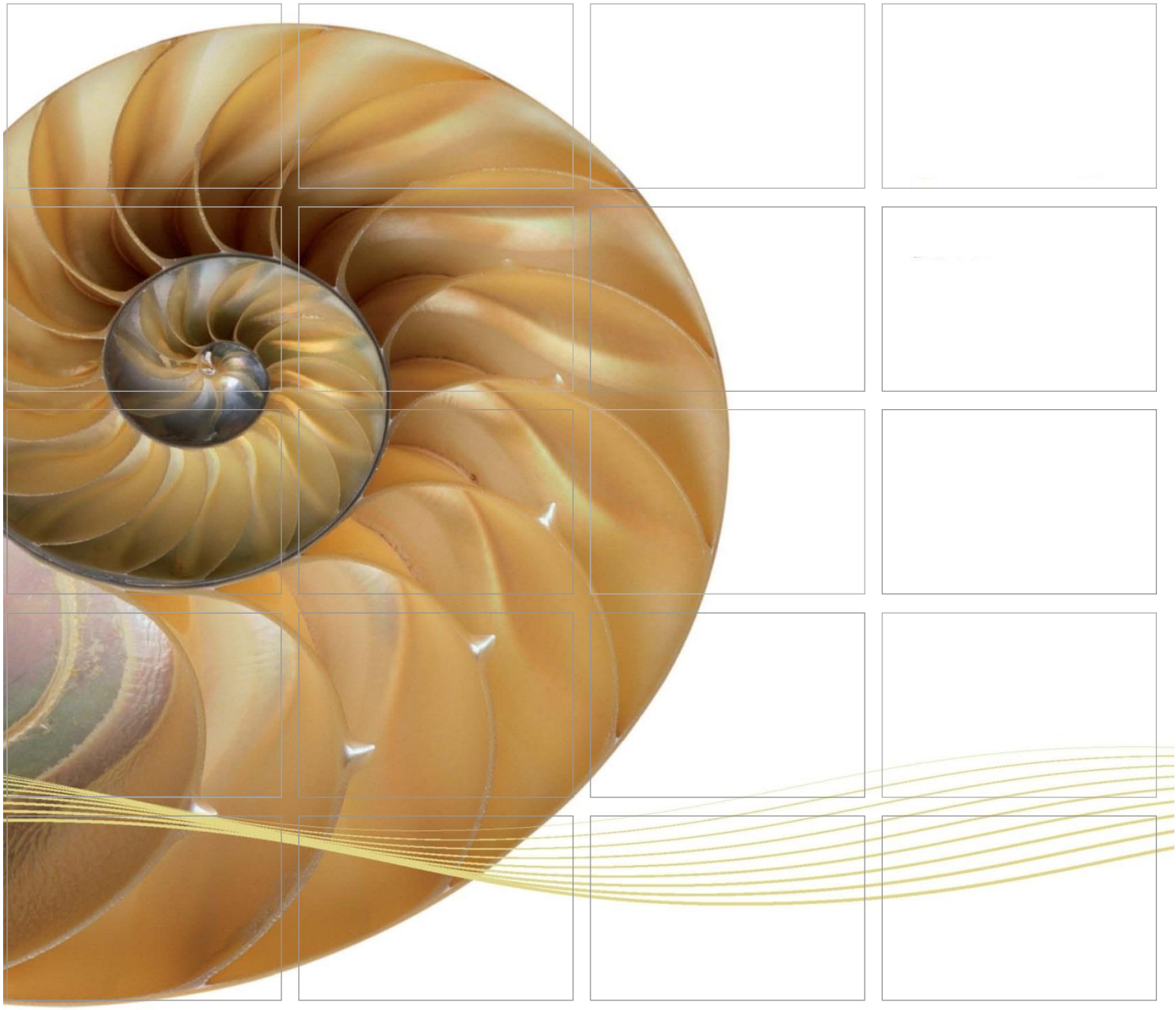
REPORT



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

Twenty-seventh Monthly EM&A Report

15 February 2016

Environmental Resources Management
16/F, Berkshire House
25 Westlands Road
Quarry Bay, Hong Kong
Telephone 2271 3000
Facsimile 2723 5660

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

Twenty-seventh Monthly EM&A Report

Environmental Resources Management

16/F, Berkshire House
25 Westlands Road
Quarry Bay, Hong Kong
Telephone: (852) 2271 3000
Facsimile: (852) 2723 5660
E-mail: post.hk@erm.com
http://www.erm.com

Document Code: 0215660_27th Monthly EM&A 20160215.doc

Client:	Project No:
Gammon	0215660

Summary:	Date:
This document presents the Twenty-seventh Monthly EM&A Report for Tuen Mun – Chek Lap Kok Link – Southern Connection Viaduct Section.	15 February 2016
	Approved by: *Mr Craig Reid* *Partner*
	Certified by: *Mr Jovy Tam* *ET Leader*

Revision	Description	By	Checked	Approved	Date
	Twenty-seventh Monthly EM&A Report	VAR	JT	CAR	15/02/16

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We disclaim any responsibility to the client and others in respect of any matters outside the scope of the above.

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Ref.: HYDHZMBEEM00_0_3867L.16

16 February 2016

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

By Fax (3691 2899) and By Post

Attention: Mr. Daniel Ip

Dear Mr. Ip,

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

Contract No. HY/2012/07 TM-CLKL Southern Connection Viaduct Section
Monthly EM&A Report for January 2016 (EP-354/2009/D)

Reference is made to the Monthly Environmental Monitoring and Audit (EM&A) Report (Jan. 2016) (ET's ref.: "0215660_27th Monthly EM&A 20160215.doc" dated 15 Feb. 2016) certified by the ET Leader and provided to us via e-mail on 15 Feb. 2016.

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

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

Yours sincerely,

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

c.c. HyD – Mr. Stephen Chan (By Fax: 3188 6614)
HyD – Mr. 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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Ramboll Environ Hong Kong Limited 英環香港有限公司
Room 2403, 24/F., Jubilee Centre, 18 Fenwick Street, Wanchai, Hong Kong Tel: 852.3465 2888 Fax: 852.3465 2899
www.Ramboll-Environ.com

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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-seventh Monthly EM&A report presenting the EM&A works carried out during the period from 1 to 31 January 2016 for the Southern Connection Viaduct Section in accordance with the Updated EM&A Manual of the TM-CLK Link Project. As informed by the Contractor, major activities in the reporting period included:

Marine Works

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

Land-based Works

- Pier construction;
- Re-alignment of Cheung Tung Road;

- Predrilling at Viaduct F;
- Additional land GI, trial pits & lab testing;
- Installation of pier head and deck segments; and
- Slope work of Viaducts A, B & C.

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

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

Breaches of Action and Limit Levels for Air Quality

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

Breaches of Action and Limit Levels for Noise

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

Breaches of Action and Limit Levels for Water Quality

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

Impact Dolphin Monitoring

During this month of dolphin monitoring, 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 January 2016 during the exclusion zone monitoring.

Environmental Complaints, Non-compliance & Summons

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

Reporting Change

There was no reporting change in the reporting period.

Upcoming Works for the Next Reporting Period

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

Marine Works

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

Land-based Works

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

F**uture Key Issues**

Potential environmental impacts arising from the above upcoming construction activities in the next reporting month of February 2016 are mainly associated with dust, noise, marine water quality, marine ecology and waste management issues.

1 INTRODUCTION

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-seventh 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 January 2016.

1.3 ORGANIZATION STRUCTURE

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

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

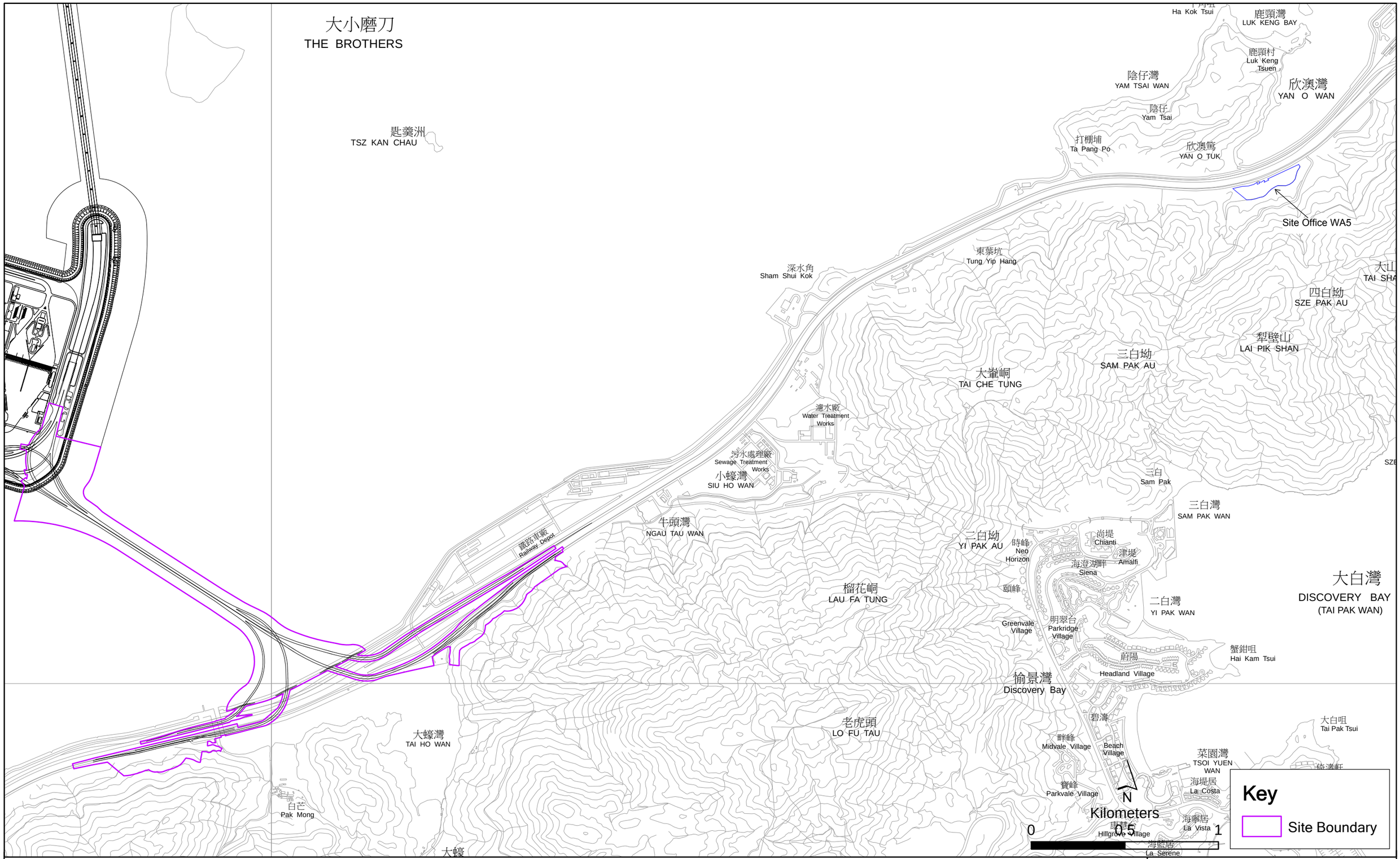

Figure 1.1

General Layout Plan of the Project

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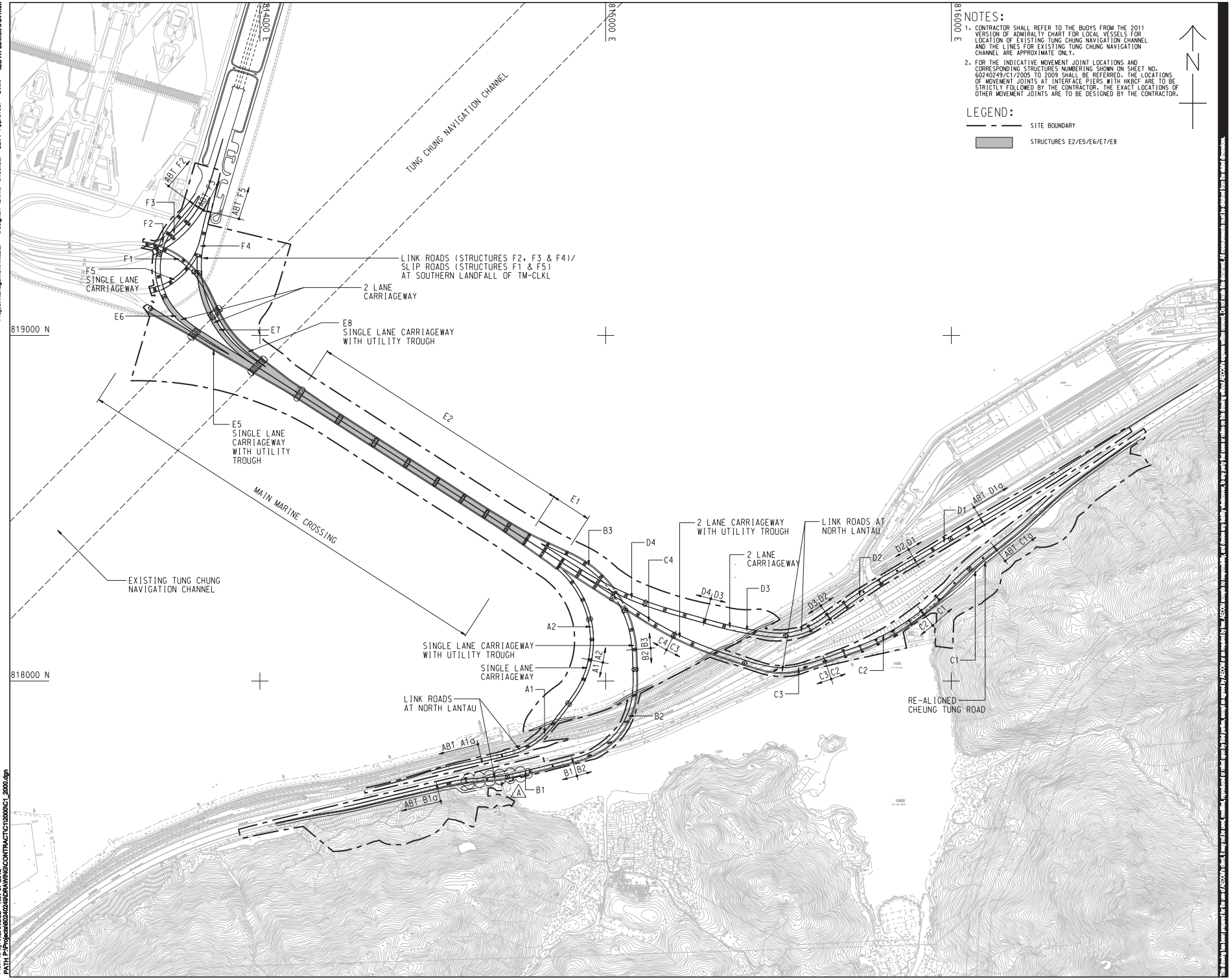
Environmental Resources Management

ERM



AECOM

PROJECT
項目

TUEN MUN - CHEK LAP KOK LINK

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

CLIENT
業主

路政署 HIGHWAYS DEPARTMENT
港珠澳大橋香港工程管理處
Hong Kong - Zhuhai - Macao Bridge Hong Kong Project Management Office

CONSULTANT
工程顧問公司

AECOM Asia Company Ltd.
www.aecom.com

SUB-CONSULTANTS
分判工程顧問公司

Figure 1.2a

ISSUE/REVISION
修訂

IVR 修訂	DATE 日期	DESCRIPTION 內容摘要	CHK. 審核
A	NOV. 12	TENDER ADDENDUM NO. 1	CWN
-	OCT. 12	TENDER DRAWING	CWN

STATUS
狀況

SCALE
比例
A1 1 : 5000

DIMENSION UNIT
尺寸單位
METRES

KEY PLAN
索引圖

PROJECT NO.
項目編號
60240249

CONTRACT NO.
合同編號
HY/2012/07

SHEET TITLE
圖紙名稱
SOUTHERN CONNECTION GENERAL LAYOUT PLAN

SHEET NUMBER
圖紙編號
60240249/C1/2000A

Project Management Initials: Designer: LKWB Checked: SLYY Approved: CWN ISO A1 594mm x 841mm

Plot File by: HUANGC2 Nov-07-2012
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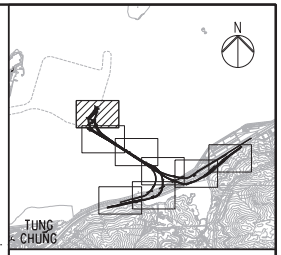

KEY PLAN

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

Rev	Description	By	Date	Rev	Description	By	Date
A	SUBMISSION	RC	07/13				
B	SUBMISSION	RC	07/13				
C	SUBMISSION	RC	09/13				

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RL	07/13
Checked	Approved
DS	DOP
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Client: 香港特別行政區政府 路政署 HIGHWAYS DEPARTMENT 港珠澳大橋香港段管理處 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

Drawing title: **Figure 1.2b**

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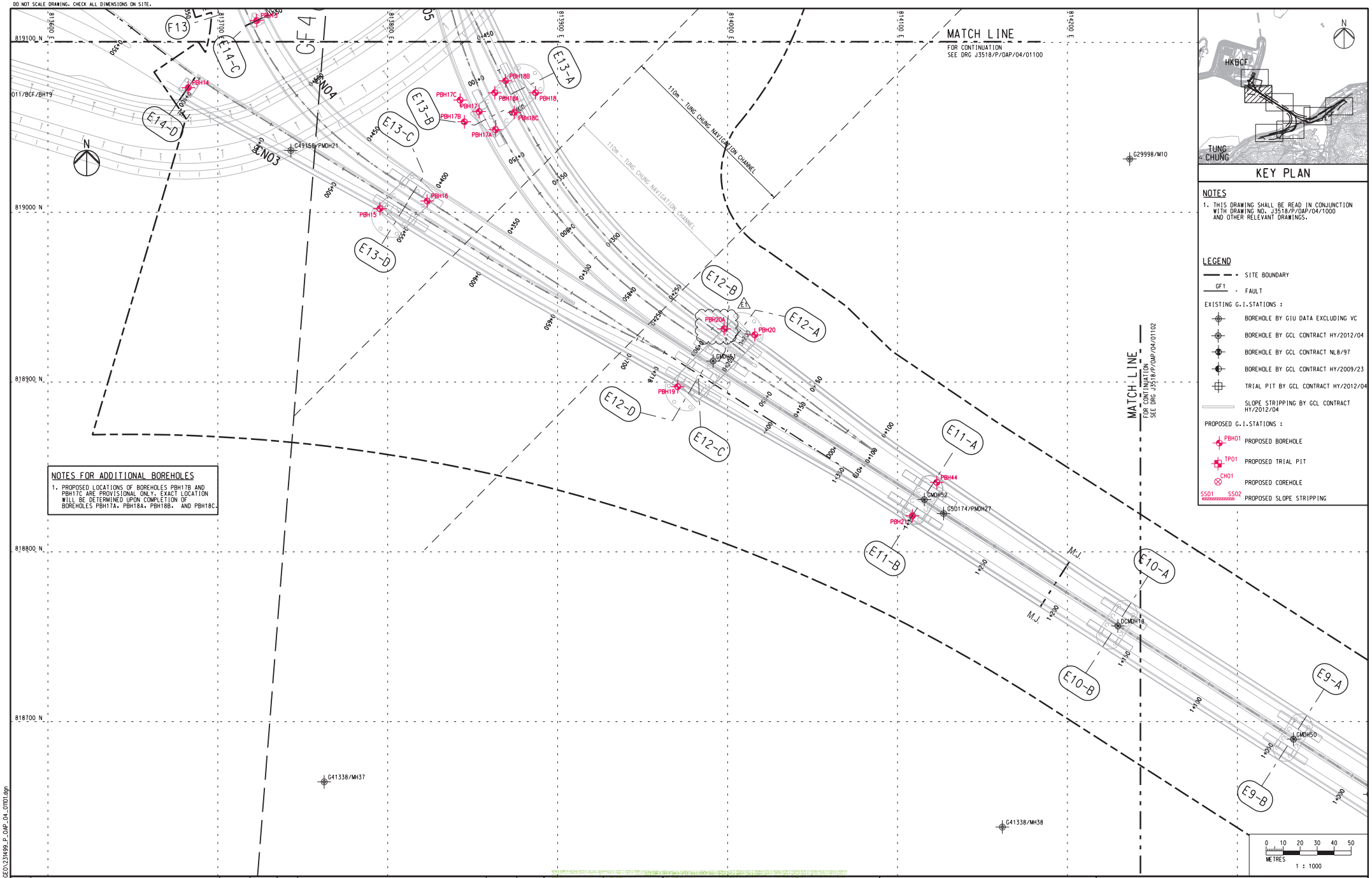

KEY PLAN

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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C	SUBMISSION	RC	09/13				
D	SUBMISSION	RC	10/13				
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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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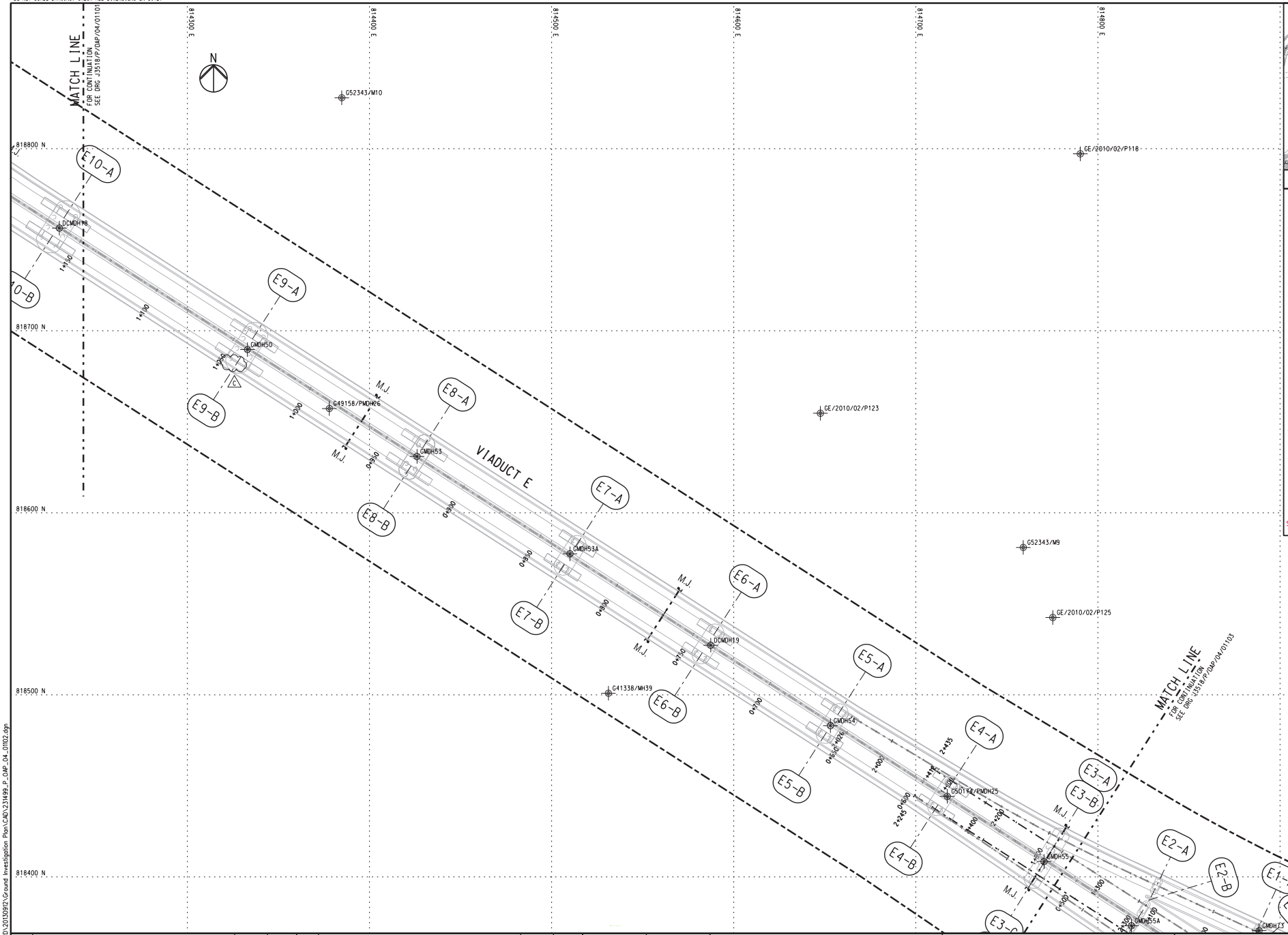

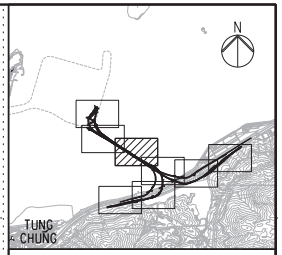

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NOTES

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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

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A	SUBMISSION	RC	07/13				
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C	SUBMISSION	RC	09/13				

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Client: 路政署 HIGHWAYS DEPARTMENT
港珠澳大橋香港工程管理處
Hong Kong-Zhuhai-Macao Bridge Hong Kong Project Management Office

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

Supervising Officer: AECOM
Contractor: Gammon
Originator: ARUP

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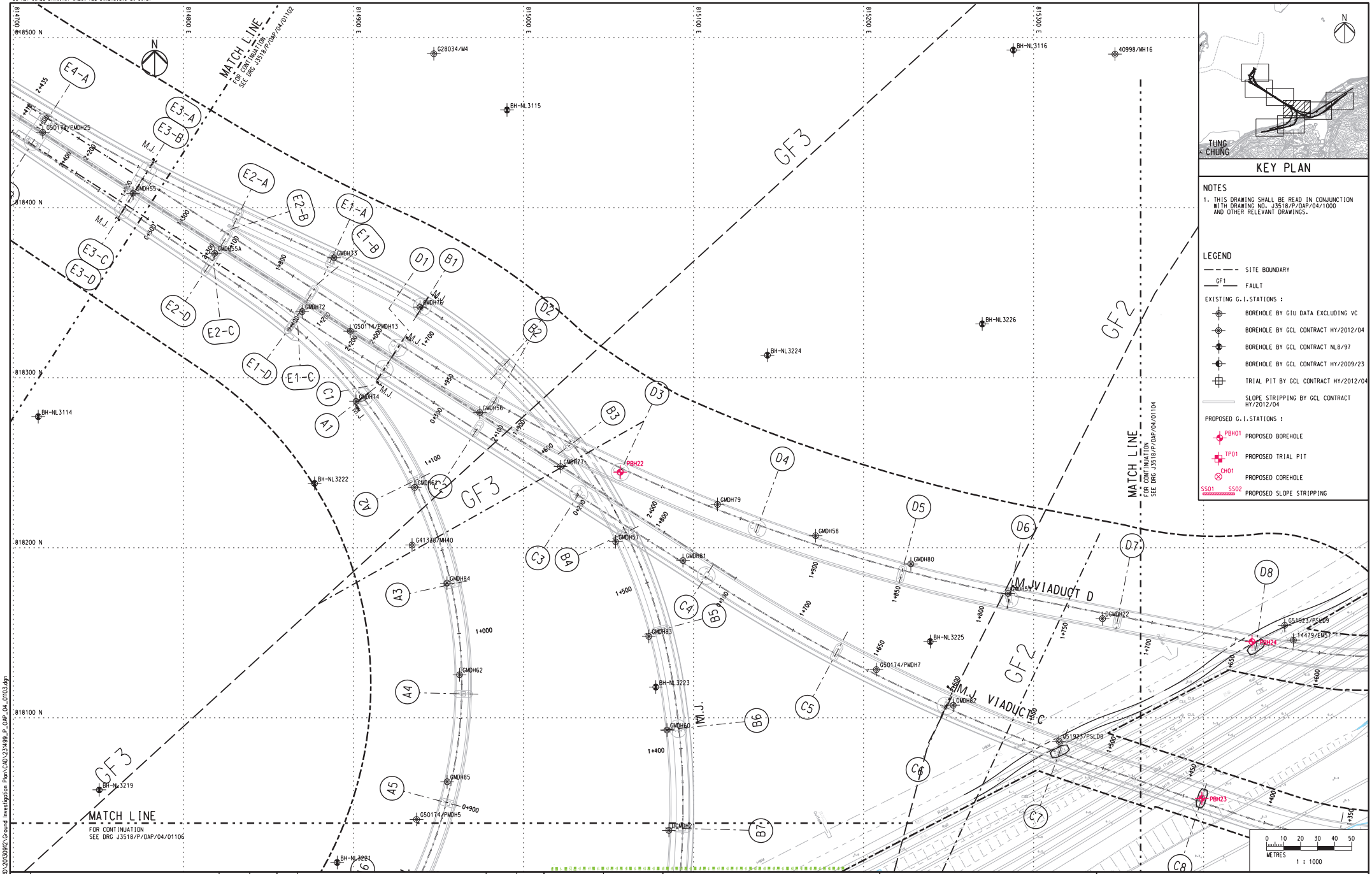

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B	SUBMISSION	RC	07/13				
C	SUBMISSION	RC	09/13				

Drawn: RL — Date: 07/13
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Scale: 1:1000 @ A1 / 1:2000 @ A3

Client: 路政署 HIGHWAYS DEPARTMENT
港珠澳大橋香港工程管理處
Hong Kong - Zhuhai - Macao Bridge Hong Kong Project Management Office

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

Supervising Officer: AECOM
Contractor: Gammon
Originator: ARUP

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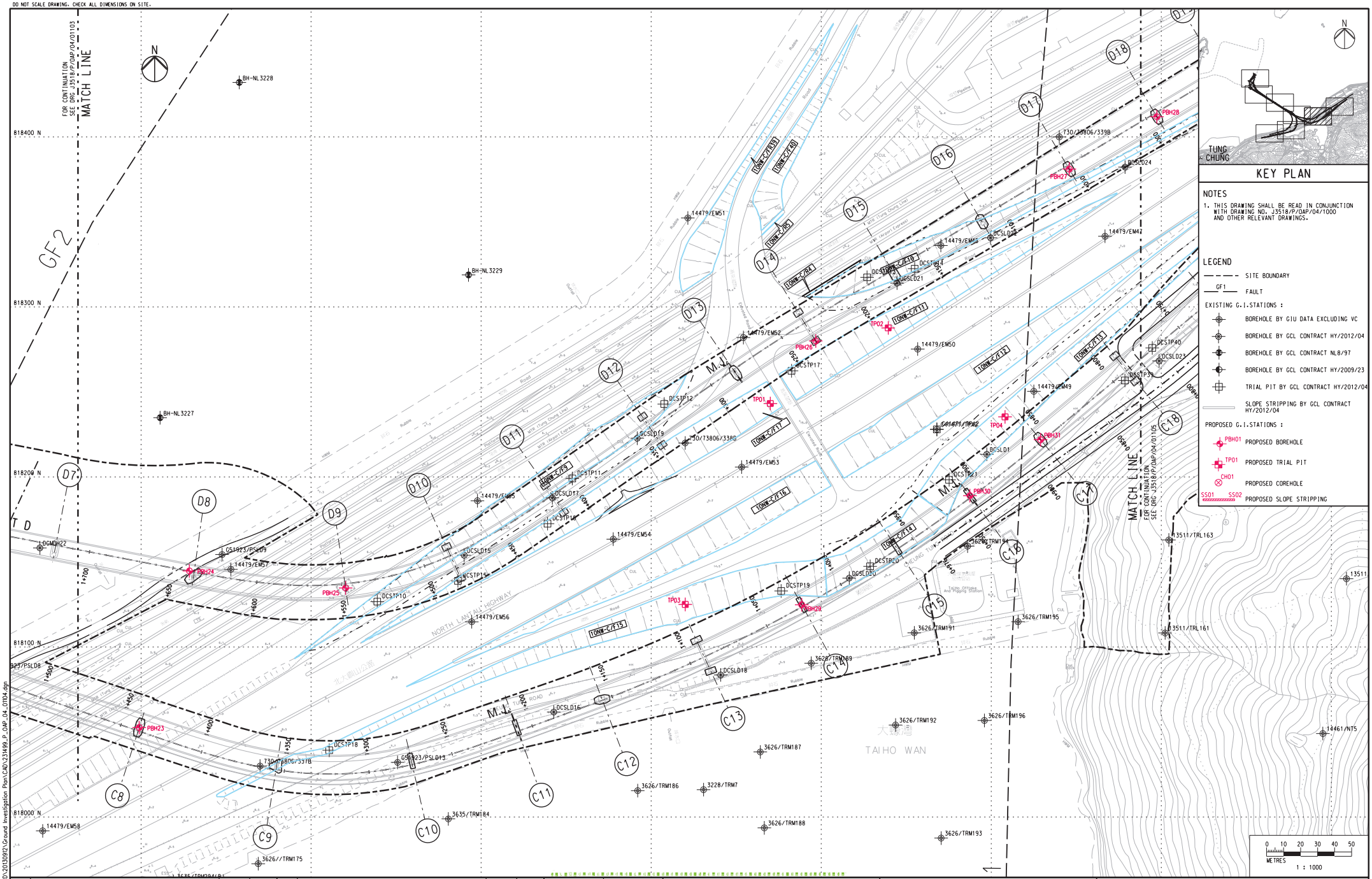


Rev	Description	By	Date	Rev	Description	By	Date
A	SUBMISSION	RC	07/13				
B	SUBMISSION	RC	07/13				
C	SUBMISSION	RC	09/13				

Drawn: RL — Date: 07/13
Checked: DS — Approved: DOP
Scale: 1:1000 @ A1 / 1:2000 @ A3

Client: 路政署 HIGHWAYS DEPARTMENT 港珠澳大橋香港工程管理處 Hong Kong - Zhuhai - Macao Bridge Hong Kong Project Management Office

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

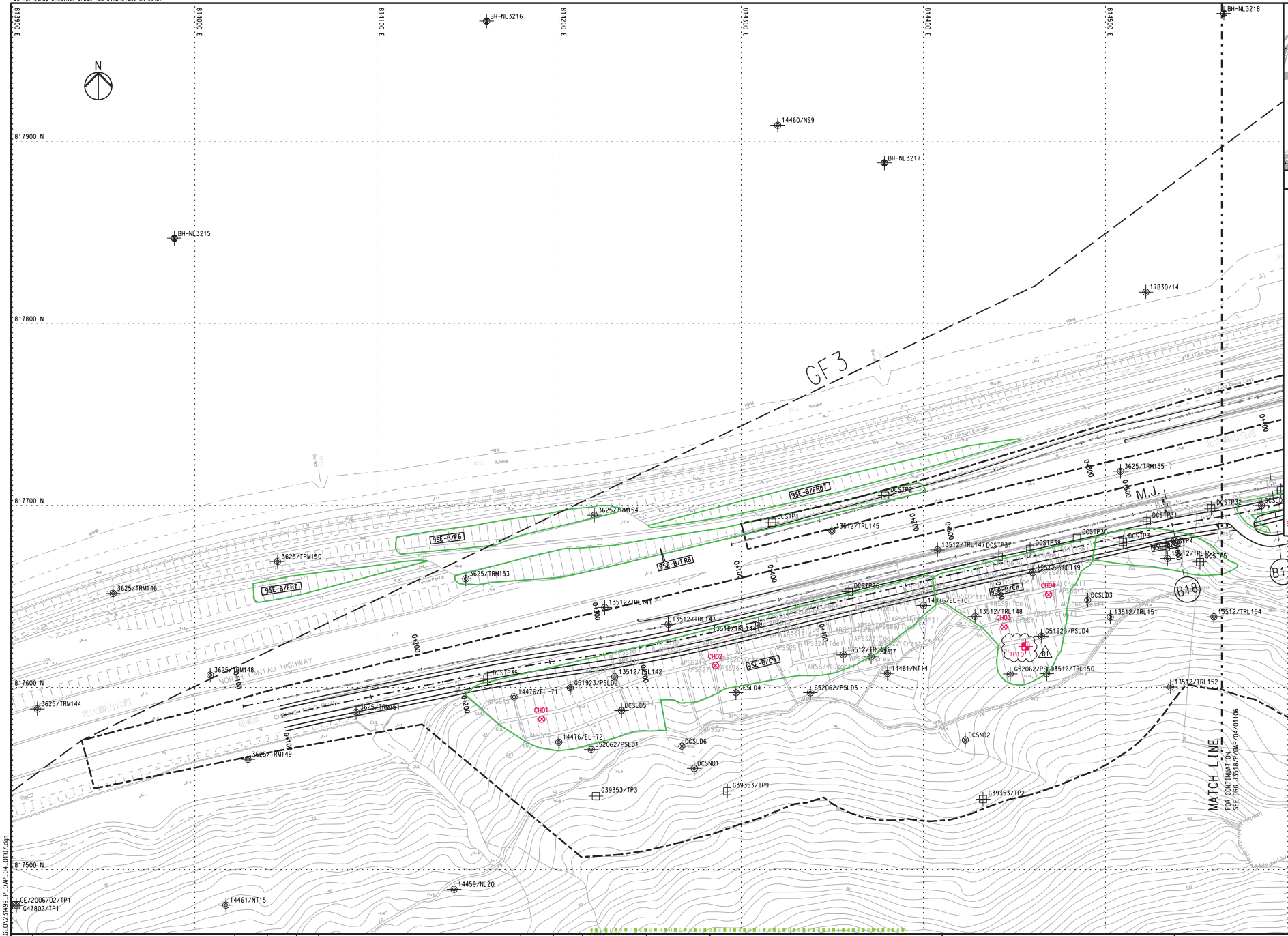
Supervising Officer: AECOM
Contractor: Gammon
Originator: ARUP

Drawing title: **Figure 1.2f**

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

Printed by : 12/9/2013
File name : J3518\RECORD\20130912\Ground Investigation Plan\CAD\231499_P_OAP_04_01104.dgn

DO NOT SCALE DRAWING. CHECK ALL DIMENSIONS ON SITE.



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 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

Rev	Description	By	Date	Rev	Description	By	Date
A	SUBMISSION	RC	07/13				
B	SUBMISSION	RC	07/13				
C	SUBMISSION	RC	09/13				
D1	FOR INTERNAL REVIEW	RC	11/13				

Drawn: RL — Date: 07/13

Checked: DS — Approved: DOP

Scale: 1:1000 @ A1 / 1:2000 @ A3

Client: 路政署 HIGHWAYS DEPARTMENT 港珠澳大橋香港工程管理處 Hong Kong - Zhuhai - Macao Bridge Hong Kong Project Management Office

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

Supervising Officer: AECOM

Contractor: Gammon

Originator: ARUP

Drawing title: **Figure 1.2g**

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

Printed by : 07/11/2013
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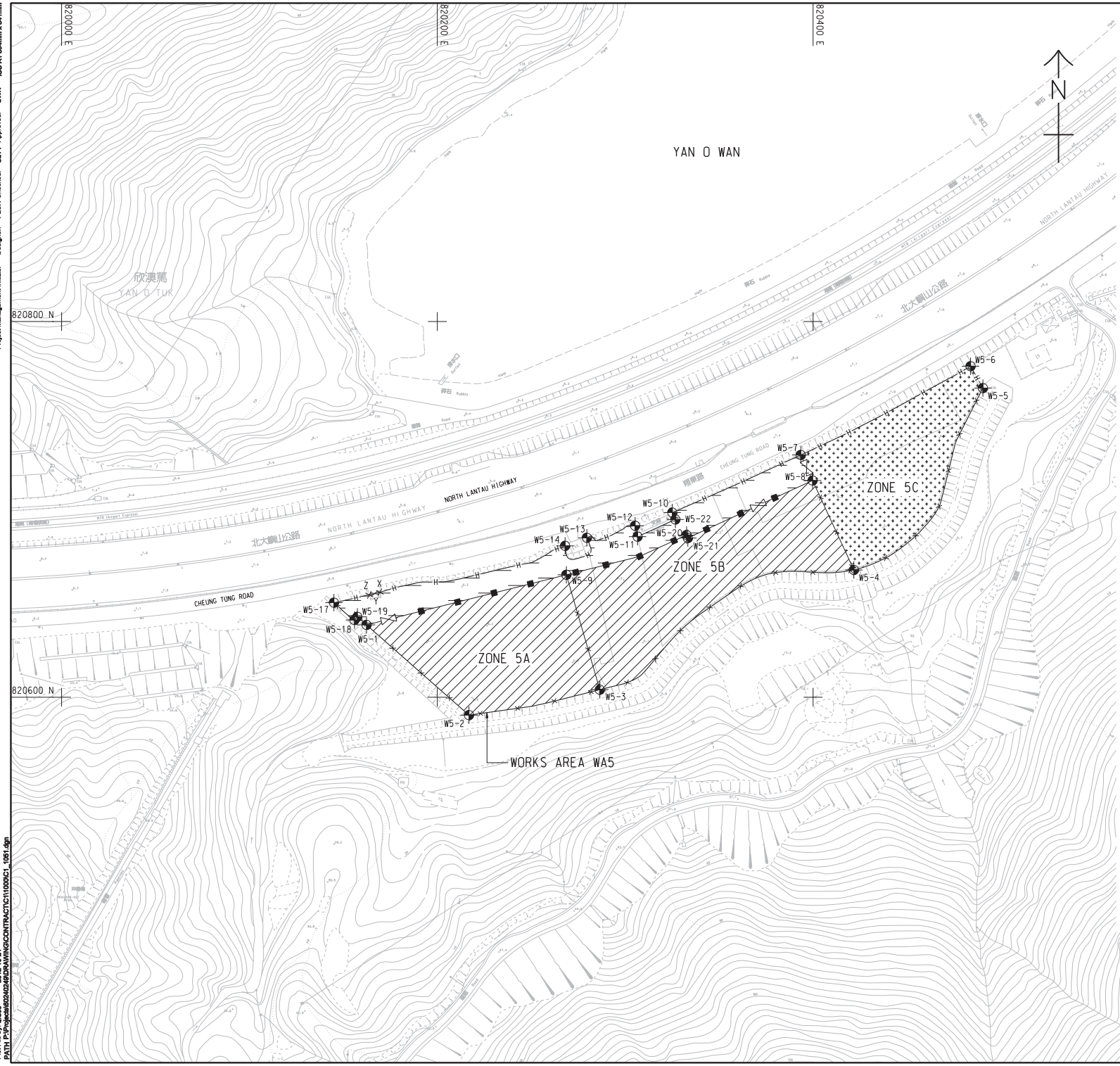

NOTES:

1. THIS DRAWING SHALL BE READ IN CONJUNCTION WITH THE WORKS AREA KEY PLAN IN SHEET NO. 60240249/C1/1000.
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. TIS 619. 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. H6110 AND H6111 FOR DETAILS OF HOARDING.
5. REFER TO HIGHWAYS DEPARTMENT STANDARD DRAWING NOS. H6121 AND H6122 FOR DETAILS OF CHAIN LINK FENCE.
6. REFER TO HIGHWAYS DEPARTMENT STANDARD DRAWING NO. H6121 FOR DETAILS OF GATE.
7. 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.
8. THE LOCATION AND WIDTH OF GATE SHOWN ARE INDICATIVE ONLY AND SHALL BE CONFIRMED BY THE SUPERVISING OFFICER.
9. 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.
10. THE TENTATIVE OCCUPATION PERIOD SHALL BE REFERRED TO EMPLOYER'S REQUIREMENTS PART 2 AND PART 14 SECTION 1 (CLAUSE 1.45A.
11. THE WORKS AREAS SHOWN ON THIS DRAWING ARE TO BE SHARE-USED AMONG THE CONTRACTS OF TM-CLKL RELATED CONTRACTS.THE AREAS HATCHED WITH ▨ ARE TENTATIVELY ALLOCATED FOR THE USE BY THIS CONTRACT.
12. THE COMMON AREA SHALL BE CONCRETE PAVED BY THE CONTRACTOR.

LEGEND:

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

SETTING OUT COORDINATES OF WORKS AREA WA5

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

AECOM

PROJECT 項目

TUEN MUN - CHEK LAP KOK LINK

CONTRACT TITLE

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

CLIENT 業主

路 政 署 HIGHWAYS DEPARTMENT
港珠澳大橋香港工程管理處
Hong Kong - Zhuhai - Macao Bridge Hong Kong Project Management Office

CONSULTANT 工程顧問公司

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ISSUE/REVISION 修訂

VER. 修訂	DATE 日期	DESCRIPTION 內容修訂	CHK. 審核
-	OCT. 12	TENDER DRAWING	CWN

STATUS 階段

SCALE 比例: A1 1 : 1000

DIMENSION UNIT 尺寸單位: METRES

KEY PLAN 索引圖

Figure 1.2h

PROJECT NO. 項目編號: 60240249

CONTRACT NO. 合同編號: HY/2012/07

SHEET TITLE 圖紙名稱

WORKS AREA AND HOARDING PLAN

SHEET 1 OF 2

SHEET NUMBER 圖紙編號

60240249/C1/1051

Project Management Initials: Designer: PLCK Checked: SLYY Approved: CWN ISO A1 594mm x 841mm

Plot File by: LIUJ3 2012-10-24
PATH P:\Projects\60240249\DRAWING\CONTRACT\C1\1000\C1_1051.dgn

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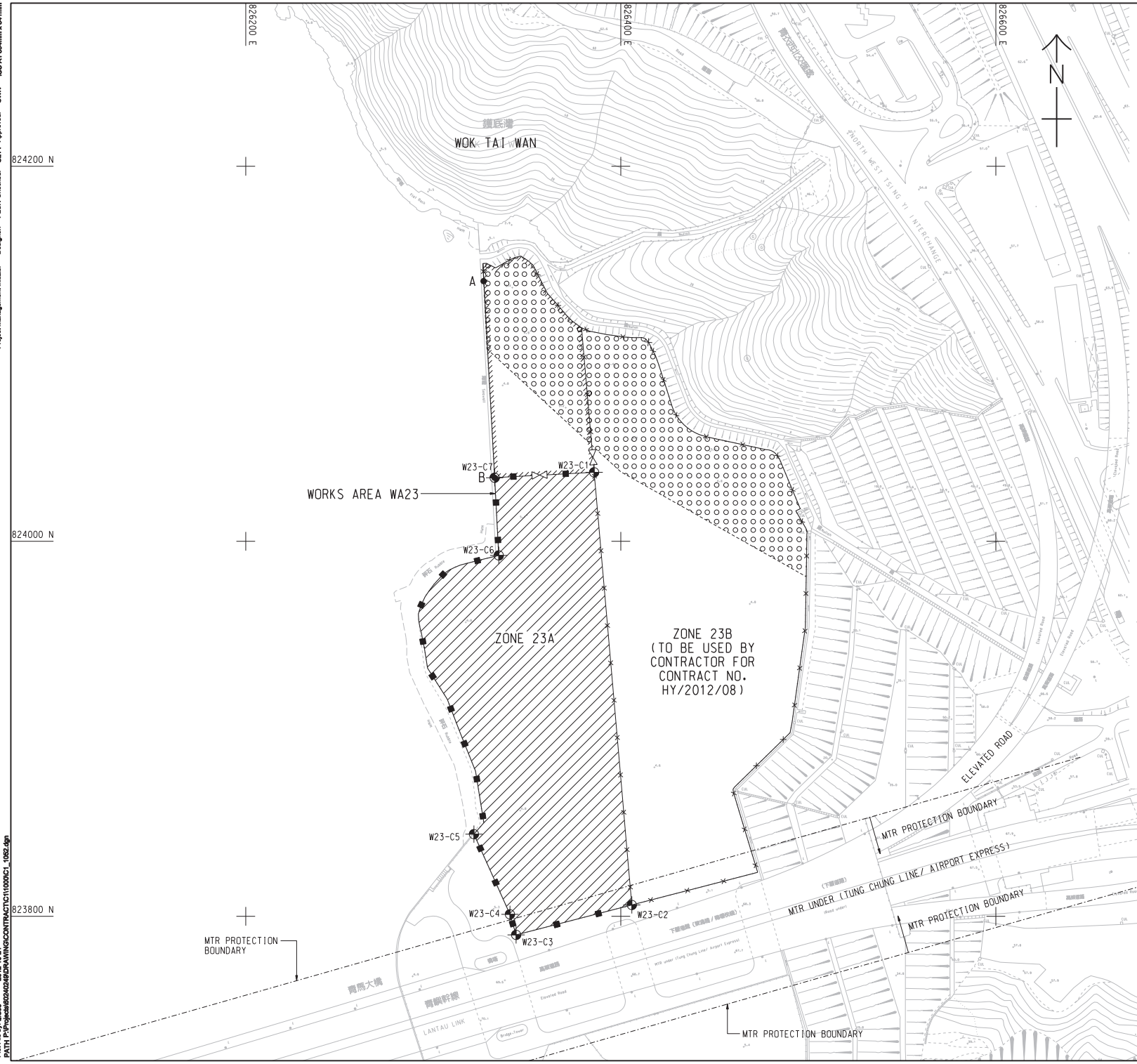

NOTES:

1. THIS DRAWING SHALL BE READ IN CONJUNCTION WITH THE WORKS AREA KEY PLAN IN SHEET NO. 60240249/C1/1000.
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 1878. 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 SHARE-USED AMONG THE CONTRACTS OF TM-CLKL-RELATED CONTRACTS. THE AREAS HATCHED WITH ▨ ARE TENTATIVELY ALLOCATED FOR THE USE BY THIS CONTRACT.

LEGEND:

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

SETTING OUT COORDINATES OF WORKS AREA WA23

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

AECOM

PROJECT 項目

TUEN MUN - CHEK LAP KOK LINK

CONTRACT TITLE

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

CLIENT 業主

路政署 HIGHWAYS DEPARTMENT
港珠澳大橋香港工程管理處 Hong Kong - Zhuhai - Macao Bridge Hong Kong Project Management Office

CONSULTANT 工程顧問公司

AECOM Asia Company Ltd.
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ISSUE/REVISION 修訂

MR 修訂	DATE 日期	DESCRIPTION 內容修訂	CHK. 審核
-	OCT. 12	TENDER DRAWING	CWN

STATUS 階段

SCALE 比例: A1 1 : 1000

DIMENSION UNIT 尺寸單位: METRES

KEY PLAN 索引圖

Figure 1.2i

PROJECT NO. 項目編號: 60240249

CONTRACT NO. 合同編號: HY/2012/07

SHEET TITLE 圖紙名稱

WORKS AREA AND HOARDING PLAN

SHEET 2 OF 2

SHEET NUMBER 圖紙編號

60240249/C1/1052

Project Management Initials: PLCK Checked: SLYY Approved: CWN Designer: ISO A1 594mm x 841mm

Plot File by: LIUJ3 2012-10-24
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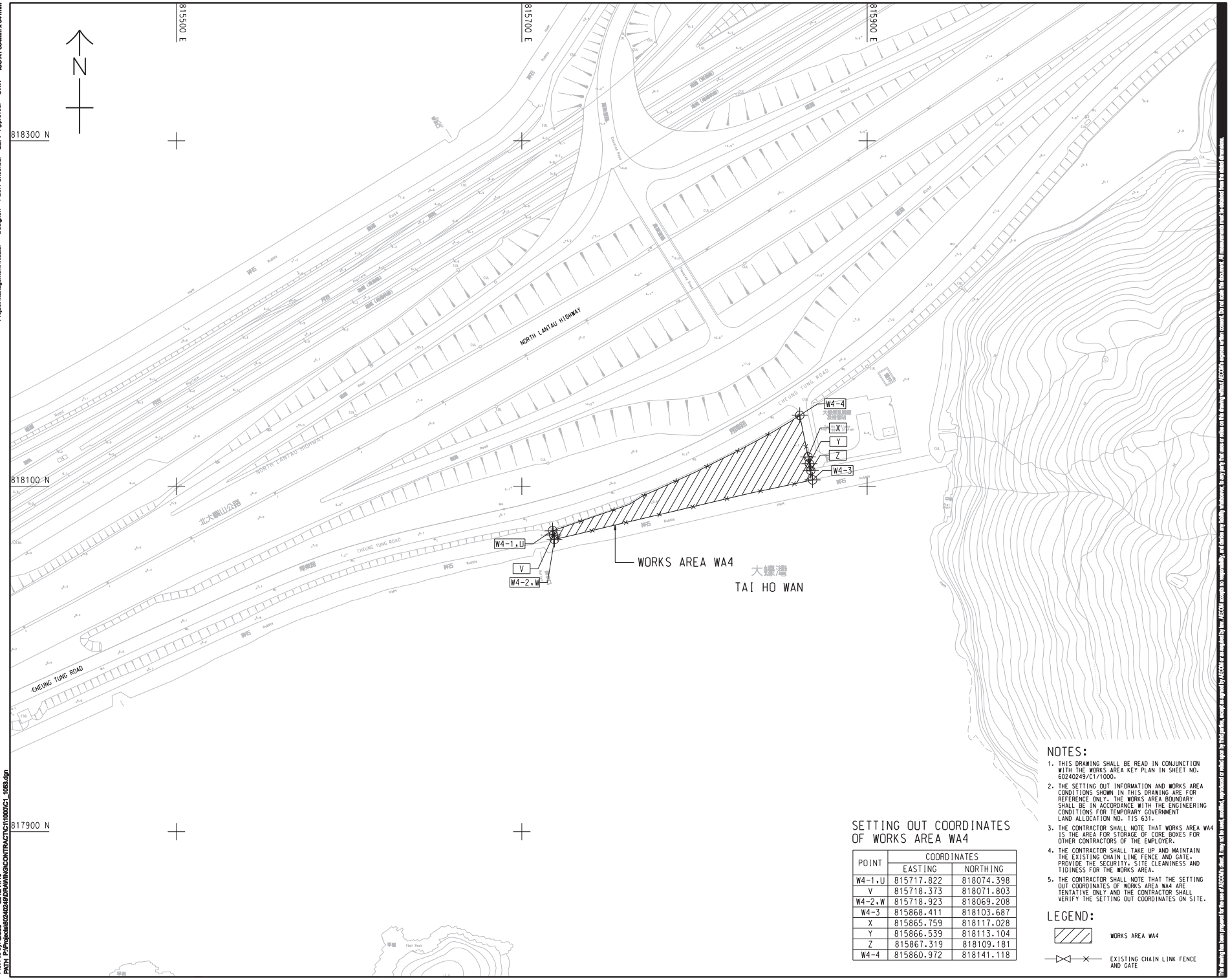

NOTES:

1. THIS DRAWING SHALL BE READ IN CONJUNCTION WITH THE WORKS AREA KEY PLAN IN SHEET NO. 60240249/C1/1000.
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. T15 631.
3. THE CONTRACTOR SHALL NOTE THAT WORKS AREA WA4 IS THE AREA FOR STORAGE OF CORE BOXES FOR OTHER CONTRACTORS OF THE EMPLOYER.
4. THE CONTRACTOR SHALL TAKE UP AND MAINTAIN THE EXISTING CHAIN LINE FENCE AND GATE. PROVIDE THE SECURITY. SITE CLEANINESS AND TIDINESS FOR THE WORKS AREA.
5. 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.

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

LEGEND:

WORKS AREA WA4

EXISTING CHAIN LINK FENCE AND GATE

AECOM

PROJECT
項目

TUEN MUN - CHEK LAP KOK LINK

CONTRACT TITLE

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

CLIENT
業主

路政署 HIGHWAYS DEPARTMENT
港珠澳大橋香港工程管理處
Hong Kong - Zhuhai - Macao Bridge Hong Kong Project Management Office

CONSULTANT
工程顧問公司

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Figure 1.2j

ISSUE/REVISION
修訂

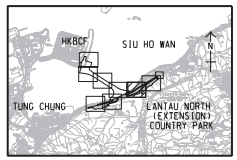
VR. 修訂	DATE 日期	DESCRIPTION 內容修訂	CHK. 審核
-	NOV. 12	TENDER ADDENDUM NO. 1	CWN

STATUS
階段

SCALE
比例: A1 1 : 1000

DIMENSION UNIT
尺寸單位: METRES

KEY PLAN
索引圖



PROJECT NO.
項目編號: 60240249

CONTRACT NO.
合約編號: HY/2012/07

SHEET TITLE
圖紙名稱

WORKS AREA WA4

SHEET NUMBER
圖紙編號

60240249/C1/1053

Project Management Initials: Designer: PLCK Checked: SLYY Approved: CWN ISO A1 594mm x 841mm

Plot File by: LIUJ3 2012/11/16
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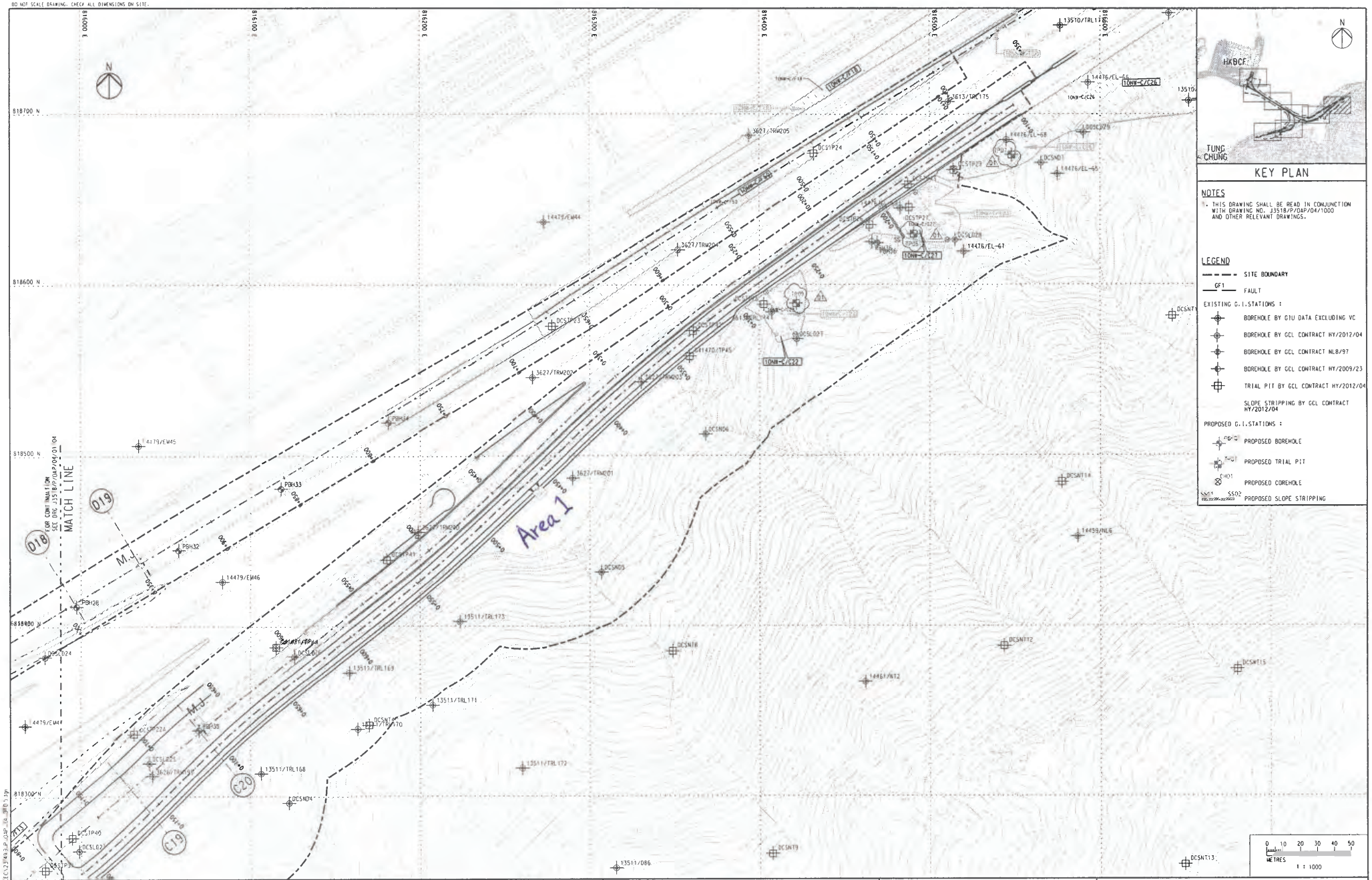

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B	SUBMISSION	RL	07/13				
C	SUBMISSION	RL	09/13				
D1	ETA INTERNAL REVIEW	RL	10/13				

Drawn	RL
Date	07/13
Checked	DS
Approved	DOP
Scale	1:1000 @ A1 / 1:2000 @ A3

Client: 路政署 HIGHWAYS DEPARTMENT 港珠澳大橋香港工程管理處 Hong Kong - Zhuhai - Macao Bridge Hong Kong Project Management Office

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

Supervising Officer: AECOM

Contractor: Gammon

Originator: ARUP

Drawing title: **Figure 1.2k**

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

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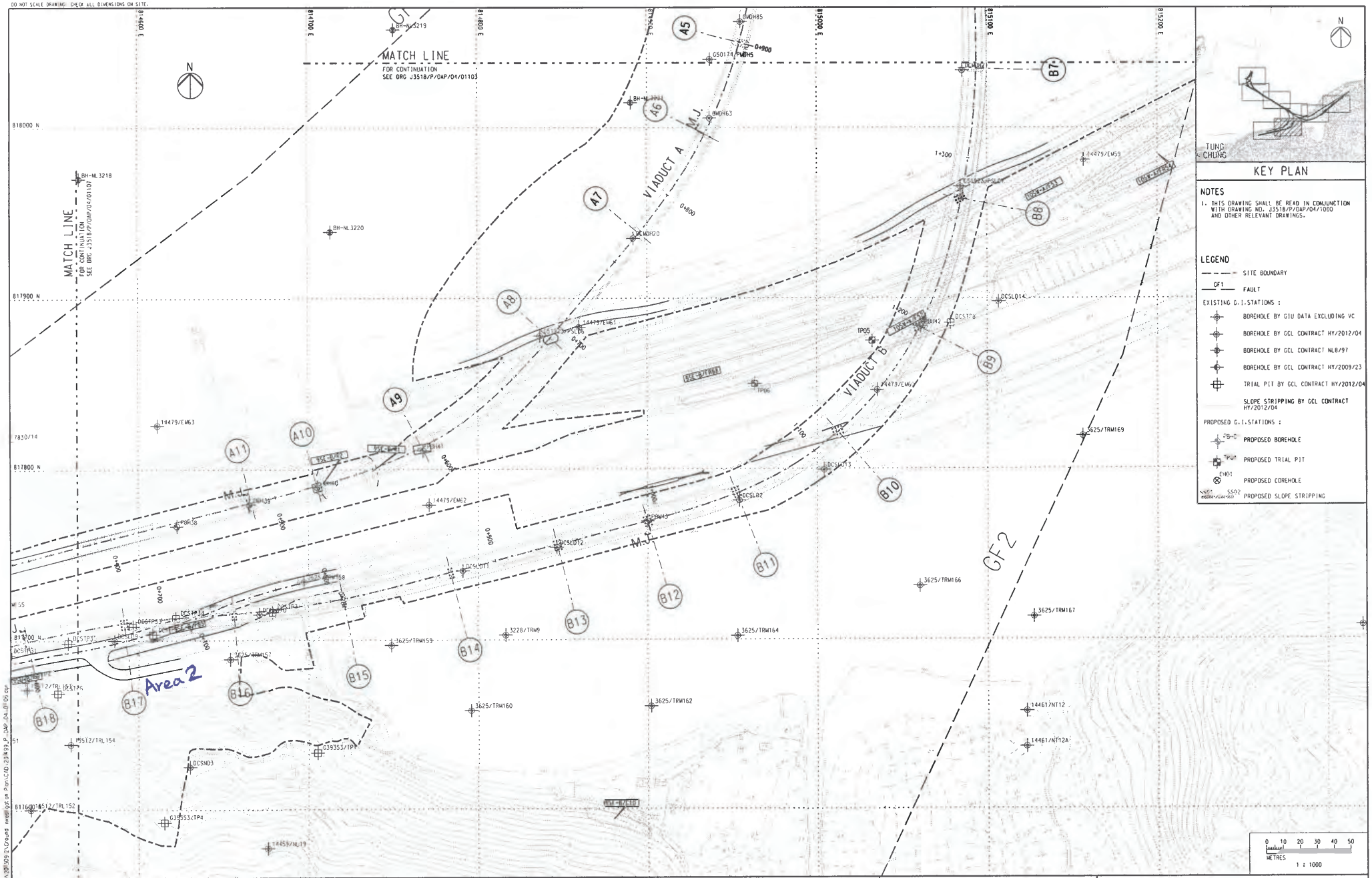

Rev	Description	By	Date	Rev	Description	By	Date
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B	[illegible]	RC	07/13				
C	[illegible]	RC	09/13				

Drawn	Date
RL	07/13
Checked	Approved
DS	DOP
Scale	
1:1000 @ A1 / 1:2000 @ A3	

Client: 路政署 HIGHWAYS DEPARTMENT
港珠澳大橋香港工程管理處 Hong Kong - Zhuhai - Macao Bridge Hong Kong Project Management Office

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

Supervising Officer: AECOM
Contractor: Gammon
Originator: ARUP

Drawing title: **Figure 1.2l**

Drawing no. J3518/P/OAP/04/01106 Rev C

Printed by: 9/9/2015
F:\Temp\J3518P/OAP/04/01106 21Ground overall gotcon Plan(CAD_23/499_P_OAP_04_01106.dgn

1.4 SUMMARY OF CONSTRUCTION WORKS

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

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

Marine Works

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

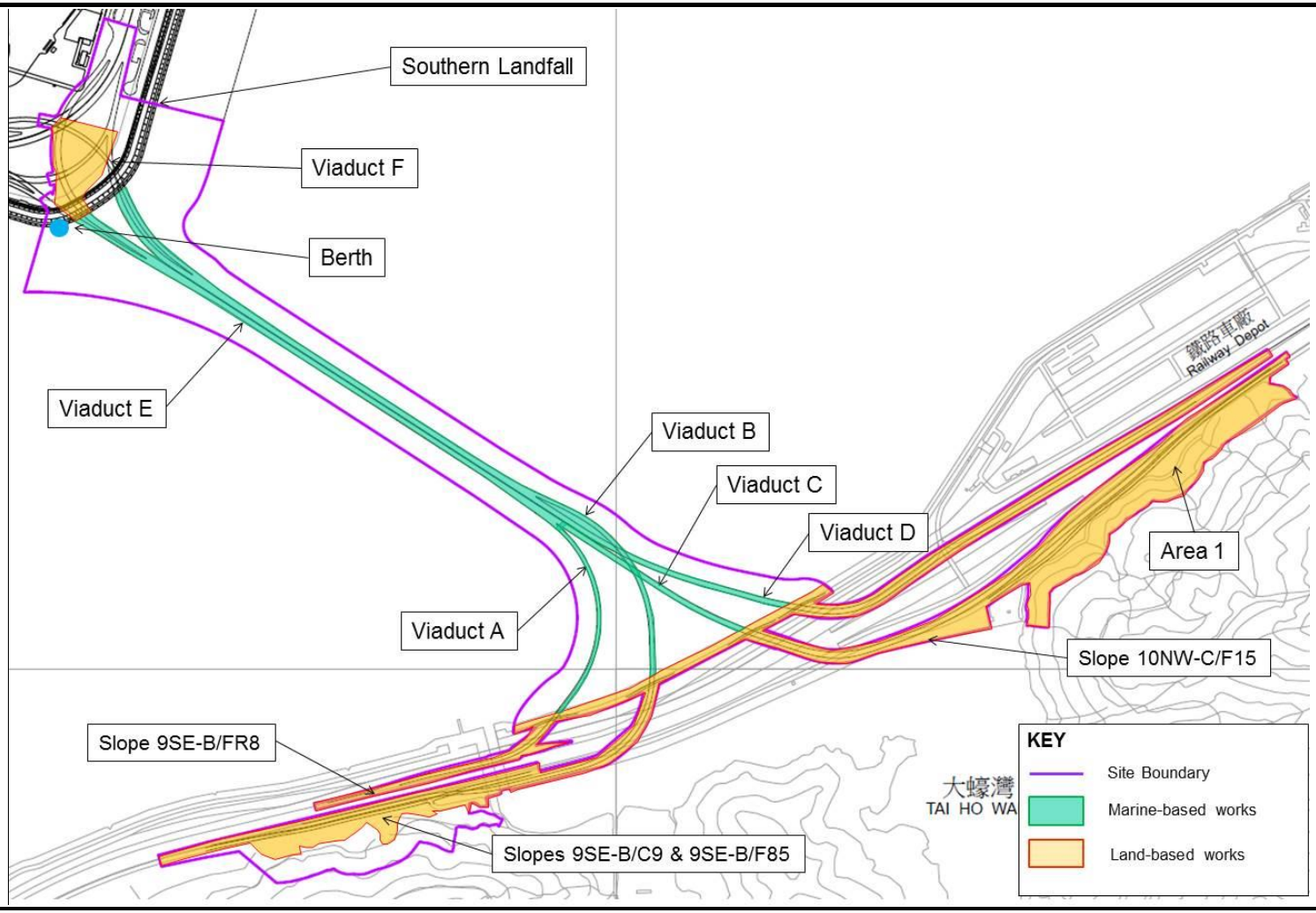
Land-based Works

- Pier construction;
- Re-alignment of Cheung Tung Road;
- Predrilling at Viaduct F;
- Additional land GI, trial pits & lab testing;
- Installation of pier head and deck segments; and
- Slope work of Viaducts A, B & C.

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

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

Figure 1.3 Locations of Construction Activities in the Reporting Month



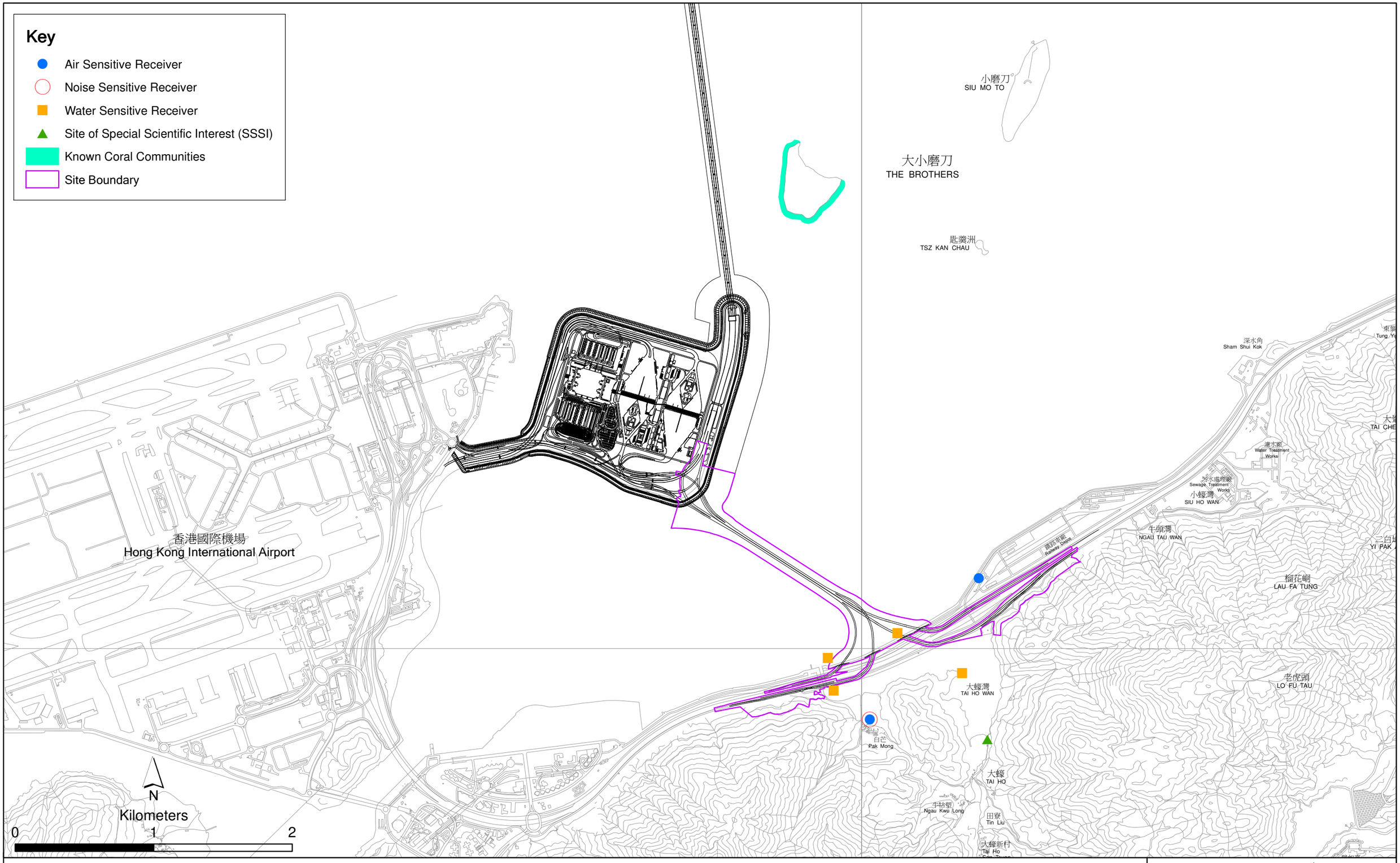


Figure 1.4

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

File: T:\GIS\CONTRACT\0215660\Mxd\0215660_Environmental_Sensitive_Receiver.mxd
Date: 18/5/2015

Environmental Resources Management

ERM

2 EM&A RESULTS

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

2.1 AIR QUALITY

2.1.1 Monitoring Requirements and Equipment

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

Table 2.1 Locations of Impact Air Quality Monitoring Stations

Monitoring Station	Location	Description	Monitoring Dates
ASR 9	MTR Depot	On the ground nearby MTR Depot Entrance	6, 12, 18, 21 and 27 January 2016
ASR 8A	Area 4	On ground at the works area, Area 4	6, 12, 18, 21 and 27 January 2016

High Volume Samplers (HVSs) were used for carried out 1-hour and 24-hour TSP monitoring on 6, 12, 18, 21 and 27 January 2016 at ASR8A and ASR9 in accordance with the requirements of the Updated EM&A Manual. The TSP monitoring stations are illustrated in *Figure 2.1* and detailed in *Table 2.1*. Wind anemometer was deployed at Area 4 for logging wind speed and wind direction. Copies of the calibration certificates for the equipment are presented in *Appendix E*. Details of the deployed equipment are given in *Table 2.2*.

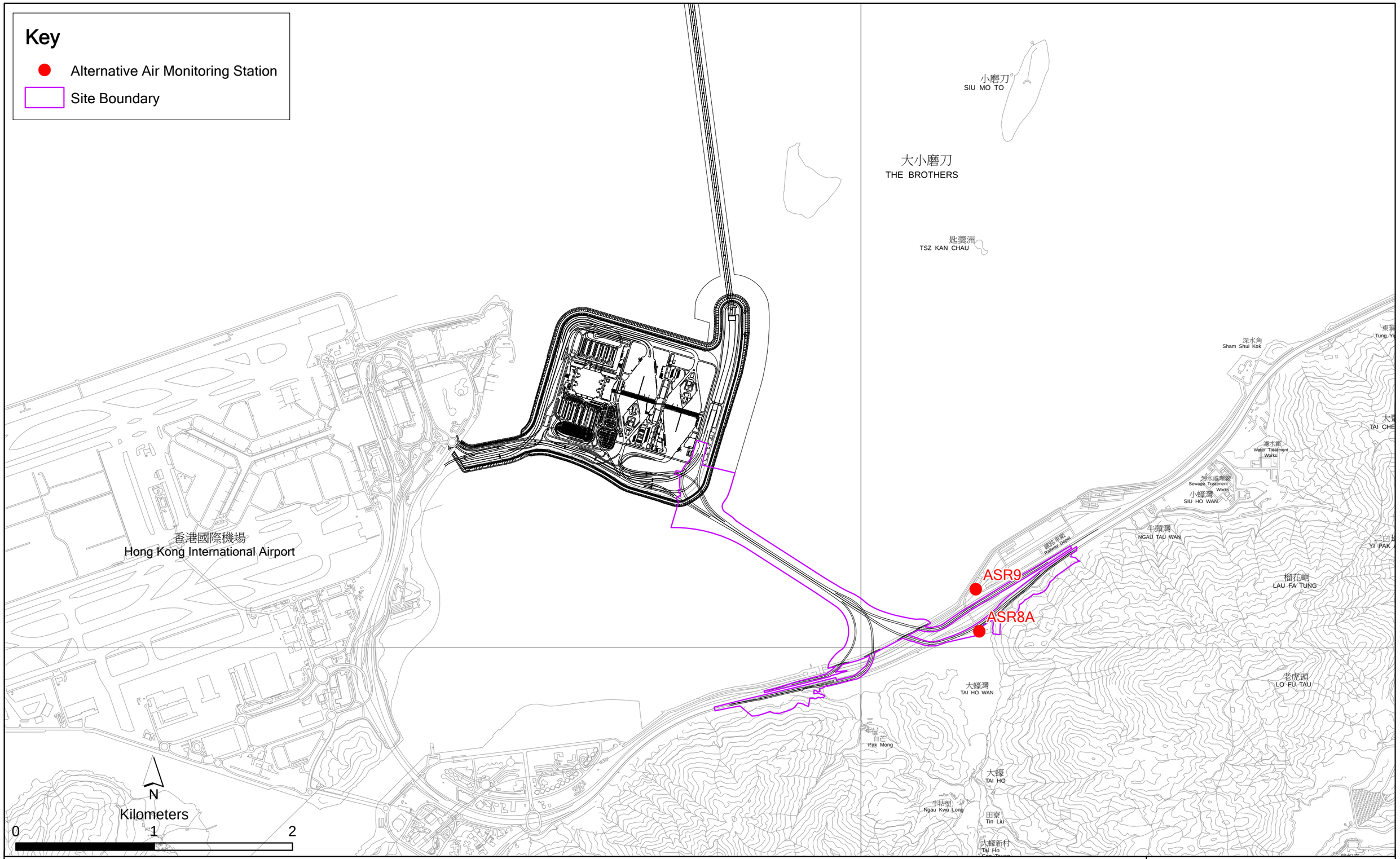


Figure 2.1

Locations of Air Quality Monitoring Stations

File: T:\GIS\CONTRACT\0215660\Mxd\0215660_AQMS.mxd
Date: 7/1/2015

Environmental Resources Management

ERM

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 January 2016 is provided in *Appendix F*.

2.1.3 *Results and Observations*

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

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

Monitoring Station	Average (μg/m³)	Range (μg/m³)	Action Level (μg/m³)	Limit Level (μg/m³)
ASR 8A	71	49 – 118	394	500
ASR 9	63	45 - 111	393	500

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

Monitoring Station	Average (μg/m³)	Range (μg/m³)	Action Level (μg/m³)	Limit Level (μg/m³)
ASR 8A	54	47 - 64	178	260
ASR 9	56	49 - 64	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*.

Wind speed and direction data is not available due to wind sensor at ASR8A was under maintenance in January 2016.

2.2 NOISE MONITORING

2.2.1 *Monitoring Requirements and Equipment*

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

Noise monitoring was performed on 6, 12, 18, 21 and 27 January 2016 by using sound level meter at the designated monitoring station NSR1A (*Figure 2.2; Table 2.5*) in accordance with the requirements stipulated in the Updated EM&A Manual. Acoustic calibrator was deployed to check the sound level meters at a known sound pressure level. Details of the deployed equipment are provided in *Table 2.6*. Copies of the calibration certificates for the equipment are presented in *Appendix E*.

Table 2.5 Location of Impact Noise Monitoring Station

Monitoring Station	Location	Description	Parameter	Frequency and Duration	Monitoring Dates
NSR 1A	Pak Mong Village Pavilion	On the ground at the village entrance	30-minute measurement at each monitoring station between 0700 and 1900 on normal weekdays (Monday to Saturday). L_{eq}, L_{10} and L_{90} would be recorded.	At least once per week	6, 12, 18, 21 and 27 January 2016

Table 2.6 Noise Monitoring Equipment

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

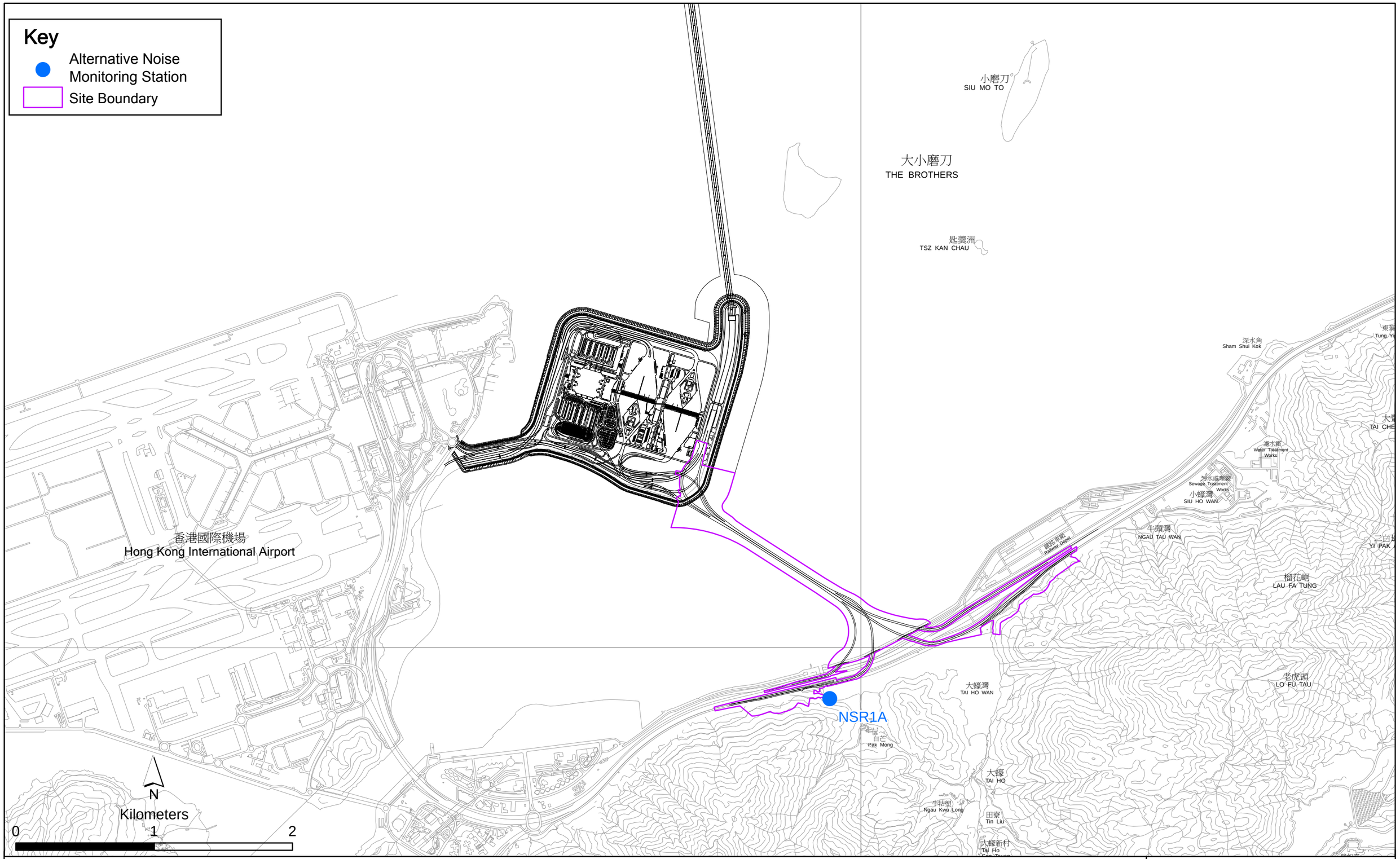


Figure 2.2

Location of Noise Monitoring Station

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Date: 7/1/2015

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2.2.2 *Monitoring Schedule for the Reporting Month*

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

2.2.3 *Results and Observations*

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

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

	Average , dB(A), $L_{eq\ (30mins)}$	Range, dB(A), $L_{eq\ (30mins)}$	Limit Level, dB(A), $L_{eq\ (30mins)}$
NSR 1A	61	59 - 62	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.*

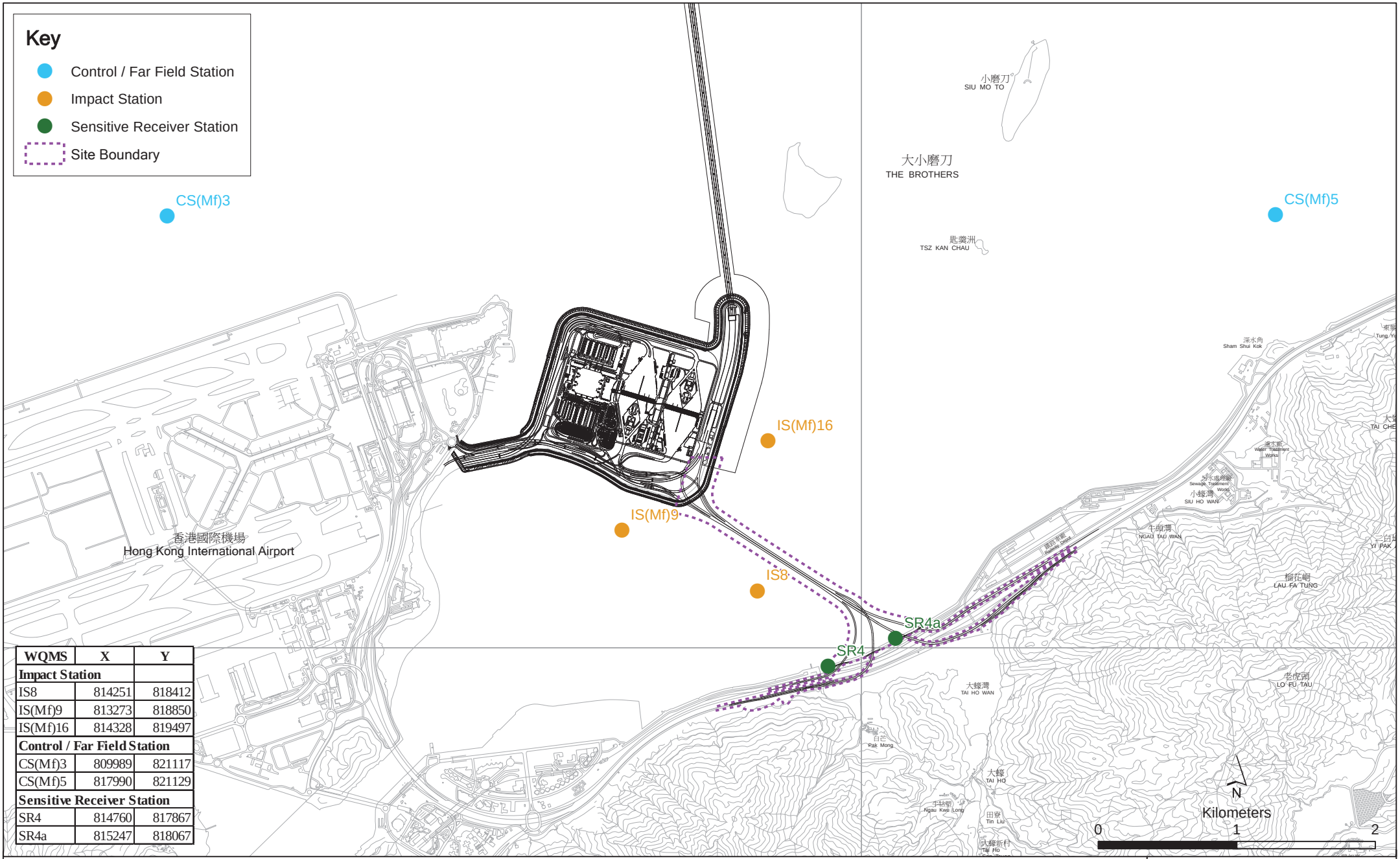
Major noise sources during the noise monitoring included noise from crane operation and excavation works, nearby traffic noise and aircraft noise.

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.*



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

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

Station ID	Type	Coordinates		*Parameters, unit	Frequency	Depth
		Easting	Northing			
IS(Mf)9	Impact Station (Close to HKBCF construction site)	813273	818850	• Temperature(°C) • pH (pH unit) • Turbidity (NTU) • 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 January 2016 is provided in *Appendix F*.

2.3.3 *Results and Observations*

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

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

2.4.3 *Monitoring Parameter, Frequencies and Duration*

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

2.4.4 *Monitoring Location*

The impact dolphin monitoring was carried out in the NEL and NWL along the line transect as depicted in *Figure 2.4.* The co-ordinates of all transect lines are shown in *Table 2.11* below.

