

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

Thirty-fourth Monthly EM&A Report

12 September 2016

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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Thirty-fourth Monthly EM&A Report

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Client: Gammon		Project No: 0215660			
Summary: This document presents the Thirty-fourth Monthly EM&A Report for Tuen Mun – Chek Lap Kok Link – Southern Connection Viaduct Section.		Date: 12 September 2016			
		Approved by: 			
		Mr Craig Reid Partner			
		Certified by: 			
		Mr Jovy Tam ET Leader			
	Thirty-fourth Monthly EM&A Report	VAR	JT	CAR	12/09/16
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_4561L.16

13 September 2016

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
34th Monthly EM&A Report for August 2016 (EP-354/2009/D)**

Reference is made to the Monthly Environmental Monitoring and Audit (EM&A) Report (August 2016) (ET's ref.: "0215660_34th Monthly EM&A_20160912.doc" dated 12 Sep. 2016) certified by the ET Leader and provided to us via e-mail on 13 Sep. 2016.

Please be informed that we have no adverse comments on the captioned monthly EM&A report. We write to verify the captioned submission in accordance with Condition 4.4 of EP-354/2009/D.

Thank you for your 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. Vico Cheung (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, JKC, ENPO Site

Q:\Projects\HYDZHMBEEM00\02_Proj_Mgt\02_Corr\HYDZHMBEEM00_0_4561L.16.docx

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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). Ramboll 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 southern landfall of TM-CLK Link lies alongside the Hong Kong - Zhuhai - Macao Bridge Hong Kong Boundary Crossing Facilities (HKBCF) where a reclamation area is constructed by *Contract No. HY/2010/02* under *Environmental Permit No. EP-353/2009/K* and *EP-354/2009/D*. Upon the agreement and confirmation between the Supervising Officer Representatives and Contractors of *HY/2010/02* and *HY/2012/07* in September 2015, part of the reclamation area for southern landfall under *EP-353/2009/K* and *EP-354/2009/D* was handed-over to *Contract No. HY/2012/07*. Another part of the southern landfall area under *EP-354/2009/D* was handed-over to *Contract No. HY/2012/07* after completion of reclamation works by *Contract No. HY/2010/02* in June 2016.

The construction phase of the Contract commenced on 31 October 2013 and will be tentatively 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 Thirty-fourth Monthly EM&A report presenting the EM&A works carried out during the period from 1 to 31 August 2016 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

- Uninstallation of marine piling platform;
- Pier construction;
- Launching gantry operation; and

- Installation of deck segment and pier head segment.

Land-based Works

- Pier construction;
- Re-alignment of Cheung Tung Road;
- Construction of land section of berth at Southern Landfall;
- Installation of pier head and deck segments; and
- Slope work of Viaducts A, B & C.

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

24-hour TSP Monitoring	6 sessions
1-hour TSP Monitoring	6 sessions
Noise Monitoring	6 sessions
Impact Water Quality Monitoring	12 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 quality 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

No exceedance of Action and Limit Levels was recorded for water quality impact monitoring in the reporting period.

Impact Dolphin Monitoring

One (1) Limit Level exceedance was observed for the quarterly dolphin monitoring data between June and August 2016, whilst 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. No sighting of the Indo-Pacific humpback dolphin *Sousa chinensis* (i.e. Chinese White Dolphin) was recorded in August 2016 during the exclusion zone monitoring.

Environmental Complaints, Non-compliance & Summons

There was no environmental complaint, notification of summons or successful prosecution recorded in the reporting period.

Reporting Change

There was no reporting change in the reporting period.

Upcoming Works for the Next Reporting Period

Works to be undertaken in the next monitoring period of September 2016 include the following:

Marine Works

- Uninstallation of marine piling platform;
- Pier construction;
- Launching gantry operation; and
- Installation of deck segment and pier head segment.

Land-based Works

- Pier construction;
- Re-alignment of Cheung Tung Road;
- Construction of land section of berth at Southern Landfall;
- Installation of pier head and deck segments; and
- Slope work of Viaducts A, B & C.

Future Key Issues

Potential environmental impacts arising from the above upcoming construction activities in the next reporting month of September 2016 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). Ramboll 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 southern landfall of TM-CLK Link lies alongside the Hong Kong - Zhuhai - Macao Bridge Hong Kong Boundary Crossing Facilities (HKBCF) where a reclamation area is constructed by *Contract No. HY/2010/02* under *Environmental Permit No. EP-353/2009/K* and *EP-354/2009/D*. Upon the agreement and confirmation between the Supervising Officer Representatives and Contractors of *HY/2010/02* and *HY/2012/07* in September 2015, part of the reclamation area for southern landfall under *EP-353/2009/K* and *EP-*

354/2009/D was handed-over to *Contract No. HY/2012/07*. Another part of the southern landfall area under *EP-354/2009/D* was handed-over to *Contract No. HY/2012/07* after completion of reclamation works by *Contract No. HY/2010/02* in June 2016.

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*.

1.2 SCOPE OF REPORT

This is the Thirty-fourth 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 August 2016.

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.

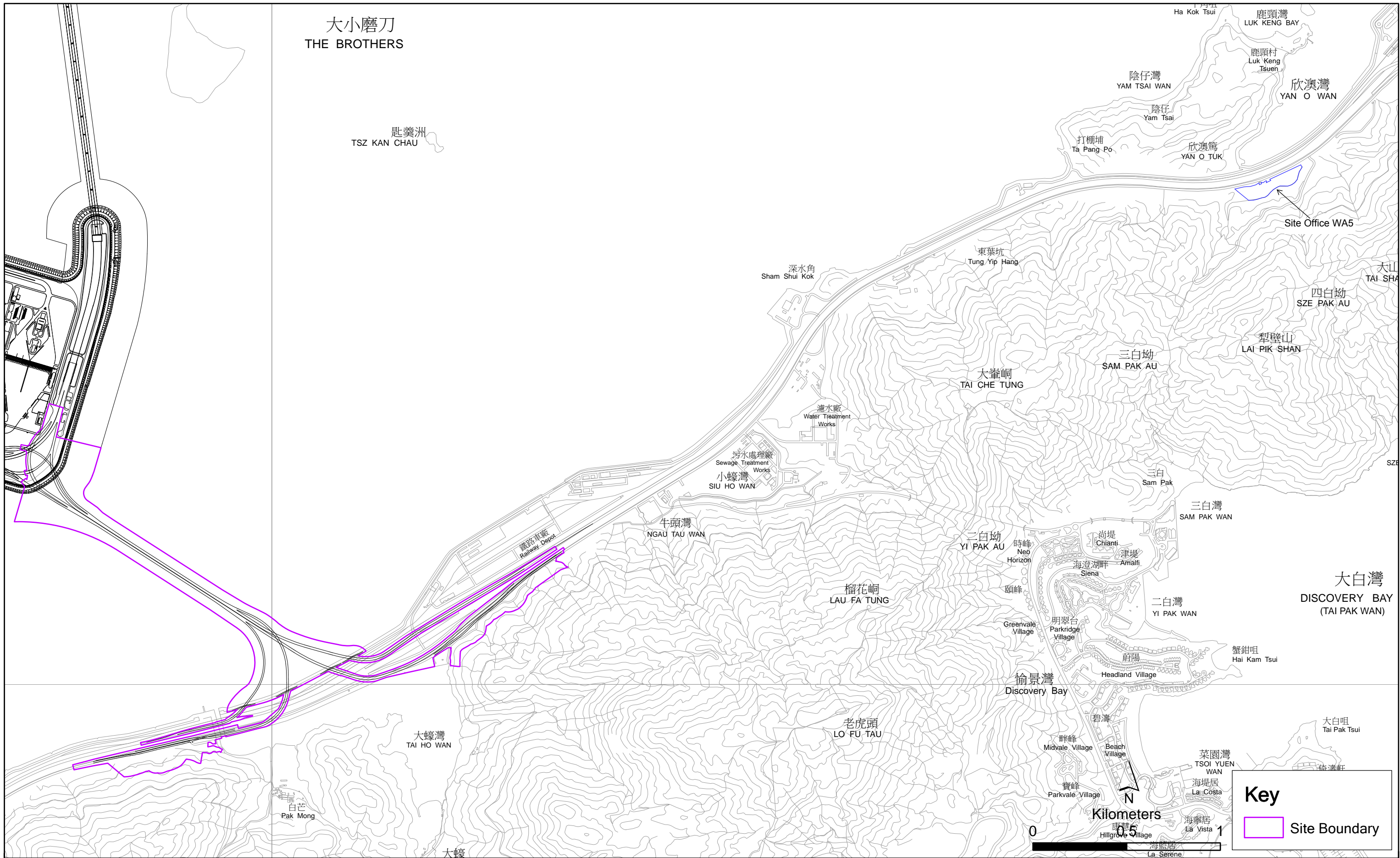
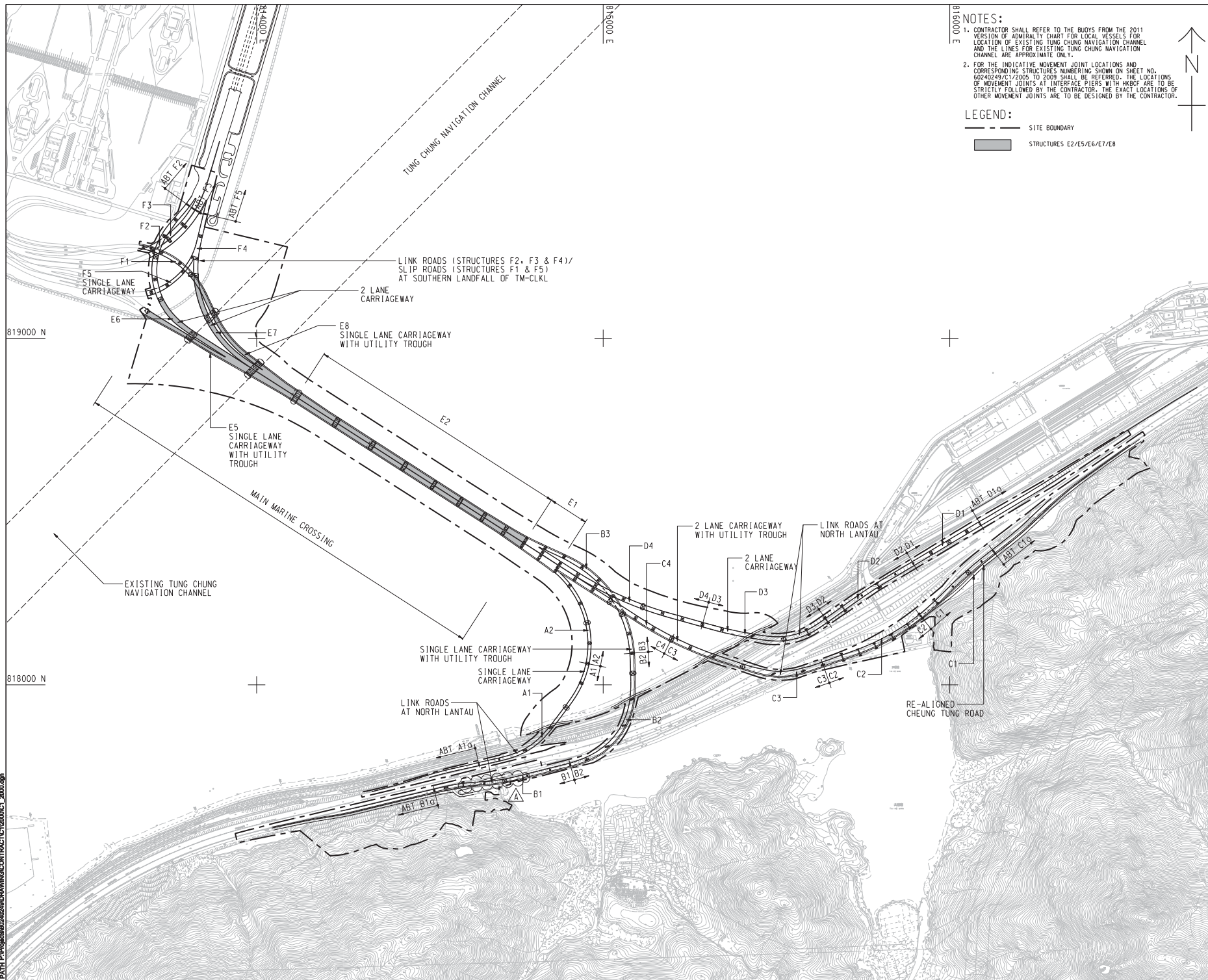


Figure 1.1

General Layout Plan of the Project

Environmental
Resources
Management





NOTES:
 1. 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.
 2. 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:
 [Dashed line] SITE BOUNDARY
 [Grey rectangle] 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
 港務局
 港務局工程處
 香港 - 深圳 - 廣九鐵路
 Hong Kong - Zhuhai - Guangzhou 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

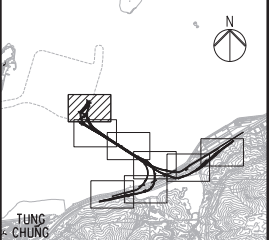
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KEY PLAN

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

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 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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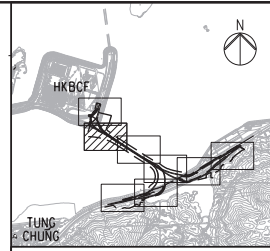
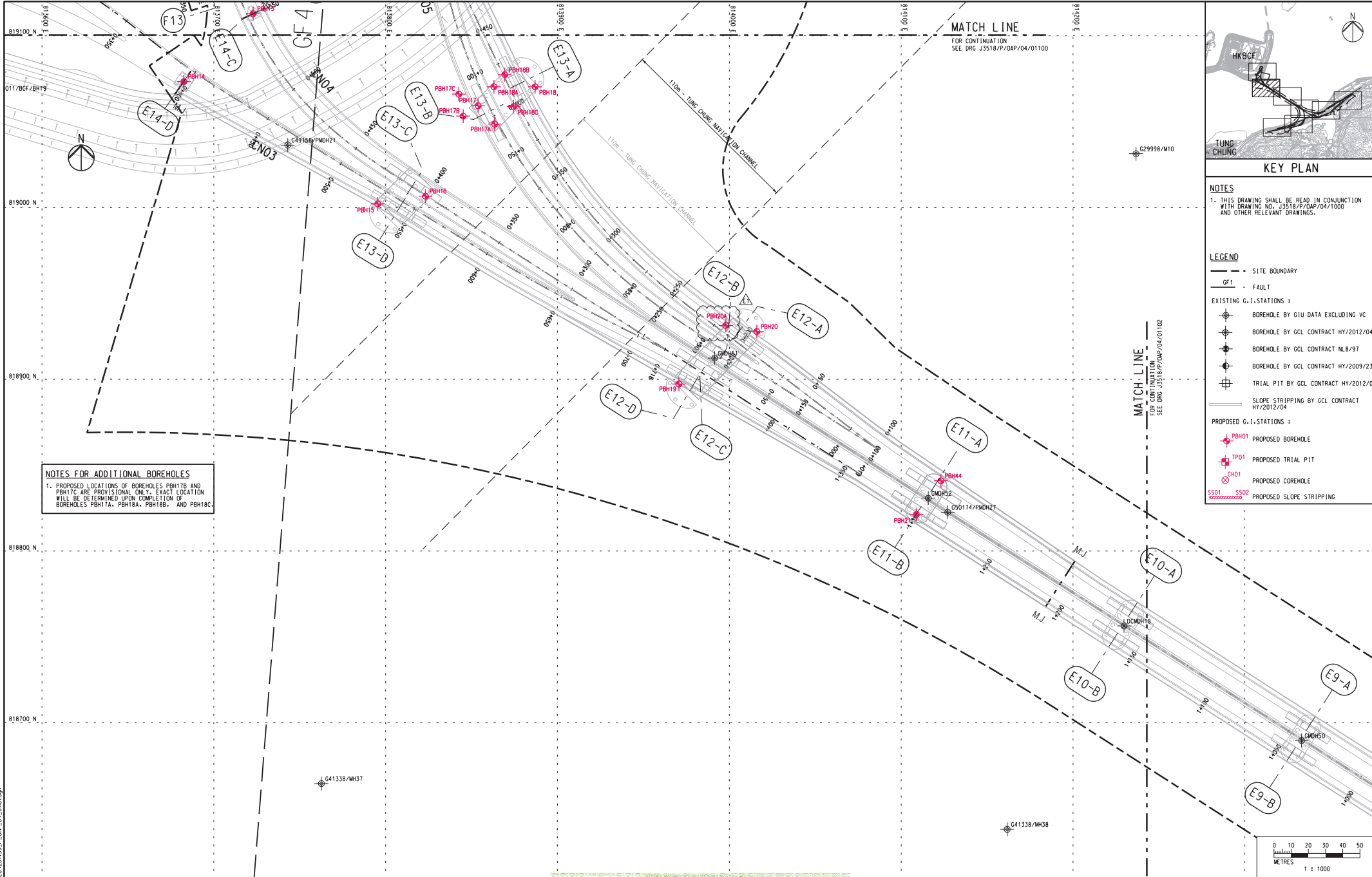
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Checked	Approved	
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Supervising Officer: _____ Contractor: _____
 Project Title: Tuen Mun - Chek Lap Kok Link Southern Connection Viaduct Section

Drawing title: **Figure 1.2b**
 Drawing no. J3518/P/OAP/04/01100 Rev. c

ARUP
 Drawing no. J3518/P/OAP/04/01100 Rev. c

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KEY PLAN

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- LEGEND**
- - - SITE BOUNDARY
 - GF1 - FAULT
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 - ⊕ 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
 - 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.

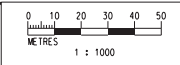
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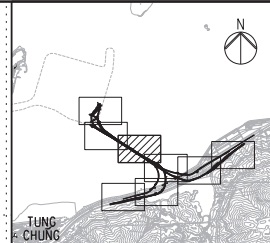
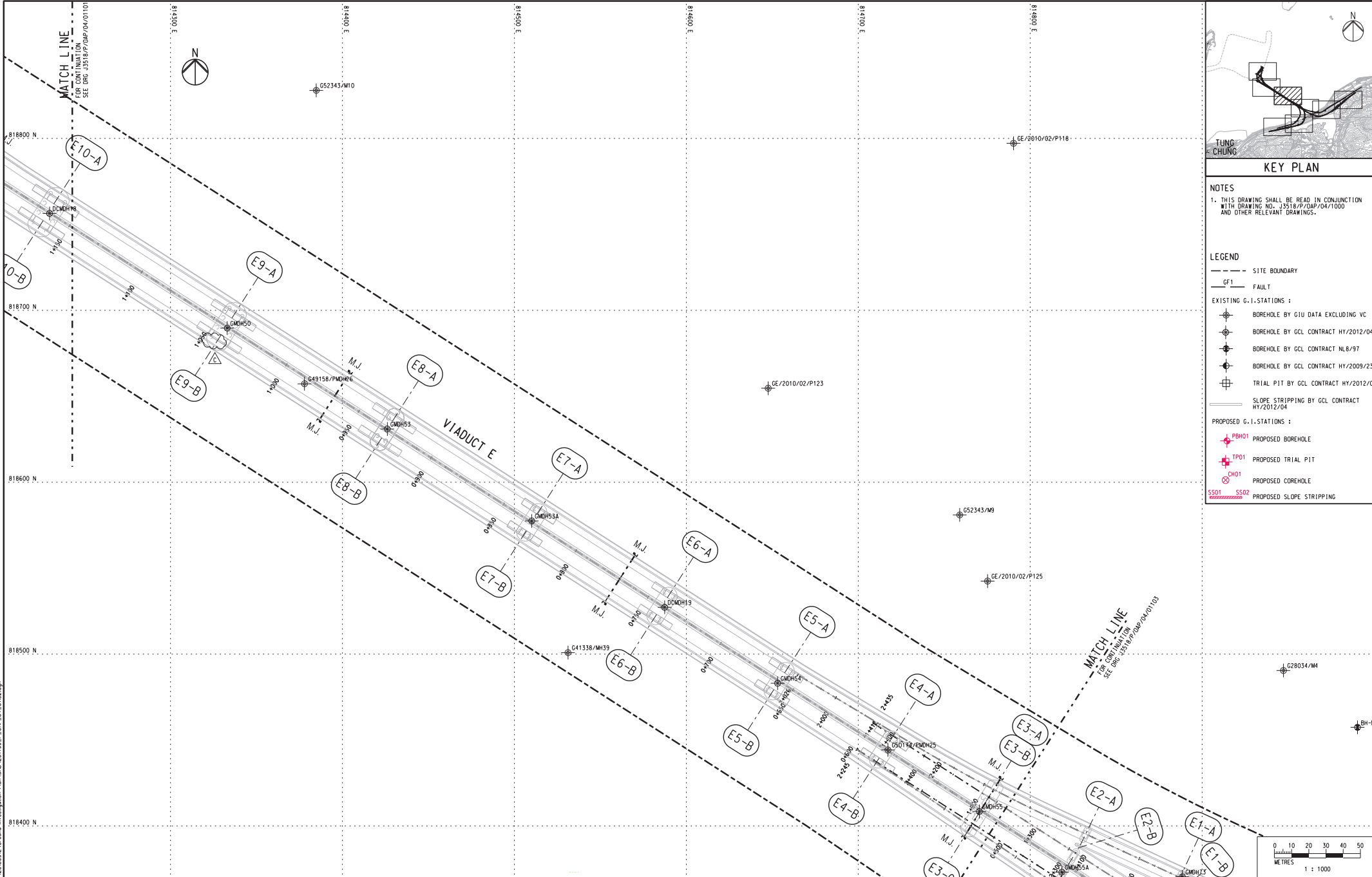
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Client	路政署 HIGHWAYS DEPARTMENT 香港渠務及港務工程處 Hong Kong - Zhuhai - Macao Bridge Hong Kong Project Management Office
Supervising Officer	AECOM
Contractor	Gammon
Originator	ARUP

Project Title	Contract No. HY/2012/07 Tuen Mun - Chek Lap Kok Link Southern Connection Viaduct Section
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Drawing no.	J3518/P/OAP/04/01101
Rev.	E1



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 - GF1- FAULT

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 - ⊕ 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

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C	SUBMISSION	RC	09/13					DS	DOP		
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Client: **路政署 HIGHWAYS DEPARTMENT**
 港珠澳大桥香港工程管理有限公司
 Hong Kong Project Management Office

Supervising Officer: **AECOM**

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

Contractor: **Gammon**

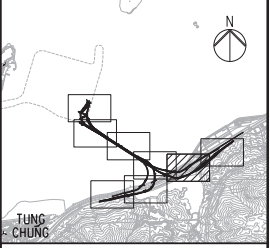
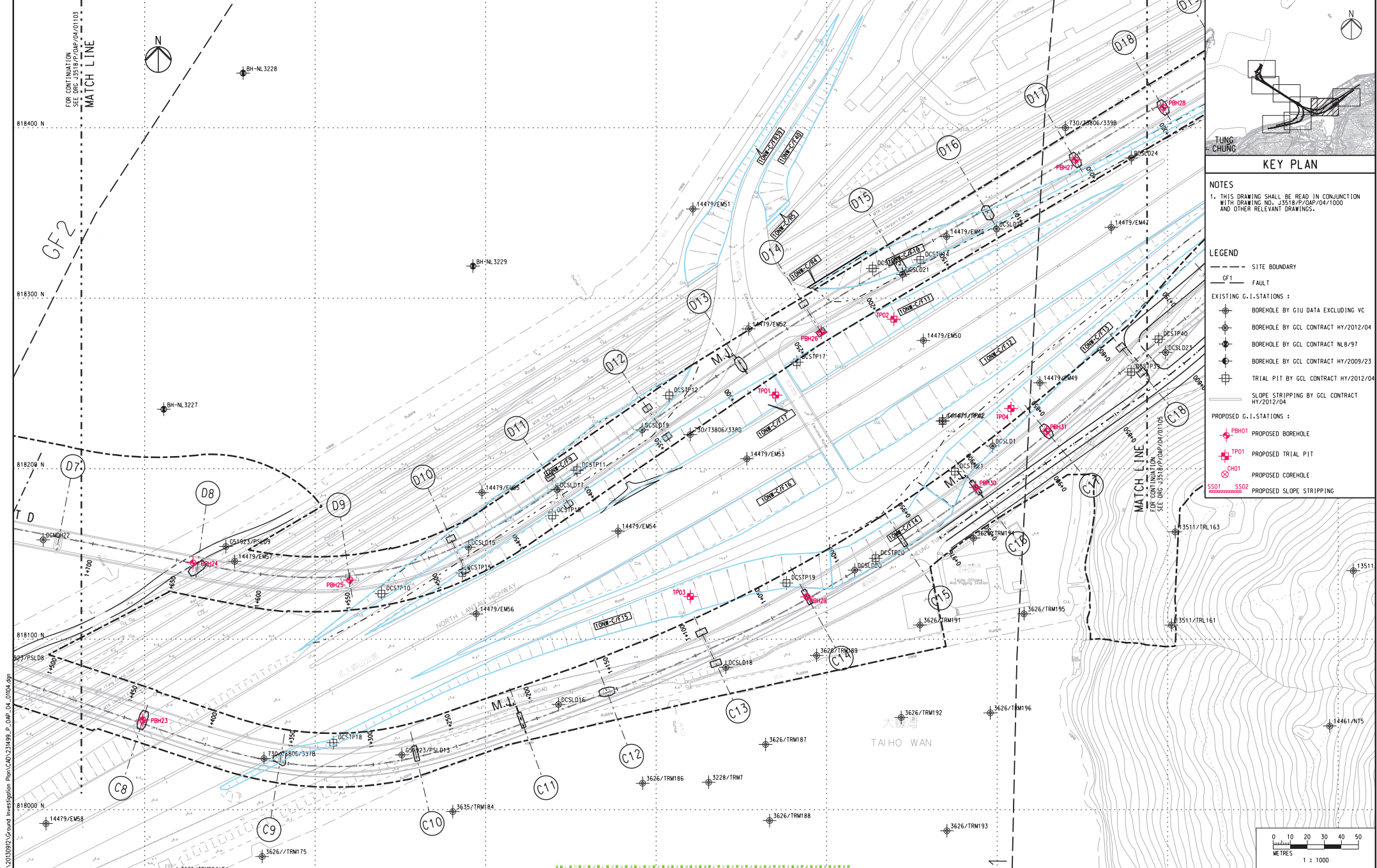
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Originator: **ARUP**

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 - ⊕ TP01 PROPOSED TRIAL PIT
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 - SS01 SS02 PROPOSED SLOPE STRIPPING

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Client

Supervising Officer

Project Title

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

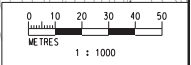
Contractor

Originator

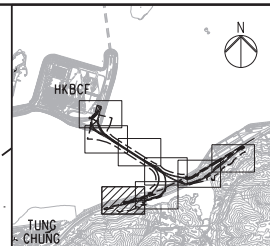
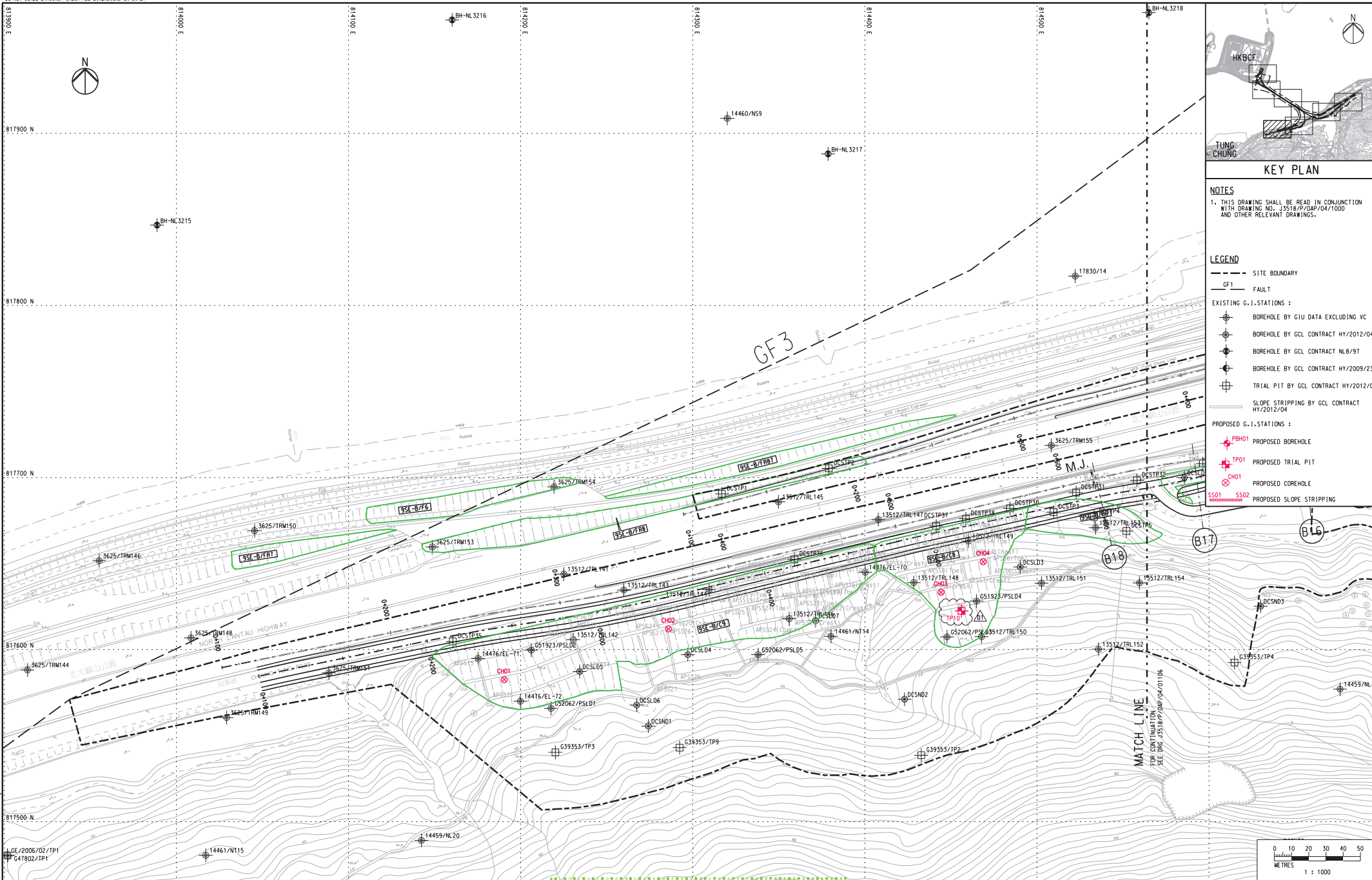
Drawing title

Figure 1.2f

Drawing no. J3518/P/OAP/04/01104 Rev. C



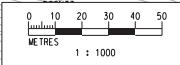
DO NOT SCALE DRAWING. CHECK ALL DIMENSIONS ON SITE.



KEY PLAN

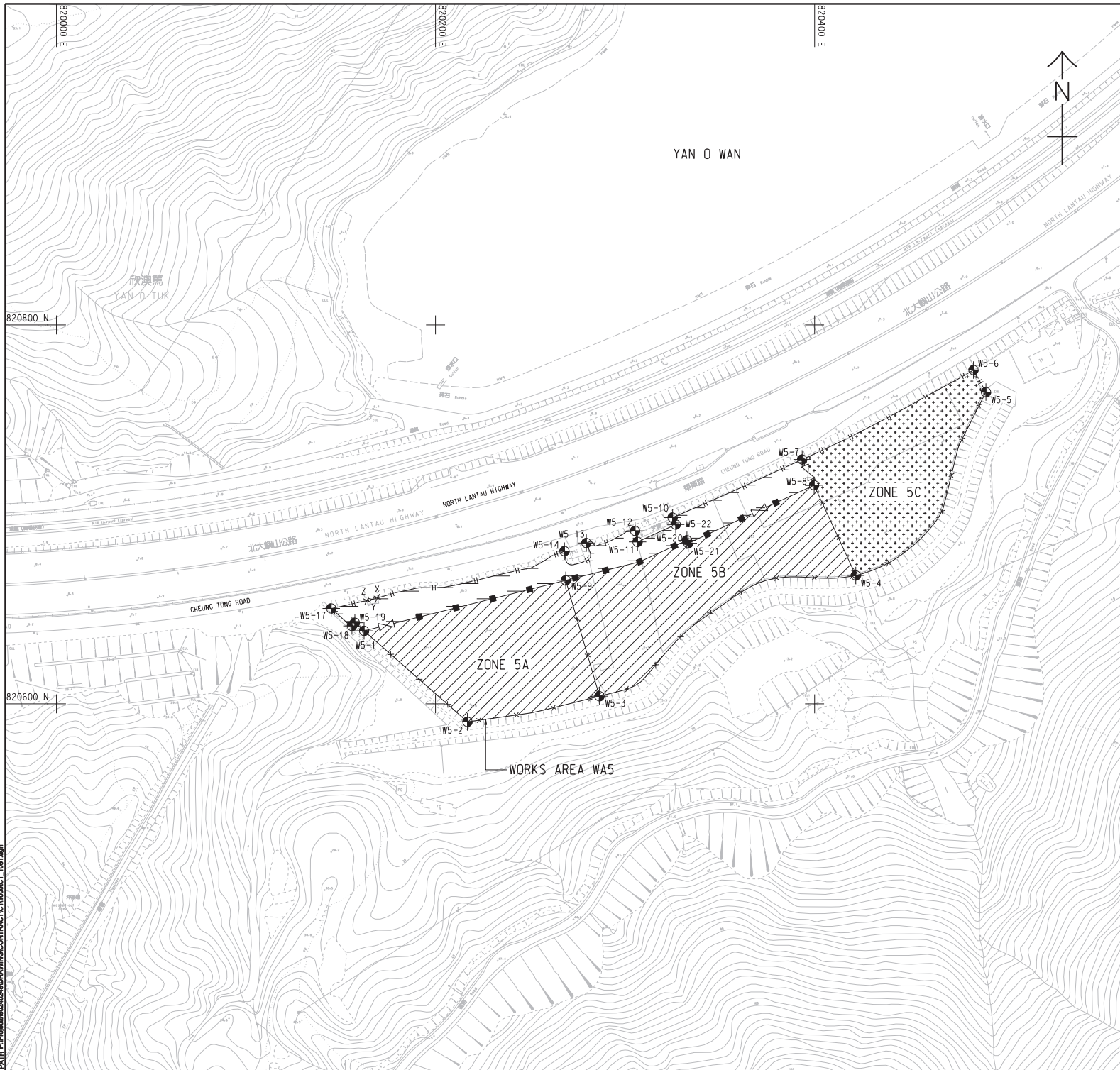
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 1. THIS DRAWING SHALL BE READ IN CONJUNCTION WITH DRAWING NO. J3518/P/OAP/04/1000 AND OTHER RELEVANT DRAWINGS.

- 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 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
 File name : J:\3518\p\oap\04\1000\dwg

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Rev	Description	By	Date	Rev	Description	By	Date																																														
A	SUBMISSION	RC	07/13																																																		
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Drawn	Date	Checked	Approved																																																		
RL	07/13	DS	DOP																																																		



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 [diagonal lines] 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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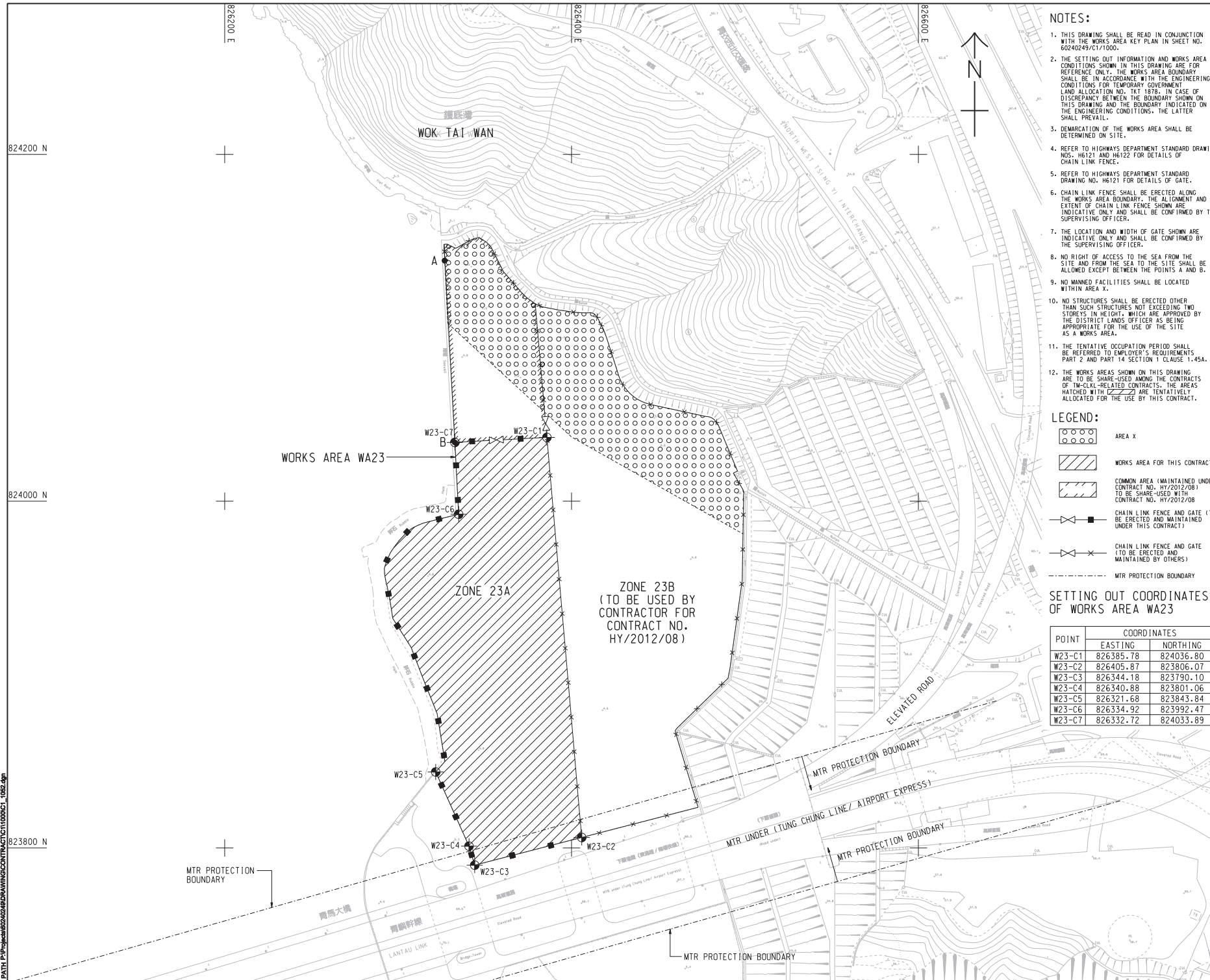
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
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A1:1000	METRES







KEY PLAN

Figure 1.2h

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 - 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. TKT 1879. IN CASE OF DISCREPANCY BETWEEN THE BOUNDARY SHOWN ON THIS DRAWING AND THE BOUNDARY INDICATED ON THE ENGINEERING CONDITIONS, THE LATTER SHALL PREVAIL.
 - DEMARICATION OF THE WORKS AREA SHALL BE DETERMINED ON SITE.
 - 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 RIGHT OF ACCESS TO THE SEA FROM THE SITE AND FROM THE SEA TO THE SITE SHALL BE ALLOWED EXCEPT BETWEEN THE POINTS A AND B.
 - NO MANNED FACILITIES SHALL BE LOCATED WITHIN AREA X.
 - 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 SHARED AMONG THE CONTRACTS OF TM-CLKL-RELATED CONTRACTS. THE AREAS HATCHED WITH  ARE TENTATIVELY ALLOCATED FOR THE USE BY THIS CONTRACT.

- LEGEND:**
-  AREA X
 -  WORKS AREA FOR THIS CONTRACT
 -  COMMON AREA (MAINTAINED UNDER CONTRACT NO. HY/2012/08) TO BE SHARED WITH CONTRACT NO. HY/2012/08
 -  CHAIN LINK FENCE AND GATE (TO BE ERECTED AND MAINTAINED UNDER THIS CONTRACT)
 -  CHAIN LINK FENCE AND GATE (TO BE SHARED AND MAINTAINED BY OTHERS)
 -  MTR PROTECTION BOUNDARY

SETTING OUT COORDINATES OF WORKS AREA WA23


POINT	COORDINATES	
	EASTING	NORTHING
W23-C1	826385.78	824036.80
W23-C2	826405.87	823806.07
W23-C3	826344.18	823790.10
W23-C4	826340.88	823801.06
W23-C5	826321.68	823843.84
W23-C6	826334.92	823992.47
W23-C7	826332.72	824033.89

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 HIGHWAYS DEPARTMENT
 港務局 港務工程管理局
 Hong Kong - Zhuhai - Hainan Bridge
 Hong Kong Project Management Office

CONSULTANT
AECOM Asia Company Ltd.
www.aecom.com

SUB-CONSULTANTS


ISSUE/REVISION

NO.	DATE	DESCRIPTION	CHK.
1	OCT. 12	TENDER DRAWING	CWN

STATUS


SCALE
A1:1:1000

DIMENSION UNIT
METRES


KEY PLAN


Figure 1.2i

PROJECT NO.
60240249

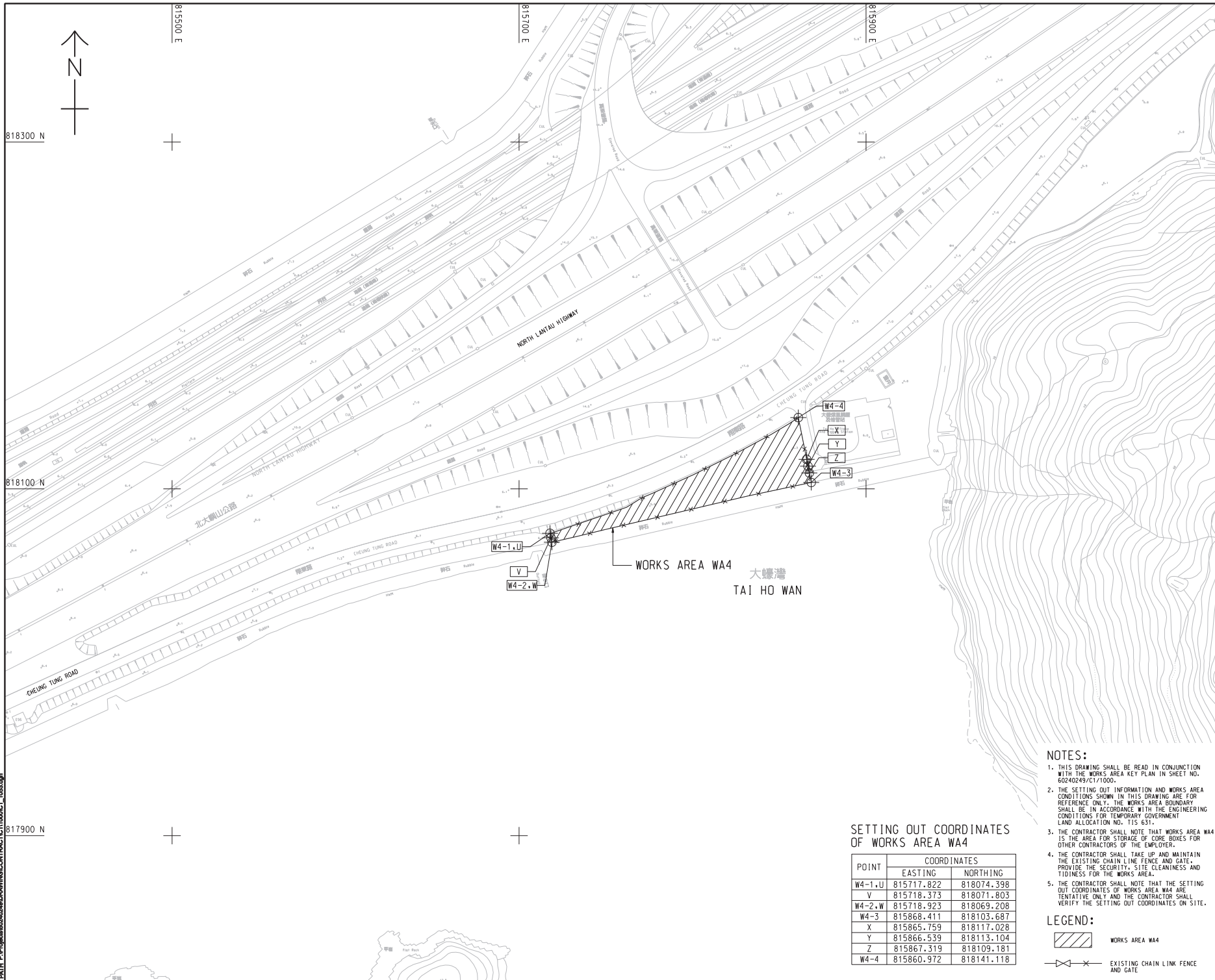
CONTRACT NO.
HY/2012/07

SHEET TITLE
WORKS AREA AND HOARDING PLAN

SHEET NUMBER
60240249/CT1/052

SHEET 2 OF 2

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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
 TUEN MUN - CHEK LAP KOK LINK

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

CLIENT
 路政署 DEPARTMENT OF HIGHWAYS
 港務局 港務工程管理局
 Hong Kong + Zhuhai + Hainan Bridge
 Hong Kong Project Management Office

CONSULTANT
 AECOM Asia Company Ltd.
 www.aecom.com

SUB-CONSULTANTS
 2/11/2012/11/16

Figure 1.2j

ISSUE/REVISION

NO.	DATE	DESCRIPTION	CHK.
1	NOV. 12	TENDER ADDENDUM NO. 1	C/W

SCALE
 A1 : 1:1000

DIMENSION UNIT
 METRES

KEY PLAN

PROJECT NO.
 60240249

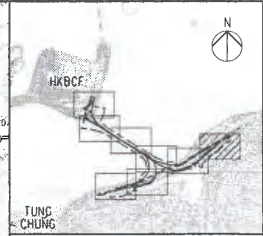
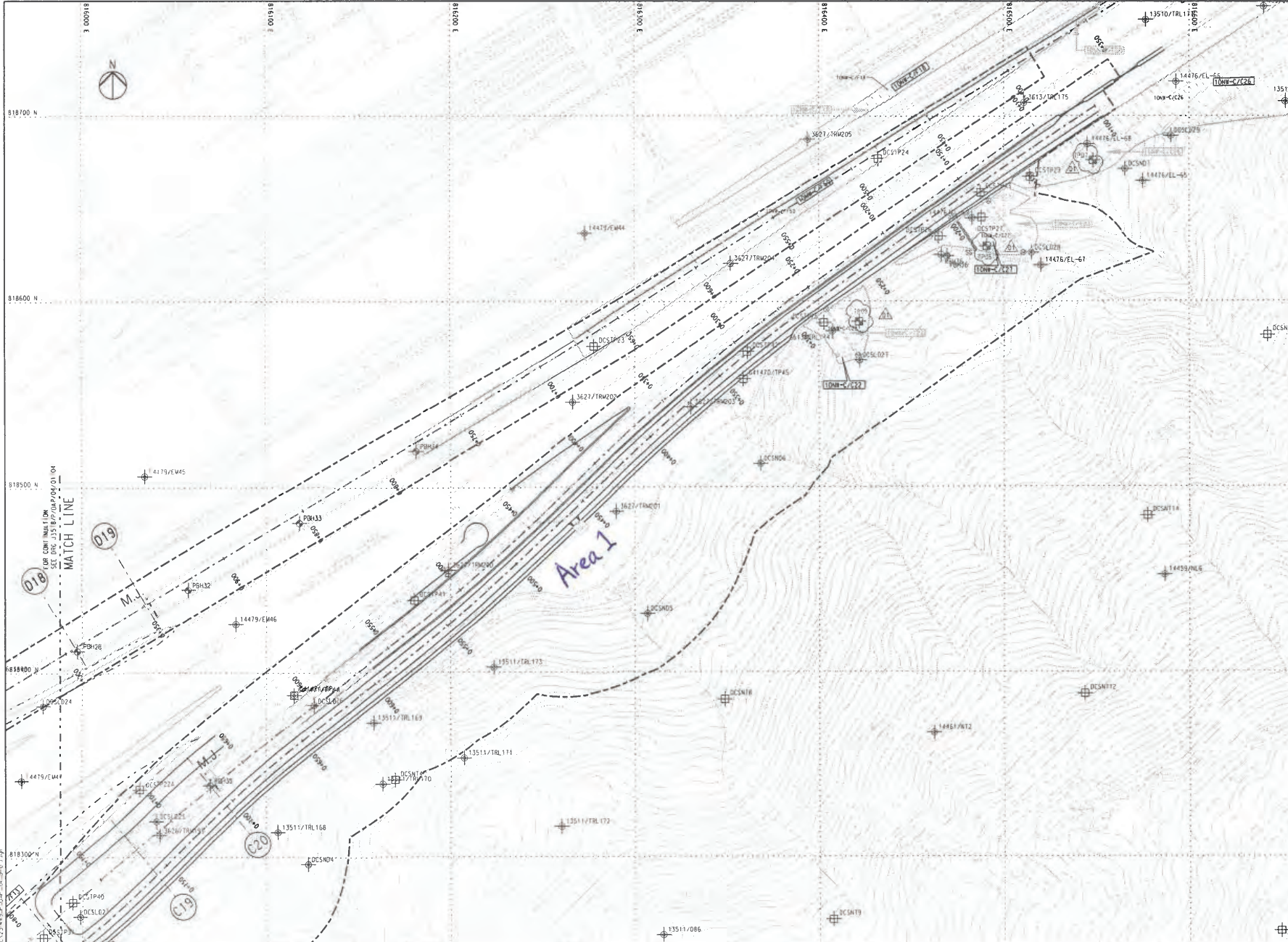
CONTRACT NO.
 HY/2012/07

SHEET TITLE
 WORKS AREA WA4

SHEET NUMBER
 60240249/C1/1053

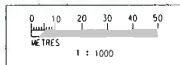
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NOTES
 THIS DRAWING SHALL BE READ IN CONJUNCTION WITH DRAWING NO. J3518/P/OAP/04/1000 AND OTHER RELEVANT DRAWINGS.

- 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 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 :
- ⊕ B-0 PROPOSED BOREHOLE
 - ⊕ T-0 PROPOSED TRIAL PIT
 - ⊕ C-01 PROPOSED COREHOLE
 - ⊕ S502 PROPOSED SLOPE STRIPPING



Rev	Description	By	Date	Rev	Description	By	Date
01	ISSUED FOR CONSTRUCTION	RL	31/03				
02	ISSUED FOR CONSTRUCTION	RL	07/13				
03	ISSUED FOR CONSTRUCTION	RL	29/13				
04	ISSUED FOR CONSTRUCTION	RL	19/12				

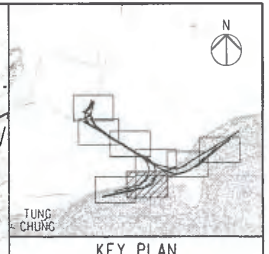
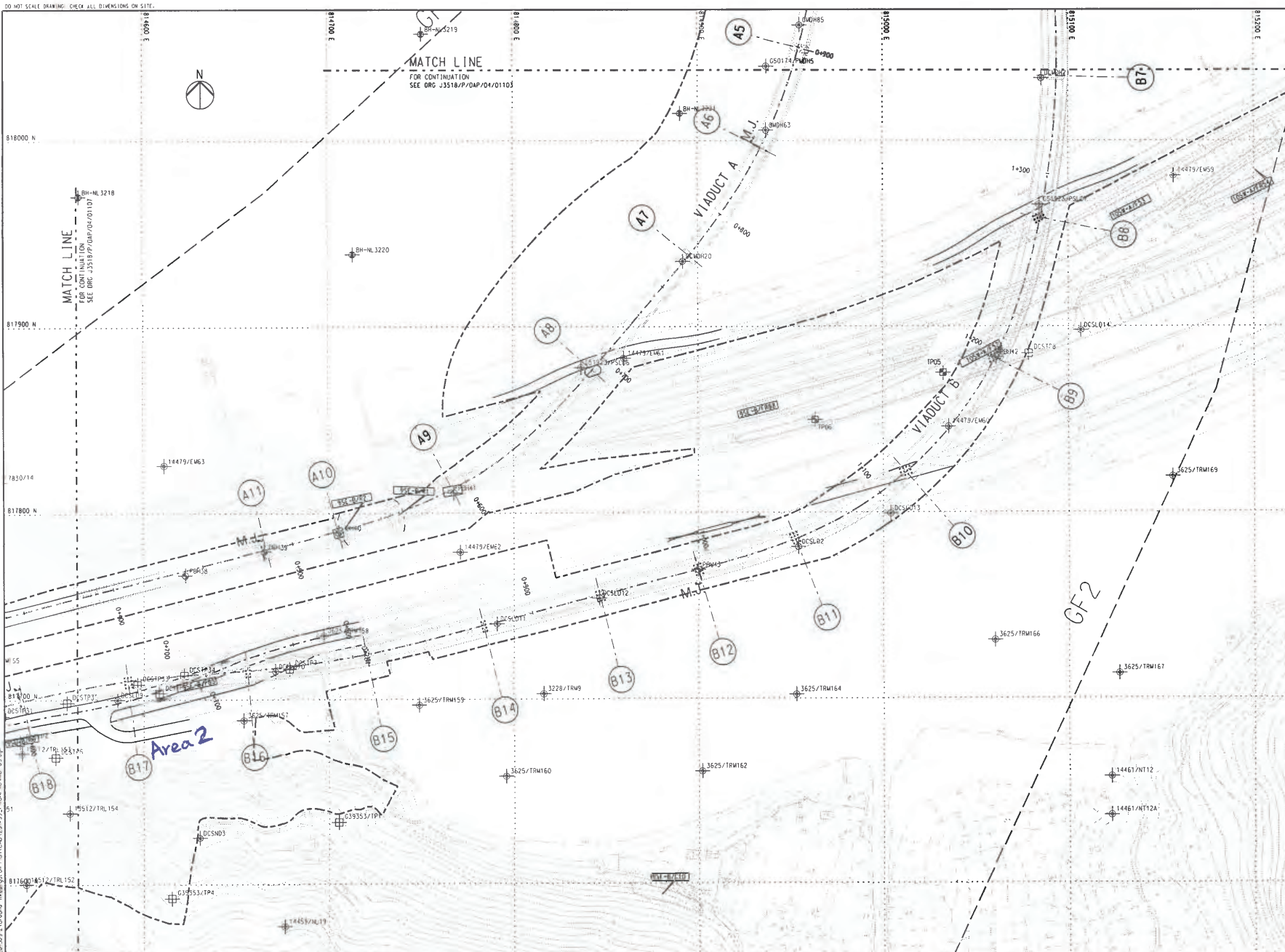
Drawn	Date	Client
RL	07/13	路政署 HIGHWAYS DEPARTMENT
Checked	Approved	Supervising Officer
DS	DOP	AZCOM
Scale	1:1000 @ A1 / 1:2000 @ A3	

	Client 路政署 HIGHWAYS DEPARTMENT 港珠澳大桥香港工程指挥部 Hong Kong - Zhuhai - Macao Bridge Hong Kong Project Management Office	Project Title Contract No. HY/2012/07 Tuen Mun - Chek Lap Kok Link Southern Connection Viaduct Section
	Supervising Officer AZCOM	Contractor Gammon

Drawing title
Figure 1.2k

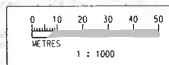
Drawing no. J3518/P/OAP/04/01105 Rev. D1

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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 NL/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:
 - PROPOSED BOREHOLE
 - PROPOSED TRIAL PIT
 - PROPOSED COREHOLE
 - PROPOSED SLOPE STRIPPING



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

Drawn	Date	Client	Project Title
RL	07/13	路政署 HIGHWAYS DEPARTMENT	Contract No. HY/2012/07
Checked	Approved	澳門港大橋香港工程管理有限公司 Hong Kong - Zhuhai - Macao Bridge Hong Kong Project Management Office	Tuen Mun - Chek Lap Kok Link Southern Connection Viaduct Section
DS	DOP	Supervising Officer	Originator
Scale	1:1000 @ A1 / 1:2000 @ A3	Contractor	

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

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 (Ramboll 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 was 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

- Uninstallation of marine piling platform;
- Pier construction;
- Launching gantry operation; and
- Installation of deck segment and pier head segment.

Land-based Works

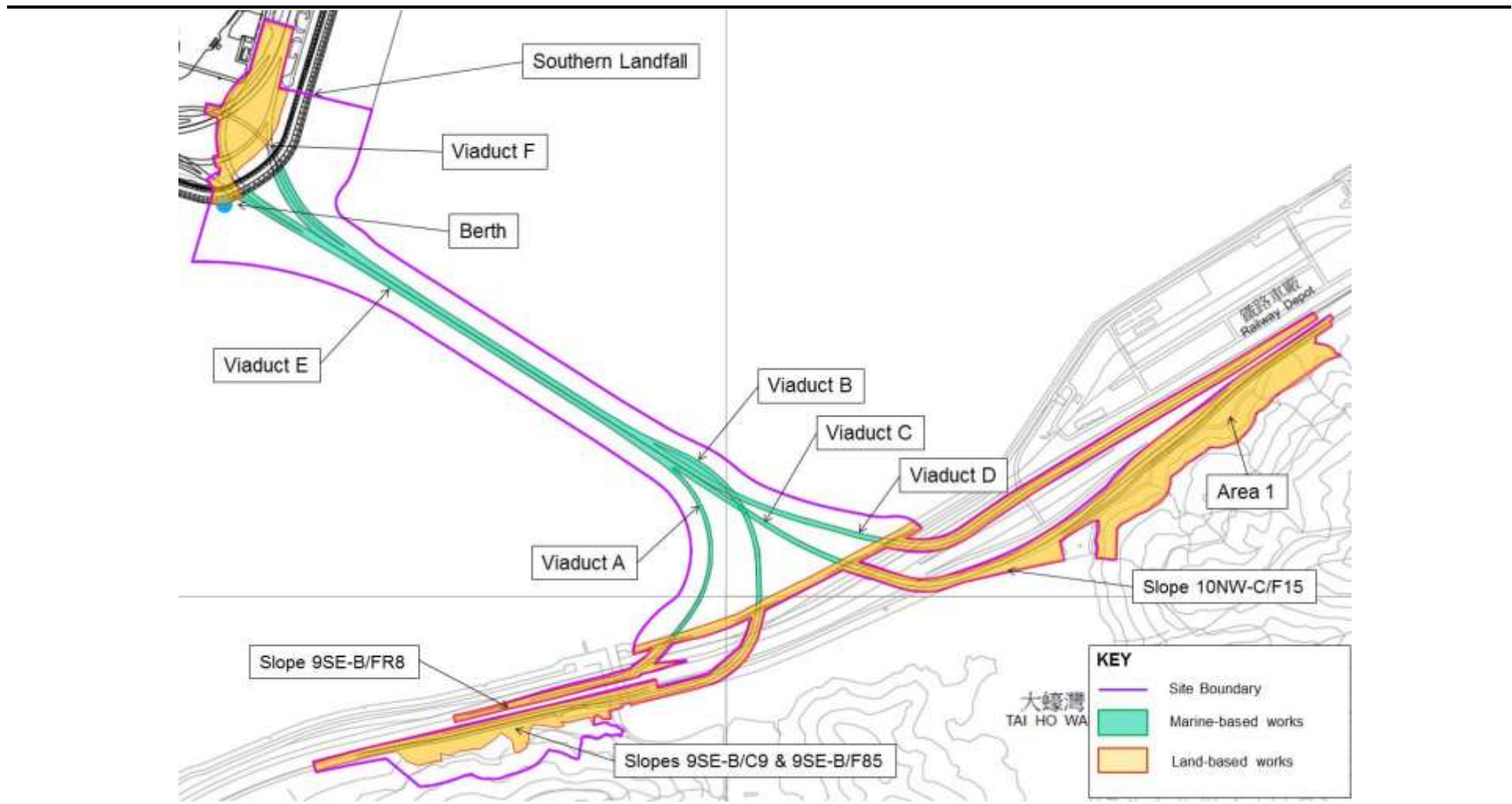
- Pier construction;
- Re-alignment of Cheung Tung Road;
- Construction of land section of berth at Southern Landfall;

- Installation of pier head and deck segments; and
- Slope work of Viaducts A, B & C.

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



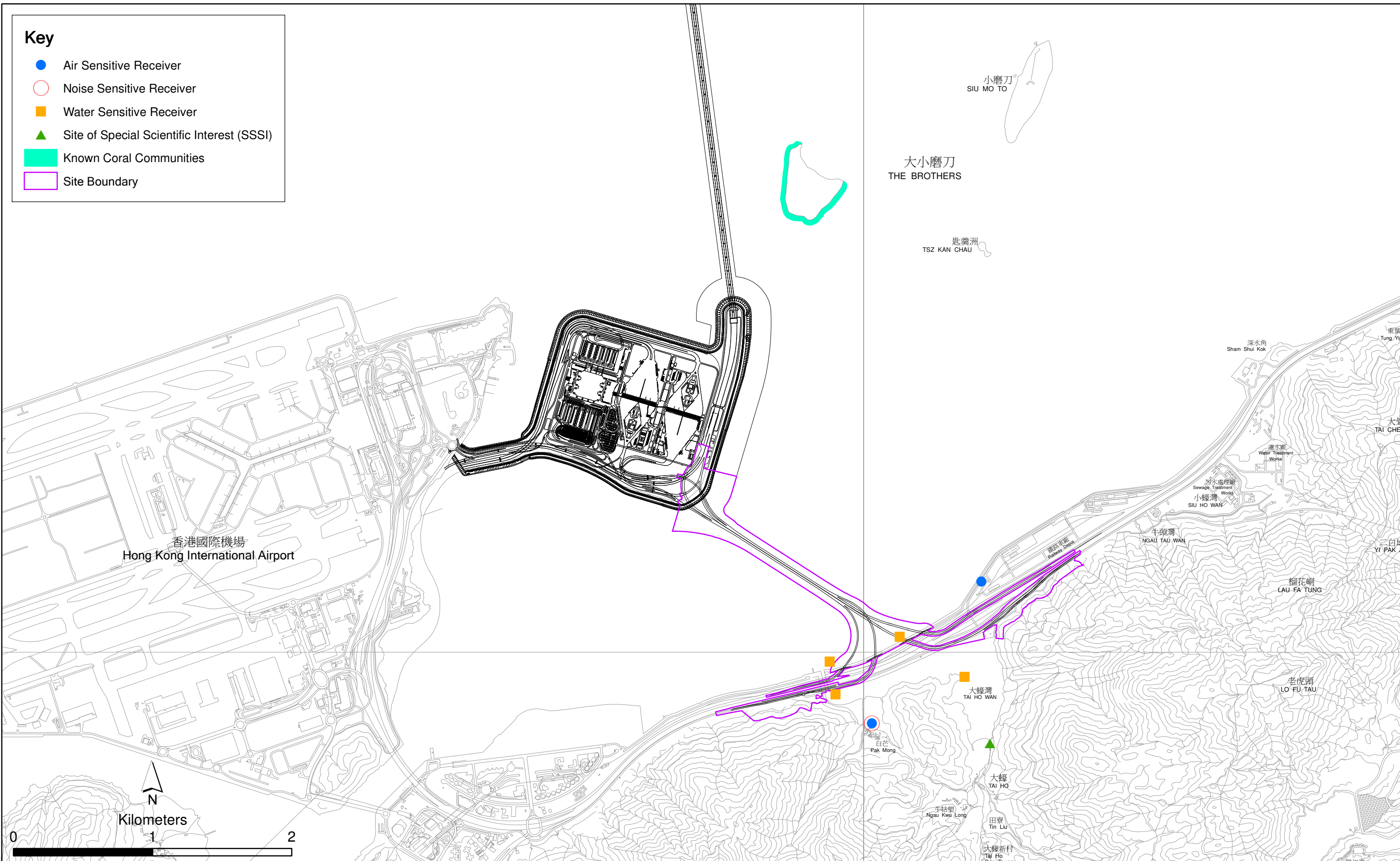


Figure 1.4

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	3, 9, 15, 18, 24 and 30 August 2016
ASR 8A	Area 4	On ground at the works area, Area 4	3, 9, 15, 18, 24 and 30 August 2016

High Volume Samplers (HVSs) were used for carried out 1-hour and 24-hour TSP monitoring on 3, 9, 15, 18, 24 and 30 August 2016 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*.

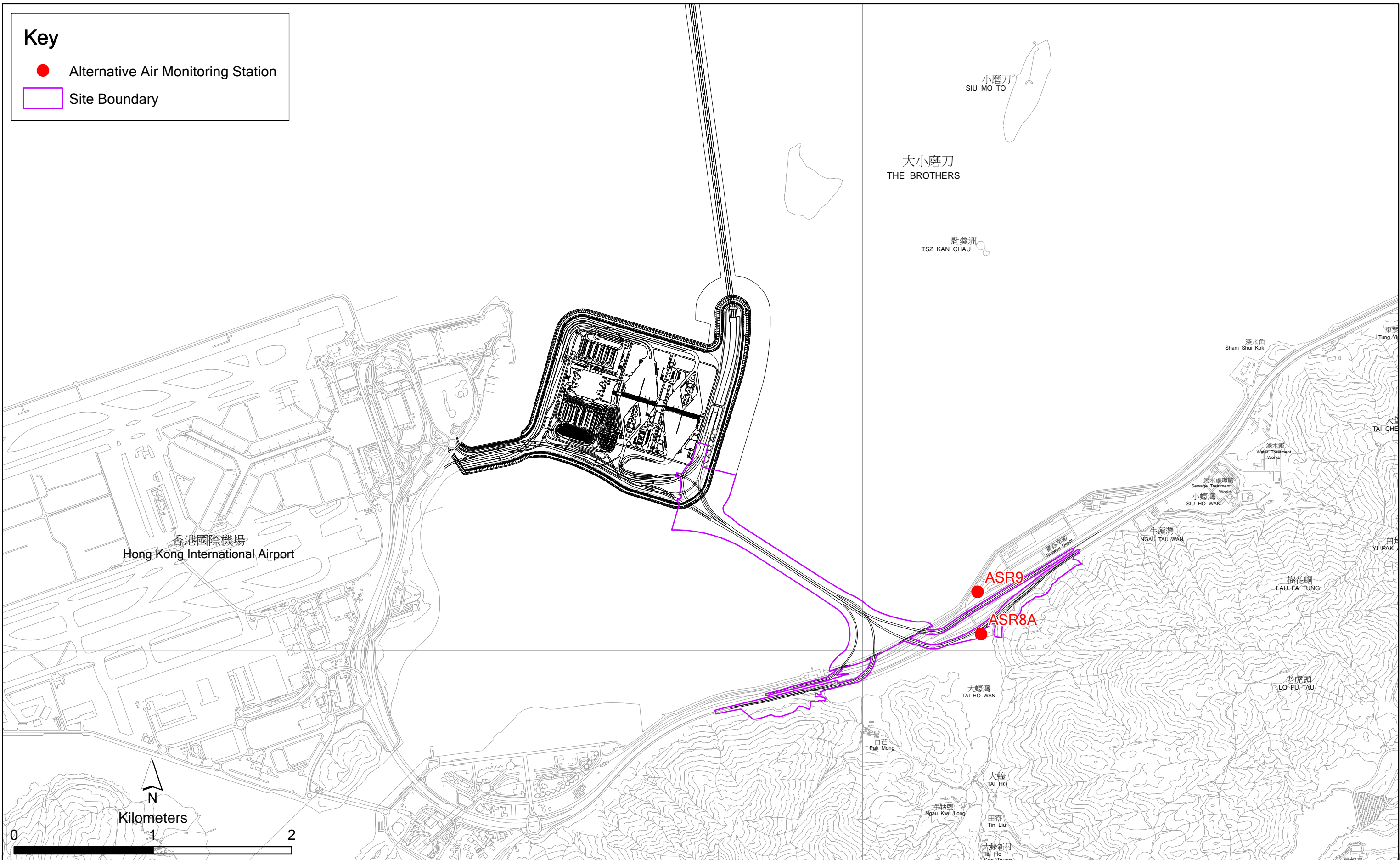


Figure 2.1

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 August 2016 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	61	41 - 116	394	500
ASR 9	75	45 - 114	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	44 - 53	178	260
ASR 9	59	45 - 101	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 3, 9, 15, 18, 24 and 30 August 2016 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	3, 9, 15, 18, 24 and 30 August 2016

Table 2.6 *Noise Monitoring Equipment*

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

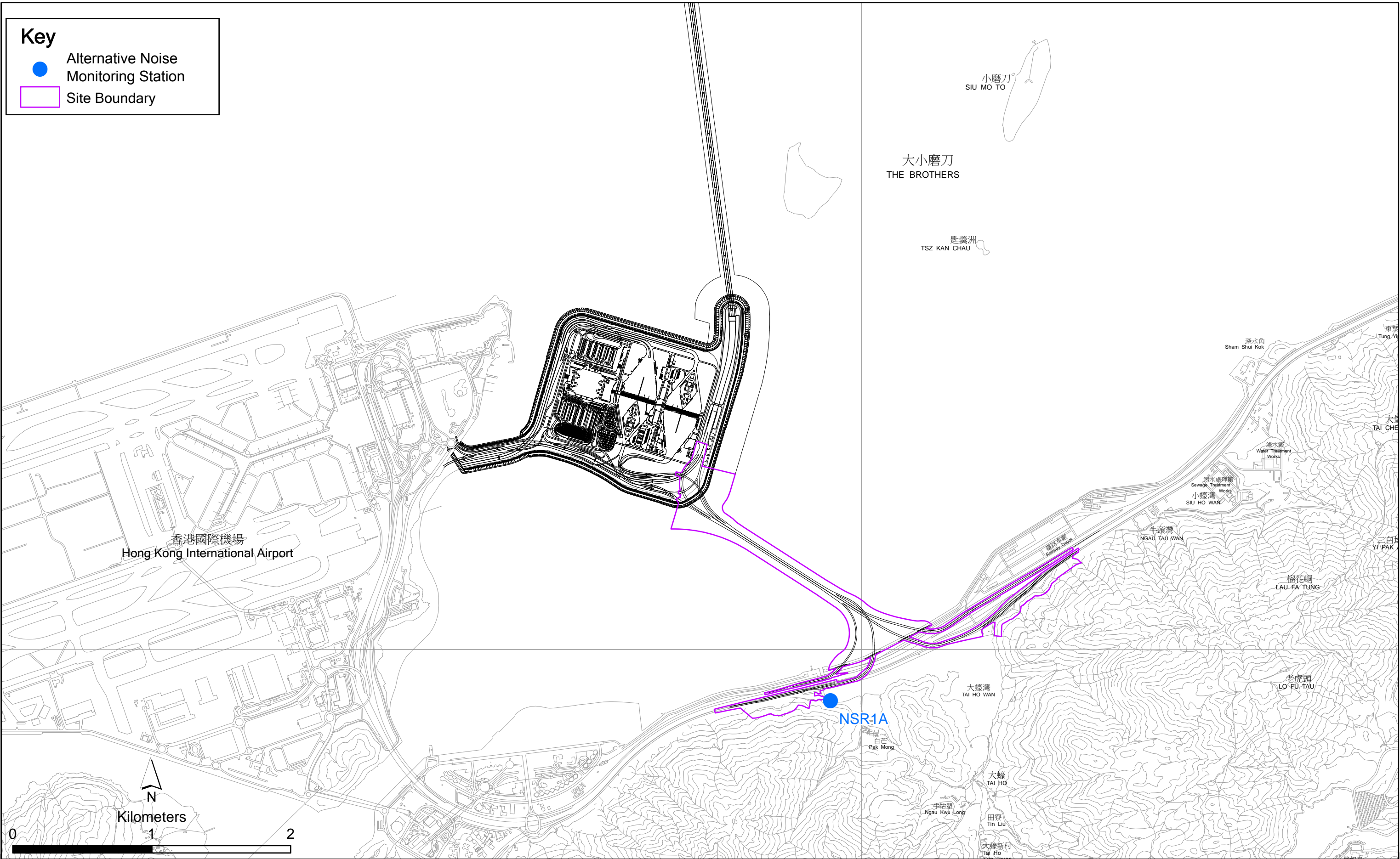


Figure 2.2

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	58 - 62	75

No noise Action or 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*

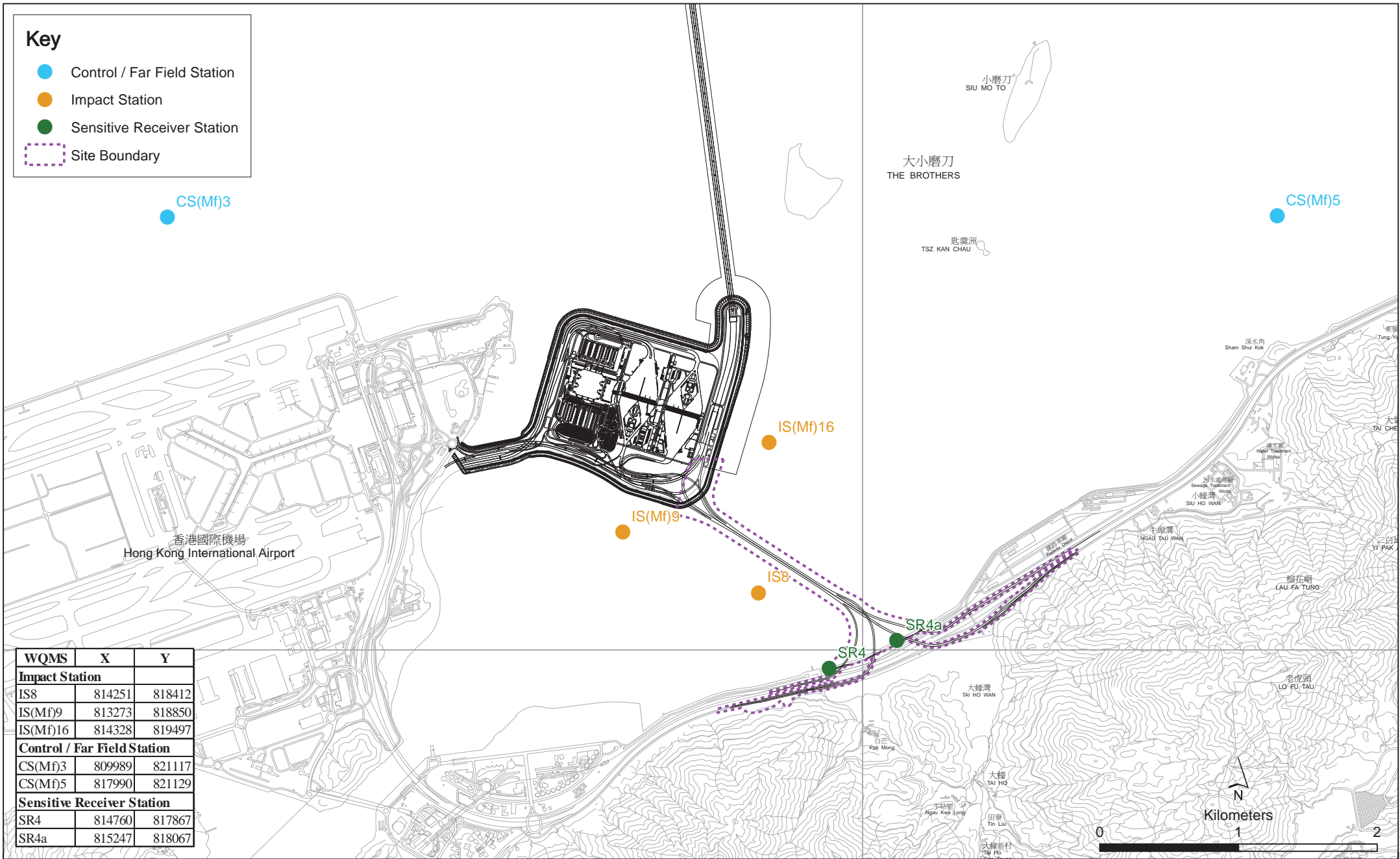
2.3.1 *Monitoring Requirements and Equipment*

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	• 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	• Water depth (m) • Salinity (ppt) • Dissolved Oxygen (DO) (mg/L and % of saturation)		
IS8	Impact Station (Close to HKBCF construction site)	814251	818412			
SR4	Sensitive receiver (Tai Ho Inlet)	814760	817867	• Suspended Solid (SS) (mg/L)		
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	HAThermo Scientific Orion 2 Star / 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 August 2016 is provided in *Appendix F*.

