

**Contract No. HY/2012/07
Tuen Mun – Chek Lap Kok Link –
Southern Connection Viaduct Section**

Nineteenth Monthly EM&A Report

09 June 2015

Environmental Resources Management
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Contract No. HY/2012/07





Tuen Mun – Chek Lap Kok Link – Southern Connection Viaduct Section

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Nineteenth Monthly EM&A Report

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Client: Gammon		Project No: 0215660			
Summary: This document presents the Nineteenth Monthly EM&A Report for Tuen Mun – Chek Lap Kok Link – Southern Connection Viaduct Section.		Date: 09 June 2015			
		Approved by: 			
		Mr Craig Reid Partner			
		Certified by: 			
		Mr Jovy Tam ET Leader			
	Nineteenth Monthly EM&A Report	VAR	JT	CAR	09/06/15
Revision	Description	By	Checked	Approved	Date
<p>This report has been prepared by Environmental Resources Management the trading name of 'ERM Hong-Kong, Limited', with all reasonable skill, care and diligence within the terms of the Contract with the client, incorporating our General Terms and Conditions of Business and taking account of the resources devoted to it by agreement with the client.</p> <p>We disclaim any responsibility to the client and others in respect of any matters outside the scope of the above.</p>		<p>Distribution</p> <p><input type="checkbox"/> Internal</p> <p><input checked="" type="checkbox"/> Public</p> <p><input type="checkbox"/> Confidential</p>			
		 			

Ref.: HYDZHMBEEM00_0_3038L.15

11 June 2015

AECOM
Supervising Officer's Representative's Office
780 Cheung Tung Road, Lantau, N.T.

By Fax (3691 2899) and By Post

Attention: Mr. Daniel Ip

Dear Mr. Ip,

**Re: Agreement No. CE 48/2011 (EP)
Environmental Project Office for the
HZMB Hong Kong Link Road, HZMB Hong Kong Boundary Crossing Facilities,
and Tuen Mun-Chek Lap Kok Link – Investigation**


**Contract No. HY/2012/07 TM-CLKL Southern Connection Viaduct Section
Monthly EM&A report for May 2015 (EP-354/2009/D)**

Reference is made to the Monthly Environmental Monitoring and Audit (EM&A) Report (April 2015) certified by the ET Leader (ET's ref.: "0215660_19th Monthly EM&A_20150609.doc" dated 09 June 2015) and provided to us via mail on 11 June 2015.

We are pleased to inform you that we have no adverse comments on the captioned monthly EN&A report. We write to verify the captioned submission in accordance with Condition 4.4 of EP-354/2009/D.

Thank you for your kind attention. Please do not hesitate to contact the undersigned or the ENPO Leader Mr. Y. H. Hui should you have any queries.

Yours sincerely,



F. C. Tsang
Independent Environmental Checker
Tuen Mun – Chek Lap Kok Link

c.c. HyD – Mr. Stephen Chan (By Fax: 3188 6614)
HyD – Mr. Matthew Fung (By Fax: 3188 6614)
AECOM – Mr. Conrad Ng (By Fax: 3922 9797)
ERM – Mr. Jovy Tam (By Fax: 2723 5660)
Gammon – Mr. Roy Leung (By Fax: 3520 0486)

Internal: DY, YH, SLUI, ENPO Site

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EXECUTIVE SUMMARY

Under *Contract No. HY/2012/07*, Gammon Construction Limited (GCL) is commissioned by the Highways Department (HyD) to undertake the design and construction of the Southern Connection Viaduct Section of the Tuen Mun – Chek Lap Kok Link Project (TM-CLK Link Project) while AECOM Asia Company Limited was appointed by HyD as the Supervising Officer. For implementation of the environmental monitoring and audit (EM&A) programme under the Contract, ERM-Hong Kong, Limited (ERM) has been appointed as the Environmental Team (ET). ENVIRON Hong Kong Ltd. was employed by the HyD as the Independent Environmental Checker (IEC) and Environmental Project Office (ENPO) in accordance with *Environmental Permit No. EP-354/2009/A*. Further applications for variation of environmental permit (VEP), *EP-354/2009/B*, *EP-354/2009/C* and *EP-354/2009/D*, were granted on 28 January 2014, 10 December 2014 and 13 March 2015, respectively.

The construction phase of the Contract commenced on 31 October 2013 and will tentatively be completed by 2018. The impact monitoring of the EM&A programme, including air quality, noise, water quality and marine ecological monitoring as well as environmental site inspections, commenced on 31 October 2013.

This is the Nineteenth Monthly EM&A report presenting the EM&A works carried out during the period from 1 to 31 May 2015 for the Southern Connection Viaduct Section in accordance with the Updated EM&A Manual of the TM-CLK Link Project. As informed by the Contractor, major activities in the reporting period included:

Marine Works

- Construction and installation of pile caps;
- Marine piling platform installation & uninstallation;
- Pier construction;
- Installation of launching gantry;
- Marine piling and
- Installation of pier head segment.

Land-based Works

- Construction and installation of pile caps;
- Pier construction;
- Drainage works;
- Re-alignment of Cheung Tung Road;
- Land piling;
- Pre-drilling works;
- Installation of pier head segment;
- Additional land GI, trial pits & lab testing;
- Tree survey, felling and transplanting;
- Relocation of MTRC fence; and

- Slope work of Slopes 9SE-B/C8, 9SE-B/C9 & 9SE-B/F9.

A summary of monitoring and audit activities conducted in the reporting period is listed below:

24-hour TSP monitoring	5 sessions
1-hour TSP monitoring	5 sessions
Noise monitoring	5 sessions
Impact Water Quality Monitoring	13 sessions
Impact Dolphin Monitoring	2 sessions
Joint Environmental site inspection	4 sessions

Breaches of Action and Limit Levels for Air Quality

No exceedance of Action and Limit Levels was recorded for construction air monitoring in the reporting month.

Breaches of Action and Limit Levels for Noise

No exceedance of Action and Limit Levels was recorded for construction noise monitoring in the reporting month.

Breaches of Action and Limit Levels for Water Quality

One (1) exceedance of Action Level for depth-averaged SS during mid-ebb tide was recorded for water quality monitoring in the reporting month.

Impact Dolphin Monitoring

Whilst one (1) Limit Level exceedance was observed for the quarterly dolphin monitoring data between March and May 2015, no unacceptable impact from the construction activities of the TM-CLKL Southern Connection Viaduct Section on Chinese White Dolphins was noticeable from general observations. Due to monthly variation in dolphin occurrence within the study area, it would be more appropriate to draw conclusion on whether any impacts on dolphins have been detected related to the construction activities of the TM-CLKL Southern Connection Viaduct Section in the quarterly EM&A reports, where comparison on distribution, group size and encounter rates of dolphins between the quarterly impact monitoring period and baseline monitoring period will be made.

Daily marine mammal exclusion zone monitoring was undertaken during the period of marine works under this Contract. Passive Acoustic Monitoring (PAM) was implemented when the marine piling works were carried out outside the daylight hours in this reporting month. No sighting of the Indo-

Pacific humpback dolphin *Sousa chinensis* (i.e. Chinese White Dolphin) was recorded in May 2015 during the exclusion zone monitoring.

Environmental Complaints, Non-compliance & Summons

No environmental complaint, notification of summons and successful prosecution was received in the reporting month.

Reporting Change

The complete proposal for Landscape and Visual (L&V) mitigation measures monitoring was submitted in the reporting period which was justified by the Environmental Team Leader (ETL) and the Independent Environmental Checker (IEC) had no adverse comment.

Upcoming Works for the Next Reporting Period

Works to be undertaken in the next monitoring period of June 2015 include the following:

Marine Works

- Construction and installation of pile caps;
- Marine piling platform installation & uninstallation;
- Pier construction;
- Launching gantry and off-loading gantry assembly;
- Marine piling and
- Installation of pier head segment.

Land-based Works

- Construction and installation of pile caps;
- Pier construction;
- Drainage works;
- Re-alignment of Cheung Tung Road;
- Land piling;
- Pre-drilling works;
- Installation of pier head segment;
- Additional land GI, trial pits & lab testing;
- Tree survey, felling and transplanting;
- Relocation of MTRC fence; and
- Slope work of Slopes 9SE-B/C9.

Future Key Issues

Potential environmental impacts arising from the above upcoming construction activities in the next reporting month of June 2015 are mainly associated with dust, noise, marine water quality, marine ecology and waste management issues.

1.1

BACKGROUND

According to the findings of the Northwest New Territories (NWNT) Traffic and Infrastructure Review conducted by the Transport Department, Tuen Mun Road, Ting Kau Bridge, Lantau Link and North Lantau Highway would be operating beyond capacity after 2016. This forecast has been based on the estimated increase in cross boundary traffic, developments in the Northwest New Territories (NWNT), and possible developments in North Lantau, including the Airport developments, the Lantau Logistics Park (LLP) and the Hong Kong – Zhuhai – Macao Bridge (HZMB). In order to cope with the anticipated traffic demand, two new road sections between NWNT and North Lantau – Tuen Mun – Chek Lap Kok Link (TM-CLKL) and Tuen Mun Western Bypass (TMWB) are proposed.

An Environmental Impact Assessment (EIA) of TM-CLKL (the Project) was prepared in accordance with the EIA Study Brief (No. ESB-175/2007) and the *Technical Memorandum of the Environmental Impact Assessment Process (EIAO-TM)*. The EIA Report was submitted under the Environmental Impact Assessment Ordinance (EIAO) in August 2009. Subsequent to the approval of the EIA Report (EIAO Register Number AEIAR-146/2009), an Environmental Permit (EP-354/2009) for TM-CLKL was granted by the Director of Environmental Protection (DEP) on 4 November 2009, and EP variation (EP-354/2009/A) was issued on 8 December 2010.

Under *Contract No. HY/2012/07*, Gammon Construction Limited (GCL) is commissioned by the Highways Department (HyD) to undertake the design and construction of the Southern Connection Viaduct Section of TM-CLKL (“the Contract”) while AECOM Asia Company Limited was appointed by HyD as the Supervising Officer. For implementation of the environmental monitoring and audit (EM&A) programme under the Contract, ERM-Hong Kong, Limited (ERM) has been appointed as the Environmental Team (ET). ENVIRON Hong Kong Ltd. was employed by HyD as the Independent Environmental Checker (IEC) and Environmental Project Office (ENPO) in accordance with *Environmental Permit No. EP-354/2009/A*. Further applications for variation of environmental permit (VEP), *EP-354/2009/B*, *EP-354/2009/C* and *EP-354/2009/D*, were granted on 28 January 2014, 10 December 2014 and 13 March 2015, respectively.

The construction phase of the Contract commenced on 31 October 2013 and will be tentatively completed by 2018. The impact monitoring phase of the EM&A programme, including air quality, noise, water quality and marine ecological monitoring as well environmental site inspections, commenced on 31 October 2013.

The general layout plan of the Contract components is presented in *Figures 1.1 & 1.2a to l*.

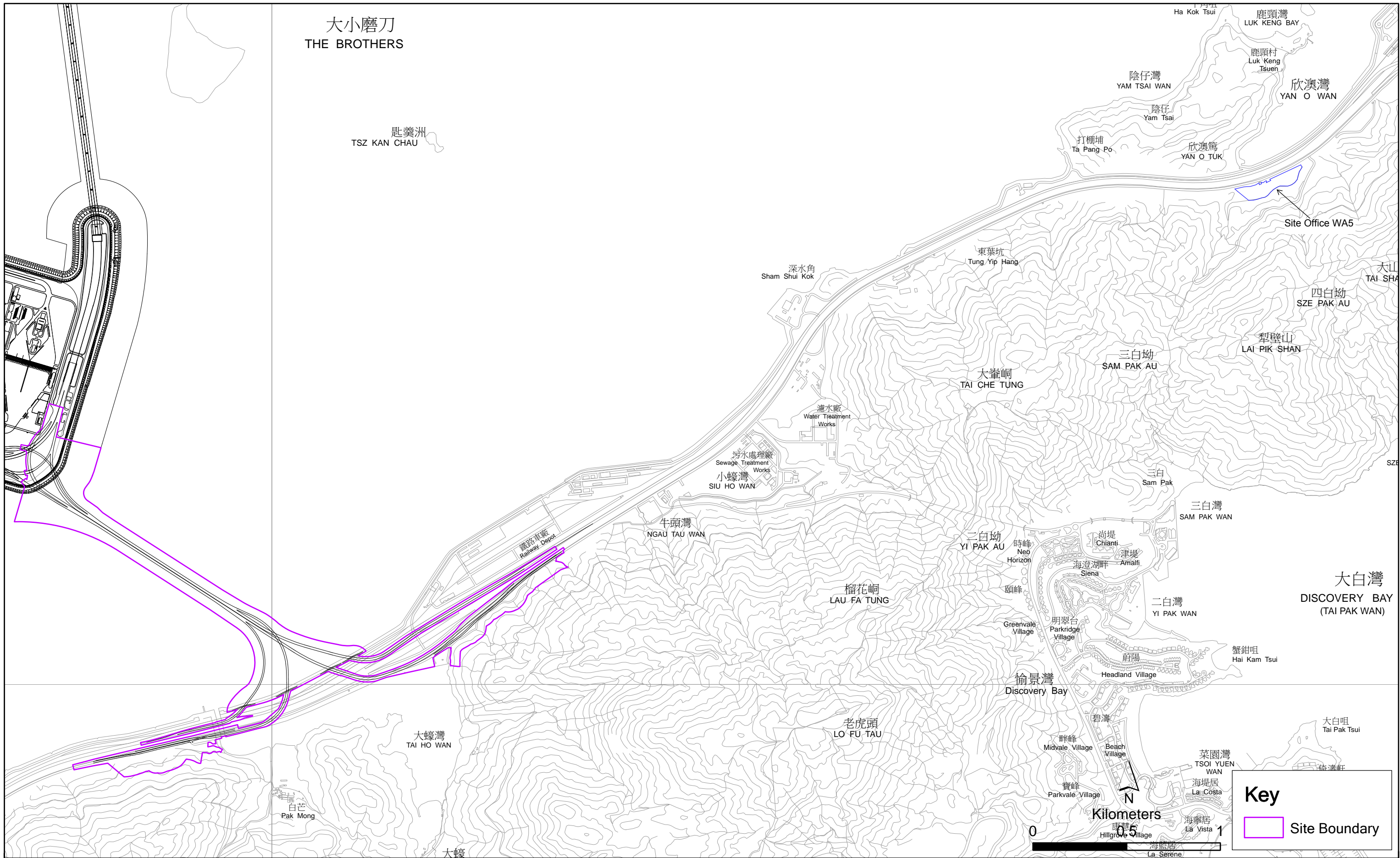


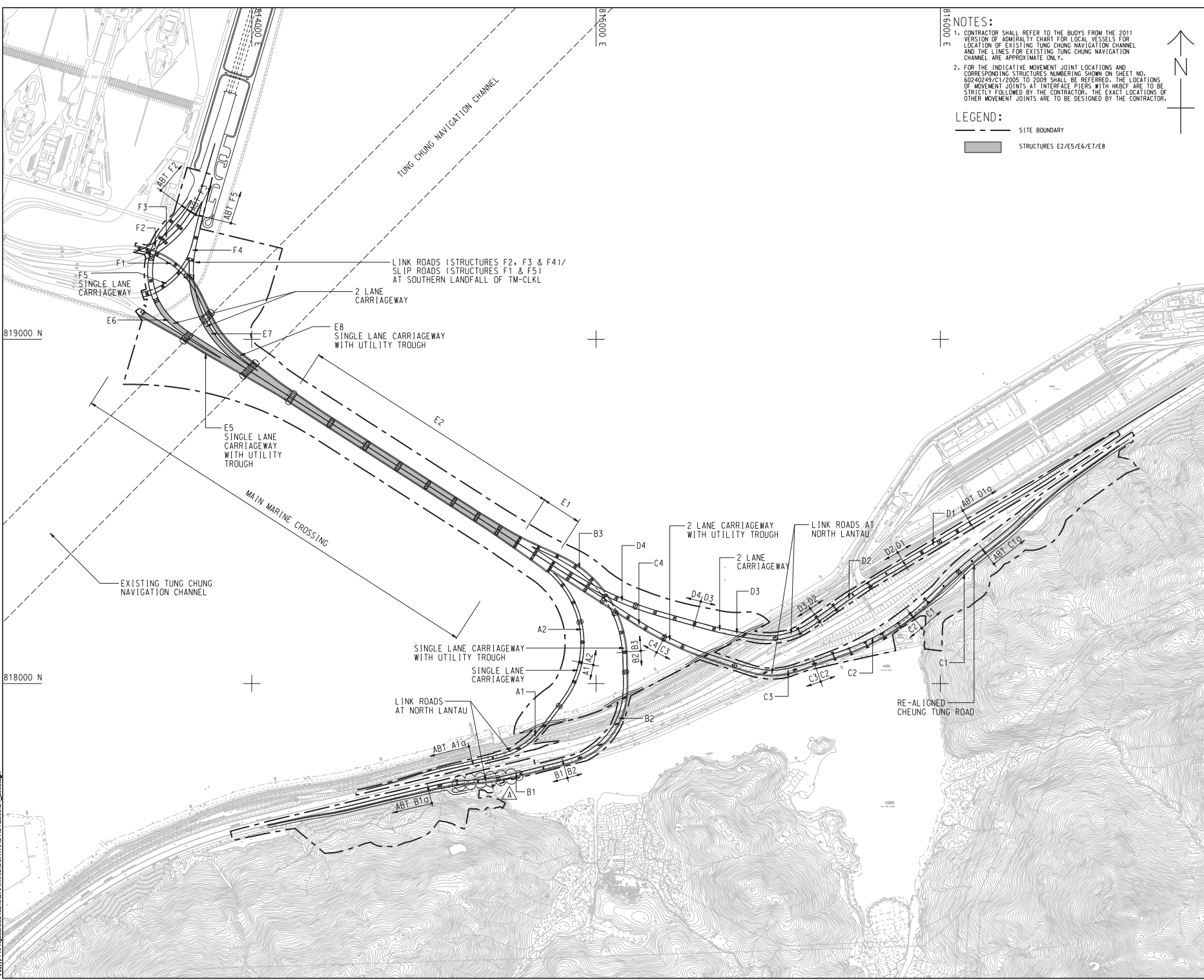
Figure 1.1

General Layout Plan of the Project

Environmental
Resources
Management



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 Project Management Initials: ISO AT 50mm x 61mm
 Date: 12/11/2012



NOTES:

- CONTRACTOR SHALL REFER TO THE BUOYS FROM THE 2011 VERSION OF ADMIRALTY CHART FOR LOCAL VESSELS FOR LOCATION OF EXISTING TUNG CHUNG NAVIGATION CHANNEL AND THE LINES FOR EXISTING TUNG CHUNG NAVIGATION CHANNEL ARE APPROXIMATE ONLY.
- FOR THE INDICATIVE MOVEMENT JOINT LOCATIONS AND CORRESPONDING STRUCTURES NUMBERING SHOWN ON SHEET NO. 60240249/C1/2005 TO 2009 SHALL BE REFERRED. THE LOCATIONS OF MOVEMENT JOINTS AT INTERFACE PIERS WITH HKBCF ARE TO BE STRICTLY FOLLOWED BY THE CONTRACTOR. THE EXACT LOCATIONS OF OTHER MOVEMENT JOINTS ARE TO BE DESIGNED BY THE CONTRACTOR.

LEGEND:

— SITE BOUNDARY

▬ STRUCTURES E2/E5/E6/E7/E8

AECOM

PROJECT
TUEN MUN - CHEK LAP KOK LINK

CONTRACT TITLE
TUEN MUN - CHEK LAP KOK LINK - SOUTHERN CONNECTION VIADUCT SECTION

CLIENT
路政署
HIGHWAYS DEPARTMENT
香港路政署工程管理部
Hong Kong - Zhuhai - Hainan Bridge
Hong Kong Project Management Office

CONSULTANT
AECOM Asia Company Ltd.
www.aecom.com

SUB-CONSULTANTS

Figure 1.2a

ISSUE/REVISION

NO.	DATE	DESCRIPTION	CHK.

STATUS

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DIMENSION UNIT
METRES

KEY PLAN

PROJECT NO.
60240249

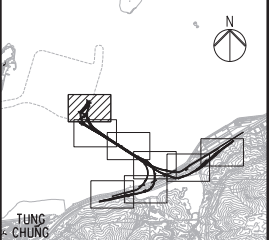
CONTRACT NO.
HY/2012/07

SHEET TITLE
SOUTHERN CONNECTION
GENERAL LAYOUT PLAN

SHEET NUMBER
60240249/C1/2000A

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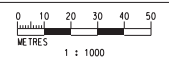


KEY PLAN

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- LEGEND**
- SITE BOUNDARY
 - GF1 FAULT
 - EXISTING G.I.-STATIONS :
 - ⊕ BOREHOLE BY GIU DATA EXCLUDING VC
 - ⊕ BOREHOLE BY GCL CONTRACT HY/2012/04
 - ⊕ BOREHOLE BY GCL CONTRACT NL8/97
 - ⊕ BOREHOLE BY GCL CONTRACT HY/2009/23
 - ⊕ TRIAL PIT BY GCL CONTRACT HY/2012/04
 - SLOPE STRIPPING BY GCL CONTRACT HY/2012/04
 - PROPOSED G.I.-STATIONS :
 - ⊕ PBH01 PROPOSED BOREHOLE
 - ⊕ TP01 PROPOSED TRIAL PIT
 - ⊕ CH01 PROPOSED COREHOLE
 - SS01 SS02 PROPOSED SLOPE STRIPPING

MATCH LINE
 FOR CONTINUATION
 SEE DRG. J3518/P/OAP/04/01101



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路政署
HIGHWAYS DEPARTMENT
 香港特别行政区政府
 香港特别行政区
 Hong Kong - Zhuhai - Macao Bridge
 Hong Kong Project Management Office

Supervising Officer: **AECOM**
 Contractor: **Gammon**

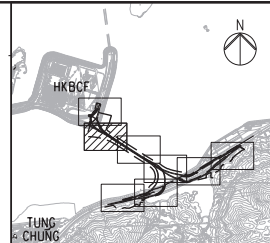
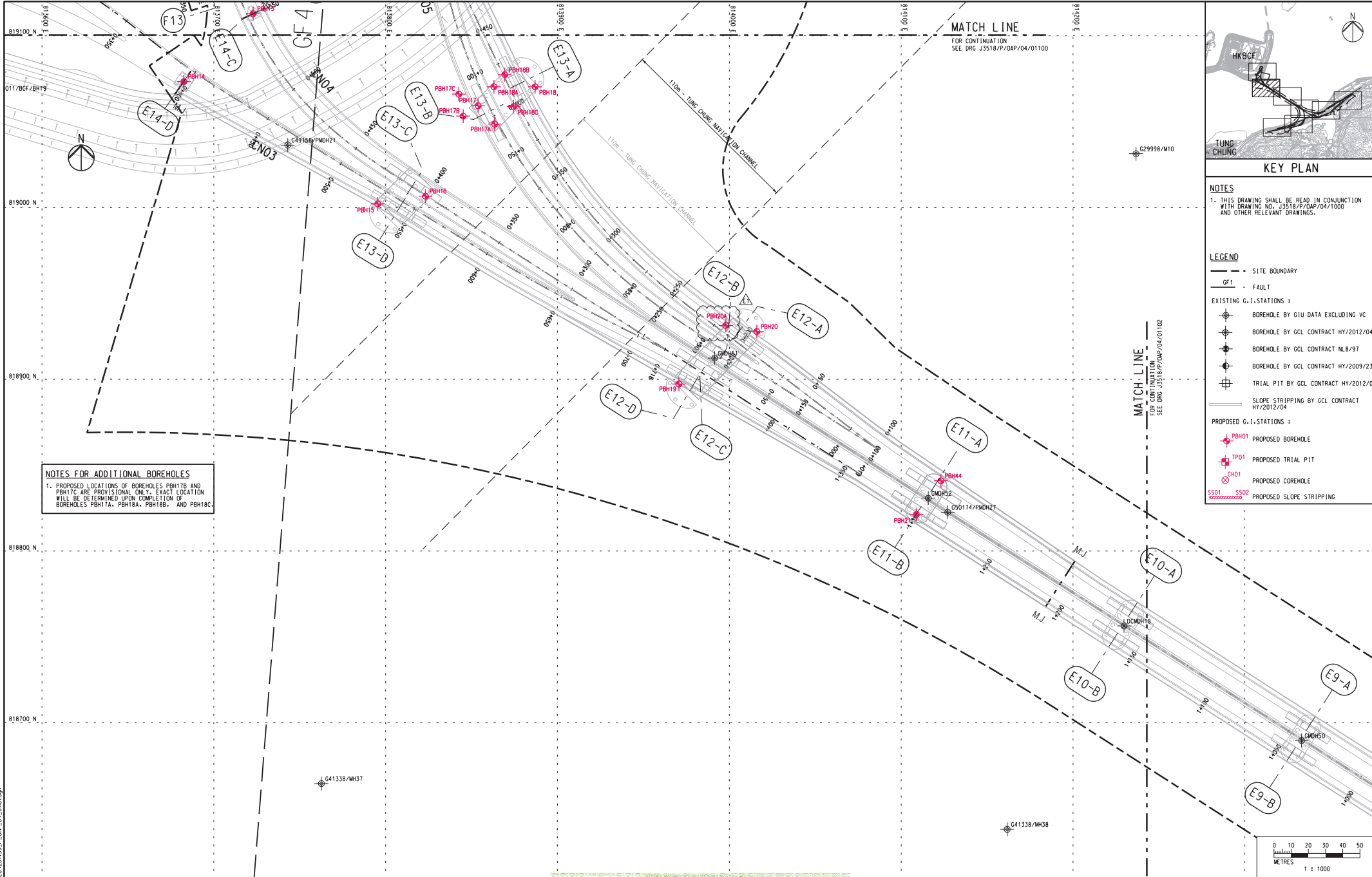
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Contract No. HY/2012/07
Tuen Mun - Chek Lap Kok Link
Southern Connection Viaduct Section

Originator: **ARUP**

Drawing title
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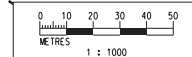


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 - ⊕ BOREHOLE BY GCL CONTRACT HY/2009/23
 - ⊕ TRIAL PIT BY GCL CONTRACT HY/2012/04
 - PROPOSED G.I. STATIONS:
 - ⊕ PBH01 PROPOSED BOREHOLE
 - ⊕ TP01 PROPOSED TRIAL PIT
 - ⊕ CH01 PROPOSED COREHOLE
 - SS01 SS02 PROPOSED SLOPE STRIPPING

NOTES FOR ADDITIONAL BOREHOLES
 1. PROPOSED LOCATIONS OF BOREHOLES PBH17B AND PBH17C ARE PROVISIONAL ONLY. EXACT LOCATION WILL BE DETERMINED UPON COMPLETION OF BOREHOLES PBH17A, PBH18A, PBH18B, AND PBH18C.



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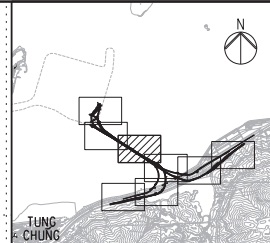
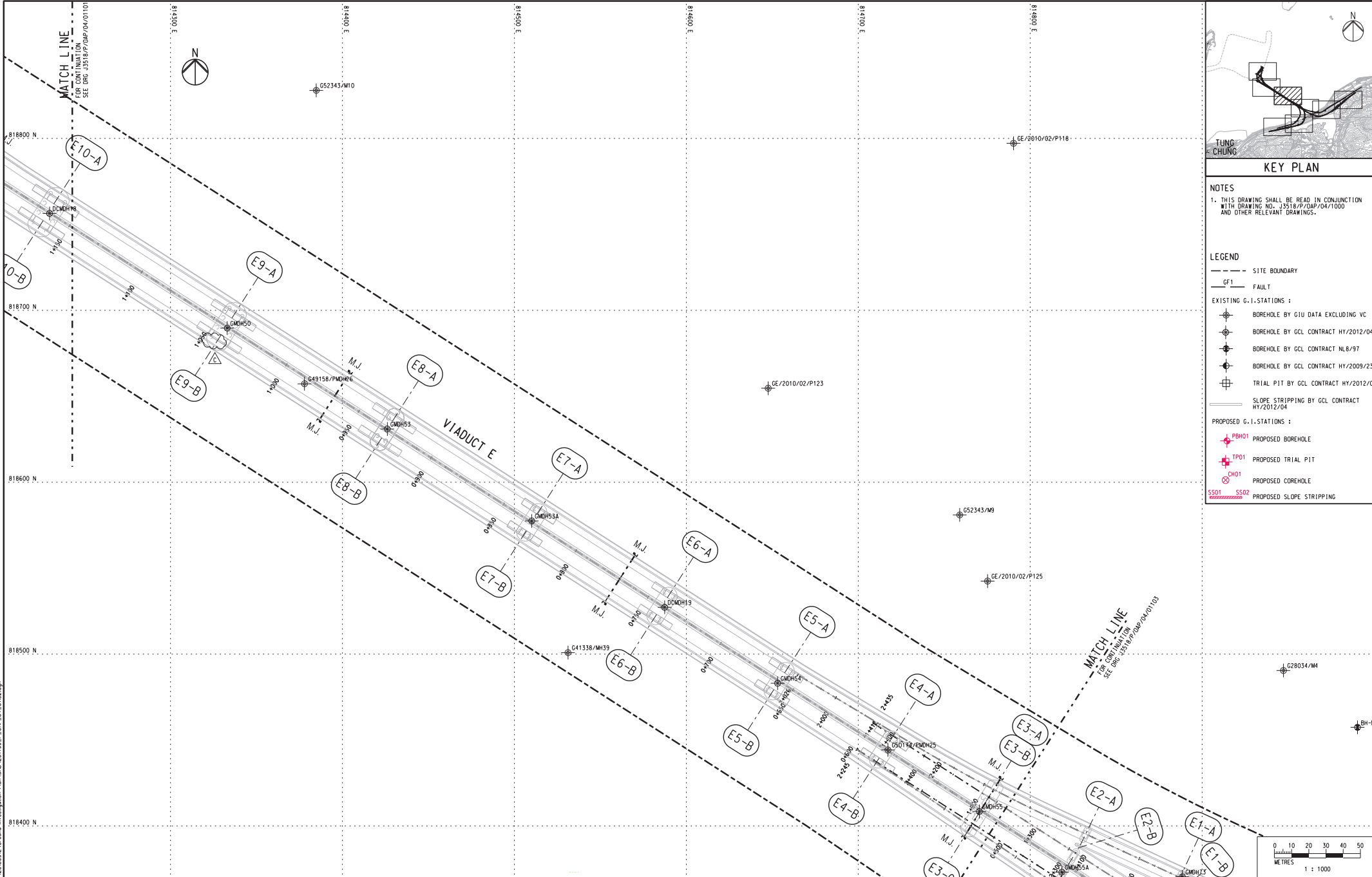
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Client	路政署 HIGHWAYS DEPARTMENT 香港渠務及港務工程處 Hong Kong - Zhuhai - Macao Bridge Hong Kong Project Management Office
Supervising Officer	AECOM
Contractor	Gammon
Originator	ARUP

Project Title	Contract No. HY/2012/07 Tuen Mun - Chek Lap Kok Link Southern Connection Viaduct Section
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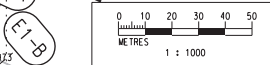
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 - SS01 SS02 PROPOSED SLOPE STRIPPING



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C	SUBMISSION	RC	09/13				

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 路政署 HIGHWAYS DEPARTMENT
 香港港大聯合港工程管理局
 Hong Kong Project Management Office

Project Title
 Contract No. HY/2012/07
 Tuen Mun - Chek Lap Kok Link
 Southern Connection Viaduct Section

Supervising Officer

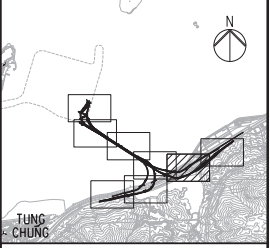
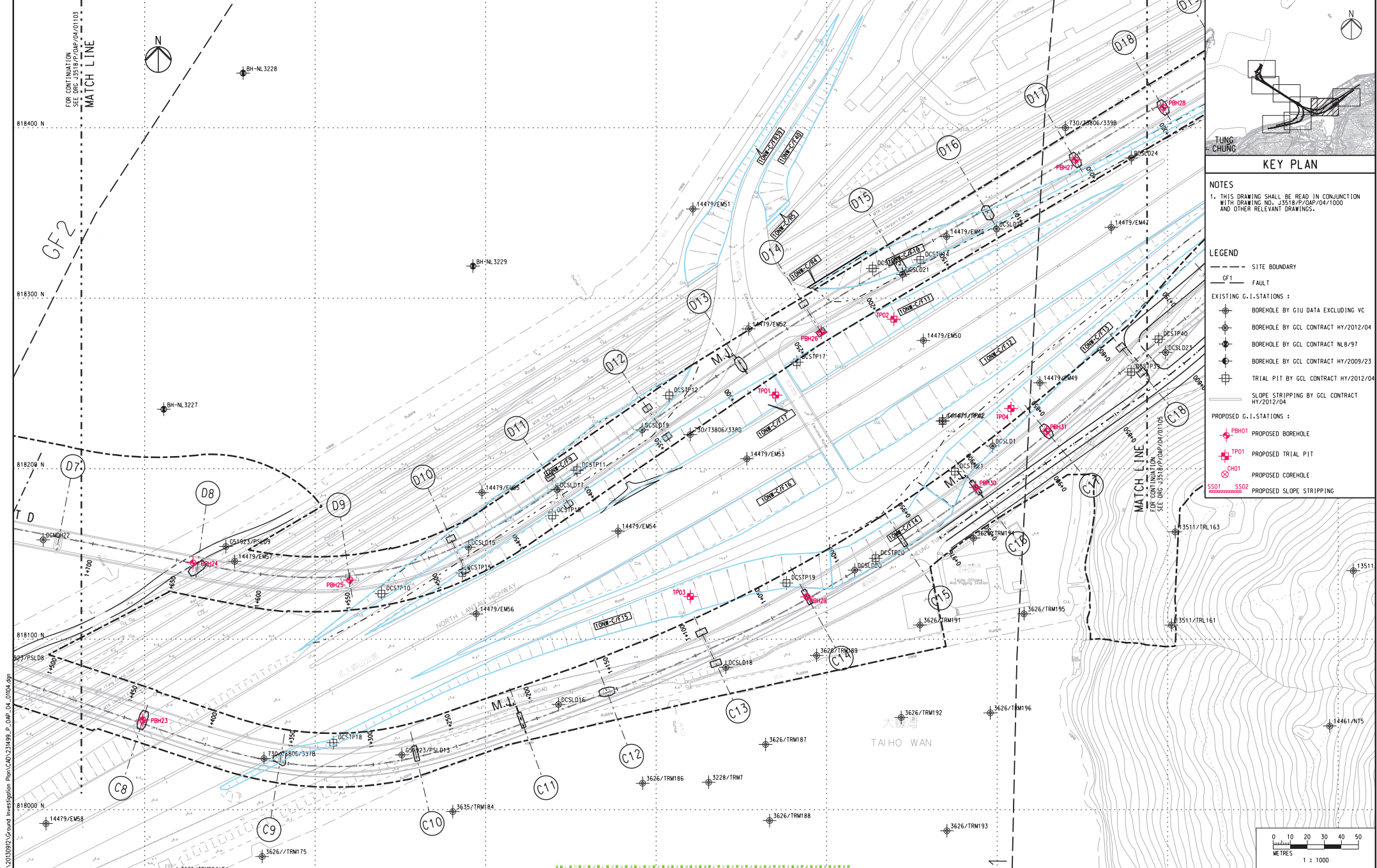
Contractor

Originator

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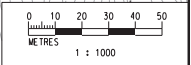
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 路政署
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 港珠澳大橋香港工程總處
 Hong Kong - Zhuhai - Macao Bridge
 Hong Kong Project Management Office

Supervising Officer
AECOM

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 Tuen Mun - Chek Lap Kok Link
 Southern Connection Viaduct Section

Contractor
Gammon

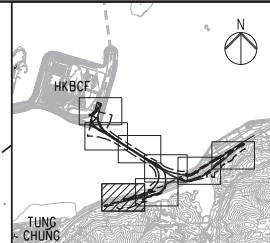
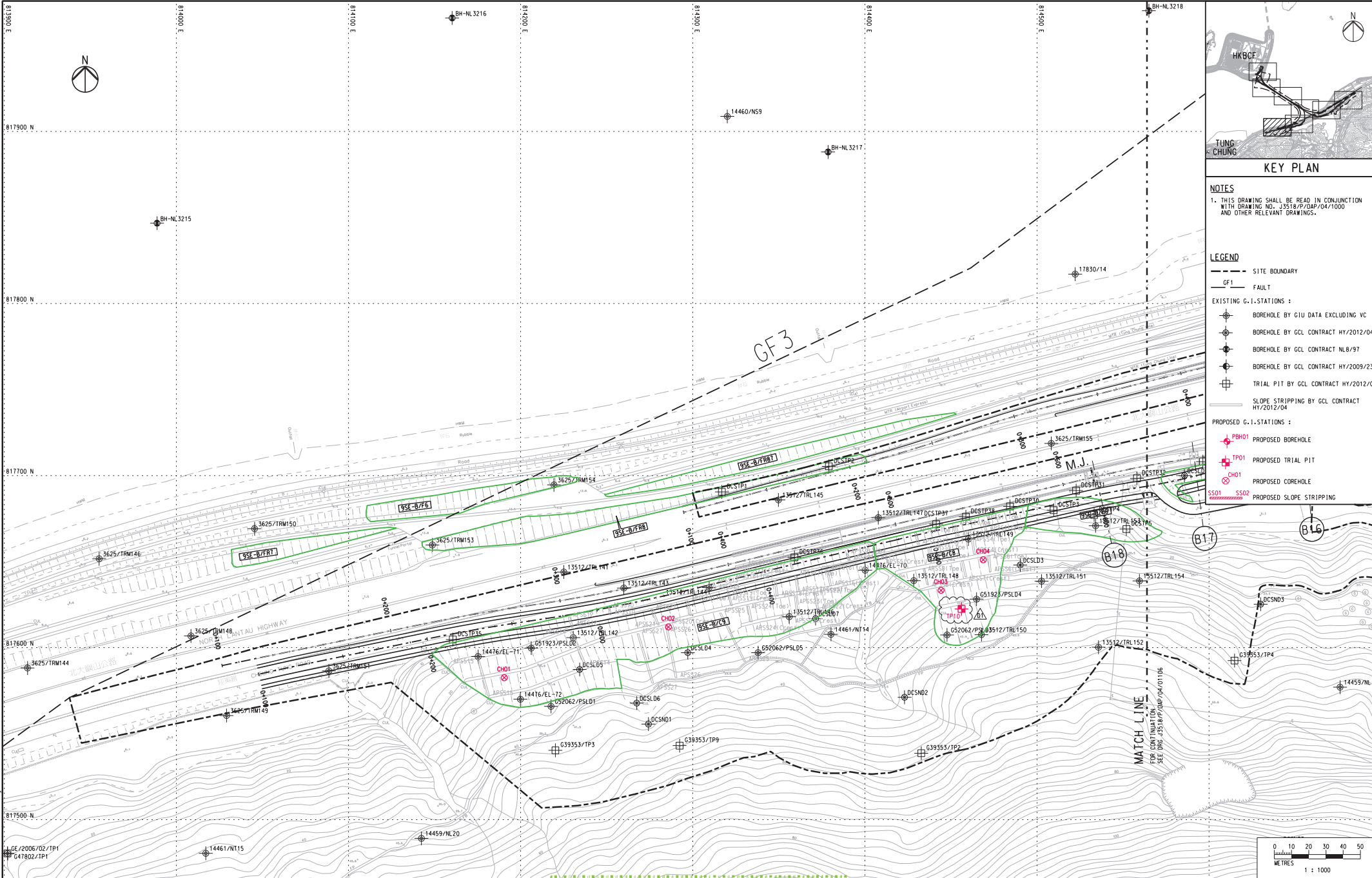
Originator
ARUP

Drawing title
Figure 1.2f

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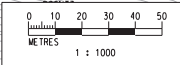
DO NOT SCALE DRAWING. CHECK ALL DIMENSIONS ON SITE.



KEY PLAN

NOTES
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- LEGEND**
- SITE BOUNDARY
 - GF1 FAULT
 - EXISTING G.I. STATIONS:
 - ⊕ BOREHOLE BY GIU DATA EXCLUDING VC
 - ⊕ BOREHOLE BY GCL CONTRACT HY/2012/04
 - ⊕ BOREHOLE BY GCL CONTRACT NL6/97
 - ⊕ BOREHOLE BY GCL CONTRACT HY/2009/23
 - ⊕ TRIAL PIT BY GCL CONTRACT HY/2012/04
 - SLOPE STRIPPING BY GCL CONTRACT HY/2012/04
 - PROPOSED G.I. STATIONS:
 - ⊕ PBH01 PROPOSED BOREHOLE
 - ⊕ TP01 PROPOSED TRIAL PIT
 - ⊕ CH01 PROPOSED COREHOLE
 - SS01 SS02 PROPOSED SLOPE STRIPPING



Printed by : 07/11/2013
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DATE: 2006/02/17
 BY: GAT802/TP1

Rev	Description	By	Date	Rev	Description	By	Date	Drawn	Date	Client
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B	SUBMISSION	RC	07/13					Checked	Approved	
C	SUBMISSION	RC	09/13					DS	DOP	
D1	FOR INTERNAL REVIEW	RC	11/13					Scale	1:1000 @ A1 / 1:2000 @ A3	

Client: **路政署 HIGHWAYS DEPARTMENT**
 港珠澳大桥香港工程管理局
 Hong Kong - Zhuhai - Macao Bridge
 Hong Kong Project Management Office

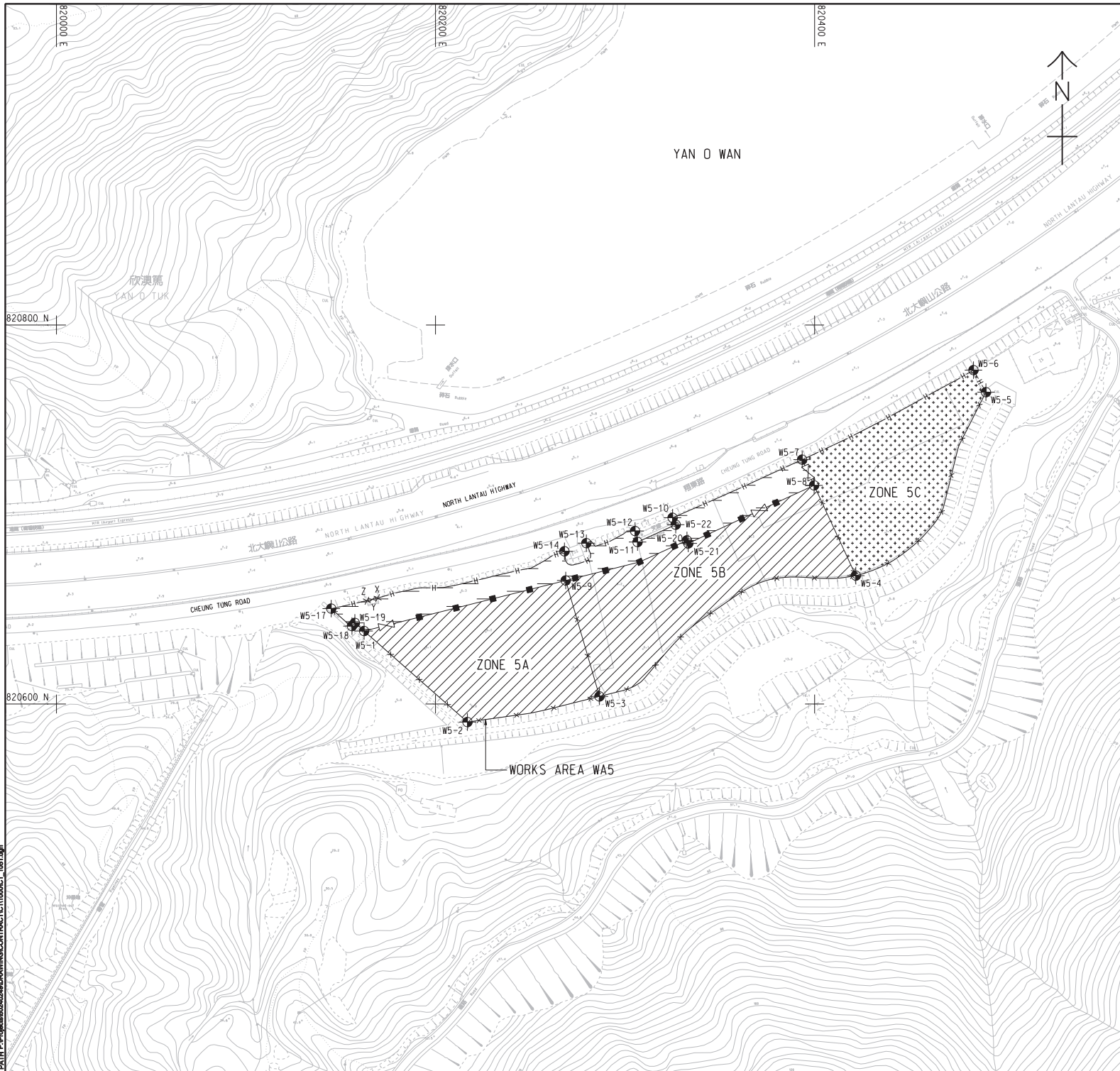
Supervising Officer: **AECOM**
 Contractor: **Gammon**

Project Title: **Contract No. HY/2012/07**
Tuen Mun - Chek Lap Kok Link
Southern Connection Viaduct Section

Originator: **ARUP**

Drawing title: **Figure 1.2g**

Drawing no. **J3518/P/OAP/04/01107** Rev. **D1**



NOTES:

- THIS DRAWING SHALL BE READ IN CONJUNCTION WITH THE WORKS AREA KEY PLAN IN SHEET NO. 60240249/C1/1000.
- THE SETTING OUT INFORMATION AND WORKS AREA CONDITIONS SHOWN IN THIS DRAWING ARE FOR REFERENCE ONLY. THE WORKS AREA BOUNDARY SHALL BE IN ACCORDANCE WITH THE ENGINEERING CONDITIONS FOR TEMPORARY GOVERNMENT LAND ALLOCATION NO. T15 619. IN CASE OF DISCREPANCY BETWEEN THE BOUNDARY SHOWN ON THIS DRAWING AND THE BOUNDARY INDICATED ON THE ENGINEERING CONDITIONS, THE LATTER SHALL PREVAIL.
- DEMARCATION OF THE WORKS AREA SHALL BE DETERMINED ON SITE.
- REFER TO HIGHWAYS DEPARTMENT STANDARD DRAWING NOS. H6110 AND H6111 FOR DETAILS OF HOARDING.
- REFER TO HIGHWAYS DEPARTMENT STANDARD DRAWING NOS. H6121 AND H6122 FOR DETAILS OF CHAIN LINK FENCE.
- REFER TO HIGHWAYS DEPARTMENT STANDARD DRAWING NO. H6121 FOR DETAILS OF GATE.
- CHAIN LINK FENCE SHALL BE ERECTED ALONG THE WORKS AREA BOUNDARY. THE ALIGNMENT AND EXTENT OF CHAIN LINK FENCE SHOWN ARE INDICATIVE ONLY AND SHALL BE CONFIRMED BY THE SUPERVISING OFFICER.
- THE LOCATION AND WIDTH OF GATE SHOWN ARE INDICATIVE ONLY AND SHALL BE CONFIRMED BY THE SUPERVISING OFFICER.
- NO STRUCTURES SHALL BE ERECTED OTHER THAN SUCH STRUCTURES NOT EXCEEDING TWO STOREYS IN HEIGHT, WHICH ARE APPROVED BY THE DISTRICT LANDS OFFICER AS BEING APPROPRIATE FOR THE USE OF THE SITE AS A WORKS AREA.
- THE TENTATIVE OCCUPATION PERIOD SHALL BE REFERRED TO EMPLOYER'S REQUIREMENTS PART 2 AND PART 14 SECTION 1 CLAUSE 1.45A.
- THE WORKS AREAS SHOWN ON THIS DRAWING ARE TO BE SHARE-USED AMONG THE CONTRACTS OF TM-CLK RELATED CONTRACTS. THE AREAS HATCHED WITH ARE TENTATIVELY ALLOCATED FOR THE USE OF THIS CONTRACT.
- THE COMMON AREA SHALL BE CONCRETE PAVED BY THE CONTRACTOR.

LEGEND:

- WORKS AREA UNDER THIS CONTRACT
- COMMON AREA (MAINTAINED UNDER THIS CONTRACT) TO BE SHARE-USED WITH OTHER CONTRACTS
- WORKS AREA FOR THIS CONTRACT TO BE EARLY HANDED OVER BY THE CONTRACTOR.
- HOARDING AND GATE (TO BE ERECTED AND MAINTAINED UNDER THIS CONTRACT)
- CHAIN LINK FENCE AND GATE (TO BE ERECTED AND MAINTAINED BY OTHERS)
- CHAIN LINK FENCE AND GATE (TO BE ERECTED AND MAINTAINED UNDER THIS CONTRACT)

SETTING OUT COORDINATES OF WORKS AREA W5

POINT	COORDINATES	
	EASTING	NORTHING
W5-1	820162.308	820638.492
W5-2	820216.839	820590.455
W5-3	820286.496	820603.985
W5-4	820421.757	820667.742
W5-5	820490.425	820764.554
W5-6	820483.839	820776.180
W5-7	820393.451	820728.958
W5-8	820399.746	820715.343
W5-9	820268.674	820665.173
W5-10	820325.075	820698.276
W5-11	820306.587	820685.458
W5-12	820305.269	820691.287
W5-13	820279.580	820684.863
W5-14	820268.027	820680.572
X	820169.407	820655.859
Y	820166.601	820655.172
Z	820163.794	820654.484
W5-17	820144.957	820650.334
W5-18	820155.899	820641.093
W5-19	820157.432	820642.788
W5-20	820332.642	820686.314
W5-21	820333.350	820684.738
W5-22	820326.723	820694.608

ISSUE/REVISION

NO.	DATE	DESCRIPTION	CHK.
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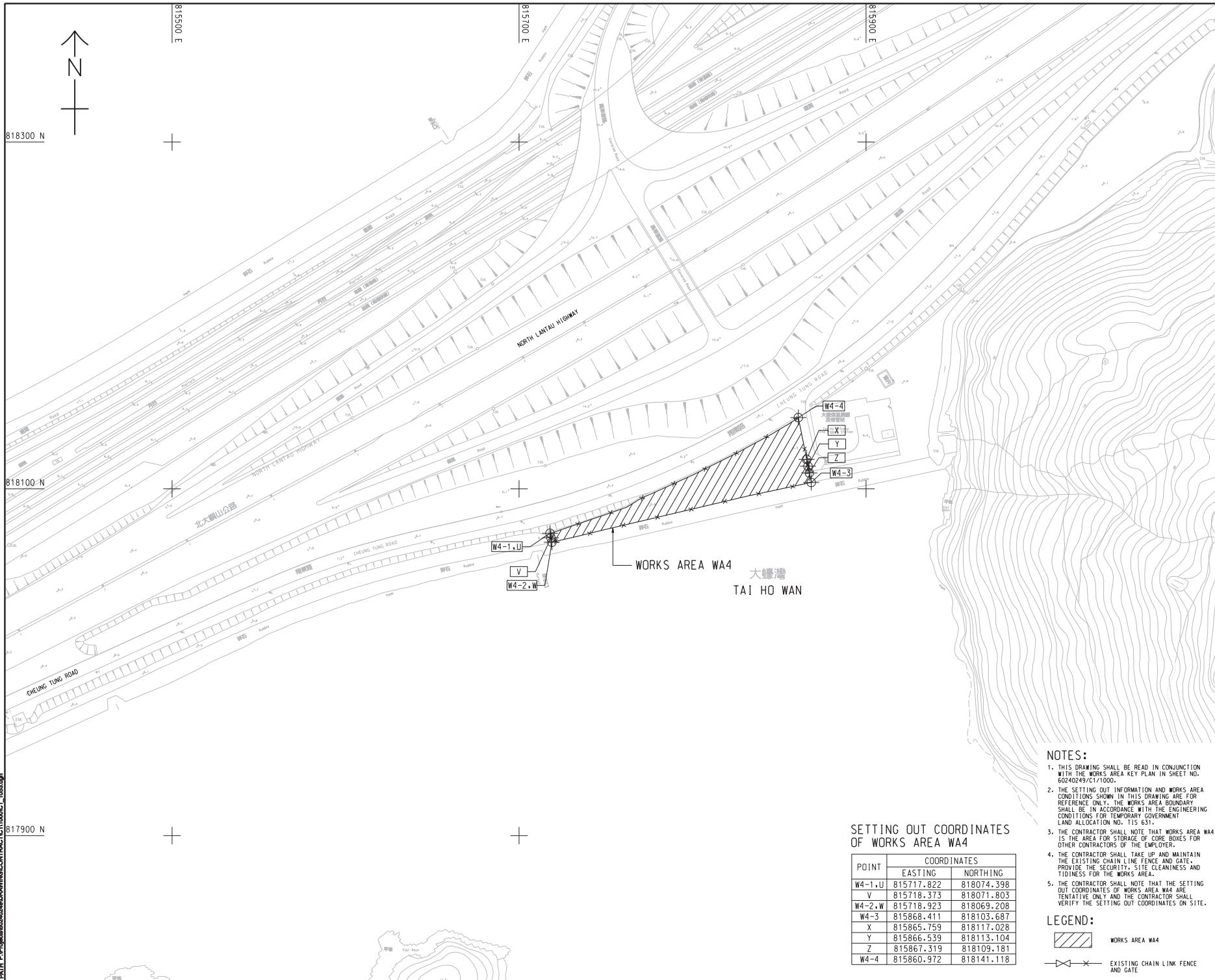
STATUS

SCALE	DIMENSION UNIT
A1:1000	METRES

KEY PLAN

Figure 1.2h

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SETTING OUT COORDINATES OF WORKS AREA WA4

POINT	COORDINATES	
	EASTING	NORTHING
W4-1,U	815717.822	818074.398
V	815718.373	818071.803
W4-2,W	815718.923	818069.208
W4-3	815868.411	818103.687
X	815865.759	818117.028
Y	815866.539	818113.104
Z	815867.319	818109.181
W4-4	815860.972	818141.118

NOTES:

- THIS DRAWING SHALL BE READ IN CONJUNCTION WITH THE WORKS AREA KEY PLAN IN SHEET NO. 60240249/C1/100.
- THE SETTING OUT INFORMATION AND WORKS AREA CONDITIONS SHOWN IN THIS DRAWING ARE FOR REFERENCE ONLY. THE WORKS AREA BOUNDARY SHALL BE IN ACCORDANCE WITH THE ENGINEERING CONDITIONS FOR TEMPORARY GOVERNMENT LAND ALLOCATION NO. T15 631.
- THE CONTRACTOR SHALL NOTE THAT WORKS AREA WA4 IS THE AREA FOR STORAGE OF CORE BOXES FOR OTHER CONTRACTORS OF THE EMPLOYER.
- THE CONTRACTOR SHALL TAKE UP AND MAINTAIN THE EXISTING CHAIN LINK FENCE AND GATE. PROVIDE THE SECURITY, SITE CLEANLINESS AND TIDINESS FOR THE WORKS AREA.
- THE CONTRACTOR SHALL NOTE THAT THE SETTING OUT COORDINATES OF WORKS AREA WA4 ARE TENTATIVE ONLY AND THE CONTRACTOR SHALL VERIFY THE SETTING OUT COORDINATES ON SITE.

LEGEND:

- WORKS AREA WA4
- EXISTING CHAIN LINK FENCE AND GATE

AECOM

PROJECT NO. 60240249

TUEN MUN - CHEK LAP KOK LINK

CONTRACT TITLE
 TUEN MUN - CHEK LAP KOK LINK - SOUTHERN CONNECTION VIADUCT SECTION

CLIENT
 路政署 DEPARTMENT OF TRANSPORT
 香港公路管理工程署 HONG KONG HIGHWAYS DEPARTMENT
 Hong Kong - Zhuhai - Hainan Bridge Hong Kong Project Management Office

CONSULTANT
 AECOM Asia Company Ltd.
 www.aecom.com

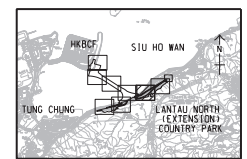
SUB-CONSULTANTS
 20121108/14

Figure 1.2j

ISSUE/REVISION

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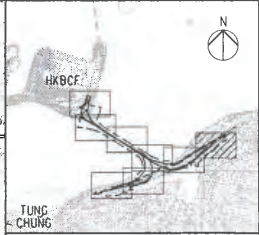
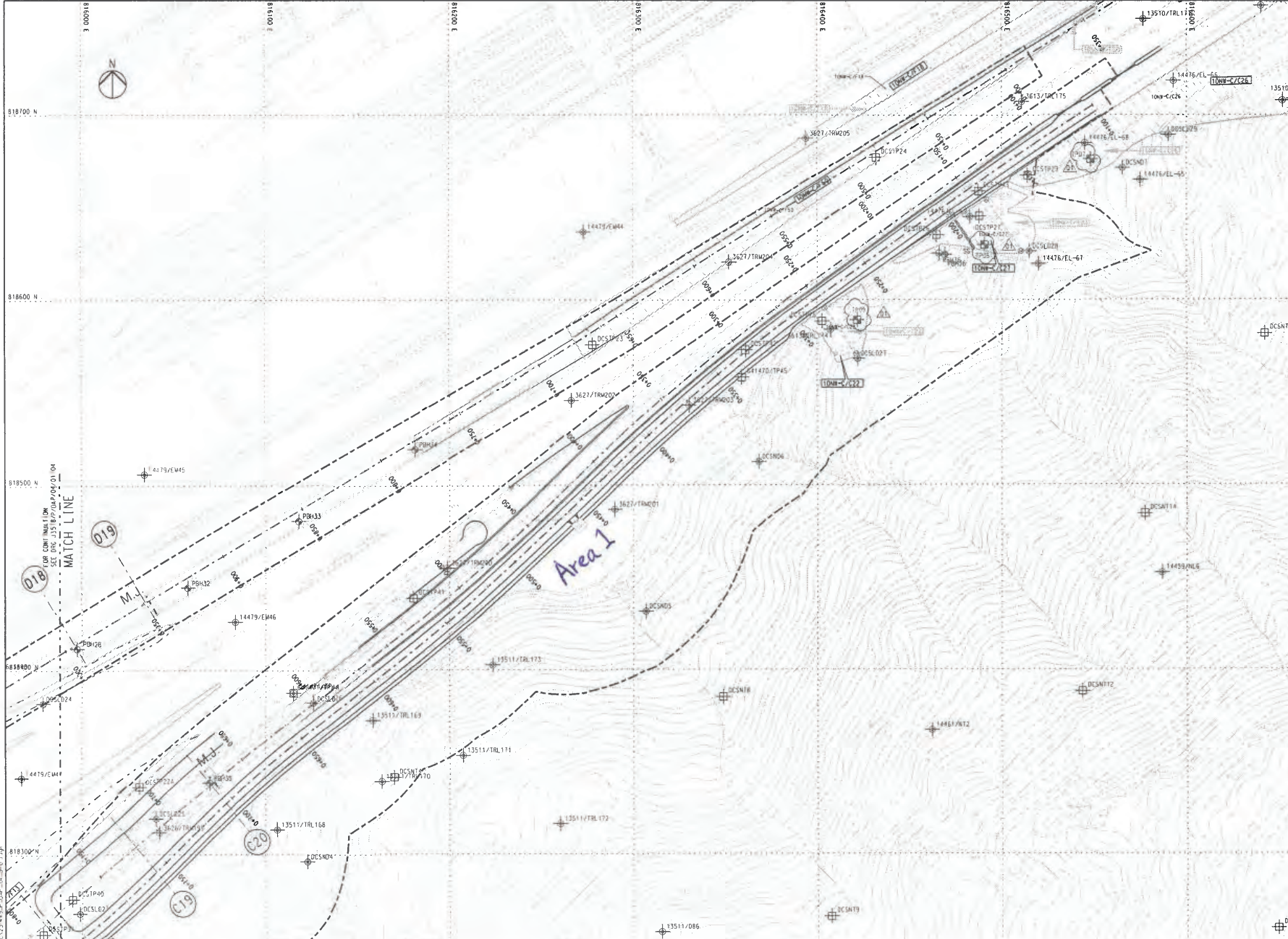
PROJECT NO. 60240249
 CONTRACT NO. HY/2012/07

SHEET TITLE
 WORKS AREA WA4

SHEET NUMBER
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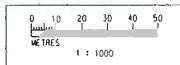
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NOTES
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- LEGEND**
- SITE BOUNDARY
 - GF1 FAULT
- EXISTING G.I. STATIONS :**
- ⊕ BOREHOLE BY GIU DATA EXCLUDING VC
 - ⊕ BOREHOLE BY GCL CONTRACT HY/2012/04
 - ⊕ BOREHOLE BY GCL CONTRACT N6.8/97
 - ⊕ BOREHOLE BY GCL CONTRACT HY/2009/23
 - ⊕ TRIAL PIT BY GCL CONTRACT HY/2012/04
 - ⊕ SLOPE STRIPPING BY GCL CONTRACT HY/2012/04
- PROPOSED G.I. STATIONS :**
- ⊕ BOREHOLE
 - ⊕ TRIAL PIT
 - ⊕ COREHOLE
 - ⊕ SLOPE STRIPPING



Rev	Description	By	Date	Rev	Description	By	Date
01	ISSUED FOR CONSTRUCTION	RL	31/7/13				
02	ISSUED FOR CONSTRUCTION	RL	27/7/13				
03	ISSUED FOR CONSTRUCTION	RL	29/7/13				
04	ISSUED FOR CONSTRUCTION	RL	19/7/12				

Drawn	Date	Client
RL	07/13	路政署 HIGHWAYS DEPARTMENT
Checked <td>Approved</td> <td>港珠澳大桥香港工程指挥部 Hong Kong - Zhuhai - Macao Bridge Hong Kong Project Management Office</td>	Approved	港珠澳大桥香港工程指挥部 Hong Kong - Zhuhai - Macao Bridge Hong Kong Project Management Office
DS	DOP	Supervising Officer

Scale	Contractor	Originator
1:1000 @ A1 / 1:2000 @ A3	AECOM	GAMMON

Project Title
 Contract No. HY/2012/07
 Tuen Mun - Chek Lap Kok Link
 Southern Connection Viaduct Section

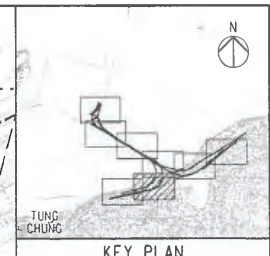
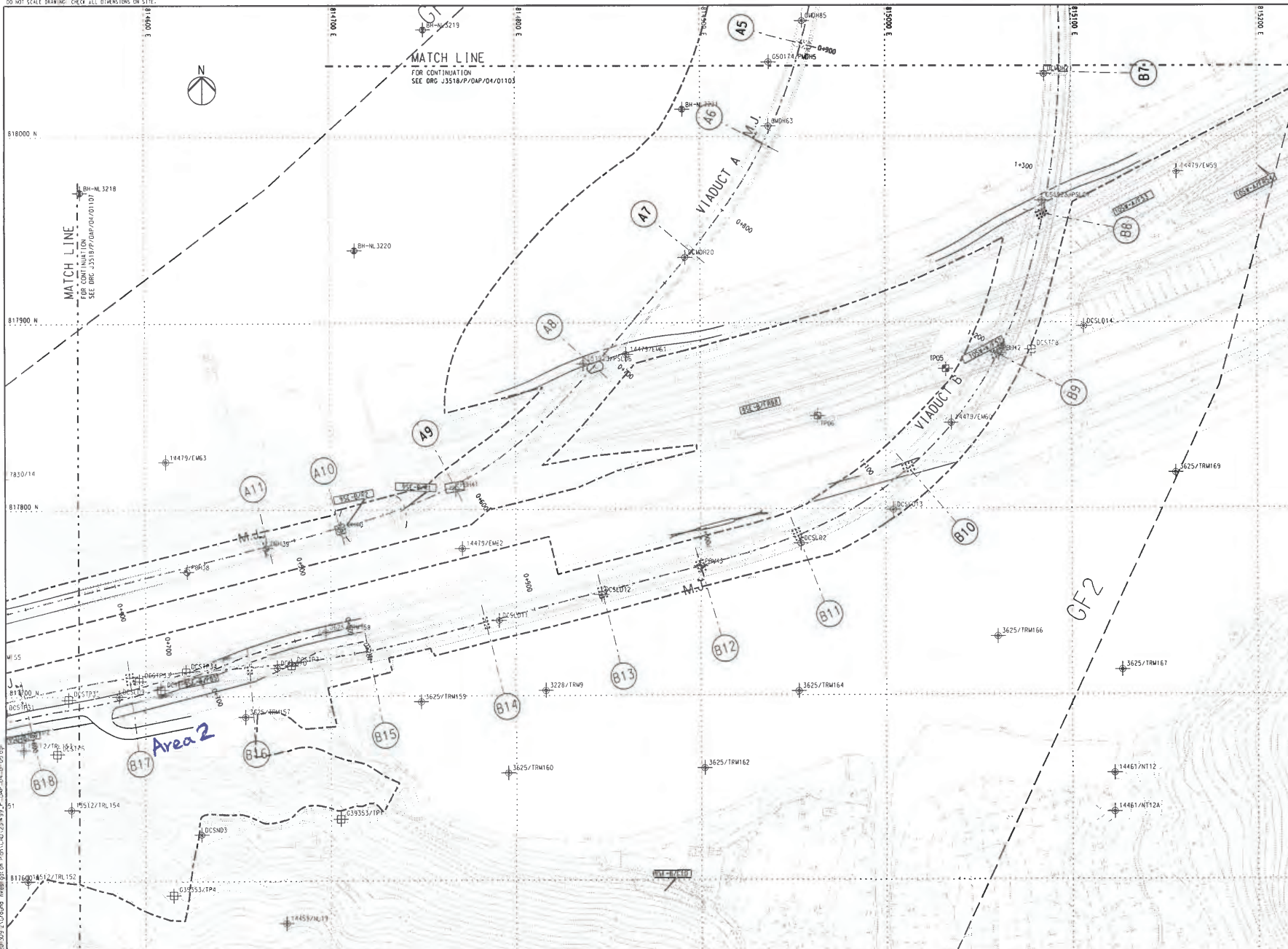
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 港珠澳大桥香港工程指挥部
 Hong Kong - Zhuhai - Macao Bridge
 Hong Kong Project Management Office

Supervising Officer: **AECOM**
 Contractor: **GAMMON**
 Originator: **ARUP**

Drawing title
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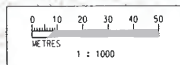
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NOTES
 1. THIS DRAWING SHALL BE READ IN CONJUNCTION WITH DRAWING NO. J3518/P/OAP/04/1000 AND OTHER RELEVANT DRAWINGS.

- LEGEND**
- SITE BOUNDARY
 - GF1 FAULT
 - EXISTING G.I. STATIONS :
 - ⊕ BOREHOLE BY GIU DATA EXCLUDING VC
 - ⊕ BOREHOLE BY GCL CONTRACT HY/2012/04
 - ⊕ BOREHOLE BY GCL CONTRACT NL8/97
 - ⊕ BOREHOLE BY GCL CONTRACT HY/2009/23
 - ⊕ TRIAL PIT BY GCL CONTRACT HY/2012/04
 - ⊕ SLOPE STRIPPING BY GCL CONTRACT HY/2012/04
 - PROPOSED G.I. STATIONS :
 - ⊕ PROPOSED BOREHOLE
 - ⊕ PROPOSED TRIAL PIT
 - ⊕ PROPOSED COREHOLE
 - ⊕ PROPOSED SLOPE STRIPPING



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 Plot Date: 11/11/2011 10:00:00 AM

Rev	Description	By	Date	Rev	Description	By	Date
1	COMPLETION	RL	07/13				
2	SUBMISSION	RL	07/13				
3	SUBMISSION	RL	09/13				

Drawn	Date	Client
RL	07/13	路政署 HIGHWAYS DEPARTMENT
Checked	Approved	澳門澳大橋香港工程管理有限公司 Mong Kong - Zhuhai - Macao Bridge Hong Kong Project Management Office
DS	DOP	
Scale	1:1000 @ A1 / 1:2000 @ A3	

			Project Title Contract No. HY/2012/07 Tuen Mun - Chek Lap Kok Link Southern Connection Viaduct Section
			Supervising Officer Contractor Originator

Drawing Title
Figure 1.2I
 Drawing no. J3518/P/OAP/04/01106 Rev c

1.2 SCOPE OF REPORT

This is the Nineteenth Monthly EM&A Report under the *Contract No. HY/2012/07 Tuen Mun – Chek Lap Kok Link – Southern Connection Viaduct Section*. This report presents a summary of the environmental monitoring and audit works in May 2015.

1.3 ORGANIZATION STRUCTURE

The organization structure of the Contract is shown in *Appendix A*. The key personnel contact names and contact details are summarized in *Table 1.1* below.

Table 1.1 *Contact Information of Key Personnel*

Party	Position	Name	Telephone	Fax
HyD (Highways Department)	Project Coordinator	Stanley Chan	2762 3406	3188 6614
	Senior Engineer	Steven Shum	2762 4133	3188 6614
SOR (AECOM Asia Company Limited)	Chief Resident Engineer	Daniel Ip	3553 3800	2492 2057
	Resident Engineer	Kingman Chan	3691 3950	3691 2899
ENPO / IEC (ENVIRON Hong Kong Ltd.)	ENPO Leader	Y.H. Hui	3547 2133	3465 2899
	IEC	Dr. F.C. Tsang	3547 2134	3465 2899
Contractor (Gammon Construction Limited)	Environmental Manager	Brian Kam	3520 0387	3520 0486
	Environmental Officer	Roy Leung	3520 0387	3520 0486
	24-hour Complaint Hotline		9738 4332	
ET (ERM-HK)	ET Leader	Jovy Tam	2271 3113	2723 5660

1.4 SUMMARY OF CONSTRUCTION WORKS

The construction phase of the Contract commenced on 31 October 2013. The three-month rolling construction programme is shown in *Appendix B*.

As informed by the Contractor, details of the major works carried out in this reporting month are listed below:

Marine Works

- Construction and installation of pile caps;
- Marine piling platform installation & uninstallation;
- Pier construction;

- Installation of launching gantry;
- Marine piling and
- Installation of pier head segment.

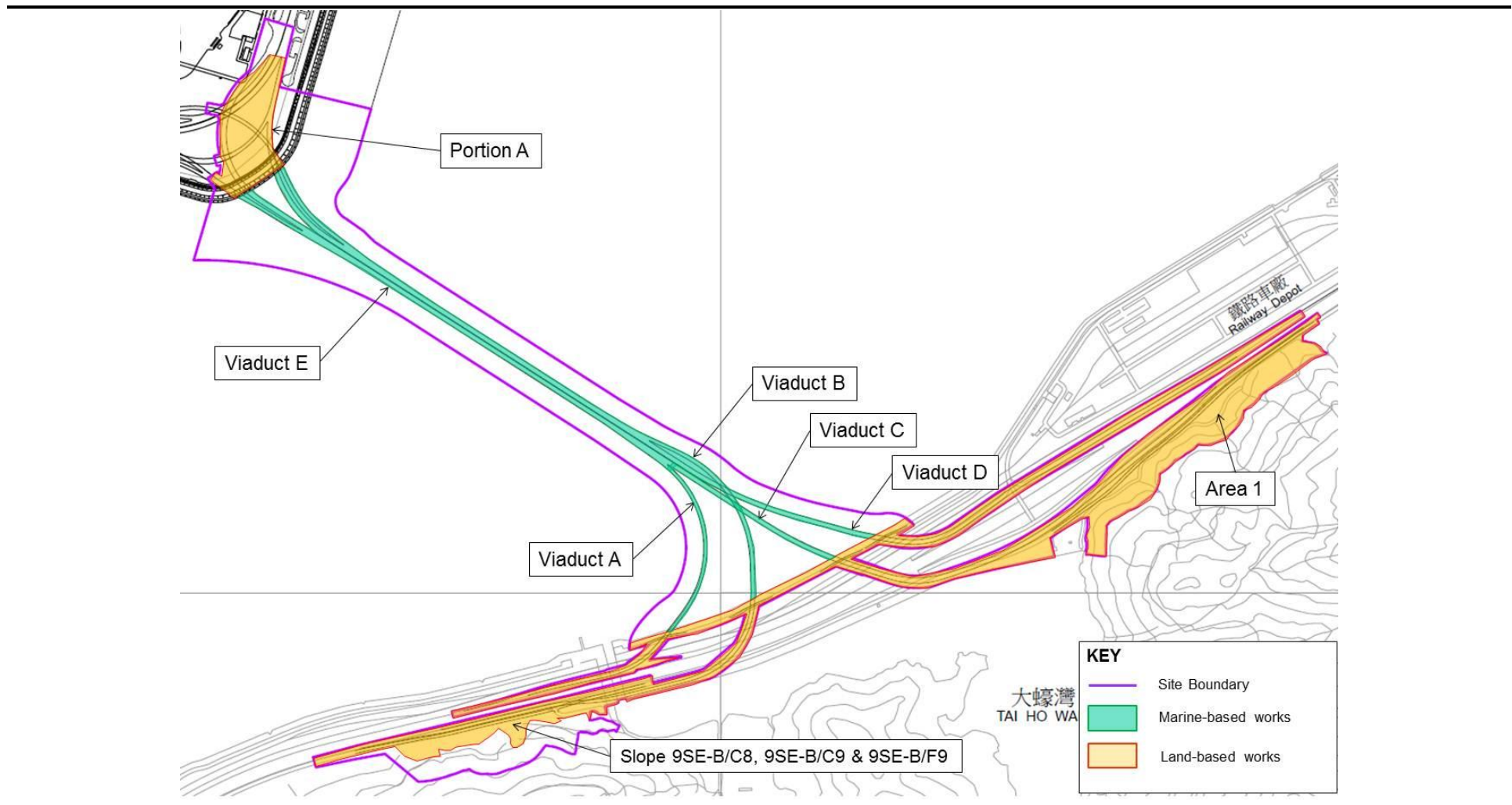
Land-based Works

- Construction and installation of pile caps;
- Pier construction;
- Drainage works;
- Re-alignment of Cheung Tung Road;
- Land piling;
- Pre-drilling works;
- Installation of pier head segment;
- Additional land GI, trial pits & lab testing;
- Tree survey, felling and transplanting;
- Relocation of MTRC fence; and
- Slope work of Slopes 9SE-B/C8, 9SE-B/C9 & 9SE-B/F9.

The locations of the construction activities are shown in *Figure 1.3*. The Environmental Sensitive Receivers in the vicinity of the Project are shown in *Figure 1.4*.

The environmental mitigation measures implementation schedule is presented in *Appendix C*.

Figure 1.3 Locations of Construction Activities in the Reporting Month



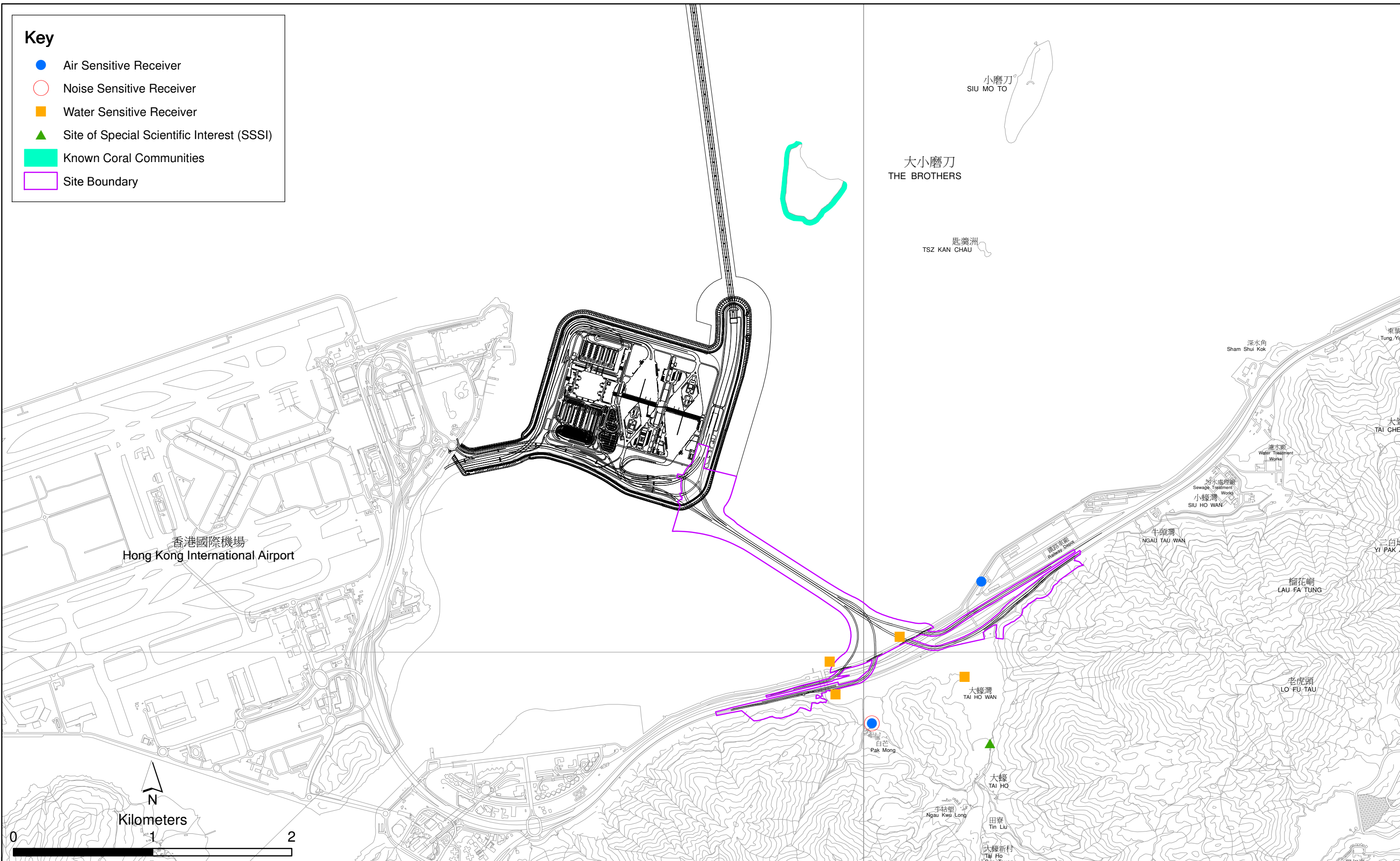


Figure 1.4

Environmental Sensitive Receivers in the Vicinity of Contract No. HY/2012/07
Tuen Mun - Chek Lap Kok Link - Southern Connection Viaduct Section

The EM&A programme required environmental monitoring for air quality, noise, water quality and marine ecology as well as environmental site inspections for air quality, noise, water quality, waste management, marine ecology and landscape and visual impacts. The EM&A requirements and related findings for each component are summarized in the following sections.

2.1 AIR QUALITY

2.1.1 Monitoring Requirements and Equipment

In accordance with the Updated EM&A Manual, impact 1-hour TSP monitoring was conducted three (3) times every six (6) days and impact 24-hour TSP monitoring was carried out once every six (6) days when the highest dust impact was expected. The Action and Limit Levels of the air quality monitoring is provided in *Appendix D*.

Table 2.1 *Locations of Impact Air Quality Monitoring Stations*

Monitoring Station	Location	Description	Monitoring Dates
ASR 9	MTR Depot	On the ground nearby MTR Depot Entrance	6, 12, 18, 21 and 27 May 2015
ASR 8A	Area 4	On ground at the works area, Area 4	6, 12, 18, 21 and 27 May 2015

High Volume Samplers (HVSs) were used for carried out 1-hour and 24-hour TSP monitoring on 6, 12, 18, 21 and 27 May 2015 at ASR8A and ASR9 in accordance with the requirements of the Updated EM&A Manual. The TSP monitoring stations are illustrated in *Figure 2.1* and detailed in *Table 2.1*. Wind anemometer was deployed at Area 4 for logging wind speed and wind direction. Copies of the calibration certificates for the equipment are presented in *Appendix E*. Details of the deployed equipment are given in *Table 2.2*.

Key

- Alternative Air Monitoring Station
- Site Boundary

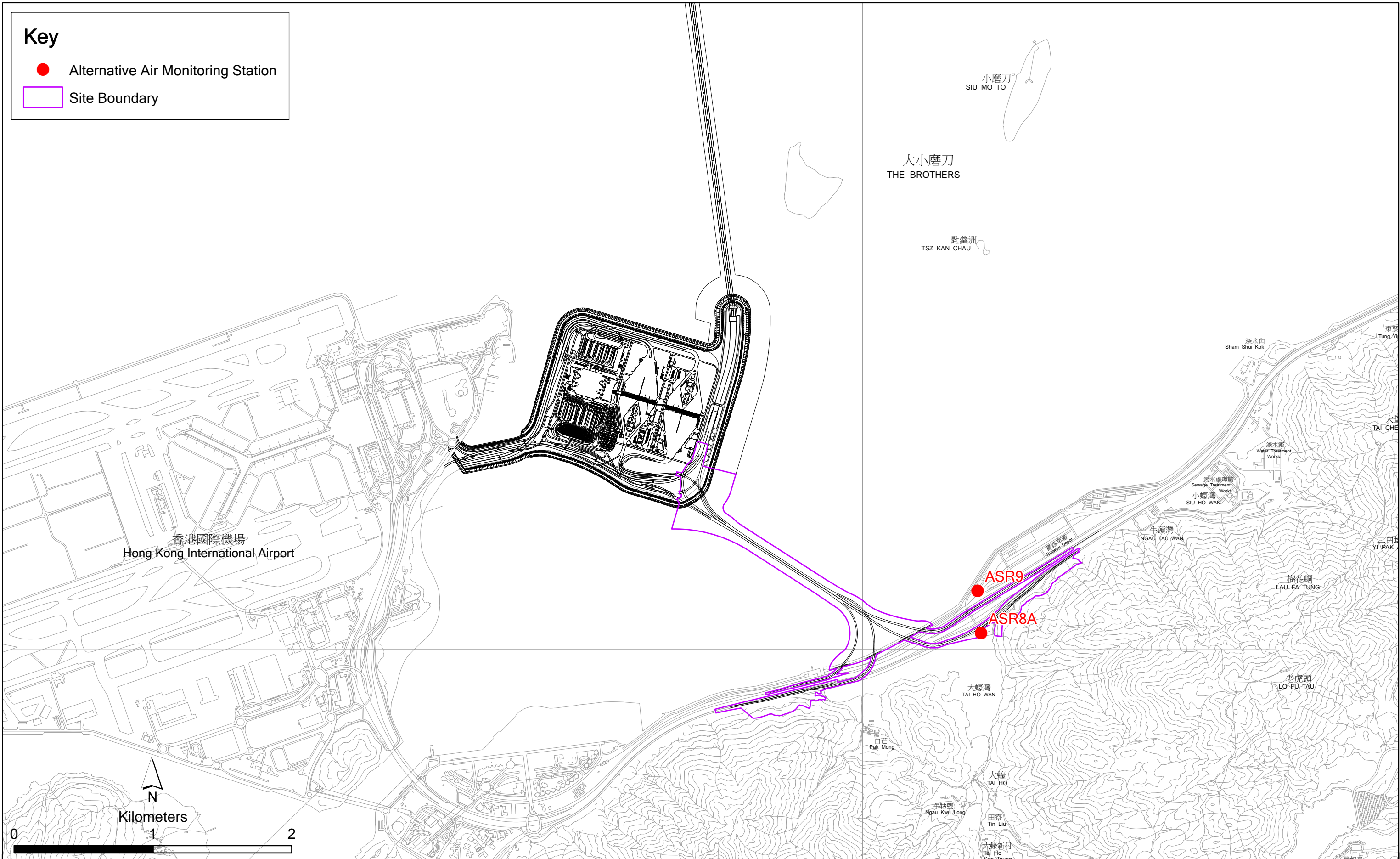


Figure 2.1

Locations of Air Quality Monitoring Stations

Table 2.2 *Air Quality Monitoring Equipment*

Equipment	Brand and Model
High Volume Sampler (1-hour TSP and 24-hour TSP)	Tisch Environmental Mass Flow Controlled Total Suspended Particulate (TSP) High Volume Sampler (Model No. TE-5170)
Wind Sensor	Global Water (Wind Speed Sensor: WE550; Wind Direction Sensor: WE570)
Wind Anemometer for calibration	Lutron (Model No. AM-4201)

2.1.2 *Monitoring Schedule for the Reporting Month*

The schedule for air quality monitoring in May 2015 is provided in *Appendix F*.

2.1.3 *Results and Observations*

The monitoring results for 1-hour TSP and 24-hour TSP are summarized in *Tables 2.3* and *2.4* respectively. Detailed impact air quality monitoring results are presented in *Appendix G*.

Table 2.3 *Summary of 1-hour TSP Monitoring Results in the Reporting Period*

Monitoring Station	Average ($\mu\text{g}/\text{m}^3$)	Range ($\mu\text{g}/\text{m}^3$)	Action Level ($\mu\text{g}/\text{m}^3$)	Limit Level ($\mu\text{g}/\text{m}^3$)
ASR 8A	64	49 - 149	394	500
ASR 9	77	53 - 119	393	500

Table 2.4 *Summary of 24-hour TSP Monitoring Results in the Reporting Period*

Monitoring Station	Average ($\mu\text{g}/\text{m}^3$)	Range ($\mu\text{g}/\text{m}^3$)	Action Level ($\mu\text{g}/\text{m}^3$)	Limit Level ($\mu\text{g}/\text{m}^3$)
ASR 8A	48	43 - 52	178	260
ASR 9	56	46 - 71	178	260

The major dust sources in the reporting period included construction activities under the Contract as well as nearby traffic emissions.

All 1-hour and 24-hour TSP results were below the Action and Limit levels at all monitoring locations in the reporting period. No action is thus required to be undertaken in accordance with the Event Action Plan presented in *Appendix L*.

Meteorological information collected at ASR8A including wind speed and wind direction is provided in *Appendix H*.

2.2 NOISE MONITORING

2.2.1 Monitoring Requirements and Equipment

In accordance with the Updated EM&A Manual, impact noise monitoring was conducted once per week during the construction phase of the Contract. The Action and Limit level of the noise monitoring is provided in *Appendix D*.

Noise monitoring was performed on 6, 12, 18, 21 and 27 May 2015 by using sound level meter at the designated monitoring station NSR1A (*Figure 2.2; Table 2.5*) in accordance with the requirements stipulated in the Updated EM&A Manual. Acoustic calibrator was deployed to check the sound level meters at a known sound pressure level. Details of the deployed equipment are provided in *Table 2.6*. Copies of the calibration certificates for the equipment are presented in *Appendix E*.

Table 2.5 *Location of Impact Noise Monitoring Station*

Monitoring Station	Location	Description	Parameter	Frequency and Duration	Monitoring Dates
NSR 1A	Pak Mong Village Pavilion	On the ground at the village entrance	30-minute measurement at each monitoring station between 0700 and 1900 on normal weekdays (Monday to Saturday). L_{eq} , L_{10} and L_{90} would be recorded.	At least once per week	6, 12, 18, 21 and 27 May 2015

Table 2.6 *Noise Monitoring Equipment*

Equipment	Brand and Model
Integrated Sound Level Meter	Rion NL-31
Acoustic Calibrator	Rion NC-73

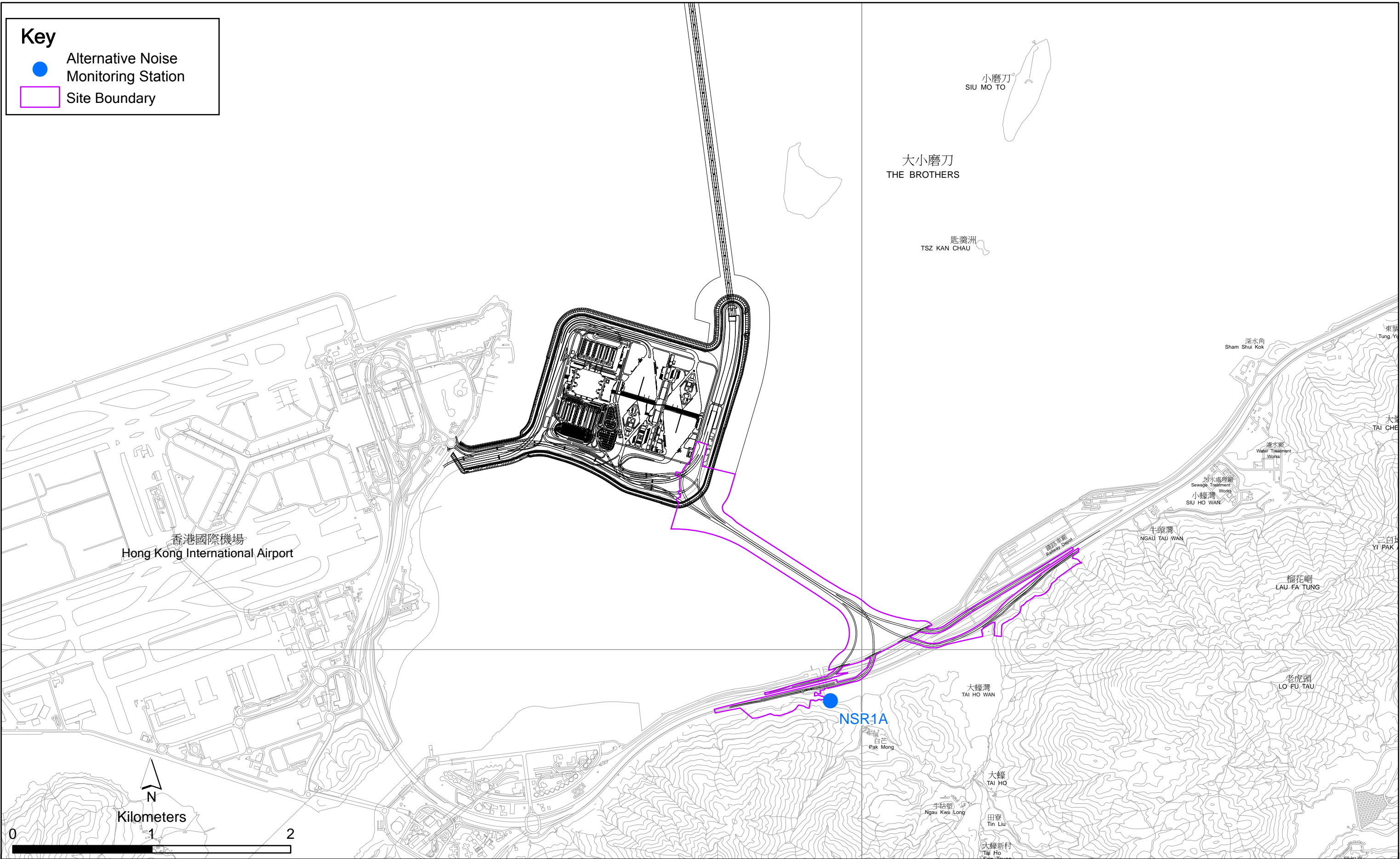


Figure 2.2

Location of Noise Monitoring Station

2.2.2 *Monitoring Schedule for the Reporting Month*

The schedule for construction noise monitoring in the reporting period is provided in *Appendix F*.

2.2.3 *Results and Observations*

Results for noise monitoring are summarized in *Table 2.7* and the monitoring data is provided in *Appendix I*.

Table 2.7 *Summary of Construction Noise Monitoring Results in the Reporting Period*

	Average , dB(A), L _{eq} (30mins)	Range, dB(A), L _{eq} (30mins)	Limit Level, dB(A), L _{eq} (30mins)
NSR 1A	60	57 – 61	75

No noise Action Level and Limit level exceedance was recorded in the reporting month. No action is thus required to be undertaken in accordance with the Event Action Plan presented in *Appendix L*.

Major noise sources during the noise monitoring included noise from crane operation and excavation works, nearby traffic noise and aircraft noise.

2.3 *WATER QUALITY MONITORING*

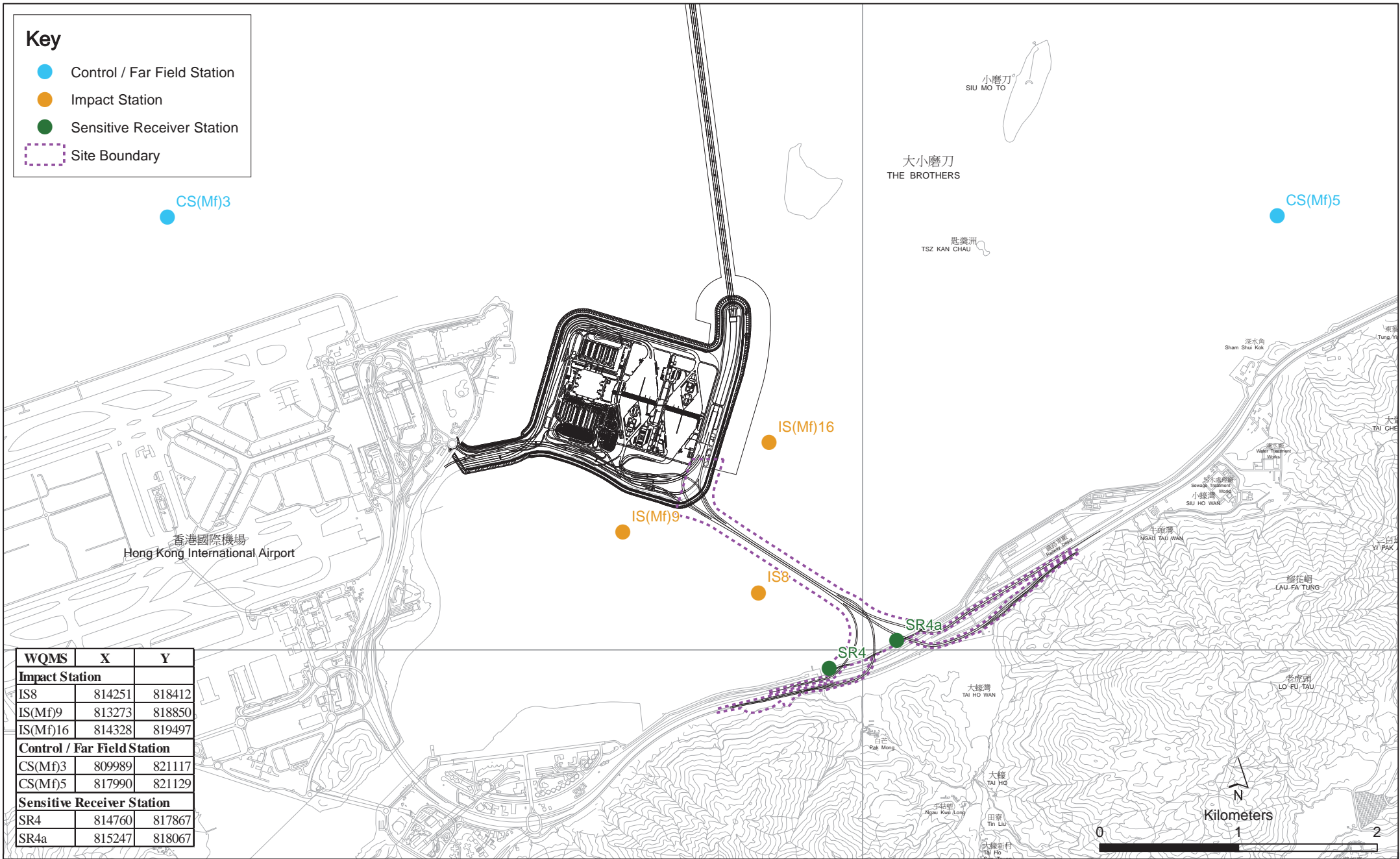
2.3.1 *Monitoring Requirements and Equipment*

Impact water quality monitoring was carried out to ensure that any deterioration of water quality was detected, and that timely action was taken to rectify the situation. Impact water quality monitoring was undertaken three days per week during the construction period in accordance with the Updated EM&A Manual. The Action and Limit Levels of the water quality monitoring are provided in *Appendix D*.

