Asia Pacific Gateway (APG) – Tseung Kwan O

Third Weekly Impact Water Quality Monitoring Report

13 June 2016

Submitted by
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Asia Pacific Gateway (APG) – Tseung Kwan O
Environmental Certification Sheet
EP-485/2014

Reference Document/Plan

Document/~~Plan~~ to be ~~Certified~~/ Verified:	Third Weekly Impact Water Quality Monitoring Report
Date of Report:	13 June 2016
Date prepared by ET:	13 June 2016
Date received by IEC:	13 June 2016

Reference EM&A Manual

EM&A Manual:		Section 2
Content:	*Reporting on Impact Water Quality Monitoring*	
2.5	"An Impact Monitoring Report will be provided weekly within three days after the relevant monitoring data are collected or become available during Project marine installation work.... " "A Weekly Impact Monitoring shall include, but not limited to, the following details: Basic Project Information – Project marine installation works programme with fine tuning of activities showing the inter-relationship with environmental protection/mitigation measures for the week and works undertaken during the week; Operating practices of any Project marine installation works machinery (e.g. cable burial machine) during sampling (including: position, speed, cable burial depth) and an interpretation of monitoring results; and The monitoring data should be provided graphically to show the relationship between the Control and the Impact monitoring stations and compliance or non-compliance with respect to the Action/Limit Levels. "	
EP Condition:		Condition 2
Content:	*Impact Monitoring Report on Water Quality*	
2.5	"(ii)(b): To monitor the environmental impacts and timely implementation of the recommended mitigation measures, the Permit Holder shall submit to the director four hard copies and one electronic copy of weekly impact monitoring and site audit report within three days after the relevant monitoring data are collected or become available, as defined in the approved EM&A Manual." "All environmental monitoring and audit results submitted under this Permit shall be true, valid and correct. Before submission to the Director, the reports as required in Condition 2.4 and 2.5 (ii) shall be certified by the independent checker that all mitigation measures recommended in the Project Profile (Register No.:PP-496/2013) have been fully implemented."	

ET Certification

I hereby certify that the above referenced document/~~plan~~ complies with the above referenced condition of EP-485/2014.

Terence Fong, Environmental Team Leader: Date: 13 June 2016

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IEC Verification

I hereby verify that the above referenced document/~~plan~~ complies with the above referenced condition of EP-485/2014.

Vincent Lai, Independent Environmental Checker:

Date: 13 June 2016

Asia Pacific Gateway (APG) – Tseung Kwan O

Third Weekly Impact Water Quality Monitoring Report

Document Code: 0324228_Third Weekly Impact Water Quality Monitoring Report.doc

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Client:	Project No:
China Mobile International Limited (CMI Ltd)	0324228
Summary: This document presents the monitoring requirements, methodologies and results of the impact marine water quality measurements at the monitoring locations near the proposed submarine cable installation works in the monitoring period from 30 May to 5 June 2016.	Date: 13 June 2016 Approved by: *Terence Fong* *Partner*

v0	Third Weekly Impact Water Quality Monitoring Report_v0	YL	ME	TF	13/6/16
Revision	Description	By	Checked	Approved	Date

Distribution

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ANNEXES

This is the *Third Weekly Impact Water Quality Monitoring Report* presenting the impact water quality monitoring conducted for the monitoring week from 30 May to 5 June 2016 in accordance with the *Environmental Monitoring and Audit Manual (EM&A Manual)*.

Summary of Construction Works undertaken during the Reporting Week

Cable laying works in Zone B and Zone C were completed on 30 May 2016. The works vessel entered Chinese waters at 15:51 on 30 May 2016.

Although Post Lay Inspection & Burial (PLIB) works were initially scheduled to commence in Zone B on 2 June 2016, a last minute delay in works activities outside of Hong Kong waters postponed commencement to the following day. Therefore Project works did not take place on 2 June 2016 and no PLIB works were conducted.

Post Lay Inspection & Burial (PLIB) works were conducted in Zone B from 3 to 4 June 2016 and in Zone C on 5 June 2016.

Water Quality

Four (4) rounds of impact monitoring were carried out in Zones B and C respectively on 30 May 2016 following the cable laying works. Two (2) rounds of repeated (*ad hoc*) water quality measurements were obtained in Zone B on 31 May 2016 and as well as in Zone C on 1 June 2016, according to *the Event Action Plan for Water Quality* in the *EM&A Manual* following Notifications of Exceedances (NOEs) issued for 28 May 2016 (Zone B) and 30 May 2016 (Zones B and C).

Three (3) rounds of monitoring were conducted in Zone B on 2 June 2016, although PLIB works did not take place and were delayed to the following day.

Following the commencement of PLIB works in Zone B, four (4) rounds of impact monitoring were conducted in Zone B on 3 June 2016. According to the PLIB works progress, four (4) rounds of impact monitoring were carried out in Zone B on 4 June 2016 and in Zone C on 5 June 2016 respectively.

The impact monitoring results of water quality (e.g. DO, turbidity and SS) in Zones B and C were generally similar among the stations in the impact monitoring period from 30 May to 5 June 2016. Water quality in Zones B and C was also similar throughout the monitoring period. Neither a sudden drop in dissolved oxygen concentrations nor a sharp increase in turbidity levels and suspended solids levels were observed on each monitoring day.

Results of the impact monitoring data were compared against the results of the *Baseline Environmental Monitoring* for Zones B and C respectively and exceedances of Action and Limit Levels in all zones were observed.

Notifications of Exceedances (NOEs) were therefore issued for 30 and 31 May, 1, 2, 3, 4 and 5 June 2016. Generally, it is considered that these exceedances were not caused by the Project's cable laying and PLIB works but reflected the natural background fluctuation of marine water quality.

It is concluded that there was no deterioration of water quality during the reporting week and hence the effect of the Project cable laying and PLIB works on water quality is considered to be negligible over this reporting week.

Environmental Non-conformance

Exceedances of DO (all depths), depth-averaged turbidity and SS in Action Level, and DO (all depths) and depth-averaged turbidity in Limit Level were recorded during the monitoring period from 30 May to 5 June 2016 (i.e. 30 and 31 May, 1, 2, 3, 4 and 5 June 2016); however the exceedances were not considered to be caused by the cable laying or PLIB works but reflected the natural background fluctuation.

No non-compliance event was recorded during the reporting week.

No complaint and summons/prosecution was received during the reporting week.

Future Key Issues

In water quality monitoring Zones A to C, all marine works which have the potential to disturb seabed are expect to be completed on 6 June 2016. Only cable testing and commissioning works remain.

1 INTRODUCTION

ERM-Hong Kong, Limited (ERM) has been appointed by China Mobile International Limited (CMI Ltd) as the Environmental Team (ET) to implement the Environmental Monitoring and Audit (EM&A) programme for the 'Asia Pacific Gateway (APG) – Tseung Kwan O' (hereafter referred to as the 'Project').

1.1 PURPOSE OF THE REPORT

This is the *Third Weekly Impact Water Quality Monitoring Report*, which summarises the results of impact water quality monitoring as part of the Environmental Monitoring & Audit (EM&A) programme during the reporting week from 30 May to 5 June 2016.

1.2 STRUCTURE OF THE REPORT

The structure of the report is as follows:

Section 1 : ***Introduction***
Details the background, purpose and structure of the report.

Section 2 : ***Project Information***
Summarises background and scope of the Project, the construction works undertaken and the status of Environmental Permits/Licenses during the reporting period.

Section 3 : ***Water Quality Monitoring Requirements***
Summarises the monitoring parameters, monitoring programmes, monitoring methodologies, monitoring frequency, monitoring locations, Action and Limit Levels, and Event / Action Plans.

Section 4 : ***Monitoring Results***
Summarises the monitoring results obtained in the reporting period.

Section 5 : ***Environmental Non-conformance***
Summarises any monitoring exceedance, environmental complaints and environmental summons within the reporting period.

Section 6 : ***Future Key Issues***
Summarises the monitoring schedule for the next week.

Section 7 : ***Conclusions***
Presents the key findings of the impact monitoring results.

2 PROJECT INFORMATION

2.1 BACKGROUND

In order to help meet the tremendous telecommunication services requirements for intra-Asia connectivity between South East Asia and North Asia, the APG Consortium has decided to build a submarine telecommunication cable system, which will be approximately 10,400 km in length, connecting the major business hubs across the region – the Asia Pacific Gateway (APG). The cable will link up with several countries, including Malaysia, Singapore, Vietnam, Taiwan, Mainland China, Japan, Korea and the Hong Kong Special Administrative Region (HKSAR). Since the cable that branches to HKSAR will ultimately connect to land at Tseung Kwan O (TKO), the HKSAR section of the submarine cable will be referred to at the APG-TKO cable.

As one of the members of the APG Consortium, China Mobile International Limited (CMI) proposes to install the APG–TKO section of the cable. The proposed cable will land via an existing Beach Manhole (BMH) within the TKO Industrial Estate on the reclaimed land and ultimately connect with a Cable Landing Station in the TKO Industrial Estate. It should be noted that Tseung Kwan O is currently the landing site for a number of submarine cables. The proposed submarine cable will travel west and southward from TKO as it approaches the Tathong Channel. After crossing the Tathong Channel and near to Cape Collinson, the cable then runs approximately parallel to the Tathong Channel until north of Sung Kong Island where it then turns eastward to the boundary of HKSAR waters where it enters the South China Sea. At the southeast offshore waters, it will be necessary to install a grout mattress to protect the cable where it crosses Hong Kong Electric Co., Ltd's (HKE) gas pipeline. A map of the proposed cable route is presented in *Figure 2.1*.

The Project Profile (PP-496/2013) (which includes an assessment of the potential environmental impacts associated with the installation of the submarine telecommunications cable system within HKSAR, including the connection to land at TKO), was prepared and submitted to the Environmental Protection Department (EPD) under *section 5(1)(b) and 5(11)* of the *Environmental Impact Assessment Ordinance (EIAO)* for the application for Permission to apply directly for *Environmental Permit (EP)*. EPD subsequently issued an approval letter on *Application for Permission to Apply Directly for Environmental Permit* on 15th November 2013 (DIR-233/2013) and issued an EP on 18 February 2014 (EP-485/2014).

Although no unacceptable environmental impacts have been identified, it is recommended that during APG-TKO installation works an Environmental Monitoring and Audit (EM&A) programme shall be conducted. The key aspects of the EM&A programme include Water Quality Monitoring and Coral Monitoring as well as the implementation a Marine Mammal (mainly

WLCP	Easting	Northing	WLCP	Easting	Northing	WLCP	Easting	Northing	WLCP	Easting	Northing
1	845588.70	815897.93	17	844646.40	813703.38	33	845447.61	809899.21	49	849680.77	807095.91
2	845556.09	815866.54	18	844669.62	813648.58	34	845604.56	809780.81	50	850966.87	807010.88
3	845305.98	815905.89	19	844685.62	813611.68	35	846278.13	808981.74	51	857127.50	807037.45
4	845181.61	815925.38	20	844750.18	813348.72	36	846541.71	808745.68	52	857294.09	807122.57
5	845110.68	815898.08	21	844747.87	813179.67	37	846587.45	808705.84	53	858187.64	807575.78
6	844850.18	815797.85	22	844735.29	812289.73	38	846688.11	808502.90	54	859209.68	808734.05
7	844836.11	815782.70	23	844720.57	812188.95	39	847135.01	807602.02	55	859922.46	809541.99
8	844683.67	815618.73	24	844708.59	812107.37	40	847200.72	807516.98	56	860046.48	809682.63
9	844534.05	815321.70	25	844641.15	811648.90	41	847336.27	807341.75	57	860205.34	809737.32
10	844305.49	814867.76	26	844649.37	811049.83	42	847375.49	807290.84	58	861589.52	810214.74
11	844264.01	814687.79	27	844919.25	810509.60	43	847399.22	807260.22	59	866499.41	810855.95
12	844225.62	814520.38	28	845018.29	810386.56	44	847457.54	807184.60	60	866961.11	810673.40
13	844232.34	814484.58	29	845037.20	810363.13	45	847766.64	807050.09	61	867438.99	810476.69
14	844260.07	814335.84	30	845222.90	810132.35	46	847855.31	807058.83	62	869831.85	810619.15
15	844378.68	814186.41	31	845243.02	810107.27	47	848656.46	807137.33			
16	844469.78	814081.26	32	845352.72	809970.94	48	849142.30	807131.45			

KOWLOON CITY DISTRICT
九龍城區

KWUN TONG DISTRICT
觀塘區

WAN CHAI DISTRICT
灣仔區

EASTERN DISTRICT
東區

SOUTHERN DISTRICT
南區

ISLANDS DISTRICT
離島區

SAI KUNG DISTRICT
西貢區

Hong Kong SAR Boundary
香港特別行政區界線

N
北

Kilometers 公里
0 2.5 5

Legend 圖例

- Work Limit Control Point (WLCP) 座標點
- Proposed APG Submarine Cable System 擬建之APG海底光纖系統
- District Boundary 分區邊界

Figure 2.1
圖 2.1

Proposed APG Submarine Cable System
擬建之APG海底光纖系統

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Finless Porpoise) Exclusion Zone, conducted according to the location of works.

EP-485/2014 *Special Condition 2.5* states that an EM&A programme should be implemented in accordance with the procedures and requirements set out in the *EM&A Manual*. In accordance with the *EM&A Manual*, water quality monitoring is required for the Project, including baseline monitoring, impact monitoring and site audit and post Project monitoring.

Baseline water quality Monitoring was conducted in in Zones A, B and C between 27 April 2016 and 5 May 2016 and the results were presented in the *Baseline Water Quality Monitoring Report*.

According to *EM&A Manual*, impact water quality monitoring will commence in Zone A when the cable installation barge works are within Zone A. The sampling works will cease once the cable barge is outside Zone A or no cable laying works are being undertaken. Similarly, impact Monitoring will commence in Zone B when cable installation barge works move to within Zone B. The monitoring works will start in Zone C when the vessel goes into Zone C. The water quality sampling works will cease once the cable laying works are outside Zones A, B and C or when no cable laying works are being undertaken.

Impact Monitoring started on 17 May 2016. The impact water quality monitoring is used to reflect the water quality conditions and to identify potential water quality impacts during the cable installation works. With reference to the *EM&A Manual*, an Impact Monitoring Report will be provided weekly within three days after the relevant monitoring data are collected or become available during Project marine installation work. Repeated (*ad hoc*) monitoring will be carried out accordingly if exceedance of Action and Limit Level are observed.

This report, therefore, presents the impact monitoring results from monitoring stations within Zones B and C during the monitoring week from 30 May to 5 June 2016.

2.2 *MARINE CONSTRUCTION WORKS UNDERTAKEN DURING REPORTING WEEK*

A summary of the major works undertaken during the reporting week is shown in *Table 2.1*.

Table 2.1 ***Summary of Marine Works Undertaken During the Reporting Week***

Date	Works Area	Activity
30 May 2016	Zones B and C	Cable laying works in Zones B and C.
31 May 2016	n/a	No activity.
1 June 2016	n/a	No activity.
2 June 2016	n/a	No activity.
3 June 2016	Zone B	Post Lay Inspection & Burial (PLIB) works, which involve diver survey with localised hand jetting, commenced in Zone B.
4 June 2016	Zone B	PLIB works continued in Zone B.
5 June 2016	Zone C	PLIB works in Zone C.

2.3 STATUS OF ENVIRONMENTAL APPROVAL DOCUMENTS

A summary of the relevant permits, licences, notifications and/or reports on environmental protection for this Project is presented in *Table 2.2*.

Table 2.2 ***Summary of Environmental Licensing, Notification, Permit and Reporting Status***

Permit / Licence / Notification / Report	Reference	Validity Period	Remarks
Project Profile	PP-496/2013	Throughout the construction and operation stages	Submitted on 9 October 2013
EM&A Manual	-	Throughout the construction and operation stages	Approved by EPD on 17 January 2014
Environmental Permit	EP-485/2014	Throughout the construction and operation stages	Granted by EPD on 18 February 2014
Baseline Water Quality Monitoring Report	-	Throughout the construction period for Zones A to C	Submitted on 9 May 2016
First Weekly Impact Water Quality Monitoring Report	-	Throughout the construction period for Zones A to C	Submitted on 26 May 2016
Second Weekly Impact Water Quality Monitoring Report	-	Throughout the construction period for Zones A to C	Submitted on 3 June 2016
Site Inspection Report	-	Throughout the construction period for land-based works.	Submitted on 6 June 2016

3 WATER QUALITY MONITORING REQUIREMENTS

3.1 MONITORING LOCATIONS

In accordance with the *EM&A Manual*, impact water quality monitoring were carried out at twenty-six (26) stations the same stations as in baseline water quality monitoring following commencement of Project route clearance works. These stations are situated around the cable laying works in Junk Bay and near to Tung Lung Chau and Tai Long Pai and listed below. The locations are also shown in *Figure 3.1*.

- B1 is an Impact Station to monitor the impacts of cable installation works on the Big Wave Bay Beach;
- B2 is an Impact Station to monitor the impacts of cable installation works on the Rocky Bay Beach;
- B3 is an Impact Station to monitor the impacts of cable installation works on the Shek O Beach;
- E1 is an Impact Station to monitor impacts of cable installation works on Cape d'Aguilar Marine Reserve;
- E2 is an Impact Station to monitor the impacts of cable installation works on the coral communities at Tung Lung Chau;

  (There is no Impact Station E3 as E3 represents coral communities along the coast of Ninepins, over 5 km from the cable installation works, and will not be affected by the Project due to the distance)
- E4 is the Impact Station to monitor the impacts of cable installation works on the coral communities at the coast of Sung Kong;
- E5 is the Impact Station to monitor the impacts of cable installation works on the coral communities at the coast of Waglan Island;
- E6 is an Impact Station to monitor the impacts of cable installation works on the coral communities at Tai Long Pai (the Gradient Station is not set due to the insufficient distance between this Impact Station and the nearby proposed cable works which may affect the cable laying works);
- E7 is an Impact Station to monitor the impacts of cable installation works on the coral communities along Junk Bay – South West;
- E8 is an Impact Station to monitor the impacts of cable installation works on the coral communities at Cape Collinson (the Gradient Station is not set due to the insufficient distance between this Impact Station to nearby proposed cable works which may affect the cable laying works);
- E9 is an Impact Station to monitor the impacts of cable installation works on the coral communities at Fat Tong Chau (the Gradient Station is not set due to the insufficient distance between this Impact Station to nearby proposed cable works which may affect the cable laying works);

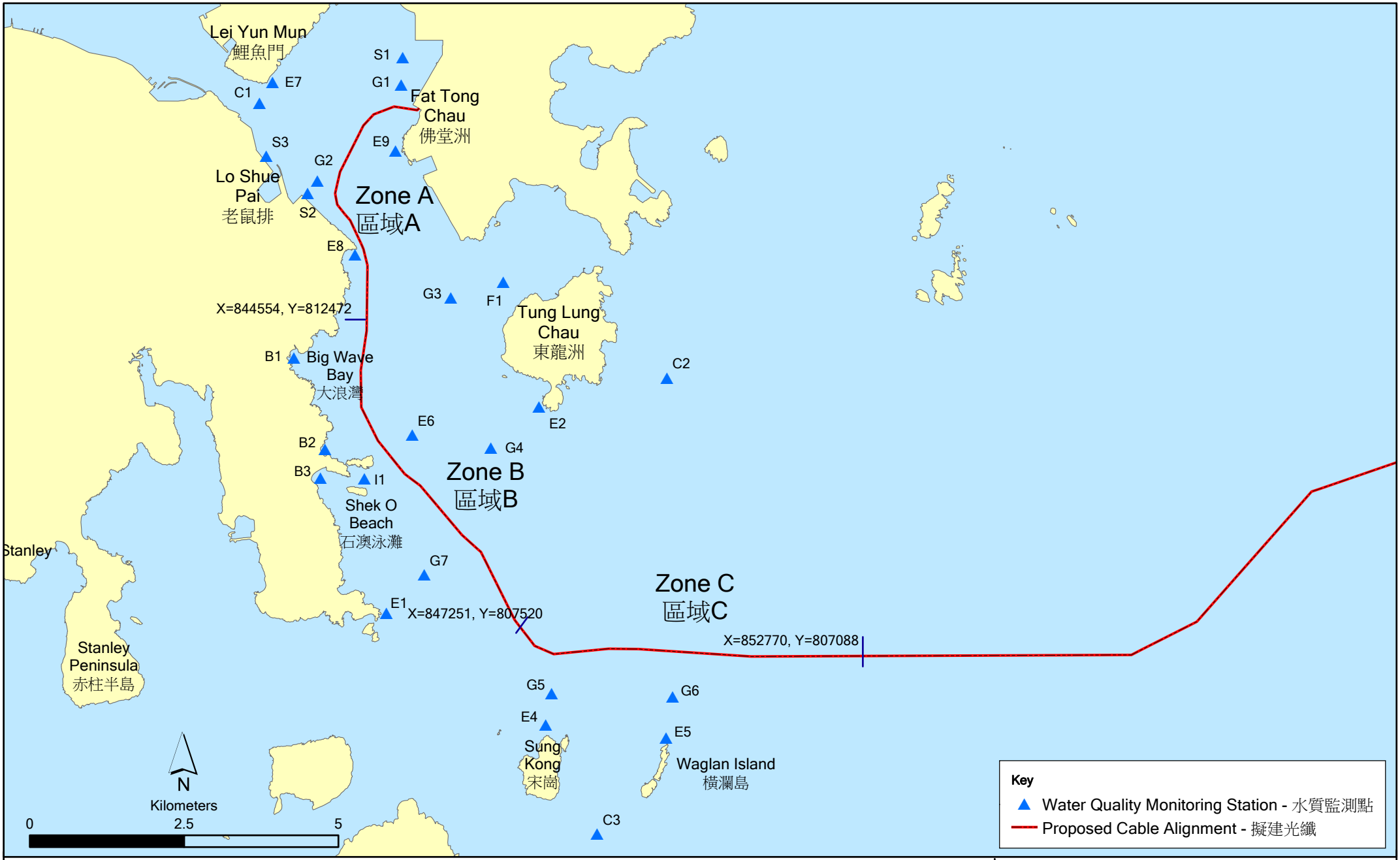

Figure 3.1
圖 3.1

Water Quality Monitoring Station
水 質 監 測 點

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Date: 26-May-2016

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- F1 is an Impact Station to monitor the impacts of cable installation works on the Tung Lung Chau Fish Culture Zone;
- I1 is an Impact Station to monitor the impacts of cable installation works on the Shek O Headland SSSI;
- S1 is an Impact Station situated at the WSD Seawater Intake Point in Junk Bay. It is located within 500 m north of the cable alignment at Junk Bay and set up to monitor the effect of cable laying works in the area;
- S2 is an Impact Station to monitor the impacts of cable installation works on the WSD Seawater Intake at Siu Sai Wan;
- S3 is an Impact Station to monitor the impacts of cable installation works on the Pamela Youde Nethersole Eastern Hospital Cooling Water Intake at Heng Fa Chuen;
- G1 is a Gradient Station between S1 and the cable alignment;
- G2 is a Gradient Station between S2 and the cable alignment;
- G3 is a Gradient Station between F1 and the cable alignment;
- G4 is a Gradient Station between E2 and the cable alignment;
- G5 is the Gradient Station between E4 and the alignment;
- G6 is the Gradient Station between E5 and the alignment;
- G7 is a Gradient Station between E1 and the cable alignment;
- C1 is a Control Station (approximately 3 km from the proposed cable alignment) for Zone A. It is not supposed to be influenced by the cable laying works due to its remoteness to the construction works;
- C2 is a Control Station (approximately 4 km from the proposed cable alignment) for Zone B. It is not supposed to be influenced by the cable laying works due to its remoteness to the construction works; and
- C3 is a Control Station (approximately 3 km from the proposed cable alignment) for Zone C. It is not supposed to be influenced by the cable laying works due to its remoteness to the construction works.

Stations of C1, E7, E8, E9, F1, G1, G2, G3, S1, S2, and S3 (i.e. elven (11) stations) are located in Zone A (*Figure 3.2*). Thirteen (13) stations (i.e. B1, B2, B3, C2, E1, E2, E6, E8, F1, G3, G4, G7 and I1) are located in Zone B (*Figure 3.3*) and five (5) stations (i.e. C3, E4, E5, G5 and G6) are located in Zone C (*Figure 3.4*). The above monitoring stations shall be sampled as well during Post Project Monitoring.

The co-ordinates of these monitoring stations are listed in *Table 3.1*.

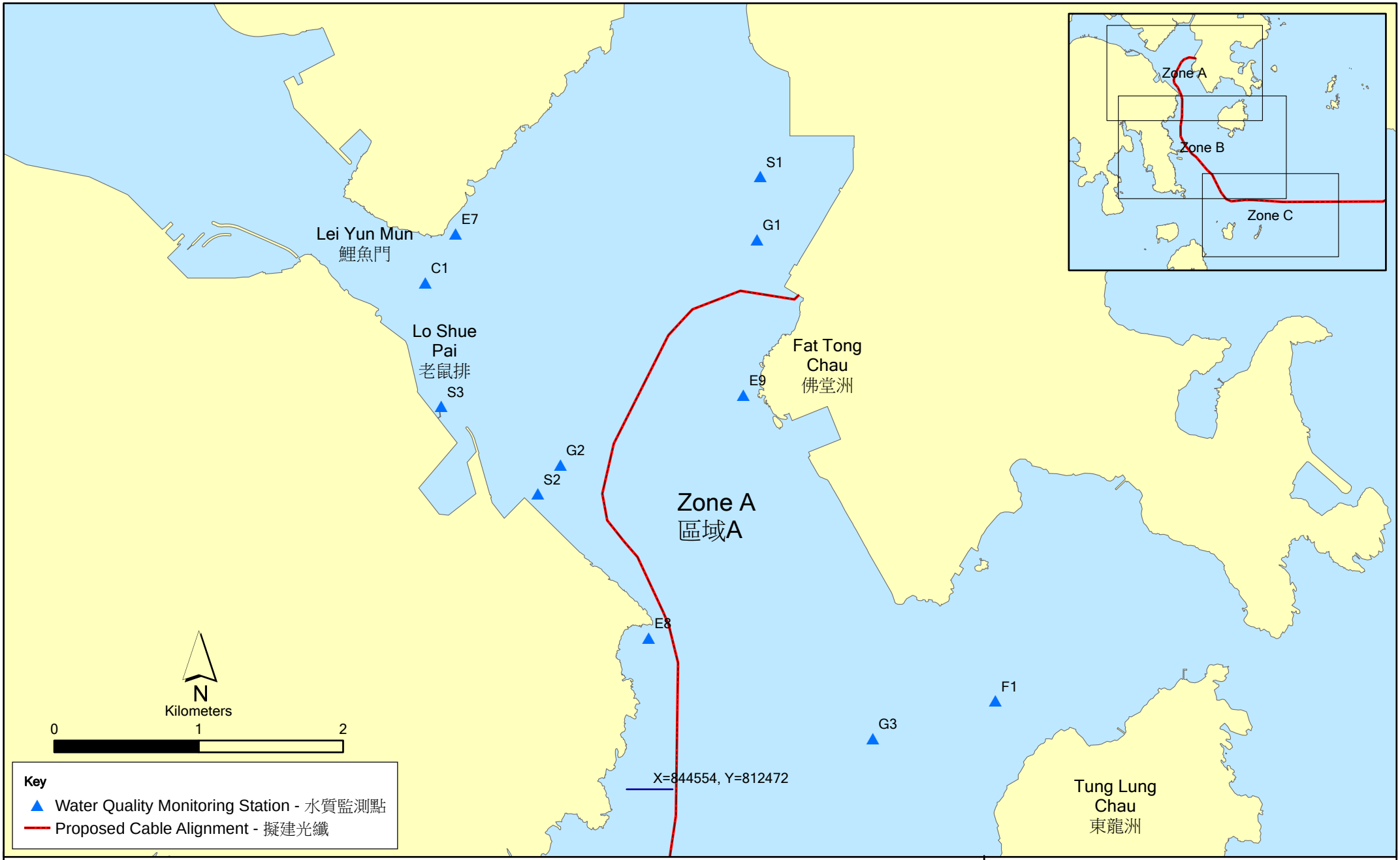

Figure 3.2
圖 3.2

Water Quality Monitoring Station (Zone A)
區域A內的水質監測點

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Date: 26-May-2016

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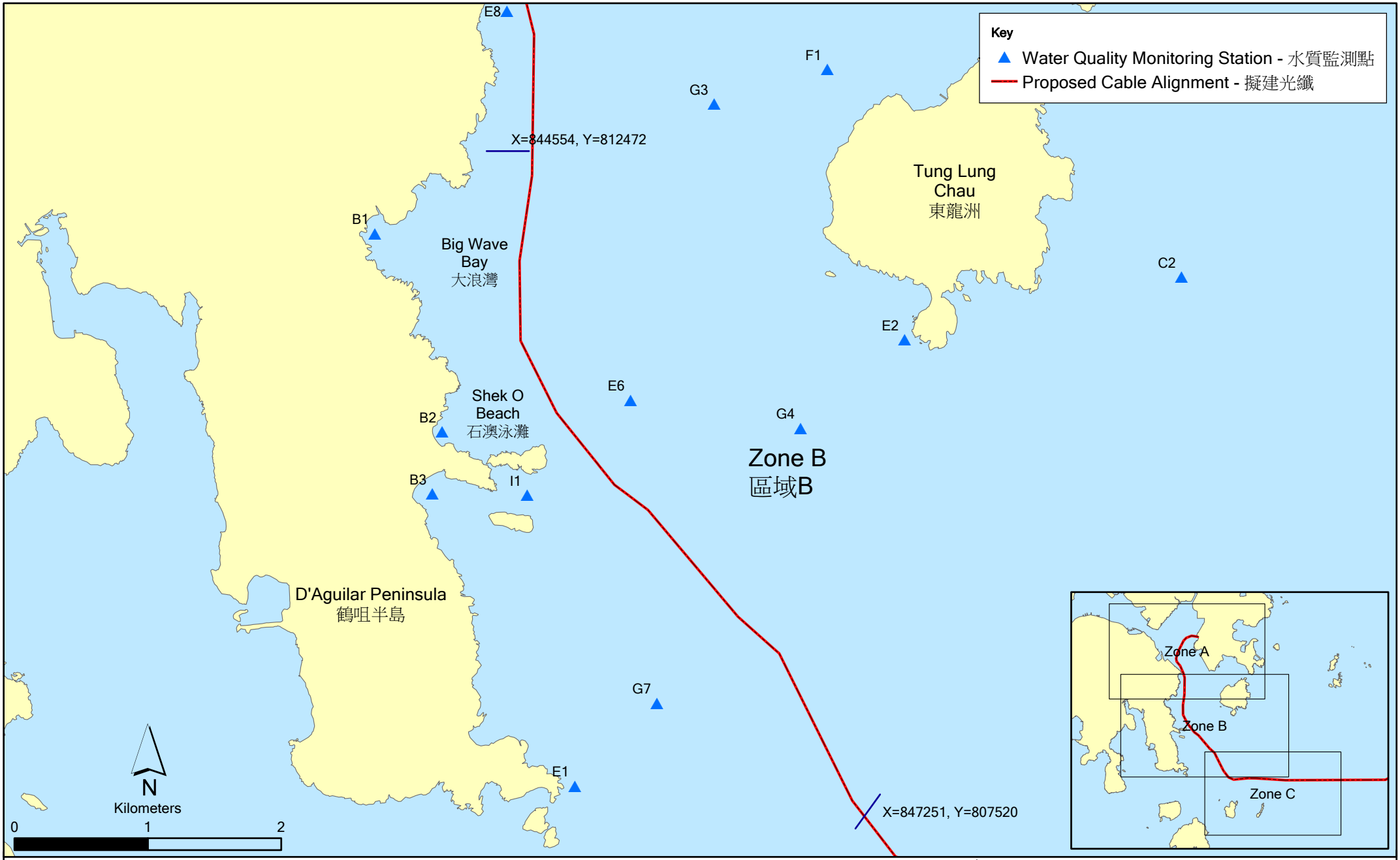

Figure 3.3
圖 3.3

Water Quality Monitoring Station (Zone B)
區域B內的水質監測點

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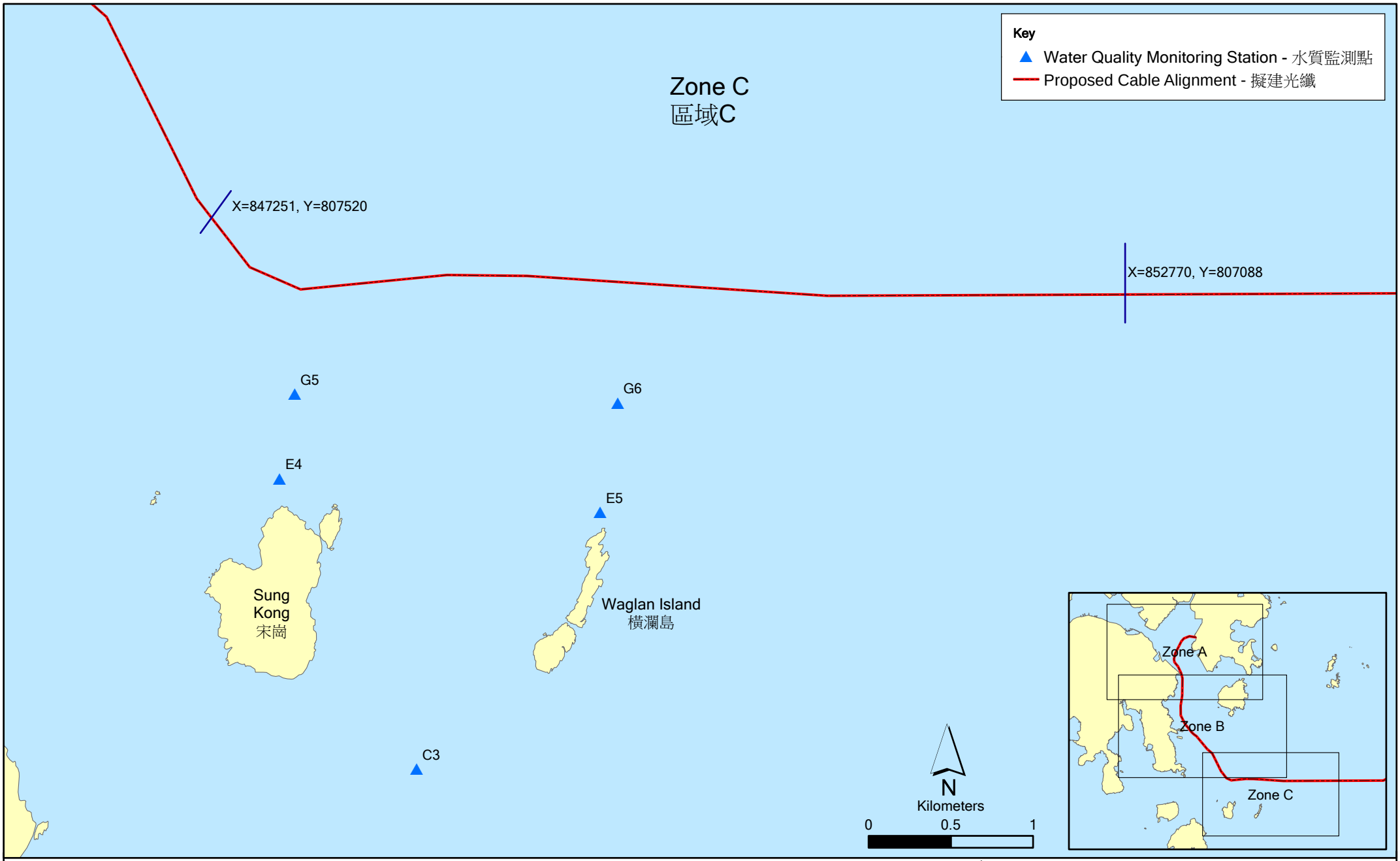

Figure 3.4
圖 3.4

Water Quality Monitoring Station (Zone C)
區域C內的水質監測點

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Date: 26-May-2016

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Table 3.1 Co-ordinates of Sampling Stations (HK Grid)

Station	Nature	Easting	Northing
B1	Impact Station (Beach)	843556.84	811853.46
B2	Impact Station (Beach)	844062.02	810369.19
B3	Impact Station (Beach)	843988.33	809902.13
E1	Impact Station (Marine Reserve)	842021.64	816547.02
E2	Impact Station (Coral Communities)	847527.33	811059.83
E4	Impact Station (Coral Communities)	848471.60	804135.73
E5	Impact Station (Coral Communities)	845056.10	807712.89
E6	Impact Station (Coral Communities)	848503.03	811247.01
E7	Impact Station (Coral Communities)	849586.94	805696.09
E8	Impact Station (Coral Communities)	844547.04	813522.78
E9	Impact Station (Coral Communities)	845202.76	815205.38
F1	Impact Station (Fish Culture Zone)	846948.57	813085.03
I1	Impact Station (Site of Special Scientific Interest)	844698.75	809894.80
S1	Impact Station (Seawater Intakes)	845297.24	816281.54
S2	Impact Station (Seawater Intakes)	844070.53	814783.54
S3	Impact Station (Seawater Intakes)	846099.31	812825.53
G1	Gradient Station	847365.06	810245.78
G2	Gradient Station	843936.91	814720.04
G3	Gradient Station	849692.91	806360.59
G4	Gradient Station	846748.01	810394.92
G5	Gradient Station	845320.83	816717.97
G6	Gradient Station	843779.38	814520.41
G7	Gradient Station	843110.53	815125.70
C1	Control Station	842999.91	815984.25
C2	Control Station	845297.24	816281.54
C3	Control Station	844070.53	814783.54

3.2 MONITORING PARAMETERS

The parameters measured *in situ* were:

- Dissolved Oxygen (DO) (% saturation and mg/L)
- Water temperature (°C)
- Turbidity (Nephelometric Turbidity Units [NTU])
- Salinity (parts per thousand [ppt])

The only parameter to be measured in the laboratory was:

- Suspended solids (SS) (mg/L)

In addition to the water quality parameters, other relevant data were also measured and recorded in field logs, including the location of the sampling stations, water depth, sampling depth, current velocity and direction, time, weather conditions, sea conditions (where appropriate), tidal state (where appropriate), special phenomena and work activities undertaken around the monitoring and works area that may influence the monitoring results.

These parameters were monitored at all designated marine water quality monitoring stations during the whole impact monitoring phase.

3.3 MONITORING EQUIPMENT AND METHODOLOGY

3.3.1 Monitoring Equipment

Table 3.2 summaries the equipment used for the impact water quality monitoring.

Table 3.2 Equipment used during Impact Water Quality Monitoring

Equipment	Model
Global Positioning Device	GARMIN eTrex 10
Water Depth Gauge	Speedtech Instruments SM-5
Water Sampling Equipment	Wildlife Supply Co Kemmerer 1520
Salinity, DO, Temperature Measuring Meter	DO and Salinity Meter (Pro 2030)
Current Velocity and Direction	Global Water FP111
Turbidity Meter	HACH 2100Q

3.3.2 Monitoring Frequency and Timing

Impact Monitoring at C1, E7, E8, E9, F1, G1, G2, G3, S1, S2, and S3 (i.e. eleven (11) stations) will commence when the cable installation barge works are within Zone A. The sampling works will cease once the cable barge is outside Zone A or no cable laying works are being undertaken.

Similarly, Impact Monitoring at B1, B2, B3, C2, E1, E2, E6, E8, F1, G3, G4, G7, and I1 (i.e. thirteen (13) stations) will commence when cable installation barge works move to within Zone B.

The monitoring works will start at E4, E5, G5, G6 and C3 (i.e. five (5) stations) when the vessel goes into Zone C.

The water quality sampling works will cease once the cable laying works are outside Zones A, B and C or when no cable laying works are being undertaken for the Project.

In-situ data and SS data will be collected at monitoring stations (actual time interval subject to the sampling vessel travelling time among stations) during the cable installation works for each zone.

In-situ data and SS data of each station will be collected at least 4 times (estimated 4-hour sampling intervals to be required for each zone, actual time interval subject to the sampling vessel travelling time among stations) during the cable installation works for each zone within a day. Impact monitoring will be conducted as soon as marine works commence and will be undertaken throughout the Project works, including for route clearance and cable laying operations.

Impact water quality monitoring was conducted between 30 May and 5 June 2016, following the schedule presented in *Annex A*.

3.3.3 Sampling/Testing Protocol

All *in situ* monitoring instruments were checked, calibrated and certified by a laboratory accredited under the Hong Kong Laboratory Accreditation Scheme (HOKLAS) or any other international accreditation scheme before use (see calibration reports in *Annex B*), and subsequently will be re-calibrated at-monthly intervals throughout all stages of the water quality monitoring. Responses of sensors and electrodes were checked with certified standard solutions before each use.

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. Sufficient stocks of spare parts were maintained for replacements when necessary. Backup monitoring equipment was made available.

Water samples for SS measurements were collected in high density polythene bottles, packed in ice (cooled to 4° C without being frozen), and delivered to a HOKLAS laboratory as soon as possible after collection.

At each measurement/ sampling depth, two (2) consecutive *in-situ* measurements (DO concentration and saturation, temperature, turbidity, and salinity) and two water samples for SS were taken for lab analysis.

3.3.4 Laboratory Analysis

All laboratory work was carried out in a HOKLAS accredited laboratory. Water samples of about 1,000 mL were collected at the monitoring and control stations for carrying out the laboratory determinations. The determination work started within the next working day after collection of the water samples. The SS laboratory measurements were provided within two (2) days of the sampling event (48 hours). The analyses followed the standard methods as described in APHA Standard Methods for the *Examination of Water and Wastewater*, 19th Edition, unless otherwise specified (APHA 2540D for SS).

The QA/QC details were in accordance with requirements of HOKLAS or another internationally accredited scheme (*Annex C*)

3.3.5 Sampling Depths & Replication

Each station was sampled and measurements/ water samples were taken at three depths, namely, 1 m below water surface, mid-depth and 1 m above sea bed, except where the water depth was less than 6 m, in which case the mid-depth station was omitted. For stations where the water is less than 3 m deep, only the mid-depth sample was taken.

For *in situ* measurements, duplicate readings were made at each water depth at each station. Duplicate water samples were collected at each water depth at each station.

3.4 ACTION AND LIMIT LEVELS

The Action and Limit levels which were established based on the results of baseline water quality monitoring are presented in *Table 3.3 to Table 3.5*.