2.3.3 *Results and Observations*

In total of 12 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*. The water quality monitoring on 2 August 2016 was cancelled due to adverse weather.

Neither Action nor Limit Levels exceedances was recorded at all monitoring stations for impact water quality monitoring in the reporting month. No action is thus required to be undertaken in accordance with the Event Action Plan presented in *Appendix L*.

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 2.10 summarizes the equipment used for the impact dolphin monitoring.

Table 2.10 Dolphin Monitoring Equipment

Equipment	Model
Global Positioning System (GPS)	Garmin 18X-PC Geo One Phottix
Camera	Nikon D90 300m 2.8D fixed focus Nikon D90 20-300m zoom lens
Laser Binoculars	Infinitor LRF 1000
Marine Binocular	Bushell 7 × 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 2.11* below.

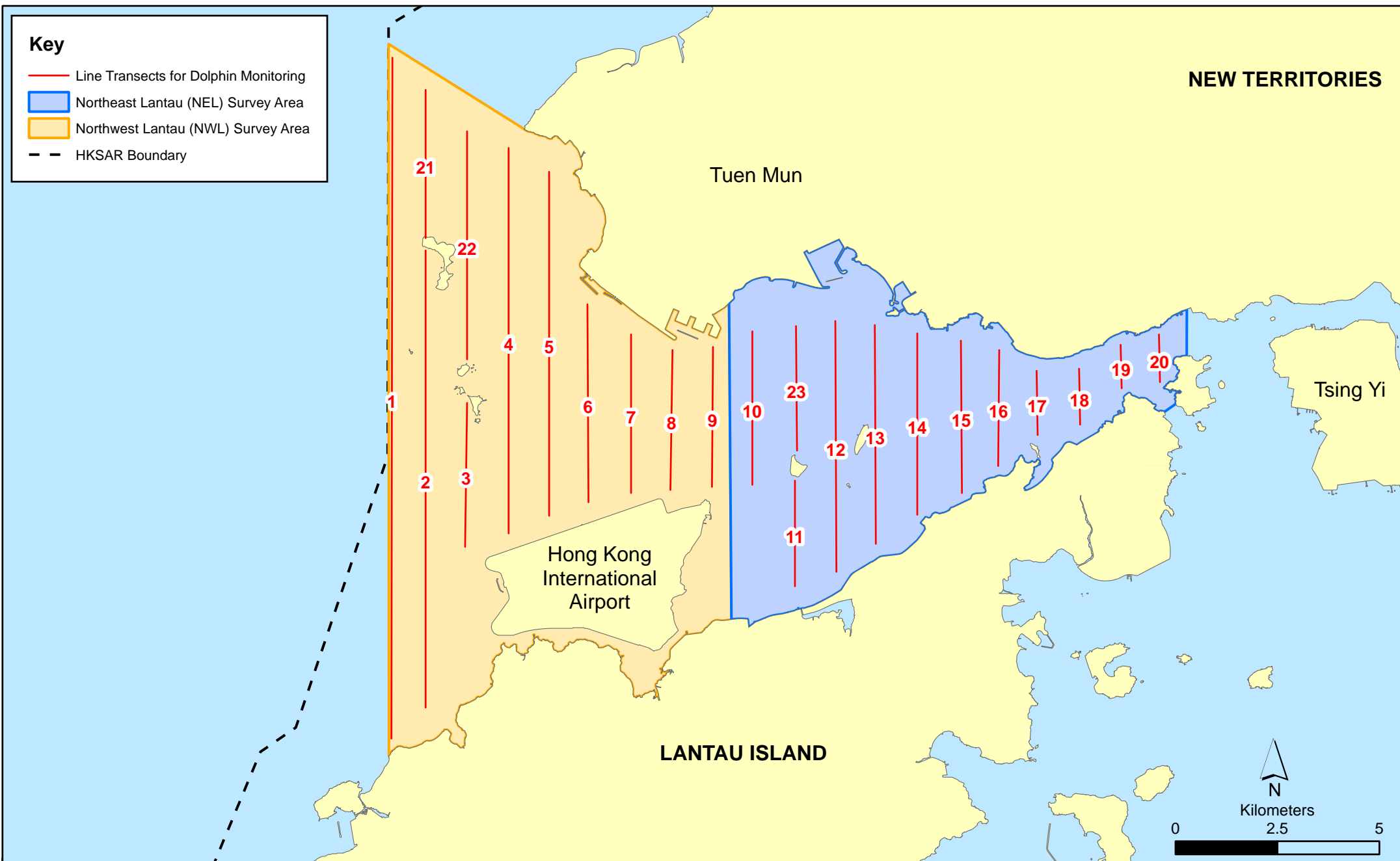


Figure 2.4

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

Table 2.11 Impact Dolphin Monitoring Line Transect Co-ordinates

Line No.		Easting	Northing	Line No.		Easting	Northing
1	Start Point	804671	815456	13	Start Point	816506	819480
1	End Point	804671	831404	13	End Point	816506	824859
2	Start Point	805475	815913	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	820880	19	Start Point	822513	823268
7	End Point	810499	824613	19	End Point	822513	824321
8	Start Point	811508	821123	20	Start Point	823477	823402
8	End Point	811508	824254	20	End Point	823477	824613
9	Start Point	812516	821303	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	818853	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 5, 9, 17 and 23 August 2016 (*Appendix F*).

2.4.7 *Results and Observations*

A total of 298.06 km of survey effort was collected, with 98.9% 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 in August 2016. Among the two areas, 113.80 km and 184.26 km of survey effort were collected from NEL and NWL survey areas respectively. The total survey effort conducted on primary and secondary lines were 213.49 km and 84.57 km respectively. The survey efforts are summarized in *Appendix K*.

Five (5) groups of 26 Chinese White Dolphins were sighted during the two sets of monitoring surveys in August 2016. All five (5) dolphin sightings were made in NWL, while none was sighted in NEL. During the surveys in August 2016, four (4) sightings were made on primary lines during on-effort search. None of the dolphin groups was associated with operating fishing vessel or sighted in the proximity of the Project's alignment. The distribution of dolphin sighting during the reporting month is shown in *Figure 2.5*.

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 August 2016 are shown in *Tables 2.12 & 2.13*.

Table 2.12 *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: Aug 5 th / 9 th	0.0	0.0
	Set 2: Aug 17 th / 23 rd	0.0	0.0
NWL	Set 1: Aug 5 th / 9 th	4.2	28.3
	Set 2: Aug 17 th / 23 rd	1.5	7.4

Note: Dolphin Encounter Rates are deduced from the two sets of surveys (two surveys in each set) in August 2016 in Northeast (NEL) and Northwest Lantau (NWL)

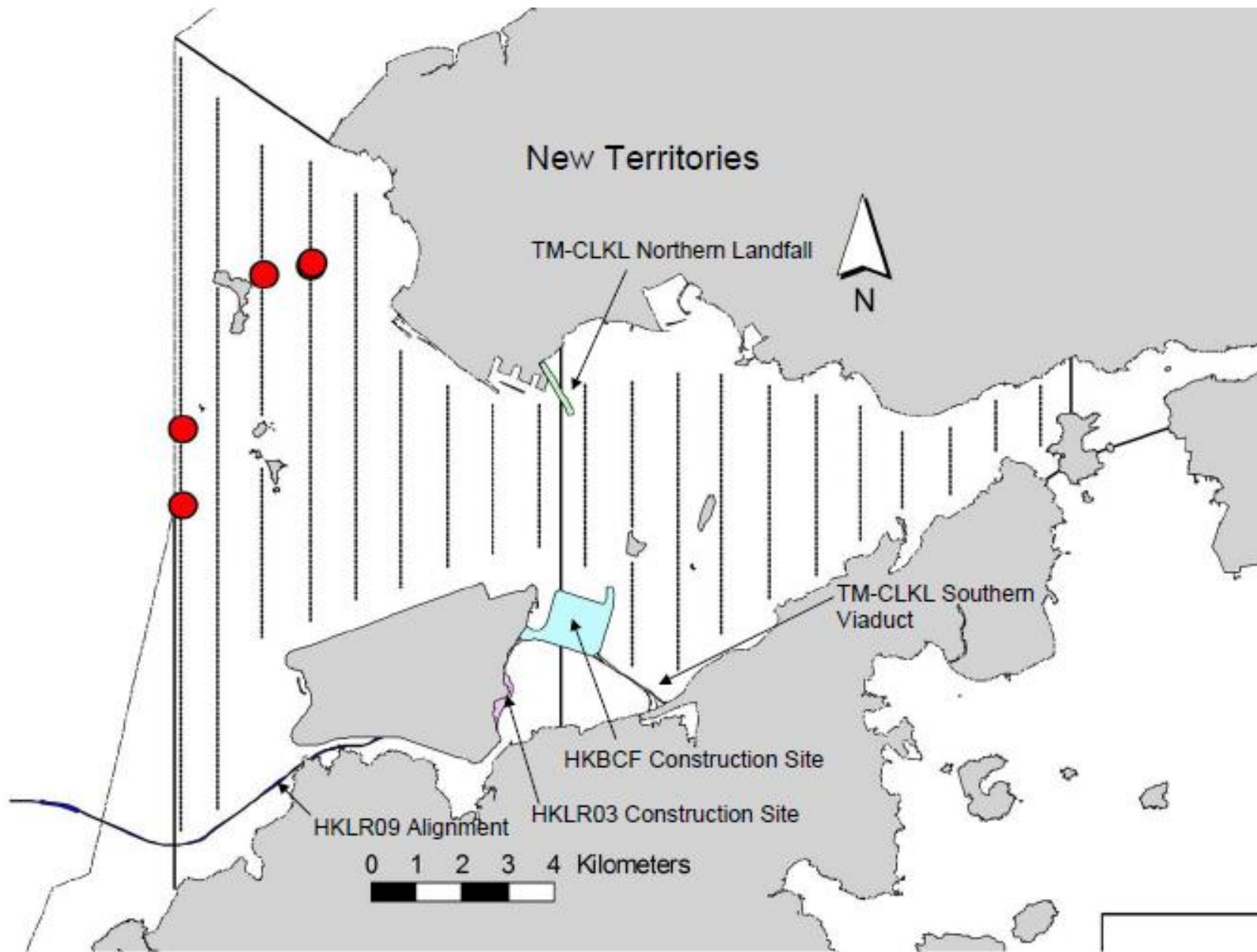


Figure 2.5

HY/2012/07 TM-CLKL Southern Connection Viaduct Section
 The distribution of dolphin sightings during the reporting period
 (Source: Adopted from HKLR03 Monitoring Survey in August 2016)

Date 7/9/2016

Environmental
 Resources
 Management



Table 2.13 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	2.9	2.2	18.1	13.8

Note: Overall dolphin encounter rates (sightings per 100 km of survey effort) from all four surveys are conducted in August 2016 on primary lines only as well as both primary lines and secondary lines in Northeast and Northwest Lantau

One (1) Limit Level exceedance was observed for the quarterly dolphin monitoring data between June and August 2016, whilst 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.

2.4.8 Marine Mammal Exclusion Zone Monitoring

Daily 250 m marine mammal exclusion zone monitoring was undertaken during the period of daytime marine works activities. No sighting of Indo-Pacific humpback dolphin *Sousa chinensis* (i.e. Chinese White Dolphin) were recorded in August 2016 during the exclusion zone monitoring.

Passive Acoustic Monitoring (PAM) had been decommissioned as no marine piling works was carried out outside the daylight hours since September 2015.

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 4, 10, 17 and 25 August 2016.

Key observations during the site inspections are summarized in *Table 2.14*.

Table 2.14 Specific Observations Identified during the Weekly Site Inspections in this Reporting Month

Inspection Date	Environmental Observations	Recommendations/ Remarks
4 August 2016	Pier E12 <ul style="list-style-type: none"> A chemical container was not placed in drip tray. Pier E4 <ul style="list-style-type: none"> 2 chemical containers were not placed in drip tray. The gutter was not properly installed. 	Pier E12 <ul style="list-style-type: none"> Chemical containers should be placed in drip tray. E4 <ul style="list-style-type: none"> Chemical containers should be placed in drip tray. Gutter should be properly installed.
10 August 2016	Area 4 <ul style="list-style-type: none"> A chemical container was not placed in drip tray. Pier C12 <ul style="list-style-type: none"> Label for a chemical container was missing. Refuse was not properly stored. Pier C14 <ul style="list-style-type: none"> Stagnant water was accumulated in drip tray. Area 2 <ul style="list-style-type: none"> Soil stockpile was not well covered. 	Area 4 <ul style="list-style-type: none"> Chemical containers should be placed in drip tray. Pier C12 <ul style="list-style-type: none"> Label for chemical container should be properly displayed. Refuse should be properly stored. Pier C14 <ul style="list-style-type: none"> Stagnant water accumulated in drip tray should be removed. Area 2 <ul style="list-style-type: none"> Soil stockpile should be well covered.
17 August 2016	Seafront area <ul style="list-style-type: none"> Oil stain was found on the ground. A drip tray for chemical container was not plugged. Pier E6 <ul style="list-style-type: none"> Surface runoff control was insufficient. The gutter was not properly installed. Excessive soil was found in gutter. 	Seafront area <ul style="list-style-type: none"> Oil stain on the ground should be removed. A drip tray for chemical container should be plugged. Pier E6 <ul style="list-style-type: none"> Sandbag or toe board should be provided for surface runoff control. The gutter should be properly installed. Excessive soil in gutter should be removed.
25 August 2016	Pier E4 <ul style="list-style-type: none"> Refuse was found in gutter. Pier D14 <ul style="list-style-type: none"> The unpaved area was dry. Grouting material was not well covered. Some chemical containers were not placed in drip tray. 	Pier E4 <ul style="list-style-type: none"> Refuse in gutter should be cleaned up regularly. Pier D14 <ul style="list-style-type: none"> The unpaved area should be watered regularly Grouting material should be well covered. Chemical containers should be placed in drip tray.

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) and recyclable materials. 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 2.15*.

Table 2.15 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)
August 2016	610	0	684	116,990	9,888	0	0	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 2.16* below.

Table 2.16 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
Environmental Permit	EP-353/2009/K	17 July 2015	N/A	HyD	Hong Kong Boundary Crossing Facilities
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 No. 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 No. 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 No. 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 for night works and works in general holidays	GW-RW0339-16	17 Jun 2016	19 Dec 2016	GCL	General works at WA5
Construction Noise Permit for night works and works in general holidays	GW-RS0383-16	20 Apr 2016	19 Oct 2016	GCL	For Broad Permit
Construction Noise Permit for night works and works in general holidays	GW-RW0707-16	11 Jul 2016	30 Sep 2016	GCL	Broad Permit for Segment Launching at Land Portion
Construction Noise Permit for night works and works in general holidays	GW-RS0718-16	13 Jul 2016	13 Jan 2017	GCL	Pre-casted pile cap shell installation at E10-E13
Marine Dumping Permit	EP/MD/17-066	19 Jul 2016	31 Aug 2016	GCL	For dumping Type I (Dedicated Site) and Type II sediment
Marine Dumping Permit	EP/MD/17-037	14 Jun 2016	13 Dec 2016	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 water quality, 1-hour TSP, 24-hour TSP and construction noise monitoring complied with the Action/ Limit levels in the reporting period.

One (1) Limit Level exceedance was observed for the quarterly dolphin monitoring data between June and August 2016, whilst no unacceptable impact from the construction activities of the TM-CLKL Southern Connection Viaduct Section on Chinese White Dolphins was noticeable from general observations.

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 2.6*.

There was no environmental complaint, notification of summons or successful prosecution recorded in the reporting period.

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

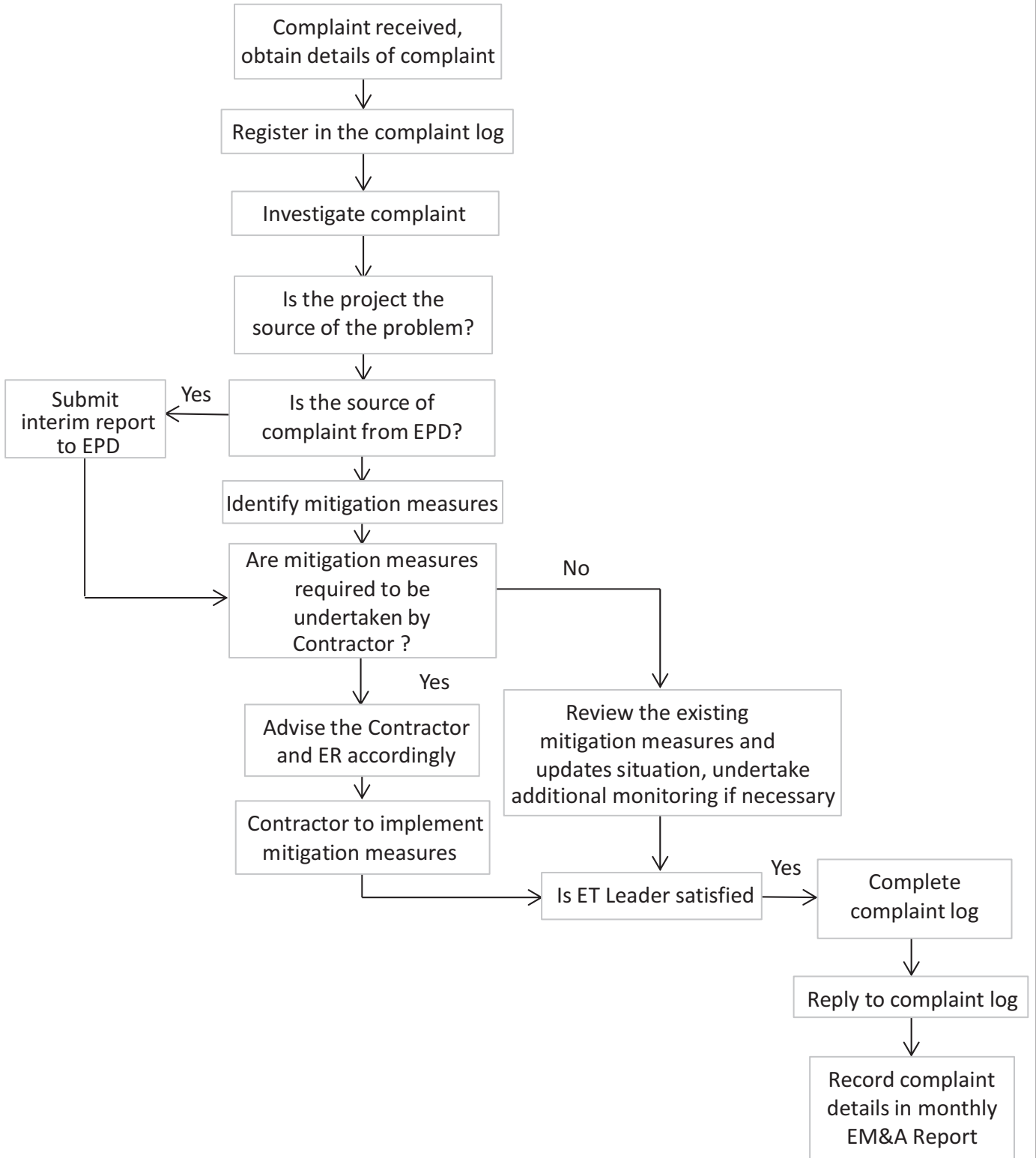


Figure 2.6

Environmental Complaint Handling Procedure

3 *FUTURE KEY ISSUES*

3.1 *CONSTRUCTION PROGRAMME FOR THE COMING MONTH*

As informed by the Contractor, the major works for this Contract in September 2016 will be:

Marine Works

- Uninstallation of marine piling platform;
- Pier construction;
- Launching gantry operation; and
- Installation of deck segment and pier head segment.

Land-based Works

- Pier construction;
- Re-alignment of Cheung Tung Road;
- Construction of land section of berth at Southern Landfall;
- Installation of pier head and deck segments; and
- Slope work of Viaducts A, B & C.

3.2 *KEY ISSUES FOR THE COMING MONTH*

Potential environmental impacts arising from the above upcoming construction activities in the next reporting month of September 2016 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 September 2016 are provided in *Appendix F*.

4.1 CONCLUSIONS

This Thirty-fourth Monthly EM&A Report presents the findings of the EM&A activities undertaken during the period from 1 to 31 August 2016 in accordance with the Updated EM&A Manual and the requirements of the Environmental Permits (*EP-354/2009/D* and *EP-353/2009/K*).

Air quality (1-hour TSP and 24-hour TSP), noise, water quality (DO, turbidity and SS) and dolphin monitoring were carried out in the reporting month. Results for water quality, air quality and noise monitoring complied with the Action and Limit levels in the reporting period.

Five (5) group of 26 Chinese White Dolphin were sighted during the two sets of monitoring surveys in August 2016. One (1) Limit Level exceedance was observed for the quarterly dolphin monitoring data between June and August 2016, whilst no unacceptable impact from the construction activities of the TM-CLKL Southern Connection Viaduct Section on Chinese White Dolphins was noticeable from general observations.

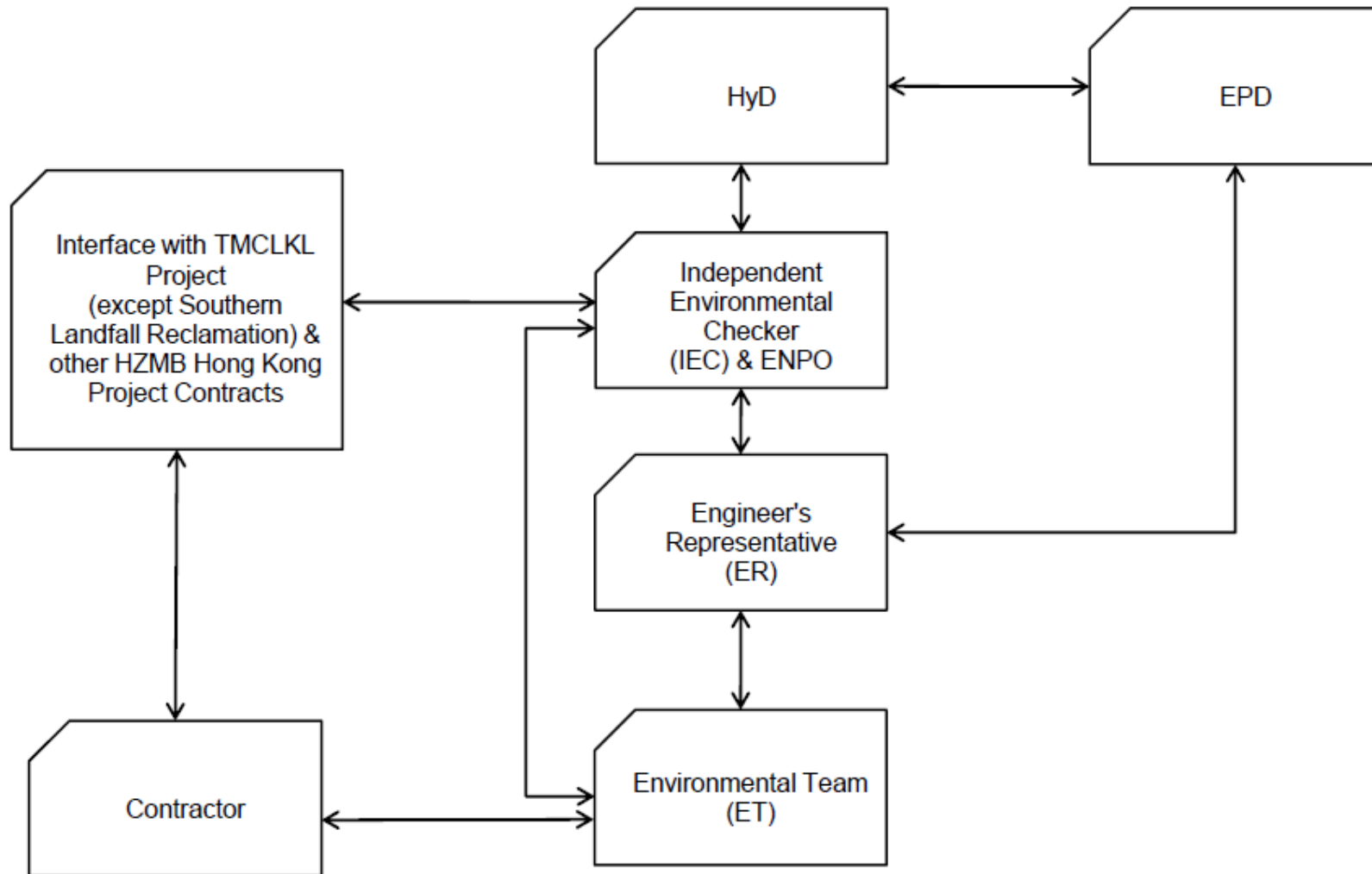
Environmental site inspection was carried out four (4) times in August 2016. Recommendations on remedial actions were given to the Contractor for the deficiencies identified during the site audits.

There was no environmental complaint, notification of summons or successful prosecution recorded in the reporting period.

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	2016																							
												July					August					September					October								
												20	27	04	11	18	25	01	08	15	22	29	05	12	19	26	03	10	17	24					
HY/2012/07 - TM-CLK Link-SC [DWP Revision G] - Status Update 21-07-2016																																			
Contract Key Dates																																			
Possession Dates / Access Period																																			
POS02-3	Portion A - Area 3	0	21-Jul-16*	0%	0		25-Jun-16		-26	0	0%																								
POS02-4	Portion A - Area 4	0	21-Jul-16*	0%	0		25-Jun-16		-26	0	0%																								
POS02-5	Portion A - Area 5	0	21-Jul-16*	0%	0		17-May-16		-65	0	0%																								
POS02-6	Portion A - Area 6	0	21-Jul-16*	0%	0		25-Jun-16		-26	0	0%																								
POS03-7	Portion B - Area 7	0	21-Jul-16*	0%	0		25-Jun-16		-26	0	0%																								
POS03-8	Portion B - Area 8	0	21-Jul-16*	0%	0		17-May-16		-65	0	0%																								
Section Completion Dates																																			
Vacate Works Area																																			
VAC05	Vacate Works Area WA5 (Zone 5C) (CoW + 758 days) - Letter D06850	0		0%	0	21-Jul-16*		29-Jun-16	-21	1322	0%																								
General Submissions																																			
General Requirements																																			
Temporary Works Design																																			
PR00130	Unloading Jetty at HKBCF - Working Platform design and approval	90	02-Jun-14 A	93.33%	6	27-Jul-16	18-Jan-16	23-Jan-16	-148	8	75%																								
Land Works																																			
Land GI Works																																			
PR02204	SQR Sampling & Testing and Approval	110	14-Aug-14 A	94.55%	6	27-Jul-16	30-Mar-15	09-Apr-15	-386	75	95%																								
PR03110	Trial Pits along Cheung Tung Road	20	21-Oct-13 A	70%	6	27-Jul-16	09-Jul-15	15-Jul-15	-307	100	95%																								
Design Submissions																																			
Detailed Design (v18.8 18-08-14)																																			
General Submissions																																			
ARDD0037-2	IC/SO Approval of Seismic Performance Report Viaduct A,B,C,D - AP12.01	75	22-Feb-16 A	60%	30	31-Aug-16	25-May-16	07-Jul-16	-39	361	60%																								
ARDD0037-5	IC/SO Approval of Seismic Performance Report Viaduct E - AP12.02	75	22-Feb-16 A	80%	15	10-Aug-16	16-Jun-16	07-Jul-16	-24	376	80%																								
ARDD0037-7	Preparation of Seismic Performance Report Viaduct F - AP12.03	160	21-Aug-15 A	5%	152	28-Feb-17	06-Aug-15	16-Mar-16	-236	0	5%																								
ARDD0040-1	Preparation of Operation and Maintenance Manual - AP08.00	30	01-Sep-15 A	0%	34	06-Sep-16	26-Jan-16	16-Mar-16	-118	0	0%																								
ARDD0040-2	IC/SO Approval of Operation and Maintenance Manual - AP08.00	75	07-Sep-16	0%	75	22-Dec-16	17-Mar-16	07-Jul-16	-118	282	0%																								
ARDD0042-2	IC/SO Approval of O&M Facility Provisions DDA - BP11.01	75	14-Jan-15 A	54.67%	34	06-Sep-16	26-Jan-16	16-Mar-16	-118	0	50%																								
Viaduct A																																			
Viaduct Design																																			
ARDD0435-8	Viaduct A - IC/SO Consent of Supplemental Working Drawings Viaduct A	10	10-Sep-15 A	98%	0	26-Sep-16	30-May-16	30-May-16	-82	0	98%																								
ARDD0435-9	Viaduct A - IC/SO Consent of Supplemental Working Drawings Viaduct A	0		0%	0	26-Sep-16		30-May-16	-82	0	0%																								
Viaduct F1 & F3																																			
Viaduct Design																																			
ARDD0486-2	Viaduct F1 & F3 - Coordination and Further Issue of Construction Method :	60	02-Mar-15 A	16.67%	50	29-Sep-16	22-Dec-15	07-Mar-16	-141	0	16.7%																								
ARDD0486-3	Viaduct F1 & F3 - Preparation of Draft Working Drawing Set	60	02-Mar-15 A	16.67%	50	29-Sep-16	22-Dec-15	07-Mar-16	-141	0	16.7%																								
ARDD0486-5	Viaduct F1 & F3 - Preparation and Coordination of DDA/Working Drawing	10	30-Sep-16	0%	10	14-Oct-16	08-Mar-16	21-Mar-16	-141	0	0%																								
ARDD0486-7	Viaduct F1 & F3 - IC/SO Consent of Supplemental Working Drawings Viad	10	17-Oct-16	0%	10	28-Oct-16	22-Mar-16	07-Apr-16	-141	0	0%																								
Viaduct F2, F4 and F5																																			
Viaduct Design																																			
ARDD0530-2	Viaduct F2, F4 & F5 - GCL/FRE Issue of Construction Method/Temporary	0		0%	0	21-Jul-16		05-Nov-15	-173	0	0%																								
ARDD0530-3	Viaduct F2, F4 & F5 - Coordination and Further Issue of Construction Mettr	60	21-Jul-16	0%	60	14-Oct-16	06-Nov-15	01-Feb-16	-173	0	0%																								
ARDD0530-4	Viaduct F2, F4 & F5 - Preparation of Draft Working Drawing Set	60	21-Jul-16	0%	60	14-Oct-16	06-Nov-15	01-Feb-16	-173	0	0%																								
ARDD0530-6	Viaduct F2, F4 & F5 - Preparation and Coordination of DDA/Working Draw	10	17-Oct-16	0%	10	28-Oct-16	02-Feb-16	18-Feb-16	-173	0	0%																								
ARDD0530-E	Viaduct F2, F4 & F5 - IC/SO Consent of Supplemental Drawings of Viaduc	10	17-Oct-16	0%	10	28-Oct-16	22-Mar-16	07-Apr-16	-141	0	0%																								
Parapet and Utility Trough																																			
ARDD0562-4	IC/SO Approval of DDA -DP30.01	75	31-Jul-14 A	98%	2	22-Jul-16	15-Feb-16	16-Feb-16	-107	32	98%																								
ARDD0566	IC/SO Approval of DDA -DP31.01	75	24-Oct-14 A	89.33%	8	01-Aug-16	02-Feb-16	16-Feb-16	-113	0	80%																								
ARDD0566-1	IC/SO Approval of DDA -DP31.01	0		0%	0	01-Aug-16		16-Feb-16	-113	92	0%																								
Slopeworks for Viaduct B: 9SE- B/C8, B/C9, B/F9, B/F85+ 10SW-A/F52, A/F53																																			
ARDD0580-5	Preparation of Slope A/F52 Submission - CP12.03	20	10-Feb-15 A	100%	0	08-Jul-16 A					100%																								
ARDD0580-6	IC/SO Approval of Slope - CP12.03	75	21-Sep-15 A	91%	7	29-Jul-16	25-Sep-15	07-Oct-15	-200	0	95%																								
Slopeworks for Viaduct D: 10NW -C/R4, C/F9, C/F10, C/F11, C/F17, C/F50																																			
ARDD0603	IC/SO Approval of Slope Combined AIP/DDA -CP14.01	75	16-Dec-14 A	92%	6	28-Jul-16	18-Jun-15	25-Jun-15	-270	0	95%																								
ARDD0603-1	IC/SO Approval of Slope Combined AIP/DDA -CP14.01	0		0%	0	28-Jul-16		25-Jun-15	-270	0	0%																								
ARDD0604-2	IC/SO Approval of Slope Combined AIP/DDA -CP14.02	75	23-May-15 A	78.67%	16	11-Aug-16	13-Oct-15	04-Nov-15	-190	0	75%																								

<ul style="list-style-type: none"> ■ Actual Work ■ Planned Bar ■ Critical Bar ◆ Milestone 	Project ID: J3518DWPrG-M38 Layout: J3518-DWP-3MRP Submission - M37 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 13 Pages) (Progress as of 21-Jul-16)	<table border="1"> <thead> <tr> <th>Date</th> <th>Revision</th> <th>Checked</th> <th>Approved</th> </tr> </thead> <tbody> <tr> <td>31-May-...</td> <td></td> <td>PKN</td> <td>HF</td> </tr> <tr> <td>02-Jul-16</td> <td></td> <td>PKN</td> <td>HF</td> </tr> <tr> <td>29-Jul-16</td> <td></td> <td>PKN</td> <td>HF</td> </tr> </tbody> </table>	Date	Revision	Checked	Approved	31-May-...		PKN	HF	02-Jul-16		PKN	HF	29-Jul-16		PKN	HF	DWG. No.: J3518/GCL/PGM/3MRP-M38
Date	Revision	Checked	Approved																	
31-May-...		PKN	HF																	
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29-Jul-16		PKN	HF																	

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	2016																							
												July					August					September					October								
												20	27	04	11	18	01	08	15	22	29	05	12	19	26	03	10	17	24						
Other Sub-Contract Procurement																																			
Structural Health Monitoring System (SHMS)																																			
PP7778	SHMS - So approval of Final System Proposal	30	16-Dec-14 A	73.33%	8	29-Jul-16	30-Jul-15	07-Aug-15	-289	0	75%	[Gantt bar: 30-Jul-15 to 07-Aug-15]																							
PP7780	SHMS - Prepare Civil Work Provision	66	21-Jul-16	0%	66	07-Oct-16	30-Jul-15	16-Oct-15	-289	0	0%	[Gantt bar: 30-Jul-15 to 16-Oct-15]																							
PP7788	SHMS - FAT & Delivery for Bridge E5-E6-E7-E8 equipment	54	18-Aug-16	0%	54	22-Oct-16	27-Aug-15	31-Oct-15	-289	100	0%	[Gantt bar: 27-Aug-15 to 31-Oct-15]																							
Site Preparation / Mobilisations																																			
Tree Felling / Transplant																																			
Approved Trees in Contract																																			
TR00220	Tree transplant for Viaduct B - affecting Pier B18 & Abutment B	90	17-Feb-14 A	92.22%	7	28-Jul-16	02-Feb-16	12-Feb-16	-135	1066	96%	[Gantt bar: 02-Feb-16 to 12-Feb-16]																							
Unloading Jetty at HKBCF																																			
PR09060	Unloading Jetty at HKBCF - Conditional survey & temp jetty formation	15	21-Jul-16	0%	15	06-Aug-16	08-Jan-16	25-Jan-16	-156	0	0%	[Gantt bar: 08-Jan-16 to 25-Jan-16]																							
PR09070	Unloading Jetty at HKBCF - Install Unloading Frame incl. testing/commissio	56	08-Aug-16	0%	56	14-Oct-16	26-Jan-16	07-Apr-16	-156	215	0%	[Gantt bar: 26-Jan-16 to 07-Apr-16]																							
CONSTRUCTION																																			
PILING AND SUBSTRUCTURE																																			
Viaduct A																																			
Bridge A2																																			
Pier A1 (A2e)																																			
Pier Head Segments																																			
SA2E0382	A1 (A2e) - Pier Head Segment Lift & Temp Support (2 seg)	7	21-Jul-16	0%	7	28-Jul-16	19-Jul-16	26-Jul-16	-2	126	0%	[Gantt bar: 19-Jul-16 to 26-Jul-16]																							
Pier A2 (A2d)																																			
Pier Works																																			
SA2D0340	A2 (A2d) - Type 4B Pier Head Curing/Striking of Forms/Remove Scaffoldin	6	23-Apr-16 A	100%	0	02-Jul-16 A					100%	[Gantt bar: 02-Jul-16 to 02-Jul-16]																							
Pier A6 (A1f)																																			
Pier Works																																			
SA1F0340	A6 (A1f) - Type 4B-MJ Pier Head Curing/Striking of Forms/Remove Scaffo	6	29-May-16 A	100%	0	10-Jul-16 A					100%	[Gantt bar: 10-Jul-16 to 10-Jul-16]																							
SA1F0350	A6 (A1f) - Type 4B-Bearing Plinth	6	16-Jul-16 A	100%	0	21-Jul-16 A					100%	[Gantt bar: 21-Jul-16 to 21-Jul-16]																							
Bridge A1																																			
Abutment & Approach Ramp A																																			
SA1A0250	AR-A - RE Walls - Excavation/formation/drainage filter & bottom layer to g	72	14-Mar-16 A	79.17%	15	06-Aug-16	15-Feb-20	03-Mar-20	1058	1058	10%	[Gantt bar: 15-Feb-20 to 03-Mar-20]																							
SA1A0290	AR-A - RC Walls construction	48	21-Jul-16	0%	48	14-Sep-16	08-Jul-16	01-Sep-16	-11	126	0%	[Gantt bar: 08-Jul-16 to 01-Sep-16]																							
Viaduct B																																			
Bridge B1																																			
Pier B17 (B1c)																																			
Socketted H-Pile Installation																																			
GFXX324-3	B17 (B1c) - Predrilling	6	12-Sep-16	0%	6	19-Sep-16	02-Mar-16	08-Mar-16	-158	0	0%	[Gantt bar: 02-Mar-16 to 08-Mar-16]																							
GFXX324-5	B17 (B1c) - Confirm Rockhead Levels	6	20-Sep-16	0%	6	26-Sep-16	09-Mar-16	15-Mar-16	-158	0	0%	[Gantt bar: 09-Mar-16 to 15-Mar-16]																							
GFXX325-3	B17 (B1c) - Install SH Pile (10 nr) (incl. proof drilling)	45	27-Sep-16	0%	45	19-Nov-16	16-Mar-16	12-May-16	-158	0	0%	[Gantt bar: 16-Mar-16 to 12-May-16]																							
Pier B18 (B1b) & Abutment B																																			
Preliminary Works for Land Piling																																			
PB180030	B18 (B1b) - Install Geo. Instru. & Baseline Monitoring	36	01-Aug-16	0%	36	10-Sep-16	18-Dec-15	01-Feb-16	-180	0	0%	[Gantt bar: 18-Dec-15 to 01-Feb-16]																							
Socketted H-Pile Installation																																			
GFXX324-4	B18 (B1b) - Predrilling	6	12-Sep-16	0%	6	19-Sep-16	02-Feb-16	11-Feb-16	-180	0	0%	[Gantt bar: 02-Feb-16 to 11-Feb-16]																							
GFXX324-6	B18 (B1b) - Confirm Rockhead Levels	6	20-Sep-16	0%	6	26-Sep-16	12-Feb-16	18-Feb-16	-180	0	0%	[Gantt bar: 12-Feb-16 to 18-Feb-16]																							
GFXX325-4	B18 (B1b) - Install SH Pile (6 no.) (incl. proof drilling)	27	27-Sep-16	0%	27	29-Oct-16	19-Feb-16	21-Mar-16	-180	0	0%	[Gantt bar: 19-Feb-16 to 21-Mar-16]																							
Viaduct C																																			
Bridge C4																																			
Pier C3 (C4c)																																			
Pier Head Segments																																			
SC4C0378	C3 (C4c) - Pier Head Segment Diaphragm - Rebar, Formwork, Concreting	22	20-May-16 A	100%	0	20-Jul-16 A					100%	[Gantt bar: 20-Jul-16 to 20-Jul-16]																							
SC4C0380	C3 (C4c) - Pier Head Segment Diaphragm - Curing & Striking of Forms	6	21-Jul-16	0%	6	27-Jul-16	28-Nov-15	05-Dec-15	-187	36	0%	[Gantt bar: 28-Nov-15 to 05-Dec-15]																							
Bridge C3																																			
Pier C8 (C3d)																																			
Pier Head Segments																																			
SC3D0372	C8 (C3d) - Pier Head Segment Lift & Fix (1 seg)	2	21-Jul-16	0%	2	22-Jul-16	21-Dec-15	22-Dec-15	-169	0	0%	[Gantt bar: 21-Dec-15 to 22-Dec-15]																							
SC3D0378	C8 (C3d) - Pier Head Segment Diaphragm - Rebar, Formwork, Concreting	22	23-Jul-16	0%	22	17-Aug-16	23-Dec-15	20-Jan-16	-169	0	0%	[Gantt bar: 23-Dec-15 to 20-Jan-16]																							
SC3D0380	C8 (C3d) - Pier Head Segment Diaphragm - Curing & Striking of Forms	6	18-Aug-16	0%	6	24-Aug-16	21-Jan-16	27-Jan-16	-169	86	0%	[Gantt bar: 21-Jan-16 to 27-Jan-16]																							
Pier C10 (C3b)																																			
Pier Head Segments																																			

■ Actual Work
■ Planned Bar
■ Critical Bar
◆ Milestone

Project ID: J3518DWPrG-M38
 Layout: J3518-DWP-3MRP Submission - M37
 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 13 Pages)
(Progress as of 21-Jul-16)

Date	Revision	Checked	Approved
31-May-...		PKN	HF
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DWG. No.:
J3518/GCL/PGM/3MRP-M38

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												July					August					September					October								
												20	27	04	11	18	25	01	08	15	22	29	05	12	19	26	03	10	17	24					
Pier Head Segment - E3D (E2a1)																																			
SE2A1372	E3D (E2a1) - Pier Head Segment Lift & Temp Support (2 seg)	7	21-Jul-16*	0%	7	28-Jul-16	16-May-16	24-May-16	-54	86	0%																								
E4A & E4B (E2b - 1/2)																																			
Pier Works - E4A & E4B																																			
Pier Works - E4B (E2b1)																																			
E4B2030	E4B - Seagull Pier Temp. Work, Rebar, Formwork, Concreting - Upper Dia	24	09-May-16 A	100%	0	04-Jul-16 A					100%																								
E4B2040	E4B - Seagull Pier Curing, CJ, Remove Formwork & Falsework	20	05-Jul-16 A	80%	4	25-Jul-16	19-Aug-15	22-Aug-15	-272	0	80%																								
Pier Head Segements - E4A & E4B																																			
Pier head Segment - E4A (E2b2)																																			
E4A3120	E4A - Install Pierhead Segments (4 nr)	6	29-Apr-16 A	100%	0	30-Jun-16 A					100%																								
E4A3130	E4A - Diaphragm of PHS - Formwork, Rebar, Concreting	52	02-Jul-16 A	10%	47	13-Sep-16	11-Jul-15	03-Sep-15	-305	0	10%																								
E4A3140	E4A - Remove Rail Beams, Megashore Towers	13	13-Sep-16	0%	13	29-Sep-16	04-Sep-15	18-Sep-15	-305	0	0%																								
E4A3150	E4A - Install Infill Segments (4 nr), Adjust, Stress, Stitch & Remove Equipm	21	29-Sep-16	0%	21	26-Oct-16	19-Sep-15	15-Oct-15	-305	0	0%																								
Pier head Segment - E4B (E2b1)																																			
E4B3110	E4B - Temp. Work, Grillages, Megashore Towers, Rail Beams	19	26-Jul-16	0%	19	16-Aug-16	24-Aug-15	14-Sep-15	-272	0	0%																								
E4B3120	E4B - Install Pierhead Segments (4 nr)	6	17-Aug-16	0%	6	23-Aug-16	15-Sep-15	21-Sep-15	-272	0	0%																								
E4B3130	E4B - Diaphragm of PHS - Formwork, Rebar, Concreting	53	24-Aug-16	0%	53	27-Oct-16	22-Sep-15	25-Nov-15	-272	0	0%																								
E5A & E5B (E2c - 1/2)																																			
Pier Works - E5A & E5B																																			
Pier Works - E5A (E2c2)																																			
E5A2030	E5A - Seagull Pier Curing, CJ, Remove Formwork & Falsework	14	06-Jun-16 A	100%	0	29-Jun-16 A					100%																								
Pier Works - E5B (E2c1)																																			
E5B2020	E5B - Seagull Pier Temp. Work, Rebar, Formwork, Concreting - Arm (Solid)	73	19-Mar-16 A	100%	0	18-Jul-16 A					100%																								
E5B2030	E5B - Seagull Pier Curing, CJ, Remove Formwork & Falsework	21	19-Jul-16 A	5%	20	12-Aug-16	30-Apr-16	25-May-16	-66	0	5%																								
Pier Head Segements - E5A & E5B																																			
Pier head Segment - E5A (E2c2)																																			
E5A3110	E5A - Temp. Work, Rail Beams	21	28-Jun-16 A	71.43%	6	27-Jul-16	27-Jan-16	02-Feb-16	-140	0	90%																								
E5A3120	E5A - Install Pierhead Segments (4 nr)	6	28-Jul-16	0%	6	03-Aug-16	03-Feb-16	12-Feb-16	-140	0	0%																								
E5A3130	E5A - Diaphragm of PHS - Formwork, Rebar, Concreting	41	04-Aug-16	0%	41	21-Sep-16	13-Feb-16	05-Apr-16	-140	0	0%																								
E5A3140	E5A - Remove Rail Beams	14	22-Sep-16	0%	14	08-Oct-16	06-Apr-16	21-Apr-16	-140	0	0%																								
E5A3150	E5A - Install Infill Segments (4 nr), Adjust, Stress, Stitch & Remove Equipm	21	11-Oct-16	0%	21	03-Nov-16	22-Apr-16	18-May-16	-140	0	0%																								
Pier head Segment - E5B (E2c1)																																			
E5B3110	E5B - Temp. Work, Rail Beams	20	12-Aug-16	0%	20	05-Sep-16	26-May-16	18-Jun-16	-66	0	0%																								
E5B3120	E5B - Install Pierhead Segments (4 nr)	6	05-Sep-16	0%	6	12-Sep-16	20-Jun-16	25-Jun-16	-66	0	0%																								
E5B3130	E5B - Diaphragm of PHS - Formwork, Rebar, Concreting	41	12-Sep-16	0%	41	02-Nov-16	27-Jun-16	13-Aug-16	-66	0	0%																								
E6A & E6B (E2d - 1/2)																																			
Pier Works - E6A & E6B																																			
Pier Works - E6A (E2d2)																																			
E6A2030	E6A - Seagull Pier Curing, CJ, Remove Formwork & Falsework	21	17-Jun-16 A	100%	0	06-Jul-16 A					100%																								
Pier Works - E6B (E2d1)																																			
E6B2020	E6B - Seagull Pier Temp. Work, Rebar, Formwork, Concreting - Arm (Solid)	68	25-May-16 A	70%	20	13-Aug-16	30-Mar-16	23-Apr-16	-91	0	70%																								
E6B2030	E6B - Seagull Pier Curing, CJ, Remove Formwork & Falsework	21	13-Aug-16	0%	21	07-Sep-16	25-Apr-16	20-May-16	-91	0	0%																								
Pier head Segment - E6A & E6B																																			
Pier head Segment - E6A (E2d2)																																			
E6A3110	E6A - Temp. Work, Rail Beams	25	04-Jul-16 A	68%	8	29-Jul-16	19-Aug-15	27-Aug-15	-272	0	40%																								
E6A3120	E6A - Install Pierhead Segments (4 nr)	6	30-Jul-16	0%	6	05-Aug-16	28-Aug-15	03-Sep-15	-272	0	0%																								
E6A3130	E6A - Diaphragm of PHS - Formwork, Rebar, Concreting	43	06-Aug-16	0%	43	26-Sep-16	04-Sep-15	27-Oct-15	-272	0	0%																								
E6A3140	E6A - Remove Rail Beams	14	27-Sep-16	0%	14	14-Oct-16	28-Oct-15	12-Nov-15	-272	0	0%																								
E6A3150	E6A - Install Infill Segments (4 nr), Adjust, Stress, Stitch & Remove Equipm	21	15-Oct-16	0%	21	08-Nov-16	13-Nov-15	07-Dec-15	-272	33	0%																								
Pier head Segment - E6B (E2d1)																																			
E6B3110	E6B - Temp. Work, Rail Beams	20	07-Sep-16	0%	20	03-Oct-16	21-May-16	14-Jun-16	-91	0	0%																								
E6B3120	E6B - Install Pierhead Segments (4 nr)	6	03-Oct-16	0%	6	11-Oct-16	15-Jun-16	21-Jun-16	-91	0	0%																								
E6B3130	E6B - Diaphragm of PHS - Formwork, Rebar, Concreting	43	11-Oct-16	0%	43	30-Nov-16	22-Jun-16	11-Aug-16	-91	0	0%																								
E7A & E7B (E2e - 1/2)																																			
Pier Works - E7A & E7B																																			
Pier Works - E7A (E2e2)																																			
E7A2020	E7A - Seagull Pier Temp. Work, Rebar, Formwork, Concreting - Arm (Hollo	44	29-Mar-16 A	100%	0	23-Jun-16 A					100%																								
E7A2030	E7A - Seagull Pier Temp. Work, Rebar, Formwork, Concreting - Upper Dia	24	24-Jun-16 A	5%	23	16-Aug-16	28-Dec-15	23-Jan-16	-165	0	10%																								
E7A2040	E7A - Seagull Pier Curing, CJ, Remove Formwork & Falsework	20	16-Aug-16	0%	20	08-Sep-16	25-Jan-16	19-Feb-16	-165	0	0%																								
Pier Works - E7B (E2e1)																																			
E7B2020	E7B - Seagull Pier Temp. Work, Rebar, Formwork, Concreting - Arm (Hollo	66	12-Apr-16 A	70%	20	12-Aug-16	18-Jul-15	10-Aug-15	-299	0	70%																								
E7B2030	E7B - Seagull Pier Temp. Work, Rebar, Formwork, Concreting - Upper Dia	24	12-Aug-16	0%	24	09-Sep-16	11-Aug-15	07-Sep-15	-299	0	0%																								

■ Actual Work
■ Planned Bar
■ Critical Bar
◆ Milestone

Project ID: J3518DWPrg-M38
 Layout: J3518-DWP-3MRP Submission - M37
 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 7 of 13 Pages)
(Progress as of 21-Jul-16)

Date	Revision	Checked	Approved
31-May-...		PKN	HF
02-Jul-16		PKN	HF
29-Jul-16		PKN	HF

DWG. No.:
J3518/GCL/PGM/3MRP-M38

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	2016																							
												July					August					September					October								
												20	27	04	11	18	01	08	15	22	29	05	12	19	26	03	10	17	24						
Pier Works - E13D																																			
Pier Works																																			
E13D2000	E13D - Seagull Pier Temp. Work, Rebar, Formwork, Concreting - Stem	30	02-Jul-16 A	10%	27	20-Aug-16	12-May-15	12-Jun-15	-354	0	10%	[Gantt bar: 12-May-15 to 12-Jun-15]																							
E13D2010	E13D - Seagull Pier Temp. Work, Rebar, Formwork, Concreting - Lower D	21	22-Aug-16	0%	21	14-Sep-16	13-Jun-15	09-Jul-15	-354	0	0%	[Gantt bar: 13-Jun-15 to 09-Jul-15]																							
E13D2020	E13D - Seagull Pier Temp. Work, Rebar, Formwork, Concreting - Lower A	30	15-Sep-16	0%	30	22-Oct-16	10-Jul-15	13-Aug-15	-354	0	0%	[Gantt bar: 10-Jul-15 to 13-Aug-15]																							
E14A, E14B, E14C & E14D (E8d/E7d/E6d/E5d)																																			
Foundation Works - E14																																			
GFXX540	Review BCF Foundation Design, Pile Test & Finalize Design	67	21-Jul-16	0%	67	08-Oct-16	17-Sep-14	05-Dec-14	-544	0	0%	[Gantt bar: 17-Sep-14 to 05-Dec-14]																							
GFXX545	Mobilization & Assembling Bored Pile Plant & Equipment for Viaducts in HKI	14	11-Oct-16	0%	14	26-Oct-16	06-Dec-14	22-Dec-14	-544	0	0%	[Gantt bar: 06-Dec-14 to 22-Dec-14]																							
Viaduct F																																			
Approach Ramp F																																			
Approach Ramp Land Foundation - HKBCF																																			
Approach Ramp F Piling																																			
GFXX593	AR-F - Pre-drilling for Piles (25 nos)	24	11-Oct-16	0%	24	07-Nov-16	17-Feb-15	19-Mar-15	-485	0	0%	[Gantt bar: 17-Feb-15 to 19-Mar-15]																							
SUPERSTRUCTURE																																			
Assembling, relocation and dismantle of lifting equipment																																			
Launching Gantry 2																																			
FR000099	Assembly of Launching Gantry LG2 on Temp.Loading Platform	12	06-May-15 A	0%	12	03-Aug-16	19-Feb-20	03-Mar-20	1061	1061	0%	[Gantt bar: 19-Feb-20 to 03-Mar-20]																							
Viaduct B Superstructure																																			
Bridge B2 Superstructure																																			
Deck installation																																			
FR000011B	Viaduct B2 - Cantilever at Pier B10 (B2c) (16 seg) - by crane	17	16-Jun-16 A	0%	26	19-Aug-16	03-Feb-20	03-Mar-20	1047	1047	28.6%	[Gantt bar: 03-Feb-20 to 03-Mar-20]																							
FR000011C	Viaduct B2 - Complete stitches and launch to B11	22	08-Aug-16	0%	22	01-Sep-16	22-Apr-16	19-May-16	-88	0	0%	[Gantt bar: 22-Apr-16 to 19-May-16]																							
FR000012	Viaduct B2 - Cantilever at Pier B9 (B2d) (20 seg) - MTR Crossing - LG1	26	21-Apr-16 A	42.31%	15	06-Aug-16	05-Apr-16	21-Apr-16	-88	0	80%	[Gantt bar: 05-Apr-16 to 21-Apr-16]																							
FR000014	Viaduct B2 - Cantilever at Pier B11 (B2b) (16 seg) - LG1 (2 shifts)	4	02-Sep-16	0%	4	06-Sep-16	20-May-16	24-May-16	-88	0	0%	[Gantt bar: 20-May-16 to 24-May-16]																							
FR000014A	Viaduct B2 - Launching LG1 B11 to B12 - 2 shifts	1	07-Sep-16	0%	1	07-Sep-16	25-May-16	25-May-16	-88	0	0%	[Gantt bar: 25-May-16 to 25-May-16]																							
FR000015	Viaduct B2 - End Span at Pier B12 (B2a) (6 seg) - LG1 (2 shifts)	6	08-Sep-16	0%	6	14-Sep-16	26-May-16	01-Jun-16	-88	0	0%	[Gantt bar: 26-May-16 to 01-Jun-16]																							
FR0000211	Viaduct B2 - Complete B6/B7/B8 stitches & stressing & transport segments	49	13-Jan-16 A	52.58%	23	16-Aug-16	27-Aug-16	23-Sep-16	32	187	100%	[Gantt bar: 27-Aug-16 to 23-Sep-16]																							
Bridge B1 Superstructure																																			
Deck installation																																			
FR000017	Viaduct B1 - End Span at Pier B12 (B2a) (6 seg) - LG1 (2 shifts)	14	15-Sep-16	0%	14	03-Oct-16	01-Aug-16	16-Aug-16	-39	0	0%	[Gantt bar: 01-Aug-16 to 16-Aug-16]																							
FR000017-T	Viaduct B1 - Launching LG1 B12 to B14 & 1st pair - 2 shifts	4	15-Sep-16	0%	4	20-Sep-16	11-Aug-16	15-Aug-16	-30	0	0%	[Gantt bar: 11-Aug-16 to 15-Aug-16]																							
FR000017A	Viaduct B1 - Launching B12 to B15 & 1st pair - 2 shifts	5	04-Oct-16	0%	5	08-Oct-16	17-Aug-16	22-Aug-16	-39	0	0%	[Gantt bar: 17-Aug-16 to 22-Aug-16]																							
FR000018	Viaduct B1 - Cantilever at Pier B14 (B1f) (24 seg) - LG1 (2 shifts)	6	21-Sep-16	0%	6	27-Sep-16	16-Aug-16	22-Aug-16	-30	9	0%	[Gantt bar: 16-Aug-16 to 22-Aug-16]																							
FR000018B	Viaduct B1 - Cantilever at Pier B13 (24 seg) - 2 shifts	6	21-Jul-16	0%	6	27-Jul-16	25-Jul-16	30-Jul-16	3	42	0%	[Gantt bar: 25-Jul-16 to 30-Jul-16]																							
FR000019	Viaduct B1 - Cantilever at Pier B15 (B1e) (26 seg) - LG1 (2 shifts)	7	11-Oct-16	0%	7	18-Oct-16	23-Aug-16	30-Aug-16	-39	0	0%	[Gantt bar: 23-Aug-16 to 30-Aug-16]																							
FR000019A	Viaduct B1 - Launching B15 to B16 & 1st pair - 2 shifts	3	19-Oct-16	0%	3	21-Oct-16	31-Aug-16	02-Sep-16	-39	0	0%	[Gantt bar: 31-Aug-16 to 02-Sep-16]																							
Viaduct C Superstructure																																			
Bridge C4 Superstructure																																			
Deck installation																																			
FR000041B	Viaduct C4 - Launching LG2 E3C to C1 - 2 shifts	3	30-Jul-16	0%	3	02-Aug-16	28-Oct-15	30-Oct-15	-223	0	0%	[Gantt bar: 28-Oct-15 to 30-Oct-15]																							
FR000049	Viaduct C4 - End Span at Pier C1 (C4e) (8 seg) - LG2	6	03-Aug-16	0%	6	09-Aug-16	31-Oct-15	06-Nov-15	-223	0	0%	[Gantt bar: 31-Oct-15 to 06-Nov-15]																							
FR000050	Viaduct C4 - Cantilever at Pier C2 (C4d) (12 seg) - ALF 1/2	12	13-Apr-16 A	8.33%	11	02-Aug-16	03-Jun-16	16-Jun-16	-39	0	83.33%	[Gantt bar: 03-Jun-16 to 16-Jun-16]																							
FR000050A	Viaduct C4 - Relocate ALF 1/2 C2 to C5	2	03-Aug-16	0%	2	04-Aug-16	02-Mar-20	03-Mar-20	1060	1060	0%	[Gantt bar: 02-Mar-20 to 03-Mar-20]																							
FR000051	Viaduct C4 - End Span at Pier C1 (C4e) (7 seg) - LG2 (2 Shifts)	14	17-Sep-16	0%	14	04-Oct-16	15-Dec-15	02-Jan-16	-223	0	0%	[Gantt bar: 15-Dec-15 to 02-Jan-16]																							
FR000051-1	Viaduct C4 - Launching LG2 C1 to C2	1	17-Aug-16	0%	1	17-Aug-16	14-Nov-15	14-Nov-15	-223	0	0%	[Gantt bar: 14-Nov-15 to 14-Nov-15]																							
FR000051-2	Viaduct C4 - Cantilever at C2 remaining (4 seg) -2 shifts	1	18-Aug-16	0%	1	18-Aug-16	16-Nov-15	16-Nov-15	-223	0	0%	[Gantt bar: 16-Nov-15 to 16-Nov-15]																							
FR000051-3	Viaduct C4 - Launching C2 to C5 - 2 shifts	3	19-Aug-16	0%	3	22-Aug-16	17-Nov-15	19-Nov-15	-223	0	0%	[Gantt bar: 17-Nov-15 to 19-Nov-15]																							
FR000051-4	Viaduct C4 - Cantilever at C5 remaining (4 seg)	1	23-Aug-16	0%	1	23-Aug-16	20-Nov-15	20-Nov-15	-223	0	0%	[Gantt bar: 20-Nov-15 to 20-Nov-15]																							
FR000051-5	Viaduct C4 - Launching C5 to C6 - 2 shifts	1	24-Aug-16	0%	1	24-Aug-16	21-Nov-15	21-Nov-15	-223	0	0%	[Gantt bar: 21-Nov-15 to 21-Nov-15]																							
FR000051A	Viaduct C4 - Launching C1 to C6 - 2 shifts	5	05-Oct-16	0%	5	11-Oct-16	04-Jan-16	08-Jan-16	-223	0	0%	[Gantt bar: 04-Jan-16 to 08-Jan-16]																							
FR000052	Viaduct C4 - Cantilever at Pier C3 (C4c) (20 seg) - LG2 (2 shifts)	5	08-Sep-16	0%	5	13-Sep-16	07-Dec-15	11-Dec-15	-223	0	0%	[Gantt bar: 07-Dec-15 to 11-Dec-15]																							
FR000053	Viaduct C4 - Cantilever at Pier C4 (C4b) (18 seg) - THB	18	21-Jul-16	0%	18	10-Aug-16	26-May-16	16-Jun-16	-46	186	0%	[Gantt bar: 26-May-16 to 16-Jun-16]																							
FR000053-1	Viaduct C4 - Relocate ALF 1/2 pier D4 to pier C2	2	21-Jul-16	0%	2	22-Jul-16	02-Mar-20	03-Mar-20	1071	1071	0%	[Gantt bar: 02-Mar-20 to 03-Mar-20]																							
FR000053A	Viaduct C4 - Launching C3 to C1 - 2 shifts	2	14-Sep-16	0%	2	15-Sep-16	12-Dec-15	14-Dec-15	-223	0	0%	[Gantt bar: 12-Dec-15 to 14-Dec-15]																							
FR000054	Viaduct C4 - Cantilever at Pier C5 (C4a) (16 seg) - ALF 1/2	16	25-May-16 A	81.25%	3	23-Jul-16	24-Oct-15	27-Oct-15	-218	0	50%	[Gantt bar: 24-Oct-15 to 27-Oct-15]																							
FR000054-1	Viaduct C4 - Relocate ALF 1/2 pier C5 to pier D5	2	25-Jul-16	0%	2	26-Jul-16	28-Oct-15	29-Oct-15	-218	1	0%	[Gantt bar: 28-Oct-15 to 29-Oct-15]																							
FR000057	Viaduct C4 - End Span at Pier C6 (C3f) (7 seg) - LG2 (2 shifts)	6	25-Aug-16	0%	6	31-Aug-16	23-Nov-15	28-Nov-15	-223	0	0%	[Gantt bar: 23-Nov-15 to 28-Nov-15]																							
FR000057A	Viaduct C4 - Launching C6 to C4 - 2 shifts	2	01-Sep-16	0%	2	02-Sep-16	30-Nov-15	01-Dec-15	-223	0	0%	[Gantt bar: 30-Nov-15 to 01-Dec-15]																							
FR000057B	Viaduct C4 - Cantilever at C4 remaining (4 seg) - 2 shifts	1	03-Sep-16	0%	1	03-Sep-16	02-Dec-15	02-Dec-15	-223	0	0%	[Gantt bar: 02-Dec-15 to 02-Dec-15]																							
FR000057C	Viaduct C4 - Launching C4 to C3 & 1st pair - 2 shifts	3	05-Sep-16	0%	3	07-Sep-16	03-Dec-15	05-Dec-15	-223	0	0%	[Gantt bar: 03-Dec-15 to 05-Dec-15]																							

■ Actual Work
■ Planned Bar
■ Critical Bar
◆ Milestone

Project ID: J3518DWPrg-M38
 Layout: J3518-DWP-3MRP Submission - M37
 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 13 Pages)
(Progress as of 21-Jul-16)

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02-Jul-16		PKN	HF
29-Jul-16		PKN	HF

DWG. No.:
J3518/GCL/PGM/3MRP-M38

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	2016															
												July				August				September				October			
												20	27	04	11	18	25	01	08	15	22	29	05	12	19	26	03
Bridge C3 Superstructure																											
Deck installation																											
FR000055	Viaduct C3 - End Span at Pier C6 (C3f) (7 seg) - LG2 (2 Shifts)	14	12-Oct-16	0%	14	27-Oct-16	09-Jan-16	25-Jan-16	-223	0	0%																
FR000056	Viaduct C3 - Cantilever at Pier C7 (C3e) - MTR Crossing (21 seg) - K Frar	30	19-Oct-16	0%	30	22-Nov-16	07-Dec-15	13-Jan-16	-255	0	0%																
FR000103-1	Viaduct C3 - Relocate K Frame from Pier D7 to Pier C7	12	04-Oct-16	0%	12	18-Oct-16	23-Nov-15	05-Dec-15	-255	0	0%																
Bridge C2 Superstructure																											
Deck installation																											
FR000061	Viaduct C2 - End Span at Pier C11 (C3a) (up) (6 seg) - Crane	6	26-Aug-16	0%	6	01-Sep-16	12-Jul-16	18-Jul-16	-39	169	0%																
FR000062	Viaduct C2 - Cantilever at Pier C12 (C2f) (16 seg) - crane	16	28-Jul-16*	0%	16	15-Aug-16	28-May-16	16-Jun-16	-50	9	0%																
FR000064	Viaduct C2 - Cantilever at Pier C13 (C2e) (17 seg) - Crane	25	17-Aug-16*	0%	25	14-Sep-16	16-Mar-16	18-Apr-16	-124	0	0%																
FR000065	Viaduct C2 - Cantilever at Pier C14 (C2d) (16 seg) - Crane	24	15-Sep-16	0%	24	15-Oct-16	19-Apr-16	18-May-16	-124	0	0%																
FR000066	Viaduct C2 - Cantilever at Pier C15 (C2c) (16 seg) - Crane	24	17-Oct-16	0%	24	12-Nov-16	19-May-16	16-Jun-16	-124	84	0%																
Bridge C1 Superstructure																											
Deck installation																											
FR000068	Viaduct C1 - Cantilever at Pier C17 (C2a) (24 seg) - Crane	25	19-Oct-16*	0%	25	16-Nov-16	06-Feb-16	09-Mar-16	-205	0	0%																
Viaduct D Superstructure																											
Bridge D3 Superstructure																											
Deck installation																											
FR001212	Viaduct D3 - Cantilever at Pier D5 (D4b) (14 seg) - ALF 1/2	14	28-Jul-16	0%	14	12-Aug-16	30-Oct-15	16-Nov-15	-218	87	0%																
FR100058	Viaduct D3 - Pier D3 (D4d) (2 seg)	6	21-Jul-16	0%	6	27-Jul-16	30-May-16	04-Jun-16	-43	180	0%																
FR100059	Viaduct D3 - Pier D4 (D4c) (2 seg)	6	21-Jul-16	0%	6	27-Jul-16	26-Feb-20	03-Mar-20	1067	1067	0%																
FR100059-1	Viaduct D3 - Pier D5 (D4b) (2 seg)	6	21-Jul-16	0%	6	27-Jul-16	23-Oct-15	29-Oct-15	-219	0	0%																
FR100070	Viaduct D3 - Pier D2 (D4e) (2 seg)	6	21-Jul-16	0%	6	27-Jul-16	08-Jun-16	15-Jun-16	-35	188	0%																
Bridge D2 Superstructure																											
Deck installation																											
FR000103	Viaduct D2 - Cantilever at Pier D7 (D3e) (14 seg) - K Frame	33	26-Feb-16 A	0%	62	03-Oct-16	08-Sep-15	21-Nov-15	-255	0	42.9%																
FR000108	Viaduct D2 - Cantilever at Pier D10 (D3b) (14 seg) - THB	22	14-Sep-16*	0%	22	12-Oct-16	09-May-16	03-Jun-16	-107	0	0%																
FR000108A	Viaduct D2 - Relocate D10 to D14	3	13-Oct-16	0%	3	15-Oct-16	29-Feb-20	03-Mar-20	1001	1001	0%																
FR000112A	Viaduct D1 - Relocate D14 to D12	3	19-Oct-16	0%	3	21-Oct-16	25-Apr-16	27-Apr-16	-145	0	0%																
FR100062	Viaduct D2 - Pier D9 (D3c) (2 seg)	6	25-Aug-16	0%	6	31-Aug-16	30-Mar-16	07-Apr-16	-121	102	0%																
Bridge D1 Superstructure																											
Deck installation																											
FR000073	Viaduct D1 - Cantilever at D16 (4 seg) - Crane	22	25-Jul-16	0%	22	18-Aug-16	28-Apr-16	25-May-16	-71	0	0%																
FR000112	Viaduct D1 - Cantilever at Pier D14 (D2c) (12 seg) - THB	22	25-May-16 A	0%	74	18-Oct-16	21-Jan-16	23-Apr-16	-145	0	16.67%																
FR000114	Viaduct D1 - Cantilever at Pier D15 (D2b) (14 seg) - Crane	25	19-Aug-16	0%	25	17-Sep-16	26-May-16	24-Jun-16	-71	59	0%																
FR000115-1	Viaduct D1 - Cantilever at Pier D16 (D2a) (14 seg) - THB	22	25-Jul-16	0%	22	18-Aug-16	30-May-16	24-Jun-16	-46	160	0%																
FR000116-1	Viaduct D1 - Relocate THB from Pier D17 to Pier D18	3	21-Jul-16	0%	3	23-Jul-16	29-Feb-20	03-Mar-20	1070	1070	0%																
FR000117-1	Viaduct D1 - Relocate THB from Pier D18 to Pier D16	3	21-Jul-16	0%	3	23-Jul-16	25-Apr-16	27-Apr-16	-71	0	0%																
FR100068	Viaduct D1 - Abutment End Span at Pier D19 (D1b) (3 seg) - Crane	22	01-Apr-16 A	0%	48	14-Sep-16	27-Apr-16	24-Jun-16	-69	137	66.67%																
Viaduct E																											
Bridge E1 Superstructure																											
Deck Installation																											
FR000026A	Viaduct E1 - Launching LG2 B1 to E3A - 2 shifts	2	21-Jul-16	0%	2	22-Jul-16	18-Feb-20	19-Feb-20	1060	0	0%																
FR000033	Viaduct E1 - End Span at Pier E3-A (E2a4) (5 seg) - LG2 (2 shifts)	6	23-Jul-16	0%	6	29-Jul-16	20-Feb-20	26-Feb-20	1060	0	0%																
FR000033-T	Viaduct E1 - Launching LG2 E3A to E1B & 1st pair	5	30-Jul-16	0%	5	04-Aug-16	27-Feb-20	03-Mar-20	1060	1060	0%																
FR000035-T	Viaduct E1 - Launching LG2 E3B to D1 - 2 shifts	2	29-Jul-16	0%	2	30-Jul-16	18-Feb-20	19-Feb-20	1053	0	0%																
FR000035A	Viaduct E1 - Launching E1B to E2B & 1st pair - 2 shifts	3	21-Jul-16	0%	3	23-Jul-16	29-Feb-20	03-Mar-20	1070	1070	0%																
FR000037A	Viaduct E1 - Launching LG2 E2B to E3B - 2 shifts	1	21-Jul-16	0%	1	21-Jul-16	10-Feb-20	10-Feb-20	1053	0	0%																
FR000038	Viaduct E1 - End Span at Pier E3-B (E2a3) (6 seg) - LG2 (2 shifts)	6	22-Jul-16	0%	6	28-Jul-16	11-Feb-20	17-Feb-20	1053	0	0%																
FR000040	Viaduct E1 - Cantilever at Pier E2-C (E1b2) (16 seg) - 2 shifts	4	29-May-16 A	0%	4	25-Jul-16	27-Feb-20	02-Mar-20	1068	0	31.25%																
FR000040A	Viaduct E1 - Launching E2C to E1C - 2 shifts	1	26-Jul-16	0%	1	26-Jul-16	03-Mar-20	03-Mar-20	1068	1068	0%																
FR000040C	Viaduct E1 - Launching LG2 E1C to E3C - 2 shifts	2	21-Jul-16	0%	2	22-Jul-16	17-Oct-15	19-Oct-15	-223	0	0%																
FR000041	Viaduct E1 - End Span at Pier E3-C (E2a2) (6 seg) - LG2 (2 shifts)	6	23-Jul-16	0%	6	29-Jul-16	20-Oct-15	27-Oct-15	-223	0	0%																
FR000043	Viaduct E1 - Cantilever at Pier E2-D (E1b1) (16 seg) - THB	21	19-Aug-16	0%	21	12-Sep-16	25-May-16	18-Jun-16	-72	134	0%																
FR000044	Viaduct E1 - Cantilever at Pier E1-D (E1a1) (13 seg) - THB	12	05-Oct-16	0%	12	19-Oct-16	04-Jun-16	18-Jun-16	-101	105	0%																
FR000123	Viaduct E1 - End Span at Pier D1 (D4f) (dwn) (7 seg) - LG2 (2 shifts)	6	01-Aug-16	0%	6	06-Aug-16	20-Feb-20	26-Feb-20	1053	0	0%																
FR000123A	Viaduct E1 - Launching LG2 D1 to E2C & 1st pair - 2 shifts	5	08-Aug-16	0%	5	12-Aug-16	27-Feb-20	03-Mar-20	1053	1053	0%																
FR000128-2	Viaduct E1 - Launching LG2 E3B to E3A - 2 shifts	3	22-Jul-16	0%	3	25-Jul-16	20-Jun-16	22-Jun-16	-27	176	0%																
FR000128-3	Viaduct E1 - End Span at Pier E3-C (E2a2) (6 seg) - LG2 (2 shifts)	6	28-Jul-16	0%	6	03-Aug-16	13-Jun-16	18-Jun-16	-38	168	0%																
FR000128A	Viaduct E1 - Launching E3A to E3C - 2 shifts	6	21-Jul-16	0%	6	27-Jul-16	04-Jun-16	11-Jun-16	-38	0	0%																
At-Grade Roadworks & Other Works along NLH																											