The locations of the monitoring stations under the Contract are shown in *Figure 2.3* and *Table 2.8*.

Key

- Control / Far Field Station
- Impact Station
- Sensitive Receiver Station
- Site Boundary



WQMS	X	Y
Impact Station		
IS8	814251	818412
IS(Mf)9	813273	818850
IS(Mf)16	814328	819497
Control / Far Field Station		
CS(Mf)3	809989	821117
CS(Mf)5	817990	821129
Sensitive Receiver Station		
SR4	814760	817867
SR4a	815247	818067

Figure 2.3

Locations of Water Quality Monitoring Stations

Table 2.8 *Locations of Impact Water Quality Monitoring Stations and its Corresponding Monitoring Requirements*

Station ID	Type	Coordinates		*Parameters, unit	Frequency	Depth
		Easting	Northing			
IS(Mf)9	Impact Station (Close to HKBCF construction site)	813273	818850	<ul style="list-style-type: none"> • Temperature(°C) • pH (pH unit) • Turbidity (NTU) 	Impact monitoring: 3 days per week, at mid-flood and mid-ebb tides during the construction period of the Contract	3 water depths: 1m below sea surface, mid-depth and 1m above sea bed. If the water depth is less than 3m, mid-depth sampling only. If water depth less than 6m, mid-depth may be omitted
IS(Mf)16	Impact Station (Close to HKBCF construction site)	814328	819497			
IS8	Impact Station (Close to HKBCF construction site)	814251	818412			
SR4	Sensitive receiver (Tai Ho Inlet)	814760	817867			
SR4a	Sensitive receiver	815247	818067			
CS(Mf)3	Control Station	809989	821117			
CS(Mf)5	Control Station	817990	821129			

*Notes:

In addition to the parameters presented monitoring location/position, time, water depth, sampling depth, tidal stages, weather conditions and any special phenomena or works underway nearby were also recorded.

Table 2.9 summarises the equipment used in the impact water quality monitoring programme. Copies of the calibration certificates are attached in Appendix E.

Table 2.9 *Water Quality Monitoring Equipment*

Equipment	Brand and Model
DO and Salinity	YSI Pro2030
Turbidity meter	HACH Model 2100Q
pH meter	HANNA HI8314
Positioning Equipment	Koden913MK2 with KBG-3 DGPS antenna
Water Depth Detector	Speedtech Instrument SM-5
Water Sampler	Kemmerer 1520 (1520-C25) 2.2L with messenger

2.3.2 *Monitoring Schedule for the Reporting Month*

The schedule for water quality monitoring in May 2015 is provided in *Appendix F*.

2.3.3 *Results and Observations*

In total of 13 monitoring events for impact water quality monitoring were conducted at all designated monitoring stations in the reporting month. Impact water quality monitoring results and graphical presentations are provided in *Appendix J*.

One (1) Action level exceedance of depth-averaged SS during mid-ebb tide was recorded on 19 May 2015 at monitoring station SR4a. Actions were taken in accordance with the Event Action Plan as presented in *Appendix L*.

Apart from the observed exceedance, results of depth-averaged turbidity on 14 May 2015 at mid-flood tide, and depth-averaged SS on 14, 16, 19 and 23 May 2015 during mid-ebb and/or mid-flood tides were higher than the corresponding Action Levels at some of the impact stations and sensitive receivers, but the results were lower than 120% of the upstream control at the same tide of the same day (*Table 2.10*). As such, the above depth-averaged turbidity and depth-average SS results were not regarded as exceedance. No action is thus required to be undertaken in accordance with the Event Action Plan (*Appendix L*).

Table 2.10 *Summary of WQM Results Breaching the Action Level without Exceedance*

Date	Tide	Parameter	Station
14 May 2015	Mid-flood	Turbidity	IS8 and SR4
14 May 2015	Mid-ebb and mid-flood	SS	IS(Mf)16, IS(Mf)9, IS8, SR4 and SR4a
16 May 2015	Mid-ebb and mid-flood	SS	IS(Mf)16, IS(Mf)9, IS8, SR4 and SR4a
19 May 2015	Mid-ebb and mid-flood	SS	IS(Mf)16, IS(Mf)9, IS8, SR4 and SR4a
23 May 2015	Mid-ebb	SS	IS(Mf)16, IS(Mf)9, IS8 and SR4
23 May 2015	Mid-flood	SS	IS8 and SR4

2.4 DOLPHIN MONITORING

2.4.1 Monitoring Requirements

Impact dolphin monitoring is required to be conducted by a qualified dolphin specialist team to evaluate whether there have been any effects on the dolphins. In order to fulfil the EM&A requirements and make good use of available resources, the on-going impact line transect dolphin monitoring data collected by HyD's Contract No. HY/2011/03 Hong Kong-Zhuhai-Macao Bridge. Hong Kong Link Road - Section between Scenic Hill and Hong Kong Boundary Crossing Facilities on the monthly basis is adopted to avoid duplicates of survey effort.

2.4.2 Monitoring equipment

Table 2.11 summarises the equipment used for the impact dolphin monitoring.

Table 2.11 Dolphin Monitoring Equipment

Equipment	Model
Global Positioning System (GPS)	Garmin 18X-PC
Camera	Geo One Phottix Nikon D90 300m 2.8D fixed focus Nikon D90 20-300m zoom lens
Laser Binoculars	Infinitor LRF 1000
Marine Binocular	Bushell 7 x 50 marine binocular with compass and reticules
Vessel for Monitoring	65 foot single engine motor vessel with viewing platform 4.5m above water level

2.4.3 Monitoring Parameter, Frequencies and Duration

Dolphin monitoring should cover all transect lines in Northeast Lantau (NEL) and the Northwest Lantau (NWL) survey areas twice per month throughout the entire construction period. The monitoring data should be compatible with, and should be made available for, long-term studies of small cetacean ecology in Hong Kong. In order to provide a suitable long-term dataset for comparison, identical methodology and line transects employed in baseline dolphin monitoring was followed in the impact dolphin monitoring.

2.4.4 Monitoring Location

The impact dolphin monitoring was carried out in the NEL and NWL along the line transect as depicted in Figure 2.4. The co-ordinates of all transect lines are shown in Table 2.12 below.

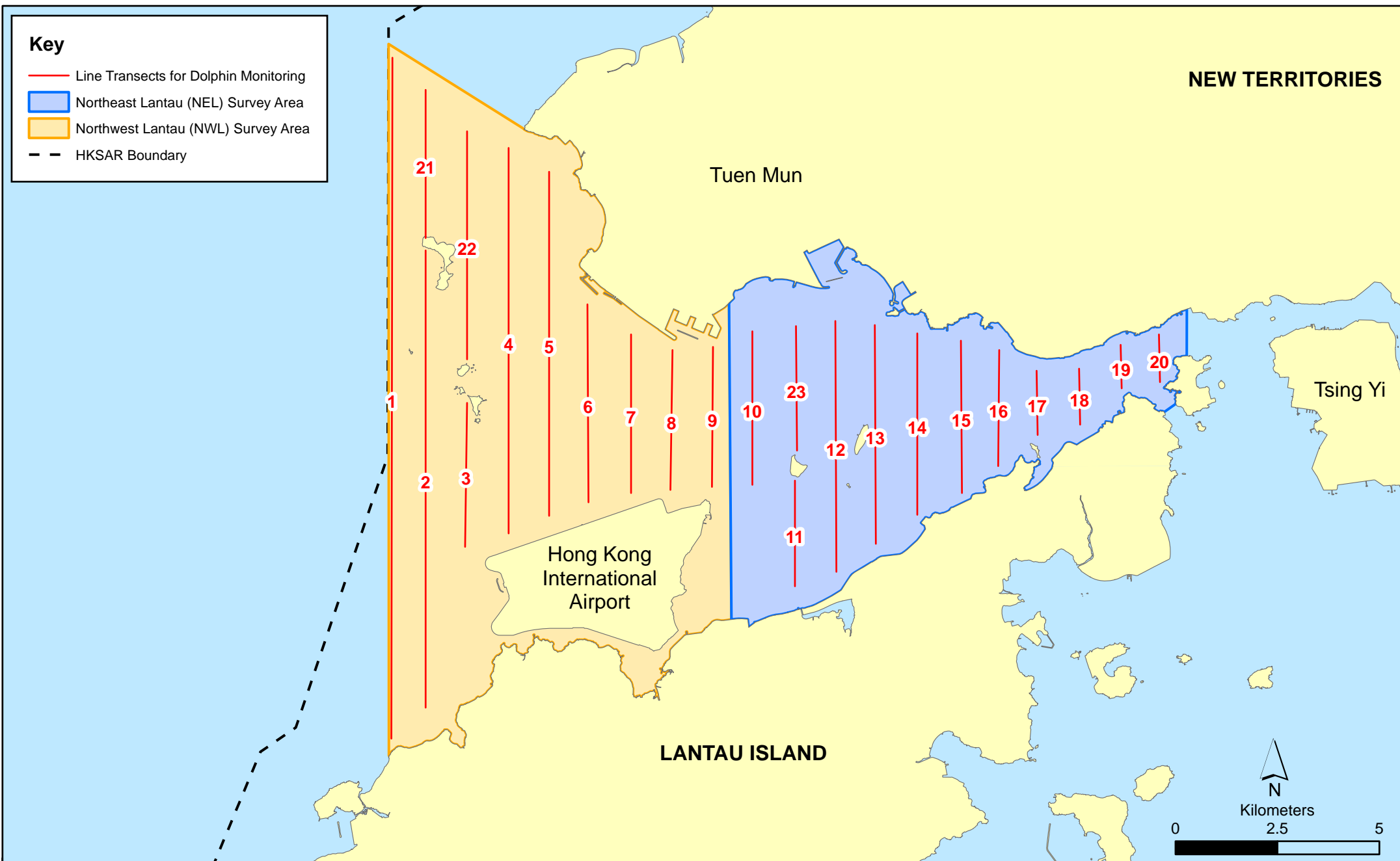


Figure 2.4

Layout of Transect Lines of Dolphin Monitoring in Northwest and Northeast Lantau Areas

Table 2.12 Impact Dolphin Monitoring Line Transect Co-ordinates

Line No.		Easting	Northing	Line No.		Easting	Northing
1	Start Point	804671	814577	13	Start Point	816506	819480
1	End Point	804671	831404	13	End Point	816506	824859
2	Start Point	805475	815457	14	Start Point	817537	820220
2	End Point	805477	826654	14	End Point	817537	824613
3	Start Point	806464	819435	15	Start Point	818568	820735
3	End Point	806464	822911	15	End Point	818568	824433
4	Start Point	807518	819771	16	Start Point	819532	821420
4	End Point	807518	829230	16	End Point	819532	824209
5	Start Point	808504	820220	17	Start Point	820451	822125
5	End Point	808504	828602	17	End Point	820451	823671
6	Start Point	809490	820466	18	Start Point	821504	822371
6	End Point	809490	825352	18	End Point	821504	823761
7	Start Point	810499	820690	19	Start Point	822513	823268
7	End Point	810499	824613	19	End Point	822513	824321
8	Start Point	811508	820847	20	Start Point	823477	823402
8	End Point	811508	824254	20	End Point	823477	824613
9	Start Point	812516	820892	21	Start Point	805476	827081
9	End Point	812516	824254	21	End Point	805476	830562
10	Start Point	813525	820872	22	Start Point	806464	824033
10	End Point	813525	824657	22	End Point	806464	829598
11	Start Point	814556	818449	23	Start Point	814559	821739
11	End Point	814556	820992	23	End Point	814559	824768
12	Start Point	815542	818807				
12	End Point	815542	824882				

2.4.5 Action & Limit Levels

The Action and Limit levels of dolphin impact monitoring are shown in *Appendix D*. The Event and Action plan is presented in *Appendix L*.

2.4.6 *Monitoring Schedule for the Reporting Month*

Dolphin monitoring was carried out on 4, 8, 14 and 18 of May 2015 (*Appendix F*).

2.4.7 *Results and Observations*

A total of 301.70 km of survey effort was collected, with 98.7% of the total survey effort being conducted under favourable weather conditions (i.e. Beaufort Sea State 3 or below with good visibility) during the surveys of May 2015. Among the two areas, 114.90 km and 186.80 km of survey effort were collected from NEL and NWL survey areas respectively. The total survey effort conducted on primary and secondary lines were 219.76 km and 81.94 km respectively. The survey efforts are summarized in *Appendix K*.

No Chinese White Dolphins were sighted during the two sets of monitoring surveys in May 2015.

Encounter rates of Chinese White Dolphins are deduced from the survey effort and on-effort sighting data made under favourable conditions (Beaufort 3 or below) in May 2015 are shown in *Tables 2.13 & 2.14*.

Table 2.13 *Individual Survey Event Encounter Rates*

		Encounter rate (STG) (no. of on-effort dolphin sightings per 100 km of survey effort)	Encounter rate (ANI) (no. of dolphins from all on-effort sightings per 100 km of survey effort)
		Primary Lines Only	Primary Lines Only
NEL	Set 1: May 4 th / 8 th	0.0	0.0
	Set 2: May 14 th / 18 th	0.0	0.0
NWL	Set 1: May 4 th / 8 th	0.0	0.0
	Set 2: May 14 th / 18 th	0.0	0.0

Note: Dolphin Encounter Rates are deduced from the two sets of surveys (two surveys in each set) in May 2015 in Northeast (NEL) and Northwest Lantau (NWL)

Table 2.14 Monthly Average Encounter Rates

	Encounter rate (STG) (no. of on-effort dolphin sightings per 100 km of survey effort)		Encounter rate (ANI) (no. of dolphins from all on-effort sightings per 100 km of survey effort)	
	Primary Lines Only	Both Primary and Secondary Lines	Primary Lines Only	Both Primary and Secondary Lines
Northeast Lantau	0.0	0.0	0.0	0.0
Northwest Lantau	0.0	0.0	0.0	0.0

Note: Overall dolphin encounter rates (sightings per 100 km of survey effort) from all four surveys are conducted in May 2015 on primary lines only as well as both primary lines and secondary lines in Northeast and Northwest Lantau

Whilst one (1) Limit Level exceedance was observed for the quarterly dolphin monitoring data between March and May 2015. No unacceptable impact from the construction activities of the TM-CLKL Southern Connection Viaduct Section on Chinese White Dolphins was noticeable from general observations during the dolphin monitoring in this reporting month.

Due to monthly variation in dolphin occurrence within the study area, it would be more appropriate to draw conclusion on whether any impacts on dolphins have been detected related to the construction activities of the TM-CLKL Southern Connection Viaduct Section in the quarterly EM&A reports, where comparison on distribution, group size and encounter rates of dolphins between the quarterly impact monitoring period and baseline monitoring period will be made.

2.4.8 Marine Mammal Exclusion Zone Monitoring

Daily 250 m marine mammal exclusion zone monitoring was undertaken during the period of marine works activities being undertaken. Passive Acoustic Monitoring (PAM) was implemented when the marine piling works were carried out outside the daylight hours in this reporting month. No sighting of Indo-Pacific humpback dolphin *Sousa chinensis* (i.e. Chinese White Dolphin) were recorded in May 2015 during the exclusion zone monitoring.

2.5 EM&A SITE INSPECTION

Site inspections were carried out on a weekly basis to monitor the implementation of proper environmental pollution control and mitigation measures under the Contract. In the reporting month, four (4) site inspections were carried out on 8, 13, 20 and 28 May 2015.

Key observations during the site inspections are summarized in *Table 2.15*.

Table 2.15 Specific Observations Identified during the Weekly Site Inspections in this Reporting Month

Inspection Date	Environmental Observations	Recommendations/ Remarks
8 May 2015	<p>Area 1</p> <ul style="list-style-type: none"> Some chemical containers were not placed in drip tray. Soil stockpile near drainage was not well covered. <p>Site Access 4A</p> <ul style="list-style-type: none"> Chemical waste storage was not secured properly. <p>Pier D14B</p> <ul style="list-style-type: none"> Refuse was accumulated in drainage. <p>Pier D10</p> <ul style="list-style-type: none"> Checklist for wet sep was not displayed. 	<p>Area 1</p> <ul style="list-style-type: none"> Chemical containers should be placed in drip tray. Soil stockpile should be well covered. <p>Site Access 4A</p> <ul style="list-style-type: none"> Chemical waste storage should be secured as appropriate. <p>Pier D14B</p> <ul style="list-style-type: none"> Refuse in drainage should be cleaned up. <p>Pier D10</p> <ul style="list-style-type: none"> Checklist for wet sep should be displayed.
13 May 2015	<p>Seafront</p> <ul style="list-style-type: none"> Stagnant water was accumulated in drainage. Stagnant water was accumulated in a drip tray for generator. <p>Gammon 39 (Pier E1)</p> <ul style="list-style-type: none"> Excessive soil was accumulated on barge. 	<p>Seafront</p> <ul style="list-style-type: none"> Stagnant water in drainage and drip tray should be regularly cleaned up regularly. <p>Gammon 39 (Pier E1)</p> <ul style="list-style-type: none"> Excessive soil on barge should be cleaned up regularly.
20 May 2015	<p>Slope B/C8</p> <ul style="list-style-type: none"> Tarpaulin sheet for rock drilling was not well covered. <p>Slope B/C9</p> <ul style="list-style-type: none"> Tarpaulin sheet for cement loading station was not well covered. 	<p>Slope B/C8 & B/C9</p> <ul style="list-style-type: none"> Tarpaulin sheet for rock drilling and cement loading station should be well covered.
28 May 2015	<p>Pier E6</p> <ul style="list-style-type: none"> Excessive soil was accumulated in gutter and the gutter was not properly installed.. 	<p>Pier E6</p> <ul style="list-style-type: none"> Gutter should be cleaned up regularly and properly installed.

The Contractor has rectified all of the observations identified during environmental site inspections in the reporting month.

2.6 WASTE MANAGEMENT STATUS

The Contractor has submitted application form for registration as chemical waste producer under the Contract. Sufficient numbers of receptacles were available for general refuse collection and sorting.

Wastes generated during this reporting period include mainly construction wastes (inert and non-inert), recyclable materials and marine sediment (Category L). Reference has been made to the waste flow table prepared by the Contractor (*Appendix M*). The quantities of different types of wastes are summarized in *Table 2.16*.

Table 2.16 Quantities of Different Waste Generated in the Reporting Period

Month/Year	Inert C&D Materials ^(a) (m ³)	Imported Fill (m ³)	Inert Construction Waste Re-used (m ³)	Non-inert Construction Waste ^(b) (kg)	Recyclable Materials ^(c) (kg)	Chemical Wastes (kg)	Marine Sediment (m ³)	
							Category L	Category M (M _p & M _f)
May 2015	8,091	0	653	107,920	42	0	550	0

Notes:

- (a) Inert construction wastes include hard rock and large broken concrete, and materials disposed as public fill.
- (b) Non-inert construction wastes include general refuse disposed at landfill.
- (c) Recyclable materials include metals, paper, cardboard, plastics, timber, felled trees and others.

The Contractor was advised to properly maintain on site C&D materials and waste collection, sorting and recording system, dispose of C&D materials and wastes at designated ground and maximize reuse/ recycle of C&D materials and wastes. The Contractor was also reminded to properly maintain the site tidiness and dispose of the wastes accumulated on site regularly and properly.

For chemical waste containers, the Contractor was reminded to treat properly and store temporarily in designated chemical waste storage area on site in accordance with the Code of Practice on the Packaging, Labelling and Storage of Chemical Wastes.

2.7 ENVIRONMENTAL LICENSES AND PERMITS

The status of environmental licensing and permit is summarized in *Table 2.17* below.

Table 2.17 Summary of Environmental Licensing and Permit Status

License/ Permit	License or Permit No.	Date of Issue	Date of Expiry	License/ Permit Holder	Remarks
Environmental Permit	EP-354/2009/D	13 March 2015	N/A	HyD	Tuen Mun- Chek Lap Kok Link
Construction Dust Notification	361571	5 Jul 2013	N/A	GCL	
Construction Dust Notification	362093	17 Jul 2013	N/A	GCL	For Area 23
Chemical Waste Registration	5213-961-G2380-13	10 Oct 2013	N/A	GCL	Chemical waste produced in Contract HY/2012/07 (Area 1 adjacent to Cheng Tung Road, Siu Ho Wan)
Chemical Waste Registration	5213-961-G2380-14	10 Oct 2013	N/A	GCL	Chemical waste produced in Contract HY/2012/07 (Area 2 adjacent to Cheung Tung Road, Pak Mong Village)
Chemical Waste Registration	5213-974-G2588-03	4 Nov 2013	N/A	GCL	Chemical waste produced in Contract HY/2012/07 (WA5 adjacent to Cheung Tung Road, Yam O)
Chemical Waste Registration	5213-951-G2380-17	12 Jun 2014	N/A	GCL	Viaducts A, B, C, D & E
Construction Waste Disposal Account	7017735	10 Jul 2013	N/A	GCL	-
Construction Waste Disposal Account	7019470	3 Mar 2014	N/A	GCL	Vessel CHIT Account
Waste Water Discharge License	WT00019017-2014	13 May 2014	31 May 2019	GCL	Discharge for marine portion
Waste Water Discharge License	WT00019018-2014	13 May 2014	31 May 2019	GCL	Discharge for land portion
Construction Noise Permit	Nil	N/A	N/A	GCL	For Piling Works
Construction Noise Permit for night works and works in general holidays	GW-RW0093-15	26 Feb 2015	26 Aug 2015	GCL	General works at WA5
Construction Noise Permit for night works and works in general holidays	GW-RS0307-15	27 Mar 2015	27 Sep 2015	GCL	For Load unload at NLH near Viaduct D
Construction Noise Permit for night works and works in general holidays	GW-RS0470-14	29 Apr 2015	28 Oct 2015	GCL	For Broad Permit
Construction Noise Permit for night works and works in general holidays	GW-RS0078-15	28 Jan 2015	29 Jul 2015	GCL	For Plant mobilization using tractor with trailer
Construction Noise Permit for night works and works in general holidays	GW-RS0326-15	30 Mar 2015	31 May 2015	GCL	B9-B16 Pier Head Segments Erection
Construction Noise Permit for night works and works in general holidays	GW-RS0137-15	12 Feb 2015	15 Aug 2015	GCL	Pre-casted pile cap shell installation at E10-E13
Construction Noise Permit for night works and works in general holidays	GW-RS0212-15	2 Mar 2015	4 Jun 2015	GCL	Pier A8A9 Safety Fence Erection

License/ Permit	License or Permit No.	Date of Issue	Date of Expiry	License/ Permit Holder	Remarks
works in general holidays Construction Noise Permit for night works and works in general holidays	GW-RS0491-15	8 May 2015	30 Jun 2015	GCL	TTA Case 009 Ch.2.1E-4.2E
works in general holidays Construction Noise Permit for night works and works in general holidays	GW-RS0489-15	8 May 2015	7 Aug 2015	GCL	B8 Pier Head Temp Works Lifting
Marine Dumping Permit	EP/MD/16-020	22 May 2015	26 Jun 2015	GCL	For dumping Type I (Dedicated Site) and Type II sediment
Marine Dumping Permit	EP/MD/15-257	2 Apr 2015	7 Oct 2015	GCL	For dumping Type I sediment

2.8 *IMPLEMENTATION STATUS OF ENVIRONMENTAL MITIGATION MEASURES*

In response to the site audit findings, the Contractors carried out corrective actions.

A summary of the Implementation Schedule of Environmental Mitigation Measures (EMIS) is presented in *Appendix C*. The necessary mitigation measures were implemented properly for this Contract.

The landscape and visual (L&V) mitigation measures were also monitored on weekly basis in the reporting period. The monitoring status is summarized in *Appendix C*.

2.9 *SUMMARY OF EXCEEDANCES OF THE ENVIRONMENTAL QUALITY PERFORMANCE LIMIT*

Results for 1-hour TSP, 24-hour TSP and construction noise monitoring complied with the Action/ Limit levels in the reporting period.

One (1) Action level exceedance of depth-averaged SS during mid-ebb tide was recorded on 19 May 2015 at monitoring station SR4a. The exceedance was considered not related to this Contract upon further investigation and the investigation report is presented in *Appendix N*.

Whilst one (1) Limit Level exceedance was observed for the quarterly dolphin monitoring data between March and May 2015. No unacceptable impact from the construction activities of the TM-CLKL Southern Connection Viaduct Section on Chinese White Dolphins was noticeable from general observations during the dolphin monitoring in this reporting month.

Cumulative statistics on exceedances is provided in *Appendix N*.

2.10 *SUMMARY OF COMPLAINTS, NOTIFICATION OF SUMMONS AND SUCCESSFUL PROSECUTIONS*

The Environmental Complaint Handling Procedure is provided in *Figure 2.5*

No complaint, notification of summons and prosecution was received in the reporting period.

Statistics on complaints, notifications of summons, successful prosecutions are summarized in *Appendix N*.

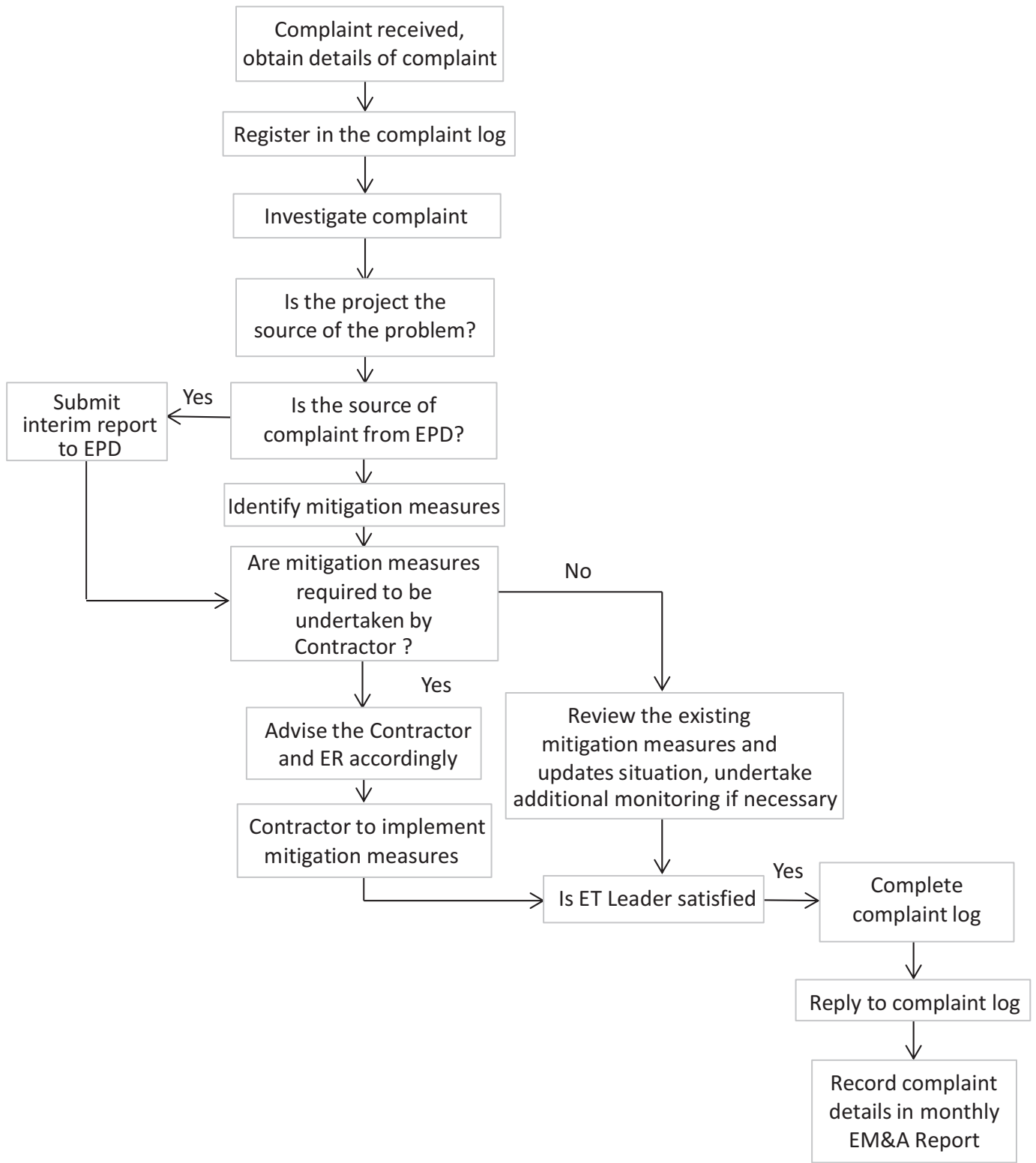


Figure 2.5 Environmental Complaint Handling Procedure

3 *FUTURE KEY ISSUES*

3.1 *CONSTRUCTION PROGRAMME FOR THE COMING MONTHS*

As informed by the Contractor, the major works for this Contract in June 2015 will be:

Marine Works

- Construction and installation of pile caps;
- Marine piling platform installation & uninstallation;
- Pier construction;
- Launching gantry and off-loading gantry assembly;
- Marine piling and
- Installation of pier head segment.

Land-based Works

- Construction and installation of pile caps;
- Pier construction;
- Drainage works;
- Re-alignment of Cheung Tung Road;
- Land piling;
- Pre-drilling works;
- Installation of pier head segment;
- Additional land GI, trial pits & lab testing;
- Tree survey, felling and transplanting;
- Relocation of MTRC fence; and
- Slope work of Slopes 9SE-B/C9.

3.2 *KEY ISSUES FOR THE COMING MONTH*

Potential environmental impacts arising from the above upcoming construction activities in the next reporting month of June 2015 are mainly associated with dust, noise, marine water quality, marine ecology and waste management issues.

3.3 *MONITORING SCHEDULE FOR THE COMING MONTH*

The tentative schedules for environmental monitoring in June 2015 are provided in *Appendix F*.

4.1 CONCLUSIONS

This Nineteenth Monthly EM&A Report presents the findings of the EM&A activities undertaken during the period from 1 to 31 May 2015, in accordance with the Updated EM&A Manual and the requirements of the Environmental Permit (EP-354/2009/D).

Air quality (including 1-hour TSP and 24-hour TSP), noise, water quality, and dolphin monitoring were carried out in the reporting month. Results for 1-hour TSP, 24-hour TSP and noise monitoring complied with the Action and Limit levels in the reporting period. One (1) Action Level exceedance of depth-averaged SS during mid-ebb tide at SR4a was recorded on 19 May 2015. Investigation findings suggested the observed water quality exceedance was not related to the works under this Contract.

No Chinese White Dolphins were sighted during the two sets of monitoring surveys in May 2015. Whilst one (1) Limit Level exceedance was observed for the quarterly dolphin monitoring data between March and May 2015, no unacceptable impact from the construction activities of the TM-CLKL Southern Connection Viaduct Section on Chinese White Dolphins was noticeable from general observations during the dolphin monitoring in this reporting month.

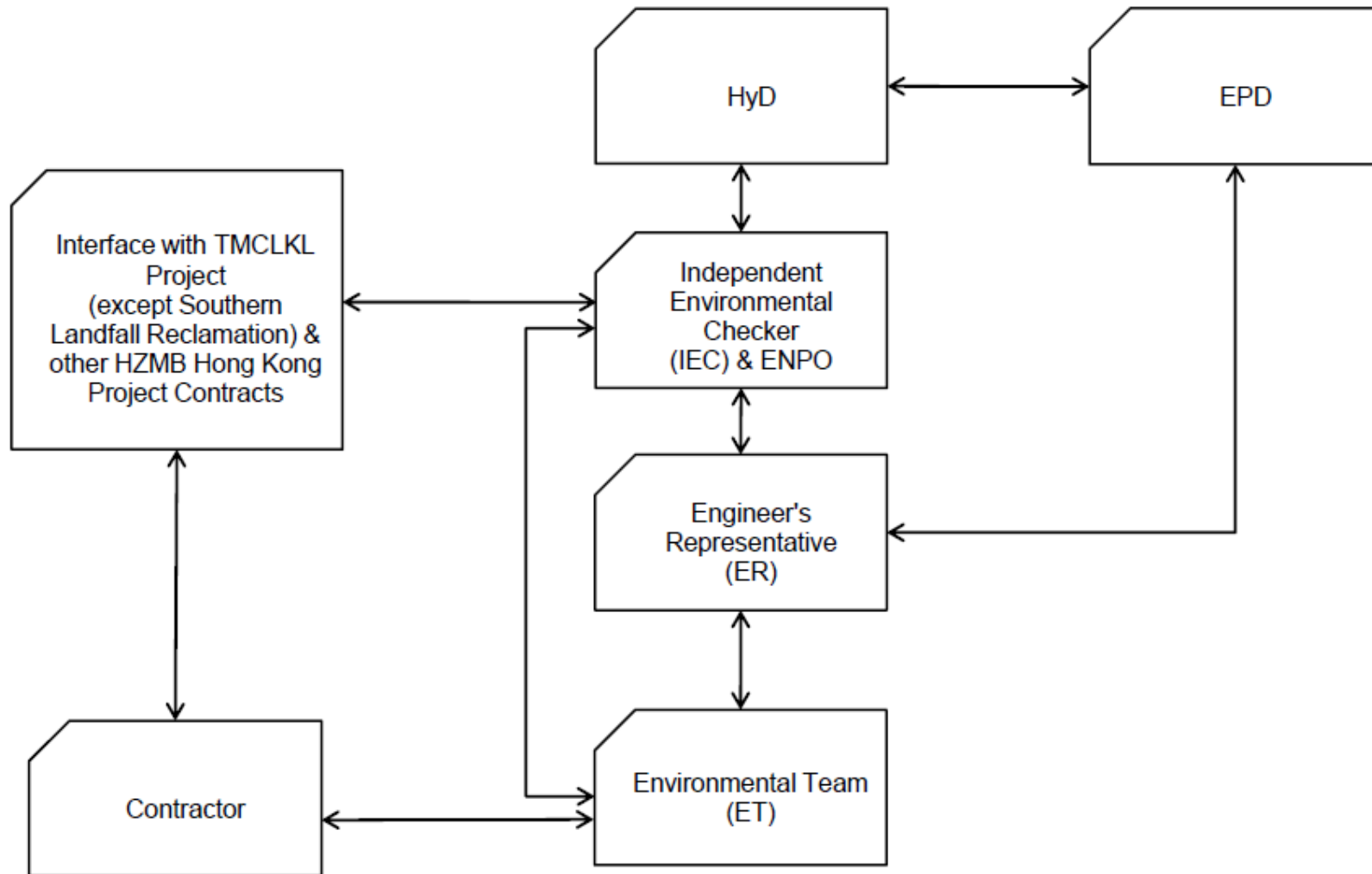
Environmental site inspection was carried out four (4) times in May 2015. Recommendations on remedial actions were given to the Contractor for the deficiencies identified during the site audits.

No environmental complaint, notification of summons or prosecution was received in the reporting month.

The ET will keep track on the construction works to confirm compliance of environmental requirements and the proper implementation of all necessary mitigation measures.

Appendix A

Project Organization for Environmental Works



↔ Line of Communication

Appendix B

Three-Month Rolling Construction Programme

Activity ID	Activity Name	Orig. Durn.	Act. Start / FC Early Start	Duration % Complete	Rem. Durn.	Act. Finish / FC Early Finish	Late Start	Late Finish	Total Float	Free Float	Physical % Complete	2015													
												April				May				June				July	
												23	30	06	13	20	27	04	11	18	25	01	08	15	22

HY/2012/07 - TM-CLK Link-SC [DWP rE] - Status Update 21-04-2015

Contract Key Dates

Possession Dates / Access Period

POS02	Portion A (Commencement of Works+499 days)	0	21-Apr-15*	0%	0		01-Nov-14		-170	0	0%
POS03	Portion B (Commencement of Works+619 days)	0	21-Apr-15*	0%	0		03-Mar-15		-49	303	0%

Section Completion Dates

Vacate Works Area

VAC05	Vacate Works Area WA5 (Zone 5C) (Commencement of Works+758 days)	0		0%	0	19-Jul-15*		19-Jul-15	0	1032	0%
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General Submissions

General Requirements

Temporary Works Design

PR00130	Unloading Jetty at HKBCF - Working Platform design and approval	90	02-Jun-14 A	60%	36	03-Jun-15	12-Nov-14	23-Dec-14	-127	61	60%
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Land Works

PR00160	Propose/submit a performance review for piled fnds in accordance w/ ETWB TCW No. 4/20(101	26-May-14 A	80.2%	20	14-May-15	11-Jan-16	02-Feb-16	217	353	80%
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Land GI Works

PR02204	SQR Sampling & Testing and Approval	110	14-Aug-14 A	68.18%	35	02-Jun-15	27-Nov-14	09-Jan-15	-114	2	68%
PR03110	Trial Pits along Cheung Tung Road	20	21-Oct-13 A	85%	3	23-Apr-15	14-May-18	16-May-18	908	5	85%

Additional Land GI

PR03200	PBH25, 29, 30, 31 (Piers D9, C14, C16, C17)	33	11-Jan-14 A	75.76%	8	29-Apr-15	08-May-18	16-May-18	903	903	75%
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Design Submissions

Detailed Design (v18.8 18-08-14)

General Submissions

ARDD0037-1	Preparation of Seismic Performance Report Viaduct A,B,C,D - AP12.01	20	08-May-15	0%	20	04-Jun-15	23-Sep-15	20-Oct-15	98	0	0%
ARDD0037-2	IC/SO Approval of Seismic Performance Report Viaduct A,B,C,D - AP12.01	75	05-Jun-15	0%	75	17-Sep-15	21-Oct-15	02-Feb-16	98	221	0%
ARDD0037-4	Preparation of Seismic Performance Report Viaduct E - AP12.02	20	25-May-15	0%	20	19-Jun-15	23-Sep-15	20-Oct-15	87	0	0%
ARDD0037-5	IC/SO Approval of Seismic Performance Report Viaduct E - AP12.02	75	22-Jun-15	0%	75	02-Oct-15	21-Oct-15	02-Feb-16	87	0	0%
ARDD0037-7	Preparation of Seismic Performance Report Viaduct F - AP12.03	20	21-Apr-15	0%	20	18-May-15	23-Sep-15	20-Oct-15	111	0	0%
ARDD0037-8	IC/SO Approval of Seismic Performance Report Viaduct F - AP12.03	75	19-May-15	0%	75	31-Aug-15	21-Oct-15	02-Feb-16	111	0	0%
ARDD0042-2	IC/SO Approval of O&M Facility Provisions DDA - BP11.01	75	14-Jan-15 A	40%	45	22-Jun-15	19-Aug-15	20-Oct-15	86	0	50%
ARDD0042-4	IC/SO Approval of O&M Facility Provisions DDA - BP11.01	0		0%	0	22-Jun-15		20-Oct-15	86	65	0%

Viaduct E5 and E6

Viaduct Design

Viaduct E5 E6 Superstructure Optimisation

TGP0540	Viaduct E5 & E6 - Preparation of Optimised Bearing Schedule	15	13-Feb-15 A	0%	15	11-May-15	12-Apr-18	02-May-18	777	15	50%
TGP0550	Viaduct E5 & E6 - Preparation of Optimised Movement Joint Schedule	15	13-Feb-15 A	0%	15	11-May-15	26-Apr-18	16-May-18	787	787	50%

Associated Construction Milestones

ARDD0175	Viaduct E5 & E6 - DDA approval ready for Initial Segment Casting	0	19-May-15	0%	0		21-Apr-15		-28	77	0%
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Viaduct E7 & E8

Viaduct Design

Viaduct E7 E8 Superstructure Optimisation

TGP0740	Viaduct E7 & E8 - Preparation of Optimised Bearing Schedule	15	21-Apr-15	0%	15	11-May-15	12-Apr-18	02-May-18	777	15	0%
TGP0750	Viaduct E7 & E8 - Preparation of Optimised Movement Joint Schedule	15	21-Apr-15	0%	15	11-May-15	26-Apr-18	16-May-18	787	787	0%

Associated Construction Milestones

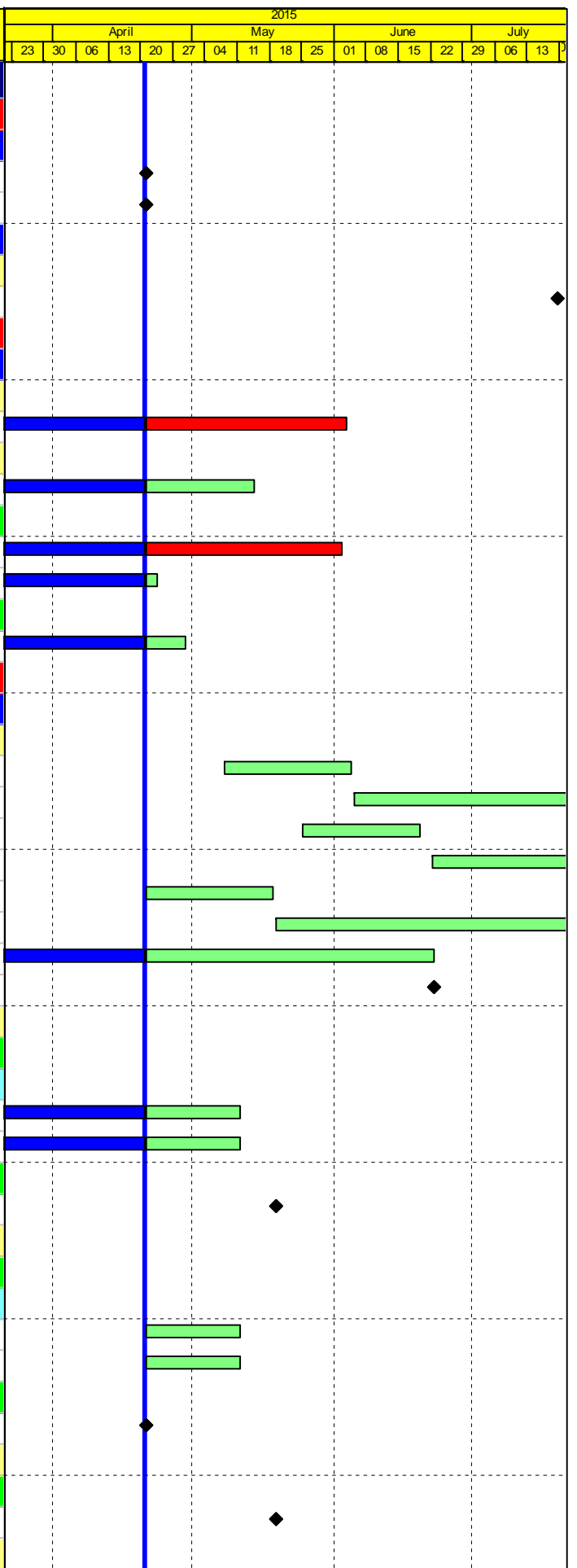
ARDD0220	Viaduct E7 & E8 - DDA approval ready for Initial Segment Casting	0	21-Apr-15	0%	0		22-Apr-15		2	106	0%
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Viaduct E2

Associated Construction Milestones

ARDD0266	Viaduct E2 - DDA approval ready for Initial Segment Casting	0	19-May-15	0%	0		06-Feb-15		-102	0	0%
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Viaduct E1



<ul style="list-style-type: none"> ■ Actual Work ■ Planned Bar ■ Critical Bar ◆ Milestone 	Project ID: J3518DWPRe-M23 Layout: J3518-DWP-3MRP Submission - M23 Filter: TASK filters: 3-Month Lookahead, No CC Milestones, No Level of Effort.	Tuen Mun - Chek Lap Kok Link - Southern Connection 3-Month Rolling Programme (Page 1 of 43 Pages) (Progress as of 21-Apr-15)				Date	Revision	Checked	Approved	DWG. No.: J3518/GCL/PGM/3MRP-M23
		04-May-15		WY						

Activity ID	Activity Name	Orig. Durn.	Act. Start / FC Early Start	Duration % Complete	Rem. Durn.	Act. Finish / FC Early Finish	Late Start	Late Finish	Total Float	Free Float	Physical % Complete	2015																							
												April				May				June				July											
												23	30	06	13	20	27	04	11	18	25	01	08	15	22	29	06	13							
Viaduct Design																																			
ARDD0287-3	Viaduct E1 - Coordination and Further Issue of Construction Method and Temporary Works I	60	30-Jul-14 A	100%	0	01-Apr-15 A					100%																								
ARDD0287-4	Viaduct E1 - Preparation of Draft Working Drawing Set	60	30-Jul-14 A	100%	0	01-Apr-15 A					100%																								
ARDD0287-5	Viaduct E1 - GCL/FRE Final Coordinated Construction Method/Temporary Work Details	0		100%	0	01-Apr-15 A					100%																								
ARDD0287-8	Viaduct E1 - IC/SO Consent of Supplemental Working Drawings Viaduct E1	10	19-Mar-15 A	100%	0	01-Apr-15 A					100%																								
ARDD0287-9	Viaduct E1 - IC/SO Consent of Supplemental Working Drawings Viaduct E1	0		100%	0	01-Apr-15 A					100%																								
Viaduct D																																			
Viaduct Design																																			
ARDD0333-5	Viaduct D - GCL/FRE Final Coordinated Construction Method/Temporary Work Details	0		0%	0	21-Apr-15		16-May-18	802	802	0%																								
ARDD0333-6	Viaduct D - Preparation and Coordination of Working Drawing Set	10	17-Feb-15 A	100%	0	30-Mar-15 A					100%																								
ARDD0333-7	Viaduct D - Issue of Revised DDA Submission - DP14.03	0		100%	0	30-Mar-15 A					100%																								
ARDD0333-8	Viaduct D - IC/SO Consent of Supplemental Working Drawings Viaduct D	10	21-Apr-15	0%	10	04-May-15	10-Mar-15	23-Mar-15	-30	0	0%																								
ARDD0333-9	Viaduct D - IC/SO Consent of Supplemental Working Drawings Viaduct D	0		0%	0	04-May-15		23-Mar-15	-30	17	0%																								
Information to Contractor																																			
ARDD0348	Viaduct D - Final Segment Types and Reinforcement	0		100%	0	30-Mar-15 A					100%																								
ARDD0350	Viaduct D - Final Anchorage and PT Requirements	0		100%	0	30-Mar-15 A					100%																								
ARDD0352	Viaduct D - Final Bearing Schedule	0		0%	0	04-May-15		16-May-18	792	792	0%																								
ARDD0354	Viaduct D - Final Movement Joint (MJ) Schedule	0		0%	0	04-May-15		20-Oct-15	121	48	0%																								
Viaduct C																																			
Viaduct Design																																			
ARDD0384	Viaduct C - IC/SO Approval of Sub & Superstructure DDA - DP13.03	75	22-Dec-14 A	80%	15	11-May-15	17-Feb-15	10-Mar-15	-45	0	90%																								
ARDD0384-1	Viaduct C - IC/SO Approval of Sub & Superstructure DDA - DP13.03	0		0%	0	11-May-15		10-Mar-15	-45	0	0%																								
ARDD0384-3	Viaduct C - Coordination and Further Issue of Construction Method and Temporary Works D	60	02-Mar-15 A	25%	45	22-Jun-15	09-Apr-15	11-Jun-15	-8	0	25%																								
ARDD0384-4	Viaduct C - Preparation of Draft DDA Working Drawing Set	60	02-Mar-15 A	25%	45	22-Jun-15	09-Apr-15	11-Jun-15	-8	0	25%																								
ARDD0384-5	Viaduct C - GCL/FRE Final Coordinated Construction Method/Temporary Work Details	0		0%	0	22-Jun-15		11-Jun-15	-8	0	0%																								
ARDD0384-6	Viaduct C - Preparation and Coordination of Working Drawing Set	10	23-Jun-15	0%	10	06-Jul-15	11-Jun-15	25-Jun-15	-8	0	0%																								
ARDD0384-7	Viaduct C - Submission of Working DDA Drawings for Viaduct C DP13.03	0		0%	0	06-Jul-15		25-Jun-15	-8	0	0%																								
ARDD0384-8	Viaduct C - IC/SO Consent of Supplemental Working Drawings Viaduct C	10	07-Jul-15	0%	10	20-Jul-15	25-Jun-15	09-Jul-15	-8	0	0%																								
ARDD0384-9	Viaduct C - IC/SO Consent of Supplemental Working Drawings Viaduct C	0		0%	0	20-Jul-15		09-Jul-15	-8	0	0%																								
Associated Construction Milestones																																			
ARDD0413	Viaduct C - DDA approval ready for Commencement of Pilecaps C1-C17	0	16-May-15	0%	0		10-Mar-15		-67	0	0%																								
ARDD0414	Viaduct C - DDA approval ready for Initial Segment Casting	0	07-Jul-15	0%	0		08-Jul-15		1	13	0%																								
Viaduct A																																			
Viaduct Design																																			
ARDD0430-2	Viaduct A - IC/SO Approval of Foundation DDA - DP11.01	75	04-Oct-14 A	100%	0	14-Apr-15 A					100%																								
ARDD0430-4	Viaduct A - IC/SO Approval of Foundation DDA - DP11.01	0		100%	0	14-Apr-15 A					100%																								
ARDD0433-1	Viaduct A - GCL Review of Draft DDA Rev A1 - DP11.03	5	19-Feb-15 A	40%	3	23-Apr-15	23-Dec-14	25-Dec-14	-85	0	0%																								
ARDD0433-2	Viaduct A - Update to Incorporate GCL Comments	10	24-Apr-15	0%	10	07-May-15	26-Dec-14	08-Jan-15	-85	0	0%																								
ARDD0434	Viaduct A - Submission of DDA - DP11.03	0		0%	0	07-May-15		08-Jan-15	-85	0	0%																								
ARDD0434-1	Viaduct A - Earliest IC Certificate for DDA DP11.02, DP11.03	0		0%	0	18-Jun-15		24-Aug-15	47	3	0%																								
ARDD0435	Viaduct A - IC/SO Approval of DDA DP11.03	75	08-May-15	0%	75	20-Aug-15	09-Jul-15	21-Oct-15	44	0	0%																								
ARDD0435-2	Viaduct A - GCL/FRE Issue of Construction Method/Temporary Work Data	0		0%	0	07-May-15		08-Jan-15	-85	0	0%																								
ARDD0435-3	Viaduct A - Coordination and Further Issue of Construction Method and Temporary Works D:	60	08-May-15	0%	60	30-Jul-15	09-Jan-15	02-Apr-15	-85	0	0%																								
ARDD0435-4	Viaduct A - Preparation of Draft DDA Working Drawing Set	60	08-May-15	0%	60	30-Jul-15	09-Jan-15	02-Apr-15	-85	0	0%																								
Information to Contractor																																			
ARDD0445	Viaduct A - Final Pilecap Reinforcement	0		0%	0	07-May-15		13-Feb-15	-59	0	0%																								
ARDD0447	Viaduct A - Final Pier Shapes and Reinforcement	0		0%	0	07-May-15		27-Feb-15	-49	11	0%																								
ARDD0450	Viaduct A - Final Segment Types and Reinforcement	0		0%	0	07-May-15		22-Jan-16	186	80	0%																								

<ul style="list-style-type: none"> ■ Actual Work ■ Planned Bar ■ Critical Bar ◆ Milestone 	Project ID: J3518DWPPrE-M23 Layout: J3518-DWP-3MRP Submission - M23 Filter: TASK filters: 3-Month Lookahead, No CC Milestones, No Level of Effort.	Tuen Mun - Chek Lap Kok Link - Southern Connection 3-Month Rolling Programme (Page 2 of 43 Pages) (Progress as of 21-Apr-15)	Date: 04-May-15 Revision: Checked: WY Approved:	DWG. No.: J3518/GCL/PGM/3MRP-M23
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Activity ID	Activity Name	Orig. Durn.	Act. Start / FC Early Start	Duration% Complete	Rem. Durn.	Act. Finish / FC Early Finish	Late Start	Late Finish	Total Float	Free Float	Physical % Complete	2015													
												April			May				June			July			
												23	30	06	13	20	27	04	11	18	25	01	08	15	22
Viaduct Approach Ramp Retaining Walls																									
Approach Ramp D																									
ARDD0652	Approach D - IC/SO Approval of Approach Ramp D DDA - DP23.01	75	25-Sep-14 A	89.33%	8	30-Apr-15	14-Oct-15	23-Oct-15	126	0	90%														
ARDD0652-1	Approach D - IC/SO Approval of Approach Ramp D DDA - DP23.01	0		0%	0	30-Apr-15		23-Oct-15	126	62	0%														
Approach Ramp C																									
ARDD0658	Approach C - IC/SO Approval of Approach Ramp C DDA-DP20.01	75	03-Oct-14 A	89.33%	8	30-Apr-15	29-Jun-15	09-Jul-15	49	0	90%														
ARDD0658-1	Approach C - IC/SO Approval of Approach Ramp C DDA-DP20.01	0		0%	0	30-Apr-15		09-Jul-15	49	1	0%														
Approach Ramp B																									
ARDD0664	Approach B - IC/SO Approval of Approach Ramp B DDA-DP21.01	75	14-Oct-14 A	89.33%	8	30-Apr-15	30-Dec-15	08-Jan-16	181	0	90%														
ARDD0664-1	Approach B - IC/SO Approval of Approach Ramp B DDA-DP21.01	0		0%	0	30-Apr-15		08-Jan-16	181	213	0%														
Approach A																									
ARDD0670	Approach A - IC/SO Approval of Approach Ramp A DDA - DP20.01	75	03-Oct-14 A	89.33%	8	30-Apr-15	30-Jul-15	10-Aug-15	72	0	90%														
ARDD0670-1	Approach A - IC/SO Approval of Approach Ramp A DDA - DP20.01	0		0%	0	30-Apr-15		10-Aug-15	72	31	0%														
Approach F																									
ARDD0676	Approach F - IC/SO Approval of Approach Ramp F DDA-DP24.01	75	23-Dec-14 A	49.33%	38	11-Jun-15	31-Mar-15	21-May-15	-15	0	50%														
ARDD0676-1	Approach F - IC/SO Approval of Approach Ramp F DDA-DP24.01	0		0%	0	11-Jun-15		08-Dec-15	128	32	0%														
Landscape																									
ARDD0700	IC/SO Approval of DDA for landscape works - BP22.01	75	15-Oct-14 A	89.33%	8	30-Apr-15	23-Dec-15	01-Jan-16	176	0	90%														
ARDD0700-1	IC/SO Approval of DDA for landscape works - BP22.01	0		0%	0	30-Apr-15		01-Jan-16	176	0	0%														
ARDD0701	Water Supply Application to WSD	0		0%	0	30-Apr-15		01-Jan-16	176	0	0%														
ARDD0702	Gov't Approval of LVIA	40	01-May-15	0%	40	25-Jun-15	04-Jan-16	26-Feb-16	176	185	0%														
Remaining Works																									
ARDD0704	Preparation of Remaining Works AIP - ZP01.00	30	21-Apr-15	0%	30	01-Jun-15	29-Aug-16	07-Oct-16	354	0	0%														
ARDD0705	IC/SO Approval of Remaining Works AIP - ZP01.00	40	02-Jun-15	0%	40	27-Jul-15	10-Oct-16	02-Dec-16	354	0	0%														
Segment Target Geometry And Erection Engineering																									
Viaduct A																									
ARDD0716	Viaduct A - Confirmation of Erection Sequence from Freyssinet	0		0%	0	21-Apr-15		05-Feb-15	-52	0	0%														
ARDD0717	Viaduct A - Erection Sequence Analysis	20	21-Apr-15	0%	20	18-May-15	06-Feb-15	05-Mar-15	-52	0	0%														
ARDD0718	Viaduct A - Target Geometry Analysis	20	19-May-15	0%	20	15-Jun-15	06-Mar-15	02-Apr-15	-52	0	0%														
ARDD0719	Viaduct A - Segment Geometry Schedules	10	16-Jun-15	0%	10	29-Jun-15	03-Apr-15	16-Apr-15	-52	33	0%														
Viaduct C																									
ARDD0721	Viaduct C - Confirmation of Erection Sequence from Freyssinet	0		0%	0	21-Apr-15		29-Apr-15	6	0	0%														
ARDD0722	Viaduct C - Erection Sequence Analysis	20	21-Apr-15	0%	20	18-May-15	29-Apr-15	27-May-15	6	0	0%														
ARDD0723	Viaduct C - Target Geometry Analysis	20	19-May-15	0%	20	15-Jun-15	27-May-15	24-Jun-15	6	0	0%														
ARDD0724	Viaduct C - Segment Geometry Schedules	10	16-Jun-15	0%	10	29-Jun-15	24-Jun-15	08-Jul-15	6	5	0%														
ARDD0724-1	Viaduct C - Issue of Pierhead Segments Bridge C1, C2, C3, C4	0		0%	0	06-Jul-15		08-Jul-15	1	0	0%														
ARDD0724-3	Viaduct C - Issue of Casting Data and Segment Catalogue Bridge C4, C3 (Final)	0		0%	0	06-Jul-15		08-Jul-15	1	0	0%														
ARDD0724-4	Viaduct C - Issue of Casting Data and Segment Catalogue Bridge C2, C1 (Final)	0		0%	0	20-Jul-15		09-Jul-15	-8	0	0%														
Viaduct D																									
ARDD0728	Viaduct D - Target Geometry Analysis	20	11-Dec-14 A	30%	14	08-May-15	27-Apr-18	16-May-18	788	788	30%														
ARDD0729	Viaduct D - Segment Geometry Schedules	10	11-Dec-14 A	30%	7	29-Apr-15	04-May-15	12-May-15	9	0	30%														
ARDD0729-3	Viaduct D - Issue of Casting Data and Segment Catalogue Bridge D2, D3 (Final)	0		100%	0	02-Apr-15 A					100%														
ARDD0729-4	Viaduct D - Issue of Casting Data and Segment Catalogue Bridge D1 (Final)	0		100%	0	26-Mar-15 A					100%														
ARDD0729-5	Viaduct D - Issue Erection Manual	30	30-Apr-15	0%	30	10-Jun-15	13-May-15	23-Jun-15	9	1	0%														
Viaduct E5 and E6																									
ARDD0734	Viaduct E5 & E6 - Segment Geometry Schedules	10	05-May-14 A	20%	8	30-Apr-15	28-Oct-14	07-Nov-14	-124	1	20%														
TGP0560	Viaduct E5 & E6 - Issue of Optimised Casting Data and Segment Catalogue Bridge E5	20	21-Apr-15	0%	20	18-May-15	16-Dec-14	13-Jan-15	-90	0	0%														
TGP0570	Viaduct E5 & E6 - Issue of Optimised Casting Data and Segment Catalogue Bridge E6	40	19-May-15	0%	40	13-Jul-15	13-Jan-15	10-Mar-15	-90	0	0%														

■ Actual Work
■ Planned Bar
■ Critical Bar
◆ Milestone

Project ID: J3518DWPrE-M23
 Layout: J3518-DWP-3MRP Submission - M23
 Filter: TASK filters: 3-Month Lookahead, No CC Milestones, No Level of Effort.

Tuen Mun - Chek Lap Kok Link - Southern Connection
3-Month Rolling Programme (Page 4 of 43 Pages)
(Progress as of 21-Apr-15)

Date	Revision	Checked	Approved
04-May-15		WY	

DWG. No.:
J3518/GCL/PGM/3MRP-M23

Activity ID	Activity Name	Orig. Durn.	Act. Start / FC Early Start	Duration% Complete	Rem. Durn.	Act. Finish / FC Early Finish	Late Start	Late Finish	Total Float	Free Float	Physical % Complete	2015														
												April			May			June			July					
												23	30	06	13	20	27	04	11	18	25	01	08	15	22	29
Viaduct A																										
PPBRA1	Preliminary Design of Bearings - Viaduct A	50	23-Mar-15 A	50%	25	20-May-15	25-Nov-15	23-Dec-15	180	0	0%															
PPBRA2	Confirmation of bearing assumption - Viaduct A	0		0%	0	20-May-15		23-Dec-15	180	0	0%															
PPBRA3	Bearing design and submission - Viaduct A	12	21-May-15	0%	12	04-Jun-15	24-Dec-15	09-Jan-16	180	0	0%															
PPBRA4	Design check by ICE - Viaduct A	24	05-Jun-15	0%	24	04-Jul-15	11-Jan-16	06-Feb-16	180	0	0%															
PPBRA5	SO review & comment on design submission - Viaduct A	36	06-Jul-15	0%	36	15-Aug-15	11-Feb-16	23-Mar-16	180	0	0%															
PPBRA7	Manufacture of Bearing - Viaduct A	54	06-Jul-15	0%	54	05-Sep-15	11-Feb-16	18-Apr-16	180	0	0%															
Viaduct C																										
PPBRC3	Bearing design and submission - Viaduct C	12	09-Mar-15 A	100%	0	21-Mar-15 A					100%															
PPBRC4	Design check by ICE - Viaduct C	24	23-Mar-15 A	87.5%	3	23-Apr-15	06-Mar-15	09-Mar-15	-35	0	0%															
PPBRC5	SO review & comment on design submission - Viaduct C	36	24-Apr-15	0%	36	06-Jun-15	10-Mar-15	24-Apr-15	-35	0	0%															
PPBRC6	Bearing Design Ammendment & re-issue - Viaduct C	12	08-Jun-15	0%	12	22-Jun-15	04-May-15	16-May-15	-29	6	0%															
PPBRC7	Manufacture of Bearing - Viaduct C	54	24-Apr-15	0%	54	29-Jun-15	10-Mar-15	16-May-15	-35	0	0%															
PPBRC8	Testing Bearing - Viaduct C	18	30-Jun-15	0%	18	21-Jul-15	18-May-15	08-Jun-15	-35	0	0%															
Viaduct D																										
PPBRD4	Design check by ICE - Viaduct D	24	20-Dec-14 A	100%	0	28-Mar-15 A					100%															
PPBRD5	SO review & comment on design submission - Viaduct D	36	30-Mar-15 A	41.67%	21	15-May-15	26-Feb-15	13-Apr-15	-42	0	0%															
PPBRD6	Bearing Design Amendment & re-issue - Viaduct D	12	04-Jun-15	0%	12	17-Jun-15	21-Apr-15	05-May-15	-36	6	0%															
PPBRD7	Manufacture of Bearing - Viaduct D	54	21-Apr-15	0%	54	25-Jun-15	26-Feb-15	05-May-15	-42	0	0%															
PPBRD8	Testing Bearing - Viaduct D	18	26-Jun-15	0%	18	17-Jul-15	06-May-15	27-May-15	-42	0	0%															
PPBRD9	Bearing Delivery - Viaduct D	48	18-Jul-15	0%	48	11-Sep-15	28-May-15	24-Jul-15	-42	0	0%															
Viaduct E																										
PPBRE2	Confirmation of bearing assumption - Viaduct E (E1, E2, E5, E6, E7 & E8)	0		0%	0	21-Apr-15		16-May-18	911	911	0%															
PPBRE3	Bearing design and submission - Viaduct E (E1, E2, E5, E6, E7 & E8)	12	06-Jan-14 A	66.67%	4	24-Apr-15	12-May-18	16-May-18	907	907	65%															
PPBRE4	Design check by ICE - Viaduct E (E1, E2, E5, E6, E7 & E8)	24	06-Jun-14 A	16.67%	20	14-May-15	23-Apr-18	16-May-18	891	891	16%															
PPBRE5	SO review & comment on design submission - Viaduct E (E1, E2, E5, E6, E7 & E8)	36	10-Oct-14 A	5.56%	34	01-Jun-15	19-Mar-18	02-May-18	865	0	5%															
PPBRE6	Bearing Design Amendment & re-issue - Viaduct E (E1, E2, E5, E6, E7 & E8)	12	02-Jun-15	0%	12	15-Jun-15	03-May-18	16-May-18	865	0	0%															
PPBRE7	Manufacture of Bearing - Viaduct E (E1, E2, E5, E6, E7 & E8)	54	02-Jun-14 A	5.56%	51	22-Jun-15	13-Mar-18	16-May-18	860	860	5%															
PPBRE8	Testing Bearing - Viaduct E (E1, E2, E5, E6, E7 & E8)	24	30-Jun-14 A	4.17%	23	15-Jun-15	19-Apr-18	16-May-18	865	865	5%															
PPBRE9	Bearing Delivery - Viaduct E (E1, E2, E5, E6, E7 & E8)	48	18-Oct-14 A	4.17%	46	15-Jun-15	09-Dec-14	03-Feb-15	-104	0	5%															
Bridge E1																										
PP7360	Site preparation Bearings for Viaduct E1	18	16-Jun-15	0%	18	11-Jul-15	04-Feb-15	27-Feb-15	-97	0	0%															
Bridge E2																										
PP7290	Site preparation Bearings for Viaduct E2	18	13-Jul-15	0%	18	04-Aug-15	28-Feb-15	20-Mar-15	-97	0	0%															
Viaduct F																										
PPBRF1	Preliminary Design of Bearings - Viaduct F	70	21-Apr-15	0%	70	15-Jul-15	17-Apr-15	11-Jul-15	-3	0	0%															
PPBRF2	Confirmation of bearing assumption - Viaduct F	0		0%	0	15-Jul-15		11-Jul-15	-3	0	0%															
PPBRF3	Bearing design and submission - Viaduct F	12	16-Jul-15	0%	12	29-Jul-15	13-Jul-15	25-Jul-15	-3	0	0%															
Movement Joints																										
PPMJ01	Design & Submission of MJ	138	08-Feb-14 A	52.9%	65	09-Jul-15	04-Aug-15	20-Oct-15	86	846	30%															
PPMJ02-1	MJ Design Approval	96	26-May-14 A	39.58%	58	30-Jun-15	04-Aug-15	12-Oct-15	86	130	40%															
PPMJ02-2	Manufacture & delivery of MJ	188	21-Apr-15	0%	188	03-Dec-15	04-Aug-15	19-Mar-16	86	0	0%															
Other Sub-Contract Procurement																										
Pavement																										
PP7760-2	Procure Pavement Viaduct Sub-Contractor	36	21-Apr-15	0%	36	03-Jun-15	08-Oct-15	19-Nov-15	140	0	0%															
PP7760-4	Pavement Viaduct Sub-Contractor - Materials approvals & MS	90	04-Jun-15	0%	90	18-Sep-15	20-Nov-15	10-Mar-16	140	73	0%															
Structural Health Monitoring System (SHMS)																										
PP7778	SHMS - So approval of Final System Proposal	30	16-Dec-14 A	0%	30	27-May-15	10-Nov-14	15-Dec-14	-129	30	0%															

■ Actual Work
■ Planned Bar
■ Critical Bar
◆ Milestone

Project ID: J3518DWPRe-M23
 Layout: J3518-DWP-3MRP Submission - M23
 Filter: TASK filters: 3-Month Lookahead, No CC Milestones, No Level of Effort.

Tuen Mun - Chek Lap Kok Link - Southern Connection
3-Month Rolling Programme (Page 9 of 43 Pages)
(Progress as of 21-Apr-15)

Date	Revision	Checked	Approved
04-May-15		WY	

DWG. No.:
J3518/GCL/PGM/3MRP-M23

Activity ID	Activity Name	Orig. Durn.	Act. Start / FC Early Start	Duration % Complete	Rem. Durn.	Act. Finish / FC Early Finish	Late Start	Late Finish	Total Float	Free Float	Physical % Complete	2015																
												April			May			June			July							
												23	30	06	13	20	27	04	11	18	25	01	08	15	22	29	06	13
PP7780	SHMS - Prepare Civil Work Provision	66	21-Apr-15	0%	66	10-Jul-15	06-Oct-14	22-Dec-14	-159	0	0%																	
PP7782	SHMS - Submit Precast Pile Cap Shell SHMS details for E5-E6-E7-E8	0	20-May-15	0%	0		03-Nov-14		-159	0	0%																	
PP7786	SHMS - Submit Segment SHMS details for E5-E6-E7-E8	0	11-Jun-15	0%	0		24-Feb-15		-86	0	0%																	
PP7788	SHMS - FAT & Delivery for Bridge E5-E6-E7-E8 equipment	54	20-May-15	0%	54	24-Jul-15	01-Dec-14	05-Feb-15	-135	14	0%																	
Site Preparation / Mobilisations																												
Temp Traffic Mgt Submission & Approval																												
TTM00670	Earliest Implementation of TTM after TMLG Meeting No. 19	0	15-Apr-15 A	100%	0						100%																	
TTM00680	Send TTMs to SO & Govt Depts for TMLG Meeting No. 20	0		100%	0	08-Apr-15 A					100%																	
TTM00690	TMLG Meeting No. 20	0		100%	0	14-Apr-15 A					100%																	
TTM00700	Earliest Implementation of TTM after TMLG Meeting No. 20	0	28-Apr-15	0%	0		08-Dec-15		160	20	0%																	
TTM00710	Send TTMs to SO & Govt Depts for TMLG Meeting No. 21	0		0%	0	27-Apr-15		09-Jul-15	53	0	0%																	
TTM00720	TMLG Meeting No. 21	0		0%	0	11-May-15*		23-Jul-15	53	0	0%																	
TTM00730	Earliest Implementation of TTM after TMLG Meeting No. 21	0	26-May-15	0%	0		08-Dec-15		140	20	0%																	
TTM00740	Send TTMs to SO & Govt Depts for TMLG Meeting No. 22	0		0%	0	25-May-15		06-Aug-15	53	0	0%																	
TTM00750	TMLG Meeting No. 22	0		0%	0	08-Jun-15*		20-Aug-15	53	0	0%																	
TTM00760	Earliest Implementation of TTM after TMLG Meeting No. 22	0	23-Jun-15	0%	0		08-Dec-15		120	20	0%																	
TTM00770	Send TTMs to SO & Govt Depts for TMLG Meeting No. 23	0		0%	0	22-Jun-15		03-Sep-15	53	0	0%																	
TTM00780	TMLG Meeting No. 23	0		0%	0	06-Jul-15*		17-Sep-15	53	0	0%																	
TTM00800	Send TTMs to SO & Govt Depts for TMLG Meeting No. 24	0		0%	0	20-Jul-15		01-Oct-15	53	3	0%																	
Tree Felling / Transplant																												
Approved Trees in Contract																												
TR00200	Tree transplant for Viaduct B - affecting Piers B11 to B17	90	17-Feb-14 A	97.78%	2	22-Apr-15	09-May-16	10-May-16	292	852	95%																	
TR00220	Tree transplant for Viaduct B - affecting Pier B18 & Abutment B	90	17-Feb-14 A	97.78%	2	22-Apr-15	09-Jan-16	11-Jan-16	199	852	95%																	
TR00240	Tree transplant for Viaduct B - affecting realigned CTR	90	17-Feb-14 A	97.78%	2	22-Apr-15	15-May-18	16-May-18	852	852	95%																	
TR00250	Tree felling for Viaduct B - affecting Slopes 9SE-B/F9, C8 & C9	48	05-May-14 A	91.67%	4	25-Apr-15	12-May-18	16-May-18	850	850	90%																	
TR00260	Tree felling for Viaduct C - affecting Piers C9 to Abutment C	24	30-Jan-14 A	83.33%	4	25-Apr-15	12-May-18	16-May-18	850	850	70%																	
TR00270	Tree transplant for Viaduct C - affecting Piers C9 to Abutment C	90	17-Feb-14 A	35.56%	58	11-Jul-15	01-Mar-18	16-May-18	796	796	35%																	
TR00280	Tree felling for Viaduct C - affecting realigned CTR	30	30-Jan-14 A	70%	9	02-May-15	05-May-18	16-May-18	845	845	70%																	
TR00290	Tree transplant for Viaduct C - affecting realigned CTR	90	17-Feb-14 A	35.56%	58	11-Jul-15	01-Mar-18	16-May-18	796	796	35%																	
Site Set Up for Works Area 3 and Site Offices along CEDD Access Road																												
PR30030	Works Area 3-A1/3-A2 - Construct 1.5m steel access bridge	30	21-Apr-15	0%	30	30-May-15	07-Apr-18	16-May-18	824	824	0%																	
Temporary Working Platform at North Lantau																												
PR08080	Inst.Unloading Frame incl. T&C for seg.lift (incl. Load Test)	15	24-Oct-14 A	20%	12	06-May-15	28-Jan-15	10-Feb-15	-63	0	20%																	
Unloading Jetty at HKBCF																												
PR09010	Unloading Jetty at HKBCF - Procurement of materials and lifting gantry	85	21-Apr-15	0%	85	15-Aug-15	12-Nov-14	25-Feb-15	-126	0	0%																	
CONSTRUCTION																												
PILING AND SUBSTRUCTURE																												
Viaduct A																												
Milestones - Marine Foundation																												
GFXX113-1	A7 (A1e) - Start date for piling	0	16-Jul-15	0%	0		14-Dec-15		126	0	0%																	
GFXX118-1	A6 (A1f) - Start date for piling	0	16-Jul-15	0%	0		31-Oct-15		89	7	0%																	
GFXX123-1	A5 (A2a) - Start date for piling	0	16-Jul-15	0%	0		13-Nov-15		100	43	0%																	
GFXX128-1	A4 (A2b) - Start date for piling	0	16-Jul-15	0%	0		15-Mar-16		199	28	0%																	
GFXX133-1	A3 (A2c) - Start date for piling	0	16-Jul-15	0%	0		14-Jan-16		150	11	0%																	
GFXX138-1	A2 (A2d) - Start date for piling	0	16-Jul-15	0%	0		14-Nov-15		101	32	0%																	
Milestones - Land Foundation																												
ZA00020	A8 (A1d) - Start date for piling	0	16-Jul-15	0%	0		22-Dec-15		133	32	0%																	
ZA00030	A9 (A1c) - Start date for piling	0	16-Jul-15	0%	0		12-Feb-16		172	68	0%																	

<ul style="list-style-type: none"> ■ Actual Work ■ Planned Bar ■ Critical Bar ◆ Milestone 	Project ID: J3518DWPRe-M23 Layout: J3518-DWP-3MRP Submission - M23 Filter: TASK filters: 3-Month Lookahead, No CC Milestones, No Level of Effort.	Tuen Mun - Chek Lap Kok Link - Southern Connection 3-Month Rolling Programme (Page 10 of 43 Pages) (Progress as of 21-Apr-15)	Date: 04-May-15 Revision: Checked: WY Approved:	DWG. No.: J3518/GCL/PGM/3MRP-M23
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Activity ID	Activity Name	Orig. Durn.	Act. Start / FC Early Start	Duration % Complete	Rem. Durn.	Act. Finish / FC Early Finish	Late Start	Late Finish	Total Float	Free Float	Physical % Complete	2015																					
												April				May				June				July									
												23	30	06	13	20	27	04	11	18	25	01	08	15	22	29	06	13					
Pier Works																																	
SB3A0320	B6 (B3a) - Type 4B-MJ Pier Head Formwork & Prep for Concreting	5	13-Mar-15 A	100%	0	28-Mar-15 A					100%																						
SB3A0330	B6 (B3a) - Type 4B-MJ Pier Head Concreting	1	30-Mar-15 A	100%	0	30-Mar-15 A					100%																						
SB3A0340	B6 (B3a) - Type 4B-MJ Pier Head Curing/Striking of Forms/Remove Scaffolding	6	31-Mar-15 A	100%	0	02-Apr-15 A					100%																						
SB3A0350	B6 (B3a) - Type 4B-Bearing Plinth	6	16-Apr-15 A	50%	3	24-Apr-15	14-May-18	16-May-18	851	0	0%																						
Pier Head Segments																																	
SB3A0370	B6 (B3a) - Pier Head Segment - Temporary Platform	6	13-Apr-15 A	100%	0	16-Apr-15 A					100%																						
SB3A0371	B6 (B3a) - Pier Head Segment bearings	2	21-Apr-15	0%	2	22-Apr-15	07-Mar-15	09-Mar-15	-33	0	0%																						
SB3A0372	B6 (B3a) - Pier Head Segment Lift & Temp Support (2 seg)	7	24-Apr-15	0%	7	02-May-15	10-Mar-15	17-Mar-15	-33	0	0%																						
Bridge B2																																	
Pier B7 (B2f)																																	
Pier Works																																	
SB2F0310	B7 (B2f) - Type 4B Pier Head Rebarwork	5	11-Mar-15 A	100%	0	21-Mar-15 A					100%																						
SB2F0320	B7 (B2f) - Type 4B Pier Head Formwork & Prep for Concreting	4	21-Mar-15 A	100%	0	01-Apr-15 A					100%																						
SB2F0330	B7 (B2f) - Type 4B Pier Head Concreting	1	02-Apr-15 A	100%	0	02-Apr-15 A					100%																						
SB2F0340	B7 (B2f) - Type 4B Pier Head Curing/Striking of Forms/Remove Scaffolding	6	02-Apr-15 A	100%	0	11-Apr-15 A					100%																						
Pier Head Segments																																	
SB2F0370	B7 (B2f) - Pier Head Segment - Temporary Platform	6	18-Mar-15 A	80%	1	22-Apr-15	17-Jan-15	19-Jan-15	-71	0	80%																						
SB2F0372	B7 (B2f) - Pier Head Segment Lift & Fix (1 seg)	2	22-Apr-15	0%	2	25-Apr-15	20-Jan-15	21-Jan-15	-71	0	0%																						
SB2F0374	B7 (B2f) - Pier Head Segment Diaphragm - Rebar	12	25-Apr-15	0%	12	11-May-15	22-Jan-15	04-Feb-15	-71	0	0%																						
SB2F0376	B7 (B2f) - Pier Head Segment Diaphragm - Formwork & Prep for Concreting	8	11-May-15	0%	8	22-May-15	05-Feb-15	13-Feb-15	-71	0	0%																						
SB2F0378	B7 (B2f) - Pier Head Segment Diaphragm - Concreting	2	22-May-15	0%	2	26-May-15	14-Feb-15	16-Feb-15	-71	0	0%																						
SB2F0380	B7 (B2f) - Pier Head Segment Diaphragm - Curing & Striking of Forms	6	26-May-15	0%	6	02-Jun-15	27-Feb-15	05-Mar-15	-65	0	0%																						
Pier B8 (B2e)																																	
Pier Works																																	
SB2E0240	B8 (B2e) - Type 5B Pier Head Rebarwork	4	07-Mar-15 A	100%	0	23-Mar-15 A					100%																						
SB2E0250	B8 (B2e) - Type 5B Pier Head Formwork & Prep for Concreting	4	17-Mar-15 A	100%	0	24-Mar-15 A					100%																						
SB2E0260	B8 (B2e) - Type 5B Pier Head Concreting	1	25-Mar-15 A	100%	0	25-Mar-15 A					100%																						
SB2E0270	B8 (B2e) - Type 5B Pier Head Curing & Striking of Forms & Remove Scaffolding	6	26-Mar-15 A	100%	0	31-Mar-15 A					100%																						
SB2E0280	B8 (B2e) - Type 5B Pier Backfilling Works	4	01-Apr-15 A	100%	0	08-Apr-15 A					100%																						
Pier Head Segments																																	
SB2E0370	B8 (B2e) - Pier Head Segment - Temporary Platform	6	28-Mar-15 A	100%	0	07-Apr-15 A					100%																						
SB2E0372	B8 (B2e) - Pier Head Segment Lift & Fix (1 seg)	2	09-Apr-15 A	100%	0	10-Apr-15 A					100%																						
SB2E0374	B8 (B2e) - Pier Head Segment Diaphragm - Rebar	12	21-Apr-15 A	5%	11	06-May-15	12-Feb-15	28-Feb-15	-49	0	5%																						
SB2E0376	B8 (B2e) - Pier Head Segment Diaphragm - Formwork & Prep for Concreting	8	06-May-15	0%	8	16-May-15	02-Mar-15	10-Mar-15	-49	0	0%																						
SB2E0378	B8 (B2e) - Pier Head Segment Diaphragm - Concreting	2	16-May-15	0%	2	19-May-15	11-Mar-15	12-Mar-15	-49	0	0%																						
SB2E0380	B8 (B2e) - Pier Head Segment Diaphragm - Curing & Striking of Forms	6	19-May-15	0%	6	28-May-15	19-Mar-15	26-Mar-15	-43	0	0%																						
Pier B9 (B2d)																																	
Pier Works																																	
SB2D0230	B9 (B2d) - Type 5B Pier Head Scaffolding	3	07-Mar-15 A	100%	0	21-Mar-15 A					100%																						
SB2D0240	B9 (B2d) - Type 5B Pier Head Rebarwork	4	21-Mar-15 A	100%	0	28-Mar-15 A					100%																						
SB2D0250	B9 (B2d) - Type 5B Pier Head Formwork & Prep for Concreting	4	20-Apr-15 A	50%	2	22-Apr-15	24-Feb-15	25-Feb-15	-43	0	0%																						
SB2D0260	B9 (B2d) - Type 5B Pier Head Concreting	1	24-Apr-15	0%	1	24-Apr-15	26-Feb-15	26-Feb-15	-43	0	0%																						
SB2D0270	B9 (B2d) - Type 5B Pier Head Curing & Striking of Forms & Remove Scaffolding	6	25-Apr-15	0%	6	02-May-15	27-Feb-15	05-Mar-15	-43	0	0%																						
SB2D0280	B9 (B2d) - Type 5B Pier Backfilling Works	4	29-Apr-15	0%	4	04-May-15	03-Mar-15	06-Mar-15	-43	0	0%																						
Pier Head Segments																																	
SB2D0370	B9 (B2d) - Pier Head Segment - Temporary Platform	6	05-May-15	0%	6	11-May-15	07-Mar-15	13-Mar-15	-43	20	0%																						
SB2D0372	B9 (B2d) - Pier Head Segment Lift & Fix (1 seg)	2	10-Jun-15	0%	2	12-Jun-15	14-Mar-15	16-Mar-15	-63	0	0%																						

■ Actual Work
■ Planned Bar
■ Critical Bar
◆ Milestone

Project ID: J3518DWPPrE-M23
 Layout: J3518-DWP-3MRP Submission - M23
 Filter: TASK filters: 3-Month Lookahead, No CC Milestones, No Level of Effort.

Tuen Mun - Chek Lap Kok Link - Southern Connection
3-Month Rolling Programme (Page 13 of 43 Pages)
(Progress as of 21-Apr-15)

Date	Revision	Checked	Approved
04-May-15		WY	

DWG. No.:
J3518/GCL/PGM/3MRP-M23

Activity ID	Activity Name	Orig. Durn.	Act. Start / FC Early Start	Duration % Complete	Rem. Durn.	Act. Finish / FC Early Finish	Late Start	Late Finish	Total Float	Free Float	Physical % Complete	2015																
												April			May				June			July						
												23	30	06	13	20	27	04	11	18	25	01	08	15	22	29	06	13
SB1D0376	B16 (B1d) - Pier Head Segment Diaphragm - Formwork & Prep for Concreting	8	09-Apr-15 A	50%	4	25-Apr-15	12-May-18	16-May-18	850	850	50%																	
SB1D0378	B16 (B1d) - Pier Head Segment Diaphragm - Concreting	2	08-Apr-15 A	50%	1	21-Apr-15	18-Feb-17	18-Feb-17	509	0	50%																	
SB1D0380	B16 (B1d) - Pier Head Segment Diaphragm - Curing & Striking of Forms	6	22-Apr-15	0%	6	29-Apr-15	27-Feb-17	04-Mar-17	515	0	0%																	
Pier B18 (B1b) & Abutment B																												
Preliminary Works for Land Piling																												
PB180030	B18 (B1b) - Install Geo. Instru. & Baseline Monitoring	36	21-Apr-15	0%	36	03-Jun-15	18-Nov-15	31-Dec-15	174	210	0%																	
Viaduct C																												
Milestones - Marine Foundation																												
GFX197-1	C6 (C3f) - Completion of piling works	0		0%	0	07-May-15		21-Apr-15	-13	15	0%																	
GFX202-1	C5 (C4a) - Completion of piling works	0		0%	0	10-Jun-15		18-Mar-15	-66	9	0%																	
GFX207-1	C4 (C4b) - Completion of piling works	0		0%	0	21-Apr-15		23-Mar-15	-20	29	0%																	
GFX212-1	C3 (C4c) - Completion of piling works	0		0%	0	25-Apr-15		17-Jul-15	67	97	0%																	
Milestones - Land Foundation																												
ZC00050	C17 (C2a) - Start date for piling	0	21-Apr-15	0%	0		10-Nov-15		167	52	0%																	
ZC00051	C17 (C2a) - Completion of piling works	0		0%	0	08-Jul-15		23-Nov-15	115	0	0%																	
ZC00060	C16 (C2b) - Start date for piling	0	21-Apr-15	0%	0		03-Nov-15		161	49	0%																	
ZC00071	C15 (C2c) - Completion of piling works	0		100%	0	21-Mar-15 A					100%																	
ZC00091-1	C12 (C2f) - Completion of piling works	0		0%	0	17-Jun-15		04-Dec-15	141	16	0%																	
ZC00093-1	C10 (C3b) - Completion of piling works	0		100%	0	01-Apr-15 A					100%																	
ZC00095-1	C8 (C3d) - Completion of piling works	0		0%	0	21-Apr-15		16-May-18	911	911	0%																	
ZC00096	C7 (C3e) - Start date for piling	0	21-Apr-15	0%	0		16-May-18		911	911	0%																	
ZC00096-1	C7 (C3e) - Completion of piling works	0		0%	0	12-May-15		16-May-18	893	893	0%																	
Bridge C4																												
Pier C1 (C4e)																												
Pile Cap Works																												
SC4E0120	C1 (C4e) - Marine Pile Cap M2 - Pile cut down	12	09-Mar-15 A	100%	0	21-Mar-15 A					100%																	
SC4E0130	C1 (C4e) - Marine Pile Cap M2 - Rebar fixing, inst.inserts etc	12	13-May-15	0%	12	28-May-15	29-Aug-15	15-Sep-15	81	0	0%																	
SC4E0140	C1 (C4e) - Marine Pile Cap M2 - Concreting	1	29-May-15	0%	1	29-May-15	16-Sep-15	16-Sep-15	81	0	0%																	
SC4E0164	C1 (C4e) - Marine Pile Cap M2 - Curing incl. CJ preparation	6	30-May-15	0%	6	06-Jun-15	18-Sep-15	24-Sep-15	81	0	0%																	
Pier Works																												
SC4E0170	C1 (C4e) - Type 4B-MJ Pier Temp. Support Platform (Erect Working Platform)	6	18-Apr-15 A	60%	2	06-Jun-15	22-Sep-15	24-Sep-15	81	0	60%																	
SC4E0172	C1 (C4e) - Type 4B-MJ Pier Scaffolding (1st Lift)	1	08-Jun-15	0%	1	08-Jun-15	25-Sep-15	25-Sep-15	81	0	0%																	
SC4E0180	C1 (C4e) - Type 4B-MJ Pier Rebarwork (1st Lift)	3	10-Jun-15	0%	3	13-Jun-15	26-Sep-15	30-Sep-15	81	0	0%																	
SC4E0190	C1 (C4e) - Type 4B-MJ Pier Formwork & Prep for Concreting (1st Lift)	2	15-Jun-15	0%	2	16-Jun-15	02-Oct-15	03-Oct-15	81	0	0%																	
SC4E0200	C1 (C4e) - Type 4B-MJ Pier Concreting (1st Lift)	1	18-Jun-15	0%	1	18-Jun-15	05-Oct-15	05-Oct-15	81	0	0%																	
SC4E0202	C1 (C4e) - Type 4B-MJ Pier Curing & Striking of Forms incl. CJ prep (1st Lift)	2	19-Jun-15	0%	2	22-Jun-15	06-Oct-15	07-Oct-15	81	0	0%																	
SC4E0210	C1 (C4e) - Type 4B-MJ Pier Scaffolding (2nd Lift)	2	24-Jun-15	0%	2	26-Jun-15	08-Oct-15	09-Oct-15	81	0	0%																	
SC4E0220	C1 (C4e) - Type 4B-MJ Pier Rebarwork (2nd Lift)	3	27-Jun-15	0%	3	30-Jun-15	10-Oct-15	13-Oct-15	81	0	0%																	
SC4E0230	C1 (C4e) - Type 4B-MJ Pier Formwork & Prep for Concreting (2nd Lift)	3	02-Jul-15	0%	3	04-Jul-15	15-Oct-15	17-Oct-15	81	0	0%																	
SC4E0240	C1 (C4e) - Type 4B-MJ Pier Concreting (2nd Lift)	1	06-Jul-15	0%	1	06-Jul-15	19-Oct-15	19-Oct-15	81	0	0%																	
SC4E0242	C1 (C4e) - Type 4B-MJ Pier Curing & Striking of Forms incl. CJ prep (2nd Lift)	2	07-Jul-15	0%	2	08-Jul-15	20-Oct-15	22-Oct-15	81	0	0%																	
SC4E0300	C1 (C4e) - Type 4B-MJ Pier Head Scaffolding (F/W from Pier D6)	4	09-Jul-15	0%	4	13-Jul-15	23-Oct-15	27-Oct-15	81	0	0%																	
SC4E0310	C1 (C4e) - Type 4B-MJ Pier Head Rebarwork	5	14-Jul-15	0%	5	20-Jul-15	28-Oct-15	03-Nov-15	81	0	0%																	
Pier C2 (C4d)																												
Pile Cap Works																												
SC4D0070	C2 (C4d) - Marine Pile Cap M2b - Inst.Floating Seal & Casing Head Steelwork	7	18-Mar-15 A	0%	7	29-Apr-15	30-Apr-15	08-May-15	7	34	10%																	
SC4D0080	C2 (C4d) - Marine Pile Cap M2b - Install precast shell in position	1	18-Jun-15	0%	1	18-Jun-15	09-May-15	09-May-15	-27	0	0%																	
SC4D0090	C2 (C4d) - Marine Pile Cap M2b - Inst.Access & make Watertight	3	19-Jun-15	0%	3	24-Jun-15	11-May-15	14-May-15	-27	0	0%																	

Actual Work
 Planned Bar
 Critical Bar
 Milestone

Project ID: J3518DWPrE-M23
 Layout: J3518-DWP-3MRP Submission - M23
 Filter: TASK filters: 3-Month Lookahead, No CC Milestones, No Level of Effort.