Table 3.3 Action and Limit Levels for Water Quality in Zone A

Parameter	Action Level	Limit Level
SS in mg/L (Depth-averaged) [a] [c]	95%-ile of baseline data (3.37 mg/L), or	99%-ile of baseline data (3.49 mg/L), and
	120% of the corresponding data from respective control station at the same tide of the same day	130% of the corresponding data from respective control station at the same tide of the same day
DO in mg/L [b]	Surface and Middle 5%-ile of baseline data for surface and middle layer (7.00 mg/L)	Surface and Middle 5 mg/L [d] [e] or 1%-ile of baseline for surface and middle layer (6.71 mg/L)
	Bottom 5%-ile of baseline data for bottom layers (6.99 mg/L)	Bottom 2 mg/L [d] [e] or 1%-ile of baseline data for bottom layer (6.91 mg/L)
Turbidity in NTU (Depth-averaged) [c]	95%-ile of baseline data (2.86 NTU), or	99%-ile of baseline data (3.06 NTU), and
	120% of the corresponding data from respective control station at the same tide of the same day	130% of the corresponding data from respective control station at the same tide of the same day

Notes:

a. "Depth-averaged" is calculated by taking the arithmetic means of reading of all sampled depths.
b. For DO, non-compliance of the water quality limits occurs when the monitoring result is lower than the limits. These levels are for both FCZ and non-FCZ.
c. For SS and turbidity, non-compliance of the water quality limits occurs when monitoring result is higher than the limits.
d. Set Limit Level for DO was derived from the Water Quality Objectives (WQO) for Junk Bay, Eastern Buffer, and Mirs Bay Water Control Zones under the Water Pollution Control Ordinance (WPCO) Chapters 358L, 358Y, and 358I respectively.
e. Higher value is selected in assessing the exceedances of Limit Levels.

Table 3.4 Action and Limit Levels for Water Quality in Zone B

Parameter	Action Level	Limit Level
SS in mg/L (Depth-averaged) [a] [c]	95%-ile of baseline data (3.33 mg/L), or	99%-ile of baseline data (3.39 mg/L), and
	120% of the corresponding data from respective control station at the same tide of the same day	130% of the corresponding data from respective control station at the same tide of the same day
DO in mg/L [b]	Surface and Middle 5%-ile of baseline data for surface and middle layer (7.49 mg/L)	Surface and Middle 5 mg/L [d] [e] or 1%-ile of baseline for surface and middle layer (7.41 mg/L)
	Bottom 5%-ile of baseline data for bottom layers (7.26 mg/L)	Bottom 2 mg/L [d] [e] or 1%-ile of baseline data for bottom layer (7.01 mg/L)
Turbidity in NTU (Depth-averaged) [c]	95%-ile of baseline data (2.67 NTU), or	99%-ile of baseline data (2.79 NTU), and
	120% of the corresponding data from respective control station at the same tide of the same day	130% of the corresponding data from respective control station at the same tide of the same day

Notes:

a. "Depth-averaged" is calculated by taking the arithmetic means of reading of all sampled depths.
b. For DO, non-compliance of the water quality limits occurs when the monitoring result is lower than the limits. These levels are for both FCZ and non-FCZ.
c. For SS and turbidity, non-compliance of the water quality limits occurs when monitoring result is higher than the limits.
d. Set Limit Level for DO was derived from the *Water Quality Objectives* (WQO) *for Junk Bay, Eastern Buffer, and Mirs Bay Water Control Zones* under the *Water Pollution Control Ordinance* (WPCO) Chapters 358L, 358Y, and 358I respectively.
e. Higher value is selected in assessing the exceedances of Limit Levels.

Table 3.5 Action and Limit Levels for Water Quality in Zone C

Parameter	Action Level	Limit Level
SS in mg/L (Depth-averaged) [a] [c]	95%-ile of baseline data (3.37 mg/L), or	99%-ile of baseline data (3.87 mg/L), and
	120% of the corresponding data from respective control station at the same tide of the same day	130% of the corresponding data from respective control station at the same tide of the same day
DO in mg/L [b]	Surface and Middle 5%-ile of baseline data for surface and middle layer (8.33 mg/L)	Surface and Middle 5 mg/L [d] [e] or 1%-ile of baseline for surface and middle layer (8.22 mg/L)
	Bottom 5%-ile of baseline data for bottom layers (8.23 mg/L)	Bottom 2 mg/L [d] [e] or 1%-ile of baseline data for bottom layer (8.15 mg/L)
Turbidity in NTU (Depth-averaged) [c]	95%-ile of baseline data (2.75 NTU), or	99%-ile of baseline data (3.20 NTU), and
	120% of the corresponding data from respective control station at the same tide of the same day	130% of the corresponding data from respective control station at the same tide of the same day

Notes:

a. "Depth-averaged" is calculated by taking the arithmetic means of reading of all sampled depths.
b. For DO, non-compliance of the water quality limits occurs when the monitoring result is lower than the limits. These levels are for both FCZ and non-FCZ.
c. For SS and turbidity, non-compliance of the water quality limits occurs when monitoring result is higher than the limits.
d. Set Limit Level for DO was derived from the *Water Quality Objectives* (WQO) *for Junk Bay, Eastern Buffer, and Mirs Bay Water Control Zones* under the *Water Pollution Control Ordinance* (WPCO) Chapters 358L, 358Y, and 358I respectively.
e. Higher value is selected in assessing the exceedances of Limit Levels.

3.5 EVENT AND ACTION PLAN

The Event and Action Plan for water quality monitoring which was stipulated in the *EM&A Manual* is presented in *Table 3.6*.

Table 3.6 Event Action Plan for Water Quality

Event	Contractor
Action Level Exceedance	**Step 1** - repeat sampling event. **Step 2** - Inform EPD and AFCD and confirm notification of the noncompliance in writing; **Step 3** - discuss with cable installation contractor the most appropriate method of reducing suspended solids during cable installation (e.g. reduce cable laying speed/volume of water used during installation. **Step 4** - repeat measurements after implementation of mitigation for confirmation of compliance. **Step 5** - if non-compliance continues, increase measures in Step 3 and repeat measurements in Step 3. If non-compliance occurs a third time, suspend cable laying operations.
Limit Level Exceedance	Undertake **Steps 1-4** immediately, if further non-compliance continues at the Limit Level, suspend cable laying operations until an effective solution is identified.

Water Quality Monitoring Arrangement

Four (4) rounds of impact monitoring were carried out in Zones B and C on 30 May 2016 following the cable laying works.

Two (2) rounds of repeated (*ad hoc*) water quality measurements were obtained in Zone B on 31 May 2016 and as well as in Zone C on 1 June 2016, according to *the Event Action Plan for Water Quality* in the *EM&A Manual* following Notifications of Exceedances (NOEs) issued for 28 May 2016 (Zone B) and 30 May 2016 (Zones B and C).

Although Post Lay Inspection & Burial (PLIB) works were initially scheduled to commence in Zone B on 2 June 2016, a last minute delay in works activities outside of Hong Kong waters postponed commencement to the following day. Therefore Project works did not take place on 2 June 2016 and no PLIB works were conducted although three (3) rounds of monitoring were conducted in Zone B.

Following the commencement of PLIB works in Zone B on 3 June, four (4) rounds of impact monitoring were conducted. According to the PLIB works progress, four (4) rounds of impact monitoring were carried out in Zone B on 4 June 2016 and in Zone C on 5 June 2016 respectively.

Water Quality Monitoring Results

The results from the monitoring for water quality impacts between 30 May and 5 June 2016, and their graphical presentations are included in *Annex D*. As shown by *Figure D1* to *D9* of *Annex D*, the impact monitoring results of water quality (e.g. DO, turbidity and SS) in Zones B and C were generally similar among the stations in the monitoring week from 30 May and 5 June 2016. Water quality in Zones B and C was also recorded similar throughout the monitoring events in this week. Neither a sudden drop in dissolved oxygen concentrations nor a sharp increase in turbidity levels and SS levels were observed on each monitoring day (i.e. 30 and 31 May, 1, 2, 3, 4 and 5 June 2016). Despite the stable water quality in Zones B and C during the *ad hoc* and impact monitoring periods from 30 May and 5 June 2016, exceedances of the Action and Limit Levels were recorded on each monitoring day (i.e. 30 and 31 May, 1, 2, 3, 4 and 5 June 2016). It is important to note that although exceedances were recorded on 31 May, 1 and 2 June 2016, no Project works were undertaken in water quality monitoring zones in these days.

Notifications of Exceedance

NOE was issued for each monitoring day (i.e. 30 and 31 May, 1, 2, 3, 4 and 5 June 2016) in this reporting week. A summary of stations where exceedances were recorded is presented in *Table* 4.1. Details for the exceedances, e.g. location and parameters with exceedances, are presented in *Annex E*.

Table 4.1 Summary of Exceedances Occurred during the Reporting Week from 30 May to 2 June 2016

Date	Surface DO		Middle DO		Bottom DO		Depth-averaged Turbidity		Depth-averaged SS	
	Action Level	Limit Level	Action Level	Limit Level	Action Level	Limit Level	Action Level	Limit Level	Action Level	Limit Level
30 May 2016	**Zone B** B3, E2, E6, E8, F1 and I1	**Zone B** B3, E1, E8, I1 **Zone C** E4 and E5	**Zone B** B1, B2, E1, E6, E8 and F1	**Zone B** B1, B2, B3, E1, E2, E6, E8 and I1 **Zone C** E4 and E5	**Zone B** B1 and E8	**Zone C** E4 and E5	**Zone B** B2, E1, E2, E6, E8 and F1	**Zone B** E8	**Zone B** E2, E6 and E8	
31 May 2016	**Zone B** B2, E1, E8, F1 and I1	**Zone B** B1 and E2	**Zone B** B1, B2, B3, E6 and I1	**Zone B** B1, B2, B3, E2, E8, F1 and I1	**Zone B** B1, B2, B3, E2, E6, E8, F1 and I1		**Zone B** B1, B2, B3, E1, E2, E6, E8, F1 and I1		**Zone B** B1, B2, B3, E1, E2, E8, F1 and I1	
1 June 2016	**Zone C** E4	**Zone C** E4 and E5		**Zone C** E4 and E5		**Zone C** E4 and E5				
2 June 2016	**Zone B** E2 and F1	**Zone B** B1, B2, B3, E1 and I1	**Zone B** B2, B3 and E8	**Zone B** B1, B2, B3, E1, E2, E6, F1 and I1	**Zone B** B2, B3	**Zone B** B1, B2, B3 and I1	**Zone B** B3, E1, E2, E6, E8, F1 and I1		**Zone B** B3, E6, E8, F1 and I1	
3 June 2016	**Zone B** B2, B3, E6 and F1	**Zone B** F1 and I1	**Zone B** B1, B3, E1, E2, E6 and I1	**Zone B** B2, B3, E6, E8, F1 and I1	**Zone B** B2, B3, E1, E2, E6, F1 and I1	**Zone B** F1 and I1	**Zone B** B1, B3, E1, E2, E6, E8, F1 and I1		**Zone B** B3, E1, E2, E6, E8, F1 and I1	
4 June 2016	**Zone B** F1	**Zone B** F1 and I1	**Zone B** B1, B2, E1 and E8	**Zone B** B2, E8, F1 and I1	**Zone B** F1	**Zone B** F1 and I1	**Zone B** B3, E2, F1 and I1		**Zone B** F1 and I1	
5 June 2016		**Zone C** E4 and E5		**Zone C** E4 and E5		**Zone C** E4 and E5	**Zone C** E5			

Ad hoc monitoring was arranged following the issued NOEs. The relationship between the issued NOEs and corresponding *ad hoc* monitoring are summarized in *Table 4.2*.

Table 4.2 Relationship between NOEs and Repeated (Ad hoc) Monitoring

Date with NOEs	*Zones with NOEs*	*Repeated (Ad hoc) monitoring following NOEs*	*Remark*
30 May 2016	Zone B and C	Zone B on 31 May 2016; Zone C on 1 June 2016.	As per the *EM&A Manual*, two (2) rounds of repeated water quality monitoring were arranged in Zone B on 31 May 2016 and in Zone C on 1 June 2016 respectively.
31 May 2016	Zone B	-	*Ad hoc* monitoring was conducted on 31 May 2016 related to the NOE of 30 May 2016. No Project works were carried on the same day.
1 June 2016	Zone C	-	*Ad hoc* monitoring was conducted on 1 June 2016 related to the NOE of 30 May 2016. No Project works were carried on the same day.
2 June 2016	Zone B	-	PLIB works were initially scheduled to commence in Zone B on 2 June 2016, however a last minute delay in works activities outside of Hong Kong waters postponed commencement to the following day. Therefore Project works did not take place on 2 June 2016 and no PLIB works were conducted. As such, no related *ad hoc* monitoring was required.
3 June 2016	Zone B	Zone B on 4 June 2016	PLIB activities continued in Zone B on 4 June 2016. Therefore, four rounds of impact monitoring in Zones B were carried out, addressing the requirements of the EM&A Manual, i.e. for at least two (2) rounds of water quality monitoring to be repeated in Zone B as a result of expected NOE in Zone B on 3 June 2016 given recent water quality characteristics.
4 June 2016	Zone B	Zone B on 6 June 2016	As per the *EM&A Manual*, two (2) rounds of repeated water quality monitoring are required and arranged on 6 June 2016 in Zone B, related to the expected NOEs on 4 June 2016.
5 June	Zone C	Zone C on 7 June 2016	As per the *EM&A Manual*, two (2) rounds of repeated water quality monitoring are required and arranged on 7 June 2016 in Zone C related to expected NOE in Zone C on 5 June 2016 given recent water quality characteristics.

In summary, the exceedances of Action and Limit Levels are considered not to be caused by cable laying and PLIB works but a reflection of natural background fluctuation. The detailed reasoning for such conclusion is also

provided in *Annex E* for monitoring day (i.e. 30 and 31 May, 1, 2, 3, 4 and 5 June 2016) with exceedance.

5 ENVIRONMENTAL NON-CONFORMANCES

5.1 SUMMARY OF ENVIRONMENTAL EXCEEDANCE

Exceedances of DO (all depths), depth-averaged turbidity and SS in Action Level, and DO (all depths) and depth-averaged turbidity in Limit Level were recorded during the monitoring period from 30 May to 5 June 2016 (i.e. 30 and 31 May, 1, 2, 3, 4 and 5 June 2016); however the exceedances were not considered to be caused by the cable laying works but reflected reflection of the natural background fluctuation during this week.

5.2 SUMMARY OF ENVIRONMENTAL NON-COMPLIANCE

No non-compliance events were recorded during the reporting week.

5.3 SUMMARY OF ENVIRONMENTAL COMPLAINT

No complaints were received during the reporting period.

5.4 SUMMARY OF ENVIRONMENTAL SUMMONS AND PROSECUTION

No summons or prosecution on environmental matters were received during the reporting week.

6 FUTURE KEY ISSUES

6.1 KEY ISSUES FOR THE COMING WEEK

In water quality monitoring Zones A to C, all marine works which have the potential to disturb seabed are expect to be completed on 6 June 2016. Only cable testing and commissioning works remain.

7 CONCLUSIONS

This *Third Weekly Impact Water Quality Monitoring Report* presents the results and findings of water quality impact monitoring undertaken during the week from 30 May to 5 June 2016 in accordance with the *EM&A Manual* and the requirements under Environmental Permit (*EP - 485/2014*) for the Project.

The impact monitoring results for water quality (e.g. DO, turbidity and SS) in Zones B and C were similar among the stations in the monitoring week from 30 May to 5 June 2016. Water quality in Zones B and C was also similar throughout the monitoring events in this week. Neither a sudden drop in dissolved oxygen concentrations nor a sharp increase in turbidity levels and suspended solids levels were observed on each monitoring day. In general, the overall water quality at the impact stations was found to be similar to that at the control stations.

Exceedances of DO (all depth), depth-averaged turbidity and SS in Action Level, and DO (all depths) and depth-averaged turbidity in Limit Level were recorded during the monitoring period from 30 May to 5 June 2016; however these exceedances were not considered to be caused by the cable laying and PLIB works but reflected reflection of the natural background fluctuation during this monitoring week.

It is concluded that there was no deterioration of water quality during the reporting week and hence the effect of the Project cable laying works and PLIB on water quality is considered to be negligible over this reporting week.

Annex A

Impact Water Quality Monitoring Schedule

Asia Pacific Gateway (APG) - Tseung Kwan O
Impact Marine Water Quality Monitoring (WQM) Schedule

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
15-May	16-May	17-May	18-May	19-May	20-May	21-May
		Impact WQM 11:00 to 15:00 (A) 15:00 to 19:00 (A) 19:00 to 23:00 (A)	**Impact WQM** 07:00 to 11:00 (A) 11:00 to 15:00 (A) 15:00 to 19:00 (A) 19:00 to 23:00 (B)	**Impact WQM** 07:00 to 11:00 (B) 11:00 to 15:00 (B) 15:00 to 19:00 (B) 19:00 to 23:00 (B)	**Impact WQM** 07:00 to 11:00 (B) 11:00 to 15:00 (C)	***Ad Hoc* WQM** 07:00 to 11:00 (A) 11:00 to 15:00 (B) 15:00 to 19:00 (A) 19:00 to 23:00 (B)
22-May	23-May	24-May	25-May	26-May	27-May	28-May
		***Ad Hoc* WQM** 11:00 to 15:00 (C) 15:00 to 19:00 (C)		**Impact WQM** 07:00 to 11:00 (A) 11:00 to 15:00 (A) 15:00 to 19:00 (A) 19:00 to 23:00 (A)	**Impact WQM** 15:00 to 19:00 (A) 19:00 to 23:00 (A)	**Impact WQM** 07:00 to 11:00 (A,B) 11:00 to 15:00 (A,B) 15:00 to 19:00 (A,B) 19:00 to 23:00 (A,B)
29-May	30-May	31-May	1-Jun	2-Jun	3-Jun	4-Jun
***Ad Hoc* WQM** 11:00 to 15:00 (A) 15:00 to 19:00 (A)	**Impact WQM** 07:00 to 11:00 (B,C) 11:00 to 15:00 (B,C) 15:00 to 19:00 (B,C) 19:00 to 23:00 (B,C)	***Ad Hoc* WQM** 11:00 to 15:00 (B) 19:00 to 23:00 (B)	***Ad Hoc* WQM** 07:00 to 11:00 (C) 11:00 to 15:00 (C)	**Impact WQM** 07:00 to 11:00 (B) 11:00 to 15:00 (B) 15:00 to 19:00 (B)	**Impact WQM** 07:00 to 11:00 (B) 11:00 to 15:00 (B) 15:00 to 19:00 (B) 19:00 to 23:00 (B)	**Impact WQM** 07:00 to 11:00 (B) 11:00 to 15:00 (B) 15:00 to 19:00 (B) 19:00 to 23:00 (B)
5-Jun	6-Jun	7-Jun	8-Jun	9-Jun	10-Jun	11-Jun
Impact WQM 07:00 to 11:00 (C) 11:00 to 15:00 (C) 15:00 to 19:00 (C) 19:00 to 23:00 (C)	***Ad Hoc* WQM** 07:00 to 11:00 (B) 11:00 to 15:00 (B)	***Ad Hoc* WQM** 07:00 to 11:00 (C) 11:00 to 15:00 (C)				

Note:

1. A represents moitoring in Zone A;
2. B represents moitoring in Zone B;
3. C represents moitoring in Zone C;
4. Grey cells indicates monitoring is not conducted yet.

Annex B

Calibration Reports of Multi-parameter Sensor

東業德勤測試顧問有限公司
ETS-TESTCONSULT LIMITED

Performance Check of Turbidity Meter

Equipment Ref. No. : ET/0505/014 Manufacturer : HACH

Model No. : 2100Q Serial No. : 13110C029448

Date of Calibration : 26/05/2016 Due Date : 25/06/2016

Theoretical Value of Turbidity Standard (NTU)	Measured Value (NTU)	Difference % *
20	20.2	1.00
100	97.6	-2.40
800	778	-2.75

(*) Difference = (Measured Value – Theoretical Value) / Theoretical Value x 100

Acceptance Criteria

Difference : -5 % to 5 %

The turbidity meter complies * / ~~does not comply~~ * with the specified requirements and is deemed acceptable * / ~~unacceptable~~ * for use. Measurements are traceable to national standards.

Prepared by : _____ Checked by : _____

東業德勤測試顧問有限公司
ETS-TESTCONSULT LIMITED

Internal Calibration Report of Dissolved Oxygen Meter

Equipment Ref. No.	:	ET/EW/008/004	Manufacturer	:	YSI
Model No.	:	Pro 2030	Serial No.	:	10F 101978
Date of Calibration	:	26/05/2016	Calibration Due Date	:	25/06/2016

Temperature Verification

Ref. No. of Reference Thermometer : ET/0521/017

Ref. No. of Water Bath : ---

	Temperature (°C)			
Reference Thermometer reading	Measured	19.9	Corrected	19.8
DO Meter reading	Measured	20.0	Difference	-0.2

Standardization of sodium thiosulphate ($Na_2S_2O_3$) solution

Reagent No. of $Na_2S_2O_3$ titrant	CPE/012/4.5/001/13	Reagent No. of 0.025N $K_2Cr_2O_7$	CPE/012/4.4/002/10

	Trial 1	Trial 2
Initial Vol. of $Na_2S_2O_3$ (ml)	0.00	10.20
Final Vol. of $Na_2S_2O_3$ (ml)	10.20	20.50
Vol. of $Na_2S_2O_3$ used (ml)	10.20	10.30
Normality of $Na_2S_2O_3$ solution (N)	0.02451	0.02427
Average Normality (N) of $Na_2S_2O_3$ solution (N)	0.02439	
Acceptance criteria, Deviation	Less than ± 0.001N	

Calculation: Normality of $Na_2S_2O_3$, N = 0.25 / ml $Na_2S_2O_3$ used

Lineality Checking

Determination of dissolved oxygen content by Winkler Titration *

Purging Time (min)	2		5		10	
Trial	1	2	1	2	1	2
Initial Vol. of $Na_2S_2O_3$ (ml)	0.00	10.90	21.90	0.00	6.80	10.50
Final Vol. of $Na_2S_2O_3$ (ml)	10.90	21.90	28.50	6.80	10.50	14.10
Vol. (V) of $Na_2S_2O_3$ used (ml)	10.90	11.00	6.60	6.80	3.70	3.60
Dissolved Oxygen (**DO**), mg/L	7.14	7.20	4.32	4.45	2.42	2.36
Acceptance criteria, Deviation	Less than + 0.3mg/L		Less than + 0.3mg/L		Less than + 0.3mg/L	

Calculation: DO (mg/L) = V x N x 8000/298

Purging time, min	DO meter reading, mg/L			Winkler Titration result *, mg/L			Difference (%) of DO Content
	1	2	Average	1	2	Average	
2	7.42	7.34	7.38	7.14	7.20	7.17	2.89
5	4.56	4.59	4.58	4.32	4.45	4.39	4.24
10	2.35	2.22	2.29	2.42	2.36	2.39	4.27
Linear regression coefficient				0.9987			

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Internal Calibration Report of Dissolved Oxygen Meter

Zero Point Checking

DO meter reading, mg/L	0.00

Salinity Checking

Reagent No. of NaCl (10ppt)	CPE/012/4.7/003/23	Reagent No. of NaCl (30ppt)	CPE/012/4.8/003/23

Determination of dissolved oxygen content by Winkler Titration **

Salinity (ppt)	10		30	
Trial	1	2	1	2
Initial Vol. of $Na_2S_2O_3$ (ml)	0.00	11.40	22.90	32.40
Final Vol. of $Na_2S_2O_3$ (ml)	11.40	22.90	32.40	42.00
Vol. (**V**) of $Na_2S_2O_3$ used (ml)	11.40	11.50	9.50	9.60
Dissolved Oxygen (**DO**), mg/L	7.46	7.53	6.22	6.29
Acceptance criteria, Deviation	Less than + 0.3mg/L		Less than + 0.3mg/L	

Calculation: DO (mg/L) = **V** x **N** x 8000/298

Salinity (ppt)	DO meter reading, mg/L			Winkler Titration result**, mg/L			Difference (%) of DO Content
	1	2	Average	1	2	Average	
10	7.31	7.25	7.28	7.46	7.53	7.50	2.98
30	6.45	6.46	6.46	6.22	6.29	6.26	3.14

Acceptance Criteria

(1) Differenc between temperature readings from temperature sensor of DO probe and reference thermometer : < 0.5 °C
(2) Linear regression coefficient : >0.99
(3) Zero checking: 0.0mg/L
(4) Difference (%) of DO content from the meter reading and by winkler titration : within ± 5%

The equipment complies # / ~~does not comply~~ # with the specified requirements and is deemed acceptable # / ~~unacceptable~~ # for use.

Delete as appropriate

Calibrated by : _____ Approved by : _____

東業德勤測試顧問有限公司
ETS-TESTCONSULT LIMITED

Performance Check of Salinity Meter

Equipment Ref. No. :	ET/EW/008/004	Manufacturer :	YSI
Model No. :	Pro 2030	Serial No. :	10F 101978
Date of Calibration :	26/05/2016	Due Date :	25/06/2016

Ref. No. of Salinity Standard used (30ppt)	S/001/5

Salinity Standard (ppt)	Measured Salinity (ppt)	Difference * (%)
30.0	30.3	1.00

(*) Difference (%) = (Measured Salinity – Salinity Standard value) / Salinity Standard value x 100

Acceptance Criteria

Difference : -10 % to 10 %

The salinity meter complies * / ~~does not comply~~ * with the specified requirements and is deemed acceptable * / ~~unacceptable~~ * for use. Measurements are traceable to national standards.

Checked by : _____ Approved by : _____

Annex C

QA/QC Results for Suspended Solids Testing

QA/QC Results of Laboratory Analysis of Total Suspended Solids

Sampling Date	QC Sample	Sample Duplicate		Sample Spike	
	% Recovery *	Sample ID	% Error #	Sample ID	% Recovery @
5/30/2016 (Zone B)	105.5	B1 S1(0700)	8.00	C2 S2 (0700)	96.1
	102	C2 M1(0700)	0.00	E6 M2 (0700)	97.3
	95.1	E6 B1(0700)	5.88	G3 B2 (0700)	106
	100.4	G4 S1(0700)	6.45	I1 B2 (0700)	97.1
	98.6	B1 S1(1100)	7.69	C2 S2 (1100)	103.0
	98.9	C2 M1(1100)	6.25	E6 M2 (1100)	101.7
	99.9	E6 B1(1100)	3.17	G3 B2 (1100)	100.5
	102.4	G4 S1(1100)	2.99	I1 B2 (1100)	107.9
	102.5	B1 S1(1500)	3.17	C2 S2 (1500)	98.0
	92.8	C2 M1(1500)	3.39	E6 M2 (1500)	105.1
	102.1	E6 B1(1500)	5.56	G3 B2 (1500)	92.6
	99.3	G4 S1(1500)	3.39	I1 B2 (1500)	105.4
	97.2	B1 S1(1900)	3.77	C2 S2 (1900)	99.0
	96.9	C2 M1(1900)	3.08	E6 M2 (1900)	94.8
	99.2	E6 B1(1900)	5.71	G3 B2 (1900)	105
	93.9	G4 S1(1900)	6.90	I1 B2 (1900)	97.1

Note:
(*) % Recovery of QC sample should be between 80% to 120%.
(#) % Error of Sample Duplicate should be between 0% to 10%.
(@) % Recovery of Sample Spike should be between 80% to 120%.
(**) % Error of Sample Duplicate >10% but invalid due to sample results less than MDL.

Sampling Date	QC Sample	Sample Duplicate		Sample Spike	
	% Recovery *	Sample ID	% Error #	Sample ID	% Recovery @
30/05/2016 (Zone C)	93.5	G5-S1(0700)	2.53	E5-S2	103.0
	99.4	E5-M1(0700)	5.56	G6-B2	92.5
	100	G5-S1(1100)	3.17	E5-S2	105.5
	105.7	E5-M1(1100)	3.28	G6-B2	102.2
	99	G5-S1(1500)	5.41	E5-S2	104.5
	102.4	E5-M1(1500)	6.67	G6-B2	106.4
	93.2	G5-S1(1900)	3.08	E5-S2	94.0
	97.6	E5-M1(1900)	0.00	G6-B2	101.1

Note:
(*) % Recovery of QC sample should be between 80% to 120%.
(#) % Error of Sample Duplicate should be between 0% to 10%.
(@) % Recovery of Sample Spike should be between 80% to 120%.
(**) % Error of Sample Duplicate >10% but invalid due to sample results less than MDL.

Sampling Date	QC Sample	Sample Duplicate		Sample Spike	
	% Recovery *	Sample ID	% Error #	Sample ID	% Recovery @
5/31/2016 (Zone B)	92.5	B1 S1(1100)	2.82	C2 S2 (1100)	99.0
	97.3	C2 M1(1100)	2.60	E6 M2 (1100)	104.7
	105.2	E6 B1(1100)	5.26	G3 B2 (1100)	104
	98.4	G4 S1(1100)	2.82	I1 B2 (1100)	93.1
	94.8	B1 S1(1900)	3.64	C2 S2 (1900)	103.5
	103.6	C2 M1(1900)	3.39	E6 M2 (1900)	98.2
	103	E6 B1(1900)	2.90	G3 B2 (1900)	93.6
	96.6	G4 S1(1900)	3.17	I1 B2 (1900)	105.4

Note:
(*) % Recovery of QC sample should be between 80% to 120%.
(#) % Error of Sample Duplicate should be between 0% to 10%.
(@) % Recovery of Sample Spike should be between 80% to 120%.
(**) % Error of Sample Duplicate >10% but invalid due to sample results less than MDL.

QA/QC Results of Laboratory Analysis of Total Suspended Solids

Sampling Date	QC Sample	Sample Duplicate		Sample Spike	
	% Recovery *	Sample ID	% Error #	Sample ID	% Recovery @
01/06/2016 (Zone C)	104.5	G5-S1(0700)	5.88	E5-S2	105.5
	94	E5-M1(0700)	7.69	G6-B2	107
	98.7	G5-S1(1100)	0.00	E5-S2	102.5
	97.3	E5-M1(1100)	3.28	G6-B2	99.5

Note:
(*) % Recovery of QC sample should be between 80% to 120%.
(#) % Error of Sample Duplicate should be between 0% to 10%.
(@) % Recovery of Sample Spike should be between 80% to 120%.
(**) % Error of Sample Duplicate >10% but invalid due to sample results less than MDL.

Sampling Date	QC Sample	Sample Duplicate		Sample Spike	
	% Recovery *	Sample ID	% Error #	Sample ID	% Recovery @
6/2/2016 (Zone B)	94.8	B1 S1(0700)	8.00	C2 S2 (0700)	95.0
	104.8	C2 M1(0700)	2.90	E6 M2 (0700)	105.4
	103.5	E6 B1(0700)	5.71	G3 B2 (0700)	107.3
	95.4	G4 S1(0700)	3.28	I1 B2 (0700)	92.6
	99.8	B1 S1(1100)	0.00	C2 S2 (1100)	92.3
	91.9	C2 M1(1100)	6.06	E6 M2 (1100)	105.3
	97	E6 B1(1100)	0.00	G3 B2 (1100)	103
	101.1	G4 S1(1100)	3.39	I1 B2 (1100)	93.6
	95	B1 S1(1500)	8.33	C2 S2 (1500)	102.8
	96	C2 M1(1500)	2.74	E6 M2 (1500)	98
	105.2	E6 B1(1500)	2.74	G3 B2 (1500)	94.1
	95.8	G4 S1(1500)	2.82	I1 B2 (1500)	98.2
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Note:
(*) % Recovery of QC sample should be between 80% to 120%.
(#) % Error of Sample Duplicate should be between 0% to 10%.
(@) % Recovery of Sample Spike should be between 80% to 120%.
(**) % Error of Sample Duplicate >10% but invalid due to sample results less than MDL.

Sampling Date	QC Sample	Sample Duplicate		Sample Spike	
	% Recovery *	Sample ID	% Error #	Sample ID	% Recovery @
6/3/2016 (Zone B)	107.8	B1 S1(0700)	0.00	C2 S2 (0700)	102.0
	97.4	C2 M1(0700)	6.06	E6 M2 (0700)	98.3
	97.5	E6 B1(0700)	3.17	G3 B2 (0700)	106.9
	104.3	G4 S1(0700)	7.14	I1 B2 (0700)	95.5
	96.4	B1 S1(1100)	3.51	C2 S2 (1100)	98.0
	106.9	C2 M1(1100)	2.90	E6 M2 (1100)	100.8
	106.4	E6 B1(1100)	0.00	G3 B2 (1100)	106.4
	97.5	G4 S1(1100)	3.77	I1 B2 (1100)	105.4
	98.7	E8 S1 (1500)	5.41	C2 S2	100.0
	100.5	C2 M1 (1500)	2.53	E6 M2	92.5
	94.7	E6 B1 (1500)	0.00	B3 B2	102.9
	103.9	I1 (1500)	3.17	B1 B1	106.0
	95.8	E8 S1 (1900)	2.74	C2 S2	99.5
	107	C2 M1 (1900)	5.41	E6 M2	106.1
	107.5	E6 B1 (1900)	0.00	B3 B2	100
	96.1	I1 (1900)	3.39	B1 B1	102.5

Note:
(*) % Recovery of QC sample should be between 80% to 120%.
(#) % Error of Sample Duplicate should be between 0% to 10%.
(@) % Recovery of Sample Spike should be between 80% to 120%.
(**) % Error of Sample Duplicate >10% but invalid due to sample results less than MDL.

QA/QC Results of Laboratory Analysis of Total Suspended Solids

Sampling Date	QC Sample	Sample Duplicate		Sample Spike	
	% Recovery *	Sample ID	% Error #	Sample ID	% Recovery @
6/4/2016 (Zone B)	101.6	B1 S1(0700)	7.69	C2 S2 (0700)	93.6
	106.2	C2 M1(0700)	5.56	E6 M2 (0700)	98.3
	97.9	E6 B1(0700)	0.00	G3 B2 (0700)	105.9
	96	G4 S1(0700)	3.28	I1 B2 (0700)	100.5
	97.8	B1 S1(1100)	0.00	C2 S2 (1100)	92.5
	104.4	C2 M1(1100)	2.99	E6 M2 (1100)	96
	99.1	E6 B1(1100)	3.51	G3 B2 (1100)	93.1
	107.8	G4 S1(1100)	3.64	I1 B2 (1100)	99.5
	100.5	B1 S1(1500)	0.00	C2 S2 (1500)	99.0
	100.5	C2 M1(1500)	0.00	E6 M2 (1500)	95.6
	98.4	E6 B1(1500)	3.64	G3 B2 (1500)	96.5
	106.2	G4 S1(1500)	8.00	I1 B2 (1500)	102.0
	96.5	B1 S1(1900)	8.00	C2 S2 (1900)	106.5
	106.4	C2 M1(1900)	2.99	E6 M2 (1900)	104.6
	96	E6 B1(1900)	6.67	G3 B2 (1900)	95
	98.3	G4 S1(1900)	3.92	I1 B2 (1900)	95.6

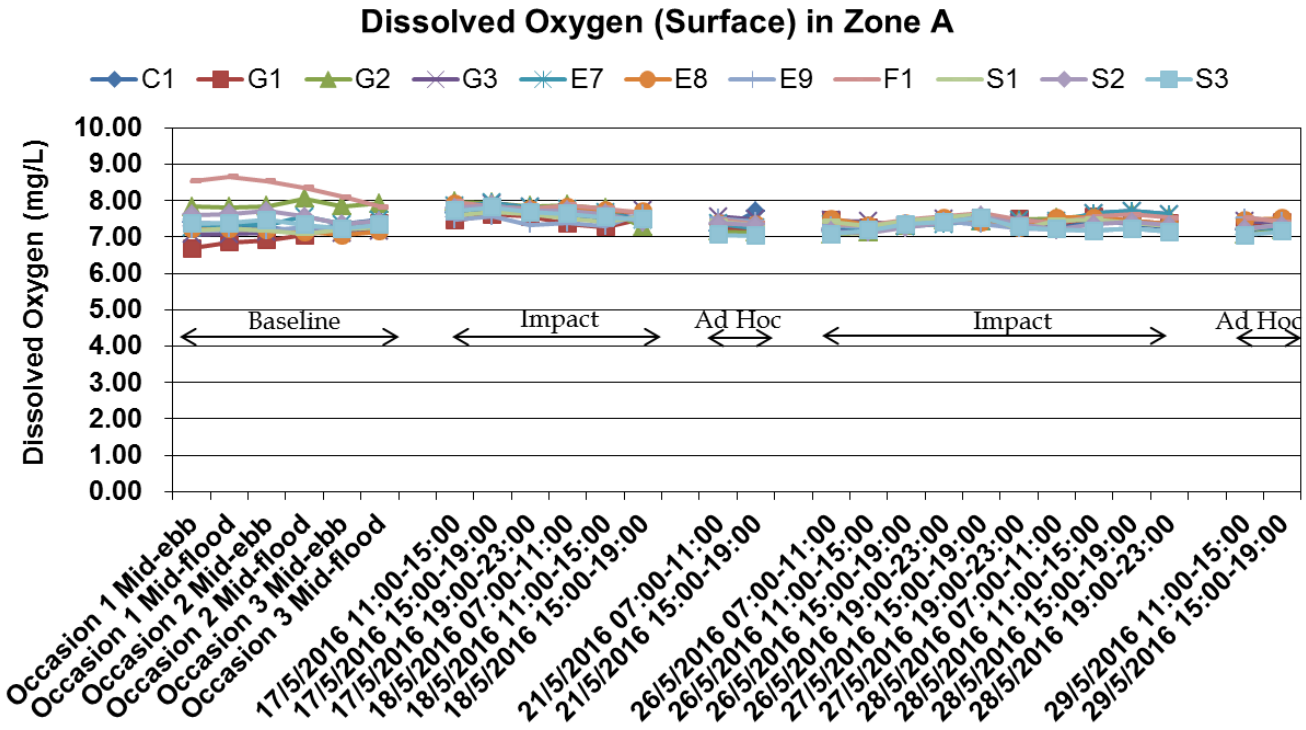
Note:
(*) % Recovery of QC sample should be between 80% to 120%.
(#) % Error of Sample Duplicate should be between 0% to 10%.
(@) % Recovery of Sample Spike should be between 80% to 120%.
(**) % Error of Sample Duplicate >10% but invalid due to sample results less than MDL.

Sampling Date	QC Sample	Sample Duplicate		Sample Spike	
	% Recovery *	Sample ID	% Error #	Sample ID	% Recovery @
06/05/2016 (Zone C)	105.7	G5-S1 (0700)	3.08	E5-S2	100.0
	104	E5-M1 (0700)	3.08	G6-B2	107
	100.5	G5-S1 (1100)	6.06	E5-S2	106.5
	107.7	E5-M1 (1100)	3.28	G6-B2	107.0
	92.1	G5-S1 (1500)	3.64	E5-S2	100.2
	94.5	E5-M1 (1500)	3.77	G6-B2	98.6
	107.3	G5-S1 (1900)	7.14	E5-S2	96.0
	95.2	E5-M1 (1900)	0.00	G6-B2	97.2

Note:
(*) % Recovery of QC sample should be between 80% to 120%.
(#) % Error of Sample Duplicate should be between 0% to 10%.
(@) % Recovery of Sample Spike should be between 80% to 120%.
(**) % Error of Sample Duplicate >10% but invalid due to sample results less than MDL.