■ Actual Work
■ Planned Bar
■ Critical Bar
◆ Milestone

Project ID: J3518DWPrG-M38
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Tuen Mun - Chek Lap Kok Link - Southern Connection
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(Progress as of 21-Jul-16)

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DWG. No.:
J3518/GCL/PGM/3MRP-M38

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	2016																							
												July					August					September					October								
												20	27	04	11	18	25	01	08	15	22	29	05	12	19	26	03	10	17	24					
Viaduct B Slope Works																																			
Slope 10SW-A/F52																																			
GFXX483	10SW-A/F52 - Mobilization for soldier piling	3	29-Jul-16	0%	3	02-Aug-16	08-Oct-15	10-Oct-15	-239	0	0%																								
GFXX484	10SW-A/F52 - Installation of Soldier Pile (260nos., 2rigs)	126	02-Aug-16	0%	126	03-Jan-17	12-Oct-15	14-Mar-16	-239	0	0%																								
Viaduct A Slope Works																																			
Slope 9SE-B/FR8																																			
GFXX491	9SE-B/FR8 - New wall foundation	72	21-Jul-16	0%	72	15-Oct-16	22-Jun-16	14-Sep-16	-24	0	0%																								
M110010	9SE-B/FR8 - demolish existing Ret. wall	72	28-Jul-16	0%	72	22-Oct-16	29-Jun-16	22-Sep-16	-24	0	0%																								
M110020	9SE-B/FR8 - Wall construction	78	04-Aug-16	0%	78	05-Nov-16	07-Jul-16	07-Oct-16	-24	0	0%																								
At-Grade Roadworks along NLH Westbound																																			
RW10020	NLH W/B (Viaduct C) - Road Drainage Works for tie-in	90	05-Oct-16	0%	90	21-Jan-17	05-Nov-16	24-Feb-17	26	6	0%																								
At-Grade Roadworks along NLH Eastbound																																			
RW20011	NLH E/B (Viaduct D) - Implement TTM for tie-in works	2	23-Sep-16	0%	2	24-Sep-16	12-Dec-16	13-Dec-16	66	39	0%																								
RW20072	NLH E/B (Gantries footing 324 - 328) - T&TC meeting	0	21-Jul-16*	0%	0		10-Nov-15		-204	0	0%																								
RW20074	NLH E/B (Gantries 324 - 328) - Gazette	48	21-Jul-16	0%	48	14-Sep-16	10-Nov-15	07-Jan-16	-204	0	0%																								
RW20076	NLH E/B (Gantries 324 - 328) - Implement TTA	4	15-Sep-16	0%	4	20-Sep-16	08-Jan-16	12-Jan-16	-204	0	0%																								
RW20078	NLH E/B (Gantries 324 - 328) - Construction footing (10am to 5pm)	60	21-Sep-16	0%	60	01-Dec-16	13-Jan-16	29-Mar-16	-204	0	0%																								
At-Grade Roadworks and Other Works along Cheung Tung Road																																			
Re-alignment of Cheung Tung Road adjacent to Viaduct B																																			
RP00051	Ch300-620: watermain (DN1000+DN450)	101	15-Apr-15 A	68.32%	32	26-Aug-16	08-Dec-15	16-Jan-16	-180	0	80%																								
RP00052	Ch300-620: road drainage	102	04-May-15 A	76.47%	24	17-Aug-16	17-Dec-15	16-Jan-16	-172	8	80%																								
RP00053	Ch300-620: towngas(DN250+DN400)	70	10-Nov-15 A	65.71%	24	17-Aug-16	17-Dec-15	16-Jan-16	-172	8	80%																								
RP00054	Ch300-620: duct laying 11KV	15	14-Nov-15 A	0%	18	10-Aug-16	24-Dec-15	16-Jan-16	-166	14	80%																								
RP00055	Ch300-650: telecom cables	15	12-Nov-15 A	0%	18	10-Aug-16	24-Dec-15	16-Jan-16	-166	14	80%																								
RP00056	Ch300-650: street lighting cable & draw pit	17	12-Nov-15 A	0%	18	10-Aug-16	15-Dec-15	07-Jan-16	-174	0	33%																								
RP00057	Ch300-650: relocate street lighting pillar box	8	11-Aug-16	0%	8	19-Aug-16	08-Jan-16	16-Jan-16	-174	6	0%																								
RP00058	Ch300-650: Roadwork new CTR with tie in	19	15-Feb-16 A	0%	44	09-Sep-16	08-Dec-15	30-Jan-16	-180	0	25%																								
RP00059	Ch300-650: TTA to new CTR	1	10-Sep-16	0%	1	10-Sep-16	01-Feb-16	01-Feb-16	-180	0	0%																								
RP00060	Ch300-650: towngas(DN250+DN400) connection	28	12-Sep-16	0%	28	17-Oct-16	03-Mar-17	04-Apr-17	139	342	0%																								
RP00063	Ch620-750: backfilling for roadwork	29	06-May-15 A	68.97%	9	30-Jul-16	21-Dec-15	02-Jan-16	-169	6	70%																								
RP00064	Ch620-750: telecom, 11KV & 132KV ducting	20	20-Aug-15 A	80%	4	25-Jul-16	04-Aug-16	08-Aug-16	12	5	80%																								
RP00065	Ch620-750: cross road duct for WM, 11KV, telecom & lighting	16	05-May-15 A	50%	8	29-Jul-16	30-Jul-16	08-Aug-16	8	1	50%																								
RP00066	Ch620-750: Towngas(DN250+DN400)	14	01-Feb-16 A	85.71%	2	22-Jul-16	31-Dec-15	02-Jan-16	-162	13	90%																								
RP00067	Ch620-750: road drainage	18	15-Aug-15 A	16.67%	15	06-Aug-16	14-Dec-15	02-Jan-16	-175	5	20%																								
RP00069	Ch620-750: cross road duct for 11KV, telecom & street light cable	14	15-Feb-16 A	50%	7	28-Jul-16	08-Aug-16	15-Aug-16	15	8	50%																								
RP00070	Ch620-750: roadwork for new CTR	27	21-Jul-16	0%	27	20-Aug-16	29-Jul-16	29-Aug-16	7	18	0%																								
RP00071	Ch620-750: towngas(DN250+DN400) connection	28	12-Sep-16	0%	28	17-Oct-16	03-Mar-17	04-Apr-17	139	342	0%																								
RP00073	Ch100-300: trench excavation on footpath	13	10-Sep-16	0%	13	26-Sep-16	03-May-16	18-May-16	-109	0	0%																								
RP00075	Ch100-300: duct laying for 11KV	14	27-Sep-16	0%	14	14-Oct-16	19-May-16	03-Jun-16	-109	0	0%																								
RP00076	Ch100-300: lay telecom cable	10	15-Oct-16	0%	10	26-Oct-16	04-Jun-16	16-Jun-16	-109	0	0%																								
RP00079	Ch100-300: watermain(DN450+DN1000)	142	29-Apr-15 A	84%	23	16-Aug-16	03-May-16	30-May-16	-65	0	84%																								
RP00080	Ch100-300: towngas(DN250)	30	16-Aug-16	0%	30	21-Sep-16	31-May-16	06-Jul-16	-65	0	0%																								
RP00081	Ch100-300: towngas(DN400)	27	21-Sep-16	0%	27	25-Oct-16	07-Jul-16	06-Aug-16	-65	33	0%																								
Re-alignment of Cheung Tung Road adjacent to Viaduct C																																			
West Portion																																			
RW61000	Realign CTR (West of Abut. C) - Site Clearance	42	03-Sep-14 A	100%	0	21-Jul-16	06-Jan-17	06-Jan-17	140	0	100%																								
RW61010	Realign CTR (West of Abut. C) - Road drainage works	60	15-Jan-15 A	66.67%	20	17-Aug-16	12-Jan-17	07-Feb-17	140	0	80%																								
RW61020	Realign CTR (West of Abut. C) - Utility diversion	90	24-Mar-15 A	70%	27	15-Oct-16	04-Mar-17	04-Apr-17	140	343	90%																								
RW61030	Realign CTR (West of Abut. C) - Sub-base work	48	15-Dec-15 A	0%	70	13-Oct-16	22-Oct-16	14-Jan-17	77	0	70%																								
RW61050	Realign CTR (West of Abut. C) - Street Light Poles & street furniture	18	14-Oct-16	0%	18	03-Nov-16	16-Jan-17	08-Feb-17	77	0	0%																								
East Portion																																			
RW60005	Realign CTR (East of Abut. C) - Drainage & Road formation with temporar	66	02-Oct-15 A	51.52%	32	26-Aug-16	07-Oct-16	14-Nov-16	65	0	70%																								
RW60010	Realign CTR (East of Abut. C) - GT325 footing + A frame erection	36	27-Apr-16 A	0%	68	11-Oct-16	09-Jan-16	05-Apr-16	-155	49	30%																								
RW60020	Realign CTR (East of Abut. C) - Utility + TCSS ducting	70	02-Jan-16 A	28.57%	50	17-Sep-16	02-Jan-20	03-Mar-20	1023	1023	70%																								
RW60030	Realign CTR (East of Abut. C) - Drainage and roadwork for permanent tie	24	27-Aug-16	0%	24	24-Sep-16	15-Nov-16	12-Dec-16	65	0	0%																								
RW60050	Realign CTR (East of Abut. C) - Street Light Poles & street furniture	24	27-Aug-16	0%	24	24-Sep-16	15-Nov-16	12-Dec-16	65	0	0%																								
RW60052	Realign CTR (East of Abut. C) - Divert traffic onto new CTR	1	26-Sep-16	0%	1	26-Sep-16	13-Dec-16	13-Dec-16	65	0	0%																								
RW60054	Realign CTR (East of Abut. C) - 2nd phase drainage	12	27-Sep-16	0%	12	12-Oct-16	14-Dec-16	29-Dec-16	65	0	0%																								
RW60056	Realign CTR (East of Abut. C) - 2nd phase TCSS duct from GT325	6	13-Oct-16	0%	6	19-Oct-16	30-Dec-16	06-Jan-17	65	0	0%																								
RW60058	Realign CTR (East of Abut. C) - Roadwork and reinstatement	42	20-Oct-16	0%	42	07-Dec-16	07-Jan-17	28-Feb-17	65	0	0%																								
Viaduct C Slope Works																																			

■ Actual Work
■ Planned Bar
■ Critical Bar
◆ Milestone

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Tuen Mun - Chek Lap Kok Link - Southern Connection
3-Month Rolling Programme (Page 12 of 13 Pages)
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29-Jul-16		PKN	HF

DWG. No.:
J3518/GCL/PGM/3MRP-M38

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	2016																		
												July				August				September				October						
												20	27	04	11	18	25	01	08	15	22	29	05	12	19	26	03	10	17	24
Slope 10NW-C/F14																														
SWVC5000	10NW-C/F14 - Slope works	30	15-Oct-16	0%	30	18-Nov-16	30-Jul-16	02-Sep-16	-63	0	0%																			
Slope 10NW-C/F15																														
SWVC6000	10NW-C/F15 - Slope works	24	23-Aug-16	0%	24	20-Sep-16	03-Sep-16	03-Oct-16	10	0	0%																			
SWVC6005	10NW-C/F15 - Install Geo. Instru. & Baseline Monitoring	30	21-Sep-16	0%	30	27-Oct-16	04-Oct-16	08-Nov-16	10	333	0%																			
Watermains & All Assoc Works from Tung Chung to Southern Landfall																														
WM00120	Lay DN450 Fresh Water Main along re-aligned CTR (app. 500 m at 12m/c	48	22-Apr-15 A	0%	59	28-Sep-16	19-Dec-19	03-Mar-20	1014	1014	80%																			
WM00170	Lay DN450 watermain from Tung Chung to realigned CTR (3rd 500m - 2 v	50	31-May-16 A	44%	28	22-Aug-16	02-Mar-17	03-Apr-17	183	0	44%																			
WM00180	Lay DN450 watermain from Tung Chung to realigned CTR (last 400m - 2 v	40	23-Aug-16	0%	40	11-Oct-16	04-Apr-17	26-May-17	183	0	0%																			
Pressure Testing																														
TC00010	Pressure Test DN450 Fresh Water Main along re-aligned CTR (app. 520 n	12	18-Sep-15 A	80%	2	23-Jul-16	08-Jun-17	10-Jun-17	261	602	80%																			
TC00020	Pressure Test DN450 Fresh Water Main from Tung Chung to re-aligned C	12	12-Oct-16	0%	12	25-Oct-16	27-May-17	10-Jun-17	183	524	0%																			

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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		n/a
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		Completed in October 2014
7.13	6.5	Undertaken gabion wall works in Stream NL1 in the dry season	North Lantau slope works/dry	Contractor	TMEIA		Y		n/a

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		✓ Tree transplanted as 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		✓

EIA Reference	EM&A Manual Reference	Environmental Protection Measures	Location/ Timing	Implementation Agent	Relevant Standard or Requirement	Implementation Stages			Status
						D	C	O	
10.9	7.6	Recycle/Reuse all felled trees and vegetation, e.g. mulching (CM9)	All areas/ detailed design/ during construction	Design Consultant/ Contractor	TMEIA	Y	Y		n/a No felled trees or vegetation suitable for recycle
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		✓
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	All areas/ detailed design/ during construction / during operation	Design Consultant/ Contractor	TMEIA	Y	Y	Y	n/a. To be implemented by

EIA Reference	EM&A Manual Reference	Environmental Protection Measures	Location/ Timing	Implementation Agent	Relevant Standard or Requirement	Implementation Stages			Status
						D	C	O	
		(OM4)							HyD/LCSD
10.9	7.6	Aesthetically pleasing design (visually unobtrusive and non-reflective) as regard to the form, material and finishes	All areas/ detailed design/ during construction / during operation	Design Consultant/ Contractor	TMEIA	Y	Y	Y	n/a. To be 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	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	
		where possible. Earth retaining structures and bored pile walls should be proposed to minimise the extent of cutting.	construction period						
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	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	
		materials should avoid over-ordering and wastage.							
12.6	8.1	The Contractor should recycle as many C&D 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.	All areas / throughout construction period	Contractor	TMEIA		Y		✓
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; 	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	
		<ul style="list-style-type: none"> - Adequate ventilation; - Sufficiently covered to prevent rainfall entering (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 hard standing;	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	Site Offices/	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	
		paper if such volume is sufficiently large to warrant collection. Participation in a local collection scheme by the Contractor should be advocated. Waste separation facilities for paper, aluminium cans, plastic bottles, etc should be provided on-site.	throughout construction period						
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 : 30/07/2016

Sampler

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

Calibration Orifice and Standard Calibration Relationship

Serial Number : 2454
 Service Date : 14 Mar 2016
 Slope (m) : 2.10326
 Intercept (b) : -0.06696
 Correlation Coefficient(r) : 0.99989

Standard Condition

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

Calibration Condition

Pa (hpa) : 1006
 Ta(K) : 303

Resistance Plate	dH [green liquid] (inch water)	Z	X=Qstd (cubic meter/min)	IC (chart)	Y (corrected)
1 18 holes	11.0	3.278	1.590	56	55.34
2 13 holes	9.0	2.965	1.441	51	50.40
3 10 holes	6.6	2.539	1.239	46	45.46
4 7 holes	4.2	2.025	0.995	39	38.54
5 5 holes	2.6	1.594	0.789	33	32.61

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

Sampler Calibration Relationship (Linear Regression)

Slope(m): 27.948 Intercept(b): 10.628 Correlation Coefficient(r): 0.9994

Checked by: Magnum Fan

Date: 04/08/2016

High-Volume TSP Sampler
5-Point Calibration Record

Location : ASR9
 Calibrated by : P.F.Yeung
 Date : 30/07/2016

Sampler

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

Calibration Orifice and Standard Calibration Relationship

Serial Number : 2454
 Service Date : 14 Mar 2016
 Slope (m) : 2.10326
 Intercept (b) : -0.06696
 Correlation Coefficient(r) : 0.99989

Standard Condition

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

Calibration Condition

Pa (hpa) : 1006
 Ta(K) : 303

Resistance Plate	dH [green liquid] (inch water)	Z	X=Qstd (cubic meter/min)	IC (chart)	Y (corrected)
1 18 holes	11.4	3.337	1.618	54	53.37
2 13 holes	9.2	2.998	1.457	48	47.44
3 10 holes	7.0	2.615	1.275	43	42.50
4 7 holes	4.6	2.120	1.040	36	35.58
5 5 holes	2.6	1.594	0.789	28	27.67

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): 30.439 Intercept(b): 3.690 Correlation Coefficient(r): 0.9992

Checked by: Magnum Fan

Date: 04/08/2016



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 14, 2016 Rootsmeter S/N 0438320 Ta (K) - 295
 Operator Tisch Orifice I.D. - 2454 Pa (mm) - 745.49

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	1.4020	3.2	2.00
2	NA	NA	1.00	1.0060	6.4	4.00
3	NA	NA	1.00	0.9010	7.9	5.00
4	NA	NA	1.00	0.8590	8.8	5.50
5	NA	NA	1.00	0.7090	12.8	8.00

DATA TABULATION

Vstd	(x axis) Qstd	(y axis)	Va	(x axis) Qa	(y axis)
0.9866	0.7037	1.4078	0.9957	0.7102	0.8896
0.9824	0.9765	1.9909	0.9914	0.9855	1.2581
0.9803	1.0880	2.2259	0.9893	1.0980	1.4066
0.9792	1.1399	2.3345	0.9882	1.1504	1.4753
0.9738	1.3735	2.8155	0.9828	1.3862	1.7792
Qstd slope (m) = 2.10326			Qa slope (m) = 1.31703		
intercept (b) = -0.06696			intercept (b) = -0.04232		
coefficient (r) = 0.99989			coefficient (r) = 0.99989		
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. : C163248
證書編號

ITEM TESTED / 送檢項目 (Job No. / 序引編號 : IC16-1307) Date of Receipt / 收件日期 : 10 June 2016

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.
Room 113, 1/F, My Loft, 9 Hoi Wing Road, Tuen Mun,
New Territories, 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 : 15 June 2016

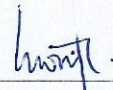
TEST RESULTS / 測試結果

The results apply to the particular unit-under-test only.
The results do not exceed manufacturer's specification.
The results are detailed in the subsequent page(s).

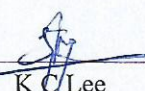
The test equipment used for calibration are traceable to National Standards via :

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

Tested By
測試


H T Wong
Technical Officer

Certified By
核證


K C Lee
Project Engineer

Date of Issue : 17 June 2016
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. : C163248
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 :

Equipment ID	Description	Certificate No.
CL130	Universal Counter	C153519
CL281	Multifunction Acoustic Calibrator	PA160023
TST150A	Measuring Amplifier	C161175

- 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

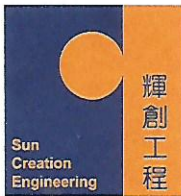
5.2 Frequency Accuracy

UUT Nominal Value (kHz)	Measured Value (kHz)	Mfr's Spec.	Uncertainty of Measured Value (Hz)
1	0.985	1 kHz $\pm 2\%$	± 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.



Certificate of Calibration 校正證書

Certificate No. : C163758
證書編號

ITEM TESTED / 送檢項目 (Job No. / 序引編號 : IC16-1465) Date of Receipt / 收件日期 : 29 June 2016
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.
Room 113, 1/F, My Loft, 9 Hoi Wing Road, Tuen Mun,
New Territories, 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

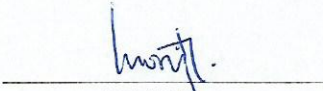
DATE OF TEST / 測試日期 : 11 July 2016


TEST RESULTS / 測試結果

The results apply to the particular unit-under-test only.
The results do not exceed 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
- Agilent Technologies / Keysight Technologies
- Rohde & Schwarz Laboratory, Germany
- Fluke Everett Service Center, USA

Tested By : 
測試 : H T Wong
Technical Officer

Certified By : 
核證 : K C Lee
Project Engineer

Date of Issue : 12 July 2016
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書面批准。

Certificate of Calibration

校正證書

Certificate No. : C163758
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 :

Equipment ID	Description	Certificate No.
CL280	40 MHz Arbitrary Waveform Generator	C160077
CL281	Multifunction Acoustic Calibrator	PA160023

- Test procedure : MA101N.

- Results :

6.1 Sound Pressure Level

6.1.1 Reference Sound Pressure Level

UUT Setting				Applied Value		UUT Reading	IEC 61672 Class 1 Spec.
Range (dB)	Mode	Frequency Weighting	Time Weighting	Level (dB)	Freq. (kHz)	(dB)	(dB)
30 - 120	L _A	A	Fast	94.00	1	93.4	± 1.1

6.1.2 Linearity

UUT Setting				Applied Value		UUT Reading
Range (dB)	Mode	Frequency Weighting	Time Weighting	Level (dB)	Freq. (kHz)	(dB)
30 - 120	L _A	A	Fast	94.00	1	93.4 (Ref.)
				104.00		103.4
				114.00		113.4

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	IEC 61672 Class 1 Spec.
Range (dB)	Mode	Frequency Weighting	Time Weighting	Level (dB)	Freq. (kHz)	(dB)	(dB)
30 - 120	L _A	A	Fast	94.00	1	93.4	Ref.
			Slow			93.4	± 0.3

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Certificate of Calibration

校正證書

Certificate No. : C163758
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	67.1	-26.2 ± 1.5
					125 Hz	77.1	-16.1 ± 1.5
					250 Hz	84.7	-8.6 ± 1.4
					500 Hz	90.1	-3.2 ± 1.4
					1 kHz	93.4	Ref.
					2 kHz	94.7	+1.2 ± 1.6
					4 kHz	94.5	+1.0 ± 1.6
					8 kHz	92.4	-1.1 (+2.1 ; -3.1)
					12.5 kHz	89.5	-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	92.5	-0.8 ± 1.5
					125 Hz	93.2	-0.2 ± 1.5
					250 Hz	93.4	0.0 ± 1.4
					500 Hz	93.4	0.0 ± 1.4
					1 kHz	93.4	Ref.
					2 kHz	93.3	-0.2 ± 1.6
					4 kHz	92.7	-0.8 ± 1.6
					8 kHz	90.5	-3.0 (+2.1 ; -3.1)
					12.5 kHz	87.6	-6.2 (+3.0 ; -6.0)

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.

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書面批准。



Performance Check of Turbidity Meter

Equipment Ref. No. : ET/0505/012 Manufacturer : HACH

Model No. : 2100Q Serial No. : 12060 C 018447

Date of Calibration : 27/06/2016 Due Date : 26/09/2016

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

005/6.1/001/9

Theoretical Value of Turbidity Standard (NTU)	Measured Value (NTU)	Difference % *
20	19.6	-2.00
100	97.4	-2.60
800	779	-2.63

(*) 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. : <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>05/07/2016</u>	Calibration Due Date : <u>04/08/2016</u>

Liquid Junction Error

Primary Standard Solution Used : <u>Phosphate</u>	003/5.2/002/03 (20°C)
Temperature of Solution : <u>25.0 / 20.0</u>	Ref No. of Primary Solution: <u>003/5.2/002/04 (25°C)</u>
pH value of diluted buffer : <u>6.91 / 6.91</u>	$\Delta\text{pH}_{1/2} = \underline{+0.01 / +0.01}$
$\Delta\text{pH} = \text{pH(S)} - \text{pH of diluted buffer} = \underline{0.05 / 0.03}$ (Observed Deviation)	$\text{pH (S)} = \underline{6.86 / 6.88}$
Liquid Junction Error (ΔpH_j) = $\Delta\text{pH} - \Delta\text{pH}_{1/2} = \underline{0.04 / 0.02}$	

Shift on Stirring

pH of buffer solution (with stirring), $\text{pH}_s = \underline{6.91 / 6.90}$
 Shift on stirring, $\Delta\text{pH}_s = \text{pH}_s - \text{pH(S)} - \Delta\text{pH}_j = \underline{0.01 / 0.00}$

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</u>	/	<u>ET/0521/019</u>
Temperature record from the reference thermometer (T_R)	<u>25.0</u>	/	<u>20.0</u> °C
Temperature record from the ATC (T_{ATC}):	<u>24.8</u>	/	<u>19.9</u> °C
Temperature Difference, $ T_R - T_{ATC} $	<u>0.2</u>	/	<u>0.1</u> °C
Correction	<u>0.2</u>	/	<u>0.1</u> °C

Acceptance Criteria

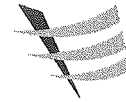
Performance Characteristic	Acceptable Range
Liquid Junction Error ΔpH_j	≤ 0.05
Shift on Stirring ΔpH_s	≤ 0.02
Noise ΔpH_n	≤ 0.02
Verification of ATC Temperature Difference	$\leq 0.5^\circ\text{C}$

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: _____

Checked by: _____



Internal Calibration Report of Dissolved Oxygen Meter

Equipment Ref. No. : <u>ET/EW/008/005</u>	Manufacturer : <u>YSI</u>
Model No. : <u>Pro 2030</u>	Serial No. : <u>12A 100353</u>
Date of Calibration : <u>23/07/2016</u>	Calibration Due Date : <u>22/10/2016</u>

Temperature Verification

Ref. No. of Reference Thermometer : ET/0521/017
 Ref. No. of Water Bath : ---

	Temperature (°C)			
	Measured	20.0	Corrected	20.1
Reference Thermometer reading	Measured	20.0	Corrected	20.1
DO Meter reading	Measured	19.9	Difference	0.2

Standardization of sodium thiosulphate (Na₂S₂O₃) solution

Reagent No. of Na ₂ S ₂ O ₃ titrant	CPE/012/4.5/001/14	Reagent No. of 0.025N K ₂ Cr ₂ O ₇	CPE/012/4.4/002/11
		Trial 1	Trial 2
Initial Vol. of Na ₂ S ₂ O ₃ (ml)		0.00	10.20
Final Vol. of Na ₂ S ₂ O ₃ (ml)		10.20	20.40
Vol. of Na ₂ S ₂ O ₃ used (ml)		10.20	10.20
Normality of Na ₂ S ₂ O ₃ solution (N)		0.02451	0.02451
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
Trial						
Initial Vol. of Na ₂ S ₂ O ₃ (ml)	0.00	10.90	21.80	0.00	6.60	10.10
Final Vol. of Na ₂ S ₂ O ₃ (ml)	10.90	21.80	28.30	6.60	10.10	13.50
Vol. (V) of Na ₂ S ₂ O ₃ used (ml)	10.90	10.90	6.50	6.60	3.50	3.40
Dissolved Oxygen (DO), mg/L	7.17	7.17	4.28	4.34	2.30	2.24
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	7.28	7.43	7.36	7.17	7.17	7.17	2.62
5	4.13	4.33	4.23	4.28	4.34	4.31	1.87
10	2.34	2.26	2.30	2.30	2.24	2.27	1.31
Linear regression coefficient				0.9984			



Internal Calibration Report of Dissolved Oxygen Meter

Zero Point Checking

DO meter reading, mg/L	0.00
------------------------	------

Salinity Checking

Reagent No. of NaCl (10ppt)	CPE/012/4.7/003/25	Reagent No. of NaCl (30ppt)	CPE/012/4.8/003/25
-----------------------------	--------------------	-----------------------------	--------------------

Determination of dissolved oxygen content by Winkler Titration **

Salinity (ppt)	10		30	
	1	2	1	2
Initial Vol. of Na ₂ S ₂ O ₃ (ml)	0.00	11.00	22.00	31.50
Final Vol. of Na ₂ S ₂ O ₃ (ml)	11.00	22.00	31.50	41.10
Vol. (V) of Na ₂ S ₂ O ₃ used (ml)	11.00	11.00	9.50	9.60
Dissolved Oxygen (DO), mg/L	7.24	7.24	6.25	6.32
Acceptance criteria, Deviation	Less than + 0.3mg/L		Less than + 0.3mg/L	

Calculation: $DO (mg/L) = V \times N \times 8000/298$

Salinity (ppt)	DO meter reading, mg/L			Winkler Titration result**, mg/L			Difference (%) of DO Content
	1	2	Average	1	2	Average	
10	7.34	7.39	7.37	7.24	7.24	7.24	1.78
30	6.45	6.34	6.4	6.25	6.32	6.29	1.73

Acceptance Criteria

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

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

Delete as appropriate

Calibrated by

:

Approved by :



Performance Check of Salinity Meter

Equipment Ref. No. : ET/EW/008/005 Manufacturer : YSI
Model No. : Pro 2030 Serial No. : 12A 100353
Date of Calibration : 23/07/2016 Due Date : 22/10/2016

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

S/001/5

Salinity Standard (ppt)	Measured Salinity (ppt)	Difference * (%)
30.0	30.6	2.00


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

Acceptance Criteria

Difference : -10 % to 10 %

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

Checked by : 

Approved by : 

ENVIROTECH SERVICES CO.

Calibration Report of Wind Meter

Date of Calibration : 02 May 2016

Brand of Test Meter: Global Water

Model: Speed Sensor: WE550 (S/N:E1337005099)

Direction Sensor: WE570 (S/N:153500564)

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

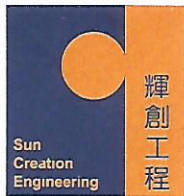
Global Wate: (m/s)	Anemomete (m/s)
0.52	0.6
1.68	1.8
2.73	2.9

Wind Direction Test

Global Wate: (o)	Marine Compass (o)
270.89	270
0.05	0
90.82	90
179.65	180

Calibrated by: *Ho*
Yeung Ping Fai
(Technical Officer)

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



Certificate of Calibration 校正證書

Certificate No. : C160461
證書編號

ITEM TESTED / 送檢項目 (Job No. / 序引編號 : IC16-0158) Date of Receipt / 收件日期 : 19 January 2016

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.
Room 113, 1/F, My Loft, 9 Hoi Wing Road, Tuen Mun,
New Territories, 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

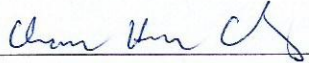
DATE OF TEST / 測試日期 : 27 January 2016

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 : M T Leung
Assistant Technical Officer

Certified By : 
核證 : H C Chan
Engineer

Date of Issue : 27 January 2016
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所書面批准。

Certificate of Calibration

校正證書

Certificate No. : C160461

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	1.8	+0.2	0.2	2.0
4.1	3.9	+0.2	0.3	2.0
6.0	5.9	+0.1	0.3	2.0
8.0	8.0	0.0	0.3	2.0
10.0	10.2	-0.2	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

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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 August 2016)**

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

**HY/2012/07 Tuen Mun - Chek Lap Kok Link - Southern Connection Viaduct Section
Impact Air Quality Monitoring Schedule (1 to 31 August 2016)**

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

**HY/2012/07 Tuen Mun - Chek Lap Kok Link - Southern Connection Viaduct Section
Impact Noise Monitoring Schedule (1 to 30 September 2016)**

Alternative Noise Monitoring at Pak Mong Village Entrance

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
				01-Sep	02-Sep	03-Sep
04-Sep	05-Sep	06-Sep	07-Sep	08-Sep	09-Sep	10-Sep
	Noise Impact Monitoring			Noise Impact Monitoring		
11-Sep	12-Sep	13-Sep	14-Sep	15-Sep	16-Sep	17-Sep
			Noise Impact Monitoring			
18-Sep	19-Sep	20-Sep	21-Sep	22-Sep	23-Sep	24-Sep
		Noise Impact Monitoring				
25-Sep	26-Sep	27-Sep	28-Sep	29-Sep	30-Sep	
	Noise Impact Monitoring			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
Impact Air Quality Monitoring Schedule (1 to 30 September 2016)**

Alternative Air Quality Monitoring at WA4 and MTRC Depot Entrance

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
				01-Sep	02-Sep	03-Sep
04-Sep	05-Sep	06-Sep	07-Sep	08-Sep	09-Sep	10-Sep
	1-hr TSP Monitoring 24-hr TSP Monitoring			1-hr TSP Monitoring 24-hr TSP Monitoring		
11-Sep	12-Sep	13-Sep	14-Sep	15-Sep	16-Sep	17-Sep
			1-hr TSP Monitoring 24-hr TSP Monitoring			
18-Sep	19-Sep	20-Sep	21-Sep	22-Sep	23-Sep	24-Sep
		1-hr TSP Monitoring 24-hr TSP Monitoring				
25-Sep	26-Sep	27-Sep	28-Sep	29-Sep	30-Sep	
	1-hr TSP Monitoring 24-hr TSP Monitoring			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 Marine Water Quality Monitoring (WQM) Schedule (August 2016)**

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
	01-Aug	02-Aug	03-Aug	04-Aug	05-Aug	06-Aug
		WQM was cancelled due to adverse weather.		WQM Mid-Flood 7:15 (05:30 - 09:00) Mid-Ebb 14:04 (12:19 - 15:49)		WQM Mid-Flood 8:36 (06:51 - 10:21) Mid-Ebb 15:17 (13:32 - 17:02)
07-Aug	08-Aug	09-Aug	10-Aug	11-Aug	12-Aug	13-Aug
		WQM Mid-Flood 10:46 (09:01 - 12:31) Mid-Ebb 16:56 (15:11 - 18:41)		WQM Mid-Flood 13:13 (11:28 - 14:58) Mid-Ebb 18:46 (17:01 - 20:31)		WQM Mid-Ebb 9:20 (07:35 - 11:05) Mid-Flood 16:48 (15:03 - 18:33)
14-Aug	15-Aug	16-Aug	17-Aug	18-Aug	19-Aug	20-Aug
		WQM Mid-Ebb 11:41 (09:56 - 13:26) Mid-Flood 18:49 (17:04 - 20:34)		WQM Mid-Ebb 13:00 (11:15 - 14:45) Mid-Flood 19:53 (18:08 - 21:38)		WQM Mid-Flood 7:45 (06:00 - 09:30) Mid-Ebb 14:16 (12:31 - 16:01)
21-Aug	22-Aug	23-Aug	24-Aug	25-Aug	26-Aug	27-Aug
		WQM Mid-Flood 10:18 (08:33 - 12:03) Mid-Ebb 16:22 (14:37 - 18:07)		WQM Mid-Flood 12:52 (11:07 - 14:37) Mid-Ebb 18:26 (16:41 - 20:11)		WQM Mid-Ebb 8:52 (07:07 - 10:37) Mid-Flood 16:13 (14:28 - 17:58)
28-Aug	29-Aug	30-Aug	31-Aug			
		WQM Mid-Ebb 11:44 (09:59 - 13:29) Mid-Flood 18:42 (16:57 - 20:27)				

**HY/2012/07 - Tuen Mun - Chek Lap Kok Link - Southern Connection Viaduct Section
Impact Marine Water Quality Monitoring (WQM) Schedule (September 2016)**

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
				01-Sep	02-Sep	03-Sep
				WQM Mid-Ebb 13:06 (11:21 - 14:51) Mid-Flood 19:42 (17:57 - 21:27)		WQM Mid-Flood 7:47 (06:02 - 09:32) Mid-Ebb 14:16 (12:31 - 16:01)
04-Sep	05-Sep	06-Sep	07-Sep	08-Sep	09-Sep	10-Sep
		WQM Mid-Flood 9:42 (07:57 - 11:27) Mid-Ebb 15:47 (14:02 - 17:32)		WQM Mid-Flood 11:25 (09:40 - 13:10) Mid-Ebb 17:05 (15:20 - 18:50)		WQM Mid-Flood 14:59 (13:05 - 16:35) Mid-Ebb 20:07 (19:15 - 21:00)
11-Sep	12-Sep	13-Sep	14-Sep	15-Sep	16-Sep	17-Sep
		WQM Mid-Ebb 10:21 (08:36 - 12:06) Mid-Flood 17:41 (15:56 - 19:26)		WQM Mid-Ebb 11:52 (10:07 - 13:37) Mid-Flood 18:40 (16:55 - 20:25)		WQM Mid-Ebb 13:14 (11:29 - 14:59) Mid-Flood 19:37 (17:52 - 21:22)
18-Sep	19-Sep	20-Sep	21-Sep	22-Sep	23-Sep	24-Sep
		WQM Mid-Flood 9:22 (07:37 - 11:07) Mid-Ebb 15:21 (13:36 - 17:06)		WQM Mid-Flood 11:35 (09:50 - 13:20) Mid-Ebb 17:08 (15:23 - 18:53)		WQM Mid-Flood 14:47 (13:02 - 16:32) Mid-Ebb 20:08 (18:50 - 21:20)
25-Sep	26-Sep	27-Sep	28-Sep	29-Sep	30-Sep	
		WQM Mid-Ebb 10:39 (08:54 - 12:24) Mid-Flood 17:40 (15:55 - 19:25)		WQM Mid-Ebb 12:06 (10:21 - 13:51) Mid-Flood 18:34 (16:49 - 20:19)		

**HY/2012/07 Tuen Mun - Chek Lap Kok Link - Southern Connection Viaduct Section
Impact Dolphin Monitoring Survey Schedule (1 to 31 August 2016)**

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

**HY/2012/07 Tuen Mun - Chek Lap Kok Link - Southern Connection Viaduct Section
Impact Dolphin Monitoring Survey Schedule (1 to 30 September 2016)**

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

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	03-08-2016	ASR8A	8:37	1-hr TSP	53	394	500		
TMCLKL	HY/2012/07	03-08-2016	ASR8A	9:39	1-hr TSP	54				
TMCLKL	HY/2012/07	03-08-2016	ASR8A	10:41	1-hr TSP	53				
TMCLKL	HY/2012/07	09-08-2016	ASR8A	8:55	1-hr TSP	87				
TMCLKL	HY/2012/07	09-08-2016	ASR8A	9:57	1-hr TSP	116				
TMCLKL	HY/2012/07	09-08-2016	ASR8A	10:59	1-hr TSP	91				
TMCLKL	HY/2012/07	15-08-2016	ASR8A	8:33	1-hr TSP	50				
TMCLKL	HY/2012/07	15-08-2016	ASR8A	9:35	1-hr TSP	54				
TMCLKL	HY/2012/07	15-08-2016	ASR8A	10:37	1-hr TSP	77				
TMCLKL	HY/2012/07	18-08-2016	ASR8A	8:20	1-hr TSP	48				
TMCLKL	HY/2012/07	18-08-2016	ASR8A	9:22	1-hr TSP	62				
TMCLKL	HY/2012/07	18-08-2016	ASR8A	10:24	1-hr TSP	58				
TMCLKL	HY/2012/07	24-08-2016	ASR8A	9:05	1-hr TSP	67				
TMCLKL	HY/2012/07	24-08-2016	ASR8A	10:07	1-hr TSP	41				
TMCLKL	HY/2012/07	24-08-2016	ASR8A	11:09	1-hr TSP	54				
TMCLKL	HY/2012/07	30-08-2016	ASR8A	9:12	1-hr TSP	45				
TMCLKL	HY/2012/07	30-08-2016	ASR8A	10:14	1-hr TSP	41				
TMCLKL	HY/2012/07	30-08-2016	ASR8A	11:16	1-hr TSP	48				
						Average			61	
						Min.			41	
						Max.	116			

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	03-08-2016	ASR9	8:47	1-hr TSP	85	393	500		
TMCLKL	HY/2012/07	03-08-2016	ASR9	9:49	1-hr TSP	57				
TMCLKL	HY/2012/07	03-08-2016	ASR9	10:51	1-hr TSP	61				
TMCLKL	HY/2012/07	09-08-2016	ASR9	9:05	1-hr TSP	112				
TMCLKL	HY/2012/07	09-08-2016	ASR9	10:07	1-hr TSP	107				
TMCLKL	HY/2012/07	09-08-2016	ASR9	11:09	1-hr TSP	114				
TMCLKL	HY/2012/07	15-08-2016	ASR9	8:43	1-hr TSP	73				
TMCLKL	HY/2012/07	15-08-2016	ASR9	9:45	1-hr TSP	75				
TMCLKL	HY/2012/07	15-08-2016	ASR9	10:47	1-hr TSP	98				
TMCLKL	HY/2012/07	18-08-2016	ASR9	8:31	1-hr TSP	45				
TMCLKL	HY/2012/07	18-08-2016	ASR9	9:33	1-hr TSP	48				
TMCLKL	HY/2012/07	18-08-2016	ASR9	10:35	1-hr TSP	53				
TMCLKL	HY/2012/07	24-08-2016	ASR9	9:15	1-hr TSP	101				
TMCLKL	HY/2012/07	24-08-2016	ASR9	10:17	1-hr TSP	78				
TMCLKL	HY/2012/07	24-08-2016	ASR9	11:19	1-hr TSP	65				
TMCLKL	HY/2012/07	30-08-2016	ASR9	9:22	1-hr TSP	53				
TMCLKL	HY/2012/07	30-08-2016	ASR9	10:24	1-hr TSP	74				
TMCLKL	HY/2012/07	30-08-2016	ASR9	11:26	1-hr TSP	57				
						Average			75	
						Min.			45	
						Max.	114			

Action Level Exceedance

Limit Level Exceedance

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

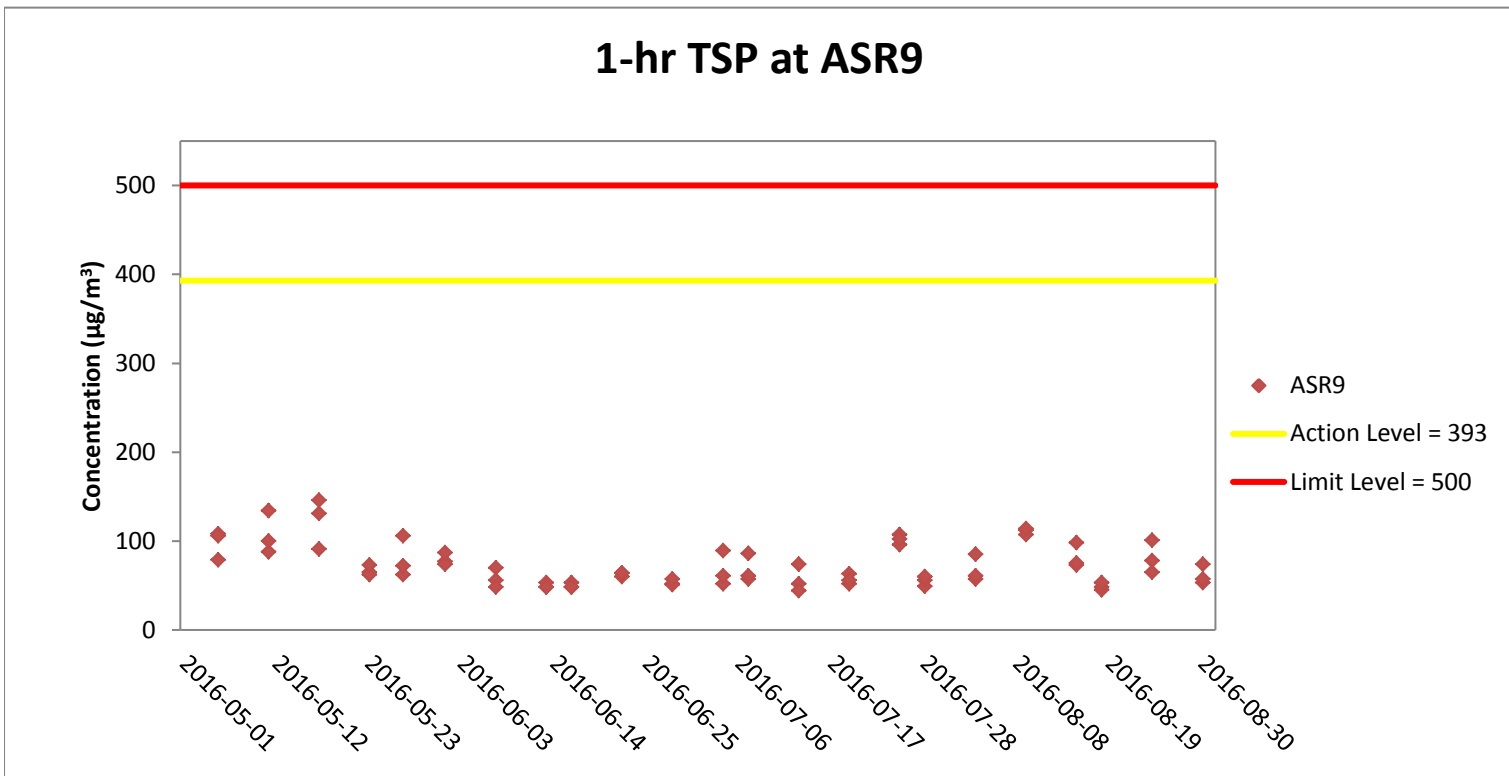
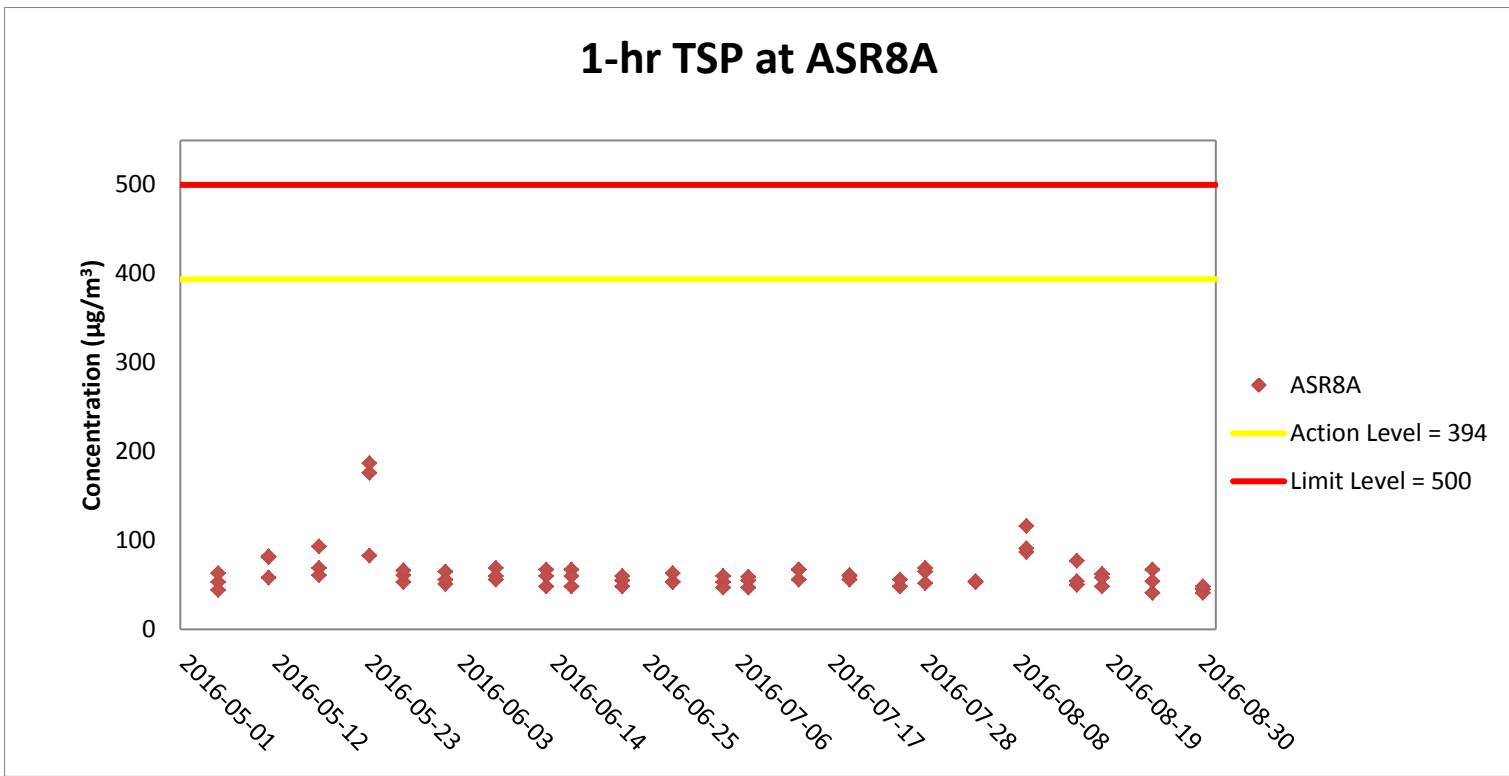
Project	Works	Date(yyyy-mm-dd)	Station	Time (hh:mm, 24hour)	Parameter	Results (ug/m3)	Action Level (ug/m3)	Limit Level (ug/m3)
TMCLKL	HY/2012/07	03-08-2016	ASR8A	11:43	24-hr TSP	46	178	260
TMCLKL	HY/2012/07	09-08-2016	ASR8A	12:01	24-hr TSP	53		
TMCLKL	HY/2012/07	15-08-2016	ASR8A	11:39	24-hr TSP	44		
TMCLKL	HY/2012/07	18-08-2016	ASR8A	11:26	24-hr TSP	48		
TMCLKL	HY/2012/07	24-08-2016	ASR8A	12:11	24-hr TSP	44		
TMCLKL	HY/2012/07	30-08-2016	ASR8A	12:18	24-hr TSP	52		
						Average	48	
						Min.	44	
						Max.	53	

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	03-08-2016	ASR9	11:53	24-hr TSP	54	178	260
TMCLKL	HY/2012/07	09-08-2016	ASR9	12:11	24-hr TSP	57		
TMCLKL	HY/2012/07	15-08-2016	ASR9	11:49	24-hr TSP	46		
TMCLKL	HY/2012/07	18-08-2016	ASR9	11:37	24-hr TSP	45		
TMCLKL	HY/2012/07	24-08-2016	ASR9	12:21	24-hr TSP	101		
TMCLKL	HY/2012/07	30-08-2016	ASR9	12:28	24-hr TSP	49		
						Average	59	
						Min.	45	
						Max.	101	

Action Level Exceedance

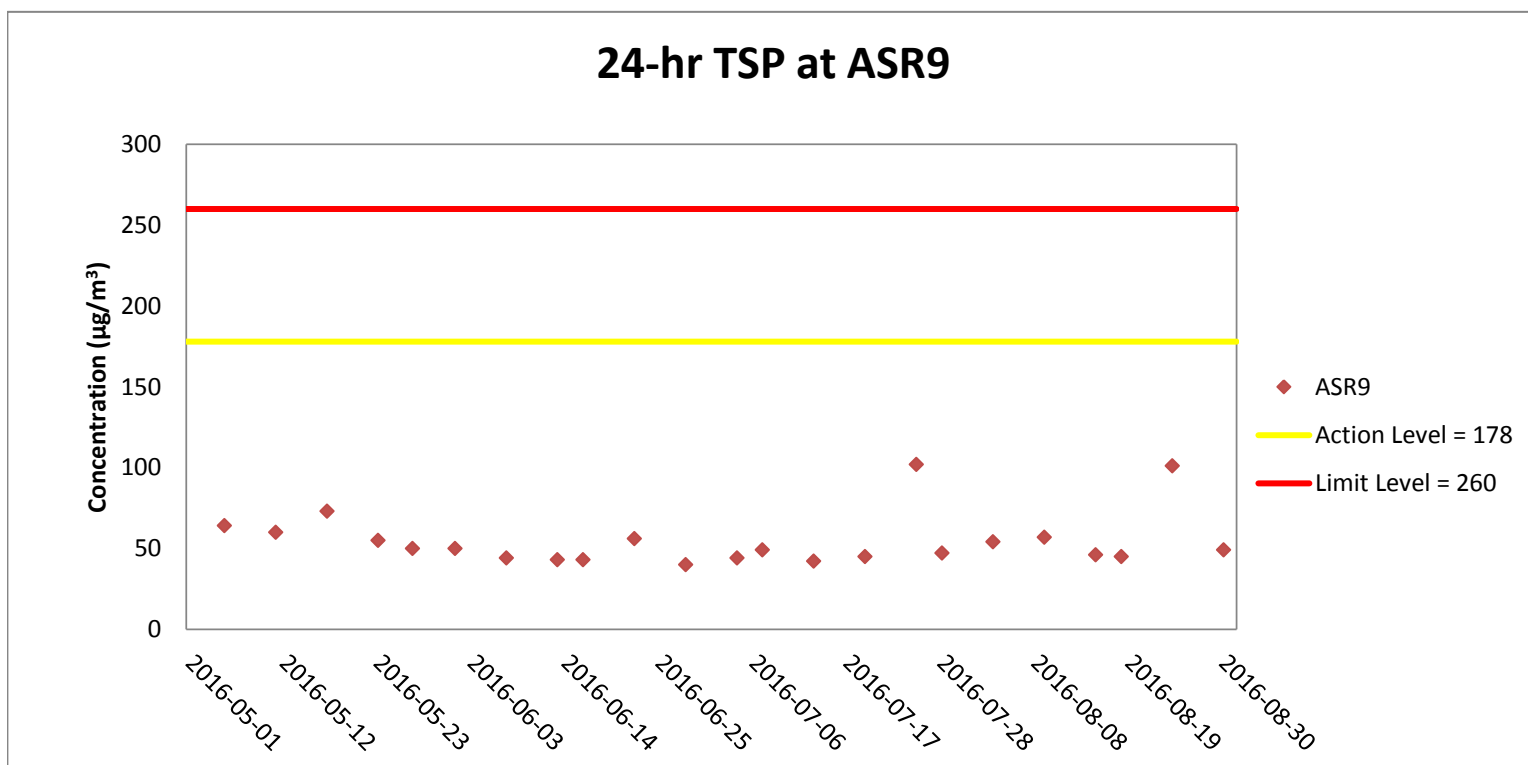
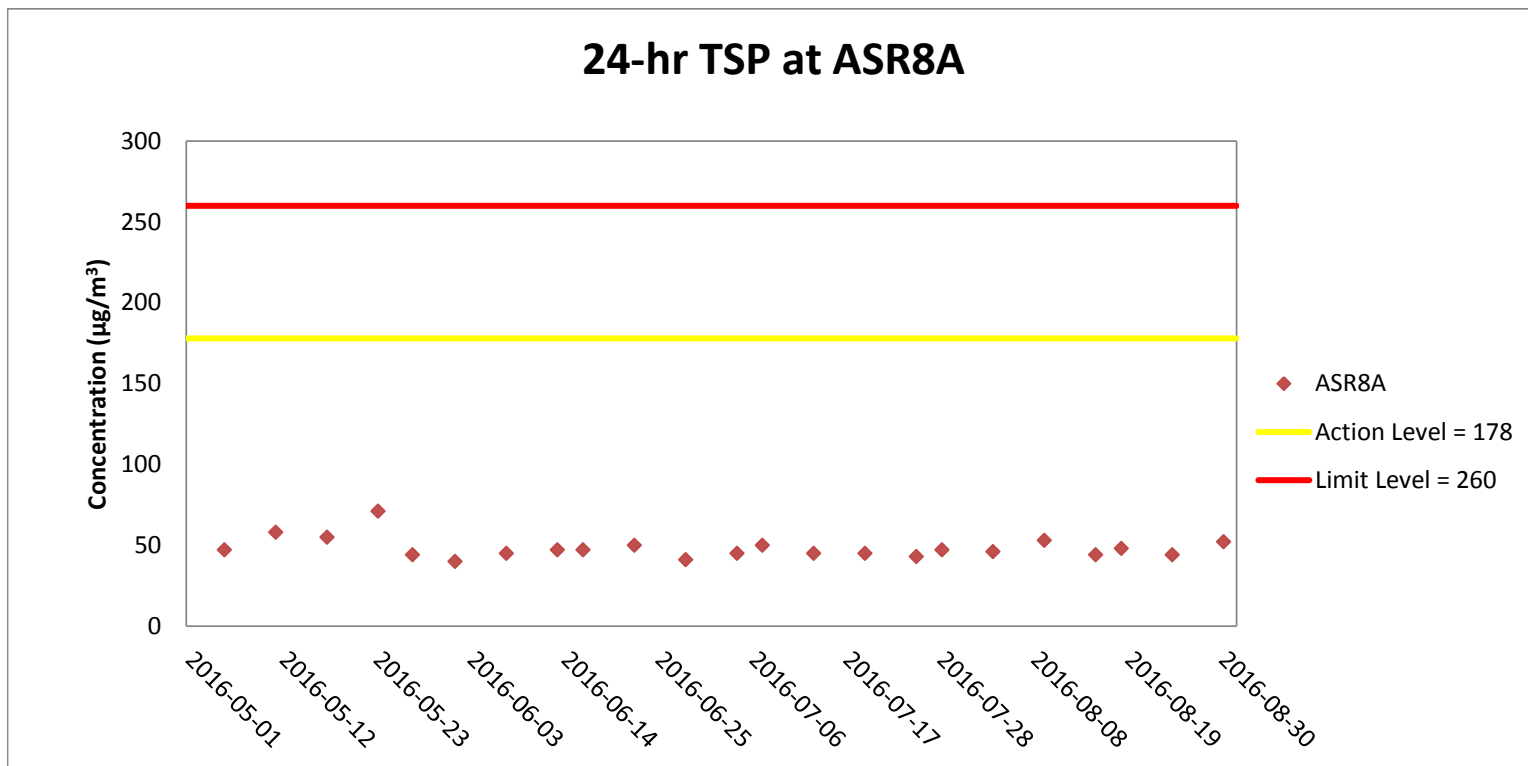
Limit Level Exceedance



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

Major construction works undertaken within the reporting period include Pier construction; Re-alignment of Cheung Tung Road; Construction of land section of berth at Southern Landfall; Installation of pier head and deck segments; and Slope work of Viaducts A, B & C.

Marine works within the reporting period include Construction and installation of pile caps; Uninstallation of marine piling platform; Pier construction; Launching gantry operation; and Installation of deck segment and pier head segment.



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

Major construction works undertaken within the reporting period include Pier construction; Re-alignment of Cheung Tung Road; Construction of land section of berth at Southern Landfall; Installation of pier head and deck segments; and Slope work of Viaducts A, B & C.

Marine works within the reporting period include Construction and installation of pile caps; Uninstallation of marine piling platform; Pier construction; Launching gantry operation; and Installation of deck segment and pier head segment.

Appendix H

Meteorological Data for the Reporting Month

Date	Time (HH)	Wind speed (m/s)	Wind direction (deg)
03-08-2016	7	0.0	4
03-08-2016	8	0.0	5
03-08-2016	9	0.0	1
03-08-2016	10	0.1	13
03-08-2016	11	2.0	150
03-08-2016	12	2.5	153
03-08-2016	13	2.3	165
03-08-2016	14	2.2	167
03-08-2016	15	2.4	170
03-08-2016	16	1.7	171
03-08-2016	17	2.0	173
03-08-2016	18	1.5	164
03-08-2016	19	0.5	170
03-08-2016	20	0.4	157
03-08-2016	21	1.7	176
03-08-2016	22	0.2	115
03-08-2016	23	0.0	119
04-08-2016	0	0.0	144
04-08-2016	1	0.0	119
04-08-2016	2	0.0	124
04-08-2016	3	0.0	84
04-08-2016	4	0.0	103
04-08-2016	5	0.0	82
04-08-2016	6	0.1	42
04-08-2016	7	0.4	118
04-08-2016	8	1.1	155
04-08-2016	9	1.6	152
04-08-2016	10	1.7	144
04-08-2016	11	2.0	152
04-08-2016	12	2.2	161
09-08-2016	7	0.0	195
09-08-2016	8	0.1	268
09-08-2016	9	0.1	326
09-08-2016	10	0.1	245
09-08-2016	11	0.0	215
09-08-2016	12	0.3	199
09-08-2016	13	2.4	175
09-08-2016	14	0.3	72
09-08-2016	15	0.1	186
09-08-2016	16	0.0	110
09-08-2016	17	0.2	83
09-08-2016	18	0.1	176
09-08-2016	19	0.3	172
09-08-2016	20	0.0	137
09-08-2016	21	0.1	171
09-08-2016	22	0.3	175
09-08-2016	23	0.1	176
10-08-2016	0	0.2	179
10-08-2016	1	0.4	134
10-08-2016	2	1.1	155

Date	Time (HH)	Wind speed (m/s)	Wind direction (deg)
10-08-2016	3	1.1	167
10-08-2016	4	1.4	149
10-08-2016	5	0.3	181
10-08-2016	6	0.7	170
10-08-2016	7	0.2	173
10-08-2016	8	0.1	170
10-08-2016	9	0.4	128
10-08-2016	10	0.7	178
10-08-2016	11	1.2	168
10-08-2016	12	0.4	180
15-08-2016	7	0.0	222
15-08-2016	8	0.0	338
15-08-2016	9	0.0	327
15-08-2016	10	0.0	326
15-08-2016	11	0.0	326
15-08-2016	12	0.0	277
15-08-2016	13	0.0	268
15-08-2016	14	0.0	177
15-08-2016	15	0.0	224
15-08-2016	16	0.0	331
15-08-2016	17	0.1	181
15-08-2016	18	0.3	174
15-08-2016	19	0.6	156
15-08-2016	20	0.7	129
15-08-2016	21	1.0	154
15-08-2016	22	0.0	103
15-08-2016	23	0.1	95
16-08-2016	0	0.1	101
16-08-2016	1	0.2	163
16-08-2016	2	0.1	179
16-08-2016	3	0.1	163
16-08-2016	4	0.0	162
16-08-2016	5	0.0	111
16-08-2016	6	0.0	57
16-08-2016	7	0.0	145
16-08-2016	8	0.0	135
16-08-2016	9	0.0	132
16-08-2016	10	0.0	154
16-08-2016	11	0.0	170
16-08-2016	12	0.0	215
18-08-2016	7	2.2	113
18-08-2016	8	2.4	138
18-08-2016	9	1.9	135
18-08-2016	10	0.5	124
18-08-2016	11	1.7	143
18-08-2016	12	1.3	139
18-08-2016	13	0.9	132
18-08-2016	14	1.0	155
18-08-2016	15	0.4	102
18-08-2016	16	0.7	102

Date	Time (HH)	Wind speed (m/s)	Wind direction (deg)
18-08-2016	17	0.6	136
18-08-2016	18	0.8	110
18-08-2016	19	1.1	106
18-08-2016	20	1.5	80
18-08-2016	21	1.6	135
18-08-2016	22	1.6	119
18-08-2016	23	1.2	128
19-08-2016	0	0.8	113
19-08-2016	1	0.8	113
19-08-2016	2	0.4	160
19-08-2016	3	0.0	125
19-08-2016	4	1.0	185
19-08-2016	5	0.9	182
19-08-2016	6	0.1	182
19-08-2016	7	0.7	163
19-08-2016	8	0.4	170
19-08-2016	9	0.5	62
19-08-2016	10	0.7	95
19-08-2016	11	0.8	92
19-08-2016	12	1.2	149
24-08-2016	7	0.0	175
24-08-2016	8	0.0	243
24-08-2016	9	0.0	323
24-08-2016	10	0.0	324
24-08-2016	11	0.2	278
24-08-2016	12	1.8	176
24-08-2016	13	0.6	212
24-08-2016	14	0.3	275
24-08-2016	15	1.8	181
24-08-2016	16	2.3	168
24-08-2016	17	3.3	168
24-08-2016	18	3.7	157
24-08-2016	19	3.6	154
24-08-2016	20	2.4	156
24-08-2016	21	1.6	158
24-08-2016	22	0.1	189
24-08-2016	23	2.3	160
25-08-2016	0	2.9	153
25-08-2016	1	1.2	159
25-08-2016	2	0.8	154
25-08-2016	3	0.1	178
25-08-2016	4	0.0	104
25-08-2016	5	0.1	131
25-08-2016	6	0.0	169
25-08-2016	7	0.0	166
25-08-2016	8	0.0	214
25-08-2016	9	0.0	317
25-08-2016	10	0.0	318
25-08-2016	11	0.2	308
25-08-2016	12	0.1	293

Date	Time (HH)	Wind speed (m/s)	Wind direction (deg)
30-08-2016	7	0.0	174
30-08-2016	8	0.0	256
30-08-2016	9	0.0	323
30-08-2016	10	0.0	316
30-08-2016	11	0.0	312
30-08-2016	12	0.0	232
30-08-2016	13	0.1	210
30-08-2016	14	0.0	256
30-08-2016	15	0.4	209
30-08-2016	16	2.0	164
30-08-2016	17	2.0	149
30-08-2016	18	1.8	149
30-08-2016	19	1.2	138
30-08-2016	20	1.6	145
30-08-2016	21	1.0	163
30-08-2016	22	0.6	171
30-08-2016	23	0.8	177
31-08-2016	0	0.6	167
31-08-2016	1	0.7	175
31-08-2016	2	0.1	156
31-08-2016	3	0.2	161
31-08-2016	4	0.1	167
31-08-2016	5	0.1	171
31-08-2016	6	0.0	172
31-08-2016	7	0.0	172
31-08-2016	8	0.1	270
31-08-2016	9	0.1	273
31-08-2016	10	0.1	325
31-08-2016	11	0.3	301
31-08-2016	12	0.1	280

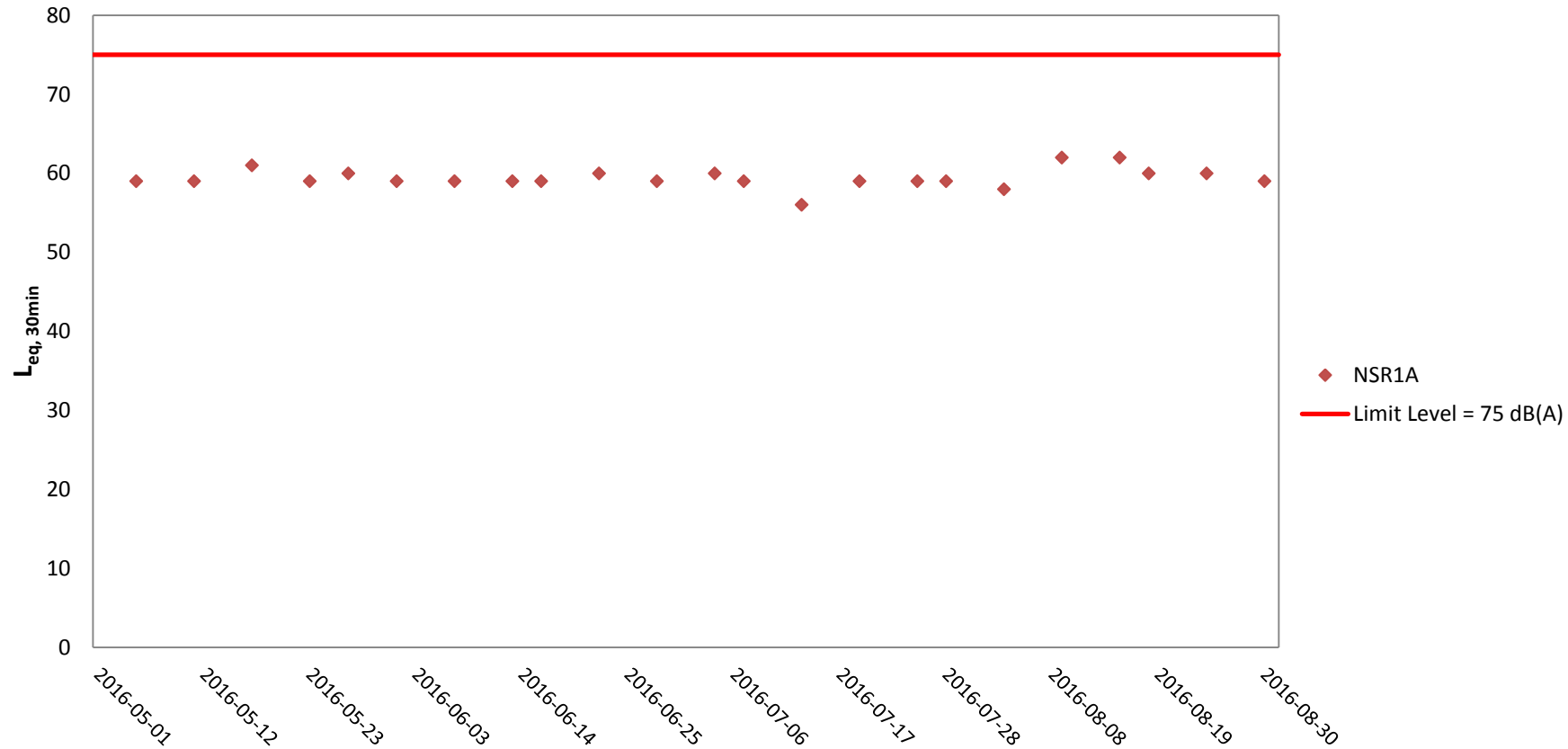
Appendix I

Impact Noise Monitoring Results and Graphical Presentation

Appendix I-1 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				
TMCLKL	HY/2012/07	2016-08-03	NSR1A	Cloudy	11:02	58	61	53	75	0.3	RION NL31 (S/N 00603867)	RION NC73 (S/N 10997142)
TMCLKL	HY/2012/07	2016-08-09	NSR1A	Cloudy	10:18	62	64	56	75	0.2	RION NL31 (S/N 00603867)	RION NC73 (S/N 10997142)
TMCLKL	HY/2012/07	2016-08-15	NSR1A	Cloudy	9:55	62	64	57	75	0.3	RION NL31 (S/N 00603867)	RION NC73 (S/N 10997142)
TMCLKL	HY/2012/07	2016-08-18	NSR1A	Cloudy	9:43	60	63	56	75	0.2	RION NL31 (S/N 00603867)	RION NC73 (S/N 10997142)
TMCLKL	HY/2012/07	2016-08-24	NSR1A	Sunny	10:27	60	62	54	75	0.2	RION NL31 (S/N 00603867)	RION NC73 (S/N 10997142)
TMCLKL	HY/2012/07	2016-08-30	NSR1A	Sunny	10:35	59	62	53	75	0.2	RION NL31 (S/N 00603867)	RION NC73 (S/N 10997142)
						Min.	58					
						Max.	62					
						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 Pier construction; Re-alignment of Cheung Tung Road; Construction of land section of berth at Southern Landfall; Installation of pier head and deck segments; and Slope work of Viaducts A, B & C.

