

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

Twenty-fifth Monthly EM&A Report

07 December 2015

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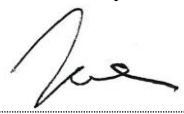


Contract No. HY/2012/07 Tuen Mun – Chek Lap Kok Link – Southern Connection Viaduct Section

**Environmental Resources
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Twenty-fifth Monthly EM&A Report

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Client: Gammon		Project No: 0215660			
Summary: This document presents the Twenty-fifth Monthly EM&A Report for Tuen Mun – Chek Lap Kok Link – Southern Connection Viaduct Section.		Date: 07 December 2015			
		Approved by: 			
		<i>Mr Craig Reid Partner</i>			
		Certified by: 			
		<i>Mr Jovy Tam ET Leader</i>			
	Twenty-fifth Monthly EM&A Report	VAR	JT	CAR	07/12/15
Revision	Description	By	Checked	Approved	Date
<p>This report has been prepared by Environmental Resources Management the trading name of 'ERM Hong-Kong, Limited', with all reasonable skill, care and diligence within the terms of the Contract with the client, incorporating our General Terms and Conditions of Business and taking account of the resources devoted to it by agreement with the client.</p> <p>We disclaim any responsibility to the client and others in respect of any matters outside the scope of the above.</p>		<p>Distribution</p> <p><input type="checkbox"/> Internal</p> <p><input checked="" type="checkbox"/> Public</p> <p><input type="checkbox"/> Confidential</p>			
		 			

Ref.: HYDHZMBEEM00_0_3660L.15

11 December 2015

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

By Fax (3691 2899) and By Post

Attention: Mr. Daniel Ip

Dear Mr. Ip,

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

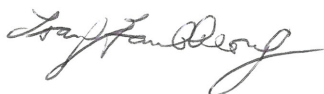
**Contract No. HY/2012/07 TM-CLKL Southern Connection Viaduct
Section
Monthly EM&A Report for November 2015 (EP-354/2009/D)**

Reference is made to the Monthly Environmental Monitoring and Audit (EM&A) Report (Nov. 2015) (ET's ref.: "0215660_25th Monthly EM&A 20151207.doc" dated 7 Dec. 2015) certified by the ET Leader and provided to us via e-mail on 10 Dec. 2015.

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

Internal: DY, YH, LP, CL, ENPO Site

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EXECUTIVE SUMMARY

Under *Contract No. HY/2012/07*, Gammon Construction Limited (GCL) is commissioned by the Highways Department (HyD) to undertake the design and construction of the Southern Connection Viaduct Section of the Tuen Mun – Chek Lap Kok Link Project (TM-CLK Link Project) while AECOM Asia Company Limited was appointed by HyD as the Supervising Officer. For implementation of the environmental monitoring and audit (EM&A) programme under the Contract, ERM-Hong Kong, Limited (ERM) has been appointed as the Environmental Team (ET). 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.

Part of the Southern Landfall of TM-CLK Link lies alongside the Hong Kong - Zhuhai - Macao Bridge Hong Kong Boundary Crossing Facilities (HKBCF) where is a reclamation area constructed by *Contract HY/2010/02* under *Environmental Permit No. EP/353/2009/I*. 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/I* was subsequently handed-over to *Contract No. HY/2012/07*.

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

This is the Twenty-fifth Monthly EM&A report presenting the EM&A works carried out during the period from 1 to 30 November 2015 for the Southern Connection Viaduct Section in accordance with the Updated EM&A Manual of the TM-CLK Link Project. As informed by the Contractor, major activities in the reporting period included:

Marine Works

- Construction and installation of pile caps;
- Uninstallation of marine piling platform;
- Pile cap installation;
- Pier construction;
- Launching gantry operation; and
- Installation of deck segment and pier head segment.

Land-based Works

- Predrilling at Viaduct F;

- Construction and installation of pile caps;
- Pier construction;
- Pile cap installation;
- Re-alignment of Cheung Tung Road;
- Installation of pier head segment;
- Additional land GI, trial pits & lab testing;
- Relocation of MTRC fence; 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	5 sessions
1-hour TSP monitoring	5 sessions
Noise monitoring	5 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 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

Whilst two (2) Action Level exceedances were observed for the quarterly dolphin monitoring data between September and November 2015, no unacceptable impact from the construction activities of the TM-CLKL Southern Connection Viaduct Section on Chinese White Dolphins was noticeable from general observations. Due to monthly variation in dolphin occurrence within the study area, it would be more appropriate to draw conclusion on whether any impacts on dolphins have been detected related to the construction activities of the TM-CLKL Southern Connection Viaduct Section in the quarterly EM&A reports, where comparison on distribution, group size and encounter rates of dolphins between the quarterly impact monitoring period and baseline monitoring period will be made.

Daily marine mammal exclusion zone monitoring was undertaken during the period of marine works under this Contract. No sighting of the Indo-Pacific humpback dolphin *Sousa chinensis* (i.e. Chinese White Dolphin) was recorded in November 2015 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 December 2015 include the following:

Marine Works

- Construction and installation of pile caps;
- Uninstallation of marine piling platform;
- Pile cap installation;
- Pier construction;
- Launching gantry operation; and
- Installation of deck segment and pier head segment.

Land-based Works

- Construction and installation of pile caps;
- Pier construction;
- Pile cap installation;
- Land piling;
- Re-alignment of Cheung Tung Road;
- Predrilling at Viaduct F;
- Additional land GI, trial pits & lab testing;
- Installation of pier head segment; 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 December 2015 are mainly associated with dust, noise, marine water quality, marine ecology and waste management issues.

1.1

BACKGROUND

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

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

Under *Contract No. HY/2012/07*, Gammon Construction Limited (GCL) is commissioned by the Highways Department (HyD) to undertake the design and construction of the Southern Connection Viaduct Section of TM-CLKL ("the Contract") while AECOM Asia Company Limited was appointed by HyD as the Supervising Officer. For implementation of the environmental monitoring and audit (EM&A) programme under the Contract, ERM-Hong Kong, Limited (ERM) has been appointed as the Environmental Team (ET). 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.

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reclamation area for southern landfall under *EP/353/2009/I* was subsequently handed-over to *Contract No. HY/2012/07*.

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 Twenty-fifth 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 November 2015.

1.3 ORGANIZATION STRUCTURE

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

Table 1.1 Contact Information of Key Personnel

Party	Position	Name	Telephone	Fax
HyD (Highways Department)	Project Coordinator	Stanley Chan	2762 3406	3188 6614
	Senior Engineer	Steven Shum	2762 4133	3188 6614
SOR (AECOM Asia Company Limited)	Chief Resident Engineer	Daniel Ip	3553 3800	2492 2057
	Resident Engineer	Kingman Chan	3691 3950	3691 2899
ENPO / IEC (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

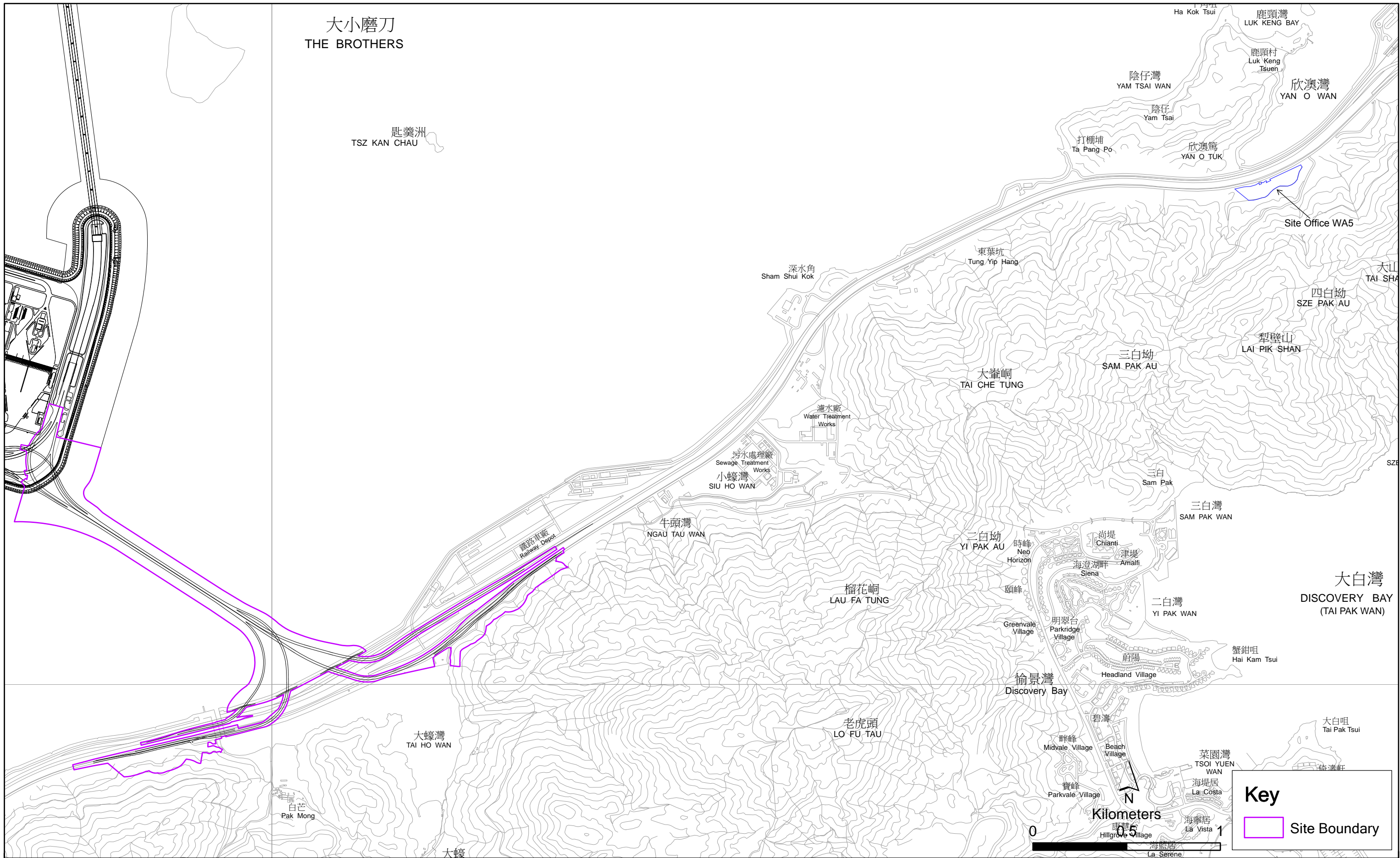


Figure 1.1

General Layout Plan of the Project

Environmental
Resources
Management



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 Project Management: Hinkley
 Designer: LHM/BB
 Checker: SLYT
 Approver: CWN
 ISO AT 50mm x 61mm
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NOTES:

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

LEGEND:

— SITE BOUNDARY

▬ STRUCTURES E2/E5/E6/E7/E8

AECOM

PROJECT
TUEN MUN - CHEK LAP KOK LINK

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

CLIENT
路政署
HIGHWAYS DEPARTMENT
港務局
Hong Kong - Zhuhai - Hainan Bridge
Hong Kong Project Management Office

CONSULTANT
AECOM Asia Company Ltd.
www.aecom.com

SUB-CONSULTANTS

Figure 1.2a

ISSUE/REVISION

NO.	DATE	DESCRIPTION	CHK.

STATUS

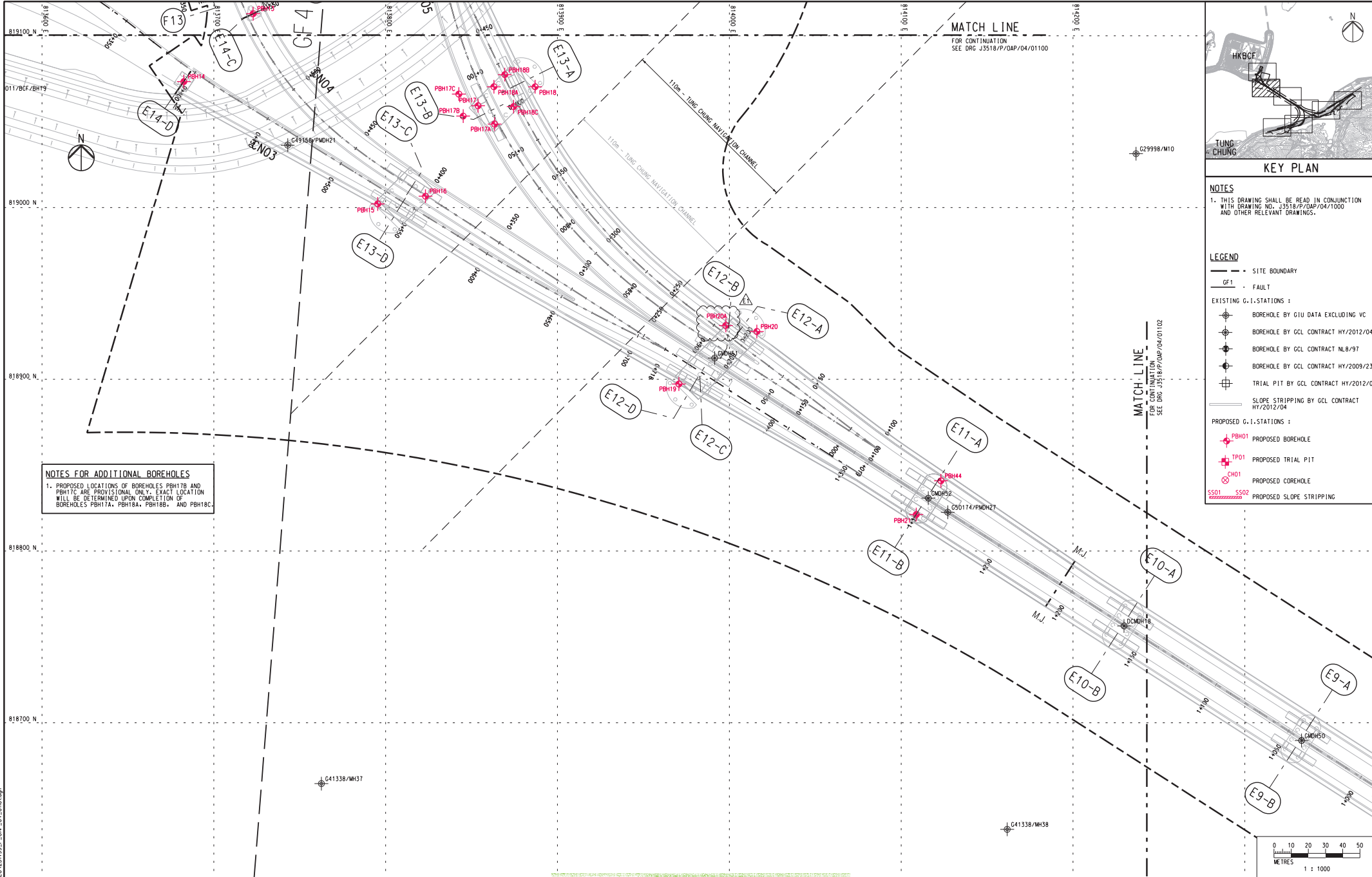
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KEY PLAN

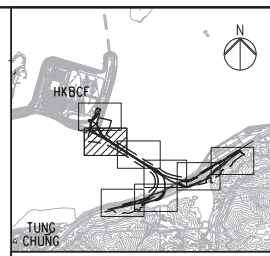
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SHEET NUMBER 60240249/C1/2000A	

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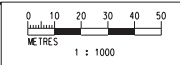


KEY PLAN

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

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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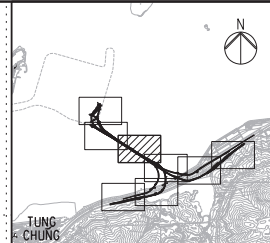
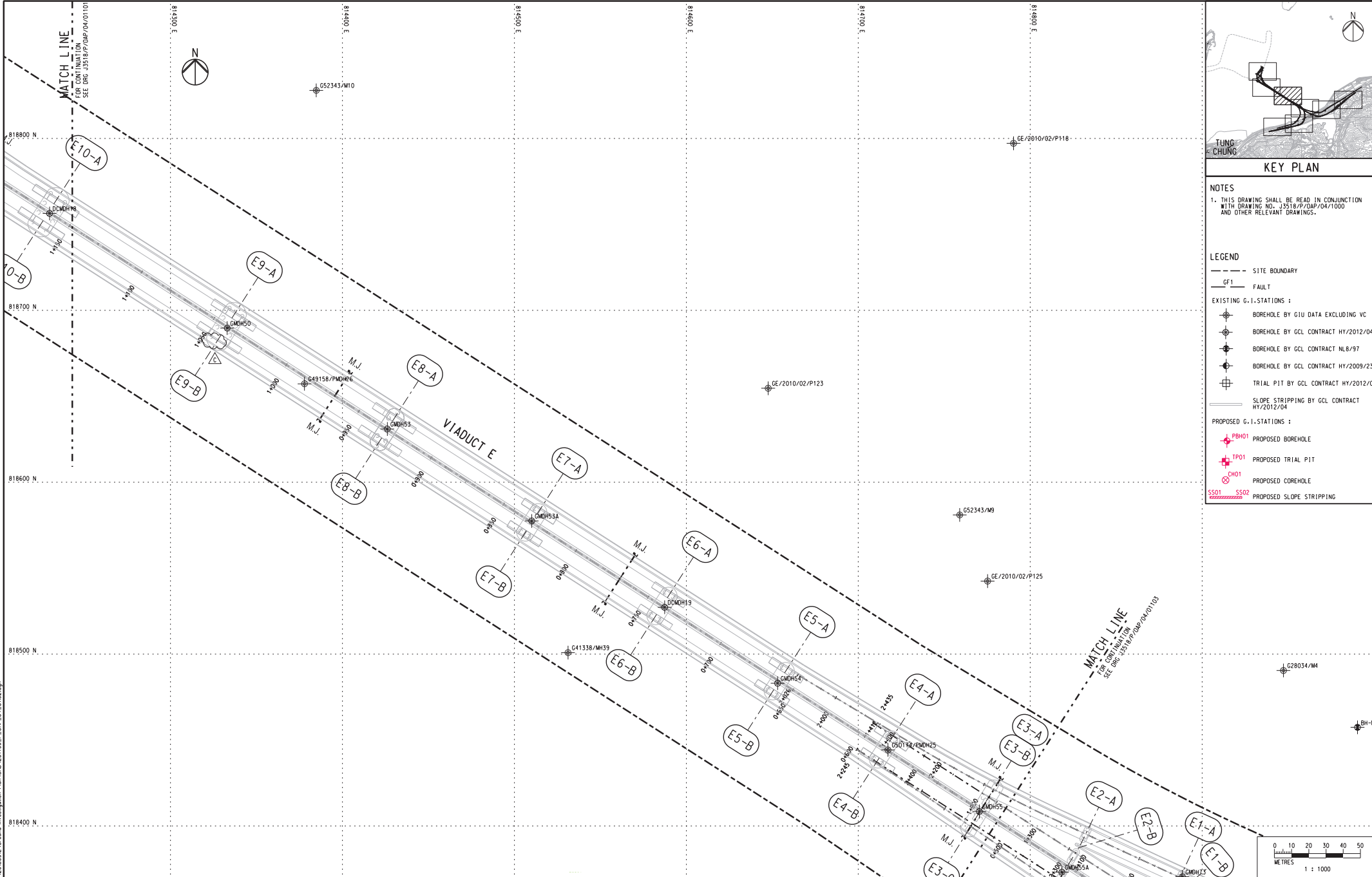
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C	SUBMISSION	RC	09/13				
D	SUBMISSION	RC	10/13				
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Client	路政署 HIGHWAYS DEPARTMENT 香港渠務及港務工程處 Hong Kong - Zhuhai - Macao Bridge Hong Kong Project Management Office
Supervising Officer	AECOM
Contractor	Gammon
Originator	ARUP

Project Title	Contract No. HY/2012/07 Tuen Mun - Chek Lap Kok Link Southern Connection Viaduct Section
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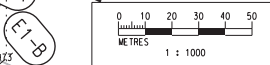
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- LEGEND**
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 - EXISTING G.I.-STATIONS :
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 - ⊕ BOREHOLE BY GCL CONTRACT HY/2012/04
 - ⊕ BOREHOLE BY GCL CONTRACT NL8/97
 - ⊕ BOREHOLE BY GCL CONTRACT 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



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B	SUBMISSION	RC	07/13				
C	SUBMISSION	RC	09/13				

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DS	DOP

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Client

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

Supervising Officer

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

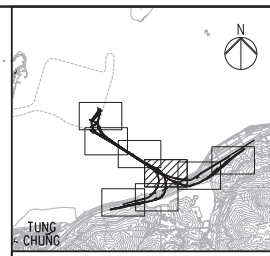
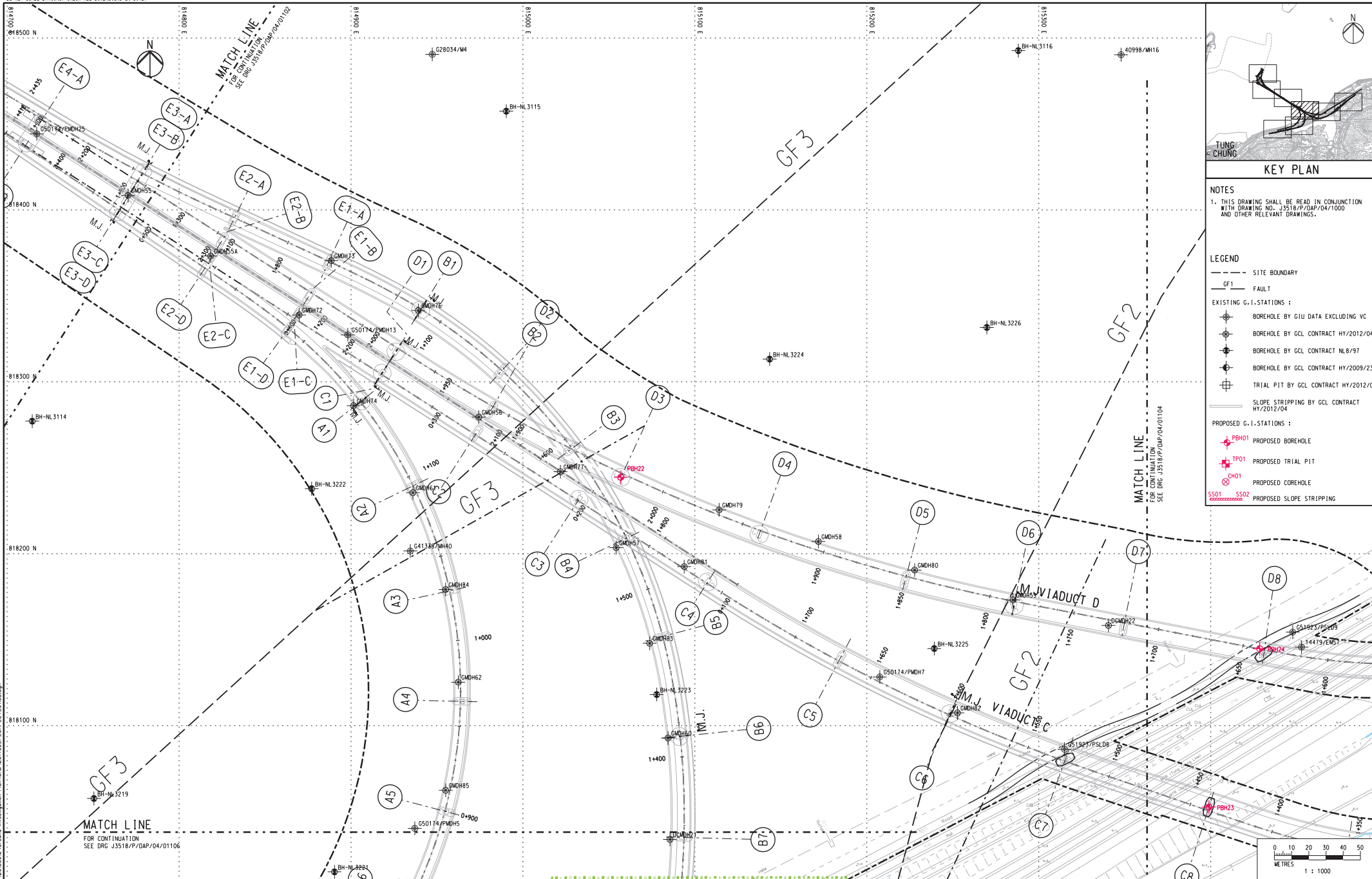
Contractor

Originator

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LEGEND

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	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 :	
	PROPOSED BOREHOLE
	PROPOSED TRIAL PIT
	PROPOSED COREHOLE
	PROPOSED SLOPE STRIPPING



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B	SUBMISSION	RC	07/13				
C	SUBMISSION	RC	09/13				

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Client

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 HIGHWAYS DEPARTMENT
 港珠澳大桥香港工程管理局
 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

Drawing title

Figure 1.2e

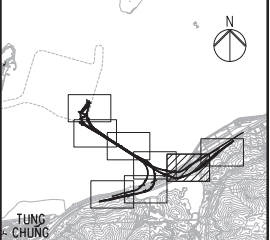
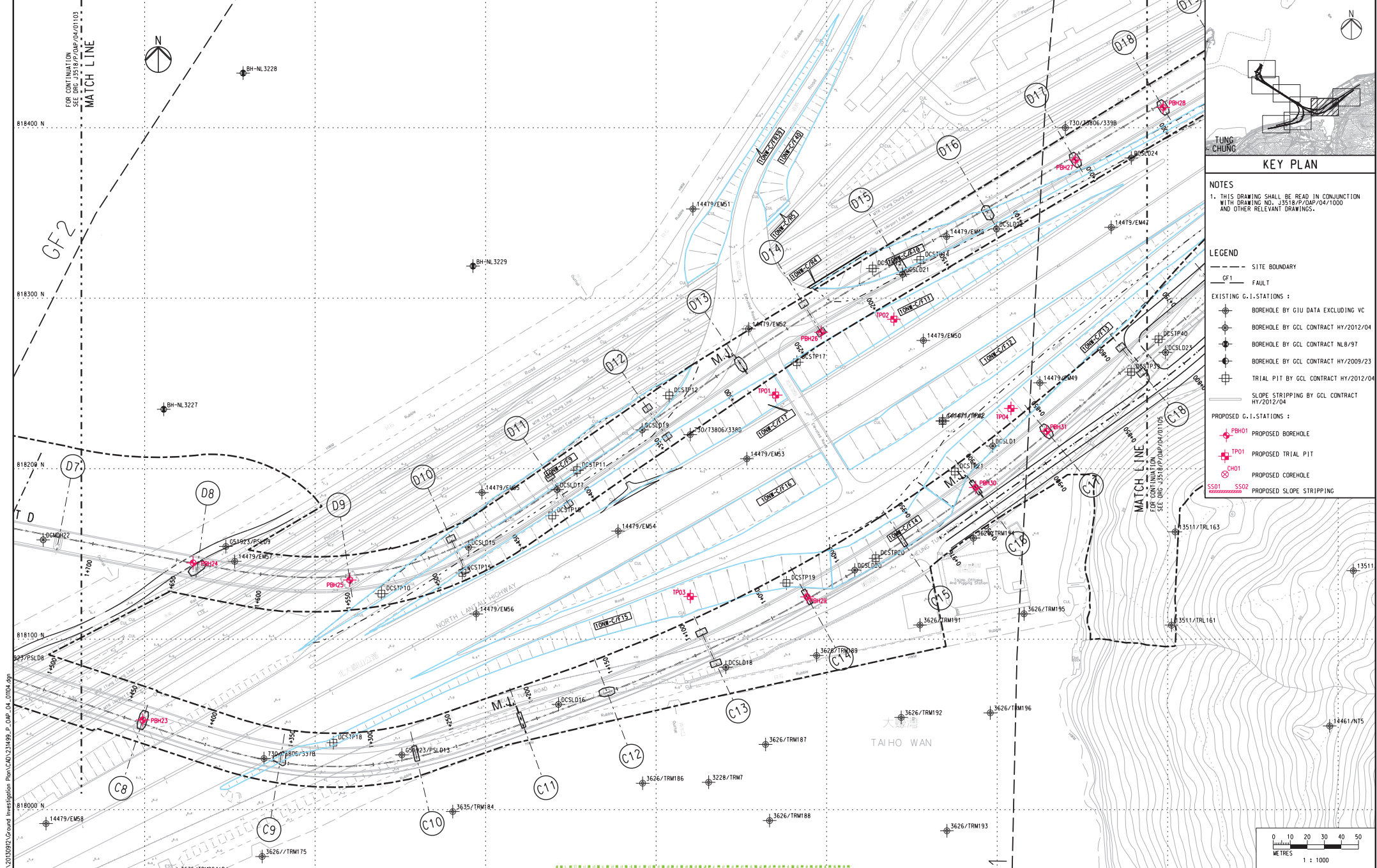
Drawing no. J3518/P/OAP/04/01103 Rev. c

Supervising Officer

Contractor

Originator

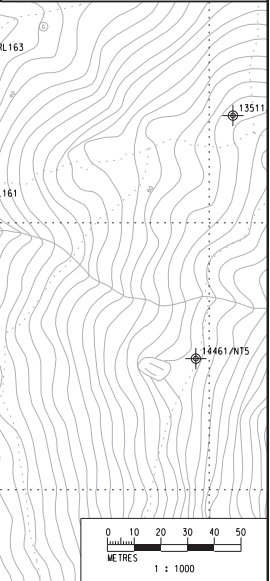
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KEY PLAN

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

- LEGEND**
- SITE BOUNDARY
 - GF1- FAULT
 - EXISTING G.I. STATIONS :
 - ⊕ BOREHOLE BY GIU DATA EXCLUDING VC
 - ⊕ BOREHOLE BY GCL CONTRACT HY/2012/04
 - ⊕ BOREHOLE BY GCL CONTRACT NL6/97
 - ⊕ 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



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

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

Supervising Officer
AECOM

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

Contractor
Gammon

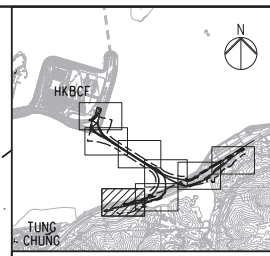
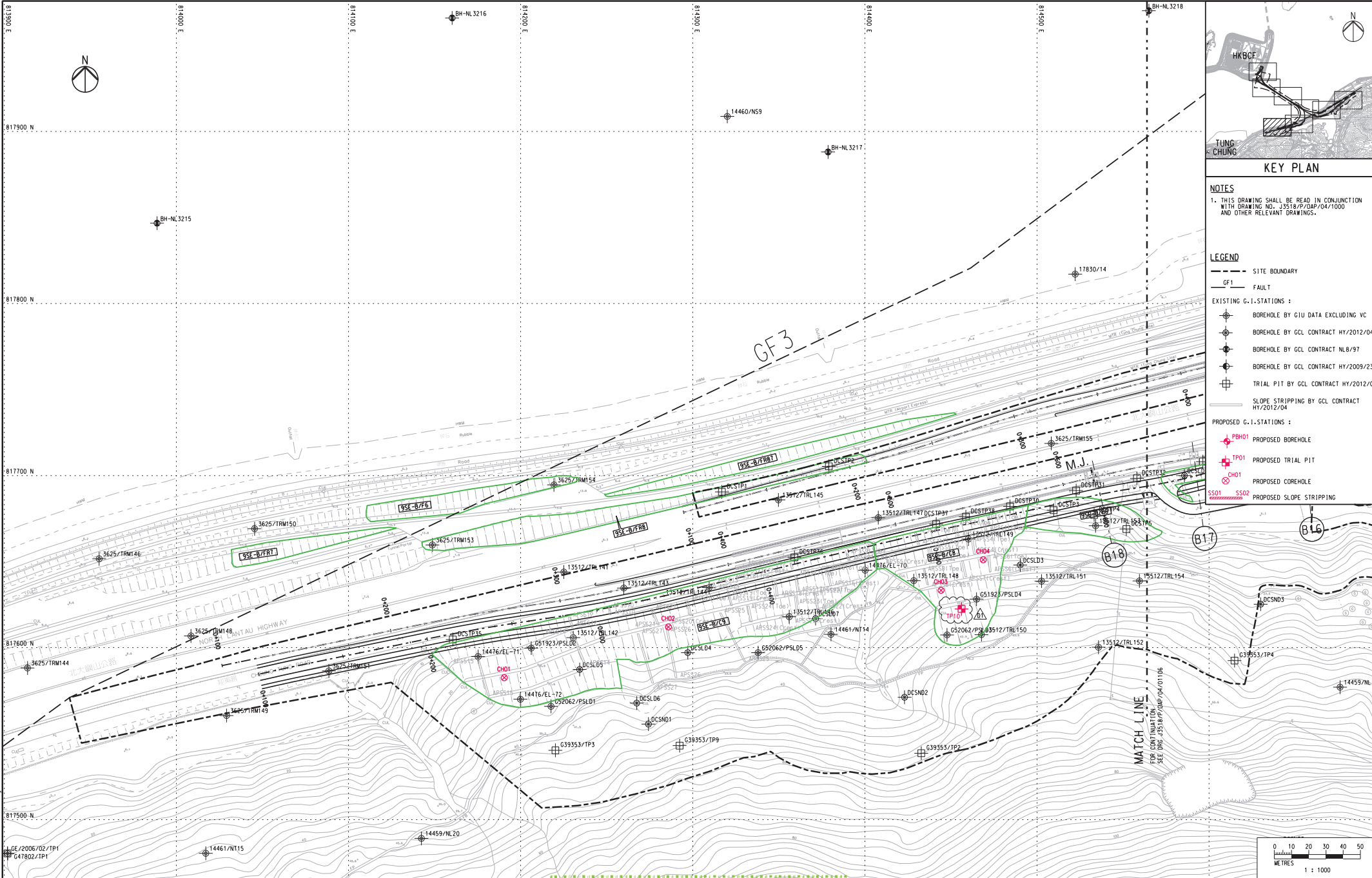
Drawing title
Figure 1.2f

Originator
ARUP

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

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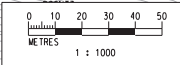
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KEY PLAN

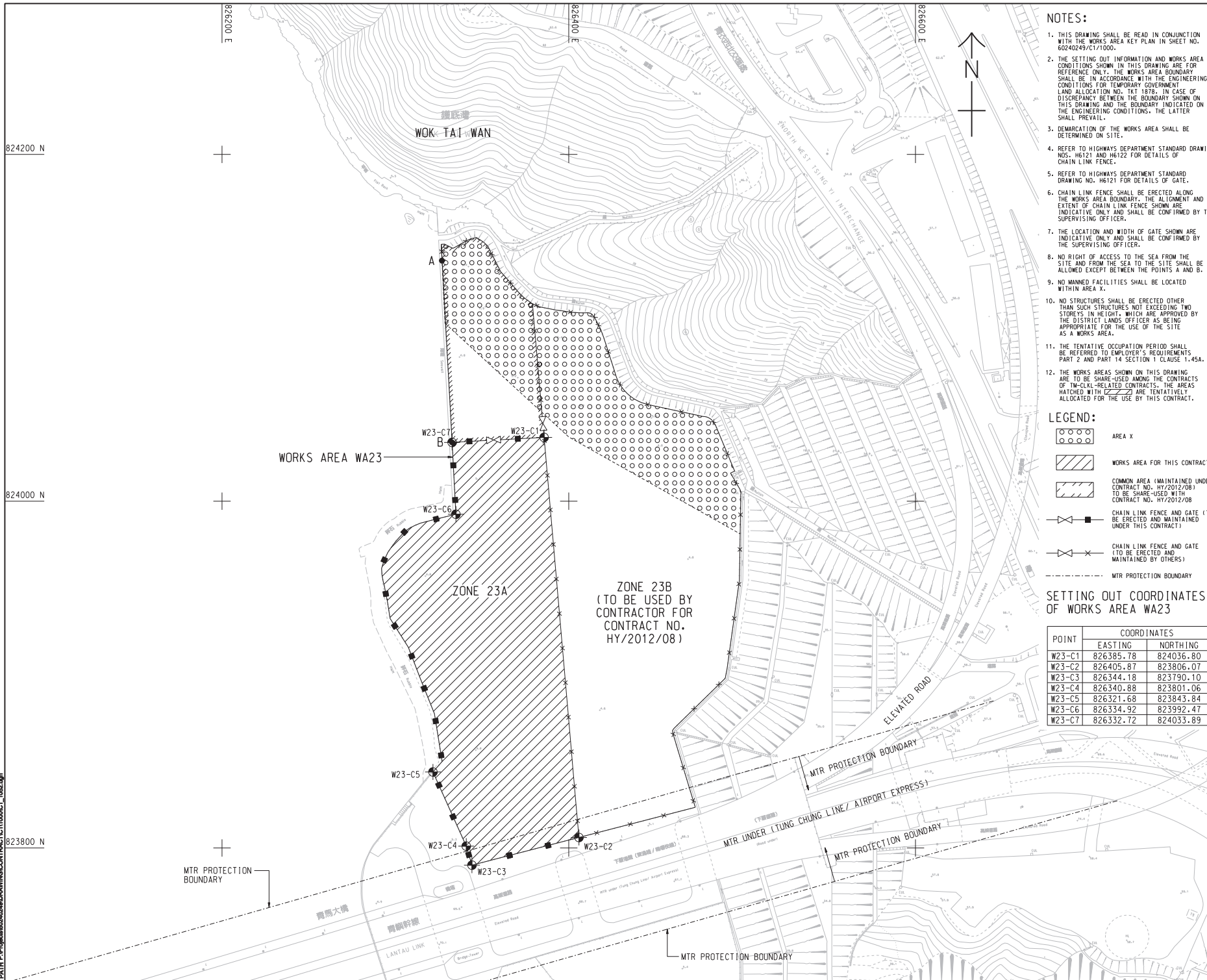
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 File name : J:\3518\p\oap\04\1000\dwg

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Supervising Officer AECOM	Contractor Gammon																																																							



NOTES:

1. THIS DRAWING SHALL BE READ IN CONJUNCTION WITH THE WORKS AREA KEY PLAN IN SHEET NO. 60240249/CT1/000.
2. 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.
3. DEMARCATION OF THE WORKS AREA SHALL BE DETERMINED ON SITE.
4. REFER TO HIGHWAYS DEPARTMENT STANDARD DRAWING NOS. H6121 AND H6122 FOR DETAILS OF CHAIN LINK FENCE.
5. REFER TO HIGHWAYS DEPARTMENT STANDARD DRAWING NO. H6121 FOR DETAILS OF GATE.
6. 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.
7. THE LOCATION AND WIDTH OF GATE SHOWN ARE INDICATIVE ONLY AND SHALL BE CONFIRMED BY THE SUPERVISING OFFICER.
8. 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.
9. NO MANNED FACILITIES SHALL BE LOCATED WITHIN AREA X.
10. 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.
11. THE TENTATIVE OCCUPATION PERIOD SHALL BE REFERRED TO EMPLOYER'S REQUIREMENTS PART 2 AND PART 14 SECTION 1 CLAUSE 1.45A.
12. THE WORKS AREAS SHOWN ON THIS DRAWING ARE TO BE SHARED AMONG THE CONTRACTS OF TM-CLKL-RELATED CONTRACTS. THE AREAS HATCHED WITH [diagonal lines] ARE TENTATIVELY ALLOCATED FOR THE USE BY THIS CONTRACT.

LEGEND:

- [Circle with dot symbol] AREA X
- [Diagonal hatching symbol] WORKS AREA FOR THIS CONTRACT
- [Cross-hatching symbol] COMMON AREA (MAINTAINED UNDER CONTRACT NO. HY/2012/08) TO BE SHARED WITH CONTRACT NO. HY/2012/08
- [Chain link symbol] CHAIN LINK FENCE AND GATE (TO BE ERECTED AND MAINTAINED UNDER THIS CONTRACT)
- [Chain link with cross symbol] CHAIN LINK FENCE AND GATE (TO BE ERECTED AND MAINTAINED BY OTHERS)
- [Dashed line symbol] 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	826354.92	823992.47
W23-C7	826332.72	824033.89

AECOM

PROJECT NO.
60240249

CONTRACT NO.
HY/2012/07

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 港務工程管理有限公司
Hong Kong - Zhuhai - Hainan Bridge
Hong Kong Project Management Office

CONSULTANT
AECOM Asia Company Ltd.
www.aecom.com

SUB-CONSULTANTS
[Symbol]

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

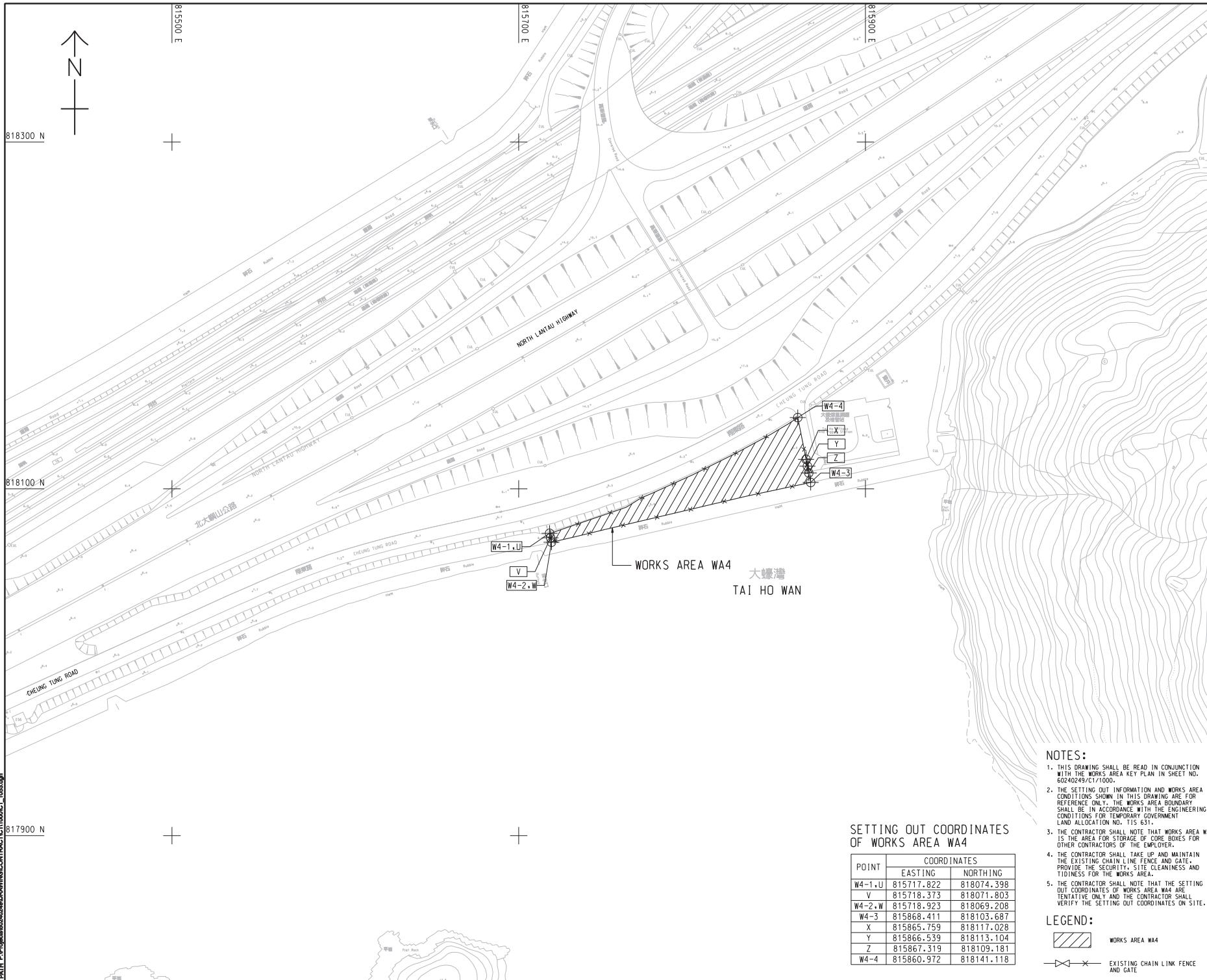
CONTRACT NO.
HY/2012/07

SHEET TITLE
WORKS AREA AND HOARDING PLAN

SHEET NUMBER
60240249/CT1/052

SHEET 2 OF 2

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WORKS AREA WA4
 大蠔灣
 TAI HO WAN

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.
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SUB-CONSULTANTS
 2/11/2012/16

Figure 1.2j

ISSUE/REVISION

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

SCALE
 A1 : 1000

DIMENSION UNIT
 METRES

KEY PLAN

PROJECT NO.
 60240249

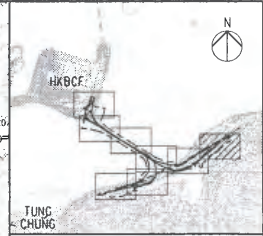
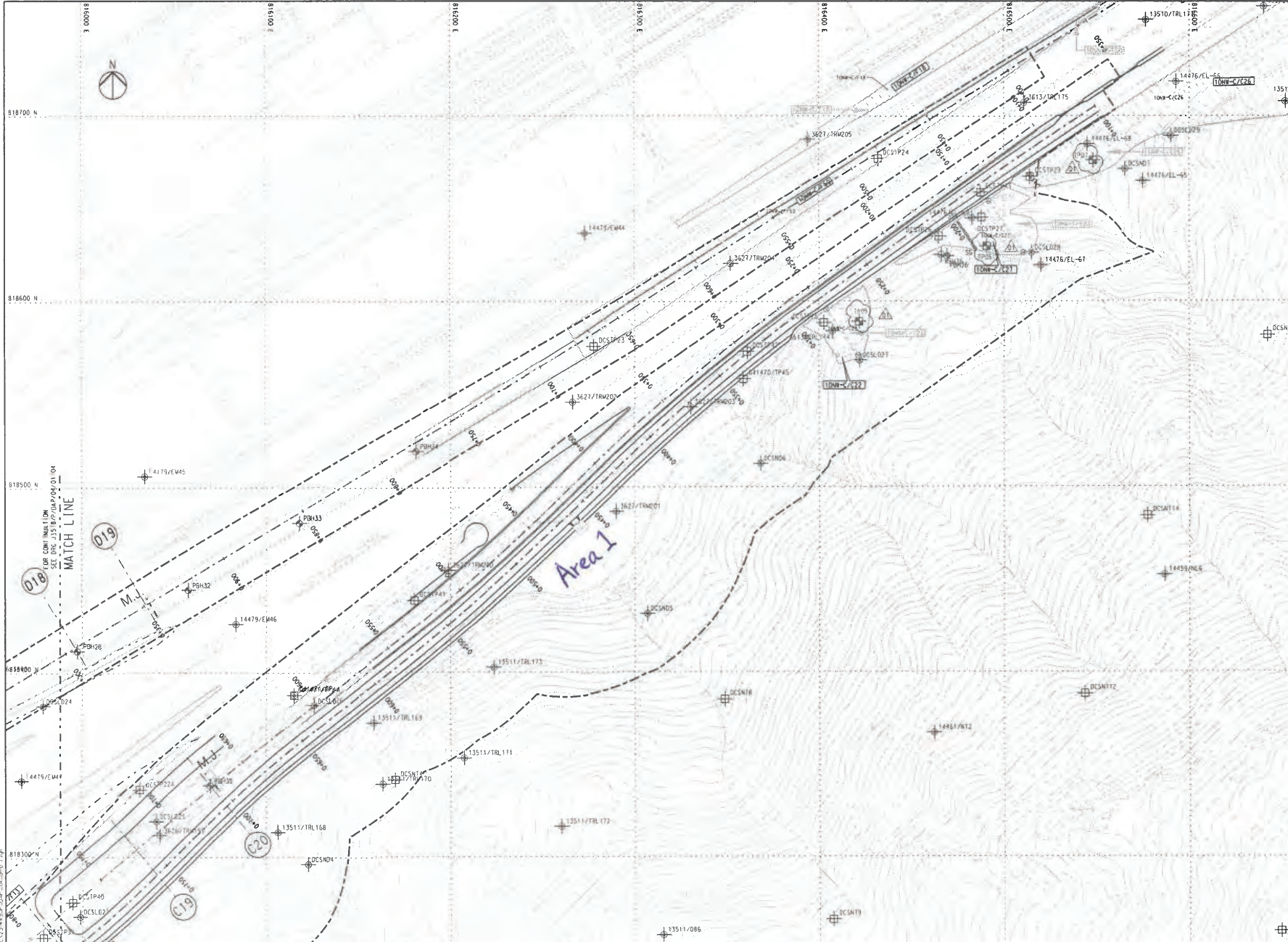
CONTRACT NO.
 HY/2012/07

SHEET TITLE
 WORKS AREA WA4

SHEET NUMBER
 60240249/C1/1053

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

Rev	Description	By	Date	Rev	Description	By	Date
01	ISSUED FOR CONSTRUCTION	RL	31/03				
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 <td>Approved</td> <td>港珠澳大桥香港工程管理有限公司 Hong Kong - Zhuhai - Macao Bridge Hong Kong Project Management Office</td>	Approved	港珠澳大桥香港工程管理有限公司 Hong Kong - Zhuhai - Macao Bridge Hong Kong Project Management Office
DS	DOP	Supervising Officer

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

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

Drawing title
Figure 1.2k

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

SUMMARY OF CONSTRUCTION WORKS

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

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

Marine Works

- Construction and installation of pile caps;
- Uninstallation of marine piling platform;
- Pile cap installation;
- Pier construction;
- Launching gantry operation; and
- Installation of deck segment and pier head segment.

Land-based Works

- Predrilling at Viaduct F;
- Construction and installation of pile caps;
- Pier construction;
- Pile cap installation;
- Re-alignment of Cheung Tung Road;
- Installation of pier head segment;
- Additional land GI, trial pits & lab testing;
- Relocation of MTRC fence; 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

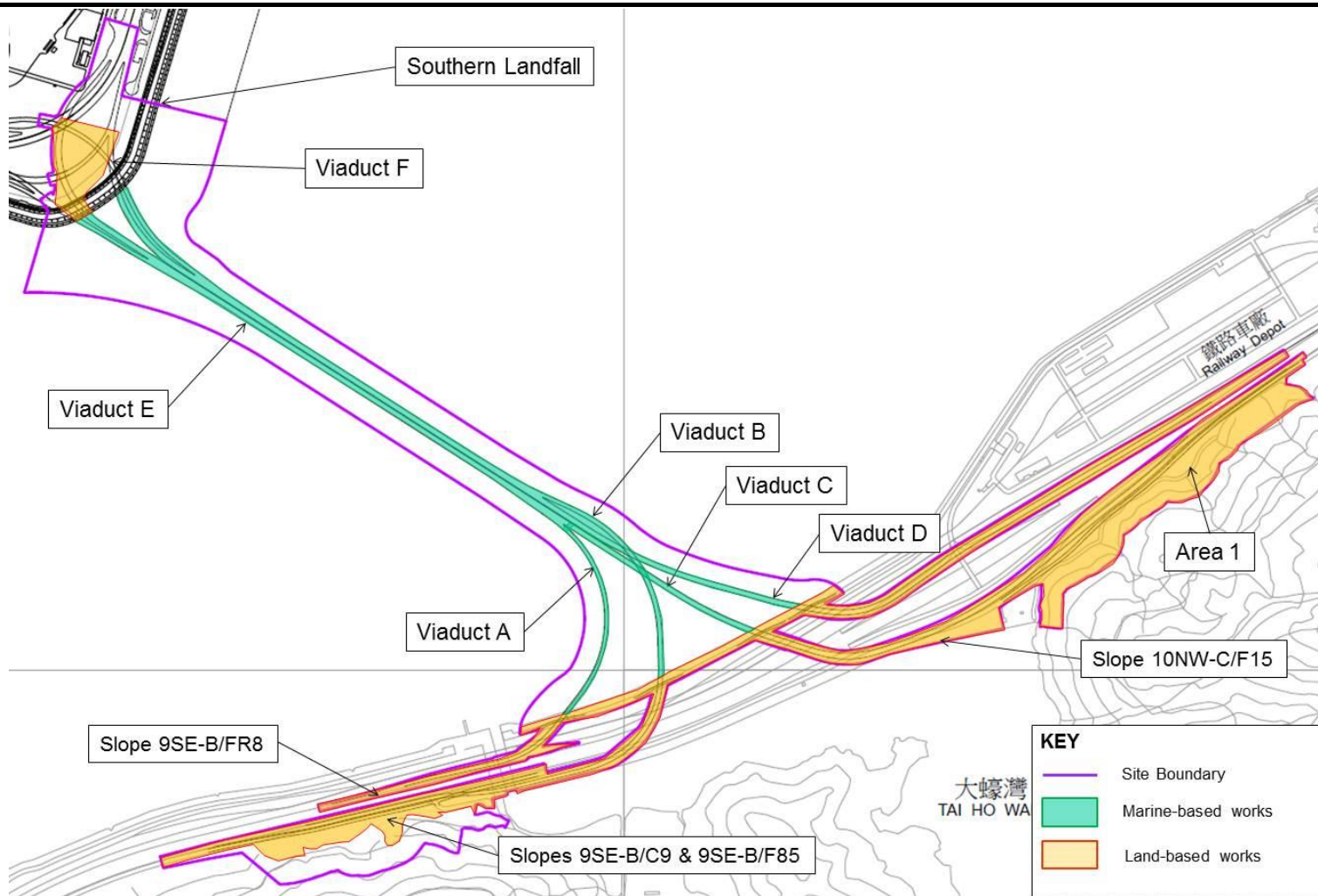




Figure 1.4

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	4, 10, 16, 19 and 25 November 2015
ASR 8A	Area 4	On ground at the works area, Area 4	4, 10, 16, 19 and 25 November 2015

High Volume Samplers (HVSs) were used for carried out 1-hour and 24-hour TSP monitoring on 4, 10, 16, 19 and 25 November 2015 at ASR8A and ASR9 in accordance with the requirements of the Updated EM&A Manual. The TSP monitoring stations are illustrated in *Figure 2.1* and detailed in *Table 2.1*. Wind anemometer was deployed at Area 4 for logging wind speed and wind direction. Copies of the calibration certificates for the equipment are presented in *Appendix E*. Details of the deployed equipment are given in *Table 2.2*.

Key

- Alternative Air Monitoring Station
- Site Boundary

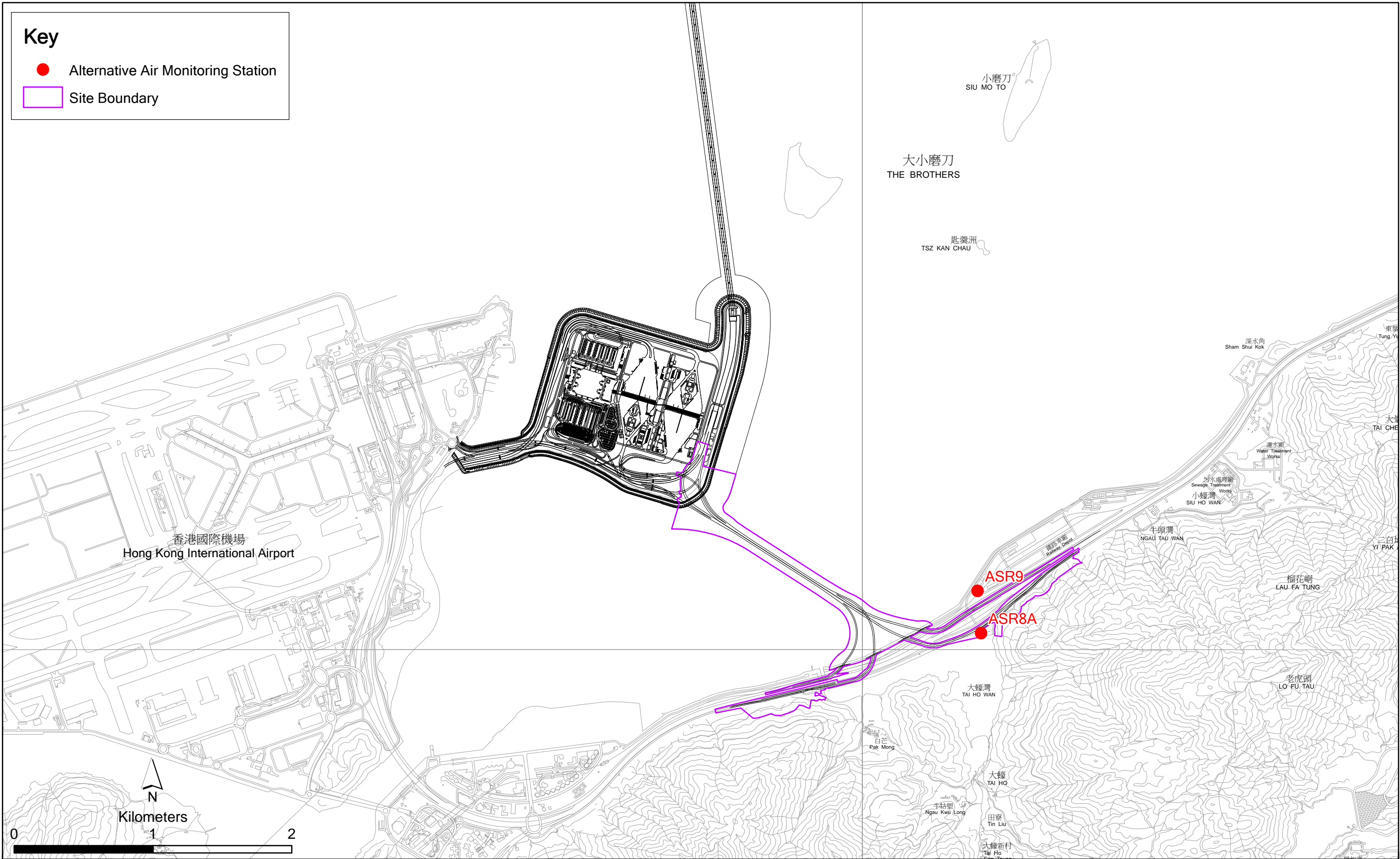


Figure 2.1

Locations of Air Quality Monitoring Stations

Table 2.2 Air Quality Monitoring Equipment

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

2.1.2 Monitoring Schedule for the Reporting Month

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

2.1.3 Results and Observations

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

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

Monitoring Station	Average ($\mu\text{g}/\text{m}^3$)	Range ($\mu\text{g}/\text{m}^3$)	Action Level ($\mu\text{g}/\text{m}^3$)	Limit Level ($\mu\text{g}/\text{m}^3$)
ASR 8A	91	54 - 157	394	500
ASR 9	105	53 - 181	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	64	51 - 91	178	260
ASR 9	74	55 - 98	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 4, 10, 16, 19 and 25 November 2015 by using sound level meter at the designated monitoring station NSR1A (*Figure 2.2; Table 2.5*) in accordance with the requirements stipulated in the Updated EM&A Manual. Acoustic calibrator was deployed to check the sound level meters at a known sound pressure level. Details of the deployed equipment are provided in *Table 2.6*. Copies of the calibration certificates for the equipment are presented in *Appendix E*.

Table 2.5 *Location of Impact Noise Monitoring Station*

Monitoring Station	Location	Description	Parameter	Frequency and Duration	Monitoring Dates
NSR 1A	Pak Mong Village Pavilion	On the ground at the village entrance	30-minute measurement at each monitoring station between 0700 and 1900 on normal weekdays (Monday to Saturday). L_{eq} , L_{10} and L_{90} would be recorded.	At least once per week	4, 10, 16, 19 and 25 November 2015

Table 2.6 *Noise Monitoring Equipment*

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



Figure 2.2

Location of Noise Monitoring Station

2.2.2 *Monitoring Schedule for the Reporting Month*

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

2.2.3 *Results and Observations*

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

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

	Average , dB(A), Leq (30mins)	Range, dB(A), Leq (30mins)	Limit Level, dB(A), Leq (30mins)
NSR 1A	59	57 - 60	75

No noise Action Level 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*

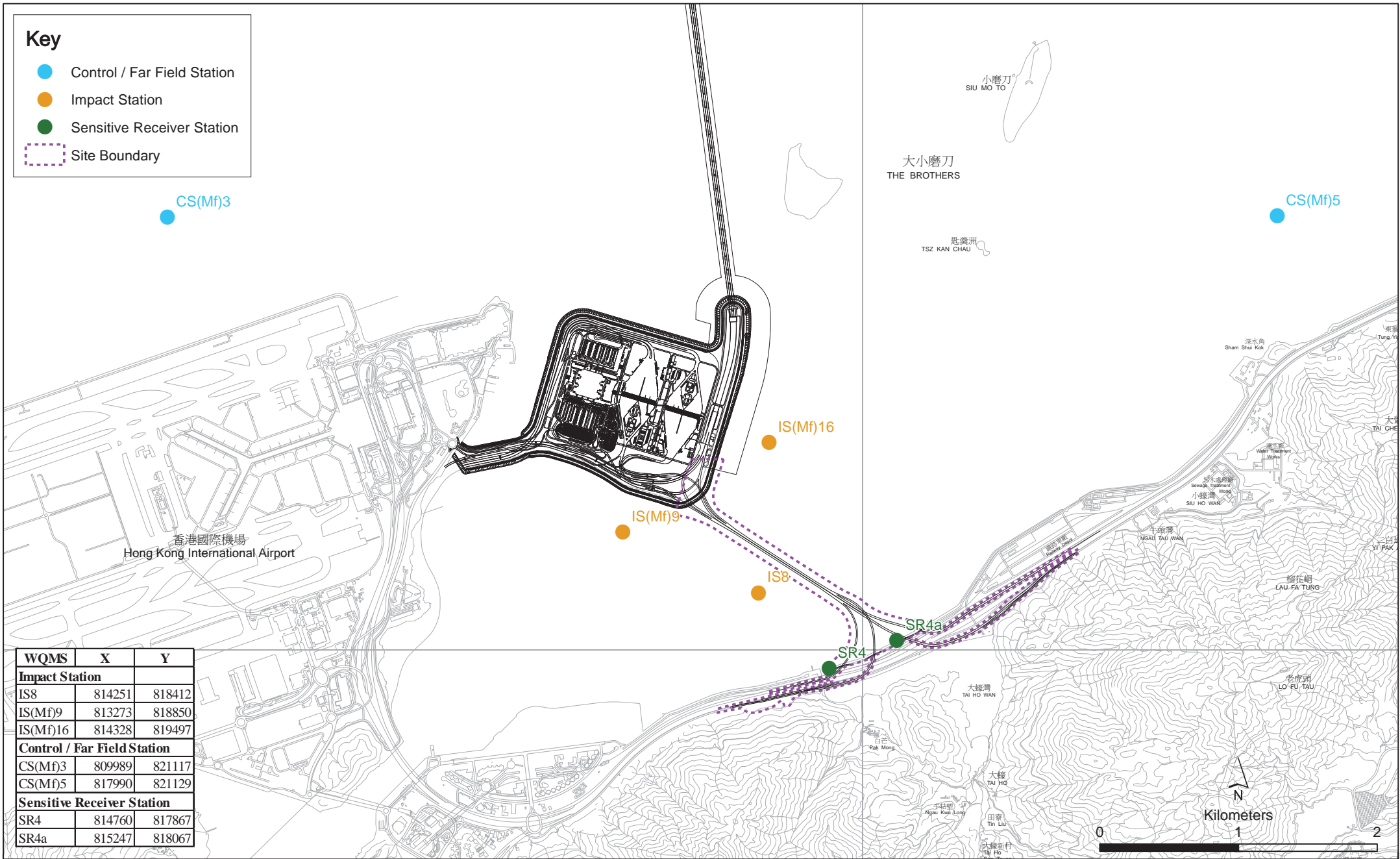
2.3.1 *Monitoring Requirements and Equipment*

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

*Notes:

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

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

Table 2.9 *Water Quality Monitoring Equipment*

Equipment	Brand and Model
DO and Salinity	YSI Pro2030
Turbidity meter	HACH Model 2100Q
pH meter	Thermo Scientific Orion 2 Star
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 November 2015 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*.

No Action or 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 summarises the equipment used for the impact dolphin monitoring.

Table 2.10 *Dolphin Monitoring Equipment*

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

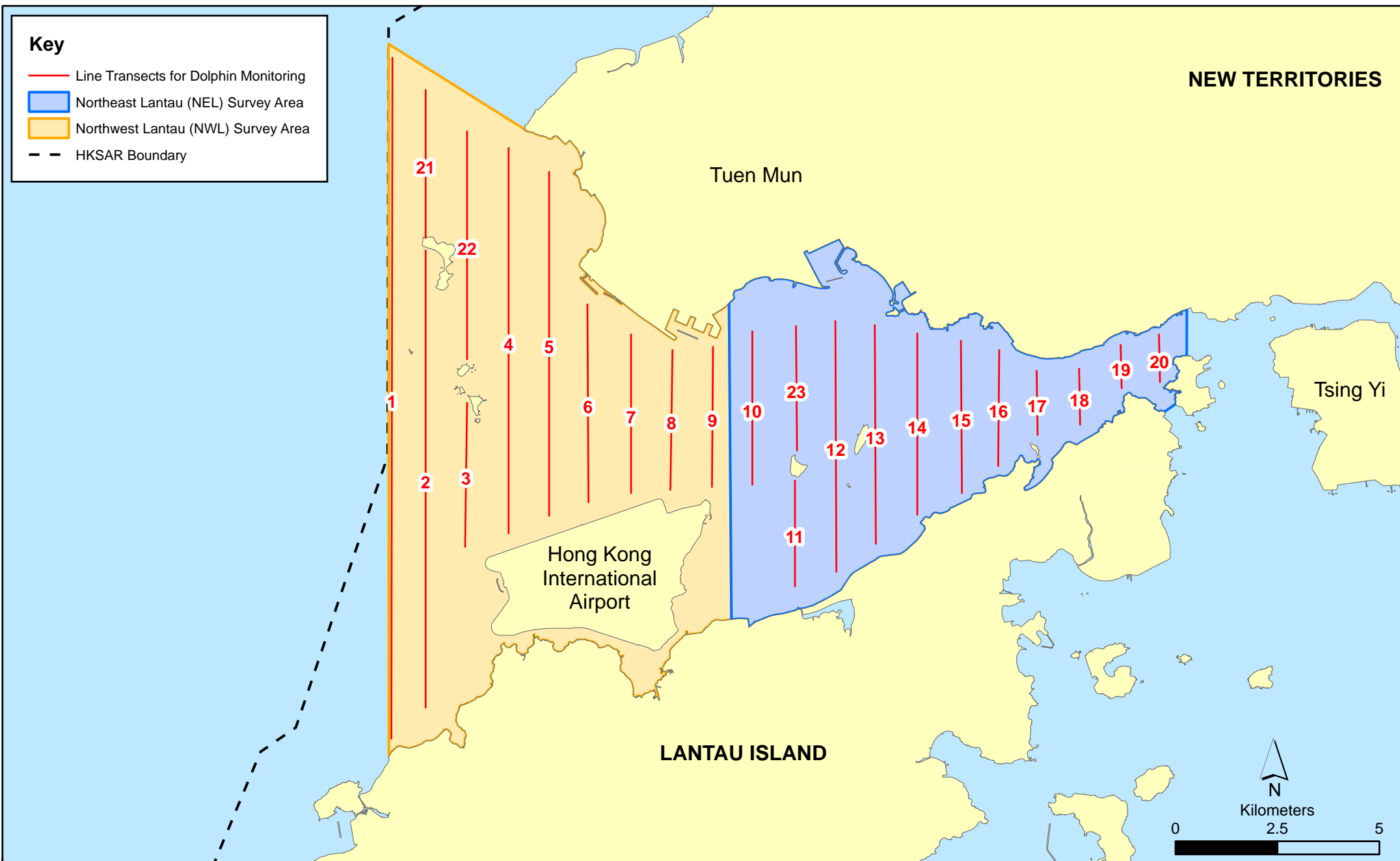


Figure 2.4

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 2, 6, 10 and 16 November 2015 (*Appendix F*).

