

## Asia Submarine-cable Express (ASE) – Tseung Kwan O

Impact Water Quality Monitoring Report  
(Zone A)

6 February 2014

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| Summary:   | <p>Date:<br/>6 February 2014</p> <p>Approved by:</p>  <p>Terence Fong<br/>Project Director</p> |   |         |          |
| This report presents the monitoring requirements, methodologies and results of the impact marine water quality measurements at the monitoring locations near Tseung Kwan O in accordance with the EM&A Manual.   |  |   |         |          |
| v0   | Impact Water Quality Monitoring Report (Zone A)  | YL  | FZino   | TFONG    |
| Revision   | Description  | By  | Checked | Approved |
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**Asia Submarine-cable Express (ASE) - Tseung Kwan O  
Environmental Certification Sheet  
EP-433/2011**

**Reference Document/Plan**

|  |   |
|--|---|
| Document/Plan to be Certified/ Verified: | 2014 Third Weekly Impact Water Quality Monitoring Report (Zone A) |
| Date of Report:                          | 6 February, 2014  |
| Date prepared by ET:                     | ERM-Hong Kong Ltd   |
| Date received by IEC:                    | Ecosystem Ltd   |

**Reference EM&A Manual/ EP Requirement**

|   |  |
|---|--|
| EM&A Manual Requirement:  | Section 2  |
| Content:  | <i>Water Quality Monitoring</i>                  |
| 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 No. 2.4                                |
| Content:  | <i>Impact Monitoring Report on Water Quality</i> |
| 2.4 To monitor the environmental impacts and timely implementation of the recommended mitigation measures, the Permit Holder shall  |  |
| (ii) submit to the Director four hard copies and one electronic copy of the following, as defined in the approved EM&A Manual:  |  |
| (b) weekly impact monitoring (and site audit report*) within three days after the relevant monitoring data are collected or become available.   |  |
| *site audit not currently necessary as no land works.   |  |

**ET Certification**

I hereby certify that the above referenced document/ plan complies with the above referenced condition of EP-433/2011.

Terence Fong, Environmental Team Leader:

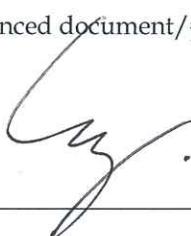


Date: 6 February 2014

**IEC Verification**

I hereby verify that the above referenced document/ plan complies with the above referenced condition of EP-433/2011.

Vincent Lai, Independent Environmental Checker:



Date:

7 Feb 2014

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## **EXECUTIVE SUMMARY**

The submarine cable installation works for the Asia Submarine-cable Express (ASE) cable system commenced on 12 January 2014. This is the **2014 Third Weekly Impact Water Quality Monitoring Report** presenting results and findings of the impact water quality monitoring conducted during the period from 26 January to 1 February 2014 in accordance with the *Updated Environmental Monitoring and Audit Manual (Updated EM&A Manual)*.

### Summary of Construction Works Undertaken during the Reporting Period

During the reporting period, submarine cable installation works were conducted in Zone A (See *Figure 2.2*), which included diver inspections (not involving water jetting) and cable burial works (using water jetting).

**Note** no works were conducted on 28 January 2014, when the Networker cable barge was berthed; nor from 31 January to 1 February 2014 inclusive, due to the Chinese New Year Holiday.

### Water Quality Monitoring

Five monitoring events were scheduled in the reporting period from 26 January to 1 February 2014. Monitoring events at designated monitoring stations in Zone A were performed on schedule on 26-30 January inclusive.

**Note** no monitoring works were conducted from 31 January to 1 February 2014 inclusive due to the Chinese New Year Holiday.

### Environmental Non-conformance

No exceedances of Action and/or Limit Levels were recorded during the reporting period.

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

### Future Key Issues

In the week from 2 to 8 February 2014, the cable installation works to be conducted in Zone A will include:

- Diver inspections (no water jetting work);
- Cable burial works (water jetting work); and
- Equipment stowage (no water jetting work).

**Note** no cable installation works will be conducted on 2 February 2014 due to Chinese New Year Holiday and the cable installation works will be completed on 5 February 2014. Hence no impact monitoring events will be scheduled on 2, 6, 7, and 8 February 2014.

ERM-Hong Kong, Limited (ERM) was appointed by NTT Com Asia (NTTCA) as the Environmental Team (ET) to implement the Environmental Monitoring and Audit (EM&A) programme for the re-installation of a damaged section of the telecommunication cable Asia-Submarine-cable Express (ASE). The ASE cable is approximately 7,200 km in length, connecting Japan and Singapore with branches to the Philippines, Hong Kong SAR (HKSAR) and Malaysia (hereinafter called the Project).

**1.1****PURPOSE OF THE REPORT**

This **2014 Third Weekly Impact Water Quality Monitoring Report**, summarises results of impact water quality monitoring as part of the EM&A programme during the reporting period from 26 January to 1 February 2014.

**1.2****STRUCTURE OF THE REPORT**

The structure of the Report is as follows:

*Section 1 : Introduction*

Provides details of the background, purpose and report structure.

*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 Plan.

*Section 4 : Monitoring Results*

Summarises the water quality 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 reporting period.

*Section 7 : Conclusions*

Presents the key findings of the impact monitoring results.

## 2.1

### BACKGROUND

NTT Com Asia (NTTCA) installed a telecommunication cable (Asia Submarine-cable Express (ASE) cable) of approximately 7,200 km in length, connecting Japan and Singapore with branches to the Philippines, Hong Kong SAR (HKSAR) and Malaysia and was responsible for securing the approval to land the ASE cable in Tseung Kwan O, Hong Kong SAR (HKSAR). The landing site is at a Beach Manhole (BMH) and ultimately the cable connects with a Data Centre in Tseung Kwan O (TKO) Industrial Estate which was completed in 2012. It should be noted that Tseung Kwan O is currently the landing site for a number of submarine cables. From Tseung Kwan O, the cable extends westward approaching the Tathong Channel. Near to Cape Collinson, the cable is approximately parallel to the Tathong Channel until north of Waglan Island where the cable travels eastward to the boundary of HKSAR waters and enters the South China Sea. The total length of cable in Hong Kong SAR waters is approximately 33.5 km. A map of the cable route is presented in *Figure 2.1*.

A Project Profile (PP-452/2011) which includes an assessment of the potential environmental impacts associated with the installation of the submarine telecommunications cable system 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 Environmental Permit (EP- 433/2011).

Pursuant to Condition 2.4 of EP- 433/2011, an environmental monitoring and audit (EM&A) programme, as set out in the *Environmental Monitoring and Audit Manual (EM&A Manual)* is required for this Project. Baseline data were collected prior to the start of cable installation works in 2012 and EM&A was conducted throughout the cable installation and after its completion in early 2013 as required in the *EM&A Manual*.

Upon inspection in October 2013 the ASE cable was found to be damaged and a section within Zone A (see *Figure 2.2*) required re-installation. The EM&A programme are therefore required to resume for the cable installation works in Hong Kong Waters (the “Project”) in accordance with *Updated EM&A Manual*.

Baseline water quality update monitoring was conducted prior to the re-installation works and results summarise in the ‘*Baseline Water Quality Monitoring Update Report (Zone A)*’ of December 2013.

Impact monitoring started on 12 January 2014, when the cable installation works commenced in Zone A. Impact monitoring is being conducted on a daily basis as the cable installation works proceed in Zone A, including five

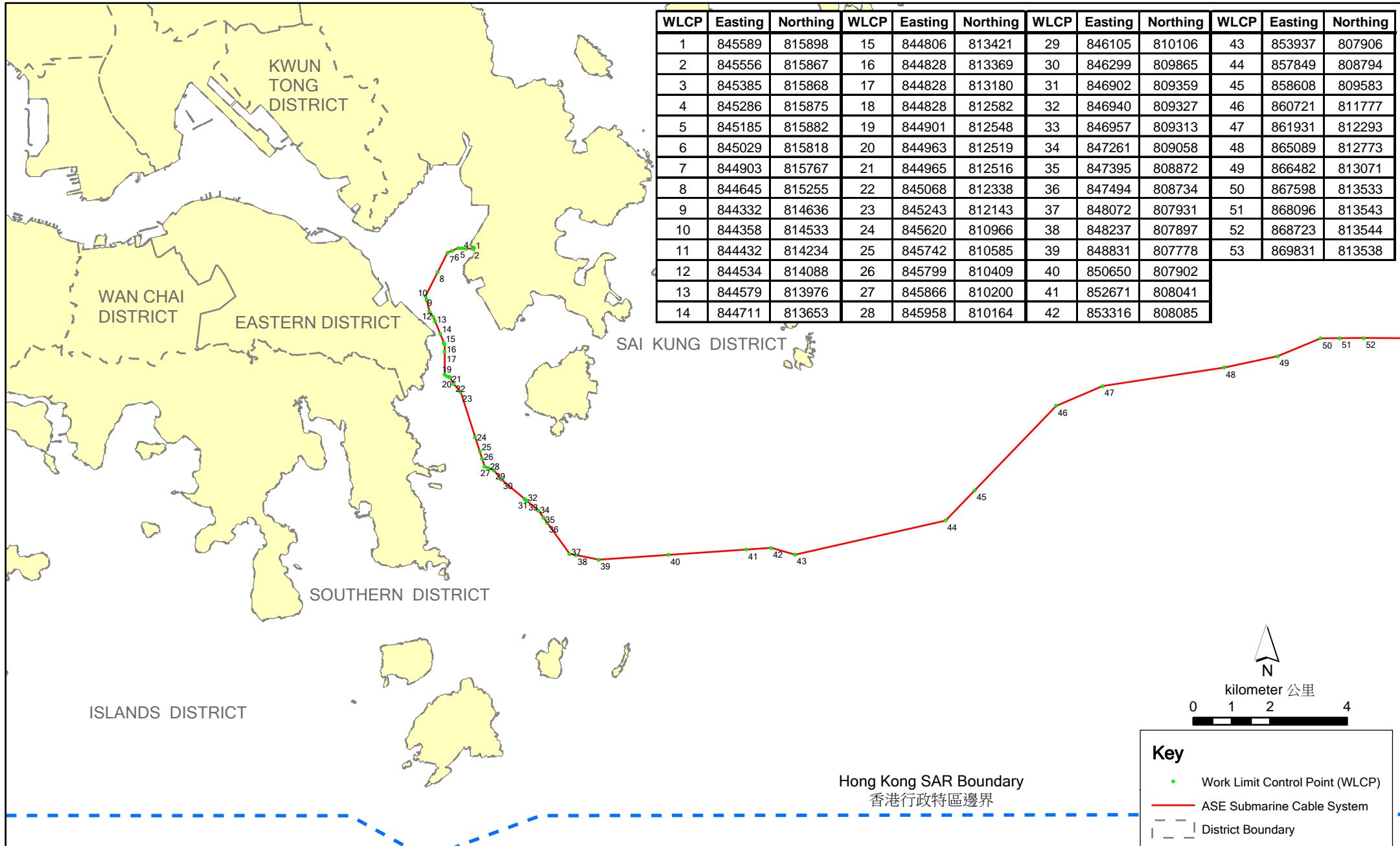


Figure 2.1

### ASE Submarine Cable System (Layout Plan)

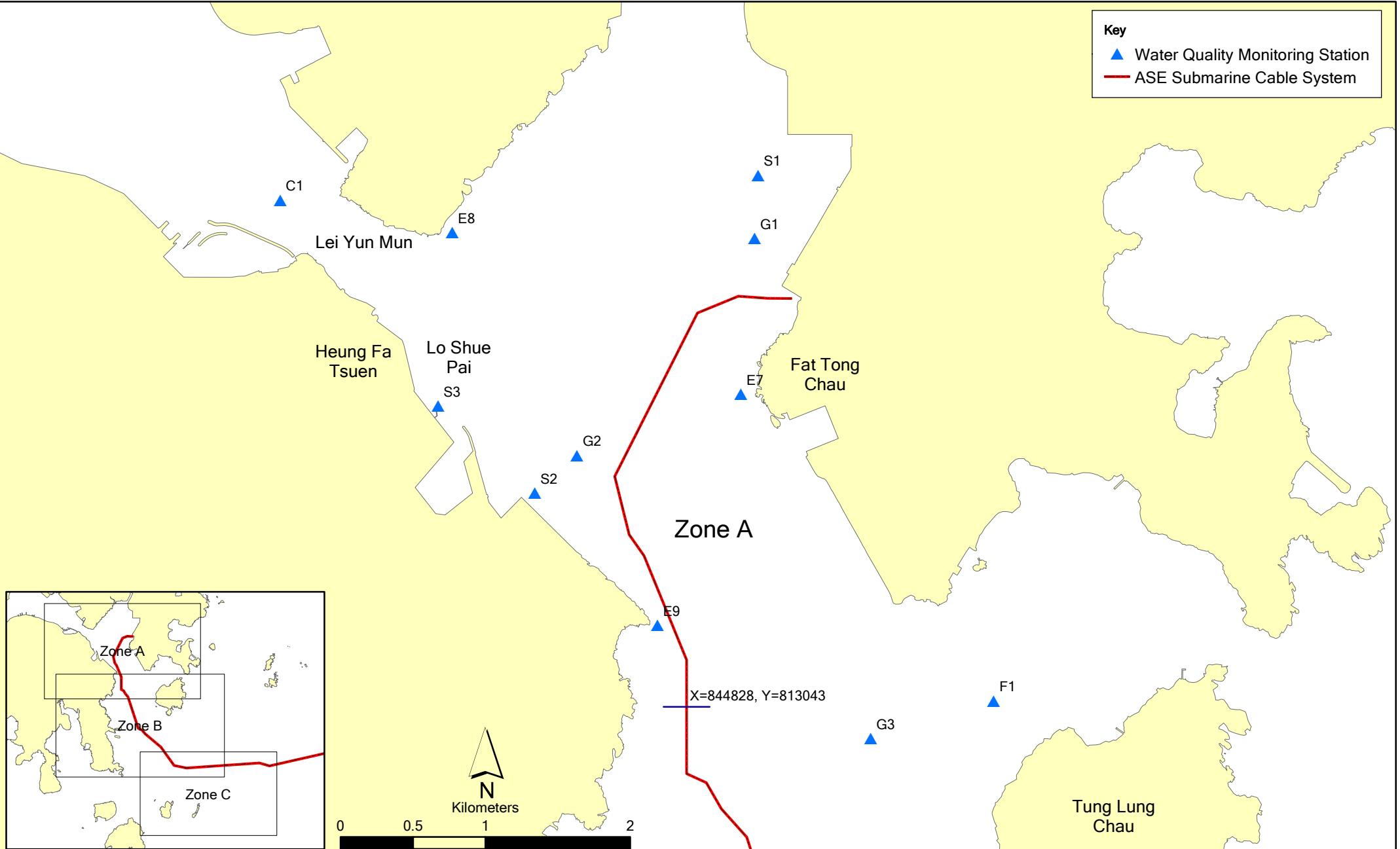


Figure 2.2

### Water Quality Monitoring Station (Zone A)

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Date: 16/1/2014

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days within the reporting period (no works were conducted on two days over the Chinese New Year holidays). The first week of impact monitoring was reported in the **2014 First Weekly Impact Water Quality Monitoring Report** issued for the reporting period 12-18 January 2014 inclusive. The second week of impact monitoring was reported in the **2014 Second Weekly Impact Water Quality Monitoring Report** issued for the reporting period 19-25 January 2014 inclusive. This Report presents the results and findings from the third week of impact monitoring, conducted from 26 January to 1 February 2014 inclusive, at the monitoring stations in Zone A. No impact monitoring works were conducted from 31 January to 1 February 2014 inclusive due to the Chinese New Year Holiday and no cable installation works being conducted.

## 2.2

### **MARINE CONSTRUCTION WORKS UNDERTAKEN DURING REPORTING WEEK**

During the reporting period, submarine cable installation works were conducted in Zone A (See *Figure 2.2*), which included diver inspections (not involving water jetting work); and cable burial works using water jetting.

**Note** On 28 January 2014 the Networker cable barge was berthed alongside and no works conducted. No works were carried out from 31 January to 1 February 2014 inclusive either, due to the Chinese New Year Holiday.

## 2.3

### **STATUS OF ENVIRONMENTAL APPROVAL DOCUMENTS**

A summary of the relevant permits, licences and reports on marine water quality for this Project is presented in *Table 2.1*.

**Table 2.1** *Summary of Environmental Licensing, Notification, Permit and Reporting Status*

| <b>Permit / Licence / Notification / Report</b>          | <b>Reference</b> | <b>Validity Period</b>                           | <b>Remarks</b>                 |
|--|------------------|--|--------------------------------|
| Environmental Permit                                     | EP 433/2011      | Throughout the construction and operation stages | Granted on 20 December 2011    |
| EM&A Manual  | -                | Throughout the construction stage                | Submitted on 18 September 2012 |
| Updated EM&A Manual                                      | -                | Throughout the construction stage                | Submitted December 2013        |
| Baseline Water Quality Monitoring Update Report (Zone A) | -                | Throughout the construction period for Zone A    | Submitted on 5 December 2013   |

**3.1****MONITORING LOCATIONS**

In accordance with the *Updated EM&A Manual*, water quality monitoring samples were collected at the eleven (11) stations situated around the cable installation works in Zone A, as soon as the Project marine installation works started. The locations of the sampling stations within Zone A are shown in *Figure 2.2*.

- E7 is the Impact Station located at Fat Tong Chau to monitor the impacts of cable installation works on the coral communities in the proximity;
- E8 is an Impact Station to monitor the impacts of cable installation works on the coral communities along Junk Bay – South West;
- E9 is an Impact Station to monitor the impacts of cable installation works on the coral communities at Cape Collison (the Gradient Station is not set due to the short distance of this Impact Station to nearby proposed cable works which may affect the Project marine installation works);
- F1 is an Impact Station to monitor the impacts of cable installation works on the Tung Lung Chau Fish Culture Zone;
- 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 Project marine installation 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; and
- 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 Project marine installation works due to its remoteness from the works.

The co-ordinates of the above monitoring stations in Zone A are listed in *Table 3.1*.

**Table 3.1** *Water Quality Monitoring Stations*

| Monitoring Station | Nature                             | Easting | Northing |
|--------------------|------------------------------------|---------|----------|
| E7                 | Impact Station (Coral Community)   | 843779  | 814520   |
| E8                 | Impact Station (Coral Community)   | 843111  | 815126   |
| E9                 | Impact Station (Coral Community)   | 843557  | 811853   |
| F1                 | Impact Station (Fish Culture Zone) | 847196  | 811056   |
| S1                 | Impact Station (Seawater Intakes)  | 847639  | 805900   |
| S2                 | Impact Station (Seawater Intakes)  | 849587  | 805696   |
| S3                 | Impact Station (Seawater Intakes)  | 845474  | 810605   |
| G1                 | Gradient Station                   | 845297  | 816282   |
| G2                 | Gradient Station                   | 844071  | 814784   |
| G3                 | Gradient Station                   | 846099  | 812826   |
| C1                 | Control Station                    | 842022  | 816547   |

### 3.2

#### **MONITORING PARAMETERS**

The impact water quality monitoring was conducted in accordance with the requirements stated in the *Updated EM&A Manual*. Monitoring parameters are presented below.

Parameters measured *in situ* were:

- Dissolved Oxygen (DO) (% saturation and mg L<sup>-1</sup>);
- Temperature (°C);
- Turbidity (NTU); and
- Salinity (‰).

The only parameter measured in the laboratory was:

- Suspended Solids (SS) (mgL<sup>-1</sup>).

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

### 3.3

#### **MONITORING EQUIPMENT AND METHODOLOGY**

##### 3.3.1

##### ***Monitoring Equipment***

*Table 3.2* summarises 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 Instrument SM-5     |
| Water Sampling Equipment                  | 1520 Kemmerer Water Sampler   |
| Salinity, DO, Temperature Measuring Meter | YSI Pro 2030                  |
| Current Velocity and Direction            | Flow Probe FP111              |
| Turbidity Meter                           | HACH Model 2100Q Turbid Meter |

### 3.3.2 Monitoring Methodology

#### Timing & Frequency

*In-situ* data and SS data were collected during Project marine installation works from 7:00 to 23:00 on a daily basis. The impact monitoring schedule for the reporting period is presented in Annex A.

Impact monitoring commenced when Project marine installation works started in Zone A. (The daily sampling works will cease once no Project marine installation works are being undertaken within Zone A)

Due to the weather conditions and travelling time between stations, *in-situ* measurement and SS sampling were taken at the impact monitoring stations with approximately four-hour intervals in Zone A. The monitoring frequency and parameters for impact monitoring are summarised in Table 3.3.

**Table 3.3 Monitoring Frequency and Parameters for Impact Monitoring in Zone A**

| Zone | Station Type | Monitoring Station          | Monitoring Frequency   | Monitoring Parameter                        |
|------|--------------|-----------------------------|--|---|
| A    | Control      | C1                          | Daily at a 4-hour interval while cable installation works are being undertaken in Zone A | Temperature, Turbidity, Salinity, DO and SS |
|      | Gradient     | G1, G2, G3                  |  |   |
|      | Impact       | E7, E8, E9, F1, S1, S2, S3, |  |   |

For *in-situ* measurements, duplicate readings were made at each water depth at each station. Duplicate water samples were also collected at each water depth at each station for the laboratory analysis.

#### Depths

Measurements/ water samples were taken at each sampling station, 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, when the mid-depth sample may have been omitted. For stations that are less than 3 m in depth, only the mid-depth sample was taken.

### *Sampling/ Testing Protocols*

All *in-situ* monitoring instruments were checked, calibrated and certified by a laboratory accredited under HOKLAS or any other international accreditation scheme before use, and subsequently re-calibrated at monthly intervals throughout all stages of the water quality monitoring (*Annex B*). 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.

Two replicate samples were collected from each of the monitoring events for *in situ* measurement and lab analysis.

### *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 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*)

### **3.3.3**

### *Action and Limit Levels*

The Action and Limit levels for Zones A, which were established based on the results of *Baseline Update Monitoring (Zone A)*, are presented in *Table 3.4*.

**Table 3.4**

### *Action and Limit Levels of Water Quality for Zone A*

| <b>Parameter</b>  | <b>Action Level</b>  | <b>Limit Level</b>  |
|---|--|---|
| SS in mgL <sup>-1</sup><br>(Depth-averaged) <sup>(a)(c)</sup> | 95%-ile of baseline data<br>(7.01 mg L <sup>-1</sup> ), or<br>20% exceedance of value at<br>any impact station compared<br>with corresponding data from<br>control station | 99%-ile of baseline data<br>(7.15 mg L <sup>-1</sup> ), and<br>30% exceedance of value at<br>any impact station compared<br>with corresponding data from<br>control station |
|   |  |   |

| Parameter  | Action Level  | Limit Level   |
|--|---|---|
| DO in mgL <sup>-1</sup> <sup>(b)</sup>               | <u>Surface and Middle</u> <sup>(d)</sup>  | <u>Surface and Middle</u> <sup>(d)</sup>  |
|  | 5%-ile of baseline data for surface and middle layer<br>(5.91 mg L <sup>-1</sup> )                  | 5mg/L or 1%-ile of baseline for surface and middle layer<br>(5.85 mg L <sup>-1</sup> )              |
| Turbidity in NTU (Depth-averaged) <sup>(a) (c)</sup> | <u>Bottom</u>   | <u>Bottom</u>   |
|  | 5%-ile of baseline data for bottom layers<br>(5.72 mg L <sup>-1</sup> )                             | 2mg/L or 1%-ile of baseline data for bottom layer<br>(5.62 mg L <sup>-1</sup> )                     |
| Turbidity in NTU (Depth-averaged) <sup>(a) (c)</sup> | 95%-ile of baseline data<br>(5.09 NTU), or  | 99%-ile of baseline data<br>(5.25 NTU), and   |
|  | 20% exceedance of value at any impact station compared with corresponding data from control station | 30% exceedance of value at any impact station compared with corresponding data from control station |

**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.
- c. For SS and turbidity, non-compliance of the water quality limits occurs when monitoring result is higher than the limits.
- d. The Action and Limit Level for DO for surface and middle layer were calculated from the combined pool of baseline surface layer data and baseline middle layer data.

### 3.3.4 Event and Action Plan

The Event and Action Plan for water quality monitoring which was stipulated in *Updated EM&A Manual* is presented in *Table 3.5*.

**Table 3.5 Event Action Plan for Water Quality**

| Event                  | Contractor  |
|------------------------|---|
| Action Level           | <b>Step 1</b> - repeat sampling event.  |
| Exceedance             | <b>Step 2</b> - Inform EPD and AFCD and confirm notification of the non-compliance in writing;<br><br><b>Step 3</b> - 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).<br><br><b>Step 4</b> - repeat measurements after implementation of mitigation for confirmation of compliance.<br><br><b>Step 5</b> - 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 <b>Steps 1-4</b> immediately, if further non-compliance continues at the Limit Level, suspend cable laying operations until an effective solution is identified.  |

## IMPACT MONITORING RESULTS

A total of five monitoring events were scheduled in the reporting period from 26 January to 1 February 2014 (*Annex A*). No impact monitoring works were conducted from 31 January to 1 February 2014 inclusive due to the Chinese New Year Holiday and no cable installation works being conducted.

Continuous water sampling was taken at the impact monitoring stations in Zone A at approximately 4-hour intervals (subject to the weather conditions and travelling time between stations) on a daily basis, so collections were made at least four (4) times per day. Monitoring events at all designated monitoring stations within Zone A were performed on schedule. No major activities influencing the water quality were identified during the reporting period.

The results of the impact monitoring and their graphical presentations are included in *Annex D*. No exceedances of Action and/or Limit Levels were recorded. The monitoring results of Turbidity, SS and DO are discussed together as follows.

The levels of depth-averaged Turbidity showed variation throughout the third week impact monitoring (*Figure D1 of Annex D*). The differences of Turbidity levels among the stations (within the same monitoring round on the same monitoring day) were recorded to stay within a limited range of 1 NTU.

Levels of depth-averaged SS measured during the third week impact monitoring showed fluctuation with time (*Figure D1 of Annex D*). Some differences of SS levels among the stations were recorded during the monitoring period but no exceedances of SS Action and/or Limit Levels were recorded during the reporting period.

The overall levels of DO at all the water depths (surface, mid-depth and bottom) during the third week impact monitoring were of similar magnitude at all the stations (*Figure D2-D3 of Annex D*). Minor fluctuations of DO levels at all water depths were detected during the reporting period. Minor differences of DO levels among the stations were also recorded at all water depths.

In general, the water quality of Zone A was stable throughout each sampling day. The overall Turbidity, SS and DO levels at the impact stations were of similar magnitude to the measurements taken at the control stations which were located far from the area of cable installation works and wouldn't be affected by the repair works. Given this information, any variation amongst the impact monitoring measurements are considered to be natural background variation rather caused by the Project cable installation works.

**5.1*****SUMMARY OF ENVIRONMENTAL EXCEEDANCE***

No exceedances of the Action and Limit Levels were recorded during the reporting period.

**5.2*****SUMMARY OF ENVIRONMENTAL NON-COMPLIANCE***

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

**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 period.

**6.1*****KEY ISSUES FOR THE COMING REPORTING PERIOD***

In the week from 2 to 8 February 2014, the cable installation works to be conducted in Zone A will include:

- Diver inspections (no water jetting work);
- Cable burial works (water jetting work); and
- Equipment stowage (no water jetting work).

Note no cable installation works will be conducted on 2 February 2014 due to Chinese New Year Holiday and the cable installation works will be completed on 5 February 2014.

**6.2*****IMPACT MONITORING SCHEDULE FOR THE COMING REPORTING PERIOD***

Impact water quality monitoring is scheduled to be carried out in parallel with the cable installation works in Zone A from from 3 to 5 February 2014 inclusive. No impact monitoring works will be conducted on 2, 6, 7, and 8 February 2014 in accordance with cable installation work schedule discussed in *Section 6.1*.

## CONCLUSIONS

This **2014 Third Weekly Impact Monitoring Report** presents the results and findings of impact water quality monitoring undertaken in Zone A during the period from 26 January to 1 February 2014 in accordance with the *Updated EM&A Manual* and the requirements under Environmental Permit (EP - 433/2011) for the Project.

No exceedances of Action and/or Limit Levels were recorded during the impact water quality monitoring period. No complaints or summons/prosecutions were received either during the reporting period.

Water quality in Zone A was generally stable throughout the reporting period. Levels of Turbidity, SS and DO levels showed fluctuation over time during the reporting period. In general, the overall water quality at the impact stations was found to be similar to that at the control stations.

It is concluded that no deterioration of water quality was observed during the reporting period and hence the effect of the Project cable installation works on water quality at the Project site was considered to be negligible.

Annex A

## Impact Water Quality Monitoring Schedule

**Asia Submarine-cable Express (ASE) – Tseung Kwan O**  
**Time Schedule for Impact Water Quality Monitoring (WQM)**  
**12 January to 05 February 2014**

| Sun  | Mon  | Tue  | Wed  | Thu  | Fri  | Sat  |
|--|--|--|--|--|--|--|
| 12 / 1<br><b>WQM</b><br>(07:00-11:00)<br>(11:00-15:00)<br>(15:00-19:00)<br>(19:00-23:00) | 13<br><b>WQM</b><br>(07:00-11:00)<br>(11:00-15:00)<br>(15:00-19:00)<br>(19:00-23:00) | 14<br><b>WQM</b><br>(07:00-11:00)<br>(11:00-15:00)<br>(15:00-19:00)<br>(19:00-23:00) | 15<br><b>WQM</b><br>(07:00-11:00)<br>(11:00-15:00)<br>(15:00-19:00)<br>(19:00-23:00) | 16<br><b>WQM</b><br>(07:00-11:00)<br>(11:00-15:00)<br>(15:00-19:00)<br>(19:00-23:00) | 17<br><b>WQM</b><br>(07:00-11:00)<br>(11:00-15:00)<br>(15:00-19:00)<br>(19:00-23:00) | 18<br><b>WQM</b><br>(07:00-11:00)<br>(11:00-15:00)<br>(15:00-19:00)<br>(19:00-23:00) |
| 19<br><b>WQM</b><br>(07:00-11:00)<br>(11:00-15:00)<br>(15:00-19:00)<br>(19:00-23:00)     | 20<br><b>WQM</b><br>(07:00-11:00)<br>(11:00-15:00)<br>(15:00-19:00)<br>(19:00-23:00) | 21<br><b>WQM</b><br>(07:00-11:00)<br>(11:00-15:00)<br>(15:00-19:00)<br>(19:00-23:00) | 22<br><b>WQM</b><br>(07:00-11:00)<br>(11:00-15:00)<br>(15:00-19:00)<br>(19:00-23:00) | 23<br><b>WQM</b><br>(07:00-11:00)<br>(11:00-15:00)<br>(15:00-19:00)<br>(19:00-23:00) | 24<br><b>WQM</b><br>(07:00-11:00)<br>(11:00-15:00)<br>(15:00-19:00)<br>(19:00-23:00) | 25<br><b>WQM</b><br>(07:00-11:00)<br>(11:00-15:00)<br>(15:00-19:00)<br>(19:00-23:00) |
| 26<br><b>WQM</b><br>(07:00-11:00)<br>(11:00-15:00)<br>(15:00-19:00)<br>(19:00-23:00)     | 27<br><b>WQM</b><br>(07:00-11:00)<br>(11:00-15:00)<br>(15:00-19:00)<br>(19:00-23:00) | 28<br><b>WQM</b><br>(07:00-11:00)<br>(11:00-15:00)<br>(15:00-19:00)<br>(19:00-23:00) | 29<br><b>WQM</b><br>(07:00-11:00)<br>(11:00-15:00)<br>(15:00-19:00)<br>(19:00-23:00) | 30<br><b>WQM</b><br>(07:00-11:00)<br>(11:00-15:00)<br>(15:00-19:00)<br>(19:00-23:00) | 31   | 1 / 2  |
| 2<br><b>WQM</b><br>(07:00-11:00)<br>(11:00-15:00)<br>(15:00-19:00)<br>(19:00-23:00)      | 3<br><b>WQM</b><br>(07:00-11:00)<br>(11:00-15:00)<br>(15:00-19:00)<br>(19:00-23:00)  | 4<br><b>WQM</b><br>(07:00-11:00)<br>(11:00-15:00)<br>(15:00-19:00)<br>(19:00-23:00)  | 5<br><b>WQM</b><br>(07:00-11:00)<br>(11:00-15:00)<br>(15:00-19:00)<br>(19:00-23:00)  |  |  |  |

Annex B

## Calibration Reports of Multi-parameter Sensor

## Performance Check of Turbidity Meter

Equipment Ref. No. : ET/0505/010 Manufacturer : HACH

Model No. : 2100Q Serial No. : 11110 C 014260

Date of Calibration : 07/01/2014 Due Date : 06/04/2014

| Gelex Vial Std | Theoretical Value (NTU) | Measured Value (NTU) | Difference % |
|----------------|-------------------------|----------------------|--------------|
| 0-10 NTU       | 5                       | 5.11                 | 2.18         |
| 10-100 NTU     | 50                      | 51.1                 | 2.18         |
| 100-1000 NTU   | 550                     | 568                  | 3.22         |

### 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.

Checked by : LL

Approved by : LL



### Internal Calibration Report of Dissolved Oxygen Meter

|                     |                 |                      |  |
|---------------------|-----------------|----------------------|--|
| Equipment Ref. No.  | : ET/EW/008/006 | Manufacturer         | : YSI  |
| Model No.           | : Pro 2030      | Serial No.           | : 12A 100554                                   |
| Date of Calibration | : 19/12/2013    | Calibration Due Date | : 18/03/2013 - 18/03/2014<br><i>19/12/2013</i> |

#### *Temperature Verification*

Ref. No. of Reference Thermometer : ET/0521/008  
 Ref. No. of Water Bath : ---

| Temperature (°C)              |          |      |            |      |
|-------------------------------|----------|------|------------|------|
| Reference Thermometer reading | Measured | 19.9 | Corrected  | 19.6 |
| DO Meter reading              | Measured | 19.4 | Difference | 0.2  |

#### *Standardization of sodium thiosulphate ( $Na_2S_2O_3$ ) solution*

| Reagent No. of $Na_2S_2O_3$ titrant                | CPE/012/4.5/001/8 | Reagent No. of 0.025N $K_2Cr_2O_7$ | CPE/012/4.4/001/23 |
|--|-------------------|------------------------------------|--------------------|
| Initial Vol. of $Na_2S_2O_3$ (ml)                  |                   | Trial 1                            | Trial 2            |
| Final Vol. of $Na_2S_2O_3$ (ml)                    | 1.00              | 12.00                              |                    |
| Vol. of $Na_2S_2O_3$ used (ml)                     | 11.55             | 22.50                              |                    |
| Normality of $Na_2S_2O_3$ solution (N)             | 10.55             | 10.50                              |                    |
| Average Normality (N) of $Na_2S_2O_3$ solution (N) | 0.02370           | 0.02381                            |                    |
| Acceptance criteria, Deviation                     | 0.02376           |                                    |                    |

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

#### *Linearity 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                | 11.30 | 22.70               | 0.00 | 8.40                | 13.20 |
| Final Vol. of $Na_2S_2O_3$ (ml)    | 11.30               | 22.70 | 30.80               | 8.40 | 13.20               | 18.10 |
| Vol. (V) of $Na_2S_2O_3$ used (ml) | 11.30               | 11.40 | 8.10                | 8.40 | 4.80                | 4.90  |
| Dissolved Oxygen (DO), mg/L        | 7.21                | 7.27  | 5.17                | 5.36 | 3.06                | 3.13  |
| 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                             | 7.10                   | 7.30 | 7.20    | 7.21                             | 7.27 | 7.24    | 0.55                         |
| 5                             | 5.14                   | 5.50 | 5.32    | 5.17                             | 5.36 | 5.27    | 0.94                         |
| 10                            | 3.09                   | 3.31 | 3.29    | 3.06                             | 3.13 | 3.10    | 5.95                         |
| Linear regression coefficient |                        |      |         | 0.9999                           |      |         |                              |



## 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/012/4.7/002/13 | Reagent No. of NaCl (30ppt) | CPE/012/4.8/002/13 |
|-----------------------------|--------------------|-----------------------------|--------------------|

### *Determination of dissolved oxygen content by Winkler Titration \*\**

| Salinity (ppt)  | 10                  |       | 30                  |       |
|---|---------------------|-------|---------------------|-------|
|   | 1                   | 2     | 1                   | 2     |
| Initial Vol. of Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> (ml)  | 0.00                | 11.80 | 24.10               | 35.20 |
| Final Vol. of Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> (ml)    | 11.80               | 24.10 | 35.20               | 46.50 |
| Vol. (V) of Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> used (ml) | 11.80               | 12.30 | 11.10               | 11.30 |
| Dissolved Oxygen (DO), mg/L   | 7.53                | 7.85  | 7.08                | 7.21  |
| 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             | 7.55                   | 7.89 | 7.72    | 7.53                             | 7.85 | 7.69    | 0.39                         |
| 30             | 7.04                   | 7.16 | 7.1     | 7.08                             | 7.21 | 7.15    | 0.70                         |

### *Acceptance Criteria*

- (1) Difference 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 winkle titration : within ± 5%

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

<sup>#</sup> Delete as appropriate

Calibrated by

: [Signature]

Approved by :

[Signature]

## Performance Check of Salinity Meter

Equipment Ref. No. : ET/EW/008/006 Manufacturer : YSI

Model No. : Pro 2030 Serial No. : 12A 100554

Date of Calibration : 19/12/2013 Due Date : 18/03/2014

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

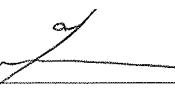
| Salinity Standard (ppt) | Measured Salinity (ppt) | Difference % |
|-------------------------|-------------------------|--------------|
| 30.0                    | 30.8                    | 2.63         |

### Acceptance Criteria

Difference : <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 @ |
| 1/26/2014     | 92.2         | C1-S1(0700)      | 4.88      | G1-S2 (0700) | 105.8        |
|               | 102.8        | G1-M1(0700)      | 4.44      | G3-M2 (0700) | 100          |
|               | 100          | G3-B1 (0700)     | 0.00      | G2-B2(0700)  | 93.6         |
|               | 102.3        | S3-S1 (0700)     | 4.44      | S3-B2 (0700) | 103.8        |
|               | 94.1         | S1-M1 (1100)     | 0.00      | F1-M2 (1100) | 100.0        |
|               | 97.6         | F1-B1 (11:00)    | 4.88      | S2-B1 (1100) | 95.8         |
|               | 102.1        | G2-S1 (1100)     | 0.00      | S3-B2 (1100) | 108.2        |
|               | 102.9        | C1-S1(0700)      | 4.88      | G1-S2 (0700) | 102.0        |
|               | 92.8         | G1-M1(0700)      | 0.00      | G3-M2 (0700) | 100.0        |
|               | 104.2        | G3-B1 (0700)     | 4.65      | G2-B2(0700)  | 100.0        |
|               | 93.8         | S3-S1 (0700)     | 4.88      | S3-B2 (0700) | 105.8        |
|               | 101.2        | S1-M1 (1100)     | 4.88      | F1-M2 (1100) | 98.0         |
|               | 106.5        | F1-B1 (11:00)    | 0.00      | S2-B1 (1100) | 102.0        |
|               | 104.5        | G2-S1 (1100)     | 0.00      | S3-B2 (1100) | 102.0        |

