	7.4	1.6 1.5	1.8		10.8	
18-Jan-14	Sunny	Calm	09:36	Middle	4.5	16.6 16.6	16.6	8.2 8.2	8.2	32.3 32.6	32.3	93.2 86.1	93.2	7.5 6.9	7.5		1.5 1.8	1.5	1.7	7.1	9.9
				Bottom	8	16.6 16.4	16.6	8.2 8.2	8.2	32.6 32.1	32.6	86.5 88.7	86.3	6.9 7.1	6.9	6.9	1.8	1.8		11.9	
	0		40.07	Surface	1	16.4 16.6	16.4	8.2 8.2	8.2	32.0 32.3	32.1	88.0 89.6	88.4	7.1 7.2	7.1	7.2	1.3	1.3	4.5	5.5	
21-Jan-14	Sunny	Moderate	10:37	Middle	4.5 8	16.6 16.6	16.6	8.2 8.1	8.2	32.3 32.7	32.3	88.7 88.1	89.2 87.2	7.1 7.1	7.2	7.0	1.3	1.3	1.9	5.3	6.2
				Bottom		16.6 16.3	16.6	8.1 8.2	8.1	32.6 32.2	32.7	86.2 87.5		6.9 7.1	7.0	7.0	3.4 0.8	3.2		7.7	
00 1 44	Olevidi	0-1	40.55	Surface	1	16.3 16.2	16.3	8.2	8.2	32.2 32.4	32.2	87.8 88.5	87.7	7.1 7.2	7.1	7.2	0.8	0.8	4.0	7.9	0.4
23-Jan-14	Cloudy	Calm	12:55	Middle	5 9	16.2 16.0	16.2	8.2	8.2	32.5 32.7	32.5 32.7	88.8 88.5	88.7 88.5	7.2	7.2	7.0	0.6	0.6	1.0	10.0	8.4
				Bottom	9	16.0	16.0	8.2	0.2	32.6	32.1	88.5	06.5	7.2	7.2	7.2	1.5	1.5		7.3	

Water Quality Monitoring Results at G2 - Mid-Flood Tide

Date	Weather	Sea	Sampling	Dent	th (m)	Tempera	ature (°C)	ŗ	Н	Salir	ity ppt	DO Satu	ration (%)	Dissol	ved Oxygen	(mg/L)	7	Turbidity(NTL	J)	Suspended 9	Solids (mg/L)
Date	Condition	Condition**	Time	Бері	ui (iii <i>)</i>	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	DA*
				Surface	1	16.9 16.9	16.9	7.8 7.8	7.8	31.6 31.5	31.6	94.0 94.5	94.3	7.5 7.6	7.6	7.6	0.6 0.7	0.7		7.8	
25-Jan-14	Sunny	Calm	14:21	Middle	4.5	16.2 16.2	16.2	7.8 7.8	7.8	31.8 31.8	31.8	94.1 94.1	94.1	7.6 7.6	7.6	7.0	0.6 0.6	0.6	0.6	7.5	6.8
				Bottom	8	16.1 16.1	16.1	7.9 7.9	7.9	31.9 31.9	31.9	93.1 92.5	92.8	7.6 7.5	7.6	7.6	0.5 0.5	0.5		5.1	
				Surface	1	17.7 17.7	17.7	7.8 7.8	7.8	31.6 31.6	31.6	102.4 102.7	102.6	8.1 8.1	8.1	8.2	1.2 1.1	1.2		6.5	
27-Jan-14	Sunny	Calm	15:24	Middle	4.5	17.0 17.0	17.0	7.8 7.8	7.8	31.7 31.7	31.7	102.7 102.0	102.4	8.2 8.2	8.2	0.2	1.2 1.2	1.2	1.4	4.1	8.4
				Bottom	8	16.3 16.3	16.3	7.8 7.8	7.8	31.9 31.9	31.9	100.0 98.7	99.4	8.1 8.0	8.1	8.1	1.8 1.8	1.8		14.6	
				Surface	1	18.2 18.2	18.2	7.7 7.7	7.7	31.4 31.4	31.4	101.6 102.3	102.0	7.9 8.0	8.0	8.0	2.1 1.8	2.0		12.2	
29-Jan-14	Fine	Calm	17:40	Middle	5	17.0 17.0	17.0	7.7 7.7	7.7	31.8 31.8	31.8	99.7 99.5	99.6	8.0 8.0	8.0	0.0	1.1 1.1	1.1	2.3	5.8	7.6
				Bottom	9	16.5 16.5	16.5	7.8 7.8	7.8	31.9 31.9	31.9	91.1 90.6	90.9	7.3 7.3	7.3	7.3	3.6 3.7	3.7		4.8	

Water Quality Monitoring Results at G3 - Mid-Ebb Tide

Date	Weather	Sea	Sampling	Dent	h (m)	Tempera	ature (°C)	p	Н	Salin	ity ppt	DO Satu	ration (%)	Dissol	ved Oxygen	(mg/L)	-	Turbidity(NTL	J)	Suspended	Solids (mg/L)
Date	Condition	Condition**	Time	Бері	.11 (111)	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	DA*
				Surface	1	17.3 17.3	17.3	8.1 8.1	8.1	32.0 32.0	32.0	103.5 103.8	103.7	8.2 8.2	8.2		1.1 1.1	1.1		9.2	
7-Jan-14	Cloudy	Calm	16:57	Middle	3.5	17.2 17.2	17.2	8.1 8.1	8.1	32.0 32.0	32.0	104.7 104.8	104.8	8.3 8.3	8.3	8.3	1.1	1.2	1.7	14.4	10.6
				Bottom	6	17.5 17.5	17.5	8.0 8.0	8.0	32.4 32.4	32.4	86.0 85.9	86.0	6.8 6.8	6.8	6.8	2.8 2.7	2.8		8.2	
				Surface	1	17.2 17.2	17.2	8.1 8.1	8.1	28.8 28.8	28.8	99.9 100.0	100.0	8.1 8.1	8.1	7.7	1.4 1.6	1.5		7.7	
9-Jan-14	Cloudy	Calm	07:05	Middle	3.5	17.3 17.3	17.3	8.0 8.0	8.0	28.7 28.8	28.8	90.3 89.7	90.0	7.3 7.2	7.3	7.7	2.2 2.4	2.3	2.1	6.4	7.9
				Bottom	6	17.2 17.2	17.2	8.0 8.0	8.0	28.9 29.3	29.1	81.2 81.8	81.5	6.6 6.6	6.6	6.6	2.5 2.5	2.5		9.5	
				Surface	1	16.7 16.7	16.7	8.1 8.1	8.1	32.1 32.1	32.1	100.8 100.7	100.8	8.1 8.1	8.1	7.9	1.0 1.0	1.0		5.2	
11-Jan-14	Sunny	Calm	08:48	Middle	3.5	16.7 16.7	16.7	8.1 8.1	8.1	32.2 32.2	32.2	95.9 94.4	95.2	7.7 7.6	7.7	7.5	1.1 1.1	1.1	1.3	7.9	5.8
				Bottom	6	16.7 16.7	16.7	8.1 8.1	8.1	32.2 32.2	32.2	92.0 91.6	91.8	7.4 7.3	7.4	7.4	1.8 2.0	1.9		4.2	
				Surface	1	17.2 17.2	17.2	8.1 8.2	8.2	32.5 32.5	32.5	93.9 94.0	94.0	7.4 7.4	7.4	7.5	1.1 0.9	1.0		5.9	
13-Jan-14	Sunny	Calm	11:57	Middle	3	17.1 17.1	17.1	8.1 8.1	8.1	32.6 32.6	32.6	93.6 94.2	93.9	7.4 7.5	7.5		1.9 1.6	1.8	2.0	9.9	7.6
				Bottom	5	17.0 17.0	17.0	8.1 8.1	8.1	32.7 32.7	32.7	91.6 90.8	91.2	7.3 7.2	7.3	7.3	3.0 3.2	3.1		7.0	
				Surface	1	17.0 17.1	17.1	8.1 8.1	8.1	32.3 32.3	32.3	87.4 88.2	87.8	7.0 7.0	7.0	7.1	1.7 1.7	1.7		8.1	
16-Jan-14	Sunny	Calm	12:17	Middle	3	16.6 16.7	16.7	8.1 8.1	8.1	32.3 32.3	32.3	88.6 88.8	88.7	7.1 7.1	7.1		2.2 2.2	2.2	2.3	6.8	8.0
				Bottom	5	16.5 16.5	16.5	8.1 8.1	8.1	32.3 32.3	32.3	88.6 88.7	88.7	7.1 7.1	7.1	7.1	3.0 3.1	3.1		9.0	
				Surface	1	17.0 17.0	17.0	8.1 8.1	8.1	32.4 32.4	32.4	92.4 92.1	92.3	7.3 7.3	7.3	7.4	1.5 1.3	1.4		9.2	
18-Jan-14	Sunny	Calm	13:33	Middle	3	16.9 16.8	16.9	8.2 8.2	8.2	32.4 32.4	32.4	93.1 92.6	92.9	7.4 7.4	7.4		2.3 1.9	2.1	2.5	11.7	8.4
				Bottom	5	16.7 16.7	16.7	8.2 8.1	8.2	32.4 32.4	32.4	92.9 92.5	92.7	7.4 7.4	7.4	7.4	3.8 3.9	3.9		4.2	
				Surface	1	16.7 16.7	16.7	8.1 8.1	8.1	32.7 32.7 32.7	32.7	87.9 86.6	87.3	7.0 6.9	7.0	7.0	1.6 1.6 2.2	1.6		9.6	
21-Jan-14	Sunny	Calm	15:10	Middle	3	16.5 16.5 16.5	16.5	8.1 8.1 8.1	8.1	32.7 32.7 32.8	32.7	87.8 86.4 87.5	87.1	7.0 6.9 7.0	7.0		2.2 2.2 2.2	2.2	2.0	5.2	7.2
				Bottom	5	16.5 16.5	16.5	8.1	8.1	32.8	32.8	86.4	87.0	6.9 6.7	7.0	7.0	2.4	2.3		6.9	
				Surface	1	16.1 16.1	16.1	8.2 8.2 8.2	8.2	32.5 32.5 32.5	32.5	83.4 86.1 84.1	84.8	7.0 6.8	6.9	7.0	1.3 1.4 1.4	1.4		6.7	
23-Jan-14	Cloudy	Calm	17:16	Middle	3	16.1 16.1 15.9	16.1	8.2 8.2 8.1	8.2	32.5 32.5 32.5	32.5	84.1 87.7 84.2	85.9	7.1 6.8	7.0		1.4 1.4 3.5	1.4	2.1	4.7	7.2
				Bottom	5	16.0	16.0	8.2	8.2	32.6	32.6	87.6	85.9	7.1	7.0	7.0	3.2	3.4		10.2	

Remarks: *DA: Depth-Averaged

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

Water Quality Monitoring Results at G3 - Mid-Ebb Tide

Date	Weather	Sea	Sampling	Dent	th (m)	Tempera	ature (°C)	ŗ	Н	Salir	ity ppt	DO Satu	ration (%)	Dissol	ved Oxygen	(mg/L)		Turbidity(NTL	1)	Suspended 9	Solids (mg/L)
Date	Condition	Condition**	Time	Бері	ui (iii <i>)</i>	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	DA*
				Surface	1	16.5 16.5	16.5	7.5 7.5	7.5	31.6 31.6	31.6	85.3 84.7	85.0	6.9 6.8	6.9	6.9	0.6 0.6	0.6		5.2	
25-Jan-14	Sunny	Calm	07:38	Middle	3.5	16.4 16.4	16.4	7.5 7.5	7.5	31.7 31.7	31.7	85.0 85.2	85.1	6.9 6.9	6.9	0.9	0.5 0.5	0.5	1.1	10.0	10.2
				Bottom	6	16.3 16.2	16.3	7.5 7.5	7.5	31.7 31.7	31.7	85.4 84.8	85.1	6.9 6.9	6.9	6.9	2.1 2.2	2.2		15.3	
				Surface	1	17.5 17.5	17.5	7.1 7.1	7.1	31.7 31.7	31.7	98.9 97.3	98.1	7.8 7.7	7.8	7.7	1.1 1.0	1.1		5.6	
27-Jan-14	Sunny	Calm	09:26	Middle	3	17.2 17.2	17.2	7.1 7.1	7.1	31.7 31.7	31.7	96.2 95.9	96.1	7.6 7.6	7.6	1.1	1.2 1.2	1.2	1.4	5.2	4.9
				Bottom	5	16.8 16.8	16.8	7.1 7.2	7.2	31.7 31.7	31.7	94.0 93.1	93.6	7.5 7.5	7.5	7.5	1.8 1.8	1.8		3.9	
				Surface	1	18.0 17.9	18.0	7.4 7.5	7.5	31.5 31.6	31.6	97.3 95.3	96.3	7.6 7.5	7.6	7.6	1.5 1.5	1.5		5.2	
29-Jan-14	Sunny	Calm	11:48	Middle	3	17.2 17.3	17.3	7.5 7.5	7.5	31.8 31.7	31.8	95.3 93.1	94.2	7.6 7.4	7.5	7.0	2.2 2.6	2.4	2.4	6.2	6.9
				Bottom	5	16.9 16.9	16.9	7.5 7.5	7.5	31.8 31.8	31.8	85.8 86.1	86.0	6.9 6.9	6.9	6.9	3.4 3.2	3.3		9.2	

Water Quality Monitoring Results at G3 - Mid-Flood Tide

Date	Weather	Sea	Sampling	Dent	h (m)	Tempera	ature (°C)	ŗ	Н	Salir	ity ppt	DO Satu	ration (%)	Disso	lved Oxygen	(mg/L)		Turbidity(NTL	J)	Suspended S	Solids (mg/L)
Date	Condition	Condition**	Time	Бері	11 (111)	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	DA*
				Surface	1	17.2 17.2	17.2	8.1 8.1	8.1	31.9 32.0	32.0	101.4 101.5	101.5	8.1 8.1	8.1		1.3 1.1	1.2		11.3	
7-Jan-14	Cloudy	Calm	11:39	Middle	3.5	17.1 17.1	17.1	8.1 8.1	8.1	32.0 32.1	32.1	100.7 100.2	100.5	8.0 8.0	8.0	8.1	1.2 1.2	1.2	2.0	7.6	8.0
				Bottom	6	17.5 17.5	17.5	8.0 8.0	8.0	32.5 32.6	32.6	77.3 78.8	78.1	6.1 6.2	6.2	6.2	3.4 3.5	3.5		5.0	
				Surface	1	17.2 17.2	17.2	8.1 8.1	8.1	32.5 32.5	32.5	94.3 94.5	94.4	7.5 7.5	7.5		1.9 1.9	1.9		4.6	
9-Jan-14	Cloudy	Calm	13:57	Middle	3.5	17.3	17.3	8.1	8.1	32.5	32.5	89.0	88.7	7.0	7.0	7.3	1.7	1.7	2.2	16.6	9.8
				Bottom	6	17.3 17.3	17.3	8.1	8.0	32.5 32.9	32.9	88.3 69.7	69.6	7.0 5.5	5.5	5.5	3.1	3.1		8.1	
				Surface	1	17.3 17.3	17.3	8.0 8.1	8.1	32.9 32.5	32.5	69.4 112.5	112.4	5.5 8.9	8.9		3.0 1.4	1.4		5.2	
				Ouridoo		17.3	17.0	8.1	0.1	32.5	02.0	112.2		8.9	0.0	8.9	1.4	11		0.2	
11-Jan-14	Sunny	Calm	15:22	Middle	3.5	16.9 16.9	16.9	8.1 8.1	8.1	32.5 32.5	32.5	111.2 110.7	111.0	8.9 8.8	8.9		1.5 1.5	1.5	2.3	5.3	5.7
				Bottom	6	17.0 17.0	17.0	8.0 8.0	8.0	32.6 32.6	32.6	98.8 94.1	96.5	7.8 7.5	7.7	7.7	3.9 3.9	3.9		6.6	
				Surface	1	17.3 17.3	17.3	8.1 8.1	8.1	32.5 32.5	32.5	90.8 89.3	90.1	7.2 7.1	7.2	7.0	1.7 1.9	1.8		6.6	
13-Jan-14	Sunny	Calm	16:23	Middle	4	17.3 17.3	17.3	8.1 8.1	8.1	32.5 32.5	32.5	90.1 89.5	89.8	7.1 7.1	7.1	7.2	1.6 1.5	1.6	2.9	11.0	8.4
				Bottom	7	17.1 17.1	17.1	8.1 8.1	8.1	32.7 32.7	32.7	83.9 86.8	85.4	6.7 6.9	6.8	6.8	5.3 5.0	5.2		7.6	
				Surface	1	17.0 17.1	17.1	8.2 8.1	8.2	32.5 32.5	32.5	66.4 68.1	67.3	5.3 5.4	5.4		2.5 2.6	2.6		5.1	
16-Jan-14	Fine	Calm	17:48	Middle	3.5	16.7 16.9	16.8	8.1 8.1	8.1	32.5 32.5	32.5	68.0 69.5	68.8	5.4 5.5	5.5	5.5	2.4	2.4	3.1	5.6	5.3
				Bottom	6	16.6	16.6	8.1	8.1	32.5	32.5	66.5	67.5	5.3	5.4	5.4	4.1	4.4		5.3	
				Surface	1	16.6 16.7	16.7	8.1 8.1	8.1	32.5 32.1	32.2	68.5 85.6	85.8	5.5 6.9	6.9		4.7 2.0	2.1		6.8	
18-Jan-14	Sunny	Calm	08:45	Middle	3	16.7 16.6	16.6	8.1 8.1	8.1	32.2 32.2	32.2	86.0 85.7	86.0	6.9 6.9	6.9	6.9	2.1	2.1	2.1	10.7	8.5
10 0011 14	Cumy	Cum	00.40	Bottom	5	16.6 16.6	16.6	8.1 8.1	8.1	32.2 32.2	32.2	86.2 85.8	86.1	6.9 6.9	6.9	6.9	2.0	2.2		7.9	0.0
						16.6 16.5		8.1 8.1		32.2 32.2		86.3 89.2		6.9 7.2		0.9	2.1 1.9				
				Surface	1	16.5 16.5	16.5	8.1 8.1	8.1	32.3 32.2	32.3	88.7 89.0	89.0	7.1 7.2	7.2	7.2	2.0 2.0	2.0		7.2	
21-Jan-14	Sunny	Moderate	09:47	Middle	3	16.5 16.5	16.5	8.1 8.1	8.1	32.3 32.3	32.3	88.7 89.0	88.9	7.1 7.2	7.2		1.9	2.0	2.0	11.6	9.3
				Bottom	5	16.5	16.5	8.1	8.1	32.3	32.3	88.7	88.9	7.1	7.2	7.2	2.2	2.1		9.1	
				Surface	1	16.2 16.2	16.2	8.2 8.2	8.2	32.2 32.2	32.2	88.2 89.4	88.8	7.1 7.2	7.2	7.3	1.4 1.4	1.4		6.4	
23-Jan-14	Cloudy	Calm	12:06	Middle	3.5	16.0 15.9	16.0	8.2 8.2	8.2	32.2 32.2	32.2	89.1 89.5	89.3	7.2 7.3	7.3		1.6 1.7	1.7	1.9	6.9	6.8
				Bottom	6	15.8 15.8	15.8	8.2 8.2	8.2	32.2 32.2	32.2	88.8 88.6	88.7	7.2 7.2	7.2	7.2	2.5 2.6	2.6		7.2	

Remarks: *DA: Depth-Averaged

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

Water Quality Monitoring Results at G3 - Mid-Flood Tide

Date	Weather	Sea	Sampling	Dent	th (m)	Tempera	ature (°C)	p	Н	Salir	ity ppt	DO Satu	ration (%)	Dissol	ved Oxygen	(mg/L)	7	Turbidity(NTL	J)	Suspended 9	Solids (mg/L)
Date	Condition	Condition**	Time	БСРІ	(111)	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	DA*
				Surface	1	16.9 16.9	16.9	7.5 7.6	7.6	31.7 31.7	31.7	90.6 91.6	91.1	7.3 7.3	7.3	7.5	0.9 1.0	1.0		8.5	
25-Jan-14	Sunny	Calm	13:25	Middle	3.5	16.4 16.4	16.4	7.6 7.6	7.6	31.8 31.7	31.8	93.2 93.8	93.5	7.5 7.6	7.6	7.5	0.8 0.9	0.9	1.6	7.6	9.2
				Bottom	6	16.3 16.3	16.3	7.7 7.7	7.7	31.8 31.8	31.8	96.2 96.2	96.2	7.8 7.8	7.8	7.8	2.7 3.0	2.9		11.6	
				Surface	1	18.0 18.0	18.0	7.5 7.5	7.5	31.7 31.7	31.7	98.6 98.7	98.7	7.7 7.7	7.7	7.8	1.2 1.1	1.2		13.5	
27-Jan-14	Sunny	Calm	14:44	Middle	3.5	17.4 17.4	17.4	7.6 7.6	7.6	31.8 31.8	31.8	98.5 98.0	98.3	7.8 7.8	7.8	7.0	1.1 1.3	1.2	2.8	7.3	8.4
				Bottom	6	17.0 17.0	17.0	7.6 7.6	7.6	31.8 31.8	31.8	96.7 96.6	96.7	7.7 7.7	7.7	7.7	6.0 5.9	6.0		4.5	
				Surface	1	18.2 18.2	18.2	7.4 7.4	7.4	31.6 31.6	31.6	99.7 96.7	98.2	7.8 7.5	7.7	7.7	1.9 1.9	1.9		4.0	
29-Jan-14	Fine	Calm	16:55	Middle	4	17.6 17.7	17.7	7.4 7.4	7.4	31.7 31.7	31.7	96.0 96.9	96.5	7.6 7.6	7.6	1.1	2.0 2.1	2.1	2.7	7.9	6.9
				Bottom	7	17.0 17.0	17.0	7.5 7.5	7.5	31.8 31.7	31.8	84.0 83.3	83.7	6.7 6.6	6.7	6.7	3.9 4.0	4.0		8.8	

Water Quality Monitoring Results at G4 - Mid-Ebb Tide

Date	Weather	Sea	Sampling	Dent	h (m)	Tempera	iture (°C)	р	Н	Salini	ity ppt	DO Satu	ration (%)	Dissol	ved Oxygen	(mg/L)	٦	Turbidity(NTL	J)	Suspended S	Solids (mg/L)
Date	Condition	Condition**	Time	БСРІ	()	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	DA*
				Surface	1	17.2 17.2	17.2	8.2 8.1	8.2	32.4 32.4	32.4	103.2 103.5	103.4	8.2 8.2	8.2	0.0	1.3 1.2	1.3		7.9	
7-Jan-14	Cloudy	Calm	17:26	Middle	-		-	-	-		-		-	-	-	8.2	-	-	3.0	-	7.3
				Bottom	4.6	17.1 17.1	17.1	8.1 8.1	8.1	32.6 32.6	32.6	90.0 89.7	89.9	7.1 7.1	7.1	7.1	4.6 4.5	4.6		6.7	
				Surface	1	17.1 17.1	17.1	8.1 8.1	8.1	30.1 29.8	30.0	99.5 99.6	99.6	8.0 8.0	8.0		1.1	1.2		7.9	
9-Jan-14	Cloudy	Calm	07:31	Middle	-	-	-	-	-	-	-	-	-	-	-	8.0	-	-	1.9	-	7.5
				Bottom	3.9	17.0 17.0	17.0	8.0 8.0	8.0	29.9 29.7	29.8	84.7 84.4	84.6	6.8 6.8	6.8	6.8	2.5 2.5	2.5		7.1	
				Surface	1	16.8 16.8	16.8	8.1 8.1	8.1	32.5 32.5	32.5	93.6 93.1	93.4	7.5 7.4	7.5	7.5	1.6 1.5	1.6		10.5	
11-Jan-14	Sunny	Calm	09:24	Middle	-	-	-	-	-	-	-	-	-	-	-	7.5	-	-	1.8	-	10.7
				Bottom	4.5	16.7 16.7	16.7	8.1 8.1	8.1	32.5 32.5	32.5	91.1 90.7	90.9	7.3 7.2	7.3	7.3	2.0 1.8	1.9		10.9	
				Surface	1	16.9 16.9	16.9	8.2 8.2	8.2	32.6 32.6	32.6	91.2 91.3	91.3	7.3 7.3	7.3	7.3	1.5 1.5	1.5		10.4	
13-Jan-14	Sunny	Calm	11:21	Middle	-	-	-	-	-		1	1 1	-	-	-	7.5	-	-	1.6	-	10.6
				Bottom	4	16.8 16.9	16.9	8.2 8.2	8.2	32.6 32.6	32.6	91.4 91.6	91.5	7.3 7.3	7.3	7.3	1.6 1.8	1.7		10.8	
				Surface	1	17.0 17.0	17.0	8.2 8.2	8.2	32.6 32.5	32.6	92.2 92.7	92.5	7.3 7.4	7.4	7.4	1.6 1.9	1.8		6.4	
16-Jan-14	Sunny	Calm	12:35	Middle	-	-	-	-	-		-	1 1	-	-	-	7.4	-	-	2.1	-	8.3
				Bottom	4.1	16.5 16.6	16.6	8.2 8.2	8.2	32.5 32.5	32.5	93.3 93.6	93.5	7.5 7.5	7.5	7.5	2.2 2.3	2.3		10.2	
				Surface	1	16.8 16.8	16.8	8.2 8.2	8.2	32.4 32.5	32.5	81.0 81.0	81.0	6.5 6.5	6.5	6.5	1.2 1.3	1.3		11.5	
18-Jan-14	Sunny	Calm	13:19	Middle	-	-	-	-	-	-	-	-	-	-	-	0.0	-	-	1.4	-	10.9
				Bottom	4.1	16.7 16.7	16.7	8.2 8.2	8.2	32.4 32.5	32.5	81.9 81.8	81.9	6.5 6.5	6.5	6.5	1.5 1.4	1.5		10.3	
				Surface	1	16.4 16.4	16.4	8.2 8.2	8.2	33.0 32.9	33.0	86.9 84.3	85.6	7.0 6.8	6.9	6.9	1.6 1.8	1.7		7.6	
21-Jan-14	Sunny	Calm	15:21	Middle	-	-	-	-	-	-	-	-	-	-	-		-	-	2.0	-	8.0
				Bottom	4.9	16.3 16.3	16.3	8.2 8.2	8.2	32.9 32.9	32.9	85.1 84.8	85.0	6.8	6.8	6.8	2.5 2.1	2.3		8.4	
				Surface	1	16.2 16.2	16.2	8.2 8.2	8.2	32.4 32.4	32.4	87.3 88.4	87.9	7.1 7.1	7.1	7.1	1.2 1.2	1.2		8.0	
23-Jan-14	Cloudy	Calm	16:55	Middle	-		-	-	-		-		-		-			-	2.1	-	9.7
				Bottom	4.2	16.1 16.0	16.1	8.2 8.2	8.2	32.5 32.4	32.5	88.1 88.9	88.5	7.1 7.2	7.2	7.2	2.7 3.1	2.9		11.4	

Remarks: *DA: Depth-Averaged

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

Water Quality Monitoring Results at G4 - Mid-Ebb Tide

Date	Weather	Sea	Sampling	Dent	th (m)	Tempera	ature (°C)	p	Н	Salir	ity ppt	DO Satu	ration (%)	Dissol	ved Oxygen	(mg/L)	1	Turbidity(NTL	J)	Suspended	Solids (mg/L)
Date	Condition	Condition**	Time	Бері	ui (iii <i>)</i>	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	DA*
				Surface	1	16.2 16.2	16.2	7.7 7.7	7.7	31.7 31.7	31.7	88.5 88.5	88.5	7.2 7.2	7.2	7.2	0.6 0.6	0.6		6.7	
25-Jan-14	Sunny	Calm	07:56	Middle	-	-	-	-	-	-	-	-	-	-	-	1.2	-	-	0.6	-	10.7
				Bottom	4.5	16.2 16.2	16.2	7.7 7.7	7.7	31.7 31.7	31.7	88.8 88.8	88.8	7.2 7.2	7.2	7.2	0.5 0.5	0.5		14.6	
				Surface	1	16.9 16.9	16.9	7.4 7.4	7.4	31.7 31.7	31.7	99.5 99.4	99.5	8.0 8.0	8.0	8.0	1.6 1.3	1.5		8.3	
27-Jan-14	Sunny	Calm	09:41	Middle	-	-	-	-	-		-	1 1	-	1 1	-	0.0	-	-	1.4	-	8.1
				Bottom	4.1	16.8 16.8	16.8	7.4 7.4	7.4	31.7 31.7	31.7	99.6 99.6	99.6	8.0 8.0	8.0	8.0	1.3 1.3	1.3		7.8	
				Surface	1	17.8 17.7	17.8	7.4 7.5	7.5	31.7 31.7	31.7	99.6 98.3	99.0	7.8 7.8	7.8	7.8	1.3 1.6	1.5		4.5	
29-Jan-14	Sunny	Calm	12:09	Middle	-	-	-	-	-		-	1 1	-	1 1	-	7.0	-	-	3.1	-	5.4
				Bottom	4.1	16.8 16.9	16.9	7.5 7.5	7.5	31.8 31.8	31.8	94.3 94.3	94.3	7.5 7.5	7.5	7.5	4.8 4.4	4.6		6.3	

Water Quality Monitoring Results at G4 - Mid-Flood Tide

Date	Weather	Sea	Sampling	Dent	h (m)	Tempera	ature (°C)	p	Н	Salin	ity ppt	DO Satu	ration (%)	Disso	lved Oxygen	(mg/L)		Turbidity(NTL	J)	Suspended S	Solids (mg/L)
Date	Condition	Condition**	Time	Бері	11 (111)	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	DA*
				Surface	1	17.1 17.1	17.1	8.1 8.1	8.1	32.5 32.5	32.5	101.7 102.0	101.9	8.1 8.1	8.1	0.4	1.8 1.5	1.7		7.9	
7-Jan-14	Cloudy	Calm	12:06	Middle	-	-	-	-	-	-	-		-	-	-	8.1	-	-	2.1	-	8.6
				Bottom	4.3	17.1 17.1	17.1	8.1 8.1	8.1	32.5 32.5	32.5	101.1 100.9	101.0	8.0 8.0	8.0	8.0	2.2 2.6	2.4		9.3	
				Surface	1	17.0 17.0	17.0	8.1 8.2	8.2	32.2 32.2	32.2	101.5 102.3	101.9	8.1 8.1	8.1	8.1	0.8 0.8	0.8		6.1	
9-Jan-14	Cloudy	Calm	12:49	Middle	-	-	-	-	-	-	-	-	-	-	-	0.1	-	-	1.2	-	7.7
				Bottom	4.5	17.2 17.2	17.2	8.1 8.1	8.1	32.6 32.6	32.6	95.8 95.0	95.4	7.6 7.5	7.6	7.6	1.5 1.6	1.6		9.3	
				Surface	1	17.2 17.3	17.3	8.1 8.1	8.1	32.6 32.6	32.6	102.4 101.7	102.1	8.1 8.0	8.1	8.1	1.3 1.3	1.3		5.9	
11-Jan-14	Sunny	Calm	14:53	Middle	1	-	-	-	-		-	1 1	-	-	-	0.1	-	-	2.1	-	5.9
				Bottom	4.6	16.9 16.9	16.9	8.1 8.1	8.1	32.6 32.6	32.6	99.9 99.5	99.7	8.0 7.9	8.0	8.0	2.9 2.9	2.9		5.9	
				Surface	1	17.0 17.0	17.0	8.1 8.2	8.2	32.8 32.8	32.8	90.0 88.7	89.4	7.1 7.0	7.1	7.1	2.0 1.6	1.8		7.6	
13-Jan-14	Sunny	Calm	16:46	Middle	-	-	-	-	-	-	-		-	-	-	7	-	-	2.3	-	7.9
				Bottom	4.6	16.9 17.0	17.0	8.1 8.1	8.1	32.9 32.9	32.9	87.8 82.7	85.3	7.0 6.6	6.8	6.8	2.5 3.0	2.8		8.1	
				Surface	1	16.8 16.8	16.8	8.2 8.2	8.2	32.5 32.5	32.5	82.3 82.5	82.4	6.6 6.6	6.6	6.6	1.4 1.4	1.4		5.6	
16-Jan-14	Fine	Calm	18:09	Middle	-	-	-	-	-	-	-		-	-	-	0.0	-	-	2.3	-	5.4
				Bottom	4.9	16.7 16.7	16.7	8.2 8.2	8.2	32.7 32.7	32.7	81.1 81.8	81.5	6.5 6.5	6.5	6.5	3.0 3.4	3.2		5.2	
				Surface	1	16.5 16.5	16.5	8.2 8.2	8.2	32.5 32.5	32.5	80.1 80.5	80.3	6.4 6.5	6.5	6.5	1.7 1.6	1.7		6.7	
18-Jan-14	Sunny	Calm	09:07	Middle	-	-	-	-	-		-	1 1	-	-	-	0.0	-	-	2.2	-	5.9
				Bottom	4.2	16.5 16.5	16.5	8.1 8.1	8.1	32.5 32.5	32.5	80.6 81.1	80.9	6.5 6.5	6.5	6.5	2.7 2.5	2.6		5.1	
				Surface	1	16.2 16.2	16.2	8.1 8.1	8.1	32.5 32.6	32.6	87.8 87.8	87.8	7.1 7.1	7.1	7.1	1.7 1.7	1.7		11.1	
21-Jan-14	Sunny	Moderate	10:07	Middle	-	-	-	-	-	1 1	-	1 1	-	-	-	,.,		-	1.5	-	9.9
				Bottom	4.8	16.2 16.2	16.2	8.1 8.1	8.1	32.6 32.6	32.6	88.2 88.2	88.2	7.1 7.1	7.1	7.1	1.2 1.3	1.3		8.7	
				Surface	1	15.9 16.0	16.0	8.2 8.2	8.2	32.1 32.2	32.2	87.7 89.6	88.7	7.1 7.3	7.2	7.2	1.5 1.6	1.6		10.9	
23-Jan-14	Cloudy	Calm	12:27	Middle	-	-	-	-	-	-	-	-	-	-	-		-	-	2.4	-	10.2
				Bottom	4.8	16.0 16.0	16.0	8.2 8.2	8.2	32.4 32.4	32.4	89.3 90.2	89.8	7.2 7.3	7.3	7.3	3.0 3.1	3.1		9.5	

Water Quality Monitoring Results at G4 - Mid-Flood Tide

Date	Weather	Sea	Sampling	Dent	th (m)	Tempera	ature (°C)	p	Н	Salir	ity ppt	DO Satu	ration (%)	Dissol	lved Oxygen	(mg/L)	7	Turbidity(NTL	J)	Suspended 9	Solids (mg/L)
Date	Condition	Condition**	Time	Бері	ui (iii <i>)</i>	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	DA*
				Surface	1	17.0 17.0	17.0	7.5 7.5	7.5	31.7 31.7	31.7	90.3 90.4	90.4	7.2 7.2	7.2	7.2	0.6 0.6	0.6		8.5	
25-Jan-14	Sunny	Calm	13:16	Middle	-	-	-	-	-	-	-	-	-	-	-	1.2	-	-	1.0	-	9.6
				Bottom	4.3	16.3 16.3	16.3	7.6 7.6	7.6	31.8 31.7	31.8	90.0 90.0	90.0	7.3 7.3	7.3	7.3	1.2 1.3	1.3		10.7	
				Surface	1	17.4 17.4	17.4	7.7 7.7	7.7	31.7 31.7	31.7	102.6 102.5	102.6	8.1 8.1	8.1	8.1	1.0 1.0	1.0		9.7	
27-Jan-14	Sunny	Calm	15:01	Middle	-	-	-	-	-	-	-	-	-	-	-	0.1	-	-	1.4	-	10.2
				Bottom	4.9	16.9 16.9	16.9	7.7 7.7	7.7	31.8 31.8	31.8	101.1 100.2	100.7	8.1 8.0	8.1	8.1	1.8 1.7	1.8		10.6	
				Surface	1	17.9 18.0	18.0	7.6 7.6	7.6	31.5 31.4	31.5	101.3 101.6	101.5	8.0 8.0	8.0	8.0	1.6 1.3	1.5		6.5	
29-Jan-14	Fine	Calm	17:15	Middle	3	17.1 17.2	17.2	7.7 7.7	7.7	31.8 31.8	31.8	100.9 100.3	100.6	8.0 8.0	8.0	0.0	1.8 1.7	1.8	2.1	8.6	8.7
				Bottom	5	16.7 16.7	16.7	7.7 7.7	7.7	31.9 31.9	31.9	96.1 95.9	96.0	7.7 7.7	7.7	7.7	3.1 3.1	3.1		10.9	