Annex D

Water Quality Monitoring Results



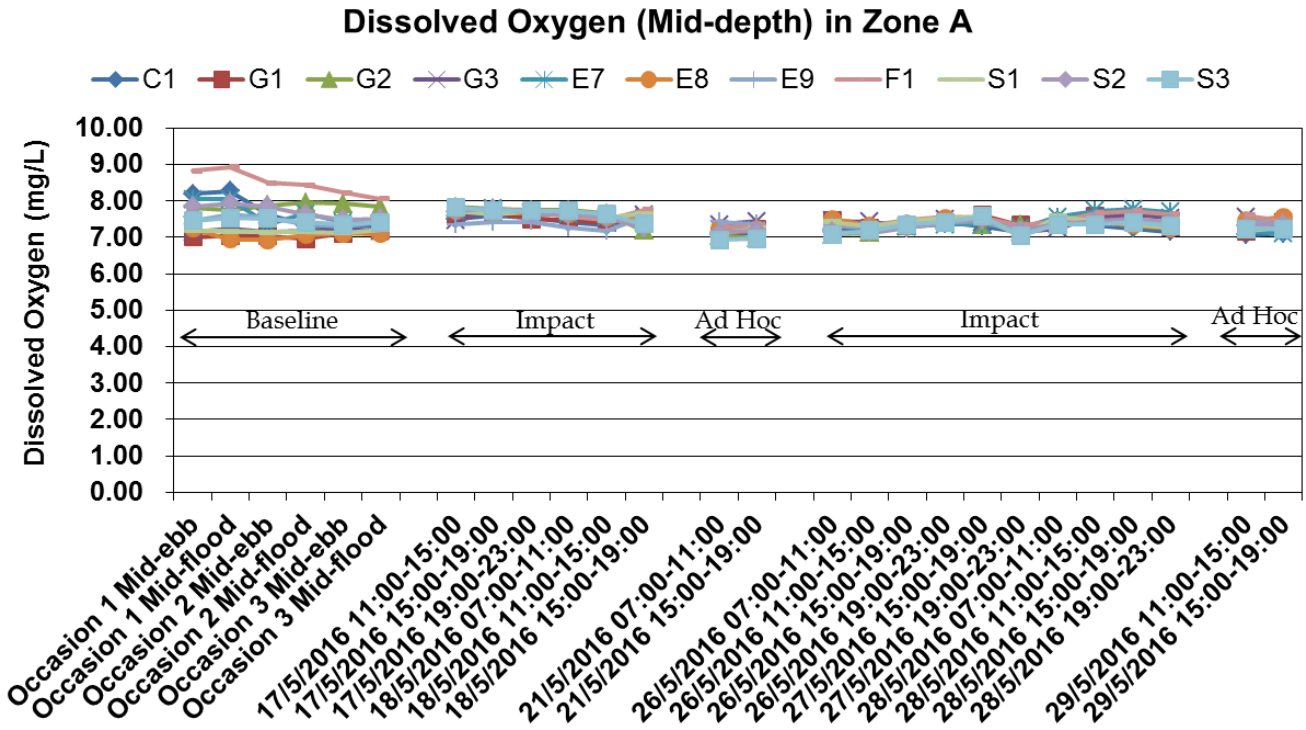
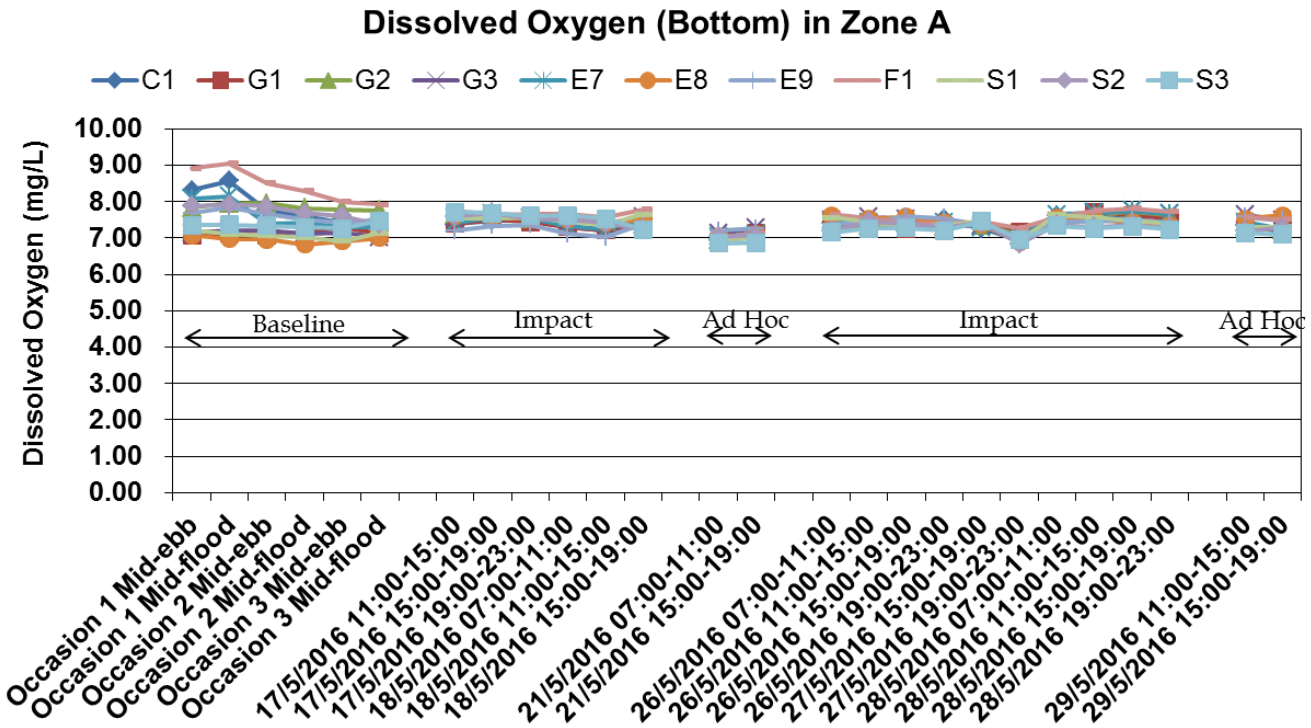


Figure D1 Dissolved oxygen (mg/L) at surface and mid-depth of water column measured during the baseline monitoring and the impact monitoring period from 16 May to 5 June 2016 (Zone A)
(Baseline monitoring in Zone A was conducted on 28 April, 3 May and 5 May 2016 respectively)

ERM



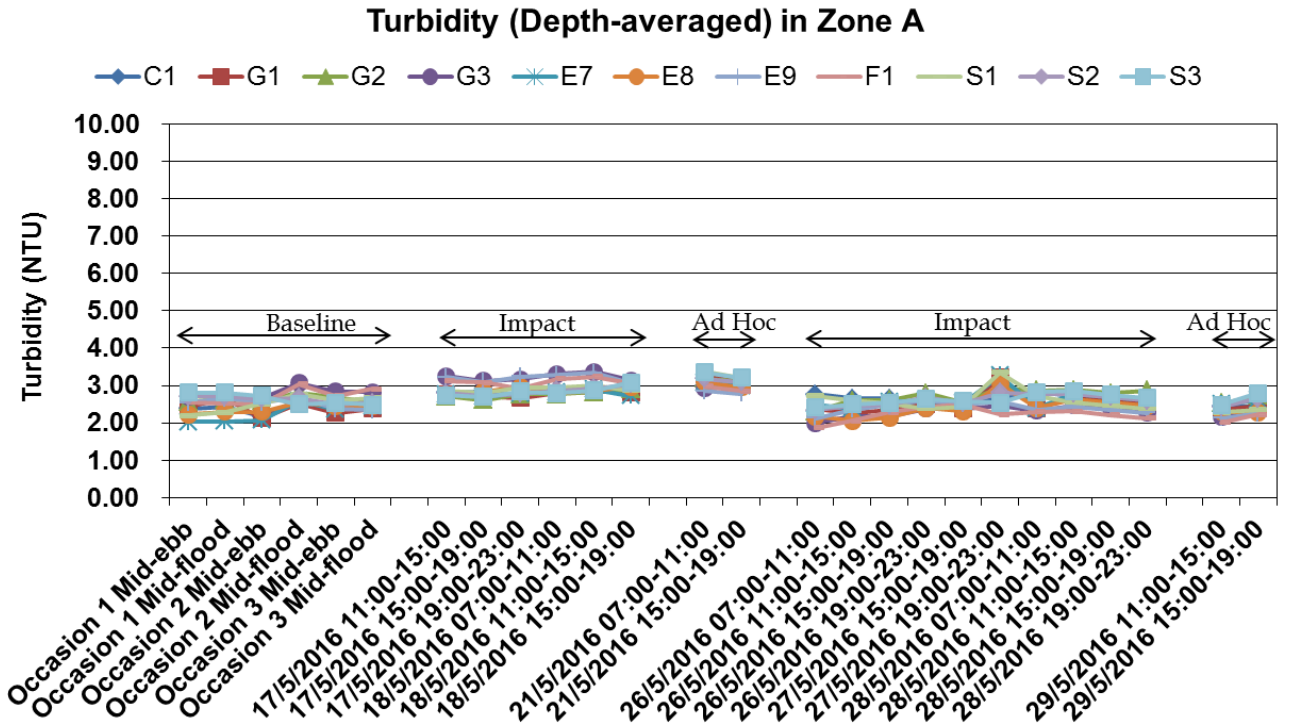


Figure D2 Dissolved oxygen (mg/L) at bottom and depth-averaged turbidity (NTU) of water column measured during the baseline monitoring and the impact monitoring period from 16 May to 5 June 2016 (Zone A)
(Baseline monitoring in Zone A was conducted on 28 April, 3 May and 5 May 2016 respectively)

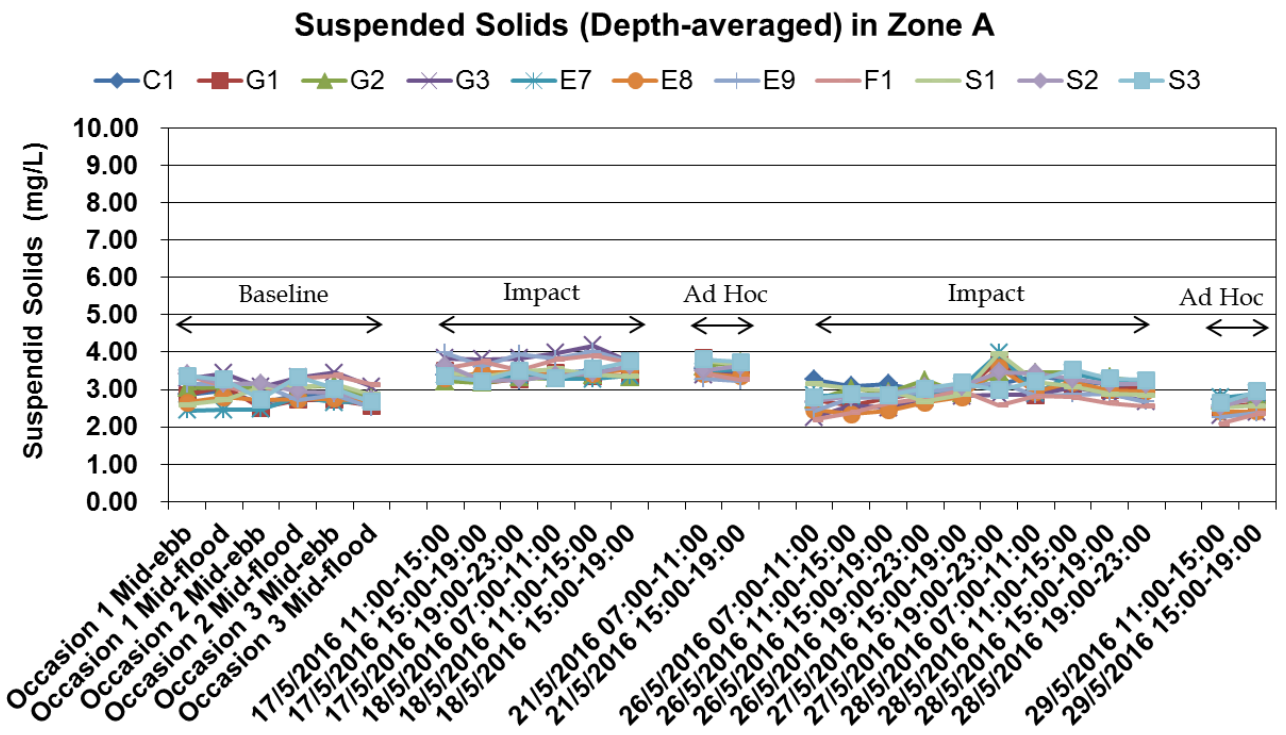


Figure D3 Depth-averaged suspended solids (mg/L) of water column measured during the baseline monitoring and the impact monitoring period from 16 May to 5 June 2016 (Zone A)
(Baseline monitoring in Zone A was conducted on 28 April, 3 May and 5 May 2016 respectively)

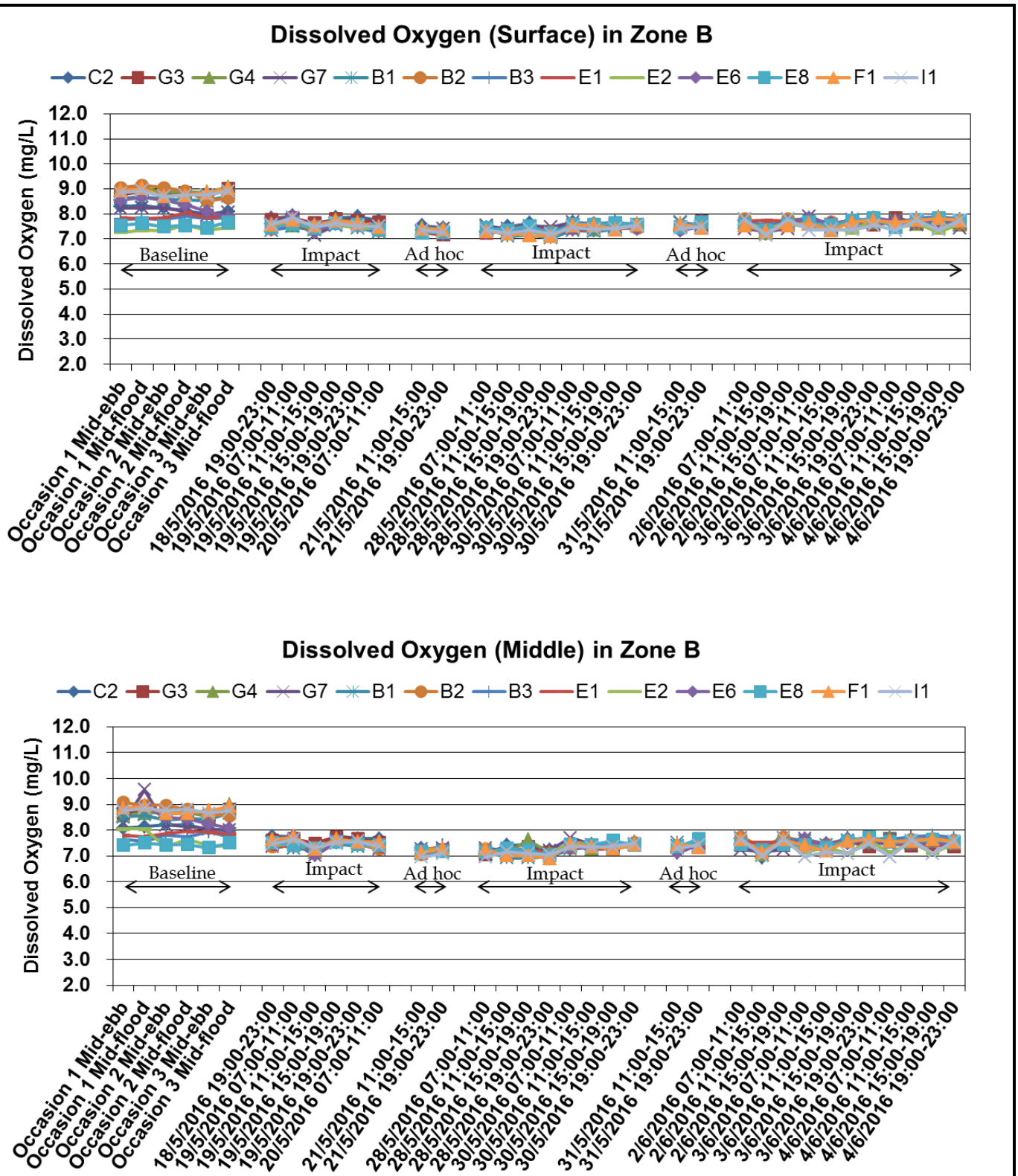


Figure D4 Dissolved oxygen (mg/L) at surface and mid-depth of water column measured during the baseline monitoring and the impact monitoring period from 16 May to 5 June 2016 (Zone B)
(In Zone B, baseline monitoring was conducted at stations B2, B3, E1, G4, G7 and I1 conducted on 27 April, 29 April and 4 May 2016 respectively, and at stations B1, C2, E2, E6, E8, F1 and G3 on 28 April, 3 May and 5 May 2016 respectively)

ERM

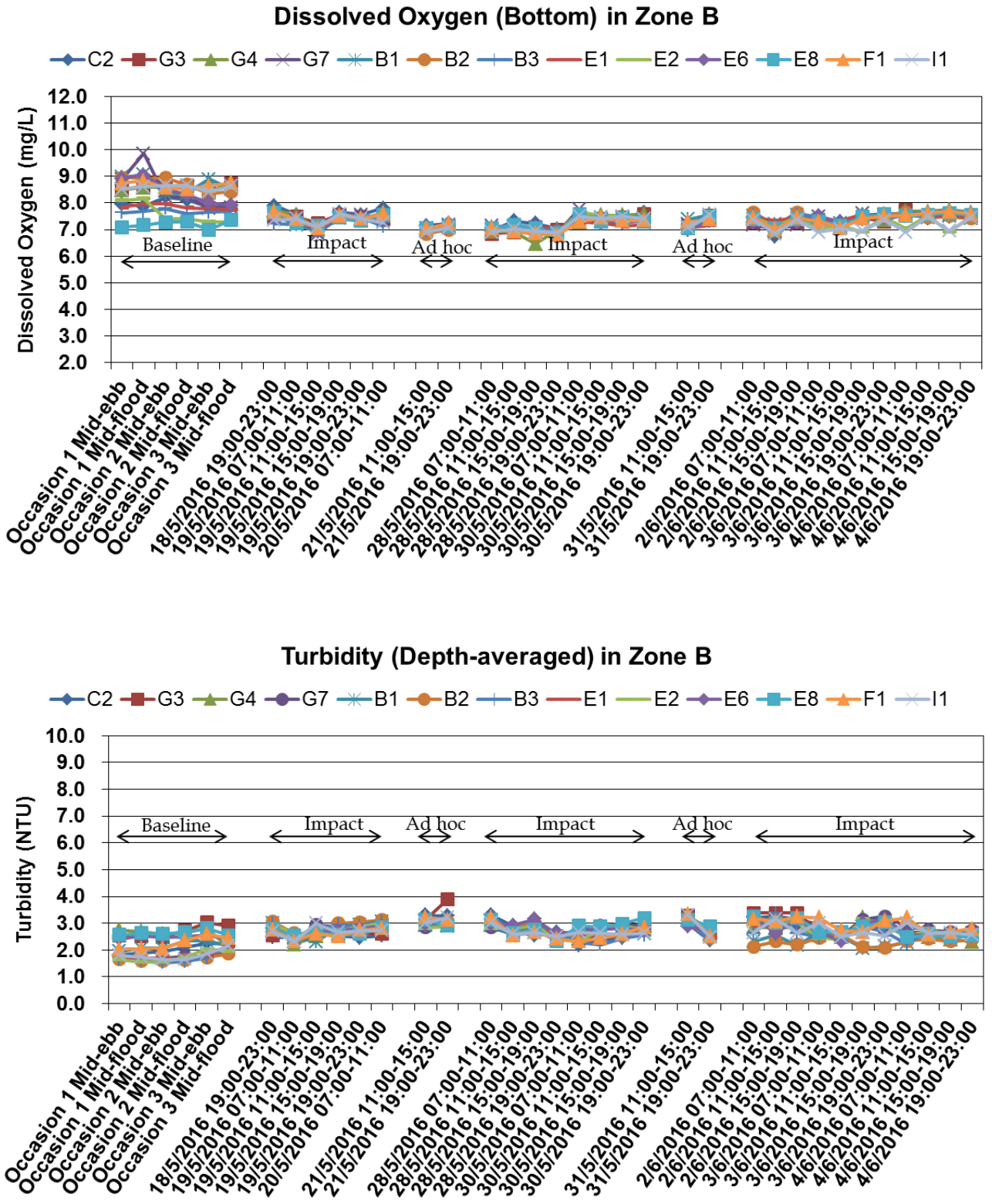


Figure D5 Dissolved oxygen (mg/L) at bottom and depth-averaged turbidity (NTU) of water column measured during the baseline monitoring and the impact monitoring period from 16 May to 5 June 2016 (Zone B)
(In Zone B, baseline monitoring was conducted at stations B2, B3, E1, G4, G7 and I1 conducted on 27 April, 29 April and 4 May 2016 respectively, and at stations B1, C2, E2, E6, E8, F1 and G3 on 28 April, 3 May and 5 May 2016 respectively)

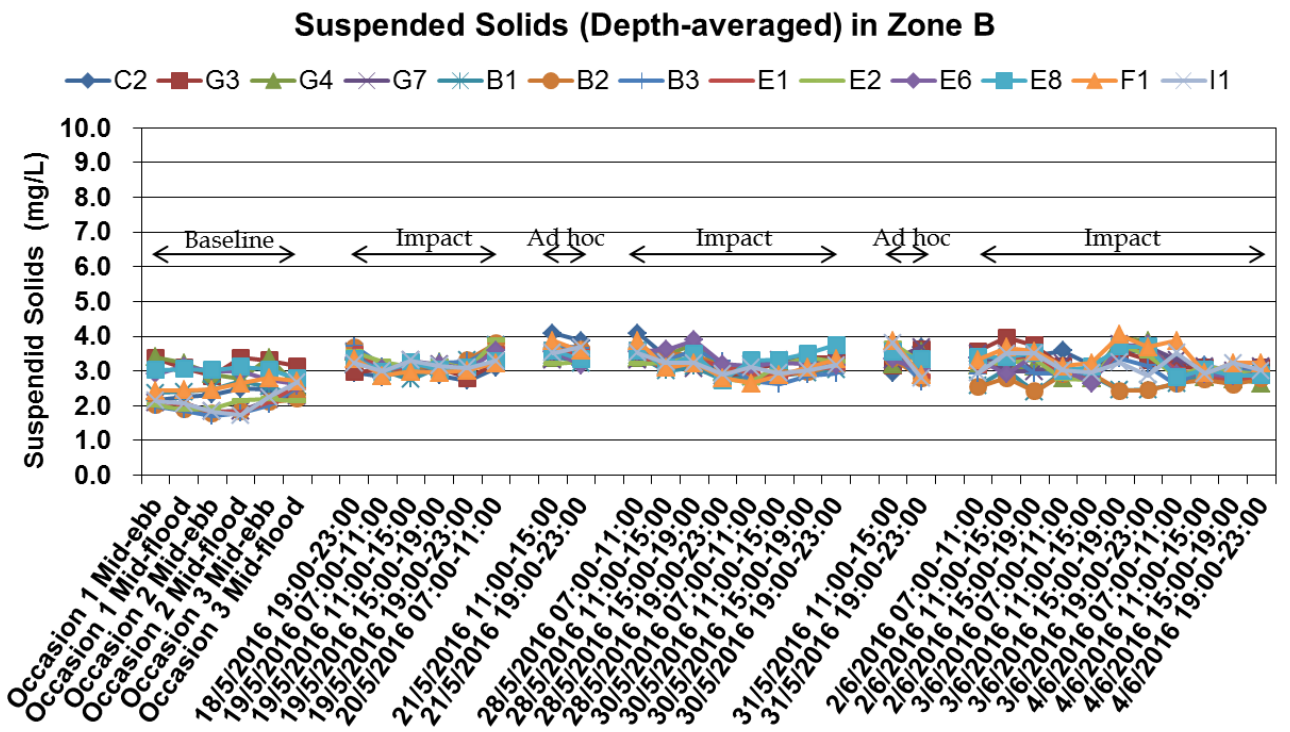
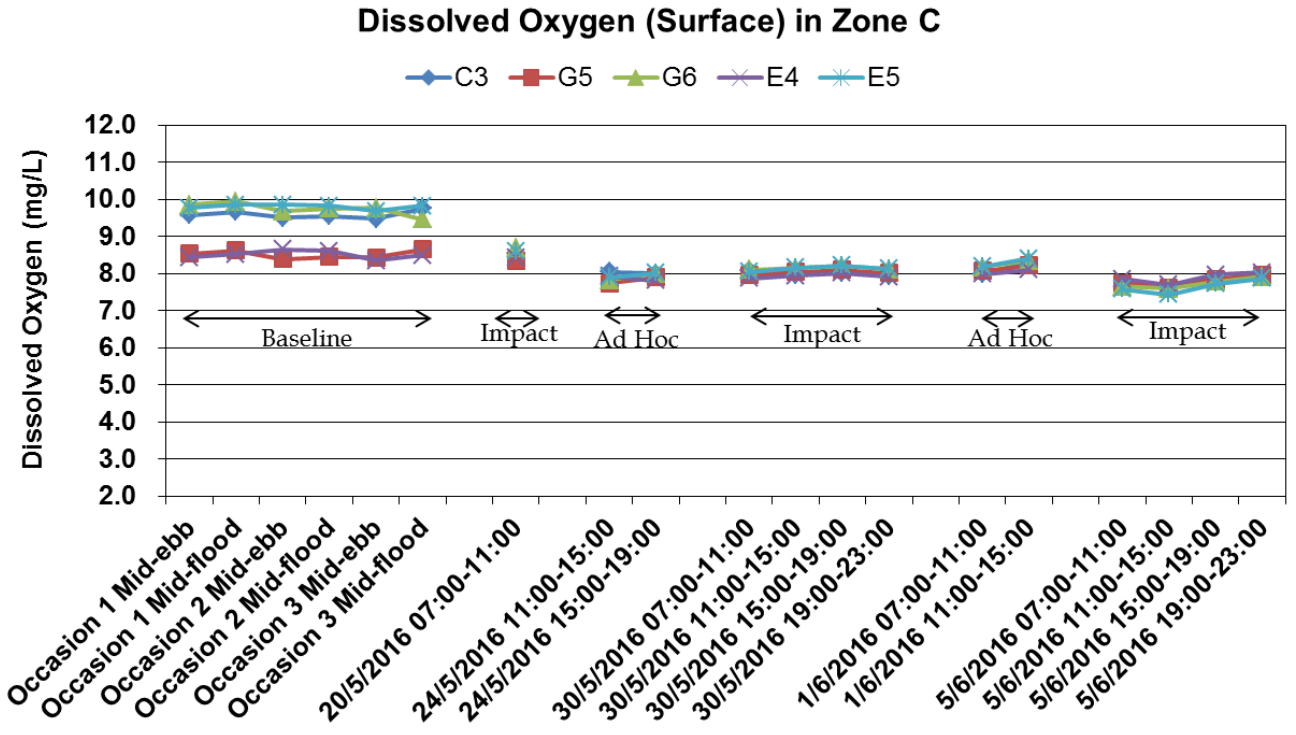


Figure D6 Depth-averaged suspended solids (mg/L) of water column measured during the baseline monitoring and the impact monitoring period from 16 May to 5 June 2016 (Zone B)
(In Zone B, baseline monitoring was conducted at stations B2, B3, E1, G4, G7 and I1 conducted on 27 April, 29 April and 4 May 2016 respectively, and at stations B1, C2, E2, E6, E8, F1 and G3 on 28 April, 3 May and 5 May 2016 respectively)



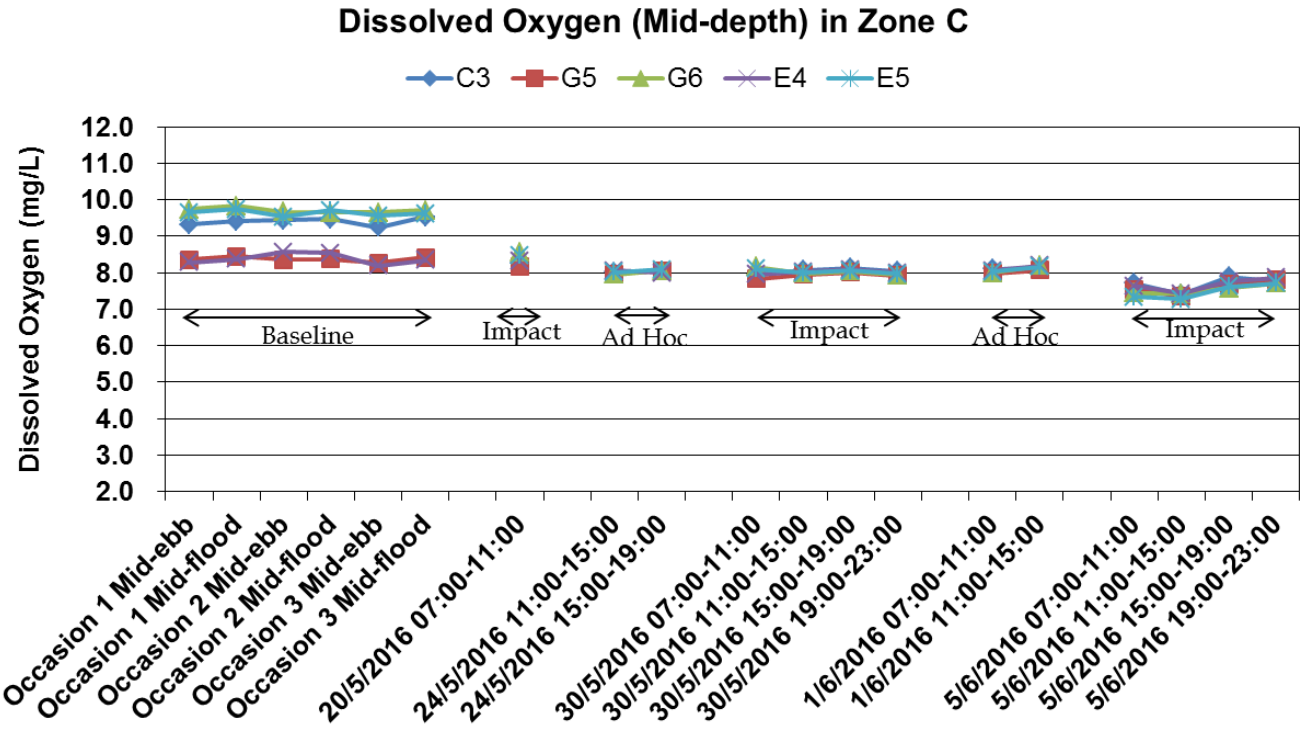


Figure D7 Dissolved oxygen (mg/L) at surface and mid-depth of water column measured during the baseline monitoring and the impact monitoring period from 16 May to 5 June 2016 (Zone C)
(Baseline monitoring in Zone C was conducted on 27 April, 29 April and 4 May 2016 respectively)

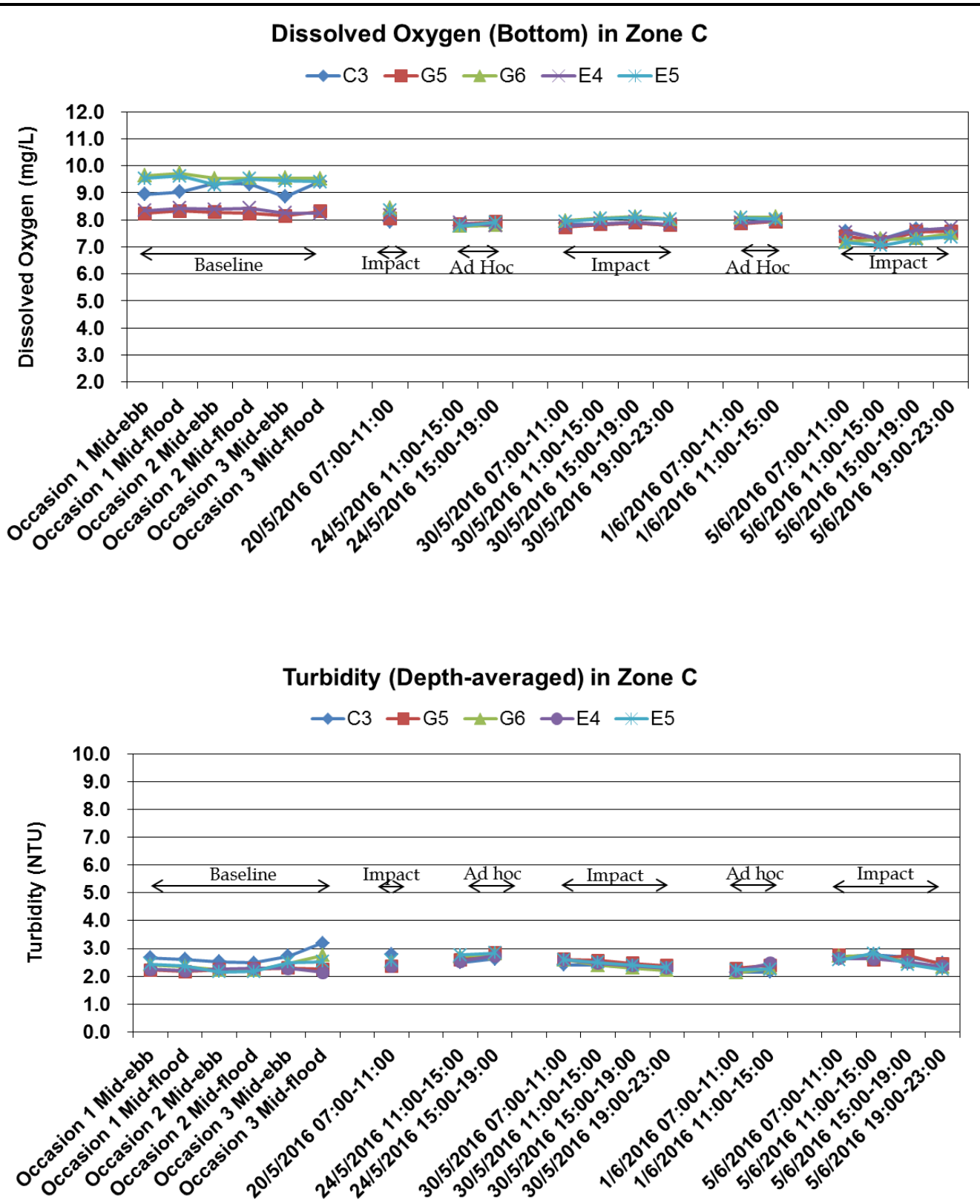


Figure D8 Dissolved oxygen (mg/L) at bottom and depth-averaged turbidity (NTU) of water column measured during the baseline monitoring and the impact monitoring period from 16 May to 5 June 2016 (Zone C)
(Baseline monitoring in Zone C was conducted on 27 April, 29 April and 4 May 2016 respectively)

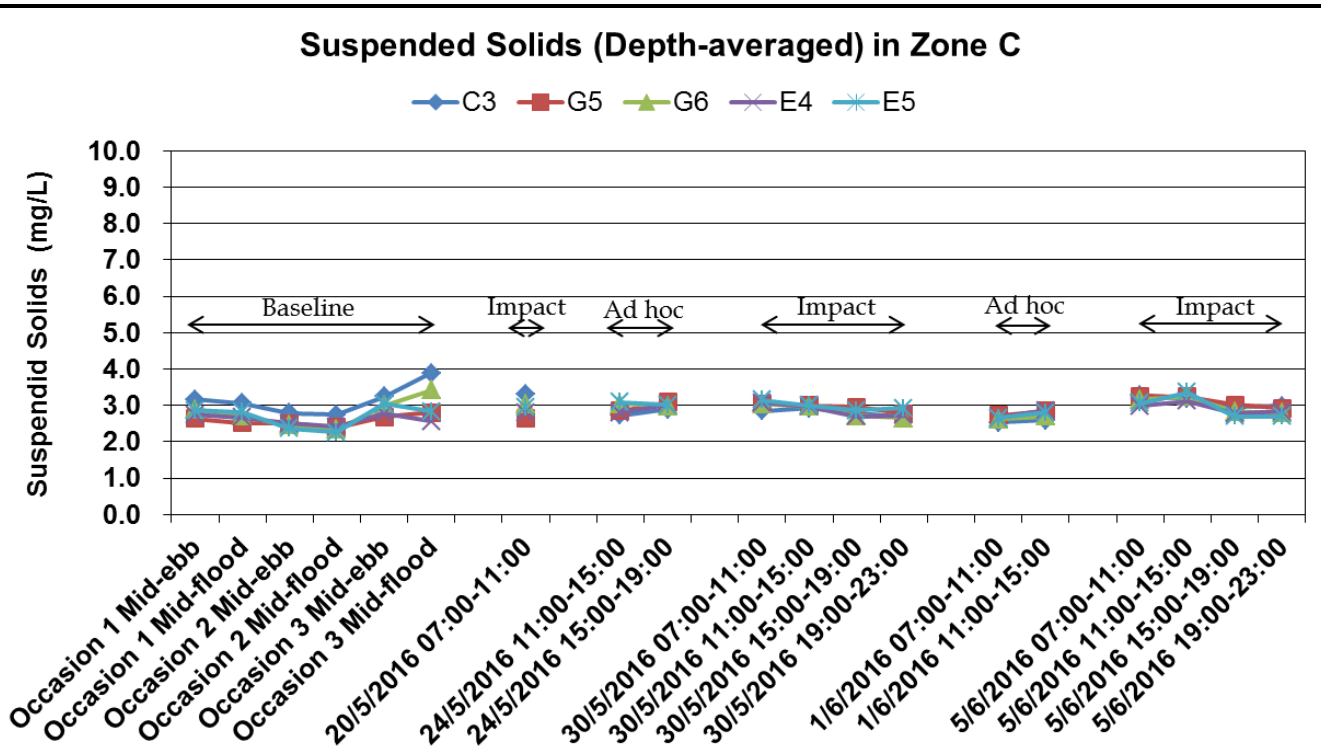


Figure D9 Depth-averaged suspended solids (mg/L) of water column measured during the baseline monitoring and the impact monitoring period from 16 May to 5 June 2016 (Zone C)
(Baseline monitoring in Zone C was conducted on 27 April, 29 April and 4 May 2016 respectively)

Sampling Date : 30-May-16
Sampling Time : 07:00 - 11:00 (1st Round)
Sampling Location : Zone B

Location	Nature	Sampling Time	Water Depth (m)	Current direction	Current speed (ms^{-1})	Monitoring Depth	Temp (°C)		Salinity (ppt)		DO (mg/L)		DO Saturation (%)		Turbidity (NTU)		Suspended Solids (mg/L)		DO	Turbidity (Depth-average)		SS (Depth-average)	
							1	2	1	2	1	2	1	2	1	2	1	2	Average (mg/L)	Average (NTU)	Impact Stations Exceed Control Station C2 (%)	Average (mg/L)	Impact Stations Exceed Control Station C2 (%)
C2	Control Station	0818-0833	30.6	E	0.2	*Surface*	26.8	26.8	27.8	27.8	7.68	7.64	112.2	111.7	1.94	1.90	2.5	2.5	7.66	2.19	N.A.	2.67	N.A.
						Middle	26.7	26.6	27.9	28.0	7.72	7.69	112.7	112.2	2.07	2.12	2.3	2.6	7.71				
						Bottom	26.5	26.5	28.0	28.1	7.79	7.75	113.3	112.8	2.52	2.60	3.0	3.1	7.77				
G3	Gradient Station	0747-0800	16.6	E	0.3	*Surface*	26.9	26.8	27.6	27.7	7.34	7.38	107.3	107.8	2.52	2.60	2.7	2.8	7.36	2.66	N.A.	3.03	N.A.
						Middle	26.8	26.8	27.8	27.9	7.27	7.24	106.2	105.8	2.73	2.79	3.3	3.4	7.26				
						Bottom	26.6	26.5	28.0	27.9	7.44	7.48	108.4	108.9	2.61	2.69	3.1	2.9	7.46				
G4	Gradient Station	0848-0901	19.8	E	0.2	*Surface*	26.8	26.9	27.7	27.7	7.59	7.57	110.8	110.5	2.52	2.60	3.0	2.9	7.58	2.72	N.A.	3.17	N.A.
						Middle	26.6	26.5	27.9	27.8	7.43	7.47	108.3	108.8	2.68	2.62	3.2	3.1	7.45				
						Bottom	26.5	26.5	28.0	28.1	7.60	7.57	110.6	110.2	2.92	2.96	3.5	3.3	7.59				
G7	Gradient Station	0920-0933	16.8	E	0.3	*Surface*	26.8	26.8	27.8	27.8	7.52	7.55	109.9	110.3	2.39	2.44	2.6	2.9	7.54	2.70	N.A.	3.18	N.A.
						Middle	26.6	26.7	27.9	27.9	7.47	7.49	108.8	109.1	2.68	2.66	3.2	3.2	7.48				
						Bottom	26.5	26.6	28.0	28.1	7.30	7.27	106.2	105.8	2.99	3.03	3.6	3.6	7.29				
B1	Impact Station	1038-1100	8.6	E	0.1	*Surface*	26.9	26.9	27.8	27.8	7.66	7.63	112.1	111.7	2.18	2.26	2.4	2.5	7.65	2.53	15.2%	2.83	6.3%
						Middle	26.7	26.8	27.8	27.8	7.39	7.36	107.8	107.4	2.59	2.64	2.9	2.9	7.38				
						Bottom	26.7	26.6	27.9	27.8	7.32	7.36	106.8	107.3	2.77	2.71	3.3	3.0	7.34				
B2	Impact Station	1015-1028	11.4	E	0.1	*Surface*	26.9	26.8	27.8	27.8	7.58	7.55	110.9	110.3	2.29	2.35	2.5	2.6	7.57	2.51	14.7%	2.85	6.9%
						Middle	26.7	26.6	27.9	27.9	7.41	7.37	108.1	107.6	2.62	2.66	2.9	3.2	7.39				
						Bottom	26.6	26.6	28.0	28.0	7.47	7.44	108.8	108.4	2.54	2.62	3.0	2.9	7.46				
B3	Impact Station	0948-0958	11.6	E	0.2	*Surface*	26.9	26.8	27.7	27.7	7.41	7.45	108.4	108.9	2.06	2.14	2.5	2.6	7.43	2.29	4.5%	2.72	1.9%
						Middle	26.7	26.6	27.9	28.0	7.38	7.34	107.7	107.2	2.12	2.20	2.5	2.4	7.36				
						Bottom	26.5	26.6	28.1	28.0	7.26	7.29	105.8	106.2	2.59	2.63	3.1	3.2	7.28				
E1	Impact Station	0935-0945	12.4	E	0.2	*Surface*	26.9	26.9	27.6	27.7	7.33	7.36	107.1	107.5	2.43	2.55	2.6	2.9	7.35	2.58	17.6%	2.93	10.0%
						Middle	26.6	26.5	27.9	27.9	7.24	7.27	105.5	105.9	2.37	2.44	2.9	3.0	7.26				
						Bottom	26.5	26.5	28.0	28.0	7.39	7.35	107.5	107.0	2.82	2.86	3.1	3.1	7.37				
E2	Impact Station	0836-0846	8.6	E	0.2	*Surface*	26.9	26.9	27.6	27.7	7.43	7.47	108.6	109.1	2.09	2.13	2.3	2.5	7.45	2.34	6.5%	2.68	0.6%
						Middle	26.7	26.6	27.8	27.9	7.27	7.30	106.1	106.5	2.34	2.36	2.8	2.6	7.29				
						Bottom	26.6	26.5	28.0	28.0	7.42	7.45	108.1	108.5	2.57	2.52	3.1	2.8	7.44				
E6	Impact Station	0904-0917	20.6	E	0.3	*Surface*	26.9	26.8	27.8	27.8	7.60	7.55	111.2	110.6	2.47	2.53	3.0	2.7	7.58	2.71	23.8%	3.13	17.5%
						Middle	26.7	26.6	27.8	27.9	7.37	7.40	107.5	107.9	2.77	2.84	3.1	3.3	7.39				
						Bottom	26.5	26.6	28.0	28.0	7.34	7.38	106.8	107.3	2.81	2.86	3.3	3.4	7.36				
E8	Impact Station	0730-0744	18.8	E	0.3	*Surface*	26.9	26.9	27.5	27.6	7.25	7.29	105.9	106.4	2.80	2.86	3.4	3.2	7.27	2.90	32.3%	3.30	23.8%
						Middle	26.8	26.7	27.9	27.9	7.34	7.37	107.3	107.7	2.94	2.98	3.2	3.6	7.36				
						Bottom	26.6	26.5	28.0	28.0	7.29	7.26	106.2	105.8	2.88	2.94	3.2	3.2	7.28				
F1	Impact Station	0802-0813	14.4	E	0.3	*Surface*	26.8	26.7	27.8	27.7	7.49	7.46	109.5	109.1	2.14	2.19	2.5	2.4	7.48	2.33	6.5%	2.65	-0.6%
						Middle	26.7	26.7	27.9	27.9	7.54	7.50	110.0	100.5	2.39	2.32	2.6	2.8	7.52				
						Bottom	26.6	26.6	28.1	28.0	7.62	7.66	111.2	111.7	2.44	2.52	2.6	3.0	7.64				
I1	Impact Station	1000-1010	10.4	E	0.3	*Surface*	26.9	26.9	27.7	27.8	7.47	7.45	109.3	109.0	2.43	2.48	2.9	3.0	7.46	2.66	21.3%	3.10	16.3%
						Middle	26.6	26.5	28.0	27.9	7.37	7.34	107.4	107.0	2.82	2.86	3.1	3.4	7.36				
						Bottom	26.5	26.4	28.0	28.0	7.51	7.48	109.3	108.9	2.66	2.70	3.2	3.0	7.50				

Note:
: Raw Data
: Indicates Exceedance of Action Level at Impact Stations
: Indicates Exceedance of Limit Level at Impact Stations
: Calculated Data

Sampling Date : 30-May-16
Sampling Time : 11:00 - 15:00 (2nd Round)
Sampling Location : Zone B