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 @ |
| 1/27/2014     | 101.9        | C1-S1(0700)      | 4.44      | G1-S2 (0700) | 102.1        |
|               | 99.4         | G1-M1(0700)      | 3.92      | G3-M2 (0700) | 92.2         |
|               | 102.2        | G3-B1 (0700)     | 3.77      | G2-B2(0700)  | 93.9         |
|               | 102.8        | S3-S1 (0700)     | 0.00      | S3-B2 (0700) | 98.1         |
|               | 104.1        | S1-M1 (1100)     | 4.44      | F1-M2 (1100) | 97.9         |
|               | 95.7         | F1-B1 (11:00)    | 3.39      | S2-B1 (1100) | 92.2         |
|               | 100.2        | G2-S1 (1100)     | 5.13      | S3-B2 (1100) | 106.4        |
|               | 92.5         | C1-S1(0700)      | 0.00      | G1-S2 (0700) | 97.9         |
|               | 102.0        | G1-M1(0700)      | 3.64      | G3-M2 (0700) | 94.0         |
|               | 101.6        | G3-B1 (0700)     | 0.00      | G2-B2(0700)  | 98.0         |
|               | 106.4        | S3-S1 (0700)     | 4.26      | S3-B2 (0700) | 100.0        |
|               | 96.4         | S1-M1 (1100)     | 4.26      | F1-M2 (1100) | 94.1         |
|               | 102.0        | F1-B1 (11:00)    | 6.67      | S2-B1 (1100) | 102.0        |
|               | 103.4        | G2-S1 (1100)     | 4.88      | S3-B2 (1100) | 100.0        |

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 @ |
| 1/28/2014     | 104.7        | C1-S1(0700)      | 4.26      | G1-S2 (0700) | 102.0        |
|               | 105.4        | G1-M1(0700)      | 3.77      | G3-M2 (0700) | 97.9         |
|               | 98.2         | G3-B1 (0700)     | 4.08      | G2-B2(0700)  | 91.8         |
|               | 97.6         | S3-S1 (0700)     | 4.08      | S3-B2 (0700) | 91.7         |
|               | 100.8        | S1-M1 (1100)     | 0.00      | F1-M2 (1100) | 94.1         |
|               | 95.5         | F1-B1 (11:00)    | 0.00      | S2-B1 (1100) | 91.7         |
|               | 102.8        | G2-S1 (1100)     | 0.00      | S3-B2 (1100) | 96.0         |
|               | 95.0         | C1-S1(0700)      | 5.41      | G1-S2 (0700) | 100.0        |
|               | 102.9        | G1-M1(0700)      | 0.00      | G3-M2 (0700) | 103.8        |
|               | 102.5        | G3-B1 (0700)     | 0.00      | G2-B2(0700)  | 100.0        |
|               | 102.5        | S3-S1 (0700)     | 0.00      | S3-B2 (0700) | 103.8        |
|               | 94.5         | S1-M1 (1100)     | 0.00      | F1-M2 (1100) | 94.2         |
|               | 103.5        | F1-B1 (11:00)    | 0.00      | S2-B1 (1100) | 96.2         |
|               | 103.6        | G2-S1 (1100)     | 0.00      | S3-B2 (1100) | 94.3         |

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 @ |
| 1/29/2014     | 104.2        | C1-S1(0700)      | 3.92      | G1-S2 (0700) | 100.0        |
|               | 96.1         | G1-M1(0700)      | 0.00      | G3-M2 (0700) | 97.9         |
|               | 99           | G3-B1 (0700)     | 4.08      | G2-B2(0700)  | 100          |
|               | 100.8        | S3-S1 (0700)     | 5.41      | S3-B2 (0700) | 100.0        |
|               | 98.5         | S1-M1 (1100)     | 4.26      | F1-M2 (1100) | 100.0        |
|               | 104.7        | F1-B1 (11:00)    | 3.64      | S2-B1 (1100) | 93.9         |
|               | 106.8        | G2-S1 (1100)     | 4.88      | S3-B2 (1100) | 92.9         |
|               | 101.8        | C1-S1(0700)      | 0.00      | G1-S2 (0700) | 106.3        |
|               | 103.6        | G1-M1(0700)      | 4.08      | G3-M2 (0700) | 102.0        |
|               | 95.8         | G3-B1 (0700)     | 3.92      | G2-B2(0700)  | 100.0        |
|               | 95.9         | S3-S1 (0700)     | 4.26      | S3-B2 (0700) | 106.0        |
|               | 97.6         | S1-M1 (1100)     | 0.00      | F1-M2 (1100) | 101.9        |
|               | 103.0        | F1-B1 (11:00)    | 3.92      | S2-B1 (1100) | 102.0        |
|               | 99.8         | G2-S1 (1100)     | 4.44      | S3-B2 (1100) | 98.1         |

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 @ |
| 1/30/2014     | 101          | C1-S1(0700)      | 4.65      | G1-S2 (0700) | 96.1         |
|               | 94.4         | G1-M1(0700)      | 5.41      | G3-M2 (0700) | 104          |
|               | 107.8        | G3-B1 (0700)     | 5.13      | G2-B2(0700)  | 92.3         |
|               | 99.4         | S3-S1 (0700)     | 0.00      | S3-B2 (0700) | 93.6         |
|               | 95.3         | S1-M1 (1100)     | 0.00      | F1-M2 (1100) | 104.2        |
|               | 99.2         | F1-B1 (11:00)    | 5.71      | S2-B1 (1100) | 98.0         |
|               | 106.6        | G2-S1 (1100)     | 5.71      | S3-B2 (1100) | 100.0        |
|               | 94.3         | C1-S1(0700)      | 0.00      | G1-S2 (0700) | 104.3        |
|               | 96.3         | G1-M1(0700)      | 0.00      | G3-M2 (0700) | 97.9         |
|               | 99.4         | G3-B1 (0700)     | 0.00      | G2-B2(0700)  | 98.0         |
|               | 100.6        | S3-S1 (0700)     | 0.00      | S3-B2 (0700) | 94.1         |
|               | 98.0         | S1-M1 (1100)     | 5.13      | F1-M2 (1100) | 106.1        |
|               | 103.9        | F1-B1 (11:00)    | 4.88      | S2-B1 (1100) | 97.9         |
|               | 100.0        | G2-S1 (1100)     | 0.00      | S3-B2 (1100) | 101.9        |

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

## Impact Water Quality Monitoring Results

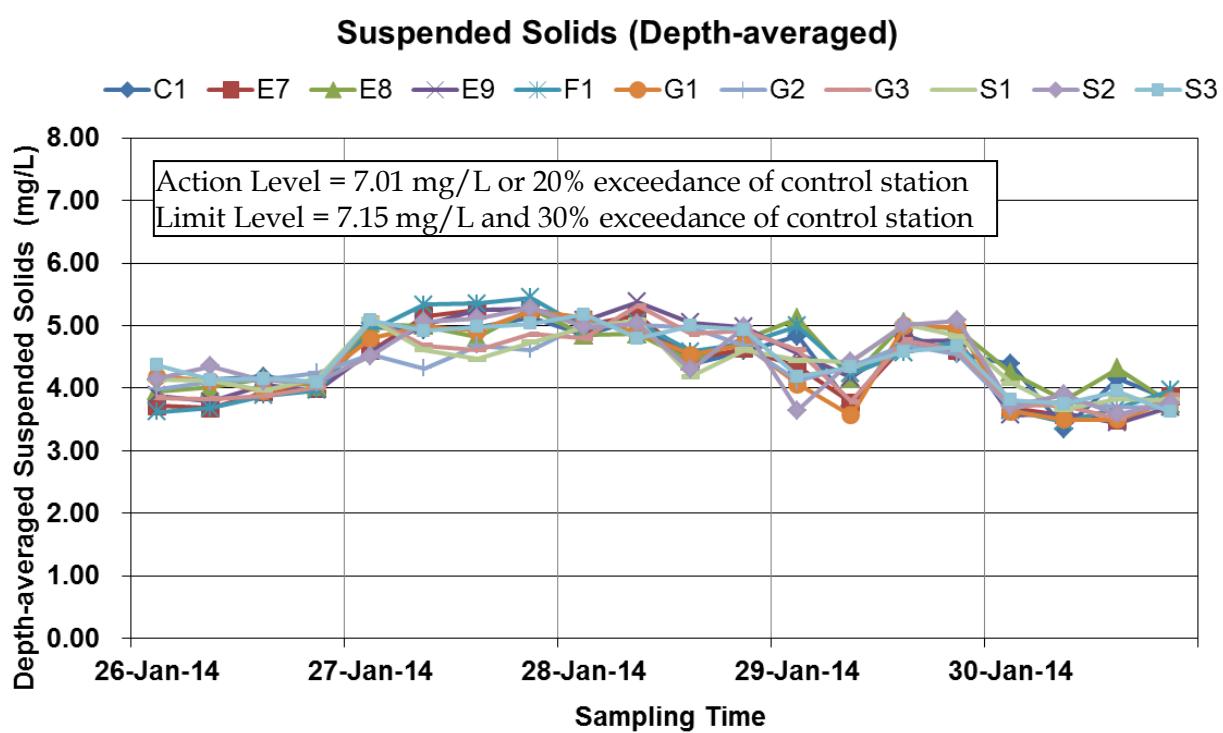
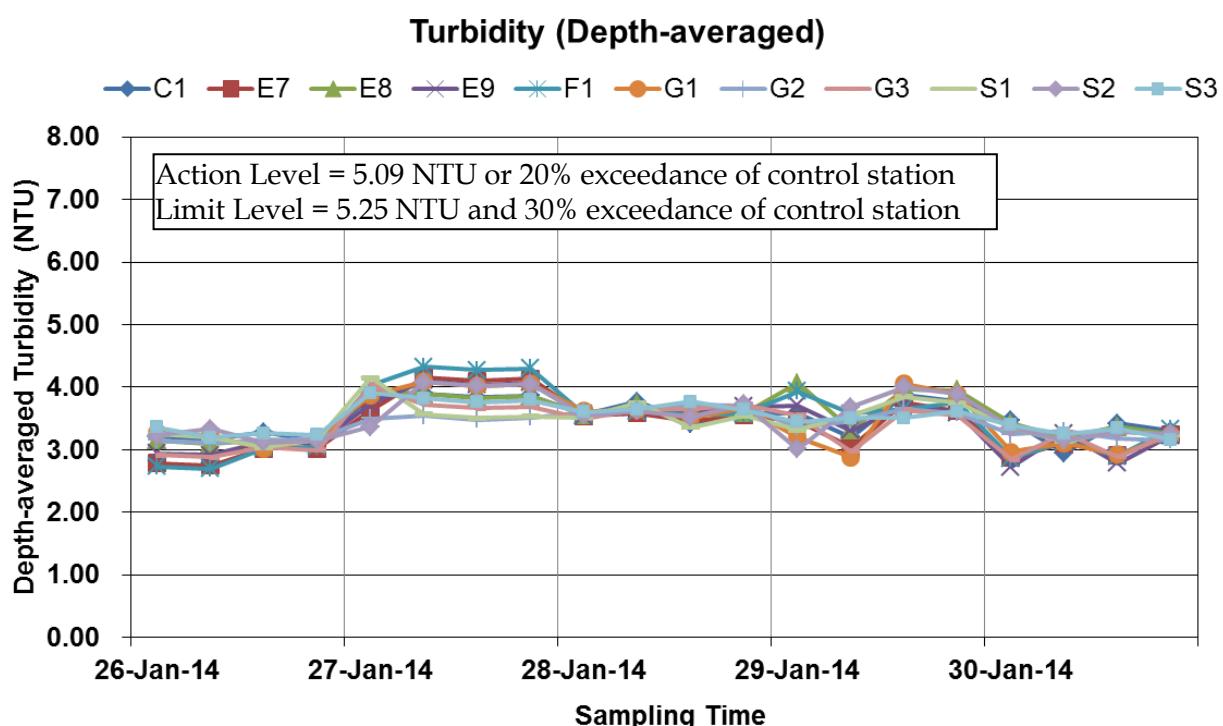


Figure D1 Depth-averaged Turbidity (NTU) and Suspended Solids (mg/L) of water column measured during the impact monitoring from 26 to 30 January 2014 (3<sup>rd</sup> Week) for Zone A

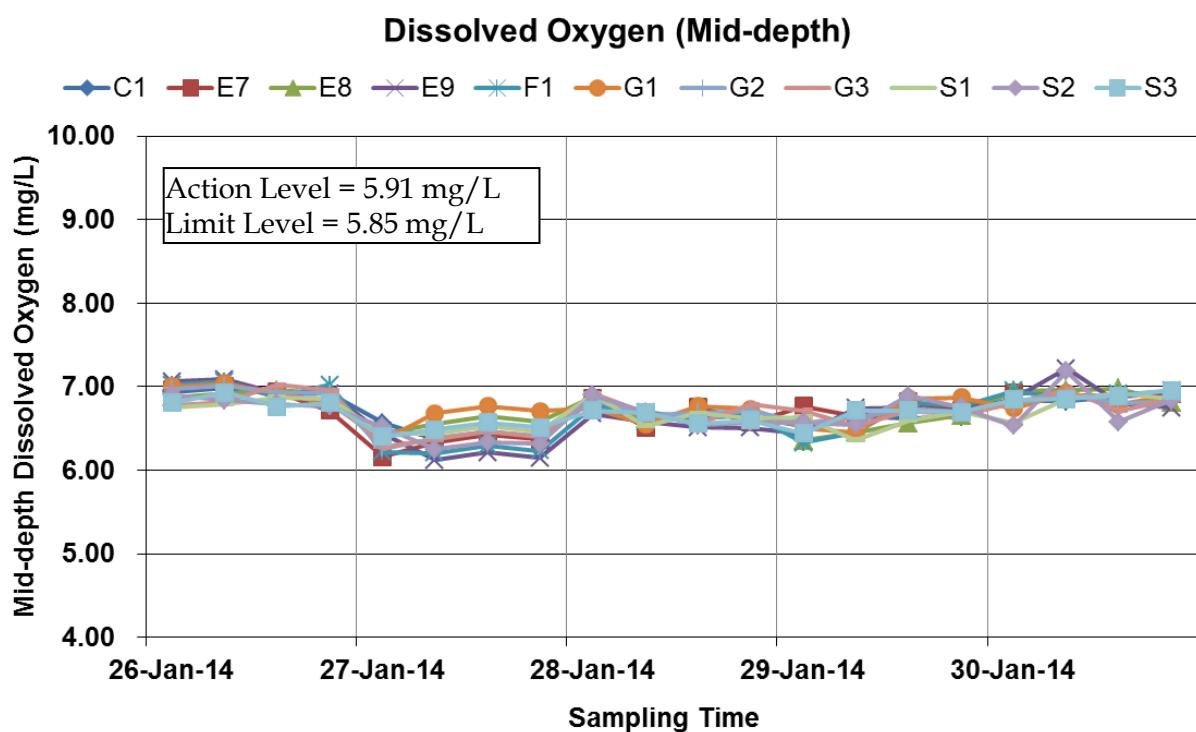
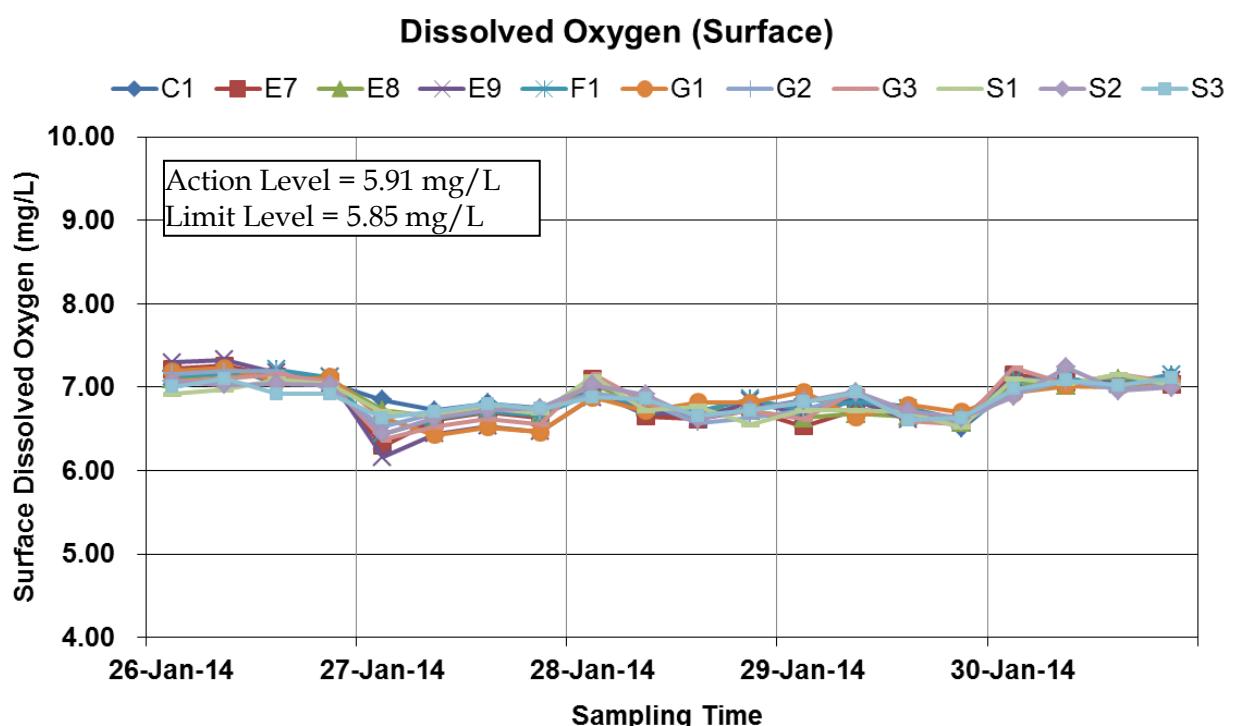


Figure D2 Dissolved Oxygen (mg/L) at surface and mid-depth of water column measured during the impact monitoring from 26 to 30 January 2014 (3<sup>rd</sup> Week) for Zone A

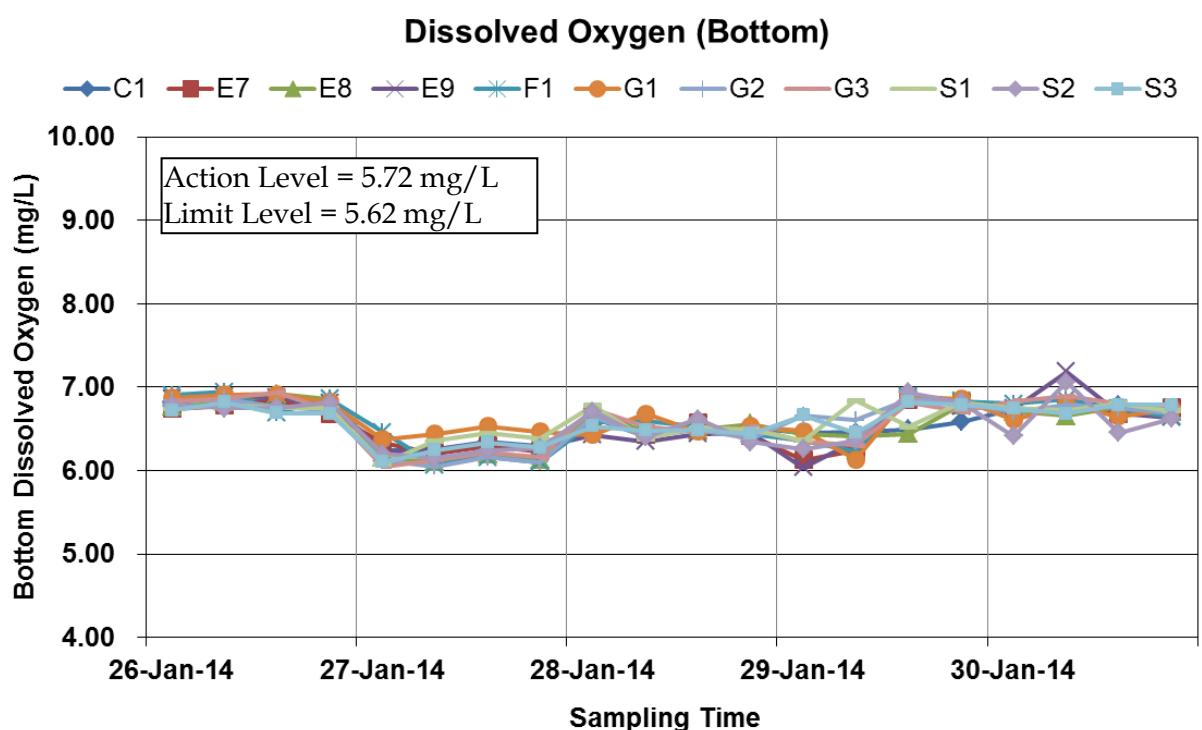


Figure D3 Dissolved Oxygen (mg/L) at bottom of water column measured during the impact monitoring from 26 to 30 January 2014 (3<sup>rd</sup> Week) for Zone A



|                 |            |
|-----------------|------------|
| Date:           | 26-Jan-14  |
| Weather:        | Fine       |
| Sea Conditions: | Small Wave |
| Zone A          |            |

| Location | Sampling Time | Water Depth (m) | Current direction | Current speed ( $m s^{-1}$ ) | Monitoring Depth | Temperrtature (°C) |      |       | Salinity (ppt) |      |       | DO (mg/l) |     |       | DO Saturation (%) |      |       | Turbidity (NTU) |     |     | Suspended Solids (mg/l) |        |     |     |       |
|----------|---------------|-----------------|-------------------|------------------------------|------------------|--------------------|------|-------|----------------|------|-------|-----------|-----|-------|-------------------|------|-------|-----------------|-----|-----|-------------------------|--------|-----|-----|-------|
|          |               |                 |                   |                              |                  | 1                  | 2    | Ave.* | 1              | 2    | Ave.* | 1         | 2   | Ave.* | 1                 | 2    | Ave.* | D.A.**          | 1   | 2   | Ave.*                   | D.A.** | 1   | 2   | Ave.* |
| C1       | 0700-0720     | 36.2            | W                 | 0.3                          | Surface          | 16.9               | 17.0 | 17.0  | 29.9           | 30.0 | 30.0  | 7.2       | 7.2 | 7.2   | 89.0              | 89.1 | 89.1  | 2.9             | 3.0 | 3.0 |                         | 4.0    | 3.8 | 3.9 |       |
|          |               |                 |                   |                              | Middle           | 17.2               | 17.1 | 17.2  | 30.2           | 30.1 | 30.2  | 6.9       | 7.0 | 6.9   | 86.1              | 86.3 | 86.2  | 3.3             | 3.3 | 3.3 | 3.2                     | 4.3    | 4.2 | 4.3 | 4.1   |
|          |               |                 |                   |                              | Bottom           | 17.2               | 17.3 | 17.3  | 30.2           | 30.3 | 30.3  | 6.8       | 6.8 | 6.8   | 85.0              | 85.2 | 85.1  | 3.4             | 3.4 | 3.4 |                         | 4.1    | 4.4 | 4.3 |       |
| E8       | 0725-0742     | 19.4            | W                 | 0.4                          | Surface          | 17.0               | 16.9 | 17.0  | 30.0           | 29.9 | 30.0  | 7.1       | 7.1 | 7.1   | 87.8              | 88.0 | 87.9  | 2.9             | 2.8 | 2.8 |                         | 3.6    | 3.7 | 3.7 |       |
|          |               |                 |                   |                              | Middle           | 17.1               | 17.2 | 17.2  | 30.1           | 30.2 | 30.2  | 6.9       | 6.9 | 6.9   | 85.5              | 85.7 | 85.6  | 3.3             | 3.3 | 3.3 | 3.1                     | 3.9    | 4.0 | 4.0 | 4.0   |
|          |               |                 |                   |                              | Bottom           | 17.2               | 17.3 | 17.3  | 30.2           | 30.3 | 30.3  | 6.8       | 6.8 | 6.8   | 84.2              | 84.5 | 84.4  | 3.3             | 3.3 | 3.3 |                         | 4.2    | 4.3 | 4.3 |       |
| S1       | 0747-0803     | 10.8            | W                 | 0.3                          | Surface          | 17.0               | 17.1 | 17.1  | 30.0           | 30.1 | 30.1  | 6.9       | 6.9 | 6.9   | 85.9              | 85.1 | 85.5  | 3.0             | 3.0 | 3.0 |                         | 3.8    | 3.9 | 3.9 |       |
|          |               |                 |                   |                              | Middle           | 17.3               | 17.2 | 17.3  | 30.3           | 30.2 | 30.3  | 6.8       | 6.7 | 6.8   | 84.0              | 83.8 | 83.9  | 3.3             | 3.4 | 3.3 | 3.2                     | 4.1    | 4.2 | 4.2 | 4.1   |
|          |               |                 |                   |                              | Bottom           | 17.3               | 17.3 | 17.3  | 30.3           | 30.4 | 30.4  | 6.7       | 6.8 | 6.7   | 83.9              | 84.2 | 84.1  | 3.4             | 3.4 | 3.4 |                         | 4.3    | 4.5 | 4.4 |       |
| G1       | 0808-0825     | 11.6            | W                 | 0.3                          | Surface          | 16.9               | 17.0 | 17.0  | 30.1           | 30.0 | 30.1  | 7.1       | 7.3 | 7.2   | 89.6              | 89.8 | 89.7  | 3.0             | 3.1 | 3.0 |                         | 4.0    | 3.8 | 3.9 |       |
|          |               |                 |                   |                              | Middle           | 17.1               | 17.2 | 17.2  | 30.1           | 30.2 | 30.2  | 7.0       | 7.0 | 7.0   | 87.3              | 86.7 | 87.0  | 3.4             | 3.4 | 3.4 | 3.3                     | 4.4    | 4.4 | 4.4 | 4.2   |
|          |               |                 |                   |                              | Bottom           | 17.4               | 17.3 | 17.4  | 30.4           | 30.3 | 30.4  | 6.9       | 6.9 | 6.9   | 85.5              | 85.9 | 85.7  | 3.4             | 3.4 | 3.4 |                         | 4.3    | 4.2 | 4.3 |       |
| E7       | 0830-0847     | 13.2            | W                 | 0.4                          | Surface          | 16.9               | 17.0 | 17.0  | 29.9           | 30.0 | 30.0  | 7.2       | 7.2 | 7.2   | 89.5              | 89.3 | 89.4  | 2.6             | 2.6 | 2.6 |                         | 3.7    | 3.5 | 3.6 |       |
|          |               |                 |                   |                              | Middle           | 17.2               | 17.1 | 17.2  | 30.1           | 30.0 | 30.1  | 7.0       | 7.0 | 7.0   | 86.8              | 86.6 | 86.7  | 2.8             | 2.8 | 2.8 | 2.8                     | 3.6    | 3.8 | 3.7 | 3.7   |
|          |               |                 |                   |                              | Bottom           | 17.4               | 17.4 | 17.4  | 30.3           | 30.3 | 30.3  | 6.8       | 6.7 | 6.7   | 84.2              | 83.9 | 84.1  | 2.9             | 3.0 | 2.9 |                         | 4.0    | 3.7 | 3.9 |       |
| F1       | 0852-0909     | 12.2            | W                 | 0.3                          | Surface          | 17.0               | 16.9 | 17.0  | 30.0           | 30.0 | 30.0  | 7.1       | 7.1 | 7.1   | 88.2              | 88.5 | 88.4  | 2.5             | 2.5 | 2.5 |                         | 3.2    | 3.4 | 3.3 |       |
|          |               |                 |                   |                              | Middle           | 17.1               | 17.2 | 17.2  | 30.2           | 30.1 | 30.2  | 7.0       | 7.0 | 7.0   | 87.1              | 87.5 | 87.3  | 2.7             | 2.7 | 2.7 | 2.7                     | 3.7    | 3.5 | 3.6 | 3.6   |
|          |               |                 |                   |                              | Bottom           | 17.4               | 17.3 | 17.4  | 30.3           | 30.4 | 30.4  | 6.9       | 6.9 | 6.9   | 86.3              | 85.8 | 86.1  | 3.0             | 3.0 | 3.0 |                         | 4.0    | 3.9 | 4.0 |       |
| G3       | 0914-0932     | 15.6            | W                 | 0.3                          | Surface          | 17.0               | 17.0 | 17.0  | 30.1           | 30.0 | 30.1  | 7.1       | 7.1 | 7.1   | 87.8              | 87.5 | 87.7  | 2.6             | 2.6 | 2.6 |                         | 3.5    | 3.7 | 3.6 |       |
|          |               |                 |                   |                              | Middle           | 17.2               | 17.3 | 17.3  | 30.1           | 30.2 | 30.2  | 6.8       | 6.8 | 6.8   | 84.2              | 84.3 | 84.3  | 3.0             | 3.0 | 3.0 | 2.9                     | 3.9    | 4.0 | 4.0 | 3.9   |
|          |               |                 |                   |                              | Bottom           | 17.3               | 17.4 | 17.4  | 30.4           | 30.3 | 30.4  | 6.8       | 6.8 | 6.8   | 85.0              | 85.3 | 85.2  | 3.1             | 3.1 | 3.1 |                         | 4.2    | 3.8 | 4.0 |       |
| E9       | 0937-0955     | 18.4            | W                 | 0.2                          | Surface          | 17.1               | 17.0 | 17.1  | 30.0           | 30.1 | 30.1  | 7.3       | 7.3 | 7.3   | 90.6              | 90.4 | 90.5  | 2.7             | 2.7 | 2.7 |                         | 3.5    | 3.6 | 3.6 |       |
|          |               |                 |                   |                              | Middle           | 17.3               | 17.2 | 17.3  | 30.2           | 30.3 | 30.3  | 7.1       | 7.1 | 7.1   | 87.7              | 87.9 | 87.8  | 3.0             | 3.0 | 3.0 | 2.9                     | 3.9    | 4.1 | 4.0 | 3.9   |
|          |               |                 |                   |                              | Bottom           | 17.4               | 17.5 | 17.5  | 30.4           | 30.3 | 30.4  | 6.9       | 6.9 | 6.9   | 85.5              | 85.6 | 85.6  | 3.2             | 3.1 | 3.1 |                         | 4.2    | 4.0 | 4.1 |       |
| S2       | 1000-1017     | 10.8            | W                 | 0.3                          | Surface          | 17.0               | 17.1 | 17.1  | 29.9           | 30.0 | 30.0  | 7.1       | 7.1 | 7.1   | 87.7              | 87.5 | 87.6  | 3.1             | 3.2 | 3.1 |                         | 4.1    | 4.2 | 4.2 |       |
|          |               |                 |                   |                              | Middle           | 17.2               | 17.1 | 17.2  | 30.2           | 30.1 | 30.2  | 6.9       | 6.9 | 6.9   | 86.0              | 85.6 | 85.8  | 3.2             | 3.2 | 3.2 | 3.2                     | 4.1    | 4.0 | 4.1 | 4.2   |
|          |               |                 |                   |                              | Bottom           | 17.2               | 17.3 | 17.3  | 30.2           | 30.3 | 30.3  | 6.8       | 6.8 | 6.8   | 84.5              | 84.7 | 84.6  | 3.3             | 3.3 | 3.3 |                         | 4.2    | 4.3 | 4.3 |       |
| G2       | 1022-1038     | 13.6            | W                 | 0.4                          | Surface          | 17.0               | 16.9 | 17.0  | 30.0           | 30.1 | 30.1  | 7.2       | 7.2 | 7.2   | 88.5              | 88.8 | 88.7  | 2.9             | 3.0 | 2.9 |                         | 3.8    | 3.9 | 3.9 |       |
|          |               |                 |                   |                              | Middle           | 17.1               | 17.2 | 17.2  | 30.2           | 30.3 | 30.3  | 7.0       | 7.0 | 7.0   | 86.8              | 86.5 | 86.7  | 3.2             | 3.2 | 3.2 | 3.1                     | 3.9    | 4.1 | 4.0 | 4.0   |
|          |               |                 |                   |                              | Bottom           | 17.4               | 17.3 | 17.4  | 30.4           | 30.4 | 30.4  | 6.8       | 6.8 | 6.8   | 85.0              | 85.2 | 85.1  | 3.3             | 3.3 | 3.3 |                         | 4.0    | 4.2 | 4.1 |       |
| S3       | 1043-1100     | 11.2            | W                 | 0.2                          | Surface          | 17.0               | 17.0 | 17.0  | 30.0           | 30.1 | 30.1  | 7.0       | 7.0 | 7.0   | 86.8              | 86.5 | 86.7  | 3.3             | 3.3 | 3.3 |                         | 4.4    | 4.2 | 4.3 |       |
|          |               |                 |                   |                              | Middle           | 17.2               | 17.1 | 17.2  | 30.1           | 30.2 | 30.2  | 6.8       | 6.8 | 6.8   | 84.8              | 84.5 | 84.7  | 3.4             | 3.4 | 3.4 | 3.4                     | 4.4    | 4.3 | 4.4 | 4.4   |
|          |               |                 |                   |                              | Bottom           | 17.3               | 17.4 | 17.4  | 30.3           | 30.4 | 30.4  | 6.7       | 6.7 | 6.7   | 83.9              | 83.7 | 83.8  | 3.4             | 3.5 | 3.4 |                         | 4.5    | 4.4 | 4.5 |       |

Remark or Obsevation:

Note: \* Average

\*\* Depth Average

|                 |            |
|-----------------|------------|
| Date:           | 26-Jan-14  |
| Weather:        | Fine       |
| Sea Conditions: | Small Wave |
| Zone A          |            |

| Location | Sampling Time | Water Depth (m) | Current direction | Current speed ( $m s^{-1}$ ) | Monitoring Depth | Temperrtature (°C) |      |       | Salinity (ppt) |      |       | DO (mg/l) |     |       | DO Saturation (%) |      |       | Turbidity (NTU) |     |     | Suspended Solids (mg/l) |        |     |     |       |
|----------|---------------|-----------------|-------------------|------------------------------|------------------|--------------------|------|-------|----------------|------|-------|-----------|-----|-------|-------------------|------|-------|-----------------|-----|-----|-------------------------|--------|-----|-----|-------|
|          |               |                 |                   |                              |                  | 1                  | 2    | Ave.* | 1              | 2    | Ave.* | 1         | 2   | Ave.* | 1                 | 2    | Ave.* | D.A.**          | 1   | 2   | Ave.*                   | D.A.** | 1   | 2   | Ave.* |
| C1       | 1445-1500     | 36.4            | W                 | 0.4                          | Surface          | 17.1               | 17.0 | 17.1  | 30.1           | 30.2 | 30.2  | 7.2       | 7.3 | 7.2   | 89.7              | 90.0 | 89.9  | 2.9             | 2.9 | 2.9 | 2.9                     | 3.9    | 4.0 | 4.0 | 4.1   |
|          |               |                 |                   |                              | Middle           | 17.1               | 17.2 | 17.2  | 30.2           | 30.1 | 30.2  | 7.0       | 7.0 | 7.0   | 86.8              | 87.2 | 87.0  | 3.3             | 3.3 | 3.3 | 3.2                     | 4.1    | 4.3 | 4.2 | 4.1   |
|          |               |                 |                   |                              | Bottom           | 17.3               | 17.4 | 17.4  | 30.4           | 30.4 | 30.4  | 6.9       | 6.9 | 6.9   | 85.6              | 85.9 | 85.8  | 3.3             | 3.3 | 3.3 | 3.3                     | 4.3    | 4.2 | 4.3 | 4.3   |
| E8       | 1423-1440     | 19.6            | W                 | 0.2                          | Surface          | 17.1               | 17.1 | 17.1  | 30.1           | 30.1 | 30.1  | 7.1       | 7.2 | 7.2   | 88.6              | 88.9 | 88.8  | 2.8             | 2.8 | 2.8 | 2.8                     | 3.9    | 3.7 | 3.8 |       |
|          |               |                 |                   |                              | Middle           | 17.2               | 17.3 | 17.3  | 30.2           | 30.3 | 30.3  | 6.9       | 6.9 | 6.9   | 86.0              | 85.9 | 86.0  | 3.2             | 3.3 | 3.2 | 3.1                     | 3.9    | 4.0 | 4.0 | 4.0   |
|          |               |                 |                   |                              | Bottom           | 17.4               | 17.4 | 17.4  | 30.4           | 30.3 | 30.4  | 6.8       | 6.8 | 6.8   | 85.0              | 85.2 | 85.1  | 3.3             | 3.3 | 3.3 | 3.3                     | 4.2    | 4.4 | 4.3 |       |
| S1       | 1400-1418     | 11.2            | W                 | 0.3                          | Surface          | 17.1               | 17.2 | 17.2  | 30.1           | 30.2 | 30.2  | 7.0       | 7.0 | 7.0   | 86.6              | 86.4 | 86.5  | 2.9             | 3.0 | 3.0 | 3.0                     | 3.8    | 3.8 | 3.8 |       |
|          |               |                 |                   |                              | Middle           | 17.3               | 17.2 | 17.3  | 30.3           | 30.2 | 30.3  | 6.8       | 6.8 | 6.8   | 84.7              | 84.5 | 84.6  | 3.3             | 3.3 | 3.3 | 3.2                     | 4.2    | 4.1 | 4.2 | 4.1   |
|          |               |                 |                   |                              | Bottom           | 17.3               | 17.4 | 17.4  | 30.3           | 30.4 | 30.4  | 6.8       | 6.8 | 6.8   | 84.5              | 84.8 | 84.7  | 3.3             | 3.3 | 3.3 | 3.3                     | 4.3    | 4.5 | 4.4 |       |
| G1       | 1337-1355     | 11.8            | W                 | 0.3                          | Surface          | 17.0               | 17.1 | 17.1  | 30.1           | 30.1 | 30.1  | 7.2       | 7.3 | 7.2   | 89.0              | 90.4 | 89.7  | 3.0             | 3.0 | 3.0 | 3.0                     | 3.7    | 4.0 | 3.9 |       |
|          |               |                 |                   |                              | Middle           | 17.1               | 17.2 | 17.2  | 30.2           | 30.3 | 30.3  | 7.1       | 7.0 | 7.0   | 87.8              | 87.3 | 87.6  | 3.3             | 3.4 | 3.4 | 3.2                     | 4.2    | 4.4 | 4.3 | 4.1   |
|          |               |                 |                   |                              | Bottom           | 17.4               | 17.5 | 17.5  | 30.3           | 30.4 | 30.4  | 6.9       | 6.9 | 6.9   | 86.0              | 86.4 | 86.2  | 3.3             | 3.4 | 3.3 | 3.3                     | 4.1    | 4.3 | 4.2 |       |
| E7       | 1315-1332     | 13.6            | W                 | 0.2                          | Surface          | 17.0               | 17.1 | 17.1  | 30.0           | 30.1 | 30.1  | 7.3       | 7.3 | 7.3   | 90.2              | 89.9 | 90.1  | 2.6             | 2.6 | 2.6 | 2.6                     | 3.2    | 3.4 | 3.3 |       |
|          |               |                 |                   |                              | Middle           | 17.2               | 17.1 | 17.2  | 30.1           | 30.2 | 30.2  | 7.0       | 7.0 | 7.0   | 87.3              | 87.1 | 87.2  | 2.8             | 2.8 | 2.8 | 2.7                     | 3.8    | 3.9 | 3.9 | 3.7   |
|          |               |                 |                   |                              | Bottom           | 17.3               | 17.4 | 17.4  | 30.2           | 30.3 | 30.3  | 6.8       | 6.8 | 6.8   | 84.7              | 84.4 | 84.6  | 2.9             | 2.9 | 2.9 | 2.9                     | 4.0    | 3.8 | 3.9 |       |
| F1       | 1253-1310     | 12.4            | W                 | 0.4                          | Surface          | 17.1               | 17.1 | 17.1  | 30.1           | 30.2 | 30.2  | 7.2       | 7.2 | 7.2   | 88.9              | 89.1 | 89.0  | 2.5             | 2.5 | 2.5 | 2.5                     | 3.5    | 3.4 | 3.5 |       |
|          |               |                 |                   |                              | Middle           | 17.2               | 17.3 | 17.3  | 30.2           | 30.3 | 30.3  | 7.1       | 7.1 | 7.1   | 87.7              | 87.9 | 87.8  | 2.6             | 2.6 | 2.6 | 2.7                     | 3.7    | 3.6 | 3.7 | 3.7   |
|          |               |                 |                   |                              | Bottom           | 17.4               | 17.4 | 17.4  | 30.4           | 30.3 | 30.4  | 7.0       | 6.9 | 6.9   | 86.8              | 86.5 | 86.7  | 3.0             | 3.0 | 3.0 | 3.0                     | 4.0    | 3.9 | 4.0 |       |
| G3       | 1230-1248     | 15.8            | W                 | 0.3                          | Surface          | 17.0               | 17.1 | 17.1  | 30.0           | 30.1 | 30.1  | 7.1       | 7.1 | 7.1   | 88.4              | 88.0 | 88.2  | 2.6             | 2.6 | 2.6 | 2.6                     | 3.6    | 3.5 | 3.6 |       |
|          |               |                 |                   |                              | Middle           | 17.1               | 17.2 | 17.2  | 30.1           | 30.2 | 30.2  | 6.8       | 6.8 | 6.8   | 84.8              | 84.9 | 84.9  | 3.0             | 3.0 | 3.0 | 2.9                     | 3.8    | 4.0 | 3.9 | 3.8   |
|          |               |                 |                   |                              | Bottom           | 17.4               | 17.3 | 17.4  | 30.4           | 30.4 | 30.4  | 6.9       | 6.9 | 6.9   | 85.5              | 85.8 | 85.7  | 3.1             | 3.0 | 3.1 | 3.1                     | 4.1    | 4.0 | 4.1 |       |
| E9       | 1208-1225     | 18.6            | W                 | 0.3                          | Surface          | 17.0               | 17.1 | 17.1  | 30.0           | 30.0 | 30.0  | 7.3       | 7.3 | 7.3   | 91.0              | 90.8 | 90.9  | 2.6             | 2.6 | 2.6 | 2.6                     | 3.4    | 3.3 | 3.4 |       |
|          |               |                 |                   |                              | Middle           | 17.2               | 17.3 | 17.3  | 30.2           | 30.3 | 30.3  | 7.1       | 7.1 | 7.1   | 88.1              | 88.3 | 88.2  | 3.0             | 3.0 | 3.0 | 2.9                     | 3.9    | 3.9 | 3.9 | 3.8   |
|          |               |                 |                   |                              | Bottom           | 17.3               | 17.4 | 17.4  | 30.3           | 30.4 | 30.4  | 6.9       | 6.9 | 6.9   | 85.8              | 86.0 | 85.9  | 3.1             | 3.1 | 3.1 | 3.1                     | 4.0    | 4.2 | 4.1 |       |
| S2       | 1146-1203     | 11.4            | W                 | 0.3                          | Surface          | 17.0               | 17.0 | 17.0  | 30.0           | 30.1 | 30.1  | 7.0       | 7.0 | 7.0   | 87.4              | 87.3 | 87.4  | 3.2             | 3.2 | 3.2 | 3.2                     | 4.0    | 4.2 | 4.1 |       |
|          |               |                 |                   |                              | Middle           | 17.1               | 17.2 | 17.2  | 30.2           | 30.3 | 30.3  | 6.9       | 6.8 | 6.8   | 85.2              | 84.9 | 85.1  | 3.3             | 3.4 | 3.4 | 3.3                     | 4.4    | 4.5 | 4.5 | 4.4   |
|          |               |                 |                   |                              | Bottom           | 17.4               | 17.3 | 17.4  | 30.4           | 30.3 | 30.4  | 6.8       | 6.7 | 6.8   | 84.2              | 84.0 | 84.1  | 3.4             | 3.4 | 3.4 | 3.4                     | 4.6    | 4.4 | 4.5 |       |
| G2       | 1123-1141     | 13.8            | W                 | 0.3                          | Surface          | 17.0               | 17.1 | 17.1  | 30.1           | 30.0 | 30.1  | 7.2       | 7.2 | 7.2   | 89.1              | 89.4 | 89.3  | 2.9             | 2.9 | 2.9 | 2.9                     | 3.8    | 3.8 | 3.8 |       |
|          |               |                 |                   |                              | Middle           | 17.2               | 17.1 | 17.2  | 30.2           | 30.2 | 30.2  | 7.0       | 7.0 | 7.0   | 87.3              | 87.8 | 87.6  | 3.2             | 3.2 | 3.2 | 3.1                     | 4.2    | 4.1 | 4.2 | 4.1   |
|          |               |                 |                   |                              | Bottom           | 17.3               | 17.3 | 17.3  | 30.3           | 30.4 | 30.4  | 6.9       | 6.9 | 6.9   | 85.4              | 85.6 | 85.5  | 3.3             | 3.3 | 3.3 | 3.3                     | 4.4    | 4.3 | 4.4 |       |
| S3       | 1100-1118     | 11.2            | W                 | 0.4                          | Surface          | 17.1               | 17.0 | 17.1  | 30.0           | 30.1 | 30.1  | 7.1       | 7.1 | 7.1   | 88.3              | 88.0 | 88.2  | 3.1             | 3.1 | 3.1 | 3.1                     | 4.0    | 4.1 | 4.1 |       |
|          |               |                 |                   |                              | Middle           | 17.2               | 17.2 | 17.2  | 30.1           | 30.2 | 30.2  | 6.9       | 6.9 | 6.9   | 86.3              | 86.2 | 86.3  | 3.2             | 3.2 | 3.2 | 3.2                     | 4.2    | 4.1 | 4.2 | 4.1   |
|          |               |                 |                   |                              | Bottom           | 17.3               | 17.2 | 17.3  | 30.3           | 30.3 | 30.3  | 6.8       | 6.8 | 6.8   | 84.9              | 85.2 | 85.1  | 3.3             | 3.3 | 3.3 | 3.3                     | 4.2    | 4.2 | 4.2 |       |

Remark or Obsevation:

Note: \* Average

\*\* Depth Average

Date: 26-Jan-14  
 Weather: Fine  
 Sea Conditions: Small Wave  
 Zone A

| Location | Sampling Time | Water Depth (m) | Current direction | Current speed ( $m s^{-1}$ ) | Monitoring Depth | Temperrature (°C) |      |       | Salinity (ppt) |      |       | DO (mg/l) |     |       | DO Saturation (%) |      |       | Turbidity (NTU) |     |     | Suspended Solids (mg/l) |        |     |     |       |
|----------|---------------|-----------------|-------------------|------------------------------|------------------|-------------------|------|-------|----------------|------|-------|-----------|-----|-------|-------------------|------|-------|-----------------|-----|-----|-------------------------|--------|-----|-----|-------|
|          |               |                 |                   |                              |                  | 1                 | 2    | Ave.* | 1              | 2    | Ave.* | 1         | 2   | Ave.* | 1                 | 2    | Ave.* | D.A.**          | 1   | 2   | Ave.*                   | D.A.** | 1   | 2   | Ave.* |
| C1       | 1500-1517     | 35.8            | E                 | 0.5                          | Surface          | 17.3              | 17.3 | 17.3  | 30.2           | 30.2 | 30.2  | 7.1       | 7.0 | 7.1   | 87.8              | 87.5 | 87.7  | 3.3             | 3.3 | 3.3 | 3.3                     | 4.2    | 4.4 | 4.3 | 4.2   |
|          |               |                 |                   |                              | Middle           | 17.3              | 17.3 | 17.3  | 30.2           | 30.1 | 30.2  | 6.9       | 6.9 | 6.9   | 86.0              | 85.6 | 85.8  | 3.3             | 3.3 | 3.3 | 3.3                     | 4.2    | 4.1 | 4.2 | 4.2   |
|          |               |                 |                   |                              | Bottom           | 17.3              | 17.4 | 17.4  | 30.2           | 30.3 | 30.3  | 6.9       | 6.8 | 6.8   | 85.1              | 84.6 | 84.9  | 3.3             | 3.2 | 3.3 | 3.3                     | 4.2    | 4.0 | 4.1 | 4.2   |
| E8       | 1522-1538     | 19.4            | E                 | 0.5                          | Surface          | 17.3              | 17.3 | 17.3  | 30.2           | 30.2 | 30.2  | 7.2       | 7.1 | 7.1   | 88.8              | 88.3 | 88.6  | 3.1             | 3.0 | 3.1 | 3.1                     | 4.1    | 4.0 | 4.1 | 4.1   |
|          |               |                 |                   |                              | Middle           | 17.3              | 17.2 | 17.3  | 30.3           | 30.2 | 30.3  | 7.0       | 7.0 | 7.0   | 86.6              | 86.3 | 86.5  | 3.1             | 3.1 | 3.1 | 3.2                     | 4.2    | 4.1 | 4.2 | 4.2   |
|          |               |                 |                   |                              | Bottom           | 17.4              | 17.3 | 17.4  | 30.3           | 30.3 | 30.3  | 6.9       | 6.9 | 6.9   | 85.8              | 86.3 | 86.1  | 3.3             | 3.3 | 3.3 | 3.3                     | 4.3    | 4.2 | 4.3 | 4.3   |
| S1       | 1545-1600     | 11.4            | E                 | 0.4                          | Surface          | 17.3              | 17.2 | 17.3  | 30.2           | 30.2 | 30.2  | 7.1       | 7.1 | 7.1   | 88.3              | 88.0 | 88.2  | 2.9             | 2.9 | 2.9 | 2.9                     | 3.8    | 3.7 | 3.8 | 3.8   |
|          |               |                 |                   |                              | Middle           | 17.3              | 17.3 | 17.3  | 30.3           | 30.3 | 30.3  | 6.9       | 6.9 | 6.9   | 85.6              | 85.1 | 85.4  | 3.1             | 3.0 | 3.0 | 3.0                     | 4.1    | 4.0 | 4.1 | 4.0   |
|          |               |                 |                   |                              | Bottom           | 17.4              | 17.4 | 17.4  | 30.3           | 30.4 | 30.4  | 6.8       | 6.7 | 6.8   | 84.2              | 83.8 | 84.0  | 3.2             | 3.1 | 3.1 | 3.1                     | 4.2    | 4.0 | 4.1 | 4.0   |
| G1       | 1605-1620     | 11.6            | E                 | 0.4                          | Surface          | 17.3              | 17.3 | 17.3  | 30.2           | 30.1 | 30.2  | 7.1       | 7.1 | 7.1   | 88.1              | 87.7 | 87.9  | 2.9             | 2.9 | 2.9 | 2.9                     | 3.7    | 3.8 | 3.8 | 3.8   |
|          |               |                 |                   |                              | Middle           | 17.3              | 17.2 | 17.3  | 30.3           | 30.2 | 30.3  | 6.9       | 6.9 | 6.9   | 86.2              | 85.7 | 86.0  | 3.0             | 2.9 | 2.9 | 3.0                     | 4.0    | 3.9 | 4.0 | 4.0   |
|          |               |                 |                   |                              | Bottom           | 17.4              | 17.4 | 17.4  | 30.4           | 30.4 | 30.4  | 6.9       | 6.9 | 6.9   | 85.9              | 86.2 | 86.1  | 3.2             | 3.2 | 3.2 | 3.2                     | 4.2    | 4.1 | 4.2 | 4.2   |
| E7       | 1625-1640     | 13.2            | E                 | 0.3                          | Surface          | 17.3              | 17.3 | 17.3  | 30.2           | 30.1 | 30.2  | 7.2       | 7.1 | 7.1   | 88.8              | 88.3 | 88.6  | 2.7             | 2.7 | 2.7 | 2.7                     | 3.4    | 3.6 | 3.5 | 3.5   |
|          |               |                 |                   |                              | Middle           | 17.2              | 17.3 | 17.3  | 30.3           | 30.2 | 30.3  | 6.9       | 7.0 | 6.9   | 86.0              | 86.3 | 86.2  | 3.2             | 3.2 | 3.2 | 3.0                     | 4.1    | 4.2 | 4.2 | 3.9   |
|          |               |                 |                   |                              | Bottom           | 17.3              | 17.4 | 17.4  | 30.3           | 30.4 | 30.4  | 6.9       | 6.8 | 6.8   | 85.3              | 84.9 | 85.1  | 3.2             | 3.1 | 3.2 | 3.2                     | 4.2    | 4.1 | 4.2 | 4.2   |
| F1       | 1650-1705     | 12.6            | E                 | 0.4                          | Surface          | 17.3              | 17.2 | 17.3  | 30.2           | 30.2 | 30.2  | 7.2       | 7.2 | 7.2   | 89.4              | 89.8 | 89.6  | 2.9             | 2.8 | 2.9 | 2.9                     | 3.7    | 3.8 | 3.8 | 3.8   |
|          |               |                 |                   |                              | Middle           | 17.3              | 17.3 | 17.3  | 30.3           | 30.3 | 30.3  | 6.9       | 6.9 | 6.9   | 85.5              | 85.2 | 85.4  | 3.0             | 3.0 | 3.0 | 3.0                     | 3.8    | 4.0 | 3.9 | 3.9   |
|          |               |                 |                   |                              | Bottom           | 17.4              | 17.4 | 17.4  | 30.4           | 30.3 | 30.4  | 6.7       | 6.7 | 6.7   | 83.4              | 83.0 | 83.2  | 3.2             | 3.3 | 3.3 | 3.3                     | 3.9    | 4.1 | 4.0 | 3.9   |
| G3       | 1710-1725     | 15.4            | E                 | 0.5                          | Surface          | 17.3              | 17.3 | 17.3  | 30.2           | 30.1 | 30.2  | 7.2       | 7.1 | 7.2   | 89.1              | 88.7 | 88.9  | 2.9             | 3.0 | 2.9 | 2.9                     | 3.4    | 3.6 | 3.5 | 3.5   |
|          |               |                 |                   |                              | Middle           | 17.3              | 17.2 | 17.3  | 30.3           | 30.3 | 30.3  | 7.0       | 7.0 | 7.0   | 87.1              | 87.4 | 87.3  | 3.1             | 3.0 | 3.0 | 3.0                     | 3.8    | 4.0 | 3.9 | 3.9   |
|          |               |                 |                   |                              | Bottom           | 17.4              | 17.3 | 17.4  | 30.4           | 30.4 | 30.4  | 6.9       | 7.0 | 6.9   | 86.0              | 86.4 | 86.2  | 3.2             | 3.1 | 3.1 | 3.1                     | 4.2    | 4.3 | 4.3 | 4.3   |
| E9       | 1735-1750     | 18.4            | E                 | 0.4                          | Surface          | 17.3              | 17.2 | 17.3  | 30.2           | 30.2 | 30.2  | 7.2       | 7.2 | 7.2   | 89.3              | 88.9 | 89.1  | 2.9             | 2.9 | 2.9 | 2.9                     | 3.6    | 3.7 | 3.7 | 3.7   |
|          |               |                 |                   |                              | Middle           | 17.3              | 17.3 | 17.3  | 30.3           | 30.3 | 30.3  | 6.9       | 6.9 | 6.9   | 86.2              | 85.7 | 86.0  | 3.4             | 3.3 | 3.3 | 3.1                     | 4.1    | 4.3 | 4.2 | 4.1   |
|          |               |                 |                   |                              | Bottom           | 17.4              | 17.4 | 17.4  | 30.4           | 30.4 | 30.4  | 6.9       | 6.9 | 6.9   | 85.4              | 85.7 | 85.6  | 3.2             | 3.1 | 3.2 | 3.2                     | 4.4    | 4.2 | 4.3 | 4.3   |
| S2       | 1755-1810     | 11.6            | E                 | 0.4                          | Surface          | 17.3              | 17.2 | 17.3  | 30.2           | 30.1 | 30.2  | 7.1       | 7.0 | 7.0   | 87.7              | 87.3 | 87.5  | 3.1             | 3.1 | 3.1 | 3.1                     | 4.1    | 4.0 | 4.1 | 4.1   |
|          |               |                 |                   |                              | Middle           | 17.3              | 17.2 | 17.3  | 30.2           | 30.3 | 30.3  | 6.8       | 6.8 | 6.8   | 84.6              | 84.2 | 84.4  | 3.1             | 3.1 | 3.1 | 3.1                     | 4.2    | 4.0 | 4.1 | 4.1   |
|          |               |                 |                   |                              | Bottom           | 17.3              | 17.3 | 17.3  | 30.3           | 30.2 | 30.3  | 6.8       | 6.7 | 6.8   | 84.1              | 83.7 | 83.9  | 3.2             | 3.1 | 3.2 | 3.2                     | 4.3    | 4.1 | 4.2 | 4.2   |
| G2       | 1815-1830     | 13.4            | E                 | 0.3                          | Surface          | 17.2              | 17.2 | 17.2  | 30.1           | 30.2 | 30.2  | 7.2       | 7.2 | 7.2   | 89.2              | 89.6 | 89.4  | 3.1             | 3.0 | 3.0 | 3.0                     | 3.9    | 4.1 | 4.0 | 4.0   |
|          |               |                 |                   |                              | Middle           | 17.2              | 17.2 | 17.2  | 30.2           | 30.2 | 30.2  | 6.9       | 7.0 | 6.9   | 86.0              | 86.3 | 86.2  | 3.2             | 3.2 | 3.2 | 3.2                     | 4.3    | 4.2 | 4.3 | 4.1   |
|          |               |                 |                   |                              | Bottom           | 17.3              | 17.3 | 17.3  | 30.3           | 30.3 | 30.3  | 6.8       | 6.8 | 6.8   | 83.9              | 84.2 | 84.1  | 3.2             | 3.2 | 3.2 | 3.2                     | 4.1    | 4.2 | 4.2 | 4.2   |
| S3       | 1840-1855     | 11.4            | E                 | 0.3                          | Surface          | 17.2              | 17.2 | 17.2  | 30.1           | 30.1 | 30.1  | 6.9       | 6.9 | 6.9   | 86.2              | 85.7 | 86.0  | 3.2             | 3.2 | 3.2 | 3.2                     | 4.0    | 4.2 | 4.1 | 4.2   |
|          |               |                 |                   |                              | Middle           | 17.2              | 17.3 | 17.3  | 30.2           | 30.2 | 30.2  | 6.7       | 6.8 | 6.8   | 83.7              | 84.2 | 84.0  | 3.3             | 3.3 | 3.3 | 3.3                     | 4.3    | 4.1 | 4.2 | 4.2   |
|          |               |                 |                   |                              | Bottom           | 17.3              | 17.2 | 17.3  | 30.3           | 30.4 | 30.4  | 6.7       | 6.7 | 6.7   | 83.2              | 82.9 | 83.1  | 3.3             | 3.3 | 3.3 | 3.3                     | 4.3    | 4.0 | 4.2 | 4.2   |

Remark or Obsevation:

Note: \* Average

\*\* Depth Average

Date: 26-Jan-14  
 Weather: Fine  
 Sea Conditions: Small Wave  
 Zone A

| Location | Sampling Time | Water Depth (m) | Current direction | Current speed ( $\text{ms}^{-1}$ ) | Monitoring Depth | Temperrature (°C) |      |       | Salinity (ppt) |      |       | DO (mg/l) |     |       | DO Saturation (%) |      |       | Turbidity (NTU) |     |     | Suspended Solids (mg/l) |        |     |     |       |
|----------|---------------|-----------------|-------------------|------------------------------------|------------------|-------------------|------|-------|----------------|------|-------|-----------|-----|-------|-------------------|------|-------|-----------------|-----|-----|-------------------------|--------|-----|-----|-------|
|          |               |                 |                   |                                    |                  | 1                 | 2    | Ave.* | 1              | 2    | Ave.* | 1         | 2   | Ave.* | 1                 | 2    | Ave.* | D.A.**          | 1   | 2   | Ave.*                   | D.A.** | 1   | 2   | Ave.* |
| C1       | 2245-2300     | 35.4            | E                 | 0.4                                | Surface          | 17.1              | 17.1 | 17.1  | 30.2           | 30.2 | 30.2  | 7.0       | 7.1 | 7.1   | 87.4              | 87.7 | 87.6  | 3.1             | 3.1 | 3.1 | 3.1                     | 4.0    | 4.1 | 4.1 | 4.1   |
|          |               |                 |                   |                                    | Middle           | 17.2              | 17.2 | 17.2  | 30.2           | 30.1 | 30.2  | 6.9       | 6.9 | 6.9   | 85.7              | 86.2 | 86.0  | 3.1             | 3.0 | 3.1 | 3.1                     | 4.1    | 3.9 | 4.0 | 4.1   |
|          |               |                 |                   |                                    | Bottom           | 17.3              | 17.2 | 17.3  | 30.3           | 30.3 | 30.3  | 6.8       | 6.8 | 6.8   | 84.7              | 84.3 | 84.5  | 3.3             | 3.2 | 3.2 | 3.2                     | 4.2    | 4.1 | 4.1 | 4.2   |
| E8       | 2223-2240     | 19.6            | E                 | 0.4                                | Surface          | 17.1              | 17.1 | 17.1  | 30.2           | 30.1 | 30.2  | 7.1       | 7.1 | 7.1   | 88.3              | 88.0 | 88.2  | 3.0             | 3.1 | 3.0 | 3.1                     | 4.0    | 3.9 | 4.0 | 4.0   |
|          |               |                 |                   |                                    | Middle           | 17.2              | 17.1 | 17.2  | 30.2           | 30.2 | 30.2  | 6.9       | 6.9 | 6.9   | 86.1              | 85.7 | 85.9  | 3.2             | 3.1 | 3.2 | 3.1                     | 3.8    | 4.0 | 3.9 | 4.0   |
|          |               |                 |                   |                                    | Bottom           | 17.3              | 17.3 | 17.3  | 30.4           | 30.3 | 30.4  | 6.9       | 6.8 | 6.9   | 85.4              | 85.0 | 85.2  | 3.2             | 3.2 | 3.2 | 3.2                     | 4.3    | 4.2 | 4.3 | 4.3   |
| S1       | 2200-2218     | 11.8            | E                 | 0.3                                | Surface          | 17.1              | 17.1 | 17.1  | 30.3           | 30.3 | 30.3  | 7.0       | 7.1 | 7.0   | 87.2              | 87.6 | 87.4  | 3.1             | 3.0 | 3.0 | 3.2                     | 4.1    | 4.0 | 4.1 | 4.1   |
|          |               |                 |                   |                                    | Middle           | 17.1              | 17.2 | 17.2  | 30.3           | 30.2 | 30.3  | 6.9       | 6.8 | 6.9   | 85.7              | 85.2 | 85.5  | 3.2             | 3.3 | 3.3 | 3.2                     | 4.2    | 4.3 | 4.3 | 4.2   |
|          |               |                 |                   |                                    | Bottom           | 17.2              | 17.3 | 17.3  | 30.3           | 30.2 | 30.3  | 6.8       | 6.7 | 6.8   | 84.0              | 83.7 | 83.9  | 3.2             | 3.2 | 3.2 | 3.2                     | 4.0    | 4.3 | 4.2 | 4.2   |
| G1       | 2137-2155     | 11.8            | E                 | 0.4                                | Surface          | 17.1              | 17.1 | 17.1  | 30.2           | 30.2 | 30.2  | 7.1       | 7.1 | 7.1   | 88.7              | 88.2 | 88.5  | 3.0             | 3.1 | 3.0 | 3.2                     | 3.9    | 3.9 | 3.9 | 3.9   |
|          |               |                 |                   |                                    | Middle           | 17.2              | 17.2 | 17.2  | 30.3           | 30.3 | 30.3  | 6.8       | 6.8 | 6.8   | 84.7              | 84.3 | 84.5  | 3.2             | 3.2 | 3.2 | 3.2                     | 4.1    | 4.3 | 4.2 | 4.1   |
|          |               |                 |                   |                                    | Bottom           | 17.2              | 17.3 | 17.3  | 30.3           | 30.3 | 30.3  | 6.8       | 6.8 | 6.8   | 85.0              | 84.5 | 84.8  | 3.3             | 3.3 | 3.3 | 3.3                     | 4.4    | 4.2 | 4.3 | 4.3   |
| E7       | 2115-2132     | 13.6            | E                 | 0.5                                | Surface          | 17.1              | 17.1 | 17.1  | 30.2           | 30.2 | 30.2  | 7.1       | 7.0 | 7.1   | 87.8              | 87.4 | 87.6  | 2.9             | 2.9 | 2.9 | 3.1                     | 3.7    | 3.9 | 3.8 | 4.0   |
|          |               |                 |                   |                                    | Middle           | 17.2              | 17.1 | 17.2  | 30.2           | 30.3 | 30.3  | 6.7       | 6.7 | 6.7   | 83.5              | 83.1 | 83.3  | 3.1             | 3.1 | 3.1 | 3.0                     | 4.1    | 4.0 | 4.1 | 4.0   |
|          |               |                 |                   |                                    | Bottom           | 17.3              | 17.3 | 17.3  | 30.3           | 30.4 | 30.4  | 6.7       | 6.7 | 6.7   | 83.2              | 82.9 | 83.1  | 3.1             | 3.1 | 3.1 | 3.1                     | 4.0    | 4.2 | 4.1 | 4.1   |
| F1       | 2053-2110     | 12.8            | E                 | 0.5                                | Surface          | 17.1              | 17.0 | 17.1  | 30.1           | 30.2 | 30.2  | 7.1       | 7.1 | 7.1   | 88.1              | 88.6 | 88.4  | 2.9             | 2.9 | 2.9 | 3.0                     | 3.9    | 3.8 | 3.9 | 4.0   |
|          |               |                 |                   |                                    | Middle           | 17.1              | 17.2 | 17.2  | 30.2           | 30.2 | 30.2  | 7.0       | 7.0 | 7.0   | 87.0              | 87.4 | 87.2  | 3.0             | 3.0 | 3.0 | 3.0                     | 3.8    | 3.8 | 3.8 | 4.0   |
|          |               |                 |                   |                                    | Bottom           | 17.2              | 17.3 | 17.3  | 30.3           | 30.2 | 30.3  | 6.9       | 6.8 | 6.9   | 85.5              | 85.0 | 85.3  | 3.3             | 3.3 | 3.3 | 3.3                     | 4.2    | 4.3 | 4.3 | 4.3   |
| G3       | 2030-2048     | 15.8            | E                 | 0.4                                | Surface          | 17.1              | 17.1 | 17.1  | 30.2           | 30.2 | 30.2  | 7.1       | 7.1 | 7.1   | 87.9              | 87.5 | 87.7  | 2.7             | 2.8 | 2.8 | 3.0                     | 3.8    | 3.9 | 3.9 | 4.0   |
|          |               |                 |                   |                                    | Middle           | 17.1              | 17.1 | 17.1  | 30.2           | 30.1 | 30.2  | 7.0       | 6.9 | 7.0   | 86.6              | 86.1 | 86.4  | 3.1             | 3.0 | 3.1 | 3.0                     | 4.1    | 4.0 | 4.1 | 4.0   |
|          |               |                 |                   |                                    | Bottom           | 17.2              | 17.2 | 17.2  | 30.3           | 30.3 | 30.3  | 6.7       | 6.7 | 6.7   | 83.7              | 83.2 | 83.5  | 3.2             | 3.2 | 3.2 | 3.2                     | 4.2    | 4.1 | 4.2 | 4.2   |
| E9       | 2008-2025     | 18.8            | E                 | 0.4                                | Surface          | 17.1              | 17.1 | 17.1  | 30.2           | 30.2 | 30.2  | 7.1       | 7.1 | 7.1   | 88.2              | 88.7 | 88.5  | 3.0             | 3.0 | 3.0 | 3.1                     | 3.8    | 3.9 | 3.9 | 4.0   |
|          |               |                 |                   |                                    | Middle           | 17.1              | 17.2 | 17.2  | 30.3           | 30.3 | 30.3  | 6.9       | 6.9 | 6.9   | 86.2              | 85.7 | 86.0  | 3.0             | 3.1 | 3.1 | 3.1                     | 4.1    | 4.0 | 4.1 | 4.0   |
|          |               |                 |                   |                                    | Bottom           | 17.3              | 17.3 | 17.3  | 30.3           | 30.4 | 30.4  | 6.8       | 6.8 | 6.8   | 84.9              | 84.5 | 84.7  | 3.2             | 3.3 | 3.2 | 3.2                     | 3.9    | 4.1 | 4.0 | 4.0   |
| S2       | 1946-2003     | 11.4            | E                 | 0.5                                | Surface          | 17.1              | 17.2 | 17.2  | 30.1           | 30.2 | 30.2  | 7.1       | 7.0 | 7.0   | 87.5              | 87.0 | 87.3  | 3.1             | 3.1 | 3.1 | 3.1                     | 4.0    | 4.0 | 4.0 | 4.1   |
|          |               |                 |                   |                                    | Middle           | 17.2              | 17.2 | 17.2  | 30.2           | 30.3 | 30.3  | 6.8       | 6.8 | 6.8   | 83.9              | 84.2 | 84.1  | 3.2             | 3.2 | 3.2 | 3.1                     | 4.2    | 4.3 | 4.3 | 4.1   |
|          |               |                 |                   |                                    | Bottom           | 17.3              | 17.2 | 17.3  | 30.3           | 30.3 | 30.3  | 6.8       | 6.8 | 6.8   | 84.5              | 84.8 | 84.7  | 3.2             | 3.1 | 3.1 | 3.1                     | 4.1    | 4.0 | 4.1 | 4.1   |
| G2       | 1923-1941     | 13.8            | E                 | 0.4                                | Surface          | 17.2              | 17.1 | 17.2  | 30.1           | 30.1 | 30.1  | 7.0       | 7.0 | 7.0   | 86.8              | 86.3 | 86.6  | 3.1             | 3.1 | 3.1 | 3.1                     | 4.0    | 4.1 | 4.1 | 4.3   |
|          |               |                 |                   |                                    | Middle           | 17.2              | 17.3 | 17.3  | 30.3           | 30.3 | 30.3  | 6.9       | 6.9 | 6.9   | 85.7              | 86.2 | 86.0  | 3.3             | 3.2 | 3.3 | 3.2                     | 4.5    | 4.3 | 4.4 | 4.3   |
|          |               |                 |                   |                                    | Bottom           | 17.3              | 17.3 | 17.3  | 30.3           | 30.2 | 30.3  | 6.7       | 6.7 | 6.7   | 83.7              | 83.2 | 83.5  | 3.2             | 3.3 | 3.2 | 3.2                     | 4.4    | 4.2 | 4.3 | 4.3   |
| S3       | 1900-1918     | 11.6            | E                 | 0.4                                | Surface          | 17.2              | 17.2 | 17.2  | 30.1           | 30.1 | 30.1  | 6.9       | 6.9 | 6.9   | 85.6              | 86.1 | 85.9  | 3.1             | 3.1 | 3.1 | 3.2                     | 4.1    | 3.9 | 4.0 | 4.1   |
|          |               |                 |                   |                                    | Middle           | 17.1              | 17.2 | 17.2  | 30.2           | 30.2 | 30.2  | 6.8       | 6.8 | 6.8   | 84.7              | 84.3 | 84.5  | 3.3             | 3.3 | 3.3 | 3.2                     | 3.9    | 4.2 | 4.1 | 4.1   |
|          |               |                 |                   |                                    | Bottom           | 17.2              | 17.3 | 17.3  | 30.2           | 30.3 | 30.3  | 6.7       | 6.7 | 6.7   | 82.9              | 83.2 | 83.1  | 3.4             | 3.3 | 3.3 | 3.2                     | 4.3    | 4.2 | 4.3 | 4.3   |

Remark or Obsevation:

Note: \* Average

\*\* Depth Average

|                 |            |
|-----------------|------------|
| Date:           | 27-Jan-14  |
| Weather:        | Cloudy     |
| Sea Conditions: | Small Wave |
| Zone A          |            |

| Location | Sampling Time | Water Depth (m) | Current direction | Current speed ( $m s^{-1}$ ) | Monitoring Depth | Temperrature (°C) |      |       | Salinity (ppt) |      |       | DO (mg/l) |     |       | DO Saturation (%) |      |       | Turbidity (NTU) |     |     | Suspended Solids (mg/l) |        |     |     |       |
|----------|---------------|-----------------|-------------------|------------------------------|------------------|-------------------|------|-------|----------------|------|-------|-----------|-----|-------|-------------------|------|-------|-----------------|-----|-----|-------------------------|--------|-----|-----|-------|
|          |               |                 |                   |                              |                  | 1                 | 2    | Ave.* | 1              | 2    | Ave.* | 1         | 2   | Ave.* | 1                 | 2    | Ave.* | D.A.**          | 1   | 2   | Ave.*                   | D.A.** | 1   | 2   | Ave.* |
| C1       | 0700-0716     | 36.0            | E                 | 0.3                          | Surface          | 16.8              | 16.8 | 16.8  | 29.7           | 29.7 | 29.7  | 6.9       | 6.8 | 6.8   | 85.1              | 84.4 | 84.8  | 3.3             | 3.3 | 3.3 |                         | 4.6    | 4.6 | 4.6 |       |
|          |               |                 |                   |                              | Middle           | 16.7              | 16.6 | 16.7  | 29.9           | 29.9 | 29.9  | 6.6       | 6.5 | 6.6   | 81.6              | 81.6 | 81.6  | 4.1             | 4.2 | 4.1 | 3.8                     | 5.1    | 5.2 | 5.2 | 5.0   |
|          |               |                 |                   |                              | Bottom           | 16.5              | 16.5 | 16.5  | 29.8           | 29.9 | 29.9  | 6.2       | 6.3 | 6.2   | 77.0              | 77.5 | 77.3  | 4.1             | 4.1 | 4.1 |                         | 5.2    | 5.2 | 5.2 |       |
| E8       | 0724-0740     | 18.2            | E                 | 0.3                          | Surface          | 16.8              | 16.8 | 16.8  | 29.7           | 29.7 | 29.7  | 6.7       | 6.7 | 6.7   | 83.4              | 82.9 | 83.2  | 3.3             | 3.4 | 3.3 |                         | 4.7    | 4.6 | 4.7 |       |
|          |               |                 |                   |                              | Middle           | 16.6              | 16.6 | 16.6  | 29.8           | 29.9 | 29.9  | 6.5       | 6.4 | 6.4   | 79.9              | 79.4 | 79.7  | 4.3             | 4.2 | 4.3 | 3.9                     | 5.2    | 5.0 | 5.1 | 5.0   |
|          |               |                 |                   |                              | Bottom           | 16.5              | 16.5 | 16.5  | 29.9           | 29.9 | 29.9  | 6.2       | 6.1 | 6.2   | 76.5              | 75.9 | 76.2  | 4.3             | 4.2 | 4.2 |                         | 5.4    | 5.3 | 5.4 |       |
| S1       | 0745-0805     | 9.8             | E                 | 0.4                          | Surface          | 16.7              | 16.8 | 16.8  | 29.8           | 29.7 | 29.8  | 6.7       | 6.7 | 6.7   | 82.9              | 83.1 | 83.0  | 3.6             | 3.5 | 3.6 |                         | 4.4    | 4.3 | 4.4 |       |
|          |               |                 |                   |                              | Middle           | 16.7              | 16.7 | 16.7  | 29.8           | 29.8 | 29.8  | 6.4       | 6.5 | 6.4   | 79.6              | 79.9 | 79.8  | 4.4             | 4.3 | 4.3 | 4.2                     | 5.4    | 5.3 | 5.4 | 5.1   |
|          |               |                 |                   |                              | Bottom           | 16.6              | 16.5 | 16.6  | 29.9           | 29.9 | 29.9  | 6.1       | 6.1 | 6.1   | 75.2              | 75.4 | 75.3  | 4.6             | 4.6 | 4.6 |                         | 5.5    | 5.7 | 5.6 |       |
| G1       | 0807-0823     | 11.0            | E                 | 0.4                          | Surface          | 16.7              | 16.7 | 16.7  | 29.7           | 29.8 | 29.8  | 6.7       | 6.6 | 6.6   | 82.3              | 82.0 | 82.2  | 3.3             | 3.4 | 3.3 |                         | 4.1    | 4.2 | 4.2 |       |
|          |               |                 |                   |                              | Middle           | 16.6              | 16.6 | 16.6  | 29.9           | 29.8 | 29.9  | 6.4       | 6.3 | 6.4   | 78.9              | 78.5 | 78.7  | 4.3             | 4.3 | 4.3 | 3.9                     | 5.0    | 5.1 | 5.1 | 4.8   |
|          |               |                 |                   |                              | Bottom           | 16.5              | 16.5 | 16.5  | 29.9           | 29.9 | 29.9  | 6.4       | 6.4 | 6.4   | 78.8              | 79.1 | 79.0  | 4.0             | 4.0 | 4.0 |                         | 5.2    | 5.2 | 5.2 |       |
| E7       | 0831-0846     | 12.8            | E                 | 0.4                          | Surface          | 16.9              | 16.8 | 16.9  | 29.7           | 29.7 | 29.7  | 6.3       | 6.3 | 6.3   | 77.9              | 78.1 | 78.0  | 3.4             | 3.5 | 3.5 |                         | 4.3    | 4.4 | 4.4 |       |
|          |               |                 |                   |                              | Middle           | 16.5              | 16.6 | 16.6  | 29.8           | 29.8 | 29.8  | 6.2       | 6.1 | 6.2   | 76.5              | 76.0 | 76.3  | 3.3             | 3.3 | 3.3 | 3.6                     | 4.2    | 4.2 | 4.2 | 4.6   |
|          |               |                 |                   |                              | Bottom           | 16.5              | 16.4 | 16.5  | 29.9           | 29.9 | 29.9  | 6.4       | 6.3 | 6.3   | 78.8              | 78.2 | 78.5  | 4.1             | 4.2 | 4.2 |                         | 5.3    | 5.2 | 5.3 |       |
| F1       | 0852-0910     | 11.8            | E                 | 0.4                          | Surface          | 16.8              | 16.8 | 16.8  | 29.6           | 29.7 | 29.7  | 6.4       | 6.5 | 6.4   | 79.4              | 80.1 | 79.8  | 4.3             | 4.2 | 4.3 |                         | 5.2    | 5.3 | 5.3 |       |
|          |               |                 |                   |                              | Middle           | 16.6              | 16.7 | 16.7  | 29.8           | 29.7 | 29.8  | 6.2       | 6.2 | 6.2   | 76.8              | 77.3 | 77.1  | 3.6             | 3.6 | 3.6 | 4.0                     | 4.1    | 4.2 | 4.2 | 4.9   |
|          |               |                 |                   |                              | Bottom           | 16.4              | 16.4 | 16.4  | 29.9           | 29.8 | 29.9  | 6.5       | 6.4 | 6.5   | 80.4              | 79.6 | 80.0  | 4.2             | 4.3 | 4.2 |                         | 5.3    | 5.4 | 5.4 |       |
| G3       | 0915-0935     | 15.4            | E                 | 0.4                          | Surface          | 16.8              | 16.8 | 16.8  | 29.7           | 29.7 | 29.7  | 6.4       | 6.4 | 6.4   | 78.6              | 79.1 | 78.9  | 4.1             | 4.1 | 4.1 |                         | 5.1    | 5.1 | 5.1 |       |
|          |               |                 |                   |                              | Middle           | 16.7              | 16.7 | 16.7  | 29.8           | 29.8 | 29.8  | 6.3       | 6.3 | 6.3   | 77.9              | 77.6 | 77.8  | 3.8             | 3.9 | 3.8 | 4.0                     | 4.9    | 4.8 | 4.9 | 5.1   |
|          |               |                 |                   |                              | Bottom           | 16.5              | 16.4 | 16.5  | 29.8           | 29.8 | 29.8  | 6.1       | 6.0 | 6.1   | 75.3              | 74.5 | 74.9  | 4.1             | 4.2 | 4.1 |                         | 5.4    | 5.4 | 5.4 |       |
| E9       | 0943-1000     | 17.4            | E                 | 0.4                          | Surface          | 16.9              | 16.9 | 16.9  | 29.7           | 29.7 | 29.7  | 6.2       | 6.1 | 6.2   | 76.8              | 75.8 | 76.3  | 3.0             | 3.1 | 3.1 |                         | 3.8    | 3.7 | 3.8 |       |
|          |               |                 |                   |                              | Middle           | 16.7              | 16.7 | 16.7  | 29.8           | 29.8 | 29.8  | 6.5       | 6.4 | 6.4   | 79.9              | 79.4 | 79.7  | 4.0             | 4.0 | 4.0 | 3.7                     | 4.7    | 4.8 | 4.8 | 4.6   |
|          |               |                 |                   |                              | Bottom           | 16.4              | 16.5 | 16.5  | 29.9           | 29.9 | 29.9  | 6.2       | 6.2 | 6.2   | 77.0              | 76.9 | 77.0  | 4.2             | 4.2 | 4.2 |                         | 5.3    | 5.3 | 5.3 |       |
| S2       | 1005-1022     | 11.2            | E                 | 0.3                          | Surface          | 16.8              | 16.8 | 16.8  | 29.7           | 29.7 | 29.7  | 6.4       | 6.5 | 6.4   | 79.2              | 80.2 | 79.7  | 3.1             | 3.1 | 3.1 |                         | 4.3    | 4.2 | 4.3 |       |
|          |               |                 |                   |                              | Middle           | 16.7              | 16.7 | 16.7  | 29.8           | 29.8 | 29.8  | 6.5       | 6.5 | 6.5   | 80.5              | 80.9 | 80.7  | 3.2             | 3.3 | 3.2 | 3.4                     | 4.4    | 4.5 | 4.5 | 4.5   |
|          |               |                 |                   |                              | Bottom           | 16.5              | 16.5 | 16.5  | 29.9           | 29.9 | 29.9  | 6.2       | 6.2 | 6.2   | 76.5              | 77.0 | 76.8  | 3.7             | 3.8 | 3.7 |                         | 4.9    | 4.8 | 4.9 |       |
| G2       | 1025-1040     | 13.2            | E                 | 0.3                          | Surface          | 16.8              | 16.8 | 16.8  | 29.7           | 29.7 | 29.7  | 6.5       | 6.6 | 6.5   | 80.7              | 81.1 | 80.9  | 3.2             | 3.3 | 3.2 |                         | 4.1    | 4.2 | 4.2 |       |
|          |               |                 |                   |                              | Middle           | 16.7              | 16.7 | 16.7  | 29.8           | 29.8 | 29.8  | 6.3       | 6.2 | 6.3   | 77.8              | 77.3 | 77.6  | 3.5             | 3.5 | 3.5 | 3.5                     | 4.5    | 4.7 | 4.6 | 4.5   |
|          |               |                 |                   |                              | Bottom           | 16.5              | 16.5 | 16.5  | 29.9           | 29.9 | 29.9  | 6.1       | 6.1 | 6.1   | 75.5              | 76.0 | 75.8  | 3.8             | 3.7 | 3.7 |                         | 4.9    | 4.8 | 4.9 |       |
| S3       | 1045-1100     | 11.2            | E                 | 0.4                          | Surface          | 16.9              | 16.8 | 16.9  | 29.7           | 29.7 | 29.7  | 6.6       | 6.6 | 6.6   | 82.0              | 82.2 | 82.1  | 3.3             | 3.4 | 3.4 |                         | 4.4    | 4.5 | 4.5 |       |
|          |               |                 |                   |                              | Middle           | 16.6              | 16.7 | 16.7  | 29.8           | 29.7 | 29.8  | 6.4       | 6.4 | 6.4   | 78.9              | 79.5 | 79.2  | 3.5             | 3.4 | 3.5 | 3.9                     | 4.7    | 4.6 | 4.7 | 5.1   |
|          |               |                 |                   |                              | Bottom           | 16.6              | 16.5 | 16.6  | 29.9           | 29.9 | 29.9  | 6.1       | 6.1 | 6.1   | 75.7              | 75.4 | 75.6  | 4.9             | 4.9 | 4.9 |                         | 6.2    | 6.1 | 6.2 |       |