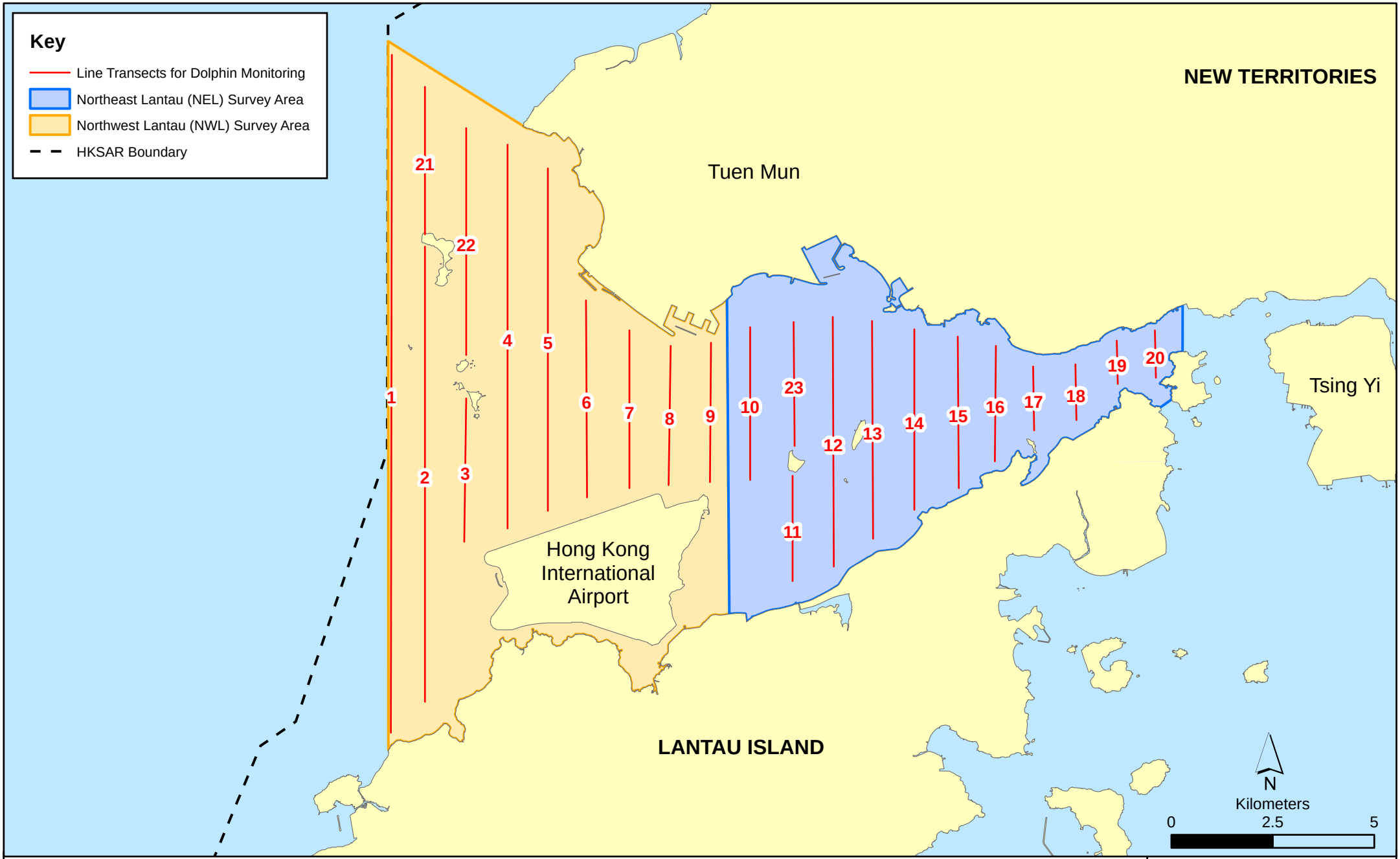

Figure 2.4

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

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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 8, 11, 13 and 19 January 2016 (*Appendix F*).

2.4.7 *Results and Observations*

A total of 302.06 km of survey effort was collected, with 99.3% 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 January 2016. Among the two areas, 116.80 km and 185.26 km of survey effort were collected from NEL and NWL survey areas respectively. The total survey effort conducted on primary and secondary lines were 218.06 km and 84.00 km respectively. The survey efforts are summarized in *Appendix K*.

Five (5) groups of eighteen (18) Chinese White Dolphins were sighted during the two sets of monitoring surveys in January 2016. All five (5) dolphin sightings were made in NWL, while none was sighted in NEL. During the surveys in January 2016, three (3) out of five (5) sightings were made on primary lines during on-effort search. None of the dolphin groups was associated with operating fishing vessel or sighted in the proximity of the Project's alignment. The distribution of dolphin sighting during the reporting month is shown in *Figure 2.5*.

Encounter rates of Chinese White Dolphins are deduced from the survey effort and on-effort sighting data made under favourable conditions (Beaufort 3 or below) in January 2016 are shown in *Tables 2.12 & 2.13*.

Table 2.12 Individual Survey Event Encounter Rates

		Encounter rate (STG) (no. of on-effort dolphin sightings per 100 km of survey effort)	**Encounter rate (ANI) (no. of dolphins from all on-effort sightings per 100 km of survey effort)**
		Primary Lines Only	Primary Lines Only
NEL	Set 1: Jan 8th / 11th	0.0	0.0
	Set 2: Jan 13th / 19th	0.0	0.0
NWL	Set 1: Jan 8th / 11th	2.8	9.8
	Set 2: Jan 13th / 19th	1.4	10.9

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

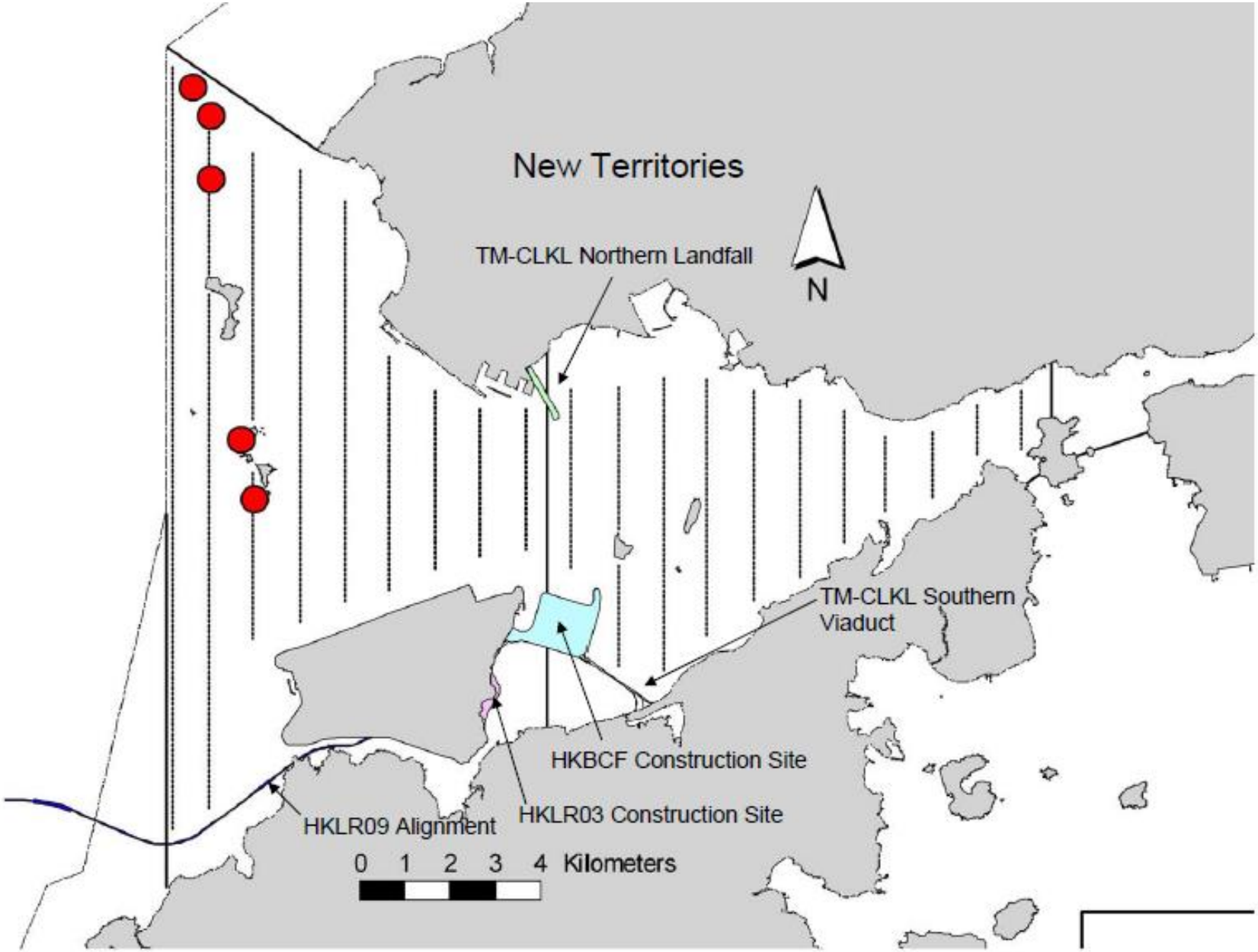

Figure 2.5

Date 3/2/2016

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 January 2016)

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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	2.1	2.7	10.3	9.8

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

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 January 2016 during the exclusion zone monitoring.

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

2.5 *EM&A SITE INSPECTION*

Site inspections were carried out on a weekly basis to monitor the implementation of proper environmental pollution control and mitigation measures under the Contract. In the reporting month, four (4) site inspections were carried out on 7, 13, 20 and 28 January 2016.

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

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

Inspection Date	Environmental Observations	Recommendations/ Remarks
7 January 2016	Abutment D • A drip tray for generator was not plugged. • Some chemical containers were not placed in drip tray. • Stagnant water was accumulated in a drip tray. • Equipment was placed too close to natural habitat. • Unpaved area was partially dry. Site Access 6A • Refuse was found in drainage.	Abutment D • Drip tray should be plugged. • Chemical containers should be placed in drip tray. • Stagnant water was removed regularly. • Equipment should be placed away from natural habitat. • Sufficient watering should be applied to unpaved area regularly. Site Access 6A • Refuse in drainage should be cleaned up regularly.
13 January 2016	Southern Landfall • Checklist and contact person for a wetsep were not displayed. • Chemical containers were not placed in drip tray. Pier E9 • Gutter was not properly installed. Pier E7 • An expired dumping permit was displayed.	Southern Landfall • Checklist and contact person for wetsep should be properly displayed. • Chemical containers should be placed in drip tray. Pier E9 • Gutter should be properly installed. Pier E7 • The expired dumping permit was removed immediately.
20 January 2016	Site Access 4B • Chemical containers were not properly labelled. • Checklist for wetsep was not displayed. Site Access 6B • Bund next to drainage inlet was insufficient. Area 1 • A cover for dump truck was damaged. • Refuse was accumulated in drainage. • Construction material was placed too close to natural habitat.	Site Access 4B • Chemical containers should be properly labelled. • Checklist for wetsep should be displayed. Site Access 6B • Sandbag was provided immediately to the drainage inlet. Area 1 • Damaged cover for dump truck should be repaired. • Refuse in drainage should be removed regularly. • Construction material should be placed away from natural habitat.
28 January 2016	Area 2 • Soil stockpile was not well covered. • Excessive soil was found at the site entrance. • CNP was not well displayed. Pier B13 • Refuse was found accumulated on site. Pier C13 • Refuse was found accumulated in drainage on slope.	Area 2 • More tarpaulin sheet should be provided to the soil stockpile. • Excessive soil was cleaned up immediately. • CNP should be well displayed. Pier B13 • Refuse should be cleaned up regularly. Pier C13 • Refuse in drainage 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). 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)
January 2016	1,334	0	606	69,400	105	0	0	0

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

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

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

2.7 ENVIRONMENTAL LICENSES AND PERMITS

The status of environmental licensing and permit is summarized in *Table 2.16* below.

Table 2.16 Summary of Environmental Licensing and Permit Status

License/ Permit	License or Permit No.	Date of Issue	Date of Expiry	License/ Permit Holder	Remarks
Environmental Permit	EP-354/2009/D	13 March 2015	N/A	HyD	Tuen Mun- Chek Lap Kok Link
Environmental Permit	EP-353/2009/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 for night works and works in general holidays	GW-RW0045-16	27-Jan-16	25-Jul-16	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
Construction Noise Permit for night works and	GW-RS1086-15	7 Oct 2015	15 Dec 2015	GCL	TTA Case 009 Ch.2.1E-4.2E

License/ Permit	License or Permit No.	Date of Issue	Date of Expiry	License/ Permit Holder	Remarks
works in general holidays					
Construction Noise Permit for night works and works in general holidays	GW-RS0855-15	12 Aug 2015	11 Feb 2016	GCL	Pier construction at C7, D8, D9
Construction Noise Permit for night works and works in general holidays	GW-RS1046-15	04-Jan-16	31-Jan-16	GCL	Erection of GT324, GT326-GT328 sign gantry leg
Marine Dumping Permit	EP/MD/16-166	25-Jan-16	29-Feb-16	GCL	For dumping Type I (Dedicated Site) and Type II sediment
Marine Dumping Permit	EP/MD/16-138	10 Dec 15	13 Jun 16	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.

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*.

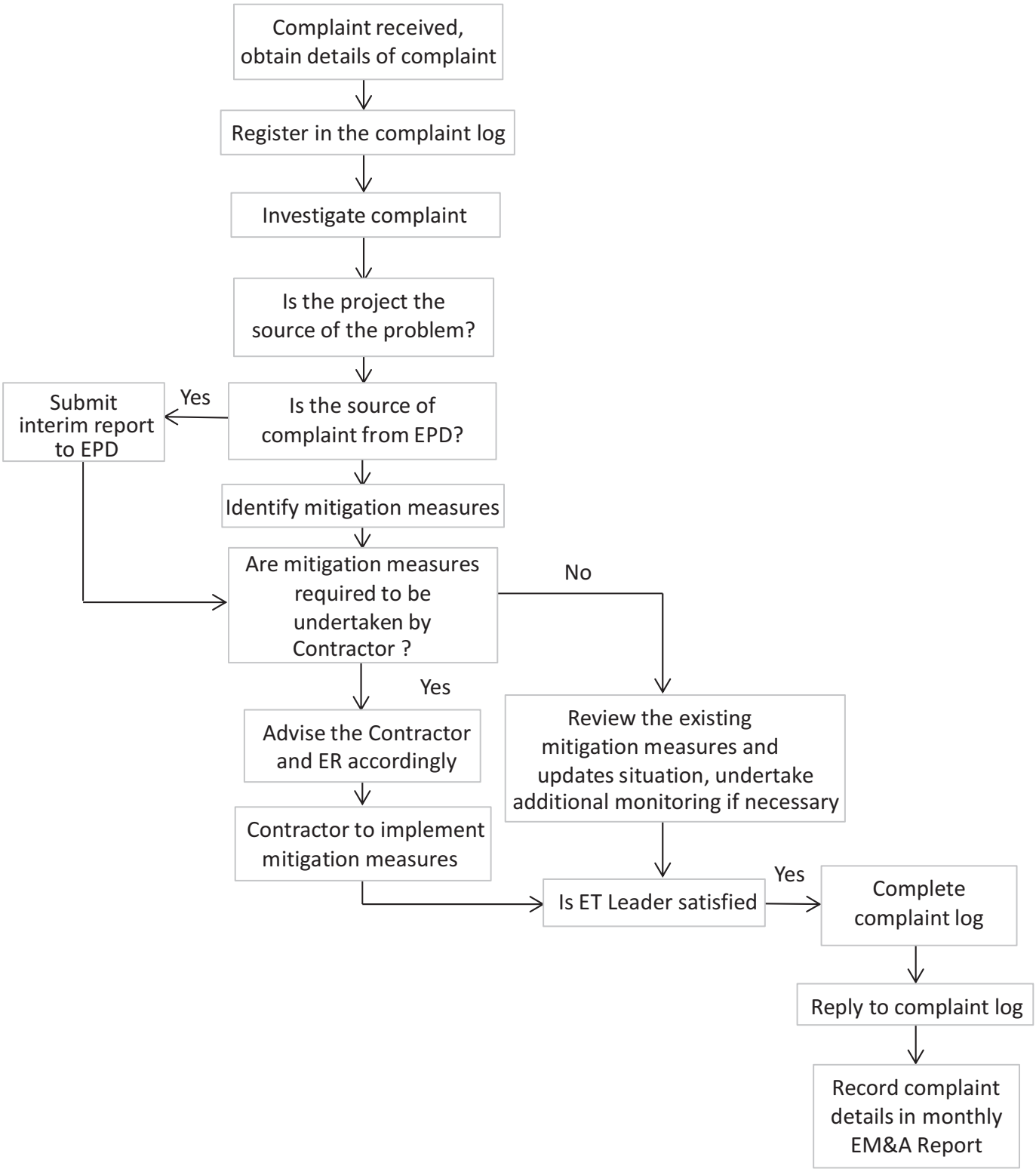

Figure 2.6 Environmental Complaint Handling Procedure

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3 FUTURE KEY ISSUES

3.1 CONSTRUCTION PROGRAMME FOR THE COMING MONTHS

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

Marine Works

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

Land-based Works

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

3.2 KEY ISSUES FOR THE COMING MONTH

Potential environmental impacts arising from the above upcoming construction activities in the next reporting month of February 2016 are mainly associated with dust, noise, marine water quality, marine ecology and waste management issues.

3.3 MONITORING SCHEDULE FOR THE COMING MONTH

The tentative schedules for environmental monitoring in February 2016 are provided in *Appendix F*.

4 CONCLUSIONS AND RECOMMENDATIONS

4.1 CONCLUSIONS

This Twenty-seventh Monthly EM&A Report presents the findings of the EM&A activities undertaken during the period from 1 to 31 January 2016 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 (1-hour TSP and 24-hour TSP), noise, water quality (DO, turbidity and SS) and dolphin monitoring were carried out in the reporting month. Results for water quality, air quality and noise monitoring complied with the Action and Limit levels in the reporting period.

Five (5) groups of eighteen (18) Chinese White Dolphins were sighted during the two sets of monitoring surveys in January 2016. No sighting was made in the proximity of the Project's alignment. 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.

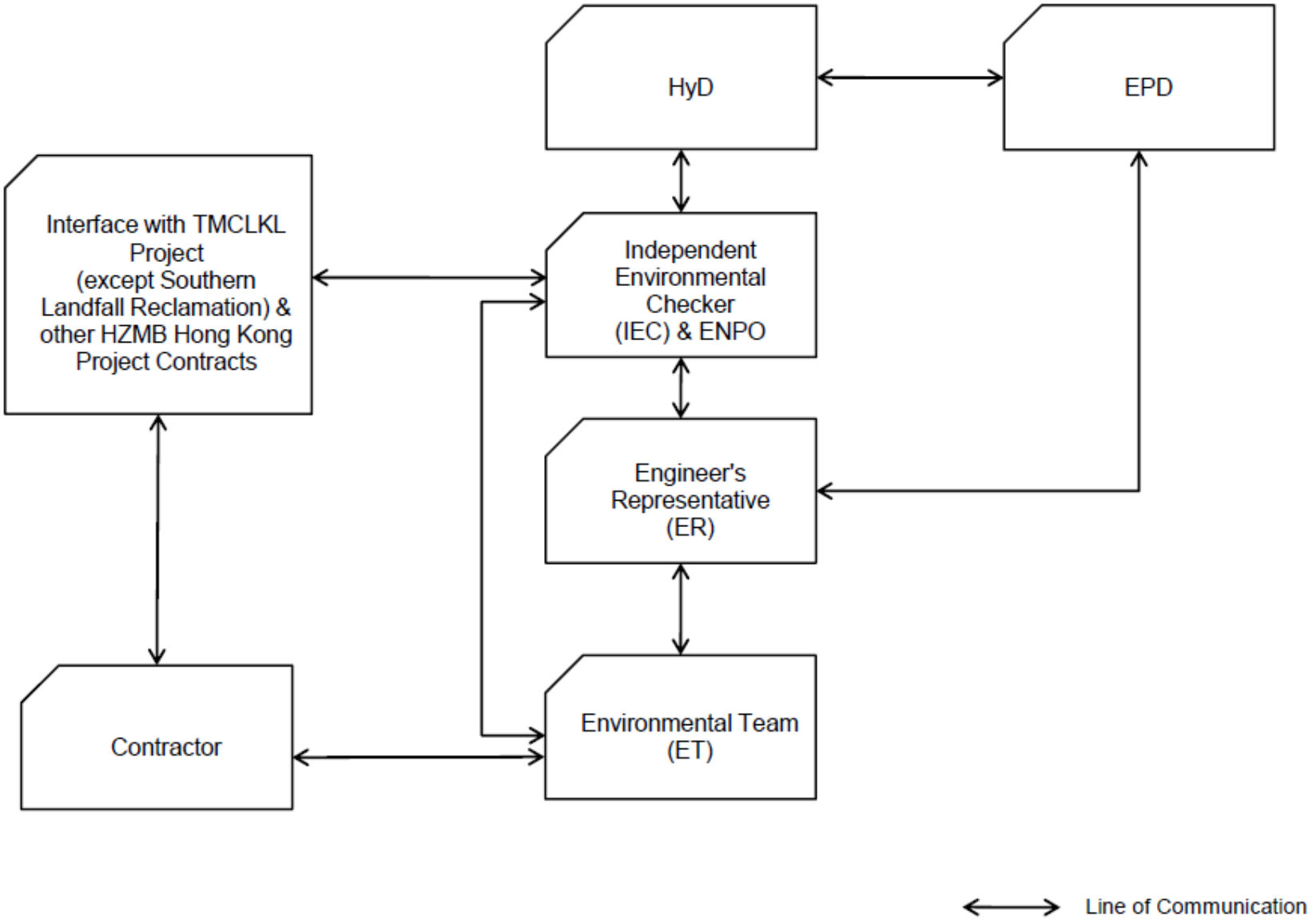
Environmental site inspection was carried out four (4) times in January 2016. Recommendations on remedial actions were given to the Contractor for the deficiencies identified during the site audits.

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

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

Appendix A

Project Organization for Environmental Works



Appendix A1

Contract No. HY/2012/07 Southern Connection Viaduct Section
Project Organization

DATE: 06/03/2013

Environmental Resources Management

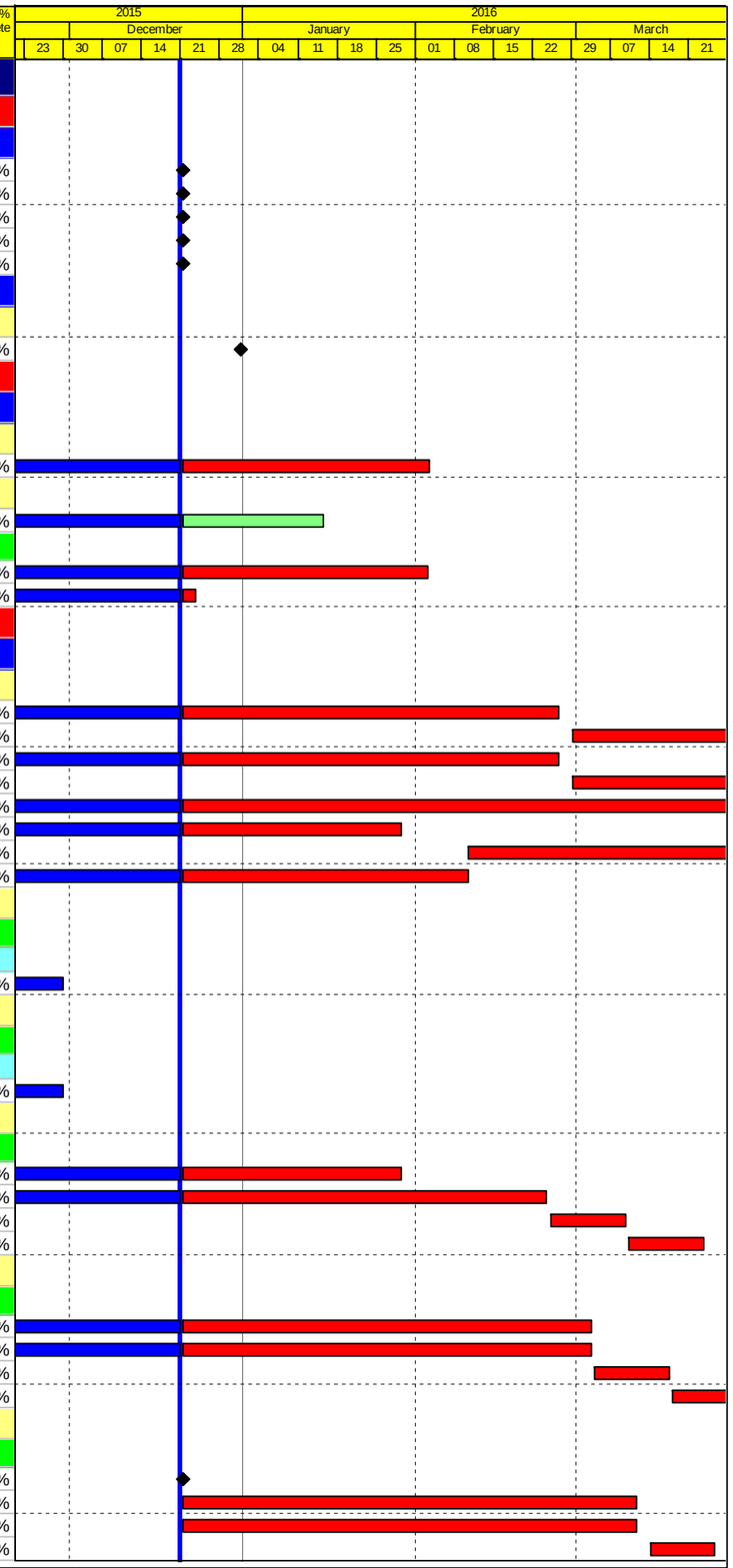
ERM

Appendix B

Three-Month Rolling Construction Programme

HY/2012/07 - TM-CLK Link-SC [DWP rF] - Status Update 21-12-2015

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
Contract Key Dates											
Possession Dates / Access Period											
POS02-0	Portion A (Commencement of Works+499 days) original	0	21-Dec-15*	0%	0		03-Jun-15		-201	0	0%
POS02-1B	Portion A - Area 1B	0	21-Dec-15*	0%	0		14-Sep-15		-97	0	0%
POS02-3	Portion A - Area 3	0	21-Dec-15*	0%	0		03-Nov-15		-48	0	0%
POS02-6	Portion A - Area 6	0	21-Dec-15*	0%	0		03-Nov-15		-48	0	0%
POS03-0	Portion B (Commencement of Works+619 days) original	0	21-Dec-15*	0%	0		02-Oct-15		-80	0	0%
Section Completion Dates											
Vacate Works Area											
VAC05	Vacate Works Area WA5 (Zone 5C) (Commencement of Works+758 days)	0		0%	0	31-Dec-15*		31-Dec-15	0	1236	0%
General Submissions											
General Requirements											
Temporary Works Design											
PR00130	Unloading Jetty at HKBCF - Working Platform design and approval	90	02-Jun-14 A	60%	36	03-Feb-16	24-Jul-15	04-Sep-15	-124	971	60%
Land Works											
PR00160	Propose/submit a performance review for piled fnds in accordance w/ ETW	101	26-May-14 A	80.2%	20	15-Jan-16	09-Mar-16	05-Apr-16	62	404	80%
Land GI Works											
PR02204	SQR Sampling & Testing and Approval	110	14-Aug-14 A	68%	35	03-Feb-16	28-Oct-14	08-Dec-14	-340	0	68%
PR03110	Trial Pits along Cheung Tung Road	20	21-Oct-13 A	85%	3	23-Dec-15	05-Dec-14	08-Dec-14	-308	32	85%
Design Submissions											
Detailed Design (v18.8 18-08-14)											
General Submissions											
ARDD0037-1	Preparation of Seismic Performance Report Viaduct A,B,C,D - AP12.01	50	21-Aug-15 A	0%	50	26-Feb-16	14-Oct-15	22-Dec-15	-48	0	0%
ARDD0037-2	IC/SO Approval of Seismic Performance Report Viaduct A,B,C,D - AP12.01	75	29-Feb-16	0%	75	10-Jun-16	23-Dec-15	05-Apr-16	-48	253	0%
ARDD0037-4	Preparation of Seismic Performance Report Viaduct E - AP12.02	50	21-Aug-15 A	0%	50	26-Feb-16	14-Oct-15	22-Dec-15	-48	0	0%
ARDD0037-5	IC/SO Approval of Seismic Performance Report Viaduct E - AP12.02	75	29-Feb-16	0%	75	10-Jun-16	23-Dec-15	05-Apr-16	-48	253	0%
ARDD0037-7	Preparation of Seismic Performance Report Viaduct F - AP12.03	160	21-Aug-15 A	0%	160	29-Jul-16	13-May-15	22-Dec-15	-158	0	0%
ARDD0040-1	Preparation of Operation and Maintenance Manual - AP08.00	30	01-Sep-15 A	0%	30	29-Jan-16	11-Nov-15	22-Dec-15	-28	8	0%
ARDD0040-2	IC/SO Approval of Operation and Maintenance Manual - AP08.00	75	10-Feb-16	0%	75	25-May-16	23-Dec-15	05-Apr-16	-36	266	0%
ARDD0042-2	IC/SO Approval of O&M Facility Provisions DDA - BP11.01	75	14-Jan-15 A	50%	38	10-Feb-16	30-Oct-15	22-Dec-15	-36	0	50%
Viaduct E5 and E6											
Viaduct Design											
Viaduct E5 E6 Superstructure Optimisation											
TGP0550	Viaduct E5 & E6 - Preparation of Optimised Movement Joint Schedule	15	03-Feb-15 A	100%	0	30-Nov-15 A					100%
Viaduct E7 & E8											
Viaduct Design											
Viaduct E7 E8 Superstructure Optimisation											
TGP0750	Viaduct E7 & E8 - Preparation of Optimised Movement Joint Schedule	15	03-Feb-15 A	100%	0	30-Nov-15 A					100%
Viaduct A											
Viaduct Design											
ARDD0435-3	Viaduct A - Coordination and Further Issue of Construction Method and Ter	60	01-Jun-15 A	50%	30	29-Jan-16	17-Mar-15	27-Apr-15	-199	18	50%
ARDD0435-4	Viaduct A - Preparation of Draft DDA Working Drawing Set	60	01-Jun-15 A	20%	48	24-Feb-16	19-Feb-15	27-Apr-15	-217	0	20%
ARDD0435-6	Viaduct A - Preparation and Coordination of Working Drawing Set	10	25-Feb-16	0%	10	09-Mar-16	28-Apr-15	11-May-15	-217	0	0%
ARDD0435-8	Viaduct A - IC/SO Consent of Supplemental Working Drawings Viaduct A	10	10-Mar-16	0%	10	23-Mar-16	30-Jun-15	13-Jul-15	-182	0	0%
Viaduct F1 & F3											
Viaduct Design											
ARDD0486-2	Viaduct F1 & F3 - Coordination and Further Issue of Construction Method a	60	02-Mar-15 A	10%	54	03-Mar-16	22-Jun-15	03-Sep-15	-130	0	10%
ARDD0486-3	Viaduct F1 & F3 - Preparation of Draft Working Drawing Set	60	02-Mar-15 A	10%	54	03-Mar-16	22-Jun-15	03-Sep-15	-130	0	10%
ARDD0486-5	Viaduct F1 & F3 - Preparation and Coordination of DDA/Working Drawing	10	04-Mar-16	0%	10	17-Mar-16	04-Sep-15	17-Sep-15	-130	0	0%
ARDD0486-7	Viaduct F1 & F3 - IC/SO Consent of Supplemental Working Drawings Viad	10	18-Mar-16	0%	10	31-Mar-16	18-Sep-15	01-Oct-15	-130	0	0%
Viaduct F2, F4 and F5											
Viaduct Design											
ARDD0530-2	Viaduct F2, F4 & F5 - GCL/FRE Issue of Construction Method/Temporary	0		0%	0	21-Dec-15		11-May-15	-159	0	0%
ARDD0530-3	Viaduct F2, F4 & F5 - Coordination and Further Issue of Construction Meth	60	21-Dec-15	0%	60	11-Mar-16	12-May-15	03-Aug-15	-159	0	0%
ARDD0530-4	Viaduct F2, F4 & F5 - Preparation of Draft Working Drawing Set	60	21-Dec-15	0%	60	11-Mar-16	12-May-15	03-Aug-15	-159	0	0%
ARDD0530-6	Viaduct F2, F4 & F5 - Preparation and Coordination of DDA/Working Draw	10	14-Mar-16	0%	10	25-Mar-16	04-Aug-15	17-Aug-15	-159	0	0%



Actual Work
Planned Bar
Critical Bar
Milestone

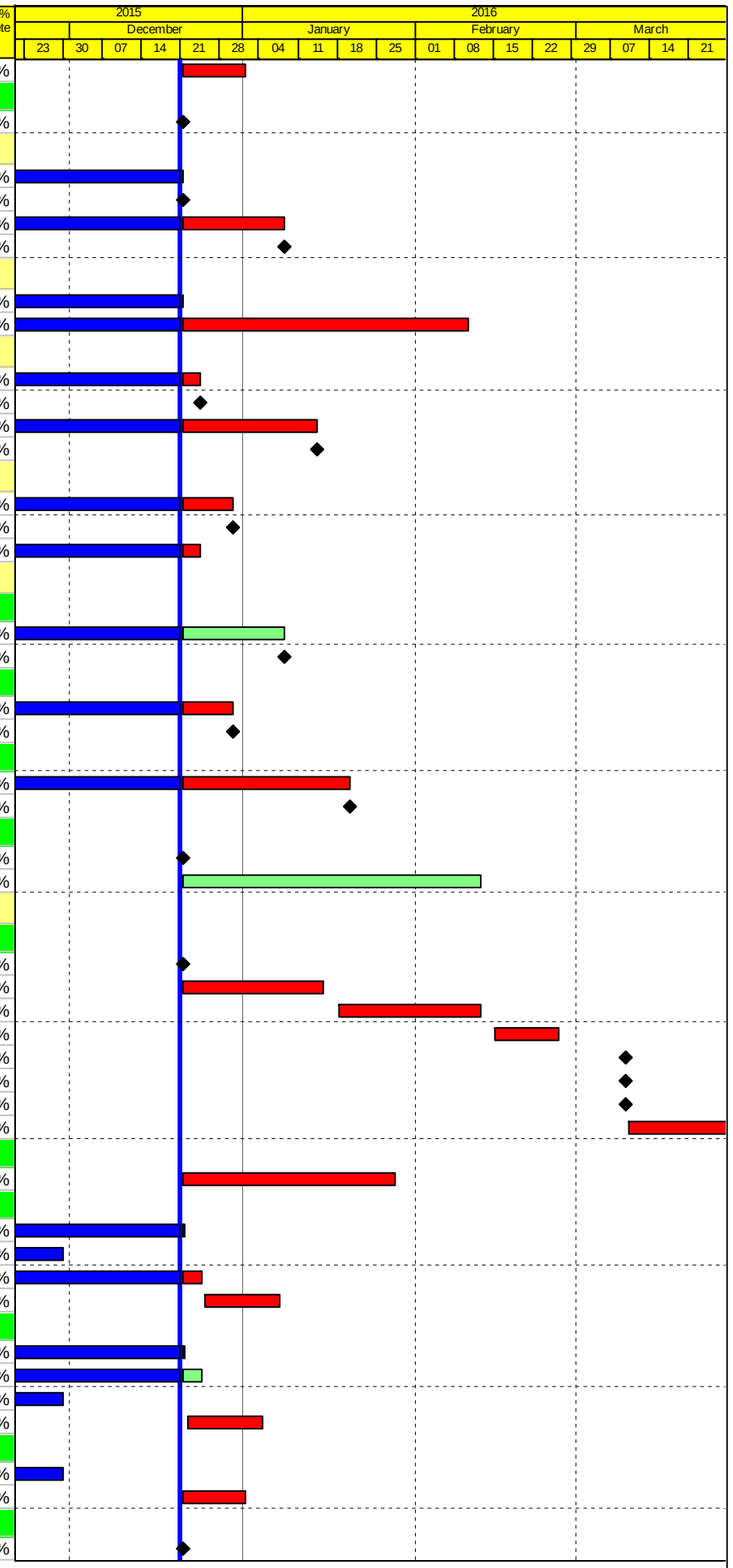
Project ID: J3518DWPrE2-M31
Layout: J3518-DWP-3MRP Submission - M31
Filter: TASK filters: 3-Month Lookahead, No CC Milestones, No Level of Effort.

Tuen Mun - Chek Lap Kok Link - Southern Connection
3-Month Rolling Programme (Page 1 of 25 Pages)
(Progress as of 21-Dec-15)

Date	Revision	Checked	Approved
31-Oct-15		PKN	KWY
01-Dec-15		PKN	KWY
28-Dec-15		PKN	KWY

DWG. No.:
J3518/GCL/PGM/3MRP-M31

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
ARDD0530-8	Viaduct F2, F4 & F5 - IC/SO Consent of Supplemental Drawings of Viaduc	10	21-Dec-15	0%	10	01-Jan-16	18-Sep-15	01-Oct-15	-66	60	0%
Associated Construction Milestones											
ARDD0552	Viaduct F2, F4 & F5 - DDA approval ready for Commencement of Pilecaps	0	21-Dec-15	0%	0		24-Jul-15		-150	184	0%
Parapet and Utility Trough											
ARDD0562-4	IC/SO Approval of DDA -DP30.01	75	31-Jul-14 A	100%	0	21-Dec-15	09-Dec-15	09-Dec-15	-7	0	100%
ARDD0562-5	IC/SO Approval of DDA -DP30.01	0		0%	0	21-Dec-15		09-Dec-15	-7	39	0%
ARDD0566	IC/SO Approval of DDA -DP31.01	75	24-Oct-14 A	80%	15	08-Jan-16	19-Nov-15	09-Dec-15	-22	0	80%
ARDD0566-1	IC/SO Approval of DDA -DP31.01	0		0%	0	08-Jan-16		09-Dec-15	-22	95	0%
Slopeworks for Viaduct B: 9SE- B/C8, B/C9, B/F9, B/F85+ 10SW-A/F52, A/F53											
ARDD0580-5	Preparation of Slope A/F52 Submission - CP12.03	20	10-Feb-15 A	100%	0	21-Dec-15	21-May-19	21-May-19	891	891	100%
ARDD0580-6	IC/SO Approval of Slope - CP12.03	75	21-Sep-15 A	50%	38	10-Feb-16	21-Jul-15	10-Sep-15	-109	1	50%
Slopeworks for Viaduct D: 10NW -C/R4, C/F9, C/F10, C/F11, C/F17, C/F50											
ARDD0603	IC/SO Approval of Slope Combined AIP/DDA -CP14.01	75	16-Dec-14 A	95%	4	24-Dec-15	02-Jun-15	05-Jun-15	-144	0	95%
ARDD0603-1	IC/SO Approval of Slope Combined AIP/DDA -CP14.01	0		0%	0	24-Dec-15		05-Jun-15	-144	0	0%
ARDD0604-2	IC/SO Approval of Slope Combined AIP/DDA -CP14.02	75	18-May-15 A	75%	19	14-Jan-16	15-Sep-15	09-Oct-15	-69	0	75%
ARDD0604-3	IC/SO Approval of Revised Slope Combined AIP/DDA -CP14.02	0		0%	0	14-Jan-16		09-Oct-15	-69	75	0%
Waterworks, Drainage & Utility Diversions											
ARDD0629	IC/SO Approval of Waterworks, Drainage & Utility DDA - BP20.01	75	22-Jul-14 A	90%	8	30-Dec-15	13-Oct-15	22-Oct-15	-49	0	90%
ARDD0629-1	IC/SO Approval of Waterworks, Drainage & Utility DDA - BP20.01	0		0%	0	30-Dec-15		22-Oct-15	-49	1	0%
ARDD0629-2	Gov't Approval of Submissions for Waterworks, Drainage & Utility Diversior	75	02-Jan-14 A	95%	4	24-Dec-15	19-Oct-15	22-Oct-15	-45	4	95%
Viaduct Approach Ramp Retaining Walls											
Approach Ramp B											
ARDD0664	Approach B - IC/SO Approval of Approach Ramp B DDA -DP21.01	75	14-Oct-14 A	80%	15	08-Jan-16	09-Feb-16	29-Feb-16	36	0	80%
ARDD0664-1	Approach B - IC/SO Approval of Approach Ramp B DDA -DP21.01	0		0%	0	08-Jan-16		29-Feb-16	36	116	0%
Approach A											
ARDD0670	Approach A - IC/SO Approval of Approach Ramp A DDA - DP20.01	75	03-Oct-14 A	90%	8	30-Dec-15	07-Sep-15	16-Sep-15	-75	0	90%
ARDD0670-1	Approach A - IC/SO Approval of Approach Ramp A DDA - DP20.01	0		0%	0	30-Dec-15		16-Sep-15	-75	0	0%
Approach F											
ARDD0676	Approach F - IC/SO Approval of Approach Ramp F DDA -DP24.01	75	23-Dec-14 A	70%	23	20-Jan-16	20-Feb-15	24-Mar-15	-216	0	70%
ARDD0676-1	Approach F - IC/SO Approval of Approach Ramp F DDA -DP24.01	0		0%	0	20-Jan-16		30-Dec-15	-15	220	0%
Landscape											
ARDD0701	Water Supply Application to WSD	0		0%	0	21-Dec-15		05-Jan-16	12	0	0%
ARDD0702	Gov't Approval of LVIA	40	21-Dec-15	0%	40	12-Feb-16	06-Jan-16	01-Mar-16	12	153	0%
Segment Target Geometry And Erection Engineering											
Viaduct A											
ARDD0716	Viaduct A - Confirmation of Erection Sequence from Freyssinet	0		0%	0	21-Dec-15		02-Mar-15	-209	0	0%
ARDD0717	Viaduct A - Erection Sequence Analysis	20	21-Dec-15	0%	20	15-Jan-16	03-Mar-15	30-Mar-15	-209	0	0%
ARDD0718	Viaduct A - Target Geometry Analysis	20	18-Jan-16	0%	20	12-Feb-16	31-Mar-15	27-Apr-15	-209	0	0%
ARDD0719	Viaduct A - Segment Geometry Schedules	10	15-Feb-16	0%	10	26-Feb-16	28-Apr-15	11-May-15	-209	8	0%
ARDD0719-1	Viaduct A - Issue of Pierhead Segments Bridge A1, A2	0		0%	0	09-Mar-16		13-Jul-15	-172	10	0%
ARDD0719-3	Viaduct A - Issue of Casting Data and Segment Catalogue Bridge A2 (Final	0		0%	0	09-Mar-16		13-Jul-15	-172	10	0%
ARDD0719-4	Viaduct A - Issue of Casting Data and Segment Catalogue Bridge A1 (Final	0		0%	0	09-Mar-16		11-May-15	-217	0	0%
ARDD0719-5	Viaduct A - Issue Erection Manual	40	10-Mar-16	0%	40	04-May-16	12-May-15	06-Jul-15	-217	0	0%
Viaduct C											
ARDD0724-5	Viaduct C - Issue Erection Manual	30	21-Dec-15 A	5%	29	28-Jan-16	02-Oct-15	11-Nov-15	-56	23	5%
Viaduct E5 and E6											
ARDD0734	Viaduct E5 & E6 - Segment Geometry Schedules	10	05-May-14 A	90%	1	21-Dec-15	18-Jun-15	18-Jun-15	-132	3	90%
TGP0560	Viaduct E5 & E6 - Issue of Optimised Casting Data and Segment Catalogu	20	30-Apr-15 A	100%	0	30-Nov-15 A					100%
TGP0570	Viaduct E5 & E6 - Issue of Optimised Casting Data and Segment Catalogu	40	30-Apr-15 A	90%	4	24-Dec-15	15-Jun-15	18-Jun-15	-135	0	90%
TGP0590	Viaduct E5 & E6 - Issue Erection Manual	10	25-Dec-15	0%	10	07-Jan-16	19-Jun-15	02-Jul-15	-135	51	0%
Viaduct E7 & E8											
ARDD0739	Viaduct E7 & E8 - Segment Geometry Schedules	10	05-May-14 A	90%	1	21-Dec-15	18-Jun-15	18-Jun-15	-132	0	90%
TGP0760	Viaduct E7 & E8 - Issue of Optimised Casting Data and Segment Catalogu	40	31-Jul-15 A	90%	4	24-Dec-15	30-Aug-16	02-Sep-16	181	304	90%
TGP0770	Viaduct E7 & E8 - Issue of Optimised Casting Data and Segment Catalogu	20	31-Jul-15 A	100%	0	30-Nov-15 A					100%
TGP0790	Viaduct E7 & E8 - Issue Erection Manual	10	22-Dec-15	0%	10	04-Jan-16	19-Jun-15	02-Jul-15	-132	54	0%
Viaduct E2											
TGP0260	Viaduct E2 - Issue of Optimised Casting Data and Segment Catalogue Brid	20	04-May-15 A	100%	0	30-Nov-15 A					100%
TGP0290	Viaduct E2 - Issue of Erection Manual	10	21-Dec-15	0%	10	01-Jan-16	18-Feb-15	03-Mar-15	-218	11	0%
Viaduct F											
ARDD0751	Viaduct F - Confirmation of Erection Sequence from Freyssinet	0		0%	0	21-Dec-15		11-May-15	-159	0	0%



Actual Work
Planned Bar
Critical Bar
Milestone

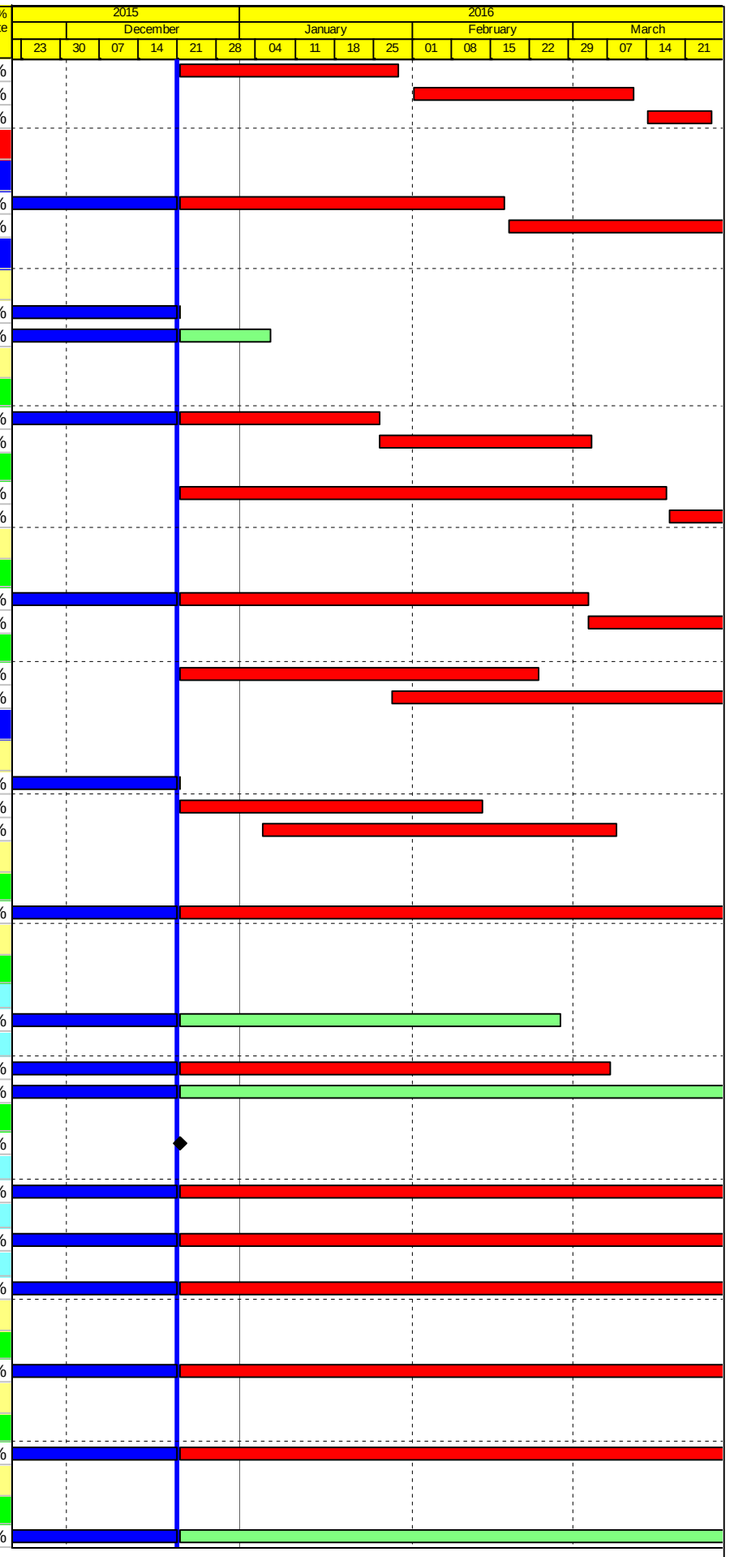
Project ID: J3518DWPrE2-M31
Layout: J3518-DWP-3MRP Submission - M31
Filter: TASK filters: 3-Month Lookahead, No CC Milestones, No Level of Effort.

Tuen Mun - Chek Lap Kok Link - Southern Connection
3-Month Rolling Programme (Page 2 of 25 Pages)
(Progress as of 21-Dec-15)

Date	Revision	Checked	Approved
31-Oct-15		PKN	KWY
01-Dec-15		PKN	KWY
28-Dec-15		PKN	KWY

DWG. No.:
J3518/GCL/PGM/3MRP-M31

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
ARDD0752	Viaduct F - Erection Sequence Analysis	30	21-Dec-15	0%	30	29-Jan-16	12-May-15	22-Jun-15	-159	0	0%
ARDD0753	Viaduct F - Target Geometry Analysis	30	01-Feb-16	0%	30	11-Mar-16	23-Jun-15	03-Aug-15	-159	0	0%
ARDD0754	Viaduct F - Segment Geometry Schedules	10	14-Mar-16	0%	10	25-Mar-16	04-Aug-15	17-Aug-15	-159	0	0%
Major Procurement											
Marine Permanent Navigaion Aids											
PR65011	Design & Approvals for Marine Navigation Aids	150	23-Oct-13 A	70%	45	17-Feb-16	29-Jul-15	19-Sep-15	-120	0	55%
PR65012	Procure & Deliver Marine Navigation Aids	240	18-Feb-16	0%	240	06-Dec-16	21-Sep-15	15-Jul-16	-120	0	0%
Deck Segment Installation Equipment											
Launching Gantry 2											
PR67043	Launching Gantry 2 Fabrication	142	16-Jun-14 A	100%	0	21-Dec-15	21-May-19	21-May-19	1007	1007	100%
PR67044	Launching Gantry 2 Delivery	12	10-Apr-15 A	0%	12	06-Jan-16	06-May-19	21-May-19	995	995	0%
Lifting Frames											
Lifting Frames 3 & 4											
PR68017	Lifting Frame 3&4 Fabrication	85	29-Sep-14 A	67%	28	26-Jan-16	16-Mar-15	22-Apr-15	-227	0	67%
PR68018	Lifting Frame 3&4 Delivery	30	26-Jan-16	0%	30	04-Mar-16	23-Apr-15	29-May-15	-227	28	0%
Lifting Frames 5 & 6											
PR68019	Lifting Frame 5&6 Design	70	21-Dec-15	0%	70	17-Mar-16	20-Jan-15	18-Apr-15	-272	0	0%
PR68020	Lifting Frame 5&6 Approval	60	18-Mar-16	0%	60	02-Jun-16	20-Apr-15	02-Jul-15	-272	0	0%
Unloading Frames											
Type 1 (at B6 and D6)											
PR69110	Unloading Frame Type 1 Fabrication	80	23-Feb-15 A	28%	58	03-Mar-16	06-Oct-15	12-Dec-15	-64	0	28%
PR69120	Unloading Frame Type 1 Delivery (UF-1A & UF-1B)	24	03-Mar-16	0%	24	05-Apr-16	14-Dec-15	13-Jan-16	-64	0	0%
Type 2 (at Bridge E1)											
PR69170	Unloading Frame Type 2 Design	50	21-Dec-15	0%	50	23-Feb-16	04-Nov-15	04-Jan-16	-40	0	0%
PR69180	Unloading Frame Type 2 Fabrication	80	28-Jan-16	0%	80	09-May-16	09-Dec-15	17-Mar-16	-40	0	0%
Deck Segments & Precast Pile Cap Shells											
Preliminaries											
MBBE0050	Precast Segment Mould Fabrication & Erection (Viaduct A)	52	24-Dec-14 A	100%	0	21-Dec-15	13-Jul-15	13-Jul-15	-133	1007	100%
MBBE0054	Precast Segment Mould Design (Viaduct F1 to F5)	42	21-Dec-15	0%	42	13-Feb-16	25-Aug-15	15-Oct-15	-97	0	0%
MBBE0056	Precast Segment Mould Fabrication & Erection (Viaduct F1 to F5)	52	05-Jan-16	0%	52	08-Mar-16	07-Sep-15	09-Nov-15	-97	49	0%
Viaduct B											
Precast Deck Segments											
MBBE130-1	B: Progressive Match Cast Segment Manufacture & Delivery remaining se(	597	24-Oct-14 A	51.09%	292	14-Dec-16	07-Jul-15	30-Jun-16	-139	22	10.48%
Viaduct E											
Precast Pile Caps											
Viaduct E2											
PP7260	Production of Viaduct E2 Marine Precast Pile Cap Shells	80	12-Nov-14 A	33%	54	27-Feb-16	12-Mar-19	21-May-19	954	954	33%
Viaduct E5, E6, E7 & E8											
PP7120	Production of Viaduct E5 & E6 Marine Precast Pile Cap Shells	151	13-Apr-15 A	59.6%	61	07-Mar-16	03-Feb-15	22-Apr-15	-260	946	0%
PP7190	Production of Viaduct E7 & E8 Marine Precast Pile Cap Shells	151	13-Apr-15 A	45.7%	82	05-Apr-16	10-Nov-16	18-Feb-17	262	925	0%
Precast Deck Segments											
MBE00014	Viaduct E2 - Pier Head Segment Casting	0	21-Dec-15	0%	0		21-May-19		1007	1007	0%
Viaduct E1											
MBEE0130-5	E1: Progressive Segment Manufacture & Delivery remaining segments (18	456	08-Apr-15 A	60%	182	05-Aug-16	03-Oct-15	18-May-16	-66	52	60%
Viaduct E2											
MBEE0130-7	E2: Progressive Segment Manufacture & Delivery remaining segments (41	376	06-May-15 A	3.6%	362	13-Mar-17	06-Mar-15	30-May-16	-236	645	3.6%
Viaduct E5, E6, E7 & E8											
MBEE0130-9	E5-6-7-8: Progressive Segment Manufacture & Delivery remaining segmer	360	06-May-15 A	3.6%	347	23-Feb-17	06-Jul-15	03-Sep-16	-140	660	3.6%
Viaduct D											
Precast Deck Segments											
MBDE0130-7	D: Progressive Match Cast Segment Manufacture & Delivery (311 Nr)	315	05-May-15 A	22.6%	244	19-Oct-16	13-Aug-15	11-Jun-16	-107	10	22.6%
Viaduct C											
Precast Deck Segments											
MBCE0130-1	C: Progressive Segment Manufacture & Delivery remaining segments (388	265	19-May-15 A	14.7%	226	27-Sep-16	05-Oct-15	12-Jul-16	-65	44	14.7%
Viaduct A											
Precast Pile Caps											
MBAC0130-1	A: Progressive Pile Cap Shell Manufacture & Delivery remaining shells	274	09-Apr-15 A	57.1%	118	19-May-16	05-Mar-16	30-Jul-16	60	890	57.1%



Actual Work
Planned Bar
Critical Bar
Milestone

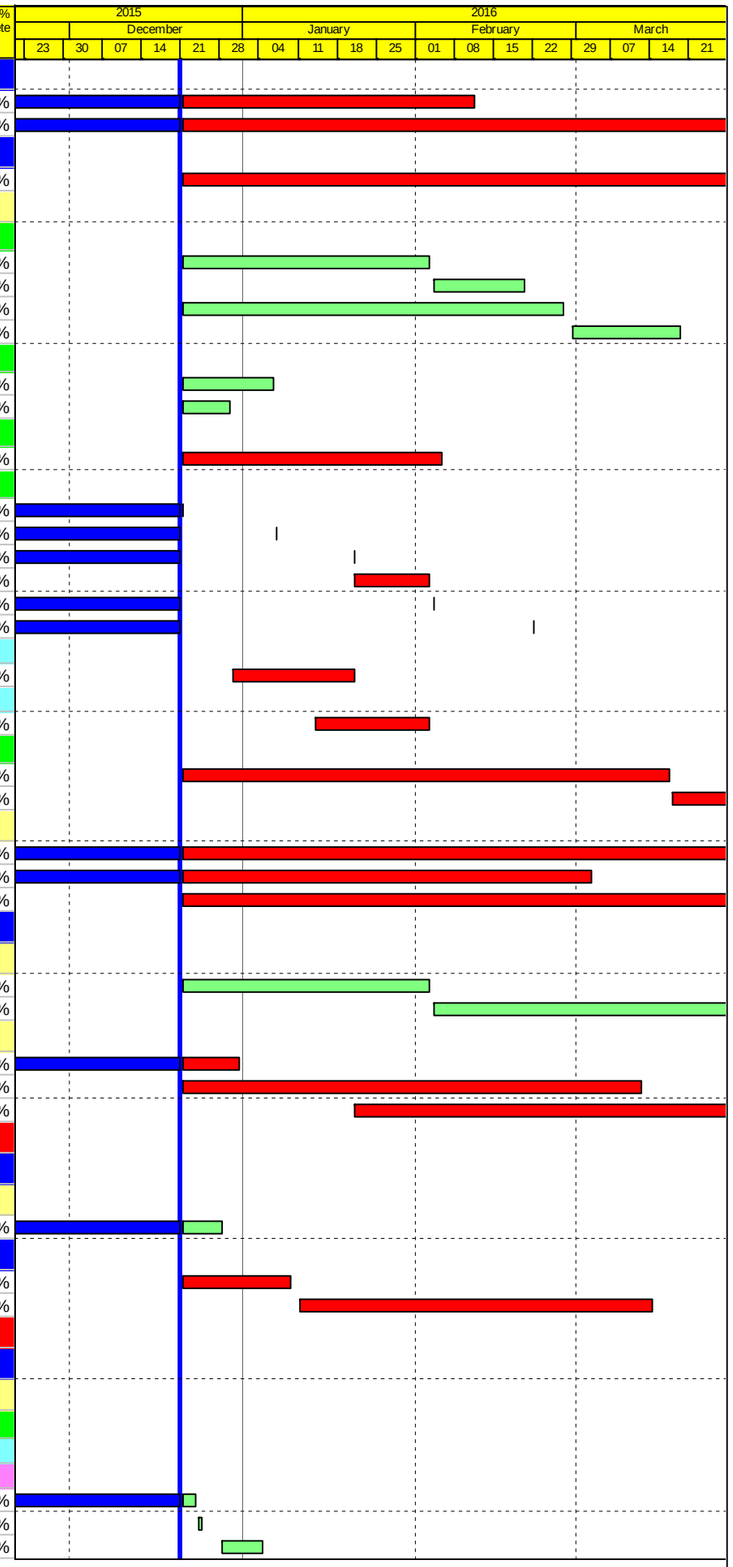
Project ID: J3518DWPrE2-M31
Layout: J3518-DWP-3MRP Submission - M31
Filter: TASK filters: 3-Month Lookahead, No CC
Milestones, No Level of Effort.

Tuen Mun - Chek Lap Kok Link - Southern Connection
3-Month Rolling Programme (Page 3 of 25 Pages)
(Progress as of 21-Dec-15)

Date	Revision	Checked	Approved
31-Oct-15		PKN	KWY
01-Dec-15		PKN	KWY
28-Dec-15		PKN	KWY

DWG. No.:
J3518/GCL/PGM/3MRP-M31

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
Parapets											
PP6010	Procure Sub-Contractor for Precast Parapets/Barriers	40	21-Aug-15 A	0%	40	11-Feb-16	24-Oct-15	09-Dec-15	-49	80	0%
PP6011	Precast Parapets/Barriers Detail Design & Procure Moulds	120	06-Oct-15 A	0%	120	21-May-16	06-May-15	26-Sep-15	-189	0	0%
Materials											
PP7010	Procure Sub-contractor for Signs & Street Furniture	90	21-Dec-15	0%	90	14-Apr-16	04-Sep-15	21-Dec-15	-89	0	0%
Bearings											
Viaduct A											
PPBRA5	SO review & comment on design submission - Viaduct A	36	21-Dec-15	0%	36	03-Feb-16	18-Mar-16	04-May-16	70	0	0%
PPBRA6	Bearing Design Amendment & re-issue - Viaduct A	12	04-Feb-16	0%	12	20-Feb-16	12-May-16	26-May-16	76	6	0%
PPBRA7	Manufacture of Bearing - Viaduct A	54	21-Dec-15	0%	54	27-Feb-16	18-Mar-16	26-May-16	70	0	0%
PPBRA8	Testing Bearing - Viaduct A	18	29-Feb-16	0%	18	19-Mar-16	27-May-16	17-Jun-16	70	0	0%
Viaduct C											
PPBRC6	Bearing Design Ammendment & re-issue - Viaduct C	12	21-Dec-15	0%	12	06-Jan-16	06-May-19	21-May-19	995	995	0%
PPBRC99	Site preparation Bearings for Viaduct C	6	21-Dec-15	0%	6	29-Dec-15	25-Jan-16	30-Jan-16	27	0	0%
Viaduct D											
PPBRD99	Site preparation Bearings for Viaduct D	38	21-Dec-15	0%	38	05-Feb-16	09-Oct-15	25-Nov-15	-59	0	0%
Viaduct E											
PPBRE3	Bearing design and submission - Viaduct E (E1, E2, E5, E6, E7 & E8)	12	28-Nov-13 A	100%	0	21-Dec-15	14-Nov-15	14-Nov-15	-30	0	100%
PPBRE4	Design check by ICE - Viaduct E (E1, E2, E5, E6, E7 & E8)	24	04-Apr-14 A	100%	0	07-Jan-16	28-Nov-15	28-Nov-15	-30	0	100%
PPBRE5	SO review & comment on design submission - Viaduct E (E1, E2, E5, E6, E	36	26-Sep-14 A	100%	0	21-Jan-16	12-Dec-15	12-Dec-15	-30	0	100%
PPBRE6	Bearing Design Amendment & re-issue - Viaduct E (E1, E2, E5, E6, E7 & E	12	21-Jan-16	0%	12	03-Feb-16	14-Dec-15	29-Dec-15	-30	0	0%
PPBRE7	Manufacture of Bearing - Viaduct E (E1, E2, E5, E6, E7 & E8)	54	02-Jun-14 A	100%	0	04-Feb-16	29-Dec-15	29-Dec-15	-30	0	100%
PPBRE8	Testing Bearing - Viaduct E (E1, E2, E5, E6, E7 & E8)	24	03-Aug-15 A	100%	0	22-Feb-16	13-Jan-16	13-Jan-16	-30	0	100%
Bridge E1											
PP7360	Site preparation Bearings for Viaduct E1	18	30-Dec-15	0%	18	21-Jan-16	04-Dec-15	24-Dec-15	-20	8	0%
Bridge E2											
PP7290	Site preparation Bearings for Viaduct E2	18	14-Jan-16	0%	18	03-Feb-16	09-Dec-15	31-Dec-15	-28	0	0%
Viaduct F											
PPBRF1	Preliminary Design of Bearings - Viaduct F	70	21-Dec-15	0%	70	17-Mar-16	31-Mar-15	27-Jun-15	-215	0	0%
PPBRF3	Bearing design and submission - Viaduct F	12	18-Mar-16	0%	12	05-Apr-16	29-Jun-15	13-Jul-15	-215	0	0%
Movement Joints											
PPMJ01	Design & Submission of MJ	138	08-Feb-14 A	30%	97	22-Apr-16	03-Oct-15	28-Jan-16	-66	911	30%
PPMJ02-1	MJ Design Approval	96	26-May-14 A	40%	58	03-Mar-16	03-Oct-15	10-Dec-15	-66	130	40%
PPMJ02-2	Manufacture & delivery of MJ	188	21-Dec-15	0%	188	11-Aug-16	03-Oct-15	24-May-16	-66	0	0%
Other Sub-Contract Procurement											
Pavement											
PP7760-2	Procure Pavement Viaduct Sub-Contractor	36	21-Dec-15	0%	36	03-Feb-16	09-Apr-16	23-May-16	85	0	0%
PP7760-4	Pavement Viaduct Sub-Contractor - Materials approvals & MS	90	04-Feb-16	0%	90	28-May-16	24-May-16	07-Sep-16	85	132	0%
Structural Health Monitoring System (SHMS)											
PP7778	SHMS - So approval of Final System Proposal	30	16-Dec-14 A	75%	8	31-Dec-15	07-Nov-14	15-Nov-14	-332	53	75%
PP7780	SHMS - Prepare Civil Work Provision	66	21-Dec-15	0%	66	12-Mar-16	10-Oct-14	27-Dec-14	-356	0	0%
PP7788	SHMS - FAT & Delivery for Bridge E5-E6-E7-E8 equipment	54	21-Jan-16	0%	54	30-Mar-16	07-Nov-14	12-Jan-15	-356	0	0%
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	95%	5	28-Dec-15	01-Mar-16	05-Mar-16	55	946	95%
Unloading Jetty at HKBCF											
PR09060	Unloading Jetty at HKBCF - Conditional survey & temp jetty formation	15	21-Dec-15	0%	15	09-Jan-16	06-Jul-15	23-Jul-15	-132	0	0%
PR09070	Unloading Jetty at HKBCF - Install Unloading Frame incl. testing/commissio	52	11-Jan-16	0%	52	14-Mar-16	24-Jul-15	30-Sep-15	-132	170	0%
CONSTRUCTION											
PILING AND SUBSTRUCTURE											
Viaduct A											
Bridge A2											
Pier A1 (A2e)											
Pier Works											
SA2E0310	A1 (A2e) - Type 4B-MJ Pier Head Rebarwork, Formwork & Prep	10	22-Oct-15 A	70%	3	23-Dec-15	11-Jun-16	14-Jun-16	130	0	70%
SA2E0330	A1 (A2e) - Type 4B-MJ Pier Head Concreting	1	24-Dec-15	0%	1	24-Dec-15	16-Jun-16	16-Jun-16	130	0	0%
SA2E0340	A1 (A2e) - Type 4B-MJ Pier Head Curing/Striking of Forms/Remove Scaffc	6	28-Dec-15	0%	6	04-Jan-16	18-Jun-16	25-Jun-16	130	0	0%



Actual Work
Planned Bar
Critical Bar
Milestone

Project ID: J3518DWPrE2-M31
Layout: J3518-DWP-3MRP Submission - M31
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Tuen Mun - Chek Lap Kok Link - Southern Connection
3-Month Rolling Programme (Page 4 of 25 Pages)
(Progress as of 21-Dec-15)

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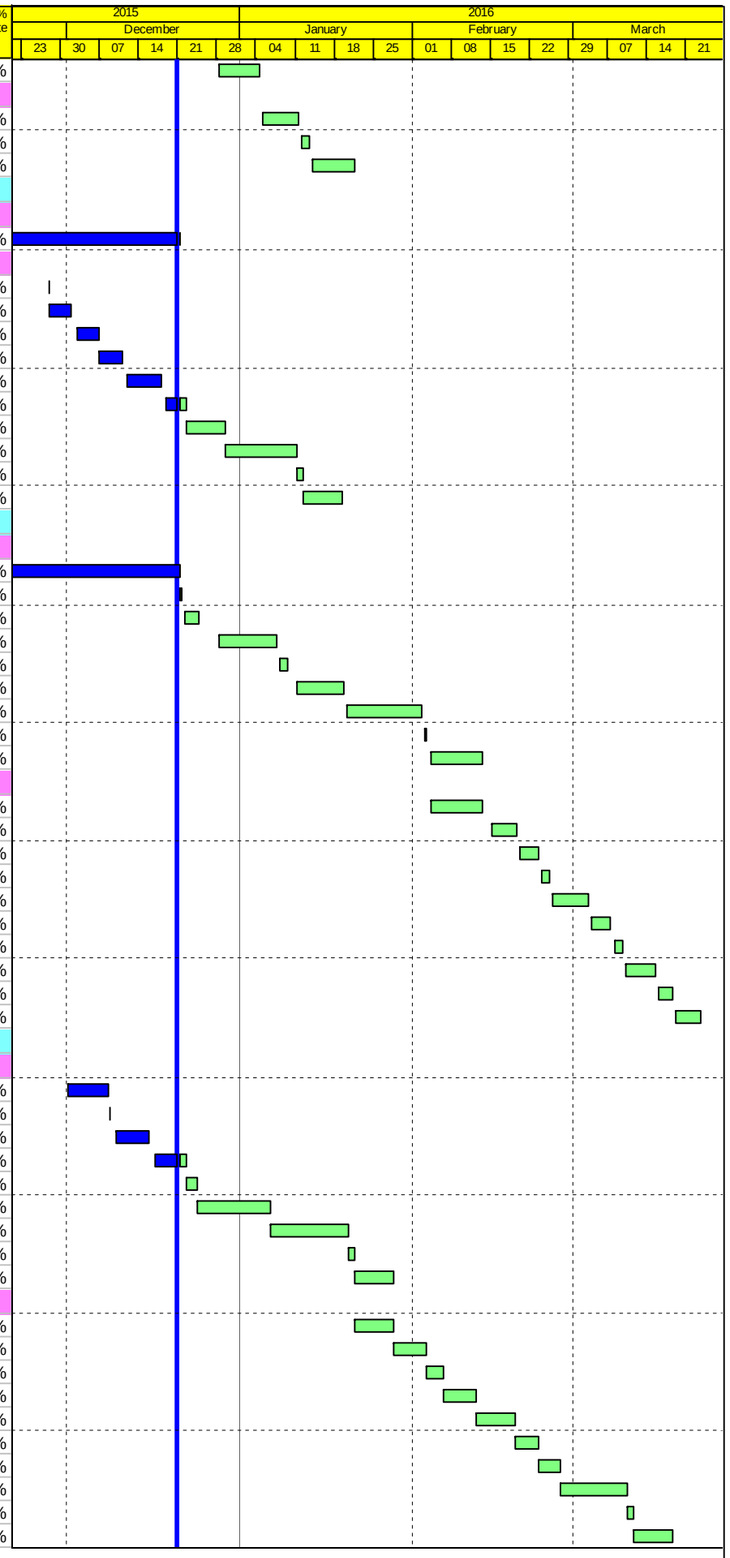
28-Dec-15		PKN	KWY

DWG. No.:
J3518/GCL/PGM/3MRP-M31

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
SA2E0350	A1 (A2e) - Type 4B- Bearing Plinth	6	28-Dec-15	0%	6	04-Jan-16	18-Jun-16	25-Jun-16	130	0	0%
Pier Head Segments											
SA2E0380	A1 (A2e) - Pier Head Segment - Temporary Platform	6	05-Jan-16	0%	6	11-Jan-16	27-Jun-16	05-Jul-16	130	0	0%
SA2E0381	A1 (A2e) - Pier Head Segment Bearings	2	12-Jan-16	0%	2	13-Jan-16	06-Jul-16	07-Jul-16	130	0	0%
SA2E0382	A1 (A2e) - Pier Head Segment Lift & Temp Support (2 seg)	7	14-Jan-16	0%	7	21-Jan-16	08-Jul-16	16-Jul-16	130	231	0%
Pier A3 (A2c)											
Pile Cap Works											
SA2C0160	A3 (A2c) - Marine Pile Cap M2b - Curing incl. CJ Preparation	6	19-Nov-15 A	100%	0	21-Dec-15	21-May-19	21-May-19	950	950	100%
Pier Works											
SA2C0170	A3 (A2c) - Type 4B Pier Temp. Support Platform & Scaffold (1st Lift) (Canc	6	28-Nov-15 A	100%	0	28-Nov-15 A					100%
SA2C0180	A3 (A2c) - Type 4B Pier Rebarwork, Formwork & Prep (1st Lift)	5	28-Nov-15 A	100%	0	02-Dec-15 A					100%
SA2C0200	A3 (A2c) - Type 4B Pier Concreting, Curing & Striking, CJ prep (1st Lift)	3	03-Dec-15 A	100%	0	07-Dec-15 A					100%
SA2C0210	A3 (A2c) - Type 4B Pier Scaffolding (2nd Lift)	2	07-Dec-15 A	100%	0	11-Dec-15 A					100%
SA2C0220	A3 (A2c) - Type 4B Pier Rebarwork, Formwork & Prep (2nd Lift)	6	12-Dec-15 A	100%	0	18-Dec-15 A					100%
SA2C0240	A3 (A2c) - Type 4B Pier Concreting, Curing & Striking, CJ prep (2nd Lift)	3	19-Dec-15 A	50%	2	22-Dec-15	21-May-16	23-May-16	116	0	50%
SA2C0300	A3 (A2c) - Type 4B Pier Head Scaffolding	4	22-Dec-15	0%	4	29-Dec-15	23-May-16	28-May-16	116	0	0%
SA2C0310	A3 (A2c) - Type 4B Pier Head Rebarwork, Formwork & Prep	10	29-Dec-15	0%	10	11-Jan-16	28-May-16	13-Jun-16	116	0	0%
SA2C0330	A3 (A2c) - Type 4B Pier Head Concreting	1	11-Jan-16	0%	1	12-Jan-16	13-Jun-16	14-Jun-16	116	0	0%
SA2C0340	A3 (A2c) - Type 4B Pier Head Curing/Striking of Forms/Remove Scaffoldin	6	12-Jan-16	0%	6	19-Jan-16	14-Jun-16	24-Jun-16	116	82	0%
Pier A5 (A2a)											
Pile Cap Works											
SA2A0070	A5 (A2a) - Marine Pile Cap M2b - Inst.Floating Seal & Casing Head Steelw	7	20-Oct-15 A	100%	0	21-Dec-15 A					100%
SA2A0080	A5 (A2a) - Marine Pile Cap M2b - Install precast shell in position	1	21-Dec-15	0%	1	21-Dec-15	05-Mar-16	07-Mar-16	60	0	0%
SA2A0090	A5 (A2a) - Marine Pile Cap M2b - Inst.Access & make Watertight	3	22-Dec-15	0%	3	24-Dec-15	07-Mar-16	10-Mar-16	60	0	0%
SA2A0100	A5 (A2a) - Marine Pile Cap M2b - Weld Fin plates/Plug Rebar & Concrete	9	28-Dec-15	0%	9	07-Jan-16	10-Mar-16	21-Mar-16	60	0	0%
SA2A0120	A5 (A2a) - Marine Pile Cap M2b - Dewater precast shell / Remove Lifting F	2	08-Jan-16	0%	2	09-Jan-16	21-Mar-16	23-Mar-16	60	0	0%
SA2A0130	A5 (A2a) - Marine Pile Cap M2b - Pile cut down	8	11-Jan-16	0%	8	19-Jan-16	23-Mar-16	06-Apr-16	60	0	0%
SA2A0140	A5 (A2a) - Marine Pile Cap M2b - Rebar fixing, inst.inserts etc	12	20-Jan-16	0%	12	02-Feb-16	06-Apr-16	22-Apr-16	60	0	0%
SA2A0150	A5 (A2a) - Marine Pile Cap M2b - Concreting	1	03-Feb-16	0%	1	03-Feb-16	22-Apr-16	23-Apr-16	60	0	0%
SA2A0160	A5 (A2a) - Marine Pile Cap M2b - Curing incl. CJ Preparation	6	04-Feb-16	0%	6	13-Feb-16	23-Apr-16	30-Apr-16	60	0	0%
Pier Works											
SA2A0170	A5 (A2a) - Type 4B Pier Temp. Support Platform & Scaffold (1st Lift)	6	04-Feb-16	0%	6	13-Feb-16	23-Apr-16	30-Apr-16	60	0	0%
SA2A0180	A5 (A2a) - Type 4B Pier Rebarwork, Formwork & Prep (1st Lift)	5	15-Feb-16	0%	5	19-Feb-16	30-Apr-16	07-May-16	60	0	0%
SA2A0200	A5 (A2a) - Type 4B Pier Concreting, Curing & Striking, CJ prep (1st Lift)	3	20-Feb-16	0%	3	23-Feb-16	07-May-16	11-May-16	60	0	0%
SA2A0210	A5 (A2a) - Type 4B Pier Scaffolding (2nd Lift)	2	24-Feb-16	0%	2	25-Feb-16	11-May-16	13-May-16	60	0	0%
SA2A0220	A5 (A2a) - Type 4B Pier Rebarwork, Formwork & Prep (2nd Lift)	6	26-Feb-16	0%	6	03-Mar-16	13-May-16	23-May-16	60	0	0%
SA2A0240	A5 (A2a) - Type 4B Pier Concreting, Curing & Striking, CJ prep (2nd Lift)	3	04-Mar-16	0%	3	07-Mar-16	23-May-16	27-May-16	60	0	0%
SA2A0250	A5 (A2a) - Type 4B Pier Scaffolding (3rd Lift)	2	08-Mar-16	0%	2	09-Mar-16	27-May-16	30-May-16	60	0	0%
SA2A0260	A5 (A2a) - Type 4B Pier Rebarwork, Formwork & Prep (3rd Lift)	5	10-Mar-16	0%	5	15-Mar-16	30-May-16	06-Jun-16	60	0	0%
SA2A0280	A5 (A2a) - Type 4B Pier Concreting, Curing & Striking, CJ prep (3rd Lift)	3	16-Mar-16	0%	3	18-Mar-16	06-Jun-16	11-Jun-16	60	0	0%
SA2A0300	A5 (A2a) - Type 4B Pier Head Scaffolding	4	19-Mar-16	0%	4	23-Mar-16	11-Jun-16	18-Jun-16	60	0	0%
Pier A4 (A2b)											
Pile Cap Works											
SA2B0070	A4 (A2b) - Marine Pile Cap M2b - Inst.Floating Seal & Casing Head Steelw	7	01-Dec-15 A	100%	0	08-Dec-15 A					100%
SA2B0080	A4 (A2b) - Marine Pile Cap M2b - Install precast shell in position	1	09-Dec-15 A	100%	0	09-Dec-15 A					100%
SA2B0090	A4 (A2b) - Marine Pile Cap M2b - Inst.Access & make Watertight	3	10-Dec-15 A	100%	0	16-Dec-15 A					100%
SA2B0100	A4 (A2b) - Marine Pile Cap M2b - Weld Fin plates/Plug Rebar & Concrete	9	17-Dec-15 A	80%	2	22-Dec-15	24-Mar-16	29-Mar-16	75	0	80%
SA2B0120	A4 (A2b) - Marine Pile Cap M2b - Dewater precast shell / Remove Lifting F	2	22-Dec-15	0%	2	24-Dec-15	29-Mar-16	31-Mar-16	75	0	0%
SA2B0130	A4 (A2b) - Marine Pile Cap M2b - Pile cut down	8	24-Dec-15	0%	8	06-Jan-16	31-Mar-16	11-Apr-16	75	0	0%
SA2B0140	A4 (A2b) - Marine Pile Cap M2b - Rebar fixing, inst.inserts etc	12	06-Jan-16	0%	12	20-Jan-16	11-Apr-16	27-Apr-16	75	0	0%
SA2B0150	A4 (A2b) - Marine Pile Cap M2b - Concreting	1	20-Jan-16	0%	1	21-Jan-16	27-Apr-16	28-Apr-16	75	0	0%
SA2B0160	A4 (A2b) - Marine Pile Cap M2b - Curing incl. CJ Preparation	6	21-Jan-16	0%	6	28-Jan-16	28-Apr-16	06-May-16	75	0	0%
Pier Works											
SA2B0170	A4 (A2b) - Type 4B Pier Temp. Support Platform & Scaffold (1st Lift)	6	21-Jan-16	0%	6	28-Jan-16	28-Apr-16	06-May-16	75	0	0%
SA2B0180	A4 (A2b) - Type 4B Pier Rebarwork, Formwork & Prep (1st Lift)	5	28-Jan-16	0%	5	03-Feb-16	06-May-16	12-May-16	75	0	0%
SA2B0200	A4 (A2b) - Type 4B Pier Concreting, Curing & Striking, CJ prep (1st Lift)	3	03-Feb-16	0%	3	06-Feb-16	12-May-16	18-May-16	75	0	0%
SA2B0210	A4 (A2b) - Type 4B Pier Scaffolding (2nd Lift)	2	06-Feb-16	0%	2	12-Feb-16	18-May-16	20-May-16	75	0	0%
SA2B0220	A4 (A2b) - Type 4B Pier Rebarwork, Formwork & Prep (2nd Lift)	6	12-Feb-16	0%	6	19-Feb-16	20-May-16	28-May-16	75	0	0%
SA2B0240	A4 (A2b) - Type 4B Pier Concreting, Curing & Striking, CJ prep (2nd Lift)	3	19-Feb-16	0%	3	23-Feb-16	28-May-16	01-Jun-16	75	0	0%
SA2B0300	A4 (A2b) - Type 4B Pier Head Scaffolding	4	23-Feb-16	0%	4	27-Feb-16	01-Jun-16	08-Jun-16	75	0	0%
SA2B0310	A4 (A2b) - Type 4B Pier Head Rebarwork, Formwork & Prep	10	27-Feb-16	0%	10	10-Mar-16	08-Jun-16	24-Jun-16	75	0	0%
SA2B0330	A4 (A2b) - Type 4B Pier Head Concreting	1	10-Mar-16	0%	1	11-Mar-16	24-Jun-16	25-Jun-16	75	0	0%
SA2B0340	A4 (A2b) - Type 4B Pier Head Curing/Striking of Forms/Remove Scaffoldin	6	11-Mar-16	0%	6	18-Mar-16	25-Jun-16	05-Jul-16	75	33	0%



Actual Work
Planned Bar
Critical Bar
Milestone

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Layout: J3518-DWP-3MRP Submission - M31
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Tuen Mun - Chek Lap Kok Link - Southern Connection

3-Month Rolling Programme (Page 5 of 25 Pages)

(Progress as of 21-Dec-15)

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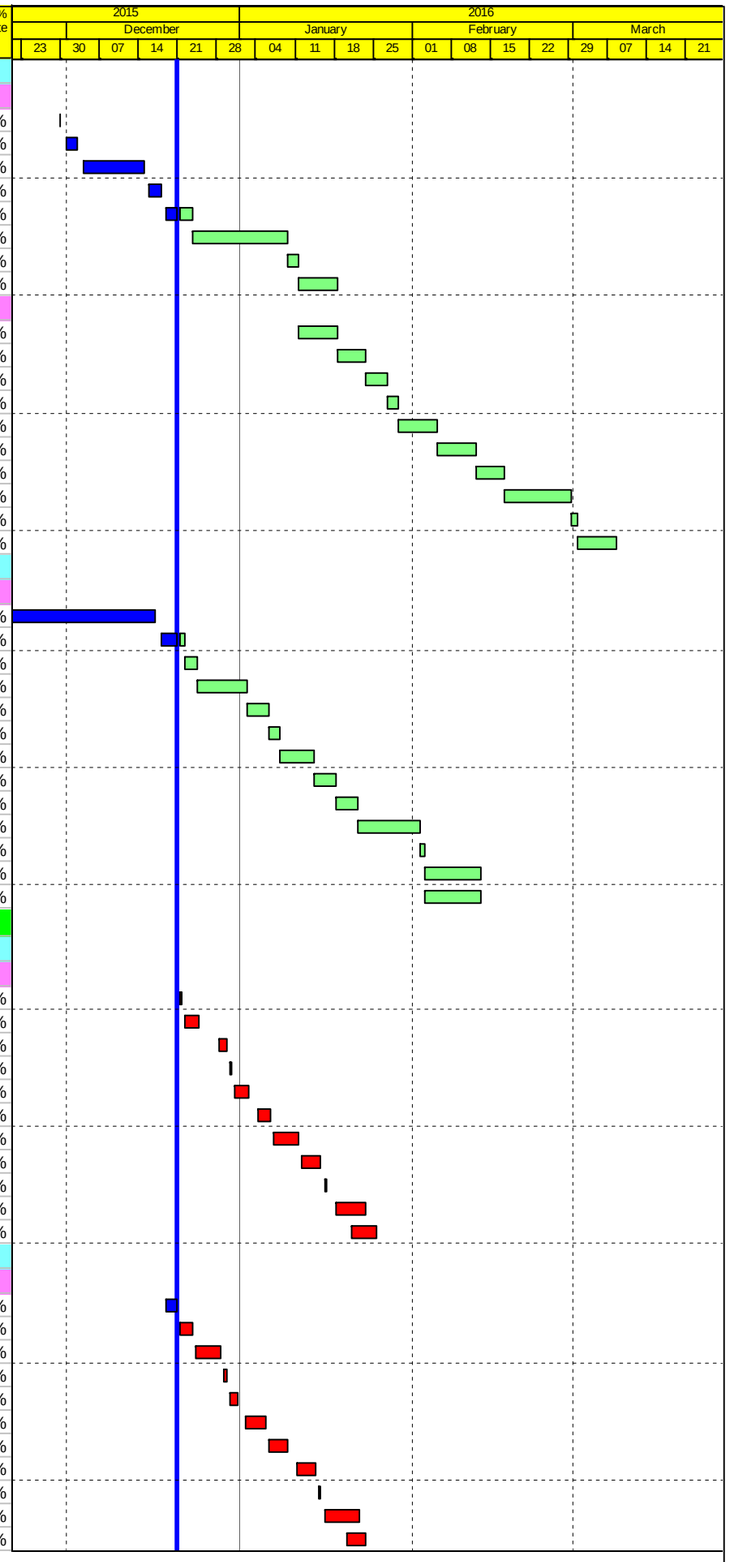
Activity ID	Activity Name	Orig. Durn.	Act. Start / FC Early Start	Duration % Complete	Rem. Durn.	Act. Finish / FC Early Finish	Late Start	Late Finish	Total Float	Free Float	Physical % Complete
Pier A2 (A2d)											
Pile Cap Works											
SA2D0080	A2 (A2d) - Marine Pile Cap M2b - Install precast shell in position	1	30-Nov-15 A	100%	0	30-Nov-15 A					100%
SA2D0090	A2 (A2d) - Marine Pile Cap M2b - Inst.Access & make Watertight	3	01-Dec-15 A	100%	0	03-Dec-15 A					100%
SA2D0100	A2 (A2d) - Marine Pile Cap M2b - Weld Fin plates/Plug Rebar & Concrete	9	04-Dec-15 A	100%	0	15-Dec-15 A					100%
SA2D0120	A2 (A2d) - Marine Pile Cap M2b - Dewater precast shell / Remove Lifting F	2	16-Dec-15 A	100%	0	18-Dec-15 A					100%
SA2D0130	A2 (A2d) - Marine Pile Cap M2b - Pile cut down	8	19-Dec-15 A	65%	3	23-Dec-15	16-Mar-16	18-Mar-16	68	0	65%
SA2D0140	A2 (A2d) - Marine Pile Cap M2b - Rebar fixing, inst.inserts etc	12	23-Dec-15	0%	12	09-Jan-16	19-Mar-16	06-Apr-16	68	0	0%
SA2D0150	A2 (A2d) - Marine Pile Cap M2b - Concreting	1	09-Jan-16	0%	1	11-Jan-16	07-Apr-16	07-Apr-16	68	0	0%
SA2D0160	A2 (A2d) - Marine Pile Cap M2b - Curing incl. CJ Preparation	6	11-Jan-16	0%	6	18-Jan-16	08-Apr-16	15-Apr-16	68	0	0%
Pier Works											
SA2D0170	A2 (A2d) - Type 4B Pier Temp. Support Platform & Scaffold (1st Lift)	6	11-Jan-16	0%	6	18-Jan-16	08-Apr-16	15-Apr-16	68	0	0%
SA2D0180	A2 (A2d) - Type 4B Pier Rebarwork, Formwork & Prep (1st Lift)	5	18-Jan-16	0%	5	23-Jan-16	16-Apr-16	22-Apr-16	68	0	0%
SA2D0200	A2 (A2d) - Type 4B Pier Concreting, Curing & Striking, CJ prep (1st Lift)	3	23-Jan-16	0%	3	27-Jan-16	23-Apr-16	26-Apr-16	68	0	0%
SA2D0210	A2 (A2d) - Type 4B Pier Scaffolding (2nd Lift)	2	27-Jan-16	0%	2	29-Jan-16	27-Apr-16	28-Apr-16	68	0	0%
SA2D0220	A2 (A2d) - Type 4B Pier Rebarwork, Formwork & Prep (2nd Lift)	6	29-Jan-16	0%	6	05-Feb-16	29-Apr-16	06-May-16	68	0	0%
SA2D0240	A2 (A2d) - Type 4B Pier Concreting, Curing & Striking, CJ prep (2nd Lift)	3	05-Feb-16	0%	3	12-Feb-16	07-May-16	10-May-16	68	0	0%
SA2D0300	A2 (A2d) - Type 4B Pier Head Scaffolding	4	12-Feb-16	0%	4	17-Feb-16	11-May-16	16-May-16	68	0	0%
SA2D0310	A2 (A2d) - Type 4B Pier Head Rebarwork, Formwork & Prep	10	17-Feb-16	0%	10	29-Feb-16	18-May-16	30-May-16	68	0	0%
SA2D0330	A2 (A2d) - Type 4B Pier Head Concreting	1	29-Feb-16	0%	1	01-Mar-16	31-May-16	31-May-16	68	0	0%
SA2D0340	A2 (A2d) - Type 4B Pier Head Curing/Striking of Forms/Remove Scaffoldin	6	01-Mar-16	0%	6	08-Mar-16	01-Jun-16	10-Jun-16	68	42	0%
Pier A6 (A1f)											
Pier Works											
SA1F0180	A6 (A1f) - Type 4B-MJ Pier Rebarwork, Formwork & Prep (1st Lift)	5	19-Oct-15 A	100%	0	17-Dec-15 A					100%
SA1F0200	A6 (A1f) - Type 4B-MJ Pier Concreting, Curing & Striking, CJ prep (1st Lift)	3	18-Dec-15 A	60%	1	22-Dec-15	20-Jun-16	22-Jun-16	136	0	60%
SA1F0210	A6 (A1f) - Type 4B-MJ Pier Scaffolding (2nd Lift)	2	22-Dec-15	0%	2	24-Dec-15	23-Jun-16	24-Jun-16	136	0	0%
SA1F0220	A6 (A1f) - Type 4B-MJ Pier Rebarwork, Formwork & Prep (2nd Lift)	5	24-Dec-15	0%	5	02-Jan-16	25-Jun-16	02-Jul-16	136	0	0%
SA1F0240	A6 (A1f) - Type 4B-MJ Pier Concreting, Curing & Striking, CJ prep (2nd Lift	3	02-Jan-16	0%	3	06-Jan-16	04-Jul-16	06-Jul-16	136	0	0%
SA1F0250	A6 (A1f) - Type 4B-MJ Pier Scaffolding (3rd Lift)	2	06-Jan-16	0%	2	08-Jan-16	07-Jul-16	08-Jul-16	136	0	0%
SA1F0260	A6 (A1f) - Type 4B-MJ Pier Rebarwork, Formwork & Prep (3rd Lift)	5	08-Jan-16	0%	5	14-Jan-16	09-Jul-16	15-Jul-16	136	0	0%
SA1F0280	A6 (A1f) - Type 4B-MJ Pier Concreting, Curing & Striking, CJ prep (3rd Lift	3	14-Jan-16	0%	3	18-Jan-16	16-Jul-16	19-Jul-16	136	0	0%
SA1F0300	A6 (A1f) - Type 4B-MJ Pier Head Scaffolding	4	18-Jan-16	0%	4	22-Jan-16	20-Jul-16	25-Jul-16	136	0	0%
SA1F0310	A6 (A1f) - Type 4B-MJ Pier Head Rebarwork, Formwork & Prep	9	22-Jan-16	0%	9	02-Feb-16	26-Jul-16	04-Aug-16	136	0	0%
SA1F0330	A6 (A1f) - Type 4B-MJ Pier Head Concreting	1	02-Feb-16	0%	1	03-Feb-16	05-Aug-16	05-Aug-16	136	0	0%
SA1F0340	A6 (A1f) - Type 4B-MJ Pier Head Curing/Striking of Forms/Remove Scaffo	6	03-Feb-16	0%	6	13-Feb-16	06-Aug-16	13-Aug-16	136	63	0%
SA1F0350	A6 (A1f) - Type 4B-Bearing Plinth	6	03-Feb-16	0%	6	13-Feb-16	06-Aug-16	13-Aug-16	136	63	0%
Bridge A1											
Pier A8 (A1d)											
Pier Works											
SA1D0190	A8 (A1d) - Type 5B Pier Scaffolding (2nd Lift)	2	21-Dec-15 A	50%	1	21-Dec-15	26-May-15	26-May-15	-159	0	50%
SA1D0200	A8 (A1d) - Type 5B Pier Rebarwork (2nd Lift)	3	22-Dec-15	0%	3	24-Dec-15	27-May-15	29-May-15	-159	0	0%
SA1D0210	A8 (A1d) - Type 5B Pier Formwork & Prep for Concreting (2nd Lift)	2	28-Dec-15	0%	2	29-Dec-15	30-May-15	01-Jun-15	-159	0	0%
SA1D0220	A8 (A1d) - Type 5B Pier Concreting (2nd Lift)	1	30-Dec-15	0%	1	30-Dec-15	02-Jun-15	02-Jun-15	-159	0	0%
SA1D0222	A8 (A1d) - Type 5B Pier Curing & Striking of Forms incl. CJ prep (2nd Lift)	2	31-Dec-15	0%	2	02-Jan-16	04-Jun-15	05-Jun-15	-159	0	0%
SA1D0230	A8 (A1d) - Type 5B Pier Head Scaffolding	3	04-Jan-16	0%	3	06-Jan-16	06-Jun-15	10-Jun-15	-159	0	0%
SA1D0240	A8 (A1d) - Type 5B Pier Head Rebarwork	4	07-Jan-16	0%	4	11-Jan-16	12-Jun-15	16-Jun-15	-159	0	0%
SA1D0250	A8 (A1d) - Type 5B Pier Head Formwork & Prep for Concreting	4	12-Jan-16	0%	4	15-Jan-16	18-Jun-15	24-Jun-15	-159	0	0%
SA1D0260	A8 (A1d) - Type 5B Pier Head Concreting	1	16-Jan-16	0%	1	16-Jan-16	26-Jun-15	26-Jun-15	-159	0	0%
SA1D0270	A8 (A1d) - Type 5B Pier Head Curing & Striking of Forms & Remove Scaff	6	18-Jan-16	0%	6	23-Jan-16	27-Jun-15	04-Jul-15	-159	0	0%
SA1D0280	A8 (A1d) - Type 5B Pier Backfilling Works	4	21-Jan-16	0%	4	25-Jan-16	02-Jul-15	06-Jul-15	-159	76	0%
Pier A10 (A1b)											
Pier Works											
SA1B0150	A10 (A1b) - Type 5B Pier Scaffolding (1st Lift)	2	19-Dec-15 A	100%	0	21-Dec-15 A					100%
SA1B0160	A10 (A1b) - Type 5B Pier Rebarwork (1st Lift)	3	21-Dec-15	0%	3	23-Dec-15	10-Aug-15	14-Aug-15	-104	0	0%
SA1B0170	A10 (A1b) - Type 5B Pier Formwork & Prep for Concreting (1st Lift)	2	24-Dec-15	0%	2	28-Dec-15	14-Aug-15	17-Aug-15	-104	0	0%
SA1B0180	A10 (A1b) - Type 5B Pier Concreting (1st Lift)	1	29-Dec-15	0%	1	29-Dec-15	17-Aug-15	18-Aug-15	-104	0	0%
SA1B0182	A10 (A1b) - Type 5B Pier Curing & Striking of Forms incl. CJ prep (1st Lift)	2	30-Dec-15	0%	2	31-Dec-15	18-Aug-15	21-Aug-15	-104	0	0%
SA1B0190	A10 (A1b) - Type 5B Pier Head Scaffolding	3	02-Jan-16	0%	3	05-Jan-16	21-Aug-15	25-Aug-15	-104	0	0%
SA1B0200	A10 (A1b) - Type 5B Pier Head Rebarwork	4	06-Jan-16	0%	4	09-Jan-16	25-Aug-15	29-Aug-15	-104	0	0%
SA1B0210	A10 (A1b) - Type 5B Pier Head Formwork & Prep for Concreting	4	11-Jan-16	0%	4	14-Jan-16	29-Aug-15	04-Sep-15	-104	0	0%
SA1B0220	A10 (A1b) - Type 5B Pier Head Concreting	1	15-Jan-16	0%	1	15-Jan-16	04-Sep-15	05-Sep-15	-104	0	0%
SA1B0270	A10 (A1b) - Type 5B Pier Head Curing & Striking of Forms & Remove Scal	6	16-Jan-16	0%	6	22-Jan-16	05-Sep-15	14-Sep-15	-104	0	0%
SA1B0280	A10 (A1b) - Type 5B Pier Backfilling Works	4	20-Jan-16	0%	4	23-Jan-16	10-Sep-15	15-Sep-15	-104	77	0%



Actual Work
Planned Bar
Critical Bar
Milestone

Project ID: J3518DWPrE2-M31
Layout: J3518-DWP-3MRP Submission - M31
Filter: TASK filters: 3-Month Lookahead, No CC Milestones, No Level of Effort.