2.4.7 *Results and Observations*

A total of 300.43 km of survey effort was collected, with 86% 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 November 2015. Among the two areas, 115.20 km and 185.23 km of survey effort were collected from NEL and NWL survey areas respectively. The total survey effort conducted on primary and secondary lines were 218.74 km and 81.69 km respectively. The survey efforts are summarized in *Appendix K*.

Four (4) groups of fourteen (14) Chinese White Dolphins were sighted during the two sets of monitoring surveys in November 2015. All four (4) dolphin sightings were made in NWL, while none was sighted in NEL. During the surveys in November 2015, all dolphin sightings were made on primary lines during on-effort search. No sighting was made 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 November 2015 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: Nov 2 nd / 6 th	0.0	0.0
	Set 2: Nov 10 th / 16 th	0.0	0.0
NWL	Set 1: Nov 2 nd / 6 th	3.8	15.4
	Set 2: Nov 10 th / 16 th	1.7	1.7

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

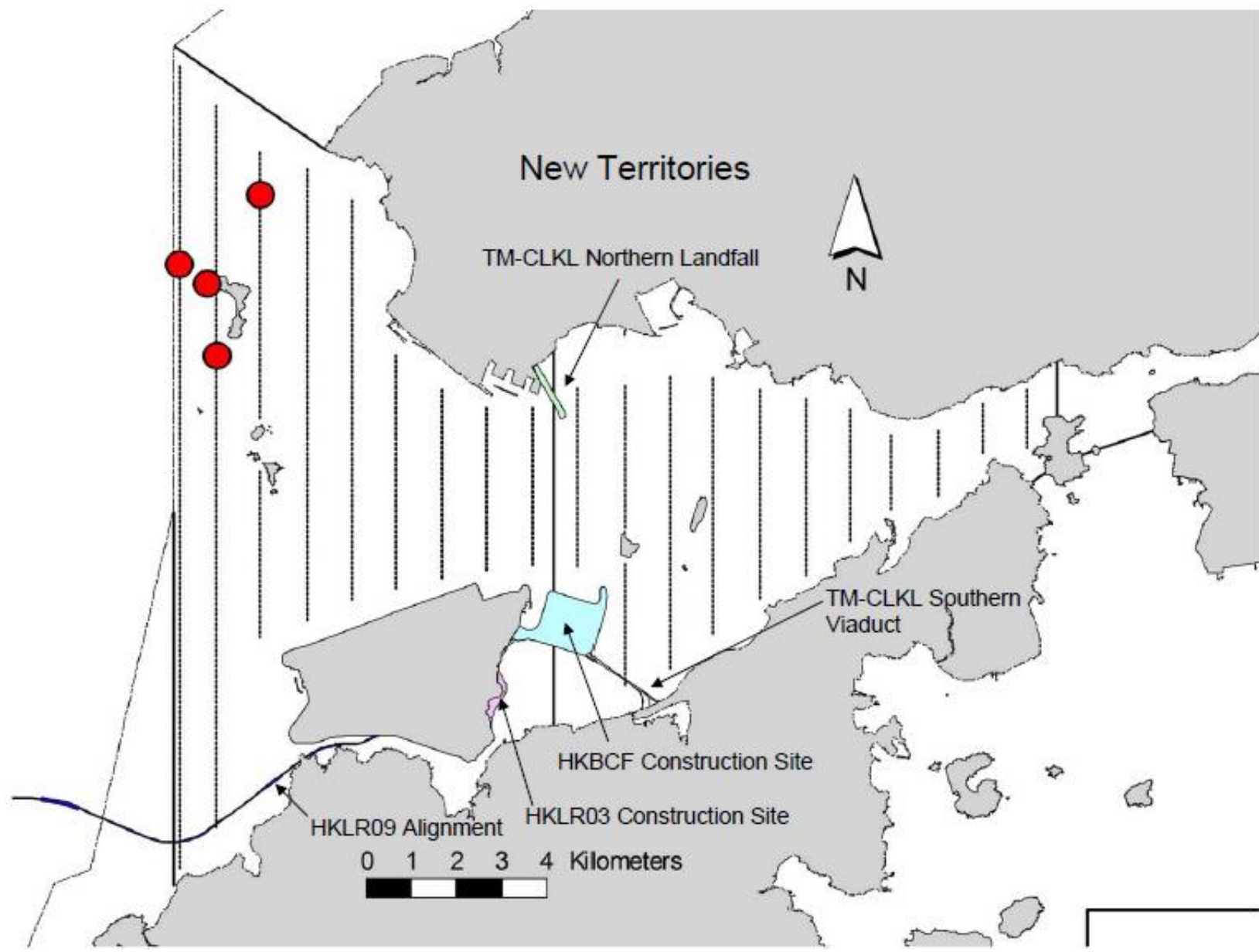


Figure 2.5

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 November 2015)

Date 27/11/2015

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	2.7	2.1	8.2	6.3

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

Two (2) Action Level exceedances were observed for the quarterly dolphin monitoring data between September and November 2015. No unacceptable impact from the construction activities of the TM-CLKL Southern Connection Viaduct Section on Chinese White Dolphins was noticeable from general observations during the dolphin monitoring in this reporting month.

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

2.4.8 Marine Mammal Exclusion Zone Monitoring

Daily 250 m marine mammal exclusion zone monitoring was undertaken during the period of daytime marine works activities. No sighting of Indo-Pacific humpback dolphin *Sousa chinensis* (i.e. Chinese White Dolphin) were recorded in November 2015 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, 11, 18 and 26 November 2015.

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 November 2015	Pier E4 <ul style="list-style-type: none"> Oil stain was found on platform. Pier E11 <ul style="list-style-type: none"> Surface runoff control on platform was insufficient. Pier E12 <ul style="list-style-type: none"> A generator was not placed on decoupling pad. 	Pier E4 <ul style="list-style-type: none"> Oil stain should be cleaned up. Pier E11 <ul style="list-style-type: none"> Gutter or sandbag should be provided for control of wastewater runoff. Pier E12 <ul style="list-style-type: none"> A generator should be placed on decoupling pad.
11 November 2015	Site Access 6A <ul style="list-style-type: none"> Refuse was found in drainage. Chemical containers were not placed in drip tray. Area 2 <ul style="list-style-type: none"> Soil stockpile was not covered. Slope B/C9 <ul style="list-style-type: none"> An air compressor was not placed in drip tray. 	Site Access 6A <ul style="list-style-type: none"> Refuse in drainage should be cleaned up regularly. Chemical containers should be placed in drip tray. Area 2 <ul style="list-style-type: none"> Soil stockpile should be covered by tarpaulin sheet. Slope B/C9 <ul style="list-style-type: none"> An air compressor should be placed in drip tray.
18 November 2015	Pier A1 <ul style="list-style-type: none"> A drip tray was not plugged. Seafront <ul style="list-style-type: none"> Refuse was accumulated onsite. A Chemical container near Pier B8 was not placed in drip tray 	Pier A1 <ul style="list-style-type: none"> Drip tray should be plugged. Seafront <ul style="list-style-type: none"> Refuse should be cleaned up regularly. The chemical container should be placed in drip tray.
26 November 2015	Pier E10 <ul style="list-style-type: none"> Drip trays were found unplugged. Excessive soil was found in gutter. 	Pier E10 <ul style="list-style-type: none"> Drip trays should be plugged. Excessive soil in gutter should be cleaned up regularly.

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), chemical wastes 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)
November 2015	204	0	725	64,740	98	2,000	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/I	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 HY/2012/07 (Area 1 adjacent to Cheng Tung Road, Siu Ho Wan)
Chemical Waste Registration	5213-961-G2380-14	10 Oct 2013	N/A	GCL	Chemical waste produced in Contract HY/2012/07 (Area 2 adjacent to Cheung Tung Road, Pak Mong Village)
Chemical Waste Registration	5213-974-G2588-03	4 Nov 2013	N/A	GCL	Chemical waste produced in Contract HY/2012/07 (WA5 adjacent to Cheung Tung Road, Yam O)
Chemical Waste Registration	5213-951-G2380-17	12 Jun 2014	N/A	GCL	Viaducts A, B, C, D & E
Construction Waste Disposal Account	7017735	10 Jul 2013	N/A	GCL	-
Construction Waste Disposal Account	7019470	3 Mar 2014	N/A	GCL	Vessel CHIT Account
Waste Water Discharge License	WT00019017-2014	13 May 2014	31 May 2019	GCL	Discharge for marine portion
Waste Water Discharge License	WT00019018-2014	13 May 2014	31 May 2019	GCL	Discharge for land portion
Construction Noise Permit	Nil	N/A	N/A	GCL	For Piling Works
Construction Noise Permit for night works and works in general holidays	GW-RW0422-15	21 Aug 2015	25 Jan 2016	GCL	General works at WA5
Construction Noise Permit for night works and works in general holidays	GW-RS1054-15	30 Sep 2015	29 Mar 2016	GCL	For Load unload at NLH near Viaduct D
Construction Noise Permit for night works and works in general holidays	GW-RS1144-15	20 Oct 2015	19 Feb 2016	GCL	For Broad Permit
Construction Noise Permit for night works and works in general holidays	GW-RS0809-15	29 Jul 2015	29 Jan 2016	GCL	For Plant mobilization using tractor with trailer
Construction Noise Permit for night works and works in general holidays	GW-RS0911-15	27 Aug 2015	26 Feb 2016	GCL	Broad Permit for Seg. Launching at Land Portion
Construction Noise Permit for night works and works in general holidays	GW-RS0854-15	12 Aug 2014	15 Feb 2016	GCL	Pre-casted pile cap shell installation at E10-E13

License/ Permit	License or Permit No.	Date of Issue	Date of Expiry	License/ Permit Holder	Remarks
Construction Noise Permit for night works and works in general holidays	GW-RS1086-15	7 Oct 2015	15 Dec 2015	GCL	TTA Case 009 Ch.2.1E-4.2E
Construction Noise Permit for night works and works in general holidays	GW-RS0855-15	12 Aug 2015	11 Feb 2016	GCL	Pier construction at C7, D8, D9
Marine Dumping Permit	EP/MD/16-134	27 Nov 15	29 Dec 15	GCL	For dumping Type I (Dedicated Site) and Type II sediment
Marine Dumping Permit	EP/MD/16-102	13 Oct 2015	16 Apr 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.

Two (2) Action Level exceedances were observed for the quarterly dolphin monitoring data between September and November 2015. No unacceptable impact from the construction activities of the TM-CLKL Southern Connection Viaduct Section on Chinese White Dolphins was noticeable from general observations during the dolphin monitoring in this reporting period. 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 *8th Quarterly EM&A Report*.

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*.

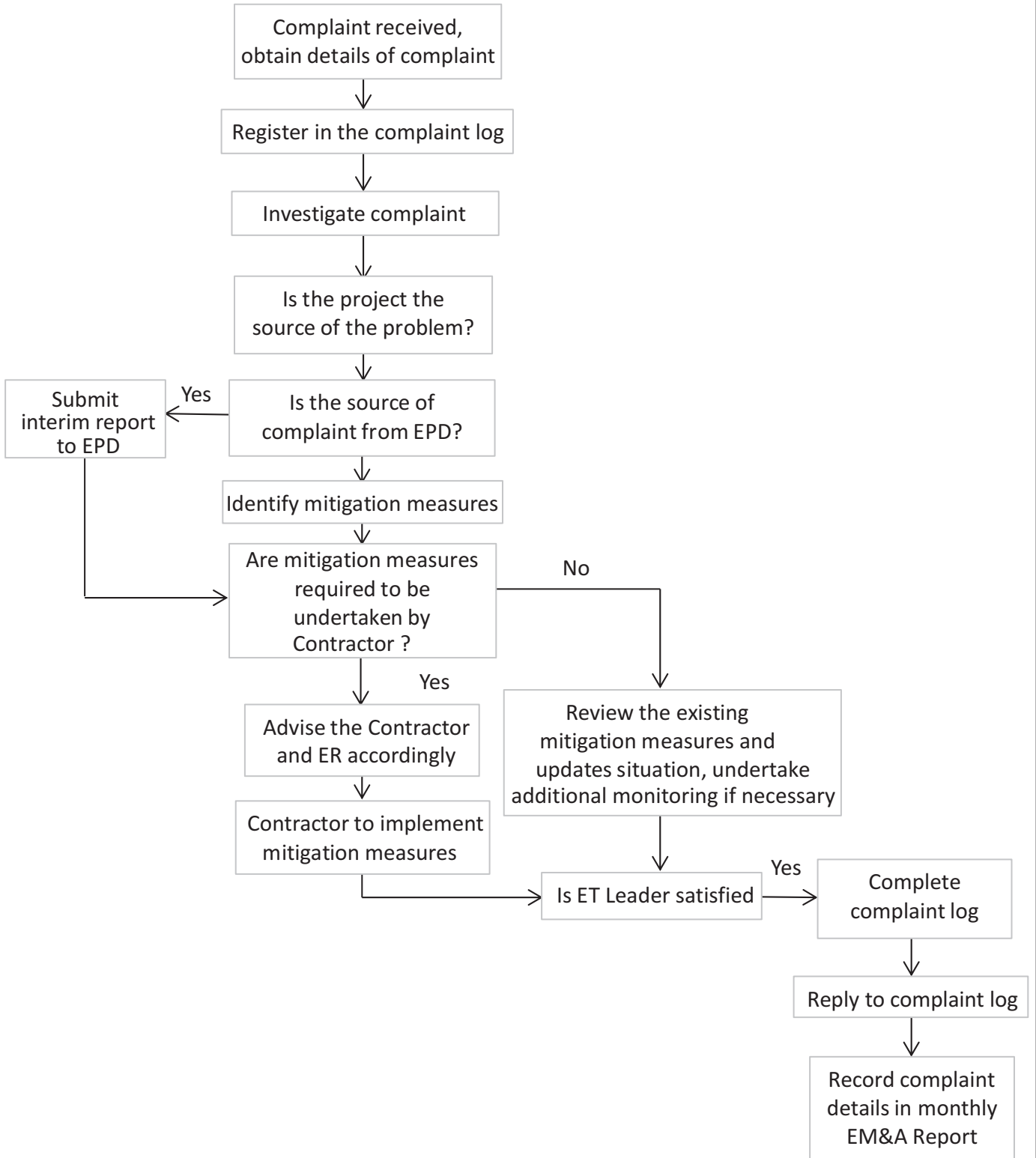


Figure 2.6

Environmental Complaint Handling Procedure

3 *FUTURE KEY ISSUES*

3.1 *CONSTRUCTION PROGRAMME FOR THE COMING MONTHS*

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

Marine Works

- Construction and installation of pile caps;
- Uninstallation of marine piling platform;
- Pile cap installation;
- Pier construction;
- Launching gantry operation; and
- Installation of deck segment and pier head segment.

Land-based Works

- Construction and installation of pile caps;
- Pier construction;
- Pile cap installation;
- Land piling;
- Re-alignment of Cheung Tung Road;
- Pre-drilling at Viaduct F;
- Additional land GI, trial pits & lab testing;
- Installation of pier head segment; 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 December 2015 are mainly associated with dust, noise, marine water quality, marine ecology and waste management issues.

3.3 *MONITORING SCHEDULE FOR THE COMING MONTH*

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

4.1 CONCLUSIONS

This Twenty-fifth Monthly EM&A Report presents the findings of the EM&A activities undertaken during the period from 1 to 30 November 2015, in accordance with the Updated EM&A Manual and the requirements of the Environmental Permits (*EP-354/2009/D* and *EP-353/2009/I*).

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

Four (4) groups of fourteen (14) Chinese White Dolphins were sighted during the two sets of monitoring surveys in November 2015. Whilst two (2) Action Level exceedances were observed for the quarterly dolphin monitoring data between September and November 2015, no unacceptable impact from the construction activities of the TM-CLKL Southern Connection Viaduct Section on Chinese White Dolphins was noticeable from general observations during the dolphin monitoring in this reporting month.

Environmental site inspection was carried out four (4) times in November 2015. 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	2015												2016									
												October					November				December			January									
												21	28	05	12	19	26	02	09	16	23	30	07	14	21	28	04	11	18	25			
PPMJ02-2	Manufacture & delivery of MJ	188	22-Oct-15	0%	188	11-Jun-16	02-Oct-15	23-May-16	-16	0	0%																						
Other Sub-Contract Procurement																																	
Pavement																																	
PP7760-2	Procure Pavement Viaduct Sub-Contractor	36	22-Oct-15	0%	36	02-Dec-15	08-Apr-16	21-May-16	135	0	0%																[Green Bar]						
PP7760-4	Pavement Viaduct Sub-Contractor - Materials approvals & MS	90	03-Dec-15	0%	90	23-Mar-16	23-May-16	06-Sep-16	135	137	0%																[Green Bar]						
Structural Health Monitoring System (SHMS)																																	
PP7778	SHMS - So approval of Final System Proposal	30	16-Dec-14 A	73.33%	8	30-Oct-15	16-Jan-15	24-Jan-15	-225	52	75%																[Blue Bar]						
PP7780	SHMS - Prepare Civil Work Provision	66	22-Oct-15	0%	66	09-Jan-16	05-Dec-14	26-Feb-15	-258	0	0%																[Red Bar]						
PP7782	SHMS - Submit Precast Pile Cap Shell SHMS details for E5-E6-E7-E8	0	19-Nov-15	0%	0		12-Feb-15		-226	32	0%																[Milestone]						
PP7786	SHMS - Submit Segment SHMS details for E5-E6-E7-E8	0	10-Dec-15	0%	0		02-Mar-19		955	955	0%																[Milestone]						
PP7788	SHMS - FAT & Delivery for Bridge E5-E6-E7-E8 equipment	54	19-Nov-15	0%	54	23-Jan-16	16-Jan-15	23-Mar-15	-249	2	0%																[Red Bar]						
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	97.78%	2	23-Oct-15	11-Jan-16	12-Jan-16	65	939	95%																[Green Bar]						
Temporary Working Platform at North Lantau																																	
PR08080	Inst.Unloading Frame incl. T&C for seg.lift (incl. Load Test)	15	22-Oct-15	0%	15	09-Nov-15	14-Feb-19	02-Mar-19	926	926	0%																[Green Bar]						
Unloading Jetty at HKBCF																																	
PR09060	Unloading Jetty at HKBCF - Conditional survey & finalize jetty design modifi	15	22-Oct-15	0%	15	09-Nov-15	07-Jul-15	24-Jul-15	-81	0	0%																[Red Bar]						
PR09070	Unloading Jetty at HKBCF - Install Unloading Frame incl. testing/commissio	52	10-Nov-15	0%	52	12-Jan-16	25-Jul-15	02-Oct-15	-81	166	0%																[Red Bar]						
CONSTRUCTION																																	
PILING AND SUBSTRUCTURE																																	
Viaduct A																																	
Milestones - Marine Foundation																																	
GFXX116-1	A7 (A1e) - Completion of piling works	0		0%	0	22-Oct-15		02-Mar-19	997	997	0%																[Milestone]						
GFXX121-1	A6 (A1f) - Completion of piling works	0		0%	0	22-Oct-15		02-Mar-19	997	997	0%																[Milestone]						
GFXX123-1	A5 (A2a) - Start date for piling	0	22-Oct-15	0%	0		02-Mar-19		997	997	0%																[Milestone]						
GFXX126-1	A5 (A2a) - Completion of piling works	0		0%	0	22-Oct-15		02-Mar-19	997	997	0%																[Milestone]						
GFXX128-1	A4 (A2b) - Start date for piling	0	22-Oct-15	0%	0		02-Mar-19		997	997	0%																[Milestone]						
GFXX131-1	A4 (A2b) - Completion of piling works	0		0%	0	22-Oct-15		29-Mar-16	128	0	0%																[Milestone]						
GFXX136-1	A3 (A2c) - Completion of piling works	0		0%	0	22-Oct-15		02-Mar-19	997	997	0%																[Milestone]						
GFXX138-1	A2 (A2d) - Start date for piling	0	22-Oct-15	0%	0		02-Mar-19		997	997	0%																[Milestone]						
GFXX141-1	A2 (A2d) - Completion of piling works	0		0%	0	22-Oct-15		24-Feb-16	102	21	0%																[Milestone]						
Milestones - Land Foundation																																	
ZA00021	A8 (A1d) - Completion of piling works	0		0%	0	22-Oct-15		02-Mar-19	997	997	0%																[Milestone]						
ZA00030	A9 (A1c) - Start date for piling	0	22-Oct-15	0%	0		02-Mar-19		997	997	0%																[Milestone]						
ZA00031	A9 (A1c) - Completion of piling works	0		0%	0	22-Oct-15		03-Feb-16	87	5	0%																[Milestone]						
ZA00051	A11 (A1a) - Completion of piling works	0	22-Oct-15	0%	0		20-Jan-16		74	101	0%																[Milestone]						
General																																	
ZA00010	Viaduct A - Approval of Foundation DDA DP11.01	0		0%	0	21-Oct-15		01-Mar-19	878	878	0%																[Milestone]						
Bridge A2																																	
Pier A1 (A2e)																																	
Pier Works																																	
SA2E0220	A1 (A2e) - Type 4B-MJ Pier Rebarwork, Formwork & Prep (2nd Lift)	6	16-Sep-15 A	100%	0	05-Oct-15 A					100%																[Blue Bar]						
SA2E0240	A1 (A2e) - Type 4B-MJ Pier Concreting, Curing & Striking, CJ prep (2nd Lil	3	06-Oct-15 A	100%	0	12-Oct-15 A					100%																[Blue Bar]						
SA2E0300	A1 (A2e) - Type 4B-MJ Pier Head Scaffolding	4	13-Oct-15 A	100%	0	20-Nov-15 A					100%																[Blue Bar]						
SA2E0310	A1 (A2e) - Type 4B-MJ Pier Head Rebarwork, Formwork & Prep	10	22-Oct-15 A	5%	10	03-Nov-15	22-Apr-16	04-May-16	145	0	5%																[Green Bar]						
SA2E0330	A1 (A2e) - Type 4B-MJ Pier Head Concreting	1	03-Nov-15	0%	1	04-Nov-15	05-May-16	05-May-16	145	0	0%																[Green Bar]						
SA2E0340	A1 (A2e) - Type 4B-MJ Pier Head Curing/Striking of Forms/Remove Scaffc	6	04-Nov-15	0%	6	11-Nov-15	06-May-16	12-May-16	145	0	0%																[Green Bar]						
SA2E0350	A1 (A2e) - Type 4B- Bearing Plinth	6	04-Nov-15	0%	6	11-Nov-15	06-May-16	12-May-16	145	0	0%																[Green Bar]						
Pier Head Segments																																	
SA2E0380	A1 (A2e) - Pier Head Segment - Temporary Platform	6	11-Nov-15	0%	6	18-Nov-15	13-May-16	21-May-16	145	0	0%																[Green Bar]						
SA2E0381	A1 (A2e) - Pier Head Segment Bearings	2	18-Nov-15	0%	2	20-Nov-15	23-May-16	24-May-16	145	0	0%																[Green Bar]						
SA2E0382	A1 (A2e) - Pier Head Segment Lift & Temp Support (2 seg)	7	20-Nov-15	0%	7	28-Nov-15	25-May-16	03-Jun-16	145	0	0%																[Green Bar]						
Pier A2 (A2d)																																	
Foundation Works																																	
GFXX140	A2 (A2d) - Sonic & Interface Coring	12	09-Sep-15 A	100%	0	02-Oct-15 A					100%																[Blue Bar]						
GFXX141	A2 (A2d) - Dismantle removable panels of temp. platform	5	03-Oct-15 A	100%	0	06-Oct-15 A					100%																[Blue Bar]						
Pile Cap Works																																	

■ Actual Work
■ Planned Bar
■ Critical Bar
◆ Milestone

Project ID: J3518DWPPrE1-M29
 Layout: J3518-DWP-3MRP Submission - M29
 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 5 of 31 Pages)
(Progress as of 21-Oct-15)

Date	Revision	Checked	Approved
01-Sep-15		PKN	KWY
30-Sep-15		PKN	KWY
31-Oct-15		PKN	KWY

DWG. No.:
J3518/GCL/PGM/3MRP-M29

Activity ID	Activity Name	Orig. Durn.	Act. Start / FC Early Start	Duration % Complete	Rem. Durn.	Act. Finish / FC Early Finish	Late Start	Late Finish	Total Float	Free Float	Physical % Complete	2015												2016					
												October				November				December				January					
												21	28	05	12	19	26	02	09	16	23	30	07	14	21	28	04	11	18
Pier D2 (D4e)																													
Pier Head Segments																													
SD4E0370	D2 (D4e) - Pier Head Segment - Temporary Platform	6	10-Nov-15	0%	6	16-Nov-15	23-Dec-15	31-Dec-15	37	0	0%																		
SD4E0372	D2 (D4e) - Pier Head Segment Lift & Fix (1 seg)	2	17-Nov-15	0%	2	18-Nov-15	02-Jan-16	04-Jan-16	37	0	0%																		
SD4E0374	D2 (D4e) - Pier Head Segment Diaphragm - Rebar	16	19-Nov-15	0%	16	07-Dec-15	05-Jan-16	22-Jan-16	37	0	0%																		
SD4E0376	D2 (D4e) - Pier Head Segment Diaphragm - Formwork & Prep for Concre	8	08-Dec-15	0%	8	16-Dec-15	23-Jan-16	01-Feb-16	37	0	0%																		
SD4E0378	D2 (D4e) - Pier Head Segment Diaphragm - Concreting	2	17-Dec-15	0%	2	18-Dec-15	02-Feb-16	03-Feb-16	37	0	0%																		
SD4E0380	D2 (D4e) - Pier Head Segment Diaphragm - Curing & Striking of Forms	6	19-Dec-15	0%	6	28-Dec-15	04-Feb-16	13-Feb-16	37	0	0%																		
Pier D3 (D4d)																													
Pier Head Segments																													
SD4D0370	D3 (D4d) - Pier Head Segment - Temporary Platform	6	29-Sep-15 A	100%	0	05-Oct-15 A					100%																		
SD4D0372	D3 (D4d) - Pier Head Segment Lift & Fix (1 seg)	2	13-Oct-15 A	100%	0	13-Oct-15 A					100%																		
SD4D0374	D3 (D4d) - Pier Head Segment Diaphragm - Rebar	18	22-Oct-15	0%	18	12-Nov-15	16-Dec-15	08-Jan-16	46	0	0%																		
SD4D0376	D3 (D4d) - Pier Head Segment Diaphragm - Formwork & Prep for Concre	8	12-Nov-15	0%	8	21-Nov-15	09-Jan-16	18-Jan-16	46	0	0%																		
SD4D0378	D3 (D4d) - Pier Head Segment Diaphragm - Concreting	2	21-Nov-15	0%	2	24-Nov-15	19-Jan-16	20-Jan-16	46	0	0%																		
SD4D0380	D3 (D4d) - Pier Head Segment Diaphragm - Curing & Striking of Forms	6	24-Nov-15	0%	6	01-Dec-15	21-Jan-16	27-Jan-16	46	0	0%																		
Pier D4 (D4c)																													
Pier Works																													
SD4C0310	D4 (D4c) - Type 4B Pier Head Rebarwork, Formwork & Prep	9	10-Sep-15 A	100%	0	15-Oct-15 A					100%																		
SD4C0330	D4 (D4c) - Type 4B Pier Head Concreting	1	16-Oct-15 A	80%	0	22-Oct-15	14-Apr-15	14-Apr-15	-138	0	80%																		
SD4C0340	D4 (D4c) - Type 4B Pier Head Curing/Striking of Forms/Remove Scaffoldir	6	22-Oct-15	0%	6	30-Oct-15	16-Apr-15	22-Apr-15	-138	0	0%																		
Pier Head Segments																													
SD4C0370	D4 (D4c) - Pier Head Segment - Temporary Platform	6	30-Oct-15	0%	6	06-Nov-15	24-Apr-15	30-Apr-15	-138	0	0%																		
SD4C0372	D4 (D4c) - Pier Head Segment Lift & Fix (1 seg)	2	06-Nov-15	0%	2	09-Nov-15	02-May-15	04-May-15	-138	0	0%																		
SD4C0374	D4 (D4c) - Pier Head Segment Diaphragm - Rebar	12	09-Nov-15	0%	12	23-Nov-15	05-May-15	19-May-15	-138	0	0%																		
SD4C0376	D4 (D4c) - Pier Head Segment Diaphragm - Formwork & Prep for Concret	8	23-Nov-15	0%	8	02-Dec-15	20-May-15	30-May-15	-138	0	0%																		
SD4C0378	D4 (D4c) - Pier Head Segment Diaphragm - Concreting	2	02-Dec-15	0%	2	04-Dec-15	01-Jun-15	02-Jun-15	-138	0	0%																		
SD4C0380	D4 (D4c) - Pier Head Segment Diaphragm - Curing & Striking of Forms	6	04-Dec-15	0%	6	11-Dec-15	04-Jun-15	12-Jun-15	-138	0	0%																		
Pier D5 (D4b)																													
Pier Works																													
SD4B0260	D5 (D4b) - Type 4B Pier Rebarwork, Formwork & Prep (3rd Lift)	5	21-Sep-15 A	100%	0	05-Oct-15 A					100%																		
SD4B0280	D5 (D4b) - Type 4B Pier Concreting, Curing & Striking, CJ prep (3rd Lift)	3	06-Oct-15 A	100%	0	10-Oct-15 A					100%																		
SD4B0300	D5 (D4b) - Type 4B Pier Head Scaffolding	4	12-Oct-15 A	100%	0	17-Oct-15 A					100%																		
SD4B0310	D5 (D4b) - Type 4B Pier Head Rebarwork, Formwork & Prep	9	19-Oct-15 A	30%	6	30-Oct-15	16-Apr-15	24-Apr-15	-137	0	30%																		
SD4B0330	D5 (D4b) - Type 4B Pier Head Concreting	1	30-Oct-15	0%	1	31-Oct-15	25-Apr-15	25-Apr-15	-137	0	0%																		
SD4B0340	D5 (D4b) - Type 4B Pier Head Curing/Striking of Forms/Remove Scaffoldir	6	31-Oct-15	0%	6	07-Nov-15	27-Apr-15	04-May-15	-137	0	0%																		
Pier Head Segments																													
SD4B0370	D5 (D4b) - Pier Head Segment - Temporary Platform	6	07-Nov-15	0%	6	14-Nov-15	05-May-15	11-May-15	-137	0	0%																		
SD4B0372	D5 (D4b) - Pier Head Segment Lift & Fix (1 seg)	2	14-Nov-15	0%	2	17-Nov-15	13-May-15	14-May-15	-137	0	0%																		
SD4B0374	D5 (D4b) - Pier Head Segment Diaphragm - Rebar	12	17-Nov-15	0%	12	01-Dec-15	15-May-15	30-May-15	-137	0	0%																		
SD4B0376	D5 (D4b) - Pier Head Segment Diaphragm - Formwork & Prep for Concre	8	01-Dec-15	0%	8	10-Dec-15	01-Jun-15	12-Jun-15	-137	0	0%																		
SD4B0378	D5 (D4b) - Pier Head Segment Diaphragm - Concreting	2	10-Dec-15	0%	2	12-Dec-15	13-Jun-15	15-Jun-15	-137	0	0%																		
SD4B0380	D5 (D4b) - Pier Head Segment Diaphragm - Curing & Striking of Forms	6	12-Dec-15	0%	6	19-Dec-15	16-Jun-15	26-Jun-15	-137	0	0%																		
Pier D6 (D4a)																													
Pier Works																													
SD4A0240	D6 (D4a) - Type 4B MJ Pier Concreting, Curing & Striking, CJ prep (2nd Li	3	21-Sep-15 A	100%	0	24-Sep-15 A					100%																		
SD4A0250	D6 (D4a) - Type 4B-MJ Pier Scaffolding (3rd Lift)	2	25-Sep-15 A	100%	0	02-Oct-15 A					100%																		
SD4A0260	D6 (D4a) - Type 4B-MJ Pier Rebarwork, Formwork & Prep (3rd Lift)	5	13-Oct-15 A	80%	1	22-Oct-15	04-Jun-15	04-Jun-15	-102	0	80%																		
SD4A0280	D6 (D4a) - Type 4B MJ Pier Concreting, Curing & Striking, CJ prep (3rd Lif	3	23-Oct-15	0%	3	26-Oct-15	05-Jun-15	08-Jun-15	-102	0	0%																		
SD4A0300	D6 (D4a) - Type 4B-MJ Pier Head Scaffolding	4	27-Oct-15	0%	4	31-Oct-15	10-Jun-15	15-Jun-15	-102	0	0%																		
SD4A0310	D6 (D4a) - Type 4B-MJ Pier Head Rebarwork, Formwork & Prep	9	02-Nov-15	0%	9	11-Nov-15	16-Jun-15	30-Jun-15	-102	0	0%																		
SD4A0330	D6 (D4a) - Type 4B-MJ Pier Head Concreting	1	12-Nov-15	0%	1	12-Nov-15	02-Jul-15	02-Jul-15	-102	0	0%																		
SD4A0340	D6 (D4a) - Type 4B-MJ Pier Head Curing/Striking of Forms/Remove Scaffi	6	13-Nov-15	0%	6	19-Nov-15	03-Jul-15	09-Jul-15	-102	0	0%																		
SD4A372	D6 (D4a) - Type 4B-Bearing Plinth	6	13-Nov-15	0%	6	19-Nov-15	03-Jul-15	09-Jul-15	-102	0	0%																		
Pier Head Segments																													
SD4A0370	D6 (D4a) - Pier Head Segment - Temporary Platform	6	20-Nov-15	0%	6	26-Nov-15	10-Jul-15	17-Jul-15	-102	0	0%																		
SD4A0371	D6 (D4a) - Pier Head Segment Bearings	2	27-Nov-15	0%	2	28-Nov-15	18-Jul-15	20-Jul-15	-102	0	0%																		
SD4A0372	D6 (D4a) - Pier Head Segment Lift & Temp Support (2 seg)	7	30-Nov-15	0%	7	07-Dec-15	21-Jul-15	28-Jul-15	-102	0	0%																		
Bridge D2																													
Pier D7 (D3e)																													
Pier Works																													
SD3E0220	D7 (D3e) - Type 4B Pier Rebarwork, Formwork & Prep (2nd Lift)	5	12-Sep-15 A	100%	0	24-Sep-15 A					100%																		
SD3E0240	D7 (D3e) - Type 4B Pier Concreting, Curing & Striking, CJ prep (2nd Lift)	3	25-Sep-15 A	100%	0	06-Oct-15 A					100%																		

■ Actual Work
■ Planned Bar
■ Critical Bar
◆ Milestone

Project ID: J3518DWPPrE1-M29
 Layout: J3518-DWP-3MRP Submission - M29
 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 14 of 31 Pages)
(Progress as of 21-Oct-15)

Date	Revision	Checked	Approved
01-Sep-15		PKN	KWY
30-Sep-15		PKN	KWY
31-Oct-15		PKN	KWY

DWG. No.:
J3518/GCL/PGM/3MRP-M29

Activity ID	Activity Name	Orig. Durn.	Act. Start / FC Early Start	Duration % Complete	Rem. Durn.	Act. Finish / FC Early Finish	Late Start	Late Finish	Total Float	Free Float	Physical % Complete	2015												2016						
												October				November				December				January						
												21	28	05	12	19	26	02	09	16	23	30	07	14	21	28	04	11	18	25
Pier D14 (D2c)																														
Portal																														
SD2CR280	D14 (D2c) - Portal Beam Scaffolding	12	01-Oct-15 A	100%	0	17-Oct-15 A					100%	[Gantt Bar: Blue, Oct 1-17]																		
SD2CR290	D14 (D2c) - Portal Beam Soffit Formwork	12	19-Oct-15 A	30%	8	02-Nov-15	02-Oct-15	12-Oct-15	-14	0	30%	[Gantt Bar: Red, Oct 19-02]																		
SD2CR300	D14 (D2c) - Portal Beam Rebarwork & Inserts	16	02-Nov-15	0%	16	20-Nov-15	13-Oct-15	03-Nov-15	-14	0	0%	[Gantt Bar: Red, Oct 13-03]																		
SD2CR305	D14 (D2c) - Portal Beam Side Formwork & Prep for Concreting	16	20-Nov-15	0%	16	09-Dec-15	04-Nov-15	21-Nov-15	-14	0	0%	[Gantt Bar: Red, Nov 04-21]																		
SD2CR310	D14 (D2c) - Portal Beam Concreting	1	09-Dec-15	0%	1	10-Dec-15	23-Nov-15	23-Nov-15	-14	0	0%	[Gantt Bar: Red, Nov 23-23]																		
SD2CR320	D14 (D2c) - Pier Head Curing/Striking of Forms/Remove Scaffolding	14	10-Dec-15	0%	14	29-Dec-15	24-Nov-15	09-Dec-15	-14	0	0%	[Gantt Bar: Red, Nov 24-09]																		
SD2CR325	D14 (D2c) - Pier Backfilling Works	4	29-Dec-15	0%	4	04-Jan-16	25-Jan-16	28-Jan-16	22	30	0%	[Gantt Bar: Green, Dec 29-04]																		
Pier D15 (D2b)																														
Pier Works																														
SD2B0150	D15 (D2b) - Type 5B Pier Scaffolding (1st Lift)	1	22-Oct-15	0%	1	22-Oct-15	18-Aug-15	18-Aug-15	-48	0	0%	[Gantt Bar: Red, Oct 22-22]																		
SD2B0160	D15 (D2b) - Type 5B Pier Rebarwork (1st Lift)	2	23-Oct-15	0%	2	24-Oct-15	19-Aug-15	21-Aug-15	-48	0	0%	[Gantt Bar: Red, Oct 23-24]																		
SD2B0170	D15 (D2b) - Type 5B Pier Formwork & Prep for Concreting (1st Lift)	1	26-Oct-15	0%	1	26-Oct-15	22-Aug-15	22-Aug-15	-48	0	0%	[Gantt Bar: Red, Oct 26-26]																		
SD2B0180	D15 (D2b) - Type 5B Pier Concreting (1st Lift)	1	27-Oct-15	0%	1	27-Oct-15	24-Aug-15	24-Aug-15	-48	0	0%	[Gantt Bar: Red, Oct 27-27]																		
SD2B0182	D15 (D2b) - Type 5B Pier Curing & Striking of Forms incl. CJ prep (1st Lift)	2	28-Oct-15	0%	2	30-Oct-15	25-Aug-15	26-Aug-15	-48	0	0%	[Gantt Bar: Red, Oct 28-30]																		
SD2B0190	D15 (D2b) - Type 5B Pier Scaffolding (2nd Lift)	2	31-Oct-15	0%	2	02-Nov-15	27-Aug-15	28-Aug-15	-48	0	0%	[Gantt Bar: Red, Oct 31-02]																		
SD2B0200	D15 (D2b) - Type 5B Pier Rebarwork (2nd Lift)	3	03-Nov-15	0%	3	05-Nov-15	29-Aug-15	01-Sep-15	-48	0	0%	[Gantt Bar: Red, Oct 03-05]																		
SD2B0210	D15 (D2b) - Type 5B Pier Formwork & Prep for Concreting (2nd Lift)	3	06-Nov-15	0%	3	09-Nov-15	02-Sep-15	05-Sep-15	-48	0	0%	[Gantt Bar: Red, Oct 06-09]																		
SD2B0220	D15 (D2b) - Type 5B Pier Concreting (2nd Lift)	1	10-Nov-15	0%	1	10-Nov-15	07-Sep-15	07-Sep-15	-48	0	0%	[Gantt Bar: Red, Oct 10-10]																		
SD2B0310	D15 (D2b) - Type 5B Pier Curing/Striking of Forms/Remove Scaffolding (2nd Lift)	2	11-Nov-15	0%	2	12-Nov-15	08-Sep-15	10-Sep-15	-48	0	0%	[Gantt Bar: Red, Oct 11-12]																		
SD2B0312	D15 (D2b) - Type 5B Pier Head Scaffolding	3	13-Nov-15	0%	3	16-Nov-15	11-Sep-15	14-Sep-15	-48	0	0%	[Gantt Bar: Red, Oct 13-16]																		
SD2B0314	D15 (D2b) - Type 5B Pier Head Rebarwork	4	17-Nov-15	0%	4	20-Nov-15	15-Sep-15	19-Sep-15	-48	0	0%	[Gantt Bar: Red, Oct 17-20]																		
SD2B0316	D15 (D2b) - Type 5B Pier Head Formwork & Prep for Concreting	3	21-Nov-15	0%	3	24-Nov-15	21-Sep-15	23-Sep-15	-48	0	0%	[Gantt Bar: Red, Oct 21-24]																		
SD2B0318	D15 (D2b) - Type 5B Pier Head Concreting	1	25-Nov-15	0%	1	25-Nov-15	24-Sep-15	24-Sep-15	-48	0	0%	[Gantt Bar: Red, Oct 25-25]																		
SD2B0320	D15 (D2b) - Type 5B Pier Head Curing & Striking of Forms incl. CJ prep	6	26-Nov-15	0%	6	02-Dec-15	25-Sep-15	03-Oct-15	-48	0	0%	[Gantt Bar: Red, Oct 26-02]																		
SD2B0322	D15 (D2b) - Type 5B Pier Backfilling Works	4	03-Dec-15	0%	4	07-Dec-15	05-Oct-15	08-Oct-15	-48	0	0%	[Gantt Bar: Red, Oct 03-07]																		
Pier Head Segments																														
SD2B0370	D15 (D2b) - Pier Head Segment - Temporary Platform	6	08-Dec-15	0%	6	14-Dec-15	17-Nov-15	23-Nov-15	-18	0	0%	[Gantt Bar: Red, Dec 08-14]																		
SD2B0372	D15 (D2b) - Pier Head Segment Lift & Fix (1 seg)	2	15-Dec-15	0%	2	16-Dec-15	24-Nov-15	25-Nov-15	-18	0	0%	[Gantt Bar: Red, Dec 15-16]																		
SD2B0374	D15 (D2b) - Pier Head Segment Diaphragm - Rebar	12	17-Dec-15	0%	12	02-Jan-16	26-Nov-15	09-Dec-15	-18	0	0%	[Gantt Bar: Red, Dec 17-02]																		
SD2B0376	D15 (D2b) - Pier Head Segment Diaphragm - Formwork	8	04-Jan-16	0%	8	12-Jan-16	10-Dec-15	18-Dec-15	-18	0	0%	[Gantt Bar: Red, Dec 04-12]																		
SD2B0378	D15 (D2b) - Pier Head Segment Diaphragm - Concreting	2	13-Jan-16	0%	2	14-Jan-16	19-Dec-15	21-Dec-15	-18	0	0%	[Gantt Bar: Red, Dec 13-14]																		
SD2B0380	D15 (D2b) - Pier Head Segment Diaphragm - Curing & Striking of Forms	6	15-Jan-16	0%	6	21-Jan-16	22-Dec-15	30-Dec-15	-18	0	0%	[Gantt Bar: Red, Dec 15-21]																		
Pier D16 (D2a)																														
Pier Works																														
SD2A0190	D16 (D2a) - Type 5B Pier Scaffolding (2nd Lift)	2	22-Oct-15	0%	2	23-Oct-15	09-Jul-15	10-Jul-15	-79	0	0%	[Gantt Bar: Red, Oct 22-23]																		
SD2A0200	D16 (D2a) - Type 5B Pier Rebarwork (2nd Lift)	3	24-Oct-15	0%	3	27-Oct-15	11-Jul-15	14-Jul-15	-79	0	0%	[Gantt Bar: Red, Oct 24-27]																		
SD2A0210	D16 (D2a) - Type 5B Pier Formwork & Prep for Concreting (2nd Lift)	3	28-Oct-15	0%	3	31-Oct-15	15-Jul-15	18-Jul-15	-79	0	0%	[Gantt Bar: Red, Oct 28-31]																		
SD2A0220	D16 (D2a) - Type 5B Pier Concreting (2nd Lift)	1	02-Nov-15	0%	1	02-Nov-15	20-Jul-15	20-Jul-15	-79	0	0%	[Gantt Bar: Red, Oct 02-02]																		
SD2A0222	D16 (D2a) - Type 5B Pier Curing & Striking of Forms incl. CJ prep (2nd Lift)	2	03-Nov-15	0%	2	04-Nov-15	21-Jul-15	22-Jul-15	-79	0	0%	[Gantt Bar: Red, Oct 03-04]																		
SD2A0230	D16 (D2a) - Type 5B Pier Head Scaffolding	3	05-Nov-15	0%	3	07-Nov-15	23-Jul-15	25-Jul-15	-79	0	0%	[Gantt Bar: Red, Oct 05-07]																		
SD2A0240	D16 (D2a) - Type 5B Pier Head Rebarwork	4	09-Nov-15	0%	4	12-Nov-15	27-Jul-15	31-Jul-15	-79	0	0%	[Gantt Bar: Red, Oct 09-12]																		
SD2A0250	D16 (D2a) - Type 5B Pier Head Formwork & Prep for Concreting	4	13-Nov-15	0%	4	17-Nov-15	01-Aug-15	05-Aug-15	-79	0	0%	[Gantt Bar: Red, Oct 13-17]																		
SD2A0260	D16 (D2a) - Type 5B Pier Head Concreting	1	18-Nov-15	0%	1	18-Nov-15	06-Aug-15	06-Aug-15	-79	0	0%	[Gantt Bar: Red, Oct 18-18]																		
SD2A0310	D16 (D2a) - Type 5B Pier Head Curing/Striking of Forms/Remove Scaffold	6	19-Nov-15	0%	6	25-Nov-15	07-Aug-15	14-Aug-15	-79	0	0%	[Gantt Bar: Red, Oct 19-25]																		
SD2A0320	D16 (D2a) - Type 5B Pier Backfilling Works	4	26-Nov-15	0%	4	30-Nov-15	15-Aug-15	19-Aug-15	-79	0	0%	[Gantt Bar: Red, Oct 26-30]																		
Pier Head Segments																														
SD2A0370	D16 (D2a) - Pier Head Segment - Temporary Platform	6	01-Dec-15	0%	6	07-Dec-15	21-Aug-15	27-Aug-15	-79	0	0%	[Gantt Bar: Red, Dec 01-07]																		
SD2A0372	D16 (D2a) - Pier Head Segment Lift & Fix (1 seg)	2	08-Dec-15	0%	2	09-Dec-15	28-Aug-15	29-Aug-15	-79	0	0%	[Gantt Bar: Red, Dec 08-09]																		
SD2A0374	D16 (D2a) - Pier Head Segment Diaphragm - Rebar	13	10-Dec-15	0%	13	24-Dec-15	31-Aug-15	16-Sep-15	-79	0	0%	[Gantt Bar: Red, Dec 10-24]																		
SD2A0376	D16 (D2a) - Pier Head Segment Diaphragm - Formwork	8	28-Dec-15	0%	8	06-Jan-16	18-Sep-15	26-Sep-15	-79	0	0%	[Gantt Bar: Red, Dec 28-06]																		
SD2A0378	D16 (D2a) - Pier Head Segment Diaphragm - Concreting	2	07-Jan-16	0%	2	08-Jan-16	29-Sep-15	30-Sep-15	-79	0	0%	[Gantt Bar: Red, Dec 07-08]																		
SD2A0380	D16 (D2a) - Pier Head Segment Diaphragm - Curing & Striking of Forms	6	09-Jan-16	0%	6	15-Jan-16	02-Oct-15	08-Oct-15	-79	0	0%	[Gantt Bar: Red, Dec 09-15]																		
Pier D17 (D1d)																														
Pier Head Segments																														
SD1D0374	D17 (D1d) - Pier Head Segment Diaphragm - Rebar	13	10-Sep-15 A	100%	0	03-Oct-15 A					100%	[Gantt Bar: Blue, Sep 10-03]																		
SD1D0376	D17 (D1d) - Pier Head Segment Diaphragm - Formwork	8	05-Oct-15 A	100%	0	15-Oct-15 A					100%	[Gantt Bar: Blue, Sep 05-15]																		
SD1D0378	D17 (D1d) - Pier Head Segment Diaphragm - Concreting	2	16-Oct-15 A	100%	0	16-Oct-15 A					100%	[Gantt Bar: Blue, Sep 16-16]																		
SD1D0380	D17 (D1d) - Pier Head Segment Diaphragm - Curing & Striking of Forms	6	17-Oct-15 A	0%	6	28-Oct-15	02-Oct-15	08-Oct-15	-15	0	0%	[Gantt Bar: Red, Sep 17-28]																		
Pier D18 (D1c)																														
Pier Works																														
SD1C0320	D18 (D1c) - Type 5B-B Pier Backfilling Works	4	22-Oct-15	0%	4	26-Oct-15	21-Nov-15	25-Nov-15	25	0	0%	[Gantt Bar: Green, Oct 22-26]																		

■ Actual Work
■ Planned Bar
■ Critical Bar
◆ Milestone

Project ID: J3518DWPPrE1-M29
 Layout: J3518-DWP-3MRP Submission - M29
 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 17 of 31 Pages)
(Progress as of 21-Oct-15)

Date	Revision	Checked	Approved
01-Sep-15		PKN	KWY
30-Sep-15		PKN	KWY
31-Oct-15		PKN	KWY

DWG. No.:
J3518/GCL/PGM/3MRP-M29

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 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 (OM4)	All areas/ detailed design/ during construction / during operation	Design Consultant/ Contractor	TMEIA	Y	Y	Y	n/a. To be implemented by HyD/LCSD

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

EIA Reference	EM&A Manual Reference	Environmental Protection Measures	Location/ Timing	Implementation Agent	Relevant Standard or Requirement	Implementation Stages			Status
						D	C	O	
12.6	8.1	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; - Adequate ventilation; 	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"> - 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 paper if such volume is sufficiently large to	Site Offices/ 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	
		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.	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 : 28/09/2015

Sampler

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

Calibration Orifice and Standard Calibration Relationship

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

Standard Condition

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

Calibration Condition

Pa (hpa) : 1000
 Ta(K) : 303

Resistance Plate		dH [green liquid] (inch water)	Z	X=Qstd (cubic meter/min)	IC (chart)	Y (corrected)
1	18 holes	10.4	3.178	1.535	55	54.19
2	13 holes	8.5	2.873	1.389	50	49.27
3	10 holes	6.6	2.531	1.226	44	43.35
4	7 holes	4.0	1.971	0.959	36	35.47
5	5 holes	2.5	1.558	0.762	28	27.59

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): 33.831 Intercept(b): 2.253 Correlation Coefficient(r): 0.9989

Checked by: Magnum Fan

Date: 04/10/2015

High-Volume TSP Sampler
5-Point Calibration Record

Location : ASR9
 Calibrated by : P.F. Yeung
 Date : 28/09/2015

Sampler

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

Calibration Orifice and Standard Calibration Relationship

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

Standard Condition

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

Calibration Condition

Pa (hpa) : 1000
 Ta(K) : 303

Resistance Plate		dH [green liquid] (inch water)	Z	X=Qstd (cubic meter/min)	IC (chart)	Y (corrected)
1	18 holes	10.4	3.178	1.535	50	49.27
2	13 holes	8.5	2.873	1.389	46	45.33
3	10 holes	6.0	2.414	1.170	41	40.40
4	7 holes	4.0	1.971	0.959	35	34.49
5	5 holes	2.5	1.558	0.762	30	29.56

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): 25.418 Intercept(b): 10.249 Correlation Coefficient(r): 0.9995

Checked by: Magnum Fan

Date: 04/10/2015



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

ORIFICE TRANSFER STANDARD CERTIFICATION WORKSHEET TE-5025A

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

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

DATA TABULATION

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

CALCULATIONS

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

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

For subsequent flow rate calculations:

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



輝創工程有限公司

Sun Creation Engineering Limited

Calibration and Testing Laboratory

Certificate of Calibration

校正證書

Certificate No. : C153241

證書編號

ITEM TESTED / 送檢項目 (Job No. / 序引編號 : IC15-1330)

Date of Receipt / 收件日期 : 10 June 2015

Description / 儀器名稱 : Sound Level Calibrator

Manufacturer / 製造商 : Rion

Model No. / 型號 : NC-73

Serial No. / 編號 : 10997142

Supplied By / 委託者 : Envirotech Services Co.

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

TEST CONDITIONS / 測試條件

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

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

Line Voltage / 電壓 : ---

TEST SPECIFICATIONS / 測試規範

Calibration check

DATE OF TEST / 測試日期 : 14 June 2015

TEST RESULTS / 測試結果

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

All results are within manufacturer's specification.

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


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

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

Tested By

測試

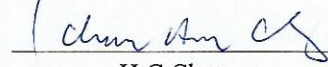
:


K C Lee
Project Engineer

Certified By

核證

:


H C Chan
Engineer

Date of Issue

簽發日期

:

16 June 2015

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

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Sun Creation Engineering Limited - Calibration & Testing Laboratory

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Sun Creation Engineering Limited
Calibration and Testing Laboratory

Certificate of Calibration

校正證書

Certificate No. : C153241
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	C143868
CL281	Multifunction Acoustic Calibrator	DC130171
TST150A	Measuring Amplifier	C141558

- Test procedure : MA100N.

- Results :

- 5.1 Sound Level Accuracy

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

- 5.2 Frequency Accuracy

UUT Nominal Value (kHz)	Measured Value (kHz)	Mfr's Spec.	Uncertainty of Measured Value (Hz)
1	0.986	1 kHz ± 2 %	± 1

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

Note :

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

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

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Sun Creation Engineering Limited

Calibration and Testing Laboratory

Certificate of Calibration

校正證書

Certificate No. : C153940
證書編號

ITEM TESTED / 送檢項目 (Job No. / 序引編號 : IC15-1557)

Date of Receipt / 收件日期 : 13 July 2015

Description / 儀器名稱 : Sound Level Meter

Manufacturer / 製造商 : Rion

Model No. / 型號 : NL-31

Serial No. / 編號 : 00603867

Supplied By / 委託者 : Envirotech Services Co.

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

TEST CONDITIONS / 測試條件

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

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 : 22 July 2015

TEST RESULTS / 測試結果

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

All results are within manufacturer's specification.

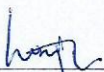
The results are detailed in the subsequent page(s).

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

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

Tested By

測試


H T Wong
Assistant Technical Officer

Certified By

核證


K Q Lee
Project Engineer

Date of Issue

簽發日期

22 July 2015

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Page 1 of 3

Certificate of Calibration

校正證書

Certificate No. : C153940

證書編號

1. 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.
2. Self-calibration was performed before the test.
3. The results presented are the mean of 3 measurements at each calibration point.
4. Test equipment :

Equipment ID	Description	Certificate No.
CL280	40 MHz Arbitrary Waveform Generator	C150014
CL281	Multifunction Acoustic Calibrator	DC130171

5. Test procedure : MA101N.

6. Results :

6.1 Sound Pressure Level

6.1.1 Reference Sound Pressure Level

UUT Setting				Applied Value		UUT Reading (dB)	IEC 61672 Class 1 Spec. (dB)
Range (dB)	Mode	Frequency Weighting	Time Weighting	Level (dB)	Freq. (kHz)		
30 - 120	L _A	A	Fast	94.00	1	93.5	± 1.1

6.1.2 Linearity

UUT Setting				Applied Value		UUT Reading (dB)
Range (dB)	Mode	Frequency Weighting	Time Weighting	Level (dB)	Freq. (kHz)	
30 - 120	L _A	A	Fast	94.00	1	93.5 (Ref.)
				104.00		103.5
				114.00		113.5

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

6.2 Time Weighting

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

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

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Certificate of Calibration

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Certificate No. : C153940

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	77.2	-16.1 ± 1.5
					250 Hz	84.7	-8.6 ± 1.4
					500 Hz	90.2	-3.2 ± 1.4
					1 kHz	93.5	Ref.
					2 kHz	94.7	+1.2 ± 1.6
					4 kHz	94.6	+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	93.3	-0.2 ± 1.5
					250 Hz	93.4	0.0 ± 1.4
					500 Hz	93.5	0.0 ± 1.4
					1 kHz	93.5	Ref.
					2 kHz	93.4	-0.2 ± 1.6
					4 kHz	92.8	-0.8 ± 1.6
					8 kHz	90.5	-3.0 (+2.1 ; -3.1)
					12.5 kHz	87.7	-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/0505/013 Manufacturer : HACH

Model No. : 2100Q Serial No. : 13100C028612

Date of Calibration : 30/09/2015 Due Date : 29/12/2015

Gelex Vial Std	Theoretical Value (NTU)	Measured Value (NTU)	Difference %
0-10 NTU	20	19.4	-3.00
10-100 NTU	100	97.3	-2.70
100-1000 NTU	800	769	-3.88

Acceptance Criteria

Difference : -5 % to 5 %

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

Checked by : hy Approved by : [Signature]



Internal Calibration & Performance Check of pH Meter

Equipment Ref. No. : ET/EW007/004 Manufacturer : Thermo Scientific
 Model No. : Orion 2 Star Serial No. : B29792
 Date of Calibration : 05/10/2015 Calibration Due Date : 04/11/2015

Liquid Junction Error

Primary Standard Solution Used : Phosphate I.o. of Primary Solution: 003/5.2/001/24 (20°C)
 Temperature of Solution : 25.0 / 20.0 $\Delta\text{pH}_{1/2} = +0.01 / +0.01$
 pH value of diluted buffer : 6.89 / 6.92 pH (S) = 6.86 / 6.88
 $\Delta\text{pH} = \text{pH(S)} - \text{pH of diluted buffer} = \underline{0.03 / 0.04}$ (Observed Deviation)
 Liquid Junction Error (ΔpH_j) = $\Delta\text{pH} - \Delta\text{pH}_{1/2} = \underline{0.02 / 0.03}$

Shift on Stirring

pH of buffer solution (with stirring), $\text{pH}_s = \underline{6.89 / 6.93}$
 Shift on stirring, $\Delta\text{pH}_s = \text{pH}_s - \text{pH(S)} - \Delta\text{pH}_j = \underline{0.01 / 0.02}$

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: ET/0521/019
 Temperature record from the reference thermometer (T_R): 25 / 20.2 °C
 Temperature record from the ATC (T_{ATC}): 24.8 / 19.9 °C
 Temperature Difference, $|T_R - T_{ATC}|$: 0.2 / 0.3 °C
 Correction : +0.2 / +0.2 °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/008/004</u>	Manufacturer : <u>YSI</u>
Model No. : <u>Pro 2030</u>	Serial No. : <u>10F 101978</u>
Date of Calibration : <u>26/10/2015</u>	Calibration Due Date : <u>25/01/2016</u>

Temperature Verification

Ref. No. of Reference Thermometer : ET/0521/005

Ref. No. of Water Bath : ---

		Temperature (°C)		
Reference Thermometer reading	Measured	19.9	Corrected	20.2
DO Meter reading	Measured	20.0	Difference	0.2

Standardization of sodium thiosulphate (Na₂S₂O₃) solution

Reagent No. of Na ₂ S ₂ O ₃ titrant	CPE/012/4.5/001/12	Reagent No. of 0.025N K ₂ Cr ₂ O ₇	CPE/012/4.4/002/04
		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	20.30
Vol. of Na ₂ S ₂ O ₃ used (ml)		10.20	10.10
Normality of Na ₂ S ₂ O ₃ solution (N)		0.02451	0.02475
Average Normality (N) of Na ₂ S ₂ O ₃ solution (N)		0.02463	
Acceptance criteria, Deviation		Less than ± 0.001N	

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

Linearity Checking

Determination of dissolved oxygen content by Winkler Titration *

Purging Time (min)	2		5		10	
	1	2	1	2	1	2
Initial Vol. of Na ₂ S ₂ O ₃ (ml)	0.00	11.20	22.50	0.00	6.70	10.60
Final Vol. of Na ₂ S ₂ O ₃ (ml)	11.20	22.50	28.90	6.70	10.60	14.50
Vol. (V) of Na ₂ S ₂ O ₃ used (ml)	11.20	11.30	6.40	6.70	3.90	3.90
Dissolved Oxygen (DO), mg/L	7.41	7.47	4.23	4.43	2.58	2.58
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	7.42	7.35	7.41	7.47	7.44	1.22
5	4.43	4.61	4.52	4.23	4.43	4.33	4.29
10	2.48	2.55	2.52	2.58	2.58	2.58	2.35
Linear regression coefficient				0.9962			



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/012/4.7/003/9	Reagent No. of NaCl (30ppt)	CPE/012/4.8/003/9
-----------------------------	-------------------	-----------------------------	-------------------

Determination of dissolved oxygen content by Winkler Titration **

Salinity (ppt)	10		30	
	1	2	1	2
Trial				
Initial Vol. of Na ₂ S ₂ O ₃ (ml)	0.00	11.10	22.10	31.50
Final Vol. of Na ₂ S ₂ O ₃ (ml)	11.10	22.10	31.50	41.00
Vol. (V) of Na ₂ S ₂ O ₃ used (ml)	11.10	11.00	9.40	9.50
Dissolved Oxygen (DO), mg/L	7.34	7.27	6.22	6.28
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	7.43	7.58	7.51	7.34	7.27	7.31	2.70
30	6.36	6.41	6.39	6.22	6.28	6.25	2.22

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/008/004 Manufacturer : YSI
Model No. : Pro 2030 Serial No. : 10F 101978
Date of Calibration : 26/10/2015 Due Date : 25/01/2016

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

S/001/5

Salinity Standard (ppt)	Measured Salinity (ppt)	Difference * (%)
30.0	29.7	-3.00

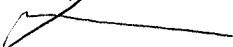
(*) Difference (%) = (Measured Salinity – Salinity Standard value) / Salinity Standard value x 100

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 : 10 November 2015

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)
0.61	0.4
1.58	1.3
2.69	2.5

Wind Direction Test

Global Wate (o)	Marine Compass (o)
270.85	270
0.06	0
90.77	90
181.05	180

Calibrated by: Fai
Yeung Ping Fai
(Technical Officer)

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



輝創工程有限公司

Sun Creation Engineering Limited

Calibration and Testing Laboratory

Certificate of Calibration

校正證書

Certificate No. : C153422

證書編號

ITEM TESTED / 送檢項目 (Job No. / 序引編號 : IC15-1330)

Date of Receipt / 收件日期 : 10 June 2015

Description / 儀器名稱 : Anemometer

Manufacturer / 製造商 : Lutron

Model No. / 型號 : AM-4201

Serial No. / 編號 : AF.27513

Supplied By / 委託者 : Envirotech Services Co.

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

TEST CONDITIONS / 測試條件

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

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

Line Voltage / 電壓 : ---

TEST SPECIFICATIONS / 測試規範

Calibration check

DATE OF TEST / 測試日期 : 23 June 2015

TEST RESULTS / 測試結果

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

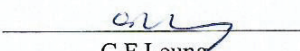
The results are detailed in the subsequent page(s).

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

- Testo Industrial Services GmbH, Germany

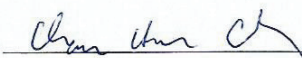
Tested By

測試


C F Leung
Project Engineer

Certified By

核證


H C Chan
Engineer

Date of Issue

簽發日期

23 June 2015

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

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Sun Creation Engineering Limited - Calibration & Testing Laboratory

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Website/網址: www.suncreation.com



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. : C153422

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 10 measurements at each calibration point.
- Test equipment :

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

- Test procedure : MA130N.
- Results :

Air Velocity

Applied Value (m/s)	UUT Reading (m/s)	Measured Correction		
		Value (m/s)	Measurement Uncertainty	
			Expanded Uncertainty (m/s)	Coverage Factor
1.9	1.8	+0.1	0.2	2.0
4.0	3.9	+0.1	0.2	2.0
6.0	6.0	0.0	0.3	2.0
8.0	8.1	-0.1	0.3	2.0
10.0	10.3	-0.3	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.

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Appendix F

EM&A Monitoring Schedules

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

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
01-Nov	02-Nov	03-Nov	04-Nov	05-Nov	06-Nov	07-Nov
		WQM Mid-Flood 14:09 (12:24 - 15:54) Mid-Ebb 19:16 (18:40 - 19:50)		WQM Mid-Ebb 8:09 (06:24 - 09:54) Mid-Flood 15:46 (14:01 - 17:31)		WQM Mid-Ebb 10:16 (08:31 - 12:01) Mid-Flood 16:43 (14:58 - 18:28)
08-Nov	09-Nov	10-Nov	11-Nov	12-Nov	13-Nov	14-Nov
		WQM Mid-Ebb 12:13 (10:28 - 13:58) Mid-Flood 17:58 (16:13 - 19:43)		WQM Mid-Ebb 13:22 (11:37 - 15:07) Mid-Flood 17:58 (16:13 - 19:43)		WQM Mid-Flood 9:00 (07:15 - 10:45) Mid-Ebb 14:36 (12:51 - 16:21)
15-Nov	16-Nov	17-Nov	18-Nov	19-Nov	20-Nov	21-Nov
		WQM Mid-Flood 11:34 (09:49 - 13:19) Mid-Ebb 16:57 (15:12 - 18:42)		WQM Mid-Flood 13:54 (12:09 - 15:39) Mid-Ebb 19:53 (18:08 - 21:38)		WQM Mid-Ebb 8:17 (06:32 - 10:02) Mid-Flood 15:30 (13:45 - 17:15)
22-Nov	23-Nov	24-Nov	25-Nov	26-Nov	27-Nov	28-Nov
		WQM Mid-Ebb 11:24 (09:39 - 13:09) Mid-Flood 17:22 (15:37 - 19:07)		WQM Mid-Ebb 13:09 (11:24 - 14:54) Mid-Flood 18:35 (16:50 - 20:20)		WQM Mid-Flood 9:17 (07:32 - 11:02) Mid-Ebb 14:40 (12:55 - 16:25)
29-Nov	30-Nov	01-Dec	02-Dec	03-Dec	04-Dec	05-Dec
		WQM Mid-Flood 11:44 (09:59 - 13:29) Mid-Ebb 16:54 (15:09 - 18:39)		WQM Mid-Flood 13:42 (11:57 - 15:27) Mid-Ebb 19:33 (17:48 - 21:18)		WQM Mid-Ebb 7:54 (06:09 - 09:39) Mid-Flood 15:12 (13:27 - 16:57)

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

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
29-Nov	30-Nov	01-Dec	02-Dec	03-Dec	04-Dec	05-Dec
		WQM Mid-Flood 11:44 (09:59 - 13:29) Mid-Ebb 16:54 (15:09 - 18:39)		WQM Mid-Flood 13:42 (11:57 - 15:27) Mid-Ebb 19:33 (17:48 - 21:18)		WQM Mid-Ebb 7:54 (06:09 - 09:39) Mid-Flood 15:12 (13:27 - 16:57)
06-Dec	07-Dec	08-Dec	09-Dec	10-Dec	11-Dec	12-Dec
		WQM Mid-Ebb 11:04 (09:19 - 12:49) Mid-Flood 16:46 (15:01 - 18:31)		WQM Mid-Ebb 12:24 (10:39 - 14:09) Mid-Flood 17:45 (16:00 - 19:30)		WQM Mid-Ebb 13:42 (11:57 - 15:27) Mid-Flood 18:53 (17:08 - 20:38)
13-Dec	14-Dec	15-Dec	16-Dec	17-Dec	18-Dec	19-Dec
		WQM Mid-Flood 10:23 (08:38 - 12:08) Mid-Ebb 15:52 (14:07 - 17:37)		WQM Mid-Flood 12:05 (10:20 - 13:50) Mid-Ebb 17:46 (16:01 - 19:31)		WQM Mid-Flood 13:55 (12:10 - 15:40) Mid-Ebb 20:20 (18:35 - 22:05)
20-Dec	21-Dec	22-Dec	23-Dec	24-Dec	25-Dec	26-Dec
		WQM Mid-Ebb 10:13 (08:28 - 11:58) Mid-Flood 16:12 (14:27 - 17:57)		WQM Mid-Ebb 12:13 (10:28 - 13:58) Mid-Flood 17:34 (15:49 - 19:19)		WQM Mid-Ebb 13:42 (11:57 - 15:27) Mid-Flood 18:53 (17:08 - 20:38)
27-Dec	28-Dec	29-Dec	30-Dec	31-Dec	01-Jan	02-Jan
		WQM Mid-Flood 10:22 (08:37 - 12:07) Mid-Ebb 15:39 (13:54 - 17:24)		WQM Mid-Flood 11:38 (09:53 - 13:23) Mid-Ebb 17:07 (15:22 - 18:52)		WQM Mid-Flood 13:06 (11:21 - 14:51) Mid-Ebb 19:26 (17:41 - 21:11)

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

Alternative Noise Monitoring at Pak Mong Village Entrance

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

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

Alternative Air Quality Monitoring at WA4 and MTRC Depot Entrance

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

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

Alternative Noise Monitoring at Pak Mong Village Entrance

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
		01-Dec	02-Dec	03-Dec	04-Dec	05-Dec
		Noise Impact Monitoring				
06-Dec	07-Dec	08-Dec	09-Dec	10-Dec	11-Dec	12-Dec
Noise Impact Monitoring				Noise Impact Monitoring		
13-Dec	14-Dec	15-Dec	16-Dec	17-Dec	18-Dec	19-Dec
			Noise Impact Monitoring			
20-Dec	21-Dec	22-Dec	23-Dec	24-Dec	25-Dec	26-Dec
		Noise Impact Monitoring				
27-Dec	28-Dec	29-Dec	30-Dec	31-Dec		
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 dueto adverse (safety, weather etc) conditions.