Tuen Mun - Chek Lap Kok Link - Southern Connection
3-Month Rolling Programme (Page 16 of 43 Pages)
(Progress as of 21-Apr-15)

Date	Revision	Checked	Approved
04-May-15		WY	

DWG. No.:
J3518/GCL/PGM/3MRP-M23

Activity ID	Activity Name	Orig. Durn.	Act. Start / FC Early Start	Duration % Complete	Rem. Durn.	Act. Finish / FC Early Finish	Late Start	Late Finish	Total Float	Free Float	Physical % Complete	2015																						
												April				May				June				July										
												23	30	06	13	20	27	04	11	18	25	01	08	15	22	29	06	13						
Pier Works																																		
SC1D0150	C19 (C1d) - Type 5B-B Pier/Pier Head Scaffolding	4	21-Apr-15	0%	4	25-Apr-15	07-Nov-16	10-Nov-16	426	0	0%																							
SC1D0160	C19 (C1d) - Type 5B-B Pier/Pier Head Head Rebarwork	4	27-Apr-15	0%	4	30-Apr-15	11-Nov-16	15-Nov-16	426	0	0%																							
SC1D0170	C19 (C1d) - Type 5B-B Pier/Pier Head Formwork & Prep for Concreting	4	02-May-15	0%	4	06-May-15	16-Nov-16	19-Nov-16	426	0	0%																							
SC1D0180	C19 (C1d) - Type 5B-B Pier/Pier Head Concreting	1	07-May-15	0%	1	07-May-15	21-Nov-16	21-Nov-16	426	0	0%																							
SC1D0190	C19 (C1d) - Type 5B-B Pier/Pier Head Curing/Striking of Forms/Remove Scaffolding	6	08-May-15	0%	6	15-May-15	22-Nov-16	28-Nov-16	426	0	0%																							
SC1D0195	C19 (C1d) - Type 5B-B Pier/Pier Head Backfilling Works	4	16-May-15	0%	4	20-May-15	29-Nov-16	02-Dec-16	426	93	0%																							
Pier C20 (C1c) & Abutment C																																		
Pier Works																																		
SC1C0150	C20 (C1c) - Pier/Pier Head Scaffolding	4	23-Mar-15 A	100%	0	26-Mar-15 A					100%																							
SC1C0160	C20 (C1c) - Pier/Pier Head Rebarwork	6	27-Mar-15 A	100%	0	02-Apr-15 A					100%																							
SC1C0170	C20 (C1c) - Pier/Pier Head Formwork	10	08-Apr-15 A	100%	0	18-Apr-15 A					100%																							
SC1C0180	C20 (C1c) - Pier/Pier Head Concreting	1	21-Apr-15	0%	1	21-Apr-15	09-Nov-16	09-Nov-16	428	0	0%																							
SC1C0190	C20 (C1c) - Pier/Pier Head Curing & Striking of Forms incl. CJ prep	6	22-Apr-15	0%	6	29-Apr-15	10-Nov-16	16-Nov-16	428	0	0%																							
Pier Head Segments																																		
SC1C0370	C20 (C1c) - Pier Head Segment - Temporary Platform	6	30-Apr-15	0%	6	07-May-15	17-Nov-16	23-Nov-16	428	96	0%																							
Abutment & Approach Ramp C																																		
SC1C0200	Abutment C - Walls & Staircase	48	21-Apr-15	0%	48	29-Jun-15	15-Jul-15	14-Sep-15	60	8	0%																							
SC1C0250	AR-C - RE Walls - Erect fencing, Excavation/formation/ drainage filter & bottom layer to grd l	12	02-May-15	0%	12	16-May-15	15-Jul-15	30-Jul-15	52	0	0%																							
SC1C0251	AR-C - RE Walls - Upper layers with backfill in stages	48	18-May-15	0%	48	24-Jul-15	31-Jul-15	30-Sep-15	52	0	0%																							
SC1C0252	AR-C - RE Walls - Base Slabs of top RC Walls	48	10-Jul-15	0%	48	08-Sep-15	15-Sep-15	18-Nov-15	54	0	0%																							
Viaduct D																																		
Milestones - Marine Foundation																																		
GFXX228	Viaduct D - ARUP issues Pile Spacing & Diameter for Temporary Platform Design	0		0%	0	21-Apr-15		16-May-18	911	911	0%																							
GFXX233-1	Pier D7 (D3e) - Completion of Piling Works	0		0%	0	21-Apr-15		01-Apr-17	582	146	0%																							
GFXX238-2	Pier D6 (D4a) - Completion of Piling Works	0		0%	0	21-Apr-15		28-Apr-15	7	59	0%																							
GFXX243-3	Pier D5 (D4b) - Completion of Piling Works	0		0%	0	21-Apr-15		18-Feb-15	-45	0	0%																							
GFXX248-1	Pier D4 (D4c) - Completion of Piling Works	0		0%	0	21-Apr-15		30-Jan-15	-61	0	0%																							
GFXX253-1	Pier D3 (D4d) - Completion of Piling Works	0		0%	0	21-Apr-15		01-Apr-17	582	146	0%																							
GFXX258-2	Pier D2 (D4e) - Completion of Piling Works	0		0%	0	21-Apr-15		01-Apr-17	582	146	0%																							
Milestones - Land Foundation																																		
GFXX446B1	D15 (D2b) - Completion of piling works	0		0%	0	21-Apr-15		19-May-15	24	0	0%																							
GFXX454A1	D13 (D2d) - Completion of piling works	0		0%	0	15-May-15		17-Aug-15	77	0	0%																							
GFXX461A1	D10 (D3b) - Completion of piling works	0		0%	0	23-Jun-15		16-May-18	859	859	0%																							
GFXX461C1	D12 (D2e) - Completion of piling works	0		0%	0	23-Jun-15		16-May-18	859	859	0%																							
Bridge D3																																		
Pier D1 (D4f)																																		
Pier Works																																		
SD4F0190	D1 (D4f) - Type 4B-MJ Pier Formwork & Prep for Concreting (1st Lift)	2	20-Mar-15 A	100%	0	23-Mar-15 A					100%																							
SD4F0200	D1 (D4f) - Type 4B-MJ Pier Concreting (1st Lift)	1	24-Mar-15 A	100%	0	24-Mar-15 A					100%																							
SD4F0202	D1 (D4f) - Type 4B-MJ Pier Curing & Striking of Forms incl. CJ prep (1st Lift)	2	25-Mar-15 A	100%	0	28-Mar-15 A					100%																							
SD4F0210	D1 (D4f) - Type 4B-MJ Pier Scaffolding (2nd Lift)	2	27-Mar-15 A	100%	0	08-Apr-15 A					100%																							
SD4F0220	D1 (D4f) - Type 4B-MJ Pier Rebarwork (2nd Lift)	3	08-Apr-15 A	100%	0	13-Apr-15 A					100%																							
SD4F0230	D1 (D4f) - Type 4B-MJ Pier Formwork & Prep for Concreting (2nd Lift)	3	14-Apr-15 A	100%	0	20-Apr-15 A					100%																							
SD4F0240	D1 (D4f) - Type 4B-MJ Pier Concreting (2nd Lift)	1	21-Apr-15 A	100%	0	21-Apr-15 A					100%																							
SD4F0242	D1 (D4f) - Type 4B-MJ Pier Curing & Striking of Forms incl. CJ prep (2nd Lift)	2	21-Apr-15	0%	2	22-Apr-15	22-Jun-15	26-Jun-15	44	0	0%																							
SD4F0300	D1 (D4f) - Type 4B-MJ Pier Head Scaffolding	4	24-Apr-15	0%	4	28-Apr-15	26-Jun-15	02-Jul-15	44	0	0%																							
SD4F0310	D1 (D4f) - Type 4B-MJ Pier Head Rebarwork	5	29-Apr-15	0%	5	05-May-15	02-Jul-15	09-Jul-15	45	0	0%																							

<ul style="list-style-type: none"> ■ Actual Work ■ Planned Bar ■ Critical Bar ◆ Milestone 	Project ID: J3518DWPPrE-M23 Layout: J3518-DWP-3MRP Submission - M23 Filter: TASK filters: 3-Month Lookahead, No CC Milestones, No Level of Effort.	Tuen Mun - Chek Lap Kok Link - Southern Connection 3-Month Rolling Programme (Page 22 of 43 Pages) (Progress as of 21-Apr-15)	Date: 04-May-15 Revision: Checked: WY Approved:	DWG. No.: J3518/GCL/PGM/3MRP-M23
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Activity ID	Activity Name	Orig. Durn.	Act. Start / FC Early Start	Duration% Complete	Rem. Durn.	Act. Finish / FC Early Finish	Late Start	Late Finish	Total Float	Free Float	Physical % Complete	2015													
												April				May				June				July	
												23	30	06	13	20	27	04	11	18	25	01	08	15	22
Assembling, relocation and dismantle of lifting equipment																									
Launching Gantry 1																									
NS11170	Assembly of Launching Gantry LG1 onto Pier B1/B2 (incl. Load Test)	19	13-Mar-15 A	26.32%	14	08-May-15	15-Dec-14	03-Jan-15	-98	0	0%														
NS11180	Viaduct B3 - Learning Curve Gantry LG1	20	09-May-15	0%	20	02-Jun-15	03-Jan-15	27-Jan-15	-100	1	0%														
NS11210	Viaduct B3 - Launching LG1 Over Piers to B07 (B2f) - LG1	5	25-Jun-15	0%	5	30-Jun-15	11-Feb-15	17-Feb-15	-105	0	0%														
Launching Gantry 2																									
FR000099	Assembly of Launching Gantry LG2 on Temp. Loading Platform	30	16-May-15	0%	30	22-Jun-15	20-Jan-15	26-Feb-15	-92	7	0%														
NS11620	Assembly Launching Gantry LG2 onto Pier B1/ B2 (incl. Load Test)	20	02-Jul-15	0%	20	25-Jul-15	27-Feb-15	21-Mar-15	-89	0	0%														
Adjustable Lifting Frame 1&2																									
NS10140	Viaduct B3 - Pier B4 - Assemble / Load Test Lifting Frame ALF 1/2	25	02-Jul-15	0%	25	30-Jul-15	17-Feb-15	21-Mar-15	-105	0	0%														
Wide Lifting Frame 3&4																									
NS10520	Viaduct E2 - Pier E4A - Assemble / Load Test Lifting Frame WLF 3/4	25	02-Jul-15*	0%	25	30-Jul-15	31-Mar-15	05-May-15	-72	0	0%														
Viaduct B Superstructure																									
Bridge B3 Superstructure																									
Milestones																									
Milestones Ready for PH Segment Erection																									
B300010-1	Pier B6 (B3a) ready for Viaduct B3 PH segment erection	0		0%	0	24-Apr-15		16-May-18	851	851	0%														
B300020-1	Pier B5 (B3b) ready for Viaduct B3 PH segment erection	0		0%	0	21-Apr-15		18-May-15	21	113	0%														
B300030-1	Pier B4 (B3c) ready for Viaduct B3 PH segment erection	0		0%	0	21-Apr-15		16-May-18	854	854	0%														
Milestones Ready for Deck Segment Erection																									
B300010	Pier B6 (B3a) ready for Viaduct B3 deck segment erection	0		0%	0	02-May-15		17-Mar-15	-33	50	0%														
B300020	Pier B5 (B3b) ready for Viaduct B3 deck segment erection	0		0%	0	28-May-15		09-May-15	-14	6	0%														
B300030	Pier B4 (B3c) ready for Viaduct B3 deck segment erection	0		0%	0	21-Apr-15		16-Apr-15	-4	10	0%														
B300040	Pier B3 (B3d) ready for Viaduct B3 deck segment erection	0		0%	0	21-Apr-15		28-Apr-15	6	0	0%														
B300050	Pier B2 (B3e) ready for Viaduct B3 deck segment erection	0		0%	0	21-Apr-15		27-Jan-15	-64	32	0%														
Deck installation																									
NS10155	Viaduct B3 - Pier B4 (B3c) (2 seg)	6	05-May-15	0%	6	11-May-15	16-Apr-15	24-Apr-15	-14	79	0%														
NS10185	Viaduct B3 - Pier B3 (B3d) (2 seg)	6	21-Apr-15	0%	6	28-Apr-15	28-Apr-15	06-May-15	6	98	0%														
NS10205	Viaduct B3 - Pier B5 (B3b) (2 seg)	6	06-Jun-15	0%	6	15-Jun-15	09-May-15	18-May-15	-20	73	0%														
NS11190	Viaduct B3 - Cantilever at Pier B2 (B3e) (14 seg) - LG1	7	04-Jun-15	0%	7	13-Jun-15	27-Jan-15	04-Feb-15	-96	0	0%														
NS11200	Viaduct B3 - End Span at Pier B1 (B3f) (up) (7 seg) - LG1	6	15-Jun-15	0%	6	24-Jun-15	04-Feb-15	11-Feb-15	-96	0	0%														
Bridge B2 Superstructure																									
Milestones																									
Milestones Ready for PH Segment Erection																									
B200010-1	Pier B12 (B2a) ready for Viaduct B2 PH segment erection	0		0%	0	11-May-15		04-Jul-15	36	4	0%														
B200020-1	Pier B11 (B2b) ready for Viaduct B2 PH segment erection	0		0%	0	24-Apr-15		16-May-18	851	851	0%														
B200030-1	Pier B10 (B2c) ready for Viaduct B2 PH segment erection	0		0%	0	05-May-15		09-Apr-15	-19	1	0%														
B200040-1	Pier B9 (B2d) ready for Viaduct B2 PH segment erection	0		0%	0	02-May-15		06-Mar-15	-42	1	0%														
B200050-1	Pier B8 (B2e) ready for Viaduct B2 PH segment erection	0		0%	0	21-Apr-15		16-May-18	854	854	0%														
B200060-1	Pier B7 (B2f) ready for Viaduct B2 PH segment erection	0		0%	0	21-Apr-15		16-May-18	854	854	0%														
B200070-1	Pier B6 (B3a) ready for Viaduct B2 PH segment erection	0		0%	0	24-Apr-15		16-May-18	851	851	0%														
Milestones Ready for Deck Segment Erection																									
B200010	Pier B12 (B2a) ready for Viaduct B2 deck segment erection	0		0%	0	19-Jun-15		23-Jul-15	24	107	0%														
B200020	Pier B11 (B2b) ready for Viaduct B2 deck segment erection	0		0%	0	04-Jun-15		07-Jul-15	21	104	0%														
B200050	Pier B8 (B2e) ready for Viaduct B2 deck segment erection	0		0%	0	28-May-15		26-Mar-15	-43	40	0%														
B200060	Pier B7 (B2f) ready for Viaduct B2 deck segment erection	0		0%	0	02-Jun-15		05-Mar-15	-65	18	0%														
B200070	Pier B6 (B3a) ready for Viaduct B2 deck segment erection	0		0%	0	02-May-15		17-Mar-15	-33	50	0%														
Deck installation																									

	Project ID: J3518DWPRe-M23 Layout: J3518-DWP-3MRP Submission - M23 Filter: TASK filters: 3-Month Lookahead, No CC Milestones, No Level of Effort.	Tuen Mun - Chek Lap Kok Link - Southern Connection 3-Month Rolling Programme (Page 40 of 43 Pages) (Progress as of 21-Apr-15)				Date	Revision	Checked	Approved	DWG. No.: J3518/GCL/PGM/3MRP-M23
		04-May-15		WY						

Appendix C

Environmental Mitigation and Enhancement Measure Implementation Schedules

(In reference to CINOTECH (2011) Agreement No. CE35/2011 EP Baseline Environmental Monitoring for Hong Kong-Zhuhai-Macao Bridge Tuen Mun-Chek Lap Kok Link - Investigation. Updated EM&A Manual for Tuen Mun-Chek Lap Kok Link)

*Contract No. HY/2012/07
Tuen Mun – Chek Lap Kok Link
Southern Connection Viaduct Section
Environmental Mitigation and Enhancement Measure Implementation Schedule*

EIA Reference	EM&A Manual Reference	Environmental Protection Measures	Location/ Timing	Implementation Agent	Relevant Standard or Requirement	Implementation Stages			Status
						D	C	O	
AIR QUALITY									
4.8.1	3.8	An effective watering programme of eight daily watering with complete coverage, is estimated to reduce by 50%. This is recommended for all areas in order to reduce dust levels to a minimum;	All areas / throughout construction period	Contractor	TMEIA Avoid smoke impacts and disturbance		Y		✓
4.8.1	3.8	The Contractor shall, to the satisfaction of the Engineer, install effective dust suppression measures and take such other measures as may be necessary to ensure that at the Site boundary and any nearby sensitive receiver, dust levels are kept to acceptable levels.	All areas / throughout construction period	Contractor	TMEIA Avoid dust generation		Y		↔
4.8.1	3.8	The Contractor shall not burn debris or other materials on the works areas.	All areas / throughout construction period	Contractor	TMEIA Avoid dust generation		Y		✓
4.8.1	3.8	In hot, dry or windy weather, the watering programme shall maintain all exposed road surfaces and dust sources wet.	All unpaved haul roads / throughout construction period in hot, dry or windy weather	Contractor	TMEIA Avoid smoke impacts and disturbance		Y		✓
4.8.1	3.8	Where breaking of oversize rock/concrete is required, watering shall be implemented to control dust. Water spray shall be used during the handling of fill material at the site and at active cuts, excavation and fill sites where dust is likely to be created.	All areas / throughout construction period	Contractor	TMEIA Avoid dust generation		Y		✓
4.8.1	3.8	Open dropping heights for excavated materials shall be controlled to a maximum height of 2m to minimise the fugitive dust arising from unloading.	All areas / throughout construction period	Contractor	TMEIA Avoid dust generation		Y		✓
4.8.1	3.8	During transportation by truck, materials shall not be loaded to a level higher than the side and tail boards, and shall be dampened or covered before transport.	All areas / throughout construction period	Contractor	TMEIA Avoid dust generation		Y		✓

EIA Reference	EM&A Manual Reference	Environmental Protection Measures	Location/ Timing	Implementation Agent	Relevant Standard or Requirement	Implementation Stages			Status
						D	C	O	
4.8.1	3.8	Materials having the potential to create dust shall not be loaded to a level higher than the side and tail boards, and shall be covered by a clean tarpaulin. The tarpaulin shall be properly secured and shall extend at least 300mm over the edges of the side and tail boards.	All areas / throughout construction period	Contractor	TMEIA Avoid dust generation		Y		✓
4.8.1	3.8	No earth, mud, debris, dust and the like shall be deposited on public roads. Wheel washing facility shall be usable prior to any earthworks excavation activity on the site.	All site exits / throughout construction period	Contractor	TMEIA Avoid dust		Y		✓
4.8.1	3.8	Areas of exposed soil shall be minimised to areas in which works have been completed shall be restored as soon as is practicable.	All exposed surfaces / throughout construction period	Contractor	TMEIA Avoid dust generation		Y		✓
4.8.1	3.8	All stockpiles of aggregate or spoil shall be enclosed or covered and water applied in dry or windy condition.	All areas / throughout construction period	Contractor	TMEIA Avoid dust generation		Y		↔
4.11	Section 3	EM&A in the form of 1 hour and 24 hour dust monitoring and site audit	All representative existing ASRs / throughout construction period	Contractor	EM&A Manual		Y		✓
NOISE									
5.11	Section 4	Noise monitoring	All existing representative sensitive receivers / during North Lantau Viaduct construction	Contractor	EM&A Manual		Y		✓
WATER QUALITY									
<i>General Marine Works</i>									
6.10	-	Bored piling to be undertaken within a metal casing.	Marine viaducts of TM-CLKL and HKLR/ bored piling	Contractor	TM-EIAO		Y		✓
6.10	-	Barges and hopper dredgers shall have tight fitting seals to their bottom openings to prevent leakage of material.	All areas/ throughout construction period	Contractor	Marine Fill Committee Guidelines. DASO permit conditions.		Y		✓

EIA Reference	EM&A Manual Reference	Environmental Protection Measures	Location/ Timing	Implementation Agent	Relevant Standard or Requirement	Implementation Stages			Status
						D	C	O	
6.10	-	Any pipe leakages shall be repaired quickly. Plant should not be operated with leaking pipes.	All areas/ throughout construction period	Contractor	Marine Fill Committee Guidelines. DASO permit conditions.		Y		✓
6.10	-	Loading of barges and hoppers shall be controlled to prevent splashing of dredged material to the surrounding water. Barges or hoppers shall not be filled to a level which will cause overflow of materials or pollution of water during loading or transportation.	All areas/ throughout construction period	Contractor	Marine Fill Committee Guidelines. DASO permit conditions.		Y		✓
6.10	-	Excess material shall be cleaned from the decks and exposed fittings of barges and hopper dredgers before the vessel is moved	All areas/ throughout construction period	Contractor	Marine Fill Committee Guidelines. DASO permit conditions.		Y		↔
6.10	-	Adequate freeboard shall be maintained on barges to reduce the likelihood of decks being washed by wave action;	All areas/ throughout construction period	Contractor	Marine Fill Committee Guidelines. DASO permit conditions.		Y		✓
6.10	-	All vessels shall be sized such that adequate clearance is maintained between vessels and the sea bed at all states of the tide to ensure that undue turbidity is not generated by turbulence from vessel movement or propeller wash.	All areas/ throughout construction period	Contractor	Marine Fill Committee Guidelines. DASO permit conditions.		Y		✓
6.10	-	The works shall not cause foam, oil, grease, litter or other objectionable matter to be present in the water within and adjacent to the works site.	All areas/ throughout construction period	Contractor	Marine Fill Committee Guidelines. DASO permit conditions.		Y		✓
<i>Temporary Staging work</i>									
	5.2	Regular inspection for the accumulation of floating refuse and collection of floating refuse if required	During temporary staging works	Contractor			Y		✓
	5.2	Provision of temporary drainage system on the temporary staging for collection of construction site runoff to allow appropriate treatment before discharge into the sea	During temporary staging works	Contractor			Y		✓
	5.2	Wastewater generated from construction works such as bored / drilling water will be collected, treated, neutralized and de-silted through silt trap or sedimentation tank before disposal	During temporary staging works	Contractor			Y		✓
	5.2	One additional water quality monitoring station is	During temporary	Contractor			Y		✓

EIA Reference	EM&A Manual Reference	Environmental Protection Measures	Location/ Timing	Implementation Agent	Relevant Standard or Requirement	Implementation Stages			Status
						D	C	O	
		proposed at station SR4a In case elevated SS or turbidity is identified during the water quality monitoring, the source of pollution will be tracked down and be removed as soon as possible. In case depletion of dissolved oxygen is identified, artificial aeration will be arranged at the monitoring station SR4a,	staging works						
<i>Land Works</i>									
6.10	-	Wastewater from temporary site facilities should be controlled to prevent direct discharge to surface or marine waters.	All areas/ throughout construction period	Contractor	TM-EIAO		Y		✓
6.10	-	Sewage effluent and discharges from on- site kitchen facilities shall be directed to Government sewer in accordance with the requirements of the WPCO or collected for disposal offsite. The use of soakaways shall be avoided.	All areas/ throughout construction period	Contractor	TM-EIAO		Y		✓
6.10	-	Storm drainage shall be directed to storm drains via adequately designed sand/silt removal facilities such as sand traps, silt traps and sediment basins. Channels, earth bunds or sand bag barriers should be provided on site to properly direct stormwater to such silt removal facilities. Catchpits and perimeter channels should be constructed in advance of site formation works and earthworks.	All areas/ throughout construction period	Contractor	TM-EIAO		Y		✓
6.10	-	Silt removal facilities, channels and manholes shall be maintained and any deposited silt and grit shall be removed regularly, including specifically at the onset of and after each rainstorm.	All areas/ throughout construction period	Contractor	TM-EIAO		Y		✓
6.10	-	Temporary access roads should be surfaced with crushed stone or gravel.	All areas/ throughout construction period	Contractor	TM-EIAO		Y		✓
6.10	-	Rainwater pumped out from trenches or foundation excavations should be discharged into storm drains via silt removal facilities.	All areas/ throughout construction period	Contractor	TM-EIAO		Y		✓
6.10	-	Measures should be taken to prevent the washout of construction materials, soil, silt or debris into any drainage system.	All areas/ throughout construction period	Contractor	TM-EIAO		Y		✓

EIA Reference	EM&A Manual Reference	Environmental Protection Measures	Location/ Timing	Implementation Agent	Relevant Standard or Requirement	Implementation Stages			Status
						D	C	O	
6.10	-	Open stockpiles of construction materials (e.g. aggregates and sand) on site should be covered with tarpaulin or similar fabric during rainstorms.	All areas/ throughout construction period	Contractor	TM-EIAO		Y		<>
6.10	5.8	Manholes (including any newly constructed ones) should always be adequately covered and temporarily sealed so as to prevent silt, construction materials or debris from getting into the drainage system, and to prevent storm run-off from getting into foul sewers.	All areas/ throughout construction period	Contractor	TM-EIAO		Y		✓
6.10	-	Discharges of surface run-off into foul sewers must always be prevented in order not to unduly overload the foul sewerage system.	All areas/ throughout construction period	Contractor	TM-EIAO		Y		✓
6.10	-	All vehicles and plant should be cleaned before they leave the construction site to ensure that no earth, mud or debris is deposited by them on roads. A wheel washing bay should be provided at every site exit.	All areas/ throughout construction period	Contractor	TM-EIAO		Y		✓
6.10	-	Wheel wash overflow shall be directed to silt removal facilities before being discharged to the storm drain.	All areas/ throughout construction period	Contractor	TM-EIAO		Y		✓
6.10	-	Section of construction road between the wheel washing bay and the public road should be surfaced with crushed stone or coarse gravel.	All areas/ throughout construction period	Contractor	TM-EIAO		Y		✓
6.10	-	Wastewater generated from concreting, plastering, internal decoration, cleaning work and other similar activities, shall be screened to remove large objects.	All areas/ throughout construction period	Contractor	TM-EIAO		Y		✓
6.10	-	Vehicle and plant servicing areas, vehicle wash bays and lubrication facilities shall be located under roofed areas. The drainage in these covered areas shall be connected to foul sewers via a petrol interceptor in accordance with the requirements of the WPCO or collected for offsite disposal.	All areas/ throughout construction period	Contractor	TM-EIAO		Y		<>
6.10	-	The Contractor shall prepare an oil / chemical cleanup plan and ensure that leakages or spillages are contained and cleaned up immediately.	All areas/ throughout construction period	Contractor	TM-EIAO		Y		✓
6.10	-	Waste oil should be collected and stored for recycling or disposal, in accordance with the Waste Disposal Ordinance.	All areas/ throughout construction period	Contractor	TM-EIAO Waste Disposal Ordinance		Y		✓

EIA Reference	EM&A Manual Reference	Environmental Protection Measures	Location/ Timing	Implementation Agent	Relevant Standard or Requirement	Implementation Stages			Status
						D	C	O	
6.10	-	All fuel tanks and chemical storage areas should be provided with locks and be sited on sealed areas. The storage areas should be surrounded by bunds with a capacity equal to 110% of the storage capacity of the largest tank.	All areas/ throughout construction period	Contractor	TM-EIAO		Y		<>
6.10	-	Surface run-off from bunded areas should pass through oil/ grease traps prior to discharge to the stormwater system.	All areas/ throughout construction period	Contractor	TM-EIAO		Y		✓
6.10	-	Roadside gullies to trap silt and grit shall be provided prior to discharging the stormwater into the marine environment. The sumps will be maintained and cleaned at regular intervals.	Roadside/ design and operation	Design Consultant/ Contractor	TM-EIAO	Y		Y	✓
6.10	Section 5	All construction works shall be subject to routine audit to ensure implementation of all EIA recommendations and good working practice.	All areas/ throughout construction period	Contractor	EM&A Manual		Y		✓
<i>Water Quality Monitoring</i>									
6.10	Section 5	Water quality monitoring shall be undertaken for suspended solids, turbidity, and dissolved oxygen. Nutrients and metal parameters shall also be measured for Mf sediment operations (only HKBCF and HKLR required handling of Mf sediment) during baseline, backfilling and post construction period. One year operation phase water quality monitoring at designated stations	Designated monitoring stations as defined in EM&A Manual, Section 5/ Before, through-out marine construction period, post construction and monthly operational phase water quality monitoring for a year.	Contractor	EM&A Manual		Y	Y	✓
ECOLOGY									
8.14	6.3	Specification for and implement pre, during and post construction dolphin abundance monitoring.	All Areas/ Detailed Design/ during construction works/ post construction	Design Consultant/ Contractor	TMEIA	Y	Y	Y	✓
8.14	6.3	Specification for bored piling monitoring	Detailed Design	Design Consultant	TMEIA	Y			n/a
8.14	6.3	Implement any recommendations of the bored piling monitoring	Southern marine viaduct/ Throughout	Contractor	TMEIA		Y		✓

EIA Reference	EM&A Manual Reference	Environmental Protection Measures	Location/ Timing	Implementation Agent	Relevant Standard or Requirement	Implementation Stages			Status
						D	C	O	
			construction during bored piling						
8.14	6.3,6.5	Avoidance of peak CWD calving season in May and June for driving of metal caissons during bored piling works	Southern marine viaduct/ May and June during bored piling	Contractor	TMEIA		Y		✓
8.14	6.3,6.5	Specification and implementation of 250m dolphin exclusion zone.	All marine bored piling and temporary staging works areas/Detailed Design/ during all marine bored piling and temporary staging works	Design Consultant/ Contractor	TMEIA	Y	Y		✓
8.15	6.3, 6.5	Specification and deployment of an artificial reef of an area of 3,600 m ² in an area where fishing activities are prohibited.	Area of prohibited fishing activities/Detailed Design/ towards end of construction period	TM-CLKL/ HKBCF Design Consultant/ TM-CLKL/ HKBCF Contractor	TMEIA	Y		Y	n/a To be enforced by AFCD.
8.14	6.3, 6.5	Specification and implementation of marine vessel control specifications	All areas/Detailed Design/ during construction works	Design Consultant/ Contractor	TMEIA	Y	Y		✓
8.14	6.3, 6.5	Design and implementation of acoustic decoupling methods for marine bored piling and the whole lifespan of temporary staging works.	All areas/ Detailed Design/ during marine bored piling and temporary staging works	Design Consultant/ Contractor	TMEIA	Y	Y		✓
8.15	6.3, 6.4	Pre-construction phase survey and coral translocation	Tai Ho Wan (donor site) and Yam Tsui Wan (receptor site) /Detailed Design/Prior to construction	Design Consultant/ Contractor	TMEIA	Y	Y		n/a
8.15	6.5	Audit coral translocation success	Yam Tsui Wan (receptor site)/Post translocation	Contractor	TMEIA		Y		✓
7.13	6.5	Undertaken gabion wall works in Stream NL1 in the dry season	North Lantau slope works/dry	Contractor	TMEIA		Y		✓

EIA Reference	EM&A Manual Reference	Environmental Protection Measures	Location/ Timing	Implementation Agent	Relevant Standard or Requirement	Implementation Stages			Status
						D	C	O	
			season/construction phase						
7.13	6.5	The loss of habitat shall be supplemented by enhancement planting in accordance with the landscape mitigation schedule.	All areas / As soon as accessible	Contractor	TMEIA		Y		n/a. To be approved by AFCD/LCSD
7.13	6.5	Spoil heaps shall be covered at all times.	All areas / Throughout construction period	Contractor	TMEIA		Y		✓
7.13	6.5	Avoid damage and disturbance to the remaining and surrounding natural habitat	All areas / Throughout construction period	Contractor	TMEIA		Y		✓
7.13	6.5	Placement of equipment in designated areas within the existing disturbed land	All areas / Throughout construction period	Contractor	TMEIA		Y		✓
7.13	6.5	Disturbed areas to be reinstated immediately after completion of the works.	All areas / Throughout construction period	Contractor	TMEIA		Y		✓
7.13	6.5	Construction activities should be restricted to the proposed works boundary	All areas / Throughout construction period	Contractor	TMEIA		Y		✓
LANDSCAPE AND VISUAL									
10.9	7.6	Round angle, patterned finishes, and oval shaped pier were considered in the viaduct design, and further details will be developed under ACABAS submission (DM3)	All areas/detailed design	Design Consultant	TMEIA	Y			n/a
10.9	7.6	Details of the street furniture will be developed in the detailed design stage (DM4)	All areas/detailed design	Design Consultant	TMEIA	Y			n/a
10.9	7.6	Aesthetic design of the viaduct, retaining wall and other structures will be developed under ACABAS submission (DM5)	All areas/detailed design	Design Consultant	TMEIA	Y			n/a
10.9	7.6	Existing trees on boundary of the Project Area shall be carefully protected during construction. Detailed Tree Protection Specification shall be provided in the Contract Specification. Under this specification, the Contractor shall be required to submit, for approval, a detailed working method statement for the protection of trees	All areas/detailed design/ during construction	Design Consultant/ Contractor	TMEIA	Y	Y		✓

EIA Reference	EM&A Manual Reference	Environmental Protection Measures	Location/ Timing	Implementation Agent	Relevant Standard or Requirement	Implementation Stages			Status
						D	C	O	
		prior to undertaking any works adjacent to all retained trees, including trees in contractor's works areas. (Tree protection measures will be detailed at Tree Removal Application stage) (CM1)							
10.9	7.6	Trees unavoidably affected by the works shall be transplanted where practical. Trees will be transplanted straight to their final receptor site and not held in a temporary nursery. A detailed Tree Transplanting Specification shall be provided in the Contract Specification. Sufficient time for necessary tree root and crown preparation periods shall be allowed in the project programme (CM2)	All areas/detailed design/ during construction	Design Consultant/ Contractor	TMEIA	Y	Y		✓ Implemented as the Contract Specification
10.9	7.6	Hillside and roadside screen planting to proposed roads, associated structures and slope works (CM3).	All areas/detailed design/ during construction/post construction	Design Consultant/	TMEIA	Y	Y		✓
10.9	7.6	Hydroseeding or sheeting of soil stockpiles with visually unobtrusive material (in earth tone) (CM4)	All areas/detailed design/ during construction/post construction	Design Consultant/ Contractor	TMEIA	Y	Y		✓
10.9	7.6	Screening of construction works by hoardings around works area in visually unobtrusive colours, to screen works (CM5)	All areas/detailed design/ during construction/post construction	Design Consultant/ Contractor	TMEIA	Y	Y		✓
10.9	7.6	Control night-time lighting and glare by hooding all lights (CM6)	All areas/detailed design/ during construction	Design Consultant/ Contractor	TMEIA	Y	Y		✓
10.9	7.6	Ensure no run-off into water body adjacent to the Project Area (CM7)	All areas/detailed design/ during construction	Design Consultant/ Contractor	TMEIA	Y	Y		✓
10.9	7.6	Avoidance of excessive height and bulk of buildings and structures (CM8)	All areas/detailed design/ during construction	Design Consultant/ Contractor	TMEIA	Y	Y		✓
10.9	7.6	Recycle/Reuse all felled trees and vegetation, e.g.	All areas/detailed	Design	TMEIA	Y	Y		✓

EIA Reference	EM&A Manual Reference	Environmental Protection Measures	Location/ Timing	Implementation Agent	Relevant Standard or Requirement	Implementation Stages			Status
						D	C	O	
		mulching (CM9)	design/ during construction	Consultant/ Contractor					
10.9	7.6	Compensatory tree planting shall be provided to the satisfaction of relevant Government departments. Required numbers and locations of compensatory trees shall be determined and agreed separately with Government during the Tree Felling Application process under ETWBTC 3/2006 (CM10).	All areas/detailed design/ during construction	Design Consultant/ Contractor	TMEIA	Y	Y		n/a
10.9	7.6	Re-vegetation of affected woodland/shrubland with native species (OM1)	All areas/detailed design/ during construction/ during operation	Design Consultant/ Contractor	TMEIA	Y	Y	Y	n/a. To be implemented by AFCD/HyD/ L CSD
10.9	7.6	Tall buffer screen tree / shrub / climber planting should be incorporated to soften hard engineering structures and facilities (OM2)	All areas/detailed design/ during construction/ during operation	Design Consultant/ Contractor	TMEIA	Y	Y	Y	n/a To be implemented by HyD/LCSD
10.9	7.6	Streetscape elements (e.g. paving, signage, street furniture, lighting etc.) shall be sensitively designed in a manner that responds to the local context, and minimises potential negative landscape and visual impacts. Lighting units should be directional and minimise unnecessary light spill (OM3)	All areas/detailed design/ during construction / during operation	Design Consultant/ Contractor	TMEIA	Y	Y	Y	n/a. To be implemented by HyD/LCSD
10.9	7.6	Structure, ornamental tree / shrub / climber planting should be provided along roadside amenity strips, central dividers and newly formed slopes to enhance the townscape quality and further greenery enhancement (OM4)	All areas/detailed design/ during construction / during operation	Design Consultant/ Contractor	TMEIA	Y	Y	Y	n/a. To be implemented by HyD/LCSD
10.9	7.6	Aesthetically pleasing design (visually unobtrusive and non-reflective) as regard to the form, material and	All areas/detailed design/ during	Design Consultant/	TMEIA	Y	Y	Y	n/a. To be

EIA Reference	EM&A Manual Reference	Environmental Protection Measures	Location/ Timing	Implementation Agent	Relevant Standard or Requirement	Implementation Stages			Status
						D	C	O	
		finishes	construction / during operation	Contractor					implemented by HyD
WASTE									
12.6		The Contractor shall identify a coordinator for the management of waste.	Contract mobilisation	Contractor	TMEIA		Y		✓
12.6		The Contractor shall prepare and implement a Waste Management Plan which specifies procedures such as a ticketing system, to facilitate tracking of loads and to ensure that illegal disposal of wastes does not occur, and protocols for the maintenance of records of the quantities of wastes generated, recycled and disposed. A recording system for the amount of waste generated, recycled and disposed (locations) should be established.	Contract mobilisation	Contractor	TMEIA, Works Branch Technical Circular No. 5/99 for the Trip-ticket System for Disposal of Construction and Demolition Material		Y		✓
12.6		The Contractor shall apply for and obtain the appropriate licenses for the disposal of public fill, chemical waste and effluent discharges.	Contract mobilisation	Contractor	TMEIA, Land (Miscellaneous Provisions) Ordinance (Cap 28); Waste Disposal Ordinance (Cap 354); Dumping at Sea Ordinance (Cap 466); Water Pollution Control Ordinance.		Y		✓
12.6	8.1	Training shall be provided to workers about the concepts of site cleanliness and appropriate waste management procedures including waste reduction, reuse and recycling.	Contract Mobilisation	Contractor	TMEIA		Y		✓
12.6	8.1	The extent of cutting operation should be optimised where possible. Earth retaining structures and bored pile walls should be proposed to minimise the extent of cutting.	All areas / throughout construction period	Contractor	TMEIA		Y		✓

EIA Reference	EM&A Manual Reference	Environmental Protection Measures	Location/ Timing	Implementation Agent	Relevant Standard or Requirement	Implementation Stages			Status
						D	C	O	
12.6	8.1	Rock armour from the existing seawall should be reused on the new sloping seawall as far as possible	All areas / throughout construction period	Contractor	TMEIA		Y		✓
12.6	8.1	The site and surroundings shall be kept tidy and litter free.	All areas / throughout construction period	Contractor	TMEIA		Y		✓
12.6	8.1	No waste shall be burnt on site.	All areas / throughout construction period	Contractor	TMEIA		Y		✓
12.6	8.1	Provisions to be made in contract documents to allow and promote the use of recycled aggregates where appropriate.	Detailed Design	Design Consultant	TMEIA	Y			n/a
12.6	8.1	The Contractor shall be prohibited from disposing of C&D materials at any sensitive locations. The Contractor should propose the final disposal sites in the EMP and WMP for approval before implementation.	All areas / throughout construction period	Contractor	TMEIA		Y		✓
12.6	8.1	Stockpiled material shall be covered by tarpaulin and /or watered as appropriate to prevent windblown dust/ surface run off.	All areas / throughout construction period	Contractor	TMEIA		Y		↔
12.6	8.1	Excavated material in trucks shall be covered by tarpaulins to reduce the potential for spillage and dust generation.	All areas / throughout construction period	Contractor	TMEIA		Y		✓
12.6	8.1	Wheel washing facilities shall be used by all trucks leaving the site to prevent transfer of mud onto public roads.	All areas / throughout construction period	Contractor	TMEIA		Y		✓
12.6	8.1	Standard formwork or pre-fabrication should be used as far as practicable so as to minimise the C&D materials arising. The use of more durable formwork/plastic facing for construction works should be considered. The use of wooden hoardings should be avoided and metal hoarding should be used to facilitate recycling. Purchasing of construction materials should avoid over-ordering and wastage.	All areas / throughout construction period	Contractor	TMEIA		Y		✓
12.6	8.1	The Contractor should recycle as many C&D	All areas / throughout	Contractor	TMEIA		Y		✓

EIA Reference	EM&A Manual Reference	Environmental Protection Measures	Location/ Timing	Implementation Agent	Relevant Standard or Requirement	Implementation Stages			Status
						D	C	O	
		materials (this is a waste section) as possible on-site. The public fill and C&D waste should be segregated and stored in separate containers or skips to facilitate the reuse or recycling of materials and proper disposal. Where practicable, the concrete and masonry should be crushed and used as fill materials. Steel reinforcement bar should be collected for use by scrap steel mills. Different areas of the sites should be considered for segregation and storage activities.	construction period						
12.6	8.1	All falsework will be steel instead of wood.	All areas / throughout construction period	Contractor	TMEIA		Y		✓
12.6	8.1	Chemical waste producers should register with the EPD. Chemical waste should be handled in accordance with the Code of Practice on the Packaging, Handling and Storage of Chemical Wastes as follows: <ul style="list-style-type: none"> - suitable for the substance to be held, resistant to corrosion, maintained in good conditions and securely closed; - Having a capacity of <450L unless the specifications have been approved by the EPD; and - Displaying a label in English and Chinese according to the instructions prescribed in Schedule 2 of the Regulations. Clearly labelled and used solely for the storage of chemical wastes; - Enclosed with at least 3 sides; - Impermeable floor and bund with capacity to accommodate 110% of the volume of the largest container or 20% by volume of the chemical waste stored in the area, whichever is greatest; - Adequate ventilation; - Sufficiently covered to prevent rainfall entering 	All areas / throughout construction period	Contractor	TMEIA		Y		✓

EIA Reference	EM&A Manual Reference	Environmental Protection Measures	Location/ Timing	Implementation Agent	Relevant Standard or Requirement	Implementation Stages			Status
						D	C	O	
		(water collected within the bund must be tested and disposed of as chemical waste, if necessary); and - Incompatible materials are adequately separated.							
12.6	8.1	Waste oils, chemicals or solvents shall not be disposed of to drain,	All areas / throughout construction period	Contractor	TMEIA		Y		✓
12.6	8.1	Adequate numbers of portable toilets should be provided for on-site workers. Portable toilets should be maintained in reasonable states, which will not deter the workers from utilising them.	All areas / throughout construction period	Contractor	TMEIA		Y		✓
12.6	8.1	Night soil should be regularly collected by licensed collectors.	All areas / throughout construction period	Contractor	TMEIA		Y		✓
12.6	8.1	General refuse arising on-site should be stored in enclosed bins or compaction units separately from C&D and chemical wastes. Sufficient dustbins shall be provided for storage of waste as required under the Public Cleansing and Prevention of Nuisances By-laws. In addition, general refuse shall be cleared daily and shall be disposed of to the nearest licensed landfill or refuse transfer station. Burning of refuse on construction sites is prohibited.	All areas / throughout construction period	Contractor	TMEIA		Y		✓
12.6	8.1	All waste containers shall be in a secure area on hardstanding;	All areas / throughout construction period	Contractor	TMEIA		Y		✓
12.6	8.1	Training shall be provided to workers about the concepts of site cleanliness and appropriate waste management procedure, including waste reduction, reuse and recycling.	All areas / throughout construction period	Contractor	TMEIA		Y		✓
12.6	8.1	Office wastes can be reduced by recycling of paper if such volume is sufficiently large to warrant collection. Participation in a local	Site Offices/ throughout construction period	Contractor	TMEIA		Y		✓

EIA Reference	EM&A Manual Reference	Environmental Protection Measures	Location/ Timing	Implementation Agent	Relevant Standard or Requirement	Implementation Stages			Status
						D	C	O	
		collection scheme by the Contractor should be advocated. Waste separation facilities for paper, aluminium cans, plastic bottles, etc should be provided on-site.							
12.6	Section 8	EM&A of waste handling, storage, transportation, disposal procedures and documentation through the site audit programme shall be undertaken.	All areas / throughout construction period	Contractor	EM&A Manual		Y		✓
CULTURAL HERITAGE									
11.8	Section 9	EM&A in the form of audit of the mitigation measures	All areas / throughout construction period	Highways Department	EIAO-TM		Y		n/a

Notes:

Legend: D=Design, C=Construction, O=Operation

Note: Funding Agent for all mitigation measures will be the Highways Department of the Hong Kong SAR Government

Status:

- ✓ Compliance of Mitigation Measures
- <> Compliance of Mitigation but need improvement
- x Non-compliance of Mitigation Measures
- ▲ Non-compliance of Mitigation Measures but rectified by Contractor
- Δ Deficiency of Mitigation Measures but rectified by Contractor
- n/a Not Applicable in Reporting Period

Appendix D

Summary of Action and Limit Levels

Table D1 *Action and Limit Levels for 1-hour and 24-hour TSP*

Parameters	Action	Limit
24 Hour TSP Level in $\mu\text{g}/\text{m}^3$	ASR9A/ASR8A = 178 ASR9C/ASR8/ASR9 = 178	260
1 Hour TSP Level in $\mu\text{g}/\text{m}^3$	ASR9A/ASR8A = 394 ASR9C/ASR8/ASR9 = 393	500

Table D2 *Action and Limit Levels for Construction Noise (0700-1900 hrs of normal weekdays)*

Time Period	Action	Limit
0700-1900 hrs on normal weekdays	When one documented complaint is received	75* dB(A)

Table D3 *Action and Limit Levels for Water Quality*

Parameter	Action Level#	Limit Level#
DO in mg/L ^(a)	<u>Surface and Middle</u> 5.0 mg/L	<u>Surface and Middle</u> 4.2 mg/L
	<u>Bottom</u> 4.7 mg/L	<u>Bottom</u> 3.6 mg/L
Turbidity in NTU (Depth-averaged ^{(b), (c)})	120% of upstream control station at the same tide of the same day and 95%-ile of baseline data, i.e., 27.5 NTU	130% of upstream control station at the same tide of the same day and 99%-ile of baseline data, i.e., 47.0 NTU
SS in mg/L (Depth-averaged ^{(b), (c)})	120% of upstream control station at the same tide of the same day and 95%-ile of baseline data, i.e., 23.5 mg/L	130% of upstream control station at the same tide of the same day and 10mg/L for WSD Seawater Intakes at Tuen Mun and 99%-ile of baseline data, i.e., 34.4 mg/L

Notes:

Baseline data: data from HKZMB Baseline Water Quality Monitoring between 6 and 31 October 2011.

- (a) For DO, non-compliance of the water quality limits occurs when monitoring result is lower than the limits.
- (b) "Depth-averaged" is calculated by taking the arithmetic means of reading of all three depths
- (c) For turbidity and SS, non-compliance of the water quality limits occurs when monitoring result is higher than the limits.
- (d) All figures given in the table are used for reference only, and EPD may amend the figures whenever it is considered as necessary

Parameter	Action Level#	Limit Level#
(e)	The 1%-ile of baseline data for surface and middle DO is 4.2 mg/L, whilst for bottom DO is 3.6 mg/L.	

Table D4 *Action and Limit Levels for Impact Dolphin Monitoring*

	North Lantau Social Cluster	
	NEL	NWL
Action Level	STG < 70% of baseline & ANI < 70% of baseline	STG < 70% of baseline & ANI < 70% of baseline
Limit Level	[STG < 40% of baseline & ANI < 40% of baseline] and STG < 40% of baseline & ANI < 40% of baseline	

Notes:

1. STG means quarterly encounter rate of number of dolphin sightings, which is **6.00 in NEL** and **9.85 in NWL** during the baseline monitoring period
2. ANI means quarterly encounter rate of total number of dolphins, which is **22.19 in NEL** and **44.66 in NWL** during the baseline monitoring period
3. For North Lantau Social Cluster, AL will be trigger if NEL or NWL fall below the criteria; LL will be triggered if both NEL and NWL fall below the criteria.

Table D5 *Derived Value of Action Level (AL) and Limit Level (LL)*

	North Lantau Social Cluster	
	NEL	NWL
Action Level	STG < 4.2 & ANI < 15.5	STG < 6.9 & ANI < 31.3
Limit Level	[STG < 2.4 & ANI < 8.9] and [STG < 3.9 & ANI < 17.9]	

Appendix E

Calibration Certificates of Monitoring Equipments

High-Volume TSP Sampler
5-Point Calibration Record

Location : ASR8(A)
 Calibrated by : P.F. Yeung
 Date : 28/03/2015

Sampler

Model : TE-5170
 Serial Number : S/N 3956

Calibration Orifice and Standard Calibration Relationship

Serial Number : 2454
 Service Date : 24 Mar 2015
 Slope (m) : 2.09532
 Intercept (b) : -0.03812
 Correlation Coefficient(r) : 0.99994

Standard Condition

Pstd (hpa) : 1013
 Tstd (K) : 298.18

Calibration Condition

Pa (hpa) : 1024
 Ta(K) : 292

Resistance Plate		dH [green liquid] (inch water)	Z	X=Qstd (cubic meter/min)	IC (chart)	Y (corrected)
1	18 holes	10.6	3.307	1.596	60	60.94
2	13 holes	8.2	2.909	1.406	54	54.85
3	10 holes	6.2	2.529	1.225	49	49.77
4	7 holes	4.0	2.031	0.988	41	41.64
5	5 holes	2.4	1.574	0.769	34	34.53

Notes: $Z = \sqrt{dH(Pa/Pstd)(Tstd/Ta)}$, $X = Z/m - b$, $Y(\text{Corrected Flow}) = IC * \{\sqrt{Pa/Pstd}(Tstd/Ta)\}$

Sampler Calibration Relationship (Linear Regression)

Slope(m): 31.890 Intercept(b): 10.177 Correlation Coefficient(r): 0.9996

Checked by: Magnum Fan

Date: 01/04/2015

High-Volume TSP Sampler
5-Point Calibration Record

Location : ASR9
 Calibrated by : P.F. Yeung
 Date : 28/03/2015

Sampler

Model : TE-5170
 Serial Number : S/N 3958

Calibration Orifice and Standard Calibration Relationship

Serial Number : 2454
 Service Date : 24 Mar 2015
 Slope (m) : 2.09532
 Intercept (b) : -0.03812
 Correlation Coefficient(r) : 0.99994

Standard Condition

Pstd (hpa) : 1013
 Tstd (K) : 298.18

Calibration Condition

Pa (hpa) : 1024
 Ta(K) : 292

Resistance Plate		dH [green liquid] (inch water)	Z	X=Qstd (cubic meter/min)	IC (chart)	Y (corrected)
1	18 holes	10.4	3.276	1.581	53	53.83
2	13 holes	8.4	2.944	1.423	48	48.75
3	10 holes	5.5	2.382	1.155	41	41.64
4	7 holes	3.6	1.927	0.938	34	34.53
5	5 holes	2.2	1.507	0.737	28	28.44

Notes: $Z = \sqrt{dH(Pa/Pstd)(Tstd/Ta)}$, $X = Z/m - b$, $Y(\text{Corrected Flow}) = IC * \{\sqrt{Pa/Pstd}(Tstd/Ta)\}$

Sampler Calibration Relationship (Linear Regression)

Slope(m): 29.862 Intercept(b): 6.593 Correlation Coefficient(r): 0.9994

Checked by: Magnum Fan

Date: 01/04/2015

High-Volume TSP Sampler
5-Point Calibration Record

Location : ASR8(A)
 Calibrated by : P.F. Yeung
 Date : 28/05/2015

Sampler

Model : TE-5170
 Serial Number : S/N 3956

Calibration Orifice and Standard Calibration Relationship

Serial Number : 2454
 Service Date : 24 Mar 2015
 Slope (m) : 2.09532
 Intercept (b) : -0.03812
 Correlation Coefficient(r) : 0.99994

Standard Condition

Pstd (hpa) : 1013
 Tstd (K) : 298.18

Calibration Condition

Pa (hpa) : 1005
 Ta(K) : 303

Resistance Plate		dH [green liquid] (inch water)	Z	X=Qstd (cubic meter/min)	IC (chart)	Y (corrected)
1	18 holes	11.2	3.306	1.596	54	53.34
2	13 holes	9.5	3.045	1.471	49	48.40
3	10 holes	6.8	2.576	1.248	42	41.49
4	7 holes	4.4	2.072	1.007	35	34.57
5	5 holes	2.6	1.593	0.778	28	27.66

Notes: $Z = \sqrt{dH(Pa/Pstd)(Tstd/Ta)}$, $X = Z/m - b$, $Y(\text{Corrected Flow}) = IC * \{\sqrt{Pa/Pstd}(Tstd/Ta)\}$

Sampler Calibration Relationship (Linear Regression)

Slope(m): 30.911 Intercept(b): 3.381 Correlation Coefficient(r): 0.9990

Checked by: Magnum Fan

Date: 01/06/2015

High-Volume TSP Sampler
5-Point Calibration Record

Location : ASR9
 Calibrated by : P.F. Yeung
 Date : 28/05/2015

Sampler

Model : TE-5170
 Serial Number : S/N 3958

Calibration Orifice and Standard Calibration Relationship

Serial Number : 2454
 Service Date : 24 Mar 2015
 Slope (m) : 2.09532
 Intercept (b) : -0.03812
 Correlation Coefficient(r) : 0.99994

Standard Condition

Pstd (hpa) : 1013
 Tstd (K) : 298.18

Calibration Condition

Pa (hpa) : 1005
 Ta(K) : 303

Resistance Plate		dH [green liquid] (inch water)	Z	X=Qstd (cubic meter/min)	IC (chart)	Y (corrected)
1	18 holes	9.4	3.029	1.464	50	49.39
2	13 holes	7.2	2.651	1.283	44	43.46
3	10 holes	5.6	2.338	1.134	38	37.54
4	7 holes	3.8	1.926	0.937	31	30.62
5	5 holes	2.4	1.530	0.749	23	22.72

Notes: $Z = \sqrt{dH(Pa/Pstd)(Tstd/Ta)}$, $X = Z/m - b$, $Y(\text{Corrected Flow}) = IC * \{\sqrt{Pa/Pstd}(Tstd/Ta)\}$

Sampler Calibration Relationship (Linear Regression)

Slope(m): 37.277 Intercept(b): -4.753 Correlation Coefficient(r): 0.9992

Checked by: Magnum Fan

Date: 01/06/2015



TISCH ENVIRONMENTAL, INC.
 145 SOUTH MIAMI AVE
 VILLAGE OF CLEVELAND, OH
 45002
 513.467.9000
 877.263.7610 TOLL FREE
 513.467.9009 FAX

ORIFICE TRANSFER STANDARD CERTIFICATION WORKSHEET TE-5025A

Date - Mar 24, 2015 Rootmeter S/N 0438320 Ta (K) - 292
 Operator Tisch Orifice I.D. - 2454 Pa (mm) - 756.92

PLATE OR Run #	VOLUME START (m3)	VOLUME STOP (m3)	DIFF VOLUME (m3)	DIFF TIME (min)	METER DIFF Hg (mm)	ORFICE DIFF H2O (in.)
1	NA	NA	1.00	1.4460	3.2	2.00
2	NA	NA	1.00	1.0300	6.4	4.00
3	NA	NA	1.00	0.9180	7.9	5.00
4	NA	NA	1.00	0.8780	8.7	5.50
5	NA	NA	1.00	0.7240	12.6	8.00

DATA TABULATION

Vstd	(x axis) Qstd	(y axis)	Va	(x axis) Qa	(y axis)
1.0121	0.6999	1.4258	0.9958	0.6886	0.8784
1.0078	0.9785	2.0163	0.9916	0.9627	1.2422
1.0057	1.0955	2.2543	0.9895	1.0779	1.3888
1.0047	1.1443	2.3644	0.9885	1.1258	1.4566
0.9994	1.3805	2.8515	0.9833	1.3582	1.7568
Qstd slope (m) = 2.09532			Qa slope (m) = 1.31205		
intercept (b) = -0.03812			intercept (b) = -0.02349		
coefficient (r) = 0.99994			coefficient (r) = 0.99994		
y axis = SQRT[H2O(Pa/760) (298/Ta)]			y axis = SQRT[H2O(Ta/Pa)]		

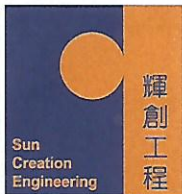
CALCULATIONS

Vstd = Diff. Vol [(Pa-Diff. Hg) / 760] (298/Ta)
 Qstd = Vstd/Time

Va = Diff Vol [(Pa-Diff Hg) / Pa]
 Qa = Va/Time

For subsequent flow rate calculations:

Qstd = 1/m { [SQRT(H2O(Pa/760) (298/Ta))] - b }
 Qa = 1/m { [SQRT H2O(Ta/Pa)] - b }



輝創工程有限公司

Sun Creation Engineering Limited

Calibration and Testing Laboratory

Certificate of Calibration

校正證書

Certificate No. : C143980

證書編號

ITEM TESTED / 送檢項目 (Job No. / 序引編號 : IC14-1497)

Date of Receipt / 收件日期 : 23 June 2014

Description / 儀器名稱 : Sound Level Calibrator

Manufacturer / 製造商 : Rion

Model No. / 型號 : NC-73

Serial No. / 編號 : 10997142

Supplied By / 委託者 : Envirotech Services Co.

Shop 6, G/F., Casio Mansion, 209 Shaukeiwan Road,
Hong Kong

TEST CONDITIONS / 測試條件

Temperature / 溫度 : $(23 \pm 2)^{\circ}\text{C}$

Relative Humidity / 相對濕度 : $(55 \pm 20)\%$

Line Voltage / 電壓 : ---

TEST SPECIFICATIONS / 測試規範

Calibration check

DATE OF TEST / 測試日期 : 28 June 2014

TEST RESULTS / 測試結果

The results apply to the particular unit-under-test only.

All results are within manufacturer's specification.

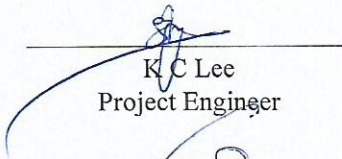
The results are detailed in the subsequent page(s).

The test equipment used for calibration are traceable to National Standards via :

- The Government of The Hong Kong Special Administrative Region Standard & Calibration Laboratory
- Rohde & Schwarz Laboratory, Germany
- Fluke Everett Service Center, USA
- Agilent Technologies, USA

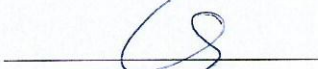
Tested By :

測試


K C Lee
Project Engineer

Certified By :

核證


K M Wu
Engineer

Date of Issue :

簽發日期

2 July 2014

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c/o 香港新界屯門興安里一號青山灣機樓四樓

Tel/電話: 2927 2606

Fax/傳真: 2744 8986

E-mail/電郵: callab@suncreation.com

Website/網址: www.suncreation.com



Certificate of Calibration

校正證書

Certificate No. : C143980
證書編號

- The unit-under-test (UUT) was allowed to stabilize in the laboratory for over 12 hours before the commencement of the test.
- The results presented are the mean of 3 measurements at each calibration point.
- Test equipment :

<u>Equipment ID</u>	<u>Description</u>	<u>Certificate No.</u>
CL130	Universal Counter	C143868
CL281	Multifunction Acoustic Calibrator	DC130171
TST150A	Measuring Amplifier	C141558

- Test procedure : MA100N.

- Results :

5.1 Sound Level Accuracy

UUT Nominal Value	Measured Value (dB)	Mfr's Spec. (dB)	Uncertainty of Measured Value (dB)
94 dB, 1 kHz	93.7	± 0.5	± 0.2

5.2 Frequency Accuracy

UUT Nominal Value (kHz)	Measured Value (kHz)	Mfr's Spec.	Uncertainty of Measured Value (Hz)
1	0.987	1 kHz ± 2 %	± 1

Remark : The uncertainties are for a confidence probability of not less than 95 %.

Note :

The values given in this Certificate only relate to the values measured at the time of the test and any uncertainties quoted will not include allowance for the equipment long term drift, variations with environment changes, vibration and shock during transportation, overloading, mis-handling, or the capability of any other laboratory to repeat the measurement. Sun Creation Engineering Limited shall not be liable for any loss or damage resulting from the use of the equipment.

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輝創工程有限公司

Sun Creation Engineering Limited

Calibration and Testing Laboratory

Certificate of Calibration 校正證書

Certificate No. : C144558

證書編號

ITEM TESTED / 送檢項目 (Job No. / 序引編號 : IC14-1853)

Date of Receipt / 收件日期 : 22 July 2014

Description / 儀器名稱 : Sound Level Meter

Manufacturer / 製造商 : Rion

Model No. / 型號 : NL-31

Serial No. / 編號 : 00603867

Supplied By / 委託者 : Envirotech Services Co.

Shop 6, G/F., Casio Mansion, 209 Shaukeiwan Road,
Hong Kong

TEST CONDITIONS / 測試條件

Temperature / 溫度 : (23 ± 2)°C

Relative Humidity / 相對濕度 : (55 ± 20)%

Line Voltage / 電壓 : ---

TEST SPECIFICATIONS / 測試規範

Calibration check

DATE OF TEST / 測試日期 : 29 July 2014

TEST RESULTS / 測試結果

The results apply to the particular unit-under-test only.

All results are within manufacturer's specification.

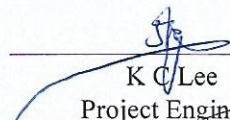
The results are detailed in the subsequent page(s).

The test equipment used for calibration are traceable to National Standards via :

- The Government of The Hong Kong Special Administrative Region Standard & Calibration Laboratory
- Rohde & Schwarz Laboratory, Germany
- Fluke Everett Service Center, USA
- Agilent Technologies, USA

Tested By :

測試


K C Lee
Project Engineer

Certified By :

核證


K M Wu
Engineer

Date of Issue :

簽發日期

30 July 2014

The test equipment used for calibration are traceable to the Nation Standards as specified in this certificate. This certificate shall not be reproduced except in full, without the prior written approval of this laboratory.

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Page 1 of 4

Certificate of Calibration

校正證書

Certificate No. : C144558

證書編號

- The unit-under-test (UUT) was allowed to stabilize in the laboratory for over 12 hours, and switched on to warm up for over 10 minutes before the commencement of the test.
- Self-calibration was performed before the test.
- The results presented are the mean of 3 measurements at each calibration point.
- Test equipment :

<u>Equipment ID</u>	<u>Description</u>	<u>Certificate No.</u>
CL280	40 MHz Arbitrary Waveform Generator	C140016
CL281	Multifunction Acoustic Calibrator	DC130171

- Test procedure : MA101N.

- Results :

- 6.1 Sound Pressure Level

- 6.1.1 Reference Sound Pressure Level

UUT Setting				Applied Value		UUT Reading (dB)	IEC 61672 Class 1 Spec. (dB)
Range (dB)	Mode	Frequency Weighting	Time Weighting	Level (dB)	Freq. (kHz)		
30 - 120	L _A	A	Fast	94.00	1	93.6	± 1.1

- 6.1.2 Linearity

UUT Setting				Applied Value		UUT Reading (dB)
Range (dB)	Mode	Frequency Weighting	Time Weighting	Level (dB)	Freq. (kHz)	
30 - 120	L _A	A	Fast	94.00	1	93.6 (Ref.)
				104.00		103.6
				114.00		113.6

IEC 61672 Class 1 Spec. : ± 0.6 dB per 10 dB step and ± 1.1 dB for overall different.

- 6.2 Time Weighting

UUT Setting				Applied Value		UUT Reading (dB)	IEC 61672 Class 1 Spec. (dB)
Range (dB)	Mode	Frequency Weighting	Time Weighting	Level (dB)	Freq. (kHz)		
30 - 120	L _A	A	Fast	94.00	1	93.6	Ref.
			Slow			93.5	± 0.3

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Certificate of Calibration

校正證書

Certificate No. : C144558

證書編號

6.3 Frequency Weighting

6.3.1 A-Weighting

UUT Setting				Applied Value		UUT Reading (dB)	IEC 61672 Class 1 Spec. (dB)
Range (dB)	Mode	Frequency Weighting	Time Weighting	Level (dB)	Freq.		
30 - 120	L _A	A	Fast	94.00	63 Hz	67.3	-26.2 ± 1.5
					125 Hz	77.3	-16.1 ± 1.5
					250 Hz	84.9	-8.6 ± 1.4
					500 Hz	90.3	-3.2 ± 1.4
					1 kHz	93.6	Ref.
					2 kHz	94.9	+1.2 ± 1.6
					4 kHz	94.7	+1.0 ± 1.6
					8 kHz	92.5	-1.1 (+2.1 ; -3.1)
					12.5 kHz	89.7	-4.3 (+3.0 ; -6.0)

6.3.2 C-Weighting

UUT Setting				Applied Value		UUT Reading (dB)	IEC 61672 Class 1 Spec. (dB)
Range (dB)	Mode	Frequency Weighting	Time Weighting	Level (dB)	Freq.		
30 - 120	L _C	C	Fast	94.00	63 Hz	92.7	-0.8 ± 1.5
					125 Hz	93.4	-0.2 ± 1.5
					250 Hz	93.6	0.0 ± 1.4
					500 Hz	93.6	0.0 ± 1.4
					1 kHz	93.6	Ref.
					2 kHz	93.5	-0.2 ± 1.6
					4 kHz	92.9	-0.8 ± 1.6
					8 kHz	90.6	-3.0 (+2.1 ; -3.1)
					12.5 kHz	87.8	-6.2 (+3.0 ; -6.0)

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Certificate of Calibration

校正證書

Certificate No. : C144558
證書編號

Remarks : - UUT Microphone Model No. : UC-53A & S/N : 316987

- Mfr's Spec. : IEC 61672 Class 1

- Uncertainties of Applied Value : 94 dB : 63 Hz - 125 Hz : ± 0.35 dB
250 Hz - 500 Hz : ± 0.30 dB
1 kHz : ± 0.20 dB
2 kHz - 4 kHz : ± 0.35 dB
8 kHz : ± 0.45 dB
12.5 kHz : ± 0.70 dB
104 dB : 1 kHz : ± 0.10 dB (Ref. 94 dB)
114 dB : 1 kHz : ± 0.10 dB (Ref. 94 dB)

- The uncertainties are for a confidence probability of not less than 95 %.

Note :

The values given in this Certificate only relate to the values measured at the time of the test and any uncertainties quoted will not include allowance for the equipment long term drift, variations with environment changes, vibration and shock during transportation, overloading, mis-handling, or the capability of any other laboratory to repeat the measurement. Sun Creation Engineering Limited shall not be liable for any loss or damage resulting from the use of the equipment.

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Fax/傳真: 2744 8986

E-mail/電郵: callab@suncreation.com

Website/網址: www.suncreation.com



Performance Check of Turbidity Meter

Equipment Ref. No. : ET/0505/011 Manufacturer : HACH
Model No. : 2100Q Serial No. : 12060 C 018534
Date of Calibration : 02/04/2015 Due Date : 01/07/2015

Ref. No. of Turbidity Standard used (4000NTU)

005/6.1/001/7

Theoretical Value of Turbidity Standard (NTU)	Measured Value (NTU)	Difference % *
20	20.2	1.00
100	103	3.00
800	787	-1.63

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

Acceptance Criteria

Difference : -5 % to 5 %

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

Prepared by : 

Checked by : 



Internal Calibration & Performance Check of pH Meter

Equipment Ref. No. : ET/EW/007/005 Manufacturer : HANNA
 Model No. : HI 8314 Serial No. : 8246095
 Date of Calibration : 06/04/2015 Calibration Due Date : 05/05/2015

Liquid Junction Error

Primary Standard Solution Used : Phosphate Ref No. of Primary Solution: 003/5.2/001/23
 Temperature of Solution : 20.0 $\Delta\text{pH}_{1/2} = \underline{+0.08}$
 pH value of diluted buffer : 6.76 $\text{pH (S)} = \underline{6.881}$
 $\Delta\text{pH} = \text{pH(S)} - \text{pH of diluted buffer} = \underline{0.121}$ (Observed Deviation)
 Liquid Junction Error (ΔpH_j) = $\Delta\text{pH} - \Delta\text{pH}_{1/2} = \underline{0.041}$

Shift on Stirring

pH of buffer solution (with stirring), $\text{pH}_s = \underline{6.94}$
 Shift on stirring, $\Delta\text{pH}_s = \text{pH}_s - \text{pH(S)} - \Delta\text{pH}_j = \underline{0.018}$

Noise

Noise, $\Delta\text{pH}_n =$ difference between max and min reading : 0.00

Verification of ATC

Ref. No. of reference thermometer used: ET/0521/008
 Temperature record from the reference thermometer (T_R): 19.9 °C
 Temperature record from the ATC (T_{ATC}): 19.6 °C
 Temperature Difference, $|T_R - T_{ATC}|$: 0.3 °C

Acceptance Criteria

Performance Characteristic	Acceptable Range
Liquid Junction Error ΔpH_j	≤ 0.05
Shift on Stirring ΔpH_s	≤ 0.02
Noise ΔpH_n	≤ 0.02
Verification of ATC Temperature Difference	$\leq 0.5^\circ\text{C}$

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

* Delete as appropriate

Calibrated by : hy

Checked by : [Signature]



Internal Calibration & Performance Check of pH Meter

Equipment Ref. No. : <u>ET/EW007/005</u>	Manufacturer : <u>Thermo Scientific</u>
Model No. : <u>Orion 2 Star</u>	Serial No. : <u>B29792</u>
Date of Calibration : <u>06/05/2015</u>	Calibration Due Date : <u>05/06/2015</u>

Liquid Junction Error

Primary Standard Solution Used : <u>Phosphate</u>	003/5.2/001/22 (25°C)
Temperature of Solution : <u>25.0 / 20.0</u>	Ref No. of Primary Solution: <u>003/5.2/001/23 (25°C)</u>
pH value of diluted buffer : <u>6.89 / 6.92</u>	$\Delta\text{pH}_{1/2} = +0.01 / +0.01$
$\Delta\text{pH} = \text{pH(S)} - \text{pH of diluted buffer} =$ <u>0.03 / 0.04</u> (Observed Deviation)	pH (S) = <u>6.86 / 6.88</u>
Liquid Junction Error (ΔpH_j) = $\Delta\text{pH} - \Delta\text{pH}_{1/2} =$ <u>0.02 / 0.03</u>	

Shift on Stirring

pH of buffer solution (with stirring), $\text{pH}_s =$ 6.91 / 6.91

Shift on stirring, $\Delta\text{pH}_s = \text{pH}_s - \text{pH(S)} - \Delta\text{pH}_j =$ 0.03 / 0.00

Noise

Noise, $\Delta\text{pH}_n =$ difference between max and min reading : 0.01 / 0.01

Verification of ATC

Ref. No. of reference thermometer used:	<u>ET/0521/019 / ET/0521/019</u>
Temperature record from the reference thermometer (T_R)	<u>25 / 20 °C</u>
Temperature record from the ATC (T_{ATC}):	<u>24.9 / 19.9 °C</u>
Temperature Difference, $ T_R - T_{ATC} $	<u>0.1 / 0.1 °C</u>
Correction	<u>0.1 / 0.1 °C</u>

Acceptance Criteria

Performance Characteristic	Acceptable Range
Liquid Junction Error ΔpH_j	≤ 0.05
Shift on Stirring ΔpH_s	≤ 0.02
Noise ΔpH_n	≤ 0.02
Verification of ATC Temperature Difference	$\leq 0.5^\circ\text{C}$

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

* Delete as appropriate

Calibrated by:

Checked by :



Internal Calibration Report of Dissolved Oxygen Meter

Equipment Ref. No. : <u>ET/EW/008/006</u>	Manufacturer : <u>YSI</u>
Model No. : <u>Pro 2030</u>	Serial No. : <u>12A 100554</u>
Date of Calibration : <u>17/03/2015</u>	Calibration Due Date : <u>16/06/2015</u>

Temperature Verification

Ref. No. of Reference Thermometer : ET/0521/008

Ref. No. of Water Bath : ---

	Temperature (°C)			
	Measured	20.0	Corrected	19.4
Reference Thermometer reading	Measured	20.0	Corrected	19.4
DO Meter reading	Measured	19.2	Difference	0.2

Standardization of sodium thiosulphate (Na₂S₂O₃) solution

Reagent No. of Na ₂ S ₂ O ₃ titrant	CPE/012/4.5/001/11	Reagent No. of 0.025N K ₂ Cr ₂ O ₇	CPE/012/4.4/001/35
		Trial 1	Trial 2
Initial Vol. of Na ₂ S ₂ O ₃ (ml)		0.00	10.15
Final Vol. of Na ₂ S ₂ O ₃ (ml)		10.15	20.40
Vol. of Na ₂ S ₂ O ₃ used (ml)		10.15	10.25
Normality of Na ₂ S ₂ O ₃ solution (N)		0.02463	0.02439
Average Normality (N) of Na ₂ S ₂ O ₃ solution (N)		0.02451	
Acceptance criteria, Deviation		Less than ± 0.001N	

Calculation: Normality of Na₂S₂O₃, N = 0.25 / ml Na₂S₂O₃ used

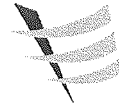
Linearity Checking

*Determination of dissolved oxygen content by Winkler Titration **

Purging Time (min)	2		5		10	
	1	2	1	2	1	2
Initial Vol. of Na ₂ S ₂ O ₃ (ml)	0.00	11.20	22.60	0.00	6.80	10.40
Final Vol. of Na ₂ S ₂ O ₃ (ml)	11.20	22.60	29.20	6.80	10.40	14.10
Vol. (V) of Na ₂ S ₂ O ₃ used (ml)	11.20	11.40	6.60	6.80	3.60	3.70
Dissolved Oxygen (DO), mg/L	7.37	7.50	4.34	4.47	2.37	2.43
Acceptance criteria, Deviation	Less than + 0.3mg/L		Less than + 0.3mg/L		Less than + 0.3mg/L	

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

Purging time, min	DO meter reading, mg/L			Winkler Titration result *, mg/L			Difference (%) of DO Content
	1	2	Average	1	2	Average	
2	7.42	7.90	7.66	7.37	7.50	7.44	2.91
5	4.38	4.10	4.24	4.34	4.47	4.41	3.93
10	2.50	2.48	2.49	2.37	2.43	2.40	3.68
Linear regression coefficient				0.9954			



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 : 17/03/2015 Due Date : 16/06/2015

Ref. No. of Salinity Standard used (30ppt)

S/001/5

Salinity Standard (ppt)	Measured Salinity (ppt)	Difference %
30.0	30.3	1.0

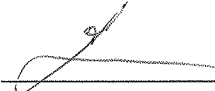
(*) Difference (%) = (Measured Salinity – Salinity Standard value) / Salinity Standard value x 100

Acceptance Criteria

Difference : -10 % to 10 %

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

Checked by : 

Approved by : 

ENVIROTECH SERVICES CO.

Calibration Report of Wind Meter

Date of Calibration : 20 November 2014

Brand of Test Meter: Global Water

Model: Speed Sensor: WE550 (S/N:EC0000)

Direction Sensor: WE570 (S/N:ED0000)

Location : Pak Mong, Siu Ho Wan

Procedures :

- 1. Wind Still Test: The wind speed sensor was hold by hand until it keep still
- 2. Wind Speed Test: The wind meter was on-site calibrated against the Anemometer
- 3. Wind Direction Test : The wind meter was on-site calibrated against the marine compass at four directions

Results:

Wind Still Test

Wind Speed (m/s)
0.00

Wind Speed Test

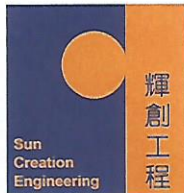
Global Wate (m/s)	Anemomete (m/s)
0.35	0.4
1.49	1.6
3.01	3.1

Wind Direction Test

Global Wate (o)	Marine Compass (o)
270.21	270
0.01	0
90.12	90
179.05	180

Calibrated by: Fai
Yeung Ping Fai
(Technical Officer)

Checked by : Fat
Ho Kam Fat
(Senior Technical Officer)



輝創工程有限公司

Sun Creation Engineering Limited

Calibration and Testing Laboratory

Certificate of Calibration

校正證書

Certificate No. : C146966

證書編號

ITEM TESTED / 送檢項目 (Job No. / 序引編號 : IC14-2877) Date of Receipt / 收件日期 : 12 November 2014

Description / 儀器名稱 : Anemometer

Manufacturer / 製造商 : Lutron

Model No. / 型號 : AM-4201

Serial No. / 編號 : AF.27513

Supplied By / 委託者 : Envirotech Services Co.
Shop 6, G/F., Casio Mansion, 209 Shaukeiwan Road,
Hong Kong

TEST CONDITIONS / 測試條件

Temperature / 溫度 : $(23 \pm 2)^{\circ}\text{C}$

Relative Humidity / 相對濕度 : $(55 \pm 20)\%$

Line Voltage / 電壓 : ---

TEST SPECIFICATIONS / 測試規範

Calibration check

DATE OF TEST / 測試日期 : 14 November 2014

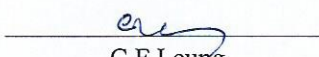
TEST RESULTS / 測試結果

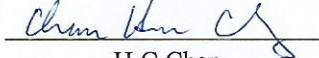
The results apply to the particular unit-under-test only.

The results are detailed in the subsequent page(s).

The test equipment used for calibration are traceable to National Standards via :

- Testo Industrial Services GmbH, Germany

Tested By : 
測試 : C F Leung
Project Engineer

Certified By : 
核證 : H C Chan
Engineer

Date of Issue : 18 November 2014
簽發日期

The test equipment used for calibration are traceable to the Nation Standards as specified in this certificate. This certificate shall not be reproduced except in full, without the prior written approval of this laboratory.

本證書所載校正用之測試器材均可溯源至國際標準。局部複印本證書需先獲本實驗室所書面批准。

Sun Creation Engineering Limited - Calibration & Testing Laboratory

c/o 4/F, Tsing Shan Wan Exchange Building, 1 Hing On Lane, Tuen Mun, New Territories, Hong Kong

輝創工程有限公司 - 校正及檢測實驗室

c/o 香港新界屯門興安里一號青山灣機樓四樓

Tel/電話: 2927 2606

Fax/傳真: 2744 8986

E-mail/電郵: callab@suncreation.com

Website/網址: www.suncreation.com

Page 1 of 2

Certificate of Calibration

校正證書

Certificate No. : C146966

證書編號

1. The unit-under-test (UUT) was allowed to stabilize in the laboratory for over 12 hours before the commencement of the test.
2. The results presented are the mean of 10 measurements at each calibration point.
3. Test equipment :

<u>Equipment ID</u>	<u>Description</u>	<u>Certificate No.</u>
CL386	Multi-function Measuring Instrument	S12109

4. Test procedure : MA130N.

5. Results :

Air Velocity

Applied Value (m/s)	UUT Reading (m/s)	Measured Correction		
		Value (m/s)	Measurement Uncertainty	
			Expanded Uncertainty (m/s)	Coverage Factor
2.0	1.7	+0.3	0.2	2.0
4.1	3.8	+0.3	0.3	2.0
6.1	5.8	+0.3	0.3	2.0
8.0	7.8	+0.2	0.3	2.0
10.0	9.9	+0.1	0.4	2.0

Remarks : - The Measured Corrections are defined as :
Value = Applied Value - UUT Reading

- The expanded uncertainties are for a level of confidence of 95 %.

Note :

The values given in this Certificate only relate to the values measured at the time of the test and any uncertainties quoted will not include allowance for the equipment long term drift, variations with environment changes, vibration and shock during transportation, overloading, mis-handling, or the capability of any other laboratory to repeat the measurement. Sun Creation Engineering Limited shall not be liable for any loss or damage resulting from the use of the equipment.

The test equipment used for calibration are traceable to the Nation Standards as specified in this certificate. This certificate shall not be reproduced except in full, without the prior written approval of this laboratory.

本證書所載校正用之測試器材均可溯源至國際標準。局部複印本證書需先獲本實驗室所書面批准。

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輝創工程有限公司 – 校正及檢測實驗室

c/o 香港新界屯門興安里一號青山灣機樓四樓

Tel/電話: 2927 2606

Fax/傳真: 2744 8986

E-mail/電郵: callab@suncreation.com

Website/網址: www.suncreation.com

Appendix F

EM&A Monitoring Schedules

**HY/2012/07 Tuen Mun - Chek Lap Kok Link - Southern Connection Viaduct Section
Impact Noise Monitoring Schedule (1 to 31 May 2015)**

Alternative Noise Monitoring at Pak Mong Village Entrance

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
					P. Holiday 01-May	02-May
03-May	04-May	05-May	06-May	07-May	08-May	09-May
			Noise Impact Monitoring			
10-May	11-May	12-May	13-May	14-May	15-May	16-May
		Noise Impact Monitoring				
17-May	18-May	19-May	20-May	21-May	22-May	23-May
	Noise Impact Monitoring			Noise Impact Monitoring		
24-May	P. Holiday 25-May	26-May	27-May	28-May	29-May	30-May
			Noise Impact Monitoring			
31-May						

**HY/2012/07 Tuen Mun - Chek Lap Kok Link - Southern Connection Viaduct Section
Impact Air Quality Monitoring Schedule (1 to 31 May 2015)**

Alternative Air Quality Monitoring at WA4 and MTRC Depot Entrance

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
					P. Holiday 01-May	02-May
03-May	04-May	05-May	06-May	07-May	08-May	09-May
			1-hr TSP Monitoring 24-hr TSP Monitoring			
10-May	11-May	12-May	13-May	14-May	15-May	16-May
		1-hr TSP Monitoring 24-hr TSP Monitoring				
17-May	18-May	19-May	20-May	21-May	22-May	23-May
	1-hr TSP Monitoring 24-hr TSP Monitoring			1-hr TSP Monitoring 24-hr TSP Monitoring		
24-May	P. Holiday 25-May	26-May	27-May	28-May	29-May	30-May
			1-hr TSP Monitoring 24-hr TSP Monitoring			
31-May						

**HY/2012/07 Tuen Mun - Chek Lap Kok Link - Southern Connection Viaduct Section
Tentative Impact Noise Monitoring Schedule (1 to 30 June 2015)**

Alternative Noise Monitoring at Pak Mong Village Entrance

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
	01-Jun	02-Jun	03-Jun	04-Jun	05-Jun	06-Jun
		Noise Impact Monitoring				
07-Jun	08-Jun	09-Jun	10-Jun	11-Jun	12-Jun	13-Jun
	Noise Impact Monitoring			Noise Impact Monitoring		
14-Jun	15-Jun	16-Jun	17-Jun	18-Jun	19-Jun	20-Jun
			Noise Impact Monitoring			
21-Jun	22-Jun	23-Jun	24-Jun	25-Jun	26-Jun	27-Jun
		Noise Impact Monitoring				
28-Jun	29-Jun	30-Jun				
	Noise Impact Monitoring					

The schedule is subject to agreement from the EPD on the monitoring times. The schedule will be revised after reviewing the progress of the construction works or due to adverse (safety, weather etc) conditions.

**HY/2012/07 Tuen Mun - Chek Lap Kok Link - Southern Connection Viaduct Section
Tentative Impact Air Quality Monitoring Schedule (1 to 30 June 2015)**

Alternative Air Quality Monitoring at WA4 and MTRC Depot Entrance

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
	01-Jun	02-Jun	03-Jun	04-Jun	05-Jun	06-Jun
		1-hr TSP Monitoring 24-hr TSP Monitoring				
07-Jun	08-Jun	09-Jun	10-Jun	11-Jun	12-Jun	13-Jun
	1-hr TSP Monitoring 24-hr TSP Monitoring			1-hr TSP Monitoring 24-hr TSP Monitoring		
14-Jun	15-Jun	16-Jun	17-Jun	18-Jun	19-Jun	20-Jun
			1-hr TSP Monitoring 24-hr TSP Monitoring			
21-Jun	22-Jun	23-Jun	24-Jun	25-Jun	26-Jun	27-Jun
		1-hr TSP Monitoring 24-hr TSP Monitoring				
28-Jun	29-Jun	30-Jun				
	1-hr TSP Monitoring 24-hr TSP Monitoring					

The schedule is subject to agreement from the EPD on the monitoring times. The schedule will be revised after reviewing the progress of the construction works or due to adverse (safety, weather etc) conditions.

**HY/2012/07 Tuen Mun - Chek Lap Kok Link - Southern Connection Viaduct Section
Impact Dolphin Monitoring Survey Schedule (1 to 31 May 2015)**

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
					01-May	02-May
03-May	04-May	05-May	06-May	07-May	08-May	09-May
	Impact Dolphin Monitoring				Impact Dolphin Monitoring	
10-May	11-May	12-May	13-May	14-May	15-May	16-May
				Impact Dolphin Monitoring		
17-May	18-May	19-May	20-May	21-May	22-May	23-May
	Impact Dolphin Monitoring					
24-May	25-May	26-May	27-May	28-May	29-May	30-May
31-May						

**HY/2012/07 Tuen Mun - Chek Lap Kok Link - Southern Connection Viaduct Section
Impact Dolphin Monitoring Survey Schedule (1 to 30 June 2015)**

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
	01-Jun	02-Jun	03-Jun	04-Jun	05-Jun	06-Jun
		Impact Dolphin Monitoring				
07-Jun	08-Jun	09-Jun	10-Jun	11-Jun	12-Jun	13-Jun
			Impact Dolphin Monitoring			
14-Jun	15-Jun	16-Jun	17-Jun	18-Jun	19-Jun	20-Jun
		Impact Dolphin Monitoring				
21-Jun	22-Jun	23-Jun	24-Jun	25-Jun	26-Jun	27-Jun
		Impact Dolphin Monitoring				
28-Jun	29-Jun	30-Jun				

The schedule is subject to agreement from the EPD on the monitoring times. The schedule will be revised after reviewing the progress of the construction works or due to adverse (safety, weather etc) conditions.