Remark or Obsevation:

Note: \* Average

\*\* Depth Average

|                 |            |
|-----------------|------------|
| Date:           | 27-Jan-14  |
| Weather:        | Cloudy     |
| Sea Conditions: | Small Wave |
| Zone A          |            |

| Location | Sampling Time | Water Depth (m) | Current direction | Current speed ( $m s^{-1}$ ) | Monitoring Depth | Temperrrature (°C) |      |       | Salinity (ppt) |      |       | DO (mg/l) |     |       | DO Saturation (%) |      |       | Turbidity (NTU) |     |     | Suspended Solids (mg/l) |        |     |     |       |
|----------|---------------|-----------------|-------------------|------------------------------|------------------|--------------------|------|-------|----------------|------|-------|-----------|-----|-------|-------------------|------|-------|-----------------|-----|-----|-------------------------|--------|-----|-----|-------|
|          |               |                 |                   |                              |                  | 1                  | 2    | Ave.* | 1              | 2    | Ave.* | 1         | 2   | Ave.* | 1                 | 2    | Ave.* | D.A.**          | 1   | 2   | Ave.*                   | D.A.** | 1   | 2   | Ave.* |
| C1       | 1444-1500     | 36.4            | W                 | 0.4                          | Surface          | 16.8               | 16.7 | 16.8  | 29.7           | 29.7 | 29.7  | 6.7       | 6.7 | 6.7   | 83.0              | 83.3 | 83.2  | 3.6             | 3.5 | 3.6 | 3.9                     | 4.7    | 4.6 | 4.7 | 4.9   |
|          |               |                 |                   |                              | Middle           | 16.7               | 16.7 | 16.7  | 29.7           | 29.8 | 29.8  | 6.4       | 6.4 | 6.4   | 79.1              | 78.8 | 79.0  | 3.9             | 3.9 | 3.9 | 3.9                     | 4.8    | 4.9 | 4.9 | 4.9   |
|          |               |                 |                   |                              | Bottom           | 16.6               | 16.5 | 16.6  | 29.9           | 29.8 | 29.9  | 6.3       | 6.3 | 6.3   | 77.4              | 77.6 | 77.5  | 4.2             | 4.2 | 4.2 | 5.3                     | 5.3    | 5.3 | 5.3 | 5.3   |
| E8       | 1426-1440     | 17.8            | W                 | 0.4                          | Surface          | 16.7               | 16.7 | 16.7  | 29.6           | 29.6 | 29.6  | 6.7       | 6.6 | 6.6   | 82.8              | 81.7 | 82.3  | 3.7             | 3.7 | 3.7 | 3.9                     | 4.9    | 4.8 | 4.9 | 4.9   |
|          |               |                 |                   |                              | Middle           | 16.5               | 16.6 | 16.6  | 29.7           | 29.7 | 29.7  | 6.5       | 6.6 | 6.6   | 80.9              | 81.4 | 81.2  | 3.9             | 3.8 | 3.8 | 3.9                     | 5.0    | 4.9 | 5.0 | 5.0   |
|          |               |                 |                   |                              | Bottom           | 16.4               | 16.4 | 16.4  | 29.9           | 29.8 | 29.9  | 6.1       | 6.1 | 6.1   | 75.7              | 75.5 | 75.6  | 4.2             | 4.2 | 4.2 | 5.3                     | 5.1    | 5.2 | 5.2 | 5.2   |
| S1       | 1406-1423     | 9.0             | W                 | 0.4                          | Surface          | 16.7               | 16.7 | 16.7  | 29.7           | 29.7 | 29.7  | 6.6       | 6.7 | 6.7   | 82.2              | 82.7 | 82.5  | 3.2             | 3.2 | 3.2 | 3.6                     | 4.1    | 4.2 | 4.2 | 4.6   |
|          |               |                 |                   |                              | Middle           | 16.6               | 16.6 | 16.6  | 29.8           | 29.8 | 29.8  | 6.5       | 6.4 | 6.4   | 79.9              | 79.5 | 79.7  | 3.4             | 3.5 | 3.5 | 3.6                     | 4.6    | 4.6 | 4.6 | 4.6   |
|          |               |                 |                   |                              | Bottom           | 16.5               | 16.5 | 16.5  | 29.9           | 29.9 | 29.9  | 6.4       | 6.3 | 6.4   | 78.9              | 78.4 | 78.7  | 4.0             | 4.1 | 4.0 | 5.0                     | 5.2    | 5.1 | 5.1 | 5.1   |
| G1       | 1344-1400     | 11.8            | W                 | 0.4                          | Surface          | 16.7               | 16.8 | 16.8  | 29.8           | 29.8 | 29.8  | 6.4       | 6.4 | 6.4   | 79.5              | 79.7 | 79.6  | 3.2             | 3.2 | 3.2 | 4.1                     | 4.0    | 4.0 | 4.0 | 4.0   |
|          |               |                 |                   |                              | Middle           | 16.7               | 16.6 | 16.7  | 29.9           | 29.9 | 29.9  | 6.7       | 6.7 | 6.7   | 82.6              | 82.8 | 82.7  | 4.3             | 4.4 | 4.3 | 4.1                     | 5.2    | 5.4 | 5.3 | 5.0   |
|          |               |                 |                   |                              | Bottom           | 16.6               | 16.5 | 16.6  | 29.9           | 29.9 | 29.9  | 6.4       | 6.5 | 6.4   | 79.6              | 79.9 | 79.8  | 4.8             | 4.7 | 4.8 | 5.8                     | 5.7    | 5.8 | 5.8 | 5.8   |
| E7       | 1316-1335     | 13.0            | W                 | 0.4                          | Surface          | 16.8               | 16.8 | 16.8  | 29.8           | 29.8 | 29.8  | 6.6       | 6.6 | 6.6   | 81.8              | 81.7 | 81.8  | 3.3             | 3.4 | 3.3 | 4.2                     | 4.3    | 4.3 | 4.3 | 4.3   |
|          |               |                 |                   |                              | Middle           | 16.7               | 16.7 | 16.7  | 29.9           | 29.9 | 29.9  | 6.3       | 6.4 | 6.3   | 78.4              | 78.6 | 78.5  | 4.5             | 4.5 | 4.5 | 4.2                     | 5.4    | 5.3 | 5.4 | 5.2   |
|          |               |                 |                   |                              | Bottom           | 16.5               | 16.5 | 16.5  | 29.9           | 30.0 | 30.0  | 6.2       | 6.2 | 6.2   | 76.8              | 76.9 | 76.9  | 4.6             | 4.7 | 4.6 | 5.9                     | 5.8    | 5.9 | 5.9 | 5.9   |
| F1       | 1251-1311     | 12.2            | W                 | 0.4                          | Surface          | 16.8               | 16.8 | 16.8  | 29.8           | 29.8 | 29.8  | 6.6       | 6.6 | 6.6   | 82.1              | 81.9 | 82.0  | 3.4             | 3.4 | 3.4 | 4.4                     | 4.3    | 4.4 | 4.4 | 4.4   |
|          |               |                 |                   |                              | Middle           | 16.7               | 16.7 | 16.7  | 29.9           | 29.9 | 29.9  | 6.2       | 6.2 | 6.2   | 76.8              | 76.4 | 76.6  | 4.7             | 4.7 | 4.7 | 4.3                     | 5.7    | 5.8 | 5.8 | 5.3   |
|          |               |                 |                   |                              | Bottom           | 16.6               | 16.6 | 16.6  | 29.9           | 29.9 | 29.9  | 6.1       | 6.1 | 6.1   | 75.0              | 75.3 | 75.2  | 4.9             | 4.9 | 4.9 | 6.0                     | 5.8    | 5.9 | 5.9 | 5.9   |
| G3       | 1231-1245     | 16.0            | W                 | 0.3                          | Surface          | 16.8               | 16.7 | 16.8  | 29.7           | 29.8 | 29.8  | 6.5       | 6.5 | 6.5   | 80.6              | 80.9 | 80.8  | 3.1             | 3.2 | 3.2 | 4.0                     | 4.1    | 4.1 | 4.1 | 4.7   |
|          |               |                 |                   |                              | Middle           | 16.6               | 16.6 | 16.6  | 29.9           | 29.9 | 29.9  | 6.4       | 6.4 | 6.4   | 78.8              | 78.9 | 78.9  | 3.4             | 3.4 | 3.4 | 3.7                     | 4.6    | 4.6 | 4.6 | 4.7   |
|          |               |                 |                   |                              | Bottom           | 16.6               | 16.6 | 16.6  | 29.9           | 29.9 | 29.9  | 6.1       | 6.1 | 6.1   | 75.8              | 76.0 | 75.9  | 4.6             | 4.6 | 4.6 | 5.4                     | 5.4    | 5.4 | 5.4 | 5.4   |
| E9       | 1208-1223     | 13.2            | W                 | 0.4                          | Surface          | 16.7               | 16.8 | 16.8  | 29.7           | 29.6 | 29.7  | 6.4       | 6.5 | 6.4   | 79.6              | 79.9 | 79.8  | 3.4             | 3.4 | 3.4 | 4.3                     | 4.2    | 4.3 | 4.3 | 5.0   |
|          |               |                 |                   |                              | Middle           | 16.7               | 16.7 | 16.7  | 29.8           | 29.8 | 29.8  | 6.1       | 6.1 | 6.1   | 75.5              | 76.0 | 75.8  | 4.6             | 4.6 | 4.6 | 4.1                     | 5.6    | 5.7 | 5.7 | 5.0   |
|          |               |                 |                   |                              | Bottom           | 16.4               | 16.5 | 16.5  | 29.9           | 29.9 | 29.9  | 6.3       | 6.2 | 6.3   | 77.5              | 77.3 | 77.4  | 4.3             | 4.4 | 4.4 | 5.2                     | 5.1    | 5.2 | 5.2 | 5.2   |
| S2       | 1144-1205     | 11.8            | W                 | 0.4                          | Surface          | 16.8               | 16.8 | 16.8  | 29.7           | 29.7 | 29.7  | 6.6       | 6.7 | 6.6   | 81.7              | 82.5 | 82.1  | 3.8             | 3.8 | 3.8 | 4.5                     | 4.6    | 4.6 | 4.6 | 4.6   |
|          |               |                 |                   |                              | Middle           | 16.7               | 16.6 | 16.7  | 29.8           | 29.8 | 29.8  | 6.3       | 6.2 | 6.3   | 77.8              | 77.0 | 77.4  | 4.3             | 4.3 | 4.3 | 4.1                     | 5.1    | 5.2 | 5.2 | 5.1   |
|          |               |                 |                   |                              | Bottom           | 16.5               | 16.5 | 16.5  | 29.9           | 29.9 | 29.9  | 6.2       | 6.1 | 6.2   | 76.4              | 75.9 | 76.2  | 4.2             | 4.1 | 4.2 | 5.4                     | 5.6    | 5.5 | 5.5 | 5.5   |
| G2       | 1123-1140     | 13.8            | W                 | 0.3                          | Surface          | 16.8               | 16.7 | 16.8  | 29.6           | 29.7 | 29.7  | 6.7       | 6.7 | 6.7   | 82.6              | 82.8 | 82.7  | 3.1             | 3.2 | 3.1 | 4.0                     | 4.1    | 4.1 | 4.1 | 4.3   |
|          |               |                 |                   |                              | Middle           | 16.6               | 16.6 | 16.6  | 29.8           | 29.9 | 29.9  | 6.4       | 6.4 | 6.4   | 79.2              | 78.8 | 79.0  | 3.2             | 3.3 | 3.2 | 3.5                     | 4.0    | 4.1 | 4.1 | 4.3   |
|          |               |                 |                   |                              | Bottom           | 16.5               | 16.5 | 16.5  | 29.8           | 29.9 | 29.9  | 6.1       | 6.0 | 6.1   | 75.4              | 74.4 | 74.9  | 4.3             | 4.2 | 4.3 | 5.0                     | 5.1    | 5.1 | 5.1 | 5.1   |
| S3       | 1100-1115     | 11.8            | W                 | 0.3                          | Surface          | 16.7               | 16.7 | 16.7  | 29.7           | 29.7 | 29.7  | 6.7       | 6.7 | 6.7   | 83.2              | 82.9 | 83.1  | 3.4             | 3.4 | 3.4 | 4.2                     | 4.4    | 4.3 | 4.3 | 4.9   |
|          |               |                 |                   |                              | Middle           | 16.5               | 16.5 | 16.5  | 29.8           | 29.8 | 29.8  | 6.5       | 6.5 | 6.5   | 80.2              | 80.4 | 80.3  | 3.9             | 3.8 | 3.8 | 3.8                     | 4.9    | 5.1 | 5.0 | 4.9   |
|          |               |                 |                   |                              | Bottom           | 16.4               | 16.4 | 16.4  | 29.9           | 29.8 | 29.9  | 6.2       | 6.3 | 6.2   | 77.0              | 77.6 | 77.3  | 4.3             | 4.2 | 4.3 | 5.5                     | 5.4    | 5.5 | 5.5 | 5.5   |

Remark or Obsevation:

Note: \* Average

\*\* Depth Average

|                 |            |
|-----------------|------------|
| Date:           | 27-Jan-14  |
| Weather:        | Cloudy     |
| Sea Conditions: | Small Wave |
| Zone A          |            |

| Location | Sampling Time | Water Depth (m) | Current direction | Current speed ( $m s^{-1}$ ) | Monitoring Depth | Temperrature (°C) |      |       | Salinity (ppt) |      |       | DO (mg/l) |     |       | DO Saturation (%) |      |       | Turbidity (NTU) |     |     | Suspended Solids (mg/l) |        |     |     |       |
|----------|---------------|-----------------|-------------------|------------------------------|------------------|-------------------|------|-------|----------------|------|-------|-----------|-----|-------|-------------------|------|-------|-----------------|-----|-----|-------------------------|--------|-----|-----|-------|
|          |               |                 |                   |                              |                  | 1                 | 2    | Ave.* | 1              | 2    | Ave.* | 1         | 2   | Ave.* | 1                 | 2    | Ave.* | D.A.**          | 1   | 2   | Ave.*                   | D.A.** | 1   | 2   | Ave.* |
| C1       | 1500-1518     | 36.8            | W                 | 0.2                          | Surface          | 16.8              | 16.9 | 16.9  | 29.7           | 29.6 | 29.7  | 6.8       | 6.8 | 6.8   | 84.0              | 84.3 | 84.2  | 3.5             | 3.5 | 3.5 |                         | 4.6    | 4.5 | 4.6 |       |
|          |               |                 |                   |                              | Middle           | 16.9              | 16.8 | 16.9  | 29.7           | 29.8 | 29.8  | 6.5       | 6.5 | 6.5   | 80.2              | 79.7 | 80.0  | 3.9             | 3.9 | 3.9 | 3.8                     | 5.0    | 4.9 | 5.0 | 5.0   |
|          |               |                 |                   |                              | Bottom           | 16.8              | 16.7 | 16.8  | 29.9           | 29.8 | 29.9  | 6.3       | 6.4 | 6.4   | 78.4              | 78.7 | 78.6  | 4.1             | 4.2 | 4.2 |                         | 5.4    | 5.4 | 5.4 |       |
| E8       | 1523-1541     | 18.2            | W                 | 0.3                          | Surface          | 16.7              | 16.8 | 16.8  | 29.6           | 29.7 | 29.7  | 6.8       | 6.7 | 6.7   | 83.9              | 82.7 | 83.3  | 3.6             | 3.6 | 3.6 |                         | 4.3    | 4.5 | 4.4 |       |
|          |               |                 |                   |                              | Middle           | 16.8              | 16.7 | 16.8  | 29.7           | 29.8 | 29.8  | 6.6       | 6.7 | 6.6   | 82.0              | 82.4 | 82.2  | 3.8             | 3.7 | 3.8 | 3.8                     | 4.8    | 4.7 | 4.8 | 4.8   |
|          |               |                 |                   |                              | Bottom           | 16.7              | 16.6 | 16.7  | 29.9           | 29.9 | 29.9  | 6.2       | 6.2 | 6.2   | 76.8              | 76.6 | 76.7  | 4.1             | 4.1 | 4.1 |                         | 5.4    | 5.2 | 5.3 |       |
| S1       | 1546-1603     | 9.4             | W                 | 0.3                          | Surface          | 16.8              | 16.7 | 16.8  | 29.7           | 29.6 | 29.7  | 6.7       | 6.8 | 6.8   | 83.3              | 83.7 | 83.5  | 3.2             | 3.2 | 3.2 |                         | 3.8    | 3.9 | 3.9 |       |
|          |               |                 |                   |                              | Middle           | 16.6              | 16.7 | 16.7  | 29.7           | 29.7 | 29.7  | 6.5       | 6.5 | 6.5   | 80.9              | 80.6 | 80.8  | 3.4             | 3.4 | 3.4 | 3.5                     | 4.4    | 4.5 | 4.5 | 4.5   |
|          |               |                 |                   |                              | Bottom           | 16.6              | 16.7 | 16.7  | 29.9           | 29.8 | 29.9  | 6.5       | 6.4 | 6.4   | 80.1              | 79.8 | 80.0  | 4.0             | 4.0 | 4.0 |                         | 5.0    | 5.2 | 5.1 |       |
| G1       | 1608-1625     | 12.2            | W                 | 0.4                          | Surface          | 16.8              | 16.8 | 16.8  | 29.8           | 29.7 | 29.8  | 6.5       | 6.5 | 6.5   | 80.5              | 80.7 | 80.6  | 3.1             | 3.1 | 3.1 |                         | 4.2    | 4.2 | 4.2 |       |
|          |               |                 |                   |                              | Middle           | 16.8              | 16.7 | 16.8  | 29.8           | 29.9 | 29.9  | 6.8       | 6.8 | 6.8   | 83.7              | 83.9 | 83.8  | 4.3             | 4.3 | 4.3 | 4.0                     | 5.4    | 5.3 | 5.4 | 4.9   |
|          |               |                 |                   |                              | Bottom           | 16.7              | 16.8 | 16.8  | 29.9           | 30.0 | 30.0  | 6.5       | 6.5 | 6.5   | 80.7              | 80.9 | 80.8  | 4.7             | 4.7 | 4.7 |                         | 5.2    | 5.2 | 5.2 |       |
| E7       | 1630-1648     | 13.2            | W                 | 0.3                          | Surface          | 16.9              | 16.8 | 16.9  | 29.7           | 29.8 | 29.8  | 6.7       | 6.7 | 6.7   | 82.9              | 82.8 | 82.9  | 3.3             | 3.3 | 3.3 |                         | 4.2    | 4.3 | 4.3 |       |
|          |               |                 |                   |                              | Middle           | 16.8              | 16.7 | 16.8  | 29.9           | 29.8 | 29.9  | 6.4       | 6.4 | 6.4   | 79.5              | 79.7 | 79.6  | 4.4             | 4.5 | 4.4 | 4.1                     | 5.6    | 5.7 | 5.7 | 5.3   |
|          |               |                 |                   |                              | Bottom           | 16.8              | 16.9 | 16.9  | 29.9           | 30.0 | 30.0  | 6.3       | 6.3 | 6.3   | 77.9              | 78.0 | 78.0  | 4.6             | 4.6 | 4.6 |                         | 5.9    | 5.8 | 5.9 |       |
| F1       | 1653-1710     | 12.4            | W                 | 0.4                          | Surface          | 16.9              | 17.0 | 17.0  | 29.8           | 29.7 | 29.8  | 6.7       | 6.7 | 6.7   | 83.0              | 83.0 | 83.0  | 3.3             | 3.4 | 3.3 |                         | 4.2    | 4.1 | 4.2 |       |
|          |               |                 |                   |                              | Middle           | 16.9              | 16.8 | 16.9  | 29.8           | 29.8 | 29.8  | 6.3       | 6.3 | 6.3   | 77.9              | 78.0 | 78.0  | 4.6             | 4.6 | 4.6 | 4.3                     | 5.7    | 5.8 | 5.8 | 5.4   |
|          |               |                 |                   |                              | Bottom           | 16.8              | 16.8 | 16.8  | 29.8           | 29.9 | 29.9  | 6.2       | 6.2 | 6.2   | 76.2              | 76.4 | 76.3  | 4.9             | 4.9 | 4.9 |                         | 6.2    | 6.1 | 6.2 |       |
| G3       | 1715-1732     | 16.2            | W                 | 0.3                          | Surface          | 16.8              | 16.7 | 16.8  | 29.7           | 29.7 | 29.7  | 6.6       | 6.6 | 6.6   | 81.6              | 82.0 | 81.8  | 3.1             | 3.1 | 3.1 |                         | 3.7    | 3.9 | 3.8 |       |
|          |               |                 |                   |                              | Middle           | 16.8              | 16.9 | 16.9  | 29.7           | 29.8 | 29.8  | 6.5       | 6.5 | 6.5   | 79.8              | 80.1 | 80.0  | 3.4             | 3.4 | 3.4 | 3.7                     | 4.4    | 4.6 | 4.5 | 4.6   |
|          |               |                 |                   |                              | Bottom           | 16.9              | 16.8 | 16.9  | 29.9           | 29.8 | 29.9  | 6.2       | 6.2 | 6.2   | 76.9              | 77.1 | 77.0  | 4.5             | 4.5 | 4.5 |                         | 5.6    | 5.5 | 5.6 |       |
| E9       | 1737-1755     | 13.4            | W                 | 0.3                          | Surface          | 16.8              | 16.8 | 16.8  | 29.8           | 29.8 | 29.8  | 6.5       | 6.6 | 6.5   | 80.5              | 81.0 | 80.8  | 3.3             | 3.3 | 3.3 |                         | 4.4    | 4.5 | 4.5 |       |
|          |               |                 |                   |                              | Middle           | 16.8              | 16.7 | 16.8  | 29.7           | 29.8 | 29.8  | 6.2       | 6.2 | 6.2   | 76.6              | 77.1 | 76.9  | 4.5             | 4.5 | 4.5 | 4.0                     | 5.9    | 5.8 | 5.9 | 5.3   |
|          |               |                 |                   |                              | Bottom           | 16.7              | 16.6 | 16.7  | 29.9           | 29.9 | 29.9  | 6.4       | 6.3 | 6.3   | 78.5              | 78.3 | 78.4  | 4.3             | 4.3 | 4.3 |                         | 5.5    | 5.4 | 5.5 |       |
| S2       | 1800-1818     | 12.2            | W                 | 0.3                          | Surface          | 16.8              | 16.9 | 16.9  | 29.7           | 29.6 | 29.7  | 6.7       | 6.8 | 6.7   | 82.8              | 83.5 | 83.2  | 3.7             | 3.7 | 3.7 |                         | 4.5    | 4.6 | 4.6 |       |
|          |               |                 |                   |                              | Middle           | 16.8              | 16.7 | 16.8  | 29.7           | 29.8 | 29.8  | 6.4       | 6.3 | 6.3   | 78.9              | 78.1 | 78.5  | 4.3             | 4.3 | 4.3 | 4.0                     | 5.5    | 5.7 | 5.6 | 5.1   |
|          |               |                 |                   |                              | Bottom           | 16.7              | 16.6 | 16.7  | 29.8           | 29.9 | 29.9  | 6.3       | 6.2 | 6.2   | 77.5              | 77.0 | 77.3  | 4.1             | 4.1 | 4.1 |                         | 5.1    | 5.3 | 5.2 |       |
| G2       | 1823-1840     | 13.8            | W                 | 0.3                          | Surface          | 16.9              | 16.8 | 16.9  | 29.8           | 29.7 | 29.8  | 6.8       | 6.8 | 6.8   | 83.7              | 83.9 | 83.8  | 3.1             | 3.1 | 3.1 |                         | 4.0    | 4.2 | 4.1 |       |
|          |               |                 |                   |                              | Middle           | 16.8              | 16.7 | 16.8  | 29.8           | 29.9 | 29.9  | 6.5       | 6.5 | 6.5   | 80.3              | 79.9 | 80.1  | 3.1             | 3.2 | 3.2 | 3.5                     | 4.5    | 4.4 | 4.5 | 4.7   |
|          |               |                 |                   |                              | Bottom           | 16.7              | 16.7 | 16.7  | 29.9           | 29.8 | 29.9  | 6.2       | 6.1 | 6.2   | 76.5              | 76.0 | 76.3  | 4.2             | 4.2 | 4.2 |                         | 5.6    | 5.4 | 5.5 |       |
| S3       | 1845-1900     | 12.0            | W                 | 0.4                          | Surface          | 16.8              | 16.7 | 16.8  | 29.7           | 29.6 | 29.7  | 6.8       | 6.8 | 6.8   | 84.2              | 83.9 | 84.1  | 3.3             | 3.3 | 3.3 |                         | 4.6    | 4.6 | 4.6 |       |
|          |               |                 |                   |                              | Middle           | 16.7              | 16.6 | 16.7  | 29.7           | 29.8 | 29.8  | 6.6       | 6.6 | 6.6   | 81.3              | 81.4 | 81.4  | 3.8             | 3.8 | 3.8 | 3.8                     | 5.0    | 4.9 | 5.0 | 5.0   |
|          |               |                 |                   |                              | Bottom           | 16.5              | 16.6 | 16.6  | 29.8           | 29.9 | 29.9  | 6.3       | 6.4 | 6.3   | 78.1              | 78.7 | 78.4  | 4.2             | 4.2 | 4.2 |                         | 5.4    | 5.4 | 5.4 |       |

Remark or Obsevation:

Note: \* Average

\*\* Depth Average

|                 |            |
|-----------------|------------|
| Date:           | 27-Jan-14  |
| Weather:        | Cloudy     |
| Sea Conditions: | Small Wave |
| Zone A          |            |

| Location | Sampling Time | Water Depth (m) | Current direction | Current speed ( $m s^{-1}$ ) | Monitoring Depth | Temperrature (°C) |      |       | Salinity (ppt) |      |       | DO (mg/l) |     |       | DO Saturation (%) |      |       | Turbidity (NTU) |     |     | Suspended Solids (mg/l) |        |     |     |       |
|----------|---------------|-----------------|-------------------|------------------------------|------------------|-------------------|------|-------|----------------|------|-------|-----------|-----|-------|-------------------|------|-------|-----------------|-----|-----|-------------------------|--------|-----|-----|-------|
|          |               |                 |                   |                              |                  | 1                 | 2    | Ave.* | 1              | 2    | Ave.* | 1         | 2   | Ave.* | 1                 | 2    | Ave.* | D.A.**          | 1   | 2   | Ave.*                   | D.A.** | 1   | 2   | Ave.* |
| C1       | 2245-2300     | 36.2            | W                 | 0.3                          | Surface          | 16.7              | 16.8 | 16.8  | 29.6           | 29.7 | 29.7  | 6.7       | 6.8 | 6.8   | 83.3              | 83.6 | 83.5  | 3.6             | 3.5 | 3.5 | 3.9                     | 4.7    | 4.6 | 4.7 | 5.1   |
|          |               |                 |                   |                              | Middle           | 16.8              | 16.7 | 16.8  | 29.7           | 29.8 | 29.8  | 6.4       | 6.4 | 6.4   | 79.4              | 79.0 | 79.2  | 3.9             | 3.9 | 3.9 | 3.9                     | 5.2    | 5.2 | 5.2 | 5.1   |
|          |               |                 |                   |                              | Bottom           | 16.7              | 16.7 | 16.7  | 29.8           | 29.9 | 29.9  | 6.3       | 6.3 | 6.3   | 77.7              | 77.9 | 77.8  | 4.2             | 4.2 | 4.2 | 4.2                     | 5.5    | 5.6 | 5.6 | 5.6   |
| E8       | 2223-2240     | 17.8            | W                 | 0.4                          | Surface          | 16.6              | 16.7 | 16.7  | 29.6           | 29.6 | 29.6  | 6.7       | 6.6 | 6.7   | 83.1              | 82.0 | 82.6  | 3.6             | 3.6 | 3.6 | 3.9                     | 4.7    | 4.9 | 4.8 | 5.3   |
|          |               |                 |                   |                              | Middle           | 16.7              | 16.6 | 16.7  | 29.8           | 29.7 | 29.8  | 6.6       | 6.6 | 6.6   | 81.3              | 81.6 | 81.5  | 3.9             | 3.8 | 3.8 | 3.9                     | 5.4    | 5.3 | 5.4 | 5.3   |
|          |               |                 |                   |                              | Bottom           | 16.7              | 16.8 | 16.8  | 29.8           | 29.9 | 29.9  | 6.1       | 6.1 | 6.1   | 76.0              | 75.8 | 75.9  | 4.2             | 4.1 | 4.1 | 4.2                     | 5.7    | 5.6 | 5.7 | 5.7   |
| S1       | 2200-2218     | 9.2             | W                 | 0.3                          | Surface          | 16.7              | 16.6 | 16.7  | 29.7           | 29.6 | 29.7  | 6.7       | 6.7 | 6.7   | 82.4              | 83.0 | 82.7  | 3.2             | 3.2 | 3.2 | 3.5                     | 4.2    | 4.4 | 4.3 | 4.7   |
|          |               |                 |                   |                              | Middle           | 16.7              | 16.8 | 16.8  | 29.7           | 29.8 | 29.8  | 6.5       | 6.5 | 6.5   | 80.2              | 79.8 | 80.0  | 3.4             | 3.4 | 3.4 | 3.5                     | 4.6    | 4.7 | 4.7 | 4.7   |
|          |               |                 |                   |                              | Bottom           | 16.8              | 16.7 | 16.8  | 29.9           | 29.9 | 29.9  | 6.4       | 6.4 | 6.4   | 79.4              | 78.7 | 79.1  | 4.0             | 4.0 | 4.0 | 4.0                     | 5.3    | 5.2 | 5.3 | 5.3   |
| G1       | 2137-2155     | 11.8            | W                 | 0.4                          | Surface          | 16.7              | 16.8 | 16.8  | 29.7           | 29.8 | 29.8  | 6.5       | 6.5 | 6.5   | 79.7              | 79.9 | 79.8  | 3.1             | 3.2 | 3.2 | 4.1                     | 4.3    | 4.4 | 4.4 | 5.2   |
|          |               |                 |                   |                              | Middle           | 16.7              | 16.6 | 16.7  | 29.8           | 29.7 | 29.8  | 6.7       | 6.7 | 6.7   | 82.9              | 83.1 | 83.0  | 4.3             | 4.3 | 4.3 | 4.1                     | 5.5    | 5.5 | 5.5 | 5.2   |
|          |               |                 |                   |                              | Bottom           | 16.7              | 16.7 | 16.7  | 29.8           | 29.9 | 29.9  | 6.5       | 6.5 | 6.5   | 79.9              | 80.2 | 80.1  | 4.7             | 4.7 | 4.7 | 4.7                     | 5.9    | 5.8 | 5.9 | 5.9   |
| E7       | 2115-2132     | 12.8            | W                 | 0.3                          | Surface          | 16.8              | 16.8 | 16.8  | 29.7           | 29.6 | 29.7  | 6.6       | 6.6 | 6.6   | 82.1              | 81.9 | 82.0  | 3.3             | 3.3 | 3.3 | 4.1                     | 4.2    | 4.3 | 4.3 | 5.3   |
|          |               |                 |                   |                              | Middle           | 16.7              | 16.8 | 16.8  | 29.7           | 29.8 | 29.8  | 6.4       | 6.4 | 6.4   | 78.7              | 78.9 | 78.8  | 4.5             | 4.5 | 4.5 | 4.1                     | 5.6    | 5.7 | 5.7 | 5.3   |
|          |               |                 |                   |                              | Bottom           | 16.7              | 16.6 | 16.7  | 29.8           | 29.9 | 29.9  | 6.2       | 6.2 | 6.2   | 77.1              | 77.2 | 77.2  | 4.6             | 4.6 | 4.6 | 4.6                     | 5.8    | 5.9 | 5.9 | 5.9   |
| F1       | 2053-2110     | 12.0            | W                 | 0.3                          | Surface          | 16.8              | 16.7 | 16.8  | 29.7           | 29.7 | 29.7  | 6.7       | 6.7 | 6.7   | 82.3              | 82.2 | 82.3  | 3.4             | 3.4 | 3.4 | 4.3                     | 4.3    | 4.5 | 4.4 | 5.5   |
|          |               |                 |                   |                              | Middle           | 16.8              | 16.8 | 16.8  | 29.7           | 29.8 | 29.8  | 6.2       | 6.2 | 6.2   | 77.1              | 77.2 | 77.2  | 4.6             | 4.7 | 4.6 | 4.3                     | 5.8    | 5.8 | 5.8 | 5.5   |
|          |               |                 |                   |                              | Bottom           | 16.7              | 16.7 | 16.7  | 29.9           | 29.8 | 29.9  | 6.1       | 6.1 | 6.1   | 75.3              | 75.6 | 75.5  | 4.9             | 4.9 | 4.9 | 4.9                     | 6.2    | 6.1 | 6.2 | 6.2   |
| G3       | 2030-2048     | 15.8            | W                 | 0.3                          | Surface          | 16.7              | 16.6 | 16.7  | 29.6           | 29.7 | 29.7  | 6.5       | 6.6 | 6.6   | 80.8              | 81.2 | 81.0  | 3.1             | 3.2 | 3.1 | 3.7                     | 4.2    | 4.3 | 4.3 | 4.9   |
|          |               |                 |                   |                              | Middle           | 16.7              | 16.8 | 16.8  | 29.8           | 29.7 | 29.8  | 6.4       | 6.4 | 6.4   | 79.0              | 79.3 | 79.2  | 3.4             | 3.4 | 3.4 | 3.7                     | 4.6    | 4.6 | 4.6 | 4.9   |
|          |               |                 |                   |                              | Bottom           | 16.8              | 16.7 | 16.8  | 29.8           | 29.8 | 29.8  | 6.2       | 6.2 | 6.2   | 76.1              | 76.4 | 76.3  | 4.5             | 4.6 | 4.6 | 4.6                     | 5.7    | 5.8 | 5.8 | 5.8   |
| E9       | 2008-2025     | 13.0            | W                 | 0.3                          | Surface          | 16.7              | 16.8 | 16.8  | 29.7           | 29.8 | 29.8  | 6.5       | 6.5 | 6.5   | 79.7              | 80.2 | 80.0  | 3.4             | 3.4 | 3.4 | 4.1                     | 4.5    | 4.6 | 4.6 | 5.3   |
|          |               |                 |                   |                              | Middle           | 16.8              | 16.8 | 16.8  | 29.8           | 29.9 | 29.9  | 6.1       | 6.2 | 6.2   | 75.8              | 76.3 | 76.1  | 4.5             | 4.5 | 4.5 | 4.1                     | 5.7    | 5.7 | 5.7 | 5.3   |
|          |               |                 |                   |                              | Bottom           | 16.7              | 16.6 | 16.7  | 29.9           | 29.8 | 29.9  | 6.3       | 6.3 | 6.3   | 77.8              | 77.6 | 77.7  | 4.3             | 4.3 | 4.3 | 4.3                     | 5.5    | 5.6 | 5.6 | 5.6   |
| S2       | 1946-2003     | 11.8            | W                 | 0.2                          | Surface          | 16.7              | 16.8 | 16.8  | 29.6           | 29.6 | 29.6  | 6.7       | 6.8 | 6.8   | 83.1              | 83.8 | 83.5  | 3.7             | 3.8 | 3.7 | 4.1                     | 4.9    | 4.9 | 4.9 | 5.3   |
|          |               |                 |                   |                              | Middle           | 16.8              | 16.7 | 16.8  | 29.7           | 29.6 | 29.7  | 6.3       | 6.3 | 6.3   | 78.4              | 79.1 | 78.8  | 4.3             | 4.3 | 4.3 | 4.1                     | 5.5    | 5.6 | 5.6 | 5.3   |
|          |               |                 |                   |                              | Bottom           | 16.6              | 16.6 | 16.6  | 29.7           | 29.8 | 29.8  | 6.3       | 6.3 | 6.3   | 77.8              | 77.4 | 77.6  | 4.2             | 4.1 | 4.1 | 4.1                     | 5.4    | 5.4 | 5.4 | 5.4   |
| G2       | 1923-1941     | 13.4            | W                 | 0.4                          | Surface          | 16.8              | 16.8 | 16.8  | 29.7           | 29.6 | 29.7  | 6.7       | 6.7 | 6.7   | 82.9              | 83.1 | 83.0  | 3.1             | 3.1 | 3.1 | 4.1                     | 4.0    | 4.1 | 4.1 | 4.6   |
|          |               |                 |                   |                              | Middle           | 16.7              | 16.6 | 16.7  | 29.7           | 29.8 | 29.8  | 6.4       | 6.4 | 6.4   | 79.5              | 79.1 | 79.3  | 3.2             | 3.3 | 3.2 | 3.5                     | 4.3    | 4.5 | 4.4 | 4.6   |
|          |               |                 |                   |                              | Bottom           | 16.6              | 16.7 | 16.7  | 29.8           | 29.9 | 29.9  | 6.1       | 6.1 | 6.1   | 75.8              | 75.2 | 75.5  | 4.2             | 4.2 | 4.2 | 4.2                     | 5.4    | 5.4 | 5.4 | 5.4   |
| S3       | 1900-1918     | 11.6            | W                 | 0.3                          | Surface          | 16.7              | 16.8 | 16.8  | 29.6           | 29.7 | 29.7  | 6.8       | 6.7 | 6.7   | 83.4              | 83.3 | 83.4  | 3.3             | 3.4 | 3.4 | 3.8                     | 4.6    | 4.5 | 4.6 | 5.0   |
|          |               |                 |                   |                              | Middle           | 16.7              | 16.7 | 16.7  | 29.8           | 29.7 | 29.8  | 6.5       | 6.5 | 6.5   | 80.6              | 80.7 | 80.7  | 3.8             | 3.8 | 3.8 | 3.8                     | 5.1    | 5.0 | 5.1 | 5.0   |
|          |               |                 |                   |                              | Bottom           | 16.7              | 16.6 | 16.7  | 29.9           | 29.8 | 29.9  | 6.3       | 6.3 | 6.3   | 77.4              | 78.0 | 77.7  | 4.3             | 4.2 | 4.2 | 4.2                     | 5.4    | 5.6 | 5.5 | 5.5   |