Metal Results at F4 - Mid-Ebb Tide

Date	Depth	Arseni	c (µg/L)	Coppe	r (µg/L)	Lead	(μg/L)	Zinc	(μg/L)
Date	Берш	Value	Average	Value	Average	Value	Average	Value	Average
	Surface	19		5		<1		20	
7-Jan-14	Middle	19	19	5	5	<1	<1	20	20
	Bottom	19		5		<1		20	
	Surface	21		6		1		19	
9-Jan-14	Middle	20	20	6	6	1	1	21	19
	Bottom	18		5		<1		16	
	Surface	20		4		<1		18	
11-Jan-14	Middle	18	19	5	5	<1	<1	13	16
	Bottom	19		5		<1		17	
	Surface	19		4		<1		15	
13-Jan-14	Middle	19	19	4	4	<1	<1	13	14
	Bottom	19		5	1	<1		15	
	Surface	20		5		<1		23	
16-Jan-14	Middle	19	20	5	5	<1	<1	11	16
	Bottom	20		4	1	<1	1	14	1
	Surface	21		4		<1		15	
18-Jan-14	Middle	24	22	3	4	<1	<1	15	16
	Bottom	22		4	1	<1	1	17	1
	Surface	21		4		<1		16	
21-Jan-14	Middle	18	20	4	4	<1	<1	20	19
	Bottom	20		4	1	<1	1	20	1
	Surface	22		3		<1		15	
23-Jan-14	Middle	23	22	3	3	<1	<1	15	15
	Bottom	22		3	1	<1	1	15	1
	Surface	23		8		<1		17	
25-Jan-14	Middle	22	22	3	5	<1	<1	19	17
	Bottom	21	1	4	1	<1	1	14	1
	Surface	23		7	Ì	<1		17	
27-Jan-14	Middle	22	23	5	6	<1	<1	17	17
	Bottom	23	1	5	1	<1	1	18	1
	Surface	22		6		<1		18	
29-Jan-14	Middle	22	22	4	5	<1	<1	12	16
	Bottom	22	1	6	1	<1	1	17	1

Metal Results at F4 - Mid-Flood Tide

Date	Depth	Arseni	c (μg/L)	Coppe	r (µg/L)	Lead	(μg/L)	Zinc	(μg/L)
Date	Берит	Value	Average	Value	Average	Value	Average	Value	Average
	Surface	19		5		<1		20	
7-Jan-14	Middle	19	19	5	5	<1	<1	20	20
	Bottom	19		5		<1		20	
	Surface	21		5		1		18	
9-Jan-14	Middle	21	20	6	5	1	1	21	19
	Bottom	18		5		<1		17	
	Surface	18		4		<1		16	
11-Jan-14	Middle	19	19	4	4	<1	<1	17	15
	Bottom	20		5		<1]	13	
	Surface	20		5		<1		14	
13-Jan-14	Middle	21	20	5	5	<1	<1	10	12
	Bottom	20		4		<1		11	
	Surface	19		5		<1		17	
16-Jan-14	Middle	18	18	5	5	<1	<1	19	16
	Bottom	18		5		<1		11	
	Surface	23		4		<1		16	
18-Jan-14	Middle	22	22	4	4	<1	<1	17	17
	Bottom	22		4		<1		19	
	Surface	17		4		<1		23	
21-Jan-14	Middle	18	17	5	4	<1	<1	16	20
	Bottom	17		4		<1	1	20	
	Surface	23		4		<1		15	
23-Jan-14	Middle	20	21	4	5	<1	<1	17	15
	Bottom	21		6		<1		14	
	Surface	21		5		<1		15	
25-Jan-14	Middle	21	21	5	4	<1	<1	16	15
	Bottom	20		3		<1		15	
	Surface	22		4		<1		18	
27-Jan-14	Middle	22	22	4	5	<1	<1	18	18
	Bottom	23		6		<1	1	17	
	Surface	22		5		<1		18	
29-Jan-14	Middle	20	21	3	5	<1	<1	14	16
	Bottom	22	1	6		<1	1	16	1

Metal Results at F5 - Mid-Ebb Tide

Date	Depth	Arseni	c (µg/L)	Coppe	r (µg/L)	Lead	(μg/L)	Zinc	(μg/L)
Date	Берит	Value	Average	Value	Average	Value	Average	Value	Average
	Surface	19		5		<1		13	
7-Jan-14	Middle	19	19	5	5	<1	<1	12	12
	Bottom	19		5		<1		12	
	Surface	19		5		<1		17	
9-Jan-14	Middle	19	19	6	5	<1	<1	17	16
	Bottom	20		5		<1		14	
	Surface	19		4		<1		12	
11-Jan-14	Middle	19	19	6	5	<1	<1	19	14
	Bottom	19		5		<1		12	
	Surface	20		4		<1		14	
13-Jan-14	Middle	20	20	4	4	<1	<1	19	17
	Bottom	19		5	1	<1	1	18	
	Surface	18		5		<1		10	
16-Jan-14	Middle	18	18	5	5	<1	<1	21	16
	Bottom	18		5	1	<1	1	17	1
	Surface	22		3		<1		16	
18-Jan-14	Middle	24	22	3	3	<1	<1	15	16
	Bottom	21		4	1	<1	1	18	1
	Surface	19		4		<1		19	
21-Jan-14	Middle	17	19	5	5	<1	<1	21	19
	Bottom	20		5	1	<1	1	18	1
	Surface	22		4		<1		16	
23-Jan-14	Middle	23	23	4	5	<1	<1	14	15
	Bottom	24		8	1	<1	1	15	1
	Surface	22		4		<1		13	
25-Jan-14	Middle	23	22	4	4	<1	<1	13	15
	Bottom	20	1	5	1	<1	1	18	
	Surface	24		4	Ì	<1	Ì	16	
27-Jan-14	Middle	23	23	6	5	<1	<1	15	16
	Bottom	23	1	6	1	<1	1	18	1
	Surface	21		5		<1		16	
29-Jan-14	Middle	20	20	5	6	<1	<1	15	15
	Bottom	20	1	7	1	<1	1	15	1

Metal Results at F5 - Mid-Flood Tide

Date	Depth	Arseni	c (μg/L)	Coppe	r (µg/L)	Lead	(μg/L)	Zinc	(μg/L)
Date	Берит	Value	Average	Value	Average	Value	Average	Value	Average
	Surface	19		5		<1		13	
7-Jan-14	Middle	19	19	5	5	<1	<1	13	13
	Bottom	19		5		<1		13	
	Surface	19		5		<1		18	
9-Jan-14	Middle	19	19	6	5	<1	<1	18	17
	Bottom	20		5		<1		14	
	Surface	19		4		<1		19	
11-Jan-14	Middle	19	19	5	4	<1	<1	14	18
	Bottom	18		4		<1		21	
	Surface	20		5		<1		11	
13-Jan-14	Middle	19	19	4	4	<1	<1	14	14
	Bottom	19		4		<1	1	17	
	Surface	19		4		<1		12	
16-Jan-14	Middle	21	19	5	5	<1	<1	10	11
	Bottom	18		5		<1	1	11	
	Surface	21		4		<1		17	
18-Jan-14	Middle	24	23	3	4	<1	<1	19	18
	Bottom	23		4		<1	1	17	
	Surface	18		4		<1		18	
21-Jan-14	Middle	18	18	3	4	<1	<1	17	19
	Bottom	19		4		<1	1	21	
	Surface	23		7		<1		14	
23-Jan-14	Middle	20	21	5	5	<1	<1	16	16
	Bottom	21		4		<1	1	17	
	Surface	20		6		<1		16	
25-Jan-14	Middle	22	21	7	7	<1	<1	15	16
	Bottom	21		7		<1	1	16	1
	Surface	23		4		<1		16	
27-Jan-14	Middle	23	23	5	5	<1	<1	15	15
	Bottom	23	1	6		<1	1	15	1
	Surface	21		5		<1		16	
29-Jan-14	Middle	20	20	6	5	<1	<1	15	15
	Bottom	20	1	5	1	<1	1	15	1

Metal Results at F6 - Mid-Ebb Tide

Date	Depth	Arseni	c (µg/L)	Coppe	r (µg/L)	Lead	(μg/L)	Zinc	(μg/L)
Date	Берит	Value	Average	Value	Average	Value	Average	Value	Average
	Surface	20		5		<1		12	
7-Jan-14	Middle	20	20	5	5	<1	<1	12	12
	Bottom	20		5		<1		12	
	Surface	21		5		<1		15	
9-Jan-14	Middle	21	21	9	6	1	1	16	15
	Bottom	21		5		1		14	
	Surface	18		4		<1		18	
11-Jan-14	Middle	18	18	5	5	<1	<1	16	18
	Bottom	19		5		<1		21	
	Surface	19		4		<1		10	
13-Jan-14	Middle	19	19	5	5	<1	<1	11	11
	Bottom	19		5		<1		13	
	Surface	20		5		<1		15	
16-Jan-14	Middle	18	19	6	5	<1	<1	12	13
	Bottom	18		5		<1		13	
	Surface	23		3		<1		15	
18-Jan-14	Middle	21	22	5	4	<1	<1	16	15
	Bottom	23		3		<1		15	
	Surface	17		3		<1		21	
21-Jan-14	Middle	18	18	3	3	<1	<1	16	18
	Bottom	18		3		<1		17	
	Surface	21		4		<1		16	
23-Jan-14	Middle	25	23	6	4	<1	<1	13	14
	Bottom	22		3		<1		14	
	Surface	21		7		<1		13	
25-Jan-14	Middle	20	21	3	4	<1	<1	13	13
	Bottom	23		3		<1		14	
	Surface	23		6		<1		18	
27-Jan-14	Middle	23	23	3	5	<1	<1	16	17
	Bottom	24	1	6		<1		17	
Ī	Surface	22		8		<1		15	
29-Jan-14	Middle	22	22	6	7	<1	<1	18	17
	Bottom	23	1	8		<1		17	

Metal Results at F6 - Mid-Flood Tide

Date	Donth	Arseni	c (μg/L)	Coppe	r (µg/L)	Lead	(μg/L)	Zinc	(μg/L)
Date	Depth	Value	Average	Value	Average	Value	Average	Value	Average
	Surface	20		5		<1		12	
7-Jan-14	Middle	20	20	5	5	<1	<1	12	12
	Bottom	20		5		<1		12	
	Surface	22		5		<1		15	
9-Jan-14	Middle	21	21	9	6	1	1	17	15
	Bottom	20	1	5	1	1		14	
	Surface	18		6		<1		15	
11-Jan-14	Middle	19	19	4	5	<1	<1	14	16
	Bottom	19	1	6	1	<1		19	
	Surface	20		6		<1		14	
13-Jan-14	Middle	19	19	4	5	<1	<1	17	16
	Bottom	19	1	4		<1		16	1
	Surface	19		6		<1		14	
16-Jan-14	Middle	19	19	5	5	<1	<1	11	12
	Bottom	19	1	5	1	<1		11	
	Surface	21		4		<1		19	
18-Jan-14	Middle	22	22	5	4	<1	<1	16	17
	Bottom	23	1	4		<1		17	1
	Surface	20		4		<1		17	
21-Jan-14	Middle	18	19	4	4	<1	<1	18	19
	Bottom	18	1	5		<1		22	1
	Surface	22		6		<1		18	
23-Jan-14	Middle	20	22	5	5	<1	<1	18	17
	Bottom	25	1	3		<1		14	1
	Surface	23		5		<1		14	
25-Jan-14	Middle	21	23	5	5	<1	<1	14	14
	Bottom	24	1	4	1	<1	1	15	1
	Surface	23		6		<1		13	
27-Jan-14	Middle	24	23	6	6	<1	<1	13	14
<u> </u>	Bottom	23	1	7	1	<1	1	17	1
	Surface	21		7	Ì	<1		17	
29-Jan-14	Middle	22	22	6	7	<1	<1	18	18
	Bottom	24	1	9	1 .	<1	1	19	1

Metal Results at F7 - Mid-Ebb Tide

Date	Depth	Arseni	c (µg/L)	Coppe	r (µg/L)	Lead	(μg/L)	Zinc	(μg/L)
Date	Берит	Value	Average	Value	Average	Value	Average	Value	Average
	Surface	20		5		<1		14	
7-Jan-14	Middle	20	20	5	5	<1	<1	14	14
	Bottom	20		5		<1		14	
	Surface	22		6		<1		18	
9-Jan-14	Middle	20	22	6	6	<1	<1	15	16
	Bottom	23		6		<1		15	
	Surface	19		5		<1		19	
11-Jan-14	Middle	19	20	4	4	<1	<1	12	16
	Bottom	21		4		<1		17	
	Surface	18		5		<1		10	
13-Jan-14	Middle	19	19	4	4	<1	<1	14	12
	Bottom	20		4	1	<1		11	
	Surface	18		4		<1		17	
16-Jan-14	Middle	18	18	4	4	<1	<1	17	18
	Bottom	19		5	1	<1	1	19	1
	Surface	22		4		<1		16	
18-Jan-14	Middle	24	22	4	4	<1	<1	22	18
	Bottom	21		3	1	<1	1	17	1
	Surface	18		4		<1		20	
21-Jan-14	Middle	19	18	5	4	<1	<1	18	18
	Bottom	18		3	1	<1	1	16	1
	Surface	20		5		<1		16	
23-Jan-14	Middle	21	22	5	5	<1	<1	16	15
	Bottom	26		4	1	<1	1	13	1
	Surface	24		6		<1		14	
25-Jan-14	Middle	20	22	6	5	<1	<1	18	16
	Bottom	22	1	4	1	<1		15	
	Surface	22		6		<1		17	
27-Jan-14	Middle	22	22	5	5	<1	<1	18	17
	Bottom	22	1	5	1	<1	1	16	1
	Surface	22		5		<1		15	
29-Jan-14	Middle	22	22	3	5	<1	<1	13	14
	Bottom	23	1	6	1	<1	1	14	1

Metal Results at F7 - Mid-Flood Tide

Date	Donth	Arseni	c (μg/L)	Coppe	r (µg/L)	Lead	(μg/L)	Zinc	(μg/L)
Date	Depth	Value	Average	Value	Average	Value	Average	Value	Average
	Surface	20		5		<1		14	
7-Jan-14	Middle	20	20	5	5	<1	<1	14	14
	Bottom	20		5		<1		14	
	Surface	22		6		<1		17	
9-Jan-14	Middle	20	22	6	6	<1	<1	15	16
	Bottom	25		6		<1		15	
	Surface	20		4		<1		18	
11-Jan-14	Middle	19	19	4	4	<1	<1	21	18
	Bottom	18		4		<1		15	
	Surface	19		4		<1		12	
13-Jan-14	Middle	18	19	4	4	<1	<1	15	17
	Bottom	19	1	5	1	<1		23	
	Surface	19		6		<1		16	
16-Jan-14	Middle	20	19	6	5	<1	<1	21	17
	Bottom	18		4		<1		13	
	Surface	24		3		<1		15	
18-Jan-14	Middle	23	23	4	4	<1	<1	16	15
	Bottom	22		4		<1		15	
	Surface	20		4		<1		17	
21-Jan-14	Middle	20	19	4	4	<1	<1	19	19
	Bottom	17		3		<1		21	
	Surface	21		7		<1		15	
23-Jan-14	Middle	21	22	7	6	<1	<1	18	17
	Bottom	23		4		<1		18	
	Surface	21		6		<1		14	
25-Jan-14	Middle	24	22	4	5	<1	<1	14	14
	Bottom	20		4		<1		14	
	Surface	25		6		<1		18	
27-Jan-14	Middle	22	23	4	5	<1	<1	17	17
F	Bottom	21	1	4	1	<1	1	17	
İ	Surface	22		5		<1		15	
29-Jan-14	Middle	22	22	3	4	<1	<1	13	14
F	Bottom	23	1	3	1	<1	1	15	1

Metal Results at F8 - Mid-Ebb Tide

Date	Depth	Arsenie	c (μg/L)	Copper	r (µg/L)	Lead	(μg/L)	Zinc	(μg/L)
Date	Берит	Value	Average	Value	Average	Value	Average	Value	Average
	Surface	20		5		<1		20	
7-Jan-14	Middle	-	20	-	5	-	<1	-	20
	Bottom	20		5		<1		20	
	Surface	22		6		<1		14	
9-Jan-14	Middle	-	21	-	6	-	<1	-	14
	Bottom	20		6		<1		14	
	Surface	18		4		<1		17	
11-Jan-14	Middle	-	19	-	4	-	<1	-	16
	Bottom	19		4		<1		14	
	Surface	18		6		<1		17	
13-Jan-14	Middle	-	18	-	5	-	<1	-	14
	Bottom	18		4		<1		11	
	Surface	19		4		<1		23	
16-Jan-14	Middle	-	19	-	5	-	<1	-	20
	Bottom	19		5		<1		16	
	Surface	22		4		<1		16	
18-Jan-14	Middle	-	23	-	4	-	<1	-	19
	Bottom	24		4		<1		22	
	Surface	20		6		<1		13	
23-Jan-14	Middle	-	22	-	6	-	<1	-	14
	Bottom	23	1	6	1	<1	1	14]
	Surface	22		5		<1		14	
25-Jan-14	Middle	-	22	-	6	-	<1	-	14
	Bottom	22		7		<1		14	

Metal Results at F8 - Mid-Flood Tide

Date	Depth	Arseni	c (μg/L)	Copper	r (µg/L)	Lead	(μg/L)	Zinc	(μg/L)
Date	Берит	Value	Average	Value	Average	Value	Average	Value	Average
	Surface	20		5		<1		20	
7-Jan-14	Middle	-	20	-	5	-	<1	ı	20
	Bottom	20		5		<1		20	
	Surface	19		4		<1		15	
11-Jan-14	Middle	-	19	-	5	-	<1	-	15
	Bottom	18		5		<1		15	
	Surface	20		5		<1		13	
13-Jan-14	Middle	-	19	-	5	-	<1	ı	12
	Bottom	18		5		<1		11	
	Surface	20		4		<1		12	
16-Jan-14	Middle	-	20	-	5	-	<1	ı	12
	Bottom	19		5		<1		12	
	Surface	20		3		<1		14	
23-Jan-14	Middle	-	20	-	4	-	<1	-	15
	Bottom	20		4		<1		16	
	Surface	23		4		<1		13	
25-Jan-14	Middle	-	23	-	5	-	<1	-	14
	Bottom	22		6		<1		14	
	Surface	21		4		<1	-	15	
29-Jan-14	Middle	-	22	-	4	-	<1	-	15
	Bottom	22		3		<1		14	

Metal Results at G2 - Mid-Ebb Tide

Date	Depth	Arseni	c (μg/L)	Coppe	r (µg/L)	Lead	(μg/L)	Zinc	(μg/L)
Date	Берит	Value	Average	Value	Average	Value	Average	Value	Average
	Surface	21		5		<1		17	
7-Jan-14	Middle	21	21	5	5	<1	<1	17	17
	Bottom	21		5		<1		17	
	Surface	22		6		<1		13	
9-Jan-14	Middle	22	22	6	6	<1	<1	14	13
	Bottom	23		6		<1		13	
	Surface	19		4		<1		13	
11-Jan-14	Middle	18	19	5	5	<1	<1	15	13
	Bottom	20		5		<1		11	
	Surface	20		5		<1		15	
13-Jan-14	Middle	19	19	5	5	<1	<1	15	15
	Bottom	18		4		<1		14	
	Surface	19		5		<1		20	
16-Jan-14	Middle	20	20	4	5	<1	<1	19	16
	Bottom	20		5		<1		10	
	Surface	21		4		<1		18	
18-Jan-14	Middle	23	23	3	4	<1	<1	19	18
	Bottom	24		4		<1		18	
	Surface	19		5		<1		18	
21-Jan-14	Middle	21	19	4	4	<1	<1	19	19
	Bottom	18		4		<1		19	
	Surface	22		3		<1		14	
23-Jan-14	Middle	23	23	5	4	<1	<1	15	14
	Bottom	23		5		<1		14	
	Surface	20		5		<1		15	
25-Jan-14	Middle	22	22	3	5	<1	<1	14	15
	Bottom	23		6		<1		17	
İ	Surface	23		6		<1		15	
27-Jan-14	Middle	23	23	5	5	<1	<1	16	16
	Bottom	22		4		<1	<u> </u>	16	
Ī	Surface	21		4		<1		14	
29-Jan-14	Middle	22	22	3	4	<1	<1	14	15
	Bottom	24]	6		<1]	18	

Metal Results at G2 - Mid-Flood Tide

Date	Depth	Arseni	c (μg/L)	Coppe	r (μg/L)	Lead	(μg/L)	Zinc	(μg/L)
Date	Берит	Value	Average	Value	Average	Value	Average	Value	Average
	Surface	21		5		<1		17	
7-Jan-14	Middle	21	21	5	5	<1	<1	17	17
	Bottom	21		5		<1		17	
	Surface	22		5		<1		13	
9-Jan-14	Middle	22	22	6	5	<1	<1	13	13
	Bottom	23		5		<1		13	
	Surface	19		5		<1		22	
11-Jan-14	Middle	20	19	5	5	<1	<1	14	16
	Bottom	19		6		<1		13	
	Surface	18		4		<1		14	
13-Jan-14	Middle	19	19	5	4	<1	<1	15	13
	Bottom	19		4		<1		11	
	Surface	19		4	4	<1	<1	14	14
16-Jan-14	Middle	19	20	4		<1		12	
Ī	Bottom	21	1	5		<1		15	
	Surface	22		3		<1		19	
18-Jan-14	Middle	21	22	4	3	<1	<1	18	18
	Bottom	22		3		<1		18	
	Surface	18		4		<1		17	
21-Jan-14	Middle	20	20	4	4	<1	<1	16	17
	Bottom	21		3		<1		19	1
	Surface	22		4		<1		16	
23-Jan-14	Middle	22	23	4	4	<1	<1	18	16
	Bottom	24	1	4		<1		15	
	Surface	20		3		<1		15	
25-Jan-14	Middle	20	20	5	5	<1	<1	15	15
	Bottom	20	1	8	1	<1	1	16	
	Surface	23		4		<1		16	
27-Jan-14	Middle	23	22	3	4	<1	<1	19	17
<u> </u>	Bottom	20	1	4		<1		17	
	Surface	24		6		<1		18	
29-Jan-14	Middle	20	22	3	5	<1	<1	17	17
	Bottom	23	1	6	1	<1	1	15	

Metal Results at G3 - Mid-Ebb Tide

Date	Depth	Arseni	c (μg/L)	Coppe	r (μg/L)	Lead	(μg/L)	Zinc	(μg/L)
Date	Берит	Value	Average	Value	Average	Value	Average	Value	Average
	Surface	21		5		<1		13	
7-Jan-14	Middle	21	21	5	5	<1	<1	13	12
	Bottom	21		5		<1		10	
	Surface	22		5		<1		14	
9-Jan-14	Middle	22	21	6	6	<1	<1	14	19
	Bottom	20		6		<1		28	
	Surface	19		5		<1		16	
11-Jan-14	Middle	20	19	5	5	<1	<1	11	13
	Bottom	19		4		<1		13	
	Surface	19		4		<1		13	
13-Jan-14	Middle	19	19	4	4	<1	<1	12	13
	Bottom	20		4		<1	1	13	
	Surface	19		5		<1		11	
16-Jan-14	Middle	19	19	4	4	<1	<1	11	11
	Bottom	19	1	4		<1]	11	
	Surface	23		3		<1		18	
18-Jan-14	Middle	22	22	5	4	<1	<1	16	17
	Bottom	22		4		<1		17	
	Surface	20		4		<1		20	
21-Jan-14	Middle	18	19	4	4	<1	<1	22	20
	Bottom	20		5		<1		18	1
	Surface	21		3		<1		14	
23-Jan-14	Middle	24	23	7	5	<1	<1	17	15
	Bottom	23		6		<1		15	
	Surface	24		8		<1		17	
25-Jan-14	Middle	21	23	5	6	<1	<1	15	15
	Bottom	23		5		<1		14	
	Surface	21		3		<1		18	
27-Jan-14	Middle	24	23	3	3	<1	<1	17	18
	Bottom	23	1	4		<1		19	1
	Surface	22		6		<1		15	
29-Jan-14	Middle	23	22	6	6	<1	<1	15	16
	Bottom	22	1	7		<1	1	19	

Metal Results at G3 - Mid-Flood Tide

Date	Depth	Arseni	c (µg/L)	Coppe	r (µg/L)	Lead	(μg/L)	Zinc	(μg/L)
Date	Берш	Value	Average	Value	Average	Value	Average	Value	Average
	Surface	21		5		<1		13	
7-Jan-14	Middle	21	21	5	5	<1	<1	13	12
	Bottom	21		5		<1		10	
	Surface	22		6		<1		14	
9-Jan-14	Middle	21	21	6	6	<1	<1	14	19
	Bottom	21		7		<1		29	
	Surface	19		5		<1		12	
11-Jan-14	Middle	20	20	5	5	<1	<1	16	13
	Bottom	20		5		<1	1	11	
	Surface	19		4		<1		22	
13-Jan-14	Middle	19	19	5	5	<1	<1	17	20
	Bottom	20		5		<1	1	22	1
	Surface	20		5		<1		22	
16-Jan-14	Middle	18	19	4	5	<1	<1	10	16
	Bottom	18		5		<1		16	
	Surface	21		3		<1		17	
18-Jan-14	Middle	21	22	4	4	<1	<1	15	16
	Bottom	23		5		<1		17	
	Surface	19		4		<1		21	
21-Jan-14	Middle	18	18	4	4	<1	<1	20	20
	Bottom	18		3		<1		19	1
	Surface	23		4		<1		15	
23-Jan-14	Middle	21	22	4	4	<1	<1	18	17
	Bottom	22		5	1	<1		17]
	Surface	22		7		<1		15	
25-Jan-14	Middle	23	22	3	6	<1	<1	18	16
	Bottom	20		8		<1	1	16	
	Surface	21		6		<1		15	
27-Jan-14	Middle	21	21	6	6	<1	<1	14	15
	Bottom	21	1	6	1	<1	1	16	
İ	Surface	22		6		<1	İ	16	
29-Jan-14	Middle	24	23	5	6	<1	<1	17	16
	Bottom	22	1	7	1	<1	1	16	

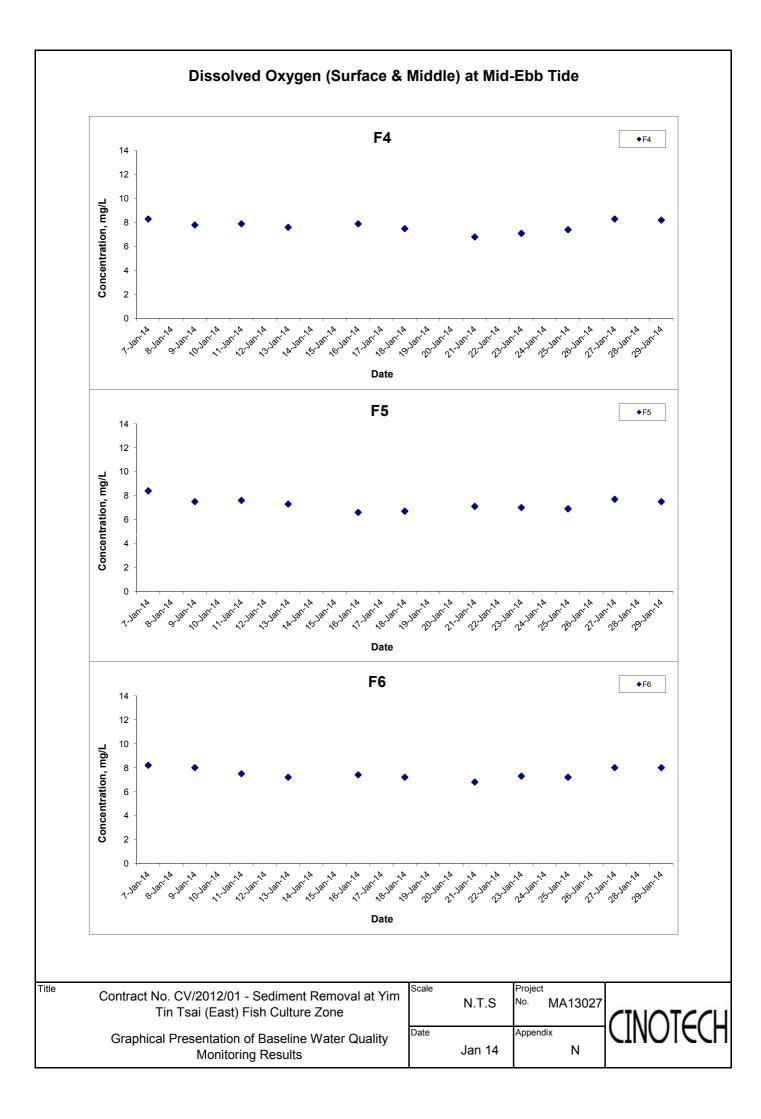
Metal Results at G4 - Mid-Ebb Tide

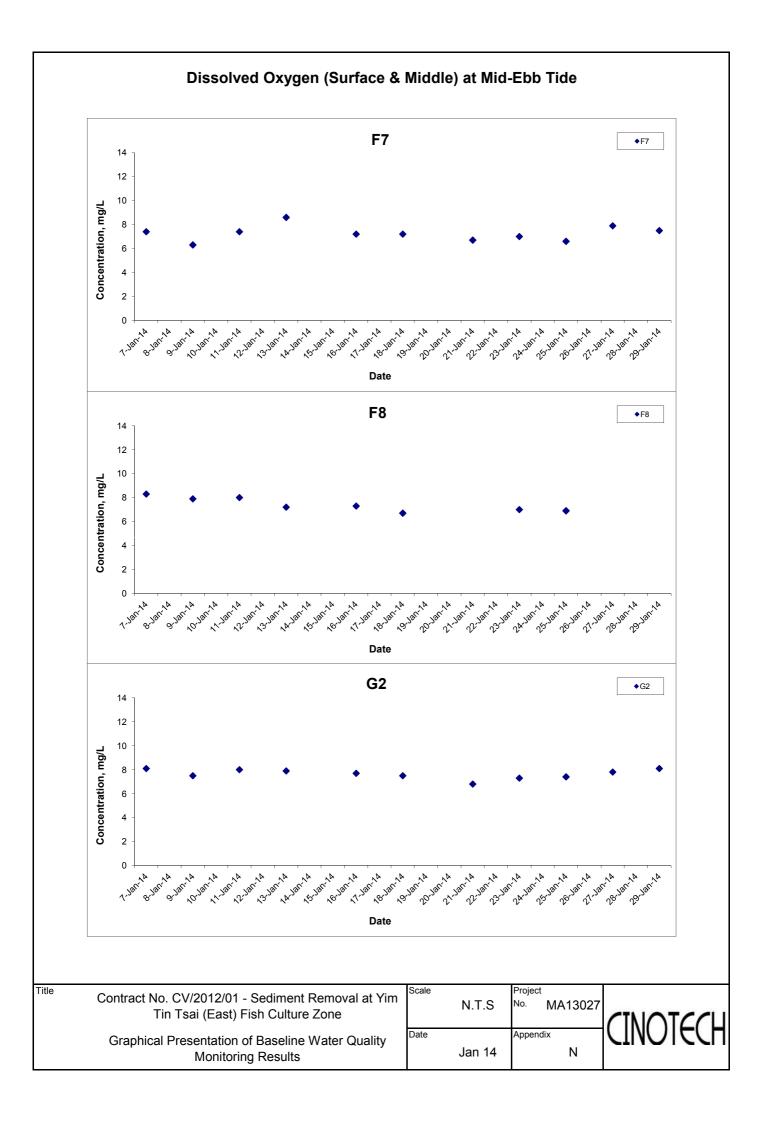
Date	Donth	Arseni	c (µg/L)	Coppe	r (µg/L)	Lead	(μg/L)	Zinc	(μg/L)
Date	Depth	Value	Average	Value	Average	Value	Average	Value	Average
	Surface	21		5		<1		10	
7-Jan-14	Middle	-	21	=	5	-	<1	-	10
	Bottom	21		5		<1		10	
	Surface	18		5		<1		16	
9-Jan-14	Middle	-	15	-	5	-	<1	-	15
	Bottom	12		4		<1		14	
	Surface	20		4		<1		10	
11-Jan-14	Middle	-	20	-	4	_	<1	-	16
	Bottom	19	1	4	1	<1		21	
	Surface	19		4		<1		23	
13-Jan-14	Middle	-	20	=	4	-	<1	-	18
	Bottom	20	1	4	1	<1		12	
	Surface	19		4		<1		11	11
16-Jan-14	Middle	-	19	-	5	-	<1	-	
	Bottom	18		5		<1		11	
	Surface	21		4		<1		16	
18-Jan-14	Middle	-	21	-	4	-	<1	-	17
	Bottom	21	1	4		<1		18	
	Surface	18		5		<1		20	
21-Jan-14	Middle	-	20	-	5	-	<1	-	19
	Bottom	22	1	5	1	<1	1	17	1
	Surface	21		5		<1		15	
23-Jan-14	Middle	-	21	-	5	-	<1	-	15
	Bottom	21		5		<1		15	1
	Surface	22		6		<1		13	
25-Jan-14	Middle	-	23	=	5	-	<1	-	14
	Bottom	23	1	4	1	<1		14	1
	Surface	23		3		<1		18	
27-Jan-14	Middle	-	23	-	4	-	<1	-	18
F	Bottom	22	1	5	1	<1	1	17	
İ	Surface	23		5		<1		17	
29-Jan-14	Middle	-	23	-	7	-	<1	-	17
F	Bottom	23	1	8	1	<1	1	17	1

Metal Results at G4 - Mid-Flood Tide

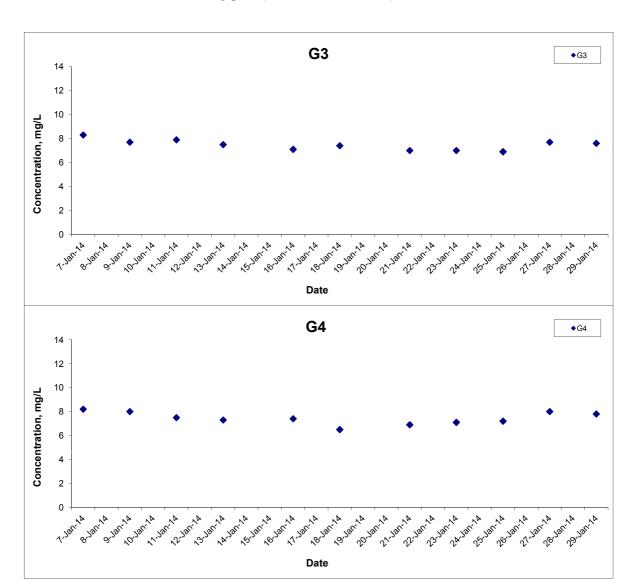
Date	Depth	Arseni	c (μg/L)	Coppe	r (µg/L)	Lead	(μg/L)	Zinc	(μg/L)
Date	Берш	Value	Average	Value	Average	Value	Average	Value	Average
	Surface	21		5		<1		10	
7-Jan-14	Middle	-	21	-	5	-	<1	-	10
	Bottom	21		5		<1		10	
	Surface	18		5		<1		16	
9-Jan-14	Middle	-	15	-	5	-	<1	-	15
	Bottom	12		4		<1		14	
	Surface	18		4		<1		11	
11-Jan-14	Middle	-	18	-	4	-	<1	-	14
	Bottom	18		4		<1		17	
	Surface	19		6		<1		16	
13-Jan-14	Middle	-	19	-	6	-	<1	-	14
	Bottom	19		5		<1		12	
	Surface	18		4		<1		19	
16-Jan-14	Middle	-	19	-	5	-	<1	-	15
	Bottom	20		5		<1		11	
	Surface	21		4		<1		17	
18-Jan-14	Middle	-	22	-	5	-	<1	-	18
	Bottom	22		5		<1		18	
	Surface	19		3		<1		18	
21-Jan-14	Middle	-	19	-	4	-	<1	-	20
	Bottom	18		5		<1		22	
	Surface	24		4		<1		13	
23-Jan-14	Middle	-	23	-	4	-	<1	-	14
	Bottom	22		4		<1		14	
	Surface	22		5		<1		14	
25-Jan-14	Middle	-	22	-	5	-	<1	-	15
	Bottom	22		4		<1		15	
	Surface	22		8		<1		16	
27-Jan-14	Middle	-	22	-	8	-	<1	-	17
	Bottom	22		7		<1		18	
	Surface	20		7		<1		18	
29-Jan-14	Middle	24	23	8	8	<1	<1	18	18
	Bottom	26	<u>]</u>	8		<1		19	