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

Alternative Air Quality Monitoring at WA4 and MTRC Depot Entrance

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
		01-Dec	02-Dec	03-Dec	04-Dec	05-Dec
		1-hr TSP Monitoring 24-hr TSP Monitoring				
06-Dec	07-Dec	08-Dec	09-Dec	10-Dec	11-Dec	12-Dec
1-hr TSP Monitoring 24-hr TSP Monitoring				1-hr TSP Monitoring 24-hr TSP Monitoring		
13-Dec	14-Dec	15-Dec	16-Dec	17-Dec	18-Dec	19-Dec
			1-hr TSP Monitoring 24-hr TSP Monitoring			
20-Dec	21-Dec	22-Dec	23-Dec	24-Dec	25-Dec	26-Dec
		1-hr TSP Monitoring 24-hr TSP Monitoring				
27-Dec	28-Dec	29-Dec	30-Dec	31-Dec		
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 dueto adverse (safety, weather etc) conditions.

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

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

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

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

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.

Appendix G

Impact Air Quality
Monitoring Results and
Graphical Presentation

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

Project	Works	Date(yyyy-mm-dd)	Station	Time (hh:mm, 24hour)	Parameter	Results (ug/m3)	Action Level (ug/m3)	Limit Level (ug/m3)	
TMCLKL	HY/2012/07	2015-11-04	ASR8A	9:25	1-hr TSP	98	394	500	
TMCLKL	HY/2012/07	2015-11-04	ASR8A	10:27	1-hr TSP	88			
TMCLKL	HY/2012/07	2015-11-04	ASR8A	11:29	1-hr TSP	83			
TMCLKL	HY/2012/07	2015-11-10	ASR8A	10:00	1-hr TSP	61			
TMCLKL	HY/2012/07	2015-11-10	ASR8A	11:02	1-hr TSP	84			
TMCLKL	HY/2012/07	2015-11-10	ASR8A	12:04	1-hr TSP	77			
TMCLKL	HY/2012/07	2015-11-16	ASR8A	9:08	1-hr TSP	76			
TMCLKL	HY/2012/07	2015-11-16	ASR8A	10:10	1-hr TSP	88			
TMCLKL	HY/2012/07	2015-11-16	ASR8A	11:12	1-hr TSP	93			
TMCLKL	HY/2012/07	2015-11-19	ASR8A	9:40	1-hr TSP	54			
TMCLKL	HY/2012/07	2015-11-19	ASR8A	10:42	1-hr TSP	61			
TMCLKL	HY/2012/07	2015-11-19	ASR8A	11:44	1-hr TSP	57			
TMCLKL	HY/2012/07	2015-11-25	ASR8A	8:35	1-hr TSP	154			
TMCLKL	HY/2012/07	2015-11-25	ASR8A	9:37	1-hr TSP	157			
TMCLKL	HY/2012/07	2015-11-25	ASR8A	10:39	1-hr TSP	134			
				Average	91				
				Min.	54				
				Max.	157				

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

Project	Works	Date(yyyy-mm-dd)	Station	Time (hh:mm, 24hour)	Parameter	Results (ug/m3)	Action Level (ug/m3)	Limit Level (ug/m3)	
TMCLKL	HY/2012/07	2015-11-04	ASR9	9:35	1-hr TSP	81	393	500	
TMCLKL	HY/2012/07	2015-11-04	ASR9	10:37	1-hr TSP	112			
TMCLKL	HY/2012/07	2015-11-04	ASR9	11:39	1-hr TSP	115			
TMCLKL	HY/2012/07	2015-11-10	ASR9	10:11	1-hr TSP	100			
TMCLKL	HY/2012/07	2015-11-10	ASR9	11:13	1-hr TSP	115			
TMCLKL	HY/2012/07	2015-11-10	ASR9	12:15	1-hr TSP	121			
TMCLKL	HY/2012/07	2015-11-16	ASR9	9:19	1-hr TSP	80			
TMCLKL	HY/2012/07	2015-11-16	ASR9	10:21	1-hr TSP	109			
TMCLKL	HY/2012/07	2015-11-16	ASR9	11:23	1-hr TSP	81			
TMCLKL	HY/2012/07	2015-11-19	ASR9	9:50	1-hr TSP	53			
TMCLKL	HY/2012/07	2015-11-19	ASR9	10:52	1-hr TSP	63			
TMCLKL	HY/2012/07	2015-11-19	ASR9	11:54	1-hr TSP	65			
TMCLKL	HY/2012/07	2015-11-25	ASR9	8:46	1-hr TSP	161			
TMCLKL	HY/2012/07	2015-11-25	ASR9	9:48	1-hr TSP	141			
TMCLKL	HY/2012/07	2015-11-25	ASR9	10:50	1-hr TSP	181			
				Average	105				
				Min.	53				
				Max.	181				

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

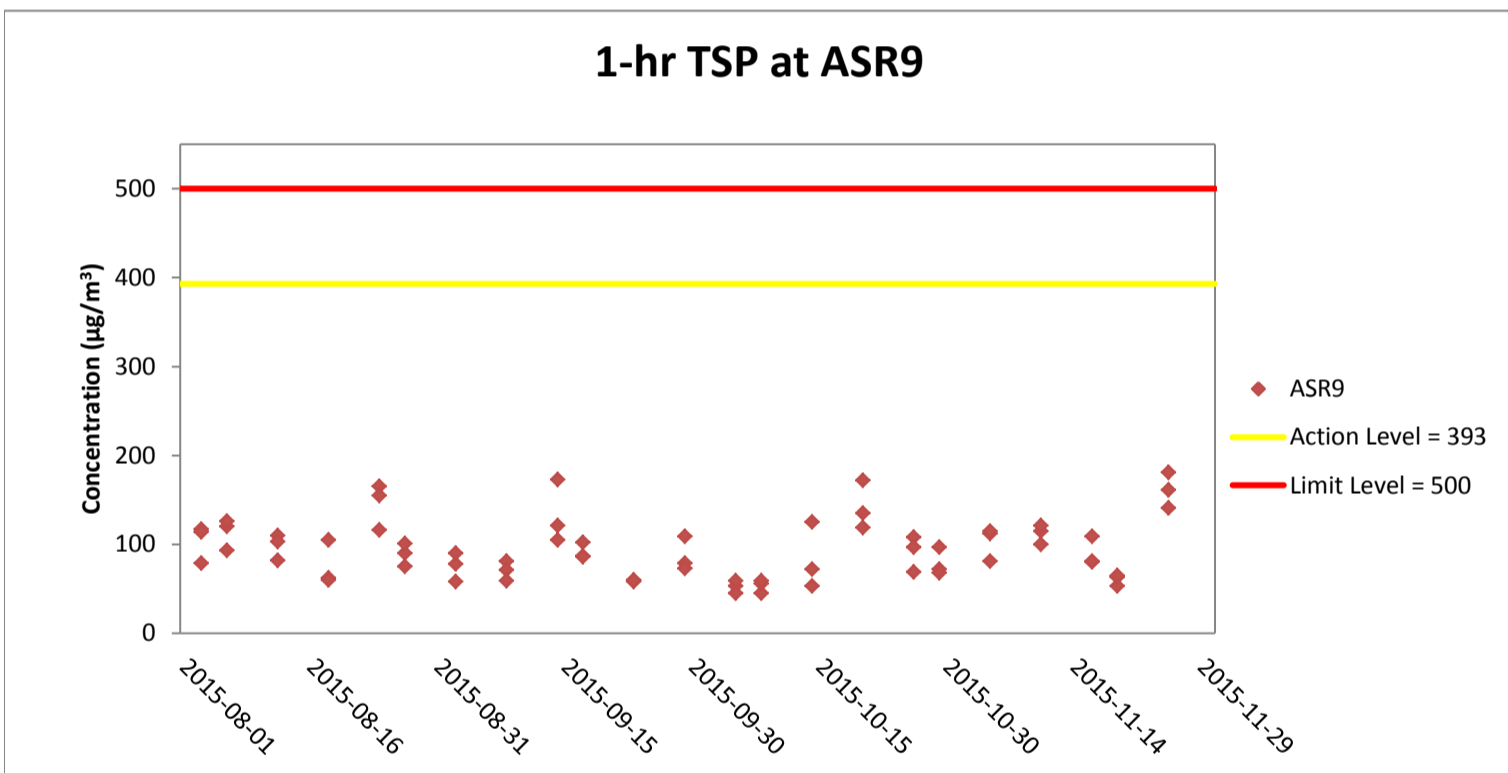
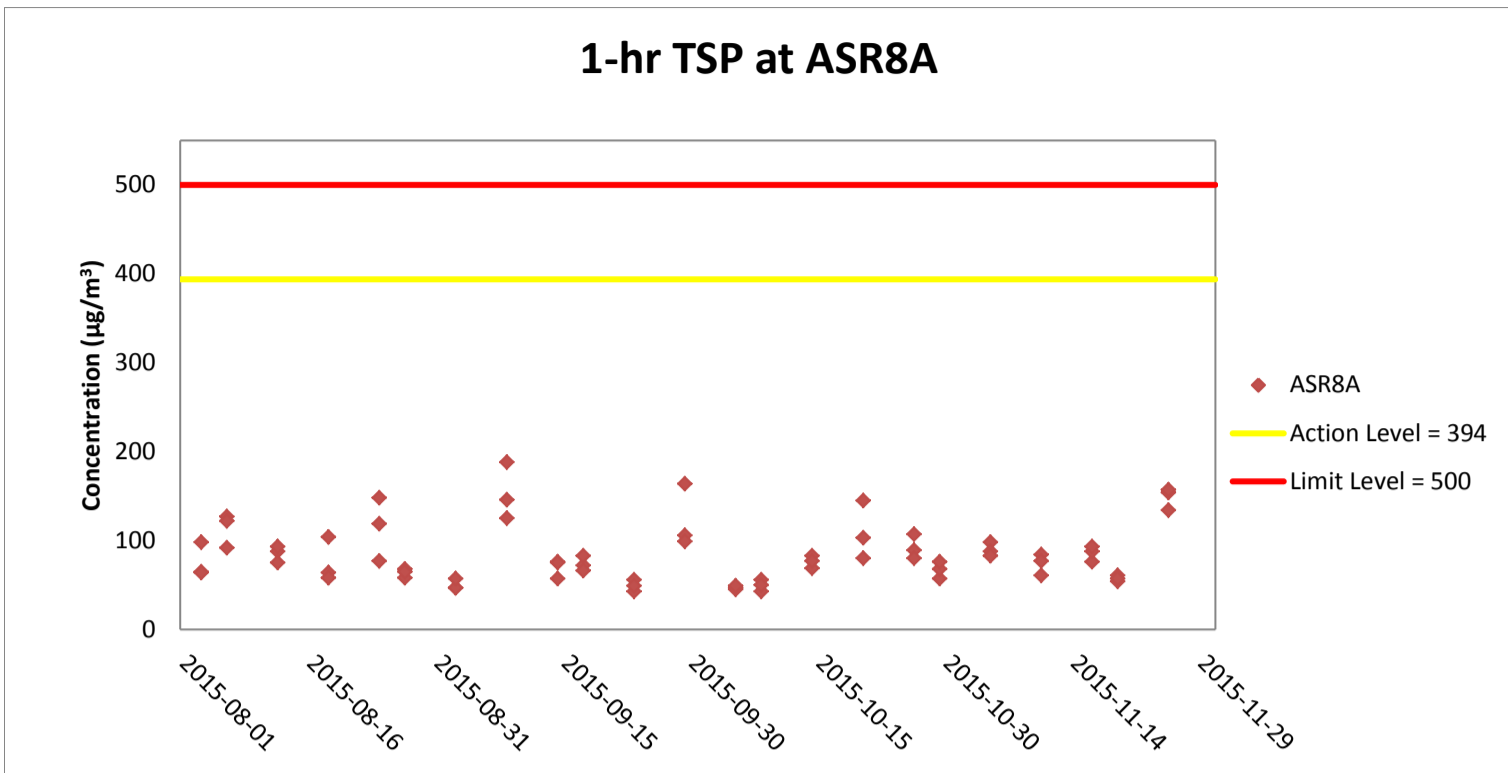
Project	Works	Date(yyyy-mm-dd)	Station	Time (hh:mm, 24hour)	Parameter	Results (ug/m3)	Action Level (ug/m3)	Limit Level (ug/m3)
TMCLKL	HY/2012/07	2015-11-04	ASR8A	12:31	24-hr TSP	59	178	260
TMCLKL	HY/2012/07	2015-11-10	ASR8A	13:06	24-hr TSP	59		
TMCLKL	HY/2012/07	2015-11-16	ASR8A	12:14	24-hr TSP	60		
TMCLKL	HY/2012/07	2015-11-19	ASR8A	12:46	24-hr TSP	51		
TMCLKL	HY/2012/07	2015-11-25	ASR8A	11:41	24-hr TSP	91		
						Average	64	
						Min.	51	
						Max.	91	

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

Project	Works	Date(yyyy-mm-dd)	Station	Time (hh:mm, 24hour)	Parameter	Results (ug/m3)	Action Level (ug/m3)	Limit Level (ug/m3)
TMCLKL	HY/2012/07	2015-11-04	ASR9	12:41	24-hr TSP	65	178	260
TMCLKL	HY/2012/07	2015-11-10	ASR9	13:17	24-hr TSP	85		
TMCLKL	HY/2012/07	2015-11-16	ASR9	12:25	24-hr TSP	66		
TMCLKL	HY/2012/07	2015-11-19	ASR9	12:56	24-hr TSP	55		
TMCLKL	HY/2012/07	2015-11-25	ASR9	11:52	24-hr TSP	98		
						Average	74	
						Min.	55	
						Max.	98	

Action Level Exceedance

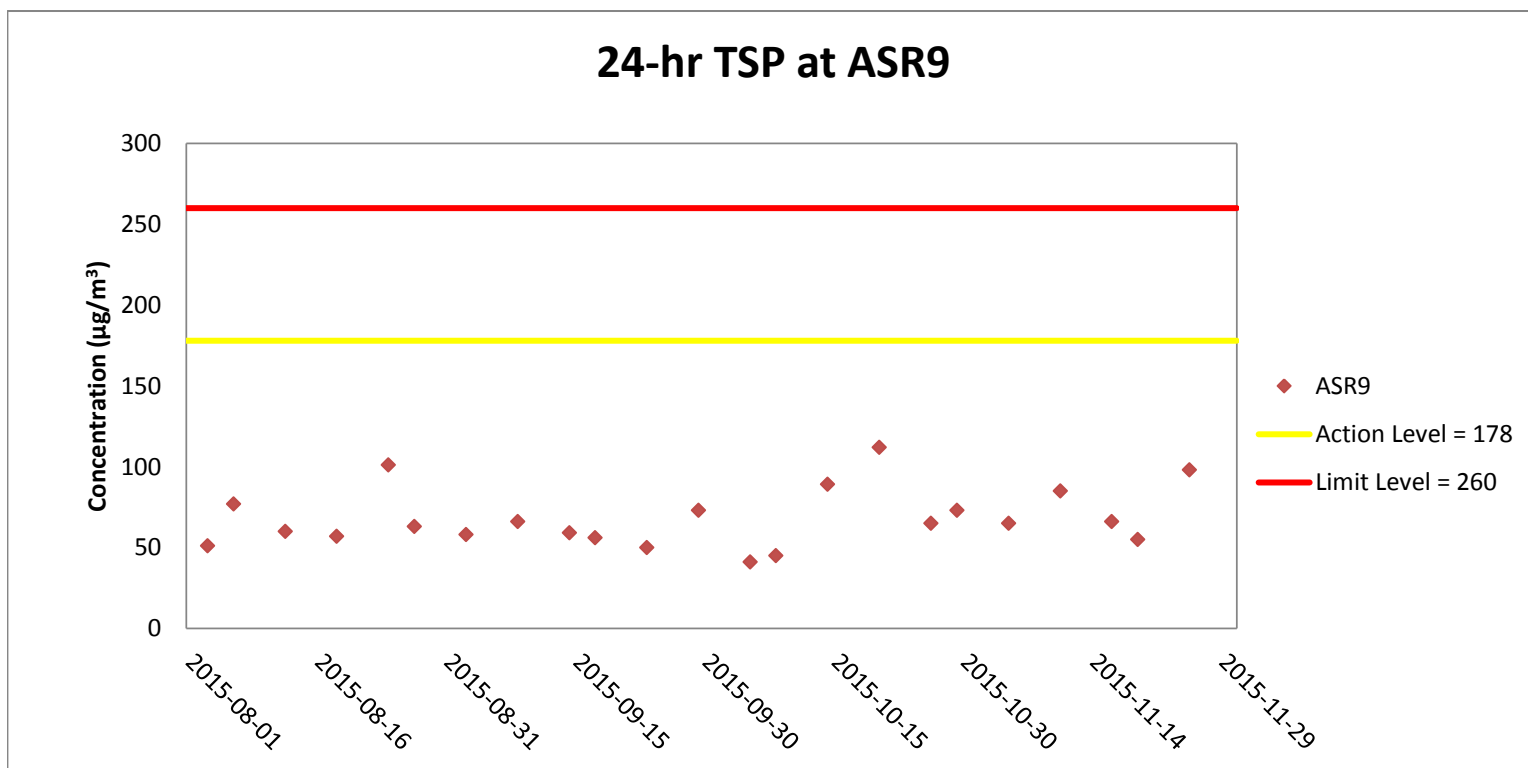
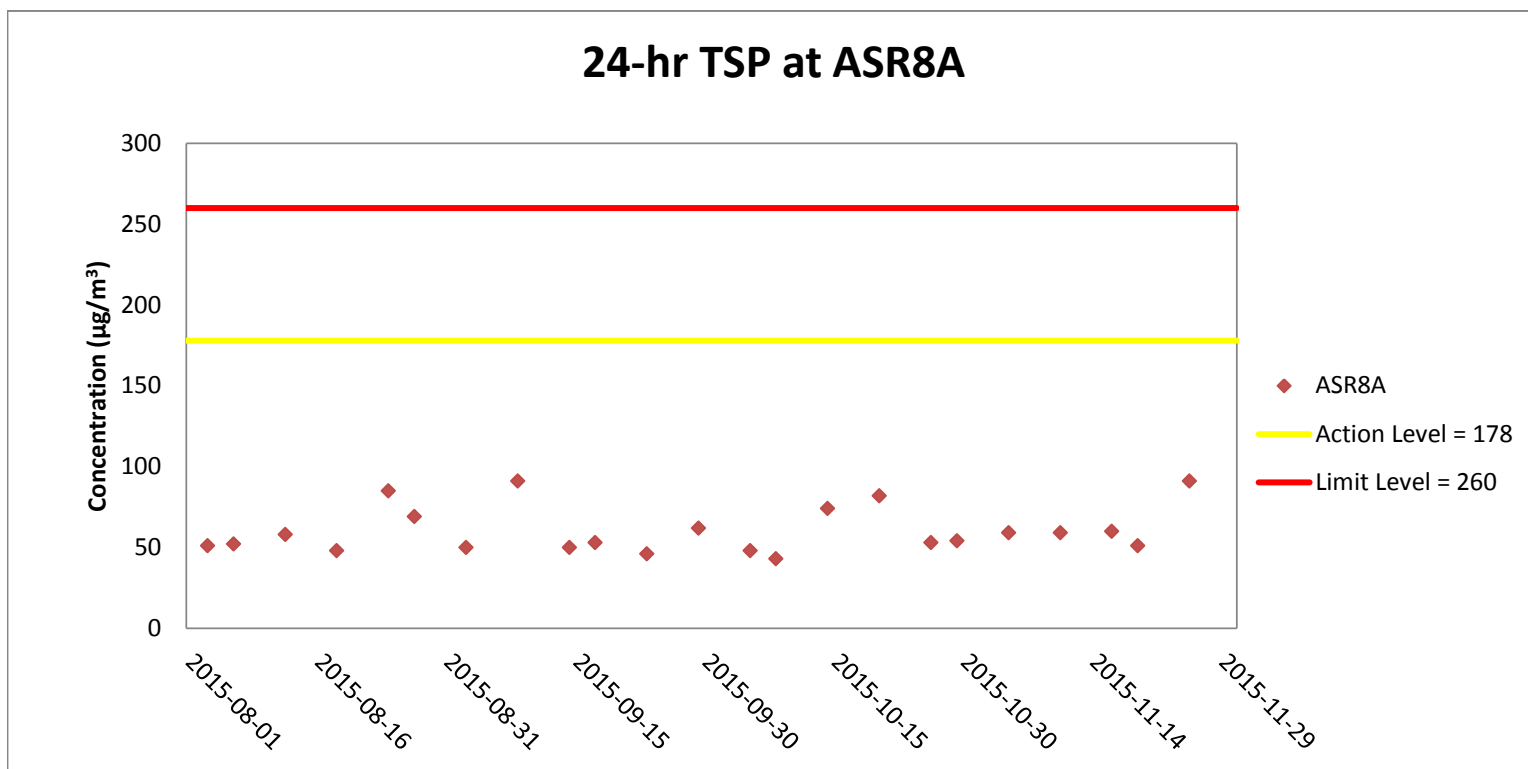
Limit Level Exceedance



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

Major construction works undertaken within the reporting period include Construction and installation of pile caps; Pier construction; Pile cap installation; Land piling; Re-alignment of Cheung Tung Road; Predrilling at Viaduct F; Additional land GI, trial pits & lab testing; Installation of pier head segment; 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; Pile cap installation; 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 Construction and installation of pile caps; Pier construction; Pile cap installation; Land piling; Re-alignment of Cheung Tung Road; Predrilling at Viaduct F; Additional land GI, trial pits & lab testing; Installation of pier head segment; 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; Pile cap installation; 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)
10-11-2015	7	0.0	283
10-11-2015	8	0.0	283
10-11-2015	9	0.0	234
10-11-2015	10	0.8	115
10-11-2015	11	1.5	169
10-11-2015	12	0.9	153
10-11-2015	13	0.4	125
10-11-2015	14	0.7	129
10-11-2015	15	0.3	110
10-11-2015	16	0.7	114
10-11-2015	17	0.3	131
10-11-2015	18	0.2	111
10-11-2015	19	0.1	104
10-11-2015	20	0.3	76
10-11-2015	21	0.1	100
10-11-2015	22	0.3	88
10-11-2015	23	1.2	120
11-11-2015	0	1.2	140
11-11-2015	1	1.8	167
11-11-2015	2	0.3	98
11-11-2015	3	0.3	86
11-11-2015	4	0.3	90
11-11-2015	5	0.3	106
11-11-2015	6	3.0	160
11-11-2015	7	3.4	156
11-11-2015	8	4.5	160
11-11-2015	9	3.7	162
11-11-2015	10	1.3	116
11-11-2015	11	4.3	158
11-11-2015	12	3.9	171
16-11-2015	7	0.3	130
16-11-2015	8	1.8	166
16-11-2015	9	3.3	153
16-11-2015	10	2.9	159
16-11-2015	11	2.6	144
16-11-2015	12	3.7	158
16-11-2015	13	3.1	143
16-11-2015	14	4.4	148
16-11-2015	15	2.9	143
16-11-2015	16	2.4	156
16-11-2015	17	3.9	165
16-11-2015	18	2.1	141
16-11-2015	19	0.5	142
16-11-2015	20	0.7	137
16-11-2015	21	1.2	156
16-11-2015	22	0.6	119
16-11-2015	23	0.5	150
17-11-2015	0	0.9	139
17-11-2015	1	2.4	159
17-11-2015	2	2.7	155

Date	Time (HH)	Wind speed (m/s)	Wind direction (deg)
17-11-2015	3	2.5	167
17-11-2015	4	1.3	173
17-11-2015	5	0.6	145
17-11-2015	6	0.0	166
17-11-2015	7	0.5	155
17-11-2015	8	0.8	133
17-11-2015	9	1.1	144
17-11-2015	10	2.3	168
17-11-2015	11	2.3	167
17-11-2015	12	2.6	187
19-11-2015	7	0.0	203
19-11-2015	8	0.3	91
19-11-2015	9	1.1	175
19-11-2015	10	0.8	190
19-11-2015	11	0.4	141
19-11-2015	12	0.4	138
19-11-2015	13	0.8	155
19-11-2015	14	2.0	162
19-11-2015	15	1.9	158
19-11-2015	16	2.0	158
19-11-2015	17	2.7	157
19-11-2015	18	3.9	164
19-11-2015	19	2.9	169
19-11-2015	20	1.7	176
19-11-2015	21	0.4	175
19-11-2015	22	0.3	177
19-11-2015	23	0.2	163
20-11-2015	0	0.4	139
20-11-2015	1	2.1	182
20-11-2015	2	3.9	171
20-11-2015	3	3.3	166
20-11-2015	4	2.1	175
20-11-2015	5	2.5	169
20-11-2015	6	1.0	172
20-11-2015	7	0.9	145
20-11-2015	8	0.7	144
20-11-2015	9	1.5	154
20-11-2015	10	2.6	158
20-11-2015	11	2.7	167
20-11-2015	12	0.8	122
25-11-2015	7	0.1	168
25-11-2015	8	0.1	133
25-11-2015	9	0.1	220
25-11-2015	10	0.0	237
25-11-2015	11	0.0	257
25-11-2015	12	0.2	266
25-11-2015	13	0.1	307
25-11-2015	14	0.2	297
25-11-2015	15	0.3	293
25-11-2015	16	0.5	274

Date	Time (HH)	Wind speed (m/s)	Wind direction (deg)
25-11-2015	17	0.4	331
25-11-2015	18	0.7	327
25-11-2015	19	0.5	293
25-11-2015	20	0.0	288
25-11-2015	21	0.1	271
25-11-2015	22	0.1	295
25-11-2015	23	0.3	330
26-11-2015	0	0.8	302
26-11-2015	1	0.8	302
26-11-2015	2	0.5	304
26-11-2015	3	0.3	288
26-11-2015	4	0.2	316
26-11-2015	5	0.2	250
26-11-2015	6	0.4	92
26-11-2015	7	0.1	174
26-11-2015	8	0.1	84
26-11-2015	9	0.1	304
26-11-2015	10	0.1	312
26-11-2015	11	0.2	291
26-11-2015	12	0.6	265

* The wind sensor was in maintenance until 9 November 2015.

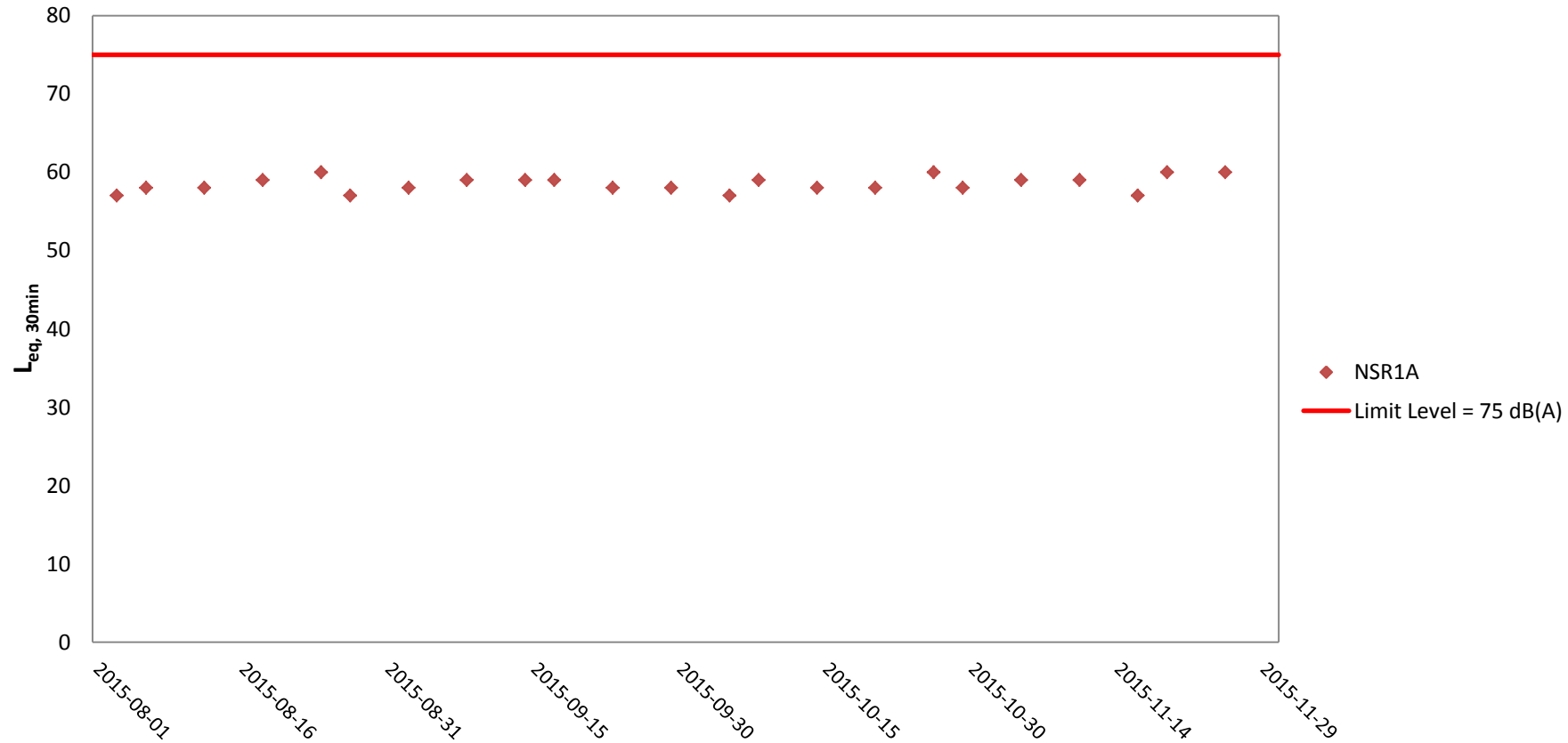
Appendix I

Impact Noise Monitoring Results and Graphical Presentation

Appendix II Noise Monitoring Results

Project	Works	Date (yyyy-mm-dd)	Station	Weather Condition	Time (hh:mm, 24hour)	Noise Level for 30-min, dB(A)			Limit Level dB(A)	Wind Speed (m/s)	Noise Meter Model/ID	Calibrator Model/ID
						Leq	L10	L90				
TMCLKL	HY/2012/07	2015-11-04	NSR1A	Sunny	10:48	59	61	54	75	0.6	RION NL31 (S/N 00603867)	RION NC73 (S/N 10997142)
TMCLKL	HY/2012/07	2015-11-10	NSR1A	Sunny	11:22	59	62	53	75	0.5	RION NL31 (S/N 00603867)	RION NC73 (S/N 10997142)
TMCLKL	HY/2012/07	2015-11-16	NSR1A	Sunny	10:31	57	60	52	75	0.3	RION NL31 (S/N 00603867)	RION NC73 (S/N 10997142)
TMCLKL	HY/2012/07	2015-11-19	NSR1A	Sunny	11:03	60	62	53	75	0.2	RION NL31 (S/N 00603867)	RION NC73 (S/N 10997142)
TMCLKL	HY/2012/07	2015-11-25	NSR1A	Sunny	10:00	60	62	53	75	0.3	RION NL31 (S/N 00603867)	RION NC73 (S/N 10997142)
						Min.	57					
						Max.	60					
						Average	59					

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



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

Major construction works undertaken within the reporting period include Construction and installation of pile caps; Pier construction; Pile cap installation; Land piling; Re-alignment of Cheung Tung Road; Predrilling at Viaduct F; Additional land GI, trial pits & lab testing; Installation of pier head segment; 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; Pile cap installation; Pier construction; Launching gantry operation; and Installation of deck segment and pier head segment.

Appendix J

Impact Water Quality Monitoring Results and Graphical Presentation

Appendix J-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	03-11-2015	Mid-Flood	CS(Mf)5	13:24	Surface	1	1	25.4	8.02	22.3	6.72	7.84	10.2
TMCLKL	HY/2012/07	03-11-2015	Mid-Flood	CS(Mf)5	13:24	Surface	1	2	25.5	8.05	22.2	6.69	7.78	11.7
TMCLKL	HY/2012/07	03-11-2015	Mid-Flood	CS(Mf)5	13:24	Middle	2	1	25.4	8.01	22.4	6.56	7.92	9.5
TMCLKL	HY/2012/07	03-11-2015	Mid-Flood	CS(Mf)5	13:24	Middle	2	2	25.4	8.03	22.5	6.53	8.03	10.4
TMCLKL	HY/2012/07	03-11-2015	Mid-Flood	CS(Mf)5	13:24	Bottom	3	1	25.4	7.98	22.7	6.38	8.24	13.7
TMCLKL	HY/2012/07	03-11-2015	Mid-Flood	CS(Mf)5	13:24	Bottom	3	2	25.3	7.95	22.8	6.34	8.32	13.3
TMCLKL	HY/2012/07	03-11-2015	Mid-Flood	SR4a	13:51	Surface	1	1	25.5	7.97	22.3	6.63	7.65	11.5
TMCLKL	HY/2012/07	03-11-2015	Mid-Flood	SR4a	13:51	Surface	1	2	25.5	7.99	22.3	6.61	7.72	10
TMCLKL	HY/2012/07	03-11-2015	Mid-Flood	SR4a	13:51	Middle	2	1						
TMCLKL	HY/2012/07	03-11-2015	Mid-Flood	SR4a	13:51	Middle	2	2						
TMCLKL	HY/2012/07	03-11-2015	Mid-Flood	SR4a	13:51	Bottom	3	1	25.4	7.99	22.4	6.47	7.94	9.5
TMCLKL	HY/2012/07	03-11-2015	Mid-Flood	SR4a	13:51	Bottom	3	2	25.5	8.01	22.5	6.44	7.88	11.8
TMCLKL	HY/2012/07	03-11-2015	Mid-Flood	SR4	14:11	Surface	1	1	25.4	7.94	22.3	6.76	7.7	10.8
TMCLKL	HY/2012/07	03-11-2015	Mid-Flood	SR4	14:11	Surface	1	2	25.5	7.98	22.4	6.74	7.79	10.9
TMCLKL	HY/2012/07	03-11-2015	Mid-Flood	SR4	14:11	Middle	2	1						
TMCLKL	HY/2012/07	03-11-2015	Mid-Flood	SR4	14:11	Middle	2	2						
TMCLKL	HY/2012/07	03-11-2015	Mid-Flood	SR4	14:11	Bottom	3	1	25.5	7.99	22.5	6.66	7.9	10.3
TMCLKL	HY/2012/07	03-11-2015	Mid-Flood	SR4	14:11	Bottom	3	2	25.5	8.02	22.6	6.63	7.99	9.6
TMCLKL	HY/2012/07	03-11-2015	Mid-Flood	IS8	14:30	Surface	1	1	25.5	7.9	22.4	6.67	7.63	12.2
TMCLKL	HY/2012/07	03-11-2015	Mid-Flood	IS8	14:30	Surface	1	2	25.6	7.95	22.4	6.64	7.73	11.6
TMCLKL	HY/2012/07	03-11-2015	Mid-Flood	IS8	14:30	Middle	2	1						
TMCLKL	HY/2012/07	03-11-2015	Mid-Flood	IS8	14:30	Middle	2	2						
TMCLKL	HY/2012/07	03-11-2015	Mid-Flood	IS8	14:30	Bottom	3	1	25.5	7.94	22.6	6.58	7.97	9.6
TMCLKL	HY/2012/07	03-11-2015	Mid-Flood	IS8	14:30	Bottom	3	2	25.5	7.97	22.6	6.55	8.04	10.5
TMCLKL	HY/2012/07	03-11-2015	Mid-Flood	IS(Mf)16	14:50	Surface	1	1	25.5	7.88	22.2	6.71	7.86	11.8
TMCLKL	HY/2012/07	03-11-2015	Mid-Flood	IS(Mf)16	14:50	Surface	1	2	25.5	7.93	22.3	6.68	7.79	10.4
TMCLKL	HY/2012/07	03-11-2015	Mid-Flood	IS(Mf)16	14:50	Middle	2	1	25.5	7.94	22.4	6.59	7.95	11.9
TMCLKL	HY/2012/07	03-11-2015	Mid-Flood	IS(Mf)16	14:50	Middle	2	2	25.6	7.98	22.5	6.56	8.03	11.2
TMCLKL	HY/2012/07	03-11-2015	Mid-Flood	IS(Mf)16	14:50	Bottom	3	1	25.4	8.04	22.7	6.35	8.19	9.8
TMCLKL	HY/2012/07	03-11-2015	Mid-Flood	IS(Mf)16	14:50	Bottom	3	2	25.4	8.01	22.7	6.31	8.25	11.6
TMCLKL	HY/2012/07	03-11-2015	Mid-Flood	IS(Mf)9	15:14	Surface	1	1	25.6	8.01	22.3	6.86	7.77	10.9
TMCLKL	HY/2012/07	03-11-2015	Mid-Flood	IS(Mf)9	15:14	Surface	1	2	25.5	8.04	22.4	6.89	7.7	10
TMCLKL	HY/2012/07	03-11-2015	Mid-Flood	IS(Mf)9	15:14	Middle	2	1						

Appendix J-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	03-11-2015	Mid-Flood	IS(Mf)9	15:14	Middle	2	2						
TMCLKL	HY/2012/07	03-11-2015	Mid-Flood	IS(Mf)9	15:14	Bottom	3	1	25.4	8.03	22.6	6.67	7.97	12
TMCLKL	HY/2012/07	03-11-2015	Mid-Flood	IS(Mf)9	15:14	Bottom	3	2	25.5	8.05	22.6	6.63	8.04	12.6
TMCLKL	HY/2012/07	03-11-2015	Mid-Flood	CS(Mf)3	15:35	Surface	1	1	25.6	7.96	22.4	6.93	7.94	11.9
TMCLKL	HY/2012/07	03-11-2015	Mid-Flood	CS(Mf)3	15:35	Surface	1	2	25.6	7.99	22.5	6.9	7.88	10.2
TMCLKL	HY/2012/07	03-11-2015	Mid-Flood	CS(Mf)3	15:35	Middle	2	1	25.5	7.98	22.7	6.84	8.01	12
TMCLKL	HY/2012/07	03-11-2015	Mid-Flood	CS(Mf)3	15:35	Middle	2	2	25.5	8.01	22.8	6.8	8.08	10.5
TMCLKL	HY/2012/07	03-11-2015	Mid-Flood	CS(Mf)3	15:35	Bottom	3	1	25.5	7.94	23	6.61	8.34	13.3
TMCLKL	HY/2012/07	03-11-2015	Mid-Flood	CS(Mf)3	15:35	Bottom	3	2	25.4	7.99	22.9	6.57	8.28	13.8
TMCLKL	HY/2012/07	03-11-2015	Mid-Ebb	CS(Mf)5	19:35	Surface	1	1	25.3	7.96	22.1	6.65	7.89	11.8
TMCLKL	HY/2012/07	03-11-2015	Mid-Ebb	CS(Mf)5	19:35	Surface	1	2	25.2	7.97	22.2	6.63	7.93	11.9
TMCLKL	HY/2012/07	03-11-2015	Mid-Ebb	CS(Mf)5	19:35	Middle	2	1	25.1	8.09	22.3	6.52	8.09	10.5
TMCLKL	HY/2012/07	03-11-2015	Mid-Ebb	CS(Mf)5	19:35	Middle	2	2	25.2	8.05	22.4	6.5	8.14	10.6
TMCLKL	HY/2012/07	03-11-2015	Mid-Ebb	CS(Mf)5	19:35	Bottom	3	1	25	7.96	22.6	6.29	8.36	11.4
TMCLKL	HY/2012/07	03-11-2015	Mid-Ebb	CS(Mf)5	19:35	Bottom	3	2	25.1	7.92	22.5	6.26	8.3	10.8
TMCLKL	HY/2012/07	03-11-2015	Mid-Ebb	SR4a	19:24	Surface	1	1	25.3	8.01	22.2	6.53	7.83	11
TMCLKL	HY/2012/07	03-11-2015	Mid-Ebb	SR4a	19:24	Surface	1	2	25.2	8.05	22.1	6.5	7.8	10.1
TMCLKL	HY/2012/07	03-11-2015	Mid-Ebb	SR4a	19:24	Middle	2	1						
TMCLKL	HY/2012/07	03-11-2015	Mid-Ebb	SR4a	19:24	Middle	2	2						
TMCLKL	HY/2012/07	03-11-2015	Mid-Ebb	SR4a	19:24	Bottom	3	1	25.2	7.98	22.2	6.41	8.04	13.3
TMCLKL	HY/2012/07	03-11-2015	Mid-Ebb	SR4a	19:24	Bottom	3	2	25.2	7.96	22.2	6.37	8.12	13
TMCLKL	HY/2012/07	03-11-2015	Mid-Ebb	SR4	19:17	Surface	1	1	25.2	8.02	22.1	6.58	7.76	11.6
TMCLKL	HY/2012/07	03-11-2015	Mid-Ebb	SR4	19:17	Surface	1	2	25.1	8.06	22.2	6.61	7.81	10.9
TMCLKL	HY/2012/07	03-11-2015	Mid-Ebb	SR4	19:17	Middle	2	1						
TMCLKL	HY/2012/07	03-11-2015	Mid-Ebb	SR4	19:17	Middle	2	2						
TMCLKL	HY/2012/07	03-11-2015	Mid-Ebb	SR4	19:17	Bottom	3	1	25.1	7.94	22.3	6.54	8.03	10.4
TMCLKL	HY/2012/07	03-11-2015	Mid-Ebb	SR4	19:17	Bottom	3	2	25.1	7.99	22.2	6.51	8.09	11.3
TMCLKL	HY/2012/07	03-11-2015	Mid-Ebb	IS8	19:10	Surface	1	1	25.3	7.93	22.3	6.52	7.81	10.2
TMCLKL	HY/2012/07	03-11-2015	Mid-Ebb	IS8	19:10	Surface	1	2	25.2	7.95	22.2	6.55	7.74	11.6
TMCLKL	HY/2012/07	03-11-2015	Mid-Ebb	IS8	19:10	Middle	2	1						
TMCLKL	HY/2012/07	03-11-2015	Mid-Ebb	IS8	19:10	Middle	2	2						
TMCLKL	HY/2012/07	03-11-2015	Mid-Ebb	IS8	19:10	Bottom	3	1	25.3	8.02	22.3	6.47	7.99	11.2
TMCLKL	HY/2012/07	03-11-2015	Mid-Ebb	IS8	19:10	Bottom	3	2	25.4	8.05	22.3	6.44	8.09	12.9

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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	03-11-2015	Mid-Ebb	IS(Mf)16	19:00	Surface	1	1	25.3	7.94	22.1	6.63	7.93	11.1
TMCLKL	HY/2012/07	03-11-2015	Mid-Ebb	IS(Mf)16	19:00	Surface	1	2	25.2	7.99	22	6.6	7.98	12
TMCLKL	HY/2012/07	03-11-2015	Mid-Ebb	IS(Mf)16	19:00	Middle	2	1	25.2	8.03	22.3	6.53	8.12	13
TMCLKL	HY/2012/07	03-11-2015	Mid-Ebb	IS(Mf)16	19:00	Middle	2	2	25.1	8	22.2	6.55	8.08	12.1
TMCLKL	HY/2012/07	03-11-2015	Mid-Ebb	IS(Mf)16	19:00	Bottom	3	1	25.1	7.93	22.5	6.27	8.17	12.3
TMCLKL	HY/2012/07	03-11-2015	Mid-Ebb	IS(Mf)16	19:00	Bottom	3	2	25.1	7.96	22.6	6.29	8.12	10.6
TMCLKL	HY/2012/07	03-11-2015	Mid-Ebb	IS(Mf)9	18:53	Surface	1	1	25.2	8.06	22.1	6.72	7.83	10.5
TMCLKL	HY/2012/07	03-11-2015	Mid-Ebb	IS(Mf)9	18:53	Surface	1	2	25.3	8.09	22	6.75	7.79	10.1
TMCLKL	HY/2012/07	03-11-2015	Mid-Ebb	IS(Mf)9	18:53	Middle	2	1						
TMCLKL	HY/2012/07	03-11-2015	Mid-Ebb	IS(Mf)9	18:53	Middle	2	2						
TMCLKL	HY/2012/07	03-11-2015	Mid-Ebb	IS(Mf)9	18:53	Bottom	3	1	25.2	8.02	22.3	6.61	8.11	10.5
TMCLKL	HY/2012/07	03-11-2015	Mid-Ebb	IS(Mf)9	18:53	Bottom	3	2	25.2	8.05	22.2	6.58	8.16	10.2
TMCLKL	HY/2012/07	03-11-2015	Mid-Ebb	CS(Mf)3	18:40	Surface	1	1	25.2	8.01	22.2	6.81	8.09	11.3
TMCLKL	HY/2012/07	03-11-2015	Mid-Ebb	CS(Mf)3	18:40	Surface	1	2	25.1	7.98	22.3	6.83	8.14	12.2
TMCLKL	HY/2012/07	03-11-2015	Mid-Ebb	CS(Mf)3	18:40	Middle	2	1	25.1	8.07	22.5	6.76	8.26	12.7
TMCLKL	HY/2012/07	03-11-2015	Mid-Ebb	CS(Mf)3	18:40	Middle	2	2	25	8.04	22.4	6.79	8.2	13.2
TMCLKL	HY/2012/07	03-11-2015	Mid-Ebb	CS(Mf)3	18:40	Bottom	3	1	25.2	7.93	22.7	6.75	8.43	12.6
TMCLKL	HY/2012/07	03-11-2015	Mid-Ebb	CS(Mf)3	18:40	Bottom	3	2	25.1	7.96	22.6	6.73	8.39	13.5
TMCLKL	HY/2012/07	05-11-2015	Mid-Flood	CS(Mf)5	14:01	Surface	1	1	25.6	7.98	22.6	6.62	7.82	10.2
TMCLKL	HY/2012/07	05-11-2015	Mid-Flood	CS(Mf)5	14:01	Surface	1	2	25.5	7.95	22.5	6.65	7.88	9.5
TMCLKL	HY/2012/07	05-11-2015	Mid-Flood	CS(Mf)5	14:01	Middle	2	1	25.3	8.1	22.8	6.57	8.03	10.4
TMCLKL	HY/2012/07	05-11-2015	Mid-Flood	CS(Mf)5	14:01	Middle	2	2	25.4	8.06	22.7	6.54	8.11	10.5
TMCLKL	HY/2012/07	05-11-2015	Mid-Flood	CS(Mf)5	14:01	Bottom	3	1	25.2	8.03	22.9	6.37	8.37	10.9
TMCLKL	HY/2012/07	05-11-2015	Mid-Flood	CS(Mf)5	14:01	Bottom	3	2	25.1	8.05	22.8	6.34	8.42	10.9
TMCLKL	HY/2012/07	05-11-2015	Mid-Flood	SR4a	14:28	Surface	1	1	25.5	8.02	22.5	6.51	7.68	10.8
TMCLKL	HY/2012/07	05-11-2015	Mid-Flood	SR4a	14:28	Surface	1	2	25.4	8.06	22.4	6.53	7.73	10.8
TMCLKL	HY/2012/07	05-11-2015	Mid-Flood	SR4a	14:28	Middle	2	1						
TMCLKL	HY/2012/07	05-11-2015	Mid-Flood	SR4a	14:28	Middle	2	2						
TMCLKL	HY/2012/07	05-11-2015	Mid-Flood	SR4a	14:28	Bottom	3	1	25.3	8.09	22.5	6.44	7.81	11.7
TMCLKL	HY/2012/07	05-11-2015	Mid-Flood	SR4a	14:28	Bottom	3	2	25.3	8.13	22.5	6.4	7.75	10.1
TMCLKL	HY/2012/07	05-11-2015	Mid-Flood	SR4	14:44	Surface	1	1	25.4	8.05	22.5	6.58	7.71	11.6
TMCLKL	HY/2012/07	05-11-2015	Mid-Flood	SR4	14:44	Surface	1	2	25.5	8.02	22.4	6.54	7.76	10.9
TMCLKL	HY/2012/07	05-11-2015	Mid-Flood	SR4	14:44	Middle	2	1						

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Project	Works	Date (yyyy-mm-dd)	Tide	Stat	Start Time	Level	Lev_Cod	Replicate	Temp_v	pH_v	Sal_v	DO_v	Turb_v	SS_v
TMCLKL	HY/2012/07	05-11-2015	Mid-Flood	SR4	14:44	Middle	2	2						
TMCLKL	HY/2012/07	05-11-2015	Mid-Flood	SR4	14:44	Bottom	3	1	25.3	7.98	22.6	6.47	7.92	9.5
TMCLKL	HY/2012/07	05-11-2015	Mid-Flood	SR4	14:44	Bottom	3	2	25.4	7.95	22.5	6.49	7.99	11.2
TMCLKL	HY/2012/07	05-11-2015	Mid-Flood	IS8	15:03	Surface	1	1	25.3	8.03	22.6	6.52	7.64	9.9
TMCLKL	HY/2012/07	05-11-2015	Mid-Flood	IS8	15:03	Surface	1	2	25.4	8.07	22.5	6.55	7.68	10
TMCLKL	HY/2012/07	05-11-2015	Mid-Flood	IS8	15:03	Middle	2	1						
TMCLKL	HY/2012/07	05-11-2015	Mid-Flood	IS8	15:03	Middle	2	2						
TMCLKL	HY/2012/07	05-11-2015	Mid-Flood	IS8	15:03	Bottom	3	1	25.3	8.09	22.6	6.43	7.81	10.9
TMCLKL	HY/2012/07	05-11-2015	Mid-Flood	IS8	15:03	Bottom	3	2	25.3	8.13	22.6	6.47	7.87	11.8
TMCLKL	HY/2012/07	05-11-2015	Mid-Flood	IS(Mf)16	15:21	Surface	1	1	25.4	7.94	22.4	6.62	7.82	10.9
TMCLKL	HY/2012/07	05-11-2015	Mid-Flood	IS(Mf)16	15:21	Surface	1	2	25.3	7.98	22.3	6.64	7.89	10.3
TMCLKL	HY/2012/07	05-11-2015	Mid-Flood	IS(Mf)16	15:21	Middle	2	1	25.3	8.07	22.5	6.55	7.96	10.3
TMCLKL	HY/2012/07	05-11-2015	Mid-Flood	IS(Mf)16	15:21	Middle	2	2	25.2	8.04	22.4	6.52	8.04	11.3
TMCLKL	HY/2012/07	05-11-2015	Mid-Flood	IS(Mf)16	15:21	Bottom	3	1	25.1	8.02	22.8	6.34	8.11	12.7
TMCLKL	HY/2012/07	05-11-2015	Mid-Flood	IS(Mf)16	15:21	Bottom	3	2	25	8.04	22.7	6.37	8.17	12.3
TMCLKL	HY/2012/07	05-11-2015	Mid-Flood	IS(Mf)9	15:39	Surface	1	1	25.3	8.11	22.3	6.72	7.72	10.8
TMCLKL	HY/2012/07	05-11-2015	Mid-Flood	IS(Mf)9	15:39	Surface	1	2	25.2	8.08	22.4	6.75	7.67	10
TMCLKL	HY/2012/07	05-11-2015	Mid-Flood	IS(Mf)9	15:39	Middle	2	1						
TMCLKL	HY/2012/07	05-11-2015	Mid-Flood	IS(Mf)9	15:39	Middle	2	2						
TMCLKL	HY/2012/07	05-11-2015	Mid-Flood	IS(Mf)9	15:39	Bottom	3	1	25.2	8.05	22.4	6.68	7.93	10.3
TMCLKL	HY/2012/07	05-11-2015	Mid-Flood	IS(Mf)9	15:39	Bottom	3	2	25.1	8.02	22.5	6.65	7.86	11.8
TMCLKL	HY/2012/07	05-11-2015	Mid-Flood	CS(Mf)3	16:03	Surface	1	1	25.4	7.94	22.3	6.83	7.89	9.5
TMCLKL	HY/2012/07	05-11-2015	Mid-Flood	CS(Mf)3	16:03	Surface	1	2	25.3	7.98	22.4	6.85	7.94	9.5
TMCLKL	HY/2012/07	05-11-2015	Mid-Flood	CS(Mf)3	16:03	Middle	2	1	25.2	8.14	22.5	6.75	8.1	12.2
TMCLKL	HY/2012/07	05-11-2015	Mid-Flood	CS(Mf)3	16:03	Middle	2	2	25.1	8.1	22.6	6.78	8.07	12.9
TMCLKL	HY/2012/07	05-11-2015	Mid-Flood	CS(Mf)3	16:03	Bottom	3	1	25	8.16	22.9	6.72	8.23	13.5
TMCLKL	HY/2012/07	05-11-2015	Mid-Flood	CS(Mf)3	16:03	Bottom	3	2	24.9	8.13	22.8	6.69	8.29	13.3
TMCLKL	HY/2012/07	05-11-2015	Mid-Ebb	CS(Mf)5	9:43	Surface	1	1	25.3	8.02	22.2	6.56	7.95	11.1
TMCLKL	HY/2012/07	05-11-2015	Mid-Ebb	CS(Mf)5	9:43	Surface	1	2	25.2	8.03	22.3	6.54	7.99	12
TMCLKL	HY/2012/07	05-11-2015	Mid-Ebb	CS(Mf)5	9:43	Middle	2	1	25	8.15	22.5	6.43	8.15	10.6
TMCLKL	HY/2012/07	05-11-2015	Mid-Ebb	CS(Mf)5	9:43	Middle	2	2	25.1	8.11	22.4	6.41	8.2	9.8
TMCLKL	HY/2012/07	05-11-2015	Mid-Ebb	CS(Mf)5	9:43	Bottom	3	1	24.9	8.02	22.6	6.2	8.42	10.1
TMCLKL	HY/2012/07	05-11-2015	Mid-Ebb	CS(Mf)5	9:43	Bottom	3	2	25	7.98	22.7	6.17	8.36	10

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Project	Works	Date (yyyy-mm-dd)	Tide	Stat	Start Time	Level	Lev_Cod	Replicate	Temp_v	pH_v	Sal_v	DO_v	Turb_v	SS_v
TMCLKL	HY/2012/07	05-11-2015	Mid-Ebb	SR4a	9:30	Surface	1	1	25.1	8.07	22.2	6.44	7.89	11.8
TMCLKL	HY/2012/07	05-11-2015	Mid-Ebb	SR4a	9:30	Surface	1	2	25.2	8.11	22.3	6.41	7.86	11
TMCLKL	HY/2012/07	05-11-2015	Mid-Ebb	SR4a	9:30	Middle	2	1						
TMCLKL	HY/2012/07	05-11-2015	Mid-Ebb	SR4a	9:30	Middle	2	2						
TMCLKL	HY/2012/07	05-11-2015	Mid-Ebb	SR4a	9:30	Bottom	3	1	25.1	8.04	22.4	6.32	8.1	12.2
TMCLKL	HY/2012/07	05-11-2015	Mid-Ebb	SR4a	9:30	Bottom	3	2	25	8.02	22.3	6.28	8.18	12.3
TMCLKL	HY/2012/07	05-11-2015	Mid-Ebb	SR4	9:15	Surface	1	1	25	8.08	22.2	6.49	7.82	10.2
TMCLKL	HY/2012/07	05-11-2015	Mid-Ebb	SR4	9:15	Surface	1	2	25.1	8.12	22.3	6.52	7.87	10.6
TMCLKL	HY/2012/07	05-11-2015	Mid-Ebb	SR4	9:15	Middle	2	1						
TMCLKL	HY/2012/07	05-11-2015	Mid-Ebb	SR4	9:15	Middle	2	2						
TMCLKL	HY/2012/07	05-11-2015	Mid-Ebb	SR4	9:15	Bottom	3	1	25	8	22.3	6.45	8.09	11.3
TMCLKL	HY/2012/07	05-11-2015	Mid-Ebb	SR4	9:15	Bottom	3	2	24.9	8.05	22.4	6.42	8.14	11.4
TMCLKL	HY/2012/07	05-11-2015	Mid-Ebb	IS8	9:00	Surface	1	1	25.2	7.99	22.4	6.43	7.87	11.8
TMCLKL	HY/2012/07	05-11-2015	Mid-Ebb	IS8	9:00	Surface	1	2	25.1	8.01	22.3	6.46	7.8	10.1
TMCLKL	HY/2012/07	05-11-2015	Mid-Ebb	IS8	9:00	Middle	2	1						
TMCLKL	HY/2012/07	05-11-2015	Mid-Ebb	IS8	9:00	Middle	2	2						
TMCLKL	HY/2012/07	05-11-2015	Mid-Ebb	IS8	9:00	Bottom	3	1	25.2	8.08	22.4	6.38	8.05	12.1
TMCLKL	HY/2012/07	05-11-2015	Mid-Ebb	IS8	9:00	Bottom	3	2	25.3	8.11	22.5	6.35	8.15	11.4
TMCLKL	HY/2012/07	05-11-2015	Mid-Ebb	IS(Mf)16	8:45	Surface	1	1	25.1	8	22.1	6.54	7.99	10.4
TMCLKL	HY/2012/07	05-11-2015	Mid-Ebb	IS(Mf)16	8:45	Surface	1	2	25.2	8.05	22.2	6.51	8.04	10.9
TMCLKL	HY/2012/07	05-11-2015	Mid-Ebb	IS(Mf)16	8:45	Middle	2	1	25.1	8.09	22.4	6.44	8.18	12.3
TMCLKL	HY/2012/07	05-11-2015	Mid-Ebb	IS(Mf)16	8:45	Middle	2	2	25	8.06	22.3	6.46	8.14	11.4
TMCLKL	HY/2012/07	05-11-2015	Mid-Ebb	IS(Mf)16	8:45	Bottom	3	1	25	7.99	22.6	6.18	8.23	11.5
TMCLKL	HY/2012/07	05-11-2015	Mid-Ebb	IS(Mf)16	8:45	Bottom	3	2	24.9	7.82	22.7	6.2	8.18	12.3
TMCLKL	HY/2012/07	05-11-2015	Mid-Ebb	IS(Mf)9	8:30	Surface	1	1	25.2	8.12	22.1	6.63	7.89	11.8
TMCLKL	HY/2012/07	05-11-2015	Mid-Ebb	IS(Mf)9	8:30	Surface	1	2	25.1	8.15	22.2	6.66	7.85	10.2
TMCLKL	HY/2012/07	05-11-2015	Mid-Ebb	IS(Mf)9	8:30	Middle	2	1						
TMCLKL	HY/2012/07	05-11-2015	Mid-Ebb	IS(Mf)9	8:30	Middle	2	2						
TMCLKL	HY/2012/07	05-11-2015	Mid-Ebb	IS(Mf)9	8:30	Bottom	3	1	25.1	8.08	22.4	6.52	8.17	11.4
TMCLKL	HY/2012/07	05-11-2015	Mid-Ebb	IS(Mf)9	8:30	Bottom	3	2	25	8.11	22.3	6.49	8.22	9.9
TMCLKL	HY/2012/07	05-11-2015	Mid-Ebb	CS(Mf)3	8:15	Surface	1	1	25	8.07	22.3	6.72	8.15	11.4
TMCLKL	HY/2012/07	05-11-2015	Mid-Ebb	CS(Mf)3	8:15	Surface	1	2	25.1	8.04	22.4	6.74	8.2	10.7
TMCLKL	HY/2012/07	05-11-2015	Mid-Ebb	CS(Mf)3	8:15	Middle	2	1	25	8.13	22.6	6.67	8.32	11.6

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Project	Works	Date (yyyy-mm-dd)	Tide	Stat	Start Time	Level	Lev_Cod	Replicate	Temp_v	pH_v	Sal_v	DO_v	Turb_v	SS_v
TMCLKL	HY/2012/07	05-11-2015	Mid-Ebb	CS(Mf)3	8:15	Middle	2	2	24.9	8.1	22.5	6.7	8.26	10.7
TMCLKL	HY/2012/07	05-11-2015	Mid-Ebb	CS(Mf)3	8:15	Bottom	3	1	25.1	7.99	22.7	6.66	8.49	11
TMCLKL	HY/2012/07	05-11-2015	Mid-Ebb	CS(Mf)3	8:15	Bottom	3	2	25	8.02	22.8	6.64	8.45	11
TMCLKL	HY/2012/07	07-11-2015	Mid-Flood	CS(Mf)5	14:58	Surface	1	1	26.7	8.09	23.1	6.64	7.74	11.6
TMCLKL	HY/2012/07	07-11-2015	Mid-Flood	CS(Mf)5	14:58	Surface	1	2	26.7	8.09	23.1	6.6	7.7	10
TMCLKL	HY/2012/07	07-11-2015	Mid-Flood	CS(Mf)5	14:58	Middle	2	1	26.3	8.05	23.2	6.47	8.08	12.9
TMCLKL	HY/2012/07	07-11-2015	Mid-Flood	CS(Mf)5	14:58	Middle	2	2	26.3	8.04	23.1	6.44	8.05	11.3
TMCLKL	HY/2012/07	07-11-2015	Mid-Flood	CS(Mf)5	14:58	Bottom	3	1	26.3	8.03	23.3	6.3	8.15	12.2
TMCLKL	HY/2012/07	07-11-2015	Mid-Flood	CS(Mf)5	14:58	Bottom	3	2	26.3	8.02	23.4	6.27	8.18	11.5
TMCLKL	HY/2012/07	07-11-2015	Mid-Flood	SR4a	15:24	Surface	1	1	26.6	7.99	22.8	6.56	7.95	10.7
TMCLKL	HY/2012/07	07-11-2015	Mid-Flood	SR4a	15:24	Surface	1	2	26.6	7.97	22.9	6.53	7.91	10.3
TMCLKL	HY/2012/07	07-11-2015	Mid-Flood	SR4a	15:24	Middle	2	1						
TMCLKL	HY/2012/07	07-11-2015	Mid-Flood	SR4a	15:24	Middle	2	2						
TMCLKL	HY/2012/07	07-11-2015	Mid-Flood	SR4a	15:24	Bottom	3	1	26.4	7.94	23	6.44	8.02	10.4
TMCLKL	HY/2012/07	07-11-2015	Mid-Flood	SR4a	15:24	Bottom	3	2	26.4	7.95	23.1	6.47	8.05	10.5
TMCLKL	HY/2012/07	07-11-2015	Mid-Flood	SR4	15:49	Surface	1	1	26.7	7.94	23	6.59	7.87	12.6
TMCLKL	HY/2012/07	07-11-2015	Mid-Flood	SR4	15:49	Surface	1	2	26.8	7.95	23	6.56	7.83	11.7
TMCLKL	HY/2012/07	07-11-2015	Mid-Flood	SR4	15:49	Middle	2	1						
TMCLKL	HY/2012/07	07-11-2015	Mid-Flood	SR4	15:49	Middle	2	2						
TMCLKL	HY/2012/07	07-11-2015	Mid-Flood	SR4	15:49	Bottom	3	1	26.4	7.99	23.2	6.11	7.74	11.6
TMCLKL	HY/2012/07	07-11-2015	Mid-Flood	SR4	15:49	Bottom	3	2	26.4	8.01	23.1	6.08	7.7	12.3
TMCLKL	HY/2012/07	07-11-2015	Mid-Flood	IS8	16:10	Surface	1	1	26.8	7.98	23.1	6.44	7.68	11.5
TMCLKL	HY/2012/07	07-11-2015	Mid-Flood	IS8	16:10	Surface	1	2	26.7	7.97	23.1	6.39	7.65	9.9
TMCLKL	HY/2012/07	07-11-2015	Mid-Flood	IS8	16:10	Middle	2	1						
TMCLKL	HY/2012/07	07-11-2015	Mid-Flood	IS8	16:10	Middle	2	2						
TMCLKL	HY/2012/07	07-11-2015	Mid-Flood	IS8	16:10	Bottom	3	1	26.5	8.02	23.2	6.12	8.02	12
TMCLKL	HY/2012/07	07-11-2015	Mid-Flood	IS8	16:10	Bottom	3	2	26.4	8.02	23.1	6.09	8.06	10.5
TMCLKL	HY/2012/07	07-11-2015	Mid-Flood	IS(Mf)16	16:30	Surface	1	1	26.7	8.07	23.2	6.62	7.95	11.1
TMCLKL	HY/2012/07	07-11-2015	Mid-Flood	IS(Mf)16	16:30	Surface	1	2	26.7	8.09	23.2	6.59	7.99	9.6
TMCLKL	HY/2012/07	07-11-2015	Mid-Flood	IS(Mf)16	16:30	Middle	2	1	26.4	8.05	23.3	6.38	8.24	9.9
TMCLKL	HY/2012/07	07-11-2015	Mid-Flood	IS(Mf)16	16:30	Middle	2	2	26.3	8.08	23.2	6.35	8.2	11.5
TMCLKL	HY/2012/07	07-11-2015	Mid-Flood	IS(Mf)16	16:30	Bottom	3	1	26.2	8.06	23.4	6.2	8.3	11.6
TMCLKL	HY/2012/07	07-11-2015	Mid-Flood	IS(Mf)16	16:30	Bottom	3	2	26.1	8.07	23.4	6.24	8.36	10.9