**HY/2012/07 - Tuen Mun - Chek Lap Kok Link - Southern Connection Viaduct Section
Impact Marine Water Quality Monitoring (WQM) Schedule (May 15)**

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
			01-Apr	02-Apr	01-May	02-May
						WQM Mid-Ebb 12:11 (10:26 - 13:56) Mid-Flood 18:33 (16:48 - 20:18)
03-May	04-May	05-May	06-May	07-May	08-May	09-May
		WQM Mid-Ebb 13:44 (11:59 - 15:29) Mid-Flood 20:33 (18:48 - 22:18)		WQM Mid-Flood 8:15 (06:30 - 10:00) Mid-Ebb 14:57 (13:12 - 16:42)		WQM Mid-Flood 9:32 (07:47 - 11:17) Mid-Ebb 16:28 (14:43 - 18:13)
10-May	11-May	12-May	13-May	14-May	15-May	16-May
		WQM Mid-Ebb 8:22 (06:37 - 10:07) Mid-Flood 13:17 (11:32 - 15:02)		WQM Mid-Ebb 10:18 (08:33 - 12:03) Mid-Flood 15:58 (14:13 - 17:43)		WQM Mid-Ebb 11:44 (09:59 - 13:29) Mid-Flood 18:00 (16:15 - 19:45)
17-May	18-May	19-May	20-May	21-May	22-May	23-May
		WQM Mid-Ebb 13:48 (12:03 - 15:33) Mid-Flood 20:45 (19:00 - 22:30)		WQM Mid-Flood 8:14 (06:29 - 09:59) Mid-Ebb 15:12 (13:27 - 16:57)		WQM Mid-Flood 9:27 (07:42 - 11:12) Mid-Ebb 16:35 (14:50 - 18:20)
24-May	25-May	26-May	27-May	28-May	29-May	30-May
		WQM Mid-Flood 12:39 (10:54 - 14:24) Mid-Ebb 19:16 (17:31 - 21:01)		WQM Mid-Ebb 10:00 (08:15 - 11:45) Mid-Flood 15:51 (14:06 - 17:36)		WQM Mid-Ebb 11:11 (09:26 - 12:56) Mid-Flood 17:35 (15:50 - 19:20)

**HY/2012/07 - Tuen Mun - Chek Lap Kok Link - Southern Connection Viaduct Section
Impact Marine Water Quality Monitoring (WQM) Schedule (Jun 15)**

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
	01-Jun	02-Jun	03-Jun	04-Jun	05-Jun	06-Jun
		WQM Mid-Ebb 12:51 (11:06 - 14:36) Mid-Flood 19:46 (18:01 - 21:31)		WQM Mid-Ebb 7:15 (05:30 - 09:00) Mid-Flood 14:05 (12:20 - 15:50)		WQM Mid-Flood 8:39 (06:54 - 10:24) Mid-Ebb 15:30 (13:45 - 17:15)
07-Jun	08-Jun	09-Jun	10-Jun	11-Jun	12-Jun	13-Jun
		WQM Mid-Flood 11:35 (09:50 - 13:20) Mid-Ebb 18:08 (16:23 - 19:53)		WQM Mid-Ebb 8:53 (07:08 - 10:38) Mid-Flood 14:32 (12:47 - 16:17)		WQM Mid-Ebb 10:41 (08:56 - 12:26) Mid-Flood 17:00 (15:15 - 18:45)
14-Jun	15-Jun	16-Jun	17-Jun	18-Jun	19-Jun	20-Jun
		WQM Mid-Ebb 12:52 (11:07 - 14:37) Mid-Flood 19:52 (18:07 - 21:37)		WQM Mid-Flood 7:13 (05:28 - 08:58) Mid-Ebb 14:14 (12:29 - 16:01)		WQM Mid-Flood 8:31 (06:46 - 10:16) Mid-Ebb 15:31 (13:46 - 17:16)
21-Jun	22-Jun	23-Jun	24-Jun	25-Jun	26-Jun	27-Jun
		WQM Mid-Flood 10:41 (08:56 - 12:26) Mid-Ebb 17:24 (15:39 - 19:09)		WQM Mid-Ebb 7:48 (06:03 - 09:33) Mid-Flood 13:13 (11:28 - 14:58)		WQM Mid-Ebb 9:54 (08:09 - 11:39) Mid-Flood 16:23 (14:38 - 18:08)
28-Jun	29-Jun	30-Jun				
		WQM Mid-Ebb 11:52 (10:07 - 13:37) Mid-Flood 18:53 (17:08 - 20:38)				

Appendix G

Impact Air Quality
Monitoring Results and
Graphical Presentation

1-hour TSP Monitoring Results at Air Quality Monitoring Station ASR8A

Project	Works	Date(yyyy-mm-dd)	Station	Time (hh:mm, 24hour)	Parameter	Results (ug/m3)	Action Level (ug/m3)	Limit Level (ug/m3)		
TMCLKL	HY/2012/07	2015-05-06	ASR8A	8:22	1-hr TSP	57	394	500		
TMCLKL	HY/2012/07	2015-05-06	ASR8A	9:24	1-hr TSP	60				
TMCLKL	HY/2012/07	2015-05-06	ASR8A	10:26	1-hr TSP	60				
TMCLKL	HY/2012/07	2015-05-12	ASR8A	8:30	1-hr TSP	67				
TMCLKL	HY/2012/07	2015-05-12	ASR8A	9:32	1-hr TSP	64				
TMCLKL	HY/2012/07	2015-05-12	ASR8A	10:34	1-hr TSP	53				
TMCLKL	HY/2012/07	2015-05-18	ASR8A	8:50	1-hr TSP	63				
TMCLKL	HY/2012/07	2015-05-18	ASR8A	9:52	1-hr TSP	149				
TMCLKL	HY/2012/07	2015-05-18	ASR8A	10:54	1-hr TSP	60				
TMCLKL	HY/2012/07	2015-05-21	ASR8A	8:28	1-hr TSP	53				
TMCLKL	HY/2012/07	2015-05-21	ASR8A	9:30	1-hr TSP	49				
TMCLKL	HY/2012/07	2015-05-21	ASR8A	10:32	1-hr TSP	51				
TMCLKL	HY/2012/07	2015-05-27	ASR8A	8:25	1-hr TSP	52				
TMCLKL	HY/2012/07	2015-05-27	ASR8A	9:27	1-hr TSP	61				
TMCLKL	HY/2012/07	2015-05-27	ASR8A	10:29	1-hr TSP	57				
					Average	64				
					Min.	49				
					Max.	149				

1-hour TSP Monitoring Results at Air Quality Monitoring Station ASR9

Project	Works	Date(yyyy-mm-dd)	Station	Time (hh:mm, 24hour)	Parameter	Results (ug/m3)	Action Level (ug/m3)	Limit Level (ug/m3)		
TMCLKL	HY/2012/07	2015-05-06	ASR9	8:33	1-hr TSP	71	393	500		
TMCLKL	HY/2012/07	2015-05-06	ASR9	9:35	1-hr TSP	104				
TMCLKL	HY/2012/07	2015-05-06	ASR9	10:37	1-hr TSP	75				
TMCLKL	HY/2012/07	2015-05-12	ASR9	8:40	1-hr TSP	103				
TMCLKL	HY/2012/07	2015-05-12	ASR9	9:42	1-hr TSP	60				
TMCLKL	HY/2012/07	2015-05-12	ASR9	10:44	1-hr TSP	77				
TMCLKL	HY/2012/07	2015-05-18	ASR9	9:02	1-hr TSP	93				
TMCLKL	HY/2012/07	2015-05-18	ASR9	10:04	1-hr TSP	60				
TMCLKL	HY/2012/07	2015-05-18	ASR9	11:06	1-hr TSP	60				
TMCLKL	HY/2012/07	2015-05-21	ASR9	8:40	1-hr TSP	53				
TMCLKL	HY/2012/07	2015-05-21	ASR9	9:42	1-hr TSP	73				
TMCLKL	HY/2012/07	2015-05-21	ASR9	10:44	1-hr TSP	63				
TMCLKL	HY/2012/07	2015-05-27	ASR9	8:36	1-hr TSP	75				
TMCLKL	HY/2012/07	2015-05-27	ASR9	9:38	1-hr TSP	71				
TMCLKL	HY/2012/07	2015-05-27	ASR9	10:40	1-hr TSP	119				
					Average	77				
					Min.	53				
					Max.	119				

24-hour TSP Monitoring Results at Air Quality Monitoring Station ASR8A

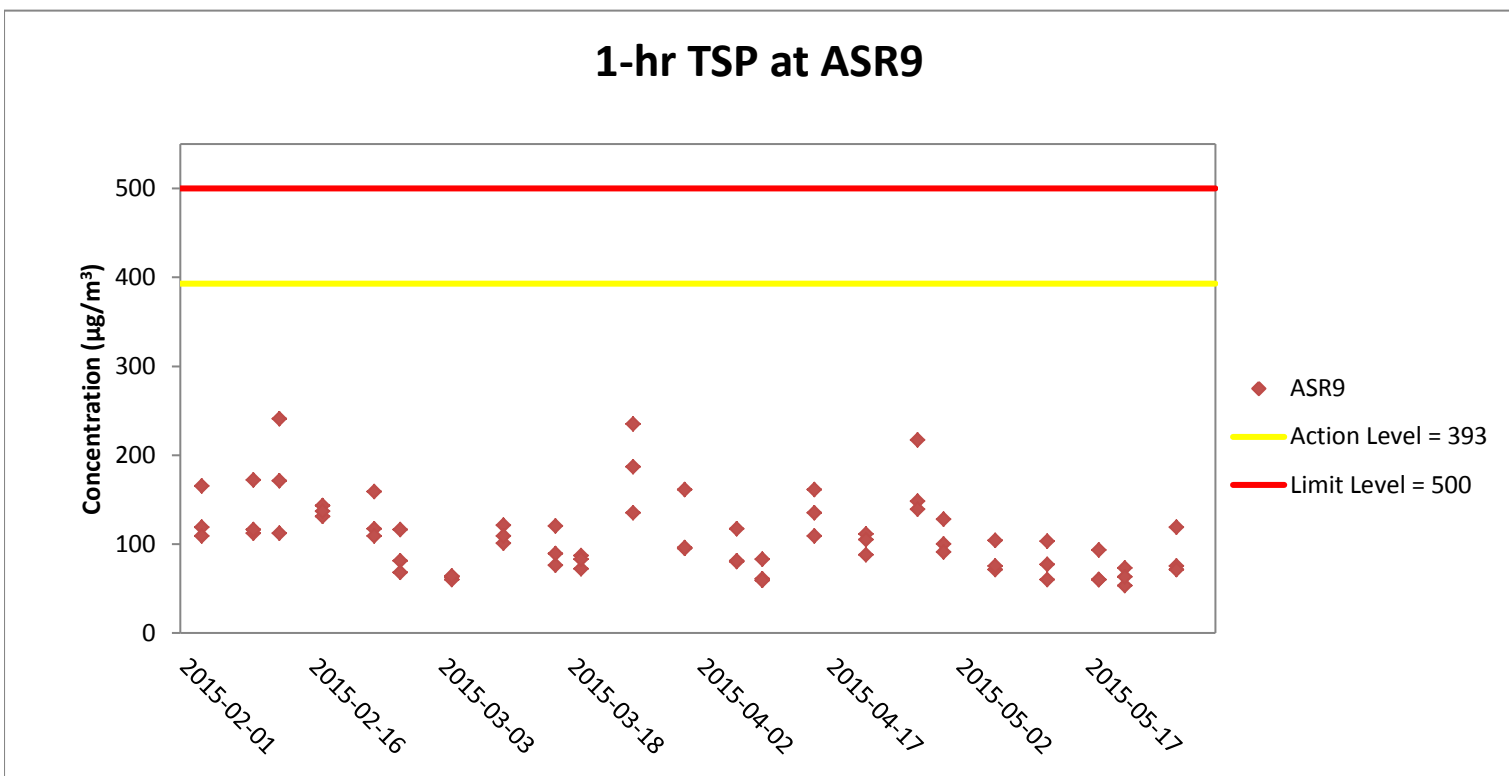
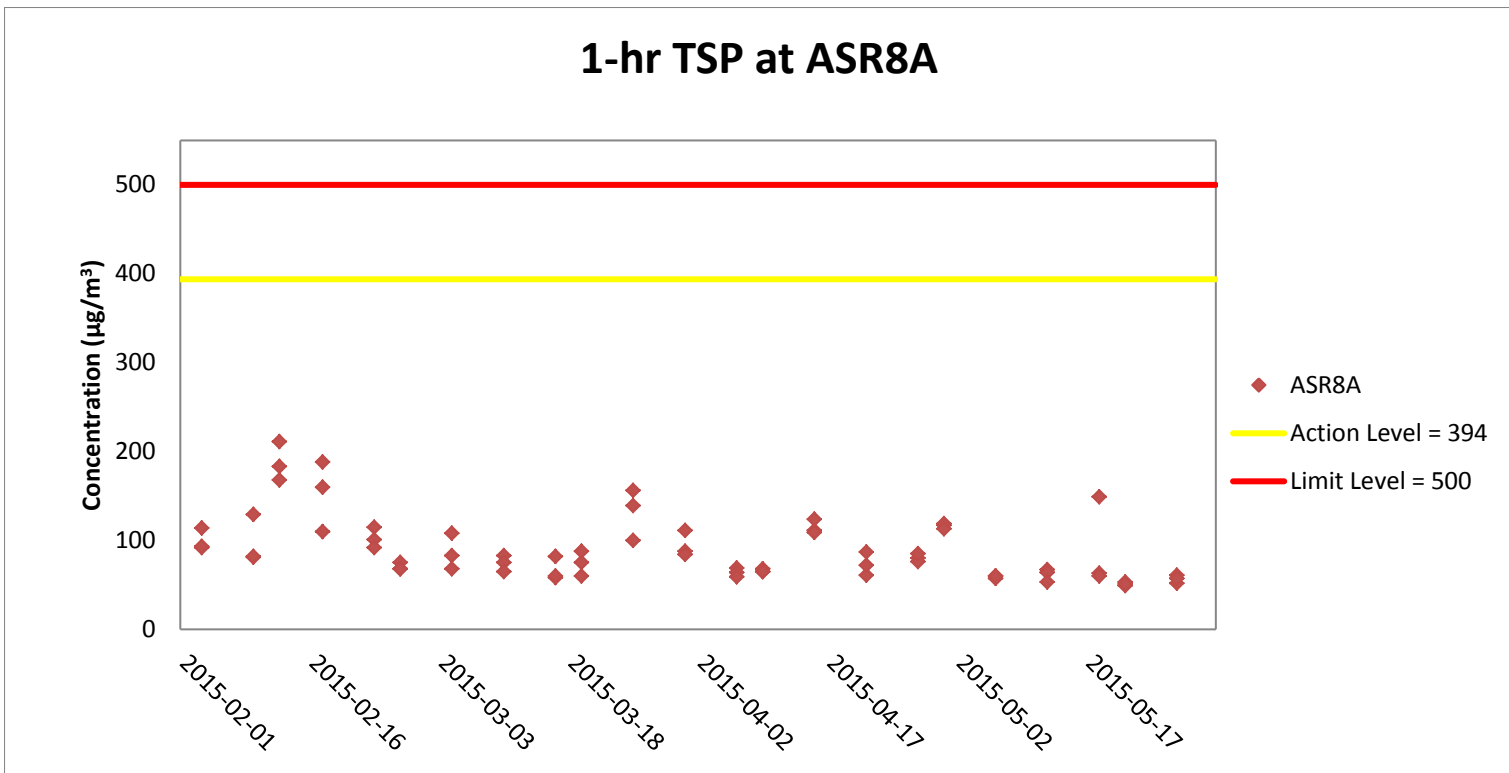
Project	Works	Date(yyyy-mm-dd)	Station	Time (hh:mm, 24hour)	Parameter	Results (ug/m3)	Action Level (ug/m3)	Limit Level (ug/m3)
TMCLKL	HY/2012/07	2015-05-06	ASR8A	11:28	24-hr TSP	43	178	260
TMCLKL	HY/2012/07	2015-05-12	ASR8A	11:36	24-hr TSP	49		
TMCLKL	HY/2012/07	2015-05-18	ASR8A	11:56	24-hr TSP	49		
TMCLKL	HY/2012/07	2015-05-21	ASR8A	11:34	24-hr TSP	48		
TMCLKL	HY/2012/07	2015-05-27	ASR8A	11:31	24-hr TSP	52		
						Average	48	
						Min.	43	
						Max.	52	

24-hour TSP Monitoring Results at Air Quality Monitoring Station ASR9

Project	Works	Date(yyyy-mm-dd)	Station	Time (hh:mm, 24hour)	Parameter	Results (ug/m3)	Action Level (ug/m3)	Limit Level (ug/m3)
TMCLKL	HY/2012/07	2015-05-06	ASR9	11:39	24-hr TSP	60	178	260
TMCLKL	HY/2012/07	2015-05-12	ASR9	11:46	24-hr TSP	71		
TMCLKL	HY/2012/07	2015-05-18	ASR9	12:08	24-hr TSP	46		
TMCLKL	HY/2012/07	2015-05-21	ASR9	11:46	24-hr TSP	52		
TMCLKL	HY/2012/07	2015-05-27	ASR9	11:42	24-hr TSP	51		
						Average	56	
						Min.	46	
						Max.	71	

Action Level Exceedance

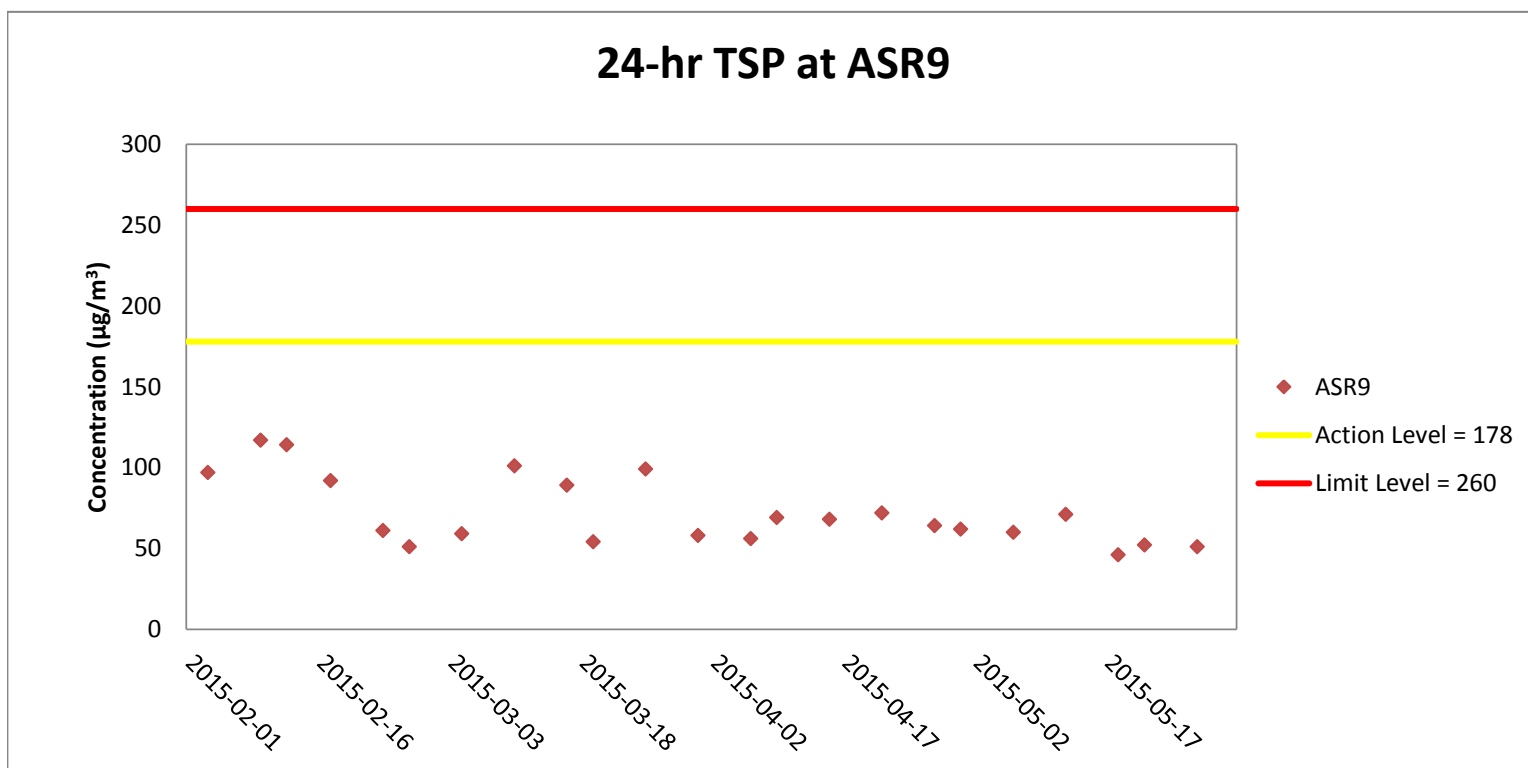
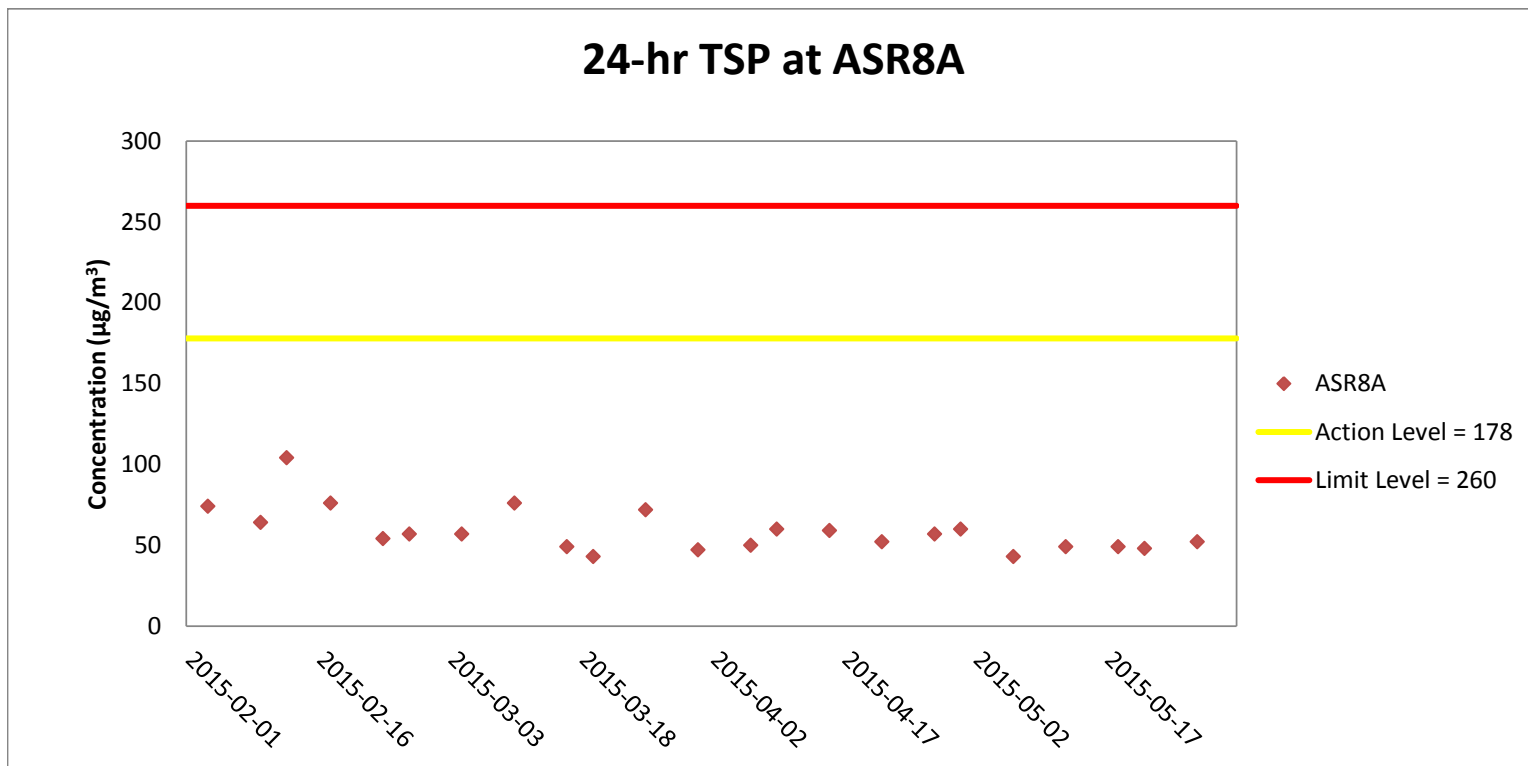
Limit Level Exceedance



Weather condition within the reporting period varied between sunny to rainy.

Major construction works undertaken within the reporting period include Construction and installation of pile caps; Pier construction; Drainage works; Re-alignment of Cheung Tung Road; Land piling; Pre-drilling works; Installation of pier head segment; Additional land GI, trial pits & lab testing; Tree survey, felling and transplanting; Relocation of MTRC fence; and Slope work of Slopes 9SE-B/C8, 9SE-B/C9 & 9SE-B/F9.

Marine works within the reporting period include Construction and installation of pile caps; Marine piling platform installation & uninstillation; Pier construction; Installation of launching gantry; Marine piling and Installation of pier head segment.



Weather condition within the reporting period varied between sunny to rainy.

Major construction works undertaken within the reporting period include Construction and installation of pile caps; Pier construction; Drainage works; Re-alignment of Cheung Tung Road; Land piling; Pre-drilling works; Installation of pier head segment; Additional land GI, trial pits & lab testing; Tree survey, felling and transplanting; Relocation of MTRC fence; and Slope work of Slopes 9SE-B/C8, 9SE-B/C9 & 9SE-B/F9.

Marine works within the reporting period include Construction and installation of pile caps; Marine piling platform installation & uninstillation; Pier construction; Installation of launching gantry; Marine piling and Installation of pier head segment.

Appendix H

Meteorological Data for the Reporting Month

Date	Time	Wind speed (m/s)	Wind direction (deg)
06-05-2015	7:00	1.35	163
06-05-2015	8:00	1.09	142
06-05-2015	9:00	1.69	154
06-05-2015	10:00	2.45	179
06-05-2015	11:00	2.62	167
06-05-2015	12:00	1.90	191
06-05-2015	13:00	3.49	184
06-05-2015	14:00	1.94	192
06-05-2015	15:00	1.24	200
06-05-2015	16:00	1.37	141
06-05-2015	17:00	2.19	164
06-05-2015	18:00	2.46	163
06-05-2015	19:00	1.78	170
06-05-2015	20:00	2.39	178
06-05-2015	21:00	2.91	152
06-05-2015	22:00	1.98	159
06-05-2015	23:00	2.29	155
07-05-2015	0:00	2.62	178
07-05-2015	1:00	2.07	161
07-05-2015	2:00	1.76	183
07-05-2015	3:00	2.24	172
07-05-2015	4:00	2.54	157
07-05-2015	5:00	2.25	165
07-05-2015	6:00	2.85	167
07-05-2015	7:00	2.48	170
07-05-2015	8:00	3.84	173
07-05-2015	9:00	4.33	167
07-05-2015	10:00	4.39	171
07-05-2015	11:00	4.16	172
07-05-2015	12:00	4.66	174
12-05-2015	7:00	0.02	160
12-05-2015	8:00	0.06	207
12-05-2015	9:00	0.01	270
12-05-2015	10:00	0.02	294
12-05-2015	11:00	0.17	330
12-05-2015	12:00	0.02	278
12-05-2015	13:00	0.07	255
12-05-2015	14:00	0.02	195
12-05-2015	15:00	0.04	263
12-05-2015	16:00	0.02	221
12-05-2015	17:00	0.61	156
12-05-2015	18:00	2.17	163
12-05-2015	19:00	3.16	174
12-05-2015	20:00	2.03	168
12-05-2015	21:00	3.08	167
12-05-2015	22:00	1.85	164
12-05-2015	23:00	2.74	160
13-05-2015	0:00	2.15	156
13-05-2015	1:00	1.69	154
13-05-2015	2:00	1.29	155

Date	Time	Wind speed (m/s)	Wind direction (deg)
13-05-2015	3:00	0.54	165
13-05-2015	4:00	2.06	152
13-05-2015	5:00	1.57	168
13-05-2015	6:00	1.78	175
13-05-2015	7:00	0.90	151
13-05-2015	8:00	0.77	151
13-05-2015	9:00	2.23	151
13-05-2015	10:00	1.67	162
13-05-2015	11:00	1.38	161
13-05-2015	12:00	0.90	156

*Note:

The Anemometer was under calibration/ maintenance since 14 May 2015, and thus no meteorological data is presented from 14 May 2015.

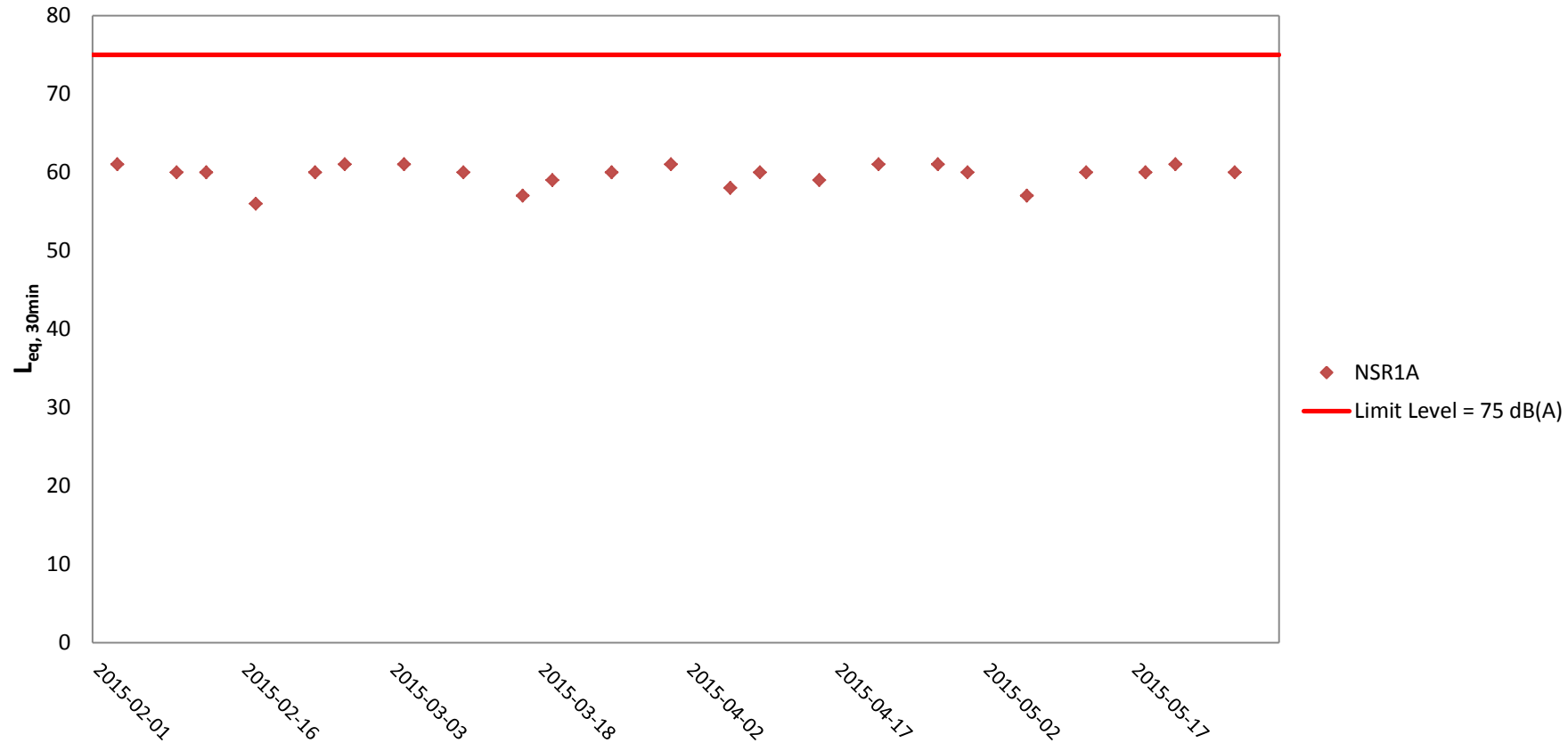
Appendix I

Impact Noise Monitoring Results and Graphical Presentation

Appendix II Noise Monitoring Results

Project	Works	Date (yyyy-mm-dd)	Station	Weather Condition	Time (hh:mm, 24hour)	Noise Level for 30-min, dB(A)			Limit Level dB(A)	Wind Speed (m/s)	Noise Meter Model/ID	Calibrator Model/ID
						Leq	L10	L90				
	HY/2012/07	2015-05-06	NSR1A	Cloudy	9:46	57	59	53	75	0.4	RION NL31 (S/N 00603867)	RION NC73 (S/N 10997142)
	HY/2012/07	2015-05-12	NSR1A	Fine	9:53	60	64	55	75	0.1	RION NL31 (S/N 00603867)	RION NC73 (S/N 10997142)
	HY/2012/07	2015-05-18	NSR1A	Cloudy	11:15	60	62	55	75	0.3	RION NL31 (S/N 00603867)	RION NC73 (S/N 10997142)
	HY/2012/07	2015-05-21	NSR1A	Cloudy	10:55	61	64	56	75	2.5	RION NL31 (S/N 00603867)	RION NC73 (S/N 10997142)
	HY/2012/07	2015-05-27	NSR1A	Fine	10:52	60	63	56	75	0.7	RION NL31 (S/N 00603867)	RION NC73 (S/N 10997142)
						Min.	57					
						Max.	61					
						Average	60					

Noise Monitoring Results at NSR 1A ($L_{eq, 30min}$)



Weather condition within the reporting period varied between sunny to rainy.

Major construction works undertaken within the reporting period include Construction and installation of pile caps; Pier construction; Drainage works; Re-alignment of Cheung Tung Road; Land piling; Pre-drilling works; Installation of pier head segment; Additional land GI, trial pits & lab testing; Tree survey, felling and transplanting; Relocation of MTRC fence; and Slope work of Slopes 9SE-B/C8, 9SE-B/C9 & 9SE-B/F9.

Marine works within the reporting period include Construction and installation of pile caps; Marine piling platform installation & uninstallation; Pier construction; Installation of launching gantry; Marine piling and Installation of pier head segment.

Appendix J

Impact Water Quality Monitoring Results and Graphical Presentation

Project	Works	Date (yyyy-mm-dd)	Tide	Stat	Start Time	Level	Lev_Cod	Replicate	Temp_v	pH_v	Sal_v	DO_v	Turb_v	SS_v
TMCLKL	HY/2012/07	02-05-2015	Mid-Flood	CS(Mf)5	16:48	Surface	1	1	26	7.95	28	7.31	6.3	8.8
TMCLKL	HY/2012/07	02-05-2015	Mid-Flood	CS(Mf)5	16:48	Surface	1	2	26	7.97	28	7.3	6.32	8.9
TMCLKL	HY/2012/07	02-05-2015	Mid-Flood	CS(Mf)5	16:48	Middle	2	1	25.8	8.04	28.3	7.21	7.88	11
TMCLKL	HY/2012/07	02-05-2015	Mid-Flood	CS(Mf)5	16:48	Middle	2	2	25.8	8.04	28.3	7.18	7.9	10.3
TMCLKL	HY/2012/07	02-05-2015	Mid-Flood	CS(Mf)5	16:48	Bottom	3	1	25.6	8.1	28.5	7.01	8.89	12.5
TMCLKL	HY/2012/07	02-05-2015	Mid-Flood	CS(Mf)5	16:48	Bottom	3	2	25.5	8.09	28.4	7.04	8.94	12.5
TMCLKL	HY/2012/07	02-05-2015	Mid-Flood	SR4a	17:15	Surface	1	1	26.1	8.08	28	7.39	7.02	9.8
TMCLKL	HY/2012/07	02-05-2015	Mid-Flood	SR4a	17:15	Surface	1	2	26.1	8.1	28	7.36	7	9.1
TMCLKL	HY/2012/07	02-05-2015	Mid-Flood	SR4a	17:15	Middle	2	1						
TMCLKL	HY/2012/07	02-05-2015	Mid-Flood	SR4a	17:15	Middle	2	2						
TMCLKL	HY/2012/07	02-05-2015	Mid-Flood	SR4a	17:15	Bottom	3	1	25.8	8.2	28.5	7.2	7.1	9.9
TMCLKL	HY/2012/07	02-05-2015	Mid-Flood	SR4a	17:15	Bottom	3	2	25.8	8.18	28.4	7.22	7.12	11.4
TMCLKL	HY/2012/07	02-05-2015	Mid-Flood	SR4	17:30	Surface	1	1	26	7.85	28.2	7.2	7.58	12.1
TMCLKL	HY/2012/07	02-05-2015	Mid-Flood	SR4	17:30	Surface	1	2	26	7.84	28.2	7.18	7.55	12.1
TMCLKL	HY/2012/07	02-05-2015	Mid-Flood	SR4	17:30	Middle	2	1						
TMCLKL	HY/2012/07	02-05-2015	Mid-Flood	SR4	17:30	Middle	2	2						
TMCLKL	HY/2012/07	02-05-2015	Mid-Flood	SR4	17:30	Bottom	3	1	25.8	8.03	28.3	7.08	7.92	11.1
TMCLKL	HY/2012/07	02-05-2015	Mid-Flood	SR4	17:30	Bottom	3	2	25.6	8.01	28.3	7.03	7.98	9.6
TMCLKL	HY/2012/07	02-05-2015	Mid-Flood	IS8	17:45	Surface	1	1	25.9	8.06	28	7.26	8.1	13
TMCLKL	HY/2012/07	02-05-2015	Mid-Flood	IS8	17:45	Surface	1	2	25.9	8.06	28	7.28	8.08	11.3
TMCLKL	HY/2012/07	02-05-2015	Mid-Flood	IS8	17:45	Middle	2	1						
TMCLKL	HY/2012/07	02-05-2015	Mid-Flood	IS8	17:45	Middle	2	2						
TMCLKL	HY/2012/07	02-05-2015	Mid-Flood	IS8	17:45	Bottom	3	1	25.8	8.1	28.2	7.09	9.16	11.9
TMCLKL	HY/2012/07	02-05-2015	Mid-Flood	IS8	17:45	Bottom	3	2	25.7	8.12	28.1	7.13	9.11	13.7
TMCLKL	HY/2012/07	02-05-2015	Mid-Flood	IS(Mf)16	18:10	Surface	1	1	26	8.01	28.2	7.1	7.7	11.6
TMCLKL	HY/2012/07	02-05-2015	Mid-Flood	IS(Mf)16	18:10	Surface	1	2	26	8.03	28.2	7.12	7.68	10.8
TMCLKL	HY/2012/07	02-05-2015	Mid-Flood	IS(Mf)16	18:10	Middle	2	1	25.8	8.04	28.3	7.06	8.01	12
TMCLKL	HY/2012/07	02-05-2015	Mid-Flood	IS(Mf)16	18:10	Middle	2	2	25.6	8.04	28.2	7.02	7.98	10.4
TMCLKL	HY/2012/07	02-05-2015	Mid-Flood	IS(Mf)16	18:10	Bottom	3	1	25.4	8.09	28.4	6.94	8.08	11.3
TMCLKL	HY/2012/07	02-05-2015	Mid-Flood	IS(Mf)16	18:10	Bottom	3	2	25.5	8.12	28.4	6.9	8.12	10.6
TMCLKL	HY/2012/07	02-05-2015	Mid-Flood	IS(Mf)9	18:30	Surface	1	1	26	7.96	28	7.01	8.08	11.3
TMCLKL	HY/2012/07	02-05-2015	Mid-Flood	IS(Mf)9	18:30	Surface	1	2	26	7.96	28	7.04	8.06	11.3
TMCLKL	HY/2012/07	02-05-2015	Mid-Flood	IS(Mf)9	18:30	Middle	2	1						
TMCLKL	HY/2012/07	02-05-2015	Mid-Flood	IS(Mf)9	18:30	Middle	2	2						
TMCLKL	HY/2012/07	02-05-2015	Mid-Flood	IS(Mf)9	18:30	Bottom	3	1	25.6	8.12	28.3	6.81	8.16	12.2
TMCLKL	HY/2012/07	02-05-2015	Mid-Flood	IS(Mf)9	18:30	Bottom	3	2	25.6	8.1	28.3	6.79	8.14	9.8
TMCLKL	HY/2012/07	02-05-2015	Mid-Flood	CS(Mf)3	19:05	Surface	1	1	26	8.12	28.2	7.2	7.9	12.6

Project	Works	Date (yyyy-mm-dd)	Tide	Stat	Start Time	Level	Lev_Cod	Replicate	Temp_v	pH_v	Sal_v	DO_v	Turb_v	SS_v
TMCLKL	HY/2012/07	02-05-2015	Mid-Flood	CS(Mf)3	19:05	Surface	1	2	26	8.12	28.2	7.18	7.92	11.9
TMCLKL	HY/2012/07	02-05-2015	Mid-Flood	CS(Mf)3	19:05	Middle	2	1	25.8	7.95	28.3	7.09	8.08	12.9
TMCLKL	HY/2012/07	02-05-2015	Mid-Flood	CS(Mf)3	19:05	Middle	2	2	25.8	7.94	28.3	7.11	8.1	11.3
TMCLKL	HY/2012/07	02-05-2015	Mid-Flood	CS(Mf)3	19:05	Bottom	3	1	25.6	7.82	28.4	7.01	8.31	10
TMCLKL	HY/2012/07	02-05-2015	Mid-Flood	CS(Mf)3	19:05	Bottom	3	2	25.6	7.82	28.5	7.04	8.28	12.4
TMCLKL	HY/2012/07	02-05-2015	Mid-Ebb	CS(Mf)3	11:26	Surface	1	1	26.1	8.14	28.1	7.16	7.94	9.5
TMCLKL	HY/2012/07	02-05-2015	Mid-Ebb	CS(Mf)3	11:26	Surface	1	2	26	8.12	28.2	7.18	7.96	10.4
TMCLKL	HY/2012/07	02-05-2015	Mid-Ebb	CS(Mf)3	11:26	Middle	2	1	25.9	7.93	28.3	7.04	8.13	12.2
TMCLKL	HY/2012/07	02-05-2015	Mid-Ebb	CS(Mf)3	11:26	Middle	2	2	25.8	7.95	28.3	7.02	8.11	9.7
TMCLKL	HY/2012/07	02-05-2015	Mid-Ebb	CS(Mf)3	11:26	Bottom	3	1	25.7	7.8	28.4	6.92	8.36	11.7
TMCLKL	HY/2012/07	02-05-2015	Mid-Ebb	CS(Mf)3	11:26	Bottom	3	2	25.6	7.82	28.5	6.9	8.34	10
TMCLKL	HY/2012/07	02-05-2015	Mid-Ebb	SR4a	13:08	Surface	1	1	26.1	8.09	28	7.31	7.06	9.9
TMCLKL	HY/2012/07	02-05-2015	Mid-Ebb	SR4a	13:08	Surface	1	2	26.1	8.11	28.1	7.29	7.08	9.2
TMCLKL	HY/2012/07	02-05-2015	Mid-Ebb	SR4a	13:08	Middle	2	1						
TMCLKL	HY/2012/07	02-05-2015	Mid-Ebb	SR4a	13:08	Middle	2	2						
TMCLKL	HY/2012/07	02-05-2015	Mid-Ebb	SR4a	13:08	Bottom	3	1	25.9	8.21	28.2	7.16	7.14	8.6
TMCLKL	HY/2012/07	02-05-2015	Mid-Ebb	SR4a	13:08	Bottom	3	2	25.8	8.23	28.3	7.14	7.16	10.7
TMCLKL	HY/2012/07	02-05-2015	Mid-Ebb	SR4	12:53	Surface	1	1	26.1	7.83	28.1	7.16	7.62	10.7
TMCLKL	HY/2012/07	02-05-2015	Mid-Ebb	SR4	12:53	Surface	1	2	26	7.85	28.2	7.14	7.64	10.7
TMCLKL	HY/2012/07	02-05-2015	Mid-Ebb	SR4	12:53	Middle	2	1						
TMCLKL	HY/2012/07	02-05-2015	Mid-Ebb	SR4	12:53	Middle	2	2						
TMCLKL	HY/2012/07	02-05-2015	Mid-Ebb	SR4	12:53	Bottom	3	1	25.9	8	28.3	6.92	8.03	11.2
TMCLKL	HY/2012/07	02-05-2015	Mid-Ebb	SR4	12:53	Bottom	3	2	25.8	8.02	28.3	6.49	8.05	12.9
TMCLKL	HY/2012/07	02-05-2015	Mid-Ebb	IS8	12:32	Surface	1	1	26.1	8.06	27.9	7.2	8.16	11.4
TMCLKL	HY/2012/07	02-05-2015	Mid-Ebb	IS8	12:32	Surface	1	2	26.1	8.08	28	7.22	8.18	9.8
TMCLKL	HY/2012/07	02-05-2015	Mid-Ebb	IS8	12:32	Middle	2	1						
TMCLKL	HY/2012/07	02-05-2015	Mid-Ebb	IS8	12:32	Middle	2	2						
TMCLKL	HY/2012/07	02-05-2015	Mid-Ebb	IS8	12:32	Bottom	3	1	25.9	8.11	28.1	7	9.23	14.8
TMCLKL	HY/2012/07	02-05-2015	Mid-Ebb	IS8	12:32	Bottom	3	2	25.9	8.13	28.2	7.02	9.21	11.1
TMCLKL	HY/2012/07	02-05-2015	Mid-Ebb	IS(Mf)16	12:10	Surface	1	1	26	7.94	28.1	7.06	7.74	10.8
TMCLKL	HY/2012/07	02-05-2015	Mid-Ebb	IS(Mf)16	12:10	Surface	1	2	25.9	7.96	28.2	7.08	7.76	10.9
TMCLKL	HY/2012/07	02-05-2015	Mid-Ebb	IS(Mf)16	12:10	Middle	2	1	25.8	8	28.3	6.94	8.03	10.4
TMCLKL	HY/2012/07	02-05-2015	Mid-Ebb	IS(Mf)16	12:10	Middle	2	2	25.7	8.02	28.3	6.92	8.05	12.1
TMCLKL	HY/2012/07	02-05-2015	Mid-Ebb	IS(Mf)16	12:10	Bottom	3	1	25.6	8.17	28.4	6.8	8.16	11.4
TMCLKL	HY/2012/07	02-05-2015	Mid-Ebb	IS(Mf)16	12:10	Bottom	3	2	25.5	8.19	28.4	6.78	8.18	9.8
TMCLKL	HY/2012/07	02-05-2015	Mid-Ebb	IS(Mf)9	11:48	Surface	1	1	26	7.94	28	6.94	8.13	12.2
TMCLKL	HY/2012/07	02-05-2015	Mid-Ebb	IS(Mf)9	11:48	Surface	1	2	25.9	7.96	28.1	6.96	8.15	11.4

Project	Works	Date (yyyy-mm-dd)	Tide	Stat	Start Time	Level	Lev_Cod	Replicate	Temp_v	pH_v	Sal_v	DO_v	Turb_v	SS_v
TMCLKL	HY/2012/07	02-05-2015	Mid-Ebb	IS(Mf)9	11:48	Middle	2	1						
TMCLKL	HY/2012/07	02-05-2015	Mid-Ebb	IS(Mf)9	11:48	Middle	2	2						
TMCLKL	HY/2012/07	02-05-2015	Mid-Ebb	IS(Mf)9	11:48	Bottom	3	1	25.7	8.13	28.2	6.75	8.21	13.1
TMCLKL	HY/2012/07	02-05-2015	Mid-Ebb	IS(Mf)9	11:48	Bottom	3	2	25.6	8.11	28.3	6.77	8.23	11.5
TMCLKL	HY/2012/07	02-05-2015	Mid-Ebb	CS(Mf)5	13:21	Surface	1	1	26.1	7.93	27.9	7.26	6.34	9.5
TMCLKL	HY/2012/07	02-05-2015	Mid-Ebb	CS(Mf)5	13:21	Surface	1	2	26	7.95	27.9	7.28	6.36	10.4
TMCLKL	HY/2012/07	02-05-2015	Mid-Ebb	CS(Mf)5	13:21	Middle	2	1	25.9	8.06	28	7.13	7.91	12.2
TMCLKL	HY/2012/07	02-05-2015	Mid-Ebb	CS(Mf)5	13:21	Middle	2	2	25.8	8.08	28.1	7.12	7.93	9.7
TMCLKL	HY/2012/07	02-05-2015	Mid-Ebb	CS(Mf)5	13:21	Bottom	3	1	25.7	8.13	28.2	6.94	8.99	11.7
TMCLKL	HY/2012/07	02-05-2015	Mid-Ebb	CS(Mf)5	13:21	Bottom	3	2	25.7	8.11	28.3	6.96	9.01	10
TMCLKL	HY/2012/07	05-05-2015	Mid-Flood	CS(Mf)5	18:48	Surface	1	1	26.1	8.13	28	7.26	6.32	9.5
TMCLKL	HY/2012/07	05-05-2015	Mid-Flood	CS(Mf)5	18:48	Surface	1	2	26	8.11	28.1	7.24	6.34	10.1
TMCLKL	HY/2012/07	05-05-2015	Mid-Flood	CS(Mf)5	18:48	Middle	2	1	25.9	7.96	28.2	7.1	7.12	9.3
TMCLKL	HY/2012/07	05-05-2015	Mid-Flood	CS(Mf)5	18:48	Middle	2	2	25.8	7.94	28.3	7.12	7.14	10.7
TMCLKL	HY/2012/07	05-05-2015	Mid-Flood	CS(Mf)5	18:48	Bottom	3	1	25.7	8	28.4	6.93	7.29	10.2
TMCLKL	HY/2012/07	05-05-2015	Mid-Flood	CS(Mf)5	18:48	Bottom	3	2	25.7	8.02	28.5	6.95	7.31	10.2
TMCLKL	HY/2012/07	05-05-2015	Mid-Flood	SR4a	19:03	Surface	1	1	25.8	7.92	28.1	7.3	6.74	10.1
TMCLKL	HY/2012/07	05-05-2015	Mid-Flood	SR4a	19:03	Surface	1	2	25.9	7.94	28.2	7.33	6.76	8.8
TMCLKL	HY/2012/07	05-05-2015	Mid-Flood	SR4a	19:03	Middle	2	1						
TMCLKL	HY/2012/07	05-05-2015	Mid-Flood	SR4a	19:03	Middle	2	2						
TMCLKL	HY/2012/07	05-05-2015	Mid-Flood	SR4a	19:03	Bottom	3	1	25.7	8.16	28.3	7.15	7.06	9.2
TMCLKL	HY/2012/07	05-05-2015	Mid-Flood	SR4a	19:03	Bottom	3	2	25.6	8.18	28.3	7.13	7.08	9.2
TMCLKL	HY/2012/07	05-05-2015	Mid-Flood	SR4	19:18	Surface	1	1	26	7.83	28	7.73	7.23	9.4
TMCLKL	HY/2012/07	05-05-2015	Mid-Flood	SR4	19:18	Surface	1	2	25.9	7.81	28.1	7.71	7.25	9.4
TMCLKL	HY/2012/07	05-05-2015	Mid-Flood	SR4	19:18	Middle	2	1						
TMCLKL	HY/2012/07	05-05-2015	Mid-Flood	SR4	19:18	Middle	2	2						
TMCLKL	HY/2012/07	05-05-2015	Mid-Flood	SR4	19:18	Bottom	3	1	25.8	8.06	28.3	7.45	7.46	11.9
TMCLKL	HY/2012/07	05-05-2015	Mid-Flood	SR4	19:18	Bottom	3	2	25.7	8.08	28.2	7.47	7.48	11.2
TMCLKL	HY/2012/07	05-05-2015	Mid-Flood	IS8	19:33	Surface	1	1	26.1	8.06	28.1	7.46	6.93	8.3
TMCLKL	HY/2012/07	05-05-2015	Mid-Flood	IS8	19:33	Surface	1	2	26	8.08	28.2	7.48	6.95	8.1
TMCLKL	HY/2012/07	05-05-2015	Mid-Flood	IS8	19:33	Middle	2	1						
TMCLKL	HY/2012/07	05-05-2015	Mid-Flood	IS8	19:33	Middle	2	2						
TMCLKL	HY/2012/07	05-05-2015	Mid-Flood	IS8	19:33	Bottom	3	1	25.9	8.13	28.3	7.22	7.24	10.9
TMCLKL	HY/2012/07	05-05-2015	Mid-Flood	IS8	19:33	Bottom	3	2	25.8	8.15	28.4	7.2	7.26	11.6
TMCLKL	HY/2012/07	05-05-2015	Mid-Flood	IS(Mf)16	19:48	Surface	1	1	25.9	7.94	28	7.3	7.43	9.7
TMCLKL	HY/2012/07	05-05-2015	Mid-Flood	IS(Mf)16	19:48	Surface	1	2	25.8	7.92	27.9	7.28	7.45	9.7
TMCLKL	HY/2012/07	05-05-2015	Mid-Flood	IS(Mf)16	19:48	Middle	2	1	25.7	8.13	28.1	7.13	8.12	11.4

Project	Works	Date (yyyy-mm-dd)	Tide	Stat	Start Time	Level	Lev_Cod	Replicate	Temp_v	pH_v	Sal_v	DO_v	Turb_v	SS_v
TMCLKL	HY/2012/07	05-05-2015	Mid-Flood	IS(Mf)16	19:48	Middle	2	2	25.7	8.15	28.2	7.11	8.11	11.7
TMCLKL	HY/2012/07	05-05-2015	Mid-Flood	IS(Mf)16	19:48	Bottom	3	1	25.5	7.81	28.4	7.04	7.3	10.2
TMCLKL	HY/2012/07	05-05-2015	Mid-Flood	IS(Mf)16	19:48	Bottom	3	2	25.6	7.83	28.5	7.06	7.28	10.9
TMCLKL	HY/2012/07	05-05-2015	Mid-Flood	IS(Mf)9	20:03	Surface	1	1	25.9	7.83	28.1	6.94	7.94	11.1
TMCLKL	HY/2012/07	05-05-2015	Mid-Flood	IS(Mf)9	20:03	Surface	1	2	26	7.85	28.2	6.96	7.92	11.9
TMCLKL	HY/2012/07	05-05-2015	Mid-Flood	IS(Mf)9	20:03	Middle	2	1						
TMCLKL	HY/2012/07	05-05-2015	Mid-Flood	IS(Mf)9	20:03	Middle	2	2						
TMCLKL	HY/2012/07	05-05-2015	Mid-Flood	IS(Mf)9	20:03	Bottom	3	1	25.8	8.01	28.3	7.13	8.04	11.6
TMCLKL	HY/2012/07	05-05-2015	Mid-Flood	IS(Mf)9	20:03	Bottom	3	2	25.7	8.03	28.3	7.15	8.06	11.3
TMCLKL	HY/2012/07	05-05-2015	Mid-Flood	CS(Mf)3	20:13	Surface	1	1	26.1	8.13	27.9	7.14	8.13	9
TMCLKL	HY/2012/07	05-05-2015	Mid-Flood	CS(Mf)3	20:13	Surface	1	2	26	8.11	28	7.16	8.51	9.8
TMCLKL	HY/2012/07	05-05-2015	Mid-Flood	CS(Mf)3	20:13	Middle	2	1	25.9	7.94	28.1	7	8.26	11.6
TMCLKL	HY/2012/07	05-05-2015	Mid-Flood	CS(Mf)3	20:13	Middle	2	2	25.8	7.96	28.2	6.98	8.24	11.5
TMCLKL	HY/2012/07	05-05-2015	Mid-Flood	CS(Mf)3	20:13	Bottom	3	1	25.7	8	28.3	6.73	8.31	10.8
TMCLKL	HY/2012/07	05-05-2015	Mid-Flood	CS(Mf)3	20:13	Bottom	3	2	25.8	8.02	28.4	6.75	8.33	8
TMCLKL	HY/2012/07	05-05-2015	Mid-Ebb	CS(Mf)3	12:29	Surface	1	1	26.2	8.05	28.2	7.07	8	9.2
TMCLKL	HY/2012/07	05-05-2015	Mid-Ebb	CS(Mf)3	12:29	Surface	1	2	26.1	8.03	28.3	7.09	8.02	9.6
TMCLKL	HY/2012/07	05-05-2015	Mid-Ebb	CS(Mf)3	12:29	Middle	2	1	26	7.84	28.4	6.95	8.19	10.6
TMCLKL	HY/2012/07	05-05-2015	Mid-Ebb	CS(Mf)3	12:29	Middle	2	2	25.9	7.86	28.3	6.93	8.17	11.4
TMCLKL	HY/2012/07	05-05-2015	Mid-Ebb	CS(Mf)3	12:29	Bottom	3	1	25.7	7.71	28.5	6.83	8.42	11.8
TMCLKL	HY/2012/07	05-05-2015	Mid-Ebb	CS(Mf)3	12:29	Bottom	3	2	25.8	7.73	28.6	6.81	8.4	10.1
TMCLKL	HY/2012/07	05-05-2015	Mid-Ebb	SR4a	14:39	Surface	1	1	26.2	8	28.1	7.22	7.12	9.3
TMCLKL	HY/2012/07	05-05-2015	Mid-Ebb	SR4a	14:39	Surface	1	2	26.2	8.02	28.2	7.2	7.14	9.3
TMCLKL	HY/2012/07	05-05-2015	Mid-Ebb	SR4a	14:39	Middle	2	1						
TMCLKL	HY/2012/07	05-05-2015	Mid-Ebb	SR4a	14:39	Middle	2	2						
TMCLKL	HY/2012/07	05-05-2015	Mid-Ebb	SR4a	14:39	Bottom	3	1	26	8.12	28.4	7.07	7.2	10.8
TMCLKL	HY/2012/07	05-05-2015	Mid-Ebb	SR4a	14:39	Bottom	3	2	25.9	8.14	28.4	7.05	7.22	9.4
TMCLKL	HY/2012/07	05-05-2015	Mid-Ebb	SR4	14:13	Surface	1	1	26.2	7.74	28.2	7.07	7.68	10.8
TMCLKL	HY/2012/07	05-05-2015	Mid-Ebb	SR4	14:13	Surface	1	2	26.1	7.76	28.3	7.05	7.7	10.8
TMCLKL	HY/2012/07	05-05-2015	Mid-Ebb	SR4	14:13	Middle	2	1						
TMCLKL	HY/2012/07	05-05-2015	Mid-Ebb	SR4	14:13	Middle	2	2						
TMCLKL	HY/2012/07	05-05-2015	Mid-Ebb	SR4	14:13	Bottom	3	1	26	7.91	28.4	6.83	8.09	11.3
TMCLKL	HY/2012/07	05-05-2015	Mid-Ebb	SR4	14:13	Bottom	3	2	25.9	7.93	28.3	6.85	8.11	12.2
TMCLKL	HY/2012/07	05-05-2015	Mid-Ebb	IS8	13:47	Surface	1	1	26.2	7.97	28	7.11	8.22	13.2
TMCLKL	HY/2012/07	05-05-2015	Mid-Ebb	IS8	13:47	Surface	1	2	26.1	7.99	28.1	7.13	8.24	11.5
TMCLKL	HY/2012/07	05-05-2015	Mid-Ebb	IS8	13:47	Middle	2	1						
TMCLKL	HY/2012/07	05-05-2015	Mid-Ebb	IS8	13:47	Middle	2	2						

Project	Works	Date (yyyy-mm-dd)	Tide	Stat	Start Time	Level	Lev_Cod	Replicate	Temp_v	pH_v	Sal_v	DO_v	Turb_v	SS_v
TMCLKL	HY/2012/07	05-05-2015	Mid-Ebb	IS8	13:47	Bottom	3	1	26	8.02	28.2	6.91	9.29	13
TMCLKL	HY/2012/07	05-05-2015	Mid-Ebb	IS8	13:47	Bottom	3	2	26	8.04	28.3	6.93	9.27	13
TMCLKL	HY/2012/07	05-05-2015	Mid-Ebb	IS(Mf)16	13:21	Surface	1	1	26.1	7.85	28.3	6.97	7.8	10.1
TMCLKL	HY/2012/07	05-05-2015	Mid-Ebb	IS(Mf)16	13:21	Surface	1	2	26	7.87	28.2	6.99	7.82	12.5
TMCLKL	HY/2012/07	05-05-2015	Mid-Ebb	IS(Mf)16	13:21	Middle	2	1	25.9	7.91	28.3	6.85	8.06	12.1
TMCLKL	HY/2012/07	05-05-2015	Mid-Ebb	IS(Mf)16	13:21	Middle	2	2	25.8	7.93	28.4	6.83	8.11	12.2
TMCLKL	HY/2012/07	05-05-2015	Mid-Ebb	IS(Mf)16	13:21	Bottom	3	1	25.7	8.08	28.4	6.71	8.22	12.9
TMCLKL	HY/2012/07	05-05-2015	Mid-Ebb	IS(Mf)16	13:21	Bottom	3	2	25.6	8.1	28.5	6.69	8.24	12.4
TMCLKL	HY/2012/07	05-05-2015	Mid-Ebb	IS(Mf)9	12:55	Surface	1	1	26.1	7.85	28.1	6.85	8.19	9.3
TMCLKL	HY/2012/07	05-05-2015	Mid-Ebb	IS(Mf)9	12:55	Surface	1	2	26	7.87	28.2	6.87	8.21	9.9
TMCLKL	HY/2012/07	05-05-2015	Mid-Ebb	IS(Mf)9	12:55	Middle	2	1						
TMCLKL	HY/2012/07	05-05-2015	Mid-Ebb	IS(Mf)9	12:55	Middle	2	2						
TMCLKL	HY/2012/07	05-05-2015	Mid-Ebb	IS(Mf)9	12:55	Bottom	3	1	25.7	8.04	28.4	6.66	8.27	10.8
TMCLKL	HY/2012/07	05-05-2015	Mid-Ebb	IS(Mf)9	12:55	Bottom	3	2	25.8	8.02	28.3	6.68	8.29	9.9
TMCLKL	HY/2012/07	05-05-2015	Mid-Ebb	CS(Mf)5	15:09	Surface	1	1	26.2	7.84	27.9	7.17	6.4	9
TMCLKL	HY/2012/07	05-05-2015	Mid-Ebb	CS(Mf)5	15:09	Surface	1	2	26.1	7.86	28	7.19	6.42	9
TMCLKL	HY/2012/07	05-05-2015	Mid-Ebb	CS(Mf)5	15:09	Middle	2	1	25.9	7.97	28.1	7.04	7.97	11.2
TMCLKL	HY/2012/07	05-05-2015	Mid-Ebb	CS(Mf)5	15:09	Middle	2	2	26	7.99	28.2	7.02	7.99	10.4
TMCLKL	HY/2012/07	05-05-2015	Mid-Ebb	CS(Mf)5	15:09	Bottom	3	1	25.8	8.04	28.4	6.85	9.05	14.5
TMCLKL	HY/2012/07	05-05-2015	Mid-Ebb	CS(Mf)5	15:09	Bottom	3	2	25.7	8.02	28.3	6.87	9.07	13.6
TMCLKL	HY/2012/07	07-05-2015	Mid-Flood	CS(Mf)5	8:15	Surface	1	1	26.2	8.19	20.1	6.94	6.35	7.6
TMCLKL	HY/2012/07	07-05-2015	Mid-Flood	CS(Mf)5	8:15	Surface	1	2	26.2	8.2	20.1	6.91	6.3	7.5
TMCLKL	HY/2012/07	07-05-2015	Mid-Flood	CS(Mf)5	8:15	Middle	2	1	26.4	8.21	20.3	6.74	6.48	9.1
TMCLKL	HY/2012/07	07-05-2015	Mid-Flood	CS(Mf)5	8:15	Middle	2	2	26.4	8.21	20.4	6.7	6.44	9
TMCLKL	HY/2012/07	07-05-2015	Mid-Flood	CS(Mf)5	8:15	Bottom	3	1	26.5	8.23	20.5	6.41	6.91	10.4
TMCLKL	HY/2012/07	07-05-2015	Mid-Flood	CS(Mf)5	8:15	Bottom	3	2	26.5	8.24	20.6	6.38	7.04	10.6
TMCLKL	HY/2012/07	07-05-2015	Mid-Flood	SR4a	8:30	Surface	1	1	26.1	8.15	20.2	6.69	5.41	8.1
TMCLKL	HY/2012/07	07-05-2015	Mid-Flood	SR4a	8:30	Surface	1	2	26.1	8.15	20.3	6.72	5.38	8.5
TMCLKL	HY/2012/07	07-05-2015	Mid-Flood	SR4a	8:30	Middle	2	1						
TMCLKL	HY/2012/07	07-05-2015	Mid-Flood	SR4a	8:30	Middle	2	2						
TMCLKL	HY/2012/07	07-05-2015	Mid-Flood	SR4a	8:30	Bottom	3	1	26	8.16	20.3	6.34	5.89	8.8
TMCLKL	HY/2012/07	07-05-2015	Mid-Flood	SR4a	8:30	Bottom	3	2	25.9	8.17	20.3	6.41	5.94	7.1
TMCLKL	HY/2012/07	07-05-2015	Mid-Flood	SR4	8:42	Surface	1	1	26.1	8.15	20.4	6.69	5.3	6.9
TMCLKL	HY/2012/07	07-05-2015	Mid-Flood	SR4	8:42	Surface	1	2	26	8.16	20.5	6.61	5.28	6.9
TMCLKL	HY/2012/07	07-05-2015	Mid-Flood	SR4	8:42	Middle	2	1						
TMCLKL	HY/2012/07	07-05-2015	Mid-Flood	SR4	8:42	Middle	2	2						
TMCLKL	HY/2012/07	07-05-2015	Mid-Flood	SR4	8:42	Bottom	3	1	26.2	8.16	20.3	6.55	6.24	10

Project	Works	Date (yyyy-mm-dd)	Tide	Stat	Start Time	Level	Lev_Cod	Replicate	Temp_v	pH_v	Sal_v	DO_v	Turb_v	SS_v
TMCLKL	HY/2012/07	07-05-2015	Mid-Flood	SR4	8:42	Bottom	3	2	26.2	8.16	20.3	6.51	6.31	9.5
TMCLKL	HY/2012/07	07-05-2015	Mid-Flood	IS8	8:57	Surface	1	1	26.2	8.11	20.4	6.84	6.15	8.6
TMCLKL	HY/2012/07	07-05-2015	Mid-Flood	IS8	8:57	Surface	1	2	26.2	8.13	20.4	6.79	6.18	7.4
TMCLKL	HY/2012/07	07-05-2015	Mid-Flood	IS8	8:57	Middle	2	1						
TMCLKL	HY/2012/07	07-05-2015	Mid-Flood	IS8	8:57	Middle	2	2						
TMCLKL	HY/2012/07	07-05-2015	Mid-Flood	IS8	8:57	Bottom	3	1	26.4	8.15	20.6	6.69	6.24	7.5
TMCLKL	HY/2012/07	07-05-2015	Mid-Flood	IS8	8:57	Bottom	3	2	26.3	8.15	20.5	6.64	6.19	9.3
TMCLKL	HY/2012/07	07-05-2015	Mid-Flood	IS(Mf)16	9:15	Surface	1	1	26.3	8.15	20.3	6.59	5.35	8
TMCLKL	HY/2012/07	07-05-2015	Mid-Flood	IS(Mf)16	9:15	Surface	1	2	26.3	8.2	20.3	6.54	5.4	7
TMCLKL	HY/2012/07	07-05-2015	Mid-Flood	IS(Mf)16	9:15	Middle	2	1	26.5	8.2	20.4	6.4	5.4	8.1
TMCLKL	HY/2012/07	07-05-2015	Mid-Flood	IS(Mf)16	9:15	Middle	2	2	26.4	8.21	20.3	6.37	5.38	7.5
TMCLKL	HY/2012/07	07-05-2015	Mid-Flood	IS(Mf)16	9:15	Bottom	3	1	26.7	8.18	20.6	6.22	6.38	9.6
TMCLKL	HY/2012/07	07-05-2015	Mid-Flood	IS(Mf)16	9:15	Bottom	3	2	26.6	8.2	20.5	6.2	6.42	7.7
TMCLKL	HY/2012/07	07-05-2015	Mid-Flood	IS(Mf)9	9:29	Surface	1	1	26.3	8.18	20.2	6.81	4.88	7.3
TMCLKL	HY/2012/07	07-05-2015	Mid-Flood	IS(Mf)9	9:29	Surface	1	2	26.3	8.15	20.1	6.79	4.85	7.8
TMCLKL	HY/2012/07	07-05-2015	Mid-Flood	IS(Mf)9	9:29	Middle	2	1						
TMCLKL	HY/2012/07	07-05-2015	Mid-Flood	IS(Mf)9	9:29	Middle	2	2						
TMCLKL	HY/2012/07	07-05-2015	Mid-Flood	IS(Mf)9	9:29	Bottom	3	1	26.4	8.16	20.4	6.61	5.28	7.9
TMCLKL	HY/2012/07	07-05-2015	Mid-Flood	IS(Mf)9	9:29	Bottom	3	2	26.4	8.15	20.4	6.59	5.24	7.3
TMCLKL	HY/2012/07	07-05-2015	Mid-Flood	CS(Mf)3	9:50	Surface	1	1	26.1	8.15	20.3	6.52	4.7	7.1
TMCLKL	HY/2012/07	07-05-2015	Mid-Flood	CS(Mf)3	9:50	Surface	1	2	26.1	8.13	20.3	6.55	4.78	6.7
TMCLKL	HY/2012/07	07-05-2015	Mid-Flood	CS(Mf)3	9:50	Middle	2	1	26.3	8.19	20.4	6.41	5.29	6.3
TMCLKL	HY/2012/07	07-05-2015	Mid-Flood	CS(Mf)3	9:50	Middle	2	2	26.3	8.2	20.5	6.38	5.21	7.8
TMCLKL	HY/2012/07	07-05-2015	Mid-Flood	CS(Mf)3	9:50	Bottom	3	1	26.4	8.22	20.7	6.28	7.74	10.1
TMCLKL	HY/2012/07	07-05-2015	Mid-Flood	CS(Mf)3	9:50	Bottom	3	2	26.4	8.23	20.6	6.3	7.68	10.8
TMCLKL	HY/2012/07	07-05-2015	Mid-Ebb	CS(Mf)3	13:12	Surface	1	1	26.2	8.17	20.4	6.45	4.74	7.1
TMCLKL	HY/2012/07	07-05-2015	Mid-Ebb	CS(Mf)3	13:12	Surface	1	2	26.3	8.18	20.3	6.48	4.81	6.7
TMCLKL	HY/2012/07	07-05-2015	Mid-Ebb	CS(Mf)3	13:12	Middle	2	1	26.4	8.2	20.5	6.32	5.31	7.4
TMCLKL	HY/2012/07	07-05-2015	Mid-Ebb	CS(Mf)3	13:12	Middle	2	2	26.4	8.22	20.6	6.28	5.33	7.5
TMCLKL	HY/2012/07	07-05-2015	Mid-Ebb	CS(Mf)3	13:12	Bottom	3	1	26.6	8.25	20.8	6.2	7.81	10.9
TMCLKL	HY/2012/07	07-05-2015	Mid-Ebb	CS(Mf)3	13:12	Bottom	3	2	26.5	8.26	20.9	6.18	7.74	11.6
TMCLKL	HY/2012/07	07-05-2015	Mid-Ebb	SR4a	15:16	Surface	1	1	26.1	8.12	20.2	6.61	5.4	6.5
TMCLKL	HY/2012/07	07-05-2015	Mid-Ebb	SR4a	15:16	Surface	1	2	26.2	8.15	20.2	6.65	5.38	6.6
TMCLKL	HY/2012/07	07-05-2015	Mid-Ebb	SR4a	15:16	Middle	2	1						
TMCLKL	HY/2012/07	07-05-2015	Mid-Ebb	SR4a	15:16	Middle	2	2						
TMCLKL	HY/2012/07	07-05-2015	Mid-Ebb	SR4a	15:16	Bottom	3	1	26.3	8.16	20.4	6.3	6.04	9.1
TMCLKL	HY/2012/07	07-05-2015	Mid-Ebb	SR4a	15:16	Bottom	3	2	26.2	8.18	20.3	6.37	6.09	9.7

Project	Works	Date (yyyy-mm-dd)	Tide	Stat	Start Time	Level	Lev_Cod	Replicate	Temp_v	pH_v	Sal_v	DO_v	Turb_v	SS_v
TMCLKL	HY/2012/07	07-05-2015	Mid-Ebb	SR4	15:01	Surface	1	1	26.1	8.17	20.3	6.63	5.32	8.5
TMCLKL	HY/2012/07	07-05-2015	Mid-Ebb	SR4	15:01	Surface	1	2	26.2	8.14	20.4	6.59	5.36	7.5
TMCLKL	HY/2012/07	07-05-2015	Mid-Ebb	SR4	15:01	Middle	2	1						
TMCLKL	HY/2012/07	07-05-2015	Mid-Ebb	SR4	15:01	Middle	2	2						
TMCLKL	HY/2012/07	07-05-2015	Mid-Ebb	SR4	15:01	Bottom	3	1	26.3	8.19	20.4	6.47	6.38	8.3
TMCLKL	HY/2012/07	07-05-2015	Mid-Ebb	SR4	15:01	Bottom	3	2	26.4	8.18	20.5	6.45	6.42	9
TMCLKL	HY/2012/07	07-05-2015	Mid-Ebb	IS8	14:38	Surface	1	1	26.2	8.13	20.4	6.78	6.21	9.3
TMCLKL	HY/2012/07	07-05-2015	Mid-Ebb	IS8	14:38	Surface	1	2	26.3	8.14	20.4	6.7	6.24	10
TMCLKL	HY/2012/07	07-05-2015	Mid-Ebb	IS8	14:38	Middle	2	1						
TMCLKL	HY/2012/07	07-05-2015	Mid-Ebb	IS8	14:38	Middle	2	2						
TMCLKL	HY/2012/07	07-05-2015	Mid-Ebb	IS8	14:38	Bottom	3	1	26.5	8.18	20.6	6.54	6.31	8.2
TMCLKL	HY/2012/07	07-05-2015	Mid-Ebb	IS8	14:38	Bottom	3	2	26.4	8.19	20.7	6.59	6.34	8.2
TMCLKL	HY/2012/07	07-05-2015	Mid-Ebb	IS(Mf)16	14:14	Surface	1	1	26.2	8.2	20.2	6.44	5.38	7
TMCLKL	HY/2012/07	07-05-2015	Mid-Ebb	IS(Mf)16	14:14	Surface	1	2	26.3	8.18	20.3	6.49	5.33	8
TMCLKL	HY/2012/07	07-05-2015	Mid-Ebb	IS(Mf)16	14:14	Middle	2	1	26.4	8.22	20.5	6.32	5.42	8.1
TMCLKL	HY/2012/07	07-05-2015	Mid-Ebb	IS(Mf)16	14:14	Middle	2	2	26.5	8.25	20.6	6.3	5.45	7.6
TMCLKL	HY/2012/07	07-05-2015	Mid-Ebb	IS(Mf)16	14:14	Bottom	3	1	26.7	8.16	20.8	6.18	6.51	7.8
TMCLKL	HY/2012/07	07-05-2015	Mid-Ebb	IS(Mf)16	14:14	Bottom	3	2	26.8	8.13	20.6	6.14	6.47	8.4
TMCLKL	HY/2012/07	07-05-2015	Mid-Ebb	IS(Mf)9	13:51	Surface	1	1	26.3	8.2	20.3	6.75	4.93	7.4
TMCLKL	HY/2012/07	07-05-2015	Mid-Ebb	IS(Mf)9	13:51	Surface	1	2	26.2	8.16	20.4	6.71	4.97	6.5
TMCLKL	HY/2012/07	07-05-2015	Mid-Ebb	IS(Mf)9	13:51	Middle	2	1						
TMCLKL	HY/2012/07	07-05-2015	Mid-Ebb	IS(Mf)9	13:51	Middle	2	2						
TMCLKL	HY/2012/07	07-05-2015	Mid-Ebb	IS(Mf)9	13:51	Bottom	3	1	26.4	8.16	20.6	6.52	5.34	8.5
TMCLKL	HY/2012/07	07-05-2015	Mid-Ebb	IS(Mf)9	13:51	Bottom	3	2	26.3	8.19	20.5	6.56	5.36	8
TMCLKL	HY/2012/07	07-05-2015	Mid-Ebb	CS(Mf)5	15:37	Surface	1	1	26.2	8.19	20.1	6.89	6.41	9
TMCLKL	HY/2012/07	07-05-2015	Mid-Ebb	CS(Mf)5	15:37	Surface	1	2	26.3	8.21	20.2	6.82	6.43	9.6
TMCLKL	HY/2012/07	07-05-2015	Mid-Ebb	CS(Mf)5	15:37	Middle	2	1	26.5	8.2	20.4	6.67	6.51	9.1
TMCLKL	HY/2012/07	07-05-2015	Mid-Ebb	CS(Mf)5	15:37	Middle	2	2	26.6	8.21	20.3	6.63	6.56	8.5
TMCLKL	HY/2012/07	07-05-2015	Mid-Ebb	CS(Mf)5	15:37	Bottom	3	1	26.4	8.24	20.6	6.32	7.28	9.5
TMCLKL	HY/2012/07	07-05-2015	Mid-Ebb	CS(Mf)5	15:37	Bottom	3	2	26.5	8.26	20.7	6.3	7.31	10.2
TMCLKL	HY/2012/07	09-05-2015	Mid-Flood	CS(Mf)5	8:17	Surface	1	1	26.1	8.1	20.2	6.95	6.32	7.6
TMCLKL	HY/2012/07	09-05-2015	Mid-Flood	CS(Mf)5	8:17	Surface	1	2	26.2	8.12	20.3	6.88	6.34	7.6
TMCLKL	HY/2012/07	09-05-2015	Mid-Flood	CS(Mf)5	8:17	Middle	2	1	26.5	8.11	20.5	6.73	6.42	9.6
TMCLKL	HY/2012/07	09-05-2015	Mid-Flood	CS(Mf)5	8:17	Middle	2	2	26.4	8.12	20.4	6.69	6.47	9.1
TMCLKL	HY/2012/07	09-05-2015	Mid-Flood	CS(Mf)5	8:17	Bottom	3	1	26.4	8.15	20.7	6.38	7.16	10.7
TMCLKL	HY/2012/07	09-05-2015	Mid-Flood	CS(Mf)5	8:17	Bottom	3	2	26.4	8.17	20.8	6.36	7.22	8.7
TMCLKL	HY/2012/07	09-05-2015	Mid-Flood	SR4a	8:43	Surface	1	1	26.3	8.13	20.3	6.67	5.31	7.4

Project	Works	Date (yyyy-mm-dd)	Tide	Stat	Start Time	Level	Lev_Cod	Replicate	Temp_v	pH_v	Sal_v	DO_v	Turb_v	SS_v
TMCLKL	HY/2012/07	09-05-2015	Mid-Flood	SR4a	8:43	Surface	1	2	26.2	8.06	20.1	6.71	5.29	7.9
TMCLKL	HY/2012/07	09-05-2015	Mid-Flood	SR4a	8:43	Middle	2	1						
TMCLKL	HY/2012/07	09-05-2015	Mid-Flood	SR4a	8:43	Middle	2	2						
TMCLKL	HY/2012/07	09-05-2015	Mid-Flood	SR4a	8:43	Bottom	3	1	26.4	8.07	20.4	6.36	5.95	7.1
TMCLKL	HY/2012/07	09-05-2015	Mid-Flood	SR4a	8:43	Bottom	3	2	26.3	8.09	20.5	6.43	6	8.4
TMCLKL	HY/2012/07	09-05-2015	Mid-Flood	SR4	9:09	Surface	1	1	26.1	8.08	20.4	6.69	5.23	8.4
TMCLKL	HY/2012/07	09-05-2015	Mid-Flood	SR4	9:09	Surface	1	2	26	8.05	20.5	6.65	5.27	6.9
TMCLKL	HY/2012/07	09-05-2015	Mid-Flood	SR4	9:09	Middle	2	1						
TMCLKL	HY/2012/07	09-05-2015	Mid-Flood	SR4	9:09	Middle	2	2						
TMCLKL	HY/2012/07	09-05-2015	Mid-Flood	SR4	9:09	Bottom	3	1	26.3	8.1	20.6	6.53	6.29	10.1
TMCLKL	HY/2012/07	09-05-2015	Mid-Flood	SR4	9:09	Bottom	3	2	26.2	8.09	20.5	6.51	6.33	9.5
TMCLKL	HY/2012/07	09-05-2015	Mid-Flood	IS8	9:35	Surface	1	1	26.2	8.04	20.4	6.84	6.12	9.2
TMCLKL	HY/2012/07	09-05-2015	Mid-Flood	IS8	9:35	Surface	1	2	26.1	8.05	20.5	6.76	6.15	7.4
TMCLKL	HY/2012/07	09-05-2015	Mid-Flood	IS8	9:35	Middle	2	1						
TMCLKL	HY/2012/07	09-05-2015	Mid-Flood	IS8	9:35	Middle	2	2						
TMCLKL	HY/2012/07	09-05-2015	Mid-Flood	IS8	9:35	Bottom	3	1	26.3	8.09	20.7	6.6	6.22	7.5
TMCLKL	HY/2012/07	09-05-2015	Mid-Flood	IS8	9:35	Bottom	3	2	26.4	8.1	20.8	6.65	6.25	8.1
TMCLKL	HY/2012/07	09-05-2015	Mid-Flood	IS(Mf)16	10:01	Surface	1	1	26.4	8.11	20.3	6.5	5.29	6.4
TMCLKL	HY/2012/07	09-05-2015	Mid-Flood	IS(Mf)16	10:01	Surface	1	2	26.3	8.09	20.4	6.55	5.24	7.9
TMCLKL	HY/2012/07	09-05-2015	Mid-Flood	IS(Mf)16	10:01	Middle	2	1	26.4	8.13	20.7	6.38	5.33	8
TMCLKL	HY/2012/07	09-05-2015	Mid-Flood	IS(Mf)16	10:01	Middle	2	2	26.3	8.16	20.6	6.36	5.36	7
TMCLKL	HY/2012/07	09-05-2015	Mid-Flood	IS(Mf)16	10:01	Bottom	3	1	26.7	8.07	20.7	6.24	6.42	7.7
TMCLKL	HY/2012/07	09-05-2015	Mid-Flood	IS(Mf)16	10:01	Bottom	3	2	26.6	8.04	20.8	6.2	6.38	10.2
TMCLKL	HY/2012/07	09-05-2015	Mid-Flood	IS(Mf)9	10:27	Surface	1	1	26.2	8.11	20.4	6.81	4.84	6.8
TMCLKL	HY/2012/07	09-05-2015	Mid-Flood	IS(Mf)9	10:27	Surface	1	2	26.1	8.07	20.5	6.77	4.88	6.8
TMCLKL	HY/2012/07	09-05-2015	Mid-Flood	IS(Mf)9	10:27	Middle	2	1						
TMCLKL	HY/2012/07	09-05-2015	Mid-Flood	IS(Mf)9	10:27	Middle	2	2						
TMCLKL	HY/2012/07	09-05-2015	Mid-Flood	IS(Mf)9	10:27	Bottom	3	1	26.3	8.07	20.6	6.58	5.25	7.9
TMCLKL	HY/2012/07	09-05-2015	Mid-Flood	IS(Mf)9	10:27	Bottom	3	2	26.2	8.1	20.7	6.62	5.27	7.4
TMCLKL	HY/2012/07	09-05-2015	Mid-Flood	CS(Mf)3	10:57	Surface	1	1	26.2	8.08	20.4	6.51	4.65	6.5
TMCLKL	HY/2012/07	09-05-2015	Mid-Flood	CS(Mf)3	10:57	Surface	1	2	26.1	8.09	20.3	6.54	4.72	6.1
TMCLKL	HY/2012/07	09-05-2015	Mid-Flood	CS(Mf)3	10:57	Middle	2	1	26.2	8.11	20.6	6.38	5.22	7.3
TMCLKL	HY/2012/07	09-05-2015	Mid-Flood	CS(Mf)3	10:57	Middle	2	2	26.3	8.13	20.7	6.34	5.24	8.4
TMCLKL	HY/2012/07	09-05-2015	Mid-Flood	CS(Mf)3	10:57	Bottom	3	1	26.4	8.16	20.8	6.26	7.72	10
TMCLKL	HY/2012/07	09-05-2015	Mid-Flood	CS(Mf)3	10:57	Bottom	3	2	26.5	8.17	20.9	6.24	7.65	10
TMCLKL	HY/2012/07	09-05-2015	Mid-Ebb	CS(Mf)3	14:43	Surface	1	1	26.2	8.04	20.4	6.74	4.43	6.2
TMCLKL	HY/2012/07	09-05-2015	Mid-Ebb	CS(Mf)3	14:43	Surface	1	2	26.3	8.07	20.5	6.7	4.51	7.2

Project	Works	Date (yyyy-mm-dd)	Tide	Stat	Start Time	Level	Lev_Cod	Replicate	Temp_v	pH_v	Sal_v	DO_v	Turb_v	SS_v
TMCLKL	HY/2012/07	09-05-2015	Mid-Ebb	CS(Mf)3	14:43	Middle	2	1	26.3	8.09	20.7	6.58	5.9	7.6
TMCLKL	HY/2012/07	09-05-2015	Mid-Ebb	CS(Mf)3	14:43	Middle	2	2	26.3	8.11	20.7	6.55	5.14	8.2
TMCLKL	HY/2012/07	09-05-2015	Mid-Ebb	CS(Mf)3	14:43	Bottom	3	1	26.4	8.14	20.9	6.34	7.43	10.4
TMCLKL	HY/2012/07	09-05-2015	Mid-Ebb	CS(Mf)3	14:43	Bottom	3	2	26.4	8.15	21	6.3	7.36	11
TMCLKL	HY/2012/07	09-05-2015	Mid-Ebb	SR4a	16:33	Surface	1	1	26.3	8.07	20.2	6.83	5.45	7.1
TMCLKL	HY/2012/07	09-05-2015	Mid-Ebb	SR4a	16:33	Surface	1	2	26.4	8.09	20.3	6.85	5.37	7
TMCLKL	HY/2012/07	09-05-2015	Mid-Ebb	SR4a	16:33	Middle	2	1						
TMCLKL	HY/2012/07	09-05-2015	Mid-Ebb	SR4a	16:33	Middle	2	2						
TMCLKL	HY/2012/07	09-05-2015	Mid-Ebb	SR4a	16:33	Bottom	3	1	26.4	8.1	20.4	6.61	6.07	7.3
TMCLKL	HY/2012/07	09-05-2015	Mid-Ebb	SR4a	16:33	Bottom	3	2	26.4	8.12	20.5	6.57	6.15	7.4
TMCLKL	HY/2012/07	09-05-2015	Mid-Ebb	SR4	16:15	Surface	1	1	26.2	8.01	20.5	6.74	5.41	8.7
TMCLKL	HY/2012/07	09-05-2015	Mid-Ebb	SR4	16:15	Surface	1	2	26.3	8.04	20.5	6.77	5.52	8.3
TMCLKL	HY/2012/07	09-05-2015	Mid-Ebb	SR4	16:15	Middle	2	1						
TMCLKL	HY/2012/07	09-05-2015	Mid-Ebb	SR4	16:15	Middle	2	2						
TMCLKL	HY/2012/07	09-05-2015	Mid-Ebb	SR4	16:15	Bottom	3	1	26.3	8.07	20.5	6.61	5.87	8.2
TMCLKL	HY/2012/07	09-05-2015	Mid-Ebb	SR4	16:15	Bottom	3	2	26.4	8.09	20.6	6.59	5.95	9.5
TMCLKL	HY/2012/07	09-05-2015	Mid-Ebb	IS8	15:54	Surface	1	1	26.4	8.07	20.6	6.72	5.76	7.5
TMCLKL	HY/2012/07	09-05-2015	Mid-Ebb	IS8	15:54	Surface	1	2	26.4	8.09	20.5	6.68	5.84	9.3
TMCLKL	HY/2012/07	09-05-2015	Mid-Ebb	IS8	15:54	Middle	2	1						
TMCLKL	HY/2012/07	09-05-2015	Mid-Ebb	IS8	15:54	Middle	2	2						
TMCLKL	HY/2012/07	09-05-2015	Mid-Ebb	IS8	15:54	Bottom	3	1	26.4	8.1	20.6	6.47	6.01	7.8
TMCLKL	HY/2012/07	09-05-2015	Mid-Ebb	IS8	15:54	Bottom	3	2	26.4	8.13	20.7	6.44	5.96	9.5
TMCLKL	HY/2012/07	09-05-2015	Mid-Ebb	IS(Mf)16	15:30	Surface	1	1	26.4	8.13	20.5	6.43	5.07	7.6
TMCLKL	HY/2012/07	09-05-2015	Mid-Ebb	IS(Mf)16	15:30	Surface	1	2	26.5	8.1	20.5	6.4	5.14	8.2
TMCLKL	HY/2012/07	09-05-2015	Mid-Ebb	IS(Mf)16	15:30	Middle	2	1	26.4	8.09	20.7	6.27	5.36	8
TMCLKL	HY/2012/07	09-05-2015	Mid-Ebb	IS(Mf)16	15:30	Middle	2	2	26.4	8.11	20.7	6.24	5.44	7.6
TMCLKL	HY/2012/07	09-05-2015	Mid-Ebb	IS(Mf)16	15:30	Bottom	3	1	26.5	8.07	20.8	6.09	6.09	7.9
TMCLKL	HY/2012/07	09-05-2015	Mid-Ebb	IS(Mf)16	15:30	Bottom	3	2	26.6	8.09	20.9	6.05	6.16	8
TMCLKL	HY/2012/07	09-05-2015	Mid-Ebb	IS(Mf)9	15:09	Surface	1	1	26.3	8.03	20.6	6.94	4.67	7
TMCLKL	HY/2012/07	09-05-2015	Mid-Ebb	IS(Mf)9	15:09	Surface	1	2	26.3	8.05	20.5	6.9	4.6	6
TMCLKL	HY/2012/07	09-05-2015	Mid-Ebb	IS(Mf)9	15:09	Middle	2	1						
TMCLKL	HY/2012/07	09-05-2015	Mid-Ebb	IS(Mf)9	15:09	Middle	2	2						
TMCLKL	HY/2012/07	09-05-2015	Mid-Ebb	IS(Mf)9	15:09	Bottom	3	1	26.3	8.09	20.7	6.71	4.93	5.9
TMCLKL	HY/2012/07	09-05-2015	Mid-Ebb	IS(Mf)9	15:09	Bottom	3	2	26.4	8.11	20.8	6.67	5.04	7.6
TMCLKL	HY/2012/07	09-05-2015	Mid-Ebb	CS(Mf)5	16:58	Surface	1	1	26.4	8.06	20.2	6.69	5.96	7.2
TMCLKL	HY/2012/07	09-05-2015	Mid-Ebb	CS(Mf)5	16:58	Surface	1	2	26.3	8.08	20.2	6.65	6.03	9.1
TMCLKL	HY/2012/07	09-05-2015	Mid-Ebb	CS(Mf)5	16:58	Middle	2	1	26.4	8.09	20.3	6.73	6.24	9.4

Project	Works	Date (yyyy-mm-dd)	Tide	Stat	Start Time	Level	Lev_Cod	Replicate	Temp_v	pH_v	Sal_v	DO_v	Turb_v	SS_v
TMCLKL	HY/2012/07	09-05-2015	Mid-Ebb	CS(Mf)5	16:58	Middle	2	2	26.4	8.12	20.3	6.76	6.15	8.6
TMCLKL	HY/2012/07	09-05-2015	Mid-Ebb	CS(Mf)5	16:58	Bottom	3	1	26.4	8.13	20.5	6.54	6.88	10.3
TMCLKL	HY/2012/07	09-05-2015	Mid-Ebb	CS(Mf)5	16:58	Bottom	3	2	26.5	8.16	20.6	6.5	6.94	8.3
TMCLKL	HY/2012/07	12-05-2015	Mid-Flood	CS(Mf)5	11:32	Surface	1	1	26.2	8.15	20.2	6.91	6.34	8.9
TMCLKL	HY/2012/07	12-05-2015	Mid-Flood	CS(Mf)5	11:32	Surface	1	2	26.2	8.18	20.3	6.99	6.3	8.8
TMCLKL	HY/2012/07	12-05-2015	Mid-Flood	CS(Mf)5	11:32	Middle	2	1	26.4	8.16	20.5	6.7	6.44	9.7
TMCLKL	HY/2012/07	12-05-2015	Mid-Flood	CS(Mf)5	11:32	Middle	2	2	26.5	8.16	20.5	6.68	6.49	9.1
TMCLKL	HY/2012/07	12-05-2015	Mid-Flood	CS(Mf)5	11:32	Bottom	3	1	26.5	8.18	20.7	6.32	7.11	10.7
TMCLKL	HY/2012/07	12-05-2015	Mid-Flood	CS(Mf)5	11:32	Bottom	3	2	26.5	8.2	20.8	6.3	7.18	9.3
TMCLKL	HY/2012/07	12-05-2015	Mid-Flood	SR4a	12:02	Surface	1	1	26.3	8.16	20.4	6.65	5.33	8
TMCLKL	HY/2012/07	12-05-2015	Mid-Flood	SR4a	12:02	Surface	1	2	26.3	8.15	20.4	6.68	5.3	8
TMCLKL	HY/2012/07	12-05-2015	Mid-Flood	SR4a	12:02	Middle	2	1						
TMCLKL	HY/2012/07	12-05-2015	Mid-Flood	SR4a	12:02	Middle	2	2						
TMCLKL	HY/2012/07	12-05-2015	Mid-Flood	SR4a	12:02	Bottom	3	1	26.3	8.12	20.6	6.31	5.98	8.4
TMCLKL	HY/2012/07	12-05-2015	Mid-Flood	SR4a	12:02	Bottom	3	2	26.3	8.14	20.5	6.35	5.95	8.9
TMCLKL	HY/2012/07	12-05-2015	Mid-Flood	SR4	12:20	Surface	1	1	26.2	8.15	20.5	6.68	5.25	8.4
TMCLKL	HY/2012/07	12-05-2015	Mid-Flood	SR4	12:20	Surface	1	2	26.2	8.12	20.5	6.63	5.28	8.9
TMCLKL	HY/2012/07	12-05-2015	Mid-Flood	SR4	12:20	Middle	2	1						
TMCLKL	HY/2012/07	12-05-2015	Mid-Flood	SR4	12:20	Middle	2	2						
TMCLKL	HY/2012/07	12-05-2015	Mid-Flood	SR4	12:20	Bottom	3	1	26.3	8.16	20.6	6.48	6.3	9.5
TMCLKL	HY/2012/07	12-05-2015	Mid-Flood	SR4	12:20	Bottom	3	2	26.3	8.14	20.6	6.46	6.34	10.1
TMCLKL	HY/2012/07	12-05-2015	Mid-Flood	IS8	12:40	Surface	1	1	26.2	8.09	20.5	6.78	6.14	8
TMCLKL	HY/2012/07	12-05-2015	Mid-Flood	IS8	12:40	Surface	1	2	26.3	8.12	20.5	6.74	6.17	9.9
TMCLKL	HY/2012/07	12-05-2015	Mid-Flood	IS8	12:40	Middle	2	1						
TMCLKL	HY/2012/07	12-05-2015	Mid-Flood	IS8	12:40	Middle	2	2						
TMCLKL	HY/2012/07	12-05-2015	Mid-Flood	IS8	12:40	Bottom	3	1	26.4	8.14	20.8	6.59	6.26	8.8
TMCLKL	HY/2012/07	12-05-2015	Mid-Flood	IS8	12:40	Bottom	3	2	26.4	8.17	20.9	6.56	6.28	9.4
TMCLKL	HY/2012/07	12-05-2015	Mid-Flood	IS(Mf)16	13:05	Surface	1	1	26.4	8.14	20.5	6.46	5.3	6
TMCLKL	HY/2012/07	12-05-2015	Mid-Flood	IS(Mf)16	13:05	Surface	1	2	26.4	8.16	20.4	6.49	5.28	6.3
TMCLKL	HY/2012/07	12-05-2015	Mid-Flood	IS(Mf)16	13:05	Middle	2	1	26.3	8.18	20.6	6.3	5.37	7.5
TMCLKL	HY/2012/07	12-05-2015	Mid-Flood	IS(Mf)16	13:05	Middle	2	2	26.3	8.21	20.7	6.31	5.39	8.1
TMCLKL	HY/2012/07	12-05-2015	Mid-Flood	IS(Mf)16	13:05	Bottom	3	1	26.6	8.1	20.7	6.18	6.4	8.3
TMCLKL	HY/2012/07	12-05-2015	Mid-Flood	IS(Mf)16	13:05	Bottom	3	2	26.7	8.08	20.8	6.16	6.42	10.3
TMCLKL	HY/2012/07	12-05-2015	Mid-Flood	IS(Mf)9	13:30	Surface	1	1	26.2	8.15	20.6	6.74	4.88	6.8
TMCLKL	HY/2012/07	12-05-2015	Mid-Flood	IS(Mf)9	13:30	Surface	1	2	26.2	8.14	20.6	6.7	4.92	6.9
TMCLKL	HY/2012/07	12-05-2015	Mid-Flood	IS(Mf)9	13:30	Middle	2	1						
TMCLKL	HY/2012/07	12-05-2015	Mid-Flood	IS(Mf)9	13:30	Middle	2	2						

Project	Works	Date (yyyy-mm-dd)	Tide	Stat	Start Time	Level	Lev_Cod	Replicate	Temp_v	pH_v	Sal_v	DO_v	Turb_v	SS_v
TMCLKL	HY/2012/07	12-05-2015	Mid-Flood	IS(Mf)9	13:30	Bottom	3	1	26.4	8.16	20.8	6.54	5.3	8
TMCLKL	HY/2012/07	12-05-2015	Mid-Flood	IS(Mf)9	13:30	Bottom	3	2	26.3	8.15	20.7	6.5	5.28	8.9
TMCLKL	HY/2012/07	12-05-2015	Mid-Flood	CS(Mf)3	14:05	Surface	1	1	26.2	8.15	20.5	6.47	4.68	6.6
TMCLKL	HY/2012/07	12-05-2015	Mid-Flood	CS(Mf)3	14:05	Surface	1	2	26.2	8.13	20.5	6.49	4.74	5.7
TMCLKL	HY/2012/07	12-05-2015	Mid-Flood	CS(Mf)3	14:05	Middle	2	1	26.4	8.18	20.7	6.31	5.3	6.9
TMCLKL	HY/2012/07	12-05-2015	Mid-Flood	CS(Mf)3	14:05	Middle	2	2	26.4	8.16	20.7	6.29	5.3	8
TMCLKL	HY/2012/07	12-05-2015	Mid-Flood	CS(Mf)3	14:05	Bottom	3	1	26.5	8.19	20.8	6.2	7.7	10.8
TMCLKL	HY/2012/07	12-05-2015	Mid-Flood	CS(Mf)3	14:05	Bottom	3	2	26.6	8.21	20.9	6.18	7.65	9.9
TMCLKL	HY/2012/07	12-05-2015	Mid-Ebb	CS(Mf)3	8:00	Surface	1	1	26.3	8.14	20.4	6.42	4.71	7.1
TMCLKL	HY/2012/07	12-05-2015	Mid-Ebb	CS(Mf)3	8:00	Surface	1	2	26.2	8.15	20.5	6.45	4.78	6.2
TMCLKL	HY/2012/07	12-05-2015	Mid-Ebb	CS(Mf)3	8:00	Middle	2	1	26.4	8.17	20.7	6.29	5.28	7.9
TMCLKL	HY/2012/07	12-05-2015	Mid-Ebb	CS(Mf)3	8:00	Middle	2	2	26.4	8.19	20.8	6.25	5.3	6.9
TMCLKL	HY/2012/07	12-05-2015	Mid-Ebb	CS(Mf)3	8:00	Bottom	3	1	26.6	8.22	20.9	6.17	7.78	10.9
TMCLKL	HY/2012/07	12-05-2015	Mid-Ebb	CS(Mf)3	8:00	Bottom	3	2	26.5	8.23	20.8	6.15	7.71	11.6
TMCLKL	HY/2012/07	12-05-2015	Mid-Ebb	SR4a	9:35	Surface	1	1	26.4	8.19	20.4	6.58	5.37	8.1
TMCLKL	HY/2012/07	12-05-2015	Mid-Ebb	SR4a	9:35	Surface	1	2	26.3	8.12	20.5	6.62	5.35	7
TMCLKL	HY/2012/07	12-05-2015	Mid-Ebb	SR4a	9:35	Middle	2	1						
TMCLKL	HY/2012/07	12-05-2015	Mid-Ebb	SR4a	9:35	Middle	2	2						
TMCLKL	HY/2012/07	12-05-2015	Mid-Ebb	SR4a	9:35	Bottom	3	1	26.4	8.13	20.6	6.27	6.01	8.4
TMCLKL	HY/2012/07	12-05-2015	Mid-Ebb	SR4a	9:35	Bottom	3	2	26.5	8.15	20.5	6.34	6.06	9.1
TMCLKL	HY/2012/07	12-05-2015	Mid-Ebb	SR4	9:16	Surface	1	1	26.1	8.14	20.5	6.6	5.29	7.4
TMCLKL	HY/2012/07	12-05-2015	Mid-Ebb	SR4	9:16	Surface	1	2	26.2	8.12	20.6	6.56	5.33	6.9
TMCLKL	HY/2012/07	12-05-2015	Mid-Ebb	SR4	9:16	Middle	2	1						
TMCLKL	HY/2012/07	12-05-2015	Mid-Ebb	SR4	9:16	Middle	2	2						
TMCLKL	HY/2012/07	12-05-2015	Mid-Ebb	SR4	9:16	Bottom	3	1	26.4	8.16	20.7	6.44	6.35	8.9
TMCLKL	HY/2012/07	12-05-2015	Mid-Ebb	SR4	9:16	Bottom	3	2	26.3	8.15	20.6	6.42	6.39	7.7
TMCLKL	HY/2012/07	12-05-2015	Mid-Ebb	IS8	8:57	Surface	1	1	26.3	8.1	20.6	6.75	6.18	8
TMCLKL	HY/2012/07	12-05-2015	Mid-Ebb	IS8	8:57	Surface	1	2	26.2	8.11	20.5	6.67	6.21	9.9
TMCLKL	HY/2012/07	12-05-2015	Mid-Ebb	IS8	8:57	Middle	2	1						
TMCLKL	HY/2012/07	12-05-2015	Mid-Ebb	IS8	8:57	Middle	2	2						
TMCLKL	HY/2012/07	12-05-2015	Mid-Ebb	IS8	8:57	Bottom	3	1	26.4	8.15	20.8	6.51	6.28	10
TMCLKL	HY/2012/07	12-05-2015	Mid-Ebb	IS8	8:57	Bottom	3	2	26.5	8.16	20.9	6.56	6.31	10.1
TMCLKL	HY/2012/07	12-05-2015	Mid-Ebb	IS(Mf)16	8:38	Surface	1	1	26.5	8.17	20.4	6.41	5.35	7.5
TMCLKL	HY/2012/07	12-05-2015	Mid-Ebb	IS(Mf)16	8:38	Surface	1	2	26.4	8.15	20.5	6.46	5.3	6.9
TMCLKL	HY/2012/07	12-05-2015	Mid-Ebb	IS(Mf)16	8:38	Middle	2	1	26.4	8.19	20.8	6.29	5.39	7.5
TMCLKL	HY/2012/07	12-05-2015	Mid-Ebb	IS(Mf)16	8:38	Middle	2	2	26.3	8.22	20.7	6.27	5.42	7.6
TMCLKL	HY/2012/07	12-05-2015	Mid-Ebb	IS(Mf)16	8:38	Bottom	3	1	26.7	8.13	20.8	6.15	6.48	8.4