APPENDIX N GRAPHICAL PRESENTATION OF WATER QUALITY MONITORING RESULTS

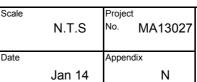




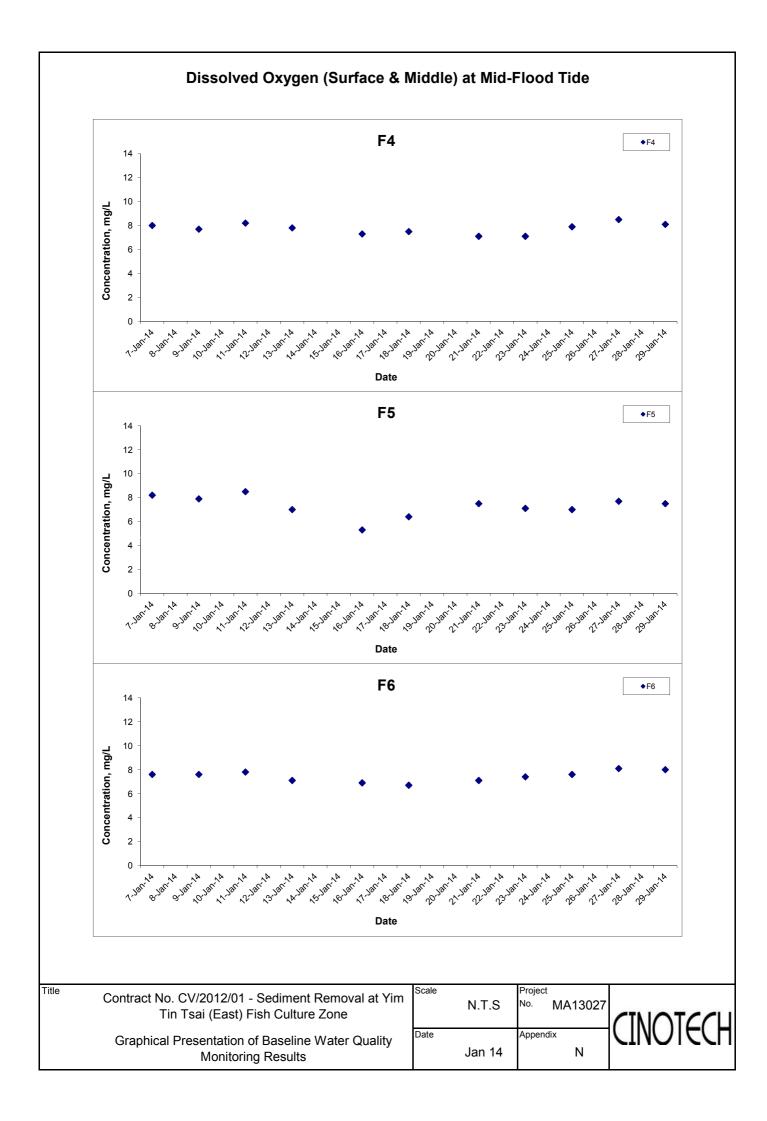
Dissolved Oxygen (Surface & Middle) at Mid-Ebb Tide

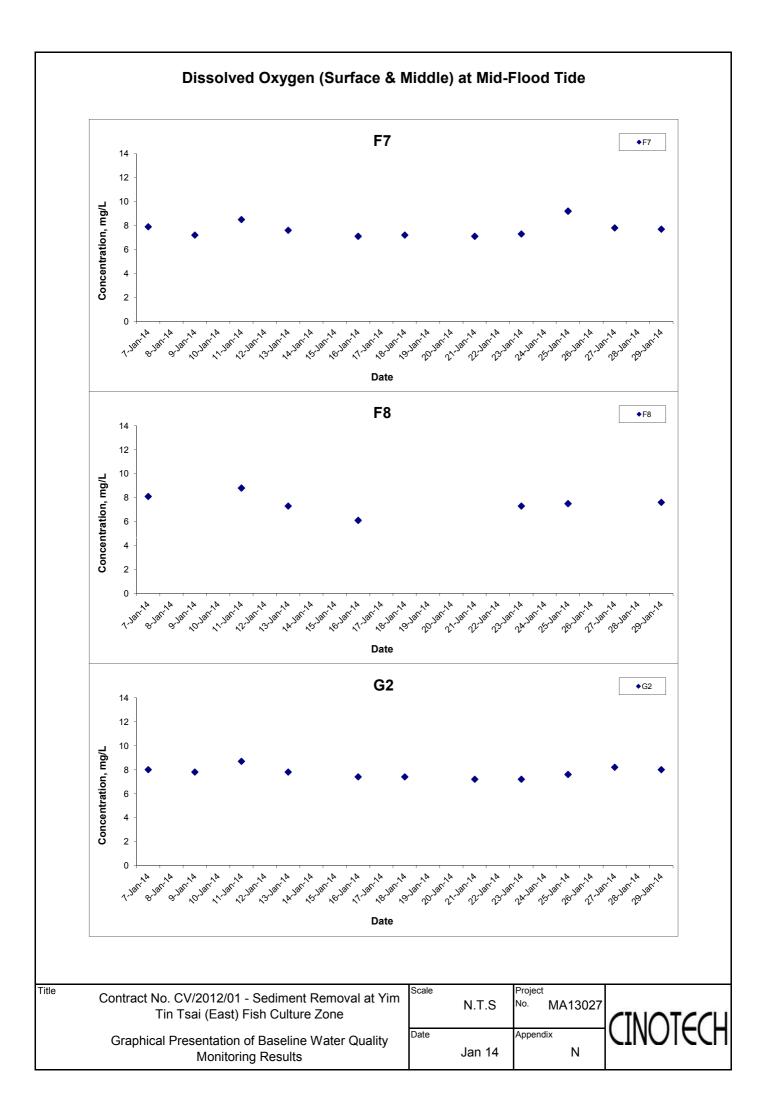


Title
Contract No. CV/2012/01 - Sediment Removal at Yim
Tin Tsai (East) Fish Culture Zone
Graphical Presentation of Baseline Water Quality
Monitoring Results

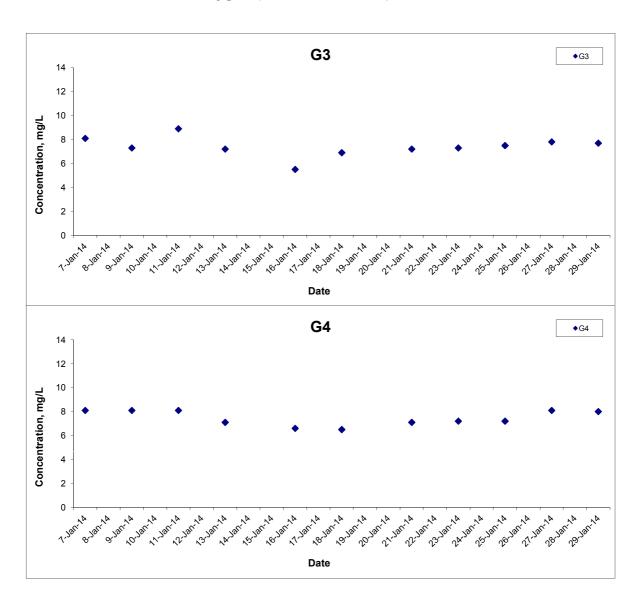




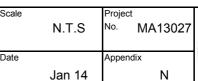




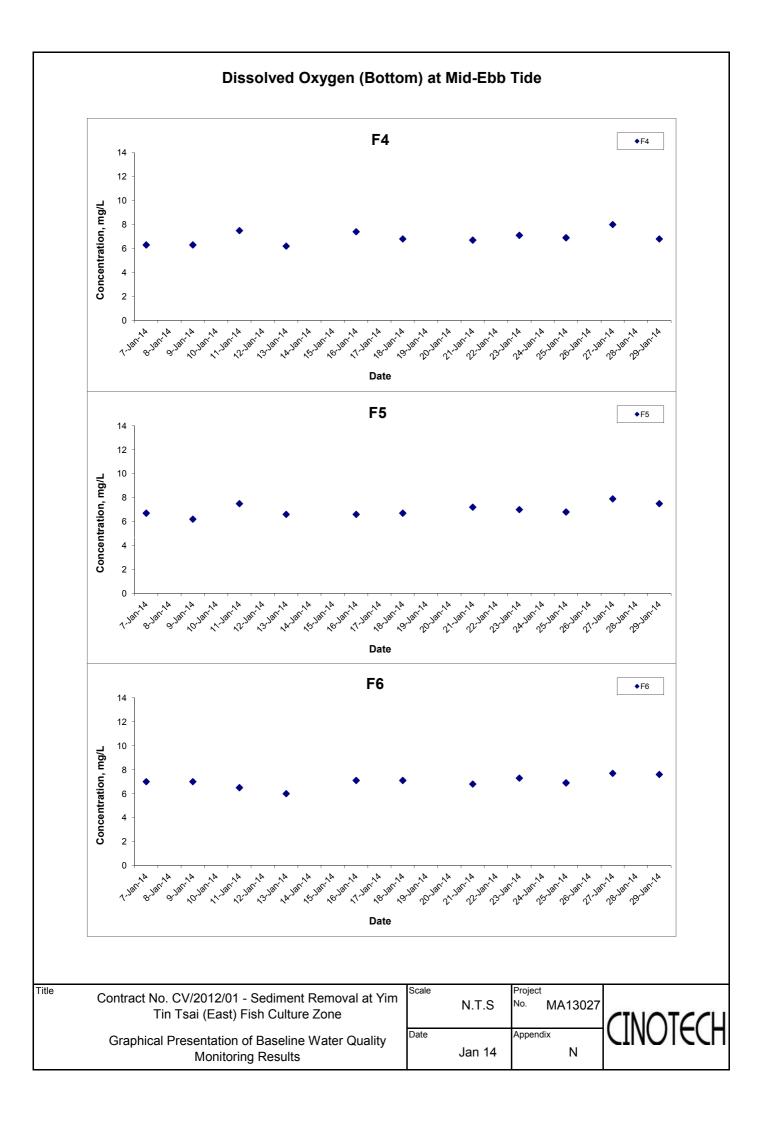
Dissolved Oxygen (Surface & Middle) at Mid-Flood Tide

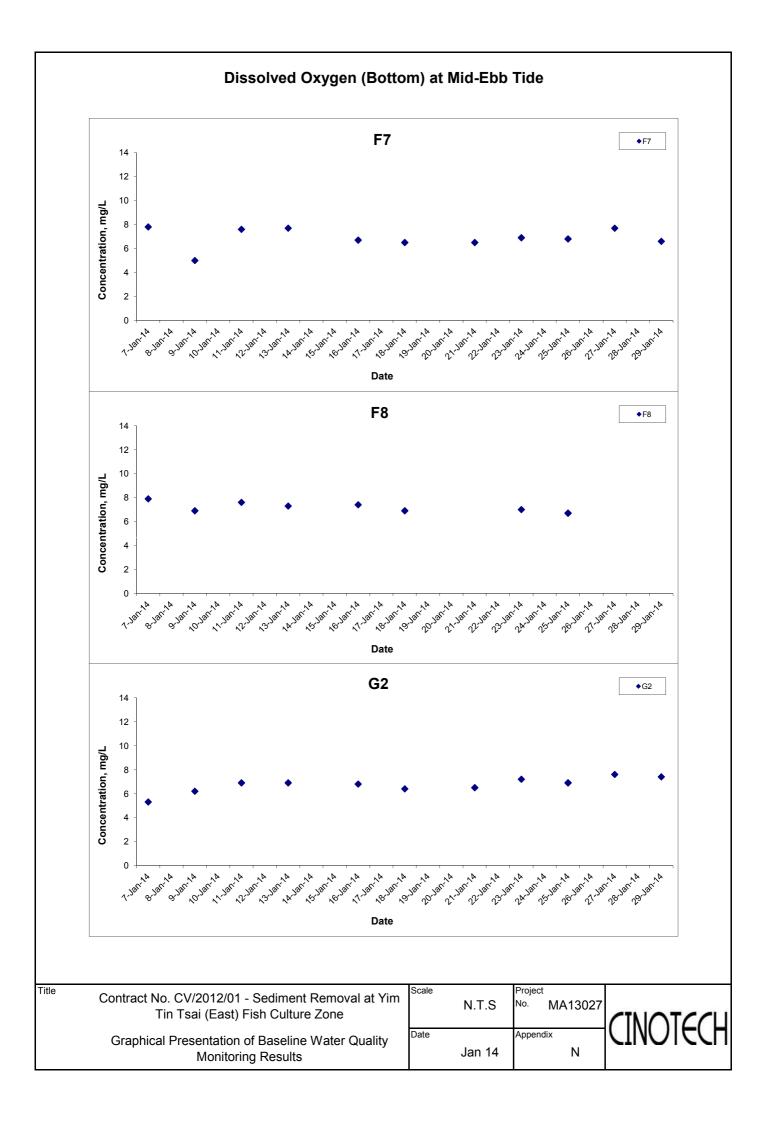


Title
Contract No. CV/2012/01 - Sediment Removal at Yim
Tin Tsai (East) Fish Culture Zone
Graphical Presentation of Baseline Water Quality
Monitoring Results

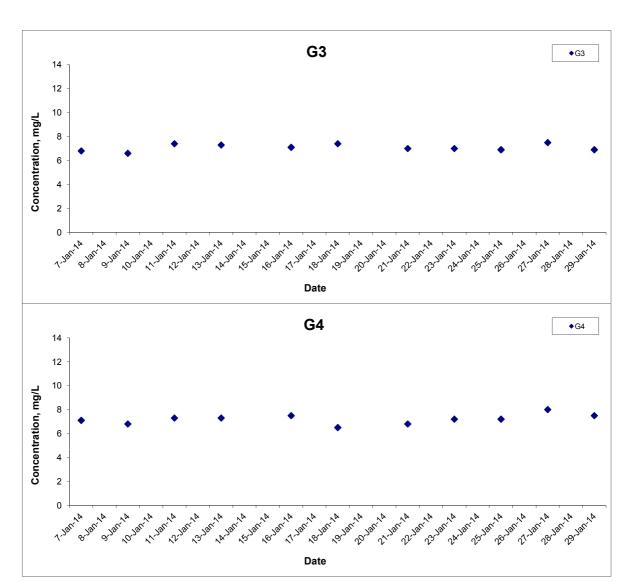






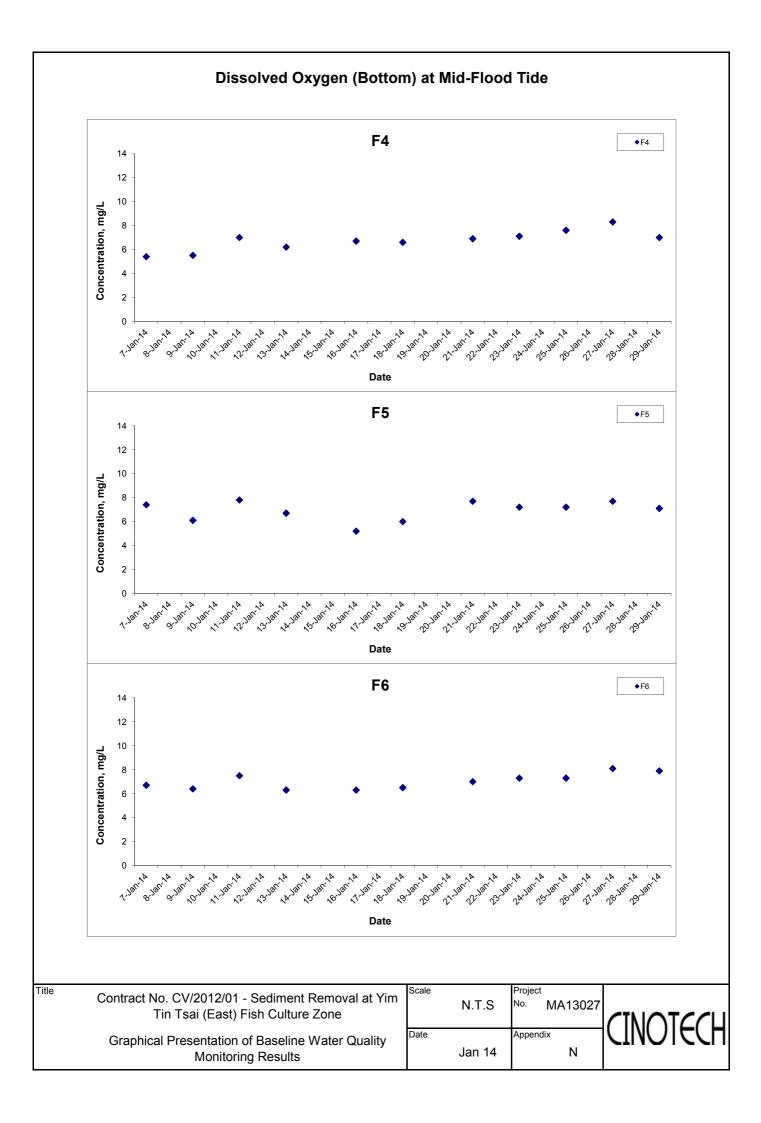


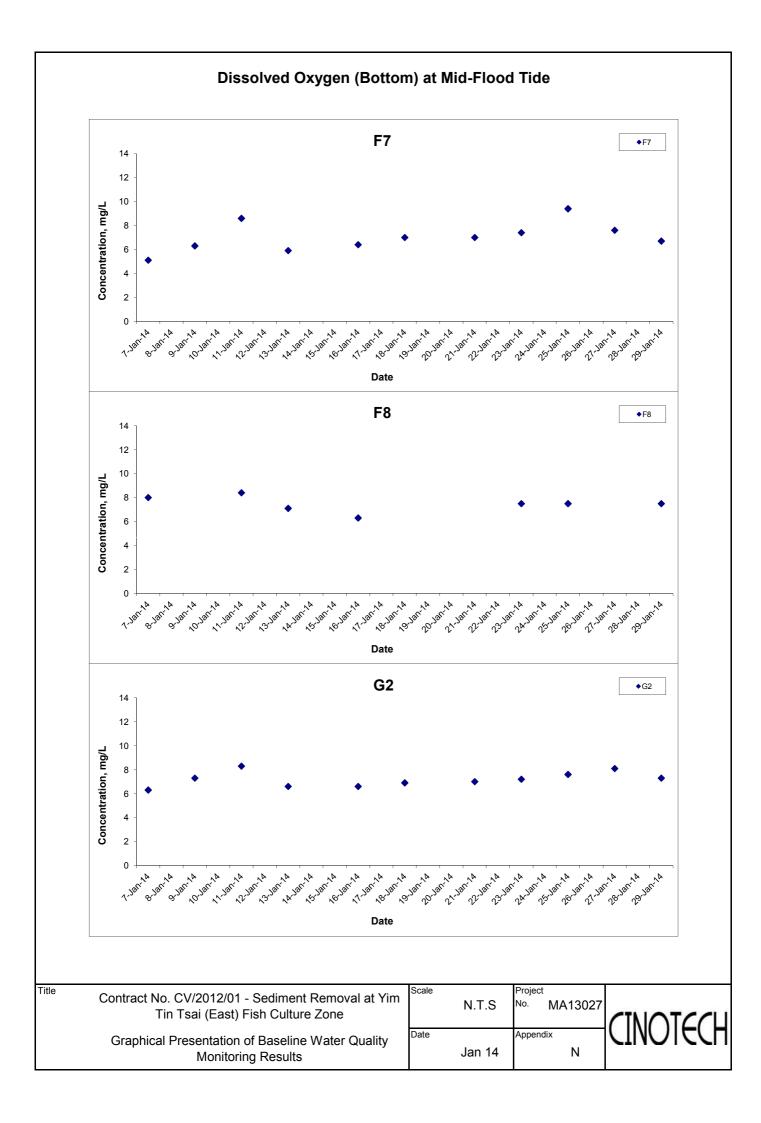
Dissolved Oxygen (Bottom) at Mid-Ebb Tide



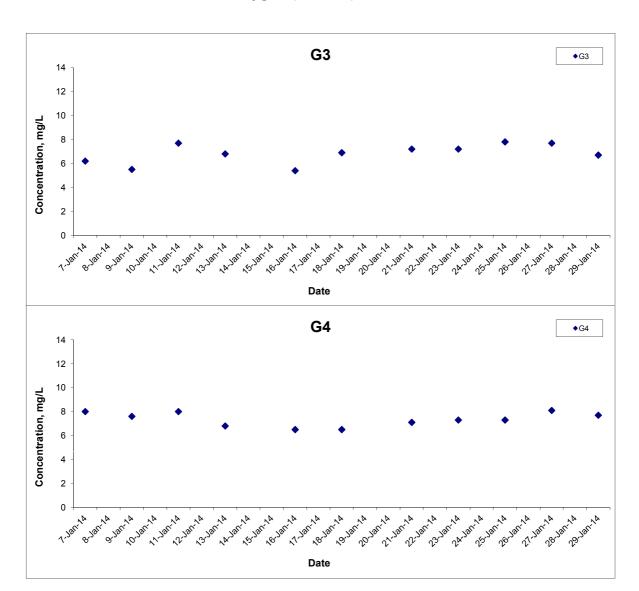
Contract No. CV/2012/01 - Sediment Removal at Yim
Tin Tsai (East) Fish Culture Zone
Graphical Presentation of Baseline Water Quality
Monitoring Results





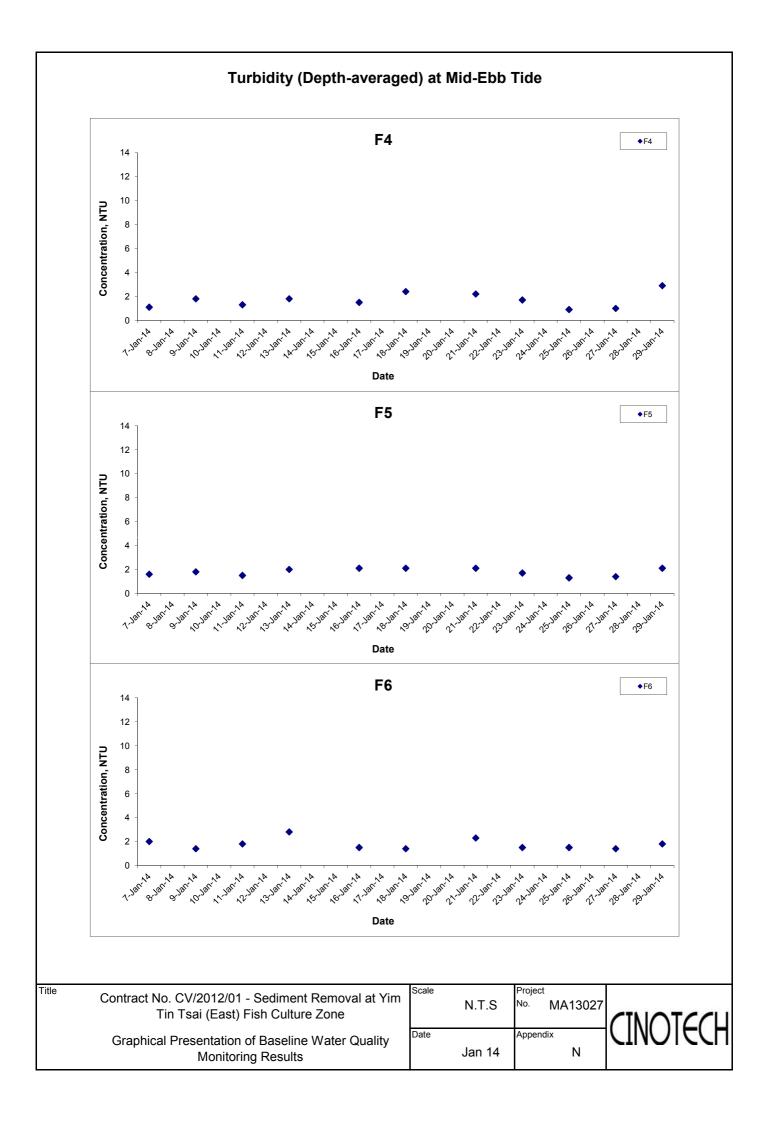


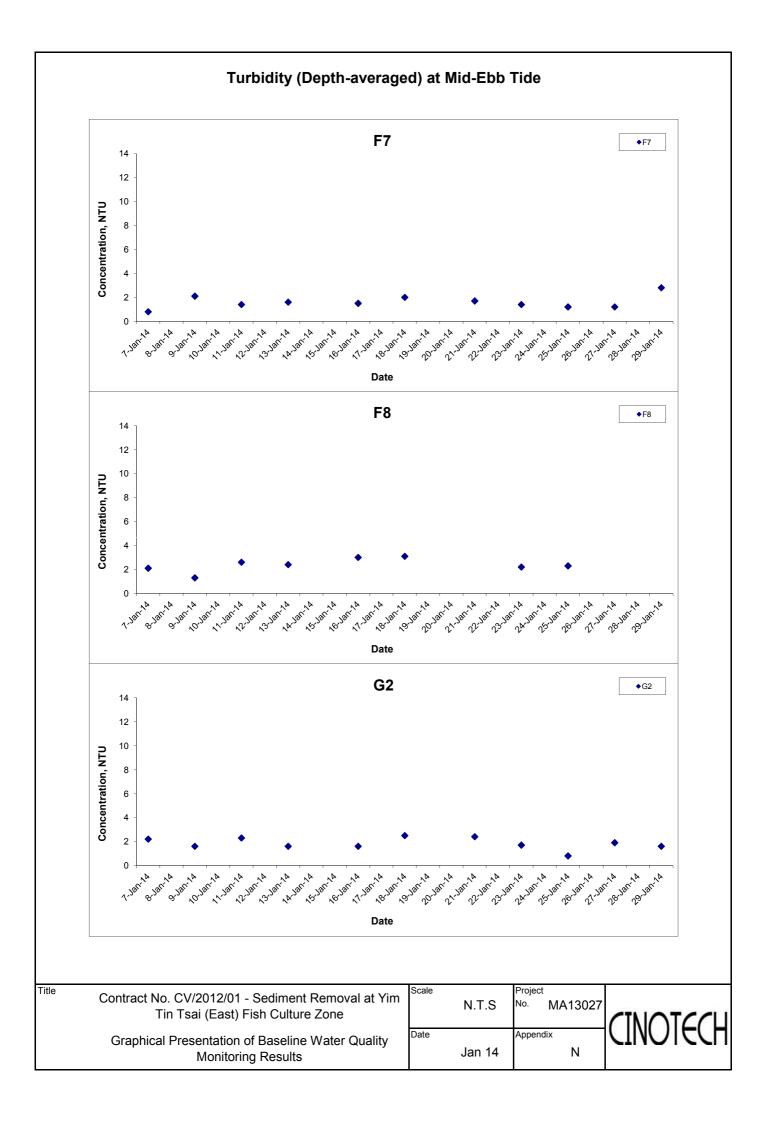
Dissolved Oxygen (Bottom) at Mid-Flood Tide



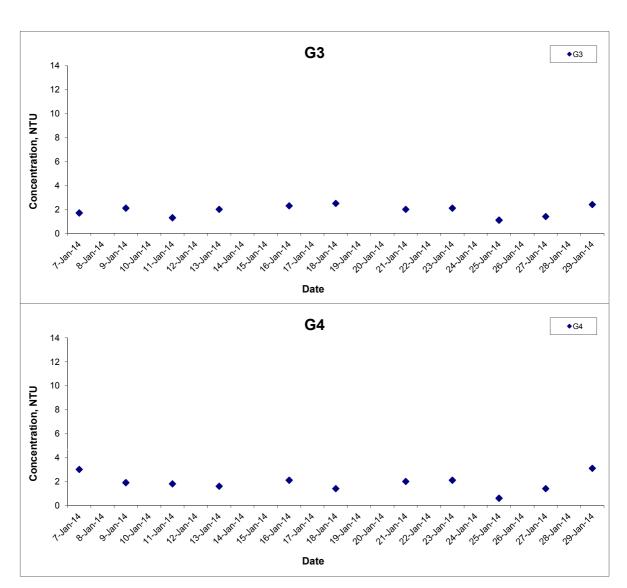
Scale		Project
	N.T.S	No. MA13027
Date		Appendix
	Jan 14	N





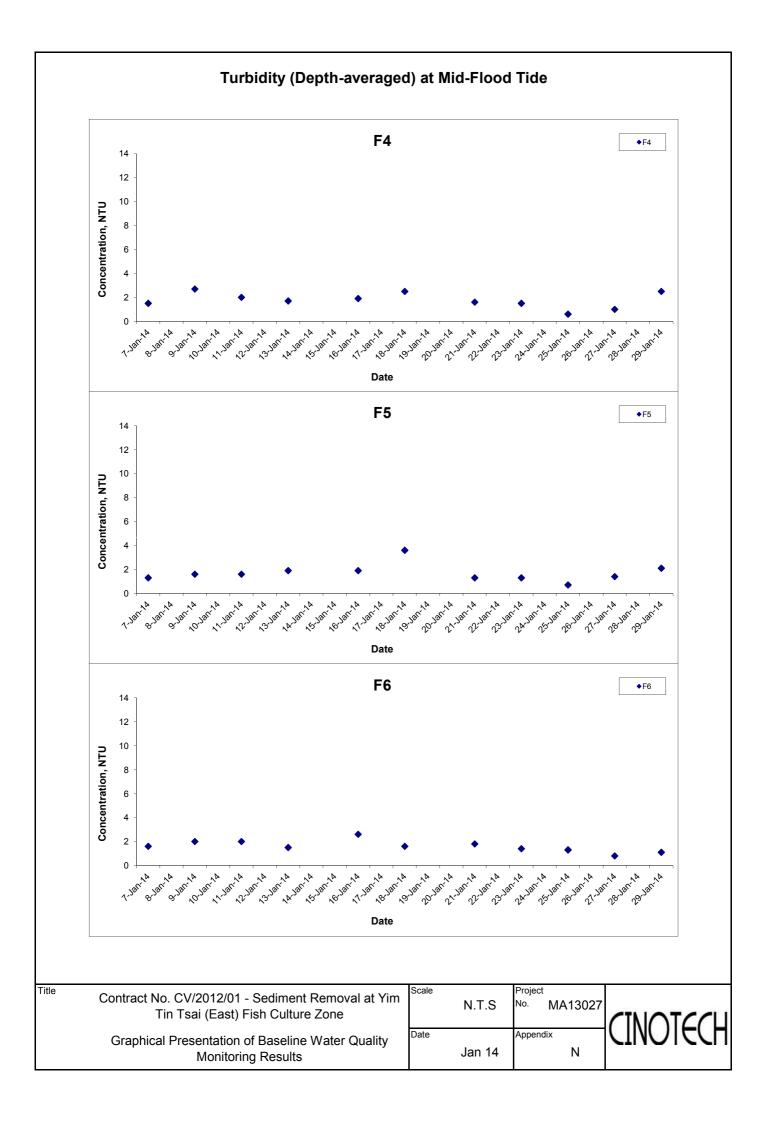


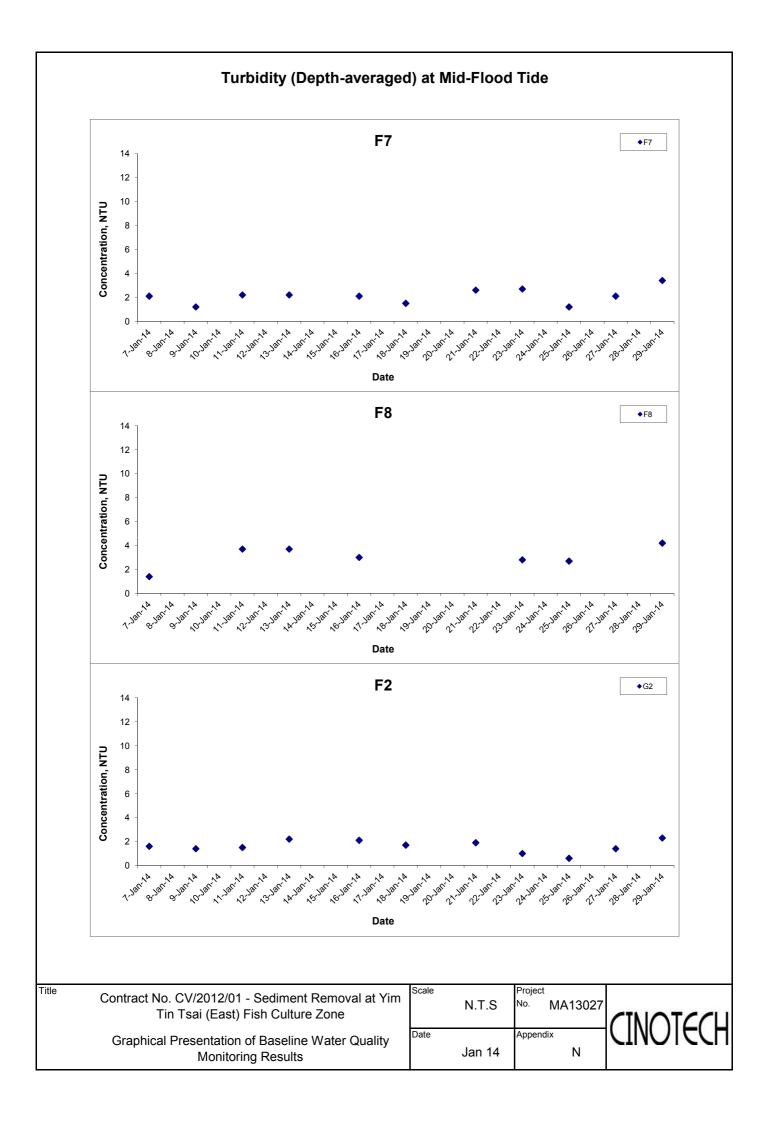
Turbidity (Depth-averaged) at Mid-Ebb Tide



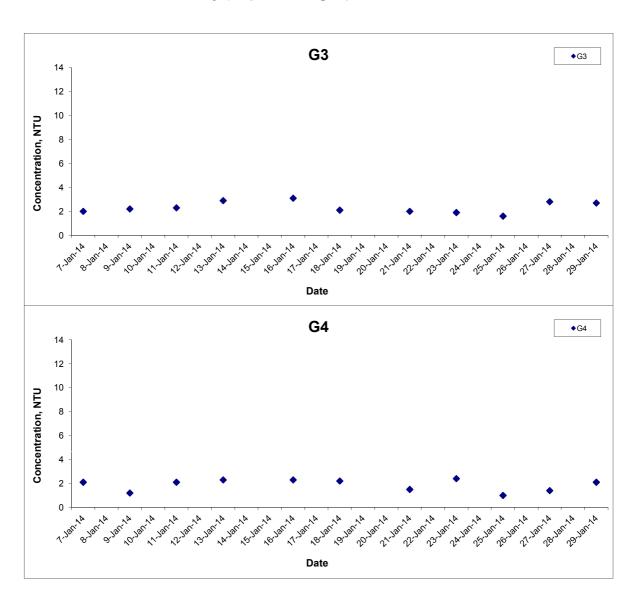
Scale		Project	I
	N.T.S	No. MA13027	
Date		Appendix	۱
	Jan 14	N	