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Project	Works	Date (yyyy-mm-dd)	Tide	Stat	Start Time	Level	Lev_Cod	Replicate	Temp_v	pH_v	Sal_v	DO_v	Turb_v	SS_v
TMCLKL	HY/2012/07	07-11-2015	Mid-Flood	IS(Mf)9	16:50	Surface	1	1	26.7	7.97	22.9	6.37	7.82	9.5
TMCLKL	HY/2012/07	07-11-2015	Mid-Flood	IS(Mf)9	16:50	Surface	1	2	26.7	7.98	23	6.34	7.85	9.4
TMCLKL	HY/2012/07	07-11-2015	Mid-Flood	IS(Mf)9	16:50	Middle	2	1						
TMCLKL	HY/2012/07	07-11-2015	Mid-Flood	IS(Mf)9	16:50	Middle	2	2						
TMCLKL	HY/2012/07	07-11-2015	Mid-Flood	IS(Mf)9	16:50	Bottom	3	1	26.4	7.99	23	6.09	8.22	9.9
TMCLKL	HY/2012/07	07-11-2015	Mid-Flood	IS(Mf)9	16:50	Bottom	3	2	26.4	8	23.1	6.05	8.17	9.8
TMCLKL	HY/2012/07	07-11-2015	Mid-Flood	CS(Mf)3	17:10	Surface	1	1	26.7	7.96	23	6.55	7.94	12.7
TMCLKL	HY/2012/07	07-11-2015	Mid-Flood	CS(Mf)3	17:10	Surface	1	2	26.7	7.96	23.1	6.51	7.9	11.1
TMCLKL	HY/2012/07	07-11-2015	Mid-Flood	CS(Mf)3	17:10	Middle	2	1	26.3	8.02	23.3	6.29	8.08	12.1
TMCLKL	HY/2012/07	07-11-2015	Mid-Flood	CS(Mf)3	17:10	Middle	2	2	26.3	8.03	23.4	6.25	8.05	12.1
TMCLKL	HY/2012/07	07-11-2015	Mid-Flood	CS(Mf)3	17:10	Bottom	3	1	26.2	8.03	23.4	6.15	8.11	12.2
TMCLKL	HY/2012/07	07-11-2015	Mid-Flood	CS(Mf)3	17:10	Bottom	3	2	26.3	8.04	23.4	6.18	8.15	12.2
TMCLKL	HY/2012/07	07-11-2015	Mid-Ebb	CS(Mf)5	11:47	Surface	1	1	26.4	8.14	23	6.41	8.02	11.2
TMCLKL	HY/2012/07	07-11-2015	Mid-Ebb	CS(Mf)5	11:47	Surface	1	2	26.3	8.16	23.1	6.43	8.04	9.6
TMCLKL	HY/2012/07	07-11-2015	Mid-Ebb	CS(Mf)5	11:47	Middle	2	1	26.2	7.92	23.2	6.27	8.16	10.6
TMCLKL	HY/2012/07	07-11-2015	Mid-Ebb	CS(Mf)5	11:47	Middle	2	2	26.2	7.94	23.3	6.25	8.14	11.4
TMCLKL	HY/2012/07	07-11-2015	Mid-Ebb	CS(Mf)5	11:47	Bottom	3	1	26.1	8	23.4	6.12	8.23	12.3
TMCLKL	HY/2012/07	07-11-2015	Mid-Ebb	CS(Mf)5	11:47	Bottom	3	2	26	8.02	23.5	6.14	8.25	13.2
TMCLKL	HY/2012/07	07-11-2015	Mid-Ebb	SR4a	11:30	Surface	1	1	26.5	7.91	22.9	6.5	7.91	10.3
TMCLKL	HY/2012/07	07-11-2015	Mid-Ebb	SR4a	11:30	Surface	1	2	26.4	7.93	23	6.48	7.93	10.7
TMCLKL	HY/2012/07	07-11-2015	Mid-Ebb	SR4a	11:30	Middle	2	1						
TMCLKL	HY/2012/07	07-11-2015	Mid-Ebb	SR4a	11:30	Middle	2	2						
TMCLKL	HY/2012/07	07-11-2015	Mid-Ebb	SR4a	11:30	Bottom	3	1	26.2	7.86	23.1	6.31	8.15	11.4
TMCLKL	HY/2012/07	07-11-2015	Mid-Ebb	SR4a	11:30	Bottom	3	2	26.2	7.88	23.2	6.29	8.17	11.4
TMCLKL	HY/2012/07	07-11-2015	Mid-Ebb	SR4	11:02	Surface	1	1	26.6	7.99	23.1	6.36	7.36	9.6
TMCLKL	HY/2012/07	07-11-2015	Mid-Ebb	SR4	11:02	Surface	1	2	26.5	8.01	23.2	6.38	7.38	9.6
TMCLKL	HY/2012/07	07-11-2015	Mid-Ebb	SR4	11:02	Middle	2	1						
TMCLKL	HY/2012/07	07-11-2015	Mid-Ebb	SR4	11:02	Middle	2	2						
TMCLKL	HY/2012/07	07-11-2015	Mid-Ebb	SR4	11:02	Bottom	3	1	26.3	8.14	23.3	6.17	7.63	11.4
TMCLKL	HY/2012/07	07-11-2015	Mid-Ebb	SR4	11:02	Bottom	3	2	26.3	8.12	23.4	6.15	7.65	11.5
TMCLKL	HY/2012/07	07-11-2015	Mid-Ebb	IS8	10:40	Surface	1	1	26.5	7.91	22.9	6.44	8	10.4
TMCLKL	HY/2012/07	07-11-2015	Mid-Ebb	IS8	10:40	Surface	1	2	26.5	7.93	23	6.42	8.02	11.2
TMCLKL	HY/2012/07	07-11-2015	Mid-Ebb	IS8	10:40	Middle	2	1						

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Project	Works	Date (yyyy-mm-dd)	Tide	Stat	Start Time	Level	Lev_Cod	Replicate	Temp_v	pH_v	Sal_v	DO_v	Turb_v	SS_v
TMCLKL	HY/2012/07	07-11-2015	Mid-Ebb	IS8	10:40	Middle	2	2						
TMCLKL	HY/2012/07	07-11-2015	Mid-Ebb	IS8	10:40	Bottom	3	1	26.3	8.04	23.2	6.2	8.17	12.3
TMCLKL	HY/2012/07	07-11-2015	Mid-Ebb	IS8	10:40	Bottom	3	2	26.2	8.06	23.2	6.22	8.19	12.2
TMCLKL	HY/2012/07	07-11-2015	Mid-Ebb	IS(Mf)16	10:17	Surface	1	1	26.5	8.19	23.1	6.28	8.12	10.6
TMCLKL	HY/2012/07	07-11-2015	Mid-Ebb	IS(Mf)16	10:17	Surface	1	2	26.4	8.21	23.2	6.3	8.14	9.8
TMCLKL	HY/2012/07	07-11-2015	Mid-Ebb	IS(Mf)16	10:17	Middle	2	1	26.3	7.84	23.3	6.17	8.36	10.9
TMCLKL	HY/2012/07	07-11-2015	Mid-Ebb	IS(Mf)16	10:17	Middle	2	2	26.2	7.86	23.4	6.15	8.38	10.9
TMCLKL	HY/2012/07	07-11-2015	Mid-Ebb	IS(Mf)16	10:17	Bottom	3	1	26	7.77	23.5	6.04	8.49	12.7
TMCLKL	HY/2012/07	07-11-2015	Mid-Ebb	IS(Mf)16	10:17	Bottom	3	2	26.1	7.79	23.5	6.06	8.51	12.2
TMCLKL	HY/2012/07	07-11-2015	Mid-Ebb	IS(Mf)9	9:54	Surface	1	1	26.5	7.94	23.1	6.29	7.99	10.4
TMCLKL	HY/2012/07	07-11-2015	Mid-Ebb	IS(Mf)9	9:54	Surface	1	2	26.4	7.96	23.2	6.31	8.01	11.2
TMCLKL	HY/2012/07	07-11-2015	Mid-Ebb	IS(Mf)9	9:54	Middle	2	1						
TMCLKL	HY/2012/07	07-11-2015	Mid-Ebb	IS(Mf)9	9:54	Middle	2	2						
TMCLKL	HY/2012/07	07-11-2015	Mid-Ebb	IS(Mf)9	9:54	Bottom	3	1	26.3	8.15	23.3	6.04	8.24	9.9
TMCLKL	HY/2012/07	07-11-2015	Mid-Ebb	IS(Mf)9	9:54	Bottom	3	2	26.2	8.17	23.4	6.06	8.26	10.2
TMCLKL	HY/2012/07	07-11-2015	Mid-Ebb	CS(Mf)3	9:31	Surface	1	1	26.4	8.17	22.9	6.48	7.84	11
TMCLKL	HY/2012/07	07-11-2015	Mid-Ebb	CS(Mf)3	9:31	Surface	1	2	26.5	8.19	23	6.5	7.82	11.7
TMCLKL	HY/2012/07	07-11-2015	Mid-Ebb	CS(Mf)3	9:31	Middle	2	1	26.3	7.96	23.1	6.37	8.01	9.6
TMCLKL	HY/2012/07	07-11-2015	Mid-Ebb	CS(Mf)3	9:31	Middle	2	2	26.2	7.94	23.2	6.35	8.03	11.2
TMCLKL	HY/2012/07	07-11-2015	Mid-Ebb	CS(Mf)3	9:31	Bottom	3	1	26.1	7.83	23.3	6.24	8.14	10.6
TMCLKL	HY/2012/07	07-11-2015	Mid-Ebb	CS(Mf)3	9:31	Bottom	3	2	26	7.81	23.4	6.22	8.12	11.4
TMCLKL	HY/2012/07	10-11-2015	Mid-Flood	CS(Mf)5	16:13	Surface	1	1	26.3	7.98	23	6.44	8.24	12.4
TMCLKL	HY/2012/07	10-11-2015	Mid-Flood	CS(Mf)5	16:13	Surface	1	2	26.2	8	23.1	6.4	8.16	12.8
TMCLKL	HY/2012/07	10-11-2015	Mid-Flood	CS(Mf)5	16:13	Middle	2	1	26.2	7.91	23.3	6.29	8.4	10.9
TMCLKL	HY/2012/07	10-11-2015	Mid-Flood	CS(Mf)5	16:13	Middle	2	2	26.2	7.94	23.3	6.25	8.33	11.7
TMCLKL	HY/2012/07	10-11-2015	Mid-Flood	CS(Mf)5	16:13	Bottom	3	1	26	7.9	23.5	6.11	8.54	13.2
TMCLKL	HY/2012/07	10-11-2015	Mid-Flood	CS(Mf)5	16:13	Bottom	3	2	26	7.94	23.6	6.08	8.61	13.8
TMCLKL	HY/2012/07	10-11-2015	Mid-Flood	SR4a	16:38	Surface	1	1	26.2	7.82	22.9	6.35	8.06	9.7
TMCLKL	HY/2012/07	10-11-2015	Mid-Flood	SR4a	16:38	Surface	1	2	26.2	7.85	23	6.31	7.98	11.2
TMCLKL	HY/2012/07	10-11-2015	Mid-Flood	SR4a	16:38	Middle	2	1						
TMCLKL	HY/2012/07	10-11-2015	Mid-Flood	SR4a	16:38	Middle	2	2						
TMCLKL	HY/2012/07	10-11-2015	Mid-Flood	SR4a	16:38	Bottom	3	1	26.2	7.87	23.1	6.2	8.34	12.5
TMCLKL	HY/2012/07	10-11-2015	Mid-Flood	SR4a	16:38	Bottom	3	2	26.2	7.9	23.2	6.18	8.28	10.8

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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	10-11-2015	Mid-Flood	SR4	16:55	Surface	1	1	26.4	7.89	23.1	6.26	7.8	12.5
TMCLKL	HY/2012/07	10-11-2015	Mid-Flood	SR4	16:55	Surface	1	2	26.3	7.93	23.2	6.23	7.73	12.4
TMCLKL	HY/2012/07	10-11-2015	Mid-Flood	SR4	16:55	Middle	2	1						
TMCLKL	HY/2012/07	10-11-2015	Mid-Flood	SR4	16:55	Middle	2	2						
TMCLKL	HY/2012/07	10-11-2015	Mid-Flood	SR4	16:55	Bottom	3	1	26.3	7.98	23.3	6.11	8.16	11.4
TMCLKL	HY/2012/07	10-11-2015	Mid-Flood	SR4	16:55	Bottom	3	2	26.2	8.01	23.4	6.13	8.23	12.3
TMCLKL	HY/2012/07	10-11-2015	Mid-Flood	IS8	17:13	Surface	1	1	26.4	7.8	23.1	6.28	8.13	10.6
TMCLKL	HY/2012/07	10-11-2015	Mid-Flood	IS8	17:13	Surface	1	2	26.4	7.85	23.1	6.31	8.05	10.5
TMCLKL	HY/2012/07	10-11-2015	Mid-Flood	IS8	17:13	Middle	2	1						
TMCLKL	HY/2012/07	10-11-2015	Mid-Flood	IS8	17:13	Middle	2	2						
TMCLKL	HY/2012/07	10-11-2015	Mid-Flood	IS8	17:13	Bottom	3	1	26.4	7.88	23.3	6.18	8.33	10.8
TMCLKL	HY/2012/07	10-11-2015	Mid-Flood	IS8	17:13	Bottom	3	2	26.3	7.9	23.3	6.15	8.26	10.7
TMCLKL	HY/2012/07	10-11-2015	Mid-Flood	IS(Mf)16	17:32	Surface	1	1	26.4	7.99	23.1	6.15	8.24	11.5
TMCLKL	HY/2012/07	10-11-2015	Mid-Flood	IS(Mf)16	17:32	Surface	1	2	26.3	8.03	23	6.12	8.31	13.3
TMCLKL	HY/2012/07	10-11-2015	Mid-Flood	IS(Mf)16	17:32	Middle	2	1	26.3	7.69	23.3	6.04	8.56	12
TMCLKL	HY/2012/07	10-11-2015	Mid-Flood	IS(Mf)16	17:32	Middle	2	2	26.3	7.73	23.4	6.01	8.48	13.6
TMCLKL	HY/2012/07	10-11-2015	Mid-Flood	IS(Mf)16	17:32	Bottom	3	1	26.1	7.71	23.6	5.87	8.77	12.3
TMCLKL	HY/2012/07	10-11-2015	Mid-Flood	IS(Mf)16	17:32	Bottom	3	2	26.1	7.76	23.7	5.9	8.84	11.5
TMCLKL	HY/2012/07	10-11-2015	Mid-Flood	IS(Mf)9	17:54	Surface	1	1	26.3	7.88	23.1	6.24	8.16	12.2
TMCLKL	HY/2012/07	10-11-2015	Mid-Flood	IS(Mf)9	17:54	Surface	1	2	26.2	7.9	23.2	6.28	8.23	12.3
TMCLKL	HY/2012/07	10-11-2015	Mid-Flood	IS(Mf)9	17:54	Middle	2	1						
TMCLKL	HY/2012/07	10-11-2015	Mid-Flood	IS(Mf)9	17:54	Middle	2	2						
TMCLKL	HY/2012/07	10-11-2015	Mid-Flood	IS(Mf)9	17:54	Bottom	3	1	26.2	8.01	23.4	6.77	8.44	11.8
TMCLKL	HY/2012/07	10-11-2015	Mid-Flood	IS(Mf)9	17:54	Bottom	3	2	26.1	8.03	23.4	6.73	8.36	11.7
TMCLKL	HY/2012/07	10-11-2015	Mid-Flood	CS(Mf)3	18:15	Surface	1	1	26.3	7.84	23	6.33	8.05	11.3
TMCLKL	HY/2012/07	10-11-2015	Mid-Flood	CS(Mf)3	18:15	Surface	1	2	26.3	7.88	22.9	6.31	8.12	13
TMCLKL	HY/2012/07	10-11-2015	Mid-Flood	CS(Mf)3	18:15	Middle	2	1	26.3	7.89	23.2	6.22	8.24	12.4
TMCLKL	HY/2012/07	10-11-2015	Mid-Flood	CS(Mf)3	18:15	Middle	2	2	26.2	7.93	23.2	6.19	8.32	12.5
TMCLKL	HY/2012/07	10-11-2015	Mid-Flood	CS(Mf)3	18:15	Bottom	3	1	26.1	7.79	23.5	6.03	8.66	11.3
TMCLKL	HY/2012/07	10-11-2015	Mid-Flood	CS(Mf)3	18:15	Bottom	3	2	26	7.84	23.6	6.06	8.57	12
TMCLKL	HY/2012/07	10-11-2015	Mid-Ebb	CS(Mf)5	13:42	Surface	1	1	26.5	8.05	23.1	6.32	8.08	11.3
TMCLKL	HY/2012/07	10-11-2015	Mid-Ebb	CS(Mf)5	13:42	Surface	1	2	26.4	8.07	23.2	6.34	8.1	10.5
TMCLKL	HY/2012/07	10-11-2015	Mid-Ebb	CS(Mf)5	13:42	Middle	2	1	26.2	7.83	23.3	6.18	8.22	11.5

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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	10-11-2015	Mid-Ebb	CS(Mf)5	13:42	Middle	2	2	26.3	7.85	23.4	6.16	8.2	10.7
TMCLKL	HY/2012/07	10-11-2015	Mid-Ebb	CS(Mf)5	13:42	Bottom	3	1	26.1	7.91	23.6	6.03	8.29	11.6
TMCLKL	HY/2012/07	10-11-2015	Mid-Ebb	CS(Mf)5	13:42	Bottom	3	2	26.2	7.93	23.5	6.06	8.31	10
TMCLKL	HY/2012/07	10-11-2015	Mid-Ebb	SR4a	13:18	Surface	1	1	26.6	7.82	23	6.41	7.97	10.4
TMCLKL	HY/2012/07	10-11-2015	Mid-Ebb	SR4a	13:18	Surface	1	2	26.5	7.84	23.1	6.39	7.99	11.2
TMCLKL	HY/2012/07	10-11-2015	Mid-Ebb	SR4a	13:18	Middle	2	1						
TMCLKL	HY/2012/07	10-11-2015	Mid-Ebb	SR4a	13:18	Middle	2	2						
TMCLKL	HY/2012/07	10-11-2015	Mid-Ebb	SR4a	13:18	Bottom	3	1	26.2	7.77	23.2	6.22	8.21	10.7
TMCLKL	HY/2012/07	10-11-2015	Mid-Ebb	SR4a	13:18	Bottom	3	2	26.3	7.79	23.3	6.2	8.23	9.9
TMCLKL	HY/2012/07	10-11-2015	Mid-Ebb	SR4	12:56	Surface	1	1	26.7	7.9	23.2	6.27	7.42	11.1
TMCLKL	HY/2012/07	10-11-2015	Mid-Ebb	SR4	12:56	Surface	1	2	26.6	7.92	23.3	6.29	7.44	10.4
TMCLKL	HY/2012/07	10-11-2015	Mid-Ebb	SR4	12:56	Middle	2	1						
TMCLKL	HY/2012/07	10-11-2015	Mid-Ebb	SR4	12:56	Middle	2	2						
TMCLKL	HY/2012/07	10-11-2015	Mid-Ebb	SR4	12:56	Bottom	3	1	26.4	8.05	23.4	6.08	7.69	10
TMCLKL	HY/2012/07	10-11-2015	Mid-Ebb	SR4	12:56	Bottom	3	2	26.3	8.03	23.5	6.06	7.71	10.8
TMCLKL	HY/2012/07	10-11-2015	Mid-Ebb	IS8	12:34	Surface	1	1	26.6	7.82	23	6.35	8.06	10.5
TMCLKL	HY/2012/07	10-11-2015	Mid-Ebb	IS8	12:34	Surface	1	2	26.6	7.84	23.1	6.33	8.08	10.9
TMCLKL	HY/2012/07	10-11-2015	Mid-Ebb	IS8	12:34	Middle	2	1						
TMCLKL	HY/2012/07	10-11-2015	Mid-Ebb	IS8	12:34	Middle	2	2						
TMCLKL	HY/2012/07	10-11-2015	Mid-Ebb	IS8	12:34	Bottom	3	1	26.3	7.95	23.2	6.11	8.23	11.5
TMCLKL	HY/2012/07	10-11-2015	Mid-Ebb	IS8	12:34	Bottom	3	2	26.4	7.97	23.3	6.13	8.25	11.6
TMCLKL	HY/2012/07	10-11-2015	Mid-Ebb	IS(Mf)16	12:12	Surface	1	1	26.6	8.1	23.2	6.19	8.18	10.1
TMCLKL	HY/2012/07	10-11-2015	Mid-Ebb	IS(Mf)16	12:12	Surface	1	2	26.5	8.12	23.3	6.21	8.2	10.7
TMCLKL	HY/2012/07	10-11-2015	Mid-Ebb	IS(Mf)16	12:12	Middle	2	1	26.3	7.75	23.4	6.08	8.42	11.8
TMCLKL	HY/2012/07	10-11-2015	Mid-Ebb	IS(Mf)16	12:12	Middle	2	2	26.4	7.77	23.5	6.06	8.44	12.7
TMCLKL	HY/2012/07	10-11-2015	Mid-Ebb	IS(Mf)16	12:12	Bottom	3	1	26.2	7.68	23.6	5.95	8.55	12.3
TMCLKL	HY/2012/07	10-11-2015	Mid-Ebb	IS(Mf)16	12:12	Bottom	3	2	26.1	7.7	23.5	5.97	8.57	12.9
TMCLKL	HY/2012/07	10-11-2015	Mid-Ebb	IS(Mf)9	11:50	Surface	1	1	26.5	7.85	23.2	6.2	8.05	10.5
TMCLKL	HY/2012/07	10-11-2015	Mid-Ebb	IS(Mf)9	11:50	Surface	1	2	26.6	7.87	23.3	6.22	8.07	11.3
TMCLKL	HY/2012/07	10-11-2015	Mid-Ebb	IS(Mf)9	11:50	Middle	2	1						
TMCLKL	HY/2012/07	10-11-2015	Mid-Ebb	IS(Mf)9	11:50	Middle	2	2						
TMCLKL	HY/2012/07	10-11-2015	Mid-Ebb	IS(Mf)9	11:50	Bottom	3	1	26.4	8.06	23.5	6.95	8.3	12.5
TMCLKL	HY/2012/07	10-11-2015	Mid-Ebb	IS(Mf)9	11:50	Bottom	3	2	26.3	8.08	23.4	6.97	8.32	12.8

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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	10-11-2015	Mid-Ebb	CS(Mf)3	11:28	Surface	1	1	26.6	8.08	23	6.39	7.9	11.9
TMCLKL	HY/2012/07	10-11-2015	Mid-Ebb	CS(Mf)3	11:28	Surface	1	2	26.5	8.1	23.1	6.41	7.88	11.8
TMCLKL	HY/2012/07	10-11-2015	Mid-Ebb	CS(Mf)3	11:28	Middle	2	1	26.4	7.87	23.3	6.28	8.07	10.5
TMCLKL	HY/2012/07	10-11-2015	Mid-Ebb	CS(Mf)3	11:28	Middle	2	2	26.3	7.85	23.2	6.26	8.09	11.3
TMCLKL	HY/2012/07	10-11-2015	Mid-Ebb	CS(Mf)3	11:28	Bottom	3	1	26.1	7.74	23.4	6.15	8.2	13.1
TMCLKL	HY/2012/07	10-11-2015	Mid-Ebb	CS(Mf)3	11:28	Bottom	3	2	26.2	7.72	23.5	6.13	8.18	13.6
TMCLKL	HY/2012/07	12-11-2015	Mid-Flood	CS(Mf)5	16:13	Surface	1	1	25.4	8.01	22.4	6.81	7.74	11.6
TMCLKL	HY/2012/07	12-11-2015	Mid-Flood	CS(Mf)5	16:13	Surface	1	2	25.3	8.04	22.5	6.78	7.77	12.4
TMCLKL	HY/2012/07	12-11-2015	Mid-Flood	CS(Mf)5	16:13	Middle	2	1	25.2	8.08	22.6	6.74	7.89	11.8
TMCLKL	HY/2012/07	12-11-2015	Mid-Flood	CS(Mf)5	16:13	Middle	2	2	25.3	8.12	22.5	6.71	7.95	10.3
TMCLKL	HY/2012/07	12-11-2015	Mid-Flood	CS(Mf)5	16:13	Bottom	3	1	25.1	7.98	22.8	6.62	8.18	10.6
TMCLKL	HY/2012/07	12-11-2015	Mid-Flood	CS(Mf)5	16:13	Bottom	3	2	25.2	7.96	22.7	6.64	8.28	9.9
TMCLKL	HY/2012/07	12-11-2015	Mid-Flood	SR4a	16:39	Surface	1	1	25.3	7.94	22.5	6.72	7.51	11.3
TMCLKL	HY/2012/07	12-11-2015	Mid-Flood	SR4a	16:39	Surface	1	2	25.3	7.99	22.4	6.74	7.58	9.1
TMCLKL	HY/2012/07	12-11-2015	Mid-Flood	SR4a	16:39	Middle	2	1						
TMCLKL	HY/2012/07	12-11-2015	Mid-Flood	SR4a	16:39	Middle	2	2						
TMCLKL	HY/2012/07	12-11-2015	Mid-Flood	SR4a	16:39	Bottom	3	1	25.2	8.03	22.6	6.54	7.83	9.4
TMCLKL	HY/2012/07	12-11-2015	Mid-Flood	SR4a	16:39	Bottom	3	2	25.1	8.08	22.5	6.57	7.89	9.5
TMCLKL	HY/2012/07	12-11-2015	Mid-Flood	SR4	16:54	Surface	1	1	25.5	7.93	22.4	6.75	7.67	10.3
TMCLKL	HY/2012/07	12-11-2015	Mid-Flood	SR4	16:54	Surface	1	2	25.4	7.96	22.3	6.78	7.71	10.8
TMCLKL	HY/2012/07	12-11-2015	Mid-Flood	SR4	16:54	Middle	2	1						
TMCLKL	HY/2012/07	12-11-2015	Mid-Flood	SR4	16:54	Middle	2	2						
TMCLKL	HY/2012/07	12-11-2015	Mid-Flood	SR4	16:54	Bottom	3	1	25.3	7.99	22.5	6.63	7.87	11.8
TMCLKL	HY/2012/07	12-11-2015	Mid-Flood	SR4	16:54	Bottom	3	2	25.2	8.03	22.4	6.61	7.92	11.9
TMCLKL	HY/2012/07	12-11-2015	Mid-Flood	IS8	17:10	Surface	1	1	25.3	8.01	22.3	6.82	7.56	9.1
TMCLKL	HY/2012/07	12-11-2015	Mid-Flood	IS8	17:10	Surface	1	2	25.4	7.98	22.4	6.85	7.62	9.9
TMCLKL	HY/2012/07	12-11-2015	Mid-Flood	IS8	17:10	Middle	2	1						
TMCLKL	HY/2012/07	12-11-2015	Mid-Flood	IS8	17:10	Middle	2	2						
TMCLKL	HY/2012/07	12-11-2015	Mid-Flood	IS8	17:10	Bottom	3	1	25.3	7.94	22.5	6.61	7.73	12.4
TMCLKL	HY/2012/07	12-11-2015	Mid-Flood	IS8	17:10	Bottom	3	2	25.3	7.91	22.4	6.64	7.79	12.5
TMCLKL	HY/2012/07	12-11-2015	Mid-Flood	IS(Mf)16	17:28	Surface	1	1	25.4	7.95	22.3	6.69	7.82	10.2
TMCLKL	HY/2012/07	12-11-2015	Mid-Flood	IS(Mf)16	17:28	Surface	1	2	25.3	7.98	22.4	6.72	7.88	10.2
TMCLKL	HY/2012/07	12-11-2015	Mid-Flood	IS(Mf)16	17:28	Middle	2	1	25.3	8.04	22.4	6.62	7.93	11.1

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Project	Works	Date (yyyy-mm-dd)	Tide	Stat	Start Time	Level	Lev_Cod	Replicate	Temp_v	pH_v	Sal_v	DO_v	Turb_v	SS_v
TMCLKL	HY/2012/07	12-11-2015	Mid-Flood	IS(Mf)16	17:28	Middle	2	2	25.2	8.08	22.5	6.65	7.96	10.3
TMCLKL	HY/2012/07	12-11-2015	Mid-Flood	IS(Mf)16	17:28	Bottom	3	1	25.2	7.94	22.6	6.51	8.01	12.8
TMCLKL	HY/2012/07	12-11-2015	Mid-Flood	IS(Mf)16	17:28	Bottom	3	2	25.2	7.9	22.5	6.54	8.07	12.9
TMCLKL	HY/2012/07	12-11-2015	Mid-Flood	IS(Mf)9	17:50	Surface	1	1	25.5	7.97	22.5	6.68	7.53	11.3
TMCLKL	HY/2012/07	12-11-2015	Mid-Flood	IS(Mf)9	17:50	Surface	1	2	25.4	7.94	22.4	6.65	7.61	10.7
TMCLKL	HY/2012/07	12-11-2015	Mid-Flood	IS(Mf)9	17:50	Middle	2	1						
TMCLKL	HY/2012/07	12-11-2015	Mid-Flood	IS(Mf)9	17:50	Middle	2	2						
TMCLKL	HY/2012/07	12-11-2015	Mid-Flood	IS(Mf)9	17:50	Bottom	3	1	25.4	7.92	22.5	6.56	7.68	10.8
TMCLKL	HY/2012/07	12-11-2015	Mid-Flood	IS(Mf)9	17:50	Bottom	3	2	25.3	7.9	22.6	6.58	7.64	10.7
TMCLKL	HY/2012/07	12-11-2015	Mid-Flood	CS(Mf)3	18:16	Surface	1	1	25.5	7.96	22.3	6.73	7.62	9.1
TMCLKL	HY/2012/07	12-11-2015	Mid-Flood	CS(Mf)3	18:16	Surface	1	2	25.4	7.99	22.4	6.75	7.68	10.5
TMCLKL	HY/2012/07	12-11-2015	Mid-Flood	CS(Mf)3	18:16	Middle	2	1	25.3	8.02	22.5	6.65	7.72	10
TMCLKL	HY/2012/07	12-11-2015	Mid-Flood	CS(Mf)3	18:16	Middle	2	2	25.2	8.05	22.4	6.68	7.79	10.9
TMCLKL	HY/2012/07	12-11-2015	Mid-Flood	CS(Mf)3	18:16	Bottom	3	1	25.1	7.94	22.6	6.57	7.95	11.1
TMCLKL	HY/2012/07	12-11-2015	Mid-Flood	CS(Mf)3	18:16	Bottom	3	2	25.2	7.91	22.7	6.55	7.99	11.2
TMCLKL	HY/2012/07	12-11-2015	Mid-Ebb	CS(Mf)5	14:53	Surface	1	1	25.5	7.96	22.4	6.61	6.94	10.4
TMCLKL	HY/2012/07	12-11-2015	Mid-Ebb	CS(Mf)5	14:53	Surface	1	2	25.4	7.98	22.5	6.63	6.96	11.1
TMCLKL	HY/2012/07	12-11-2015	Mid-Ebb	CS(Mf)5	14:53	Middle	2	1	25.3	7.63	22.6	6.36	7.03	10.5
TMCLKL	HY/2012/07	12-11-2015	Mid-Ebb	CS(Mf)5	14:53	Middle	2	2	25.4	7.65	22.7	6.34	7.05	11.3
TMCLKL	HY/2012/07	12-11-2015	Mid-Ebb	CS(Mf)5	14:53	Bottom	3	1	25.2	8.14	22.8	6.17	7.12	10.7
TMCLKL	HY/2012/07	12-11-2015	Mid-Ebb	CS(Mf)5	14:53	Bottom	3	2	25.2	8.16	22.9	6.15	7.14	9.3
TMCLKL	HY/2012/07	12-11-2015	Mid-Ebb	SR4a	14:39	Surface	1	1	25.6	8.14	22.5	6.54	7.11	10
TMCLKL	HY/2012/07	12-11-2015	Mid-Ebb	SR4a	14:39	Surface	1	2	25.5	8.16	22.6	6.52	7.13	10.7
TMCLKL	HY/2012/07	12-11-2015	Mid-Ebb	SR4a	14:39	Middle	2	1						
TMCLKL	HY/2012/07	12-11-2015	Mid-Ebb	SR4a	14:39	Middle	2	2						
TMCLKL	HY/2012/07	12-11-2015	Mid-Ebb	SR4a	14:39	Bottom	3	1	25.3	7.92	22.7	6.36	7.36	9.6
TMCLKL	HY/2012/07	12-11-2015	Mid-Ebb	SR4a	14:39	Bottom	3	2	25.3	7.94	22.8	6.38	7.38	9.6
TMCLKL	HY/2012/07	12-11-2015	Mid-Ebb	SR4	14:17	Surface	1	1	25.6	7.92	22.4	6.64	7.92	11.9
TMCLKL	HY/2012/07	12-11-2015	Mid-Ebb	SR4	14:17	Surface	1	2	25.7	7.94	22.5	6.62	7.94	11.1
TMCLKL	HY/2012/07	12-11-2015	Mid-Ebb	SR4	14:17	Middle	2	1						
TMCLKL	HY/2012/07	12-11-2015	Mid-Ebb	SR4	14:17	Middle	2	2						
TMCLKL	HY/2012/07	12-11-2015	Mid-Ebb	SR4	14:17	Bottom	3	1	25.4	8.11	22.6	6.35	8.11	12.2
TMCLKL	HY/2012/07	12-11-2015	Mid-Ebb	SR4	14:17	Bottom	3	2	25.3	8.13	22.7	6.37	8.13	12.8

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Project	Works	Date (yyyy-mm-dd)	Tide	Stat	Start Time	Level	Lev_Cod	Replicate	Temp_v	pH_v	Sal_v	DO_v	Turb_v	SS_v
TMCLKL	HY/2012/07	12-11-2015	Mid-Ebb	IS8	13:55	Surface	1	1	25.6	8.17	22.5	6.68	8.13	11.4
TMCLKL	HY/2012/07	12-11-2015	Mid-Ebb	IS8	13:55	Surface	1	2	25.5	8.19	22.6	6.7	8.11	12.2
TMCLKL	HY/2012/07	12-11-2015	Mid-Ebb	IS8	13:55	Middle	2	1						
TMCLKL	HY/2012/07	12-11-2015	Mid-Ebb	IS8	13:55	Middle	2	2						
TMCLKL	HY/2012/07	12-11-2015	Mid-Ebb	IS8	13:55	Bottom	3	1	25.3	8.04	22.7	6.5	9.34	13.1
TMCLKL	HY/2012/07	12-11-2015	Mid-Ebb	IS8	13:55	Bottom	3	2	25.2	8.06	22.8	6.48	9.36	12.2
TMCLKL	HY/2012/07	12-11-2015	Mid-Ebb	IS(Mf)16	13:33	Surface	1	1	25.5	7.85	22.5	6.51	8.23	10.7
TMCLKL	HY/2012/07	12-11-2015	Mid-Ebb	IS(Mf)16	13:33	Surface	1	2	25.4	7.87	22.5	6.53	8.25	11.4
TMCLKL	HY/2012/07	12-11-2015	Mid-Ebb	IS(Mf)16	13:33	Middle	2	1	25.3	8.12	22.6	6.36	8.36	12.5
TMCLKL	HY/2012/07	12-11-2015	Mid-Ebb	IS(Mf)16	13:33	Middle	2	2	25.2	8.14	22.7	6.34	8.38	12.6
TMCLKL	HY/2012/07	12-11-2015	Mid-Ebb	IS(Mf)16	13:33	Bottom	3	1	25.1	8.23	22.8	6.21	9.03	11.7
TMCLKL	HY/2012/07	12-11-2015	Mid-Ebb	IS(Mf)16	13:33	Bottom	3	2	25	8.25	22.9	6.23	9.05	12.7
TMCLKL	HY/2012/07	12-11-2015	Mid-Ebb	IS(Mf)9	13:11	Surface	1	1	25.6	8.11	22.5	6.59	8.11	12.2
TMCLKL	HY/2012/07	12-11-2015	Mid-Ebb	IS(Mf)9	13:11	Surface	1	2	25.5	8.13	22.6	6.61	8.13	11.4
TMCLKL	HY/2012/07	12-11-2015	Mid-Ebb	IS(Mf)9	13:11	Middle	2	1						
TMCLKL	HY/2012/07	12-11-2015	Mid-Ebb	IS(Mf)9	13:11	Middle	2	2						
TMCLKL	HY/2012/07	12-11-2015	Mid-Ebb	IS(Mf)9	13:11	Bottom	3	1	25.3	7.94	22.7	6.27	8.3	11.6
TMCLKL	HY/2012/07	12-11-2015	Mid-Ebb	IS(Mf)9	13:11	Bottom	3	2	25.2	7.96	22.8	6.25	8.32	10.8
TMCLKL	HY/2012/07	12-11-2015	Mid-Ebb	CS(Mf)3	12:50	Surface	1	1	25.5	7.94	22.5	6.51	7.61	11.4
TMCLKL	HY/2012/07	12-11-2015	Mid-Ebb	CS(Mf)3	12:50	Surface	1	2	25.4	7.96	22.6	6.49	7.63	12.2
TMCLKL	HY/2012/07	12-11-2015	Mid-Ebb	CS(Mf)3	12:50	Middle	2	1	25.3	8.11	22.7	6.27	7.8	10.9
TMCLKL	HY/2012/07	12-11-2015	Mid-Ebb	CS(Mf)3	12:50	Middle	2	2	25.3	8.13	22.8	6.29	7.82	10.2
TMCLKL	HY/2012/07	12-11-2015	Mid-Ebb	CS(Mf)3	12:50	Bottom	3	1	25.1	7.94	22.9	6.17	7.99	11.2
TMCLKL	HY/2012/07	12-11-2015	Mid-Ebb	CS(Mf)3	12:50	Bottom	3	2	25.2	7.86	22.8	6.15	8.01	11.2
TMCLKL	HY/2012/07	14-11-2015	Mid-Flood	CS(Mf)5	8:15	Surface	1	1	25.4	7.87	22.5	6.67	6.85	10.3
TMCLKL	HY/2012/07	14-11-2015	Mid-Flood	CS(Mf)5	8:15	Surface	1	2	25.3	7.89	22.6	6.69	6.87	10.9
TMCLKL	HY/2012/07	14-11-2015	Mid-Flood	CS(Mf)5	8:15	Middle	2	1	25.3	7.54	22.8	6.42	6.94	8.3
TMCLKL	HY/2012/07	14-11-2015	Mid-Flood	CS(Mf)5	8:15	Middle	2	2	25.2	7.56	22.7	6.4	6.96	9
TMCLKL	HY/2012/07	14-11-2015	Mid-Flood	CS(Mf)5	8:15	Bottom	3	1	25	8.05	22.9	6.23	7.03	10.4
TMCLKL	HY/2012/07	14-11-2015	Mid-Flood	CS(Mf)5	8:15	Bottom	3	2	25.1	8.07	23	6.21	7.05	10.6
TMCLKL	HY/2012/07	14-11-2015	Mid-Flood	SR4a	8:37	Surface	1	1	25.5	8.05	22.6	6.6	7.02	9.1
TMCLKL	HY/2012/07	14-11-2015	Mid-Flood	SR4a	8:37	Surface	1	2	25.4	8.07	22.7	6.58	7.04	9.9
TMCLKL	HY/2012/07	14-11-2015	Mid-Flood	SR4a	8:37	Middle	2	1						

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Project	Works	Date (yyyy-mm-dd)	Tide	Stat	Start Time	Level	Lev_Cod	Replicate	Temp_v	pH_v	Sal_v	DO_v	Turb_v	SS_v
TMCLKL	HY/2012/07	14-11-2015	Mid-Flood	SR4a	8:37	Middle	2	2						
TMCLKL	HY/2012/07	14-11-2015	Mid-Flood	SR4a	8:37	Bottom	3	1	25.1	7.83	22.8	6.42	7.27	10.9
TMCLKL	HY/2012/07	14-11-2015	Mid-Flood	SR4a	8:37	Bottom	3	2	25.2	7.85	22.9	6.44	7.29	9.5
TMCLKL	HY/2012/07	14-11-2015	Mid-Flood	SR4	8:59	Surface	1	1	25.5	7.83	22.6	6.7	7.83	11.7
TMCLKL	HY/2012/07	14-11-2015	Mid-Flood	SR4	8:59	Surface	1	2	25.6	7.85	22.5	6.68	7.85	11
TMCLKL	HY/2012/07	14-11-2015	Mid-Flood	SR4	8:59	Middle	2	1						
TMCLKL	HY/2012/07	14-11-2015	Mid-Flood	SR4	8:59	Middle	2	2						
TMCLKL	HY/2012/07	14-11-2015	Mid-Flood	SR4	8:59	Bottom	3	1	25.3	8.02	22.7	6.41	8.02	12
TMCLKL	HY/2012/07	14-11-2015	Mid-Flood	SR4	8:59	Bottom	3	2	25.2	8.04	22.8	6.43	8.04	10.5
TMCLKL	HY/2012/07	14-11-2015	Mid-Flood	IS8	9:21	Surface	1	1	25.5	8.08	22.6	6.74	8.04	10.5
TMCLKL	HY/2012/07	14-11-2015	Mid-Flood	IS8	9:21	Surface	1	2	25.4	8.1	22.7	6.76	8.02	11.2
TMCLKL	HY/2012/07	14-11-2015	Mid-Flood	IS8	9:21	Middle	2	1						
TMCLKL	HY/2012/07	14-11-2015	Mid-Flood	IS8	9:21	Middle	2	2						
TMCLKL	HY/2012/07	14-11-2015	Mid-Flood	IS8	9:21	Bottom	3	1	25.1	7.95	22.8	6.56	9.25	11.1
TMCLKL	HY/2012/07	14-11-2015	Mid-Flood	IS8	9:21	Bottom	3	2	25.2	7.97	22.9	6.54	9.27	12
TMCLKL	HY/2012/07	14-11-2015	Mid-Flood	IS(Mf)16	9:43	Surface	1	1	25.4	7.76	22.5	6.57	8.14	11.4
TMCLKL	HY/2012/07	14-11-2015	Mid-Flood	IS(Mf)16	9:43	Surface	1	2	25.3	7.78	22.6	6.59	8.16	9.8
TMCLKL	HY/2012/07	14-11-2015	Mid-Flood	IS(Mf)16	9:43	Middle	2	1	25.1	8.03	22.7	6.42	8.27	12.4
TMCLKL	HY/2012/07	14-11-2015	Mid-Flood	IS(Mf)16	9:43	Middle	2	2	25.2	8.05	22.8	6.4	8.29	12.9
TMCLKL	HY/2012/07	14-11-2015	Mid-Flood	IS(Mf)16	9:43	Bottom	3	1	25	8.14	23	6.27	8.94	14.3
TMCLKL	HY/2012/07	14-11-2015	Mid-Flood	IS(Mf)16	9:43	Bottom	3	2	24.9	8.16	22.9	6.29	8.96	14.8
TMCLKL	HY/2012/07	14-11-2015	Mid-Flood	IS(Mf)9	10:05	Surface	1	1	25.4	8.02	22.6	6.65	8.02	12
TMCLKL	HY/2012/07	14-11-2015	Mid-Flood	IS(Mf)9	10:05	Surface	1	2	25.5	8.04	22.7	6.67	8.04	11.3
TMCLKL	HY/2012/07	14-11-2015	Mid-Flood	IS(Mf)9	10:05	Middle	2	1						
TMCLKL	HY/2012/07	14-11-2015	Mid-Flood	IS(Mf)9	10:05	Middle	2	2						
TMCLKL	HY/2012/07	14-11-2015	Mid-Flood	IS(Mf)9	10:05	Bottom	3	1	25.2	7.85	22.8	6.33	8.21	10.7
TMCLKL	HY/2012/07	14-11-2015	Mid-Flood	IS(Mf)9	10:05	Bottom	3	2	25.1	7.87	22.9	6.31	8.23	11.5
TMCLKL	HY/2012/07	14-11-2015	Mid-Flood	CS(Mf)3	10:29	Surface	1	1	25.3	7.85	22.6	6.57	7.52	9
TMCLKL	HY/2012/07	14-11-2015	Mid-Flood	CS(Mf)3	10:29	Surface	1	2	25.4	7.87	22.7	6.55	7.54	10.6
TMCLKL	HY/2012/07	14-11-2015	Mid-Flood	CS(Mf)3	10:29	Middle	2	1	25.2	8.02	22.9	6.33	7.71	10.8
TMCLKL	HY/2012/07	14-11-2015	Mid-Flood	CS(Mf)3	10:29	Middle	2	2	25.1	8.05	22.8	6.35	7.73	10.8
TMCLKL	HY/2012/07	14-11-2015	Mid-Flood	CS(Mf)3	10:29	Bottom	3	1	25.1	7.75	22.9	6.08	7.9	11.9
TMCLKL	HY/2012/07	14-11-2015	Mid-Flood	CS(Mf)3	10:29	Bottom	3	2	25	7.77	23	6.06	7.92	10.3

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Project	Works	Date (yyyy-mm-dd)	Tide	Stat	Start Time	Level	Lev_Cod	Replicate	Temp_v	pH_v	Sal_v	DO_v	Turb_v	SS_v
TMCLKL	HY/2012/07	14-11-2015	Mid-Ebb	CS(Mf)5	15:03	Surface	1	1	25.4	7.88	22.6	6.63	7.06	10.6
TMCLKL	HY/2012/07	14-11-2015	Mid-Ebb	CS(Mf)5	15:03	Surface	1	2	25.5	7.91	22.6	6.6	6.97	9.8
TMCLKL	HY/2012/07	14-11-2015	Mid-Ebb	CS(Mf)5	15:03	Middle	2	1	25.4	7.64	22.8	6.52	7.13	10.7
TMCLKL	HY/2012/07	14-11-2015	Mid-Ebb	CS(Mf)5	15:03	Middle	2	2	25.3	7.67	22.9	6.49	7.21	10.1
TMCLKL	HY/2012/07	14-11-2015	Mid-Ebb	CS(Mf)5	15:03	Bottom	3	1	25.2	7.96	23.1	6.26	7.48	10.5
TMCLKL	HY/2012/07	14-11-2015	Mid-Ebb	CS(Mf)5	15:03	Bottom	3	2	25.1	8	23.1	6.22	7.54	10.6
TMCLKL	HY/2012/07	14-11-2015	Mid-Ebb	SR4a	14:42	Surface	1	1	25.4	8.01	22.5	6.54	7.14	10
TMCLKL	HY/2012/07	14-11-2015	Mid-Ebb	SR4a	14:42	Surface	1	2	25.4	8.03	22.6	6.51	7.23	10.1
TMCLKL	HY/2012/07	14-11-2015	Mid-Ebb	SR4a	14:42	Middle	2	1						
TMCLKL	HY/2012/07	14-11-2015	Mid-Ebb	SR4a	14:42	Middle	2	2						
TMCLKL	HY/2012/07	14-11-2015	Mid-Ebb	SR4a	14:42	Bottom	3	1	25.2	7.94	22.7	6.38	7.36	11
TMCLKL	HY/2012/07	14-11-2015	Mid-Ebb	SR4a	14:42	Bottom	3	2	25.2	7.96	22.8	6.35	7.44	11.2
TMCLKL	HY/2012/07	14-11-2015	Mid-Ebb	SR4	14:21	Surface	1	1	25.4	7.87	22.5	6.62	7.96	10.3
TMCLKL	HY/2012/07	14-11-2015	Mid-Ebb	SR4	14:21	Surface	1	2	25.4	7.88	22.5	6.59	8	10.4
TMCLKL	HY/2012/07	14-11-2015	Mid-Ebb	SR4	14:21	Middle	2	1						
TMCLKL	HY/2012/07	14-11-2015	Mid-Ebb	SR4	14:21	Middle	2	2						
TMCLKL	HY/2012/07	14-11-2015	Mid-Ebb	SR4	14:21	Bottom	3	1	25.4	7.89	22.5	6.36	8.14	10.6
TMCLKL	HY/2012/07	14-11-2015	Mid-Ebb	SR4	14:21	Bottom	3	2	25.3	7.92	22.6	6.33	8.09	10.5
TMCLKL	HY/2012/07	14-11-2015	Mid-Ebb	IS8	14:01	Surface	1	1	25.4	8.01	22.5	6.7	7.92	9.5
TMCLKL	HY/2012/07	14-11-2015	Mid-Ebb	IS8	14:01	Surface	1	2	25.5	7.97	22.6	6.67	7.86	10.2
TMCLKL	HY/2012/07	14-11-2015	Mid-Ebb	IS8	14:01	Middle	2	1						
TMCLKL	HY/2012/07	14-11-2015	Mid-Ebb	IS8	14:01	Middle	2	2						
TMCLKL	HY/2012/07	14-11-2015	Mid-Ebb	IS8	14:01	Bottom	3	1	25.3	7.95	22.7	6.5	9.08	10.9
TMCLKL	HY/2012/07	14-11-2015	Mid-Ebb	IS8	14:01	Bottom	3	2	25.3	7.99	22.8	6.47	9.14	11.9
TMCLKL	HY/2012/07	14-11-2015	Mid-Ebb	IS(Mf)16	13:37	Surface	1	1	25.4	7.84	22.4	6.54	8.09	12.1
TMCLKL	HY/2012/07	14-11-2015	Mid-Ebb	IS(Mf)16	13:37	Surface	1	2	25.3	7.8	22.5	6.5	8.15	11.4
TMCLKL	HY/2012/07	14-11-2015	Mid-Ebb	IS(Mf)16	13:37	Middle	2	1	25.3	7.97	22.6	6.38	8.33	12.5
TMCLKL	HY/2012/07	14-11-2015	Mid-Ebb	IS(Mf)16	13:37	Middle	2	2	25.3	7.99	22.6	6.34	8.28	10.8
TMCLKL	HY/2012/07	14-11-2015	Mid-Ebb	IS(Mf)16	13:37	Bottom	3	1	25.1	8.04	22.8	6.16	9.02	13.5
TMCLKL	HY/2012/07	14-11-2015	Mid-Ebb	IS(Mf)16	13:37	Bottom	3	2	25.1	8.06	22.9	6.12	9.11	13.8
TMCLKL	HY/2012/07	14-11-2015	Mid-Ebb	IS(Mf)9	13:16	Surface	1	1	25.4	7.97	22.4	6.58	7.89	9.5
TMCLKL	HY/2012/07	14-11-2015	Mid-Ebb	IS(Mf)9	13:16	Surface	1	2	25.5	8	22.5	6.61	7.93	11.1
TMCLKL	HY/2012/07	14-11-2015	Mid-Ebb	IS(Mf)9	13:16	Middle	2	1						

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Project	Works	Date (yyyy-mm-dd)	Tide	Stat	Start Time	Level	Lev_Cod	Replicate	Temp_v	pH_v	Sal_v	DO_v	Turb_v	SS_v
TMCLKL	HY/2012/07	14-11-2015	Mid-Ebb	IS(Mf)9	13:16	Middle	2	2						
TMCLKL	HY/2012/07	14-11-2015	Mid-Ebb	IS(Mf)9	13:16	Bottom	3	1	25.4	7.89	22.7	6.45	8.07	12.1
TMCLKL	HY/2012/07	14-11-2015	Mid-Ebb	IS(Mf)9	13:16	Bottom	3	2	25.3	7.91	22.8	6.41	8.11	11.7
TMCLKL	HY/2012/07	14-11-2015	Mid-Ebb	CS(Mf)3	12:51	Surface	1	1	25.4	7.83	22.5	6.68	7.42	10.4
TMCLKL	HY/2012/07	14-11-2015	Mid-Ebb	CS(Mf)3	12:51	Surface	1	2	25.4	7.85	22.6	6.65	7.5	11.3
TMCLKL	HY/2012/07	14-11-2015	Mid-Ebb	CS(Mf)3	12:51	Middle	2	1	25.3	7.99	22.8	6.49	7.68	11.5
TMCLKL	HY/2012/07	14-11-2015	Mid-Ebb	CS(Mf)3	12:51	Middle	2	2	25.2	8.01	22.7	6.44	7.71	10
TMCLKL	HY/2012/07	14-11-2015	Mid-Ebb	CS(Mf)3	12:51	Bottom	3	1	25.2	7.86	23	6.16	7.96	11.9
TMCLKL	HY/2012/07	14-11-2015	Mid-Ebb	CS(Mf)3	12:51	Bottom	3	2	25.1	7.89	23	6.13	8.04	12.9
TMCLKL	HY/2012/07	17-11-2015	Mid-Flood	CS(Mf)5	10:49	Surface	1	1	25.5	7.92	22.7	6.73	6.76	8.1
TMCLKL	HY/2012/07	17-11-2015	Mid-Flood	CS(Mf)5	10:49	Surface	1	2	25.4	7.94	22.6	6.75	6.78	8.2
TMCLKL	HY/2012/07	17-11-2015	Mid-Flood	CS(Mf)5	10:49	Middle	2	1	25.3	7.6	22.8	6.48	6.85	9.6
TMCLKL	HY/2012/07	17-11-2015	Mid-Flood	CS(Mf)5	10:49	Middle	2	2	25.4	7.62	22.9	6.46	6.87	10.3
TMCLKL	HY/2012/07	17-11-2015	Mid-Flood	CS(Mf)5	10:49	Bottom	3	1	25.2	8.1	23	6.29	6.94	10.4
TMCLKL	HY/2012/07	17-11-2015	Mid-Flood	CS(Mf)5	10:49	Bottom	3	2	25.1	8.12	23.1	6.27	6.96	9
TMCLKL	HY/2012/07	17-11-2015	Mid-Flood	SR4a	11:11	Surface	1	1	25.5	8.1	22.7	6.66	6.93	9
TMCLKL	HY/2012/07	17-11-2015	Mid-Flood	SR4a	11:11	Surface	1	2	25.6	8.12	22.8	6.64	6.95	10.4
TMCLKL	HY/2012/07	17-11-2015	Mid-Flood	SR4a	11:11	Middle	2	1						
TMCLKL	HY/2012/07	17-11-2015	Mid-Flood	SR4a	11:11	Middle	2	2						
TMCLKL	HY/2012/07	17-11-2015	Mid-Flood	SR4a	11:11	Bottom	3	1	25.3	7.88	23	6.48	7.18	10.1
TMCLKL	HY/2012/07	17-11-2015	Mid-Flood	SR4a	11:11	Bottom	3	2	25.2	7.9	22.9	6.5	7.2	8.6
TMCLKL	HY/2012/07	17-11-2015	Mid-Flood	SR4	11:33	Surface	1	1	25.7	7.88	22.6	6.76	7.74	11.6
TMCLKL	HY/2012/07	17-11-2015	Mid-Flood	SR4	11:33	Surface	1	2	25.6	7.9	22.7	6.74	7.76	12.4
TMCLKL	HY/2012/07	17-11-2015	Mid-Flood	SR4	11:33	Middle	2	1						
TMCLKL	HY/2012/07	17-11-2015	Mid-Flood	SR4	11:33	Middle	2	2						
TMCLKL	HY/2012/07	17-11-2015	Mid-Flood	SR4	11:33	Bottom	3	1	25.3	8.07	22.9	6.47	7.93	11.9
TMCLKL	HY/2012/07	17-11-2015	Mid-Flood	SR4	11:33	Bottom	3	2	25.4	8.09	22.8	6.49	7.95	11.9
TMCLKL	HY/2012/07	17-11-2015	Mid-Flood	IS8	11:55	Surface	1	1	25.5	8.13	22.7	6.8	7.95	12.7
TMCLKL	HY/2012/07	17-11-2015	Mid-Flood	IS8	11:55	Surface	1	2	25.6	8.15	22.8	6.82	7.93	11.9
TMCLKL	HY/2012/07	17-11-2015	Mid-Flood	IS8	11:55	Middle	2	1						
TMCLKL	HY/2012/07	17-11-2015	Mid-Flood	IS8	11:55	Middle	2	2						
TMCLKL	HY/2012/07	17-11-2015	Mid-Flood	IS8	11:55	Bottom	3	1	25.3	8	23	6.62	9.16	13
TMCLKL	HY/2012/07	17-11-2015	Mid-Flood	IS8	11:55	Bottom	3	2	25.2	8.02	22.9	6.6	9.18	13.8

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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	17-11-2015	Mid-Flood	IS(Mf)16	12:17	Surface	1	1	25.5	7.81	22.6	6.63	8.05	12.1
TMCLKL	HY/2012/07	17-11-2015	Mid-Flood	IS(Mf)16	12:17	Surface	1	2	25.4	7.83	22.7	6.65	8.07	12.9
TMCLKL	HY/2012/07	17-11-2015	Mid-Flood	IS(Mf)16	12:17	Middle	2	1	25.2	8.08	22.9	6.48	8.18	11.5
TMCLKL	HY/2012/07	17-11-2015	Mid-Flood	IS(Mf)16	12:17	Middle	2	2	25.3	8.1	22.8	6.46	8.2	11.5
TMCLKL	HY/2012/07	17-11-2015	Mid-Flood	IS(Mf)16	12:17	Bottom	3	1	25.1	8.19	23	6.33	8.85	10.6
TMCLKL	HY/2012/07	17-11-2015	Mid-Flood	IS(Mf)16	12:17	Bottom	3	2	25	8.21	23.1	6.35	8.87	10.6
TMCLKL	HY/2012/07	17-11-2015	Mid-Flood	IS(Mf)9	12:39	Surface	1	1	25.6	8.07	22.7	6.71	7.93	12.7
TMCLKL	HY/2012/07	17-11-2015	Mid-Flood	IS(Mf)9	12:39	Surface	1	2	25.5	8.09	22.8	6.73	7.95	12.5
TMCLKL	HY/2012/07	17-11-2015	Mid-Flood	IS(Mf)9	12:39	Middle	2	1						
TMCLKL	HY/2012/07	17-11-2015	Mid-Flood	IS(Mf)9	12:39	Middle	2	2						
TMCLKL	HY/2012/07	17-11-2015	Mid-Flood	IS(Mf)9	12:39	Bottom	3	1	25.1	7.9	22.9	6.39	8.12	10.6
TMCLKL	HY/2012/07	17-11-2015	Mid-Flood	IS(Mf)9	12:39	Bottom	3	2	25.2	7.92	23	6.37	8.14	11.4
TMCLKL	HY/2012/07	17-11-2015	Mid-Flood	CS(Mf)3	13:03	Surface	1	1	25.4	7.9	22.7	6.63	7.43	11.9
TMCLKL	HY/2012/07	17-11-2015	Mid-Flood	CS(Mf)3	13:03	Surface	1	2	25.5	7.92	22.8	6.61	7.45	11.2
TMCLKL	HY/2012/07	17-11-2015	Mid-Flood	CS(Mf)3	13:03	Middle	2	1	25.3	8.07	23	6.39	7.62	11.4
TMCLKL	HY/2012/07	17-11-2015	Mid-Flood	CS(Mf)3	13:03	Middle	2	2	25.2	8.1	22.9	6.41	7.64	11.5
TMCLKL	HY/2012/07	17-11-2015	Mid-Flood	CS(Mf)3	13:03	Bottom	3	1	25.2	7.8	23	6.14	7.81	12.2
TMCLKL	HY/2012/07	17-11-2015	Mid-Flood	CS(Mf)3	13:03	Bottom	3	2	25.1	7.82	23.1	6.12	7.83	12.5
TMCLKL	HY/2012/07	17-11-2015	Mid-Ebb	CS(Mf)5	17:25	Surface	1	1	25.5	7.94	22.6	6.65	6.92	9.7
TMCLKL	HY/2012/07	17-11-2015	Mid-Ebb	CS(Mf)5	17:25	Surface	1	2	25.4	7.96	22.6	6.63	6.94	8.3
TMCLKL	HY/2012/07	17-11-2015	Mid-Ebb	CS(Mf)5	17:25	Middle	2	1	25.3	8.13	22.7	6.51	7.11	9.2
TMCLKL	HY/2012/07	17-11-2015	Mid-Ebb	CS(Mf)5	17:25	Middle	2	2	25.3	8.15	22.8	6.53	7.13	10
TMCLKL	HY/2012/07	17-11-2015	Mid-Ebb	CS(Mf)5	17:25	Bottom	3	1	25.2	7.8	22.9	6.44	7.33	10.3
TMCLKL	HY/2012/07	17-11-2015	Mid-Ebb	CS(Mf)5	17:25	Bottom	3	2	25.1	7.82	23	6.42	7.31	9.5
TMCLKL	HY/2012/07	17-11-2015	Mid-Ebb	SR4a	17:10	Surface	1	1	25.4	8.16	22.4	6.57	7.12	11.4
TMCLKL	HY/2012/07	17-11-2015	Mid-Ebb	SR4a	17:10	Surface	1	2	25.4	8.18	22.5	6.55	7.14	11.6
TMCLKL	HY/2012/07	17-11-2015	Mid-Ebb	SR4a	17:10	Middle	2	1						
TMCLKL	HY/2012/07	17-11-2015	Mid-Ebb	SR4a	17:10	Middle	2	2						
TMCLKL	HY/2012/07	17-11-2015	Mid-Ebb	SR4a	17:10	Bottom	3	1	25.2	7.92	22.6	6.41	7.26	10.2
TMCLKL	HY/2012/07	17-11-2015	Mid-Ebb	SR4a	17:10	Bottom	3	2	25.3	7.94	22.7	6.39	7.25	10.9
TMCLKL	HY/2012/07	17-11-2015	Mid-Ebb	SR4	16:41	Surface	1	1	25.5	8	22.4	6.8	7.92	10.5
TMCLKL	HY/2012/07	17-11-2015	Mid-Ebb	SR4	16:41	Surface	1	2	25.6	8.02	22.5	6.82	7.94	11.9
TMCLKL	HY/2012/07	17-11-2015	Mid-Ebb	SR4	16:41	Middle	2	1						

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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	17-11-2015	Mid-Ebb	SR4	16:41	Middle	2	2						
TMCLKL	HY/2012/07	17-11-2015	Mid-Ebb	SR4	16:41	Bottom	3	1	25.3	8.14	22.6	6.54	8.16	11.4
TMCLKL	HY/2012/07	17-11-2015	Mid-Ebb	SR4	16:41	Bottom	3	2	25.2	8.16	22.7	6.56	8.18	9.8
TMCLKL	HY/2012/07	17-11-2015	Mid-Ebb	IS8	16:19	Surface	1	1	25.5	7.92	22.5	6.73	8.02	11.2
TMCLKL	HY/2012/07	17-11-2015	Mid-Ebb	IS8	16:19	Surface	1	2	25.4	7.94	22.6	6.71	8.04	11.3
TMCLKL	HY/2012/07	17-11-2015	Mid-Ebb	IS8	16:19	Middle	2	1						
TMCLKL	HY/2012/07	17-11-2015	Mid-Ebb	IS8	16:19	Middle	2	2						
TMCLKL	HY/2012/07	17-11-2015	Mid-Ebb	IS8	16:19	Bottom	3	1	25.2	8.02	22.7	6.6	9	11.7
TMCLKL	HY/2012/07	17-11-2015	Mid-Ebb	IS8	16:19	Bottom	3	2	25.2	8.04	22.8	6.62	9.02	11.7
TMCLKL	HY/2012/07	17-11-2015	Mid-Ebb	IS(Mf)16	15:59	Surface	1	1	25.5	8.12	22.4	6.62	8.14	13
TMCLKL	HY/2012/07	17-11-2015	Mid-Ebb	IS(Mf)16	15:59	Surface	1	2	25.4	8.11	22.5	6.6	8.16	11.4
TMCLKL	HY/2012/07	17-11-2015	Mid-Ebb	IS(Mf)16	15:59	Middle	2	1	25.3	7.94	22.6	6.47	8.36	12.5
TMCLKL	HY/2012/07	17-11-2015	Mid-Ebb	IS(Mf)16	15:59	Middle	2	2	25.3	7.96	22.6	6.45	8.38	13.4
TMCLKL	HY/2012/07	17-11-2015	Mid-Ebb	IS(Mf)16	15:59	Bottom	3	1	25.1	8	22.7	6.33	8.45	13.5
TMCLKL	HY/2012/07	17-11-2015	Mid-Ebb	IS(Mf)16	15:59	Bottom	3	2	25.2	8.02	22.8	6.31	8.47	13.2
TMCLKL	HY/2012/07	17-11-2015	Mid-Ebb	IS(Mf)9	15:35	Surface	1	1	25.5	7.92	22.5	6.58	8.17	11.4
TMCLKL	HY/2012/07	17-11-2015	Mid-Ebb	IS(Mf)9	15:35	Surface	1	2	25.6	7.94	22.6	6.6	8.19	12.3
TMCLKL	HY/2012/07	17-11-2015	Mid-Ebb	IS(Mf)9	15:35	Middle	2	1						
TMCLKL	HY/2012/07	17-11-2015	Mid-Ebb	IS(Mf)9	15:35	Middle	2	2						
TMCLKL	HY/2012/07	17-11-2015	Mid-Ebb	IS(Mf)9	15:35	Bottom	3	1	25.4	8.12	22.7	6.24	8.36	12.5
TMCLKL	HY/2012/07	17-11-2015	Mid-Ebb	IS(Mf)9	15:35	Bottom	3	2	25.3	8.14	22.8	6.26	8.38	11.9
TMCLKL	HY/2012/07	17-11-2015	Mid-Ebb	CS(Mf)3	15:12	Surface	1	1	25.4	8.16	22.6	6.49	7.69	10
TMCLKL	HY/2012/07	17-11-2015	Mid-Ebb	CS(Mf)3	15:12	Surface	1	2	25.5	8.14	22.6	6.51	7.71	11.6
TMCLKL	HY/2012/07	17-11-2015	Mid-Ebb	CS(Mf)3	15:12	Middle	2	1	25.3	7.92	22.7	6.32	7.92	11.1
TMCLKL	HY/2012/07	17-11-2015	Mid-Ebb	CS(Mf)3	15:12	Middle	2	2	25.3	7.94	22.8	6.34	7.94	10.5
TMCLKL	HY/2012/07	17-11-2015	Mid-Ebb	CS(Mf)3	15:12	Bottom	3	1	25.2	7.86	22.9	6.26	8.11	10.5
TMCLKL	HY/2012/07	17-11-2015	Mid-Ebb	CS(Mf)3	15:12	Bottom	3	2	25.1	7.88	23	6.24	8.13	10.6
TMCLKL	HY/2012/07	19-11-2015	Mid-Flood	CS(Mf)5	13:09	Surface	1	1	26.7	7.98	23.2	6.71	7.79	10.9
TMCLKL	HY/2012/07	19-11-2015	Mid-Flood	CS(Mf)5	13:09	Surface	1	2	26.6	7.94	23.3	6.73	7.75	11.6
TMCLKL	HY/2012/07	19-11-2015	Mid-Flood	CS(Mf)5	13:09	Middle	2	1	26.5	8.07	23.5	6.59	8.26	10.7
TMCLKL	HY/2012/07	19-11-2015	Mid-Flood	CS(Mf)5	13:09	Middle	2	2	26.4	8.03	23.4	6.62	8.35	11.7
TMCLKL	HY/2012/07	19-11-2015	Mid-Flood	CS(Mf)5	13:09	Bottom	3	1	26.3	7.94	23.6	6.48	8.69	13.9
TMCLKL	HY/2012/07	19-11-2015	Mid-Flood	CS(Mf)5	13:09	Bottom	3	2	26.3	7.96	23.7	6.44	8.74	13.5