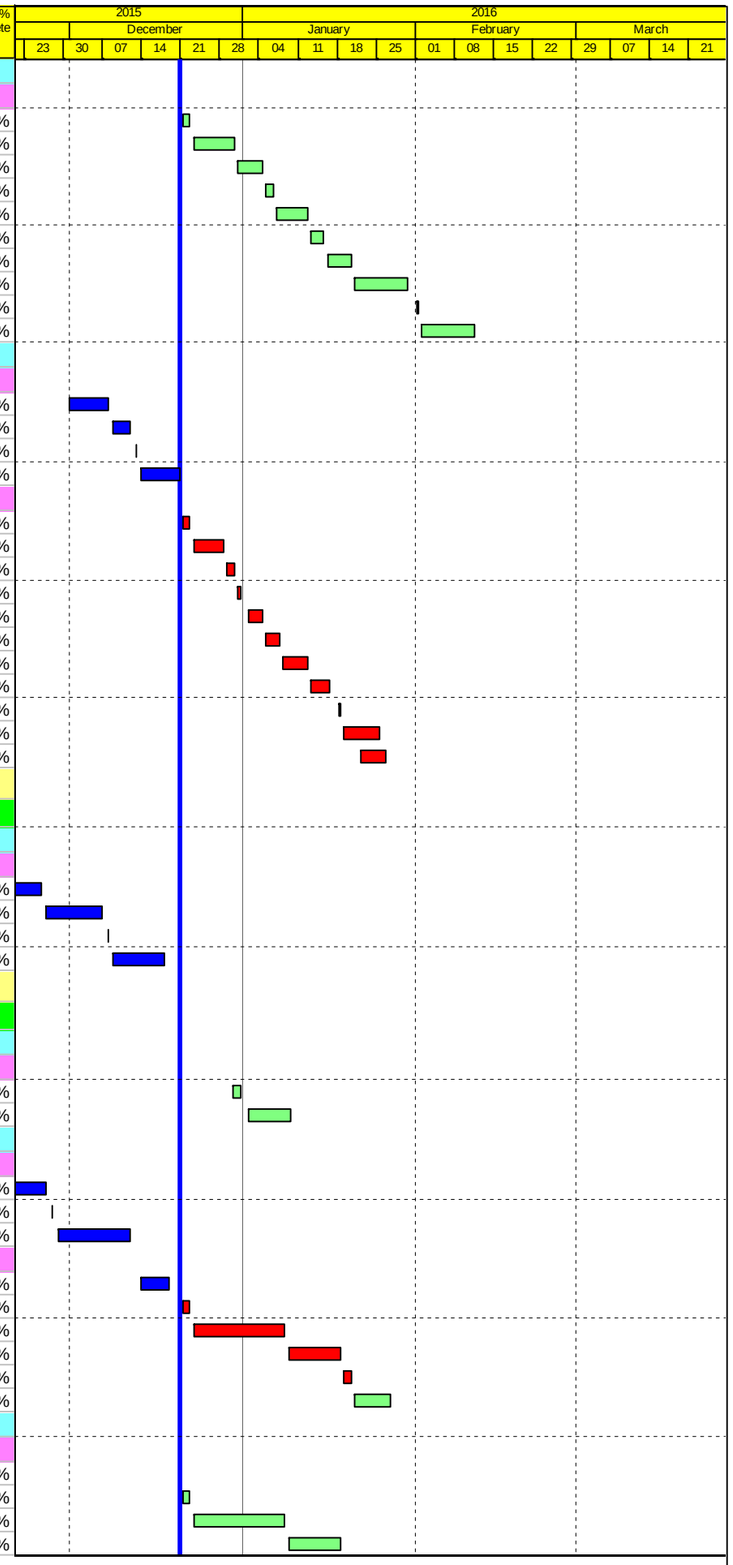
Tuen Mun - Chek Lap Kok Link - Southern Connection
3-Month Rolling Programme (Page 6 of 25 Pages)
(Progress as of 21-Dec-15)

Date	Revision	Checked	Approved
31-Oct-15		PKN	KWY
01-Dec-15		PKN	KWY
28-Dec-15		PKN	KWY

DWG. No.:

J3518/GCL/PGM/3MRP-M31

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
Pier A7 (A1e)											
Pier Works											
SA1E0210	A7 (A1e) - Type 5B Pier Scaffolding (2nd Lift)	2	21-Dec-15	0%	2	22-Dec-15	16-May-16	18-May-16	112	0	0%
SA1E0220	A7 (A1e) - Type 5B Pier Rebarwork, Formwork & Prep (2nd Lift)	5	23-Dec-15	0%	5	30-Dec-15	19-May-16	24-May-16	112	0	0%
SA1E0240	A7 (A1e) - Type 5B Pier Concreting, Curing & Striking, CJ prep (2nd Lift)	3	31-Dec-15	0%	3	04-Jan-16	25-May-16	28-May-16	112	0	0%
SA1E0250	A7 (A1e) - Type 5B Pier Scaffolding (3rd Lift)	2	05-Jan-16	0%	2	06-Jan-16	30-May-16	31-May-16	112	0	0%
SA1E0260	A7 (A1e) - Type 5B Pier Rebarwork, Formwork & Prep (3rd Lift)	5	07-Jan-16	0%	5	12-Jan-16	01-Jun-16	08-Jun-16	112	0	0%
SA1E0280	A7 (A1e) - Type 5B Pier Concreting, Curing & Striking, CJ prep (3rd Lift)	3	13-Jan-16	0%	3	15-Jan-16	10-Jun-16	13-Jun-16	112	0	0%
SA1E0300	A7 (A1e) - Type 5B Pier Head Scaffolding	4	16-Jan-16	0%	4	20-Jan-16	14-Jun-16	20-Jun-16	112	0	0%
SA1E0310	A7 (A1e) - Type 5B Pier Head Rebarwork, Formwork & Prep	9	21-Jan-16	0%	9	30-Jan-16	22-Jun-16	04-Jul-16	112	0	0%
SA1E0330	A7 (A1e) - Type 5B Pier Head Concreting	1	01-Feb-16	0%	1	01-Feb-16	05-Jul-16	05-Jul-16	112	0	0%
SA1E0340	A7 (A1e) - Type 5B Pier Head Curing/Striking of Forms/Remove Scaffoldin	6	02-Feb-16	0%	6	11-Feb-16	06-Jul-16	13-Jul-16	112	64	0%
Pier A9 (A1c)											
Pile Cap Works											
SA1C0120	A9 (A1c) - Pile cap Rebarwork	4	01-Dec-15 A	100%	0	08-Dec-15 A					100%
SA1C0122	A9 (A1c) - Pile cap Kicker Formwork	2	09-Dec-15 A	100%	0	12-Dec-15 A					100%
SA1C0130	A9 (A1c) - Pile cap Concreting	1	13-Dec-15 A	100%	0	13-Dec-15 A					100%
SA1C0140	A9 (A1c) - Pile cap Curing & Striking of Forms incl. CJ prep	6	14-Dec-15 A	100%	0	21-Dec-15 A					100%
Pier Works											
SA1C0150	A9 (A1c) - Type 5B Pier Scaffolding (1st Lift)	2	21-Dec-15	0%	2	22-Dec-15	05-Jun-15	08-Jun-15	-151	0	0%
SA1C0160	A9 (A1c) - Type 5B Pier Rebarwork (1st Lift)	3	23-Dec-15	0%	3	28-Dec-15	08-Jun-15	13-Jun-15	-151	0	0%
SA1C0170	A9 (A1c) - Type 5B Pier Formwork & Prep for Concreting (1st Lift)	2	29-Dec-15	0%	2	30-Dec-15	13-Jun-15	16-Jun-15	-151	0	0%
SA1C0180	A9 (A1c) - Type 5B Pier Concreting (1st Lift)	1	31-Dec-15	0%	1	31-Dec-15	16-Jun-15	18-Jun-15	-151	0	0%
SA1C0182	A9 (A1c) - Type 5B Pier Curing & Striking of Forms incl. CJ prep (1st Lift)	2	02-Jan-16	0%	2	04-Jan-16	18-Jun-15	22-Jun-15	-151	0	0%
SA1C0190	A9 (A1c) - Type 5B Pier Head Scaffolding	3	05-Jan-16	0%	3	07-Jan-16	22-Jun-15	27-Jun-15	-151	0	0%
SA1C0200	A9 (A1c) - Type 5B Pier Head Rebarwork	4	08-Jan-16	0%	4	12-Jan-16	27-Jun-15	03-Jul-15	-151	0	0%
SA1C0210	A9 (A1c) - Type 5B Pier Head Formwork & Prep for Concreting	4	13-Jan-16	0%	4	16-Jan-16	03-Jul-15	08-Jul-15	-151	0	0%
SA1C0220	A9 (A1c) - Type 5B Pier Head Concreting	1	18-Jan-16	0%	1	18-Jan-16	08-Jul-15	09-Jul-15	-151	0	0%
SA1C0270	A9 (A1c) - Type 5B Pier Head Curing & Striking of Forms & Remove Scaff(	6	19-Jan-16	0%	6	25-Jan-16	09-Jul-15	17-Jul-15	-151	0	0%
SA1C0280	A9 (A1c) - Type 5B Pier Backfilling Works	4	22-Jan-16	0%	4	26-Jan-16	13-Jul-15	18-Jul-15	-151	75	0%
Viaduct B											
Bridge B1											
Pier B15 (B1e)											
Pier Head Segments											
SB1E0374	B15 (B1e) - Pier Head Segment Diaphragm - Rebar	12	11-Nov-15 A	100%	0	26-Nov-15 A					100%
SB1E0376	B15 (B1e) - Pier Head Segment Diaphragm - Formwork & Prep for Concre	8	27-Nov-15 A	100%	0	07-Dec-15 A					100%
SB1E0378	B15 (B1e) - Pier Head Segment Diaphragm - Concreting	2	08-Dec-15 A	100%	0	08-Dec-15 A					100%
SB1E0380	B15 (B1e) - Pier Head Segment Diaphragm - Curing & Striking of Forms	7	09-Dec-15 A	100%	0	18-Dec-15 A					100%
Viaduct C											
Bridge C4											
Pier C1 (C4e)											
Pier Head Segments											
SC4E0371	C1 (C4e) - Pier Head Segment Bearings	2	30-Dec-15	0%	2	31-Dec-15	01-Feb-16	02-Feb-16	27	0	0%
SC4E0372	C1 (C4e) - Pier Head Segment Lift & Temp Support (2 seg)	7	02-Jan-16	0%	7	09-Jan-16	03-Feb-16	15-Feb-16	28	110	0%
Pier C4 (C4b)											
Pier Works											
SC4B0310	C4 (C4b) - Type 4B Pier Head Rebarwork, Formwork & Prep	8	23-Oct-15 A	100%	0	27-Nov-15 A					100%
SC4B0330	C4 (C4b) - Type 4B Pier Head Concreting	1	28-Nov-15 A	100%	0	28-Nov-15 A					100%
SC4B0340	C4 (C4b) - Type 4B Pier Head Curing/Striking of Forms/Remove Scaffoldir	6	29-Nov-15 A	100%	0	12-Dec-15 A					100%
Pier Head Segments											
SC4B0370	C4 (C4b) - Pier Head Segment - Temporary Platform	6	14-Dec-15 A	100%	0	19-Dec-15 A					100%
SC4B0372	C4 (C4b) - Pier Head Segment Lift & Fix (1 seg)	2	21-Dec-15	0%	2	22-Dec-15	04-Nov-15	05-Nov-15	-40	0	0%
SC4B0374	C4 (C4b) - Pier Head Segment Diaphragm - Rebar	12	23-Dec-15	0%	12	08-Jan-16	06-Nov-15	19-Nov-15	-40	0	0%
SC4B0376	C4 (C4b) - Pier Head Segment Diaphragm - Formwork & Prep for Concre	8	09-Jan-16	0%	8	18-Jan-16	20-Nov-15	28-Nov-15	-40	0	0%
SC4B0378	C4 (C4b) - Pier Head Segment Diaphragm - Concreting	2	19-Jan-16	0%	2	20-Jan-16	30-Nov-15	01-Dec-15	-40	0	0%
SC4B0380	C4 (C4b) - Pier Head Segment Diaphragm - Curing & Striking of Forms	6	21-Jan-16	0%	6	27-Jan-16	04-Mar-16	10-Mar-16	34	116	0%
Pier C2 (C4d)											
Pier Head Segments											
SC4D0370	C2 (C4d) - Pier Head Segment - Temporary Platform	6	16-Nov-15 A	100%	0	21-Nov-15 A					100%
SC4D0372	C2 (C4d) - Pier Head Segment Lift & Fix (1 seg)	2	21-Dec-15	0%	2	22-Dec-15	14-Jan-16	15-Jan-16	18	0	0%
SC4D0374	C2 (C4d) - Pier Head Segment Diaphragm - Rebar	12	23-Dec-15	0%	12	08-Jan-16	16-Jan-16	29-Jan-16	18	0	0%
SC4D0376	C2 (C4d) - Pier Head Segment Diaphragm - Formwork & Prep for Concre	8	09-Jan-16	0%	8	18-Jan-16	30-Jan-16	11-Feb-16	18	0	0%



Actual Work
Planned Bar
Critical Bar
Milestone

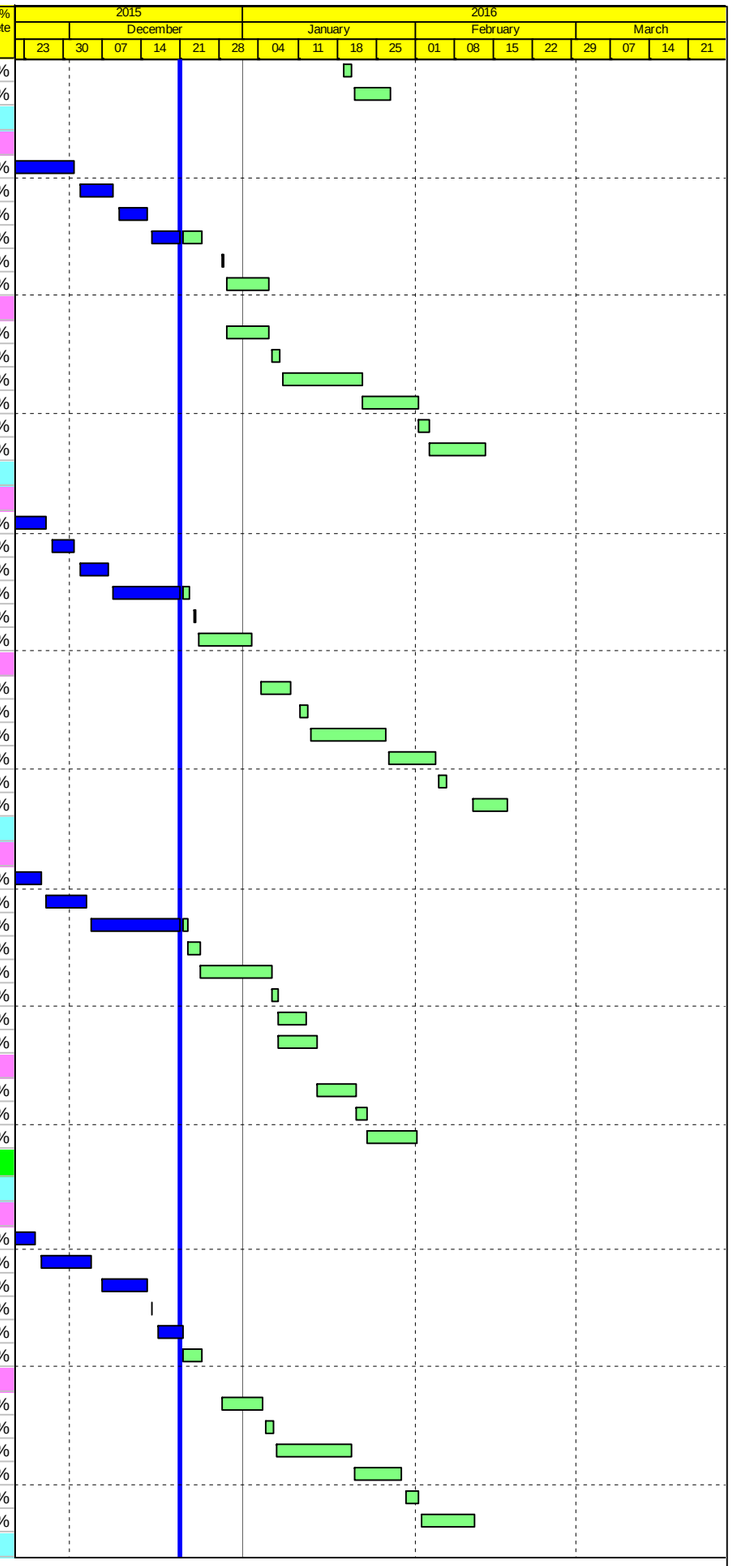
Project ID: J3518DWPrE2-M31
Layout: J3518-DWP-3MRP Submission - M31
Filter: TASK filters: 3-Month Lookahead, No CC Milestones, No Level of Effort.

Tuen Mun - Chek Lap Kok Link - Southern Connection
3-Month Rolling Programme (Page 7 of 25 Pages)
(Progress as of 21-Dec-15)

Date	Revision	Checked	Approved
31-Oct-15		PKN	KWY
01-Dec-15		PKN	KWY
28-Dec-15		PKN	KWY

DWG. No.:
J3518/GCL/PGM/3MRP-M31

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
SC4D0378	C2 (C4d) - Pier Head Segment Diaphragm - Concreting	2	19-Jan-16	0%	2	20-Jan-16	12-Feb-16	13-Feb-16	18	0	0%
SC4D0380	C2 (C4d) - Pier Head Segment Diaphragm - Curing & Striking of Forms	6	21-Jan-16	0%	6	27-Jan-16	15-Feb-16	20-Feb-16	18	100	0%
Pier C5 (C4a)											
Pier Works											
SC4A0260	C5 (C4a) - Type 4B Pier Rebarwork, Formwork & Prep (3rd Lift)	5	21-Nov-15 A	100%	0	02-Dec-15 A					100%
SC4A0280	C5 (C4a) - Type 4B Pier Concreting, Curing & Striking, CJ prep (3rd Lift)	3	03-Dec-15 A	100%	0	09-Dec-15 A					100%
SC4A0300	C5 (C4a) - Type 4B Pier Head Scaffolding	2	10-Dec-15 A	100%	0	15-Dec-15 A					100%
SC4A0310	C5 (C4a) - Type 4B Pier Head Rebarwork, Formwork & Prep	8	16-Dec-15 A	50%	4	24-Dec-15	23-Jan-16	28-Jan-16	26	0	50%
SC4A0330	C5 (C4a) - Type 4B Pier Head Concreting	1	28-Dec-15	0%	1	28-Dec-15	28-Jan-16	29-Jan-16	26	0	0%
SC4A0340	C5 (C4a) - Type 4B Pier Head Curing/Striking of Forms/Remove Scaffoldir	6	29-Dec-15	0%	6	05-Jan-16	29-Jan-16	05-Feb-16	26	0	0%
Pier Head Segments											
SC4A0370	C5 (C4a) - Pier Head Segment - Temporary Platform	6	29-Dec-15	0%	6	05-Jan-16	29-Jan-16	05-Feb-16	26	0	0%
SC4A0372	C5 (C4a) - Pier Head Segment Lift & Fix (1 seg)	2	06-Jan-16	0%	2	07-Jan-16	05-Feb-16	11-Feb-16	26	0	0%
SC4A0374	C5 (C4a) - Pier Head Segment Diaphragm - Rebar	13	08-Jan-16	0%	13	22-Jan-16	11-Feb-16	25-Feb-16	26	0	0%
SC4A0376	C5 (C4a) - Pier Head Segment Diaphragm - Formwork & Prep for Concre	8	22-Jan-16	0%	8	01-Feb-16	26-Feb-16	05-Mar-16	26	0	0%
SC4A0378	C5 (C4a) - Pier Head Segment Diaphragm - Concreting	2	01-Feb-16	0%	2	03-Feb-16	07-Mar-16	08-Mar-16	26	0	0%
SC4A0380	C5 (C4a) - Pier Head Segment Diaphragm - Curing & Striking of Forms	6	03-Feb-16	0%	6	13-Feb-16	09-Mar-16	15-Mar-16	26	108	0%
Pier C3 (C4c)											
Pier Works											
SC4C0220	C3 (C4c) - Type 4B Pier Rebarwork, Formwork & Prep (2nd Lift)	6	14-Nov-15 A	100%	0	27-Nov-15 A					100%
SC4C0240	C3 (C4c) - Type 4B Pier Concreting, Curing & Striking, CJ prep (2nd Lift)	3	28-Nov-15 A	100%	0	02-Dec-15 A					100%
SC4C0300	C3 (C4c) - Type 4B Pier Head Scaffolding	4	03-Dec-15 A	100%	0	08-Dec-15 A					100%
SC4C0310	C3 (C4c) - Type 4B Pier Head Rebarwork, Formwork & Prep	10	09-Dec-15 A	80%	2	22-Dec-15	06-Jan-16	07-Jan-16	11	0	80%
SC4C0330	C3 (C4c) - Type 4B Pier Head Concreting	1	23-Dec-15	0%	1	23-Dec-15	08-Jan-16	08-Jan-16	11	0	0%
SC4C0340	C3 (C4c) - Type 4B Pier Head Curing/Striking of Forms/Remove Scaffoldir	6	24-Dec-15	0%	6	02-Jan-16	09-Jan-16	15-Jan-16	11	0	0%
Pier Head Segments											
SC4C0370	C3 (C4c) - Pier Head Segment - Temporary Platform	6	04-Jan-16	0%	6	09-Jan-16	16-Jan-16	22-Jan-16	11	0	0%
SC4C0372	C3 (C4c) - Pier Head Segment Lift & Fix (1 seg)	2	11-Jan-16	0%	2	12-Jan-16	23-Jan-16	25-Jan-16	11	0	0%
SC4C0374	C3 (C4c) - Pier Head Segment Diaphragm - Rebar	12	13-Jan-16	0%	12	26-Jan-16	26-Jan-16	11-Feb-16	11	0	0%
SC4C0376	C3 (C4c) - Pier Head Segment Diaphragm - Formwork & Prep for Concrel	8	27-Jan-16	0%	8	04-Feb-16	12-Feb-16	20-Feb-16	11	0	0%
SC4C0378	C3 (C4c) - Pier Head Segment Diaphragm - Concreting	2	05-Feb-16	0%	2	06-Feb-16	22-Feb-16	23-Feb-16	11	0	0%
SC4C0380	C3 (C4c) - Pier Head Segment Diaphragm - Curing & Striking of Forms	6	11-Feb-16	0%	6	17-Feb-16	24-Feb-16	02-Mar-16	12	94	0%
Pier C6 (C3f)											
Pier Works											
SC3F0250	C6 (C3f) - Type 4B-MJ Pier Scaffolding (3rd Lift)	1	21-Nov-15 A	100%	0	26-Nov-15 A					100%
SC3F0260	C6 (C3f) - Type 4B-MJ Pier Rebarwork, Formwork & Prep (3rd Lift)	5	27-Nov-15 A	100%	0	04-Dec-15 A					100%
SC3F0280	C6 (C3f) - Type 4B-MJ Pier Concreting, Curing & Striking, CJ prep (3rd Lift	3	05-Dec-15 A	60%	1	22-Dec-15	12-Feb-16	13-Feb-16	41	0	60%
SC3F0300	C6 (C3f) - Type 4B-MJ Pier Head Scaffolding	2	22-Dec-15	0%	2	24-Dec-15	15-Feb-16	16-Feb-16	41	0	0%
SC3F0310	C6 (C3f) - Type 4B-MJ Pier Head Rebarwork, Formwork & Prep	8	24-Dec-15	0%	8	06-Jan-16	17-Feb-16	25-Feb-16	41	0	0%
SC3F0330	C6 (C3f) - Type 4B-MJ Pier Head Concreting	1	06-Jan-16	0%	1	07-Jan-16	26-Feb-16	26-Feb-16	41	0	0%
SC3F0340	C6 (C3f) - Type 4B-MJ Pier Head Curing/Striking of Forms/Remove Scaff	4	07-Jan-16	0%	4	12-Jan-16	01-Mar-16	04-Mar-16	43	2	0%
SC3F0350	C6 (C3f) - Type 4B-Bearing Plinth	6	07-Jan-16	0%	6	14-Jan-16	27-Feb-16	04-Mar-16	41	0	0%
Pier Head Segments											
SC3F0370	C6 (C3f) - Pier Head Segment - Temporary Platform	6	14-Jan-16	0%	6	21-Jan-16	05-Mar-16	11-Mar-16	41	0	0%
SC3F0371	C6 (C3f) - Pier Head Segment Bearings	2	21-Jan-16	0%	2	23-Jan-16	12-Mar-16	14-Mar-16	41	0	0%
SC3F0372	C6 (C3f) - Pier Head Segment Lift & Temp Support (2 seg)	7	23-Jan-16	0%	7	01-Feb-16	15-Mar-16	22-Mar-16	41	123	0%
Bridge C3											
Pier C7 (C3e)											
Pier Works											
SC3E0270	C7 (C3e) - Type 5B Pier Head Scaffolding	4	16-Nov-15 A	100%	0	25-Nov-15 A					100%
SC3E0280	C7 (C3e) - Type 5B Pier Head Rebarwork	4	26-Nov-15 A	100%	0	05-Dec-15 A					100%
SC3E0290	C7 (C3e) - Type 5B Pier Head Formwork & Prep for Concreting	5	07-Dec-15 A	100%	0	15-Dec-15 A					100%
SC3E0300	C7 (C3e) - Type 5B Pier Head Concreting	1	16-Dec-15 A	100%	0	16-Dec-15 A					100%
SC3E0310	C7 (C3e) - Type 5B Pier head Curing/Striking of Forms/Remove Scaffoldin	6	17-Dec-15 A	100%	0	21-Dec-15 A					100%
SC3E0320	C7 (C3e) - Type 5B Pier Backfilling Works	4	21-Dec-15	0%	4	24-Dec-15	11-Feb-16	15-Feb-16	39	0	0%
Pier Head Segments											
SC3E0370	C7 (C3e) - Pier Head Segment - Temporary Platform	6	28-Dec-15	0%	6	04-Jan-16	16-Feb-16	22-Feb-16	39	0	0%
SC3E0372	C7 (C3e) - Pier Head Segment Lift & Fix (1 seg)	2	05-Jan-16	0%	2	06-Jan-16	23-Feb-16	24-Feb-16	39	0	0%
SC3E0374	C7 (C3e) - Pier Head Segment Diaphragm - Rebar	12	07-Jan-16	0%	12	20-Jan-16	25-Feb-16	09-Mar-16	39	0	0%
SC3E0376	C7 (C3e) - Pier Head Segment Diaphragm - Formwork	8	21-Jan-16	0%	8	29-Jan-16	10-Mar-16	18-Mar-16	39	0	0%
SC3E0378	C7 (C3e) - Pier Head Segment Diaphragm - Concreting	2	30-Jan-16	0%	2	01-Feb-16	19-Mar-16	21-Mar-16	39	0	0%
SC3E0380	C7 (C3e) - Pier Head Segment Diaphragm - Curing & Striking of Forms	6	02-Feb-16	0%	6	11-Feb-16	22-Mar-16	31-Mar-16	39	121	0%
Pier C8 (C3d)											



Actual Work
Planned Bar
Critical Bar
Milestone

Project ID: J3518DWPrE2-M31
Layout: J3518-DWP-3MRP Submission - M31
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 8 of 25 Pages)

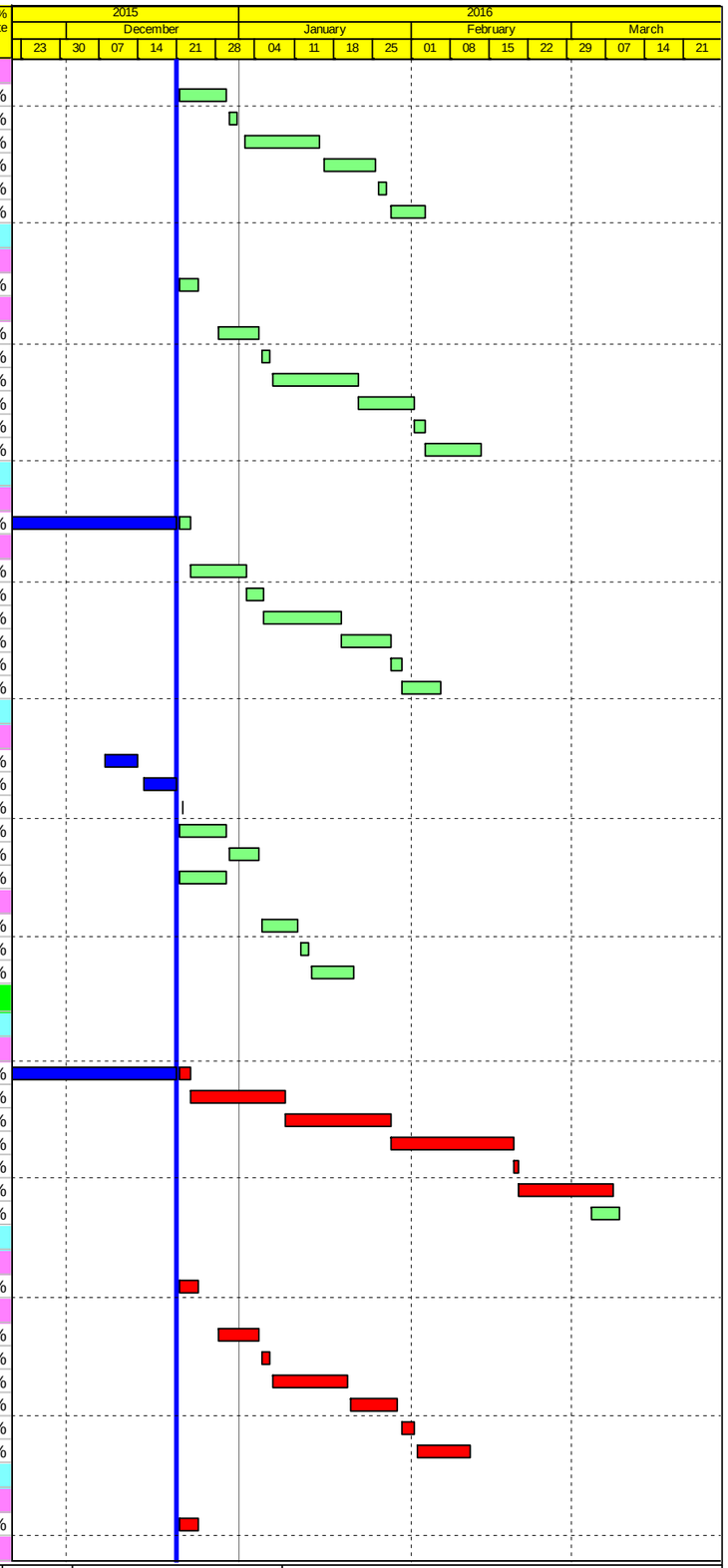
(Progress as of 21-Dec-15)

Date	Revision	Checked	Approved
31-Oct-15		PKN	KWY
01-Dec-15		PKN	KWY
28-Dec-15		PKN	KWY

DWG. No.:

J3518/GCL/PGM/3MRP-M31

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
Pier Head Segments											
SC3D0370	C8 (C3d) - Pier Head Segment - Temporary Platform	6	21-Dec-15	0%	6	29-Dec-15	14-Mar-16	19-Mar-16	66	0	0%
SC3D0372	C8 (C3d) - Pier Head Segment Lift & Fix (1 seg)	2	30-Dec-15	0%	2	31-Dec-15	21-Mar-16	22-Mar-16	66	0	0%
SC3D0374	C8 (C3d) - Pier Head Segment Diaphragm - Rebar	12	02-Jan-16	0%	12	15-Jan-16	23-Mar-16	09-Apr-16	66	0	0%
SC3D0376	C8 (C3d) - Pier Head Segment Diaphragm - Formwork	8	16-Jan-16	0%	8	25-Jan-16	11-Apr-16	21-Apr-16	66	0	0%
SC3D0378	C8 (C3d) - Pier Head Segment Diaphragm - Concreting	2	26-Jan-16	0%	2	27-Jan-16	22-Apr-16	23-Apr-16	66	0	0%
SC3D0380	C8 (C3d) - Pier Head Segment Diaphragm - Curing & Striking of Forms	6	28-Jan-16	0%	6	03-Feb-16	25-Apr-16	30-Apr-16	66	148	0%
Pier C10 (C3b)											
Pier Works											
SC3B0320	C10 (C3b) - Type 5B Pier Backfilling Works	4	21-Dec-15	0%	4	24-Dec-15	28-Apr-16	04-May-16	99	0	0%
Pier Head Segments											
SC3B0370	C10 (C3b) - Pier Head Segment - Temporary Platform	6	28-Dec-15	0%	6	04-Jan-16	04-May-16	11-May-16	99	0	0%
SC3B0372	C10 (C3b) - Pier Head Segment Lift & Fix (1 seg)	2	05-Jan-16	0%	2	06-Jan-16	11-May-16	13-May-16	99	0	0%
SC3B0374	C10 (C3b) - Pier Head Segment Diaphragm - Rebar	14	07-Jan-16	0%	14	22-Jan-16	13-May-16	01-Jun-16	99	0	0%
SC3B0376	C10 (C3b) - Pier Head Segment Diaphragm - Formwork	8	22-Jan-16	0%	8	01-Feb-16	03-Jun-16	14-Jun-16	99	0	0%
SC3B0378	C10 (C3b) - Pier Head Segment Diaphragm - Concreting	2	01-Feb-16	0%	2	03-Feb-16	16-Jun-16	18-Jun-16	99	0	0%
SC3B0380	C10 (C3b) - Pier Head Segment Diaphragm - Curing & Striking of Forms	6	03-Feb-16	0%	6	13-Feb-16	20-Jun-16	27-Jun-16	99	181	0%
Pier C9 (C3c)											
Pier Works											
SC3C0320	C9 (C3c) - Type 5B Pier Backfilling Works	4	16-Sep-15 A	40%	2	23-Dec-15	07-Apr-16	09-Apr-16	84	0	40%
Pier Head Segments											
SC3C0370	C9 (C3c) - Pier Head Segment - Temporary Platform	6	23-Dec-15	0%	6	02-Jan-16	11-Apr-16	18-Apr-16	84	0	0%
SC3C0372	C9 (C3c) - Pier Head Segment Lift & Fix (1 seg)	2	02-Jan-16	0%	2	05-Jan-16	19-Apr-16	21-Apr-16	84	0	0%
SC3C0374	C9 (C3c) - Pier Head Segment Diaphragm - Rebar	12	05-Jan-16	0%	12	19-Jan-16	22-Apr-16	06-May-16	84	0	0%
SC3C0376	C9 (C3c) - Pier Head Segment Diaphragm - Formwork	8	19-Jan-16	0%	8	28-Jan-16	07-May-16	18-May-16	84	0	0%
SC3C0378	C9 (C3c) - Pier Head Segment Diaphragm - Concreting	2	28-Jan-16	0%	2	30-Jan-16	19-May-16	20-May-16	84	0	0%
SC3C0380	C9 (C3c) - Pier Head Segment Diaphragm - Curing & Striking of Forms	6	30-Jan-16	0%	6	06-Feb-16	21-May-16	28-May-16	84	24	0%
Pier C11 (C3a)											
Pier Works											
SC3A0310	C11 (C3a) - Type 5B-MJ Pier Head Rebarwork	5	08-Dec-15 A	100%	0	14-Dec-15 A					100%
SC3A0320	C11 (C3a) - Type 5B-MJ Pier Head Formwork & Prep for Concreting	5	15-Dec-15 A	100%	0	21-Dec-15 A					100%
SC3A0330	C11 (C3a) - Type 5B-MJ Pier Head Concreting	1	22-Dec-15 A	100%	0	22-Dec-15 A					100%
SC3A0340	C11 (C3a) - Type 5B-MJ Pier Head Curing/Striking of Forms/Remove Scaf	6	21-Dec-15	0%	6	29-Dec-15	30-May-16	06-Jun-16	122	0	0%
SC3A0360	C11 (C3a) - Type 5B-MJ Pier Backfilling Works	4	30-Dec-15	0%	4	04-Jan-16	08-Jun-16	13-Jun-16	122	0	0%
SC3A0380	C11 (C3a) - Type 5B-Bearing Plinth	6	21-Dec-15	0%	6	29-Dec-15	30-May-16	06-Jun-16	122	0	0%
Pier Head Segments											
SC3A0370	C11 (C3a) - Pier Head Segment - Temporary Platform	6	05-Jan-16	0%	6	11-Jan-16	14-Jun-16	23-Jun-16	122	0	0%
SC3A0371	C11 (C3a) - Pier Head Segment Bearings	2	12-Jan-16	0%	2	13-Jan-16	24-Jun-16	25-Jun-16	122	0	0%
SC3A0372	C11 (C3a) - Pier Head Segment Lift & Temp Support (2 seg)	7	14-Jan-16	0%	7	21-Jan-16	27-Jun-16	06-Jul-16	122	204	0%
Bridge C2											
Pier C13 (C2e) Portal											
Portal											
SC2ER280	C13 (C2e) - Portal Beam Scaffolding	12	22-Oct-15 A	80%	2	23-Dec-15	07-Sep-15	10-Sep-15	-82	0	80%
SC2ER290	C13 (C2e) - Portal Beam Soffit Formwork	12	23-Dec-15	0%	12	09-Jan-16	11-Sep-15	25-Sep-15	-82	0	0%
SC2ER300	C13 (C2e) - Portal Beam Rebarwork & Inserts	16	09-Jan-16	0%	16	28-Jan-16	26-Sep-15	17-Oct-15	-82	0	0%
SC2ER302	C13 (C2e) - Portal Beam Side Formwork & Prep for Concreting	16	28-Jan-16	0%	16	19-Feb-16	19-Oct-15	07-Nov-15	-82	0	0%
SC2ER310	C13 (C2e) - Portal Beam Concreting	1	19-Feb-16	0%	1	20-Feb-16	09-Nov-15	09-Nov-15	-82	0	0%
SC2ER320	C13 (C2e) - Pier Head Curing/Striking of Forms/Remove Scaffolding	14	20-Feb-16	0%	14	08-Mar-16	10-Nov-15	25-Nov-15	-82	0	0%
SC2ER325	C13 (C2e) - Pier Backfilling Works	4	04-Mar-16	0%	4	09-Mar-16	25-Aug-16	29-Aug-16	129	0	0%
Pier C14 (C2d)											
Pier Works											
SC2D0280	C14 (C2d) - Type 5B Pier Backfilling Works	4	21-Dec-15	0%	4	24-Dec-15	23-Oct-15	27-Oct-15	-49	0	0%
Pier Head Segments											
SC2D0370	C14 (C2d) - Pier Head Segment - Temporary Platform	6	28-Dec-15	0%	6	04-Jan-16	28-Oct-15	04-Nov-15	-49	0	0%
SC2D0372	C14 (C2d) - Pier Head Segment Lift & Fix (1 seg)	2	05-Jan-16	0%	2	06-Jan-16	05-Nov-15	06-Nov-15	-49	0	0%
SC2D0374	C14 (C2d) - Pier Head Segment Diaphragm - Rebar	12	07-Jan-16	0%	12	20-Jan-16	07-Nov-15	20-Nov-15	-49	0	0%
SC2D0376	C14 (C2d) - Pier Head Segment Diaphragm - Formwork & Prep for Concr	8	21-Jan-16	0%	8	29-Jan-16	21-Nov-15	30-Nov-15	-49	0	0%
SC2D0378	C14 (C2d) - Pier Head Segment Diaphragm - Concreting	2	30-Jan-16	0%	2	01-Feb-16	01-Dec-15	02-Dec-15	-49	0	0%
SC2D0380	C14 (C2d) - Pier Head Segment Diaphragm - Curing & Striking of Forms	6	02-Feb-16	0%	6	11-Feb-16	03-Dec-15	09-Dec-15	-49	22	0%
Pier C15 (C2c)											
Pier Works											
SC2C0280	C15 (C2c) - Type 5B Pier Backfilling Works	4	21-Dec-15	0%	4	24-Dec-15	07-Nov-15	11-Nov-15	-37	0	0%
Pier Head Segments											



Actual Work
Planned Bar
Critical Bar
Milestone

Project ID: J3518DWPrE2-M31
Layout: J3518-DWP-3MRP Submission - M31
Filter: TASK filters: 3-Month Lookahead, No CC
Milestones, No Level of Effort.

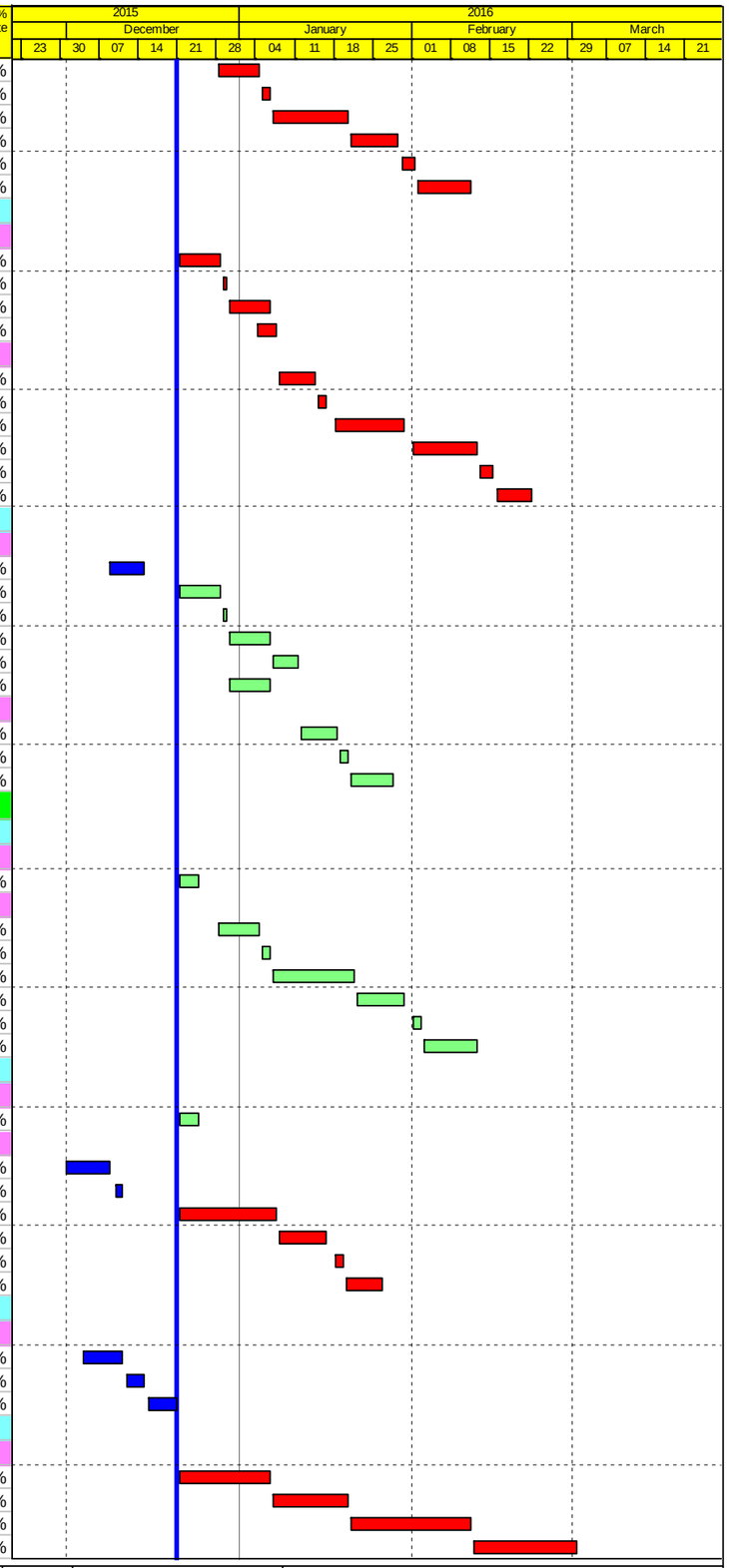
Tuen Mun - Chek Lap Kok Link - Southern Connection
3-Month Rolling Programme (Page 9 of 25 Pages)
(Progress as of 21-Dec-15)

Date	Revision	Checked	Approved
31-Oct-15		PKN	KWY
01-Dec-15		PKN	KWY
28-Dec-15		PKN	KWY

DWG. No.:

J3518/GCL/PGM/3MRP-M31

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
SC2C0370	C15 (C2c) - Pier Head Segment - Temporary Platform	6	28-Dec-15	0%	6	04-Jan-16	12-Nov-15	18-Nov-15	-37	0	0%
SC2C0372	C15 (C2c) - Pier Head Segment Lift & Fix (1 seg)	2	05-Jan-16	0%	2	06-Jan-16	19-Nov-15	20-Nov-15	-37	0	0%
SC2C0374	C15 (C2c) - Pier Head Segment Diaphragm - Rebar	12	07-Jan-16	0%	12	20-Jan-16	21-Nov-15	04-Dec-15	-37	0	0%
SC2C0376	C15 (C2c) - Pier Head Segment Diaphragm - Formwork & Prep for Concr	8	21-Jan-16	0%	8	29-Jan-16	05-Dec-15	14-Dec-15	-37	0	0%
SC2C0378	C15 (C2c) - Pier Head Segment Diaphragm - Concreting	2	30-Jan-16	0%	2	01-Feb-16	15-Dec-15	16-Dec-15	-37	0	0%
SC2C0380	C15 (C2c) - Pier Head Segment Diaphragm - Curing & Striking of Forms	6	02-Feb-16	0%	6	11-Feb-16	17-Dec-15	23-Dec-15	-37	35	0%
Pier C12 (C2f)											
Pier Works											
SC2F0250	C12 (C2f) - Pier Head Formwork & Prep for Concreting	5	21-Dec-15	0%	5	28-Dec-15	08-Sep-15	14-Sep-15	-82	0	0%
SC2F0260	C12 (C2f) - Pier Head Concreting	1	29-Dec-15	0%	1	29-Dec-15	15-Sep-15	15-Sep-15	-82	0	0%
SC2F0270	C12 (C2f) - Pier Head Curing/Striking of Forms/Remove Scaffolding	6	30-Dec-15	0%	6	06-Jan-16	16-Sep-15	23-Sep-15	-82	0	0%
SC2F0275	C12 (C2f) - Pier Backfilling Works	4	04-Jan-16	0%	4	07-Jan-16	21-Sep-15	24-Sep-15	-82	0	0%
Pier Head Segments											
SC2F0370	C12 (C2f) - Pier Head Segment - Temporary Platform	6	08-Jan-16	0%	6	14-Jan-16	25-Sep-15	03-Oct-15	-82	0	0%
SC2F0372	C12 (C2f) - Pier Head Segment Lift & Fix (1 seg)	2	15-Jan-16	0%	2	16-Jan-16	05-Oct-15	06-Oct-15	-82	0	0%
SC2F0374	C12 (C2f) - Pier Head Segment Diaphragm - Rebar	12	18-Jan-16	0%	12	30-Jan-16	07-Oct-15	22-Oct-15	-82	0	0%
SC2F0376	C12 (C2f) - Pier Head Segment Diaphragm - Formwork	8	01-Feb-16	0%	8	12-Feb-16	23-Oct-15	02-Nov-15	-82	0	0%
SC2F0378	C12 (C2f) - Pier Head Segment Diaphragm - Concreting	2	13-Feb-16	0%	2	15-Feb-16	03-Nov-15	04-Nov-15	-82	0	0%
SC2F0380	C12 (C2f) - Pier Head Segment Diaphragm - Curing & Striking of Forms	6	16-Feb-16	0%	6	22-Feb-16	05-Nov-15	11-Nov-15	-82	6	0%
Pier C16 (C2b)											
Pier Works											
SC2B0310	C16 (C2b) - Type 5B-MJ Pier Head Rebarwork	5	09-Dec-15 A	100%	0	15-Dec-15 A					100%
SC2B0320	C16 (C2b) - Type 5B-MJ Pier Head Formwork & Prep for Concreting	5	21-Dec-15	0%	5	28-Dec-15	08-Jun-16	14-Jun-16	128	0	0%
SC2B0330	C16 (C2b) - Type 5B-MJ Pier Head Concreting	1	29-Dec-15	0%	1	29-Dec-15	16-Jun-16	16-Jun-16	128	0	0%
SC2B0340	C16 (C2b) - Type 5B-MJ Pier Head Curing/Striking of Forms/Remove Scal	6	30-Dec-15	0%	6	06-Jan-16	18-Jun-16	25-Jun-16	128	0	0%
SC2B0360	C16 (C2b) - Type 5B-MJ Pier Backfilling Works	4	07-Jan-16	0%	4	11-Jan-16	27-Jun-16	02-Jul-16	128	0	0%
SC2B0380	C16 (C2b) - Type 5B-Bearing Plinth	6	30-Dec-15	0%	6	06-Jan-16	18-Jun-16	25-Jun-16	128	0	0%
Pier Head Segments											
SC2B0370	C16 (C2b) - Pier Head Segment - Temporary Platform	6	12-Jan-16	0%	6	18-Jan-16	04-Jul-16	09-Jul-16	128	0	0%
SC2B0371	C16 (C2b) - Pier Head Segment Bearings	2	19-Jan-16	0%	2	20-Jan-16	11-Jul-16	13-Jul-16	128	0	0%
SC2B0372	C16 (C2b) - Pier Head Segment Lift & Temp Support (2 seg)	7	21-Jan-16	0%	7	28-Jan-16	14-Jul-16	22-Jul-16	128	44	0%
Bridge C1											
Pier C17 (C2a)											
Pier Works											
SC2A0275	C17 (C2a) - Type 5B Pier Backfilling Works	4	21-Dec-15	0%	4	24-Dec-15	15-Jan-16	19-Jan-16	19	0	0%
Pier Head Segments											
SC2A0370	C17 (C2a) - Pier Head Segment - Temporary Platform	6	28-Dec-15	0%	6	04-Jan-16	20-Jan-16	26-Jan-16	19	0	0%
SC2A0372	C17 (C2a) - Pier Head Segment Lift & Fix (1 seg)	2	05-Jan-16	0%	2	06-Jan-16	27-Jan-16	29-Jan-16	20	0	0%
SC2A0374	C17 (C2a) - Pier Head Segment Diaphragm - Rebar	13	07-Jan-16	0%	13	21-Jan-16	30-Jan-16	17-Feb-16	20	0	0%
SC2A0376	C17 (C2a) - Pier Head Segment Diaphragm - Formwork	8	22-Jan-16	0%	8	30-Jan-16	18-Feb-16	27-Feb-16	21	0	0%
SC2A0378	C17 (C2a) - Pier Head Segment Diaphragm - Concreting	2	01-Feb-16	0%	2	02-Feb-16	29-Feb-16	01-Mar-16	21	0	0%
SC2A0380	C17 (C2a) - Pier Head Segment Diaphragm - Curing & Striking of Forms	6	03-Feb-16	0%	6	12-Feb-16	02-Mar-16	08-Mar-16	21	94	0%
Pier C19 (C1d)											
Pier Works											
SC1D0195	C19 (C1d) - Type 5B-B Pier/Pier Head Backfilling Works	4	21-Dec-15	0%	4	24-Dec-15	16-May-19	21-May-19	970	970	0%
Pier Head Segments											
SC1D0370	C19 (C1d) - Pier Head Segment - Temporary Platform	6	01-Dec-15 A	100%	0	09-Dec-15 A					100%
SC1D0372	C19 (C1d) - Pier Head Segment Lift & Fix (1 seg)	3	10-Dec-15 A	100%	0	11-Dec-15 A					100%
SC1D0374	C19 (C1d) - Pier Head Segment Diaphragm - Rebar	13	21-Dec-15	0%	13	07-Jan-16	12-Sep-15	29-Sep-15	-79	0	0%
SC1D0376	C19 (C1d) - Pier Head Segment Diaphragm - Formwork	8	08-Jan-16	0%	8	16-Jan-16	30-Sep-15	09-Oct-15	-79	0	0%
SC1D0378	C19 (C1d) - Pier Head Segment Diaphragm - Concreting	2	18-Jan-16	0%	2	19-Jan-16	10-Oct-15	12-Oct-15	-79	0	0%
SC1D0380	C19 (C1d) - Pier Head Segment Diaphragm - Curing & Striking of Forms	6	20-Jan-16	0%	6	26-Jan-16	13-Oct-15	20-Oct-15	-79	9	0%
Pier C20 (C1c) & Abutment C											
Pier Head Segments											
SC1C0370	C20 (C1c) - Pier Head Segment - Temporary Platform	6	04-Dec-15 A	100%	0	11-Dec-15 A					100%
SC1C0371	C20 (C1c) - Pier Head Segment Bearings	2	12-Dec-15 A	100%	0	15-Dec-15 A					100%
SC1C0372	C20 (C1c) - Pier Head Segment Lift & Temp Support (1 seg)	6	16-Dec-15 A	100%	0	21-Dec-15 A					100%
Pier C18 (C3d) Portal											
Portal											
SC1ER280	C18 (C1e) - Portal Beam Scaffolding	12	21-Dec-15	0%	12	06-Jan-16	12-Oct-15	27-Oct-15	-57	0	0%
SC1ER290	C18 (C1e) - Portal Beam Soffit Formwork	12	07-Jan-16	0%	12	20-Jan-16	28-Oct-15	11-Nov-15	-57	0	0%
SC1ER300	C18 (C1e) - Portal Beam Rebarwork & Inserts	16	21-Jan-16	0%	16	11-Feb-16	12-Nov-15	30-Nov-15	-57	0	0%
SC1ER302	C18 (C1e) - Portal Beam Side Formwork & Prep for Concreting	16	12-Feb-16	0%	16	01-Mar-16	01-Dec-15	19-Dec-15	-56	0	0%



Actual Work
Planned Bar
Critical Bar
Milestone

Project ID: J3518DWPrE2-M31
Layout: J3518-DWP-3MRP Submission - M31
Filter: TASK filters: 3-Month Lookahead, No CC Milestones, No Level of Effort.

Tuen Mun - Chek Lap Kok Link - Southern Connection

3-Month Rolling Programme (Page 10 of 25 Pages)

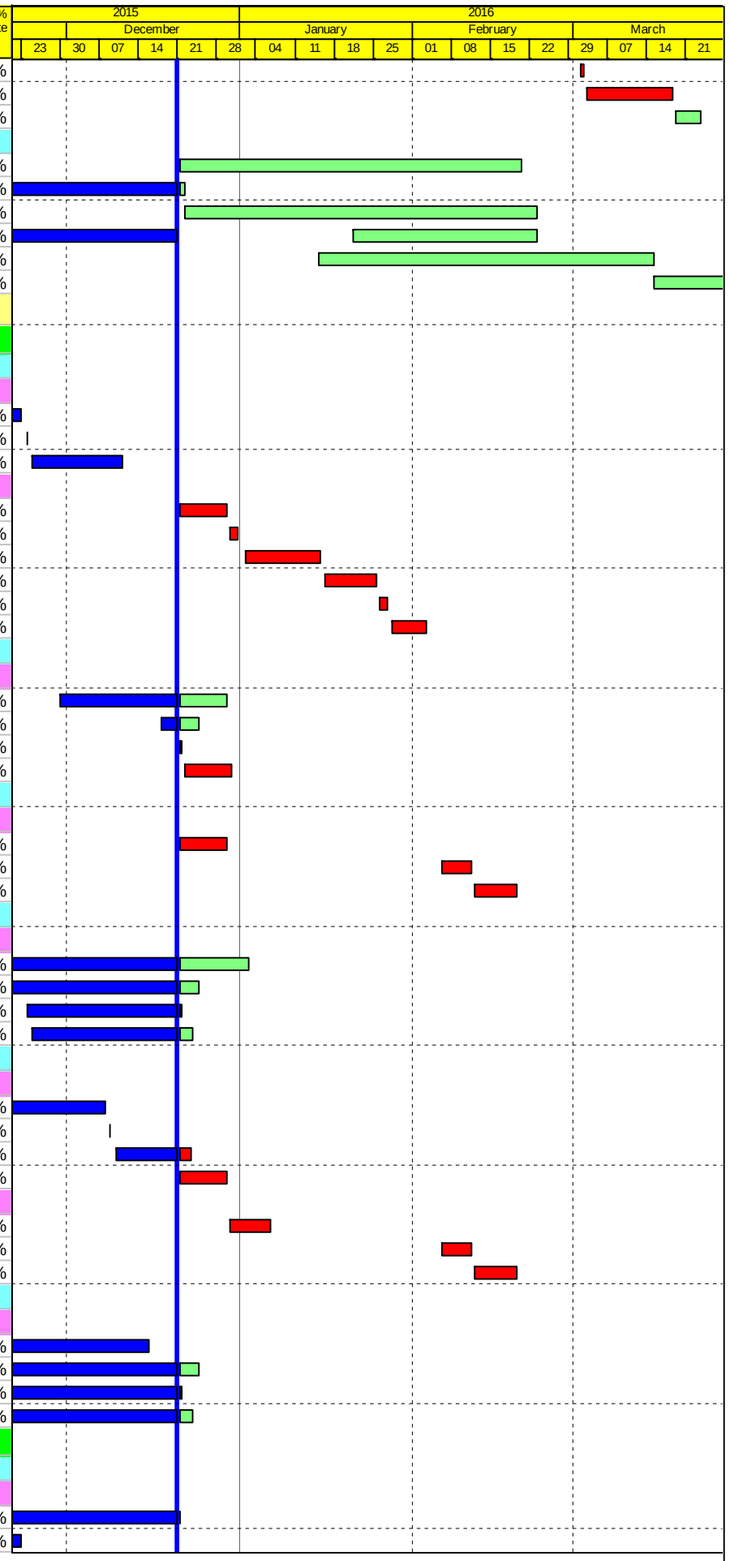
(Progress as of 21-Dec-15)

Date	Revision	Checked	Approved
31-Oct-15		PKN	KWY
01-Dec-15		PKN	KWY
28-Dec-15		PKN	KWY

DWG. No.:

J3518/GCL/PGM/3MRP-M31

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
SC1ER310	C18 (C1e) - Portal Beam Concreting	1	02-Mar-16	0%	1	02-Mar-16	21-Dec-15	21-Dec-15	-56	0	0%
SC1ER320	C18 (C1e) - Pier Head Curing/Striking of Forms/Remove Scaffolding	14	03-Mar-16	0%	14	18-Mar-16	22-Dec-15	09-Jan-16	-56	0	0%
SC1ER325	C18 (C1e) - Pier Backfilling Works	4	19-Mar-16	0%	4	23-Mar-16	18-Jul-16	22-Jul-16	84	0	0%
Abutment & Approach Ramp C											
SC1C0200	Abutment C - Walls & Staircase	48	21-Dec-15	0%	48	20-Feb-16	14-Mar-16	18-May-16	66	19	0%
SC1C0250	AR-C - RE Walls - Erect fencing, Excavation/formation/ drainage filter & bo	12	22-Apr-15 A	90%	1	22-Dec-15	13-Feb-16	15-Feb-16	41	0	90%
SC1C0251	AR-C - RE Walls - Upper layers with backfill in stages	48	22-Dec-15	0%	48	23-Feb-16	15-Feb-16	16-Apr-16	41	0	0%
SC1C0252	AR-C - RC Walls - Base Slabs	49	08-Apr-15 A	50%	25	23-Feb-16	14-Mar-16	16-Apr-16	41	0	50%
SC1C0253	AR-C - RC Walls - Side Walls	48	15-Jan-16	0%	48	15-Mar-16	14-Mar-16	18-May-16	47	0	0%
SC1C0254	AR-C - RC Walls - Backfill	12	15-Mar-16	0%	12	01-Apr-16	19-May-16	03-Jun-16	47	0	0%
Viaduct D											
Bridge D3											
Pier D5 (D4b)											
Pier Works											
SD4B0310	D5 (D4b) - Type 4B Pier Head Rebarwork, Formwork & Prep	9	19-Oct-15 A	100%	0	23-Nov-15 A					100%
SD4B0330	D5 (D4b) - Type 4B Pier Head Concreting	1	24-Nov-15 A	100%	0	24-Nov-15 A					100%
SD4B0340	D5 (D4b) - Type 4B Pier Head Curing/Striking of Forms/Remove Scaffoldir	6	25-Nov-15 A	100%	0	11-Dec-15 A					100%
Pier Head Segments											
SD4B0370	D5 (D4b) - Pier Head Segment - Temporary Platform	6	21-Dec-15	0%	6	29-Dec-15	13-Oct-15	20-Oct-15	-56	0	0%
SD4B0372	D5 (D4b) - Pier Head Segment Lift & Fix (1 seg)	2	30-Dec-15	0%	2	31-Dec-15	22-Oct-15	23-Oct-15	-56	0	0%
SD4B0374	D5 (D4b) - Pier Head Segment Diaphragm - Rebar	12	02-Jan-16	0%	12	15-Jan-16	24-Oct-15	07-Nov-15	-56	0	0%
SD4B0376	D5 (D4b) - Pier Head Segment Diaphragm - Formwork & Prep for Concre	8	16-Jan-16	0%	8	25-Jan-16	09-Nov-15	17-Nov-15	-56	0	0%
SD4B0378	D5 (D4b) - Pier Head Segment Diaphragm - Concreting	2	26-Jan-16	0%	2	27-Jan-16	18-Nov-15	19-Nov-15	-56	0	0%
SD4B0380	D5 (D4b) - Pier Head Segment Diaphragm - Curing & Striking of Forms	6	28-Jan-16	0%	6	03-Feb-16	20-Nov-15	26-Nov-15	-56	0	0%
Pier D4 (D4c)											
Pier Head Segments											
SD4C0374	D4 (D4c) - Pier Head Segment Diaphragm - Rebar	12	30-Nov-15 A	50%	6	29-Dec-15	14-May-19	21-May-19	968	968	50%
SD4C0376	D4 (D4c) - Pier Head Segment Diaphragm - Formwork & Prep for Concrel	8	18-Dec-15 A	50%	4	24-Dec-15	16-May-19	21-May-19	970	970	50%
SD4C0378	D4 (D4c) - Pier Head Segment Diaphragm - Concreting	2	22-Dec-15 A	50%	1	21-Dec-15	17-Nov-15	17-Nov-15	-29	0	50%
SD4C0380	D4 (D4c) - Pier Head Segment Diaphragm - Curing & Striking of Forms	6	22-Dec-15	0%	6	30-Dec-15	18-Nov-15	24-Nov-15	-29	0	0%
Pier D1 (D4f)											
Pier Head Segments											
SD4F0370	D1 (D4f) - Pier Head Segment - Temporary Platform	6	21-Dec-15	0%	6	29-Dec-15	19-Nov-15	25-Nov-15	-27	32	0%
SD4F0371	D1 (D4f) - Pier Head Segment Bearings	2	06-Feb-16	0%	2	11-Feb-16	26-Nov-15	27-Nov-15	-59	0	0%
SD4F0372	D1 (D4f) - Pier Head Segment Lift & Temp Support (2 seg)	7	12-Feb-16	0%	7	19-Feb-16	28-Nov-15	05-Dec-15	-59	48	0%
Pier D3 (D4d)											
Pier Head Segments											
SD4D0374	D3 (D4d) - Pier Head Segment Diaphragm - Rebar	18	13-Nov-15 A	50%	9	02-Jan-16	09-May-19	21-May-19	965	965	50%
SD4D0376	D3 (D4d) - Pier Head Segment Diaphragm - Formwork & Prep for Concre	8	20-Nov-15 A	50%	4	24-Dec-15	16-May-19	21-May-19	970	970	50%
SD4D0378	D3 (D4d) - Pier Head Segment Diaphragm - Concreting	2	24-Nov-15 A	50%	1	21-Dec-15	23-Mar-16	23-Mar-16	74	2	50%
SD4D0380	D3 (D4d) - Pier Head Segment Diaphragm - Curing & Striking of Forms	6	25-Nov-15 A	50%	3	23-Dec-15	21-Mar-16	23-Mar-16	72	0	50%
Pier D6 (D4a)											
Pier Works											
SD4A0310	D6 (D4a) - Type 4B-MJ Pier Head Rebarwork, Formwork & Prep	9	02-Nov-15 A	100%	0	08-Dec-15 A					100%
SD4A0330	D6 (D4a) - Type 4B-MJ Pier Head Concreting	1	09-Dec-15 A	100%	0	09-Dec-15 A					100%
SD4A0340	D6 (D4a) - Type 4B-MJ Pier Head Curing/Striking of Forms/Remove Scaffo	6	10-Dec-15 A	60%	2	23-Dec-15	25-Nov-15	27-Nov-15	-21	4	60%
SD4A372	D6 (D4a) - Type 4B-Bearing Plinth	6	21-Dec-15	0%	6	29-Dec-15	21-Nov-15	27-Nov-15	-25	0	0%
Pier Head Segments											
SD4A0370	D6 (D4a) - Pier Head Segment - Temporary Platform	6	30-Dec-15	0%	6	06-Jan-16	28-Nov-15	04-Dec-15	-25	26	0%
SD4A0371	D6 (D4a) - Pier Head Segment Bearings	2	06-Feb-16	0%	2	11-Feb-16	05-Dec-15	07-Dec-15	-51	0	0%
SD4A0372	D6 (D4a) - Pier Head Segment Lift & Temp Support (2 seg)	7	12-Feb-16	0%	7	19-Feb-16	08-Dec-15	15-Dec-15	-51	56	0%
Pier D2 (D4e)											
Pier Head Segments											
SD4E0374	D2 (D4e) - Pier Head Segment Diaphragm - Rebar	16	28-Oct-15 A	100%	0	16-Dec-15 A					100%
SD4E0376	D2 (D4e) - Pier Head Segment Diaphragm - Formwork & Prep for Concre	8	10-Nov-15 A	50%	4	24-Dec-15	16-May-19	21-May-19	970	970	50%
SD4E0378	D2 (D4e) - Pier Head Segment Diaphragm - Concreting	2	13-Nov-15 A	50%	1	21-Dec-15	08-Apr-16	08-Apr-16	84	2	50%
SD4E0380	D2 (D4e) - Pier Head Segment Diaphragm - Curing & Striking of Forms	6	18-Nov-15 A	50%	3	23-Dec-15	06-Apr-16	08-Apr-16	82	0	50%
Bridge D2											
Pier D8 (D3d)											
Pier Works											
SD3D0240	D8 (D3d) - Type 5B Pier Rebarwork (3rd Lift)	3	20-Aug-15 A	100%	0	21-Dec-15	21-May-19	21-May-19	974	974	100%
SD3D0310	D8 (D3d) - Type 5B Pier Head Curing/Striking of Forms/Remove Scaffoldir	6	20-Nov-15 A	100%	0	23-Nov-15 A					100%



Actual Work
Planned Bar
Critical Bar
Milestone

Project ID: J3518DWPrE2-M31
Layout: J3518-DWP-3MRP Submission - M31
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 11 of 25 Pages)

(Progress as of 21-Dec-15)

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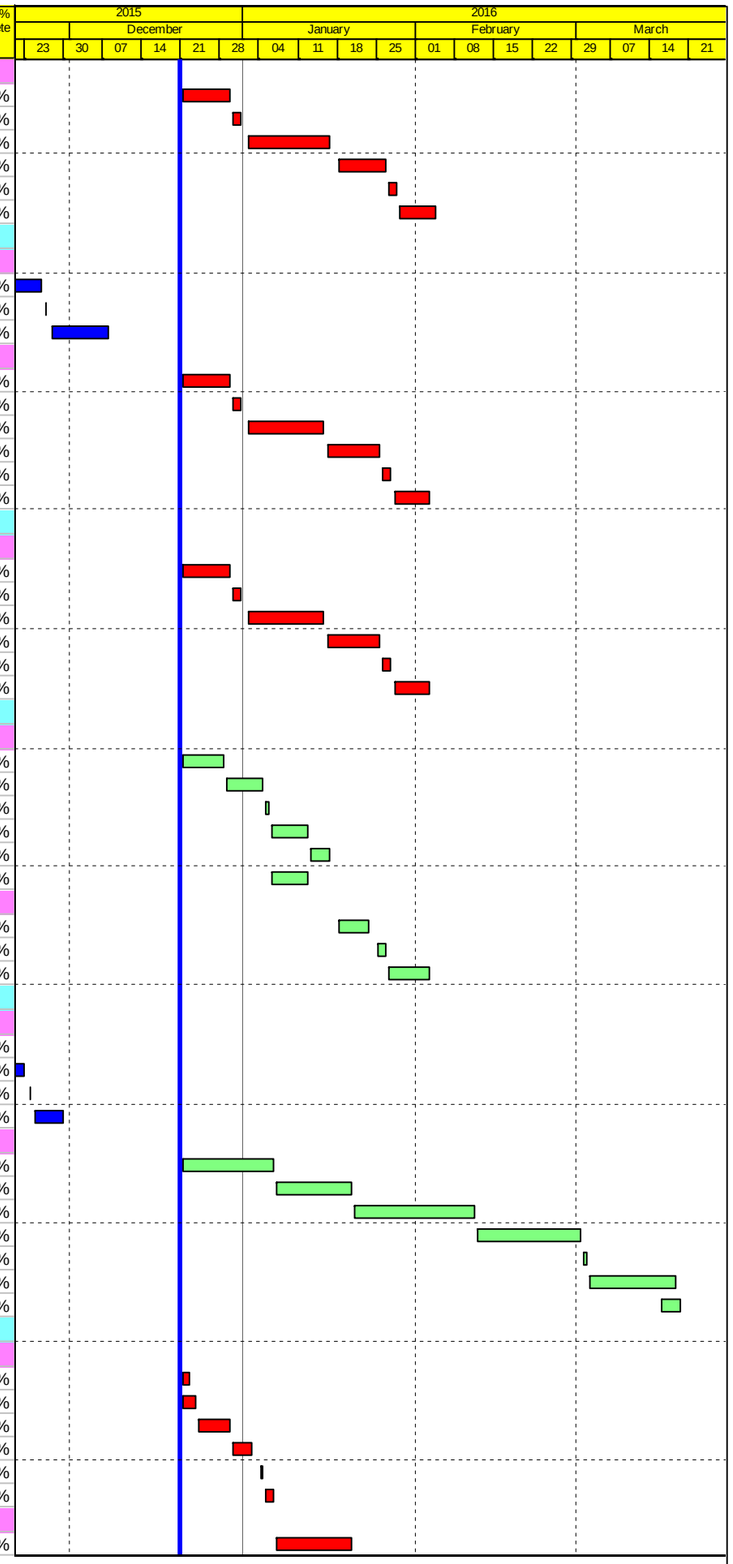
01-Dec-15		PKN	KWY
28-Dec-15		PKN	KWY

DWG. No.:

J3518/GCL/PGM/3MRP-M31

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
Pier Head Segments											
SD3D0370	D8 (D3d) - Pier Head Segment - Temporary Platform	6	21-Dec-15	0%	6	29-Dec-15	10-Nov-15	16-Nov-15	-35	0	0%
SD3D0372	D8 (D3d) - Pier Head Segment Lift & Fix (1 seg)	2	30-Dec-15	0%	2	31-Dec-15	17-Nov-15	18-Nov-15	-35	0	0%
SD3D0374	D8 (D3d) - Pier Head Segment Diaphragm - Rebar	13	02-Jan-16	0%	13	16-Jan-16	19-Nov-15	03-Dec-15	-35	0	0%
SD3D0376	D8 (D3d) - Pier Head Segment Diaphragm - Formwork	8	18-Jan-16	0%	8	26-Jan-16	04-Dec-15	12-Dec-15	-35	0	0%
SD3D0378	D8 (D3d) - Pier Head Segment Diaphragm - Concreting	2	27-Jan-16	0%	2	28-Jan-16	14-Dec-15	15-Dec-15	-35	0	0%
SD3D0380	D8 (D3d) - Pier Head Segment Diaphragm - Curing & Striking of Forms	6	29-Jan-16	0%	6	04-Feb-16	16-Dec-15	22-Dec-15	-35	72	0%
Pier D7 (D3e)											
Pier Works											
SD3E0310	D7 (D3e) - Type 4B Pier Head Rebarwork, Formwork & Prep	9	09-Nov-15 A	100%	0	26-Nov-15 A					100%
SD3E0330	D7 (D3e) - Type 4B Pier Head Concreting	1	27-Nov-15 A	100%	0	27-Nov-15 A					100%
SD3E0340	D7 (D3e) - Type 4B Pier Head Curing/Striking of Forms/Remove Scaffoldir	6	28-Nov-15 A	100%	0	08-Dec-15 A					100%
Pier Head Segments											
SD3E0370	D7 (D3e) - Pier Head Segment - Temporary Platform	6	21-Dec-15	0%	6	29-Dec-15	28-Oct-15	04-Nov-15	-45	0	0%
SD3E0372	D7 (D3e) - Pier Head Segment Lift & Fix (1 seg)	2	30-Dec-15	0%	2	31-Dec-15	05-Nov-15	06-Nov-15	-45	0	0%
SD3E0374	D7 (D3e) - Pier Head Segment Diaphragm - Rebar	12	02-Jan-16	0%	12	15-Jan-16	07-Nov-15	20-Nov-15	-45	0	0%
SD3E0376	D7 (D3e) - Pier Head Segment Diaphragm - Formwork & Prep for Concre	8	16-Jan-16	0%	8	25-Jan-16	21-Nov-15	30-Nov-15	-45	0	0%
SD3E0378	D7 (D3e) - Pier Head Segment Diaphragm - Concreting	2	26-Jan-16	0%	2	27-Jan-16	01-Dec-15	02-Dec-15	-45	0	0%
SD3E0380	D7 (D3e) - Pier Head Segment Diaphragm - Curing & Striking of Forms	6	28-Jan-16	0%	6	03-Feb-16	03-Dec-15	09-Dec-15	-45	62	0%
Pier D9 (D3c)											
Pier Head Segments											
SD3C0370	D9 (D3c) - Pier Head Segment - Temporary Platform	6	21-Dec-15	0%	6	29-Dec-15	05-Dec-15	11-Dec-15	-13	0	0%
SD3C0372	D9 (D3c) - Pier Head Segment Lift & Fix (1 seg)	2	30-Dec-15	0%	2	31-Dec-15	12-Dec-15	14-Dec-15	-13	0	0%
SD3C0374	D9 (D3c) - Pier Head Segment Diaphragm - Rebar	12	02-Jan-16	0%	12	15-Jan-16	15-Dec-15	30-Dec-15	-13	0	0%
SD3C0376	D9 (D3c) - Pier Head Segment Diaphragm - Formwork	8	16-Jan-16	0%	8	25-Jan-16	31-Dec-15	09-Jan-16	-13	0	0%
SD3C0378	D9 (D3c) - Pier Head Segment Diaphragm - Concreting	2	26-Jan-16	0%	2	27-Jan-16	11-Jan-16	12-Jan-16	-13	0	0%
SD3C0380	D9 (D3c) - Pier Head Segment Diaphragm - Curing & Striking of Forms	6	28-Jan-16	0%	6	03-Feb-16	13-Jan-16	19-Jan-16	-13	0	0%
Pier D13 (D2d)											
Pier Works											
SD2D0310	D13 (D2d) - Type 5B-MJ Pier Head Rebarwork	5	21-Dec-15	0%	5	28-Dec-15	12-Jan-16	16-Jan-16	16	0	0%
SD2D0320	D13 (D2d) - Type 5B-MJ Pier Head Formwork & Prep for Concreting	5	29-Dec-15	0%	5	04-Jan-16	18-Jan-16	22-Jan-16	16	0	0%
SD2D0330	D13 (D2d) - Type 5B-MJ Pier Head Concreting	1	05-Jan-16	0%	1	05-Jan-16	23-Jan-16	23-Jan-16	16	0	0%
SD2D0340	D13 (D2d) - Type 5B-MJ Pier Head Curing/Striking of Forms/Remove Scal	6	06-Jan-16	0%	6	12-Jan-16	25-Jan-16	30-Jan-16	16	0	0%
SD2D0360	D13 (D2d) - Type 5B-MJ Pier Backfilling Works	4	13-Jan-16	0%	4	16-Jan-16	01-Feb-16	04-Feb-16	16	0	0%
SD2D0380	D13 (D2d) - Type 5B-Bearing Plinth	6	06-Jan-16	0%	6	12-Jan-16	25-Jan-16	30-Jan-16	16	0	0%
Pier Head Segments											
SD2D0370	D13 (D2d) - Pier Head Segment - Temporary Platform	6	18-Jan-16	0%	6	23-Jan-16	05-Feb-16	15-Feb-16	16	0	0%
SD2D0371	D13 (D2d) - Pier Head Segment Bearings	2	25-Jan-16	0%	2	26-Jan-16	16-Feb-16	17-Feb-16	16	0	0%
SD2D0372	D13 (D2d) - Pier Head Segment Lift & Temp Support (2 seg)	7	27-Jan-16	0%	7	03-Feb-16	18-Feb-16	25-Feb-16	16	123	0%
Pier D11 (D3a)											
Pier Works											
SD3AR160	D11B (D3a-R) - Pier Rebarwork (1st Lift)	3	18-Nov-15 A	100%	0	21-Nov-15 A					100%
SD3AR210	D11B (D3a-R) - Pier Formwork & Prep for Concreting (2nd Lift)	3	21-Nov-15 A	100%	0	23-Nov-15 A					100%
SD3AR220	D11B (D3a-R) - Pier Concreting (2nd Lift)	1	24-Nov-15 A	100%	0	24-Nov-15 A					100%
SD3AR222	D11B (D3a-R) - Pier Curing & Striking of Forms incl. CJ prep (2nd Lift)	4	25-Nov-15 A	100%	0	30-Nov-15 A					100%
Portal											
SD3AR280	D11 (D3a) - Portal Beam Scaffolding	12	21-Dec-15	0%	12	06-Jan-16	18-Jan-16	30-Jan-16	21	0	0%
SD3AR290	D11 (D3a) - Portal Beam Soffit Formwork	12	07-Jan-16	0%	12	20-Jan-16	01-Feb-16	17-Feb-16	21	0	0%
SD3AR300	D11 (D3a) - Portal Beam Rebarwork & Inserts	16	21-Jan-16	0%	16	11-Feb-16	18-Feb-16	07-Mar-16	21	0	0%
SD3AR305	D11 (D3a) - Portal Beam Side Formwork & Prep for Concreting	16	12-Feb-16	0%	16	01-Mar-16	08-Mar-16	29-Mar-16	21	0	0%
SD3AR310	D11 (D3a) - Portal Beam Concreting	1	02-Mar-16	0%	1	02-Mar-16	30-Mar-16	30-Mar-16	21	0	0%
SD3AR320	D11 (D3a) - Pier Head Curing/Striking of Forms/Remove Scaffolding	14	03-Mar-16	0%	14	18-Mar-16	31-Mar-16	18-Apr-16	21	0	0%
SD3AR325	D11 (D3a) - Pier Backfilling Works	4	16-Mar-16	0%	4	19-Mar-16	20-May-16	24-May-16	47	8	0%
Pier D12 (D2e)											
Pier Works											
SD2EL222	D12A (D2e-L) - Pier Curing & Striking of Forms incl. CJ prep (2nd Lift)	2	21-Dec-15	0%	2	22-Dec-15	06-Nov-15	07-Nov-15	-38	10	0%
SD2ER190	D12B (D2e-R) - Pier Scaffolding (2nd Lift)	3	21-Dec-15	0%	3	23-Dec-15	24-Oct-15	27-Oct-15	-48	0	0%
SD2ER200	D12B (D2e-R) - Pier Rebarwork (2nd Lift)	3	24-Dec-15	0%	3	29-Dec-15	28-Oct-15	31-Oct-15	-48	0	0%
SD2ER210	D12B (D2e-R) - Pier Formwork & Prep for	3	30-Dec-15	0%	3	02-Jan-16	02-Nov-15	04-Nov-15	-48	0	0%
SD2ER220	D12B (D2e-R) - Pier Concreting (2nd Lift)	1	04-Jan-16	0%	1	04-Jan-16	05-Nov-15	05-Nov-15	-48	0	0%
SD2ER222	D12B (D2e-R) - Pier Curing & Striking of Forms incl. CJ prep (2nd Lift)	2	05-Jan-16	0%	2	06-Jan-16	06-Nov-15	07-Nov-15	-48	0	0%
Portal											
SD2ER280	D12 (D2e) - Portal Beam Scaffolding	12	07-Jan-16	0%	12	20-Jan-16	09-Nov-15	21-Nov-15	-48	0	0%