Project	Works	Date (yyyy-mm-dd)	Tide	Stat	Start Time	Level	Lev_Cod	Replicate	Temp_v	pH_v	Sal_v	DO_v	Turb_v	SS_v
TMCLKL	HY/2012/07	12-05-2015	Mid-Ebb	IS(Mf)16	8:38	Bottom	3	2	26.8	8.1	20.9	6.11	6.44	9
TMCLKL	HY/2012/07	12-05-2015	Mid-Ebb	IS(Mf)9	8:19	Surface	1	1	26.3	8.17	20.5	6.72	4.9	7.4
TMCLKL	HY/2012/07	12-05-2015	Mid-Ebb	IS(Mf)9	8:19	Surface	1	2	26.2	8.13	20.6	6.68	4.94	6.4
TMCLKL	HY/2012/07	12-05-2015	Mid-Ebb	IS(Mf)9	8:19	Middle	2	1						
TMCLKL	HY/2012/07	12-05-2015	Mid-Ebb	IS(Mf)9	8:19	Middle	2	2						
TMCLKL	HY/2012/07	12-05-2015	Mid-Ebb	IS(Mf)9	8:19	Bottom	3	1	26.4	8.13	20.7	6.49	5.31	8.5
TMCLKL	HY/2012/07	12-05-2015	Mid-Ebb	IS(Mf)9	8:19	Bottom	3	2	26.4	8.16	20.8	6.53	5.33	7.5
TMCLKL	HY/2012/07	12-05-2015	Mid-Ebb	CS(Mf)5	9:54	Surface	1	1	26.3	8.16	20.3	6.86	6.38	9.6
TMCLKL	HY/2012/07	12-05-2015	Mid-Ebb	CS(Mf)5	9:54	Surface	1	2	26.2	8.18	20.4	6.79	6.4	9.6
TMCLKL	HY/2012/07	12-05-2015	Mid-Ebb	CS(Mf)5	9:54	Middle	2	1	26.6	8.17	20.6	6.64	6.48	9.7
TMCLKL	HY/2012/07	12-05-2015	Mid-Ebb	CS(Mf)5	9:54	Middle	2	2	26.5	8.18	20.5	6.6	6.53	9.1
TMCLKL	HY/2012/07	12-05-2015	Mid-Ebb	CS(Mf)5	9:54	Bottom	3	1	26.5	8.21	20.8	6.29	7.22	8.7
TMCLKL	HY/2012/07	12-05-2015	Mid-Ebb	CS(Mf)5	9:54	Bottom	3	2	26.5	8.22	20.9	6.27	7.28	8.5
TMCLKL	HY/2012/07	14-05-2015	Mid-Flood	CS(Mf)5	14:13	Surface	1	1	26.5	6.91	20.6	6.69	20.5	24.6
TMCLKL	HY/2012/07	14-05-2015	Mid-Flood	CS(Mf)5	14:13	Surface	1	2	26.4	6.95	20.6	6.65	26.5	31.8
TMCLKL	HY/2012/07	14-05-2015	Mid-Flood	CS(Mf)5	14:13	Middle	2	1	26.4	6.9	20.7	6.51	29.5	44.3
TMCLKL	HY/2012/07	14-05-2015	Mid-Flood	CS(Mf)5	14:13	Middle	2	2	26.4	6.85	20.7	6.48	33.4	53.4
TMCLKL	HY/2012/07	14-05-2015	Mid-Flood	CS(Mf)5	14:13	Bottom	3	1	26.4	6.98	20.9	6.3	38.8	50.4
TMCLKL	HY/2012/07	14-05-2015	Mid-Flood	CS(Mf)5	14:13	Bottom	3	2	26.4	7.01	20.9	6.27	37.7	49
TMCLKL	HY/2012/07	14-05-2015	Mid-Flood	SR4a	14:35	Surface	1	1	26.4	6.8	20.5	6.39	20.9	27.2
TMCLKL	HY/2012/07	14-05-2015	Mid-Flood	SR4a	14:35	Surface	1	2	26.4	6.85	20.4	6.37	21.8	28.3
TMCLKL	HY/2012/07	14-05-2015	Mid-Flood	SR4a	14:35	Middle	2	1						
TMCLKL	HY/2012/07	14-05-2015	Mid-Flood	SR4a	14:35	Middle	2	2						
TMCLKL	HY/2012/07	14-05-2015	Mid-Flood	SR4a	14:35	Bottom	3	1	26.4	6.88	20.7	6.26	25.5	35.7
TMCLKL	HY/2012/07	14-05-2015	Mid-Flood	SR4a	14:35	Bottom	3	2	26.4	6.86	20.6	6.22	26	39
TMCLKL	HY/2012/07	14-05-2015	Mid-Flood	SR4	15:00	Surface	1	1	26.4	6.88	20.5	6.5	23.8	33.3
TMCLKL	HY/2012/07	14-05-2015	Mid-Flood	SR4	15:00	Surface	1	2	26.4	6.85	20.5	6.47	25.4	33
TMCLKL	HY/2012/07	14-05-2015	Mid-Flood	SR4	15:00	Middle	2	1						
TMCLKL	HY/2012/07	14-05-2015	Mid-Flood	SR4	15:00	Middle	2	2						
TMCLKL	HY/2012/07	14-05-2015	Mid-Flood	SR4	15:00	Bottom	3	1	26.5	6.82	20.6	6.25	43.3	65
TMCLKL	HY/2012/07	14-05-2015	Mid-Flood	SR4	15:00	Bottom	3	2	26.5	6.8	20.6	6.3	45.5	59.2
TMCLKL	HY/2012/07	14-05-2015	Mid-Flood	IS8	15:20	Surface	1	1	26.3	6.79	20.4	6.64	20.3	26.4
TMCLKL	HY/2012/07	14-05-2015	Mid-Flood	IS8	15:20	Surface	1	2	26.3	6.82	20.4	6.66	20.7	26.9
TMCLKL	HY/2012/07	14-05-2015	Mid-Flood	IS8	15:20	Middle	2	1						
TMCLKL	HY/2012/07	14-05-2015	Mid-Flood	IS8	15:20	Middle	2	2						
TMCLKL	HY/2012/07	14-05-2015	Mid-Flood	IS8	15:20	Bottom	3	1	26.3	6.88	20.5	6.43	42.1	63.2
TMCLKL	HY/2012/07	14-05-2015	Mid-Flood	IS8	15:20	Bottom	3	2	26.3	6.94	20.5	6.4	46.6	69.9

Project	Works	Date (yyyy-mm-dd)	Tide	Stat	Start Time	Level	Lev_Cod	Replicate	Temp_v	pH_v	Sal_v	DO_v	Turb_v	SS_v
TMCLKL	HY/2012/07	14-05-2015	Mid-Flood	IS(Mf)16	15:45	Surface	1	1	26.4	6.84	20.4	6.5	20	30
TMCLKL	HY/2012/07	14-05-2015	Mid-Flood	IS(Mf)16	15:45	Surface	1	2	26.4	6.88	20.4	6.47	20.8	25
TMCLKL	HY/2012/07	14-05-2015	Mid-Flood	IS(Mf)16	15:45	Middle	2	1	26.3	6.8	20.3	6.54	22.2	28.9
TMCLKL	HY/2012/07	14-05-2015	Mid-Flood	IS(Mf)16	15:45	Middle	2	2	26.3	6.82	20.3	6.5	24.2	33.9
TMCLKL	HY/2012/07	14-05-2015	Mid-Flood	IS(Mf)16	15:45	Bottom	3	1	26.2	6.9	20.5	6.31	26.6	37.2
TMCLKL	HY/2012/07	14-05-2015	Mid-Flood	IS(Mf)16	15:45	Bottom	3	2	26.1	6.88	20.5	6.33	28.9	37.6
TMCLKL	HY/2012/07	14-05-2015	Mid-Flood	IS(Mf)9	16:05	Surface	1	1	26.4	6.82	20.3	6.68	20	26
TMCLKL	HY/2012/07	14-05-2015	Mid-Flood	IS(Mf)9	16:05	Surface	1	2	26.4	6.8	20.1	6.64	22	26.4
TMCLKL	HY/2012/07	14-05-2015	Mid-Flood	IS(Mf)9	16:05	Middle	2	1						
TMCLKL	HY/2012/07	14-05-2015	Mid-Flood	IS(Mf)9	16:05	Middle	2	2						
TMCLKL	HY/2012/07	14-05-2015	Mid-Flood	IS(Mf)9	16:05	Bottom	3	1	26.3	6.88	20.2	6.44	25	40
TMCLKL	HY/2012/07	14-05-2015	Mid-Flood	IS(Mf)9	16:05	Bottom	3	2	26.3	6.86	20.2	6.4	25.8	38.7
TMCLKL	HY/2012/07	14-05-2015	Mid-Flood	CS(Mf)3	16:35	Surface	1	1	26.3	6.99	20.4	6.82	18	21.6
TMCLKL	HY/2012/07	14-05-2015	Mid-Flood	CS(Mf)3	16:35	Surface	1	2	26.3	7.01	20.4	6.79	20	28
TMCLKL	HY/2012/07	14-05-2015	Mid-Flood	CS(Mf)3	16:35	Middle	2	1	26.2	6.92	20.6	6.89	22.2	31.2
TMCLKL	HY/2012/07	14-05-2015	Mid-Flood	CS(Mf)3	16:35	Middle	2	2	26.1	6.9	20.6	6.89	26.8	37.5
TMCLKL	HY/2012/07	14-05-2015	Mid-Flood	CS(Mf)3	16:35	Bottom	3	1	26	7.05	20.8	6.66	30	39
TMCLKL	HY/2012/07	14-05-2015	Mid-Flood	CS(Mf)3	16:35	Bottom	3	2	26	7.04	20.8	6.64	34.2	47.9
TMCLKL	HY/2012/07	14-05-2015	Mid-Ebb	CS(Mf)3	9:33	Surface	1	1	26.1	6.97	20.3	6.73	15.9	25.4
TMCLKL	HY/2012/07	14-05-2015	Mid-Ebb	CS(Mf)3	9:33	Surface	1	2	26.1	6.94	20.2	6.67	16.3	24.5
TMCLKL	HY/2012/07	14-05-2015	Mid-Ebb	CS(Mf)3	9:33	Middle	2	1	26.1	6.89	20.4	6.81	20.4	30.6
TMCLKL	HY/2012/07	14-05-2015	Mid-Ebb	CS(Mf)3	9:33	Middle	2	2	26	6.94	20.5	6.77	21.2	33.9
TMCLKL	HY/2012/07	14-05-2015	Mid-Ebb	CS(Mf)3	9:33	Bottom	3	1	26	7.01	20.7	6.58	29	43.5
TMCLKL	HY/2012/07	14-05-2015	Mid-Ebb	CS(Mf)3	9:33	Bottom	3	2	25.9	7.03	20.8	6.54	28.4	39.8
TMCLKL	HY/2012/07	14-05-2015	Mid-Ebb	SR4a	11:12	Surface	1	1	26.3	6.79	20.4	6.33	20.1	24.1
TMCLKL	HY/2012/07	14-05-2015	Mid-Ebb	SR4a	11:12	Surface	1	2	26.2	6.75	20.4	6.3	20.7	26.9
TMCLKL	HY/2012/07	14-05-2015	Mid-Ebb	SR4a	11:12	Middle	2	1						
TMCLKL	HY/2012/07	14-05-2015	Mid-Ebb	SR4a	11:12	Middle	2	2						
TMCLKL	HY/2012/07	14-05-2015	Mid-Ebb	SR4a	11:12	Bottom	3	1	26.3	6.81	20.6	6.18	24.1	31.3
TMCLKL	HY/2012/07	14-05-2015	Mid-Ebb	SR4a	11:12	Bottom	3	2	26.4	6.78	20.6	6.15	24.7	37.1
TMCLKL	HY/2012/07	14-05-2015	Mid-Ebb	SR4	10:55	Surface	1	1	26.3	6.79	20.5	6.38	19.2	25
TMCLKL	HY/2012/07	14-05-2015	Mid-Ebb	SR4	10:55	Surface	1	2	26.3	6.81	20.4	6.42	19.9	25.9
TMCLKL	HY/2012/07	14-05-2015	Mid-Ebb	SR4	10:55	Middle	2	1						
TMCLKL	HY/2012/07	14-05-2015	Mid-Ebb	SR4	10:55	Middle	2	2						
TMCLKL	HY/2012/07	14-05-2015	Mid-Ebb	SR4	10:55	Bottom	3	1	26.3	6.74	20.6	6.2	22.1	30.9
TMCLKL	HY/2012/07	14-05-2015	Mid-Ebb	SR4	10:55	Bottom	3	2	26.4	6.77	20.7	6.16	22.8	29.6
TMCLKL	HY/2012/07	14-05-2015	Mid-Ebb	IS8	10:38	Surface	1	1	26.2	6.72	20.4	6.59	18.7	22.4

Project	Works	Date (yyyy-mm-dd)	Tide	Stat	Start Time	Level	Lev_Cod	Replicate	Temp_v	pH_v	Sal_v	DO_v	Turb_v	SS_v
TMCLKL	HY/2012/07	14-05-2015	Mid-Ebb	IS8	10:38	Surface	1	2	26.3	6.75	20.3	6.55	19.4	27.2
TMCLKL	HY/2012/07	14-05-2015	Mid-Ebb	IS8	10:38	Middle	2	1						
TMCLKL	HY/2012/07	14-05-2015	Mid-Ebb	IS8	10:38	Middle	2	2						
TMCLKL	HY/2012/07	14-05-2015	Mid-Ebb	IS8	10:38	Bottom	3	1	26.2	6.81	20.5	6.33	23.4	35.1
TMCLKL	HY/2012/07	14-05-2015	Mid-Ebb	IS8	10:38	Bottom	3	2	26.1	6.77	20.6	6.3	22.6	36.2
TMCLKL	HY/2012/07	14-05-2015	Mid-Ebb	IS(Mf)16	10:15	Surface	1	1	26.2	6.84	20.2	6.42	19.2	26.9
TMCLKL	HY/2012/07	14-05-2015	Mid-Ebb	IS(Mf)16	10:15	Surface	1	2	26.1	6.8	20.3	6.37	19.9	29.9
TMCLKL	HY/2012/07	14-05-2015	Mid-Ebb	IS(Mf)16	10:15	Middle	2	1	26.1	6.75	20.3	6.46	21.4	27.8
TMCLKL	HY/2012/07	14-05-2015	Mid-Ebb	IS(Mf)16	10:15	Middle	2	2	26.1	6.77	20.4	6.44	22.1	33.2
TMCLKL	HY/2012/07	14-05-2015	Mid-Ebb	IS(Mf)16	10:15	Bottom	3	1	26.1	6.79	20.6	6.23	24.3	34
TMCLKL	HY/2012/07	14-05-2015	Mid-Ebb	IS(Mf)16	10:15	Bottom	3	2	26	6.81	20.6	6.2	23.6	35.4
TMCLKL	HY/2012/07	14-05-2015	Mid-Ebb	IS(Mf)9	9:56	Surface	1	1	26.1	6.79	20.2	6.57	17.2	22.4
TMCLKL	HY/2012/07	14-05-2015	Mid-Ebb	IS(Mf)9	9:56	Surface	1	2	26.2	6.73	20.1	6.54	16.6	21.6
TMCLKL	HY/2012/07	14-05-2015	Mid-Ebb	IS(Mf)9	9:56	Middle	2	1						
TMCLKL	HY/2012/07	14-05-2015	Mid-Ebb	IS(Mf)9	9:56	Middle	2	2						
TMCLKL	HY/2012/07	14-05-2015	Mid-Ebb	IS(Mf)9	9:56	Bottom	3	1	26.2	6.8	20.2	6.34	21.4	27.8
TMCLKL	HY/2012/07	14-05-2015	Mid-Ebb	IS(Mf)9	9:56	Bottom	3	2	26.1	6.84	20.3	6.36	20.6	28.8
TMCLKL	HY/2012/07	14-05-2015	Mid-Ebb	CS(Mf)5	11:38	Surface	1	1	26.3	6.87	20.5	6.62	21.4	34.2
TMCLKL	HY/2012/07	14-05-2015	Mid-Ebb	CS(Mf)5	11:38	Surface	1	2	26.4	6.84	20.6	6.57	20.6	26.8
TMCLKL	HY/2012/07	14-05-2015	Mid-Ebb	CS(Mf)5	11:38	Middle	2	1	26.3	6.78	20.7	6.43	23.7	35.6
TMCLKL	HY/2012/07	14-05-2015	Mid-Ebb	CS(Mf)5	11:38	Middle	2	2	26.3	6.8	20.7	6.4	24.4	39
TMCLKL	HY/2012/07	14-05-2015	Mid-Ebb	CS(Mf)5	11:38	Bottom	3	1	26.4	6.86	20.9	6.24	27.2	38.1
TMCLKL	HY/2012/07	14-05-2015	Mid-Ebb	CS(Mf)5	11:38	Bottom	3	2	26.5	6.89	20.8	6.21	29	46.4
TMCLKL	HY/2012/07	16-05-2015	Mid-Flood	CS(Mf)5	16:15	Surface	1	1	26.8	6.96	20.4	6.83	19.3	25.7
TMCLKL	HY/2012/07	16-05-2015	Mid-Flood	CS(Mf)5	16:15	Surface	1	2	26.7	6.98	20.5	6.85	19.4	25.9
TMCLKL	HY/2012/07	16-05-2015	Mid-Flood	CS(Mf)5	16:15	Middle	2	1	26.4	7.04	20.9	6.38	20.9	28.3
TMCLKL	HY/2012/07	16-05-2015	Mid-Flood	CS(Mf)5	16:15	Middle	2	2	26.4	7.01	20.8	6.34	21	28.5
TMCLKL	HY/2012/07	16-05-2015	Mid-Flood	CS(Mf)5	16:15	Bottom	3	1	26.1	7.08	21.1	6.16	22.5	30
TMCLKL	HY/2012/07	16-05-2015	Mid-Flood	CS(Mf)5	16:15	Bottom	3	2	26.2	7.1	21.2	6.12	22.7	31
TMCLKL	HY/2012/07	16-05-2015	Mid-Flood	SR4a	16:37	Surface	1	1	26.8	6.85	20.4	6.45	19	24.9
TMCLKL	HY/2012/07	16-05-2015	Mid-Flood	SR4a	16:37	Surface	1	2	26.7	6.88	20.5	6.41	19.2	25.6
TMCLKL	HY/2012/07	16-05-2015	Mid-Flood	SR4a	16:37	Middle	2	1						
TMCLKL	HY/2012/07	16-05-2015	Mid-Flood	SR4a	16:37	Middle	2	2						
TMCLKL	HY/2012/07	16-05-2015	Mid-Flood	SR4a	16:37	Bottom	3	1	26.3	6.93	20.6	6.04	22.9	30.5
TMCLKL	HY/2012/07	16-05-2015	Mid-Flood	SR4a	16:37	Bottom	3	2	26.4	6.9	20.7	6	23.1	30.3
TMCLKL	HY/2012/07	16-05-2015	Mid-Flood	SR4	16:59	Surface	1	1	26.8	7	20.4	6.78	17.5	22.8
TMCLKL	HY/2012/07	16-05-2015	Mid-Flood	SR4	16:59	Surface	1	2	26.7	7.04	20.5	6.81	17.7	23.5

Project	Works	Date (yyyy-mm-dd)	Tide	Stat	Start Time	Level	Lev_Cod	Replicate	Temp_v	pH_v	Sal_v	DO_v	Turb_v	SS_v
TMCLKL	HY/2012/07	16-05-2015	Mid-Flood	SR4	16:59	Middle	2	1						
TMCLKL	HY/2012/07	16-05-2015	Mid-Flood	SR4	16:59	Middle	2	2						
TMCLKL	HY/2012/07	16-05-2015	Mid-Flood	SR4	16:59	Bottom	3	1	26.3	7.11	20.7	6.28	20.6	27.9
TMCLKL	HY/2012/07	16-05-2015	Mid-Flood	SR4	16:59	Bottom	3	2	26.2	7.07	20.6	6.32	20.5	27.1
TMCLKL	HY/2012/07	16-05-2015	Mid-Flood	IS8	17:21	Surface	1	1	26.7	6.95	20.5	6.65	18.3	23.8
TMCLKL	HY/2012/07	16-05-2015	Mid-Flood	IS8	17:21	Surface	1	2	26.6	6.96	20.6	6.61	18.2	23.7
TMCLKL	HY/2012/07	16-05-2015	Mid-Flood	IS8	17:21	Middle	2	1						
TMCLKL	HY/2012/07	16-05-2015	Mid-Flood	IS8	17:21	Middle	2	2						
TMCLKL	HY/2012/07	16-05-2015	Mid-Flood	IS8	17:21	Bottom	3	1	26.3	7	20.6	6.1	18.9	25
TMCLKL	HY/2012/07	16-05-2015	Mid-Flood	IS8	17:21	Bottom	3	2	26.2	7.03	20.7	6.13	18.6	24.6
TMCLKL	HY/2012/07	16-05-2015	Mid-Flood	IS(Mf)16	17:43	Surface	1	1	26.8	6.92	20.3	6.86	17.1	22.6
TMCLKL	HY/2012/07	16-05-2015	Mid-Flood	IS(Mf)16	17:43	Surface	1	2	26.7	6.95	20.4	6.81	16.8	21.9
TMCLKL	HY/2012/07	16-05-2015	Mid-Flood	IS(Mf)16	17:43	Middle	2	1	26.3	6.85	20.8	6.29	19.6	26.1
TMCLKL	HY/2012/07	16-05-2015	Mid-Flood	IS(Mf)16	17:43	Middle	2	2	26.4	6.88	20.9	6.34	19.5	26
TMCLKL	HY/2012/07	16-05-2015	Mid-Flood	IS(Mf)16	17:43	Bottom	3	1	26.2	7.02	21	6.17	21.8	29.1
TMCLKL	HY/2012/07	16-05-2015	Mid-Flood	IS(Mf)16	17:43	Bottom	3	2	26.3	7.01	21.1	6.12	21.6	29
TMCLKL	HY/2012/07	16-05-2015	Mid-Flood	IS(Mf)9	18:05	Surface	1	1	26.7	6.82	20.2	6.55	17.8	23.5
TMCLKL	HY/2012/07	16-05-2015	Mid-Flood	IS(Mf)9	18:05	Surface	1	2	26.6	6.86	20.1	6.52	17.5	22.8
TMCLKL	HY/2012/07	16-05-2015	Mid-Flood	IS(Mf)9	18:05	Middle	2	1						
TMCLKL	HY/2012/07	16-05-2015	Mid-Flood	IS(Mf)9	18:05	Middle	2	2						
TMCLKL	HY/2012/07	16-05-2015	Mid-Flood	IS(Mf)9	18:05	Bottom	3	1	26.3	6.96	20.9	6.04	20	26.4
TMCLKL	HY/2012/07	16-05-2015	Mid-Flood	IS(Mf)9	18:05	Bottom	3	2	26.4	6.98	21	6	20.2	26.9
TMCLKL	HY/2012/07	16-05-2015	Mid-Flood	CS(Mf)3	18:29	Surface	1	1	26.5	6.86	20.2	6.74	15.1	20.1
TMCLKL	HY/2012/07	16-05-2015	Mid-Flood	CS(Mf)3	18:29	Surface	1	2	26.6	6.9	20.3	6.7	15.2	20.4
TMCLKL	HY/2012/07	16-05-2015	Mid-Flood	CS(Mf)3	18:29	Middle	2	1	26.4	6.98	20.9	6.59	18.9	25.6
TMCLKL	HY/2012/07	16-05-2015	Mid-Flood	CS(Mf)3	18:29	Middle	2	2	26.3	7.01	20.8	6.63	18.6	25
TMCLKL	HY/2012/07	16-05-2015	Mid-Flood	CS(Mf)3	18:29	Bottom	3	1	26.1	7.05	21	6.4	19.7	26.3
TMCLKL	HY/2012/07	16-05-2015	Mid-Flood	CS(Mf)3	18:29	Bottom	3	2	26.2	7.1	21.1	6.36	19.8	26.6
TMCLKL	HY/2012/07	16-05-2015	Mid-Ebb	CS(Mf)3	10:59	Surface	1	1	26.4	6.8	20.2	6.68	16	21.7
TMCLKL	HY/2012/07	16-05-2015	Mid-Ebb	CS(Mf)3	10:59	Surface	1	2	26.5	6.84	20.1	6.64	16.1	21.5
TMCLKL	HY/2012/07	16-05-2015	Mid-Ebb	CS(Mf)3	10:59	Middle	2	1	26.3	6.92	20.8	6.53	19.8	26.4
TMCLKL	HY/2012/07	16-05-2015	Mid-Ebb	CS(Mf)3	10:59	Middle	2	2	26.2	6.95	20.7	6.57	19.5	26.6
TMCLKL	HY/2012/07	16-05-2015	Mid-Ebb	CS(Mf)3	10:59	Bottom	3	1	26.1	6.99	21	6.34	20.6	27.5
TMCLKL	HY/2012/07	16-05-2015	Mid-Ebb	CS(Mf)3	10:59	Bottom	3	2	26.1	7.04	20.9	6.3	20.7	27.8
TMCLKL	HY/2012/07	16-05-2015	Mid-Ebb	SR4a	12:53	Surface	1	1	26.7	6.79	20.3	6.39	19.9	25
TMCLKL	HY/2012/07	16-05-2015	Mid-Ebb	SR4a	12:53	Surface	1	2	26.7	6.82	20.4	6.35	20.1	26.2
TMCLKL	HY/2012/07	16-05-2015	Mid-Ebb	SR4a	12:53	Middle	2	1						

Project	Works	Date (yyyy-mm-dd)	Tide	Stat	Start Time	Level	Lev_Cod	Replicate	Temp_v	pH_v	Sal_v	DO_v	Turb_v	SS_v
TMCLKL	HY/2012/07	16-05-2015	Mid-Ebb	SR4a	12:53	Middle	2	2						
TMCLKL	HY/2012/07	16-05-2015	Mid-Ebb	SR4a	12:53	Bottom	3	1	26.3	6.87	20.5	5.98	23.8	30.8
TMCLKL	HY/2012/07	16-05-2015	Mid-Ebb	SR4a	12:53	Bottom	3	2	26.2	6.84	20.6	5.94	24	31.7
TMCLKL	HY/2012/07	16-05-2015	Mid-Ebb	SR4	12:35	Surface	1	1	26.7	6.94	20.3	6.72	18.4	23.8
TMCLKL	HY/2012/07	16-05-2015	Mid-Ebb	SR4	12:35	Surface	1	2	26.7	6.98	20.4	6.75	18.8	24.2
TMCLKL	HY/2012/07	16-05-2015	Mid-Ebb	SR4	12:35	Middle	2	1						
TMCLKL	HY/2012/07	16-05-2015	Mid-Ebb	SR4	12:35	Middle	2	2						
TMCLKL	HY/2012/07	16-05-2015	Mid-Ebb	SR4	12:35	Bottom	3	1	26.2	7.05	20.6	6.22	21.5	28.7
TMCLKL	HY/2012/07	16-05-2015	Mid-Ebb	SR4	12:35	Bottom	3	2	26.2	7.01	20.6	6.26	21.4	27.8
TMCLKL	HY/2012/07	16-05-2015	Mid-Ebb	IS8	12:15	Surface	1	1	26.6	6.89	20.4	6.59	19.2	25
TMCLKL	HY/2012/07	16-05-2015	Mid-Ebb	IS8	12:15	Surface	1	2	26.5	6.9	20.5	6.55	19.1	24.6
TMCLKL	HY/2012/07	16-05-2015	Mid-Ebb	IS8	12:15	Middle	2	1						
TMCLKL	HY/2012/07	16-05-2015	Mid-Ebb	IS8	12:15	Middle	2	2						
TMCLKL	HY/2012/07	16-05-2015	Mid-Ebb	IS8	12:15	Bottom	3	1	26.2	6.94	20.5	6.04	19.8	26.4
TMCLKL	HY/2012/07	16-05-2015	Mid-Ebb	IS8	12:15	Bottom	3	2	26.1	6.97	20.6	6.07	19.5	25.4
TMCLKL	HY/2012/07	16-05-2015	Mid-Ebb	IS(Mf)16	11:54	Surface	1	1	26.6	6.86	20.3	6.8	18	23.4
TMCLKL	HY/2012/07	16-05-2015	Mid-Ebb	IS(Mf)16	11:54	Surface	1	2	26.7	6.89	20.2	6.75	17.7	23
TMCLKL	HY/2012/07	16-05-2015	Mid-Ebb	IS(Mf)16	11:54	Middle	2	1	26.3	6.79	20.8	6.23	20.5	26.7
TMCLKL	HY/2012/07	16-05-2015	Mid-Ebb	IS(Mf)16	11:54	Middle	2	2	26.3	6.82	20.7	6.28	20.4	27
TMCLKL	HY/2012/07	16-05-2015	Mid-Ebb	IS(Mf)16	11:54	Bottom	3	1	26.2	6.96	20.9	6.11	22.7	30.3
TMCLKL	HY/2012/07	16-05-2015	Mid-Ebb	IS(Mf)16	11:54	Bottom	3	2	26.2	6.95	21	6.06	22.5	30
TMCLKL	HY/2012/07	16-05-2015	Mid-Ebb	IS(Mf)9	11:29	Surface	1	1	26.6	6.76	20.1	6.49	18.7	24.3
TMCLKL	HY/2012/07	16-05-2015	Mid-Ebb	IS(Mf)9	11:29	Surface	1	2	26.5	6.8	20.1	6.46	18.4	24.5
TMCLKL	HY/2012/07	16-05-2015	Mid-Ebb	IS(Mf)9	11:29	Middle	2	1						
TMCLKL	HY/2012/07	16-05-2015	Mid-Ebb	IS(Mf)9	11:29	Middle	2	2						
TMCLKL	HY/2012/07	16-05-2015	Mid-Ebb	IS(Mf)9	11:29	Bottom	3	1	26.3	6.9	20.7	5.98	20.9	26.8
TMCLKL	HY/2012/07	16-05-2015	Mid-Ebb	IS(Mf)9	11:29	Bottom	3	2	26.2	6.91	20.9	5.94	21.1	27.5
TMCLKL	HY/2012/07	16-05-2015	Mid-Ebb	CS(Mf)5	13:10	Surface	1	1	26.7	6.9	20.4	6.77	20.2	26.5
TMCLKL	HY/2012/07	16-05-2015	Mid-Ebb	CS(Mf)5	13:10	Surface	1	2	26.7	6.92	20.4	6.79	20.3	27.1
TMCLKL	HY/2012/07	16-05-2015	Mid-Ebb	CS(Mf)5	13:10	Middle	2	1	26.2	6.98	20.7	6.32	21.8	28.8
TMCLKL	HY/2012/07	16-05-2015	Mid-Ebb	CS(Mf)5	13:10	Middle	2	2	26.3	6.95	20.8	6.28	21.9	28.5
TMCLKL	HY/2012/07	16-05-2015	Mid-Ebb	CS(Mf)5	13:10	Bottom	3	1	26.1	7.02	21	6.1	23.4	30.4
TMCLKL	HY/2012/07	16-05-2015	Mid-Ebb	CS(Mf)5	13:10	Bottom	3	2	26.1	7.04	21.1	6.06	23.6	30.7
TMCLKL	HY/2012/07	19-05-2015	Mid-Flood	CS(Mf)5	19:00	Surface	1	1	26.1	6.93	20.5	6.81	18.2	23.7
TMCLKL	HY/2012/07	19-05-2015	Mid-Flood	CS(Mf)5	19:00	Surface	1	2	26	6.96	20.4	6.86	18.7	24.3
TMCLKL	HY/2012/07	19-05-2015	Mid-Flood	CS(Mf)5	19:00	Middle	2	1	26.3	7.04	21.2	6.73	17.8	21.4
TMCLKL	HY/2012/07	19-05-2015	Mid-Flood	CS(Mf)5	19:00	Middle	2	2	26.2	7.08	21.3	6.76	18	23.4

Project	Works	Date (yyyy-mm-dd)	Tide	Stat	Start Time	Level	Lev_Cod	Replicate	Temp_v	pH_v	Sal_v	DO_v	Turb_v	SS_v
TMCLKL	HY/2012/07	19-05-2015	Mid-Flood	CS(Mf)5	19:00	Bottom	3	1	26.4	7.1	21.8	6.5	24.3	36.5
TMCLKL	HY/2012/07	19-05-2015	Mid-Flood	CS(Mf)5	19:00	Bottom	3	2	26.5	7.08	21.9	6.52	25.1	37.7
TMCLKL	HY/2012/07	19-05-2015	Mid-Flood	SR4a	19:19	Surface	1	1	26.2	7.11	20.3	6.63	20.2	28.3
TMCLKL	HY/2012/07	19-05-2015	Mid-Flood	SR4a	19:19	Surface	1	2	26.1	7.07	20.4	6.58	20.9	25.1
TMCLKL	HY/2012/07	19-05-2015	Mid-Flood	SR4a	19:19	Middle	2	1						
TMCLKL	HY/2012/07	19-05-2015	Mid-Flood	SR4a	19:19	Middle	2	2						
TMCLKL	HY/2012/07	19-05-2015	Mid-Flood	SR4a	19:19	Bottom	3	1	26.3	6.93	20.4	6.38	22.4	33.6
TMCLKL	HY/2012/07	19-05-2015	Mid-Flood	SR4a	19:19	Bottom	3	2	26.2	6.99	20.5	6.34	21.8	30.5
TMCLKL	HY/2012/07	19-05-2015	Mid-Flood	SR4	19:33	Surface	1	1	26.1	6.89	20.5	6.53	17.3	22.5
TMCLKL	HY/2012/07	19-05-2015	Mid-Flood	SR4	19:33	Surface	1	2	26	6.84	20.6	6.57	17.9	26.9
TMCLKL	HY/2012/07	19-05-2015	Mid-Flood	SR4	19:33	Middle	2	1						
TMCLKL	HY/2012/07	19-05-2015	Mid-Flood	SR4	19:33	Middle	2	2						
TMCLKL	HY/2012/07	19-05-2015	Mid-Flood	SR4	19:33	Bottom	3	1	26.2	6.73	20.6	6.32	20.3	32.5
TMCLKL	HY/2012/07	19-05-2015	Mid-Flood	SR4	19:33	Bottom	3	2	26.1	6.75	20.6	6.37	20.8	25
TMCLKL	HY/2012/07	19-05-2015	Mid-Flood	IS8	19:46	Surface	1	1	26.2	6.74	20.4	6.67	18.4	29.4
TMCLKL	HY/2012/07	19-05-2015	Mid-Flood	IS8	19:46	Surface	1	2	26.1	6.76	20.3	6.71	18.9	22.7
TMCLKL	HY/2012/07	19-05-2015	Mid-Flood	IS8	19:46	Middle	2	1						
TMCLKL	HY/2012/07	19-05-2015	Mid-Flood	IS8	19:46	Middle	2	2						
TMCLKL	HY/2012/07	19-05-2015	Mid-Flood	IS8	19:46	Bottom	3	1	26.1	6.81	20.3	6.48	21.2	29.7
TMCLKL	HY/2012/07	19-05-2015	Mid-Flood	IS8	19:46	Bottom	3	2	26.2	6.77	20.3	6.42	21.7	30.4
TMCLKL	HY/2012/07	19-05-2015	Mid-Flood	IS(Mf)16	20:01	Surface	1	1	26.2	6.63	20.4	6.56	19.4	25.2
TMCLKL	HY/2012/07	19-05-2015	Mid-Flood	IS(Mf)16	20:01	Surface	1	2	26.2	6.68	20.3	6.52	20.1	28.1
TMCLKL	HY/2012/07	19-05-2015	Mid-Flood	IS(Mf)16	20:01	Middle	2	1	26.4	6.79	20.6	6.43	21.2	31.8
TMCLKL	HY/2012/07	19-05-2015	Mid-Flood	IS(Mf)16	20:01	Middle	2	2	26.3	6.8	20.5	6.47	21.4	25.7
TMCLKL	HY/2012/07	19-05-2015	Mid-Flood	IS(Mf)16	20:01	Bottom	3	1	26.6	6.87	21.1	6.28	22.1	28.7
TMCLKL	HY/2012/07	19-05-2015	Mid-Flood	IS(Mf)16	20:01	Bottom	3	2	26.5	6.92	21.2	6.22	21.8	28.3
TMCLKL	HY/2012/07	19-05-2015	Mid-Flood	IS(Mf)9	20:19	Surface	1	1	26.2	6.89	20.6	6.56	19.1	22.9
TMCLKL	HY/2012/07	19-05-2015	Mid-Flood	IS(Mf)9	20:19	Surface	1	2	26.1	6.9	20.5	6.59	19.4	25.2
TMCLKL	HY/2012/07	19-05-2015	Mid-Flood	IS(Mf)9	20:19	Middle	2	1						
TMCLKL	HY/2012/07	19-05-2015	Mid-Flood	IS(Mf)9	20:19	Middle	2	2						
TMCLKL	HY/2012/07	19-05-2015	Mid-Flood	IS(Mf)9	20:19	Bottom	3	1	26.1	6.86	20.8	6.49	21.4	32.1
TMCLKL	HY/2012/07	19-05-2015	Mid-Flood	IS(Mf)9	20:19	Bottom	3	2	26.1	6.85	20.8	6.47	21.9	32.9
TMCLKL	HY/2012/07	19-05-2015	Mid-Flood	CS(Mf)3	20:38	Surface	1	1	26.1	7.04	20.7	6.67	17.3	24.2
TMCLKL	HY/2012/07	19-05-2015	Mid-Flood	CS(Mf)3	20:38	Surface	1	2	26	7.07	20.8	6.71	18.1	25.3
TMCLKL	HY/2012/07	19-05-2015	Mid-Flood	CS(Mf)3	20:38	Middle	2	1	25.9	7.11	20.5	6.62	15.4	24.6
TMCLKL	HY/2012/07	19-05-2015	Mid-Flood	CS(Mf)3	20:38	Middle	2	2	26	7.13	20.6	6.65	16.2	22.7
TMCLKL	HY/2012/07	19-05-2015	Mid-Flood	CS(Mf)3	20:38	Bottom	3	1	26.3	6.96	21.8	6.47	18.3	25.6

Project	Works	Date (yyyy-mm-dd)	Tide	Stat	Start Time	Level	Lev_Cod	Replicate	Temp_v	pH_v	Sal_v	DO_v	Turb_v	SS_v
TMCLKL	HY/2012/07	19-05-2015	Mid-Flood	CS(Mf)3	20:38	Bottom	3	2	26.4	6.98	21.9	6.41	19.1	24.8
TMCLKL	HY/2012/07	19-05-2015	Mid-Ebb	CS(Mf)3	12:03	Surface	1	1	26.4	6.98	20.6	6.54	18.4	25.8
TMCLKL	HY/2012/07	19-05-2015	Mid-Ebb	CS(Mf)3	12:03	Surface	1	2	26.4	7.01	20.5	6.56	19.2	26.9
TMCLKL	HY/2012/07	19-05-2015	Mid-Ebb	CS(Mf)3	12:03	Middle	2	1	26.4	6.94	20.9	6.66	16.6	21.6
TMCLKL	HY/2012/07	19-05-2015	Mid-Ebb	CS(Mf)3	12:03	Middle	2	2	26.5	6.96	21	6.63	17.2	24.1
TMCLKL	HY/2012/07	19-05-2015	Mid-Ebb	CS(Mf)3	12:03	Bottom	3	1	26.6	6.87	21.3	6.38	23.1	32.3
TMCLKL	HY/2012/07	19-05-2015	Mid-Ebb	CS(Mf)3	12:03	Bottom	3	2	26.7	6.9	21.4	6.41	22.6	31.6
TMCLKL	HY/2012/07	19-05-2015	Mid-Ebb	SR4a	13:39	Surface	1	1	26.6	7.01	20.1	6.52	22.6	36.2
TMCLKL	HY/2012/07	19-05-2015	Mid-Ebb	SR4a	13:39	Surface	1	2	26.6	6.97	20.2	6.48	21.3	32
TMCLKL	HY/2012/07	19-05-2015	Mid-Ebb	SR4a	13:39	Middle	2	1						
TMCLKL	HY/2012/07	19-05-2015	Mid-Ebb	SR4a	13:39	Middle	2	2						
TMCLKL	HY/2012/07	19-05-2015	Mid-Ebb	SR4a	13:39	Bottom	3	1	26.6	6.86	20.7	6.27	26	31.2
TMCLKL	HY/2012/07	19-05-2015	Mid-Ebb	SR4a	13:39	Bottom	3	2	26.6	6.89	20.6	6.31	24.9	34.9
TMCLKL	HY/2012/07	19-05-2015	Mid-Ebb	SR4	13:21	Surface	1	1	26.6	6.78	20.2	6.41	20.2	24.2
TMCLKL	HY/2012/07	19-05-2015	Mid-Ebb	SR4	13:21	Surface	1	2	26.6	6.8	20.3	6.39	21.1	29.5
TMCLKL	HY/2012/07	19-05-2015	Mid-Ebb	SR4	13:21	Middle	2	1						
TMCLKL	HY/2012/07	19-05-2015	Mid-Ebb	SR4	13:21	Middle	2	2						
TMCLKL	HY/2012/07	19-05-2015	Mid-Ebb	SR4	13:21	Bottom	3	1	26.6	6.67	20.6	6.18	23.8	33.3
TMCLKL	HY/2012/07	19-05-2015	Mid-Ebb	SR4	13:21	Bottom	3	2	26.5	6.7	20.5	6.16	24.5	39.2
TMCLKL	HY/2012/07	19-05-2015	Mid-Ebb	IS8	13:05	Surface	1	1	26.5	6.72	20.1	6.53	19.7	29.6
TMCLKL	HY/2012/07	19-05-2015	Mid-Ebb	IS8	13:05	Surface	1	2	26.6	6.76	20.2	6.49	20.5	24.6
TMCLKL	HY/2012/07	19-05-2015	Mid-Ebb	IS8	13:05	Middle	2	1						
TMCLKL	HY/2012/07	19-05-2015	Mid-Ebb	IS8	13:05	Middle	2	2						
TMCLKL	HY/2012/07	19-05-2015	Mid-Ebb	IS8	13:05	Bottom	3	1	26.5	6.75	20.4	6.35	24.3	36.5
TMCLKL	HY/2012/07	19-05-2015	Mid-Ebb	IS8	13:05	Bottom	3	2	26.4	6.79	20.4	6.31	23.6	30.7
TMCLKL	HY/2012/07	19-05-2015	Mid-Ebb	IS(Mf)16	12:43	Surface	1	1	26.5	6.78	20.2	6.38	21.6	28.1
TMCLKL	HY/2012/07	19-05-2015	Mid-Ebb	IS(Mf)16	12:43	Surface	1	2	26.5	6.8	20.2	6.34	20.8	33.3
TMCLKL	HY/2012/07	19-05-2015	Mid-Ebb	IS(Mf)16	12:43	Middle	2	1	26.5	6.74	20.4	6.41	18.4	27.6
TMCLKL	HY/2012/07	19-05-2015	Mid-Ebb	IS(Mf)16	12:43	Middle	2	2	26.4	6.77	20.5	6.42	17.6	22.3
TMCLKL	HY/2012/07	19-05-2015	Mid-Ebb	IS(Mf)16	12:43	Bottom	3	1	26.6	6.82	20.8	6.2	23.4	28.1
TMCLKL	HY/2012/07	19-05-2015	Mid-Ebb	IS(Mf)16	12:43	Bottom	3	2	26.7	6.79	20.7	6.17	22.8	34.2
TMCLKL	HY/2012/07	19-05-2015	Mid-Ebb	IS(Mf)9	12:26	Surface	1	1	26.4	6.84	20.4	6.47	20.6	33
TMCLKL	HY/2012/07	19-05-2015	Mid-Ebb	IS(Mf)9	12:26	Surface	1	2	26.5	6.87	20.4	6.44	19.7	27.6
TMCLKL	HY/2012/07	19-05-2015	Mid-Ebb	IS(Mf)9	12:26	Middle	2	1						
TMCLKL	HY/2012/07	19-05-2015	Mid-Ebb	IS(Mf)9	12:26	Middle	2	2						
TMCLKL	HY/2012/07	19-05-2015	Mid-Ebb	IS(Mf)9	12:26	Bottom	3	1	26.5	6.79	20.7	6.53	22.1	33.2
TMCLKL	HY/2012/07	19-05-2015	Mid-Ebb	IS(Mf)9	12:26	Bottom	3	2	26.5	6.81	20.8	6.56	21.5	32.3

Project	Works	Date (yyyy-mm-dd)	Tide	Stat	Start Time	Level	Lev_Cod	Replicate	Temp_v	pH_v	Sal_v	DO_v	Turb_v	SS_v
TMCLKL	HY/2012/07	19-05-2015	Mid-Ebb	CS(Mf)5	13:55	Surface	1	1	26.6	6.89	20.2	6.74	20.6	24.7
TMCLKL	HY/2012/07	19-05-2015	Mid-Ebb	CS(Mf)5	13:55	Surface	1	2	26.5	6.85	20.3	6.7	21.5	28
TMCLKL	HY/2012/07	19-05-2015	Mid-Ebb	CS(Mf)5	13:55	Middle	2	1	26.5	6.93	20.8	6.63	18.3	27.5
TMCLKL	HY/2012/07	19-05-2015	Mid-Ebb	CS(Mf)5	13:55	Middle	2	2	26.5	6.9	23.9	6.65	19.1	26.7
TMCLKL	HY/2012/07	19-05-2015	Mid-Ebb	CS(Mf)5	13:55	Bottom	3	1	26.6	6.96	21.6	6.34	27	43.2
TMCLKL	HY/2012/07	19-05-2015	Mid-Ebb	CS(Mf)5	13:55	Bottom	3	2	26.7	6.99	21.5	6.36	26.1	39.2
TMCLKL	HY/2012/07	21-05-2015	Mid-Flood	CS(Mf)5	7:47	Surface	1	1	26.3	6.9	19.8	6.74	13	16.9
TMCLKL	HY/2012/07	21-05-2015	Mid-Flood	CS(Mf)5	7:47	Surface	1	2	26.2	6.87	19.9	6.71	12.2	15.9
TMCLKL	HY/2012/07	21-05-2015	Mid-Flood	CS(Mf)5	7:47	Middle	2	1	26.3	6.93	20	6.52	15.5	20.2
TMCLKL	HY/2012/07	21-05-2015	Mid-Flood	CS(Mf)5	7:47	Middle	2	2	26.4	6.9	20.1	6.49	14.6	20.4
TMCLKL	HY/2012/07	21-05-2015	Mid-Flood	CS(Mf)5	7:47	Bottom	3	1	26.5	6.95	20.4	6.23	17.8	23.1
TMCLKL	HY/2012/07	21-05-2015	Mid-Flood	CS(Mf)5	7:47	Bottom	3	2	26.4	6.97	20.5	6.26	18.9	22.7
TMCLKL	HY/2012/07	21-05-2015	Mid-Flood	SR4a	8:06	Surface	1	1	26.1	6.78	19.9	6.6	11.4	13.7
TMCLKL	HY/2012/07	21-05-2015	Mid-Flood	SR4a	8:06	Surface	1	2	26.2	6.83	20	6.57	11.2	13.4
TMCLKL	HY/2012/07	21-05-2015	Mid-Flood	SR4a	8:06	Middle	2	1						
TMCLKL	HY/2012/07	21-05-2015	Mid-Flood	SR4a	8:06	Middle	2	2						
TMCLKL	HY/2012/07	21-05-2015	Mid-Flood	SR4a	8:06	Bottom	3	1	26.4	6.85	20.1	6.38	14.4	21
TMCLKL	HY/2012/07	21-05-2015	Mid-Flood	SR4a	8:06	Bottom	3	2	26.3	6.86	20.2	6.35	12.8	19.2
TMCLKL	HY/2012/07	21-05-2015	Mid-Flood	SR4	8:25	Surface	1	1	26.2	6.84	19.8	6.64	12.5	18.8
TMCLKL	HY/2012/07	21-05-2015	Mid-Flood	SR4	8:25	Surface	1	2	26.1	6.85	19.7	6.63	13.7	19.2
TMCLKL	HY/2012/07	21-05-2015	Mid-Flood	SR4	8:25	Middle	2	1						
TMCLKL	HY/2012/07	21-05-2015	Mid-Flood	SR4	8:25	Middle	2	2						
TMCLKL	HY/2012/07	21-05-2015	Mid-Flood	SR4	8:25	Bottom	3	1	26.3	6.96	19.9	6.29	15.2	21.3
TMCLKL	HY/2012/07	21-05-2015	Mid-Flood	SR4	8:25	Bottom	3	2	26.2	6.93	20	6.26	16.8	22.2
TMCLKL	HY/2012/07	21-05-2015	Mid-Flood	IS8	8:44	Surface	1	1	26.1	6.79	19.8	6.7	13.9	16.7
TMCLKL	HY/2012/07	21-05-2015	Mid-Flood	IS8	8:44	Surface	1	2	26.2	6.82	19.9	6.67	13.1	18.3
TMCLKL	HY/2012/07	21-05-2015	Mid-Flood	IS8	8:44	Middle	2	1						
TMCLKL	HY/2012/07	21-05-2015	Mid-Flood	IS8	8:44	Middle	2	2						
TMCLKL	HY/2012/07	21-05-2015	Mid-Flood	IS8	8:44	Bottom	3	1	26.2	6.89	20.1	6.4	14.7	22.6
TMCLKL	HY/2012/07	21-05-2015	Mid-Flood	IS8	8:44	Bottom	3	2	26.1	6.91	20	6.36	15.4	23.1
TMCLKL	HY/2012/07	21-05-2015	Mid-Flood	IS(Mf)16	9:03	Surface	1	1	26.1	6.74	19.7	6.78	14.3	18.6
TMCLKL	HY/2012/07	21-05-2015	Mid-Flood	IS(Mf)16	9:03	Surface	1	2	26	6.77	19.8	6.74	13.5	16.2
TMCLKL	HY/2012/07	21-05-2015	Mid-Flood	IS(Mf)16	9:03	Middle	2	1	26.2	6.8	20	6.55	14.9	19.4
TMCLKL	HY/2012/07	21-05-2015	Mid-Flood	IS(Mf)16	9:03	Middle	2	2	26.1	6.83	19.9	6.59	15.6	19
TMCLKL	HY/2012/07	21-05-2015	Mid-Flood	IS(Mf)16	9:03	Bottom	3	1	26.2	6.89	20.3	6.34	17.4	25.8
TMCLKL	HY/2012/07	21-05-2015	Mid-Flood	IS(Mf)16	9:03	Bottom	3	2	26.3	6.86	20.4	6.37	18.1	25.3
TMCLKL	HY/2012/07	21-05-2015	Mid-Flood	IS(Mf)9	9:22	Surface	1	1	26.2	6.85	19.8	6.59	12.8	19.2

Project	Works	Date (yyyy-mm-dd)	Tide	Stat	Start Time	Level	Lev_Cod	Replicate	Temp_v	pH_v	Sal_v	DO_v	Turb_v	SS_v
TMCLKL	HY/2012/07	21-05-2015	Mid-Flood	IS(Mf)9	9:22	Surface	1	2	26.1	6.88	19.9	6.57	13.9	18.7
TMCLKL	HY/2012/07	21-05-2015	Mid-Flood	IS(Mf)9	9:22	Middle	2	1						
TMCLKL	HY/2012/07	21-05-2015	Mid-Flood	IS(Mf)9	9:22	Middle	2	2						
TMCLKL	HY/2012/07	21-05-2015	Mid-Flood	IS(Mf)9	9:22	Bottom	3	1	26.3	6.93	20.2	6.49	15.7	22.4
TMCLKL	HY/2012/07	21-05-2015	Mid-Flood	IS(Mf)9	9:22	Bottom	3	2	26.2	6.96	20.3	6.44	16.4	24.6
TMCLKL	HY/2012/07	21-05-2015	Mid-Flood	CS(Mf)3	9:44	Surface	1	1	26.1	6.78	19.9	6.79	13.6	19
TMCLKL	HY/2012/07	21-05-2015	Mid-Flood	CS(Mf)3	9:44	Surface	1	2	26.2	6.81	20	6.76	14.7	20.6
TMCLKL	HY/2012/07	21-05-2015	Mid-Flood	CS(Mf)3	9:44	Middle	2	1	26.3	6.8	20.4	6.67	15.7	18.8
TMCLKL	HY/2012/07	21-05-2015	Mid-Flood	CS(Mf)3	9:44	Middle	2	2	26.2	6.83	20.3	6.65	15.1	21.1
TMCLKL	HY/2012/07	21-05-2015	Mid-Flood	CS(Mf)3	9:44	Bottom	3	1	26.5	6.89	21	6.4	17.9	23.9
TMCLKL	HY/2012/07	21-05-2015	Mid-Flood	CS(Mf)3	9:44	Bottom	3	2	26.4	6.91	20.9	6.37	18.5	23.1
TMCLKL	HY/2012/07	21-05-2015	Mid-Ebb	CS(Mf)3	13:30	Surface	1	1	26.1	6.72	19.8	6.73	14.5	17.4
TMCLKL	HY/2012/07	21-05-2015	Mid-Ebb	CS(Mf)3	13:30	Surface	1	2	26.1	6.75	19.9	6.7	15.6	19.8
TMCLKL	HY/2012/07	21-05-2015	Mid-Ebb	CS(Mf)3	13:30	Middle	2	1	26.2	6.74	20.3	6.61	16.6	23.2
TMCLKL	HY/2012/07	21-05-2015	Mid-Ebb	CS(Mf)3	13:30	Middle	2	2	26.1	6.77	20.2	6.59	16	24
TMCLKL	HY/2012/07	21-05-2015	Mid-Ebb	CS(Mf)3	13:30	Bottom	3	1	26.4	6.83	20.8	6.34	18.8	21.8
TMCLKL	HY/2012/07	21-05-2015	Mid-Ebb	CS(Mf)3	13:30	Bottom	3	2	26.3	6.85	20.9	6.31	19.4	22.1
TMCLKL	HY/2012/07	21-05-2015	Mid-Ebb	SR4a	15:20	Surface	1	1	26	6.72	19.8	6.54	12.3	14.8
TMCLKL	HY/2012/07	21-05-2015	Mid-Ebb	SR4a	15:20	Surface	1	2	26.1	6.77	19.9	6.51	12.3	14.5
TMCLKL	HY/2012/07	21-05-2015	Mid-Ebb	SR4a	15:20	Middle	2	1						
TMCLKL	HY/2012/07	21-05-2015	Mid-Ebb	SR4a	15:20	Middle	2	2						
TMCLKL	HY/2012/07	21-05-2015	Mid-Ebb	SR4a	15:20	Bottom	3	1	26.2	6.79	20.1	6.32	15.3	19.9
TMCLKL	HY/2012/07	21-05-2015	Mid-Ebb	SR4a	15:20	Bottom	3	2	26.3	6.81	20.1	6.29	13.7	20.6
TMCLKL	HY/2012/07	21-05-2015	Mid-Ebb	SR4	15:00	Surface	1	1	26.1	6.78	19.7	6.58	13.4	20.1
TMCLKL	HY/2012/07	21-05-2015	Mid-Ebb	SR4	15:00	Surface	1	2	26.1	6.79	19.7	6.62	14.6	21.9
TMCLKL	HY/2012/07	21-05-2015	Mid-Ebb	SR4	15:00	Middle	2	1						
TMCLKL	HY/2012/07	21-05-2015	Mid-Ebb	SR4	15:00	Middle	2	2						
TMCLKL	HY/2012/07	21-05-2015	Mid-Ebb	SR4	15:00	Bottom	3	1	26.1	6.9	19.9	6.23	16.1	23.8
TMCLKL	HY/2012/07	21-05-2015	Mid-Ebb	SR4	15:00	Bottom	3	2	26.2	6.87	19.9	6.2	17.7	23
TMCLKL	HY/2012/07	21-05-2015	Mid-Ebb	IS8	14:32	Surface	1	1	26.1	6.73	19.7	6.64	14.8	19.2
TMCLKL	HY/2012/07	21-05-2015	Mid-Ebb	IS8	14:32	Surface	1	2	26	6.76	19.8	6.61	14	21
TMCLKL	HY/2012/07	21-05-2015	Mid-Ebb	IS8	14:32	Middle	2	1						
TMCLKL	HY/2012/07	21-05-2015	Mid-Ebb	IS8	14:32	Middle	2	2						
TMCLKL	HY/2012/07	21-05-2015	Mid-Ebb	IS8	14:32	Bottom	3	1	26.1	6.83	20	6.34	15.6	21.8
TMCLKL	HY/2012/07	21-05-2015	Mid-Ebb	IS8	14:32	Bottom	3	2	26.1	6.85	19.9	6.3	16.3	23.5
TMCLKL	HY/2012/07	21-05-2015	Mid-Ebb	IS(Mf)16	14:11	Surface	1	1	26	6.68	19.7	6.72	15.2	24.3
TMCLKL	HY/2012/07	21-05-2015	Mid-Ebb	IS(Mf)16	14:11	Surface	1	2	26	6.71	19.7	6.68	14.4	23

Project	Works	Date (yyyy-mm-dd)	Tide	Stat	Start Time	Level	Lev_Cod	Replicate	Temp_v	pH_v	Sal_v	DO_v	Turb_v	SS_v
TMCLKL	HY/2012/07	21-05-2015	Mid-Ebb	IS(Mf)16	14:11	Middle	2	1	26	6.74	19.9	6.49	15.8	22.1
TMCLKL	HY/2012/07	21-05-2015	Mid-Ebb	IS(Mf)16	14:11	Middle	2	2	26.1	6.77	19.9	6.53	16.5	21.5
TMCLKL	HY/2012/07	21-05-2015	Mid-Ebb	IS(Mf)16	14:11	Bottom	3	1	26.2	6.83	20.2	6.28	18.3	23.5
TMCLKL	HY/2012/07	21-05-2015	Mid-Ebb	IS(Mf)16	14:11	Bottom	3	2	26.2	6.8	20.3	6.31	19	22.2
TMCLKL	HY/2012/07	21-05-2015	Mid-Ebb	IS(Mf)9	13:52	Surface	1	1	26	6.79	19.7	6.53	13.7	17.8
TMCLKL	HY/2012/07	21-05-2015	Mid-Ebb	IS(Mf)9	13:52	Surface	1	2	26.1	6.82	19.8	6.51	14.8	17.8
TMCLKL	HY/2012/07	21-05-2015	Mid-Ebb	IS(Mf)9	13:52	Middle	2	1						
TMCLKL	HY/2012/07	21-05-2015	Mid-Ebb	IS(Mf)9	13:52	Middle	2	2						
TMCLKL	HY/2012/07	21-05-2015	Mid-Ebb	IS(Mf)9	13:52	Bottom	3	1	26.2	6.87	20.1	6.43	16.6	24.9
TMCLKL	HY/2012/07	21-05-2015	Mid-Ebb	IS(Mf)9	13:52	Bottom	3	2	26.2	6.9	20.2	6.38	17.3	23.5
TMCLKL	HY/2012/07	21-05-2015	Mid-Ebb	CS(Mf)5	15:45	Surface	1	1	26.1	6.84	19.7	6.68	13.9	20.9
TMCLKL	HY/2012/07	21-05-2015	Mid-Ebb	CS(Mf)5	15:45	Surface	1	2	26.2	6.81	19.9	6.65	13.1	18.3
TMCLKL	HY/2012/07	21-05-2015	Mid-Ebb	CS(Mf)5	15:45	Middle	2	1	26.3	6.87	19.9	6.46	16.4	18.3
TMCLKL	HY/2012/07	21-05-2015	Mid-Ebb	CS(Mf)5	15:45	Middle	2	2	26.2	6.84	20.1	6.43	15.5	21.2
TMCLKL	HY/2012/07	21-05-2015	Mid-Ebb	CS(Mf)5	15:45	Bottom	3	1	26.3	6.89	20.4	6.17	18.7	21.7
TMCLKL	HY/2012/07	21-05-2015	Mid-Ebb	CS(Mf)5	15:45	Bottom	3	2	26.4	6.91	20.3	6.2	19.8	20.8
TMCLKL	HY/2012/07	23-05-2015	Mid-Flood	CS(Mf)5	8:17	Surface	1	1	26.2	6.75	20.1	6.61	14.6	17.5
TMCLKL	HY/2012/07	23-05-2015	Mid-Flood	CS(Mf)5	8:17	Surface	1	2	26.1	6.77	20.2	6.58	14	18.2
TMCLKL	HY/2012/07	23-05-2015	Mid-Flood	CS(Mf)5	8:17	Middle	2	1	26.2	6.84	20.4	6.72	16.8	23.5
TMCLKL	HY/2012/07	23-05-2015	Mid-Flood	CS(Mf)5	8:17	Middle	2	2	26.3	6.87	20.5	6.75	17.4	26.1
TMCLKL	HY/2012/07	23-05-2015	Mid-Flood	CS(Mf)5	8:17	Bottom	3	1	26.4	6.78	21.3	6.43	19.6	29.4
TMCLKL	HY/2012/07	23-05-2015	Mid-Flood	CS(Mf)5	8:17	Bottom	3	2	26.5	6.84	21.4	6.39	20.5	30.8
TMCLKL	HY/2012/07	23-05-2015	Mid-Flood	SR4a	8:45	Surface	1	1	26.2	6.82	20.2	6.66	13.8	17.9
TMCLKL	HY/2012/07	23-05-2015	Mid-Flood	SR4a	8:45	Surface	1	2	26.2	6.79	20.4	6.69	12.7	19.1
TMCLKL	HY/2012/07	23-05-2015	Mid-Flood	SR4a	8:45	Middle	2	1						
TMCLKL	HY/2012/07	23-05-2015	Mid-Flood	SR4a	8:45	Middle	2	2						
TMCLKL	HY/2012/07	23-05-2015	Mid-Flood	SR4a	8:45	Bottom	3	1	26.3	6.86	20.4	6.48	16.2	21.1
TMCLKL	HY/2012/07	23-05-2015	Mid-Flood	SR4a	8:45	Bottom	3	2	26.2	6.89	20.4	6.44	15.6	23.4
TMCLKL	HY/2012/07	23-05-2015	Mid-Flood	SR4	9:04	Surface	1	1	26.2	6.68	20	6.74	14.1	21.2
TMCLKL	HY/2012/07	23-05-2015	Mid-Flood	SR4	9:04	Surface	1	2	26.3	6.71	20.1	6.71	15.2	18.2
TMCLKL	HY/2012/07	23-05-2015	Mid-Flood	SR4	9:04	Middle	2	1						
TMCLKL	HY/2012/07	23-05-2015	Mid-Flood	SR4	9:04	Middle	2	2						
TMCLKL	HY/2012/07	23-05-2015	Mid-Flood	SR4	9:04	Bottom	3	1	26.3	6.74	20.3	6.4	18.6	27.9
TMCLKL	HY/2012/07	23-05-2015	Mid-Flood	SR4	9:04	Bottom	3	2	26.4	6.77	20.3	6.37	18	27
TMCLKL	HY/2012/07	23-05-2015	Mid-Flood	IS8	9:23	Surface	1	1	26.3	6.73	20	6.83	15.7	22
TMCLKL	HY/2012/07	23-05-2015	Mid-Flood	IS8	9:23	Surface	1	2	26.2	6.76	19.9	6.78	16.3	22.8
TMCLKL	HY/2012/07	23-05-2015	Mid-Flood	IS8	9:23	Middle	2	1						

Project	Works	Date (yyyy-mm-dd)	Tide	Stat	Start Time	Level	Lev_Cod	Replicate	Temp_v	pH_v	Sal_v	DO_v	Turb_v	SS_v
TMCLKL	HY/2012/07	23-05-2015	Mid-Flood	IS8	9:23	Middle	2	2						
TMCLKL	HY/2012/07	23-05-2015	Mid-Flood	IS8	9:23	Bottom	3	1	26.3	6.78	20.2	6.56	17.2	25.8
TMCLKL	HY/2012/07	23-05-2015	Mid-Flood	IS8	9:23	Bottom	3	2	26.3	6.75	20.3	6.52	18.1	27.2
TMCLKL	HY/2012/07	23-05-2015	Mid-Flood	IS(Mf)16	9:43	Surface	1	1	26.3	6.69	19.8	6.73	14.7	22.1
TMCLKL	HY/2012/07	23-05-2015	Mid-Flood	IS(Mf)16	9:43	Surface	1	2	26.3	6.72	19.9	6.69	14	19.6
TMCLKL	HY/2012/07	23-05-2015	Mid-Flood	IS(Mf)16	9:43	Middle	2	1	26.3	6.76	20.2	6.58	16.6	26.6
TMCLKL	HY/2012/07	23-05-2015	Mid-Flood	IS(Mf)16	9:43	Middle	2	2	26.2	6.79	20.3	6.55	17.2	22.4
TMCLKL	HY/2012/07	23-05-2015	Mid-Flood	IS(Mf)16	9:43	Bottom	3	1	26.4	6.78	20.5	6.34	19.8	25.7
TMCLKL	HY/2012/07	23-05-2015	Mid-Flood	IS(Mf)16	9:43	Bottom	3	2	26.5	6.8	20.6	6.3	20.6	24.7
TMCLKL	HY/2012/07	23-05-2015	Mid-Flood	IS(Mf)9	10:08	Surface	1	1	26.2	6.73	19.9	6.61	14.7	22.1
TMCLKL	HY/2012/07	23-05-2015	Mid-Flood	IS(Mf)9	10:08	Surface	1	2	26.2	6.76	20.1	6.58	15.6	20.3
TMCLKL	HY/2012/07	23-05-2015	Mid-Flood	IS(Mf)9	10:08	Middle	2	1						
TMCLKL	HY/2012/07	23-05-2015	Mid-Flood	IS(Mf)9	10:08	Middle	2	2						
TMCLKL	HY/2012/07	23-05-2015	Mid-Flood	IS(Mf)9	10:08	Bottom	3	1	26.2	6.78	20.2	6.28	18.3	22
TMCLKL	HY/2012/07	23-05-2015	Mid-Flood	IS(Mf)9	10:08	Bottom	3	2	26.3	6.8	20.3	6.31	19	26.6
TMCLKL	HY/2012/07	23-05-2015	Mid-Flood	CS(Mf)3	10:30	Surface	1	1	26.2	6.78	20	6.79	16.3	22.8
TMCLKL	HY/2012/07	23-05-2015	Mid-Flood	CS(Mf)3	10:30	Surface	1	2	26.3	6.81	20.1	6.82	17.1	27.4
TMCLKL	HY/2012/07	23-05-2015	Mid-Flood	CS(Mf)3	10:30	Middle	2	1	26.4	6.74	20.5	6.57	18.5	29.6
TMCLKL	HY/2012/07	23-05-2015	Mid-Flood	CS(Mf)3	10:30	Middle	2	2	26.4	6.77	20.6	6.54	19.2	26.9
TMCLKL	HY/2012/07	23-05-2015	Mid-Flood	CS(Mf)3	10:30	Bottom	3	1	26.5	6.84	21.1	6.23	22	30.8
TMCLKL	HY/2012/07	23-05-2015	Mid-Flood	CS(Mf)3	10:30	Bottom	3	2	26.5	6.87	21.2	6.18	21.1	31.7
TMCLKL	HY/2012/07	23-05-2015	Mid-Ebb	CS(Mf)3	14:50	Surface	1	1	26.2	6.8	20	6.76	16.8	23.5
TMCLKL	HY/2012/07	23-05-2015	Mid-Ebb	CS(Mf)3	14:50	Surface	1	2	26.2	6.82	20	6.74	17.6	26.4
TMCLKL	HY/2012/07	23-05-2015	Mid-Ebb	CS(Mf)3	14:50	Middle	2	1	26.3	6.76	20.8	6.54	19.6	23.5
TMCLKL	HY/2012/07	23-05-2015	Mid-Ebb	CS(Mf)3	14:50	Middle	2	2	26.3	6.72	20.8	6.5	20.4	28.6
TMCLKL	HY/2012/07	23-05-2015	Mid-Ebb	CS(Mf)3	14:50	Bottom	3	1	26.3	6.86	21.4	6.18	23	32.2
TMCLKL	HY/2012/07	23-05-2015	Mid-Ebb	CS(Mf)3	14:50	Bottom	3	2	26.3	6.82	21.4	6.16	23.6	33
TMCLKL	HY/2012/07	23-05-2015	Mid-Ebb	SR4a	16:45	Surface	1	1	26.3	6.8	20.3	6.6	14	21
TMCLKL	HY/2012/07	23-05-2015	Mid-Ebb	SR4a	16:45	Surface	1	2	26.3	6.84	20.3	6.62	14.2	19.9
TMCLKL	HY/2012/07	23-05-2015	Mid-Ebb	SR4a	16:45	Middle	2	1						
TMCLKL	HY/2012/07	23-05-2015	Mid-Ebb	SR4a	16:45	Middle	2	2						
TMCLKL	HY/2012/07	23-05-2015	Mid-Ebb	SR4a	16:45	Bottom	3	1	26.2	6.88	20.6	6.4	15.8	19
TMCLKL	HY/2012/07	23-05-2015	Mid-Ebb	SR4a	16:45	Bottom	3	2	26.2	6.9	20.6	6.38	16.4	23
TMCLKL	HY/2012/07	23-05-2015	Mid-Ebb	SR4	16:25	Surface	1	1	26.1	6.7	20	6.7	14.8	20.7
TMCLKL	HY/2012/07	23-05-2015	Mid-Ebb	SR4	16:25	Surface	1	2	26.1	6.68	20	6.66	15.6	21.8
TMCLKL	HY/2012/07	23-05-2015	Mid-Ebb	SR4	16:25	Middle	2	1						
TMCLKL	HY/2012/07	23-05-2015	Mid-Ebb	SR4	16:25	Middle	2	2						

Project	Works	Date (yyyy-mm-dd)	Tide	Stat	Start Time	Level	Lev_Cod	Replicate	Temp_v	pH_v	Sal_v	DO_v	Turb_v	SS_v
TMCLKL	HY/2012/07	23-05-2015	Mid-Ebb	SR4	16:25	Bottom	3	1	26.2	6.76	20.2	6.36	19	28.5
TMCLKL	HY/2012/07	23-05-2015	Mid-Ebb	SR4	16:25	Bottom	3	2	26.2	6.7	20.2	6.32	19.8	29.7
TMCLKL	HY/2012/07	23-05-2015	Mid-Ebb	IS8	16:05	Surface	1	1	26.3	6.78	19.9	6.74	16.6	21.6
TMCLKL	HY/2012/07	23-05-2015	Mid-Ebb	IS8	16:05	Surface	1	2	26.3	6.74	19.9	6.7	17	25.5
TMCLKL	HY/2012/07	23-05-2015	Mid-Ebb	IS8	16:05	Middle	2	1						
TMCLKL	HY/2012/07	23-05-2015	Mid-Ebb	IS8	16:05	Middle	2	2						
TMCLKL	HY/2012/07	23-05-2015	Mid-Ebb	IS8	16:05	Bottom	3	1	26.1	6.8	20.1	6.5	17.4	20.9
TMCLKL	HY/2012/07	23-05-2015	Mid-Ebb	IS8	16:05	Bottom	3	2	26.1	6.76	20.1	6.46	17.8	26.7
TMCLKL	HY/2012/07	23-05-2015	Mid-Ebb	IS(Mf)16	15:35	Surface	1	1	26.3	6.74	20	6.64	15	18
TMCLKL	HY/2012/07	23-05-2015	Mid-Ebb	IS(Mf)16	15:35	Surface	1	2	26.3	6.7	20	6.62	14.6	20.4
TMCLKL	HY/2012/07	23-05-2015	Mid-Ebb	IS(Mf)16	15:35	Middle	2	1	26.3	6.8	20.3	6.52	17	27.2
TMCLKL	HY/2012/07	23-05-2015	Mid-Ebb	IS(Mf)16	15:35	Middle	2	2	26.3	6.76	20.3	6.5	17.8	23.1
TMCLKL	HY/2012/07	23-05-2015	Mid-Ebb	IS(Mf)16	15:35	Bottom	3	1	26.4	6.82	20.6	6.26	20	26
TMCLKL	HY/2012/07	23-05-2015	Mid-Ebb	IS(Mf)16	15:35	Bottom	3	2	26.4	6.78	20.6	6.22	20.6	26.8
TMCLKL	HY/2012/07	23-05-2015	Mid-Ebb	IS(Mf)9	15:15	Surface	1	1	26.2	6.74	19.8	6.58	16.2	22.7
TMCLKL	HY/2012/07	23-05-2015	Mid-Ebb	IS(Mf)9	15:15	Surface	1	2	26.2	6.7	20	6.5	16.4	24.6
TMCLKL	HY/2012/07	23-05-2015	Mid-Ebb	IS(Mf)9	15:15	Middle	2	1						
TMCLKL	HY/2012/07	23-05-2015	Mid-Ebb	IS(Mf)9	15:15	Middle	2	2						
TMCLKL	HY/2012/07	23-05-2015	Mid-Ebb	IS(Mf)9	15:15	Bottom	3	1	26.1	6.8	20.2	6.24	18.6	26
TMCLKL	HY/2012/07	23-05-2015	Mid-Ebb	IS(Mf)9	15:15	Bottom	3	2	26.1	6.88	20.2	6.2	19.2	30.7
TMCLKL	HY/2012/07	23-05-2015	Mid-Ebb	CS(Mf)5	17:10	Surface	1	1	26.2	6.78	20.4	6.56	15	22.5
TMCLKL	HY/2012/07	23-05-2015	Mid-Ebb	CS(Mf)5	17:10	Surface	1	2	26.2	6.76	20.4	6.5	15.2	18.2
TMCLKL	HY/2012/07	23-05-2015	Mid-Ebb	CS(Mf)5	17:10	Middle	2	1	26.3	6.88	20.6	6.7	17	20.4
TMCLKL	HY/2012/07	23-05-2015	Mid-Ebb	CS(Mf)5	17:10	Middle	2	2	26.3	6.84	20.6	6.7	17.6	21.1
TMCLKL	HY/2012/07	23-05-2015	Mid-Ebb	CS(Mf)5	17:10	Bottom	3	1	26.4	6.82	21.4	6.36	20.6	30.9
TMCLKL	HY/2012/07	23-05-2015	Mid-Ebb	CS(Mf)5	17:10	Bottom	3	2	26.4	6.8	21.4	6.32	21.2	27.6
TMCLKL	HY/2012/07	26-05-2015	Mid-Flood	CS(Mf)5	11:39	Surface	1	1	24.8	8.14	19.6	6.77	9.22	13
TMCLKL	HY/2012/07	26-05-2015	Mid-Flood	CS(Mf)5	11:39	Surface	1	2	24.8	8.1	19.8	6.82	9.3	13.5
TMCLKL	HY/2012/07	26-05-2015	Mid-Flood	CS(Mf)5	11:39	Middle	2	1	24.8	8.16	20	6.66	11.2	15.8
TMCLKL	HY/2012/07	26-05-2015	Mid-Flood	CS(Mf)5	11:39	Middle	2	2	24.8	8.18	20	6.62	11	15.6
TMCLKL	HY/2012/07	26-05-2015	Mid-Flood	CS(Mf)5	11:39	Bottom	3	1	24.7	8.18	21.8	6.48	14.1	20.4
TMCLKL	HY/2012/07	26-05-2015	Mid-Flood	CS(Mf)5	11:39	Bottom	3	2	24.7	8.2	21.8	6.42	14.9	21
TMCLKL	HY/2012/07	26-05-2015	Mid-Flood	SR4a	12:10	Surface	1	1	24.9	8.16	19.8	6.88	9.14	13.2
TMCLKL	HY/2012/07	26-05-2015	Mid-Flood	SR4a	12:10	Surface	1	2	24.9	8.13	19.9	6.92	9.2	13.3
TMCLKL	HY/2012/07	26-05-2015	Mid-Flood	SR4a	12:10	Middle	2	1						
TMCLKL	HY/2012/07	26-05-2015	Mid-Flood	SR4a	12:10	Middle	2	2						
TMCLKL	HY/2012/07	26-05-2015	Mid-Flood	SR4a	12:10	Bottom	3	1	24.9	8.14	20.4	6.86	10.6	15

Project	Works	Date (yyyy-mm-dd)	Tide	Stat	Start Time	Level	Lev_Cod	Replicate	Temp_v	pH_v	Sal_v	DO_v	Turb_v	SS_v
TMCLKL	HY/2012/07	26-05-2015	Mid-Flood	SR4a	12:10	Bottom	3	2	24.9	8.12	20.4	6.8	11.4	16.1
TMCLKL	HY/2012/07	26-05-2015	Mid-Flood	SR4	12:25	Surface	1	1	25	8.08	20.2	6.52	10	14.4
TMCLKL	HY/2012/07	26-05-2015	Mid-Flood	SR4	12:25	Surface	1	2	25	8.04	20.4	6.5	9.99	14
TMCLKL	HY/2012/07	26-05-2015	Mid-Flood	SR4	12:25	Middle	2	1						
TMCLKL	HY/2012/07	26-05-2015	Mid-Flood	SR4	12:25	Middle	2	2						
TMCLKL	HY/2012/07	26-05-2015	Mid-Flood	SR4	12:25	Bottom	3	1	24.9	8.2	20.8	6.5	11.8	16.9
TMCLKL	HY/2012/07	26-05-2015	Mid-Flood	SR4	12:25	Bottom	3	2	24.9	8.1	20.8	6.46	12.4	17.5
TMCLKL	HY/2012/07	26-05-2015	Mid-Flood	IS8	12:40	Surface	1	1	25	8.1	20.4	6.88	9.88	13.9
TMCLKL	HY/2012/07	26-05-2015	Mid-Flood	IS8	12:40	Surface	1	2	25.1	8.06	20.4	6.8	9.94	14
TMCLKL	HY/2012/07	26-05-2015	Mid-Flood	IS8	12:40	Middle	2	1						
TMCLKL	HY/2012/07	26-05-2015	Mid-Flood	IS8	12:40	Middle	2	2						
TMCLKL	HY/2012/07	26-05-2015	Mid-Flood	IS8	12:40	Bottom	3	1	24.9	8.16	21.2	6.74	12.1	17.1
TMCLKL	HY/2012/07	26-05-2015	Mid-Flood	IS8	12:40	Bottom	3	2	24.9	8.2	21	6.7	11.6	16.6
TMCLKL	HY/2012/07	26-05-2015	Mid-Flood	IS(Mf)16	13:05	Surface	1	1	25.2	8.14	20.4	6.64	10.1	14.2
TMCLKL	HY/2012/07	26-05-2015	Mid-Flood	IS(Mf)16	13:05	Surface	1	2	25.1	8.16	20.4	6.6	10.8	15.2
TMCLKL	HY/2012/07	26-05-2015	Mid-Flood	IS(Mf)16	13:05	Middle	2	1	25	8.14	21	6.52	11.2	16.1
TMCLKL	HY/2012/07	26-05-2015	Mid-Flood	IS(Mf)16	13:05	Middle	2	2	25	8.1	21.2	6.46	11.6	16.7
TMCLKL	HY/2012/07	26-05-2015	Mid-Flood	IS(Mf)16	13:05	Bottom	3	1	24.8	8.18	21.8	6.4	13.8	19.5
TMCLKL	HY/2012/07	26-05-2015	Mid-Flood	IS(Mf)16	13:05	Bottom	3	2	24.8	8.2	21.6	6.34	14.2	20
TMCLKL	HY/2012/07	26-05-2015	Mid-Flood	IS(Mf)9	13:30	Surface	1	1	25.2	8.18	20.3	6.6	9.98	14.1
TMCLKL	HY/2012/07	26-05-2015	Mid-Flood	IS(Mf)9	13:30	Surface	1	2	25.2	8.16	20.3	6.56	9.9	14.2
TMCLKL	HY/2012/07	26-05-2015	Mid-Flood	IS(Mf)9	13:30	Middle	2	1						
TMCLKL	HY/2012/07	26-05-2015	Mid-Flood	IS(Mf)9	13:30	Middle	2	2						
TMCLKL	HY/2012/07	26-05-2015	Mid-Flood	IS(Mf)9	13:30	Bottom	3	1	25	8.14	21.4	6.54	10.8	15.2
TMCLKL	HY/2012/07	26-05-2015	Mid-Flood	IS(Mf)9	13:30	Bottom	3	2	25	8.1	21.2	6.56	11	15.8
TMCLKL	HY/2012/07	26-05-2015	Mid-Flood	CS(Mf)3	14:00	Surface	1	1	25.3	8.14	20.1	6.66	9.88	13.8
TMCLKL	HY/2012/07	26-05-2015	Mid-Flood	CS(Mf)3	14:00	Surface	1	2	25.3	8.12	20	6.6	9.96	14.1
TMCLKL	HY/2012/07	26-05-2015	Mid-Flood	CS(Mf)3	14:00	Middle	2	1	25	8.2	21.4	6.56	10.8	15.4
TMCLKL	HY/2012/07	26-05-2015	Mid-Flood	CS(Mf)3	14:00	Middle	2	2	25	8.18	21.6	6.5	11.4	16.3
TMCLKL	HY/2012/07	26-05-2015	Mid-Flood	CS(Mf)3	14:00	Bottom	3	1	24.8	8.16	22	6.32	13.8	19.5
TMCLKL	HY/2012/07	26-05-2015	Mid-Flood	CS(Mf)3	14:00	Bottom	3	2	24.8	8.13	21.8	6.26	14.6	20.9
TMCLKL	HY/2012/07	26-05-2015	Mid-Ebb	CS(Mf)3	17:31	Surface	1	1	25.9	8.11	27	6.46	8.79	12.6
TMCLKL	HY/2012/07	26-05-2015	Mid-Ebb	CS(Mf)3	17:31	Surface	1	2	26	8.09	27.1	6.5	8.83	12.8
TMCLKL	HY/2012/07	26-05-2015	Mid-Ebb	CS(Mf)3	17:31	Middle	2	1	26	8.11	27.3	6.49	8.64	12.4
TMCLKL	HY/2012/07	26-05-2015	Mid-Ebb	CS(Mf)3	17:31	Middle	2	2	25.9	8.14	27.2	6.53	8.61	13
TMCLKL	HY/2012/07	26-05-2015	Mid-Ebb	CS(Mf)3	17:31	Bottom	3	1	25.8	8.09	27	6.23	8.97	13
TMCLKL	HY/2012/07	26-05-2015	Mid-Ebb	CS(Mf)3	17:31	Bottom	3	2	25.6	8.13	26.9	6.27	9.04	13.2

Project	Works	Date (yyyy-mm-dd)	Tide	Stat	Start Time	Level	Lev_Cod	Replicate	Temp_v	pH_v	Sal_v	DO_v	Turb_v	SS_v
TMCLKL	HY/2012/07	26-05-2015	Mid-Ebb	SR4a	19:09	Surface	1	1	25.5	8.1	27	6.81	9.02	12.7
TMCLKL	HY/2012/07	26-05-2015	Mid-Ebb	SR4a	19:09	Surface	1	2	25.9	8.06	26.8	6.78	9.09	13.1
TMCLKL	HY/2012/07	26-05-2015	Mid-Ebb	SR4a	19:09	Middle	2	1						
TMCLKL	HY/2012/07	26-05-2015	Mid-Ebb	SR4a	19:09	Middle	2	2						
TMCLKL	HY/2012/07	26-05-2015	Mid-Ebb	SR4a	19:09	Bottom	3	1	26	8.1	26.5	6.87	9.17	12.9
TMCLKL	HY/2012/07	26-05-2015	Mid-Ebb	SR4a	19:09	Bottom	3	2	25.5	8.09	26.9	6.84	9.21	13
TMCLKL	HY/2012/07	26-05-2015	Mid-Ebb	SR4	18:49	Surface	1	1	26.1	8.1	27	6.43	9.72	13.7
TMCLKL	HY/2012/07	26-05-2015	Mid-Ebb	SR4	18:49	Surface	1	2	26	8.14	26.8	6.32	9.77	14.1
TMCLKL	HY/2012/07	26-05-2015	Mid-Ebb	SR4	18:49	Middle	2	1						
TMCLKL	HY/2012/07	26-05-2015	Mid-Ebb	SR4	18:49	Middle	2	2						
TMCLKL	HY/2012/07	26-05-2015	Mid-Ebb	SR4	18:49	Bottom	3	1	25.9	8.09	27.1	6.43	9.69	13.8
TMCLKL	HY/2012/07	26-05-2015	Mid-Ebb	SR4	18:49	Bottom	3	2	25.8	8.08	27	6.5	9.73	14.2
TMCLKL	HY/2012/07	26-05-2015	Mid-Ebb	IS8	18:30	Surface	1	1	26	8.12	27.2	6.74	9.29	13.3
TMCLKL	HY/2012/07	26-05-2015	Mid-Ebb	IS8	18:30	Surface	1	2	25.8	8.1	27	6.7	9.32	13.1
TMCLKL	HY/2012/07	26-05-2015	Mid-Ebb	IS8	18:30	Middle	2	1						
TMCLKL	HY/2012/07	26-05-2015	Mid-Ebb	IS8	18:30	Middle	2	2						
TMCLKL	HY/2012/07	26-05-2015	Mid-Ebb	IS8	18:30	Bottom	3	1	26	8.09	26.8	6.69	9.64	13.9
TMCLKL	HY/2012/07	26-05-2015	Mid-Ebb	IS8	18:30	Bottom	3	2	26	8.11	26.9	6.64	9.67	14
TMCLKL	HY/2012/07	26-05-2015	Mid-Ebb	IS(Mf)16	18:09	Surface	1	1	25.8	8.07	26.8	6.51	9.14	13
TMCLKL	HY/2012/07	26-05-2015	Mid-Ebb	IS(Mf)16	18:09	Surface	1	2	25.6	8.11	26.6	6.5	9.1	12.9
TMCLKL	HY/2012/07	26-05-2015	Mid-Ebb	IS(Mf)16	18:09	Middle	2	1	25.9	8.1	26.5	6.44	9.24	13.3
TMCLKL	HY/2012/07	26-05-2015	Mid-Ebb	IS(Mf)16	18:09	Middle	2	2	25.7	8.11	26.9	6.41	9.26	13.4
TMCLKL	HY/2012/07	26-05-2015	Mid-Ebb	IS(Mf)16	18:09	Bottom	3	1	25.6	8.12	26.7	6.37	9.67	14.1
TMCLKL	HY/2012/07	26-05-2015	Mid-Ebb	IS(Mf)16	18:09	Bottom	3	2	25.9	8.1	27	6.38	9.71	14
TMCLKL	HY/2012/07	26-05-2015	Mid-Ebb	IS(Mf)9	17:49	Surface	1	1	26	8.11	27.2	6.47	9.27	13.4
TMCLKL	HY/2012/07	26-05-2015	Mid-Ebb	IS(Mf)9	17:49	Surface	1	2	25.9	8.12	27	6.5	9.3	13.2
TMCLKL	HY/2012/07	26-05-2015	Mid-Ebb	IS(Mf)9	17:49	Middle	2	1						
TMCLKL	HY/2012/07	26-05-2015	Mid-Ebb	IS(Mf)9	17:49	Middle	2	2						
TMCLKL	HY/2012/07	26-05-2015	Mid-Ebb	IS(Mf)9	17:49	Bottom	3	1	26	8.1	27.1	6.51	9.31	13.4
TMCLKL	HY/2012/07	26-05-2015	Mid-Ebb	IS(Mf)9	17:49	Bottom	3	2	25.8	8.09	27.3	6.56	9.29	13.1
TMCLKL	HY/2012/07	26-05-2015	Mid-Ebb	CS(Mf)5	19:29	Surface	1	1	25.6	8.07	27.2	6.64	8.18	11.5
TMCLKL	HY/2012/07	26-05-2015	Mid-Ebb	CS(Mf)5	19:29	Surface	1	2	25.9	8.06	27	6.7	8.26	11.7
TMCLKL	HY/2012/07	26-05-2015	Mid-Ebb	CS(Mf)5	19:29	Middle	2	1	25.4	8.07	27.3	6.56	8.64	12.4
TMCLKL	HY/2012/07	26-05-2015	Mid-Ebb	CS(Mf)5	19:29	Middle	2	2	25.7	8.08	27.2	6.52	8.71	12.5
TMCLKL	HY/2012/07	26-05-2015	Mid-Ebb	CS(Mf)5	19:29	Bottom	3	1	25.7	8.06	27	6.69	8.97	12.9
TMCLKL	HY/2012/07	26-05-2015	Mid-Ebb	CS(Mf)5	19:29	Bottom	3	2	25.6	8.08	27.3	6.71	8.9	12.6
TMCLKL	HY/2012/07	26-05-2015	Mid-Flood	CS(Mf)5	14:06	Surface	1	1	25.8	7.32	20.5	6.94	11.8	16.5

Project	Works	Date (yyyy-mm-dd)	Tide	Stat	Start Time	Level	Lev_Cod	Replicate	Temp_v	pH_v	Sal_v	DO_v	Turb_v	SS_v
TMCLKL	HY/2012/07	26-05-2015	Mid-Flood	CS(Mf)5	14:06	Surface	1	2	25.9	7.3	20.4	6.99	11.2	15.7
TMCLKL	HY/2012/07	26-05-2015	Mid-Flood	CS(Mf)5	14:06	Middle	2	1	25.8	7.28	20.8	6.77	12.5	16.3
TMCLKL	HY/2012/07	26-05-2015	Mid-Flood	CS(Mf)5	14:06	Middle	2	2	25.7	7.25	20.7	6.72	12.9	20.6
TMCLKL	HY/2012/07	26-05-2015	Mid-Flood	CS(Mf)5	14:06	Bottom	3	1	25.5	7.46	21.4	6.54	15.2	22.8
TMCLKL	HY/2012/07	26-05-2015	Mid-Flood	CS(Mf)5	14:06	Bottom	3	2	25.4	7.47	21.5	6.5	14.7	20.6
TMCLKL	HY/2012/07	26-05-2015	Mid-Flood	SR4a	14:30	Surface	1	1	25.7	7.2	20.6	6.81	10.9	14.2
TMCLKL	HY/2012/07	26-05-2015	Mid-Flood	SR4a	14:30	Surface	1	2	25.8	7.21	20.5	6.85	10.5	14.7
TMCLKL	HY/2012/07	26-05-2015	Mid-Flood	SR4a	14:30	Middle	2	1						
TMCLKL	HY/2012/07	26-05-2015	Mid-Flood	SR4a	14:30	Middle	2	2						
TMCLKL	HY/2012/07	26-05-2015	Mid-Flood	SR4a	14:30	Bottom	3	1	25.7	7.26	21	6.63	11.8	17.7
TMCLKL	HY/2012/07	26-05-2015	Mid-Flood	SR4a	14:30	Bottom	3	2	25.7	7.24	21.1	6.6	12.3	18.5
TMCLKL	HY/2012/07	26-05-2015	Mid-Flood	SR4	14:51	Surface	1	1	25.7	7.26	20.6	6.92	11.2	13.4
TMCLKL	HY/2012/07	26-05-2015	Mid-Flood	SR4	14:51	Surface	1	2	25.8	7.28	20.5	6.94	11.8	17.7
TMCLKL	HY/2012/07	26-05-2015	Mid-Flood	SR4	14:51	Middle	2	1						
TMCLKL	HY/2012/07	26-05-2015	Mid-Flood	SR4	14:51	Middle	2	2						
TMCLKL	HY/2012/07	26-05-2015	Mid-Flood	SR4	14:51	Bottom	3	1	25.7	7.31	20.7	6.73	13.8	19.3
TMCLKL	HY/2012/07	26-05-2015	Mid-Flood	SR4	14:51	Bottom	3	2	25.6	7.32	20.8	6.77	14.2	17
TMCLKL	HY/2012/07	26-05-2015	Mid-Flood	IS8	15:14	Surface	1	1	25.8	7.22	20.5	6.88	10.8	17.3
TMCLKL	HY/2012/07	26-05-2015	Mid-Flood	IS8	15:14	Surface	1	2	25.9	7.25	20.4	6.91	10.3	13.4
TMCLKL	HY/2012/07	26-05-2015	Mid-Flood	IS8	15:14	Middle	2	1						
TMCLKL	HY/2012/07	26-05-2015	Mid-Flood	IS8	15:14	Middle	2	2						
TMCLKL	HY/2012/07	26-05-2015	Mid-Flood	IS8	15:14	Bottom	3	1	25.8	7.27	20.9	6.63	12.7	19.1
TMCLKL	HY/2012/07	26-05-2015	Mid-Flood	IS8	15:14	Bottom	3	2	25.7	7.28	20.8	6.66	13.1	18.3
TMCLKL	HY/2012/07	26-05-2015	Mid-Flood	IS(Mf)16	15:37	Surface	1	1	25.8	7.21	20.3	6.72	12.1	16.9
TMCLKL	HY/2012/07	26-05-2015	Mid-Flood	IS(Mf)16	15:37	Surface	1	2	25.7	7.2	20.4	6.74	11.7	17.6
TMCLKL	HY/2012/07	26-05-2015	Mid-Flood	IS(Mf)16	15:37	Middle	2	1	25.7	7.25	20.6	6.65	12.3	17.2
TMCLKL	HY/2012/07	26-05-2015	Mid-Flood	IS(Mf)16	15:37	Middle	2	2	25.7	7.24	20.5	6.6	12.6	18.9
TMCLKL	HY/2012/07	26-05-2015	Mid-Flood	IS(Mf)16	15:37	Bottom	3	1	25.7	7.32	21.2	6.42	13.8	20.7
TMCLKL	HY/2012/07	26-05-2015	Mid-Flood	IS(Mf)16	15:37	Bottom	3	2	25.6	7.36	21.3	6.39	14.5	20.3
TMCLKL	HY/2012/07	26-05-2015	Mid-Flood	IS(Mf)9	16:00	Surface	1	1	25.8	7.18	20.4	6.82	11.3	17
TMCLKL	HY/2012/07	26-05-2015	Mid-Flood	IS(Mf)9	16:00	Surface	1	2	25.7	7.19	20.3	6.86	11.5	16.1
TMCLKL	HY/2012/07	26-05-2015	Mid-Flood	IS(Mf)9	16:00	Middle	2	1						
TMCLKL	HY/2012/07	26-05-2015	Mid-Flood	IS(Mf)9	16:00	Middle	2	2						
TMCLKL	HY/2012/07	26-05-2015	Mid-Flood	IS(Mf)9	16:00	Bottom	3	1	25.6	7.25	20.6	6.68	13.1	15.7
TMCLKL	HY/2012/07	26-05-2015	Mid-Flood	IS(Mf)9	16:00	Bottom	3	2	25.5	7.27	20.5	6.71	12.6	16.4
TMCLKL	HY/2012/07	26-05-2015	Mid-Flood	CS(Mf)3	16:28	Surface	1	1	26	7.11	20.5	6.89	12.3	16
TMCLKL	HY/2012/07	26-05-2015	Mid-Flood	CS(Mf)3	16:28	Surface	1	2	25.9	7.12	20.4	6.86	12.8	20.5