Remark or Obsevation:

Note: \* Average

\*\* Depth Average

Date: 28-Jan-14  
 Weather: Fine  
 Sea Conditions: Small Wave  
 Zone A

| Location | Sampling Time | Water Depth (m) | Current direction | Current speed ( $m s^{-1}$ ) | Monitoring Depth | Temperrtature (°C) |      |       | Salinity (ppt) |      |       | DO (mg/l) |     |       | DO Saturation (%) |      |       | Turbidity (NTU) |     |     | Suspended Solids (mg/l) |        |     |     |       |
|----------|---------------|-----------------|-------------------|------------------------------|------------------|--------------------|------|-------|----------------|------|-------|-----------|-----|-------|-------------------|------|-------|-----------------|-----|-----|-------------------------|--------|-----|-----|-------|
|          |               |                 |                   |                              |                  | 1                  | 2    | Ave.* | 1              | 2    | Ave.* | 1         | 2   | Ave.* | 1                 | 2    | Ave.* | D.A.**          | 1   | 2   | Ave.*                   | D.A.** | 1   | 2   | Ave.* |
| C1       | 0714-0730     | 37.1            | W                 | 0.3                          | Surface          | 17.0               | 17.0 | 17.0  | 30.0           | 30.1 | 30.1  | 6.9       | 7.0 | 7.0   | 86.1              | 86.3 | 86.2  | 3.6             | 3.6 | 3.6 | 3.6                     | 4.8    | 4.8 | 4.8 | 4.9   |
|          |               |                 |                   |                              | Middle           | 17.1               | 17.2 | 17.2  | 30.2           | 30.2 | 30.2  | 6.9       | 6.8 | 6.8   | 85.2              | 84.9 | 85.1  | 3.7             | 3.7 | 3.7 | 3.6                     | 5.1    | 5.0 | 5.1 | 4.9   |
|          |               |                 |                   |                              | Bottom           | 17.3               | 17.4 | 17.4  | 30.3           | 30.4 | 30.4  | 6.6       | 6.7 | 6.6   | 82.6              | 82.8 | 82.7  | 3.4             | 3.4 | 3.4 | 3.4                     | 4.6    | 4.8 | 4.7 | 4.7   |
| E8       | 0735-0751     | 30.1            | W                 | 0.4                          | Surface          | 17.0               | 17.1 | 17.1  | 30.0           | 30.0 | 30.0  | 7.0       | 7.1 | 7.0   | 87.2              | 87.5 | 87.4  | 3.5             | 3.5 | 3.5 | 3.5                     | 4.6    | 4.8 | 4.7 | 4.7   |
|          |               |                 |                   |                              | Middle           | 17.2               | 17.3 | 17.3  | 30.1           | 30.2 | 30.2  | 6.9       | 6.9 | 6.9   | 85.5              | 85.7 | 85.6  | 3.7             | 3.7 | 3.7 | 3.6                     | 4.9    | 4.9 | 4.9 | 4.9   |
|          |               |                 |                   |                              | Bottom           | 17.4               | 17.4 | 17.4  | 30.3           | 30.4 | 30.4  | 6.7       | 6.7 | 6.7   | 83.1              | 83.3 | 83.2  | 3.5             | 3.5 | 3.5 | 3.5                     | 5.0    | 4.9 | 5.0 | 5.0   |
| S1       | 0756-0813     | 10.6            | W                 | 0.4                          | Surface          | 17.0               | 17.0 | 17.0  | 30.1           | 30.0 | 30.1  | 7.1       | 7.1 | 7.1   | 88.2              | 88.4 | 88.3  | 3.4             | 3.5 | 3.4 | 3.5                     | 4.8    | 4.9 | 4.9 | 4.9   |
|          |               |                 |                   |                              | Middle           | 17.1               | 17.1 | 17.1  | 30.2           | 30.3 | 30.3  | 6.9       | 6.9 | 6.9   | 86.1              | 85.9 | 86.0  | 3.6             | 3.6 | 3.6 | 3.5                     | 4.9    | 4.8 | 4.9 | 5.0   |
|          |               |                 |                   |                              | Bottom           | 17.2               | 17.3 | 17.3  | 30.4           | 30.4 | 30.4  | 6.8       | 6.8 | 6.8   | 84.5              | 84.7 | 84.6  | 3.5             | 3.5 | 3.5 | 3.5                     | 5.3    | 5.2 | 5.3 | 5.3   |
| G1       | 0818-0834     | 11.7            | W                 | 0.3                          | Surface          | 17.1               | 17.1 | 17.1  | 30.0           | 30.0 | 30.0  | 6.9       | 6.9 | 6.9   | 85.2              | 85.4 | 85.3  | 3.5             | 3.5 | 3.5 | 3.5                     | 4.9    | 5.0 | 5.0 | 5.0   |
|          |               |                 |                   |                              | Middle           | 17.2               | 17.3 | 17.3  | 30.1           | 30.2 | 30.2  | 6.7       | 6.8 | 6.7   | 83.7              | 83.9 | 83.8  | 3.7             | 3.8 | 3.7 | 3.6                     | 5.4    | 5.3 | 5.4 | 5.1   |
|          |               |                 |                   |                              | Bottom           | 17.4               | 17.4 | 17.4  | 30.3           | 30.3 | 30.3  | 6.4       | 6.4 | 6.4   | 80.1              | 80.4 | 80.3  | 3.6             | 3.6 | 3.6 | 3.6                     | 5.0    | 5.2 | 5.1 | 5.1   |
| E7       | 0839-0856     | 13.1            | W                 | 0.3                          | Surface          | 17.0               | 17.0 | 17.0  | 30.0           | 30.1 | 30.1  | 7.1       | 7.1 | 7.1   | 87.9              | 88.1 | 88.0  | 3.5             | 3.5 | 3.5 | 3.5                     | 5.2    | 5.1 | 5.2 | 5.2   |
|          |               |                 |                   |                              | Middle           | 17.1               | 17.2 | 17.2  | 30.2           | 30.3 | 30.3  | 6.9       | 6.9 | 6.9   | 85.2              | 85.4 | 85.3  | 3.7             | 3.7 | 3.7 | 3.5                     | 4.7    | 4.8 | 4.8 | 5.0   |
|          |               |                 |                   |                              | Bottom           | 17.3               | 17.4 | 17.4  | 30.4           | 30.3 | 30.4  | 6.6       | 6.7 | 6.7   | 82.9              | 83.1 | 83.0  | 3.5             | 3.5 | 3.5 | 3.5                     | 5.1    | 5.2 | 5.2 | 5.2   |
| F1       | 0901-0918     | 12.0            | W                 | 0.4                          | Surface          | 17.0               | 17.1 | 17.1  | 30.0           | 30.0 | 30.0  | 6.9       | 6.9 | 6.9   | 86.1              | 85.9 | 86.0  | 3.5             | 3.5 | 3.5 | 3.5                     | 5.2    | 5.3 | 5.3 | 5.3   |
|          |               |                 |                   |                              | Middle           | 17.2               | 17.3 | 17.3  | 30.1           | 30.2 | 30.2  | 6.8       | 6.8 | 6.8   | 84.2              | 84.0 | 84.1  | 3.7             | 3.7 | 3.7 | 3.6                     | 4.6    | 4.7 | 4.7 | 5.0   |
|          |               |                 |                   |                              | Bottom           | 17.4               | 17.4 | 17.4  | 30.3           | 30.4 | 30.4  | 6.6       | 6.6 | 6.6   | 82.0              | 82.2 | 82.1  | 3.5             | 3.5 | 3.5 | 3.5                     | 4.9    | 5.0 | 5.0 | 5.0   |
| G3       | 0923-0940     | 15.6            | W                 | 0.3                          | Surface          | 17.1               | 17.1 | 17.1  | 30.0           | 30.1 | 30.1  | 7.1       | 7.2 | 7.2   | 88.5              | 88.8 | 88.7  | 3.4             | 3.4 | 3.4 | 3.5                     | 4.8    | 4.8 | 4.8 | 4.8   |
|          |               |                 |                   |                              | Middle           | 17.2               | 17.3 | 17.3  | 30.1           | 30.2 | 30.2  | 6.9       | 6.9 | 6.9   | 86.2              | 86.0 | 86.1  | 3.7             | 3.7 | 3.7 | 3.5                     | 4.8    | 4.6 | 4.7 | 4.8   |
|          |               |                 |                   |                              | Bottom           | 17.4               | 17.4 | 17.4  | 30.3           | 30.3 | 30.3  | 6.8       | 6.7 | 6.7   | 84.2              | 84.0 | 84.1  | 3.4             | 3.4 | 3.4 | 3.4                     | 5.0    | 4.8 | 4.9 | 4.9   |
| E9       | 0945-1002     | 18.9            | W                 | 0.3                          | Surface          | 17.0               | 17.1 | 17.1  | 30.0           | 30.0 | 30.0  | 6.9       | 6.9 | 6.9   | 85.4              | 85.2 | 85.3  | 3.5             | 3.6 | 3.6 | 3.6                     | 4.9    | 5.1 | 5.0 | 5.1   |
|          |               |                 |                   |                              | Middle           | 17.2               | 17.2 | 17.2  | 30.1           | 30.1 | 30.1  | 6.7       | 6.7 | 6.7   | 83.0              | 83.1 | 83.1  | 3.6             | 3.6 | 3.6 | 3.5                     | 5.2    | 5.2 | 5.2 | 5.1   |
|          |               |                 |                   |                              | Bottom           | 17.3               | 17.4 | 17.4  | 30.2           | 30.3 | 30.3  | 6.4       | 6.4 | 6.4   | 80.1              | 80.4 | 80.3  | 3.5             | 3.5 | 3.5 | 3.5                     | 5.0    | 5.1 | 5.1 | 5.1   |
| S2       | 1007-1023     | 10.8            | W                 | 0.3                          | Surface          | 17.0               | 17.1 | 17.1  | 30.0           | 30.0 | 30.0  | 7.0       | 7.0 | 7.0   | 87.0              | 87.3 | 87.2  | 3.4             | 3.5 | 3.5 | 3.5                     | 4.9    | 4.8 | 4.9 | 4.9   |
|          |               |                 |                   |                              | Middle           | 17.1               | 17.2 | 17.2  | 30.1           | 30.2 | 30.2  | 6.9       | 6.9 | 6.9   | 86.0              | 85.8 | 85.9  | 3.7             | 3.7 | 3.7 | 3.6                     | 5.1    | 5.2 | 5.2 | 5.0   |
|          |               |                 |                   |                              | Bottom           | 17.3               | 17.4 | 17.4  | 30.3           | 30.4 | 30.4  | 6.7       | 6.7 | 6.7   | 83.9              | 83.6 | 83.8  | 3.5             | 3.5 | 3.5 | 3.5                     | 5.0    | 4.9 | 5.0 | 5.0   |
| G2       | 1028-1044     | 13.7            | W                 | 0.4                          | Surface          | 17.0               | 17.0 | 17.0  | 30.0           | 30.1 | 30.1  | 6.9       | 6.9 | 6.9   | 85.8              | 86.0 | 85.9  | 3.5             | 3.5 | 3.5 | 3.5                     | 4.9    | 4.8 | 4.9 | 4.9   |
|          |               |                 |                   |                              | Middle           | 17.1               | 17.1 | 17.1  | 30.2           | 30.3 | 30.3  | 6.8       | 6.9 | 6.8   | 85.0              | 85.3 | 85.2  | 3.7             | 3.7 | 3.7 | 3.6                     | 5.3    | 5.2 | 5.3 | 5.0   |
|          |               |                 |                   |                              | Bottom           | 17.2               | 17.3 | 17.3  | 30.4           | 30.4 | 30.4  | 6.6       | 6.7 | 6.7   | 82.9              | 83.1 | 83.0  | 3.6             | 3.6 | 3.6 | 3.6                     | 5.0    | 5.0 | 5.0 | 5.0   |
| S3       | 1049-1100     | 11.0            | W                 | 0.3                          | Surface          | 17.1               | 17.1 | 17.1  | 30.0           | 30.1 | 30.1  | 6.9       | 6.9 | 6.9   | 85.2              | 85.5 | 85.4  | 3.5             | 3.5 | 3.5 | 3.5                     | 4.8    | 4.9 | 4.9 | 4.9   |
|          |               |                 |                   |                              | Middle           | 17.2               | 17.3 | 17.3  | 30.2           | 30.2 | 30.2  | 6.7       | 6.7 | 6.7   | 83.7              | 83.3 | 83.5  | 3.7             | 3.8 | 3.7 | 3.6                     | 5.3    | 5.4 | 5.4 | 5.2   |
|          |               |                 |                   |                              | Bottom           | 17.4               | 17.4 | 17.4  | 30.3           | 30.3 | 30.3  | 6.5       | 6.5 | 6.5   | 81.4              | 81.6 | 81.5  | 3.6             | 3.6 | 3.6 | 3.6                     | 5.4    | 5.3 | 5.4 | 5.4   |

Remark or Obsevation:

Note: \* Average

\*\* Depth Average

|                 |            |
|-----------------|------------|
| Date:           | 28-Jan-14  |
| Weather:        | Fine       |
| Sea Conditions: | Small Wave |
| Zone A          |            |

| Location | Sampling Time | Water Depth (m) | Current direction | Current speed ( $m s^{-1}$ ) | Monitoring Depth | Temperrrature (°C) |      |       | Salinity (ppt) |      |       | DO (mg/l) |     |       | DO Saturation (%) |      |       | Turbidity (NTU) |     |     | Suspended Solids (mg/l) |        |     |     |       |
|----------|---------------|-----------------|-------------------|------------------------------|------------------|--------------------|------|-------|----------------|------|-------|-----------|-----|-------|-------------------|------|-------|-----------------|-----|-----|-------------------------|--------|-----|-----|-------|
|          |               |                 |                   |                              |                  | 1                  | 2    | Ave.* | 1              | 2    | Ave.* | 1         | 2   | Ave.* | 1                 | 2    | Ave.* | D.A.**          | 1   | 2   | Ave.*                   | D.A.** | 1   | 2   | Ave.* |
| C1       | 1443-1500     | 36.9            | W                 | 0.3                          | Surface          | 17.0               | 17.0 | 17.0  | 30.0           | 30.1 | 30.1  | 6.7       | 6.7 | 6.7   | 82.7              | 82.8 | 82.8  | 3.8             | 3.8 | 3.8 | 3.8                     | 4.9    | 4.9 | 4.9 | 5.1   |
|          |               |                 |                   |                              | Middle           | 17.1               | 17.2 | 17.2  | 30.2           | 30.2 | 30.2  | 6.5       | 6.6 | 6.6   | 81.3              | 81.5 | 81.4  | 3.8             | 3.9 | 3.9 | 3.8                     | 5.3    | 5.2 | 5.3 | 5.1   |
|          |               |                 |                   |                              | Bottom           | 17.2               | 17.3 | 17.3  | 30.3           | 30.4 | 30.4  | 6.4       | 6.4 | 6.4   | 80.2              | 80.0 | 80.1  | 3.7             | 3.7 | 3.7 | 3.7                     | 5.2    | 5.1 | 5.2 | 5.1   |
| E8       | 1423-1438     | 19.9            | W                 | 0.4                          | Surface          | 17.0               | 17.1 | 17.1  | 30.0           | 30.0 | 30.0  | 6.8       | 6.8 | 6.8   | 83.8              | 84.0 | 83.9  | 3.7             | 3.7 | 3.7 | 3.7                     | 4.7    | 4.8 | 4.8 | 4.9   |
|          |               |                 |                   |                              | Middle           | 17.1               | 17.2 | 17.2  | 30.1           | 30.2 | 30.2  | 6.6       | 6.6 | 6.6   | 82.4              | 82.2 | 82.3  | 3.8             | 3.8 | 3.8 | 3.7                     | 5.0    | 5.1 | 5.1 | 4.9   |
|          |               |                 |                   |                              | Bottom           | 17.3               | 17.4 | 17.4  | 30.3           | 30.4 | 30.4  | 6.5       | 6.5 | 6.5   | 80.7              | 80.9 | 80.8  | 3.7             | 3.7 | 3.7 | 3.7                     | 4.8    | 4.8 | 4.8 | 4.9   |
| S1       | 1401-1418     | 11.5            | W                 | 0.3                          | Surface          | 17.0               | 17.1 | 17.1  | 30.0           | 30.1 | 30.1  | 6.7       | 6.7 | 6.7   | 83.4              | 83.2 | 83.3  | 3.7             | 3.7 | 3.7 | 3.7                     | 4.9    | 5.0 | 5.0 | 5.1   |
|          |               |                 |                   |                              | Middle           | 17.2               | 17.1 | 17.2  | 30.2           | 30.3 | 30.3  | 6.5       | 6.5 | 6.5   | 81.4              | 81.2 | 81.3  | 3.8             | 3.8 | 3.8 | 3.8                     | 5.4    | 5.2 | 5.3 | 5.1   |
|          |               |                 |                   |                              | Bottom           | 17.3               | 17.3 | 17.3  | 30.4           | 30.4 | 30.4  | 6.4       | 6.4 | 6.4   | 79.9              | 79.7 | 79.8  | 3.7             | 3.7 | 3.7 | 3.7                     | 5.0    | 5.0 | 5.0 | 5.1   |
| G1       | 1338-1350     | 11.5            | W                 | 0.3                          | Surface          | 17.0               | 17.1 | 17.1  | 30.0           | 30.1 | 30.1  | 6.7       | 6.7 | 6.7   | 83.5              | 83.2 | 83.4  | 3.6             | 3.6 | 3.6 | 3.6                     | 4.8    | 4.8 | 4.8 | 4.9   |
|          |               |                 |                   |                              | Middle           | 17.1               | 17.2 | 17.2  | 30.2           | 30.2 | 30.2  | 6.5       | 6.6 | 6.6   | 81.4              | 81.7 | 81.6  | 3.7             | 3.8 | 3.7 | 3.6                     | 4.9    | 5.0 | 5.0 | 4.9   |
|          |               |                 |                   |                              | Bottom           | 17.3               | 17.4 | 17.4  | 30.3           | 30.4 | 30.4  | 6.4       | 7.0 | 6.7   | 79.9              | 79.7 | 79.8  | 3.5             | 3.5 | 3.5 | 3.5                     | 4.8    | 5.0 | 4.9 | 4.9   |
| E7       | 1315-1333     | 12.9            | W                 | 0.4                          | Surface          | 17.1               | 17.1 | 17.1  | 30.0           | 30.0 | 30.0  | 6.7       | 6.6 | 6.7   | 82.6              | 82.3 | 82.5  | 3.6             | 3.6 | 3.6 | 3.6                     | 5.3    | 5.2 | 5.3 | 5.2   |
|          |               |                 |                   |                              | Middle           | 17.2               | 17.2 | 17.2  | 30.1           | 30.2 | 30.2  | 6.5       | 6.5 | 6.5   | 81.1              | 80.9 | 81.0  | 3.7             | 3.7 | 3.7 | 3.6                     | 5.2    | 5.2 | 5.2 | 5.2   |
|          |               |                 |                   |                              | Bottom           | 17.3               | 17.3 | 17.3  | 30.3           | 30.4 | 30.4  | 6.4       | 6.4 | 6.4   | 80.4              | 80.1 | 80.3  | 3.5             | 3.5 | 3.5 | 3.5                     | 5.0    | 5.1 | 5.1 | 5.1   |
| F1       | 1253-1310     | 11.8            | W                 | 0.4                          | Surface          | 17.0               | 17.0 | 17.0  | 30.0           | 30.1 | 30.1  | 6.8       | 6.8 | 6.8   | 83.9              | 84.1 | 84.0  | 3.6             | 3.6 | 3.6 | 3.6                     | 4.9    | 5.0 | 5.0 | 5.1   |
|          |               |                 |                   |                              | Middle           | 17.1               | 17.1 | 17.1  | 30.2           | 30.3 | 30.3  | 6.7       | 6.7 | 6.7   | 83.2              | 83.4 | 83.3  | 3.7             | 3.7 | 3.7 | 3.6                     | 5.1    | 5.2 | 5.2 | 5.1   |
|          |               |                 |                   |                              | Bottom           | 17.2               | 17.3 | 17.3  | 30.4           | 30.4 | 30.4  | 6.6       | 6.6 | 6.6   | 82.4              | 82.1 | 82.3  | 3.5             | 3.5 | 3.5 | 3.5                     | 5.0    | 5.1 | 5.1 | 5.1   |
| G3       | 1232-1248     | 15.3            | W                 | 0.3                          | Surface          | 17.0               | 17.1 | 17.1  | 30.0           | 30.1 | 30.1  | 6.8       | 6.8 | 6.8   | 84.4              | 84.6 | 84.5  | 3.7             | 3.7 | 3.7 | 3.7                     | 5.2    | 5.2 | 5.2 | 5.3   |
|          |               |                 |                   |                              | Middle           | 17.2               | 17.2 | 17.2  | 30.2           | 30.2 | 30.2  | 6.7       | 6.7 | 6.7   | 83.0              | 83.4 | 83.2  | 3.7             | 3.8 | 3.8 | 3.7                     | 5.4    | 5.3 | 5.4 | 5.3   |
|          |               |                 |                   |                              | Bottom           | 17.3               | 17.4 | 17.4  | 30.3           | 30.4 | 30.4  | 6.5       | 6.5 | 6.5   | 81.6              | 81.3 | 81.5  | 3.6             | 3.6 | 3.6 | 3.6                     | 5.4    | 5.4 | 5.4 | 5.4   |
| E9       | 1209-1227     | 18.7            | W                 | 0.3                          | Surface          | 17.0               | 17.1 | 17.1  | 30.1           | 30.0 | 30.1  | 6.7       | 6.8 | 6.7   | 83.5              | 83.7 | 83.6  | 3.7             | 3.7 | 3.7 | 3.7                     | 5.2    | 5.3 | 5.3 | 5.4   |
|          |               |                 |                   |                              | Middle           | 17.2               | 17.2 | 17.2  | 30.2           | 30.2 | 30.2  | 6.6       | 6.6 | 6.6   | 81.7              | 81.9 | 81.8  | 3.6             | 3.6 | 3.6 | 3.6                     | 5.4    | 5.5 | 5.5 | 5.4   |
|          |               |                 |                   |                              | Bottom           | 17.3               | 17.4 | 17.4  | 30.3           | 30.4 | 30.4  | 6.3       | 6.4 | 6.4   | 79.1              | 79.3 | 79.2  | 3.5             | 3.6 | 3.5 | 3.5                     | 5.4    | 5.5 | 5.5 | 5.4   |
| S2       | 1146-1204     | 10.6            | W                 | 0.3                          | Surface          | 17.1               | 17.1 | 17.1  | 30.0           | 30.1 | 30.1  | 6.9       | 6.9 | 6.9   | 85.8              | 85.6 | 85.7  | 3.7             | 3.7 | 3.7 | 3.7                     | 4.9    | 5.0 | 5.0 | 5.0   |
|          |               |                 |                   |                              | Middle           | 17.2               | 17.3 | 17.3  | 30.1           | 30.2 | 30.2  | 6.7       | 6.7 | 6.7   | 83.5              | 83.3 | 83.4  | 3.7             | 3.7 | 3.7 | 3.6                     | 5.1    | 5.2 | 5.2 | 5.0   |
|          |               |                 |                   |                              | Bottom           | 17.4               | 17.4 | 17.4  | 30.3           | 30.4 | 30.4  | 6.4       | 6.4 | 6.4   | 79.7              | 79.9 | 79.8  | 3.5             | 3.5 | 3.5 | 3.5                     | 5.0    | 5.0 | 5.0 | 5.0   |
| G2       | 1123-1141     | 13.5            | W                 | 0.4                          | Surface          | 17.0               | 17.1 | 17.1  | 30.0           | 30.0 | 30.0  | 6.8       | 6.8 | 6.8   | 84.8              | 84.6 | 84.7  | 3.7             | 3.7 | 3.7 | 3.7                     | 5.0    | 4.9 | 5.0 | 5.0   |
|          |               |                 |                   |                              | Middle           | 17.2               | 17.2 | 17.2  | 30.1           | 30.2 | 30.2  | 6.7       | 6.7 | 6.7   | 83.0              | 82.8 | 82.9  | 3.7             | 3.7 | 3.7 | 3.6                     | 5.3    | 5.2 | 5.3 | 5.0   |
|          |               |                 |                   |                              | Bottom           | 17.3               | 17.4 | 17.4  | 30.3           | 30.3 | 30.3  | 6.4       | 6.4 | 6.4   | 80.1              | 79.8 | 80.0  | 3.4             | 3.5 | 3.5 | 3.5                     | 4.9    | 4.8 | 4.9 | 4.9   |
| S3       | 1100-1118     | 10.8            | W                 | 0.3                          | Surface          | 17.0               | 17.0 | 17.0  | 30.0           | 30.1 | 30.1  | 6.9       | 6.9 | 6.9   | 85.2              | 84.9 | 85.1  | 3.6             | 3.6 | 3.6 | 3.6                     | 4.6    | 4.7 | 4.7 | 4.8   |
|          |               |                 |                   |                              | Middle           | 17.1               | 17.2 | 17.2  | 30.2           | 30.3 | 30.3  | 6.7       | 6.7 | 6.7   | 83.3              | 83.1 | 83.2  | 3.8             | 3.8 | 3.8 | 3.7                     | 4.9    | 5.0 | 5.0 | 4.8   |
|          |               |                 |                   |                              | Bottom           | 17.3               | 17.4 | 17.4  | 30.4           | 30.4 | 30.4  | 6.5       | 6.5 | 6.5   | 80.7              | 81.0 | 80.9  | 3.5             | 3.6 | 3.6 | 3.6                     | 4.8    | 4.8 | 4.8 | 4.8   |

Remark or Obsevation:

Note: \* Average

\*\* Depth Average

|                 |            |
|-----------------|------------|
| Date:           | 28-Jan-14  |
| Weather:        | Fine       |
| Sea Conditions: | Small Wave |
| Zone A          |            |

| Location | Sampling Time | Water Depth (m) | Current direction | Current speed ( $m s^{-1}$ ) | Monitoring Depth | Temperrtature (°C) |      |       | Salinity (ppt) |      |       | DO (mg/l) |     |       | DO Saturation (%) |      |       | Turbidity (NTU) |     |     | Suspended Solids (mg/l) |        |     |     |       |
|----------|---------------|-----------------|-------------------|------------------------------|------------------|--------------------|------|-------|----------------|------|-------|-----------|-----|-------|-------------------|------|-------|-----------------|-----|-----|-------------------------|--------|-----|-----|-------|
|          |               |                 |                   |                              |                  | 1                  | 2    | Ave.* | 1              | 2    | Ave.* | 1         | 2   | Ave.* | 1                 | 2    | Ave.* | D.A.**          | 1   | 2   | Ave.*                   | D.A.** | 1   | 2   | Ave.* |
| C1       | 1500-1516     | 36.4            | W                 | 0.4                          | Surface          | 17.2               | 17.3 | 17.3  | 30.1           | 30.1 | 30.1  | 6.7       | 6.7 | 6.7   | 83.0              | 82.7 | 82.9  | 3.2             | 3.3 | 3.3 | 3.4                     | 3.8    | 3.9 | 3.9 | 4.4   |
|          |               |                 |                   |                              | Middle           | 17.3               | 17.4 | 17.4  | 30.2           | 30.3 | 30.3  | 6.7       | 6.7 | 6.7   | 83.4              | 83.9 | 83.7  | 3.4             | 3.5 | 3.4 | 3.4                     | 4.6    | 4.5 | 4.6 | 4.4   |
|          |               |                 |                   |                              | Bottom           | 17.4               | 17.5 | 17.5  | 30.4           | 30.5 | 30.5  | 6.5       | 6.5 | 6.5   | 81.5              | 81.0 | 81.3  | 3.5             | 3.6 | 3.6 | 3.5                     | 4.7    | 4.8 | 4.8 |       |
| E8       | 1522-1539     | 19.8            | W                 | 0.3                          | Surface          | 17.1               | 17.2 | 17.2  | 30.1           | 30.1 | 30.1  | 6.7       | 6.8 | 6.7   | 83.5              | 84.0 | 83.8  | 3.2             | 3.2 | 3.2 | 3.5                     | 3.9    | 4.0 | 4.0 |       |
|          |               |                 |                   |                              | Middle           | 17.3               | 17.4 | 17.4  | 30.3           | 30.4 | 30.4  | 6.6       | 6.6 | 6.6   | 82.3              | 82.7 | 82.5  | 3.6             | 3.6 | 3.6 | 3.5                     | 4.7    | 4.8 | 4.8 | 4.4   |
|          |               |                 |                   |                              | Bottom           | 17.5               | 17.6 | 17.6  | 30.4           | 30.4 | 30.4  | 6.5       | 6.5 | 6.5   | 81.1              | 80.7 | 80.9  | 3.8             | 3.8 | 3.8 | 3.5                     | 4.6    | 4.6 | 4.6 |       |
| S1       | 1545-1601     | 10.2            | W                 | 0.4                          | Surface          | 17.2               | 17.3 | 17.3  | 30.2           | 30.1 | 30.2  | 6.8       | 6.8 | 6.8   | 84.4              | 84.0 | 84.2  | 3.2             | 3.2 | 3.2 | 3.4                     | 3.7    | 3.8 | 3.8 |       |
|          |               |                 |                   |                              | Middle           | 17.4               | 17.3 | 17.4  | 30.2           | 30.3 | 30.3  | 6.7       | 6.7 | 6.7   | 83.0              | 83.3 | 83.2  | 3.3             | 3.4 | 3.4 | 3.4                     | 4.1    | 4.2 | 4.2 | 4.2   |
|          |               |                 |                   |                              | Bottom           | 17.5               | 17.5 | 17.5  | 30.5           | 30.4 | 30.5  | 6.5       | 6.5 | 6.5   | 81.2              | 80.9 | 81.1  | 3.5             | 3.6 | 3.5 | 3.5                     | 4.6    | 4.7 | 4.7 |       |
| G1       | 1605-1620     | 11.4            | W                 | 0.4                          | Surface          | 17.3               | 17.2 | 17.3  | 30.1           | 30.1 | 30.1  | 6.8       | 6.8 | 6.8   | 85.1              | 84.6 | 84.9  | 3.4             | 3.4 | 3.4 | 3.5                     | 4.3    | 4.4 | 4.4 |       |
|          |               |                 |                   |                              | Middle           | 17.3               | 17.4 | 17.4  | 30.3           | 30.3 | 30.3  | 6.8       | 6.8 | 6.8   | 84.2              | 84.1 | 84.2  | 3.5             | 3.5 | 3.5 | 3.5                     | 4.6    | 4.7 | 4.7 | 4.5   |
|          |               |                 |                   |                              | Bottom           | 17.4               | 17.5 | 17.5  | 30.4           | 30.4 | 30.4  | 6.5       | 6.5 | 6.5   | 80.7              | 80.4 | 80.6  | 3.6             | 3.7 | 3.7 | 3.5                     | 4.5    | 4.7 | 4.6 |       |
| E7       | 1628-1644     | 12.8            | W                 | 0.4                          | Surface          | 17.2               | 17.2 | 17.2  | 30.1           | 30.2 | 30.2  | 6.6       | 6.6 | 6.6   | 82.5              | 82.1 | 82.3  | 3.3             | 3.4 | 3.3 | 3.5                     | 4.0    | 4.2 | 4.1 |       |
|          |               |                 |                   |                              | Middle           | 17.3               | 17.4 | 17.4  | 30.2           | 30.3 | 30.3  | 6.7       | 6.8 | 6.8   | 83.9              | 84.4 | 84.2  | 3.5             | 3.5 | 3.5 | 3.5                     | 4.6    | 4.5 | 4.6 | 4.5   |
|          |               |                 |                   |                              | Bottom           | 17.5               | 17.4 | 17.5  | 30.4           | 30.4 | 30.4  | 6.6       | 6.6 | 6.6   | 82.1              | 81.6 | 81.9  | 3.6             | 3.6 | 3.6 | 3.5                     | 4.7    | 4.8 | 4.8 |       |
| F1       | 1651-1707     | 11.4            | W                 | 0.4                          | Surface          | 17.2               | 17.2 | 17.2  | 30.1           | 30.2 | 30.2  | 6.7       | 6.7 | 6.7   | 83.5              | 83.4 | 83.5  | 3.4             | 3.5 | 3.4 | 3.5                     | 4.3    | 4.4 | 4.4 |       |
|          |               |                 |                   |                              | Middle           | 17.3               | 17.3 | 17.3  | 30.2           | 30.3 | 30.3  | 6.6       | 6.6 | 6.6   | 82.6              | 82.1 | 82.4  | 3.5             | 3.6 | 3.6 | 3.6                     | 4.6    | 4.5 | 4.6 | 4.6   |
|          |               |                 |                   |                              | Bottom           | 17.5               | 17.5 | 17.5  | 30.5           | 30.5 | 30.5  | 6.6       | 6.5 | 6.5   | 81.6              | 81.0 | 81.3  | 3.7             | 3.7 | 3.7 | 3.7                     | 4.8    | 4.9 | 4.9 |       |
| G3       | 1715-1731     | 13.2            | W                 | 0.3                          | Surface          | 17.3               | 17.2 | 17.3  | 30.2           | 30.1 | 30.2  | 6.7       | 6.7 | 6.7   | 82.7              | 83.0 | 82.9  | 3.5             | 3.5 | 3.5 | 3.5                     | 4.6    | 4.5 | 4.6 |       |
|          |               |                 |                   |                              | Middle           | 17.3               | 17.4 | 17.4  | 30.3           | 30.2 | 30.3  | 6.5       | 6.6 | 6.6   | 81.4              | 81.6 | 81.5  | 3.6             | 3.7 | 3.6 | 3.7                     | 4.8    | 5.0 | 4.9 | 4.9   |
|          |               |                 |                   |                              | Bottom           | 17.4               | 17.5 | 17.5  | 30.4           | 30.5 | 30.5  | 6.5       | 6.5 | 6.5   | 80.4              | 80.8 | 80.6  | 3.9             | 3.9 | 3.9 | 3.9                     | 5.2    | 5.1 | 5.2 |       |
| E9       | 1738-1755     | 18.8            | W                 | 0.4                          | Surface          | 17.2               | 17.2 | 17.2  | 30.1           | 30.1 | 30.1  | 6.6       | 6.6 | 6.6   | 82.0              | 82.5 | 82.3  | 3.5             | 3.5 | 3.5 | 3.5                     | 4.8    | 4.7 | 4.8 |       |
|          |               |                 |                   |                              | Middle           | 17.3               | 17.4 | 17.4  | 30.2           | 30.3 | 30.3  | 6.5       | 6.5 | 6.5   | 81.2              | 80.8 | 81.0  | 3.6             | 3.6 | 3.6 | 3.6                     | 5.0    | 5.1 | 5.1 | 5.1   |
|          |               |                 |                   |                              | Bottom           | 17.5               | 17.5 | 17.5  | 30.4           | 30.5 | 30.5  | 6.4       | 6.5 | 6.4   | 79.9              | 80.5 | 80.2  | 3.8             | 3.8 | 3.8 | 3.8                     | 5.3    | 5.4 | 5.4 |       |
| S2       | 1801-1817     | 11.0            | W                 | 0.4                          | Surface          | 17.3               | 17.2 | 17.3  | 30.1           | 30.1 | 30.1  | 6.6       | 6.6 | 6.6   | 82.5              | 82.0 | 82.3  | 3.4             | 3.3 | 3.4 | 3.5                     | 3.9    | 3.8 | 3.9 |       |
|          |               |                 |                   |                              | Middle           | 17.3               | 17.3 | 17.3  | 30.2           | 30.3 | 30.3  | 6.5       | 6.6 | 6.5   | 81.1              | 81.6 | 81.4  | 3.5             | 3.6 | 3.5 | 3.5                     | 4.3    | 4.5 | 4.4 | 4.3   |
|          |               |                 |                   |                              | Bottom           | 17.4               | 17.5 | 17.5  | 30.5           | 30.4 | 30.5  | 6.6       | 6.6 | 6.6   | 82.7              | 82.2 | 82.5  | 3.7             | 3.7 | 3.7 | 3.7                     | 4.6    | 4.7 | 4.7 |       |
| G2       | 1821-1838     | 13.6            | W                 | 0.5                          | Surface          | 17.2               | 17.2 | 17.2  | 30.2           | 30.1 | 30.2  | 6.6       | 6.6 | 6.6   | 81.6              | 82.0 | 81.8  | 3.5             | 3.6 | 3.5 | 3.5                     | 4.6    | 4.7 | 4.7 |       |
|          |               |                 |                   |                              | Middle           | 17.3               | 17.2 | 17.3  | 30.3           | 30.3 | 30.3  | 6.7       | 6.7 | 6.7   | 83.1              | 83.4 | 83.3  | 3.7             | 3.7 | 3.7 | 3.7                     | 4.9    | 5.0 | 5.0 | 5.0   |
|          |               |                 |                   |                              | Bottom           | 17.5               | 17.4 | 17.5  | 30.4           | 30.5 | 30.5  | 6.5       | 6.5 | 6.5   | 80.7              | 81.0 | 80.9  | 3.9             | 3.9 | 3.9 | 3.9                     | 5.2    | 5.4 | 5.3 |       |
| S3       | 1843-1900     | 11.2            | W                 | 0.4                          | Surface          | 17.2               | 17.3 | 17.3  | 30.2           | 30.2 | 30.2  | 6.6       | 6.7 | 6.7   | 82.5              | 83.0 | 82.8  | 3.5             | 3.5 | 3.5 | 3.5                     | 4.4    | 4.5 | 4.5 |       |
|          |               |                 |                   |                              | Middle           | 17.3               | 17.4 | 17.4  | 30.3           | 30.4 | 30.4  | 6.6       | 6.6 | 6.6   | 81.7              | 81.5 | 81.6  | 3.8             | 3.8 | 3.8 | 3.8                     | 5.0    | 5.2 | 5.1 | 5.0   |
|          |               |                 |                   |                              | Bottom           | 17.4               | 17.5 | 17.5  | 30.5           | 30.5 | 30.5  | 6.5       | 6.5 | 6.5   | 80.9              | 80.6 | 80.8  | 4.0             | 4.0 | 4.0 | 4.0                     | 5.5    | 5.4 | 5.5 |       |