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Project	Works	Date (yyyy-mm-dd)	Tide	Stat	Start Time	Level	Lev_Cod	Replicate	Temp_v	pH_v	Sal_v	DO_v	Turb_v	SS_v
TMCLKL	HY/2012/07	19-11-2015	Mid-Flood	SR4a	13:36	Surface	1	1	26.5	7.99	23.1	6.42	7.89	9.5
TMCLKL	HY/2012/07	19-11-2015	Mid-Flood	SR4a	13:36	Surface	1	2	26.6	7.96	23.2	6.4	7.94	10.3
TMCLKL	HY/2012/07	19-11-2015	Mid-Flood	SR4a	13:36	Middle	2	1						
TMCLKL	HY/2012/07	19-11-2015	Mid-Flood	SR4a	13:36	Middle	2	2						
TMCLKL	HY/2012/07	19-11-2015	Mid-Flood	SR4a	13:36	Bottom	3	1	26.3	7.93	23.3	6.27	8.14	10.6
TMCLKL	HY/2012/07	19-11-2015	Mid-Flood	SR4a	13:36	Bottom	3	2	26.4	7.9	23.2	6.24	8.18	11.5
TMCLKL	HY/2012/07	19-11-2015	Mid-Flood	SR4	13:52	Surface	1	1	26.6	7.95	23.3	6.38	7.72	11.6
TMCLKL	HY/2012/07	19-11-2015	Mid-Flood	SR4	13:52	Surface	1	2	26.5	7.98	23.2	6.35	7.78	10.9
TMCLKL	HY/2012/07	19-11-2015	Mid-Flood	SR4	13:52	Middle	2	1						
TMCLKL	HY/2012/07	19-11-2015	Mid-Flood	SR4	13:52	Middle	2	2						
TMCLKL	HY/2012/07	19-11-2015	Mid-Flood	SR4	13:52	Bottom	3	1	26.4	7.94	23.4	6.12	7.91	11.1
TMCLKL	HY/2012/07	19-11-2015	Mid-Flood	SR4	13:52	Bottom	3	2	26.5	7.9	23.4	6.15	7.98	12
TMCLKL	HY/2012/07	19-11-2015	Mid-Flood	IS8	14:09	Surface	1	1	26.7	7.94	23.1	6.63	8.07	11.3
TMCLKL	HY/2012/07	19-11-2015	Mid-Flood	IS8	14:09	Surface	1	2	26.6	7.92	23.2	6.66	8.13	11.4
TMCLKL	HY/2012/07	19-11-2015	Mid-Flood	IS8	14:09	Middle	2	1						
TMCLKL	HY/2012/07	19-11-2015	Mid-Flood	IS8	14:09	Middle	2	2						
TMCLKL	HY/2012/07	19-11-2015	Mid-Flood	IS8	14:09	Bottom	3	1	26.5	7.89	23.3	6.51	8.23	11.5
TMCLKL	HY/2012/07	19-11-2015	Mid-Flood	IS8	14:09	Bottom	3	2	26.4	7.86	23.2	6.48	8.29	11.6
TMCLKL	HY/2012/07	19-11-2015	Mid-Flood	IS(Mf)16	14:28	Surface	1	1	26.5	7.98	23.1	6.43	8.11	10.5
TMCLKL	HY/2012/07	19-11-2015	Mid-Flood	IS(Mf)16	14:28	Surface	1	2	26.6	8.01	23	6.46	8.14	12.2
TMCLKL	HY/2012/07	19-11-2015	Mid-Flood	IS(Mf)16	14:28	Middle	2	1	26.3	7.91	23.2	6.27	8.19	10.6
TMCLKL	HY/2012/07	19-11-2015	Mid-Flood	IS(Mf)16	14:28	Middle	2	2	26.4	7.94	23.3	6.24	8.22	10.7
TMCLKL	HY/2012/07	19-11-2015	Mid-Flood	IS(Mf)16	14:28	Bottom	3	1	26.3	7.96	23.5	6.2	8.45	11
TMCLKL	HY/2012/07	19-11-2015	Mid-Flood	IS(Mf)16	14:28	Bottom	3	2	26.2	7.99	23.6	6.16	8.4	10.1
TMCLKL	HY/2012/07	19-11-2015	Mid-Flood	IS(Mf)9	14:50	Surface	1	1	26.6	8.03	23.1	6.34	7.96	9.6
TMCLKL	HY/2012/07	19-11-2015	Mid-Flood	IS(Mf)9	14:50	Surface	1	2	26.5	8.06	23.2	6.37	8.02	11.2
TMCLKL	HY/2012/07	19-11-2015	Mid-Flood	IS(Mf)9	14:50	Middle	2	1						
TMCLKL	HY/2012/07	19-11-2015	Mid-Flood	IS(Mf)9	14:50	Middle	2	2						
TMCLKL	HY/2012/07	19-11-2015	Mid-Flood	IS(Mf)9	14:50	Bottom	3	1	26.5	7.94	23.4	6.14	8.24	9.9
TMCLKL	HY/2012/07	19-11-2015	Mid-Flood	IS(Mf)9	14:50	Bottom	3	2	26.4	7.98	23.3	6.17	8.31	10
TMCLKL	HY/2012/07	19-11-2015	Mid-Flood	CS(Mf)3	15:14	Surface	1	1	26.5	7.96	23.2	6.56	8.06	10.5
TMCLKL	HY/2012/07	19-11-2015	Mid-Flood	CS(Mf)3	15:14	Surface	1	2	26.4	7.9	23.2	6.54	8.09	10.5
TMCLKL	HY/2012/07	19-11-2015	Mid-Flood	CS(Mf)3	15:14	Middle	2	1	26.3	8.01	23.4	6.32	8.14	12.8

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Project	Works	Date (yyyy-mm-dd)	Tide	Stat	Start Time	Level	Lev_Cod	Replicate	Temp_v	pH_v	Sal_v	DO_v	Turb_v	SS_v
TMCLKL	HY/2012/07	19-11-2015	Mid-Flood	CS(Mf)3	15:14	Middle	2	2	26.4	8.05	23.3	6.35	8.19	13.1
TMCLKL	HY/2012/07	19-11-2015	Mid-Flood	CS(Mf)3	15:14	Bottom	3	1	26.2	7.92	23.6	6.25	8.38	10.1
TMCLKL	HY/2012/07	19-11-2015	Mid-Flood	CS(Mf)3	15:14	Bottom	3	2	26.1	7.9	23.6	6.28	8.44	11.8
TMCLKL	HY/2012/07	19-11-2015	Mid-Ebb	CS(Mf)5	19:50	Surface	1	1	26.3	7.97	22.9	6.68	7.82	11.7
TMCLKL	HY/2012/07	19-11-2015	Mid-Ebb	CS(Mf)5	19:50	Surface	1	2	26.2	7.98	22.8	6.65	7.78	10.1
TMCLKL	HY/2012/07	19-11-2015	Mid-Ebb	CS(Mf)5	19:50	Middle	2	1	26.2	8.05	23.1	6.44	8.44	11
TMCLKL	HY/2012/07	19-11-2015	Mid-Ebb	CS(Mf)5	19:50	Middle	2	2	26.3	8.04	23	6.47	8.4	12.6
TMCLKL	HY/2012/07	19-11-2015	Mid-Ebb	CS(Mf)5	19:50	Bottom	3	1	26.2	8.1	23.1	6.26	8.81	14.1
TMCLKL	HY/2012/07	19-11-2015	Mid-Ebb	CS(Mf)5	19:50	Bottom	3	2	26.2	8.09	23.2	6.22	8.85	13.3
TMCLKL	HY/2012/07	19-11-2015	Mid-Ebb	SR4a	19:35	Surface	1	1	26.3	7.9	22.8	6.31	8.09	12.1
TMCLKL	HY/2012/07	19-11-2015	Mid-Ebb	SR4a	19:35	Surface	1	2	26.3	7.92	22.7	6.28	8.05	11.3
TMCLKL	HY/2012/07	19-11-2015	Mid-Ebb	SR4a	19:35	Middle	2	1						
TMCLKL	HY/2012/07	19-11-2015	Mid-Ebb	SR4a	19:35	Middle	2	2						
TMCLKL	HY/2012/07	19-11-2015	Mid-Ebb	SR4a	19:35	Bottom	3	1	26.2	7.97	22.9	6.17	8.66	12.1
TMCLKL	HY/2012/07	19-11-2015	Mid-Ebb	SR4a	19:35	Bottom	3	2	26.1	7.94	22.9	6.14	8.62	11.2
TMCLKL	HY/2012/07	19-11-2015	Mid-Ebb	SR4	19:20	Surface	1	1	26.4	7.89	22.7	6.29	8.02	10.4
TMCLKL	HY/2012/07	19-11-2015	Mid-Ebb	SR4	19:20	Surface	1	2	26.4	7.9	22.6	6.25	8.06	11.3
TMCLKL	HY/2012/07	19-11-2015	Mid-Ebb	SR4	19:20	Middle	2	1						
TMCLKL	HY/2012/07	19-11-2015	Mid-Ebb	SR4	19:20	Middle	2	2						
TMCLKL	HY/2012/07	19-11-2015	Mid-Ebb	SR4	19:20	Bottom	3	1	26.3	7.95	22.8	6.04	8.77	14
TMCLKL	HY/2012/07	19-11-2015	Mid-Ebb	SR4	19:20	Bottom	3	2	26.2	7.97	22.9	6.01	8.79	14.1
TMCLKL	HY/2012/07	19-11-2015	Mid-Ebb	IS8	19:03	Surface	1	1	26.4	7.98	22.6	6.44	8.15	9.8
TMCLKL	HY/2012/07	19-11-2015	Mid-Ebb	IS8	19:03	Surface	1	2	26.3	7.99	22.6	6.4	8.19	11.5
TMCLKL	HY/2012/07	19-11-2015	Mid-Ebb	IS8	19:03	Middle	2	1						
TMCLKL	HY/2012/07	19-11-2015	Mid-Ebb	IS8	19:03	Middle	2	2						
TMCLKL	HY/2012/07	19-11-2015	Mid-Ebb	IS8	19:03	Bottom	3	1	26.2	8.03	22.8	6.22	8.68	11.3
TMCLKL	HY/2012/07	19-11-2015	Mid-Ebb	IS8	19:03	Bottom	3	2	26.1	8.01	22.8	6.18	8.65	11.2
TMCLKL	HY/2012/07	19-11-2015	Mid-Ebb	IS(Mf)16	18:43	Surface	1	1	26.4	7.98	22.6	6.36	8.36	11.7
TMCLKL	HY/2012/07	19-11-2015	Mid-Ebb	IS(Mf)16	18:43	Surface	1	2	26.4	7.98	22.5	6.32	8.3	12.5
TMCLKL	HY/2012/07	19-11-2015	Mid-Ebb	IS(Mf)16	18:43	Middle	2	1	26.3	8.08	22.9	6.11	8.94	13.4
TMCLKL	HY/2012/07	19-11-2015	Mid-Ebb	IS(Mf)16	18:43	Middle	2	2	26.2	8.09	22.8	6.15	8.97	11.7
TMCLKL	HY/2012/07	19-11-2015	Mid-Ebb	IS(Mf)16	18:43	Bottom	3	1	26.2	8.1	23	6.08	9.09	14.5
TMCLKL	HY/2012/07	19-11-2015	Mid-Ebb	IS(Mf)16	18:43	Bottom	3	2	26.2	8.11	23.1	6.05	9.02	12.6

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Project	Works	Date (yyyy-mm-dd)	Tide	Stat	Start Time	Level	Lev_Cod	Replicate	Temp_v	pH_v	Sal_v	DO_v	Turb_v	SS_v
TMCLKL	HY/2012/07	19-11-2015	Mid-Ebb	IS(Mf)9	18:28	Surface	1	1	26.4	7.98	22.7	6.23	8.95	14.3
TMCLKL	HY/2012/07	19-11-2015	Mid-Ebb	IS(Mf)9	18:28	Surface	1	2	26.4	7.97	22.7	6.2	8.91	13.4
TMCLKL	HY/2012/07	19-11-2015	Mid-Ebb	IS(Mf)9	18:28	Middle	2	1						
TMCLKL	HY/2012/07	19-11-2015	Mid-Ebb	IS(Mf)9	18:28	Middle	2	2						
TMCLKL	HY/2012/07	19-11-2015	Mid-Ebb	IS(Mf)9	18:28	Bottom	3	1	26.2	8.01	22.9	6.02	8.74	12.2
TMCLKL	HY/2012/07	19-11-2015	Mid-Ebb	IS(Mf)9	18:28	Bottom	3	2	26.1	8.02	22.8	6.05	8.7	11.3
TMCLKL	HY/2012/07	19-11-2015	Mid-Ebb	CS(Mf)3	18:08	Surface	1	1	26.3	8.08	22.8	6.46	7.97	12
TMCLKL	HY/2012/07	19-11-2015	Mid-Ebb	CS(Mf)3	18:08	Surface	1	2	26.4	8.09	22.7	6.43	7.95	10.3
TMCLKL	HY/2012/07	19-11-2015	Mid-Ebb	CS(Mf)3	18:08	Middle	2	1	26.3	8.1	22.9	6.17	8.38	11.1
TMCLKL	HY/2012/07	19-11-2015	Mid-Ebb	CS(Mf)3	18:08	Middle	2	2	26.3	8.11	23	6.14	8.35	12.5
TMCLKL	HY/2012/07	19-11-2015	Mid-Ebb	CS(Mf)3	18:08	Bottom	3	1	26.4	8.07	23	6.04	8.51	11.9
TMCLKL	HY/2012/07	19-11-2015	Mid-Ebb	CS(Mf)3	18:08	Bottom	3	2	26.4	8.09	23.1	6.07	8.46	11.8
TMCLKL	HY/2012/07	21-11-2015	Mid-Flood	CS(Mf)5	13:45	Surface	1	1	25.5	7.89	22.7	6.84	6.94	10.4
TMCLKL	HY/2012/07	21-11-2015	Mid-Flood	CS(Mf)5	13:45	Surface	1	2	25.5	7.91	22.7	6.81	6.87	10.3
TMCLKL	HY/2012/07	21-11-2015	Mid-Flood	CS(Mf)5	13:45	Middle	2	1	25.5	7.59	22.8	6.59	7.04	10.6
TMCLKL	HY/2012/07	21-11-2015	Mid-Flood	CS(Mf)5	13:45	Middle	2	2	25.4	7.62	22.9	6.61	7.11	9.2
TMCLKL	HY/2012/07	21-11-2015	Mid-Flood	CS(Mf)5	13:45	Bottom	3	1	25.3	7.98	23.1	6.34	7.24	9.4
TMCLKL	HY/2012/07	21-11-2015	Mid-Flood	CS(Mf)5	13:45	Bottom	3	2	25.2	7.95	23.3	6.3	7.31	11
TMCLKL	HY/2012/07	21-11-2015	Mid-Flood	SR4a	14:09	Surface	1	1	25.5	7.94	22.7	6.68	6.98	9.8
TMCLKL	HY/2012/07	21-11-2015	Mid-Flood	SR4a	14:09	Surface	1	2	25.6	7.99	22.8	6.65	6.89	9
TMCLKL	HY/2012/07	21-11-2015	Mid-Flood	SR4a	14:09	Middle	2	1						
TMCLKL	HY/2012/07	21-11-2015	Mid-Flood	SR4a	14:09	Middle	2	2						
TMCLKL	HY/2012/07	21-11-2015	Mid-Flood	SR4a	14:09	Bottom	3	1	25.5	7.83	22.9	6.5	7.24	9.4
TMCLKL	HY/2012/07	21-11-2015	Mid-Flood	SR4a	14:09	Bottom	3	2	25.5	7.85	23	6.46	7.13	10
TMCLKL	HY/2012/07	21-11-2015	Mid-Flood	SR4	14:25	Surface	1	1	25.6	7.83	22.8	6.74	6.85	10.3
TMCLKL	HY/2012/07	21-11-2015	Mid-Flood	SR4	14:25	Surface	1	2	25.5	7.85	22.8	6.7	6.94	9.7
TMCLKL	HY/2012/07	21-11-2015	Mid-Flood	SR4	14:25	Middle	2	1						
TMCLKL	HY/2012/07	21-11-2015	Mid-Flood	SR4	14:25	Middle	2	2						
TMCLKL	HY/2012/07	21-11-2015	Mid-Flood	SR4	14:25	Bottom	3	1	25.5	7.93	23	6.53	7.35	8.8
TMCLKL	HY/2012/07	21-11-2015	Mid-Flood	SR4	14:25	Bottom	3	2	25.4	7.95	22.9	6.48	7.43	9.7
TMCLKL	HY/2012/07	21-11-2015	Mid-Flood	IS8	14:42	Surface	1	1	25.6	7.89	22.7	6.81	7.68	11.5
TMCLKL	HY/2012/07	21-11-2015	Mid-Flood	IS8	14:42	Surface	1	2	25.6	7.94	22.8	6.78	7.74	10.1
TMCLKL	HY/2012/07	21-11-2015	Mid-Flood	IS8	14:42	Middle	2	1						

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Project	Works	Date (yyyy-mm-dd)	Tide	Stat	Start Time	Level	Lev_Cod	Replicate	Temp_v	pH_v	Sal_v	DO_v	Turb_v	SS_v
TMCLKL	HY/2012/07	21-11-2015	Mid-Flood	IS8	14:42	Middle	2	2						
TMCLKL	HY/2012/07	21-11-2015	Mid-Flood	IS8	14:42	Bottom	3	1	25.5	7.87	22.8	6.63	8.63	11.2
TMCLKL	HY/2012/07	21-11-2015	Mid-Flood	IS8	14:42	Bottom	3	2	25.5	7.91	22.9	6.6	8.72	13.1
TMCLKL	HY/2012/07	21-11-2015	Mid-Flood	IS(Mf)16	15:00	Surface	1	1	25.5	7.78	22.7	6.65	7.93	10.3
TMCLKL	HY/2012/07	21-11-2015	Mid-Flood	IS(Mf)16	15:00	Surface	1	2	25.5	7.81	22.8	6.61	8.01	11.2
TMCLKL	HY/2012/07	21-11-2015	Mid-Flood	IS(Mf)16	15:00	Middle	2	1	25.5	7.84	22.9	6.47	7.82	11.7
TMCLKL	HY/2012/07	21-11-2015	Mid-Flood	IS(Mf)16	15:00	Middle	2	2	25.5	7.88	23	6.44	7.9	11.1
TMCLKL	HY/2012/07	21-11-2015	Mid-Flood	IS(Mf)16	15:00	Bottom	3	1	25.4	8.03	23.2	6.31	8.84	13.3
TMCLKL	HY/2012/07	21-11-2015	Mid-Flood	IS(Mf)16	15:00	Bottom	3	2	25.3	8.05	23.2	6.27	8.79	14.1
TMCLKL	HY/2012/07	21-11-2015	Mid-Flood	IS(Mf)9	15:24	Surface	1	1	25.6	7.88	22.7	6.73	7.84	11
TMCLKL	HY/2012/07	21-11-2015	Mid-Flood	IS(Mf)9	15:24	Surface	1	2	25.5	7.94	22.8	6.7	7.76	10.1
TMCLKL	HY/2012/07	21-11-2015	Mid-Flood	IS(Mf)9	15:24	Middle	2	1						
TMCLKL	HY/2012/07	21-11-2015	Mid-Flood	IS(Mf)9	15:24	Middle	2	2						
TMCLKL	HY/2012/07	21-11-2015	Mid-Flood	IS(Mf)9	15:24	Bottom	3	1	25.5	7.84	22.9	6.48	7.98	12.8
TMCLKL	HY/2012/07	21-11-2015	Mid-Flood	IS(Mf)9	15:24	Bottom	3	2	25.4	7.88	23	6.45	8.04	12.5
TMCLKL	HY/2012/07	21-11-2015	Mid-Flood	CS(Mf)3	15:47	Surface	1	1	25.5	7.87	22.7	6.67	7.66	10.3
TMCLKL	HY/2012/07	21-11-2015	Mid-Flood	CS(Mf)3	15:47	Surface	1	2	25.5	7.9	22.8	6.63	7.58	9.9
TMCLKL	HY/2012/07	21-11-2015	Mid-Flood	CS(Mf)3	15:47	Middle	2	1	25.3	7.93	22.9	6.49	7.47	10.5
TMCLKL	HY/2012/07	21-11-2015	Mid-Flood	CS(Mf)3	15:47	Middle	2	2	25.3	7.95	23	6.45	7.55	9.8
TMCLKL	HY/2012/07	21-11-2015	Mid-Flood	CS(Mf)3	15:47	Bottom	3	1	25.2	7.89	23.2	6.28	7.79	10.9
TMCLKL	HY/2012/07	21-11-2015	Mid-Flood	CS(Mf)3	15:47	Bottom	3	2	25.1	7.93	23.3	6.31	7.86	11
TMCLKL	HY/2012/07	21-11-2015	Mid-Ebb	CS(Mf)5	9:46	Surface	1	1	25.6	7.83	22.7	6.64	6.82	8.9
TMCLKL	HY/2012/07	21-11-2015	Mid-Ebb	CS(Mf)5	9:46	Surface	1	2	25.5	7.85	22.8	6.66	6.84	10.3
TMCLKL	HY/2012/07	21-11-2015	Mid-Ebb	CS(Mf)5	9:46	Middle	2	1	25.4	7.51	23	6.39	6.91	9.7
TMCLKL	HY/2012/07	21-11-2015	Mid-Ebb	CS(Mf)5	9:46	Middle	2	2	25.5	7.53	22.9	6.37	6.93	9
TMCLKL	HY/2012/07	21-11-2015	Mid-Ebb	CS(Mf)5	9:46	Bottom	3	1	25.3	8.01	23.1	6.2	7	10.1
TMCLKL	HY/2012/07	21-11-2015	Mid-Ebb	CS(Mf)5	9:46	Bottom	3	2	25.2	8.03	23.2	6.18	7.02	11.2
TMCLKL	HY/2012/07	21-11-2015	Mid-Ebb	SR4a	9:25	Surface	1	1	25.6	8.01	22.8	6.57	6.99	9.1
TMCLKL	HY/2012/07	21-11-2015	Mid-Ebb	SR4a	9:25	Surface	1	2	25.7	8.03	22.9	6.55	7.01	9.8
TMCLKL	HY/2012/07	21-11-2015	Mid-Ebb	SR4a	9:25	Middle	2	1						
TMCLKL	HY/2012/07	21-11-2015	Mid-Ebb	SR4a	9:25	Middle	2	2						
TMCLKL	HY/2012/07	21-11-2015	Mid-Ebb	SR4a	9:25	Bottom	3	1	25.4	7.79	23.1	6.39	7.24	10.9
TMCLKL	HY/2012/07	21-11-2015	Mid-Ebb	SR4a	9:25	Bottom	3	2	25.3	7.81	23	6.41	7.26	10.2

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Project	Works	Date (yyyy-mm-dd)	Tide	Stat	Start Time	Level	Lev_Cod	Replicate	Temp_v	pH_v	Sal_v	DO_v	Turb_v	SS_v
TMCLKL	HY/2012/07	21-11-2015	Mid-Ebb	SR4	9:08	Surface	1	1	25.7	7.79	22.8	6.67	7.8	11.7
TMCLKL	HY/2012/07	21-11-2015	Mid-Ebb	SR4	9:08	Surface	1	2	25.8	7.81	22.7	6.65	7.82	10.2
TMCLKL	HY/2012/07	21-11-2015	Mid-Ebb	SR4	9:08	Middle	2	1						
TMCLKL	HY/2012/07	21-11-2015	Mid-Ebb	SR4	9:08	Middle	2	2						
TMCLKL	HY/2012/07	21-11-2015	Mid-Ebb	SR4	9:08	Bottom	3	1	25.5	7.98	22.9	6.38	7.99	12
TMCLKL	HY/2012/07	21-11-2015	Mid-Ebb	SR4	9:08	Bottom	3	2	25.4	8	23	6.4	8.01	12
TMCLKL	HY/2012/07	21-11-2015	Mid-Ebb	IS8	8:51	Surface	1	1	25.7	8.04	22.9	6.71	8.01	12
TMCLKL	HY/2012/07	21-11-2015	Mid-Ebb	IS8	8:51	Surface	1	2	25.6	8.06	22.8	6.73	7.99	12
TMCLKL	HY/2012/07	21-11-2015	Mid-Ebb	IS8	8:51	Middle	2	1						
TMCLKL	HY/2012/07	21-11-2015	Mid-Ebb	IS8	8:51	Middle	2	2						
TMCLKL	HY/2012/07	21-11-2015	Mid-Ebb	IS8	8:51	Bottom	3	1	25.3	7.91	23	6.53	9.22	12
TMCLKL	HY/2012/07	21-11-2015	Mid-Ebb	IS8	8:51	Bottom	3	2	25.4	7.93	23.1	6.51	9.24	11.1
TMCLKL	HY/2012/07	21-11-2015	Mid-Ebb	IS(Mf)16	8:34	Surface	1	1	25.6	7.72	22.7	6.54	8.11	12.2
TMCLKL	HY/2012/07	21-11-2015	Mid-Ebb	IS(Mf)16	8:34	Surface	1	2	25.5	7.74	22.8	6.56	8.13	11.4
TMCLKL	HY/2012/07	21-11-2015	Mid-Ebb	IS(Mf)16	8:34	Middle	2	1	25.3	7.99	22.9	6.39	8.24	9.9
TMCLKL	HY/2012/07	21-11-2015	Mid-Ebb	IS(Mf)16	8:34	Middle	2	2	25.4	8.01	23	6.37	8.26	10.7
TMCLKL	HY/2012/07	21-11-2015	Mid-Ebb	IS(Mf)16	8:34	Bottom	3	1	25.2	8.1	23.1	6.24	8.91	13.4
TMCLKL	HY/2012/07	21-11-2015	Mid-Ebb	IS(Mf)16	8:34	Bottom	3	2	25.1	8.12	23.2	6.26	8.93	12.5
TMCLKL	HY/2012/07	21-11-2015	Mid-Ebb	IS(Mf)9	8:17	Surface	1	1	25.7	7.98	22.8	6.62	7.99	10.4
TMCLKL	HY/2012/07	21-11-2015	Mid-Ebb	IS(Mf)9	8:17	Surface	1	2	25.6	8	22.9	6.64	8.01	12
TMCLKL	HY/2012/07	21-11-2015	Mid-Ebb	IS(Mf)9	8:17	Middle	2	1						
TMCLKL	HY/2012/07	21-11-2015	Mid-Ebb	IS(Mf)9	8:17	Middle	2	2						
TMCLKL	HY/2012/07	21-11-2015	Mid-Ebb	IS(Mf)9	8:17	Bottom	3	1	25.3	7.81	23	6.3	8.18	11.5
TMCLKL	HY/2012/07	21-11-2015	Mid-Ebb	IS(Mf)9	8:17	Bottom	3	2	25.2	7.83	23.1	6.28	8.2	11.5
TMCLKL	HY/2012/07	21-11-2015	Mid-Ebb	CS(Mf)3	8:00	Surface	1	1	25.6	7.81	22.8	6.54	7.49	10.5
TMCLKL	HY/2012/07	21-11-2015	Mid-Ebb	CS(Mf)3	8:00	Surface	1	2	25.5	7.83	22.9	6.52	7.51	9
TMCLKL	HY/2012/07	21-11-2015	Mid-Ebb	CS(Mf)3	8:00	Middle	2	1	25.4	7.98	23.1	6.3	7.68	11.5
TMCLKL	HY/2012/07	21-11-2015	Mid-Ebb	CS(Mf)3	8:00	Middle	2	2	25.3	8.01	23	6.32	7.7	11.6
TMCLKL	HY/2012/07	21-11-2015	Mid-Ebb	CS(Mf)3	8:00	Bottom	3	1	25.2	7.71	23.1	6.05	7.87	9.4
TMCLKL	HY/2012/07	21-11-2015	Mid-Ebb	CS(Mf)3	8:00	Bottom	3	2	25.3	7.73	23.2	6.03	7.89	9.5
TMCLKL	HY/2012/07	2015-11-24	Mid-Flood	CS(Mf)5	15:37	Surface	1	1	25.1	7.84	22.8	6.78	7.86	10.2
TMCLKL	HY/2012/07	2015-11-24	Mid-Flood	CS(Mf)5	15:37	Surface	1	2	25	7.89	22.7	6.75	7.91	9.5
TMCLKL	HY/2012/07	2015-11-24	Mid-Flood	CS(Mf)5	15:37	Middle	2	1	24.9	7.93	22.9	6.62	7.99	10.4

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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	2015-11-24	Mid-Flood	CS(Mf)5	15:37	Middle	2	2	24.8	7.96	23	6.64	8.01	10.4
TMCLKL	HY/2012/07	2015-11-24	Mid-Flood	CS(Mf)5	15:37	Bottom	3	1	24.7	7.8	23.2	6.47	8.09	12.1
TMCLKL	HY/2012/07	2015-11-24	Mid-Flood	CS(Mf)5	15:37	Bottom	3	2	24.6	7.76	23.1	6.49	8.14	12.2
TMCLKL	HY/2012/07	2015-11-24	Mid-Flood	SR4a	16:05	Surface	1	1	25	7.88	22.6	6.63	7.69	11.5
TMCLKL	HY/2012/07	2015-11-24	Mid-Flood	SR4a	16:05	Surface	1	2	25.1	7.84	22.7	6.66	7.73	11.6
TMCLKL	HY/2012/07	2015-11-24	Mid-Flood	SR4a	16:05	Middle	2	1						
TMCLKL	HY/2012/07	2015-11-24	Mid-Flood	SR4a	16:05	Middle	2	2						
TMCLKL	HY/2012/07	2015-11-24	Mid-Flood	SR4a	16:05	Bottom	3	1	25	7.79	22.8	6.52	7.83	11.7
TMCLKL	HY/2012/07	2015-11-24	Mid-Flood	SR4a	16:05	Bottom	3	2	25	7.83	22.8	6.51	7.89	11.8
TMCLKL	HY/2012/07	2015-11-24	Mid-Flood	SR4	16:23	Surface	1	1	25.1	7.89	22.8	6.53	7.51	11
TMCLKL	HY/2012/07	2015-11-24	Mid-Flood	SR4	16:23	Surface	1	2	25	7.84	22.7	6.56	7.57	9.8
TMCLKL	HY/2012/07	2015-11-24	Mid-Flood	SR4	16:23	Middle	2	1						
TMCLKL	HY/2012/07	2015-11-24	Mid-Flood	SR4	16:23	Middle	2	2						
TMCLKL	HY/2012/07	2015-11-24	Mid-Flood	SR4	16:23	Bottom	3	1	24.9	7.73	22.9	6.49	7.74	12.4
TMCLKL	HY/2012/07	2015-11-24	Mid-Flood	SR4	16:23	Bottom	3	2	24.9	7.75	22.8	6.46	7.83	12.5
TMCLKL	HY/2012/07	2015-11-24	Mid-Flood	IS8	16:42	Surface	1	1	25	7.93	22.6	6.62	7.41	10.4
TMCLKL	HY/2012/07	2015-11-24	Mid-Flood	IS8	16:42	Surface	1	2	24.9	7.9	22.7	6.65	7.44	8.9
TMCLKL	HY/2012/07	2015-11-24	Mid-Flood	IS8	16:42	Middle	2	1						
TMCLKL	HY/2012/07	2015-11-24	Mid-Flood	IS8	16:42	Middle	2	2						
TMCLKL	HY/2012/07	2015-11-24	Mid-Flood	IS8	16:42	Bottom	3	1	24.8	7.87	22.8	6.58	7.69	10
TMCLKL	HY/2012/07	2015-11-24	Mid-Flood	IS8	16:42	Bottom	3	2	24.9	7.84	22.7	6.54	7.75	9.3
TMCLKL	HY/2012/07	2015-11-24	Mid-Flood	IS(Mf)16	16:59	Surface	1	1	25.1	7.94	22.6	6.71	7.63	10.7
TMCLKL	HY/2012/07	2015-11-24	Mid-Flood	IS(Mf)16	16:59	Surface	1	2	25	7.9	22.5	6.74	7.72	10
TMCLKL	HY/2012/07	2015-11-24	Mid-Flood	IS(Mf)16	16:59	Middle	2	1	24.9	7.85	22.7	6.61	7.81	10.2
TMCLKL	HY/2012/07	2015-11-24	Mid-Flood	IS(Mf)16	16:59	Middle	2	2	25	7.81	22.8	6.58	7.84	11.8
TMCLKL	HY/2012/07	2015-11-24	Mid-Flood	IS(Mf)16	16:59	Bottom	3	1	24.8	7.96	23	6.43	8.03	9.6
TMCLKL	HY/2012/07	2015-11-24	Mid-Flood	IS(Mf)16	16:59	Bottom	3	2	24.7	7.92	22.9	6.47	8.08	10.5
TMCLKL	HY/2012/07	2015-11-24	Mid-Flood	IS(Mf)9	17:21	Surface	1	1	24.9	7.97	22.7	6.68	7.54	9.8
TMCLKL	HY/2012/07	2015-11-24	Mid-Flood	IS(Mf)9	17:21	Surface	1	2	25	7.94	22.6	6.64	7.59	11.4
TMCLKL	HY/2012/07	2015-11-24	Mid-Flood	IS(Mf)9	17:21	Middle	2	1						
TMCLKL	HY/2012/07	2015-11-24	Mid-Flood	IS(Mf)9	17:21	Middle	2	2						
TMCLKL	HY/2012/07	2015-11-24	Mid-Flood	IS(Mf)9	17:21	Bottom	3	1	24.7	7.91	22.9	6.42	7.68	11.5
TMCLKL	HY/2012/07	2015-11-24	Mid-Flood	IS(Mf)9	17:21	Bottom	3	2	24.8	7.87	22.8	6.45	7.73	10.8

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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	2015-11-24	Mid-Flood	CS(Mf)3	17:46	Surface	1	1	25.1	7.89	22.8	6.59	7.72	10
TMCLKL	HY/2012/07	2015-11-24	Mid-Flood	CS(Mf)3	17:46	Surface	1	2	25	7.84	22.7	6.62	7.65	10.2
TMCLKL	HY/2012/07	2015-11-24	Mid-Flood	CS(Mf)3	17:46	Middle	2	1	24.8	7.94	22.9	6.47	7.74	10.8
TMCLKL	HY/2012/07	2015-11-24	Mid-Flood	CS(Mf)3	17:46	Middle	2	2	24.9	7.97	23	6.49	7.81	11.7
TMCLKL	HY/2012/07	2015-11-24	Mid-Flood	CS(Mf)3	17:46	Bottom	3	1	24.7	7.92	23.2	6.42	8.01	10.4
TMCLKL	HY/2012/07	2015-11-24	Mid-Flood	CS(Mf)3	17:46	Bottom	3	2	24.7	7.9	23.1	6.39	7.94	11.1
TMCLKL	HY/2012/07	2015-11-24	Mid-Ebb	CS(Mf)5	12:51	Surface	1	1	25.3	7.77	22.4	6.64	7.95	12.7
TMCLKL	HY/2012/07	2015-11-24	Mid-Ebb	CS(Mf)5	12:51	Surface	1	2	25.3	7.8	22.5	6.61	7.86	11
TMCLKL	HY/2012/07	2015-11-24	Mid-Ebb	CS(Mf)5	12:51	Middle	2	1	25.3	7.74	22.6	6.52	8.05	12.1
TMCLKL	HY/2012/07	2015-11-24	Mid-Ebb	CS(Mf)5	12:51	Middle	2	2	25.2	7.78	22.6	6.49	7.97	10.4
TMCLKL	HY/2012/07	2015-11-24	Mid-Ebb	CS(Mf)5	12:51	Bottom	3	1	25.1	7.76	22.8	6.34	8.18	11.5
TMCLKL	HY/2012/07	2015-11-24	Mid-Ebb	CS(Mf)5	12:51	Bottom	3	2	25.1	7.79	22.8	6.3	8.25	9.9
TMCLKL	HY/2012/07	2015-11-24	Mid-Ebb	SR4a	12:30	Surface	1	1	25.2	7.74	22.4	6.55	7.72	9.3
TMCLKL	HY/2012/07	2015-11-24	Mid-Ebb	SR4a	12:30	Surface	1	2	25.3	7.78	22.4	6.58	7.84	10.8
TMCLKL	HY/2012/07	2015-11-24	Mid-Ebb	SR4a	12:30	Middle	2	1						
TMCLKL	HY/2012/07	2015-11-24	Mid-Ebb	SR4a	12:30	Middle	2	2						
TMCLKL	HY/2012/07	2015-11-24	Mid-Ebb	SR4a	12:30	Bottom	3	1	25.2	7.8	22.6	6.44	7.95	12.7
TMCLKL	HY/2012/07	2015-11-24	Mid-Ebb	SR4a	12:30	Bottom	3	2	25.2	7.77	22.5	6.41	7.99	11.2
TMCLKL	HY/2012/07	2015-11-24	Mid-Ebb	SR4	12:10	Surface	1	1	25.3	7.83	22.3	6.45	7.63	10.7
TMCLKL	HY/2012/07	2015-11-24	Mid-Ebb	SR4	12:10	Surface	1	2	25.2	7.9	22.4	6.5	7.72	9.3
TMCLKL	HY/2012/07	2015-11-24	Mid-Ebb	SR4	12:10	Middle	2	1						
TMCLKL	HY/2012/07	2015-11-24	Mid-Ebb	SR4	12:10	Middle	2	2						
TMCLKL	HY/2012/07	2015-11-24	Mid-Ebb	SR4	12:10	Bottom	3	1	25.2	7.93	22.5	6.33	8.02	11.2
TMCLKL	HY/2012/07	2015-11-24	Mid-Ebb	SR4	12:10	Bottom	3	2	25.2	7.96	22.6	6.3	7.95	11.1
TMCLKL	HY/2012/07	2015-11-24	Mid-Ebb	IS8	11:50	Surface	1	1	25.3	7.94	22.4	6.58	7.56	11.3
TMCLKL	HY/2012/07	2015-11-24	Mid-Ebb	IS8	11:50	Surface	1	2	25.3	7.96	22.4	6.61	7.64	10.7
TMCLKL	HY/2012/07	2015-11-24	Mid-Ebb	IS8	11:50	Middle	2	1						
TMCLKL	HY/2012/07	2015-11-24	Mid-Ebb	IS8	11:50	Middle	2	2						
TMCLKL	HY/2012/07	2015-11-24	Mid-Ebb	IS8	11:50	Bottom	3	1	25.2	7.92	22.6	6.52	7.89	11
TMCLKL	HY/2012/07	2015-11-24	Mid-Ebb	IS8	11:50	Bottom	3	2	25.1	7.93	22.6	6.54	7.95	12.7
TMCLKL	HY/2012/07	2015-11-24	Mid-Ebb	IS(Mf)16	11:26	Surface	1	1	25.2	7.86	22.4	6.43	7.78	10.9
TMCLKL	HY/2012/07	2015-11-24	Mid-Ebb	IS(Mf)16	11:26	Surface	1	2	25.3	7.9	22.5	6.4	7.85	11.8
TMCLKL	HY/2012/07	2015-11-24	Mid-Ebb	IS(Mf)16	11:26	Middle	2	1	25.3	7.93	22.5	6.27	7.96	10.3

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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	2015-11-24	Mid-Ebb	IS(Mf)16	11:26	Middle	2	2	25.3	7.95	22.6	6.33	8.03	12
TMCLKL	HY/2012/07	2015-11-24	Mid-Ebb	IS(Mf)16	11:26	Bottom	3	1	25.1	7.99	22.9	6.15	8.17	12.3
TMCLKL	HY/2012/07	2015-11-24	Mid-Ebb	IS(Mf)16	11:26	Bottom	3	2	25.1	8.01	22.9	6.11	8.1	11.3
TMCLKL	HY/2012/07	2015-11-24	Mid-Ebb	IS(Mf)9	11:05	Surface	1	1	25.3	7.8	22.4	6.44	7.61	10.7
TMCLKL	HY/2012/07	2015-11-24	Mid-Ebb	IS(Mf)9	11:05	Surface	1	2	25.2	7.83	22.5	6.47	7.56	11.3
TMCLKL	HY/2012/07	2015-11-24	Mid-Ebb	IS(Mf)9	11:05	Middle	2	1						
TMCLKL	HY/2012/07	2015-11-24	Mid-Ebb	IS(Mf)9	11:05	Middle	2	2						
TMCLKL	HY/2012/07	2015-11-24	Mid-Ebb	IS(Mf)9	11:05	Bottom	3	1	25.2	7.81	22.5	6.3	7.8	10.1
TMCLKL	HY/2012/07	2015-11-24	Mid-Ebb	IS(Mf)9	11:05	Bottom	3	2	25.2	7.84	22.6	6.27	7.88	11
TMCLKL	HY/2012/07	2015-11-24	Mid-Ebb	CS(Mf)3	10:39	Surface	1	1	25.3	7.78	22.5	6.58	7.87	11.8
TMCLKL	HY/2012/07	2015-11-24	Mid-Ebb	CS(Mf)3	10:39	Surface	1	2	25.3	7.82	22.5	6.54	7.93	10
TMCLKL	HY/2012/07	2015-11-24	Mid-Ebb	CS(Mf)3	10:39	Middle	2	1	25.2	7.88	22.7	6.39	7.69	12.3
TMCLKL	HY/2012/07	2015-11-24	Mid-Ebb	CS(Mf)3	10:39	Middle	2	2	25.2	7.91	22.6	6.41	7.75	12.9
TMCLKL	HY/2012/07	2015-11-24	Mid-Ebb	CS(Mf)3	10:39	Bottom	3	1	25	7.79	23	6.25	7.99	10.8
TMCLKL	HY/2012/07	2015-11-24	Mid-Ebb	CS(Mf)3	10:39	Bottom	3	2	25	7.84	23.1	6.2	8.08	9.7
TMCLKL	HY/2012/07	2015-11-26	Mid-Flood	CS(Mf)5	16:50	Surface	1	1	24.5	7.92	22.8	6.58	7.89	11
TMCLKL	HY/2012/07	2015-11-26	Mid-Flood	CS(Mf)5	16:50	Surface	1	2	24.6	7.95	22.9	6.61	7.81	10.9
TMCLKL	HY/2012/07	2015-11-26	Mid-Flood	CS(Mf)5	16:50	Middle	2	1	24.5	8.02	23	6.49	8.03	9.6
TMCLKL	HY/2012/07	2015-11-26	Mid-Flood	CS(Mf)5	16:50	Middle	2	2	24.4	7.97	23.1	6.46	7.98	10
TMCLKL	HY/2012/07	2015-11-26	Mid-Flood	CS(Mf)5	16:50	Bottom	3	1	24.2	7.89	23.2	6.39	8.12	12.2
TMCLKL	HY/2012/07	2015-11-26	Mid-Flood	CS(Mf)5	16:50	Bottom	3	2	24.3	7.91	23.3	6.42	8.18	13.1
TMCLKL	HY/2012/07	2015-11-26	Mid-Flood	SR4a	17:12	Surface	1	1	24.5	7.97	22.7	6.54	7.72	10.8
TMCLKL	HY/2012/07	2015-11-26	Mid-Flood	SR4a	17:12	Surface	1	2	24.4	7.94	22.8	6.56	7.76	10.9
TMCLKL	HY/2012/07	2015-11-26	Mid-Flood	SR4a	17:12	Middle	2	1						
TMCLKL	HY/2012/07	2015-11-26	Mid-Flood	SR4a	17:12	Middle	2	2						
TMCLKL	HY/2012/07	2015-11-26	Mid-Flood	SR4a	17:12	Bottom	3	1	24.3	7.89	22.9	6.38	7.8	10.9
TMCLKL	HY/2012/07	2015-11-26	Mid-Flood	SR4a	17:12	Bottom	3	2	24.4	7.87	23	6.42	7.87	9.4
TMCLKL	HY/2012/07	2015-11-26	Mid-Flood	SR4	17:34	Surface	1	1	24.4	7.98	22.8	6.47	7.64	11.5
TMCLKL	HY/2012/07	2015-11-26	Mid-Flood	SR4	17:34	Surface	1	2	24.5	8.02	22.9	6.5	7.7	10.8
TMCLKL	HY/2012/07	2015-11-26	Mid-Flood	SR4	17:34	Middle	2	1						
TMCLKL	HY/2012/07	2015-11-26	Mid-Flood	SR4	17:34	Middle	2	2						
TMCLKL	HY/2012/07	2015-11-26	Mid-Flood	SR4	17:34	Bottom	3	1	24.4	7.93	23	6.44	7.77	12.4
TMCLKL	HY/2012/07	2015-11-26	Mid-Flood	SR4	17:34	Bottom	3	2	24.3	7.89	22.9	6.41	7.83	12.2

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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	2015-11-26	Mid-Flood	IS8	17:55	Surface	1	1	24.6	7.95	22.6	6.6	7.73	11.6
TMCLKL	HY/2012/07	2015-11-26	Mid-Flood	IS8	17:55	Surface	1	2	24.5	7.92	22.7	6.64	7.8	10.4
TMCLKL	HY/2012/07	2015-11-26	Mid-Flood	IS8	17:55	Middle	2	1						
TMCLKL	HY/2012/07	2015-11-26	Mid-Flood	IS8	17:55	Middle	2	2						
TMCLKL	HY/2012/07	2015-11-26	Mid-Flood	IS8	17:55	Bottom	3	1	24.2	7.88	22.9	6.44	7.94	11.1
TMCLKL	HY/2012/07	2015-11-26	Mid-Flood	IS8	17:55	Bottom	3	2	24.3	7.91	23	6.48	7.97	10.4
TMCLKL	HY/2012/07	2015-11-26	Mid-Flood	IS(Mf)16	18:18	Surface	1	1	24.5	7.97	22.8	6.68	7.83	11
TMCLKL	HY/2012/07	2015-11-26	Mid-Flood	IS(Mf)16	18:18	Surface	1	2	24.6	8	22.7	6.65	7.87	10.2
TMCLKL	HY/2012/07	2015-11-26	Mid-Flood	IS(Mf)16	18:18	Middle	2	1	24.5	7.93	22.9	6.6	7.92	10.3
TMCLKL	HY/2012/07	2015-11-26	Mid-Flood	IS(Mf)16	18:18	Middle	2	2	24.4	7.89	23	6.58	8.01	10.4
TMCLKL	HY/2012/07	2015-11-26	Mid-Flood	IS(Mf)16	18:18	Bottom	3	1	24.4	7.88	23.1	6.45	8.04	12.1
TMCLKL	HY/2012/07	2015-11-26	Mid-Flood	IS(Mf)16	18:18	Bottom	3	2	24.3	7.87	23.2	6.48	8.08	11.7
TMCLKL	HY/2012/07	2015-11-26	Mid-Flood	IS(Mf)9	18:40	Surface	1	1	24.6	7.92	22.8	6.63	7.8	12.5
TMCLKL	HY/2012/07	2015-11-26	Mid-Flood	IS(Mf)9	18:40	Surface	1	2	24.5	7.95	22.9	6.6	7.85	11.8
TMCLKL	HY/2012/07	2015-11-26	Mid-Flood	IS(Mf)9	18:40	Middle	2	1						
TMCLKL	HY/2012/07	2015-11-26	Mid-Flood	IS(Mf)9	18:40	Middle	2	2						
TMCLKL	HY/2012/07	2015-11-26	Mid-Flood	IS(Mf)9	18:40	Bottom	3	1	24.5	7.87	23	6.49	7.92	11.9
TMCLKL	HY/2012/07	2015-11-26	Mid-Flood	IS(Mf)9	18:40	Bottom	3	2	24.4	7.9	22.9	6.53	7.99	11.2
TMCLKL	HY/2012/07	2015-11-26	Mid-Flood	CS(Mf)3	19:04	Surface	1	1	24.5	7.99	22.7	6.7	8.02	12.8
TMCLKL	HY/2012/07	2015-11-26	Mid-Flood	CS(Mf)3	19:04	Surface	1	2	24.6	7.96	22.8	6.73	7.97	12.8
TMCLKL	HY/2012/07	2015-11-26	Mid-Flood	CS(Mf)3	19:04	Middle	2	1	24.4	7.93	22.9	6.62	8.04	11.6
TMCLKL	HY/2012/07	2015-11-26	Mid-Flood	CS(Mf)3	19:04	Middle	2	2	24.3	7.89	22.8	6.58	8.1	12.2
TMCLKL	HY/2012/07	2015-11-26	Mid-Flood	CS(Mf)3	19:04	Bottom	3	1	24.2	7.93	23.1	6.37	8.23	10.7
TMCLKL	HY/2012/07	2015-11-26	Mid-Flood	CS(Mf)3	19:04	Bottom	3	2	24.3	7.9	23.2	6.39	8.15	12.2
TMCLKL	HY/2012/07	2015-11-26	Mid-Ebb	CS(Mf)5	14:32	Surface	1	1	24.4	7.86	22.8	6.52	7.98	11.2
TMCLKL	HY/2012/07	2015-11-26	Mid-Ebb	CS(Mf)5	14:32	Surface	1	2	24.5	7.89	22.7	6.55	7.9	11.1
TMCLKL	HY/2012/07	2015-11-26	Mid-Ebb	CS(Mf)5	14:32	Middle	2	1	24.3	7.96	22.9	6.43	8.12	10.6
TMCLKL	HY/2012/07	2015-11-26	Mid-Ebb	CS(Mf)5	14:32	Middle	2	2	24.4	7.91	23	6.4	8.07	9.7
TMCLKL	HY/2012/07	2015-11-26	Mid-Ebb	CS(Mf)5	14:32	Bottom	3	1	24.2	7.83	23.2	6.33	8.21	13.1
TMCLKL	HY/2012/07	2015-11-26	Mid-Ebb	CS(Mf)5	14:32	Bottom	3	2	24.1	7.85	23.1	6.36	8.27	12.4
TMCLKL	HY/2012/07	2015-11-26	Mid-Ebb	SR4a	14:09	Surface	1	1	24.3	7.91	22.7	6.48	7.81	9.4
TMCLKL	HY/2012/07	2015-11-26	Mid-Ebb	SR4a	14:09	Surface	1	2	24.4	7.88	22.6	6.5	7.85	10.2
TMCLKL	HY/2012/07	2015-11-26	Mid-Ebb	SR4a	14:09	Middle	2	1						

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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	2015-11-26	Mid-Ebb	SR4a	14:09	Middle	2	2						
TMCLKL	HY/2012/07	2015-11-26	Mid-Ebb	SR4a	14:09	Bottom	3	1	24.3	7.83	22.8	6.32	7.89	11.8
TMCLKL	HY/2012/07	2015-11-26	Mid-Ebb	SR4a	14:09	Bottom	3	2	24.3	7.81	22.9	6.36	7.96	10.3
TMCLKL	HY/2012/07	2015-11-26	Mid-Ebb	SR4	13:51	Surface	1	1	24.3	7.92	22.8	6.41	7.73	12.4
TMCLKL	HY/2012/07	2015-11-26	Mid-Ebb	SR4	13:51	Surface	1	2	24.4	7.96	22.7	6.44	7.79	11.9
TMCLKL	HY/2012/07	2015-11-26	Mid-Ebb	SR4	13:51	Middle	2	1						
TMCLKL	HY/2012/07	2015-11-26	Mid-Ebb	SR4	13:51	Middle	2	2						
TMCLKL	HY/2012/07	2015-11-26	Mid-Ebb	SR4	13:51	Bottom	3	1	24.3	7.87	22.8	6.38	7.86	10.2
TMCLKL	HY/2012/07	2015-11-26	Mid-Ebb	SR4	13:51	Bottom	3	2	24.2	7.83	22.9	6.35	7.92	11.9
TMCLKL	HY/2012/07	2015-11-26	Mid-Ebb	IS8	13:32	Surface	1	1	24.5	7.89	22.6	6.54	7.82	10.4
TMCLKL	HY/2012/07	2015-11-26	Mid-Ebb	IS8	13:32	Surface	1	2	24.5	7.86	22.5	6.58	7.89	11.8
TMCLKL	HY/2012/07	2015-11-26	Mid-Ebb	IS8	13:32	Middle	2	1						
TMCLKL	HY/2012/07	2015-11-26	Mid-Ebb	IS8	13:32	Middle	2	2						
TMCLKL	HY/2012/07	2015-11-26	Mid-Ebb	IS8	13:32	Bottom	3	1	24.3	7.82	22.9	6.38	8.03	12
TMCLKL	HY/2012/07	2015-11-26	Mid-Ebb	IS8	13:32	Bottom	3	2	24.2	7.85	22.8	6.42	8.06	12.7
TMCLKL	HY/2012/07	2015-11-26	Mid-Ebb	IS(Mf)16	13:11	Surface	1	1	24.4	7.91	22.6	6.62	7.92	11.1
TMCLKL	HY/2012/07	2015-11-26	Mid-Ebb	IS(Mf)16	13:11	Surface	1	2	24.5	7.94	22.7	6.59	7.96	11.1
TMCLKL	HY/2012/07	2015-11-26	Mid-Ebb	IS(Mf)16	13:11	Middle	2	1	24.3	7.87	22.8	6.54	8.01	11.2
TMCLKL	HY/2012/07	2015-11-26	Mid-Ebb	IS(Mf)16	13:11	Middle	2	2	24.4	7.83	22.9	6.52	8.1	11.3
TMCLKL	HY/2012/07	2015-11-26	Mid-Ebb	IS(Mf)16	13:11	Bottom	3	1	24.2	7.82	23.1	6.39	8.13	10.2
TMCLKL	HY/2012/07	2015-11-26	Mid-Ebb	IS(Mf)16	13:11	Bottom	3	2	24.3	7.81	23	6.42	8.17	10.6
TMCLKL	HY/2012/07	2015-11-26	Mid-Ebb	IS(Mf)9	12:52	Surface	1	1	24.4	7.86	22.7	6.57	7.89	10.3
TMCLKL	HY/2012/07	2015-11-26	Mid-Ebb	IS(Mf)9	12:52	Surface	1	2	24.5	7.89	22.8	6.54	7.94	11.1
TMCLKL	HY/2012/07	2015-11-26	Mid-Ebb	IS(Mf)9	12:52	Middle	2	1						
TMCLKL	HY/2012/07	2015-11-26	Mid-Ebb	IS(Mf)9	12:52	Middle	2	2						
TMCLKL	HY/2012/07	2015-11-26	Mid-Ebb	IS(Mf)9	12:52	Bottom	3	1	24.4	7.81	22.9	6.43	8.02	10.4
TMCLKL	HY/2012/07	2015-11-26	Mid-Ebb	IS(Mf)9	12:52	Bottom	3	2	24.3	7.84	22.9	6.47	8.08	10.2
TMCLKL	HY/2012/07	2015-11-26	Mid-Ebb	CS(Mf)3	12:24	Surface	1	1	24.5	7.93	22.6	6.64	8.11	12.2
TMCLKL	HY/2012/07	2015-11-26	Mid-Ebb	CS(Mf)3	12:24	Surface	1	2	24.4	7.9	22.7	6.67	8.06	12.9
TMCLKL	HY/2012/07	2015-11-26	Mid-Ebb	CS(Mf)3	12:24	Middle	2	1	24.3	7.87	22.8	6.56	8.13	13
TMCLKL	HY/2012/07	2015-11-26	Mid-Ebb	CS(Mf)3	12:24	Middle	2	2	24.2	7.83	22.8	6.52	8.19	12.8
TMCLKL	HY/2012/07	2015-11-26	Mid-Ebb	CS(Mf)3	12:24	Bottom	3	1	24.1	7.89	23	6.31	8.32	11.6
TMCLKL	HY/2012/07	2015-11-26	Mid-Ebb	CS(Mf)3	12:24	Bottom	3	2	24.2	7.84	23.1	6.33	8.24	11.5

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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	2015-11-28	Mid-Flood	CS(Mf)5	08:32	Surface	1	1	24.3	7.96	22.8	6.57	6.98	9.1
TMCLKL	HY/2012/07	2015-11-28	Mid-Flood	CS(Mf)5	08:32	Surface	1	2	24.3	7.96	22.7	6.59	6.94	9
TMCLKL	HY/2012/07	2015-11-28	Mid-Flood	CS(Mf)5	08:32	Middle	2	1	24.4	7.98	23.1	6.24	7.43	8.9
TMCLKL	HY/2012/07	2015-11-28	Mid-Flood	CS(Mf)5	08:32	Middle	2	2	24.5	7.97	23.2	6.2	7.47	11.2
TMCLKL	HY/2012/07	2015-11-28	Mid-Flood	CS(Mf)5	08:32	Bottom	3	1	24.4	7.95	23.2	6.18	7.71	11.6
TMCLKL	HY/2012/07	2015-11-28	Mid-Flood	CS(Mf)5	08:32	Bottom	3	2	24.4	7.95	23.3	6.14	7.77	10.3
TMCLKL	HY/2012/07	2015-11-28	Mid-Flood	SR4a	09:00	Surface	1	1	24.2	7.94	22.9	6.44	7.44	11.9
TMCLKL	HY/2012/07	2015-11-28	Mid-Flood	SR4a	09:00	Surface	1	2	24.3	7.93	22.8	6.4	7.42	10.4
TMCLKL	HY/2012/07	2015-11-28	Mid-Flood	SR4a	09:00	Middle	2	1						
TMCLKL	HY/2012/07	2015-11-28	Mid-Flood	SR4a	09:00	Middle	2	2						
TMCLKL	HY/2012/07	2015-11-28	Mid-Flood	SR4a	09:00	Bottom	3	1	24.3	7.92	23	6.11	7.9	11.1
TMCLKL	HY/2012/07	2015-11-28	Mid-Flood	SR4a	09:00	Bottom	3	2	24.4	7.92	23.1	6.07	7.96	10.3
TMCLKL	HY/2012/07	2015-11-28	Mid-Flood	SR4	09:25	Surface	1	1	24.3	7.89	22.9	6.56	7.57	11.4
TMCLKL	HY/2012/07	2015-11-28	Mid-Flood	SR4	09:25	Surface	1	2	24.2	7.9	22.9	6.52	7.64	10.7
TMCLKL	HY/2012/07	2015-11-28	Mid-Flood	SR4	09:25	Middle	2	1						
TMCLKL	HY/2012/07	2015-11-28	Mid-Flood	SR4	09:25	Middle	2	2						
TMCLKL	HY/2012/07	2015-11-28	Mid-Flood	SR4	09:25	Bottom	3	1	24.4	7.92	23	6.22	7.84	11.4
TMCLKL	HY/2012/07	2015-11-28	Mid-Flood	SR4	09:25	Bottom	3	2	24.4	7.93	23.1	6.17	7.8	12.5
TMCLKL	HY/2012/07	2015-11-28	Mid-Flood	IS8	09:45	Surface	1	1	24.2	7.9	22.8	6.41	7.76	10.9
TMCLKL	HY/2012/07	2015-11-28	Mid-Flood	IS8	09:45	Surface	1	2	24.1	7.91	22.9	6.37	7.71	10.5
TMCLKL	HY/2012/07	2015-11-28	Mid-Flood	IS8	09:45	Middle	2	1						
TMCLKL	HY/2012/07	2015-11-28	Mid-Flood	IS8	09:45	Middle	2	2						
TMCLKL	HY/2012/07	2015-11-28	Mid-Flood	IS8	09:45	Bottom	3	1	24.3	7.94	23	6.16	7.92	11.1
TMCLKL	HY/2012/07	2015-11-28	Mid-Flood	IS8	09:45	Bottom	3	2	24.4	7.94	23.1	6.12	7.96	11.1
TMCLKL	HY/2012/07	2015-11-28	Mid-Flood	IS(Mf)16	10:05	Surface	1	1	24.3	7.95	22.9	6.69	7.27	8.7
TMCLKL	HY/2012/07	2015-11-28	Mid-Flood	IS(Mf)16	10:05	Surface	1	2	24.3	7.94	22.8	6.72	7.22	9.4
TMCLKL	HY/2012/07	2015-11-28	Mid-Flood	IS(Mf)16	10:05	Middle	2	1	24.4	7.98	23.1	6.57	7.79	12.5
TMCLKL	HY/2012/07	2015-11-28	Mid-Flood	IS(Mf)16	10:05	Middle	2	2	24.3	7.97	23.1	6.54	7.75	11.6
TMCLKL	HY/2012/07	2015-11-28	Mid-Flood	IS(Mf)16	10:05	Bottom	3	1	24.4	7.98	23.2	6.28	7.95	11.1
TMCLKL	HY/2012/07	2015-11-28	Mid-Flood	IS(Mf)16	10:05	Bottom	3	2	24.5	7.96	23.2	6.24	7.99	12
TMCLKL	HY/2012/07	2015-11-28	Mid-Flood	IS(Mf)9	10:25	Surface	1	1	24.3	7.96	22.7	6.76	7.82	10.2
TMCLKL	HY/2012/07	2015-11-28	Mid-Flood	IS(Mf)9	10:25	Surface	1	2	24.3	7.96	22.8	6.73	7.86	11
TMCLKL	HY/2012/07	2015-11-28	Mid-Flood	IS(Mf)9	10:25	Middle	2	1						

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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	2015-11-28	Mid-Flood	IS(Mf)9	10:25	Middle	2	2						
TMCLKL	HY/2012/07	2015-11-28	Mid-Flood	IS(Mf)9	10:25	Bottom	3	1	24.4	7.94	23.1	6.3	8.06	11.3
TMCLKL	HY/2012/07	2015-11-28	Mid-Flood	IS(Mf)9	10:25	Bottom	3	2	24.4	7.94	23.2	6.27	8.02	9.6
TMCLKL	HY/2012/07	2015-11-28	Mid-Flood	CS(Mf)3	10:45	Surface	1	1	24.3	7.87	22.9	6.82	7.57	11.4
TMCLKL	HY/2012/07	2015-11-28	Mid-Flood	CS(Mf)3	10:45	Surface	1	2	24.2	7.89	22.8	6.78	7.54	10.6
TMCLKL	HY/2012/07	2015-11-28	Mid-Flood	CS(Mf)3	10:45	Middle	2	1	24.5	7.89	23.2	6.53	8.04	12.1
TMCLKL	HY/2012/07	2015-11-28	Mid-Flood	CS(Mf)3	10:45	Middle	2	2	24.4	7.88	23.2	6.56	8.08	12.9
TMCLKL	HY/2012/07	2015-11-28	Mid-Flood	CS(Mf)3	10:45	Bottom	3	1	24.5	7.92	23.2	6.36	8.09	10.5
TMCLKL	HY/2012/07	2015-11-28	Mid-Flood	CS(Mf)3	10:45	Bottom	3	2	24.5	7.93	23.2	6.32	8.01	10.4
TMCLKL	HY/2012/07	2015-11-28	Mid-Ebb	CS(Mf)5	15:09	Surface	1	1	24.4	7.86	22.9	6.49	7.95	11.9
TMCLKL	HY/2012/07	2015-11-28	Mid-Ebb	CS(Mf)5	15:09	Surface	1	2	24.5	7.89	23	6.52	7.87	11
TMCLKL	HY/2012/07	2015-11-28	Mid-Ebb	CS(Mf)5	15:09	Middle	2	1	24.4	7.96	23.1	6.4	8.09	11.3
TMCLKL	HY/2012/07	2015-11-28	Mid-Ebb	CS(Mf)5	15:09	Middle	2	2	24.3	7.91	23.2	6.37	8.04	9.6
TMCLKL	HY/2012/07	2015-11-28	Mid-Ebb	CS(Mf)5	15:09	Bottom	3	1	24.2	7.83	23.3	6.3	8.18	10.6
TMCLKL	HY/2012/07	2015-11-28	Mid-Ebb	CS(Mf)5	15:09	Bottom	3	2	24.1	7.85	23.4	6.33	8.24	12.4
TMCLKL	HY/2012/07	2015-11-28	Mid-Ebb	SR4a	14:45	Surface	1	1	24.4	7.91	22.8	6.45	7.78	11.7
TMCLKL	HY/2012/07	2015-11-28	Mid-Ebb	SR4a	14:45	Surface	1	2	24.4	7.88	22.9	6.47	7.82	10.2
TMCLKL	HY/2012/07	2015-11-28	Mid-Ebb	SR4a	14:45	Middle	2	1						
TMCLKL	HY/2012/07	2015-11-28	Mid-Ebb	SR4a	14:45	Middle	2	2						
TMCLKL	HY/2012/07	2015-11-28	Mid-Ebb	SR4a	14:45	Bottom	3	1	24.2	7.83	23.1	6.29	7.86	11
TMCLKL	HY/2012/07	2015-11-28	Mid-Ebb	SR4a	14:45	Bottom	3	2	24.3	7.81	23	6.33	7.93	10.3
TMCLKL	HY/2012/07	2015-11-28	Mid-Ebb	SR4	14:23	Surface	1	1	24.5	7.92	22.9	6.38	7.7	11.6
TMCLKL	HY/2012/07	2015-11-28	Mid-Ebb	SR4	14:23	Surface	1	2	24.4	7.96	23	6.41	7.76	12.4
TMCLKL	HY/2012/07	2015-11-28	Mid-Ebb	SR4	14:23	Middle	2	1						
TMCLKL	HY/2012/07	2015-11-28	Mid-Ebb	SR4	14:23	Middle	2	2						
TMCLKL	HY/2012/07	2015-11-28	Mid-Ebb	SR4	14:23	Bottom	3	1	24.2	7.87	23.1	6.35	7.83	11
TMCLKL	HY/2012/07	2015-11-28	Mid-Ebb	SR4	14:23	Bottom	3	2	24.3	7.83	23	6.32	7.89	11.8
TMCLKL	HY/2012/07	2015-11-28	Mid-Ebb	IS8	14:01	Surface	1	1	24.6	7.89	22.7	6.51	7.79	9.3
TMCLKL	HY/2012/07	2015-11-28	Mid-Ebb	IS8	14:01	Surface	1	2	24.5	7.86	22.8	6.55	7.86	11
TMCLKL	HY/2012/07	2015-11-28	Mid-Ebb	IS8	14:01	Middle	2	1						
TMCLKL	HY/2012/07	2015-11-28	Mid-Ebb	IS8	14:01	Middle	2	2						
TMCLKL	HY/2012/07	2015-11-28	Mid-Ebb	IS8	14:01	Bottom	3	1	24.3	7.82	23.1	6.35	8	11.4
TMCLKL	HY/2012/07	2015-11-28	Mid-Ebb	IS8	14:01	Bottom	3	2	24.2	7.85	23	6.39	8.03	12.8

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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	2015-11-28	Mid-Ebb	IS(Mf)16	13:39	Surface	1	1	24.4	7.91	22.8	6.59	7.89	11.8
TMCLKL	HY/2012/07	2015-11-28	Mid-Ebb	IS(Mf)16	13:39	Surface	1	2	24.5	7.94	22.9	6.56	7.93	11.9
TMCLKL	HY/2012/07	2015-11-28	Mid-Ebb	IS(Mf)16	13:39	Middle	2	1	24.4	7.87	23	6.51	7.98	12
TMCLKL	HY/2012/07	2015-11-28	Mid-Ebb	IS(Mf)16	13:39	Middle	2	2	24.3	7.83	23.1	6.49	8.07	12.1
TMCLKL	HY/2012/07	2015-11-28	Mid-Ebb	IS(Mf)16	13:39	Bottom	3	1	24.3	7.82	23.3	6.36	8.1	13
TMCLKL	HY/2012/07	2015-11-28	Mid-Ebb	IS(Mf)16	13:39	Bottom	3	2	24.2	7.81	23.2	6.39	8.14	12.2
TMCLKL	HY/2012/07	2015-11-28	Mid-Ebb	IS(Mf)9	13:17	Surface	1	1	24.5	7.86	23	6.54	7.86	10.2
TMCLKL	HY/2012/07	2015-11-28	Mid-Ebb	IS(Mf)9	13:17	Surface	1	2	24.4	7.89	22.9	6.51	7.91	11.1
TMCLKL	HY/2012/07	2015-11-28	Mid-Ebb	IS(Mf)9	13:17	Middle	2	1						
TMCLKL	HY/2012/07	2015-11-28	Mid-Ebb	IS(Mf)9	13:17	Middle	2	2						
TMCLKL	HY/2012/07	2015-11-28	Mid-Ebb	IS(Mf)9	13:17	Bottom	3	1	24.4	7.81	23	6.4	7.98	10.4
TMCLKL	HY/2012/07	2015-11-28	Mid-Ebb	IS(Mf)9	13:17	Bottom	3	2	24.3	7.84	23.1	6.44	8.05	12.1
TMCLKL	HY/2012/07	2015-11-28	Mid-Ebb	CS(Mf)3	12:55	Surface	1	1	24.4	7.93	22.8	6.61	8.08	10.5
TMCLKL	HY/2012/07	2015-11-28	Mid-Ebb	CS(Mf)3	12:55	Surface	1	2	24.3	7.9	22.9	6.64	8.03	10.4
TMCLKL	HY/2012/07	2015-11-28	Mid-Ebb	CS(Mf)3	12:55	Middle	2	1	24.3	7.87	23	6.53	8.1	12.2
TMCLKL	HY/2012/07	2015-11-28	Mid-Ebb	CS(Mf)3	12:55	Middle	2	2	24.2	7.83	22.9	6.49	8.16	11.8
TMCLKL	HY/2012/07	2015-11-28	Mid-Ebb	CS(Mf)3	12:55	Bottom	3	1	24.2	7.87	23.2	6.28	8.29	10.8
TMCLKL	HY/2012/07	2015-11-28	Mid-Ebb	CS(Mf)3	12:55	Bottom	3	2	24.1	7.84	23.3	6.3	8.21	11.5

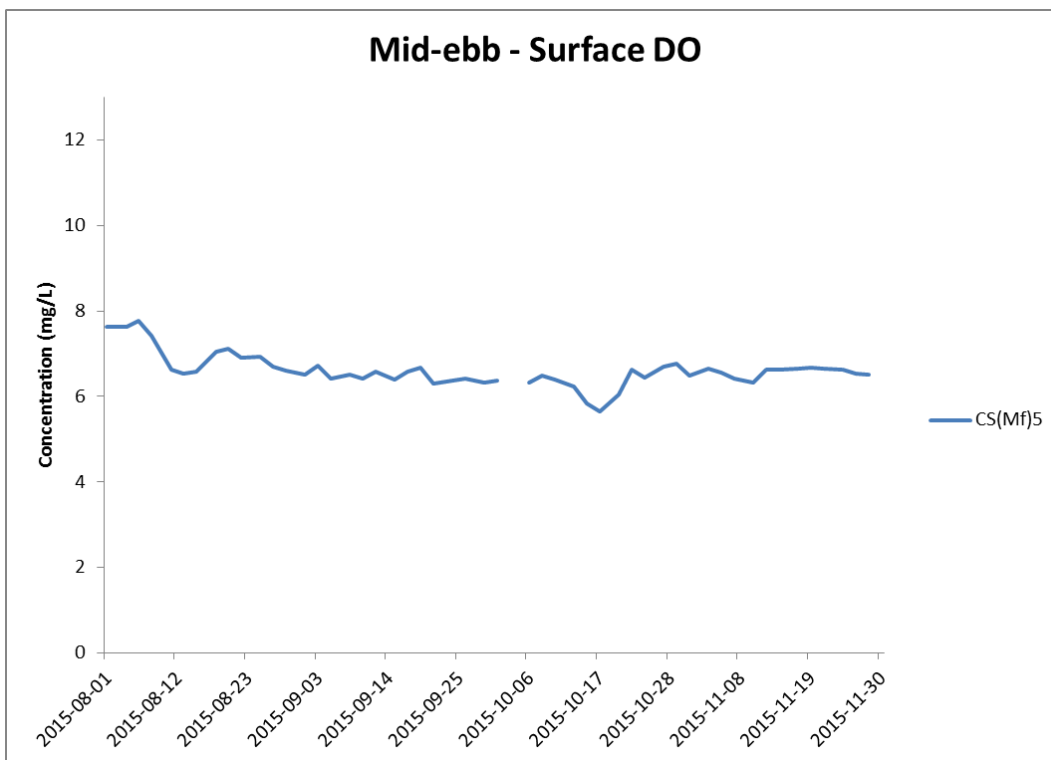
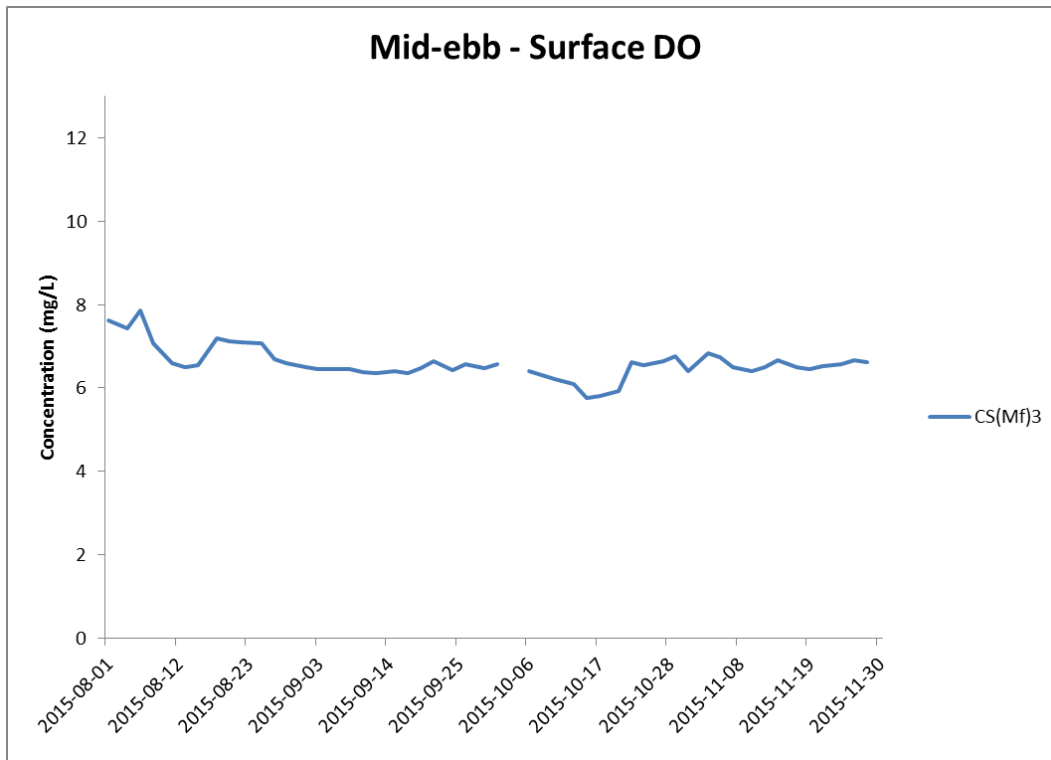


Figure J1 Impact Monitoring - Mean Level of Dissolved Oxygen (mg/L) in surface waters during mid-ebb tide between 1 August and 30 November 2015 at CS(Mf)3 and CS(Mf)5.