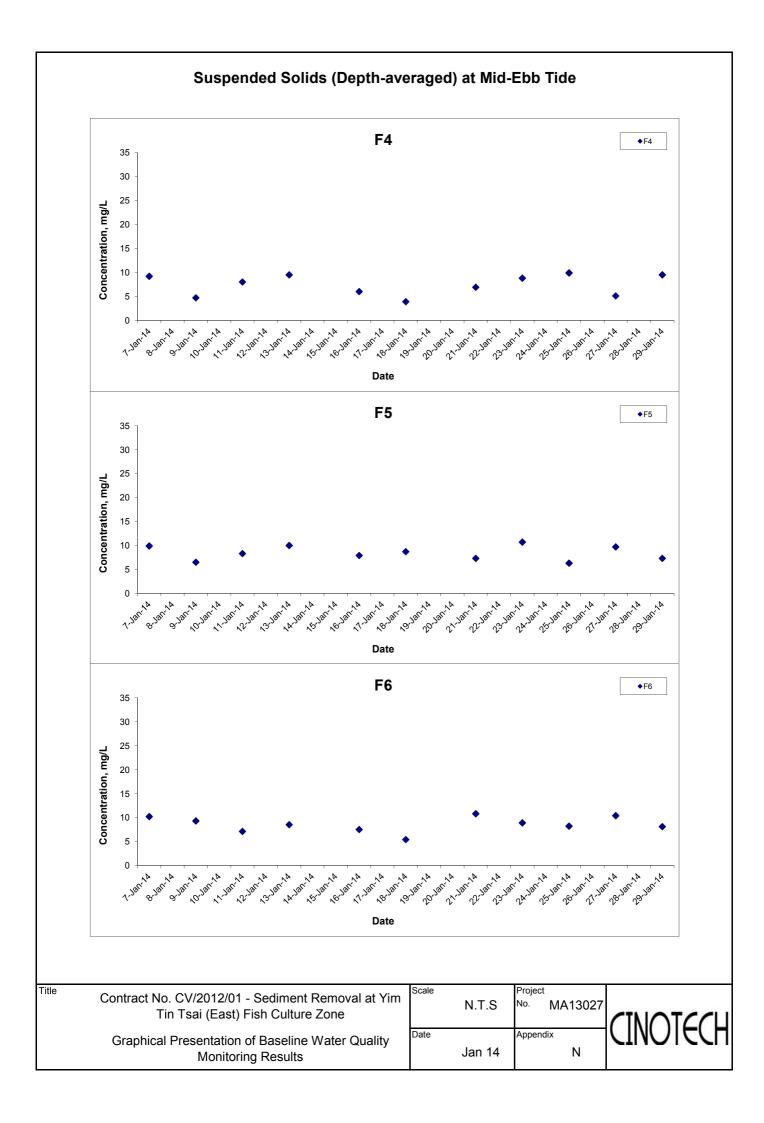


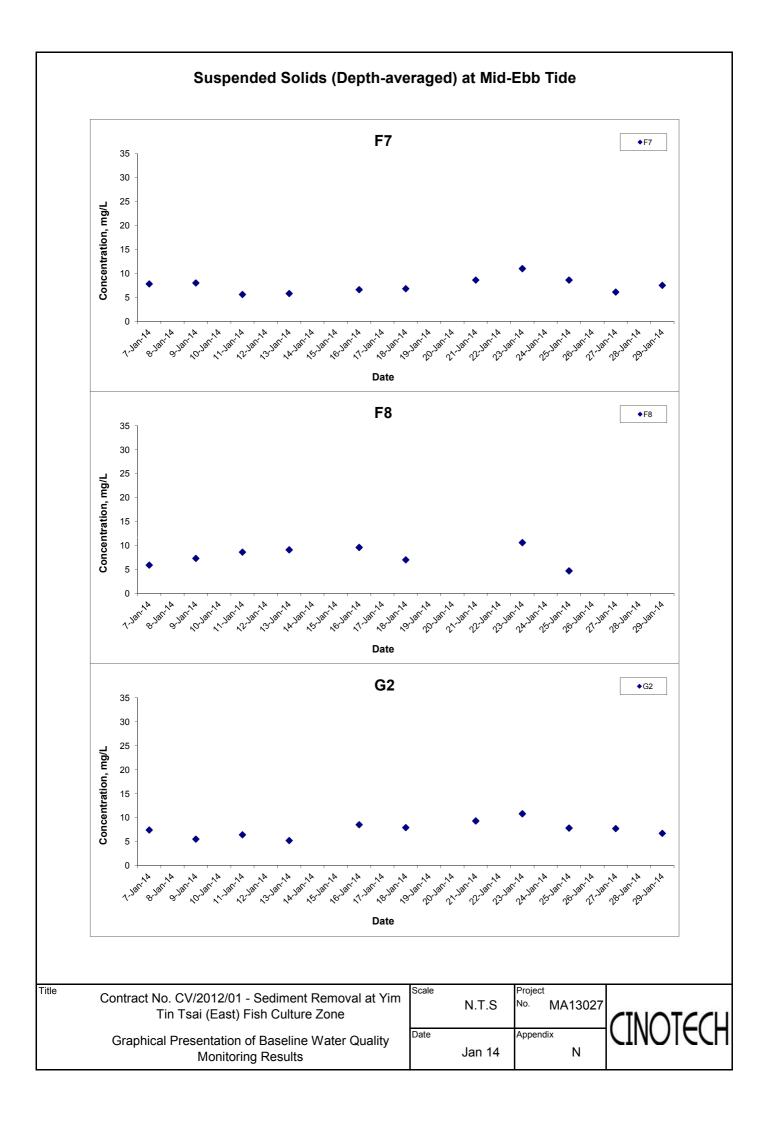
Turbidity (Depth-averaged) at Mid-Flood Tide



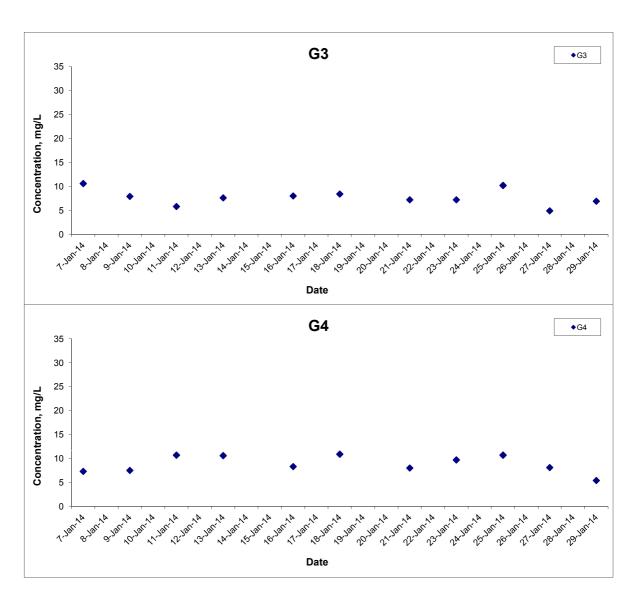
Scale		Project
	N.T.S	No. MA13027
Date		Appendix
	Jan 14	N

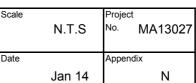




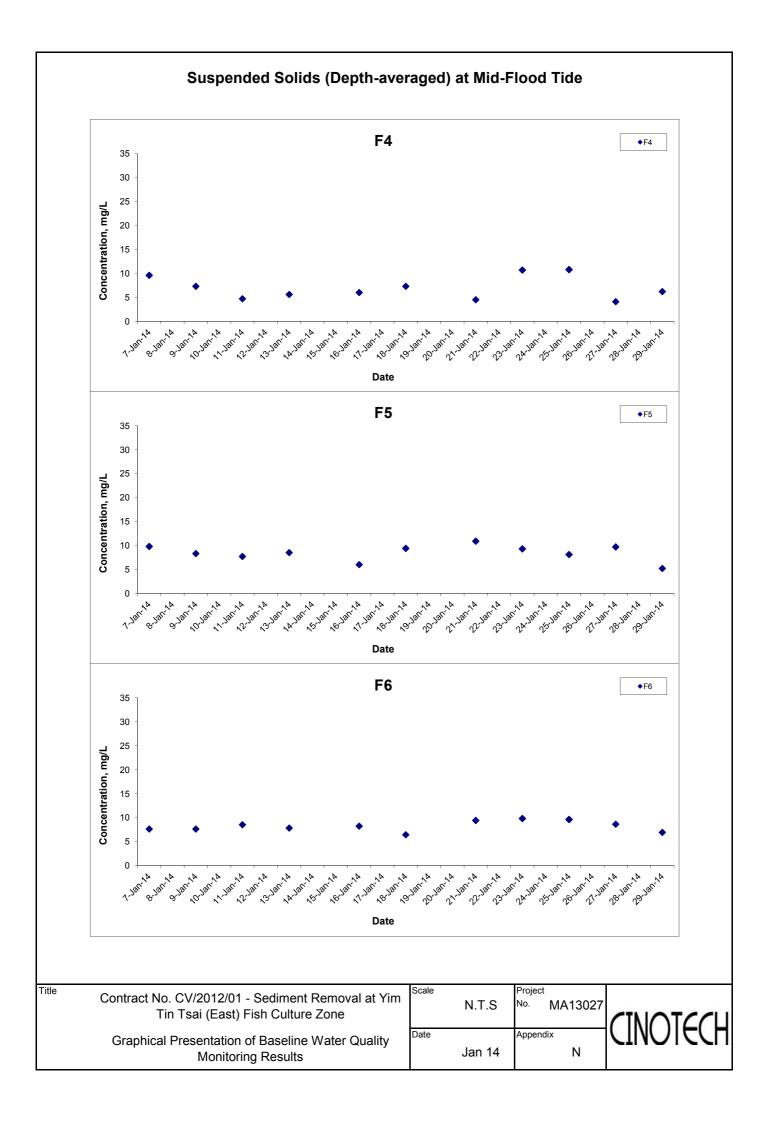


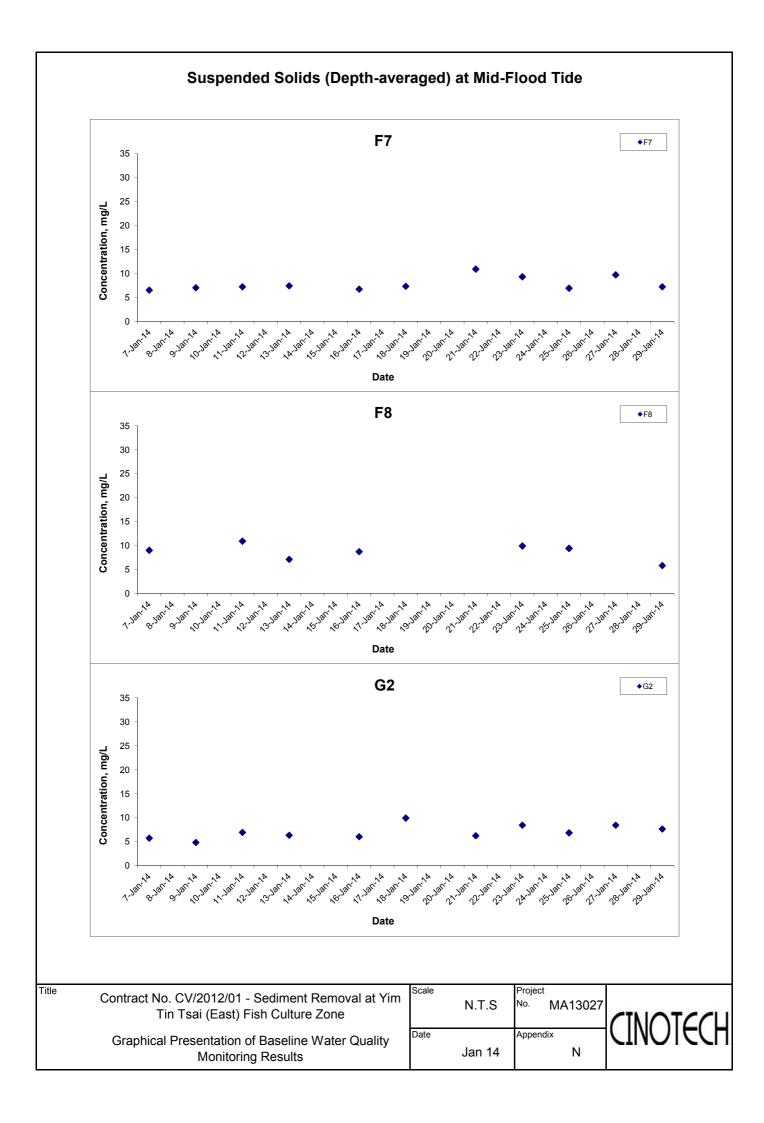
Suspended Solids (Depth-averaged) at Mid-Ebb Tide



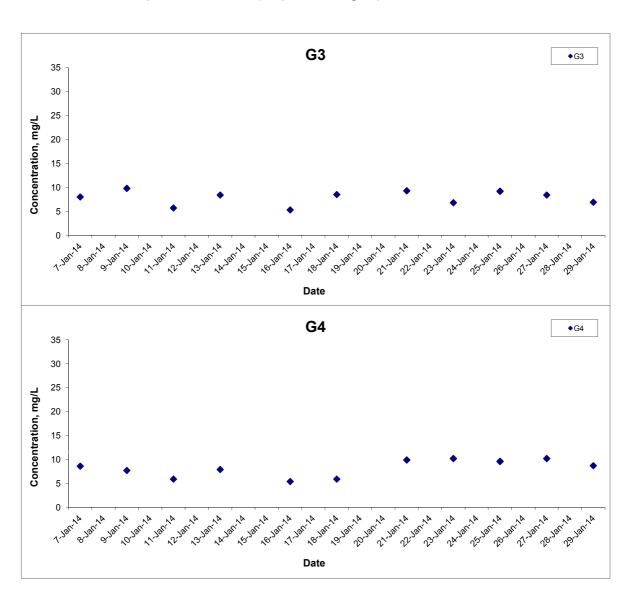


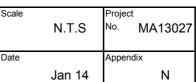




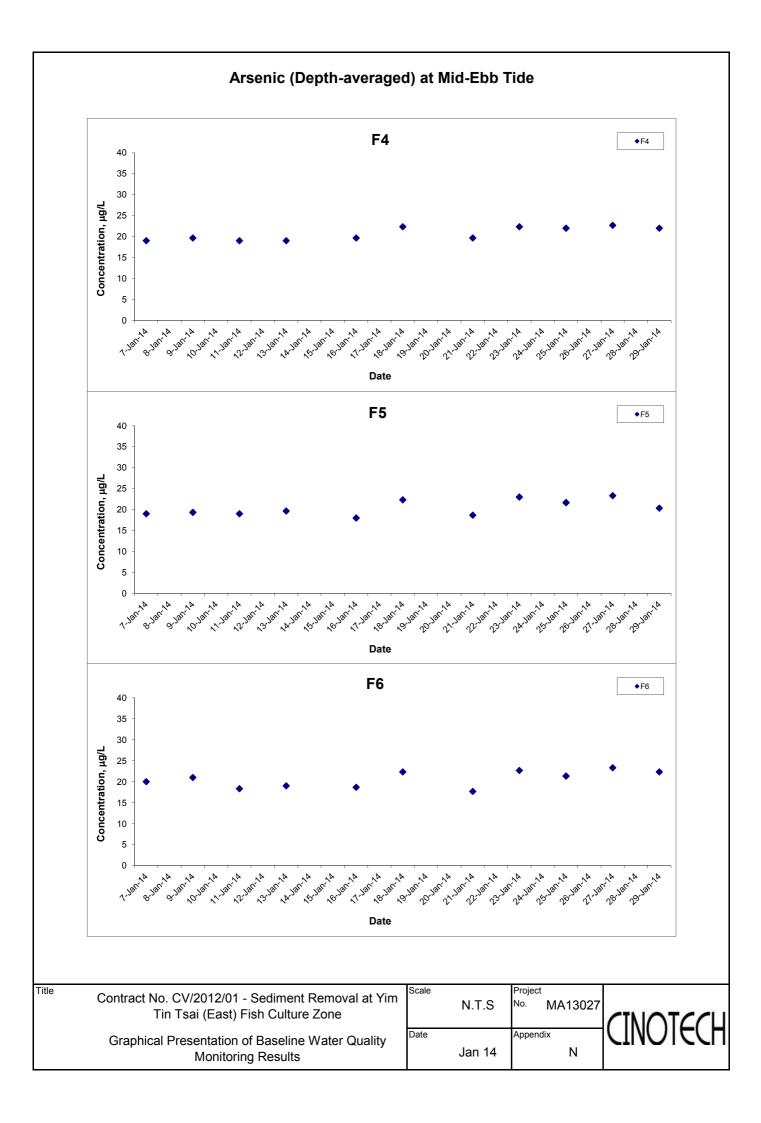


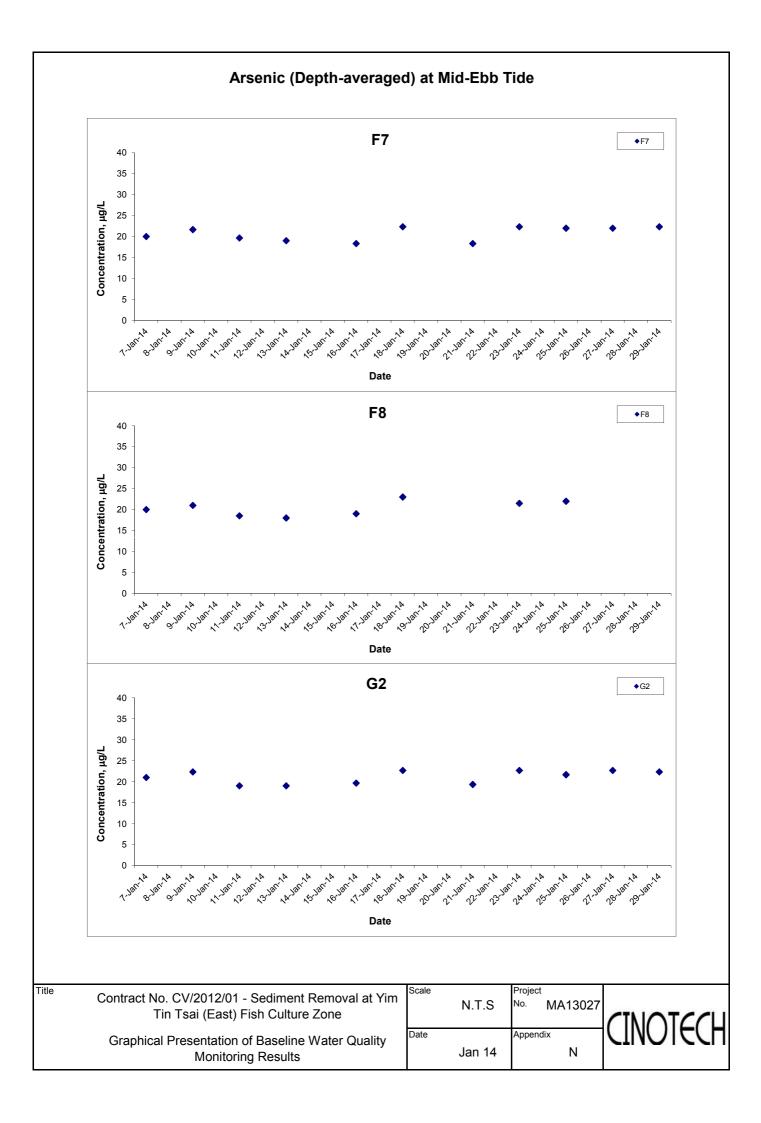
Suspended Solids (Depth-averaged) at Mid-Flood Tide



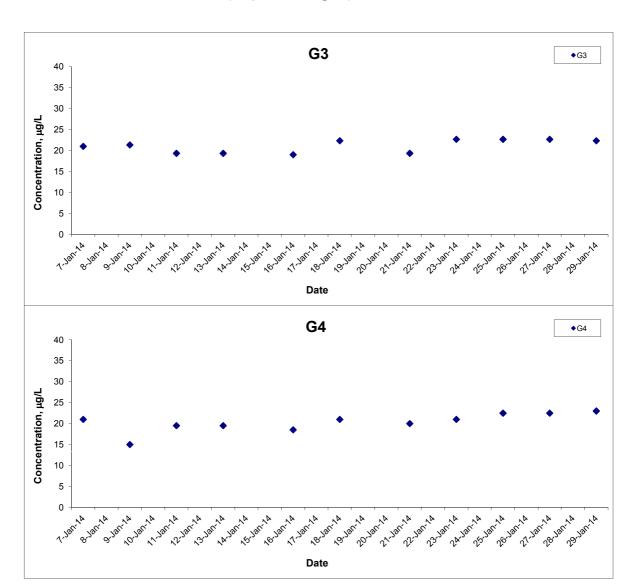






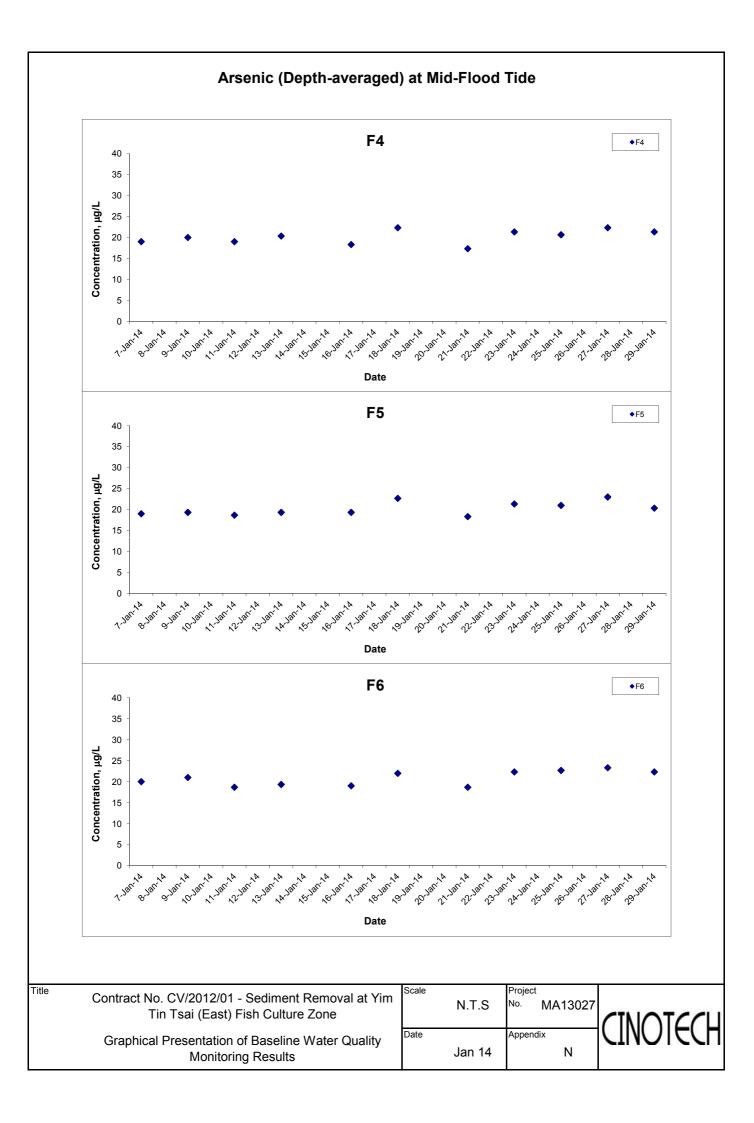


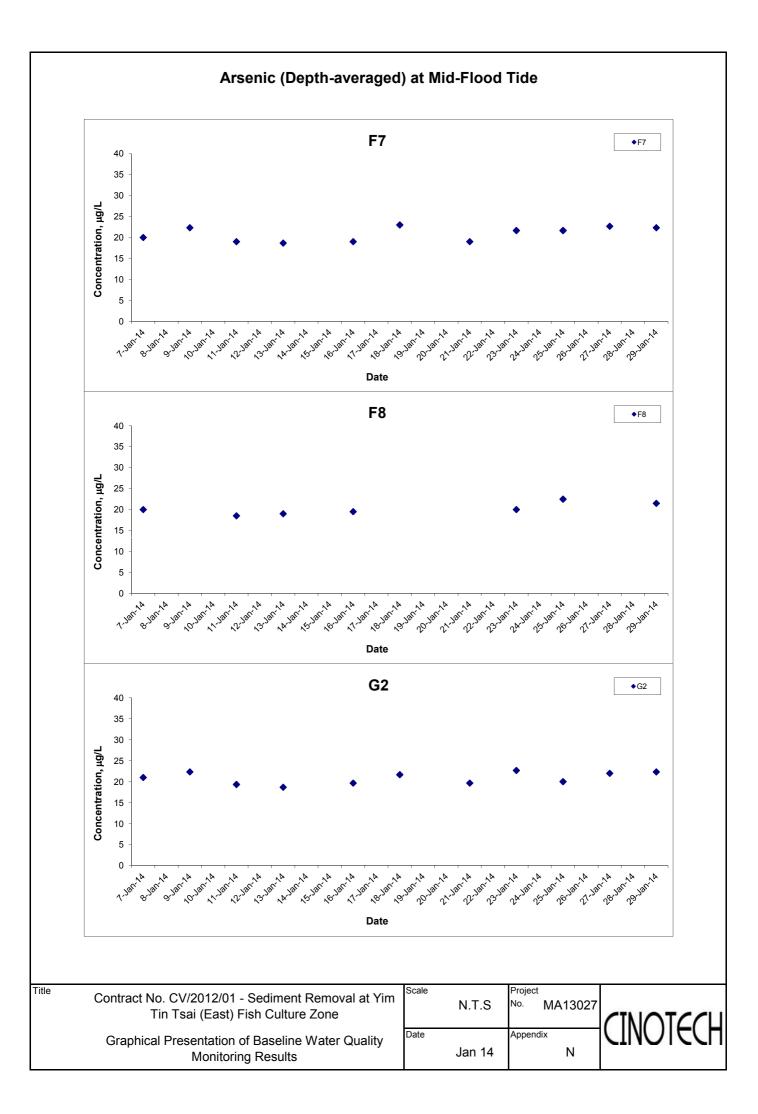
Arsenic (Depth-averaged) at Mid-Ebb Tide



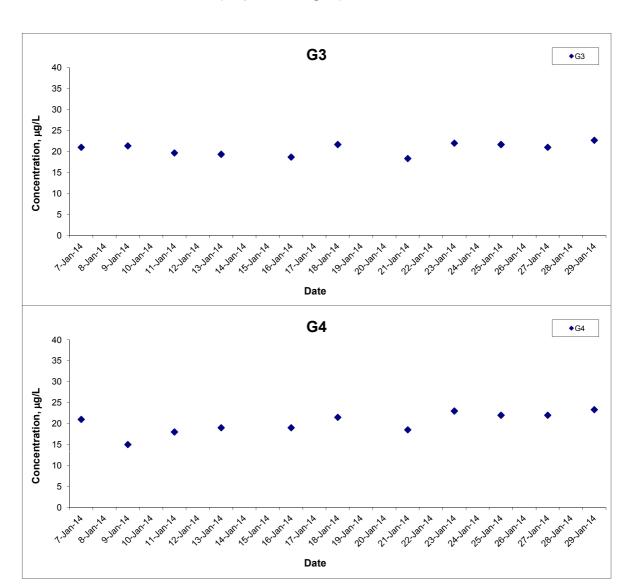
Contract No. CV/2012/01 - Sediment Removal at Yim
Tin Tsai (East) Fish Culture Zone
Graphical Presentation of Baseline Water Quality
Monitoring Results





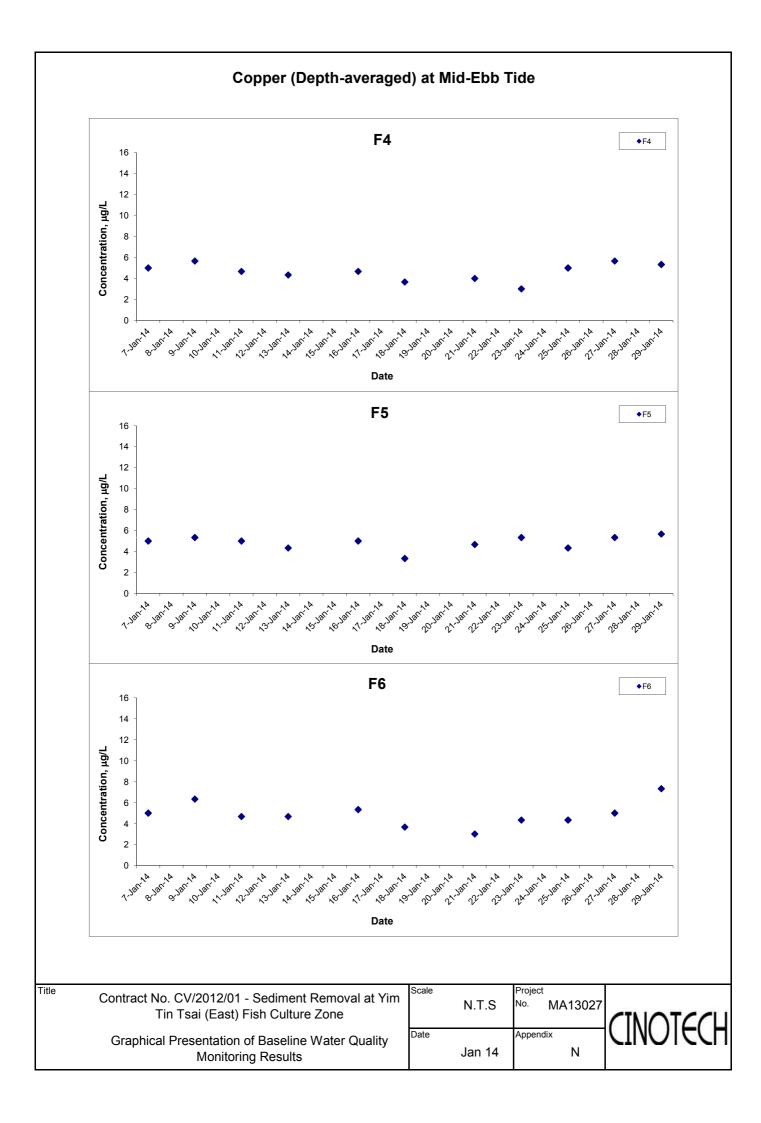


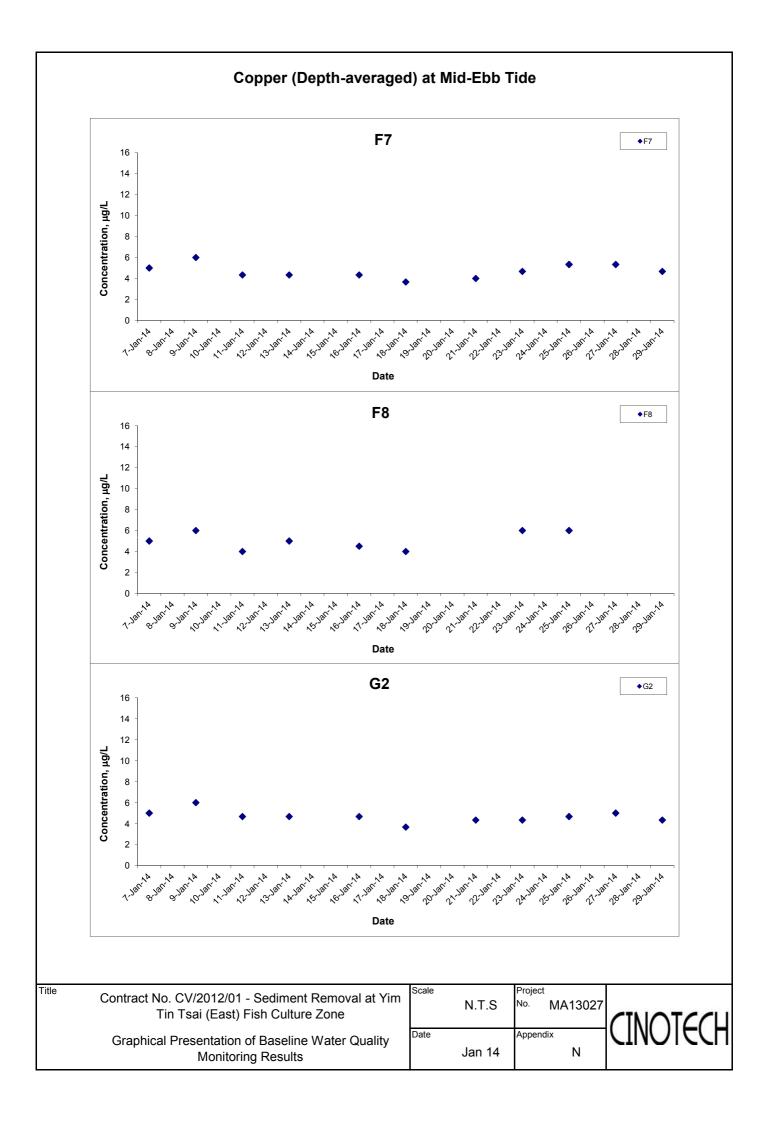
Arsenic (Depth-averaged) at Mid-Flood Tide



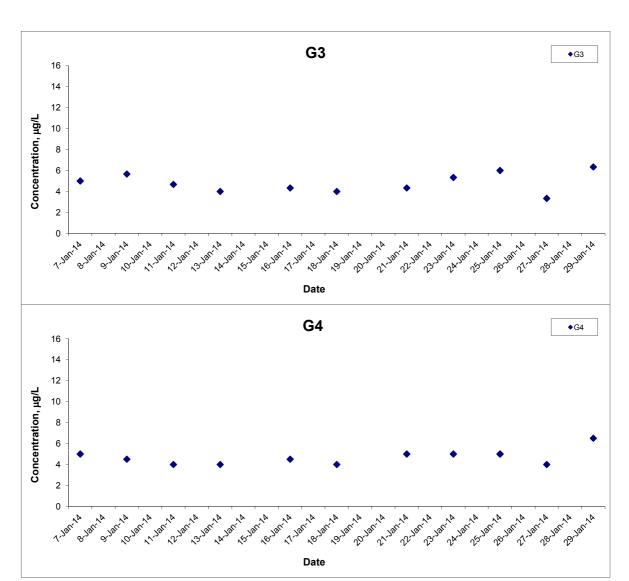
Contract No. CV/2012/01 - Sediment Removal at Yim
Tin Tsai (East) Fish Culture Zone
Graphical Presentation of Baseline Water Quality
Monitoring Results