Remark or Obsevation:

Note: \* Average

\*\* Depth Average

|                 |            |
|-----------------|------------|
| Date:           | 28-Jan-14  |
| Weather:        | Fine       |
| Sea Conditions: | Small Wave |
| Zone A          |            |

| Location | Sampling Time | Water Depth (m) | Current direction | Current speed ( $m s^{-1}$ ) | Monitoring Depth | Temperrtature (°C) |      |       | Salinity (ppt) |      |       | DO (mg/l) |     |       | DO Saturation (%) |      |       | Turbidity (NTU) |     |     | Suspended Solids (mg/l) |        |     |     |       |
|----------|---------------|-----------------|-------------------|------------------------------|------------------|--------------------|------|-------|----------------|------|-------|-----------|-----|-------|-------------------|------|-------|-----------------|-----|-----|-------------------------|--------|-----|-----|-------|
|          |               |                 |                   |                              |                  | 1                  | 2    | Ave.* | 1              | 2    | Ave.* | 1         | 2   | Ave.* | 1                 | 2    | Ave.* | D.A.**          | 1   | 2   | Ave.*                   | D.A.** | 1   | 2   | Ave.* |
| C1       | 2238-2300     | 35.4            | W                 | 0.4                          | Surface          | 17.2               | 17.1 | 17.2  | 30.2           | 30.2 | 30.2  | 6.7       | 6.8 | 6.7   | 83.6              | 84.0 | 83.8  | 3.4             | 3.3 | 3.3 |                         | 4.2    | 4.2 | 4.2 |       |
|          |               |                 |                   |                              | Middle           | 17.3               | 17.3 | 17.3  | 30.3           | 30.3 | 30.3  | 6.7       | 6.6 | 6.6   | 82.7              | 82.5 | 82.6  | 3.5             | 3.6 | 3.6 | 3.6                     | 4.5    | 4.6 | 4.6 | 4.6   |
|          |               |                 |                   |                              | Bottom           | 17.5               | 17.4 | 17.5  | 30.5           | 30.5 | 30.5  | 6.5       | 6.5 | 6.5   | 80.9              | 81.3 | 81.1  | 3.8             | 3.8 | 3.8 |                         | 5.0    | 5.1 | 5.1 |       |
| E8       | 2215-2231     | 19.1            | W                 | 0.5                          | Surface          | 17.1               | 17.2 | 17.2  | 30.1           | 30.1 | 30.1  | 6.7       | 6.7 | 6.7   | 83.4              | 83.7 | 83.6  | 3.5             | 3.5 | 3.5 |                         | 4.7    | 4.8 | 4.8 |       |
|          |               |                 |                   |                              | Middle           | 17.2               | 17.3 | 17.3  | 30.2           | 30.3 | 30.3  | 6.7       | 6.7 | 6.7   | 83.1              | 83.4 | 83.3  | 3.6             | 3.6 | 3.6 | 3.6                     | 4.6    | 4.7 | 4.7 | 4.8   |
|          |               |                 |                   |                              | Bottom           | 17.4               | 17.5 | 17.5  | 30.5           | 30.4 | 30.5  | 6.5       | 6.6 | 6.6   | 81.5              | 81.9 | 81.7  | 3.7             | 3.7 | 3.7 |                         | 4.9    | 5.0 | 5.0 |       |
| S1       | 2154-2210     | 10.8            | W                 | 0.4                          | Surface          | 17.1               | 17.2 | 17.2  | 30.1           | 30.2 | 30.2  | 6.6       | 6.5 | 6.6   | 81.5              | 81.4 | 81.5  | 3.4             | 3.5 | 3.4 |                         | 4.2    | 4.3 | 4.3 |       |
|          |               |                 |                   |                              | Middle           | 17.2               | 17.3 | 17.3  | 30.2           | 30.3 | 30.3  | 6.6       | 6.6 | 6.6   | 82.4              | 82.5 | 82.5  | 3.6             | 3.7 | 3.6 | 3.5                     | 4.8    | 4.9 | 4.9 | 4.6   |
|          |               |                 |                   |                              | Bottom           | 17.4               | 17.5 | 17.5  | 30.4           | 30.5 | 30.5  | 6.5       | 6.5 | 6.5   | 80.5              | 81.1 | 80.8  | 3.5             | 3.6 | 3.6 |                         | 4.7    | 4.8 | 4.8 |       |
| G1       | 2133-2149     | 11.3            | W                 | 0.4                          | Surface          | 17.1               | 17.2 | 17.2  | 30.1           | 30.1 | 30.1  | 6.8       | 6.8 | 6.8   | 84.8              | 84.6 | 84.7  | 3.5             | 3.6 | 3.5 |                         | 4.2    | 4.3 | 4.3 |       |
|          |               |                 |                   |                              | Middle           | 17.3               | 17.2 | 17.3  | 30.2           | 30.3 | 30.3  | 6.7       | 6.7 | 6.7   | 83.8              | 83.9 | 83.9  | 3.6             | 3.6 | 3.6 | 3.7                     | 4.9    | 4.8 | 4.9 | 4.7   |
|          |               |                 |                   |                              | Bottom           | 17.5               | 17.4 | 17.5  | 30.4           | 30.5 | 30.5  | 6.5       | 6.5 | 6.5   | 81.2              | 81.4 | 81.3  | 3.8             | 3.9 | 3.9 |                         | 5.0    | 5.0 | 5.0 |       |
| E7       | 2110-2126     | 12.2            | W                 | 0.5                          | Surface          | 17.2               | 17.2 | 17.2  | 30.2           | 30.1 | 30.2  | 6.7       | 6.7 | 6.7   | 83.4              | 83.8 | 83.6  | 3.5             | 3.5 | 3.5 |                         | 4.3    | 4.2 | 4.3 |       |
|          |               |                 |                   |                              | Middle           | 17.2               | 17.3 | 17.3  | 30.3           | 30.4 | 30.4  | 6.5       | 6.6 | 6.6   | 81.4              | 82.2 | 81.8  | 3.6             | 3.7 | 3.7 | 3.6                     | 4.6    | 4.8 | 4.7 | 4.6   |
|          |               |                 |                   |                              | Bottom           | 17.4               | 17.4 | 17.4  | 30.5           | 30.4 | 30.5  | 6.4       | 6.4 | 6.4   | 79.9              | 80.5 | 80.2  | 3.5             | 3.5 | 3.5 |                         | 4.9    | 5.0 | 5.0 |       |
| F1       | 2048-2104     | 11.6            | W                 | 0.4                          | Surface          | 17.1               | 17.1 | 17.1  | 30.1           | 30.1 | 30.1  | 6.8       | 6.9 | 6.9   | 85.0              | 85.5 | 85.3  | 3.5             | 3.5 | 3.5 |                         | 4.4    | 4.3 | 4.4 |       |
|          |               |                 |                   |                              | Middle           | 17.3               | 17.2 | 17.3  | 30.3           | 30.3 | 30.3  | 6.7       | 6.7 | 6.7   | 83.0              | 82.7 | 82.9  | 3.7             | 3.7 | 3.7 | 3.6                     | 4.9    | 4.8 | 4.9 | 4.7   |
|          |               |                 |                   |                              | Bottom           | 17.4               | 17.5 | 17.5  | 30.4           | 30.4 | 30.4  | 6.4       | 6.5 | 6.4   | 79.9              | 80.5 | 80.2  | 3.5             | 3.5 | 3.5 |                         | 5.0    | 4.9 | 5.0 |       |
| G3       | 2023-2039     | 13.1            | W                 | 0.5                          | Surface          | 17.1               | 17.2 | 17.2  | 30.1           | 30.2 | 30.2  | 6.7       | 6.7 | 6.7   | 83.6              | 83.3 | 83.5  | 3.7             | 3.7 | 3.7 |                         | 4.7    | 4.8 | 4.8 |       |
|          |               |                 |                   |                              | Middle           | 17.2               | 17.2 | 17.2  | 30.2           | 30.3 | 30.3  | 6.8       | 6.8 | 6.8   | 84.4              | 84.6 | 84.5  | 3.7             | 3.7 | 3.7 | 3.7                     | 4.9    | 4.8 | 4.9 | 4.9   |
|          |               |                 |                   |                              | Bottom           | 17.3               | 17.4 | 17.4  | 30.4           | 30.5 | 30.5  | 6.5       | 6.5 | 6.5   | 81.4              | 80.9 | 81.2  | 3.8             | 3.8 | 3.8 |                         | 5.2    | 5.1 | 5.2 |       |
| E9       | 2003-2018     | 18.5            | W                 | 0.4                          | Surface          | 17.1               | 17.2 | 17.2  | 30.1           | 30.2 | 30.2  | 6.8       | 6.8 | 6.8   | 84.9              | 85.1 | 85.0  | 3.5             | 3.5 | 3.5 |                         | 4.6    | 4.7 | 4.7 |       |
|          |               |                 |                   |                              | Middle           | 17.3               | 17.2 | 17.3  | 30.2           | 30.3 | 30.3  | 6.5       | 6.5 | 6.5   | 81.0              | 80.9 | 81.0  | 3.6             | 3.6 | 3.6 | 3.7                     | 5.0    | 4.9 | 5.0 | 5.0   |
|          |               |                 |                   |                              | Bottom           | 17.4               | 17.5 | 17.5  | 30.5           | 30.5 | 30.5  | 6.5       | 6.4 | 6.5   | 80.6              | 80.1 | 80.4  | 3.9             | 3.9 | 3.9 |                         | 5.3    | 5.4 | 5.4 |       |
| S2       | 1943-1958     | 11.4            | W                 | 0.5                          | Surface          | 17.2               | 17.1 | 17.2  | 30.1           | 30.1 | 30.1  | 6.7       | 6.8 | 6.7   | 83.6              | 83.9 | 83.8  | 3.5             | 3.5 | 3.5 |                         | 4.7    | 4.6 | 4.7 |       |
|          |               |                 |                   |                              | Middle           | 17.2               | 17.3 | 17.3  | 30.3           | 30.3 | 30.3  | 6.5       | 6.6 | 6.6   | 81.4              | 82.1 | 81.8  | 3.8             | 3.8 | 3.8 | 3.7                     | 4.9    | 5.0 | 5.0 | 5.0   |
|          |               |                 |                   |                              | Bottom           | 17.4               | 17.4 | 17.4  | 30.5           | 30.4 | 30.5  | 6.3       | 6.4 | 6.3   | 78.9              | 79.1 | 79.0  | 3.9             | 3.9 | 3.9 |                         | 5.3    | 5.4 | 5.4 |       |
| G2       | 1923-1938     | 13.2            | W                 | 0.4                          | Surface          | 17.1               | 17.2 | 17.2  | 30.1           | 30.2 | 30.2  | 6.6       | 6.7 | 6.6   | 82.5              | 82.7 | 82.6  | 3.5             | 3.5 | 3.5 |                         | 4.6    | 4.7 | 4.7 |       |
|          |               |                 |                   |                              | Middle           | 17.2               | 17.3 | 17.3  | 30.3           | 30.4 | 30.4  | 6.7       | 6.7 | 6.7   | 83.4              | 83.7 | 83.6  | 3.7             | 3.8 | 3.8 | 3.7                     | 4.3    | 4.4 | 4.4 | 4.7   |
|          |               |                 |                   |                              | Bottom           | 17.5               | 17.4 | 17.5  | 30.4           | 30.5 | 30.5  | 6.4       | 6.4 | 6.4   | 79.6              | 79.4 | 79.5  | 3.8             | 3.8 | 3.8 |                         | 5.0    | 5.1 | 5.1 |       |
| S3       | 1900-1917     | 11.0            | W                 | 0.4                          | Surface          | 17.3               | 17.2 | 17.3  | 30.1           | 30.1 | 30.1  | 6.7       | 6.7 | 6.7   | 83.8              | 83.4 | 83.6  | 3.4             | 3.5 | 3.4 |                         | 4.6    | 4.7 | 4.7 |       |
|          |               |                 |                   |                              | Middle           | 17.4               | 17.3 | 17.4  | 30.2           | 30.3 | 30.3  | 6.6       | 6.6 | 6.6   | 81.9              | 82.2 | 82.1  | 3.6             | 3.7 | 3.7 | 3.6                     | 4.9    | 4.9 | 4.9 | 4.9   |
|          |               |                 |                   |                              | Bottom           | 17.5               | 17.5 | 17.5  | 30.4           | 30.5 | 30.5  | 6.4       | 6.5 | 6.4   | 79.9              | 80.4 | 80.2  | 3.8             | 3.8 | 3.8 |                         | 5.3    | 5.2 | 5.3 |       |

Remark or Obsevation:

Note: \* Average

\*\* Depth Average

|                 |            |
|-----------------|------------|
| Date:           | 29-Jan-14  |
| Weather:        | Fine       |
| Sea Conditions: | Small Wave |
| Zone A          |            |

| Location | Sampling Time | Water Depth (m) | Current direction | Current speed ( $m s^{-1}$ ) | Monitoring Depth | Temperrature (°C) |      |       | Salinity (ppt) |      |       | DO (mg/l) |     |       | DO Saturation (%) |      |       | Turbidity (NTU) |     |     | Suspended Solids (mg/l) |        |     |     |       |
|----------|---------------|-----------------|-------------------|------------------------------|------------------|-------------------|------|-------|----------------|------|-------|-----------|-----|-------|-------------------|------|-------|-----------------|-----|-----|-------------------------|--------|-----|-----|-------|
|          |               |                 |                   |                              |                  | 1                 | 2    | Ave.* | 1              | 2    | Ave.* | 1         | 2   | Ave.* | 1                 | 2    | Ave.* | D.A.**          | 1   | 2   | Ave.*                   | D.A.** | 1   | 2   | Ave.* |
| C1       | 0700-0716     | 35.2            | E                 | 0.4                          | Surface          | 16.8              | 16.8 | 16.8  | 29.7           | 29.7 | 29.7  | 6.8       | 6.9 | 6.8   | 84.2              | 85.1 | 84.7  | 3.8             | 3.9 | 3.9 | 3.6                     | 5.2    | 5.2 | 5.2 | 4.8   |
|          |               |                 |                   |                              | Middle           | 16.9              | 16.8 | 16.9  | 29.8           | 29.8 | 29.8  | 6.5       | 6.5 | 6.5   | 80.8              | 80.9 | 80.9  | 3.3             | 3.3 | 3.3 | 3.6                     | 4.5    | 4.6 | 4.6 | 4.8   |
|          |               |                 |                   |                              | Bottom           | 16.9              | 16.9 | 16.9  | 29.9           | 29.9 | 29.9  | 6.5       | 6.4 | 6.4   | 79.9              | 79.5 | 79.7  | 3.6             | 3.6 | 3.6 | 3.6                     | 4.7    | 4.8 | 4.8 | 4.8   |
| E8       | 0724-0741     | 17.8            | E                 | 0.3                          | Surface          | 16.8              | 16.8 | 16.8  | 29.7           | 29.7 | 29.7  | 6.7       | 6.6 | 6.6   | 82.2              | 81.9 | 82.1  | 4.0             | 3.9 | 4.0 | 4.1                     | 5.4    | 5.2 | 5.3 | 5.3   |
|          |               |                 |                   |                              | Middle           | 16.9              | 16.9 | 16.9  | 29.8           | 29.9 | 29.9  | 6.4       | 6.3 | 6.4   | 78.8              | 78.4 | 78.6  | 4.1             | 4.1 | 4.1 | 4.1                     | 4.9    | 4.9 | 4.9 | 5.1   |
|          |               |                 |                   |                              | Bottom           | 16.9              | 16.9 | 16.9  | 29.9           | 29.9 | 29.9  | 6.4       | 6.5 | 6.4   | 79.3              | 80.0 | 79.7  | 4.2             | 4.2 | 4.2 | 4.2                     | 5.2    | 5.1 | 5.1 | 5.2   |
| S1       | 0744-0806     | 8.6             | E                 | 0.3                          | Surface          | 16.8              | 16.8 | 16.8  | 29.7           | 29.7 | 29.7  | 6.8       | 6.7 | 6.7   | 83.5              | 82.9 | 83.2  | 3.4             | 3.4 | 3.4 | 3.3                     | 4.3    | 4.4 | 4.4 | 4.4   |
|          |               |                 |                   |                              | Middle           | 16.8              | 16.9 | 16.9  | 29.8           | 29.8 | 29.8  | 6.7       | 6.6 | 6.6   | 82.5              | 81.6 | 82.1  | 3.2             | 3.2 | 3.2 | 3.3                     | 4.6    | 4.5 | 4.6 | 4.5   |
|          |               |                 |                   |                              | Bottom           | 16.9              | 16.9 | 16.9  | 29.9           | 29.9 | 29.9  | 6.3       | 6.4 | 6.4   | 78.4              | 78.9 | 78.7  | 3.3             | 3.4 | 3.3 | 3.3                     | 4.4    | 4.5 | 4.5 | 4.5   |
| G1       | 0811-0825     | 10.6            | E                 | 0.3                          | Surface          | 16.8              | 16.8 | 16.8  | 29.7           | 29.8 | 29.8  | 6.9       | 7.0 | 6.9   | 85.6              | 86.2 | 85.9  | 2.9             | 2.8 | 2.8 | 3.2                     | 3.7    | 3.6 | 3.7 | 3.7   |
|          |               |                 |                   |                              | Middle           | 16.8              | 16.9 | 16.9  | 29.9           | 29.9 | 29.9  | 6.5       | 6.5 | 6.5   | 80.6              | 80.5 | 80.6  | 3.1             | 3.2 | 3.1 | 3.2                     | 3.8    | 3.8 | 3.8 | 4.1   |
|          |               |                 |                   |                              | Bottom           | 16.9              | 16.9 | 16.9  | 29.9           | 29.9 | 29.9  | 6.5       | 6.5 | 6.5   | 79.2              | 79.9 | 79.6  | 3.6             | 3.7 | 3.6 | 3.6                     | 4.7    | 4.8 | 4.8 | 4.8   |
| E7       | 0830-0835     | 12.6            | E                 | 0.3                          | Surface          | 16.8              | 16.9 | 16.9  | 29.8           | 29.9 | 29.9  | 6.6       | 6.5 | 6.5   | 81.1              | 80.4 | 80.8  | 3.2             | 3.3 | 3.2 | 3.5                     | 3.8    | 3.9 | 3.9 | 3.9   |
|          |               |                 |                   |                              | Middle           | 16.9              | 16.9 | 16.9  | 29.9           | 29.9 | 29.9  | 6.8       | 6.7 | 6.8   | 83.9              | 83.4 | 83.7  | 3.8             | 3.8 | 3.8 | 3.5                     | 4.6    | 4.7 | 4.7 | 4.4   |
|          |               |                 |                   |                              | Bottom           | 16.8              | 16.9 | 16.9  | 29.9           | 29.9 | 29.9  | 6.1       | 6.1 | 6.1   | 75.7              | 75.8 | 75.8  | 3.4             | 3.3 | 3.4 | 3.4                     | 4.6    | 4.5 | 4.6 | 4.6   |
| F1       | 0852-0911     | 11.4            | E                 | 0.3                          | Surface          | 16.8              | 16.8 | 16.8  | 29.8           | 29.8 | 29.8  | 6.7       | 6.7 | 6.7   | 83.4              | 80.7 | 82.1  | 3.8             | 3.8 | 3.8 | 3.9                     | 5.2    | 5.3 | 5.3 | 5.3   |
|          |               |                 |                   |                              | Middle           | 16.9              | 16.9 | 16.9  | 29.9           | 29.9 | 29.9  | 6.4       | 6.3 | 6.3   | 78.5              | 78.0 | 78.3  | 4.0             | 4.0 | 4.0 | 3.9                     | 4.9    | 5.1 | 5.0 | 5.0   |
|          |               |                 |                   |                              | Bottom           | 16.9              | 16.8 | 16.9  | 29.9           | 29.9 | 29.9  | 6.3       | 6.4 | 6.4   | 78.2              | 79.0 | 78.6  | 4.1             | 4.0 | 4.0 | 4.0                     | 4.8    | 4.7 | 4.8 | 4.8   |
| G3       | 0915-0936     | 14.8            | E                 | 0.4                          | Surface          | 16.8              | 16.7 | 16.8  | 29.8           | 29.8 | 29.8  | 6.6       | 6.6 | 6.6   | 81.6              | 82.1 | 81.9  | 3.5             | 3.4 | 3.4 | 3.6                     | 4.3    | 4.2 | 4.3 | 4.3   |
|          |               |                 |                   |                              | Middle           | 16.9              | 16.9 | 16.9  | 29.9           | 29.9 | 29.9  | 6.7       | 6.7 | 6.7   | 83.1              | 83.2 | 83.2  | 3.5             | 3.5 | 3.5 | 3.6                     | 4.6    | 4.8 | 4.7 | 4.6   |
|          |               |                 |                   |                              | Bottom           | 16.8              | 16.9 | 16.9  | 29.9           | 29.9 | 29.9  | 6.3       | 6.4 | 6.3   | 78.3              | 78.7 | 78.5  | 3.7             | 3.7 | 3.7 | 3.7                     | 5.0    | 4.8 | 4.9 | 4.9   |
| E9       | 0944-1000     | 17.0            | E                 | 0.3                          | Surface          | 16.9              | 16.9 | 16.9  | 29.8           | 29.9 | 29.9  | 6.7       | 6.7 | 6.7   | 82.4              | 82.7 | 82.6  | 3.3             | 3.3 | 3.3 | 3.7                     | 4.2    | 4.1 | 4.2 | 4.6   |
|          |               |                 |                   |                              | Middle           | 16.9              | 16.9 | 16.9  | 29.8           | 29.9 | 29.9  | 6.5       | 6.4 | 6.4   | 80.0              | 79.3 | 79.7  | 3.7             | 3.7 | 3.7 | 3.7                     | 4.7    | 4.7 | 4.7 | 4.6   |
|          |               |                 |                   |                              | Bottom           | 16.8              | 16.8 | 16.8  | 29.9           | 29.9 | 29.9  | 6.1       | 6.0 | 6.0   | 75.0              | 71.8 | 73.4  | 4.2             | 4.1 | 4.2 | 4.2                     | 4.9    | 4.7 | 4.8 | 4.8   |
| S2       | 1005-1021     | 11.0            | E                 | 0.4                          | Surface          | 16.8              | 16.8 | 16.8  | 29.8           | 29.8 | 29.8  | 6.9       | 6.8 | 6.8   | 84.8              | 84.1 | 84.5  | 2.5             | 2.5 | 2.5 | 3.0                     | 3.2    | 3.2 | 3.2 | 3.7   |
|          |               |                 |                   |                              | Middle           | 16.9              | 16.9 | 16.9  | 29.9           | 29.9 | 29.9  | 6.6       | 6.6 | 6.6   | 81.1              | 81.5 | 81.3  | 3.2             | 3.2 | 3.2 | 3.0                     | 3.7    | 3.7 | 3.7 | 3.7   |
|          |               |                 |                   |                              | Bottom           | 16.8              | 16.8 | 16.8  | 29.9           | 29.9 | 29.9  | 6.2       | 6.3 | 6.3   | 77.2              | 77.7 | 77.5  | 3.4             | 3.4 | 3.4 | 3.4                     | 4.0    | 4.1 | 4.1 | 4.1   |
| G2       | 1025-1041     | 13.0            | E                 | 0.4                          | Surface          | 16.9              | 16.9 | 16.9  | 29.8           | 29.8 | 29.8  | 6.7       | 6.7 | 6.7   | 83.4              | 83.1 | 83.3  | 3.2             | 3.2 | 3.2 | 3.4                     | 3.7    | 3.8 | 3.8 | 3.8   |
|          |               |                 |                   |                              | Middle           | 16.9              | 16.9 | 16.9  | 29.9           | 29.9 | 29.9  | 6.6       | 6.5 | 6.6   | 81.5              | 80.9 | 81.2  | 3.3             | 3.3 | 3.3 | 3.4                     | 4.1    | 4.1 | 4.1 | 4.1   |
|          |               |                 |                   |                              | Bottom           | 16.9              | 16.9 | 16.9  | 29.9           | 29.9 | 29.9  | 6.6       | 6.7 | 6.7   | 82.0              | 82.7 | 82.4  | 3.6             | 3.5 | 3.6 | 3.4                     | 4.6    | 4.4 | 4.5 | 4.5   |
| S3       | 1045-1100     | 11.0            | E                 | 0.4                          | Surface          | 16.9              | 16.9 | 16.9  | 29.9           | 29.9 | 29.9  | 6.8       | 6.8 | 6.8   | 84.4              | 84.6 | 84.5  | 3.2             | 3.2 | 3.2 | 3.4                     | 3.8    | 3.7 | 3.8 | 3.8   |
|          |               |                 |                   |                              | Middle           | 16.9              | 16.8 | 16.9  | 29.8           | 29.9 | 29.9  | 6.5       | 6.4 | 6.4   | 80.1              | 79.3 | 79.7  | 3.5             | 3.4 | 3.4 | 3.4                     | 4.3    | 4.1 | 4.2 | 4.2   |
|          |               |                 |                   |                              | Bottom           | 16.8              | 16.8 | 16.8  | 29.9           | 29.9 | 29.9  | 6.9       | 6.4 | 6.7   | 78.4              | 79.0 | 78.7  | 3.6             | 3.8 | 3.7 | 3.7                     | 4.5    | 4.7 | 4.6 | 4.6   |

Remark or Obsevation:

Note: \* Average

\*\* Depth Average

Date: 29-Jan-14  
 Weather: Fine  
 Sea Conditions: Small Wave  
 Zone A

| Location | Sampling Time | Water Depth (m) | Current direction | Current speed ( $\text{ms}^{-1}$ ) | Monitoring Depth | Temperrature (°C) |      |       | Salinity (ppt) |      |       | DO (mg/l) |     |       | DO Saturation (%) |      |       | Turbidity (NTU) |     |     | Suspended Solids (mg/l) |        |     |     |       |        |
|----------|---------------|-----------------|-------------------|------------------------------------|------------------|-------------------|------|-------|----------------|------|-------|-----------|-----|-------|-------------------|------|-------|-----------------|-----|-----|-------------------------|--------|-----|-----|-------|--------|
|          |               |                 |                   |                                    |                  | 1                 | 2    | Ave.* | 1              | 2    | Ave.* | 1         | 2   | Ave.* | 1                 | 2    | Ave.* | D.A.**          | 1   | 2   | Ave.*                   | D.A.** | 1   | 2   | Ave.* | D.A.** |
| C1       | 1443-1500     | 36.4            | W                 | 0.3                                | Surface          | 16.8              | 16.8 | 16.8  | 29.8           | 29.8 | 29.8  | 6.8       | 6.9 | 6.8   | 84.5              | 84.9 | 84.7  | 2.5             | 2.5 | 2.5 | 2.5                     | 3.2    | 3.1 | 3.2 | 3.7   |        |
|          |               |                 |                   |                                    | Middle           | 16.9              | 16.9 | 16.9  | 29.9           | 29.9 | 29.9  | 6.6       | 6.7 | 6.7   | 82.1              | 82.4 | 82.3  | 3.2             | 3.3 | 3.2 | 3.2                     | 3.6    | 3.7 | 3.7 | 3.7   |        |
|          |               |                 |                   |                                    | Bottom           | 16.8              | 16.9 | 16.9  | 29.9           | 29.9 | 29.9  | 6.5       | 6.5 | 6.5   | 79.8              | 80.0 | 79.9  | 3.9             | 3.8 | 3.9 | 3.9                     | 4.4    | 4.3 | 4.4 | 4.4   |        |
| E8       | 1428-1441     | 17.8            | W                 | 0.4                                | Surface          | 16.8              | 16.9 | 16.9  | 29.8           | 29.8 | 29.8  | 6.7       | 6.7 | 6.7   | 82.6              | 82.8 | 82.7  | 2.4             | 2.4 | 2.4 | 2.4                     | 2.9    | 2.9 | 2.9 | 2.9   |        |
|          |               |                 |                   |                                    | Middle           | 16.9              | 16.9 | 16.9  | 29.9           | 29.9 | 29.9  | 6.5       | 6.4 | 6.5   | 80.3              | 79.4 | 79.9  | 3.9             | 4.0 | 3.9 | 3.9                     | 3.3    | 4.8 | 5.0 | 4.9   | 4.2    |
|          |               |                 |                   |                                    | Bottom           | 16.9              | 16.8 | 16.9  | 29.9           | 29.9 | 29.9  | 6.4       | 6.4 | 6.4   | 79.2              | 79.5 | 79.4  | 3.6             | 3.6 | 3.6 | 3.6                     | 4.6    | 4.7 | 4.7 | 4.7   |        |
| S1       | 1407-1423     | 9.4             | W                 | 0.4                                | Surface          | 16.8              | 16.8 | 16.8  | 29.8           | 29.8 | 29.8  | 6.7       | 6.7 | 6.7   | 83.0              | 83.4 | 83.2  | 2.5             | 2.4 | 2.4 | 2.4                     | 3.2    | 3.2 | 3.2 | 3.2   |        |
|          |               |                 |                   |                                    | Middle           | 16.9              | 16.9 | 16.9  | 29.9           | 29.9 | 29.9  | 6.4       | 6.4 | 6.4   | 78.5              | 78.8 | 78.7  | 3.7             | 3.8 | 3.8 | 3.8                     | 3.6    | 4.6 | 4.7 | 4.7   | 4.4    |
|          |               |                 |                   |                                    | Bottom           | 16.9              | 16.9 | 16.9  | 29.9           | 29.9 | 29.9  | 6.9       | 6.8 | 6.8   | 85.1              | 84.4 | 84.8  | 4.5             | 4.5 | 4.5 | 4.5                     | 5.4    | 5.4 | 5.4 | 5.4   |        |
| G1       | 1345-1400     | 12.0            | W                 | 0.3                                | Surface          | 16.8              | 16.8 | 16.8  | 29.8           | 29.8 | 29.8  | 6.6       | 6.7 | 6.6   | 81.8              | 82.6 | 82.2  | 2.5             | 2.4 | 2.4 | 2.4                     | 3.2    | 3.1 | 3.2 | 3.2   |        |
|          |               |                 |                   |                                    | Middle           | 16.8              | 16.9 | 16.9  | 29.9           | 29.9 | 29.9  | 6.4       | 6.5 | 6.5   | 79.4              | 80.3 | 79.9  | 3.0             | 3.1 | 3.0 | 2.9                     | 3.6    | 3.7 | 3.7 | 3.6   |        |
|          |               |                 |                   |                                    | Bottom           | 16.9              | 16.9 | 16.9  | 29.9           | 29.9 | 29.9  | 6.2       | 6.1 | 6.1   | 76.2              | 75.6 | 75.9  | 3.2             | 3.2 | 3.2 | 3.2                     | 3.9    | 3.9 | 3.9 | 3.9   |        |
| E7       | 1316-1336     | 13.2            | W                 | 0.3                                | Surface          | 16.9              | 16.9 | 16.9  | 29.7           | 29.8 | 29.8  | 6.8       | 6.7 | 6.7   | 83.6              | 82.9 | 83.3  | 2.7             | 2.7 | 2.7 | 2.7                     | 3.3    | 3.4 | 3.4 | 3.4   |        |
|          |               |                 |                   |                                    | Middle           | 16.8              | 16.8 | 16.8  | 29.9           | 29.9 | 29.9  | 6.7       | 6.6 | 6.7   | 82.5              | 82.0 | 82.3  | 3.1             | 3.0 | 3.0 | 3.0                     | 3.8    | 3.8 | 3.8 | 3.8   |        |
|          |               |                 |                   |                                    | Bottom           | 16.9              | 16.9 | 16.9  | 29.9           | 29.9 | 29.9  | 6.2       | 6.3 | 6.2   | 76.7              | 77.8 | 77.3  | 3.4             | 3.3 | 3.4 | 3.4                     | 4.2    | 4.1 | 4.2 | 4.2   |        |
| F1       | 1252-1311     | 12.4            | W                 | 0.3                                | Surface          | 16.9              | 16.9 | 16.9  | 29.8           | 29.8 | 29.8  | 6.8       | 6.8 | 6.8   | 84.7              | 84.6 | 84.7  | 2.4             | 2.3 | 2.4 | 2.4                     | 2.9    | 2.8 | 2.9 | 2.9   |        |
|          |               |                 |                   |                                    | Middle           | 16.9              | 16.8 | 16.9  | 29.8           | 29.9 | 29.9  | 6.4       | 6.5 | 6.4   | 79.7              | 79.8 | 79.8  | 3.8             | 3.8 | 3.8 | 3.6                     | 4.2    | 4.4 | 4.3 | 4.2   |        |
|          |               |                 |                   |                                    | Bottom           | 16.9              | 16.9 | 16.9  | 29.9           | 29.9 | 29.9  | 6.2       | 6.2 | 6.2   | 76.9              | 77.2 | 77.1  | 4.6             | 4.6 | 4.6 | 4.6                     | 5.6    | 5.5 | 5.6 | 5.6   |        |
| G3       | 1231-1246     | 16.2            | W                 | 0.3                                | Surface          | 16.9              | 16.9 | 16.9  | 29.7           | 29.7 | 29.7  | 7.0       | 6.9 | 7.0   | 86.1              | 85.8 | 86.0  | 2.4             | 2.5 | 2.5 | 2.5                     | 3.0    | 3.1 | 3.1 | 3.1   |        |
|          |               |                 |                   |                                    | Middle           | 16.9              | 16.9 | 16.9  | 29.9           | 29.9 | 29.9  | 6.5       | 6.5 | 6.5   | 80.8              | 80.6 | 80.7  | 3.4             | 3.3 | 3.4 | 3.4                     | 3.0    | 4.3 | 4.2 | 4.3   | 3.8    |
|          |               |                 |                   |                                    | Bottom           | 16.9              | 16.9 | 16.9  | 30.0           | 29.9 | 30.0  | 6.3       | 6.3 | 6.3   | 78.0              | 77.9 | 78.0  | 3.1             | 3.1 | 3.1 | 3.1                     | 4.0    | 4.1 | 4.1 | 4.1   |        |
| E9       | 1209-1223     | 13.4            | W                 | 0.4                                | Surface          | 16.9              | 16.9 | 16.9  | 29.7           | 29.7 | 29.7  | 6.8       | 6.9 | 6.8   | 84.7              | 84.9 | 84.8  | 2.6             | 2.6 | 2.6 | 2.6                     | 3.2    | 3.2 | 3.2 | 3.2   |        |
|          |               |                 |                   |                                    | Middle           | 16.9              | 16.9 | 16.9  | 29.9           | 29.9 | 29.9  | 6.7       | 6.8 | 6.7   | 82.9              | 84.0 | 83.5  | 3.5             | 3.4 | 3.5 | 3.3                     | 4.3    | 4.4 | 4.4 | 4.2   |        |
|          |               |                 |                   |                                    | Bottom           | 16.8              | 16.8 | 16.8  | 29.9           | 30.0 | 30.0  | 6.3       | 6.4 | 6.4   | 78.3              | 79.1 | 78.7  | 3.9             | 3.8 | 3.9 | 3.9                     | 5.0    | 4.9 | 5.0 | 5.0   |        |
| S2       | 1143-1206     | 12.0            | W                 | 0.4                                | Surface          | 17.0              | 17.0 | 17.0  | 29.8           | 29.8 | 29.8  | 7.0       | 6.9 | 6.9   | 86.1              | 85.7 | 85.9  | 3.1             | 3.2 | 3.2 | 3.2                     | 3.6    | 3.7 | 3.7 | 3.7   |        |
|          |               |                 |                   |                                    | Middle           | 16.9              | 16.9 | 16.9  | 29.8           | 29.8 | 29.8  | 6.5       | 6.6 | 6.5   | 80.7              | 81.1 | 80.9  | 3.8             | 3.7 | 3.7 | 3.7                     | 4.7    | 4.5 | 4.6 | 4.4   |        |
|          |               |                 |                   |                                    | Bottom           | 16.9              | 16.8 | 16.9  | 29.9           | 29.9 | 29.9  | 6.3       | 6.4 | 6.4   | 78.4              | 78.9 | 78.7  | 4.1             | 4.2 | 4.2 | 4.2                     | 4.9    | 5.2 | 5.1 | 5.1   |        |
| G2       | 1123-1140     | 14.0            | W                 | 0.3                                | Surface          | 17.0              | 16.9 | 17.0  | 29.8           | 29.7 | 29.8  | 6.9       | 6.9 | 6.9   | 85.8              | 85.9 | 85.9  | 3.3             | 3.2 | 3.3 | 3.3                     | 4.2    | 3.9 | 4.1 | 4.1   |        |
|          |               |                 |                   |                                    | Middle           | 16.9              | 16.9 | 16.9  | 29.8           | 29.9 | 29.9  | 6.6       | 6.6 | 6.6   | 81.9              | 82.1 | 82.0  | 3.5             | 3.4 | 3.4 | 3.5                     | 4.3    | 4.3 | 4.3 | 4.4   |        |
|          |               |                 |                   |                                    | Bottom           | 16.8              | 16.8 | 16.8  | 29.9           | 29.9 | 29.9  | 6.6       | 6.6 | 6.6   | 81.8              | 81.7 | 81.8  | 3.7             | 3.7 | 3.7 | 3.7                     | 4.7    | 4.7 | 4.7 | 4.7   |        |
| S3       | 1100-1116     | 12.0            | W                 | 0.3                                | Surface          | 16.9              | 16.9 | 16.9  | 29.7           | 29.7 | 29.7  | 6.9       | 7.0 | 6.9   | 85.6              | 86.1 | 85.9  | 3.2             | 3.2 | 3.2 | 3.2                     | 3.9    | 4.0 | 4.0 | 4.0   |        |
|          |               |                 |                   |                                    | Middle           | 16.9              | 16.9 | 16.9  | 29.8           | 29.9 | 29.9  | 6.7       | 6.7 | 6.7   | 83.4              | 82.9 | 83.2  | 3.5             | 3.5 | 3.5 | 3.5                     | 4.3    | 4.4 | 4.4 | 4.3   |        |
|          |               |                 |                   |                                    | Bottom           | 16.9              | 16.8 | 16.9  | 30.0           | 30.0 | 30.0  | 6.4       | 6.5 | 6.5   | 79.7              | 80.1 | 79.9  | 3.8             | 3.8 | 3.8 | 3.8                     | 4.6    | 4.8 | 4.7 | 4.7   |        |