Marine works within the reporting period include Construction and installation of pile caps; Uninstallation of marine piling platform; Pier construction; Launching gantry operation; and Installation of deck segment and 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	04-08-2016	Mid-Flood	CS(Mf)5	7:32	Surface	1	1	26.1	7.66	26.8	6.73	10.9	14.5
TMCLKL	HY/2012/07	04-08-2016	Mid-Flood	CS(Mf)5	7:32	Surface	1	2	26	7.6	26.7	6.7	11.3	15.1
TMCLKL	HY/2012/07	04-08-2016	Mid-Flood	CS(Mf)5	7:32	Middle	2	1	26	7.64	26.8	6.64	8.97	12
TMCLKL	HY/2012/07	04-08-2016	Mid-Flood	CS(Mf)5	7:32	Middle	2	2	26	7.67	26.9	6.61	9.06	12.1
TMCLKL	HY/2012/07	04-08-2016	Mid-Flood	CS(Mf)5	7:32	Bottom	3	1	25.9	7.59	27	6.43	13.1	17.5
TMCLKL	HY/2012/07	04-08-2016	Mid-Flood	CS(Mf)5	7:32	Bottom	3	2	25.9	7.61	27	6.4	12.4	16.5
TMCLKL	HY/2012/07	04-08-2016	Mid-Flood	SR4a	7:45	Surface	1	1	26	7.68	26.6	6.58	10.6	14.1
TMCLKL	HY/2012/07	04-08-2016	Mid-Flood	SR4a	7:45	Surface	1	2	26	7.71	26.5	6.6	9.95	13.3
TMCLKL	HY/2012/07	04-08-2016	Mid-Flood	SR4a	7:45	Middle	2	1						
TMCLKL	HY/2012/07	04-08-2016	Mid-Flood	SR4a	7:45	Middle	2	2						
TMCLKL	HY/2012/07	04-08-2016	Mid-Flood	SR4a	7:45	Bottom	3	1	26	7.64	26.7	6.52	10.9	14.5
TMCLKL	HY/2012/07	04-08-2016	Mid-Flood	SR4a	7:45	Bottom	3	2	26	7.67	26.7	6.5	11.4	15.2
TMCLKL	HY/2012/07	04-08-2016	Mid-Flood	SR4	7:55	Surface	1	1	26	7.63	26.5	6.48	10.6	14.1
TMCLKL	HY/2012/07	04-08-2016	Mid-Flood	SR4	7:55	Surface	1	2	25.9	7.66	26.6	6.51	11.3	15.1
TMCLKL	HY/2012/07	04-08-2016	Mid-Flood	SR4	7:55	Middle	2	1						
TMCLKL	HY/2012/07	04-08-2016	Mid-Flood	SR4	7:55	Middle	2	2						
TMCLKL	HY/2012/07	04-08-2016	Mid-Flood	SR4	7:55	Bottom	3	1	26	7.58	26.7	6.33	11.8	15.7
TMCLKL	HY/2012/07	04-08-2016	Mid-Flood	SR4	7:55	Bottom	3	2	26	7.62	26.7	6.37	12.5	16.7
TMCLKL	HY/2012/07	04-08-2016	Mid-Flood	IS8	8:06	Surface	1	1	26	7.58	26.6	6.44	9.94	13.3
TMCLKL	HY/2012/07	04-08-2016	Mid-Flood	IS8	8:06	Surface	1	2	26	7.62	26.6	6.42	10.2	13.6
TMCLKL	HY/2012/07	04-08-2016	Mid-Flood	IS8	8:06	Middle	2	1						
TMCLKL	HY/2012/07	04-08-2016	Mid-Flood	IS8	8:06	Middle	2	2						
TMCLKL	HY/2012/07	04-08-2016	Mid-Flood	IS8	8:06	Bottom	3	1	26	7.61	26.6	6.34	11.6	15.5
TMCLKL	HY/2012/07	04-08-2016	Mid-Flood	IS8	8:06	Bottom	3	2	25.9	7.63	26.7	6.3	11	14.7
TMCLKL	HY/2012/07	04-08-2016	Mid-Flood	IS(Mf)16	8:16	Surface	1	1	26	7.55	26.5	6.56	10.7	14.6
TMCLKL	HY/2012/07	04-08-2016	Mid-Flood	IS(Mf)16	8:16	Surface	1	2	26.1	7.57	26.4	6.53	11.6	15.3
TMCLKL	HY/2012/07	04-08-2016	Mid-Flood	IS(Mf)16	8:16	Middle	2	1	26	7.54	26.6	6.45	9.86	13.2
TMCLKL	HY/2012/07	04-08-2016	Mid-Flood	IS(Mf)16	8:16	Middle	2	2	26	7.51	26.5	6.4	9.91	13.3
TMCLKL	HY/2012/07	04-08-2016	Mid-Flood	IS(Mf)16	8:16	Bottom	3	1	26	7.56	26.7	6.26	12.3	16.5
TMCLKL	HY/2012/07	04-08-2016	Mid-Flood	IS(Mf)16	8:16	Bottom	3	2	25.9	7.6	26.8	6.23	13.1	17.6
TMCLKL	HY/2012/07	04-08-2016	Mid-Flood	IS(Mf)9	8:34	Surface	1	1	26.1	7.63	26.5	6.44	10.4	13.9
TMCLKL	HY/2012/07	04-08-2016	Mid-Flood	IS(Mf)9	8:34	Surface	1	2	26.1	7.6	26.5	6.47	9.97	13.4
TMCLKL	HY/2012/07	04-08-2016	Mid-Flood	IS(Mf)9	8:34	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	04-08-2016	Mid-Flood	IS(Mf)9	8:34	Middle	2	2						
TMCLKL	HY/2012/07	04-08-2016	Mid-Flood	IS(Mf)9	8:34	Bottom	3	1	26	7.64	26.5	6.3	12.7	17
TMCLKL	HY/2012/07	04-08-2016	Mid-Flood	IS(Mf)9	8:34	Bottom	3	2	26	7.62	26.6	6.33	12	16.1
TMCLKL	HY/2012/07	04-08-2016	Mid-Flood	CS(Mf)3	8:47	Surface	1	1	26.1	7.58	26.6	6.58	10.9	14.6
TMCLKL	HY/2012/07	04-08-2016	Mid-Flood	CS(Mf)3	8:47	Surface	1	2	26.1	7.62	26.6	6.54	11.5	15.4
TMCLKL	HY/2012/07	04-08-2016	Mid-Flood	CS(Mf)3	8:47	Middle	2	1	26	7.6	26.6	6.49	9.83	13.2
TMCLKL	HY/2012/07	04-08-2016	Mid-Flood	CS(Mf)3	8:47	Middle	2	2	26	7.63	26.7	6.46	9.91	13.3
TMCLKL	HY/2012/07	04-08-2016	Mid-Flood	CS(Mf)3	8:47	Bottom	3	1	26	7.58	26.8	6.29	13.2	17.7
TMCLKL	HY/2012/07	04-08-2016	Mid-Flood	CS(Mf)3	8:47	Bottom	3	2	25.9	7.6	26.8	6.31	12.4	16.6
TMCLKL	HY/2012/07	04-08-2016	Mid-Ebb	CS(Mf)5	14:10	Surface	1	1	26.7	7.7	26.8	6.69	10.8	14.5
TMCLKL	HY/2012/07	04-08-2016	Mid-Ebb	CS(Mf)5	14:10	Surface	1	2	26.7	7.71	26.8	6.65	10.7	14.3
TMCLKL	HY/2012/07	04-08-2016	Mid-Ebb	CS(Mf)5	14:10	Middle	2	1	26.5	7.71	26.9	6.44	11.9	15.9
TMCLKL	HY/2012/07	04-08-2016	Mid-Ebb	CS(Mf)5	14:10	Middle	2	2	26.4	7.72	26.9	6.4	11.9	15.9
TMCLKL	HY/2012/07	04-08-2016	Mid-Ebb	CS(Mf)5	14:10	Bottom	3	1	26.3	7.74	27	6.36	12.3	16.5
TMCLKL	HY/2012/07	04-08-2016	Mid-Ebb	CS(Mf)5	14:10	Bottom	3	2	26.2	7.72	27	6.39	12.2	16.3
TMCLKL	HY/2012/07	04-08-2016	Mid-Ebb	SR4a	13:50	Surface	1	1	26.6	7.66	26.7	6.48	11.1	15
TMCLKL	HY/2012/07	04-08-2016	Mid-Ebb	SR4a	13:50	Surface	1	2	26.7	7.68	26.7	6.44	11.3	15.3
TMCLKL	HY/2012/07	04-08-2016	Mid-Ebb	SR4a	13:50	Middle	2	1						
TMCLKL	HY/2012/07	04-08-2016	Mid-Ebb	SR4a	13:50	Middle	2	2						
TMCLKL	HY/2012/07	04-08-2016	Mid-Ebb	SR4a	13:50	Bottom	3	1	26.3	7.7	26.8	6.26	11.8	16
TMCLKL	HY/2012/07	04-08-2016	Mid-Ebb	SR4a	13:50	Bottom	3	2	26.3	7.71	26.8	6.22	11.9	16.3
TMCLKL	HY/2012/07	04-08-2016	Mid-Ebb	SR4	13:31	Surface	1	1	26.6	7.64	26.4	6.6	10.2	13.8
TMCLKL	HY/2012/07	04-08-2016	Mid-Ebb	SR4	13:31	Surface	1	2	26.6	7.66	26.5	6.57	10.3	13.9
TMCLKL	HY/2012/07	04-08-2016	Mid-Ebb	SR4	13:31	Middle	2	1						
TMCLKL	HY/2012/07	04-08-2016	Mid-Ebb	SR4	13:31	Middle	2	2						
TMCLKL	HY/2012/07	04-08-2016	Mid-Ebb	SR4	13:31	Bottom	3	1	26.4	7.69	26.5	6.36	11.2	15.2
TMCLKL	HY/2012/07	04-08-2016	Mid-Ebb	SR4	13:31	Bottom	3	2	26.3	7.7	26.4	6.32	11.2	15.3
TMCLKL	HY/2012/07	04-08-2016	Mid-Ebb	IS8	13:16	Surface	1	1	26.5	7.62	26.4	6.43	10.1	13.6
TMCLKL	HY/2012/07	04-08-2016	Mid-Ebb	IS8	13:16	Surface	1	2	26.6	7.61	26.4	6.4	10.1	13.6
TMCLKL	HY/2012/07	04-08-2016	Mid-Ebb	IS8	13:16	Middle	2	1						
TMCLKL	HY/2012/07	04-08-2016	Mid-Ebb	IS8	13:16	Middle	2	2						
TMCLKL	HY/2012/07	04-08-2016	Mid-Ebb	IS8	13:16	Bottom	3	1	26.3	7.66	26.5	6.21	10.8	14.6
TMCLKL	HY/2012/07	04-08-2016	Mid-Ebb	IS8	13:16	Bottom	3	2	26.3	7.68	26.5	6.17	10.7	14.4

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	04-08-2016	Mid-Ebb	IS(Mf)16	12:56	Surface	1	1	26.5	7.65	26.7	6.55	9.98	13.6
TMCLKL	HY/2012/07	04-08-2016	Mid-Ebb	IS(Mf)16	12:56	Surface	1	2	26.4	7.65	26.6	6.58	9.97	13.4
TMCLKL	HY/2012/07	04-08-2016	Mid-Ebb	IS(Mf)16	12:56	Middle	2	1	26.3	7.69	26.8	6.39	10.6	14.3
TMCLKL	HY/2012/07	04-08-2016	Mid-Ebb	IS(Mf)16	12:56	Middle	2	2	26.3	7.68	26.8	6.35	10.7	14.7
TMCLKL	HY/2012/07	04-08-2016	Mid-Ebb	IS(Mf)16	12:56	Bottom	3	1	26.2	7.61	26.9	6.34	11.5	15.5
TMCLKL	HY/2012/07	04-08-2016	Mid-Ebb	IS(Mf)16	12:56	Bottom	3	2	26.2	7.63	26.8	6.3	11.5	15.5
TMCLKL	HY/2012/07	04-08-2016	Mid-Ebb	IS(Mf)9	12:40	Surface	1	1	26.5	7.72	26.6	6.39	10.6	14.3
TMCLKL	HY/2012/07	04-08-2016	Mid-Ebb	IS(Mf)9	12:40	Surface	1	2	26.5	7.73	26.6	6.43	10.8	14.6
TMCLKL	HY/2012/07	04-08-2016	Mid-Ebb	IS(Mf)9	12:40	Middle	2	1						
TMCLKL	HY/2012/07	04-08-2016	Mid-Ebb	IS(Mf)9	12:40	Middle	2	2						
TMCLKL	HY/2012/07	04-08-2016	Mid-Ebb	IS(Mf)9	12:40	Bottom	3	1	26.3	7.75	26.7	6.27	11.9	16.1
TMCLKL	HY/2012/07	04-08-2016	Mid-Ebb	IS(Mf)9	12:40	Bottom	3	2	26.2	7.76	26.8	6.24	12.1	16.3
TMCLKL	HY/2012/07	04-08-2016	Mid-Ebb	CS(Mf)3	12:19	Surface	1	1	26.6	7.69	26.7	6.53	10.8	14.6
TMCLKL	HY/2012/07	04-08-2016	Mid-Ebb	CS(Mf)3	12:19	Surface	1	2	26.5	7.67	26.6	6.58	10.7	14.4
TMCLKL	HY/2012/07	04-08-2016	Mid-Ebb	CS(Mf)3	12:19	Middle	2	1	26.4	7.64	26.7	6.42	11.2	15.1
TMCLKL	HY/2012/07	04-08-2016	Mid-Ebb	CS(Mf)3	12:19	Middle	2	2	26.3	7.66	26.8	6.37	11.3	15.3
TMCLKL	HY/2012/07	04-08-2016	Mid-Ebb	CS(Mf)3	12:19	Bottom	3	1	26.3	7.72	26.8	6.26	12.1	16.4
TMCLKL	HY/2012/07	04-08-2016	Mid-Ebb	CS(Mf)3	12:19	Bottom	3	2	26.3	7.72	26.8	6.23	12.2	16.5
TMCLKL	HY/2012/07	06-08-2016	Mid-Flood	CS(Mf)5	8:18	Surface	1	1	26.7	7.76	27.2	6.89	9.84	13.4
TMCLKL	HY/2012/07	06-08-2016	Mid-Flood	CS(Mf)5	8:18	Surface	1	2	26.8	7.8	27.3	6.85	9.93	13.5
TMCLKL	HY/2012/07	06-08-2016	Mid-Flood	CS(Mf)5	8:18	Middle	2	1	26.6	7.7	27.4	6.8	8.76	11.9
TMCLKL	HY/2012/07	06-08-2016	Mid-Flood	CS(Mf)5	8:18	Middle	2	2	26.6	7.73	27.4	6.77	8.83	12
TMCLKL	HY/2012/07	06-08-2016	Mid-Flood	CS(Mf)5	8:18	Bottom	3	1	26.4	7.8	27.6	6.59	11.2	15.5
TMCLKL	HY/2012/07	06-08-2016	Mid-Flood	CS(Mf)5	8:18	Bottom	3	2	26.4	7.77	27.7	6.56	10.5	14.5
TMCLKL	HY/2012/07	06-08-2016	Mid-Flood	SR4a	8:40	Surface	1	1	26.8	7.83	27.3	6.86	9.75	13.1
TMCLKL	HY/2012/07	06-08-2016	Mid-Flood	SR4a	8:40	Surface	1	2	26.8	7.81	27.3	6.79	9.82	13.2
TMCLKL	HY/2012/07	06-08-2016	Mid-Flood	SR4a	8:40	Middle	2	1						
TMCLKL	HY/2012/07	06-08-2016	Mid-Flood	SR4a	8:40	Middle	2	2						
TMCLKL	HY/2012/07	06-08-2016	Mid-Flood	SR4a	8:40	Bottom	3	1	26.8	7.76	27.5	6.7	9.36	12.7
TMCLKL	HY/2012/07	06-08-2016	Mid-Flood	SR4a	8:40	Bottom	3	2	26.7	7.77	27.4	6.67	9.45	12.9
TMCLKL	HY/2012/07	06-08-2016	Mid-Flood	SR4	8:56	Surface	1	1	26.8	7.73	27.3	6.74	9.58	13
TMCLKL	HY/2012/07	06-08-2016	Mid-Flood	SR4	8:56	Surface	1	2	26.9	7.7	27.4	6.7	9.64	13.1
TMCLKL	HY/2012/07	06-08-2016	Mid-Flood	SR4	8:56	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	06-08-2016	Mid-Flood	SR4	8:56	Middle	2	2						
TMCLKL	HY/2012/07	06-08-2016	Mid-Flood	SR4	8:56	Bottom	3	1	26.8	7.74	27.6	6.58	9.93	13.5
TMCLKL	HY/2012/07	06-08-2016	Mid-Flood	SR4	8:56	Bottom	3	2	26.8	7.71	27.5	6.61	9.85	13.4
TMCLKL	HY/2012/07	06-08-2016	Mid-Flood	IS8	9:12	Surface	1	1	26.8	7.69	27.4	6.68	9.39	12.8
TMCLKL	HY/2012/07	06-08-2016	Mid-Flood	IS8	9:12	Surface	1	2	26.8	7.71	27.4	6.71	9.44	12.8
TMCLKL	HY/2012/07	06-08-2016	Mid-Flood	IS8	9:12	Middle	2	1						
TMCLKL	HY/2012/07	06-08-2016	Mid-Flood	IS8	9:12	Middle	2	2						
TMCLKL	HY/2012/07	06-08-2016	Mid-Flood	IS8	9:12	Bottom	3	1	26.8	7.74	27.6	6.55	9.7	13.2
TMCLKL	HY/2012/07	06-08-2016	Mid-Flood	IS8	9:12	Bottom	3	2	26.8	7.7	27.6	6.52	9.77	13.3
TMCLKL	HY/2012/07	06-08-2016	Mid-Flood	IS(Mf)16	9:29	Surface	1	1	26.8	7.73	27.4	6.64	9.56	13
TMCLKL	HY/2012/07	06-08-2016	Mid-Flood	IS(Mf)16	9:29	Surface	1	2	26.9	7.7	27.5	6.6	9.62	13.1
TMCLKL	HY/2012/07	06-08-2016	Mid-Flood	IS(Mf)16	9:29	Middle	2	1	26.8	7.78	27.7	6.52	9.78	13.1
TMCLKL	HY/2012/07	06-08-2016	Mid-Flood	IS(Mf)16	9:29	Middle	2	2	26.8	7.73	27.7	6.5	9.84	13.2
TMCLKL	HY/2012/07	06-08-2016	Mid-Flood	IS(Mf)16	9:29	Bottom	3	1	26.6	7.66	27.9	6.38	10.7	14.3
TMCLKL	HY/2012/07	06-08-2016	Mid-Flood	IS(Mf)16	9:29	Bottom	3	2	26.6	7.7	27.9	6.35	10.1	13.5
TMCLKL	HY/2012/07	06-08-2016	Mid-Flood	IS(Mf)9	9:49	Surface	1	1	26.9	7.65	27.5	6.74	9.28	12.4
TMCLKL	HY/2012/07	06-08-2016	Mid-Flood	IS(Mf)9	9:49	Surface	1	2	26.9	7.68	27.6	6.7	9.34	12.5
TMCLKL	HY/2012/07	06-08-2016	Mid-Flood	IS(Mf)9	9:49	Middle	2	1						
TMCLKL	HY/2012/07	06-08-2016	Mid-Flood	IS(Mf)9	9:49	Middle	2	2						
TMCLKL	HY/2012/07	06-08-2016	Mid-Flood	IS(Mf)9	9:49	Bottom	3	1	26.9	7.73	27.7	6.53	9.69	13
TMCLKL	HY/2012/07	06-08-2016	Mid-Flood	IS(Mf)9	9:49	Bottom	3	2	26.8	7.7	27.7	6.56	9.75	13.1
TMCLKL	HY/2012/07	06-08-2016	Mid-Flood	CS(Mf)3	10:06	Surface	1	1	26.9	7.73	27.6	6.85	9.52	12.8
TMCLKL	HY/2012/07	06-08-2016	Mid-Flood	CS(Mf)3	10:06	Surface	1	2	27	7.7	27.7	6.81	9.66	12.9
TMCLKL	HY/2012/07	06-08-2016	Mid-Flood	CS(Mf)3	10:06	Middle	2	1	26.9	7.7	27.8	6.7	9.78	13.1
TMCLKL	HY/2012/07	06-08-2016	Mid-Flood	CS(Mf)3	10:06	Middle	2	2	26.8	7.67	27.9	6.67	9.85	13.2
TMCLKL	HY/2012/07	06-08-2016	Mid-Flood	CS(Mf)3	10:06	Bottom	3	1	26.7	7.75	28.1	6.45	10.2	13.7
TMCLKL	HY/2012/07	06-08-2016	Mid-Flood	CS(Mf)3	10:06	Bottom	3	2	26.8	7.8	28	6.47	11.1	14.4
TMCLKL	HY/2012/07	06-08-2016	Mid-Ebb	CS(Mf)5	15:46	Surface	1	1	26.9	7.82	27.3	6.8	9.9	13.3
TMCLKL	HY/2012/07	06-08-2016	Mid-Ebb	CS(Mf)5	15:46	Surface	1	2	26.8	7.86	27.4	6.76	9.99	13.4
TMCLKL	HY/2012/07	06-08-2016	Mid-Ebb	CS(Mf)5	15:46	Middle	2	1	26.7	7.76	27.5	6.71	8.82	11.8
TMCLKL	HY/2012/07	06-08-2016	Mid-Ebb	CS(Mf)5	15:46	Middle	2	2	26.6	7.79	27.4	6.68	8.89	11.9
TMCLKL	HY/2012/07	06-08-2016	Mid-Ebb	CS(Mf)5	15:46	Bottom	3	1	26.5	7.86	27.7	6.5	11.8	15.8
TMCLKL	HY/2012/07	06-08-2016	Mid-Ebb	CS(Mf)5	15:46	Bottom	3	2	26.4	7.83	27.8	6.47	11.1	14.9

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	06-08-2016	Mid-Ebb	SR4a	15:22	Surface	1	1	26.9	7.86	27.3	6.77	9.81	13.2
TMCLKL	HY/2012/07	06-08-2016	Mid-Ebb	SR4a	15:22	Surface	1	2	26.8	7.87	27.4	6.7	9.88	13.3
TMCLKL	HY/2012/07	06-08-2016	Mid-Ebb	SR4a	15:22	Middle	2	1						
TMCLKL	HY/2012/07	06-08-2016	Mid-Ebb	SR4a	15:22	Middle	2	2						
TMCLKL	HY/2012/07	06-08-2016	Mid-Ebb	SR4a	15:22	Bottom	3	1	26.7	7.82	27.5	6.61	9.42	12.8
TMCLKL	HY/2012/07	06-08-2016	Mid-Ebb	SR4a	15:22	Bottom	3	2	26.8	7.83	27.6	6.58	9.51	13
TMCLKL	HY/2012/07	06-08-2016	Mid-Ebb	SR4	15:00	Surface	1	1	27	7.79	27.5	6.65	9.64	13
TMCLKL	HY/2012/07	06-08-2016	Mid-Ebb	SR4	15:00	Surface	1	2	26.9	7.76	27.4	6.61	9.7	13.1
TMCLKL	HY/2012/07	06-08-2016	Mid-Ebb	SR4	15:00	Middle	2	1						
TMCLKL	HY/2012/07	06-08-2016	Mid-Ebb	SR4	15:00	Middle	2	2						
TMCLKL	HY/2012/07	06-08-2016	Mid-Ebb	SR4	15:00	Bottom	3	1	26.9	7.8	27.6	6.49	9.99	13.6
TMCLKL	HY/2012/07	06-08-2016	Mid-Ebb	SR4	15:00	Bottom	3	2	26.8	7.77	27.7	6.52	9.91	13.6
TMCLKL	HY/2012/07	06-08-2016	Mid-Ebb	IS8	14:38	Surface	1	1	26.9	7.75	27.4	6.59	9.45	12.8
TMCLKL	HY/2012/07	06-08-2016	Mid-Ebb	IS8	14:38	Surface	1	2	26.8	7.77	27.5	6.62	9.5	12.8
TMCLKL	HY/2012/07	06-08-2016	Mid-Ebb	IS8	14:38	Middle	2	1						
TMCLKL	HY/2012/07	06-08-2016	Mid-Ebb	IS8	14:38	Middle	2	2						
TMCLKL	HY/2012/07	06-08-2016	Mid-Ebb	IS8	14:38	Bottom	3	1	26.7	7.8	27.7	6.46	9.76	13.2
TMCLKL	HY/2012/07	06-08-2016	Mid-Ebb	IS8	14:38	Bottom	3	2	26.8	7.76	27.6	6.43	9.83	13.3
TMCLKL	HY/2012/07	06-08-2016	Mid-Ebb	IS(Mf)16	14:16	Surface	1	1	27	7.79	27.5	6.55	9.62	13.1
TMCLKL	HY/2012/07	06-08-2016	Mid-Ebb	IS(Mf)16	14:16	Surface	1	2	26.9	7.76	27.6	6.51	9.68	13
TMCLKL	HY/2012/07	06-08-2016	Mid-Ebb	IS(Mf)16	14:16	Middle	2	1	26.8	7.84	27.7	6.43	9.74	13.1
TMCLKL	HY/2012/07	06-08-2016	Mid-Ebb	IS(Mf)16	14:16	Middle	2	2	26.9	7.79	27.8	6.41	9.9	13.6
TMCLKL	HY/2012/07	06-08-2016	Mid-Ebb	IS(Mf)16	14:16	Bottom	3	1	26.7	7.72	27.9	6.29	11.3	15
TMCLKL	HY/2012/07	06-08-2016	Mid-Ebb	IS(Mf)16	14:16	Bottom	3	2	26.6	7.76	28	6.26	10.7	14.4
TMCLKL	HY/2012/07	06-08-2016	Mid-Ebb	IS(Mf)9	13:54	Surface	1	1	27	7.71	27.6	6.65	9.34	12.6
TMCLKL	HY/2012/07	06-08-2016	Mid-Ebb	IS(Mf)9	13:54	Surface	1	2	26.9	7.74	27.7	6.61	9.4	12.7
TMCLKL	HY/2012/07	06-08-2016	Mid-Ebb	IS(Mf)9	13:54	Middle	2	1						
TMCLKL	HY/2012/07	06-08-2016	Mid-Ebb	IS(Mf)9	13:54	Middle	2	2						
TMCLKL	HY/2012/07	06-08-2016	Mid-Ebb	IS(Mf)9	13:54	Bottom	3	1	26.8	7.79	27.7	6.44	9.75	13.2
TMCLKL	HY/2012/07	06-08-2016	Mid-Ebb	IS(Mf)9	13:54	Bottom	3	2	26.9	7.76	27.8	6.47	9.81	13.2
TMCLKL	HY/2012/07	06-08-2016	Mid-Ebb	CS(Mf)3	13:32	Surface	1	1	27.1	7.79	27.7	6.76	9.58	12.9
TMCLKL	HY/2012/07	06-08-2016	Mid-Ebb	CS(Mf)3	13:32	Surface	1	2	27	7.76	27.8	6.72	9.62	13
TMCLKL	HY/2012/07	06-08-2016	Mid-Ebb	CS(Mf)3	13:32	Middle	2	1	27	7.76	27.9	6.61	9.84	13.3

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	06-08-2016	Mid-Ebb	CS(Mf)3	13:32	Middle	2	2	26.9	7.73	28	6.58	9.91	13.4
TMCLKL	HY/2012/07	06-08-2016	Mid-Ebb	CS(Mf)3	13:32	Bottom	3	1	26.9	7.81	28.2	6.36	10.8	14.6
TMCLKL	HY/2012/07	06-08-2016	Mid-Ebb	CS(Mf)3	13:32	Bottom	3	2	26.8	7.86	28.1	6.38	11.7	15.2
TMCLKL	HY/2012/07	09-08-2016	Mid-Flood	CS(Mf)5	10:01	Surface	1	1	26.9	7.88	27.4	6.86	9.81	13.2
TMCLKL	HY/2012/07	09-08-2016	Mid-Flood	CS(Mf)5	10:01	Surface	1	2	27	7.92	27.5	6.82	9.9	13.4
TMCLKL	HY/2012/07	09-08-2016	Mid-Flood	CS(Mf)5	10:01	Middle	2	1	26.8	7.82	27.5	6.77	9.73	13.1
TMCLKL	HY/2012/07	09-08-2016	Mid-Flood	CS(Mf)5	10:01	Middle	2	2	26.7	7.85	27.6	6.74	9.8	13.2
TMCLKL	HY/2012/07	09-08-2016	Mid-Flood	CS(Mf)5	10:01	Bottom	3	1	26.6	7.92	27.8	6.56	10.9	14.8
TMCLKL	HY/2012/07	09-08-2016	Mid-Flood	CS(Mf)5	10:01	Bottom	3	2	26.5	7.89	27.9	6.53	10.2	14
TMCLKL	HY/2012/07	09-08-2016	Mid-Flood	SR4a	10:23	Surface	1	1	27	7.95	27.4	6.83	9.72	13.1
TMCLKL	HY/2012/07	09-08-2016	Mid-Flood	SR4a	10:23	Surface	1	2	26.9	7.93	27.5	6.76	9.79	13.2
TMCLKL	HY/2012/07	09-08-2016	Mid-Flood	SR4a	10:23	Middle	2	1						
TMCLKL	HY/2012/07	09-08-2016	Mid-Flood	SR4a	10:23	Middle	2	2						
TMCLKL	HY/2012/07	09-08-2016	Mid-Flood	SR4a	10:23	Bottom	3	1	26.9	7.88	27.6	6.67	9.33	12.7
TMCLKL	HY/2012/07	09-08-2016	Mid-Flood	SR4a	10:23	Bottom	3	2	26.8	7.89	27.7	6.64	9.42	12.9
TMCLKL	HY/2012/07	09-08-2016	Mid-Flood	SR4	10:45	Surface	1	1	27.1	7.85	27.5	6.71	9.55	12.9
TMCLKL	HY/2012/07	09-08-2016	Mid-Flood	SR4	10:45	Surface	1	2	27	7.82	27.6	6.67	9.61	13
TMCLKL	HY/2012/07	09-08-2016	Mid-Flood	SR4	10:45	Middle	2	1						
TMCLKL	HY/2012/07	09-08-2016	Mid-Flood	SR4	10:45	Middle	2	2						
TMCLKL	HY/2012/07	09-08-2016	Mid-Flood	SR4	10:45	Bottom	3	1	27	7.86	27.7	6.55	9.9	13.6
TMCLKL	HY/2012/07	09-08-2016	Mid-Flood	SR4	10:45	Bottom	3	2	26.9	7.83	27.8	6.58	9.82	13.4
TMCLKL	HY/2012/07	09-08-2016	Mid-Flood	IS8	11:07	Surface	1	1	27	7.81	27.5	6.65	9.36	12.6
TMCLKL	HY/2012/07	09-08-2016	Mid-Flood	IS8	11:07	Surface	1	2	26.9	7.83	27.6	6.68	9.41	12.7
TMCLKL	HY/2012/07	09-08-2016	Mid-Flood	IS8	11:07	Middle	2	1						
TMCLKL	HY/2012/07	09-08-2016	Mid-Flood	IS8	11:07	Middle	2	2						
TMCLKL	HY/2012/07	09-08-2016	Mid-Flood	IS8	11:07	Bottom	3	1	26.9	7.86	27.7	6.52	9.67	13.1
TMCLKL	HY/2012/07	09-08-2016	Mid-Flood	IS8	11:07	Bottom	3	2	26.8	7.82	27.8	6.49	9.74	13.1
TMCLKL	HY/2012/07	09-08-2016	Mid-Flood	IS(Mf)16	11:29	Surface	1	1	27.1	7.85	27.6	6.61	9.53	12.9
TMCLKL	HY/2012/07	09-08-2016	Mid-Flood	IS(Mf)16	11:29	Surface	1	2	27	7.82	27.7	6.57	9.59	12.9
TMCLKL	HY/2012/07	09-08-2016	Mid-Flood	IS(Mf)16	11:29	Middle	2	1	26.9	7.9	27.9	6.49	9.65	13.1
TMCLKL	HY/2012/07	09-08-2016	Mid-Flood	IS(Mf)16	11:29	Middle	2	2	27	7.85	27.8	6.47	9.81	13.3
TMCLKL	HY/2012/07	09-08-2016	Mid-Flood	IS(Mf)16	11:29	Bottom	3	1	26.8	7.78	28	6.35	10.4	14.1
TMCLKL	HY/2012/07	09-08-2016	Mid-Flood	IS(Mf)16	11:29	Bottom	3	2	26.7	7.82	28.1	6.32	9.98	13.6

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	09-08-2016	Mid-Flood	IS(Mf)9	11:51	Surface	1	1	27.1	7.77	27.7	6.71	9.25	12.6
TMCLKL	HY/2012/07	09-08-2016	Mid-Flood	IS(Mf)9	11:51	Surface	1	2	27	7.8	27.8	6.67	9.31	12.7
TMCLKL	HY/2012/07	09-08-2016	Mid-Flood	IS(Mf)9	11:51	Middle	2	1						
TMCLKL	HY/2012/07	09-08-2016	Mid-Flood	IS(Mf)9	11:51	Middle	2	2						
TMCLKL	HY/2012/07	09-08-2016	Mid-Flood	IS(Mf)9	11:51	Bottom	3	1	27	7.85	27.8	6.5	9.66	13.1
TMCLKL	HY/2012/07	09-08-2016	Mid-Flood	IS(Mf)9	11:51	Bottom	3	2	26.9	7.82	27.9	6.53	9.72	13.2
TMCLKL	HY/2012/07	09-08-2016	Mid-Flood	CS(Mf)3	12:15	Surface	1	1	27.2	7.85	27.8	6.82	9.49	12.9
TMCLKL	HY/2012/07	09-08-2016	Mid-Flood	CS(Mf)3	12:15	Surface	1	2	27.1	7.82	27.9	6.78	9.53	13
TMCLKL	HY/2012/07	09-08-2016	Mid-Flood	CS(Mf)3	12:15	Middle	2	1	27.1	7.82	28.1	6.67	9.75	13.3
TMCLKL	HY/2012/07	09-08-2016	Mid-Flood	CS(Mf)3	12:15	Middle	2	2	27	7.79	28	6.64	9.82	13.4
TMCLKL	HY/2012/07	09-08-2016	Mid-Flood	CS(Mf)3	12:15	Bottom	3	1	26.9	7.87	28.2	6.42	9.9	13.6
TMCLKL	HY/2012/07	09-08-2016	Mid-Flood	CS(Mf)3	12:15	Bottom	3	2	27	7.92	28.3	6.44	10.8	13.6
TMCLKL	HY/2012/07	09-08-2016	Mid-Ebb	CS(Mf)5	17:13	Surface	1	1	27	7.79	27.2	6.78	9.78	13.3
TMCLKL	HY/2012/07	09-08-2016	Mid-Ebb	CS(Mf)5	17:13	Surface	1	2	27	7.82	27.2	6.76	9.86	13.4
TMCLKL	HY/2012/07	09-08-2016	Mid-Ebb	CS(Mf)5	17:13	Middle	2	1	27	7.76	27.3	6.68	9.95	13.5
TMCLKL	HY/2012/07	09-08-2016	Mid-Ebb	CS(Mf)5	17:13	Middle	2	2	26.9	7.79	27.4	6.64	9.89	13.5
TMCLKL	HY/2012/07	09-08-2016	Mid-Ebb	CS(Mf)5	17:13	Bottom	3	1	26.8	7.84	27.6	6.47	10.9	14.8
TMCLKL	HY/2012/07	09-08-2016	Mid-Ebb	CS(Mf)5	17:13	Bottom	3	2	26.8	7.8	27.7	6.44	11.5	15.6
TMCLKL	HY/2012/07	09-08-2016	Mid-Ebb	SR4a	16:50	Surface	1	1	27	7.84	27.2	6.74	9.64	13
TMCLKL	HY/2012/07	09-08-2016	Mid-Ebb	SR4a	16:50	Surface	1	2	27.1	7.8	27.2	6.71	9.71	13.1
TMCLKL	HY/2012/07	09-08-2016	Mid-Ebb	SR4a	16:50	Middle	2	1						
TMCLKL	HY/2012/07	09-08-2016	Mid-Ebb	SR4a	16:50	Middle	2	2						
TMCLKL	HY/2012/07	09-08-2016	Mid-Ebb	SR4a	16:50	Bottom	3	1	27	7.75	27.5	6.62	9.83	13.4
TMCLKL	HY/2012/07	09-08-2016	Mid-Ebb	SR4a	16:50	Bottom	3	2	26.9	7.79	27.4	6.6	9.74	13.3
TMCLKL	HY/2012/07	09-08-2016	Mid-Ebb	SR4	16:32	Surface	1	1	27.1	7.79	27.3	6.6	9.63	13
TMCLKL	HY/2012/07	09-08-2016	Mid-Ebb	SR4	16:32	Surface	1	2	27.1	7.81	27.2	6.56	9.57	12.9
TMCLKL	HY/2012/07	09-08-2016	Mid-Ebb	SR4	16:32	Middle	2	1						
TMCLKL	HY/2012/07	09-08-2016	Mid-Ebb	SR4	16:32	Middle	2	2						
TMCLKL	HY/2012/07	09-08-2016	Mid-Ebb	SR4	16:32	Bottom	3	1	27	7.82	27.4	6.47	10.4	14.1
TMCLKL	HY/2012/07	09-08-2016	Mid-Ebb	SR4	16:32	Bottom	3	2	27	7.78	27.5	6.5	9.96	13.6
TMCLKL	HY/2012/07	09-08-2016	Mid-Ebb	IS8	16:14	Surface	1	1	27	7.78	27.2	6.63	9.48	12.8
TMCLKL	HY/2012/07	09-08-2016	Mid-Ebb	IS8	16:14	Surface	1	2	27.1	7.8	27.3	6.59	9.55	12.9
TMCLKL	HY/2012/07	09-08-2016	Mid-Ebb	IS8	16:14	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	09-08-2016	Mid-Ebb	IS8	16:14	Middle	2	2						
TMCLKL	HY/2012/07	09-08-2016	Mid-Ebb	IS8	16:14	Bottom	3	1	27	7.83	27.6	6.48	9.93	13.4
TMCLKL	HY/2012/07	09-08-2016	Mid-Ebb	IS8	16:14	Bottom	3	2	27	7.85	27.6	6.45	9.86	13.3
TMCLKL	HY/2012/07	09-08-2016	Mid-Ebb	IS(Mf)16	15:52	Surface	1	1	27	7.76	27.3	6.48	9.62	13.1
TMCLKL	HY/2012/07	09-08-2016	Mid-Ebb	IS(Mf)16	15:52	Surface	1	2	27	7.79	27.4	6.53	9.69	13
TMCLKL	HY/2012/07	09-08-2016	Mid-Ebb	IS(Mf)16	15:52	Middle	2	1	27	7.73	27.5	6.44	9.8	13.2
TMCLKL	HY/2012/07	09-08-2016	Mid-Ebb	IS(Mf)16	15:52	Middle	2	2	27	7.78	27.6	6.41	9.76	13.4
TMCLKL	HY/2012/07	09-08-2016	Mid-Ebb	IS(Mf)16	15:52	Bottom	3	1	26.8	7.74	27.8	6.3	11.6	15.3
TMCLKL	HY/2012/07	09-08-2016	Mid-Ebb	IS(Mf)16	15:52	Bottom	3	2	26.9	7.71	27.9	6.27	10.8	14.6
TMCLKL	HY/2012/07	09-08-2016	Mid-Ebb	IS(Mf)9	15:33	Surface	1	1	27.1	7.69	27.4	6.67	9.53	12.9
TMCLKL	HY/2012/07	09-08-2016	Mid-Ebb	IS(Mf)9	15:33	Surface	1	2	27	7.73	27.4	6.64	9.61	13
TMCLKL	HY/2012/07	09-08-2016	Mid-Ebb	IS(Mf)9	15:33	Middle	2	1						
TMCLKL	HY/2012/07	09-08-2016	Mid-Ebb	IS(Mf)9	15:33	Middle	2	2						
TMCLKL	HY/2012/07	09-08-2016	Mid-Ebb	IS(Mf)9	15:33	Bottom	3	1	27	7.71	27.6	6.5	9.85	13.3
TMCLKL	HY/2012/07	09-08-2016	Mid-Ebb	IS(Mf)9	15:33	Bottom	3	2	27	7.74	27.6	6.47	9.9	13.4
TMCLKL	HY/2012/07	09-08-2016	Mid-Ebb	CS(Mf)3	15:11	Surface	1	1	27.1	7.8	27.5	6.75	9.73	13.1
TMCLKL	HY/2012/07	09-08-2016	Mid-Ebb	CS(Mf)3	15:11	Surface	1	2	27.1	7.77	27.4	6.72	9.82	13.3
TMCLKL	HY/2012/07	09-08-2016	Mid-Ebb	CS(Mf)3	15:11	Middle	2	1	27	7.83	27.9	6.59	9.95	13.4
TMCLKL	HY/2012/07	09-08-2016	Mid-Ebb	CS(Mf)3	15:11	Middle	2	2	27	7.81	28	6.56	10.1	13.6
TMCLKL	HY/2012/07	09-08-2016	Mid-Ebb	CS(Mf)3	15:11	Bottom	3	1	27	7.78	28.2	6.35	11.6	15.7
TMCLKL	HY/2012/07	09-08-2016	Mid-Ebb	CS(Mf)3	15:11	Bottom	3	2	26.9	7.8	28.2	6.38	12.1	15.7
TMCLKL	HY/2012/07	11-08-2016	Mid-Flood	CS(Mf)5	12:28	Surface	1	1	26.2	7.67	27.1	6.78	10.8	14.4
TMCLKL	HY/2012/07	11-08-2016	Mid-Flood	CS(Mf)5	12:28	Surface	1	2	26.3	7.69	27	6.75	11.3	15
TMCLKL	HY/2012/07	11-08-2016	Mid-Flood	CS(Mf)5	12:28	Middle	2	1	26.3	7.73	27.1	6.68	9.95	13.2
TMCLKL	HY/2012/07	11-08-2016	Mid-Flood	CS(Mf)5	12:28	Middle	2	2	26.3	7.68	27.2	6.7	10.4	13.8
TMCLKL	HY/2012/07	11-08-2016	Mid-Flood	CS(Mf)5	12:28	Bottom	3	1	26.1	7.66	27.4	6.59	13.6	18.1
TMCLKL	HY/2012/07	11-08-2016	Mid-Flood	CS(Mf)5	12:28	Bottom	3	2	26.1	7.69	27.4	6.54	14.3	19
TMCLKL	HY/2012/07	11-08-2016	Mid-Flood	SR4a	12:55	Surface	1	1	26.2	7.72	26.9	6.72	11.8	15.7
TMCLKL	HY/2012/07	11-08-2016	Mid-Flood	SR4a	12:55	Surface	1	2	26.1	7.76	27	6.69	11	14.6
TMCLKL	HY/2012/07	11-08-2016	Mid-Flood	SR4a	12:55	Middle	2	1						
TMCLKL	HY/2012/07	11-08-2016	Mid-Flood	SR4a	12:55	Middle	2	2						
TMCLKL	HY/2012/07	11-08-2016	Mid-Flood	SR4a	12:55	Bottom	3	1	26.1	7.73	27	6.6	12.6	16.8
TMCLKL	HY/2012/07	11-08-2016	Mid-Flood	SR4a	12:55	Bottom	3	2	26.1	7.7	27	6.56	11.9	15.8

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	11-08-2016	Mid-Flood	SR4	13:13	Surface	1	1	26.2	7.78	26.9	6.83	12.4	16.5
TMCLKL	HY/2012/07	11-08-2016	Mid-Flood	SR4	13:13	Surface	1	2	26.2	7.75	26.9	6.8	11.6	15.4
TMCLKL	HY/2012/07	11-08-2016	Mid-Flood	SR4	13:13	Middle	2	1						
TMCLKL	HY/2012/07	11-08-2016	Mid-Flood	SR4	13:13	Middle	2	2						
TMCLKL	HY/2012/07	11-08-2016	Mid-Flood	SR4	13:13	Bottom	3	1	26.2	7.69	27	6.72	13.3	17.7
TMCLKL	HY/2012/07	11-08-2016	Mid-Flood	SR4	13:13	Bottom	3	2	26.1	7.72	27	6.7	12.5	16.6
TMCLKL	HY/2012/07	11-08-2016	Mid-Flood	IS8	13:30	Surface	1	1	26.2	7.73	27	6.74	12.7	16.9
TMCLKL	HY/2012/07	11-08-2016	Mid-Flood	IS8	13:30	Surface	1	2	26.3	7.77	26.9	6.78	13.3	17.7
TMCLKL	HY/2012/07	11-08-2016	Mid-Flood	IS8	13:30	Middle	2	1						
TMCLKL	HY/2012/07	11-08-2016	Mid-Flood	IS8	13:30	Middle	2	2						
TMCLKL	HY/2012/07	11-08-2016	Mid-Flood	IS8	13:30	Bottom	3	1	26.2	7.7	27	6.63	14	18.6
TMCLKL	HY/2012/07	11-08-2016	Mid-Flood	IS8	13:30	Bottom	3	2	26.2	7.73	27.1	6.66	13.5	18
TMCLKL	HY/2012/07	11-08-2016	Mid-Flood	IS(Mf)16	13:50	Surface	1	1	26.3	7.78	26.9	6.73	13.7	18.2
TMCLKL	HY/2012/07	11-08-2016	Mid-Flood	IS(Mf)16	13:50	Surface	1	2	26.3	7.75	26.9	6.7	13	17.3
TMCLKL	HY/2012/07	11-08-2016	Mid-Flood	IS(Mf)16	13:50	Middle	2	1	26.3	7.66	27	6.64	10.4	13.9
TMCLKL	HY/2012/07	11-08-2016	Mid-Flood	IS(Mf)16	13:50	Middle	2	2	26.2	7.7	27	6.61	11.2	15
TMCLKL	HY/2012/07	11-08-2016	Mid-Flood	IS(Mf)16	13:50	Bottom	3	1	26.1	7.73	27.1	6.5	14	18.8
TMCLKL	HY/2012/07	11-08-2016	Mid-Flood	IS(Mf)16	13:50	Bottom	3	2	26.1	7.71	27.2	6.46	14.9	20
TMCLKL	HY/2012/07	11-08-2016	Mid-Flood	IS(Mf)9	14:12	Surface	1	1	26.2	7.68	26.8	6.68	11.3	15.1
TMCLKL	HY/2012/07	11-08-2016	Mid-Flood	IS(Mf)9	14:12	Surface	1	2	26.2	7.71	26.9	6.65	12	16.1
TMCLKL	HY/2012/07	11-08-2016	Mid-Flood	IS(Mf)9	14:12	Middle	2	1						
TMCLKL	HY/2012/07	11-08-2016	Mid-Flood	IS(Mf)9	14:12	Middle	2	2						
TMCLKL	HY/2012/07	11-08-2016	Mid-Flood	IS(Mf)9	14:12	Bottom	3	1	26.2	7.7	27	6.71	13.3	17.8
TMCLKL	HY/2012/07	11-08-2016	Mid-Flood	IS(Mf)9	14:12	Bottom	3	2	26.1	7.73	27.1	6.72	12.6	16.9
TMCLKL	HY/2012/07	11-08-2016	Mid-Flood	CS(Mf)3	14:32	Surface	1	1	26.2	7.73	26.9	6.77	12.2	16.3
TMCLKL	HY/2012/07	11-08-2016	Mid-Flood	CS(Mf)3	14:32	Surface	1	2	26.3	7.75	26.9	6.74	13.1	17.6
TMCLKL	HY/2012/07	11-08-2016	Mid-Flood	CS(Mf)3	14:32	Middle	2	1	26.2	7.65	27	6.67	10.9	14.6
TMCLKL	HY/2012/07	11-08-2016	Mid-Flood	CS(Mf)3	14:32	Middle	2	2	26.1	7.68	27.1	6.63	11.6	15.5
TMCLKL	HY/2012/07	11-08-2016	Mid-Flood	CS(Mf)3	14:32	Bottom	3	1	26	7.73	27.3	6.48	14.2	19
TMCLKL	HY/2012/07	11-08-2016	Mid-Flood	CS(Mf)3	14:32	Bottom	3	2	26	7.7	27.4	6.44	15.1	20.2
TMCLKL	HY/2012/07	11-08-2016	Mid-Ebb	CS(Mf)5	19:15	Surface	1	1	26.4	7.73	27.1	6.69	11.4	15.3
TMCLKL	HY/2012/07	11-08-2016	Mid-Ebb	CS(Mf)5	19:15	Surface	1	2	26.3	7.75	27.2	6.66	11.9	15.9
TMCLKL	HY/2012/07	11-08-2016	Mid-Ebb	CS(Mf)5	19:15	Middle	2	1	26.2	7.79	27.2	6.59	10.1	13.5

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	11-08-2016	Mid-Ebb	CS(Mf)5	19:15	Middle	2	2	26.1	7.74	27.3	6.61	11	14.7
TMCLKL	HY/2012/07	11-08-2016	Mid-Ebb	CS(Mf)5	19:15	Bottom	3	1	26.1	7.72	27.4	6.5	14.2	19
TMCLKL	HY/2012/07	11-08-2016	Mid-Ebb	CS(Mf)5	19:15	Bottom	3	2	26	7.75	27.5	6.45	14.9	20
TMCLKL	HY/2012/07	11-08-2016	Mid-Ebb	SR4a	18:51	Surface	1	1	26.2	7.78	27.1	6.63	12.4	16.5
TMCLKL	HY/2012/07	11-08-2016	Mid-Ebb	SR4a	18:51	Surface	1	2	26.3	7.82	27	6.6	11.6	15.4
TMCLKL	HY/2012/07	11-08-2016	Mid-Ebb	SR4a	18:51	Middle	2	1						
TMCLKL	HY/2012/07	11-08-2016	Mid-Ebb	SR4a	18:51	Middle	2	2						
TMCLKL	HY/2012/07	11-08-2016	Mid-Ebb	SR4a	18:51	Bottom	3	1	26.2	7.79	27.1	6.51	13.2	17.6
TMCLKL	HY/2012/07	11-08-2016	Mid-Ebb	SR4a	18:51	Bottom	3	2	26.1	7.76	27.1	6.47	12.5	16.6
TMCLKL	HY/2012/07	11-08-2016	Mid-Ebb	SR4	18:29	Surface	1	1	26.2	7.84	27	6.74	13	17.3
TMCLKL	HY/2012/07	11-08-2016	Mid-Ebb	SR4	18:29	Surface	1	2	26.3	7.81	26.9	6.71	12.2	16.2
TMCLKL	HY/2012/07	11-08-2016	Mid-Ebb	SR4	18:29	Middle	2	1						
TMCLKL	HY/2012/07	11-08-2016	Mid-Ebb	SR4	18:29	Middle	2	2						
TMCLKL	HY/2012/07	11-08-2016	Mid-Ebb	SR4	18:29	Bottom	3	1	26.1	7.75	27.1	6.63	13.9	18.5
TMCLKL	HY/2012/07	11-08-2016	Mid-Ebb	SR4	18:29	Bottom	3	2	26	7.78	27	6.61	13.1	17.4
TMCLKL	HY/2012/07	11-08-2016	Mid-Ebb	IS8	18:07	Surface	1	1	26.4	7.79	27	6.65	13.3	17.7
TMCLKL	HY/2012/07	11-08-2016	Mid-Ebb	IS8	18:07	Surface	1	2	26.3	7.83	27.1	6.69	13.9	18.5
TMCLKL	HY/2012/07	11-08-2016	Mid-Ebb	IS8	18:07	Middle	2	1						
TMCLKL	HY/2012/07	11-08-2016	Mid-Ebb	IS8	18:07	Middle	2	2						
TMCLKL	HY/2012/07	11-08-2016	Mid-Ebb	IS8	18:07	Bottom	3	1	26.2	7.76	27.2	6.54	14.6	19.4
TMCLKL	HY/2012/07	11-08-2016	Mid-Ebb	IS8	18:07	Bottom	3	2	26.3	7.79	27.1	6.57	14.1	18.8
TMCLKL	HY/2012/07	11-08-2016	Mid-Ebb	IS(Mf)16	17:45	Surface	1	1	26.3	7.84	26.9	6.64	14.3	19
TMCLKL	HY/2012/07	11-08-2016	Mid-Ebb	IS(Mf)16	17:45	Surface	1	2	26.2	7.81	27	6.61	13.6	18.1
TMCLKL	HY/2012/07	11-08-2016	Mid-Ebb	IS(Mf)16	17:45	Middle	2	1	26.2	7.72	27.1	6.55	11	14.6
TMCLKL	HY/2012/07	11-08-2016	Mid-Ebb	IS(Mf)16	17:45	Middle	2	2	26.1	7.76	27	6.52	11.8	15.7
TMCLKL	HY/2012/07	11-08-2016	Mid-Ebb	IS(Mf)16	17:45	Bottom	3	1	26	7.79	27.2	6.41	14.6	19.4
TMCLKL	HY/2012/07	11-08-2016	Mid-Ebb	IS(Mf)16	17:45	Bottom	3	2	26	7.77	27.3	6.37	15.5	20.6
TMCLKL	HY/2012/07	11-08-2016	Mid-Ebb	IS(Mf)9	17:23	Surface	1	1	26.3	7.74	26.9	6.59	11.9	15.8
TMCLKL	HY/2012/07	11-08-2016	Mid-Ebb	IS(Mf)9	17:23	Surface	1	2	26.2	7.77	27	6.56	12.6	16.8
TMCLKL	HY/2012/07	11-08-2016	Mid-Ebb	IS(Mf)9	17:23	Middle	2	1						
TMCLKL	HY/2012/07	11-08-2016	Mid-Ebb	IS(Mf)9	17:23	Middle	2	2						
TMCLKL	HY/2012/07	11-08-2016	Mid-Ebb	IS(Mf)9	17:23	Bottom	3	1	26.2	7.76	27.1	6.62	13.9	18.5
TMCLKL	HY/2012/07	11-08-2016	Mid-Ebb	IS(Mf)9	17:23	Bottom	3	2	26.1	7.79	27.2	6.63	13.2	17.6

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	11-08-2016	Mid-Ebb	CS(Mf)3	17:01	Surface	1	1	26.4	7.79	26.9	6.68	12.8	17
TMCLKL	HY/2012/07	11-08-2016	Mid-Ebb	CS(Mf)3	17:01	Surface	1	2	26.3	7.81	27	6.65	13.7	18.2
TMCLKL	HY/2012/07	11-08-2016	Mid-Ebb	CS(Mf)3	17:01	Middle	2	1	26.3	7.71	27.1	6.58	11.5	15.3
TMCLKL	HY/2012/07	11-08-2016	Mid-Ebb	CS(Mf)3	17:01	Middle	2	2	26.2	7.74	27.2	6.54	12.2	16.2
TMCLKL	HY/2012/07	11-08-2016	Mid-Ebb	CS(Mf)3	17:01	Bottom	3	1	26.1	7.79	27.4	6.39	14.8	19.7
TMCLKL	HY/2012/07	11-08-2016	Mid-Ebb	CS(Mf)3	17:01	Bottom	3	2	26	7.76	27.5	6.35	15.7	20.9
TMCLKL	HY/2012/07	13-08-2016	Mid-Flood	CS(Mf)5	15:03	Surface	1	1	26.5	7.64	27.2	6.63	11.7	15
TMCLKL	HY/2012/07	13-08-2016	Mid-Flood	CS(Mf)5	15:03	Surface	1	2	26.6	7.63	27.2	6.6	11.9	15.2
TMCLKL	HY/2012/07	13-08-2016	Mid-Flood	CS(Mf)5	15:03	Middle	2	1	26.3	7.69	27.5	6.43	12.2	15.6
TMCLKL	HY/2012/07	13-08-2016	Mid-Flood	CS(Mf)5	15:03	Middle	2	2	26.2	7.69	27.4	6.47	12.2	15.6
TMCLKL	HY/2012/07	13-08-2016	Mid-Flood	CS(Mf)5	15:03	Bottom	3	1	26.1	7.7	27.6	6.37	13.6	17.4
TMCLKL	HY/2012/07	13-08-2016	Mid-Flood	CS(Mf)5	15:03	Bottom	3	2	26	7.71	27.5	6.34	13.5	17.3
TMCLKL	HY/2012/07	13-08-2016	Mid-Flood	SR4a	15:25	Surface	1	1	26.6	7.72	27.3	6.6	11.8	15.1
TMCLKL	HY/2012/07	13-08-2016	Mid-Flood	SR4a	15:25	Surface	1	2	26.6	7.71	27.3	6.64	11.8	15.1
TMCLKL	HY/2012/07	13-08-2016	Mid-Flood	SR4a	15:25	Middle	2	1						
TMCLKL	HY/2012/07	13-08-2016	Mid-Flood	SR4a	15:25	Middle	2	2						
TMCLKL	HY/2012/07	13-08-2016	Mid-Flood	SR4a	15:25	Bottom	3	1	26.4	7.72	27.4	6.53	13.3	17
TMCLKL	HY/2012/07	13-08-2016	Mid-Flood	SR4a	15:25	Bottom	3	2	26.4	7.72	27.3	6.5	13.2	16.9
TMCLKL	HY/2012/07	13-08-2016	Mid-Flood	SR4	15:48	Surface	1	1	26.6	7.71	27.2	6.43	12.6	16.1
TMCLKL	HY/2012/07	13-08-2016	Mid-Flood	SR4	15:48	Surface	1	2	26.5	7.7	27.1	6.47	12.8	16.4
TMCLKL	HY/2012/07	13-08-2016	Mid-Flood	SR4	15:48	Middle	2	1						
TMCLKL	HY/2012/07	13-08-2016	Mid-Flood	SR4	15:48	Middle	2	2						
TMCLKL	HY/2012/07	13-08-2016	Mid-Flood	SR4	15:48	Bottom	3	1	26.3	7.74	27.4	6.34	13.9	17.8
TMCLKL	HY/2012/07	13-08-2016	Mid-Flood	SR4	15:48	Bottom	3	2	26.2	7.74	27.3	6.3	13.7	17.5
TMCLKL	HY/2012/07	13-08-2016	Mid-Flood	IS8	16:10	Surface	1	1	26.5	7.73	27.1	6.39	11.9	15.2
TMCLKL	HY/2012/07	13-08-2016	Mid-Flood	IS8	16:10	Surface	1	2	26.5	7.72	27.1	6.36	11.7	15
TMCLKL	HY/2012/07	13-08-2016	Mid-Flood	IS8	16:10	Middle	2	1						
TMCLKL	HY/2012/07	13-08-2016	Mid-Flood	IS8	16:10	Middle	2	2						
TMCLKL	HY/2012/07	13-08-2016	Mid-Flood	IS8	16:10	Bottom	3	1	26.4	7.75	27.3	6.26	13.7	17.5
TMCLKL	HY/2012/07	13-08-2016	Mid-Flood	IS8	16:10	Bottom	3	2	26.4	7.75	27.3	6.22	13.8	17.7
TMCLKL	HY/2012/07	13-08-2016	Mid-Flood	IS(Mf)16	16:34	Surface	1	1	26.5	7.67	27.1	6.57	12.4	15.9
TMCLKL	HY/2012/07	13-08-2016	Mid-Flood	IS(Mf)16	16:34	Surface	1	2	26.6	7.67	27.1	6.55	12.2	15.6
TMCLKL	HY/2012/07	13-08-2016	Mid-Flood	IS(Mf)16	16:34	Middle	2	1	26.3	7.69	27.5	6.31	13.1	16.8

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	13-08-2016	Mid-Flood	IS(Mf)16	16:34	Middle	2	2	26.3	7.7	27.6	6.35	12.9	16.5
TMCLKL	HY/2012/07	13-08-2016	Mid-Flood	IS(Mf)16	16:34	Bottom	3	1	26.2	7.7	27.6	6.29	13.9	17.8
TMCLKL	HY/2012/07	13-08-2016	Mid-Flood	IS(Mf)16	16:34	Bottom	3	2	26.3	7.7	27.5	6.26	14	17.9
TMCLKL	HY/2012/07	13-08-2016	Mid-Flood	IS(Mf)9	17:00	Surface	1	1	26.5	7.67	27.1	6.39	12.7	16.3
TMCLKL	HY/2012/07	13-08-2016	Mid-Flood	IS(Mf)9	17:00	Surface	1	2	26.4	7.67	27.1	6.35	12.9	16.5
TMCLKL	HY/2012/07	13-08-2016	Mid-Flood	IS(Mf)9	17:00	Middle	2	1						
TMCLKL	HY/2012/07	13-08-2016	Mid-Flood	IS(Mf)9	17:00	Middle	2	2						
TMCLKL	HY/2012/07	13-08-2016	Mid-Flood	IS(Mf)9	17:00	Bottom	3	1	26.3	7.75	27.3	6.3	14	17.9
TMCLKL	HY/2012/07	13-08-2016	Mid-Flood	IS(Mf)9	17:00	Bottom	3	2	26.3	7.74	27.3	6.33	14.2	18.2
TMCLKL	HY/2012/07	13-08-2016	Mid-Flood	CS(Mf)3	17:17	Surface	1	1	26.5	7.68	27.3	6.62	13.1	16.8
TMCLKL	HY/2012/07	13-08-2016	Mid-Flood	CS(Mf)3	17:17	Surface	1	2	26.5	7.68	27.2	6.58	13.1	16.8
TMCLKL	HY/2012/07	13-08-2016	Mid-Flood	CS(Mf)3	17:17	Middle	2	1	26.3	7.71	27.6	6.44	13.7	17.5
TMCLKL	HY/2012/07	13-08-2016	Mid-Flood	CS(Mf)3	17:17	Middle	2	2	26.3	7.72	27.5	6.47	13.6	17.4
TMCLKL	HY/2012/07	13-08-2016	Mid-Flood	CS(Mf)3	17:17	Bottom	3	1	26.2	7.72	27.6	6.4	14.4	18.4
TMCLKL	HY/2012/07	13-08-2016	Mid-Flood	CS(Mf)3	17:17	Bottom	3	2	26.2	7.74	27.5	6.36	14.4	18.4
TMCLKL	HY/2012/07	13-08-2016	Mid-Ebb	CS(Mf)5	10:49	Surface	1	1	26.2	7.64	27.2	6.6	12	15.4
TMCLKL	HY/2012/07	13-08-2016	Mid-Ebb	CS(Mf)5	10:49	Surface	1	2	26.1	7.66	27.3	6.57	12.5	16
TMCLKL	HY/2012/07	13-08-2016	Mid-Ebb	CS(Mf)5	10:49	Middle	2	1	26	7.7	27.4	6.5	10.7	13.7
TMCLKL	HY/2012/07	13-08-2016	Mid-Ebb	CS(Mf)5	10:49	Middle	2	2	25.9	7.65	27.3	6.52	11.6	14.8
TMCLKL	HY/2012/07	13-08-2016	Mid-Ebb	CS(Mf)5	10:49	Bottom	3	1	25.8	7.63	27.5	6.41	14.8	18.9
TMCLKL	HY/2012/07	13-08-2016	Mid-Ebb	CS(Mf)5	10:49	Bottom	3	2	25.9	7.66	27.6	6.36	15.5	19.8
TMCLKL	HY/2012/07	13-08-2016	Mid-Ebb	SR4a	10:25	Surface	1	1	26.1	7.69	27.1	6.54	13	16.6
TMCLKL	HY/2012/07	13-08-2016	Mid-Ebb	SR4a	10:25	Surface	1	2	26	7.73	27.2	6.51	12.2	15.6
TMCLKL	HY/2012/07	13-08-2016	Mid-Ebb	SR4a	10:25	Middle	2	1						
TMCLKL	HY/2012/07	13-08-2016	Mid-Ebb	SR4a	10:25	Middle	2	2						
TMCLKL	HY/2012/07	13-08-2016	Mid-Ebb	SR4a	10:25	Bottom	3	1	26	7.7	27.2	6.42	13.8	17.7
TMCLKL	HY/2012/07	13-08-2016	Mid-Ebb	SR4a	10:25	Bottom	3	2	25.9	7.67	27.3	6.38	13.1	16.8
TMCLKL	HY/2012/07	13-08-2016	Mid-Ebb	SR4	10:03	Surface	1	1	26.1	7.75	27	6.65	13.6	17.4
TMCLKL	HY/2012/07	13-08-2016	Mid-Ebb	SR4	10:03	Surface	1	2	26	7.72	27.1	6.62	12.8	16.4
TMCLKL	HY/2012/07	13-08-2016	Mid-Ebb	SR4	10:03	Middle	2	1						
TMCLKL	HY/2012/07	13-08-2016	Mid-Ebb	SR4	10:03	Middle	2	2						
TMCLKL	HY/2012/07	13-08-2016	Mid-Ebb	SR4	10:03	Bottom	3	1	25.8	7.66	27.2	6.54	14.5	18.6
TMCLKL	HY/2012/07	13-08-2016	Mid-Ebb	SR4	10:03	Bottom	3	2	25.9	7.69	27.1	6.52	13.7	17.5

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	13-08-2016	Mid-Ebb	IS8	9:41	Surface	1	1	26.2	7.7	27.1	6.56	13.9	17.8
TMCLKL	HY/2012/07	13-08-2016	Mid-Ebb	IS8	9:41	Surface	1	2	26.1	7.74	27.2	6.6	14.5	18.6
TMCLKL	HY/2012/07	13-08-2016	Mid-Ebb	IS8	9:41	Middle	2	1						
TMCLKL	HY/2012/07	13-08-2016	Mid-Ebb	IS8	9:41	Middle	2	2						
TMCLKL	HY/2012/07	13-08-2016	Mid-Ebb	IS8	9:41	Bottom	3	1	26.1	7.67	27.2	6.45	15.2	19.5
TMCLKL	HY/2012/07	13-08-2016	Mid-Ebb	IS8	9:41	Bottom	3	2	26	7.7	27.3	6.48	14.7	18.8
TMCLKL	HY/2012/07	13-08-2016	Mid-Ebb	IS(Mf)16	9:19	Surface	1	1	26.1	7.75	27	6.55	14.9	19.1
TMCLKL	HY/2012/07	13-08-2016	Mid-Ebb	IS(Mf)16	9:19	Surface	1	2	26	7.72	27.1	6.52	14.2	18.2
TMCLKL	HY/2012/07	13-08-2016	Mid-Ebb	IS(Mf)16	9:19	Middle	2	1	26	7.63	27.1	6.46	11.6	14.8
TMCLKL	HY/2012/07	13-08-2016	Mid-Ebb	IS(Mf)16	9:19	Middle	2	2	25.9	7.67	27.2	6.43	12.4	15.9
TMCLKL	HY/2012/07	13-08-2016	Mid-Ebb	IS(Mf)16	9:19	Bottom	3	1	25.8	7.7	27.4	6.32	15.2	19.5
TMCLKL	HY/2012/07	13-08-2016	Mid-Ebb	IS(Mf)16	9:19	Bottom	3	2	25.9	7.68	27.3	6.28	16.1	20.6
TMCLKL	HY/2012/07	13-08-2016	Mid-Ebb	IS(Mf)9	8:57	Surface	1	1	26.1	7.65	27	6.5	12.5	16
TMCLKL	HY/2012/07	13-08-2016	Mid-Ebb	IS(Mf)9	8:57	Surface	1	2	26	7.68	27.1	6.47	13.2	16.9
TMCLKL	HY/2012/07	13-08-2016	Mid-Ebb	IS(Mf)9	8:57	Middle	2	1						
TMCLKL	HY/2012/07	13-08-2016	Mid-Ebb	IS(Mf)9	8:57	Middle	2	2						
TMCLKL	HY/2012/07	13-08-2016	Mid-Ebb	IS(Mf)9	8:57	Bottom	3	1	26	7.67	27.2	6.53	14.5	18.6
TMCLKL	HY/2012/07	13-08-2016	Mid-Ebb	IS(Mf)9	8:57	Bottom	3	2	25.9	7.7	27.3	6.54	13.8	17.7
TMCLKL	HY/2012/07	13-08-2016	Mid-Ebb	CS(Mf)3	8:35	Surface	1	1	26.2	7.7	27	6.59	13.4	17.2
TMCLKL	HY/2012/07	13-08-2016	Mid-Ebb	CS(Mf)3	8:35	Surface	1	2	26.1	7.72	27.1	6.56	14.3	18.3
TMCLKL	HY/2012/07	13-08-2016	Mid-Ebb	CS(Mf)3	8:35	Middle	2	1	26.1	7.62	27.2	6.49	12.1	15.5
TMCLKL	HY/2012/07	13-08-2016	Mid-Ebb	CS(Mf)3	8:35	Middle	2	2	26	7.65	27.3	6.45	12.8	16.4
TMCLKL	HY/2012/07	13-08-2016	Mid-Ebb	CS(Mf)3	8:35	Bottom	3	1	25.9	7.7	27.5	6.3	15.4	19.7
TMCLKL	HY/2012/07	13-08-2016	Mid-Ebb	CS(Mf)3	8:35	Bottom	3	2	25.8	7.67	27.6	6.26	16.3	20.9
TMCLKL	HY/2012/07	16-08-2016	Mid-Flood	CS(Mf)5	17:04	Surface	1	1	26.2	7.9	27	6.49	5.63	7.8
TMCLKL	HY/2012/07	16-08-2016	Mid-Flood	CS(Mf)5	17:04	Surface	1	2	26.1	7.92	27.1	6.47	5.65	7.8
TMCLKL	HY/2012/07	16-08-2016	Mid-Flood	CS(Mf)5	17:04	Middle	2	1	26	8.18	27.2	6.36	5.79	8
TMCLKL	HY/2012/07	16-08-2016	Mid-Flood	CS(Mf)5	17:04	Middle	2	2	25.9	8.16	27.3	6.34	5.81	8
TMCLKL	HY/2012/07	16-08-2016	Mid-Flood	CS(Mf)5	17:04	Bottom	3	1	25.8	8.29	27.4	6.19	5.91	8.2
TMCLKL	HY/2012/07	16-08-2016	Mid-Flood	CS(Mf)5	17:04	Bottom	3	2	25.7	8.31	27.5	6.21	5.93	8.2
TMCLKL	HY/2012/07	16-08-2016	Mid-Flood	SR4a	17:26	Surface	1	1	26.1	8.19	27.2	6.45	6.05	8.3
TMCLKL	HY/2012/07	16-08-2016	Mid-Flood	SR4a	17:26	Surface	1	2	26	8.17	27.3	6.43	6.07	8.4
TMCLKL	HY/2012/07	16-08-2016	Mid-Flood	SR4a	17:26	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	16-08-2016	Mid-Flood	SR4a	17:26	Middle	2	2						
TMCLKL	HY/2012/07	16-08-2016	Mid-Flood	SR4a	17:26	Bottom	3	1	25.7	8.01	27.4	6.26	6.28	8.7
TMCLKL	HY/2012/07	16-08-2016	Mid-Flood	SR4a	17:26	Bottom	3	2	25.8	7.99	27.5	6.28	6.3	8.7
TMCLKL	HY/2012/07	16-08-2016	Mid-Flood	SR4	17:48	Surface	1	1	26.1	7.88	27.2	6.66	5.9	8.1
TMCLKL	HY/2012/07	16-08-2016	Mid-Flood	SR4	17:48	Surface	1	2	26.2	7.86	27.3	6.64	5.92	8.2
TMCLKL	HY/2012/07	16-08-2016	Mid-Flood	SR4	17:48	Middle	2	1						
TMCLKL	HY/2012/07	16-08-2016	Mid-Flood	SR4	17:48	Middle	2	2						
TMCLKL	HY/2012/07	16-08-2016	Mid-Flood	SR4	17:48	Bottom	3	1	25.9	7.82	27.4	6.4	6.15	8.5
TMCLKL	HY/2012/07	16-08-2016	Mid-Flood	SR4	17:48	Bottom	3	2	25.8	7.8	27.5	6.42	6.17	8.5
TMCLKL	HY/2012/07	16-08-2016	Mid-Flood	IS8	18:10	Surface	1	1	26.1	7.75	27	6.58	6.04	8.3
TMCLKL	HY/2012/07	16-08-2016	Mid-Flood	IS8	18:10	Surface	1	2	26	7.77	27.1	6.6	6.06	8.4
TMCLKL	HY/2012/07	16-08-2016	Mid-Flood	IS8	18:10	Middle	2	1						
TMCLKL	HY/2012/07	16-08-2016	Mid-Flood	IS8	18:10	Middle	2	2						
TMCLKL	HY/2012/07	16-08-2016	Mid-Flood	IS8	18:10	Bottom	3	1	25.7	7.91	27.2	6.46	6.17	8.5
TMCLKL	HY/2012/07	16-08-2016	Mid-Flood	IS8	18:10	Bottom	3	2	25.8	7.93	27.3	6.48	6.19	8.5
TMCLKL	HY/2012/07	16-08-2016	Mid-Flood	IS(Mf)16	18:32	Surface	1	1	26	8.08	27	6.51	5.95	8.2
TMCLKL	HY/2012/07	16-08-2016	Mid-Flood	IS(Mf)16	18:32	Surface	1	2	25.9	8.1	27.1	6.49	5.97	8.2
TMCLKL	HY/2012/07	16-08-2016	Mid-Flood	IS(Mf)16	18:32	Middle	2	1	25.8	7.89	27.3	6.31	6.08	8.4
TMCLKL	HY/2012/07	16-08-2016	Mid-Flood	IS(Mf)16	18:32	Middle	2	2	25.9	7.91	27.2	6.33	6.1	8.4
TMCLKL	HY/2012/07	16-08-2016	Mid-Flood	IS(Mf)16	18:32	Bottom	3	1	25.8	7.83	27.4	6.17	6.24	8.6
TMCLKL	HY/2012/07	16-08-2016	Mid-Flood	IS(Mf)16	18:32	Bottom	3	2	25.7	7.81	27.5	6.15	6.26	8.6
TMCLKL	HY/2012/07	16-08-2016	Mid-Flood	IS(Mf)9	18:54	Surface	1	1	26.1	7.8	27.1	6.63	6.35	8.8
TMCLKL	HY/2012/07	16-08-2016	Mid-Flood	IS(Mf)9	18:54	Surface	1	2	26.1	7.82	27.2	6.61	6.37	8.8
TMCLKL	HY/2012/07	16-08-2016	Mid-Flood	IS(Mf)9	18:54	Middle	2	1						
TMCLKL	HY/2012/07	16-08-2016	Mid-Flood	IS(Mf)9	18:54	Middle	2	2						
TMCLKL	HY/2012/07	16-08-2016	Mid-Flood	IS(Mf)9	18:54	Bottom	3	1	25.9	8.18	27.3	6.4	6.42	8.9
TMCLKL	HY/2012/07	16-08-2016	Mid-Flood	IS(Mf)9	18:54	Bottom	3	2	25.8	8.16	27.4	6.42	6.44	8.9
TMCLKL	HY/2012/07	16-08-2016	Mid-Flood	CS(Mf)3	19:18	Surface	1	1	26.2	7	27.1	6.49	6.42	8.9
TMCLKL	HY/2012/07	16-08-2016	Mid-Flood	CS(Mf)3	19:18	Surface	1	2	26.1	7.02	27	6.47	6.44	8.9
TMCLKL	HY/2012/07	16-08-2016	Mid-Flood	CS(Mf)3	19:18	Middle	2	1	25.9	7.18	27.2	6.42	6.68	9.2
TMCLKL	HY/2012/07	16-08-2016	Mid-Flood	CS(Mf)3	19:18	Middle	2	2	26	7.2	27.3	6.4	6.66	9.2
TMCLKL	HY/2012/07	16-08-2016	Mid-Flood	CS(Mf)3	19:18	Bottom	3	1	25.8	7.28	27.4	6.28	6.71	9.3
TMCLKL	HY/2012/07	16-08-2016	Mid-Flood	CS(Mf)3	19:18	Bottom	3	2	25.7	7.3	27.5	6.3	6.73	9.3