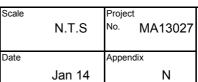




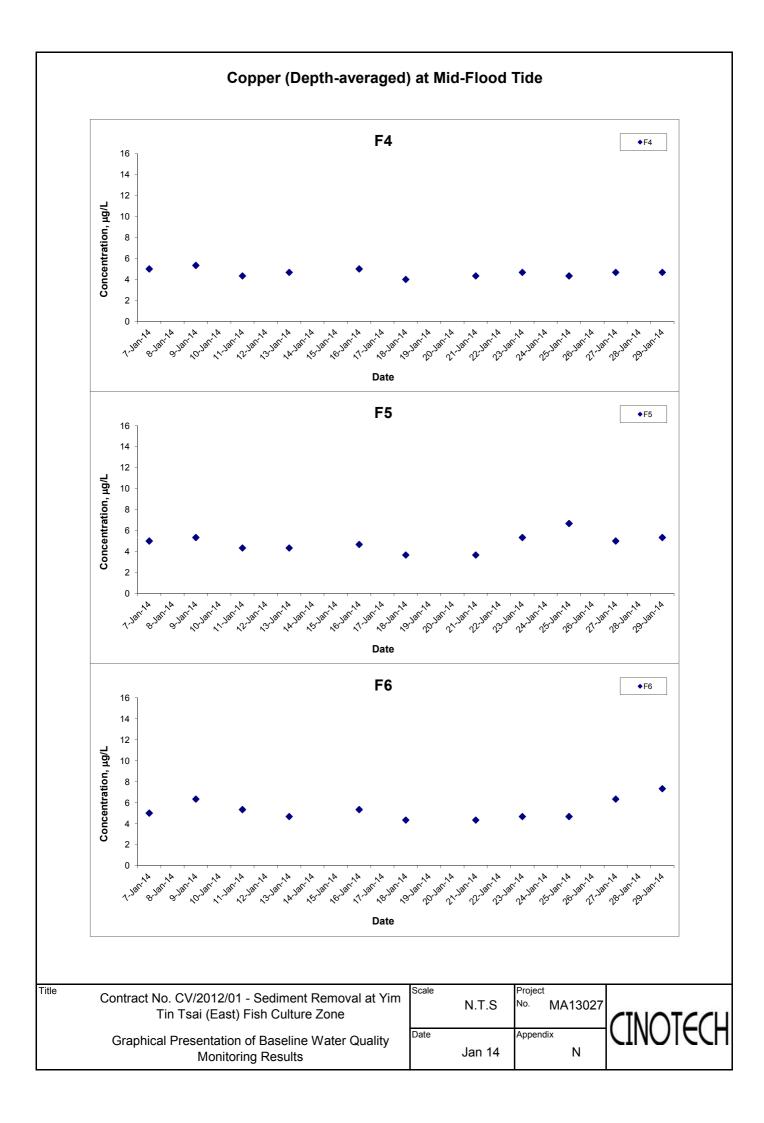


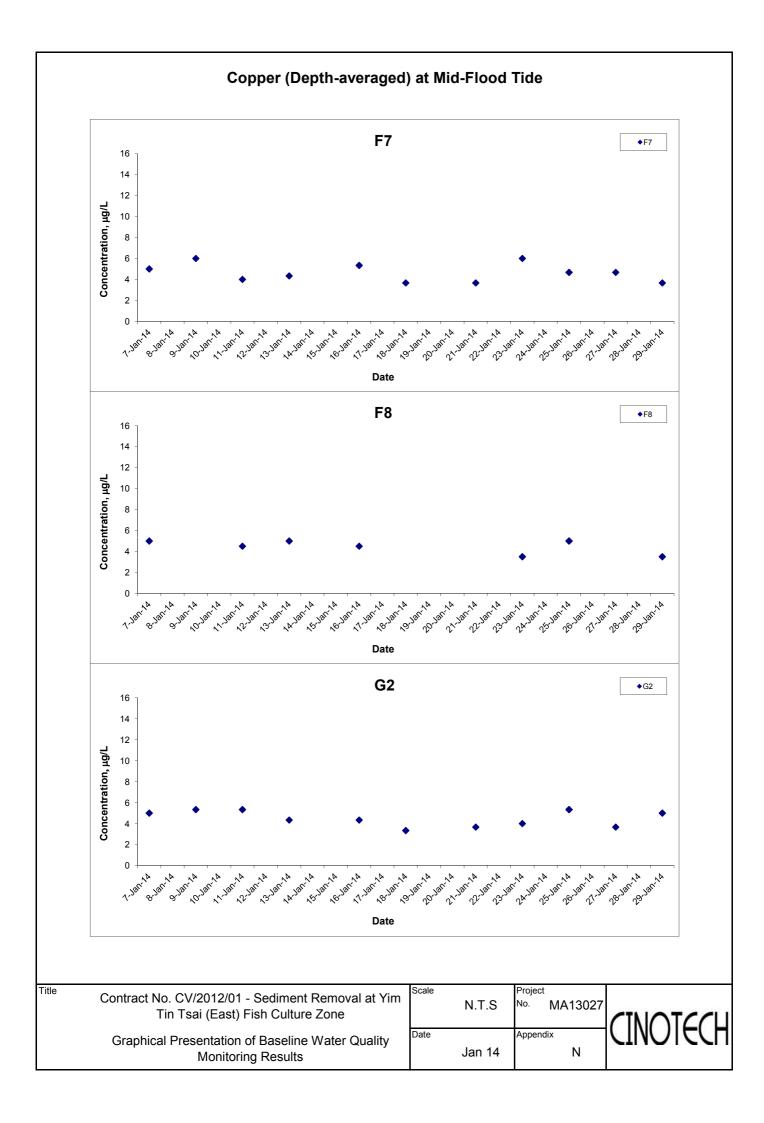
Copper (Depth-averaged) at Mid-Ebb Tide



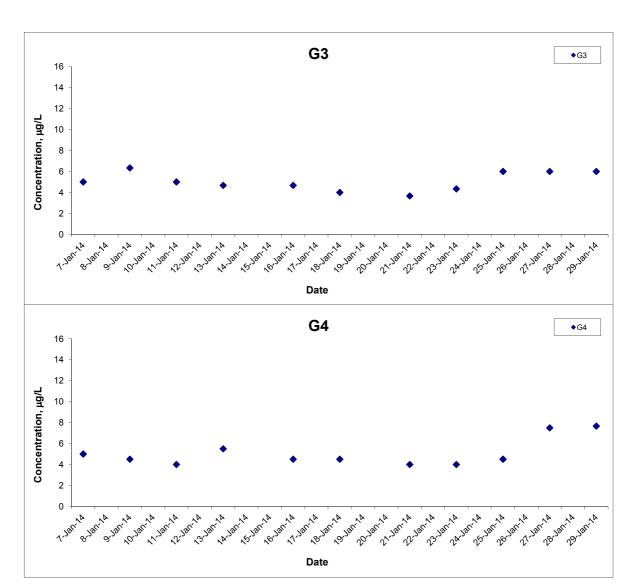






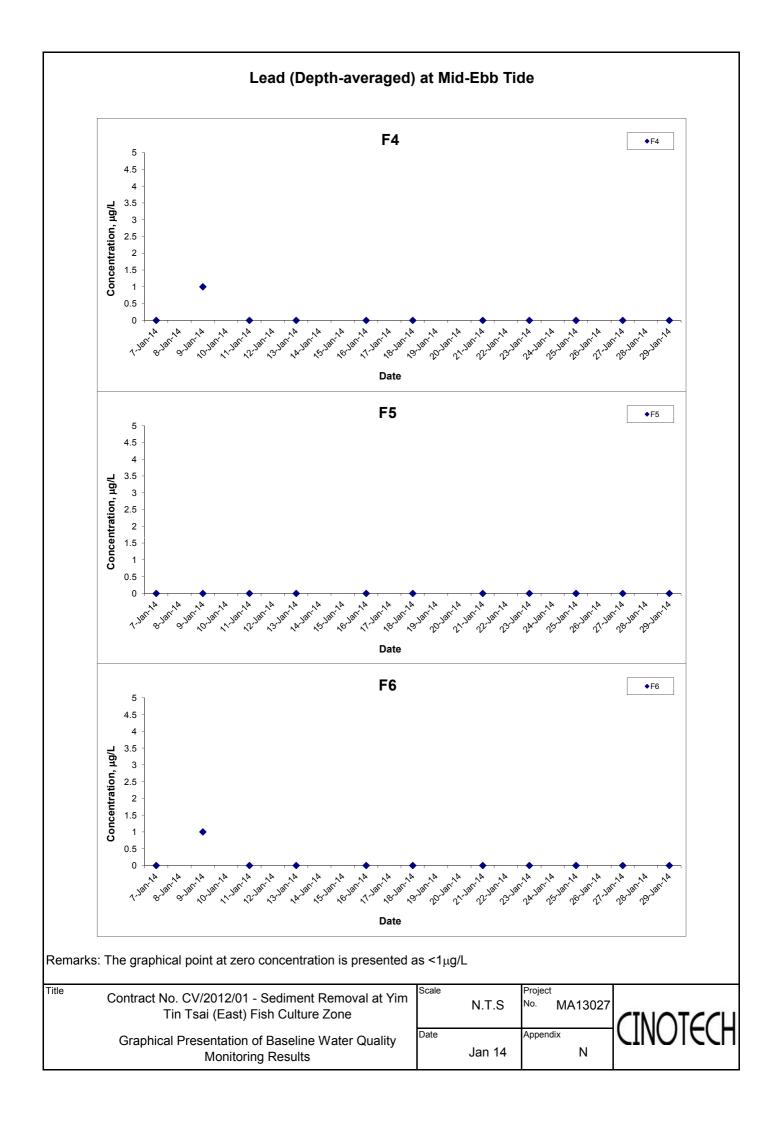


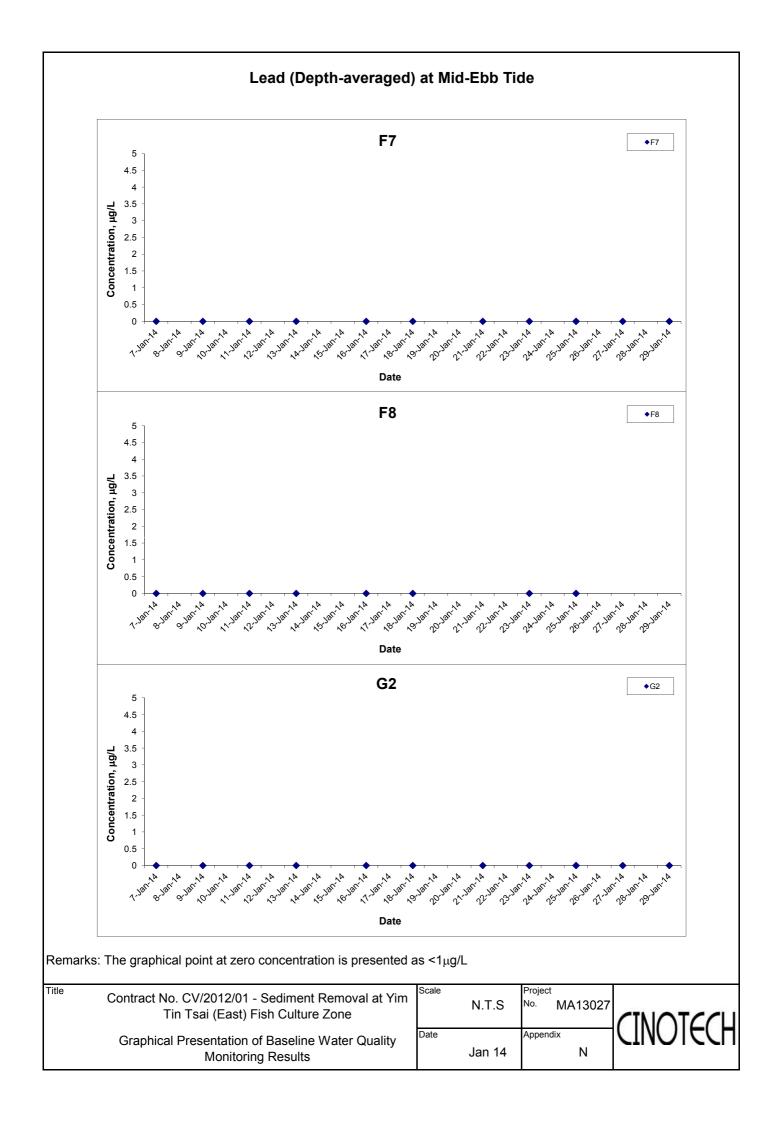
Copper (Depth-averaged) at Mid-Flood Tide



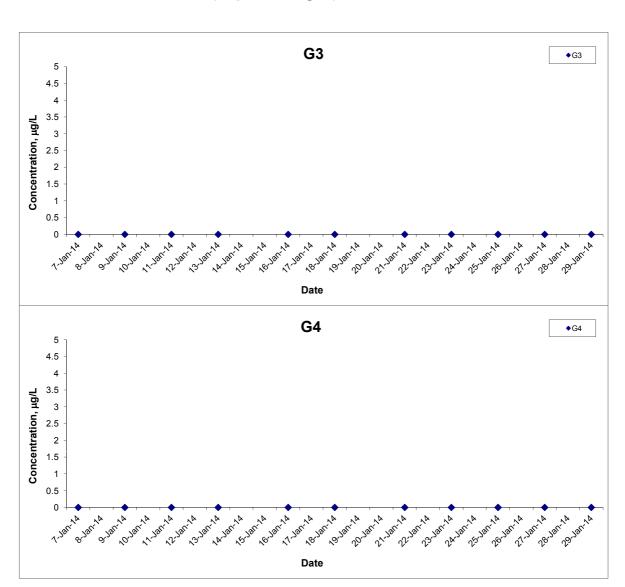
Scale		Project
	N.T.S	No. MA13027
Date		Appendix
	Jan 14	N







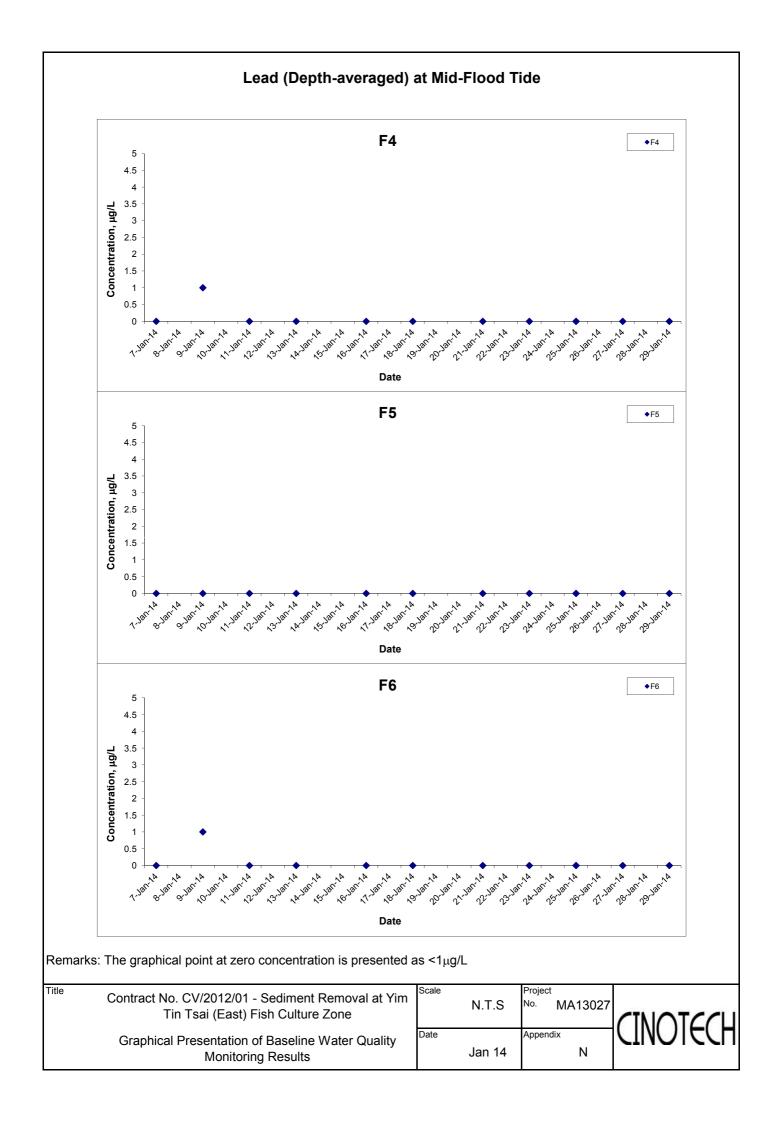
Lead (Depth-averaged) at Mid-Ebb Tide

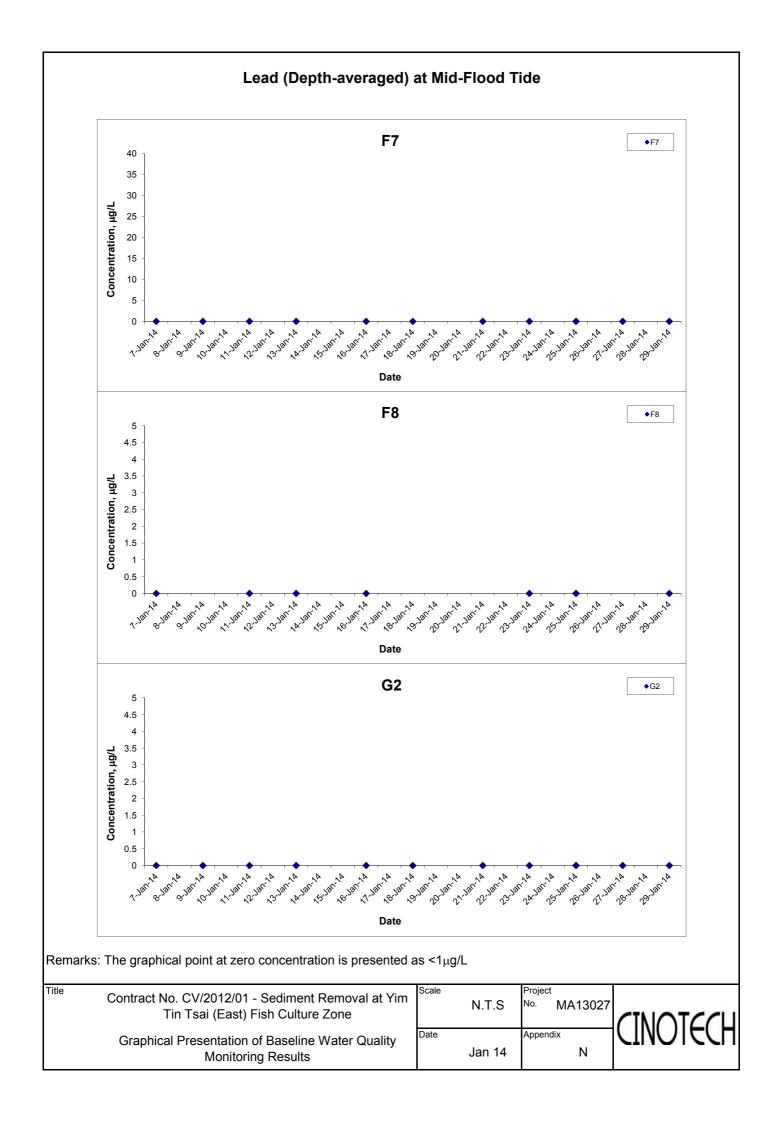


Remarks: The graphical point at zero concentration is presented as <1µg/L

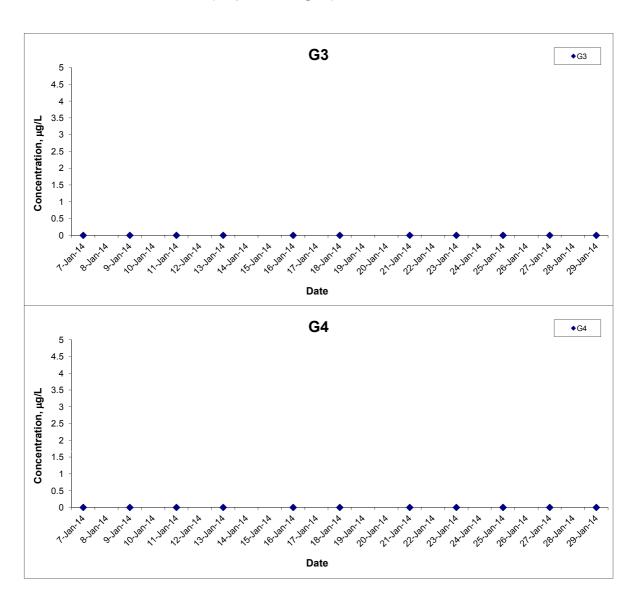
Scale		Project
	N.T.S	No. MA13027
Date		Appendix
	Jan 14	N







Lead (Depth-averaged) at Mid-Flood Tide

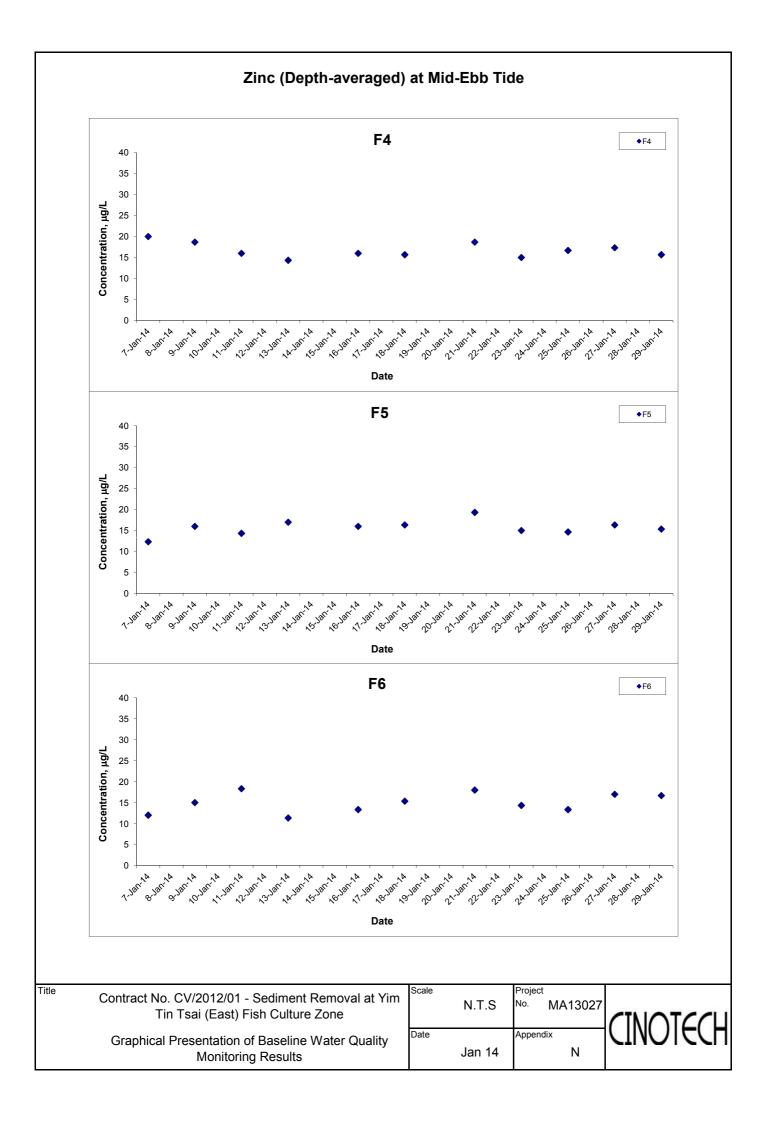


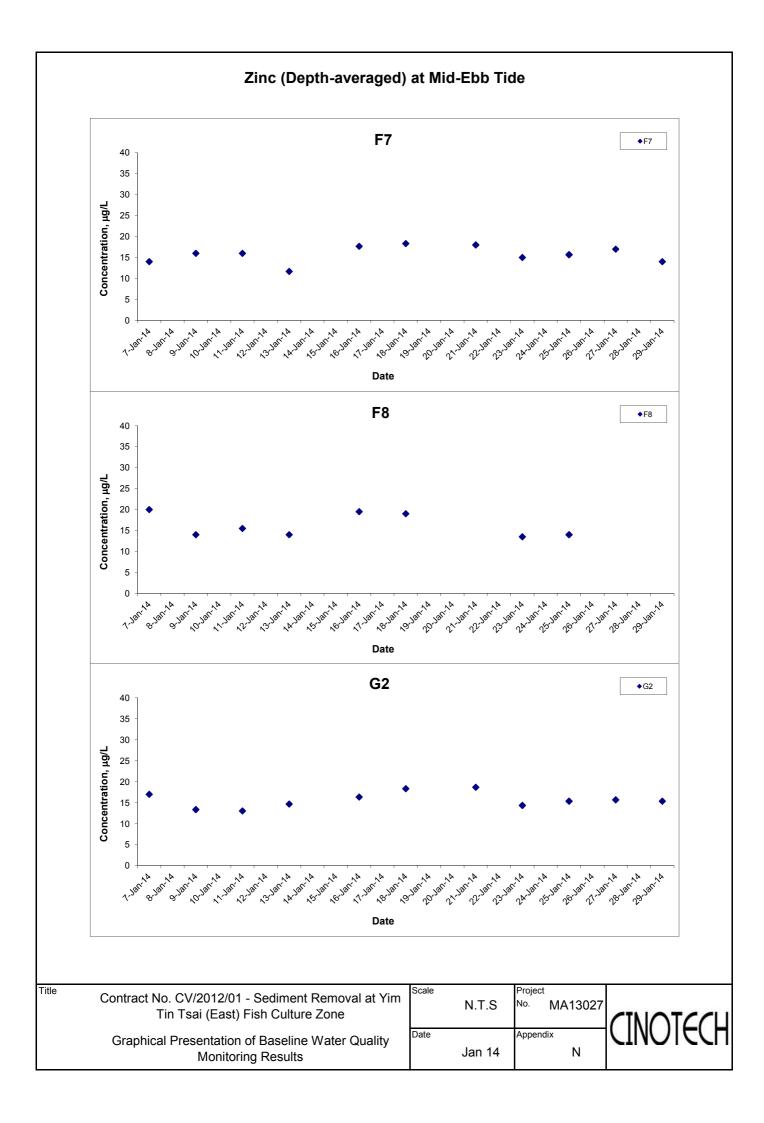
Remarks: The graphical point at zero concentration is presented as <1µg/L

Title	Contract No. CV/2012/01 - Sediment Removal at Yim Tin Tsai (East) Fish Culture Zone
	Graphical Presentation of Baseline Water Quality Monitoring Results

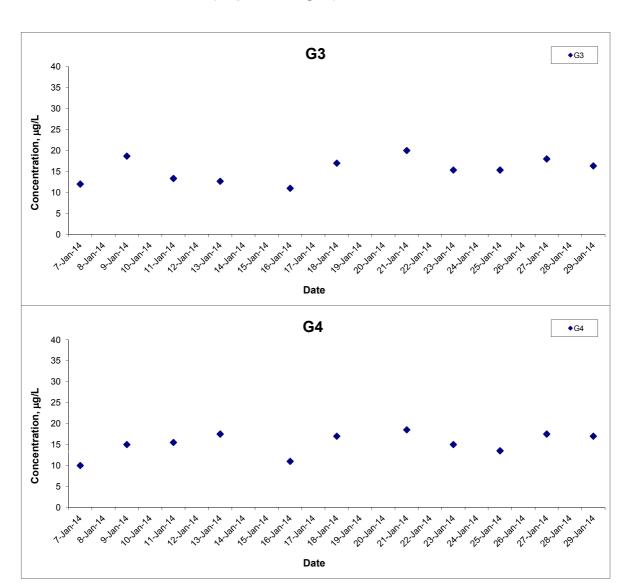
Scale		Project
	N.T.S	No. MA13027
Date		Appendix
	Jan 14	N







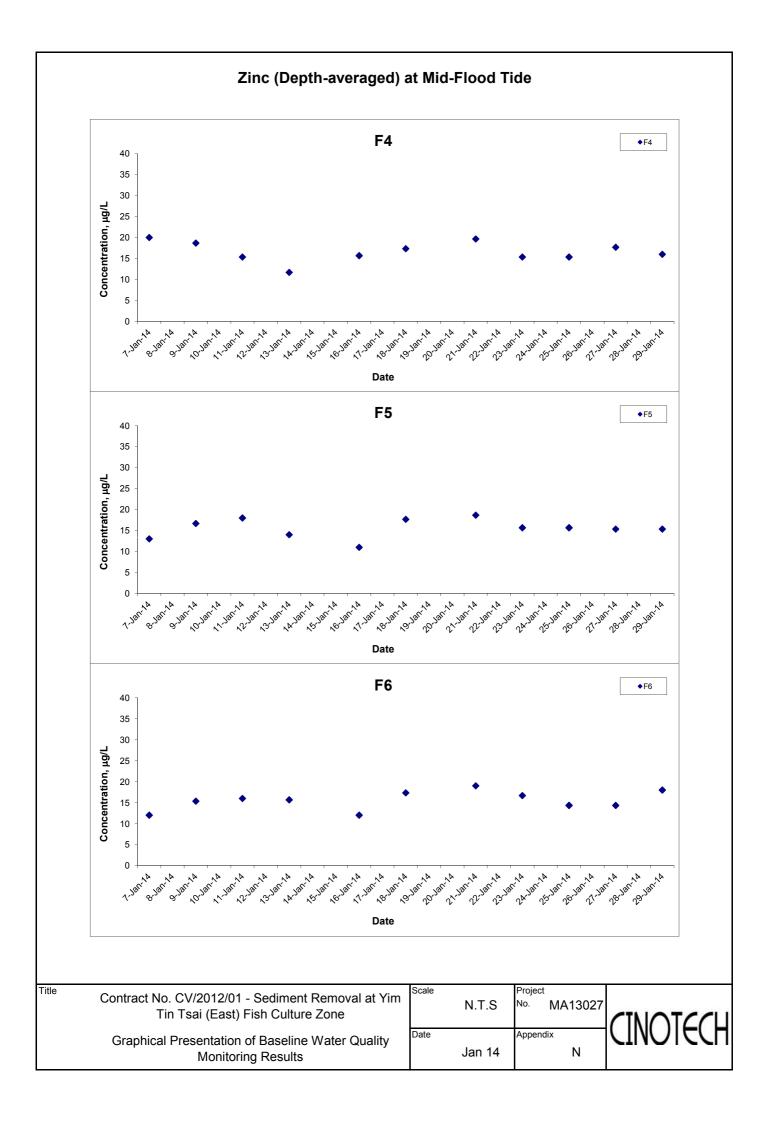
Zinc (Depth-averaged) at Mid-Ebb Tide

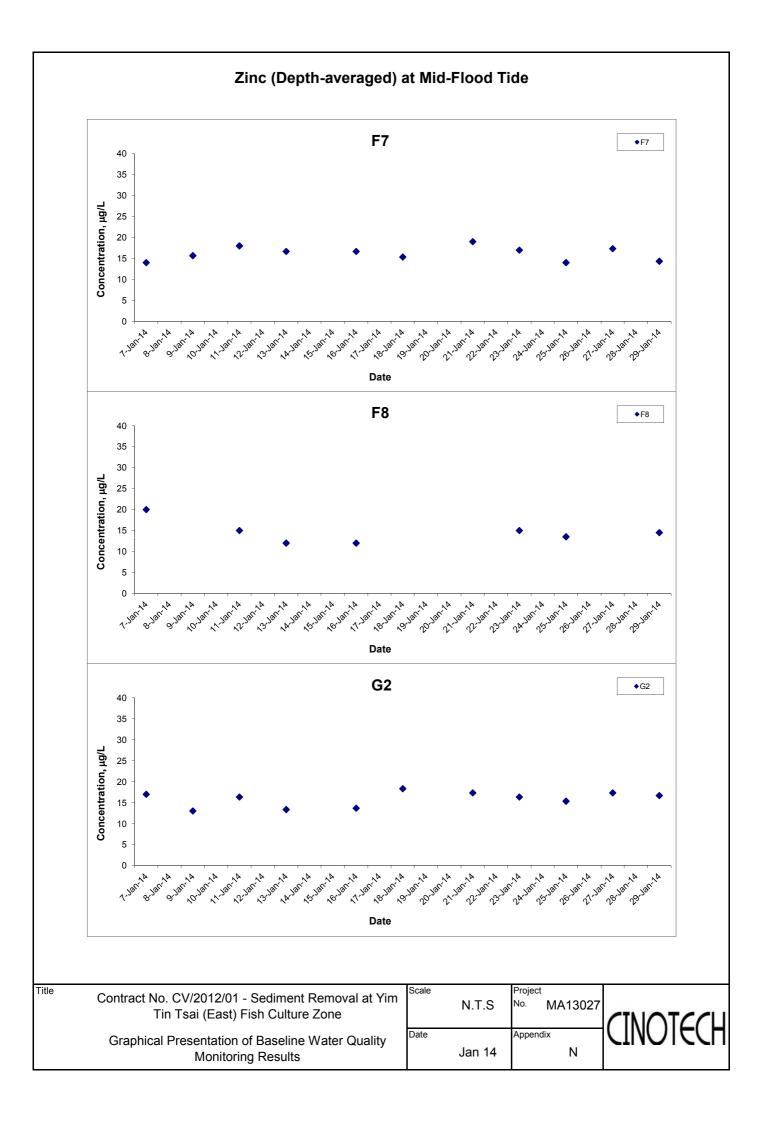


Contract No. CV/2012/01 - Sediment Removal at Yim
Tin Tsai (East) Fish Culture Zone
Graphical Presentation of Baseline Water Quality
Monitoring Results

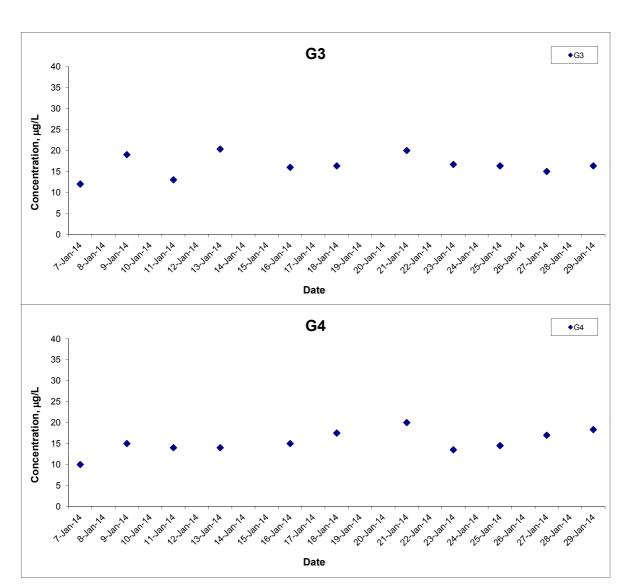
Scale		Project
	N.T.S	No. MA13027
Date		Appendix
	Jan 14	N







Zinc (Depth-averaged) at Mid-Flood Tide



Contract No. CV/2012/01 - Sediment Removal at Yim Tin Tsai (East) Fish Culture Zone Graphical Presentation of Baseline Water Quality Monitoring Results

Scale		Project
	N.T.S	No. MA13027
Date		Appendix
	Jan 14	N



APPENDIX O LABORATORY TESTING REPORT FOR WATER QUALITY





Rms 1516, 1701 & 1716, Technology Park, 18 On Lai Street, Shatin, N.T., Hong Kong. Tel: 2898 7388 Fax: 2898 7076

Website: www.wellab.com.hk

TEST REPORT

APPLICANT:

Cinotech Consultants Limited

RM 1710, Technology Park,

18 On Lai Street,

Shatin, N.T., Hong Kong

19459 Laboratory No.:

2014-01-13 Date of Issue: 2014-01-07 Date Received: Date Tested:

Date Completed:

2014-01-07 2014-01-13

ATTN:

Miss Mei Ling Tang

Page:

1 of 4

Sample Description

: 44 liquid samples as received by customer said to be marine water

Project No.

: MA13027

Project Name: Contract No. CV/2012/01

Sediment Removal at Yim Tin Tsai (East) Fish Culture Zone

: MA13027/140107

Sampling Date : 2014-01-07

Test Requested & Methodology:

Item	Parameters	Ref. Method	Limit of Reporting
1	Suspended Solids (SS)	APHA 17ed 2540 D	*0.5 mg/L
2	Arsenic (As)	In-house method SOP076 (ICP-MS)	1 μg/L
2	Copper (Cu)		1 μg/L
4	Lead (Pb)		l μg/L
5	Zinc (Zn)		2 μg/L

Remark: 1) * Limit of Reporting is reported as Detection Limit

PREPARED AND CHECKED BY:

For and On Behalf of WELLAB Ltd.