Project	Works	Date (yyyy-mm-dd)	Tide	Stat	Start Time	Level	Lev_Cod	Replicate	Temp_v	pH_v	Sal_v	DO_v	Turb_v	SS_v
TMCLKL	HY/2012/07	26-05-2015	Mid-Flood	CS(Mf)3	16:28	Middle	2	1	25.7	7.16	20.7	6.79	13.7	20.6
TMCLKL	HY/2012/07	26-05-2015	Mid-Flood	CS(Mf)3	16:28	Middle	2	2	25.8	7.17	20.8	6.75	14.2	21.3
TMCLKL	HY/2012/07	26-05-2015	Mid-Flood	CS(Mf)3	16:28	Bottom	3	1	25.4	7.18	21.5	6.54	15.3	23
TMCLKL	HY/2012/07	26-05-2015	Mid-Flood	CS(Mf)3	16:28	Bottom	3	2	25.3	7.2	21.4	6.59	15.9	23.9
TMCLKL	HY/2012/07	26-05-2015	Mid-Ebb	CS(Mf)3	9:15	Surface	1	1	25.7	7.03	20.2	6.83	12.8	15.4
TMCLKL	HY/2012/07	26-05-2015	Mid-Ebb	CS(Mf)3	9:15	Surface	1	2	25.8	7.07	20.1	6.8	13.4	21.4
TMCLKL	HY/2012/07	26-05-2015	Mid-Ebb	CS(Mf)3	9:15	Middle	2	1	25.7	7.06	20.7	6.71	15.2	19.8
TMCLKL	HY/2012/07	26-05-2015	Mid-Ebb	CS(Mf)3	9:15	Middle	2	2	25.7	7.1	20.5	6.69	15.9	23.9
TMCLKL	HY/2012/07	26-05-2015	Mid-Ebb	CS(Mf)3	9:15	Bottom	3	1	25.6	7.13	21.2	6.48	17.4	26.1
TMCLKL	HY/2012/07	26-05-2015	Mid-Ebb	CS(Mf)3	9:15	Bottom	3	2	25.6	7.16	21.3	6.45	18.3	27.5
TMCLKL	HY/2012/07	26-05-2015	Mid-Ebb	SR4a	10:47	Surface	1	1	25.6	7.16	20.4	6.73	11.5	16.1
TMCLKL	HY/2012/07	26-05-2015	Mid-Ebb	SR4a	10:47	Surface	1	2	25.7	7.19	20.5	6.7	12.2	14.6
TMCLKL	HY/2012/07	26-05-2015	Mid-Ebb	SR4a	10:47	Middle	2	1						
TMCLKL	HY/2012/07	26-05-2015	Mid-Ebb	SR4a	10:47	Middle	2	2						
TMCLKL	HY/2012/07	26-05-2015	Mid-Ebb	SR4a	10:47	Bottom	3	1	25.7	7.23	20.8	6.54	13	18.2
TMCLKL	HY/2012/07	26-05-2015	Mid-Ebb	SR4a	10:47	Bottom	3	2	25.6	7.2	20.9	6.51	13.9	20.9
TMCLKL	HY/2012/07	26-05-2015	Mid-Ebb	SR4	10:30	Surface	1	1	25.7	7.23	20.4	6.86	12.6	17.6
TMCLKL	HY/2012/07	26-05-2015	Mid-Ebb	SR4	10:30	Surface	1	2	25.7	7.26	20.4	6.83	13.3	17.3
TMCLKL	HY/2012/07	26-05-2015	Mid-Ebb	SR4	10:30	Middle	2	1						
TMCLKL	HY/2012/07	26-05-2015	Mid-Ebb	SR4	10:30	Middle	2	2						
TMCLKL	HY/2012/07	26-05-2015	Mid-Ebb	SR4	10:30	Bottom	3	1	25.7	7.27	20.9	6.69	15.3	24.5
TMCLKL	HY/2012/07	26-05-2015	Mid-Ebb	SR4	10:30	Bottom	3	2	25.6	7.3	20.8	6.65	14.8	20.7
TMCLKL	HY/2012/07	26-05-2015	Mid-Ebb	IS8	10:15	Surface	1	1	25.7	7.18	20.3	6.79	11.5	17.3
TMCLKL	HY/2012/07	26-05-2015	Mid-Ebb	IS8	10:15	Surface	1	2	25.7	7.2	20.4	6.81	12.2	17.1
TMCLKL	HY/2012/07	26-05-2015	Mid-Ebb	IS8	10:15	Middle	2	1						
TMCLKL	HY/2012/07	26-05-2015	Mid-Ebb	IS8	10:15	Middle	2	2						
TMCLKL	HY/2012/07	26-05-2015	Mid-Ebb	IS8	10:15	Bottom	3	1	25.6	7.23	20.6	6.57	14	18.2
TMCLKL	HY/2012/07	26-05-2015	Mid-Ebb	IS8	10:15	Bottom	3	2	25.7	7.25	20.8	6.54	14.8	20.7
TMCLKL	HY/2012/07	26-05-2015	Mid-Ebb	IS(Mf)16	9:55	Surface	1	1	25.7	7.21	20.2	6.65	12.4	16.1
TMCLKL	HY/2012/07	26-05-2015	Mid-Ebb	IS(Mf)16	9:55	Surface	1	2	25.6	7.24	20.3	6.61	13.3	16
TMCLKL	HY/2012/07	26-05-2015	Mid-Ebb	IS(Mf)16	9:55	Middle	2	1	25.6	7.22	20.4	6.49	13.9	16.7
TMCLKL	HY/2012/07	26-05-2015	Mid-Ebb	IS(Mf)16	9:55	Middle	2	2	25.7	7.25	20.6	6.45	14.4	18.7
TMCLKL	HY/2012/07	26-05-2015	Mid-Ebb	IS(Mf)16	9:55	Bottom	3	1	25.6	7.3	20.9	6.28	15.9	19.1
TMCLKL	HY/2012/07	26-05-2015	Mid-Ebb	IS(Mf)16	9:55	Bottom	3	2	25.5	7.33	21	6.31	16.5	26.4
TMCLKL	HY/2012/07	26-05-2015	Mid-Ebb	IS(Mf)9	9:39	Surface	1	1	25.7	7.12	20.1	6.74	11.4	14.8
TMCLKL	HY/2012/07	26-05-2015	Mid-Ebb	IS(Mf)9	9:39	Surface	1	2	25.7	7.14	20.1	6.76	12.2	18.3
TMCLKL	HY/2012/07	26-05-2015	Mid-Ebb	IS(Mf)9	9:39	Middle	2	1						

Project	Works	Date (yyyy-mm-dd)	Tide	Stat	Start Time	Level	Lev_Cod	Replicate	Temp_v	pH_v	Sal_v	DO_v	Turb_v	SS_v
TMCLKL	HY/2012/07	26-05-2015	Mid-Ebb	IS(Mf)9	9:39	Middle	2	2						
TMCLKL	HY/2012/07	26-05-2015	Mid-Ebb	IS(Mf)9	9:39	Bottom	3	1	25.7	7.24	20.4	6.58	14.3	21.5
TMCLKL	HY/2012/07	26-05-2015	Mid-Ebb	IS(Mf)9	9:39	Bottom	3	2	25.6	7.2	20.4	6.6	13.7	20.6
TMCLKL	HY/2012/07	26-05-2015	Mid-Ebb	CS(Mf)5	11:12	Surface	1	1	25.6	7.26	20.2	6.86	12.1	14.5
TMCLKL	HY/2012/07	26-05-2015	Mid-Ebb	CS(Mf)5	11:12	Surface	1	2	25.6	7.22	20.1	6.83	12.8	16.6
TMCLKL	HY/2012/07	26-05-2015	Mid-Ebb	CS(Mf)5	11:12	Middle	2	1	25.6	7.31	20.5	6.68	14	18.2
TMCLKL	HY/2012/07	26-05-2015	Mid-Ebb	CS(Mf)5	11:12	Middle	2	2	25.7	7.34	20.6	6.65	13.4	20.1
TMCLKL	HY/2012/07	26-05-2015	Mid-Ebb	CS(Mf)5	11:12	Bottom	3	1	25.7	7.43	21.1	6.36	16.2	25.9
TMCLKL	HY/2012/07	26-05-2015	Mid-Ebb	CS(Mf)5	11:12	Bottom	3	2	25.7	7.4	21.2	6.33	17	20.4
TMCLKL	HY/2012/07	28-05-2015	Mid-Flood	CS(Mf)5	14:06	Surface	1	1	25.8	7.32	20.5	6.94	11.8	16.5
TMCLKL	HY/2012/07	28-05-2015	Mid-Flood	CS(Mf)5	14:06	Surface	1	2	25.9	7.3	20.4	6.99	11.2	15.7
TMCLKL	HY/2012/07	28-05-2015	Mid-Flood	CS(Mf)5	14:06	Middle	2	1	25.8	7.28	20.8	6.77	12.5	16.3
TMCLKL	HY/2012/07	28-05-2015	Mid-Flood	CS(Mf)5	14:06	Middle	2	2	25.7	7.25	20.7	6.72	12.9	20.6
TMCLKL	HY/2012/07	28-05-2015	Mid-Flood	CS(Mf)5	14:06	Bottom	3	1	25.5	7.46	21.4	6.54	15.2	22.8
TMCLKL	HY/2012/07	28-05-2015	Mid-Flood	CS(Mf)5	14:06	Bottom	3	2	25.4	7.47	21.5	6.5	14.7	20.6
TMCLKL	HY/2012/07	28-05-2015	Mid-Flood	SR4a	14:30	Surface	1	1	25.7	7.2	20.6	6.81	10.9	14.2
TMCLKL	HY/2012/07	28-05-2015	Mid-Flood	SR4a	14:30	Surface	1	2	25.8	7.21	20.5	6.85	10.5	14.7
TMCLKL	HY/2012/07	28-05-2015	Mid-Flood	SR4a	14:30	Middle	2	1						
TMCLKL	HY/2012/07	28-05-2015	Mid-Flood	SR4a	14:30	Middle	2	2						
TMCLKL	HY/2012/07	28-05-2015	Mid-Flood	SR4a	14:30	Bottom	3	1	25.7	7.26	21	6.63	11.8	17.7
TMCLKL	HY/2012/07	28-05-2015	Mid-Flood	SR4a	14:30	Bottom	3	2	25.7	7.24	21.1	6.6	12.3	18.5
TMCLKL	HY/2012/07	28-05-2015	Mid-Flood	SR4	14:51	Surface	1	1	25.7	7.26	20.6	6.92	11.2	13.4
TMCLKL	HY/2012/07	28-05-2015	Mid-Flood	SR4	14:51	Surface	1	2	25.8	7.28	20.5	6.94	11.8	17.7
TMCLKL	HY/2012/07	28-05-2015	Mid-Flood	SR4	14:51	Middle	2	1						
TMCLKL	HY/2012/07	28-05-2015	Mid-Flood	SR4	14:51	Middle	2	2						
TMCLKL	HY/2012/07	28-05-2015	Mid-Flood	SR4	14:51	Bottom	3	1	25.7	7.31	20.7	6.73	13.8	19.3
TMCLKL	HY/2012/07	28-05-2015	Mid-Flood	SR4	14:51	Bottom	3	2	25.6	7.32	20.8	6.77	14.2	17
TMCLKL	HY/2012/07	28-05-2015	Mid-Flood	IS8	15:14	Surface	1	1	25.8	7.22	20.5	6.88	10.8	17.3
TMCLKL	HY/2012/07	28-05-2015	Mid-Flood	IS8	15:14	Surface	1	2	25.9	7.25	20.4	6.91	10.3	13.4
TMCLKL	HY/2012/07	28-05-2015	Mid-Flood	IS8	15:14	Middle	2	1						
TMCLKL	HY/2012/07	28-05-2015	Mid-Flood	IS8	15:14	Middle	2	2						
TMCLKL	HY/2012/07	28-05-2015	Mid-Flood	IS8	15:14	Bottom	3	1	25.8	7.27	20.9	6.63	12.7	19.1
TMCLKL	HY/2012/07	28-05-2015	Mid-Flood	IS8	15:14	Bottom	3	2	25.7	7.28	20.8	6.66	13.1	18.3
TMCLKL	HY/2012/07	28-05-2015	Mid-Flood	IS(Mf)16	15:37	Surface	1	1	25.8	7.21	20.3	6.72	12.1	16.9
TMCLKL	HY/2012/07	28-05-2015	Mid-Flood	IS(Mf)16	15:37	Surface	1	2	25.7	7.2	20.4	6.74	11.7	17.6
TMCLKL	HY/2012/07	28-05-2015	Mid-Flood	IS(Mf)16	15:37	Middle	2	1	25.7	7.25	20.6	6.65	12.3	17.2
TMCLKL	HY/2012/07	28-05-2015	Mid-Flood	IS(Mf)16	15:37	Middle	2	2	25.7	7.24	20.5	6.6	12.6	18.9

Project	Works	Date (yyyy-mm-dd)	Tide	Stat	Start Time	Level	Lev_Cod	Replicate	Temp_v	pH_v	Sal_v	DO_v	Turb_v	SS_v
TMCLKL	HY/2012/07	28-05-2015	Mid-Flood	IS(Mf)16	15:37	Bottom	3	1	25.7	7.32	21.2	6.42	13.8	20.7
TMCLKL	HY/2012/07	28-05-2015	Mid-Flood	IS(Mf)16	15:37	Bottom	3	2	25.6	7.36	21.3	6.39	14.5	20.3
TMCLKL	HY/2012/07	28-05-2015	Mid-Flood	IS(Mf)9	16:00	Surface	1	1	25.8	7.18	20.4	6.82	11.3	17
TMCLKL	HY/2012/07	28-05-2015	Mid-Flood	IS(Mf)9	16:00	Surface	1	2	25.7	7.19	20.3	6.86	11.5	16.1
TMCLKL	HY/2012/07	28-05-2015	Mid-Flood	IS(Mf)9	16:00	Middle	2	1						
TMCLKL	HY/2012/07	28-05-2015	Mid-Flood	IS(Mf)9	16:00	Middle	2	2						
TMCLKL	HY/2012/07	28-05-2015	Mid-Flood	IS(Mf)9	16:00	Bottom	3	1	25.6	7.25	20.6	6.68	13.1	15.7
TMCLKL	HY/2012/07	28-05-2015	Mid-Flood	IS(Mf)9	16:00	Bottom	3	2	25.5	7.27	20.5	6.71	12.6	16.4
TMCLKL	HY/2012/07	28-05-2015	Mid-Flood	CS(Mf)3	16:28	Surface	1	1	26	7.11	20.5	6.89	12.3	16
TMCLKL	HY/2012/07	28-05-2015	Mid-Flood	CS(Mf)3	16:28	Surface	1	2	25.9	7.12	20.4	6.86	12.8	20.5
TMCLKL	HY/2012/07	28-05-2015	Mid-Flood	CS(Mf)3	16:28	Middle	2	1	25.7	7.16	20.7	6.79	13.7	20.6
TMCLKL	HY/2012/07	28-05-2015	Mid-Flood	CS(Mf)3	16:28	Middle	2	2	25.8	7.17	20.8	6.75	14.2	21.3
TMCLKL	HY/2012/07	28-05-2015	Mid-Flood	CS(Mf)3	16:28	Bottom	3	1	25.4	7.18	21.5	6.54	15.3	23
TMCLKL	HY/2012/07	28-05-2015	Mid-Flood	CS(Mf)3	16:28	Bottom	3	2	25.3	7.2	21.4	6.59	15.9	23.9
TMCLKL	HY/2012/07	28-05-2015	Mid-Ebb	CS(Mf)3	09:15	Surface	1	1	25.7	7.03	20.2	6.83	12.8	15.4
TMCLKL	HY/2012/07	28-05-2015	Mid-Ebb	CS(Mf)3	09:15	Surface	1	2	25.8	7.07	20.1	6.8	13.4	21.4
TMCLKL	HY/2012/07	28-05-2015	Mid-Ebb	CS(Mf)3	09:15	Middle	2	1	25.7	7.06	20.7	6.71	15.2	19.8
TMCLKL	HY/2012/07	28-05-2015	Mid-Ebb	CS(Mf)3	09:15	Middle	2	2	25.7	7.1	20.5	6.69	15.9	23.9
TMCLKL	HY/2012/07	28-05-2015	Mid-Ebb	CS(Mf)3	09:15	Bottom	3	1	25.6	7.13	21.2	6.48	17.4	26.1
TMCLKL	HY/2012/07	28-05-2015	Mid-Ebb	CS(Mf)3	09:15	Bottom	3	2	25.6	7.16	21.3	6.45	18.3	27.5
TMCLKL	HY/2012/07	28-05-2015	Mid-Ebb	SR4a	10:47	Surface	1	1	25.6	7.16	20.4	6.73	11.5	16.1
TMCLKL	HY/2012/07	28-05-2015	Mid-Ebb	SR4a	10:47	Surface	1	2	25.7	7.19	20.5	6.7	12.2	14.6
TMCLKL	HY/2012/07	28-05-2015	Mid-Ebb	SR4a	10:47	Middle	2	1						
TMCLKL	HY/2012/07	28-05-2015	Mid-Ebb	SR4a	10:47	Middle	2	2						
TMCLKL	HY/2012/07	28-05-2015	Mid-Ebb	SR4a	10:47	Bottom	3	1	25.7	7.23	20.8	6.54	13	18.2
TMCLKL	HY/2012/07	28-05-2015	Mid-Ebb	SR4a	10:47	Bottom	3	2	25.6	7.2	20.9	6.51	13.9	20.9
TMCLKL	HY/2012/07	28-05-2015	Mid-Ebb	SR4	10:30	Surface	1	1	25.7	7.23	20.4	6.86	12.6	17.6
TMCLKL	HY/2012/07	28-05-2015	Mid-Ebb	SR4	10:30	Surface	1	2	25.7	7.26	20.4	6.83	13.3	17.3
TMCLKL	HY/2012/07	28-05-2015	Mid-Ebb	SR4	10:30	Middle	2	1						
TMCLKL	HY/2012/07	28-05-2015	Mid-Ebb	SR4	10:30	Middle	2	2						
TMCLKL	HY/2012/07	28-05-2015	Mid-Ebb	SR4	10:30	Bottom	3	1	25.7	7.27	20.9	6.69	15.3	24.5
TMCLKL	HY/2012/07	28-05-2015	Mid-Ebb	SR4	10:30	Bottom	3	2	25.6	7.3	20.8	6.65	14.8	20.7
TMCLKL	HY/2012/07	28-05-2015	Mid-Ebb	IS8	10:15	Surface	1	1	25.7	7.18	20.3	6.79	11.5	17.3
TMCLKL	HY/2012/07	28-05-2015	Mid-Ebb	IS8	10:15	Surface	1	2	25.7	7.2	20.4	6.81	12.2	17.1
TMCLKL	HY/2012/07	28-05-2015	Mid-Ebb	IS8	10:15	Middle	2	1						
TMCLKL	HY/2012/07	28-05-2015	Mid-Ebb	IS8	10:15	Middle	2	2						
TMCLKL	HY/2012/07	28-05-2015	Mid-Ebb	IS8	10:15	Bottom	3	1	25.6	7.23	20.6	6.57	14	18.2

Project	Works	Date (yyyy-mm-dd)	Tide	Stat	Start Time	Level	Lev_Cod	Replicate	Temp_v	pH_v	Sal_v	DO_v	Turb_v	SS_v
TMCLKL	HY/2012/07	28-05-2015	Mid-Ebb	IS8	10:15	Bottom	3	2	25.7	7.25	20.8	6.54	14.8	20.7
TMCLKL	HY/2012/07	28-05-2015	Mid-Ebb	IS(Mf)16	09:55	Surface	1	1	25.7	7.21	20.2	6.65	12.4	16.1
TMCLKL	HY/2012/07	28-05-2015	Mid-Ebb	IS(Mf)16	09:55	Surface	1	2	25.6	7.24	20.3	6.61	13.3	16
TMCLKL	HY/2012/07	28-05-2015	Mid-Ebb	IS(Mf)16	09:55	Middle	2	1	25.6	7.22	20.4	6.49	13.9	16.7
TMCLKL	HY/2012/07	28-05-2015	Mid-Ebb	IS(Mf)16	09:55	Middle	2	2	25.7	7.25	20.6	6.45	14.4	18.7
TMCLKL	HY/2012/07	28-05-2015	Mid-Ebb	IS(Mf)16	09:55	Bottom	3	1	25.6	7.3	20.9	6.28	15.9	19.1
TMCLKL	HY/2012/07	28-05-2015	Mid-Ebb	IS(Mf)16	09:55	Bottom	3	2	25.5	7.33	21	6.31	16.5	26.4
TMCLKL	HY/2012/07	28-05-2015	Mid-Ebb	IS(Mf)9	09:39	Surface	1	1	25.7	7.12	20.1	6.74	11.4	14.8
TMCLKL	HY/2012/07	28-05-2015	Mid-Ebb	IS(Mf)9	09:39	Surface	1	2	25.7	7.14	20.1	6.76	12.2	18.3
TMCLKL	HY/2012/07	28-05-2015	Mid-Ebb	IS(Mf)9	09:39	Middle	2	1						
TMCLKL	HY/2012/07	28-05-2015	Mid-Ebb	IS(Mf)9	09:39	Middle	2	2						
TMCLKL	HY/2012/07	28-05-2015	Mid-Ebb	IS(Mf)9	09:39	Bottom	3	1	25.7	7.24	20.4	6.58	14.3	21.5
TMCLKL	HY/2012/07	28-05-2015	Mid-Ebb	IS(Mf)9	09:39	Bottom	3	2	25.6	7.2	20.4	6.6	13.7	20.6
TMCLKL	HY/2012/07	28-05-2015	Mid-Ebb	CS(Mf)5	11:12	Surface	1	1	25.6	7.26	20.2	6.86	12.1	14.5
TMCLKL	HY/2012/07	28-05-2015	Mid-Ebb	CS(Mf)5	11:12	Surface	1	2	25.6	7.22	20.1	6.83	12.8	16.6
TMCLKL	HY/2012/07	28-05-2015	Mid-Ebb	CS(Mf)5	11:12	Middle	2	1	25.6	7.31	20.5	6.68	14	18.2
TMCLKL	HY/2012/07	28-05-2015	Mid-Ebb	CS(Mf)5	11:12	Middle	2	2	25.7	7.34	20.6	6.65	13.4	20.1
TMCLKL	HY/2012/07	28-05-2015	Mid-Ebb	CS(Mf)5	11:12	Bottom	3	1	25.7	7.43	21.1	6.36	16.2	25.9
TMCLKL	HY/2012/07	28-05-2015	Mid-Ebb	CS(Mf)5	11:12	Bottom	3	2	25.7	7.4	21.2	6.33	17	20.4
TMCLKL	HY/2012/07	30-05-2015	Mid-Flood	CS(Mf)5	15:50	Surface	1	1	25.8	7.34	20.4	6.64	14.2	17
TMCLKL	HY/2012/07	30-05-2015	Mid-Flood	CS(Mf)5	15:50	Surface	1	2	25.7	7.3	20.3	6.61	13.3	17
TMCLKL	HY/2012/07	30-05-2015	Mid-Flood	CS(Mf)5	15:50	Middle	2	1	25.7	7.37	20.8	6.49	15.8	22.4
TMCLKL	HY/2012/07	30-05-2015	Mid-Flood	CS(Mf)5	15:50	Middle	2	2	25.7	7.39	20.9	6.45	16.3	19.6
TMCLKL	HY/2012/07	30-05-2015	Mid-Flood	CS(Mf)5	15:50	Bottom	3	1	25.8	7.41	21.4	6.23	18.4	22.6
TMCLKL	HY/2012/07	30-05-2015	Mid-Flood	CS(Mf)5	15:50	Bottom	3	2	25.8	7.44	21.5	6.21	19.1	22.9
TMCLKL	HY/2012/07	30-05-2015	Mid-Flood	SR4a	16:17	Surface	1	1	25.8	7.23	20.7	6.47	12.4	14.9
TMCLKL	HY/2012/07	30-05-2015	Mid-Flood	SR4a	16:17	Surface	1	2	25.8	7.27	20.5	6.5	13.1	15
TMCLKL	HY/2012/07	30-05-2015	Mid-Flood	SR4a	16:17	Middle	2	1						
TMCLKL	HY/2012/07	30-05-2015	Mid-Flood	SR4a	16:17	Middle	2	2						
TMCLKL	HY/2012/07	30-05-2015	Mid-Flood	SR4a	16:17	Bottom	3	1	25.7	7.3	20.9	6.33	14.4	18.3
TMCLKL	HY/2012/07	30-05-2015	Mid-Flood	SR4a	16:17	Bottom	3	2	25.7	7.33	21	6.3	15.2	21.3
TMCLKL	HY/2012/07	30-05-2015	Mid-Flood	SR4	16:32	Surface	1	1	25.9	7.41	20.9	6.67	11.6	16.2
TMCLKL	HY/2012/07	30-05-2015	Mid-Flood	SR4	16:32	Surface	1	2	26	7.44	20.8	6.64	12.2	17.1
TMCLKL	HY/2012/07	30-05-2015	Mid-Flood	SR4	16:32	Middle	2	1						
TMCLKL	HY/2012/07	30-05-2015	Mid-Flood	SR4	16:32	Middle	2	2						
TMCLKL	HY/2012/07	30-05-2015	Mid-Flood	SR4	16:32	Bottom	3	1	25.9	7.47	21.2	6.55	13.7	20.6
TMCLKL	HY/2012/07	30-05-2015	Mid-Flood	SR4	16:32	Bottom	3	2	25.9	7.48	21.3	6.52	14.4	20.2

Project	Works	Date (yyyy-mm-dd)	Tide	Stat	Start Time	Level	Lev_Cod	Replicate	Temp_v	pH_v	Sal_v	DO_v	Turb_v	SS_v
TMCLKL	HY/2012/07	30-05-2015	Mid-Flood	IS8	16:47	Surface	1	1	26	7.43	20.9	6.58	12.7	16.2
TMCLKL	HY/2012/07	30-05-2015	Mid-Flood	IS8	16:47	Surface	1	2	25.9	7.47	21	6.61	13.4	18.8
TMCLKL	HY/2012/07	30-05-2015	Mid-Flood	IS8	16:47	Middle	2	1						
TMCLKL	HY/2012/07	30-05-2015	Mid-Flood	IS8	16:47	Middle	2	2						
TMCLKL	HY/2012/07	30-05-2015	Mid-Flood	IS8	16:47	Bottom	3	1	25.9	7.38	21.4	6.43	14	19.6
TMCLKL	HY/2012/07	30-05-2015	Mid-Flood	IS8	16:47	Bottom	3	2	25.9	7.42	21.3	6.4	14.9	20.9
TMCLKL	HY/2012/07	30-05-2015	Mid-Flood	IS(Mf)16	17:04	Surface	1	1	26	7.37	21	6.53	14.2	21.3
TMCLKL	HY/2012/07	30-05-2015	Mid-Flood	IS(Mf)16	17:04	Surface	1	2	26	7.39	21	6.51	13.6	19
TMCLKL	HY/2012/07	30-05-2015	Mid-Flood	IS(Mf)16	17:04	Middle	2	1	26	7.36	21.3	6.42	12.1	19.4
TMCLKL	HY/2012/07	30-05-2015	Mid-Flood	IS(Mf)16	17:04	Middle	2	2	25.9	7.38	21.3	6.4	12.7	17.8
TMCLKL	HY/2012/07	30-05-2015	Mid-Flood	IS(Mf)16	17:04	Bottom	3	1	25.8	7.37	21.6	6.23	16.2	21.1
TMCLKL	HY/2012/07	30-05-2015	Mid-Flood	IS(Mf)16	17:04	Bottom	3	2	25.9	7.41	21.7	6.21	16.7	21.7
TMCLKL	HY/2012/07	30-05-2015	Mid-Flood	IS(Mf)9	17:24	Surface	1	1	26.1	7.46	20.9	6.44	12.2	18.3
TMCLKL	HY/2012/07	30-05-2015	Mid-Flood	IS(Mf)9	17:24	Surface	1	2	26	7.49	21	6.47	13.1	19.7
TMCLKL	HY/2012/07	30-05-2015	Mid-Flood	IS(Mf)9	17:24	Middle	2	1						
TMCLKL	HY/2012/07	30-05-2015	Mid-Flood	IS(Mf)9	17:24	Middle	2	2						
TMCLKL	HY/2012/07	30-05-2015	Mid-Flood	IS(Mf)9	17:24	Bottom	3	1	26	7.5	21.3	6.3	15.6	23
TMCLKL	HY/2012/07	30-05-2015	Mid-Flood	IS(Mf)9	17:24	Bottom	3	2	26	7.53	21.4	6.28	16.3	22.8
TMCLKL	HY/2012/07	30-05-2015	Mid-Flood	CS(Mf)3	17:43	Surface	1	1	26.1	7.53	20.8	6.59	11.6	15.1
TMCLKL	HY/2012/07	30-05-2015	Mid-Flood	CS(Mf)3	17:43	Surface	1	2	26.1	7.49	20.9	6.61	12.4	17.4
TMCLKL	HY/2012/07	30-05-2015	Mid-Flood	CS(Mf)3	17:43	Middle	2	1	26.1	7.56	21.3	6.47	14	16.8
TMCLKL	HY/2012/07	30-05-2015	Mid-Flood	CS(Mf)3	17:43	Middle	2	2	26	7.58	21.4	6.44	13.3	17.3
TMCLKL	HY/2012/07	30-05-2015	Mid-Flood	CS(Mf)3	17:43	Bottom	3	1	26	7.53	21.7	6.17	17.6	22.9
TMCLKL	HY/2012/07	30-05-2015	Mid-Flood	CS(Mf)3	17:43	Bottom	3	2	26	7.55	21.8	6.2	18.1	21.7
TMCLKL	HY/2012/07	30-05-2015	Mid-Ebb	CS(Mf)3	09:56	Surface	1	1	26.1	8.11	22.1	6.57	13.7	19.2
TMCLKL	HY/2012/07	30-05-2015	Mid-Ebb	CS(Mf)3	09:56	Surface	1	2	26	8.13	22.2	6.55	13.5	20.3
TMCLKL	HY/2012/07	30-05-2015	Mid-Ebb	CS(Mf)3	09:56	Middle	2	1	25.8	7.94	22.3	6.42	14.2	18.5
TMCLKL	HY/2012/07	30-05-2015	Mid-Ebb	CS(Mf)3	09:56	Middle	2	2	25.7	7.92	22.4	6.44	14	21
TMCLKL	HY/2012/07	30-05-2015	Mid-Ebb	CS(Mf)3	09:56	Bottom	3	1	25.6	7.83	22.5	6.32	15.6	20.3
TMCLKL	HY/2012/07	30-05-2015	Mid-Ebb	CS(Mf)3	09:56	Bottom	3	2	25.6	7.81	22.6	6.34	15.8	20.5
TMCLKL	HY/2012/07	30-05-2015	Mid-Ebb	SR4a	12:00	Surface	1	1	26.1	7.94	22.1	6.38	13.1	19.7
TMCLKL	HY/2012/07	30-05-2015	Mid-Ebb	SR4a	12:00	Surface	1	2	26	7.96	22.2	6.36	13.2	21.1
TMCLKL	HY/2012/07	30-05-2015	Mid-Ebb	SR4a	12:00	Middle	2	1						
TMCLKL	HY/2012/07	30-05-2015	Mid-Ebb	SR4a	12:00	Middle	2	2						
TMCLKL	HY/2012/07	30-05-2015	Mid-Ebb	SR4a	12:00	Bottom	3	1	25.7	8.11	22.3	6.22	15.7	23.6
TMCLKL	HY/2012/07	30-05-2015	Mid-Ebb	SR4a	12:00	Bottom	3	2	25.6	8.09	22.4	6.24	15.9	20.7
TMCLKL	HY/2012/07	30-05-2015	Mid-Ebb	SR4	11:23	Surface	1	1	25.9	7.94	22.1	6.57	12.8	17.9

Project	Works	Date (yyyy-mm-dd)	Tide	Stat	Start Time	Level	Lev_Cod	Replicate	Temp_v	pH_v	Sal_v	DO_v	Turb_v	SS_v
TMCLKL	HY/2012/07	30-05-2015	Mid-Ebb	SR4	11:23	Surface	1	2	25.8	7.96	22.2	6.59	13	20.8
TMCLKL	HY/2012/07	30-05-2015	Mid-Ebb	SR4	11:23	Middle	2	1						
TMCLKL	HY/2012/07	30-05-2015	Mid-Ebb	SR4	11:23	Middle	2	2						
TMCLKL	HY/2012/07	30-05-2015	Mid-Ebb	SR4	11:23	Bottom	3	1	25.7	8.11	22.3	6.36	14.1	21.2
TMCLKL	HY/2012/07	30-05-2015	Mid-Ebb	SR4	11:23	Bottom	3	2	25.6	8.13	22.4	6.38	14.3	22.9
TMCLKL	HY/2012/07	30-05-2015	Mid-Ebb	IS8	11:01	Surface	1	1	26	8.11	21.9	6.47	11.7	16.4
TMCLKL	HY/2012/07	30-05-2015	Mid-Ebb	IS8	11:01	Surface	1	2	26.1	8.13	22	6.49	11.9	17.9
TMCLKL	HY/2012/07	30-05-2015	Mid-Ebb	IS8	11:01	Middle	2	1						
TMCLKL	HY/2012/07	30-05-2015	Mid-Ebb	IS8	11:01	Middle	2	2						
TMCLKL	HY/2012/07	30-05-2015	Mid-Ebb	IS8	11:01	Bottom	3	1	25.8	7.96	22.2	6.3	13.4	18.8
TMCLKL	HY/2012/07	30-05-2015	Mid-Ebb	IS8	11:01	Bottom	3	2	25.7	7.98	22.3	6.32	13.6	21.8
TMCLKL	HY/2012/07	30-05-2015	Mid-Ebb	IS(Mf)16	10:39	Surface	1	1	26.1	7.94	21.8	6.6	13.3	19
TMCLKL	HY/2012/07	30-05-2015	Mid-Ebb	IS(Mf)16	10:39	Surface	1	2	26.1	7.96	21.9	6.62	13.5	21.6
TMCLKL	HY/2012/07	30-05-2015	Mid-Ebb	IS(Mf)16	10:39	Middle	2	1	26	8.11	22	6.54	14.1	21.2
TMCLKL	HY/2012/07	30-05-2015	Mid-Ebb	IS(Mf)16	10:39	Middle	2	2	25.9	8.09	22.1	6.56	14.3	20
TMCLKL	HY/2012/07	30-05-2015	Mid-Ebb	IS(Mf)16	10:39	Bottom	3	1	25.7	7.94	22.2	6.47	15.2	21.3
TMCLKL	HY/2012/07	30-05-2015	Mid-Ebb	IS(Mf)16	10:39	Bottom	3	2	25.6	7.92	22.3	6.45	15.4	21.6
TMCLKL	HY/2012/07	30-05-2015	Mid-Ebb	IS(Mf)9	10:18	Surface	1	1	25.9	7.94	22	6.61	14.1	18.3
TMCLKL	HY/2012/07	30-05-2015	Mid-Ebb	IS(Mf)9	10:18	Surface	1	2	25.8	7.96	22.1	6.63	14.3	18.6
TMCLKL	HY/2012/07	30-05-2015	Mid-Ebb	IS(Mf)9	10:18	Middle	2	1						
TMCLKL	HY/2012/07	30-05-2015	Mid-Ebb	IS(Mf)9	10:18	Middle	2	2						
TMCLKL	HY/2012/07	30-05-2015	Mid-Ebb	IS(Mf)9	10:18	Bottom	3	1	25.7	8.11	22.3	6.54	15.7	22
TMCLKL	HY/2012/07	30-05-2015	Mid-Ebb	IS(Mf)9	10:18	Bottom	3	2	25.6	8.13	22.4	6.52	15.9	21.4
TMCLKL	HY/2012/07	30-05-2015	Mid-Ebb	CS(Mf)5	12:30	Surface	1	1	26	8.12	22	6.54	13.6	19
TMCLKL	HY/2012/07	30-05-2015	Mid-Ebb	CS(Mf)5	12:30	Surface	1	2	25.9	8.14	22.1	6.52	13.8	19.6
TMCLKL	HY/2012/07	30-05-2015	Mid-Ebb	CS(Mf)5	12:30	Middle	2	1	25.5	7.96	22.3	6.37	14.2	21.3
TMCLKL	HY/2012/07	30-05-2015	Mid-Ebb	CS(Mf)5	12:30	Middle	2	2	25.7	7.98	22.2	6.39	14.4	18.7
TMCLKL	HY/2012/07	30-05-2015	Mid-Ebb	CS(Mf)5	12:30	Bottom	3	1	25.6	7.9	22.4	6.29	17.6	21.4
TMCLKL	HY/2012/07	30-05-2015	Mid-Ebb	CS(Mf)5	12:30	Bottom	3	2	25.5	7.92	22.5	6.31	17.8	21.4

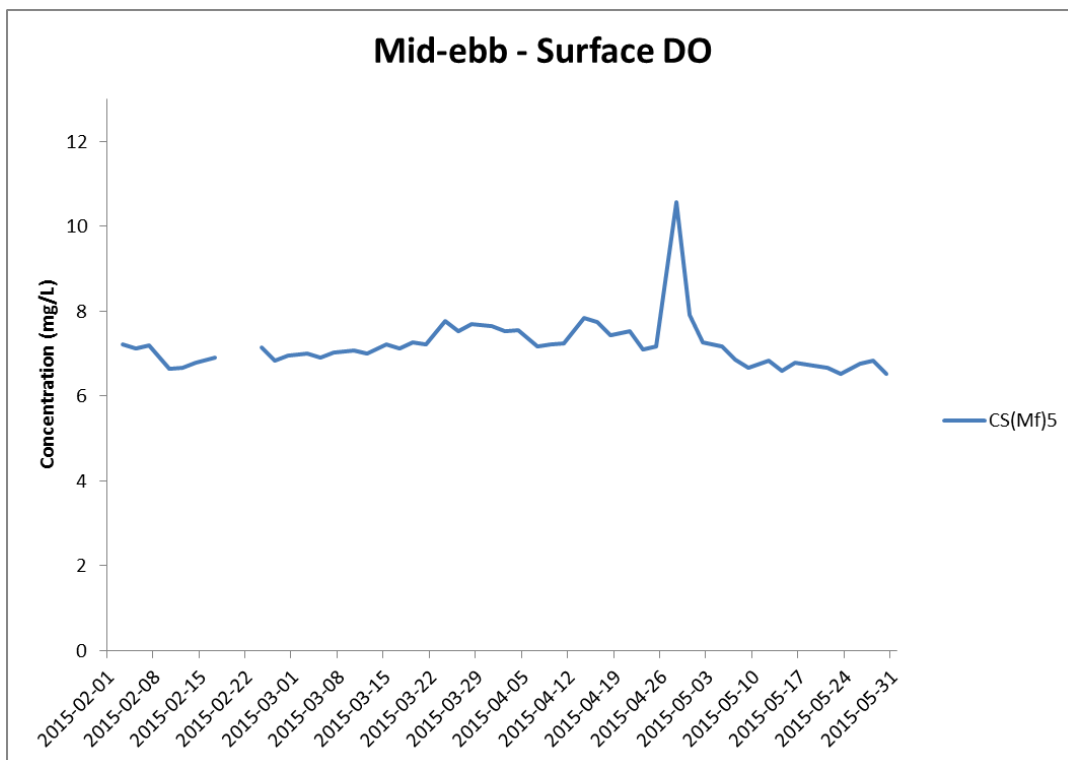
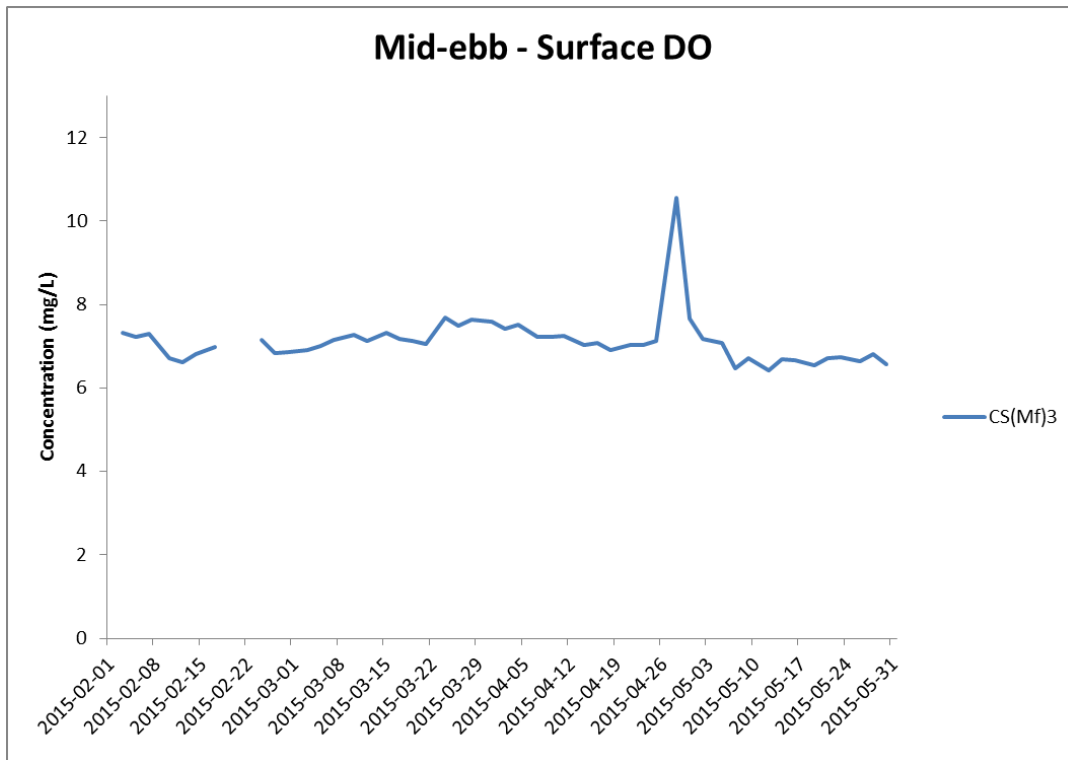
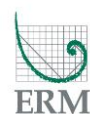


Figure J1 Impact Monitoring - Mean Level of Dissolved Oxygen (mg/L) in surface waters during mid-ebb tide between 1 February and 31 May 2015 at CS(Mf)3 and CS(Mf)5.

(Weather condition varied between sunny to rainy within the reporting period. Marine works within the reporting period include Construction and installation of pile caps; Marine piling platform installation & uninstallation; Pier construction; Installation of launching gantry; Marine piling and Installation of pier head segment.) No marine works was undertaken on 19 and 21 February 2015.

**Environmental
Resources
Management**



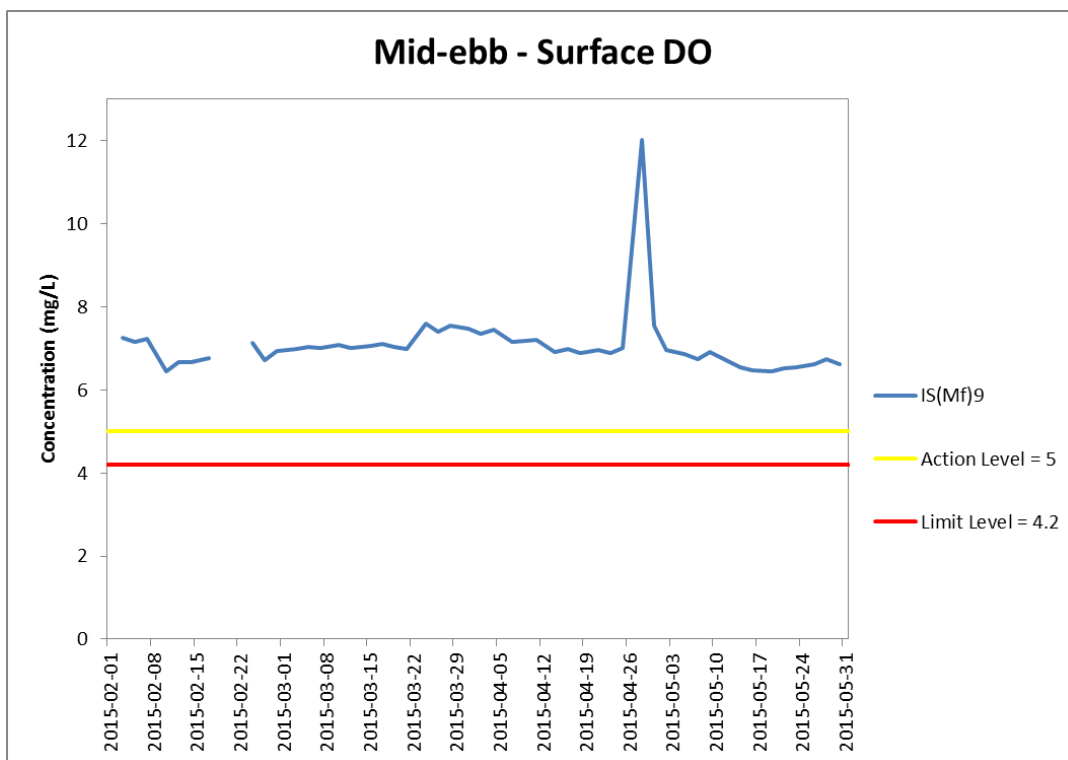
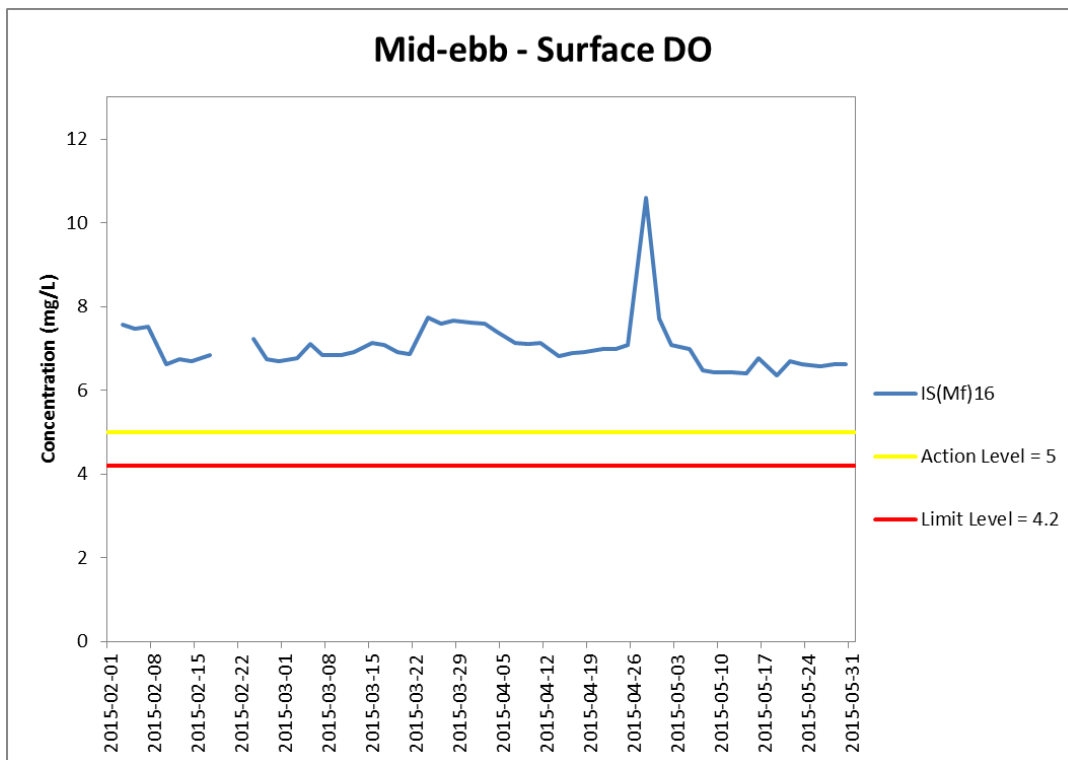


Figure J2 Impact Monitoring - Mean Level of Dissolved Oxygen (mg/L) in surface waters during mid-ebb tide between 1 February and 31 May 2015 at IS(Mf)16 and IS(Mf)9.

(Weather condition varied between sunny to rainy within the reporting period. Marine works within the reporting period include Construction and installation of pile caps; Marine piling platform installation & uninstillation; Pier construction; Installation of launching gantry; Marine piling and Installation of pier head segment.) No marine works was undertaken on 19 and 21 February 2015.

**Environmental
Resources
Management**



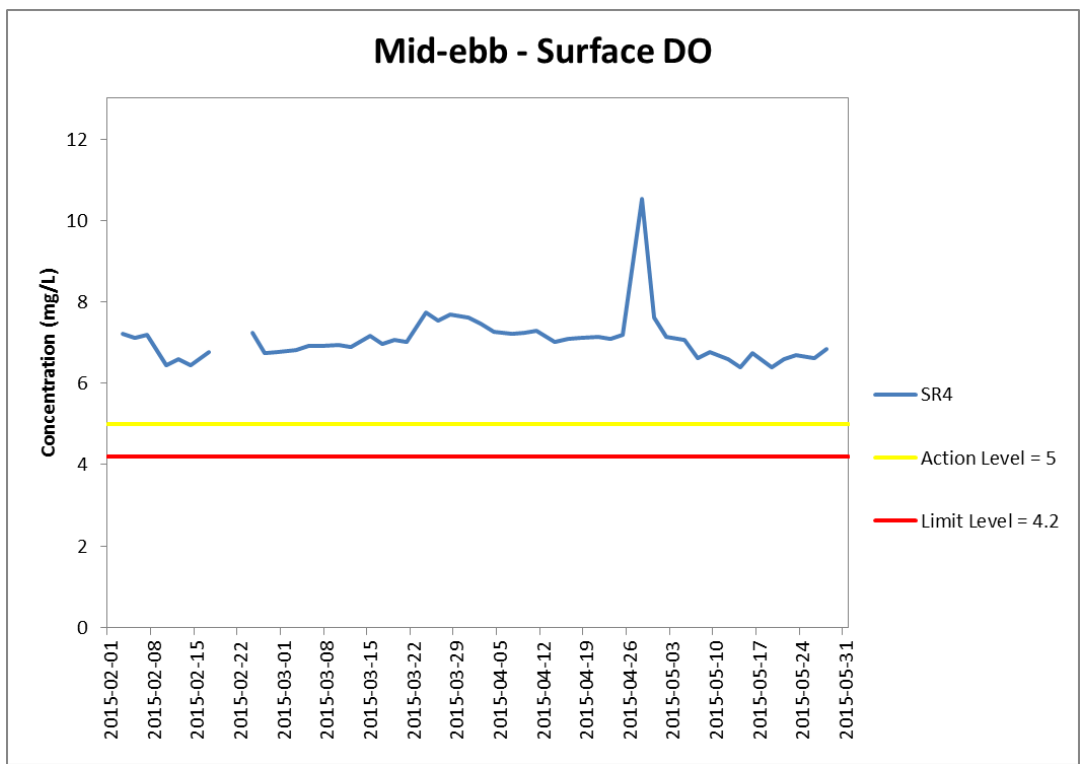
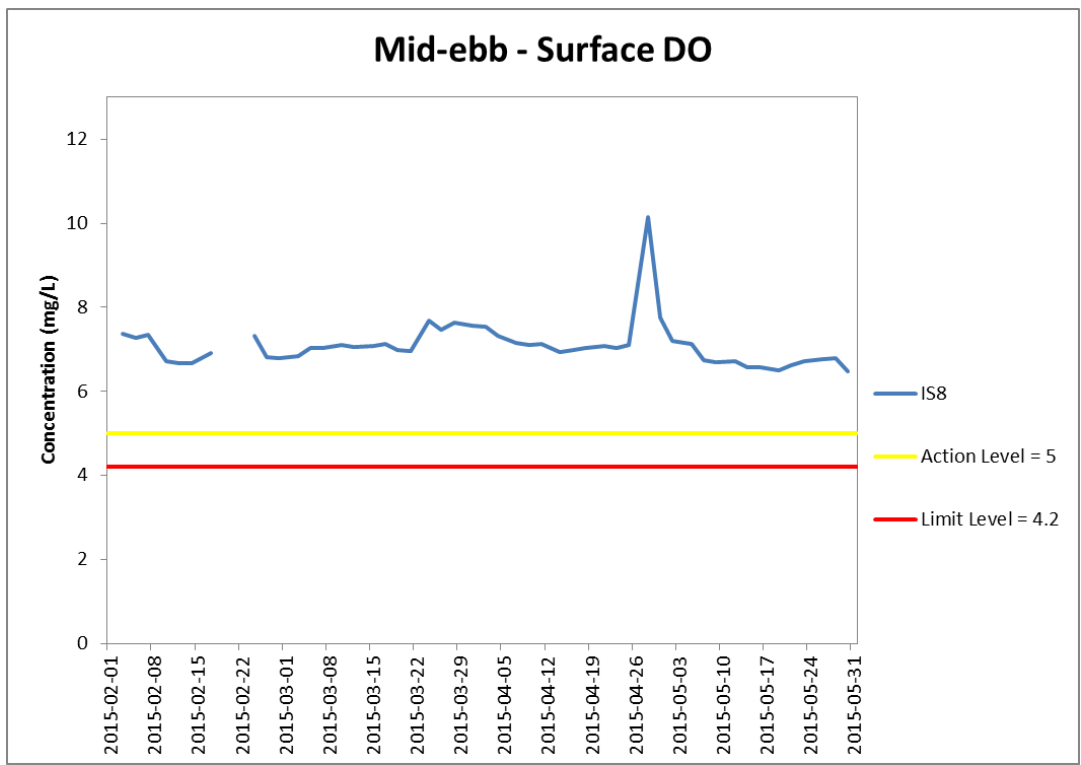


Figure J3 Impact Monitoring – Mean Level of Dissolved Oxygen (mg/L) in surface waters during mid-ebb tide between 1 February and 31 May 2015 at IS8 and SR4.

(Weather condition varied between sunny to rainy within the reporting period. Marine works within the reporting period include Construction and installation of pile caps; Marine piling platform installation & uninstallation; Pier construction; Installation of launching gantry; Marine piling and Installation of pier head segment.) No marine works was undertaken on 19 and 21 February 2015.

**Environmental
Resources
Management**



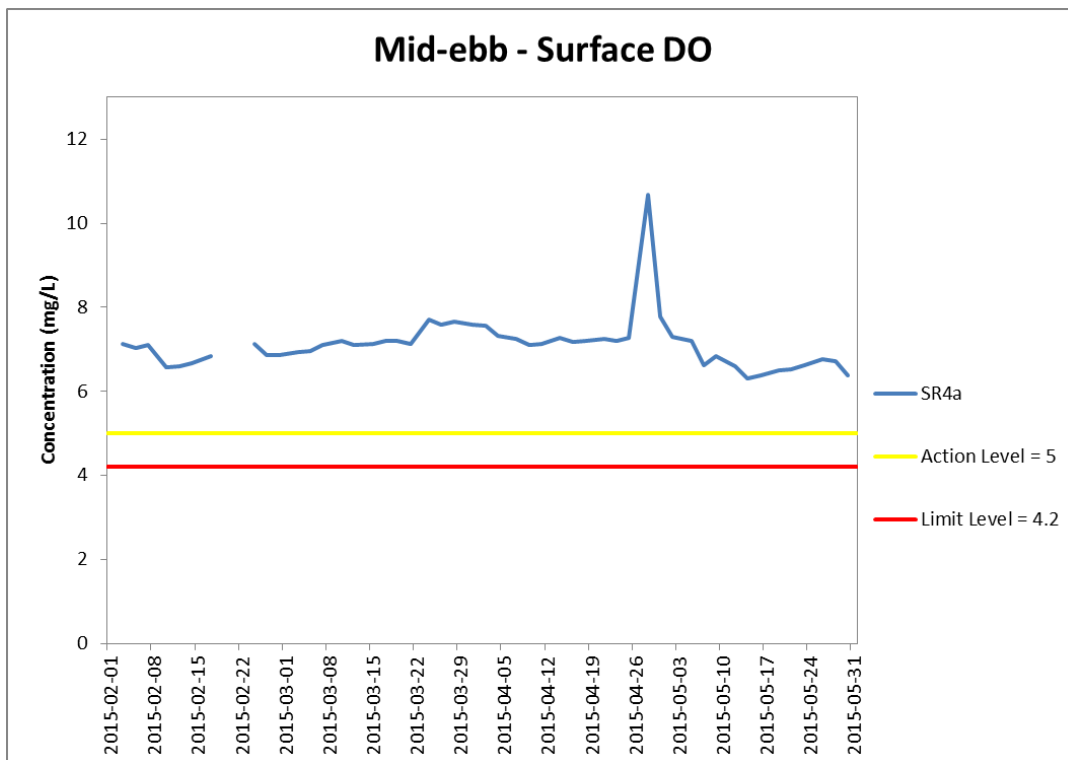


Figure J4 Impact Monitoring - Mean Level of Dissolved Oxygen (mg/L) in surface waters during mid-ebb tide between 1 February and 31 May 2015 at SR4a.

(Weather condition varied between sunny to rainy within the reporting period. Marine works within the reporting period include Construction and installation of pile caps; Marine piling platform installation & uninstillation; Pier construction; Installation of launching gantry; Marine piling and Installation of pier head segment.) No marine works was undertaken on 19 and 21 February 2015.

**Environmental
Resources
Management**



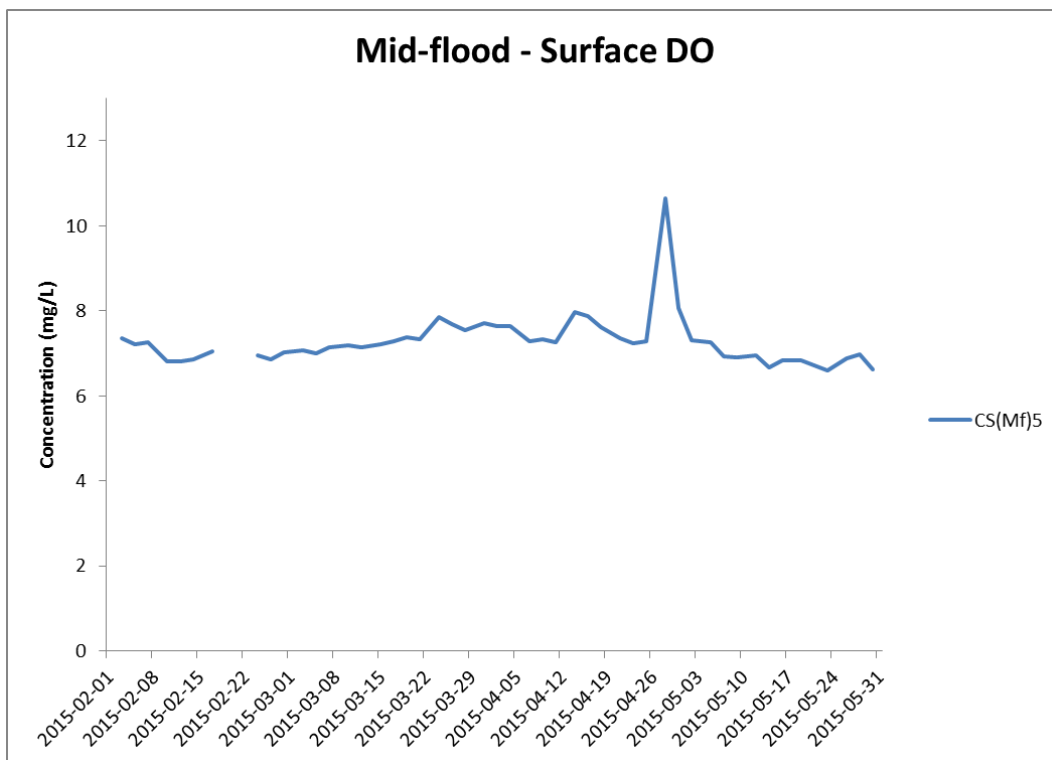
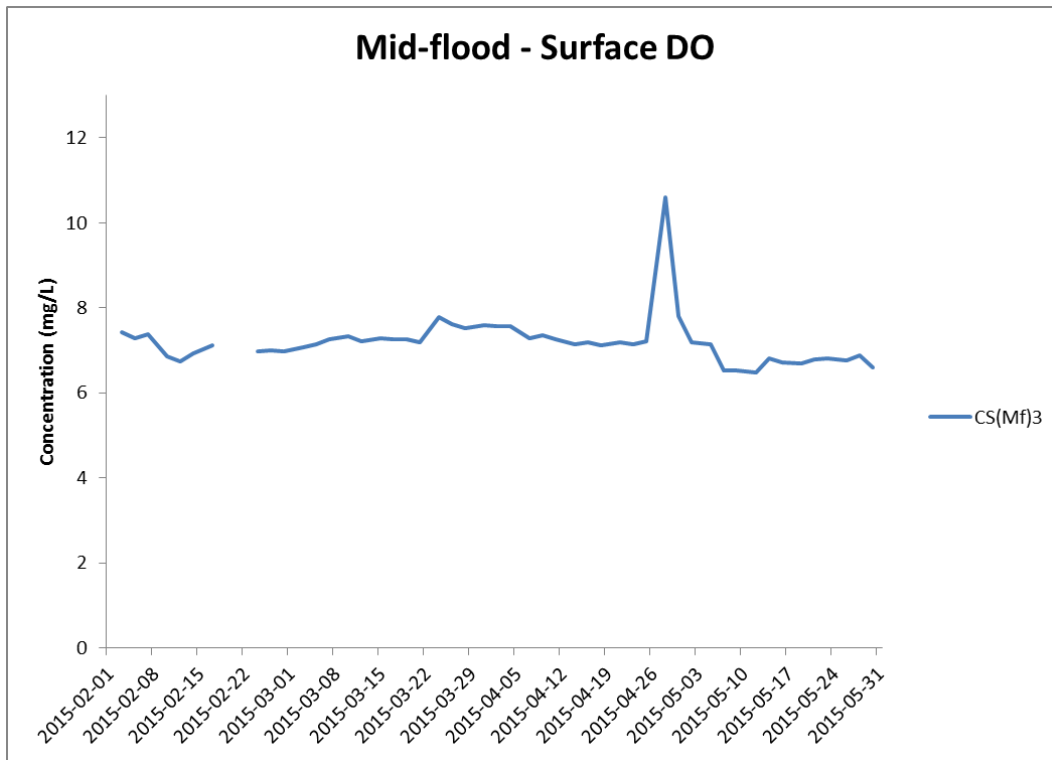


Figure J5 Impact Monitoring – Mean Level of Dissolved Oxygen (mg/L) in surface waters during mid-flood tide between 1 February and 31 May 2015 at CS(Mf)3 and CS(Mf)5.

(Weather condition varied between sunny to rainy within the reporting period. Marine works within the reporting period include Construction and installation of pile caps; Marine piling platform installation & uninstallation; Pier construction; Installation of launching gantry; Marine piling and Installation of pier head segment.) No marine works was undertaken on 19 and 21 February 2015.

**Environmental
Resources
Management**



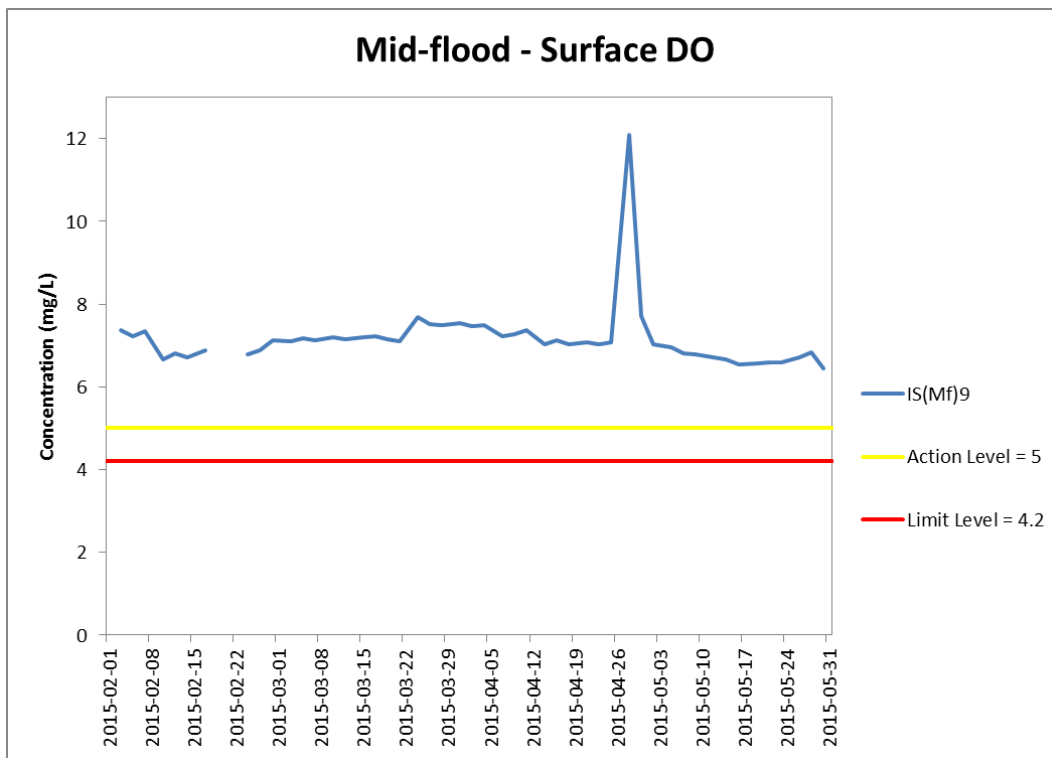
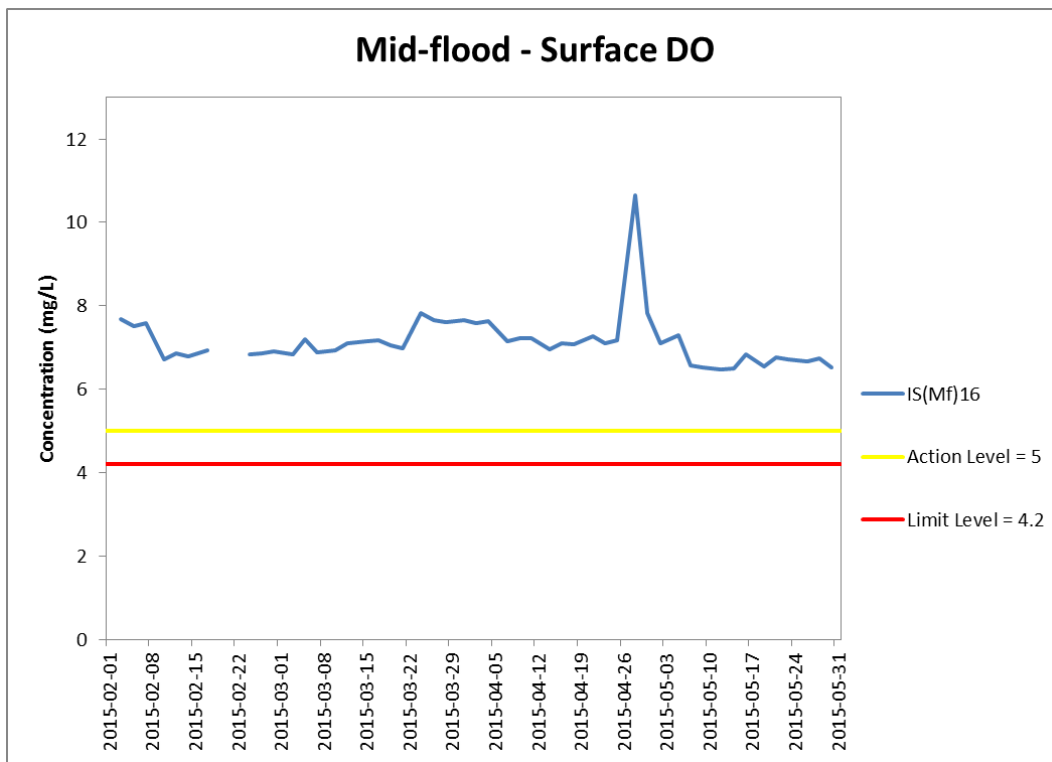


Figure J6 Impact Monitoring – Mean Level of Dissolved Oxygen (mg/L) in surface waters during mid-flood tide between 1 February and 31 May 2015 at IS(Mf)16 and IS(Mf)9.

(Weather condition varied between sunny to rainy within the reporting period. Marine works within the reporting period include Construction and installation of pile caps; Marine piling platform installation & uninstallation; Pier construction; Installation of launching gantry; Marine piling and Installation of pier head segment.) No marine works was undertaken on 19 and 21 February 2015.

**Environmental
Resources
Management**



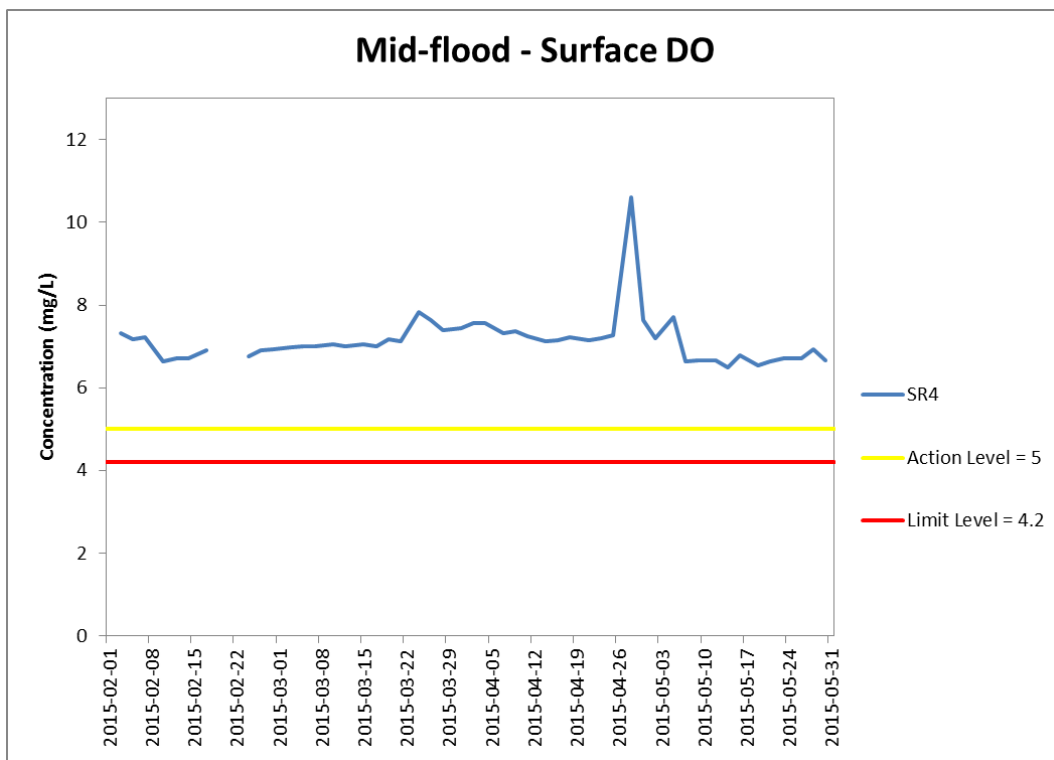
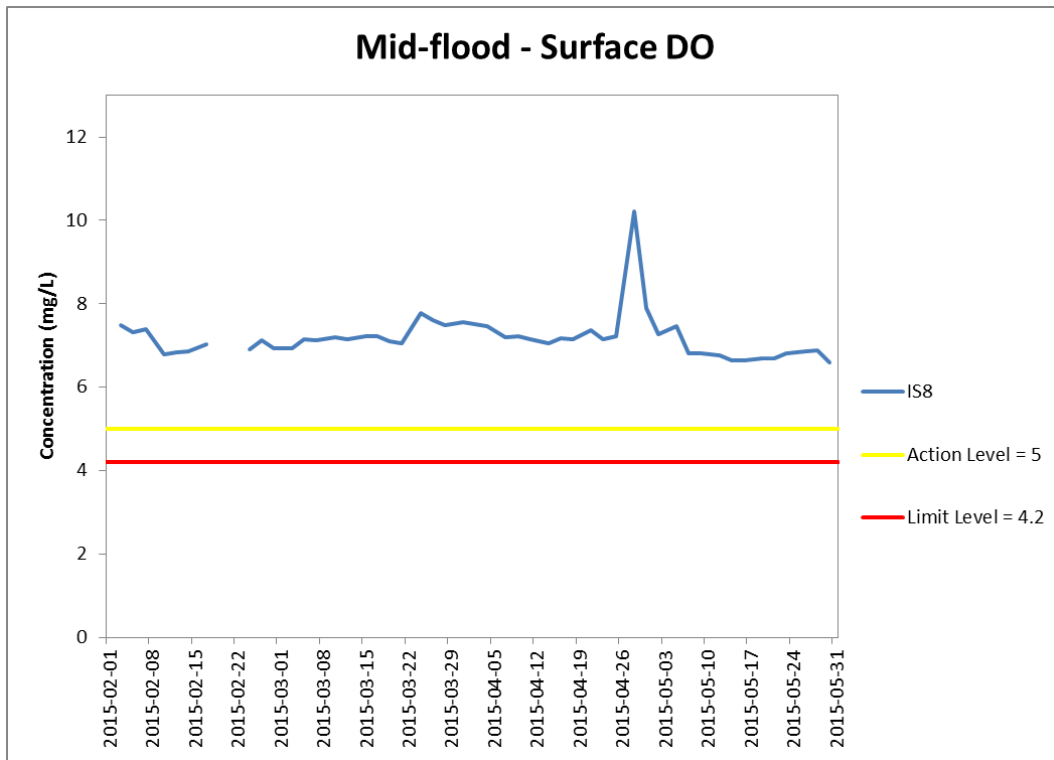
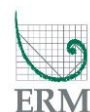


Figure J7 Impact Monitoring – Mean Level of Dissolved Oxygen (mg/L) in surface waters during mid-flood tide between 1 February and 31 May 2015 at IS8 and SR4.

(Weather condition varied between sunny to rainy within the reporting period. Marine works within the reporting period include Construction and installation of pile caps; Marine piling platform installation & un/installation; Pier construction; Installation of launching gantry; Marine piling and Installation of pier head segment.) No marine works was undertaken on 19 and 21 February 2015.

**Environmental
Resources
Management**



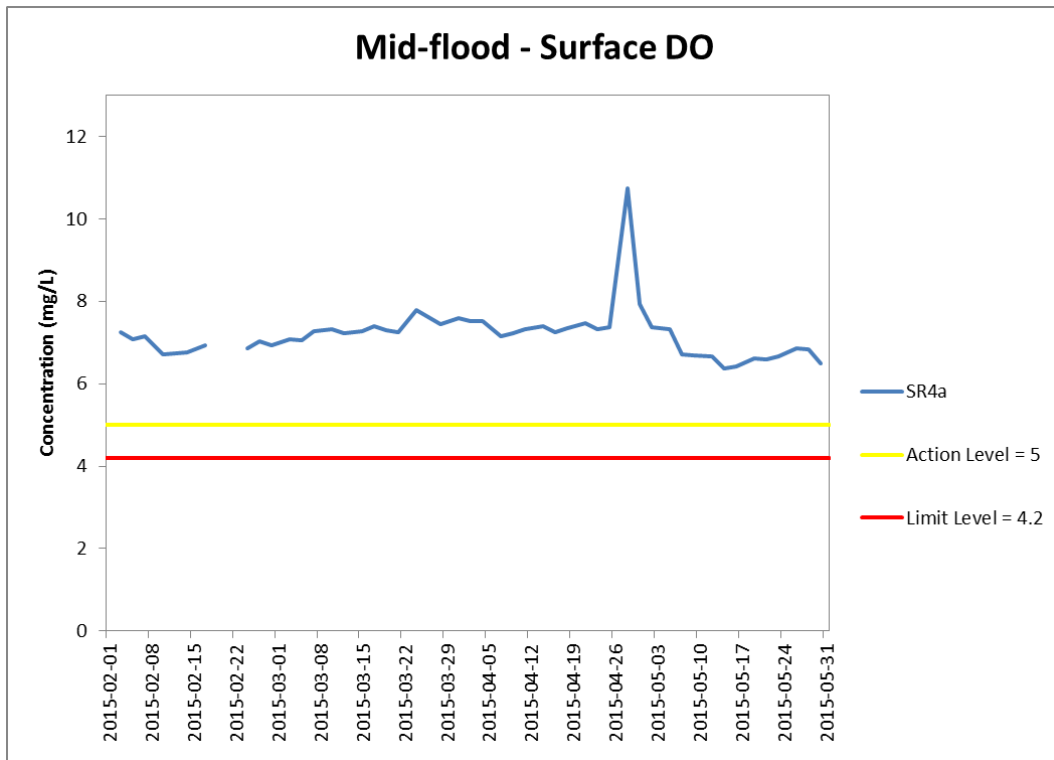


Figure J8 Impact Monitoring – Mean Level of Dissolved Oxygen (mg/L) in surface waters during mid-flood tide between 1 February and 31 May 2015 at SR4a.

(Weather condition varied between sunny to rainy within the reporting period. Marine works within the reporting period include Construction and installation of pile caps; Marine piling platform installation & uninstillation; Pier construction; Installation of launching gantry; Marine piling and Installation of pier head segment.) No marine works was undertaken on 19 and 21 February 2015.

**Environmental
Resources
Management**



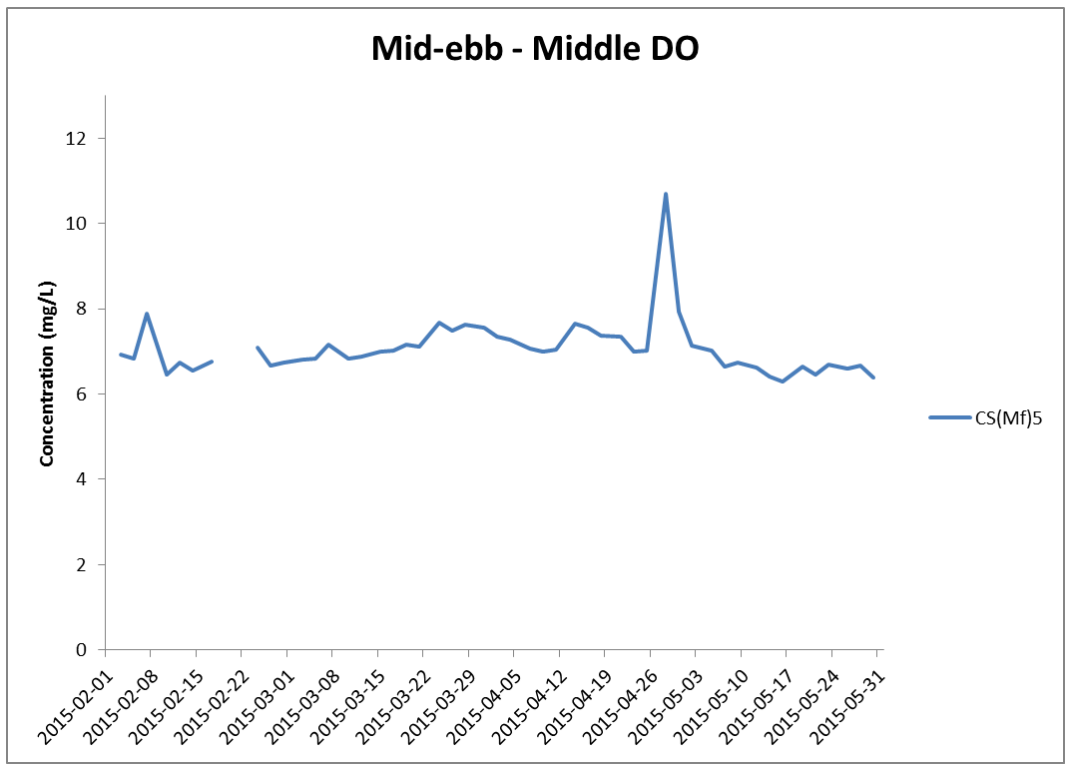
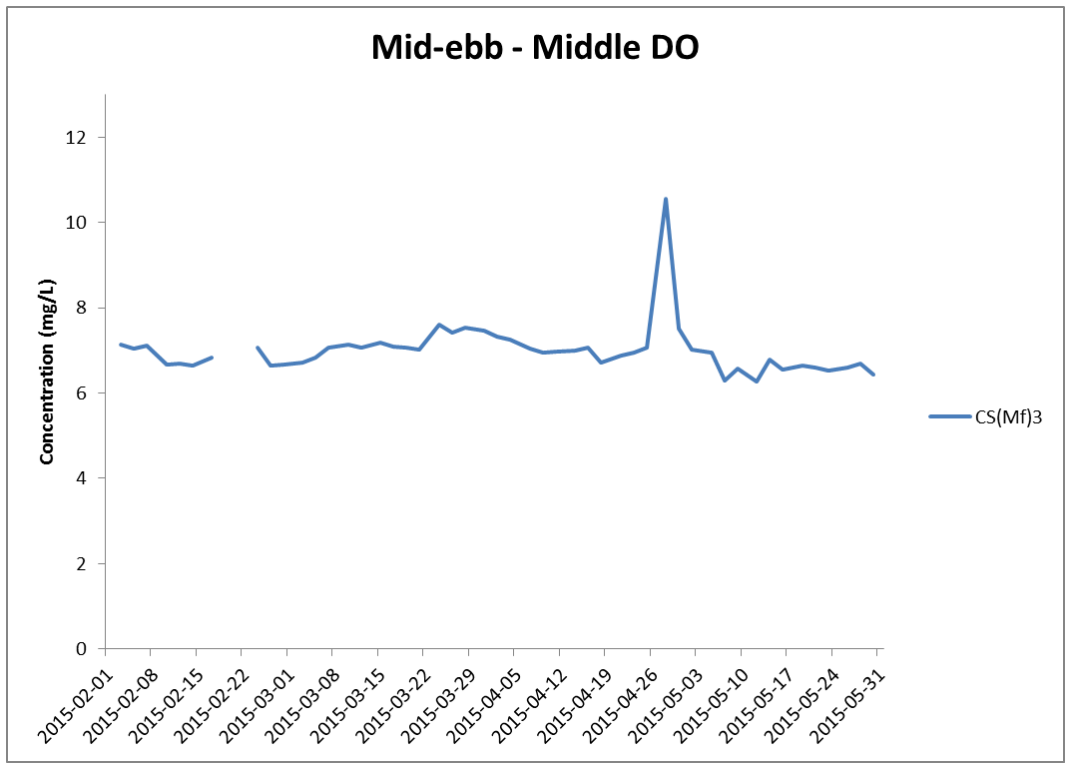


Figure J9 Impact Monitoring - Mean Level of Dissolved Oxygen (mg/L) in mid-depth waters during mid-ebb tide between 1 February and 31 May 2015 at CS(Mf)3 and CS(Mf)5.

(Weather condition varied between sunny to rainy within the reporting period. Marine works within the reporting period include Construction and installation of pile caps; Marine piling platform installation & uninstallation; Pier construction; Installation of launching gantry; Marine piling and Installation of pier head segment.) No marine works was undertaken on 19 and 21 February 2015.

Environmental Resources Management



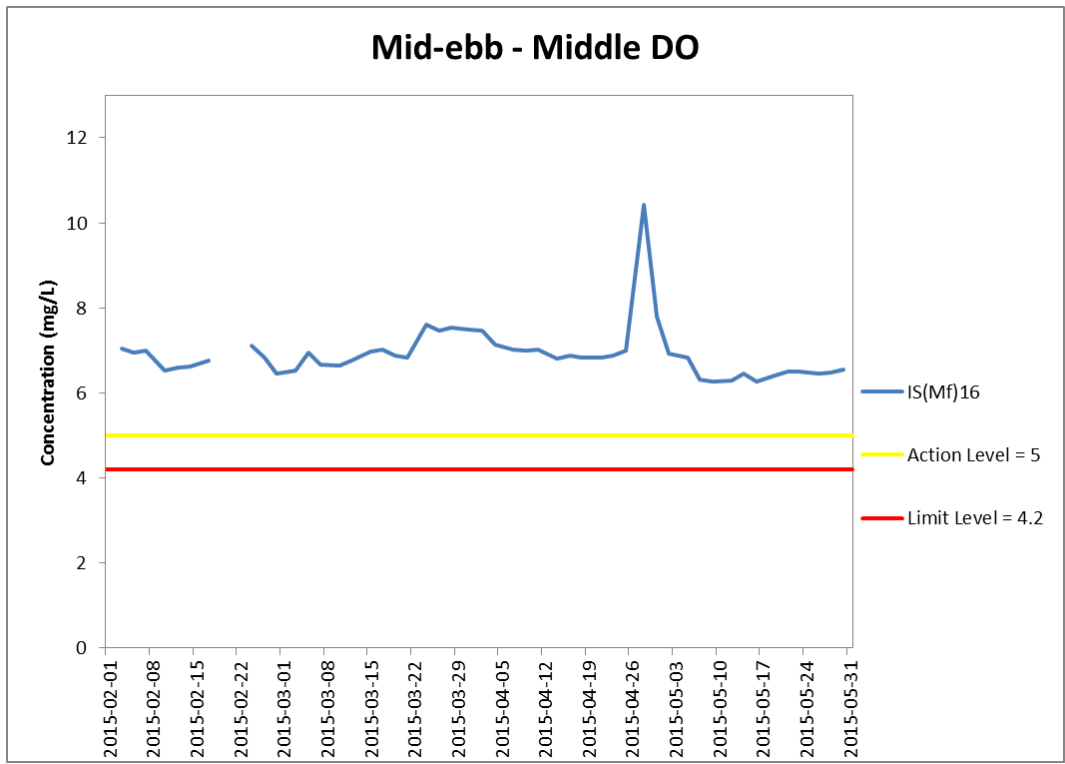


Figure J10 Impact Monitoring - Mean Level of Dissolved Oxygen (mg/L) in mid-depth waters during mid-ebb tide between 1 February and 31 May 2015 at IS(Mf)16.

(Weather condition varied between sunny to rainy within the reporting period. Marine works within the reporting period include Construction and installation of pile caps; Marine piling platform installation & uninstallation; Pier construction; Installation of launching gantry; Marine piling and Installation of pier head segment.) No marine works was undertaken on 19 and 21 February 2015.

**Environmental
Resources
Management**



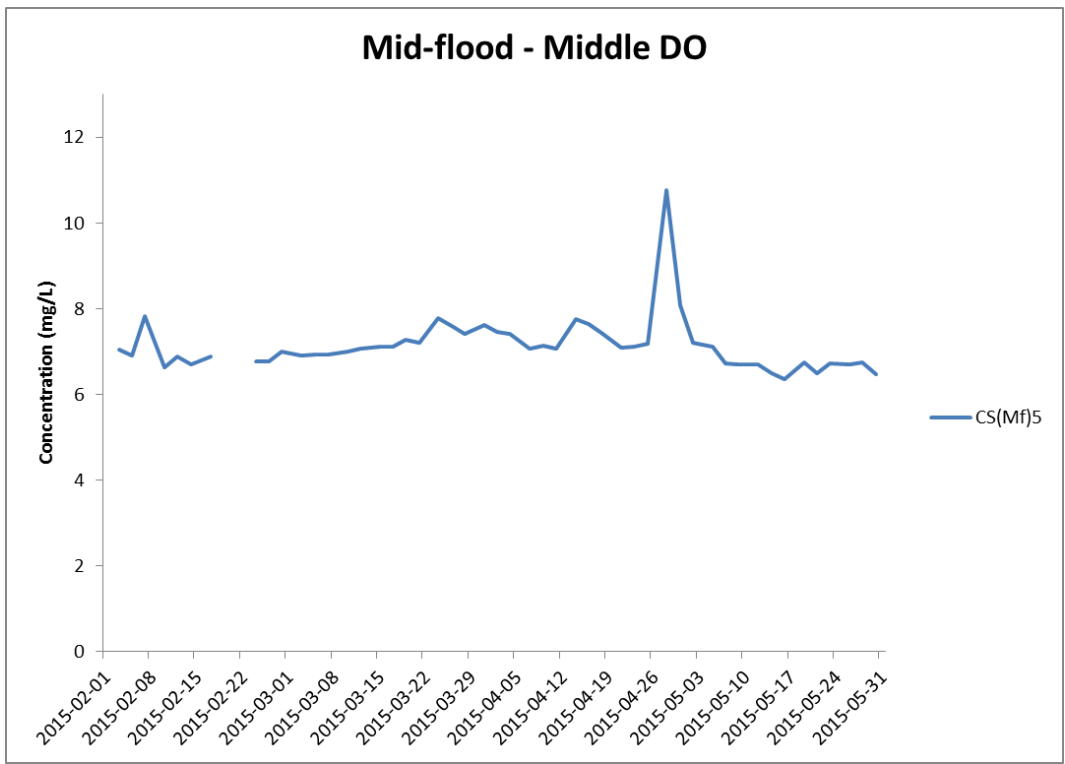
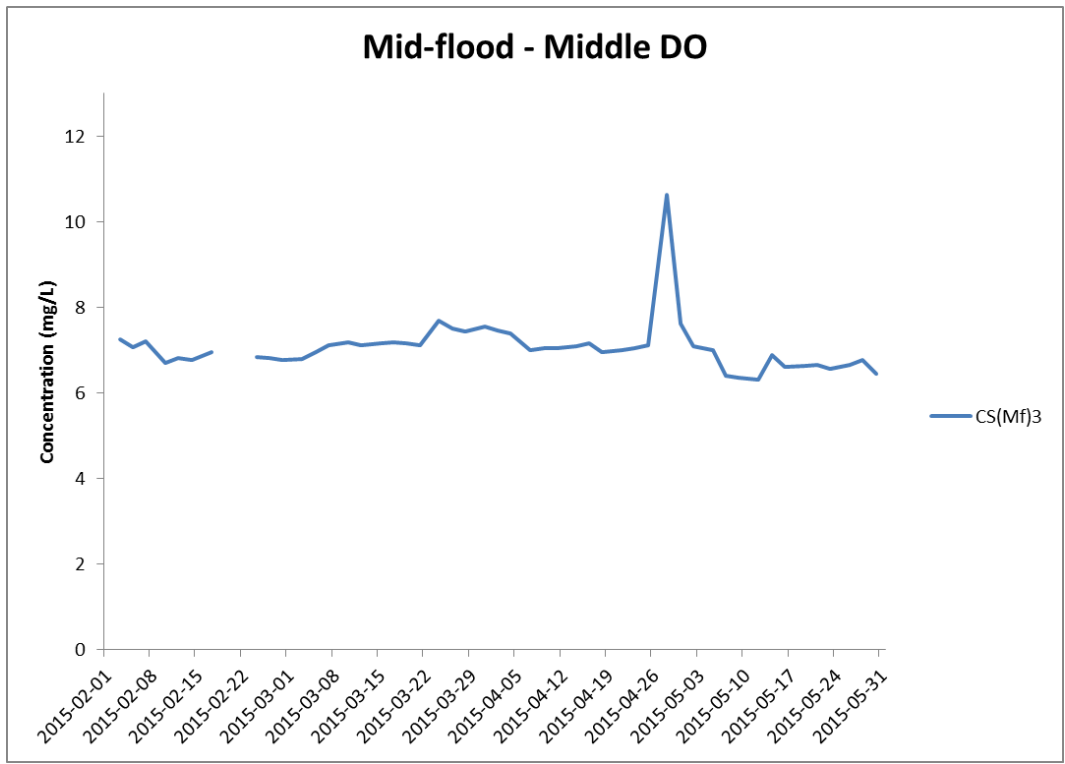


Figure J11 Impact Monitoring - Mean Level of Dissolved Oxygen (mg/L) in mid-depth waters during mid-flood tide between 1 February and 31 May 2015 at CS(Mf)3 and CS(Mf)5.

(Weather condition varied between sunny to rainy within the reporting period. Marine works within the reporting period include Construction and installation of pile caps; Marine piling platform installation & uninstallation; Pier construction; Installation of launching gantry; Marine piling and Installation of pier head segment.) No marine works was undertaken on 19 and 21 February 2015.

**Environmental
Resources
Management**



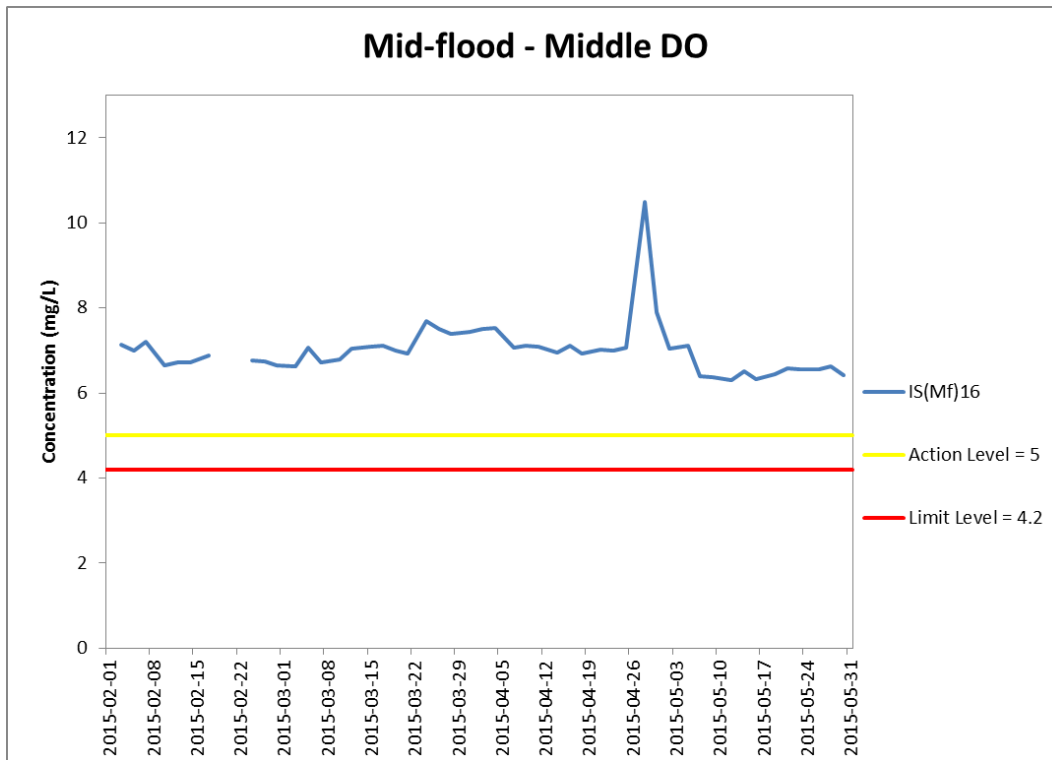


Figure J12 Impact Monitoring - Mean Level of Dissolved Oxygen (mg/L) in mid-depth waters during mid-flood tide between 1 February and 31 May 2015 at IS(Mf)16.

(Weather condition varied between sunny to rainy within the reporting period. Marine works within the reporting period include Construction and installation of pile caps; Marine piling platform installation & uninstallation; Pier construction; Installation of launching gantry; Marine piling and Installation of pier head segment.) No marine works was undertaken on 19 and 21 February 2015.