WQM was cancelled on 3 October 2015 due to adverse weather. (Weather condition varied between sunny to rainy within the reporting period.

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

**Environmental
Resources
Management**



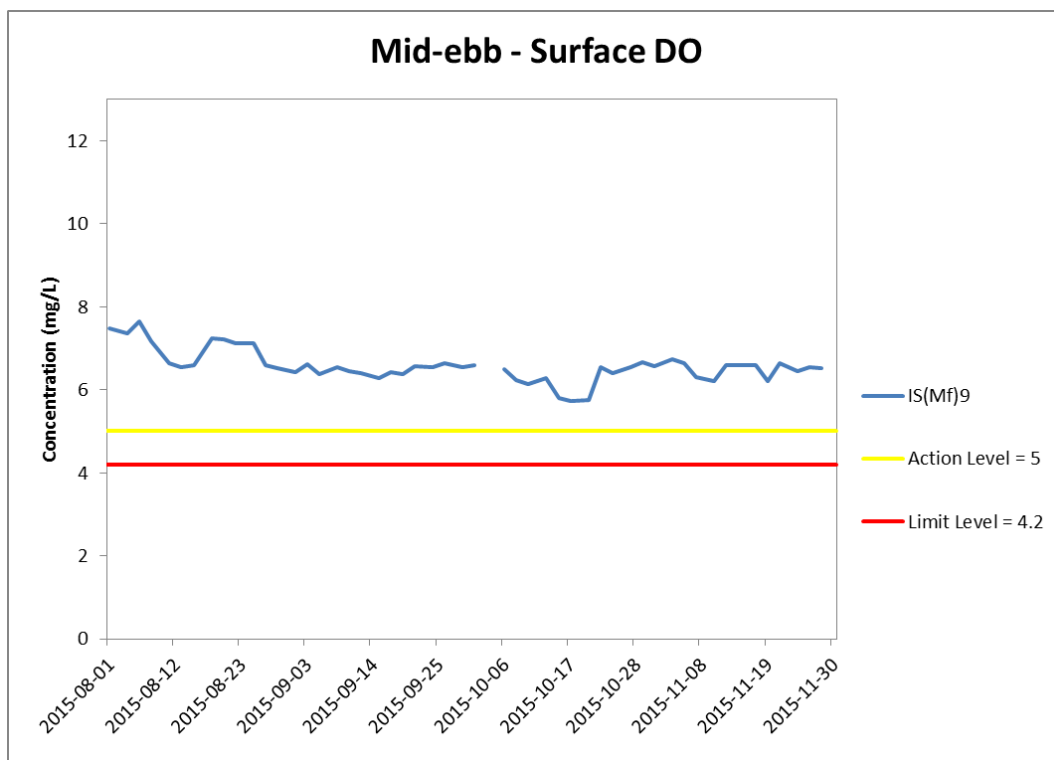
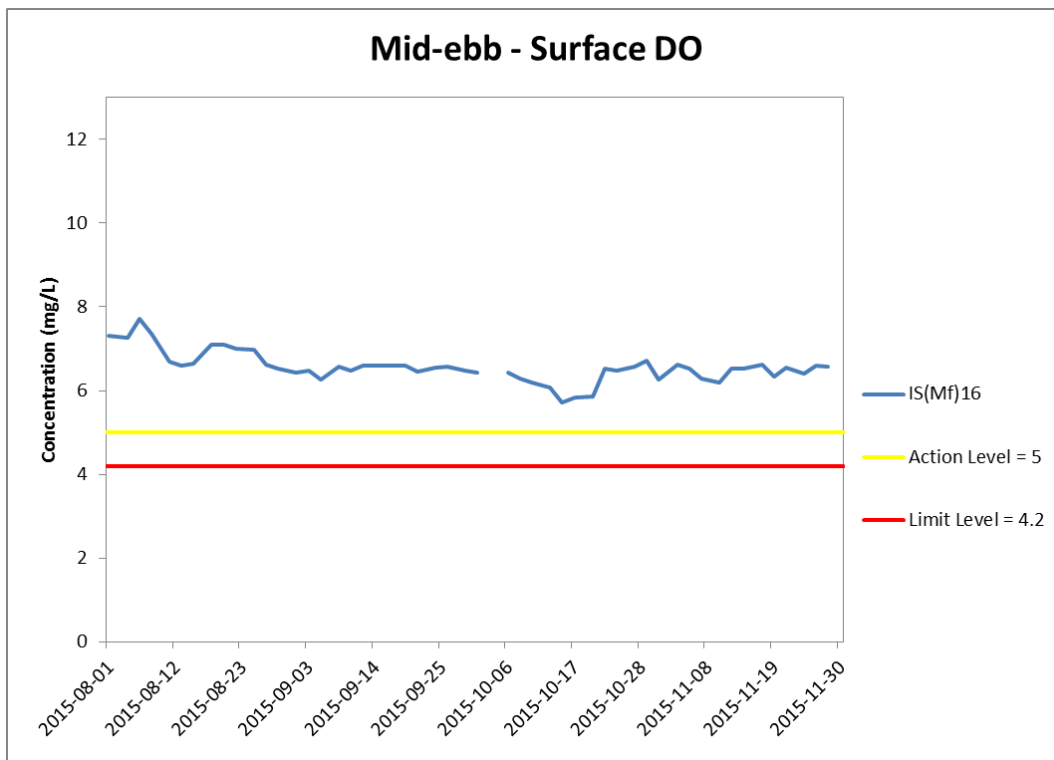


Figure J2 Impact Monitoring – Mean Level of Dissolved Oxygen (mg/L) in surface waters during mid-ebb tide between 1 August and 30 November 2015 at IS(Mf)16 and IS(Mf)9.

WQM was cancelled on 3 October 2015 due to adverse weather. (Weather condition varied between sunny to rainy within the reporting period.)

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

**Environmental
Resources
Management**



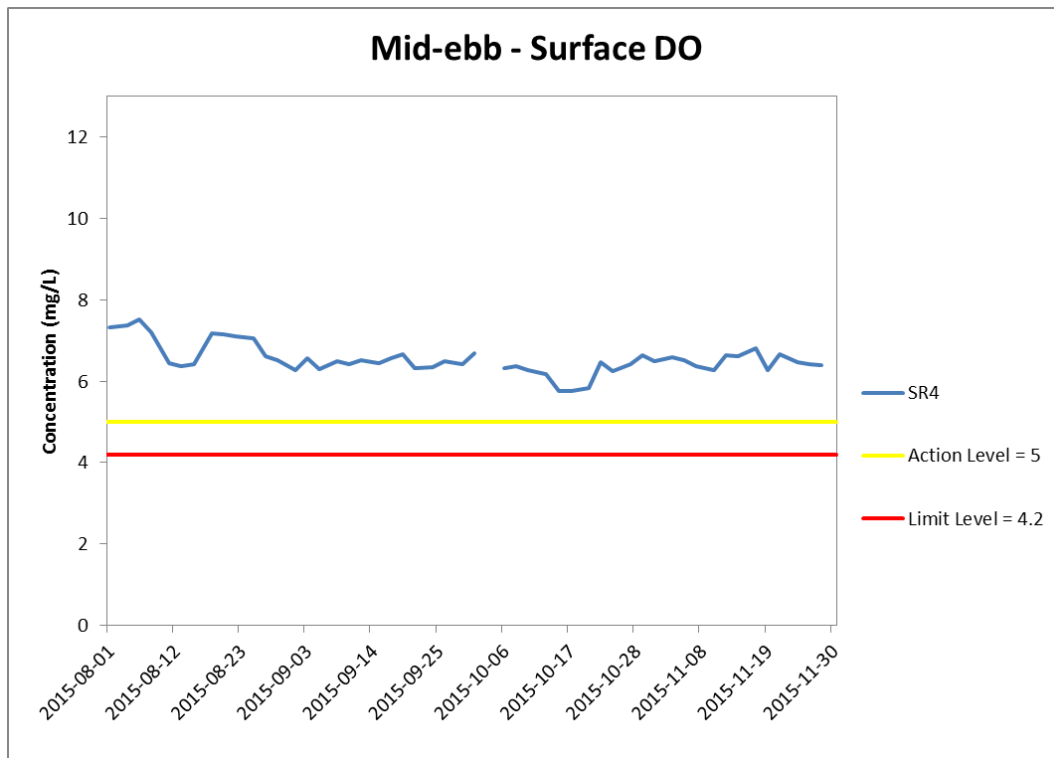
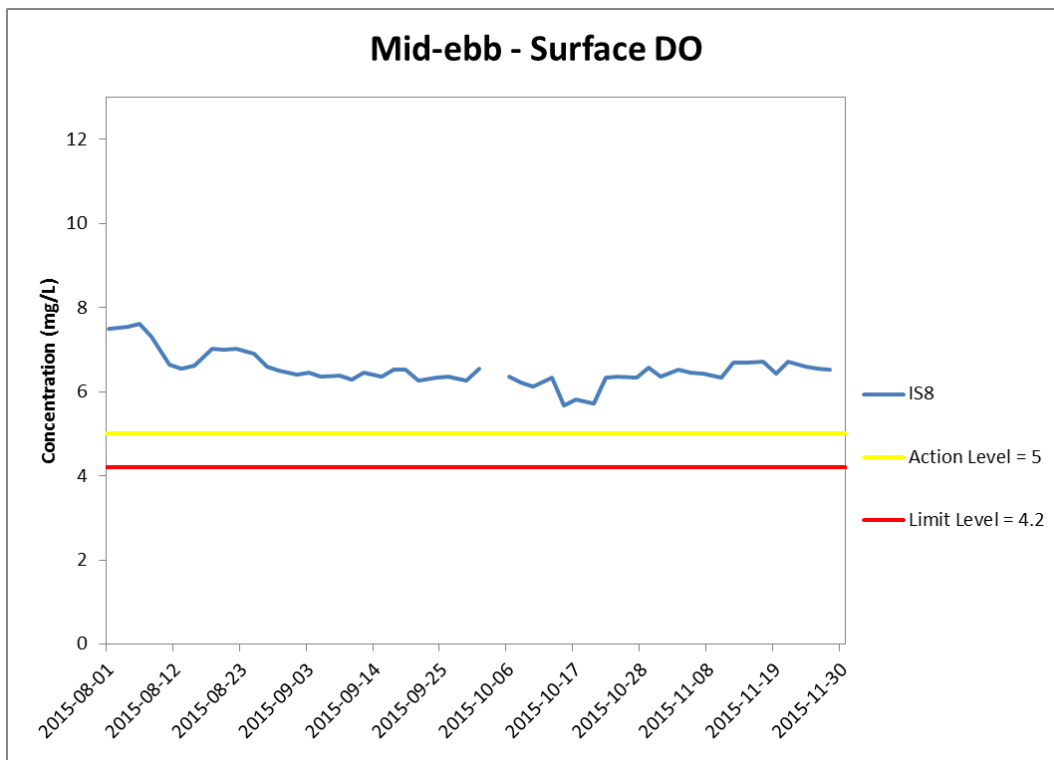


Figure J3 Impact Monitoring – Mean Level of Dissolved Oxygen (mg/L) in surface waters during mid-ebb tide between 1 August and 30 November 2015 at IS8 and SR4.

WQM was cancelled on 3 October 2015 due to adverse weather. (Weather condition varied between sunny to rainy within the reporting period.)

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

**Environmental
Resources
Management**



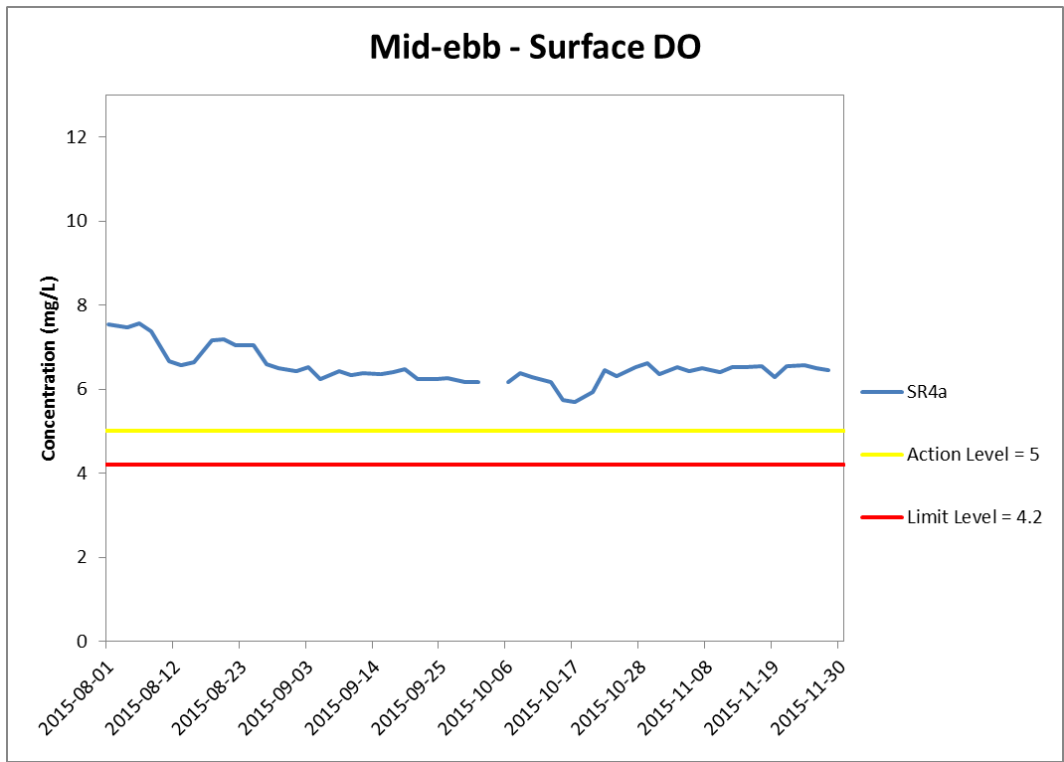


Figure J4 Impact Monitoring - Mean Level of Dissolved Oxygen (mg/L) in surface waters during mid-ebb tide between 1 August and 30 November 2015 at SR4a.

WQM was cancelled on 3 October 2015 due to adverse weather. (Weather condition varied between sunny to rainy within the reporting period. Marine works within the reporting period include Construction and installation of pile caps; Uninstallation of marine piling platform; Pile cap installation; Pier construction; Launching gantry operation and; Installation of deck segment and pier head segment)

**Environmental
Resources
Management**



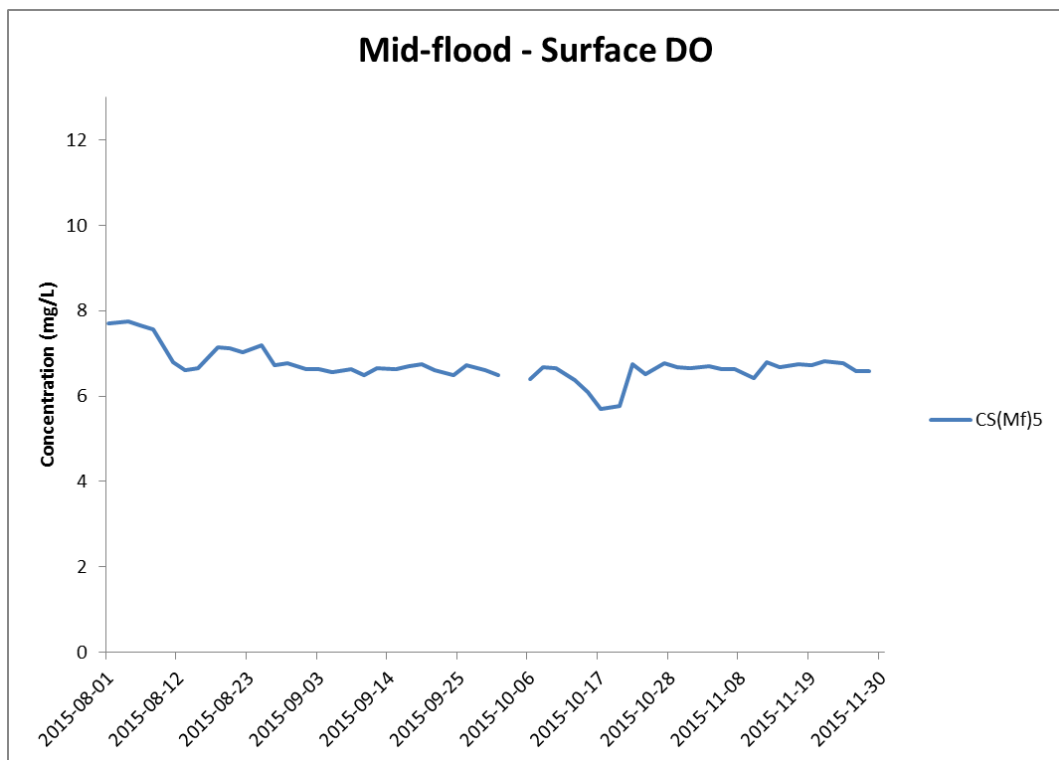
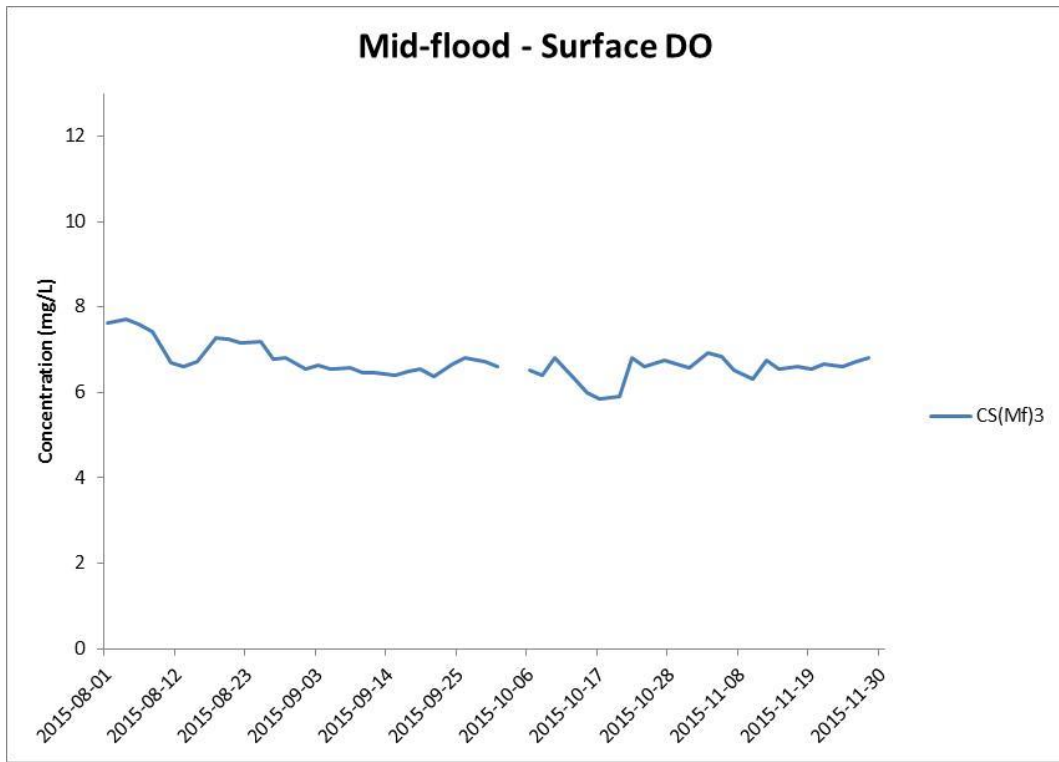


Figure J5 Impact Monitoring - Mean Level of Dissolved Oxygen (mg/L) in surface waters during mid-flood tide between 1 August and 30 November 2015 at CS(Mf)3 and CS(Mf)5.

WQM was cancelled on 3 October 2015 due to adverse weather. (Weather condition varied between sunny to rainy within the reporting period.)
 Marine works within the reporting period include Construction and installation of pile caps; Uninstallation of marine piling platform; Pile cap installation; Pier construction; Launching gantry operation and; Installation of deck segment and pier head segment)

**Environmental
Resources
Management**



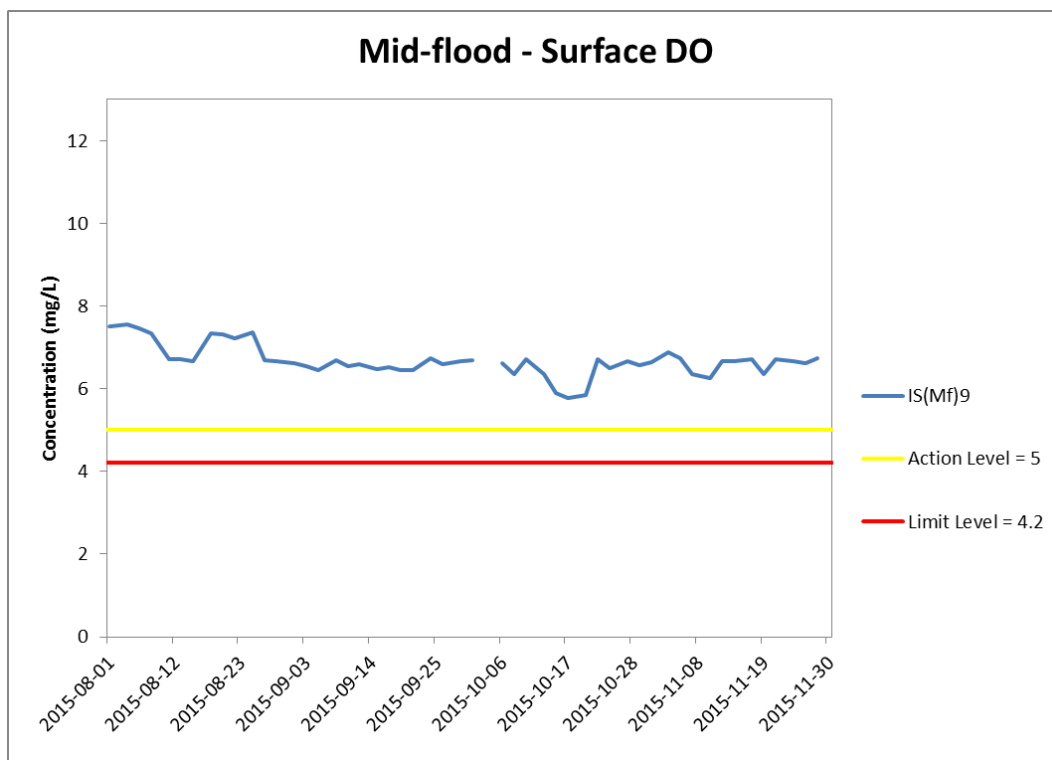
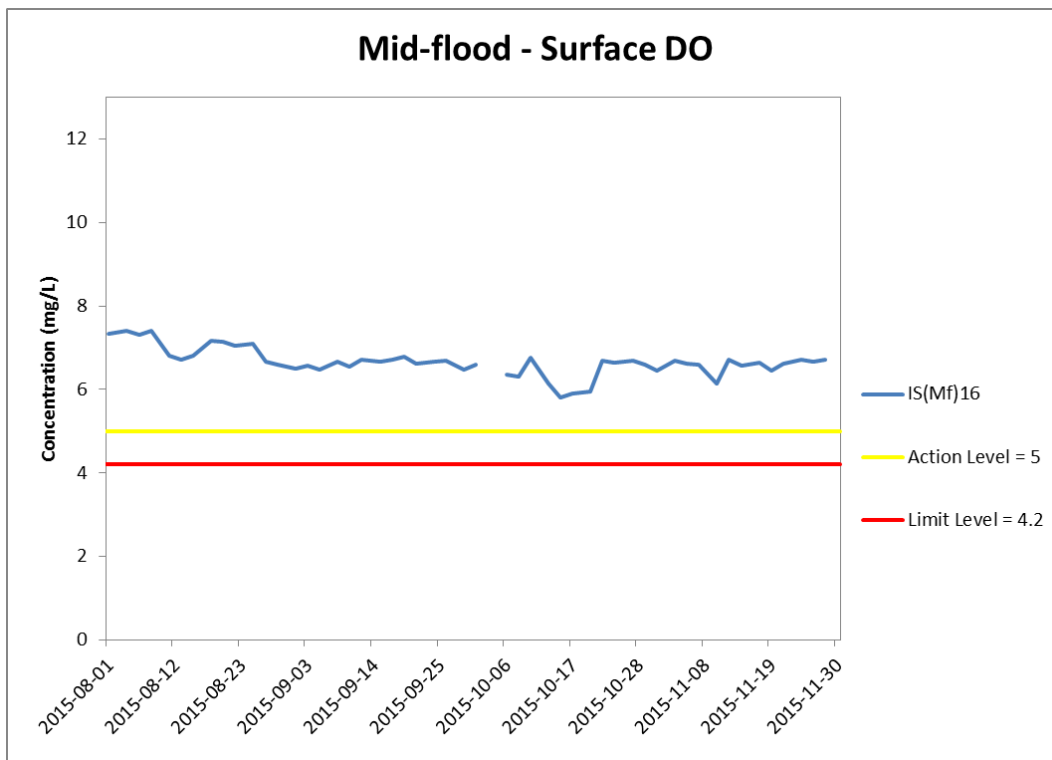


Figure J6 Impact Monitoring – Mean Level of Dissolved Oxygen (mg/L) in surface waters during mid-flood tide between 1 August and 30 November 2015 at IS(Mf)16 and IS(Mf)9.

WQM was cancelled on 3 October 2015 due to adverse weather. (Weather condition varied between sunny to rainy within the reporting period. Marine works within the reporting period include Construction and installation of pile caps; Uninstallation of marine piling platform; Pile cap installation; Pier construction; Launching gantry operation and; Installation of deck segment and pier head segment)

**Environmental
Resources
Management**



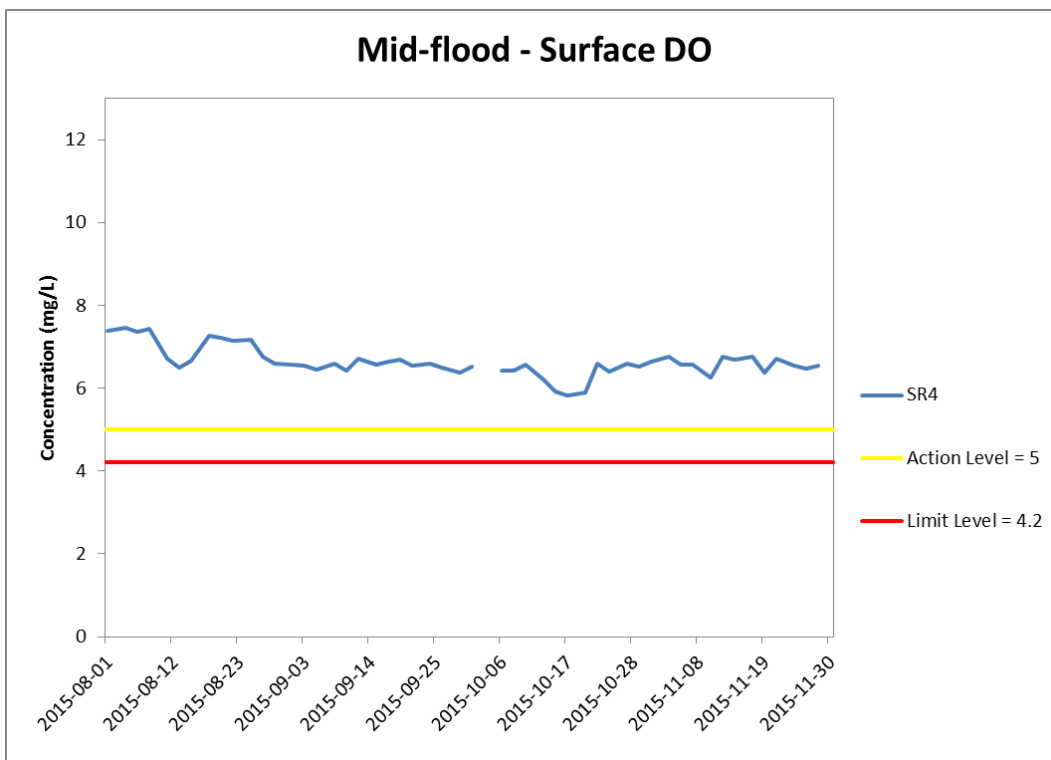
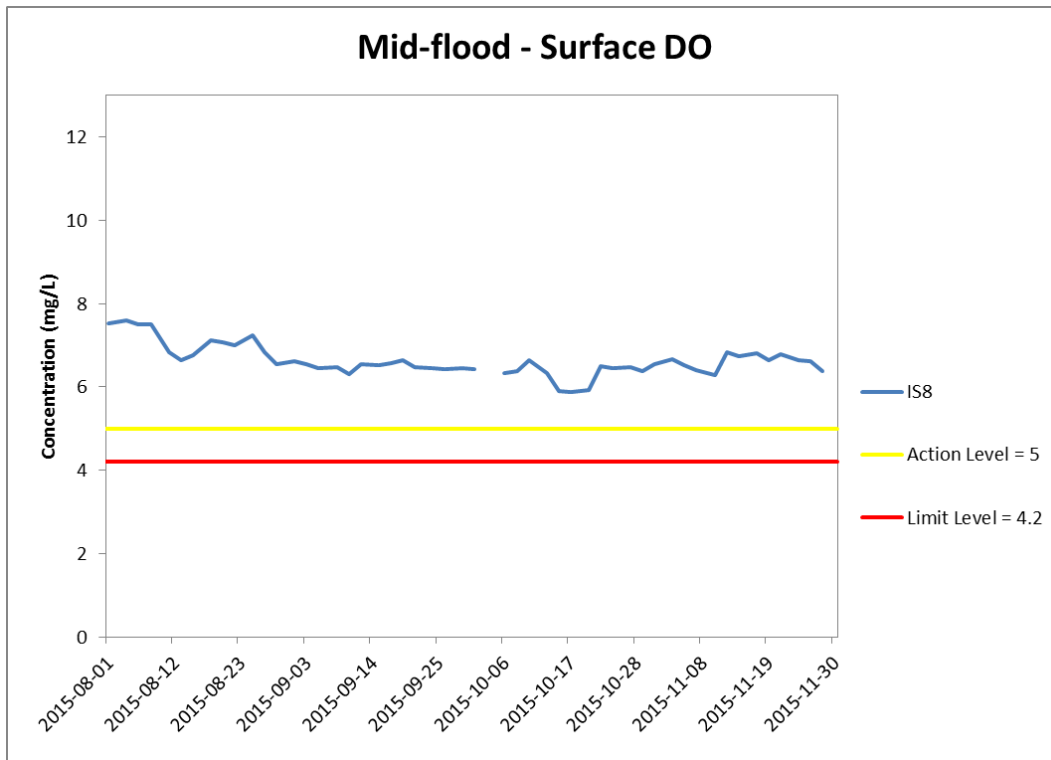


Figure J7 Impact Monitoring - Mean Level of Dissolved Oxygen (mg/L) in surface waters during mid-flood tide between 1 August and 30 November 2015 at IS8 and SR4.

WQM was cancelled on 3 October 2015 due to adverse weather. (Weather condition varied between sunny to rainy within the reporting period.)
Marine works within the reporting period include Construction and installation of pile caps; Uninstallation of marine piling platform; Pile cap installation; Pier construction; Launching gantry operation and; Installation of deck segment and pier head segment)

**Environmental
Resources
Management**



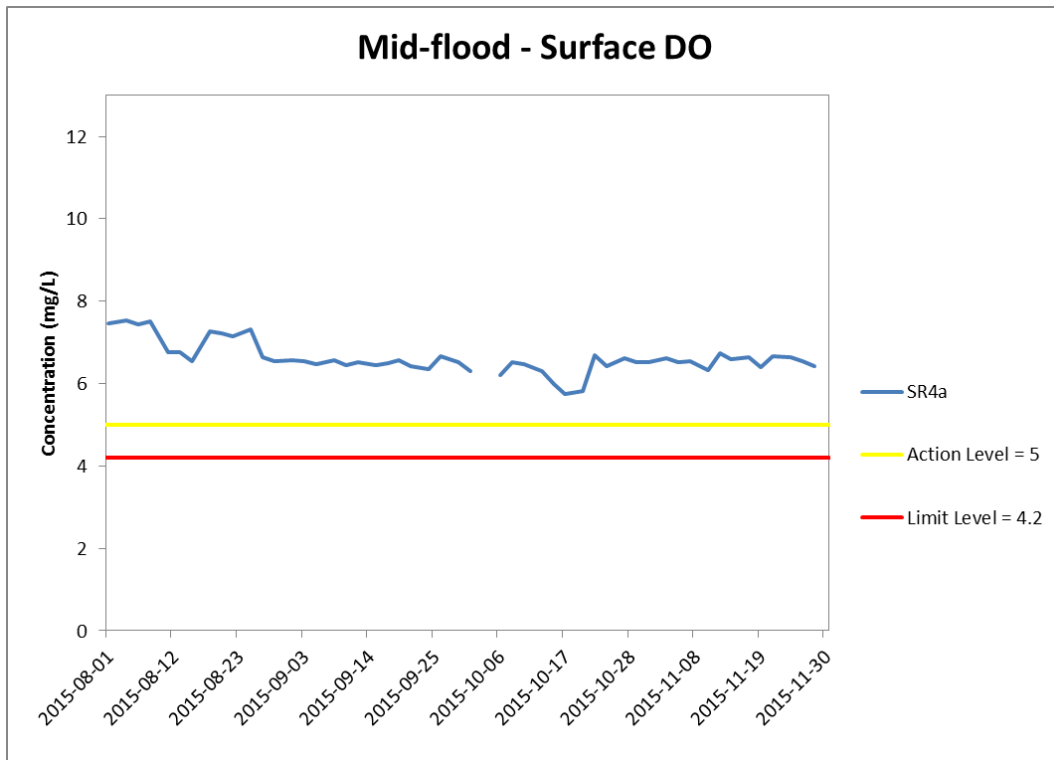


Figure J8 Impact Monitoring – Mean Level of Dissolved Oxygen (mg/L) in surface waters during mid-flood tide between 1 August and 30 November 2015 at SR4a.

WQM was cancelled on 3 October 2015 due to adverse weather. (Weather condition varied between sunny to rainy within the reporting period. Marine works within the reporting period include Construction and installation of pile caps; Uninstallation of marine piling platform; Pile cap installation; Pier construction; Launching gantry operation and; Installation of deck segment and pier head segment)

**Environmental
Resources
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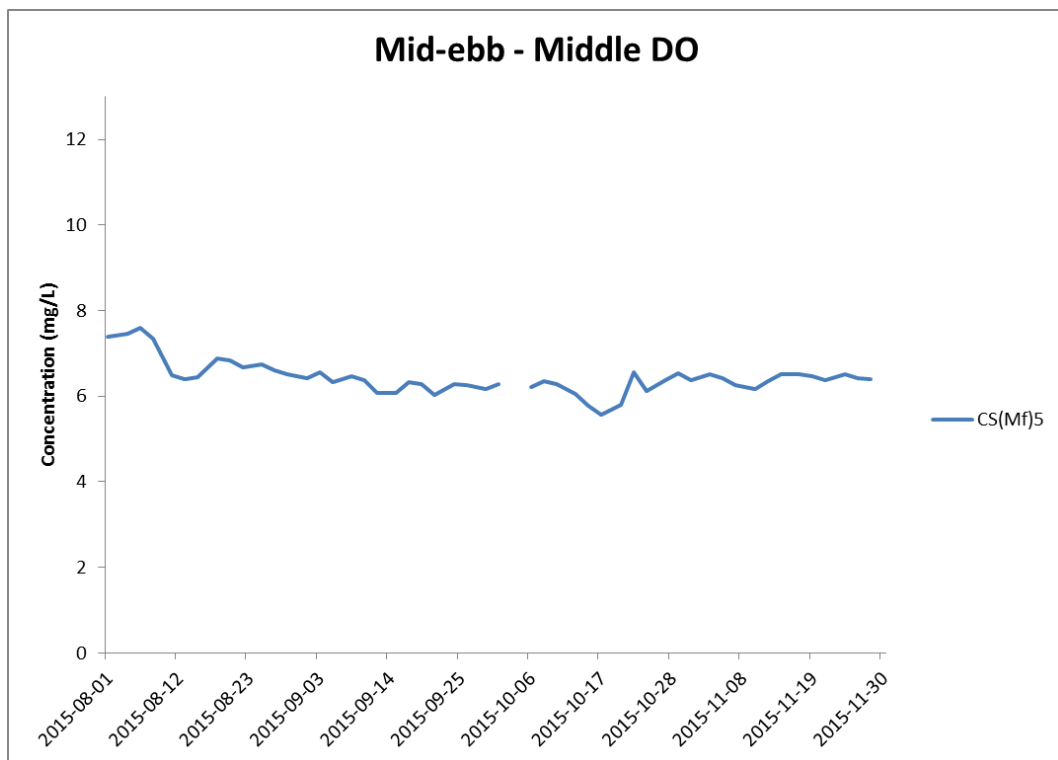
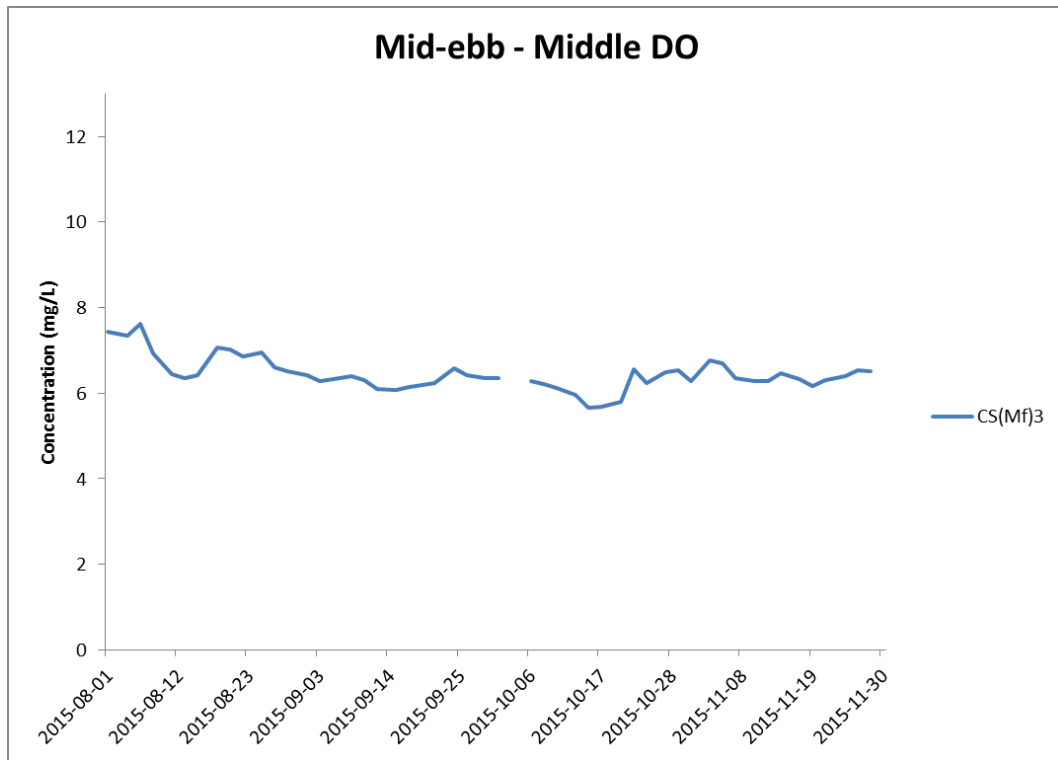


Figure J9 Impact Monitoring - Mean Level of Dissolved Oxygen (mg/L) in mid-depth waters during mid-ebb tide between 1 August and 30 November 2015 at CS(Mf)3 and CS(Mf)5.

WQM was cancelled on 3 October 2015 due to adverse weather. (Weather condition varied between sunny to rainy within the reporting period. Marine works within the reporting period include Construction and installation of pile caps; Uninstallation of marine piling platform; Pile cap installation; Pier construction; Launching gantry operation and; Installation of deck segment and pier head segment)

**Environmental
Resources
Management**



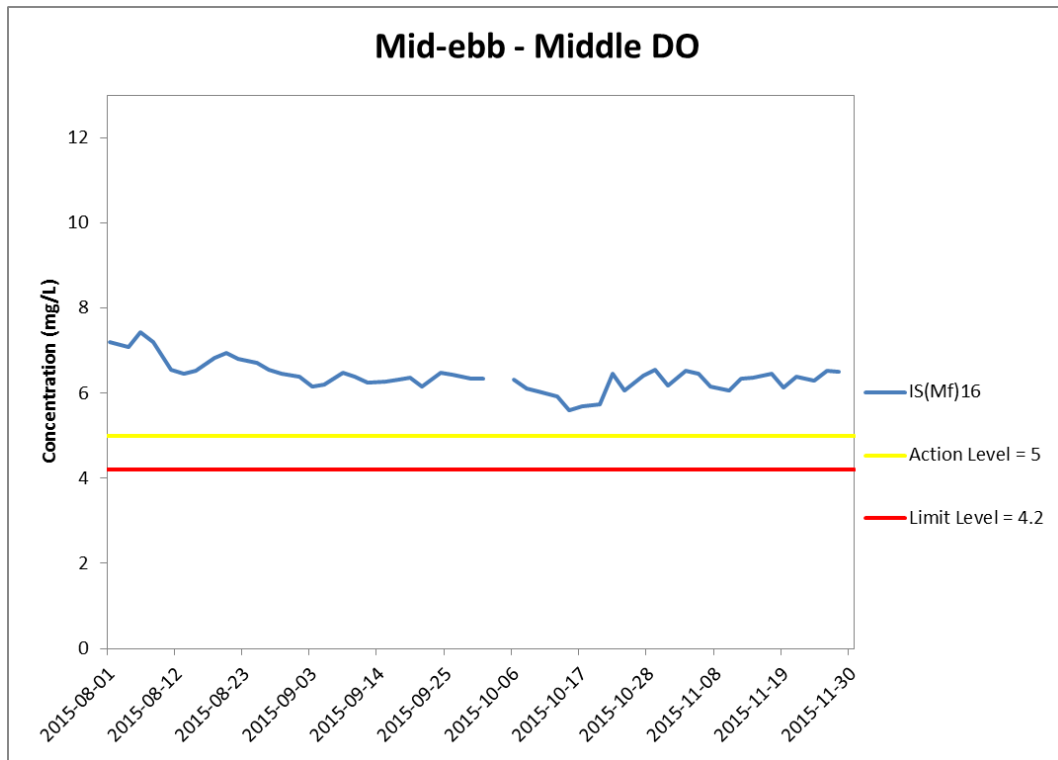


Figure J10 Impact Monitoring - Mean Level of Dissolved Oxygen (mg/L) in mid-depth waters during mid-ebb tide between 1 August and 30 November 2015 at IS(Mf)16.

WQM was cancelled on 3 October 2015 due to adverse weather. (Weather condition varied between sunny to rainy within the reporting period.)
Marine works within the reporting period include Construction and installation of pile caps; Uninstallation of marine piling platform; Pile cap installation; Pier construction; Launching gantry operation and; Installation of deck segment and pier head segment)

**Environmental
Resources
Management**



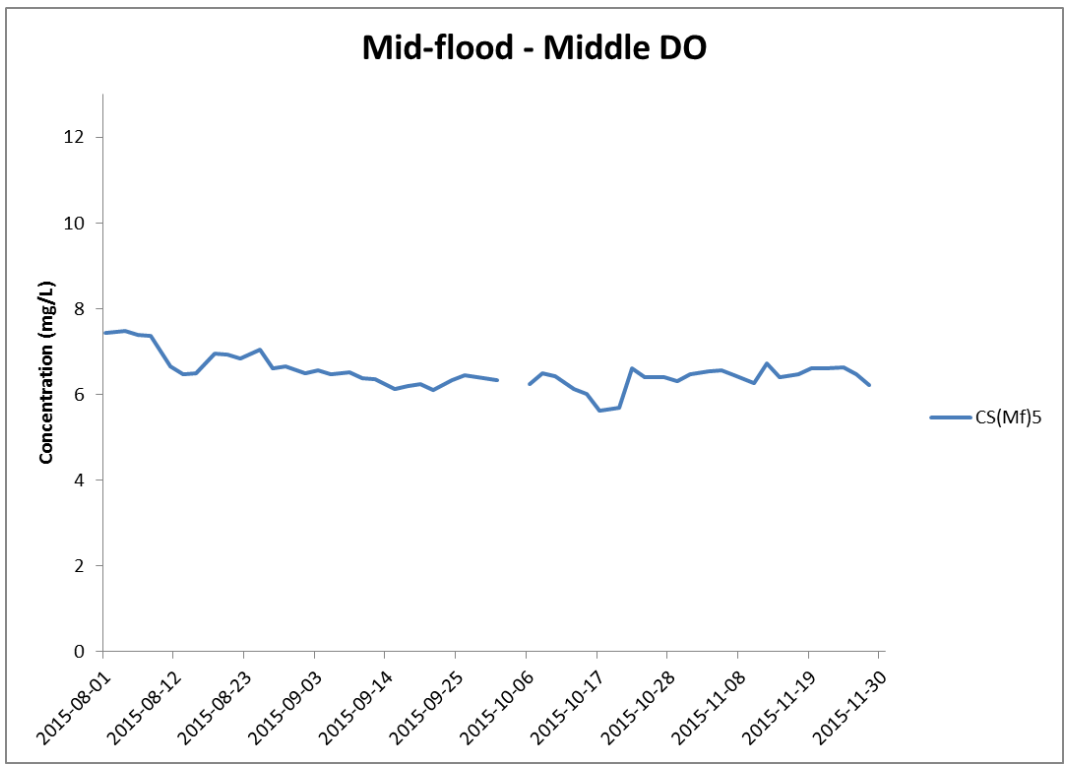
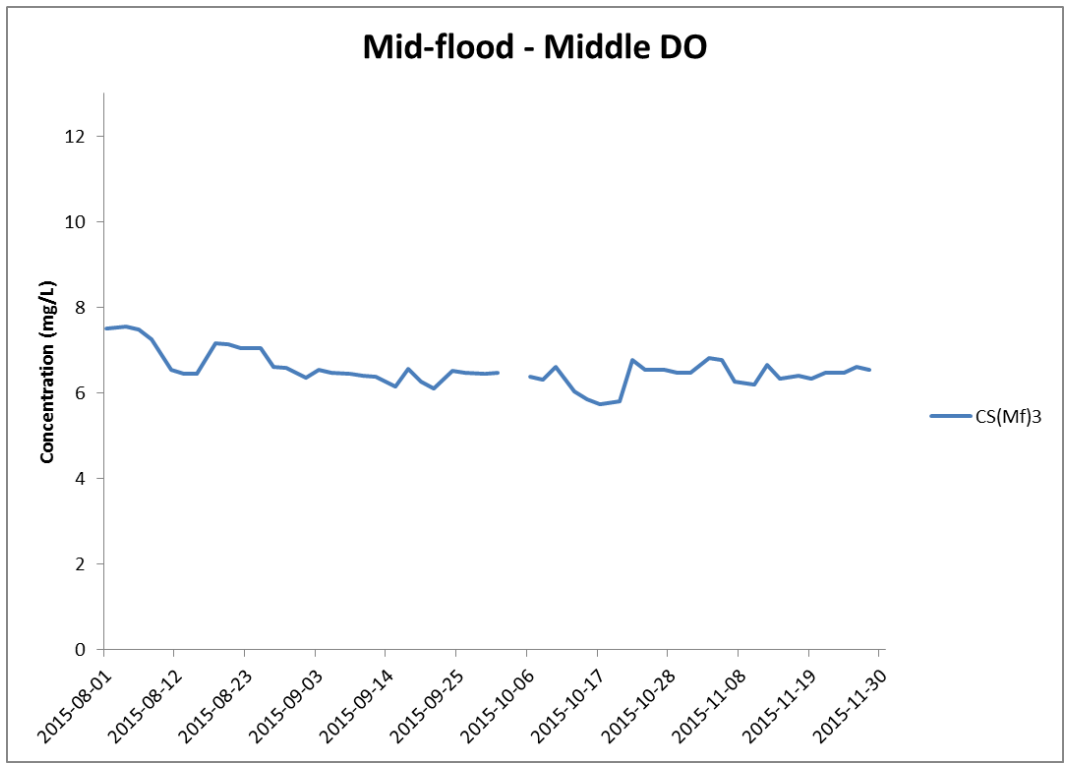


Figure J11 Impact Monitoring - Mean Level of Dissolved Oxygen (mg/L) in mid-depth waters during mid-flood tide between 1 August and 30 November 2015 at CS(Mf)3 and CS(Mf)5.

*WQM was cancelled on 3 October 2015 due to adverse weather. (Weather condition varied between sunny to rainy within the reporting period.)
 Marine works within the reporting period include Construction and installation of pile caps; Uninstallation of marine piling platform; Pile cap installation; Pier construction; Launching gantry operation and; Installation of deck segment and pier head segment)*

**Environmental
 Resources
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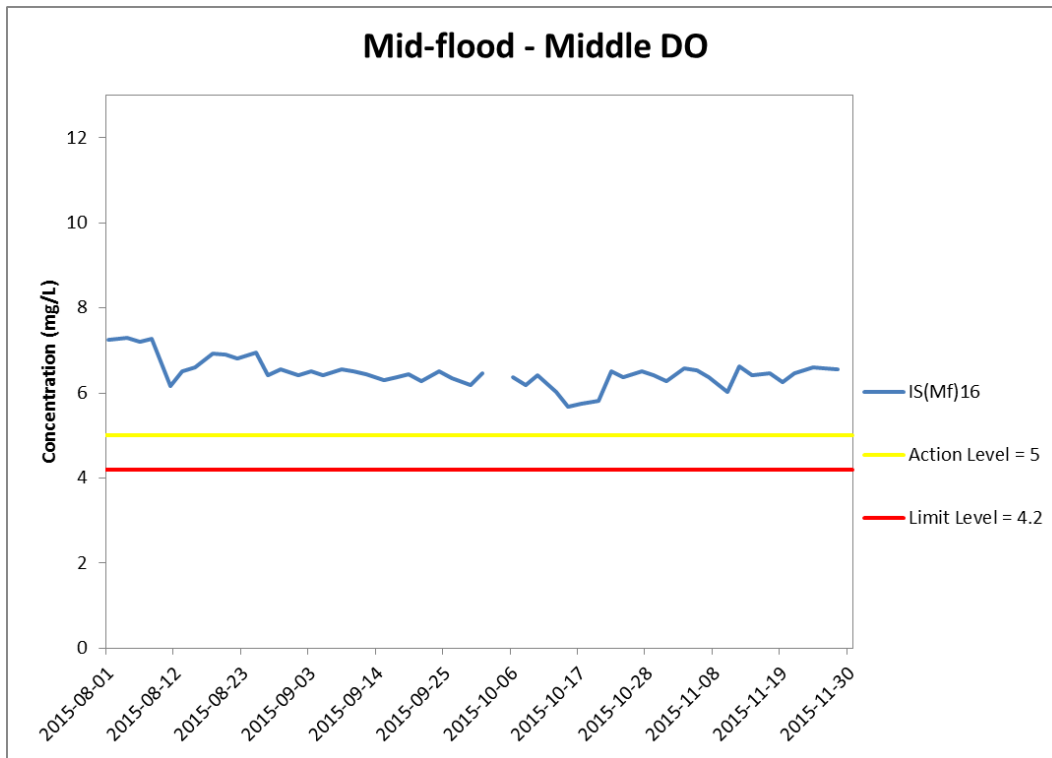


Figure J12 Impact Monitoring - Mean Level of Dissolved Oxygen (mg/L) in mid-depth waters during mid-flood tide between 1 August and 30 November 2015 at IS(Mf)16.

WQM was cancelled on 3 October 2015 due to adverse weather. (Weather condition varied between sunny to rainy within the reporting period.)

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

**Environmental
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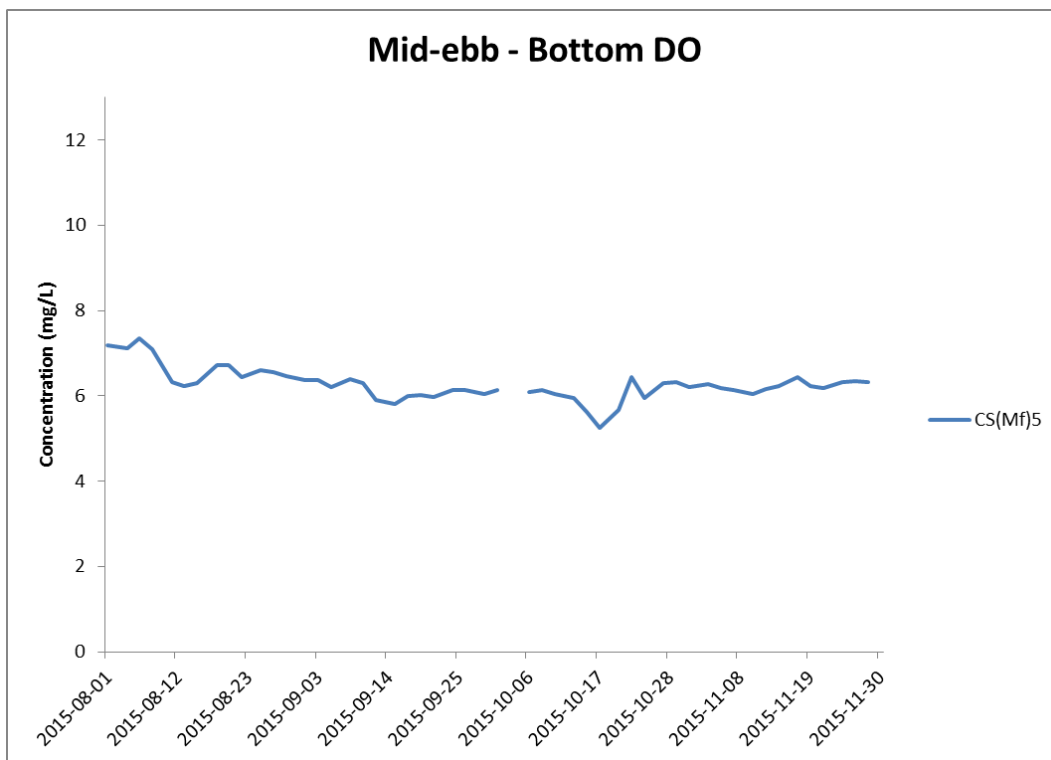
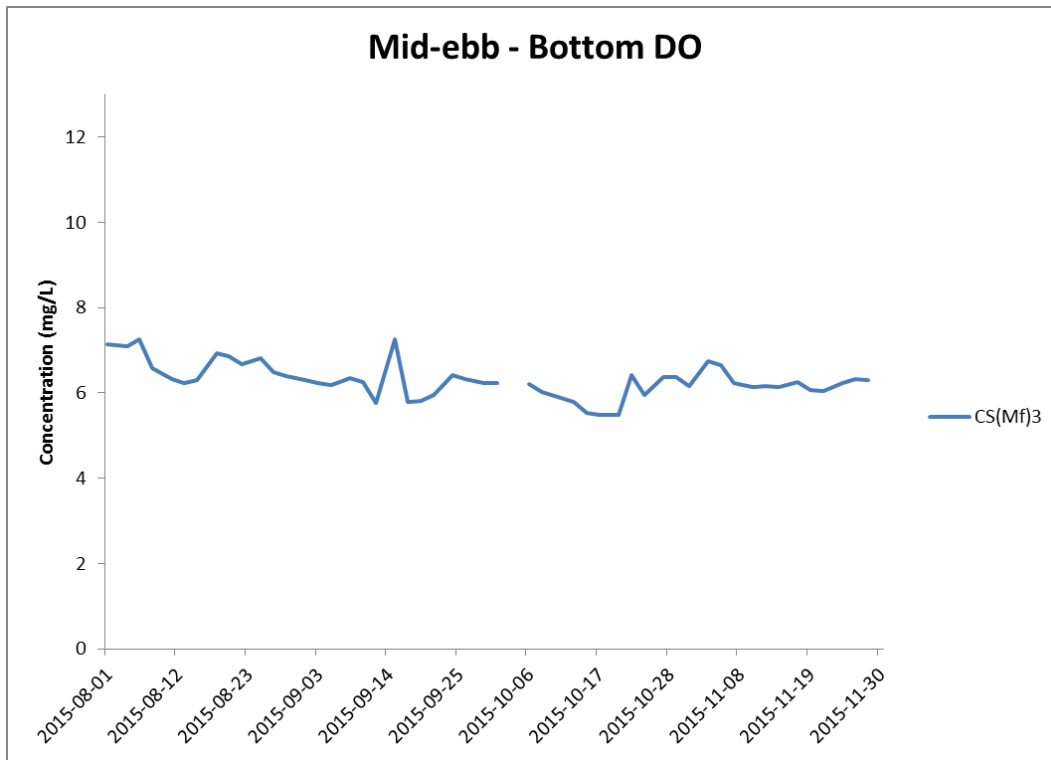


Figure J13 Impact Monitoring - Mean Level of Dissolved Oxygen (mg/L) in bottom waters during mid-ebb tide between 1 August and 30 November 2015 at CS(Mf)3 and CS(Mf)5.

WQM was cancelled on 3 October 2015 due to adverse weather. (Weather condition varied between sunny to rainy within the reporting period.)

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

**Environmental
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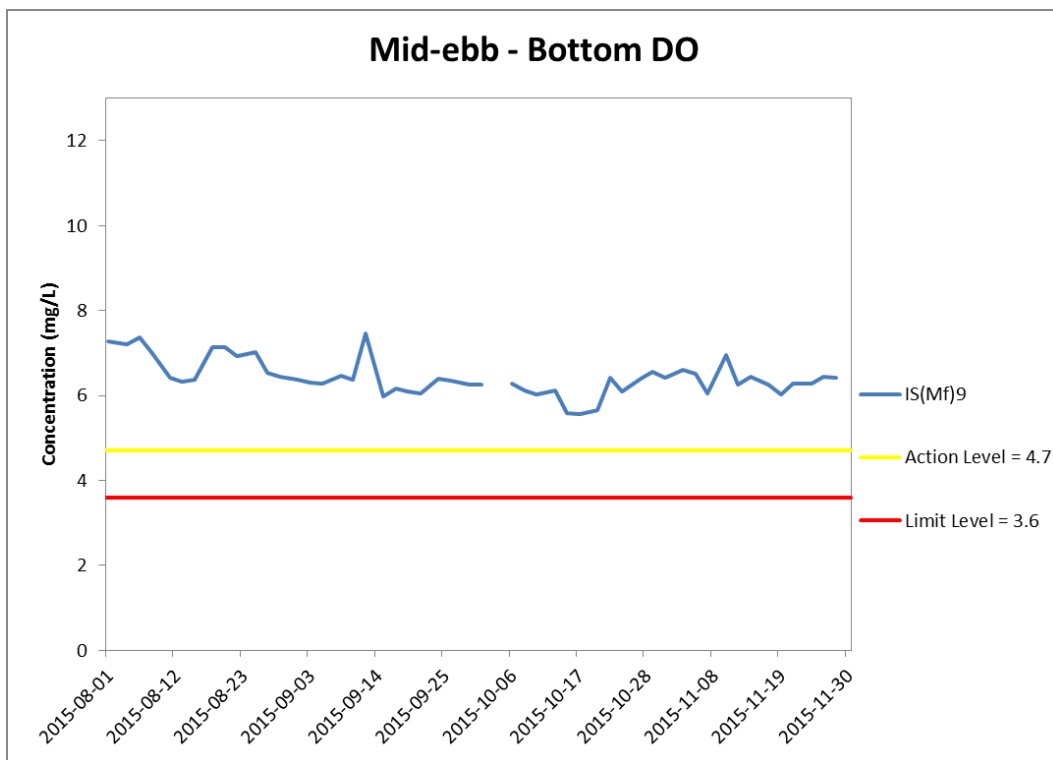
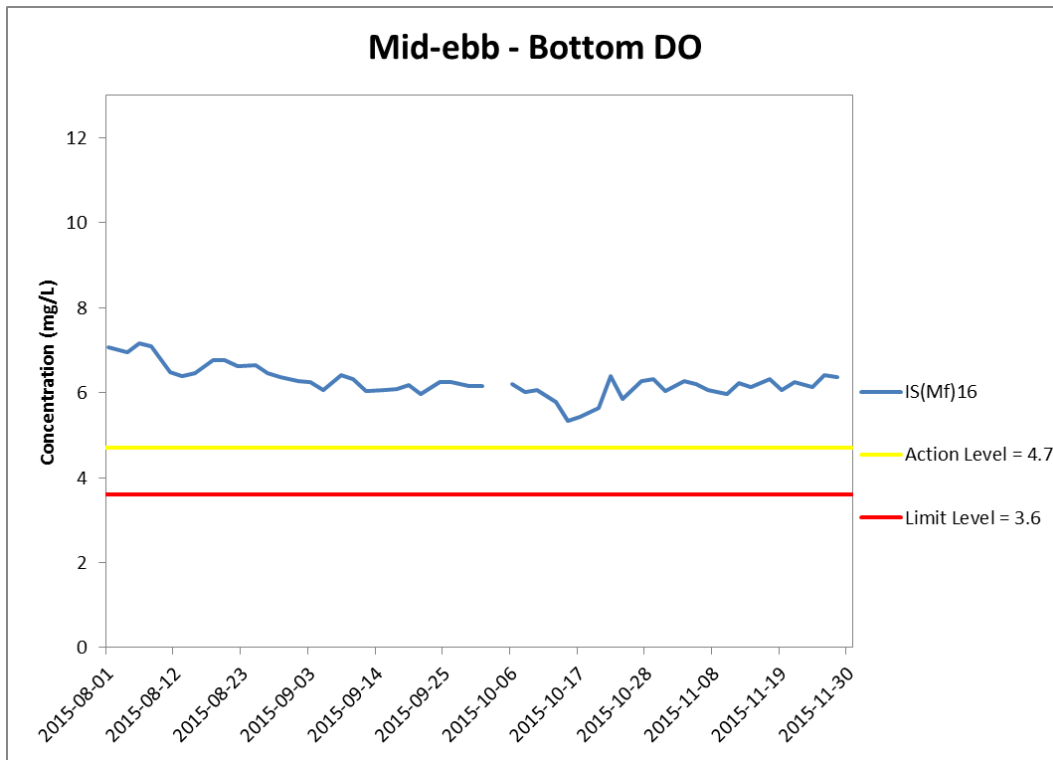


Figure J14 Impact Monitoring - Mean Level of Dissolved Oxygen (mg/L) in bottom waters during mid-ebb tide between 1 August and 30 November 2015 at IS(Mf)16 and IS(Mf)9.