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	16-08-2016	Mid-Ebb	CS(Mf)5	13:10	Surface	1	1	26.1	7.84	26.9	6.43	5.72	7.9
TMCLKL	HY/2012/07	16-08-2016	Mid-Ebb	CS(Mf)5	13:10	Surface	1	2	26	7.86	27	6.41	5.74	7.9
TMCLKL	HY/2012/07	16-08-2016	Mid-Ebb	CS(Mf)5	13:10	Middle	2	1	25.9	8.12	27.1	6.3	5.88	8.1
TMCLKL	HY/2012/07	16-08-2016	Mid-Ebb	CS(Mf)5	13:10	Middle	2	2	25.9	8.1	27.2	6.28	5.9	8.1
TMCLKL	HY/2012/07	16-08-2016	Mid-Ebb	CS(Mf)5	13:10	Bottom	3	1	25.7	8.23	27.3	6.13	6	8.3
TMCLKL	HY/2012/07	16-08-2016	Mid-Ebb	CS(Mf)5	13:10	Bottom	3	2	25.6	8.25	27.4	6.15	6.02	8.3
TMCLKL	HY/2012/07	16-08-2016	Mid-Ebb	SR4a	12:48	Surface	1	1	26	8.13	27.1	6.39	6.14	8.5
TMCLKL	HY/2012/07	16-08-2016	Mid-Ebb	SR4a	12:48	Surface	1	2	25.9	8.11	27.2	6.37	6.16	8.5
TMCLKL	HY/2012/07	16-08-2016	Mid-Ebb	SR4a	12:48	Middle	2	1						
TMCLKL	HY/2012/07	16-08-2016	Mid-Ebb	SR4a	12:48	Middle	2	2						
TMCLKL	HY/2012/07	16-08-2016	Mid-Ebb	SR4a	12:48	Bottom	3	1	25.7	7.55	27.3	6.2	6.37	8.8
TMCLKL	HY/2012/07	16-08-2016	Mid-Ebb	SR4a	12:48	Bottom	3	2	25.6	7.93	27.4	6.22	6.39	8.8
TMCLKL	HY/2012/07	16-08-2016	Mid-Ebb	SR4	12:25	Surface	1	1	26.1	7.82	27.1	6.6	5.99	8.3
TMCLKL	HY/2012/07	16-08-2016	Mid-Ebb	SR4	12:25	Surface	1	2	26	7.8	27.2	6.58	6.01	8.3
TMCLKL	HY/2012/07	16-08-2016	Mid-Ebb	SR4	12:25	Middle	2	1						
TMCLKL	HY/2012/07	16-08-2016	Mid-Ebb	SR4	12:25	Middle	2	2						
TMCLKL	HY/2012/07	16-08-2016	Mid-Ebb	SR4	12:25	Bottom	3	1	25.8	7.76	27.3	6.34	6.24	8.6
TMCLKL	HY/2012/07	16-08-2016	Mid-Ebb	SR4	12:25	Bottom	3	2	25.7	7.74	27.4	6.36	6.26	8.6
TMCLKL	HY/2012/07	16-08-2016	Mid-Ebb	IS8	12:03	Surface	1	1	26	7.69	26.9	6.52	6.13	8.5
TMCLKL	HY/2012/07	16-08-2016	Mid-Ebb	IS8	12:03	Surface	1	2	25.9	7.71	27	6.54	6.15	8.5
TMCLKL	HY/2012/07	16-08-2016	Mid-Ebb	IS8	12:03	Middle	2	1						
TMCLKL	HY/2012/07	16-08-2016	Mid-Ebb	IS8	12:03	Middle	2	2						
TMCLKL	HY/2012/07	16-08-2016	Mid-Ebb	IS8	12:03	Bottom	3	1	25.7	7.85	27.1	6.4	6.26	8.6
TMCLKL	HY/2012/07	16-08-2016	Mid-Ebb	IS8	12:03	Bottom	3	2	25.6	7.87	27.2	6.42	6.28	8.7
TMCLKL	HY/2012/07	16-08-2016	Mid-Ebb	IS(Mf)16	11:40	Surface	1	1	25.9	8.02	27	6.45	6.04	8.3
TMCLKL	HY/2012/07	16-08-2016	Mid-Ebb	IS(Mf)16	11:40	Surface	1	2	25.9	8.04	27	6.43	6.06	8.4
TMCLKL	HY/2012/07	16-08-2016	Mid-Ebb	IS(Mf)16	11:40	Middle	2	1	25.8	7.83	27.1	6.25	6.17	8.5
TMCLKL	HY/2012/07	16-08-2016	Mid-Ebb	IS(Mf)16	11:40	Middle	2	2	25.7	7.85	27.2	6.27	6.19	8.5
TMCLKL	HY/2012/07	16-08-2016	Mid-Ebb	IS(Mf)16	11:40	Bottom	3	1	25.6	7.77	27.3	6.11	6.33	8.7
TMCLKL	HY/2012/07	16-08-2016	Mid-Ebb	IS(Mf)16	11:40	Bottom	3	2	25.7	7.75	27.4	6.09	6.35	8.8
TMCLKL	HY/2012/07	16-08-2016	Mid-Ebb	IS(Mf)9	11:18	Surface	1	1	26	7.74	27	6.57	6.44	8.9
TMCLKL	HY/2012/07	16-08-2016	Mid-Ebb	IS(Mf)9	11:18	Surface	1	2	25.9	7.76	27.1	6.55	6.46	8.9
TMCLKL	HY/2012/07	16-08-2016	Mid-Ebb	IS(Mf)9	11:18	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	16-08-2016	Mid-Ebb	IS(Mf)9	11:18	Middle	2	2						
TMCLKL	HY/2012/07	16-08-2016	Mid-Ebb	IS(Mf)9	11:18	Bottom	3	1	25.7	8.12	27.2	6.34	6.51	9
TMCLKL	HY/2012/07	16-08-2016	Mid-Ebb	IS(Mf)9	11:18	Bottom	3	2	25.8	8.1	27.3	6.36	6.53	9
TMCLKL	HY/2012/07	16-08-2016	Mid-Ebb	CS(Mf)3	10:56	Surface	1	1	26.1	6.94	26.9	6.43	6.51	8.7
TMCLKL	HY/2012/07	16-08-2016	Mid-Ebb	CS(Mf)3	10:56	Surface	1	2	26	6.96	27	6.41	6.53	9
TMCLKL	HY/2012/07	16-08-2016	Mid-Ebb	CS(Mf)3	10:56	Middle	2	1	25.9	7.12	27.1	6.36	6.77	9.3
TMCLKL	HY/2012/07	16-08-2016	Mid-Ebb	CS(Mf)3	10:56	Middle	2	2	25.8	7.14	27.2	6.34	6.75	9.3
TMCLKL	HY/2012/07	16-08-2016	Mid-Ebb	CS(Mf)3	10:56	Bottom	3	1	25.7	7.22	27.3	6.22	6.8	9.4
TMCLKL	HY/2012/07	16-08-2016	Mid-Ebb	CS(Mf)3	10:56	Bottom	3	2	25.6	7.24	27.4	6.24	6.82	9.4
TMCLKL	HY/2012/07	18-08-2016	Mid-Flood	CS(Mf)5	18:08	Surface	1	1	26.1	7.83	25.2	6.68	8.93	12.1
TMCLKL	HY/2012/07	18-08-2016	Mid-Flood	CS(Mf)5	18:08	Surface	1	2	26	7.86	25.3	6.63	8.87	12
TMCLKL	HY/2012/07	18-08-2016	Mid-Flood	CS(Mf)5	18:08	Middle	2	1	26	7.79	25.4	6.4	9.06	12.2
TMCLKL	HY/2012/07	18-08-2016	Mid-Flood	CS(Mf)5	18:08	Middle	2	2	26	7.82	25.4	6.36	9.14	12.3
TMCLKL	HY/2012/07	18-08-2016	Mid-Flood	CS(Mf)5	18:08	Bottom	3	1	25.9	7.84	25.6	6.2	9.43	12.8
TMCLKL	HY/2012/07	18-08-2016	Mid-Flood	CS(Mf)5	18:08	Bottom	3	2	25.9	7.93	25.7	6.17	9.52	13
TMCLKL	HY/2012/07	18-08-2016	Mid-Flood	SR4a	18:35	Surface	1	1	26	7.96	25.2	6.58	9.27	12.4
TMCLKL	HY/2012/07	18-08-2016	Mid-Flood	SR4a	18:35	Surface	1	2	26	7.89	25.2	6.61	9.16	12.4
TMCLKL	HY/2012/07	18-08-2016	Mid-Flood	SR4a	18:35	Middle	2	1						
TMCLKL	HY/2012/07	18-08-2016	Mid-Flood	SR4a	18:35	Middle	2	2						
TMCLKL	HY/2012/07	18-08-2016	Mid-Flood	SR4a	18:35	Bottom	3	1	26	7.82	25.4	6.44	9.3	12.6
TMCLKL	HY/2012/07	18-08-2016	Mid-Flood	SR4a	18:35	Bottom	3	2	25.9	7.85	25.5	6.41	9.22	12.5
TMCLKL	HY/2012/07	18-08-2016	Mid-Flood	SR4	18:52	Surface	1	1	26.1	7.74	25.2	6.68	9.26	12.5
TMCLKL	HY/2012/07	18-08-2016	Mid-Flood	SR4	18:52	Surface	1	2	26	7.78	25.1	6.63	9.31	12.6
TMCLKL	HY/2012/07	18-08-2016	Mid-Flood	SR4	18:52	Middle	2	1						
TMCLKL	HY/2012/07	18-08-2016	Mid-Flood	SR4	18:52	Middle	2	2						
TMCLKL	HY/2012/07	18-08-2016	Mid-Flood	SR4	18:52	Bottom	3	1	26	7.8	25.3	6.48	9.48	12.8
TMCLKL	HY/2012/07	18-08-2016	Mid-Flood	SR4	18:52	Bottom	3	2	26	7.76	25.4	6.44	9.56	12.9
TMCLKL	HY/2012/07	18-08-2016	Mid-Flood	IS8	19:08	Surface	1	1	26	7.74	25	6.56	9.38	12.7
TMCLKL	HY/2012/07	18-08-2016	Mid-Flood	IS8	19:08	Surface	1	2	26	7.7	25	6.52	9.3	12.6
TMCLKL	HY/2012/07	18-08-2016	Mid-Flood	IS8	19:08	Middle	2	1						
TMCLKL	HY/2012/07	18-08-2016	Mid-Flood	IS8	19:08	Middle	2	2						
TMCLKL	HY/2012/07	18-08-2016	Mid-Flood	IS8	19:08	Bottom	3	1	25.9	7.77	25.2	6.46	9.51	13
TMCLKL	HY/2012/07	18-08-2016	Mid-Flood	IS8	19:08	Bottom	3	2	25.9	7.72	25.3	6.41	9.6	13.1

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	18-08-2016	Mid-Flood	IS(Mf)16	19:27	Surface	1	1	26	7.86	25	6.61	9.34	12.6
TMCLKL	HY/2012/07	18-08-2016	Mid-Flood	IS(Mf)16	19:27	Surface	1	2	25.9	7.8	25	6.59	9.26	12.4
TMCLKL	HY/2012/07	18-08-2016	Mid-Flood	IS(Mf)16	19:27	Middle	2	1	25.9	7.76	25	6.38	9.4	12.6
TMCLKL	HY/2012/07	18-08-2016	Mid-Flood	IS(Mf)16	19:27	Middle	2	2	25.9	7.79	25.1	6.34	9.48	12.9
TMCLKL	HY/2012/07	18-08-2016	Mid-Flood	IS(Mf)16	19:27	Bottom	3	1	25.8	7.7	25.4	6.17	9.69	13.3
TMCLKL	HY/2012/07	18-08-2016	Mid-Flood	IS(Mf)16	19:27	Bottom	3	2	25.9	7.73	25.4	6.14	9.72	13.4
TMCLKL	HY/2012/07	18-08-2016	Mid-Flood	IS(Mf)9	19:50	Surface	1	1	26	7.76	25.1	6.48	8.73	11.8
TMCLKL	HY/2012/07	18-08-2016	Mid-Flood	IS(Mf)9	19:50	Surface	1	2	25.9	7.8	25	6.44	8.81	11.9
TMCLKL	HY/2012/07	18-08-2016	Mid-Flood	IS(Mf)9	19:50	Middle	2	1						
TMCLKL	HY/2012/07	18-08-2016	Mid-Flood	IS(Mf)9	19:50	Middle	2	2						
TMCLKL	HY/2012/07	18-08-2016	Mid-Flood	IS(Mf)9	19:50	Bottom	3	1	25.9	7.84	25.3	6.28	8.92	12
TMCLKL	HY/2012/07	18-08-2016	Mid-Flood	IS(Mf)9	19:50	Bottom	3	2	25.9	7.86	25.3	6.24	8.86	12
TMCLKL	HY/2012/07	18-08-2016	Mid-Flood	CS(Mf)3	20:19	Surface	1	1	26.1	7.78	25	6.42	8.63	11.7
TMCLKL	HY/2012/07	18-08-2016	Mid-Flood	CS(Mf)3	20:19	Surface	1	2	26	7.73	25.1	6.38	8.58	11.6
TMCLKL	HY/2012/07	18-08-2016	Mid-Flood	CS(Mf)3	20:19	Middle	2	1	26	7.72	25.1	6.29	8.84	12
TMCLKL	HY/2012/07	18-08-2016	Mid-Flood	CS(Mf)3	20:19	Middle	2	2	26	7.77	25.2	6.26	8.76	12
TMCLKL	HY/2012/07	18-08-2016	Mid-Flood	CS(Mf)3	20:19	Bottom	3	1	25.8	7.83	25.4	6.09	8.97	12.4
TMCLKL	HY/2012/07	18-08-2016	Mid-Flood	CS(Mf)3	20:19	Bottom	3	2	25.8	7.8	25.4	6.11	9.06	12.6
TMCLKL	HY/2012/07	18-08-2016	Mid-Ebb	CS(Mf)5	14:33	Surface	1	1	26.2	7.96	25.1	6.4	8.69	11.7
TMCLKL	HY/2012/07	18-08-2016	Mid-Ebb	CS(Mf)5	14:33	Surface	1	2	26.3	7.98	25.2	6.38	8.71	11.8
TMCLKL	HY/2012/07	18-08-2016	Mid-Ebb	CS(Mf)5	14:33	Middle	2	1	26.1	8.09	25.3	6.27	8.85	11.9
TMCLKL	HY/2012/07	18-08-2016	Mid-Ebb	CS(Mf)5	14:33	Middle	2	2	26	8.07	25.4	6.25	8.87	12
TMCLKL	HY/2012/07	18-08-2016	Mid-Ebb	CS(Mf)5	14:33	Bottom	3	1	25.9	8.2	25.5	6.1	8.97	12.2
TMCLKL	HY/2012/07	18-08-2016	Mid-Ebb	CS(Mf)5	14:33	Bottom	3	2	25.8	8.21	25.6	6.12	8.99	12.2
TMCLKL	HY/2012/07	18-08-2016	Mid-Ebb	SR4a	14:15	Surface	1	1	26.1	8.1	25.3	6.36	9.11	12.3
TMCLKL	HY/2012/07	18-08-2016	Mid-Ebb	SR4a	14:15	Surface	1	2	26.2	8.08	25.4	6.34	9.13	12.3
TMCLKL	HY/2012/07	18-08-2016	Mid-Ebb	SR4a	14:15	Middle	2	1						
TMCLKL	HY/2012/07	18-08-2016	Mid-Ebb	SR4a	14:15	Middle	2	2						
TMCLKL	HY/2012/07	18-08-2016	Mid-Ebb	SR4a	14:15	Bottom	3	1	25.9	7.92	25.5	6.17	9.34	12.8
TMCLKL	HY/2012/07	18-08-2016	Mid-Ebb	SR4a	14:15	Bottom	3	2	25.8	7.9	25.6	6.19	9.36	12.9
TMCLKL	HY/2012/07	18-08-2016	Mid-Ebb	SR4	14:00	Surface	1	1	26.3	7.79	25.3	6.57	8.96	12.1
TMCLKL	HY/2012/07	18-08-2016	Mid-Ebb	SR4	14:00	Surface	1	2	26.2	7.77	25.4	6.55	8.98	12.1
TMCLKL	HY/2012/07	18-08-2016	Mid-Ebb	SR4	14:00	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	18-08-2016	Mid-Ebb	SR4	14:00	Middle	2	2						
TMCLKL	HY/2012/07	18-08-2016	Mid-Ebb	SR4	14:00	Bottom	3	1	26	7.73	25.6	6.31	9.21	12.7
TMCLKL	HY/2012/07	18-08-2016	Mid-Ebb	SR4	14:00	Bottom	3	2	25.9	7.71	25.5	6.33	9.23	12.6
TMCLKL	HY/2012/07	18-08-2016	Mid-Ebb	IS8	13:45	Surface	1	1	26.2	7.66	25.1	6.49	9.1	12.3
TMCLKL	HY/2012/07	18-08-2016	Mid-Ebb	IS8	13:45	Surface	1	2	26.1	7.68	25.2	6.51	9.12	12.3
TMCLKL	HY/2012/07	18-08-2016	Mid-Ebb	IS8	13:45	Middle	2	1						
TMCLKL	HY/2012/07	18-08-2016	Mid-Ebb	IS8	13:45	Middle	2	2						
TMCLKL	HY/2012/07	18-08-2016	Mid-Ebb	IS8	13:45	Bottom	3	1	25.9	7.82	25.3	6.37	9.23	12.6
TMCLKL	HY/2012/07	18-08-2016	Mid-Ebb	IS8	13:45	Bottom	3	2	25.8	7.84	25.4	6.39	9.25	12.7
TMCLKL	HY/2012/07	18-08-2016	Mid-Ebb	IS(Mf)16	13:30	Surface	1	1	26.1	7.99	25.1	6.42	9.01	12.2
TMCLKL	HY/2012/07	18-08-2016	Mid-Ebb	IS(Mf)16	13:30	Surface	1	2	26	8.01	25.2	6.4	9.03	12.2
TMCLKL	HY/2012/07	18-08-2016	Mid-Ebb	IS(Mf)16	13:30	Middle	2	1	25.9	7.8	25.3	6.22	9.14	12.3
TMCLKL	HY/2012/07	18-08-2016	Mid-Ebb	IS(Mf)16	13:30	Middle	2	2	26	7.82	25.4	6.24	9.16	12.4
TMCLKL	HY/2012/07	18-08-2016	Mid-Ebb	IS(Mf)16	13:30	Bottom	3	1	25.9	7.74	25.6	6.08	9.3	12.6
TMCLKL	HY/2012/07	18-08-2016	Mid-Ebb	IS(Mf)16	13:30	Bottom	3	2	25.8	7.72	25.5	6.06	9.32	12.7
TMCLKL	HY/2012/07	18-08-2016	Mid-Ebb	IS(Mf)9	13:15	Surface	1	1	26.2	7.86	25.2	6.54	8.41	11.4
TMCLKL	HY/2012/07	18-08-2016	Mid-Ebb	IS(Mf)9	13:15	Surface	1	2	26.1	7.88	25.3	6.52	8.43	11.4
TMCLKL	HY/2012/07	18-08-2016	Mid-Ebb	IS(Mf)9	13:15	Middle	2	1						
TMCLKL	HY/2012/07	18-08-2016	Mid-Ebb	IS(Mf)9	13:15	Middle	2	2						
TMCLKL	HY/2012/07	18-08-2016	Mid-Ebb	IS(Mf)9	13:15	Bottom	3	1	26	8.09	25.4	6.31	8.48	11.6
TMCLKL	HY/2012/07	18-08-2016	Mid-Ebb	IS(Mf)9	13:15	Bottom	3	2	25.9	8.07	25.5	6.33	8.5	11.6
TMCLKL	HY/2012/07	18-08-2016	Mid-Ebb	CS(Mf)3	13:00	Surface	1	1	26.3	7.76	25	6.4	8.42	11.4
TMCLKL	HY/2012/07	18-08-2016	Mid-Ebb	CS(Mf)3	13:00	Surface	1	2	26.2	7.78	25.1	6.38	8.44	11.4
TMCLKL	HY/2012/07	18-08-2016	Mid-Ebb	CS(Mf)3	13:00	Middle	2	1	26.2	7.68	25.3	6.33	8.74	11.8
TMCLKL	HY/2012/07	18-08-2016	Mid-Ebb	CS(Mf)3	13:00	Middle	2	2	26.1	7.71	25.2	6.31	8.72	11.8
TMCLKL	HY/2012/07	18-08-2016	Mid-Ebb	CS(Mf)3	13:00	Bottom	3	1	25.9	7.76	25.6	6.19	8.77	12.1
TMCLKL	HY/2012/07	18-08-2016	Mid-Ebb	CS(Mf)3	13:00	Bottom	3	2	26	7.73	25.7	6.21	8.79	12.2
TMCLKL	HY/2012/07	20-08-2016	Mid-Flood	CS(Mf)5	7:35	Surface	1	1	26.2	7.84	25.1	6.54	8.37	11.3
TMCLKL	HY/2012/07	20-08-2016	Mid-Flood	CS(Mf)5	7:35	Surface	1	2	26.2	7.82	25.2	6.57	8.39	11.3
TMCLKL	HY/2012/07	20-08-2016	Mid-Flood	CS(Mf)5	7:35	Middle	2	1	26.1	7.84	25.5	6.37	9.27	12.5
TMCLKL	HY/2012/07	20-08-2016	Mid-Flood	CS(Mf)5	7:35	Middle	2	2	26	7.85	25.6	6.34	9.21	12.4
TMCLKL	HY/2012/07	20-08-2016	Mid-Flood	CS(Mf)5	7:35	Bottom	3	1	26	7.85	25.6	6.19	9.15	12.4
TMCLKL	HY/2012/07	20-08-2016	Mid-Flood	CS(Mf)5	7:35	Bottom	3	2	26	7.86	25.6	6.15	9.11	12.5

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	20-08-2016	Mid-Flood	SR4a	7:55	Surface	1	1	26.3	7.87	25.3	6.39	8.68	11.6
TMCLKL	HY/2012/07	20-08-2016	Mid-Flood	SR4a	7:55	Surface	1	2	26.2	7.86	25.2	6.36	8.65	11.7
TMCLKL	HY/2012/07	20-08-2016	Mid-Flood	SR4a	7:55	Middle	2	1						
TMCLKL	HY/2012/07	20-08-2016	Mid-Flood	SR4a	7:55	Middle	2	2						
TMCLKL	HY/2012/07	20-08-2016	Mid-Flood	SR4a	7:55	Bottom	3	1	26.1	7.84	25.3	6.12	9.33	12.7
TMCLKL	HY/2012/07	20-08-2016	Mid-Flood	SR4a	7:55	Bottom	3	2	26	7.8	25.4	6.08	9.3	12.6
TMCLKL	HY/2012/07	20-08-2016	Mid-Flood	SR4	8:10	Surface	1	1	26.1	7.88	25.1	6.41	8.87	12
TMCLKL	HY/2012/07	20-08-2016	Mid-Flood	SR4	8:10	Surface	1	2	26.2	7.87	25	6.38	8.92	12
TMCLKL	HY/2012/07	20-08-2016	Mid-Flood	SR4	8:10	Middle	2	1						
TMCLKL	HY/2012/07	20-08-2016	Mid-Flood	SR4	8:10	Middle	2	2						
TMCLKL	HY/2012/07	20-08-2016	Mid-Flood	SR4	8:10	Bottom	3	1	26	7.9	25.3	6.24	9.03	12.2
TMCLKL	HY/2012/07	20-08-2016	Mid-Flood	SR4	8:10	Bottom	3	2	26	7.91	25.3	6.27	9.06	12.2
TMCLKL	HY/2012/07	20-08-2016	Mid-Flood	IS8	8:25	Surface	1	1	26.1	7.85	25.1	6.37	8.54	11.5
TMCLKL	HY/2012/07	20-08-2016	Mid-Flood	IS8	8:25	Surface	1	2	26.1	7.84	25.1	6.39	8.5	11.5
TMCLKL	HY/2012/07	20-08-2016	Mid-Flood	IS8	8:25	Middle	2	1						
TMCLKL	HY/2012/07	20-08-2016	Mid-Flood	IS8	8:25	Middle	2	2						
TMCLKL	HY/2012/07	20-08-2016	Mid-Flood	IS8	8:25	Bottom	3	1	26.1	7.82	25.4	6.18	9.2	12.6
TMCLKL	HY/2012/07	20-08-2016	Mid-Flood	IS8	8:25	Bottom	3	2	26	7.83	25.3	6.23	9.26	12.6
TMCLKL	HY/2012/07	20-08-2016	Mid-Flood	IS(Mf)16	8:40	Surface	1	1	26.2	7.87	25.2	6.58	8.9	12
TMCLKL	HY/2012/07	20-08-2016	Mid-Flood	IS(Mf)16	8:40	Surface	1	2	26.1	7.88	25.3	6.55	8.96	12
TMCLKL	HY/2012/07	20-08-2016	Mid-Flood	IS(Mf)16	8:40	Middle	2	1	26	7.91	25.3	6.3	9.21	12.3
TMCLKL	HY/2012/07	20-08-2016	Mid-Flood	IS(Mf)16	8:40	Middle	2	2	26.1	7.92	25.4	6.34	9.18	12.5
TMCLKL	HY/2012/07	20-08-2016	Mid-Flood	IS(Mf)16	8:40	Bottom	3	1	26	7.9	25.5	6.21	9.17	12.6
TMCLKL	HY/2012/07	20-08-2016	Mid-Flood	IS(Mf)16	8:40	Bottom	3	2	26.1	7.9	25.6	6.18	9.15	12.6
TMCLKL	HY/2012/07	20-08-2016	Mid-Flood	IS(Mf)9	9:00	Surface	1	1	26.2	7.86	25.1	6.65	9.04	12.2
TMCLKL	HY/2012/07	20-08-2016	Mid-Flood	IS(Mf)9	9:00	Surface	1	2	26.2	7.85	25.2	6.68	9.08	12.3
TMCLKL	HY/2012/07	20-08-2016	Mid-Flood	IS(Mf)9	9:00	Middle	2	1						
TMCLKL	HY/2012/07	20-08-2016	Mid-Flood	IS(Mf)9	9:00	Middle	2	2						
TMCLKL	HY/2012/07	20-08-2016	Mid-Flood	IS(Mf)9	9:00	Bottom	3	1	26.1	7.89	25.2	6.36	9.18	12.4
TMCLKL	HY/2012/07	20-08-2016	Mid-Flood	IS(Mf)9	9:00	Bottom	3	2	26.1	7.89	25.1	6.33	9.23	12.5
TMCLKL	HY/2012/07	20-08-2016	Mid-Flood	CS(Mf)3	9:15	Surface	1	1	26.2	7.9	25.2	6.6	8.98	12.1
TMCLKL	HY/2012/07	20-08-2016	Mid-Flood	CS(Mf)3	9:15	Surface	1	2	26.1	7.9	25.1	6.64	8.95	12.1
TMCLKL	HY/2012/07	20-08-2016	Mid-Flood	CS(Mf)3	9:15	Middle	2	1	26.1	7.92	25.4	6.26	9.18	12.5

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	20-08-2016	Mid-Flood	CS(Mf)3	9:15	Middle	2	2	26.1	7.92	25.4	6.29	9.15	12.5
TMCLKL	HY/2012/07	20-08-2016	Mid-Flood	CS(Mf)3	9:15	Bottom	3	1	26	7.93	25.6	6.19	9.29	12.8
TMCLKL	HY/2012/07	20-08-2016	Mid-Flood	CS(Mf)3	9:15	Bottom	3	2	26	7.92	25.7	6.23	9.26	12.8
TMCLKL	HY/2012/07	20-08-2016	Mid-Ebb	CS(Mf)5	13:56	Surface	1	1	26.4	7.87	25.2	6.31	8.75	11.8
TMCLKL	HY/2012/07	20-08-2016	Mid-Ebb	CS(Mf)5	13:56	Surface	1	2	26.3	7.89	25.3	6.29	8.77	11.8
TMCLKL	HY/2012/07	20-08-2016	Mid-Ebb	CS(Mf)5	13:56	Middle	2	1	26.3	8	25.5	6.18	8.91	12
TMCLKL	HY/2012/07	20-08-2016	Mid-Ebb	CS(Mf)5	13:56	Middle	2	2	26.2	7.98	25.4	6.16	8.93	12.1
TMCLKL	HY/2012/07	20-08-2016	Mid-Ebb	CS(Mf)5	13:56	Bottom	3	1	26.1	8.11	25.6	6.01	9.03	12.3
TMCLKL	HY/2012/07	20-08-2016	Mid-Ebb	CS(Mf)5	13:56	Bottom	3	2	26	8.13	25.7	6.03	9.05	12.3
TMCLKL	HY/2012/07	20-08-2016	Mid-Ebb	SR4a	13:40	Surface	1	1	26.2	8.07	25.4	6.27	9.17	12.4
TMCLKL	HY/2012/07	20-08-2016	Mid-Ebb	SR4a	13:40	Surface	1	2	26.3	7.99	25.5	6.25	9.19	12.4
TMCLKL	HY/2012/07	20-08-2016	Mid-Ebb	SR4a	13:40	Middle	2	1						
TMCLKL	HY/2012/07	20-08-2016	Mid-Ebb	SR4a	13:40	Middle	2	2						
TMCLKL	HY/2012/07	20-08-2016	Mid-Ebb	SR4a	13:40	Bottom	3	1	26.1	7.83	25.6	6.08	9.25	12.7
TMCLKL	HY/2012/07	20-08-2016	Mid-Ebb	SR4a	13:40	Bottom	3	2	26	7.81	25.7	6.1	9.27	12.8
TMCLKL	HY/2012/07	20-08-2016	Mid-Ebb	SR4	13:27	Surface	1	1	26.4	7.85	25.4	6.63	9.02	12.2
TMCLKL	HY/2012/07	20-08-2016	Mid-Ebb	SR4	13:27	Surface	1	2	26.3	7.83	25.5	6.61	9.04	12.2
TMCLKL	HY/2012/07	20-08-2016	Mid-Ebb	SR4	13:27	Middle	2	1						
TMCLKL	HY/2012/07	20-08-2016	Mid-Ebb	SR4	13:27	Middle	2	2						
TMCLKL	HY/2012/07	20-08-2016	Mid-Ebb	SR4	13:27	Bottom	3	1	26.2	7.79	25.7	6.37	9.27	12.8
TMCLKL	HY/2012/07	20-08-2016	Mid-Ebb	SR4	13:27	Bottom	3	2	26.3	7.77	25.6	6.39	9.29	12.6
TMCLKL	HY/2012/07	20-08-2016	Mid-Ebb	IS8	13:14	Surface	1	1	26.3	7.72	25.2	6.55	9.16	12.4
TMCLKL	HY/2012/07	20-08-2016	Mid-Ebb	IS8	13:14	Surface	1	2	26.2	7.74	25.3	6.57	9.18	12.4
TMCLKL	HY/2012/07	20-08-2016	Mid-Ebb	IS8	13:14	Middle	2	1						
TMCLKL	HY/2012/07	20-08-2016	Mid-Ebb	IS8	13:14	Middle	2	2						
TMCLKL	HY/2012/07	20-08-2016	Mid-Ebb	IS8	13:14	Bottom	3	1	26	7.88	25.4	6.43	9.29	12.7
TMCLKL	HY/2012/07	20-08-2016	Mid-Ebb	IS8	13:14	Bottom	3	2	25.9	7.9	25.5	6.45	9.31	12.8
TMCLKL	HY/2012/07	20-08-2016	Mid-Ebb	IS(Mf)16	12:59	Surface	1	1	26.1	7.9	25.2	6.48	9.07	12.2
TMCLKL	HY/2012/07	20-08-2016	Mid-Ebb	IS(Mf)16	12:59	Surface	1	2	26.2	7.92	25.3	6.46	9.09	12.3
TMCLKL	HY/2012/07	20-08-2016	Mid-Ebb	IS(Mf)16	12:59	Middle	2	1	26.1	7.86	25.5	6.28	9.2	12.4
TMCLKL	HY/2012/07	20-08-2016	Mid-Ebb	IS(Mf)16	12:59	Middle	2	2	26	7.88	25.4	6.3	9.22	12.4
TMCLKL	HY/2012/07	20-08-2016	Mid-Ebb	IS(Mf)16	12:59	Bottom	3	1	26.1	7.8	25.6	6.14	9.36	12.7
TMCLKL	HY/2012/07	20-08-2016	Mid-Ebb	IS(Mf)16	12:59	Bottom	3	2	26	7.78	25.7	6.12	9.38	12.8

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	20-08-2016	Mid-Ebb	IS(Mf)9	12:46	Surface	1	1	26.3	7.92	25.3	6.45	8.47	11.4
TMCLKL	HY/2012/07	20-08-2016	Mid-Ebb	IS(Mf)9	12:46	Surface	1	2	26.2	7.94	25.4	6.43	8.49	11.5
TMCLKL	HY/2012/07	20-08-2016	Mid-Ebb	IS(Mf)9	12:46	Middle	2	1						
TMCLKL	HY/2012/07	20-08-2016	Mid-Ebb	IS(Mf)9	12:46	Middle	2	2						
TMCLKL	HY/2012/07	20-08-2016	Mid-Ebb	IS(Mf)9	12:46	Bottom	3	1	26.2	8	25.5	6.22	8.54	11.7
TMCLKL	HY/2012/07	20-08-2016	Mid-Ebb	IS(Mf)9	12:46	Bottom	3	2	26.1	7.98	25.6	6.24	8.56	11.7
TMCLKL	HY/2012/07	20-08-2016	Mid-Ebb	CS(Mf)3	12:31	Surface	1	1	26.4	7.82	25.1	6.31	8.48	11.4
TMCLKL	HY/2012/07	20-08-2016	Mid-Ebb	CS(Mf)3	12:31	Surface	1	2	26.3	7.84	25.2	6.29	8.5	11.5
TMCLKL	HY/2012/07	20-08-2016	Mid-Ebb	CS(Mf)3	12:31	Middle	2	1	26.2	7.74	25.4	6.24	8.8	11.9
TMCLKL	HY/2012/07	20-08-2016	Mid-Ebb	CS(Mf)3	12:31	Middle	2	2	26.3	7.77	25.3	6.22	8.78	11.9
TMCLKL	HY/2012/07	20-08-2016	Mid-Ebb	CS(Mf)3	12:31	Bottom	3	1	26.1	7.82	25.7	6.1	8.83	12.2
TMCLKL	HY/2012/07	20-08-2016	Mid-Ebb	CS(Mf)3	12:31	Bottom	3	2	26	7.79	25.8	6.12	8.85	12.3
TMCLKL	HY/2012/07	23-08-2016	Mid-Flood	CS(Mf)5	9:30	Surface	1	1	28.3	7.93	26.3	6.37	9.66	12.8
TMCLKL	HY/2012/07	23-08-2016	Mid-Flood	CS(Mf)5	9:30	Surface	1	2	28.2	7.95	26.4	6.35	9.68	12.9
TMCLKL	HY/2012/07	23-08-2016	Mid-Flood	CS(Mf)5	9:30	Middle	2	1	28.2	8.06	26.5	6.24	9.82	13.1
TMCLKL	HY/2012/07	23-08-2016	Mid-Flood	CS(Mf)5	9:30	Middle	2	2	28.1	8.04	26.6	6.22	9.84	13.1
TMCLKL	HY/2012/07	23-08-2016	Mid-Flood	CS(Mf)5	9:30	Bottom	3	1	28	8.17	26.7	6.07	9.94	13.4
TMCLKL	HY/2012/07	23-08-2016	Mid-Flood	CS(Mf)5	9:30	Bottom	3	2	27.9	8.19	26.8	6.09	9.96	13.4
TMCLKL	HY/2012/07	23-08-2016	Mid-Flood	SR4a	9:55	Surface	1	1	28.2	8.07	26.4	6.33	9.08	12.1
TMCLKL	HY/2012/07	23-08-2016	Mid-Flood	SR4a	9:55	Surface	1	2	28.1	8.05	26.5	6.31	9.1	12.1
TMCLKL	HY/2012/07	23-08-2016	Mid-Flood	SR4a	9:55	Middle	2	1						
TMCLKL	HY/2012/07	23-08-2016	Mid-Flood	SR4a	9:55	Middle	2	2						
TMCLKL	HY/2012/07	23-08-2016	Mid-Flood	SR4a	9:55	Bottom	3	1	27.9	7.89	26.6	6.14	9.16	12.5
TMCLKL	HY/2012/07	23-08-2016	Mid-Flood	SR4a	9:55	Bottom	3	2	28	7.87	26.7	6.16	9.18	12.4
TMCLKL	HY/2012/07	23-08-2016	Mid-Flood	SR4	10:17	Surface	1	1	28.3	7.91	26.5	6.69	8.93	11.9
TMCLKL	HY/2012/07	23-08-2016	Mid-Flood	SR4	10:17	Surface	1	2	28.2	7.89	26.6	6.67	8.95	11.9
TMCLKL	HY/2012/07	23-08-2016	Mid-Flood	SR4	10:17	Middle	2	1						
TMCLKL	HY/2012/07	23-08-2016	Mid-Flood	SR4	10:17	Middle	2	2						
TMCLKL	HY/2012/07	23-08-2016	Mid-Flood	SR4	10:17	Bottom	3	1	28.2	7.85	26.6	6.43	9.18	12.2
TMCLKL	HY/2012/07	23-08-2016	Mid-Flood	SR4	10:17	Bottom	3	2	28.1	7.83	26.7	6.45	9.2	12.2
TMCLKL	HY/2012/07	23-08-2016	Mid-Flood	IS8	10:39	Surface	1	1	28.1	7.78	26.3	6.61	9.07	12.1
TMCLKL	HY/2012/07	23-08-2016	Mid-Flood	IS8	10:39	Surface	1	2	28.2	7.8	26.4	6.63	9.09	12.1
TMCLKL	HY/2012/07	23-08-2016	Mid-Flood	IS8	10:39	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	23-08-2016	Mid-Flood	IS8	10:39	Middle	2	2						
TMCLKL	HY/2012/07	23-08-2016	Mid-Flood	IS8	10:39	Bottom	3	1	28.1	7.94	26.5	6.49	9.2	12.4
TMCLKL	HY/2012/07	23-08-2016	Mid-Flood	IS8	10:39	Bottom	3	2	28	7.96	26.4	6.51	9.22	12.4
TMCLKL	HY/2012/07	23-08-2016	Mid-Flood	IS(Mf)16	11:01	Surface	1	1	28.3	7.96	26.3	6.54	8.98	11.9
TMCLKL	HY/2012/07	23-08-2016	Mid-Flood	IS(Mf)16	11:01	Surface	1	2	28.2	7.98	26.4	6.52	9	12
TMCLKL	HY/2012/07	23-08-2016	Mid-Flood	IS(Mf)16	11:01	Middle	2	1	28.1	7.92	26.5	6.34	9.11	12.1
TMCLKL	HY/2012/07	23-08-2016	Mid-Flood	IS(Mf)16	11:01	Middle	2	2	28.2	7.94	26.4	6.36	9.13	12.1
TMCLKL	HY/2012/07	23-08-2016	Mid-Flood	IS(Mf)16	11:01	Bottom	3	1	28.1	7.86	26.6	6.2	9.27	12.5
TMCLKL	HY/2012/07	23-08-2016	Mid-Flood	IS(Mf)16	11:01	Bottom	3	2	28	7.84	26.7	6.18	9.29	12.6
TMCLKL	HY/2012/07	23-08-2016	Mid-Flood	IS(Mf)9	11:23	Surface	1	1	28.4	7.98	26.4	6.51	8.38	11.1
TMCLKL	HY/2012/07	23-08-2016	Mid-Flood	IS(Mf)9	11:23	Surface	1	2	28.3	8	26.5	6.49	8.4	11.2
TMCLKL	HY/2012/07	23-08-2016	Mid-Flood	IS(Mf)9	11:23	Middle	2	1						
TMCLKL	HY/2012/07	23-08-2016	Mid-Flood	IS(Mf)9	11:23	Middle	2	2						
TMCLKL	HY/2012/07	23-08-2016	Mid-Flood	IS(Mf)9	11:23	Bottom	3	1	28.3	8.06	26.5	6.28	8.45	11.5
TMCLKL	HY/2012/07	23-08-2016	Mid-Flood	IS(Mf)9	11:23	Bottom	3	2	28.2	8.04	26.6	6.3	8.47	11.5
TMCLKL	HY/2012/07	23-08-2016	Mid-Flood	CS(Mf)3	11:47	Surface	1	1	28.5	7.88	26.2	6.37	8.39	11.2
TMCLKL	HY/2012/07	23-08-2016	Mid-Flood	CS(Mf)3	11:47	Surface	1	2	28.4	7.9	26.3	6.35	8.41	11.2
TMCLKL	HY/2012/07	23-08-2016	Mid-Flood	CS(Mf)3	11:47	Middle	2	1	28.4	7.8	26.4	6.3	8.71	11.6
TMCLKL	HY/2012/07	23-08-2016	Mid-Flood	CS(Mf)3	11:47	Middle	2	2	28.3	7.83	26.5	6.28	8.69	11.6
TMCLKL	HY/2012/07	23-08-2016	Mid-Flood	CS(Mf)3	11:47	Bottom	3	1	28.2	7.88	26.6	6.16	9.74	13
TMCLKL	HY/2012/07	23-08-2016	Mid-Flood	CS(Mf)3	11:47	Bottom	3	2	28.1	7.86	26.7	6.18	9.76	13
TMCLKL	HY/2012/07	23-08-2016	Mid-Ebb	CS(Mf)5	16:45	Surface	1	1	28.4	7.85	26.4	6.24	8.97	11.9
TMCLKL	HY/2012/07	23-08-2016	Mid-Ebb	CS(Mf)5	16:45	Surface	1	2	28.3	7.87	26.5	6.22	8.99	12
TMCLKL	HY/2012/07	23-08-2016	Mid-Ebb	CS(Mf)5	16:45	Middle	2	1	28.2	7.94	26.6	6.15	9.12	12.1
TMCLKL	HY/2012/07	23-08-2016	Mid-Ebb	CS(Mf)5	16:45	Middle	2	2	28.2	7.96	26.7	6.13	9.14	12.2
TMCLKL	HY/2012/07	23-08-2016	Mid-Ebb	CS(Mf)5	16:45	Bottom	3	1	28.1	8.13	26.8	6.02	9.3	12.4
TMCLKL	HY/2012/07	23-08-2016	Mid-Ebb	CS(Mf)5	16:45	Bottom	3	2	28	8.15	26.8	6.04	9.32	12.4
TMCLKL	HY/2012/07	23-08-2016	Mid-Ebb	SR4a	16:25	Surface	1	1	28.5	8.13	26.5	6.15	9.25	12.3
TMCLKL	HY/2012/07	23-08-2016	Mid-Ebb	SR4a	16:25	Surface	1	2	28.6	8.11	26.5	6.13	9.27	12.3
TMCLKL	HY/2012/07	23-08-2016	Mid-Ebb	SR4a	16:25	Middle	2	1						
TMCLKL	HY/2012/07	23-08-2016	Mid-Ebb	SR4a	16:25	Middle	2	2						
TMCLKL	HY/2012/07	23-08-2016	Mid-Ebb	SR4a	16:25	Bottom	3	1	28.4	7.94	26.6	6	9.44	12.6
TMCLKL	HY/2012/07	23-08-2016	Mid-Ebb	SR4a	16:25	Bottom	3	2	28.3	7.96	26.7	6.02	9.46	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	23-08-2016	Mid-Ebb	SR4	16:03	Surface	1	1	28.5	8.16	26.4	6.55	9.24	12.3
TMCLKL	HY/2012/07	23-08-2016	Mid-Ebb	SR4	16:03	Surface	1	2	28.4	8.18	26.5	6.53	9.26	12.3
TMCLKL	HY/2012/07	23-08-2016	Mid-Ebb	SR4	16:03	Middle	2	1						
TMCLKL	HY/2012/07	23-08-2016	Mid-Ebb	SR4	16:03	Middle	2	2						
TMCLKL	HY/2012/07	23-08-2016	Mid-Ebb	SR4	16:03	Bottom	3	1	28.3	7.95	26.6	6.37	9.33	12.4
TMCLKL	HY/2012/07	23-08-2016	Mid-Ebb	SR4	16:03	Bottom	3	2	28.2	7.97	26.7	6.35	9.35	12.4
TMCLKL	HY/2012/07	23-08-2016	Mid-Ebb	IS8	15:41	Surface	1	1	28.4	7.92	26.5	6.42	9.38	12.5
TMCLKL	HY/2012/07	23-08-2016	Mid-Ebb	IS8	15:41	Surface	1	2	28.3	7.94	26.6	6.4	9.4	12.5
TMCLKL	HY/2012/07	23-08-2016	Mid-Ebb	IS8	15:41	Middle	2	1						
TMCLKL	HY/2012/07	23-08-2016	Mid-Ebb	IS8	15:41	Middle	2	2						
TMCLKL	HY/2012/07	23-08-2016	Mid-Ebb	IS8	15:41	Bottom	3	1	28.2	8	26.7	6.25	9.55	12.7
TMCLKL	HY/2012/07	23-08-2016	Mid-Ebb	IS8	15:41	Bottom	3	2	28.2	8.02	26.8	6.27	9.51	12.7
TMCLKL	HY/2012/07	23-08-2016	Mid-Ebb	IS(Mf)16	15:19	Surface	1	1	28.5	7.73	26.5	6.39	9.48	12.6
TMCLKL	HY/2012/07	23-08-2016	Mid-Ebb	IS(Mf)16	15:19	Surface	1	2	28.5	7.75	26.6	6.37	9.5	12.6
TMCLKL	HY/2012/07	23-08-2016	Mid-Ebb	IS(Mf)16	15:19	Middle	2	1	28.3	7.82	26.7	6.2	9.63	12.8
TMCLKL	HY/2012/07	23-08-2016	Mid-Ebb	IS(Mf)16	15:19	Middle	2	2	28.2	7.84	26.7	6.22	9.65	12.8
TMCLKL	HY/2012/07	23-08-2016	Mid-Ebb	IS(Mf)16	15:19	Bottom	3	1	28	8.05	26.8	6.04	9.77	13
TMCLKL	HY/2012/07	23-08-2016	Mid-Ebb	IS(Mf)16	15:19	Bottom	3	2	28.1	8.07	26.9	6.06	9.79	13
TMCLKL	HY/2012/07	23-08-2016	Mid-Ebb	IS(Mf)9	14:59	Surface	1	1	28.5	8.14	26.5	6.42	8.55	11.4
TMCLKL	HY/2012/07	23-08-2016	Mid-Ebb	IS(Mf)9	14:59	Surface	1	2	28.6	8.16	26.6	6.4	8.57	11.4
TMCLKL	HY/2012/07	23-08-2016	Mid-Ebb	IS(Mf)9	14:59	Middle	2	1						
TMCLKL	HY/2012/07	23-08-2016	Mid-Ebb	IS(Mf)9	14:59	Middle	2	2						
TMCLKL	HY/2012/07	23-08-2016	Mid-Ebb	IS(Mf)9	14:59	Bottom	3	1	28.3	7.87	26.7	6.33	9.12	12.1
TMCLKL	HY/2012/07	23-08-2016	Mid-Ebb	IS(Mf)9	14:59	Bottom	3	2	28.2	7.89	26.8	6.31	9.14	12.2
TMCLKL	HY/2012/07	23-08-2016	Mid-Ebb	CS(Mf)3	14:37	Surface	1	1	28.4	7.95	26.4	6.3	8.45	11.2
TMCLKL	HY/2012/07	23-08-2016	Mid-Ebb	CS(Mf)3	14:37	Surface	1	2	28.5	7.93	26.5	6.32	8.43	11.2
TMCLKL	HY/2012/07	23-08-2016	Mid-Ebb	CS(Mf)3	14:37	Middle	2	1	28.3	8.12	26.6	6.17	8.62	11.5
TMCLKL	HY/2012/07	23-08-2016	Mid-Ebb	CS(Mf)3	14:37	Middle	2	2	28.3	8.14	26.7	6.15	8.64	11.5
TMCLKL	HY/2012/07	23-08-2016	Mid-Ebb	CS(Mf)3	14:37	Bottom	3	1	28.2	8.05	26.8	6.08	8.77	11.7
TMCLKL	HY/2012/07	23-08-2016	Mid-Ebb	CS(Mf)3	14:37	Bottom	3	2	28.1	8.07	26.9	6.1	8.79	11.7
TMCLKL	HY/2012/07	25-08-2016	Mid-Flood	CS(Mf)5	12:07	Surface	1	1	28	8.15	26	6.57	7.8	10.4
TMCLKL	HY/2012/07	25-08-2016	Mid-Flood	CS(Mf)5	12:07	Surface	1	2	27.9	8.13	26.1	6.55	7.82	10.4
TMCLKL	HY/2012/07	25-08-2016	Mid-Flood	CS(Mf)5	12:07	Middle	2	1	27.8	7.95	26.2	6.48	8.13	10.8

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	25-08-2016	Mid-Flood	CS(Mf)5	12:07	Middle	2	2	27.8	7.97	26.3	6.46	8.15	10.8
TMCLKL	HY/2012/07	25-08-2016	Mid-Flood	CS(Mf)5	12:07	Bottom	3	1	27.7	7.83	26.4	6.35	8.3	11.2
TMCLKL	HY/2012/07	25-08-2016	Mid-Flood	CS(Mf)5	12:07	Bottom	3	2	27.6	7.85	26.4	6.37	8.32	11.2
TMCLKL	HY/2012/07	25-08-2016	Mid-Flood	SR4a	12:29	Surface	1	1	27.9	7.85	25.9	6.43	8.15	10.8
TMCLKL	HY/2012/07	25-08-2016	Mid-Flood	SR4a	12:29	Surface	1	2	27.8	7.87	26	6.45	8.17	10.9
TMCLKL	HY/2012/07	25-08-2016	Mid-Flood	SR4a	12:29	Middle	2	1						
TMCLKL	HY/2012/07	25-08-2016	Mid-Flood	SR4a	12:29	Middle	2	2						
TMCLKL	HY/2012/07	25-08-2016	Mid-Flood	SR4a	12:29	Bottom	3	1	27.7	8.14	26.2	6.3	7.86	10.7
TMCLKL	HY/2012/07	25-08-2016	Mid-Flood	SR4a	12:29	Bottom	3	2	27.6	8.12	26.3	6.32	7.88	10.6
TMCLKL	HY/2012/07	25-08-2016	Mid-Flood	SR4	12:51	Surface	1	1	28.1	7.85	25.9	6.64	8.23	10.9
TMCLKL	HY/2012/07	25-08-2016	Mid-Flood	SR4	12:51	Surface	1	2	28	7.87	26	6.66	8.25	11
TMCLKL	HY/2012/07	25-08-2016	Mid-Flood	SR4	12:51	Middle	2	1						
TMCLKL	HY/2012/07	25-08-2016	Mid-Flood	SR4	12:51	Middle	2	2						
TMCLKL	HY/2012/07	25-08-2016	Mid-Flood	SR4	12:51	Bottom	3	1	27.8	8.12	26.1	6.39	7.81	10.4
TMCLKL	HY/2012/07	25-08-2016	Mid-Flood	SR4	12:51	Bottom	3	2	27.9	8.14	26.2	6.41	7.83	10.4
TMCLKL	HY/2012/07	25-08-2016	Mid-Flood	IS8	13:13	Surface	1	1	27.9	8.04	26.1	6.77	7.64	10.2
TMCLKL	HY/2012/07	25-08-2016	Mid-Flood	IS8	13:13	Surface	1	2	27.8	8.06	26.2	6.75	7.66	10.2
TMCLKL	HY/2012/07	25-08-2016	Mid-Flood	IS8	13:13	Middle	2	1						
TMCLKL	HY/2012/07	25-08-2016	Mid-Flood	IS8	13:13	Middle	2	2						
TMCLKL	HY/2012/07	25-08-2016	Mid-Flood	IS8	13:13	Bottom	3	1	27.7	7.74	26.3	6.5	8.04	10.9
TMCLKL	HY/2012/07	25-08-2016	Mid-Flood	IS8	13:13	Bottom	3	2	27.6	7.76	26.4	6.52	8.06	10.8
TMCLKL	HY/2012/07	25-08-2016	Mid-Flood	IS(Mf)16	13:35	Surface	1	1	27.9	8.24	26	6.85	7.58	10.1
TMCLKL	HY/2012/07	25-08-2016	Mid-Flood	IS(Mf)16	13:35	Surface	1	2	27.9	8.22	26	6.83	7.6	10.1
TMCLKL	HY/2012/07	25-08-2016	Mid-Flood	IS(Mf)16	13:35	Middle	2	1	27.8	7.96	26.1	6.6	8	10.6
TMCLKL	HY/2012/07	25-08-2016	Mid-Flood	IS(Mf)16	13:35	Middle	2	2	27.7	7.98	26.2	6.62	8.02	10.7
TMCLKL	HY/2012/07	25-08-2016	Mid-Flood	IS(Mf)16	13:35	Bottom	3	1	27.6	8.04	26.3	6.53	8.15	11
TMCLKL	HY/2012/07	25-08-2016	Mid-Flood	IS(Mf)16	13:35	Bottom	3	2	27.5	8.06	26.4	6.55	8.17	11.1
TMCLKL	HY/2012/07	25-08-2016	Mid-Flood	IS(Mf)9	13:56	Surface	1	1	28.1	7.92	26.1	6.8	7.75	10.3
TMCLKL	HY/2012/07	25-08-2016	Mid-Flood	IS(Mf)9	13:56	Surface	1	2	28.1	7.94	26.2	6.78	7.77	10.3
TMCLKL	HY/2012/07	25-08-2016	Mid-Flood	IS(Mf)9	13:56	Middle	2	1						
TMCLKL	HY/2012/07	25-08-2016	Mid-Flood	IS(Mf)9	13:56	Middle	2	2						
TMCLKL	HY/2012/07	25-08-2016	Mid-Flood	IS(Mf)9	13:56	Bottom	3	1	27.8	8.15	26.3	6.55	7.84	10.7
TMCLKL	HY/2012/07	25-08-2016	Mid-Flood	IS(Mf)9	13:56	Bottom	3	2	27.7	8.17	26.4	6.57	7.86	10.7

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	25-08-2016	Mid-Flood	CS(Mf)3	14:15	Surface	1	1	27.9	7.78	25.9	6.75	7.48	9.9
TMCLKL	HY/2012/07	25-08-2016	Mid-Flood	CS(Mf)3	14:15	Surface	1	2	27.9	7.8	26	6.73	7.5	10
TMCLKL	HY/2012/07	25-08-2016	Mid-Flood	CS(Mf)3	14:15	Middle	2	1	27.8	7.92	26.1	6.48	7.66	10.2
TMCLKL	HY/2012/07	25-08-2016	Mid-Flood	CS(Mf)3	14:15	Middle	2	2	27.7	7.94	26.2	6.5	7.64	10.2
TMCLKL	HY/2012/07	25-08-2016	Mid-Flood	CS(Mf)3	14:15	Bottom	3	1	27.6	8.09	26.4	6.3	7.83	10.4
TMCLKL	HY/2012/07	25-08-2016	Mid-Flood	CS(Mf)3	14:15	Bottom	3	2	27.5	8.11	26.5	6.32	7.81	10.4
TMCLKL	HY/2012/07	25-08-2016	Mid-Ebb	CS(Mf)5	18:45	Surface	1	1	28.1	8.08	26.2	6.67	7.94	10.6
TMCLKL	HY/2012/07	25-08-2016	Mid-Ebb	CS(Mf)5	18:45	Surface	1	2	28.1	8.03	26.3	6.7	8.09	10.8
TMCLKL	HY/2012/07	25-08-2016	Mid-Ebb	CS(Mf)5	18:45	Middle	2	1	28	7.9	26.3	6.52	8.18	10.9
TMCLKL	HY/2012/07	25-08-2016	Mid-Ebb	CS(Mf)5	18:45	Middle	2	2	28	7.93	26.4	6.5	8.25	11
TMCLKL	HY/2012/07	25-08-2016	Mid-Ebb	CS(Mf)5	18:45	Bottom	3	1	27.8	7.79	26.6	6.33	8.4	11.2
TMCLKL	HY/2012/07	25-08-2016	Mid-Ebb	CS(Mf)5	18:45	Bottom	3	2	27.8	7.84	26.5	6.31	8.33	11.1
TMCLKL	HY/2012/07	25-08-2016	Mid-Ebb	SR4a	18:22	Surface	1	1	28.1	7.79	26.1	6.57	8.03	10.7
TMCLKL	HY/2012/07	25-08-2016	Mid-Ebb	SR4a	18:22	Surface	1	2	28.1	7.82	26.2	6.64	7.94	10.6
TMCLKL	HY/2012/07	25-08-2016	Mid-Ebb	SR4a	18:22	Middle	2	1						
TMCLKL	HY/2012/07	25-08-2016	Mid-Ebb	SR4a	18:22	Middle	2	2						
TMCLKL	HY/2012/07	25-08-2016	Mid-Ebb	SR4a	18:22	Bottom	3	1	27.9	8.03	26.3	6.55	7.95	10.6
TMCLKL	HY/2012/07	25-08-2016	Mid-Ebb	SR4a	18:22	Bottom	3	2	28	7.99	26.3	6.52	8.09	10.8
TMCLKL	HY/2012/07	25-08-2016	Mid-Ebb	SR4	18:04	Surface	1	1	28	7.94	26.2	6.59	8.09	10.8
TMCLKL	HY/2012/07	25-08-2016	Mid-Ebb	SR4	18:04	Surface	1	2	28	7.9	26.2	6.61	8.16	10.9
TMCLKL	HY/2012/07	25-08-2016	Mid-Ebb	SR4	18:04	Middle	2	1						
TMCLKL	HY/2012/07	25-08-2016	Mid-Ebb	SR4	18:04	Middle	2	2						
TMCLKL	HY/2012/07	25-08-2016	Mid-Ebb	SR4	18:04	Bottom	3	1	27.9	7.99	26.2	6.46	8.06	10.7
TMCLKL	HY/2012/07	25-08-2016	Mid-Ebb	SR4	18:04	Bottom	3	2	27.9	8.03	26.3	6.42	7.95	10.6
TMCLKL	HY/2012/07	25-08-2016	Mid-Ebb	IS8	17:46	Surface	1	1	28	7.99	26.2	6.68	7.78	10.3
TMCLKL	HY/2012/07	25-08-2016	Mid-Ebb	IS8	17:46	Surface	1	2	28.1	8.02	26.3	6.65	7.7	10.2
TMCLKL	HY/2012/07	25-08-2016	Mid-Ebb	IS8	17:46	Middle	2	1						
TMCLKL	HY/2012/07	25-08-2016	Mid-Ebb	IS8	17:46	Middle	2	2						
TMCLKL	HY/2012/07	25-08-2016	Mid-Ebb	IS8	17:46	Bottom	3	1	27.9	7.86	26.4	6.57	8.11	10.8
TMCLKL	HY/2012/07	25-08-2016	Mid-Ebb	IS8	17:46	Bottom	3	2	27.9	7.89	26.4	6.54	8.04	10.7
TMCLKL	HY/2012/07	25-08-2016	Mid-Ebb	IS(Mf)16	17:25	Surface	1	1	28	8.13	26.2	6.77	7.84	10.4
TMCLKL	HY/2012/07	25-08-2016	Mid-Ebb	IS(Mf)16	17:25	Surface	1	2	28	8.07	26.3	6.74	7.76	10.3
TMCLKL	HY/2012/07	25-08-2016	Mid-Ebb	IS(Mf)16	17:25	Middle	2	1	27.9	7.99	26.4	6.7	7.99	10.6

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	25-08-2016	Mid-Ebb	IS(Mf)16	17:25	Middle	2	2	27.9	8.02	26.3	6.68	8.06	10.7
TMCLKL	HY/2012/07	25-08-2016	Mid-Ebb	IS(Mf)16	17:25	Bottom	3	1	27.7	7.98	26.6	6.46	8.27	11
TMCLKL	HY/2012/07	25-08-2016	Mid-Ebb	IS(Mf)16	17:25	Bottom	3	2	27.7	8.01	26.6	6.43	8.16	10.9
TMCLKL	HY/2012/07	25-08-2016	Mid-Ebb	IS(Mf)9	17:05	Surface	1	1	28	7.86	26.3	6.76	7.95	10.6
TMCLKL	HY/2012/07	25-08-2016	Mid-Ebb	IS(Mf)9	17:05	Surface	1	2	27.9	7.83	26.2	6.73	7.89	10.5
TMCLKL	HY/2012/07	25-08-2016	Mid-Ebb	IS(Mf)9	17:05	Middle	2	1						
TMCLKL	HY/2012/07	25-08-2016	Mid-Ebb	IS(Mf)9	17:05	Middle	2	2						
TMCLKL	HY/2012/07	25-08-2016	Mid-Ebb	IS(Mf)9	17:05	Bottom	3	1	27.9	8.07	26.5	6.67	7.76	10.3
TMCLKL	HY/2012/07	25-08-2016	Mid-Ebb	IS(Mf)9	17:05	Bottom	3	2	27.8	8.04	26.6	6.62	7.83	10.4
TMCLKL	HY/2012/07	25-08-2016	Mid-Ebb	CS(Mf)3	16:41	Surface	1	1	28.1	7.69	26.2	6.64	7.8	10.4
TMCLKL	HY/2012/07	25-08-2016	Mid-Ebb	CS(Mf)3	16:41	Surface	1	2	28	7.74	26.1	6.67	7.63	10.1
TMCLKL	HY/2012/07	25-08-2016	Mid-Ebb	CS(Mf)3	16:41	Middle	2	1	27.9	7.8	26.3	6.56	7.72	10.3
TMCLKL	HY/2012/07	25-08-2016	Mid-Ebb	CS(Mf)3	16:41	Middle	2	2	27.9	7.77	26.4	6.53	7.85	10.4
TMCLKL	HY/2012/07	25-08-2016	Mid-Ebb	CS(Mf)3	16:41	Bottom	3	1	27.7	7.89	26.6	6.27	7.94	10.6
TMCLKL	HY/2012/07	25-08-2016	Mid-Ebb	CS(Mf)3	16:41	Bottom	3	2	27.7	7.84	26.7	6.24	8.06	10.7
TMCLKL	HY/2012/07	27-08-2016	Mid-Flood	CS(Mf)5	14:28	Surface	1	1	27.8	7.8	26.2	6.67	7.44	10.4
TMCLKL	HY/2012/07	27-08-2016	Mid-Flood	CS(Mf)5	14:28	Surface	1	2	27.8	7.79	26.3	6.64	7.49	11.2
TMCLKL	HY/2012/07	27-08-2016	Mid-Flood	CS(Mf)5	14:28	Middle	2	1	27.6	7.83	26.4	6.43	7.87	9.4
TMCLKL	HY/2012/07	27-08-2016	Mid-Flood	CS(Mf)5	14:28	Middle	2	2	27.5	7.84	26.5	6.47	7.85	11.8
TMCLKL	HY/2012/07	27-08-2016	Mid-Flood	CS(Mf)5	14:28	Bottom	3	1	27.5	7.84	26.6	6.29	8.55	12.8
TMCLKL	HY/2012/07	27-08-2016	Mid-Flood	CS(Mf)5	14:28	Bottom	3	2	27.4	7.84	26.7	6.25	8.5	13.6
TMCLKL	HY/2012/07	27-08-2016	Mid-Flood	SR4a	14:55	Surface	1	1	27.8	7.76	26.2	6.74	7.82	12.5
TMCLKL	HY/2012/07	27-08-2016	Mid-Flood	SR4a	14:55	Surface	1	2	27.7	7.78	26.1	6.7	7.85	11.8
TMCLKL	HY/2012/07	27-08-2016	Mid-Flood	SR4a	14:55	Middle	2	1						
TMCLKL	HY/2012/07	27-08-2016	Mid-Flood	SR4a	14:55	Middle	2	2						
TMCLKL	HY/2012/07	27-08-2016	Mid-Flood	SR4a	14:55	Bottom	3	1	27.6	7.81	26.3	6.49	8.11	12.2
TMCLKL	HY/2012/07	27-08-2016	Mid-Flood	SR4a	14:55	Bottom	3	2	27.6	7.81	26.3	6.46	8.15	11.4
TMCLKL	HY/2012/07	27-08-2016	Mid-Flood	SR4	15:15	Surface	1	1	27.9	7.84	26.3	6.52	8.09	12.1
TMCLKL	HY/2012/07	27-08-2016	Mid-Flood	SR4	15:15	Surface	1	2	27.8	7.85	26.3	6.55	8.14	11.4
TMCLKL	HY/2012/07	27-08-2016	Mid-Flood	SR4	15:15	Middle	2	1						
TMCLKL	HY/2012/07	27-08-2016	Mid-Flood	SR4	15:15	Middle	2	2						
TMCLKL	HY/2012/07	27-08-2016	Mid-Flood	SR4	15:15	Bottom	3	1	27.6	7.86	26.5	6.3	8.34	10.8
TMCLKL	HY/2012/07	27-08-2016	Mid-Flood	SR4	15:15	Bottom	3	2	27.5	7.86	26.6	6.34	8.3	13.3

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	27-08-2016	Mid-Flood	IS8	15:35	Surface	1	1	27.9	7.82	26.4	6.63	7.98	12.8
TMCLKL	HY/2012/07	27-08-2016	Mid-Flood	IS8	15:35	Surface	1	2	27.8	7.83	26.3	6.59	7.94	10.3
TMCLKL	HY/2012/07	27-08-2016	Mid-Flood	IS8	15:35	Middle	2	1						
TMCLKL	HY/2012/07	27-08-2016	Mid-Flood	IS8	15:35	Middle	2	2						
TMCLKL	HY/2012/07	27-08-2016	Mid-Flood	IS8	15:35	Bottom	3	1	27.7	7.84	26.5	6.25	8.59	13.7
TMCLKL	HY/2012/07	27-08-2016	Mid-Flood	IS8	15:35	Bottom	3	2	27.6	7.84	26.4	6.28	8.52	12.8
TMCLKL	HY/2012/07	27-08-2016	Mid-Flood	IS(Mf)16	16:07	Surface	1	1	27.8	7.85	26.4	6.67	7.67	11.5
TMCLKL	HY/2012/07	27-08-2016	Mid-Flood	IS(Mf)16	16:07	Surface	1	2	27.7	7.84	26.4	6.64	7.62	1.4
TMCLKL	HY/2012/07	27-08-2016	Mid-Flood	IS(Mf)16	16:07	Middle	2	1	27.6	7.89	26.6	6.39	8.24	11.5
TMCLKL	HY/2012/07	27-08-2016	Mid-Flood	IS(Mf)16	16:07	Middle	2	2	27.5	7.88	26.7	6.36	8.2	11.5
TMCLKL	HY/2012/07	27-08-2016	Mid-Flood	IS(Mf)16	16:07	Bottom	3	1	27.5	7.9	26.8	6.43	8.33	10.8
TMCLKL	HY/2012/07	27-08-2016	Mid-Flood	IS(Mf)16	16:07	Bottom	3	2	27.4	7.89	26.8	6.4	8.37	11.7
TMCLKL	HY/2012/07	27-08-2016	Mid-Flood	IS(Mf)9	16:25	Surface	1	1	27.8	7.82	26.4	6.41	8.02	10.4
TMCLKL	HY/2012/07	27-08-2016	Mid-Flood	IS(Mf)9	16:25	Surface	1	2	27.7	7.83	26.5	6.44	8.06	12.9
TMCLKL	HY/2012/07	27-08-2016	Mid-Flood	IS(Mf)9	16:25	Middle	2	1						
TMCLKL	HY/2012/07	27-08-2016	Mid-Flood	IS(Mf)9	16:25	Middle	2	2						
TMCLKL	HY/2012/07	27-08-2016	Mid-Flood	IS(Mf)9	16:25	Bottom	3	1	27.6	7.84	26.6	6.2	8.44	11.8
TMCLKL	HY/2012/07	27-08-2016	Mid-Flood	IS(Mf)9	16:25	Bottom	3	2	27.5	7.84	26.5	6.17	8.4	10.9
TMCLKL	HY/2012/07	27-08-2016	Mid-Flood	CS(Mf)3	16:40	Surface	1	1	27.7	7.8	26.5	6.73	8.09	10.5
TMCLKL	HY/2012/07	27-08-2016	Mid-Flood	CS(Mf)3	16:40	Surface	1	2	27.8	7.79	26.5	6.75	8.05	9.7
TMCLKL	HY/2012/07	27-08-2016	Mid-Flood	CS(Mf)3	16:40	Middle	2	1	27.5	7.84	26.8	6.55	8.15	11.4
TMCLKL	HY/2012/07	27-08-2016	Mid-Flood	CS(Mf)3	16:40	Middle	2	2	27.4	7.83	26.7	6.58	8.11	10.5
TMCLKL	HY/2012/07	27-08-2016	Mid-Flood	CS(Mf)3	16:40	Bottom	3	1	27.4	7.85	26.8	6.37	8.38	11.7
TMCLKL	HY/2012/07	27-08-2016	Mid-Flood	CS(Mf)3	16:40	Bottom	3	2	27.3	7.86	26.8	6.39	8.34	12.5
TMCLKL	HY/2012/07	27-08-2016	Mid-Ebb	CS(Mf)5	10:13	Surface	1	1	27.8	7.79	26.4	6.71	7.9	11.9
TMCLKL	HY/2012/07	27-08-2016	Mid-Ebb	CS(Mf)5	10:13	Surface	1	2	27.8	7.82	26.5	6.67	7.99	10.4
TMCLKL	HY/2012/07	27-08-2016	Mid-Ebb	CS(Mf)5	10:13	Middle	2	1	27.7	7.84	26.6	6.58	8.07	9.7
TMCLKL	HY/2012/07	27-08-2016	Mid-Ebb	CS(Mf)5	10:13	Middle	2	2	27.7	7.81	26.6	6.54	8.15	11.4
TMCLKL	HY/2012/07	27-08-2016	Mid-Ebb	CS(Mf)5	10:13	Bottom	3	1	27.6	7.93	26.8	6.4	8.27	10.8
TMCLKL	HY/2012/07	27-08-2016	Mid-Ebb	CS(Mf)5	10:13	Bottom	3	2	27.5	7.86	26.8	6.37	8.36	12.5
TMCLKL	HY/2012/07	27-08-2016	Mid-Ebb	SR4a	9:51	Surface	1	1	27.7	7.86	26.3	6.63	7.94	10.3
TMCLKL	HY/2012/07	27-08-2016	Mid-Ebb	SR4a	9:51	Surface	1	2	27.8	7.82	26.4	6.6	7.85	11
TMCLKL	HY/2012/07	27-08-2016	Mid-Ebb	SR4a	9:51	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	27-08-2016	Mid-Ebb	SR4a	9:51	Middle	2	2						
TMCLKL	HY/2012/07	27-08-2016	Mid-Ebb	SR4a	9:51	Bottom	3	1	27.7	7.87	26.4	6.52	8.07	12.1
TMCLKL	HY/2012/07	27-08-2016	Mid-Ebb	SR4a	9:51	Bottom	3	2	27.7	7.89	26.4	6.5	8	12
TMCLKL	HY/2012/07	27-08-2016	Mid-Ebb	SR4	9:34	Surface	1	1	27.7	7.84	26.3	6.69	7.84	11
TMCLKL	HY/2012/07	27-08-2016	Mid-Ebb	SR4	9:34	Surface	1	2	27.8	7.88	26.4	6.71	7.8	11.7
TMCLKL	HY/2012/07	27-08-2016	Mid-Ebb	SR4	9:34	Middle	2	1						
TMCLKL	HY/2012/07	27-08-2016	Mid-Ebb	SR4	9:34	Middle	2	2						
TMCLKL	HY/2012/07	27-08-2016	Mid-Ebb	SR4	9:34	Bottom	3	1	27.7	7.77	26.4	6.6	7.91	10.3
TMCLKL	HY/2012/07	27-08-2016	Mid-Ebb	SR4	9:34	Bottom	3	2	27.7	7.82	26.4	6.57	7.97	12
TMCLKL	HY/2012/07	27-08-2016	Mid-Ebb	IS8	9:17	Surface	1	1	27.7	7.89	26.3	6.68	7.75	11.6
TMCLKL	HY/2012/07	27-08-2016	Mid-Ebb	IS8	9:17	Surface	1	2	27.7	7.93	26.3	6.64	7.81	10.9
TMCLKL	HY/2012/07	27-08-2016	Mid-Ebb	IS8	9:17	Middle	2	1						
TMCLKL	HY/2012/07	27-08-2016	Mid-Ebb	IS8	9:17	Middle	2	2						
TMCLKL	HY/2012/07	27-08-2016	Mid-Ebb	IS8	9:17	Bottom	3	1	27.7	7.86	26.3	6.55	8	12
TMCLKL	HY/2012/07	27-08-2016	Mid-Ebb	IS8	9:17	Bottom	3	2	27.6	7.89	26.3	6.52	7.93	11.9
TMCLKL	HY/2012/07	27-08-2016	Mid-Ebb	IS(Mf)16	8:53	Surface	1	1	27.7	7.96	26.2	6.75	7.66	11.5
TMCLKL	HY/2012/07	27-08-2016	Mid-Ebb	IS(Mf)16	8:53	Surface	1	2	27.7	7.89	26.3	6.72	7.73	10.8
TMCLKL	HY/2012/07	27-08-2016	Mid-Ebb	IS(Mf)16	8:53	Middle	2	1	27.6	7.94	26.3	6.66	7.89	10.3
TMCLKL	HY/2012/07	27-08-2016	Mid-Ebb	IS(Mf)16	8:53	Middle	2	2	27.7	7.97	26.4	6.61	7.96	10.3
TMCLKL	HY/2012/07	27-08-2016	Mid-Ebb	IS(Mf)16	8:53	Bottom	3	1	27.5	7.88	26.6	6.44	8.07	10.5
TMCLKL	HY/2012/07	27-08-2016	Mid-Ebb	IS(Mf)16	8:53	Bottom	3	2	27.5	7.94	26.6	6.47	8.16	11.4
TMCLKL	HY/2012/07	27-08-2016	Mid-Ebb	IS(Mf)9	8:36	Surface	1	1	27.7	7.8	26.2	6.73	7.48	11.2
TMCLKL	HY/2012/07	27-08-2016	Mid-Ebb	IS(Mf)9	8:36	Surface	1	2	27.7	7.77	26.3	6.7	7.55	9.8
TMCLKL	HY/2012/07	27-08-2016	Mid-Ebb	IS(Mf)9	8:36	Middle	2	1						
TMCLKL	HY/2012/07	27-08-2016	Mid-Ebb	IS(Mf)9	8:36	Middle	2	2						
TMCLKL	HY/2012/07	27-08-2016	Mid-Ebb	IS(Mf)9	8:36	Bottom	3	1	27.7	7.83	26.3	6.59	7.76	11.6
TMCLKL	HY/2012/07	27-08-2016	Mid-Ebb	IS(Mf)9	8:36	Bottom	3	2	27.6	7.86	26.4	6.56	7.83	11.7
TMCLKL	HY/2012/07	27-08-2016	Mid-Ebb	CS(Mf)3	8:17	Surface	1	1	27.6	7.84	26.1	6.68	7.69	11.5
TMCLKL	HY/2012/07	27-08-2016	Mid-Ebb	CS(Mf)3	8:17	Surface	1	2	27.7	7.81	26.2	6.65	7.74	10.8
TMCLKL	HY/2012/07	27-08-2016	Mid-Ebb	CS(Mf)3	8:17	Middle	2	1	27.7	7.87	26.3	6.57	7.8	10.9
TMCLKL	HY/2012/07	27-08-2016	Mid-Ebb	CS(Mf)3	8:17	Middle	2	2	27.7	7.84	26.3	6.54	7.92	11.9
TMCLKL	HY/2012/07	27-08-2016	Mid-Ebb	CS(Mf)3	8:17	Bottom	3	1	27.5	7.89	26.6	6.41	8.13	12.2
TMCLKL	HY/2012/07	27-08-2016	Mid-Ebb	CS(Mf)3	8:17	Bottom	3	2	27.4	7.86	26.7	6.38	8.22	10.7