Location	Nature	Sampling Time	Water Depth (m)	Current direction	Current speed (ms^{-1})	Monitoring Depth	Temp (^oC)		Salinity (ppt)		DO (mg/L)		DO Saturation (%)		Turbidity (NTU)		Suspended Solids (mg/L)		DO	Turbidity (Depth-average)		SS (Depth-average)	
							1	2	1	2	1	2	1	2	1	2	1	2	Average (mg/L)	Average (NTU)	Impact Stations Exceed Control Station C2 (%)	Average (mg/L)	Impact Stations Exceed Control Station C2 (%)
C2	Control Station	1201-1217	31.4	E	0.2	*Surface*	27.0	27.0	27.7	27.7	7.43	7.47	108.9	109.4	2.09	2.02	2.7	2.6	7.45	2.38	N.A.	2.95	N.A.
						Middle	26.7	26.7	27.9	28.0	7.40	7.44	108.0	108.5	2.43	2.50	3.1	2.8	7.42				
						Bottom	26.5	26.5	28.1	28.1	7.32	7.29	106.7	106.3	2.59	2.64	3.4	3.1	7.31				
G3	Gradient Station	1128-1141	16.8	E	0.2	*Surface*	26.9	26.8	27.6	27.7	7.52	7.55	109.9	110.4	2.89	2.94	3.1	3.5	7.54	2.87	N.A.	3.23	N.A.
						Middle	26.8	26.7	27.8	27.9	7.37	7.34	107.7	107.3	2.92	2.86	3.2	3.2	7.36				
						Bottom	26.7	26.7	28.1	28.1	7.39	7.36	108.0	107.5	2.77	2.82	3.0	3.4	7.38				
G4	Gradient Station	1245-1258	20.4	E	0.3	*Surface*	27.0	27.1	27.8	27.7	7.57	7.59	111.0	111.3	2.71	2.76	3.3	3.3	7.58	2.87	N.A.	3.27	N.A.
						Middle	26.9	26.9	28.0	28.1	7.41	7.44	108.6	109.0	2.96	2.92	3.3	3.2	7.43				
						Bottom	26.7	26.6	28.1	28.1	7.29	7.33	106.5	107.0	2.90	2.96	3.2	3.3	7.31				
G7	Gradient Station	1320-1333	17.4	E	0.2	*Surface*	27.1	27.1	27.8	27.7	7.52	7.55	110.4	110.9	2.82	2.86	3.1	3.4	7.54	2.91	N.A.	3.30	N.A.
						Middle	26.8	26.8	28.0	27.9	7.34	7.37	107.4	107.8	2.95	2.90	3.3	3.2	7.36				
						Bottom	26.7	26.6	28.0	28.1	7.46	7.42	108.9	108.4	2.99	2.95	3.3	3.5	7.44				
B1	Impact Station	1445-1500	9.2	W	0.1	*Surface*	27.1	27.2	27.8	27.7	7.63	7.59	112.0	111.5	2.30	2.26	2.5	2.7	7.61	2.43	2.0%	2.87	-2.8%
						Middle	27.0	26.9	27.9	27.9	7.43	7.46	109.1	109.5	2.51	2.57	3.0	3.1	7.45				
						Bottom	26.9	26.9	28.0	28.0	7.21	7.24	105.7	106.1	2.49	2.42	3.0	2.9	7.23				
B2	Impact Station	1415-1430	11.8	W	0.2	*Surface*	27.1	27.1	27.8	27.8	7.56	7.52	111.0	110.5	2.12	2.20	2.5	2.6	7.54	2.47	3.6%	2.90	-1.7%
						Middle	27.0	26.9	27.8	27.9	7.29	7.26	106.8	106.4	2.60	2.53	2.9	3.0	7.28				
						Bottom	26.9	26.8	27.9	28.0	7.36	7.39	107.7	108.1	2.64	2.70	3.2	3.2	7.38				
B3	Impact Station	1348-1358	12.2	W	0.2	*Surface*	27.1	27.0	27.8	27.8	7.34	7.37	107.7	108.2	2.15	2.21	2.6	2.7	7.36	2.20	-7.6%	2.62	-11.3%
						Middle	26.9	26.8	28.0	28.0	7.26	7.29	106.4	106.8	2.02	2.10	2.4	2.3	7.28				
						Bottom	26.7	26.7	28.0	28.1	7.55	7.51	110.2	100.7	2.39	2.32	2.9	2.8	7.53				
E1	Impact Station	1336-1346	12.8	W	0.2	*Surface*	27.1	27.1	27.7	27.8	7.28	7.32	106.9	107.4	2.23	2.26	2.5	2.5	7.30	2.44	2.5%	2.82	-4.5%
						Middle	27.0	26.9	27.9	28.0	7.39	7.35	108.5	108.0	2.44	2.47	2.9	3.0	7.37				
						Bottom	26.7	26.8	28.1	28.1	7.44	7.47	108.7	109.1	2.59	2.64	2.9	3.1	7.46				
E2	Impact Station	1230-1241	9.2	E	0.2	*Surface*	27.0	27.0	27.8	27.8	7.63	7.59	111.8	111.3	2.58	2.64	2.8	3.1	7.61	2.75	15.8%	3.17	7.3%
						Middle	26.9	26.8	27.9	27.9	7.37	7.34	107.9	107.5	2.84	2.92	3.2	3.5	7.36				
						Bottom	26.8	26.7	28.0	28.1	7.30	7.33	106.8	107.2	2.75	2.79	3.3	3.1	7.32				
E6	Impact Station	1302-1316	21.2	E	0.3	*Surface*	27.0	27.0	27.8	27.8	7.50	7.47	109.9	109.5	2.67	2.72	3.2	3.2	7.49	2.79	17.3%	3.23	9.6%
						Middle	26.9	26.8	28.1	28.0	7.37	7.33	108.0	107.5	2.82	2.87	3.1	3.5	7.35				
						Bottom	26.7	26.7	28.1	28.1	7.31	7.28	106.8	106.4	2.86	2.80	3.1	3.3	7.30				
E8	Impact Station	1110-1125	19.4	E	0.2	*Surface*	26.9	26.9	27.7	27.6	7.47	7.49	109.3	109.6	2.94	2.90	3.5	3.5	7.48	2.88	21.0%	3.32	12.4%
						Middle	26.7	26.6	27.8	27.8	7.26	7.23	105.9	105.5	2.75	2.80	3.1	3.1	7.25				
						Bottom	26.6	26.5	28.0	28.1	7.22	7.26	105.2	105.7	2.91	2.96	3.2	3.5	7.24				
F1	Impact Station	1143-1156	15.0	E	0.1	*Surface*	26.9	27.0	27.7	27.7	7.59	7.63	111.1	111.6	2.07	2.15	2.4	2.6	7.61	2.44	2.7%	2.88	-2.3%
						Middle	26.7	26.6	27.9	27.9	7.48	7.44	109.2	108.7	2.53	2.47	3.1	3.0	7.46				
						Bottom	26.6	26.5	28.0	28.1	7.51	7.53	109.4	109.8	2.70	2.74	3.2	3.0	7.52				
I1	Impact Station	1400-1410	11.2	W	0.3	*Surface*	27.1	27.1	27.8	27.8	7.37	7.39	108.2	108.5	2.37	2.43	2.8	2.7	7.38	2.63	10.7%	2.93	-0.6%
						Middle	26.9	26.9	28.0	28.1	7.31	7.34	107.1	107.6	2.67	2.60	2.9	2.9	7.33				
						Bottom	26.7	26.6	28.1	28.1	7.43	7.39	108.6	108.1	2.85	2.88	3.1	3.2	7.41				

Note:
: Raw Data
: Indicates Exceedance of Action Level at Impact Stations
: Indicates Exceedance of Limit Level at Impact Stations
: Calculated Data

Sampling Date : 30-May-16
Sampling Time : 15:00 - 19:00 (3rd Round)
Sampling Location : Zone B

Location	Nature	Sampling Time	Water Depth (m)	Current direction	Current speed (ms^{-1})	Monitoring Depth	Temp (°C)		Salinity (ppt)		DO (mg/L)		DO Saturation (%)		Turbidity (NTU)		Suspended Solids (mg/L)		DO	Turbidity (Depth-average)		SS (Depth-average)	
							1	2	1	2	1	2	1	2	1	2	1	2	Average (mg/L)	Average (NTU)	Impact Stations Exceed Control Station C2 (%)	Average (mg/L)	Impact Stations Exceed Control Station C2 (%)
C2	Control Station	1600-1613	30.8	W	0.2	*Surface*	27.0	26.9	27.7	27.8	7.51	7.48	110.1	106.3	2.19	2.25	2.8	2.7	7.50	2.45	N.A.	2.98	N.A.
						Middle	26.8	26.7	27.9	27.8	7.37	7.34	108.1	107.6	2.39	2.47	2.9	3.2	7.36				
						Bottom	26.7	26.7	28.0	28.0	7.42	7.39	108.3	107.8	2.73	2.67	3.0	3.3	7.41				
G3	Gradient Station	1526-1539	17.0	W	0.3	*Surface*	26.9	26.9	27.8	27.8	7.44	7.47	109.1	109.5	2.83	2.89	3.4	3.4	7.46	2.86	N.A.	3.38	N.A.
						Middle	26.8	26.8	27.9	27.9	7.40	7.38	108.5	108.2	2.67	2.73	3.2	3.3	7.39				
						Bottom	26.7	26.7	28.0	28.1	7.27	7.24	106.1	105.8	2.98	3.05	3.3	3.7	7.26				
G4	Gradient Station	1635-1648	20.2	W	0.2	*Surface*	27.1	27.1	27.9	28.0	7.63	7.60	111.9	111.4	2.64	2.70	2.9	3.2	7.62	2.83	N.A.	3.25	N.A.
						Middle	27.0	27.0	28.1	28.1	7.58	7.60	111.3	111.5	2.83	2.89	3.4	3.2	7.59				
						Bottom	26.8	26.9	28.2	28.1	7.45	7.41	108.7	108.1	3.00	2.92	3.6	3.2	7.43				
G7	Gradient Station	1710-1724	17.6	E	0.3	*Surface*	27.1	27.1	27.9	27.9	7.40	7.36	108.5	107.9	2.74	2.68	3.3	3.0	7.38	2.94	N.A.	3.28	N.A.
						Middle	27.0	27.0	28.0	28.0	7.28	7.24	106.8	106.2	2.93	3.02	3.2	3.3	7.26				
						Bottom	26.8	26.8	28.1	28.1	7.31	7.33	106.7	107.0	3.09	3.15	3.4	3.5	7.32				
B1	Impact Station	1846-1900	17.6	E	0.2	*Surface*	27.2	27.2	27.8	27.8	7.67	7.65	112.5	112.2	2.55	2.48	3.1	2.7	7.66	2.57	4.9%	2.95	-1.1%
						Middle	27.1	27.1	27.9	28.0	7.43	7.40	108.9	108.5	2.68	2.60	2.9	3.1	7.42				
						Bottom	27.0	26.9	28.1	28.1	7.33	7.30	107.1	106.7	2.51	2.60	2.8	3.1	7.32				
B2	Impact Station	1827-1841	18.0	E	0.2	*Surface*	27.2	27.1	27.8	27.9	7.64	7.61	112.0	111.6	2.40	2.33	2.9	2.6	7.63	2.54	3.7%	2.97	-0.6%
						Middle	27.0	27.0	27.9	28.0	7.38	7.34	108.2	107.7	2.58	2.50	2.8	3.0	7.36				
						Bottom	27.0	26.9	28.1	28.1	7.48	7.44	109.3	108.7	2.68	2.75	3.2	3.3	7.46				
B3	Impact Station	1748-1801	11.0	E	0.2	*Surface*	27.2	27.1	27.9	27.8	7.48	7.45	109.7	109.2	2.45	2.39	2.9	2.6	7.47	2.45	-0.1%	2.88	-3.4%
						Middle	27.0	27.0	28.0	28.1	7.36	7.33	107.8	107.4	2.27	2.33	2.7	2.8	7.35				
						Bottom	26.8	26.8	28.2	28.1	7.54	7.52	110.2	109.9	2.58	2.66	3.1	3.2	7.53				
E1	Impact Station	1730-1743	11.6	E	0.3	*Surface*	27.1	27.2	27.8	27.8	7.41	7.38	108.7	108.3	2.39	2.30	2.9	2.8	7.40	2.59	5.6%	3.12	4.5%
						Middle	27.1	27.0	28.0	27.9	7.30	7.27	107.0	106.6	2.56	2.68	3.0	3.3	7.29				
						Bottom	26.9	26.8	28.1	28.2	7.48	7.50	109.3	109.7	2.77	2.83	3.3	3.4	7.49				
E2	Impact Station	1617-1630	9.9	W	0.2	*Surface*	27.0	27.1	27.9	27.9	7.58	7.54	111.2	110.6	2.79	2.84	3.4	3.5	7.56	2.89	18.0%	3.40	14.0%
						Middle	27.0	26.9	28.0	27.9	7.48	7.45	109.7	109.2	2.99	3.05	3.6	3.7	7.47				
						Bottom	26.8	26.8	28.1	28.1	7.39	7.34	107.8	107.6	2.80	2.88	3.0	3.2	7.37				
E6	Impact Station	1653-1706	22.0	E	0.3	*Surface*	27.1	27.2	27.8	27.9	7.48	7.44	109.7	109.1	2.57	2.62	2.8	3.1	7.46	2.80	14.4%	3.22	7.8%
						Middle	27.0	26.9	28.1	28.0	7.40	7.36	108.4	107.9	2.77	2.85	3.4	3.1	7.38				
						Bottom	26.8	26.7	28.2	28.1	7.29	7.26	106.4	105.9	2.97	3.04	3.5	3.4	7.28				
E8	Impact Station	1507-1521	18.7	W	0.3	*Surface*	27.0	26.9	27.8	27.7	7.37	7.40	108.1	108.5	3.04	2.96	3.7	3.3	7.39	2.98	21.8%	3.50	17.3%
						Middle	26.8	26.7	27.8	27.9	7.30	7.27	107.1	106.6	2.83	2.88	3.4	3.5	7.29				
						Bottom	26.7	26.6	28.0	28.0	7.09	7.12	103.4	103.9	3.12	3.07	3.7	3.4	7.11				
F1	Impact Station	1544-1556	14.6	W	0.2	*Surface*	27.0	27.0	27.8	27.8	7.56	7.52	110.9	110.3	2.38	2.43	2.9	3.0	7.54	2.61	6.6%	3.10	3.9%
						Middle	26.8	26.8	27.9	27.9	7.46	7.42	109.4	108.8	2.58	2.64	3.1	3.2	7.44				
						Bottom	26.7	26.7	28.1	28.1	7.50	7.53	109.5	109.9	2.79	2.85	3.3	3.1	7.52				
I1	Impact Station	1805-1819	16.7	E	0.2	*Surface*	27.1	27.2	27.9	27.9	7.43	7.40	108.9	108.5	2.51	2.47	2.8	3.0	7.42	2.59	5.7%	3.02	1.1%
						Middle	27.0	27.1	28.1	28.1	7.38	7.35	108.2	107.6	2.44	2.52	2.9	3.0	7.37				
						Bottom	26.9	26.8	28.2	28.3	7.47	7.51	109.2	109.7	2.76	2.84	3.3	3.1	7.49				

Note:
: Raw Data
: Indicates Exceedance of Action Level at Impact Stations
: Indicates Exceedance of Limit Level at Impact Stations
: Calculated Data

Sampling Date : 30-May-16
Sampling Time : 19:00 - 23:00 (4th Round)
Sampling Location : Zone B

Location	Nature	Sampling Time	Water Depth (m)	Current direction	Current speed (ms^{-1})	Monitoring Depth	Temp (°C)		Salinity (ppt)		DO (mg/L)		DO Saturation (%)		Turbidity (NTU)		Suspended Solids (mg/L)		DO	Turbidity (Depth-average)		SS (Depth-average)	
							1	2	1	2	1	2	1	2	1	2	1	2	Average (mg/L)	Average (NTU)	Impact Stations Exceed Control Station C2 (%)	Average (mg/L)	Impact Stations Exceed Control Station C2 (%)
C2	Control Station	2002-2015	30.5	E	0.1	*Surface*	26.9	26.9	27.6	27.7	7.58	7.54	110.9	110.3	2.48	2.40	3.0	2.9	7.56	2.69	N.A.	3.20	N.A.
						Middle	26.8	26.7	27.9	28.0	7.46	7.41	109.2	108.4	2.62	2.70	3.2	3.3	7.44				
						Bottom	26.7	26.6	28.2	28.1	7.26	7.29	105.9	106.4	2.93	2.99	3.2	3.6	7.28				
G3	Gradient Station	1925-1938	16.9	E	0.2	*Surface*	26.8	26.9	27.7	27.6	7.42	7.40	108.6	108.3	2.98	3.02	3.2	3.3	7.41	2.99	N.A.	3.40	N.A.
						Middle	26.8	26.7	27.7	27.7	7.43	7.45	108.7	109.0	2.88	2.79	3.5	3.3	7.44				
						Bottom	26.7	26.7	27.9	27.8	7.36	7.33	107.4	107.0	3.08	3.16	3.7	3.4	7.35				
G4	Gradient Station	2039-20582	20.0	E	0.2	*Surface*	27.0	26.9	27.8	27.8	7.58	7.55	110.8	110.4	2.53	2.46	2.8	2.9	7.57	2.76	N.A.	3.23	N.A.
						Middle	26.9	26.8	27.9	28.0	7.39	7.42	108.1	108.5	2.64	2.71	3.2	3.3	7.41				
						Bottom	26.7	26.7	28.1	28.2	7.30	7.27	106.6	106.1	3.07	3.16	3.7	3.5	7.29				
G7	Gradient Station	2115-2130	17.4	E	0.2	*Surface*	27.0	26.9	27.8	27.7	7.57	7.54	110.7	110.3	2.67	2.59	2.9	2.8	7.56	2.92	N.A.	3.32	N.A.
						Middle	26.9	26.9	27.8	27.9	7.46	7.41	109.1	108.4	2.88	2.95	3.5	3.3	7.44				
						Bottom	26.9	26.8	28.0	28.1	7.37	7.35	107.6	107.3	3.24	3.17	3.6	3.8	7.36				
B1	Impact Station	2245-2300	17.6	W	0.1	*Surface*	27.1	27.0	27.7	27.7	7.59	7.56	111.0	110.6	2.34	2.41	2.6	2.9	7.58	2.61	-2.8%	3.05	-4.7%
						Middle	27.0	26.9	27.8	27.9	7.50	7.47	109.7	109.2	2.60	2.68	2.9	3.2	7.49				
						Bottom	26.9	26.8	28.0	28.0	7.64	7.61	111.5	111.1	2.79	2.85	3.3	3.4	7.63				
B2	Impact Station	2225-2239	17.9	W	0.1	*Surface*	27.0	26.9	27.7	27.7	7.55	7.52	110.4	110.0	2.53	2.67	3.0	3.2	7.54	2.80	4.2%	3.17	-1.0%
						Middle	26.9	26.9	27.8	27.9	7.46	7.42	109.1	108.5	2.80	2.74	3.1	3.0	7.44				
						Bottom	26.8	26.7	28.0	28.1	7.58	7.60	110.7	110.9	2.99	3.06	3.3	3.4	7.59				
B3	Impact Station	2155-2208	11.2	E	0.1	*Surface*	27.0	26.9	27.7	27.6	7.63	7.59	111.6	111.0	2.28	2.33	2.5	2.8	7.61	2.55	-5.2%	2.92	-8.9%
						Middle	26.9	26.9	27.8	27.8	7.54	7.51	110.3	109.8	2.48	2.56	2.7	3.1	7.53				
						Bottom	26.8	26.8	28.0	28.0	7.57	7.60	110.5	110.9	2.79	2.84	3.3	3.1	7.59				
E1	Impact Station	2136-2149	11.6	E	0.2	*Surface*	27.0	26.9	27.6	27.7	7.50	7.47	109.7	109.2	2.41	2.49	2.8	2.7	7.49	2.69	0.2%	3.07	-4.2%
						Middle	26.9	26.9	27.8	27.8	7.42	7.39	108.5	108.1	2.60	2.71	3.1	3.0	7.41				
						Bottom	26.9	26.8	28.0	27.9	7.44	7.41	108.6	108.1	2.94	3.00	3.5	3.3	7.43				
E2	Impact Station	2019-2034	9.7	E	0.1	*Surface*	26.9	26.9	27.7	27.8	7.47	7.42	109.2	108.5	2.63	2.58	3.2	3.1	7.45	2.79	3.7%	3.27	2.1%
						Middle	26.9	26.8	27.9	27.8	7.51	7.50	109.8	109.7	2.76	2.81	3.0	3.4	7.51				
						Bottom	26.8	26.7	28.0	28.0	7.32	7.30	106.8	106.5	2.93	3.01	3.3	3.6	7.31				
E6	Impact Station	2057-2110	21.9	E	0.2	*Surface*	27.0	27.1	27.7	27.8	7.61	7.58	111.3	110.8	2.44	2.51	2.9	2.8	7.60	2.75	2.4%	3.17	-1.0%
						Middle	26.9	26.9	27.9	27.9	7.48	7.45	109.4	108.9	2.70	2.79	3.2	3.1	7.47				
						Bottom	26.8	26.7	28.0	28.1	7.36	7.33	107.5	107.0	3.09	2.98	3.4	3.6	7.35				
E8	Impact Station	1906-1920	18.5	E	0.2	*Surface*	26.8	26.8	27.6	27.6	7.56	7.53	110.6	110.2	3.18	3.23	3.8	3.9	7.55	3.20	19.0%	3.75	17.2%
						Middle	26.7	26.7	27.7	27.8	7.48	7.44	109.5	108.9	2.96	3.02	3.3	3.6	7.46				
						Bottom	26.6	26.7	27.9	28.0	7.21	7.17	105.1	104.6	3.37	3.42	3.7	4.2	7.19				
F1	Impact Station	1943-1957	14.4	E	0.1	*Surface*	26.8	26.9	27.6	27.7	7.43	7.38	108.7	108.0	2.60	2.67	3.1	3.0	7.41	2.86	6.3%	3.33	4.2%
						Middle	26.8	26.8	27.8	27.7	7.47	7.50	109.3	109.8	2.89	2.94	3.5	3.3	7.49				
						Bottom	26.7	26.7	27.9	27.9	7.30	7.34	106.5	107.1	3.04	3.00	3.4	3.7	7.32				
I1	Impact Station	2213-2216	16.8	E	0.1	*Surface*	26.9	26.9	27.8	27.8	7.56	7.53	110.6	110.1	2.30	2.39	2.8	2.9	7.55	2.63	-2.0%	3.17	-1.0%
						Middle	26.8	26.8	27.9	28.0	7.46	7.51	109.1	109.8	2.50	2.61	3.0	3.1	7.49				
						Bottom	26.8	26.7	28.1	28.2	7.40	7.38	108.0	107.7	2.96	3.04	3.5	3.7	7.39				

Note:
: Raw Data
: Indicates Exceedance of Action Level at Impact Stations
: Indicates Exceedance of Limit Level at Impact Stations
: Calculated Data

Sampling Date : 30-May-16
Sampling Time : 07:00- 11:00 (1st Round)
Sampling Location : Zone C

Location	Nature	Sampling Time	Water Depth (m)	Current direction	Current speed (ms^{-1})	Monitoring Depth	Temp (°C)		Salinity (ppt)		DO (mg/L)		DO Saturation (%)		Turbidity (NTU)		Suspended Solids (mg/L)		DO	Turbidity (Depth-average)		SS (Depth-average)	
							1	2	1	2	1	2	1	2	1	2	1	2	Average (mg/L)	Average (NTU)	Impact Stations Exceed Control Station C3 (%)	Average (mg/L)	Impact Stations Exceed Control Station C3 (%)
C3	Control Station	0829-0848	28.1	E	0.6	*Surface*	26.8	26.9	28.9	28.9	8.08	8.05	118.50	118.20	2.21	2.27	2.40	2.70	8.07	2.41	N.A.	2.85	N.A.
						Middle	26.8	26.7	29.0	28.9	7.96	7.92	116.90	116.50	2.56	2.63	3.10	3.40	7.94				
						Bottom	26.5	26.6	29.2	29.3	7.84	7.87	114.80	115.10	2.38	2.41	2.60	2.90	7.86				
G5	Gradient Station	0730-0749	21.2	E	0.6	*Surface*	26.9	26.8	28.7	28.8	7.85	7.89	115.10	115.50	2.97	3.03	3.90	3.30	7.87	2.61	N.A.	3.05	N.A.
						Middle	26.7	26.6	28.9	29.0	7.94	7.96	116.60	116.90	2.51	2.59	2.80	2.90	7.95				
						Bottom	26.5	26.6	29.2	29.1	7.76	7.78	113.70	113.90	2.22	2.31	2.40	3.00	7.77				
G6	Gradient Station	0929-0951	23.7	E	0.5	*Surface*	26.9	26.8	28.9	28.9	8.03	8.06	117.80	118.10	2.76	2.81	3.40	3.40	8.05	2.60	N.A.	3.05	N.A.
						Middle	26.7	26.8	29.1	29.0	8.12	8.09	119.20	118.90	2.56	2.44	2.80	2.90	8.11				
						Bottom	26.5	26.6	29.2	29.3	7.96	7.92	116.70	116.20	2.54	2.48	2.80	3.00	7.94				
E4	Impact Station	0759-0819	24.0	E	0.7	*Surface*	26.8	26.7	28.9	28.8	7.97	7.94	117.10	116.70	2.54	2.58	2.80	3.10	7.96	2.60	8.0%	3.08	8.2%
						Middle	26.6	26.7	29.1	29.0	7.85	7.81	115.10	114.70	2.86	2.91	3.40	3.50	7.83				
						Bottom	26.5	26.6	29.2	29.3	7.73	7.72	113.30	113.20	2.33	2.39	2.80	2.90	7.73				
E5	Impact Station	0858-0918	18.7	E	0.6	*Surface*	26.8	26.7	29.0	28.9	8.11	8.08	119.10	118.70	2.83	2.89	3.40	3.50	8.10	2.60	8.0%	3.15	10.5%
						Middle	26.6	26.5	29.1	29.2	8.15	8.17	119.70	119.90	2.62	2.54	3.50	3.00	8.16				
						Bottom	26.4	26.3	29.3	29.2	7.95	7.98	116.60	116.90	2.31	2.42	2.80	2.70	7.97				

Note: (1) : Raw Data
: Indicates Exceedance of Action Level at Impact Stations
: Indicates Exceedance of Limit Level at Impact Stations
: Calculated Data

Sampling Date : 30-May-16
Sampling Time : 11:00-15:00 (2nd Round)
Sampling Location : Zone C

Location	Nature	Sampling Time	Water Depth (m)	Current direction	Current speed (ms^{-1})	Monitoring Depth	Temp (°C)		Salinity (ppt)		DO (mg/L)		DO Saturation (%)		Turbidity (NTU)		Suspended Solids (mg/L)		DO	Turbidity (Depth-average)		SS (Depth-average)	
							1	2	1	2	1	2	1	2	1	2	1	2	Average (mg/L)	Average (NTU)	Impact Stations Exceed Control Station C3 (%)	Average (mg/L)	Impact Stations Exceed Control Station C3 (%)
C3	Control Station	1210-1229	28.3	E	0.5	*Surface*	26.8	26.7	29.0	28.9	7.98	7.95	116.90	116.60	2.46	2.51	3.00	3.00	7.97	2.41	N.A.	2.93	N.A.
						Middle	26.6	26.7	29.1	29.2	8.07	8.09	118.60	118.90	2.33	2.26	2.80	2.90	8.08				
						Bottom	26.5	26.4	29.2	29.3	7.82	7.84	114.60	114.90	2.42	2.49	2.90	3.00	7.83				
G5	Gradient Station	1110-1131	21.4	E	0.6	*Surface*	26.8	26.7	28.8	28.9	7.94	7.96	116.70	117.10	2.82	2.88	3.10	3.50	7.95	2.56	N.A.	3.00	N.A.
						Middle	26.7	26.6	29.1	29.0	8.02	8.04	117.90	118.10	2.47	2.39	3.00	2.60	8.03				
						Bottom	26.5	26.4	29.3	29.2	7.89	7.85	115.70	115.30	2.36	2.41	3.10	2.70	7.87				
G6	Gradient Station	1312-1333	23.9	E	0.6	*Surface*	26.8	26.7	29.0	28.9	8.18	8.14	119.90	119.50	2.57	2.52	3.10	3.00	8.16	2.39	N.A.	2.97	N.A.
						Middle	26.6	26.7	26.6	26.7	8.02	7.98	117.60	117.10	2.41	2.35	2.70	3.10	8.00				
						Bottom	26.5	26.4	26.5	26.4	8.05	8.03	118.10	117.80	2.22	2.29	2.90	3.00	8.04				
E4	Impact Station	1141-1201	24.3	E	0.6	*Surface*	26.9	26.8	28.9	29.0	8.06	8.02	118.30	117.90	2.35	2.42	2.80	2.90	8.04	2.47	2.3%	2.97	1.1%
						Middle	26.7	26.6	29.1	29.0	7.94	7.97	116.70	117.00	2.67	2.75	3.20	3.60	7.96				
						Bottom	26.5	26.6	29.1	29.2	7.85	7.83	115.10	114.70	2.28	2.34	2.70	2.60	7.84				
E5	Impact Station	1239-1301	18.9	E	0.7	*Surface*	26.7	26.8	29.1	29.0	8.16	8.12	119.80	119.30	2.71	2.64	3.30	3.40	8.14	2.49	3.2%	3.00	2.3%
						Middle	26.7	26.6	29.2	29.1	7.99	7.96	117.10	116.80	2.47	2.56	3.00	3.10	7.98				
						Bottom	26.5	26.6	29.3	29.2	8.04	8.07	118.10	118.50	2.24	2.32	2.40	2.80	8.06				

Note: (1) : Raw Data
: Indicates Exceedance of Action Level at Impact Stations
: Indicates Exceedance of Limit Level at Impact Stations
: Calculated Data

Sampling Date : 30-May-16
Sampling Time : 15:00-19:00 (3rd Round)
Sampling Location : Zone C

Location	Nature	Sampling Time	Water Depth (m)	Current direction	Current speed (ms^{-1})	Monitoring Depth	Temp (°C)		Salinity (ppt)		DO (mg/L)		DO Saturation (%)		Turbidity (NTU)		Suspended Solids (mg/L)		DO	Turbidity (Depth-average)		SS (Depth-average)	
							1	2	1	2	1	2	1	2	1	2	1	2	Average (mg/L)	Average (NTU)	Impact Stations Exceed Control Station C3 (%)	Average (mg/L)	Impact Stations Exceed Control Station C3 (%)
C3	Control Station	1556-1616	28.8	E	0.5	*Surface*	26.9	26.9	29.1	29.0	8.04	8.01	117.90	117.60	2.37	2.42	2.80	2.90	8.03	2.32	N.A.	2.77	N.A.
						Middle	26.8	26.9	29.2	29.2	8.13	8.15	119.60	119.90	2.24	2.17	2.70	2.60	8.14				
						Bottom	26.7	26.6	29.3	29.4	7.88	7.90	115.50	115.90	2.33	2.40	3.00	2.60	7.89				
G5	Gradient Station	1510-1520	21.6	E	0.6	*Surface*	26.9	26.8	28.9	29.0	8.00	8.02	117.70	118.10	2.73	2.79	3.60	3.10	8.01	2.47	N.A.	2.95	N.A.
						Middle	26.7	26.8	29.1	29.0	8.08	8.10	118.90	119.10	2.38	2.30	2.90	2.80	8.09				
						Bottom	26.6	26.5	29.4	29.5	7.95	7.91	116.60	116.30	2.27	2.32	2.50	2.80	7.93				
G6	Gradient Station	1654-1714	24.6	E	0.7	*Surface*	27.0	26.9	29.1	29.2	8.24	8.20	120.90	120.50	2.48	2.43	3.00	2.60	8.22	2.30	N.A.	2.72	N.A.
						Middle	26.7	26.8	29.3	29.2	8.08	8.04	118.50	118.00	2.32	2.26	3.00	2.50	8.06				
						Bottom	26.6	26.5	29.4	29.5	8.11	8.09	119.10	118.80	2.13	2.20	2.50	2.70	8.10				
E4	Impact Station	1528-1548	24.6	E	0.5	*Surface*	26.9	27.0	29.0	29.1	8.08	8.12	118.90	119.30	2.26	2.33	2.70	2.60	8.10	2.38	2.4%	2.70	-2.4%
						Middle	26.8	26.7	29.3	29.2	8.00	8.03	117.70	118.00	2.58	2.66	3.10	2.90	8.02				
						Bottom	26.6	26.7	29.3	29.4	7.91	7.89	116.00	115.70	2.19	2.25	2.40	2.50	7.90				
E5	Impact Station	1626-1646	19.4	E	0.6	*Surface*	26.9	27.0	29.2	29.1	8.22	8.18	120.80	120.20	2.62	2.55	3.10	2.80	8.20	2.40	3.4%	2.87	3.6%
						Middle	26.8	26.7	29.2	29.3	8.05	8.02	118.10	117.80	2.38	2.47	2.90	2.90	8.04				
						Bottom	26.6	26.6	29.3	29.4	8.10	8.13	119.10	119.40	2.15	2.23	2.60	2.90	8.12				

Note: (1) : Raw Data
: Indicates Exceedance of Action Level at Impact Stations
: Indicates Exceedance of Limit Level at Impact Stations
: Calculated Data

Sampling Date : 30-May-16
Sampling Time : 19:00-23:00 (4th Round)
Sampling Location : Zone C

Location	Nature	Sampling Time	Water Depth (m)	Current direction	Current speed (ms^{-1})	Monitoring Depth	Temp (°C)		Salinity (ppt)		DO (mg/L)		DO Saturation (%)		Turbidity (NTU)		Suspended Solids (mg/L)		DO	Turbidity (Depth-average)		SS (Depth-average)	
							1	2	1	2	1	2	1	2	1	2	1	2	Average (mg/L)	Average (NTU)	Impact Stations Exceed Control Station C3 (%)	Average (mg/L)	Impact Stations Exceed Control Station C3 (%)
C3	Control Station	1956-2016	28.6	W	0.6	*Surface*	27.0	26.9	29.1	29.2	7.95	7.92	116.60	116.30	2.28	2.33	2.70	2.80	7.94	2.23	N.A.	2.70	N.A.
						Middle	26.9	27.0	29.2	29.3	8.04	8.06	118.30	118.60	2.15	2.08	2.60	2.70	8.05				
						Bottom	26.8	26.7	29.5	29.5	7.79	7.81	114.30	114.70	2.24	2.31	2.90	2.50	7.80				
G5	Gradient Station	1910-1920	21.2	W	0.5	*Surface*	27.0	26.9	29.0	29.1	7.91	7.93	116.40	116.90	2.64	2.70	3.20	3.20	7.92	2.38	N.A.	2.77	N.A.
						Middle	26.8	26.9	29.1	29.2	7.99	8.01	117.70	117.80	2.29	2.21	2.50	2.40	8.00				
						Bottom	26.4	26.5	29.5	29.6	7.86	7.82	115.40	115.10	2.18	2.23	2.60	2.70	7.84				
G6	Gradient Station	2054-2114	24.2	W	0.6	*Surface*	27.1	27.1	29.2	29.1	8.15	8.11	119.60	119.30	2.39	2.34	2.80	2.90	8.13	2.21	N.A.	2.65	N.A.
						Middle	26.7	26.6	29.3	29.4	7.99	7.95	117.30	116.80	2.23	2.17	2.70	2.40	7.97				
						Bottom	26.5	26.4	29.5	29.4	8.02	8.00	117.90	117.50	2.04	2.11	2.70	2.40	8.01				
E4	Impact Station	1928-1948	24.4	W	0.6	*Surface*	26.9	26.9	29.1	29.2	7.99	8.03	117.70	118.00	2.17	2.24	2.60	2.70	8.01	2.29	2.5%	2.73	1.2%
						Middle	26.8	26.7	29.4	29.4	7.91	7.94	116.40	116.70	2.49	2.57	2.70	3.30	7.93				
						Bottom	26.5	26.4	29.5	29.4	7.82	7.80	114.70	114.40	2.10	2.16	2.70	2.40	7.81				
E5	Impact Station	2026-2046	19.0	W	0.7	*Surface*	27.1	27.0	29.2	29.3	8.13	8.09	119.60	118.90	2.53	2.46	3.30	3.00	8.11	2.31	3.5%	2.92	8.0%
						Middle	26.7	26.8	29.3	29.4	7.95	7.93	116.70	116.50	2.29	2.38	3.00	3.10	7.94				
						Bottom	26.4	26.4	29.5	29.4	8.01	8.04	117.80	118.20	2.06	2.14	2.30	2.80	8.03				

Note: (1) : Raw Data
: Indicates Exceedance of Action Level at Impact Stations
: Indicates Exceedance of Limit Level at Impact Stations
: Calculated Data

Sampling Date : 31-May-16
Sampling Time : 11:00-15:00 (1st Round)
Sampling Location : Zone B

Location	Nature	Sampling Time	Water Depth (m)	Current direction	Current speed (ms^{-1})	Monitoring Depth	Temp (°C)		Salinity (ppt)		DO (mg/L)		DO Saturation (%)		Turbidity (NTU)		Suspended Solids (mg/L)		DO	Turbidity (Depth-average)		SS (Depth-average)	
							1	2	1	2	1	2	1	2	1	2	1	2	Average (mg/L)	Average (NTU)	Impact Stations Exceed Control Station C2 (%)	Average (mg/L)	Impact Stations Exceed Control Station C2 (%)
C2	Control Station	1200-1215	31.9	W	0.3	*Surface*	26.9	27.0	29.0	29.1	7.66	7.64	113.1	112.9	2.84	2.86	3.4	3.4	7.65	2.98	N.A.	3.68	N.A.
						Middle	26.8	26.8	29.1	29.2	7.39	7.41	108.8	109.0	2.95	2.97	3.8	3.3	7.40				
						Bottom	26.7	26.8	29.3	29.4	7.22	7.20	105.9	105.7	3.13	3.15	4.1	4.1	7.21				
G3	Gradient Station	1120-1135	17.6	W	0.3	*Surface*	26.9	26.8	29.0	29.1	7.34	7.32	108.4	108.2	3.10	3.12	3.4	3.4	7.33	3.27	N.A.	3.63	N.A.
						Middle	26.7	26.7	29.2	29.3	7.10	7.12	104.5	104.7	3.23	3.25	3.5	3.6	7.11				
						Bottom	26.6	26.5	29.4	29.5	7.00	6.98	102.7	102.5	3.44	3.48	3.8	4.1	6.99				
G4	Gradient Station	1240-1255	20.6	E	0.4	*Surface*	27.0	27.1	29.1	29.2	7.45	7.47	110.0	110.2	2.94	2.96	3.5	3.3	7.46	3.12	N.A.	3.55	N.A.
						Middle	26.9	26.8	29.3	29.4	7.34	7.36	108.1	108.3	3.14	3.16	3.5	3.8	7.35				
						Bottom	26.7	26.6	29.5	29.6	7.07	7.05	103.7	103.5	3.25	3.27	3.6	3.6	7.06				
G7	Gradient Station	1320-1335	18.1	W	0.4	*Surface*	26.9	26.9	29.1	29.2	7.60	7.58	112.2	112.0	2.99	3.01	3.6	3.3	7.59	3.22	N.A.	3.68	N.A.
						Middle	26.8	26.7	29.3	29.3	7.45	7.47	109.7	109.9	3.19	3.21	3.5	3.8	7.46				
						Bottom	26.6	26.5	29.4	29.5	7.30	7.28	107.1	106.9	3.44	3.48	3.8	4.1	7.29				
B1	Impact Station	1444-1500	8.6	E	0.4	*Surface*	27.0	26.9	29.0	29.0	7.34	7.36	108.4	108.6	2.95	2.97	3.5	3.3	7.35	3.13	4.8%	3.60	-2.3%
						Middle	26.8	26.8	29.1	29.2	7.22	7.20	106.3	106.1	3.16	3.18	3.5	3.5	7.21				
						Bottom	26.7	26.6	29.3	29.4	7.04	7.06	103.6	103.8	3.24	3.26	3.9	3.9	7.05				
B2	Impact Station	1431-1441	12.0	E	0.4	*Surface*	27.1	27.0	29.0	28.9	7.48	7.46	110.4	110.2	2.84	2.86	3.1	3.4	7.47	2.99	0.3%	3.37	-8.6%
						Middle	26.9	26.8	29.1	29.2	7.29	7.37	107.3	107.5	2.99	3.01	3.3	3.6	7.33				
						Bottom	26.7	26.6	29.3	29.4	7.12	7.14	104.8	105.0	3.12	3.14	3.4	3.4	7.13				
B3	Impact Station	1400-1410	12.1	W	0.3	*Surface*	27.0	27.1	28.9	29.0	7.55	7.53	111.5	111.3	2.98	3.00	3.3	3.6	7.54	3.13	4.8%	3.60	-2.3%
						Middle	26.9	26.8	29.1	29.2	7.34	7.36	108.1	108.3	3.14	3.16	3.5	3.8	7.35				
						Bottom	26.7	26.6	29.3	29.4	7.09	7.11	104.1	104.3	3.28	3.20	3.9	3.5	7.10				
E1	Impact Station	1340-1355	12.7	E	0.3	*Surface*	26.9	26.8	29.1	29.1	7.63	7.61	112.6	112.4	3.12	3.14	3.4	3.5	7.62	3.30	10.6%	3.75	1.8%
						Middle	26.7	26.7	29.2	29.3	7.50	7.52	110.4	110.6	3.30	3.32	3.6	4.0	7.51				
						Bottom	26.6	26.5	29.4	29.4	7.39	7.37	108.4	108.2	3.44	3.48	3.8	4.2	7.38				
E2	Impact Station	1220-1235	9.5	W	0.4	*Surface*	27.2	27.1	28.9	29.0	7.39	7.41	109.1	109.3	3.08	3.11	3.7	3.7	7.40	3.24	8.4%	3.82	3.6%
						Middle	27.0	27.0	29.1	29.2	7.32	7.30	107.8	107.6	3.24	3.26	3.9	3.9	7.31				
						Bottom	26.9	26.8	29.4	29.5	7.14	7.12	104.8	104.6	3.35	3.37	4.0	3.7	7.13				
E6	Impact Station	1300-1315	22.9	E	0.3	*Surface*	27.0	27.0	28.9	29.0	7.56	7.54	111.6	111.4	2.74	2.76	3.1	3.0	7.55	2.87	-3.8%	3.33	-9.5%
						Middle	26.9	26.8	29.1	29.2	7.40	7.42	109.0	109.2	2.84	2.82	3.2	3.4	7.41				
						Bottom	26.7	26.6	29.3	29.4	7.25	7.23	106.4	106.2	3.02	3.04	3.7	3.6	7.24				
E8	Impact Station	1100-1115	19.4	W	0.2	*Surface*	27.0	27.1	28.9	29.0	7.45	7.47	110.0	110.2	2.94	2.96	3.6	3.3	7.46	3.14	5.4%	3.57	-3.2%
						Middle	26.9	26.8	29.0	29.1	7.30	7.28	107.5	107.3	3.17	3.17	3.8	3.5	7.29				
						Bottom	26.7	26.8	29.2	29.3	7.07	7.05	103.7	103.5	3.30	3.32	3.6	3.6	7.06				
F1	Impact Station	1140-1155	15.1	W	0.3	*Surface*	27.0	27.0	28.9	29.0	7.51	7.53	110.9	111.1	3.17	3.19	3.5	3.8	7.52	3.34	11.8%	3.87	5.0%
						Middle	26.9	26.8	29.1	29.2	7.29	7.31	107.3	107.5	3.36	3.38	3.8	4.1	7.30				
						Bottom	26.7	26.6	29.3	29.4	7.06	7.08	103.6	103.8	3.45	3.47	3.8	4.2	7.07				
I1	Impact Station	1412-1429	17.0	W	0.3	*Surface*	27.1	27.1	28.9	28.9	7.44	7.42	109.8	109.7	3.20	3.22	3.5	3.9	7.43	3.33	11.5%	3.82	3.6%
						Middle	26.9	27.0	29.0	29.1	7.30	7.28	107.2	107.0	3.35	3.37	3.7	4.0	7.29				
						Bottom	26.8	26.7	29.3	29.2	7.06	7.08	103.6	103.8	3.40	3.42	3.7	4.1	7.07				