WQM was cancelled on 3 October 2015 due to adverse weather. (Weather condition varied between sunny to rainy within the reporting period.)
Marine works within the reporting period include Construction and installation of pile caps; Uninstallation of marine piling platform; Pile cap installation; Pier construction; Launching gantry operation and; Installation of deck segment and pier head segment)

**Environmental
Resources
Management**



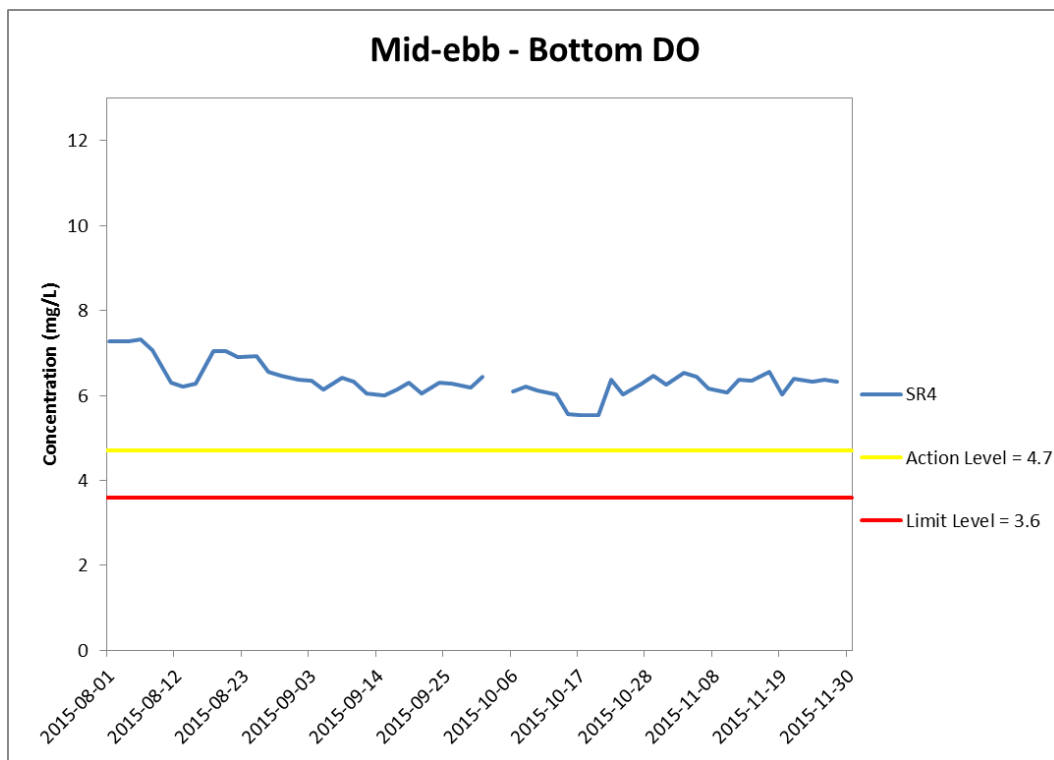
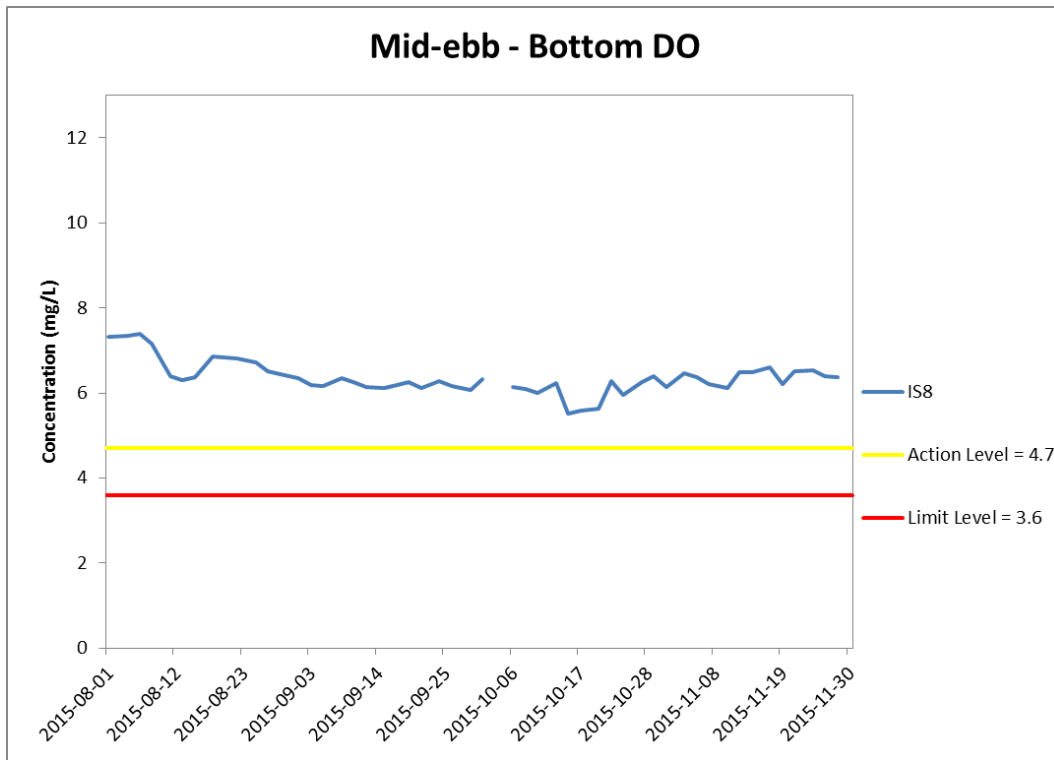


Figure J15 Impact Monitoring - Mean Level of Dissolved Oxygen (mg/L) in bottom waters during mid-ebb tide between 1 August and 30 November 2015 at IS8 and SR4.

WQM was cancelled on 3 October 2015 due to adverse weather. (Weather condition varied between sunny to rainy within the reporting period.)

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

**Environmental
Resources
Management**



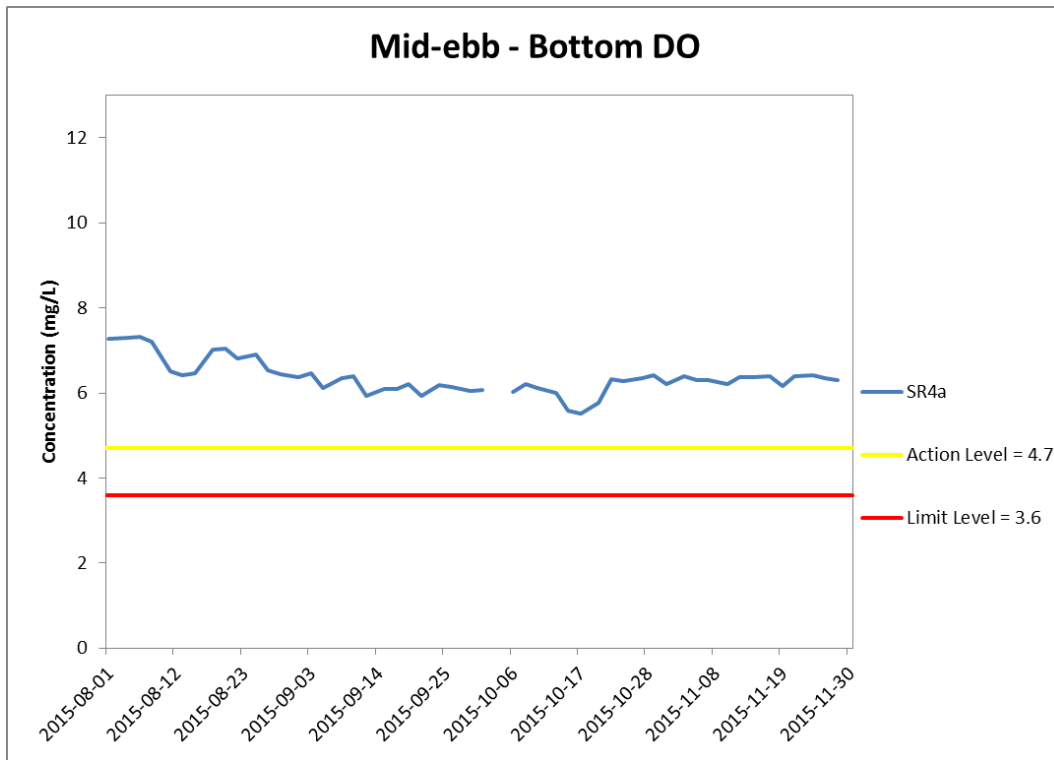


Figure J16 Impact Monitoring - Mean Level of Dissolved Oxygen (mg/L) in bottom waters during mid-ebb tide between 1 August and 30 November 2015 at SR4a.

WQM was cancelled on 3 October 2015 due to adverse weather. (Weather condition varied between sunny to rainy within the reporting period.)

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

**Environmental
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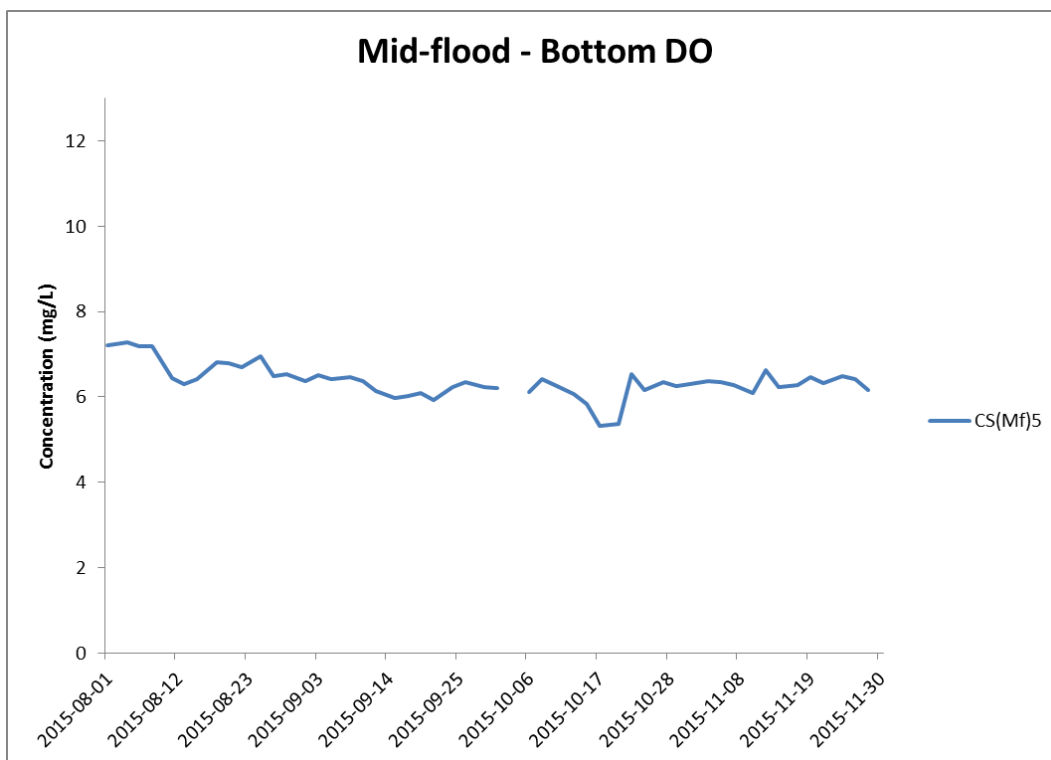
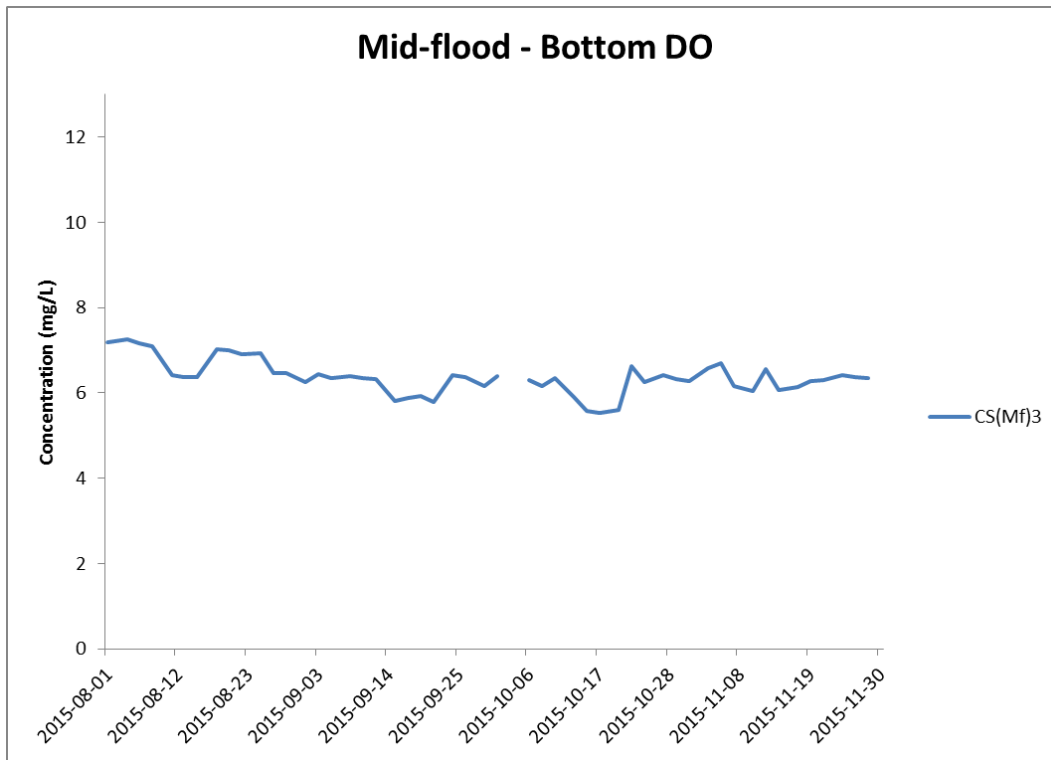


Figure J17 Impact Monitoring – Mean Level of Dissolved Oxygen (mg/L) in bottom waters during mid-flood tide between 1 August and 30 November 2015 at CS(Mf)3 and CS(Mf)5.

WQM was cancelled on 3 October 2015 due to adverse weather. (Weather condition varied between sunny to rainy within the reporting period.)

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

**Environmental
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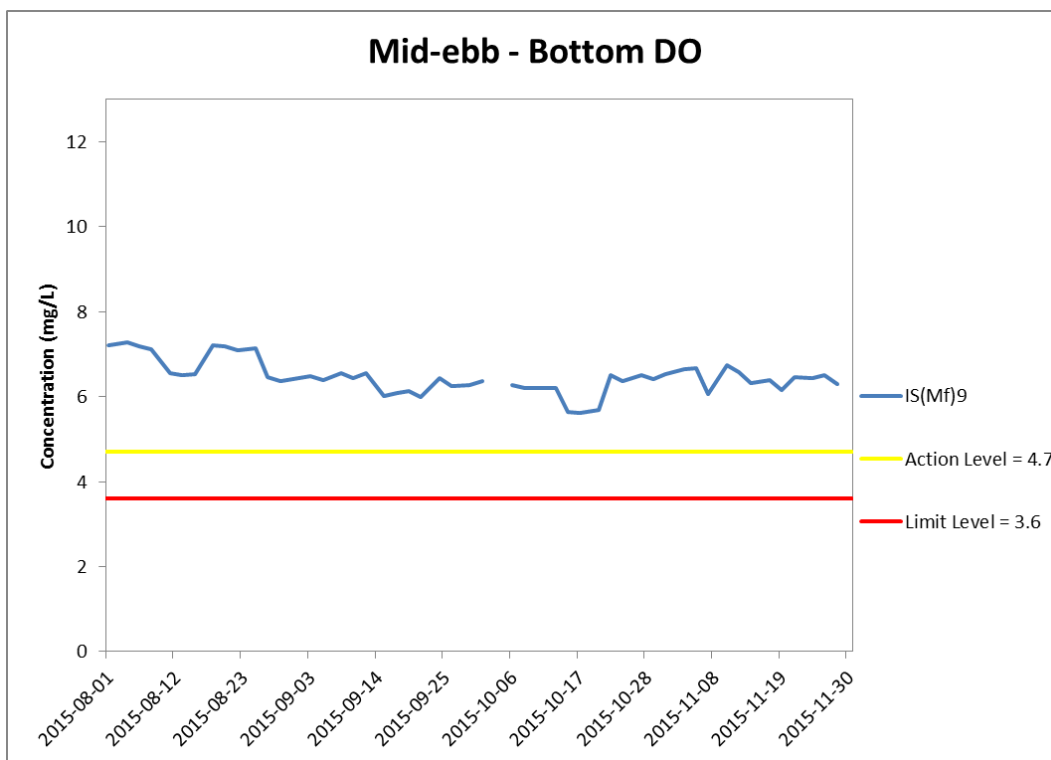
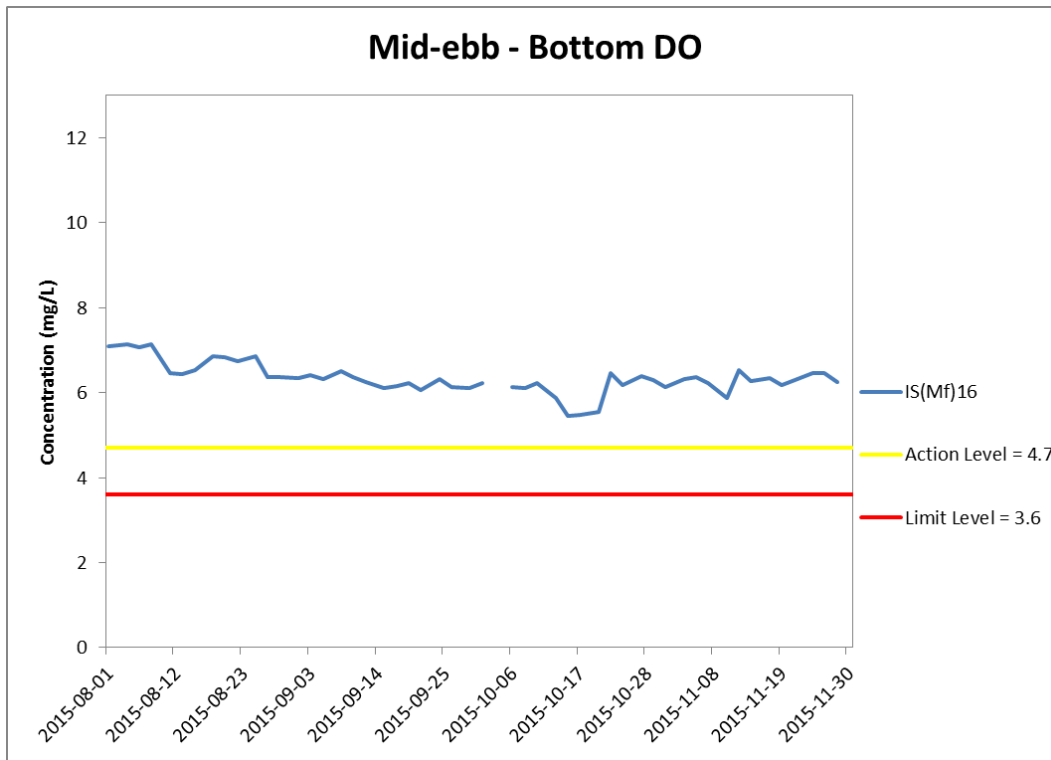


Figure J18 Impact Monitoring – Mean Level of Dissolved Oxygen (mg/L) in bottom waters during mid-flood tide between 1 August and 30 November 2015 at IS(Mf)16 and IS(Mf)9.

WQM was cancelled on 3 October 2015 due to adverse weather. (Weather condition varied between sunny to rainy within the reporting period.)

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

**Environmental
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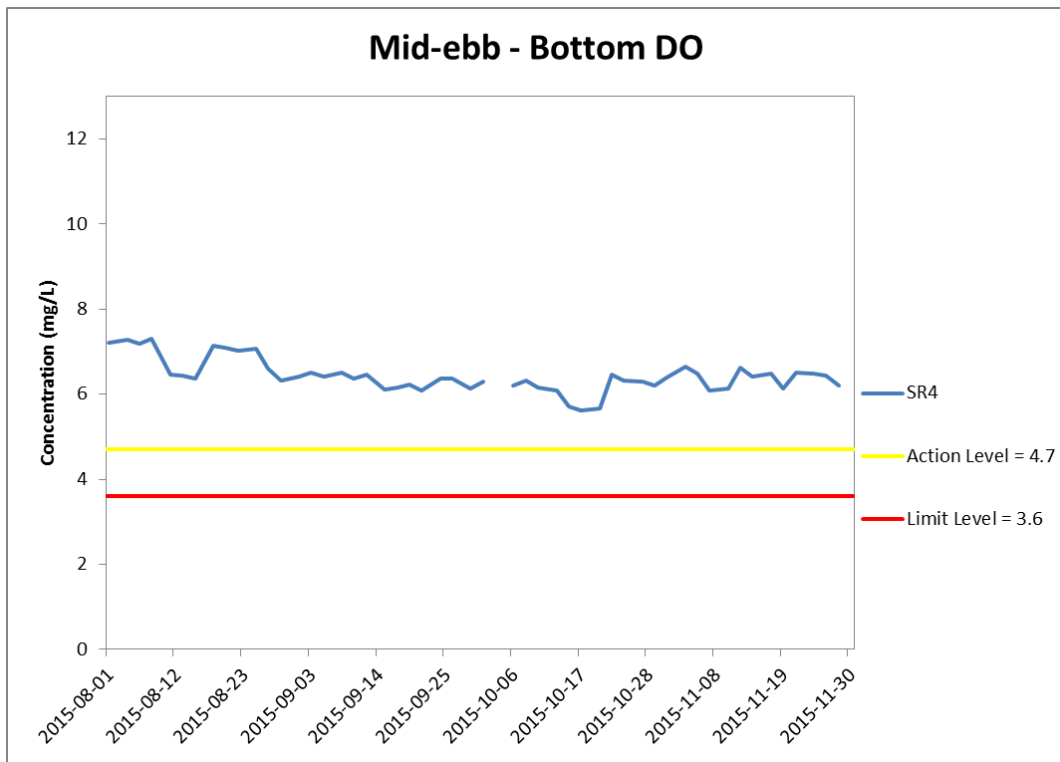
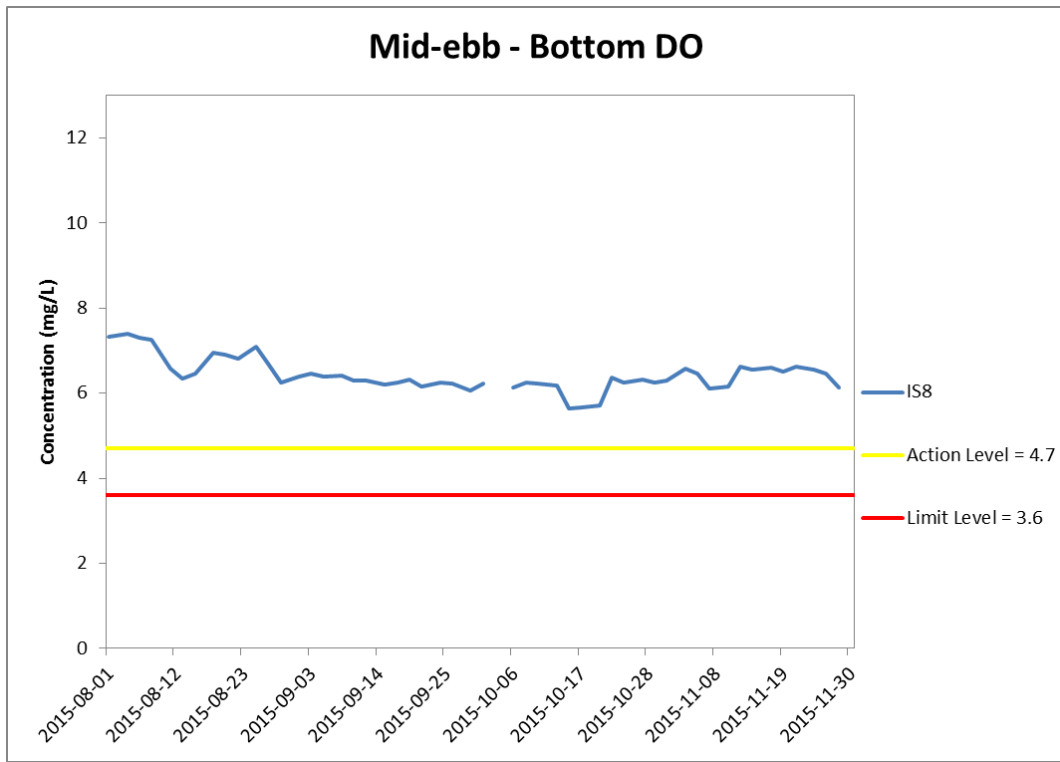


Figure J19 Impact Monitoring – Mean Level of Dissolved Oxygen (mg/L) in bottom waters during mid-flood tide between 1 August and 30 November 2015 at IS8 and SR4.

WQM was cancelled on 3 October 2015 due to adverse weather. (Weather condition varied between sunny to rainy within the reporting period.)

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

**Environmental
Resources
Management**



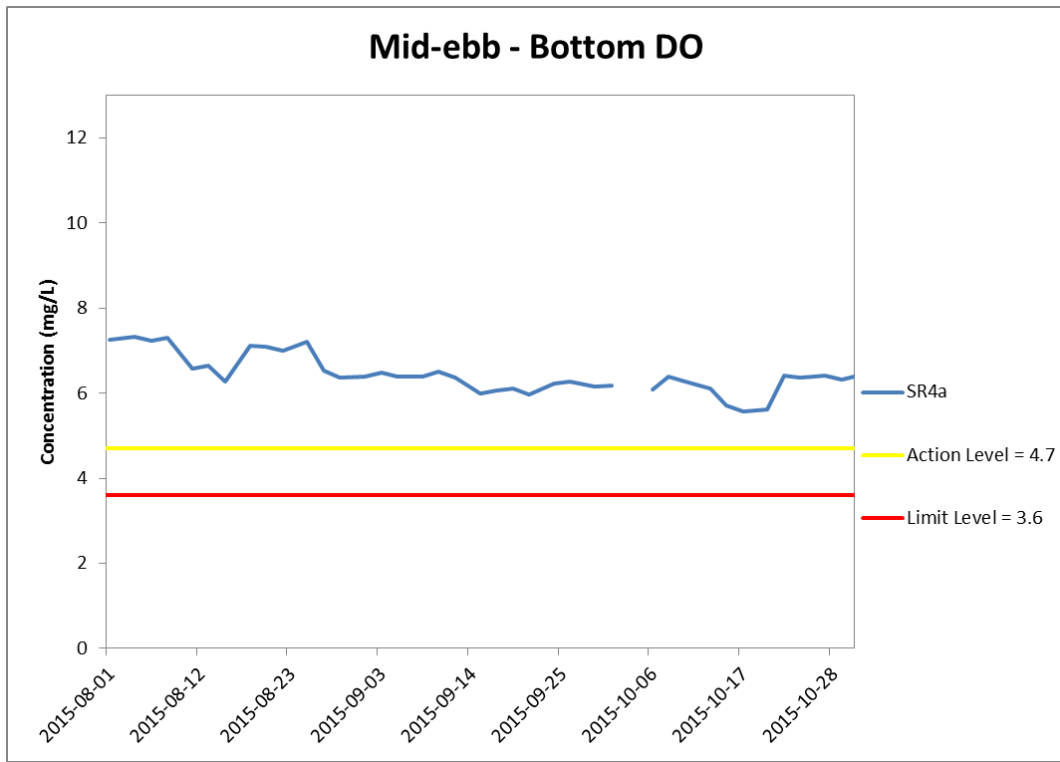


Figure J20 Impact Monitoring - Mean Level of Dissolved Oxygen (mg/L) in bottom waters during mid-flood tide between 1 August and 30 November 2015 at SR4a.

WQM was cancelled on 3 October 2015 due to adverse weather. (Weather condition varied between sunny to rainy within the reporting period.

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

**Environmental
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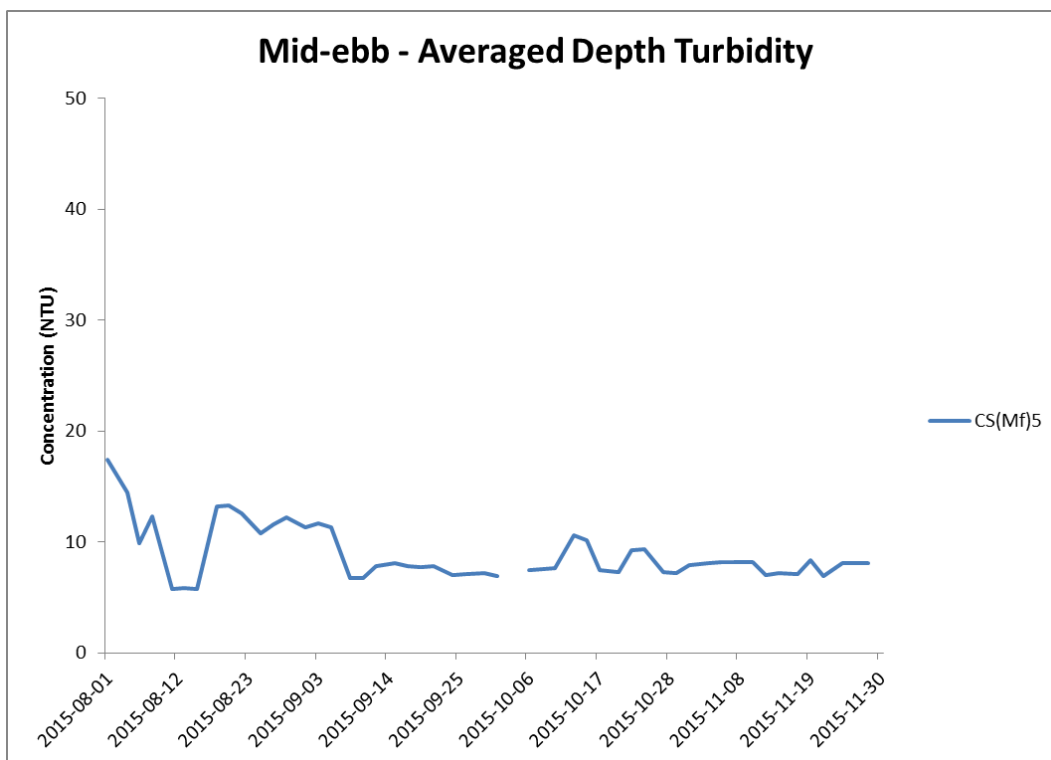
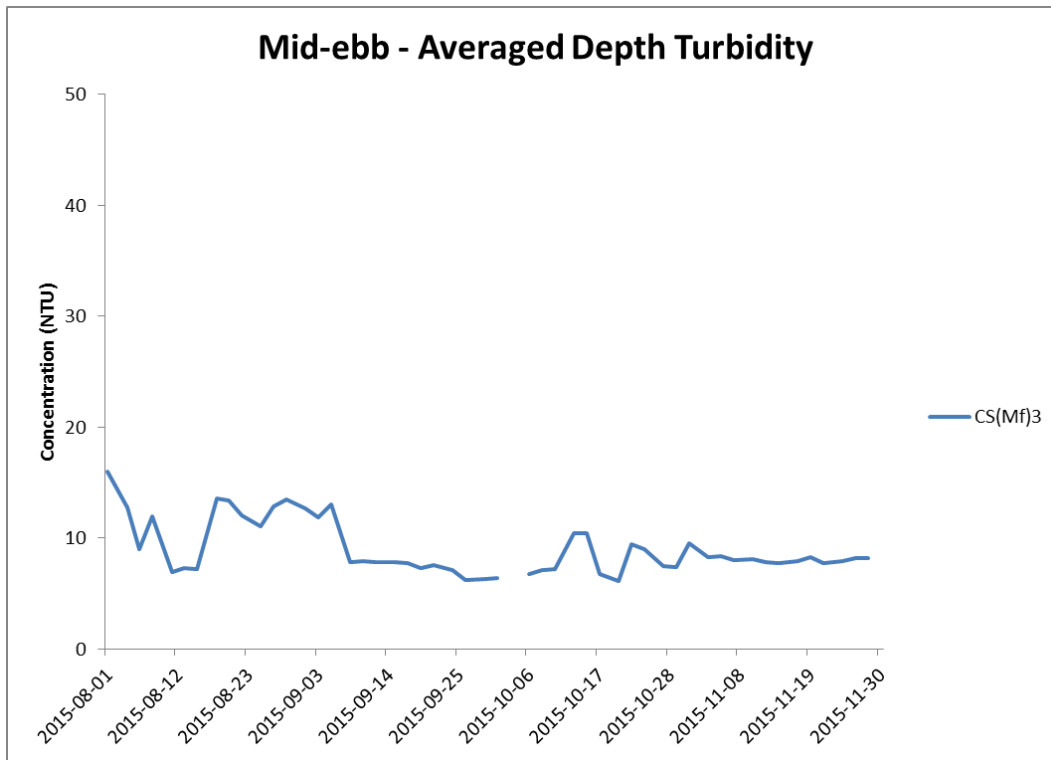


Figure J21 Impact Monitoring – Mean Level of depth-averaged Turbidity (NTU) during mid-ebb tide between 1 August and 30 November 2015 at CS(Mf)3 and CS(Mf)5.

WQM was cancelled on 3 October 2015 due to adverse weather. (Weather condition varied between sunny to rainy within the reporting period.)

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

**Environmental
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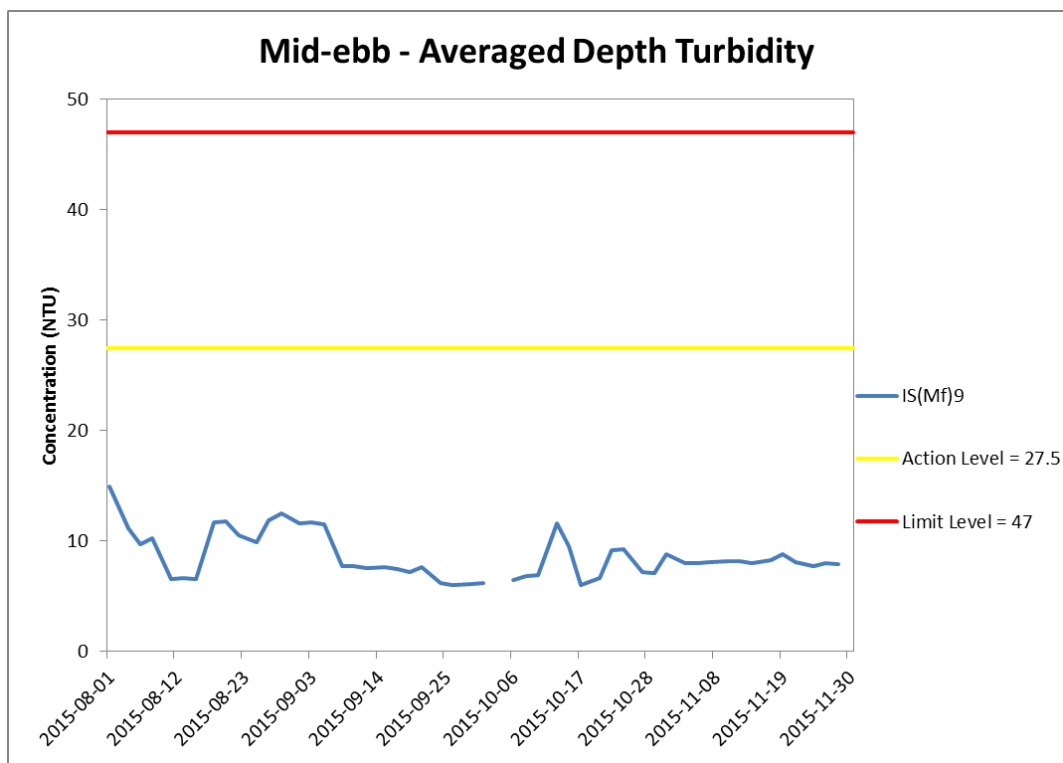
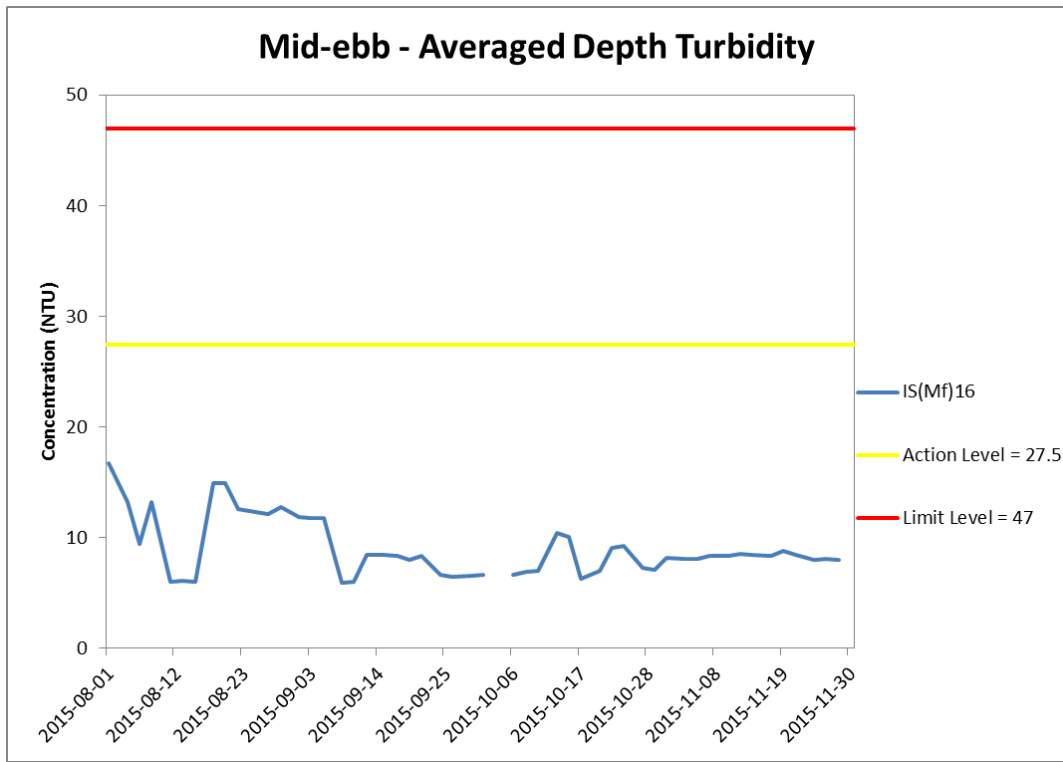


Figure J22 Impact Monitoring – Mean Level of depth-averaged Turbidity (NTU) during mid-ebb tide between 1 August and 30 November 2015 at IS(Mf)16 and IS(Mf)9.

WQM was cancelled on 3 October 2015 due to adverse weather. (Weather condition varied between sunny to rainy within the reporting period.)

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

**Environmental
Resources
Management**



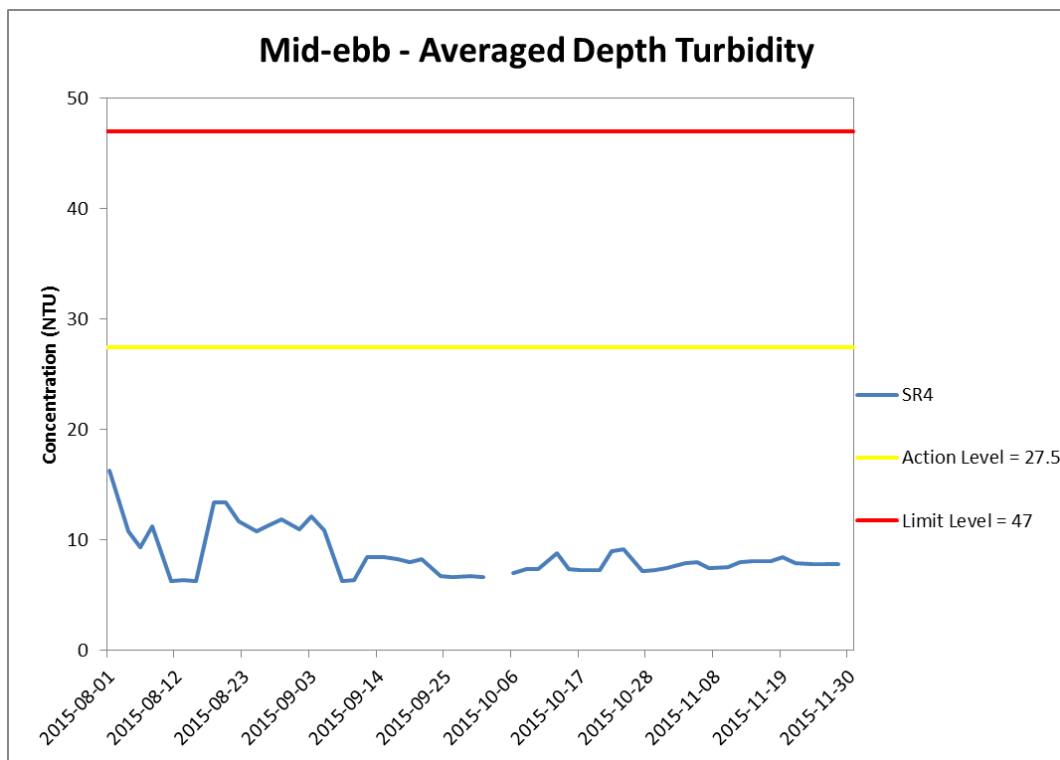
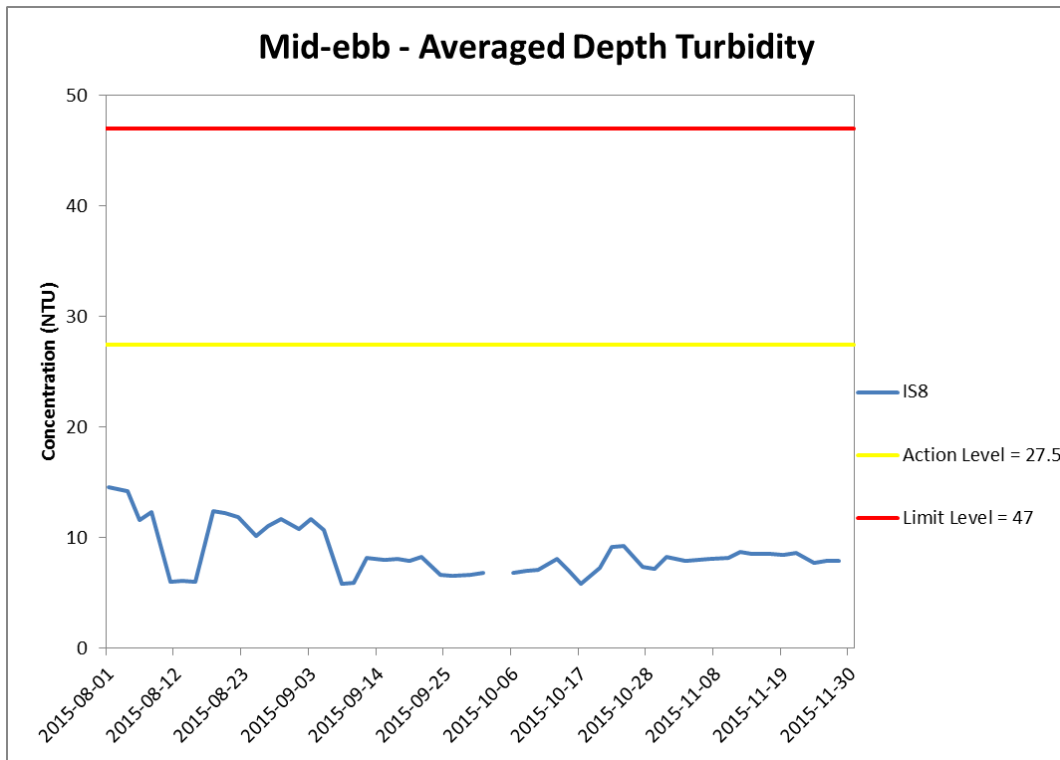


Figure J23 Impact Monitoring - Mean Level of depth-averaged Turbidity (NTU) during mid-ebb tide between 1 August and 30 November 2015 at IS8 and SR4.

WQM was cancelled on 3 October 2015 due to adverse weather. (Weather condition varied between sunny to rainy within the reporting period.)

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

**Environmental
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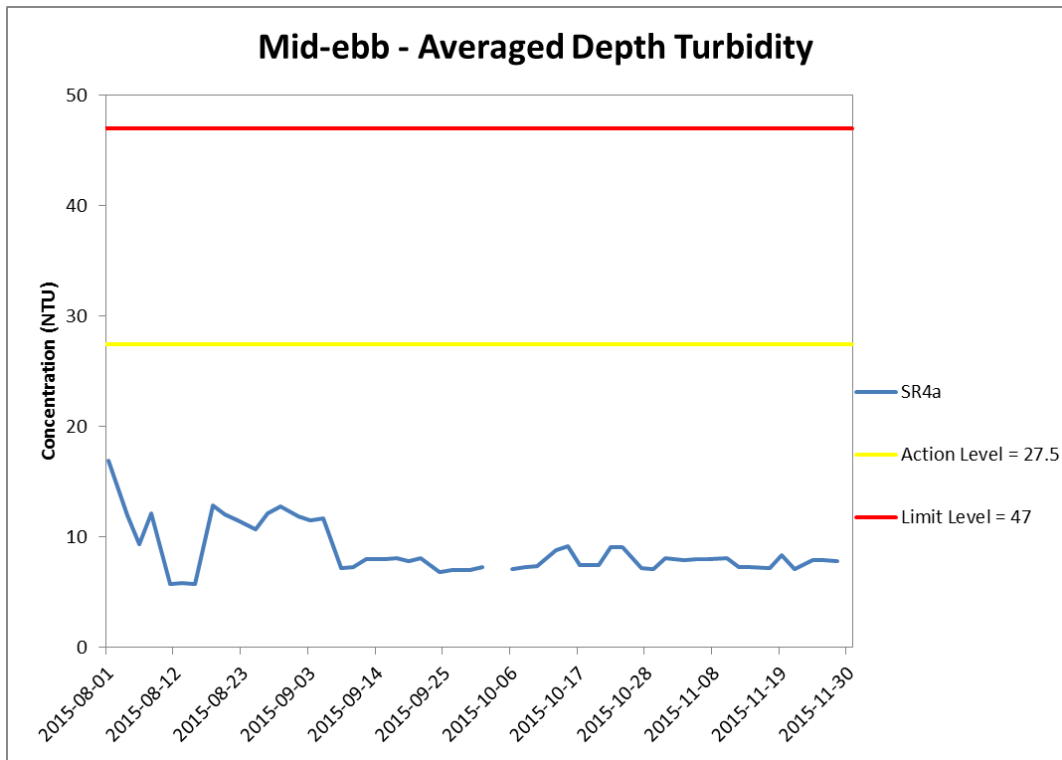


Figure J24 Impact Monitoring - Mean Level of depth-averaged Turbidity (NTU) during mid-ebb tide between 1 August and 30 November 2015 at SR4a.

WQM was cancelled on 3 October 2015 due to adverse weather. (Weather condition varied between sunny to rainy within the reporting period.)

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

**Environmental
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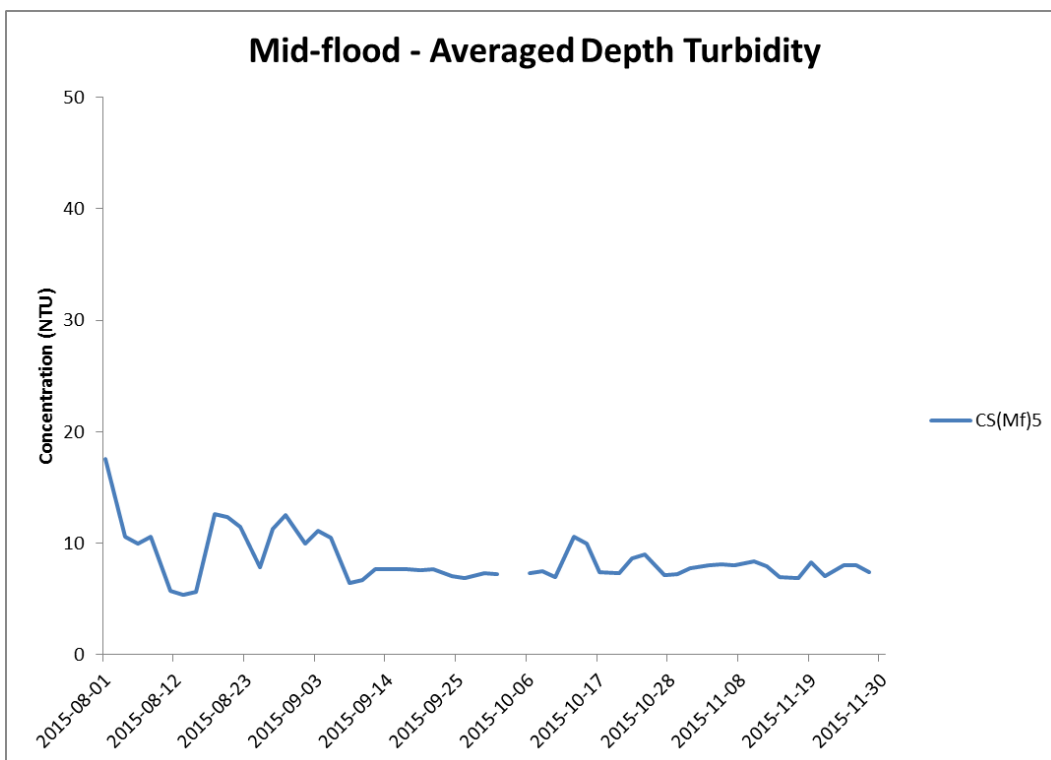
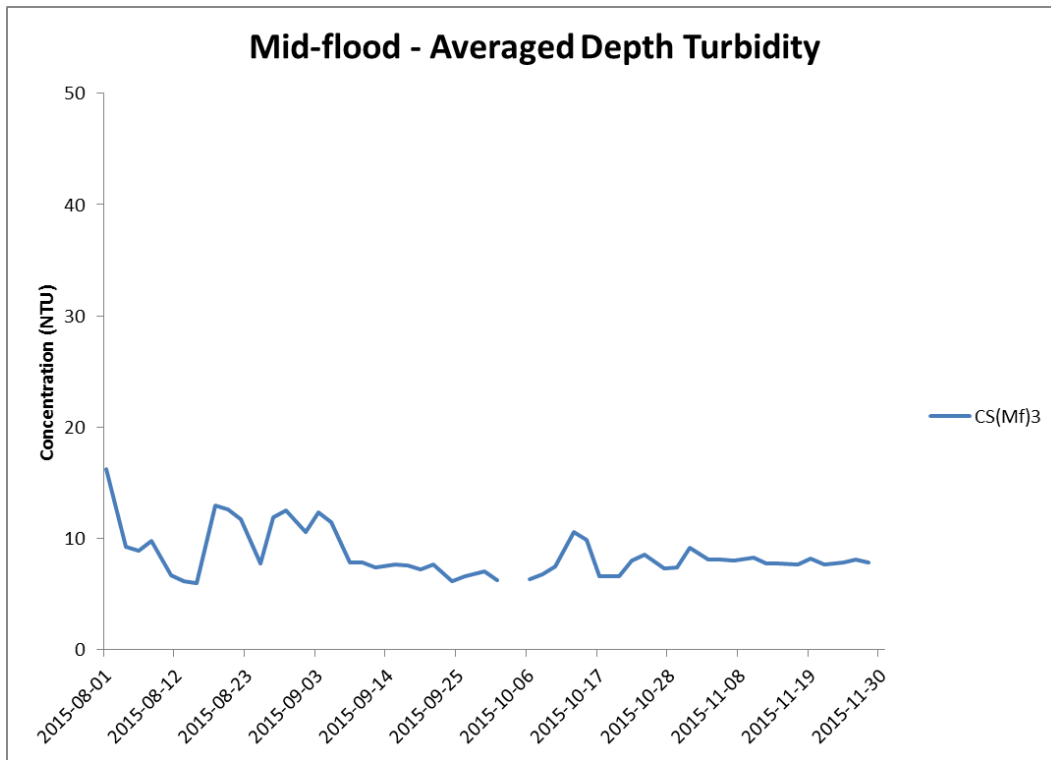


Figure J25 Impact Monitoring – Mean Level of depth-averaged Turbidity (NTU) during mid-flood tide between 1 August and 30 November 2015 at CS(Mf)3 and CS(MF)5.

WQM was cancelled on 3 October 2015 due to adverse weather. (Weather condition varied between sunny to rainy within the reporting period.)

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

**Environmental
Resources
Management**



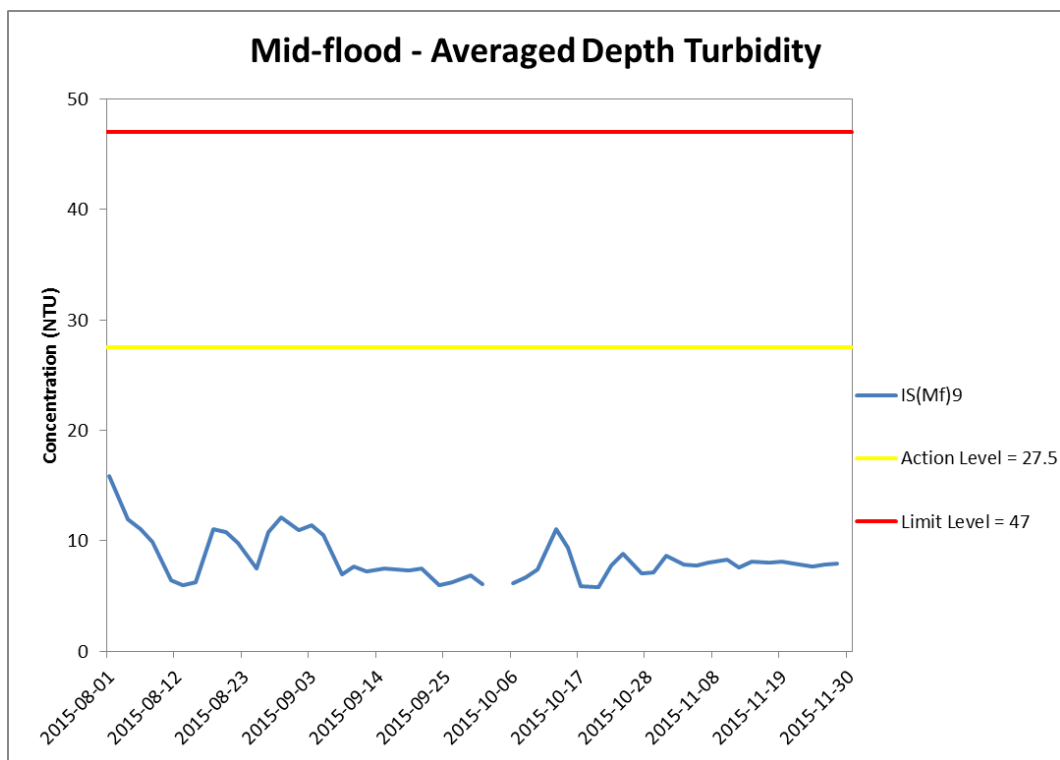
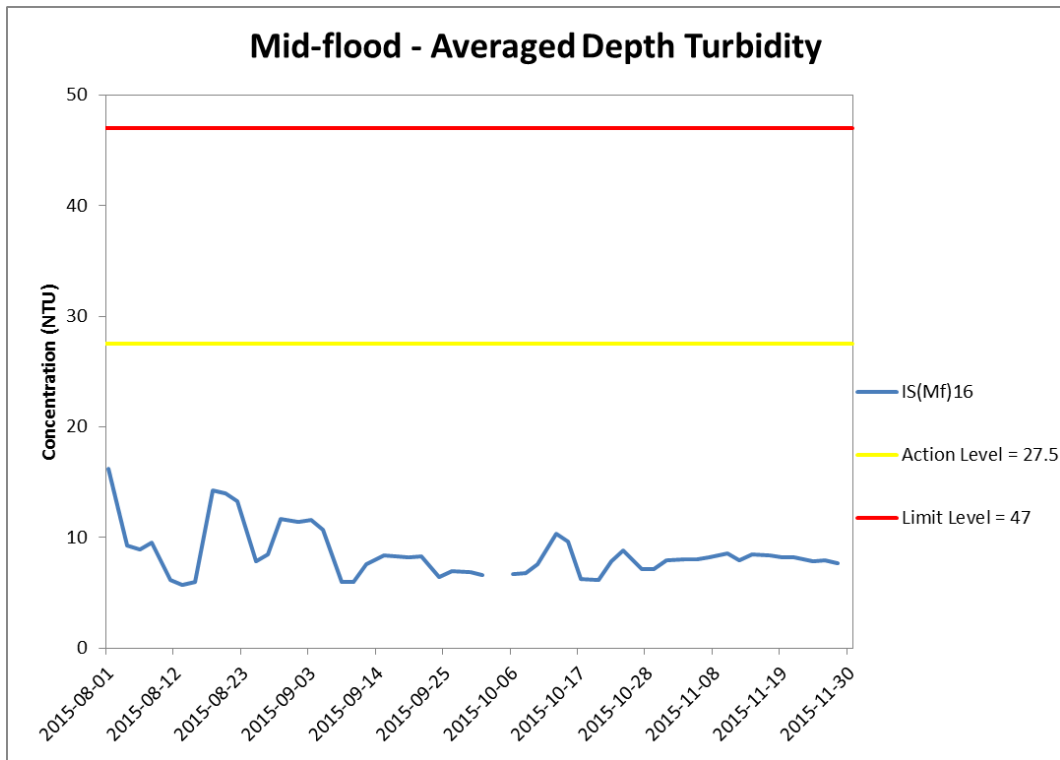


Figure J26 Impact Monitoring - Mean Level of depth-averaged Turbidity (NTU) during mid-flood tide between 1 August and 30 November 2015 at IS(Mf)16 and IS(Mf)9.

WQM was cancelled on 3 October 2015 due to adverse weather. (Weather condition varied between sunny to rainy within the reporting period.)

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

**Environmental
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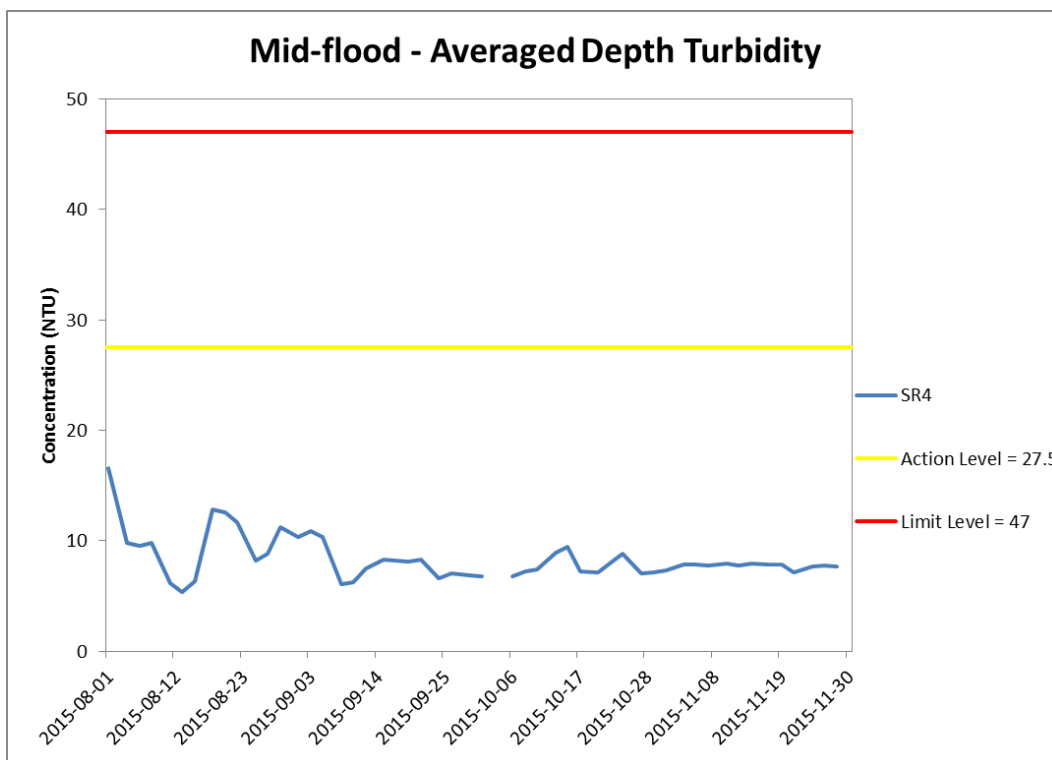
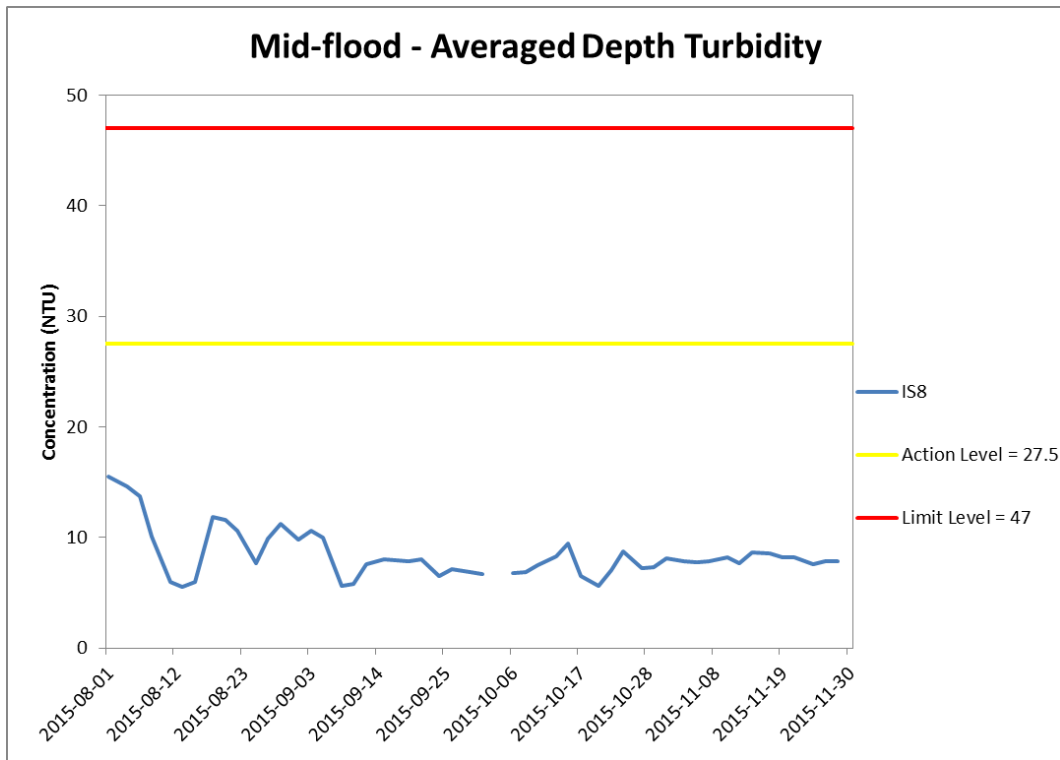


Figure J27 Impact Monitoring – Mean Level of depth-averaged Turbidity (NTU) during mid-flood tide between 1 August and 30 November 2015 at IS8 and SR4.

WQM was cancelled on 3 October 2015 due to adverse weather. (Weather condition varied between sunny to rainy within the reporting period.)

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

**Environmental
Resources
Management**



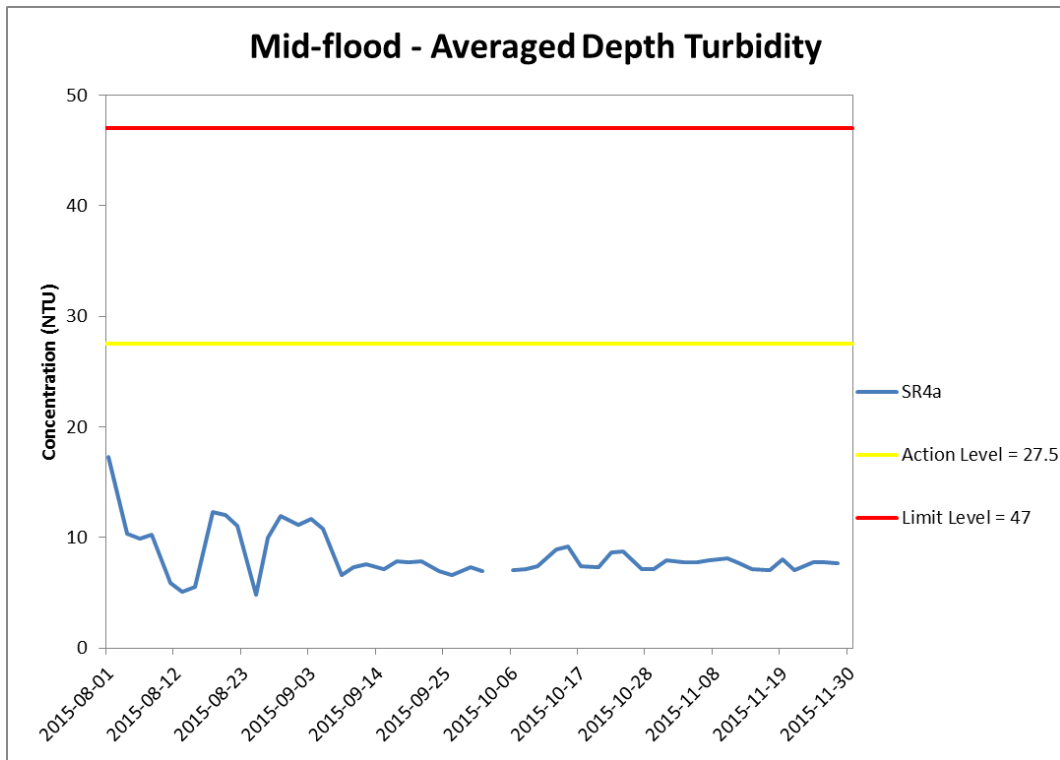


Figure J28 Impact Monitoring - Mean Level of depth-averaged Turbidity (NTU) during mid-flood tide between 1 August and 30 November 2015 at SR4a.