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	30-08-2016	Mid-Flood	CS(Mf)5	16:57	Surface	1	1	27.5	8.15	26.1	6.83	9.16	12.8
TMCLKL	HY/2012/07	30-08-2016	Mid-Flood	CS(Mf)5	16:57	Surface	1	2	27.4	8.17	26.2	6.87	9.18	11.9
TMCLKL	HY/2012/07	30-08-2016	Mid-Flood	CS(Mf)5	16:57	Middle	2	1	27.3	7.92	26.3	6.64	9.35	14
TMCLKL	HY/2012/07	30-08-2016	Mid-Flood	CS(Mf)5	16:57	Middle	2	2	27.3	7.9	26.4	6.66	9.37	11.2
TMCLKL	HY/2012/07	30-08-2016	Mid-Flood	CS(Mf)5	16:57	Bottom	3	1	27.2	8.33	26.5	6.37	9.48	11.4
TMCLKL	HY/2012/07	30-08-2016	Mid-Flood	CS(Mf)5	16:57	Bottom	3	2	27.1	8.35	26.6	6.35	9.5	14.3
TMCLKL	HY/2012/07	30-08-2016	Mid-Flood	SR4a	17:19	Surface	1	1	27.4	7.98	26	6.7	8.24	12.4
TMCLKL	HY/2012/07	30-08-2016	Mid-Flood	SR4a	17:19	Surface	1	2	27.5	7.96	26.1	6.72	8.26	11.6
TMCLKL	HY/2012/07	30-08-2016	Mid-Flood	SR4a	17:19	Middle	2	1						
TMCLKL	HY/2012/07	30-08-2016	Mid-Flood	SR4a	17:19	Middle	2	2						
TMCLKL	HY/2012/07	30-08-2016	Mid-Flood	SR4a	17:19	Bottom	3	1	27.3	8.13	26.2	6.54	8.47	11
TMCLKL	HY/2012/07	30-08-2016	Mid-Flood	SR4a	17:19	Bottom	3	2	27.3	8.15	26.3	6.56	8.49	11
TMCLKL	HY/2012/07	30-08-2016	Mid-Flood	SR4	17:41	Surface	1	1	27.5	7.94	25.9	6.99	8.25	11.6
TMCLKL	HY/2012/07	30-08-2016	Mid-Flood	SR4	17:41	Surface	1	2	27.4	7.96	26	7.01	8.27	11.6
TMCLKL	HY/2012/07	30-08-2016	Mid-Flood	SR4	17:41	Middle	2	1						
TMCLKL	HY/2012/07	30-08-2016	Mid-Flood	SR4	17:41	Middle	2	2						
TMCLKL	HY/2012/07	30-08-2016	Mid-Flood	SR4	17:41	Bottom	3	1	27.3	8.16	26.1	6.73	8.45	11
TMCLKL	HY/2012/07	30-08-2016	Mid-Flood	SR4	17:41	Bottom	3	2	27.3	8.18	26.2	6.75	8.47	12.7
TMCLKL	HY/2012/07	30-08-2016	Mid-Flood	IS8	18:03	Surface	1	1	27.6	8.16	26.1	6.85	7.95	11.1
TMCLKL	HY/2012/07	30-08-2016	Mid-Flood	IS8	18:03	Surface	1	2	27.5	8.18	26.2	6.87	7.97	10.4
TMCLKL	HY/2012/07	30-08-2016	Mid-Flood	IS8	18:03	Middle	2	1						
TMCLKL	HY/2012/07	30-08-2016	Mid-Flood	IS8	18:03	Middle	2	2						
TMCLKL	HY/2012/07	30-08-2016	Mid-Flood	IS8	18:03	Bottom	3	1	27.3	7.92	26.3	6.6	8.14	10.6
TMCLKL	HY/2012/07	30-08-2016	Mid-Flood	IS8	18:03	Bottom	3	2	27.2	7.94	26.4	6.62	8.16	13.1
TMCLKL	HY/2012/07	30-08-2016	Mid-Flood	IS(Mf)16	18:25	Surface	1	1	27.4	7.59	26	6.77	7.43	9.7
TMCLKL	HY/2012/07	30-08-2016	Mid-Flood	IS(Mf)16	18:25	Surface	1	2	27.3	7.61	26	6.75	7.41	10.4
TMCLKL	HY/2012/07	30-08-2016	Mid-Flood	IS(Mf)16	18:25	Middle	2	1	27.2	7.74	26.1	6.48	7.6	10.6
TMCLKL	HY/2012/07	30-08-2016	Mid-Flood	IS(Mf)16	18:25	Middle	2	2	27.2	7.76	26.2	6.46	7.62	9.9
TMCLKL	HY/2012/07	30-08-2016	Mid-Flood	IS(Mf)16	18:25	Bottom	3	1	27.1	8	26.3	6.33	7.8	10.1
TMCLKL	HY/2012/07	30-08-2016	Mid-Flood	IS(Mf)16	18:25	Bottom	3	2	27	8.02	26.4	6.32	7.78	10.9
TMCLKL	HY/2012/07	30-08-2016	Mid-Flood	IS(Mf)9	18:48	Surface	1	1	27.6	8.24	26.1	6.79	7.6	10.6
TMCLKL	HY/2012/07	30-08-2016	Mid-Flood	IS(Mf)9	18:48	Surface	1	2	27.5	8.22	26.2	6.77	7.58	12.1
TMCLKL	HY/2012/07	30-08-2016	Mid-Flood	IS(Mf)9	18:48	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	30-08-2016	Mid-Flood	IS(Mf)9	18:48	Middle	2	2						
TMCLKL	HY/2012/07	30-08-2016	Mid-Flood	IS(Mf)9	18:48	Bottom	3	1	27.3	8.15	26.3	6.53	7.67	9.2
TMCLKL	HY/2012/07	30-08-2016	Mid-Flood	IS(Mf)9	18:48	Bottom	3	2	27.2	8.13	26.4	6.51	7.69	11.5
TMCLKL	HY/2012/07	30-08-2016	Mid-Flood	CS(Mf)3	19:12	Surface	1	1	27.5	7.86	25.9	6.65	6.92	9
TMCLKL	HY/2012/07	30-08-2016	Mid-Flood	CS(Mf)3	19:12	Surface	1	2	27.4	7.89	26	6.63	6.94	9
TMCLKL	HY/2012/07	30-08-2016	Mid-Flood	CS(Mf)3	19:12	Middle	2	1	27.3	8.04	26.1	6.43	7.11	8.5
TMCLKL	HY/2012/07	30-08-2016	Mid-Flood	CS(Mf)3	19:12	Middle	2	2	27.2	8.06	26.2	6.41	7.13	8.6
TMCLKL	HY/2012/07	30-08-2016	Mid-Flood	CS(Mf)3	19:12	Bottom	3	1	27.1	8.11	26.3	6.33	7.34	11
TMCLKL	HY/2012/07	30-08-2016	Mid-Flood	CS(Mf)3	19:12	Bottom	3	2	27	8.13	26.4	6.35	7.36	10.3
TMCLKL	HY/2012/07	30-08-2016	Mid-Ebb	CS(Mf)5	13:03	Surface	1	1	27.6	7.76	26	6.67	8.04	10.5
TMCLKL	HY/2012/07	30-08-2016	Mid-Ebb	CS(Mf)5	13:03	Surface	1	2	27.5	7.8	25.9	6.64	8.12	9.7
TMCLKL	HY/2012/07	30-08-2016	Mid-Ebb	CS(Mf)5	13:03	Middle	2	1	27.5	7.74	26.1	6.53	7.95	11.9
TMCLKL	HY/2012/07	30-08-2016	Mid-Ebb	CS(Mf)5	13:03	Middle	2	2	27.5	7.72	26.1	6.5	8	11.2
TMCLKL	HY/2012/07	30-08-2016	Mid-Ebb	CS(Mf)5	13:03	Bottom	3	1	27.3	7.77	26.3	6.36	8.33	10.8
TMCLKL	HY/2012/07	30-08-2016	Mid-Ebb	CS(Mf)5	13:03	Bottom	3	2	27.3	7.79	26.4	6.33	8.4	13.4
TMCLKL	HY/2012/07	30-08-2016	Mid-Ebb	SR4a	12:40	Surface	1	1	27.6	7.86	26.1	6.58	8.07	10.5
TMCLKL	HY/2012/07	30-08-2016	Mid-Ebb	SR4a	12:40	Surface	1	2	27.6	7.83	26	6.54	7.99	11.2
TMCLKL	HY/2012/07	30-08-2016	Mid-Ebb	SR4a	12:40	Middle	2	1						
TMCLKL	HY/2012/07	30-08-2016	Mid-Ebb	SR4a	12:40	Middle	2	2						
TMCLKL	HY/2012/07	30-08-2016	Mid-Ebb	SR4a	12:40	Bottom	3	1	27.6	7.78	26.1	6.37	8.24	12.4
TMCLKL	HY/2012/07	30-08-2016	Mid-Ebb	SR4a	12:40	Bottom	3	2	27.5	7.81	26.1	6.4	8.13	9.8
TMCLKL	HY/2012/07	30-08-2016	Mid-Ebb	SR4	12:23	Surface	1	1	27.6	7.79	25.9	6.7	7.98	9.6
TMCLKL	HY/2012/07	30-08-2016	Mid-Ebb	SR4	12:23	Surface	1	2	27.7	7.82	25.9	6.66	7.85	11.8
TMCLKL	HY/2012/07	30-08-2016	Mid-Ebb	SR4	12:23	Middle	2	1						
TMCLKL	HY/2012/07	30-08-2016	Mid-Ebb	SR4	12:23	Middle	2	2						
TMCLKL	HY/2012/07	30-08-2016	Mid-Ebb	SR4	12:23	Bottom	3	1	27.6	7.86	25.9	6.56	8.1	12.2
TMCLKL	HY/2012/07	30-08-2016	Mid-Ebb	SR4	12:23	Bottom	3	2	27.6	7.81	26	6.53	8.18	12.3
TMCLKL	HY/2012/07	30-08-2016	Mid-Ebb	IS8	12:05	Surface	1	1	27.6	7.84	25.9	6.74	7.83	11.7
TMCLKL	HY/2012/07	30-08-2016	Mid-Ebb	IS8	12:05	Surface	1	2	27.6	7.8	25.9	6.71	7.89	11
TMCLKL	HY/2012/07	30-08-2016	Mid-Ebb	IS8	12:05	Middle	2	1						
TMCLKL	HY/2012/07	30-08-2016	Mid-Ebb	IS8	12:05	Middle	2	2						
TMCLKL	HY/2012/07	30-08-2016	Mid-Ebb	IS8	12:05	Bottom	3	1	27.6	7.83	26	6.62	8.06	10.5
TMCLKL	HY/2012/07	30-08-2016	Mid-Ebb	IS8	12:05	Bottom	3	2	27.6	7.84	26	6.58	8.11	10.5

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	30-08-2016	Mid-Ebb	IS(Mf)16	11:43	Surface	1	1	27.6	7.83	26	6.63	7.89	11.8
TMCLKL	HY/2012/07	30-08-2016	Mid-Ebb	IS(Mf)16	11:43	Surface	1	2	27.7	7.79	25.9	6.6	7.96	12.7
TMCLKL	HY/2012/07	30-08-2016	Mid-Ebb	IS(Mf)16	11:43	Middle	2	1	27.6	7.74	26.1	6.57	7.68	10.8
TMCLKL	HY/2012/07	30-08-2016	Mid-Ebb	IS(Mf)16	11:43	Middle	2	2	27.6	7.8	26	6.54	7.75	9.3
TMCLKL	HY/2012/07	30-08-2016	Mid-Ebb	IS(Mf)16	11:43	Bottom	3	1	27.4	7.84	26.3	6.32	8.18	12.3
TMCLKL	HY/2012/07	30-08-2016	Mid-Ebb	IS(Mf)16	11:43	Bottom	3	2	27.5	7.77	26.3	6.27	8.26	11.6
TMCLKL	HY/2012/07	30-08-2016	Mid-Ebb	IS(Mf)9	11:24	Surface	1	1	27.7	7.83	26	6.68	7.78	12.4
TMCLKL	HY/2012/07	30-08-2016	Mid-Ebb	IS(Mf)9	11:24	Surface	1	2	27.7	7.8	26.1	6.65	7.83	10.2
TMCLKL	HY/2012/07	30-08-2016	Mid-Ebb	IS(Mf)9	11:24	Middle	2	1						
TMCLKL	HY/2012/07	30-08-2016	Mid-Ebb	IS(Mf)9	11:24	Middle	2	2						
TMCLKL	HY/2012/07	30-08-2016	Mid-Ebb	IS(Mf)9	11:24	Bottom	3	1	27.7	7.73	26.1	6.43	8.05	10.5
TMCLKL	HY/2012/07	30-08-2016	Mid-Ebb	IS(Mf)9	11:24	Bottom	3	2	27.6	7.75	26.2	6.4	7.94	10.3
TMCLKL	HY/2012/07	30-08-2016	Mid-Ebb	CS(Mf)3	11:00	Surface	1	1	27.7	7.76	26	6.57	7.93	11.9
TMCLKL	HY/2012/07	30-08-2016	Mid-Ebb	CS(Mf)3	11:00	Surface	1	2	27.7	7.8	26	6.61	7.85	11
TMCLKL	HY/2012/07	30-08-2016	Mid-Ebb	CS(Mf)3	11:00	Middle	2	1	27.7	7.79	26.1	6.5	8.06	12.1
TMCLKL	HY/2012/07	30-08-2016	Mid-Ebb	CS(Mf)3	11:00	Middle	2	2	27.6	7.76	26.2	6.46	8.14	10.6
TMCLKL	HY/2012/07	30-08-2016	Mid-Ebb	CS(Mf)3	11:00	Bottom	3	1	27.5	7.77	26.5	6.37	8.28	12.4
TMCLKL	HY/2012/07	30-08-2016	Mid-Ebb	CS(Mf)3	11:00	Bottom	3	2	27.5	7.81	26.4	6.34	8.36	10

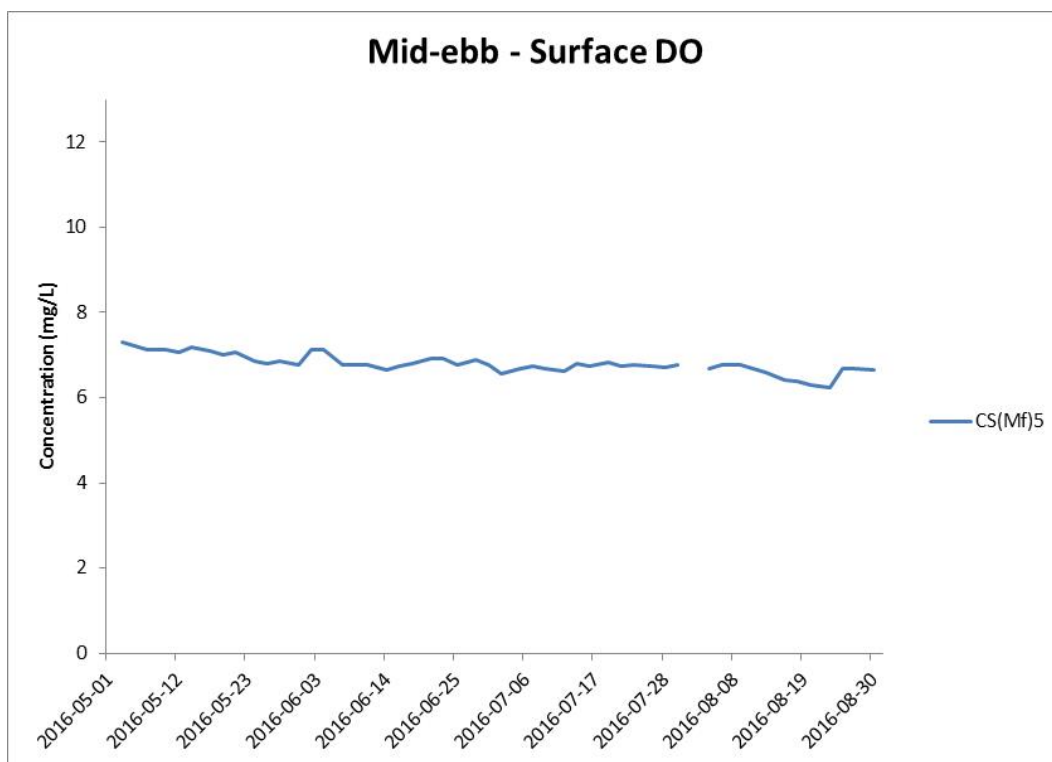
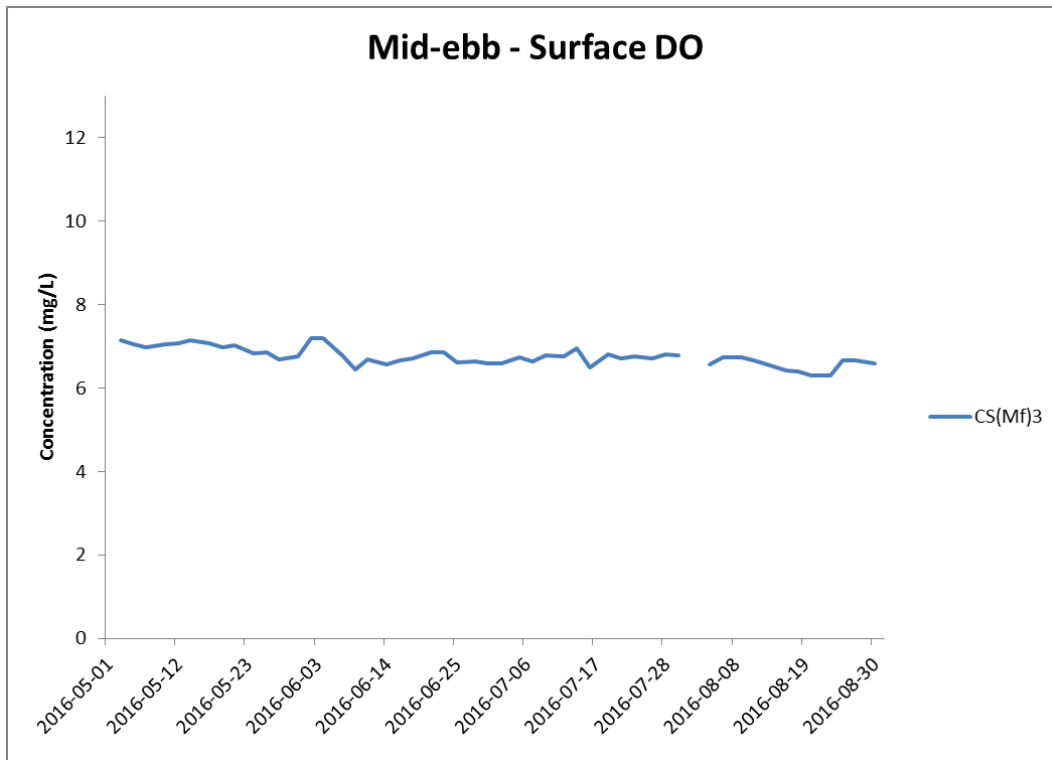
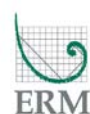


Figure J1 Impact Monitoring - Mean Level of Dissolved Oxygen (mg/L) in surface waters during mid-ebb tide between 1 May and 31 August 2016 at CS(Mf)3 and CS(Mf)5.

(Weather condition varied between sunny to rainy within the reporting period.)
 WQM on 2 Aug was cancelled due to adverse weather. Marine works within the reporting period include Uninstallation of marine piling platform; Pier construction; Launching gantry operation; and Installation of deck segment and pier head segment.

**Environmental
Resources
Management**



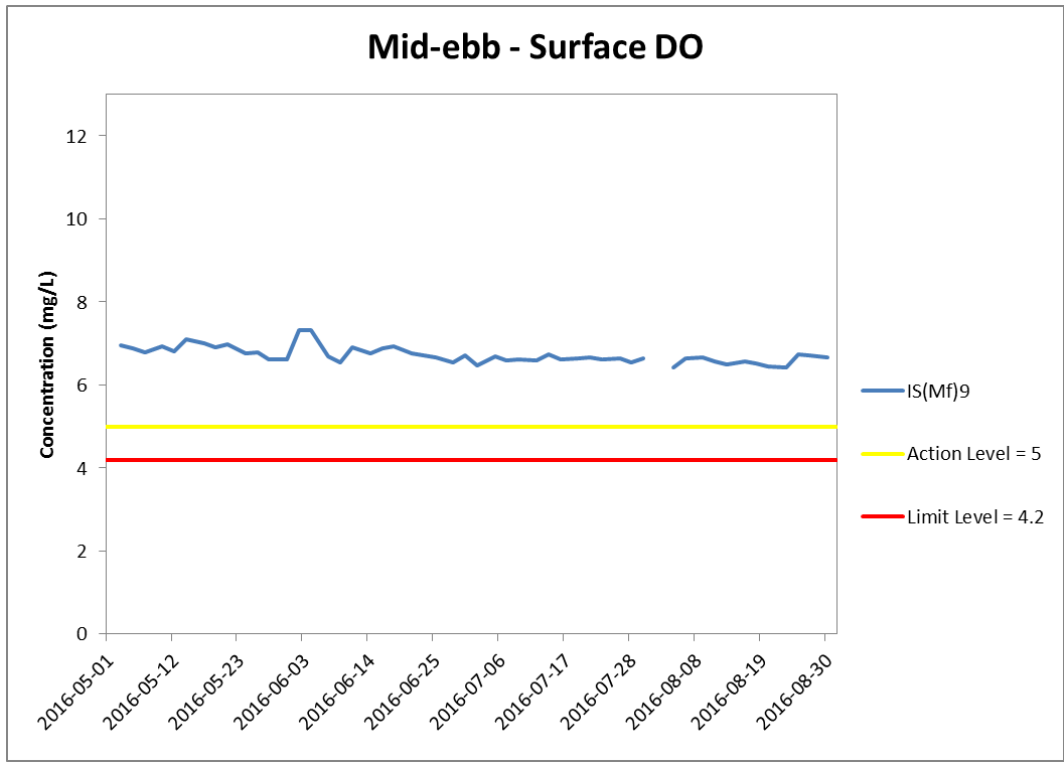
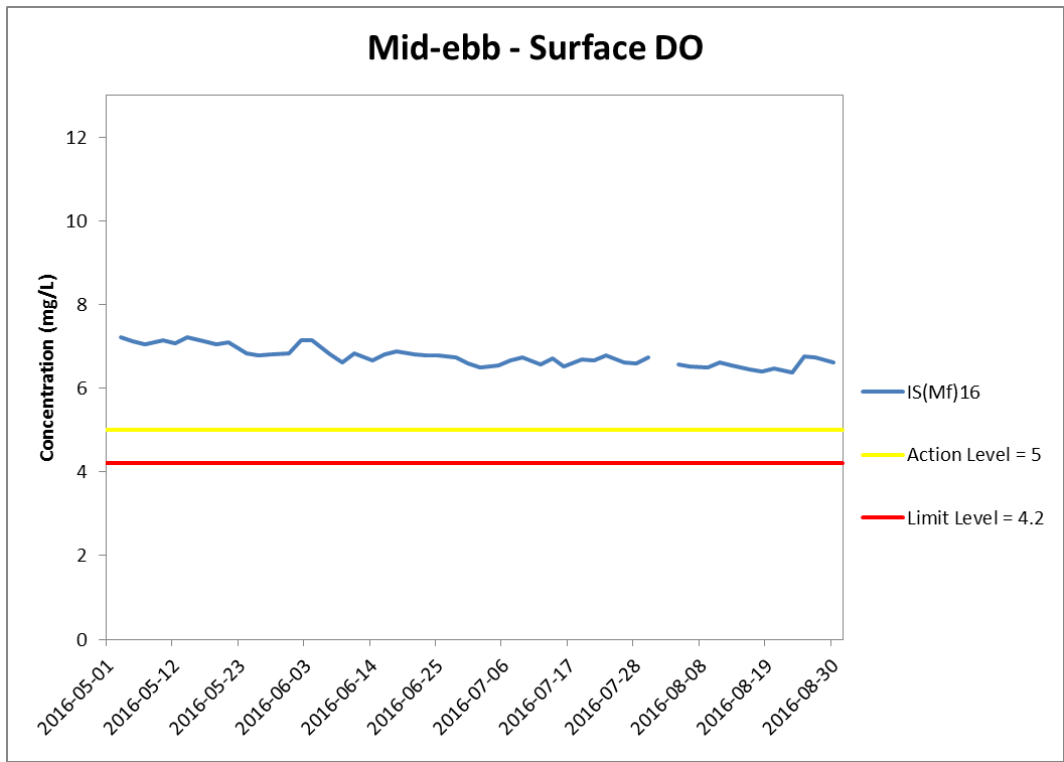


Figure J2 Impact Monitoring – Mean Level of Dissolved Oxygen (mg/L) in surface waters during mid-ebb tide between 1 May and 31 August 2016 at IS(Mf)16 and IS(Mf)9.

*(Weather condition varied between sunny to rainy within the reporting period.)
 WQM on 2 Aug was cancelled due to adverse weather. Marine works within the reporting period include Uninstallation of marine piling platform; Pier construction; Launching gantry operation; and Installation of deck segment and pier head segment.*

**Environmental
 Resources
 Management**



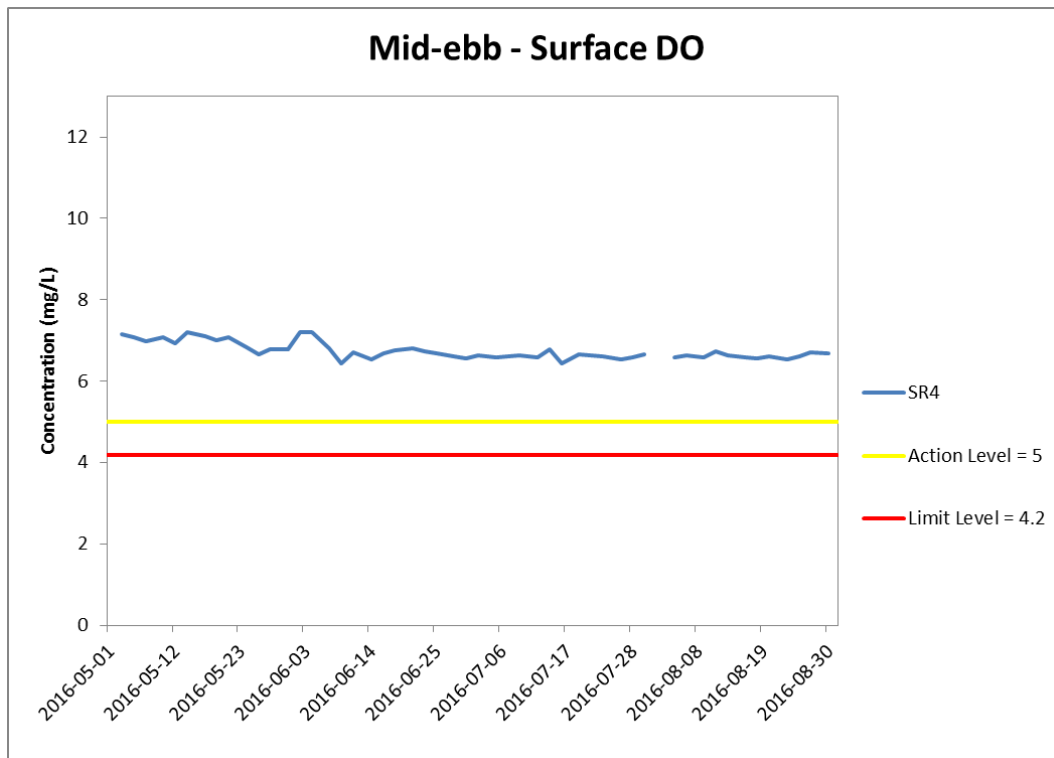
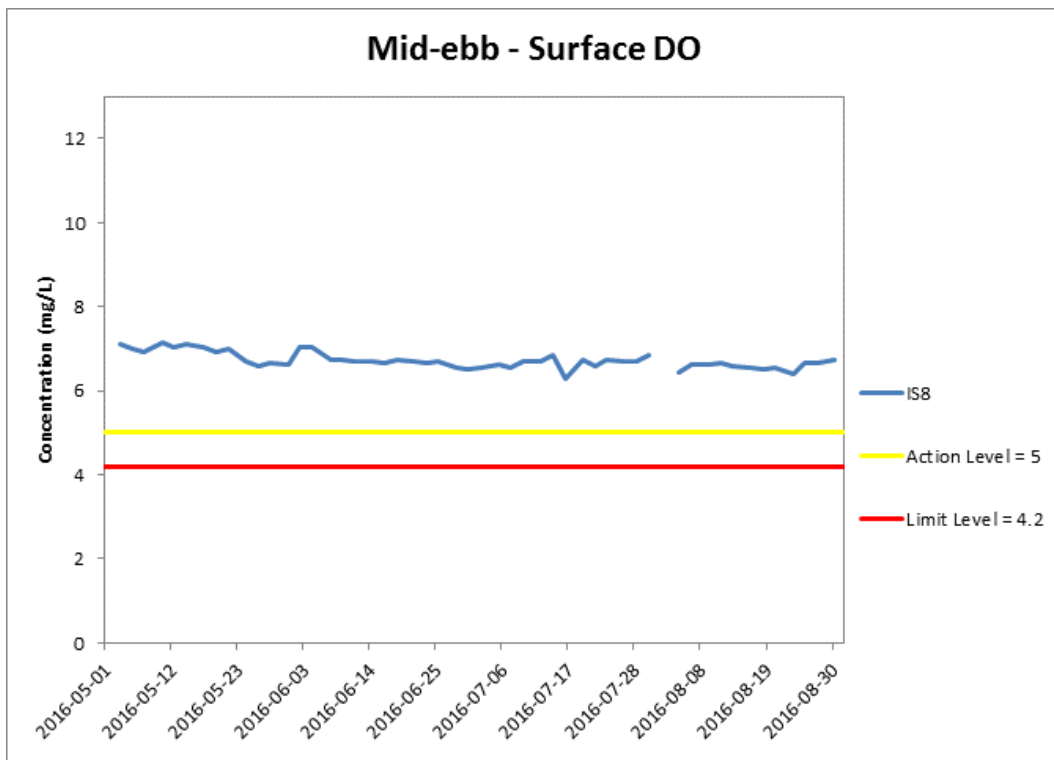


Figure J3 Impact Monitoring - Mean Level of Dissolved Oxygen (mg/L) in surface waters during mid-ebb tide between 1 May and 31 August 2016 at IS8 and SR4.

*(Weather condition varied between sunny to rainy within the reporting period.)
 WQM on 2 Aug was cancelled due to adverse weather. Marine works within the reporting period include Uninstallation of marine piling platform; Pier construction; Launching gantry operation; and Installation of deck segment and pier head segment.*

**Environmental
 Resources
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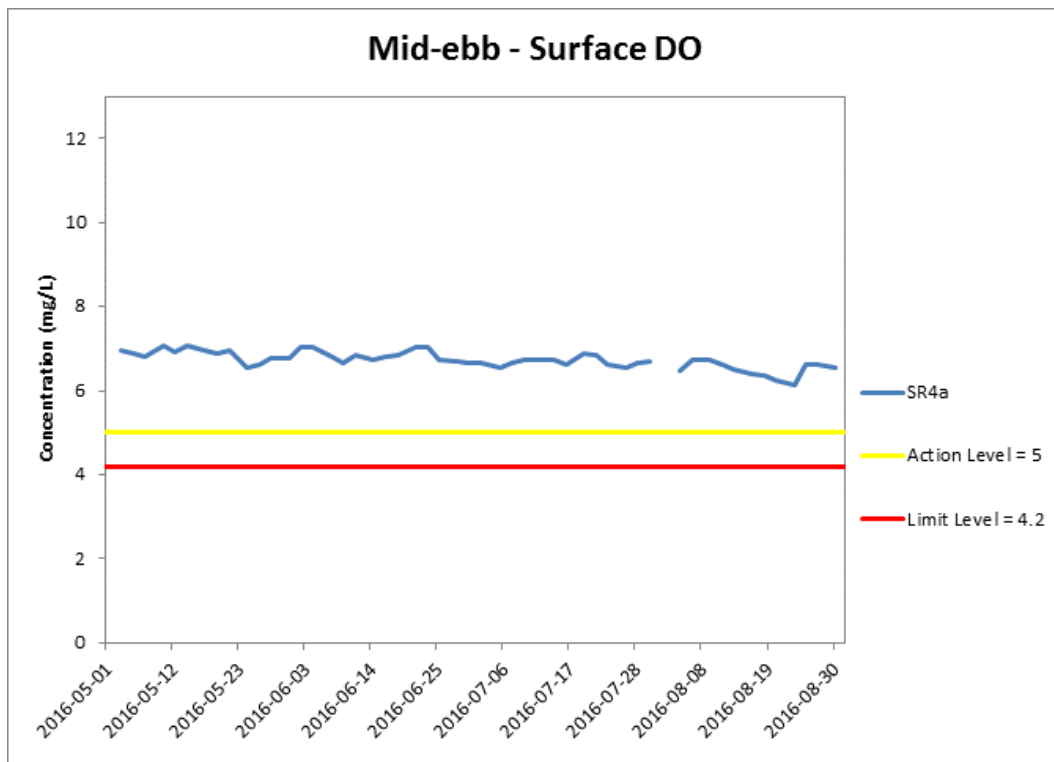


Figure J4 Impact Monitoring - Mean Level of Dissolved Oxygen (mg/L) in surface waters during mid-ebb tide between 1 May and 31 August 2016 at SR4a.

*(Weather condition varied between sunny to rainy within the reporting period.)
 WQM on 2 Aug was cancelled due to adverse weather. Marine works within the reporting period include Uninstallation of marine piling platform; Pier construction; Launching gantry operation; and Installation of deck segment and pier head segment.*

**Environmental
 Resources
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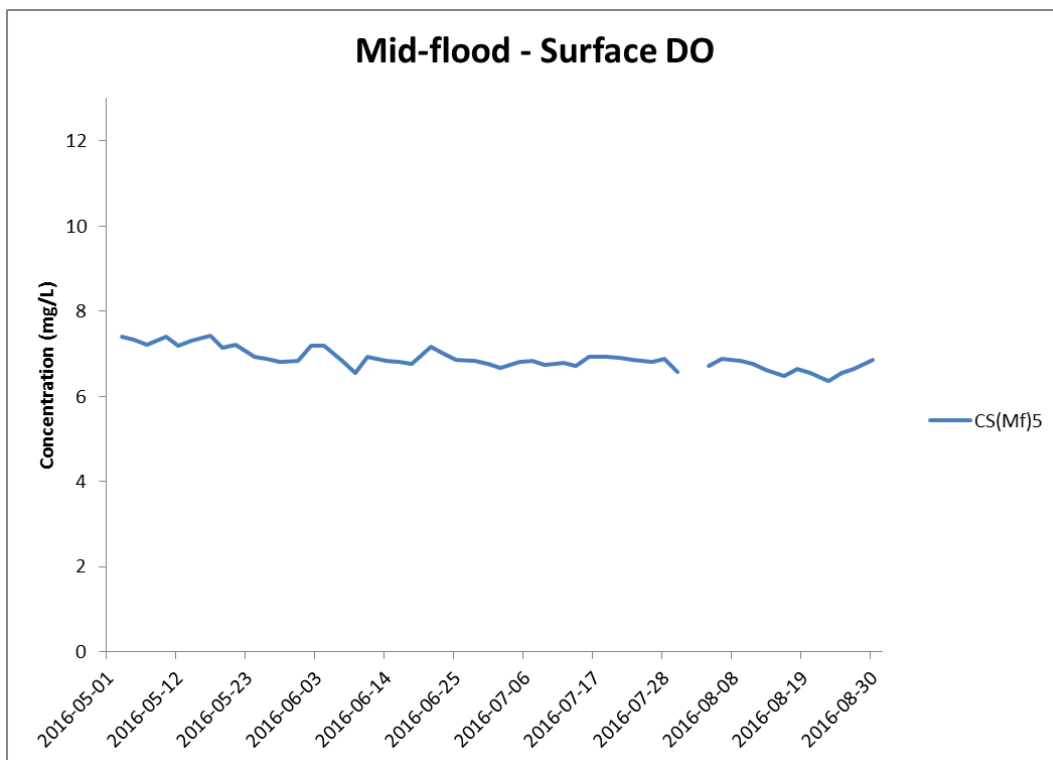
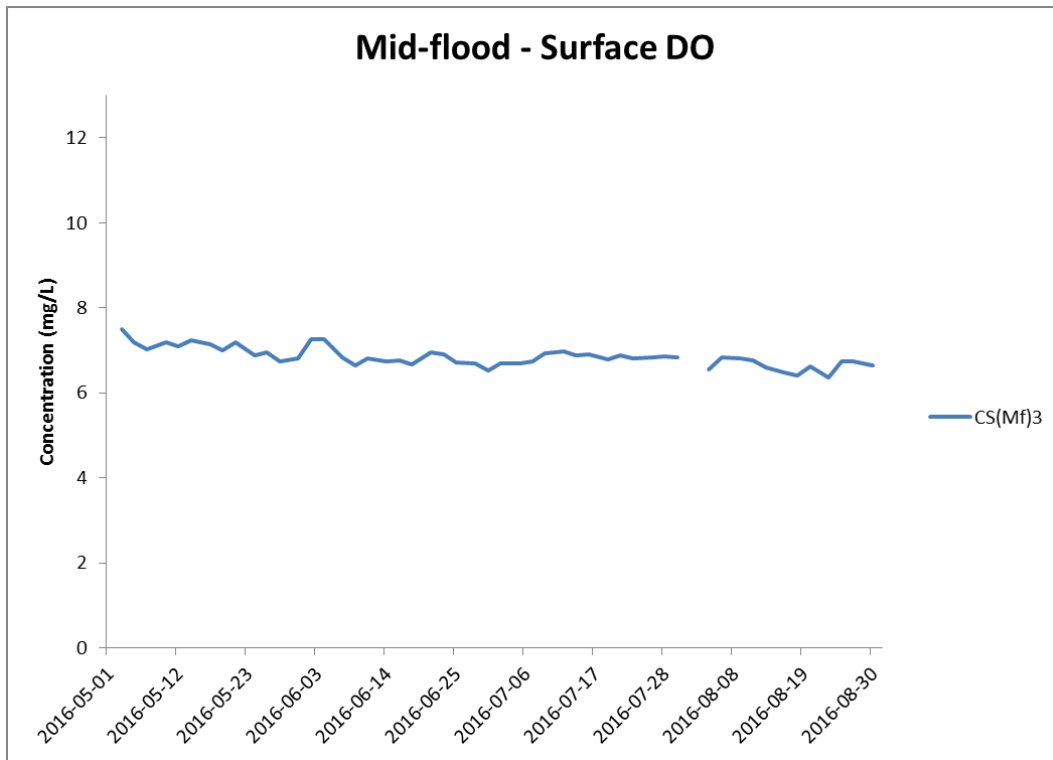


Figure J5 Impact Monitoring - Mean Level of Dissolved Oxygen (mg/L) in surface waters during mid-flood tide between 1 May and 31 August 2016 at CS(Mf)3 and CS(Mf)5.

(Weather condition varied between sunny to rainy within the reporting period.) WQM on 2 Aug was cancelled due to adverse weather. Marine works within the reporting period include Uninstallation of marine piling platform; Pier construction; Launching gantry operation; and Installation of deck segment and pier head segment.

**Environmental
Resources
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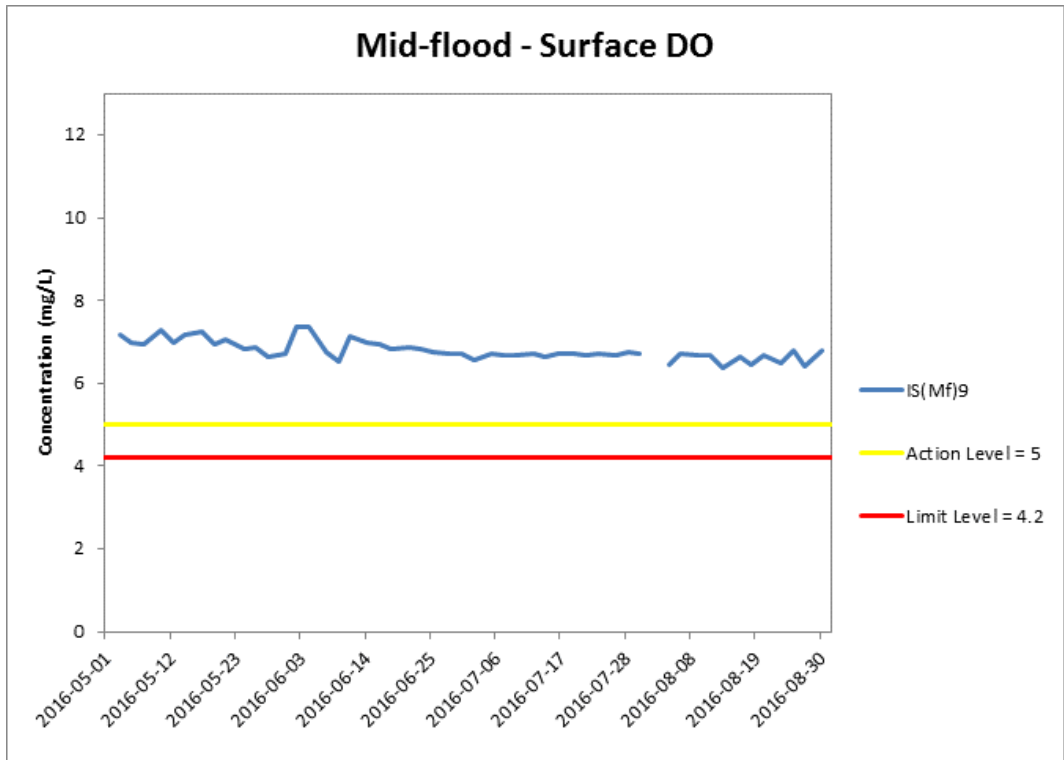
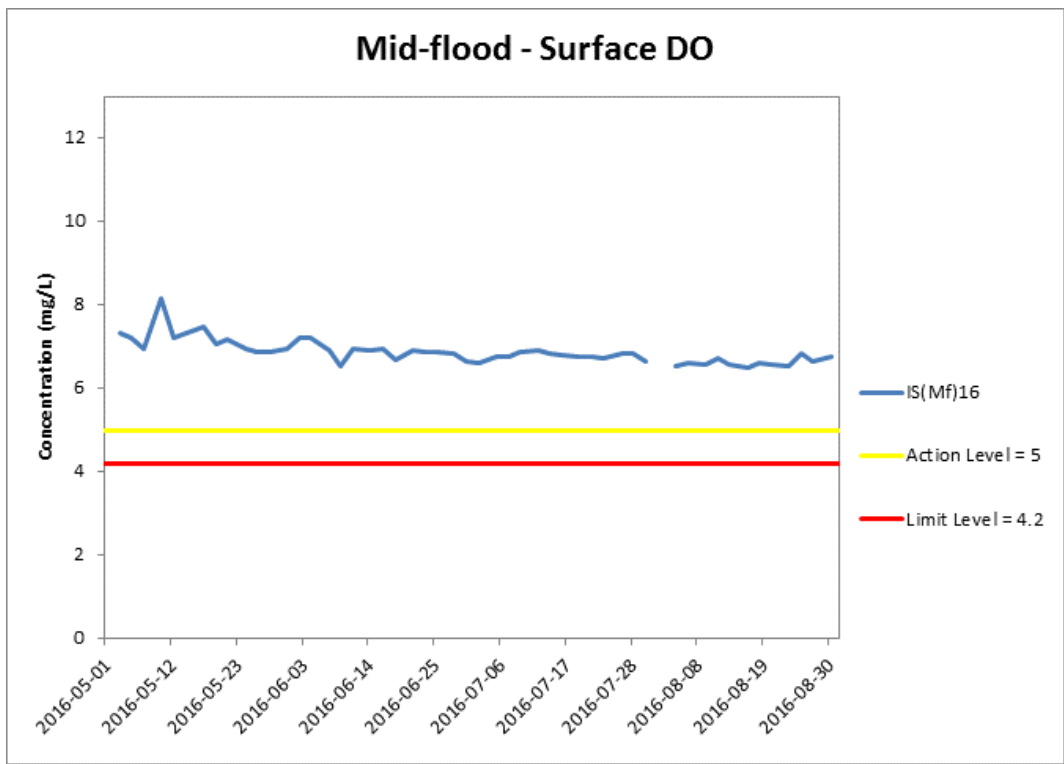


Figure J6 Impact Monitoring – Mean Level of Dissolved Oxygen (mg/L) in surface waters during mid-flood tide between 1 May and 31 August 2016 at IS(Mf)16 and IS(Mf)9.

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

WQM on 2 Aug was cancelled due to adverse weather. Marine works within the reporting period include Uninstallation of marine piling platform; Pier construction; Launching gantry operation; and Installation of deck segment and pier head segment.

**Environmental
Resources
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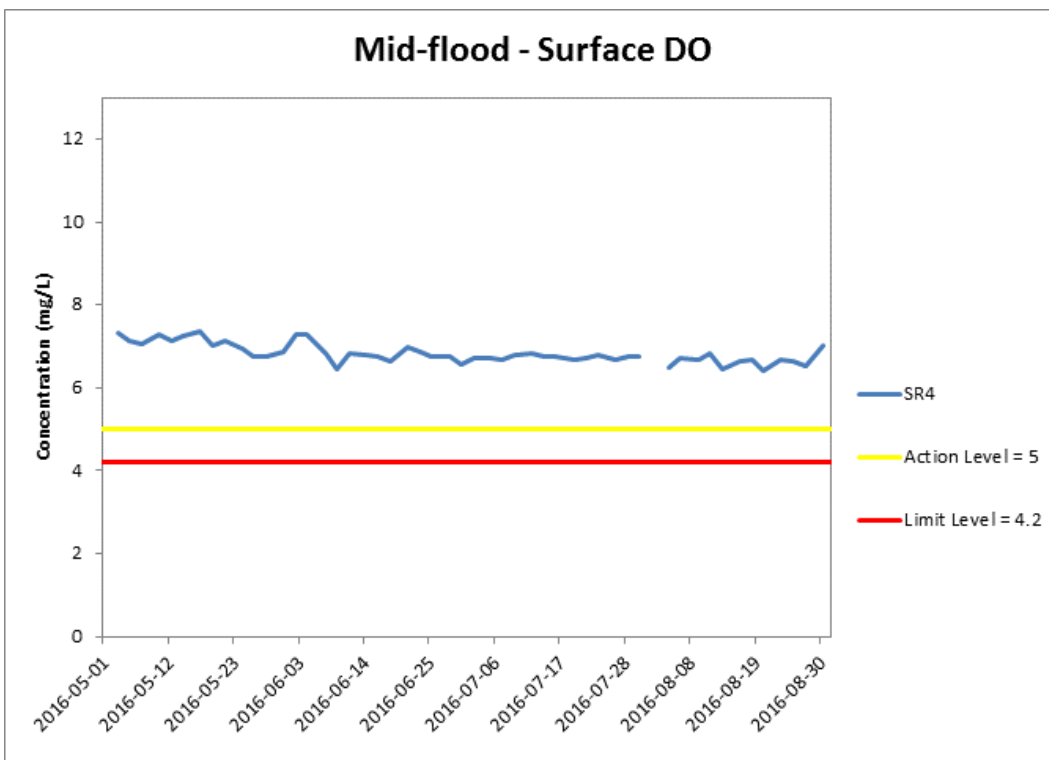
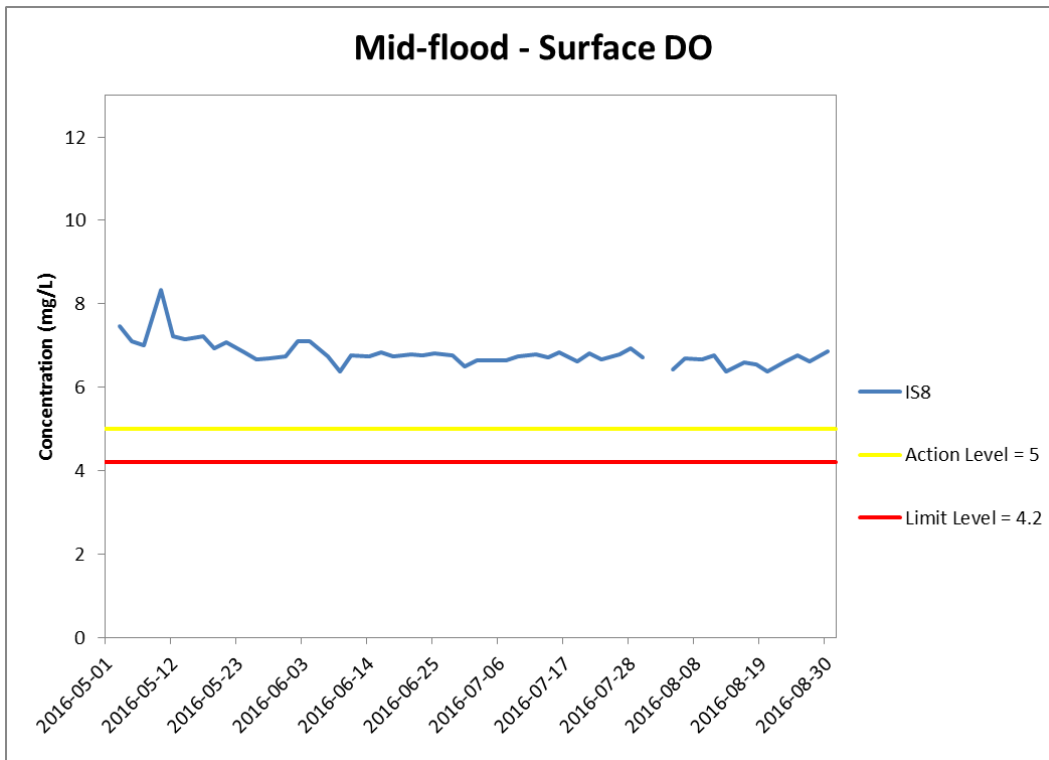


Figure J7 Impact Monitoring - Mean Level of Dissolved Oxygen (mg/L) in surface waters during mid-flood tide between 1 May and 31 August 2016 at IS8 and SR4.

*(Weather condition varied between sunny to rainy within the reporting period.)
 WQM on 2 Aug was cancelled due to adverse weather. Marine works within the reporting period include Uninstallation of marine piling platform; Pier construction; Launching gantry operation; and Installation of deck segment and pier head segment.*

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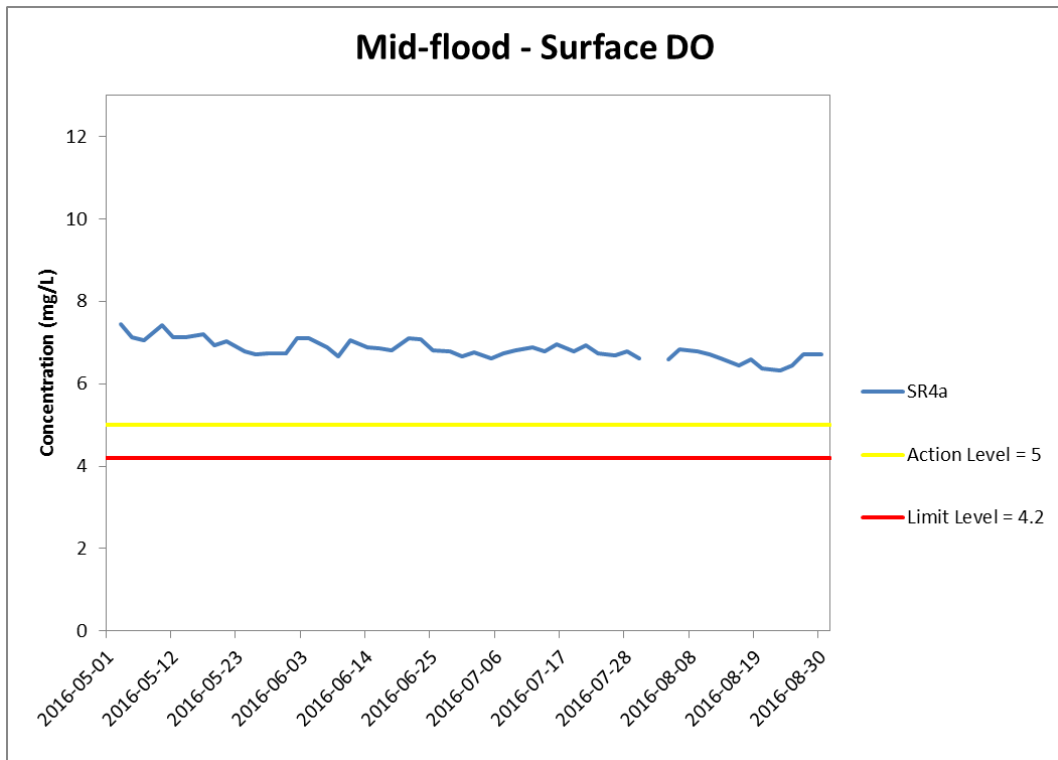


Figure J8 Impact Monitoring - Mean Level of Dissolved Oxygen (mg/L) in surface waters during mid-flood tide between 1 May and 31 August 2016 at SR4a.

*(Weather condition varied between sunny to rainy within the reporting period.)
 WQM on 2 Aug was cancelled due to adverse weather. Marine works within the reporting period include Uninstallation of marine piling platform; Pier construction; Launching gantry operation; and Installation of deck segment and pier head segment.*

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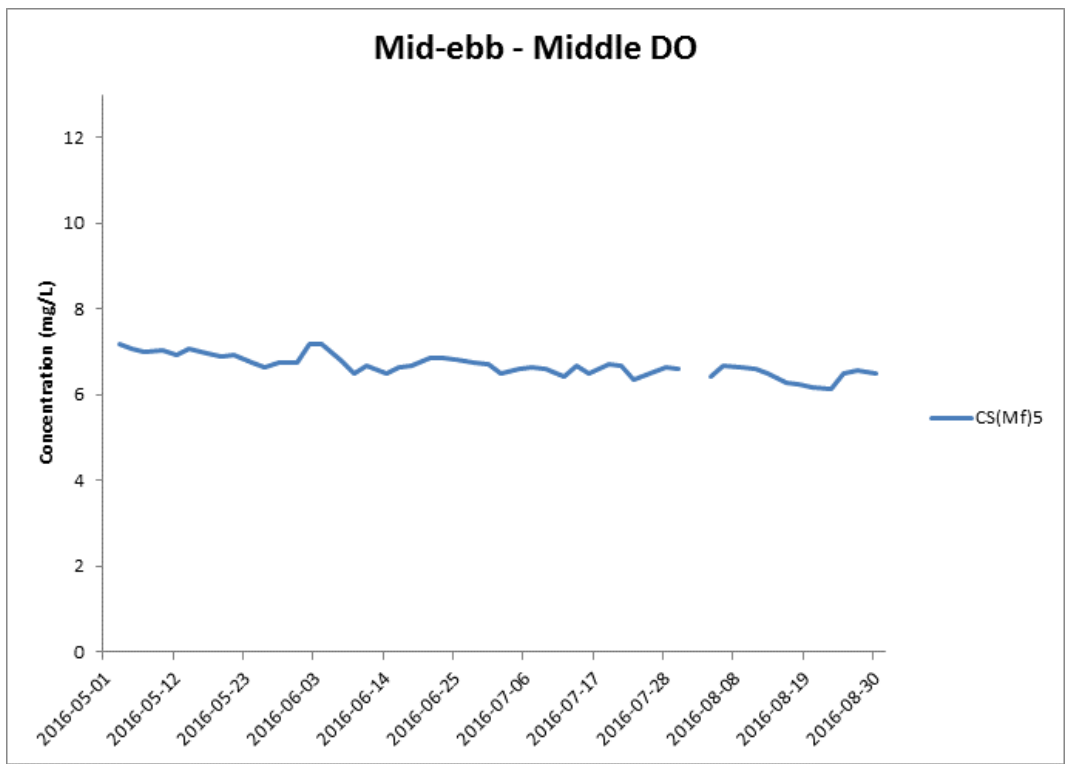
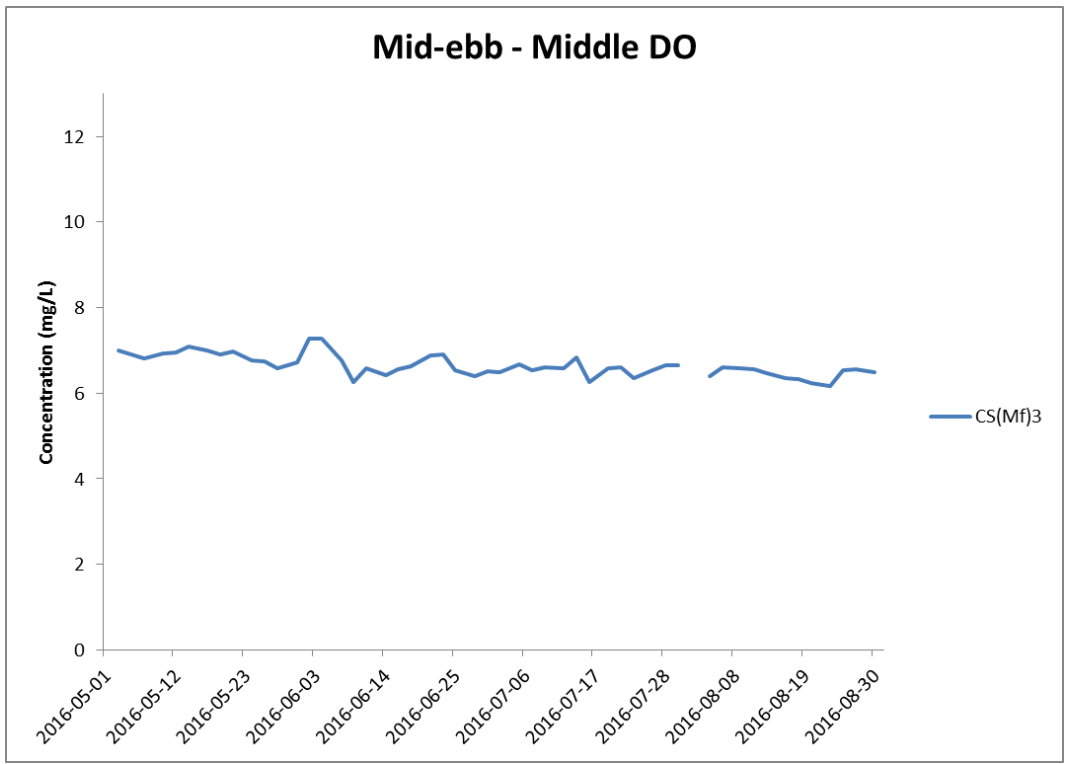


Figure J9 Impact Monitoring - Mean Level of Dissolved Oxygen (mg/L) in mid-depth waters during mid-ebb tide between 1 May and 31 August 2016 at CS(Mf)3 and CS(Mf)5.

*(Weather condition varied between sunny to rainy within the reporting period.)
 WQM on 2 Aug was cancelled due to adverse weather. Marine works within the reporting period include Uninstallation of marine piling platform; Pier construction; Launching gantry operation; and Installation of deck segment and pier head segment.*

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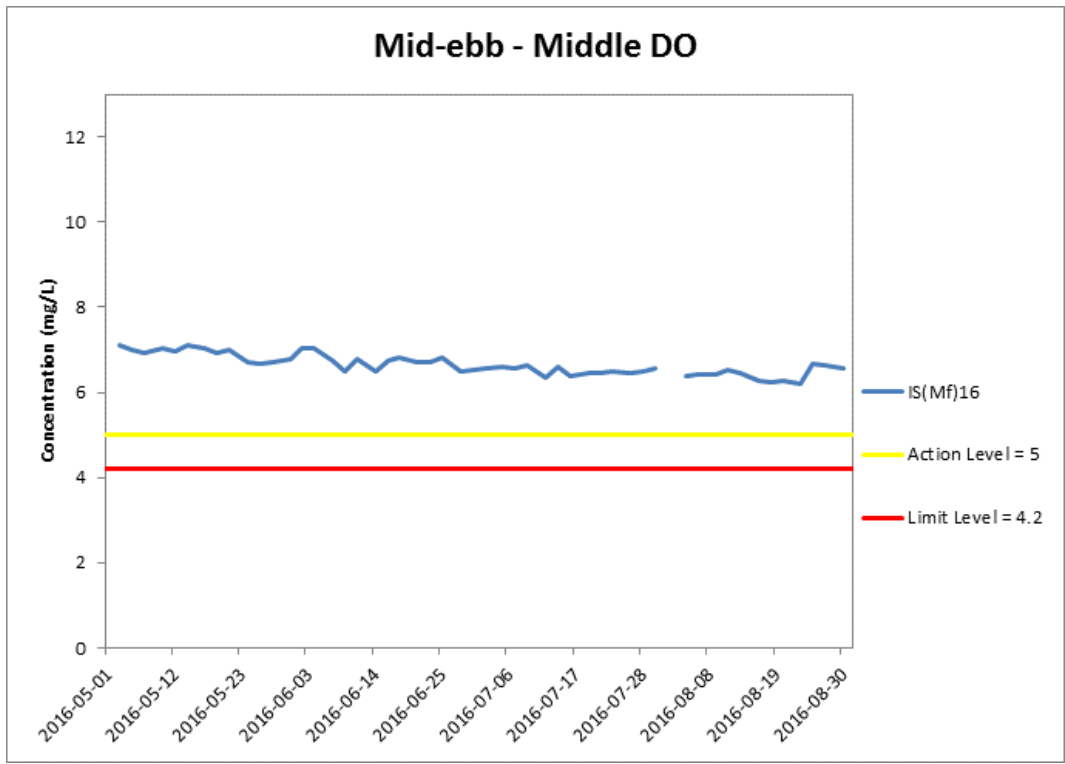


Figure J10 Impact Monitoring - Mean Level of Dissolved Oxygen (mg/L) in mid-depth waters during mid-ebb tide between 1 May and 31 August 2016 at IS(Mf)16.

*(Weather condition varied between sunny to rainy within the reporting period.)
 WQM on 2 Aug was cancelled due to adverse weather. Marine works within the reporting period include Uninstallation of marine piling platform; Pier construction; Launching gantry operation; and Installation of deck segment and pier head segment.*

**Environmental
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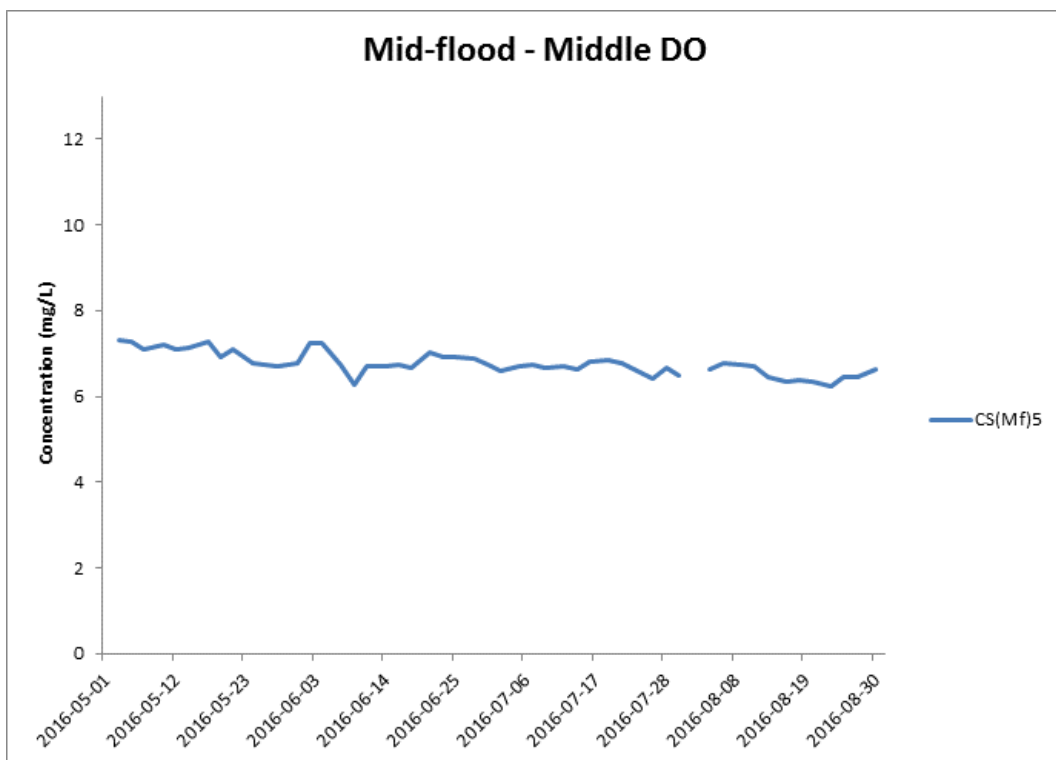
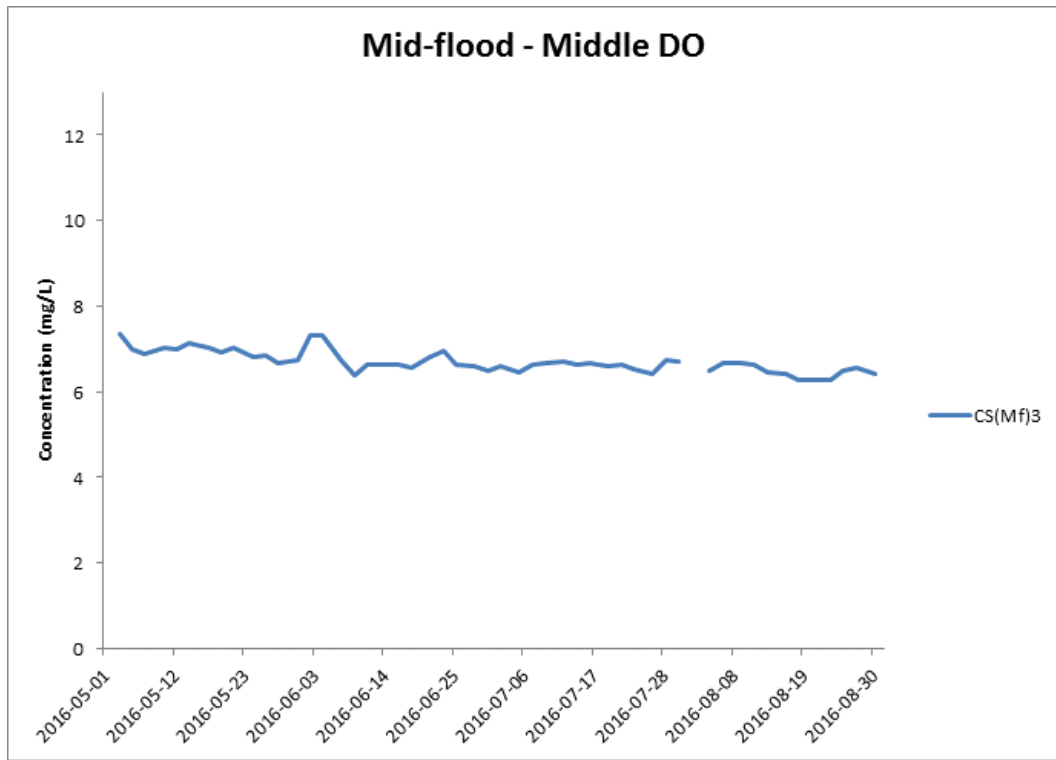


Figure J11 Impact Monitoring - Mean Level of Dissolved Oxygen (mg/L) in mid-depth waters during mid-flood tide between 1 May and 31 August 2016 at CS(Mf)3 and CS(Mf)5.

*(Weather condition varied between sunny to rainy within the reporting period.)
 WQM on 2 Aug was cancelled due to adverse weather. Marine works within the reporting period include Uninstallation of marine piling platform; Pier construction; Launching gantry operation; and Installation of deck segment and pier head segment.*

**Environmental
 Resources
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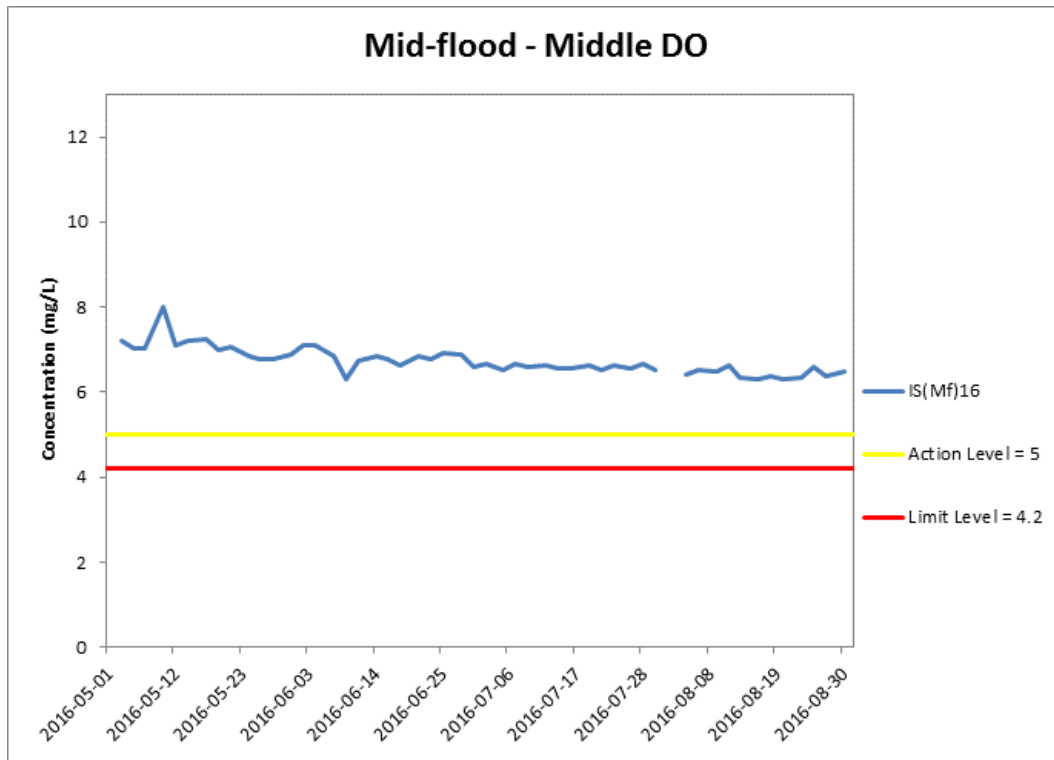


Figure J12 Impact Monitoring - Mean Level of Dissolved Oxygen (mg/L) in mid-depth waters during mid-flood tide between 1 May and 31 August 2016 at IS(Mf)16.