Laboratory Manager

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TEST REPORT

 Laboratory No.:
 19459

 Date of Issue:
 2014-01-13

 Date Received:
 2014-01-07

 Date Tested:
 2014-01-07

 Date Completed:
 2014-01-13

Page: 2 of 4

Results:

Results:						
Sample ID	F4	F4	F4	F5	F5	F5
Sampling Depth	S	М	В	S	M	В
Tide	Mid-Ebb	Mid-Ebb	Mid-Ebb	Mid-Ebb	Mid-Ebb	Mid-Ebb
Sample Number	19459-1	19459-2	19459-3	19459-4	19459-5	19459-6
Suspended Solids (SS), mg/L	5.6	7.4	14.5	6.3	12.3	11.1
Arsenic (As), μg/L	19	19	19	19	19	19
Copper (Cu), µg/L	5	5	5	5	5	5
Lead (Pb), µg/L	<1	<1	<1	<1	<1	<1
Zinc (Zn), µg/L	20	20	20	13	12	12

Sample ID	F6	F6	F6	F7	F7	F 7
Sampling Depth	S	M	В	S	M	В
Tide	Mid-Ebb	Mid-Ebb	Mid-Ebb	Mid-Ebb	Mid-Ebb	Mid-Ebb
Sample Number	19459-7	19459-8	19459-9	19459-10	19459-11	19459-12
Suspended Solids (SS), mg/L	10.3	10.0	10.3	6.8	9.4	7.2
Arsenic (As), μg/L	20	20	20	20	20	20
Copper (Cu), µg/L	5	5	5	5	5	5
Lead (Pb), µg/L	<1	<1	<1	<1	<1	<1
Zinc (Zn), μg/L	12	12	12	14	14	14

Sample ID	F8	F8	G2	G2	G2	G3
Sampling Depth	S	В	S	M	В	S
Tide	Mid-Ebb	Mid-Ebb	Mid-Ebb	Mid-Ebb	Mid-Ebb	Mid-Ebb
Sample Number	19459-13	19459-15	19459-16	19459-17	19459-18	19459-19
Suspended Solids (SS), mg/L	3.5	8.2	10.5	8.6	3.2	9.2
Arsenic (As), μg/L	20	20	21	21	21	21
Copper (Cu), µg/L	5	5	5	5	5	5
Lead (Pb), µg/L	<1	<1	<1	<1	<1	<1
Zinc (Zn), µg/L	20	20	17	17	17	13

Remarks: 1) <= less than



TEST REPORT

 Laboratory No.:
 19459

 Date of Issue:
 2014-01-13

 Date Received:
 2014-01-07

 Date Tested:
 2014-01-07

 Date Completed:
 2014-01-13

Page:

3 of 4

Results:

Results:			T 64	C4	T:4	F4
Sample ID	G3	G3	G4	G4	F4	
Sampling Depth	M	В	S	В	S	M
Tide	Mid-Ebb	Mid-Ebb	Mid-Ebb	Mid-Ebb	Mid-Flood	Mid-Flood
Sample Number	19459-20	19459-21	19459-22	19459-24	19459-37	19459-38
Suspended Solids (SS), mg/L	14.4	8.2	7.9	6.7	12.4	9.0
Arsenic (As), μg/L	21	21	21	21	19	19
Copper (Cu), µg/L	5	5	5	5	5	5
Lead (Pb), μg/L	<1	<1	<1	<1	<1	<1
Zinc (Zn), µg/L	13	10	10	10	20	20

Sample ID	F4	F5	F5	F5	F6	F6
Sampling Depth	В	S	M	В	S	M
Tide	Mid-Flood	Mid-Flood	Mid-Flood	Mid-Flood	Mid-Flood	Mid-Flood
Sample Number	19459-39	19459-40	19459-41	19459-42	19459-43	19459-44
Suspended Solids (SS), mg/L	7.4	7.3	10.1	11.9	7.3	8.6
Arsenic (As), μg/L	19	19	19	19	20	20
Copper (Cu), µg/L	5	5	5	5	5	5
Lead (Pb), μg/L	<1	<1	<1	<1	<1	<1
Zinc (Zn), µg/L	20	13	13	13	12	12

Sample ID	F6	F7	F7	F7	F8	F8
Sampling Depth	В	S	М	В	S	В
Tide	Mid-Flood	Mid-Flood	Mid-Flood	Mid-Flood	Mid-Flood	Mid-Flood
Sample Number	19459-45	19459-46	19459-47	19459-48	19459-49	19459-51
Suspended Solids (SS), mg/L	6.9	7.9	6.1	5.4	7.4	10.6
Arsenic (As), μg/L	20	20	20	20	20	20
Copper (Cu), µg/L	5	5	5	5	5	5
Lead (Pb), μg/L	<1	<1	<1	<1	<1	<1
Zinc (Zn), µg/L	12	14	14	14	20	20

Remarks: $1) \le 1$ less than



TEST REPORT

Laboratory No.: 19459 2014-01-13 Date of Issue: Date Received: 2014-01-07 Date Tested: 2014-01-07 2014-01-13 Date Completed:

Page:

4 of 4

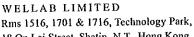
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Results:				W		
Sample ID	G2	G2	G2	G3	G3	G3
Sampling Depth	S	M	В	S	M	В
Tide	Mid-Flood	Mid-Flood	Mid-Flood	Mid-Flood	Mid-Flood	Mid-Flood
Sample Number	19459-52	19459-53	19459-54	19459-55	19459-56	19459-57
Suspended Solids (SS), mg/L	7.9	5.1	4.2	11.3	7.6	5.0
Arsenic (As), μg/L	21	21	21	21	21	21
Copper (Cu), µg/L	5	5	5	5	5	5
Lead (Pb), μg/L	<1	<1	<1	<1	<1	<1
Zinc (Zn), μg/L	17	17	17	13	13	10

Sample ID	G4	G4
Sampling Depth	S	В
Tide	Mid-Flood	Mid-Flood
Sample Number	19459-58	19459-60
Suspended Solids (SS), mg/L	7.9	9.3
Arsenic (As), μg/L	21	21
Copper (Cu), μg/L	5	5
Lead (Pb), μg/L	<1	<1
Zinc (Zn), μg/L	10	10

Remarks: $1) \le 1$ less than

2) S = Surface, M = Middle, B = Bottom



18 On Lai Street, Shatin, N.T., Hong Kong. Tel: 2898 7388 Fax: 2898 7076 Website: www.wellab.com.hk



TEST REPORT

Cinotech Consultants Limited APPLICANT:

RM 1710, Technology Park,

18 On Lai Street,

Shatin, N.T., Hong Kong

19477 Laboratory No.: 2014-01-15 Date of Issue: 2014-01-09 Date Received: 2014-01-09 Date Tested: 2014-01-15 Date Completed:

1 of 4

Miss Mei Ling Tang ATTN:

: 42 liquid samples as received by customer said to be marine water Sample Description

: MA13027 Project No.

Project Name : Contract No. CV/2012/01

Sediment Removal at Yim Tin Tsai (East) Fish Culture Zone

Page:

: MA13027/140109 Custody No.

Sampling Date : 2014-01-09

Test Requested & Methodology:

Test I	Requested & Methodology:		Limit of Reporting
Item	Parameters	Ref. Method	
1	Suspended Solids (SS)	APHA 17ed 2540 D	*0.5 mg/L
1		In-house method SOP076 (ICP-MS)	l μg/L
2	Arsenic (As)	III-liouse illettion por a / o (for array)	1 μg/L
2	Copper (Cu)		
4	Lead (Pb)		1 μg/L
5	Zinc (Zn)		2 μg/L

Remark: 1) * Limit of Reporting is reported as Detection Limit

PREPARED AND CHECKED BY:

For and On Behalf of WELLAB Ltd.

Laboratory Manager



Tel: 2898 7388 Fax: 2898 7076 Website: www.wellab.com.hk

TEST REPORT

Laboratory No.: 19477 2014-01-15 Date of Issue: 2014-01-09 Date Received: Date Tested: 2014-01-09 Date Completed: 2014-01-15

Page:

2 of 4

Results:

Results:		1 114	F4	F5	F5	F5
Sample ID	F4	F4	F4	гэ		<u> </u>
Sampling Depth	S	M	В	S	M	В
Tide	Mid-Ebb	Mid-Ebb	Mid-Ebb	Mid-Ebb	Mid-Ebb	Mid-Ebb
Sample Number	19477-1	19477-2	19477-3	19477-4	19477-5	19477-6
Suspended Solids (SS), mg/L	2.7	5.4	6.1	6.0	6.7	6.9
Arsenic (As), μg/L	21	20	18	19	19	20
Copper (Cu), µg/L	6	6	5	5	6	5
Lead (Pb), μg/L	1	1	<1	<1	<1	<1
Zinc (Zn), µg/L	19	21	16	17	17	14

Sample ID	F6	F6	F6	F7	F7	F7
Sampling Depth	S	М	В	S	M	В
Tide	Mid-Ebb	Mid-Ebb	Mid-Ebb	Mid-Ebb	Mid-Ebb	Mid-Ebb
Sample Number	19477-7	19477-8	19477-9	19477-10	19477-11	19477-12
Suspended Solids (SS), mg/L	9.5	10.9	7.6	8.1	8.9	7.1
Arsenic (As), μg/L	21	21	21	22	20	23
Copper (Cu), µg/L	5	9	5	6	6	6
Lead (Pb), µg/L	<1	1	1	<1	<1	<1
Zinc (Zn), μg/L	15	16	14	18	15	15

Sample ID	F8	F8	G2	G2	G2	G3
Sampling Depth	S	В	S	М	В	S
Tide	Mid-Ebb	Mid-Ebb	Mid-Ebb	Mid-Ebb	Mid-Ebb	Mid-Ebb
Sample Number	19477-13	19477-15	19477-16	19477-17	19477-18	19477-19
Suspended Solids (SS), mg/L	7.1	7.4	4.1	6.6	5.9	7.7
Arsenic (As), μg/L	22	20	22	22	23	22
Copper (Cu), µg/L	6	6	6	6	6	5
Lead (Pb), µg/L	<1	<1	<1	<1	<1	<1
Zinc (Zn), µg/L	14	14	13	14	13	14

Remarks: $1) \le 1$ less than

2) S = Surface, M = Middle, B = Bottom *************************

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TEST REPORT

Laboratory No.: 19477 2014-01-15 Date of Issue: 2014-01-09 Date Received: Date Tested: 2014-01-09 Date Completed: 2014-01-15

Page:

3 of 4

Results:

Results:				I		I
Sample ID	G3	G3	G4	G4	F4	F4
Sampling Depth	M	В	S	В	S	M
Tide	Mid-Ebb	Mid-Ebb	Mid-Ebb	Mid-Ebb	Mid-Flood	Mid-Flood
Sample Number	19477-20	19477-21	19477-22	19477-24	19477-37	19477-38
Suspended Solids (SS), mg/L	6.4	9.5	7.9	7.1	4.9	5.9
Arsenic (As), µg/L	22	20	18	12	21	21
Copper (Cu), µg/L	6	6	5	4	5	6
Lead (Pb), µg/L	<1	<1	<1	<1	1	1
Zinc (Zn), μg/L	14	28	16	14	18	21

Sample ID	F4	F5	F5	F5	F6	F6
Sampling Depth	В	S	M	В	S	М
Tide	Mid-Flood	Mid-Flood	Mid-Flood	Mid-Flood	Mid-Flood	Mid-Flood
Sample Number	19477-39	19477-40	19477-41	19477-42	19477-43	19477-44
Suspended Solids (SS), mg/L	11.0	7.2	8.9	8.8	9.7	4.2
Arsenic (As), μg/L	18	19	19	20	22	21
Copper (Cu), µg/L	5	5	6	5	5	9
Lead (Pb), μg/L	<1	<1	<1	<1	<1	1
Zinc (Zn), µg/L	17	18	18	14	15	17

Sample ID	F6	F7	F7	F7	G2	G2
Sampling Depth	В	S	M	В	S	M
Tide	Mid-Flood	Mid-Flood	Mid-Flood	Mid-Flood	Mid-Flood	Mid-Flood
Sample Number	19477-45	19477-46	19477-47	19477-48	19477-52	19477-53
Suspended Solids (SS), mg/L	9.0	5.3	7.9	7.9	5.5	5.5
Arsenic (As), µg/L	20	22	20	25	22	22
Copper (Cu), µg/L	5	6	6	6	5	6
Lead (Pb), µg/L	1	<1	<1	<1	<1	<1
Zinc (Zn), µg/L	14	17	15	15	13	13

Remarks: $1) \le 1$ less than



TEST REPORT

Laboratory No.: 19477 Date of Issue: 2014-01-15 Date Received: 2014-01-09 2014-01-09 Date Tested: Date Completed: 2014-01-15

Page:

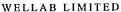
4 of 4

Results

Results:						f
Sample ID	G2	G3	G3	G3	G4	G4
Sampling Depth	В	S	М	В	S	<u>B</u>
Tide	Mid-Flood	Mid-Flood	Mid-Flood	Mid-Flood	Mid-Flood	Mid-Flood
Sample Number	19477-54	19477-55	19477-56	19477-57	19477-58	19477-60
Suspended Solids (SS), mg/L	3.3	4.6	16.6	8.1	6.1	9.3
Arsenic (As), µg/L	23	22	21	21	18	12
Copper (Cu), µg/L	5	6	6	7	5	4
Lead (Pb), μg/L	<1	<1	<1	<1	<1	<1
Zinc (Zn), μg/L	13	14	14	29	16	14

Remarks: $1) \le less than$

2) S = Surface, M = Middle, B = Bottom





TEST REPORT

APPLICANT: Cinotech Consultants Limited

RM 1710, Technology Park,

18 On Lai Street,

Shatin, N.T., Hong Kong

Laboratory No.:	19497
Date of Issue:	2014-01-16
Date Received:	2014-01-11
Date Tested:	2014-01-11
Date Completed:	2014-01-16

ATTN:

Miss Mei Ling Tang

Page:

1 of 4

Sample Description

: 44 liquid samples as received by customer said to be marine water

Project No.

: MA13027

Project Name: Contract No. CV/2012/01

Sediment Removal at Yim Tin Tsai (East) Fish Culture Zone

Custody No.

: MA13027/140111

Sampling Date : 2014-01-11

Test Requested & Methodology:

Item	Parameters	Ref. Method	Limit of Reporting
1	Suspended Solids (SS)	APHA 17ed 2540 D	*0.5 mg/L
2	Arsenic (As)	In-house method SOP076 (ICP-MS)	1 μg/L
2	Copper (Cu)		l μg/L
4	Lead (Pb)		1 μg/L
5	Zinc (Zn)		2 μg/L

Remark: 1) * Limit of Reporting is reported as Detection Limit

PREPARED AND CHECKED BY:

For and On Behalf of WELLAB Ltd.

Laboratory Manager



Tel: 2898 7388 Fax: 2898 7076 Website: www.wellab.com.hk

TEST REPORT

Laboratory No.: 19497 2014-01-16 Date of Issue: Date Received: 2014-01-11 Date Tested: 2014-01-11 Date Completed: 2014-01-16

Page:

2 of 4

Results:

Results:						
Sample ID	F4	F4	F4	F5	F5	F5
Sampling Depth	S	М	В	S	M	В
Tide	Mid-Flood	Mid-Flood	Mid-Flood	Mid-Flood	Mid-Flood	Mid-Flood
Sample Number	19497-1	19497-2	19497-3	19497-4	19497-5	19497-6
Suspended Solids (SS), mg/L	4.2	4.1	5.9	6.2	9.9	7.1
Arsenic (As), μg/L	18	19	20	19	19	18
Copper (Cu), μg/L	4	4	5	4	5	4
Lead (Pb), μg/L	<1	<1	<1	<1	<1	<1
Zinc (Zn), μg/L	16	17	13	19	14	21

Sample ID	F6	F6	F6	F7	F7	F7
Sampling Depth	S	M	В	S	M	В
Tide	Mid-Flood	Mid-Flood	Mid-Flood	Mid-Flood	Mid-Flood	Mid-Flood
Sample Number	19497-7	19497-8	19497-9	19497-10	19497-11	19497-12
Suspended Solids (SS), mg/L	5.7	8.4	11.3	9.2	6.6	5.9
Arsenic (As), μg/L	18	19	19	20	19	18
Copper (Cu), μg/L	6	4	6	4	4	4
Lead (Pb), μg/L	<1	<1	<1	<1	<1	<1
Zinc (Zn), μg/L	15	14	19	18	21	15

Sample ID	F8	F8	G2	G2	G2	G3
Sampling Depth	S	В	S	M	В	S
Tide	Mid-Flood	Mid-Flood	Mid-Flood	Mid-Flood	Mid-Flood	Mid-Flood
Sample Number	19497-13	19497-15	19497-16	19497-17	19497-18	19497-19
Suspended Solids (SS), mg/L	7.4	14.3	5.1	8.4	7.3	5.2
Arsenic (As), μg/L	19	18	19	20	19	19
Copper (Cu), μg/L	4	5	5	5	6	5
Lead (Pb), μg/L	<1	<1	<1	<1	<1	<1
Zinc (Zn), μg/L	15	15	22	14	13	12

Remarks: $1) \le 1$ less than

18 On Lai Street, Shatin, N.T., Hong Kong. Tel: 2898 7388 Fax: 2898 7076 Website: www.wellab.com.hk



TEST REPORT

19497 Laboratory No.: Date of Issue: 2014-01-16 2014-01-11 Date Received: Date Tested: 2014-01-11 2014-01-16 Date Completed:

3 of 4 Page:

Results:

Results:						
Sample ID	G3	G3	G4	G4	F4	F4
Sampling Depth	M	В	S	В	S	M
Tide	Mid-Flood	Mid-Flood	Mid-Flood	Mid-Flood	Mid-Ebb	Mid-Ebb
Sample Number	19497-20	19497-21	19497-22	19497-24	19497-37	19497-38
Suspended Solids (SS), mg/L	5.3	6.6	5.9	5.9	7.6	5.9
Arsenic (As), μg/L	20	20	18	18	20	18
Copper (Cu), μg/L	5	5	4	4	4	5
Lead (Pb), μg/L	<1	<1	<1	<1	<1	<1
Zinc (Zn), µg/L	16	11	11	17	18	13

Sample ID	F4	F5	F5	F5	F6	F6
Sampling Depth	В	S	М	В	S	M
Tide	Mid-Ebb	Mid-Ebb	Mid-Ebb	Mid-Ebb	Mid-Ebb	Mid-Ebb
Sample Number	19497-39	19497-40	19497-41	19497-42	19497-43	19497-44
Suspended Solids (SS), mg/L	10.5	11.4	8.4	5.1	6.2	6.9
Arsenic (As), μg/L	19	19	19	19	18	18
Copper (Cu), µg/L	5	4	6	5	4	5
Lead (Pb), µg/L	<1	<1	<1	<1	<1	<1
Zinc (Zn), µg/L	17	12	19	12	18	16

Sample ID	F6	F7	F7	F7	F8	F8
Sampling Depth	В	S	M	В	S	В
Tide	Mid-Ebb	Mid-Ebb	Mid-Ebb	Mid-Ebb	Mid-Ebb	Mid-Ebb
Sample Number	19497-45	19497-46	19497-47	19497-48	19497-49	19497-51
Suspended Solids (SS), mg/L	8.1	4.9	4.1	7.9	10.3	6.9
Arsenic (As), μg/L	19	19	19	21	18	19
Copper (Cu), µg/L	5	5	4	4	4	4
Lead (Pb), μg/L	<1	<1	<1	<1	<1	<1
Zinc (Zn), μg/L	21	19	12	17	17	14

Remarks: $1) \le 1$ less than

2) S = Surface, M = Middle, B = Bottom



TEST REPORT

19497 Laboratory No.: 2014-01-16 Date of Issue: 2014-01-11 Date Received: 2014-01-11 Date Tested: 2014-01-16 Date Completed:

4 of 4 Page:

Results:

Results:					r	
Sample ID	G2	G2	G2	G3	G3	G3
Sampling Depth	S	M	В	S	M	В
Tide	Mid-Ebb	Mid-Ebb	Mid-Ebb	Mid-Ebb	Mid-Ebb	Mid-Ebb
Sample Number	19497-52	19497-53	19497-54	19497-55	19497-56	19497-57
Suspended Solids (SS), mg/L	7.8	5.4	5.9	5.2	7.9	4.2
Arsenic (As), μg/L	19	18	20	19	20	19
Copper (Cu), µg/L	4	5	5	5	5	4
Lead (Pb), μg/L	<1	<1	<1	<1	<1	<1
Zinc (Zn), µg/L	13	15	11	16	11	13

Sample ID	G4	G4
Sampling Depth	S	В
Tide	Mid-Ebb	Mid-Ebb
Sample Number	19497-58	19497-60
Suspended Solids (SS), mg/L	10.5	10.9
Arsenic (As), μg/L	20	19
Copper (Cu), µg/L	4	4
Lead (Pb), μg/L	<1	<1
Zinc (Zn), µg/L	10	21

Remarks: 1) <= less than

2) S = Surface, M = Middle, B = Bottom





TEST REPORT

Cinotech Consultants Limited APPLICANT:

RM 1710, Technology Park,

18 On Lai Street,

Shatin, N.T., Hong Kong

19498
2014-01-17
2014-01-13
2014-01-13
2014-01-17

ATTN:

Miss Mei Ling Tang

Page:

1 of 4

Sample Description

: 44 liquid samples as received by customer said to be marine water

Project No.

: MA13027

Project Name: Contract No. CV/2012/01

Sediment Removal at Yim Tin Tsai (East) Fish Culture Zone

Custody No.

: MA13027/140113

Sampling Date : 2014-01-13

Test Requested & Methodology:

Item	Parameters	Ref. Method	Limit of Reporting
1	Suspended Solids (SS)	APHA 17ed 2540 D	*0.5 mg/L
2	Arsenic (As)	In-house method SOP076 (ICP-MS)	1 μg/L
2	Copper (Cu)		1 μg/L
4	Lead (Pb)		1 μg/L
5	Zinc (Zn)		2 μg/L

Remark: 1) * Limit of Reporting is reported as Detection Limit

PREPARED AND CHECKED BY:

For and On Behalf of WELLAB Ltd.

Laboratory Manager



18 On Lai Street, Shatin, N.T., Hong Kong. Tel: 2898 7388 Fax: 2898 7076 Website: www.wellab.com.hk

TEST REPORT

19498 Laboratory No.: Date of Issue: 2014-01-17 Date Received: 2014-01-13 Date Tested: 2014-01-13 2014-01-17 Date Completed:

Page:

2 of 4

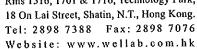
Results:

Results:					****	
Sample ID	F4	F4	F4	F5	F5	F5
Sampling Depth	S	М	В	S	M	В
Tide	Mid-Ebb	Mid-Ebb	Mid-Ebb	Mid-Ebb	Mid-Ebb	Mid-Ebb
Sample Number	19498-1	19498-2	19498-3	19498-4	19498-5	19498-6
Suspended Solids (SS), mg/L	9.2	12.3	7.1	9.5	11.3	9.3
Arsenic (As), μg/L	19	19	19	20	20	19
Copper (Cu), µg/L	4	4	5	4	4	5
Lead (Pb), μg/L	<1	<1	<1	<1	<1	<1
Zinc (Zn), µg/L	15	13	15	14	19	18

Sample ID	F6	F6	F6	F7	F7	F7
Sampling Depth	S	М	В	S	M	В
Tide	Mid-Ebb	Mid-Ebb	Mid-Ebb	Mid-Ebb	Mid-Ebb	Mid-Ebb
Sample Number	19498-7	19498-8	19498-9	19498-10	19498-11	19498-12
Suspended Solids (SS), mg/L	11.5	5.9	8.1	9.0	4.4	4.1
Arsenic (As), μg/L	19	19	19	18	19	20
Copper (Cu), µg/L	4	5	5	5	4	4
Lead (Pb), μg/L	<1	<1	<1	<1	<1	<1
Zinc (Zn), µg/L	10	11	13	10	14	11

Sample ID	F8	F8	G2	G2	G2	G3
Sampling Depth	S	В	S	M	В	S
Tide	Mid-Ebb	Mid-Ebb	Mid-Ebb	Mid-Ebb	Mid-Ebb	Mid-Ebb
Sample Number	19498-13	19498-15	19498-16	19498-17	19498-18	19498-19
Suspended Solids (SS), mg/L	8.3	9.9	5.3	5.9	4.4	5.9
Arsenic (As), μg/L	18	18	20	19	18	19
Copper (Cu), µg/L	6	4	5	5	4	4
Lead (Pb), μg/L	<1	<1	<1	<1	<1	<1
Zinc (Zn), µg/L	17	11	15	15	14	13

Remarks: $1) \le 1$ less than





 Laboratory No.:
 19498

 Date of Issue:
 2014-01-17

 Date Received:
 2014-01-13

 Date Tested:
 2014-01-13

 Date Completed:
 2014-01-17

Page:

3 of 4

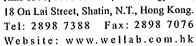
Results:

Results:						
Sample ID	G3	G3	G4	G4	F4	F4
Sampling Depth	M	В	S	В	S	M
Tide	Mid-Ebb	Mid-Ebb	Mid-Ebb	Mid-Ebb	Mid-Flood	Mid-Flood
Sample Number	19498-20	19498-21	19498-22	19498-24	19498-37	19498-38
Suspended Solids (SS), mg/L	9.9	7.0	10.4	10.8	4.2	4.1
Arsenic (As), μg/L	19	20	19	20	20	21
Copper (Cu), µg/L	4	4	4	4	5	5
Lead (Pb), μg/L	<1	<1	<1	<1	<1	<1
Zinc (Zn), µg/L	12	13	23	12	14	10

Sample ID	F4	F5	F5	F5	F6	F6
Sampling Depth	В	S	M	В	S	M
Tide	Mid-Flood	Mid-Flood	Mid-Flood	Mid-Flood	Mid-Flood	Mid-Flood
Sample Number	19498-39	19498-40	19498-41	19498-42	19498-43	19498-44
Suspended Solids (SS), mg/L	8.4	6.0	12.1	7.3	9.2	5.0
Arsenic (As), μg/L	20	20	19	19	20	19
Copper (Cu), µg/L	4	5	4	4	6	4
Lead (Pb), μg/L	<1	<1	<1	<1	<1	<1
Zinc (Zn), µg/L	11	11	14	17	14	17

Sample ID	F6	F7	F7	F7	F8	F8
Sampling Depth	В	S	M	В	S	В
Tide	Mid-Flood	Mid-Flood	Mid-Flood	Mid-Flood	Mid-Flood	Mid-Flood
Sample Number	19498-45	19498-46	19498-47	19498-48	19498-49	19498-51
Suspended Solids (SS), mg/L	9.1	4.6	6.9	10.8	6.9	7.2
Arsenic (As), µg/L	19	19	18	19	20	18
Copper (Cu), µg/L	4	4	4	5	5	5
Lead (Pb), μg/L	<1	<1	<1	<1	<1	<1
Zinc (Zn), µg/L	16	12	15	23	13	11

Remarks: $1) \le 1$ less than





Laboratory No.: 19498 2014-01-17 Date of Issue: Date Received: 2014-01-13 2014-01-13 Date Tested: Date Completed: 2014-01-17

Page:

4 of 4

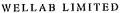
Peculte.

Results:						I
Sample ID	G2	G2	G2	G3	G3	G3
Sampling Depth	S	М	В	S	M	В
Tide	Mid-Flood	Mid-Flood	Mid-Flood	Mid-Flood	Mid-Flood	Mid-Flood
Sample Number	19498-52	19498-53	19498-54	19498-55	19498-56	19498-57
Suspended Solids (SS), mg/L	2.6	9.3	7.1	6.6	11.0	7.6
Arsenic (As), µg/L	18	19	19	19	19	20
Copper (Cu), µg/L	4	5	4	4	5	5
Lead (Pb), µg/L	<1	<1	<1	<1	<1	<1
Zinc (Zn), µg/L	14	15	11	22	17	22

Sample ID	G4	G4
Sampling Depth	S	В
Tide	Mid-Flood	Mid-Flood
Sample Number	19498-58	19498-60
Suspended Solids (SS), mg/L	7.6	8.1
Arsenic (As), μg/L	19	19
Copper (Cu), µg/L	6	5
Lead (Pb), μg/L	<1	<1
Zinc (Zn), µg/L	16	12

Remarks: 1) < = less than

2) S = Surface, M = Middle, B = Bottom





Rms 1516, 1701 & 1716, Technology Park, 18 On Lai Street, Shatin, N.T., Hong Kong. Tel: 2898 7388 Fax: 2898 7076

Website: www.wellab.com.hk

TEST REPORT

APPLICANT: Cinotech Consultants Limited

RM 1710, Technology Park,

18 On Lai Street,

Shatin, N.T., Hong Kong

Laboratory No.:	19529
Date of Issue:	2014-01-22
Date Received:	2014-01-16
Date Tested:	2014-01-16
Date Completed:	2014-01-22

1 of 4

ATTN: Miss Mei Ling Tang

Sample Description : 44 liquid samples as received by customer said to be marine water

Project No. : MA13027

Sampling Date : 2014-01-16

Project Name : Contract No. CV/2012/01

Sediment Removal at Yim Tin Tsai (East) Fish Culture Zone

Page:

Custody No. : MA13027/140116

Test Requested & Methodology:

Item	Parameters	Ref. Method	Limit of Reporting
1	Suspended Solids (SS)	APHA 17ed 2540 D	*0.5 mg/L
2	Arsenic (As)	In-house method SOP076 (ICP-MS)	1 μg/L
2	Copper (Cu)		l μg/L
4	Lead (Pb)		1 μg/L
5	Zinc (Zn)		2 μg/L

Remark: 1) * Limit of Reporting is reported as Detection Limit

PREPARED AND CHECKED BY:

For and On Behalf of WELLAB Ltd.

PATRICK TSE

Laboratory Manager



Laboratory No.: 19529 2014-01-22 Date of Issue: Date Received: 2014-01-16 Date Tested: 2014-01-16 Date Completed: 2014-01-22

Page:

2 of 4

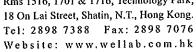
Results:						
Sample ID	F4	F4	F4	F5	F5	F5
Sampling Depth	S	M	В	S	M	В
Tide	Mid-Ebb	Mid-Ebb	Mid-Ebb	Mid-Ebb	Mid-Ebb	Mid-Ebb
Sample Number	19529-1	19529-2	19529-3	19529-4	19529-5	19529-6
Suspended Solids (SS), mg/L	4.6	6.3	7.1	9.3	7.6	6.8
Arsenic (As), μg/L	20	19	20	18	18	18
Copper (Cu), µg/L	5	5	4	5	5	5
Lead (Pb), µg/L	<1	<1	<1	<1	<1	<1
Zinc (Zn), μg/L	23	11	14	10	21	17

Sample ID	F6	F6	F6	F7	F7	F7
Sampling Depth	S	М	В	S	M	В
Tide	Mid-Ebb	Mid-Ebb	Mid-Ebb	Mid-Ebb	Mid-Ebb	Mid-Ebb
Sample Number	19529-7	19529-8	19529-9	19529-10	19529-11	19529-12
Suspended Solids (SS), mg/L	5.1	8.0	9.4	6.0	9.4	4.3
Arsenic (As), μg/L	20	18	18	18	18	19
Copper (Cu), µg/L	5	6	5	4	4	5
Lead (Pb), µg/L	<1	<1	<1	<1	<1	<1
Zinc (Zn), μg/L	15	12	13	17	17	19

Sample ID	F8	F8	G2	G2	G2	G3
Sampling Depth	S	В	S	M	В	S
Tide	Mid-Ebb	Mid-Ebb	Mid-Ebb	Mid-Ebb	Mid-Ebb	Mid-Ebb
Sample Number	19529-13	19529-15	19529-16	19529-17	19529-18	19529-19
Suspended Solids (SS), mg/L	8.9	10.3	8.4	7.2	9.8	8.1
Arsenic (As), μg/L	19	19	19	20	20	19
Copper (Cu), µg/L	4	5	5	4	5	5
Lead (Pb), μg/L	<1	<1	<1	<1	<1	<1
Zinc (Zn), µg/L	23	16	20	19	10	11

Remarks: 1) < = less than

2) S = Surface, M = Middle, B = Bottom ************************





19529 Laboratory No.: 2014-01-22 Date of Issue: Date Received: 2014-01-16 2014-01-16 Date Tested: 2014-01-22 Date Completed:

Page:

3 of 4

Results:

Resuits:						
Sample ID	G3	G3	G4	G4	F4	F4
Sampling Depth	M	В	S	В	S	M
Tide	Mid-Ebb	Mid-Ebb	Mid-Ebb	Mid-Ebb	Mid-Flood	Mid-Flood
Sample Number	19529-20	19529-21	19529-22	19529-24	19529-37	19529-38
Suspended Solids (SS), mg/L	6.8	9.0	6.4	10.2	5.3	4.4
Arsenic (As), μg/L	19	19	19	18	19	18
Copper (Cu), µg/L	4	4	4	5	5	5
Lead (Pb), μg/L	<1	<1	<1	<1	<1	<1
Zinc (Zn), µg/L	11	11	11	11	17	19

Sample ID	F4	F5	F5	F5	F6	F6
Sampling Depth	В	S	M	В	S	M
Tide	Mid-Flood	Mid-Flood	Mid-Flood	Mid-Flood	Mid-Flood	Mid-Flood
Sample Number	19529-39	19529-40	19529-41	19529-42	19529-43	19529-44
Suspended Solids (SS), mg/L	8.2	8.0	5.8	4.3	7.2	9.7
Arsenic (As), μg/L	18	19	21	18	19	19
Copper (Cu), µg/L	5	4	5	5	6	5
Lead (Pb), μg/L	<1	<1	<1	<1	<1	<1
Zinc (Zn), μg/L	11	12	10	11	14	11

Sample ID	F6	F7	F7	F7	F8	F8
Sampling Depth	В	S	M	В	S	В
Tide	Mid-Flood	Mid-Flood	Mid-Flood	Mid-Flood	Mid-Flood	Mid-Flood
Sample Number	19529-45	19529-46	19529-47	19529-48	19529-49	19529-51
Suspended Solids (SS), mg/L	7.7	9.0	5.6	5.6	9.6	7.8
Arsenic (As), μg/L	19	19	20	18	20	19
Copper (Cu), μg/L	5	6	6	4	4	5
Lead (Pb), μg/L	<1	<1	<1	<1	<1	<1
Zinc (Zn), µg/L	11	16	21	13	12	12

Remarks: $1) \le less than$

2) S = Surface, M = Middle, B = Bottom *************************



TEST REPORT

 Laboratory No.:
 19529

 Date of Issue:
 2014-01-22

 Date Received:
 2014-01-16

 Date Tested:
 2014-01-16

 Date Completed:
 2014-01-22

Page: 4 of 4

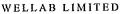
Results:

results:						
Sample ID	G2	G2	G2	G3	G3	G3
Sampling Depth	S	M	В	S	M	В
Tide	Mid-Flood	Mid-Flood	Mid-Flood	Mid-Flood	Mid-Flood	Mid-Flood
Sample Number	19529-52	19529-53	19529-54	19529-55	19529-56	19529-57
Suspended Solids (SS), mg/L	9.2	4.4	4.4	5.1	5.6	5.3
Arsenic (As), μg/L	19	19	21	20	18	18
Copper (Cu), µg/L	4	4	5	5	4	5
Lead (Pb), μg/L	<1	<1	<1	<1	<1	<1
Zinc (Zn), μg/L	14	12	15	22	10	16

Sample ID	G4	G4
Sampling Depth	S	В
Tide	Mid-Flood	Mid-Flood
Sample Number	19529-58	19529-60
Suspended Solids (SS), mg/L	5.6	5.2
Arsenic (As), μg/L	18	20
Copper (Cu), μg/L	4	5
Lead (Pb), μg/L	<1	<1
Zinc (Zn), μg/L	19	11

Remarks: 1) \leq = less than

2) S = Surface, M = Middle, B = Bottom





TEST REPORT

APPLICANT:

Cinotech Consultants Limited

RM 1710, Technology Park,

18 On Lai Street,

Shatin, N.T., Hong Kong

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Laboratory No.:	19540
Date of Issue:	2014-01-23
Date Received:	2014-01-18
Date Tested:	2014-01-18

ATTN:

Miss Mei Ling Tang

Page:

Date Completed:

1 of 4

2014-01-23

Sample Description

: 42 liquid samples as received by customer said to be marine water

Project No.

: MA13027

Project Name: Contract No. CV/2012/01

Sediment Removal at Yim Tin Tsai (East) Fish Culture Zone

Custody No.

: MA13027/140118

Sampling Date : 2014-01-18

Test Requested & Methodology:

Item	Parameters	Ref. Method	Limit of Reporting
1	Suspended Solids (SS)	APHA 17ed 2540 D	*0.5 mg/L
2	Arsenic (As)	In-house method SOP076 (ICP-MS)	1 μg/L
2	Copper (Cu)		1 μg/L
4	Lead (Pb)	——————————————————————————————————————	1 μg/L
5	Zinc (Zn)		2 μg/L

Remark: 1) * Limit of Reporting is reported as Detection Limit

PREPARED AND CHECKED BY:

For and On Behalf of WELLAB Ltd.