Note:
: Raw Data
: Indicates Exceedance of Action Level at Impact Stations
: Indicates Exceedance of Limit Level at Impact Stations
: Calculated Data

Sampling Date : 31-May-16
Sampling Time : 19:00 - 23:00 (2nd Round)
Sampling Location : Zone B

Location	Nature	Sampling Time	Water Depth (m)	Current direction	Current speed (ms^{-1})	Monitoring Depth	Temp (°C)		Salinity (ppt)		DO (mg/L)		DO Saturation (%)		Turbidity (NTU)		Suspended Solids (mg/L)		DO	Turbidity (Depth-average)		SS (Depth-average)	
							1	2	1	2	1	2	1	2	1	2	1	2	Average (mg/L)	Average (NTU)	Impact Stations Exceed Control Station C2 (%)	Average (mg/L)	Impact Stations Exceed Control Station C2 (%)
C2	Control Station	2004-2017	30.6	E	0.4	*Surface*	27.2	27.1	29.2	29.2	7.57	7.54	112.3	111.9	2.10	2.16	2.7	2.6	7.56	2.36	N.A.	2.93	N.A.
						Middle	27.0	26.9	29.3	29.4	7.43	7.40	109.9	109.5	2.30	2.38	2.9	3.1	7.42				
						Bottom	26.7	26.6	29.5	29.4	7.48	7.45	110.2	109.8	2.64	2.58	3.4	2.9	7.47				
G3	Gradient Station	1928-1941	17.4	E	0.4	*Surface*	27.1	27.1	29.0	29.1	7.50	7.53	111.0	111.4	2.74	2.80	3.3	3.0	7.52	2.77	N.A.	3.17	N.A.
						Middle	26.9	27.0	29.1	29.2	7.46	7.44	110.0	110.8	2.58	2.64	3.1	3.1	7.45				
						Bottom	26.7	26.6	29.4	29.5	7.33	7.30	108.0	107.6	2.89	2.96	3.2	3.3	7.32				
G4	Gradient Station	2040-2053	20.6	E	0.3	*Surface*	27.2	27.2	29.0	29.1	7.69	7.66	113.9	113.5	2.55	2.61	3.1	3.1	7.68	2.74	N.A.	3.20	N.A.
						Middle	27.0	26.9	29.3	29.4	7.64	7.66	113.0	113.4	2.74	2.80	3.3	3.1	7.65				
						Bottom	26.7	26.7	29.4	29.5	7.51	7.47	110.6	110.1	2.89	2.83	3.5	3.1	7.49				
G7	Gradient Station	2116-2129	17.8	E	0.4	*Surface*	27.3	27.2	29.1	29.2	7.46	7.42	110.9	110.4	2.65	2.59	3.2	3.1	7.44	2.85	N.A.	3.32	N.A.
						Middle	26.9	26.8	29.2	29.1	7.34	7.32	108.3	107.7	2.84	2.93	3.1	3.5	7.33				
						Bottom	26.6	26.7	29.3	29.4	7.37	7.39	108.2	108.4	3.00	3.06	3.6	3.4	7.38				
B1	Impact Station	2247-2300	17.8	E	0.2	*Surface*	27.3	27.3	29.3	29.4	7.73	7.71	114.9	114.6	2.46	2.39	2.7	2.9	7.72	2.48	5.1%	2.87	-2.3%
						Middle	27.0	26.9	29.6	29.5	7.49	7.46	111.0	110.6	2.59	2.51	3.1	2.8	7.48				
						Bottom	26.7	26.6	29.7	29.8	7.39	7.36	109.0	108.6	2.42	2.51	2.9	2.8	7.38				
B2	Impact Station	2228-2241	18.4	E	0.3	*Surface*	27.3	27.2	29.2	29.3	7.70	7.67	114.4	114.1	2.31	2.24	2.5	2.7	7.69	2.45	3.8%	2.80	-4.5%
						Middle	26.9	26.8	29.5	29.4	7.44	7.40	109.9	109.4	2.49	2.41	3.0	2.9	7.42				
						Bottom	26.7	26.7	29.6	29.7	7.54	7.50	111.2	110.7	2.59	2.66	2.8	2.9	7.52				
B3	Impact Station	2152-2205	11.4	E	0.2	*Surface*	27.1	27.2	29.2	29.3	7.54	7.51	111.7	111.3	2.36	2.30	2.6	2.8	7.53	2.36	-0.1%	2.68	-8.5%
						Middle	27.0	26.9	29.3	29.4	7.42	7.39	109.8	109.4	2.18	2.24	2.4	2.5	7.41				
						Bottom	26.6	26.7	29.5	29.5	7.60	7.58	111.7	111.4	2.49	2.57	3.0	2.8	7.59				
E1	Impact Station	2134-2147	11.8	E	0.4	*Surface*	27.1	27.1	29.1	29.2	7.47	7.44	110.5	110.1	2.30	2.21	2.5	2.6	7.46	2.50	5.9%	2.85	-2.8%
						Middle	26.9	26.8	29.4	29.3	7.36	7.33	108.7	108.3	2.47	2.59	2.7	2.8	7.35				
						Bottom	26.8	26.7	29.5	29.6	7.54	7.56	111.2	111.4	2.68	2.74	3.2	3.3	7.55				
E2	Impact Station	2022-2035	10.2	E	0.2	*Surface*	27.1	27.2	28.9	29.0	7.64	7.60	112.9	112.4	2.70	2.75	3.0	3.1	7.62	2.80	18.7%	3.25	10.8%
						Middle	27.1	27.0	29.2	29.3	7.54	7.51	111.7	111.3	2.90	2.96	3.2	3.5	7.53				
						Bottom	26.9	26.8	29.6	29.5	7.45	7.40	110.2	109.6	2.71	2.79	3.3	3.4	7.43				
E6	Impact Station	2058-2111	22.4	E	0.4	*Surface*	27.2	27.3	29.2	29.1	7.54	7.50	111.9	111.4	2.48	2.53	2.7	2.8	7.52	2.71	15.0%	3.03	3.4%
						Middle	27.0	27.0	29.2	29.3	7.46	7.42	110.2	109.7	2.68	2.76	3.0	3.0	7.44				
						Bottom	26.8	26.7	29.4	29.5	7.35	7.32	108.4	108.0	2.88	2.95	3.4	3.3	7.34				
E8	Impact Station	1910-1923	19.0	E	0.4	*Surface*	27.2	27.1	28.9	29.0	7.43	7.46	110.1	110.5	2.95	2.87	3.6	3.5	7.45	2.89	22.6%	3.33	13.6%
						Middle	26.9	26.8	29.2	29.3	7.36	7.33	110.5	110.1	2.74	2.79	3.3	3.0	7.35				
						Bottom	26.8	26.7	29.3	29.4	7.15	7.18	107.2	107.6	3.03	2.98	3.3	3.3	7.17				
F1	Impact Station	1946-1959	14.8	E	0.3	*Surface*	27.1	27.2	29.1	29.2	7.62	7.58	112.7	112.3	2.29	2.34	2.5	2.8	7.60	2.52	6.9%	2.88	-1.7%
						Middle	26.9	26.9	29.4	29.5	7.52	7.48	111.1	110.6	2.49	2.55	2.8	2.8	7.50				
						Bottom	26.6	26.5	29.5	29.6	7.56	7.59	111.2	111.6	2.70	2.76	3.3	3.1	7.58				
I1	Impact Station	2210-2223	16.8	E	0.3	*Surface*	27.2	27.1	29.0	29.1	7.49	7.46	111.0	110.6	2.42	2.38	2.7	2.9	7.48	2.50	5.9%	2.80	-4.5%
						Middle	26.8	26.9	29.3	29.2	7.44	7.41	109.7	109.3	2.35	2.43	2.6	2.7	7.43				
						Bottom	26.7	26.6	29.3	29.4	7.53	7.57	110.7	111.2	2.67	2.75	2.9	3.0	7.55				

Note:
: Raw Data
: Indicates Exceedance of Action Level at Impact Stations
: Indicates Exceedance of Limit Level at Impact Stations
: Calculated Data

Sampling Date : 1-Jun-16
Sampling Time : 07:00- 11:00 (1st Round)
Sampling Location : Zone C

Location	Nature	Sampling Time	Water Depth (m)	Current direction	Current speed (ms^{-1})	Monitoring Depth	Temp (°C)		Salinity (ppt)		DO (mg/L)		DO Saturation (%)		Turbidity (NTU)		Suspended Solids (mg/L)		DO	Turbidity (Depth-average)		SS (Depth-average)	
							1	2	1	2	1	2	1	2	1	2	1	2	Average (mg/L)	Average (NTU)	Impact Stations Exceed Control Station C3 (%)	Average (mg/L)	Impact Stations Exceed Control Station C3 (%)
C3	Control Station	0909-0929	28.6	E	0.7	*Surface*	27.3	27.4	29.2	29.3	8.01	7.98	118.20	117.70	2.19	2.24	2.60	2.50	8.00	2.14	N.A.	2.53	N.A.
						Middle	27.1	27.2	29.5	29.4	8.10	8.12	119.20	119.60	2.06	1.99	2.50	2.60	8.11				
						Bottom	27.0	26.9	29.4	29.5	7.85	7.87	115.50	115.70	2.15	2.22	2.60	2.40	7.86				
G5	Gradient Station	0815-0835	21.8	E	0.7	*Surface*	27.5	27.4	29.3	29.4	7.97	7.99	119.00	119.20	2.55	2.61	3.30	2.90	7.98	2.29	N.A.	2.73	N.A.
						Middle	27.1	27.0	29.4	29.5	8.05	8.07	119.30	119.50	2.20	2.12	2.60	2.50	8.06				
						Bottom	26.7	26.6	29.6	29.5	7.92	7.88	116.50	115.80	2.09	2.14	2.50	2.60	7.90				
G6	Gradient Station	1006-1026	23.8	E	0.6	*Surface*	27.4	27.4	29.2	29.3	8.21	8.17	121.00	120.50	2.30	2.25	3.00	2.90	8.19	2.12	N.A.	2.62	N.A.
						Middle	27.1	27.0	29.3	29.4	8.05	8.01	118.50	118.00	2.14	2.08	2.40	2.50	8.03				
						Bottom	26.8	26.7	29.6	29.5	8.08	8.06	118.90	118.60	1.95	2.02	2.60	2.30	8.07				
E4	Impact Station	0840-0900	24.4	E	0.6	*Surface*	27.5	27.5	29.4	29.3	8.05	8.09	118.70	119.30	2.08	2.15	2.70	2.60	8.07	2.20	2.6%	2.65	4.6%
						Middle	27.3	27.2	29.5	29.6	7.97	8.00	117.30	117.80	2.40	2.48	2.90	3.00	7.99				
						Bottom	26.8	26.7	29.6	29.7	7.88	7.86	115.80	115.60	2.01	2.07	2.40	2.30	7.87				
E5	Impact Station	0938-0958	18.6	E	0.7	*Surface*	27.3	27.4	29.1	29.2	8.19	8.15	120.80	120.20	2.44	2.37	2.90	2.80	8.17	2.22	3.7%	2.65	4.6%
						Middle	27.2	27.1	29.3	29.2	8.01	7.99	118.00	117.60	2.20	2.29	2.50	2.70	8.00				
						Bottom	26.9	26.8	29.4	29.5	8.07	8.10	118.70	119.20	1.97	2.05	2.40	2.60	8.09				

Note: (1) : Raw Data
: Indicates Exceedance of Action Level at Impact Stations
: Indicates Exceedance of Limit Level at Impact Stations
: Calculated Data

Sampling Date : 1-Jun-16

Sampling Time : 11:00-15:00 (2nd Round)

Sampling Location : Zone C

Location	Nature	Sampling Time	Water Depth (m)	Current direction	Current speed (ms^{-1})	Monitoring Depth	Temp (°C)		Salinity (ppt)		DO (mg/L)		DO Saturation (%)		Turbidity (NTU)		Suspended Solids (mg/L)		DO	Turbidity (Depth-average)		SS (Depth-average)	
							1	2	1	2	1	2	1	2	1	2	1	2	Average (mg/L)	Average (NTU)	Impact Stations Exceed Control Station C3 (%)	Average (mg/L)	Impact Stations Exceed Control Station C3 (%)
C3	Control Station	1158-1217	28.5	E	0.9	*Surface*	27.6	27.6	29.5	29.6	8.32	8.29	122.70	122.20	2.29	2.36	2.80	2.60	8.31	2.15	N.A.	2.60	N.A.
						Middle	27.3	27.3	29.8	29.8	8.11	8.14	119.30	119.80	2.11	2.19	2.70	2.60	8.13				
						Bottom	27.0	26.9	29.6	29.5	8.05	8.00	118.30	117.60	1.93	2.01	2.30	2.60	8.03				
G5	Gradient Station	1100-1120	21.6	E	0.8	*Surface*	27.6	27.5	29.4	29.5	8.12	8.08	119.70	119.10	2.74	2.83	3.30	3.10	8.10	2.40	N.A.	2.85	N.A.
						Middle	27.2	27.2	29.6	29.6	8.19	8.21	120.50	120.80	2.37	2.44	2.80	2.90	8.20				
						Bottom	26.8	26.7	29.7	29.8	8.01	7.97	117.70	117.10	1.96	2.05	2.30	2.70	7.99				
G6	Gradient Station	1256-1315	24.0	E	0.8	*Surface*	27.6	27.6	29.3	29.4	8.42	8.39	124.10	123.70	2.56	2.47	3.10	3.00	8.41	2.29	N.A.	2.70	N.A.
						Middle	27.2	27.1	29.6	29.5	8.20	8.14	120.70	119.80	2.32	2.40	2.50	2.90	8.17				
						Bottom	26.9	26.8	29.8	29.7	8.00	8.05	117.60	118.30	2.03	1.96	2.40	2.30	8.03				
E4	Impact Station	1128-1147	24.2	E	0.8	*Surface*	27.7	27.6	29.5	2.9.5	8.24	8.21	121.50	121.00	2.42	2.51	2.90	3.00	8.23	2.47	14.7%	2.87	10.3%
						Middle	27.3	27.2	29.8	29.7	8.05	8.09	118.40	119.00	2.66	2.58	2.90	3.10	8.07				
						Bottom	26.9	26.8	29.5	29.5	7.93	7.96	116.50	117.00	2.27	2.35	2.50	2.80	7.95				
E5	Impact Station	1228-1248	18.8	E	0.8	*Surface*	27.5	27.6	29.2	29.3	8.33	8.37	122.80	123.40	2.35	2.46	3.10	2.70	8.35	2.25	4.6%	2.80	7.7%
						Middle	27.4	27.4	29.5	29.4	8.18	8.21	120.40	120.80	2.22	2.29	3.00	2.50	8.20				
						Bottom	27.0	27.0	29.6	29.7	8.13	8.09	119.50	118.90	2.05	2.11	2.70	2.80	8.11				

Note: (1) : Raw Data

: Indicates Exceedance of Action Level at Impact Stations

: Indicates Exceedance of Limit Level at Impact Stations

: Calculated Data

Sampling Date : 2-Jun-16
Sampling Time : 07:00 - 11:00 (1st Round)
Sampling Location : Zone B

Location	Nature	Sampling Time	Water Depth (m)	Current direction	Current speed (ms^{-1})	Monitoring Depth	Temp (°C)		Salinity (ppt)		DO (mg/L)		DO Saturation (%)		Turbidity (NTU)		Suspended Solids (mg/L)		DO	Turbidity (Depth-average)		SS (Depth-average)	
							1	2	1	2	1	2	1	2	1	2	1	2	Average (mg/L)	Average (NTU)	Impact Stations Exceed Control Station C2 (%)	Average (mg/L)	Impact Stations Exceed Control Station C2 (%)
C2	Control Station	0815-0830	31.8	E	0.3	*Surface*	27.9	27.8	28.5	28.6	7.58	7.50	113.5	113.3	3.00	3.02	3.3	3.3	7.54	3.21	N.A.	3.37	N.A.
						Middle	27.8	27.7	28.7	28.8	7.37	7.39	110.0	110.2	3.24	3.26	3.4	3.3	7.38				
						Bottom	27.6	27.5	28.9	29.0	7.24	7.26	107.8	107.9	3.37	3.39	3.5	3.4	7.25				
G3	Gradient Station	0735-0750	17.6	W	0.2	*Surface*	28.1	28.0	28.4	28.5	7.43	7.45	111.2	111.4	3.20	3.22	3.4	3.4	7.44	3.38	N.A.	3.57	N.A.
						Middle	27.8	27.7	28.6	28.7	7.30	7.28	108.9	108.7	3.36	3.38	3.6	3.5	7.29				
						Bottom	27.5	27.4	28.9	28.9	7.13	7.15	106.1	106.3	3.54	3.56	3.7	3.8	7.14				
G4	Gradient Station	0850-0905	20.6	W	0.3	*Surface*	28.0	28.0	28.4	28.4	7.61	7.59	113.9	113.7	2.73	2.75	3.0	3.0	7.60	2.85	N.A.	3.17	N.A.
						Middle	27.8	27.7	28.5	28.6	7.43	7.41	110.9	110.7	2.84	2.86	3.2	3.2	7.42				
						Bottom	27.5	27.6	28.7	28.8	7.30	7.28	108.6	108.4	2.94	2.96	3.3	3.3	7.29				
G7	Gradient Station	0930-0945	17.9	W	0.3	*Surface*	28.1	28.0	28.5	28.4	7.68	7.70	114.9	115.1	3.00	3.02	3.3	3.3	7.69	3.17	N.A.	3.50	N.A.
						Middle	27.8	27.7	28.6	28.7	7.48	7.46	111.6	111.4	3.15	3.17	3.5	3.5	7.47				
						Bottom	27.6	27.5	28.8	28.9	7.22	7.24	107.5	107.7	3.34	3.36	3.7	3.7	7.23				
B1	Impact Station	1045-1100	8.7	W	0.2	*Surface*	27.9	27.8	28.4	28.5	7.63	7.65	114.2	114.4	2.14	2.16	2.4	2.4	7.64	2.32	-27.9%	2.57	-23.8%
						Middle	27.7	27.6	28.6	28.7	7.41	7.39	110.6	110.3	2.34	2.36	2.6	2.6	7.40				
						Bottom	27.5	27.5	28.8	28.9	7.30	7.28	108.6	108.4	2.44	2.46	2.7	2.7	7.29				
B2	Impact Station	1030-1043	12.1	W	0.3	*Surface*	28.0	28.0	28.5	28.6	7.46	7.51	112.1	112.3	1.95	1.97	2.2	2.2	7.49	2.12	-34.0%	2.53	-24.8%
						Middle	27.9	27.8	28.7	28.7	7.36	7.34	109.8	109.6	2.14	2.16	2.6	2.6	7.35				
						Bottom	27.7	27.6	28.8	28.9	7.25	7.23	107.9	107.7	2.24	2.26	2.8	2.8	7.24				
B3	Impact Station	1000-1012	12.0	W	0.3	*Surface*	28.1	28.0	28.5	28.6	7.54	7.52	112.8	113.0	2.43	2.45	2.7	2.7	7.53	2.65	-17.4%	2.92	-13.4%
						Middle	27.8	27.7	28.7	28.8	7.36	7.34	109.8	109.6	2.56	2.58	2.8	2.8	7.35				
						Bottom	27.6	27.5	28.9	28.9	7.13	7.11	106.1	106.3	2.94	2.96	3.2	3.3	7.12				
E1	Impact Station	0947-0957	12.6	W	0.4	*Surface*	28.0	27.9	28.5	28.6	7.62	7.64	114.0	114.3	2.74	2.76	2.8	2.8	7.63	2.93	-8.9%	3.00	-10.9%
						Middle	27.9	27.8	28.7	28.8	7.50	7.52	111.9	112.1	2.89	2.91	3.0	3.0	7.51				
						Bottom	27.7	27.6	28.9	29.0	7.34	7.36	109.3	109.5	3.12	3.14	3.2	3.2	7.35				
E2	Impact Station	0836-0845	9.4	W	0.3	*Surface*	28.1	28.0	28.5	28.6	7.74	7.72	115.8	115.6	2.94	2.96	3.0	3.0	7.73	3.13	-2.7%	3.20	-5.0%
						Middle	27.9	27.8	28.7	28.8	7.53	7.55	112.4	112.6	3.15	3.18	3.3	3.2	7.54				
						Bottom	27.7	27.6	28.9	29.0	7.29	7.31	108.5	108.7	3.25	3.27	3.3	3.4	7.30				
E6	Impact Station	0910-0925	22.4	W	0.3	*Surface*	27.9	27.8	28.4	28.5	7.80	7.82	116.7	116.9	3.14	3.16	3.2	3.3	7.81	3.25	1.2%	3.37	0.0%
						Middle	27.7	27.6	28.6	28.7	7.64	7.66	114.0	114.2	3.25	3.27	3.3	3.4	7.65				
						Bottom	27.5	27.5	28.8	28.9	7.45	7.43	110.9	110.7	3.34	3.36	3.4	3.6	7.44				
E8	Impact Station	0715-0730	19.4	W	0.4	*Surface*	28.0	27.9	28.5	28.6	7.60	7.62	113.7	113.9	3.12	3.14	3.3	3.3	7.61	3.26	1.6%	3.42	1.5%
						Middle	27.7	27.7	28.7	28.8	7.43	7.41	110.9	110.7	3.25	3.27	3.4	3.4	7.42				
						Bottom	27.6	27.5	28.9	29.0	7.30	7.28	108.6	108.4	3.39	3.41	3.6	3.5	7.29				
F1	Impact Station	0755-0810	15.1	W	0.3	*Surface*	27.9	27.8	28.5	28.6	7.74	7.76	115.8	116.0	2.95	2.97	3.1	3.2	7.75	3.16	-1.7%	3.32	-1.5%
						Middle	27.7	27.6	28.7	28.8	7.52	7.54	112.2	112.4	3.16	3.18	3.3	3.3	7.53				
						Bottom	27.5	27.5	28.9	29.0	7.36	7.34	109.5	109.3	3.34	3.36	3.5	3.5	7.35				
I1	Impact Station	1014-1024	17.5	W	0.3	*Surface*	27.9	27.9	28.4	28.5	7.70	7.72	115.2	115.4	2.56	2.58	2.8	2.9	7.71	2.65	-17.4%	2.93	-12.9%
						Middle	27.7	27.8	28.6	28.6	7.56	7.54	112.8	112.6	2.64	2.66	2.9	2.9	7.55				
						Bottom	27.6	27.5	28.7	28.8	7.29	7.31	108.5	108.7	2.73	2.75	3.0	3.1	7.30				

Note:
: Raw Data
: Indicates Exceedance of Action Level at Impact Stations
: Indicates Exceedance of Limit Level at Impact Stations
: Calculated Data

Sampling Date : 2-Jun-16
Sampling Time : 11:00 - 15:00 (2nd Round)
Sampling Location : Zone B

Location	Nature	Sampling Time	Water Depth (m)	Current direction	Current speed (ms^{-1})	Monitoring Depth	Temp (°C)		Salinity (ppt)		DO (mg/L)		DO Saturation (%)		Turbidity (NTU)		Suspended Solids (mg/L)		DO	Turbidity (Depth-average)		SS (Depth-average)	
							1	2	1	2	1	2	1	2	1	2	1	2	Average (mg/L)	Average (NTU)	Impact Stations Exceed Control Station C2 (%)	Average (mg/L)	Impact Stations Exceed Control Station C2 (%)
C2	Control Station	1200-1215	31.6	W	0.3	*Surface*	27.9	27.8	28.5	28.6	7.29	7.31	109.1	109.3	3.14	3.16	3.3	3.3	7.30	3.25	N.A.	3.33	N.A.
						Middle	27.7	27.6	28.7	28.8	7.16	7.18	106.8	108.8	3.25	3.27	3.2	3.4	7.17				
						Bottom	27.5	27.5	28.9	29.0	7.03	7.01	104.6	104.4	3.34	3.36	3.4	3.4	7.02				
G3	Gradient Station	1120-1135	17.3	W	0.3	*Surface*	28.1	28.1	28.5	28.6	7.36	7.34	110.2	110.0	3.36	3.38	4.1	4.1	7.35	3.38	N.A.	3.97	N.A.
						Middle	27.9	28.0	28.7	28.8	7.24	7.22	108.1	107.9	3.45	3.47	4.1	4.2	7.23				
						Bottom	27.7	27.6	28.9	29.0	7.07	7.09	105.2	105.4	3.00	3.62	3.6	3.7	7.08				
G4	Gradient Station	1240-1255	20.3	W	0.4	*Surface*	28.0	27.9	28.4	28.5	7.35	7.33	110.0	109.8	2.63	2.65	2.9	2.9	7.34	2.83	N.A.	3.12	N.A.
						Middle	27.8	27.7	28.6	28.7	7.24	7.22	108.0	107.8	2.79	2.81	3.1	3.1	7.23				
						Bottom	27.6	27.5	28.8	28.9	7.04	7.06	104.8	105.0	3.04	3.06	3.3	3.4	7.05				
G7	Gradient Station	1320-1335	17.5	W	0.3	*Surface*	28.1	28.1	28.4	28.5	7.29	7.31	109.1	109.3	2.56	2.58	2.8	2.8	7.30	2.73	N.A.	2.98	N.A.
						Middle	28.0	27.7	28.6	28.6	7.16	7.14	106.8	106.6	2.77	2.79	3.0	3.1	7.15				
						Bottom	27.8	27.7	28.7	28.7	7.00	7.02	104.2	104.4	2.84	2.86	3.1	3.1	7.01				
B1	Impact Station	1445-1500	8.9	W	0.3	*Surface*	28.1	28.1	28.4	28.5	7.20	7.22	107.7	107.9	2.34	2.36	3.0	3.1	7.21	2.56	-21.2%	3.07	-8.0%
						Middle	28.0	27.9	28.6	28.7	6.93	6.91	103.4	103.2	2.59	2.61	2.8	2.9	6.92				
						Bottom	27.7	27.8	28.8	29.0	6.74	6.76	100.4	100.6	2.73	2.75	3.3	3.3	6.75				
B2	Impact Station	1432-1444	12.5	W	0.3	*Surface*	27.9	27.8	28.5	28.6	7.32	7.30	109.5	109.3	2.14	2.16	2.4	2.6	7.31	2.32	-28.7%	2.80	-16.0%
						Middle	27.7	27.6	28.7	28.8	7.13	7.15	106.7	106.9	2.37	2.35	2.8	2.6	7.14				
						Bottom	27.4	27.5	28.9	29.0	6.93	6.91	103.1	102.9	2.44	2.46	3.2	3.2	6.92				
B3	Impact Station	1400-1412	11.7	E	0.4	*Surface*	28.1	28.1	28.4	28.5	7.26	7.24	108.6	108.4	3.24	3.26	3.3	3.3	7.25	3.36	3.4%	3.47	4.0%
						Middle	27.9	28.0	28.6	28.7	7.03	7.05	104.9	105.1	3.37	3.39	3.4	3.6	7.04				
						Bottom	27.7	27.7	28.8	28.9	6.94	6.96	100.3	100.6	3.45	3.47	3.6	3.6	6.95				
E1	Impact Station	1340-1355	12.3	W	0.4	*Surface*	28.0	28.1	28.5	28.6	7.35	7.33	110.0	109.8	3.12	3.14	3.2	3.2	7.34	3.24	-0.4%	3.32	-0.5%
						Middle	27.9	27.8	28.7	28.8	7.16	7.14	106.8	106.6	3.23	3.25	3.3	3.4	7.15				
						Bottom	27.7	27.6	28.9	28.9	7.20	7.18	107.2	107.5	3.34	3.36	3.4	3.4	7.19				
E2	Impact Station	1220-1235	9.1	W	0.3	*Surface*	28.1	28.0	28.5	28.4	7.46	7.48	111.6	111.8	2.73	2.75	3.0	3.1	7.47	2.95	-9.4%	3.23	-3.0%
						Middle	27.9	27.8	28.6	28.7	7.34	7.32	109.5	109.3	2.94	2.96	3.2	3.3	7.33				
						Bottom	27.7	27.7	28.8	28.9	7.15	7.13	106.4	106.2	3.14	3.16	3.4	3.4	7.14				
E6	Impact Station	1300-1315	22.1	E	0.3	*Surface*	27.9	27.9	28.6	28.5	7.55	7.53	113.0	112.8	2.43	2.45	2.6	2.7	7.54	2.61	-19.8%	2.90	-13.0%
						Middle	27.8	27.7	28.7	28.8	7.32	7.34	109.3	109.5	2.60	2.62	2.9	2.9	7.33				
						Bottom	27.6	27.6	28.9	29.0	7.20	7.22	107.2	107.4	2.77	2.79	3.1	3.2	7.21				
E8	Impact Station	1100-1115	19.2	W	0.3	*Surface*	27.9	27.9	28.4	28.5	7.74	7.72	115.8	115.6	2.84	2.86	3.2	3.2	7.73	3.01	-7.6%	3.40	2.0%
						Middle	27.8	27.7	28.6	28.7	7.53	7.51	112.4	112.2	3.00	3.03	3.4	3.5	7.52				
						Bottom	27.6	27.5	28.8	28.9	7.34	7.32	109.2	109.0	3.14	3.16	3.5	3.6	7.33				
F1	Impact Station	1140-1155	14.9	W	0.3	*Surface*	28.0	28.0	28.6	28.7	7.44	7.42	111.3	111.1	2.93	2.95	3.3	3.5	7.43	3.07	-5.6%	3.67	10.0%
						Middle	27.9	27.8	28.8	28.9	7.28	7.30	108.6	108.8	3.06	3.08	3.7	3.4	7.29				
						Bottom	27.7	27.6	29.0	29.1	7.11	7.13	105.8	106.0	3.19	3.21	4.2	3.9	7.12				
I1	Impact Station	1415-1430	17.2	W	0.4	*Surface*	27.9	27.9	28.5	28.5	7.15	7.17	107.0	107.2	3.06	3.08	3.4	3.4	7.16	3.16	-2.9%	3.50	5.0%
						Middle	27.8	27.7	28.6	28.7	7.00	6.98	105.4	105.2	3.15	3.17	3.5	3.5	6.99				
						Bottom	27.6	27.5	28.8	28.9	6.82	6.84	101.5	101.8	3.24	3.26	3.6	3.6	6.83				

Note:
: Raw Data
: Indicates Exceedance of Action Level at Impact Stations
: Indicates Exceedance of Limit Level at Impact Stations
: Calculated Data

Sampling Date : 2-Jun-16
Sampling Time : 15:00 - 19:00 (3rd Round)
Sampling Location : Zone B

Location	Nature	Sampling Time	Water Depth (m)	Current direction	Current speed (ms^{-1})	Monitoring Depth	Temp (°C)		Salinity (ppt)		DO (mg/L)		DO Saturation (%)		Turbidity (NTU)		Suspended Solids (mg/L)		DO	Turbidity (Depth-average)		SS (Depth-average)	
							1	2	1	2	1	2	1	2	1	2	1	2	Average (mg/L)	Average (NTU)	Impact Stations Exceed Control Station C2 (%)	Average (mg/L)	Impact Stations Exceed Control Station C2 (%)
C2	Control Station	1559-1614	31.6	E	0.3	*Surface*	28.1	28.0	28.7	28.6	7.43	7.41	111.3	111.1	2.93	2.99	3.2	3.3	7.42	3.14	N.A.	3.45	N.A.
						Middle	27.9	27.8	28.8	28.9	7.26	7.22	109.2	108.8	3.19	3.14	3.6	3.4	7.24				
						Bottom	27.6	27.5	29.0	29.1	7.18	7.16	105.7	105.5	3.25	3.31	3.6	3.6	7.17				
G3	Gradient Station	1522-1536	17.8	W	0.2	*Surface*	28.0	27.9	28.6	28.5	7.52	7.55	112.7	113.0	3.17	3.11	3.5	3.4	7.54	3.39	N.A.	3.73	N.A.
						Middle	27.8	27.9	28.7	28.6	7.46	7.43	111.6	111.3	3.44	3.37	3.8	3.7	7.45				
						Bottom	27.6	27.7	28.8	28.9	7.28	7.26	108.6	108.3	3.64	3.58	4.0	4.0	7.27				
G4	Gradient Station	1635-1650	20.4	W	0.3	*Surface*	28.1	28.0	28.5	28.4	7.54	7.58	113.1	113.5	3.12	3.06	2.9	2.9	7.56	2.84	N.A.	3.12	N.A.
						Middle	27.9	27.8	28.6	28.5	7.46	7.43	111.7	111.4	2.76	2.82	3.1	3.1	7.45				
						Bottom	27.7	27.6	28.8	28.7	7.37	7.38	109.8	109.9	2.67	2.63	3.3	3.4	7.38				
G7	Gradient Station	1712-1727	17.7	W	0.3	*Surface*	27.9	28.0	28.5	28.4	7.56	7.52	113.2	112.7	2.86	2.92	2.8	2.8	7.54	3.05	N.A.	2.98	N.A.
						Middle	27.9	27.8	28.6	28.7	7.61	7.63	113.9	114.3	3.07	2.98	3.0	3.1	7.62				
						Bottom	27.6	27.7	28.8	28.7	7.42	7.46	110.8	111.2	3.27	3.21	3.1	3.1	7.44				
B1	Impact Station	1837-1851	8.5	W	0.3	*Surface*	27.9	27.9	28.6	28.5	7.74	7.71	116.1	115.7	2.08	2.01	2.3	2.2	7.73	2.17	-30.8%	2.38	-30.9%
						Middle	27.9	27.8	28.6	28.6	7.68	7.65	114.9	114.6	2.11	2.16	2.3	2.4	7.67				
						Bottom	27.7	27.6	28.8	28.7	7.44	7.47	111.1	111.4	2.28	2.37	2.5	2.6	7.46				
B2	Impact Station	1820-1834	12.3	W	0.3	*Surface*	27.9	28.0	28.4	28.5	7.52	7.56	112.6	112.9	2.23	2.18	2.5	2.4	7.54	2.20	-29.9%	2.42	-30.0%
						Middle	28.8	27.7	28.6	28.5	7.41	7.44	110.9	111.3	2.07	2.03	2.3	2.2	7.43				
						Bottom	27.6	27.7	28.7	28.6	7.28	7.26	108.6	108.3	2.38	2.29	2.6	2.5	7.27				
B3	Impact Station	1748-1801	12.2	W	0.3	*Surface*	27.9	28.0	28.6	28.5	7.64	7.67	114.5	114.8	2.64	2.72	2.9	3.0	7.66	2.65	-15.6%	2.92	-15.5%
						Middle	28.0	28.0	28.7	28.6	7.45	7.48	111.5	111.8	2.41	2.46	2.6	2.7	7.47				
						Bottom	27.8	27.7	28.7	28.8	7.36	7.39	109.8	110.1	2.86	2.79	3.2	3.1	7.38				
E1	Impact Station	1731-1745	12.7	W	0.3	*Surface*	27.9	27.8	28.5	28.4	7.78	7.76	116.6	116.3	2.81	2.88	3.1	3.1	7.77	3.01	-3.9%	3.33	-3.4%
						Middle	27.8	27.9	28.6	28.4	7.71	7.68	115.4	115.1	2.95	3.02	3.3	3.4	7.70				
						Bottom	27.7	27.6	28.7	28.8	7.54	7.51	112.6	112.3	3.18	3.23	3.5	3.6	7.53				
E2	Impact Station	1618-1632	9.3	W	0.4	*Surface*	28.0	27.9	28.6	28.7	7.81	7.77	116.9	116.5	2.83	2.88	3.1	3.2	7.79	3.02	-3.6%	3.33	-3.4%
						Middle	27.9	27.9	28.6	28.7	7.75	7.72	116.0	115.7	3.07	3.01	3.4	3.4	7.74				
						Bottom	27.8	27.7	28.8	28.7	7.63	7.66	112.3	112.6	3.21	3.13	3.5	3.4	7.65				
E6	Impact Station	1654-1708	22.1	W	0.4	*Surface*	28.0	27.9	28.6	28.5	7.68	7.71	115.1	115.7	3.23	3.13	3.6	3.4	7.70	3.18	1.4%	3.47	0.5%
						Middle	27.8	27.9	28.7	28.8	7.62	7.60	114.1	113.9	3.04	3.09	3.3	3.3	7.61				
						Bottom	27.7	27.7	28.9	28.9	7.54	7.56	112.5	112.7	3.31	3.27	3.6	3.6	7.55				
E8	Impact Station	1505-1518	19.6	W	0.3	*Surface*	28.1	28.0	28.6	28.7	7.71	7.73	115.8	116.0	3.02	3.09	3.3	3.5	7.72	3.19	1.8%	3.53	2.4%
						Middle	27.9	27.8	28.8	28.8	7.56	7.51	113.2	112.8	3.18	3.23	3.5	3.6	7.54				
						Bottom	27.7	27.6	29.1	29.0	7.42	7.46	110.9	111.4	3.36	3.27	3.7	3.6	7.44				
F1	Impact Station	1540-1554	15.2	W	0.3	*Surface*	27.9	28.0	28.5	28.4	7.64	7.68	114.5	114.8	3.05	3.13	3.4	3.4	7.66	3.25	3.6%	3.57	3.4%
						Middle	27.9	27.8	28.6	28.5	7.53	7.52	112.7	112.6	3.27	3.22	3.6	3.6	7.53				
						Bottom	27.5	27.6	28.7	28.8	7.47	7.44	110.1	109.8	3.39	3.43	3.7	3.7	7.46				
I1	Impact Station	1803-1817	17.3	W	0.3	*Surface*	28.0	27.9	28.6	28.6	7.78	7.79	116.6	116.7	2.43	2.48	3.4	3.4	7.79	2.62	-16.3%	3.50	1.4%
						Middle	27.8	27.9	28.7	28.8	7.66	7.63	114.7	114.4	2.65	2.49	3.5	3.5	7.65				
						Bottom	27.7	27.6	28.9	28.8	7.35	7.38	109.7	110.0	2.87	2.82	3.6	3.6	7.37				

Note:
: Raw Data
: Indicates Exceedance of Action Level at Impact Stations
: Indicates Exceedance of Limit Level at Impact Stations
: Calculated Data

Sampling Date : 3-Jun-16
Sampling Time : 07:00 - 11:00 (1st Round)
Sampling Location : Zone B

Location	Nature	Sampling Time	Water Depth (m)	Current direction	Current speed (ms^{-1})	Monitoring Depth	Temp (°C)		Salinity (ppt)		DO (mg/L)		DO Saturation (%)		Turbidity (NTU)		Suspended Solids (mg/L)		DO	Turbidity (Depth-average)		SS (Depth-average)	
							1	2	1	2	1	2	1	2	1	2	1	2	Average (mg/L)	Average (NTU)	Impact Stations Exceed Control Station C2 (%)	Average (mg/L)	Impact Stations Exceed Control Station C2 (%)
C2	Control Station	0752-0802	32.2	W	0.3	*Surface*	28.1	28.0	29.0	29.1	7.89	7.91	118.4	118.6	2.74	2.76	3.3	3.3	7.90	2.97	N.A.	3.58	N.A.
						Middle	27.9	27.8	29.2	29.3	7.64	7.66	114.1	114.3	2.99	3.01	3.2	3.9	7.65				
						Bottom	27.7	27.6	29.4	29.5	7.47	7.49	111.4	111.6	3.14	3.16	4.0	3.8	7.48				
G3	Gradient Station	0727-0737	18.0	W	0.3	*Surface*	28.1	28.1	28.9	29.0	7.83	7.81	117.5	117.3	2.56	2.58	3.1	2.8	7.82	2.66	N.A.	3.12	N.A.
						Middle	28.0	27.9	29.1	29.2	7.65	7.67	114.3	114.5	2.63	2.64	3.2	3.2	7.66				
						Bottom	27.7	27.8	29.3	29.3	7.52	7.50	112.2	112.0	2.77	2.75	3.0	3.4	7.51				
G4	Gradient Station	0821-0836	20.9	E	0.3	*Surface*	28.0	27.9	29.1	29.2	7.64	7.66	114.6	114.8	2.44	2.46	2.7	2.7	7.65	2.54	N.A.	2.80	N.A.
						Middle	27.8	27.7	29.3	29.4	7.43	7.41	111.0	110.8	2.51	2.53	2.8	2.8	7.42				
						Bottom	27.6	27.5	29.5	29.5	7.32	7.30	109.2	109.4	2.64	2.66	2.9	2.9	7.31				
G7	Gradient Station	0856-0911	18.2	E	0.4	*Surface*	28.0	28.1	29.1	29.2	7.59	7.61	113.9	114.1	2.64	2.66	2.9	2.9	7.60	2.80	N.A.	3.22	N.A.
						Middle	27.9	27.9	29.3	29.3	7.42	7.40	110.8	110.6	2.79	2.81	3.3	3.4	7.41				
						Bottom	27.8	27.7	29.4	29.5	7.32	7.30	109.2	109.0	2.94	2.96	3.2	3.6	7.31				
B1	Impact Station	1040-1100	8.9	W	0.2	*Surface*	28.0	27.9	28.9	29.0	7.78	7.80	116.8	117.0	2.48	2.50	3.0	3.0	7.79	2.68	-9.7%	2.98	-16.7%
						Middle	27.8	27.8	29.1	29.2	7.54	7.56	112.6	112.8	2.69	2.71	3.0	3.0	7.55				
						Bottom	27.7	27.6	29.3	29.4	7.33	7.35	109.4	109.0	2.84	2.86	3.1	2.8	7.34				
B2	Impact Station	1015-1035	12.4	W	0.3	*Surface*	28.1	28.1	29.1	29.1	7.65	7.67	114.8	115.0	2.36	2.38	2.6	2.9	7.66	2.47	-16.9%	2.90	-19.1%
						Middle	28.0	27.9	29.2	29.3	7.39	7.41	110.4	110.6	2.45	2.47	2.7	3.0	7.40				
						Bottom	27.8	27.8	29.4	29.5	7.26	7.28	108.3	108.5	2.56	2.58	3.1	3.1	7.27				
B3	Impact Station	0935-0945	12.2	W	0.2	*Surface*	27.9	28.0	29.0	29.0	7.60	7.62	114.1	114.3	2.36	2.38	2.8	2.9	7.61	2.47	-16.9%	2.92	-18.6%
						Middle	27.8	27.7	29.1	29.2	7.45	7.47	111.3	111.5	2.44	2.46	2.9	3.0	7.46				
						Bottom	27.6	27.5	29.3	29.4	7.29	7.31	108.7	108.9	2.57	2.59	3.1	2.8	7.30				
E1	Impact Station	0915-0930	12.9	W	0.3	*Surface*	28.0	28.1	28.9	29.0	7.73	7.71	116.0	115.8	2.43	2.45	2.6	2.7	7.72	2.60	-12.2%	2.92	-18.6%
						Middle	27.9	27.8	29.1	29.2	7.58	7.56	113.2	113.0	2.60	2.62	2.9	3.2	7.57				
						Bottom	27.7	27.6	29.3	29.3	7.34	7.36	109.5	109.7	2.75	2.77	3.1	3.0	7.35				
E2	Impact Station	0804-0818	9.7	E	0.3	*Surface*	28.1	28.1	28.9	29.0	7.76	7.74	116.5	116.3	2.36	2.38	2.8	2.6	7.75	2.46	-17.0%	2.78	-22.3%
						Middle	27.9	27.8	29.1	29.2	7.55	7.57	112.7	112.9	2.45	2.47	2.7	2.7	7.56				
						Bottom	27.7	27.6	29.3	29.4	7.40	7.42	110.4	110.6	2.55	2.57	2.8	3.1	7.41				
E6	Impact Station	0838-0854	22.6	W	0.3	*Surface*	27.9	27.8	29.0	29.1	7.84	7.82	117.6	117.4	2.54	2.56	2.8	2.9	7.83	2.66	-10.3%	3.05	-14.9%
						Middle	27.7	27.6	29.2	29.3	7.60	7.62	113.5	113.7	2.67	2.69	3.2	3.2	7.61				
						Bottom	27.5	27.5	29.4	29.4	7.50	7.48	111.9	111.7	2.74	2.76	3.1	3.1	7.49				
E8	Impact Station	0715-0725	19.7	W	0.2	*Surface*	28.2	28.1	29.0	29.1	7.74	7.76	116.2	116.4	2.49	2.51	3.0	2.7	7.75	2.68	-9.7%	3.02	-15.8%
						Middle	28.0	27.9	29.2	29.3	7.50	7.48	112.1	111.9	2.68	2.70	2.9	3.0	7.49				
						Bottom	27.8	27.7	29.4	29.5	7.35	7.37	109.6	109.8	2.84	2.86	3.1	3.4	7.36				
F1	Impact Station	0740-0750	15.4	W	0.3	*Surface*	28.0	27.9	29.0	29.1	7.44	7.40	105.8	105.3	3.14	3.09	3.0	3.0	7.42	3.21	8.3%	3.13	-12.6%
						Middle	27.9	27.8	29.2	29.3	7.14	7.12	101.5	101.2	3.19	3.25	3.0	3.3	7.13				
						Bottom	27.7	27.6	29.4	29.5	7.02	7.06	99.7	100.2	3.34	3.26	3.1	3.4	7.04				
I1	Impact Station	0950-1010	17.7	W	0.3	*Surface*	27.9	27.9	29.0	29.1	7.36	7.32	105.4	104.9	3.02	3.06	3.0	3.1	7.34	3.01	1.6%	3.03	-15.3%
						Middle	27.8	27.7	29.2	29.3	6.97	6.94	99.5	99.1	3.08	3.01	2.9	2.9	6.96				
						Bottom	27.6	27.5	29.4	29.5	6.92	6.87	90.5	97.9	2.99	2.92	3.0	3.3	6.90				