Remark or Obsevation:

Note: \* Average

\*\* Depth Average

Date: 29-Jan-14  
 Weather: Fine  
 Sea Conditions: Small Wave  
 Zone A

| Location | Sampling Time | Water Depth (m) | Current direction | Current speed ( $m s^{-1}$ ) | Monitoring Depth | Temperrature (°C) |      |       | Salinity (ppt) |      |       | DO (mg/l) |     |       | DO Saturation (%) |      |       | Turbidity (NTU) |     |     | Suspended Solids (mg/l) |        |     |     |       |
|----------|---------------|-----------------|-------------------|------------------------------|------------------|-------------------|------|-------|----------------|------|-------|-----------|-----|-------|-------------------|------|-------|-----------------|-----|-----|-------------------------|--------|-----|-----|-------|
|          |               |                 |                   |                              |                  | 1                 | 2    | Ave.* | 1              | 2    | Ave.* | 1         | 2   | Ave.* | 1                 | 2    | Ave.* | D.A.**          | 1   | 2   | Ave.*                   | D.A.** | 1   | 2   | Ave.* |
| C1       | 1500-1517     | 36.6            | W                 | 0.4                          | Surface          | 17.1              | 17.1 | 17.1  | 30.2           | 30.2 | 30.2  | 6.7       | 6.8 | 6.8   | 83.4              | 83.9 | 83.7  | 3.8             | 3.7 | 3.7 | 3.9                     | 5.0    | 4.8 | 4.9 | 4.9   |
|          |               |                 |                   |                              | Middle           | 17.1              | 17.0 | 17.1  | 30.3           | 30.3 | 30.3  | 6.6       | 6.6 | 6.6   | 82.2              | 81.7 | 82.0  | 3.8             | 3.9 | 3.9 | 3.9                     | 4.6    | 4.8 | 4.7 | 4.9   |
|          |               |                 |                   |                              | Bottom           | 17.0              | 17.0 | 17.0  | 30.4           | 30.4 | 30.4  | 6.5       | 6.5 | 6.5   | 80.1              | 80.7 | 80.4  | 4.0             | 4.1 | 4.0 | 4.0                     | 4.9    | 5.0 | 5.0 | 5.0   |
| E8       | 1524-1540     | 19.8            | W                 | 0.5                          | Surface          | 17.1              | 17.1 | 17.1  | 30.2           | 30.2 | 30.2  | 6.7       | 6.6 | 6.7   | 82.7              | 81.9 | 82.3  | 3.8             | 3.8 | 3.8 | 4.0                     | 4.7    | 4.6 | 4.7 | 4.7   |
|          |               |                 |                   |                              | Middle           | 17.1              | 17.0 | 17.1  | 30.3           | 30.3 | 30.3  | 6.5       | 6.6 | 6.6   | 80.9              | 81.5 | 81.2  | 4.0             | 4.0 | 4.0 | 4.0                     | 5.0    | 5.2 | 5.1 | 5.1   |
|          |               |                 |                   |                              | Bottom           | 17.0              | 17.0 | 17.0  | 30.3           | 30.4 | 30.4  | 6.4       | 6.5 | 6.4   | 79.4              | 79.9 | 79.7  | 4.1             | 4.1 | 4.1 | 4.1                     | 5.3    | 5.5 | 5.4 | 5.4   |
| S1       | 1543-1603     | 10.2            | W                 | 0.3                          | Surface          | 17.1              | 17.1 | 17.1  | 30.2           | 30.2 | 30.2  | 6.7       | 6.7 | 6.7   | 82.4              | 83.3 | 82.9  | 3.8             | 3.7 | 3.7 | 3.8                     | 4.9    | 4.8 | 4.9 | 5.0   |
|          |               |                 |                   |                              | Middle           | 17.1              | 17.1 | 17.1  | 30.3           | 30.3 | 30.3  | 6.6       | 6.6 | 6.6   | 81.8              | 81.4 | 81.6  | 3.8             | 3.9 | 3.8 | 3.8                     | 5.0    | 5.0 | 5.0 | 5.0   |
|          |               |                 |                   |                              | Bottom           | 17.0              | 17.0 | 17.0  | 30.3           | 30.3 | 30.3  | 6.6       | 6.5 | 6.5   | 81.0              | 80.4 | 80.7  | 3.9             | 4.0 | 4.0 | 4.0                     | 5.3    | 5.2 | 5.3 | 5.3   |
| G1       | 1606-1622     | 11.4            | W                 | 0.4                          | Surface          | 17.1              | 17.1 | 17.1  | 30.2           | 30.2 | 30.2  | 6.8       | 6.8 | 6.8   | 83.5              | 84.4 | 84.0  | 3.8             | 3.9 | 3.9 | 4.1                     | 4.6    | 4.6 | 4.6 | 5.0   |
|          |               |                 |                   |                              | Middle           | 17.1              | 17.1 | 17.1  | 30.2           | 30.2 | 30.2  | 6.9       | 6.8 | 6.9   | 85.1              | 84.6 | 84.9  | 4.0             | 4.1 | 4.1 | 4.1                     | 5.0    | 5.1 | 5.1 | 5.0   |
|          |               |                 |                   |                              | Bottom           | 17.0              | 17.0 | 17.0  | 30.3           | 30.3 | 30.3  | 6.9       | 6.9 | 6.9   | 85.6              | 84.9 | 85.3  | 4.2             | 4.3 | 4.2 | 4.2                     | 5.3    | 5.4 | 5.4 | 5.4   |
| E7       | 1630-1646     | 12.6            | W                 | 0.4                          | Surface          | 17.1              | 7.1  | 12.1  | 30.2           | 30.2 | 30.2  | 6.7       | 6.7 | 6.7   | 82.7              | 83.3 | 83.0  | 3.7             | 3.6 | 3.7 | 3.7                     | 4.5    | 4.4 | 4.5 | 4.7   |
|          |               |                 |                   |                              | Middle           | 17.1              | 17.1 | 17.1  | 30.2           | 30.2 | 30.2  | 6.8       | 6.8 | 6.8   | 84.1              | 84.6 | 84.4  | 3.8             | 3.7 | 3.8 | 3.7                     | 4.9    | 4.7 | 4.8 | 4.7   |
|          |               |                 |                   |                              | Bottom           | 17.0              | 17.0 | 17.0  | 30.3           | 30.3 | 30.3  | 6.9       | 6.8 | 6.9   | 85.1              | 84.4 | 84.8  | 3.9             | 3.8 | 3.8 | 3.8                     | 4.9    | 4.8 | 4.9 | 4.9   |
| F1       | 1653-1710     | 12.0            | W                 | 0.3                          | Surface          | 17.1              | 17.1 | 17.1  | 30.2           | 30.2 | 30.2  | 6.7       | 6.8 | 6.8   | 83.3              | 83.8 | 83.6  | 3.5             | 3.6 | 3.6 | 3.6                     | 4.2    | 4.3 | 4.3 | 4.6   |
|          |               |                 |                   |                              | Middle           | 17.1              | 17.1 | 17.1  | 30.2           | 30.2 | 30.2  | 6.8       | 6.8 | 6.8   | 84.5              | 84.1 | 84.3  | 3.6             | 3.7 | 3.7 | 3.7                     | 4.5    | 4.5 | 4.5 | 4.6   |
|          |               |                 |                   |                              | Bottom           | 17.1              | 17.1 | 17.1  | 30.3           | 30.3 | 30.3  | 6.9       | 6.9 | 6.9   | 84.9              | 85.5 | 85.2  | 3.7             | 3.8 | 3.7 | 3.7                     | 4.9    | 5.0 | 5.0 | 5.0   |
| G3       | 1720-1736     | 15.2            | W                 | 0.5                          | Surface          | 17.1              | 17.1 | 17.1  | 30.2           | 30.2 | 30.2  | 6.6       | 6.6 | 6.6   | 81.2              | 81.9 | 81.6  | 3.5             | 3.5 | 3.5 | 3.5                     | 4.6    | 4.6 | 4.6 | 4.8   |
|          |               |                 |                   |                              | Middle           | 17.1              | 17.1 | 17.1  | 30.2           | 30.3 | 30.3  | 6.7       | 6.7 | 6.7   | 82.7              | 83.4 | 83.1  | 3.6             | 3.7 | 3.6 | 3.6                     | 4.8    | 4.8 | 4.8 | 4.8   |
|          |               |                 |                   |                              | Bottom           | 17.1              | 17.0 | 17.1  | 30.3           | 30.4 | 30.4  | 6.8       | 6.8 | 6.8   | 84.1              | 84.6 | 84.4  | 3.7             | 3.8 | 3.8 | 3.8                     | 5.0    | 4.8 | 4.9 | 4.9   |
| E9       | 1743-1800     | 18.4            | W                 | 0.5                          | Surface          | 17.1              | 17.1 | 17.1  | 30.2           | 30.2 | 30.2  | 6.6       | 6.6 | 6.6   | 82.0              | 81.5 | 81.8  | 3.6             | 3.6 | 3.6 | 3.6                     | 4.5    | 4.4 | 4.5 | 4.8   |
|          |               |                 |                   |                              | Middle           | 17.1              | 17.0 | 17.1  | 30.2           | 30.3 | 30.3  | 6.7       | 6.8 | 6.8   | 83.2              | 83.9 | 83.6  | 3.7             | 3.7 | 3.7 | 3.7                     | 4.6    | 4.8 | 4.7 | 4.8   |
|          |               |                 |                   |                              | Bottom           | 17.0              | 17.0 | 17.0  | 30.4           | 30.4 | 30.4  | 6.9       | 6.9 | 6.9   | 84.8              | 85.4 | 85.1  | 3.8             | 3.9 | 3.8 | 3.8                     | 5.0    | 5.2 | 5.1 | 5.1   |
| S2       | 1806-1822     | 11.0            | W                 | 0.5                          | Surface          | 17.1              | 17.1 | 17.1  | 30.2           | 30.2 | 30.2  | 6.7       | 6.7 | 6.7   | 83.3              | 82.9 | 83.1  | 3.7             | 3.8 | 3.8 | 3.8                     | 4.5    | 4.6 | 4.6 | 5.0   |
|          |               |                 |                   |                              | Middle           | 17.1              | 17.1 | 17.1  | 30.2           | 30.2 | 30.2  | 6.9       | 6.9 | 6.9   | 84.8              | 85.9 | 85.4  | 4.0             | 4.0 | 4.0 | 4.0                     | 5.1    | 5.2 | 5.2 | 5.0   |
|          |               |                 |                   |                              | Bottom           | 17.0              | 17.0 | 17.0  | 30.2           | 30.3 | 30.3  | 6.9       | 7.0 | 6.9   | 85.6              | 86.0 | 85.8  | 4.2             | 4.3 | 4.3 | 4.3                     | 5.3    | 5.4 | 5.4 | 5.4   |
| G2       | 1825-1839     | 13.6            | W                 | 0.6                          | Surface          | 17.1              | 17.1 | 17.1  | 30.2           | 30.2 | 30.2  | 6.7       | 6.6 | 6.7   | 82.8              | 81.9 | 82.4  | 3.6             | 3.7 | 3.7 | 3.7                     | 4.6    | 4.6 | 4.6 | 4.7   |
|          |               |                 |                   |                              | Middle           | 17.1              | 17.1 | 17.1  | 30.2           | 30.2 | 30.2  | 6.7       | 6.8 | 6.7   | 83.2              | 83.5 | 83.4  | 3.6             | 3.5 | 3.6 | 3.7                     | 4.5    | 4.6 | 4.6 | 4.7   |
|          |               |                 |                   |                              | Bottom           | 17.0              | 17.1 | 17.1  | 30.3           | 30.3 | 30.3  | 6.8       | 6.9 | 6.9   | 84.5              | 85.1 | 84.8  | 3.7             | 3.8 | 3.8 | 3.8                     | 4.9    | 5.0 | 5.0 | 5.0   |
| S3       | 1844-1900     | 10.8            | W                 | 0.6                          | Surface          | 17.1              | 17.1 | 17.1  | 30.2           | 30.2 | 30.2  | 6.6       | 6.6 | 6.6   | 81.4              | 82.0 | 81.7  | 3.6             | 3.6 | 3.6 | 3.6                     | 4.8    | 4.5 | 4.7 | 4.6   |
|          |               |                 |                   |                              | Middle           | 17.1              | 17.1 | 17.1  | 30.1           | 30.2 | 30.2  | 6.7       | 6.7 | 6.7   | 82.8              | 83.4 | 83.1  | 3.5             | 3.5 | 3.5 | 3.5                     | 4.6    | 4.5 | 4.6 | 4.6   |
|          |               |                 |                   |                              | Bottom           | 17.0              | 17.0 | 17.0  | 30.1           | 30.1 | 30.1  | 6.8       | 6.9 | 6.8   | 84.0              | 84.8 | 84.4  | 3.4             | 3.5 | 3.5 | 3.5                     | 4.5    | 4.6 | 4.6 | 4.6   |

Remark or Obsevation:

Note: \* Average

\*\* Depth Average

|                 |            |
|-----------------|------------|
| Date:           | 29-Jan-14  |
| Weather:        | Fine       |
| Sea Conditions: | Small Wave |
| Zone A          |            |

| Location | Sampling Time | Water Depth (m) | Current direction | Current speed ( $m s^{-1}$ ) | Monitoring Depth | Temperrrature (°C) |      |       | Salinity (ppt) |      |       | DO (mg/l) |     |       | DO Saturation (%) |      |       | Turbidity (NTU) |     |     | Suspended Solids (mg/l) |        |     |     |       |
|----------|---------------|-----------------|-------------------|------------------------------|------------------|--------------------|------|-------|----------------|------|-------|-----------|-----|-------|-------------------|------|-------|-----------------|-----|-----|-------------------------|--------|-----|-----|-------|
|          |               |                 |                   |                              |                  | 1                  | 2    | Ave.* | 1              | 2    | Ave.* | 1         | 2   | Ave.* | 1                 | 2    | Ave.* | D.A.**          | 1   | 2   | Ave.*                   | D.A.** | 1   | 2   | Ave.* |
| C1       | 2245-2300     | 36.2            | E                 | 0.4                          | Surface          | 17.1               | 17.1 | 17.1  | 30.2           | 30.2 | 30.2  | 6.5       | 6.5 | 6.5   | 80.1              | 80.9 | 80.5  | 3.6             | 3.7 | 3.7 | 3.8                     | 4.4    | 4.5 | 4.5 | 4.6   |
|          |               |                 |                   |                              | Middle           | 17.1               | 17.0 | 17.1  | 30.3           | 30.3 | 30.3  | 6.6       | 6.7 | 6.6   | 81.8              | 82.7 | 82.3  | 3.7             | 3.8 | 3.8 | 3.8                     | 4.6    | 4.7 | 4.7 | 4.6   |
|          |               |                 |                   |                              | Bottom           | 17.0               | 17.0 | 17.0  | 30.3           | 30.4 | 30.4  | 6.5       | 6.6 | 6.6   | 80.9              | 82.0 | 81.5  | 3.9             | 3.9 | 3.9 | 3.9                     | 4.5    | 4.6 | 4.6 | 4.6   |
| E8       | 2225-2239     | 19.6            | E                 | 0.5                          | Surface          | 17.1               | 17.1 | 17.1  | 30.2           | 30.2 | 30.2  | 6.6       | 6.6 | 6.6   | 81.2              | 81.4 | 81.3  | 3.8             | 3.8 | 3.8 | 3.8                     | 4.5    | 4.4 | 4.5 | 4.5   |
|          |               |                 |                   |                              | Middle           | 17.1               | 17.0 | 17.1  | 30.2           | 30.3 | 30.3  | 6.6       | 6.7 | 6.7   | 82.0              | 82.7 | 82.4  | 3.9             | 3.9 | 3.9 | 3.9                     | 4.0    | 4.9 | 5.0 | 5.0   |
|          |               |                 |                   |                              | Bottom           | 17.1               | 17.0 | 17.1  | 30.3           | 30.3 | 30.3  | 6.8       | 6.8 | 6.8   | 83.9              | 84.1 | 84.0  | 4.1             | 4.2 | 4.1 | 4.1                     | 5.3    | 5.5 | 5.4 | 4.9   |
| S1       | 2203-2220     | 10.0            | E                 | 0.4                          | Surface          | 17.1               | 17.1 | 17.1  | 30.2           | 30.2 | 30.2  | 6.5       | 6.5 | 6.5   | 80.4              | 80.9 | 80.7  | 3.6             | 3.7 | 3.7 | 3.7                     | 4.5    | 4.6 | 4.6 | 4.6   |
|          |               |                 |                   |                              | Middle           | 17.1               | 17.0 | 17.1  | 30.3           | 30.3 | 30.3  | 6.7       | 6.7 | 6.7   | 82.7              | 83.3 | 83.0  | 3.7             | 3.8 | 3.8 | 3.7                     | 4.8    | 4.9 | 4.9 | 4.8   |
|          |               |                 |                   |                              | Bottom           | 17.0               | 17.0 | 17.0  | 30.3           | 30.3 | 30.3  | 6.8       | 6.8 | 6.8   | 84.0              | 84.6 | 84.3  | 3.9             | 3.8 | 3.8 | 3.7                     | 5.2    | 5.0 | 5.1 | 5.1   |
| G1       | 2140-2158     | 11.2            | E                 | 0.4                          | Surface          | 17.1               | 17.1 | 17.1  | 30.2           | 30.2 | 30.2  | 6.7       | 6.7 | 6.7   | 82.7              | 83.3 | 83.0  | 3.7             | 3.8 | 3.7 | 3.7                     | 4.6    | 4.6 | 4.6 | 4.6   |
|          |               |                 |                   |                              | Middle           | 17.1               | 17.1 | 17.1  | 30.2           | 30.3 | 30.3  | 6.9       | 6.9 | 6.9   | 84.8              | 85.3 | 85.1  | 3.9             | 3.9 | 3.9 | 3.9                     | 4.9    | 5.0 | 5.0 | 5.0   |
|          |               |                 |                   |                              | Bottom           | 17.1               | 17.0 | 17.1  | 30.3           | 30.3 | 30.3  | 6.9       | 6.8 | 6.9   | 85.4              | 84.4 | 84.9  | 4.0             | 4.1 | 4.1 | 4.1                     | 5.3    | 5.4 | 5.4 | 5.4   |
| E7       | 2117-2135     | 12.4            | E                 | 0.3                          | Surface          | 17.1               | 17.1 | 17.1  | 30.2           | 30.2 | 30.2  | 6.6       | 6.6 | 6.6   | 81.5              | 82.0 | 81.8  | 3.5             | 3.5 | 3.5 | 3.5                     | 4.1    | 4.2 | 4.2 | 4.2   |
|          |               |                 |                   |                              | Middle           | 17.1               | 17.0 | 17.1  | 30.2           | 30.2 | 30.2  | 6.7       | 6.8 | 6.7   | 82.7              | 83.5 | 83.1  | 3.6             | 3.7 | 3.6 | 3.6                     | 4.6    | 4.7 | 4.7 | 4.6   |
|          |               |                 |                   |                              | Bottom           | 17.0               | 17.0 | 17.0  | 30.2           | 30.3 | 30.3  | 6.8       | 6.8 | 6.8   | 84.6              | 84.1 | 84.4  | 3.7             | 3.8 | 3.7 | 3.7                     | 4.9    | 5.1 | 5.0 | 5.0   |
| F1       | 2052-2109     | 11.8            | E                 | 0.4                          | Surface          | 17.1               | 17.1 | 17.1  | 30.2           | 30.2 | 30.2  | 6.6       | 6.6 | 6.6   | 81.5              | 82.0 | 81.8  | 3.6             | 3.7 | 3.6 | 3.6                     | 4.2    | 4.4 | 4.3 | 4.3   |
|          |               |                 |                   |                              | Middle           | 17.0               | 17.0 | 17.0  | 30.2           | 30.2 | 30.2  | 6.7       | 6.8 | 6.8   | 83.4              | 83.9 | 83.7  | 3.7             | 3.8 | 3.8 | 3.8                     | 4.7    | 4.8 | 4.8 | 4.8   |
|          |               |                 |                   |                              | Bottom           | 17.0               | 17.0 | 17.0  | 30.3           | 30.3 | 30.3  | 6.8       | 6.9 | 6.8   | 84.4              | 84.8 | 84.6  | 3.8             | 3.9 | 3.9 | 3.9                     | 5.2    | 5.2 | 5.2 | 5.2   |
| G3       | 2030-2046     | 15.0            | E                 | 0.4                          | Surface          | 17.1               | 17.1 | 17.1  | 30.2           | 30.2 | 30.2  | 6.5       | 6.6 | 6.6   | 80.7              | 81.4 | 81.1  | 3.4             | 3.5 | 3.4 | 3.4                     | 4.3    | 4.4 | 4.4 | 4.4   |
|          |               |                 |                   |                              | Middle           | 17.1               | 17.0 | 17.1  | 30.2           | 30.2 | 30.2  | 6.6       | 6.7 | 6.7   | 82.0              | 82.9 | 82.5  | 3.5             | 3.6 | 3.6 | 3.6                     | 4.6    | 4.7 | 4.7 | 4.6   |
|          |               |                 |                   |                              | Bottom           | 17.0               | 17.0 | 17.0  | 30.3           | 30.3 | 30.3  | 6.7       | 6.7 | 6.7   | 82.8              | 83.3 | 83.1  | 3.6             | 3.7 | 3.7 | 3.7                     | 4.8    | 4.9 | 4.9 | 4.9   |
| E9       | 2006-2022     | 18.0            | E                 | 0.5                          | Surface          | 17.1               | 17.1 | 17.1  | 30.2           | 30.2 | 30.2  | 6.6       | 6.6 | 6.6   | 81.2              | 81.8 | 81.5  | 3.4             | 3.5 | 3.5 | 3.5                     | 4.6    | 4.7 | 4.7 | 4.7   |
|          |               |                 |                   |                              | Middle           | 17.0               | 17.0 | 17.0  | 30.2           | 30.3 | 30.3  | 6.7       | 6.7 | 6.7   | 83.0              | 82.7 | 82.9  | 3.6             | 3.6 | 3.6 | 3.6                     | 4.7    | 4.6 | 4.7 | 4.8   |
|          |               |                 |                   |                              | Bottom           | 17.0               | 17.0 | 17.0  | 30.3           | 30.4 | 30.4  | 6.8       | 6.8 | 6.8   | 83.5              | 84.1 | 83.8  | 3.7             | 3.8 | 3.7 | 3.7                     | 4.9    | 5.1 | 5.0 | 5.0   |
| S2       | 1942-2002     | 10.6            | E                 | 0.4                          | Surface          | 17.1               | 17.1 | 17.1  | 30.2           | 30.2 | 30.2  | 6.7       | 6.6 | 6.6   | 82.3              | 81.8 | 82.1  | 3.7             | 3.7 | 3.7 | 3.7                     | 4.8    | 4.8 | 4.8 | 4.8   |
|          |               |                 |                   |                              | Middle           | 17.1               | 17.1 | 17.1  | 30.2           | 30.2 | 30.2  | 6.7       | 6.8 | 6.8   | 83.3              | 83.9 | 83.6  | 3.8             | 3.9 | 3.9 | 3.9                     | 5.0    | 5.2 | 5.1 | 5.1   |
|          |               |                 |                   |                              | Bottom           | 17.0               | 17.0 | 17.0  | 30.3           | 30.3 | 30.3  | 6.8       | 6.8 | 6.8   | 84.6              | 84.1 | 84.4  | 4.1             | 4.2 | 4.1 | 4.1                     | 5.3    | 5.4 | 5.4 | 5.4   |
| G2       | 1923-1938     | 13.2            | E                 | 0.5                          | Surface          | 17.1               | 17.1 | 17.1  | 30.2           | 30.2 | 30.2  | 6.6       | 6.6 | 6.6   | 81.2              | 81.5 | 81.4  | 3.6             | 3.6 | 3.6 | 3.6                     | 4.4    | 4.5 | 4.5 | 4.5   |
|          |               |                 |                   |                              | Middle           | 17.0               | 17.1 | 17.1  | 30.2           | 30.2 | 30.2  | 6.7       | 6.7 | 6.7   | 82.7              | 83.0 | 82.9  | 3.5             | 3.5 | 3.5 | 3.6                     | 4.4    | 4.4 | 4.4 | 4.5   |
|          |               |                 |                   |                              | Bottom           | 17.0               | 17.0 | 17.0  | 30.3           | 30.3 | 30.3  | 6.8       | 6.9 | 6.8   | 83.9              | 84.8 | 84.4  | 3.7             | 3.7 | 3.7 | 3.7                     | 4.7    | 4.8 | 4.8 | 4.8   |
| S3       | 1900-1915     | 10.6            | E                 | 0.6                          | Surface          | 17.1               | 17.1 | 17.1  | 30.2           | 30.2 | 30.2  | 6.7       | 6.6 | 6.6   | 82.3              | 81.8 | 82.1  | 3.6             | 3.6 | 3.6 | 3.6                     | 4.4    | 4.6 | 4.5 | 4.7   |
|          |               |                 |                   |                              | Middle           | 17.1               | 17.0 | 17.1  | 30.1           | 30.1 | 30.1  | 6.7       | 6.7 | 6.7   | 82.4              | 83.3 | 82.9  | 3.6             | 3.7 | 3.7 | 3.6                     | 4.5    | 4.7 | 4.6 | 4.7   |
|          |               |                 |                   |                              | Bottom           | 17.0               | 17.0 | 17.0  | 30.1           | 30.1 | 30.1  | 6.8       | 6.8 | 6.8   | 84.3              | 83.6 | 84.0  | 3.5             | 3.6 | 3.6 | 3.6                     | 4.8    | 5.0 | 4.9 | 4.9   |

Remark or Obsevation:

Note: \* Average

\*\* Depth Average

|                 |            |
|-----------------|------------|
| Date:           | 30-Jan-14  |
| Weather:        | Fine       |
| Sea Conditions: | Small Wave |
| Zone A          |            |

| Location | Sampling Time | Water Depth (m) | Current direction | Current speed ( $m s^{-1}$ ) | Monitoring Depth | Temperrtature (°C) |      |       | Salinity (ppt) |      |       | DO (mg/l) |     |       | DO Saturation (%) |      |       | Turbidity (NTU) |     |     | Suspended Solids (mg/l) |        |     |     |       |
|----------|---------------|-----------------|-------------------|------------------------------|------------------|--------------------|------|-------|----------------|------|-------|-----------|-----|-------|-------------------|------|-------|-----------------|-----|-----|-------------------------|--------|-----|-----|-------|
|          |               |                 |                   |                              |                  | 1                  | 2    | Ave.* | 1              | 2    | Ave.* | 1         | 2   | Ave.* | 1                 | 2    | Ave.* | D.A.**          | 1   | 2   | Ave.*                   | D.A.** | 1   | 2   | Ave.* |
| C1       | 0710-0725     | 36.7            | W                 | 0.4                          | Surface          | 17.0               | 17.1 | 17.1  | 30.0           | 30.1 | 30.1  | 7.0       | 7.0 | 7.0   | 87.0              | 86.8 | 86.9  | 3.4             | 3.4 | 3.4 | 3.5                     | 4.2    | 4.3 | 4.3 | 4.4   |
|          |               |                 |                   |                              | Middle           | 17.2               | 17.2 | 17.2  | 30.2           | 30.2 | 30.2  | 6.8       | 6.8 | 6.8   | 85.1              | 84.9 | 85.0  | 3.6             | 3.6 | 3.6 | 3.5                     | 4.5    | 4.4 | 4.5 | 4.4   |
|          |               |                 |                   |                              | Bottom           | 17.3               | 17.4 | 17.4  | 30.3           | 30.4 | 30.4  | 6.8       | 6.7 | 6.7   | 84.2              | 84.0 | 84.1  | 3.4             | 3.4 | 3.4 | 3.5                     | 4.4    | 4.5 | 4.5 | 4.5   |
| E8       | 0730-0746     | 19.7            | W                 | 0.3                          | Surface          | 17.0               | 17.0 | 17.0  | 30.0           | 30.0 | 30.0  | 7.0       | 7.1 | 7.1   | 87.3              | 87.5 | 87.4  | 3.2             | 3.2 | 3.2 | 3.4                     | 3.9    | 4.0 | 4.0 | 4.0   |
|          |               |                 |                   |                              | Middle           | 17.1               | 17.2 | 17.2  | 30.1           | 30.2 | 30.2  | 6.9       | 7.0 | 7.0   | 86.3              | 86.5 | 86.4  | 3.6             | 3.6 | 3.6 | 3.4                     | 4.3    | 4.4 | 4.4 | 4.3   |
|          |               |                 |                   |                              | Bottom           | 17.3               | 17.4 | 17.4  | 30.3           | 30.3 | 30.3  | 6.7       | 6.7 | 6.7   | 83.9              | 83.6 | 83.8  | 3.4             | 3.5 | 3.4 | 3.5                     | 4.4    | 4.5 | 4.5 | 4.5   |
| S1       | 0751-0807     | 10.4            | W                 | 0.3                          | Surface          | 17.0               | 17.1 | 17.1  | 30.0           | 30.1 | 30.1  | 7.1       | 7.1 | 7.1   | 88.2              | 88.0 | 88.1  | 3.1             | 3.1 | 3.1 | 3.4                     | 3.7    | 3.7 | 3.7 | 3.7   |
|          |               |                 |                   |                              | Middle           | 17.2               | 17.2 | 17.2  | 30.1           | 30.2 | 30.2  | 6.6       | 6.6 | 6.6   | 85.5              | 85.4 | 85.5  | 3.5             | 3.5 | 3.5 | 3.4                     | 4.2    | 4.3 | 4.3 | 4.1   |
|          |               |                 |                   |                              | Bottom           | 17.3               | 17.4 | 17.4  | 30.3           | 30.3 | 30.3  | 6.7       | 6.8 | 6.8   | 84.1              | 84.4 | 84.3  | 3.4             | 3.5 | 3.4 | 3.5                     | 4.3    | 4.3 | 4.3 | 4.3   |
| G1       | 0812-0828     | 11.4            | W                 | 0.4                          | Surface          | 17.1               | 17.1 | 17.1  | 30.0           | 30.1 | 30.1  | 6.9       | 6.9 | 6.9   | 85.8              | 86.0 | 85.9  | 3.0             | 3.0 | 3.0 | 3.0                     | 3.4    | 3.6 | 3.5 | 3.6   |
|          |               |                 |                   |                              | Middle           | 17.2               | 17.3 | 17.3  | 30.2           | 30.2 | 30.2  | 6.7       | 6.8 | 6.7   | 83.7              | 83.9 | 83.8  | 2.9             | 2.9 | 2.9 | 3.0                     | 3.6    | 3.7 | 3.7 | 3.6   |
|          |               |                 |                   |                              | Bottom           | 17.4               | 17.4 | 17.4  | 30.3           | 30.4 | 30.4  | 6.6       | 6.6 | 6.6   | 82.6              | 82.4 | 82.5  | 3.0             | 3.1 | 3.1 | 3.1                     | 3.7    | 3.8 | 3.8 | 3.8   |
| E7       | 0833-0850     | 13.0            | W                 | 0.3                          | Surface          | 17.0               | 17.1 | 17.1  | 30.0           | 30.0 | 30.0  | 7.1       | 7.2 | 7.2   | 88.5              | 88.8 | 88.7  | 2.7             | 2.7 | 2.7 | 2.7                     | 3.5    | 3.4 | 3.5 | 3.5   |
|          |               |                 |                   |                              | Middle           | 17.2               | 17.3 | 17.3  | 30.1           | 30.2 | 30.2  | 6.9       | 6.9 | 6.9   | 86.1              | 86.3 | 86.2  | 2.9             | 2.9 | 2.9 | 2.9                     | 3.7    | 3.7 | 3.7 | 3.7   |
|          |               |                 |                   |                              | Bottom           | 17.4               | 17.4 | 17.4  | 30.3           | 30.4 | 30.4  | 6.7       | 6.7 | 6.7   | 83.9              | 84.1 | 84.0  | 3.0             | 3.0 | 3.0 | 3.0                     | 3.8    | 4.0 | 3.9 | 3.9   |
| F1       | 0855-0911     | 12.0            | W                 | 0.3                          | Surface          | 17.1               | 17.0 | 17.1  | 30.0           | 30.1 | 30.1  | 7.1       | 7.1 | 7.1   | 87.7              | 87.9 | 87.8  | 2.6             | 2.7 | 2.7 | 2.7                     | 3.4    | 3.5 | 3.5 | 3.5   |
|          |               |                 |                   |                              | Middle           | 17.1               | 17.2 | 17.2  | 30.2           | 30.2 | 30.2  | 6.9       | 7.0 | 7.0   | 86.3              | 86.5 | 86.4  | 2.8             | 2.9 | 2.9 | 2.9                     | 3.7    | 3.7 | 3.7 | 3.7   |
|          |               |                 |                   |                              | Bottom           | 17.3               | 17.3 | 17.3  | 30.3           | 30.4 | 30.4  | 6.8       | 6.8 | 6.8   | 84.7              | 84.9 | 84.8  | 3.1             | 3.1 | 3.1 | 3.1                     | 3.8    | 3.8 | 3.8 | 3.8   |
| G3       | 0916-0933     | 15.6            | W                 | 0.4                          | Surface          | 17.0               | 17.0 | 17.0  | 30.0           | 30.1 | 30.1  | 7.2       | 7.2 | 7.2   | 89.5              | 89.7 | 89.6  | 2.7             | 2.7 | 2.7 | 2.7                     | 3.4    | 3.6 | 3.5 | 3.5   |
|          |               |                 |                   |                              | Middle           | 17.1               | 17.2 | 17.2  | 30.2           | 30.3 | 30.3  | 6.8       | 6.8 | 6.8   | 84.5              | 84.7 | 84.6  | 2.9             | 3.0 | 3.0 | 2.8                     | 3.7    | 3.8 | 3.8 | 3.7   |
|          |               |                 |                   |                              | Bottom           | 17.3               | 17.4 | 17.4  | 30.4           | 30.4 | 30.4  | 6.8       | 6.8 | 6.8   | 85.4              | 85.1 | 85.3  | 2.9             | 2.9 | 2.9 | 2.9                     | 4.0    | 3.9 | 4.0 | 4.0   |
| E9       | 0938-0954     | 18.9            | W                 | 0.3                          | Surface          | 17.0               | 17.1 | 17.1  | 30.0           | 30.0 | 30.0  | 7.1       | 7.1 | 7.1   | 88.2              | 88.0 | 88.1  | 2.7             | 2.8 | 2.8 | 2.8                     | 3.4    | 3.5 | 3.5 | 3.5   |
|          |               |                 |                   |                              | Middle           | 17.1               | 17.1 | 17.1  | 30.1           | 30.2 | 30.2  | 6.8       | 6.9 | 6.9   | 85.1              | 85.3 | 85.2  | 2.9             | 2.9 | 2.9 | 2.7                     | 3.8    | 3.8 | 3.8 | 3.6   |
|          |               |                 |                   |                              | Bottom           | 17.2               | 17.3 | 17.3  | 30.3           | 30.3 | 30.3  | 6.7       | 6.8 | 6.7   | 84.0              | 84.3 | 84.2  | 2.5             | 2.5 | 2.5 | 2.5                     | 3.4    | 3.5 | 3.5 | 3.5   |
| S2       | 1000-1017     | 10.6            | W                 | 0.3                          | Surface          | 17.0               | 17.1 | 17.1  | 30.0           | 30.1 | 30.1  | 6.9       | 6.9 | 6.9   | 85.6              | 85.4 | 85.5  | 3.1             | 3.1 | 3.1 | 3.1                     | 3.5    | 3.6 | 3.6 | 3.6   |
|          |               |                 |                   |                              | Middle           | 17.2               | 17.3 | 17.3  | 30.2           | 30.3 | 30.3  | 6.5       | 6.5 | 6.5   | 81.4              | 81.1 | 81.3  | 3.5             | 3.5 | 3.5 | 3.4                     | 3.8    | 3.9 | 3.9 | 3.7   |
|          |               |                 |                   |                              | Bottom           | 17.4               | 17.4 | 17.4  | 30.4           | 30.4 | 30.4  | 6.4       | 6.4 | 6.4   | 80.1              | 80.0 | 80.1  | 3.5             | 3.4 | 3.5 | 3.5                     | 3.8    | 3.7 | 3.8 | 3.8   |
| G2       | 1022-1039     | 13.3            | W                 | 0.4                          | Surface          | 17.1               | 17.2 | 17.2  | 30.0           | 30.0 | 30.0  | 6.9       | 6.9 | 6.9   | 86.1              | 85.8 | 86.0  | 3.1             | 3.1 | 3.1 | 3.1                     | 3.6    | 3.6 | 3.6 | 3.6   |
|          |               |                 |                   |                              | Middle           | 17.3               | 17.4 | 17.4  | 30.1           | 30.2 | 30.2  | 6.8       | 6.8 | 6.8   | 84.6              | 84.2 | 84.4  | 3.3             | 3.3 | 3.3 | 3.2                     | 3.7    | 3.8 | 3.8 | 3.7   |
|          |               |                 |                   |                              | Bottom           | 17.4               | 17.4 | 17.4  | 30.3           | 30.3 | 30.3  | 6.7       | 6.7 | 6.7   | 83.7              | 83.5 | 83.6  | 3.3             | 3.4 | 3.4 | 3.4                     | 3.6    | 3.8 | 3.8 | 3.7   |
| S3       | 1045-1100     | 12.7            | W                 | 0.3                          | Surface          | 17.0               | 17.1 | 17.1  | 30.0           | 30.1 | 30.1  | 7.0       | 7.0 | 7.0   | 86.4              | 86.6 | 86.5  | 3.3             | 3.4 | 3.4 | 3.4                     | 3.8    | 3.8 | 3.8 | 3.8   |
|          |               |                 |                   |                              | Middle           | 17.2               | 17.3 | 17.3  | 30.2           | 30.3 | 30.3  | 6.8       | 6.9 | 6.8   | 85.1              | 85.2 | 85.2  | 3.3             | 3.4 | 3.4 | 3.4                     | 3.7    | 3.8 | 3.8 | 3.8   |
|          |               |                 |                   |                              | Bottom           | 17.3               | 17.4 | 17.4  | 30.4           | 30.4 | 30.4  | 6.7       | 6.8 | 6.7   | 84.0              | 84.2 | 84.1  | 3.5             | 3.5 | 3.5 | 3.5                     | 3.9    | 3.9 | 3.9 | 3.9   |