*(Weather condition varied between sunny to rainy within the reporting period.)
 WQM on 2 Aug was cancelled due to adverse weather. Marine works within the reporting period include Uninstallation of marine piling platform; Pier construction; Launching gantry operation; and Installation of deck segment and pier head segment.*

**Environmental
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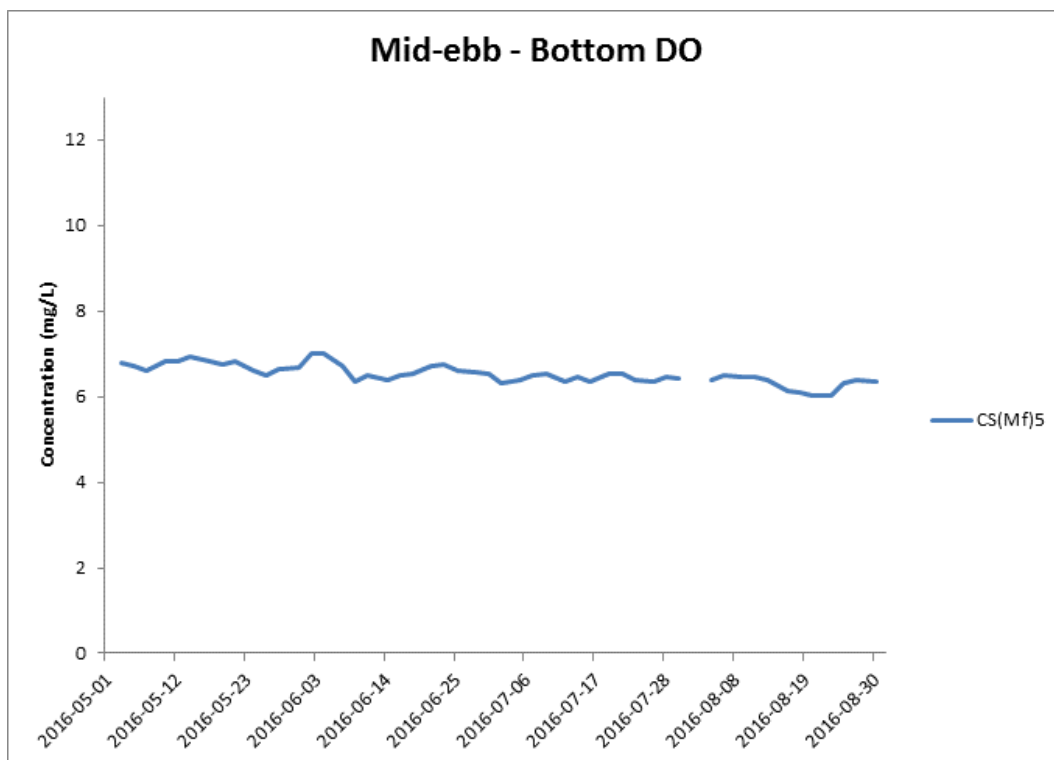
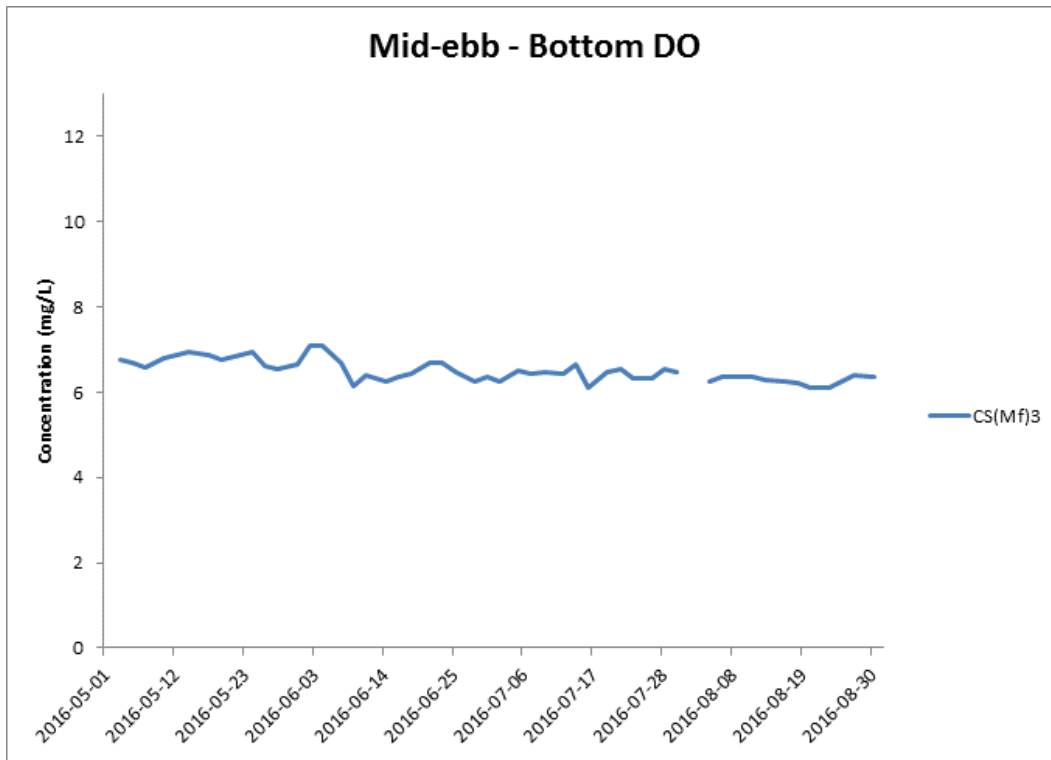


Figure J13 Impact Monitoring - Mean Level of Dissolved Oxygen (mg/L) in bottom waters during mid-ebb tide between 1 May and 31 August 2016 at CS(Mf)3 and CS(Mf)5.

*(Weather condition varied between sunny to rainy within the reporting period.)
 WQM on 2 Aug was cancelled due to adverse weather. Marine works within the reporting period include Uninstallation of marine piling platform; Pier construction; Launching gantry operation; and Installation of deck segment and pier head segment.*

**Environmental
 Resources
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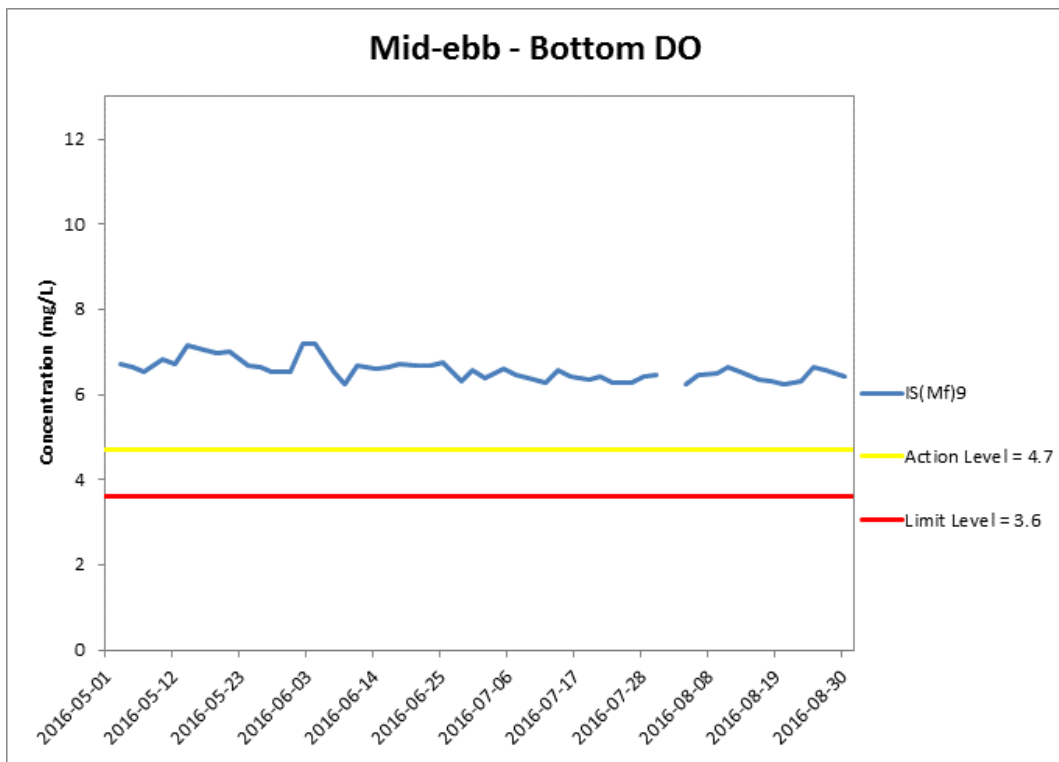
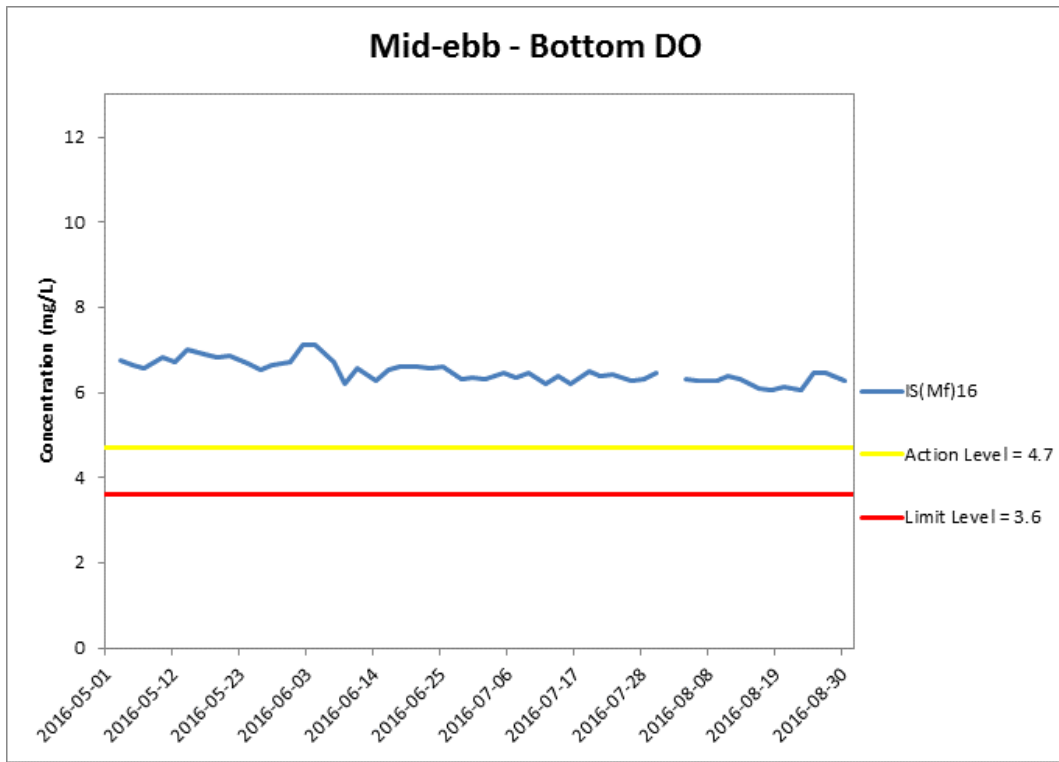


Figure J14 Impact Monitoring - Mean Level of Dissolved Oxygen (mg/L) in bottom waters during mid-ebb tide between 1 May and 31 August 2016 at IS(Mf)16 and IS(Mf)9.

*(Weather condition varied between sunny to rainy within the reporting period.)
 WQM on 2 Aug was cancelled due to adverse weather. Marine works within the reporting period include Uninstallation of marine piling platform; Pier construction; Launching gantry operation; and Installation of deck segment and pier head segment.*

**Environmental
 Resources
 Management**



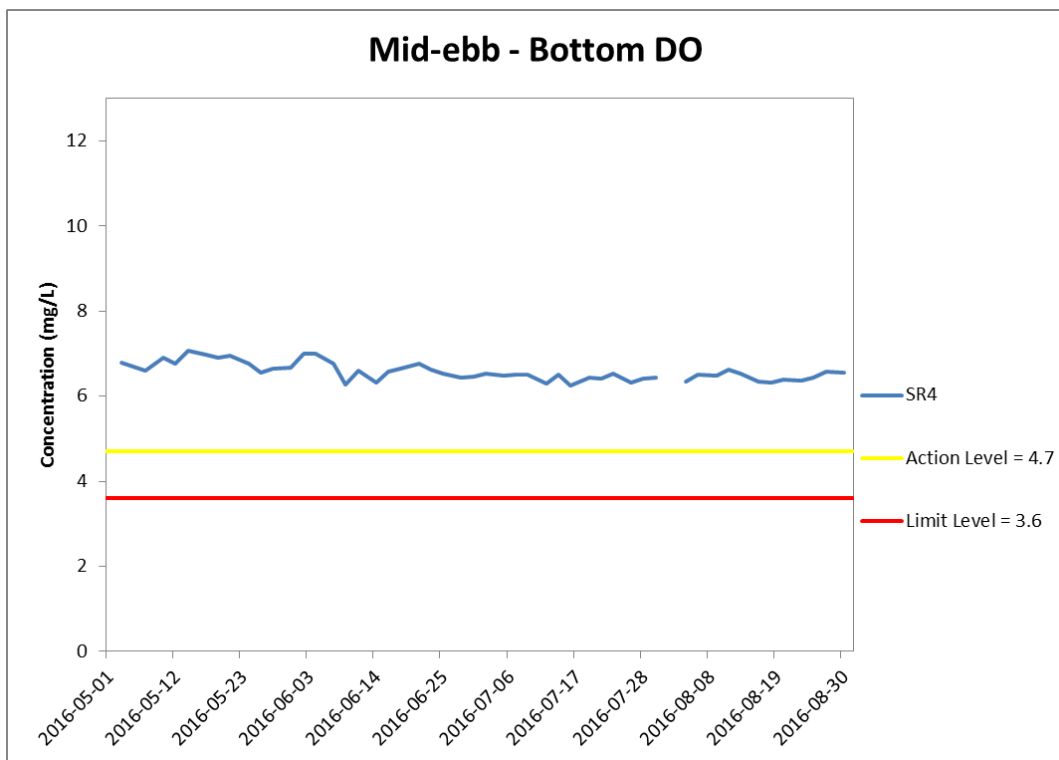
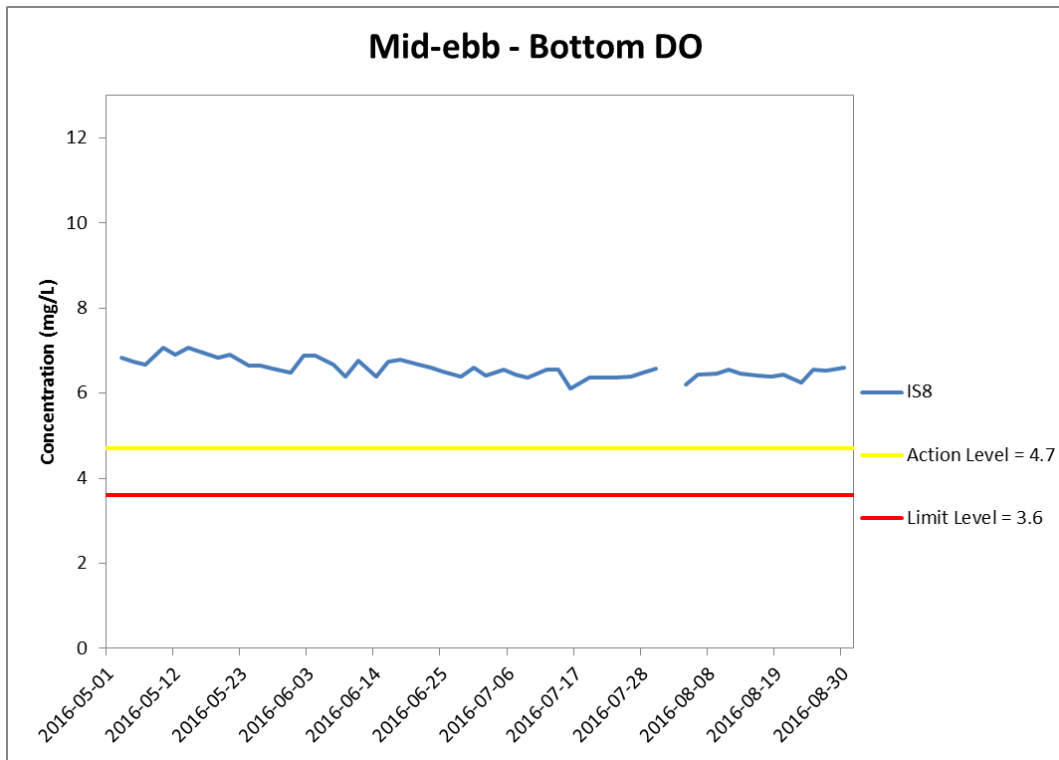


Figure J15 Impact Monitoring - Mean Level of Dissolved Oxygen (mg/L) in bottom waters during mid-ebb tide between 1 May and 31 August 2016 at IS8 and SR4.

*(Weather condition varied between sunny to rainy within the reporting period.)
 WQM on 2 Aug was cancelled due to adverse weather. Marine works within the reporting period include Uninstallation of marine piling platform; Pier construction; Launching gantry operation; and Installation of deck segment and pier head segment.*

**Environmental
 Resources
 Management**



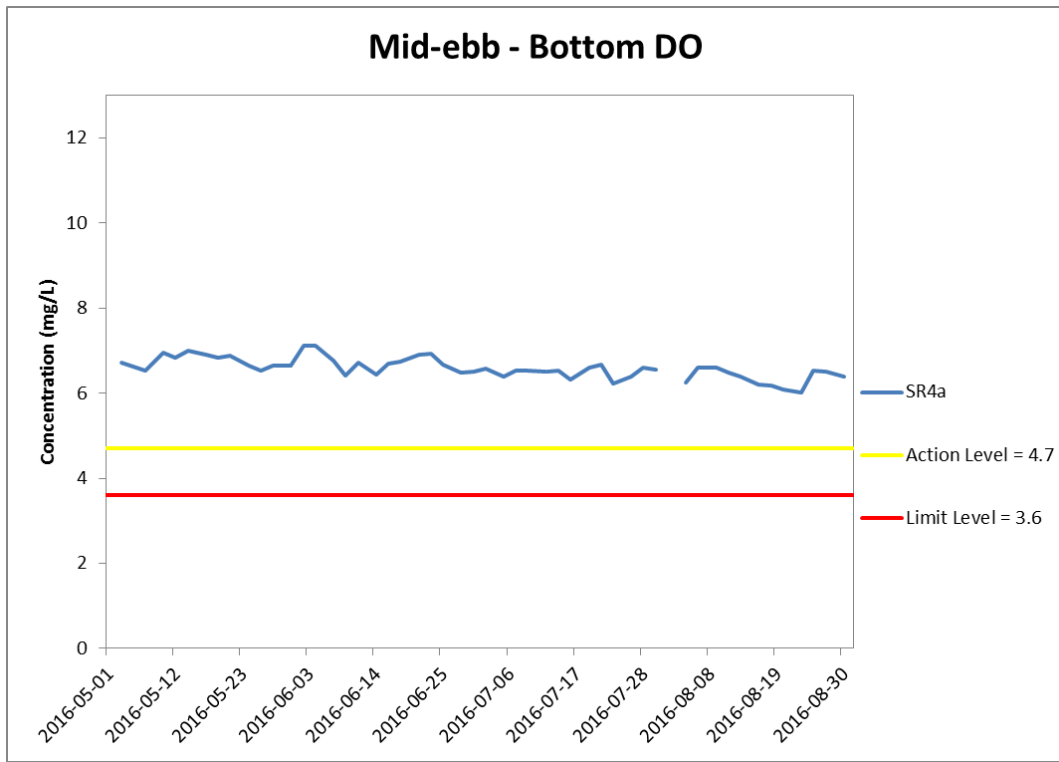


Figure J16 Impact Monitoring - Mean Level of Dissolved Oxygen (mg/L) in bottom waters during mid-ebb tide between 1 May and 31 August 2016 at SR4a.

*(Weather condition varied between sunny to rainy within the reporting period.)
 WQM on 2 Aug was cancelled due to adverse weather. Marine works within the reporting period include Uninstallation of marine piling platform; Pier construction; Launching gantry operation; and Installation of deck segment and pier head segment.*

**Environmental
 Resources
 Management**



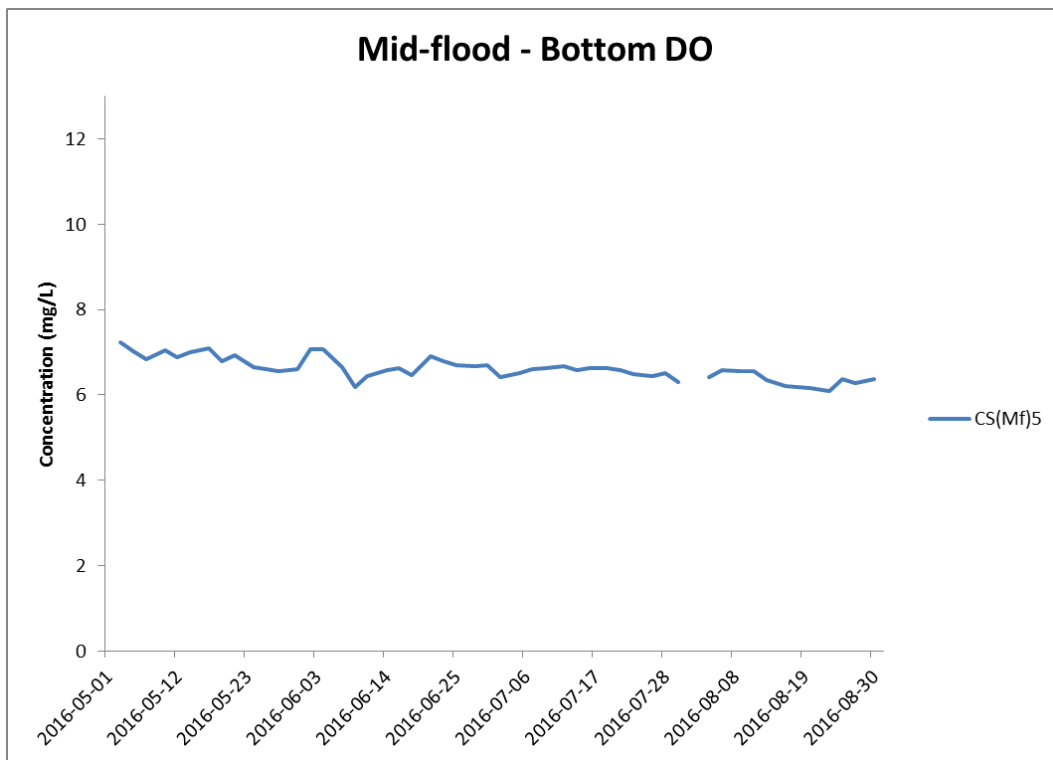
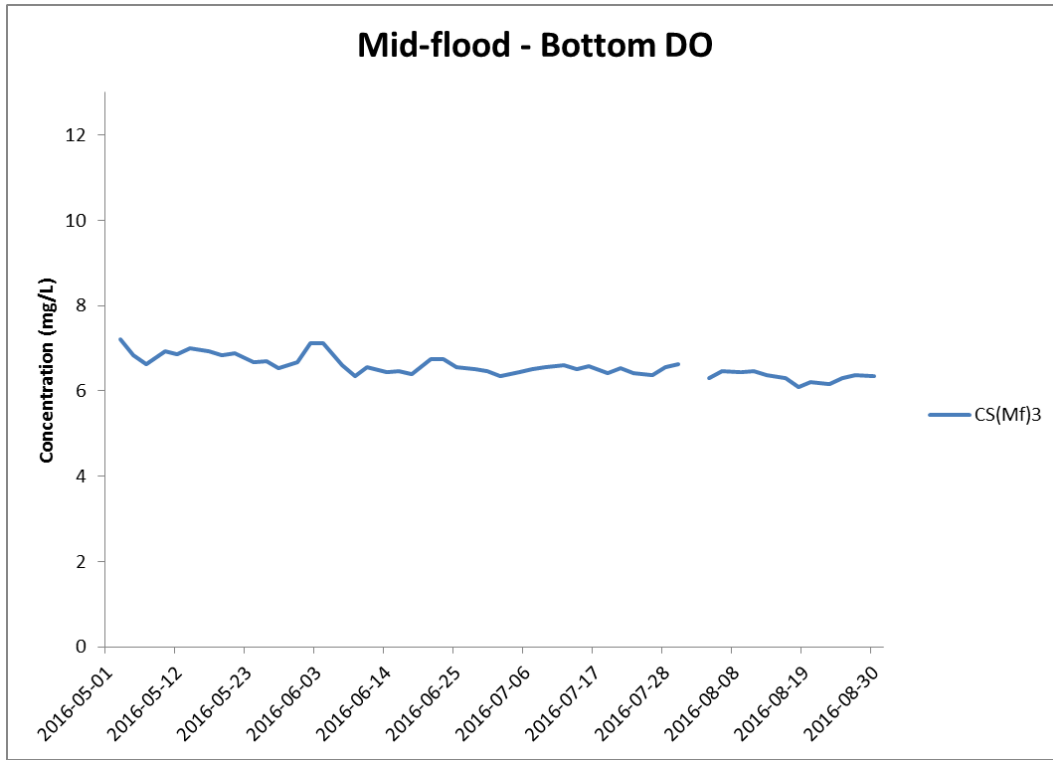


Figure J17 Impact Monitoring - Mean Level of Dissolved Oxygen (mg/L) in bottom waters during mid-flood tide between 1 May and 31 August 2016 at CS(Mf)3 and CS(Mf)5.

*(Weather condition varied between sunny to rainy within the reporting period.)
 WQM on 2 Aug was cancelled due to adverse weather. Marine works within the reporting period include Uninstallation of marine piling platform; Pier construction; Launching gantry operation; and Installation of deck segment and pier head segment.*

**Environmental
 Resources
 Management**



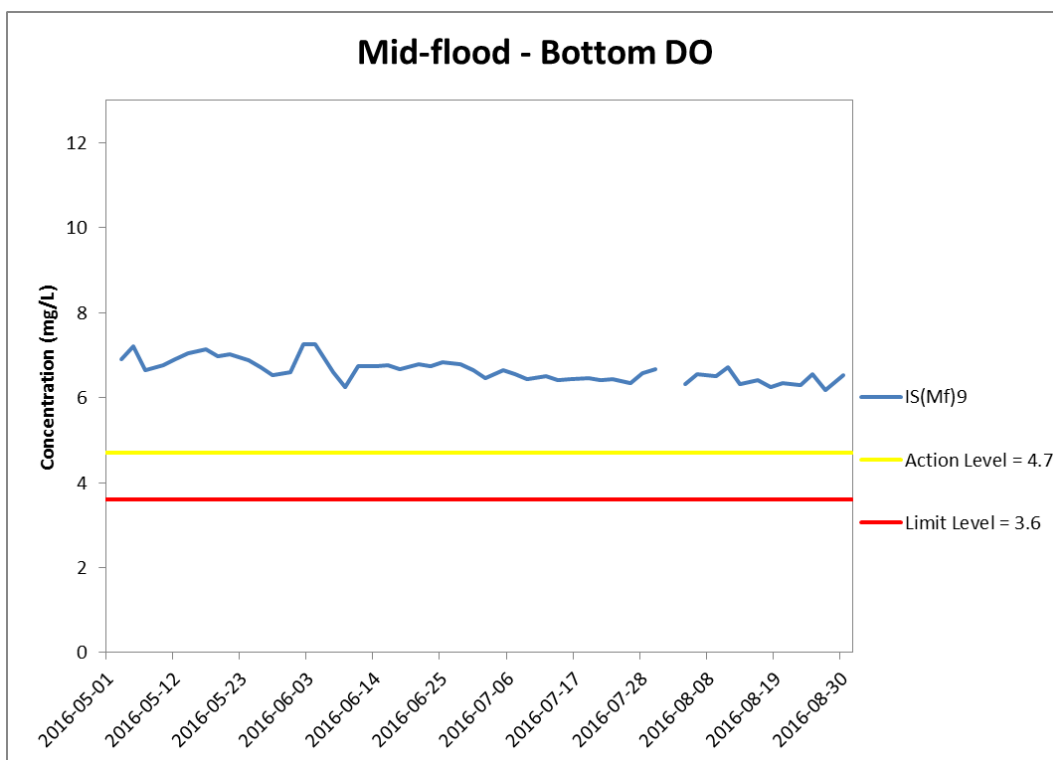
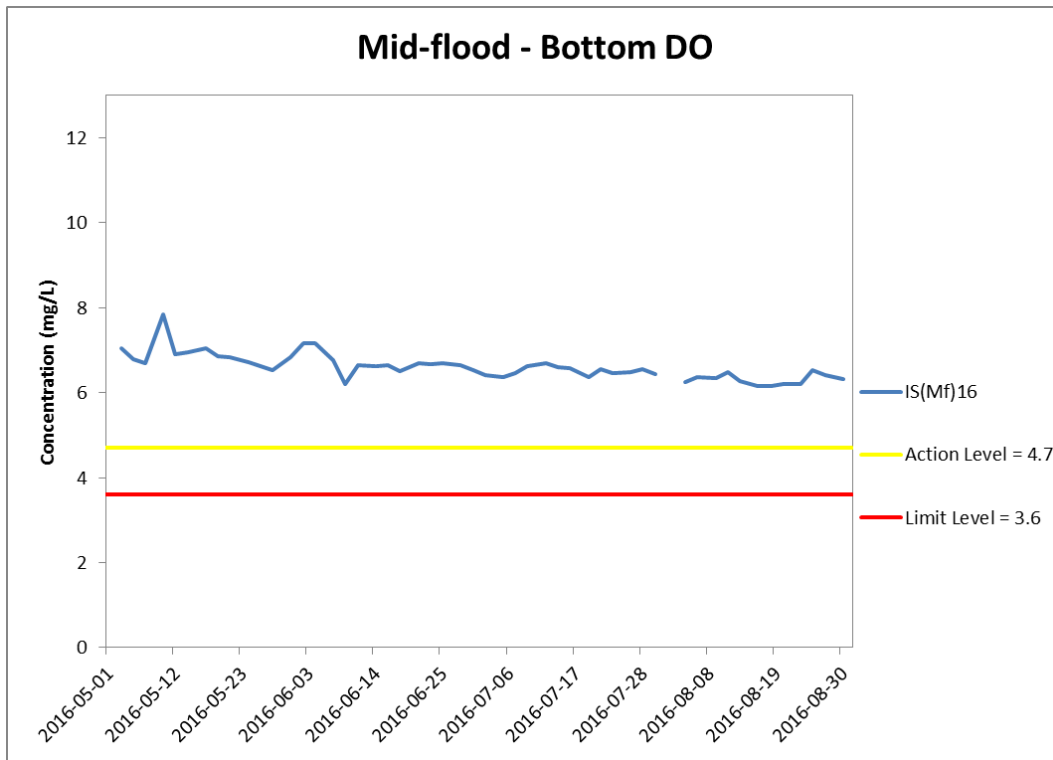
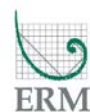


Figure J18 Impact Monitoring – Mean Level of Dissolved Oxygen (mg/L) in bottom waters during mid-flood tide between 1 May and 31 August 2016 at IS(Mf)16 and IS(Mf)9.

*(Weather condition varied between sunny to rainy within the reporting period.)
 WQM on 2 Aug was cancelled due to adverse weather. Marine works within the reporting period include Uninstallation of marine piling platform; Pier construction; Launching gantry operation; and Installation of deck segment and pier head segment.*

**Environmental
 Resources
 Management**



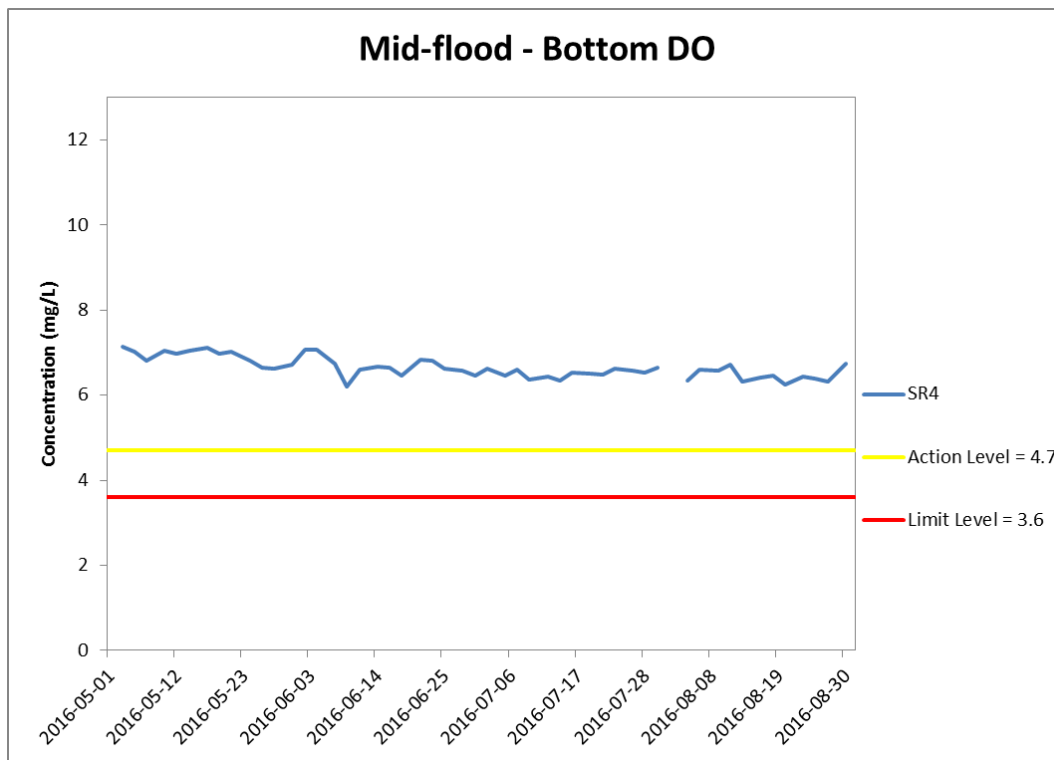
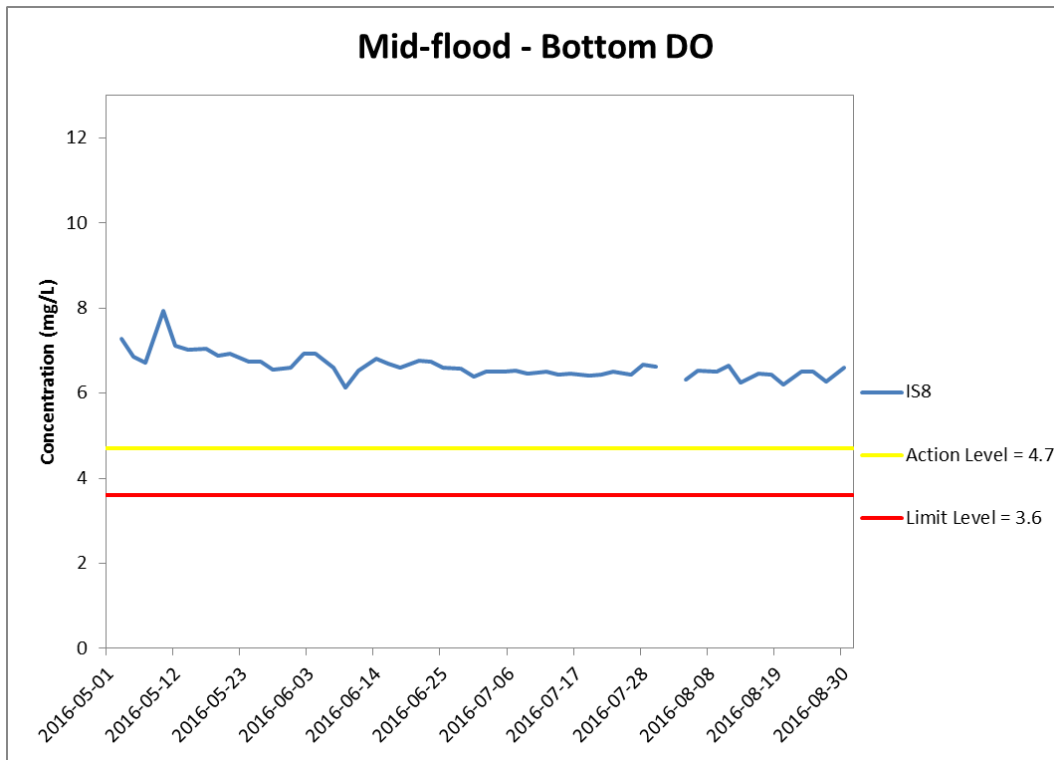
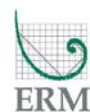


Figure J19 Impact Monitoring – Mean Level of Dissolved Oxygen (mg/L) in bottom waters during mid-flood tide between 1 May and 31 August 2016 at IS8 and SR4.

*(Weather condition varied between sunny to rainy within the reporting period.)
 WQM on 2 Aug was cancelled due to adverse weather. Marine works within the reporting period include Uninstallation of marine piling platform; Pier construction; Launching gantry operation; and Installation of deck segment and pier head segment.*

**Environmental
 Resources
 Management**



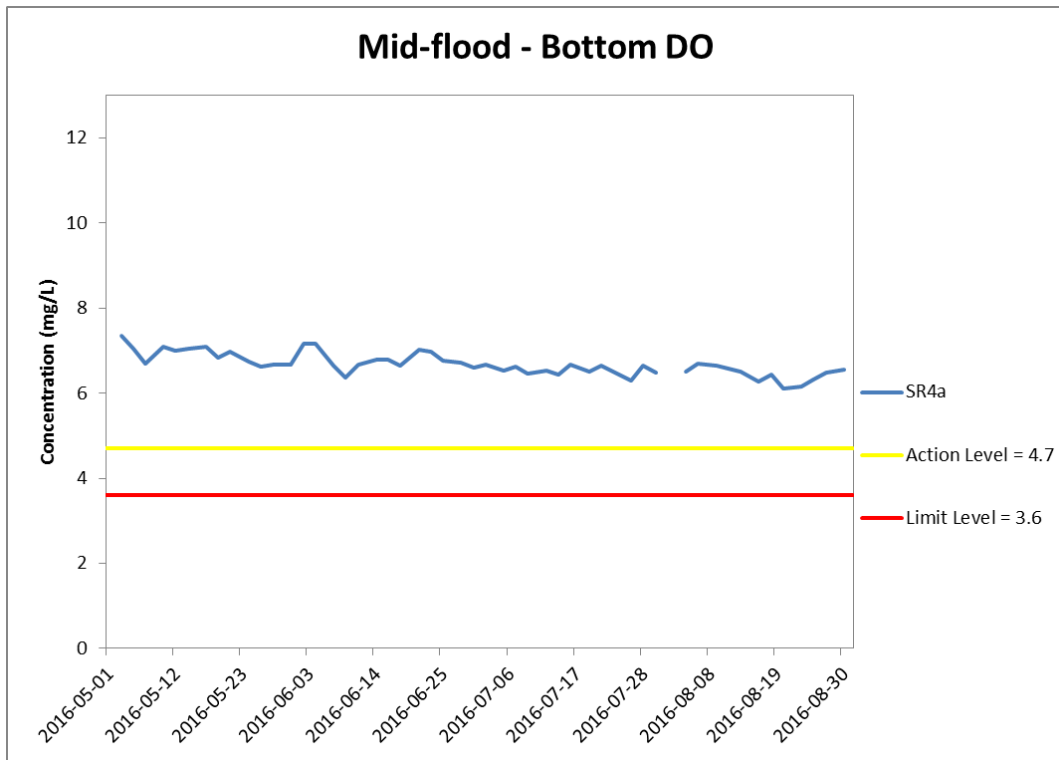


Figure J20 Impact Monitoring - Mean Level of Dissolved Oxygen (mg/L) in bottom waters during mid-flood tide between 1 May and 31 August 2016 at SR4a.

*(Weather condition varied between sunny to rainy within the reporting period.)
 WQM on 2 Aug was cancelled due to adverse weather. Marine works within the reporting period include Uninstallation of marine piling platform; Pier construction; Launching gantry operation; and Installation of deck segment and pier head segment.*

**Environmental
 Resources
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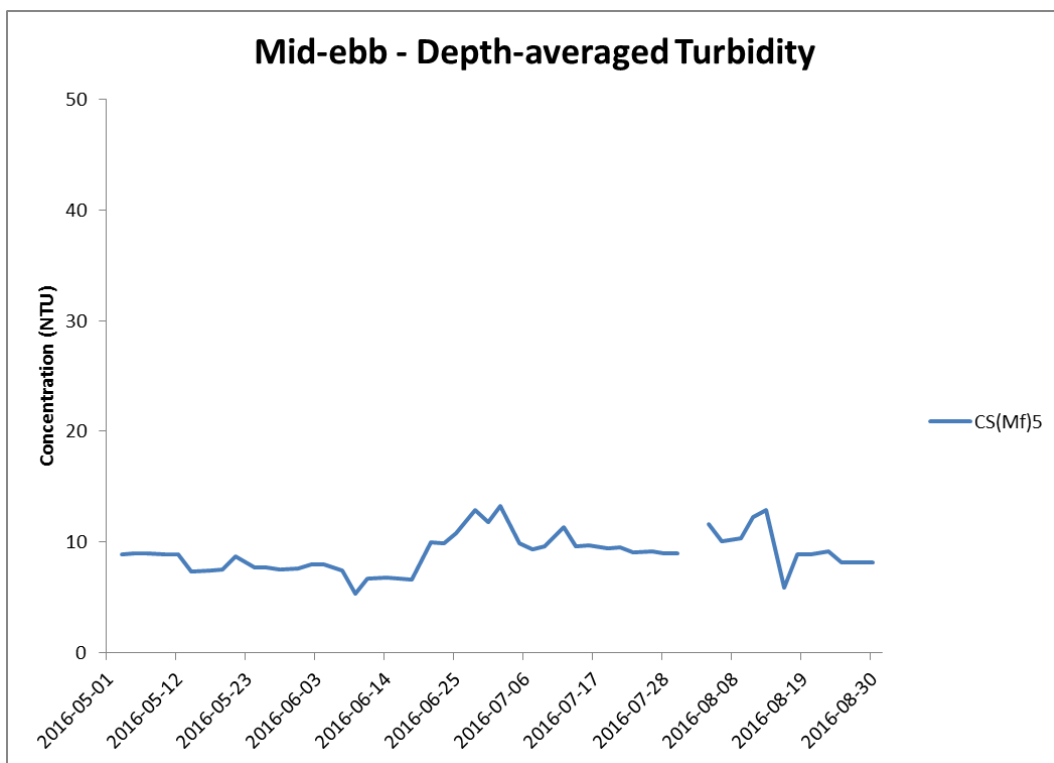
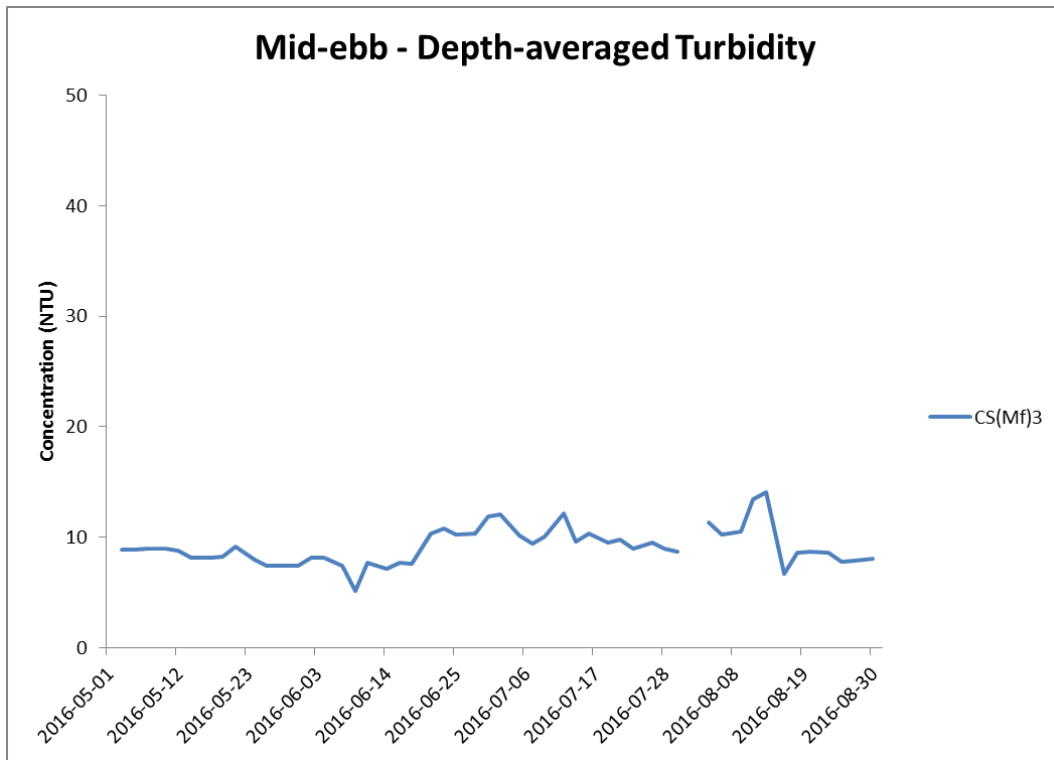
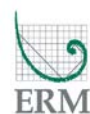


Figure J21 Impact Monitoring - Mean Level of depth-averaged Turbidity (NTU) during mid-ebb tide between 1 May and 31 August 2016 at CS(Mf)3 and CS(Mf)5.

*(Weather condition varied between sunny to rainy within the reporting period.)
 WQM on 2 Aug was cancelled due to adverse weather. Marine works within the reporting period include Uninstallation of marine piling platform; Pier construction; Launching gantry operation; and Installation of deck segment and pier head segment.*

**Environmental
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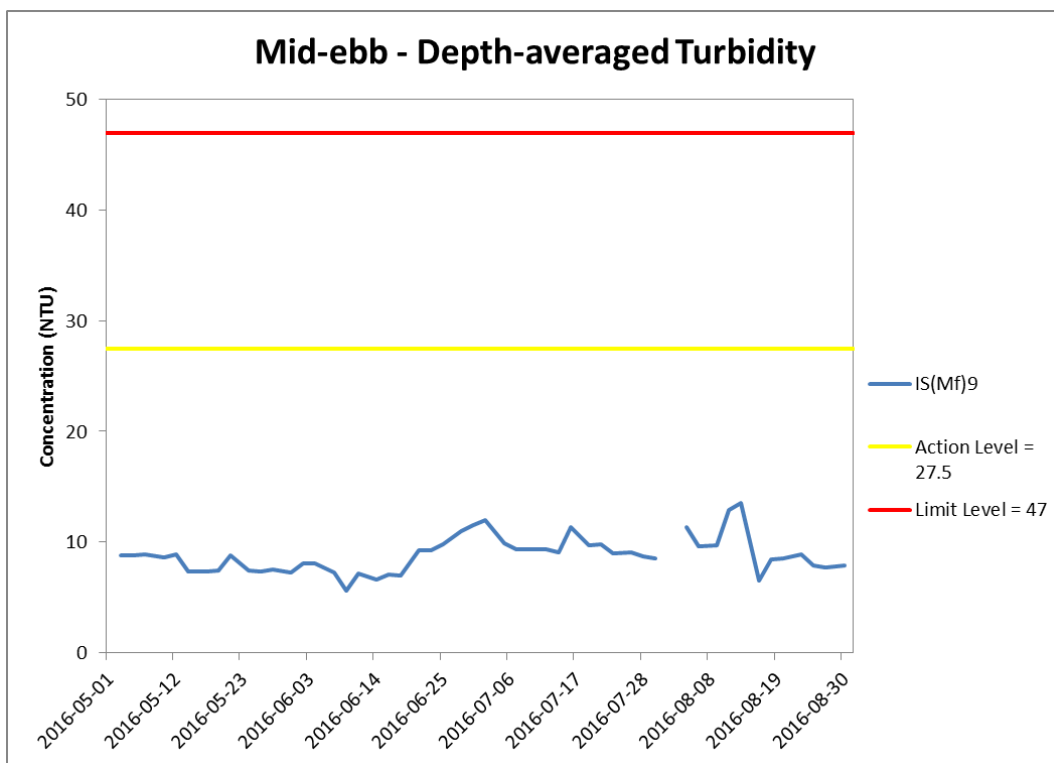
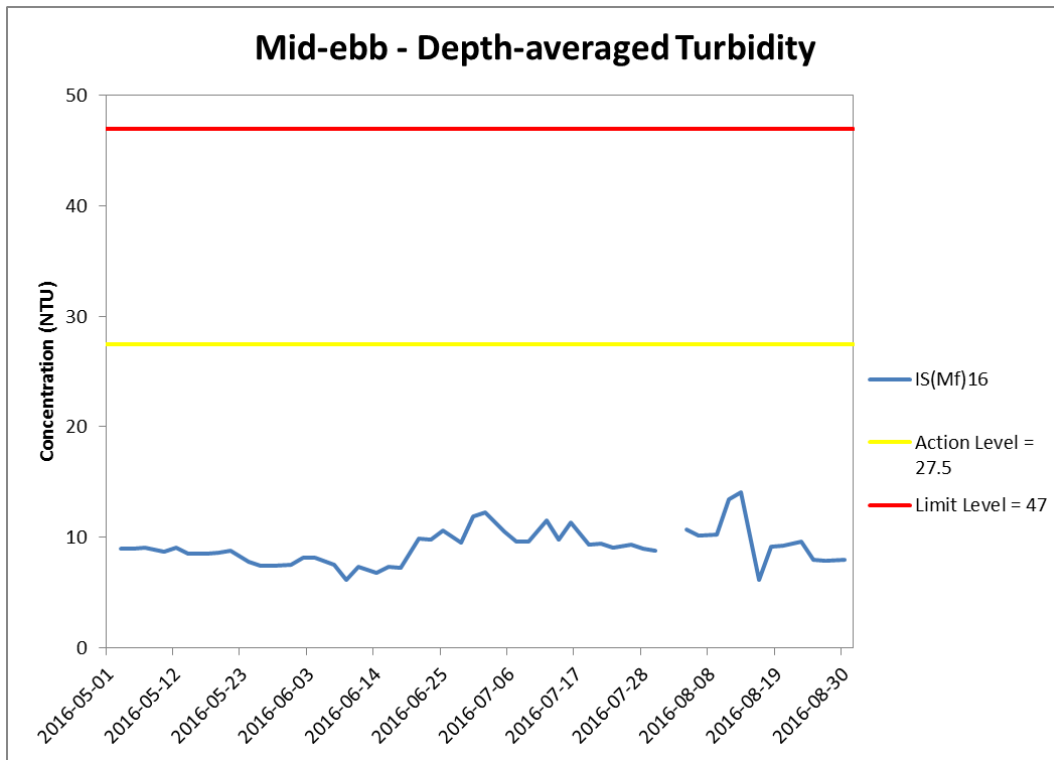
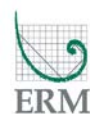


Figure J22 Impact Monitoring – Mean Level of depth-averaged Turbidity (NTU) during mid-ebb tide between 1 May and 31 August 2016 at IS(Mf)16 and IS(Mf)9.

*(Weather condition varied between sunny to rainy within the reporting period.)
 WQM on 2 Aug was cancelled due to adverse weather. Marine works within the reporting period include Uninstallation of marine piling platform; Pier construction; Launching gantry operation; and Installation of deck segment and pier head segment.*

**Environmental
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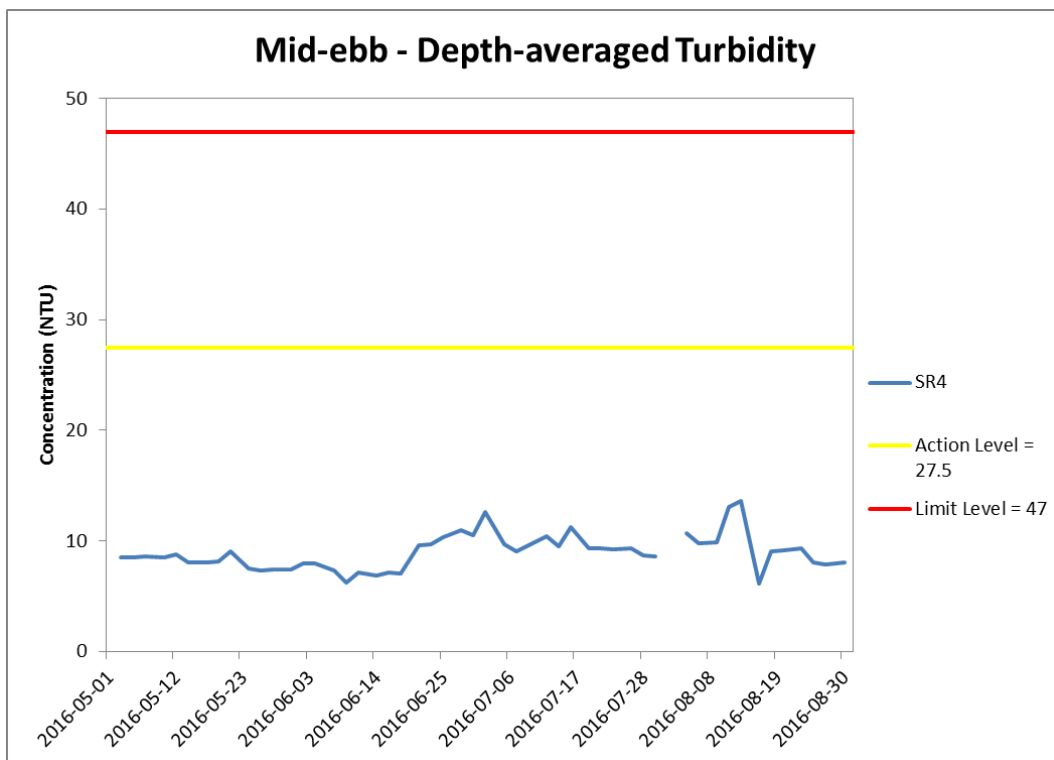
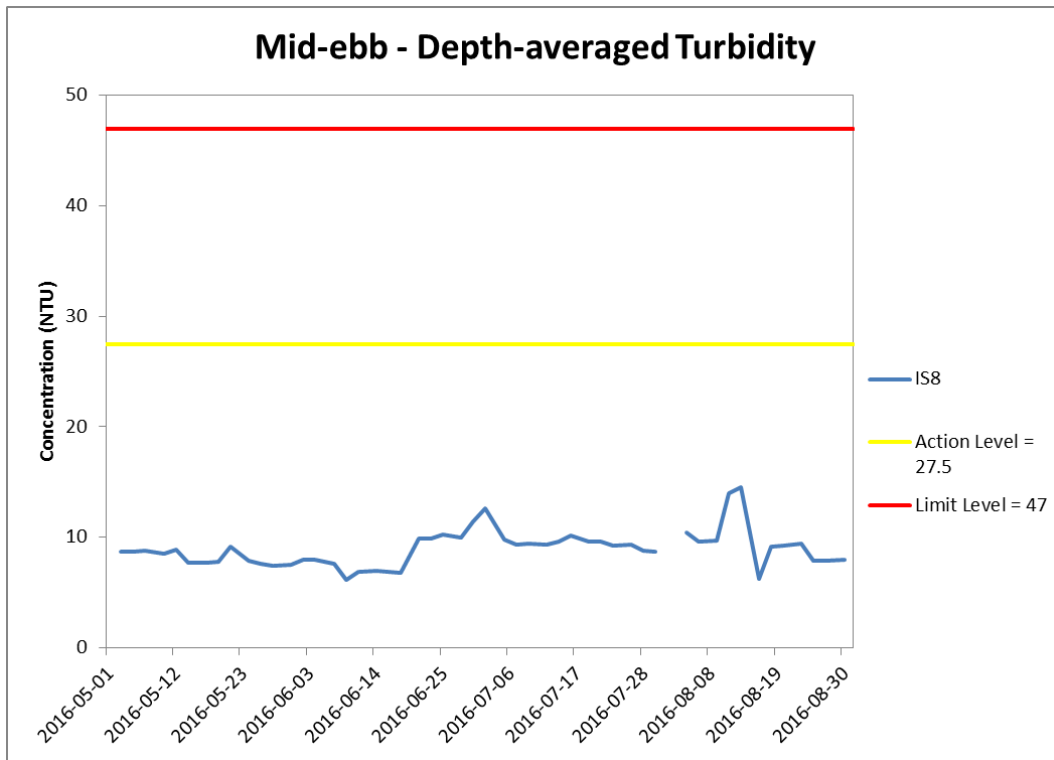


Figure J23 Impact Monitoring - Mean Level of depth-averaged Turbidity (NTU) during mid-ebb tide between 1 May and 31 August 2016 at IS8 and SR4.

*(Weather condition varied between sunny to rainy within the reporting period.)
 WQM on 2 Aug was cancelled due to adverse weather. Marine works within the reporting period include Uninstallation of marine piling platform; Pier construction; Launching gantry operation; and Installation of deck segment and pier head segment.*

**Environmental
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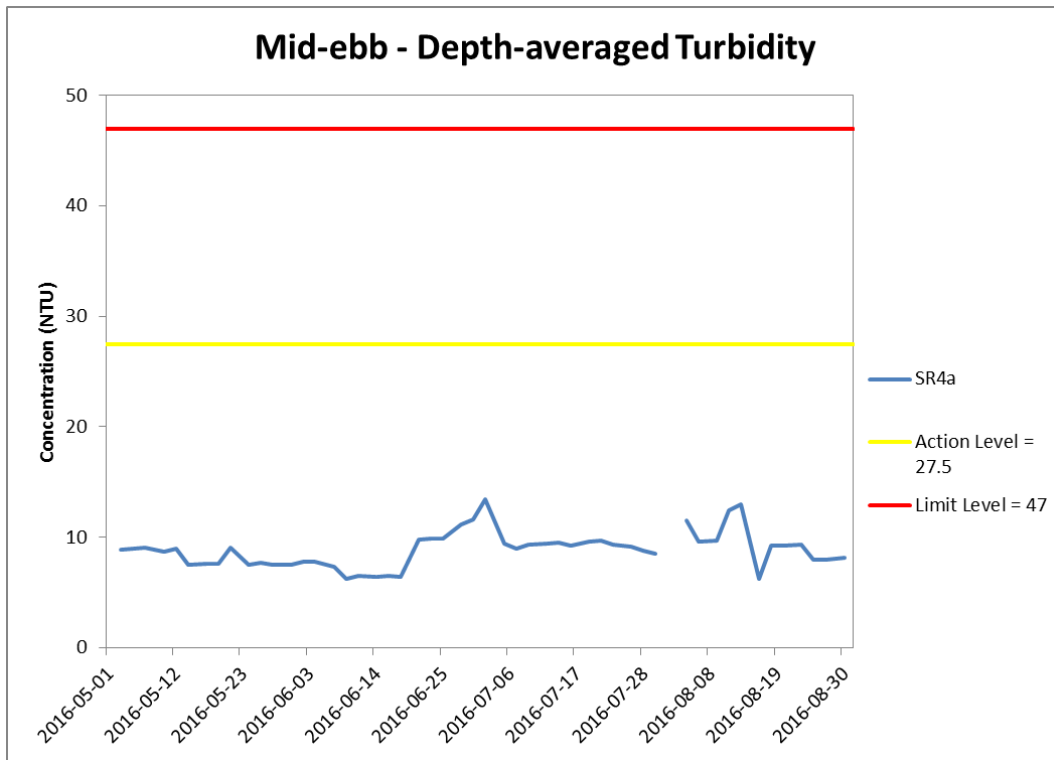
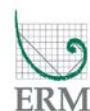


Figure J24 Impact Monitoring - Mean Level of depth-averaged Turbidity (NTU) during mid-ebb tide between 1 May and 31 August 2016 at SR4a.

*(Weather condition varied between sunny to rainy within the reporting period.)
 WQM on 2 Aug was cancelled due to adverse weather. Marine works within the reporting period include Uninstallation of marine piling platform; Pier construction; Launching gantry operation; and Installation of deck segment and pier head segment.*

**Environmental
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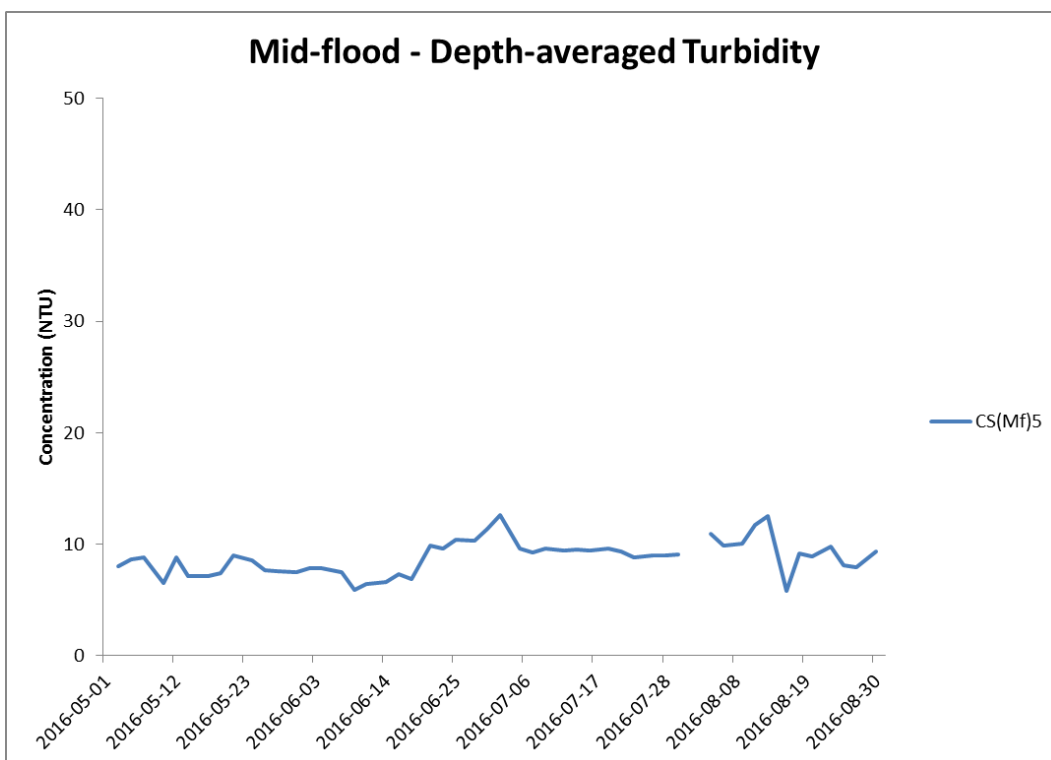
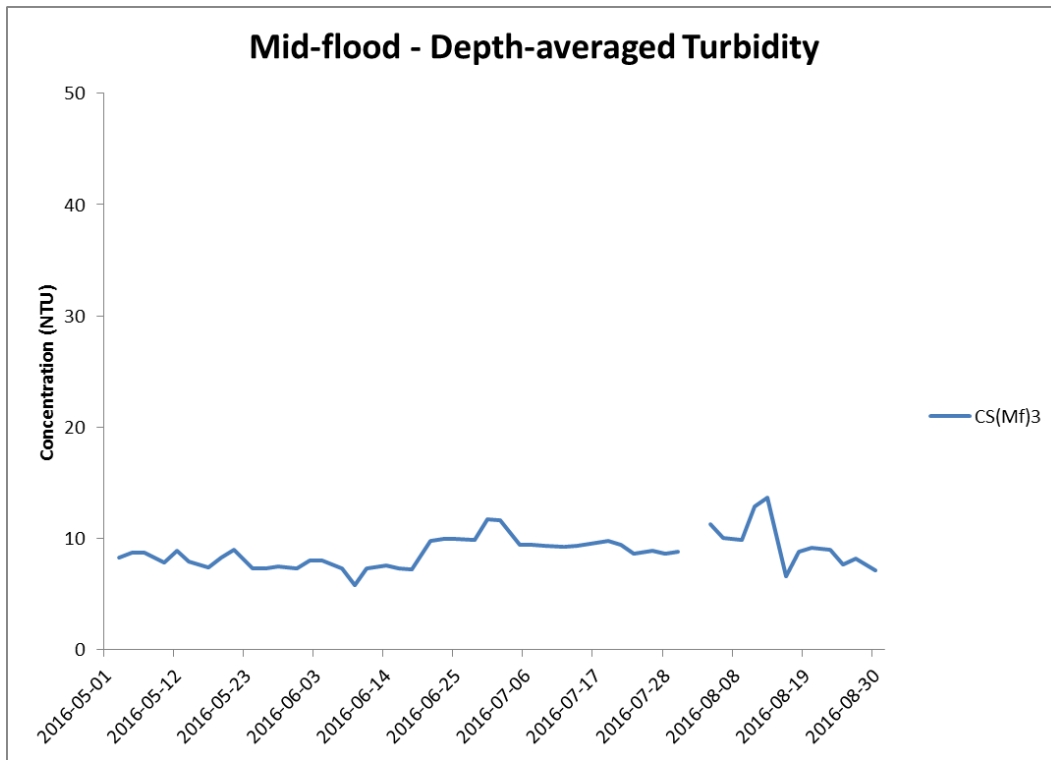
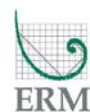


Figure J25 Impact Monitoring - Mean Level of depth-averaged Turbidity (NTU) during mid-flood tide between 1 May and 31 August 2016 at CS(Mf)3 and CS(MF)5.

*(Weather condition varied between sunny to rainy within the reporting period.)
 WQM on 2 Aug was cancelled due to adverse weather. Marine works within the reporting period include Uninstallation of marine piling platform; Pier construction; Launching gantry operation; and Installation of deck segment and pier head segment.*

**Environmental
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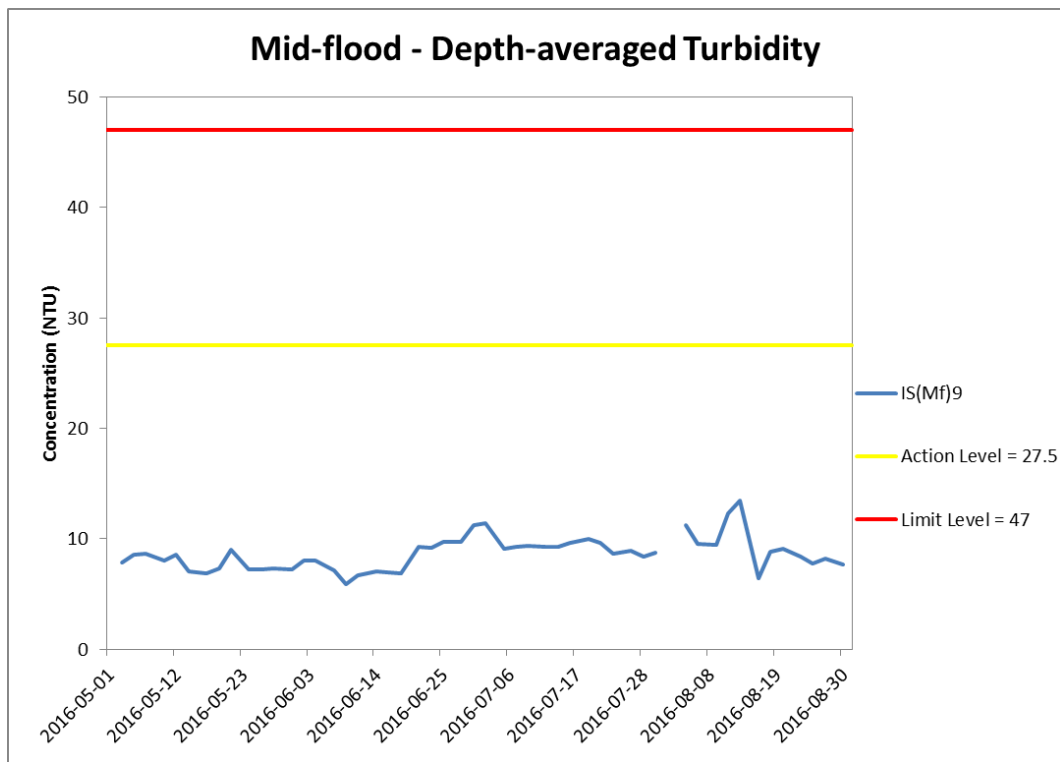
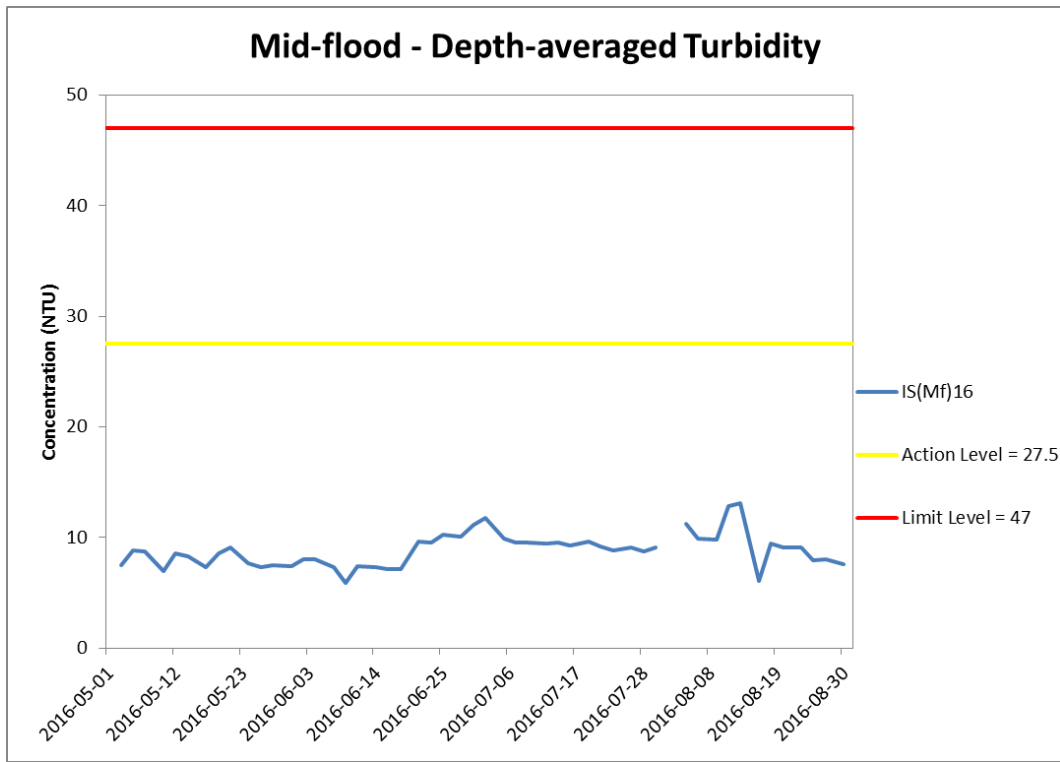


Figure J26 Impact Monitoring - Mean Level of depth-averaged Turbidity (NTU) during mid-flood tide between 1 May and 31 August 2016 at IS(Mf)16 and IS(Mf)9.

*(Weather condition varied between sunny to rainy within the reporting period.)
WQM on 2 Aug was cancelled due to adverse weather. Marine works within the reporting period include Uninstallation of marine piling platform; Pier construction; Launching gantry operation; and Installation of deck segment and pier head segment.*

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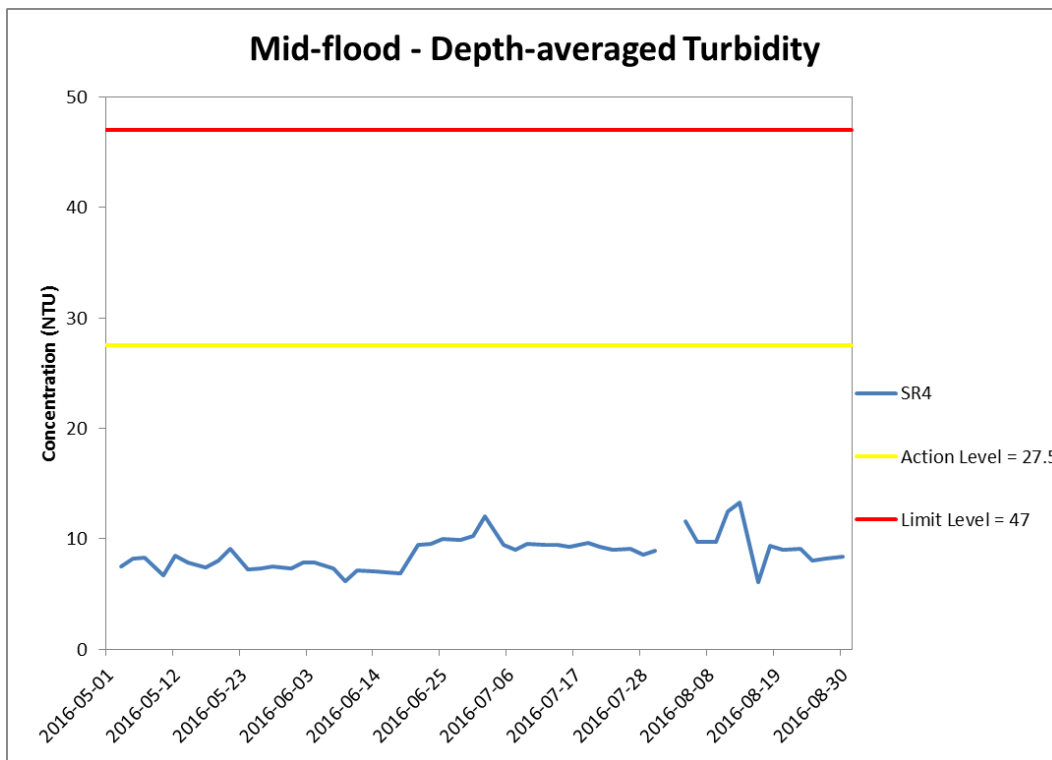
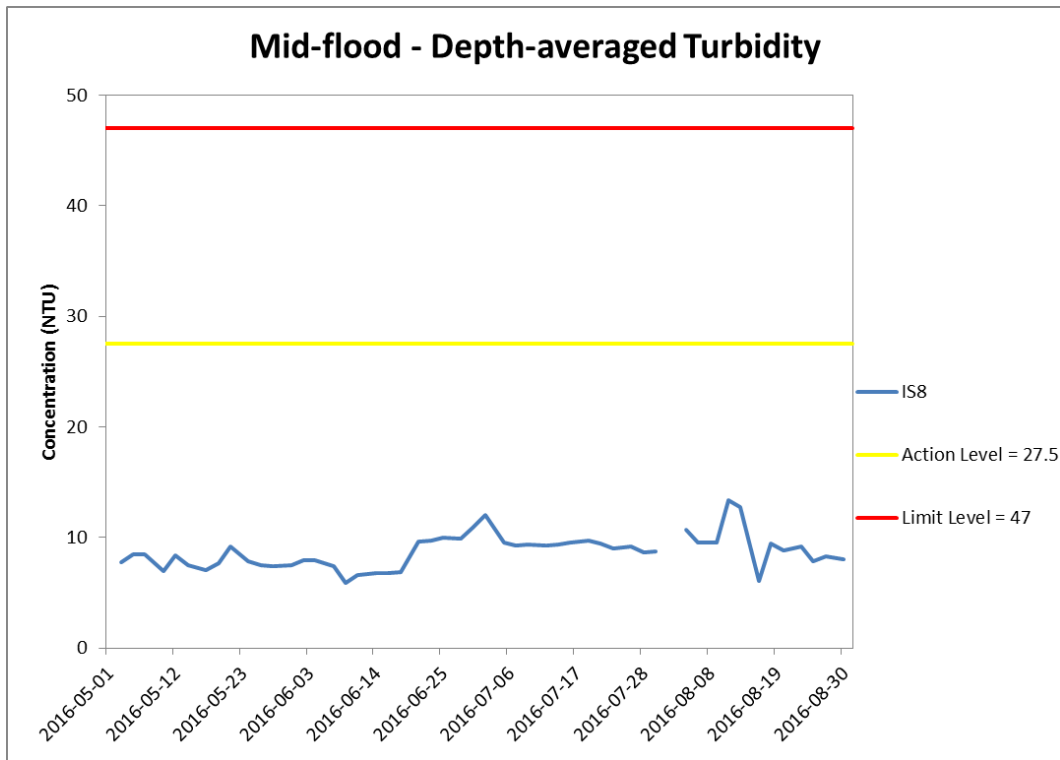


Figure J27 Impact Monitoring - Mean Level of depth-averaged Turbidity (NTU) during mid-flood tide between 1 May and 31 August 2016 at IS8 and SR4.