Actual Work
Planned Bar
Critical Bar
Milestone

Project ID: J3518DWPrE2-M31
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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 12 of 25 Pages)

(Progress as of 21-Dec-15)

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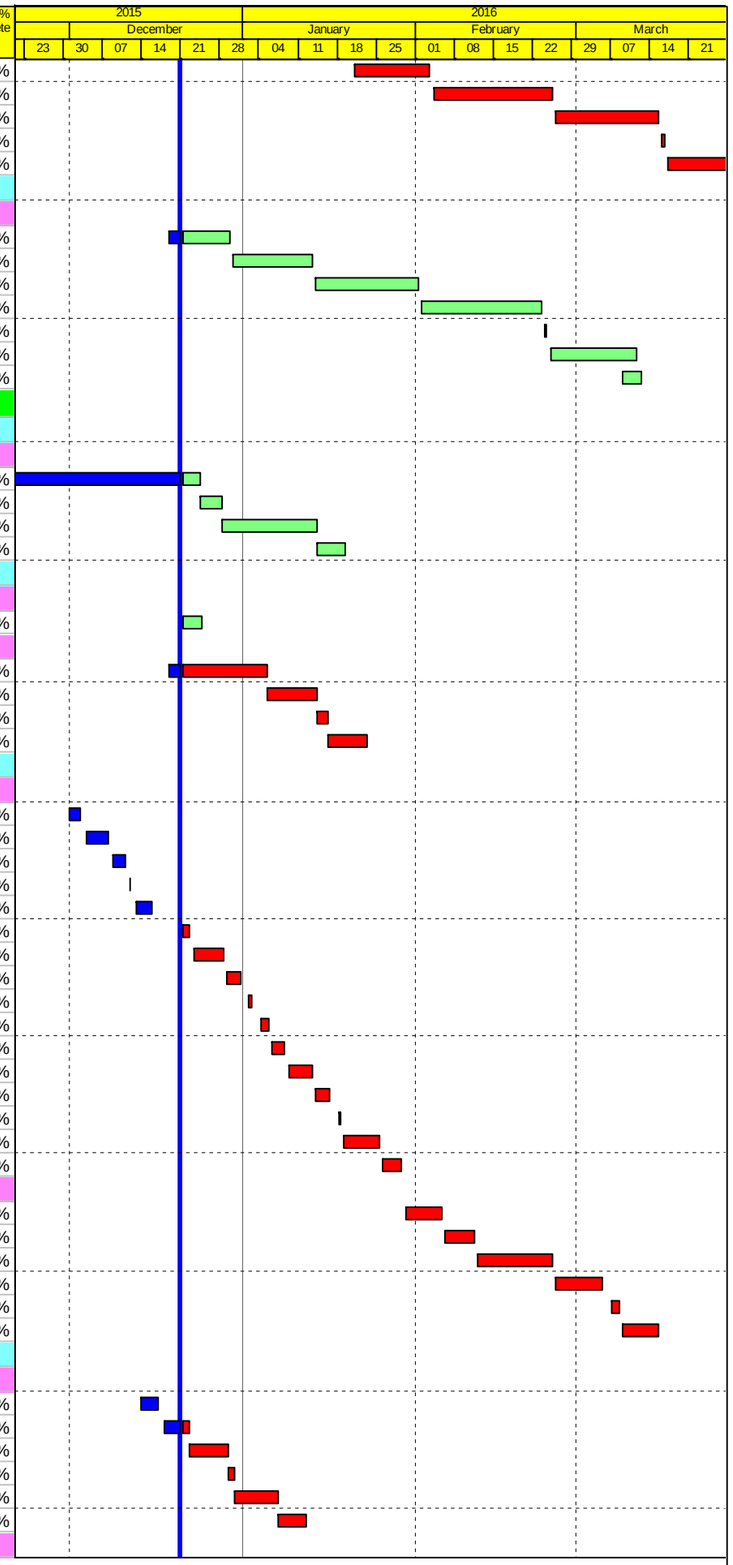
DWG. No.:

J3518/GCL/PGM/3MRP-M31

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
SD2ER290	D12 (D2e) - Portal Beam Soffit Formwork	12	21-Jan-16	0%	12	03-Feb-16	23-Nov-15	05-Dec-15	-48	0	0%
SD2ER300	D12 (D2e) - Portal Beam Rebarwork & Inserts	16	04-Feb-16	0%	16	25-Feb-16	07-Dec-15	24-Dec-15	-48	0	0%
SD2ER305	D12 (D2e) - Portal Beam Side Formwork & Prep for Concreting	16	26-Feb-16	0%	16	15-Mar-16	28-Dec-15	15-Jan-16	-48	0	0%
SD2ER310	D12 (D2e) - Portal Beam Concreting	1	16-Mar-16	0%	1	16-Mar-16	16-Jan-16	16-Jan-16	-48	0	0%
SD2ER320	D12 (D2e) - Pier Head Curing/Striking of Forms/Remove Scaffolding	14	17-Mar-16	0%	14	06-Apr-16	18-Jan-16	02-Feb-16	-48	0	0%
Pier D10 (D3b)											
Portal											
SD3BR280	D10 (D3b) - Portal Beam Scaffolding	12	19-Dec-15 A	50%	6	29-Dec-15	11-Jan-16	16-Jan-16	15	0	50%
SD3BR290	D10 (D3b) - Portal Beam Soffit Formwork	12	30-Dec-15	0%	12	13-Jan-16	18-Jan-16	30-Jan-16	15	0	0%
SD3BR300	D10 (D3b) - Portal Beam Rebarwork & Inserts	16	14-Jan-16	0%	16	01-Feb-16	01-Feb-16	22-Feb-16	15	0	0%
SD3BR305	D10 (D3b) - Portal Beam Side Formwork & Prep for Concreting	16	02-Feb-16	0%	16	23-Feb-16	23-Feb-16	11-Mar-16	15	0	0%
SD3BR310	D10 (D3b) - Portal Beam Concreting	1	24-Feb-16	0%	1	24-Feb-16	12-Mar-16	12-Mar-16	15	0	0%
SD3BR320	D10 (D3b) - Pier Head Curing/Striking of Forms/Remove Scaffolding	14	25-Feb-16	0%	14	11-Mar-16	14-Mar-16	01-Apr-16	15	0	0%
SD3BR325	D10 (D3b) - Pier Backfilling Works	4	09-Mar-16	0%	4	12-Mar-16	25-May-16	30-May-16	57	147	0%
Bridge D1											
Pier D14 (D2c)											
Portal											
SD2CR305	D14 (D2c) - Portal Beam Side Formwork & Prep for Concreting	16	10-Nov-15 A	80%	3	24-Dec-15	05-Jan-16	08-Jan-16	11	0	80%
SD2CR310	D14 (D2c) - Portal Beam Concreting	1	24-Dec-15	0%	1	28-Dec-15	09-Jan-16	09-Jan-16	11	0	0%
SD2CR320	D14 (D2c) - Pier Head Curing/Striking of Forms/Remove Scaffolding	14	28-Dec-15	0%	14	14-Jan-16	11-Jan-16	26-Jan-16	11	0	0%
SD2CR325	D14 (D2c) - Pier Backfilling Works	4	14-Jan-16	0%	4	19-Jan-16	27-Jan-16	30-Jan-16	11	46	0%
Pier D18 (D1c)											
Pier Works											
SD1C0320	D18 (D1c) - Type 5B-B Pier Backfilling Works	4	21-Dec-15	0%	4	24-Dec-15	16-May-19	21-May-19	970	970	0%
Pier Head Segments											
SD1C0374	D18 (D1c) - Pier Head Segment Diaphragm - Rebar	13	19-Dec-15 A	20%	10	05-Jan-16	29-Aug-15	12-Sep-15	-88	0	20%
SD1C0376	D18 (D1c) - Pier Head Segment Diaphragm - Formwork	8	05-Jan-16	0%	8	14-Jan-16	14-Sep-15	23-Sep-15	-88	0	0%
SD1C0378	D18 (D1c) - Pier Head Segment Diaphragm - Concreting	2	14-Jan-16	0%	2	16-Jan-16	24-Sep-15	25-Sep-15	-88	0	0%
SD1C0380	D18 (D1c) - Pier Head Segment Diaphragm - Curing & Striking of Forms	6	16-Jan-16	0%	6	23-Jan-16	26-Sep-15	05-Oct-15	-88	0	0%
Pier D15 (D2b)											
Pier Works											
SD2B0150	D15 (D2b) - Type 5B Pier Scaffolding (1st Lift)	1	01-Dec-15 A	100%	0	03-Dec-15 A					100%
SD2B0160	D15 (D2b) - Type 5B Pier Rebarwork (1st Lift)	2	04-Dec-15 A	100%	0	08-Dec-15 A					100%
SD2B0170	D15 (D2b) - Type 5B Pier Formwork & Prep for Concreting (1st Lift)	1	09-Dec-15 A	100%	0	11-Dec-15 A					100%
SD2B0180	D15 (D2b) - Type 5B Pier Concreting (1st Lift)	1	12-Dec-15 A	100%	0	12-Dec-15 A					100%
SD2B0182	D15 (D2b) - Type 5B Pier Curing & Striking of Forms incl. CJ prep (1st Lift)	2	13-Dec-15 A	100%	0	16-Dec-15 A					100%
SD2B0190	D15 (D2b) - Type 5B Pier Scaffolding (2nd Lift)	2	21-Dec-15	0%	2	22-Dec-15	29-Aug-15	31-Aug-15	-89	0	0%
SD2B0200	D15 (D2b) - Type 5B Pier Rebarwork (2nd Lift)	3	23-Dec-15	0%	3	28-Dec-15	01-Sep-15	04-Sep-15	-89	0	0%
SD2B0210	D15 (D2b) - Type 5B Pier Formwork & Prep for Concreting (2nd Lift)	3	29-Dec-15	0%	3	31-Dec-15	05-Sep-15	08-Sep-15	-89	0	0%
SD2B0220	D15 (D2b) - Type 5B Pier Concreting (2nd Lift)	1	02-Jan-16	0%	1	02-Jan-16	10-Sep-15	10-Sep-15	-89	0	0%
SD2B0310	D15 (D2b) - Type 5B Pier Curing/Striking of Forms/Remove Scaffolding (2ı	2	04-Jan-16	0%	2	05-Jan-16	11-Sep-15	12-Sep-15	-89	0	0%
SD2B0312	D15 (D2b) - Type 5B Pier Head Scaffolding	3	06-Jan-16	0%	3	08-Jan-16	14-Sep-15	16-Sep-15	-89	0	0%
SD2B0314	D15 (D2b) - Type 5B Pier Head Rebarwork	4	09-Jan-16	0%	4	13-Jan-16	18-Sep-15	22-Sep-15	-89	0	0%
SD2B0316	D15 (D2b) - Type 5B Pier Head Formwork & Prep for Concreting	3	14-Jan-16	0%	3	16-Jan-16	23-Sep-15	25-Sep-15	-89	0	0%
SD2B0318	D15 (D2b) - Type 5B Pier Head Concreting	1	18-Jan-16	0%	1	18-Jan-16	26-Sep-15	26-Sep-15	-89	0	0%
SD2B0320	D15 (D2b) - Type 5B Pier Head Curing & Striking of Forms incl. CJ prep	6	19-Jan-16	0%	6	25-Jan-16	29-Sep-15	06-Oct-15	-89	0	0%
SD2B0322	D15 (D2b) - Type 5B Pier Backfilling Works	4	26-Jan-16	0%	4	29-Jan-16	07-Oct-15	10-Oct-15	-89	0	0%
Pier Head Segments											
SD2B0370	D15 (D2b) - Pier Head Segment - Temporary Platform	6	30-Jan-16	0%	6	05-Feb-16	28-Jan-16	03-Feb-16	-2	0	0%
SD2B0372	D15 (D2b) - Pier Head Segment Lift & Fix (1 seg)	2	06-Feb-16	0%	2	11-Feb-16	04-Feb-16	05-Feb-16	-2	0	0%
SD2B0374	D15 (D2b) - Pier Head Segment Diaphragm - Rebar	12	12-Feb-16	0%	12	25-Feb-16	06-Feb-16	23-Feb-16	-2	0	0%
SD2B0376	D15 (D2b) - Pier Head Segment Diaphragm - Formwork	8	26-Feb-16	0%	8	05-Mar-16	24-Feb-16	03-Mar-16	-2	0	0%
SD2B0378	D15 (D2b) - Pier Head Segment Diaphragm - Concreting	2	07-Mar-16	0%	2	08-Mar-16	04-Mar-16	05-Mar-16	-2	0	0%
SD2B0380	D15 (D2b) - Pier Head Segment Diaphragm - Curing & Striking of Forms	6	09-Mar-16	0%	6	15-Mar-16	07-Mar-16	12-Mar-16	-2	62	0%
Pier D16 (D2a)											
Pier Works											
SD2A0230	D16 (D2a) - Type 5B Pier Head Scaffolding	3	14-Dec-15 A	100%	0	17-Dec-15 A					100%
SD2A0240	D16 (D2a) - Type 5B Pier Head Rebarwork	4	18-Dec-15 A	60%	2	22-Dec-15	01-Aug-15	03-Aug-15	-111	0	60%
SD2A0250	D16 (D2a) - Type 5B Pier Head Formwork & Prep for Concreting	4	22-Dec-15	0%	4	29-Dec-15	04-Aug-15	07-Aug-15	-111	0	0%
SD2A0260	D16 (D2a) - Type 5B Pier Head Concreting	1	29-Dec-15	0%	1	30-Dec-15	08-Aug-15	08-Aug-15	-111	0	0%
SD2A0310	D16 (D2a) - Type 5B Pier Head Curing/Striking of Forms/Remove Scaffold	6	30-Dec-15	0%	6	07-Jan-16	10-Aug-15	17-Aug-15	-111	0	0%
SD2A0320	D16 (D2a) - Type 5B Pier Backfilling Works	4	07-Jan-16	0%	4	12-Jan-16	18-Aug-15	22-Aug-15	-111	0	0%
Pier Head Segments											



Actual Work
Planned Bar
Critical Bar
Milestone

Project ID: J3518DWPrE2-M31
Layout: J3518-DWP-3MRP Submission - M31
Filter: TASK filters: 3-Month Lookahead, No CC Milestones, No Level of Effort.

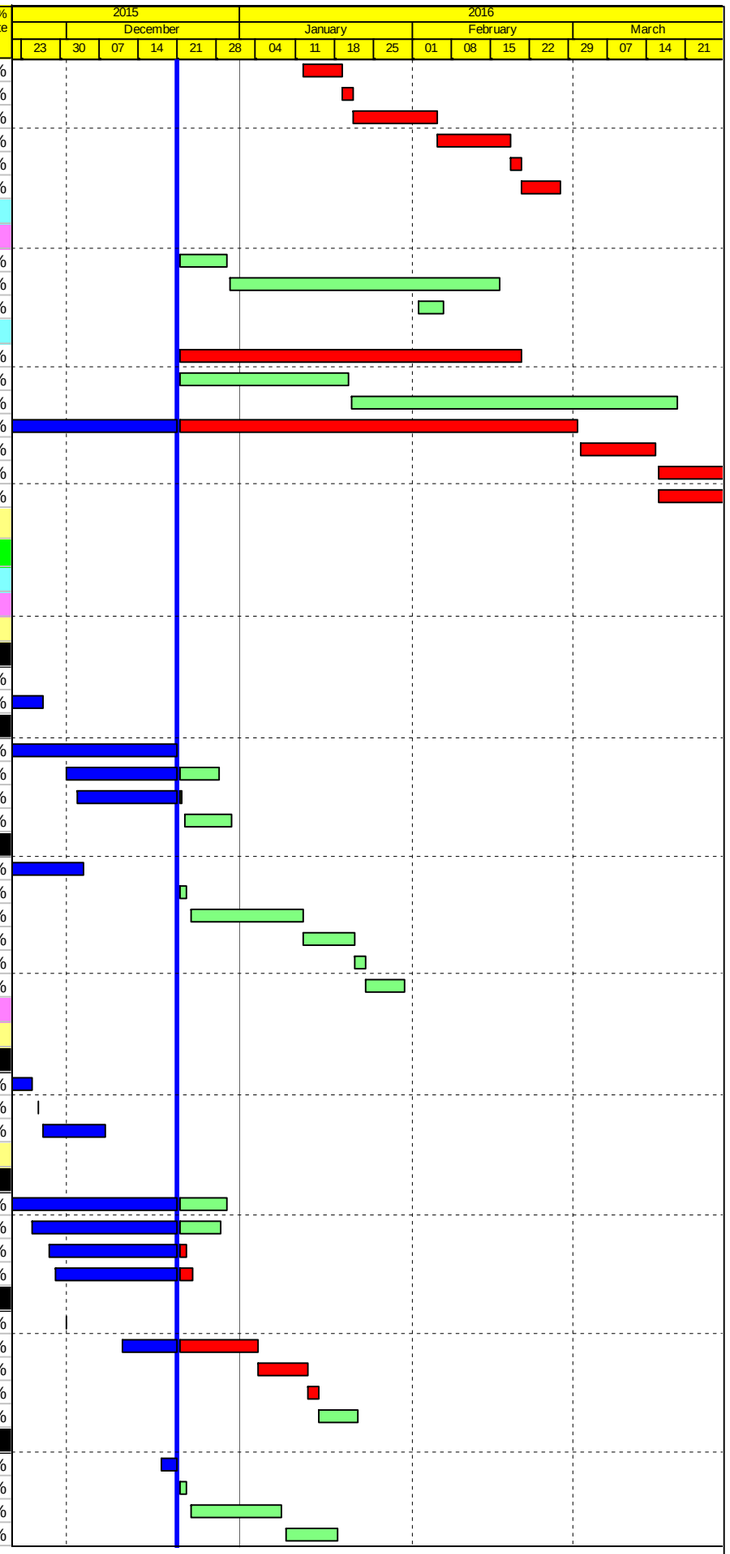
Tuen Mun - Chek Lap Kok Link - Southern Connection
3-Month Rolling Programme (Page 13 of 25 Pages)
(Progress as of 21-Dec-15)

Date	Revision	Checked	Approved
31-Oct-15		PKN	KWY
01-Dec-15		PKN	KWY
28-Dec-15		PKN	KWY

DWG. No.:

J3518/GCL/PGM/3MRP-M31

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
SD2A0370	D16 (D2a) - Pier Head Segment - Temporary Platform	6	12-Jan-16	0%	6	19-Jan-16	24-Aug-15	29-Aug-15	-111	0	0%
SD2A0372	D16 (D2a) - Pier Head Segment Lift & Fix (1 seg)	2	19-Jan-16	0%	2	21-Jan-16	31-Aug-15	01-Sep-15	-111	0	0%
SD2A0374	D16 (D2a) - Pier Head Segment Diaphragm - Rebar	13	21-Jan-16	0%	13	05-Feb-16	02-Sep-15	19-Sep-15	-111	0	0%
SD2A0376	D16 (D2a) - Pier Head Segment Diaphragm - Formwork	8	05-Feb-16	0%	8	18-Feb-16	21-Sep-15	30-Sep-15	-111	0	0%
SD2A0378	D16 (D2a) - Pier Head Segment Diaphragm - Concreting	2	18-Feb-16	0%	2	20-Feb-16	02-Oct-15	03-Oct-15	-111	0	0%
SD2A0380	D16 (D2a) - Pier Head Segment Diaphragm - Curing & Striking of Forms	6	20-Feb-16	0%	6	27-Feb-16	05-Oct-15	10-Oct-15	-111	46	0%
Pier D19 (D1b) & Abutment D											
Pier Head Segments											
SD1B0370	D19 (D1b) - Pier Head Segment - Temporary Platform	6	21-Dec-15	0%	6	29-Dec-15	14-Jan-16	20-Jan-16	18	0	0%
SD1B0371	D19 (D1b) - Pier Head Segment Bearings	38	30-Dec-15	0%	38	16-Feb-16	21-Jan-16	08-Mar-16	18	0	0%
SD1B0372	D19 (D1b) - Pier Head Segment Lift & Temp Support (1 seg)	5	02-Feb-16	0%	5	06-Feb-16	26-Feb-16	02-Mar-16	18	0	0%
Abutment & Approach Ramp D											
SD1B0200	Abutment D - Walls & Staircase	48	21-Dec-15	0%	48	20-Feb-16	17-Oct-15	14-Dec-15	-53	0	0%
SD1B0250	AR-D - RE Walls - Erect MTR boundary fence, Excavation/formation/drain	24	21-Dec-15	0%	24	20-Jan-16	01-Feb-16	02-Mar-16	33	0	0%
SD1B0260	AR-D - RE Walls - Upper layers with backfill in stages	48	21-Jan-16	0%	48	19-Mar-16	16-Mar-19	21-May-19	902	902	0%
SD1B0280	AR-D - RC Walls - Side Walls	48	27-Jul-15 A	0%	56	01-Mar-16	21-Sep-15	30-Nov-15	-73	0	0%
SD1B0290	AR-D - RC Walls - Backfill	12	02-Mar-16	0%	12	15-Mar-16	01-Dec-15	14-Dec-15	-73	0	0%
SD1B0300	AR-D - RC Walls - Concrete parapets	19	16-Mar-16	0%	19	11-Apr-16	11-Jan-16	01-Feb-16	-53	0	0%
SD1B0400	AR-D - Drainage	39	16-Mar-16	0%	39	07-May-16	15-Dec-15	01-Feb-16	-73	0	0%
Viaduct E											
Viaduct E1											
Bridge E1 - Piling & Substructure											
E1A, E1B, E1C & E1D (E1a1-2-3-4)											
Pier Head Segments - E1A, E1B, E1C & E1D											
Pier Head Segments - E1B (E1a3)											
SE1A3378	E1B (E1a3) - Pier Head Segment Diaphragm - Concreting	3	21-Nov-15 A	100%	0	21-Nov-15 A					100%
SE1A3380	E1B (E1a3) - Pier Head Segment Diaphragm - Curing & Striking of Forms	6	21-Nov-15 A	100%	0	27-Nov-15 A					100%
Pier Head Segments - E1C (E1a2)											
SE1A2374	E1C (E1a2) - Pier Head Segment Diaphragm - Rebar	12	18-Nov-15 A	100%	0	21-Dec-15 A					100%
SE1A2376	E1C (E1a2) - Pier Head Segment Diaphragm - Formwork & Prep for Conc	9	01-Dec-15 A	50%	4	28-Dec-15	15-May-19	21-May-19	970	970	50%
SE1A2378	E1C (E1a2) - Pier Head Segment Diaphragm - Concreting	2	03-Dec-15 A	50%	1	21-Dec-15	30-Jan-16	30-Jan-16	32	0	50%
SE1A2380	E1C (E1a2) - Pier Head Segment Diaphragm - Curing & Striking of Forms	6	22-Dec-15	0%	6	30-Dec-15	01-Feb-16	06-Feb-16	32	114	0%
Pier Head Segments - E1D (E1a1)											
SE1A1370	E1D (E1a1) - Pier Head Segment - Temporary Platform	2	16-Nov-15 A	100%	0	04-Dec-15 A					100%
SE1A1372	E1D (E1a1) - Pier Head Segment Lift & Fix (1 seg)	2	21-Dec-15	0%	2	22-Dec-15	19-May-16	21-May-16	114	0	0%
SE1A1374	E1D (E1a1) - Pier Head Segment Diaphragm - Rebar	15	23-Dec-15	0%	15	12-Jan-16	21-May-16	11-Jun-16	114	0	0%
SE1A1376	E1D (E1a1) - Pier Head Segment Diaphragm - Formwork & Prep for Conc	8	12-Jan-16	0%	8	21-Jan-16	13-Jun-16	24-Jun-16	114	0	0%
SE1A1378	E1D (E1a1) - Pier Head Segment Diaphragm - Concreting	2	21-Jan-16	0%	2	23-Jan-16	25-Jun-16	27-Jun-16	114	0	0%
SE1A1380	E1D (E1a1) - Pier Head Segment Diaphragm - Curing & Striking of Forms	6	23-Jan-16	0%	6	30-Jan-16	28-Jun-16	06-Jul-16	114	221	0%
E2A, E2B, E2C & E2D (E1b1-2-3-4)											
Pier Works - E2A, E2B, E2C & E2D											
Pier Works - E2D (E1b2)											
SE1B2310	E2D (E1b2) - Type 4B Pier Head Rebarwork, Formwork & Prep	10	13-Oct-15 A	100%	0	25-Nov-15 A					100%
SE1B2330	E2D (E1b2) - Type 4B Pier Head Concreting	1	26-Nov-15 A	100%	0	26-Nov-15 A					100%
SE1B2340	E2D (E1b2) - Type 4B Pier Head Curing/Striking of Forms/Remove Scaffol	6	27-Nov-15 A	100%	0	08-Dec-15 A					100%
Pier Head Segments - E2A, E2B, E2C & E2D											
Pier Head Segments - E2B (E1b3)											
SE1B3374	E2B (E1b3) - Pier Head Segment Diaphragm - Rebar	12	09-Nov-15 A	50%	6	29-Dec-15	14-May-19	21-May-19	968	968	50%
SE1B3376	E2B (E1b3) - Pier Head Segment Diaphragm - Formwork & Prep for Conc	10	25-Nov-15 A	50%	5	28-Dec-15	15-May-19	21-May-19	969	969	50%
SE1B3378	E2B (E1b3) - Pier Head Segment Diaphragm - Concreting	3	28-Nov-15 A	50%	1	22-Dec-15	03-Nov-15	04-Nov-15	-40	66	50%
SE1B3380	E2B (E1b3) - Pier Head Segment Diaphragm - Curing & Striking of Forms	6	29-Nov-15 A	50%	3	23-Dec-15	02-Nov-15	04-Nov-15	-42	65	50%
Pier Head Segments - E2C (E1b2)											
SE1B2372	E2C (E1b2) - Pier Head Segment Lift & Fix (1 seg)	2	01-Dec-15 A	100%	0	01-Dec-15 A					100%
SE1B2374	E2C (E1b2) - Pier Head Segment Diaphragm - Rebar	13	11-Dec-15 A	30%	9	04-Jan-16	19-Dec-15	02-Jan-16	0	0	30%
SE1B2376	E2C (E1b2) - Pier Head Segment Diaphragm - Formwork & Prep for Conc	8	04-Jan-16	0%	8	13-Jan-16	04-Jan-16	12-Jan-16	0	0	0%
SE1B2378	E2C (E1b2) - Pier Head Segment Diaphragm - Concreting	2	13-Jan-16	0%	2	15-Jan-16	13-Jan-16	14-Jan-16	0	0	0%
SE1B2380	E2C (E1b2) - Pier Head Segment Diaphragm - Curing & Striking of Forms	6	15-Jan-16	0%	6	22-Jan-16	15-Jan-16	22-Jan-16	1	83	0%
Pier Head Segments - E2D (E1b1)											
SE1B1370	E2D (E1b1) - Pier Head Segment - Temporary Platform	2	18-Dec-15 A	100%	0	21-Dec-15 A					100%
SE1B1372	E2D (E1b1) - Pier Head Segment Lift & Fix (1 seg)	2	21-Dec-15	0%	2	22-Dec-15	10-May-16	12-May-16	109	0	0%
SE1B1374	E2D (E1b1) - Pier Head Segment Diaphragm - Rebar	12	23-Dec-15	0%	12	08-Jan-16	13-May-16	30-May-16	109	0	0%
SE1B1376	E2D (E1b1) - Pier Head Segment Diaphragm - Formwork & Prep for Conc	8	09-Jan-16	0%	8	18-Jan-16	31-May-16	11-Jun-16	109	0	0%



Actual Work
Planned Bar
Critical Bar
Milestone

Project ID: J3518DWPrE2-M31
Layout: J3518-DWP-3MRP Submission - M31
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 25 Pages)

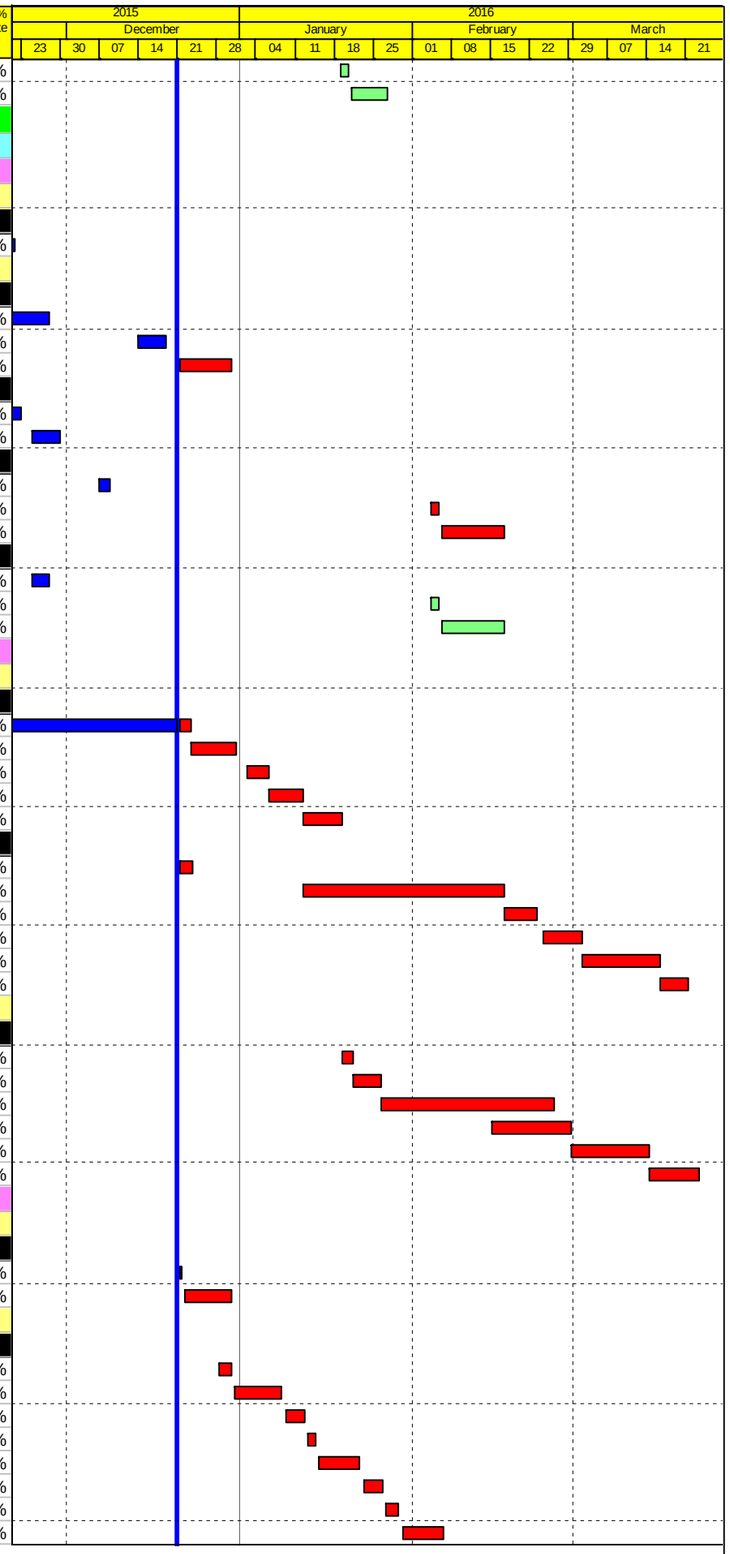
(Progress as of 21-Dec-15)

Date	Revision	Checked	Approved
31-Oct-15		PKN	KWY
01-Dec-15		PKN	KWY
28-Dec-15		PKN	KWY

DWG. No.:

J3518/GCL/PGM/3MRP-M31

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
SE1B1378	E2D (E1b1) - Pier Head Segment Diaphragm - Concreting	2	19-Jan-16	0%	2	20-Jan-16	13-Jun-16	14-Jun-16	109	0	0%
SE1B1380	E2D (E1b1) - Pier Head Segment Diaphragm - Curing & Striking of Forms	6	21-Jan-16	0%	6	27-Jan-16	16-Jun-16	24-Jun-16	109	216	0%
Viaduct E2											
Bridge E2 - Piling & Substructure											
E3A,E3B, E3C & E3D (E2a - 1/2/3/4)											
Pier Works - E3A,E3B, E3C & E3D											
Pier Works - E3C (E2a2)											
SE2A2340	E3C (E2a2) - Type 4B-MJ Pier Head Curing/Striking of Forms/Remove Sc	6	15-Nov-15 A	100%	0	21-Nov-15 A					100%
Pier Head Segements - E3A,E3B, E3C & E3D											
Pier Head Segment - E3A (E2a4)											
SE2A4370	E3A (E2a4) - Pier Head Segment - Temporary Platform	2	26-Oct-15 A	100%	0	28-Nov-15 A					100%
SE2A4371	E3A (E2a4) - Pier Head Segment Bearings	2	14-Dec-15 A	100%	0	19-Dec-15 A					100%
SE2A4372	E3A (E2a4) - Pier Head Segment Lift & Temp Support (2 seg)	7	21-Dec-15	0%	7	30-Dec-15	16-Oct-15	27-Oct-15	-52	55	0%
Pier Head Segment - E3B (E2a3)											
SE2A3371	E3B (E2a3) - Pier Head Segment Bearings	2	19-Nov-15 A	100%	0	23-Nov-15 A					100%
SE2A3372	E3B (E2a3) - Pier Head Segment Lift & Temp Support (2 seg)	8	25-Nov-15 A	100%	0	30-Nov-15 A					100%
Pier Head Segment - E3C (E2a2)											
SE2A2370	E3C (E2a2) - Pier Head Segment - Temporary Platform	2	07-Dec-15 A	100%	0	09-Dec-15 A					100%
SE2A2371	E3C (E2a2) - Pier Head Segment Bearings	2	04-Feb-16	0%	2	05-Feb-16	02-Jan-16	04-Jan-16	-28	0	0%
SE2A2372	E3C (E2a2) - Pier Head Segment Lift & Temp Support (2 seg)	7	06-Feb-16	0%	7	17-Feb-16	05-Jan-16	15-Jan-16	-25	57	0%
Pier Head Segment - E3D (E2a1)											
SE2A1370	E3D (E2a1) - Pier Head Segment - Temporary Platform	2	25-Nov-15 A	100%	0	28-Nov-15 A					100%
SE2A1371	E3D (E2a1) - Pier Head Segment Bearings	2	04-Feb-16	0%	2	05-Feb-16	16-Apr-16	18-Apr-16	54	0	0%
SE2A1372	E3D (E2a1) - Pier Head Segment Lift & Temp Support (2 seg)	7	06-Feb-16	0%	7	17-Feb-16	19-Apr-16	28-Apr-16	55	162	0%
E4A & E4B (E2b - 1/2)											
Pier Works - E4A & E4B											
Pier Works - E4A (E2b2)											
SE2B2140	E4A (E2b2) - Seagull Pier Rebar Fixing, Formwork & Prep (3rd pour, arm)	24	17-Nov-15 A	90%	2	23-Dec-15	29-Jan-15	31-Jan-15	-245	0	90%
SE2B2160	E4A (E2b2) - Seagull Pier Concreting, Curing & Striking, CJ Prep (3rd pour	5	23-Dec-15	0%	5	31-Dec-15	02-Feb-15	06-Feb-15	-245	0	0%
SE2B2300	E4A (E2b2) - Seagull Pier Falsework & Scaffolding (4th pour, upper diaphr	3	02-Jan-16	0%	3	06-Jan-16	09-Feb-15	11-Feb-15	-245	0	0%
SE2B2320	E4A (E2b2) - Seagull Pier Rebar Fixing, Formwork & Prep (4th pour, uppe	5	06-Jan-16	0%	5	12-Jan-16	12-Feb-15	17-Feb-15	-245	0	0%
SE2B2340	E4A (E2b2) - Seagull Pier Concreting, Curing & Striking, CJ Prep (4th pour	6	12-Jan-16	0%	6	19-Jan-16	25-Feb-15	03-Mar-15	-242	0	0%
Pier Works - E4B (E2b1)											
SE2B1240	E4B (E2b1) - Seagull Pier Falsework & Scaffolding (3rd pour, arm)	6	21-Dec-15 A	50%	3	23-Dec-15	14-Feb-15	17-Feb-15	-232	13	50%
SE2B1260	E4B (E2b1) - Seagull Pier Rebar Fixing, Formwork & Prep (3rd pour, arm)	28	12-Jan-16	0%	28	17-Feb-16	18-Feb-15	25-Mar-15	-245	0	0%
SE2B1280	E4B (E2b1) - Seagull Pier Concreting, Curing & Striking, CJ Prep (3rd pour	5	17-Feb-16	0%	5	23-Feb-16	26-Mar-15	31-Mar-15	-245	0	0%
SE2B1300	E4B (E2b1) - Seagull Pier Falsework & Scaffolding (4th pour, upper diaphr	6	24-Feb-16	0%	6	02-Mar-16	02-Apr-15	13-Apr-15	-245	0	0%
SE2B1320	E4B (E2b1) - Seagull Pier Rebar Fixing, Formwork & Prep (4th pour, uppe	12	02-Mar-16	0%	12	16-Mar-16	14-Apr-15	29-Apr-15	-245	0	0%
SE2B1340	E4B (E2b1) - Seagull Pier Concreting, Curing & Striking, CJ Prep (4th pour	4	16-Mar-16	0%	4	21-Mar-16	30-Apr-15	05-May-15	-245	0	0%
Pier Head Segements - E4A & E4B											
Pier head Segment - E4A (E2b2)											
SE2B2262	E4A (E2b2) - Pier Head Segment - Temporary Platform	2	19-Jan-16	0%	2	21-Jan-16	04-Mar-15	05-Mar-15	-242	0	0%
SE2B2264	E4A (E2b2) - Pier Head Segment Lift & Fix (4 seg)	4	21-Jan-16	0%	4	26-Jan-16	06-Mar-15	11-Mar-15	-241	0	0%
SE2B2266	E4A (E2b2) - Pier Head Segment Diaphragm Works	24	26-Jan-16	0%	24	26-Feb-16	12-Mar-15	13-Apr-15	-241	0	0%
SE2B2360	E4A (E2b2) - Precast Deck Segment Falsework Erection & Temp. Tie	12	15-Feb-16	0%	12	29-Feb-16	28-Mar-15	16-Apr-15	-241	0	0%
SE2B2370	E4A (E2b2) - Precast Deck Segment Infill Erection & Adjustment (4 seg)	12	29-Feb-16	0%	12	14-Mar-16	17-Apr-15	02-May-15	-241	0	0%
SE2B2380	E4A (E2b2) - Precast Deck Segment Insitu Stitch joints	8	14-Mar-16	0%	8	23-Mar-16	04-May-15	13-May-15	-241	0	0%
E5A & E5B (E2c - 1/2)											
Pile Cap Works - E5A & E5B											
Pile Cap Works											
SE2C016	E5 (E2c1/2) - Marine Pile Cap - Concreting (Final pour)	1	21-Dec-15	0%	1	21-Dec-15	05-Dec-15	05-Dec-15	-13	0	0%
SE2C016	E5 (E2c1/2) - Marine Pile Cap - Curing incl. CJ preparation	6	22-Dec-15	0%	6	30-Dec-15	07-Dec-15	12-Dec-15	-13	0	0%
Pier Works - E5A & E5B											
Pier Works - E5A (E2c2)											
SE2C202	E5A (E2c2) - Seagull Pier Falsework & Scaffolding (1st pour, Lower Stem)	3	28-Dec-15	0%	3	30-Dec-15	10-Dec-15	12-Dec-15	-13	0	0%
SE2C203	E5A (E2c2) - Seagull Pier Combine Shell Installation, Rebar Fixing, Formw	7	31-Dec-15	0%	7	08-Jan-16	14-Dec-15	21-Dec-15	-13	0	0%
SE2C205	E5A (E2c2) - Seagull Pier Concreting, Curing & Striking, CJ Prep (1st pour,	3	09-Jan-16	0%	3	12-Jan-16	22-Dec-15	24-Dec-15	-13	0	0%
SE2C207	E5A (E2c2) - Seagull Pier Falsework & Scaffolding (2nd pour, Lower Diaph	2	13-Jan-16	0%	2	14-Jan-16	28-Dec-15	29-Dec-15	-13	0	0%
SE2C208	E5A (E2c2) - Seagull Pier Combine Shell Installation, Rebar Fixing, Formw	7	15-Jan-16	0%	7	22-Jan-16	30-Dec-15	07-Jan-16	-13	0	0%
SE2C210	E5A (E2c2) - Seagull Pier Concreting, Curing & Striking, CJ Prep (2nd pour	3	23-Jan-16	0%	3	26-Jan-16	08-Jan-16	11-Jan-16	-13	0	0%
SE2C212	E5A (E2c2) - Seagull Pier Falsework & Scaffolding (3rd pour, Lower Arm)	3	27-Jan-16	0%	3	29-Jan-16	12-Jan-16	14-Jan-16	-13	0	0%
SE2C214	E5A (E2c2) - Seagull Pier Rebar Fixing, Formwork & Prep (3rd pour, Lowe	7	30-Jan-16	0%	7	06-Feb-16	15-Jan-16	22-Jan-16	-13	0	0%



Actual Work
Planned Bar
Critical Bar
Milestone

Project ID: J3518DWPrE2-M31
Layout: J3518-DWP-3MRP Submission - M31
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 15 of 25 Pages)

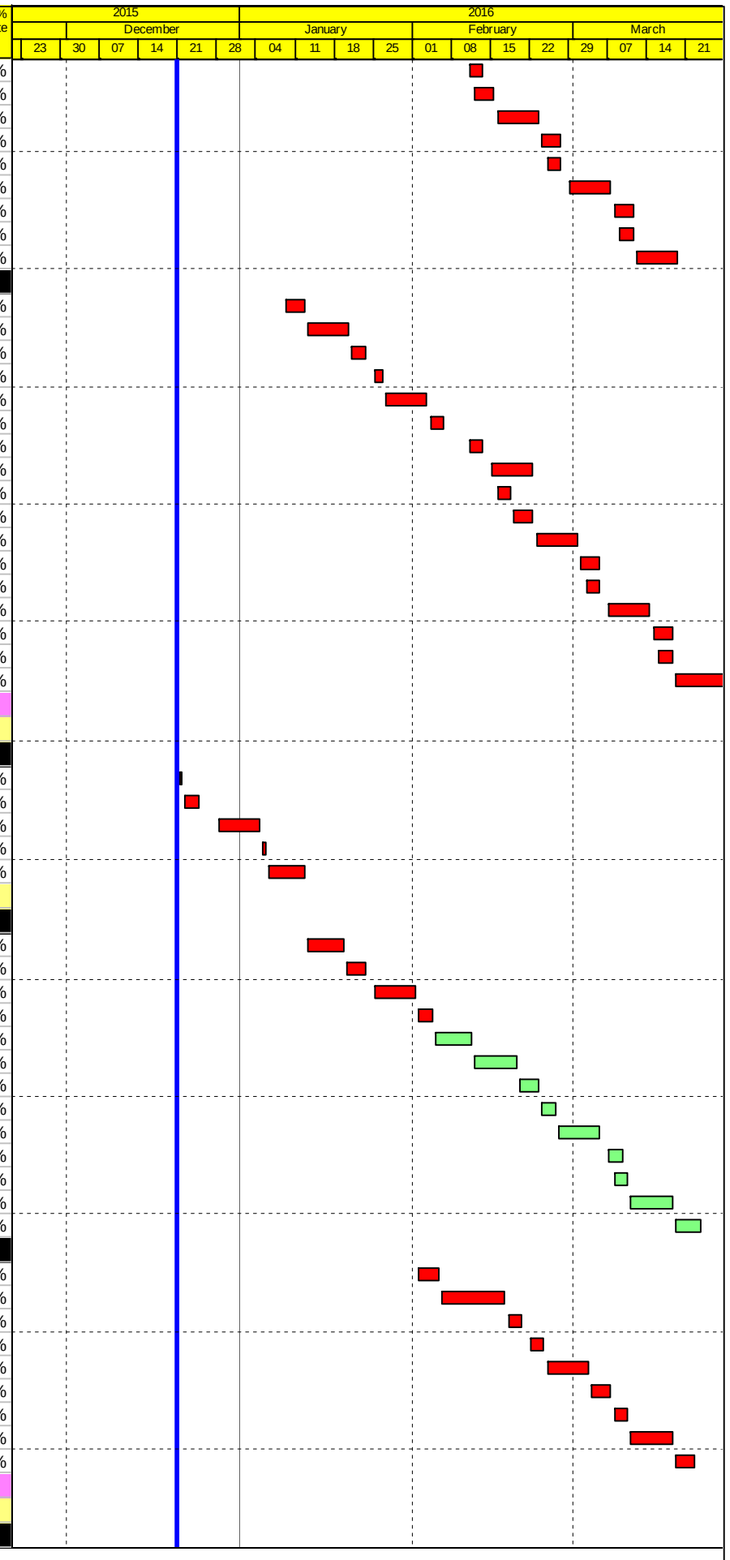
(Progress as of 21-Dec-15)

Date	Revision	Checked	Approved
31-Oct-15		PKN	KWY
01-Dec-15		PKN	KWY
28-Dec-15		PKN	KWY

DWG. No.:

J3518/GCL/PGM/3MRP-M31

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
SE2C216	E5A (E2c2) - Seagull Pier Concreting, Curing & Striking, CJ Prep (3rd pour	3	11-Feb-16	0%	3	13-Feb-16	23-Jan-16	26-Jan-16	-13	0	0%
SE2C220	E5A (E2c2) - Seagull Pier Falsework & Scaffolding (4th pour, Interface laye	3	12-Feb-16	0%	3	15-Feb-16	25-Jan-16	27-Jan-16	-13	0	0%
SE2C221	E5A (E2c2) - Seagull Pier Combine Shell Installation, Rebar Fixing, Formw	7	16-Feb-16	0%	7	23-Feb-16	28-Jan-16	04-Feb-16	-13	0	0%
SE2C222	E5A (E2c2) - Seagull Pier Concreting, Curing & Striking, CJ Prep (4th pour	4	24-Feb-16	0%	4	27-Feb-16	05-Feb-16	12-Feb-16	-13	0	0%
SE2C223	E5A (E2c2) - Seagull Pier Falsework & Scaffolding (5th pour, Upper Arm)	3	25-Feb-16	0%	3	27-Feb-16	06-Feb-16	12-Feb-16	-13	0	0%
SE2C224	E5A (E2c2) - Seagull Pier Rebar Fixing, Formwork & Prep (5th pour, Uppe	7	29-Feb-16	0%	7	07-Mar-16	13-Feb-16	20-Feb-16	-13	0	0%
SE2C225	E5A (E2c2) - Seagull Pier Concreting, Curing & Striking, CJ Prep (5th pour	4	08-Mar-16	0%	4	11-Mar-16	22-Feb-16	25-Feb-16	-13	0	0%
SE2C230	E5A (E2c2) - Seagull Pier Falsework & Scaffolding (6th pour, Upper Diaphr	3	09-Mar-16	0%	3	11-Mar-16	23-Feb-16	25-Feb-16	-13	0	0%
SE2C232	E5A (E2c2) - Seagull Pier Rebar Fixing, Formwork & Prep (6th pour, Uppe	7	12-Mar-16	0%	7	19-Mar-16	26-Feb-16	04-Mar-16	-13	0	0%
Pier Works - E5B (E2c1)											
SE2C102	E5B (E2c1) - Seagull Pier Falsework & Scaffolding (1st pour, Lower Stem)	3	09-Jan-16	0%	3	12-Jan-16	24-Dec-15	29-Dec-15	-11	0	0%
SE2C103	E5B (E2c1) - Seagull Pier Combine Sheel Installation, Rebar Fixing, Formv	7	13-Jan-16	0%	7	20-Jan-16	30-Dec-15	07-Jan-16	-11	0	0%
SE2C105	E5B (E2c1) - Seagull Pier Concreting, Curing & Striking, CJ Prep (1st pour,	3	21-Jan-16	0%	3	23-Jan-16	08-Jan-16	11-Jan-16	-11	0	0%
SE2C107	E5B (E2c1) - Seagull Pier Falsework & Scaffolding (2nd pour, Lower Diaph	2	25-Jan-16	0%	2	26-Jan-16	12-Jan-16	13-Jan-16	-11	0	0%
SE2C108	E5B (E2c1) - Seagull Pier Combine Shell Installation, Rebar Fixing, Formw	7	27-Jan-16	0%	7	03-Feb-16	14-Jan-16	21-Jan-16	-11	0	0%
SE2C110	E5B (E2c1) - Seagull Pier Concreting, Curing & Striking, CJ Prep (2nd pou	3	04-Feb-16	0%	3	06-Feb-16	22-Jan-16	25-Jan-16	-11	0	0%
SE2C112	E5B (E2c1) - Seagull Pier Falsework & Scaffolding (3rd pour, Lower Arm)	3	11-Feb-16	0%	3	13-Feb-16	26-Jan-16	28-Jan-16	-11	0	0%
SE2C114	E5B (E2c1) - Seagull Pier Rebar Fixing, Formwork & Prep (3rd pour, Lowe	7	15-Feb-16	0%	7	22-Feb-16	29-Jan-16	05-Feb-16	-11	0	0%
SE2C116	E5B (E2c1) - Seagull Pier Concreting, Curing & Striking, CJ Prep (3rd pour	3	16-Feb-16	0%	3	18-Feb-16	30-Jan-16	02-Feb-16	-11	0	0%
SE2C120	E5B (E2c1) - Seagull Pier Falsework & Scaffolding (4th pour, Interface laye	3	19-Feb-16	0%	3	22-Feb-16	03-Feb-16	05-Feb-16	-11	0	0%
SE2C121	E5B (E2c1) - Seagull Pier Combine Shell Installation, Rebar Fixing, Formw	7	23-Feb-16	0%	7	01-Mar-16	06-Feb-16	17-Feb-16	-11	0	0%
SE2C122	E5B (E2c1) - Seagull Pier Concreting, Curing & Striking, CJ Prep (4th pour	4	02-Mar-16	0%	4	05-Mar-16	18-Feb-16	22-Feb-16	-11	0	0%
SE2C123	E5B (E2c1) - Seagull Pier Falsework & Scaffolding (5th pour, Upper Arm)	3	03-Mar-16	0%	3	05-Mar-16	19-Feb-16	22-Feb-16	-11	0	0%
SE2C124	E5B (E2c1) - Seagull Pier Rebar Fixing, Formwork & Prep (5th pour, Uppe	7	07-Mar-16	0%	7	14-Mar-16	23-Feb-16	01-Mar-16	-11	0	0%
SE2C125	E5B (E2c1) - Seagull Pier Concreting, Curing & Striking, CJ Prep (5th pour	4	15-Mar-16	0%	4	18-Mar-16	02-Mar-16	05-Mar-16	-11	0	0%
SE2C130	E5B (E2c1) - Seagull Pier Falsework & Scaffolding (6th pour, Upper Diaphr	3	16-Mar-16	0%	3	18-Mar-16	03-Mar-16	05-Mar-16	-11	0	0%
SE2C132	E5B (E2c1) - Seagull Pier Rebar Fixing, Formwork & Prep (6th pour, Uppe	7	19-Mar-16	0%	7	30-Mar-16	07-Mar-16	14-Mar-16	-11	0	0%
E6A & E6B (E2d - 1/2)											
Pile Cap Works - E6A & E6B											
Pile Cap Works											
SE2D014	E6 (E2d1/2) - Marine Pile Cap - Concreting (First pour)	1	21-Dec-15	0%	1	21-Dec-15	18-Dec-15	18-Dec-15	-2	0	0%
SE2D015	E6 (E2d1/2) - Marine Pile Cap - CJ preparation	3	22-Dec-15	0%	3	24-Dec-15	19-Dec-15	22-Dec-15	-2	0	0%
SE2D016	E6 (E2d1/2) - Marine Pile Cap - Rebar fixing (Final pour)	6	28-Dec-15	0%	6	04-Jan-16	23-Dec-15	31-Dec-15	-2	0	0%
SE2D016	E6 (E2d1/2) - Marine Pile Cap - Concreting (Final pour)	1	05-Jan-16	0%	1	05-Jan-16	02-Jan-16	02-Jan-16	-2	0	0%
SE2D016	E6 (E2d1/2) - Marine Pile Cap - Curing incl. CJ preparation	6	06-Jan-16	0%	6	12-Jan-16	04-Jan-16	09-Jan-16	-2	0	0%
Pier Works - E6A & E6B											
Pier Works - E6A (E2d2)											
SE2D201	E6A (E2d2) - Seagull Pier Temp. Support Platform	6	13-Jan-16	0%	6	19-Jan-16	11-Jan-16	16-Jan-16	-2	0	0%
SE2D202	E6A (E2d2) - Seagull Pier Falsework & Scaffolding (1st pour, Lower Stem)	4	20-Jan-16	0%	4	23-Jan-16	18-Jan-16	21-Jan-16	-2	0	0%
SE2D203	E6A (E2d2) - Seagull Pier Combine Shell Installation, Rebar Fixing, Formw	7	25-Jan-16	0%	7	01-Feb-16	22-Jan-16	29-Jan-16	-2	0	0%
SE2D205	E6A (E2d2) - Seagull Pier Concreting, Curing & Striking, CJ Prep (1st pour	3	02-Feb-16	0%	3	04-Feb-16	30-Jan-16	02-Feb-16	-2	0	0%
SE2D207	E6A (E2d2) - Seagull Pier Falsework & Scaffolding (2nd pour, Lower Diaph	3	05-Feb-16	0%	3	11-Feb-16	02-Mar-16	04-Mar-16	19	0	0%
SE2D208	E6A (E2d2) - Seagull Pier Combine Shell Installation, Rebar Fixing, Formw	7	12-Feb-16	0%	7	19-Feb-16	05-Mar-16	12-Mar-16	19	0	0%
SE2D210	E6A (E2d2) - Seagull Pier Concreting, Curing & Striking, CJ Prep (2nd pou	3	20-Feb-16	0%	3	23-Feb-16	14-Mar-16	16-Mar-16	19	0	0%
SE2D212	E6A (E2d2) - Seagull Pier Falsework & Scaffolding (3rd pour, Lower Arm)	3	24-Feb-16	0%	3	26-Feb-16	17-Mar-16	19-Mar-16	19	0	0%
SE2D214	E6A (E2d2) - Seagull Pier Rebar Fixing, Formwork & Prep (3rd pour, Lowe	7	27-Feb-16	0%	7	05-Mar-16	21-Mar-16	31-Mar-16	19	0	0%
SE2D216	E6A (E2d2) - Seagull Pier Concreting, Curing & Striking, CJ Prep (3rd pour	3	07-Mar-16	0%	3	09-Mar-16	01-Apr-16	05-Apr-16	19	0	0%
SE2D220	E6A (E2d2) - Seagull Pier Falsework & Scaffolding (4th pour, Interface laye	3	08-Mar-16	0%	3	10-Mar-16	02-Apr-16	06-Apr-16	19	0	0%
SE2D221	E6A (E2d2) - Seagull Pier Combine Shell Installation, Rebar Fixing, Formw	7	11-Mar-16	0%	7	18-Mar-16	07-Apr-16	15-Apr-16	19	0	0%
SE2D222	E6A (E2d2) - Seagull Pier Concreting, Curing & Striking, CJ Prep (4th pour	4	19-Mar-16	0%	4	23-Mar-16	16-Apr-16	21-Apr-16	19	0	0%
Pier Works - E6B (E2d1)											
SE2D102	E6B (E2d1) - Seagull Pier Falsework & Scaffolding (1st pour, Lower Stem)	4	02-Feb-16	0%	4	05-Feb-16	30-Jan-16	03-Feb-16	-2	0	0%
SE2D103	E6B (E2d1) - Seagull Pier Combine Shell Installation, Rebar Fixing, Formw	7	06-Feb-16	0%	7	17-Feb-16	04-Feb-16	15-Feb-16	-2	0	0%
SE2D105	E6B (E2d1) - Seagull Pier Concreting, Curing & Striking, CJ Prep (1st pour	3	18-Feb-16	0%	3	20-Feb-16	16-Feb-16	18-Feb-16	-2	0	0%
SE2D107	E6B (E2d1) - Seagull Pier Falsework & Scaffolding (2nd pour, Lower Diaph	3	22-Feb-16	0%	3	24-Feb-16	19-Feb-16	22-Feb-16	-2	0	0%
SE2D108	E6B (E2d1) - Seagull Pier Combine Shell Installation, Rebar Fixing, Formw	7	25-Feb-16	0%	7	03-Mar-16	23-Feb-16	01-Mar-16	-2	0	0%
SE2D110	E6B (E2d1) - Seagull Pier Concreting, Curing & Striking, CJ Prep (2nd pou	3	04-Mar-16	0%	3	07-Mar-16	02-Mar-16	04-Mar-16	-2	0	0%
SE2D112	E6B (E2d1) - Seagull Pier Falsework & Scaffolding (3rd pour, Lower Arm)	3	08-Mar-16	0%	3	10-Mar-16	05-Mar-16	08-Mar-16	-2	0	0%
SE2D114	E6B (E2d1) - Seagull Pier Rebar Fixing, Formwork & Prep (3rd pour, Lowe	7	11-Mar-16	0%	7	18-Mar-16	09-Mar-16	16-Mar-16	-2	0	0%
SE2D116	E6B (E2d1) - Seagull Pier Concreting, Curing & Striking, CJ Prep (3rd pour	3	19-Mar-16	0%	3	22-Mar-16	17-Mar-16	19-Mar-16	-2	0	0%
E7A & E7B (E2e - 1/2)											
Pile Cap Works - E7A & E7B											
Pile Cap Works											



Actual Work
Planned Bar
Critical Bar
Milestone

Project ID: J3518DWPrE2-M31
Layout: J3518-DWP-3MRP Submission - M31
Filter: TASK filters: 3-Month Lookahead, No CC Milestones, No Level of Effort.

Tuen Mun - Chek Lap Kok Link - Southern Connection

3-Month Rolling Programme (Page 16 of 25 Pages)

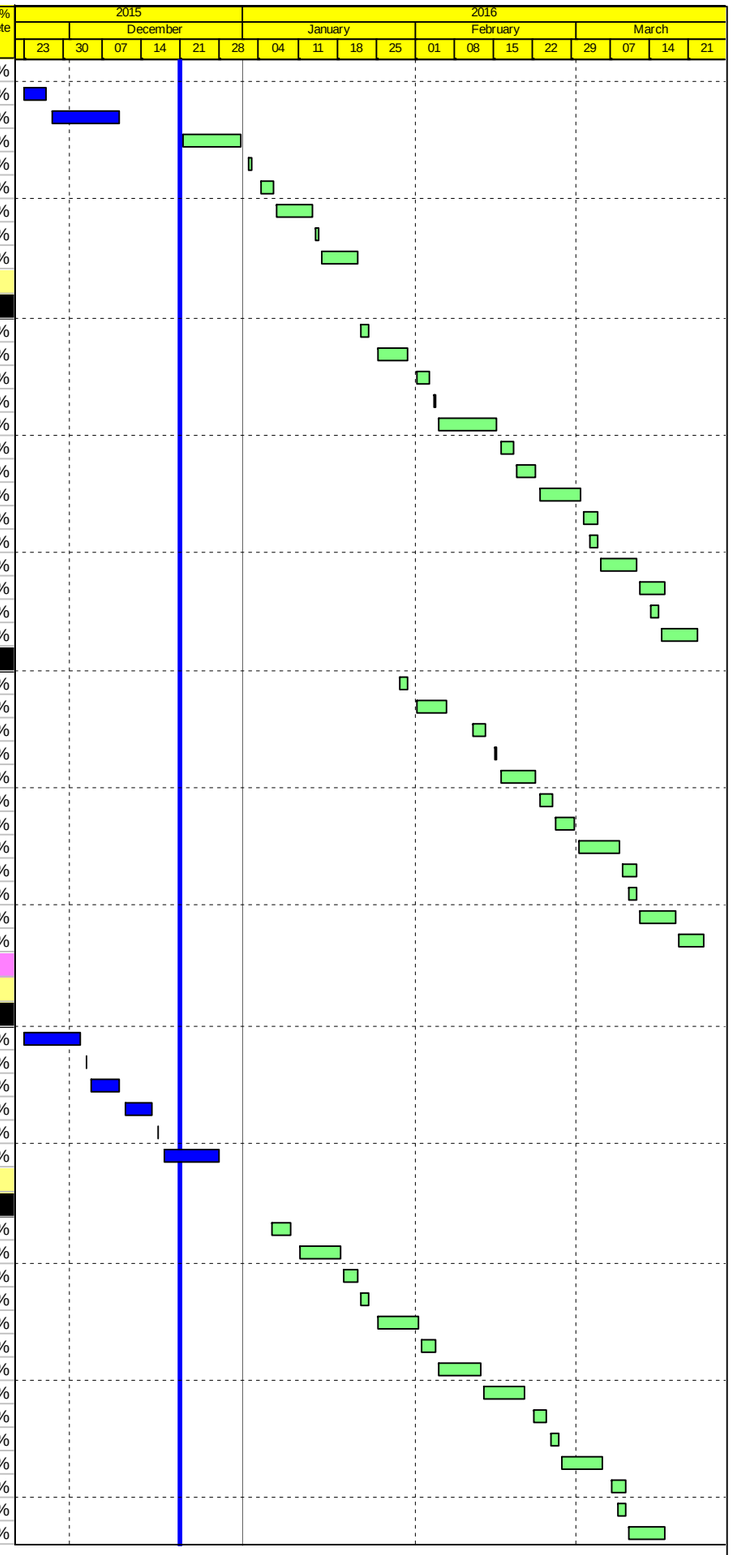
(Progress as of 21-Dec-15)

Date	Revision	Checked	Approved
31-Oct-15		PKN	KWY
01-Dec-15		PKN	KWY
28-Dec-15		PKN	KWY

DWG. No.:

J3518/GCL/PGM/3MRP-M31

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
SE2E0100	E7 (E2e1/2) - Marine Pile Cap - Weld Fin Plates / Plug Rebar & Concrete	2	16-Nov-15 A	100%	0	21-Nov-15 A					100%
SE2E0110	E7 (E2e1/2) - Marine Pile Cap - Dewater precast shell / Remove Lifting Fra	2	23-Nov-15 A	100%	0	27-Nov-15 A					100%
SE2E0120	E7 (E2e1/2) - Marine Pile Cap - Pile cut down 4nr	8	28-Nov-15 A	100%	0	10-Dec-15 A					100%
SE2E0130	E7 (E2e1/2) - Marine Pile Cap - Rebar fixing (1st pour)	8	21-Dec-15	0%	8	31-Dec-15	16-Jan-16	25-Jan-16	20	0	0%
SE2E0140	E7 (E2e1/2) - Marine Pile Cap - Concreting (First pour)	1	02-Jan-16	0%	1	02-Jan-16	26-Jan-16	26-Jan-16	20	0	0%
SE2E0150	E7 (E2e1/2) - Marine Pile Cap - CJ preparation	3	04-Jan-16	0%	3	06-Jan-16	27-Jan-16	29-Jan-16	20	0	0%
SE2E0160	E7 (E2e1/2) - Marine Pile Cap - Rebar fixing (Final pour)	6	07-Jan-16	0%	6	13-Jan-16	30-Jan-16	05-Feb-16	20	0	0%
SE2E0162	E7 (E2e1/2) - Marine Pile Cap - Concreting (Final pour)	1	14-Jan-16	0%	1	14-Jan-16	06-Feb-16	06-Feb-16	20	0	0%
SE2E0164	E7 (E2e1/2) - Marine Pile Cap - Curing incl. CJ preparation	6	15-Jan-16	0%	6	21-Jan-16	11-Feb-16	17-Feb-16	20	0	0%
Pier Works - E7A & E7B											
Pier Works - E7A (E2e2)											
SE2E2020	E7A (E2e2) - Seagull Pier Falsework & Scaffolding (1st pour, Lower Stem)	2	22-Jan-16	0%	2	23-Jan-16	18-Feb-16	19-Feb-16	20	0	0%
SE2E2030	E7A (E2e2) - Seagull Pier Combine Shell Installation, Rebar Fixing, Formw	6	25-Jan-16	0%	6	30-Jan-16	20-Feb-16	26-Feb-16	20	0	0%
SE2E2050	E7A (E2e2) - Seagull Pier Concreting, Curing & Striking, CJ Prep (1st pour	3	01-Feb-16	0%	3	03-Feb-16	24-Mar-16	30-Mar-16	42	0	0%
SE2E2070	E7A (E2e2) - Seagull Pier Falsework & Scaffolding (2nd pour, Lower Diaph	1	04-Feb-16	0%	1	04-Feb-16	31-Mar-16	31-Mar-16	42	0	0%
SE2E2080	E7A (E2e2) - Seagull Pier Combine Shell Installation, Rebar Fixing, Formw	6	05-Feb-16	0%	6	15-Feb-16	01-Apr-16	08-Apr-16	42	0	0%
SE2E2100	E7A (E2e2) - Seagull Pier Concreting, Curing & Striking, CJ Prep (2nd pou	3	16-Feb-16	0%	3	18-Feb-16	09-Apr-16	12-Apr-16	42	0	0%
SE2E2120	E7A (E2e2) - Seagull Pier Falsework & Scaffolding (3rd pour, Lower Arm)	3	19-Feb-16	0%	3	22-Feb-16	13-Apr-16	16-Apr-16	42	0	0%
SE2E2140	E7A (E2e2) - Seagull Pier Rebar Fixing, Formwork & Prep (3rd pour, Lowe	7	23-Feb-16	0%	7	01-Mar-16	18-Apr-16	26-Apr-16	42	0	0%
SE2E2160	E7A (E2e2) - Seagull Pier Concreting, Curing & Striking, CJ Prep (3rd pour	3	02-Mar-16	0%	3	04-Mar-16	27-Apr-16	29-Apr-16	42	0	0%
SE2E2200	E7A (E2e2) - Seagull Pier Falsework & Scaffolding (4th pour, Interface laye	2	03-Mar-16	0%	2	04-Mar-16	28-Apr-16	29-Apr-16	42	0	0%
SE2E2210	E7A (E2e2) - Seagull Combine Shell Installation, Pier Rebar Fixing, Formw	6	05-Mar-16	0%	6	11-Mar-16	30-Apr-16	07-May-16	42	0	0%
SE2E2220	E7A (E2e2) - Seagull Pier Concreting, Curing & Striking, CJ Prep (4th pour	4	12-Mar-16	0%	4	16-Mar-16	09-May-16	12-May-16	42	0	0%
SE2E2230	E7A (E2e2) - Seagull Pier Falsework & Scaffolding (5th pour, Upper Arm)	2	14-Mar-16	0%	2	15-Mar-16	10-May-16	11-May-16	42	0	0%
SE2E2240	E7A (E2e2) - Seagull Pier Rebar Fixing, Formwork & Prep (5th pour, Uppe	6	16-Mar-16	0%	6	22-Mar-16	12-May-16	20-May-16	42	0	0%
Pier Works - E7B (E2e1)											
SE2E1020	E7B (E2e1) - Seagull Pier Falsework & Scaffolding (1st pour, Lower Stem)	2	29-Jan-16	0%	2	30-Jan-16	25-Feb-16	26-Feb-16	20	0	0%
SE2E1030	E7B (E2e1) - Seagull Pier Combine Shell Installation, Rebar Fixing, Formw	6	01-Feb-16	0%	6	06-Feb-16	27-Feb-16	04-Mar-16	20	0	0%
SE2E1050	E7B (E2e1) - Seagull Pier Concreting, Curing & Striking, CJ Prep (1st pour	3	11-Feb-16	0%	3	13-Feb-16	05-Mar-16	08-Mar-16	20	0	0%
SE2E1070	E7B (E2e1) - Seagull Pier Falsework & Scaffolding (2nd pour, Lower Diapr	1	15-Feb-16	0%	1	15-Feb-16	09-Mar-16	09-Mar-16	20	0	0%
SE2E1080	E7B (E2e1) - Seagull Pier Combine Shell Installation, Rebar Fixing, Formw	6	16-Feb-16	0%	6	22-Feb-16	10-Mar-16	16-Mar-16	20	0	0%
SE2E1100	E7B (E2e1) - Seagull Pier Concreting, Curing & Striking, CJ Prep (2nd pou	3	23-Feb-16	0%	3	25-Feb-16	17-Mar-16	19-Mar-16	20	0	0%
SE2E1120	E7B (E2e1) - Seagull Pier Falsework & Scaffolding (3rd pour, Lower Arm)	3	26-Feb-16	0%	3	29-Feb-16	21-Mar-16	23-Mar-16	20	0	0%
SE2E1140	E7B (E2e1) - Seagull Pier Rebar Fixing, Formwork & Prep (3rd pour, Lowe	7	01-Mar-16	0%	7	08-Mar-16	24-Mar-16	05-Apr-16	20	0	0%
SE2E1160	E7B (E2e1) - Seagull Pier Concreting, Curing & Striking, CJ Prep (3rd pour	3	09-Mar-16	0%	3	11-Mar-16	06-Apr-16	08-Apr-16	20	0	0%
SE2E1200	E7B (E2e1) - Seagull Pier Falsework & Scaffolding (4th pour, Interface laye	2	10-Mar-16	0%	2	11-Mar-16	07-Apr-16	08-Apr-16	20	0	0%
SE2E1210	E7B (E2e1) - Seagull Pier Combine Shell Installation, Rebar Fixing, Formw	6	12-Mar-16	0%	6	18-Mar-16	09-Apr-16	16-Apr-16	20	0	0%
SE2E1220	E7B (E2e1) - Seagull Pier Concreting, Curing & Striking, CJ Prep (4th pour	4	19-Mar-16	0%	4	23-Mar-16	18-Apr-16	22-Apr-16	20	0	0%
E8A & E8B (E2f - 1/2)											
Pile Cap Works - E8A & E8B											
Pile Cap Works											
SE2F0130	E8 (E2f1/2) - Marine Pile Cap - Rebar fixing (1st pour)	8	23-Nov-15 A	100%	0	03-Dec-15 A					100%
SE2F0140	E8 (E2f1/2) - Marine Pile Cap - Concreting (First pour)	1	04-Dec-15 A	100%	0	04-Dec-15 A					100%
SE2F0150	E8 (E2f1/2) - Marine Pile Cap - CJ preparation	3	05-Dec-15 A	100%	0	10-Dec-15 A					100%
SE2F0160	E8 (E2f1/2) - Marine Pile Cap - Rebar fixing (Final pour)	6	11-Dec-15 A	100%	0	16-Dec-15 A					100%
SE2F0162	E8 (E2f1/2) - Marine Pile Cap - Concreting (Final pour)	1	17-Dec-15 A	100%	0	17-Dec-15 A					100%
SE2F0164	E8 (E2f1/2) - Marine Pile Cap - Curing incl. CJ preparation	6	18-Dec-15 A	100%	0	28-Dec-15 A					100%
Pier Works - E8A & E8B											
Pier Works - E8A (E2f2)											
SE2F2020	E8A (E2f2) - Seagull Pier Falsework & Scaffolding (1st pour, Lower Stem)	4	06-Jan-16	0%	4	09-Jan-16	30-Jan-16	03-Feb-16	21	0	0%
SE2F2030	E8A (E2f2) - Seagull Pier Combine Shell Installation, Rebar Fixing, Formwc	7	11-Jan-16	0%	7	18-Jan-16	04-Feb-16	15-Feb-16	21	0	0%
SE2F2050	E8A (E2f2) - Seagull Pier Concreting, Curing & Striking, CJ Prep (1st pour,	3	19-Jan-16	0%	3	21-Jan-16	16-Feb-16	18-Feb-16	21	0	0%
SE2F2070	E8A (E2f2) - Seagull Pier Falsework & Scaffolding (2nd pour, Lower Diaphr	2	22-Jan-16	0%	2	23-Jan-16	19-Feb-16	20-Feb-16	21	0	0%
SE2F2080	E8A (E2f2) - Seagull Pier Combine Shell Installation, Rebar Fixing, Formwc	7	25-Jan-16	0%	7	01-Feb-16	22-Feb-16	29-Feb-16	21	0	0%
SE2F2100	E8A (E2f2) - Seagull Pier Concreting, Curing & Striking, CJ Prep (2nd pour	3	02-Feb-16	0%	3	04-Feb-16	01-Mar-16	03-Mar-16	21	0	0%
SE2F2120	E8A (E2f2) - Seagull Pier Falsework & Scaffolding (3rd pour, Lower Arm)	4	05-Feb-16	0%	4	12-Feb-16	04-Mar-16	08-Mar-16	21	0	0%
SE2F2140	E8A (E2f2) - Seagull Pier Rebar Fixing, Formwork & Prep (3rd pour, Lowe	7	13-Feb-16	0%	7	20-Feb-16	09-Mar-16	16-Mar-16	21	0	0%
SE2F2160	E8A (E2f2) - Seagull Pier Concreting, Curing & Striking, CJ Prep (3rd pour,	3	22-Feb-16	0%	3	24-Feb-16	17-Mar-16	19-Mar-16	21	0	0%
SE2F2180	E8A (E2f2) - Seagull Pier Falsework & Scaffolding (4th pour, Interface layer	2	25-Feb-16	0%	2	26-Feb-16	21-Mar-16	22-Mar-16	21	0	0%
SE2F2200	E8A (E2f2) - Seagull Pier Combine Shell Installation, Rebar Fixing, Formwc	7	27-Feb-16	0%	7	05-Mar-16	23-Mar-16	02-Apr-16	21	0	0%
SE2F2220	E8A (E2f2) - Seagull Pier Concreting, Curing & Striking, CJ Prep (4th pour,	3	07-Mar-16	0%	3	09-Mar-16	05-Apr-16	07-Apr-16	21	0	0%
SE2F2240	E8A (E2f2) - Seagull Pier Falsework & Scaffolding (5th pour, Upper Arm)	2	08-Mar-16	0%	2	09-Mar-16	06-Apr-16	07-Apr-16	21	0	0%
SE2F2260	E8A (E2f2) - Seagull Pier Rebar Fixing, Formwork & Prep (5th pour, Uppe	6	10-Mar-16	0%	6	16-Mar-16	08-Apr-16	15-Apr-16	21	0	0%



Actual Work
Planned Bar
Critical Bar
Milestone

Project ID: J3518DWPrE2-M31
Layout: J3518-DWP-3MRP Submission - M31
Filter: TASK filters: 3-Month Lookahead, No CC Milestones, No Level of Effort.

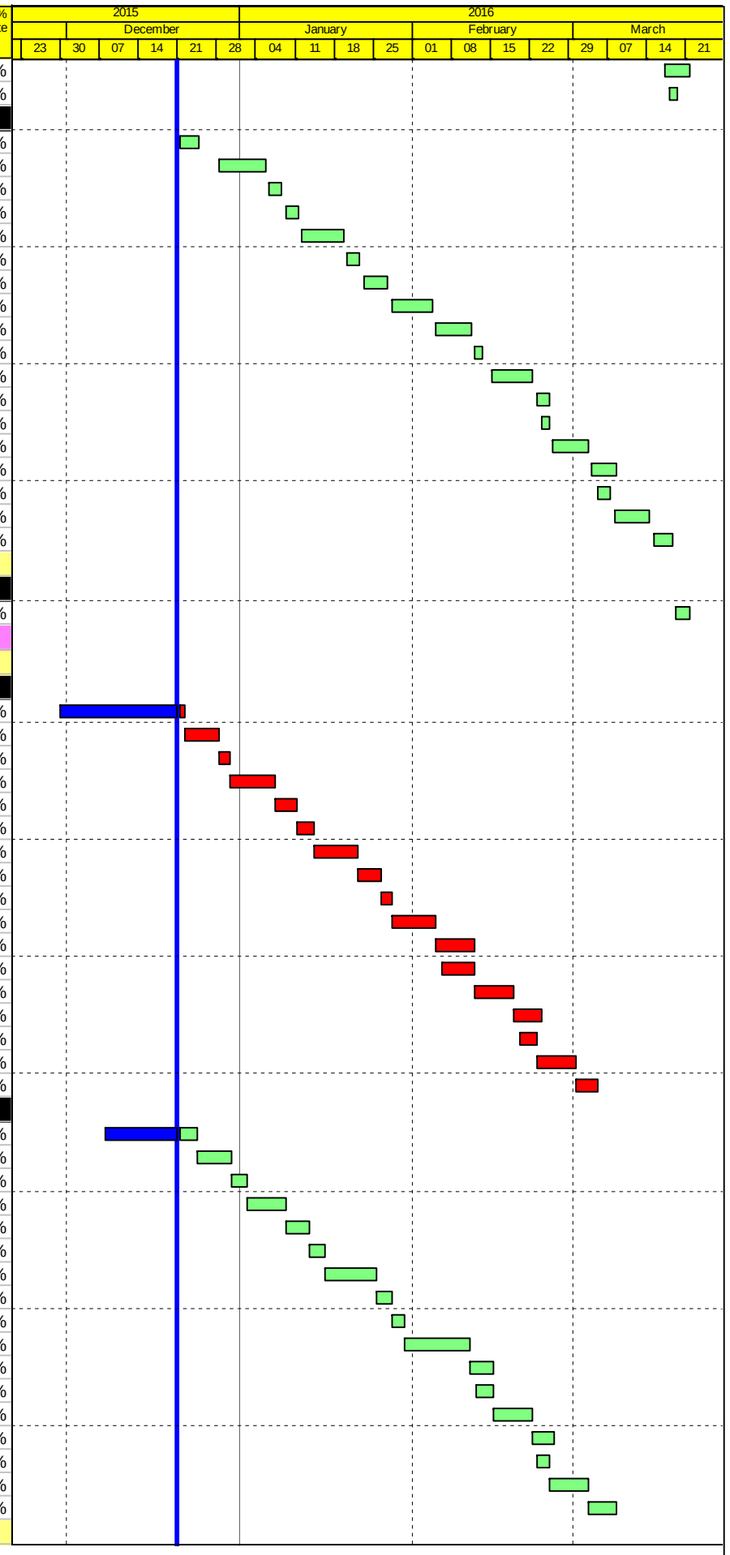
Tuen Mun - Chek Lap Kok Link - Southern Connection
3-Month Rolling Programme (Page 17 of 25 Pages)
(Progress as of 21-Dec-15)

Date	Revision	Checked	Approved
31-Oct-15		PKN	KWY
01-Dec-15		PKN	KWY
28-Dec-15		PKN	KWY

DWG. No.:

J3518/GCL/PGM/3MRP-M31

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
SE2F2280	E8A (E2f2) - Seagull Pier Concreting, Curing & Striking, CJ Prep (5th pour,	4	17-Mar-16	0%	4	21-Mar-16	16-Apr-16	21-Apr-16	21	0	0%
SE2F2300	E8A (E2f2) - Seagull Pier Falsework & Scaffolding (6th pour, Upper Diaphr	2	18-Mar-16	0%	2	19-Mar-16	18-Apr-16	19-Apr-16	21	0	0%
Pier Works - E8B (E2f1)											
SE2F1020	E8B (E2f1) - Seagull Pier Falsework & Scaffolding (1st pour, Lower Stem)	4	21-Dec-15	0%	4	24-Dec-15	28-Dec-15	31-Dec-15	4	0	0%
SE2F1030	E8B (E2f1) - Seagull Pier Combine Shell Installation, Rebar Fixing, Formwo	7	28-Dec-15	0%	7	05-Jan-16	02-Jan-16	09-Jan-16	4	0	0%
SE2F1050	E8B (E2f1) - Seagull Pier Concreting, Curing & Striking, CJ Prep (1st pour,	3	06-Jan-16	0%	3	08-Jan-16	11-Jan-16	13-Jan-16	4	0	0%
SE2F1070	E8B (E2f1) - Seagull Pier Falsework & Scaffolding (2nd pour, Lower Diaphr	2	09-Jan-16	0%	2	11-Jan-16	14-Jan-16	15-Jan-16	4	0	0%
SE2F1080	E8B (E2f1) - Seagull Pier Shell Installation, Rebar Fixing, Formwork & Prep	7	12-Jan-16	0%	7	19-Jan-16	16-Jan-16	23-Jan-16	4	0	0%
SE2F1100	E8B (E2f1) - Seagull Pier Concreting, Curing & Striking, CJ Prep (2nd pour	3	20-Jan-16	0%	3	22-Jan-16	25-Jan-16	27-Jan-16	4	0	0%
SE2F1120	E8B (E2f1) - Seagull Pier Falsework & Scaffolding (3rd pour, Lower Arm)	4	23-Jan-16	0%	4	27-Jan-16	28-Jan-16	01-Feb-16	4	0	0%
SE2F1140	E8B (E2f1) - Seagull Pier Rebar Fixing, Formwork & Prep (3rd pour, Lowe	7	28-Jan-16	0%	7	04-Feb-16	02-Feb-16	12-Feb-16	4	0	0%
SE2F1160	E8B (E2f1) - Seagull Pier Concreting, Curing & Striking, CJ Prep (3rd pour,	3	05-Feb-16	0%	3	11-Feb-16	13-Feb-16	16-Feb-16	4	0	0%
SE2F1180	E8B (E2f1) - Seagull Pier Falsework & Scaffolding (4th pour, Interface layer	2	12-Feb-16	0%	2	13-Feb-16	17-Feb-16	18-Feb-16	4	0	0%
SE2F1200	E8B (E2f1) - Seagull Pier Shell Installation, Rebar Fixing, Formwork & Prep	7	15-Feb-16	0%	7	22-Feb-16	19-Feb-16	26-Feb-16	4	0	0%
SE2F1220	E8B (E2f1) - Seagull Pier Concreting, Curing & Striking, CJ Prep (4th pour,	3	23-Feb-16	0%	3	25-Feb-16	27-Feb-16	01-Mar-16	4	0	0%
SE2F1240	E8B (E2f1) - Seagull Pier Falsework & Scaffolding (5th pour, Upper Arm)	2	24-Feb-16	0%	2	25-Feb-16	29-Feb-16	01-Mar-16	4	0	0%
SE2F1260	E8B (E2f1) - Seagull Pier Rebar Fixing, Formwork & Prep (5th pour, Upper	6	26-Feb-16	0%	6	03-Mar-16	02-Mar-16	08-Mar-16	4	0	0%
SE2F1280	E8B (E2f1) - Seagull Pier Concreting, Curing & Striking, CJ Prep (5th pour,	4	04-Mar-16	0%	4	08-Mar-16	09-Mar-16	12-Mar-16	4	0	0%
SE2F1300	E8B (E2f1) - Seagull Pier Falsework & Scaffolding (6th pour, Upper Diaphr	2	05-Mar-16	0%	2	07-Mar-16	10-Mar-16	11-Mar-16	4	0	0%
SE2F1320	E8B (E2f1) - Seagull Pier Rebar Fixing, Formwork & Prep (6th pour, Upper	6	08-Mar-16	0%	6	14-Mar-16	12-Mar-16	18-Mar-16	4	0	0%
SE2F1340	E8B (E2f1) - Seagull Pier Concreting, Curing & Striking, CJ Prep (6th pour,	4	15-Mar-16	0%	4	18-Mar-16	19-Mar-16	23-Mar-16	4	0	0%
Pier head Segment - E8A & E8B											
Pier head Segment - E8B (E2f1)											
SE2F1162	E8B (E2f1) - Pier Head Segment - Temporary Platform	2	19-Mar-16	0%	2	21-Mar-16	24-Mar-16	29-Mar-16	4	0	0%
E9A & E9B (E2g - 1/2)											
Pier Works - E9A & E9B											
Pier Works - E9A (E2g2)											
SE2G208	E9A (E2g2) - Seagull Pier Rebar Fixing, Formwork & Prep (2nd pour, Uppe	6	30-Nov-15 A	80%	1	22-Dec-15	30-Nov-15	01-Dec-15	-17	0	80%
SE2G210	E9A (E2g2) - Seagull Pier Concreting, Curing & Striking, CJ Prep (2nd pou	3	22-Dec-15	0%	3	28-Dec-15	02-Dec-15	04-Dec-15	-17	0	0%
SE2G211	E9A (E2g2) - Seagull Pier Falsework & Scaffolding (3rd pour, Lower Diaph	2	28-Dec-15	0%	2	30-Dec-15	05-Dec-15	07-Dec-15	-17	0	0%
SE2G214	E9A (E2g2) - Seagull Pier Shell Installation, Rebar Fixing, Formwork & Prep	6	30-Dec-15	0%	6	07-Jan-16	08-Dec-15	14-Dec-15	-17	0	0%
SE2G216	E9A (E2g2) - Seagull Pier Concreting, Curing & Striking, CJ Prep (3rd pour	3	07-Jan-16	0%	3	11-Jan-16	15-Dec-15	17-Dec-15	-17	0	0%
SE2G218	E9A (E2g2) - Seagull Pier Falsework & Scaffolding (4th pour, Lower Arm)	3	11-Jan-16	0%	3	14-Jan-16	18-Dec-15	21-Dec-15	-17	0	0%
SE2G220	E9A (E2g2) - Seagull Pier Rebar Fixing, Formwork & Prep (4th pour, Lowe	7	14-Jan-16	0%	7	22-Jan-16	22-Dec-15	31-Dec-15	-17	0	0%
SE2G222	E9A (E2g2) - Seagull Pier Concreting, Curing & Striking, CJ Prep (4th pour	3	22-Jan-16	0%	3	26-Jan-16	02-Jan-16	05-Jan-16	-17	0	0%
SE2G224	E9A (E2g2) - Seagull Pier Falsework & Scaffolding (5th pour, Interface laye	2	26-Jan-16	0%	2	28-Jan-16	06-Jan-16	07-Jan-16	-17	0	0%
SE2G226	E9A (E2g2) - Seagull Pier Shell Installation, Rebar Fixing, Formwork & Prep	7	28-Jan-16	0%	7	05-Feb-16	08-Jan-16	15-Jan-16	-17	0	0%
SE2G228	E9A (E2g2) - Seagull Pier Concreting, Curing & Striking, CJ Prep (5th pour	3	05-Feb-16	0%	3	12-Feb-16	16-Jan-16	19-Jan-16	-17	0	0%
SE2G228	E9A (E2g2) - Seagull Pier Falsework & Scaffolding (6th pour, Upper Arm)	2	06-Feb-16	0%	2	12-Feb-16	18-Jan-16	19-Jan-16	-17	0	0%
SE2G228	E9A (E2g2) - Seagull Pier Rebar Fixing, Formwork & Prep (6th pour, Uppe	6	12-Feb-16	0%	6	19-Feb-16	20-Jan-16	26-Jan-16	-17	0	0%
SE2G228	E9A (E2g2) - Seagull Pier Concreting, Curing & Striking, CJ Prep (6th pour	4	19-Feb-16	0%	4	24-Feb-16	27-Jan-16	30-Jan-16	-17	0	0%
SE2G230	E9A (E2g2) - Seagull Pier Falsework & Scaffolding (7th pour, Upper Diaphr	2	20-Feb-16	0%	2	23-Feb-16	28-Jan-16	29-Jan-16	-17	0	0%
SE2G232	E9A (E2g2) - Seagull Pier Rebar Fixing, Formwork & Prep (7th pour, Uppe	6	23-Feb-16	0%	6	01-Mar-16	30-Jan-16	05-Feb-16	-17	0	0%
SE2G234	E9A (E2g2) - Seagull Pier Concreting, Curing & Striking, CJ Prep (7th pour	4	01-Mar-16	0%	4	05-Mar-16	06-Feb-16	13-Feb-16	-17	0	0%
Pier Works - E9B (E2g1)											
SE2G108	E9B (E2g1) - Seagull Pier Rebar Fixing, Formwork & Prep (2nd pour, Uppe	6	08-Dec-15 A	40%	4	24-Dec-15	02-Jan-16	06-Jan-16	8	0	40%
SE2G110	E9B (E2g1) - Seagull Pier Concreting, Curing & Striking, CJ Prep (2nd pou	3	24-Dec-15	0%	3	30-Dec-15	07-Jan-16	09-Jan-16	8	0	0%
SE2G112	E9B (E2g1) - Seagull Pier Falsework & Scaffolding (3rd pour, Lower Diaph	2	30-Dec-15	0%	2	02-Jan-16	11-Jan-16	12-Jan-16	8	0	0%
SE2G114	E9B (E2g1) - Seagull Pier Shell Installation, Rebar Fixing, Formwork & Pre	6	02-Jan-16	0%	6	09-Jan-16	13-Jan-16	19-Jan-16	8	0	0%
SE2G116	E9B (E2g1) - Seagull Pier Concreting, Curing & Striking, CJ Prep (3rd pour	3	09-Jan-16	0%	3	13-Jan-16	20-Jan-16	22-Jan-16	8	0	0%
SE2G118	E9B (E2g1) - Seagull Pier Falsework & Scaffolding (4th pour, Lower Arm)	3	13-Jan-16	0%	3	16-Jan-16	23-Jan-16	26-Jan-16	8	0	0%
SE2G120	E9B (E2g1) - Seagull Pier Rebar Fixing, Formwork & Prep (4th pour, Lowe	7	16-Jan-16	0%	7	25-Jan-16	27-Jan-16	03-Feb-16	8	0	0%
SE2G122	E9B (E2g1) - Seagull Pier Concreting, Curing & Striking, CJ Prep (4th pour	3	25-Jan-16	0%	3	28-Jan-16	04-Feb-16	06-Feb-16	8	0	0%
SE2G124	E9B (E2g1) - Seagull Pier Falsework & Scaffolding (5th pour, Interface laye	2	28-Jan-16	0%	2	30-Jan-16	11-Feb-16	12-Feb-16	8	0	0%
SE2G126	E9B (E2g1) - Seagull Pier Shell Installation, Rebar Fixing, Formwork & Pre	7	30-Jan-16	0%	7	11-Feb-16	13-Feb-16	20-Feb-16	8	0	0%
SE2G128	E9B (E2g1) - Seagull Pier Concreting, Curing & Striking, CJ Prep (5th pour	3	11-Feb-16	0%	3	15-Feb-16	22-Feb-16	24-Feb-16	8	0	0%
SE2G128	E9B (E2g1) - Seagull Pier Falsework & Scaffolding (6th pour, Uppder Arm)	2	12-Feb-16	0%	2	15-Feb-16	23-Feb-16	24-Feb-16	8	0	0%
SE2G128	E9B (E2g1) - Seagull Pier Rebar Fixing, Formwork & Prep (6th pour, Uppo	6	15-Feb-16	0%	6	22-Feb-16	25-Feb-16	02-Mar-16	8	0	0%
SE2G128	E9B (E2g1) - Seagull Pier Concreting, Curing & Striking, CJ Prep (6th pour	4	22-Feb-16	0%	4	26-Feb-16	03-Mar-16	07-Mar-16	8	0	0%
SE2G130	E9B (E2g1) - Seagull Pier Falsework & Scaffolding (7th pour, Upper Diaphr	2	23-Feb-16	0%	2	25-Feb-16	04-Mar-16	05-Mar-16	8	0	0%
SE2G132	E9B (E2g1) - Seagull Pier Rebar Fixing, Formwork & Prep (7th pour, Uppe	6	25-Feb-16	0%	6	03-Mar-16	07-Mar-16	12-Mar-16	8	0	0%
SE2G134	E9B (E2g1) - Seagull Pier Concreting, Curing & Striking, CJ Prep (7th pour	4	03-Mar-16	0%	4	08-Mar-16	14-Mar-16	17-Mar-16	8	0	0%
Pier head Segment - E9A & E9B											



Actual Work
Planned Bar
Critical Bar
Milestone

Project ID: J3518DWPrE2-M31
Layout: J3518-DWP-3MRP Submission - M31
Filter: TASK filters: 3-Month Lookahead, No CC Milestones, No Level of Effort.