Note:
: Raw Data
: Indicates Exceedance of Action Level at Impact Stations
: Indicates Exceedance of Limit Level at Impact Stations
: Calculated Data

Sampling Date : 3-Jun-16
Sampling Time : 11:00 - 15:00 (2nd Round)
Sampling Location : Zone B

Location	Nature	Sampling Time	Water Depth (m)	Current direction	Current speed (ms^{-1})	Monitoring Depth	Temp (°C)		Salinity (ppt)		DO (mg/L)		DO Saturation (%)		Turbidity (NTU)		Suspended Solids (mg/L)		DO	Turbidity (Depth-average)		SS (Depth-average)	
							1	2	1	2	1	2	1	2	1	2	1	2	Average (mg/L)	Average (NTU)	Impact Stations Exceed Control Station C2 (%)	Average (mg/L)	Impact Stations Exceed Control Station C2 (%)
C2	Control Station	1200-1215	31.9	W	0.3	*Surface*	28.0	27.9	29.0	28.9	7.53	7.51	113.0	112.8	2.47	2.49	3.2	2.7	7.52	2.54	N.A.	3.17	N.A.
						Middle	27.8	27.7	29.1	29.2	7.30	7.28	109.0	108.8	2.52	2.54	3.4	3.3	7.29				
						Bottom	27.6	27.5	29.3	9.4	7.04	7.06	105.0	105.2	2.60	2.62	3.3	3.1	7.05				
G3	Gradient Station	1120-1135	17.7	W	0.3	*Surface*	28.1	28.0	28.9	29.0	7.61	7.63	114.2	114.3	2.43	2.41	2.6	2.6	7.62	2.54	N.A.	2.95	N.A.
						Middle	27.9	27.8	29.1	29.2	7.45	7.47	111.3	111.5	2.55	2.57	3.1	3.1	7.46				
						Bottom	27.7	27.7	29.3	29.4	7.28	7.26	108.6	108.4	2.64	2.66	3.1	3.2	7.27				
G4	Gradient Station	1240-1255	20.2	W	0.3	*Surface*	28.1	28.0	28.9	29.0	7.51	7.53	112.7	112.9	2.34	2.36	2.6	2.8	7.52	2.49	N.A.	2.80	N.A.
						Middle	27.9	27.9	29.1	29.2	7.33	7.35	109.5	109.7	2.45	2.47	2.9	2.7	7.34				
						Bottom	27.7	27.6	29.3	29.4	7.14	7.16	106.5	106.7	2.64	2.66	2.9	2.9	7.15				
G7	Gradient Station	1320-1335	17.9	W	0.4	*Surface*	28.1	28.1	28.9	29.0	7.34	7.36	110.2	110.4	2.39	2.41	2.6	2.9	7.35	2.54	N.A.	2.87	N.A.
						Middle	28.0	27.9	29.1	29.2	7.21	7.19	107.7	107.5	2.55	2.57	2.8	2.8	7.20				
						Bottom	27.8	27.7	29.3	29.4	7.04	7.06	105.0	105.2	2.64	2.66	3.2	2.9	7.05				
B1	Impact Station	1445-1500	8.6	W	0.4	*Surface*	27.9	27.8	29.1	29.2	7.64	7.62	114.6	114.4	2.34	2.36	2.8	2.8	7.63	2.50	-1.7%	2.87	-9.5%
						Middle	27.7	27.7	29.3	29.4	7.48	7.46	111.7	111.5	2.48	2.50	2.7	2.8	7.47				
						Bottom	27.6	27.5	29.5	29.6	7.30	7.32	108.9	109.1	2.64	2.66	2.9	3.2	7.31				
B2	Impact Station	1430-1443	12.1	W	0.4	*Surface*	28.1	28.0	28.9	29.0	7.43	7.41	111.5	111.3	2.43	2.45	2.7	2.9	7.42	2.56	0.7%	2.93	-7.4%
						Middle	27.9	27.8	29.1	29.2	7.25	7.27	108.3	108.5	2.57	2.59	2.8	3.1	7.26				
						Bottom	27.7	27.6	29.3	29.4	7.05	7.07	105.1	105.3	2.64	2.66	3.2	2.9	7.06				
B3	Impact Station	1400-1415	12.0	W	0.4	*Surface*	28.0	28.0	28.9	29.0	7.43	7.41	111.5	111.3	2.33	2.35	2.8	2.8	7.42	2.44	-4.1%	2.83	-10.5%
						Middle	27.9	27.8	29.1	29.2	7.28	7.26	108.7	108.5	2.41	2.43	2.9	2.9	7.27				
						Bottom	27.7	27.6	29.3	29.4	7.06	7.08	105.3	105.5	2.56	2.54	2.8	2.8	7.07				
E1	Impact Station	1340-1355	12.7	W	0.3	*Surface*	28.1	28.0	29.0	29.0	7.58	7.56	113.7	113.5	2.24	2.26	2.5	2.7	7.57	2.37	-6.6%	2.73	-13.7%
						Middle	27.9	27.8	29.1	29.2	7.44	7.42	111.1	110.9	2.37	2.39	2.8	2.6	7.43				
						Bottom	27.7	27.6	29.3	29.4	7.25	7.23	108.1	107.9	2.48	2.50	3.0	2.8	7.24				
E2	Impact Station	1220-1235	9.4	W	0.3	*Surface*	28.0	27.9	29.1	29.1	7.64	7.66	114.6	114.8	2.24	2.26	2.5	2.7	7.65	2.36	-7.0%	2.73	-13.7%
						Middle	27.8	27.7	29.2	29.3	7.45	7.43	111.3	111.1	2.37	2.39	2.7	2.9	7.44				
						Bottom	27.6	27.5	29.4	29.5	7.21	7.19	107.5	107.3	2.45	2.47	2.7	2.9	7.20				
E6	Impact Station	1300-1315	22.3	W	0.3	*Surface*	28.0	27.9	28.9	29.0	7.43	7.45	111.5	111.7	2.17	2.19	2.6	2.4	7.44	2.33	-8.1%	2.65	-16.3%
						Middle	27.8	27.7	29.1	29.2	7.26	7.24	108.4	108.2	2.36	2.38	2.6	2.9	7.25				
						Bottom	27.6	27.5	29.3	29.4	7.03	7.05	104.8	105.0	2.44	2.46	2.6	2.8	7.04				
E8	Impact Station	1100-1115	19.0	W	0.4	*Surface*	28.0	27.9	29.1	29.2	7.58	7.56	113.7	113.5	2.55	2.57	3.1	2.8	7.57	2.66	4.7%	3.12	-1.6%
						Middle	27.8	27.7	29.3	29.4	7.40	7.40	110.8	110.6	2.66	2.68	3.2	3.0	7.40				
						Bottom	27.6	27.5	29.5	29.6	7.36	7.34	109.8	109.6	2.74	2.76	3.3	3.3	7.35				
F1	Impact Station	1140-1155	15.1	W	0.3	*Surface*	27.9	27.8	28.9	28.9	7.48	7.46	112.7	112.5	2.61	2.63	3.1	2.9	7.47	2.73	7.3%	3.23	2.1%
						Middle	27.7	27.6	29.0	29.1	7.35	7.33	109.8	109.6	2.74	2.76	3.3	3.3	7.34				
						Bottom	27.5	27.4	29.2	29.3	7.16	7.18	106.8	107.0	2.80	2.82	3.4	3.4	7.17				
I1	Impact Station	1417-1427	17.4	W	0.3	*Surface*	28.1	28.1	28.9	29.0	7.35	7.37	110.3	110.5	2.33	2.35	2.8	2.8	7.36	2.50	-1.6%	2.95	-6.8%
						Middle	28.0	27.9	29.1	29.2	7.16	7.14	106.9	106.7	2.52	2.50	3.0	3.0	7.15				
						Bottom	27.7	27.6	29.3	29.4	7.02	7.04	104.7	104.9	2.64	2.66	3.2	2.9	7.03				

Note:
: Raw Data
: Indicates Exceedance of Action Level at Impact Stations
: Indicates Exceedance of Limit Level at Impact Stations
: Calculated Data

Sampling Date : 3-Jun-16
Sampling Time : 15:00 - 19:00 (3rd Round)
Sampling Location : Zone B

Location	Nature	Sampling Time	Water Depth (m)	Current direction	Current speed (ms^{-1})	Monitoring Depth	Temp (°C)		Salinity (ppt)		DO (mg/L)		DO Saturation (%)		Turbidity (NTU)		Suspended Solids (mg/L)		DO	Turbidity (Depth-average)		SS (Depth-average)	
							1	2	1	2	1	2	1	2	1	2	1	2	Average (mg/L)	Average (NTU)	Impact Stations Exceed Control Station C2 (%)	Average (mg/L)	Impact Stations Exceed Control Station C2 (%)
C2	Control Station	1608-1621	17.8	E	0.3	*Surface*	28.2	28.1	29.1	29.2	7.76	7.78	116.5	116.7	3.12	3.17	3.7	3.5	7.77	3.11	N.A.	3.62	N.A.
						Middle	28.0	27.9	29.3	29.3	7.59	7.62	113.4	113.7	2.97	3.05	3.9	3.3	7.61				
						Bottom	27.7	27.6	29.4	29.5	7.63	7.61	114.1	113.9	3.21	3.14	3.9	3.4	7.62				
G3	Gradient Station	1524-1537	20.5	W	0.3	*Surface*	28.0	27.9	29.2	29.3	7.64	7.67	114.8	115.2	2.75	2.83	3.6	3.1	7.66	2.98	N.A.	3.57	N.A.
						Middle	27.8	27.7	29.4	29.5	7.48	7.47	112.1	112.0	2.96	3.04	3.5	4.0	7.48				
						Bottom	27.7	27.6	29.6	29.7	7.39	7.37	110.8	110.6	3.18	3.12	3.5	3.7	7.38				
G4	Gradient Station	1643-1656	20.3	W	0.3	*Surface*	28.2	28.1	29.3	29.2	7.75	7.71	116.4	116.1	3.07	3.14	3.7	3.8	7.73	3.22	N.A.	3.93	N.A.
						Middle	28.1	28.0	29.4	29.3	7.59	7.56	113.7	113.4	3.18	3.23	3.8	3.9	7.58				
						Bottom	27.8	27.8	29.6	29.5	7.49	7.47	112.1	111.8	3.36	3.32	4.4	4.0	7.48				
G7	Gradient Station	1717-1731	17.7	W	0.3	*Surface*	28.2	28.1	29.3	29.2	7.68	7.67	115.4	115.3	3.01	3.06	3.9	3.7	7.68	3.13	N.A.	3.77	N.A.
						Middle	28.0	27.9	29.4	29.3	7.54	7.58	112.9	113.3	3.14	3.18	3.8	3.5	7.56				
						Bottom	27.7	27.6	29.6	29.5	7.41	7.43	110.9	111.1	3.25	3.16	3.9	3.8	7.42				
B1	Impact Station	1847-1859	8.6	W	0.3	*Surface*	28.0	28.1	29.4	29.3	7.74	7.76	116.3	116.6	1.93	1.99	2.3	2.2	7.75	2.06	-33.9%	2.45	-32.3%
						Middle	28.0	27.9	29.3	29.4	7.64	7.67	114.4	114.7	2.08	2.04	2.5	2.5	7.66				
						Bottom	27.8	27.9	29.5	29.4	7.51	7.54	112.3	112.7	2.18	2.12	2.4	2.8	7.53				
B2	Impact Station	1831-1844	12.3	W	0.3	*Surface*	28.1	28.2	29.3	29.2	7.67	7.64	115.1	114.7	1.94	2.06	2.1	2.3	7.66	2.11	-32.2%	2.43	-32.7%
						Middle	28.1	28.0	29.4	29.3	7.58	7.56	113.5	113.2	2.17	2.13	2.4	2.6	7.57				
						Bottom	27.9	28.0	29.5	29.4	7.42	7.43	111.1	111.2	2.21	2.14	2.6	2.6	7.43				
B3	Impact Station	1800-1813	11.8	W	0.4	*Surface*	28.1	28.2	29.3	29.2	7.78	7.75	116.6	116.3	2.74	2.86	3.3	3.4	7.77	2.88	-7.3%	3.35	-7.4%
						Middle	28.0	27.9	29.4	29.3	7.65	7.63	114.5	114.3	2.97	2.91	3.2	3.2	7.64				
						Bottom	27.8	27.7	29.5	29.6	7.54	7.51	112.8	112.5	2.87	2.94	3.7	3.3	7.53				
E1	Impact Station	1734-1747	12.4	W	0.3	*Surface*	28.2	28.1	29.2	29.3	7.65	7.61	114.8	114.4	2.86	2.81	3.4	3.4	7.63	2.96	-4.7%	3.57	-1.4%
						Middle	28.0	27.9	29.3	29.2	7.58	7.57	113.5	113.4	2.95	2.99	3.5	3.6	7.58				
						Bottom	27.9	27.8	29.5	29.4	7.41	7.43	110.9	111.1	3.12	3.05	3.5	4.0	7.42				
E2	Impact Station	1628-1639	9.4	W	0.3	*Surface*	28.2	28.1	29.2	29.1	7.64	7.65	114.7	114.8	2.95	3.03	3.5	3.7	7.65	3.15	1.1%	3.77	4.1%
						Middle	28.0	28.1	29.3	29.2	7.54	7.52	112.9	112.7	3.16	3.19	3.8	3.8	7.53				
						Bottom	27.9	27.8	29.4	29.3	7.46	7.48	111.6	111.8	3.25	3.29	4.2	3.6	7.47				
E6	Impact Station	1700-1713	22.5	W	0.3	*Surface*	28.1	28.0	29.2	29.3	7.84	7.81	117.7	117.3	2.83	2.89	3.7	3.8	7.83	3.00	-3.5%	3.73	3.2%
						Middle	28.0	27.9	29.4	29.5	7.74	7.77	115.9	116.2	2.96	3.02	3.3	3.7	7.76				
						Bottom	27.8	27.7	29.7	29.6	7.58	7.55	113.4	113.1	3.19	3.11	4.2	3.7	7.57				
E8	Impact Station	1508-1521	9.4	W	0.4	*Surface*	28.1	28.2	29.3	29.4	7.73	7.74	116.1	116.2	2.96	2.87	3.6	3.4	7.74	2.87	-7.7%	3.70	2.3%
						Middle	28.1	28.0	29.4	29.3	7.67	7.64	114.9	114.6	3.16	2.12	3.8	4.1	7.66				
						Bottom	27.8	27.7	29.5	29.5	7.54	7.56	112.8	113.0	3.09	3.02	3.4	3.9	7.55				
F1	Impact Station	1540-1555	15.1	W	0.4	*Surface*	26.5	26.6	29.4	29.5	7.24	7.26	106.3	106.6	2.56	2.58	3.4	3.5	7.25	2.67	-14.0%	4.03	11.5%
						Middle	26.4	26.3	29.6	29.7	7.11	7.08	104.2	104.0	2.64	2.66	4.3	4.2	7.10				
						Bottom	26.2	26.1	29.8	29.9	6.93	6.91	101.4	101.2	2.79	2.81	4.4	4.4	6.92				
I1	Impact Station	1812-1822	16.9	W	0.4	*Surface*	26.5	26.5	29.5	29.6	7.35	7.39	107.8	108.1	2.47	2.49	3.1	3.5	7.37	2.65	-14.7%	3.25	-10.1%
						Middle	26.4	26.3	29.7	29.8	7.07	7.10	103.6	103.9	2.64	2.60	3.3	3.0	7.09				
						Bottom	26.2	26.1	30.0	29.9	6.92	6.95	101.2	101.4	2.85	2.87	3.4	3.2	6.94				

Note:
: Raw Data
: Indicates Exceedance of Action Level at Impact Stations
: Indicates Exceedance of Limit Level at Impact Stations
: Calculated Data

Sampling Date : 3-Jun-16
Sampling Time : 19:00 - 23:00 (4th Round)
Sampling Location : Zone B

Location	Nature	Sampling Time	Water Depth (m)	Current direction	Current speed (ms^{-1})	Monitoring Depth	Temp (°C)		Salinity (ppt)		DO (mg/L)		DO Saturation (%)		Turbidity (NTU)		Suspended Solids (mg/L)		DO	Turbidity (Depth-average)		SS (Depth-average)	
							1	2	1	2	1	2	1	2	1	2	1	2	Average (mg/L)	Average (NTU)	Impact Stations Exceed Control Station C2 (%)	Average (mg/L)	Impact Stations Exceed Control Station C2 (%)
C2	Control Station	2001-2015	17.4	E	0.3	*Surface*	28.1	28.0	29.2	29.3	7.67	7.64	115.2	114.9	3.14	3.19	3.6	3.3	7.66	3.14	N.A.	3.53	N.A.
						Middle	27.9	27.8	29.4	29.3	7.58	7.56	110.5	110.3	3.06	3.02	3.6	3.3	7.57				
						Bottom	27.7	27.6	29.5	29.6	7.34	7.38	109.8	110.1	3.17	3.25	3.5	3.9	7.36				
G3	Gradient Station	1926-1939	20.3	W	0.4	*Surface*	27.9	28.0	29.5	29.4	7.83	7.84	117.7	117.8	2.64	2.72	2.9	3.5	7.84	2.77	N.A.	3.32	N.A.
						Middle	27.8	27.7	29.6	29.5	7.67	7.64	115.2	114.9	2.79	2.74	3.3	3.3	7.66				
						Bottom	27.6	27.5	29.7	29.8	7.54	7.51	112.8	112.5	2.85	2.89	3.4	3.5	7.53				
G4	Gradient Station	2035-2048	20.2	W	0.3	*Surface*	28.1	28.0	29.2	29.3	7.83	7.80	117.5	117.2	2.94	3.03	3.5	3.7	7.82	3.12	N.A.	3.87	N.A.
						Middle	27.8	27.7	29.4	29.3	7.74	7.71	115.8	115.4	3.18	3.12	4.1	3.8	7.73				
						Bottom	27.6	27.5	29.6	29.5	7.59	7.55	113.5	113.1	3.26	3.21	3.9	4.2	7.57				
G7	Gradient Station	2108-2122	17.6	W	0.3	*Surface*	28.0	28.1	29.4	29.5	7.75	7.71	116.3	116.0	3.16	3.21	3.8	3.8	7.73	3.27	N.A.	3.68	N.A.
						Middle	27.9	27.8	29.6	29.5	7.64	7.67	114.4	114.7	3.29	3.24	3.6	3.6	7.66				
						Bottom	27.7	27.6	29.7	29.6	7.52	7.49	112.5	112.2	3.38	3.31	3.7	3.6	7.51				
B1	Impact Station	2228-2241	8.5	W	0.3	*Surface*	27.9	28.0	29.3	29.4	7.71	7.73	115.7	115.9	2.05	1.97	2.5	2.2	7.72	2.14	-31.8%	2.47	-30.2%
						Middle	28.0	27.9	29.4	29.3	7.68	7.64	115.1	114.7	2.12	2.19	2.3	2.6	7.66				
						Bottom	27.8	27.7	29.5	29.6	7.59	7.57	113.5	113.3	2.23	2.28	2.7	2.5	7.58				
B2	Impact Station	2211-2225	12.1	W	0.3	*Surface*	28.1	28.0	29.2	29.3	7.56	7.59	113.3	113.7	1.98	2.07	2.6	2.3	7.58	2.07	-34.0%	2.45	-30.7%
						Middle	28.0	28.0	29.3	29.3	7.37	7.34	110.4	110.1	2.01	2.09	2.2	2.5	7.36				
						Bottom	27.9	27.8	29.4	29.5	7.31	7.28	109.3	109.1	2.17	2.11	2.8	2.3	7.30				
B3	Impact Station	2139-2152	11.9	W	0.2	*Surface*	28.0	28.1	29.3	29.2	7.67	7.64	115.1	114.7	2.56	2.64	2.8	3.2	7.66	2.67	-14.9%	3.15	-10.8%
						Middle	28.0	27.9	29.4	29.3	7.53	7.55	112.8	113.0	2.78	2.71	3.1	3.0	7.54				
						Bottom	27.8	27.7	29.5	29.6	7.38	7.35	110.4	110.1	2.65	2.69	3.2	3.6	7.37				
E1	Impact Station	2124-2137	12.3	W	0.3	*Surface*	28.1	28.0	29.4	29.3	7.74	7.77	116.1	116.4	2.98	2.92	3.3	3.2	7.76	2.98	-5.2%	3.70	4.7%
						Middle	27.9	27.9	29.5	29.4	7.65	7.64	114.5	114.4	3.17	2.22	4.1	3.8	7.65				
						Bottom	27.8	27.8	29.6	29.5	7.52	7.56	112.1	112.5	3.26	3.31	4.2	3.6	7.54				
E2	Impact Station	2018-2031	9.1	W	0.3	*Surface*	28.2	28.1	29.1	29.2	7.79	7.76	116.9	116.7	2.84	2.88	3.4	3.5	7.78	2.95	-6.2%	3.45	-2.4%
						Middle	28.0	27.9	29.3	29.2	7.63	7.66	111.2	111.5	2.95	2.86	3.6	3.1	7.65				
						Bottom	27.8	27.7	29.4	29.4	7.52	7.54	112.5	112.7	3.10	3.04	3.7	3.4	7.53				
E6	Impact Station	2052-2104	22.3	W	0.3	*Surface*	27.9	27.8	29.3	29.4	7.64	7.68	114.5	114.9	2.92	2.98	3.2	3.8	7.66	3.14	0.1%	3.77	6.6%
						Middle	27.6	27.5	29.6	29.5	7.47	7.45	111.8	111.6	3.17	3.11	3.8	4.1	7.46				
						Bottom	27.4	27.5	29.7	29.6	7.39	7.36	110.6	110.3	3.38	3.29	4.1	3.6	7.38				
E8	Impact Station	1910-1922	9.2	W	0.4	*Surface*	28.0	27.9	29.4	29.3	7.54	7.58	113.3	113.7	3.03	3.07	3.6	3.7	7.56	3.05	-2.9%	3.70	4.7%
						Middle	27.9	27.9	29.5	29.4	7.63	7.61	114.3	114.1	2.93	2.98	3.8	3.6	7.62				
						Bottom	27.6	27.5	29.6	29.5	7.46	7.43	111.6	111.3	3.16	3.11	3.8	3.7	7.45				
F1	Impact Station	1943-1957	22.5	W	0.3	*Surface*	28.1	28.0	29.3	29.2	7.87	7.89	118.1	118.3	2.96	2.87	3.6	3.2	7.88	3.10	-1.4%	3.68	4.2%
						Middle	27.8	27.7	29.5	29.4	7.59	7.57	113.7	113.5	3.09	3.16	3.4	4.1	7.58				
						Bottom	27.6	27.5	29.6	29.7	7.46	7.48	111.6	111.8	3.27	3.22	3.9	3.9	7.47				
I1	Impact Station	2155-2208	17.2	W	0.3	*Surface*	27.9	28.0	29.4	29.3	7.57	7.53	113.6	113.2	2.41	2.36	2.9	2.6	7.55	2.53	-19.3%	2.88	-18.4%
						Middle	27.9	27.8	29.5	29.4	7.47	7.46	111.9	111.8	2.54	2.59	2.8	3.1	7.47				
						Bottom	27.7	27.6	29.6	29.5	7.37	7.34	110.3	110.0	2.61	2.68	2.9	3.0	7.36				

Note:
: Raw Data
: Indicates Exceedance of Action Level at Impact Stations
: Indicates Exceedance of Limit Level at Impact Stations
: Calculated Data

Sampling Date : 4-Jun-16
Sampling Time : 07:00 - 11:00 (1st Round)
Sampling Location : Zone B

Location	Nature	Sampling Time	Water Depth (m)	Current direction	Current speed (ms^{-1})	Monitoring Depth	Temp (°C)		Salinity (ppt)		DO (mg/L)		DO Saturation (%)		Turbidity (NTU)		Suspended Solids (mg/L)		DO	Turbidity (Depth-average)		SS (Depth-average)	
							1	2	1	2	1	2	1	2	1	2	1	2	Average (mg/L)	Average (NTU)	Impact Stations Exceed Control Station C2 (%)	Average (mg/L)	Impact Stations Exceed Control Station C2 (%)
C2	Control Station	0820-0837	31.6	E	0.2	*Surface*	28.2	28.1	29.1	29.1	7.79	7.75	117.5	117.0	2.29	2.34	2.8	2.8	7.77	2.62	N.A.	3.23	N.A.
						Middle	28.0	27.9	29.3	29.2	7.44	7.40	111.8	111.3	2.73	2.78	3.5	3.3	7.42				
						Bottom	27.8	27.8	29.5	29.5	7.58	7.55	113.8	113.4	2.81	2.76	3.7	3.3	7.57				
G3	Gradient Station	0747-0800	18.2	E	0.2	*Surface*	28.2	28.1	29.2	29.2	7.70	7.74	116.1	116.6	2.11	2.16	2.4	2.6	7.72	2.66	N.A.	3.10	N.A.
						Middle	28.0	27.9	29.3	29.4	7.60	7.57	114.2	113.8	2.84	2.90	3.4	3.5	7.59				
						Bottom	27.9	27.9	29.5	29.5	7.55	7.51	113.5	113.0	2.95	2.98	3.5	3.2	7.53				
G4	Gradient Station	0853-0906	19.8	E	0.2	*Surface*	28.3	28.2	29.3	29.2	7.47	7.49	112.8	113.1	2.72	2.67	3.0	2.9	7.48	2.55	N.A.	2.85	N.A.
						Middle	28.0	28.1	29.4	29.4	7.55	7.51	113.5	113.0	2.34	2.37	2.6	2.6	7.53				
						Bottom	27.9	27.8	29.5	29.6	7.49	7.53	112.6	113.2	2.58	2.62	3.1	2.9	7.51				
G7	Gradient Station	0925-0938	18.4	E	0.3	*Surface*	28.2	28.2	29.3	29.2	7.64	7.67	115.2	115.6	2.66	2.62	2.9	2.9	7.66	2.88	N.A.	3.32	N.A.
						Middle	28.1	28.0	29.4	29.5	7.59	7.55	114.4	113.9	2.92	2.98	3.2	3.6	7.57				
						Bottom	27.9	27.9	29.6	29.6	7.52	7.56	113.0	113.5	3.01	3.08	3.6	3.7	7.54				
B1	Impact Station	1045-1100	9.4	E	0.1	*Surface*	28.2	28.2	29.3	29.3	7.77	7.74	117.1	116.7	2.09	2.02	2.5	2.2	7.76	2.28	-13.0%	2.63	-18.6%
						Middle	28.1	28.1	29.4	29.4	7.58	7.54	114.3	113.8	2.29	2.34	2.8	2.6	7.56				
						Bottom	28.0	28.0	29.4	29.5	7.62	7.58	114.5	114.0	2.48	2.44	3.0	2.7	7.60				
B2	Impact Station	1020-1030	12.6	E	0.1	*Surface*	28.2	28.2	29.3	29.3	7.82	7.85	117.9	118.4	2.15	2.10	2.4	2.5	7.84	2.33	-10.9%	2.65	-18.0%
						Middle	28.0	28.1	29.4	29.5	7.68	7.64	115.4	114.9	2.33	2.27	2.6	2.5	7.66				
						Bottom	28.0	27.9	29.5	29.6	7.70	7.74	115.9	116.4	2.55	2.60	2.8	3.1	7.72				
B3	Impact Station	0952-1002	11.8	E	0.3	*Surface*	28.1	28.1	29.3	29.3	7.67	7.64	115.5	115.1	2.20	2.28	2.4	2.7	7.66	2.23	-15.0%	2.60	-19.6%
						Middle	28.0	27.9	29.4	29.5	7.73	7.70	116.2	115.7	2.09	2.14	2.5	2.6	7.72				
						Bottom	27.9	27.8	29.6	29.6	7.71	7.68	115.9	115.5	2.34	2.30	2.6	2.8	7.70				
E1	Impact Station	0940-0950	12.2	E	0.2	*Surface*	28.2	28.1	29.3	29.2	7.74	7.70	116.7	116.2	2.44	2.48	2.9	3.0	7.72	2.55	-2.5%	3.03	-6.2%
						Middle	28.0	28.1	29.3	29.4	7.65	7.68	115.0	115.4	2.27	2.32	2.5	2.8	7.67				
						Bottom	27.7	27.8	29.5	29.6	7.57	7.54	113.3	112.9	2.88	2.93	3.5	3.5	7.56				
E2	Impact Station	0840-0850	9.6	E	0.1	*Surface*	28.2	28.2	29.2	29.3	7.52	7.55	113.4	113.8	2.39	2.44	2.6	3.0	7.54	2.48	-5.2%	2.85	-11.9%
						Middle	28.0	28.0	29.3	29.4	7.58	7.54	113.9	113.4	2.27	2.30	2.7	2.5	7.56				
						Bottom	27.9	27.9	29.5	29.5	7.63	7.66	114.7	115.1	2.72	2.78	3.3	3.0	7.65				
E6	Impact Station	0909-0923	21.8	E	0.3	*Surface*	28.2	28.1	29.3	29.3	7.61	7.64	114.7	115.1	2.58	2.55	2.8	3.1	7.63	2.55	-2.6%	2.90	-10.3%
						Middle	28.0	28.0	29.4	29.5	7.68	7.64	115.4	114.9	2.49	2.42	3.0	2.6	7.66				
						Bottom	27.9	27.9	29.6	29.5	7.60	7.55	114.2	113.5	2.60	2.66	2.9	3.0	7.58				
E8	Impact Station	0730-0745	19.4	E	0.2	*Surface*	28.3	28.2	29.2	29.1	7.65	7.68	115.5	115.9	2.24	2.28	2.5	2.5	7.67	2.48	-5.3%	2.82	-12.9%
						Middle	28.1	28.0	29.3	29.2	7.58	7.55	114.1	113.7	2.62	2.67	3.2	3.2	7.57				
						Bottom	27.9	27.8	29.4	29.5	7.62	7.58	114.4	113.9	2.57	2.50	2.8	2.7	7.60				
F1	Impact Station	0757-0810	14.9	E	0.4	*Surface*	24.8	24.9	29.1	29.2	7.44	7.40	105.8	105.3	3.14	3.09	3.8	3.7	7.42	3.21	22.7%	3.87	19.6%
						Middle	24.7	24.7	29.3	29.2	7.14	7.12	101.5	101.2	3.19	3.25	3.9	3.9	7.13				
						Bottom	24.6	24.5	29.4	29.4	7.02	7.06	99.7	100.2	3.34	3.26	4.0	3.9	7.04				
I1	Impact Station	1012-1022	17.3	W	0.2	*Surface*	25.1	25.0	29.4	29.3	7.36	7.32	105.4	104.9	3.02	3.06	3.6	3.7	7.34	3.01	15.1%	3.52	8.8%
						Middle	24.9	24.9	29.5	29.4	6.97	6.94	99.5	99.1	3.08	3.01	3.7	3.3	6.96				
						Bottom	24.7	24.6	29.5	29.5	6.92	6.87	90.5	97.9	2.99	2.92	3.6	3.2	6.90				

Note:
: Raw Data
: Indicates Exceedance of Action Level at Impact Stations
: Indicates Exceedance of Limit Level at Impact Stations
: Calculated Data

Sampling Date : 4-Jun-16
Sampling Time : 11:00 - 15:00 (2nd Round)
Sampling Location : Zone B

Location	Nature	Sampling Time	Water Depth (m)	Current direction	Current speed (ms^{-1})	Monitoring Depth	Temp (°C)		Salinity (ppt)		DO (mg/L)		DO Saturation (%)		Turbidity (NTU)		Suspended Solids (mg/L)		DO	Turbidity (Depth-average)		SS (Depth-average)	
							1	2	1	2	1	2	1	2	1	2	1	2	Average (mg/L)	Average (NTU)	Impact Stations Exceed Control Station C2 (%)	Average (mg/L)	Impact Stations Exceed Control Station C2 (%)
C2	Control Station	1221-1238	31.2	E	0.2	*Surface*	28.4	28.4	29.2	29.2	7.57	7.54	114.5	114.1	2.34	2.38	2.8	2.9	7.56	2.60	N.A.	3.17	N.A.
						Middle	28.1	28.0	29.3	29.3	7.48	7.45	112.6	112.2	2.75	2.79	3.3	3.4	7.47				
						Bottom	27.9	27.9	29.5	29.4	7.44	7.47	111.8	112.2	2.69	2.62	3.5	3.1	7.46				
G3	Gradient Station	1147-1200	17.8	E	0.3	*Surface*	28.4	28.4	29.1	29.1	7.67	7.69	116.0	116.3	2.26	2.32	2.7	2.5	7.68	2.65	N.A.	3.08	N.A.
						Middle	28.0	28.1	29.4	29.5	7.47	7.49	112.3	112.7	2.71	2.77	3.2	3.3	7.48				
						Bottom	28.0	27.9	29.5	29.5	7.59	7.57	114.3	114.0	2.90	2.96	3.5	3.3	7.58				
G4	Gradient Station	1255-1308	19.2	E	0.2	*Surface*	28.5	28.5	29.2	29.2	7.74	7.77	117.2	117.6	2.28	2.33	2.7	2.6	7.76	2.49	N.A.	2.82	N.A.
						Middle	28.2	28.2	29.5	29.5	7.59	7.55	114.6	114.1	2.57	2.50	2.8	3.0	7.57				
						Bottom	27.9	27.8	29.6	29.5	7.57	7.54	113.8	113.4	2.66	2.62	2.9	2.9	7.56				
G7	Gradient Station	1327-1340	18.2	E	0.3	*Surface*	28.5	28.5	29.3	29.3	7.77	7.74	117.9	117.5	2.74	2.70	3.0	3.2	7.76	2.76	N.A.	3.12	N.A.
						Middle	28.1	28.1	29.4	29.4	7.59	7.56	114.4	114.0	2.70	2.76	3.0	3.0	7.58				
						Bottom	28.0	28.0	29.6	29.6	7.63	7.59	114.9	114.4	2.81	2.85	3.1	3.4	7.61				
B1	Impact Station	1445-1500	9.2	W	0.2	*Surface*	28.5	28.5	29.4	29.4	7.67	7.69	116.3	116.7	2.19	2.24	2.4	2.5	7.68	2.55	-1.7%	2.88	-8.9%
						Middle	28.2	28.1	29.5	29.4	7.48	7.44	112.9	112.4	2.67	2.61	2.9	3.1	7.46				
						Bottom	28.1	28.0	29.5	29.5	7.44	7.42	112.2	111.9	2.82	2.78	3.1	3.3	7.43				
B2	Impact Station	1425-1438	12.2	W	0.2	*Surface*	28.5	28.4	29.3	29.4	7.62	7.65	115.6	112.0	2.12	2.18	2.3	2.4	7.64	2.41	-7.1%	2.75	-13.2%
						Middle	28.3	28.2	29.5	29.5	7.39	7.36	111.8	111.4	2.43	2.37	2.9	2.8	7.38				
						Bottom	28.1	28.1	29.5	29.6	7.52	7.55	113.4	113.8	2.66	2.70	2.9	3.2	7.54				
B3	Impact Station	1354-1404	11.2	W	0.2	*Surface*	28.4	28.5	29.3	29.3	7.62	7.59	115.2	114.8	2.34	2.38	2.6	2.9	7.61	2.71	4.6%	3.15	-0.5%
						Middle	28.2	28.2	29.4	29.4	7.54	7.50	113.9	113.4	2.88	2.81	3.2	3.4	7.52				
						Bottom	28.1	28.0	29.5	29.5	7.69	7.66	115.9	115.5	2.95	2.92	3.3	3.5	7.68				
E1	Impact Station	1342-1352	11.6	E	0.2	*Surface*	28.4	28.5	29.2	29.2	7.66	7.63	115.8	115.4	2.28	2.32	2.5	2.5	7.65	2.55	-1.8%	2.87	-9.5%
						Middle	28.2	28.1	29.3	29.4	7.51	7.47	113.2	112.6	2.72	2.67	3.2	3.0	7.49				
						Bottom	28.1	28.1	29.4	29.4	7.48	7.44	112.8	112.3	2.68	2.62	2.9	3.1	7.46				
E2	Impact Station	1242-1252	8.8	E	0.2	*Surface*	28.4	28.5	29.3	29.2	7.68	7.65	116.1	115.7	2.59	2.64	2.8	2.9	7.67	2.79	7.5%	3.15	-0.5%
						Middle	28.2	28.2	29.4	29.4	7.60	7.64	114.9	115.5	2.81	2.77	3.1	3.0	7.62				
						Bottom	28.0	28.1	29.5	29.4	7.42	7.45	111.7	112.1	2.98	2.95	3.6	3.5	7.44				
E6	Impact Station	1310-1324	20.6	E	0.3	*Surface*	28.5	28.4	29.3	29.3	7.81	7.84	118.5	119.0	2.62	2.57	3.2	3.1	7.83	2.55	-1.6%	2.92	-7.9%
						Middle	28.1	28.1	29.5	29.6	7.72	7.75	116.4	116.9	2.43	2.46	2.6	2.6	7.74				
						Bottom	28.1	28.0	29.6	29.7	7.68	7.64	115.8	115.3	2.59	2.65	2.8	3.2	7.66				
E8	Impact Station	1110-1125	19.8	E	0.2	*Surface*	28.3	28.3	29.1	29.1	7.74	7.70	116.9	116.4	2.33	2.38	2.8	2.9	7.72	2.57	-1.0%	3.05	-3.7%
						Middle	28.1	28.0	29.3	29.3	7.39	7.35	111.3	110.8	2.59	2.64	3.1	2.9	7.37				
						Bottom	27.9	27.9	29.4	29.4	7.47	7.44	112.1	111.7	2.77	2.70	3.3	3.3	7.46				
F1	Impact Station	1203-1216	15.4	E	0.3	*Surface*	28.4	28.3	29.2	29.2	7.60	7.63	114.9	115.3	2.15	2.22	2.6	2.4	7.62	2.58	-0.4%	2.93	-7.4%
						Middle	28.1	28.1	29.4	29.4	7.50	7.53	113.1	113.5	2.68	2.64	2.9	3.0	7.52				
						Bottom	27.9	27.8	29.5	29.5	7.56	7.52	113.6	113.1	2.88	2.93	3.5	3.2	7.54				
I1	Impact Station	1406-1418	16.8	W	0.1	*Surface*	28.5	28.5	29.3	29.3	7.74	7.77	117.4	117.8	2.57	2.51	2.8	2.8	7.76	2.61	0.5%	2.92	-7.9%
						Middle	28.3	28.2	29.5	29.5	7.62	7.59	115.2	114.8	2.70	2.76	3.0	3.3	7.61				
						Bottom	28.1	28.1	29.5	29.5	7.50	7.47	113.1	112.7	2.59	2.52	2.8	2.8	7.49				

Note:
: **Raw Data**
: **Indicates Exceedance of Action Level at Impact Stations**
: **Indicates Exceedance of Limit Level at Impact Stations**
: **Calculated Data**

Sampling Date : 4-Jun-16
Sampling Time : 15:00 - 19:00 (3rd Round)
Sampling Location : Zone B