WQM was cancelled on 3 October 2015 due to adverse weather. (Weather condition varied between sunny to rainy within the reporting period.)
Marine works within the reporting period include Construction and installation of pile caps; Uninstallation of marine piling platform; Pile cap installation; Pier construction; Launching gantry operation and; Installation of deck segment and pier head segment)

**Environmental
Resources
Management**



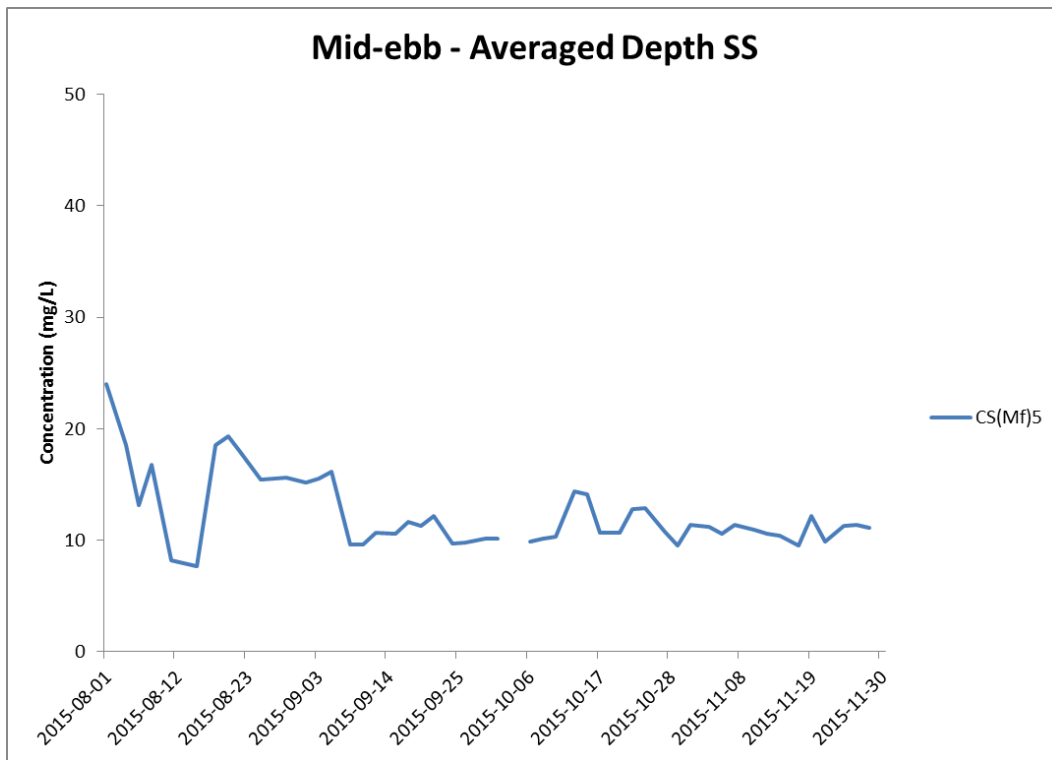
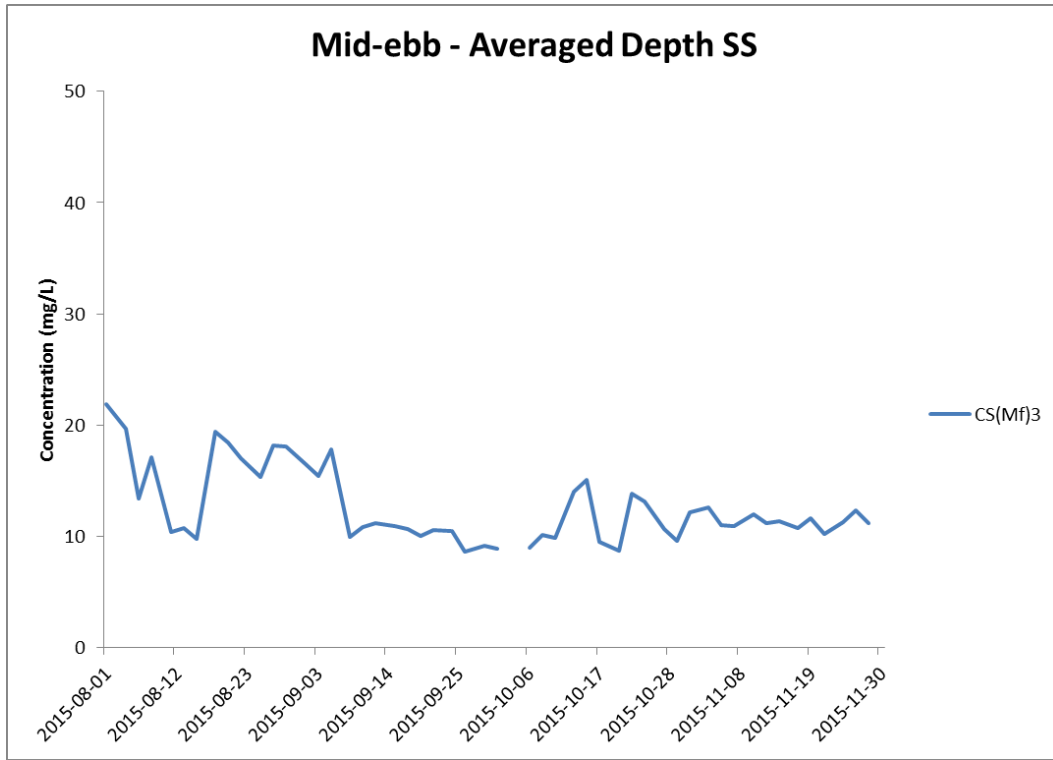


Figure J29 Impact Monitoring – Mean depth-averaged level of Suspended Solids (mg/L) during mid-ebb tide between 1 August and 30 November 2015 at CS(Mf)3 and CS(Mf)5.

WQM was cancelled on 3 October 2015 due to adverse weather. (Weather condition varied between sunny to rainy within the reporting period.)

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

**Environmental
Resources
Management**



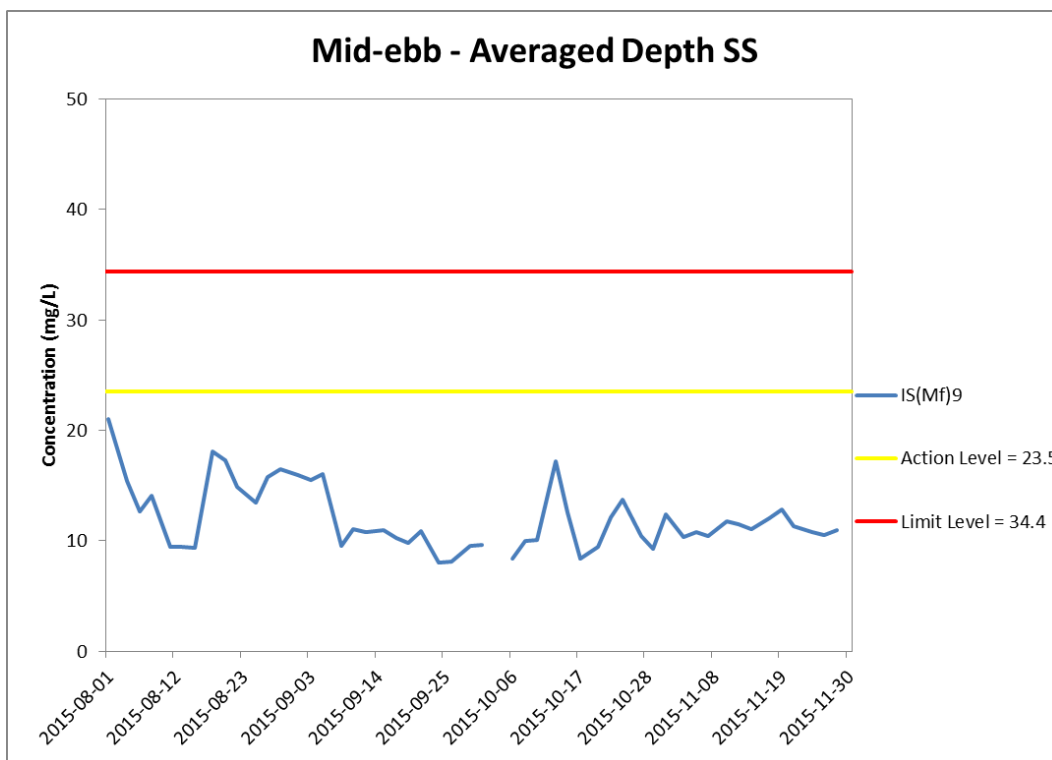
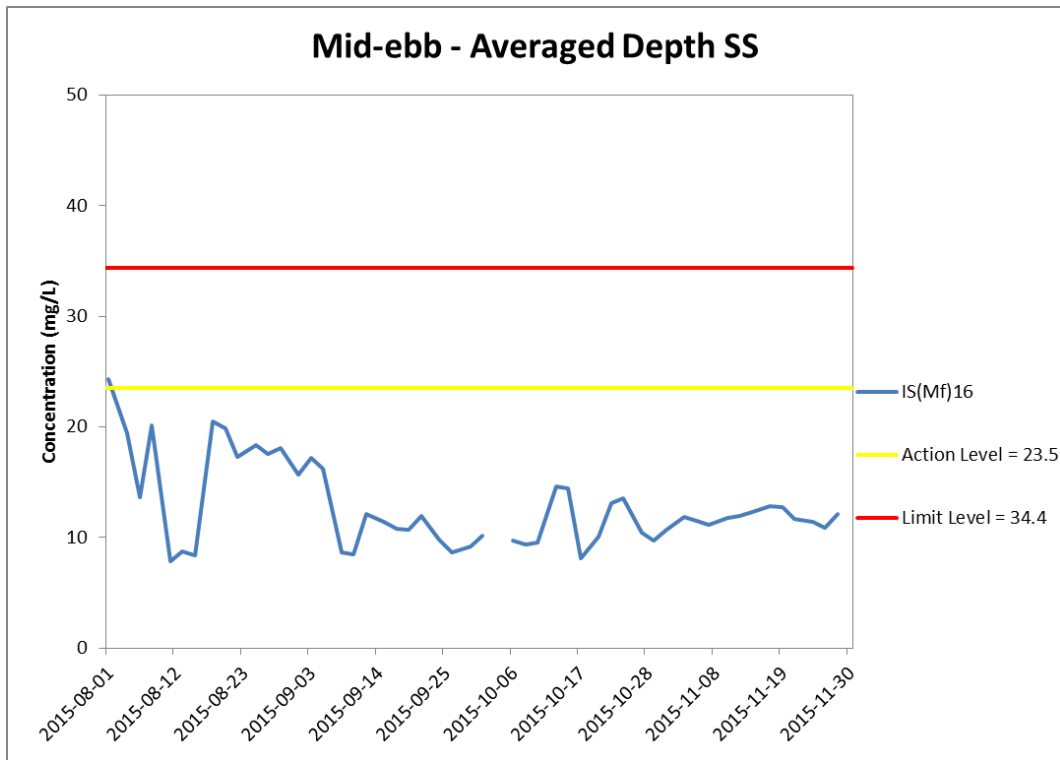


Figure J30 Impact Monitoring – Mean depth-averaged level of Suspended Solids (mg/L) during mid-ebb tide between 1 August and 30 November 2015 at IS(Mf)16 and IS(Mf)9.

WQM was cancelled on 3 October 2015 due to adverse weather. (Weather condition varied between sunny to rainy within the reporting period.)

Marine works within the reporting period include Construction and installation of pile caps; Uninstallation of marine piling platform; Pile cap installation; Pier construction; Launching gantry operation and; Installation of deck segment and pier head segment). The SS results higher than Action / Limit Levels were not considered as exceedances as the results were not higher than 120% of upstream control station.

Environmental Resources Management



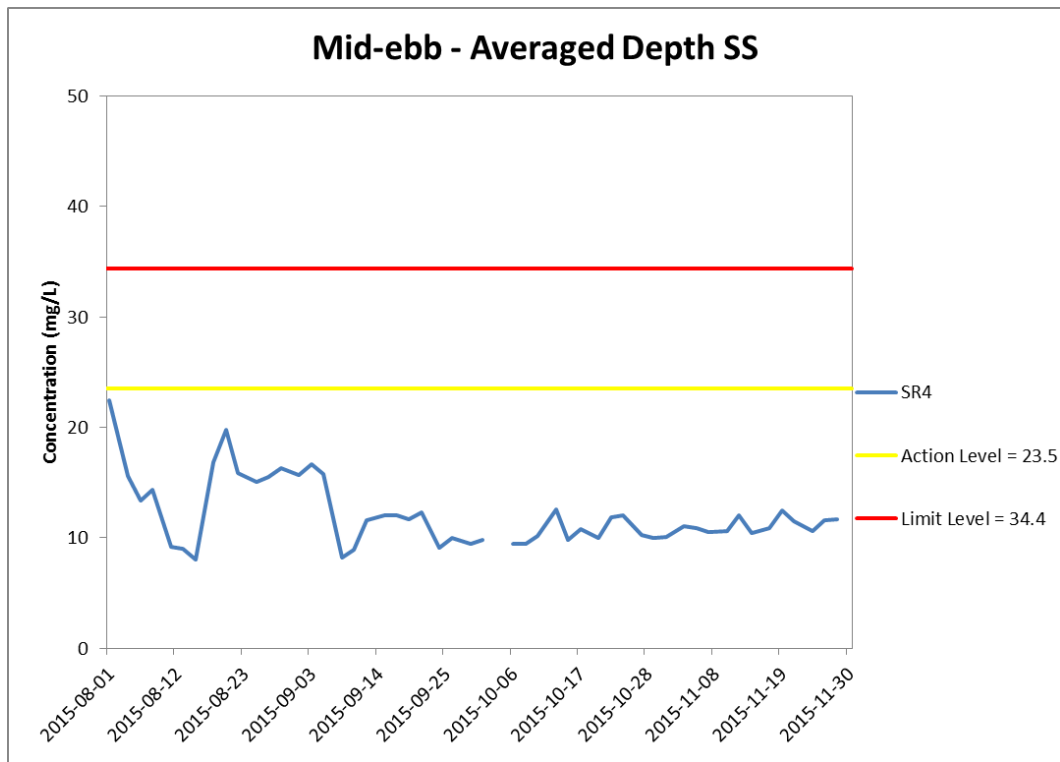
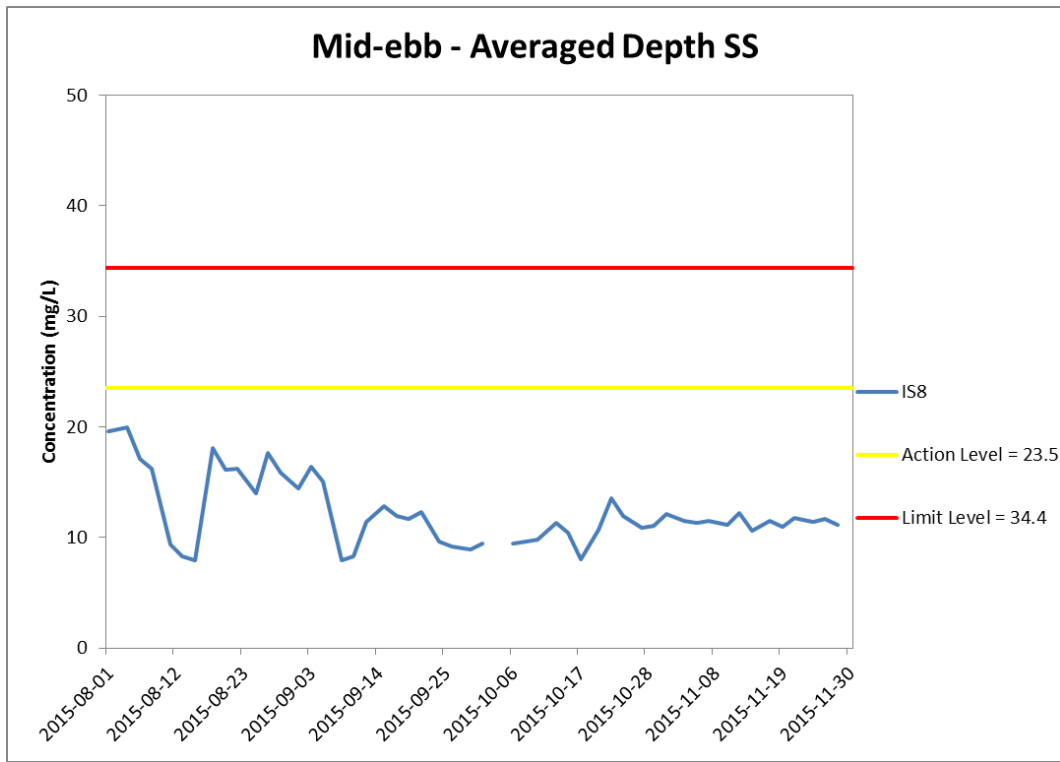


Figure J31 Impact Monitoring - Mean depth-averaged level of Suspended Solids (mg/L) during mid-ebb tide between 1 August and 30 November 2015 at IS8 and SR4.

WQM was cancelled on 3 October 2015 due to adverse weather. (Weather condition varied between sunny to rainy within the reporting period.)

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

**Environmental
Resources
Management**



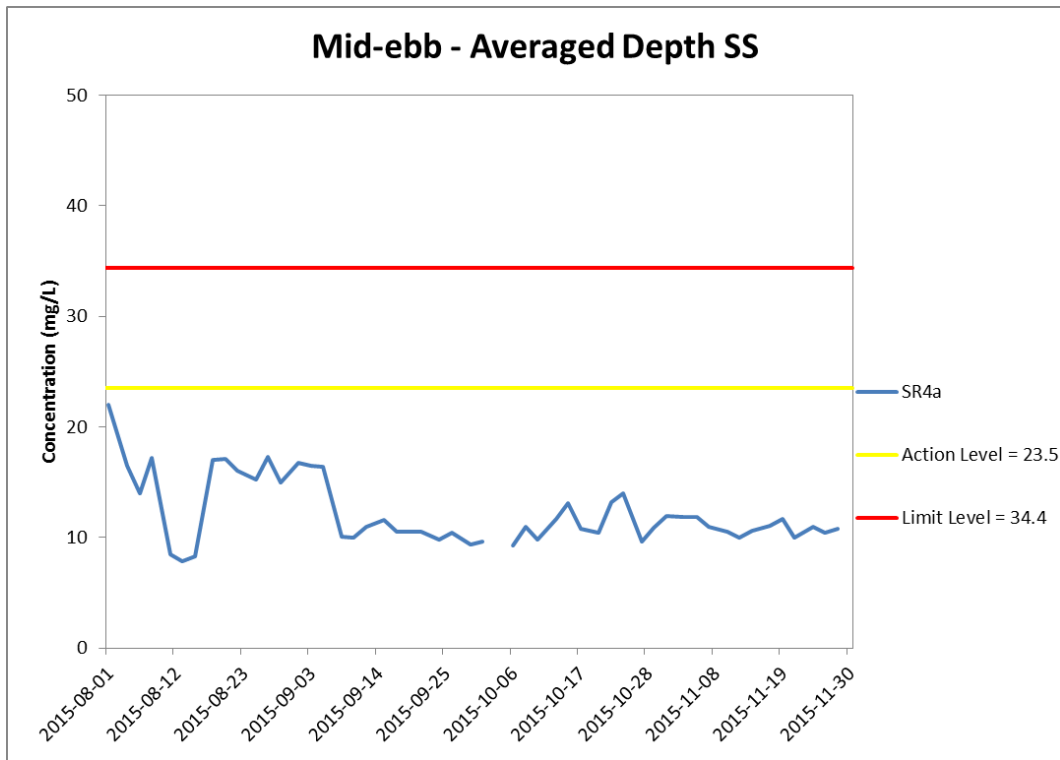


Figure J32 Impact Monitoring - Mean depth-averaged level of Suspended Solids (mg/L) during mid-ebb tide between 1 August and 30 November 2015 at SR4a.

WQM was cancelled on 3 October 2015 due to adverse weather. (Weather condition varied between sunny to rainy within the reporting period.)
Marine works within the reporting period include Construction and installation of pile caps; Uninstallation of marine piling platform; Pile cap installation; Pier construction; Launching gantry operation and; Installation of deck segment and pier head segment)

**Environmental
Resources
Management**



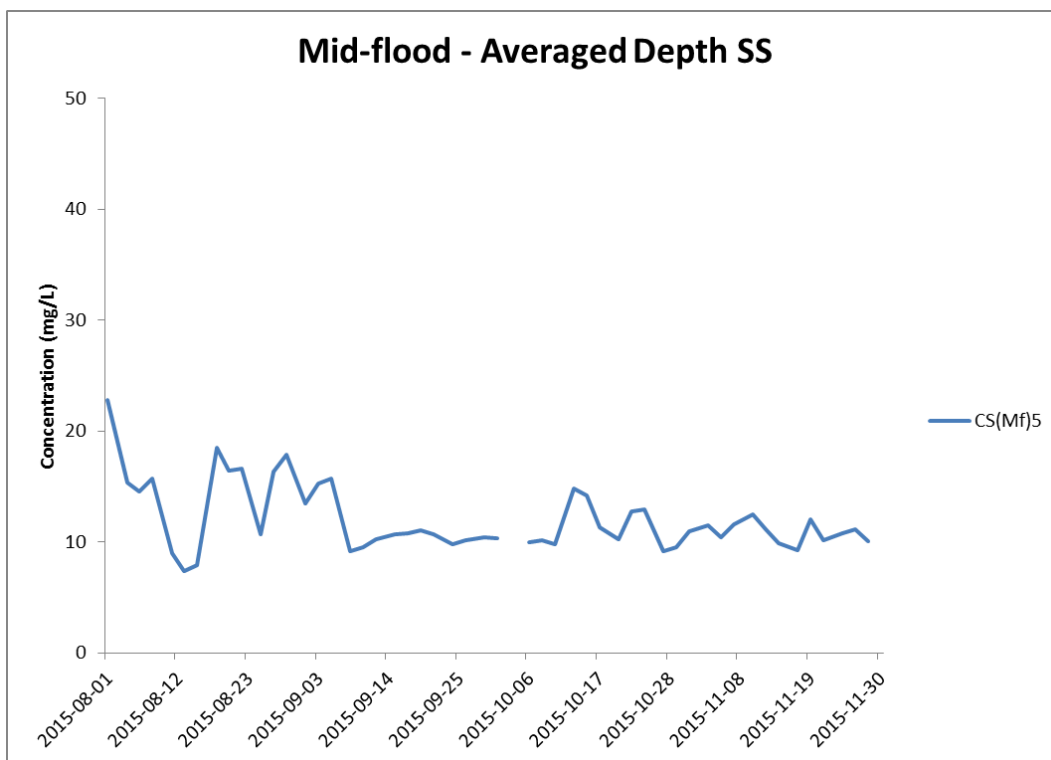
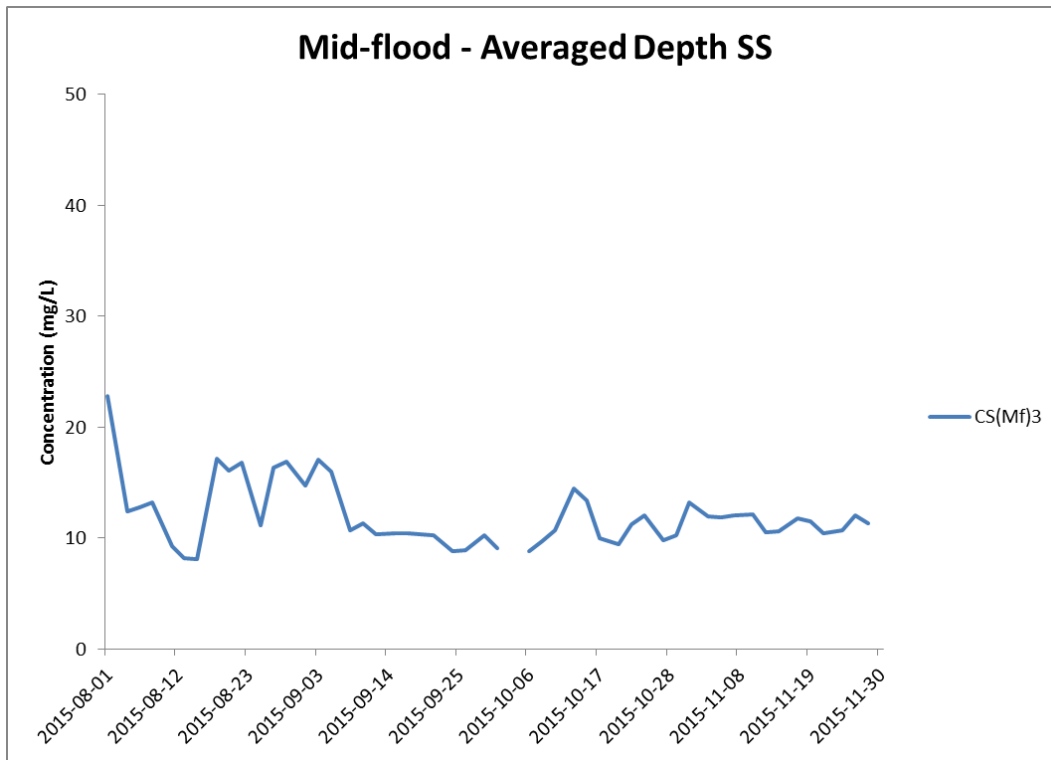


Figure J33 Impact Monitoring – Mean depth-averaged level of Suspended Solids (mg/L) during mid-flood tide between 1 August and 30 November 2015 at CS(Mf)3 and CS(Mf)5.

WQM was cancelled on 3 October 2015 due to adverse weather. (Weather condition varied between sunny to rainy within the reporting period.)

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

**Environmental
Resources
Management**



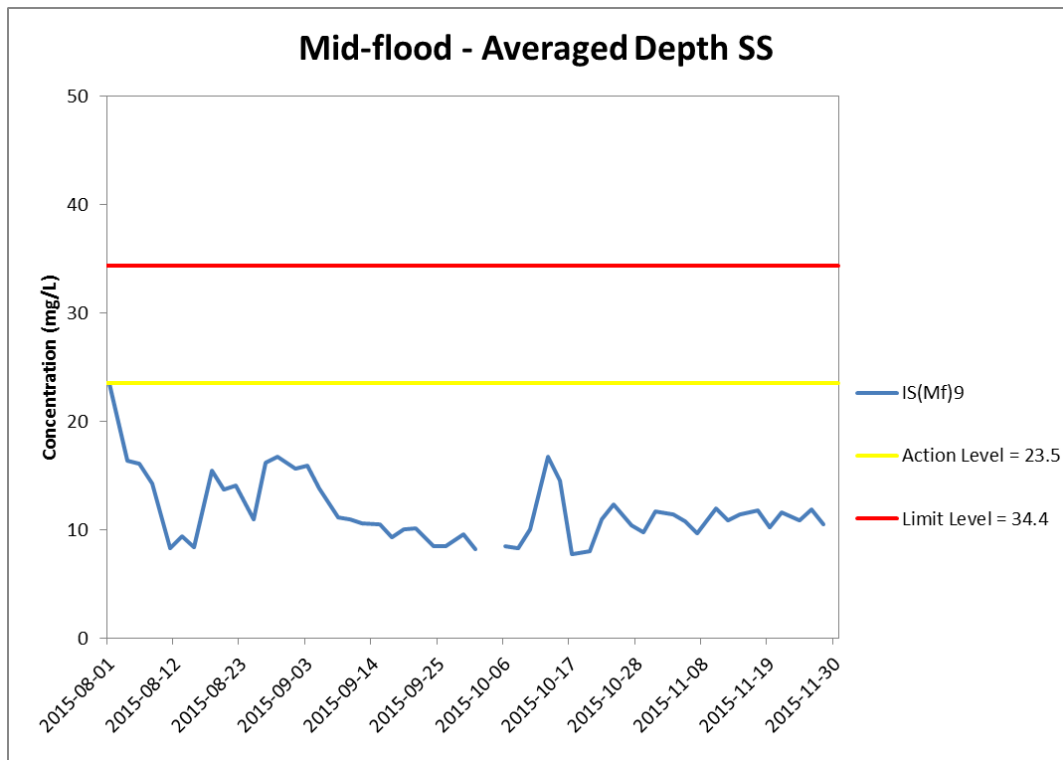
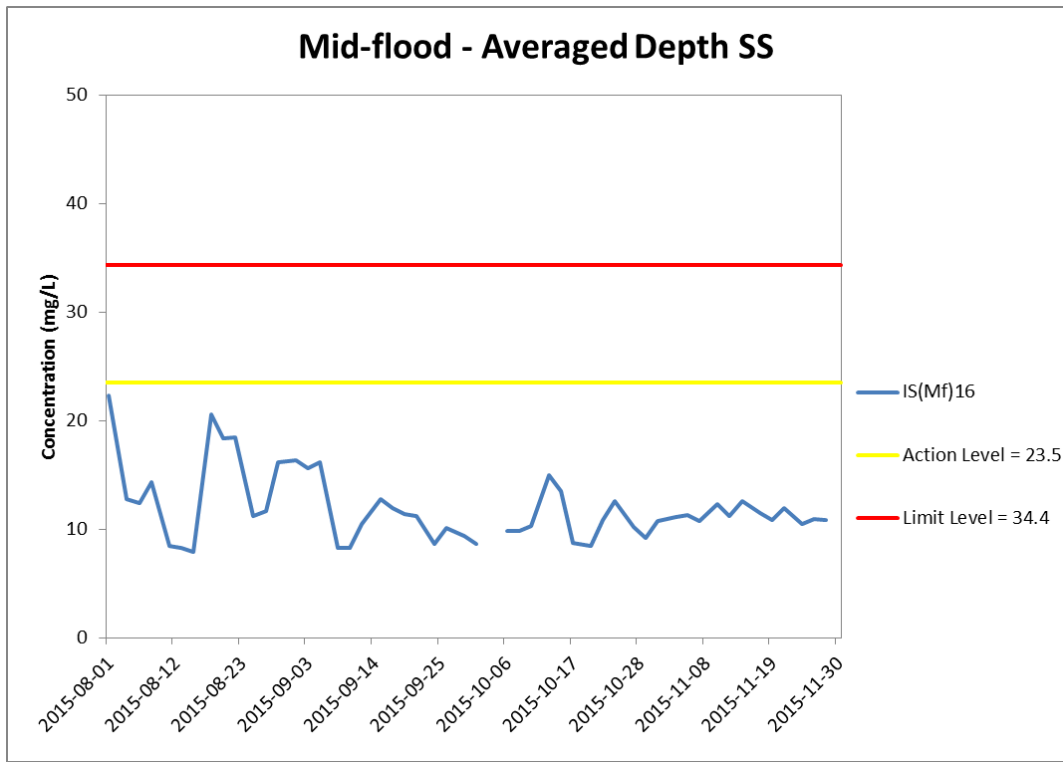


Figure J34 Impact Monitoring - Mean depth-averaged level of Suspended Solids (mg/L) during mid-flood tide between 1 August and 30 November 2015 at IS(Mf)16 and IS(Mf)9.

WQM was cancelled on 3 October 2015 due to adverse weather. (Weather condition varied between sunny to rainy within the reporting period.)

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

**Environmental
Resources
Management**



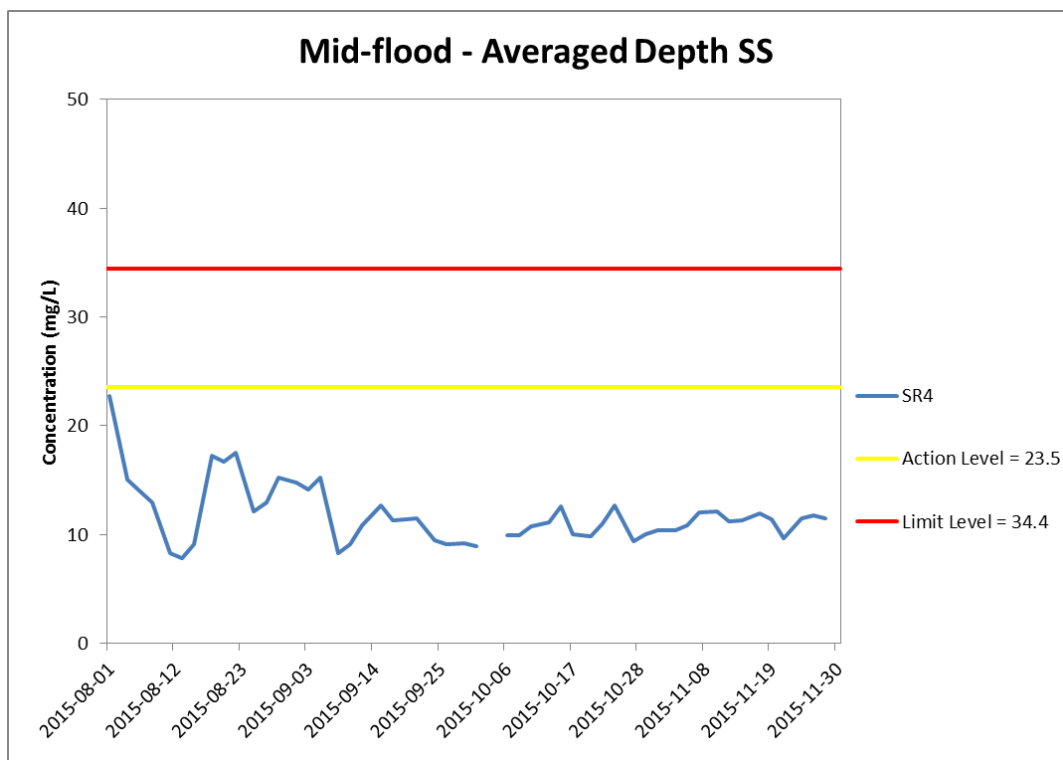
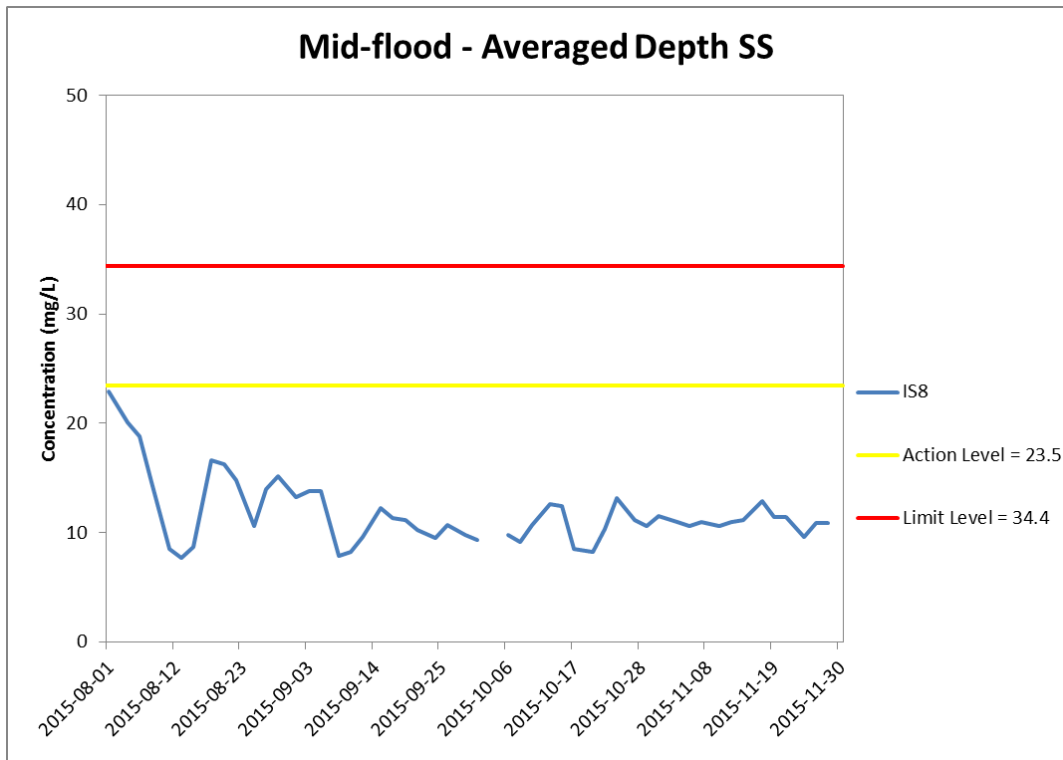


Figure J35 Impact Monitoring - Mean depth-averaged level of Suspended Solids (mg/L) during mid-flood tide between 1 August and 30 November 2015 at IS8 and SR4.

WQM was cancelled on 3 October 2015 due to adverse weather. (Weather condition varied between sunny to rainy within the reporting period.)

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

**Environmental
Resources
Management**



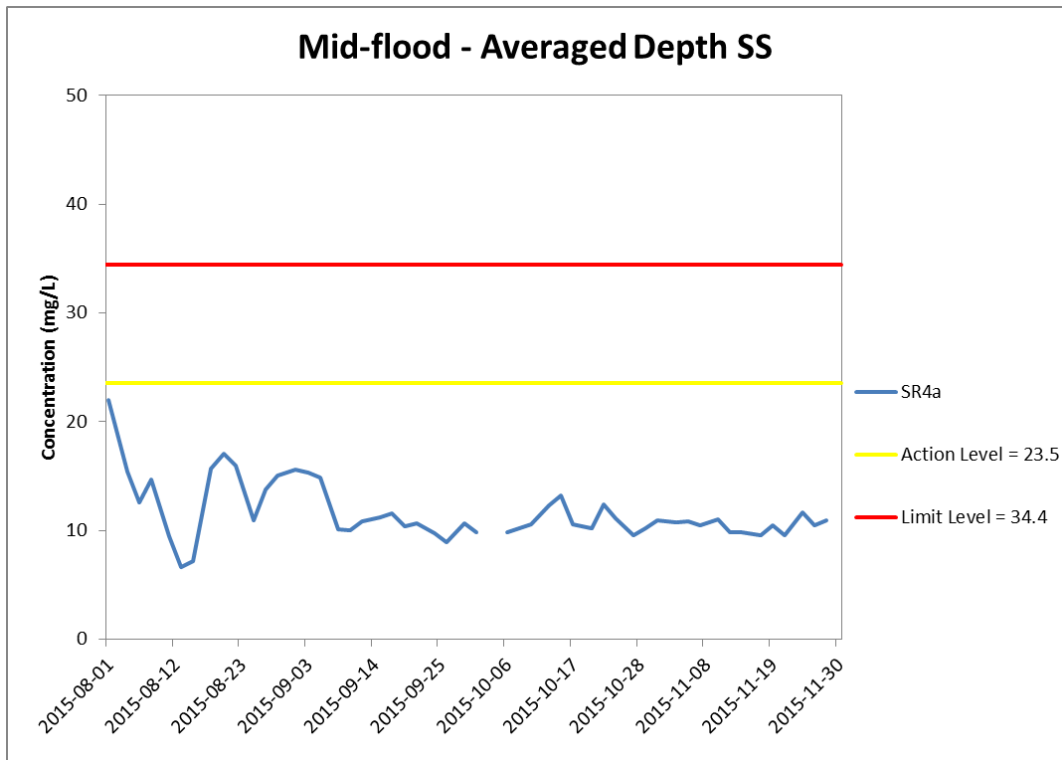


Figure J36 Impact Monitoring – Mean depth-averaged level of Suspended Solids (mg/L) during mid-flood tide between 1 August and 30 November 2015 at SR4a.

WQM was cancelled on 3 October 2015 due to adverse weather. (Weather condition varied between sunny to rainy within the reporting period.)

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

**Environmental
Resources
Management**



Appendix K

Impact Dolphin Monitoring Survey Results

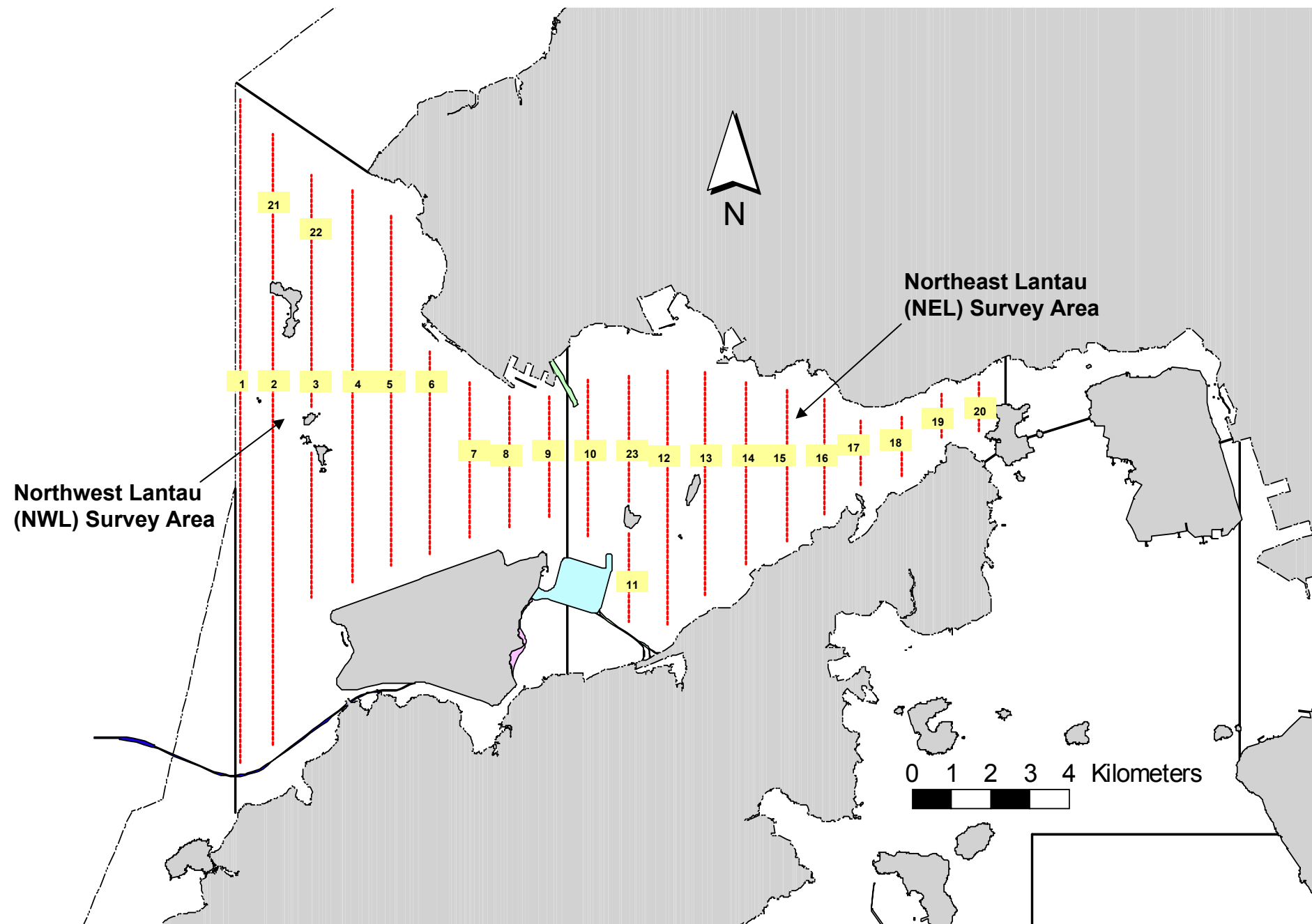


Figure 1. Transect Line Layout in Northwest and Northeast Lantau Survey Areas

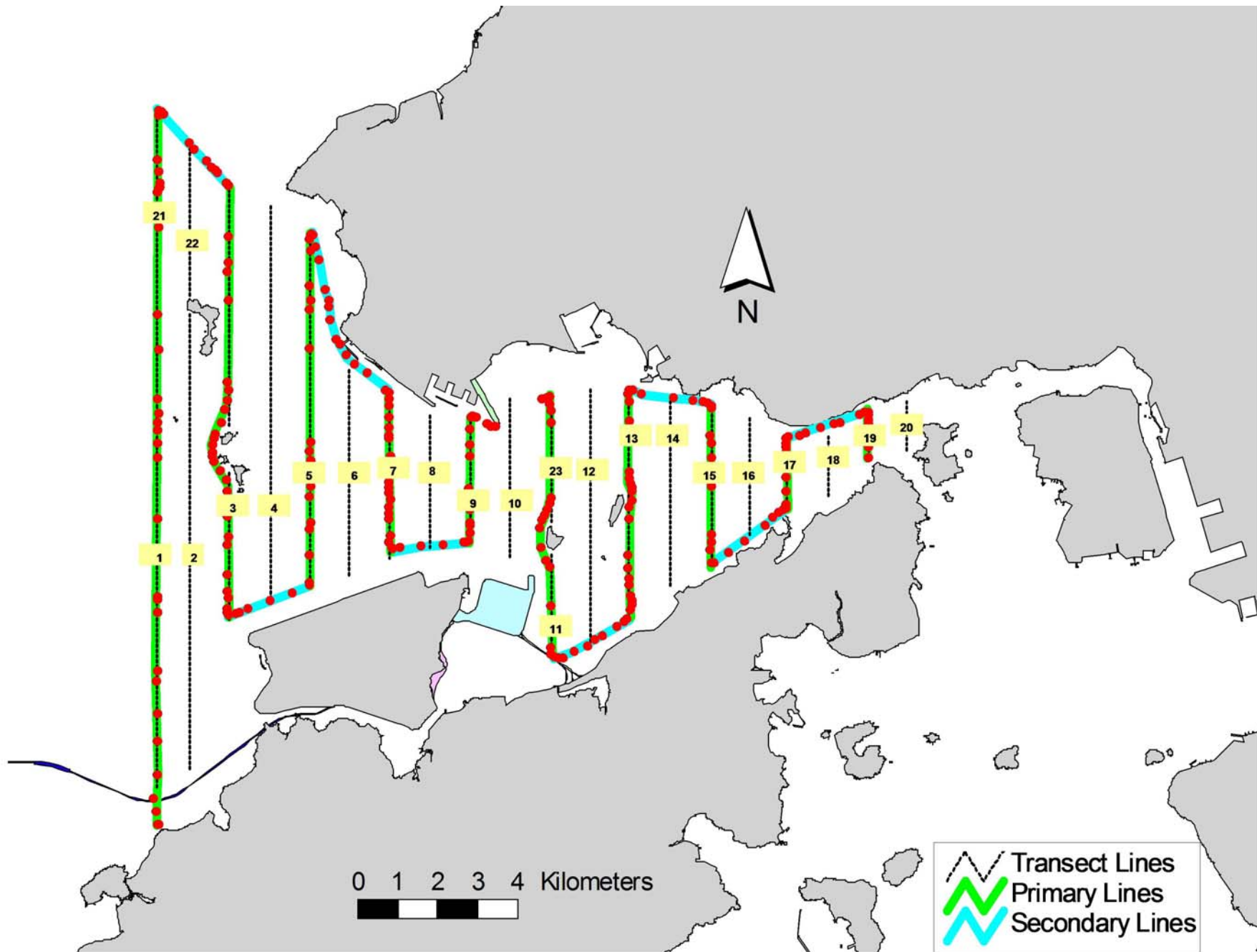


Figure 2. Survey Route on November 2nd, 2015 (from HKLR03 project)

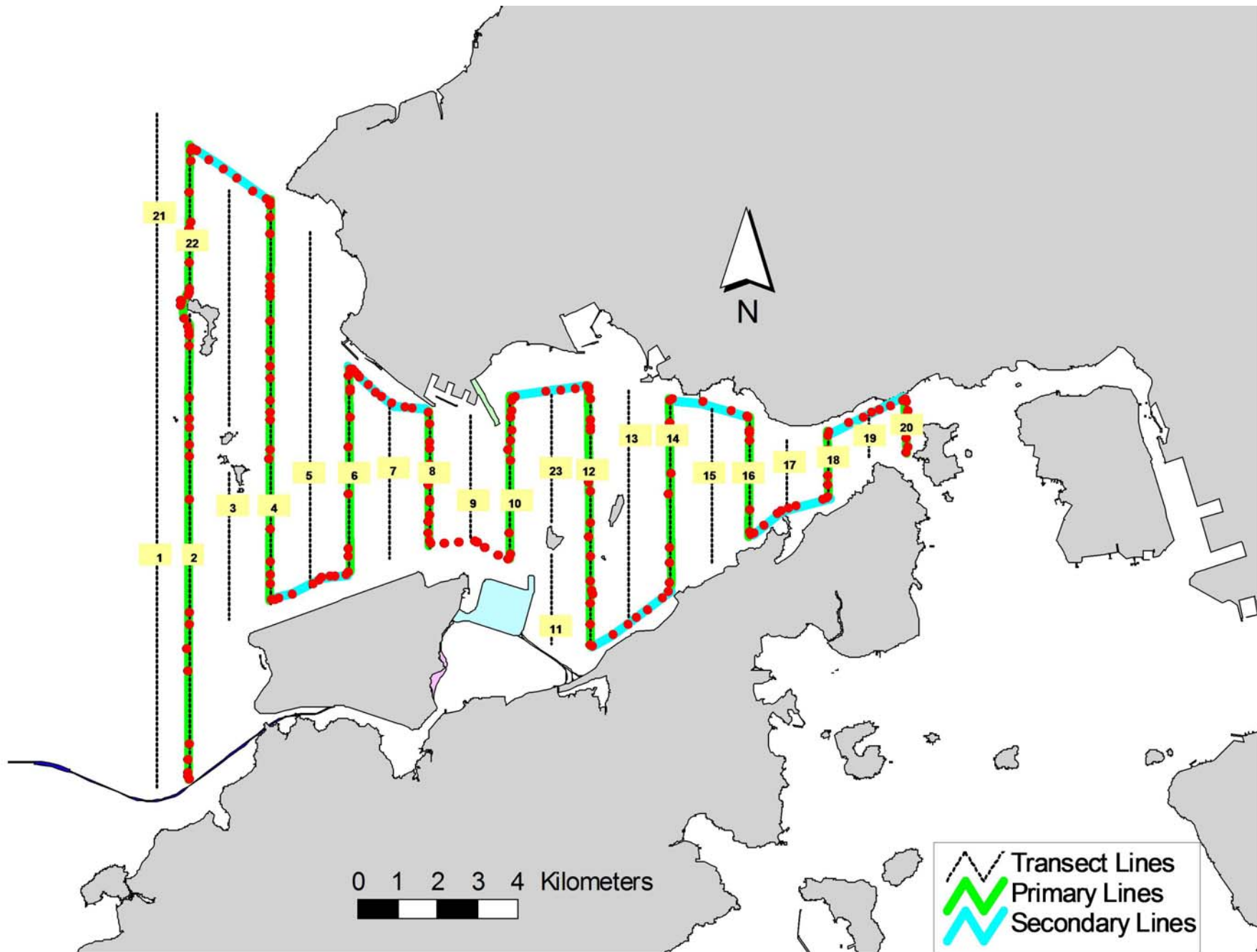


Figure 3. Survey Route on November 6th, 2015 (from HKLR03 project)

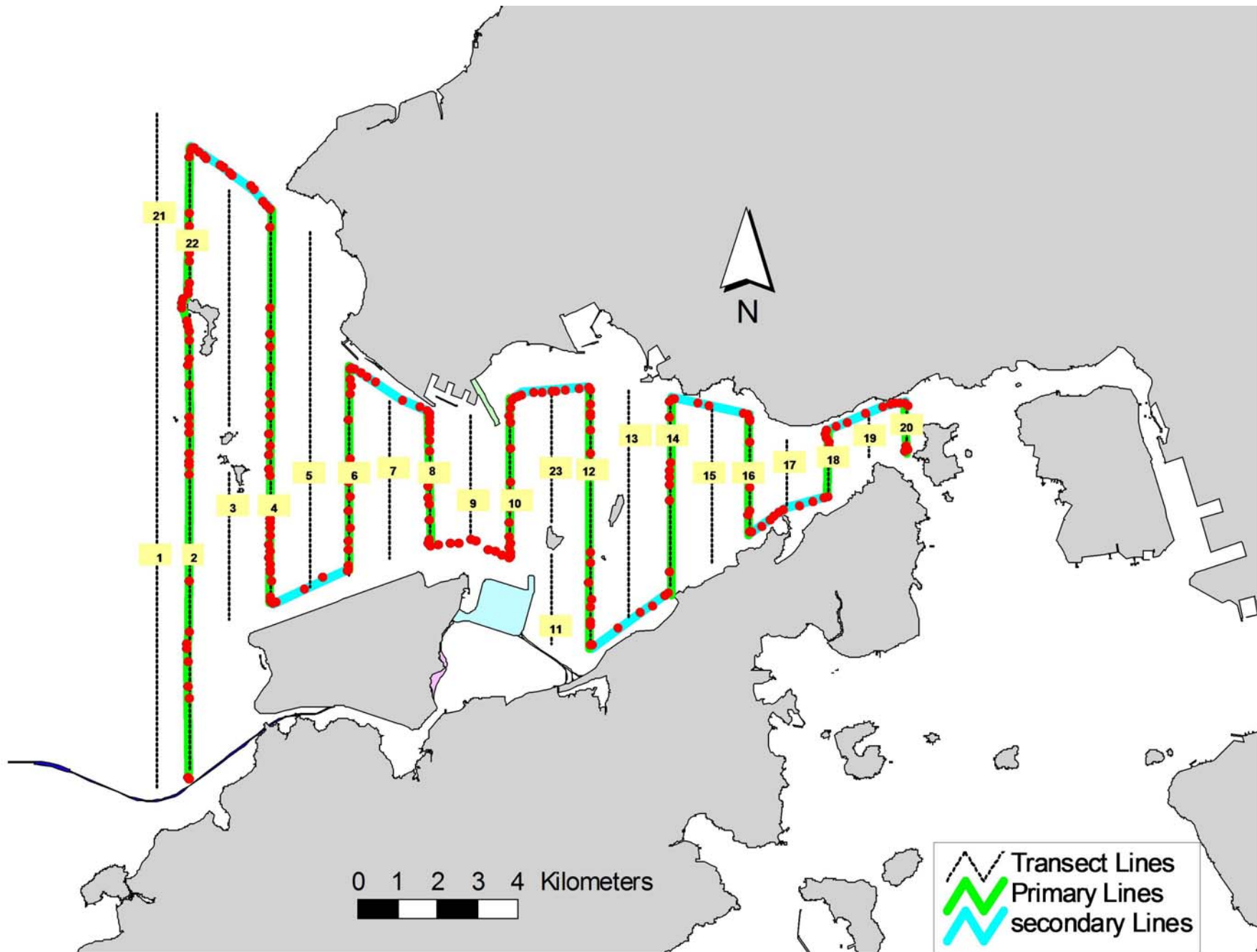


Figure 4. Survey Route on November 10th, 2015 (from HKLR03 project)

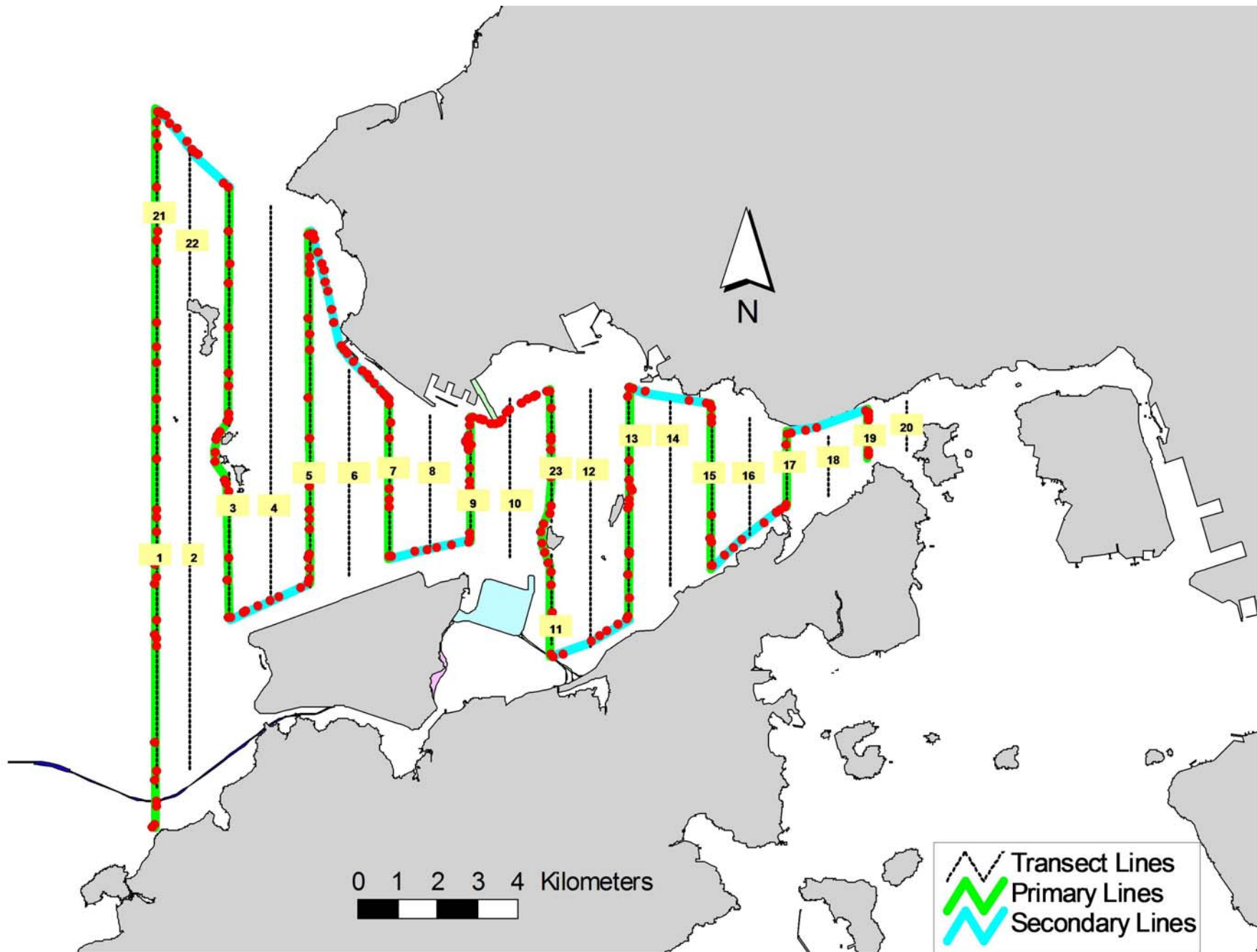


Figure 5. Survey Route on November 16th, 2015 (from HKLR03 project)

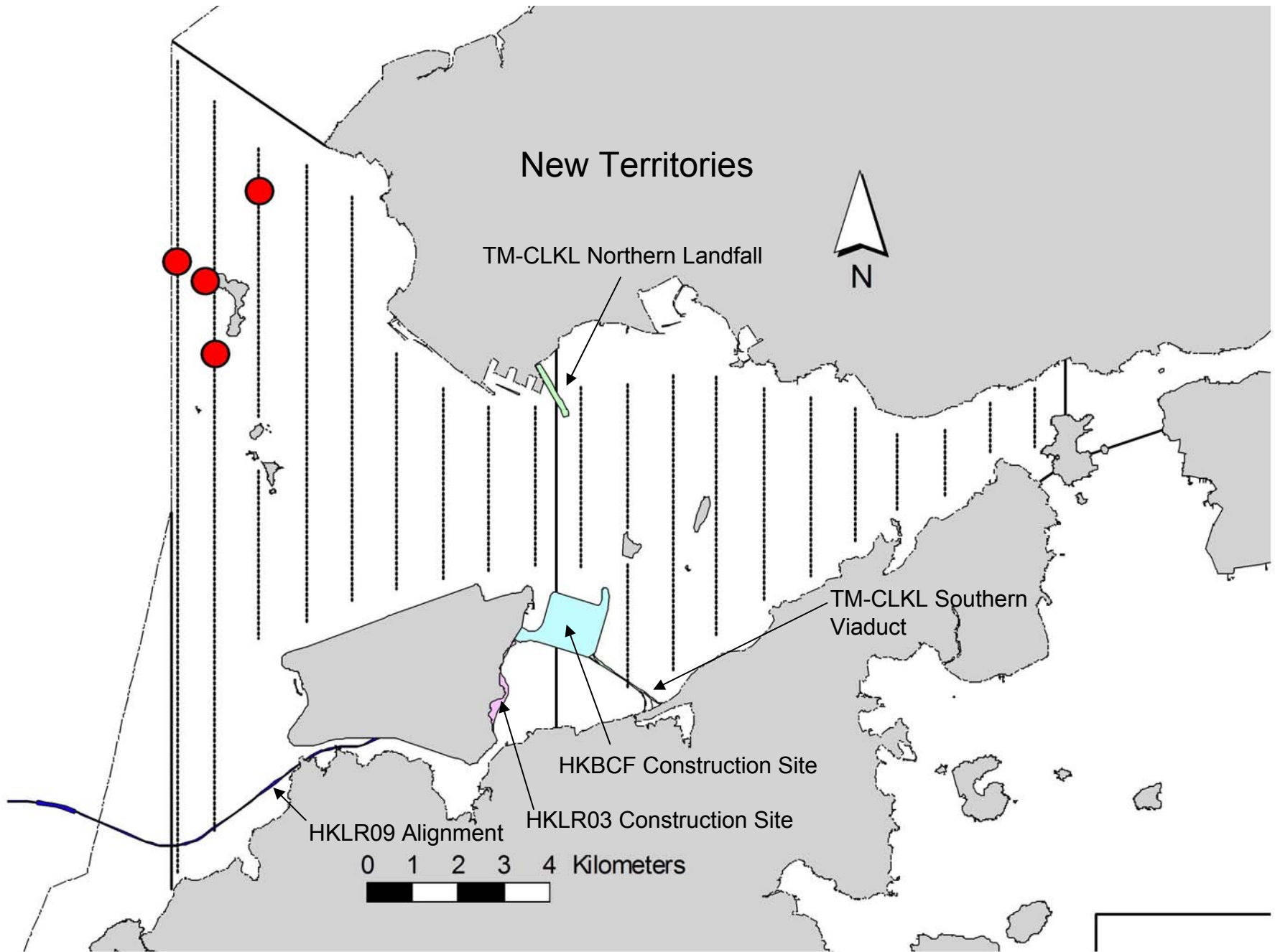


Figure 6. Distribution of Chinese White Dolphin Sightings During November 2015 HKLR03 Monitoring Surveys

Appendix I. HKLR03 Survey Effort Database (November 2015)

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

DATE	AREA	BEAU	EFFORT	SEASON	VESSEL	TYPE	P/S
2-Nov-15	NW LANTAU	2	6.50	AUTUMN	STANDARD31516	HKLR	P
2-Nov-15	NW LANTAU	3	27.18	AUTUMN	STANDARD31516	HKLR	P
2-Nov-15	NW LANTAU	4	7.13	AUTUMN	STANDARD31516	HKLR	P
2-Nov-15	NW LANTAU	2	2.30	AUTUMN	STANDARD31516	HKLR	S
2-Nov-15	NW LANTAU	3	7.55	AUTUMN	STANDARD31516	HKLR	S
2-Nov-15	NW LANTAU	4	2.74	AUTUMN	STANDARD31516	HKLR	S
2-Nov-15	NE LANTAU	2	14.92	AUTUMN	STANDARD31516	HKLR	P
2-Nov-15	NE LANTAU	3	1.70	AUTUMN	STANDARD31516	HKLR	P
2-Nov-15	NE LANTAU	2	7.98	AUTUMN	STANDARD31516	HKLR	S
2-Nov-15	NE LANTAU	3	2.40	AUTUMN	STANDARD31516	HKLR	S
6-Nov-15	NW LANTAU	3	18.35	AUTUMN	STANDARD31516	HKLR	P
6-Nov-15	NW LANTAU	4	13.86	AUTUMN	STANDARD31516	HKLR	P
6-Nov-15	NW LANTAU	3	6.79	AUTUMN	STANDARD31516	HKLR	S
6-Nov-15	NE LANTAU	2	5.90	AUTUMN	STANDARD31516	HKLR	P
6-Nov-15	NE LANTAU	3	14.15	AUTUMN	STANDARD31516	HKLR	P
6-Nov-15	NE LANTAU	2	6.70	AUTUMN	STANDARD31516	HKLR	S
6-Nov-15	NE LANTAU	3	3.95	AUTUMN	STANDARD31516	HKLR	S
10-Nov-15	NW LANTAU	2	2.44	AUTUMN	STANDARD31516	HKLR	P
10-Nov-15	NW LANTAU	3	27.80	AUTUMN	STANDARD31516	HKLR	P
10-Nov-15	NW LANTAU	4	0.98	AUTUMN	STANDARD31516	HKLR	P
10-Nov-15	NW LANTAU	2	0.28	AUTUMN	STANDARD31516	HKLR	S
10-Nov-15	NW LANTAU	3	6.23	AUTUMN	STANDARD31516	HKLR	S
10-Nov-15	NW LANTAU	4	1.30	AUTUMN	STANDARD31516	HKLR	S
10-Nov-15	NE LANTAU	2	9.09	AUTUMN	STANDARD31516	HKLR	P
10-Nov-15	NE LANTAU	3	10.38	AUTUMN	STANDARD31516	HKLR	P
10-Nov-15	NE LANTAU	2	8.03	AUTUMN	STANDARD31516	HKLR	S
10-Nov-15	NE LANTAU	3	2.70	AUTUMN	STANDARD31516	HKLR	S
16-Nov-15	NE LANTAU	2	5.26	AUTUMN	STANDARD31516	HKLR	P
16-Nov-15	NE LANTAU	3	12.22	AUTUMN	STANDARD31516	HKLR	P
16-Nov-15	NE LANTAU	2	7.72	AUTUMN	STANDARD31516	HKLR	S
16-Nov-15	NE LANTAU	3	2.10	AUTUMN	STANDARD31516	HKLR	S
16-Nov-15	NW LANTAU	2	6.48	AUTUMN	STANDARD31516	HKLR	P
16-Nov-15	NW LANTAU	3	21.03	AUTUMN	STANDARD31516	HKLR	P
16-Nov-15	NW LANTAU	4	9.27	AUTUMN	STANDARD31516	HKLR	P
16-Nov-15	NW LANTAU	5	4.10	AUTUMN	STANDARD31516	HKLR	P
16-Nov-15	NW LANTAU	2	2.53	AUTUMN	STANDARD31516	HKLR	S
16-Nov-15	NW LANTAU	3	7.79	AUTUMN	STANDARD31516	HKLR	S
16-Nov-15	NW LANTAU	4	2.60	AUTUMN	STANDARD31516	HKLR	S

Appendix II. HKLR03 Chinese White Dolphin Sighting Database (November 2015)

(Abbreviations: 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
02-Nov-15	1	1143	7	NW LANTAU	2	181	ON	HKLR	828699	806450	AUTUMN	NONE	P
06-Nov-15	1	1106	1	NW LANTAU	3	77	ON	HKLR	826830	805262	AUTUMN	NONE	P
10-Nov-15	1	1042	1	NW LANTAU	3	465	ON	HKLR	825312	805475	AUTUMN	NONE	P
16-Nov-15	1	1455	5	NW LANTAU	5	662	ON	HKLR	827241	804645	AUTUMN	NONE	P

Appendix III. Individual dolphins identified during HKLR03 monitoring surveys in November 2015

ID#	DATE	STG#	AREA
NL46	10/11/15	1	NW LANTAU
NL48	02/11/15	1	NW LANTAU
	16/11/15	1	NW LANTAU
NL98	02/11/15	1	NW LANTAU
NL123	02/11/15	1	NW LANTAU
NL136	02/11/15	1	NW LANTAU
NL182	02/11/15	1	NW LANTAU
NL202	16/11/15	1	NW LANTAU
NL210	02/11/15	1	NW LANTAU
	16/11/15	1	NW LANTAU
NL286	16/11/15	1	NW LANTAU

NL48_20151102_1



NL98_20151102_1



NL123_20151102_1



NL136_20151102_1



NL182_20151102_1



NL210_20151102_1



NL46_20151110_1



NL48_20151116_1



NL202_20151116_1





Appendix IV. (cont'd)

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 2015 (Year)

Month/Material	Actual Quantities of Inert C&D Materials Generation						Actual Quantities of C&D wastes Generation						Actual Quantities of Recyclables Generation			
	Total Quantity Generated	Hard Rock and Large Broken Concrete	Reused in the Contract	Reused in other Projects	Disposed as Public Fills	Imported Fill	Marine Sediment, Cat. L	Marine Sediment, Cat. Mp	Marine Sediment, Cat. Mf	Marine Sediment, Cat. H	Chemical Waste	General Refuse	Metals	Felled trees	Paper/ cardboard packaging	Plastics
Unit	('000m ³)	('000m ³)	('000m ³)	('000m ³)	('000m ³)	('000m ³)	('000m ³)	('000m ³)	('000m ³)	('000m ³)	('000Kg)	('000Kg)	('000Kg)	('000Kg)	('000Kg)	('000Kg)
Jan	13.578	0.081	0.990	-	12.474	0.115	0.178	0.229	0.258	-	-	132.170	-	61.380	0.091	-
Feb	6.233	0.148	0.461	-	5.759	0.014	0.801	0.110	0.223	-	0.400	141.020	-	73.690	0.112	-
Mar	10.149	0.220	0.473	-	9.600	0.077	0.618	0.073	0.149	-	-	120.940	-	9.140	0.203	-
Apr	9.986	0.410	2.261	-	7.694	0.032	-	-	-	-	-	133.630	-	2.740	0.105	-
May	8.870	0.177	0.779	-	8.091	-	0.550	-	-	-	-	107.920	-	13.070	0.042	-
Jun	8.627	0.132	1.462	-	7.166	-	0.324	0.118	0.169	-	0.017	89.930	-	2.000	0.119	-
SUB-TOTAL	57.444	1.168	6.424	-	50.782	0.238	2.471	0.530	0.799	-	0.417	725.610	-	162.020	0.672	-
Jul	4.520	0.137	2.121	-	2.322	0.078	-	-	-	-	1.400	111.570	-	-	0.105	-
Aug	1.617	0.203	0.352	-	1.265	-	-	-	-	-	1.200	87.760	-	-	0.133	-
Sep	4.148	0.160	0.623	-	3.525	-	-	-	-	-	0.600	66.680	-	-	0.105	-
Oct	2.286	0.317	0.651	-	1.635	-	-	-	-	-	-	102.080	-	-	0.084	-
Nov	0.929	0.241	0.725	-	0.204	-	-	-	-	-	2.000	64.740	-	-	0.098	-
Dec	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TOTAL	70.944	2.228	10.896	-	59.732	0.316	2.471	0.530	0.799	-	5.617	1,158.440	-	162.020	1.197	-

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' and 'Reused in the Contract' include '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	2	9
	Limit	0	3

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 (November 2015)	0	0	0
Total No. received since project commencement	4	0	0