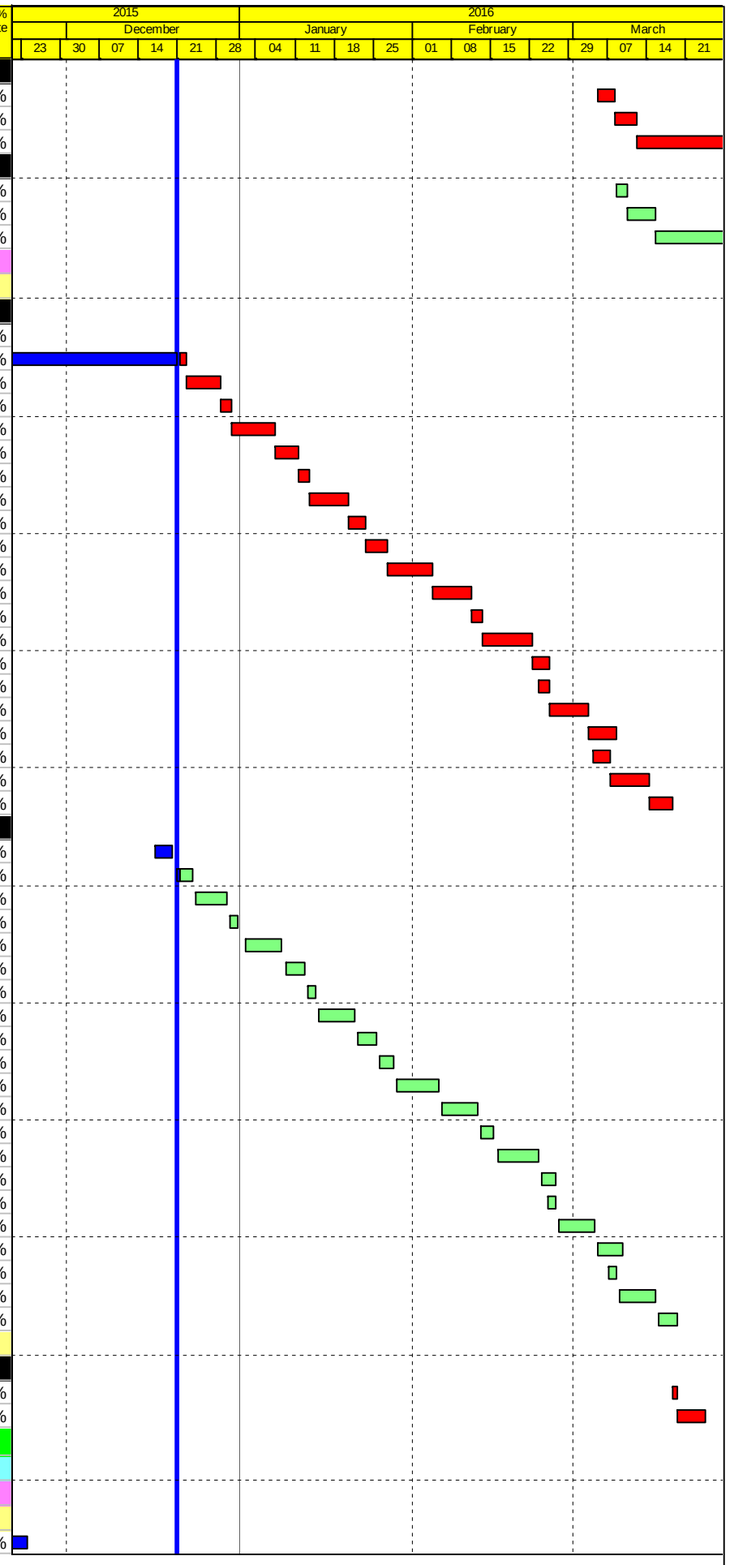
Tuen Mun - Chek Lap Kok Link - Southern Connection
3-Month Rolling Programme (Page 18 of 25 Pages)
(Progress as of 21-Dec-15)

Date	Revision	Checked	Approved
31-Oct-15		PKN	KWY
01-Dec-15		PKN	KWY
28-Dec-15		PKN	KWY

DWG. No.:

J3518/GCL/PGM/3MRP-M31

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
Pier head Segment - E9A (E2g2)											
SE2G22(	E9A (E2g2) - Pier Head Segment - Temporary Platform	2	05-Mar-16	0%	2	08-Mar-16	15-Feb-16	16-Feb-16	-17	0	0%
SE2G22(	E9A (E2g2) - Pier Head Segment Lift & Fix (4 seg)	4	08-Mar-16	0%	4	12-Mar-16	17-Feb-16	22-Feb-16	-16	0	0%
SE2G22(	E9A (E2g2) - Pier Head Segment Diaphragm Works	30	12-Mar-16	0%	30	23-Apr-16	23-Feb-16	31-Mar-16	-16	0	0%
Pier head Segment - E9B (E2g1)											
SE2G11(	E9B (E2g1) - Pier Head Segment - Temporary Platform	2	08-Mar-16	0%	2	10-Mar-16	18-Mar-16	19-Mar-16	8	0	0%
SE2G11(	E9B (E2g1) - Pier Head Segment Lift & Fix (4 seg)	4	10-Mar-16	0%	4	15-Mar-16	21-Mar-16	31-Mar-16	11	0	0%
SE2G11(	E9B (E2g1) - Pier Head Segment Diaphragm Works	30	15-Mar-16	0%	30	26-Apr-16	01-Apr-16	10-May-16	11	0	0%
E10A & E10B (E2h - 1/2)											
Pier Works - E10A & E10B											
Pier Works - E10A (E2h2)											
SE2H202	E10A (E2h2) - Seagull Pier Falsework & Scaffolding (1st pour, Lower Stem	4	11-Nov-15 A	100%	0	21-Nov-15 A					100%
SE2H203	E10A (E2h2) - Seagull Pier Shell Installation, Rebar Fixing, Formwork & Pr	6	17-Nov-15 A	70%	2	22-Dec-15	27-Nov-15	28-Nov-15	-20	0	70%
SE2H205	E10A (E2h2) - Seagull Pier Concreting, Curing & Striking, CJ Prep (1st pou	3	22-Dec-15	0%	3	28-Dec-15	30-Nov-15	02-Dec-15	-20	0	0%
SE2H207	E10A (E2h2) - Seagull Pier Falsework & Scaffolding (2nd pour, Upper Sten	2	28-Dec-15	0%	2	30-Dec-15	03-Dec-15	04-Dec-15	-20	0	0%
SE2H208	E10A (E2h2) - Seagull Pier Shell Installation, Rebar Fixing, Formwork & Pr	6	30-Dec-15	0%	6	07-Jan-16	05-Dec-15	11-Dec-15	-20	0	0%
SE2H210	E10A (E2h2) - Seagull Pier Concreting, Curing & Striking, CJ Prep (2nd po	3	07-Jan-16	0%	3	11-Jan-16	12-Dec-15	15-Dec-15	-20	0	0%
SE2H212	E10A (E2h2) - Seagull Pier Falsework & Scaffolding (3rd pour, Lower Diap	2	11-Jan-16	0%	2	13-Jan-16	16-Dec-15	17-Dec-15	-20	0	0%
SE2H214	E10A (E2h2) - Seagull Pier Shell Installation, Rebar Fixing, Formwork & Pr	6	13-Jan-16	0%	6	20-Jan-16	18-Dec-15	24-Dec-15	-20	0	0%
SE2H216	E10A (E2h2) - Seagull Pier Concreting, Curing & Striking, CJ Prep (3rd pou	3	20-Jan-16	0%	3	23-Jan-16	28-Dec-15	30-Dec-15	-20	0	0%
SE2H218	E10A (E2h2) - Seagull Pier Falsework & Scaffolding (4th pour, Lower Arm)	3	23-Jan-16	0%	3	27-Jan-16	31-Dec-15	04-Jan-16	-20	0	0%
SE2H220	E10A (E2h2) - Seagull Pier Rebar Fixing, Formwork & Prep (4th pour, Low	7	27-Jan-16	0%	7	04-Feb-16	05-Jan-16	12-Jan-16	-20	0	0%
SE2H222	E10A (E2h2) - Seagull Pier Concreting, Curing & Striking, CJ Prep (4th pou	3	04-Feb-16	0%	3	11-Feb-16	13-Jan-16	15-Jan-16	-20	0	0%
SE2H224	E10A (E2h2) - Seagull Pier Falsework & Scaffolding (5th pour, Interface lay	2	11-Feb-16	0%	2	13-Feb-16	16-Jan-16	18-Jan-16	-20	0	0%
SE2H226	E10A (E2h2) - Seagull Pier Shell Installation, Rebar Fixing, Formwork & Pr	7	13-Feb-16	0%	7	22-Feb-16	19-Jan-16	26-Jan-16	-20	0	0%
SE2H228	E10A (E2h2) - Seagull Pier Concreting, Curing & Striking, CJ Prep (5th pou	3	22-Feb-16	0%	3	25-Feb-16	27-Jan-16	29-Jan-16	-20	0	0%
SE2H228	E10A (E2h2) - Seagull Pier Falsework & Scaffolding (6th pour, Upper Arm)	2	23-Feb-16	0%	2	25-Feb-16	28-Jan-16	29-Jan-16	-20	0	0%
SE2H228	E10A (E2h2) - Seagull Pier Rebar Fixing, Formwork & Prep (6th pour, Upp	6	25-Feb-16	0%	6	03-Mar-16	30-Jan-16	05-Feb-16	-20	0	0%
SE2H228	E10A (E2h2) - Seagull Pier Concreting, Curing & Striking, CJ Prep (6th pou	4	03-Mar-16	0%	4	08-Mar-16	06-Feb-16	13-Feb-16	-20	0	0%
SE2H230	E10A (E2h2) - Seagull Pier Falsework & Scaffolding (6th pour, Upper Diapl	2	04-Mar-16	0%	2	07-Mar-16	11-Feb-16	12-Feb-16	-20	0	0%
SE2H232	E10A (E2h2) - Seagull Pier Rebar Fixing, Formwork & Prep (6th pour, Upp	6	07-Mar-16	0%	6	14-Mar-16	13-Feb-16	19-Feb-16	-20	0	0%
SE2H234	E10A (E2h2) - Seagull Pier Concreting, Curing & Striking, CJ Prep (6th pou	4	14-Mar-16	0%	4	18-Mar-16	20-Feb-16	24-Feb-16	-20	0	0%
Pier Works - E10B (E2h1)											
SE2H102	E10B (E2h1) - Seagull Pier Falsework & Scaffolding (1st pour, Lower Stem	4	17-Dec-15 A	100%	0	20-Dec-15 A					100%
SE2H103	E10B (E2h1) - Seagull Pier Shell Installation, Rebar Fixing, Formwork & Pr	6	21-Dec-15 A	50%	3	23-Dec-15	04-Jan-16	06-Jan-16	9	0	50%
SE2H105	E10B (E2h1) - Seagull Pier Concreting, Curing & Striking, CJ Prep (1st pou	3	24-Dec-15	0%	3	29-Dec-15	07-Jan-16	09-Jan-16	9	0	0%
SE2H107	E10B (E2h1) - Seagull Pier Falsework & Scaffolding (2nd pour, Upper Sten	2	30-Dec-15	0%	2	31-Dec-15	11-Jan-16	12-Jan-16	9	0	0%
SE2H108	E10B (E2h1) - Seagull Pier Shell Installation, Rebar Fixing, Formwork & Pr	6	02-Jan-16	0%	6	08-Jan-16	13-Jan-16	19-Jan-16	9	0	0%
SE2H110	E10B (E2h1) - Seagull Pier Concreting, Curing & Striking, CJ Prep (2nd po	3	09-Jan-16	0%	3	12-Jan-16	20-Jan-16	22-Jan-16	9	0	0%
SE2H112	E10B (E2h1) - Seagull Pier Falsework & Scaffolding (3rd pour, Lower Diap	2	13-Jan-16	0%	2	14-Jan-16	23-Jan-16	25-Jan-16	9	0	0%
SE2H114	E10B (E2h1) - Seagull Pier Shell Installation, Rebar Fixing, Formwork & Pr	6	15-Jan-16	0%	6	21-Jan-16	26-Jan-16	01-Feb-16	9	0	0%
SE2H116	E10B (E2h1) - Seagull Pier Concreting, Curing & Striking, CJ Prep (3rd poı	3	22-Jan-16	0%	3	25-Jan-16	02-Feb-16	04-Feb-16	9	0	0%
SE2H118	E10B (E2h1) - Seagull Pier Falsework & Scaffolding (4th pour, Lower Arm)	3	26-Jan-16	0%	3	28-Jan-16	05-Feb-16	11-Feb-16	9	0	0%
SE2H120	E10B (E2h1) - Seagull Pier Rebar Fixing, Formwork & Prep (4th pour, Low	7	29-Jan-16	0%	7	05-Feb-16	12-Feb-16	19-Feb-16	9	0	0%
SE2H122	E10B (E2h1) - Seagull Pier Concreting, Curing & Striking, CJ Prep (4th pou	3	06-Feb-16	0%	3	12-Feb-16	20-Feb-16	23-Feb-16	9	0	0%
SE2H124	E10B (E2h1) - Seagull Pier Falsework & Scaffolding (5th pour, Interface lay	2	13-Feb-16	0%	2	15-Feb-16	24-Feb-16	25-Feb-16	9	0	0%
SE2H126	E10B (E2h1) - Seagull Pier Shell Installation, Rebar Fixing, Formwork & Pr	7	16-Feb-16	0%	7	23-Feb-16	26-Feb-16	04-Mar-16	9	0	0%
SE2H128	E10B (E2h1) - Seagull Pier Concreting, Curing & Striking, CJ Prep (5th pou	3	24-Feb-16	0%	3	26-Feb-16	05-Mar-16	08-Mar-16	9	0	0%
SE2H128	E10B (E2h1) - Seagull Pier Falsework & Scaffolding (6th pour, Upper Arm)	2	25-Feb-16	0%	2	26-Feb-16	07-Mar-16	08-Mar-16	9	0	0%
SE2H128	E10B (E2h1) - Seagull Pier Rebar Fixing, Formwork & Prep (6th pour, Upp	6	27-Feb-16	0%	6	04-Mar-16	09-Mar-16	15-Mar-16	9	0	0%
SE2H128	E10B (E2h1) - Seagull Pier Concreting, Curing & Striking, CJ Prep (6th pou	4	05-Mar-16	0%	4	09-Mar-16	16-Mar-16	19-Mar-16	9	0	0%
SE2H130	E10B (E2h1) - Seagull Pier Falsework & Scaffolding (7th pour, Upper Diapl	2	07-Mar-16	0%	2	08-Mar-16	17-Mar-16	18-Mar-16	9	0	0%
SE2H132	E10B (E2h1) - Seagull Pier Rebar Fixing, Formwork & Prep (7th pour, Upp	6	09-Mar-16	0%	6	15-Mar-16	19-Mar-16	29-Mar-16	9	0	0%
SE2H134	E10B (E2h1) - Seagull Pier Concreting, Curing & Striking, CJ Prep (7th pou	4	16-Mar-16	0%	4	19-Mar-16	30-Mar-16	02-Apr-16	9	0	0%
Pier head Segments - E10A & E10B											
Pier head Segments - E10A (E2h2)											
SE2H226	E10A (E2h2) - Pier Head Segment - Temporary Platform	1	18-Mar-16	0%	1	19-Mar-16	25-Feb-16	25-Feb-16	-20	0	0%
SE2H226	E10A (E2h2) - Pier Head Segment Lift & Fix (4 seg)	4	19-Mar-16	0%	4	24-Mar-16	26-Feb-16	02-Mar-16	-19	0	0%
Viaduct E5, E6, E7 & E8											
E11A & E11B (E5E6a/E7E8a)											
Pile Cap Works - E11A & E11B											
Pile Cap Works											
SE5A0160	E11 (E5E6/E7E8a) - Marine Pile Cap - Rebar fixing (Final pour)	4	17-Nov-15 A	100%	0	24-Nov-15 A					100%



Actual Work
Planned Bar
Critical Bar
Milestone

Project ID: J3518DWPrE2-M31
Layout: J3518-DWP-3MRP Submission - M31
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 19 of 25 Pages)

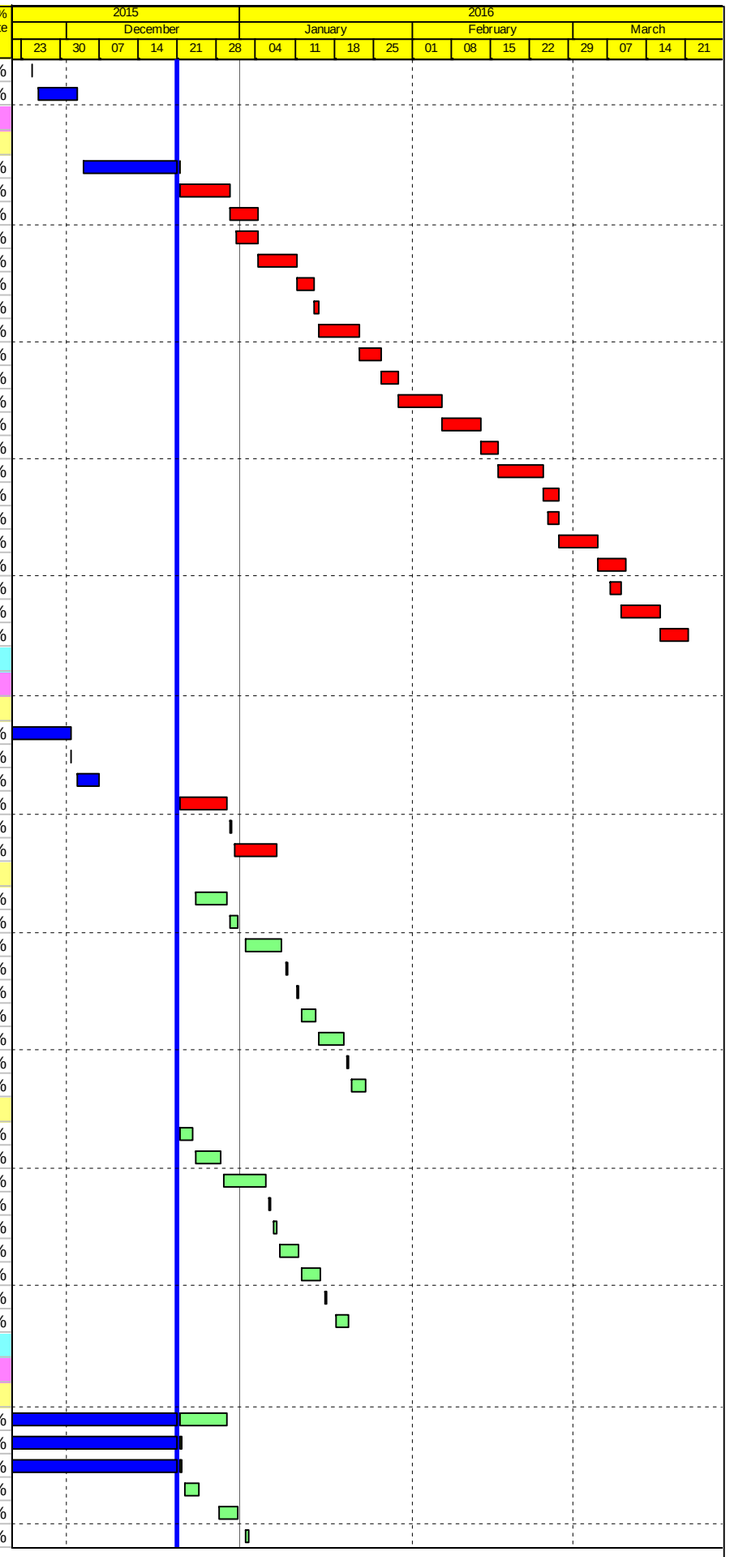
(Progress as of 21-Dec-15)

Date	Revision	Checked	Approved
31-Oct-15		PKN	KWY
01-Dec-15		PKN	KWY
28-Dec-15		PKN	KWY

DWG. No.:

J3518/GCL/PGM/3MRP-M31

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
SE5A0162	E11 (E5E6/E7E8a) - Marine Pile Cap - Concreting (Final pour)	1	25-Nov-15 A	100%	0	25-Nov-15 A					100%
SE5A0164	E11 (E5E6/E7E8a) - Marine Pile Cap - Curing incl. CJ preparation	4	26-Nov-15 A	100%	0	03-Dec-15 A					100%
Pier Works - E11A & E11B											
Pier Works - E11B (E5E6a)											
SE5A1020	E11B (E5E6a) - Seagull Pier Falsework & Scaffolding (1st pour, Lower Ster	1	04-Dec-15 A	60%	0	21-Dec-15	19-Mar-15	19-Mar-15	-206	0	60%
SE5A1030	E11B (E5E6a) - Seagull Pier Shell Installation, Rebar Fixing, Formwork & F	6	21-Dec-15	0%	6	30-Dec-15	20-Mar-15	26-Mar-15	-206	0	0%
SE5A1050	E11B (E5E6a) - Seagull Pier Concreting, Curing & Striking, CJ Prep (1st pc	3	30-Dec-15	0%	3	04-Jan-16	27-Mar-15	30-Mar-15	-206	0	0%
SE5A1070	E11B (E5E6a) - Seagull Pier Falsework & Scaffolding (2nd pour, Upper Ste	2	31-Dec-15	0%	2	04-Jan-16	28-Mar-15	30-Mar-15	-206	0	0%
SE5A1080	E11B (E5E6a) - Seagull Pier Shell Installation, Rebar Fixing, Formwork & F	6	04-Jan-16	0%	6	11-Jan-16	31-Mar-15	10-Apr-15	-206	0	0%
SE5A1100	E11B (E5E6a) - Seagull Pier Concreting, Curing & Striking, CJ Prep (2nd p	3	11-Jan-16	0%	3	14-Jan-16	11-Apr-15	14-Apr-15	-206	0	0%
SE5A1120	E11B (E5E6a) - Seagull Pier Falsework & Scaffolding (3rd pour, Lower Dia	1	14-Jan-16	0%	1	15-Jan-16	16-Apr-15	16-Apr-15	-206	0	0%
SE5A1140	E11B (E5E6a) - Seagull Pier Shell Installation, Rebar Fixing, Formwork & F	6	15-Jan-16	0%	6	22-Jan-16	17-Apr-15	24-Apr-15	-206	0	0%
SE5A1160	E11B (E5E6a) - Seagull Pier Concreting, Curing & Striking, CJ Prep (diaph	3	22-Jan-16	0%	3	26-Jan-16	25-Apr-15	28-Apr-15	-206	0	0%
SE5A1180	E11B (E5E6a) - Seagull Pier Falsework & Scaffolding (4th pour, Lower Arm	3	26-Jan-16	0%	3	29-Jan-16	29-Apr-15	02-May-15	-206	0	0%
SE5A1200	E11B (E5E6a) - Seagull Pier Rebar Fixing, Formwork & Prep (4th pour, Lo	7	29-Jan-16	0%	7	06-Feb-16	04-May-15	11-May-15	-206	0	0%
SE5A1220	E11B (E5E6a) - Seagull Pier Concreting, Curing & Striking, CJ Prep (4th pc	3	06-Feb-16	0%	3	13-Feb-16	13-May-15	15-May-15	-206	0	0%
SE5A1240	E11B (E5E6a) - Seagull Pier Falsework & Scaffolding (5th pour, Interface la	2	13-Feb-16	0%	2	16-Feb-16	16-May-15	18-May-15	-206	0	0%
SE5A1260	E11B (E5E6a) - Seagull Pier Shell Installation, Rebar Fixing, Formwork & F	7	16-Feb-16	0%	7	24-Feb-16	19-May-15	28-May-15	-206	0	0%
SE5A1280	E11B (E5E6a) - Seagull Pier Concreting, Curing & Striking, CJ Prep (5th pc	3	24-Feb-16	0%	3	27-Feb-16	29-May-15	01-Jun-15	-206	0	0%
SE5A1282	E11B (E5E6a) - Seagull Pier Falsework & Scaffolding (6th pour, Upper Arm	2	25-Feb-16	0%	2	27-Feb-16	30-May-15	01-Jun-15	-206	0	0%
SE5A1284	E11B (E5E6a) - Seagull Pier Rebar Fixing, Formwork & Prep (6th pour, Up	6	27-Feb-16	0%	6	05-Mar-16	02-Jun-15	10-Jun-15	-206	0	0%
SE5A1286	E11B (E5E6a) - Seagull Pier Concreting, Curing & Striking, CJ Prep (6th pc	4	05-Mar-16	0%	4	10-Mar-16	12-Jun-15	16-Jun-15	-206	0	0%
SE5A1300	E11B (E5E6a) - Seagull Pier Falsework & Scaffolding (7th pour, Upper Diap	2	07-Mar-16	0%	2	09-Mar-16	13-Jun-15	15-Jun-15	-206	0	0%
SE5A1320	E11B (E5E6a) - Seagull Pier Rebar Fixing, Formwork & Prep (7th pour, Up	6	09-Mar-16	0%	6	16-Mar-16	16-Jun-15	26-Jun-15	-206	0	0%
SE5A1340	E11B (E5E6a) - Seagull Pier Concreting, Curing & Striking, CJ Prep (7th pc	4	16-Mar-16	0%	4	21-Mar-16	27-Jun-15	02-Jul-15	-206	0	0%
E12A, E12B, E12C & E12D (E8b/E7b/E6b/E5b)											
Pile Cap Works - E12A, E12B, E12C & E12D											
Pile Cap Works - E12											
SE5B0130	E12 (E5b/E6b/E7b/E8b)- Marine Pile Cap - Rebar fixing (1st pour)	8	09-Nov-15 A	100%	0	02-Dec-15 A					100%
SE5B0140	E12 (E5b/E6b/E7b/E8b)- Marine Pile Cap - Concreting (First pour)	1	02-Dec-15 A	100%	0	02-Dec-15 A					100%
SE5B0150	E12 (E5b/E6b/E7b/E8b)- Marine Pile Cap - CJ preparation	3	03-Dec-15 A	100%	0	07-Dec-15 A					100%
SE5B0160	E12 (E5b/E6b/E7b/E8b)- Marine Pile Cap - Rebar fixing (2nd pour)	6	21-Dec-15	0%	6	29-Dec-15	13-May-15	19-May-15	-168	0	0%
SE5B0162	E12 (E5b/E6b/E7b/E8b)- Marine Pile Cap - Concreting (2nd pour)	1	30-Dec-15	0%	1	30-Dec-15	20-May-15	20-May-15	-168	0	0%
SE5B0164	E12 (E5b/E6b/E7b/E8b)- Marine Pile Cap - Curing incl. CJ preparation	6	31-Dec-15	0%	6	07-Jan-16	22-May-15	29-May-15	-168	76	0%
Pile Cap Works - Dolphin E12A (E8b)											
SE8BD070	E12A (E8b) Dolphin - Marine Pile Cap - Inst.prefab.collar frame to perm.ca	3	24-Dec-15	0%	3	29-Dec-15	07-Nov-16	09-Nov-16	238	0	0%
SE8BD080	E12A (E8b) Dolphin - Marine Pile Cap - Install precast shell in position	2	30-Dec-15	0%	2	31-Dec-15	10-Nov-16	11-Nov-16	238	0	0%
SE8BD090	E12A (E8b) Dolphin - Marine Pile Cap - Temp fixings to casings	6	02-Jan-16	0%	6	08-Jan-16	12-Nov-16	18-Nov-16	238	0	0%
SE8BD100	E12A (E8b) Dolphin - Marine Pile Cap - Tremie concrete at pedestal	1	09-Jan-16	0%	1	09-Jan-16	19-Nov-16	19-Nov-16	238	0	0%
SE8BD120	E12A (E8b) Dolphin - Marine Pile Cap - Dewatering inside precast shell	1	11-Jan-16	0%	1	11-Jan-16	21-Nov-16	21-Nov-16	238	0	0%
SE8BD130	E12A (E8b)- Dolphin - Marine Pile Cap - Trimming of pile & casing	3	12-Jan-16	0%	3	14-Jan-16	22-Nov-16	24-Nov-16	238	0	0%
SE8BD140	E12A (E8b) - Dolphin - Marine Pile Cap - Rebar fixing, installation of cast in	4	15-Jan-16	0%	4	19-Jan-16	25-Nov-16	29-Nov-16	238	0	0%
SE8BD150	E12A (E8b) - Dolphin - Marine Pile Cap - Concreting	1	20-Jan-16	0%	1	20-Jan-16	30-Nov-16	30-Nov-16	238	0	0%
SE8BD160	E12A (E8b) - Dolphin - Marine Pile Cap - Construction joint preparation	3	21-Jan-16	0%	3	23-Jan-16	01-Dec-16	03-Dec-16	238	446	0%
Pile Cap Works - Dolphin E12B (E5b)											
SE5BD070	E12B (E5b) Dolphin - Marine Pile Cap - Inst.prefab.collar frame to perman	3	21-Dec-15	0%	3	23-Dec-15	03-Nov-16	05-Nov-16	238	0	0%
SE5BD080	E12B (E5b) Dolphin - Marine Pile Cap - Install precast shell in position	2	24-Dec-15	0%	2	28-Dec-15	10-Nov-16	11-Nov-16	241	0	0%
SE5BD090	E12B (E5b) Dolphin - Marine Pile Cap - Temp fixings to casings	6	29-Dec-15	0%	6	05-Jan-16	12-Nov-16	18-Nov-16	241	0	0%
SE5BD100	E12B (E5b) Dolphin - Marine Pile Cap - Tremie concrete at pedestal	1	06-Jan-16	0%	1	06-Jan-16	19-Nov-16	19-Nov-16	241	0	0%
SE5BD120	E12B (E5b) Dolphin - Marine Pile Cap - Dewatering inside precast shell	1	07-Jan-16	0%	1	07-Jan-16	21-Nov-16	21-Nov-16	241	0	0%
SE5BD130	E12B (E5b) Dolphin - Marine Pile Cap - Trimming of pile & casing	3	08-Jan-16	0%	3	11-Jan-16	22-Nov-16	24-Nov-16	241	0	0%
SE5BD140	E12B (E5b) Dolphin - Marine Pile Cap - Rebar fixing, installation of cast insi	4	12-Jan-16	0%	4	15-Jan-16	25-Nov-16	29-Nov-16	241	0	0%
SE5BD150	E12B (E5b) Dolphin - Marine Pile Cap - Concreting	1	16-Jan-16	0%	1	16-Jan-16	30-Nov-16	30-Nov-16	241	0	0%
SE5BD160	E12B (E5b) Dolphin - Marine Pile Cap - Construction joint preparation & Cu	3	18-Jan-16	0%	3	20-Jan-16	01-Dec-16	03-Dec-16	241	3	0%
E13A, E13B, E13C & E13D (E8c/E7c/E6c/E5c)											
Pier- E13A & E13B											
Pile Cap Works Dolphin											
SE8CD090	E13A (E8c) Dolphin - Marine Pile Cap - Inst.Access & make Watertight	6	24-Oct-15 A	0%	6	29-Dec-15	14-May-19	21-May-19	944	944	0%
SE8CD100	E13A (E8c) Dolphin - Marine Pile Cap - Weld Fin Plates / Plug Rebar & Co	1	06-Nov-15 A	0%	1	21-Dec-15	20-May-19	21-May-19	949	949	0%
SE8CD120	E13A (E8c) Dolphin - Marine Pile Cap - Dewater precast shell / Remove Lif	1	19-Nov-15 A	0%	1	21-Dec-15	21-Nov-16	21-Nov-16	253	0	0%
SE8CD130	E13A (E8c) Dolphin - Marine Pile Cap - Pile cut down 3nr	3	22-Dec-15	0%	3	24-Dec-15	22-Nov-16	24-Nov-16	253	0	0%
SE8CD140	E13A (E8c) Dolphin - Marine Pile Cap - Rebar fixing, inst.inserts	4	28-Dec-15	0%	4	31-Dec-15	25-Nov-16	29-Nov-16	253	0	0%
SE8CD150	E13A (E8c) Dolphin - Marine Pile Cap - Concreting	1	02-Jan-16	0%	1	02-Jan-16	30-Nov-16	30-Nov-16	253	106	0%



Actual Work
Planned Bar
Critical Bar
Milestone

Project ID: J3518DWPrE2-M31
Layout: J3518-DWP-3MRP Submission - M31
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 20 of 25 Pages)
(Progress as of 21-Dec-15)

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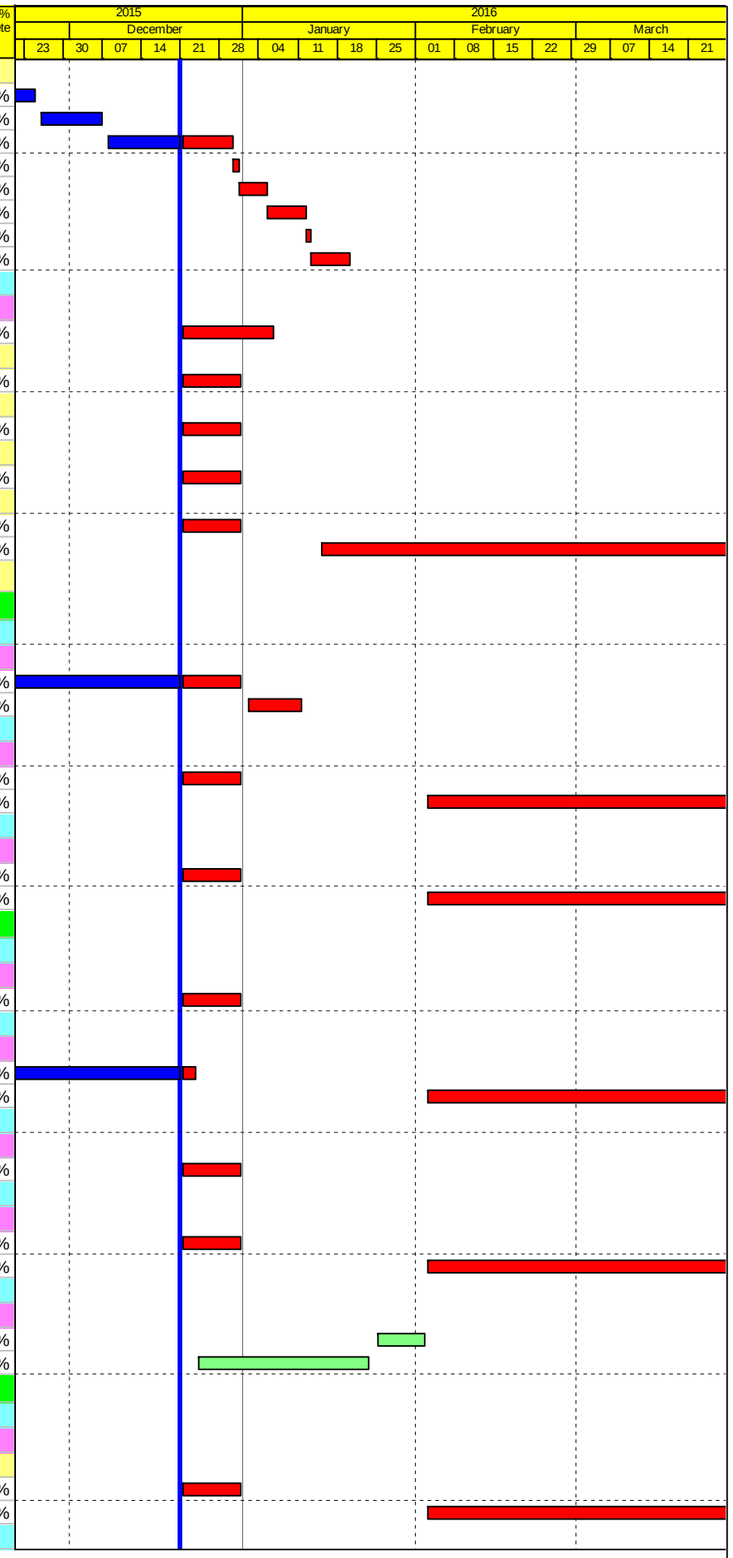
28-Dec-15		PKN	KWY

DWG. No.:
J3518/GCL/PGM/3MRP-M31

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
Pile Cap Works											
SE7C0110	E13A/B (E8c/E7c) - Marine Pile Cap - Dewater precast shell / Remove Lifti	2	19-Nov-15 A	100%	0	25-Nov-15 A					100%
SE7C0120	E13A/B (E8c/E7c) - Marine Pile Cap - Pile cut down 8nr	9	26-Nov-15 A	100%	0	07-Dec-15 A					100%
SE7C0130	E13A/B (E8c/E7c)) - Marine Pile Cap - Rebar fixing (1st pour)	8	08-Dec-15 A	20%	6	30-Dec-15	11-Apr-15	20-Apr-15	-190	0	20%
SE7C0140	E13A/B (E8c/E7c) - Marine Pile Cap - Concreting (1st pour)	1	30-Dec-15	0%	1	31-Dec-15	21-Apr-15	21-Apr-15	-190	0	0%
SE7C0150	E13A/B (E8c/E7c) - Marine Pile Cap - CJ preparation	3	31-Dec-15	0%	3	05-Jan-16	22-Apr-15	25-Apr-15	-190	0	0%
SE7C0160	E13A/B (E8c/E7c) - Marine Pile Cap - Rebar fixing (final pour)	6	05-Jan-16	0%	6	12-Jan-16	27-Apr-15	04-May-15	-190	0	0%
SE7C0162	E13A/B (E8c/E7c) - Marine Pile Cap - Concreting (Final pour)	1	12-Jan-16	0%	1	13-Jan-16	05-May-15	05-May-15	-190	0	0%
SE7C0164	E13A/B (E8c/E7c) - Marine Pile Cap - Curing incl. CJ preparation	6	13-Jan-16	0%	6	20-Jan-16	06-May-15	13-May-15	-190	139	0%
E14A, E14B, E14C & E14D (E8d/E7d/E6d/E5d)											
Foundation Works - E14											
GFXX545	Mobilization & Assembling Bored Pile Plant & Equipment for Viaducts in HKI	12	21-Dec-15	0%	12	06-Jan-16	25-Nov-14	08-Dec-14	-317	0	0%
Foundation Works - E14A (E8d)											
GFXX544	E14A (E8d) - Confirm Rockhead levels	8	21-Dec-15	0%	8	31-Dec-15	04-Jun-15	15-Jun-15	-152	120	0%
Foundation Works - E14B (E7d)											
GFXX544	E14B (E7d) - Confirm Rockhead levels	8	21-Dec-15	0%	8	31-Dec-15	25-Apr-15	05-May-15	-181	120	0%
Foundation Works - E14C (E6d)											
GFXX544	E14C (E6d) - Confirm Rockhead levels	8	21-Dec-15	0%	8	31-Dec-15	09-May-15	19-May-15	-170	130	0%
Foundation Works - E14D (E5d)											
GFXX544	E14D (E5d) - Confirm Rockhead levels	8	21-Dec-15	0%	8	31-Dec-15	16-Dec-14	24-Dec-14	-281	11	0%
GFXX546	E14D (E5d) - Bored Piles (2.20m dia. x 4 nos)	112	15-Jan-16*	0%	112	03-Jun-16	27-Dec-14	20-May-15	-292	0	0%
Viaduct F											
Viaduct F1											
F1 (F1b)											
Foundation Works											
GFXX553-1	F1 (F1b) - Pre-drilling for Piles (3 nos)	24	29-Apr-15 A	66.67%	8	31-Dec-15	18-Apr-15	27-Apr-15	-203	0	66%
GFXX553-4	F1 (F1b) - Confirm Rockhead Levels	8	02-Jan-16	0%	8	11-Jan-16	28-Apr-15	07-May-15	-203	124	0%
F2 (F1c)											
Foundation Works											
GFXX553-5	F2 (F1c) - Confirm Rockhead Levels	8	21-Dec-15	0%	8	31-Dec-15	29-Nov-14	08-Dec-14	-313	27	0%
GFXX556	F2 (F1c) - Bored Piles (1.80m dia. x 3 nos)	98	03-Feb-16	0%	98	07-Jun-16	09-Dec-14	13-Apr-15	-340	0	0%
F3 (F1d)											
Foundation Works											
GFXX553-6	F3 (F1d) - Confirm Rockhead Levels	8	21-Dec-15	0%	8	31-Dec-15	02-Feb-15	10-Feb-15	-261	27	0%
GFXX557	F3 (F1d) - Bored Piles (1.80m dia. x 3 nos)	98	03-Feb-16	0%	98	07-Jun-16	11-Feb-15	15-Jun-15	-288	0	0%
Viaduct F2											
F4 (F2b)											
Foundation Works											
GFXX561-6	F4 (F2b) - Confirm Rockhead Levels	8	21-Dec-15	0%	8	31-Dec-15	13-May-15	21-May-15	-183	123	0%
F6 (F2d)											
Foundation Works											
GFXX561-	F6 (F2d) - Confirm Rockhead Levels	8	15-Apr-15 A	62.5%	3	23-Dec-15	20-Dec-14	23-Dec-14	-295	32	0%
GFXX565	F6 (F2d) - Bored Piles (1.80m dia. x 3 nos)	105	03-Feb-16	0%	105	16-Jun-16	24-Dec-14	07-May-15	-327	0	0%
F7 (F2e)											
Foundation Works											
GFXX561-	F7 (F2e) - Confirm Rockhead Levels	8	21-Dec-15	0%	8	31-Dec-15	26-Oct-15	03-Nov-15	-48	265	0%
F5 (F2c)											
Foundation Works											
GFXX561-8	F5 (F2c) - Confirm Rockhead Levels	8	21-Dec-15	0%	8	31-Dec-15	20-Dec-14	31-Dec-14	-295	27	0%
GFXX564	F5 (F2c) - Bored Piles (1.80m dia. x 3 nos)	98	03-Feb-16	0%	98	07-Jun-16	02-Jan-15	05-May-15	-322	0	0%
F8 (F2f) & Abutment											
Foundation Works											
GFXX561-	F8 (F2f) - Confirm Rockhead Levels	8	25-Jan-16	0%	8	02-Feb-16	12-Mar-16	21-Mar-16	38	238	0%
GFXX561-5	F8 (F2f) - Pre-drilling for Piles (2 nos)	24	24-Dec-15	0%	24	23-Jan-16	13-Feb-16	11-Mar-16	38	0	0%
Viaduct F3											
F9 (F3d-1/F3d-2)											
Foundation Works - F9 (F3d-1/F3d-2)											
Foundation Works											
GFXX571	F9 (F3d) - Confirm Rockhead Levels	8	21-Dec-15	0%	8	31-Dec-15	18-Dec-14	29-Dec-14	-297	27	0%
GFXX575	F9 (F3d) - Bored Piles (1.80m dia. x 4 nos)	112	03-Feb-16	0%	112	24-Jun-16	30-Dec-14	19-May-15	-324	0	0%
F10 (F3c-1/F3c-2)											



Actual Work
Planned Bar
Critical Bar
Milestone

Project ID: J3518DWPrE2-M31
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Tuen Mun - Chek Lap Kok Link - Southern Connection
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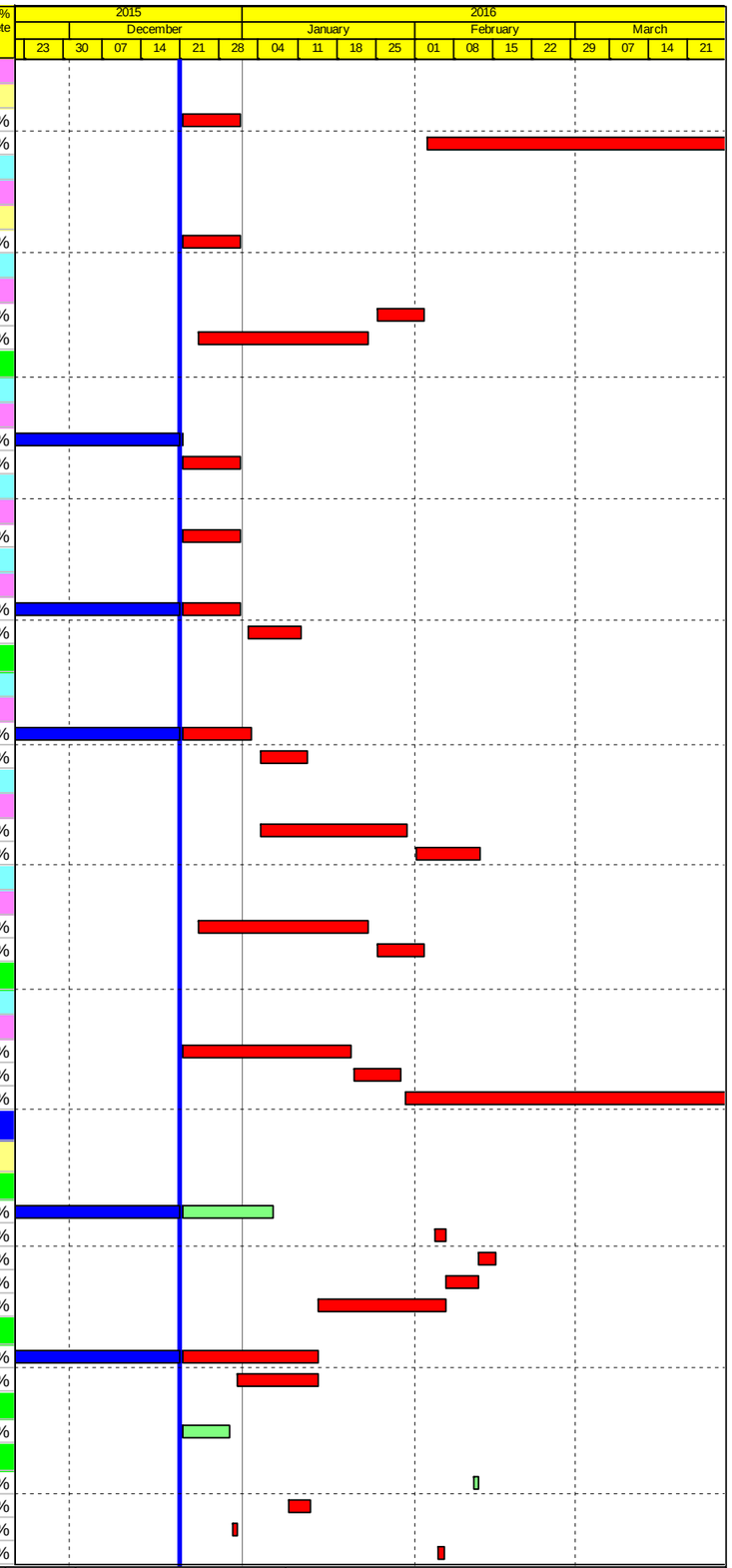
DWG. No.:

J3518/GCL/PGM/3MRP-M31

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
Foundation Works - Pier F10											
Foundation Works											
GFXX571	F10 (F3c) - Confirm Rockhead Levels	8	21-Dec-15	0%	8	31-Dec-15	04-Mar-15	13-Mar-15	-238	27	0%
GFXX574	F10 (F3c) - Bored Piles (1.80m dia. x 4 nos)	84	03-Feb-16	0%	84	21-May-16	13-Mar-15	27-Jun-15	-265	0	0%
F11 (F3b-1/F3b-2)											
Foundation Works - Pier F11 (F3b-1/F3b-2)											
Foundation Works											
GFXX571	F11 (F3b) - Confirm Rockhead Levels	8	21-Dec-15	0%	8	31-Dec-15	25-Aug-15	02-Sep-15	-97	230	0%
F12 (F3a) & Abutment											
Foundation Works											
GFXX571-	F12 (F3a) - Confirm Rockhead Levels	8	25-Jan-16	0%	8	02-Feb-16	11-Jan-16	19-Jan-16	-12	315	0%
GFXX571-4	F12 (F3a) - Pre-drilling for Piles (2 nos)	24	24-Dec-15	0%	24	23-Jan-16	10-Dec-15	09-Jan-16	-12	0	0%
Viaduct F5											
F13 (F5d)											
Foundation Works											
GFXX586-1	F13 (F5d) - Pre-drilling for Piles (3 nos)	24	04-Jun-15 A	100%	0	21-Dec-15	14-Apr-15	14-Apr-15	-206	0	100%
GFXX586-4	F13 (F5d) - Confirm Rockhead Levels	8	21-Dec-15	0%	8	31-Dec-15	15-Apr-15	23-Apr-15	-206	125	0%
F14 (F5c)											
Foundation Works											
GFXX586-6	F14 (F5c) - Confirm Rockhead Levels	8	21-Dec-15	0%	8	31-Dec-15	17-Jun-15	27-Jun-15	-154	111	0%
F15 (F5b)											
Foundation Works											
GFXX586-3	F15 (F5b) - Pre-drilling for Piles (3 nos)	24	23-Jun-15 A	66.67%	8	31-Dec-15	14-Sep-15	22-Sep-15	-81	0	66.7%
GFXX586-8	F15 (F5b) - Confirm Rockhead Levels	8	02-Jan-16	0%	8	11-Jan-16	23-Sep-15	03-Oct-15	-81	250	0%
Viaduct F4											
F16 (F4a/F5a)											
Foundation Works											
GFXX579-1	F16 (F4a/F5a) - Pre-drilling for Piles (8 nos)	24	14-May-15 A	62.5%	9	02-Jan-16	05-Aug-15	14-Aug-15	-114	0	62.5%
GFXX579-4	F16 (F4a/F5a) - Confirm Rockhead Levels	8	04-Jan-16	0%	8	12-Jan-16	31-Aug-15	09-Sep-15	-101	205	0%
F17 (F4b)											
Foundation Works											
GFXX579-2	F17 (F4b) - Pre-drilling for Piles (3 nos)	24	04-Jan-16	0%	24	30-Jan-16	15-Aug-15	12-Sep-15	-114	0	0%
GFXX579-6	F17 (F4b) - Confirm Rockhead Levels	8	01-Feb-16	0%	8	12-Feb-16	14-Sep-15	22-Sep-15	-114	200	0%
F18 (F4c) & Abutment											
Foundation Works											
GFXX579-3	F18 (F4c) - Pre-drilling for Piles (2 nos)	24	24-Dec-15	0%	24	23-Jan-16	21-Nov-15	18-Dec-15	-28	0	0%
GFXX579-7	F18 (F4c) - Confirm Rockhead Levels	8	25-Jan-16	0%	8	02-Feb-16	19-Dec-15	30-Dec-15	-28	238	0%
Approach Ramp F											
Approach Ramp Land Foundation - HKBCF											
Approach Ramp F Piling											
GFXX593	AR-F - Pre-drilling for Piles (25 nos)	24	21-Dec-15	0%	24	20-Jan-16	12-Feb-15	14-Mar-15	-252	0	0%
GFXX594	AR-F - Confirm Rockhead Levels	8	21-Jan-16	0%	8	29-Jan-16	16-Mar-15	24-Mar-15	-252	0	0%
GFXX595	AR-F - Bored Piles (25 nos.)	301	30-Jan-16	0%	301	06-Feb-17	25-Mar-15	02-Apr-16	-252	0	0%
SUPERSTRUCTURE											
Assembling, relocation and dismantle of lifting equipment											
Launching Gantry 2											
FR000099	Assembly of Launching Gantry LG2 on Temp.Loading Platform	12	06-May-15 A	0%	12	06-Jan-16	06-May-19	21-May-19	995	995	0%
FR100023	Viaduct E1 - Learning Curve - LG2	2	04-Feb-16	0%	2	06-Feb-16	04-Jul-15	06-Jul-15	-170	0	0%
FR100023-01	Viaduct D3 - Launching LG2 Over Piers E2A	2	12-Feb-16	0%	2	15-Feb-16	30-Sep-15	02-Oct-15	-107	0	0%
FR100023A	Viaduct B3 - Complete segments at Pier B3 (B3d) (2 seg) - LG2	2	06-Feb-16	0%	2	12-Feb-16	07-Jul-15	08-Jul-15	-170	0	0%
FR100099-1	Assembly Launching Gantry LG2 onto Pier B1/ B2 (incl. Load Test)	20	14-Jan-16	0%	20	06-Feb-16	05-Jun-15	06-Jul-15	-170	0	0%
Adjustable Lifting Frame 1&2											
FR000157	Viaduct B3 - Pier B4 - Assemble / Load Test Lifting Frame ALF 1/2	64	20-Jul-15 A	70.31%	19	14-Jan-16	20-May-15	16-Jun-15	-162	0	0%
FR100024	Viaduct B3 - other tests & Learning Curve Lifting Frame ALF 1/2	12	31-Dec-15	0%	12	14-Jan-16	30-May-15	16-Jun-15	-162	0	0%
Narrow Lifting Frame 5&6											
FR10030	Viaduct F2 - Dismantle NLF 5/6 at Pier F7	6	21-Dec-15	0%	6	29-Dec-15	29-Mar-17	04-Apr-17	376	463	0%
Launching Gantry 1											
FR000008-T	Viaduct B2 - Launching LG1 B8 to B7	1	11-Feb-16	0%	1	12-Feb-16	20-May-19	21-May-19	927	927	0%
FR000010-T	Viaduct B2 - Launching LG1 B6 to B9	3	09-Jan-16	0%	3	13-Jan-16	26-Sep-15	30-Sep-15	-82	0	0%
FR000011-T	Viaduct B2 - Launching LG1 B7 to B6	1	30-Dec-15	0%	1	31-Dec-15	16-Sep-15	16-Sep-15	-82	0	0%
FR000012-T	Viaduct B2 - Launching LG1 B9 to B10	1	05-Feb-16	0%	1	06-Feb-16	28-Oct-15	28-Oct-15	-82	0	0%



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Planned Bar
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Tuen Mun - Chek Lap Kok Link - Southern Connection

3-Month Rolling Programme (Page 22 of 25 Pages)

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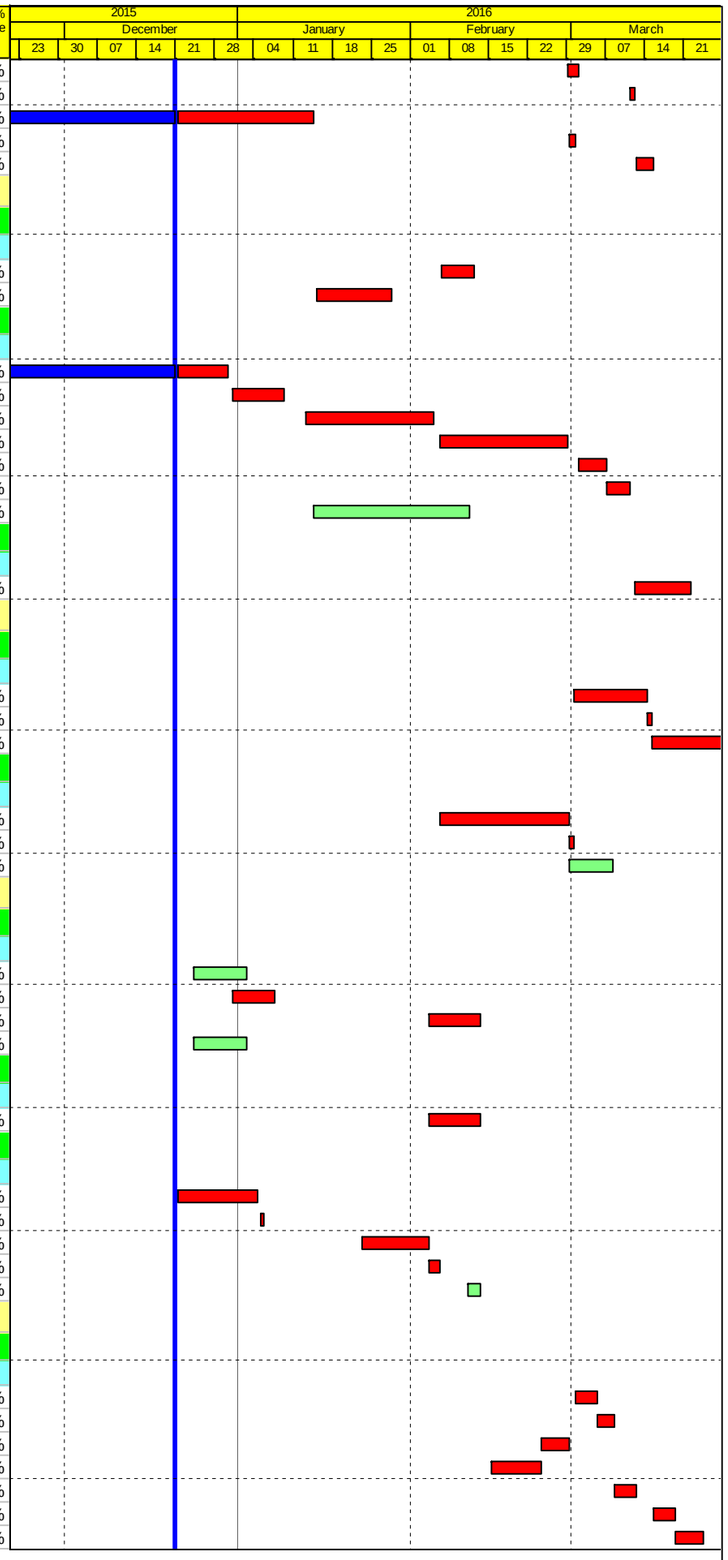
DWG. No.:

J3518/GCL/PGM/3MRP-M31

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
FR000013-T	Viaduct B2 - Launching LG1 B10 to B11	2	29-Feb-16	0%	2	02-Mar-16	18-Nov-15	19-Nov-15	-82	0	0%
FR000015-T	Viaduct B1 - Launching LG1 B12 to B13	1	11-Mar-16	0%	1	12-Mar-16	30-Nov-15	30-Nov-15	-82	0	0%
FR000023	Viaduct B3 - Rectification & launch LG1 Over Piers to B8 (B2e) - LG1	30	25-Aug-15 A	37.34%	19	14-Jan-16	09-May-15	04-Jun-15	-170	0	60%
FR000030-T	Viaduct E1 - Launching LG2 E1A to B1	1	29-Feb-16	0%	1	01-Mar-16	19-Oct-15	19-Oct-15	-107	0	0%
FR000033-T	Viaduct E1 - Launching LG2 E3A to E2B	2	12-Mar-16	0%	2	15-Mar-16	03-Nov-15	04-Nov-15	-107	0	0%
Viaduct B Superstructure											
Bridge B3 Superstructure											
Deck installation											
FR001104	Viaduct B3 - Cantilever at Pier B3 (B3d) (2 seg) ALF 1/2 (remaining)	2	06-Feb-16	0%	2	12-Feb-16	07-Jul-15	08-Jul-15	-170	75	0%
FR100025	Viaduct B3 - Cantilever at Pier B4 (B3c))12seg) - ALF 1/2	12	15-Jan-16	0%	12	28-Jan-16	18-Jun-15	06-Jul-15	-162	8	0%
Bridge B2 Superstructure											
Deck installation											
FR000008	Viaduct B2 - Cantilever at Pier B7 (B2f) (14 seg) - LG1	7	09-Jun-15 A	12.5%	6	30-Dec-15	07-Sep-15	15-Sep-15	-82	0	12.5%
FR000010	Viaduct B2 - End Span at Pier B6 (B3a) (up) (6 seg) - LG1	7	31-Dec-15	0%	7	09-Jan-16	18-Sep-15	25-Sep-15	-82	0	0%
FR000012	Viaduct B2 - Cantilever at Pier B9 (B2d) (20 seg) - MTR Crossing - LG1	20	13-Jan-16	0%	20	05-Feb-16	02-Oct-15	27-Oct-15	-82	0	0%
FR000013	Viaduct B2 - Cantilever at Pier B10 (B2c) (16 seg) - HWay Crossing - LG1	16	06-Feb-16	0%	16	29-Feb-16	30-Oct-15	17-Nov-15	-82	0	0%
FR000014	Viaduct B2 - Cantilever at Pier B11 (B2b) (16 seg) - LG1 (2 shifts)	4	02-Mar-16	0%	4	07-Mar-16	20-Nov-15	24-Nov-15	-82	0	0%
FR000015	Viaduct B2 - End Span at Pier B12 (B2a) (dwn) (6 seg) - LG1 (2 shifts)	4	07-Mar-16	0%	4	11-Mar-16	25-Nov-15	28-Nov-15	-82	0	0%
FR000023A	Viaduct B2 - Cantilever at Pier B8 (B2e) (20 seg) - MTR Crossing LG1	21	14-Jan-16	0%	21	11-Feb-16	12-May-16	11-Jun-16	91	0	0%
Bridge B1 Superstructure											
Deck installation											
FR000016	Viaduct B1 - Cantilever at Pier B13 (B1g) (24 seg) - LG1 (2 shifts)	8	12-Mar-16	0%	8	22-Mar-16	01-Dec-15	09-Dec-15	-82	0	0%
Viaduct C Superstructure											
Bridge C2 Superstructure											
Deck installation											
FR000062	Viaduct C2 - Cantilever at Pier C12 (C2f) (16 seg) - THB	11	01-Mar-16	0%	11	14-Mar-16	12-Nov-15	24-Nov-15	-88	0	0%
FR000062-1	Viaduct C2 - Relocate THB frm Pier C12 to C13	1	14-Mar-16	0%	1	15-Mar-16	25-Nov-15	25-Nov-15	-88	0	0%
FR000064	Viaduct C2 - Cantilever at Pier C13 (C2e) (16 seg) - THB	11	15-Mar-16	0%	11	31-Mar-16	26-Nov-15	08-Dec-15	-88	0	0%
Bridge C1 Superstructure											
Deck installation											
FR000071	Viaduct C1 - Cantilever at Pier C19 (C1d) (24 seg) - THB	16	06-Feb-16	0%	16	29-Feb-16	22-Oct-15	10-Nov-15	-88	0	0%
FR000071-1	Viaduct C1 - Relocate THB from Pier C19 to Pier C12	1	29-Feb-16	0%	1	01-Mar-16	11-Nov-15	11-Nov-15	-88	0	0%
FR000072	Viaduct C1 - Abutment End Span at Pier C20 (C1c) (7 seg) - Crane	7	29-Feb-16	0%	7	08-Mar-16	09-Jul-16	18-Jul-16	95	173	0%
Viaduct D Superstructure											
Bridge D3 Superstructure											
Deck installation											
FR100058	Viaduct D3 - Pier D3 (D4d) (2 seg)	6	24-Dec-15	0%	6	02-Jan-16	24-Mar-16	02-Apr-16	72	179	0%
FR100059	Viaduct D3 - Pier D4 (D4c) (2 seg)	6	31-Dec-15	0%	6	07-Jan-16	25-Nov-15	01-Dec-15	-29	78	0%
FR100059-1	Viaduct D3 - Pier D5 (D4b) (2 seg)	6	04-Feb-16	0%	6	13-Feb-16	27-Nov-15	03-Dec-15	-56	51	0%
FR100070	Viaduct D3 - Pier D2 (D4e) (2 seg)	6	24-Dec-15	0%	6	02-Jan-16	09-Apr-16	16-Apr-16	82	189	0%
Bridge D2 Superstructure											
Deck installation											
FR10062	Viaduct D2 - Pier D9 (D3c) (2 seg)	6	04-Feb-16	0%	6	13-Feb-16	20-Jan-16	26-Jan-16	-13	94	0%
Bridge D1 Superstructure											
Deck installation											
FR000116	Viaduct D1 - Cantilever at Pier D17 (D1d) (14 seg) - THB	10	21-Dec-15	0%	10	04-Jan-16	21-Sep-15	03-Oct-15	-73	0	0%
FR000116-1	Viaduct D1 - Relocate THB from Pier D17 to Pier D18	1	05-Jan-16	0%	1	05-Jan-16	05-Oct-15	05-Oct-15	-73	15	0%
FR000117	Viaduct D1 - Cantilever at Pier D18 (D1c) (14 seg) - THB	10	23-Jan-16	0%	10	04-Feb-16	06-Oct-15	17-Oct-15	-88	0	0%
FR000117-1	Viaduct D1 - Relocate THB from Pier D18 to Pier C19	2	04-Feb-16	0%	2	06-Feb-16	19-Oct-15	20-Oct-15	-88	0	0%
FR100068	Viaduct D1 - Abutment End Span at Pier D19 (D1b) (3 seg) - Crane	3	11-Feb-16	0%	3	13-Feb-16	11-Jun-16	14-Jun-16	91	135	0%
Viaduct E											
Bridge E1 Superstructure											
Deck Installation											
FR000026	Viaduct E1 - End Span at Pier B1 (B3f) (dwn) (7 seg) - LG2 (2 shifts)	4	01-Mar-16	0%	4	05-Mar-16	20-Oct-15	24-Oct-15	-107	0	0%
FR000026A	Viaduct E1 - Launching LG2 B1 to E3A	2	05-Mar-16	0%	2	08-Mar-16	26-Oct-15	27-Oct-15	-107	0	0%
FR000030	Viaduct E1 - Cantilever at Pier E1-A (E1a4) (14 seg) - LG2 (2 shifts)	4	24-Feb-16	0%	4	29-Feb-16	13-Oct-15	17-Oct-15	-107	0	0%
FR000032	Viaduct E1 - Cantilever at Pier E2-A (E1b4) (16 seg) - LG2	8	15-Feb-16	0%	8	24-Feb-16	03-Oct-15	12-Oct-15	-107	0	0%
FR000033	Viaduct E1 - End Span at Pier E3-A (E2a4) (dwn) (6 seg) - LG2 (2 shifts)	4	08-Mar-16	0%	4	12-Mar-16	28-Oct-15	02-Nov-15	-107	0	0%
FR000037	Viaduct E1 - Cantilever at Pier E2-B (E1b3) (16 seg) - LG2 (2 shifts)	4	15-Mar-16	0%	4	19-Mar-16	05-Nov-15	09-Nov-15	-107	0	0%
FR000038	Viaduct E1 - End Span at Pier E3-B (E2a3) (dwn) (6 seg) - LG2 (2 shifts)	4	19-Mar-16	0%	4	24-Mar-16	10-Nov-15	13-Nov-15	-107	0	0%



Actual Work
Planned Bar
Critical Bar
Milestone

Project ID: J3518DWPrE2-M31
Layout: J3518-DWP-3MRP Submission - M31
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 23 of 25 Pages)

(Progress as of 21-Dec-15)

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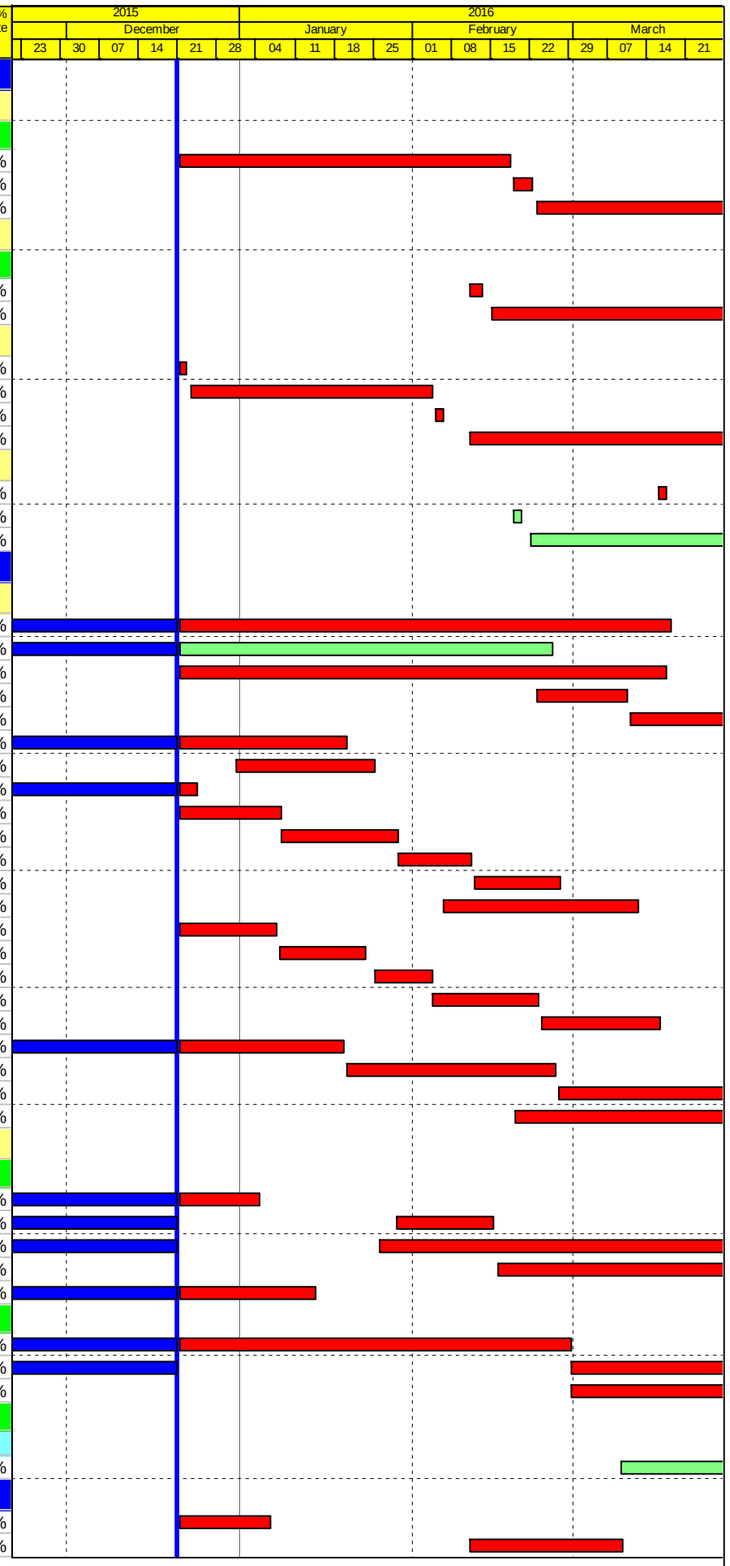
01-Dec-15		PKN	KWY
28-Dec-15		PKN	KWY

DWG. No.:

J3518/GCL/PGM/3MRP-M31

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
At-Grade Roadworks & Other Works along NLH											
Viaduct A Slope Works											
Slope 9SE-B/FR8											
GFXX485	9SE-B/FR8 - Protective Fencing	46	21-Dec-15	0%	46	18-Feb-16	12-Sep-15	11-Nov-15	-79	0	0%
GFXX490	9SE-B/FR8 - Mobilization for Mini Pile	3	19-Feb-16	0%	3	22-Feb-16	12-Nov-15	14-Nov-15	-79	0	0%
GFXX491	9SE-B/FR8 - Installation of Mini Pile (118 No.)	148	23-Feb-16	0%	148	08-Sep-16	16-Nov-15	23-May-16	-79	0	0%
Viaduct B Slope Works											
Slope 10SW-A/F52											
GFXX483	10SW-A/F52 - Mobilization for soldier piling	3	11-Feb-16	0%	3	13-Feb-16	11-Sep-15	14-Sep-15	-119	0	0%
GFXX484	10SW-A/F52 - Installation of Soldier Pile (260nos., 2rigs)	126	15-Feb-16	0%	126	02-Aug-16	15-Sep-15	22-Feb-16	-119	0	0%
At-Grade Roadworks along NLH Westbound											
RW10005	NLH W/B (Viaduct C) - Implement TTM - Verge for Gantry Footings (GT32	2	21-Dec-15*	0%	2	22-Dec-15	17-Nov-15	18-Nov-15	-29	0	0%
RW10007	NLH W/B (Viaduct C) - Gantry Footing (GT324, GT325) - Verge (KD3)	35	23-Dec-15	0%	35	04-Feb-16	19-Nov-15	31-Dec-15	-29	0	0%
RW10009B	NLH W/B (Viaduct C) - Implement TTM - Median for Gantry Footings (GT:	2	05-Feb-16	0%	2	06-Feb-16	02-Jan-16	04-Jan-16	-29	0	0%
RW10009C	NLH W/B (Viaduct C) -Gantry Footing (GT324, GT325) - Median (KD3)	48	11-Feb-16	0%	48	11-Apr-16	05-Jan-16	03-Mar-16	-29	0	0%
At-Grade Roadworks along NLH Eastbound											
RW20011	NLH E/B (Viaduct D) - Implement TTM for tie-in works	2	16-Mar-16	0%	2	17-Mar-16	03-Feb-16	04-Feb-16	-33	10	0%
RW21000	NLH E/B (Viaduct A) - Implement TTM - Verge for Slope Works & Gantry F	2	19-Feb-16	0%	2	20-Feb-16	14-Mar-16	15-Mar-16	20	0	0%
RW21001	NLH E/B (Viaduct A) - Gantry Footing (GT319, GT320) - Verge (KD5)	36	22-Feb-16	0%	36	07-Apr-16	16-Mar-16	04-May-16	20	0	0%
At-Grade Roadworks and Other Works along Cheung Tung Road											
Re-alignment of Cheung Tung Road adjacent to Viaduct B											
RP00051	Ch300-620: watermain (DN1000+DN450)	101	15-Apr-15 A	30%	71	18-Mar-16	14-Jul-15	07-Oct-15	-133	936	30%
RP00052	Ch300-620: road drainage	102	04-May-15 A	49%	52	26-Feb-16	14-Mar-19	21-May-19	954	954	49%
RP00053	Ch300-620: towngas(DN250+DN400)	70	21-Dec-15	0%	70	17-Mar-16	14-Jul-15	06-Oct-15	-133	0	0%
RP00054	Ch300-620: duct laying 11KV	15	23-Feb-16	0%	15	10-Mar-16	10-Sep-15	26-Sep-15	-133	0	0%
RP00055	Ch300-650: telecom cables	15	11-Mar-16	0%	15	31-Mar-16	29-Sep-15	16-Oct-15	-133	0	0%
RP00063	Ch620-750: backfilling for roadwork	29	06-May-15 A	20%	23	20-Jan-16	17-Oct-15	16-Nov-15	-52	0	20%
RP00064	Ch620-750: telecom, 11KV & 132KV ducting	20	31-Dec-15	0%	20	25-Jan-16	28-Oct-15	19-Nov-15	-53	21	0%
RP00065	Ch620-750: cross road duct for WM, 11KV, telecom & lighting	16	05-May-15 A	80%	3	24-Dec-15	16-Nov-15	19-Nov-15	-29	45	80%
RP00066	Ch620-750: Towngas(DN250+DN400)	14	21-Dec-15	0%	14	08-Jan-16	19-Sep-15	07-Oct-15	-76	0	0%
RP00067	Ch620-750: road drainage	18	08-Jan-16	0%	18	29-Jan-16	08-Oct-15	31-Oct-15	-74	0	0%
RP00068	Ch620-750 Pak Mong temp road	8	29-Jan-16	0%	8	11-Feb-16	02-Nov-15	10-Nov-15	-74	0	0%
RP00069	Ch620-750: cross road duct for 11KV, telecom & street light cable	14	12-Feb-16	0%	14	27-Feb-16	11-Nov-15	26-Nov-15	-74	0	0%
RP00070	Ch620-750: roadwork for new CTR	27	06-Feb-16	0%	27	12-Mar-16	10-Nov-15	10-Dec-15	-74	58	0%
RP00073	Ch100-300: trench excavationin on footpath	13	21-Dec-15	0%	13	07-Jan-16	08-Aug-15	25-Aug-15	-105	0	0%
RP00075	Ch100-300: duct laying for 11KV	14	08-Jan-16	0%	14	23-Jan-16	26-Aug-15	11-Sep-15	-109	0	0%
RP00076	Ch100-300: lay telecom cable	10	25-Jan-16	0%	10	04-Feb-16	12-Sep-15	23-Sep-15	-109	0	0%
RP00077	Ch100-300: street lighting & draw pit	13	04-Feb-16	0%	13	23-Feb-16	24-Sep-15	10-Oct-15	-107	0	0%
RP00078	Ch100-300: relocation of vent pipe	19	24-Feb-16	0%	19	16-Mar-16	28-Oct-15	18-Nov-15	-96	11	0%
RP00079	Ch100-300: watermain(DN450+DN1000)	142	29-Apr-15 A	83.83%	23	19-Jan-16	13-Aug-15	09-Sep-15	-107	0	0%
RP00080	Ch100-300: towngas(DN250)	30	20-Jan-16	0%	30	26-Feb-16	10-Sep-15	16-Oct-15	-107	0	0%
RP00081	Ch100-300: towngas(DN400)	27	27-Feb-16	0%	27	01-Apr-16	17-Oct-15	18-Nov-15	-107	0	0%
RP00083	Ch100-300: roadwork for new CTR	52	19-Feb-16	0%	52	27-Apr-16	08-Oct-15	10-Dec-15	-107	25	0%
Re-alignment of Cheung Tung Road adjacent to Viaduct C											
West Portion											
RW61000	Realign CTR (West of Abut. C) - Site Clearance	42	03-Sep-14 A	76.19%	10	04-Jan-16	13-Oct-15	26-Oct-15	-56	9	100%
RW61010	Realign CTR (West of Abut. C) - Road drainage works	60	15-Jan-15 A	80%	12	15-Feb-16	11-Nov-15	24-Nov-15	-65	0	80%
RW61020	Realign CTR (West of Abut. C) - Utilily diversion	90	24-Mar-15 A	30%	63	15-Apr-16	25-Nov-15	12-Feb-16	-50	895	30%
RW61030	Realign CTR (West of Abut. C) - Sub-base work	48	16-Feb-16	0%	48	15-Apr-16	25-Nov-15	22-Jan-16	-65	0	0%
RW61082	Realign CTR (West of Abut. C) - Road formation	48	20-Nov-14 A	60.42%	19	14-Jan-16	02-Oct-15	26-Oct-15	-65	0	30%
East Portion											
RW60005	Realign CTR (East of Abut. C) - Road formation	66	02-Oct-15 A	17%	55	29-Feb-16	05-Oct-15	10-Dec-15	-63	0	17%
RW60010	Realign CTR (East of Abut. C) - Road drainage works	60	02-Oct-15 A	60%	24	31-Mar-16	11-Dec-15	11-Jan-16	-63	10	60%
RW60020	Realign CTR (East of Abut. C) - Utilily diversion	70	29-Feb-16	0%	70	27-May-16	11-Dec-15	08-Mar-16	-63	0	0%
Viaduct C Slope Works											
Slope 10NW-C/F15											
SWVC6000	10NW-C/F15 - Slope works	24	09-Mar-16	0%	24	11-Apr-16	30-Aug-16	29-Sep-16	127	0	0%
At grade Roadworks and Other Works at Southern Landfall											
RW30005	South Landfall - Initial record survey	12	21-Dec-15	0%	12	06-Jan-16	20-Nov-15	03-Dec-15	-26	27	0%
RW30010	South Landfall - Mobilisation for Portion B Works	24	11-Feb-16	0%	24	09-Mar-16	04-Dec-15	04-Jan-16	-53	0	0%



Actual Work
Planned Bar
Critical Bar
Milestone

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Tuen Mun - Chek Lap Kok Link - Southern Connection
3-Month Rolling Programme (Page 24 of 25 Pages)
(Progress as of 21-Dec-15)

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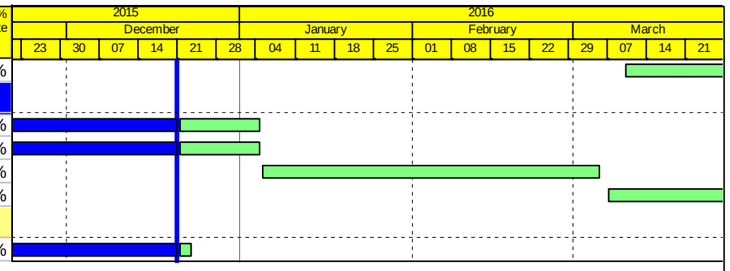
DWG. No.:

J3518/GCL/PGM/3MRP-M31

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
RW30014	South Landfall - DN300 Fresh water main works installation & connection (I	60	10-Mar-16	0%	60	30-May-16	31-Mar-16	23-Jun-16	15	0	0%
Watermains & All Assoc Works from Tung Chung to Southern Landfall											
WM00120	Lay DN450 Fresh Water Main along re-aligned CTR (app. 500 m at 12m/c	48	22-Apr-15 A	80%	10	04-Jan-16	08-May-19	21-May-19	959	959	80%
WM00150	Lay DN450 watermain from Tung Chung to realigned CTR (1st 500m - 2 w	50	10-Sep-15 A	80%	10	04-Jan-16	10-Sep-16	22-Sep-16	198	0	80%
WM00160	Lay DN450 watermain from Tung Chung to realigned CTR (2nd 500m - 2 \	50	05-Jan-16	0%	50	05-Mar-16	23-Sep-16	25-Nov-16	198	0	0%
WM00170	Lay DN450 watermain from Tung Chung to realigned CTR (3rd 500m - 2 w	50	07-Mar-16	0%	50	11-May-16	26-Nov-16	26-Jan-17	198	0	0%
Pressure Testing											
TC00010	Pressure Test DN450 Fresh Water Main along re-aligned CTR (app. 520 n	12	18-Sep-15 A	80%	2	23-Dec-15	29-Mar-17	31-Mar-17	358	669	80%



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Tuen Mun - Chek Lap Kok Link - Southern Connection
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J3518/GCL/PGM/3MRP-M31

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-Chep Lap Kok Link – Investigation. Updated EM&A Manual for Tuen Mun-Chek Lap Kok Link)

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									
General Marine Works									
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		✓
Temporary Staging work									
	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						
Land Works									
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		✓
Water Quality Monitoring									
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 m² 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 (donar 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: - 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	
		- 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 µg/m³	ASR9A/ASR8A = 178 ASR9C/ASR8/ASR9 = 178	260
1 Hour TSP Level in µg /m³	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)]	Surface and Middle **5.0 mg/L** Bottom **4.7 mg/L**	Surface and Middle **4.2 mg/L** Bottom **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	:	28/11/2015

Sampler

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

Calibration Orfice 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)	:	1022
Ta(K)	:	295

Resistance Plate		dH [green liquid] (inch water)	Z	X=Qstd (cubic meter/min)	IC (chart)	Y (corrected)
1	18 holes	11.5	3.423	1.652	54	54.51
2	13 holes	9.3	3.079	1.487	48	48.46
3	10 holes	6.8	2.633	1.275	42	42.40
4	7 holes	4.4	2.118	1.029	35	35.33
5	5 holes	2.7	1.659	0.810	28	28.27

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

Sampler Calibration Relationship (Linear Regression)

Slope(m):30.555 Intercept(b): 3.584 Correlation Coefficient(r): 0.9993

Checked by: Magnum Fan Date: 04/12/2015

High-Volume TSP Sampler
5-Point Calibration Record

Location	:	ASR9
Calibrated by	:	P.F.Yeung
Date	:	28/11/2015

Sampler

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

Calibration Orfice 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)	:	1022
Ta(K)	:	295

Resistance Plate		dH [green liquid] (inch water)	Z	X=Qstd (cubic meter/min)	IC (chart)	Y (corrected)
1	18 holes	11.8	3.468	1.673	55	55.52
2	13 holes	9.6	3.128	1.511	50	50.48
3	10 holes	7.0	2.671	1.293	44	44.42
4	7 holes	4.6	2.165	1.052	37	37.35
5	5 holes	2.8	1.689	0.824	29	29.28

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

Sampler Calibration Relationship (Linear Regression)

Slope(m):30.444 Intercept(b):4.727 Correlation Coefficient(r): 0.9990

Checked by: Magnum Fan Date: 04/12/2015

High-Volume TSP Sampler
5-Point Calibration Record

Location	:	ASR8(A)
Calibrated by	:	P.F.Yeung
Date	:	28/01/2016

Sampler

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

Calibration Orfice 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)	:	1018
Ta(K)	:	289

Resistance Plate		dH [green liquid] (inch water)	Z	X=Qstd (cubic meter/min)	IC (chart)	Y (corrected)
1	18 holes	11.6	3.467	1.673	56	57.01
2	13 holes	9.6	3.154	1.523	50	50.90
3	10 holes	7.0	2.693	1.304	44	44.79
4	7 holes	4.6	2.183	1.060	36	36.65
5	5 holes	2.8	1.703	0.831	28	28.50

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

Sampler Calibration Relationship (Linear Regression)

Slope(m):33.142 Intercept(b): 1.206 Correlation Coefficient(r): 0.9989

Checked by: Magnum Fan Date: 04/02/2016

High-Volume TSP Sampler
5-Point Calibration Record

Location : ASR9
Calibrated by : P.F.Yeung
Date : 28/01/2016

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

Calibration Orfice 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) : 1018
Ta(K) : 289

Resistance Plate		dH [green liquid] (inch water)	Z	X=Qstd (cubic meter/min)	IC (chart)	Y (corrected)
1	18 holes	11.4	3.437	1.659	57	58.02
2	13 holes	9.2	3.088	1.492	51	51.92
3	10 holes	6.5	2.595	1.257	44	44.79
4	7 holes	4.4	2.135	1.037	36	36.65
5	5 holes	2.6	1.641	0.802	28	28.50

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

Sampler Calibration Relationship (Linear Regression)

Slope(m):34.260 Intercept(b):1.178 Correlation Coefficient(r): 0.9996

Checked by: Magnum Fan Date: 04/02/2016

TISCH Environmental

TISCH ENVIRONMENTAL, INC.
145 SOUTH MIAMI AVE
VILLAGE OF CLEVES, 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 Rootsmeter 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
intercept (b) = -0.03812
coefficient (r) = 0.99994

Qa slope (m) = 1.31205
intercept (b) = -0.02349
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 ± 2)°C Relative Humidity / 相對濕度 : (55 ± 20)%
Line Voltage / 電壓 : ---

TEST SPECIFICATIONS / 測試規範

Calibration check

DATE OF TEST / 測試日期 : 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 : K C Lee
測試 Project Engineer

Certified By : H C Chan
核證 Engineer

Date of Issue : 16 June 2015
簽發日期

The test equipment used for calibration are traceable to the Nation Standards as specified in this certificate. This certificate shall not be reproduced except in full, without the prior written approval of this laboratory.
本證書所載校正用之測試器材均可溯源至國際標準。局部複印本證書需先獲本實驗所書面批准。

Sun Creation Engineering Limited – Calibration & Testing Laboratory
c/o 4/F, Tsing Shan Wan Exchange Building, 1 Hing On Lane, Tuen Mun, New Territories, Hong Kong
輝創工程有限公司 – 校正及檢測實驗所
c/o 香港新界屯門興安里一號青山灣機樓四樓
Tel/電話: 2927 2606 Fax/傳真: 2744 8986 E-mail/電郵: callab@suncreation.com Website/網址: www.suncreation.com

Certificate of Calibration
校正證書

Certificate No. : C153241
證書編號

1. The unit-under-test (UUT) was allowed to stabilize in the laboratory for over 12 hours before the commencement of the test.