Location	Nature	Sampling Time	Water Depth (m)	Current direction	Current speed (ms^{-1})	Monitoring Depth	Temp (°C)		Salinity (ppt)		DO (mg/L)		DO Saturation (%)		Turbidity (NTU)		Suspended Solids (mg/L)		DO	Turbidity (Depth-average)		SS (Depth-average)	
							1	2	1	2	1	2	1	2	1	2	1	2	Average (mg/L)	Average (NTU)	Impact Stations Exceed Control Station C2 (%)	Average (mg/L)	Impact Stations Exceed Control Station C2 (%)
C2	Control Station	1604-1617	31.4	W	0.2	*Surface*	28.5	28.4	29.3	29.2	7.54	7.51	114.2	113.7	2.25	2.29	2.5	2.5	7.53	2.51	N.A.	2.90	N.A.
						Middle	28.3	28.3	29.3	29.4	7.54	7.51	113.6	113.2	2.66	2.70	3.1	3.0	7.53				
						Bottom	27.9	27.8	29.6	29.5	7.50	7.53	112.8	113.2	2.60	2.53	3.2	3.1	7.52				
G3	Gradient Station	1528-1541	17.6	W	0.4	*Surface*	28.3	28.4	29.1	29.2	7.73	7.75	117.0	117.3	2.17	2.23	2.4	2.6	7.74	2.56	N.A.	2.95	N.A.
						Middle	28.2	28.2	29.6	29.5	7.53	7.55	113.3	113.7	2.62	2.68	3.2	3.2	7.54				
						Bottom	28.1	28.0	29.6	29.7	7.65	7.63	115.3	115.0	2.81	2.87	3.1	3.2	7.64				
G4	Gradient Station	1639-1653	19.6	W	0.3	*Surface*	28.6	28.5	29.3	29.4	7.80	7.83	118.2	118.6	2.19	2.24	2.4	2.7	7.82	2.40	N.A.	2.77	N.A.
						Middle	28.3	28.2	29.6	29.5	7.65	7.61	115.6	115.1	2.48	2.41	3.0	2.7	7.63				
						Bottom	28.0	27.9	29.6	29.7	7.63	7.60	114.8	114.4	2.57	2.53	2.8	3.0	7.62				
G7	Gradient Station	1716-1729	18.4	W	0.4	*Surface*	28.6	28.7	29.5	29.4	7.83	7.80	118.9	118.5	2.65	2.61	2.9	2.9	7.82	2.67	N.A.	3.02	N.A.
						Middle	28.3	28.3	29.5	29.6	7.65	7.62	115.4	115.0	2.61	2.67	3.1	2.9	7.64				
						Bottom	28.1	28.2	29.8	29.7	7.69	7.65	115.9	115.4	2.72	2.76	3.3	3.0	7.67				
B1	Impact Station	1845-1900	9.6	W	0.3	*Surface*	28.6	28.6	29.5	29.6	7.73	7.75	117.3	117.7	2.10	2.15	2.3	2.4	7.74	2.46	-1.7%	2.82	-2.9%
						Middle	28.3	28.2	29.6	29.7	7.54	7.50	113.9	113.4	2.58	2.52	3.1	2.8	7.52				
						Bottom	28.1	28.0	29.7	29.6	7.50	7.48	113.2	112.9	2.73	2.69	3.3	3.0	7.49				
B2	Impact Station	1828-1841	12.4	W	0.2	*Surface*	28.6	28.5	29.4	29.5	7.68	7.71	116.6	117.0	2.03	2.09	2.2	2.3	7.70	2.32	-7.4%	2.62	-9.8%
						Middle	28.3	28.4	29.6	29.5	7.45	7.42	112.8	112.4	2.34	2.28	2.8	2.5	7.44				
						Bottom	28.2	28.1	29.6	29.7	7.58	7.61	114.4	114.8	2.57	2.61	2.8	3.1	7.60				
B3	Impact Station	1752-1805	11.4	W	0.3	*Surface*	28.6	28.5	29.3	29.4	7.68	7.65	116.2	115.8	2.25	2.29	2.7	2.5	7.67	2.62	4.7%	3.03	4.6%
						Middle	28.3	28.3	29.5	29.4	7.60	7.56	114.9	114.4	2.79	2.72	3.1	3.3	7.58				
						Bottom	28.2	28.1	29.6	29.5	7.75	7.72	116.9	116.5	2.86	2.83	3.2	3.4	7.74				
E1	Impact Station	1734-1747	11.8	W	0.3	*Surface*	28.5	28.6	29.3	29.2	7.72	7.69	116.8	116.3	2.90	2.23	2.4	2.7	7.71	2.58	2.9%	2.75	-5.2%
						Middle	28.3	28.2	29.4	29.5	7.57	7.53	114.2	113.6	2.63	2.58	2.9	2.8	7.55				
						Bottom	28.2	28.3	29.5	29.6	7.54	7.50	113.8	113.3	2.59	2.53	2.9	2.8	7.52				
E2	Impact Station	1622-1635	9.2	W	0.3	*Surface*	28.5	28.6	29.3	29.4	7.74	7.71	117.1	116.7	2.50	2.55	3.0	3.1	7.73	2.53	1.1%	3.00	3.4%
						Middle	28.4	28.3	29.5	29.4	7.66	7.70	115.9	116.5	2.72	2.68	3.3	3.2	7.68				
						Bottom	28.2	28.1	29.5	29.6	7.48	7.51	112.6	113.1	2.39	2.36	2.7	2.7	7.50				
E6	Impact Station	1657-1711	20.8	W	0.2	*Surface*	28.6	28.6	29.4	29.5	7.87	7.90	119.5	120.0	2.53	2.48	2.8	3.0	7.89	2.46	-1.7%	2.85	-1.7%
						Middle	28.2	28.1	29.6	29.5	7.78	7.81	117.4	117.9	2.34	2.37	2.8	2.8	7.80				
						Bottom	28.1	28.0	29.7	29.8	7.74	7.70	116.8	116.3	2.50	2.56	2.7	3.0	7.72				
E8	Impact Station	1510-1523	19.4	W	0.3	*Surface*	28.4	28.5	29.1	29.2	7.80	7.76	117.9	117.4	2.24	2.29	2.5	2.7	7.78	2.48	-1.1%	2.88	-0.6%
						Middle	28.2	28.1	29.4	29.3	7.45	7.41	112.3	111.7	2.50	2.55	3.0	2.8	7.43				
						Bottom	28.0	27.9	29.4	29.5	7.53	7.50	113.1	112.7	2.68	2.61	3.2	3.1	7.52				
F1	Impact Station	1540-1555	15.1	W	0.4	*Surface*	26.5	26.6	29.4	29.5	7.24	7.26	106.3	106.6	2.56	2.58	2.8	3.0	7.25	2.67	6.7%	3.23	11.5%
						Middle	26.4	26.3	29.6	29.7	7.11	7.08	104.2	104.0	2.64	2.66	3.4	3.2	7.10				
						Bottom	26.2	26.1	29.8	29.9	6.93	6.91	101.4	101.2	2.79	2.81	3.3	3.7	6.92				
I1	Impact Station	1812-1822	16.9	W	0.4	*Surface*	26.5	26.5	29.5	29.6	7.35	7.39	107.8	108.1	2.47	2.49	3.0	3.0	7.37	2.65	5.9%	3.23	11.5%
						Middle	26.4	26.3	29.7	29.8	7.07	7.10	103.6	103.9	2.64	2.60	3.2	3.1	7.09				
						Bottom	26.2	26.1	30.0	29.9	6.92	6.95	101.2	101.4	2.85	2.87	3.7	3.4	6.94				

Note:
: Raw Data
: Indicates Exceedance of Action Level at Impact Stations
: Indicates Exceedance of Limit Level at Impact Stations
: Calculated Data

Sampling Date : 4-Jun-16
Sampling Time : 19:00 - 23:00 (4th Round)
Sampling Location : Zone B

Location	Nature	Sampling Time	Water Depth (m)	Current direction	Current speed (ms^{-1})	Monitoring Depth	Temp (°C)		Salinity (ppt)		DO (mg/L)		DO Saturation (%)		Turbidity (NTU)		Suspended Solids (mg/L)		DO	Turbidity (Depth-average)		SS (Depth-average)	
							1	2	1	2	1	2	1	2	1	2	1	2	Average (mg/L)	Average (NTU)	Impact Stations Exceed Control Station C2 (%)	Average (mg/L)	Impact Stations Exceed Control Station C2 (%)
C2	Control Station	2004-2017	31.0	W	0.3	*Surface*	28.4	28.3	29.2	29.3	7.45	7.42	112.9	112.4	2.31	2.35	2.8	2.8	7.44	2.57	N.A.	3.08	N.A.
						Middle	28.2	28.2	29.4	29.3	7.45	7.42	112.3	111.9	2.72	2.76	3.3	3.4	7.44				
						Bottom	28.0	27.9	29.5	29.6	7.41	7.44	111.5	112.0	2.66	2.59	3.0	3.2	7.43				
G3	Gradient Station	1928-1941	17.8	W	0.3	*Surface*	28.4	28.4	29.2	29.3	7.64	7.66	115.7	116.0	2.23	2.29	2.7	2.8	7.65	2.62	N.A.	3.08	N.A.
						Middle	28.3	28.2	29.5	29.6	7.44	7.46	112.0	112.4	2.68	2.74	3.2	3.0	7.45				
						Bottom	28.2	28.1	29.6	29.5	7.56	7.54	114.0	113.7	2.87	2.93	3.5	3.3	7.55				
G4	Gradient Station	2039-2053	19.2	W	0.3	*Surface*	28.6	28.5	29.5	29.4	7.71	7.74	116.9	117.3	2.10	2.15	2.5	2.4	7.73	2.31	N.A.	2.65	N.A.
						Middle	28.5	28.4	29.6	29.7	7.56	7.52	114.3	113.8	2.39	2.32	2.9	2.5	7.54				
						Bottom	28.0	28.1	29.7	29.8	7.54	7.51	113.6	113.2	2.48	2.44	2.7	2.9	7.53				
G7	Gradient Station	2116-2129	18.0	W	0.4	*Surface*	28.6	28.6	29.6	29.5	7.74	7.71	117.6	117.2	2.71	2.67	3.3	3.2	7.73	2.73	N.A.	3.12	N.A.
						Middle	28.4	28.3	29.6	29.7	7.56	7.53	114.1	113.7	2.69	2.73	3.0	3.0	7.55				
						Bottom	28.2	28.1	29.8	29.7	7.60	7.56	114.6	114.1	2.78	2.82	3.1	3.1	7.58				
B1	Impact Station	2245-2300	9.2	W	0.3	*Surface*	28.5	28.4	29.6	29.7	7.64	7.66	116.0	116.4	2.16	2.21	2.4	2.4	7.65	2.52	-1.7%	2.95	-4.3%
						Middle	28.2	28.1	29.7	29.8	7.45	7.41	112.6	112.1	2.64	2.58	3.2	3.1	7.43				
						Bottom	28.0	28.0	29.8	29.7	7.43	7.39	112.2	111.6	2.79	2.75	3.3	3.3	7.41				
B2	Impact Station	2228-2241	12.0	W	0.3	*Surface*	28.4	28.4	29.5	29.6	7.59	7.62	115.3	115.7	2.09	2.15	2.5	2.6	7.61	2.38	-7.2%	2.78	-9.7%
						Middle	28.2	28.3	29.6	29.5	7.36	7.33	111.5	111.1	2.40	2.34	2.9	2.6	7.35				
						Bottom	28.0	27.9	29.7	29.8	7.49	7.52	113.1	113.6	2.63	2.67	2.9	3.2	7.51				
B3	Impact Station	2152-2205	11.0	W	0.4	*Surface*	28.4	28.5	29.4	29.5	7.59	7.56	114.9	114.5	2.31	2.35	2.5	2.8	7.58	2.68	4.6%	2.98	-3.2%
						Middle	28.3	28.2	29.6	29.5	7.51	7.47	113.6	113.1	2.85	2.78	3.1	3.1	7.49				
						Bottom	28.0	28.1	29.7	29.6	7.66	7.63	115.6	115.2	2.92	2.89	3.2	3.2	7.65				
E1	Impact Station	2134-2147	11.4	W	0.3	*Surface*	28.4	28.3	29.3	29.4	7.63	7.60	115.5	115.0	2.25	2.29	2.5	2.5	7.62	2.52	-1.8%	2.87	-7.0%
						Middle	28.2	28.1	29.5	29.4	7.48	7.44	112.9	112.3	2.69	2.64	3.0	2.9	7.46				
						Bottom	28.1	28.0	29.6	29.7	7.45	7.41	112.5	112.0	2.65	2.59	3.2	3.1	7.43				
E2	Impact Station	2022-2035	9.0	W	0.4	*Surface*	28.5	28.4	29.4	29.5	7.65	7.62	115.8	115.4	2.56	2.61	2.8	3.1	7.64	2.59	1.1%	2.90	-5.9%
						Middle	28.2	28.3	29.6	29.5	7.57	7.61	114.6	115.2	2.78	2.74	3.0	3.0	7.59				
						Bottom	28.1	28.1	29.6	29.7	7.39	7.42	111.3	111.8	2.45	2.42	2.9	2.6	7.41				
E6	Impact Station	2057-2111	20.4	W	0.3	*Surface*	28.5	28.4	29.5	29.6	7.78	7.81	118.2	118.7	2.59	2.54	3.1	3.1	7.80	2.52	-1.6%	2.92	-5.4%
						Middle	28.2	28.2	29.7	29.6	7.69	7.72	116.1	116.6	2.40	2.43	2.6	3.0	7.71				
						Bottom	28.0	27.9	29.8	29.8	7.65	7.61	115.5	115.0	2.56	2.62	2.9	2.8	7.63				
E8	Impact Station	1910-1923	19.2	W	0.3	*Surface*	28.5	28.4	29.2	29.3	7.71	7.67	116.7	116.1	2.30	2.35	2.7	2.6	7.69	2.54	-1.0%	2.88	-6.5%
						Middle	28.3	28.3	29.5	29.4	7.36	7.32	111.0	110.4	2.56	2.61	2.9	3.1	7.34				
						Bottom	28.1	28.0	29.5	29.6	7.44	7.41	111.8	111.4	2.74	2.67	3.1	2.9	7.43				
F1	Impact Station	1946-1959	15.4	W	0.4	*Surface*	28.4	28.5	29.3	29.4	7.63	7.60	115.5	115.0	2.65	2.61	3.2	3.2	7.62	2.79	8.9%	3.23	4.9%
						Middle	28.3	28.4	29.6	29.5	7.47	7.50	112.8	113.2	2.85	2.90	3.2	3.2	7.49				
						Bottom	27.9	27.9	29.6	29.6	7.53	7.49	113.3	112.8	2.85	2.90	3.4	3.2	7.51				
I1	Impact Station	2208-2223	16.8	W	0.3	*Surface*	28.5	28.6	29.6	29.5	7.71	7.74	117.1	117.5	2.54	2.48	2.8	3.0	7.73	2.57	0.1%	3.02	-2.2%
						Middle	28.5	28.4	29.6	29.7	7.59	7.56	114.9	114.5	2.67	2.67	3.2	3.0	7.58				
						Bottom	28.1	28.1	29.7	29.8	7.47	7.44	112.8	112.4	2.56	2.49	3.1	3.0	7.46				

Note:
: Raw Data
: Indicates Exceedance of Action Level at Impact Stations
: Indicates Exceedance of Limit Level at Impact Stations
: Calculated Data

Sampling Date : 5-Jun-16

Sampling Time : 07:00 - 11:00 (1st Round)

Sampling Location : Zone C

Location	Nature	Sampling Time	Water Depth (m)	Current direction	Current speed (ms^{-1})	Monitoring Depth	Temp (°C)		Salinity (ppt)		DO (mg/L)		DO Saturation (%)		Turbidity (NTU)		Suspended Solids (mg/L)		DO	Turbidity (Depth-average)		SS (Depth-average)	
							1	2	1	2	1	2	1	2	1	2	1	2	Average (mg/L)	Average (NTU)	Impact Stations Exceed Control Station C3 (%)	Average (mg/L)	Impact Stations Exceed Control Station C3 (%)
C3	Control Station	0930-0950	25.3	W	0.4	*Surface*	26.9	26.8	26.4	26.5	7.90	7.92	114.90	115.10	2.55	2.57	2.8	3.3	7.91	2.69	N.A.	3.28	N.A.
						Middle	26.7	26.6	26.6	26.7	7.70	7.72	111.60	111.80	2.64	2.66	3.4	3.5	7.71				
						Bottom	26.5	26.5	26.8	26.9	7.58	7.56	109.60	109.30	2.86	2.88	3.2	3.5	7.57				
G5	Gradient Station	0855-0910	21.6	W	0.3	*Surface*	27.0	26.9	26.6	26.7	7.84	7.86	114.00	114.20	2.64	2.66	3.2	2.9	7.85	2.75	N.A.	3.25	N.A.
						Middle	26.8	26.7	26.8	26.9	7.63	7.65	110.60	110.80	2.74	2.76	3.3	3.3	7.64				
						Bottom	26.6	26.5	27.0	27.1	7.55	7.53	109.30	109.10	2.85	2.87	3.4	3.4	7.54				
G6	Gradient Station	1045-1100	23.6	W	0.3	*Surface*	27.0	26.9	26.4	26.5	7.59	7.57	110.40	110.20	2.54	2.56	3.0	2.8	7.58	2.73	N.A.	3.17	N.A.
						Middle	26.8	26.7	26.6	26.6	7.34	7.32	106.40	106.20	2.68	2.70	2.9	3.2	7.33				
						Bottom	26.6	26.5	26.7	26.8	7.15	7.17	103.40	103.60	2.93	2.95	3.5	3.6	7.16				
E4	Impact Station	0915-0925	24.2	W	0.3	*Surface*	27.1	27.0	26.5	26.6	7.73	7.75	112.40	112.60	2.48	2.50	2.7	2.8	7.74	2.63	-2.2%	2.98	-9.1%
						Middle	26.9	26.9	26.7	26.8	7.54	7.56	109.30	109.50	2.66	2.68	2.9	3.2	7.55				
						Bottom	26.8	26.7	26.9	27.0	7.39	7.41	106.90	107.10	2.73	2.75	3.3	3.0	7.40				
E5	Impact Station	1005-1025	18.3	E	0.3	*Surface*	27.1	27.0	26.5	26.5	7.64	7.66	111.20	111.40	2.39	2.41	2.9	2.9	7.65	2.59	-4.0%	3.07	-6.6%
						Middle	26.8	26.8	26.6	26.7	7.45	7.43	108.00	107.80	2.58	2.60	3.2	3.1	7.44				
						Bottom	26.7	26.6	26.8	26.9	7.20	7.18	104.20	104.00	2.76	2.78	3.0	3.3	7.19				

Note: (1) : Raw Data

: Indicates Exceedance of Action Level at Impact Stations

: Indicates Exceedance of Limit Level at Impact Stations

: Calculated Data

Sampling Date : 5-Jun-16

Sampling Time : 11:00 - 15:00 (2nd Round)

Sampling Location : Zone C

Location	Nature	Sampling Time	Water Depth (m)	Current direction	Current speed (ms^{-1})	Monitoring Depth	Temp (°C)		Salinity (ppt)		DO (mg/L)		DO Saturation (%)		Turbidity (NTU)		Suspended Solids (mg/L)		DO	Turbidity (Depth-average)		SS (Depth-average)	
							1	2	1	2	1	2	1	2	1	2	1	2	Average (mg/L)	Average (NTU)	Impact Stations Exceed Control Station C3 (%)	Average (mg/L)	Impact Stations Exceed Control Station C3 (%)
C3	Control Station	1200-1220	28.1	W	0.4	*Surface*	27.2	27.1	26.6	26.5	7.65	7.67	111.30	111.50	2.60	2.62	3.10	3.10	7.66	2.78	N.A.	3.18	N.A.
						Middle	27.0	26.9	26.7	26.7	7.40	7.42	107.30	107.50	2.77	2.79	3.30	3.10	7.41				
						Bottom	26.7	26.8	26.8	26.9	7.25	7.28	104.90	104.70	2.93	2.95	3.20	3.30	7.27				
G5	Gradient Station	1100-1120	21.3	W	0.3	*Surface*	27.1	27.0	26.5	26.6	7.71	7.69	112.20	112.00	2.43	2.41	3.20	3.10	7.70	2.59	N.A.	3.23	N.A.
						Middle	26.9	26.8	26.7	26.8	7.44	7.42	107.90	107.70	2.66	2.64	3.20	2.90	7.43				
						Bottom	26.7	26.6	26.9	27.0	7.30	7.28	105.60	105.40	2.70	2.72	3.50	3.50	7.29				
G6	Gradient Station	1300-1325	23.3	W	0.4	*Surface*	27.0	27.1	26.5	26.6	7.43	7.45	108.10	108.30	2.54	2.56	3.20	3.10	7.44	2.75	N.A.	3.23	N.A.
						Middle	26.9	26.8	26.7	26.7	7.26	7.28	105.30	105.50	2.73	2.75	3.20	2.90	7.27				
						Bottom	26.7	26.6	26.8	26.9	7.04	7.06	101.80	102.00	2.93	2.96	3.50	3.50	7.05				
E4	Impact Station	1130-1150	24.0	W	0.3	*Surface*	27.0	26.9	26.4	26.5	7.58	7.66	110.20	110.40	2.50	2.52	3.00	2.80	7.62	2.63	-5.4%	3.12	-2.1%
						Middle	26.8	26.7	26.6	26.7	7.34	7.36	106.40	106.60	2.63	2.61	3.20	3.10	7.35				
						Bottom	26.6	26.5	26.8	26.9	7.17	7.19	103.70	103.90	2.74	2.76	3.30	3.30	7.18				
E5	Impact Station	1230-1250	18.1	W	0.3	*Surface*	26.9	26.9	26.4	26.5	7.59	7.61	110.40	110.60	2.63	2.65	3.20	3.20	7.60	2.82	1.7%	3.37	5.8%
						Middle	26.8	26.7	26.5	26.7	7.42	7.44	107.60	107.80	2.79	2.81	3.00	3.40	7.43				
						Bottom	26.5	26.6	26.6	26.9	7.30	7.28	109.00	105.40	3.02	3.04	3.70	3.70	7.29				

Note: (1) : Raw Data

: Indicates Exceedance of Action Level at Impact Stations

: Indicates Exceedance of Limit Level at Impact Stations

: Calculated Data

Sampling Date : 5-Jun-16

Sampling Time : 15:00 - 19:00 (3rd Round)

Sampling Location : Zone C

Location	Nature	Sampling Time	Water Depth (m)	Current direction	Current speed (ms^{-1})	Monitoring Depth	Temp (^oC)		Salinity (ppt)		DO (mg/L)		DO Saturation (%)		Turbidity (NTU)		Suspended Solids (mg/L)		DO	Turbidity (Depth-average)		SS (Depth-average)	
							1	2	1	2	1	2	1	2	1	2	1	2	Average (mg/L)	Average (NTU)	Impact Stations Exceed Control Station C3 (%)	Average (mg/L)	Impact Stations Exceed Control Station C3 (%)
C3	Control Station	1555-1614	28.4	W	0.8	*Surface*	27.1	27.1	26.2	26.2	8.03	8.00	116.80	116.40	2.53	2.46	2.8	2.7	8.02	2.68	N.A.	2.95	N.A.
						Middle	27.0	26.8	26.4	26.4	7.88	7.91	114.60	115.10	2.55	2.62	2.8	2.9	7.90				
						Bottom	26.6	26.6	26.6	26.7	7.68	7.64	111.30	110.70	3.01	2.89	3.3	3.2	7.66				
G5	Gradient Station	1500-1518	21.7	W	0.7	*Surface*	27.2	27.1	26.4	26.5	7.99	7.95	116.30	115.60	2.48	2.55	2.7	2.8	7.97	2.74	N.A.	3.02	N.A.
						Middle	27.0	27.0	26.7	26.7	7.78	7.73	113.10	112.40	2.68	2.71	3.0	3.0	7.76				
						Bottom	26.6	26.6	26.9	27.0	7.64	7.60	110.70	110.20	2.99	3.03	3.3	3.3	7.62				
G6	Gradient Station	1656-1715	23.4	E	0.6	*Surface*	27.1	27.1	26.2	26.2	7.73	7.70	112.40	112.00	2.29	2.35	2.5	2.7	7.72	2.53	N.A.	2.83	N.A.
						Middle	27.0	26.9	26.4	26.4	7.63	7.60	111.00	110.60	2.58	2.49	2.9	2.8	7.62				
						Bottom	26.6	26.7	26.7	26.8	7.28	7.25	105.90	105.50	2.78	2.69	3.1	3.0	7.27				
E4	Impact Station	1525-1545	24.2	W	0.6	*Surface*	27.2	27.2	26.2	26.3	7.84	7.88	114.10	114.60	2.33	2.26	2.6	2.5	7.86	2.51	-6.2%	2.77	-6.2%
						Middle	27.1	27.0	26.5	26.6	7.67	7.70	111.60	112.00	2.48	2.39	2.7	2.6	7.69				
						Bottom	26.7	27.8	26.8	26.9	7.57	7.54	109.70	109.30	2.78	2.83	3.1	3.1	7.56				
E5	Impact Station	1625-1649	18.2	W	0.7	*Surface*	27.2	27.1	26.3	26.2	7.81	7.77	114.00	113.10	2.19	2.24	2.4	2.5	7.79	2.42	-9.5%	2.70	-8.5%
						Middle	27.0	26.9	26.4	26.5	7.59	7.55	110.40	110.00	2.36	2.41	2.6	2.7	7.57				
						Bottom	26.7	26.7	26.7	26.8	7.34	7.30	106.80	106.20	2.60	2.73	3.0	3.0	7.32				

Note: (1) **: Raw Data**

: Indicates Exceedance of Action Level at Impact Stations

: Indicates Exceedance of Limit Level at Impact Stations

: Calculated Data

Sampling Date : 5-Jun-16

Sampling Time : 19:00 - 23:00 (4th Round)

Sampling Location : Zone C

Location	Nature	Sampling Time	Water Depth (m)	Current direction	Current speed (ms^{-1})	Monitoring Depth	Temp (°C)		Salinity (ppt)		DO (mg/L)		DO Saturation (%)		Turbidity (NTU)		Suspended Solids (mg/L)		DO	Turbidity (Depth-average)		SS (Depth-average)	
							1	2	1	2	1	2	1	2	1	2	1	2	Average (mg/L)	Average (NTU)	Impact Stations Exceed Control Station C3 (%)	Average (mg/L)	Impact Stations Exceed Control Station C3 (%)
C3	Control Station	1957-2017	28.8	E	0.7	*Surface*	27.2	27.2	26.1	26.1	7.95	7.97	115.70	115.10	2.34	2.27	2.8	2.9	7.96	2.47	N.A.	2.98	N.A.
						Middle	27.1	27.0	26.3	26.3	7.77	7.74	113.00	112.60	2.40	2.36	2.9	2.8	7.76				
						Bottom	26.7	26.6	26.7	26.8	7.62	7.57	110.50	110.00	2.78	2.69	3.3	3.2	7.60				
G5	Gradient Station	1900-1919	21.9	E	0.6	*Surface*	27.3	27.2	26.3	26.4	8.05	8.01	117.10	116.50	2.24	2.18	2.7	2.6	8.03	2.44	N.A.	2.92	N.A.
						Middle	27.1	27.0	26.6	26.6	7.89	7.85	114.70	114.20	2.43	2.50	2.9	3.0	7.87				
						Bottom	26.7	26.6	26.7	26.8	7.73	7.69	112.10	111.50	2.69	2.62	3.2	3.1	7.71				
G6	Gradient Station	2057-2116	23.6	E	0.5	*Surface*	27.0	27.0	26.1	26.1	7.89	7.85	114.70	114.20	2.02	2.11	2.4	2.5	7.87	2.32	N.A.	2.78	N.A.
						Middle	26.8	26.8	26.3	26.4	7.74	7.68	112.60	111.70	2.39	2.28	2.9	2.7	7.71				
						Bottom	26.6	26.6	26.7	26.7	7.39	7.35	107.20	106.60	2.50	2.62	3.1	3.1	7.37				
E4	Impact Station	1926-1945	24.6	E	0.6	*Surface*	27.3	27.3	26.1	26.2	7.94	7.97	115.50	116.00	2.13	2.21	2.6	2.6	7.96	2.36	-4.8%	2.83	-5.0%
						Middle	27.2	27.1	26.4	26.5	7.81	7.78	113.60	113.20	2.35	2.22	2.8	2.7	7.80				
						Bottom	26.8	26.7	26.8	26.9	7.60	7.56	110.20	109.60	2.58	2.64	3.1	3.2	7.58				
E5	Impact Station	2030-2049	18.6	E	0.6	*Surface*	27.1	27.0	26.2	26.1	7.94	7.90	115.50	114.90	1.99	2.05	2.4	2.5	7.92	2.24	-9.5%	2.70	-9.5%
						Middle	26.9	26.9	26.3	26.4	7.72	7.70	112.30	112.00	2.24	2.16	2.8	2.6	7.71				
						Bottom	26.7	26.6	26.6	26.6	7.48	7.51	108.50	109.00	2.46	2.53	2.9	3.0	7.50				

Note: (1) **: Raw Data**

: Indicates Exceedance of Action Level at Impact Stations

: Indicates Exceedance of Limit Level at Impact Stations

: Calculated Data

Annex E

Details of Exceedances Occurred during the Reporting Week

Table E.1 Exceedances of Action and Limit Levels on 30 May 2016

Exceedance Log No.	**0324228_30 May 2016_Surface DO_E4_07:00-11:00_Zone C_Limit Level** **0324228_30 May 2016_Middle DO_E4_07:00-11:00_Zone C_Limit Level** **0324228_30 May 2016_Bottom DO_E4_07:00-11:00_Zone C_Limit Level** **0324228_30 May 2016_Surface DO_E5_07:00-11:00_Zone C_Limit Level** **0324228_30 May 2016_Middle DO_E5_07:00-11:00_Zone C_Limit Level** **0324228_30 May 2016_Bottom DO_E5_07:00-11:00_Zone C_Limit Level** **0324228_30 May 2016_Surface DO_E4_11:00-15:00_Zone C_Limit Level** **0324228_30 May 2016_Middle DO_E4_11:00-15:00_Zone C_Limit Level** **0324228_30 May 2016_Bottom DO_E4_11:00-15:00_Zone C_Limit Level** **0324228_30 May 2016_Surface DO_E5_11:00-15:00_Zone C_Limit Level** **0324228_30 May 2016_Middle DO_E5_11:00-15:00_Zone C_Limit Level** **0324228_30 May 2016_Bottom DO_E5_11:00-15:00_Zone C_Limit Level** **0324228_30 May 2016_Surface DO_E4_15:00-19:00_Zone C_Limit Level** **0324228_30 May 2016_Middle DO_E4_15:00-19:00_Zone C_Limit Level** **0324228_30 May 2016_Bottom DO_E4_15:00-19:00_Zone C_Limit Level** **0324228_30 May 2016_Surface DO_E5_15:00-19:00_Zone C_Limit Level** **0324228_30 May 2016_Middle DO_E5_15:00-19:00_Zone C_Limit Level** **0324228_30 May 2016_Bottom DO_E5_15:00-19:00_Zone C_Limit Level** **0324228_30 May 2016_Surface DO_E4_19:00-23:00_Zone C_Limit Level** **0324228_30 May 2016_Middle DO_E4_19:00-23:00_Zone C_Limit Level** **0324228_30 May 2016_Bottom DO_E4_19:00-23:00_Zone C_Limit Level** **0324228_30 May 2016_Surface DO_E5_19:00-23:00_Zone C_Limit Level** **0324228_30 May 2016_Middle DO_E5_19:00-23:00_Zone C_Limit Level** **0324228_30 May 2016_Bottom DO_E5_19:00-23:00_Zone C_Limit Level** **0324228_30 May 2016_Depth-averaged Turbidity_E6_07:00-11:00_Zone B_Action Level** **0324228_30 May 2016_Depth-averaged Turbidity_E8_07:00-11:00_Zone B_Limit Level** **0324228_30 May 2016_Middle DO_B1_07:00-11:00_Zone B_Limit Level** **0324228_30 May 2016_Middle DO_B2_07:00-11:00_Zone B_Limit Level** **0324228_30 May 2016_Surface DO_B3_07:00-11:00_Zone B_Action Level** **0324228_30 May 2016_Middle DO_B3_07:00-11:00_Zone B_Limit Level** **0324228_30 May 2016_Surface DO_E1_07:00-11:00_Zone B_Limit Level** **0324228_30 May 2016_Middle DO_E1_07:00-11:00_Zone B_Limit Level** **0324228_30 May 2016_Surface DO_E2_07:00-11:00_Zone B_Action Level** **0324228_30 May 2016_Middle DO_E2_07:00-11:00_Zone B_Limit Level** **0324228_30 May 2016_Middle DO_E6_07:00-11:00_Zone B_Limit Level** **0324228_30 May 2016_Surface DO_E8_07:00-11:00_Zone B_Limit Level** **0324228_30 May 2016_Middle DO_E8_07:00-11:00_Zone B_Limit Level** **0324228_30 May 2016_Surface DO_F1_07:00-11:00_Zone B_Action Level** **0324228_30 May 2016_Surface DO_I1_07:00-11:00_Zone B_Action Level** **0324228_30 May 2016_Middle DO_I1_07:00-11:00_Zone B_Limit Level** **0324228_30 May 2016_Depth-averaged Turbidity_E2_11:00-15:00_Zone B_Action Level** **0324228_30 May 2016_Depth-averaged Turbidity_E6_11:00-15:00_Zone B_Action Level** **0324228_30 May 2016_Depth-averaged Turbidity_E8_11:00-15:00_Zone B_Action Level** **0324228_30 May 2016_Middle DO_B1_11:00-15:00_Zone B_Action Level** **0324228_30 May 2016_Bottom DO_B1_11:00-15:00_Zone B_Action Level** **0324228_30 May 2016_Middle DO_B2_11:00-15:00_Zone B_Limit Level** **0324228_30 May 2016_Surface DO_B3_11:00-15:00_Zone B_Limit Level** **0324228_30 May 2016_Middle DO_B3_11:00-15:00_Zone B_Limit Level** **0324228_30 May 2016_Surface DO_E1_11:00-15:00_Zone B_Limit Level** **0324228_30 May 2016_Middle DO_E1_11:00-15:00_Zone B_Limit Level** **0324228_30 May 2016_Middle DO_E2_11:00-15:00_Zone B_Limit Level** **0324228_30 May 2016_Surface DO_E6_11:00-15:00_Zone B_Action Level** **0324228_30 May 2016_Middle DO_E6_11:00-15:00_Zone B_Limit Level** **0324228_30 May 2016_Surface DO_E8_11:00-15:00_Zone B_Action Level**

	0324228_30 May 2016_Middle DO_E8_11:00-15:00_Zone B_Limit Level **0324228_30 May 2016_Bottom DO_E8_11:00-15:00_Zone B_Action Level** **0324228_30 May 2016_Middle DO_F1_11:00-15:00_Zone B_Action Level** **0324228_30 May 2016_Surface DO_I1_11:00-15:00_Zone B_Limit Level** **0324228_30 May 2016_Middle DO_I1_11:00-15:00_Zone B_Limit Level** **0324228_30 May 2016_Depth-averaged Turbidity_E2_15:00-19:00_Zone B_Action Level** **0324228_30 May 2016_Depth-averaged Turbidity_E6_15:00-19:00_Zone B_Action Level** **0324228_30 May 2016_Depth-averaged Turbidity_E8_15:00-19:00_Zone B_Action Level** **0324228_30 May 2016_Depth-averaged SS_E2_15:00-19:00_Zone B_Action Level** **0324228_30 May 2016_Depth-averaged SS_E8_15:00-19:00_Zone B_Action Level** **0324228_30 May 2016_Middle DO_B1_15:00-19:00_Zone B_Action Level** **0324228_30 May 2016_Middle DO_B2_15:00-19:00_Zone B_Limit Level** **0324228_30 May 2016_Surface DO_B3_15:00-19:00_Zone B_Action Level** **0324228_30 May 2016_Middle DO_B3_15:00-19:00_Zone B_Limit Level** **0324228_30 May 2016_Surface DO_E1_15:00-19:00_Zone B_Limit Level** **0324228_30 May 2016_Middle DO_E1_15:00-19:00_Zone B_Limit Level** **0324228_30 May 2016_Middle DO_E2_15:00-19:00_Zone B_Action Level** **0324228_30 May 2016_Surface DO_E6_15:00-19:00_Zone B_Action Level** **0324228_30 May 2016_Middle DO_E6_15:00-19:00_Zone B_Limit Level** **0324228_30 May 2016_Surface DO_E8_15:00-19:00_Zone B_Limit Level** **0324228_30 May 2016_Middle DO_E8_15:00-19:00_Zone B_Limit Level** **0324228_30 May 2016_Bottom DO_E8_15:00-19:00_Zone B_Action Level** **0324228_30 May 2016_Middle DO_F1_15:00-19:00_Zone B_Action Level** **0324228_30 May 2016_Surface DO_I1_15:00-19:00_Zone B_Action Level** **0324228_30 May 2016_Middle DO_I1_15:00-19:00_Zone B_Limit Level** **0324228_30 May 2016_Depth-averaged Turbidity_B2_19:00-23:00_Zone B_Action Level** **0324228_30 May 2016_Depth-averaged Turbidity_E1_19:00-23:00_Zone B_Action Level** **0324228_30 May 2016_Depth-averaged Turbidity_E2_19:00-23:00_Zone B_Action Level** **0324228_30 May 2016_Depth-averaged Turbidity_E6_19:00-23:00_Zone B_Action Level** **0324228_30 May 2016_Depth-averaged Turbidity_E8_19:00-23:00_Zone B_Action Level** **0324228_30 May 2016_Depth-averaged Turbidity_F1_19:00-23:00_Zone B_Action Level** **0324228_30 May 2016_Depth-averaged SS_E8_19:00-23:00_Zone B_Action Level** **0324228_30 May 2016_Depth-averaged SS_F1_19:00-23:00_Zone B_Action Level** **0324228_30 May 2016_Middle DO_B2_19:00-23:00_Zone B_Action Level** **0324228_30 May 2016_Middle DO_E1_19:00-23:00_Zone B_Action Level** **0324228_30 May 2016_Surface DO_E2_19:00-23:00_Zone B_Action Level** **0324228_30 May 2016_Bottom DO_E6_19:00-23:00_Zone B_Action Level** **0324228_30 May 2016_Bottom DO_E8_19:00-23:00_Zone B_Action Level** **0324228_30 May 2016_Surface DO_F1_19:00-23:00_Zone B_Action Level** **[Total No. of Exceedance = 92]**
Monitoring Station(s) with Exceedance(s)	**Zone B**: B1, B2, B3, E1, E2, E6, E8, F1 and I1. **Zone C:** E4 and E5
Parameter(s) with Exceedance(s)	**Zone B:** Action Levels for Depth-averaged Turbidity (NTU), Depth-averaged Suspended Solids (SS) (mg/L) and Dissolved Oxygen (DO) (mg/L) at all depths Limit Levels for DO (mg/L) at surface and middle depths and depth-averaged Turbidity (NTU) **Zone C**: Limit Levels for DO (mg/L) at all depths
Action Levels	Refer to *Table 3.4 and Table 3.5*
Limit Levels	Refer to *Table 3.4 and Table 3.5*
Measured Levels	Please refer to *Annex D*.
Exceedances	Refer to Exceedance Log No. for stations, water quality monitoring zone, exceedance of Action or Limit Levels.

Possible Reason for Action or Limit Level Non-compliance	Four rounds of impact monitoring were conducted in both Zones B and C, from 07:00-11:00, 11:00-15:00, 15:00-19:00 and 19:00-23:00 on 30 May 2016. It is important to note that on 21 and 24 May 2016 (ad hoc monitoring), a number of exceedances in Action Level for Turbidity and SS in Zone B and exceedance in Limit Levels for DO in Zone C occurred although no Project works were conducted. This indicates the baseline water quality data showed particularly good water quality conditions for Hong Kong marine waters and natural background Turbidity and SS fluctuations caused some Action levels related to baseline conditions, to be triggered, despite no Project works being conducted. **Exceedances of Action Levels for SS in Zones B** The impact monitoring results of SS in Zone B are similar among the stations on 30 May and throughout impact monitoring period from 18 to 30 May 2016. The overall SS in Zone B from 18 to 30 May 2016 was at similar levels to the baseline monitoring results i.e. all falling within a range between 1.7 mg/L and 4.1 mg/L. At all the stations, the Action level related to '*120% of corresponding data from respective control station at the same tide of the same day*' was not triggered – only the absolute value of 3.33 mg/L, which is the 95%-ile of the baseline data. As previously established, the baseline data showed good water quality for Hong Kong waters. Therefore the exceedances of Action Levels for SS in Zone B on 30 May 2016 are not considered to be caused by cable laying works but rather are considered a reflection of natural background fluctuations. **Exceedances of Action and Limit Levels for Turbidity in Zones B** The impact monitoring results of Turbidity in Zone B is similar among the stations on 30 May and throughout impact monitoring period from 18 to 30 May 2016. The overall Turbidity in Zone B from 18 to 30 May 2016 was at similar levels to the baseline monitoring results i.e. all falling within a range between 1.5 NTU and 3.9 NTU. At the majority of stations, the Action Level related to '*120% of corresponding data from respective control station at the same tide of the same day*' was not triggered – only the absolute value of 2.67 NTU, which is the 95%-ile of the baseline data. Although the Turbidity Limit Level at impact station E8 was observed, the recorded value was 2.90 NTU, only 0.11 NTU higher than the absolute value of 2.79 NTU (99%-ile of the baseline data). The recorded value of 2.90 NTU at station E8 is a very low value occurring in nature, indicating good water quality from Turbidity aspect. As previously established, the baseline data showed good water quality for Hong Kong waters. Based on these observations, the exceedances of Action and Limit Levels for Turbidity in Zone B on 30 May 2016 are not considered to be caused by cable laying works but rather are considered a reflection of natural background fluctuations. **Exceedances of Action and Limit Levels for DO in Zones B and C** Only cable laying works were conducted within water quality monitoring zones (Zones B and C) on 30 May. Although exceedances of Action and Limit Levels for DO were observed in Zones B and C, it is noted that only the value linked to the baseline data (*1%-ile of baseline for surface and middle layer (7.41 mg/L for Zone B and 8.22 mg/L for Zone C); 1%-ile of baseline for bottom layer (7.01 mg/L for Zone B and 8.15 mg/L for Zone C*), were exceeded, whereas the absolute value of 5 mg/L for Surface and Middle DO and 2mg/L for Bottom DO (derived from the *Water Quality Objectives (WQO)* under the *Water Pollution Control Ordinance (WPCO)*) were not exceeded. It is also important to note that there has been exceedances of DO at all depth levels, depth-averaged turbidity and depth-averaged SS before commencement of cable laying works, as recorded through the monitoring required by this project's EM&A Manual. The previous exceedances were considered as natural fluctuations of regional water quality rather than impacts from the

	works related to this Project. DO, depth-averaged turbidity and depth-averaged SS levels at control and gradient stations on the same day were also similar to impact monitoring stations. Therefore, these exceedances of Action and Limit Levels are considered to be caused by natural background fluctuations. The observation of a number of exceedances of Action and Limit Levels on 30 May 2016 strengthens the conclusion that the baseline data show very good water quality for Hong Kong waters such that natural water quality fluctuation is more likely to cause exceedances of Action and Limit Levels, as well as the NOEs issued for 18, 19, 20, 21, 24, 27 and 28 May 2016 being due to natural water quality fluctuation.