Laboratory Manager





19540 Laboratory No.: Date of Issue: 2014-01-23 2014-01-18 Date Received: Date Tested: 2014-01-18 2014-01-23 Date Completed:

Page:

2 of 4

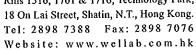
Results:

Results:						I
Sample ID	F4	F4	F4	F5	F5	F5
Sampling Depth	S	M	В	S	M	В
Tide	Mid-Ebb	Mid-Ebb	Mid-Ebb	Mid-Ebb	Mid-Ebb	Mid-Ebb
Sample Number	19540-1	19540-2	19540-3	19540-4	19540-5	19540-6
Suspended Solids (SS), mg/L	5.0	2.8	3.8	14.1	6.1	5.9
Arsenic (As), μg/L	21	24	22	22	24	21
Copper (Cu), µg/L	4	3	4	3	3	4
Lead (Pb), μg/L	<1	<1	<1	<1	<1	<1
Zinc (Zn), μg/L	15	15	17	16	15	18

Sample ID	F6	F6	F6	F7	F7	F7
Sampling Depth	S	M	В	S	M	В
Tide	Mid-Ebb	Mid-Ebb	Mid-Ebb	Mid-Ebb	Mid-Ebb	Mid-Ebb
Sample Number	19540-7	19540-8	19540-9	19540-10	19540-11	19540-12
Suspended Solids (SS), mg/L	4.9	5.7	5.6	6.3	5.2	8.8
Arsenic (As), μg/L	23	21	23	22	24	21
Copper (Cu), μg/L	3	5	3	4	4	3
Lead (Pb), μg/L	<1	<1	<1	<1	<1	<1
Zinc (Zn), µg/L	15	16	15	16	22	17

Sample ID	F8	F8	G2	G2	G2	G3
Sampling Depth	S	В	S	М	В	S
Tide	Mid-Ebb	Mid-Ebb	Mid-Ebb	Mid-Ebb	Mid-Ebb	Mid-Ebb
Sample Number	19540-13	19540-15	19540-16	19540-17	19540-18	19540-19
Suspended Solids (SS), mg/L	6.3	7.6	5.2	6.6	12.0	9.2
Arsenic (As), μg/L	22	24	21	23	24	23
Copper (Cu), µg/L	4	4	4	3	4	3
Lead (Pb), μg/L	<1	<1	<1	<1	<1	<1
Zinc (Zn), µg/L	16	22	18	19	18	18

Remarks: 1) < = less than





19540 Laboratory No.: 2014-01-23 Date of Issue: Date Received: 2014-01-18 2014-01-18 Date Tested: 2014-01-23 Date Completed:

3 of 4 Page:

Results:

Results:						year
Sample ID	G3	G3	G4	G4	F4	F4
Sampling Depth	M	В	S	В	S	M
Tide	Mid-Ebb	Mid-Ebb	Mid-Ebb	Mid-Ebb	Mid-Flood	Mid-Flood
Sample Number	19540-20	19540-21	19540-22	19540-24	19540-37	19540-38
Suspended Solids (SS), mg/L	11.7	4.2	11.5	10.3	8.1	6.2
Arsenic (As), μg/L	22	22	21	21	23	22
Copper (Cu), µg/L	5	4	4	4	4	4
Lead (Pb), μg/L	<1	<1	<1	<1	<1	<1
Zinc (Zn), µg/L	16	17	16	18	16	17

Sample ID	F4	F5	F5	F5	F6	F6
Sampling Depth	В	S	M	В	S	М
Tide	Mid-Flood	Mid-Flood	Mid-Flood	Mid-Flood	Mid-Flood	Mid-Flood
Sample Number	19540-39	19540-40	19540-41	19540-42	19540-43	19540-44
Suspended Solids (SS), mg/L	7.7	4.0	10.4	13.8	7.7	4.6
Arsenic (As), μg/L	22	21	24	23	21	22
Copper (Cu), µg/L	4	4	3	4	4	5
Lead (Pb), μg/L	<1	<1	<1	<1	<1	<1
Zinc (Zn), μg/L	19	17	19	17	19	16

Sample ID	F6	F7	F7	F7	G2	G2
Sampling Depth	В	S	M	В	S	М
Tide	Mid-Flood	Mid-Flood	Mid-Flood	Mid-Flood	Mid-Flood	Mid-Flood
Sample Number	19540-45	19540-46	19540-47	19540-48	19540-52	19540-53
Suspended Solids (SS), mg/L	6.8	9.9	4.7	7.2	10.8	7.1
Arsenic (As), μg/L	23	24	23	22	22	21
Copper (Cu), µg/L	4	3	4	4	3	4
Lead (Pb), μg/L	<1	<1	<1	<1	<1	<1
Zinc (Zn), µg/L	17	15	16	15	19	18

Remarks: $1) \le less than$



Rms 1516, 1701 & 1716, Technology Park, 18 On Lai Street, Shatin, N.T., Hong Kong. Tel: 2898 7388 Fax: 2898 7076

Website: www.wellab.com.hk

TEST REPORT

Laboratory No.:	19540
Date of Issue:	2014-01-23
Date Received:	2014-01-18
Date Tested:	2014-01-18
Date Completed:	2014-01-23

Page:

4 of 4

Results

Results:						
Sample ID	G2	G3	G3	G3	G4	G4
Sampling Depth	В	S	М	В	S	В
Tide	Mid-Flood	Mid-Flood	Mid-Flood	Mid-Flood	Mid-Flood	Mid-Flood
Sample Number	19540-54	19540-55	19540-56	19540-57	19540-58	19540-60
Suspended Solids (SS), mg/L	11.9	6.8	10.7	7.9	6.7	5.1
Arsenic (As), µg/L	22	21	21	23	21	22
Copper (Cu), µg/L	3	3	4	5	4	5
Lead (Pb), μg/L	<1	<1	<1	<1	<1	<1
Zine (Zn), μg/L	18	17	15	17	17	18

Remarks: 1) < = less than

2) S = Surface, M = Middle, B = Bottom





Rms 1516, 1701 & 1716, Technology Park, 18 On Lai Street, Shatin, N.T., Hong Kong. Tel: 2898 7388 Fax: 2898 7076

Website: www.wellab.com.hk

TEST REPORT

APPLICANT:

Cinotech Consultants Limited

RM 1710, Technology Park,

18 On Lai Street,

Shatin, N.T., Hong Kong

Laboratory No.: Date of Issue:

19555 2014-01-27

Date Received:

2014-01-21

Date Tested:

2014-01-21

Date Completed:

2014-01-27

ATTN:

Miss Mei Ling Tang

Page:

1 of 4

Sample Description

: 40 liquid samples as received by customer said to be marine water

Project No.

: MA13027

Project Name: Contract No. CV/2012/01

Sediment Removal at Yim Tin Tsai (East) Fish Culture Zone

Custody No.

: MA13027/140121

Sampling Date : 2014-01-21

Test Requested & Methodology:

Item	Parameters	Ref. Method	Limit of Reporting
1	Suspended Solids (SS)	APHA 17ed 2540 D	*0.5 mg/L
2	Arsenic (As)	In-house method SOP076 (ICP-MS)	1 μg/L
2	Copper (Cu)		1 μg/L
4	Lead (Pb)		1 μg/L
5	Zinc (Zn)		2 μg/L

Remark: 1) * Limit of Reporting is reported as Detection Limit

PREPARED AND CHECKED BY:

For and On Behalf of WELLAB Ltd.

Laboratory Manager

Tel: 2898 7388 Fax: 2898 7076 Website: www.wellab.com.hk



TEST REPORT

19555 Laboratory No.: 2014-01-27 Date of Issue: Date Received: 2014-01-21 Date Tested: 2014-01-21 2014-01-27 Date Completed:

Page:

2 of 4

Results

Results:						·
Sample ID	F4	F4	F4	F5	F5	F5
Sampling Depth	S	М	В	S	М	В
Tide	Mid-Ebb	Mid-Ebb	Mid-Ebb	Mid-Ebb	Mid-Ebb	Mid-Ebb
Sample Number	19555-1	19555-2	19555-3	19555-4	19555-5	19555-6
Suspended Solids (SS), mg/L	5.7	7.6	7.4	6.5	8.9	6.4
Arsenic (As), μg/L	21	18	20	19	17	20
Copper (Cu), µg/L	4	4	4	4	5	5
Lead (Pb), μg/L	<1	<1	<1	<1	<1	<1
Zinc (Zn), µg/L	16	20	20	19	21	18

Sample ID	F6	F6	F6	F7	F7	F7
Sampling Depth	S	M	В	S	M	В
Tide	Mid-Ebb	Mid-Ebb	Mid-Ebb	Mid-Ebb	Mid-Ebb	Mid-Ebb
Sample Number	19555-7	19555-8	19555-9	19555-10	19555-11	19555-12
Suspended Solids (SS), mg/L	9.3	11.5	11.6	8.4	9.8	7.7
Arsenic (As), μg/L	17	18	18	18	19	18
Copper (Cu), µg/L	3	3	3	4	5	3
Lead (Pb), μg/L	<1	<1	<1	<1	<1	<1
Zinc (Zn), µg/L	21	16	17	20	18	16

Sample ID	G2	G2	G2	G3	G3	G3
Sampling Depth	S	M	В	S	M	В
Tide	Mid-Ebb	Mid-Ebb	Mid-Ebb	Mid-Ebb	Mid-Ebb	Mid-Ebb
Sample Number	19555-16	19555-17	19555-18	19555-19	19555-20	19555-21
Suspended Solids (SS), mg/L	9.2	6.5	12.2	9.6	5.2	6.9
Arsenic (As), μg/L	19	21	18	20	18	20
Copper (Cu), µg/L	5	4	4	4	4	5
Lead (Pb), μg/L	<1	<1	<1	<1	<1	<1
Zinc (Zn), µg/L	18	19	19	20	22	18

Remarks: $1) \le less than$





19555 Laboratory No.: Date of Issue: 2014-01-27 2014-01-21 Date Received: Date Tested: 2014-01-21 2014-01-27 Date Completed:

3 of 4 Page:

Resulter

Results:						
Sample ID	G4	G4	F4	F4	F4	F5
Sampling Depth	S	В	S	M	В	S
Tide	Mid-Ebb	Mid-Ebb	Mid-Flood	Mid-Flood	Mid-Flood	Mid-Flood
Sample Number	19555-22	19555-24	19555-37	19555-38	19555-39	19555-40
Suspended Solids (SS), mg/L	7.6	8.4	4.2	6.5	2.7	4.2
Arsenic (As), μg/L	18	22	17	18	17	18
Copper (Cu), µg/L	5	5	4	5	4	4
Lead (Pb), μg/L	<1	<1	<1	<1	<1	<1
Zinc (Zn), µg/L	20	17	23	16	20	18

Sample ID	F5	F5	F6	F6	F6	F7
Sampling Depth	М	В	S	M	В	S
Tide	Mid-Flood	Mid-Flood	Mid-Flood	Mid-Flood	Mid-Flood	Mid-Flood
Sample Number	19555-41	19555-42	19555-43	19555-44	19555-45	19555-46
Suspended Solids (SS), mg/L	16.8	11.8	8.1	7.9	12.1	10.5
Arsenic (As), μg/L	18	19	20	18	18	20
Copper (Cu), µg/L	3	4	4	4	5	4
Lead (Pb), µg/L	<1	<1	<1	<1.	<1	<1
Zinc (Zn), µg/L	17	21	17	18	22	17

Sample ID	F7	F7	G2	G2	G2	G3
Sampling Depth	М	В	S	M	В	S
Tide	Mid-Flood	Mid-Flood	Mid-Flood	Mid-Flood	Mid-Flood	Mid-Flood
Sample Number	19555-47	19555-48	19555-52	19555-53	19555-54	19555-55
Suspended Solids (SS), mg/L	8.8	13.5	5.5	5.3	7.7	7.2
Arsenic (As), μg/L	20	17	18	20	21	19
Copper (Cu), μg/L	4	3	4	4	3	4
Lead (Pb), μg/L	<1	<1	<1	<1	<1	<1
Zinc (Zn), µg/L	19	21	17	16	19	21

Remarks: 1) < = less than

2) S = Surface, M = Middle, B = Bottom ***********************



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Website: www.wellab.com.hk

TEST REPORT

Laboratory No.:	19555
Date of Issue:	2014-01-27
Date Received:	2014-01-21
Date Tested:	2014-01-21
Date Completed:	2014-01-27

Page:

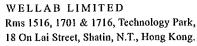
4 of 4

Results:

Results:				
Sample ID	G3	G3	G4	G4
Sampling Depth	M	В	S	В
Tide	Mid-Flood	Mid-Flood	Mid-Flood	Mid-Flood
Sample Number	19555-56	19555-57	19555-58	19555-60
Suspended Solids (SS), mg/L	11.6	9.1	11.1	8.7
Arsenic (As), μg/L	18	18	19	18
Copper (Cu), μg/L	4	3	3	5
Lead (Pb), μg/L	<1	<1	<1	<1
Zinc (Zn), μg/L	20	19	18	22

Remarks: 1) < = less than

2) S = Surface, M = Middle, B = Bottom



Tel: 2898 7388 Fax: 2898 7076 Website: www.wellab.com.hk



TEST REPORT

APPLICANT:

Cinotech Consultants Limited

RM 1710, Technology Park,

18 On Lai Street,

Shatin, N.T., Hong Kong

19570 Laboratory No.: Date of Issue: 2014-01-29 Date Received: 2014-01-23 Date Tested: 2014-01-23 Date Completed: 2014-01-29

ATTN:

Miss Mei Ling Tang

Page:

1 of 4

Sample Description

: 44 liquid samples as received by customer said to be marine water

Project No.

: MA13027

Project Name: Contract No. CV/2012/01

Sediment Removal at Yim Tin Tsai (East) Fish Culture Zone

Custody No.

: MA13027/140123

Sampling Date : 2014-01-23

Test Requested & Methodology:

Item	Parameters	Ref. Method	Limit of Reporting
1	Suspended Solids (SS)	APHA 17ed 2540 D	*0.5 mg/L
2	Arsenic (As)	In-house method SOP076 (ICP-MS)	1 μg/L
2	Copper (Cu)		l μg/L
4	Lead (Pb)		1 μg/L
5	Zinc (Zn)		2 μg/L

Remark: 1) * Limit of Reporting is reported as Detection Limit

PREPARED AND CHECKED BY:

For and On Behalf of WELLAB Ltd.

Laboratory Manager



TEST REPORT

 Laboratory No.:
 19570

 Date of Issue:
 2014-01-29

 Date Received:
 2014-01-23

 Date Tested:
 2014-01-23

 Date Completed:
 2014-01-29

Page:

2 of 4

Results:

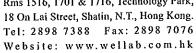
Results:						
Sample ID	F4	F4	F4	F5	F5	F5
Sampling Depth	S	М	В	S	M	В
Tide	Mid-Ebb	Mid-Ebb	Mid-Ebb	Mid-Ebb	Mid-Ebb	Mid-Ebb
Sample Number	19570-1	19570-2	19570-3	19570-4	19570-5	19570-6
Suspended Solids (SS), mg/L	5.7	7.6	7.4	6.5	8.9	6.4
Arsenic (As), μg/L	22	23	22	22	23	24
Copper (Cu), µg/L	3	3	3	4	4	8
Lead (Pb), μg/L	<1	<1	<1	<1	<1	<1
Zinc (Zn), μg/L	15	15	15	16	14	15

Sample ID	F6	F6	F6	F7	F7	F7
Sampling Depth	S	M	В	S	M	В
Tide	Mid-Ebb	Mid-Ebb	Mid-Ebb	Mid-Ebb	Mid-Ebb	Mid-Ebb
Sample Number	19570-7	19570-8	19570-9	19570-10	19570-11	19570-12
Suspended Solids (SS), mg/L	9.3	11.5	11.6	8.4	9.8	7.7
Arsenic (As), μg/L	21	25	22	20	21	26
Copper (Cu), µg/L	4	6	3	5	5	4
Lead (Pb), μg/L	<1	<1	<1	<1	<1	<1
Zinc (Zn), μg/L	16	13	14	16	16	13

Sample ID	F8	F8	G2	G2	G2	G3
Sampling Depth	S	В	S	M	В	S
Tide	Mid-Ebb	Mid-Ebb	Mid-Ebb	Mid-Ebb	Mid-Ebb	Mid-Ebb
Sample Number	19570-13	19570-15	19570-16	19570-17	19570-18	19570-19
Suspended Solids (SS), mg/L	9.2	6.5	12.2	9.6	5.2	6.9
Arsenic (As), μg/L	20	23	22	23	23	21
Copper (Cu), µg/L	6	6	3	5	5	3
Lead (Pb), μg/L	<1	<1	<1	<1	<1	<1
Zinc (Zn), µg/L	13	14	14	15	14	14

Remarks: $1) \le 1$ less than

2) S = Surface, M = Middle, B = Bottom





TEST REPORT

Laboratory No.: 19570 2014-01-29 Date of Issue: 2014-01-23 Date Received: Date Tested: 2014-01-23 Date Completed: 2014-01-29

3 of 4 Page:

Results

Results:						I
Sample ID	G3	G3	G4	G4	F4	F4
Sampling Depth	M	В	S	В	S	M
Tide	Mid-Ebb	Mid-Ebb	Mid-Ebb	Mid-Ebb	Mid-Flood	Mid-Flood
Sample Number	19570-20	19570-21	19570-22	19570-24	19570-37	19570-38
Suspended Solids (SS), mg/L	7.6	8.4	10.0	6.2	2.7	4.2
Arsenic (As), μg/L	24	23	21	21	23	20
Copper (Cu), µg/L	7	6	5	5	4	4
Lead (Pb), µg/L	<1	<1	<1	<1	<1	<1
Zinc (Zn), µg/L	17	15	15	15	15	17

Sample ID	F4	F5	F5	F5	F6	F6
Sampling Depth	В	S	M	В	S	M
Tide	Mid-Flood	Mid-Flood	Mid-Flood	Mid-Flood	Mid-Flood	Mid-Flood
Sample Number	19570-39	19570-40	19570-41	19570-42	19570-43	19570-44
Suspended Solids (SS), mg/L	16.8	11.8	8.1	7.9	12.1	10.5
Arsenic (As), μg/L	21	23	20	21	22	20
Copper (Cu), µg/L	6	7	5	4	6	5
Lead (Pb), μg/L	<1	<1	<1	<1	<1	<1
Zinc (Zn), µg/L	14	14	16	17	18	18

Sample ID	F6	F7	F7	F7	F8	F8
Sampling Depth	В	S	M	В	S	В
Tide	Mid-Flood	Mid-Flood	Mid-Flood	Mid-Flood	Mid-Flood	Mid-Flood
Sample Number	19570-45	19570-46	19570-47	19570-48	19570-49	19570-51
Suspended Solids (SS), mg/L	8.8	13.5	5.5	5.3	7.7	7.2
Arsenic (As), µg/L	25	21	21	23	20	20
Copper (Cu), µg/L	3	7	7	4	3	4
Lead (Pb), μg/L	<1	<1	<1	<1	<1	<1
Zinc (Zn), µg/L	14	15	18	18	14	16

Remarks: $1) \le 1$ less than

2) S = Surface, M = Middle, B = Bottom*************************



TEST REPORT

19570 Laboratory No.: Date of Issue: 2014-01-29 2014-01-23 Date Received: 2014-01-23 Date Tested: 2014-01-29 Date Completed:

Page:

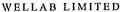
4 of 4

Results:						
Sample ID	G2	G2	G2	G3	G3	G3
Sampling Depth	S	M	В	S	M	В
Tide	Mid-Flood	Mid-Flood	Mid-Flood	Mid-Flood	Mid-Flood	Mid-Flood
Sample Number	19570-52	19570-53	19570-54	19570-55	19570-56	19570-57
Suspended Solids (SS), mg/L	11.6	9.1	11.1	8.7	11.5	5.5
Arsenic (As), μg/L	22	22	24	23	21	22
Copper (Cu), µg/L	4	4	4	4	4	5
Lead (Pb), μg/L	<1	<1	<1	<1	<1	<1
Zinc (Zn), µg/L	16	18	15	15	18	17

Sample ID	G4	G4
Sampling Depth	S	В
Tide	Mid-Flood	Mid-Flood
Sample Number	19570-58	19570-60
Suspended Solids (SS), mg/L	9.0	7.8
Arsenic (As), μg/L	24	22
Copper (Cu), µg/L	4	4
Lead (Pb), μg/L	<1	<1
Zinc (Zn), µg/L	13	14

Remarks: $1) \le less than$

2) S = Surface, M = Middle, B = Bottom





Rms 1516, 1701 & 1716, Technology Park, 18 On Lai Street, Shatin, N.T., Hong Kong. Tel: 2898 7388 Fax: 2898 7076

Website: www.wellab.com.hk

TEST REPORT

APPLICANT: Cinotech Consultants Limited

RM 1710, Technology Park,

18 On Lai Street,

Shatin, N.T., Hong Kong

Laboratory No.:	19588
Date of Issue:	2014-02-04
Date Received:	2014-01-25
Date Tested:	2014-01-25
Date Completed:	2014-02-04

1 of 4

ATTN:

Sample Description

Miss Mei Ling Tang

: 44 liquid samples as received by customer said to be marine water

Page:

: MA13027 Project No.

Project Name: Contract No. CV/2012/01

Sediment Removal at Yim Tin Tsai (East) Fish Culture Zone

: MA13027/140125 Custody No.

Sampling Date : 2014-01-25

Test Requested & Methodology:

Item	Parameters	Ref. Method	Limit of Reporting
1	Suspended Solids (SS)	APHA 17ed 2540 D	*0.5 mg/L
2	Arsenic (As)	In-house method SOP076 (ICP-MS)	l μg/L
2	Copper (Cu)		1 μg/L
4	Lead (Pb)		l μg/L
5	Zinc (Zn)		2 μg/L

Remark: 1) * Limit of Reporting is reported as Detection Limit

PREPARED AND CHECKED BY:

For and On Behalf of WELLAB Ltd.

Labbratory Manager

Rms 1516, 1701 & 1716, Technology Park, 18 On Lai Street, Shatin, N.T., Hong Kong. Tel: 2898 7388 Fax: 2898 7076

Website: www.wellab.com.hk

TEST REPORT

 Laboratory No.:
 19588

 Date of Issue:
 2014-02-04

 Date Received:
 2014-01-25

 Date Tested:
 2014-01-25

 Date Completed:
 2014-02-04

Page:

2 of 4

Results:

Results:						
Sample ID	F4	F4	F4	F5	F5	F5
Sampling Depth	S	М	В	S	M	В
Tide	Mid-Ebb	Mid-Ebb	Mid-Ebb	Mid-Ebb	Mid-Ebb	Mid-Ebb
Sample Number	19588-1	19588-2	19588-3	19588-4	19588-5	19588-6
Suspended Solids (SS), mg/L	11.3	8.4	10.1	4.4	4.1	10.3
Arsenic (As), μg/L	23	22	21	22	23	20
Copper (Cu), µg/L	8	3	4	4	4	5
Lead (Pb), µg/L	<1	<1	<1	<1	<1	<1
Zinc (Zn), μg/L	17	19	14	13	13	18

Sample ID	F6	F6	F6	F7	F7	F7
Sampling Depth	S	M	В	S	M	В
Tide	Mid-Ebb	Mid-Ebb	Mid-Ebb	Mid-Ebb	Mid-Ebb	Mid-Ebb
Sample Number	19588-7	19588-8	19588-9	19588-10	19588-11	19588-12
Suspended Solids (SS), mg/L	10.5	6.7	7.4	10.3	10.5	5.1
Arsenic (As), μg/L	21	20	23	24	20	22
Copper (Cu), µg/L	7	3	3	6	6	4
Lead (Pb), μg/L	<1	<1	<1	<1	<1	<1
Zinc (Zn), µg/L	13	13	14	14	18	15

Sample ID	F8	F8	G2	G2	G2	G3
Sampling Depth	S	В	S	M	В	S
Tide	Mid-Ebb	Mid-Ebb	Mid-Ebb	Mid-Ebb	Mid-Ebb	Mid-Ebb
Sample Number	19588-13	19588-15	19588-16	19588-17	19588-18	19588-19
Suspended Solids (SS), mg/L	5.4	3.9	6.4	8.0	9.1	5.2
Arsenic (As), μg/L	22	22	20	22	23	24
Copper (Cu), µg/L	5	7	5	3	6	8
Lead (Pb), µg/L	<1	<1	<1	<1	<1	<1
Zinc (Zn), μg/L	14	14	15	14	17	17

Remarks: $1) \le 1$ less than

2) S = Surface, M = Middle, B = Bottom



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Website: www.wellab.com.hk

TEST REPORT

 Laboratory No.:
 19588

 Date of Issue:
 2014-02-04

 Date Received:
 2014-01-25

 Date Tested:
 2014-01-25

 Date Completed:
 2014-02-04

Page: 3 of 4

Results:

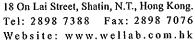
Results:						
Sample ID	G3	G3	G4	G4	F4	F4
Sampling Depth	M	В	S	В	S	M
Tide	Mid-Ebb	Mid-Ebb	Mid-Ebb	Mid-Ebb	Mid-Flood	Mid-Flood
Sample Number	19588-20	19588-21	19588-22	19588-24	19588-37	19588-38
Suspended Solids (SS), mg/L	10.0	15.3	6.7	14.6	10.5	7.8
Arsenic (As), μg/L	21	23	22	23	21	21
Copper (Cu), µg/L	5	5	6	4	5	5
Lead (Pb), μg/L	<1	<1	<1	<1	<1	<1
Zinc (Zn), μg/L	15	14	13	14	15	16

Sample ID	F4	F5	F5	F5	F6	F6
Sampling Depth	В	S	M	В	S	M
Tide	Mid-Flood	Mid-Flood	Mid-Flood	Mid-Flood	Mid-Flood	Mid-Flood
Sample Number	19588-39	19588-40	19588-41	19588-42	19588-43	19588-44
Suspended Solids (SS), mg/L	14.0	5.0	8.9	10.5	9.9	9,1
Arsenic (As), μg/L	20	20	22	21	23	21
Copper (Cu), μg/L	3	6	7	7	5	5
Lead (Pb), μg/L	<1	<1	<1	<1	<1	<1
Zinc (Zn), µg/L	15	16	15	16	14	14

Sample ID	F6	F7	F7	F7	F8	F8
Sampling Depth	В	S	M	В	S	В
Tide	Mid-Flood	Mid-Flood	Mid-Flood	Mid-Flood	Mid-Flood	Mid-Flood
Sample Number	19588-45	19588-46	19588-47	19588-48	19588-49	19588-51
Suspended Solids (SS), mg/L	9.7	5.7	9.1	5.9	11.5	7.2
Arsenic (As), μg/L	24	21	24	20	23	22
Copper (Cu), µg/L	4	6	4	4	4	6
Lead (Pb), μg/L	<1	<1	<1	<1	<1	<1
Zinc (Zn), µg/L	15	14	14	14	13	14

Remarks: $1) \le 1$ less than

2) S = Surface, M = Middle, B = Bottom





TEST REPORT

Laboratory No.: 19588 Date of Issue: 2014-02-04 Date Received: 2014-01-25 Date Tested: 2014-01-25 Date Completed: 2014-02-04

Page:

4 of 4

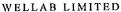
Results:

Results:						
Sample ID	G2	G2	G2	G3	G3	G3
Sampling Depth	S	M	В	S	M	В
Tide	Mid-Flood	Mid-Flood	Mid-Flood	Mid-Flood	Mid-Flood	Mid-Flood
Sample Number	19588-52	19588-53	19588-54	19588-55	19588-56	19588-57
Suspended Solids (SS), mg/L	7.8	7.5	5.1	8.5	7.6	11.6
Arsenic (As), μg/L	20	20	20	22	23	20
Copper (Cu), µg/L	3	5	8	7	3	8
Lead (Pb), μg/L	<1	<1	<1	<1	<1	<1
Zinc (Zn), µg/L	15	15	16	15	18	16

Sample ID	G4	G4
Sampling Depth	S	В
Tide	Mid-Flood	Mid-Flood
Sample Number	19588-58	19588-60
Suspended Solids (SS), mg/L	8.5	10.7
Arsenic (As), μg/L	22	22
Copper (Cu), µg/L	5	4
Lead (Pb), μg/L	<1	<1
Zinc (Zn), μg/L	14	15

Remarks: $1) \le 1$ less than

2) S = Surface, M = Middle, B = Bottom





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Website: www.wellab.com.hk

TEST REPORT

APPLICANT:

Cinotech Consultants Limited

RM 1710, Technology Park,

18 On Lai Street,

Shatin, N.T., Hong Kong

Laboratory No.: Date of Issue:

19590 2014-02-04

Date Received: Date Tested:

2014-01-27 2014-01-27

Date Completed:

2014-02-04

ATTN:

Miss Mei Ling Tang

Page:

1 of 4

Sample Description

: 40 liquid samples as received by customer said to be marine water

Project No.

: MA13027

Project Name : Contract No. CV/2012/01

Sediment Removal at Yim Tin Tsai (East) Fish Culture Zone

Custody No.

: MA13027/140127

Sampling Date : 2014-01-27

Test Requested & Methodology:

Item	Parameters	Ref. Method	Limit of Reporting
1	Suspended Solids (SS)	APHA 17ed 2540 D	*0.5 mg/L
2	Arsenic (As)	In-house method SOP076 (ICP-MS)	1 μg/L
2	Copper (Cu)		1 μg/L
4	Lead (Pb)		1 μg/L
5	Zinc (Zn)		2 μg/L

Remark: 1) * Limit of Reporting is reported as Detection Limit

PREPARED AND CHECKED BY:

For and On Behalf of WELLAB Ltd.

Labbratory Manager



TEST REPORT

Laboratory No.: 19590 2014-02-04 Date of Issue: Date Received: 2014-01-27 2014-01-27 Date Tested: 2014-02-04 Date Completed:

2 of 4 Page:

Results:

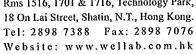
Results:					y	
Sample ID	F4	F4	F4	F5	F5	F5
Sampling Depth	S	М	В	S	M	В
Tide	Mid-Ebb	Mid-Ebb	Mid-Ebb	Mid-Ebb	Mid-Ebb	Mid-Ebb
Sample Number	19590-1	19590-2	19590-3	19590-4	19590-5	19590-6
Suspended Solids (SS), mg/L	4.3	6.7	4.3	9.6	11.0	8.4
Arsenic (As), μg/L	23	22	23	24	23	23
Copper (Cu), µg/L	7	5	5	4	6	6
Lead (Pb), μg/L	<1	<1	<1	<1	<1	<1
Zinc (Zn), µg/L	17	17	18	16	15	18

Sample ID	F6	F6	F6	F7	F7	F7
Sampling Depth	S	М	В	S	M	В
Tide	Mid-Ebb	Mid-Ebb	Mid-Ebb	Mid-Ebb	Mid-Ebb	Mid-Ebb
Sample Number	19590-7	19590-8	19590-9	19590-10	19590-11	19590-12
Suspended Solids (SS), mg/L	8.5	4.6	18.0	5.2	3.9	9.1
Arsenic (As), μg/L	23	23	24	22	22	22
Copper (Cu), µg/L	6	3	6	6	5	5
Lead (Pb), μg/L	<1	<1	<1	<1	<1	<1
Zinc (Zn), μg/L	18	16	17	17	18	16

Sample ID	G2	G2	G2	G3	G3	G3
Sampling Depth	S	M	В	S	M	В
Tide	Mid-Ebb	Mid-Ebb	Mid-Ebb	Mid-Ebb	Mid-Ebb	Mid-Ebb
Sample Number	19590-16	19590-17	19590-18	19590-19	19590-20	19590-21
Suspended Solids (SS), mg/L	8.3	9.6	5.2	5.6	5.2	3.9
Arsenic (As), μg/L	23	23	22	21	24	23
Copper (Cu), µg/L	6	5	4	3	3	4
Lead (Pb), μg/L	<1	<1	<1	<1	<1	<1
Zinc (Zn), μg/L	15	16	16	18	17	19

Remarks: 1) < = less than

2) S = Surface, M = Middle, B = Bottom





TEST REPORT

Laboratory No.: 19590 2014-02-04 Date of Issue: Date Received: 2014-01-27 2014-01-27 Date Tested: 2014-02-04 Date Completed:

3 of 4 Page:

Results:

Results:						
Sample ID	G4	G4	F4	F4	F4	F5
Sampling Depth	S	В	S	M	В	S
Tide	Mid-Ebb	Mid-Ebb	Mid-Flood	Mid-Flood	Mid-Flood	Mid-Flood
Sample Number	19590-22	19590-24	19590-37	19590-38	19590-39	19590-40
Suspended Solids (SS), mg/L	8.3	7.8	6.4	3.4	2.6	12.8
Arsenic (As), μg/L	23	22	22	22	23	23
Copper (Cu), µg/L	3	5	4	4	6	4
Lead (Pb), µg/L	<1	<1	<1	<1	<1	<1
Zinc (Zn), μg/L	18	17	18	18	17	16

Sample ID	F5	F5	F6	F6	F6	F7
Sampling Depth	M	В	S	M	В	S
Tide	Mid-Flood	Mid-Flood	Mid-Flood	Mid-Flood	Mid-Flood	Mid-Flood
Sample Number	19590-41	19590-42	19590-43	19590-44	19590-45	19590-46
Suspended Solids (SS), mg/L	7.4	8.8	9.7	7.4	8.7	7.2
Arsenic (As), μg/L	23	23	23	24	23	25
Copper (Cu), µg/L	5	6	6	6	7	6
Lead (Pb), µg/L	<1	<1	<1	<1	<1	<1
Zinc (Zn), µg/L	15	15	13	13	17	18

Sample ID	F7	F7	G2	G2	G2	G3
Sampling Depth	М	В	S	M	В	S
Tide	Mid-Flood	Mid-Flood	Mid-Flood	Mid-Flood	Mid-Flood	Mid-Flood
Sample Number	19590-47	19590-48	19590-52	19590-53	19590-54	19590-55
Suspended Solids (SS), mg/L	8.2	13.8	6.5	4.1	14.6	13.5
Arsenic (As), μg/L	22	21	23	23	20	21
Copper (Cu), µg/L	4	4	4	3	4	6
Lead (Pb), μg/L	<1	<1	<1	<1	<1	<1
Zinc (Zn), µg/L	17	17	16	19	17	15

Remarks: 1) < = less than

2) S = Surface, M = Middle, B = Bottom



TEST REPORT

Laboratory No.:	19590
Date of Issue:	2014-02-04
Date Received:	2014-01-27
Date Tested:	2014-01-27
Date Completed:	2014-02-04

Page:

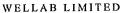
4 of 4

Results:

Results:				
Sample ID	G3	G3	G4	G4
Sampling Depth	M	В	S	В
Tide	Mid-Flood	Mid-Flood	Mid-Flood	Mid-Flood
Sample Number	19590-56	19590-57	19590-58	19590-60
Suspended Solids (SS), mg/L	7.3	4.5	9.7	10.6
Arsenic (As), μg/L	21	21	22	22
Copper (Cu), µg/L	6	6	8	7
Lead (Pb), μg/L	<1	<1	<1	<1
Zinc (Zn), µg/L	14	16	16	18

Remarks: 1) \leq = less than

2) S = Surface, M = Middle, B = Bottom





TEST REPORT

APPLICANT: Cinotech Consultants Limited

RM 1710, Technology Park,

18 On Lai Street,

Shatin, N.T., Hong Kong

	Distribution of the control of the c
Laboratory No.:	19608
Date of Issue:	2014-02-06
Date Received:	2014-01-29
Date Tested:	2014-01-29
Date Completed:	2014-02-06

ATTN:

Miss Mei Ling Tang

Page:

1 of 4

Sample Description

: 43 liquid samples as received by customer said to be marine water

Project No.

: MA13027

Project Name : Contract No. CV/2012/01

Sediment Removal at Yim Tin Tsai (East) Fish Culture Zone

Custody No.

: MA13027/140129

Sampling Date : 2014-01-29

Test Requested & Methodology:

Item	Parameters	Ref. Method	Limit of Reporting
1	Suspended Solids (SS)	APHA 17ed 2540 D	*0.5 mg/L
2	Arsenic (As)	In-house method SOP076 (ICP-MS)	l μg/L
2	Copper (Cu)		1 μg/L
4	Lead (Pb)		l μg/L
5	Zinc (Zn)		2 μg/L

Remark: 1) * Limit of Reporting is reported as Detection Limit

PREPARED AND CHECKED BY:

For and On Behalf of WELLAB Ltd.