*(Weather condition varied between sunny to rainy within the reporting period.)
 WQM on 2 Aug was cancelled due to adverse weather. Marine works within the reporting period include Uninstallation of marine piling platform; Pier construction; Launching gantry operation; and Installation of deck segment and pier head segment.*

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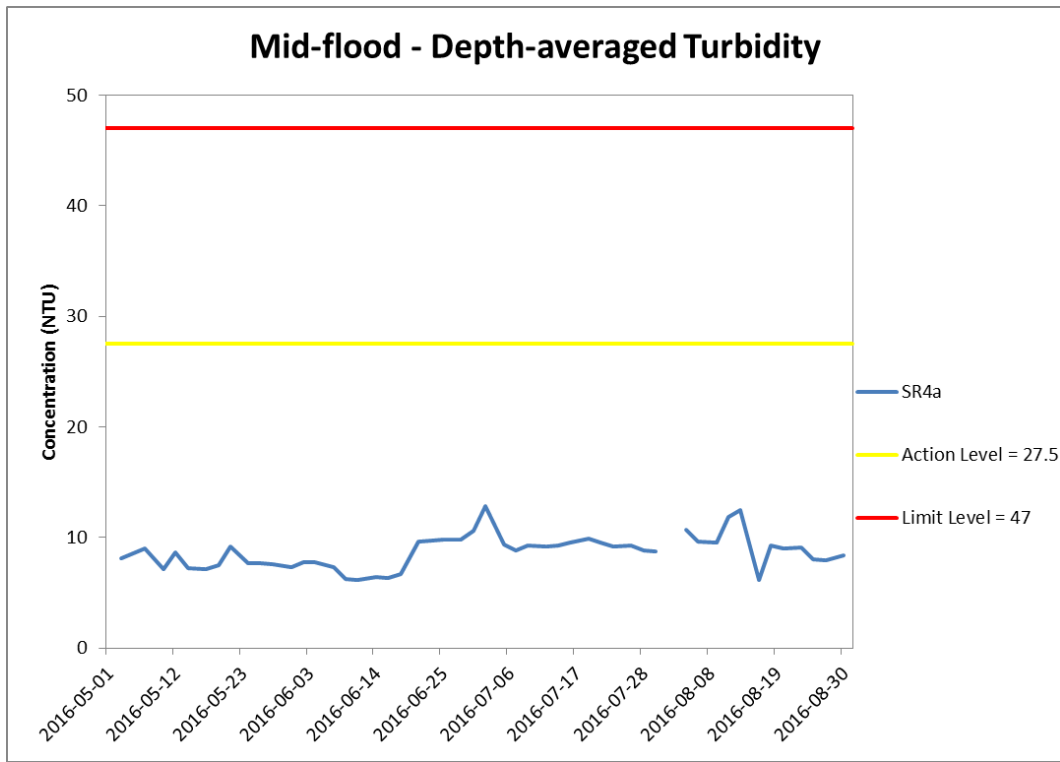


Figure J28 Impact Monitoring - Mean Level of depth-averaged Turbidity (NTU) during mid-flood tide between 1 May and 31 August 2016 at SR4a.

*(Weather condition varied between sunny to rainy within the reporting period.)
 WQM on 2 Aug was cancelled due to adverse weather. Marine works within the reporting period include Uninstallation of marine piling platform; Pier construction; Launching gantry operation; and Installation of deck segment and pier head segment.*

**Environmental
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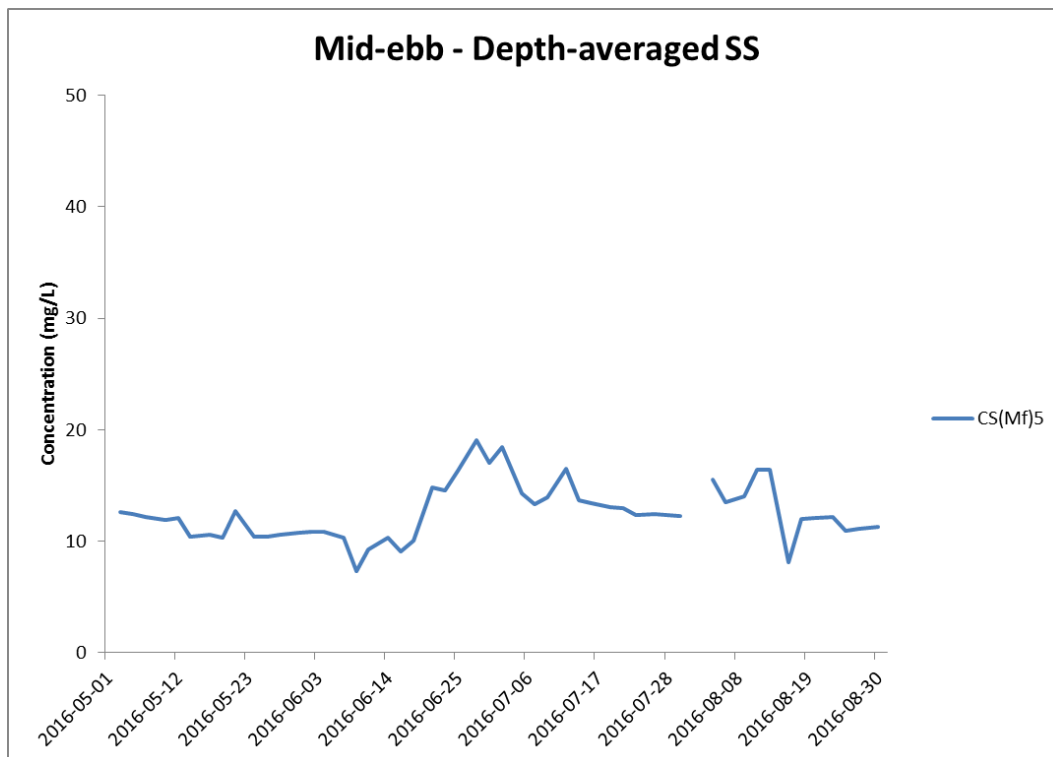
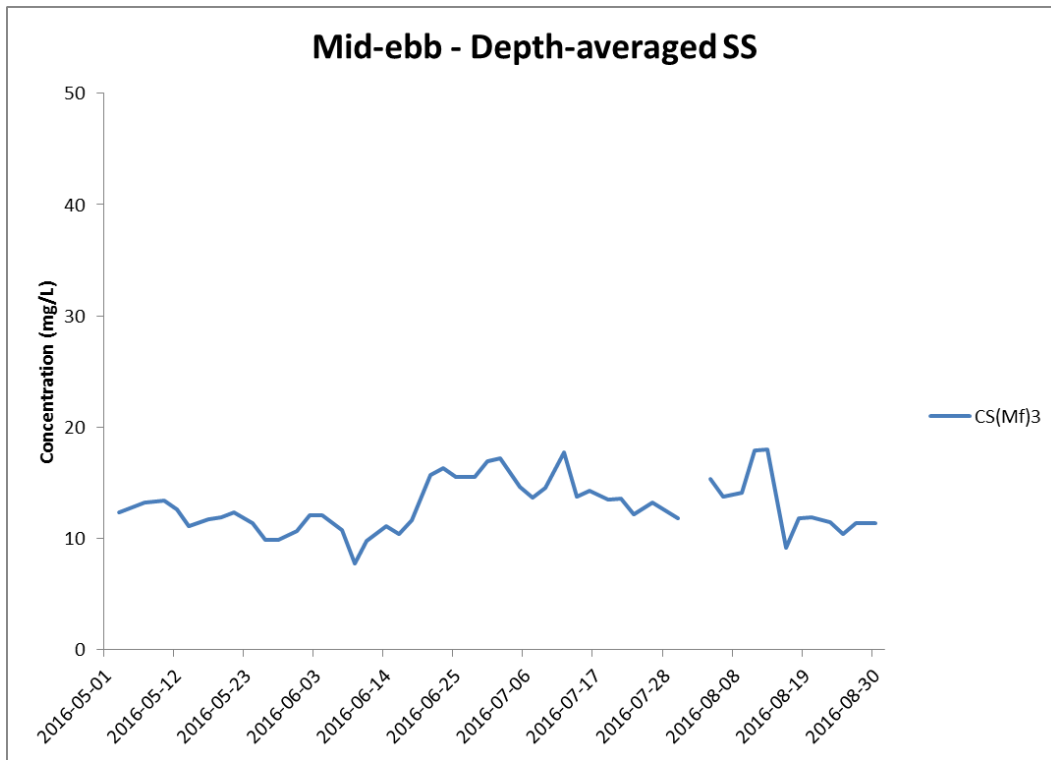


Figure J29 Impact Monitoring - Mean depth-averaged level of Suspended Solids (mg/L) during mid-ebb tide between 1 May and 31 August 2016 at CS(Mf)3 and CS(Mf)5.

*(Weather condition varied between sunny to rainy within the reporting period.)
 WQM on 2 Aug was cancelled due to adverse weather. Marine works within the reporting period include Uninstallation of marine piling platform; Pier construction; Launching gantry operation; and Installation of deck segment and pier head segment.*

**Environmental
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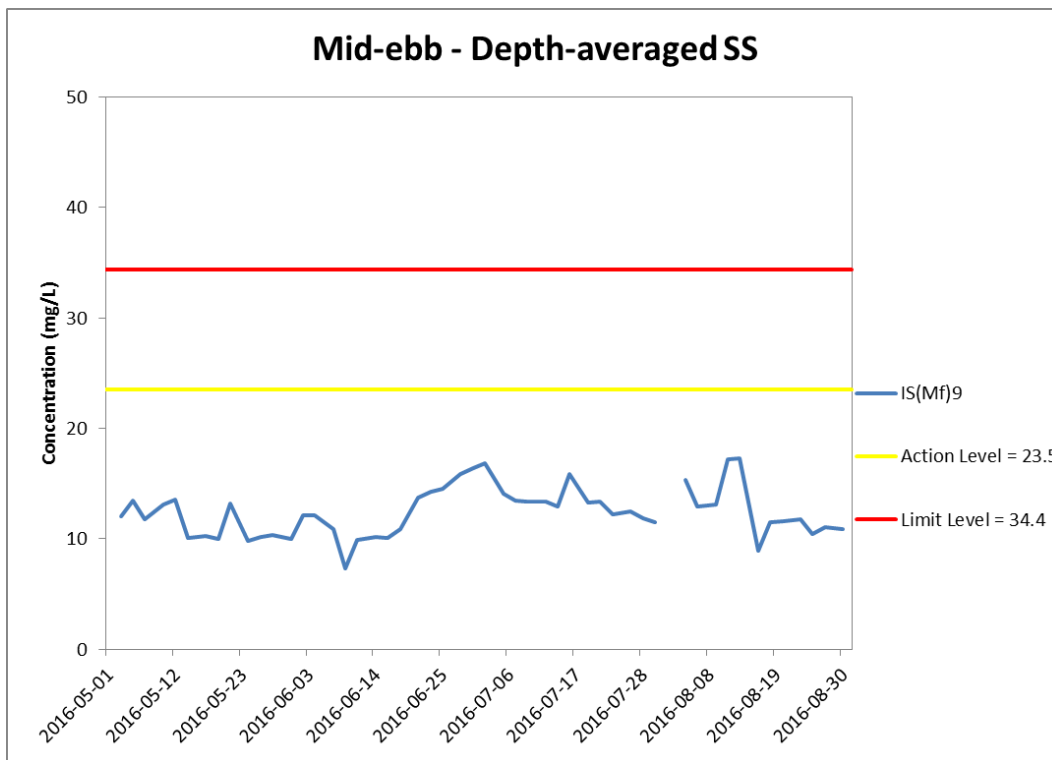
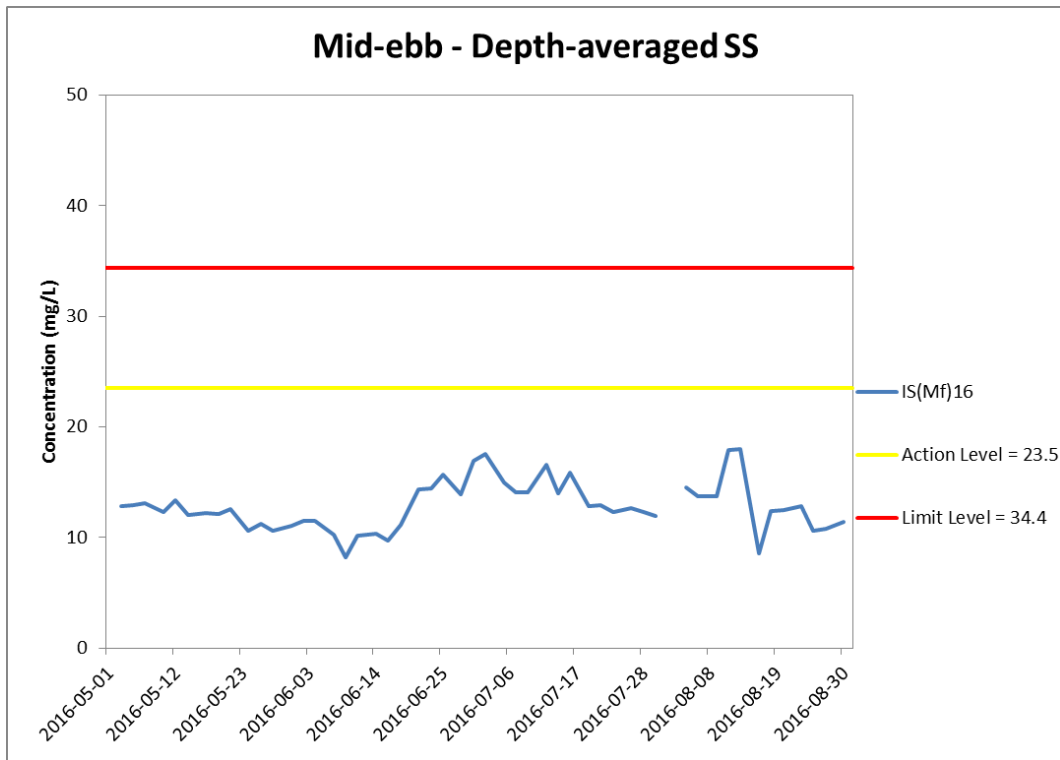


Figure J30 Impact Monitoring - Mean depth-averaged level of Suspended Solids (mg/L) during mid-ebb tide between 1 May and 31 August 2016 at IS(Mf)16 and IS(Mf)9.

*(Weather condition varied between sunny to rainy within the reporting period.)
WQM on 2 Aug was cancelled due to adverse weather. Marine works within the reporting period include Uninstallation of marine piling platform; Pier construction; Launching gantry operation; and Installation of deck segment and pier head segment.*

**Environmental
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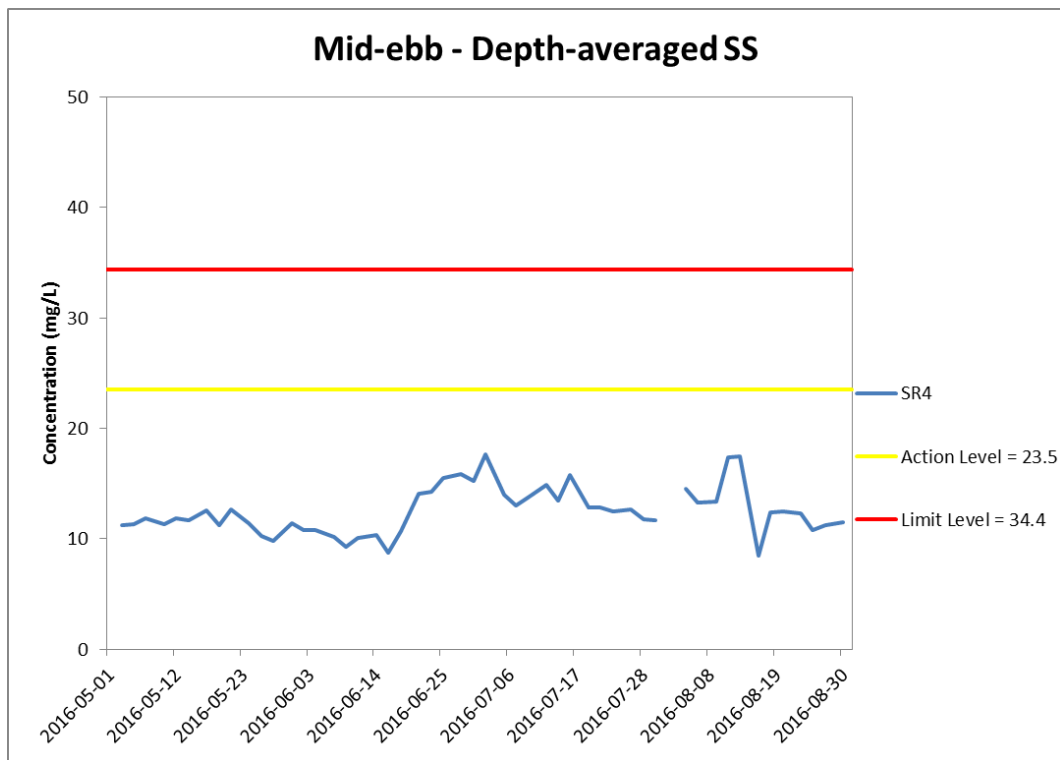
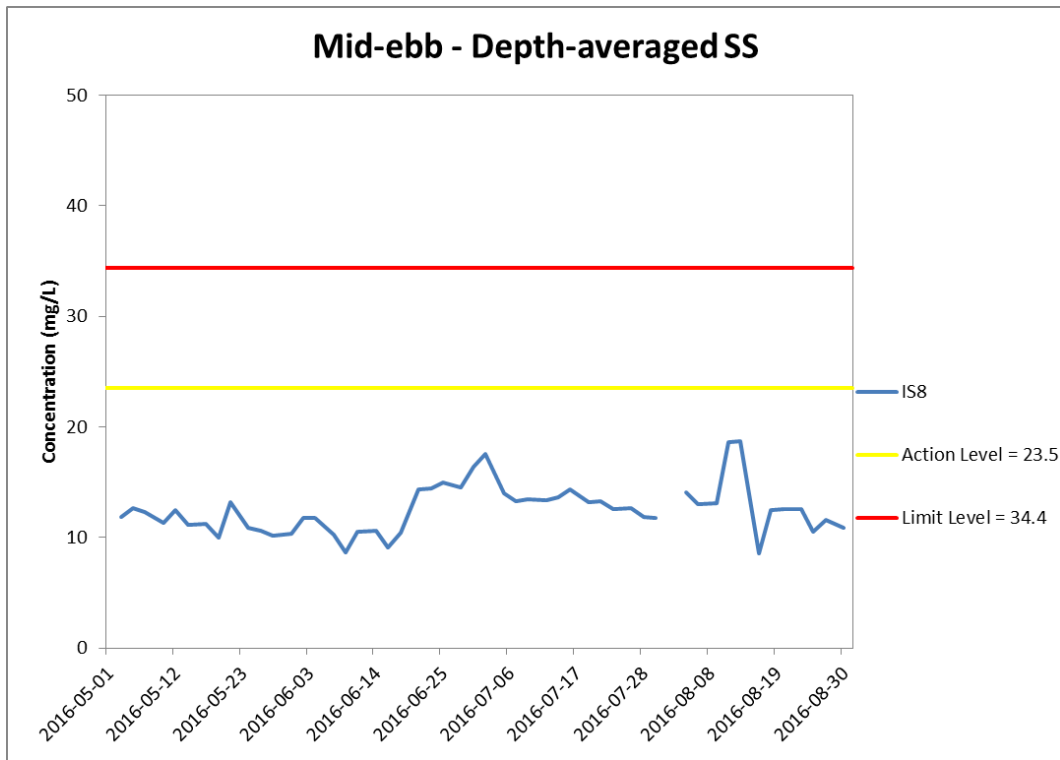


Figure J31 Impact Monitoring - Mean depth-averaged level of Suspended Solids (mg/L) during mid-ebb tide between 1 May and 31 August 2016 at IS8 and SR4.

(Weather condition varied between sunny to rainy within the reporting period.) WQM on 2 Aug was cancelled due to adverse weather. Marine works within the reporting period include Uninstallation of marine piling platform; Pier construction; Launching gantry operation; and Installation of deck segment and pier head segment.

Environmental Resources Management



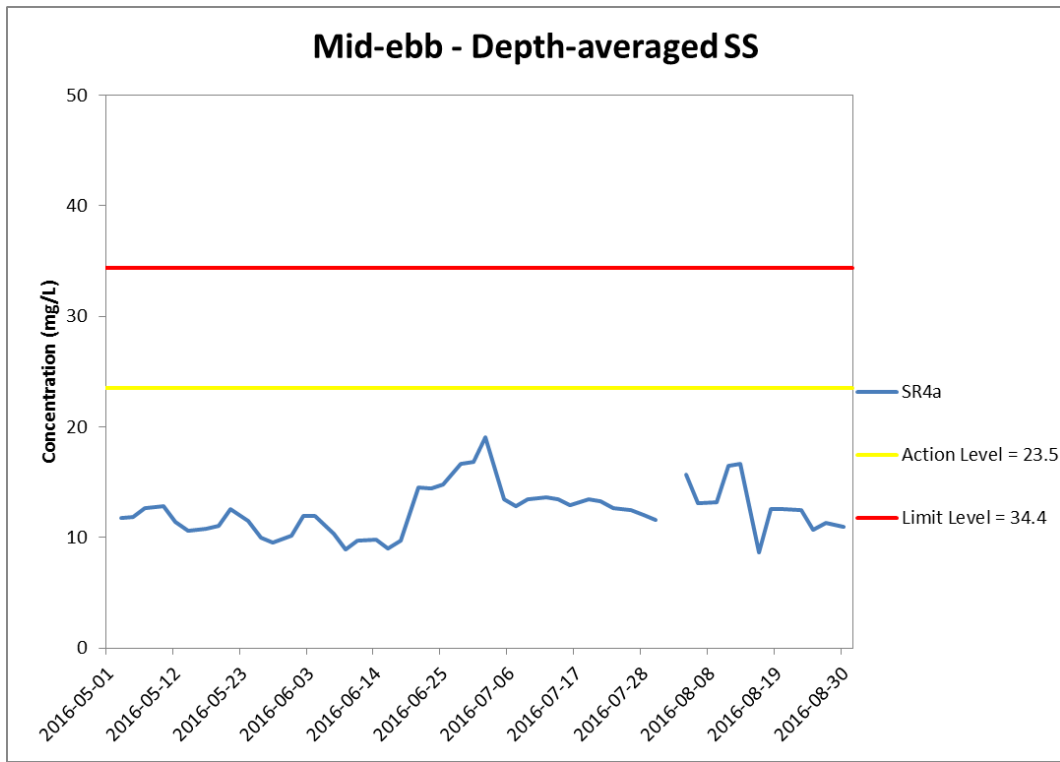


Figure J32 Impact Monitoring - Mean depth-averaged level of Suspended Solids (mg/L) during mid-ebb tide between 1 May and 31 August 2016 at SR4a.

*(Weather condition varied between sunny to rainy within the reporting period.)
 WQM on 2 Aug was cancelled due to adverse weather. Marine works within the reporting period include Uninstallation of marine piling platform; Pier construction; Launching gantry operation; and Installation of deck segment and pier head segment.*

**Environmental
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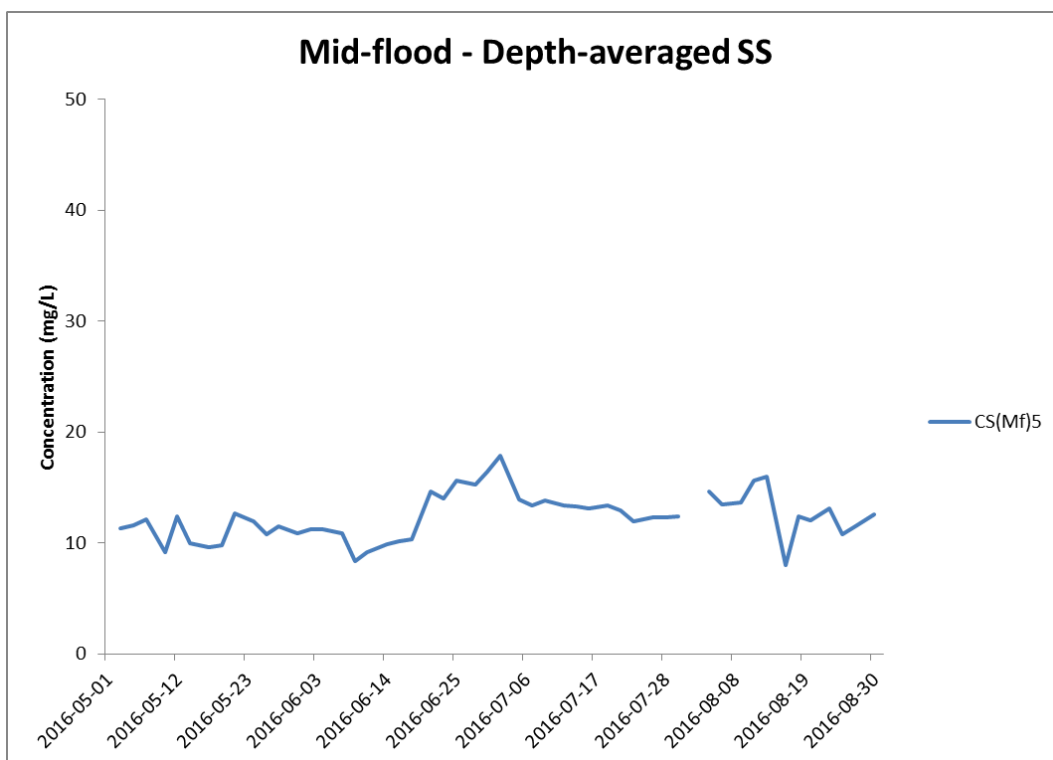
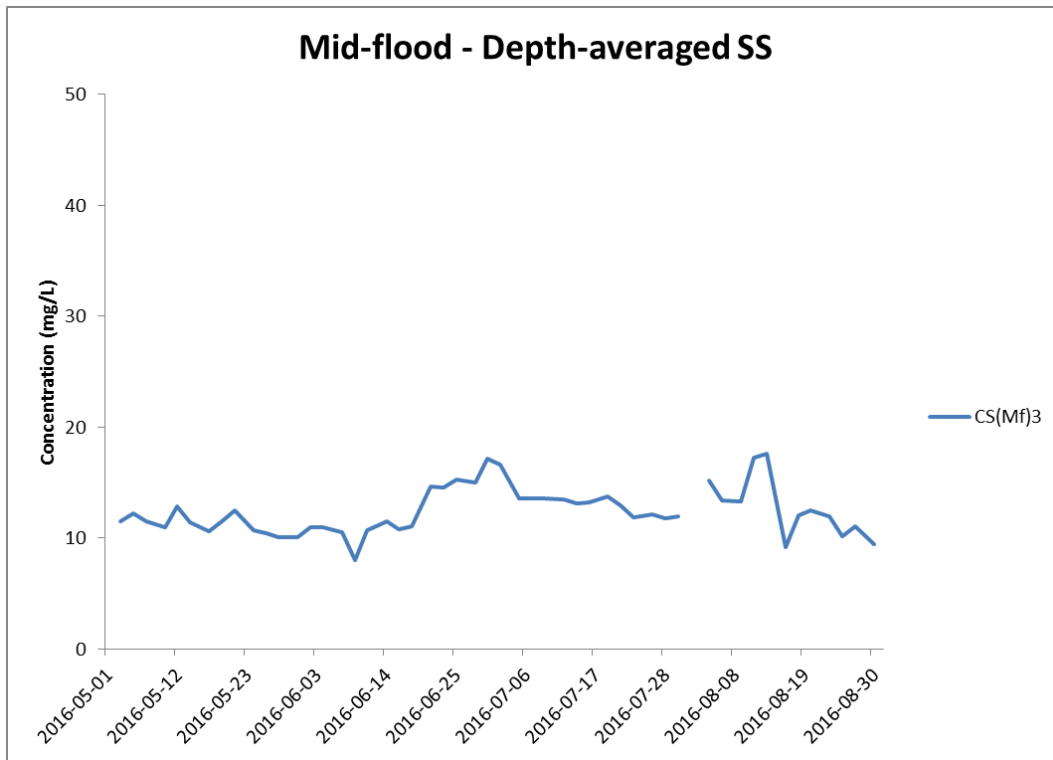
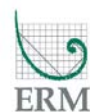


Figure J33 Impact Monitoring – Mean depth-averaged level of Suspended Solids (mg/L) during mid-flood tide between 1 May and 31 August 2016 at CS(Mf)3 and CS(Mf)5.

*(Weather condition varied between sunny to rainy within the reporting period.)
 WQM on 2 Aug was cancelled due to adverse weather. Marine works within the reporting period include Uninstallation of marine piling platform; Pier construction; Launching gantry operation; and Installation of deck segment and pier head segment.*

**Environmental
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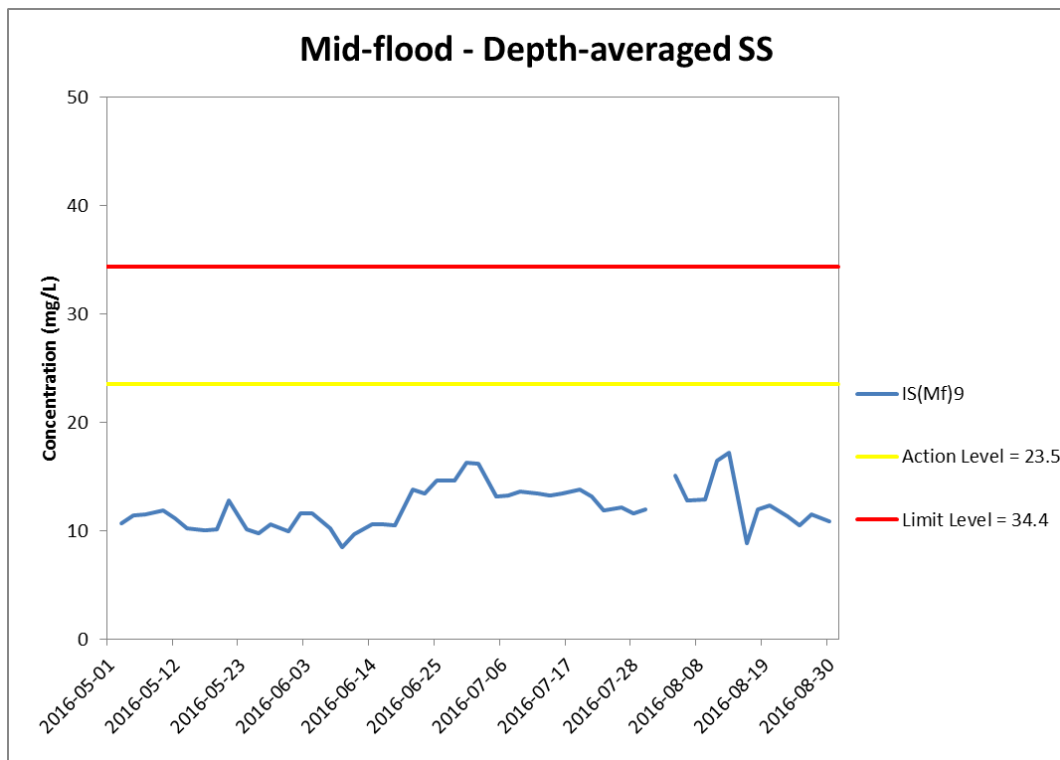
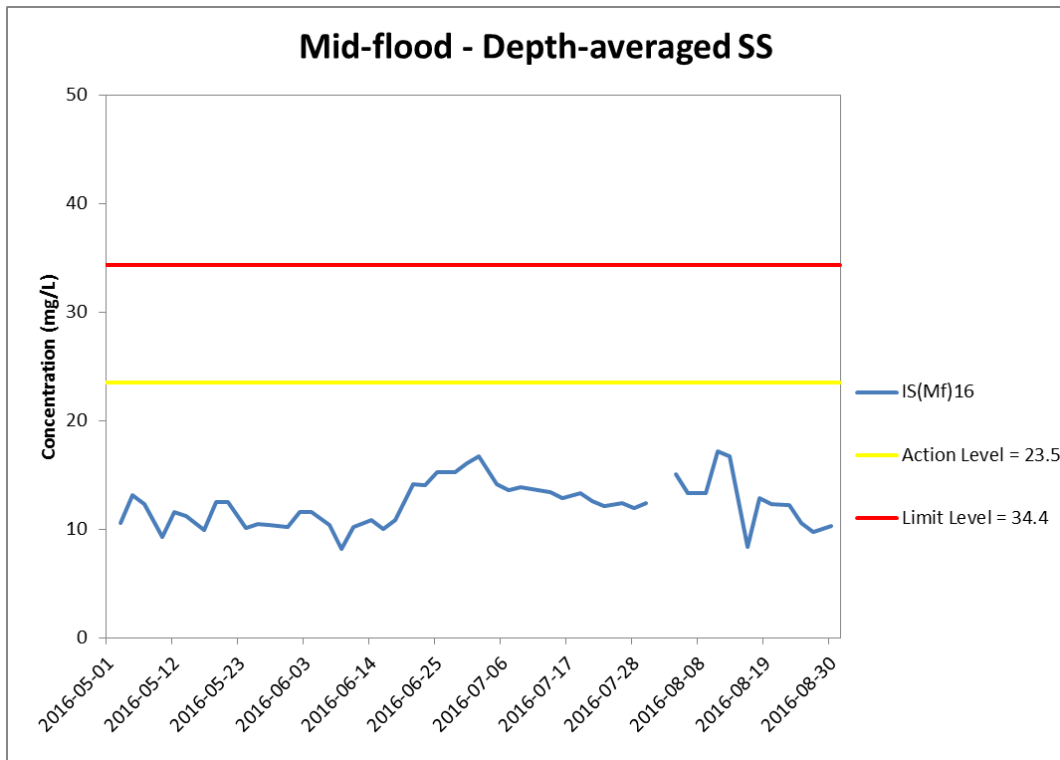


Figure J34 Impact Monitoring - Mean depth-averaged level of Suspended Solids (mg/L) during mid-flood tide between 1 May and 31 August 2016 at IS(Mf)16 and IS(Mf)9.

*(Weather condition varied between sunny to rainy within the reporting period.)
 WQM on 2 Aug was cancelled due to adverse weather. Marine works within the reporting period include Uninstallation of marine piling platform; Pier construction; Launching gantry operation; and Installation of deck segment and pier head segment.*

**Environmental
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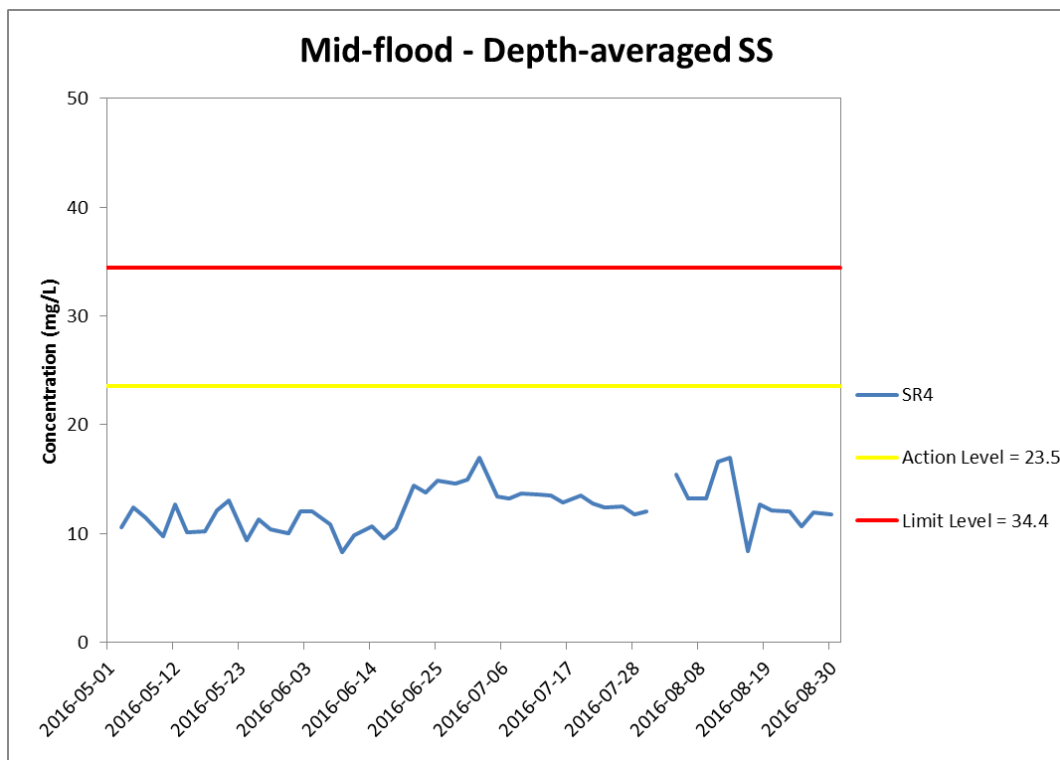
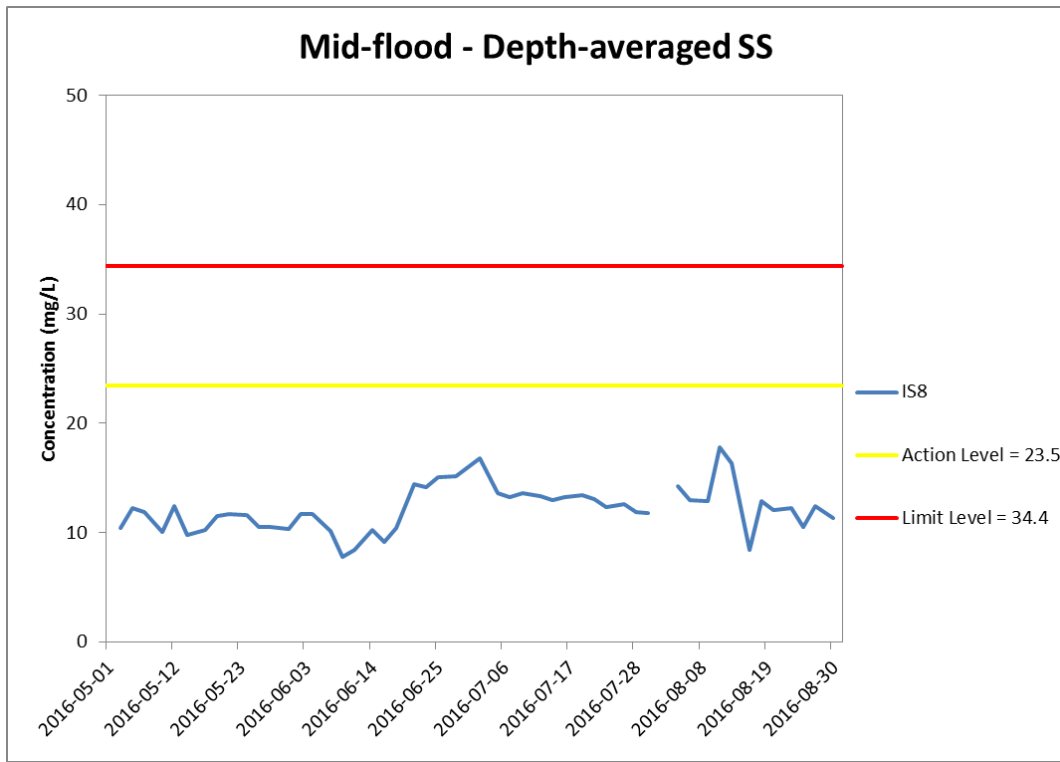


Figure J35 Impact Monitoring - Mean depth-averaged level of Suspended Solids (mg/L) during mid-flood tide between 1 May and 31 August 2016 at IS8 and SR4.

*(Weather condition varied between sunny to rainy within the reporting period.)
 WQM on 2 Aug was cancelled due to adverse weather. Marine works within the reporting period include Uninstallation of marine piling platform; Pier construction; Launching gantry operation; and Installation of deck segment and pier head segment.*

**Environmental
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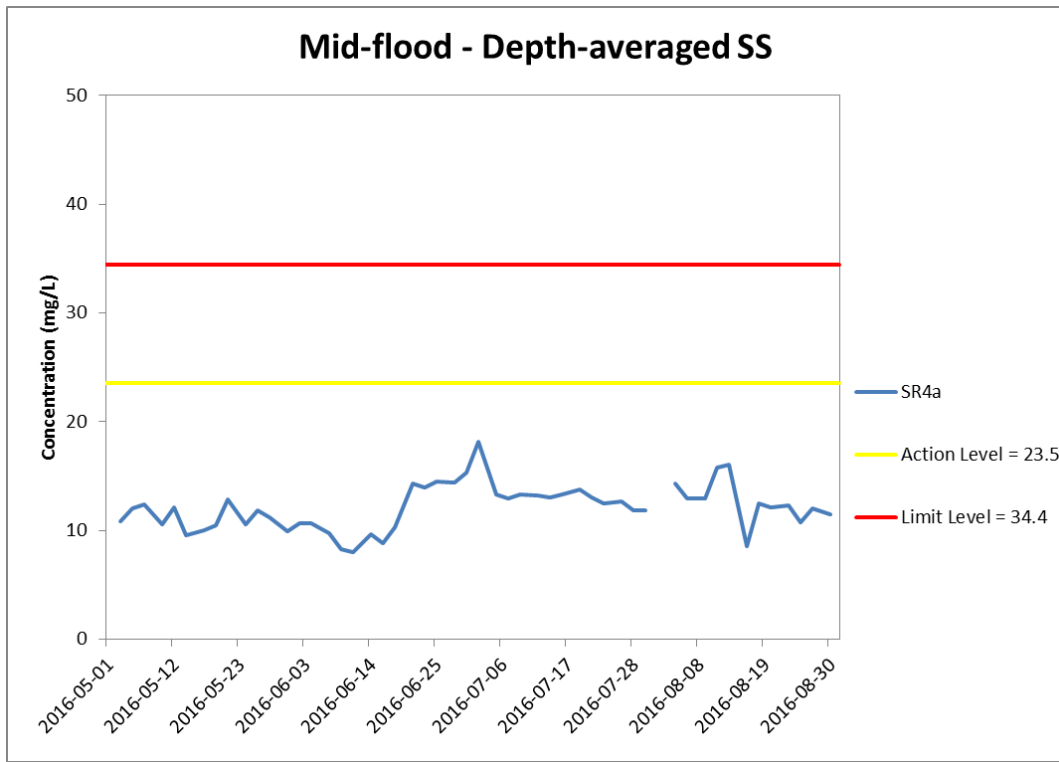


Figure J36 Impact Monitoring - Mean depth-averaged level of Suspended Solids (mg/L) during mid-flood tide between 1 May and 31 August 2016 at SR4a.

*(Weather condition varied between sunny to rainy within the reporting period.)
 WQM on 2 Aug was cancelled due to adverse weather. Marine works within the reporting period include Uninstallation of marine piling platform; Pier construction; Launching gantry operation; and Installation of deck segment and pier head segment.*

**Environmental
 Resources
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Appendix K

Impact Dolphin Monitoring Survey Results

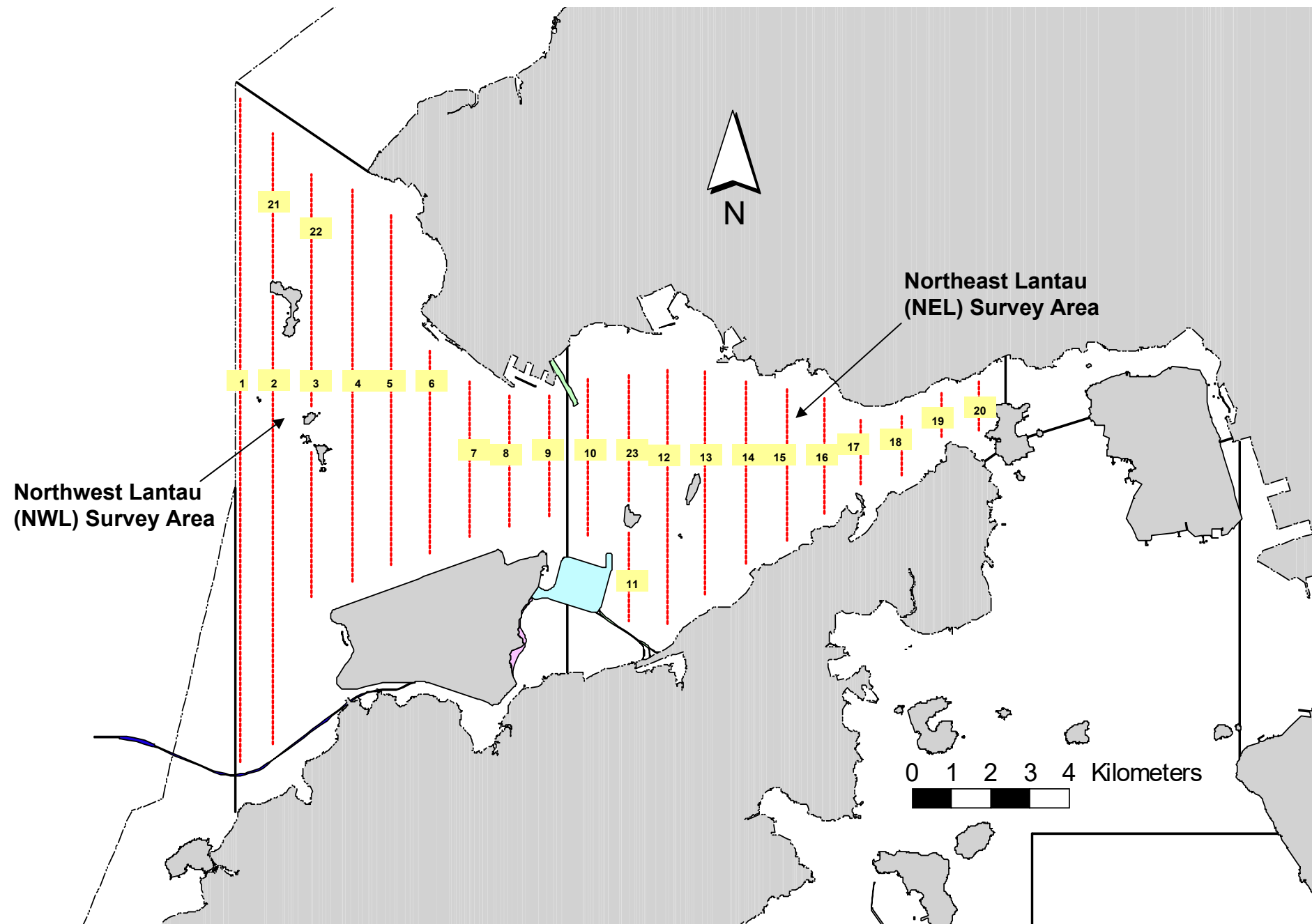


Figure 1. Transect Line Layout in Northwest and Northeast Lantau Survey Areas

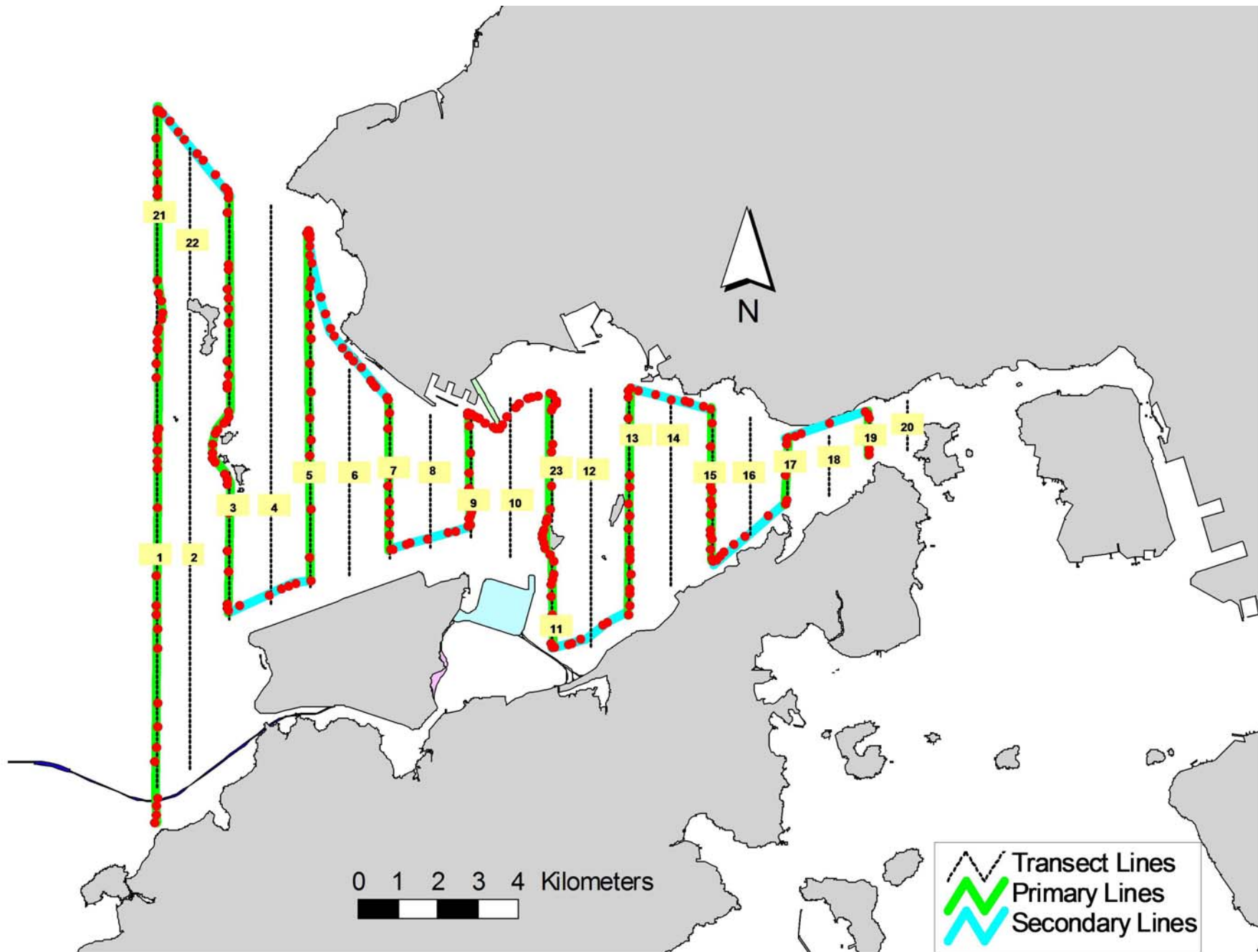


Figure 2. Survey Route on August 5th, 2016 (from HKLR03 project)

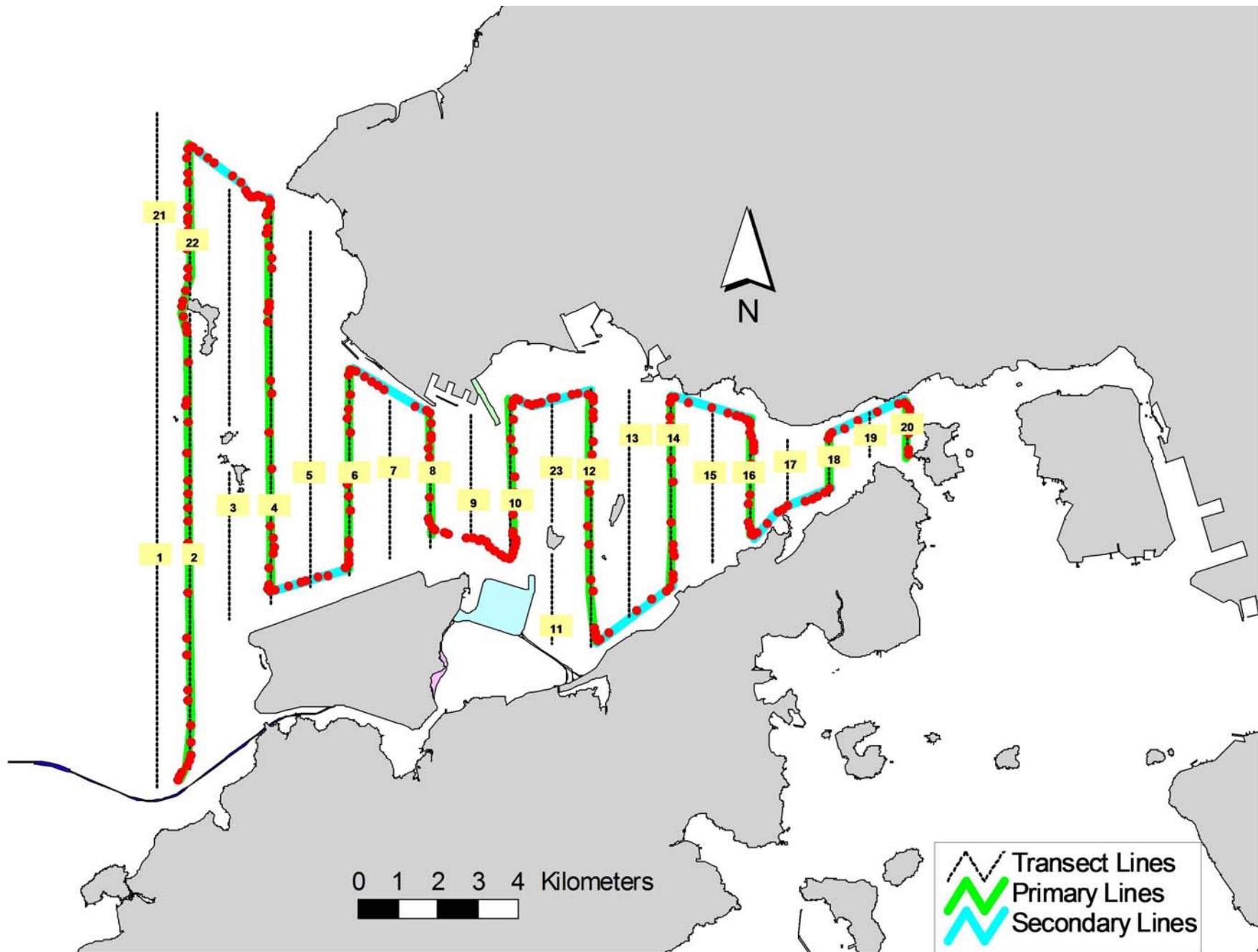


Figure 3. Survey Route on August 9th, 2016 (from HKLR03 project)

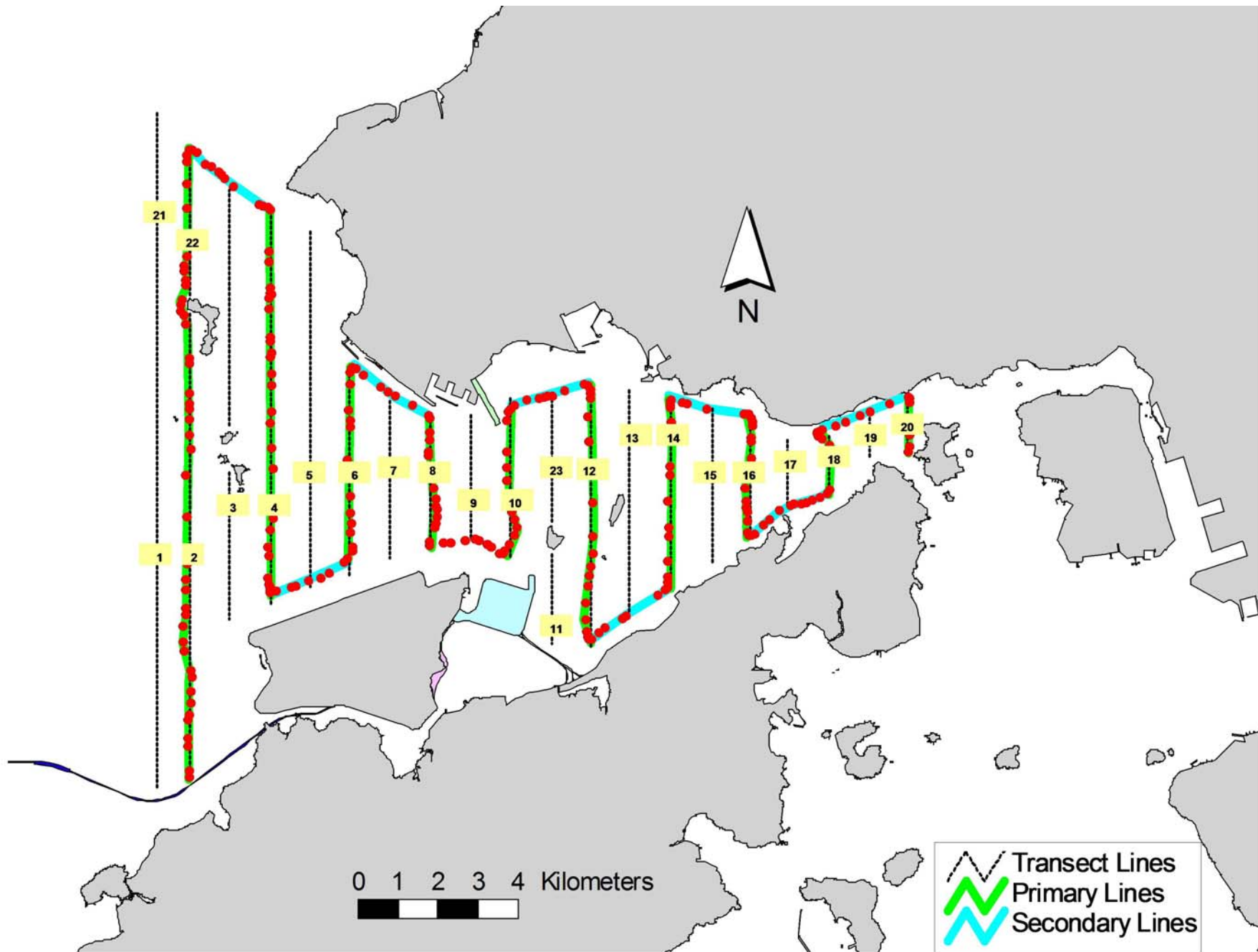


Figure 4. Survey Route on August 17th, 2016 (from HKLR03 project)

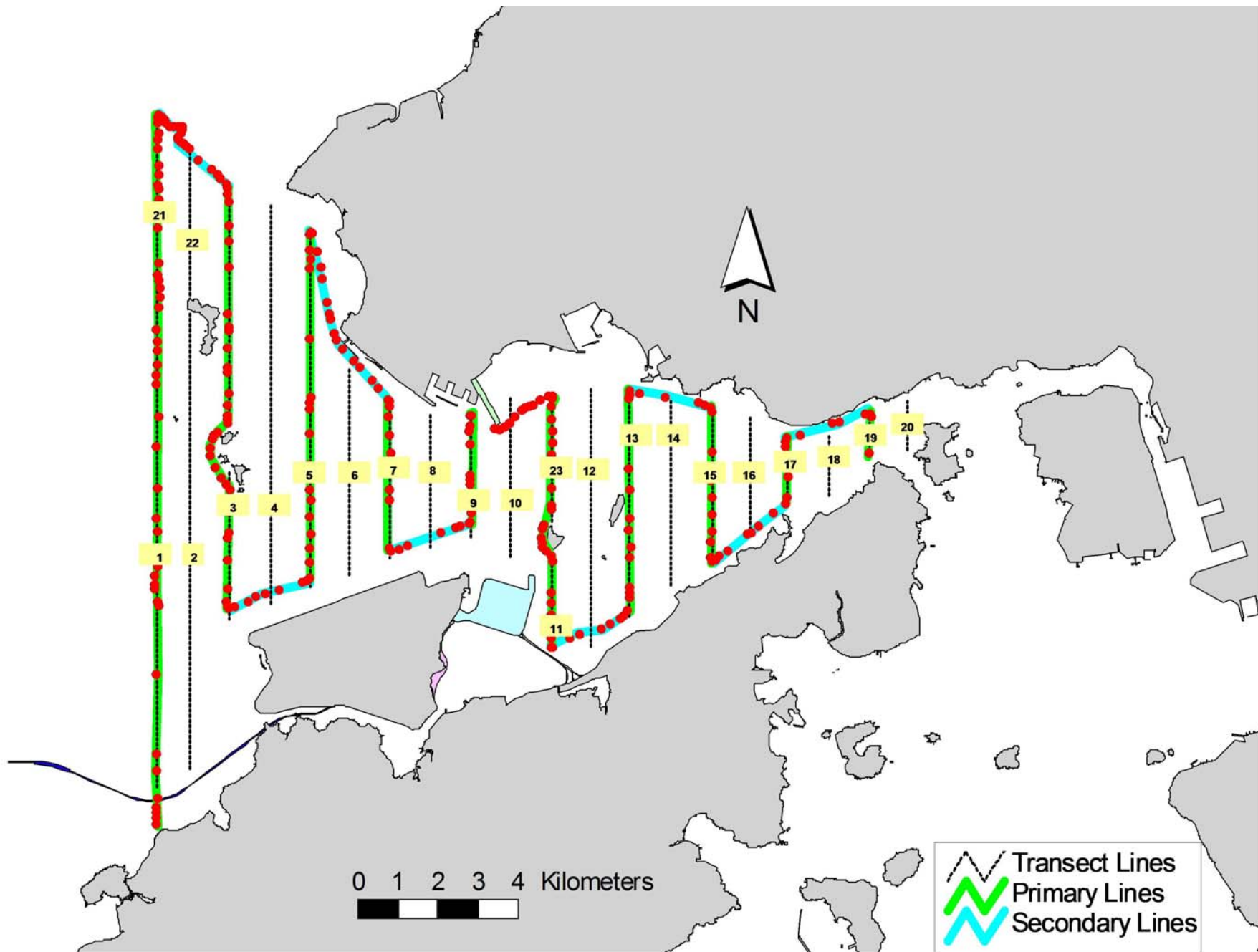


Figure 5. Survey Route on August 23rd, 2016 (from HKLR03 project)

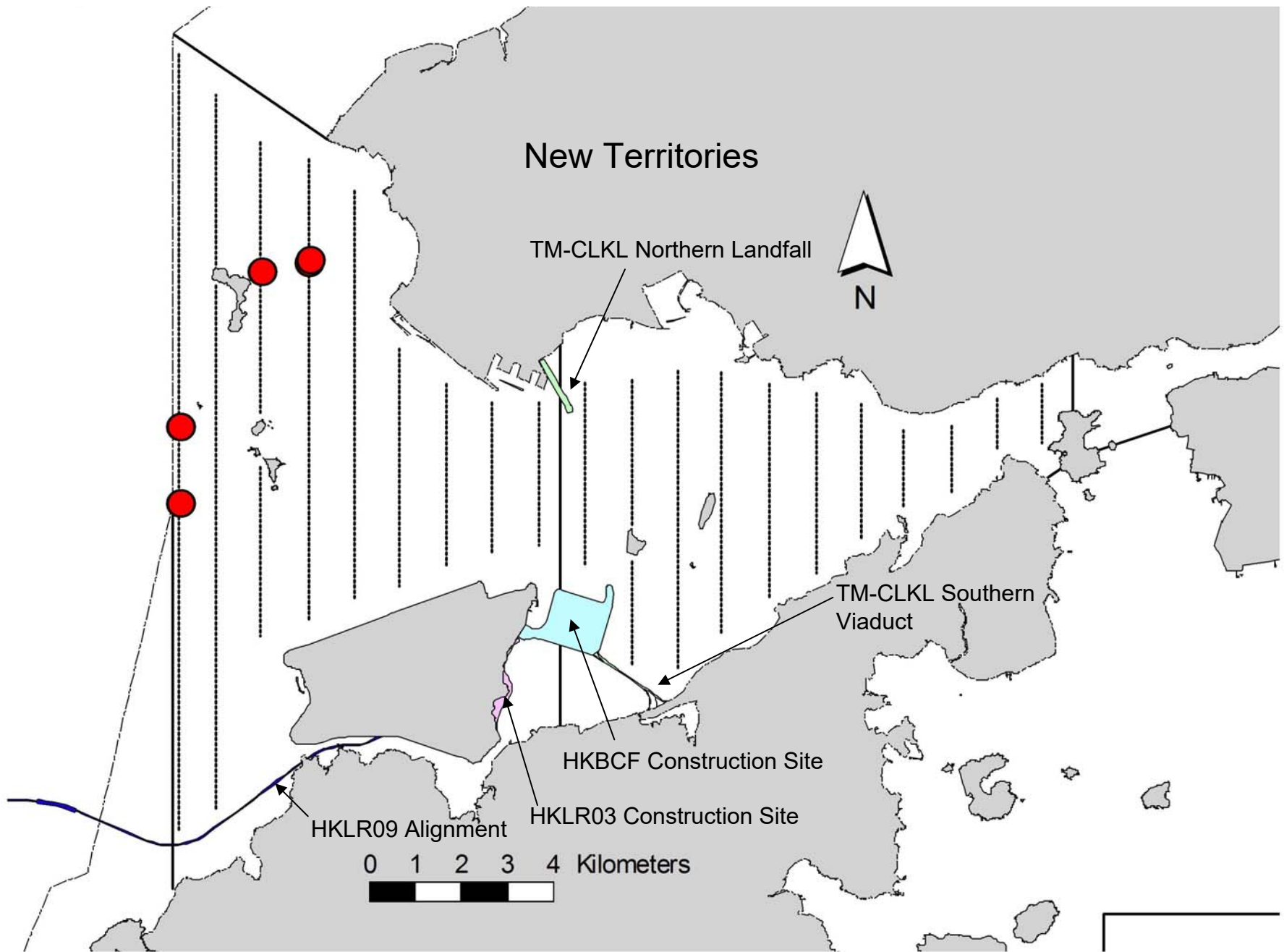


Figure 6. Distribution of Chinese White Dolphin Sightings during August 2016 HKLR03 Monitoring Surveys

Appendix I. HKLR03 Survey Effort Database (August 2016)

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

DATE	AREA	BEAU	EFFORT	SEASON	VESSEL	TYPE	P/S
5-Aug-16	NW LANTAU	1	0.88	SUMMER	STANDARD31516	HKLR	P
5-Aug-16	NW LANTAU	2	39.05	SUMMER	STANDARD31516	HKLR	P
5-Aug-16	NW LANTAU	2	11.73	SUMMER	STANDARD31516	HKLR	S
5-Aug-16	NW LANTAU	3	1.70	SUMMER	STANDARD31516	HKLR	S
5-Aug-16	NE LANTAU	2	16.76	SUMMER	STANDARD31516	HKLR	P
5-Aug-16	NE LANTAU	2	9.74	SUMMER	STANDARD31516	HKLR	S
9-Aug-16	NW LANTAU	1	23.75	SUMMER	STANDARD36826	HKLR	P
9-Aug-16	NW LANTAU	2	7.05	SUMMER	STANDARD36826	HKLR	P
9-Aug-16	NW LANTAU	1	6.40	SUMMER	STANDARD36826	HKLR	S
9-Aug-16	NW LANTAU	2	1.70	SUMMER	STANDARD36826	HKLR	S
9-Aug-16	NE LANTAU	1	1.61	SUMMER	STANDARD36826	HKLR	P
9-Aug-16	NE LANTAU	2	9.89	SUMMER	STANDARD36826	HKLR	P
9-Aug-16	NE LANTAU	3	7.85	SUMMER	STANDARD36826	HKLR	P
9-Aug-16	NE LANTAU	2	8.65	SUMMER	STANDARD36826	HKLR	S
9-Aug-16	NE LANTAU	3	2.10	SUMMER	STANDARD36826	HKLR	S
17-Aug-16	NE LANTAU	2	13.69	SUMMER	STANDARD36826	HKLR	P
17-Aug-16	NE LANTAU	3	6.29	SUMMER	STANDARD36826	HKLR	P
17-Aug-16	NE LANTAU	2	10.92	SUMMER	STANDARD36826	HKLR	S
17-Aug-16	NW LANTAU	2	23.13	SUMMER	STANDARD36826	HKLR	P
17-Aug-16	NW LANTAU	3	4.78	SUMMER	STANDARD36826	HKLR	P
17-Aug-16	NW LANTAU	4	2.58	SUMMER	STANDARD36826	HKLR	P
17-Aug-16	NW LANTAU	2	5.31	SUMMER	STANDARD36826	HKLR	S
17-Aug-16	NW LANTAU	3	2.44	SUMMER	STANDARD36826	HKLR	S
17-Aug-16	NW LANTAU	4	0.56	SUMMER	STANDARD36826	HKLR	S
23-Aug-16	NW LANTAU	1	0.94	SUMMER	STANDARD31516	HKLR	P
23-Aug-16	NW LANTAU	2	38.76	SUMMER	STANDARD31516	HKLR	P
23-Aug-16	NW LANTAU	2	13.50	SUMMER	STANDARD31516	HKLR	S
23-Aug-16	NE LANTAU	1	1.00	SUMMER	STANDARD31516	HKLR	P
23-Aug-16	NE LANTAU	2	15.48	SUMMER	STANDARD31516	HKLR	P
23-Aug-16	NE LANTAU	2	9.82	SUMMER	STANDARD31516	HKLR	S

Appendix II. HKLR03 Chinese White Dolphin Sighting Database (August 2016)

(Abberviations: STG# = Sighting Number; HRD SZ = Dolphin Herd Size; BEAU = Beaufort Sea State; PSD = Perpendicular Distance; BOAT ASSOC. = Fishing Boat Association; P/S: Sighting Made on Primary/Secondary Line)

DATE	STG #	TIME	HRD SZ	AREA	BEAU	PSD	EFFORT	TYPE	NORTHING	EASTING	SEASON	BOAT ASSOC.	P/S
05-Aug-16	1	1049	11	NW LANTAU	2	95	ON	HKLR	822169	804686	SUMMER	NONE	P
05-Aug-16	2	1130	7	NW LANTAU	2	415	ON	HKLR	823742	804689	SUMMER	NONE	P
05-Aug-16	3	1228	2	NW LANTAU	2	119	ON	HKLR	826905	806457	SUMMER	NONE	P
17-Aug-16	1	1353	5	NW LANTAU	2	107	ON	HKLR	827091	807487	SUMMER	NONE	P
17-Aug-16	2	1422	1	NW LANTAU	2	ND	OFF	HKLR	827147	807528	SUMMER	NONE	

Appendix III. Individual dolphins identified during HKLR03 monitoring surveys in August 2016

ID#	DATE	STG#	AREA
CH65	05/08/16	1	NW LANTAU
NL104	17/08/16	1	NW LANTAU
NL150	17/08/16	1	NW LANTAU
NL202	05/08/16	3	NW LANTAU
NL255	05/08/16	1	NW LANTAU
NL280	17/08/16	1	NW LANTAU
NL281	05/08/16	1	NW LANTAU
NL286	05/08/16	3	NW LANTAU



Appendix IV. Photographs of Identified Individual Dolphins in August 2016 (HKLR03)

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. Ensure mitigation measures are properly implemented;	
	6. Ensure mitigation measures are implemented;	4. Supervise the implementation of mitigation measures.	6. 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.	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;			

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
<p><u>Action Level</u></p> <p>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</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 	<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 2016 (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	1.941	0.263	0.606	-	1.334	-	-	-	-	-	69.400	-	-	0.105	-	
Feb	0.783	0.185	0.092	-	0.692	-	-	-	-	-	85.890	-	-	0.112	-	
Mar	1.502	0.429	0.537	-	0.965	-	-	-	-	2.000	88.360	-	-	-	-	
Apr	1.354	0.402	0.789	-	0.565	-	-	-	-	3.000	79.580	-	8.640	0.084	-	
May	1.057	0.192	0.617	-	0.440	-	-	-	-	3.000	75.620	-	-	-	-	
Jun	0.499	0.277	0.116	-	0.383	-	-	-	-	-	103.270	-	-	0.105	-	
SUB-TOTAL	7.136	1.747	2.757	-	4.379	0.000	-	-	-	8.000	502.120	-	8.640	0.406	-	
Jul	0.507	0.211	0.230	-	0.277	-	-	-	-	2.200	94.760	-	1.540	0.350	-	
Aug	1.294	0.144	0.684	-	0.610	-	-	-	-	-	116.990	-	9.790	0.098	-	
Sep				-		-	-	-	-			-			-	
Oct				-		-	-	-	-			-			-	
Nov				-		-	-	-	-			-			-	
Dec				-		-	-	-	-			-			-	
TOTAL	8.936	2.102	3.671	-	5.265	-	-	-	-	10.200	713.870	-	19.970	0.854	-	

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	0	2
	Limit	0	0
Impact Dolphin Monitoring	Action	0	9
	Limit	1	6

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 (August 2016)	0	0	0
Total No. received since project commencement	4	0	0