Table E.2 Exceedances of Action and Limit Levels on 31 May 2016

Exceedance Log No.	**324228_31 May 2016_Depth-averaged Turbidity_B1_11:00-15:00_Zone B_Action Level** **0324228_31 May 2016_Depth-averaged Turbidity_B2_11:00-15:00_Zone B_Action Level** **0324228_31 May 2016_Depth-averaged Turbidity_B3_11:00-15:00_Zone B_Action Level** **0324228_31 May 2016_Depth-averaged Turbidity_E1_11:00-15:00_Zone B_Action Level** **0324228_31 May 2016_Depth-averaged Turbidity_E2_11:00-15:00_Zone B_Action Level** **0324228_31 May 2016_Depth-averaged Turbidity_E6_11:00-15:00_Zone B_Action Level** **0324228_31 May 2016_Depth-averaged Turbidity_E8_11:00-15:00_Zone B_Action Level** **0324228_31 May 2016_Depth-averaged Turbidity_F1_11:00-15:00_Zone B_Action Level** **0324228_31 May 2016_Depth-averaged Turbidity_I1_11:00-15:00_Zone B_Action Level** **0324228_31 May 2016_Depth-averaged SS_B1_11:00-15:00_Zone B_Action Level** **0324228_31 May 2016_Depth-averaged SS_B2_11:00-15:00_Zone B_Action Level** **0324228_31 May 2016_Depth-averaged SS_B3_11:00-15:00_Zone B_Action Level** **0324228_31 May 2016_Depth-averaged SS_E1_11:00-15:00_Zone B_Action Level** **0324228_31 May 2016_Depth-averaged SS_E2_11:00-15:00_Zone B_Action Level** **0324228_31 May 2016_Depth-averaged SS_E8_11:00-15:00_Zone B_Action Level** **0324228_31 May 2016_Depth-averaged SS_F1_11:00-15:00_Zone B_Action Level** **0324228_31 May 2016_Depth-averaged SS_I1_11:00-15:00_Zone B_Action Level** **0324228_31 May 2016_Surface DO_B1_11:00-15:00_Zone B_Limit Level** **0324228_31 May 2016_Middle DO_B1_11:00-15:00_Zone B_Limit Level** **0324228_31 May 2016_Bottom DO_B1_11:00-15:00_Zone B_Action Level** **0324228_31 May 2016_Surface DO_B2_11:00-15:00_Zone B_Action Level** **0324228_31 May 2016_Middle DO_B2_11:00-15:00_Zone B_Limit Level** **0324228_31 May 2016_Bottom DO_B2_11:00-15:00_Zone B_Action Level** **0324228_31 May 2016_Middle DO_B3_11:00-15:00_Zone B_Limit Level** **0324228_31 May 2016_Bottom DO_B3_11:00-15:00_Zone B_Action Level** **0324228_31 May 2016_Surface DO_E2_11:00-15:00_Zone B_Limit Level** **0324228_31 May 2016_Middle DO_E2_11:00-15:00_Zone B_Limit Level** **0324228_31 May 2016_Bottom DO_E2_11:00-15:00_Zone B_Action Level** **0324228_31 May 2016_Middle DO_E6_11:00-15:00_Zone B_Action Level** **0324228_31 May 2016_Bottom DO_E6_11:00-15:00_Zone B_Action Level** **0324228_31 May 2016_Surface DO_E8_11:00-15:00_Zone B_Action Level** **0324229_31 May 2016_Middle DO_E8_11:00-15:00_Zone B_Limit Level** **0324230_31 May 2016_Bottom DO_E8_11:00-15:00_Zone B_Action Level** **0324231_31 May 2016_Middle DO_F1_11:00-15:00_Zone B_Limit Level** **0324232_31 May 2016_Bottom DO_F1_11:00-15:00_Zone B_Action Level** **0324233_31 May 2016_Surface DO_I1_11:00-15:00_Zone B_Action Level** **0324234_31 May 2016_Middle DO_I1_11:00-15:00_Zone B_Limit Level** **0324235_31 May 2016_Bottom DO_I1_11:00-15:00_Zone B_Action Level** **0324228_31 May 2016_Depth-averaged Turbidity_E2_19:00-23:00_Zone B_Action Level** **0324228_31 May 2016_Depth-averaged Turbidity_E6_19:00-23:00_Zone B_Action Level** **0324228_31 May 2016_Depth-averaged Turbidity_E8_19:00-23:00_Zone B_Action Level** **0324228_31 May 2016_Middle DO_B1_19:00-23:00_Zone B_Action Level** **0324228_31 May 2016_Middle DO_B2_19:00-23:00_Zone B_Action Level** **0324228_31 May 2016_Middle DO_B3_19:00-23:00_Zone B_Action Level** **0324228_31 May 2016_Surface DO_E1_19:00-23:00_Zone B_Action Level** **0324228_31 May 2016_Middle DO_E1_19:00-23:00_Zone B_Limit Level** **0324228_31 May 2016_Middle DO_E6_19:00-23:00_Zone B_Action Level** **0324228_31 May 2016_Surface DO_E8_19:00-23:00_Zone B_Action Level** **0324228_31 May 2016_Middle DO_E8_19:00-23:00_Zone B_Limit Level** **0324228_31 May 2016_Bottom DO_E8_19:00-23:00_Zone B_Action Level** **0324228_31 May 2016_Surface DO_I1_19:00-23:00_Zone B_Action Level** **0324228_31 May 2016_Middle DO_I1_19:00-23:00_Zone B_Action Level** **[Total No. of Exceedance = 52]**

Monitoring Station(s) with Exceedance(s)	**Zone B:** B1, B2, B3, E1, E2, E6, E8, F1 and I1
Parameter(s) with Exceedance(s)	**Zone B**: Action Levels for Dissolved Oxygen (DO) in all depths, Depth-averaged Turbidity and Depth-averaged SS Limit Levels for DO at surface and middle depths
Action Levels	Refer to *Table 3.4*
Limit Levels	Refer to *Table 3.4*
Measured Levels	Please refer to *Annex D*.
Exceedances	Refer to Exceedance Log No. for stations, water quality monitoring zone, exceedance of Action or Limit Levels.
Possible Reason for Action or Limit Level Non-compliance	Two rounds of *ad hoc* monitoring were conducted in Zones A (07:00-11:00 and 15:00-19:00) and B (11:00-15:00 and 19:00-23:00), on 29 and 31 May 2016, respectively. No exceedances of the Action or Limit Levels of the *EM&A Manual* were found in Zone A on 29 May 2016. Monitoring results of Turbidity, SS and DO (all depths) in Zone B during baseline monitoring, all impact monitoring and *ad hoc* monitoring (to date) are presented in *Figures D4 to D6 of Annex D*. No Project works, including cable laying works, were conducted within water quality monitoring zones (Zones A and B) on 29 and 31 May 2016 – the most recent Project works conducted in Zones A and B up to that point were 28 May in Zone A and 30 May in Zone B. Therefore, these exceedances of Action and Limit Levels were caused by natural background fluctuation. The observation of a number of exceedances of Action and Limit Levels on 31 May 2016 strengthens the conclusion that the baseline data show very good water quality for Hong Kong waters such that natural water quality fluctuation is more likely to cause exceedances of Action and Limit Levels, as well as the NOEs issued for 28 and 30 May 2016 in Zone B being due to natural water quality fluctuation.

Table E.3 Exceedances of Action and Limit Levels on 1 June 2016

Exceedance Log No.	**0324228_01 June 2016_Surface DO_E4_07:00-11:00_Zone C_Limit Level** **0324228_01 June 2016_Middle DO_E4_07:00-11:00_Zone C_Limit Level** **0324228_01 June 2016_Bottom DO_E4_07:00-11:00_Zone C_Limit Level** **0324228_01 June 2016_Surface DO_E5_07:00-11:00_Zone C_Limit Level** **0324228_01 June 2016_Middle DO_E5_07:00-11:00_Zone C_Limit Level** **0324228_01 June 2016_Bottom DO_E5_07:00-11:00_Zone C_Limit Level** **0324228_01 June 2016_Surface DO_E4_11:00-15:00_Zone C_Action Level** **0324228_01 June 2016_Middle DO_E4_11:00-15:00_Zone C_Limit Level** **0324228_01 June 2016_Bottom DO_E4_11:00-15:00_Zone C_Limit Level** **0324228_01 June 2016_Middle DO_E5_11:00-15:00_Zone C_Limit Level** **0324228_01 June 2016_Bottom DO_E5_11:00-15:00_Zone C_Limit Level** **[Total No. of Exceedance = 11]**
Monitoring Station(s) with Exceedance(s)	**Zone C:** E4 and E5
Parameter(s) with Exceedance(s)	**Zone C:** Action Level for Dissolved Oxygen (DO) at surface depth Limit Levels for DO at all depths
Action Levels	Refer to *Table 3.5*
Limit Levels	Refer to *Table 3.5*
Measured Levels	Please refer to data sheets in *Annex D*.
Exceedances	Refer to Exceedance Log No. for stations, water quality monitoring zone, monitoring round, exceedance of Action or Limit Levels.
Possible Reason for Action or Limit Level Non-compliance	Two rounds of *ad hoc* monitoring were conducted in Zone C (07:00-11:00 and 15:00-19:00), on 1 June 2016. No Project works, including cable laying works, were conducted within water quality monitoring zone (Zone C) on 1 June 2016 – the most recent Project works conducted in Zone C were 30 May 2016. DO levels at control and gradient stations were also similar to impact monitoring stations. Therefore, these exceedances of Action and Limit Levels must be caused by natural background fluctuation. The observation of a number of exceedances of Action and Limit Levels on 1 June 2016 strengthens the conclusion that the baseline data show very good water quality for Hong Kong waters such that natural water quality fluctuation is more likely to cause exceedances of Action and Limit Levels, as well as the NOE issued for 30 May 2016 being due to natural water quality fluctuation.

Table E.4 Exceedances of Action and Limit Levels on 2 June 2016

Exceedance Log No.	**0324228_02 June 2016_Depth-averaged Turbidity_E1_07:00-11:00_Zone B_Action Level**
	0324228_02 June 2016_Depth-averaged Turbidity_E2_07:00-11:00_Zone B_Action Level
	0324228_02 June 2016_Depth-averaged Turbidity_E6_07:00-11:00_Zone B_Action Level
	0324228_02 June 2016_Depth-averaged Turbidity_E8_07:00-11:00_Zone B_Action Level
	0324228_02 June 2016_Depth-averaged Turbidity_F1_07:00-11:00_Zone B_Action Level
	0324228_02 June 2016_Depth-averaged SS_E6_07:00-11:00_Zone B_Action Level
	0324228_02 June 2016_Depth-averaged SS_E8_07:00-11:00_Zone B_Action Level
	0324228_02 June 2016_Middle DO_B1_07:00-11:00_Zone B_Limit Level
	0324228_02 June 2016_Middle DO_B2_07:00-11:00_Zone B_Limit Level
	0324228_02 June 2016_Bottom DO_B2_07:00-11:00_Zone B_Action Level
	0324228_02 June 2016_Middle DO_B3_07:00-11:00_Zone B_Limit Level
	0324228_02 June 2016_Bottom DO_B3_07:00-11:00_Zone B_Action Level
	0324228_02 June 2016_Middle DO_E8_07:00-11:00_Zone B_Action Level
	0324228_02 June 2016_Depth-averaged Turbidity_B3_11:00-15:00_Zone B_Action Level
	0324228_02 June 2016_Depth-averaged Turbidity_E1_11:00-15:00_Zone B_Action Level
	0324228_02 June 2016_Depth-averaged Turbidity_E2_11:00-15:00_Zone B_Action Level
	0324228_02 June 2016_Depth-averaged Turbidity_E8_11:00-15:00_Zone B_Action Level
	0324228_02 June 2016_Depth-averaged Turbidity_F1_11:00-15:00_Zone B_Action Level
	0324228_02 June 2016_Depth-averaged Turbidity_I1_11:00-15:00_Zone B_Action Level
	0324228_02 June 2016_Depth-averaged SS_B3_11:00-15:00_Zone B_Action Level
	0324228_02 June 2016_Depth-averaged SS_E8_11:00-15:00_Zone B_Action Level
	0324228_02 June 2016_Depth-averaged SS_F1_11:00-15:00_Zone B_Action Level
	0324228_02 June 2016_Depth-averaged SS_I1_11:00-15:00_Zone B_Action Level
	0324228_02 June 2016_Surface DO_B1_11:00-15:00_Zone B_Limit Level
	0324228_02 June 2016_Middle DO_B1_11:00-15:00_Zone B_Limit Level
	0324228_02 June 2016_Bottom DO_B1_11:00-15:00_Zone B_Limit Level
	0324228_02 June 2016_Surface DO_B2_11:00-15:00_Zone B_Limit Level
	0324228_02 June 2016_Middle DO_B2_11:00-15:00_Zone B_Limit Level
	0324228_02 June 2016_Bottom DO_B2_11:00-15:00_Zone B_Limit Level
	0324228_02 June 2016_Surface DO_B3_11:00-15:00_Zone B_Limit Level
	0324228_02 June 2016_Middle DO_B3_11:00-15:00_Zone B_Limit Level
	0324228_02 June 2016_Bottom DO_B3_11:00-15:00_Zone B_Limit Level
	0324228_02 June 2016_Surface DO_E1_11:00-15:00_Zone B_Limit Level
	0324228_02 June 2016_Middle DO_E1_11:00-15:00_Zone B_Limit Level
	0324228_02 June 2016_Bottom DO_E1_11:00-15:00_Zone B_Action Level
	0324228_02 June 2016_Surface DO_E2_11:00-15:00_Zone B_Action Level
	0324228_02 June 2016_Middle DO_E2_11:00-15:00_Zone B_Limit Level
	0324229_02 June 2016_Bottom DO_E2_11:00-15:00_Zone B_Action Level
	0324231_02 June 2016_Middle DO_E6_11:00-15:00_Zone B_Limit Level
	0324232_02 June 2016_Bottom DO_E6_11:00-15:00_Zone B_Action Level
	0324236_02 June 2016_Surface DO_F1_11:00-15:00_Zone B_Action Level
	0324237_02 June 2016_Middle DO_F1_11:00-15:00_Zone B_Limit Level
	0324238_02 June 2016_Bottom DO_F1_11:00-15:00_Zone B_Action Level
	0324239_02 June 2016_Surface DO_I1_11:00-15:00_Zone B_Limit Level
	0324240_02 June 2016_Middle DO_I1_11:00-15:00_Zone B_Limit Level
	0324241_02 June 2016_Bottom DO_I1_11:00-15:00_Zone B_Limit Level
	0324228_02 June 2016_Depth-averaged Turbidity_E1_15:00-19:00_Zone B_Action Level
	0324228_02 June 2016_Depth-averaged Turbidity_E2_15:00-19:00_Zone B_Action Level
	0324228_02 June 2016_Depth-averaged Turbidity_E6_15:00-19:00_Zone B_Action Level
	0324228_02 June 2016_Depth-averaged Turbidity_E8_15:00-19:00_Zone B_Action Level
	0324228_02 June 2016_Depth-averaged Turbidity_F1_15:00-19:00_Zone B_Action Level
	0324228_02 June 2016_Depth-averaged SS_E6_15:00-19:00_Zone B_Action Level
	0324228_02 June 2016_Depth-averaged SS_E8_15:00-19:00_Zone B_Action Level
	0324228_02 June 2016_Depth-averaged SS_F1_15:00-19:00_Zone B_Action Level
	0324228_02 June 2016_Depth-averaged SS_I1_15:00-19:00_Zone B_Action Level

	0324228_02 June 2016_Middle DO_B2_15:00-19:00_Zone B_Action Level **0324228_02 June 2016_Middle DO_B3_15:00-19:00_Zone B_Action Level** **[Total No. of Exceedance = 57]**
Monitoring Station(s) with Exceedance(s)	**Zone B:** B1, B2, B3, E1, E2, E6, E8, F1 and I1
Parameter(s) with Exceedance(s)	**Zone B**: Action Levels for Dissolved Oxygen (DO) at all depths, Depth-averaged Turbidity and Depth-averaged Suspended Solid (SS) Limit Levels for DO at all depths
Action Levels	Refer to *Table 3.4*
Limit Levels	Refer to *Table 3.4*
Measured Levels	Please refer to data sheets in *Annex D*.
Exceedances	Refer to Exceedance Log No. for stations, water quality monitoring zone, monitoring round, exceedance of Action or Limit Levels.
Possible Reason for Action or Limit Level Non-compliance	Three rounds of monitoring were conducted in Zones B (07:00-11:00, 11:00-15:00 and 15:00-19:00) on 2 June 2016. Post Lay Inspection & Burial (PLIB) works, at the last minute, were postponed commencement to the following day 3 June 2016. Therefore no Project works were conducted in Zone B on 2 June 2016. The exceedance of Action and Limit Levels is considered a reflection of natural background fluctuation of marine water.

Table E.4 Exceedances of Action and Limit Levels on 3 June 2016

Exceedance Log No.	**0324228_03 June 2016_Depth-averaged Turbidity_B1_07:00-11:00_Zone B_Action Level** **0324228_03 June 2016_Depth-averaged Turbidity_E8_07:00-11:00_Zone B_Action Level** **0324228_03 June 2016_Depth-averaged Turbidity_F1_07:00-11:00_Zone B_Action Level** **0324228_03 June 2016_Depth-averaged Turbidity_I1_07:00-11:00_Zone B_Action Level** **0324228_03 June 2016_Middle DO_B2_07:00-11:00_Zone B_Limit Level** **0324228_03 June 2016_Middle DO_B3_07:00-11:00_Zone B_Action Level** **0324228_03 June 2016_Surface DO_F1_07:00-11:00_Zone B_Action Level** **0324228_03 June 2016_Middle DO_F1_07:00-11:00_Zone B_Limit Level** **0324228_03 June 2016_Bottom DO_F1_07:00-11:00_Zone B_Action Level** **0324228_03 June 2016_Surface DO_I1_07:00-11:00_Zone B_Limit Level** **0324229_03 June 2016_Middle DO_I1_07:00-11:00_Zone B_Limit Level** **0324230_03 June 2016_Bottom DO_I1_07:00-11:00_Zone B_Limit Level** **0324228_03 June 2016_Depth-averaged Turbidity_F1_11:00-15:00_Zone B_Action Level** **0324228_03 June 2016_Middle DO_B1_11:00-15:00_Zone B_Action Level** **0324228_03 June 2016_Surface DO_B2_11:00-15:00_Zone B_Action Level** **0324228_03 June 2016_Middle DO_B2_11:00-15:00_Zone B_Limit Level** **0324228_03 June 2016_Bottom DO_B2_11:00-15:00_Zone B_Action Level** **0324228_03 June 2016_Surface DO_B3_11:00-15:00_Zone B_Action Level** **0324228_03 June 2016_Middle DO_B3_11:00-15:00_Zone B_Limit Level** **0324228_03 June 2016_Bottom DO_B3_11:00-15:00_Zone B_Action Level** **0324228_03 June 2016_Middle DO_E1_11:00-15:00_Zone B_Action Level** **0324228_03 June 2016_Bottom DO_E1_11:00-15:00_Zone B_Action Level** **0324228_03 June 2016_Middle DO_E2_11:00-15:00_Zone B_Action Level** **0324228_03 June 2016_Bottom DO_E2_11:00-15:00_Zone B_Action Level** **0324228_03 June 2016_Surface DO_E6_11:00-15:00_Zone B_Action Level** **0324228_03 June 2016_Middle DO_E6_11:00-15:00_Zone B_Limit Level** **0324228_03 June 2016_Bottom DO_E6_11:00-15:00_Zone B_Action Level** **0324229_03 June 2016_Middle DO_E8_11:00-15:00_Zone B_Limit Level** **0324231_03 June 2016_Surface DO_F1_11:00-15:00_Zone B_Action Level** **0324232_03 June 2016_Middle DO_F1_11:00-15:00_Zone B_Limit Level** **0324236_03 June 2016_Bottom DO_F1_11:00-15:00_Zone B_Action Level** **0324237_03 June 2016_Surface DO_I1_11:00-15:00_Zone B_Limit Level** **0324238_03 June 2016_Middle DO_I1_11:00-15:00_Zone B_Limit Level** **0324239_03 June 2016_Bottom DO_I1_11:00-15:00_Zone B_Action Level** **0324228_03 June 2016_Depth-averaged Turbidity_B3_15:00-19:00_Zone B_Action Level** **0324228_03 June 2016_Depth-averaged Turbidity_E1_15:00-19:00_Zone B_Action Level** **0324228_03 June 2016_Depth-averaged Turbidity_E2_15:00-19:00_Zone B_Action Level** **0324228_03 June 2016_Depth-averaged Turbidity_E6_15:00-19:00_Zone B_Action Level** **0324228_03 June 2016_Depth-averaged Turbidity_E8_15:00-19:00_Zone B_Action Level** **0324228_03 June 2016_Depth-averaged SS_B3_15:00-19:00_Zone B_Action Level** **0324228_03 June 2016_Depth-averaged SS_E1_15:00-19:00_Zone B_Action Level** **0324228_03 June 2016_Depth-averaged SS_E2_15:00-19:00_Zone B_Action Level** **0324228_03 June 2016_Depth-averaged SS_E6_15:00-19:00_Zone B_Action Level** **0324228_03 June 2016_Depth-averaged SS_E8_15:00-19:00_Zone B_Action Level** **0324228_03 June 2016_Depth-averaged SS_F1_15:00-19:00_Zone B_Action Level** **0324228_03 June 2016_Surface DO_F1_15:00-19:00_Zone B_Limit Level** **0324228_03 June 2016_Middle DO_F1_15:00-19:00_Zone B_Limit Level** **0324228_03 June 2016_Bottom DO_F1_15:00-19:00_Zone B_Limit Level** **0324228_03 June 2016_Surface DO_I1_15:00-19:00_Zone B_Limit Level** **0324228_03 June 2016_Middle DO_I1_15:00-19:00_Zone B_Limit Level** **0324228_03 June 2016_Bottom DO_I1_15:00-19:00_Zone B_Limit Level** **0324228_03 June 2016_Depth-averaged Turbidity_E1_19:00-23:00_Zone B_Action Level** **0324228_03 June 2016_Depth-averaged Turbidity_E2_19:00-23:00_Zone B_Action Level** **0324228_03 June 2016_Depth-averaged Turbidity_E6_19:00-23:00_Zone B_Action Level** **0324228_03 June 2016_Depth-averaged Turbidity_E8_19:00-23:00_Zone B_Action Level**

	0324228_03 June 2016_Depth-averaged Turbidity_F1_19:00-23:00_Zone B_Action Level **0324228_03 June 2016_Depth-averaged SS_E1_19:00-23:00_Zone B_Action Level** **0324228_03 June 2016_Depth-averaged SS_E2_19:00-23:00_Zone B_Action Level** **0324228_03 June 2016_Depth-averaged SS_E6_19:00-23:00_Zone B_Action Level** **0324228_03 June 2016_Depth-averaged SS_E8_19:00-23:00_Zone B_Action Level** **0324228_03 June 2016_Depth-averaged SS_F1_19:00-23:00_Zone B_Action Level** **0324228_03 June 2016_Middle DO_B2_19:00-23:00_Zone B_Limit Level** **0324228_03 June 2016_Middle DO_E6_19:00-23:00_Zone B_Action Level** **0324229_03 June 2016_Middle DO_I1_19:00-23:00_Zone B_Action Level** **[Total No. of Exceedance = 64]**
Monitoring Station(s) with Exceedance(s)	**Zone B:** B1, B2, B3, E1, E2, E6, E8, F1 and I1
Parameter(s) with Exceedance(s)	**Zone B**: Action Levels for Dissolved Oxygen (DO) at all depths, Depth-averaged Turbidity and Depth-averaged Suspended Solid (SS) Limit Levels for DO at all depths
Action Levels	Refer to *Table 3.4*
Limit Levels	Refer to *Table 3.4*
Measured Levels	Please refer to data sheets in *Annex D*.
Exceedances	Refer to Exceedance Log No. for stations, water quality monitoring zone, monitoring round, exceedance of Action or Limit Levels.
Possible Reason for Action or Limit Level Non-compliance	Four rounds of impact monitoring were conducted in Zones B (07:00-11:00, 11:00-15:00, 15:00-19:00 and 19:00-23:00) on 3 June 2016. Monitoring results of SS, Turbidity and DO (all depths) in Zone B during baseline monitoring, all impact monitoring and *ad hoc* monitoring (to date) are presented in *Figures D4 to D6 in Annex D*. It is important to note that a number of exceedances in Action Level for DO at all depths, Turbidity and SS and exceedances in Limit Levels for DO at surface and middle depths in Zone B were observed on 31 May 2016 (*ad hoc* monitoring) and 2 June 2016 (when monitoring works were carried out, but PLIB works were postponed to the following day, i.e. 3 June 2016) even though no Project works were conducted. This indicates the baseline water quality data showed particularly good water quality conditions for Hong Kong marine waters and natural background Turbidity and SS fluctuations caused some Action levels related to baseline conditions, to be triggered, despite no Project works being conducted. **Exceedances of Action Levels for SS in Zones B** The impact monitoring results of SS in Zone B are similar among the stations on 3 June 2016 and throughout impact monitoring period from 18 May to 3 June 2016 (*Figure 1*). Although there are depth-averaged SS results higher than 99%-ile of baseline monitoring result (i.e. value of Limit Level, 3.39 mg/L), these results are within 130% of the corresponding data from respective control station at the same tide of the same day. Thus these results are not considered as Limit Level exceedances. The overall SS in Zone B from 18 May to 3 June 2016 was at similar levels to the baseline monitoring results, i.e. all falling within a range between 1.7 mg/L and 4.1 mg/L. At all the stations, the Action level related to '*120% of corresponding data from respective control station at the same tide of the same day*' was not triggered – only the absolute value of 3.33 mg/L, which is the 95%-ile of the baseline data. As previously established, the baseline data showed good water quality for Hong Kong waters. Therefore the exceedances of Action Levels for SS in Zone B on 3 June 2016 are not considered to be caused by PLIB works but rather are considered a reflection of natural background fluctuations. **Exceedances of Action Levels for Turbidity in Zones B** The impact monitoring results of Turbidity in Zone B are similar among the stations on 3

	June and throughout impact monitoring period from 18 May to 3 June 2016 (*Figure 2*). Although there are depth-averaged Turbidity results higher than 99%-ile of baseline monitoring result (i.e. value of Limit Level, 2.79 NTU), these results are within 130% of the corresponding data from respective control station at the same tide of the same day. Thus these results are not considered as Limit Level exceedances. The overall Turbidity in Zone B from 18 May to 3 June 2016 was at similar levels to the baseline monitoring results, i.e. all falling within a range between 1.5 NTU and 3.9 NTU. All Turbidity results on 3 June 2016 did not trigger '*120% of corresponding data from respective control station at the same tide of the same day*'. Turbidity levels throughout the period at the majority of monitoring stations were also below '*120% of corresponding data from respective control station at the same tide of the same day*'– only the absolute value of 2.67 NTU, which is the 95%-ile of the baseline data. As previously established, the baseline data showed good water quality for Hong Kong waters. Therefore the exceedances of Action Levels for Turbidity in Zone B on 3 June 2016 are not considered to be caused by PLIB works but rather are considered a reflection of natural background fluctuations. **Exceedances of Action and Limit Levels for DO in Zones B** Although exceedances of Action and Limit Levels for DO were observed in Zone B, it is noted that only the value linked to the baseline data '*1%-ile of baseline for surface and middle layer (7.41 mg/L) and 1%-ile of baseline for bottom layer (7.01 mg/L)*', were exceeded, whereas the absolute value of 5 mg/L for Surface and Middle DO and 2mg/L for Bottom DO (derived from the *Water Quality Objectives (WQO)* under the *Water Pollution Control Ordinance (WPCO)*) were not exceeded. The impact monitoring results of DO at all depths in Zone B are similar among the stations on 3 June and throughout impact monitoring period from 18 May to 3 June 2016 (*Figures 3 to 5*). As previously established, the baseline data showed good water quality for Hong Kong waters. Therefore the exceedances of Action Levels and Limit Levels for DO at all depths in Zone B on 3 June 2016 are not considered to be caused by PLIB works but rather are considered a reflection of natural background fluctuations Only PLIB works were conducted within water quality monitoring zone (Zone B) on 3 June 2016. It is important to note that there has been exceedances of DO at all depth levels, depth-averaged turbidity and depth-averaged SS before commencement of PLIB works, as recorded through the monitoring required by this project's EM&A Manual. The previous exceedances were considered as natural fluctuations of regional water quality rather than impacts from the works related to this Project. DO, Depth-averaged Turbidity and Depth-averaged SS levels at control and gradient stations on the same day were also similar to impact monitoring stations. Therefore, these exceedances of Action and Limit Levels are considered to be caused by natural background fluctuations. The observation of a number of exceedances of Action and Limit Levels on 3 June 2016 strengthens the conclusion that the baseline data show very good water quality for Hong Kong waters such that natural water quality fluctuation is more likely to cause exceedances of Action and Limit Levels, as well as the NOEs issued for 28, 30, 31 May and 2 June 2016 in Zone B being due to natural water quality fluctuation.

Table E.5 Exceedances of Action and Limit Levels on 4 June 2016

Exceedance Log No.	**0324228_04 June 2016_Depth-averaged Turbidity_F1_07:00-11:00_Zone B_Action Level** **0324228_04 June 2016_Depth-averaged Turbidity_I1_07:00-11:00_Zone B_Action Level** **0324228_04 June 2016_Depth-averaged SS_F1_07:00-11:00_Zone B_Action Level** **0324228_04 June 2016_Depth-averaged SS_I1_07:00-11:00_Zone B_Action Level** **0324228_04 June 2016_Surface DO_F1_07:00-11:00_Zone B_Action Level** **0324228_04 June 2016_Middle DO_F1_07:00-11:00_Zone B_Limit Level** **0324228_04 June 2016_Bottom DO_F1_07:00-11:00_Zone B_Action Level** **0324228_04 June 2016_Surface DO_I1_07:00-11:00_Zone B_Limit Level** **0324228_04 June 2016_Middle DO_I1_07:00-11:00_Zone B_Limit Level** **0324228_04 June 2016_Bottom DO_I1_07:00-11:00_Zone B_Limit Level** **0324228_04 June 2016_Depth-averaged Turbidity_B3_11:00-15:00_Zone B_Action Level** **0324228_04 June 2016_Depth-averaged Turbidity_E2_11:00-15:00_Zone B_Action Level** **0324228_04 June 2016_Middle DO_B1_11:00-15:00_Zone B_Action Level** **0324228_04 June 2016_Middle DO_B2_11:00-15:00_Zone B_Limit Level** **0324228_04 June 2016_Middle DO_E8_11:00-15:00_Zone B_Limit Level** **0324228_04 June 2016_Depth-averaged Turbidity_F1_15:00-19:00_Zone B_Action Level** **0324228_04 June 2016_Middle DO_B2_15:00-19:00_Zone B_Action Level** **0324228_04 June 2016_Middle DO_E8_15:00-19:00_Zone B_Action Level** **0324228_04 June 2016_Surface DO_F1_15:00-19:00_Zone B_Limit Level** **0324228_04 June 2016_Middle DO_F1_15:00-19:00_Zone B_Limit Level** **0324228_04 June 2016_Bottom DO_F1_15:00-19:00_Zone B_Limit Level** **0324228_04 June 2016_Surface DO_I1_15:00-19:00_Zone B_Limit Level** **0324229_04 June 2016_Middle DO_I1_15:00-19:00_Zone B_Limit Level** **0324230_04 June 2016_Bottom DO_I1_15:00-19:00_Zone B_Limit Level** **0324228_04 June 2016_Depth-averaged Turbidity_B3_19:00-23:00_Zone B_Action Level** **0324228_04 June 2016_Depth-averaged Turbidity_F1_19:00-23:00_Zone B_Action Level** **0324228_04 June 2016_Middle DO_B1_19:00-23:00_Zone B_Action Level** **0324228_04 June 2016_Middle DO_B2_19:00-23:00_Zone B_Limit Level** **0324229_04 June 2016_Middle DO_E1_19:00-23:00_Zone B_Action Level** **0324228_04 June 2016_Middle DO_E8_19:00-23:00_Zone B_Limit Level** **[Total No. of Exceedance = 30]**
Monitoring Station(s) with Exceedance(s)	**Zone B:** B1, B2, B3, E1, E2, E8, F1 and I1
Parameter(s) with Exceedance(s)	**Zone B**: Action Levels for Dissolved Oxygen (DO) at all depths, Depth-averaged Turbidity and Depth-averaged Suspended Solid (SS) Limit Levels for DO at all depths
Action Levels	Refer to *Table 3.4*
Limit Levels	Refer to *Table 3.4*
Measured Levels	Please refer to data sheets in *Annex D*.
Exceedances	Refer to Exceedance Log No. for stations, water quality monitoring zone, monitoring round, exceedance of Action or Limit Levels.
Possible Reason for Action or Limit Level Non-compliance	Four rounds of impact monitoring were conducted in Zones B (07:00-11:00, 11:00-15:00, 15:00-19:00 and 19:00-23:00) on 4 June 2016. Monitoring results of SS, Turbidity and DO (all depths) in Zone B during baseline monitoring, all impact monitoring and *ad hoc* monitoring (to date) are presented in *Figures D4 to D6 of Annex D*. It is important to note that a number of exceedances in Action Level for DO at all depths, Turbidity and SS and exceedances in Limit Levels for DO at surface and middle depths in Zone B were observed on 31 May 2016 (*ad hoc* monitoring) and 2 June 2016 (when monitoring works were carried out, but PLIB works were postponed to the following day, i.e. 3 June 2016) even though no Project works were conducted. This indicates the

baseline water quality data showed particularly good water quality conditions for Hong Kong marine waters and natural background Turbidity and SS fluctuations caused some Action levels related to baseline conditions, to be triggered, despite no Project works being conducted.

Exceedances of Action Levels for SS in Zones B

The impact monitoring results of SS in Zone B are similar among the stations on 4 June 2016 and throughout impact monitoring period from 18 May to 4 June 2016 (*Figure 1*). Although there are depth-averaged SS results higher than 99%-ile of baseline monitoring result (i.e. value of Limit Level, 3.39 mg/L), these results are within 130% of the corresponding data from respective control station at the same tide of the same day. Thus these results are not considered as Limit Level exceedances. The overall SS in Zone B from 18 May to 4 June 2016 was at similar levels to the baseline monitoring results, i.e. all falling within a range between 1.7 mg/L and 4.1 mg/L. At all the stations, the Action level related to '*120% of corresponding data from respective control station at the same tide of the same day*' was not triggered – only the absolute value of 3.33 mg/L, which is the 95%-ile of the baseline data. As previously established, the baseline data showed good water quality for Hong Kong waters. Therefore the exceedances of Action Levels for SS in Zone B on 4 June 2016 are not considered to be caused by PLIB works but rather are considered a reflection of natural background fluctuations.

Exceedances of Action Levels for Turbidity in Zones B

The impact monitoring results of Turbidity in Zone B are similar among the stations on 4 June and throughout impact monitoring period from 18 May to 4 June 2016 (*Figure 2*). Although there are depth-averaged Turbidity results higher than 99%-ile of baseline monitoring result (i.e. value of Limit Level, 2.79 NTU), these results are within 130% of the corresponding data from respective control station at the same tide of the same day. The overall Turbidity in Zone B from 18 May to 4 June 2016 was at similar levels to the baseline monitoring results, i.e. all falling within a range between 1.5 NTU and 3.9 NTU. All Turbidity results on 4 June 2016 did not trigger '*120% of corresponding data from respective control station at the same tide of the same day*'. Turbidity levels throughout the period at the majority of monitoring stations were also below '*120% of corresponding data from respective control station at the same tide of the same day*'– only the absolute value of 2.67 NTU, which is the 95%-ile of the baseline data. As previously established, the baseline data showed good water quality for Hong Kong waters. Therefore the exceedances of Action Levels for Turbidity in Zone B on 4 June 2016 are not considered to be caused by PLIB works but rather are considered a reflection of natural background fluctuations.

Exceedances of Action and Limit Levels for DO in Zones B

Although exceedances of Action and Limit Levels for DO were observed in Zone B, it is noted that only the value linked to the baseline data '*1%-ile of baseline for surface and middle layer (7.41 mg/L) and 1%-ile of baseline for bottom layer (7.01 mg/L)*', were exceeded, whereas the absolute value of 5 mg/L for Surface and Middle DO and 2mg/L for Bottom DO (derived from the *Water Quality Objectives (WQO)* under the *Water Pollution Control Ordinance (WPCO)*) were not exceeded. The impact monitoring results of DO at all depths in Zone B are similar among the stations on 4 June 2016 and throughout impact monitoring period from 18 May to 4 June 2016 (*Figures 3 to 5*). As previously established, the baseline data showed good water quality for Hong Kong waters. Therefore the exceedances of Action Levels and Limit Levels for DO at all depths in Zone B on 4 June 2016 are not considered to be caused by PLIB works but rather are considered a reflection of natural background fluctuations

Only PLIB works were conducted within water quality monitoring zone (Zone B) on 4 June 2016. It is also important to note that there has been exceedances of DO at all depth levels, depth-averaged turbidity and depth-averaged SS before commencement of

	PLIB works, as recorded through the monitoring required by this project's EM&A Manual. The previous exceedances were considered as natural fluctuations of regional water quality rather than impacts from the works related to this Project. DO, Depth-averaged Turbidity and Depth-averaged SS levels at control and gradient stations on the same day were also similar to impact monitoring stations. Therefore, these exceedances of Action and Limit Levels are considered caused by natural background fluctuations. The observation of a number of exceedances of Action and Limit Levels on 4 June 2016 strengthens the conclusion that the baseline data show very good water quality for Hong Kong waters such that natural water quality fluctuation is more likely to cause exceedances of Action and Limit Levels, as well as the NOEs issued for 28, 30, 31 May, 2 and 3 June 2016 in Zone B being due to natural water quality fluctuation.

Table E.6 Exceedances of Action and Limit Levels on 5 June 2016

Exceedance Log No.	**0324228_05 June 2016_Surface DO_E4_07:00-11:00_Zone C_Limit Level** **0324228_05 June 2016_Middle DO_E4_07:00-11:00_Zone C_Limit Level** **0324228_05 June 2016_Bottom DO_E4_07:00-11:00_Zone C_Limit Level** **0324228_05 June 2016_Surface DO_E5_07:00-11:00_Zone C_Limit Level** **0324228_05 June 2016_Middle DO_E5_07:00-11:00_Zone C_Limit Level** **0324228_05 June 2016_Bottom DO_E5_07:00-11:00_Zone C_Limit Level** **0324228_05 June 2016_Depth-averaged Turbidity_E5_11:00-15:00_Zone C_Action Level** **0324228_05 June 2016_Surface DO_E4_11:00-15:00_Zone C_Limit Level** **0324228_05 June 2016_Middle DO_E4_11:00-15:00_Zone C_Limit Level** **0324228_05 June 2016_Bottom DO_E4_11:00-15:00_Zone C_Limit Level** **0324228_05 June 2016_Surface DO_E5_11:00-15:00_Zone C_Limit Level** **0324228_05 June 2016_Middle DO_E5_11:00-15:00_Zone C_Limit Level** **0324228_05 June 2016_Bottom DO_E5_11:00-15:00_Zone C_Limit Level** **0324228_05 June 2016_Surface DO_E4_15:00-19:00_Zone C_Limit Level** **0324228_05 June 2016_Middle DO_E4_15:00-19:00_Zone C_Limit Level** **0324228_05 June 2016_Bottom DO_E4_15:00-19:00_Zone C_Limit Level** **0324228_05 June 2016_Surface DO_E5_15:00-19:00_Zone C_Limit Level** **0324228_05 June 2016_Middle DO_E5_15:00-19:00_Zone C_Limit Level** **0324228_05 June 2016_Bottom DO_E5_15:00-19:00_Zone C_Limit Level** **0324228_05 June 2016_Surface DO_E4_19:00-23:00_Zone C_Limit Level** **0324228_05 June 2016_Middle DO_E4_19:00-23:00_Zone C_Limit Level** **0324228_05 June 2016_Bottom DO_E4_19:00-23:00_Zone C_Limit Level** **0324228_05 June 2016_Surface DO_E5_19:00-23:00_Zone C_Limit Level** **0324228_05 June 2016_Middle DO_E5_19:00-23:00_Zone C_Limit Level** **0324228_05 June 2016_Bottom DO_E5_19:00-23:00_Zone C_Limit Level** **[Total No. of Exceedance = 25]**
Monitoring Station(s) with Exceedance(s)	**Zone C:** E4 and E5
Parameter(s) with Exceedance(s)	**Zone C**: Action Levels for Depth-averaged Turbidity Limit Levels for DO at all depths
Action Levels	Refer to *Table 3.5*
Limit Levels	Refer to *Table 3.5*
Measured Levels	Please refer to data sheets in *Annex D*.
Exceedances	Refer to Exceedance Log No. for stations, water quality monitoring zone, monitoring round, exceedance of Action or Limit Levels.
Possible Reason for Action or Limit Level Non-compliance	Four rounds of impact monitoring were conducted in Zones C (07:00-11:00, 11:00-15:00, 15:00-19:00 and 19:00-23:00) on 5 June 2016. Monitoring results of Turbidity and DO (all depths) in Zone C during baseline monitoring, all impact monitoring and *ad hoc* monitoring (to date) are presented in *Figures D7 to D9 of Annex D*. It is important to note that a number of exceedances in Limit Levels for DO at all depths in Zone C were observed on 1 June 2016 (*ad hoc* monitoring) whilst no Project works were conducted on the same day. This indicates the baseline water quality data showed particularly good water quality conditions for Hong Kong marine waters and natural background fluctuations caused some exceedances related to baseline conditions, to be triggered, despite no Project works being conducted. **Exceedance of Action Level for Turbidity in Zone C** The impact monitoring results of Turbidity in Zone C are similar among the stations on 5 June and throughout impact monitoring period from 20 May to 5 June 2016 (*Figure 1*). The overall Turbidity in Zone C from 20 May to 5 June 2016 was at similar levels to the

	baseline monitoring results, i.e. all falling within a range between 2.1 NTU and 3.2 NTU. All Turbidity results on 5 June 2016 did not trigger '*120% of corresponding data from respective control station at the same tide of the same day*' – only the absolute value of 2.75 NTU, which is the 95%-ile of the baseline data. As previously established, the baseline data showed good water quality for Hong Kong waters. Therefore the exceedance of Action Level for Turbidity in Zone C on 5 June 2016 is not considered to be caused by PLIB works but rather is considered a reflection of natural background fluctuations. **Exceedances of Limit Levels for DO in Zone C** Although exceedances of Limit Levels for DO were observed in Zone C, it is noted that only the value linked to the baseline data '*1%-ile of baseline for surface and middle layer (8.22 mg/L) and 1%-ile of baseline for bottom layer (8.15 mg/L)*', were exceeded, whereas the absolute value of 5 mg/L for Surface and Middle DO and 2mg/L for Bottom DO (derived from the *Water Quality Objectives (WQO)* under the *Water Pollution Control Ordinance (WPCO)*) were not exceeded. The impact monitoring results of DO at all depths in Zone C are similar among the stations on 5 June 2016 and throughout impact monitoring period from 20 May to 5 June 2016 (*Figures 2 to 4*). As previously established, the baseline data showed good water quality for Hong Kong waters. Therefore the exceedances of Action Levels and Limit Levels for DO at all depths in Zone C on 5 June 2016 are not considered to be caused by PLIB works but rather are considered a reflection of natural background fluctuations Only PLIB works were conducted within water quality monitoring zone (Zone C) on 5 June 2016. It is also important to note that there has been exceedances of DO at all depth levels, depth-averaged turbidity and depth-averaged SS before commencement of PLIB works, as recorded through the monitoring required by this project's EM&A Manual. The previous exceedances were considered as natural fluctuations of regional water quality rather than impacts from the works related to this Project. DO, Depth-averaged Turbidity and Depth-averaged SS levels at control and gradient stations on the same day were also similar to impact monitoring stations. Therefore, these exceedances of Action and Limit Levels are considered caused by natural background fluctuations. The observation of a number of exceedances of Action and Limit Levels on 5 June 2016 strengthens the conclusion that the baseline data show very good water quality for Hong Kong waters such that natural water quality fluctuation is more likely to cause exceedances of Action and Limit Levels, as well as the NOEs issued for 1 June 2016 in Zone C being due to natural water quality fluctuation.

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