2. The results presented are the mean of 3 measurements at each calibration point.

3. Test equipment :

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

4. Test procedure : MA100N.

5. 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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輝創工程有限公司 – 校正及檢測實驗所
c/o 香港新界屯門興安里一號青山灣機樓四樓
Tel/電話: 2927 2606 Fax/傳真: 2744 8986 E-mail/電郵: callab@suncreation.com Website/網址: www.suncreation.com

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. : 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 ± 2)°C Relative Humidity / 相對濕度 : (55 ± 20)%
Line Voltage / 電壓 : ---

TEST SPECIFICATIONS / 測試規範

Calibration check

DATE OF TEST / 測試日期 : 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 : H T Wong
測試 Assistant Technical Officer

Certified By : K C Lee
核證 Project Engineer

Date of Issue : 22 July 2015
簽發日期

The test equipment used for calibration are traceable to the Nation Standards as specified in this certificate. This certificate shall not be reproduced except in full, without the prior written approval of this laboratory.
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c/o 4/F, Tsing Shan Wan Exchange Building, 1 Hing On Lane, Tuen Mun, New Territories, Hong Kong
輝創工程有限公司 – 校正及檢測實驗所
c/o 香港新界屯門興安里一號青山灣機樓四樓
Tel/電話: 2927 2606 Fax/傳真: 2744 8986 E-mail/電郵: callab@suncreation.com Website/網址: www.suncreation.com

Certificate of Calibration
校正證書

Certificate No. : 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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輝創工程有限公司 校正及檢測實驗所
c/o 香港新界屯門興安里一號青山灣機樓四樓
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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.

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c/o 香港新界屯門興安里一號青山灣機樓四樓
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東業德勤測試顧問有限公司
ETS-TESTCONSULT LIMITED

Performance Check of Turbidity Meter

Equipment Ref. No. : ET/0505/013 Manufacturer : HACH

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

Date of Calibration : 30/12/2015 Due Date : 29/03/2016

Ref. No. of Turbidity Standard used (4000NTU)	005/6.1/001/8

Theoretical Value of Turbidity Standard (NTU)	Measured Value (NTU)	Difference % *
20	19.8	-1.00
100	103	3.00
800	785	-1.88

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

Acceptance Criteria

Difference : -5 % to 5 %

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

Prepared by : _____ Checked by : _____

東業德勤測試顧問有限公司
ETS-TESTCONSULT LIMITED

'Form E/CE/L/15/Issue 2 (1/1) [04/15]

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 :	05/12/2015	Calibration Due Da :	04/01/2016

Liquid Junction Error

Primary Standard Solution Used : Phosphate No. of Primary Solution: 003/5.2/001/30 (20℃) / 003/5.2/001/25 (31℃)

Temperature of Solution : 25.0 / 20.0 $\Delta pH_{½}$ = +0.01 / +0.01

pH value of diluted buffer : 6.90 / 6.90 pH (S) = 6.86 / 6.88

ΔpH = pH(S) - pH of diluted buffer = 0.04 / 0.02 (Observed Deviation)

Liquid Junction Error (ΔpH_j) = ΔpH - $\Delta pH_{½}$ = 0.03 / 0.01

Shift on Stirring

pH of buffer solution (with stirring), pH_s = 6.90 / 6.91

Shift on stirring, ΔpH_s= pH_s - pH(S) - ΔpH_j = 0.01 / 0.02

Noise

Noise, ΔpH_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 / 20.0 °C

Temperature record from the ATC (T_{ATC}): 24.8 / 19.8 °C

Temperature Difference, $|T_R - T_{ATC}|$ 0.2 / 0.2 °C

Correction +0.2 / +0.2 °C

Acceptance Criteria

Performance Characteristic		Acceptable Range
Liquid Junction Error	ΔpHj	≤0.05
Shift on Stirring	ΔpHs	≤0.02
Noise	ΔpHn	≤0.02
Verifcation of ATC	Temperature Difference	≤0.5°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 : _____

東樂德勤測試顧問有限公司
ETS-TESTCONSULT LIMITED

'Form E/CE/L/15/Issue 2 (1/1) [04/15]

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 :	05/01/2016	Calibration Due Da :	04/02/2016

Liquid Junction Error

Primary Standard Solution Used : Phosphate No. of Primary Solution: 003/5.2/001/30 (20℃) / 003/5.2/001/31 (31℃)

Temperature of Solution : 25.0 / 20.0 $\Delta pH_{½}$ = +0.01 / +0.01

pH value of diluted buffer : 6.90 / 6.91 pH (S) = 6.86 / 6.88

ΔpH = pH(S) - pH of diluted buffer = 0.04 / 0.03 (Observed Deviation)

Liquid Junction Error (ΔpH_j) = ΔpH - $\Delta pH_{½}$ = 0.03 / 0.02

Shift on Stirring

pH of buffer solution (with stirring), pH_s = 6.90 / 6.91

Shift on stirring, ΔpH_s= pH_s - pH(S) - ΔpH_j = 0.01 / 0.01

Noise

Noise, ΔpH_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 / 20.0 °C

Temperature record from the ATC (T_{ATC}): 24.8 / 19.8 °C

Temperature Difference, $|T_R - T_{ATC}|$ 0.2 / 0.2 °C

Correction +0.2 / +0.2 °C

Acceptance Criteria

Performance Characteristic		Acceptable Range
Liquid Junction Error	ΔpHj	≤0.05
Shift on Stirring	ΔpHs	≤0.02
Noise	ΔpHn	≤0.02
Verifcation of ATC	Temperature Difference	≤0.5°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 : _____

東業德勤測試顧問有限公司
ETS-TESTCONSULT LIMITED

Internal Calibration Report of Dissolved Oxygen Meter

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

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 ($Na_2S_2O_3$) solution

Reagent No. of $Na_2S_2O_3$ titrant	CPE/012/4.5/001/12	Reagent No. of 0.025N $K_2Cr_2O_7$	CPE/012/4.4/002/04

	Trial 1	Trial 2
Initial Vol. of $Na_2S_2O_3$ (ml)	0.00	10.20
Final Vol. of $Na_2S_2O_3$ (ml)	10.20	20.30
Vol. of $Na_2S_2O_3$ used (ml)	10.20	10.10
Normality of $Na_2S_2O_3$ solution (N)	0.02451	0.02475
Average Normality (**N**) of $Na_2S_2O_3$ solution (N)	0.02463	
Acceptance criteria, Deviation	Less than ± 0.001N	

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

Lineality Checking

Determination of dissolved oxygen content by Winkler Titration *

Purging Time (min)	2		5		10	
Trial	1	2	1	2	1	2
Initial Vol. of $Na_2S_2O_3$ (ml)	0.00	11.20	22.50	0.00	6.70	10.60
Final Vol. of $Na_2S_2O_3$ (ml)	11.20	22.50	28.90	6.70	10.60	14.50
Vol. (**V**) of $Na_2S_2O_3$ 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			

東業德勤測試顧問有限公司
ETS-TESTCONSULT LIMITED

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	
Trial	1	2	1	2
Initial Vol. of $Na_2S_2O_3$ (ml)	0.00	11.10	22.10	31.50
Final Vol. of $Na_2S_2O_3$ (ml)	11.10	22.10	31.50	41.00
Vol. (**V**) of $Na_2S_2O_3$ 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** x **N** x 8000/298

Salinity (ppt)	DO meter reading, mg/L			Winkler Titration result**, mg/L			Difference (%) of DO Content
	1	2	Average	1	2	Average	
10	7.43	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 : _____

CEP/012/W

東業德勤測試顧問有限公司
ETS-TESTCONSULT LIMITED

Performance Check of Salinity Meter

Equipment Ref. No. : ET/EW/008/004 Manufacturer : YSI

Model No. : Pro 2030 Serial No. : 10F 101978

Date of Calibration : 26/10/2015 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 : _____

東業德勤測試顧問有限公司
ETS-TESTCONSULT LIMITED

Internal Calibration Report of Dissolved Oxygen Meter

Equipment Ref. No.	: ET/EW/008/004	Manufacturer	: YSI
Model No.	: Pro 2030	Serial No.	: 10F 101978
Date of Calibration	: ~~30~~/01/2016 25	Calibration Due Date	: ~~29~~/04/2016 25

Temperature Verification

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

Ref. No. of Water Bath : ---

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

Standardization of sodium thiosulphate ($Na_2S_2O_3$) solution

Reagent No. of $Na_2S_2O_3$ titrant	CPE/012/4.5/001/13	Reagent No. of 0.025N $K_2Cr_2O_7$	CPE/012/4.4/002/06

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

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

Lineality Checking

Determination of dissolved oxygen content by Winkler Titration *

Purging Time (min)	2		5		10	
Trial	1	2	1	2	1	2
Initial Vol. of $Na_2S_2O_3$ (ml)	0.00	11.10	22.00	0.00	6.90	10.40
Final Vol. of $Na_2S_2O_3$ (ml)	11.10	22.00	28.80	6.90	10.40	14.20
Vol. (**V**) of $Na_2S_2O_3$ used (ml)	11.10	10.90	6.80	6.90	3.50	3.80
Dissolved Oxygen (**DO**), mg/L	7.27	7.14	4.45	4.52	2.29	2.49
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	7.48	7.55	7.52	7.27	7.14	7.21	4.21
5	4.44	4.31	4.38	4.45	4.52	4.49	2.48
10	2.25	2.31	2.28	2.29	2.49	2.39	4.71
Linear regression coefficient				0.9984			

東業德勤測試顧問有限公司
ETS-TESTCONSULT LIMITED

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/012/4.7/003/14	Reagent No. of NaCl (30ppt)	CPE/012/4.8/003/14

Determination of dissolved oxygen content by Winkler Titration **

Salinity (ppt)	10		30	
Trial	1	2	1	2
Initial Vol. of $Na_2S_2O_3$ (ml)	0.00	11.40	22.80	32.50
Final Vol. of $Na_2S_2O_3$ (ml)	11.40	22.80	32.50	42.10
Vol. (**V**) of $Na_2S_2O_3$ used (ml)	11.40	11.40	9.70	9.60
Dissolved Oxygen (**DO**), mg/L	7.46	7.46	6.35	6.29
Acceptance criteria, Deviation	Less than + 0.3mg/L		Less than + 0.3mg/L	

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

Salinity (ppt)	DO meter reading, mg/L			Winkler Titration result**, mg/L			Difference (%) of DO Content
	1	2	Average	1	2	Average	
10	7.28	7.25	7.27	7.46	7.46	7.46	2.58
30	6.58	6.54	6.56	6.35	6.29	6.32	3.73

Acceptance Criteria

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

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

Delete as appropriate

Calibrated by : _____ Approved by : _____

東業德勤測試顧問有限公司
ETS-TESTCONSULT LIMITED

Performance Check of Salinity Meter

Equipment Ref. No. : ET/EW/008/004 Manufacturer : YSI

Model No. : Pro 2030 Serial No. : 10F 101978

Date of Calibration : ~~30~~/01/2016 26 Due Date : ~~29~~/04/2016 25

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 : 28 January 2016

Brand of Test Meter: Global Water

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

Direction Senor: 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 Water (m/s)	Anemometer (m/s)
0.27	0.2
1.18	1.3
1.46	1.6

Wind Direction Test

Global Water (o)	Marine Compass (o)
270.88	270
0.07	0
90.81	90
181.39	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. : C160461
證書編號

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

Description / 儀器名稱 : Anemometer
Manufacturer / 製造商 : Lutron
Model No. / 型號 : AM-4201
Serial No. / 編號 : AF.27513
Supplied By / 委託者 : Envirotech Services Co.
Room 113, 1/F, My Loft, 9 Hoi Wing Road, Tuen Mun,
New Territories, Hong Kong

TEST CONDITIONS / 測試條件

Temperature / 溫度 : (23 ± 2)°C Relative Humidity / 相對濕度 : (55 ± 20)%
Line Voltage / 電壓 : ---

TEST SPECIFICATIONS / 測試規範

Calibration check

DATE OF TEST / 測試日期 : 27 January 2016

TEST RESULTS / 測試結果

The results apply to the particular unit-under-test only.
The results are detailed in the subsequent page(s).

The test equipment used for calibration are traceable to National Standards via :
- Testo Industrial Services GmbH, Germany

Tested By
測試 :
M T Leung
Assistant Technical Officer

Certified By
核證 :
H C Chan
Engineer

Date of Issue
簽發日期 : 27 January 2016

The test equipment used for calibration are traceable to the Nation Standards as specified in this certificate. This certificate shall not be reproduced except in full, without the prior written approval of this laboratory.
本證書所載校正用之測試器材均可溯源至國際標準。局部複印本證書需先獲本實驗所書面批准。

Sun Creation Engineering Limited – Calibration & Testing Laboratory
c/o 4/F, Tsing Shan Wan Exchange Building, 1 Hing On Lane, Tuen Mun, New Territories, Hong Kong
輝創工程有限公司 – 校正及檢測實驗所
c/o 香港新界屯門興安里一號青山灣機樓四樓
Tel/電話: 2927 2606 Fax/傳真: 2744 8986 E-mail/電郵: callab@suncreation.com Website/網址: www.suncreation.com

Certificate of Calibration
校正證書

Certificate No. : C160461
證書編號

1. The unit-under-test (UUT) was allowed to stabilize in the laboratory for over 12 hours before the commencement of the test.

2. The results presented are the mean of 10 measurements at each calibration point.

3. Test equipment :

Equipment ID	Description	Certificate No.
CL386	Multi-function Measuring Instrument	S12109

4. Test procedure : MA130N.

5. Results :

Air Velocity

Applied Value (m/s)	UUT Reading (m/s)	Measured Correction		
		Value (m/s)	Measurement Uncertainty	
			Expanded Uncertainty (m/s)	Coverage Factor
2.0	1.8	+0.2	0.2	2.0
4.1	3.9	+0.2	0.3	2.0
6.0	5.9	+0.1	0.3	2.0
8.0	8.0	0.0	0.3	2.0
10.0	10.2	-0.2	0.4	2.0

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

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

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

The test equipment used for calibration are traceable to the Nation Standards as specified in this certificate. This certificate shall not be reproduced except in full, without the prior written approval of this laboratory.
本證書所載校正用之測試器材均可溯源至國際標準。局部複印本證書需先獲本實驗所書面批准。

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輝創工程有限公司 – 校正及檢測實驗所
c/o 香港新界屯門興安里一號青山灣機樓四樓
Tel/電話: 2927 2606 Fax/傳真: 2744 8986 E-mail/電郵: callab@suncreation.com Website/網址: www.suncreation.com

Appendix F

EM&A Monitoring Schedules

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

Alternative Noise Monitoring at Pak Mong Village Entrance

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

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

Alternative Air Quality Monitoring at WA4 and MTRC Depot Entrance

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

HY/2012/07 Tuen Mun - Chek Lap Kok Link - Southern Connection Viaduct Section
Impact Noise Monitoring Schedule (1 to 29 February 2016)

Alternative Noise Monitoring at Pak Mong Village Entrance

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

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

HY/2012/07 Tuen Mun - Chek Lap Kok Link - Southern Connection Viaduct Section
Impact Air Quality Monitoring Schedule (1 to 29 February 2016)

Alternative Air Quality Monitoring at WA4 and MTRC Depot Entrance

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

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

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

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
27-Dec	28-Dec	29-Dec	30-Dec	31-Dec	01-Jan	02-Jan
						WQM Mid-Flood 13:06 (11:21 - 14:51) Mid-Ebb 19:26 (17:41 - 21:11)
03-Jan	04-Jan	05-Jan	06-Jan	07-Jan	08-Jan	09-Jan
		WQM Mid-Ebb 9:30 (07:45 - 11:15) Mid-Flood 15:13 (13:28 - 16:58)		**WQM** Mid-Ebb 11:20 (09:35 - 13:05) Mid-Flood 16:34 (14:49 - 18:19)		**WQM** Mid-Ebb 12:46 (11:01 - 14:31) Mid-Flood 17:56 (16:11 - 19:41)
10-Jan	11-Jan	12-Jan	13-Jan	14-Jan	15-Jan	16-Jan
		WQM Mid-Flood 9:19 (07:34 - 11:04) Mid-Ebb 14:50 (13:05 - 16:35)		**WQM** Mid-Flood 10:38 (08:53 - 12:23) Mid-Ebb 16:23 (14:38 - 18:08)		**WQM** Mid-Flood 12:09 (10:24 - 13:54) Mid-Ebb 18:27 (16:42 - 20:12)
17-Jan	18-Jan	19-Jan	20-Jan	21-Jan	22-Jan	23-Jan
		WQM Mid-Ebb 8:44 (06:59 - 10:29) Mid-Flood 14:51 (13:06 - 16:36)		**WQM** Mid-Ebb 11:18 (09:33 - 13:03) Mid-Flood 16:35 (14:50 - 18:20)		**WQM** Mid-Ebb 12:48 (11:03 - 14:33) Mid-Flood 18:03 (16:18 - 19:48)
24-Jan	25-Jan	26-Jan	27-Jan	28-Jan	29-Jan	30-Jan
		WQM Mid-Flood 9:09 (07:24 - 10:54) Mid-Ebb 14:33 (12:48 - 16:18)		**WQM** Mid-Flood 10:00 (08:15 - 11:45) Mid-Ebb 15:34 (13:49 - 17:19)		**WQM** Mid-Flood 10:58 (09:13 - 12:43) Mid-Ebb 16:57 (15:12 - 18:42)

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

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
31-Jan	01-Feb	02-Feb	03-Feb	04-Feb	05-Feb	06-Feb
		WQM Mid-Flood 13:08 (11:23 - 14:53) Mid-Ebb 20:40 (18:55 - 22:25)		**WQM** Mid-Ebb 10:04 (08:30 - 11:40) Mid-Flood 15:06 (13:21 - 16:51)		**WQM** Mid-Ebb 11:47 (10:02 - 13:32) Mid-Flood 16:55 (15:10 - 18:40)
07-Feb	08-Feb	09-Feb	10-Feb	11-Feb	12-Feb	13-Feb
		WQM Mid-Ebb 13:48 (12:03 - 15:33) Mid-Flood 19:15 (17:30 - 21:00)		**WQM** Mid-Flood 9:18 (07:33 - 11:03) Mid-Ebb 15:08 (13:23 - 16:53)		**WQM** Mid-Flood 10:28 (08:43 - 12:13) Mid-Ebb 16:42 (14:57 - 18:27)
14-Feb	15-Feb	16-Feb	17-Feb	18-Feb	19-Feb	20-Feb
		WQM Mid-Flood 13:02 (11:17 - 14:47) Mid-Ebb 20:18 (18:33 - 22:03)		**WQM** Mid-Ebb 10:18 (08:45 - 11:45) Mid-Flood 15:27 (13:43 - 17:12)		**WQM** Mid-Ebb 12:01 (10:16 - 13:46) Mid-Flood 17:18 (15:33 - 19:03)
21-Feb	22-Feb	23-Feb	24-Feb	25-Feb	26-Feb	27-Feb
		WQM Mid-Ebb 13:35 (11:50 - 15:20) Mid-Flood 19:19 (17:34 - 21:04)		**WQM** Mid-Flood 8:46 (07:01 - 10:31) Mid-Ebb 14:29 (12:44 - 16:14)		**WQM** Mid-Flood 9:34 (07:49 - 11:19) Mid-Ebb 15:35 (13:50 - 17:20)
28-Feb	29-Feb					

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

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

HY/2012/07 Tuen Mun - Chek Lap Kok Link - Southern Connection Viaduct Section
Impact Dolphin Monitoring Survey Schedule (1 to 29 February 2016)

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

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	2016-01-06	ASR8A	8:32	1-hr TSP	50	394	500
TMCLKL	HY/2012/07	2016-01-06	ASR8A	9:34	1-hr TSP	50		
TMCLKL	HY/2012/07	2016-01-06	ASR8A	10:36	1-hr TSP	62		
TMCLKL	HY/2012/07	2016-01-12	ASR8A	8:30	1-hr TSP	118		
TMCLKL	HY/2012/07	2016-01-12	ASR8A	9:32	1-hr TSP	116		
TMCLKL	HY/2012/07	2016-01-12	ASR8A	10:34	1-hr TSP	49		
TMCLKL	HY/2012/07	2016-01-18	ASR8A	8:23	1-hr TSP	91		
TMCLKL	HY/2012/07	2016-01-18	ASR8A	9:25	1-hr TSP	54		
TMCLKL	HY/2012/07	2016-01-18	ASR8A	10:27	1-hr TSP	78		
TMCLKL	HY/2012/07	2016-01-21	ASR8A	9:10	1-hr TSP	61		
TMCLKL	HY/2012/07	2016-01-21	ASR8A	10:12	1-hr TSP	85		
TMCLKL	HY/2012/07	2016-01-21	ASR8A	11:14	1-hr TSP	66		
TMCLKL	HY/2012/07	2016-01-27	ASR8A	8:40	1-hr TSP	54		
TMCLKL	HY/2012/07	2016-01-27	ASR8A	9:42	1-hr TSP	65		
TMCLKL	HY/2012/07	2016-01-27	ASR8A	10:44	1-hr TSP	60		
					Average	71		
					Min.	49		
					Max.	118		

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	2016-01-06	ASR9	8:42	1-hr TSP	46	393	500
TMCLKL	HY/2012/07	2016-01-06	ASR9	9:44	1-hr TSP	51		
TMCLKL	HY/2012/07	2016-01-06	ASR9	10:46	1-hr TSP	66		
TMCLKL	HY/2012/07	2016-01-12	ASR9	8:41	1-hr TSP	53		
TMCLKL	HY/2012/07	2016-01-12	ASR9	9:43	1-hr TSP	111		
TMCLKL	HY/2012/07	2016-01-12	ASR9	10:45	1-hr TSP	72		
TMCLKL	HY/2012/07	18-01-2016	ASR9	8:33	1-hr TSP	58		
TMCLKL	HY/2012/07	18-01-2016	ASR9	9:35	1-hr TSP	56		
TMCLKL	HY/2012/07	18-01-2016	ASR9	10:37	1-hr TSP	64		
TMCLKL	HY/2012/07	21-01-2016	ASR9	9:20	1-hr TSP	100		
TMCLKL	HY/2012/07	21-01-2016	ASR9	10:22	1-hr TSP	66		
TMCLKL	HY/2012/07	21-01-2016	ASR9	11:24	1-hr TSP	56		
TMCLKL	HY/2012/07	2016-01-27	ASR9	8:50	1-hr TSP	55		
TMCLKL	HY/2012/07	2016-01-27	ASR9	9:52	1-hr TSP	45		
TMCLKL	HY/2012/07	2016-01-27	ASR9	10:54	1-hr TSP	49		
					Average	63		
					Min.	45		
					Max.	111		

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

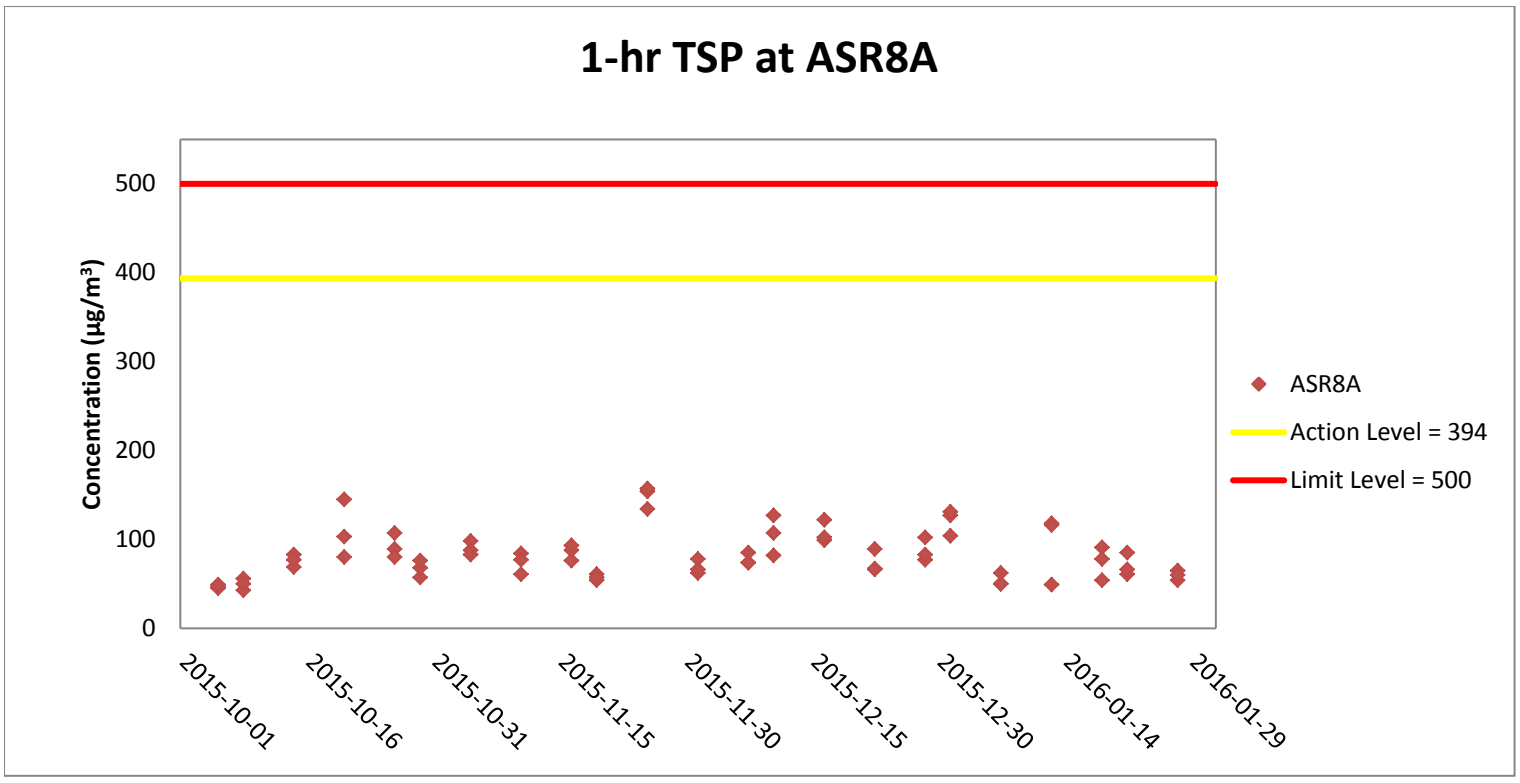
Project	Works	Date(yyyy-mm-dd)	Station	Time (hh:mm, 24hour)	Parameter	Results (ug/m3)	Action Level (ug/m3)	Limit Level (ug/m3)
TMCLKL	HY/2012/07	2016-01-06	ASR8A	11:38	24-hr TSP	54	178	260
TMCLKL	HY/2012/07	2016-01-12	ASR8A	11:36	24-hr TSP	64		
TMCLKL	HY/2012/07	2016-01-18	ASR8A	11:29	24-hr TSP	53		
TMCLKL	HY/2012/07	2016-01-21	ASR8A	12:16	24-hr TSP	47		
TMCLKL	HY/2012/07	2016-01-27	ASR8A	11:46	24-hr TSP	50		
					Average	54		
					Min.	47		
					Max.	64		

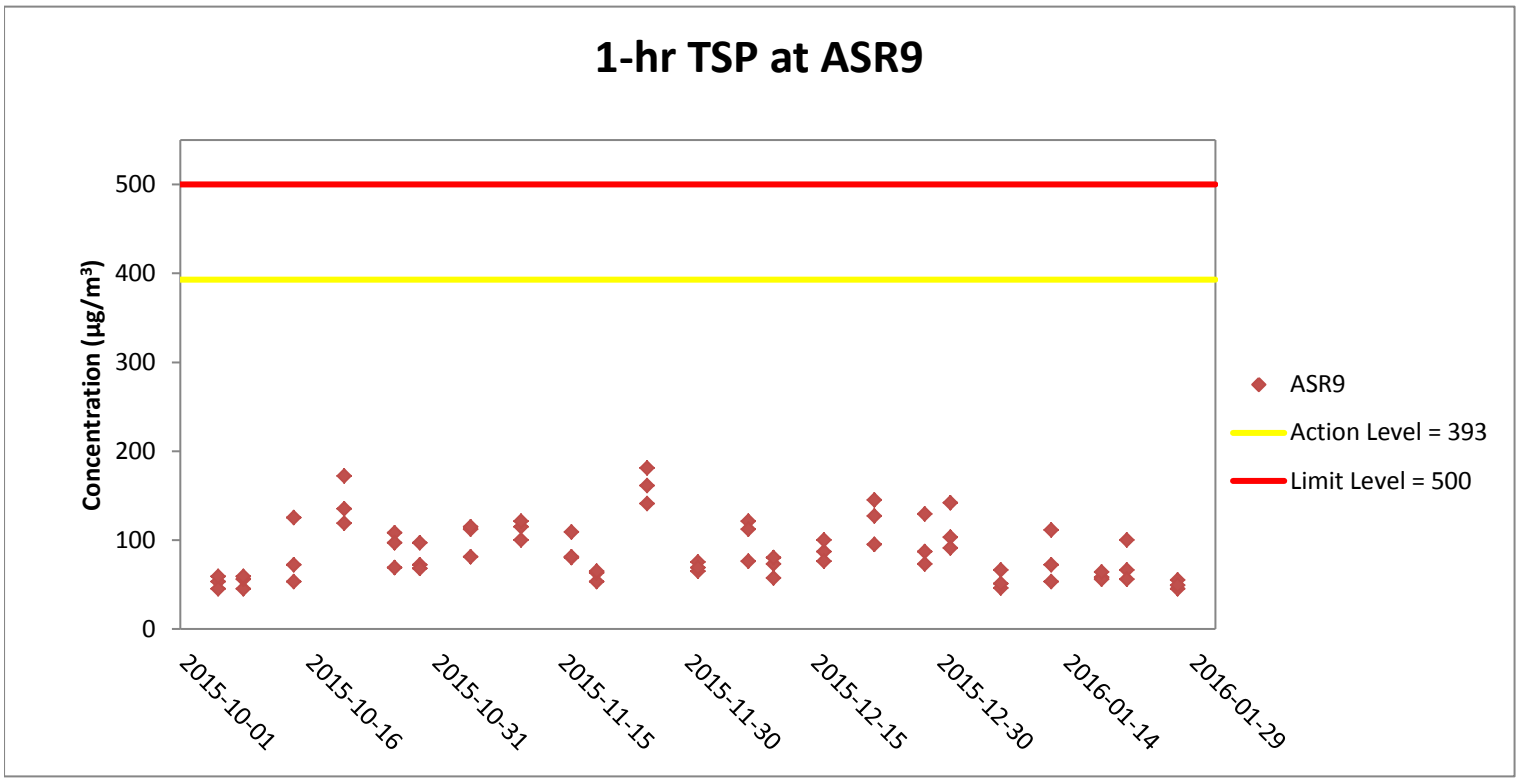
24-hour TSP Monitoring Results at Air Quality Monitoring Station ASR9

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	2016-01-06	ASR9	11:48	24-hr TSP	61	178	260
TMCLKL	HY/2012/07	2016-01-12	ASR9	11:47	24-hr TSP	64		
TMCLKL	HY/2012/07	2016-01-18	ASR9	11:39	24-hr TSP	57		
TMCLKL	HY/2012/07	2016-01-21	ASR9	12:26	24-hr TSP	50		
TMCLKL	HY/2012/07	2016-01-27	ASR9	11:56	24-hr TSP	49		
					Average	56		
					Min.	49		
					Max.	64		

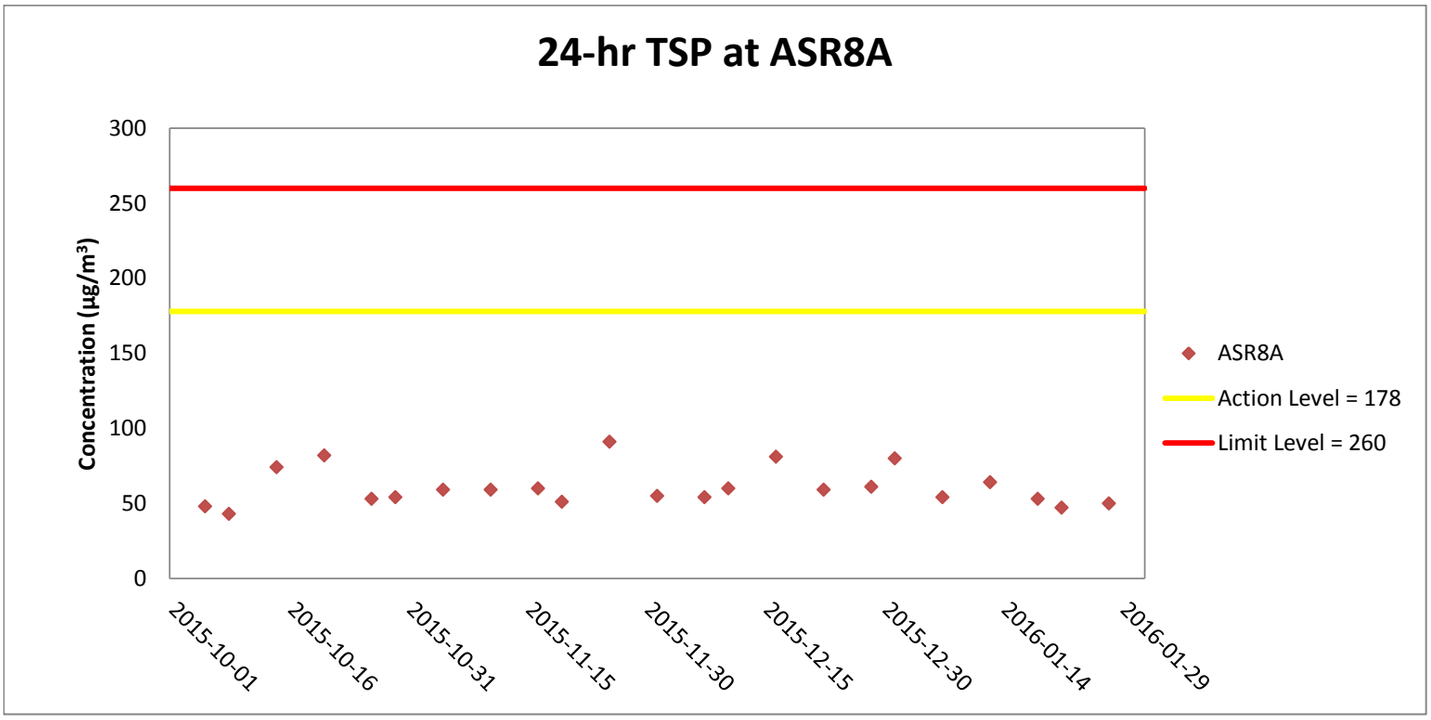
Action Level Exceedance

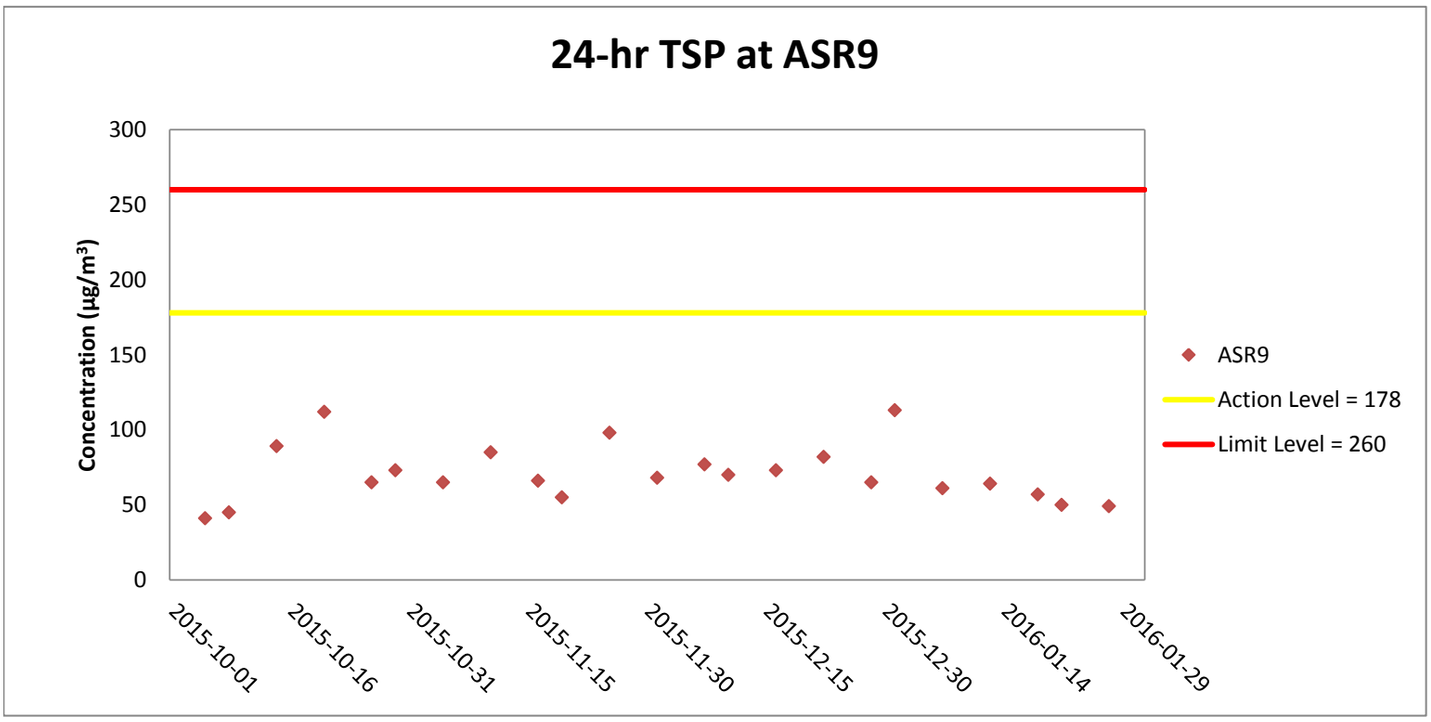
Limit Level Exceedance





Weather condition within the reporting period varied between sunny to rainy.
Major construction works undertaken within the reporting period include Pier construction; Re-alignment of Cheung Tung Road; Predrilling at Viaduct F; Additional land GI, trial pits & lab testing; Installation of pier head and deck segments; and Slope work of Viaducts A, B & C.
Marine works within the reporting period include Construction and installation of pile caps; Uninstallation of marine piling platform; Pier construction; Launching gantry operation; and Installation of deck segment and pier head segment.





Weather condition within the reporting period varied between sunny to rainy.
Major construction works undertaken within the reporting period include Pier construction; Re-alignment of Cheung Tung Road; Predrilling at Viaduct F; Additional land GI, trial pits & lab testing; Installation of pier head and deck segments; and Slope work of Viaducts A, B & C.
Marine works within the reporting period include Construction and installation of pile caps; Uninstallation of marine piling platform; Pier construction; Launching gantry operation; and Installation of deck segment and pier head segment.

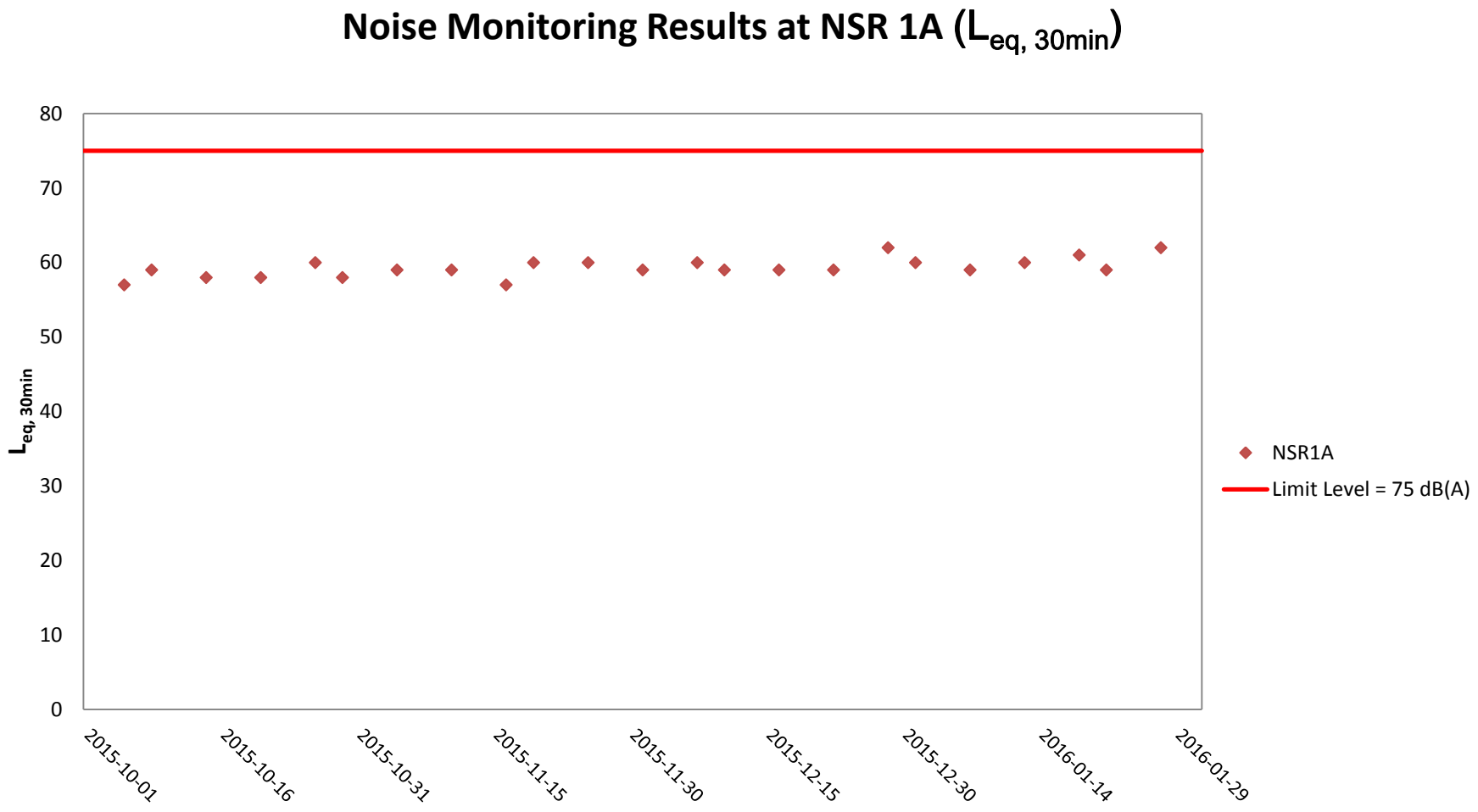
Appendix H

Meteorological Data for the Reporting Month

*Wind speed and direction data is not available due to wind sensor at ASR8A was under maintenance in January 2016.

Appendix I

Impact Noise Monitoring Results and Graphical Presentation



Weather condition within the reporting period varied between sunny to rainy.
Major construction works undertaken within the reporting period include Pier construction; Re-alignment of Cheung Tung Road; Predrilling at Viaduct F; Additional land GI, trial pits & lab testing; Installation of pier head and deck segments; and Slope work of Viaducts A, B & C.
Marine works within the reporting period include Construction and installation of pile caps; Uninstallation of marine piling platform; Pier construction; Launching gantry operation; and Installation of deck segment and pier head segment.

Project	Works	Date (yyyy-mm-dd)	Station	Weather Condition	Time (hh:mm, 24hour)	Noise Level for 30-min, dB(A)			Limit Level dB(A)	Wind Speed (m/s)	Noise Meter Model/ID	Calibrator Model/ID
						Leq	L10	L90				
TMCLKL	HY/2012/07	2016-01-06	NSR1A	Sunny	9:55	59	63	52	75	0.2	RION NL31 (S/N 00603867)	RION NC73 (S/N 10997142)
TMCLKL	HY/2012/07	2016-01-12	NSR1A	Sunny	9:53	60	62	55	75	0.3	RION NL31 (S/N 00603867)	RION NC73 (S/N 10997142)
TMCLKL	HY/2012/07	2016-01-18	NSR1A	Cloudy	9:46	61	63	55	75	0.4	RION NL31 (S/N 00603867)	RION NC73 (S/N 10997142)
TMCLKL	HY/2012/07	2016-01-21	NSR1A	Cloudy	10:33	59	62	55	75	0.3	RION NL31 (S/N 00603867)	RION NC73 (S/N 10997142)
TMCLKL	HY/2012/07	2016-01-27	NSR1A	Cloudy	11:05	62	64	57	75	0.5	RION NL31 (S/N 00603867)	RION NC73 (S/N 10997142)
					Min.	59						
					Max.	62						
					Average	61						

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	02-01-2016	Mid-Flood	CS(Mf)5	12:21	Surface	1	1	20.5	7.94	30.2	6.48	8.74	14
TMCLKL	HY/2012/07	02-01-2016	Mid-Flood	CS(Mf)5	12:21	Surface	1	2	20.6	7.95	30.1	6.45	8.7	11.3
TMCLKL	HY/2012/07	02-01-2016	Mid-Flood	CS(Mf)5	12:21	Middle	2	1	20.3	7.97	30.4	6.27	8.96	12.5
TMCLKL	HY/2012/07	02-01-2016	Mid-Flood	CS(Mf)5	12:21	Middle	2	2	20.3	7.96	30.3	6.24	8.92	11.6
TMCLKL	HY/2012/07	02-01-2016	Mid-Flood	CS(Mf)5	12:21	Bottom	3	1	20.3	7.89	30.4	6.19	9.53	13.3
TMCLKL	HY/2012/07	02-01-2016	Mid-Flood	CS(Mf)5	12:21	Bottom	3	2	20.2	7.92	30.4	6.17	9.5	11.4
TMCLKL	HY/2012/07	02-01-2016	Mid-Flood	SR4a	12:51	Surface	1	1	20.5	7.9	30.1	6.34	8.94	15.7
TMCLKL	HY/2012/07	02-01-2016	Mid-Flood	SR4a	12:51	Surface	1	2	20.5	7.89	30.1	6.3	8.9	13.4
TMCLKL	HY/2012/07	02-01-2016	Mid-Flood	SR4a	12:51	Middle	2	1						
TMCLKL	HY/2012/07	02-01-2016	Mid-Flood	SR4a	12:51	Middle	2	2						
TMCLKL	HY/2012/07	02-01-2016	Mid-Flood	SR4a	12:51	Bottom	3	1	20.3	7.9	30.2	6.14	9.62	13.5
TMCLKL	HY/2012/07	02-01-2016	Mid-Flood	SR4a	12:51	Bottom	3	2	20.3	7.9	30.2	6.17	9.64	11.6
TMCLKL	HY/2012/07	02-01-2016	Mid-Flood	SR4	13:16	Surface	1	1	20.5	7.84	30.1	6.26	9.09	12.7
TMCLKL	HY/2012/07	02-01-2016	Mid-Flood	SR4	13:16	Surface	1	2	20.6	7.85	30.2	6.22	9.05	11.8
TMCLKL	HY/2012/07	02-01-2016	Mid-Flood	SR4	13:16	Middle	2	1						
TMCLKL	HY/2012/07	02-01-2016	Mid-Flood	SR4	13:16	Middle	2	2						
TMCLKL	HY/2012/07	02-01-2016	Mid-Flood	SR4	13:16	Bottom	3	1	20.3	7.87	30.3	6.07	9.48	14.2
TMCLKL	HY/2012/07	02-01-2016	Mid-Flood	SR4	13:16	Bottom	3	2	20.3	7.86	30.2	6.09	9.45	12.3
TMCLKL	HY/2012/07	02-01-2016	Mid-Flood	IS8	13:35	Surface	1	1	20.6	7.8	30.2	6.34	9.14	12.8
TMCLKL	HY/2012/07	02-01-2016	Mid-Flood	IS8	13:35	Surface	1	2	20.5	7.81	30.2	6.37	9.1	10.9
TMCLKL	HY/2012/07	02-01-2016	Mid-Flood	IS8	13:35	Middle	2	1						
TMCLKL	HY/2012/07	02-01-2016	Mid-Flood	IS8	13:35	Middle	2	2						
TMCLKL	HY/2012/07	02-01-2016	Mid-Flood	IS8	13:35	Bottom	3	1	20.3	7.89	30.3	6.15	9.3	12.1
TMCLKL	HY/2012/07	02-01-2016	Mid-Flood	IS8	13:35	Bottom	3	2	20.2	7.88	30.3	6.11	9.36	11.2
TMCLKL	HY/2012/07	02-01-2016	Mid-Flood	IS(Mf)16	13:53	Surface	1	1	20.6	7.85	30.3	6.67	8.87	14.2
TMCLKL	HY/2012/07	02-01-2016	Mid-Flood	IS(Mf)16	13:53	Surface	1	2	20.6	7.87	30.2	6.69	8.92	13.4
TMCLKL	HY/2012/07	02-01-2016	Mid-Flood	IS(Mf)16	13:53	Middle	2	1	20.3	7.93	30.3	6.4	9.04	13.6
TMCLKL	HY/2012/07	02-01-2016	Mid-Flood	IS(Mf)16	13:53	Middle	2	2	20.3	7.94	30.4	6.44	9.07	11.8
TMCLKL	HY/2012/07	02-01-2016	Mid-Flood	IS(Mf)16	13:53	Bottom	3	1	20.2	7.9	30.4	6.22	9.25	14.8
TMCLKL	HY/2012/07	02-01-2016	Mid-Flood	IS(Mf)16	13:53	Bottom	3	2	20.2	7.91	30.4	6.19	9.2	12
TMCLKL	HY/2012/07	02-01-2016	Mid-Flood	IS(Mf)9	14:18	Surface	1	1	20.5	7.9	30.2	6.4	8.67	11.3
TMCLKL	HY/2012/07	02-01-2016	Mid-Flood	IS(Mf)9	14:18	Surface	1	2	20.5	7.91	30.2	6.37	8.6	10.3
TMCLKL	HY/2012/07	02-01-2016	Mid-Flood	IS(Mf)9	14:18	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	02-01-2016	Mid-Flood	IS(Mf)9	14:18	Middle	2	2						
TMCLKL	HY/2012/07	02-01-2016	Mid-Flood	IS(Mf)9	14:18	Bottom	3	1	20.3	7.94	30.3	6.3	9.22	11.1
TMCLKL	HY/2012/07	02-01-2016	Mid-Flood	IS(Mf)9	14:18	Bottom	3	2	20.3	7.92	30.2	6.25	9.26	11.1
TMCLKL	HY/2012/07	02-01-2016	Mid-Flood	CS(Mf)3	14:38	Surface	1	1	20.5	7.97	30.3	6.51	8.54	12
TMCLKL	HY/2012/07	02-01-2016	Mid-Flood	CS(Mf)3	14:38	Surface	1	2	20.4	7.96	30.2	6.47	8.5	10.2
TMCLKL	HY/2012/07	02-01-2016	Mid-Flood	CS(Mf)3	14:38	Middle	2	1	20.2	7.95	30.4	6.25	8.79	11.4
TMCLKL	HY/2012/07	02-01-2016	Mid-Flood	CS(Mf)3	14:38	Middle	2	2	20.3	7.92	30.4	6.28	8.75	12.3
TMCLKL	HY/2012/07	02-01-2016	Mid-Flood	CS(Mf)3	14:38	Bottom	3	1	20.2	7.94	30.4	6.19	9.16	11
TMCLKL	HY/2012/07	02-01-2016	Mid-Flood	CS(Mf)3	14:38	Bottom	3	2	20.2	7.94	30.4	6.15	9.1	13.7
TMCLKL	HY/2012/07	02-01-2016	Mid-Ebb	CS(Mf)5	19:36	Surface	1	1	20.3	7.98	30.3	6.37	8.88	13.3
TMCLKL	HY/2012/07	02-01-2016	Mid-Ebb	CS(Mf)5	19:36	Surface	1	2	20.2	7.95	30.2	6.35	8.92	12.5
TMCLKL	HY/2012/07	02-01-2016	Mid-Ebb	CS(Mf)5	19:36	Middle	2	1	20.1	7.92	30.4	6.24	9.04	11.8
TMCLKL	HY/2012/07	02-01-2016	Mid-Ebb	CS(Mf)5	19:36	Middle	2	2	20.2	7.96	30.4	6.26	9.1	12.2
TMCLKL	HY/2012/07	02-01-2016	Mid-Ebb	CS(Mf)5	19:36	Bottom	3	1	20	7.87	30.5	6.13	9.67	12.6
TMCLKL	HY/2012/07	02-01-2016	Mid-Ebb	CS(Mf)5	19:36	Bottom	3	2	20.1	7.89	30.6	6.15	9.6	12.5
TMCLKL	HY/2012/07	02-01-2016	Mid-Ebb	SR4a	19:13	Surface	1	1	20.3	7.97	30.3	6.29	9.04	14.5
TMCLKL	HY/2012/07	02-01-2016	Mid-Ebb	SR4a	19:13	Surface	1	2	20.4	7.94	30.2	6.26	9.14	11.9
TMCLKL	HY/2012/07	02-01-2016	Mid-Ebb	SR4a	19:13	Middle	2	1						
TMCLKL	HY/2012/07	02-01-2016	Mid-Ebb	SR4a	19:13	Middle	2	2						
TMCLKL	HY/2012/07	02-01-2016	Mid-Ebb	SR4a	19:13	Bottom	3	1	20.3	7.91	30.4	6.17	9.58	14.4
TMCLKL	HY/2012/07	02-01-2016	Mid-Ebb	SR4a	19:13	Bottom	3	2	20.3	7.93	30.3	6.14	9.63	14.4
TMCLKL	HY/2012/07	02-01-2016	Mid-Ebb	SR4	18:57	Surface	1	1	20.3	7.93	30.4	6.28	9.12	13.7
TMCLKL	HY/2012/07	02-01-2016	Mid-Ebb	SR4	18:57	Surface	1	2	20.2	7.96	30.5	6.24	9.18	13.8
TMCLKL	HY/2012/07	02-01-2016	Mid-Ebb	SR4	18:57	Middle	2	1						
TMCLKL	HY/2012/07	02-01-2016	Mid-Ebb	SR4	18:57	Middle	2	2						
TMCLKL	HY/2012/07	02-01-2016	Mid-Ebb	SR4	18:57	Bottom	3	1	20.2	7.97	30.5	6.13	9.49	14.2
TMCLKL	HY/2012/07	02-01-2016	Mid-Ebb	SR4	18:57	Bottom	3	2	20.3	7.99	30.5	6.1	9.52	14.3
TMCLKL	HY/2012/07	02-01-2016	Mid-Ebb	IS8	18:40	Surface	1	1	20.4	7.95	30.3	6.29	9.32	14.9
TMCLKL	HY/2012/07	02-01-2016	Mid-Ebb	IS8	18:40	Surface	1	2	20.3	7.91	30.4	6.25	9.24	12.9
TMCLKL	HY/2012/07	02-01-2016	Mid-Ebb	IS8	18:40	Middle	2	1						
TMCLKL	HY/2012/07	02-01-2016	Mid-Ebb	IS8	18:40	Middle	2	2						
TMCLKL	HY/2012/07	02-01-2016	Mid-Ebb	IS8	18:40	Bottom	3	1	20.3	7.86	30.5	6.08	9.41	12.2
TMCLKL	HY/2012/07	02-01-2016	Mid-Ebb	IS8	18:40	Bottom	3	2	20.3	7.83	30.4	6.11	9.36	15

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	02-01-2016	Mid-Ebb	IS(Mf)16	18:22	Surface	1	1	20.4	7.93	30.4	6.43	8.92	13.4
TMCLKL	HY/2012/07	02-01-2016	Mid-Ebb	IS(Mf)16	18:22	Surface	1	2	20.3	7.96	30.3	6.41	8.99	12.6
TMCLKL	HY/2012/07	02-01-2016	Mid-Ebb	IS(Mf)16	18:22	Middle	2	1	20.3	7.84	30.5	6.38	9.07	13.6
TMCLKL	HY/2012/07	02-01-2016	Mid-Ebb	IS(Mf)16	18:22	Middle	2	2	20.2	7.86	30.4	6.36	9.11	11.8
TMCLKL	HY/2012/07	02-01-2016	Mid-Ebb	IS(Mf)16	18:22	Bottom	3	1	20.2	7.97	30.5	6.21	9.31	14
TMCLKL	HY/2012/07	02-01-2016	Mid-Ebb	IS(Mf)16	18:22	Bottom	3	2	20.1	7.99	30.6	6.18	9.36	13.1
TMCLKL	HY/2012/07	02-01-2016	Mid-Ebb	IS(Mf)9	18:06	Surface	1	1	20.3	7.98	30.5	6.32	8.74	11.4
TMCLKL	HY/2012/07	02-01-2016	Mid-Ebb	IS(Mf)9	18:06	Surface	1	2	20.4	7.96	30.4	6.34	8.7	11.3
TMCLKL	HY/2012/07	02-01-2016	Mid-Ebb	IS(Mf)9	18:06	Middle	2	1						
TMCLKL	HY/2012/07	02-01-2016	Mid-Ebb	IS(Mf)9	18:06	Middle	2	2						
TMCLKL	HY/2012/07	02-01-2016	Mid-Ebb	IS(Mf)9	18:06	Bottom	3	1	20.3	7.9	30.6	6.24	9.36	11.2
TMCLKL	HY/2012/07	02-01-2016	Mid-Ebb	IS(Mf)9	18:06	Bottom	3	2	20.2	7.94	30.5	6.2	9.41	12.2
TMCLKL	HY/2012/07	02-01-2016	Mid-Ebb	CS(Mf)3	17:41	Surface	1	1	20.2	7.95	30.4	6.43	9.26	11.1
TMCLKL	HY/2012/07	02-01-2016	Mid-Ebb	CS(Mf)3	17:41	Surface	1	2	20.3	7.93	30.3	6.46	9.31	11.2
TMCLKL	HY/2012/07	02-01-2016	Mid-Ebb	CS(Mf)3	17:41	Middle	2	1	20.2	7.89	30.5	6.31	9.4	12.2
TMCLKL	HY/2012/07	02-01-2016	Mid-Ebb	CS(Mf)3	17:41	Middle	2	2	20.1	7.84	30.5	6.33	9.44	15.1
TMCLKL	HY/2012/07	02-01-2016	Mid-Ebb	CS(Mf)3	17:41	Bottom	3	1	20	7.91	30.6	6.15	9.56	14.3
TMCLKL	HY/2012/07	02-01-2016	Mid-Ebb	CS(Mf)3	17:41	Bottom	3	2	20.1	7.94	30.5	6.12	9.67	14.5
TMCLKL	HY/2012/07	05-01-2016	Mid-Flood	CS(Mf)5	13:28	Surface	1	1	20.3	7.98	30.4	6.52	9.33	13.1
TMCLKL	HY/2012/07	05-01-2016	Mid-Flood	CS(Mf)5	13:28	Surface	1	2	20.2	7.95	30.3	6.55	9.39	14.1
TMCLKL	HY/2012/07	05-01-2016	Mid-Flood	CS(Mf)5	13:28	Middle	2	1	20.2	7.94	30.5	6.31	9.54	14.3
TMCLKL	HY/2012/07	05-01-2016	Mid-Flood	CS(Mf)5	13:28	Middle	2	2	20.1	7.91	30.5	6.28	9.61	12.5
TMCLKL	HY/2012/07	05-01-2016	Mid-Flood	CS(Mf)5	13:28	Bottom	3	1	20	7.86	30.6	6.17	9.96	13.9
TMCLKL	HY/2012/07	05-01-2016	Mid-Flood	CS(Mf)5	13:28	Bottom	3	2	20.1	7.89	30.5	6.14	10.9	14.2
TMCLKL	HY/2012/07	05-01-2016	Mid-Flood	SR4a	13:56	Surface	1	1	20.3	7.96	30.3	6.42	8.82	11.5
TMCLKL	HY/2012/07	05-01-2016	Mid-Flood	SR4a	13:56	Surface	1	2	20.2	7.92	30.3	6.46	8.76	11.4
TMCLKL	HY/2012/07	05-01-2016	Mid-Flood	SR4a	13:56	Middle	2	1						
TMCLKL	HY/2012/07	05-01-2016	Mid-Flood	SR4a	13:56	Middle	2	2						
TMCLKL	HY/2012/07	05-01-2016	Mid-Flood	SR4a	13:56	Bottom	3	1	20.1	7.85	30.4	6.25	9.46	15.1
TMCLKL	HY/2012/07	05-01-2016	Mid-Flood	SR4a	13:56	Bottom	3	2	20.1	7.81	30.3	6.23	9.51	15.2
TMCLKL	HY/2012/07	05-01-2016	Mid-Flood	SR4	14:15	Surface	1	1	20.4	7.93	30.2	6.56	9.21	12
TMCLKL	HY/2012/07	05-01-2016	Mid-Flood	SR4	14:15	Surface	1	2	20.3	7.98	30.3	6.58	9.28	12.1
TMCLKL	HY/2012/07	05-01-2016	Mid-Flood	SR4	14:15	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	05-01-2016	Mid-Flood	SR4	14:15	Middle	2	2						
TMCLKL	HY/2012/07	05-01-2016	Mid-Flood	SR4	14:15	Bottom	3	1	20.2	7.91	30.4	6.37	9.43	14.1
TMCLKL	HY/2012/07	05-01-2016	Mid-Flood	SR4	14:15	Bottom	3	2	20.1	7.88	30.3	6.34	9.36	12.2
TMCLKL	HY/2012/07	05-01-2016	Mid-Flood	IS8	14:32	Surface	1	1	20.3	7.99	30.3	6.43	9.42	12.2
TMCLKL	HY/2012/07	05-01-2016	Mid-Flood	IS8	14:32	Surface	1	2	20.2	7.94	30.2	6.46	9.34	12.1
TMCLKL	HY/2012/07	05-01-2016	Mid-Flood	IS8	14:32	Middle	2	1						
TMCLKL	HY/2012/07	05-01-2016	Mid-Flood	IS8	14:32	Middle	2	2						
TMCLKL	HY/2012/07	05-01-2016	Mid-Flood	IS8	14:32	Bottom	3	1	20.2	7.93	30.4	6.21	9.56	14.3
TMCLKL	HY/2012/07	05-01-2016	Mid-Flood	IS8	14:32	Bottom	3	2	20.1	7.91	30.5	6.24	9.64	11.6
TMCLKL	HY/2012/07	05-01-2016	Mid-Flood	IS(Mf)16	14:49	Surface	1	1	20.3	7.94	30.2	6.63	8.94	13.4
TMCLKL	HY/2012/07	05-01-2016	Mid-Flood	IS(Mf)16	14:49	Surface	1	2	20.4	7.96	30.3	6.65	8.85	14.2
TMCLKL	HY/2012/07	05-01-2016	Mid-Flood	IS(Mf)16	14:49	Middle	2	1	20.3	7.86	30.4	6.52	9.1	12.7
TMCLKL	HY/2012/07	05-01-2016	Mid-Flood	IS(Mf)16	14:49	Middle	2	2	20.2	7.89	30.3	6.49	9.16	11.9
TMCLKL	HY/2012/07	05-01-2016	Mid-Flood	IS(Mf)16	14:49	Bottom	3	1	20.1	7.92	30.5	6.28	9.5	11.4
TMCLKL	HY/2012/07	05-01-2016	Mid-Flood	IS(Mf)16	14:49	Bottom	3	2	20	7.89	30.6	6.25	9.42	11.3
TMCLKL	HY/2012/07	05-01-2016	Mid-Flood	IS(Mf)9	15:10	Surface	1	1	20.2	7.91	30.2	6.39	9.22	13.8
TMCLKL	HY/2012/07	05-01-2016	Mid-Flood	IS(Mf)9	15:10	Surface	1	2	20.1	7.94	30.1	6.42	9.17	11.9
TMCLKL	HY/2012/07	05-01-2016	Mid-Flood	IS(Mf)9	15:10	Middle	2	1						
TMCLKL	HY/2012/07	05-01-2016	Mid-Flood	IS(Mf)9	15:10	Middle	2	2						
TMCLKL	HY/2012/07	05-01-2016	Mid-Flood	IS(Mf)9	15:10	Bottom	3	1	20	7.84	30.3	6.25	10.6	13.8
TMCLKL	HY/2012/07	05-01-2016	Mid-Flood	IS(Mf)9	15:10	Bottom	3	2	20.1	7.88	30.2	6.28	10.1	12.1
TMCLKL	HY/2012/07	05-01-2016	Mid-Flood	CS(Mf)3	15:32	Surface	1	1	20.2	7.96	30.1	6.41	9.12	12.8
TMCLKL	HY/2012/07	05-01-2016	Mid-Flood	CS(Mf)3	15:32	Surface	1	2	20.2	7.98	30	6.44	9.16	12.8
TMCLKL	HY/2012/07	05-01-2016	Mid-Flood	CS(Mf)3	15:32	Middle	2	1	20.2	7.92	30.2	6.37	9.42	12.2
TMCLKL	HY/2012/07	05-01-2016	Mid-Flood	CS(Mf)3	15:32	Middle	2	2	20.1	7.94	30.1	6.35	9.48	11.4
TMCLKL	HY/2012/07	05-01-2016	Mid-Flood	CS(Mf)3	15:32	Bottom	3	1	19.9	7.86	30.4	6.21	9.68	14.5
TMCLKL	HY/2012/07	05-01-2016	Mid-Flood	CS(Mf)3	15:32	Bottom	3	2	20	7.83	30.5	6.23	9.73	14.6
TMCLKL	HY/2012/07	05-01-2016	Mid-Ebb	CS(Mf)5	10:55	Surface	1	1	20.6	7.93	30.2	6.48	8.86	13.3
TMCLKL	HY/2012/07	05-01-2016	Mid-Ebb	CS(Mf)5	10:55	Surface	1	2	20.6	7.94	30.2	6.45	8.81	10.6
TMCLKL	HY/2012/07	05-01-2016	Mid-Ebb	CS(Mf)5	10:55	Middle	2	1	20.4	7.96	30.5	6.22	9.28	13
TMCLKL	HY/2012/07	05-01-2016	Mid-Ebb	CS(Mf)5	10:55	Middle	2	2	20.4	7.95	30.4	6.19	9.25	13
TMCLKL	HY/2012/07	05-01-2016	Mid-Ebb	CS(Mf)5	10:55	Bottom	3	1	20.3	7.97	30.5	6.09	9.77	14.7
TMCLKL	HY/2012/07	05-01-2016	Mid-Ebb	CS(Mf)5	10:55	Bottom	3	2	20.3	7.96	30.6	6.05	9.7	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	05-01-2016	Mid-Ebb	SR4a	10:35	Surface	1	1	20.6	7.89	30.1	6.31	9.04	11.8
TMCLKL	HY/2012/07	05-01-2016	Mid-Ebb	SR4a	10:35	Surface	1	2	20.5	7.88	30	6.34	9.1	13.7
TMCLKL	HY/2012/07	05-01-2016	Mid-Ebb	SR4a	10:35	Middle	2	1						
TMCLKL	HY/2012/07	05-01-2016	Mid-Ebb	SR4a	10:35	Middle	2	2						
TMCLKL	HY/2012/07	05-01-2016	Mid-Ebb	SR4a	10:35	Bottom	3	1	20.3	7.85	30.2	6.04	9.85	14.8
TMCLKL	HY/2012/07	05-01-2016	Mid-Ebb	SR4a	10:35	Bottom	3	2	20.3	7.84	30.2	6.01	9.8	14.7
TMCLKL	HY/2012/07	05-01-2016	Mid-Ebb	SR4	10:05	Surface	1	1	20.5	7.86	30.1	6.44	9.44	13.2
TMCLKL	HY/2012/07	05-01-2016	Mid-Ebb	SR4	10:05	Surface	1	2	20.4	7.87	30.1	6.4	9.48	13.3
TMCLKL	HY/2012/07	05-01-2016	Mid-Ebb	SR4	10:05	Middle	2	1						
TMCLKL	HY/2012/07	05-01-2016	Mid-Ebb	SR4	10:05	Middle	2	2						
TMCLKL	HY/2012/07	05-01-2016	Mid-Ebb	SR4	10:05	Bottom	3	1	20.3	7.89	30.3	6.11	9.69	12.6
TMCLKL	HY/2012/07	05-01-2016	Mid-Ebb	SR4	10:05	Bottom	3	2	20.3	7.88	30.3	6.08	9.65	14.5
TMCLKL	HY/2012/07	05-01-2016	Mid-Ebb	IS8	9:42	Surface	1	1	20.5	7.87	30	6.37	9.78	13.7
TMCLKL	HY/2012/07	05-01-2016	Mid-Ebb	IS8	9:42	Surface	1	2	20.5	7.85	30	6.39	9.75	13.7
TMCLKL	HY/2012/07	05-01-2016	Mid-Ebb	IS8	9:42	Middle	2	1						
TMCLKL	HY/2012/07	05-01-2016	Mid-Ebb	IS8	9:42	Middle	2	2						
TMCLKL	HY/2012/07	05-01-2016	Mid-Ebb	IS8	9:42	Bottom	3	1	20.4	7.9	30.2	6.04	10.1	12.1
TMCLKL	HY/2012/07	05-01-2016	Mid-Ebb	IS8	9:42	Bottom	3	2	20.3	7.89	30.1	6.01	10.3	14.4
TMCLKL	HY/2012/07	05-01-2016	Mid-Ebb	IS(Mf)16	9:23	Surface	1	1	20.4	7.9	30.1	6.67	9.04	13.6
TMCLKL	HY/2012/07	05-01-2016	Mid-Ebb	IS(Mf)16	9:23	Surface	1	2	20.3	7.91	30.2	6.69	9.08	14.5
TMCLKL	HY/2012/07	05-01-2016	Mid-Ebb	IS(Mf)16	9:23	Middle	2	1	20.4	7.89	30.5	6.39	9.52	12.4
TMCLKL	HY/2012/07	05-01-2016	Mid-Ebb	IS(Mf)16	9:23	Middle	2	2	20.3	7.87	30.5	6.35	9.58	12.5
TMCLKL	HY/2012/07	05-01-2016	Mid-Ebb	IS(Mf)16	9:23	Bottom	3	1	20.3	7.9	30.5	6.15	9.79	13.7
TMCLKL	HY/2012/07	05-01-2016	Mid-Ebb	IS(Mf)16	9:23	Bottom	3	2	20.2	7.9	30.4	6.12	9.77	13.7
TMCLKL	HY/2012/07	05-01-2016	Mid-Ebb	IS(Mf)9	9:05	Surface	1	1	20.4	7.86	30.1	6.38	9.23	12
TMCLKL	HY/2012/07	05-01-2016	Mid-Ebb	IS(Mf)9	9:05	Surface	1	2	20.4	7.86	30.1	6.35	9.2	14.7
TMCLKL	HY/2012/07	05-01-2016	Mid-Ebb	IS(Mf)9	9:05	Middle	2	1						
TMCLKL	HY/2012/07	05-01-2016	Mid-Ebb	IS(Mf)9	9:05	Middle	2	2						
TMCLKL	HY/2012/07	05-01-2016	Mid-Ebb	IS(Mf)9	9:05	Bottom	3	1	20.3	7.85	30.2	6.16	10.1	16.2
TMCLKL	HY/2012/07	05-01-2016	Mid-Ebb	IS(Mf)9	9:05	Bottom	3	2	20.3	7.84	30.2	6.12	10	15
TMCLKL	HY/2012/07	05-01-2016	Mid-Ebb	CS(Mf)3	8:45	Surface	1	1	20.4	7.84	30	6.55	8.94	13.4
TMCLKL	HY/2012/07	05-01-2016	Mid-Ebb	CS(Mf)3	8:45	Surface	1	2	20.4	7.85	30.1	6.58	8.9	10.7
TMCLKL	HY/2012/07	05-01-2016	Mid-Ebb	CS(Mf)3	8:45	Middle	2	1	20.2	7.88	30.3	6.2	9.37	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	05-01-2016	Mid-Ebb	CS(Mf)3	8:45	Middle	2	2	20.2	7.88	30.2	6.24	9.3	14
TMCLKL	HY/2012/07	05-01-2016	Mid-Ebb	CS(Mf)3	8:45	Bottom	3	1	20.1	7.89	30.3	6.04	9.66	12.6
TMCLKL	HY/2012/07	05-01-2016	Mid-Ebb	CS(Mf)3	8:45	Bottom	3	2	20.2	7.89	30.3	6.01	9.62	15.4
TMCLKL	HY/2012/07	07-01-2016	Mid-Flood	CS(Mf)5	14:49	Surface	1	1	20.6	7.79	30.4	6.51	8.73	13.1
TMCLKL	HY/2012/07	07-01-2016	Mid-Flood	CS(Mf)5	14:49	Surface	1	2	20.5	7.83	30.3	6.48	8.81	12.3
TMCLKL	HY/2012/07	07-01-2016	Mid-Flood	CS(Mf)5	14:49	Middle	2	1	20.4	7.8	30.6	6.35	9.06	12.7
TMCLKL	HY/2012/07	07-01-2016	Mid-Flood	CS(Mf)5	14:49	Middle	2	2	20.4	7.84	30.6	6.32	9.13	14.6
TMCLKL	HY/2012/07	07-01-2016	Mid-Flood	CS(Mf)5	14:49	Bottom	3	1	20.1	7.79	30.8	6.14	9.63	13.5
TMCLKL	HY/2012/07	07-01-2016	Mid-Flood	CS(Mf)5	14:49	Bottom	3	2	20.2	7.84	30.9	6.11	9.55	12.4
TMCLKL	HY/2012/07	07-01-2016	Mid-Flood	SR4a	15:15	Surface	1	1	20.6	7.84	30.2	6.37	9.08	10.9
TMCLKL	HY/2012/07	07-01-2016	Mid-Flood	SR4a	15:15	Surface	1	2	20.6	7.88	30.2	6.34	8.99	13.5
TMCLKL	HY/2012/07	07-01-2016	Mid-Flood	SR4a	15:15	Middle	2	1						
TMCLKL	HY/2012/07	07-01-2016	Mid-Flood	SR4a	15:15	Middle	2	2						
TMCLKL	HY/2012/07	07-01-2016	Mid-Flood	SR4a	15:15	Bottom	3	1	20.5	7.8	30.3	6.08	9.57	15.3
TMCLKL	HY/2012/07	07-01-2016	Mid-Flood	SR4a	15:15	Bottom	3	2	20.5	7.83	30.4	6.11	9.66	14.5
TMCLKL	HY/2012/07	07-01-2016	Mid-Flood	SR4	15:31	Surface	1	1	20.5	7.76	30.1	6.31	9.24	12.9
TMCLKL	HY/2012/07	07-01-2016	Mid-Flood	SR4	15:31	Surface	1	2	20.5	7.8	30.2	6.28	9.31	13
TMCLKL	HY/2012/07	07-01-2016	Mid-Flood	SR4	15:31	Middle	2	1						
TMCLKL	HY/2012/07	07-01-2016	Mid-Flood	SR4	15:31	Middle	2	2						
TMCLKL	HY/2012/07	07-01-2016	Mid-Flood	SR4	15:31	Bottom	3	1	20.5	7.84	30.4	6.17	9.6	14.4
TMCLKL	HY/2012/07	07-01-2016	Mid-Flood	SR4	15:31	Bottom	3	2	20.5	7.81	30.5	6.14	9.67	11.6
TMCLKL	HY/2012/07	07-01-2016	Mid-Flood	IS8	15:47	Surface	1	1	20.5	7.72	30.1	6.4	9.63	15.4
TMCLKL	HY/2012/07	07-01-2016	Mid-Flood	IS8	15:47	Surface	1	2	20.6	7.74	30.2	6.36	9.71	12.6
TMCLKL	HY/2012/07	07-01-2016	Mid-Flood	IS8	15:47	Middle	2	1						
TMCLKL	HY/2012/07	07-01-2016	Mid-Flood	IS8	15:47	Middle	2	2						
TMCLKL	HY/2012/07	07-01-2016	Mid-Flood	IS8	15:47	Bottom	3	1	20.5	7.79	30.3	6.11	9.96	13.9
TMCLKL	HY/2012/07	07-01-2016	Mid-Flood	IS8	15:47	Bottom	3	2	20.5	7.82	30.4	6.07	10.2	15.3
TMCLKL	HY/2012/07	07-01-2016	Mid-Flood	IS(Mf)16	16:06	Surface	1	1	20.6	7.79	30.2	6.49	9.19	11
TMCLKL	HY/2012/07	07-01-2016	Mid-Flood	IS(Mf)16	16:06	Surface	1	2	20.6	7.81	30.3	6.51	9.26	13
TMCLKL	HY/2012/07	07-01-2016	Mid-Flood	IS(Mf)16	16:06	Middle	2	1	20.5	7.74	30.5	6.34	9.43	12.3
TMCLKL	HY/2012/07	07-01-2016	Mid-Flood	IS(Mf)16	16:06	Middle	2	2	20.5	7.77	30.5	6.3	9.5	13.3
TMCLKL	HY/2012/07	07-01-2016	Mid-Flood	IS(Mf)16	16:06	Bottom	3	1	20.5	7.76	30.6	6.16	9.79	14.7
TMCLKL	HY/2012/07	07-01-2016	Mid-Flood	IS(Mf)16	16:06	Bottom	3	2	20.4	7.79	30.7	6.12	9.84	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	07-01-2016	Mid-Flood	IS(Mf)9	16:24	Surface	1	1	20.6	7.73	30.2	6.38	9.04	12.7
TMCLKL	HY/2012/07	07-01-2016	Mid-Flood	IS(Mf)9	16:24	Surface	1	2	20.5	7.76	30.3	6.34	8.95	13.4
TMCLKL	HY/2012/07	07-01-2016	Mid-Flood	IS(Mf)9	16:24	Middle	2	1						
TMCLKL	HY/2012/07	07-01-2016	Mid-Flood	IS(Mf)9	16:24	Middle	2	2						
TMCLKL	HY/2012/07	07-01-2016	Mid-Flood	IS(Mf)9	16:24	Bottom	3	1	20.5	7.78	30.3	6.19	9.94	14.9
TMCLKL	HY/2012/07	07-01-2016	Mid-Flood	IS(Mf)9	16:24	Bottom	3	2	20.5	7.8	30.4	6.16	9.87	14.8
TMCLKL	HY/2012/07	07-01-2016	Mid-Flood	CS(Mf)3	16:45	Surface	1	1	20.5	7.78	30.2	6.55	8.86	13.3
TMCLKL	HY/2012/07	07-01-2016	Mid-Flood	CS(Mf)3	16:45	Surface	1	2	20.5	7.74	30.3	6.51	8.92	11.6
TMCLKL	HY/2012/07	07-01-2016	Mid-Flood	CS(Mf)3	16:45	Middle	2	1	20.4	7.76	30.5	6.39	9.24	12.9
TMCLKL	HY/2012/07	07-01-2016	Mid-Flood	CS(Mf)3	16:45	Middle	2	2	20.3	7.79	30.5	6.33	9.15	13.7
TMCLKL	HY/2012/07	07-01-2016	Mid-Flood	CS(Mf)3	16:45	Bottom	3	1	20.3	7.78	30.7	6.05	9.6	12.5
TMCLKL	HY/2012/07	07-01-2016	Mid-Flood	CS(Mf)3	16:45	Bottom	3	2	20.3	7.82	30.7	6	9.52	15.2
TMCLKL	HY/2012/07	07-01-2016	Mid-Ebb	CS(Mf)5	12:49	Surface	1	1	20.5	7.84	30.2	6.39	8.92	11.6
TMCLKL	HY/2012/07	07-01-2016	Mid-Ebb	CS(Mf)5	12:49	Surface	1	2	20.4	7.85	30.3	6.36	8.87	12.4
TMCLKL	HY/2012/07	07-01-2016	Mid-Ebb	CS(Mf)5	12:49	Middle	2	1	20.2	7.87	30.5	6.13	9.34	14
TMCLKL	HY/2012/07	07-01-2016	Mid-Ebb	CS(Mf)5	12:49	Middle	2	2	20.3	7.86	30.6	6.1	9.31	12.1
TMCLKL	HY/2012/07	07-01-2016	Mid-Ebb	CS(Mf)5	12:49	Bottom	3	1	20.2	7.88	30.6	6	9.83	14.7
TMCLKL	HY/2012/07	07-01-2016	Mid-Ebb	CS(Mf)5	12:49	Bottom	3	2	20.1	7.87	30.7	5.96	9.76	13.7
TMCLKL	HY/2012/07	07-01-2016	Mid-Ebb	SR4a	12:25	Surface	1	1	20.4	7.8	30.1	6.22	9.1	13.7
TMCLKL	HY/2012/07	07-01-2016	Mid-Ebb	SR4a	12:25	Surface	1	2	20.5	7.79	30.2	6.25	9.16	12.8
TMCLKL	HY/2012/07	07-01-2016	Mid-Ebb	SR4a	12:25	Middle	2	1						
TMCLKL	HY/2012/07	07-01-2016	Mid-Ebb	SR4a	12:25	Middle	2	2						
TMCLKL	HY/2012/07	07-01-2016	Mid-Ebb	SR4a	12:25	Bottom	3	1	20.1	7.76	30.2	5.95	9.91	13.9
TMCLKL	HY/2012/07	07-01-2016	Mid-Ebb	SR4a	12:25	Bottom	3	2	20.2	7.75	30.3	5.92	9.86	15.8
TMCLKL	HY/2012/07	07-01-2016	Mid-Ebb	SR4	12:03	Surface	1	1	20.4	7.77	30.1	6.35	9.5	15.2
TMCLKL	HY/2012/07	07-01-2016	Mid-Ebb	SR4	12:03	Surface	1	2	20.3	7.78	30.2	6.31	9.54	15.3
TMCLKL	HY/2012/07	07-01-2016	Mid-Ebb	SR4	12:03	Middle	2	1						
TMCLKL	HY/2012/07	07-01-2016	Mid-Ebb	SR4	12:03	Middle	2	2						
TMCLKL	HY/2012/07	07-01-2016	Mid-Ebb	SR4	12:03	Bottom	3	1	20.2	7.8	30.3	6.02	9.75	12.7
TMCLKL	HY/2012/07	07-01-2016	Mid-Ebb	SR4	12:03	Bottom	3	2	20.1	7.79	30.4	5.99	9.71	12.6
TMCLKL	HY/2012/07	07-01-2016	Mid-Ebb	IS8	11:41	Surface	1	1	20.3	7.78	30	6.28	9.84	12.8
TMCLKL	HY/2012/07	07-01-2016	Mid-Ebb	IS8	11:41	Surface	1	2	20.4	7.76	30.1	6.3	9.81	14.7
TMCLKL	HY/2012/07	07-01-2016	Mid-Ebb	IS8	11:41	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	07-01-2016	Mid-Ebb	IS8	11:41	Middle	2	2						
TMCLKL	HY/2012/07	07-01-2016	Mid-Ebb	IS8	11:41	Bottom	3	1	20.3	7.81	30.2	5.95	10.7	15
TMCLKL	HY/2012/07	07-01-2016	Mid-Ebb	IS8	11:41	Bottom	3	2	20.2	7.8	30.3	5.92	10.9	14.2
TMCLKL	HY/2012/07	07-01-2016	Mid-Ebb	IS(Mf)16	11:19	Surface	1	1	20.3	7.81	30.2	6.58	9.1	10.9
TMCLKL	HY/2012/07	07-01-2016	Mid-Ebb	IS(Mf)16	11:19	Surface	1	2	20.2	7.82	30.3	6.6	9.14	13.7
TMCLKL	HY/2012/07	07-01-2016	Mid-Ebb	IS(Mf)16	11:19	Middle	2	1	20.1	7.8	30.4	6.3	9.58	11.5
TMCLKL	HY/2012/07	07-01-2016	Mid-Ebb	IS(Mf)16	11:19	Middle	2	2	20.2	7.78	30.5	6.26	9.64	13.5
TMCLKL	HY/2012/07	07-01-2016	Mid-Ebb	IS(Mf)16	11:19	Bottom	3	1	20.1	7.81	30.5	6.06	9.85	14.8
TMCLKL	HY/2012/07	07-01-2016	Mid-Ebb	IS(Mf)16	11:19	Bottom	3	2	20	7.8	30.6	6.03	9.83	13.8
TMCLKL	HY/2012/07	07-01-2016	Mid-Ebb	IS(Mf)9	10:57	Surface	1	1	20.3	7.77	30.1	6.29	9.29	13.9
TMCLKL	HY/2012/07	07-01-2016	Mid-Ebb	IS(Mf)9	10:57	Surface	1	2	20.2	7.78	30.2	6.26	9.26	12
TMCLKL	HY/2012/07	07-01-2016	Mid-Ebb	IS(Mf)9	10:57	Middle	2	1						
TMCLKL	HY/2012/07	07-01-2016	Mid-Ebb	IS(Mf)9	10:57	Middle	2	2						
TMCLKL	HY/2012/07	07-01-2016	Mid-Ebb	IS(Mf)9	10:57	Bottom	3	1	20.1	7.76	30.2	6.07	10.7	13.9
TMCLKL	HY/2012/07	07-01-2016	Mid-Ebb	IS(Mf)9	10:57	Bottom	3	2	20.2	7.77	30.3	6.03	10.6	17
TMCLKL	HY/2012/07	07-01-2016	Mid-Ebb	CS(Mf)3	10:35	Surface	1	1	20.4	7.75	30.1	6.46	9	13.5
TMCLKL	HY/2012/07	07-01-2016	Mid-Ebb	CS(Mf)3	10:35	Surface	1	2	20.3	7.76	30.2	6.49	8.96	11.6
TMCLKL	HY/2012/07	07-01-2016	Mid-Ebb	CS(Mf)3	10:35	Middle	2	1	20.1	7.79	30.4	6.11	9.43	14.1
TMCLKL	HY/2012/07	07-01-2016	Mid-Ebb	CS(Mf)3	10:35	Middle	2	2	20	7.78	30.3	6.15	9.36	13.1
TMCLKL	HY/2012/07	07-01-2016	Mid-Ebb	CS(Mf)3	10:35	Bottom	3	1	20	7.8	30.4	5.95	9.72	14.6
TMCLKL	HY/2012/07	07-01-2016	Mid-Ebb	CS(Mf)3	10:35	Bottom	3	2	19.9	7.81	30.3	5.92	9.68	14.5
TMCLKL	HY/2012/07	09-01-2016	Mid-Flood	CS(Mf)5	16:11	Surface	1	1	20.5	7.86	30.3	6.38	7.06	10.6
TMCLKL	HY/2012/07	09-01-2016	Mid-Flood	CS(Mf)5	16:11	Surface	1	2	20.5	7.9	30.4	6.34	6.97	10.5
TMCLKL	HY/2012/07	09-01-2016	Mid-Flood	CS(Mf)5	16:11	Middle	2	1	20.5	7.83	30.4	6.13	7.33	9.5
TMCLKL	HY/2012/07	09-01-2016	Mid-Flood	CS(Mf)5	16:11	Middle	2	2	20.4	7.88	30.4	6.1	7.28	9.5
TMCLKL	HY/2012/07	09-01-2016	Mid-Flood	CS(Mf)5	16:11	Bottom	3	1	20.3	7.89	30.6	6.01	7.67	10
TMCLKL	HY/2012/07	09-01-2016	Mid-Flood	CS(Mf)5	16:11	Bottom	3	2	20.2	7.93	30.7	5.97	7.73	11.6
TMCLKL	HY/2012/07	09-01-2016	Mid-Flood	SR4a	16:35	Surface	1	1	20.6	7.87	30.3	6.22	7.03	9.8
TMCLKL	HY/2012/07	09-01-2016	Mid-Flood	SR4a	16:35	Surface	1	2	20.5	7.9	30.3	6.19	7.1	10.7
TMCLKL	HY/2012/07	09-01-2016	Mid-Flood	SR4a	16:35	Middle	2	1						
TMCLKL	HY/2012/07	09-01-2016	Mid-Flood	SR4a	16:35	Middle	2	2						
TMCLKL	HY/2012/07	09-01-2016	Mid-Flood	SR4a	16:35	Bottom	3	1	20.5	7.85	30.4	5.9	7.46	9.7
TMCLKL	HY/2012/07	09-01-2016	Mid-Flood	SR4a	16:35	Bottom	3	2	20.5	7.89	30.4	5.88	7.55	9.8