**Environmental
Resources
Management**



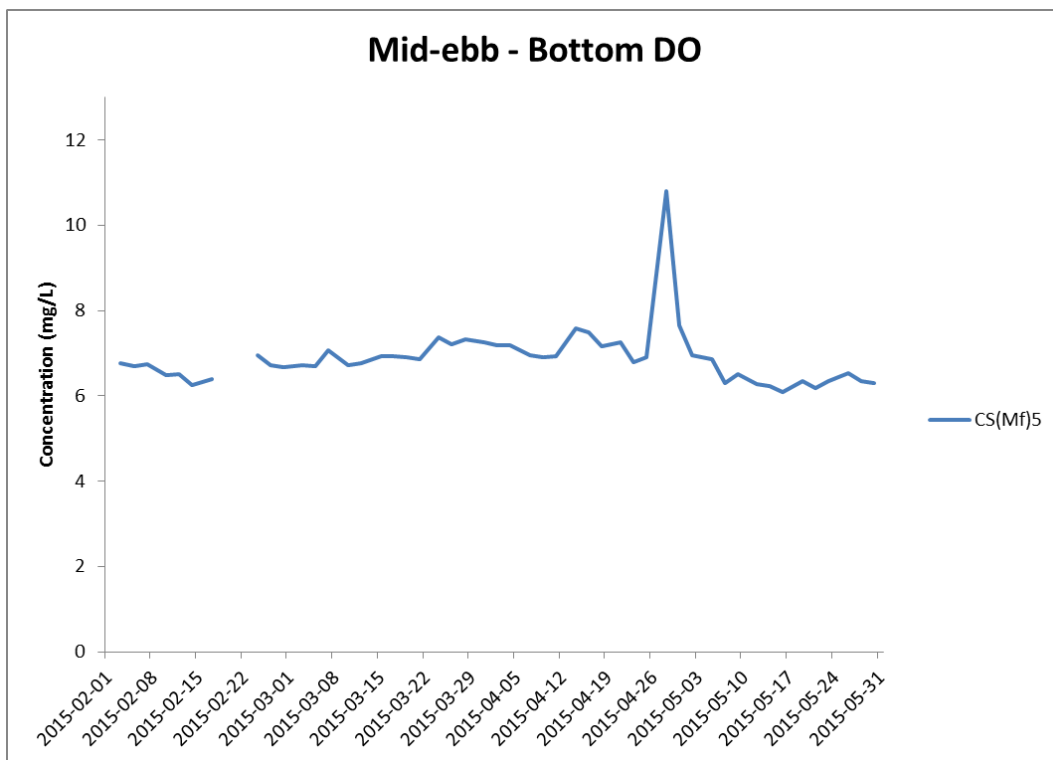
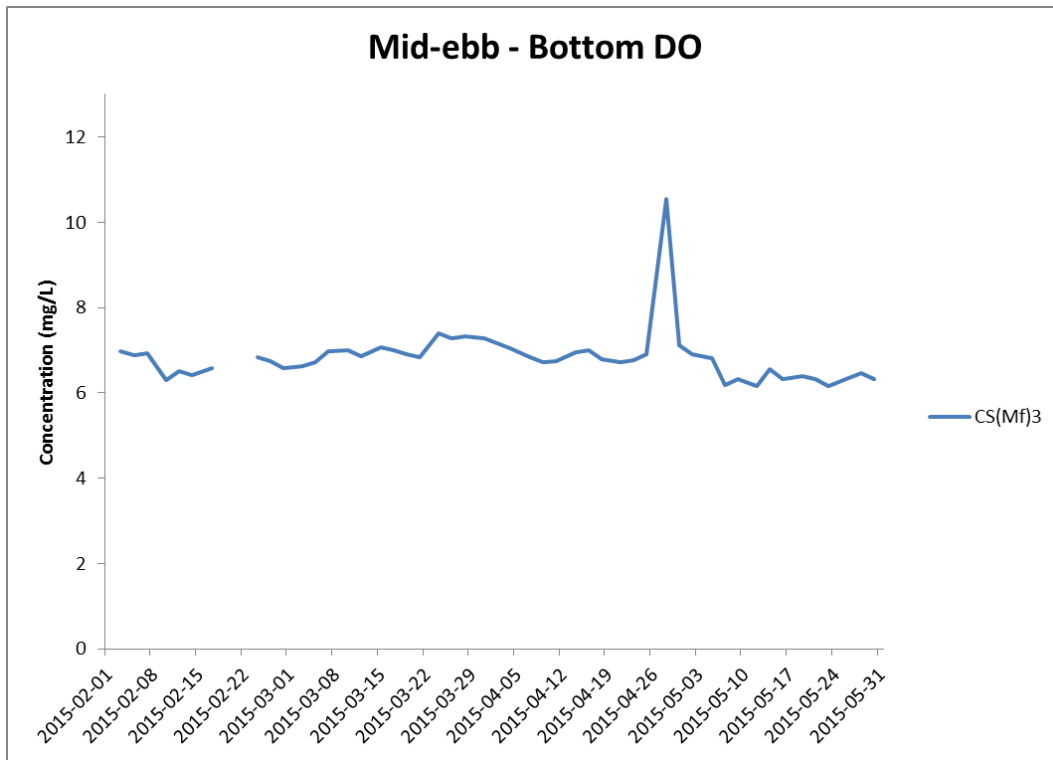


Figure J13 Impact Monitoring – Mean Level of Dissolved Oxygen (mg/L) in bottom waters during mid-ebb tide between 1 February and 31 May 2015 at CS(Mf)3 and CS(Mf)5.

(Weather condition varied between sunny to rainy within the reporting period. Marine works within the reporting period include Construction and installation of pile caps; Marine piling platform installation & uninstallation; Pier construction; Installation of launching gantry; Marine piling and Installation of pier head segment.) No marine works was undertaken on 19 and 21 February 2015.

**Environmental
Resources
Management**



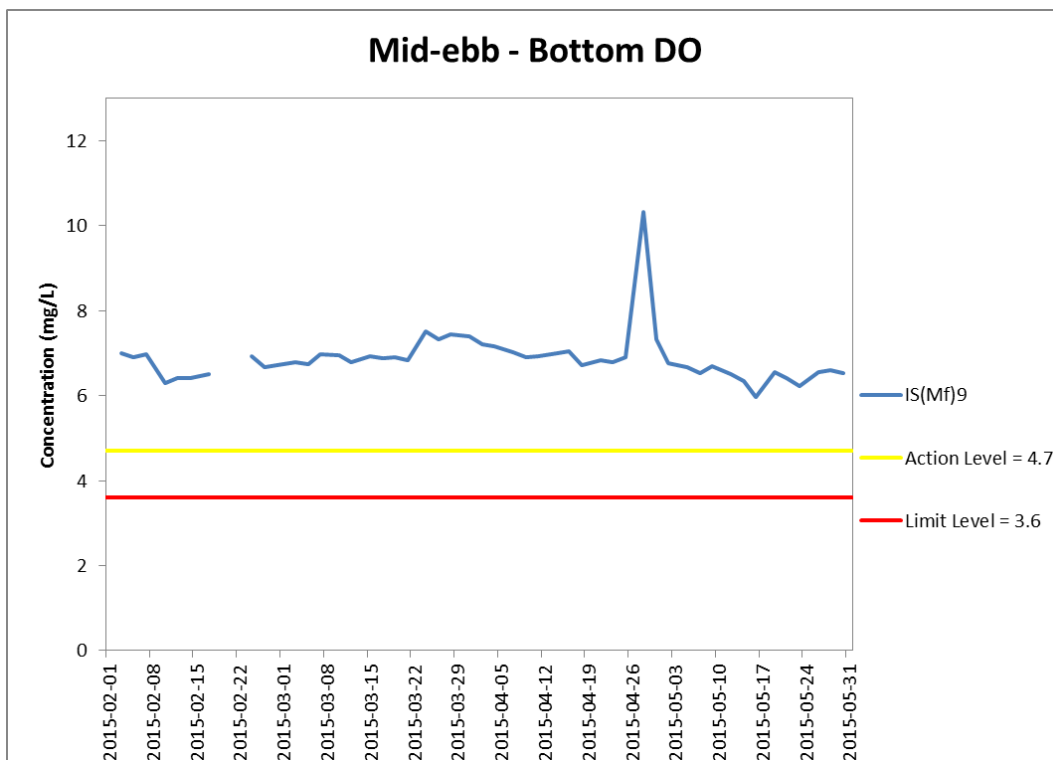
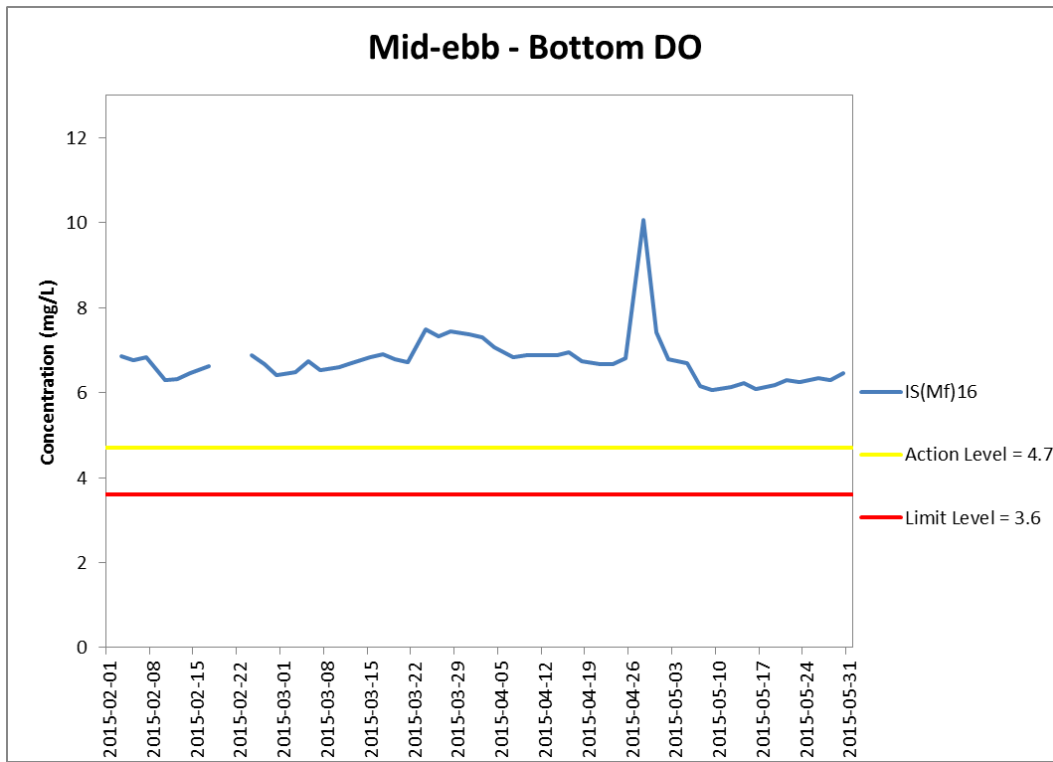


Figure J14 Impact Monitoring – Mean Level of Dissolved Oxygen (mg/L) in bottom waters during mid-ebb tide between 1 February and 31 May 2015 at IS(Mf)16 and IS(Mf)9.

(Weather condition varied between sunny to rainy within the reporting period. Marine works within the reporting period include Construction and installation of pile caps; Marine piling platform installation & uninstallation; Pier construction; Installation of launching gantry; Marine piling and Installation of pier head segment.) No marine works was undertaken on 19 and 21 February 2015.

**Environmental
Resources
Management**



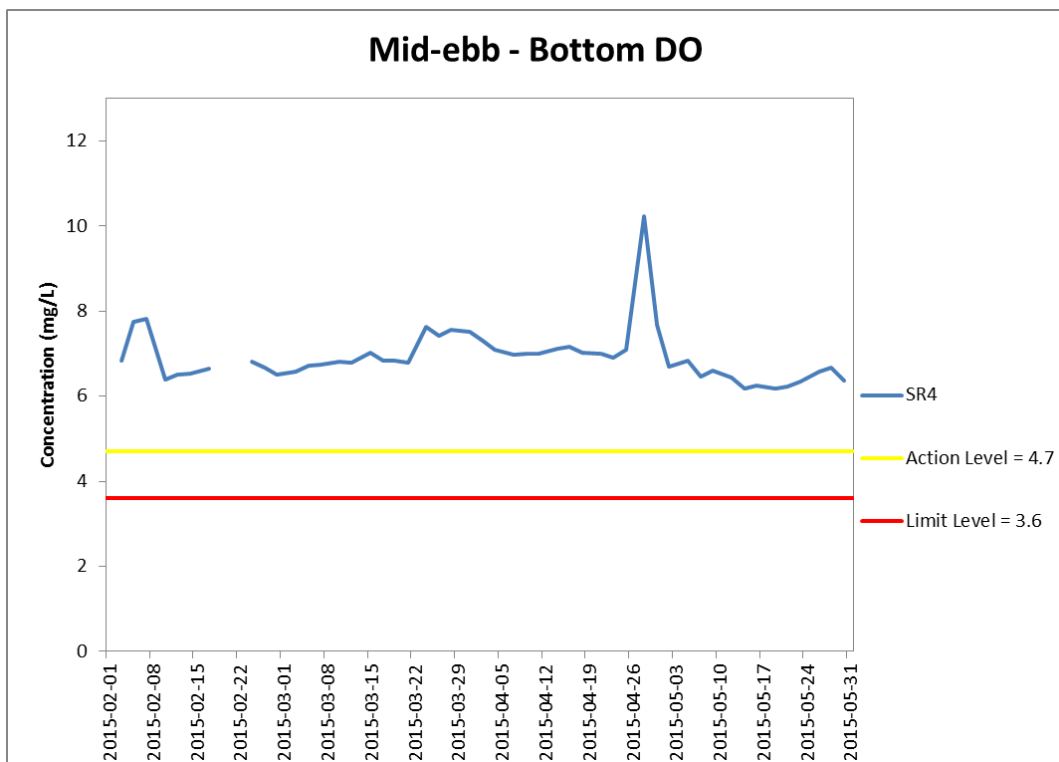
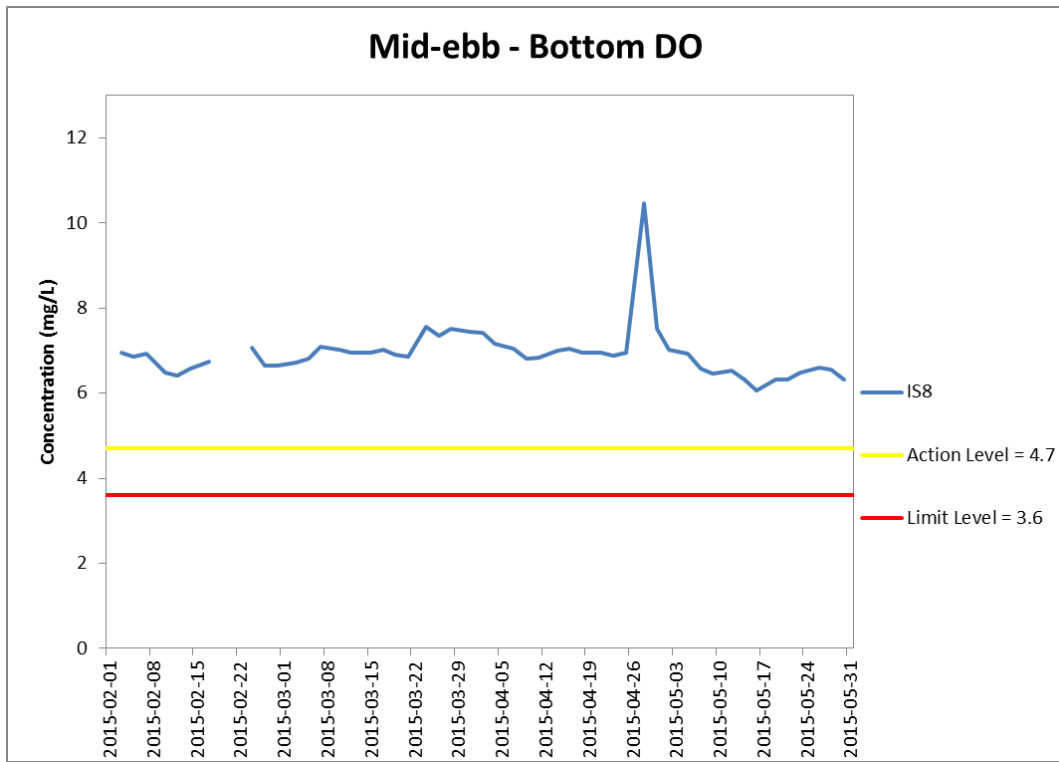


Figure J15 Impact Monitoring – Mean Level of Dissolved Oxygen (mg/L) in bottom waters during mid-ebb tide between 1 February and 31 May 2015 at IS8 and SR4.

(Weather condition varied between sunny to rainy within the reporting period. Marine works within the reporting period include Construction and installation of pile caps; Marine piling platform installation & uninstallation; Pier construction; Installation of launching gantry; Marine piling and Installation of pier head segment.) No marine works was undertaken on 19 and 21 February 2015.

**Environmental
Resources
Management**



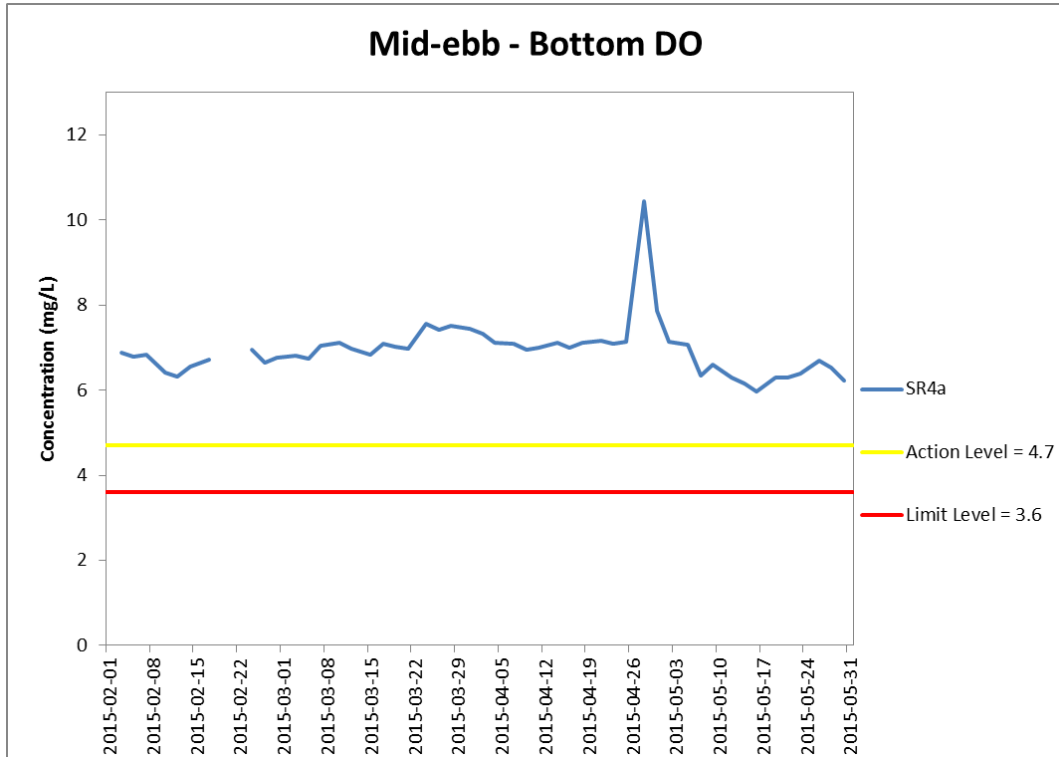


Figure J16 Impact Monitoring – Mean Level of Dissolved Oxygen (mg/L) in bottom waters during mid-ebb tide between 1 February and 31 May 2015 at SR4a.

(Weather condition varied between sunny to rainy within the reporting period. Marine works within the reporting period include Construction and installation of pile caps; Marine piling platform installation & uninstallation; Pier construction; Installation of launching gantry; Marine piling and Installation of pier head segment.) No marine works was undertaken on 19 and 21 February 2015.

**Environmental
Resources
Management**



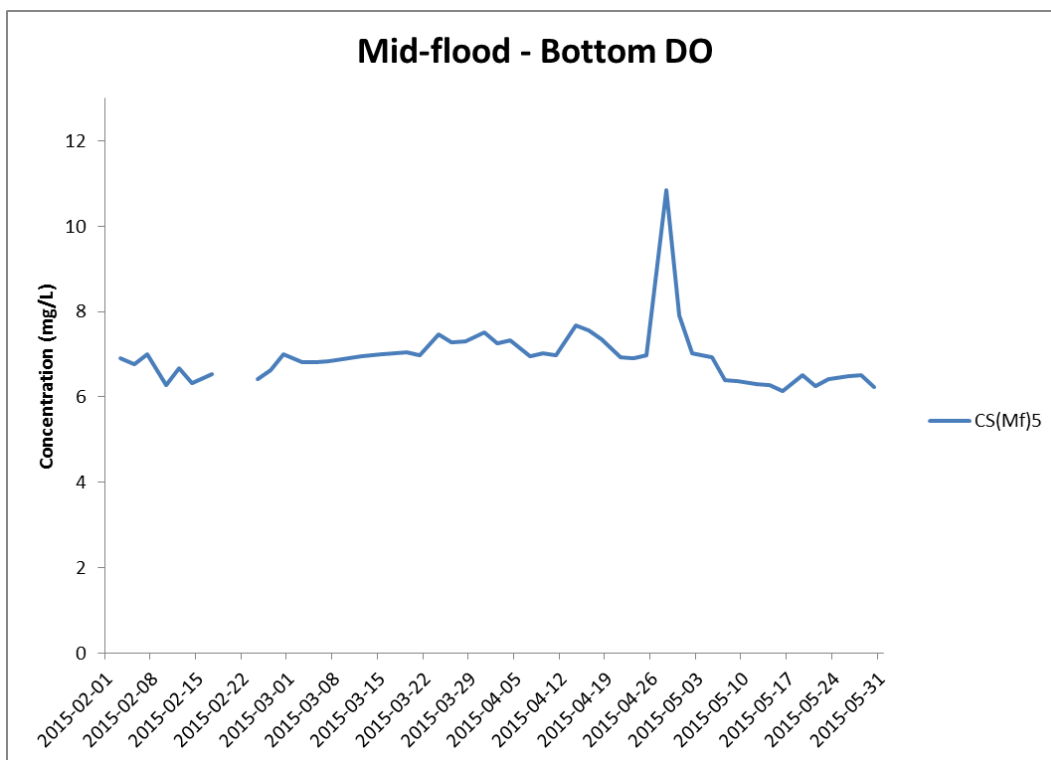
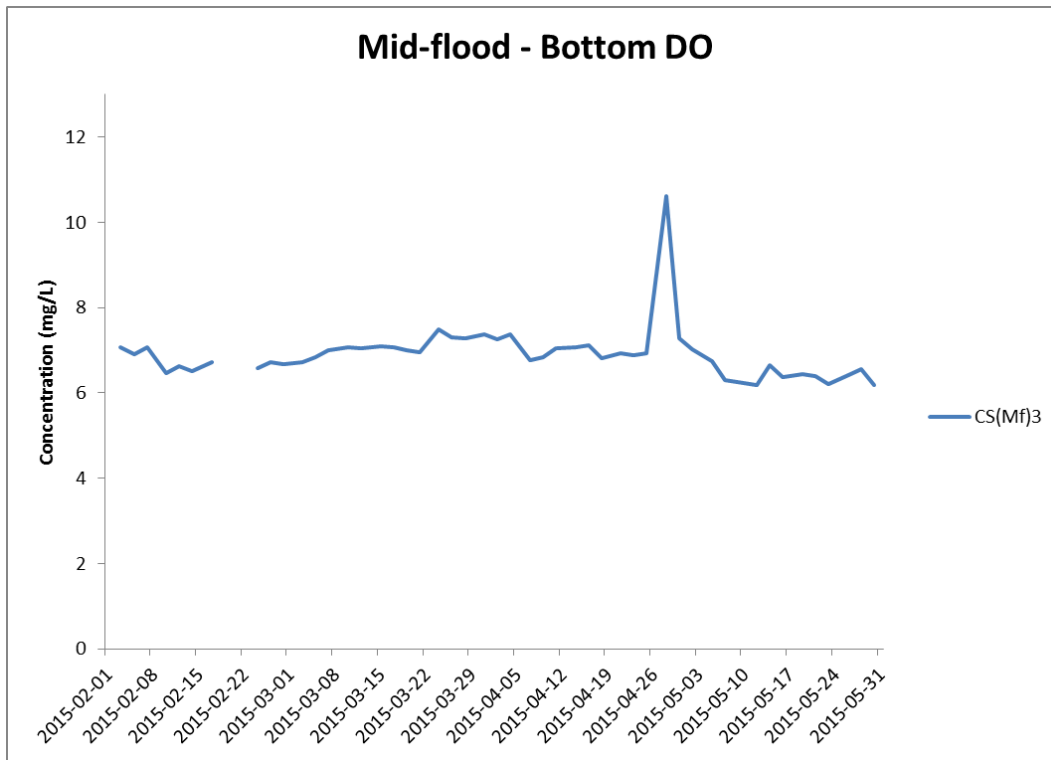


Figure J17 Impact Monitoring – Mean Level of Dissolved Oxygen (mg/L) in bottom waters during mid-flood tide between 1 February and 31 May 2015 at CS(Mf)3 and CS(Mf)5.

(Weather condition varied between sunny to rainy within the reporting period. Marine works within the reporting period include Construction and installation of pile caps; Marine piling platform installation & uninstallation; Pier construction; Installation of launching gantry; Marine piling and Installation of pier head segment.) No marine works was undertaken on 19 and 21 February 2015.

**Environmental
Resources
Management**



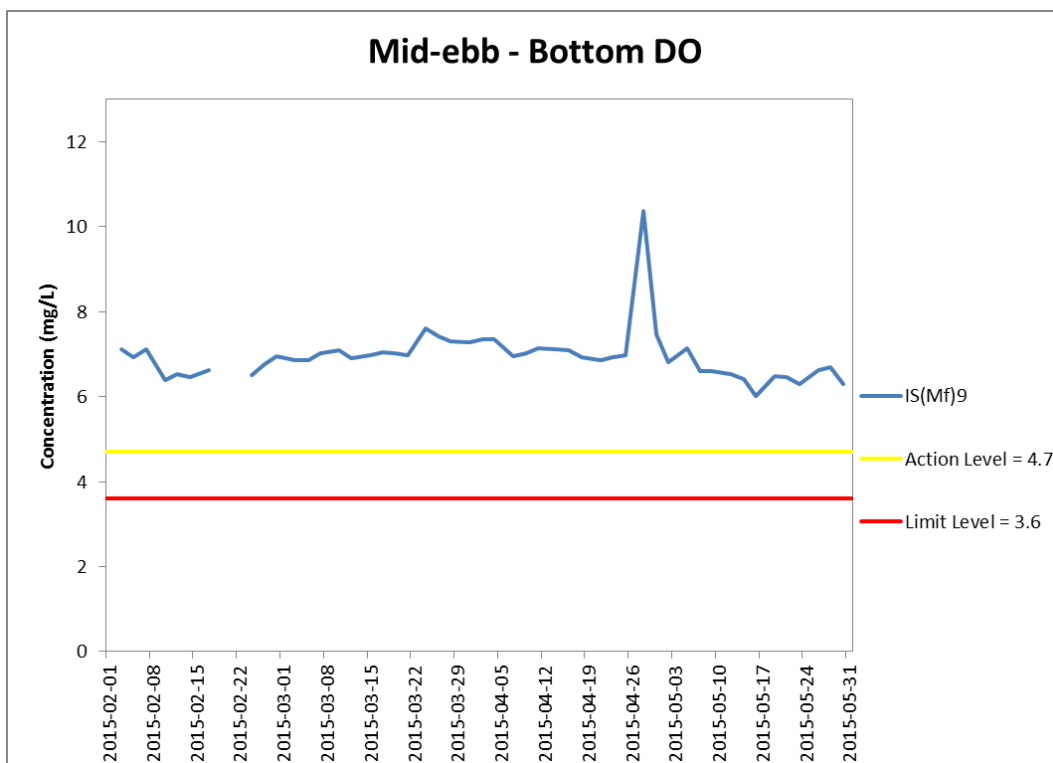
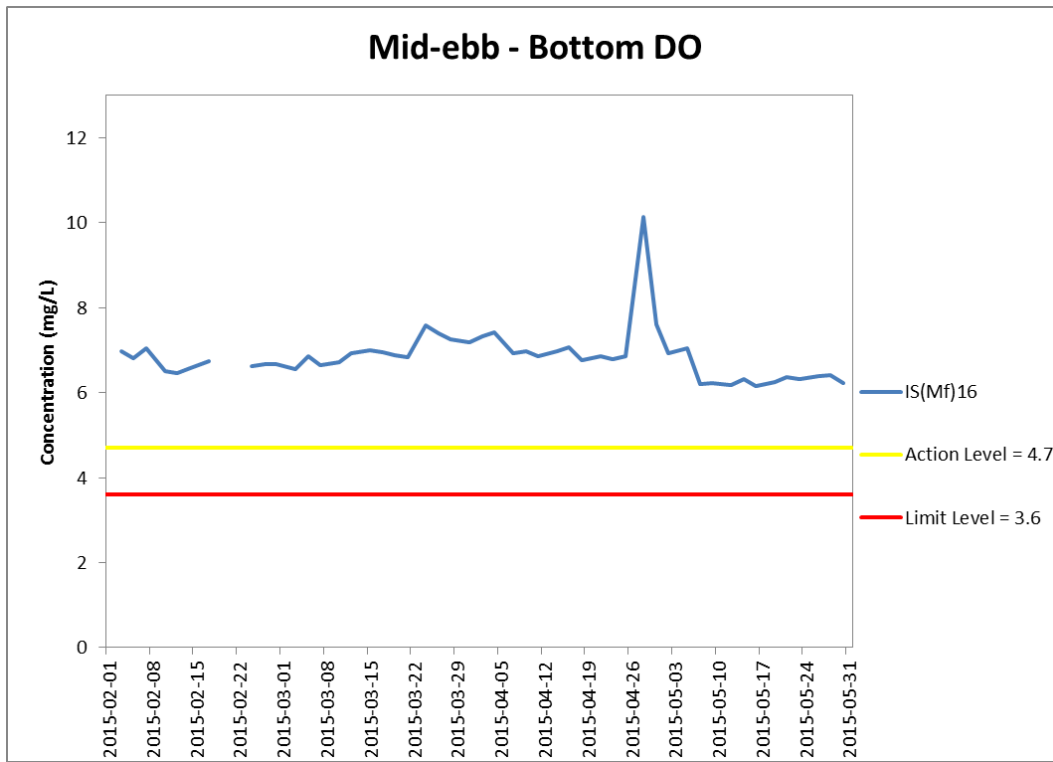


Figure J18 Impact Monitoring - Mean Level of Dissolved Oxygen (mg/L) in bottom waters during mid-flood tide between 1 February and 31 May 2015 at IS(Mf)16 and IS(Mf)9.

(Weather condition varied between sunny to rainy within the reporting period. Marine works within the reporting period include Construction and installation of pile caps; Marine piling platform installation & uninstallation; Pier construction; Installation of launching gantry; Marine piling and Installation of pier head segment.) No marine works was undertaken on 19 and 21 February 2015.

**Environmental
Resources
Management**



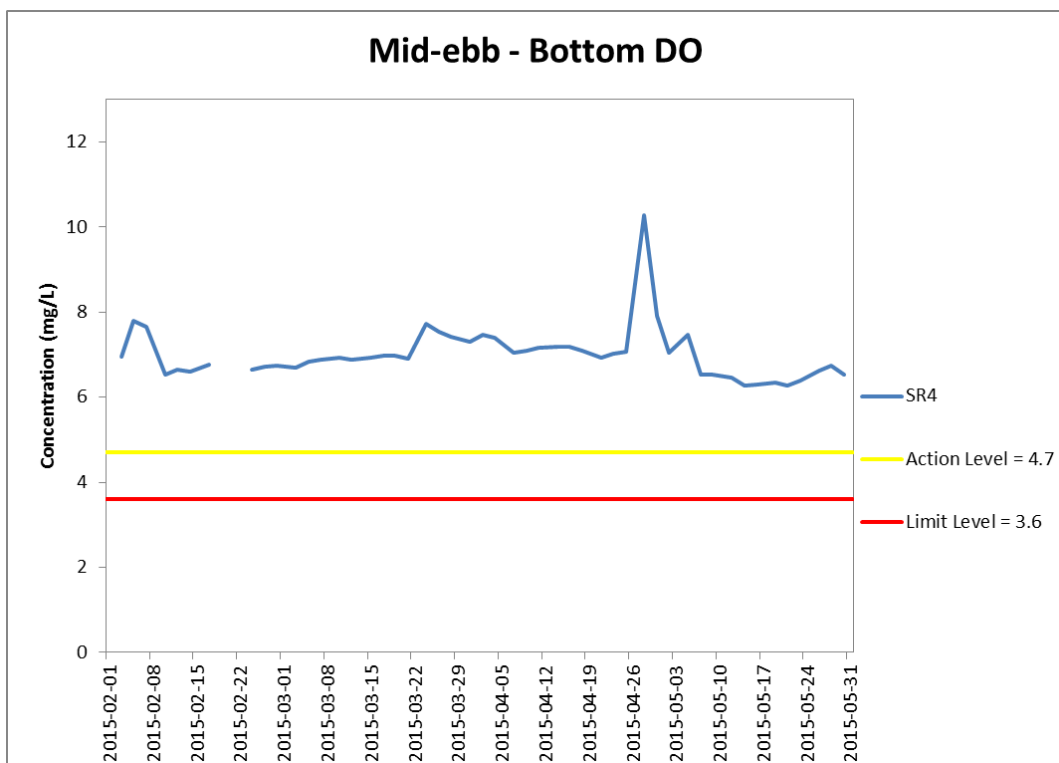
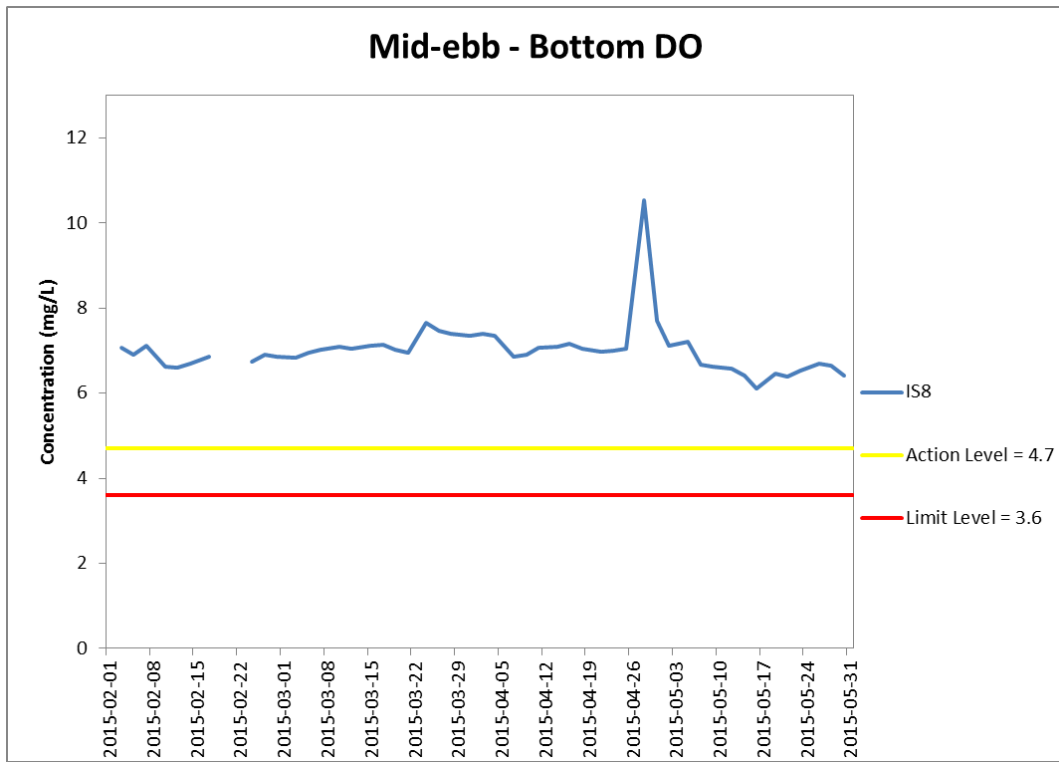


Figure J19 Impact Monitoring – Mean Level of Dissolved Oxygen (mg/L) in bottom waters during mid-flood tide between 1 February and 31 May 2015 at IS8 and SR4.

(Weather condition varied between sunny to rainy within the reporting period. Marine works within the reporting period include Construction and installation of pile caps; Marine piling platform installation & uninstallation; Pier construction; Installation of launching gantry; Marine piling and Installation of pier head segment.) No marine works was undertaken on 19 and 21 February 2015.

**Environmental
Resources
Management**



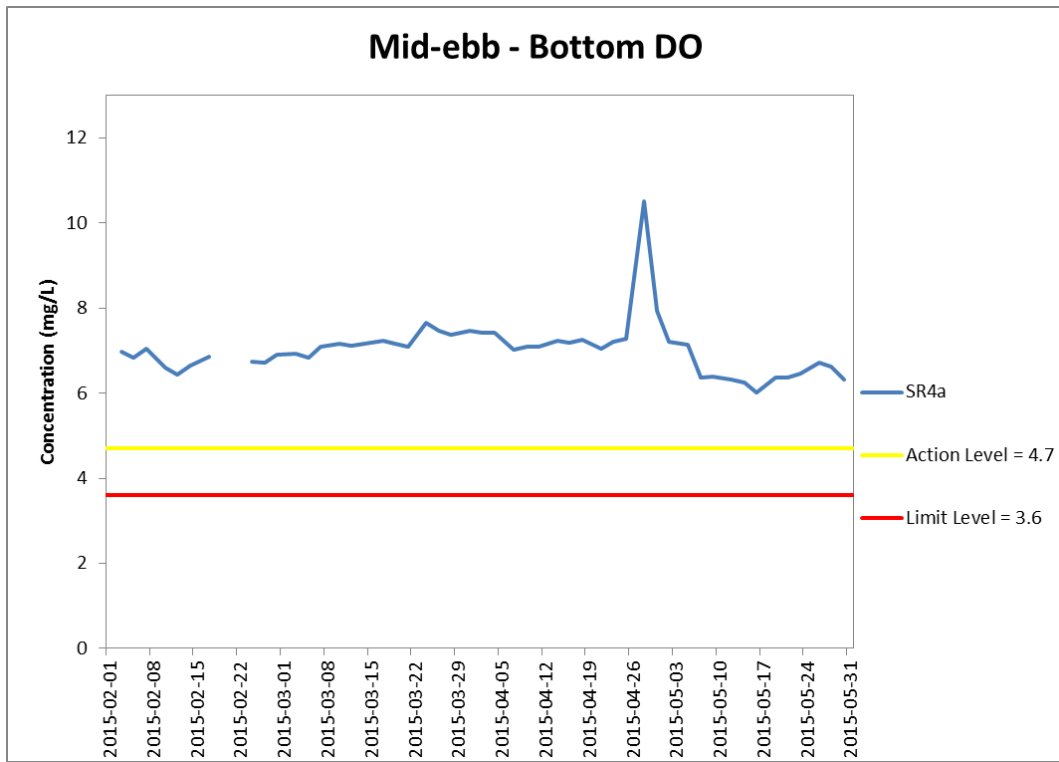


Figure J20 Impact Monitoring - Mean Level of Dissolved Oxygen (mg/L) in bottom waters during mid-flood tide between 1 February and 31 May 2015 at SR4a.

(Weather condition varied between sunny to rainy within the reporting period. Marine works within the reporting period include Construction and installation of pile caps; Marine piling platform installation & uninstallation; Pier construction; Installation of launching gantry; Marine piling and Installation of pier head segment.) No marine works was undertaken on 19 and 21 February 2015.

**Environmental
Resources
Management**



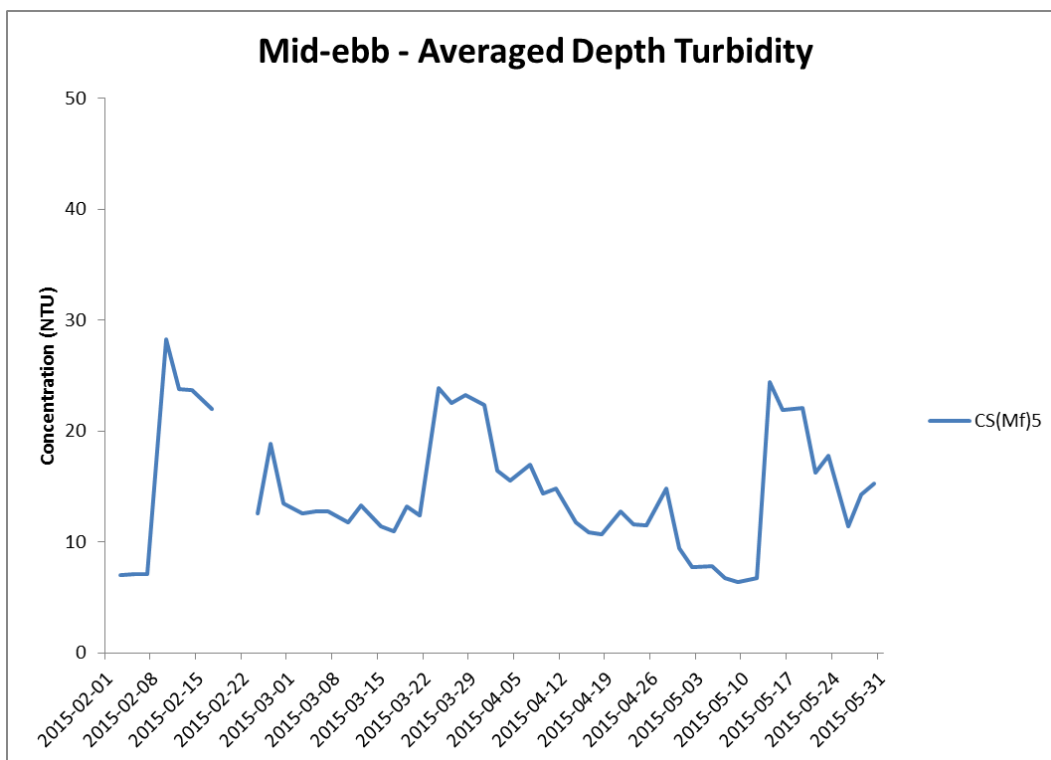
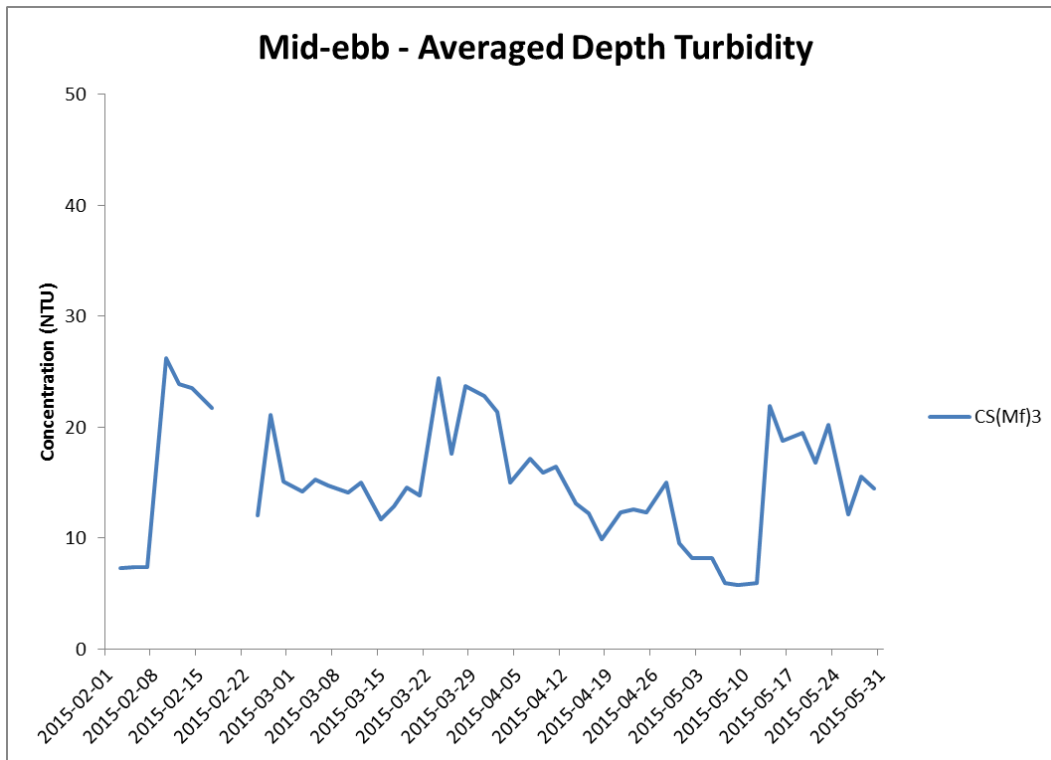


Figure J21 Impact Monitoring – Mean Level of depth-averaged Turbidity (NTU) during mid-ebb tide between 1 February and 31 May 2015 at CS(Mf)3 and CS(Mf)5.

(Weather condition varied between sunny to rainy within the reporting period. Marine works within the reporting period include Construction and installation of pile caps; Marine piling platform installation & uninstallation; Pier construction; Installation of launching gantry; Marine piling and Installation of pier head segment.) No marine works was undertaken on 19 and 21 February 2015.

**Environmental
Resources
Management**



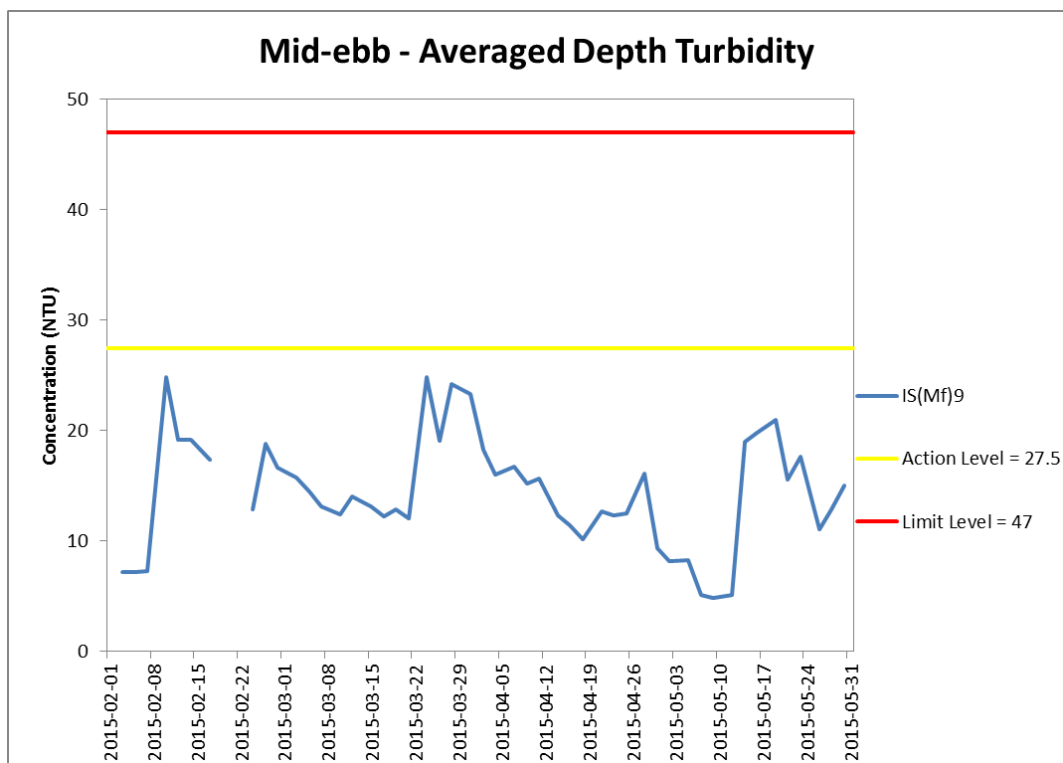
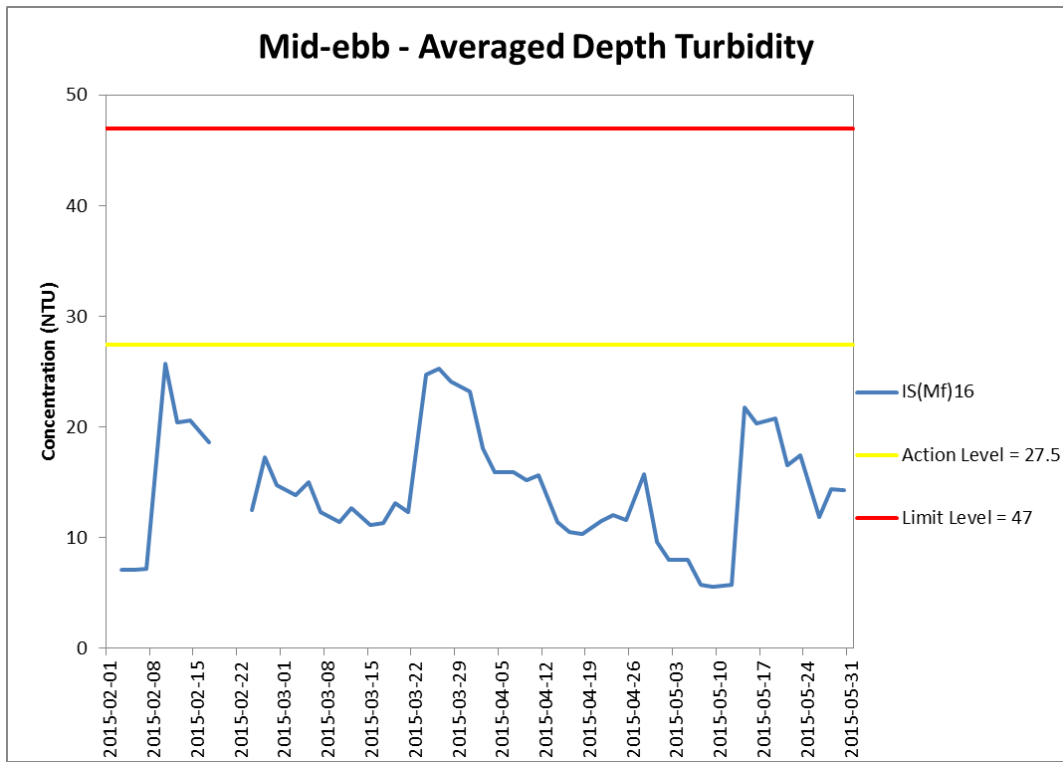


Figure J22 Impact Monitoring - Mean Level of depth-averaged Turbidity (NTU) during mid-ebb tide between 1 February and 31 May 2015 at IS(Mf)16 and IS(Mf)9.

(Weather condition varied between sunny to rainy within the reporting period. Marine works within the reporting period include Construction and installation of pile caps; Marine piling platform installation & uninstallation; Pier construction; Installation of launching gantry; Marine piling and Installation of pier head segment.) No marine works was undertaken on 19 and 21 February 2015.

**Environmental
Resources
Management**



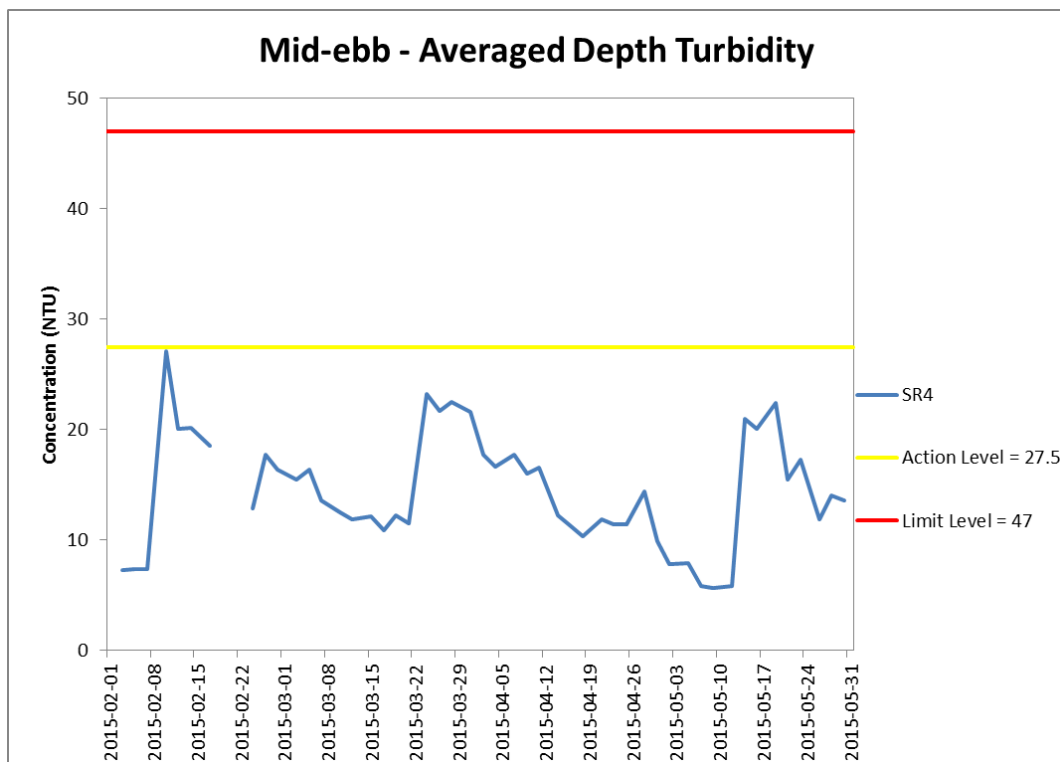
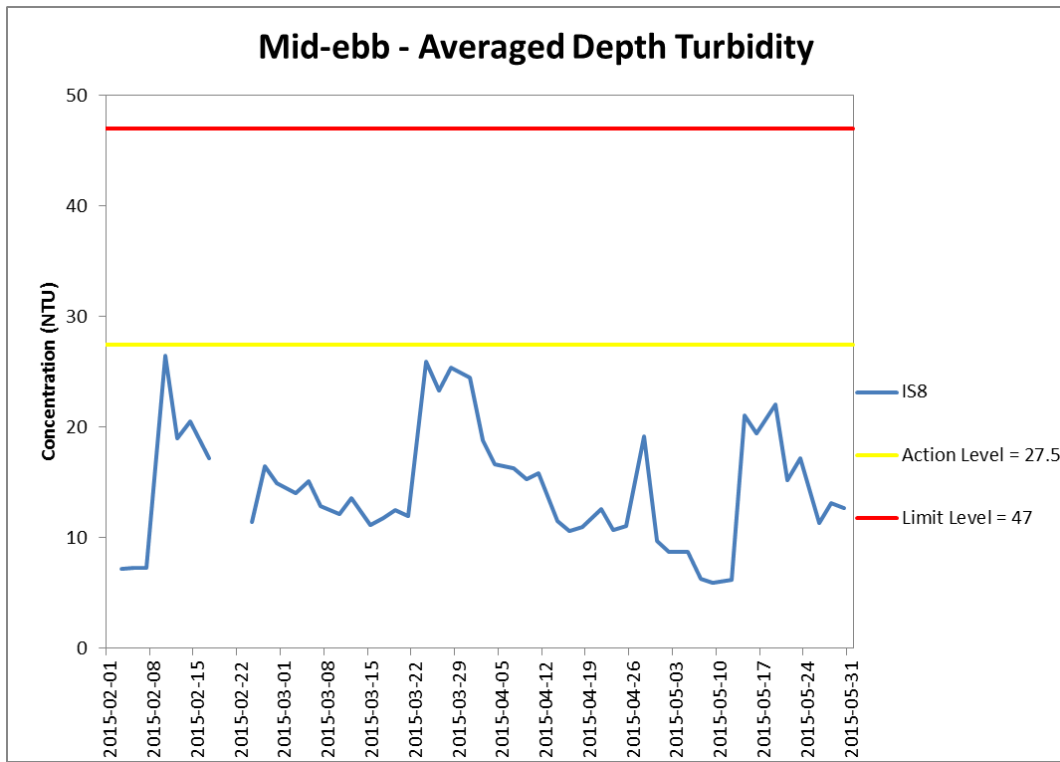


Figure J23 Impact Monitoring – Mean Level of depth-averaged Turbidity (NTU) during mid-ebb tide between 1 February and 31 May 2015 at IS8 and SR4.

(Weather condition varied between sunny to rainy within the reporting period. Marine works within the reporting period include Construction and installation of pile caps; Marine piling platform installation & uninstallation; Pier construction; Installation of launching gantry; Marine piling and Installation of pier head segment.) No marine works was undertaken on 19 and 21 February 2015.

**Environmental
Resources
Management**



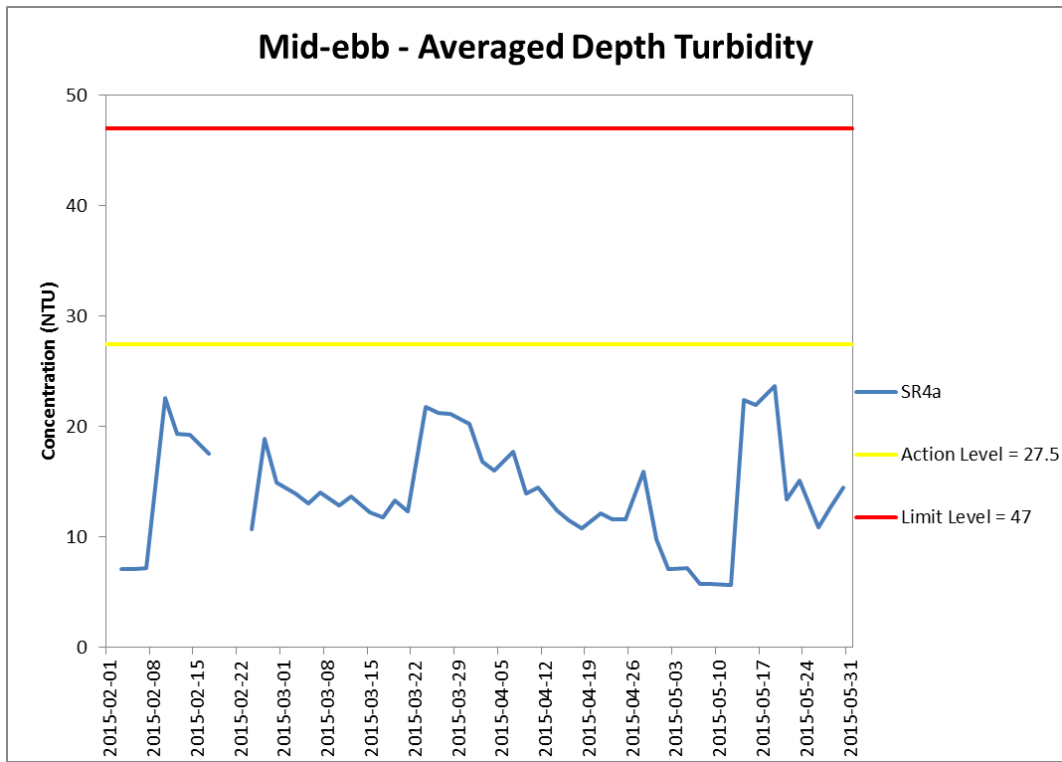


Figure J24 Impact Monitoring - Mean Level of depth-averaged Turbidity (NTU) during mid-ebb tide between 1 February and 31 May 2015 at SR4a.

(Weather condition varied between sunny to rainy within the reporting period. Marine works within the reporting period include Construction and installation of pile caps; Marine piling platform installation & uninstallation; Pier construction; Installation of launching gantry; Marine piling and Installation of pier head segment.) No marine works was undertaken on 19 and 21 February 2015.

**Environmental
Resources
Management**



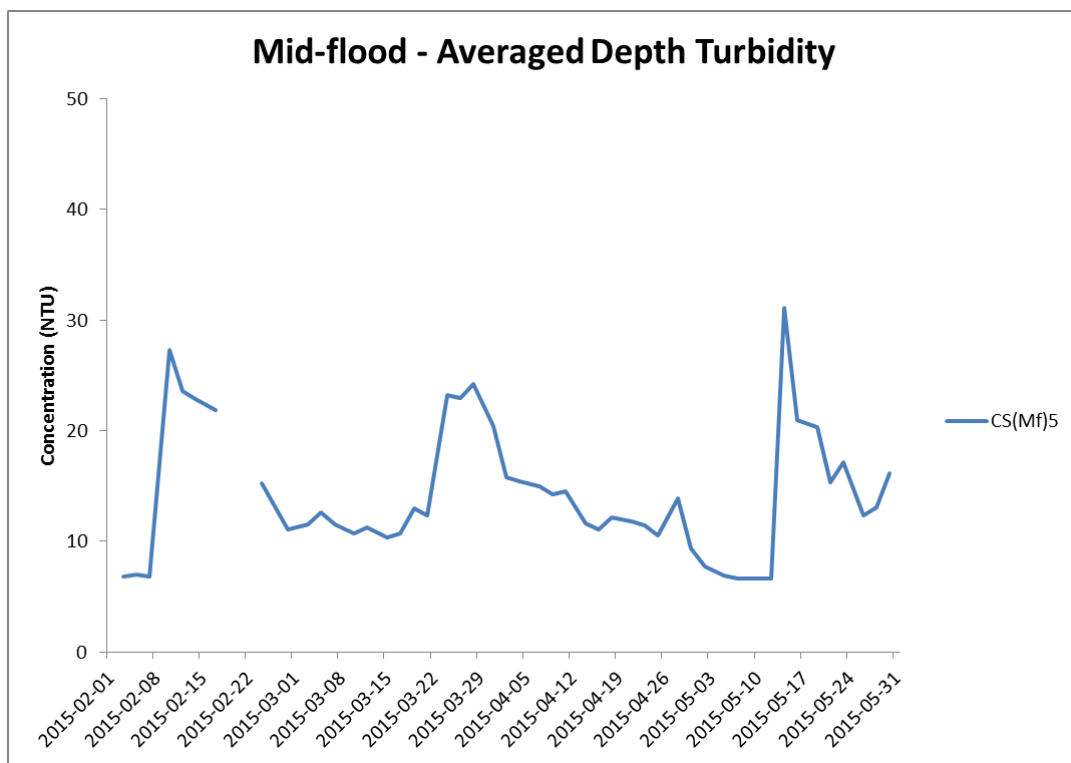
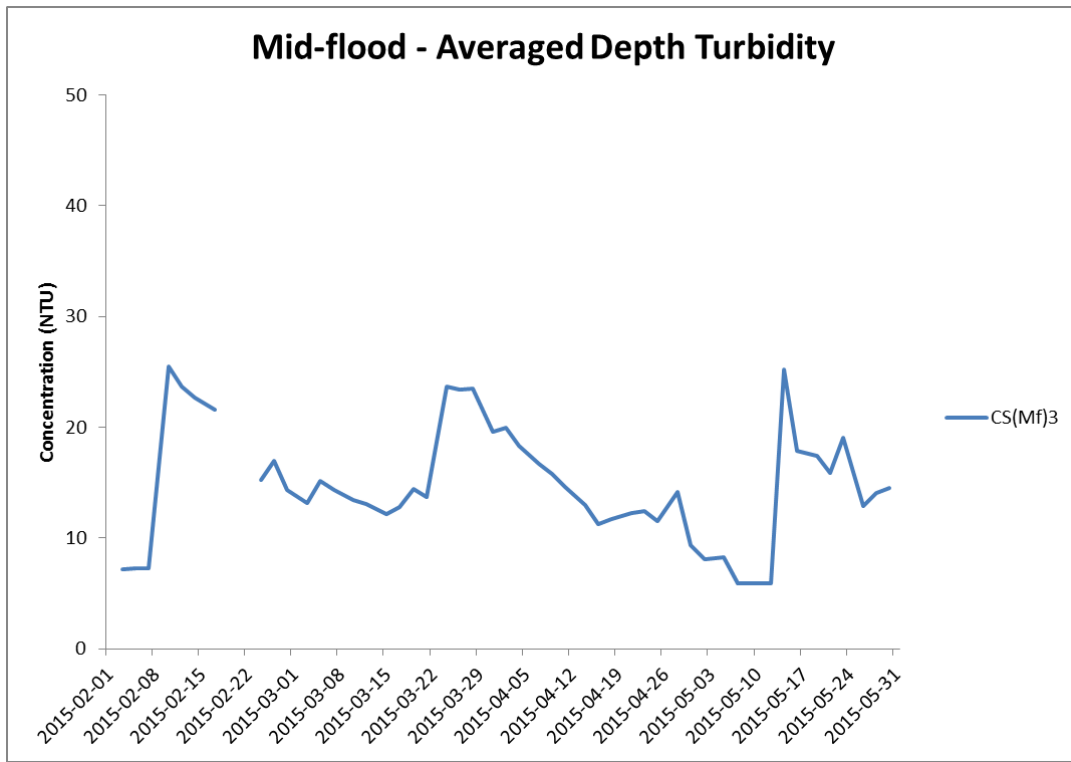


Figure J25 Impact Monitoring – Mean Level of depth-averaged Turbidity (NTU) during mid-flood tide between 1 February and 31 May 2015 at CS(Mf)3 and CS(MF)5.

(Weather condition varied between sunny to rainy within the reporting period. Marine works within the reporting period include Construction and installation of pile caps; Marine piling platform installation & uninstallation; Pier construction; Installation of launching gantry; Marine piling and Installation of pier head segment.) No marine works was undertaken on 19 and 21 February 2015.

**Environmental
Resources
Management**



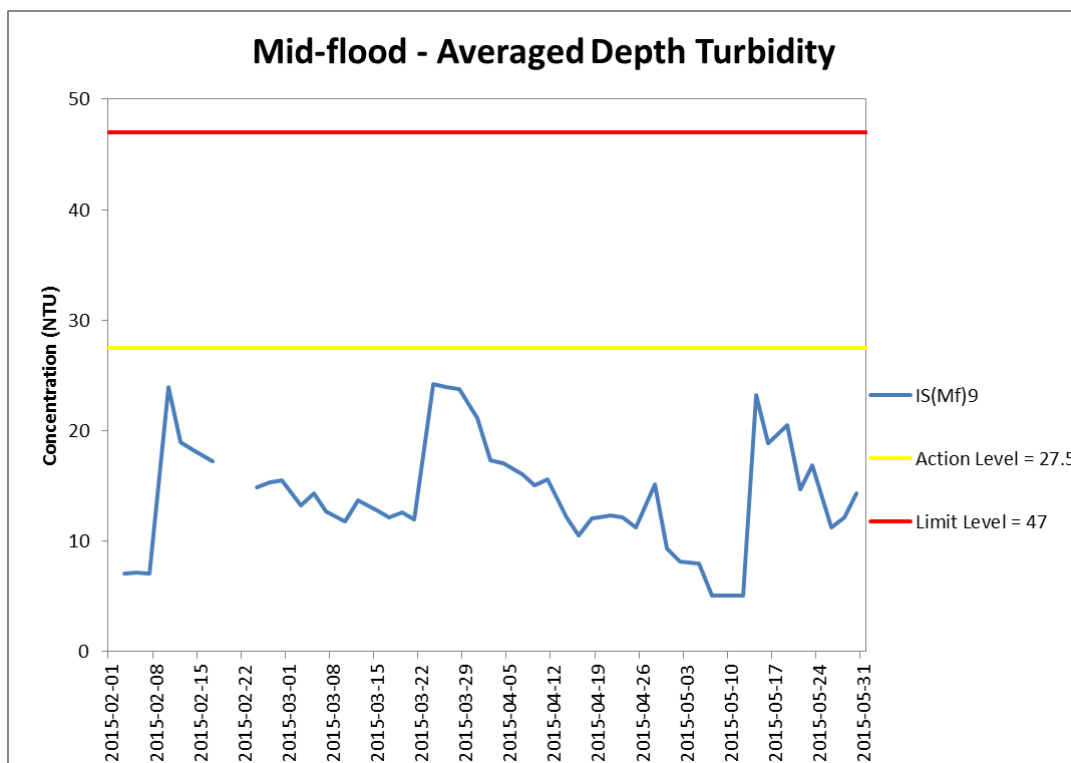
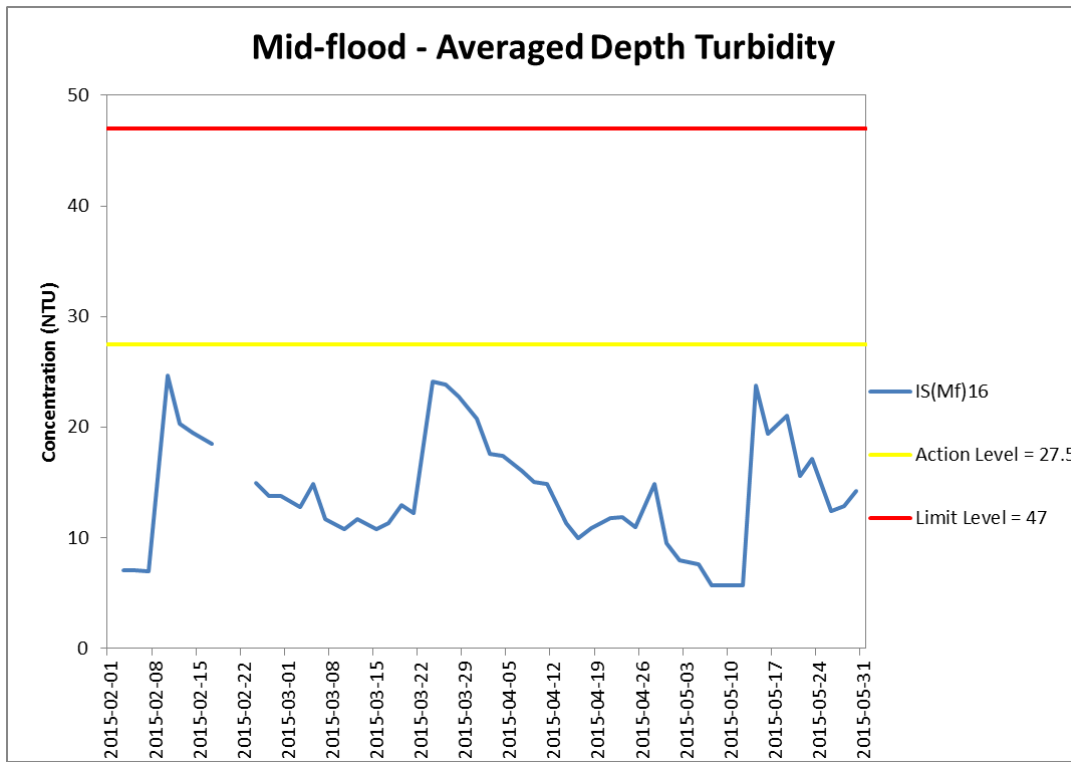


Figure J26 Impact Monitoring - Mean Level of depth-averaged Turbidity (NTU) during mid-flood tide between 1 February and 31 May 2015 at IS(Mf)16 and IS(Mf)9.

(Weather condition varied between sunny to rainy within the reporting period. Marine works within the reporting period include Construction and installation of pile caps; Marine piling platform installation & uninstallation; Pier construction; Installation of launching gantry; Marine piling and Installation of pier head segment.) No marine works was undertaken on 19 and 21 February 2015.

**Environmental
Resources
Management**



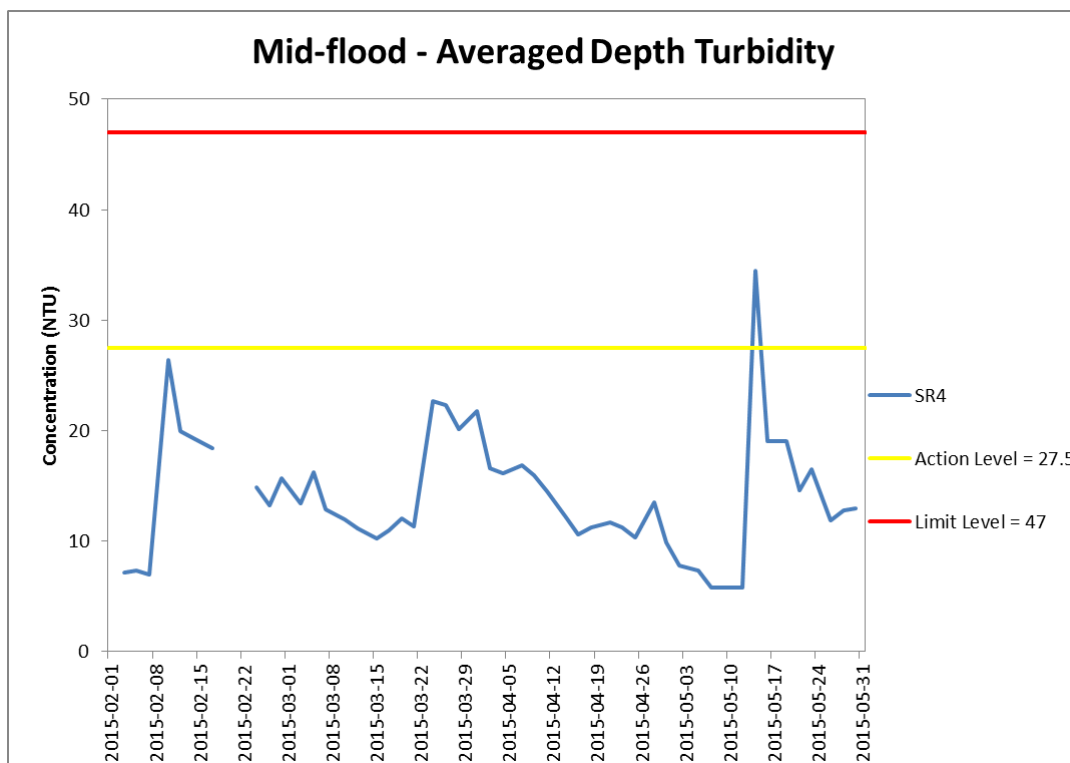
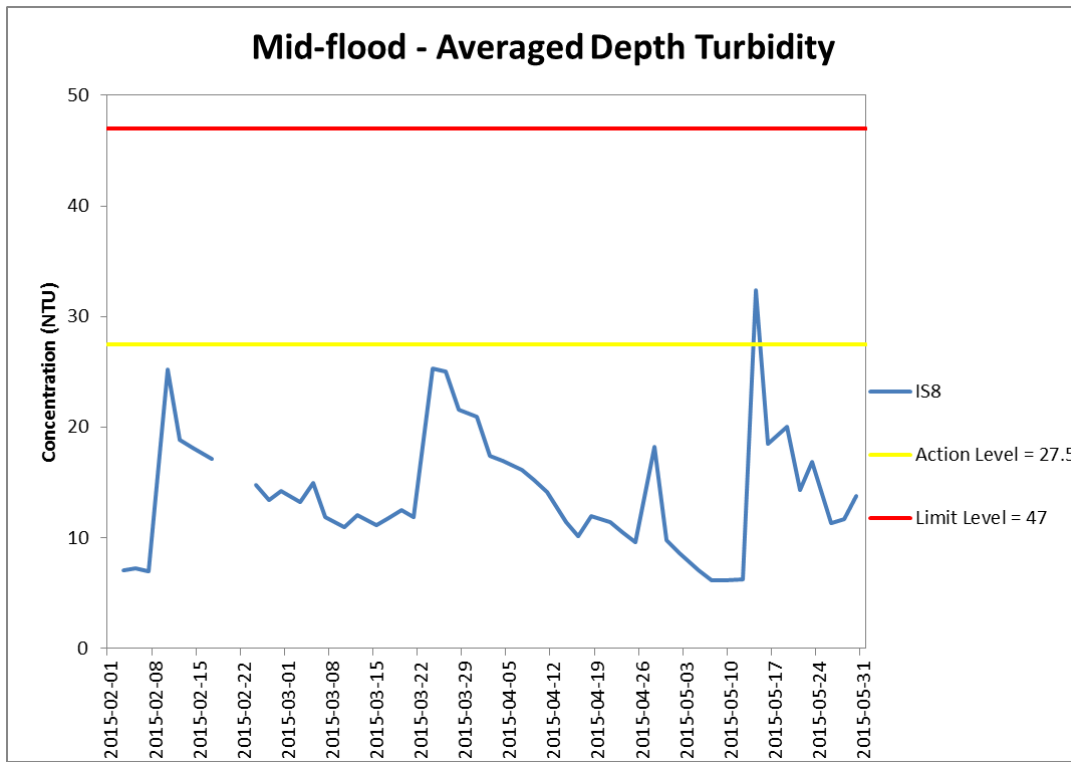


Figure J27 Impact Monitoring – Mean Level of depth-averaged Turbidity (NTU) during mid-flood tide between 1 February and 31 May 2015 at IS8 and SR4.

(Weather condition varied between sunny to rainy within the reporting period. Marine works within the reporting period include Construction and installation of pile caps; Marine piling platform installation & uninstallation; Pier construction; Installation of launching gantry; Marine piling and Installation of pier head segment.) No marine works was undertaken on 19 and 21 February 2015. The result higher than Action Level were not considered as exceedance as it was not higher than 120% of the upstream control station on the same day at same tide.

**Environmental
Resources
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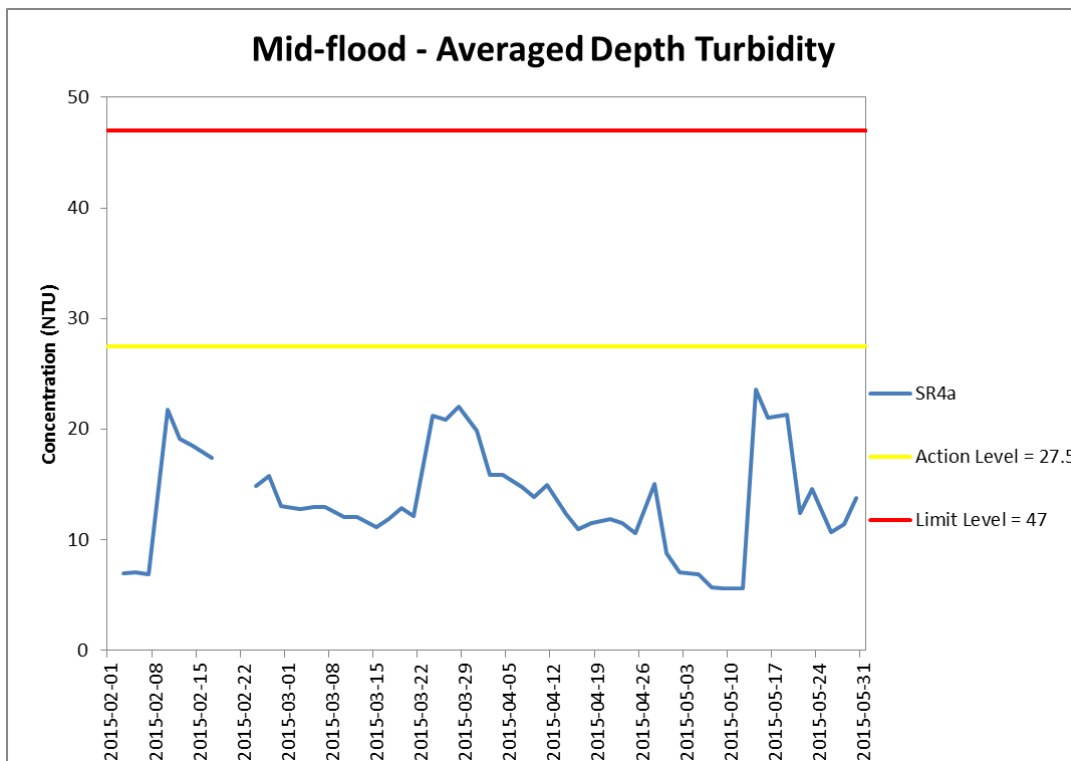


Figure J28 Impact Monitoring – Mean Level of depth-averaged Turbidity (NTU) during mid-flood tide between 1 February and 31 May 2015 at SR4a.

(Weather condition varied between sunny to rainy within the reporting period. Marine works within the reporting period include Construction and installation of pile caps; Marine piling platform installation & uninstallation; Pier construction; Installation of launching gantry; Marine piling and Installation of pier head segment.) No marine works was undertaken on 19 and 21 February 2015.

**Environmental
Resources
Management**



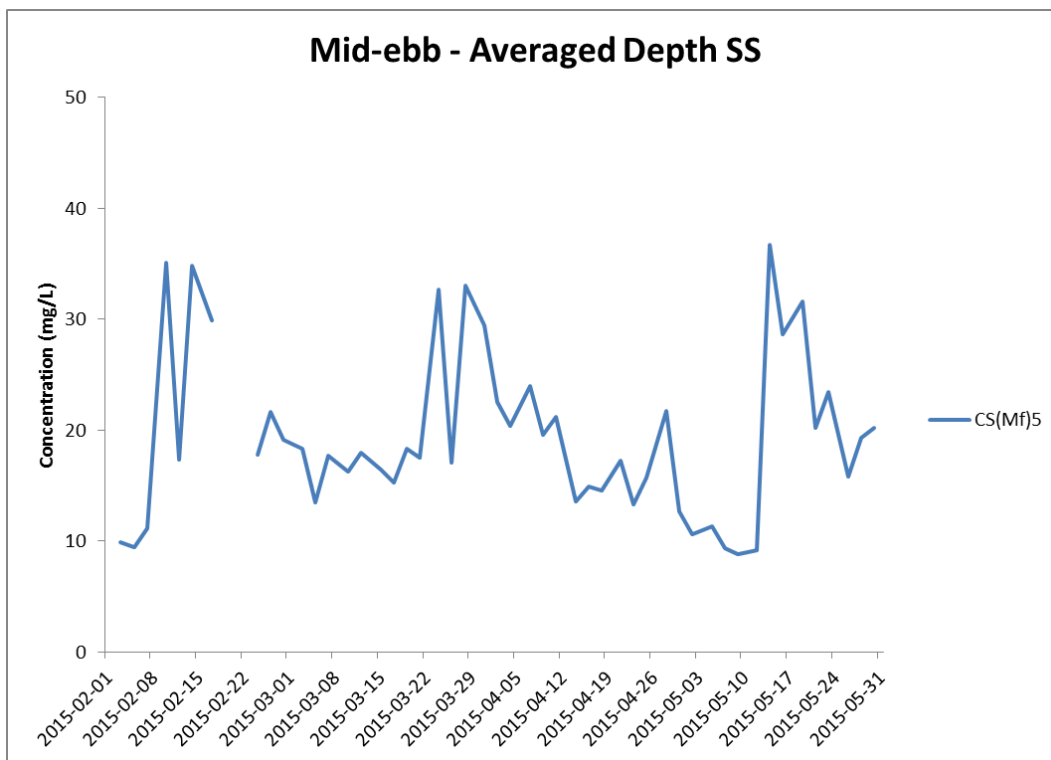
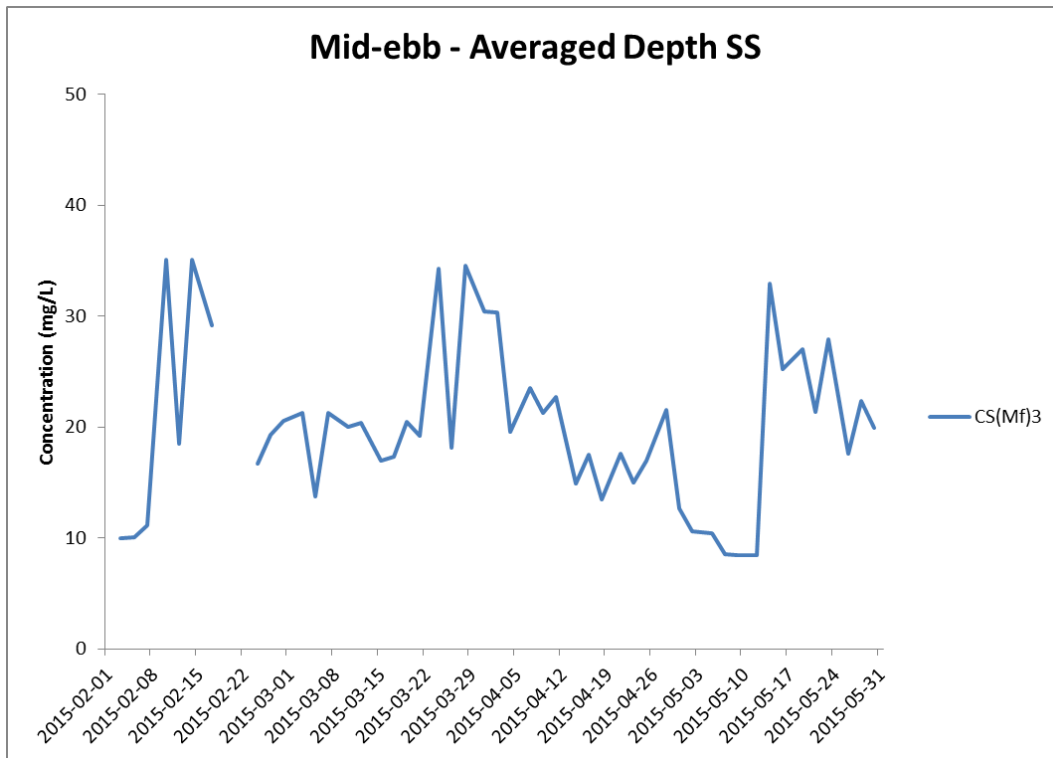


Figure J29 Impact Monitoring – Mean depth-averaged level of Suspended Solids (mg/L) during mid-ebb tide between 1 February and 31 May 2015 at CS(Mf)3 and CS(Mf)5.

(Weather condition varied between sunny to rainy within the reporting period. Marine works within the reporting period include Construction and installation of pile caps; Marine piling platform installation & uninstallation; Pier construction; Installation of launching gantry; Marine piling and Installation of pier head segment.) No marine works was undertaken on 19 and 21 February 2015.

**Environmental
Resources
Management**



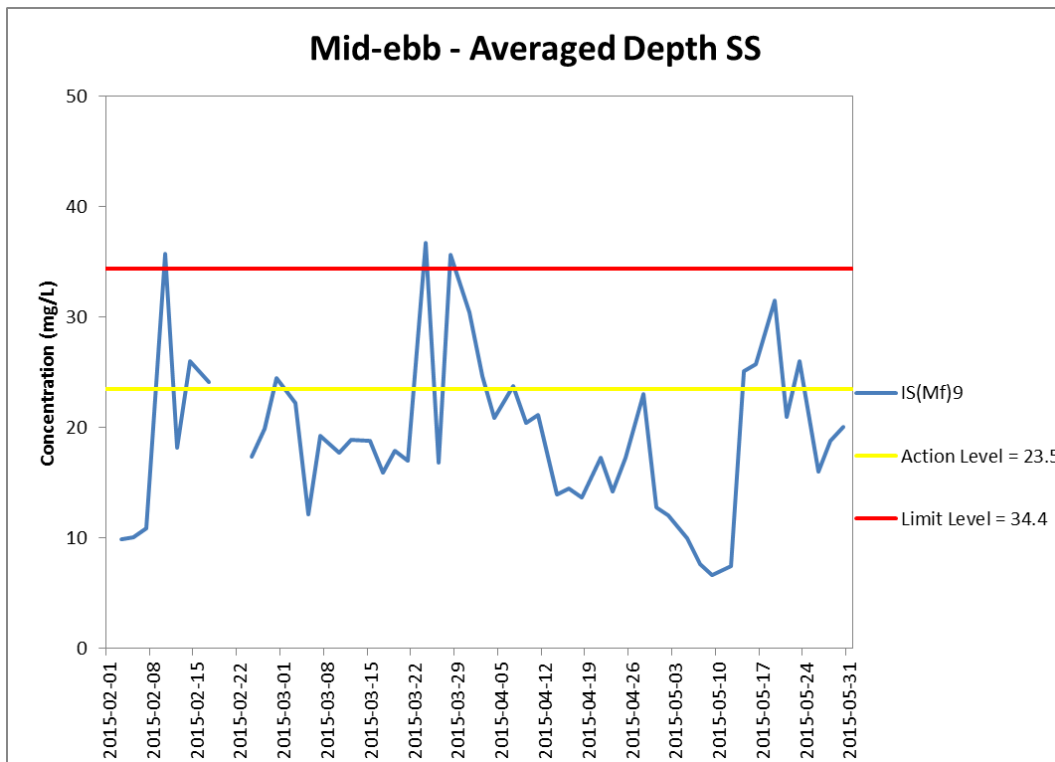
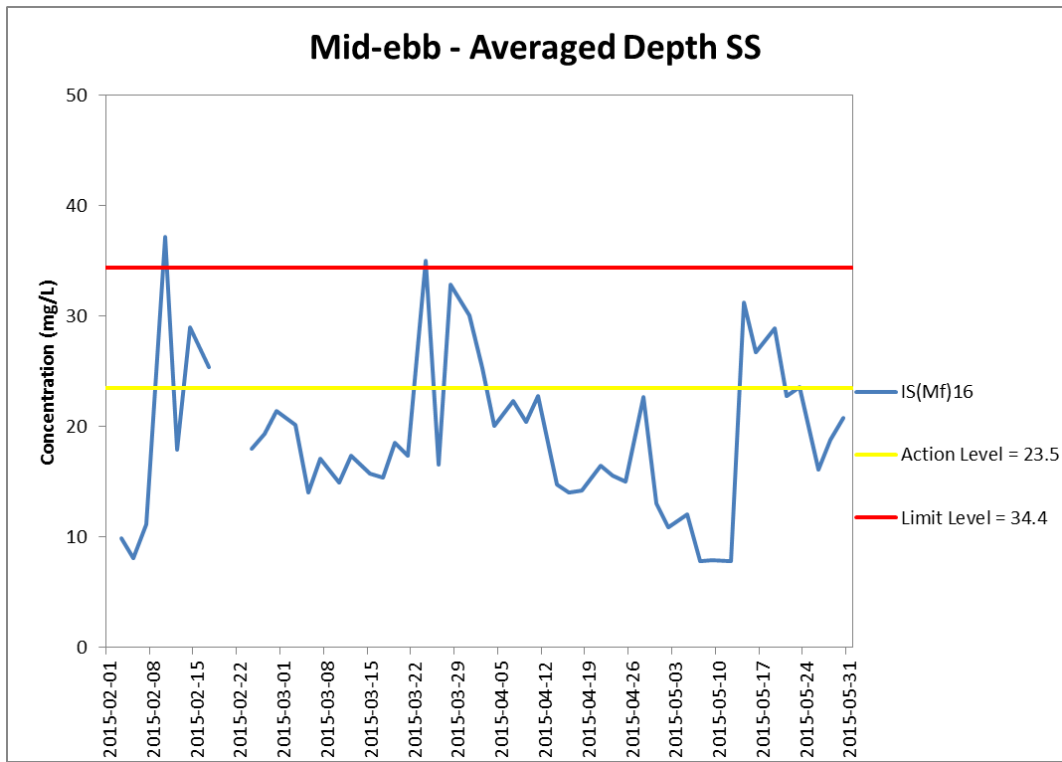


Figure J30 Impact Monitoring – Mean depth-averaged level of Suspended Solids (mg/L) during mid-ebb tide between 1 February and 31 May 2015 at IS(Mf)16 and IS(Mf)9.

(Weather condition varied between sunny to rainy within the reporting period. Marine works within the reporting period include Construction and installation of pile caps; Marine piling platform installation & uninstallation; Pier construction; Installation of launching gantry; Marine piling and Installation of pier head segment.) No marine works was undertaken on 19 and 21 February 2015. The SS results higher than Action / Limit Levels were not considered as exceedances as the results were not higher than 120% of upstream control station.

**Environmental
Resources
Management**



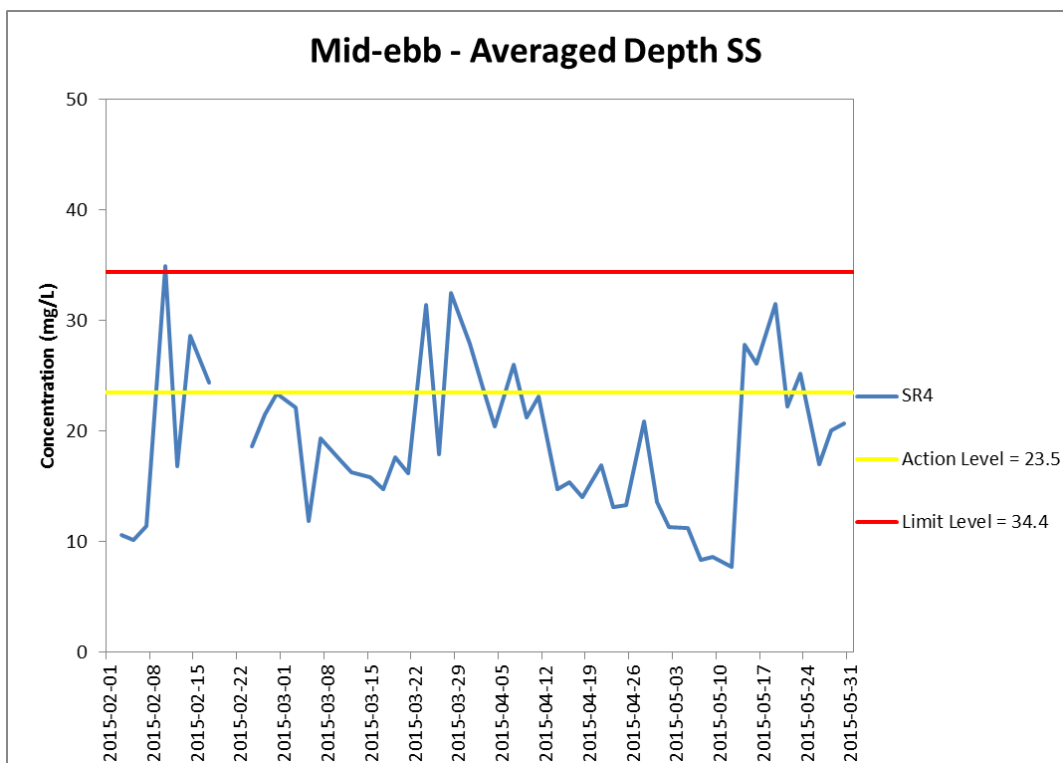
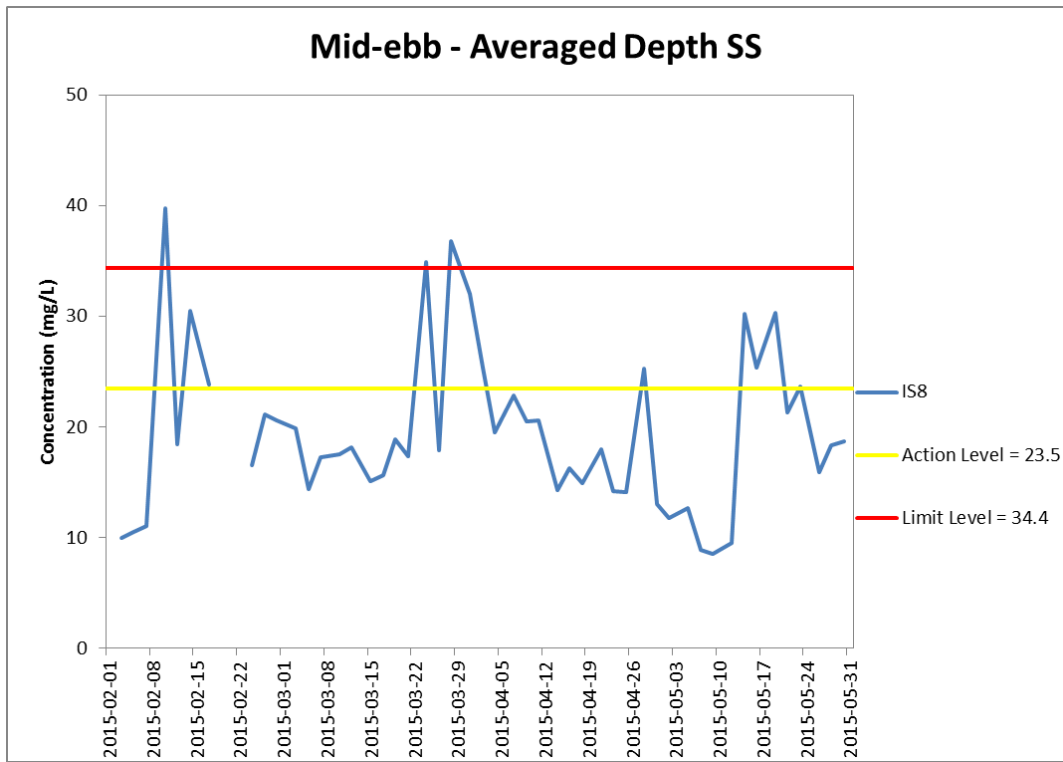


Figure J31 Impact Monitoring – Mean depth-averaged level of Suspended Solids (mg/L) during mid-ebb tide between 1 February and 31 May 2015 at IS8 and SR4.