Remark or Obsevation:

Note: \* Average

\*\* Depth Average

Date: 30-Jan-14  
 Weather: Fine  
 Sea Conditions: Small Wave  
 Zone A

| Location | Sampling Time | Water Depth (m) | Current direction | Current speed ( $m s^{-1}$ ) | Monitoring Depth | Tempertrature (°C) |      |       | Salinity (ppt) |      |       | DO (mg/l) |     |       | DO Saturation (%) |      |       | Turbidity (NTU) |     |     | Suspended Solids (mg/l) |        |     |     |       |
|----------|---------------|-----------------|-------------------|------------------------------|------------------|--------------------|------|-------|----------------|------|-------|-----------|-----|-------|-------------------|------|-------|-----------------|-----|-----|-------------------------|--------|-----|-----|-------|
|          |               |                 |                   |                              |                  | 1                  | 2    | Ave.* | 1              | 2    | Ave.* | 1         | 2   | Ave.* | 1                 | 2    | Ave.* | D.A.**          | 1   | 2   | Ave.*                   | D.A.** | 1   | 2   | Ave.* |
| C1       | 1445-1500     | 36.0            | W                 | 0.4                          | Surface          | 17.1               | 17.1 | 17.1  | 30.1           | 30.1 | 30.1  | 7.1       | 7.1 | 7.1   | 88.0              | 87.9 | 88.0  | 3.2             | 3.3 | 3.2 |                         | 3.5    | 3.5 | 3.5 |       |
|          |               |                 |                   |                              | Middle           | 17.3               | 17.2 | 17.3  | 30.1           | 30.2 | 30.2  | 6.9       | 6.8 | 6.8   | 85.2              | 84.5 | 84.9  | 3.3             | 3.3 | 3.3 | 3.0                     | 3.6    | 3.6 | 3.6 | 3.4   |
|          |               |                 |                   |                              | Bottom           | 17.3               | 17.3 | 17.3  | 30.4           | 30.3 | 30.4  | 6.7       | 6.7 | 6.7   | 83.7              | 84.1 | 83.9  | 2.3             | 2.3 | 2.3 |                         | 2.9    | 3.0 | 3.0 |       |
| E8       | 1423-1439     | 19.3            | W                 | 0.5                          | Surface          | 17.1               | 17.1 | 17.1  | 30.0           | 30.0 | 30.0  | 7.0       | 7.0 | 7.0   | 87.1              | 86.9 | 87.0  | 3.2             | 3.2 | 3.2 |                         | 3.8    | 3.7 | 3.8 |       |
|          |               |                 |                   |                              | Middle           | 17.3               | 17.2 | 17.3  | 30.1           | 30.2 | 30.2  | 7.0       | 6.9 | 7.0   | 86.8              | 86.3 | 86.6  | 3.1             | 3.2 | 3.2 | 3.2                     | 3.7    | 3.8 | 3.8 | 3.8   |
|          |               |                 |                   |                              | Bottom           | 17.4               | 17.3 | 17.4  | 30.3           | 30.4 | 30.4  | 6.7       | 6.7 | 6.7   | 83.2              | 82.9 | 83.1  | 3.2             | 3.3 | 3.3 |                         | 3.9    | 3.9 | 3.9 |       |
| S1       | 1402-1418     | 10.2            | W                 | 0.5                          | Surface          | 17.0               | 17.1 | 17.1  | 30.1           | 30.0 | 30.1  | 7.1       | 7.0 | 7.0   | 87.4              | 87.3 | 87.4  | 3.1             | 3.1 | 3.1 |                         | 3.5    | 3.6 | 3.6 |       |
|          |               |                 |                   |                              | Middle           | 17.2               | 17.3 | 17.3  | 30.1           | 30.1 | 30.1  | 6.9       | 6.8 | 6.9   | 85.4              | 85.1 | 85.3  | 3.1             | 3.1 | 3.1 | 3.1                     | 3.6    | 3.7 | 3.7 | 3.7   |
|          |               |                 |                   |                              | Bottom           | 17.4               | 17.4 | 17.4  | 30.4           | 30.4 | 30.4  | 6.7       | 6.7 | 6.7   | 84.1              | 83.6 | 83.9  | 3.2             | 3.2 | 3.2 |                         | 3.8    | 3.8 | 3.8 |       |
| G1       | 1337-1354     | 11.4            | W                 | 0.4                          | Surface          | 17.0               | 17.0 | 17.0  | 30.0           | 30.1 | 30.1  | 7.0       | 7.0 | 7.0   | 87.1              | 86.9 | 87.0  | 3.1             | 3.2 | 3.1 |                         | 3.5    | 3.6 | 3.6 |       |
|          |               |                 |                   |                              | Middle           | 17.2               | 17.3 | 17.3  | 30.2           | 30.2 | 30.2  | 6.9       | 6.9 | 6.9   | 85.9              | 86.3 | 86.1  | 3.1             | 3.0 | 3.1 | 3.1                     | 3.4    | 3.4 | 3.4 | 3.5   |
|          |               |                 |                   |                              | Bottom           | 17.3               | 17.3 | 17.3  | 30.3           | 30.3 | 30.3  | 6.8       | 6.8 | 6.8   | 84.6              | 84.9 | 84.8  | 3.1             | 3.2 | 3.1 |                         | 3.5    | 3.6 | 3.6 |       |
| E7       | 1315-1332     | 13.2            | W                 | 0.4                          | Surface          | 17.1               | 17.1 | 17.1  | 30.0           | 30.1 | 30.1  | 7.1       | 7.1 | 7.1   | 87.8              | 87.4 | 87.6  | 3.1             | 3.1 | 3.1 |                         | 3.6    | 3.5 | 3.6 |       |
|          |               |                 |                   |                              | Middle           | 17.3               | 17.2 | 17.3  | 30.2           | 30.1 | 30.2  | 6.9       | 6.9 | 6.9   | 85.8              | 85.5 | 85.7  | 3.1             | 3.1 | 3.1 | 3.1                     | 3.6    | 3.4 | 3.5 | 3.6   |
|          |               |                 |                   |                              | Bottom           | 17.4               | 17.3 | 17.4  | 30.4           | 30.4 | 30.4  | 6.8       | 6.8 | 6.8   | 84.2              | 84.6 | 84.4  | 3.1             | 3.1 | 3.1 |                         | 3.6    | 3.7 | 3.7 |       |
| F1       | 1251-1307     | 12.6            | W                 | 0.5                          | Surface          | 17.1               | 17.0 | 17.1  | 30.0           | 30.0 | 30.0  | 7.1       | 7.1 | 7.1   | 88.2              | 88.0 | 88.1  | 3.0             | 3.1 | 3.1 |                         | 3.6    | 3.5 | 3.6 |       |
|          |               |                 |                   |                              | Middle           | 17.2               | 17.2 | 17.2  | 30.1           | 30.2 | 30.2  | 6.9       | 6.9 | 6.9   | 85.3              | 85.7 | 85.5  | 3.1             | 3.1 | 3.1 | 3.1                     | 3.4    | 3.4 | 3.4 | 3.5   |
|          |               |                 |                   |                              | Bottom           | 17.4               | 17.3 | 17.4  | 30.3           | 30.3 | 30.3  | 6.9       | 6.8 | 6.9   | 85.7              | 85.4 | 85.6  | 3.2             | 3.2 | 3.2 |                         | 3.4    | 3.5 | 3.5 |       |
| G3       | 1228-1244     | 15.4            | W                 | 0.4                          | Surface          | 17.0               | 17.1 | 17.1  | 30.1           | 30.0 | 30.1  | 7.0       | 7.1 | 7.0   | 87.3              | 87.4 | 87.4  | 3.2             | 3.2 | 3.2 |                         | 3.6    | 3.6 | 3.6 |       |
|          |               |                 |                   |                              | Middle           | 17.2               | 17.2 | 17.2  | 30.2           | 30.2 | 30.2  | 7.0       | 7.0 | 7.0   | 86.5              | 86.8 | 86.7  | 3.3             | 3.3 | 3.3 | 3.3                     | 3.7    | 3.8 | 3.8 | 3.7   |
|          |               |                 |                   |                              | Bottom           | 17.3               | 17.4 | 17.4  | 30.4           | 30.3 | 30.4  | 6.9       | 6.9 | 6.9   | 86.2              | 85.8 | 86.0  | 3.3             | 3.4 | 3.4 |                         | 3.7    | 3.9 | 3.8 |       |
| E9       | 1205-1220     | 18.2            | W                 | 0.4                          | Surface          | 17.1               | 17.0 | 17.1  | 30.0           | 30.0 | 30.0  | 7.1       | 7.1 | 7.1   | 87.7              | 88.0 | 87.9  | 3.2             | 3.3 | 3.2 |                         | 3.4    | 3.5 | 3.5 |       |
|          |               |                 |                   |                              | Middle           | 17.2               | 17.2 | 17.2  | 30.2           | 30.2 | 30.2  | 7.2       | 7.2 | 7.2   | 89.6              | 89.9 | 89.8  | 3.3             | 3.3 | 3.3 | 3.3                     | 3.6    | 3.7 | 3.7 | 3.6   |
|          |               |                 |                   |                              | Bottom           | 17.2               | 17.4 | 17.3  | 30.4           | 30.4 | 30.4  | 7.2       | 7.2 | 7.2   | 89.8              | 89.4 | 89.6  | 3.2             | 3.3 | 3.2 |                         | 3.6    | 3.8 | 3.7 |       |
| S2       | 1144-1200     | 11.6            | W                 | 0.5                          | Surface          | 17.0               | 17.1 | 17.1  | 30.0           | 30.0 | 30.0  | 7.2       | 7.3 | 7.2   | 89.6              | 89.9 | 89.8  | 3.1             | 3.1 | 3.1 |                         | 3.6    | 3.7 | 3.7 |       |
|          |               |                 |                   |                              | Middle           | 17.3               | 17.2 | 17.3  | 30.1           | 30.2 | 30.2  | 7.2       | 7.2 | 7.2   | 89.2              | 89.6 | 89.4  | 3.1             | 3.1 | 3.1 | 3.2                     | 3.8    | 3.8 | 3.8 | 3.9   |
|          |               |                 |                   |                              | Bottom           | 17.4               | 17.4 | 17.4  | 30.3           | 30.4 | 30.4  | 7.1       | 7.1 | 7.1   | 87.9              | 88.3 | 88.1  | 3.3             | 3.3 | 3.3 |                         | 4.3    | 4.2 | 4.3 |       |
| G2       | 1124-1139     | 13.4            | W                 | 0.4                          | Surface          | 17.0               | 17.0 | 17.0  | 30.0           | 30.1 | 30.1  | 7.1       | 7.1 | 7.1   | 87.5              | 87.9 | 87.7  | 3.2             | 3.2 | 3.2 |                         | 3.4    | 3.5 | 3.5 |       |
|          |               |                 |                   |                              | Middle           | 17.2               | 17.2 | 17.2  | 30.2           | 30.2 | 30.2  | 6.9       | 6.9 | 6.9   | 86.3              | 85.8 | 86.1  | 3.2             | 3.2 | 3.2 | 3.3                     | 3.5    | 3.6 | 3.6 | 3.8   |
|          |               |                 |                   |                              | Bottom           | 17.4               | 17.3 | 17.4  | 30.3           | 30.4 | 30.4  | 6.8       | 6.8 | 6.8   | 84.8              | 84.6 | 84.7  | 3.5             | 3.5 | 3.5 |                         | 4.3    | 4.4 | 4.4 |       |
| S3       | 1100-1116     | 10.6            | W                 | 0.4                          | Surface          | 17.1               | 17.1 | 17.1  | 30.0           | 30.1 | 30.1  | 7.1       | 7.1 | 7.1   | 88.0              | 87.5 | 87.8  | 3.1             | 3.1 | 3.1 |                         | 3.6    | 3.6 | 3.6 |       |
|          |               |                 |                   |                              | Middle           | 17.2               | 17.3 | 17.3  | 30.2           | 30.3 | 30.3  | 6.8       | 6.9 | 6.9   | 85.1              | 85.3 | 85.2  | 3.3             | 3.2 | 3.2 | 3.3                     | 3.7    | 3.8 | 3.8 | 3.8   |
|          |               |                 |                   |                              | Bottom           | 17.4               | 17.3 | 17.4  | 30.3           | 30.4 | 30.4  | 6.7       | 6.7 | 6.7   | 83.2              | 83.6 | 83.4  | 3.4             | 3.4 | 3.4 |                         | 3.8    | 4.0 | 3.9 |       |

Remark or Obsevation:

Note: \* Average

\*\* Depth Average

|                 |            |
|-----------------|------------|
| Date:           | 30-Jan-14  |
| Weather:        | Fine       |
| Sea Conditions: | Small Wave |
| Zone A          |            |

| Location | Sampling Time | Water Depth (m) | Current direction | Current speed ( $m s^{-1}$ ) | Monitoring Depth | Temperrtature (°C) |      |       | Salinity (ppt) |      |       | DO (mg/l) |     |       | DO Saturation (%) |      |       | Turbidity (NTU) |     |     | Suspended Solids (mg/l) |        |     |     |       |
|----------|---------------|-----------------|-------------------|------------------------------|------------------|--------------------|------|-------|----------------|------|-------|-----------|-----|-------|-------------------|------|-------|-----------------|-----|-----|-------------------------|--------|-----|-----|-------|
|          |               |                 |                   |                              |                  | 1                  | 2    | Ave.* | 1              | 2    | Ave.* | 1         | 2   | Ave.* | 1                 | 2    | Ave.* | D.A.**          | 1   | 2   | Ave.*                   | D.A.** | 1   | 2   | Ave.* |
| C1       | 1500-1517     | 37.0            | W                 | 0.3                          | Surface          | 17.0               | 17.0 | 17.0  | 30.0           | 30.1 | 30.1  | 7.0       | 7.1 | 7.1   | 87.3              | 87.5 | 87.4  | 3.3             | 3.3 | 3.3 |                         | 3.6    | 3.6 | 3.6 |       |
|          |               |                 |                   |                              | Middle           | 17.1               | 17.2 | 17.2  | 30.2           | 30.2 | 30.2  | 6.9       | 6.9 | 6.9   | 85.5              | 85.8 | 85.7  | 3.6             | 3.6 | 3.6 | 3.4                     | 4.4    | 4.5 | 4.5 | 4.2   |
|          |               |                 |                   |                              | Bottom           | 17.3               | 17.4 | 17.4  | 30.3           | 30.3 | 30.3  | 6.8       | 6.8 | 6.8   | 84.5              | 84.7 | 84.6  | 3.3             | 3.3 | 3.3 |                         | 4.4    | 4.4 | 4.4 |       |
| E8       | 1522-1539     | 20.0            | W                 | 0.3                          | Surface          | 17.0               | 17.1 | 17.1  | 30.0           | 30.0 | 30.0  | 7.1       | 7.1 | 7.1   | 87.9              | 88.1 | 88.0  | 3.2             | 3.2 | 3.2 |                         | 4.3    | 4.2 | 4.3 |       |
|          |               |                 |                   |                              | Middle           | 17.2               | 17.3 | 17.3  | 30.1           | 30.2 | 30.2  | 7.0       | 7.0 | 7.0   | 87.0              | 86.8 | 86.9  | 3.5             | 3.5 | 3.5 | 3.4                     | 4.5    | 4.4 | 4.5 | 4.3   |
|          |               |                 |                   |                              | Bottom           | 17.4               | 17.4 | 17.4  | 30.3           | 30.4 | 30.4  | 6.8       | 6.8 | 6.8   | 84.2              | 84.4 | 84.3  | 3.4             | 3.4 | 3.4 |                         | 4.3    | 4.2 | 4.3 |       |
| S1       | 1544-1600     | 10.6            | W                 | 0.4                          | Surface          | 17.0               | 17.1 | 17.1  | 30.0           | 30.1 | 30.1  | 7.1       | 7.2 | 7.2   | 88.5              | 88.8 | 88.7  | 3.0             | 3.0 | 3.0 |                         | 3.5    | 3.5 | 3.5 |       |
|          |               |                 |                   |                              | Middle           | 17.1               | 17.2 | 17.2  | 30.1           | 30.2 | 30.2  | 6.9       | 6.9 | 6.9   | 86.0              | 86.3 | 86.2  | 3.5             | 3.5 | 3.5 | 3.3                     | 4.0    | 4.0 | 4.0 | 3.8   |
|          |               |                 |                   |                              | Bottom           | 17.3               | 17.4 | 17.4  | 30.3           | 30.4 | 30.4  | 6.8       | 6.8 | 6.8   | 84.9              | 85.1 | 85.0  | 3.4             | 3.4 | 3.4 |                         | 4.0    | 4.0 | 4.0 |       |
| G1       | 1605-1622     | 11.6            | W                 | 0.3                          | Surface          | 17.0               | 17.0 | 17.0  | 30.0           | 30.1 | 30.1  | 7.0       | 7.0 | 7.0   | 86.7              | 86.9 | 86.8  | 2.9             | 3.0 | 3.0 |                         | 3.4    | 3.6 | 3.5 |       |
|          |               |                 |                   |                              | Middle           | 17.1               | 17.1 | 17.1  | 30.2           | 30.2 | 30.2  | 6.8       | 6.8 | 6.8   | 84.6              | 84.7 | 84.7  | 2.8             | 2.8 | 2.8 | 2.9                     | 3.4    | 3.5 | 3.5 | 3.5   |
|          |               |                 |                   |                              | Bottom           | 17.2               | 17.3 | 17.3  | 30.3           | 30.4 | 30.4  | 6.7       | 6.6 | 6.7   | 83.1              | 82.9 | 83.0  | 3.0             | 3.0 | 3.0 |                         | 3.6    | 3.5 | 3.6 |       |
| E7       | 1627-1643     | 12.8            | W                 | 0.3                          | Surface          | 17.1               | 17.2 | 17.2  | 30.0           | 30.1 | 30.1  | 7.1       | 7.0 | 7.1   | 88.3              | 88.1 | 88.2  | 2.7             | 2.8 | 2.7 |                         | 3.3    | 3.2 | 3.3 |       |
|          |               |                 |                   |                              | Middle           | 17.3               | 17.3 | 17.3  | 30.2           | 30.3 | 30.3  | 6.9       | 6.9 | 6.9   | 85.8              | 85.6 | 85.7  | 3.0             | 3.0 | 3.0 | 2.9                     | 3.5    | 3.7 | 3.6 | 3.5   |
|          |               |                 |                   |                              | Bottom           | 17.4               | 17.3 | 17.4  | 30.4           | 30.4 | 30.4  | 6.7       | 6.7 | 6.7   | 83.2              | 83.5 | 83.4  | 3.0             | 3.0 | 3.0 |                         | 3.6    | 3.6 | 3.6 |       |
| F1       | 1648-1705     | 11.7            | W                 | 0.4                          | Surface          | 17.0               | 17.1 | 17.1  | 30.0           | 30.0 | 30.0  | 7.0       | 7.0 | 7.0   | 87.0              | 87.3 | 87.2  | 2.7             | 2.7 | 2.7 |                         | 3.4    | 3.5 | 3.5 |       |
|          |               |                 |                   |                              | Middle           | 17.2               | 17.3 | 17.3  | 30.1           | 30.2 | 30.2  | 6.9       | 6.9 | 6.9   | 86.1              | 85.9 | 86.0  | 2.9             | 2.9 | 2.9 | 2.9                     | 3.7    | 3.7 | 3.7 | 3.7   |
|          |               |                 |                   |                              | Bottom           | 17.3               | 17.4 | 17.4  | 30.3           | 30.4 | 30.4  | 6.7       | 6.8 | 6.7   | 84.0              | 84.2 | 84.1  | 3.1             | 3.1 | 3.1 |                         | 3.9    | 3.9 | 3.9 |       |
| G3       | 1710-1728     | 15.4            | W                 | 0.4                          | Surface          | 17.1               | 17.0 | 17.1  | 30.0           | 30.1 | 30.1  | 7.1       | 7.2 | 7.2   | 88.5              | 88.9 | 88.7  | 2.7             | 2.7 | 2.7 |                         | 3.3    | 3.3 | 3.3 |       |
|          |               |                 |                   |                              | Middle           | 17.1               | 17.2 | 17.2  | 30.2           | 30.3 | 30.3  | 6.7       | 6.7 | 6.7   | 83.7              | 83.5 | 83.6  | 3.0             | 3.0 | 3.0 | 2.9                     | 3.6    | 3.8 | 3.7 | 3.5   |
|          |               |                 |                   |                              | Bottom           | 17.3               | 17.4 | 17.4  | 30.4           | 30.5 | 30.5  | 6.8       | 6.8 | 6.8   | 85.1              | 84.9 | 85.0  | 2.9             | 3.0 | 3.0 |                         | 3.6    | 3.5 | 3.6 |       |
| E9       | 1733-1750     | 18.6            | W                 | 0.3                          | Surface          | 17.0               | 17.1 | 17.1  | 30.1           | 30.0 | 30.1  | 7.0       | 7.1 | 7.1   | 87.3              | 87.5 | 87.4  | 2.8             | 2.8 | 2.8 |                         | 3.6    | 3.6 | 3.6 |       |
|          |               |                 |                   |                              | Middle           | 17.2               | 17.1 | 17.2  | 30.2           | 30.2 | 30.2  | 6.8       | 6.8 | 6.8   | 84.8              | 84.6 | 84.7  | 3.0             | 3.0 | 3.0 | 2.8                     | 3.5    | 3.5 | 3.5 | 3.5   |
|          |               |                 |                   |                              | Bottom           | 17.3               | 17.3 | 17.3  | 30.3           | 30.4 | 30.4  | 6.7       | 6.7 | 6.7   | 83.2              | 83.4 | 83.3  | 2.5             | 2.6 | 2.6 |                         | 3.2    | 3.3 | 3.3 |       |
| S2       | 1755-1813     | 10.8            | W                 | 0.3                          | Surface          | 17.0               | 17.1 | 17.1  | 30.0           | 30.1 | 30.1  | 7.0       | 6.9 | 7.0   | 85.8              | 86.0 | 85.9  | 3.1             | 3.1 | 3.1 |                         | 3.4    | 3.5 | 3.5 |       |
|          |               |                 |                   |                              | Middle           | 17.1               | 17.2 | 17.2  | 30.2           | 30.2 | 30.2  | 6.6       | 6.6 | 6.6   | 81.7              | 81.9 | 81.8  | 3.4             | 3.4 | 3.4 | 3.3                     | 3.8    | 3.7 | 3.8 | 3.6   |
|          |               |                 |                   |                              | Bottom           | 17.3               | 17.4 | 17.4  | 30.3           | 30.4 | 30.4  | 6.4       | 6.5 | 6.5   | 80.4              | 80.7 | 80.6  | 3.4             | 3.4 | 3.4 |                         | 3.5    | 3.6 | 3.6 |       |
| G2       | 1818-1835     | 13.6            | W                 | 0.3                          | Surface          | 17.0               | 17.1 | 17.1  | 30.1           | 30.0 | 30.1  | 7.0       | 7.0 | 7.0   | 86.4              | 86.6 | 86.5  | 3.0             | 3.0 | 3.0 |                         | 3.5    | 3.5 | 3.5 |       |
|          |               |                 |                   |                              | Middle           | 17.2               | 17.2 | 17.2  | 30.2           | 30.3 | 30.3  | 6.8       | 6.8 | 6.8   | 84.8              | 84.6 | 84.7  | 3.2             | 3.2 | 3.2 | 3.2                     | 3.7    | 3.7 | 3.7 | 3.7   |
|          |               |                 |                   |                              | Bottom           | 17.3               | 17.4 | 17.4  | 30.4           | 30.5 | 30.5  | 6.7       | 6.8 | 6.8   | 84.1              | 84.4 | 84.3  | 3.3             | 3.3 | 3.3 |                         | 3.8    | 4.0 | 3.9 |       |
| S3       | 1843-1900     | 11.0            | W                 | 0.4                          | Surface          | 17.1               | 17.1 | 17.1  | 30.0           | 30.8 | 30.4  | 7.0       | 7.0 | 7.0   | 86.9              | 87.1 | 87.0  | 3.3             | 3.3 | 3.3 |                         | 4.0    | 3.8 | 3.9 |       |
|          |               |                 |                   |                              | Middle           | 17.2               | 17.3 | 17.3  | 30.1           | 30.2 | 30.2  | 6.9       | 6.9 | 6.9   | 85.8              | 85.7 | 85.8  | 3.3             | 3.3 | 3.3 | 3.3                     | 3.9    | 3.9 | 3.9 | 4.0   |
|          |               |                 |                   |                              | Bottom           | 17.4               | 17.4 | 17.4  | 30.3           | 30.3 | 30.3  | 6.8       | 6.8 | 6.8   | 84.6              | 84.9 | 84.8  | 3.4             | 3.4 | 3.4 |                         | 4.0    | 4.1 | 4.1 |       |

Remark or Obsevation:

Note: \* Average

\*\* Depth Average

Date: 30-Jan-14  
 Weather: Fine  
 Sea Conditions: Small Wave  
 Zone A

| Location | Sampling Time | Water Depth (m) | Current direction | Current speed ( $m s^{-1}$ ) | Monitoring Depth | Tempertrature (°C) |      |       | Salinity (ppt) |      |       | DO (mg/l) |     |       | DO Saturation (%) |      |       | Turbidity (NTU) |     |     | Suspended Solids (mg/l) |        |     |     |       |
|----------|---------------|-----------------|-------------------|------------------------------|------------------|--------------------|------|-------|----------------|------|-------|-----------|-----|-------|-------------------|------|-------|-----------------|-----|-----|-------------------------|--------|-----|-----|-------|
|          |               |                 |                   |                              |                  | 1                  | 2    | Ave.* | 1              | 2    | Ave.* | 1         | 2   | Ave.* | 1                 | 2    | Ave.* | D.A.**          | 1   | 2   | Ave.*                   | D.A.** | 1   | 2   | Ave.* |
| C1       | 2242-2300     | 35.4            | W                 | 0.5                          | Surface          | 17.0               | 17.0 | 17.0  | 30.0           | 30.0 | 30.0  | 7.1       | 7.1 | 7.1   | 88.2              | 88.6 | 88.4  | 3.3             | 3.3 | 3.3 | 3.3                     | 3.8    | 3.9 | 3.9 | 3.8   |
|          |               |                 |                   |                              | Middle           | 17.1               | 17.2 | 17.2  | 30.1           | 30.2 | 30.2  | 6.9       | 6.9 | 6.9   | 86.3              | 85.8 | 86.1  | 3.3             | 3.3 | 3.3 | 3.3                     | 3.8    | 3.7 | 3.8 | 3.8   |
|          |               |                 |                   |                              | Bottom           | 17.4               | 17.4 | 17.4  | 30.4           | 30.4 | 30.4  | 6.7       | 6.7 | 6.7   | 83.3              | 82.9 | 83.1  | 3.3             | 3.3 | 3.3 | 3.3                     | 3.8    | 3.9 | 3.9 | 3.8   |
| E8       | 2221-2237     | 19.6            | W                 | 0.4                          | Surface          | 17.0               | 17.1 | 17.1  | 30.0           | 30.0 | 30.0  | 7.1       | 7.1 | 7.1   | 87.7              | 88.0 | 87.9  | 3.2             | 3.2 | 3.2 | 3.2                     | 3.7    | 3.7 | 3.7 | 3.7   |
|          |               |                 |                   |                              | Middle           | 17.2               | 17.0 | 17.1  | 30.2           | 30.2 | 30.2  | 6.8       | 6.8 | 6.8   | 84.6              | 84.9 | 84.8  | 3.3             | 3.3 | 3.3 | 3.2                     | 3.9    | 3.8 | 3.9 | 3.8   |
|          |               |                 |                   |                              | Bottom           | 17.3               | 17.4 | 17.4  | 30.4           | 30.3 | 30.4  | 6.7       | 6.7 | 6.7   | 83.7              | 83.6 | 83.7  | 3.2             | 3.3 | 3.2 | 3.2                     | 3.7    | 3.7 | 3.7 | 3.7   |
| S1       | 2158-2214     | 10.4            | W                 | 0.5                          | Surface          | 17.0               | 17.0 | 17.0  | 30.0           | 30.1 | 30.1  | 7.0       | 7.0 | 7.0   | 86.9              | 87.2 | 87.1  | 3.1             | 3.2 | 3.2 | 3.2                     | 3.5    | 3.6 | 3.6 | 3.5   |
|          |               |                 |                   |                              | Middle           | 17.1               | 17.2 | 17.2  | 30.1           | 30.1 | 30.1  | 6.9       | 6.9 | 6.9   | 85.3              | 85.2 | 85.3  | 3.2             | 3.2 | 3.2 | 3.2                     | 3.8    | 4.0 | 3.9 | 3.8   |
|          |               |                 |                   |                              | Bottom           | 17.4               | 17.4 | 17.4  | 30.3           | 30.4 | 30.4  | 6.7       | 6.7 | 6.7   | 83.9              | 83.6 | 83.8  | 3.3             | 3.3 | 3.3 | 3.2                     | 4.0    | 4.0 | 4.0 | 3.8   |
| G1       | 2136-2152     | 11.7            | W                 | 0.4                          | Surface          | 17.0               | 17.0 | 17.0  | 30.1           | 30.0 | 30.1  | 7.1       | 7.1 | 7.1   | 87.4              | 87.7 | 87.6  | 3.1             | 3.1 | 3.1 | 3.2                     | 3.6    | 3.7 | 3.7 | 3.6   |
|          |               |                 |                   |                              | Middle           | 17.2               | 17.2 | 17.2  | 30.1           | 30.2 | 30.2  | 6.9       | 6.9 | 6.9   | 85.8              | 85.6 | 85.7  | 3.4             | 3.4 | 3.4 | 3.2                     | 3.9    | 4.0 | 4.0 | 3.8   |
|          |               |                 |                   |                              | Bottom           | 17.3               | 17.3 | 17.3  | 30.3           | 30.4 | 30.4  | 6.7       | 6.8 | 6.7   | 84.1              | 84.2 | 84.2  | 3.2             | 3.2 | 3.2 | 3.2                     | 3.8    | 3.8 | 3.8 | 3.8   |
| E7       | 2112-2128     | 12.2            | W                 | 0.4                          | Surface          | 17.1               | 17.1 | 17.1  | 30.0           | 30.1 | 30.1  | 7.1       | 7.0 | 7.0   | 87.4              | 86.9 | 87.2  | 3.1             | 3.1 | 3.1 | 3.1                     | 3.7    | 3.8 | 3.8 | 3.7   |
|          |               |                 |                   |                              | Middle           | 17.3               | 17.2 | 17.3  | 30.2           | 30.2 | 30.2  | 6.9       | 6.9 | 6.9   | 85.9              | 86.1 | 86.0  | 3.3             | 3.4 | 3.4 | 3.3                     | 3.9    | 4.1 | 4.0 | 3.9   |
|          |               |                 |                   |                              | Bottom           | 17.4               | 17.4 | 17.4  | 30.3           | 30.4 | 30.4  | 6.8       | 6.7 | 6.8   | 84.6              | 84.1 | 84.4  | 3.3             | 3.3 | 3.3 | 3.3                     | 3.9    | 3.8 | 3.9 | 3.9   |
| F1       | 2048-2104     | 11.5            | W                 | 0.4                          | Surface          | 17.0               | 17.0 | 17.0  | 30.1           | 30.1 | 30.1  | 7.1       | 7.2 | 7.2   | 88.5              | 88.8 | 88.7  | 3.3             | 3.3 | 3.3 | 3.3                     | 3.8    | 3.7 | 3.8 | 3.8   |
|          |               |                 |                   |                              | Middle           | 17.2               | 17.2 | 17.2  | 30.2           | 30.2 | 30.2  | 6.9       | 7.0 | 7.0   | 86.3              | 86.6 | 86.5  | 3.4             | 3.5 | 3.4 | 3.3                     | 3.9    | 4.2 | 4.1 | 4.0   |
|          |               |                 |                   |                              | Bottom           | 17.3               | 17.3 | 17.3  | 30.4           | 30.4 | 30.4  | 6.6       | 6.7 | 6.7   | 82.8              | 83.1 | 83.0  | 3.3             | 3.3 | 3.3 | 3.3                     | 4.0    | 4.2 | 4.1 | 4.0   |
| G3       | 2025-2041     | 13.0            | W                 | 0.5                          | Surface          | 17.0               | 17.1 | 17.1  | 30.1           | 30.1 | 30.1  | 7.1       | 7.0 | 7.1   | 88.2              | 88.0 | 88.1  | 3.2             | 3.2 | 3.2 | 3.2                     | 3.9    | 3.9 | 3.9 | 3.9   |
|          |               |                 |                   |                              | Middle           | 17.2               | 17.3 | 17.3  | 30.2           | 30.2 | 30.2  | 6.8       | 6.9 | 6.8   | 85.1              | 85.3 | 85.2  | 3.2             | 3.2 | 3.2 | 3.2                     | 3.9    | 3.9 | 3.9 | 3.9   |
|          |               |                 |                   |                              | Bottom           | 17.4               | 17.4 | 17.4  | 30.4           | 30.4 | 30.4  | 6.7       | 6.8 | 6.8   | 84.1              | 84.4 | 84.3  | 3.3             | 3.3 | 3.3 | 3.3                     | 3.8    | 3.9 | 3.9 | 3.9   |
| E9       | 2003-2018     | 18.5            | W                 | 0.5                          | Surface          | 17.0               | 17.1 | 17.1  | 30.1           | 30.1 | 30.1  | 7.1       | 7.1 | 7.1   | 87.7              | 88.1 | 87.9  | 3.2             | 3.3 | 3.2 | 3.2                     | 3.7    | 3.8 | 3.8 | 3.7   |
|          |               |                 |                   |                              | Middle           | 17.3               | 17.3 | 17.3  | 30.2           | 30.2 | 30.2  | 6.7       | 6.8 | 6.8   | 83.8              | 84.1 | 84.0  | 3.1             | 3.2 | 3.2 | 3.2                     | 3.5    | 3.5 | 3.5 | 3.7   |
|          |               |                 |                   |                              | Bottom           | 17.3               | 17.4 | 17.4  | 30.4           | 30.3 | 30.4  | 6.7       | 6.6 | 6.6   | 82.9              | 82.7 | 82.8  | 3.3             | 3.3 | 3.3 | 3.3                     | 3.8    | 3.9 | 3.9 | 3.9   |
| S2       | 1942-1958     | 11.0            | W                 | 0.4                          | Surface          | 17.1               | 17.1 | 17.1  | 30.0           | 30.1 | 30.1  | 7.0       | 7.0 | 7.0   | 86.9              | 86.5 | 86.7  | 3.2             | 3.2 | 3.2 | 3.2                     | 3.8    | 3.9 | 3.9 | 3.9   |
|          |               |                 |                   |                              | Middle           | 17.3               | 17.2 | 17.3  | 30.2           | 30.3 | 30.3  | 6.9       | 6.8 | 6.8   | 85.2              | 84.9 | 85.1  | 3.3             | 3.3 | 3.3 | 3.3                     | 3.7    | 3.8 | 3.8 | 3.8   |
|          |               |                 |                   |                              | Bottom           | 17.4               | 17.4 | 17.4  | 30.3           | 30.4 | 30.4  | 6.7       | 6.6 | 6.6   | 82.9              | 82.3 | 82.6  | 3.2             | 3.2 | 3.2 | 3.2                     | 3.6    | 3.8 | 3.8 | 3.7   |
| G2       | 1922-1937     | 13.2            | W                 | 0.4                          | Surface          | 17.1               | 17.2 | 17.2  | 30.0           | 30.1 | 30.1  | 7.0       | 7.0 | 7.0   | 87.0              | 87.3 | 87.2  | 3.1             | 3.1 | 3.1 | 3.2                     | 3.8    | 3.8 | 3.8 | 3.8   |
|          |               |                 |                   |                              | Middle           | 17.3               | 17.3 | 17.3  | 30.2           | 30.2 | 30.2  | 6.8       | 6.8 | 6.8   | 85.1              | 84.5 | 84.8  | 3.2             | 3.3 | 3.2 | 3.2                     | 3.6    | 3.7 | 3.7 | 3.7   |
|          |               |                 |                   |                              | Bottom           | 17.4               | 17.4 | 17.4  | 30.4           | 30.3 | 30.4  | 6.7       | 6.7 | 6.7   | 83.6              | 83.3 | 83.5  | 3.1             | 3.1 | 3.1 | 3.2                     | 3.6    | 3.6 | 3.6 | 3.6   |
| S3       | 1900-1916     | 11.4            | W                 | 0.3                          | Surface          | 17.1               | 17.1 | 17.1  | 30.0           | 30.1 | 30.1  | 7.1       | 7.1 | 7.1   | 88.2              | 88.0 | 88.1  | 3.2             | 3.2 | 3.2 | 3.2                     | 3.7    | 3.6 | 3.7 | 3.7   |
|          |               |                 |                   |                              | Middle           | 17.2               | 17.2 | 17.2  | 30.1           | 30.2 | 30.2  | 6.9       | 7.0 | 7.0   | 86.3              | 86.8 | 86.6  | 3.1             | 3.1 | 3.1 | 3.2                     | 3.6    | 3.5 | 3.6 | 3.6   |
|          |               |                 |                   |                              | Bottom           | 17.3               | 17.4 | 17.4  | 30.3           | 30.4 | 30.4  | 6.8       | 6.8 | 6.8   | 84.6              | 84.8 | 84.7  | 3.2             | 3.1 | 3.1 | 3.2                     | 3.7    | 3.6 | 3.7 | 3.7   |

Remark or Obsevation:

Note: \* Average

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