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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	09-01-2016	Mid-Flood	SR4	16:50	Surface	1	1	20.5	7.79	30.3	6.16	7.39	11.8
TMCLKL	HY/2012/07	09-01-2016	Mid-Flood	SR4	16:50	Surface	1	2	20.6	7.82	30.4	6.13	7.46	11.9
TMCLKL	HY/2012/07	09-01-2016	Mid-Flood	SR4	16:50	Middle	2	1						
TMCLKL	HY/2012/07	09-01-2016	Mid-Flood	SR4	16:50	Middle	2	2						
TMCLKL	HY/2012/07	09-01-2016	Mid-Flood	SR4	16:50	Bottom	3	1	20.5	7.78	30.4	6.04	7.67	10.7
TMCLKL	HY/2012/07	09-01-2016	Mid-Flood	SR4	16:50	Bottom	3	2	20.4	7.8	30.5	6.01	7.72	10
TMCLKL	HY/2012/07	09-01-2016	Mid-Flood	IS8	17:06	Surface	1	1	20.5	7.81	30.2	6.11	7.62	9.9
TMCLKL	HY/2012/07	09-01-2016	Mid-Flood	IS8	17:06	Surface	1	2	20.5	7.83	30.3	6.09	7.7	10
TMCLKL	HY/2012/07	09-01-2016	Mid-Flood	IS8	17:06	Middle	2	1						
TMCLKL	HY/2012/07	09-01-2016	Mid-Flood	IS8	17:06	Middle	2	2						
TMCLKL	HY/2012/07	09-01-2016	Mid-Flood	IS8	17:06	Bottom	3	1	20.4	7.84	30.4	5.94	7.93	11.9
TMCLKL	HY/2012/07	09-01-2016	Mid-Flood	IS8	17:06	Bottom	3	2	20.4	7.88	30.4	5.9	8.01	12
TMCLKL	HY/2012/07	09-01-2016	Mid-Flood	IS(Mf)16	17:23	Surface	1	1	20.5	7.73	30.3	6.34	7.32	10.2
TMCLKL	HY/2012/07	09-01-2016	Mid-Flood	IS(Mf)16	17:23	Surface	1	2	20.6	7.77	30.3	6.31	7.4	8.9
TMCLKL	HY/2012/07	09-01-2016	Mid-Flood	IS(Mf)16	17:23	Middle	2	1	20.5	7.76	30.5	6.19	7.53	9.8
TMCLKL	HY/2012/07	09-01-2016	Mid-Flood	IS(Mf)16	17:23	Middle	2	2	20.5	7.8	30.5	6.16	7.6	9.9
TMCLKL	HY/2012/07	09-01-2016	Mid-Flood	IS(Mf)16	17:23	Bottom	3	1	20.4	7.74	30.7	6	8.04	10.5
TMCLKL	HY/2012/07	09-01-2016	Mid-Flood	IS(Mf)16	17:23	Bottom	3	2	20.3	7.77	30.7	5.95	8.1	13
TMCLKL	HY/2012/07	09-01-2016	Mid-Flood	IS(Mf)9	17:46	Surface	1	1	20.5	7.79	30.3	6.27	7.19	10.8
TMCLKL	HY/2012/07	09-01-2016	Mid-Flood	IS(Mf)9	17:46	Surface	1	2	20.5	7.84	30.3	6.3	7.25	11.6
TMCLKL	HY/2012/07	09-01-2016	Mid-Flood	IS(Mf)9	17:46	Middle	2	1						
TMCLKL	HY/2012/07	09-01-2016	Mid-Flood	IS(Mf)9	17:46	Middle	2	2						
TMCLKL	HY/2012/07	09-01-2016	Mid-Flood	IS(Mf)9	17:46	Bottom	3	1	20.3	7.8	30.4	6.05	7.9	10.3
TMCLKL	HY/2012/07	09-01-2016	Mid-Flood	IS(Mf)9	17:46	Bottom	3	2	20.3	7.84	30.5	6.02	7.83	11.7
TMCLKL	HY/2012/07	09-01-2016	Mid-Flood	CS(Mf)3	18:08	Surface	1	1	20.5	7.73	30.1	6.48	7.67	10.7
TMCLKL	HY/2012/07	09-01-2016	Mid-Flood	CS(Mf)3	18:08	Surface	1	2	20.6	7.77	30.2	6.45	7.59	11.4
TMCLKL	HY/2012/07	09-01-2016	Mid-Flood	CS(Mf)3	18:08	Middle	2	1	20.4	7.78	30.2	6.27	8.04	11.3
TMCLKL	HY/2012/07	09-01-2016	Mid-Flood	CS(Mf)3	18:08	Middle	2	2	20.4	7.76	30.3	6.24	8.12	10.6
TMCLKL	HY/2012/07	09-01-2016	Mid-Flood	CS(Mf)3	18:08	Bottom	3	1	20.2	7.73	30.6	6.1	8.3	10.8
TMCLKL	HY/2012/07	09-01-2016	Mid-Flood	CS(Mf)3	18:08	Bottom	3	2	20.2	7.75	30.6	6.06	8.39	10.9
TMCLKL	HY/2012/07	09-01-2016	Mid-Ebb	CS(Mf)5	14:15	Surface	1	1	20.6	7.9	30.3	6.3	6.98	10.5
TMCLKL	HY/2012/07	09-01-2016	Mid-Ebb	CS(Mf)5	14:15	Surface	1	2	20.5	7.91	30.2	6.27	6.93	10.4
TMCLKL	HY/2012/07	09-01-2016	Mid-Ebb	CS(Mf)5	14:15	Middle	2	1	20.4	7.93	30.4	6.04	7.4	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	09-01-2016	Mid-Ebb	CS(Mf)5	14:15	Middle	2	2	20.3	7.92	30.5	6.01	7.37	11.1
TMCLKL	HY/2012/07	09-01-2016	Mid-Ebb	CS(Mf)5	14:15	Bottom	3	1	20.2	7.94	30.5	5.91	7.89	11
TMCLKL	HY/2012/07	09-01-2016	Mid-Ebb	CS(Mf)5	14:15	Bottom	3	2	20.3	7.93	30.6	5.87	7.82	10.2
TMCLKL	HY/2012/07	09-01-2016	Mid-Ebb	SR4a	13:51	Surface	1	1	20.5	7.86	30.2	6.13	7.16	11.5
TMCLKL	HY/2012/07	09-01-2016	Mid-Ebb	SR4a	13:51	Surface	1	2	20.6	7.85	30.3	6.16	7.22	10.8
TMCLKL	HY/2012/07	09-01-2016	Mid-Ebb	SR4a	13:51	Middle	2	1						
TMCLKL	HY/2012/07	09-01-2016	Mid-Ebb	SR4a	13:51	Middle	2	2						
TMCLKL	HY/2012/07	09-01-2016	Mid-Ebb	SR4a	13:51	Bottom	3	1	20.4	7.82	30.3	5.86	7.97	11.2
TMCLKL	HY/2012/07	09-01-2016	Mid-Ebb	SR4a	13:51	Bottom	3	2	20.3	7.81	30.4	5.83	7.92	11.9
TMCLKL	HY/2012/07	09-01-2016	Mid-Ebb	SR4	13:29	Surface	1	1	20.4	7.83	30.2	6.26	7.56	9.8
TMCLKL	HY/2012/07	09-01-2016	Mid-Ebb	SR4	13:29	Surface	1	2	20.3	7.84	30.3	6.22	7.6	10.6
TMCLKL	HY/2012/07	09-01-2016	Mid-Ebb	SR4	13:29	Middle	2	1						
TMCLKL	HY/2012/07	09-01-2016	Mid-Ebb	SR4	13:29	Middle	2	2						
TMCLKL	HY/2012/07	09-01-2016	Mid-Ebb	SR4	13:29	Bottom	3	1	20.2	7.86	30.4	5.93	7.81	10.2
TMCLKL	HY/2012/07	09-01-2016	Mid-Ebb	SR4	13:29	Bottom	3	2	20.3	7.85	30.5	5.9	7.77	10.1
TMCLKL	HY/2012/07	09-01-2016	Mid-Ebb	IS8	13:07	Surface	1	1	20.5	7.84	30.1	6.19	7.9	11.9
TMCLKL	HY/2012/07	09-01-2016	Mid-Ebb	IS8	13:07	Surface	1	2	20.4	7.82	30.2	6.21	7.87	10.2
TMCLKL	HY/2012/07	09-01-2016	Mid-Ebb	IS8	13:07	Middle	2	1						
TMCLKL	HY/2012/07	09-01-2016	Mid-Ebb	IS8	13:07	Middle	2	2						
TMCLKL	HY/2012/07	09-01-2016	Mid-Ebb	IS8	13:07	Bottom	3	1	20.3	7.87	30.3	5.86	8.13	13
TMCLKL	HY/2012/07	09-01-2016	Mid-Ebb	IS8	13:07	Bottom	3	2	20.3	7.86	30.4	5.83	8.15	11.4
TMCLKL	HY/2012/07	09-01-2016	Mid-Ebb	IS(Mf)16	12:45	Surface	1	1	20.4	7.87	30.2	6.49	7.16	9.3
TMCLKL	HY/2012/07	09-01-2016	Mid-Ebb	IS(Mf)16	12:45	Surface	1	2	20.3	7.88	30.3	6.51	7.2	11.5
TMCLKL	HY/2012/07	09-01-2016	Mid-Ebb	IS(Mf)16	12:45	Middle	2	1	20.2	7.86	30.6	6.21	7.64	11.5
TMCLKL	HY/2012/07	09-01-2016	Mid-Ebb	IS(Mf)16	12:45	Middle	2	2	20.3	7.84	30.5	6.17	7.7	9.2
TMCLKL	HY/2012/07	09-01-2016	Mid-Ebb	IS(Mf)16	12:45	Bottom	3	1	20.1	7.87	30.6	5.97	7.91	10.3
TMCLKL	HY/2012/07	09-01-2016	Mid-Ebb	IS(Mf)16	12:45	Bottom	3	2	20.2	7.86	30.7	5.94	7.9	11.9
TMCLKL	HY/2012/07	09-01-2016	Mid-Ebb	IS(Mf)9	12:23	Surface	1	1	20.4	7.83	30.2	6.2	7.35	9.6
TMCLKL	HY/2012/07	09-01-2016	Mid-Ebb	IS(Mf)9	12:23	Surface	1	2	20.3	7.84	30.3	6.17	7.32	11.7
TMCLKL	HY/2012/07	09-01-2016	Mid-Ebb	IS(Mf)9	12:23	Middle	2	1						
TMCLKL	HY/2012/07	09-01-2016	Mid-Ebb	IS(Mf)9	12:23	Middle	2	2						
TMCLKL	HY/2012/07	09-01-2016	Mid-Ebb	IS(Mf)9	12:23	Bottom	3	1	20.1	7.82	30.4	5.98	8.07	10.5
TMCLKL	HY/2012/07	09-01-2016	Mid-Ebb	IS(Mf)9	12:23	Bottom	3	2	20.2	7.83	30.3	5.94	8.06	12.1

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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	09-01-2016	Mid-Ebb	CS(Mf)3	12:01	Surface	1	1	20.5	7.81	30.2	6.52	7.91	12.7
TMCLKL	HY/2012/07	09-01-2016	Mid-Ebb	CS(Mf)3	12:01	Surface	1	2	20.4	7.82	30.3	6.55	7.87	11.8
TMCLKL	HY/2012/07	09-01-2016	Mid-Ebb	CS(Mf)3	12:01	Middle	2	1	20.2	7.85	30.5	6.17	8.34	12.5
TMCLKL	HY/2012/07	09-01-2016	Mid-Ebb	CS(Mf)3	12:01	Middle	2	2	20.1	7.84	30.4	6.21	8.27	13.2
TMCLKL	HY/2012/07	09-01-2016	Mid-Ebb	CS(Mf)3	12:01	Bottom	3	1	20.1	7.86	30.5	6.01	8.72	13.1
TMCLKL	HY/2012/07	09-01-2016	Mid-Ebb	CS(Mf)3	12:01	Bottom	3	2	20	7.87	30.6	5.98	8.68	11.3
TMCLKL	HY/2012/07	12-01-2016	Mid-Flood	CS(Mf)5	8:34	Surface	1	1	20.3	7.96	30.3	6.36	6.89	9.6
TMCLKL	HY/2012/07	12-01-2016	Mid-Flood	CS(Mf)5	8:34	Surface	1	2	20.4	7.97	30.4	6.33	6.84	8.9
TMCLKL	HY/2012/07	12-01-2016	Mid-Flood	CS(Mf)5	8:34	Middle	2	1	20.2	7.99	30.5	6.1	7.31	8.8
TMCLKL	HY/2012/07	12-01-2016	Mid-Flood	CS(Mf)5	8:34	Middle	2	2	20.1	7.98	30.6	6.07	7.28	10.2
TMCLKL	HY/2012/07	12-01-2016	Mid-Flood	CS(Mf)5	8:34	Bottom	3	1	20.1	8	30.6	5.97	7.8	10.1
TMCLKL	HY/2012/07	12-01-2016	Mid-Flood	CS(Mf)5	8:34	Bottom	3	2	20.1	7.99	30.7	5.93	7.73	11.6
TMCLKL	HY/2012/07	12-01-2016	Mid-Flood	SR4a	8:56	Surface	1	1	20.4	7.92	30.3	6.19	7.07	9.2
TMCLKL	HY/2012/07	12-01-2016	Mid-Flood	SR4a	8:56	Surface	1	2	20.3	7.91	30.4	6.22	7.13	10.7
TMCLKL	HY/2012/07	12-01-2016	Mid-Flood	SR4a	8:56	Middle	2	1						
TMCLKL	HY/2012/07	12-01-2016	Mid-Flood	SR4a	8:56	Middle	2	2						
TMCLKL	HY/2012/07	12-01-2016	Mid-Flood	SR4a	8:56	Bottom	3	1	20.1	7.88	30.4	5.92	7.88	10.2
TMCLKL	HY/2012/07	12-01-2016	Mid-Flood	SR4a	8:56	Bottom	3	2	20.2	7.87	30.5	5.89	7.83	11
TMCLKL	HY/2012/07	12-01-2016	Mid-Flood	SR4	9:18	Surface	1	1	20.1	7.89	30.3	6.32	7.47	10.5
TMCLKL	HY/2012/07	12-01-2016	Mid-Flood	SR4	9:18	Surface	1	2	20.2	7.9	30.4	6.28	7.51	10.5
TMCLKL	HY/2012/07	12-01-2016	Mid-Flood	SR4	9:18	Middle	2	1						
TMCLKL	HY/2012/07	12-01-2016	Mid-Flood	SR4	9:18	Middle	2	2						
TMCLKL	HY/2012/07	12-01-2016	Mid-Flood	SR4	9:18	Bottom	3	1	20.2	7.92	30.5	5.99	7.72	10
TMCLKL	HY/2012/07	12-01-2016	Mid-Flood	SR4	9:18	Bottom	3	2	20.3	7.91	30.4	5.96	7.68	10
TMCLKL	HY/2012/07	12-01-2016	Mid-Flood	IS8	9:40	Surface	1	1	20.3	7.9	30.2	6.25	7.61	9.9
TMCLKL	HY/2012/07	12-01-2016	Mid-Flood	IS8	9:40	Surface	1	2	20.2	7.88	30.3	6.27	7.78	10.1
TMCLKL	HY/2012/07	12-01-2016	Mid-Flood	IS8	9:40	Middle	2	1						
TMCLKL	HY/2012/07	12-01-2016	Mid-Flood	IS8	9:40	Middle	2	2						
TMCLKL	HY/2012/07	12-01-2016	Mid-Flood	IS8	9:40	Bottom	3	1	20.1	7.93	30.4	5.92	8.04	11.3
TMCLKL	HY/2012/07	12-01-2016	Mid-Flood	IS8	9:40	Bottom	3	2	20.2	7.92	30.3	5.89	8.06	11.3
TMCLKL	HY/2012/07	12-01-2016	Mid-Flood	IS(Mf)16	10:02	Surface	1	1	20.2	7.93	30.3	6.55	7.07	11.3
TMCLKL	HY/2012/07	12-01-2016	Mid-Flood	IS(Mf)16	10:02	Surface	1	2	20.1	7.94	30.4	6.57	7.11	10
TMCLKL	HY/2012/07	12-01-2016	Mid-Flood	IS(Mf)16	10:02	Middle	2	1	20	7.92	30.5	6.27	7.55	9.8

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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	12-01-2016	Mid-Flood	IS(Mf)16	10:02	Middle	2	2	19.9	7.9	30.4	6.23	7.61	11.4
TMCLKL	HY/2012/07	12-01-2016	Mid-Flood	IS(Mf)16	10:02	Bottom	3	1	19.9	7.93	30.6	6.03	7.82	11.7
TMCLKL	HY/2012/07	12-01-2016	Mid-Flood	IS(Mf)16	10:02	Bottom	3	2	19.8	7.92	30.7	6	7.81	11.7
TMCLKL	HY/2012/07	12-01-2016	Mid-Flood	IS(Mf)9	10:24	Surface	1	1	20.3	7.89	30.3	6.26	7.26	10.9
TMCLKL	HY/2012/07	12-01-2016	Mid-Flood	IS(Mf)9	10:24	Surface	1	2	20.2	7.9	30.4	6.23	7.23	9.4
TMCLKL	HY/2012/07	12-01-2016	Mid-Flood	IS(Mf)9	10:24	Middle	2	1						
TMCLKL	HY/2012/07	12-01-2016	Mid-Flood	IS(Mf)9	10:24	Middle	2	2						
TMCLKL	HY/2012/07	12-01-2016	Mid-Flood	IS(Mf)9	10:24	Bottom	3	1	20	7.88	30.4	6.04	7.98	11.2
TMCLKL	HY/2012/07	12-01-2016	Mid-Flood	IS(Mf)9	10:24	Bottom	3	2	19.9	7.89	30.5	6	7.97	12
TMCLKL	HY/2012/07	12-01-2016	Mid-Flood	CS(Mf)3	10:48	Surface	1	1	20.2	7.87	30.4	6.58	7.82	10.2
TMCLKL	HY/2012/07	12-01-2016	Mid-Flood	CS(Mf)3	10:48	Surface	1	2	20.3	7.88	30.3	6.61	7.84	9.4
TMCLKL	HY/2012/07	12-01-2016	Mid-Flood	CS(Mf)3	10:48	Middle	2	1	20.1	7.91	30.6	6.23	8.25	12.4
TMCLKL	HY/2012/07	12-01-2016	Mid-Flood	CS(Mf)3	10:48	Middle	2	2	20	7.9	30.5	6.27	8.18	12.3
TMCLKL	HY/2012/07	12-01-2016	Mid-Flood	CS(Mf)3	10:48	Bottom	3	1	19.9	7.92	30.6	6.07	8.63	11.2
TMCLKL	HY/2012/07	12-01-2016	Mid-Flood	CS(Mf)3	10:48	Bottom	3	2	20	7.93	30.7	6.04	8.59	12.9
TMCLKL	HY/2012/07	12-01-2016	Mid-Ebb	CS(Mf)5	15:18	Surface	1	1	20.2	7.89	30.2	6.24	7.94	11.9
TMCLKL	HY/2012/07	12-01-2016	Mid-Ebb	CS(Mf)5	15:18	Surface	1	2	20.2	7.92	30.1	6.21	8.03	12
TMCLKL	HY/2012/07	12-01-2016	Mid-Ebb	CS(Mf)5	15:18	Middle	2	1	20.2	7.9	30.4	6.05	7.61	11.4
TMCLKL	HY/2012/07	12-01-2016	Mid-Ebb	CS(Mf)5	15:18	Middle	2	2	20.1	7.93	30.4	6.02	7.52	11.3
TMCLKL	HY/2012/07	12-01-2016	Mid-Ebb	CS(Mf)5	15:18	Bottom	3	1	19.9	7.97	30.6	5.81	8.4	12.6
TMCLKL	HY/2012/07	12-01-2016	Mid-Ebb	CS(Mf)5	15:18	Bottom	3	2	19.9	7.94	30.7	5.77	8.49	12.7
TMCLKL	HY/2012/07	12-01-2016	Mid-Ebb	SR4a	15:00	Surface	1	1	20.3	7.84	30.2	6.14	10.9	13.1
TMCLKL	HY/2012/07	12-01-2016	Mid-Ebb	SR4a	15:00	Surface	1	2	20.2	7.88	30.2	6.11	9.82	12.8
TMCLKL	HY/2012/07	12-01-2016	Mid-Ebb	SR4a	15:00	Middle	2	1						
TMCLKL	HY/2012/07	12-01-2016	Mid-Ebb	SR4a	15:00	Middle	2	2						
TMCLKL	HY/2012/07	12-01-2016	Mid-Ebb	SR4a	15:00	Bottom	3	1	20.1	7.84	30.3	5.86	8.29	10.8
TMCLKL	HY/2012/07	12-01-2016	Mid-Ebb	SR4a	15:00	Bottom	3	2	20.1	7.89	30.3	5.83	8.37	10
TMCLKL	HY/2012/07	12-01-2016	Mid-Ebb	SR4	14:37	Surface	1	1	20.2	7.82	30.2	6.24	5.62	7.3
TMCLKL	HY/2012/07	12-01-2016	Mid-Ebb	SR4	14:37	Surface	1	2	20.2	7.84	30.1	6.21	5.53	6.6
TMCLKL	HY/2012/07	12-01-2016	Mid-Ebb	SR4	14:37	Middle	2	1						
TMCLKL	HY/2012/07	12-01-2016	Mid-Ebb	SR4	14:37	Middle	2	2						
TMCLKL	HY/2012/07	12-01-2016	Mid-Ebb	SR4	14:37	Bottom	3	1	20.2	7.87	30.4	5.91	4.6	5.5
TMCLKL	HY/2012/07	12-01-2016	Mid-Ebb	SR4	14:37	Bottom	3	2	20.2	7.89	30.3	5.89	4.42	6.2

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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	12-01-2016	Mid-Ebb	IS8	14:17	Surface	1	1	20.2	7.89	30.2	6.2	5.88	8.2
TMCLKL	HY/2012/07	12-01-2016	Mid-Ebb	IS8	14:17	Surface	1	2	20.2	7.91	30.2	6.16	5.94	8.3
TMCLKL	HY/2012/07	12-01-2016	Mid-Ebb	IS8	14:17	Middle	2	1						
TMCLKL	HY/2012/07	12-01-2016	Mid-Ebb	IS8	14:17	Middle	2	2						
TMCLKL	HY/2012/07	12-01-2016	Mid-Ebb	IS8	14:17	Bottom	3	1	20.1	7.86	30.3	5.82	4.87	6.8
TMCLKL	HY/2012/07	12-01-2016	Mid-Ebb	IS8	14:17	Bottom	3	2	20	7.89	30.3	5.8	4.96	6.4
TMCLKL	HY/2012/07	12-01-2016	Mid-Ebb	IS(Mf)16	13:49	Surface	1	1	20.3	7.88	30.2	6.39	6.49	9.7
TMCLKL	HY/2012/07	12-01-2016	Mid-Ebb	IS(Mf)16	13:49	Surface	1	2	20.2	7.91	30.3	6.35	6.55	9.2
TMCLKL	HY/2012/07	12-01-2016	Mid-Ebb	IS(Mf)16	13:49	Middle	2	1	20.1	7.84	30.3	6.22	6.89	9
TMCLKL	HY/2012/07	12-01-2016	Mid-Ebb	IS(Mf)16	13:49	Middle	2	2	20	7.87	30.4	6.19	6.91	11.2
TMCLKL	HY/2012/07	12-01-2016	Mid-Ebb	IS(Mf)16	13:49	Bottom	3	1	19.9	7.89	30.5	5.84	7.24	10.1
TMCLKL	HY/2012/07	12-01-2016	Mid-Ebb	IS(Mf)16	13:49	Bottom	3	2	19.9	7.9	30.6	5.88	7.3	9.5
TMCLKL	HY/2012/07	12-01-2016	Mid-Ebb	IS(Mf)9	13:29	Surface	1	1	20.4	7.84	30.3	6.28	6.73	8.7
TMCLKL	HY/2012/07	12-01-2016	Mid-Ebb	IS(Mf)9	13:29	Surface	1	2	20.3	7.88	30.2	6.31	6.81	9.5
TMCLKL	HY/2012/07	12-01-2016	Mid-Ebb	IS(Mf)9	13:29	Middle	2	1						
TMCLKL	HY/2012/07	12-01-2016	Mid-Ebb	IS(Mf)9	13:29	Middle	2	2						
TMCLKL	HY/2012/07	12-01-2016	Mid-Ebb	IS(Mf)9	13:29	Bottom	3	1	20.2	7.86	30.4	6.07	7.3	11.7
TMCLKL	HY/2012/07	12-01-2016	Mid-Ebb	IS(Mf)9	13:29	Bottom	3	2	20.1	7.89	30.4	6.11	7.37	11.1
TMCLKL	HY/2012/07	12-01-2016	Mid-Ebb	CS(Mf)3	13:05	Surface	1	1	20.4	7.8	30.4	6.53	7.74	10.8
TMCLKL	HY/2012/07	12-01-2016	Mid-Ebb	CS(Mf)3	13:05	Surface	1	2	20.4	7.84	30.4	6.49	7.81	12.8
TMCLKL	HY/2012/07	12-01-2016	Mid-Ebb	CS(Mf)3	13:05	Middle	2	1	20.2	7.83	30.5	6.18	7.32	9.5
TMCLKL	HY/2012/07	12-01-2016	Mid-Ebb	CS(Mf)3	13:05	Middle	2	2	20.2	7.81	30.5	6.21	7.41	8.9
TMCLKL	HY/2012/07	12-01-2016	Mid-Ebb	CS(Mf)3	13:05	Bottom	3	1	19.9	7.88	30.7	5.96	8.22	9.9
TMCLKL	HY/2012/07	12-01-2016	Mid-Ebb	CS(Mf)3	13:05	Bottom	3	2	19.9	7.9	30.7	5.99	8.31	10.8
TMCLKL	HY/2012/07	14-01-2016	Mid-Flood	CS(Mf)5	9:53	Surface	1	1	19.4	7.78	30	6.46	7.83	12.5
TMCLKL	HY/2012/07	14-01-2016	Mid-Flood	CS(Mf)5	9:53	Surface	1	2	19.5	7.83	29.9	6.43	7.91	12.7
TMCLKL	HY/2012/07	14-01-2016	Mid-Flood	CS(Mf)5	9:53	Middle	2	1	19.5	7.8	30.2	6.25	7.5	9.8
TMCLKL	HY/2012/07	14-01-2016	Mid-Flood	CS(Mf)5	9:53	Middle	2	2	19.6	7.84	30.3	6.21	7.42	10.4
TMCLKL	HY/2012/07	14-01-2016	Mid-Flood	CS(Mf)5	9:53	Bottom	3	1	19.3	7.87	30.5	6.07	8.16	12.2
TMCLKL	HY/2012/07	14-01-2016	Mid-Flood	CS(Mf)5	9:53	Bottom	3	2	19.4	7.83	30.6	6.03	8.24	10.7
TMCLKL	HY/2012/07	14-01-2016	Mid-Flood	SR4a	10:20	Surface	1	1	19.5	7.81	30	6.34	9.04	12.7
TMCLKL	HY/2012/07	14-01-2016	Mid-Flood	SR4a	10:20	Surface	1	2	19.5	7.84	30.1	6.31	8.86	10.6
TMCLKL	HY/2012/07	14-01-2016	Mid-Flood	SR4a	10:20	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	14-01-2016	Mid-Flood	SR4a	10:20	Middle	2	2						
TMCLKL	HY/2012/07	14-01-2016	Mid-Flood	SR4a	10:20	Bottom	3	1	19.5	7.83	30.3	6.18	8.04	11.3
TMCLKL	HY/2012/07	14-01-2016	Mid-Flood	SR4a	10:20	Bottom	3	2	19.4	7.8	30.4	6.14	8.12	11.4
TMCLKL	HY/2012/07	14-01-2016	Mid-Flood	SR4	10:36	Surface	1	1	19.4	7.79	30	6.38	5.83	8.2
TMCLKL	HY/2012/07	14-01-2016	Mid-Flood	SR4	10:36	Surface	1	2	19.5	7.83	30	6.35	5.71	6.9
TMCLKL	HY/2012/07	14-01-2016	Mid-Flood	SR4	10:36	Middle	2	1						
TMCLKL	HY/2012/07	14-01-2016	Mid-Flood	SR4	10:36	Middle	2	2						
TMCLKL	HY/2012/07	14-01-2016	Mid-Flood	SR4	10:36	Bottom	3	1	19.4	7.82	30.2	6.12	4.83	7.2
TMCLKL	HY/2012/07	14-01-2016	Mid-Flood	SR4	10:36	Bottom	3	2	19.4	7.85	30.3	6.1	4.91	6.4
TMCLKL	HY/2012/07	14-01-2016	Mid-Flood	IS8	10:54	Surface	1	1	19.5	7.84	30.1	6.28	5.67	7.4
TMCLKL	HY/2012/07	14-01-2016	Mid-Flood	IS8	10:54	Surface	1	2	19.5	7.86	30	6.25	5.74	8
TMCLKL	HY/2012/07	14-01-2016	Mid-Flood	IS8	10:54	Middle	2	1						
TMCLKL	HY/2012/07	14-01-2016	Mid-Flood	IS8	10:54	Middle	2	2						
TMCLKL	HY/2012/07	14-01-2016	Mid-Flood	IS8	10:54	Bottom	3	1	19.5	7.82	30.3	6.08	4.98	6
TMCLKL	HY/2012/07	14-01-2016	Mid-Flood	IS8	10:54	Bottom	3	2	19.4	7.84	30.3	6.05	5.05	6.6
TMCLKL	HY/2012/07	14-01-2016	Mid-Flood	IS(Mf)16	11:14	Surface	1	1	19.5	7.77	30.2	6.32	6.27	8.8
TMCLKL	HY/2012/07	14-01-2016	Mid-Flood	IS(Mf)16	11:14	Surface	1	2	19.4	7.8	30.1	6.29	6.3	8.9
TMCLKL	HY/2012/07	14-01-2016	Mid-Flood	IS(Mf)16	11:14	Middle	2	1	19.5	7.76	30.2	6.22	6.61	9.3
TMCLKL	HY/2012/07	14-01-2016	Mid-Flood	IS(Mf)16	11:14	Middle	2	2	19.5	7.78	30.3	6.2	6.67	9.3
TMCLKL	HY/2012/07	14-01-2016	Mid-Flood	IS(Mf)16	11:14	Bottom	3	1	19.4	7.76	30.5	5.88	7.04	9.2
TMCLKL	HY/2012/07	14-01-2016	Mid-Flood	IS(Mf)16	11:14	Bottom	3	2	19.3	7.72	30.6	5.85	7.12	8.5
TMCLKL	HY/2012/07	14-01-2016	Mid-Flood	IS(Mf)9	11:35	Surface	1	1	19.5	7.76	30.1	6.18	6.45	9.7
TMCLKL	HY/2012/07	14-01-2016	Mid-Flood	IS(Mf)9	11:35	Surface	1	2	19.6	7.79	30.1	6.21	6.39	9.6
TMCLKL	HY/2012/07	14-01-2016	Mid-Flood	IS(Mf)9	11:35	Middle	2	1						
TMCLKL	HY/2012/07	14-01-2016	Mid-Flood	IS(Mf)9	11:35	Middle	2	2						
TMCLKL	HY/2012/07	14-01-2016	Mid-Flood	IS(Mf)9	11:35	Bottom	3	1	19.5	7.75	30.3	6.05	7.08	9.2
TMCLKL	HY/2012/07	14-01-2016	Mid-Flood	IS(Mf)9	11:35	Bottom	3	2	19.4	7.77	30.3	6.02	6.99	10.5
TMCLKL	HY/2012/07	14-01-2016	Mid-Flood	CS(Mf)3	11:55	Surface	1	1	19.6	7.83	30.1	6.4	7.58	12.1
TMCLKL	HY/2012/07	14-01-2016	Mid-Flood	CS(Mf)3	11:55	Surface	1	2	19.6	7.8	30.2	6.36	7.65	10.7
TMCLKL	HY/2012/07	14-01-2016	Mid-Flood	CS(Mf)3	11:55	Middle	2	1	19.6	7.78	30.2	6.27	7.28	10.2
TMCLKL	HY/2012/07	14-01-2016	Mid-Flood	CS(Mf)3	11:55	Middle	2	2	19.5	7.82	30.3	6.23	7.34	9.5
TMCLKL	HY/2012/07	14-01-2016	Mid-Flood	CS(Mf)3	11:55	Bottom	3	1	19.5	7.84	30.5	6.05	7.89	11.8
TMCLKL	HY/2012/07	14-01-2016	Mid-Flood	CS(Mf)3	11:55	Bottom	3	2	19.4	7.81	30.6	6.08	7.97	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	14-01-2016	Mid-Ebb	CS(Mf)5	16:41	Surface	1	1	19.3	7.84	30.2	6.38	7.74	10.1
TMCLKL	HY/2012/07	14-01-2016	Mid-Ebb	CS(Mf)5	16:41	Surface	1	2	19.4	7.8	30.3	6.36	7.82	10.9
TMCLKL	HY/2012/07	14-01-2016	Mid-Ebb	CS(Mf)5	16:41	Middle	2	1	19.2	7.79	30.4	6.22	7.63	10.7
TMCLKL	HY/2012/07	14-01-2016	Mid-Ebb	CS(Mf)5	16:41	Middle	2	2	19.3	7.76	30.3	6.2	7.51	9.8
TMCLKL	HY/2012/07	14-01-2016	Mid-Ebb	CS(Mf)5	16:41	Bottom	3	1	19.2	7.89	30.7	6.01	8.22	13.2
TMCLKL	HY/2012/07	14-01-2016	Mid-Ebb	CS(Mf)5	16:41	Bottom	3	2	19.1	7.91	30.6	5.97	8.31	10.8
TMCLKL	HY/2012/07	14-01-2016	Mid-Ebb	SR4a	16:16	Surface	1	1	19.3	7.89	30.3	6.21	7.79	12.5
TMCLKL	HY/2012/07	14-01-2016	Mid-Ebb	SR4a	16:16	Surface	1	2	19.4	7.85	30.2	6.23	7.74	11.6
TMCLKL	HY/2012/07	14-01-2016	Mid-Ebb	SR4a	16:16	Middle	2	1						
TMCLKL	HY/2012/07	14-01-2016	Mid-Ebb	SR4a	16:16	Middle	2	2						
TMCLKL	HY/2012/07	14-01-2016	Mid-Ebb	SR4a	16:16	Bottom	3	1	19.3	7.83	30.3	6.19	8.09	12.1
TMCLKL	HY/2012/07	14-01-2016	Mid-Ebb	SR4a	16:16	Bottom	3	2	19.3	7.8	30.3	6.15	8.15	11.4
TMCLKL	HY/2012/07	14-01-2016	Mid-Ebb	SR4	15:58	Surface	1	1	19.3	7.85	30.2	6.3	5.97	8.4
TMCLKL	HY/2012/07	14-01-2016	Mid-Ebb	SR4	15:58	Surface	1	2	19.2	7.88	30.1	6.27	5.91	8.9
TMCLKL	HY/2012/07	14-01-2016	Mid-Ebb	SR4	15:58	Middle	2	1						
TMCLKL	HY/2012/07	14-01-2016	Mid-Ebb	SR4	15:58	Middle	2	2						
TMCLKL	HY/2012/07	14-01-2016	Mid-Ebb	SR4	15:58	Bottom	3	1	19.2	7.81	30.3	6.11	5.72	8
TMCLKL	HY/2012/07	14-01-2016	Mid-Ebb	SR4	15:58	Bottom	3	2	19.1	7.84	30.2	6.07	5.63	8.4
TMCLKL	HY/2012/07	14-01-2016	Mid-Ebb	IS8	15:41	Surface	1	1	19.4	7.89	30.3	6.2	5.81	8.7
TMCLKL	HY/2012/07	14-01-2016	Mid-Ebb	IS8	15:41	Surface	1	2	19.3	7.86	30.2	6.22	5.77	7.5
TMCLKL	HY/2012/07	14-01-2016	Mid-Ebb	IS8	15:41	Middle	2	1						
TMCLKL	HY/2012/07	14-01-2016	Mid-Ebb	IS8	15:41	Middle	2	2						
TMCLKL	HY/2012/07	14-01-2016	Mid-Ebb	IS8	15:41	Bottom	3	1	19.2	7.82	30.1	6.14	5.48	8.2
TMCLKL	HY/2012/07	14-01-2016	Mid-Ebb	IS8	15:41	Bottom	3	2	19.3	7.8	30.2	6.1	5.53	7.7
TMCLKL	HY/2012/07	14-01-2016	Mid-Ebb	IS(Mf)16	15:23	Surface	1	1	19.3	7.79	30.3	6.29	6.34	8.2
TMCLKL	HY/2012/07	14-01-2016	Mid-Ebb	IS(Mf)16	15:23	Surface	1	2	19.4	7.75	30.2	6.27	6.39	8.9
TMCLKL	HY/2012/07	14-01-2016	Mid-Ebb	IS(Mf)16	15:23	Middle	2	1	19.3	7.84	30.3	6.21	6.74	9.4
TMCLKL	HY/2012/07	14-01-2016	Mid-Ebb	IS(Mf)16	15:23	Middle	2	2	19.2	7.8	30.4	6.18	6.81	10.2
TMCLKL	HY/2012/07	14-01-2016	Mid-Ebb	IS(Mf)16	15:23	Bottom	3	1	19.2	7.86	30.5	6.03	7.18	10.1
TMCLKL	HY/2012/07	14-01-2016	Mid-Ebb	IS(Mf)16	15:23	Bottom	3	2	19.2	7.88	30.6	6	7.23	9.4
TMCLKL	HY/2012/07	14-01-2016	Mid-Ebb	IS(Mf)9	15:06	Surface	1	1	19.3	7.87	30.3	6.13	6.56	9.2
TMCLKL	HY/2012/07	14-01-2016	Mid-Ebb	IS(Mf)9	15:06	Surface	1	2	19.4	7.84	30.2	6.1	6.61	7.9
TMCLKL	HY/2012/07	14-01-2016	Mid-Ebb	IS(Mf)9	15:06	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	14-01-2016	Mid-Ebb	IS(Mf)9	15:06	Middle	2	2						
TMCLKL	HY/2012/07	14-01-2016	Mid-Ebb	IS(Mf)9	15:06	Bottom	3	1	19.3	7.83	30.4	6.02	7.14	10.7
TMCLKL	HY/2012/07	14-01-2016	Mid-Ebb	IS(Mf)9	15:06	Bottom	3	2	19.2	7.8	30.3	6.04	7.19	9.3
TMCLKL	HY/2012/07	14-01-2016	Mid-Ebb	CS(Mf)3	14:38	Surface	1	1	19.5	7.89	30.3	6.28	7.69	10.8
TMCLKL	HY/2012/07	14-01-2016	Mid-Ebb	CS(Mf)3	14:38	Surface	1	2	19.4	7.86	30.3	6.25	7.74	11.6
TMCLKL	HY/2012/07	14-01-2016	Mid-Ebb	CS(Mf)3	14:38	Middle	2	1	19.4	7.92	30.2	6.22	7.84	10.2
TMCLKL	HY/2012/07	14-01-2016	Mid-Ebb	CS(Mf)3	14:38	Middle	2	2	19.3	7.95	30.3	6.2	7.88	10.2
TMCLKL	HY/2012/07	14-01-2016	Mid-Ebb	CS(Mf)3	14:38	Bottom	3	1	19.2	7.86	30.5	6.15	8.07	9.7
TMCLKL	HY/2012/07	14-01-2016	Mid-Ebb	CS(Mf)3	14:38	Bottom	3	2	19.3	7.82	30.4	6.13	8.13	11.4
TMCLKL	HY/2012/07	16-01-2016	Mid-Flood	CS(Mf)5	11:24	Surface	1	1	19.6	7.84	30	6.52	7.74	11.6
TMCLKL	HY/2012/07	16-01-2016	Mid-Flood	CS(Mf)5	11:24	Surface	1	2	19.5	7.89	30.1	6.49	7.82	10.9
TMCLKL	HY/2012/07	16-01-2016	Mid-Flood	CS(Mf)5	11:24	Middle	2	1	19.6	7.86	30.4	6.31	7.41	11.9
TMCLKL	HY/2012/07	16-01-2016	Mid-Flood	CS(Mf)5	11:24	Middle	2	2	19.7	7.9	30.3	6.27	7.33	9.5
TMCLKL	HY/2012/07	16-01-2016	Mid-Flood	CS(Mf)5	11:24	Bottom	3	1	19.5	7.93	30.6	6.13	8.07	11.3
TMCLKL	HY/2012/07	16-01-2016	Mid-Flood	CS(Mf)5	11:24	Bottom	3	2	19.4	7.89	30.7	6.09	8.15	11.4
TMCLKL	HY/2012/07	16-01-2016	Mid-Flood	SR4a	11:46	Surface	1	1	19.6	7.87	30.1	6.4	8.95	12.5
TMCLKL	HY/2012/07	16-01-2016	Mid-Flood	SR4a	11:46	Surface	1	2	19.5	7.9	30.2	6.37	8.77	13.7
TMCLKL	HY/2012/07	16-01-2016	Mid-Flood	SR4a	11:46	Middle	2	1						
TMCLKL	HY/2012/07	16-01-2016	Mid-Flood	SR4a	11:46	Middle	2	2						
TMCLKL	HY/2012/07	16-01-2016	Mid-Flood	SR4a	11:46	Bottom	3	1	19.6	7.89	30.4	6.24	7.95	12.7
TMCLKL	HY/2012/07	16-01-2016	Mid-Flood	SR4a	11:46	Bottom	3	2	19.6	7.86	30.5	6.2	8.03	12.8
TMCLKL	HY/2012/07	16-01-2016	Mid-Flood	SR4	12:08	Surface	1	1	19.5	7.85	30	6.44	5.74	7.5
TMCLKL	HY/2012/07	16-01-2016	Mid-Flood	SR4	12:08	Surface	1	2	19.6	7.89	30.1	6.41	5.62	8.4
TMCLKL	HY/2012/07	16-01-2016	Mid-Flood	SR4	12:08	Middle	2	1						
TMCLKL	HY/2012/07	16-01-2016	Mid-Flood	SR4	12:08	Middle	2	2						
TMCLKL	HY/2012/07	16-01-2016	Mid-Flood	SR4	12:08	Bottom	3	1	19.5	7.88	30.3	6.18	4.74	6.6
TMCLKL	HY/2012/07	16-01-2016	Mid-Flood	SR4	12:08	Bottom	3	2	19.4	7.91	30.4	6.16	4.82	7.2
TMCLKL	HY/2012/07	16-01-2016	Mid-Flood	IS8	12:30	Surface	1	1	19.5	7.9	30.1	6.34	5.58	8.4
TMCLKL	HY/2012/07	16-01-2016	Mid-Flood	IS8	12:30	Surface	1	2	19.4	7.92	30.2	6.31	5.65	8.5
TMCLKL	HY/2012/07	16-01-2016	Mid-Flood	IS8	12:30	Middle	2	1						
TMCLKL	HY/2012/07	16-01-2016	Mid-Flood	IS8	12:30	Middle	2	2						
TMCLKL	HY/2012/07	16-01-2016	Mid-Flood	IS8	12:30	Bottom	3	1	19.6	7.88	30.4	6.14	4.89	5.9
TMCLKL	HY/2012/07	16-01-2016	Mid-Flood	IS8	12:30	Bottom	3	2	19.6	7.9	30.3	6.11	4.96	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	16-01-2016	Mid-Flood	IS(Mf)16	12:52	Surface	1	1	19.6	7.83	30.2	6.38	6.18	8
TMCLKL	HY/2012/07	16-01-2016	Mid-Flood	IS(Mf)16	12:52	Surface	1	2	19.5	7.86	30.3	6.35	6.24	9.6
TMCLKL	HY/2012/07	16-01-2016	Mid-Flood	IS(Mf)16	12:52	Middle	2	1	19.5	7.82	30.3	6.28	6.52	8.5
TMCLKL	HY/2012/07	16-01-2016	Mid-Flood	IS(Mf)16	12:52	Middle	2	2	19.4	7.84	30.4	6.26	6.58	9.9
TMCLKL	HY/2012/07	16-01-2016	Mid-Flood	IS(Mf)16	12:52	Bottom	3	1	19.4	7.82	30.6	5.94	6.95	10.4
TMCLKL	HY/2012/07	16-01-2016	Mid-Flood	IS(Mf)16	12:52	Bottom	3	2	19.5	7.78	30.7	5.95	7.03	9.8
TMCLKL	HY/2012/07	16-01-2016	Mid-Flood	IS(Mf)9	13:14	Surface	1	1	19.6	7.82	30.1	6.24	6.36	8.3
TMCLKL	HY/2012/07	16-01-2016	Mid-Flood	IS(Mf)9	13:14	Surface	1	2	19.7	7.85	30.2	6.27	6.3	9.5
TMCLKL	HY/2012/07	16-01-2016	Mid-Flood	IS(Mf)9	13:14	Middle	2	1						
TMCLKL	HY/2012/07	16-01-2016	Mid-Flood	IS(Mf)9	13:14	Middle	2	2						
TMCLKL	HY/2012/07	16-01-2016	Mid-Flood	IS(Mf)9	13:14	Bottom	3	1	19.6	7.81	30.3	6.11	6.99	9.1
TMCLKL	HY/2012/07	16-01-2016	Mid-Flood	IS(Mf)9	13:14	Bottom	3	2	19.5	7.83	30.4	6.08	6.9	9
TMCLKL	HY/2012/07	16-01-2016	Mid-Flood	CS(Mf)3	13:38	Surface	1	1	19.7	7.89	30.2	6.46	7.49	12
TMCLKL	HY/2012/07	16-01-2016	Mid-Flood	CS(Mf)3	13:38	Surface	1	2	19.6	7.86	30.3	6.42	7.56	10.6
TMCLKL	HY/2012/07	16-01-2016	Mid-Flood	CS(Mf)3	13:38	Middle	2	1	19.7	7.84	30.3	6.33	7.19	8.6
TMCLKL	HY/2012/07	16-01-2016	Mid-Flood	CS(Mf)3	13:38	Middle	2	2	19.6	7.88	30.4	6.29	7.25	10.9
TMCLKL	HY/2012/07	16-01-2016	Mid-Flood	CS(Mf)3	13:38	Bottom	3	1	19.5	7.9	30.6	6.11	7.8	10.9
TMCLKL	HY/2012/07	16-01-2016	Mid-Flood	CS(Mf)3	13:38	Bottom	3	2	19.6	7.87	30.7	6.14	7.88	11.8
TMCLKL	HY/2012/07	16-01-2016	Mid-Ebb	CS(Mf)5	18:47	Surface	1	1	19.4	7.86	30	6.46	8.04	12.1
TMCLKL	HY/2012/07	16-01-2016	Mid-Ebb	CS(Mf)5	18:47	Surface	1	2	19.4	7.8	30.1	6.43	8.11	12.2
TMCLKL	HY/2012/07	16-01-2016	Mid-Ebb	CS(Mf)5	18:47	Middle	2	1	19.4	7.79	30.2	6.29	7.83	11.7
TMCLKL	HY/2012/07	16-01-2016	Mid-Ebb	CS(Mf)5	18:47	Middle	2	2	19.5	7.81	30.2	6.25	7.76	11.6
TMCLKL	HY/2012/07	16-01-2016	Mid-Ebb	CS(Mf)5	18:47	Bottom	3	1	19.4	7.86	30.4	6.06	8.21	10.7
TMCLKL	HY/2012/07	16-01-2016	Mid-Ebb	CS(Mf)5	18:47	Bottom	3	2	19.3	7.89	30.5	6.09	8.16	9.8
TMCLKL	HY/2012/07	16-01-2016	Mid-Ebb	SR4a	18:22	Surface	1	1	19.4	7.83	30.1	6.33	8.66	11.3
TMCLKL	HY/2012/07	16-01-2016	Mid-Ebb	SR4a	18:22	Surface	1	2	19.5	7.85	30	6.3	8.59	13.7
TMCLKL	HY/2012/07	16-01-2016	Mid-Ebb	SR4a	18:22	Middle	2	1						
TMCLKL	HY/2012/07	16-01-2016	Mid-Ebb	SR4a	18:22	Middle	2	2						
TMCLKL	HY/2012/07	16-01-2016	Mid-Ebb	SR4a	18:22	Bottom	3	1	19.4	7.84	30.2	6.18	7.99	11.2
TMCLKL	HY/2012/07	16-01-2016	Mid-Ebb	SR4a	18:22	Bottom	3	2	19.4	7.86	30.3	6.15	8.1	11.3
TMCLKL	HY/2012/07	16-01-2016	Mid-Ebb	SR4	18:03	Surface	1	1	19.5	7.79	30	6.38	5.83	8.2
TMCLKL	HY/2012/07	16-01-2016	Mid-Ebb	SR4	18:03	Surface	1	2	19.6	7.82	30	6.34	5.76	8.1
TMCLKL	HY/2012/07	16-01-2016	Mid-Ebb	SR4	18:03	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	16-01-2016	Mid-Ebb	SR4	18:03	Middle	2	2						
TMCLKL	HY/2012/07	16-01-2016	Mid-Ebb	SR4	18:03	Bottom	3	1	19.5	7.8	30.2	6.1	5.03	8
TMCLKL	HY/2012/07	16-01-2016	Mid-Ebb	SR4	18:03	Bottom	3	2	19.5	7.83	30.3	6.07	4.96	6.9
TMCLKL	HY/2012/07	16-01-2016	Mid-Ebb	IS8	17:45	Surface	1	1	19.5	7.87	30	6.3	5.96	8.3
TMCLKL	HY/2012/07	16-01-2016	Mid-Ebb	IS8	17:45	Surface	1	2	19.4	7.9	30.1	6.27	5.87	8.2
TMCLKL	HY/2012/07	16-01-2016	Mid-Ebb	IS8	17:45	Middle	2	1						
TMCLKL	HY/2012/07	16-01-2016	Mid-Ebb	IS8	17:45	Middle	2	2						
TMCLKL	HY/2012/07	16-01-2016	Mid-Ebb	IS8	17:45	Bottom	3	1	19.5	7.82	30.1	6.09	4.89	6.4
TMCLKL	HY/2012/07	16-01-2016	Mid-Ebb	IS8	17:45	Bottom	3	2	19.4	7.85	30.2	6.05	4.95	7.4
TMCLKL	HY/2012/07	16-01-2016	Mid-Ebb	IS(Mf)16	17:24	Surface	1	1	19.4	7.8	30.1	6.24	6.09	8.5
TMCLKL	HY/2012/07	16-01-2016	Mid-Ebb	IS(Mf)16	17:24	Surface	1	2	19.4	7.84	30.2	6.21	6.01	9
TMCLKL	HY/2012/07	16-01-2016	Mid-Ebb	IS(Mf)16	17:24	Middle	2	1	19.4	7.79	30.4	6.16	6.49	9.7
TMCLKL	HY/2012/07	16-01-2016	Mid-Ebb	IS(Mf)16	17:24	Middle	2	2	19.4	7.77	30.3	6.13	6.53	8.5
TMCLKL	HY/2012/07	16-01-2016	Mid-Ebb	IS(Mf)16	17:24	Bottom	3	1	19.4	7.78	30.6	5.9	6.84	9.6
TMCLKL	HY/2012/07	16-01-2016	Mid-Ebb	IS(Mf)16	17:24	Bottom	3	2	19.3	7.81	30.6	5.87	6.95	9
TMCLKL	HY/2012/07	16-01-2016	Mid-Ebb	IS(Mf)9	17:05	Surface	1	1	19.5	7.81	30	6.3	6.63	9.9
TMCLKL	HY/2012/07	16-01-2016	Mid-Ebb	IS(Mf)9	17:05	Surface	1	2	19.6	7.83	30.1	6.26	6.57	10.5
TMCLKL	HY/2012/07	16-01-2016	Mid-Ebb	IS(Mf)9	17:05	Middle	2	1						
TMCLKL	HY/2012/07	16-01-2016	Mid-Ebb	IS(Mf)9	17:05	Middle	2	2						
TMCLKL	HY/2012/07	16-01-2016	Mid-Ebb	IS(Mf)9	17:05	Bottom	3	1	19.6	7.77	30.2	6.09	7.04	11.3
TMCLKL	HY/2012/07	16-01-2016	Mid-Ebb	IS(Mf)9	17:05	Bottom	3	2	19.6	7.8	30.3	6.05	7.12	11.4
TMCLKL	HY/2012/07	16-01-2016	Mid-Ebb	CS(Mf)3	16:42	Surface	1	1	19.5	7.83	30.1	6.37	7.72	12.4
TMCLKL	HY/2012/07	16-01-2016	Mid-Ebb	CS(Mf)3	16:42	Surface	1	2	19.5	7.8	30.2	6.39	7.67	11.5
TMCLKL	HY/2012/07	16-01-2016	Mid-Ebb	CS(Mf)3	16:42	Middle	2	1	19.6	7.78	30.3	6.3	7.3	9.5
TMCLKL	HY/2012/07	16-01-2016	Mid-Ebb	CS(Mf)3	16:42	Middle	2	2	19.6	7.8	30.3	6.26	7.38	8.9
TMCLKL	HY/2012/07	16-01-2016	Mid-Ebb	CS(Mf)3	16:42	Bottom	3	1	19.6	7.86	30.5	6.08	7.84	11
TMCLKL	HY/2012/07	16-01-2016	Mid-Ebb	CS(Mf)3	16:42	Bottom	3	2	19.5	7.89	30.6	6.1	7.93	10.3
TMCLKL	HY/2012/07	19-01-2016	Mid-Flood	CS(Mf)5	13:06	Surface	1	1	19.6	7.96	29.8	6.48	7.74	11.6
TMCLKL	HY/2012/07	19-01-2016	Mid-Flood	CS(Mf)5	13:06	Surface	1	2	19.7	7.97	29.9	6.52	7.78	10.1
TMCLKL	HY/2012/07	19-01-2016	Mid-Flood	CS(Mf)5	13:06	Middle	2	1	19.4	7.9	29.9	6.44	7.51	9
TMCLKL	HY/2012/07	19-01-2016	Mid-Flood	CS(Mf)5	13:06	Middle	2	2	19.6	7.92	30	6.47	7.5	10.5
TMCLKL	HY/2012/07	19-01-2016	Mid-Flood	CS(Mf)5	13:06	Bottom	3	1	19.4	7.87	30	6.39	8.12	11.4
TMCLKL	HY/2012/07	19-01-2016	Mid-Flood	CS(Mf)5	13:06	Bottom	3	2	19.4	7.89	29.9	6.43	8	10.5

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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	19-01-2016	Mid-Flood	SR4a	13:28	Surface	1	1	19.6	7.96	29.8	6.34	9.04	11.8
TMCLKL	HY/2012/07	19-01-2016	Mid-Flood	SR4a	13:28	Surface	1	2	19.5	7.99	29.9	6.37	9.02	13.5
TMCLKL	HY/2012/07	19-01-2016	Mid-Flood	SR4a	13:28	Middle	2	1						
TMCLKL	HY/2012/07	19-01-2016	Mid-Flood	SR4a	13:28	Middle	2	2						
TMCLKL	HY/2012/07	19-01-2016	Mid-Flood	SR4a	13:28	Bottom	3	1	19.5	7.97	30.2	6.22	8.04	12.9
TMCLKL	HY/2012/07	19-01-2016	Mid-Flood	SR4a	13:28	Bottom	3	2	19.4	7.94	30	6.24	8.02	10.4
TMCLKL	HY/2012/07	19-01-2016	Mid-Flood	SR4	13:48	Surface	1	1	19.5	7.94	29.9	6.44	5.97	7.8
TMCLKL	HY/2012/07	19-01-2016	Mid-Flood	SR4	13:48	Surface	1	2	19.7	7.97	30.1	6.47	5.92	8.9
TMCLKL	HY/2012/07	19-01-2016	Mid-Flood	SR4	13:48	Middle	2	1						
TMCLKL	HY/2012/07	19-01-2016	Mid-Flood	SR4	13:48	Middle	2	2						
TMCLKL	HY/2012/07	19-01-2016	Mid-Flood	SR4	13:48	Bottom	3	1	19.2	7.93	29.8	6.38	4.87	7.3
TMCLKL	HY/2012/07	19-01-2016	Mid-Flood	SR4	13:48	Bottom	3	2	19.4	7.91	29.9	6.42	4.84	7.7
TMCLKL	HY/2012/07	19-01-2016	Mid-Flood	IS8	14:07	Surface	1	1	19.4	7.9	29.8	6.3	5.72	9.2
TMCLKL	HY/2012/07	19-01-2016	Mid-Flood	IS8	14:07	Surface	1	2	19.8	7.94	29.9	6.34	5.79	8.1
TMCLKL	HY/2012/07	19-01-2016	Mid-Flood	IS8	14:07	Middle	2	1						
TMCLKL	HY/2012/07	19-01-2016	Mid-Flood	IS8	14:07	Middle	2	2						
TMCLKL	HY/2012/07	19-01-2016	Mid-Flood	IS8	14:07	Bottom	3	1	19.2	7.92	29.9	6.32	4.87	7.3
TMCLKL	HY/2012/07	19-01-2016	Mid-Flood	IS8	14:07	Bottom	3	2	19	7.9	29.9	6.28	4.91	6.9
TMCLKL	HY/2012/07	19-01-2016	Mid-Flood	IS(Mf)16	14:28	Surface	1	1	19.7	7.94	30.1	6.37	6.28	8.2
TMCLKL	HY/2012/07	19-01-2016	Mid-Flood	IS(Mf)16	14:28	Surface	1	2	19.6	7.98	30	6.35	6.21	8.7
TMCLKL	HY/2012/07	19-01-2016	Mid-Flood	IS(Mf)16	14:28	Middle	2	1	19.6	7.92	30	6.34	6.62	8.6
TMCLKL	HY/2012/07	19-01-2016	Mid-Flood	IS(Mf)16	14:28	Middle	2	2	19.7	7.93	29.9	6.31	6.58	9.9
TMCLKL	HY/2012/07	19-01-2016	Mid-Flood	IS(Mf)16	14:28	Bottom	3	1	19.4	7.91	30	6.3	6.94	9
TMCLKL	HY/2012/07	19-01-2016	Mid-Flood	IS(Mf)16	14:28	Bottom	3	2	19.2	7.92	30	6.27	6.98	8.4
TMCLKL	HY/2012/07	19-01-2016	Mid-Flood	IS(Mf)9	14:48	Surface	1	1	19.7	7.89	29.9	6.22	6.4	8.3
TMCLKL	HY/2012/07	19-01-2016	Mid-Flood	IS(Mf)9	14:48	Surface	1	2	19.6	7.9	30	6.26	6.37	9.6
TMCLKL	HY/2012/07	19-01-2016	Mid-Flood	IS(Mf)9	14:48	Middle	2	1						
TMCLKL	HY/2012/07	19-01-2016	Mid-Flood	IS(Mf)9	14:48	Middle	2	2						
TMCLKL	HY/2012/07	19-01-2016	Mid-Flood	IS(Mf)9	14:48	Bottom	3	1	19.4	7.92	30.1	6.18	6.97	9.1
TMCLKL	HY/2012/07	19-01-2016	Mid-Flood	IS(Mf)9	14:48	Bottom	3	2	19.6	7.9	30	6.21	7	8.4
TMCLKL	HY/2012/07	19-01-2016	Mid-Flood	CS(Mf)3	15:07	Surface	1	1	19.5	7.94	29.9	6.47	7.51	9.8
TMCLKL	HY/2012/07	19-01-2016	Mid-Flood	CS(Mf)3	15:07	Surface	1	2	19.8	7.93	29.8	6.42	7.56	10.6
TMCLKL	HY/2012/07	19-01-2016	Mid-Flood	CS(Mf)3	15:07	Middle	2	1	19.7	7.9	30	6.39	7.18	10.1

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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	19-01-2016	Mid-Flood	CS(Mf)3	15:07	Middle	2	2	19.6	7.94	29.8	6.43	7.23	9.4
TMCLKL	HY/2012/07	19-01-2016	Mid-Flood	CS(Mf)3	15:07	Bottom	3	1	19.5	7.93	30	6.26	7.79	10.9
TMCLKL	HY/2012/07	19-01-2016	Mid-Flood	CS(Mf)3	15:07	Bottom	3	2	19.3	7.96	30.1	6.3	7.84	12.5
TMCLKL	HY/2012/07	19-01-2016	Mid-Ebb	CS(Mf)5	10:13	Surface	1	1	19.4	7.9	30.1	6.43	7.8	10.9
TMCLKL	HY/2012/07	19-01-2016	Mid-Ebb	CS(Mf)5	10:13	Surface	1	2	19.3	7.95	30.2	6.4	7.88	11
TMCLKL	HY/2012/07	19-01-2016	Mid-Ebb	CS(Mf)5	10:13	Middle	2	1	19.5	7.92	30.4	6.22	7.47	11.2
TMCLKL	HY/2012/07	19-01-2016	Mid-Ebb	CS(Mf)5	10:13	Middle	2	2	19.4	7.96	30.5	6.18	7.39	9.6
TMCLKL	HY/2012/07	19-01-2016	Mid-Ebb	CS(Mf)5	10:13	Bottom	3	1	19.2	7.99	30.7	6.04	8.13	12.2
TMCLKL	HY/2012/07	19-01-2016	Mid-Ebb	CS(Mf)5	10:13	Bottom	3	2	19.3	7.95	30.8	6	8.21	9.9
TMCLKL	HY/2012/07	19-01-2016	Mid-Ebb	SR4a	9:49	Surface	1	1	19.3	7.93	30.2	6.31	9.01	11.7
TMCLKL	HY/2012/07	19-01-2016	Mid-Ebb	SR4a	9:49	Surface	1	2	19.4	7.96	30.3	6.28	8.94	10.7
TMCLKL	HY/2012/07	19-01-2016	Mid-Ebb	SR4a	9:49	Middle	2	1						
TMCLKL	HY/2012/07	19-01-2016	Mid-Ebb	SR4a	9:49	Middle	2	2						
TMCLKL	HY/2012/07	19-01-2016	Mid-Ebb	SR4a	9:49	Bottom	3	1	19.5	7.95	30.6	6.15	8.01	12.8
TMCLKL	HY/2012/07	19-01-2016	Mid-Ebb	SR4a	9:49	Bottom	3	2	19.4	7.92	30.5	6.11	8.09	10.5
TMCLKL	HY/2012/07	19-01-2016	Mid-Ebb	SR4	9:27	Surface	1	1	19.4	7.91	30.1	6.35	5.8	8.7
TMCLKL	HY/2012/07	19-01-2016	Mid-Ebb	SR4	9:27	Surface	1	2	19.3	7.95	30.2	6.32	5.68	8.5
TMCLKL	HY/2012/07	19-01-2016	Mid-Ebb	SR4	9:27	Middle	2	1						
TMCLKL	HY/2012/07	19-01-2016	Mid-Ebb	SR4	9:27	Middle	2	2						
TMCLKL	HY/2012/07	19-01-2016	Mid-Ebb	SR4	9:27	Bottom	3	1	19.2	7.94	30.4	6.09	4.8	6.7
TMCLKL	HY/2012/07	19-01-2016	Mid-Ebb	SR4	9:27	Bottom	3	2	19.3	7.97	30.5	6.07	4.88	7.3
TMCLKL	HY/2012/07	19-01-2016	Mid-Ebb	IS8	9:05	Surface	1	1	19.3	7.96	30.2	6.25	5.64	7.9
TMCLKL	HY/2012/07	19-01-2016	Mid-Ebb	IS8	9:05	Surface	1	2	19.4	7.98	30.3	6.22	5.71	8.6
TMCLKL	HY/2012/07	19-01-2016	Mid-Ebb	IS8	9:05	Middle	2	1						
TMCLKL	HY/2012/07	19-01-2016	Mid-Ebb	IS8	9:05	Middle	2	2						
TMCLKL	HY/2012/07	19-01-2016	Mid-Ebb	IS8	9:05	Bottom	3	1	19.5	7.94	30.4	6.05	4.95	6.9
TMCLKL	HY/2012/07	19-01-2016	Mid-Ebb	IS8	9:05	Bottom	3	2	19.4	7.96	30.5	6.02	5.02	8
TMCLKL	HY/2012/07	19-01-2016	Mid-Ebb	IS(Mf)16	8:43	Surface	1	1	19.4	7.89	30.3	6.29	6.24	8.1
TMCLKL	HY/2012/07	19-01-2016	Mid-Ebb	IS(Mf)16	8:43	Surface	1	2	19.6	7.92	30.4	6.26	6.3	9.5
TMCLKL	HY/2012/07	19-01-2016	Mid-Ebb	IS(Mf)16	8:43	Middle	2	1	19.2	7.88	30.4	6.19	6.58	9.9
TMCLKL	HY/2012/07	19-01-2016	Mid-Ebb	IS(Mf)16	8:43	Middle	2	2	19.3	7.9	30.5	6.17	6.64	9.3
TMCLKL	HY/2012/07	19-01-2016	Mid-Ebb	IS(Mf)16	8:43	Bottom	3	1	19.2	7.88	30.7	5.85	7.01	8.4
TMCLKL	HY/2012/07	19-01-2016	Mid-Ebb	IS(Mf)16	8:43	Bottom	3	2	19.2	7.84	30.8	5.86	7.09	9.2

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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	19-01-2016	Mid-Ebb	IS(Mf)9	8:21	Surface	1	1	19.5	7.88	30.2	6.15	6.42	8.3
TMCLKL	HY/2012/07	19-01-2016	Mid-Ebb	IS(Mf)9	8:21	Surface	1	2	19.4	7.91	30.3	6.18	6.36	9.5
TMCLKL	HY/2012/07	19-01-2016	Mid-Ebb	IS(Mf)9	8:21	Middle	2	1						
TMCLKL	HY/2012/07	19-01-2016	Mid-Ebb	IS(Mf)9	8:21	Middle	2	2						
TMCLKL	HY/2012/07	19-01-2016	Mid-Ebb	IS(Mf)9	8:21	Bottom	3	1	19.3	7.87	30.4	6.02	7.05	9.2
TMCLKL	HY/2012/07	19-01-2016	Mid-Ebb	IS(Mf)9	8:21	Bottom	3	2	19.4	7.89	30.5	5.99	6.96	9
TMCLKL	HY/2012/07	19-01-2016	Mid-Ebb	CS(Mf)3	7:59	Surface	1	1	19.4	7.95	30.3	6.37	7.55	9.8
TMCLKL	HY/2012/07	19-01-2016	Mid-Ebb	CS(Mf)3	7:59	Surface	1	2	19.5	7.92	30.4	6.33	7.62	11.4
TMCLKL	HY/2012/07	19-01-2016	Mid-Ebb	CS(Mf)3	7:59	Middle	2	1	19.4	7.9	30.4	6.24	7.25	10.2
TMCLKL	HY/2012/07	19-01-2016	Mid-Ebb	CS(Mf)3	7:59	Middle	2	2	19.3	7.94	30.5	6.2	7.31	11
TMCLKL	HY/2012/07	19-01-2016	Mid-Ebb	CS(Mf)3	7:59	Bottom	3	1	19.3	7.96	30.7	6.02	7.86	10.2
TMCLKL	HY/2012/07	19-01-2016	Mid-Ebb	CS(Mf)3	7:59	Bottom	3	2	19.2	7.93	30.8	6.05	7.94	11.1
TMCLKL	HY/2012/07	21-01-2016	Mid-Flood	CS(Mf)5	14:50	Surface	1	1	20.5	7.93	23.4	6.55	7.69	9.2
TMCLKL	HY/2012/07	21-01-2016	Mid-Flood	CS(Mf)5	14:50	Surface	1	2	20.4	7.95	23.5	6.57	7.71	11.6
TMCLKL	HY/2012/07	21-01-2016	Mid-Flood	CS(Mf)5	14:50	Middle	2	1	20.3	8.11	23.6	6.41	7.88	10.2
TMCLKL	HY/2012/07	21-01-2016	Mid-Flood	CS(Mf)5	14:50	Middle	2	2	20.3	8.13	23.6	6.43	7.9	11.1
TMCLKL	HY/2012/07	21-01-2016	Mid-Flood	CS(Mf)5	14:50	Bottom	3	1	20.2	7.85	23.7	6.33	8.14	10.6
TMCLKL	HY/2012/07	21-01-2016	Mid-Flood	CS(Mf)5	14:50	Bottom	3	2	20.1	7.87	23.8	6.35	8.12	11.4
TMCLKL	HY/2012/07	21-01-2016	Mid-Flood	SR4a	15:12	Surface	1	1	20.4	8	23.5	6.39	7.43	10.4
TMCLKL	HY/2012/07	21-01-2016	Mid-Flood	SR4a	15:12	Surface	1	2	20.4	8.02	23.5	6.41	7.41	9.6
TMCLKL	HY/2012/07	21-01-2016	Mid-Flood	SR4a	15:12	Middle	2	1						
TMCLKL	HY/2012/07	21-01-2016	Mid-Flood	SR4a	15:12	Middle	2	2						
TMCLKL	HY/2012/07	21-01-2016	Mid-Flood	SR4a	15:12	Bottom	3	1	20.2	8.13	23.7	6.26	7.59	10.6
TMCLKL	HY/2012/07	21-01-2016	Mid-Flood	SR4a	15:12	Bottom	3	2	20.3	8.15	23.8	6.28	7.61	9.1
TMCLKL	HY/2012/07	21-01-2016	Mid-Flood	SR4	15:33	Surface	1	1	20.5	7.81	23.5	6.37	7.55	11.3
TMCLKL	HY/2012/07	21-01-2016	Mid-Flood	SR4	15:33	Surface	1	2	20.5	7.83	23.6	6.39	7.57	12.1
TMCLKL	HY/2012/07	21-01-2016	Mid-Flood	SR4	15:33	Middle	2	1						
TMCLKL	HY/2012/07	21-01-2016	Mid-Flood	SR4	15:33	Middle	2	2						
TMCLKL	HY/2012/07	21-01-2016	Mid-Flood	SR4	15:33	Bottom	3	1	20.3	8	23.7	6.15	7.67	10.7
TMCLKL	HY/2012/07	21-01-2016	Mid-Flood	SR4	15:33	Bottom	3	2	20.2	8.02	23.8	6.17	7.69	10
TMCLKL	HY/2012/07	21-01-2016	Mid-Flood	IS8	15:55	Surface	1	1	20.4	8.16	23.4	6.19	6.94	9
TMCLKL	HY/2012/07	21-01-2016	Mid-Flood	IS8	15:55	Surface	1	2	20.3	8.18	23.5	6.21	6.96	10.4
TMCLKL	HY/2012/07	21-01-2016	Mid-Flood	IS8	15:55	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	21-01-2016	Mid-Flood	IS8	15:55	Middle	2	2						
TMCLKL	HY/2012/07	21-01-2016	Mid-Flood	IS8	15:55	Bottom	3	1	20.2	7.95	23.6	6.04	7.23	11.6
TMCLKL	HY/2012/07	21-01-2016	Mid-Flood	IS8	15:55	Bottom	3	2	20.2	7.93	23.7	6.06	7.25	9.4
TMCLKL	HY/2012/07	21-01-2016	Mid-Flood	IS(Mf)16	16:17	Surface	1	1	20.5	7.76	23.5	6.49	6.59	9.9
TMCLKL	HY/2012/07	21-01-2016	Mid-Flood	IS(Mf)16	16:17	Surface	1	2	20.5	7.78	23.6	6.51	6.61	9.9
TMCLKL	HY/2012/07	21-01-2016	Mid-Flood	IS(Mf)16	16:17	Middle	2	1	20.4	8.07	23.7	6.39	6.79	10.2
TMCLKL	HY/2012/07	21-01-2016	Mid-Flood	IS(Mf)16	16:17	Middle	2	2	20.3	8.09	23.7	6.37	6.81	10.2
TMCLKL	HY/2012/07	21-01-2016	Mid-Flood	IS(Mf)16	16:17	Bottom	3	1	20.3	8	23.8	6.25	6.94	9
TMCLKL	HY/2012/07	21-01-2016	Mid-Flood	IS(Mf)16	16:17	Bottom	3	2	20.3	7.98	23.9	6.23	6.96	9
TMCLKL	HY/2012/07	21-01-2016	Mid-Flood	IS(Mf)9	16:40	Surface	1	1	20.5	8.12	23.4	6.55	7.55	9.1
TMCLKL	HY/2012/07	21-01-2016	Mid-Flood	IS(Mf)9	16:40	Surface	1	2	20.4	8.14	23.5	6.57	7.57	11.4
TMCLKL	HY/2012/07	21-01-2016	Mid-Flood	IS(Mf)9	16:40	Middle	2	1						
TMCLKL	HY/2012/07	21-01-2016	Mid-Flood	IS(Mf)9	16:40	Middle	2	2						
TMCLKL	HY/2012/07	21-01-2016	Mid-Flood	IS(Mf)9	16:40	Bottom	3	1	20.3	7.95	23.6	6.33	7.63	10.7
TMCLKL	HY/2012/07	21-01-2016	Mid-Flood	IS(Mf)9	16:40	Bottom	3	2	20.3	7.97	23.7	6.31	7.65	10.7
TMCLKL	HY/2012/07	21-01-2016	Mid-Flood	CS(Mf)3	17:00	Surface	1	1	20.6	7.93	23.5	6.77	7.74	9.3
TMCLKL	HY/2012/07	21-01-2016	Mid-Flood	CS(Mf)3	17:00	Surface	1	2	20.5	7.95	23.6	6.75	7.76	10.9
TMCLKL	HY/2012/07	21-01-2016	Mid-Flood	CS(Mf)3	17:00	Middle	2	1	20.4	7.8	23.7	6.58	7.81	10.9
TMCLKL	HY/2012/07	21-01-2016	Mid-Flood	CS(Mf)3	17:00	Middle	2	2	20.3	7.82	23.8	6.6	7.83	11
TMCLKL	HY/2012/07	21-01-2016	Mid-Flood	CS(Mf)3	17:00	Bottom	3	1	20.2	8.15	23.9	6.44	7.99	11.2
TMCLKL	HY/2012/07	21-01-2016	Mid-Flood	CS(Mf)3	17:00	Bottom	3	2	20.2	8.12	24	6.42	8.01	12.8
TMCLKL	HY/2012/07	21-01-2016	Mid-Ebb	CS(Mf)5	12:41	Surface	1	1	20.5	7.95	23.5	6.31	9.36	12.2
TMCLKL	HY/2012/07	21-01-2016	Mid-Ebb	CS(Mf)5	12:41	Surface	1	2	20.6	7.91	23.4	6.32	9.41	15.1
TMCLKL	HY/2012/07	21-01-2016	Mid-Ebb	CS(Mf)5	12:41	Middle	2	1	20.4	7.89	23.6	6.24	9.28	13
TMCLKL	HY/2012/07	21-01-2016	Mid-Ebb	CS(Mf)5	12:41	Middle	2	2	20.5	7.86	23.5	6.21	9.24	13.9
TMCLKL	HY/2012/07	21-01-2016	Mid-Ebb	CS(Mf)5	12:41	Bottom	3	1	20.4	7.97	23.8	6.18	9.57	13.4
TMCLKL	HY/2012/07	21-01-2016	Mid-Ebb	CS(Mf)5	12:41	Bottom	3	2	20.3	7.98	23.7	6.15	9.64	13.5
TMCLKL	HY/2012/07	21-01-2016	Mid-Ebb	SR4a	12:16	Surface	1	1	20.5	7.98	23.5	6.22	9.24	14.8
TMCLKL	HY/2012/07	21-01-2016	Mid-Ebb	SR4a	12:16	Surface	1	2	20.4	7.95	23.4	6.2	9.29	12.1
TMCLKL	HY/2012/07	21-01-2016	Mid-Ebb	SR4a	12:16	Middle	2	1						
TMCLKL	HY/2012/07	21-01-2016	Mid-Ebb	SR4a	12:16	Middle	2	2						
TMCLKL	HY/2012/07	21-01-2016	Mid-Ebb	SR4a	12:16	Bottom	3	1	20.4	7.91	23.6	6.17	9.44	13.2
TMCLKL	HY/2012/07	21-01-2016	Mid-Ebb	SR4a	12:16	Bottom	3	2	20.4	7.94	23.5	6.15	9.52	12.4

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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	21-01-2016	Mid-Ebb	SR4	11:58	Surface	1	1	20.7	7.95	23.6	6.14	9.19	12.9
TMCLKL	HY/2012/07	21-01-2016	Mid-Ebb	SR4	11:58	Surface	1	2	20.6	7.99	23.5	6.1	9.23	14.8
TMCLKL	HY/2012/07	21-01-2016	Mid-Ebb	SR4	11:58	Middle	2	1						
TMCLKL	HY/2012/07	21-01-2016	Mid-Ebb	SR4	11:58	Middle	2	2						
TMCLKL	HY/2012/07	21-01-2016	Mid-Ebb	SR4	11:58	Bottom	3	1	20.5	7.92	23.7	6.03	9.38	14.1
TMCLKL	HY/2012/07	21-01-2016	Mid-Ebb	SR4	11:58	Bottom	3	2	20.5	7.9	23.6	6.01	9.46	14.2
TMCLKL	HY/2012/07	21-01-2016	Mid-Ebb	IS8	11:39	Surface	1	1	20.6	7.94	23.5	6.08	9.28	13.9
TMCLKL	HY/2012/07	21-01-2016	Mid-Ebb	IS8	11:39	Surface	1	2	20.5	7.91	23.6	6.12	9.34	12.1
TMCLKL	HY/2012/07	21-01-2016	Mid-Ebb	IS8	11:39	Middle	2	1						
TMCLKL	HY/2012/07	21-01-2016	Mid-Ebb	IS8	11:39	Middle	2	2						
TMCLKL	HY/2012/07	21-01-2016	Mid-Ebb	IS8	11:39	Bottom	3	1	20.5	7.99	23.6	6.05	9.52	12.4
TMCLKL	HY/2012/07	21-01-2016	Mid-Ebb	IS8	11:39	Bottom	3	2	20.4	7.97	23.7	6.08	9.46	14.2
TMCLKL	HY/2012/07	21-01-2016	Mid-Ebb	IS(Mf)16	11:18	Surface	1	1	20.5	7.98	23.6	6.25	9.11	12.8
TMCLKL	HY/2012/07	21-01-2016	Mid-Ebb	IS(Mf)16	11:18	Surface	1	2	20.4	7.96	23.5	6.27	9.16	12.8
TMCLKL	HY/2012/07	21-01-2016	Mid-Ebb	IS(Mf)16	11:18	Middle	2	1	20.4	7.91	23.7	6.21	9.31	12.1
TMCLKL	HY/2012/07	21-01-2016	Mid-Ebb	IS(Mf)16	11:18	Middle	2	2	20.3	7.93	23.6	6.18	9.24	13.9
TMCLKL	HY/2012/07	21-01-2016	Mid-Ebb	IS(Mf)16	11:18	Bottom	3	1	20.3	7.89	23.8	6.13	9.39	15
TMCLKL	HY/2012/07	21-01-2016	Mid-Ebb	IS(Mf)16	11:18	Bottom	3	2	20.2	7.92	23.9	6.11	9.45	14.2
TMCLKL	HY/2012/07	21-01-2016	Mid-Ebb	IS(Mf)9	11:01	Surface	1	1	20.5	7.95	23.5	6.2	9.23	12
TMCLKL	HY/2012/07	21-01-2016	Mid-Ebb	IS(Mf)9	11:01	Surface	1	2	20.6	7.98	23.4	6.18	9.28	13
TMCLKL	HY/2012/07	21-01-2016	Mid-Ebb	IS(Mf)9	11:01	Middle	2	1						
TMCLKL	HY/2012/07	21-01-2016	Mid-Ebb	IS(Mf)9	11:01	Middle	2	2						
TMCLKL	HY/2012/07	21-01-2016	Mid-Ebb	IS(Mf)9	11:01	Bottom	3	1	20.5	7.93	23.6	6.13	9.51	15.2
TMCLKL	HY/2012/07	21-01-2016	Mid-Ebb	IS(Mf)9	11:01	Bottom	3	2	20.4	7.9	23.7	6.1	9.59	12.5
TMCLKL	HY/2012/07	21-01-2016	Mid-Ebb	CS(Mf)3	10:33	Surface	1	1	20.5	7.91	23.6	6.37	9.31	14
TMCLKL	HY/2012/07	21-01-2016	Mid-Ebb	CS(Mf)3	10:33	Surface	1	2	20.6	7.94	23.5	6.34	9.36	13.1
TMCLKL	HY/2012/07	21-01-2016	Mid-Ebb	CS(Mf)3	10:33	Middle	2	1	20.6	7.86	23.7	6.28	9.48	11.4
TMCLKL	HY/2012/07	21-01-2016	Mid-Ebb	CS(Mf)3	10:33	Middle	2	2	20.7	7.89	23.7	6.24	9.53	14.3
TMCLKL	HY/2012/07	21-01-2016	Mid-Ebb	CS(Mf)3	10:33	Bottom	3	1	20.3	7.96	23.8	6.19	9.69	15.5
TMCLKL	HY/2012/07	21-01-2016	Mid-Ebb	CS(Mf)3	10:33	Bottom	3	2	20.2	7.99	23.7	6.17	9.62	15.4
TMCLKL	HY/2012/07	23-01-2016	Mid-Flood	CS(Mf)5	16:18	Surface	1	1	18.4	8.01	23.5	6.37	9.27	13
TMCLKL	HY/2012/07	23-01-2016	Mid-Flood	CS(Mf)5	16:18	Surface	1	2	18.3	7.97	23.6	6.38	9.32	12.1
TMCLKL	HY/2012/07	23-01-2016	Mid-Flood	CS(Mf)5	16:18	Middle	2	1	19.5	7.95	23.6	6.3	9.19	11

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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	23-01-2016	Mid-Flood	CS(Mf)5	16:18	Middle	2	2	18.4	7.94	23.7	6.27	9.15	11.9
TMCLKL	HY/2012/07	23-01-2016	Mid-Flood	CS(Mf)5	16:18	Bottom	3	1	18.5	8.03	23.9	6.24	9.48	14.2
TMCLKL	HY/2012/07	23-01-2016	Mid-Flood	CS(Mf)5	16:18	Bottom	3	2	18.5	8.04	23.8	6.21	9.55	12.4
TMCLKL	HY/2012/07	23-01-2016	Mid-Flood	SR4a	16:40	Surface	1	1	18.4	8.04	23.5	6.28	9.15	11
TMCLKL	HY/2012/07	23-01-2016	Mid-Flood	SR4a	16:40	Surface	1	2	18.3	8.01	23.6	6.26	9	11
TMCLKL	HY/2012/07	23-01-2016	Mid-Flood	SR4a	16:40	Middle	2	1						
TMCLKL	HY/2012/07	23-01-2016	Mid-Flood	SR4a	16:40	Middle	2	2						
TMCLKL	HY/2012/07	23-01-2016	Mid-Flood	SR4a	16:40	Bottom	3	1	18.5	7.97	23.6	6.23	9.35	12.2
TMCLKL	HY/2012/07	23-01-2016	Mid-Flood	SR4a	16:40	Bottom	3	2	18.4	8	23.7	6.21	9.43	14.1
TMCLKL	HY/2012/07	23-01-2016	Mid-Flood	SR4	17:02	Surface	1	1	18.6	8.01	23.6	6.2	9.1	12.7
TMCLKL	HY/2012/07	23-01-2016	Mid-Flood	SR4	17:02	Surface	1	2	18.7	8.05	23.7	6.16	9.14	11
TMCLKL	HY/2012/07	23-01-2016	Mid-Flood	SR4	17:02	Middle	2	1						
TMCLKL	HY/2012/07	23-01-2016	Mid-Flood	SR4	17:02	Middle	2	2						
TMCLKL	HY/2012/07	23-01-2016	Mid-Flood	SR4	17:02	Bottom	3	1	18.7	7.98	23.7	6.09	9.29	11.1
TMCLKL	HY/2012/07	23-01-2016	Mid-Flood	SR4	17:02	Bottom	3	2	18.8	7.96	23.8	6.07	9.37	14.1
TMCLKL	HY/2012/07	23-01-2016	Mid-Flood	IS8	17:24	Surface	1	1	18.5	8	23.6	6.14	9.19	11.9
TMCLKL	HY/2012/07	23-01-2016	Mid-Flood	IS8	17:24	Surface	1	2	18.4	8.02	23.7	6.18	9.25	11.1
TMCLKL	HY/2012/07	23-01-2016	Mid-Flood	IS8	17:24	Middle	2	1						
TMCLKL	HY/2012/07	23-01-2016	Mid-Flood	IS8	17:24	Middle	2	2						
TMCLKL	HY/2012/07	23-01-2016	Mid-Flood	IS8	17:24	Bottom	3	1	18.6	8.05	23.7	6.11	9.43	11.3
TMCLKL	HY/2012/07	23-01-2016	Mid-Flood	IS8	17:24	Bottom	3	2	18.5	8.03	23.8	6.14	9.37	12.2
TMCLKL	HY/2012/07	23-01-2016	Mid-Flood	IS(Mf)16	17:46	Surface	1	1	18.2	8.04	23.6	6.31	9.02	13.5
TMCLKL	HY/2012/07	23-01-2016	Mid-Flood	IS(Mf)16	17:46	Surface	1	2	18.3	8.02	23.7	6.33	9.07	12.7
TMCLKL	HY/2012/07	23-01-2016	Mid-Flood	IS(Mf)16	17:46	Middle	2	1	18.4	7.97	23.7	6.27	9.22	12
TMCLKL	HY/2012/07	23-01-2016	Mid-Flood	IS(Mf)16	17:46	Middle	2	2	18.3	7.99	23.8	6.24	9.15	12.8
TMCLKL	HY/2012/07	23-01-2016	Mid-Flood	IS(Mf)16	17:46	Bottom	3	1	18.4	7.95	23.9	6.19	9.3	14
TMCLKL	HY/2012/07	23-01-2016	Mid-Flood	IS(Mf)16	17:46	Bottom	3	2	18.5	7.98	24	6.17	9.36	12.2
TMCLKL	HY/2012/07	23-01-2016	Mid-Flood	IS(Mf)9	18:08	Surface	1	1	18.4	8.01	23.5	6.26	9.14	14.6
TMCLKL	HY/2012/07	23-01-2016	Mid-Flood	IS(Mf)9	18:08	Surface	1	2	18.5	8.04	23.6	6.22	9.19	13.8
TMCLKL	HY/2012/07	23-01-2016	Mid-Flood	IS(Mf)9	18:08	Middle	2	1						
TMCLKL	HY/2012/07	23-01-2016	Mid-Flood	IS(Mf)9	18:08	Middle	2	2						
TMCLKL	HY/2012/07	23-01-2016	Mid-Flood	IS(Mf)9	18:08	Bottom	3	1	18.6	7.99	23.7	6.19	9.42	13.2
TMCLKL	HY/2012/07	23-01-2016	Mid-Flood	IS(Mf)9	18:08	Bottom	3	2	18.5	7.96	23.8	6.16	9.5	14.3