Laboratory Manager



TEST REPORT

Laboratory No.: 19608 Date of Issue: 2014-02-06 Date Received: 2014-01-29 2014-01-29 Date Tested: 2014-02-06 Date Completed:

Page:

2 of 4

Results

Results:						
Sample ID	F4	F4	F4	F5	F5	F5
Sampling Depth	S	М	В	S	M	В
Tide	Mid-Ebb	Mid-Ebb	Mid-Ebb	Mid-Ebb	Mid-Ebb	Mid-Ebb
Sample Number	19608-1	19608-2	19608-3	19608-4	19608-5	19608-6
Suspended Solids (SS), mg/L	12.4	3.7	12.4	6.6	6.5	8.8
Arsenic (As), μg/L	22	22	22	21	20	20
Copper (Cu), µg/L	6	4	6	5	5	7
Lead (Pb), µg/L	<1	<1	<1	<1	<1	<1
Zinc (Zn), µg/L	18	12	17	16	15	15

Sample ID	F6	F6	F6	F7	F7	F7
Sampling Depth	S	M	В	S	М	В
Tide	Mid-Ebb	Mid-Ebb	Mid-Ebb	Mid-Ebb	Mid-Ebb	Mid-Ebb
Sample Number	19608-7	19608-8	19608-9	19608-10	19608-11	19608-12
Suspended Solids (SS), mg/L	7.7	4.7	11.8	6.1	4.8	11.5
Arsenic (As), μg/L	22	22	23	22	22	23
Copper (Cu), µg/L	8	6	8	5	3	6
Lead (Pb), μg/L	<1	<1	<1	<1	<1	<1
Zinc (Zn), µg/L	15	18	17	15	13	14

Sample ID	G2	G2	G2	G3	G3	G3
Sampling Depth	S	M	В	S	M	В
Tide	Mid-Ebb	Mid-Ebb	Mid-Ebb	Mid-Ebb	Mid-Ebb	Mid-Ebb
Sample Number	19608-16	19608-17	19608-18	19608-19	19608-20	19608-21
Suspended Solids (SS), mg/L	4.0	6.5	9.5	5.2	6.2	9.2
Arsenic (As), μg/L	21	22	24	22	23	22
Copper (Cu), µg/L	4	3	6	6	6	7
Lead (Pb), µg/L	<1	<1	<1	<1	<1	<1
Zinc (Zn), μg/L	14	14	18	15	15	19

Remarks: $1) \le 1$ less than

2) S = Surface, M = Middle, B = Bottom



TEST REPORT

Laboratory No.:	19608
Date of Issue:	2014-02-06
Date Received:	2014-01-29
Date Tested:	2014-01-29
Date Completed:	2014-02-06

Page: 3 of 4

Results:

Results:						<u> </u>
Sample ID	G4	G4	F4	F4	F4	F5
Sampling Depth	S	В	S	M	В	S
Tide	Mid-Ebb	Mid-Ebb	Mid-Flood	Mid-Flood	Mid-Flood	Mid-Flood
Sample Number	19608-22	19608-24	19608-37	19608-38	19608-39	19608-40
Suspended Solids (SS), mg/L	4.5	6.3	6.5	3.3	8.7	4.4
Arsenic (As), μg/L	23	23	22	20	22	21
Copper (Cu), µg/L	5	8	5	3	6	5
Lead (Pb), µg/L	<1	<1	<1	<1	<1	<1
Zinc (Zn), µg/L	17	17	18	14	16	16

Sample ID	F5	F5	F6	F6	F6	F7
Sampling Depth	M	В	S	M	В	S
Tide	Mid-Flood	Mid-Flood	Mid-Flood	Mid-Flood	Mid-Flood	Mid-Flood
Sample Number	19608-41	19608-42	19608-43	19608-44	19608-45	19608-46
Suspended Solids (SS), mg/L	6.7	4.5	5.4	7.3	8.0	7.6
Arsenic (As), μg/L	20	20	21	22	24	22
Copper (Cu), µg/L	6	5	7	6	9	5
Lead (Pb), μg/L	<1	<1	<1	<1	<1	<1
Zinc (Zn), µg/L	15	15	17	18	19	15

Sample ID	F7 ·	F7	F8	F8	G2	G2
Sampling Depth	M	В	S	В	S	М
Tide	Mid-Flood	Mid-Flood	Mid-Flood	Mid-Flood	Mid-Flood	Mid-Flood
Sample Number	19608-47	19608-48	19608-49	19608-51	19608-52	19608-53
Suspended Solids (SS), mg/L	9.4	4.6	7.0	4.5	12.2	5.8
Arsenic (As), μg/L	22	23	21	22	24	20
Copper (Cu), μg/L	3	3	4	3	6	3
Lead (Pb), μg/L	<1	<1	<1	<1	<1	<1
Zinc (Zn), µg/L	13	15	15	14	18	17

Remarks: $1) \le 1$ less than

2) S = Surface, M = Middle, B = Bottom



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Website: www.wellab.com.hk

TEST REPORT

 Laboratory No.:
 19608

 Date of Issue:
 2014-02-06

 Date Received:
 2014-01-29

 Date Tested:
 2014-01-29

 Date Completed:
 2014-02-06

Page:

4 of 4

Results:

Results:						
Sample ID	G2	G3	G3	G3	G4	G4
Sampling Depth	В	S	M	В	S	M
Tide	Mid-Flood	Mid-Flood	Mid-Flood	Mid-Flood	Mid-Flood	Mid-Flood
Sample Number	19608-54	19608-55	19608-56	19608-57	19608-58	19608-59
Suspended Solids (SS), mg/L	4.8	4.0	7.9	8.8	6.5	8.6
Arsenic (As), μg/L	23	22	24	22	20	24
Copper (Cu), µg/L	6	6	5	7	7	8
Lead (Pb), μg/L	<1	<1	<1	<1	<1	<1
Zinc (Zn), µg/L	15	16	17	16	18	18

Sample ID	G4
Sampling Depth	В
Tide	Mid-Flood
Sample Number	19608-60
Suspended Solids (SS), mg/L	10.9
Arsenic (As), μg/L	26
Copper (Cu), µg/L	8
Lead (Pb), μg/L	<1
Zinc (Zn), μg/L	19

Remarks: $1) \le less than$

2) S = Surface, M = Middle, B = Bottom

APPENDIX P QUALITY CONTROL REPORT FOR WATER QUALITY MONITORING



TEST REPORT

APPLICANT:

Cinotech Consultants Limited

RM 1710, Technology Park,

18 On Lai Street,

Shatin, N.T., Hong Kong

Laboratory No.: QC19459

2014-01-13

Date of Issue:
Date Received:

2014-01-13

Date Tested:

2014-01-07

Date Completed:

2014-01-13

ATTN:

Miss Mei Ling Tang

Page:

1 of 2

QC report:

Method Blank

Parameter	MB 1	MB 2	MB3	Acceptance
Suspended Solids (SS), mg/L	<0.5	<0.5	<0.5	<0.5
Arsenic (As), μg/L	<0.2	<0.2	<0.2	<0.2
Copper (Cu), µg/L	<0.2	<0.2	<0.2	<0.2
Lead (Pb), μg/L	<0.2	<0.2	<0.2	<0.2
Zinc (Zn), μg/L	<0.4	<0.4	<0.4	<0.4

Method QC

Parameter	MQC1	MQC2	MQC3	Acceptance
Suspended Solids (SS), %	102	101	101	80-120%
Arsenic (As), %	95	97	100	80-120%
Copper (Cu), %	96	97	96	80-120%
Lead (Pb), %	96	97	91	80-120%
Zinc (Zn), %	95	96	91	80-120%

Sample Spike

Parameter	19459-1 spk	19459-22 spk	19459-56 spk	Acceptance
Suspended Solids (SS)	N/A	N/A	N/A	N/A
Arsenic (As), %	93	92	93	80-120%
Copper (Cu), %	97	97	92	80-120%
Lead (Pb), %	86	93	87	80-120%
Zinc (Zn), %	88	91	92	80-120%

Remarks: $1) \le less than$

2) N/A = Not applicable

3) This report is the summary of quality control data for report number 19459

PREPARED AND CHECKED BY:

For and On Behalf of WELLAB Ltd.

PATRICK TSE
Laboratory Manager



Rms 1516, 1701 & 1716, Technology Park, 18 On Lai Street, Shatin, N.T., Hong Kong. Tel: 2898 7388 Fax: 2898 7076

Website: www.wellab.com.hk

TEST REPORT

 Laboratory No.:
 QC19459

 Date of Issue:
 2014-01-13

 Date Received:
 2014-01-07

 Date Tested:
 2014-01-07

 Date Completed:
 2014-01-13

Page:

2 of 2

Sample Duplicate

Parameter Parameter	19459-21 chk	19459-55 chk	19459-60 chk	Acceptance
Suspended Solids (SS), %	3	4	5	RPD≤20%
Arsenic (As), %	6	4	6	RPD≤20%
Copper (Cu), %	7	6	4	RPD≤20%
Lead (Pb), %	N/A	N/A	N/A	RPD≤20%
Zinc (Zn), %	3	3	3	RPD≤20%

Remarks: $1) \le less than$

2) N/A = Not applicable

3) This report is the summary of quality control data for report number 19459



TEST REPORT

APPLICANT: Cinotech Consultants Limited

RM 1710, Technology Park,

18 On Lai Street,

Shatin, N.T., Hong Kong

Laboratory No.: QC19477

Date of Issue: 2014-01-15 Date Received: 2014-01-09

Date Tested: 2014-01-09

Date Completed: 2014-01-15

ATTN:

Miss Mei Ling Tang

Page:

1 of 2

QC report:

Method Blank

Parameter	MB 1	MB 2	MB3	Acceptance
Suspended Solids (SS), mg/L	<0.5	<0.5	<0.5	<0.5
Arsenic (As), μg/L	<0.2	<0.2	<0.2	<0.2
Copper (Cu), µg/L	<0.2	<0.2	<0.2	<0.2
Lead (Pb), μg/L	<0.2	<0.2	<0.2	<0.2
Zinc (Zn), μg/L	<0.4	<0.4	<0.4	<0.4

Method QC

Parameter	MQC1	MQC2	MQC3	Acceptance
Suspended Solids (SS), %	93	99	95	80-120%
Arsenic (As), %	92	100	98	80-120%
Copper (Cu), %	95	97	96	80-120%
Lead (Pb), %	89	95	93	80-120%
Zinc (Zn), %	101	94	97	80-120%

Sample Spike

Parameter	19477-1 spk	19477-22 spk	19477-58 spk	Acceptance
Suspended Solids (SS)	N/A	N/A	N/A	N/A
Arsenic (As), %	96	96	99	80-120%
Copper (Cu), %	89	95	96	80-120%
Lead (Pb), %	96	88	95	80-120%
Zinc (Zn), %	94	92	100	80-120%

Remarks: $1) \le less than$

2) N/A = Not applicable

3) This report is the summary of quality control data for report number 19477

PREPARED AND CHECKED BY:

For and On Behalf of WELLAB Ltd.

PATRICK TSE

Lakoratory Manager



TEST REPORT

 Laboratory No.:
 QC19477

 Date of Issue:
 2014-01-15

 Date Received:
 2014-01-09

 Date Tested:
 2014-01-09

 Date Completed:
 2014-01-15

Page:

2 of 2

Sample Duplicate

Parameter Parameter	19477-21 chk	19477-57 chk	19477-60 chk	Acceptance
Suspended Solids (SS), %	5	5	5	RPD≤20%
Arsenic (As), %	3	5	5	RPD≤20%
Copper (Cu), %	6	5	7	RPD≤20%
Lead (Pb), %	N/A	N/A	N/A	RPD≤20%
Zinc (Zn), %	3	5	4	RPD≤20%

Remarks: $1) \le less than$

2) N/A = Not applicable

3) This report is the summary of quality control data for report number 19477

Rms 1516, 1701 & 1716, Technology Park, 18 On Lai Street, Shatin, N.T., Hong Kong. Tel: 2898 7388 Fax: 2898 7076

< 0.4

Website: www.wellab.com.hk

TEST REPORT

APPLICANT: Cinotech Consultants Limited

RM 1710, Technology Park,

18 On Lai Street,

Shatin, N.T., Hong Kong

Laboratory No.: QC19497

Date of Issue: 2014-01-16

Date Received: 2014-01-11 Date Tested: 2014-01-11

Date Completed: 2014-01-16

< 0.4

ATTN:

Miss Mei Ling Tang

Page:

< 0.4

1 of 2

QC report:

Method Blank				
Parameter	MB 1	MB 2	MB3	Acceptance
Suspended Solids (SS), mg/L	<0.5	<0.5	<0.5	<0.5
Arsenic (As), μg/L	<0.2	<0.2	<0.2	<0.2
Copper (Cu), μg/L	<0.2	<0.2	<0.2	<0.2
Lead (Pb), μg/L	<0.2	<0.2	<0.2	<0.2

< 0.4

Method OC

Zinc (Zn), µg/L

Parameter	MQC1	MQC2	MQC3	Acceptance
Suspended Solids (SS), %	98	101	101	80-120%
Arsenic (As), %	100	94	96	80-120%
Copper (Cu), %	92	90	91	80-120%
Lead (Pb), %	94	96	95	80-120%
Zinc (Zn), %	95	100	99	80-120%

Sample Spike

Parameter	19497-1 spk	19497-22 spk	19497-56 spk	Acceptance
Suspended Solids (SS)	N/A	N/A	N/A	N/A
Arsenic (As), %	93	91	96	80-120%
Copper (Cu), %	94	95	94	80-120%
Lead (Pb), %	93	95	95	80-120%
Zinc (Zn), %	88	99	95	80-120%

Remarks: $1) \le less than$

2) N/A = Not applicable

3) This report is the summary of quality control data for report number 19497

PREPARED AND CHECKED BY:

For and On Behalf of WELLAB Ltd.

Laboratory Manager

WELLAB LIMITED

Rms 1516, 1701 & 1716, Technology Park, 18 On Lai Street, Shatin, N.T., Hong Kong. Tel: 2898 7388 Fax: 2898 7076

Website: www.wellab.com.hk

TEST REPORT

 Laboratory No.:
 QC19497

 Date of Issue:
 2014-01-16

 Date Received:
 2014-01-11

 Date Tested:
 2014-01-11

 Date Completed:
 2014-01-16

Page:

2 of 2

Sample Duplicate

Parameter Parameter	19497-21 chk	19497-55 chk	19497-60 chk	Acceptance
Suspended Solids (SS), %	4	4	5	RPD≤20%
Arsenic (As), %	3	4	4	RPD <u><</u> 20%
Copper (Cu), %	5	3	3	RPD≤20%
Lead (Pb), %	N/A	N/A	N/A	RPD≤20%
Zinc (Zn), %	5	3	8	RPD≤20%

Remarks: $1) \le less than$

2) N/A = Not applicable

3) This report is the summary of quality control data for report number 19497



Rms 1516, 1701 & 1716, Technology Park, 18 On Lai Street, Shatin, N.T., Hong Kong. Tel: 2898 7388 Fax: 2898 7076

Website: www.wellab.com.hk

TEST REPORT

APPLICANT:

Cinotech Consultants Limited

RM 1710, Technology Park,

18 On Lai Street,

Shatin, N.T., Hong Kong

Laboratory No.:

QC19498

Date of Issue:

2014-01-17

Date Received: Date Tested:

2014-01-13

Date Completed:

2014-01-13 2014-01-17

ATTN:

Miss Mei Ling Tang

Page:

1 of 2

QC report:

Method Blank

IIIVIIIO DIWIX				
Parameter	MB 1	MB 2	MB3	Acceptance
Suspended Solids (SS), mg/L	<0.5	<0.5	< 0.5	<0.5
Arsenic (As), μg/L	<0.2	<0.2	<0.2	<0.2
Copper (Cu), µg/L	<0.2	<0.2	<0.2	<0.2
Lead (Pb), μg/L	<0.2	<0.2	<0.2	<0.2
Zinc (Zn), µg/L	<0.4	<0.4	<0.4	<0.4

Method QC

Parameter	MQC1	MQC2	MQC3	Acceptance
Suspended Solids (SS), %	100	93	100	80-120%
Arsenic (As), %	91	96	96	80-120%
Copper (Cu), %	91	91	94	80-120%
Lead (Pb), %	98	91	94	80-120%
Zinc (Zn), %	99	96	97	80-120%

Sample Spike

Sample Spike				
Parameter	19498-1 spk	19498-22 spk	19498-56 spk	Acceptance
Suspended Solids (SS)	N/A	N/A	N/A	N/A
Arsenic (As), %	93	94	94	80-120%
Copper (Cu), %	100	98	87	80-120%
Lead (Pb), %	95	93	94	80-120%
Zinc (Zn), %	91	95	91	80-120%

- Remarks: $1) \le less than$
 - 2) N/A = Not applicable

3) This report is the summary of quality control data for report number 19498

PREPARED AND CHECKED BY:

For and On Behalf of WELLAB Ltd.

Laboratory Manager



TEST REPORT

 Laboratory No.:
 QC19498

 Date of Issue:
 2014-01-17

 Date Received:
 2014-01-13

 Date Tested:
 2014-01-13

 Date Completed:
 2014-01-17

Page: 2 of 2

Sample Duplicate

Parameter	19498-21 chk	19498-55 chk	19498-60 chk	Acceptance
Suspended Solids (SS), %	3	3	3	RPD≤20%
Arsenic (As), %	5	4	3	RPD≤20%
Copper (Cu), %	7	5	3	RPD≤20%
Lead (Pb), %	N/A	N/A	N/A	RPD≤20%
Zinc (Zn), %	7	5	6	RPD<20%

Remarks: $1) \le less than$

2) N/A = Not applicable

3) This report is the summary of quality control data for report number 19498



TEST REPORT

APPLICANT: 0

Cinotech Consultants Limited

RM 1710, Technology Park,

18 On Lai Street,

Shatin, N.T., Hong Kong

Laboratory No.:

QC19529

Date of Issue:

2014-01-22

Date Received:

2014-01-16

Date Tested:

2014-01-16

Date Completed:

2014-01-22

ATTN:

Miss Mei Ling Tang

Page:

1 of 2

QC report:

Method Blank

Parameter	MB 1	MB 2	MB3	Acceptance
Suspended Solids (SS), mg/L	<0.5	<0.5	<0.5	<0.5
Arsenic (As), μg/L	<0.2	<0.2	<0.2	<0.2
Copper (Cu), µg/L	<0.2	<0.2	<0.2	<0.2
Lead (Pb), μg/L	<0.2	<0.2	<0.2	<0.2
Zinc (Zn), μg/L	<0.4	<0.4	<0.4	<0.4

Method QC

Parameter	MQC1	MQC2	MQC3	Acceptance
Suspended Solids (SS), %	98	97	97	80-120%
Arsenic (As), %	95	91	96	80-120%
Copper (Cu), %	93	93	97	80-120%
Lead (Pb), %	95	94	95	80-120%
Zinc (Zn), %	96	96	98	80-120%

Sample Spike

Parameter	19529-1 spk	19529-22 spk	19529-56 spk	Acceptance
Suspended Solids (SS)	N/A	N/A	N/A	N/A
Arsenic (As), %	95	88	87	80-120%
Copper (Cu), %	95	93	99	80-120%
Lead (Pb), %	95	98	95	80-120%
Zinc (Zn), %	90	87	98	80-120%

Remarks: $1) \le less than$

2) N/A = Not applicable

3) This report is the summary of quality control data for report number 19529

PREPARED AND CHECKED BY:

For and On Behalf of WELLAB Ltd.

PATRICK TSE

Laboratory Manager



Website: www.wellab.com.hk

TEST REPORT

 Laboratory No.:
 QC19529

 Date of Issue:
 2014-01-22

 Date Received:
 2014-01-16

 Date Tested:
 2014-01-16

 Date Completed:
 2014-01-22

Page: 2 of 2

Sample Duplicate

Parameter Parameter	19529-21 chk	19529-55 chk	19529-60 chk	Acceptance
Suspended Solids (SS), %	5	4	3	RPD≤20%
Arsenic (As), %	5	7	4	RPD≤20%
Copper (Cu), %	7	6	7	RPD≤20%
Lead (Pb), %	N/A	N/A	N/A	RPD≤20%
Zinc (Zn), %	6	8	6	RPD≤20%

Remarks: $1) \le 1$ less than

2) N/A = Not applicable

3) This report is the summary of quality control data for report number 19529



< 0.4

TEST REPORT

APPLICANT:

Cinotech Consultants Limited

RM 1710, Technology Park,

18 On Lai Street,

Shatin, N.T., Hong Kong

Laboratory No.: QC19540

Date of Issue: 2014-01-23

Date Received: 2014-01-18 Date Tested: 2014-01-18

Date Completed: 2014-01-23

< 0.4

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Miss Mei Ling Tang

Page:

< 0.4

1 of 2

QC report:

Method Blank					
Parameter	MB 1	MB 2	MB3	Acceptance	
Suspended Solids (SS), mg/L	<0.5	<0.5	<0.5	<0.5	
Arsenic (As), μg/L	<0.2	<0.2	<0.2	<0.2	
Copper (Cu), μg/L	<0.2	<0.2	<0.2	<0.2	
Lead (Pb), μg/L	<0.2	<0.2	<0.2	<0.2	

< 0.4

Method QC

Zinc (Zn), µg/L

Parameter	MQC1	MQC2	MQC3	Acceptance
Suspended Solids (SS), %	99	92	90	80-120%
Arsenic (As), %	94	96	94	80-120%
Copper (Cu), %	95	96	93	80-120%
Lead (Pb), %	95	96	99	80-120%
Zinc (Zn), %	91	98	99	80-120%

Sample Spike

Parameter	19540-1 spk	19540-22 spk	19540-58 spk	Acceptance
Suspended Solids (SS)	N/A	N/A	N/A	N/A
Arsenic (As), %	95	90	86	80-120%
Copper (Cu), %	89	90	95	80-120%
Lead (Pb), %	98	97	96	80-120%
Zinc (Zn), %	87	88	90	80-120%

Remarks: $1) \le less than$

2) N/A = Not applicable

3) This report is the summary of quality control data for report number 19540

PREPARED AND CHECKED BY:

For and On Behalf of WELLAB Ltd.

PATRICK TSE Laboratory Manager



TEST REPORT

 Laboratory No.:
 QC19540

 Date of Issue:
 2014-01-23

 Date Received:
 2014-01-18

 Date Tested:
 2014-01-18

 Date Completed:
 2014-01-23

Page:

2 of 2

Sample Duplicate

Onnipie Dupitente				
Parameter	19540-21 chk	19540-57 chk	19540-60 chk	Acceptance
Suspended Solids (SS), %	4	5	3	RPD≤20%
Arsenic (As), %	4	3	7	RPD≤20%
Copper (Cu), %	6	4	4	RPD≤20%
Lead (Pb), %	N/A	N/A	N/A	RPD≤20%
Zinc (Zn), %	4	5	6	RPD≤20%

Remarks: $1) \le less than$

2) N/A = Not applicable

3) This report is the summary of quality control data for report number 19540



TEST REPORT

APPLICANT: Cinotech Consultants Limited

RM 1710, Technology Park,

18 On Lai Street,

Shatin, N.T., Hong Kong

Laboratory No.: QC19555

Date of Issue: 2014-01-27

Date Received: 2014-01-21 Date Tested: 2014-01-21

Date Completed: 2014-01-27

ATTN:

Miss Mei Ling Tang

Page:

1 of 2

QC report:

Method Blank

Parameter	MB 1	MB 2	Acceptance
Suspended Solids (SS), mg/L	<0.5	<0.5	<0.5
Arsenic (As), μg/L	<0.2	<0.2	<0.2
Copper (Cu), µg/L	<0.2	< 0.2	<0.2
Lead (Pb), μg/L	<0.2	<0.2	<0.2
Zinc (Zn), μg/L	<0.4	<0.4	<0.4

Method QC

Parameter	MQC1	MQC2	Acceptance
Suspended Solids (SS), %	91	95	80-120%
Arsenic (As), %	97	94	80-120%
Copper (Cu), %	94	101	80-120%
Lead (Pb), %	99	91	80-120%
Zinc (Zn), %	96	91	80-120%

Sample Spike

Parameter	19555-1 spk	19555-37 spk	Acceptance
Suspended Solids (SS)	N/A	N/A	N/A
Arsenic (As), %	97	93	80-120%
Copper (Cu), %	88	89	80-120%
Lead (Pb), %	85	95	80-120%
Zinc (Zn), %	93	93	80-120%

Remarks: $1) \le less than$

2) N/A = Not applicable

3) This report is the summary of quality control data for report number 19555

3) This report is the summary of quality control data for report number 19333

PREPARED AND CHECKED BY:

For and On Behalf of WELLAB Ltd.

PATRICK TSE
Laboratory Manager



Rms 1516, 1701 & 1716, Technology Park, 18 On Lai Street, Shatin, N.T., Hong Kong. Tel: 2898 7388 Fax: 2898 7076

Website: www.wellab.com.hk

TEST REPORT

 Laboratory No.:
 QC19555

 Date of Issue:
 2014-01-27

 Date Received:
 2014-01-21

 Date Tested:
 2014-01-21

 Date Completed:
 2014-01-27

Page:

2 of 2

Sample Duplicate

Dampie Dapitente	19555-24 chk	19555-60 chk	Accontance
Parameter	19555-24 CHK	19555-00 Clik	Acceptance
Suspended Solids (SS), %	3	5	RPD≤20%
Arsenic (As), %	5	3	RPD≤20%
Copper (Cu), %	5	4	RPD≤20%
Lead (Pb), %	N/A	N/A	RPD≤20%
Zinc (Zn), %	6	3	RPD≤20%

Remarks: $1) \le less than$

2) N/A = Not applicable

3) This report is the summary of quality control data for report number 19555



TEST REPORT

Cinotech Consultants Limited APPLICANT:

RM 1710, Technology Park,

18 On Lai Street,

Shatin, N.T., Hong Kong

Laboratory No.: QC19570

2014-01-29 Date of Issue: 2014-01-23

Date Received: 2014-01-23 Date Tested:

2014-01-29 Date Completed:

ATTN:

Miss Mei Ling Tang

Page:

1 of 2

QC report:

Method Blank

Parameter	MB 1	MB 2	MB3	Acceptance
Suspended Solids (SS), mg/L	<0.5	<0.5	<0.5	<0.5
Arsenic (As), μg/L	<0.2	<0.2	<0.2	<0.2
Copper (Cu), µg/L	<0.2	<0.2	<0.2	<0.2
Lead (Pb), μg/L	<0.2	<0.2	<0.2	<0.2
Zinc (Zn), µg/L	<0.4	<0.4	<0.4	<0.4

Method QC

Parameter	MQC1	MQC2	MQC3	Acceptance
Suspended Solids (SS), %	102	91	93	80-120%
Arsenic (As), %	93	96	101	80-120%
Copper (Cu), %	97	93	100	80-120%
Lead (Pb), %	95	96	100	80-120%
Zinc (Zn), %	95	93	99	80-120%

Sample Spike

Parameter	19570-1 spk	19570-22 spk	19570-56 spk	Acceptance
Suspended Solids (SS)	N/A	N/A	N/A	N/A
Arsenic (As), %	93	99	95	80-120%
Copper (Cu), %	94	95	96	80-120%
Lead (Pb), %	98	92	90	80-120%
Zinc (Zn), %	97	101	101	80-120%

Remarks: 1) < = less than

2) N/A = Not applicable

3) This report is the summary of quality control data for report number 19570

PREPARED AND CHECKED BY:

For and On Behalf of WELLAB Ltd.

Laboratory Manager



TEST REPORT

 Laboratory No.:
 QC19570

 Date of Issue:
 2014-01-29

 Date Received:
 2014-01-23

 Date Tested:
 2014-01-23

 Date Completed:
 2014-01-29

Page: 2 of 2

Sample Duplicate

Parameter	19570-21 chk	19570-55 chk	19570-60 chk	Acceptance
Suspended Solids (SS), %	4	5	3	RPD≤20%
Arsenic (As), %	4	7	4	RPD<20%
Copper (Cu), %	5	4	5	RPD≤20%
Lead (Pb), %	N/A	N/A	N/A	RPD≤20%
Zinc (Zn), %	4	3	6	RPD≤20%

Remarks: $1) \le less than$

2) N/A = Not applicable

3) This report is the summary of quality control data for report number 19570



TEST REPORT

APPLICANT: Cinotech Consultants Limited

RM 1710, Technology Park,

18 On Lai Street,

Shatin, N.T., Hong Kong

Laboratory No.: QC19588

Date of Issue: 2014-02-04
Date Received: 2014-01-25
Date Tested: 2014-01-25

Date Completed: 2014-02-04

ATTN:

Miss Mei Ling Tang

Page:

1 of 2

QC report: Method Blank

Parameter	MB 1	MB 2	MB3	Acceptance
Suspended Solids (SS), mg/L	<0.5	<0.5	<0.5	<0.5
Arsenic (As), μg/L	<0.2	<0.2	< 0.2	<0.2
Copper (Cu), µg/L	<0.2	<0.2	<0.2	<0.2
Lead (Pb), μg/L	<0.2	<0.2	<0.2	<0.2
Zinc (Zn), µg/L	<0.4	<0.4	<0.4	<0.4

Method OC

Parameter	MQC1	MQC2	MQC3	Acceptance
Suspended Solids (SS), %	95	98	93	80-120%
Arsenic (As), %	89	97	100	80-120%
Copper (Cu), %	100	98	93	80-120%
Lead (Pb), %	93	93	94	80-120%
Zinc (Zn), %	95	96	93	80-120%

Sample Spike

Parameter	19588-1 spk	19588-22 spk	19588-56 spk	Acceptance
Suspended Solids (SS)	N/A	N/A	N/A	N/A
Arsenic (As), %	94	91	95	80-120%
Copper (Cu), %	95	91	99	80-120%
Lead (Pb), %	97	91	94	80-120%
Zinc (Zn), %	99	94	85	80-120%

Remarks: 1) < = less than

2) N/A = Not applicable

3) This report is the summary of quality control data for report number 19588

PREPARED AND CHECKED BY:

For and On Behalf of WELLAB Ltd.

PATRICK TSE

Laboratory Manager



TEST REPORT

Laboratory No.:	QC19588
Date of Issue:	2014-02-04
Date Received:	2014-01-25
Date Tested:	2014-01-25
Date Completed:	2014-02-04

Page:

2 of 2

Sample Duplicate

Parameter Parameter	19588-21 chk	19588-55 chk	19588-60 chk	Acceptance
Suspended Solids (SS), %	5	5	3	RPD≤20%
Arsenic (As), %	7	3	6	RPD≤20%
Copper (Cu), %	5	5	4	RPD≤20%
Lead (Pb), %	N/A	N/A	N/A	RPD≤20%
Zinc (Zn), %	4	6	5	RPD≤20%

Remarks: $1) \le less than$

2) N/A = Not applicable

3) This report is the summary of quality control data for report number 19588



TEST REPORT

APPLICANT:

Cinotech Consultants Limited

RM 1710, Technology Park,

18 On Lai Street,

Shatin, N.T., Hong Kong

Laboratory No.:

QC19590

Date of Issue: Date Received: 2014-02-04

Date Tested:

2014-01-27 2014-01-27

Date Completed:

2014-02-04

ATTN:

Miss Mei Ling Tang

Page:

1 of 2

QC report:

Method Blank

X124 (120 to 22 to 111)			
Parameter	MB 1	MB 2	Acceptance
Suspended Solids (SS), mg/L	<0.5	<0.5	<0.5
Arsenic (As), μg/L	<0.2	< 0.2	<0.2
Copper (Cu), µg/L	<0.2	<0.2	<0.2
Lead (Pb), μg/L	<0.2	<0.2	<0.2
Zinc (Zn), µg/L	<0.4	<0.4	<0.4

Method QC

Parameter	MQC1	MQC2	Acceptance
Suspended Solids (SS), %	100	93	80-120%
Arsenic (As), %	91	93	80-120%
Copper (Cu), %	90	96	80-120%
Lead (Pb), %	90	92	80-120%
Zinc (Zn), %	99	93	80-120%

Sample Spike

Dampie Opike	19590-1 spk	19590-37 spk	Acceptance
Parameter	19390-1 spк	•	
Suspended Solids (SS)	N/A	N/A	N/A
Arsenic (As), %	90	101	80-120%
Copper (Cu), %	90	93	80-120%
Lead (Pb), %	87	88	80-120%
Zinc (Zn), %	94	88	80-120%

Remarks: $1) \le less than$

2) N/A = Not applicable

3) This report is the summary of quality control data for report number 19590

PREPARED AND CHECKED BY:

For and On Behalf of WELLAB Ltd.

PATRICK TSE Laboratory Manager



TEST REPORT

 Laboratory No.:
 QC19590

 Date of Issue:
 2014-02-04

 Date Received:
 2014-01-27

 Date Tested:
 2014-01-27

 Date Completed:
 2014-02-04

Page:

2 of 2

Sample Duplicate

Dampie Dupiteate			
Parameter	19590-24 chk	19590-60 chk	Acceptance
Suspended Solids (SS), %	4	3	RPD≤20%
Arsenic (As), %	4	4	RPD≤20%
Copper (Cu), %	4	7	RPD≤20%
Lead (Pb), %	N/A	N/A	RPD≤20%
Zinc (Zn), %	7	5	RPD≤20%

Remarks: $1) \le less than$

2) N/A = Not applicable

3) This report is the summary of quality control data for report number 19590



TEST REPORT

APPLICANT:

Cinotech Consultants Limited

RM 1710, Technology Park,

18 On Lai Street,

Shatin, N.T., Hong Kong

Laboratory No.:

QC19608

Date of Issue:

2014-02-06

Date Received: Date Tested:

2014-01-29 2014-01-29

Date Completed:

2014-02-06

ATTN:

Miss Mei Ling Tang

Page:

1 of 2

QC report:

Method Blank

Parameter	MB 1	MB 2	MB3	Acceptance
Suspended Solids (SS), mg/L	<0.5	<0.5	<0.5	<0.5
Arsenic (As), μg/L	<0.2	<0.2	<0.2	<0.2
Copper (Cu), µg/L	<0.2	<0.2	<0.2	<0.2
Lead (Pb), μg/L	<0.2	<0.2	<0.2	<0.2
Zinc (Zn), μg/L	<0.4	<0.4	<0.4	<0.4

Method QC

Parameter	MQC1	MQC2	MQC3	Acceptance
Suspended Solids (SS), %	95	95	96	80-120%
Arsenic (As), %	95	97	100	80-120%
Copper (Cu), %	93	99	99	80-120%
Lead (Pb), %	92	92	91	80-120%
Zinc (Zn), %	100	93	95	80-120%

Sample Spike

Parameter Parameter	19608-1 spk	19608-37 spk	19608-58 spk	Acceptance
Suspended Solids (SS)	N/A	N/A	N/A	N/A
Arsenic (As), %	88	98	97	80-120%
Copper (Cu), %	87	89	96	80-120%
Lead (Pb), %	96	87	92	80-120%
Zinc (Zn), %	99	100	99	80-120%

Remarks: $1) \le less than$

2) N/A = Not applicable

3) This report is the summary of quality control data for report number 19608

PREPARED AND CHECKED BY:

For and On Behalf of WELLAB Ltd.

Laboratory Manager



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TEST REPORT

 Laboratory No.:
 QC19608

 Date of Issue:
 2014-02-06

 Date Received:
 2014-01-29

 Date Tested:
 2014-01-29

 Date Completed:
 2014-02-06

Page:

2 of 2

Sample Duplicate

Parameter	19608-24 chk	19608-57 chk	19608-60 chk	Acceptance
Suspended Solids (SS), %	4	4	5	RPD≤20%
Arsenic (As), %	5	6	5	RPD≤20%
Copper (Cu), %	3	4	4	RPD≤20%
Lead (Pb), %	N/A	N/A	N/A	RPD≤20%
Zinc (Zn), %	7	3	3	RPD≤20%

Remarks: $1) \le 1$ less than

2) N/A = Not applicable

3) This report is the summary of quality control data for report number 19608