(Weather condition varied between sunny to rainy within the reporting period. Marine works within the reporting period include Construction and installation of pile caps; Marine piling platform installation & uninstallation; Pier construction; Installation of launching gantry; Marine piling and Installation of pier head segment.) No marine works was undertaken on 19 and 21 February 2015. The SS results higher than Action / Limit Levels were not considered as exceedances as the results were not higher than 120% of upstream control station.

**Environmental
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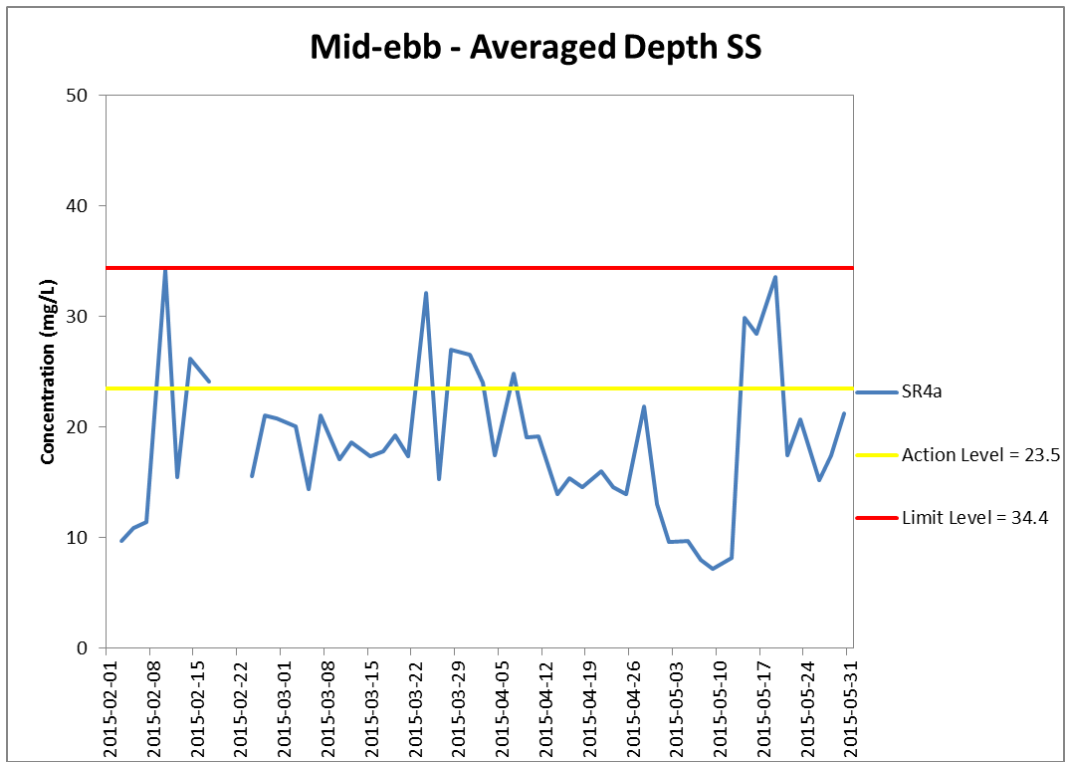


Figure J32 Impact Monitoring - Mean depth-averaged level of Suspended Solids (mg/L) during mid-ebb tide between 1 February and 31 May 2015 at SR4a.

(Weather condition varied between sunny to rainy within the reporting period. Marine works within the reporting period include Construction and installation of pile caps; Marine piling platform installation & uninstallation; Pier construction; Installation of launching gantry; Marine piling and Installation of pier head segment.) No marine works was undertaken on 19 and 21 February 2015. Apart from 19 May, the SS results higher than Action / Limit Levels were not considered as exceedances as the results were not higher than 120% of upstream control station.

**Environmental
Resources
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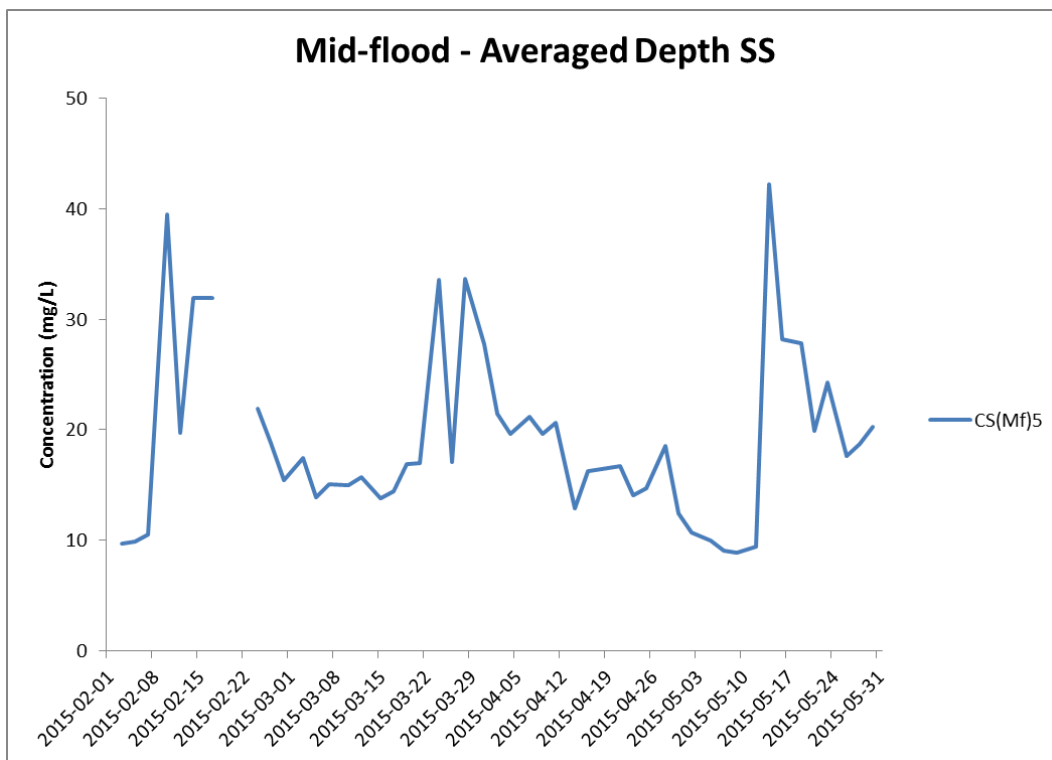
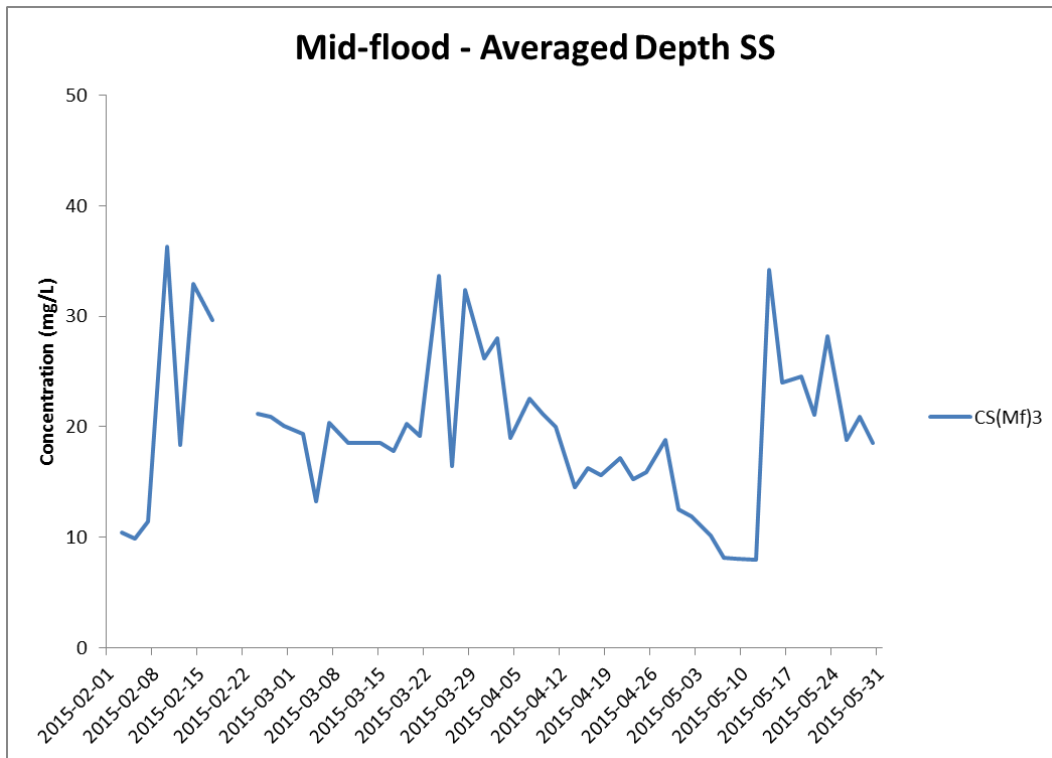


Figure J33 Impact Monitoring – Mean depth-averaged level of Suspended Solids (mg/L) during mid-flood tide between 1 February and 31 May 2015 at CS(Mf)3 and CS(Mf)5.

(Weather condition varied between sunny to rainy within the reporting period. Marine works within the reporting period include Construction and installation of pile caps; Marine piling platform installation & uninstallation; Pier construction; Installation of launching gantry; Marine piling and Installation of pier head segment.) No marine works was undertaken on 19 and 21 February 2015.

**Environmental
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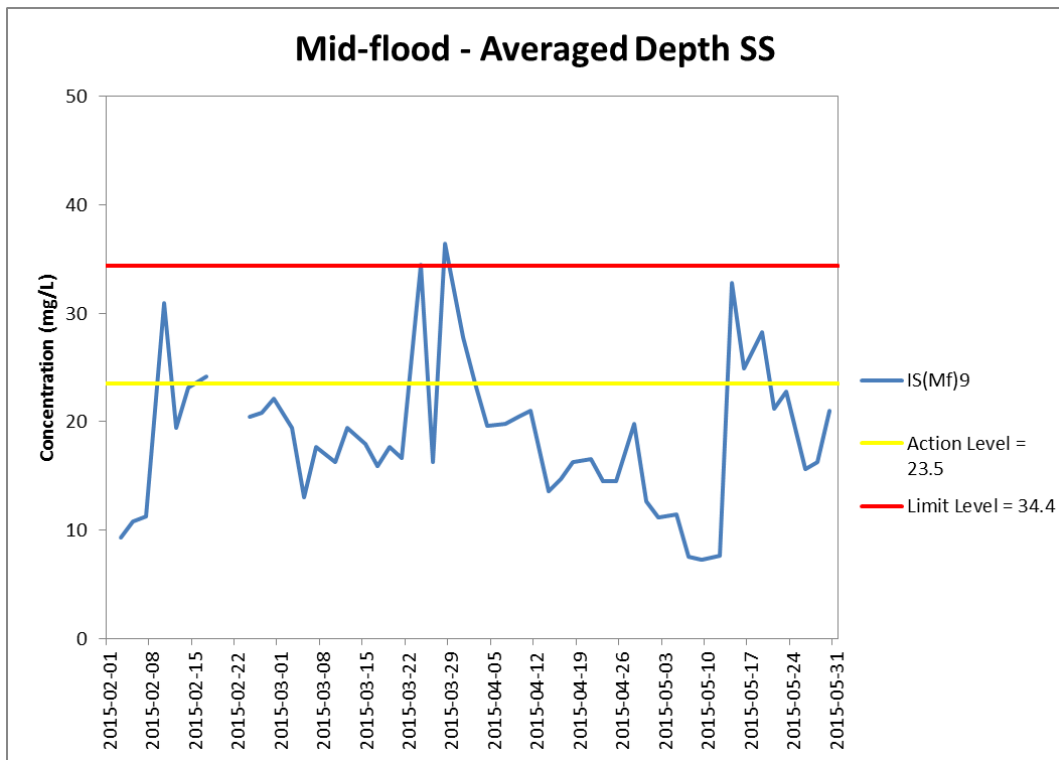
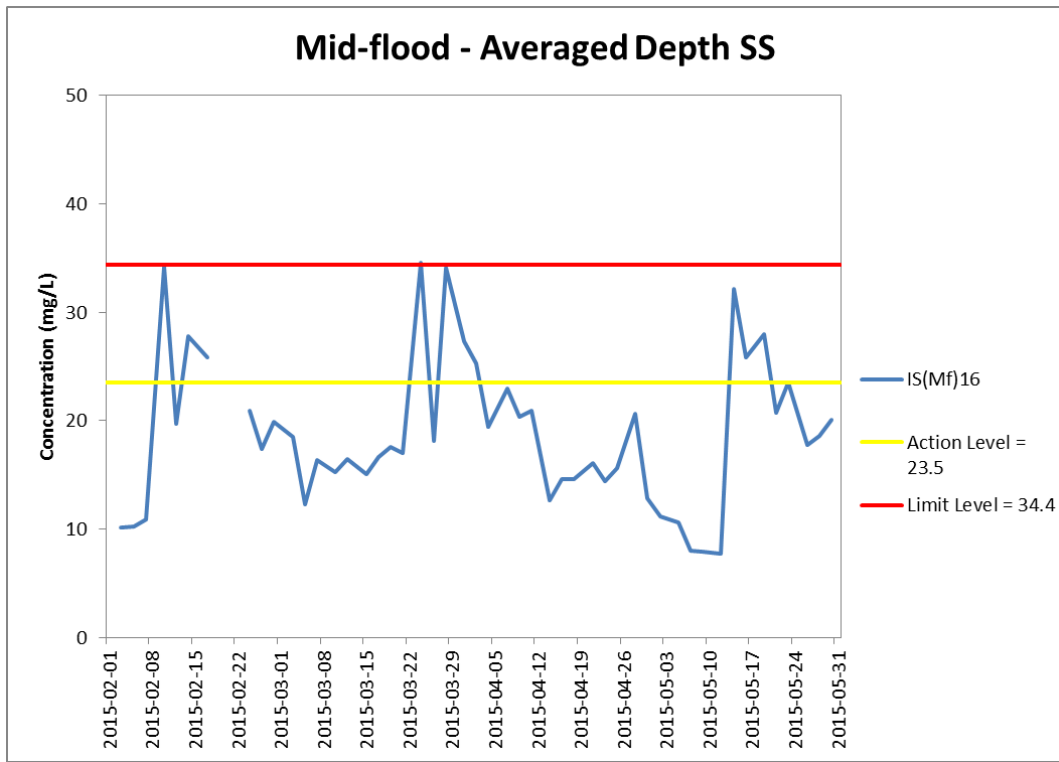


Figure J34 Impact Monitoring – Mean depth-averaged level of Suspended Solids (mg/L) during mid-flood tide between 1 February and 31 May 2015 at IS(Mf)16 and IS(Mf)9.

(Weather condition varied between sunny to rainy within the reporting period. Marine works within the reporting period include Construction and installation of pile caps; Marine piling platform installation & uninstallation; Pier construction; Installation of launching gantry; Marine piling and Installation of pier head segment.) No marine works was undertaken on 19 and 21 February 2015. The SS results higher than Action / Limit Levels were not considered as exceedances as the results were not higher than 120% of upstream control station.

**Environmental
Resources
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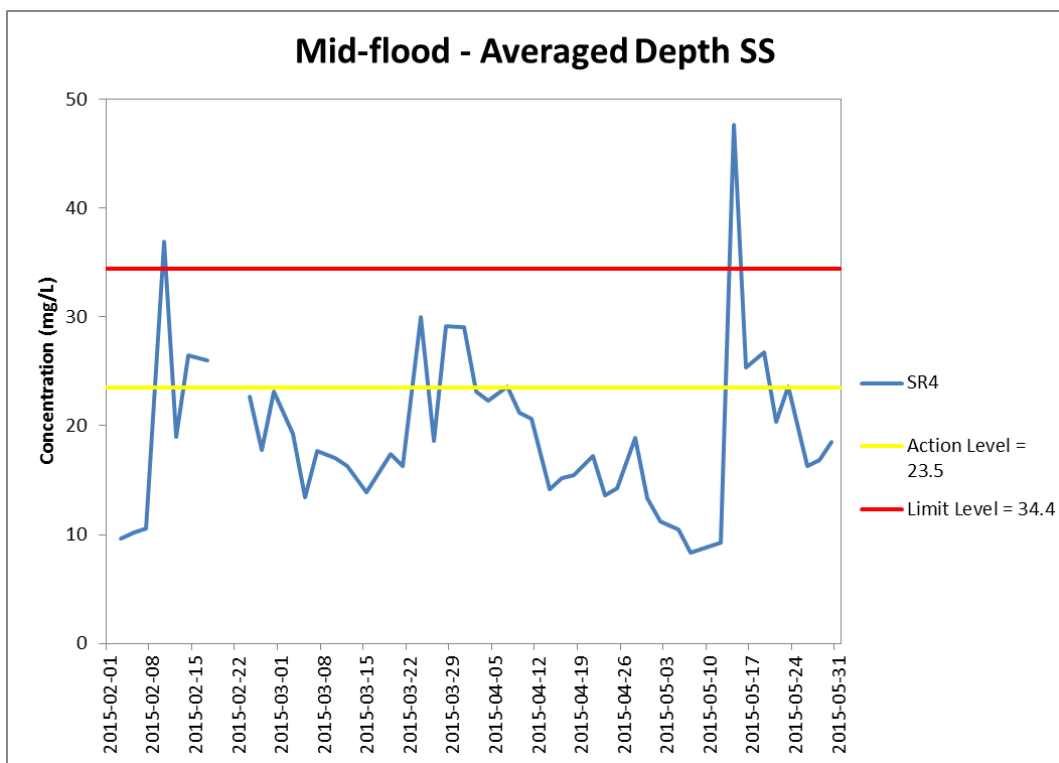
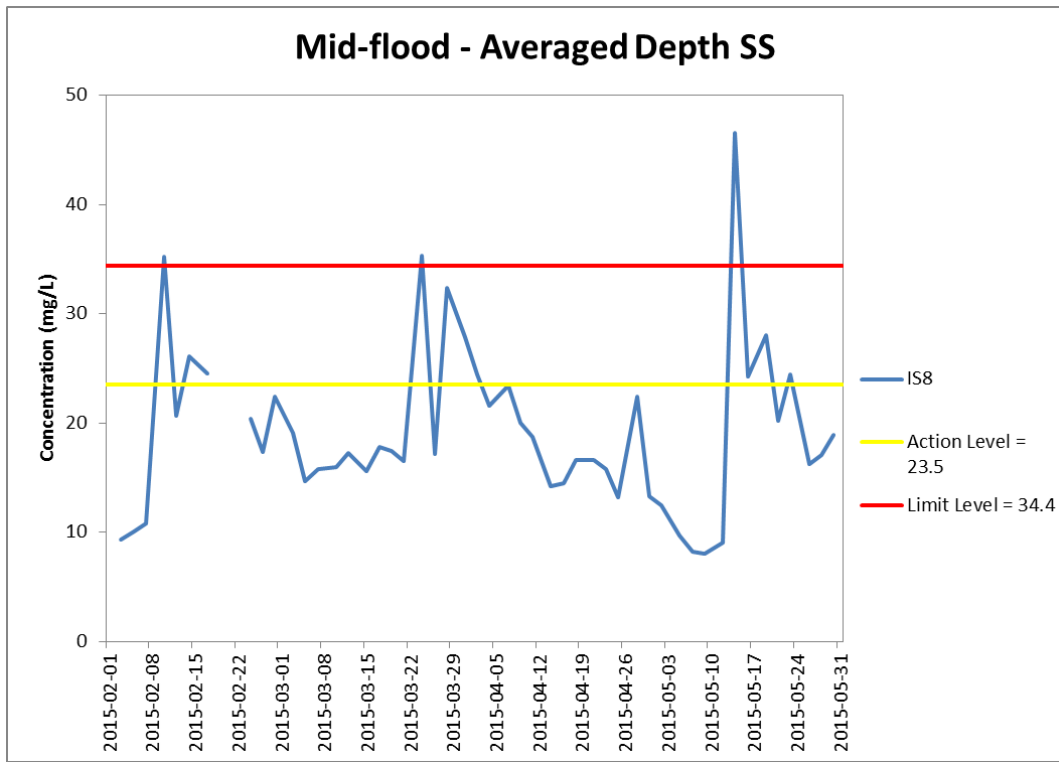


Figure J35 Impact Monitoring – Mean depth-averaged level of Suspended Solids (mg/L) during mid-flood tide between 1 February and 31 May 2015 at IS8 and SR4.

(Weather condition varied between sunny to rainy within the reporting period. Marine works within the reporting period include Construction and installation of pile caps; Marine piling platform installation & uninstallation; Pier construction; Installation of launching gantry; Marine piling and Installation of pier head segment.) No marine works was undertaken on 19 and 21 February 2015. The SS results higher than Action / Limit Levels were not considered as exceedances as the results were not higher than 120% of upstream control station.

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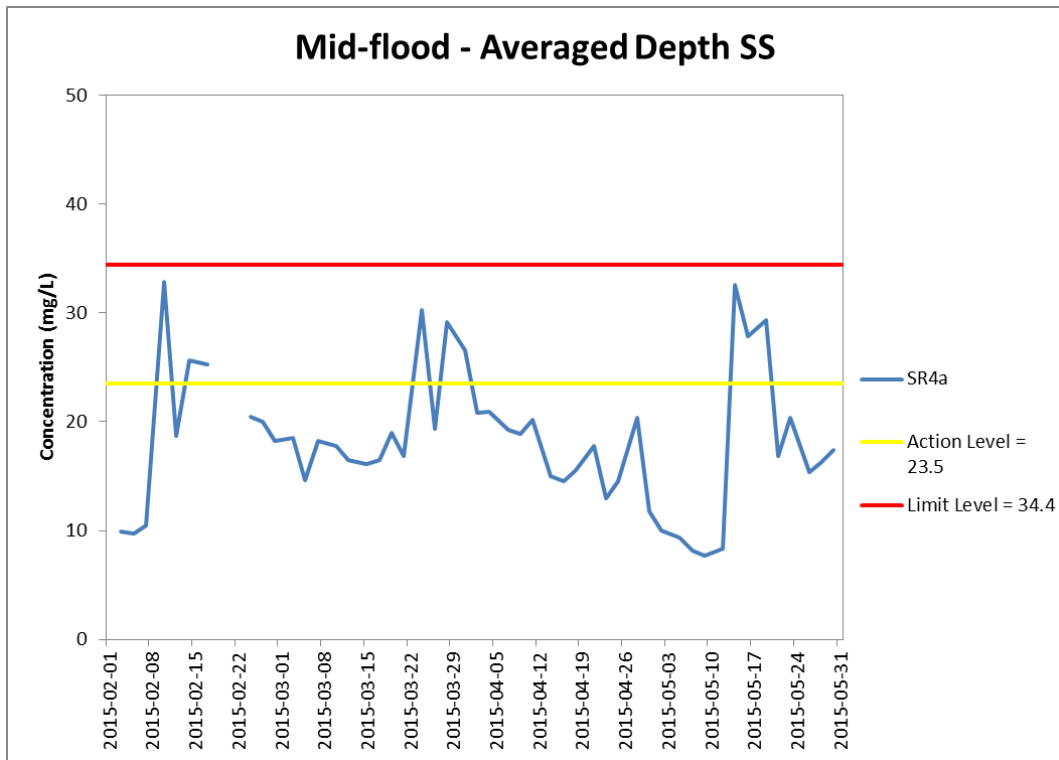


Figure J36 Impact Monitoring - Mean depth-averaged level of Suspended Solids (mg/L) during mid-flood tide between 1 February and 31 May 2015 at SR4a.

(Weather condition varied between sunny to rainy within the reporting period. Marine works within the reporting period include Construction and installation of pile caps; Marine piling platform installation & uninstallation; Pier construction; Installation of launching gantry; Marine piling and Installation of pier head segment.) No marine works was undertaken on 19 and 21 February 2015. The SS results higher than Action / Limit Levels were not considered as exceedances as the results were not higher than 120% of upstream control station.

**Environmental
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Appendix K

Impact Dolphin Monitoring Survey Results

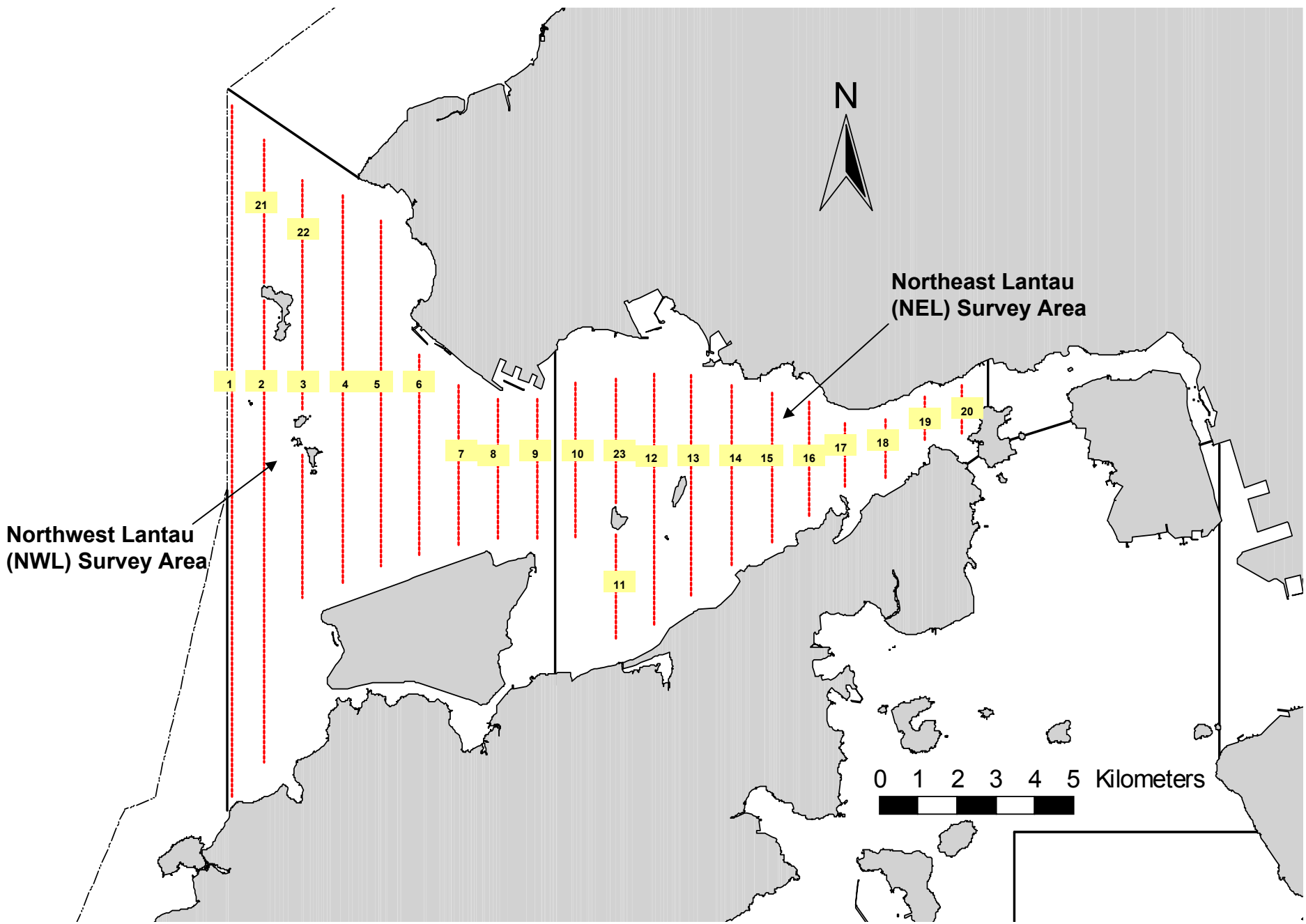


Figure 1. Transect Line Layout in Northwest and Northeast Lantau Survey Areas

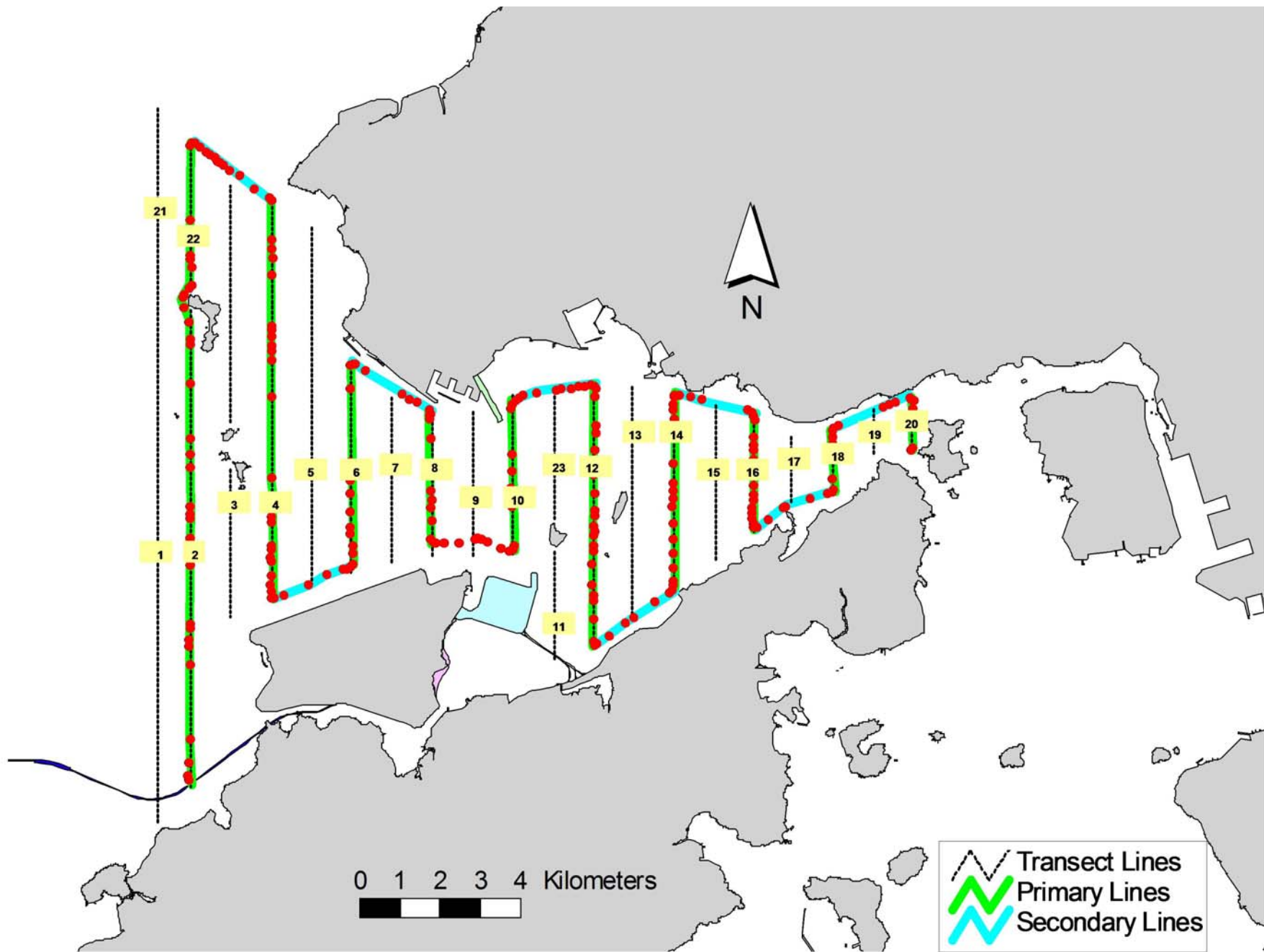


Figure 2. Survey Route on May 4th, 2015 (from HKLR03 project)

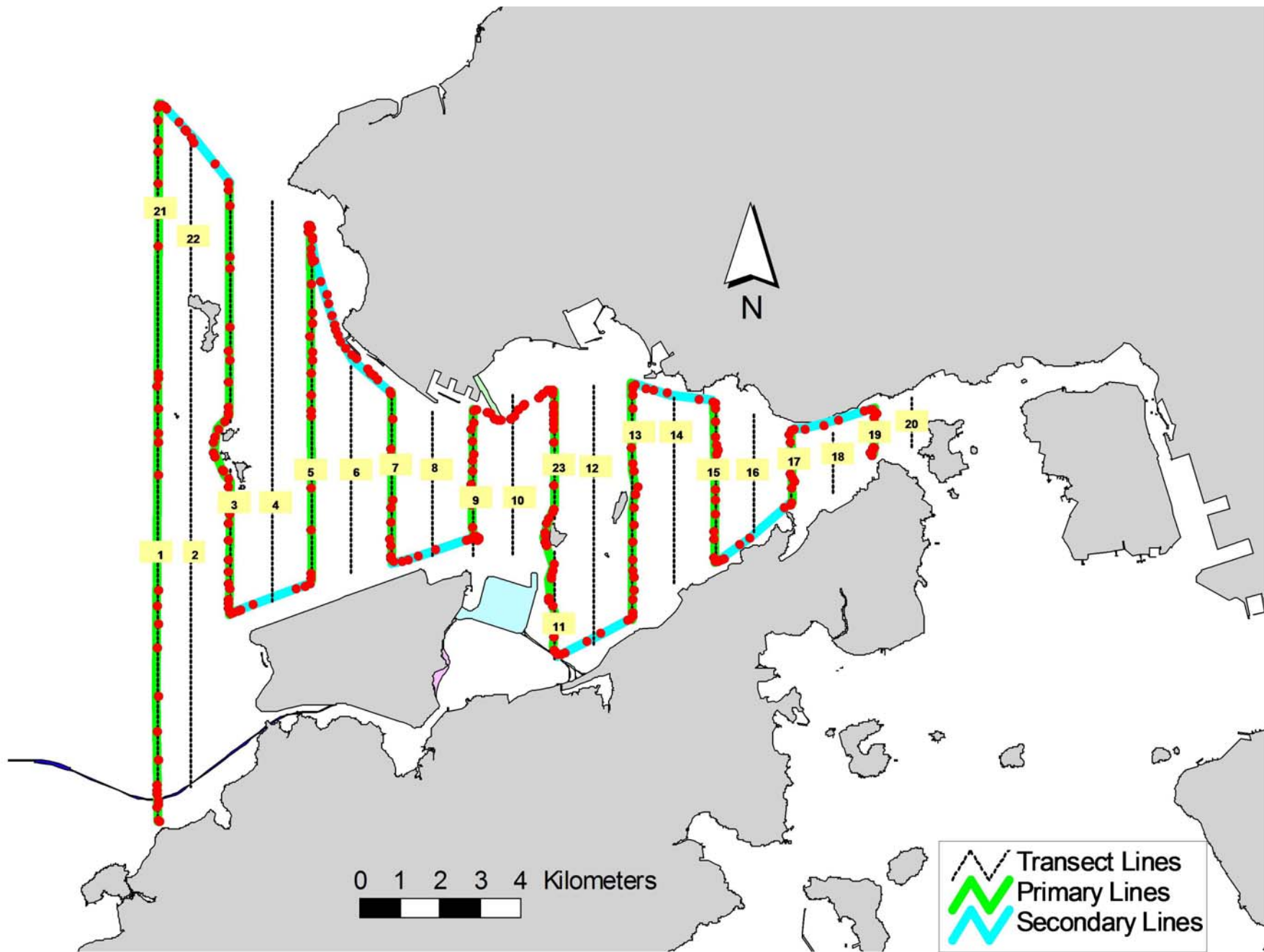


Figure 3. Survey Route on May 8th, 2015 (from HKLR03 project)

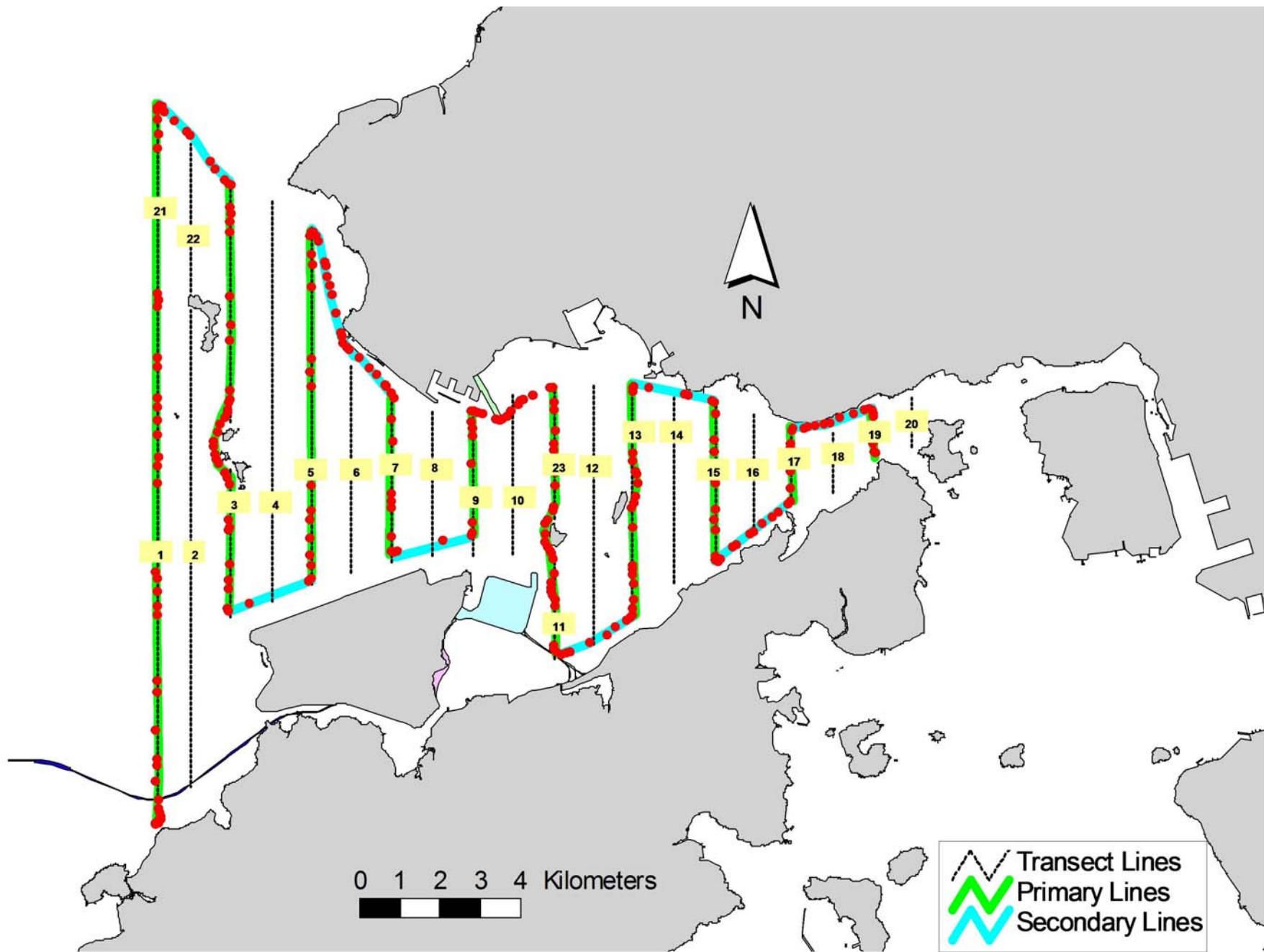


Figure 4. Survey Route on May 14th, 2015 (from HKLR03 project)

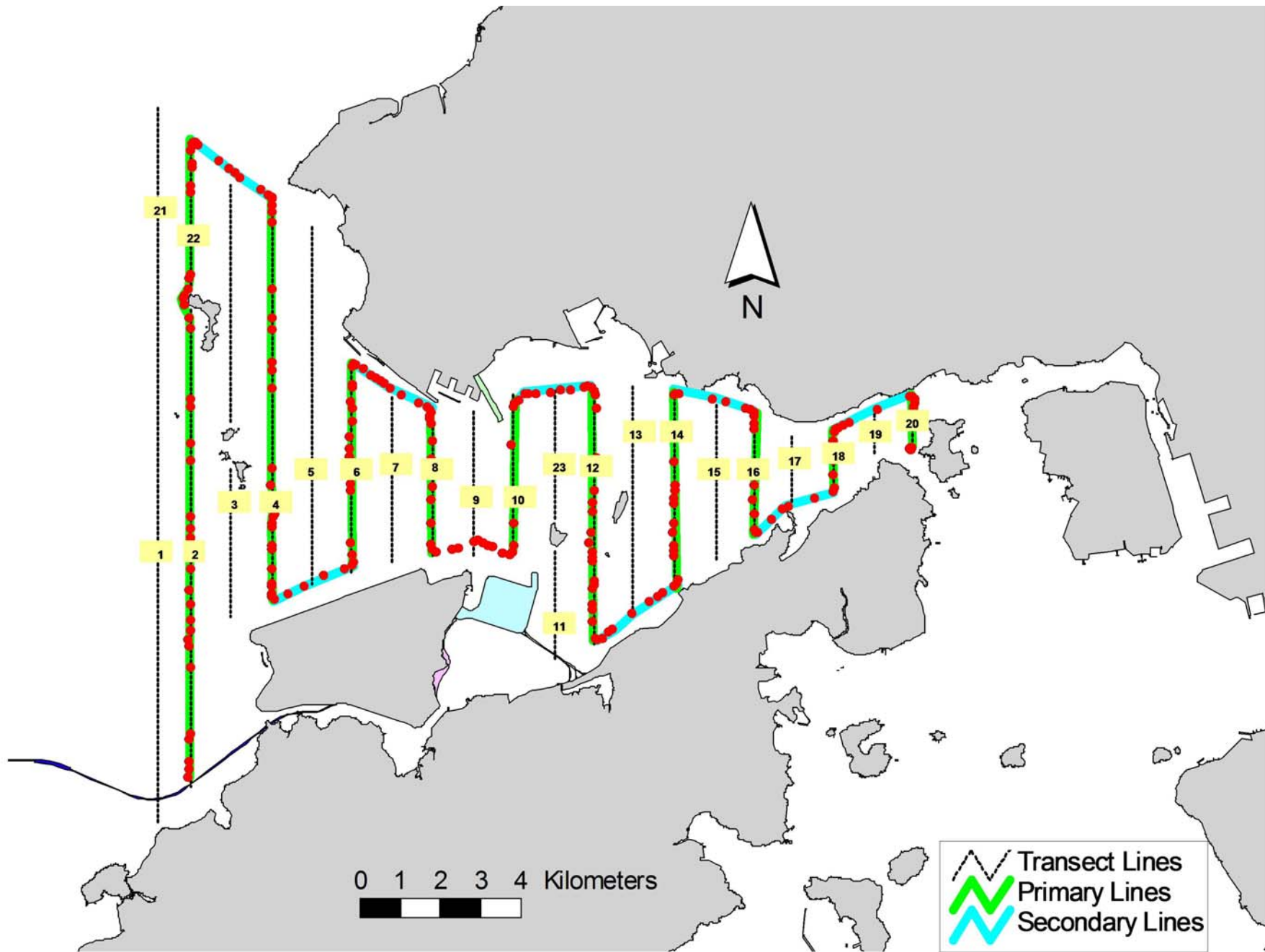


Figure 5. Survey Route on May 18th, 2015 (from HKLR03 project)

Appendix I. HKLR03 Survey Effort Database (May 2015)

(Abbreviations: BEAU = Beaufort Sea State; P = Primary Line Effort; S = Secondary Line Effort)

DATE	AREA	BEAU	EFFORT	SEASON	VESSEL	TYPE	P/S
4-May-15	NW LANTAU	2	18.60	SPRING	STANDARD31516	HKLR	P
4-May-15	NW LANTAU	3	13.60	SPRING	STANDARD31516	HKLR	P
4-May-15	NW LANTAU	2	2.30	SPRING	STANDARD31516	HKLR	S
4-May-15	NW LANTAU	3	4.80	SPRING	STANDARD31516	HKLR	S
4-May-15	NE LANTAU	1	3.54	SPRING	STANDARD31516	HKLR	P
4-May-15	NE LANTAU	2	10.73	SPRING	STANDARD31516	HKLR	P
4-May-15	NE LANTAU	3	5.40	SPRING	STANDARD31516	HKLR	P
4-May-15	NE LANTAU	2	8.13	SPRING	STANDARD31516	HKLR	S
4-May-15	NE LANTAU	3	2.70	SPRING	STANDARD31516	HKLR	S
8-May-15	NW LANTAU	2	7.57	SPRING	STANDARD31516	HKLR	P
8-May-15	NW LANTAU	3	33.53	SPRING	STANDARD31516	HKLR	P
8-May-15	NW LANTAU	2	2.30	SPRING	STANDARD31516	HKLR	S
8-May-15	NW LANTAU	3	11.20	SPRING	STANDARD31516	HKLR	S
8-May-15	NE LANTAU	2	4.55	SPRING	STANDARD31516	HKLR	P
8-May-15	NE LANTAU	3	12.74	SPRING	STANDARD31516	HKLR	P
8-May-15	NE LANTAU	2	6.25	SPRING	STANDARD31516	HKLR	S
8-May-15	NE LANTAU	3	3.66	SPRING	STANDARD31516	HKLR	S
14-May-15	NE LANTAU	2	12.61	SPRING	STANDARD31516	HKLR	P
14-May-15	NE LANTAU	3	4.43	SPRING	STANDARD31516	HKLR	P
14-May-15	NE LANTAU	2	9.96	SPRING	STANDARD31516	HKLR	S
14-May-15	NW LANTAU	2	5.56	SPRING	STANDARD31516	HKLR	P
14-May-15	NW LANTAU	3	34.27	SPRING	STANDARD31516	HKLR	P
14-May-15	NW LANTAU	4	0.60	SPRING	STANDARD31516	HKLR	P
14-May-15	NW LANTAU	2	8.17	SPRING	STANDARD31516	HKLR	S
14-May-15	NW LANTAU	3	4.80	SPRING	STANDARD31516	HKLR	S
18-May-15	NW LANTAU	2	5.11	SPRING	STANDARD31516	HKLR	P
18-May-15	NW LANTAU	3	24.12	SPRING	STANDARD31516	HKLR	P
18-May-15	NW LANTAU	4	3.37	SPRING	STANDARD31516	HKLR	P
18-May-15	NW LANTAU	2	2.20	SPRING	STANDARD31516	HKLR	S
18-May-15	NW LANTAU	3	4.70	SPRING	STANDARD31516	HKLR	S
18-May-15	NE LANTAU	2	15.13	SPRING	STANDARD31516	HKLR	P
18-May-15	NE LANTAU	3	4.30	SPRING	STANDARD31516	HKLR	P
18-May-15	NE LANTAU	2	10.77	SPRING	STANDARD31516	HKLR	S

Appendix L

Event Action Plan

Appendix L1 Event/ Action Plan for Air Quality

EVENT	ET ⁽¹⁾	ACTION		
		IEC ⁽¹⁾	SOR ⁽¹⁾	Contractor
Action Level				
1. Exceedance for one sample	<ol style="list-style-type: none"> 1. Identify the source. 2. Inform the IEC and the SOR. 3. Repeat measurement to confirm finding. 4. Increase monitoring frequency to daily. 	<ol style="list-style-type: none"> 1. Check monitoring data submitted by the ET. 2. Check Contractor's working method. 	<ol style="list-style-type: none"> 1. Notify Contractor. 	<ol style="list-style-type: none"> 1. Rectify any unacceptable practice 2. Amend working methods if appropriate
2. Exceedance for two or more consecutive samples	<ol style="list-style-type: none"> 1. Identify the source. 2. Inform the IEC and the SOR. 3. Repeat measurements to confirm findings. 4. Increase monitoring frequency to daily. 5. Discuss with the IEC and the Contractor on remedial actions required. 6. If exceedance continues, arrange meeting with the IEC and the SOR. 7. If exceedance stops, cease additional monitoring. 	<ol style="list-style-type: none"> 1. Check monitoring data submitted by the ET. 2. Check the Contractor's working method. 3. Discuss with the ET and the Contractor on possible remedial measures. 4. Advise the SOR on the effectiveness of the proposed remedial measures. 5. Supervisor implementation of remedial measures. 	<ol style="list-style-type: none"> 1. Confirm receipt of notification of failure in writing. 2. Notify the Contractor. 3. Ensure remedial measures properly implemented. 	<ol style="list-style-type: none"> 1. Submit proposals for remedial actions to IEC within 3 working days of notification 2. Implement the agreed proposals 3. Amend proposal if appropriate

EVENT	ET ⁽¹⁾	ACTION		
		IEC ⁽¹⁾	SOR ⁽¹⁾	Contractor
Limit Level				
1. Exceedance for one sample	<ol style="list-style-type: none"> 1. Identify the source. 2. Inform the SOR and the DEP. 3. Repeat measurement to confirm finding. 4. Increase monitoring frequency to daily. 5. Assess effectiveness of Contractor's remedial actions and keep the IEC, the DEP and the SOR informed of the results. 	<ol style="list-style-type: none"> 1. Check monitoring data submitted by the ET. 2. Check Contractor's working method. 3. Discuss with the ET and the Contractor on possible remedial measures. 4. Advise the SOR on the effectiveness of the proposed remedial measures. 5. Supervisor implementation of remedial measures. 	<ol style="list-style-type: none"> 1. Confirm receipt of notification of failure in writing. 2. Notify the Contractor. 3. Ensure remedial measures are properly implemented. 	<ol style="list-style-type: none"> 1. Take immediate action to avoid further exceedance 2. Submit proposals for remedial actions to IEC within 3 working days of notification 3. Implement the agreed proposals 4. Amend proposal if appropriate
2. Exceedance for two or more consecutive samples	<ol style="list-style-type: none"> 1. Notify the IEC, the SOR, the DEP and the Contractor. 2. Identify the source. 3. Repeat measurements to confirm findings. 4. Increase monitoring frequency to daily. 5. Carry out analysis of the Contractor's working procedures to determine possible mitigation to be implemented. 6. Arrange meeting with the IEC and the SOR to discuss the remedial actions to be taken. 7. Assess effectiveness of the Contractor's remedial actions 	<ol style="list-style-type: none"> 1. Discuss amongst the SOR, ET and the Contractor on the potential remedial actions. 2. Review the Contractor's remedial actions whenever necessary to assure their effectiveness and advise the SOR accordingly. 3. Supervise the implementation of remedial measures. 	<ol style="list-style-type: none"> 1. Confirm receipt of notification of failure in writing. 2. Notify the Contractor. 3. In consultation with the IEC, agree with the Contractor on the remedial measures to be implemented. 4. Ensure remedial measures are properly implemented. 5. If exceedance continues, consider what activity of the work is responsible and instruct the Contractor to stop that activity of work until the exceedance is abated. 	<ol style="list-style-type: none"> 1. Take immediate action to avoid further exceedance. 2. Submit proposals for remedial actions to IEC within 3 working days of notification. 3. Implement the agreed proposals. 4. Resubmit proposals if problem still not under control. 5. Stop the relevant activity of works as determined by the SOR until the exceedance is abated.

and keep the IEC, the DEP and
the SOR informed of the results.

8. If the exceedance stops, cease
additional monitoring.

Appendix L2 Event/ Action Plan for Construction Noise

ACTION					
EVENT	ET	IEC	SOR	Contractor	
Action Level	<ol style="list-style-type: none"> 1. Notify the IEC and the Contractor. 2. Carry out investigation. 3. Report the results of investigation to the IEC and the Contractor. 4. Discuss with the Contractor and formulate remedial measures. 5. Increase monitoring frequency to check mitigation effectiveness. 	<ol style="list-style-type: none"> 1. Review the analysed results submitted by the ET. 2. Review the proposed remedial measures by the Contractor and advise the SOR accordingly. 3. Supervise the implementation of remedial measures. 	<ol style="list-style-type: none"> 1. Confirm receipt of notification of failure in writing. 2. Notify the Contractor. 3. Require the Contractor to propose remedial measures for the analysed noise problem. 4. Ensure remedial measures are properly implemented. 	<ol style="list-style-type: none"> 1. Submit noise mitigation proposals to IEC 2. Implement noise mitigation proposals 	
Limit Level	<ol style="list-style-type: none"> 1. Notify the IEC, the SOR, the DEP and the Contractor. 2. Identify the source. 3. Repeat measurement to confirm findings. 4. Increase monitoring frequency. 5. Carry out analysis of Contractor's working procedures to determine possible mitigation to be implemented. 6. Inform the IEC, the SOR and the DEP the causes & actions taken for the exceedances. 7. Assess effectiveness of the Contractor's remedial actions and keep the IEC, the DEP and the SOR informed of the results. 8. If exceedance stops, cease additional monitoring. 	<ol style="list-style-type: none"> 1. Discuss amongst the SOR, the ET and the Contractor on the potential remedial actions. 2. Review the Contractor's remedial actions whenever necessary to assure their effectiveness and advise the SOR accordingly. 3. Supervise the implementation of remedial measures. 	<ol style="list-style-type: none"> 1. Confirm receipt of notification of failure in writing. 2. Notify the Contractor. 3. Require the Contractor to propose remedial measures for the analysed noise problem. 4. Ensure remedial measures are properly implemented. 5. If exceedance continues, consider what activity of the work is responsible and instruct the Contractor to stop that activity of work until the exceedance is abated. 	<ol style="list-style-type: none"> 1. Take immediate action to avoid further exceedance 2. Submit proposals for remedial actions to IEC within 3 working days of notification 3. Implement the agreed proposals 4. Resubmit proposals if problem still not under control 5. Stop the relevant activity of works as determined by the SOR until the exceedance is abated. 	

Appendix L3 *Event/ Action Plan for Water Quality*

Event	ET Leader	IEC	SOR	Contractor
Action level being exceeded by one sampling day	<ol style="list-style-type: none"> Repeat in situ measurement on next day of exceedance to confirm findings; Identify source(s) of impact; Inform IEC, contractor and SOR; Check monitoring data, all plant, equipment and Contractor's working methods. 	<ol style="list-style-type: none"> Check monitoring data submitted by ET and Contractor's working methods. 	<ol style="list-style-type: none"> Confirm receipt of notification of non-compliance in writing; Notify Contractor. 	<ol style="list-style-type: none"> Inform the SOR and confirm notification of the non-compliance in writing; Rectify unacceptable practice; Amend working methods if appropriate.
Action level being exceeded by two or more consecutive sampling days	<ol style="list-style-type: none"> Repeat measurement on next day of exceedance to confirm findings; Identify source(s) of impact; Inform IEC, contractor, SOR and EPD; Check monitoring data, all plant, equipment and Contractor's working methods; Discuss mitigation measures with IEC, SOR and Contractor; Ensure mitigation measures are implemented; Increase the monitoring frequency to daily until no exceedance of Action level; 	<ol style="list-style-type: none"> Check monitoring data submitted by ET and Contractor's working method; Discuss with ET and Contractor on possible remedial actions; Review the proposed mitigation measures submitted by Contractor and advise the SOR accordingly; Supervise the implementation of mitigation measures. 	<ol style="list-style-type: none"> Discuss with IEC on the proposed mitigation measures; Ensure mitigation measures are properly implemented; Assess the effectiveness of the implemented mitigation measures. 	<ol style="list-style-type: none"> Inform the Supervising Officer and confirm notification of the non-compliance in writing; Rectify unacceptable practice; Check all plant and equipment and consider changes of working methods; Submit proposal of additional mitigation measures to SOR within 3 working days of notification and discuss with ET, IEC and SOR; Implement the agreed mitigation measures.
Limit level being exceeded by one sampling day	<ol style="list-style-type: none"> Repeat measurement on next day of exceedance to confirm findings; 	<ol style="list-style-type: none"> Check monitoring data submitted by ET and Contractor's working method; 	<ol style="list-style-type: none"> Confirm receipt of notification of failure in writing; 	<ol style="list-style-type: none"> Inform the SOR and confirm notification of the non-compliance in writing;

Event	ET Leader	IEC	SOR	Contractor
	2. Identify source(s) of impact;		2. Discuss with IEC, ET and Contractor on the proposed mitigation measures;	2. Rectify unacceptable practice;
	3. Inform IEC, contractor, SOR and EPD;	2. Discuss with ET and Contractor on possible remedial actions;		3. Check all plant and equipment and consider changes of working methods;
	4. Check monitoring data, all plant, equipment and Contractor's working methods;	3. Review the proposed mitigation measures submitted by Contractor and advise the SOR accordingly.	3. Request Contractor to review the working methods.	4. Submit proposal of mitigation measures to SOR within 3 working days of notification and discuss with ET, IEC and SOR.
	5. Discuss mitigation measures with IEC, SOR and Contractor;			
Limit level being exceeded by two or more consecutive sampling days	1. Repeat measurement on next day of exceedance to confirm findings;	1. Check monitoring data submitted by ET and Contractor's working method;	1. Discuss with IEC, ET and Contractor on the proposed mitigation measures;	1. Take immediate action to avoid further exceedance;
	2. Identify source(s) of impact;			2. Submit proposal of mitigation measures to SOR within 3 working days of notification and discuss with ET, IEC and SOR;
	3. Inform IEC, contractor, SOR and EPD;	2. Discuss with ET and Contractor on possible remedial actions;	2. Request Contractor to critically review the working methods;	3. Implement the agreed mitigation measures;
	4. Check monitoring data, all plant, equipment and Contractor's working methods;	3. Review the Contractor's mitigation measures whenever necessary to assure their effectiveness and advise the SOR accordingly;	3. Make agreement on the mitigation measures to be implemented;	4. Resubmit proposals of mitigation measures if problem still not under control;
	5. Discuss mitigation measures with IEC, SOR and Contractor;		4.	
	6. Ensure mitigation measures are implemented;	4. Supervise the implementation of mitigation measures.	5. Ensure mitigation measures are properly implemented;	5. As directed by the Supervising Officer, to slow down or to stop all or part of the construction activities until no exceedance of Limit level.
	7. Increase the monitoring frequency to daily until no exceedance of Limit level for two consecutive days;		6.	
		7. Consider and instruct, if necessary, the Contractor to slow down or to stop all or part of the construction activities until no exceedance of Limit level.		

Appendix L4 Implementation of Event-Action Plan for Dolphin Monitoring

Event	ET Leader	IEC	SOR	Contractor
Action Level	<ol style="list-style-type: none"> 1. Repeat statistical data analysis to confirm findings; 2. Review all available and relevant data, including raw data and statistical analysis results of other parameters covered in the EM&A, to ascertain if differences are as a result of natural variation or previously observed seasonal differences; 3. Identify source(s) of impact; 4. Inform the IEC, SOR and Contractor; 5. Check monitoring data. 6. Review to ensure all the dolphin protective measures are fully and properly implemented and advise on additional measures if necessary. 	<ol style="list-style-type: none"> 1. Check monitoring data submitted by ET and Contractor; 2. Discuss monitoring results and findings with the ET and the Contractor. 	<ol style="list-style-type: none"> 1. Discuss monitoring with the IEC and any other measures proposed by the ET; 2. If SOR is satisfied with the proposal of any other measures, SOR to signify the agreement in writing on the measures to be implemented. 	<ol style="list-style-type: none"> 1. Inform the SOR and confirm notification of the non-compliance in writing; 2. Discuss with the ET and the IEC and propose measures to the IEC and the SOR; 3. Implement the agreed measures.

Event	ET Leader	IEC	SOR	Contractor
Limit Level	<ol style="list-style-type: none"> 1. Repeat statistical data analysis to confirm findings; 2. Review all available and relevant data, including raw data and statistical analysis results of other parameters covered in the EM&A, to ascertain if differences are as a result of natural variation or previously observed seasonal differences; 3. Identify source(s) of impact; 4. Inform the IEC, ER/SOR and Contractor of findings; 5. Check monitoring data; 6. Repeat review to ensure all the dolphin protective measures are fully and properly implemented and advise on additional measures if necessary; 7. If ET proves that the source of impact is caused by any of the construction activity by the works contract, ET to arrange a meeting to discuss with IEC, ER/SOR and Contractor the necessity of additional dolphin monitoring and/or any other potential mitigation measures (e.g., consider to modify the perimeter silt curtain or consider to control/temporarily stop relevant construction activity etc.) and submit to IEC a proposal of additional dolphin monitoring and/or mitigation measures where necessary. 	<ol style="list-style-type: none"> 1. Check monitoring data submitted by ET and Contractor; 2. Discuss monitoring results and findings with the ET and the Contractor; 3. Attend the meeting to discuss with ET, ER/SOR and Contractor the necessity of additional dolphin monitoring and any other potential mitigation measures; 4. Review proposals for additional monitoring and any other mitigation measures submitted by ET and Contractor and advise ER/SOR of the results and findings accordingly; 5. Supervise / Audit the implementation of additional monitoring and/or any other mitigation measures and advise ER/SOR the results and findings accordingly. 	<ol style="list-style-type: none"> 1. Attend the meeting to discuss with ET, IEC and Contractor the necessity of additional dolphin monitoring and any other potential mitigation measures; 2. If ER/SOR is satisfied with the proposals for additional dolphin monitoring and/or any other mitigation measures submitted by ET and Contractor and verified by IEC, ER/SOR to signify the agreement in writing on such proposals and any other mitigation measures; 3. Supervise the implementation of additional monitoring and/or any other mitigation measures. 	<ol style="list-style-type: none"> 1. Inform the ER/SOR and confirm notification of the non-compliance in writing; 2. Attend the meeting to discuss with ET, IEC and ER/SOR the necessity of additional dolphin monitoring and any other potential mitigation measures; 3. Jointly submit with ET to IEC a proposal of additional dolphin monitoring and/or any other mitigation measures when necessary; 4. Implement the agreed additional dolphin monitoring and/or any other mitigation measures.

Appendix L5 Event and Action Plan on Dolphin Acoustic Behaviour

EVENT	ACTION			
	ET Leader	IEC	SO	Contractor
<u>Action Level</u>				
With the numerical values presented in <i>Table 5.7 of Baseline Monitoring Report</i> , when any of the response variable for dolphin acoustic behaviour recorded in the construction phase monitoring is 20% lower or higher than that recorded in the baseline monitoring (see <i>Table 5.8 of Baseline Monitoring Report</i>), or when there is a difference of 20% in dolphin acoustic signal detection at nighttime period at Site C1 only, the action level should be triggered	<ol style="list-style-type: none"> 1. Repeat statistical data analysis to confirm findings; 2. Review all available and relevant data to ascertain if differences are as a result of natural variation or seasonal differences; 3. Identify source(s) of impact; 4. Inform the IEC, SO and Contractor; 5. Check monitoring data; 6. Carry out audit to ensure all dolphin protective measures are implemented fully and additional measures be proposed if necessary 	<ol style="list-style-type: none"> 1. Check monitoring data submitted by ET and Contractor; 2. Discuss monitoring with the ET and the Contractor; 	<ol style="list-style-type: none"> 1. Discuss with the IEC the repeat monitoring and any other measures proposed by the ET; 2. Make agreement on measures to be implemented. 	<ol style="list-style-type: none"> 1. Inform the SO and confirm notification of the non-compliance in writing; 2. Discuss with the ET and the IEC and propose measures to the IEC and the SO; 3. Implement the agreed measures.

EVENT	ACTION			
	ET Leader	IEC	SO	Contractor
<p><u>Limit Level</u></p> <p>With the numerical values presented in Table 5.7 of <i>Baseline Monitoring Report</i>, when any of the response variable for dolphin acoustic behaviour recorded in the construction phase monitoring is 40% lower or higher than that recorded in the baseline monitoring (see Table 5.8 of <i>Baseline Monitoring Report</i>), or when there is a difference of 40% in dolphin acoustic signal detection at nighttime at Site C1 only, the limit level should be triggered</p>	<ol style="list-style-type: none"> 1. Repeat statistical data analysis to confirm findings; 2. Review all available and relevant data to ascertain if differences are as a result of natural variation or seasonal differences; 3. Identify source(s) of impact; 4. Inform the IEC, SO and Contractor; 5. Check monitoring data; 6. Carry out audit to ensure all dolphin protective measures are implemented fully and additional measures be proposed if necessary 7. Discuss additional dolphin monitoring and any other potential mitigation measures (eg consider to temporarily stop relevant portion of construction activity) with the IEC and Contractor. 	<ol style="list-style-type: none"> 1. Check monitoring data submitted by ET and Contractor; 2. Discuss monitoring with the ET and the Contractor; 3. Review proposals for additional monitoring and any other measures submitted by the Contractor and advise ER accordingly. 	<ol style="list-style-type: none"> 1. Discuss with the IEC the repeat monitoring and any other measures proposed by the ET; 2. Make agreement on measures to be implemented. 	<ol style="list-style-type: none"> 1. Inform the SO and confirm notification of the non-compliance in writing; 2. Discuss with the ET and the IEC and propose measures to the IEC and the SO; 3. Implement the agreed measures.

Abbreviations: ET – Environmental Team, IEC – Independent Environmental Checker, SO – Supervising Office, DEP – Director of Environmental Protection

Appendix M

Monthly Summary of Waste Flow Table

Contract No. : HY/2012/07

**Tuen Mun Chek Lap Kok Link – Southern Connection Viaduct Section
Monthly Summary Waste Flow Table for 2015 (Year)**

Month/Material	Actual Quantities of Inert C&D Materials Generation						Actual Quantities of C&D wastes Generation						Actual Quantities of Recyclables Generation			
	Total Quantity Generated	Hard Rock and Large Broken Concrete	Reused in the Contract	Reused in other Projects	Disposed as Public Fills	Imported Fill	Marine Sediment, Cat. L	Marine Sediment, Cat. Mp	Marine Sediment, Cat. Mf	Marine Sediment, Cat. H	Chemical Waste	General Refuse	Metals	Felled trees	Paper/ cardboard packaging	Plastics
Unit	('000m ³)	('000m ³)	('000m ³)	('000m ³)	('000m ³)	('000m ³)	('000m ³)	('000m ³)	('000m ³)	('000Kg)	('000Kg)	('000Kg)	('000Kg)	('000Kg)	('000Kg)	
Jan	13.578	0.081	0.990	-	12.474	0.115	0.178	0.229	0.258	-	132.170	-	-	0.091	-	
Feb	6.233	0.148	0.461	-	5.759	0.014	0.801	0.110	0.223	0.400	141.020	-	-	0.112	-	
Mar	10.149	0.220	0.473	-	9.600	0.077	0.618	0.073	0.149	-	120.940	-	-	0.203	-	
Apr	9.986	0.410	2.261	-	7.694	0.032	-	-	-	-	133.630	-	-	0.105	-	
May	8.743	0.177	0.653	-	8.091	-	0.550	-	-	-	107.920	-	-	0.042	-	
Jun	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
SUB-TOTAL	48.691	1.036	4.836	-	43.616	0.238	2.147	0.412	0.630	0.400	635.680	-	0.000	0.553	-	
Jul	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Aug	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Sep	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Oct	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Nov	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Dec	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
TOTAL	48.691	1.036	4.836	-	43.616	0.238	2.147	0.412	0.630	0.400	635.680	-	-	0.553	-	

Notes :

- 1 - The waste flow table shall also include C&D materials that are specified in the Contract to be imported for use at the Site.
- 2 - Plastics refer to plastic bottles/containers, plastic sheets/foam from packaging material.
- 3 - Broken concrete for recycling into aggregates.
- 4 - Assumed 5 kg per damaged water-filled barrier.
- 5 - Disposed as Public Fills includes Hard Rock and Large Broken Concrete.

Appendix N

Cumulative Statistics on
Exceedances, Complaints,
Notifications of Summons
and Successful Prosecutions

Appendix N1 Cumulative Statistics on Exceedances

		Total No. recorded in this reporting month	Total No. recorded since project commencement
1-Hr TSP	Action	0	0
	Limit	0	0
24-Hr TSP	Action	0	2
	Limit	0	0
Noise	Action	0	0
	Limit	0	0
Water Quality	Action	1	2
	Limit	0	0
Impact Dolphin Monitoring	Action	0	7
	Limit	1	2

Appendix N2 Cumulative Statistics on Complaints, Notifications of Summons and Successful Prosecutions

Reporting Period	Cumulative Statistics		
	Complaints	Notifications of Summons	Successful Prosecutions
This Reporting Month (May 2015)	0	0	0
Total No. received since project commencement	2	0	0

Email
message

**Environmental
Resources
Management**

To ENVIRON – Hong Kong, Limited (ENPO)

16/F Berkshire House,
25 Westlands Road
Quarry Bay, Hong Kong
Telephone: (852) 2271 3113
Facsimile: (852) 2723 5660
E-mail: jovy.tam@erm.com

From ERM- Hong Kong, Limited

Ref/Project number Contract No. HY/2012/07
Tuen Mun – Chek Lap Kok Link – Southern
Connection Viaduct Section

Subject Notification of Exceedance for Marine Water
Quality Impact Monitoring

Date 3 June 2015



Dear Sir/ Madam,

Please find attached the Notification of Exceedance (NOE) of the following
Log no.:

Action Level Exceedance:
0215660_19 May 2015_ SS_E_Station SR4a

Recorded on 19 May 2015.

Regards,

Mr Jovy Tam
Environmental Team Leader

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ERM-Hong Kong, Limited

CONTRACT NO. HY/2012/07
 TUEN MUN – CHEK LAP KOK LINK –
 SOUTHERN CONNECTION VIADUCT SECTION

Marine Water Quality Impact Monitoring

Notification of Exceedance

Log No.	0215660_19 May 2015_ SS_E_Station SR4a [Total No. of Exceedances = 1]	
Date	19 May 2015 (Measured) 21 May 2015 (<i>In situ</i> results received by ERM) 26 May 2015 (Laboratory results received by ERM)	
Monitoring Station	CS(Mf)5, SR4a, SR4, IS8, IS(Mf)16, IS(Mf)9, CS(Mf)3	
Parameter(s) with Exceedance(s)	Depth-averaged Suspended Solids (SS)	
Action Levels	SS	95%-ile of baseline data (23.5 mg/L) and 120% of upstream control station on same day at same tide (32.5 mg/L)
Limit Levels	SS	99%-ile of baseline data (34.4 mg/L) and 130% of upstream control station on same day at same tide (35.2 mg/L)
Measured Levels	Action Level Exceedance was observed at SR4a (33.6 mg/L) during mid-ebb tide.	
Works Undertaken (at the time of monitoring event)	<p>Marine works on 19 May 2015 at the nearby marine platforms were:</p> <ul style="list-style-type: none"> • Soil grabbing at Pier A5; • Iron typing and pile cap construction works at platforms of Viaduct C. <p>There were no bored piling works at the nearby marine platforms of Viaducts B, C and D. The aforesaid works were suspended before sampling at mid-ebb tide (12:03 to 15:33) due to adverse weather.</p>	
Possible Reason for Action or Limit Level Exceedance(s)	<p>The exceedance of depth-averaged SS at SR4a during mid-ebb tide is unlikely to be due to the Project, in view of the following:</p> <ul style="list-style-type: none"> • The marine works nearby monitoring station SR4a had been suspended before sampling at SR4a (13:39). • Elevated SS levels were also observed in all monitoring stations on the same day which may be resulting from heavy rainfall on 19 May 2015. Apart from SR4a during mid-ebb tide, the SS levels in other monitoring stations were in compliance with the Action and Limit Levels during both mid-ebb and mid-flood tides. • The depth-averaged turbidity and dissolved oxygen levels in all monitoring stations on during both mid-ebb and mid-flood tides were in compliance with the Action and Limit Levels. • The gutters of the nearby marine platforms were checked and in function. There was also no waste water runoff recorded. • No malpractice was observed during the sampling process. 	
Actions Taken / To Be Taken	No immediate action is considered necessary. The contractor is reminded to properly implement the mitigation measures stipulated in EM&A Manual. The ET will monitor for future trends in exceedances.	
Remarks	The monitoring results, locations of water quality monitoring stations and rainfall distribution on 19 May 2015 are attached.	

Project	Works	Date (yyyy-mm-dd)	Tide	Weather	Stat	Level	Water Depth	Lev Cod	Replicate	Start Time	Temp v	pH v	Sal v	DO v	Turb v	SS v
TMCLKL	HY/2012/07	2015-05-19	Mid-Flood	Cloudy	CS(Mf)5	Surface	1	1	1	19:00	26.1	6.93	20.5	6.81	20.4	27.8
TMCLKL	HY/2012/07	2015-05-19	Mid-Flood	Cloudy	CS(Mf)5	Surface	1	1	2	19:00	26	6.96	20.4	6.86		
TMCLKL	HY/2012/07	2015-05-19	Mid-Flood	Cloudy	CS(Mf)5	Middle	6.6	2	1	19:00	26.3	7.04	21.2	6.73		
TMCLKL	HY/2012/07	2015-05-19	Mid-Flood	Cloudy	CS(Mf)5	Middle	6.6	2	2	19:00	26.2	7.08	21.3	6.76		
TMCLKL	HY/2012/07	2015-05-19	Mid-Flood	Cloudy	CS(Mf)5	Bottom	12.2	3	1	19:00	26.4	7.1	21.8	6.5		
TMCLKL	HY/2012/07	2015-05-19	Mid-Flood	Cloudy	CS(Mf)5	Bottom	12.2	3	2	19:00	26.5	7.08	21.9	6.52		
TMCLKL	HY/2012/07	2015-05-19	Mid-Flood	Cloudy	SR4a	Surface	1	1	1	19:19	26.2	7.11	20.3	6.63	21.3	29.4
TMCLKL	HY/2012/07	2015-05-19	Mid-Flood	Cloudy	SR4a	Surface	1	1	2	19:19	26.1	7.07	20.4	6.58		
TMCLKL	HY/2012/07	2015-05-19	Mid-Flood	Cloudy	SR4a	Middle		2	1	19:19						
TMCLKL	HY/2012/07	2015-05-19	Mid-Flood	Cloudy	SR4a	Middle		2	2	19:19						
TMCLKL	HY/2012/07	2015-05-19	Mid-Flood	Cloudy	SR4a	Bottom	3.8	3	1	19:19	26.3	6.93	20.4	6.38		
TMCLKL	HY/2012/07	2015-05-19	Mid-Flood	Cloudy	SR4a	Bottom	3.8	3	2	19:19	26.2	6.99	20.5	6.34		
TMCLKL	HY/2012/07	2015-05-19	Mid-Flood	Cloudy	SR4	Surface	1	1	1	19:33	26.1	6.89	20.5	6.53	19.1	26.7
TMCLKL	HY/2012/07	2015-05-19	Mid-Flood	Cloudy	SR4	Surface	1	1	2	19:33	26	6.84	20.6	6.57		
TMCLKL	HY/2012/07	2015-05-19	Mid-Flood	Cloudy	SR4	Middle		2	1	19:33						
TMCLKL	HY/2012/07	2015-05-19	Mid-Flood	Cloudy	SR4	Middle		2	2	19:33						
TMCLKL	HY/2012/07	2015-05-19	Mid-Flood	Cloudy	SR4	Bottom	3.3	3	1	19:33	26.2	6.73	20.6	6.32		
TMCLKL	HY/2012/07	2015-05-19	Mid-Flood	Cloudy	SR4	Bottom	3.3	3	2	19:33	26.1	6.75	20.6	6.37		
TMCLKL	HY/2012/07	2015-05-19	Mid-Flood	Cloudy	IS8	Surface	1	1	1	19:46	26.2	6.74	20.4	6.67	20.1	28.1
TMCLKL	HY/2012/07	2015-05-19	Mid-Flood	Cloudy	IS8	Surface	1	1	2	19:46	26.1	6.76	20.3	6.71		
TMCLKL	HY/2012/07	2015-05-19	Mid-Flood	Cloudy	IS8	Middle		2	1	19:46						
TMCLKL	HY/2012/07	2015-05-19	Mid-Flood	Cloudy	IS8	Middle		2	2	19:46						
TMCLKL	HY/2012/07	2015-05-19	Mid-Flood	Cloudy	IS8	Bottom	3.1	3	1	19:46	26.1	6.81	20.3	6.48		
TMCLKL	HY/2012/07	2015-05-19	Mid-Flood	Cloudy	IS8	Bottom	3.1	3	2	19:46	26.2	6.77	20.3	6.42		
TMCLKL	HY/2012/07	2015-05-19	Mid-Flood	Cloudy	IS(Mf)16	Surface	1	1	1	20:01	26.2	6.63	20.4	6.56	21.0	28.0
TMCLKL	HY/2012/07	2015-05-19	Mid-Flood	Cloudy	IS(Mf)16	Surface	1	1	2	20:01	26.2	6.68	20.3	6.52		
TMCLKL	HY/2012/07	2015-05-19	Mid-Flood	Cloudy	IS(Mf)16	Middle	5.3	2	1	20:01	26.4	6.79	20.6	6.43		
TMCLKL	HY/2012/07	2015-05-19	Mid-Flood	Cloudy	IS(Mf)16	Middle	5.3	2	2	20:01	26.3	6.8	20.5	6.47		
TMCLKL	HY/2012/07	2015-05-19	Mid-Flood	Cloudy	IS(Mf)16	Bottom	9.6	3	1	20:01	26.6	6.87	21.1	6.28		
TMCLKL	HY/2012/07	2015-05-19	Mid-Flood	Cloudy	IS(Mf)16	Bottom	9.6	3	2	20:01	26.5	6.92	21.2	6.22		
TMCLKL	HY/2012/07	2015-05-19	Mid-Flood	Cloudy	IS(Mf)9	Surface	1	1	1	20:19	26.2	6.89	20.6	6.56	20.5	28.3
TMCLKL	HY/2012/07	2015-05-19	Mid-Flood	Cloudy	IS(Mf)9	Surface	1	1	2	20:19	26.1	6.9	20.5	6.59		
TMCLKL	HY/2012/07	2015-05-19	Mid-Flood	Cloudy	IS(Mf)9	Middle		2	1	20:19						
TMCLKL	HY/2012/07	2015-05-19	Mid-Flood	Cloudy	IS(Mf)9	Middle		2	2	20:19						

Project	Works	Date (yyyy-mm-dd)	Tide	Weather	Stat	Level	Water Depth	Lev Cod	Replicate	Start Time	Temp v	pH v	Sal v	DO v	Turb v	SS v
TMCLKL	HY/2012/07	2015-05-19	Mid-Flood	Cloudy	IS(Mf)9	Bottom	4.4	3	1	20:19	26.1	6.86	20.8	6.49		
TMCLKL	HY/2012/07	2015-05-19	Mid-Flood	Cloudy	IS(Mf)9	Bottom	4.4	3	2	20:19	26.1	6.85	20.8	6.47		
TMCLKL	HY/2012/07	2015-05-19	Mid-Flood	Cloudy	CS(Mf)3	Surface	1	1	1	20:38	26.1	7.04	20.7	6.67	17.4	24.5
TMCLKL	HY/2012/07	2015-05-19	Mid-Flood	Cloudy	CS(Mf)3	Surface	1	1	2	20:38	26	7.07	20.8	6.71		
TMCLKL	HY/2012/07	2015-05-19	Mid-Flood	Cloudy	CS(Mf)3	Middle	6.3	2	1	20:38	25.9	7.11	20.5	6.62		
TMCLKL	HY/2012/07	2015-05-19	Mid-Flood	Cloudy	CS(Mf)3	Middle	6.3	2	2	20:38	26	7.13	20.6	6.65		
TMCLKL	HY/2012/07	2015-05-19	Mid-Flood	Cloudy	CS(Mf)3	Bottom	11.6	3	1	20:38	26.3	6.96	21.8	6.47		
TMCLKL	HY/2012/07	2015-05-19	Mid-Flood	Cloudy	CS(Mf)3	Bottom	11.6	3	2	20:38	26.4	6.98	21.9	6.41		
TMCLKL	HY/2012/07	2015-05-19	Mid-Ebb	Cloudy	CS(Mf)3	Surface	1	1	1	12:03	26.4	6.98	20.6	6.54	19.5	27.1
TMCLKL	HY/2012/07	2015-05-19	Mid-Ebb	Cloudy	CS(Mf)3	Surface	1	1	2	12:03	26.4	7.01	20.5	6.56		
TMCLKL	HY/2012/07	2015-05-19	Mid-Ebb	Cloudy	CS(Mf)3	Middle	6.1	2	1	12:03	26.4	6.94	20.9	6.66		
TMCLKL	HY/2012/07	2015-05-19	Mid-Ebb	Cloudy	CS(Mf)3	Middle	6.1	2	2	12:03	26.5	6.96	21	6.63		
TMCLKL	HY/2012/07	2015-05-19	Mid-Ebb	Cloudy	CS(Mf)3	Bottom	11.2	3	1	12:03	26.6	6.87	21.3	6.38		
TMCLKL	HY/2012/07	2015-05-19	Mid-Ebb	Cloudy	CS(Mf)3	Bottom	11.2	3	2	12:03	26.7	6.9	21.4	6.41		
TMCLKL	HY/2012/07	2015-05-19	Mid-Ebb	Cloudy	SR4a	Surface	1	1	1	13:39	26.6	7.01	20.1	6.52	23.7	33.6
TMCLKL	HY/2012/07	2015-05-19	Mid-Ebb	Cloudy	SR4a	Surface	1	1	2	13:39	26.6	6.97	20.2	6.48		
TMCLKL	HY/2012/07	2015-05-19	Mid-Ebb	Cloudy	SR4a	Middle		2	1	13:39						
TMCLKL	HY/2012/07	2015-05-19	Mid-Ebb	Cloudy	SR4a	Middle		2	2	13:39						
TMCLKL	HY/2012/07	2015-05-19	Mid-Ebb	Cloudy	SR4a	Bottom	3.2	3	1	13:39	26.6	6.86	20.7	6.27		
TMCLKL	HY/2012/07	2015-05-19	Mid-Ebb	Cloudy	SR4a	Bottom	3.2	3	2	13:39	26.6	6.89	20.6	6.31		
TMCLKL	HY/2012/07	2015-05-19	Mid-Ebb	Cloudy	SR4	Surface	1	1	1	13:21	26.6	6.78	20.2	6.41	22.4	31.6
TMCLKL	HY/2012/07	2015-05-19	Mid-Ebb	Cloudy	SR4	Surface	1	1	2	13:21	26.6	6.8	20.3	6.39		
TMCLKL	HY/2012/07	2015-05-19	Mid-Ebb	Cloudy	SR4	Middle		2	1	13:21						
TMCLKL	HY/2012/07	2015-05-19	Mid-Ebb	Cloudy	SR4	Middle		2	2	13:21						
TMCLKL	HY/2012/07	2015-05-19	Mid-Ebb	Cloudy	SR4	Bottom	3	3	1	13:21	26.6	6.67	20.6	6.18		
TMCLKL	HY/2012/07	2015-05-19	Mid-Ebb	Cloudy	SR4	Bottom	3	3	2	13:21	26.5	6.7	20.5	6.16		
TMCLKL	HY/2012/07	2015-05-19	Mid-Ebb	Cloudy	IS8	Surface	1	1	1	13:05	26.5	6.72	20.1	6.53	22.0	30.4
TMCLKL	HY/2012/07	2015-05-19	Mid-Ebb	Cloudy	IS8	Surface	1	1	2	13:05	26.6	6.76	20.2	6.49		
TMCLKL	HY/2012/07	2015-05-19	Mid-Ebb	Cloudy	IS8	Middle		2	1	13:05						
TMCLKL	HY/2012/07	2015-05-19	Mid-Ebb	Cloudy	IS8	Middle		2	2	13:05						
TMCLKL	HY/2012/07	2015-05-19	Mid-Ebb	Cloudy	IS8	Bottom	2.9	3	1	13:05	26.5	6.75	20.4	6.35		
TMCLKL	HY/2012/07	2015-05-19	Mid-Ebb	Cloudy	IS8	Bottom	2.9	3	2	13:05	26.4	6.79	20.4	6.31		
TMCLKL	HY/2012/07	2015-05-19	Mid-Ebb	Cloudy	IS(Mf)16	Surface	1	1	1	12:43	26.5	6.78	20.2	6.38		
TMCLKL	HY/2012/07	2015-05-19	Mid-Ebb	Cloudy	IS(Mf)16	Surface	1	1	2	12:43	26.5	6.8	20.2	6.34		

Project	Works	Date (yyyy-mm-dd)	Tide	Weather	Stat	Level	Water Depth	Lev Cod	Replicate	Start Time	Temp v	pH v	Sal v	DO v	Turb v	SS v
TMCLKL	HY/2012/07	2015-05-19	Mid-Ebb	Cloudy	IS(Mf)16	Middle	5	2	1	12:43	26.5	6.74	20.4	6.41	20.8	28.9
TMCLKL	HY/2012/07	2015-05-19	Mid-Ebb	Cloudy	IS(Mf)16	Middle	5	2	2	12:43	26.4	6.77	20.5	6.42		
TMCLKL	HY/2012/07	2015-05-19	Mid-Ebb	Cloudy	IS(Mf)16	Bottom	8.9	3	1	12:43	26.6	6.82	20.8	6.2		
TMCLKL	HY/2012/07	2015-05-19	Mid-Ebb	Cloudy	IS(Mf)16	Bottom	8.9	3	2	12:43	26.7	6.79	20.7	6.17		
TMCLKL	HY/2012/07	2015-05-19	Mid-Ebb	Cloudy	IS(Mf)9	Surface	1	1	1	12:26	26.4	6.84	20.4	6.47	21.0	31.5
TMCLKL	HY/2012/07	2015-05-19	Mid-Ebb	Cloudy	IS(Mf)9	Surface	1	1	2	12:26	26.5	6.87	20.4	6.44		
TMCLKL	HY/2012/07	2015-05-19	Mid-Ebb	Cloudy	IS(Mf)9	Middle		2	1	12:26						
TMCLKL	HY/2012/07	2015-05-19	Mid-Ebb	Cloudy	IS(Mf)9	Middle		2	2	12:26						
TMCLKL	HY/2012/07	2015-05-19	Mid-Ebb	Cloudy	IS(Mf)9	Bottom	4	3	1	12:26	26.5	6.79	20.7	6.53		
TMCLKL	HY/2012/07	2015-05-19	Mid-Ebb	Cloudy	IS(Mf)9	Bottom	4	3	2	12:26	26.5	6.81	20.8	6.56		
TMCLKL	HY/2012/07	2015-05-19	Mid-Ebb	Cloudy	CS(Mf)5	Surface	1	1	1	13:55	26.6	6.89	20.2	6.74	22.1	31.6
TMCLKL	HY/2012/07	2015-05-19	Mid-Ebb	Cloudy	CS(Mf)5	Surface	1	1	2	13:55	26.5	6.85	20.3	6.7		
TMCLKL	HY/2012/07	2015-05-19	Mid-Ebb	Cloudy	CS(Mf)5	Middle	6.5	2	1	13:55	26.5	6.93	20.8	6.63		
TMCLKL	HY/2012/07	2015-05-19	Mid-Ebb	Cloudy	CS(Mf)5	Middle	6.5	2	2	13:55	26.5	6.9	23.9	6.65		
TMCLKL	HY/2012/07	2015-05-19	Mid-Ebb	Cloudy	CS(Mf)5	Bottom	11.9	3	1	13:55	26.6	6.96	21.6	6.34		
TMCLKL	HY/2012/07	2015-05-19	Mid-Ebb	Cloudy	CS(Mf)5	Bottom	11.9	3	2	13:55	26.7	6.99	21.5	6.36		

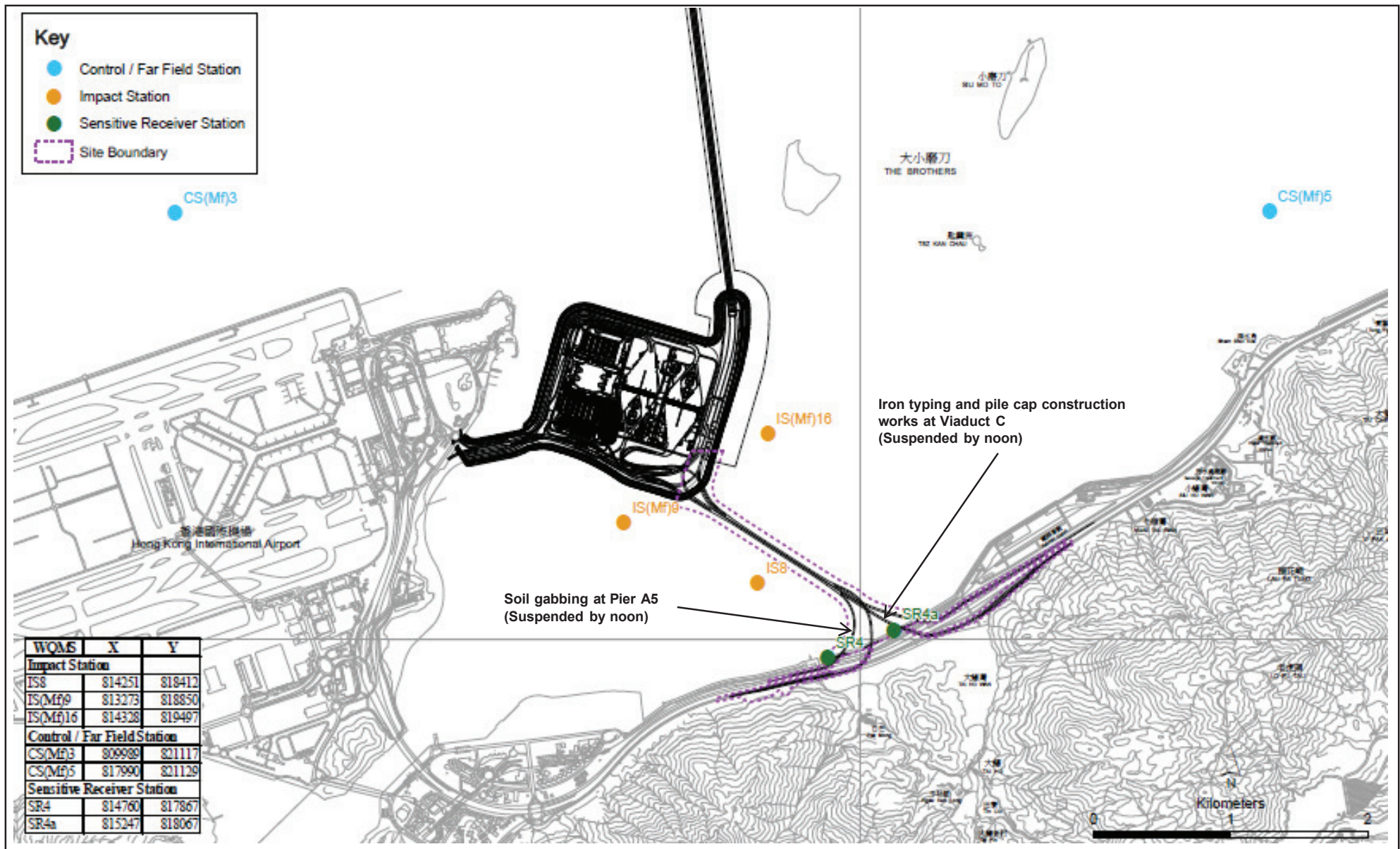


Figure 1

HY/2012/07 TM-CLKL Southern Connection Viaduct Section
 Water Quality Monitoring Stations and Marine Works nearby SR4a Undertaken on 19 May 2015

Date 2/6/2015

Environmental
 Resources
 Management



**Total Rainfall on 19-May-2015
(based on raingauges and radar data)**

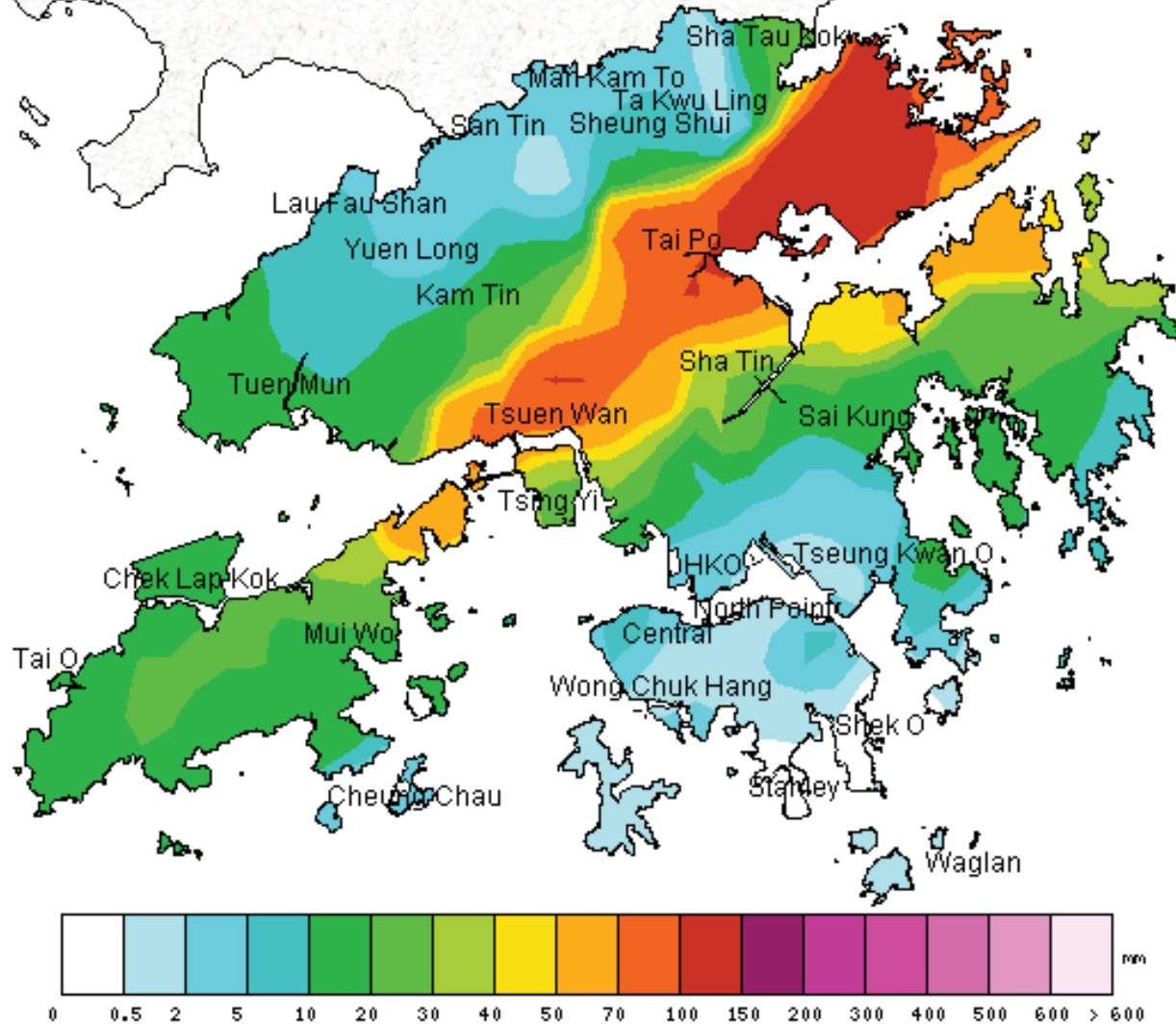


Figure 2

Rainfall distribution on 19 May 2015
(Source: Hong Kong Observatory)

Date 2/6/2015

Environmental
Resources
Management