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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	23-01-2016	Mid-Flood	CS(Mf)3	18:32	Surface	1	1	18.4	7.97	23.6	6.43	9.22	11.1
TMCLKL	HY/2012/07	23-01-2016	Mid-Flood	CS(Mf)3	18:32	Surface	1	2	18.3	8	23.7	6.4	9.27	13
TMCLKL	HY/2012/07	23-01-2016	Mid-Flood	CS(Mf)3	18:32	Middle	2	1	18.5	7.92	23.8	6.34	9.39	12.2
TMCLKL	HY/2012/07	23-01-2016	Mid-Flood	CS(Mf)3	18:32	Middle	2	2	18.4	7.95	23.7	6.3	9.44	13.2
TMCLKL	HY/2012/07	23-01-2016	Mid-Flood	CS(Mf)3	18:32	Bottom	3	1	18.6	8.02	23.8	6.25	9.6	14.4
TMCLKL	HY/2012/07	23-01-2016	Mid-Flood	CS(Mf)3	18:32	Bottom	3	2	18.5	8.05	23.9	6.23	9.53	13.3
TMCLKL	HY/2012/07	23-01-2016	Mid-Ebb	CS(Mf)5	14:15	Surface	1	1	18.4	7.99	23.4	6.62	9.24	12.8
TMCLKL	HY/2012/07	23-01-2016	Mid-Ebb	CS(Mf)5	14:15	Surface	1	2	18.4	7.98	23.4	6.59	9.2	13.8
TMCLKL	HY/2012/07	23-01-2016	Mid-Ebb	CS(Mf)5	14:15	Middle	2	1	18.6	8.02	23.8	6.27	9.17	13.8
TMCLKL	HY/2012/07	23-01-2016	Mid-Ebb	CS(Mf)5	14:15	Middle	2	2	18.6	8.02	23.9	6.24	9.14	11.9
TMCLKL	HY/2012/07	23-01-2016	Mid-Ebb	CS(Mf)5	14:15	Bottom	3	1	18.6	8.04	23.9	6.19	9.44	12.3
TMCLKL	HY/2012/07	23-01-2016	Mid-Ebb	CS(Mf)5	14:15	Bottom	3	2	18.6	8.04	23.9	6.15	9.4	12.2
TMCLKL	HY/2012/07	23-01-2016	Mid-Ebb	SR4a	13:50	Surface	1	1	18.3	7.97	23.4	6.4	9.5	12.4
TMCLKL	HY/2012/07	23-01-2016	Mid-Ebb	SR4a	13:50	Surface	1	2	18.4	7.95	23.3	6.37	9.43	13.2
TMCLKL	HY/2012/07	23-01-2016	Mid-Ebb	SR4a	13:50	Middle	2	1						
TMCLKL	HY/2012/07	23-01-2016	Mid-Ebb	SR4a	13:50	Middle	2	2						
TMCLKL	HY/2012/07	23-01-2016	Mid-Ebb	SR4a	13:50	Bottom	3	1	18.5	8.02	23.6	6.14	9.61	15.4
TMCLKL	HY/2012/07	23-01-2016	Mid-Ebb	SR4a	13:50	Bottom	3	2	18.5	8.02	23.6	6.17	9.59	15.3
TMCLKL	HY/2012/07	23-01-2016	Mid-Ebb	SR4	13:35	Surface	1	1	18.3	8.02	23.5	6.4	9.33	12.1
TMCLKL	HY/2012/07	23-01-2016	Mid-Ebb	SR4	13:35	Surface	1	2	18.3	8.01	23.4	6.44	9.3	14
TMCLKL	HY/2012/07	23-01-2016	Mid-Ebb	SR4	13:35	Middle	2	1						
TMCLKL	HY/2012/07	23-01-2016	Mid-Ebb	SR4	13:35	Middle	2	2						
TMCLKL	HY/2012/07	23-01-2016	Mid-Ebb	SR4	13:35	Bottom	3	1	18.4	7.97	23.6	6.15	9.47	13.3
TMCLKL	HY/2012/07	23-01-2016	Mid-Ebb	SR4	13:35	Bottom	3	2	18.4	7.98	23.6	6.11	9.45	14.2
TMCLKL	HY/2012/07	23-01-2016	Mid-Ebb	IS8	13:15	Surface	1	1	18.3	8.01	23.6	6.32	9.22	3.8
TMCLKL	HY/2012/07	23-01-2016	Mid-Ebb	IS8	13:15	Surface	1	2	18.3	8.01	23.5	6.28	9.26	11.1
TMCLKL	HY/2012/07	23-01-2016	Mid-Ebb	IS8	13:15	Middle	2	1						
TMCLKL	HY/2012/07	23-01-2016	Mid-Ebb	IS8	13:15	Middle	2	2						
TMCLKL	HY/2012/07	23-01-2016	Mid-Ebb	IS8	13:15	Bottom	3	1	18.5	7.99	23.7	6.19	9.44	11.3
TMCLKL	HY/2012/07	23-01-2016	Mid-Ebb	IS8	13:15	Bottom	3	2	18.5	7.99	23.6	6.17	9.4	14.1
TMCLKL	HY/2012/07	23-01-2016	Mid-Ebb	IS(Mf)16	12:53	Surface	1	1	18.4	8.03	23.5	6.44	9.19	13.8
TMCLKL	HY/2012/07	23-01-2016	Mid-Ebb	IS(Mf)16	12:53	Surface	1	2	18.3	8.02	23.6	6.4	9.15	11.9
TMCLKL	HY/2012/07	23-01-2016	Mid-Ebb	IS(Mf)16	12:53	Middle	2	1	18.5	7.98	23.7	6.2	9.43	13.2

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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	23-01-2016	Mid-Ebb	IS(Mf)16	12:53	Middle	2	2	18.5	7.99	23.7	6.23	9.4	14.1
TMCLKL	HY/2012/07	23-01-2016	Mid-Ebb	IS(Mf)16	12:53	Bottom	3	1	18.6	8.1	23.7	6.03	9.31	13
TMCLKL	HY/2012/07	23-01-2016	Mid-Ebb	IS(Mf)16	12:53	Bottom	3	2	18.5	8	23.8	6.07	9.28	11.1
TMCLKL	HY/2012/07	23-01-2016	Mid-Ebb	IS(Mf)9	12:33	Surface	1	1	18.3	8.03	23.4	6.54	9.34	12.1
TMCLKL	HY/2012/07	23-01-2016	Mid-Ebb	IS(Mf)9	12:33	Surface	1	2	18.2	8.03	23.5	6.5	9.3	12.1
TMCLKL	HY/2012/07	23-01-2016	Mid-Ebb	IS(Mf)9	12:33	Middle	2	1						
TMCLKL	HY/2012/07	23-01-2016	Mid-Ebb	IS(Mf)9	12:33	Middle	2	2						
TMCLKL	HY/2012/07	23-01-2016	Mid-Ebb	IS(Mf)9	12:33	Bottom	3	1	18.5	8.02	23.7	6.22	9.4	15
TMCLKL	HY/2012/07	23-01-2016	Mid-Ebb	IS(Mf)9	12:33	Bottom	3	2	18.5	8.02	23.7	6.18	9.44	12.3
TMCLKL	HY/2012/07	23-01-2016	Mid-Ebb	CS(Mf)3	12:03	Surface	1	1	18.2	8.05	23.5	6.49	9.74	14.6
TMCLKL	HY/2012/07	23-01-2016	Mid-Ebb	CS(Mf)3	12:03	Surface	1	2	18.2	8.04	23.4	6.47	9.7	13.6
TMCLKL	HY/2012/07	23-01-2016	Mid-Ebb	CS(Mf)3	12:03	Middle	2	1	18.4	8.02	23.6	6.27	9.55	13.4
TMCLKL	HY/2012/07	23-01-2016	Mid-Ebb	CS(Mf)3	12:03	Middle	2	2	18.3	8.02	23.7	6.23	9.5	12.4
TMCLKL	HY/2012/07	23-01-2016	Mid-Ebb	CS(Mf)3	12:03	Bottom	3	1	18.5	8.01	23.8	6.18	9.6	14.4
TMCLKL	HY/2012/07	23-01-2016	Mid-Ebb	CS(Mf)3	12:03	Bottom	3	2	18.5	8.02	23.8	6.14	9.66	11.6
TMCLKL	HY/2012/07	26-01-2016	Mid-Flood	CS(Mf)5	08:24	Surface	1	1	14.3	7.92	23.6	6.43	8.18	10.6
TMCLKL	HY/2012/07	26-01-2016	Mid-Flood	CS(Mf)5	08:24	Surface	1	2	14.4	7.88	23.7	6.44	8.23	10.7
TMCLKL	HY/2012/07	26-01-2016	Mid-Flood	CS(Mf)5	08:24	Middle	2	1	14.5	7.86	23.7	6.36	8.1	12.2
TMCLKL	HY/2012/07	26-01-2016	Mid-Flood	CS(Mf)5	08:24	Middle	2	2	14.4	7.85	23.8	6.33	8.06	12.1
TMCLKL	HY/2012/07	26-01-2016	Mid-Flood	CS(Mf)5	08:24	Bottom	3	1	14.5	7.94	23.9	6.3	8.39	10.9
TMCLKL	HY/2012/07	26-01-2016	Mid-Flood	CS(Mf)5	08:24	Bottom	3	2	14.6	7.95	24	6.27	8.46	13.5
TMCLKL	HY/2012/07	26-01-2016	Mid-Flood	SR4a	08:46	Surface	1	1	14.4	7.95	23.6	6.34	8.06	10.5
TMCLKL	HY/2012/07	26-01-2016	Mid-Flood	SR4a	08:46	Surface	1	2	14.5	7.92	23.7	6.32	8.11	11.4
TMCLKL	HY/2012/07	26-01-2016	Mid-Flood	SR4a	08:46	Middle	2	1						
TMCLKL	HY/2012/07	26-01-2016	Mid-Flood	SR4a	08:46	Middle	2	2						
TMCLKL	HY/2012/07	26-01-2016	Mid-Flood	SR4a	08:46	Bottom	3	1	14.6	7.88	23.8	6.29	8.26	9.9
TMCLKL	HY/2012/07	26-01-2016	Mid-Flood	SR4a	08:46	Bottom	3	2	14.6	7.91	23.7	6.27	8.34	11.7
TMCLKL	HY/2012/07	26-01-2016	Mid-Flood	SR4	09:08	Surface	1	1	14.5	7.92	23.7	6.26	8.01	10.4
TMCLKL	HY/2012/07	26-01-2016	Mid-Flood	SR4	09:08	Surface	1	2	14.6	7.96	23.8	6.22	8.05	11.3
TMCLKL	HY/2012/07	26-01-2016	Mid-Flood	SR4	09:08	Middle	2	1						
TMCLKL	HY/2012/07	26-01-2016	Mid-Flood	SR4	09:08	Middle	2	2						
TMCLKL	HY/2012/07	26-01-2016	Mid-Flood	SR4	09:08	Bottom	3	1	14.6	7.89	23.8	6.15	8.2	11.5
TMCLKL	HY/2012/07	26-01-2016	Mid-Flood	SR4	09:08	Bottom	3	2	14.7	7.87	23.9	6.13	8.28	9.9

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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	26-01-2016	Mid-Flood	IS8	09:30	Surface	1	1	14.5	7.91	23.7	6.2	8.1	12.2
TMCLKL	HY/2012/07	26-01-2016	Mid-Flood	IS8	09:30	Surface	1	2	14.4	7.93	23.8	6.24	8.16	10.6
TMCLKL	HY/2012/07	26-01-2016	Mid-Flood	IS8	09:30	Middle	2	1						
TMCLKL	HY/2012/07	26-01-2016	Mid-Flood	IS8	09:30	Middle	2	2						
TMCLKL	HY/2012/07	26-01-2016	Mid-Flood	IS8	09:30	Bottom	3	1	14.5	7.96	23.9	6.17	8.34	10
TMCLKL	HY/2012/07	26-01-2016	Mid-Flood	IS8	09:30	Bottom	3	2	14.6	7.94	23.8	6.2	8.28	11.6
TMCLKL	HY/2012/07	26-01-2016	Mid-Flood	IS(Mf)16	09:52	Surface	1	1	14.2	7.95	23.8	6.37	8.93	13.4
TMCLKL	HY/2012/07	26-01-2016	Mid-Flood	IS(Mf)16	09:52	Surface	1	2	14.2	7.93	23.7	6.39	8.98	12.6
TMCLKL	HY/2012/07	26-01-2016	Mid-Flood	IS(Mf)16	09:52	Middle	2	1	14.3	7.88	23.8	6.33	9.13	13.7
TMCLKL	HY/2012/07	26-01-2016	Mid-Flood	IS(Mf)16	09:52	Middle	2	2	14.4	7.9	23.9	6.3	9.06	11.8
TMCLKL	HY/2012/07	26-01-2016	Mid-Flood	IS(Mf)16	09:52	Bottom	3	1	14.5	7.86	24.1	6.25	9.21	12.9
TMCLKL	HY/2012/07	26-01-2016	Mid-Flood	IS(Mf)16	09:52	Bottom	3	2	14.6	7.89	24	6.23	9.27	14.8
TMCLKL	HY/2012/07	26-01-2016	Mid-Flood	IS(Mf)9	10:14	Surface	1	1	14.5	7.92	23.6	6.32	8.05	10.5
TMCLKL	HY/2012/07	26-01-2016	Mid-Flood	IS(Mf)9	10:14	Surface	1	2	14.4	7.95	23.7	6.28	8.1	12.2
TMCLKL	HY/2012/07	26-01-2016	Mid-Flood	IS(Mf)9	10:14	Middle	2	1						
TMCLKL	HY/2012/07	26-01-2016	Mid-Flood	IS(Mf)9	10:14	Middle	2	2						
TMCLKL	HY/2012/07	26-01-2016	Mid-Flood	IS(Mf)9	10:14	Bottom	3	1	14.6	7.9	23.9	6.25	8.33	13.3
TMCLKL	HY/2012/07	26-01-2016	Mid-Flood	IS(Mf)9	10:14	Bottom	3	2	14.6	7.87	23.8	6.22	8.41	13.5
TMCLKL	HY/2012/07	26-01-2016	Mid-Flood	CS(Mf)3	10:38	Surface	1	1	14.4	7.88	23.7	6.49	8.13	11.4
TMCLKL	HY/2012/07	26-01-2016	Mid-Flood	CS(Mf)3	10:38	Surface	1	2	14.5	7.81	23.8	6.46	8.18	10.6
TMCLKL	HY/2012/07	26-01-2016	Mid-Flood	CS(Mf)3	10:38	Middle	2	1	14.6	7.83	23.9	6.4	8.3	11.6
TMCLKL	HY/2012/07	26-01-2016	Mid-Flood	CS(Mf)3	10:38	Middle	2	2	14.5	7.86	23.8	6.36	8.35	10.9
TMCLKL	HY/2012/07	26-01-2016	Mid-Flood	CS(Mf)3	10:38	Bottom	3	1	14.6	7.93	23.9	6.31	8.51	12.8
TMCLKL	HY/2012/07	26-01-2016	Mid-Flood	CS(Mf)3	10:38	Bottom	3	2	14.7	7.96	24	6.29	8.44	11.8
TMCLKL	HY/2012/07	26-01-2016	Mid-Ebb	CS(Mf)5	15:02	Surface	1	1	14.5	7.94	23.5	6.35	8.29	10.8
TMCLKL	HY/2012/07	26-01-2016	Mid-Ebb	CS(Mf)5	15:02	Surface	1	2	14.6	7.96	23.4	6.33	8.34	11.7
TMCLKL	HY/2012/07	26-01-2016	Mid-Ebb	CS(Mf)5	15:02	Middle	2	1	14.5	7.88	23.6	6.24	8.25	11.6
TMCLKL	HY/2012/07	26-01-2016	Mid-Ebb	CS(Mf)5	15:02	Middle	2	2	14.4	7.84	23.5	6.26	8.2	10.7
TMCLKL	HY/2012/07	26-01-2016	Mid-Ebb	CS(Mf)5	15:02	Bottom	3	1	14.4	7.92	23.7	6.18	8.49	12.7
TMCLKL	HY/2012/07	26-01-2016	Mid-Ebb	CS(Mf)5	15:02	Bottom	3	2	14.3	7.9	23.8	6.16	8.57	11.1
TMCLKL	HY/2012/07	26-01-2016	Mid-Ebb	SR4a	14:38	Surface	1	1	14.5	7.93	23.5	6.28	8.13	9.8
TMCLKL	HY/2012/07	26-01-2016	Mid-Ebb	SR4a	14:38	Surface	1	2	14.6	7.9	23.4	6.25	8.07	12.1
TMCLKL	HY/2012/07	26-01-2016	Mid-Ebb	SR4a	14:38	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	26-01-2016	Mid-Ebb	SR4a	14:38	Middle	2	2						
TMCLKL	HY/2012/07	26-01-2016	Mid-Ebb	SR4a	14:38	Bottom	3	1	14.7	7.91	23.6	6.17	8.35	13.4
TMCLKL	HY/2012/07	26-01-2016	Mid-Ebb	SR4a	14:38	Bottom	3	2	14.6	7.87	23.5	6.14	8.36	11.6
TMCLKL	HY/2012/07	26-01-2016	Mid-Ebb	SR4	14:20	Surface	1	1	14.6	7.97	23.6	6.2	8.17	12.3
TMCLKL	HY/2012/07	26-01-2016	Mid-Ebb	SR4	14:20	Surface	1	2	14.5	7.99	23.5	6.22	8.13	11.4
TMCLKL	HY/2012/07	26-01-2016	Mid-Ebb	SR4	14:20	Middle	2	1						
TMCLKL	HY/2012/07	26-01-2016	Mid-Ebb	SR4	14:20	Middle	2	2						
TMCLKL	HY/2012/07	26-01-2016	Mid-Ebb	SR4	14:20	Bottom	3	1	14.5	7.95	23.7	6.11	8.29	11.6
TMCLKL	HY/2012/07	26-01-2016	Mid-Ebb	SR4	14:20	Bottom	3	2	14.5	7.91	23.6	6.08	8.33	10.8
TMCLKL	HY/2012/07	26-01-2016	Mid-Ebb	IS8	14:03	Surface	1	1	14.4	7.92	23.5	6.17	8.25	12.4
TMCLKL	HY/2012/07	26-01-2016	Mid-Ebb	IS8	14:03	Surface	1	2	14.5	7.94	23.4	6.14	8.31	10.8
TMCLKL	HY/2012/07	26-01-2016	Mid-Ebb	IS8	14:03	Middle	2	1						
TMCLKL	HY/2012/07	26-01-2016	Mid-Ebb	IS8	14:03	Middle	2	2						
TMCLKL	HY/2012/07	26-01-2016	Mid-Ebb	IS8	14:03	Bottom	3	1	14.7	7.95	23.6	6.09	8.39	10.9
TMCLKL	HY/2012/07	26-01-2016	Mid-Ebb	IS8	14:03	Bottom	3	2	14.6	7.98	23.5	6.12	8.46	11.8
TMCLKL	HY/2012/07	26-01-2016	Mid-Ebb	IS(Mf)16	13:42	Surface	1	1	14.4	7.96	23.6	6.29	8.26	10.7
TMCLKL	HY/2012/07	26-01-2016	Mid-Ebb	IS(Mf)16	13:42	Surface	1	2	14.3	7.98	23.5	6.27	8.31	10
TMCLKL	HY/2012/07	26-01-2016	Mid-Ebb	IS(Mf)16	13:42	Middle	2	1	14.5	7.93	23.7	6.2	8.37	12.6
TMCLKL	HY/2012/07	26-01-2016	Mid-Ebb	IS(Mf)16	13:42	Middle	2	2	14.5	7.96	23.6	6.22	8.3	12.5
TMCLKL	HY/2012/07	26-01-2016	Mid-Ebb	IS(Mf)16	13:42	Bottom	3	1	14.3	7.9	23.8	6.13	8.45	11.8
TMCLKL	HY/2012/07	26-01-2016	Mid-Ebb	IS(Mf)16	13:42	Bottom	3	2	14.4	7.87	23.7	6.14	8.41	11.8
TMCLKL	HY/2012/07	26-01-2016	Mid-Ebb	IS(Mf)9	13:15	Surface	1	1	14.3	7.91	23.5	6.21	8.15	11.4
TMCLKL	HY/2012/07	26-01-2016	Mid-Ebb	IS(Mf)9	13:15	Surface	1	2	14.4	7.94	23.4	6.23	8.19	12.3
TMCLKL	HY/2012/07	26-01-2016	Mid-Ebb	IS(Mf)9	13:15	Middle	2	1						
TMCLKL	HY/2012/07	26-01-2016	Mid-Ebb	IS(Mf)9	13:15	Middle	2	2						
TMCLKL	HY/2012/07	26-01-2016	Mid-Ebb	IS(Mf)9	13:15	Bottom	3	1	14.5	7.95	23.6	6.17	8.44	12.7
TMCLKL	HY/2012/07	26-01-2016	Mid-Ebb	IS(Mf)9	13:15	Bottom	3	2	14.4	7.98	23.5	6.14	8.51	11.9
TMCLKL	HY/2012/07	26-01-2016	Mid-Ebb	CS(Mf)3	12:48	Surface	1	1	14.4	7.89	23.5	6.33	8.27	11.6
TMCLKL	HY/2012/07	26-01-2016	Mid-Ebb	CS(Mf)3	12:48	Surface	1	2	14.5	7.87	23.4	6.3	8.36	12.5
TMCLKL	HY/2012/07	26-01-2016	Mid-Ebb	CS(Mf)3	12:48	Middle	2	1	14.5	7.96	23.6	6.27	8.45	13.5
TMCLKL	HY/2012/07	26-01-2016	Mid-Ebb	CS(Mf)3	12:48	Middle	2	2	14.5	7.97	23.5	6.25	8.49	12.7
TMCLKL	HY/2012/07	26-01-2016	Mid-Ebb	CS(Mf)3	12:48	Bottom	3	1	14.3	7.9	23.7	6.18	8.56	12
TMCLKL	HY/2012/07	26-01-2016	Mid-Ebb	CS(Mf)3	12:48	Bottom	3	2	14.4	7.93	23.7	6.14	8.62	12.1

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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	28-01-2016	Mid-Flood	CS(Mf)5	09:15	Surface	1	1	14.4	7.83	23.7	6.49	8.09	11.3
TMCLKL	HY/2012/07	28-01-2016	Mid-Flood	CS(Mf)5	09:15	Surface	1	2	14.5	7.79	23.8	6.5	8.14	13
TMCLKL	HY/2012/07	28-01-2016	Mid-Flood	CS(Mf)5	09:15	Middle	2	1	14.5	7.77	23.8	6.42	8.01	10.4
TMCLKL	HY/2012/07	28-01-2016	Mid-Flood	CS(Mf)5	09:15	Middle	2	2	14.6	7.76	23.9	6.39	7.97	10.4
TMCLKL	HY/2012/07	28-01-2016	Mid-Flood	CS(Mf)5	09:15	Bottom	3	1	14.8	7.85	24.1	6.36	8.3	11.6
TMCLKL	HY/2012/07	28-01-2016	Mid-Flood	CS(Mf)5	09:15	Bottom	3	2	14.8	7.86	24	6.33	8.37	12.6
TMCLKL	HY/2012/07	28-01-2016	Mid-Flood	SR4a	09:37	Surface	1	1	14.5	7.86	23.7	6.4	7.97	10.4
TMCLKL	HY/2012/07	28-01-2016	Mid-Flood	SR4a	09:37	Surface	1	2	14.6	7.83	23.8	6.38	7.98	10.4
TMCLKL	HY/2012/07	28-01-2016	Mid-Flood	SR4a	09:37	Middle	2	1						
TMCLKL	HY/2012/07	28-01-2016	Mid-Flood	SR4a	09:37	Middle	2	2						
TMCLKL	HY/2012/07	28-01-2016	Mid-Flood	SR4a	09:37	Bottom	3	1	14.6	7.79	23.8	6.35	8.17	11.4
TMCLKL	HY/2012/07	28-01-2016	Mid-Flood	SR4a	09:37	Bottom	3	2	14.7	7.82	23.9	6.33	8.25	13.2
TMCLKL	HY/2012/07	28-01-2016	Mid-Flood	SR4	09:59	Surface	1	1	14.7	7.83	23.8	6.32	7.92	11.9
TMCLKL	HY/2012/07	28-01-2016	Mid-Flood	SR4	09:59	Surface	1	2	14.7	7.87	23.9	6.28	7.96	10.3
TMCLKL	HY/2012/07	28-01-2016	Mid-Flood	SR4	09:59	Middle	2	1						
TMCLKL	HY/2012/07	28-01-2016	Mid-Flood	SR4	09:59	Middle	2	2						
TMCLKL	HY/2012/07	28-01-2016	Mid-Flood	SR4	09:59	Bottom	3	1	14.7	7.8	23.9	6.21	8.11	9.7
TMCLKL	HY/2012/07	28-01-2016	Mid-Flood	SR4	09:59	Bottom	3	2	14.8	7.78	24	6.19	8.19	11.5
TMCLKL	HY/2012/07	28-01-2016	Mid-Flood	IS8	10:21	Surface	1	1	14.6	7.82	23.8	6.26	8.01	12
TMCLKL	HY/2012/07	28-01-2016	Mid-Flood	IS8	10:21	Surface	1	2	14.5	7.84	23.9	6.3	8.07	12.9
TMCLKL	HY/2012/07	28-01-2016	Mid-Flood	IS8	10:21	Middle	2	1						
TMCLKL	HY/2012/07	28-01-2016	Mid-Flood	IS8	10:21	Middle	2	2						
TMCLKL	HY/2012/07	28-01-2016	Mid-Flood	IS8	10:21	Bottom	3	1	14.7	7.87	23.9	6.23	8.25	10.7
TMCLKL	HY/2012/07	28-01-2016	Mid-Flood	IS8	10:21	Bottom	3	2	14.6	7.85	24	6.26	8.19	11.5
TMCLKL	HY/2012/07	28-01-2016	Mid-Flood	IS(Mf)16	10:43	Surface	1	1	14.2	7.86	23.8	6.43	8.84	11.5
TMCLKL	HY/2012/07	28-01-2016	Mid-Flood	IS(Mf)16	10:43	Surface	1	2	14.3	7.84	23.9	6.45	8.89	13.3
TMCLKL	HY/2012/07	28-01-2016	Mid-Flood	IS(Mf)16	10:43	Middle	2	1	14.5	7.79	23.9	6.39	9.04	13.6
TMCLKL	HY/2012/07	28-01-2016	Mid-Flood	IS(Mf)16	10:43	Middle	2	2	14.4	7.81	24	6.36	8.97	11.7
TMCLKL	HY/2012/07	28-01-2016	Mid-Flood	IS(Mf)16	10:43	Bottom	3	1	14.6	7.77	24.1	6.31	9.12	14.6
TMCLKL	HY/2012/07	28-01-2016	Mid-Flood	IS(Mf)16	10:43	Bottom	3	2	14.6	7.8	24.2	6.29	9.18	12.9
TMCLKL	HY/2012/07	28-01-2016	Mid-Flood	IS(Mf)9	11:05	Surface	1	1	14.5	7.83	23.7	6.38	7.96	11.9
TMCLKL	HY/2012/07	28-01-2016	Mid-Flood	IS(Mf)9	11:05	Surface	1	2	14.6	7.86	23.8	6.34	8.01	12
TMCLKL	HY/2012/07	28-01-2016	Mid-Flood	IS(Mf)9	11:05	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	28-01-2016	Mid-Flood	IS(Mf)9	11:05	Middle	2	2						
TMCLKL	HY/2012/07	28-01-2016	Mid-Flood	IS(Mf)9	11:05	Bottom	3	1	14.6	7.81	23.9	6.31	8.24	11.5
TMCLKL	HY/2012/07	28-01-2016	Mid-Flood	IS(Mf)9	11:05	Bottom	3	2	14.7	7.78	24	6.28	8.32	10.8
TMCLKL	HY/2012/07	28-01-2016	Mid-Flood	CS(Mf)3	11:29	Surface	1	1	14.5	7.79	23.8	6.55	8.04	11.3
TMCLKL	HY/2012/07	28-01-2016	Mid-Flood	CS(Mf)3	11:29	Surface	1	2	14.6	7.72	23.9	6.52	8.09	11.3
TMCLKL	HY/2012/07	28-01-2016	Mid-Flood	CS(Mf)3	11:29	Middle	2	1	14.6	7.74	23.9	6.46	8.21	13.1
TMCLKL	HY/2012/07	28-01-2016	Mid-Flood	CS(Mf)3	11:29	Middle	2	2	14.7	7.77	24	6.42	8.26	10.7
TMCLKL	HY/2012/07	28-01-2016	Mid-Flood	CS(Mf)3	11:29	Bottom	3	1	14.8	7.84	24	6.37	8.42	10.9
TMCLKL	HY/2012/07	28-01-2016	Mid-Flood	CS(Mf)3	11:29	Bottom	3	2	14.7	7.87	24.1	6.35	8.35	12.5
TMCLKL	HY/2012/07	28-01-2016	Mid-Ebb	CS(Mf)5	16:00	Surface	1	1	14.7	7.84	23.4	6.55	7.55	10.6
TMCLKL	HY/2012/07	28-01-2016	Mid-Ebb	CS(Mf)5	16:00	Surface	1	2	14.8	7.85	23.5	6.51	7.59	11.4
TMCLKL	HY/2012/07	28-01-2016	Mid-Ebb	CS(Mf)5	16:00	Middle	2	1	14.9	7.87	23.9	6.26	7.67	12.3
TMCLKL	HY/2012/07	28-01-2016	Mid-Ebb	CS(Mf)5	16:00	Middle	2	2	14.9	7.86	24	6.22	7.6	9.9
TMCLKL	HY/2012/07	28-01-2016	Mid-Ebb	CS(Mf)5	16:00	Bottom	3	1	15	7.84	24.2	6.17	8.02	9.6
TMCLKL	HY/2012/07	28-01-2016	Mid-Ebb	CS(Mf)5	16:00	Bottom	3	2	15	7.84	24.2	6.14	8.06	12.1
TMCLKL	HY/2012/07	28-01-2016	Mid-Ebb	SR4a	15:40	Surface	1	1	14.7	7.79	23.4	6.41	7.74	10.1
TMCLKL	HY/2012/07	28-01-2016	Mid-Ebb	SR4a	15:40	Surface	1	2	14.7	7.8	23.3	6.44	7.7	12.3
TMCLKL	HY/2012/07	28-01-2016	Mid-Ebb	SR4a	15:40	Middle	2	1						
TMCLKL	HY/2012/07	28-01-2016	Mid-Ebb	SR4a	15:40	Middle	2	2						
TMCLKL	HY/2012/07	28-01-2016	Mid-Ebb	SR4a	15:40	Bottom	3	1	14.9	7.82	23.7	6.2	8.17	10.6
TMCLKL	HY/2012/07	28-01-2016	Mid-Ebb	SR4a	15:40	Bottom	3	2	15	7.81	23.8	6.24	8.12	10.6
TMCLKL	HY/2012/07	28-01-2016	Mid-Ebb	SR4	15:15	Surface	1	1	14.7	7.79	23.4	6.39	7.55	9.8
TMCLKL	HY/2012/07	28-01-2016	Mid-Ebb	SR4	15:15	Surface	1	2	14.8	7.78	23.3	6.37	7.5	11.3
TMCLKL	HY/2012/07	28-01-2016	Mid-Ebb	SR4	15:15	Middle	2	1						
TMCLKL	HY/2012/07	28-01-2016	Mid-Ebb	SR4	15:15	Middle	2	2						
TMCLKL	HY/2012/07	28-01-2016	Mid-Ebb	SR4	15:15	Bottom	3	1	14.9	7.81	23.7	6.22	7.94	12.7
TMCLKL	HY/2012/07	28-01-2016	Mid-Ebb	SR4	15:15	Bottom	3	2	14.9	7.8	23.7	6.19	7.9	11.1
TMCLKL	HY/2012/07	28-01-2016	Mid-Ebb	IS8	14:55	Surface	1	1	14.7	7.75	23.3	6.44	7.79	10.1
TMCLKL	HY/2012/07	28-01-2016	Mid-Ebb	IS8	14:55	Surface	1	2	14.8	7.76	23.2	6.47	7.75	10.9
TMCLKL	HY/2012/07	28-01-2016	Mid-Ebb	IS8	14:55	Middle	2	1						
TMCLKL	HY/2012/07	28-01-2016	Mid-Ebb	IS8	14:55	Middle	2	2						
TMCLKL	HY/2012/07	28-01-2016	Mid-Ebb	IS8	14:55	Bottom	3	1	14.8	7.74	23.9	6.17	8.02	12
TMCLKL	HY/2012/07	28-01-2016	Mid-Ebb	IS8	14:55	Bottom	3	2	14.8	7.74	24	6.14	8.05	10.5

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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	28-01-2016	Mid-Ebb	IS(Mf)16	14:33	Surface	1	1	14.8	7.84	23.3	6.5	7.68	9.2
TMCLKL	HY/2012/07	28-01-2016	Mid-Ebb	IS(Mf)16	14:33	Surface	1	2	14.8	7.84	23.3	6.53	7.64	9.9
TMCLKL	HY/2012/07	28-01-2016	Mid-Ebb	IS(Mf)16	14:33	Middle	2	1	14.9	7.86	24	6.23	8.04	12.1
TMCLKL	HY/2012/07	28-01-2016	Mid-Ebb	IS(Mf)16	14:33	Middle	2	2	14.8	7.85	24	6.27	8.08	12.1
TMCLKL	HY/2012/07	28-01-2016	Mid-Ebb	IS(Mf)16	14:33	Bottom	3	1	15	7.87	24.1	6.19	8.37	12.6
TMCLKL	HY/2012/07	28-01-2016	Mid-Ebb	IS(Mf)16	14:33	Bottom	3	2	15	7.87	24.1	6.15	8.3	11.6
TMCLKL	HY/2012/07	28-01-2016	Mid-Ebb	IS(Mf)9	14:13	Surface	1	1	14.7	7.86	23.6	6.67	8.17	10.6
TMCLKL	HY/2012/07	28-01-2016	Mid-Ebb	IS(Mf)9	14:13	Surface	1	2	14.7	7.87	23.5	6.64	8.12	10.6
TMCLKL	HY/2012/07	28-01-2016	Mid-Ebb	IS(Mf)9	14:13	Middle	2	1						
TMCLKL	HY/2012/07	28-01-2016	Mid-Ebb	IS(Mf)9	14:13	Middle	2	2						
TMCLKL	HY/2012/07	28-01-2016	Mid-Ebb	IS(Mf)9	14:13	Bottom	3	1	14.8	7.84	23.9	6.28	8.36	10.9
TMCLKL	HY/2012/07	28-01-2016	Mid-Ebb	IS(Mf)9	14:13	Bottom	3	2	14.8	7.82	23.8	6.25	8.41	13.5
TMCLKL	HY/2012/07	28-01-2016	Mid-Ebb	CS(Mf)3	13:49	Surface	1	1	14.7	7.8	23.5	6.59	8.02	11.2
TMCLKL	HY/2012/07	28-01-2016	Mid-Ebb	CS(Mf)3	13:49	Surface	1	2	14.6	7.82	23.4	6.57	8.06	11.3
TMCLKL	HY/2012/07	28-01-2016	Mid-Ebb	CS(Mf)3	13:49	Middle	2	1	14.9	7.82	24	6.19	8.37	13.4
TMCLKL	HY/2012/07	28-01-2016	Mid-Ebb	CS(Mf)3	13:49	Middle	2	2	14.8	7.83	24.1	6.15	8.3	13.3
TMCLKL	HY/2012/07	28-01-2016	Mid-Ebb	CS(Mf)3	13:49	Bottom	3	1	15	7.85	24.1	6.07	8.47	12.7
TMCLKL	HY/2012/07	28-01-2016	Mid-Ebb	CS(Mf)3	13:49	Bottom	3	2	14.9	7.86	24.1	6.04	8.49	13.6
TMCLKL	HY/2012/07	2016-01-30	Mid-Flood	CS(Mf)5	10:13	Surface	1	1	14.5	7.89	23.8	6.55	8	10.4
TMCLKL	HY/2012/07	2016-01-30	Mid-Flood	CS(Mf)5	10:13	Surface	1	2	14.6	7.85	23.9	6.56	8.05	10.5
TMCLKL	HY/2012/07	2016-01-30	Mid-Flood	CS(Mf)5	10:13	Middle	2	1	14.7	7.83	23.9	6.48	7.92	12.7
TMCLKL	HY/2012/07	2016-01-30	Mid-Flood	CS(Mf)5	10:13	Middle	2	2	14.7	7.82	24	6.45	7.88	10.2
TMCLKL	HY/2012/07	2016-01-30	Mid-Flood	CS(Mf)5	10:13	Bottom	3	1	14.8	7.91	24.1	6.42	8.21	12.3
TMCLKL	HY/2012/07	2016-01-30	Mid-Flood	CS(Mf)5	10:13	Bottom	3	2	14.9	7.92	24	6.39	8.28	13.2
TMCLKL	HY/2012/07	2016-01-30	Mid-Flood	SR4a	10:35	Surface	1	1	14.6	7.93	23.8	6.46	7.88	11
TMCLKL	HY/2012/07	2016-01-30	Mid-Flood	SR4a	10:35	Surface	1	2	14.7	7.89	23.9	6.44	7.89	11.8
TMCLKL	HY/2012/07	2016-01-30	Mid-Flood	SR4a	10:35	Middle	2	1						
TMCLKL	HY/2012/07	2016-01-30	Mid-Flood	SR4a	10:35	Middle	2	2						
TMCLKL	HY/2012/07	2016-01-30	Mid-Flood	SR4a	10:35	Bottom	3	1	14.7	7.85	23.9	6.41	8.08	11.3
TMCLKL	HY/2012/07	2016-01-30	Mid-Flood	SR4a	10:35	Bottom	3	2	14.8	7.88	24	6.39	8.16	13.1
TMCLKL	HY/2012/07	2016-01-30	Mid-Flood	SR4	10:57	Surface	1	1	14.3	7.89	23.9	6.38	7.83	11
TMCLKL	HY/2012/07	2016-01-30	Mid-Flood	SR4	10:57	Surface	1	2	14.8	7.93	24	6.34	7.87	11
TMCLKL	HY/2012/07	2016-01-30	Mid-Flood	SR4	10:57	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	2016-01-30	Mid-Flood	SR4	10:57	Middle	2	2						
TMCLKL	HY/2012/07	2016-01-30	Mid-Flood	SR4	10:57	Bottom	3	1	14.8	7.86	24	6.27	8.02	11.2
TMCLKL	HY/2012/07	2016-01-30	Mid-Flood	SR4	10:57	Bottom	3	2	14.9	7.84	24.1	6.25	8.1	12.2
TMCLKL	HY/2012/07	2016-01-30	Mid-Flood	IS8	11:19	Surface	1	1	14.6	7.88	23.9	6.32	7.92	11.9
TMCLKL	HY/2012/07	2016-01-30	Mid-Flood	IS8	11:19	Surface	1	2	14.7	7.9	24	6.36	7.98	11.2
TMCLKL	HY/2012/07	2016-01-30	Mid-Flood	IS8	11:19	Middle	2	1						
TMCLKL	HY/2012/07	2016-01-30	Mid-Flood	IS8	11:19	Middle	2	2						
TMCLKL	HY/2012/07	2016-01-30	Mid-Flood	IS8	11:19	Bottom	3	1	14.7	7.93	24	6.29	8.16	13.1
TMCLKL	HY/2012/07	2016-01-30	Mid-Flood	IS8	11:19	Bottom	3	2	14.8	7.91	24.1	6.32	8.1	11.3
TMCLKL	HY/2012/07	2016-01-30	Mid-Flood	IS(Mf)16	11:41	Surface	1	1	14.3	7.92	23.9	6.49	8.75	11.4
TMCLKL	HY/2012/07	2016-01-30	Mid-Flood	IS(Mf)16	11:41	Surface	1	2	14.4	7.9	24	6.51	8.8	13.2
TMCLKL	HY/2012/07	2016-01-30	Mid-Flood	IS(Mf)16	11:41	Middle	2	1	14.5	7.85	24	6.45	8.95	11.6
TMCLKL	HY/2012/07	2016-01-30	Mid-Flood	IS(Mf)16	11:41	Middle	2	2	14.6	7.87	24.1	6.42	8.88	13.3
TMCLKL	HY/2012/07	2016-01-30	Mid-Flood	IS(Mf)16	11:41	Bottom	3	1	14.7	7.83	24.3	6.37	9.03	12.6
TMCLKL	HY/2012/07	2016-01-30	Mid-Flood	IS(Mf)16	11:41	Bottom	3	2	14.6	7.86	24.3	6.35	9.09	10.9
TMCLKL	HY/2012/07	2016-01-30	Mid-Flood	IS(Mf)9	12:03	Surface	1	1	14.6	7.89	23.8	6.44	7.87	12.6
TMCLKL	HY/2012/07	2016-01-30	Mid-Flood	IS(Mf)9	12:03	Surface	1	2	14.7	7.92	23.9	6.4	7.92	12.7
TMCLKL	HY/2012/07	2016-01-30	Mid-Flood	IS(Mf)9	12:03	Middle	2	1						
TMCLKL	HY/2012/07	2016-01-30	Mid-Flood	IS(Mf)9	12:03	Middle	2	2						
TMCLKL	HY/2012/07	2016-01-30	Mid-Flood	IS(Mf)9	12:03	Bottom	3	1	14.7	7.87	24	6.37	8.15	10.6
TMCLKL	HY/2012/07	2016-01-30	Mid-Flood	IS(Mf)9	12:03	Bottom	3	2	14.8	7.84	24.1	6.34	8.23	11.5
TMCLKL	HY/2012/07	2016-01-30	Mid-Flood	CS(Mf)3	12:27	Surface	1	1	14.6	7.85	23.9	6.61	7.95	10.3
TMCLKL	HY/2012/07	2016-01-30	Mid-Flood	CS(Mf)3	12:27	Surface	1	2	14.7	7.78	24	6.58	8	11.2
TMCLKL	HY/2012/07	2016-01-30	Mid-Flood	CS(Mf)3	12:27	Middle	2	1	14.7	7.8	24.1	6.52	8.12	10.6
TMCLKL	HY/2012/07	2016-01-30	Mid-Flood	CS(Mf)3	12:27	Middle	2	2	14.8	7.83	24	6.48	8.17	10.6
TMCLKL	HY/2012/07	2016-01-30	Mid-Flood	CS(Mf)3	12:27	Bottom	3	1	14.8	7.92	24.1	6.43	8.33	10.8
TMCLKL	HY/2012/07	2016-01-30	Mid-Flood	CS(Mf)3	12:27	Bottom	3	2	14.9	7.93	24.2	6.41	8.26	9.9
TMCLKL	HY/2012/07	2016-01-30	Mid-Ebb	CS(Mf)5	17:10	Surface	1	1	14.9	7.84	24	6.66	8.06	10.5
TMCLKL	HY/2012/07	2016-01-30	Mid-Ebb	CS(Mf)5	17:10	Surface	1	2	14.9	7.8	24.1	6.63	7.94	11.1
TMCLKL	HY/2012/07	2016-01-30	Mid-Ebb	CS(Mf)5	17:10	Middle	2	1	14.8	7.77	24.2	6.5	8.13	10.6
TMCLKL	HY/2012/07	2016-01-30	Mid-Ebb	CS(Mf)5	17:10	Middle	2	2	14.8	7.79	24.2	6.47	8.2	12.3
TMCLKL	HY/2012/07	2016-01-30	Mid-Ebb	CS(Mf)5	17:10	Bottom	3	1	14.8	7.79	24.4	6.28	8.43	11
TMCLKL	HY/2012/07	2016-01-30	Mid-Ebb	CS(Mf)5	17:10	Bottom	3	2	14.7	7.81	24.3	6.31	8.37	10.9

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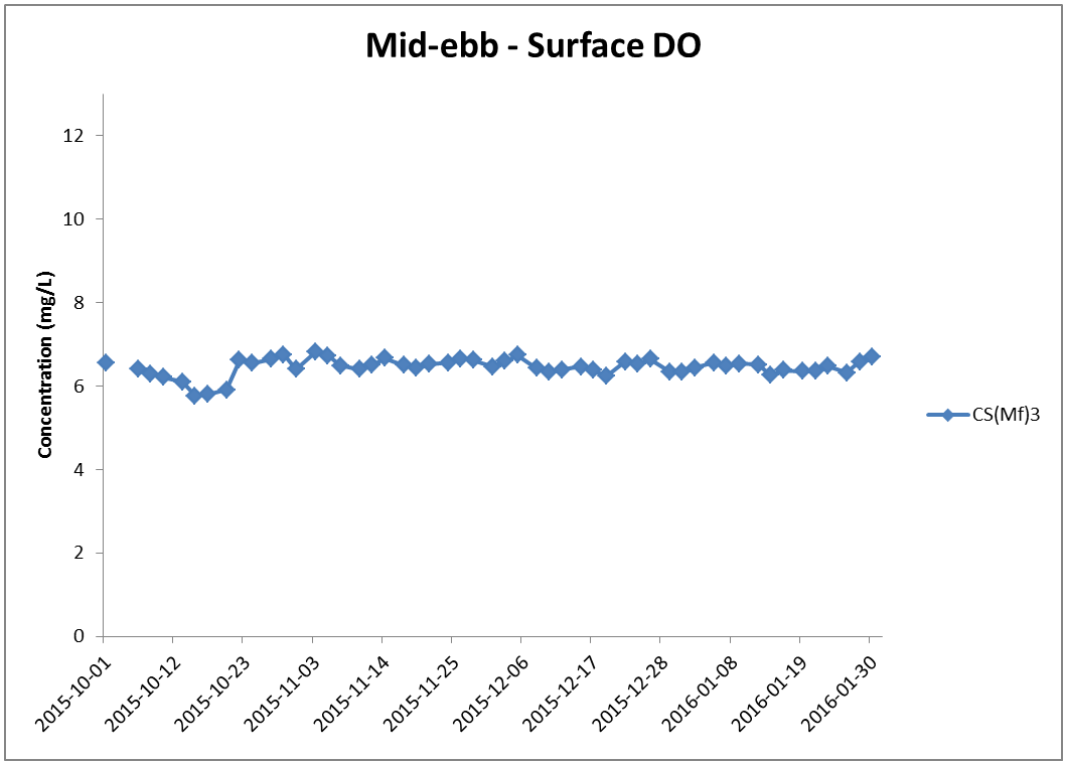
Project	Works	Date (yyyy-mm-dd)	Tide	Stat	Start Time	Level	Lev_Cod	Replicate	Temp_v	pH_v	Sal_v	DO_v	Turb_v	SS_v
TMCLKL	HY/2012/07	2016-01-30	Mid-Ebb	SR4a	16:45	Surface	1	1	14.9	7.86	23.9	6.58	7.93	9.5
TMCLKL	HY/2012/07	2016-01-30	Mid-Ebb	SR4a	16:45	Surface	1	2	15	7.88	24	6.61	7.86	11.8
TMCLKL	HY/2012/07	2016-01-30	Mid-Ebb	SR4a	16:45	Middle	2	1						
TMCLKL	HY/2012/07	2016-01-30	Mid-Ebb	SR4a	16:45	Middle	2	2						
TMCLKL	HY/2012/07	2016-01-30	Mid-Ebb	SR4a	16:45	Bottom	3	1	14.9	7.8	24	6.49	8.14	13
TMCLKL	HY/2012/07	2016-01-30	Mid-Ebb	SR4a	16:45	Bottom	3	2	14.8	7.83	24.1	6.46	8.23	13.2
TMCLKL	HY/2012/07	2016-01-30	Mid-Ebb	SR4	16:29	Surface	1	1	14.8	7.79	24	6.51	7.99	12.8
TMCLKL	HY/2012/07	2016-01-30	Mid-Ebb	SR4	16:29	Surface	1	2	14.9	7.82	24	6.47	8.05	10.5
TMCLKL	HY/2012/07	2016-01-30	Mid-Ebb	SR4	16:29	Middle	2	1						
TMCLKL	HY/2012/07	2016-01-30	Mid-Ebb	SR4	16:29	Middle	2	2						
TMCLKL	HY/2012/07	2016-01-30	Mid-Ebb	SR4	16:29	Bottom	3	1	14.8	7.84	24	6.33	8.21	11.5
TMCLKL	HY/2012/07	2016-01-30	Mid-Ebb	SR4	16:29	Bottom	3	2	14.7	7.81	24.1	6.3	8.14	10.6
TMCLKL	HY/2012/07	2016-01-30	Mid-Ebb	IS8	16:12	Surface	1	1	14.8	7.8	24	6.39	8.18	11.5
TMCLKL	HY/2012/07	2016-01-30	Mid-Ebb	IS8	16:12	Surface	1	2	14.7	7.83	24.1	6.36	8.21	10.7
TMCLKL	HY/2012/07	2016-01-30	Mid-Ebb	IS8	16:12	Middle	2	1						
TMCLKL	HY/2012/07	2016-01-30	Mid-Ebb	IS8	16:12	Middle	2	2						
TMCLKL	HY/2012/07	2016-01-30	Mid-Ebb	IS8	16:12	Bottom	3	1	14.7	7.77	24.1	6.28	8.36	11.7
TMCLKL	HY/2012/07	2016-01-30	Mid-Ebb	IS8	16:12	Bottom	3	2	14.7	7.8	24.1	6.25	8.44	10.1
TMCLKL	HY/2012/07	2016-01-30	Mid-Ebb	IS(Mf)16	15:50	Surface	1	1	14.7	7.86	24	6.45	8.43	11
TMCLKL	HY/2012/07	2016-01-30	Mid-Ebb	IS(Mf)16	15:50	Surface	1	2	14.7	7.89	24	6.41	8.49	12.7
TMCLKL	HY/2012/07	2016-01-30	Mid-Ebb	IS(Mf)16	15:50	Middle	2	1	14.7	7.82	24	6.36	8.72	11.3
TMCLKL	HY/2012/07	2016-01-30	Mid-Ebb	IS(Mf)16	15:50	Middle	2	2	14.6	7.85	24.1	6.33	8.66	12.1
TMCLKL	HY/2012/07	2016-01-30	Mid-Ebb	IS(Mf)16	15:50	Bottom	3	1	14.7	7.83	24.3	6.18	8.98	12.6
TMCLKL	HY/2012/07	2016-01-30	Mid-Ebb	IS(Mf)16	15:50	Bottom	3	2	14.8	7.85	24.4	6.16	9.05	10.9
TMCLKL	HY/2012/07	2016-01-30	Mid-Ebb	IS(Mf)9	15:33	Surface	1	1	14.8	7.79	23.9	6.57	7.91	10.3
TMCLKL	HY/2012/07	2016-01-30	Mid-Ebb	IS(Mf)9	15:33	Surface	1	2	14.8	7.82	23.9	6.54	8	11.2
TMCLKL	HY/2012/07	2016-01-30	Mid-Ebb	IS(Mf)9	15:33	Middle	2	1						
TMCLKL	HY/2012/07	2016-01-30	Mid-Ebb	IS(Mf)9	15:33	Middle	2	2						
TMCLKL	HY/2012/07	2016-01-30	Mid-Ebb	IS(Mf)9	15:33	Bottom	3	1	14.8	7.8	23.9	6.44	8.27	10.8
TMCLKL	HY/2012/07	2016-01-30	Mid-Ebb	IS(Mf)9	15:33	Bottom	3	2	14.8	7.79	24	6.4	8.33	10.8
TMCLKL	HY/2012/07	2016-01-30	Mid-Ebb	CS(Mf)3	15:12	Surface	1	1	14.7	7.81	23.9	6.73	8.09	11.3
TMCLKL	HY/2012/07	2016-01-30	Mid-Ebb	CS(Mf)3	15:12	Surface	1	2	14.8	7.83	24	6.68	8.16	12.2
TMCLKL	HY/2012/07	2016-01-30	Mid-Ebb	CS(Mf)3	15:12	Middle	2	1	14.8	7.8	24.1	6.62	8.23	12.3

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	2016-01-30	Mid-Ebb	CS(Mf)3	15:12	Middle	2	2	14.8	7.83	24.1	6.6	8.15	10.6
TMCLKL	HY/2012/07	2016-01-30	Mid-Ebb	CS(Mf)3	15:12	Bottom	3	1	14.9	7.84	24.3	6.47	8.47	11.9
TMCLKL	HY/2012/07	2016-01-30	Mid-Ebb	CS(Mf)3	15:12	Bottom	3	2	15	7.86	24.3	6.49	8.39	12.6



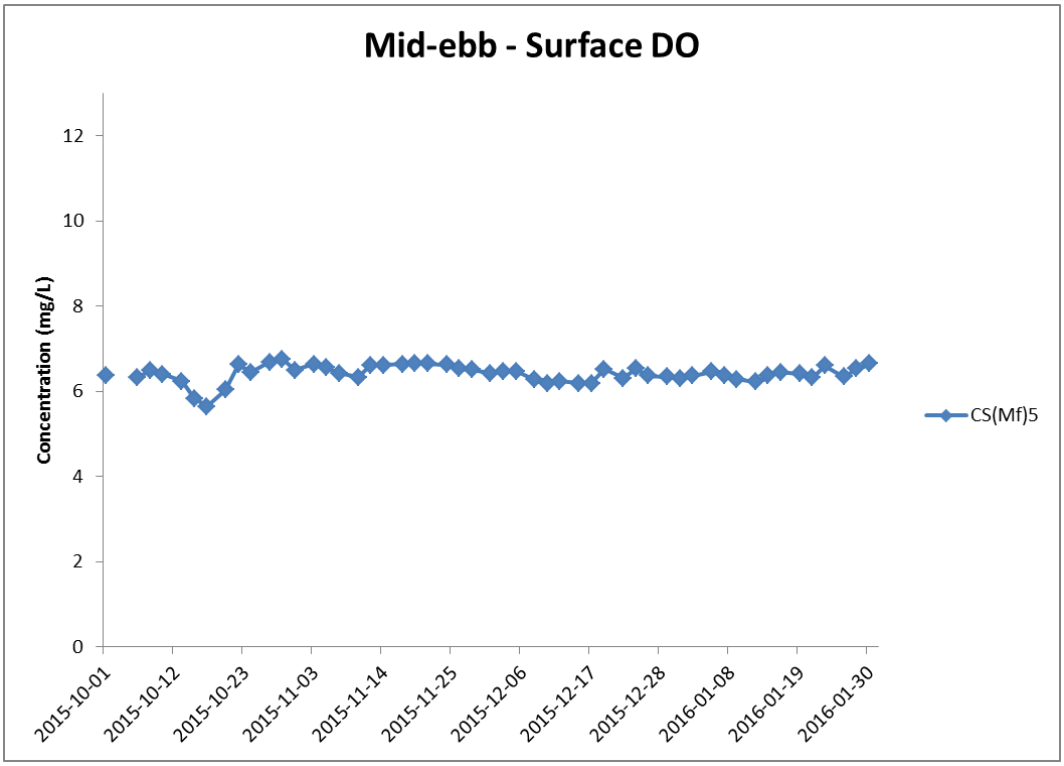
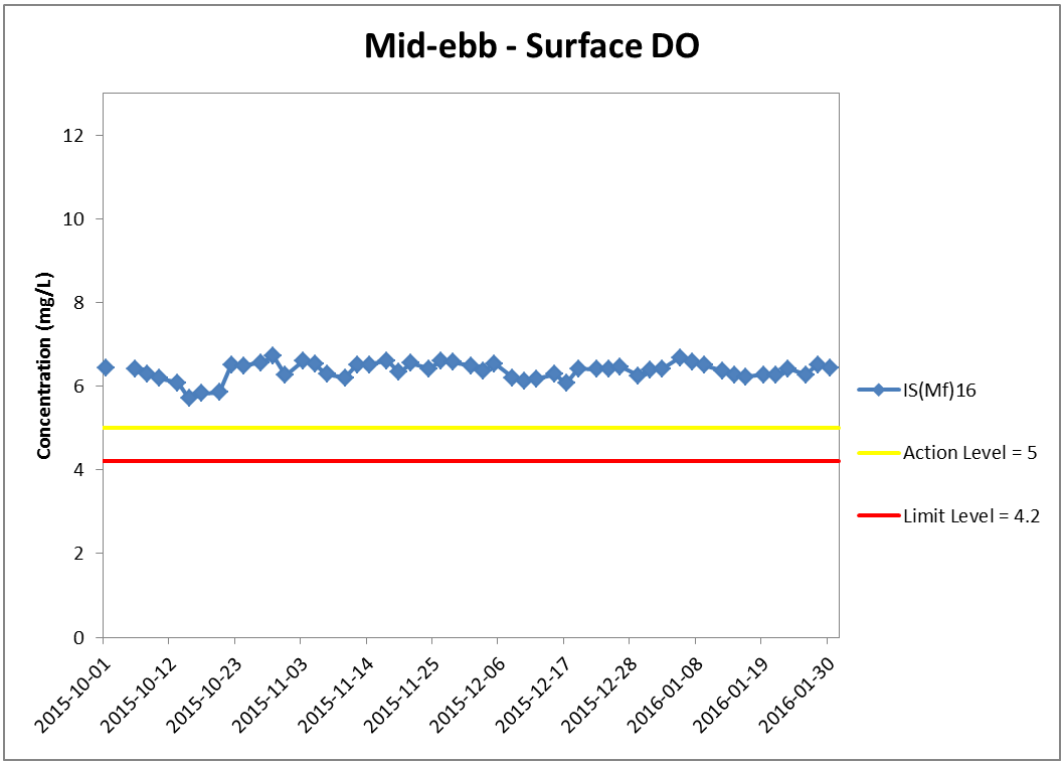


Figure J1 Impact Monitoring – Mean Level of Dissolved Oxygen (mg/L) in surface waters during mid-ebb tide between 1 October 2015 and 31 January 2016 at CS(Mf)3 and CS(Mf)5.

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; Pier construction; Launching gantry operation; and Installation of deck segment and pier head segment.

Environmental Resources Management

ERM



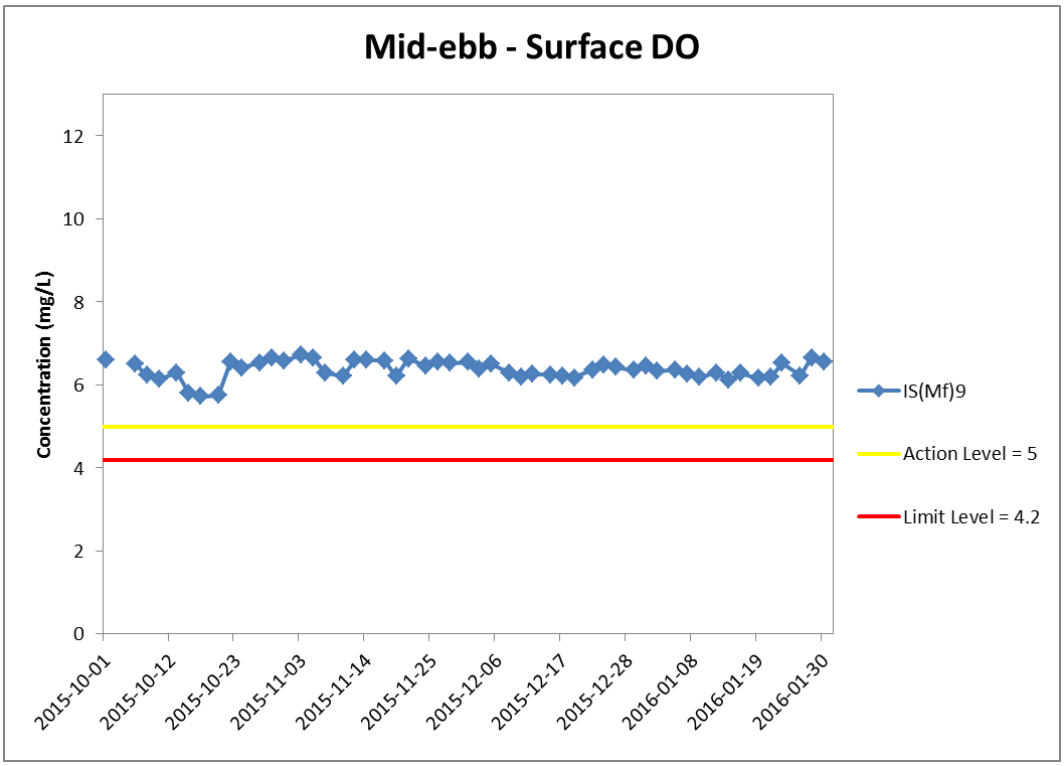
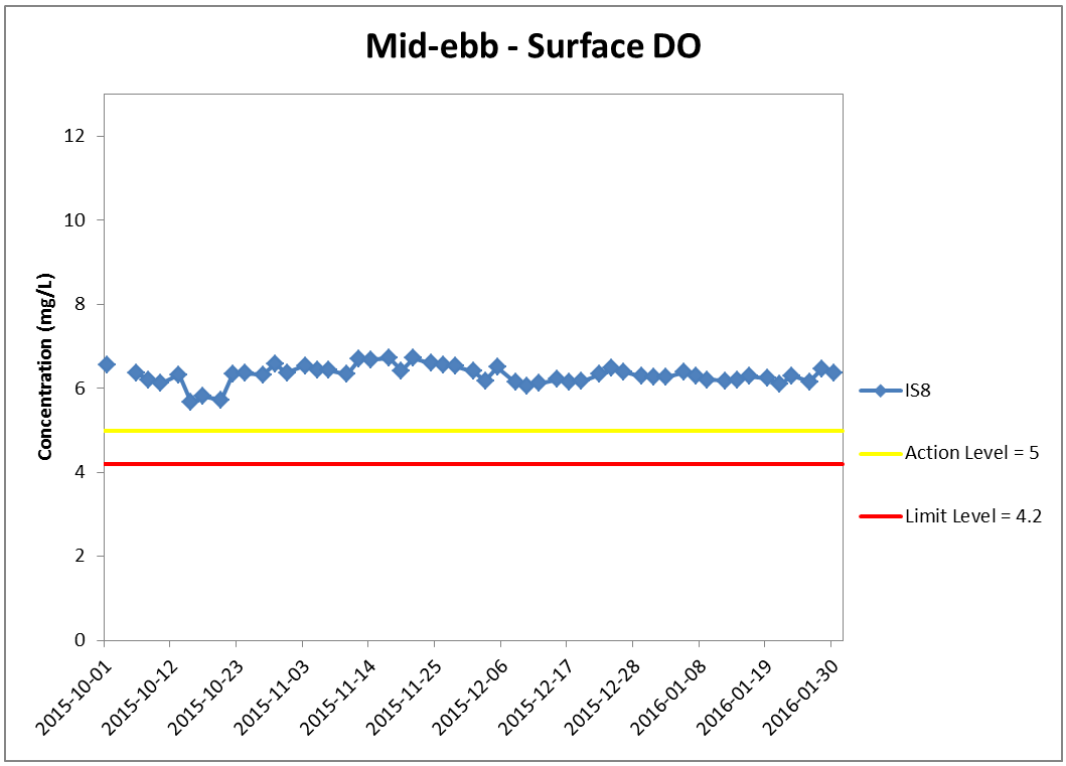


Figure J2 Impact Monitoring – Mean Level of Dissolved Oxygen (mg/L) in surface waters during mid-ebb tide between 1 October 2015 and 31 January 2016 at IS(Mf)16 and IS(Mf)9.

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; Pier construction; Launching gantry operation; and Installation of deck segment and pier head segment.

Environmental Resources Management

ERM



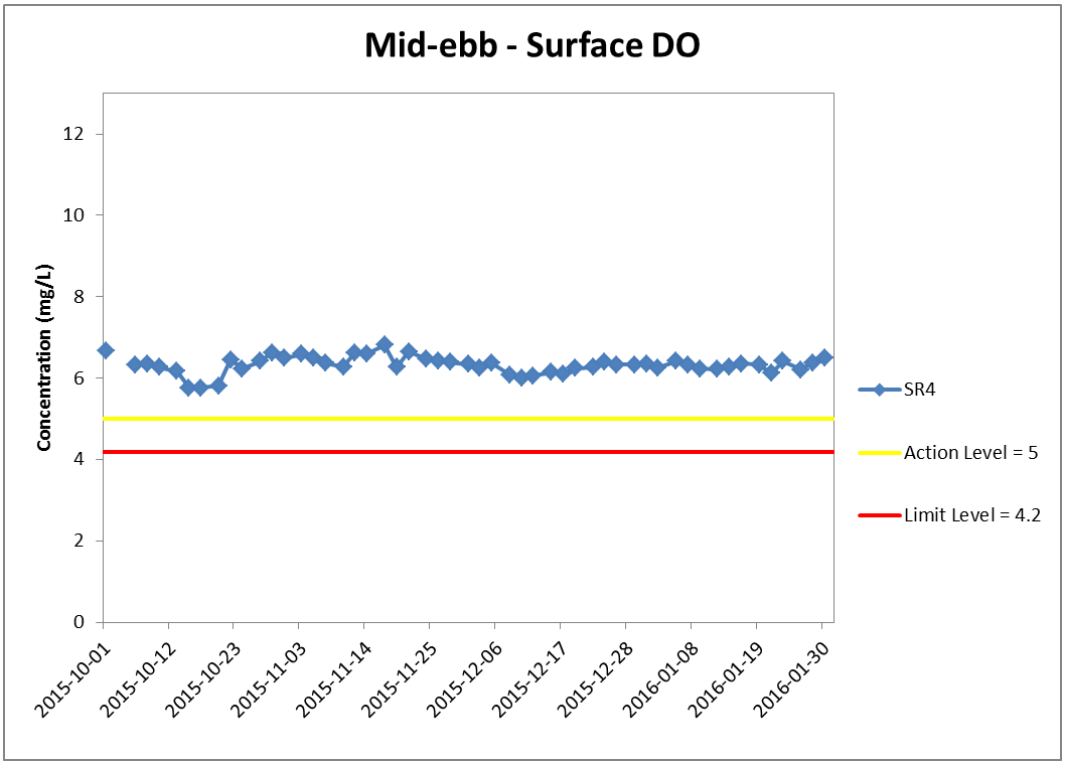


Figure J3 Impact Monitoring – Mean Level of Dissolved Oxygen (mg/L) in surface waters during mid-ebb tide between 1 October 2015 and 31 January 2016 at IS8 and SR4.

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; Pier construction; Launching gantry operation; and Installation of deck segment and pier head segment.

Environmental Resources Management

ERM

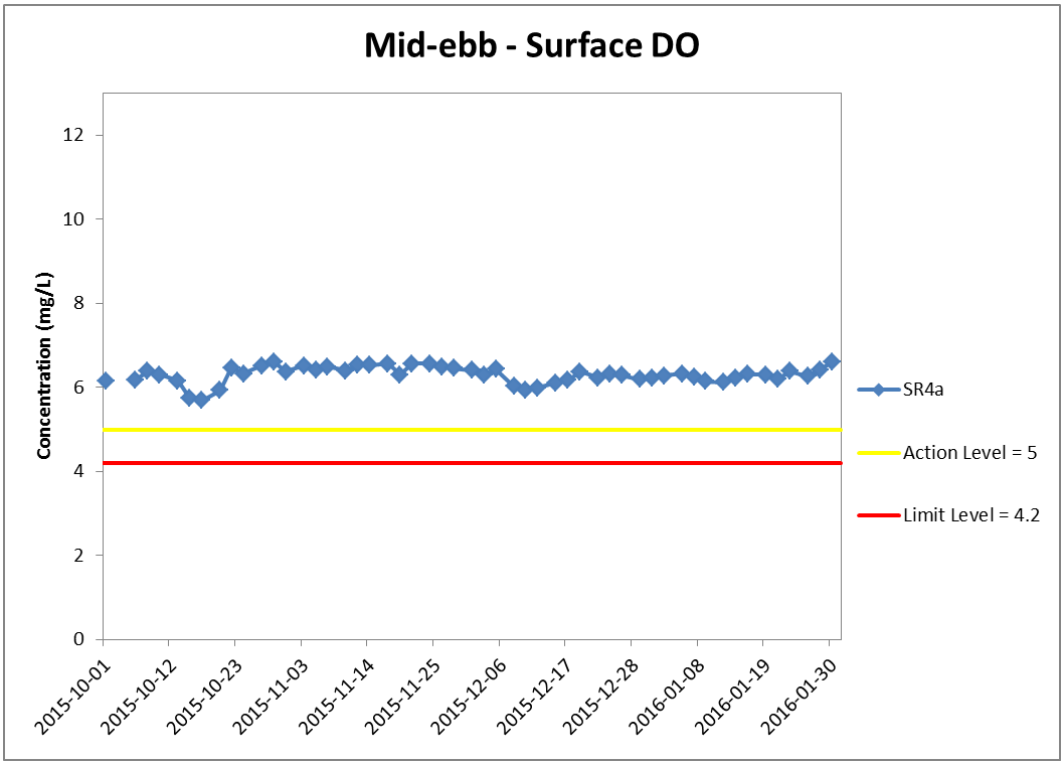
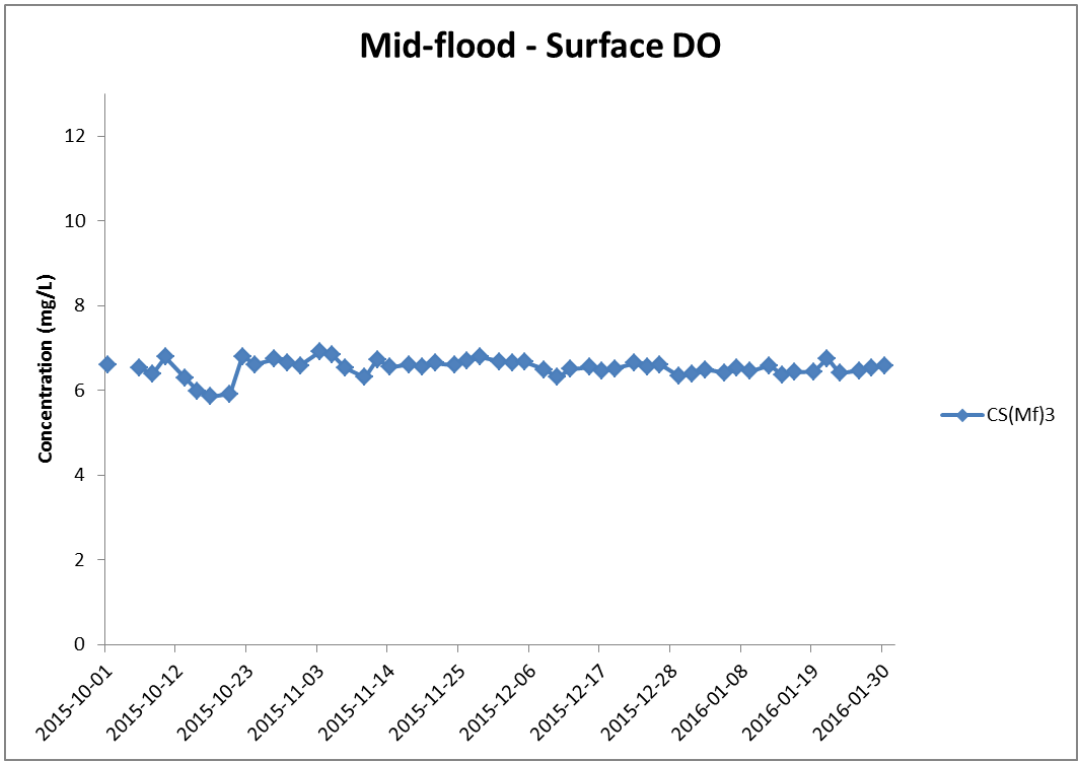


Figure J4 Impact Monitoring – Mean Level of Dissolved Oxygen (mg/L) in surface waters during mid-ebb tide between 1 October 2015 and 31 January 2016 at SR4a.

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; Pier construction; Launching gantry operation; and Installation of deck segment and pier head segment.

Environmental Resources Management

ERM



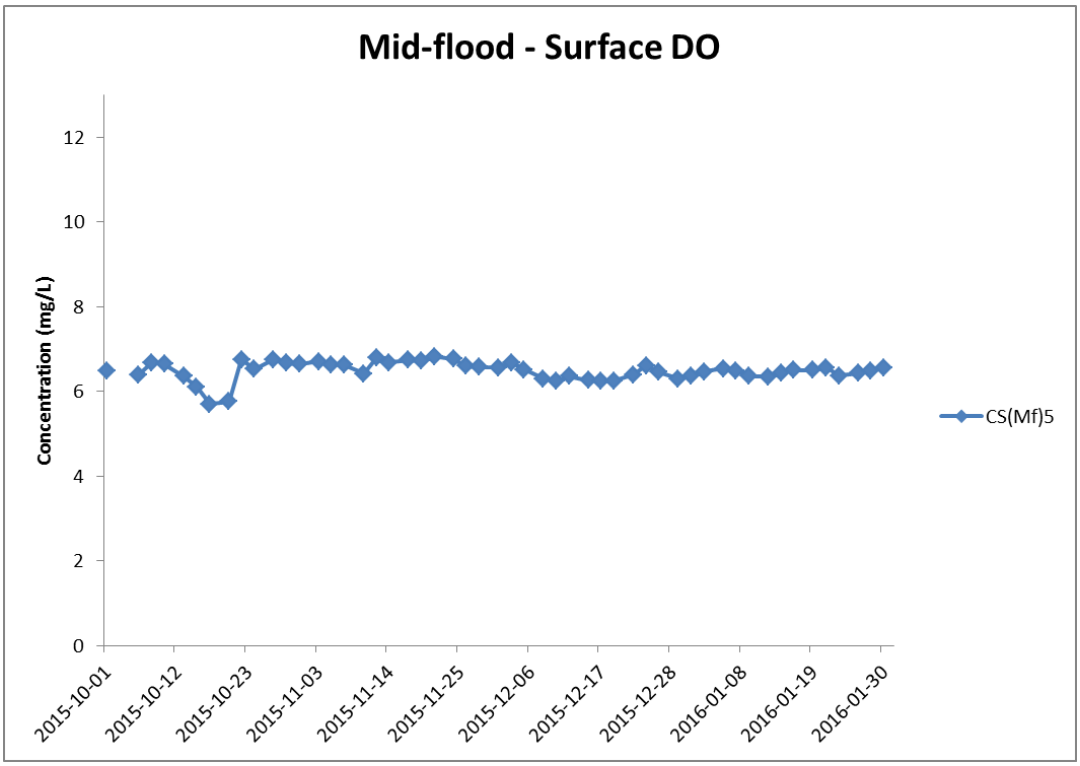
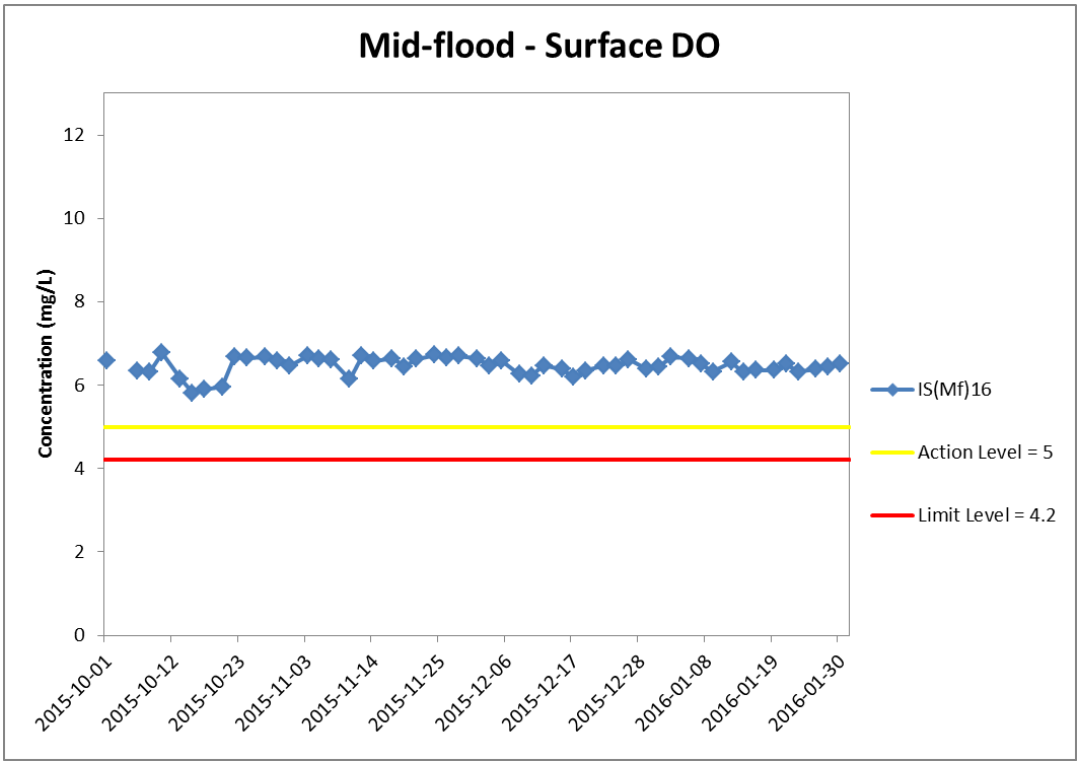


Figure J5 Impact Monitoring – Mean Level of Dissolved Oxygen (mg/L) in surface waters during mid-flood tide between 1 October 2015 and 31 January 2016 at CS(Mf)3 and CS(Mf)5.

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; Pier construction; Launching gantry operation; and Installation of deck segment and pier head segment.

Environmental Resources Management

ERM



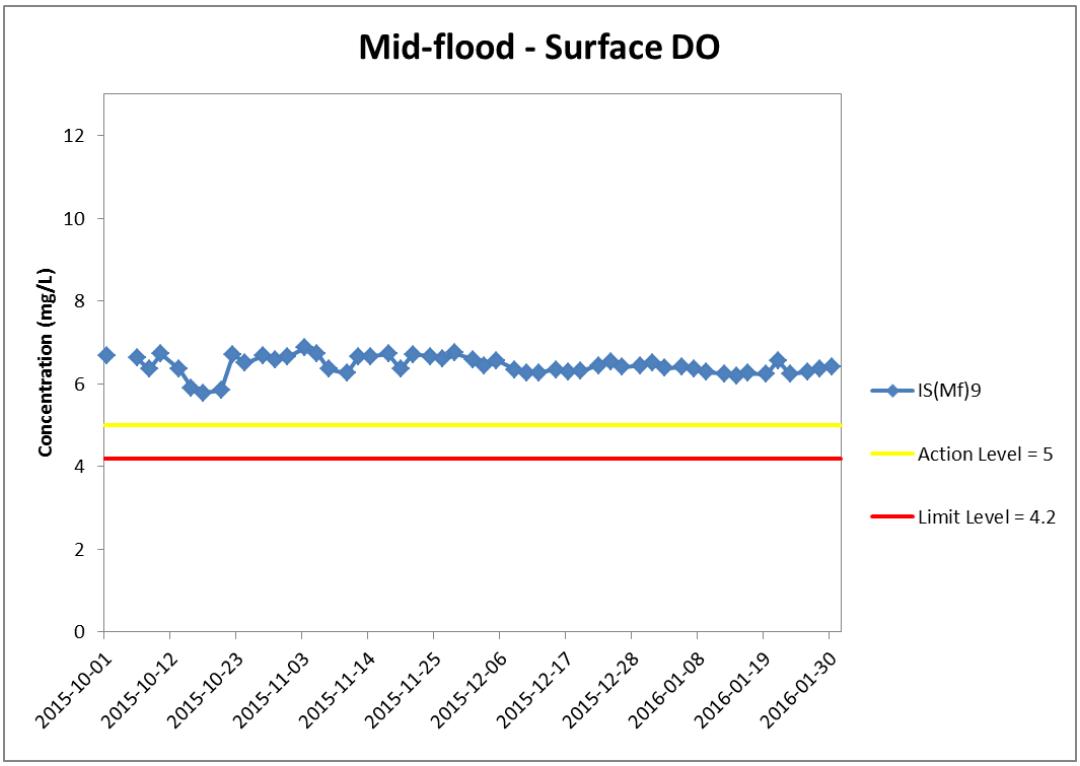
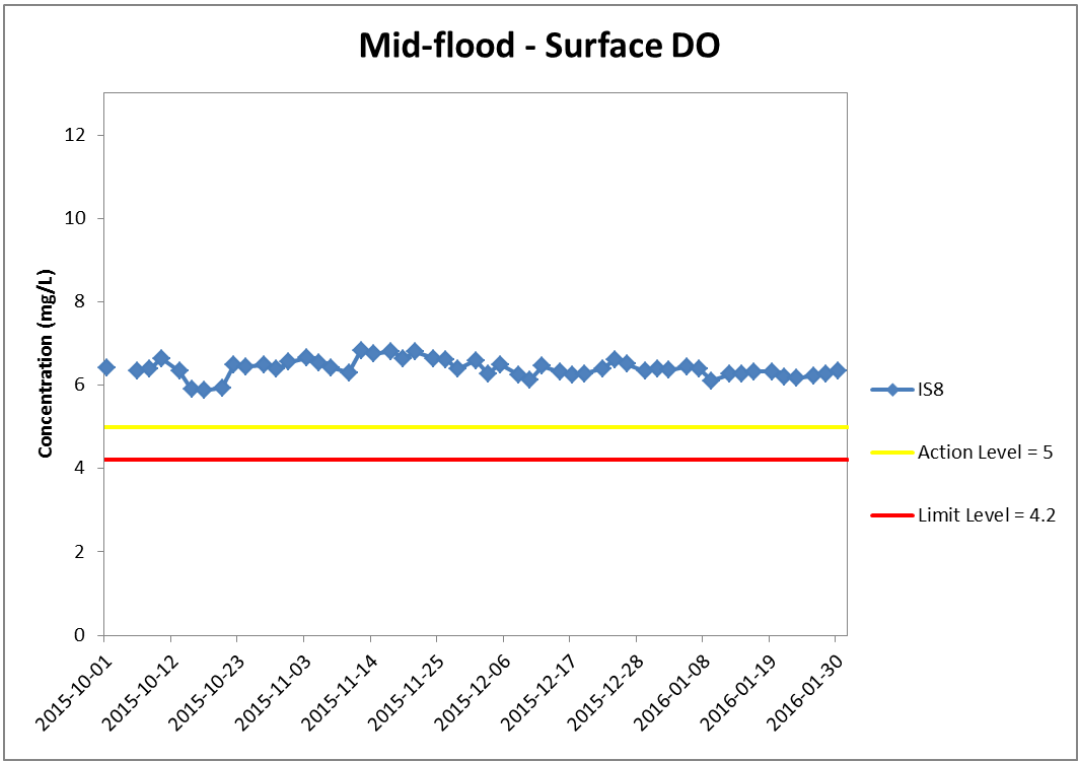


Figure J6 Impact Monitoring – Mean Level of Dissolved Oxygen (mg/L) in surface waters during mid-flood tide between 1 October 2015 and 31 January 2016 at IS(Mf)16 and IS(Mf)9.

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; Pier construction; Launching gantry operation; and Installation of deck segment and pier head segment.

Environmental Resources Management

ERM



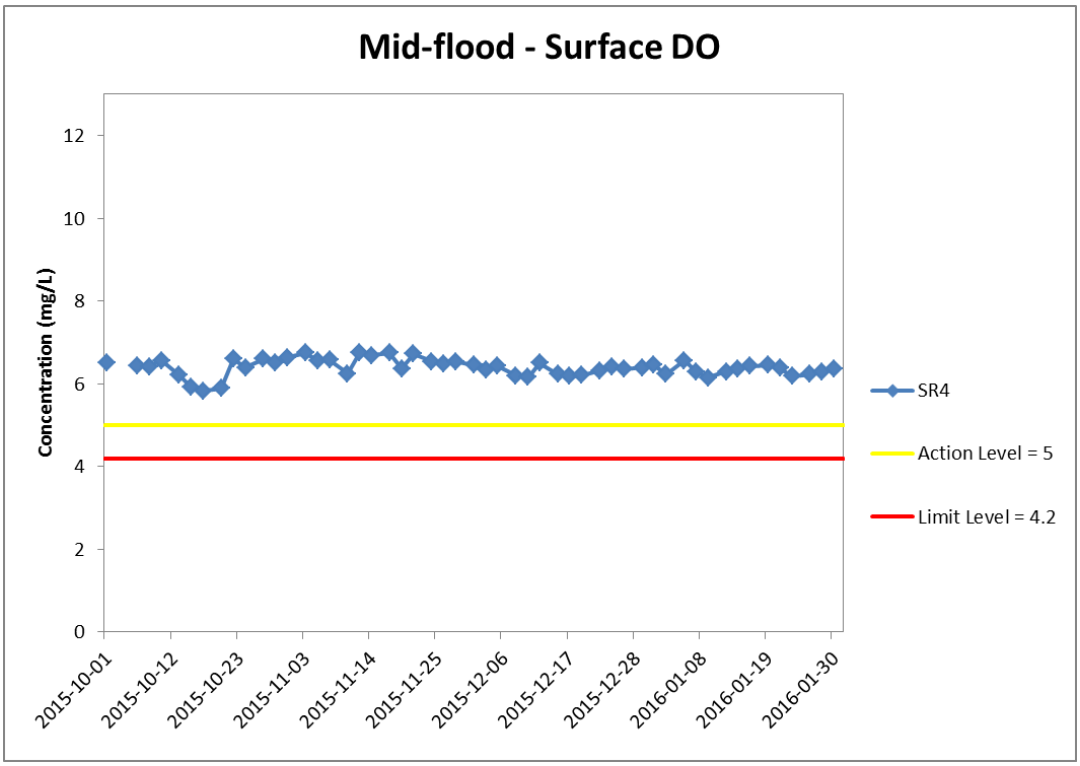


Figure J7 Impact Monitoring – Mean Level of Dissolved Oxygen (mg/L) in surface waters during mid-flood tide between 1 October 2015 and 31 January 2016 at IS8 and SR4.

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; Pier construction; Launching gantry operation; and Installation of deck segment and pier head segment.

Environmental Resources Management

ERM

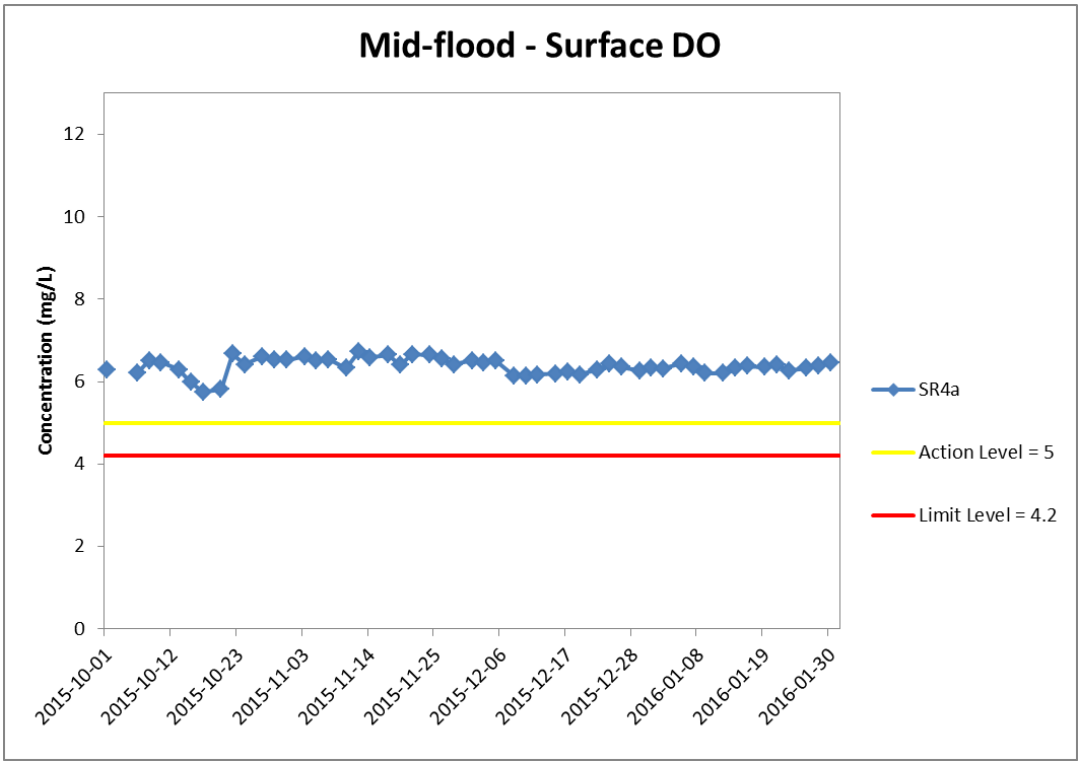
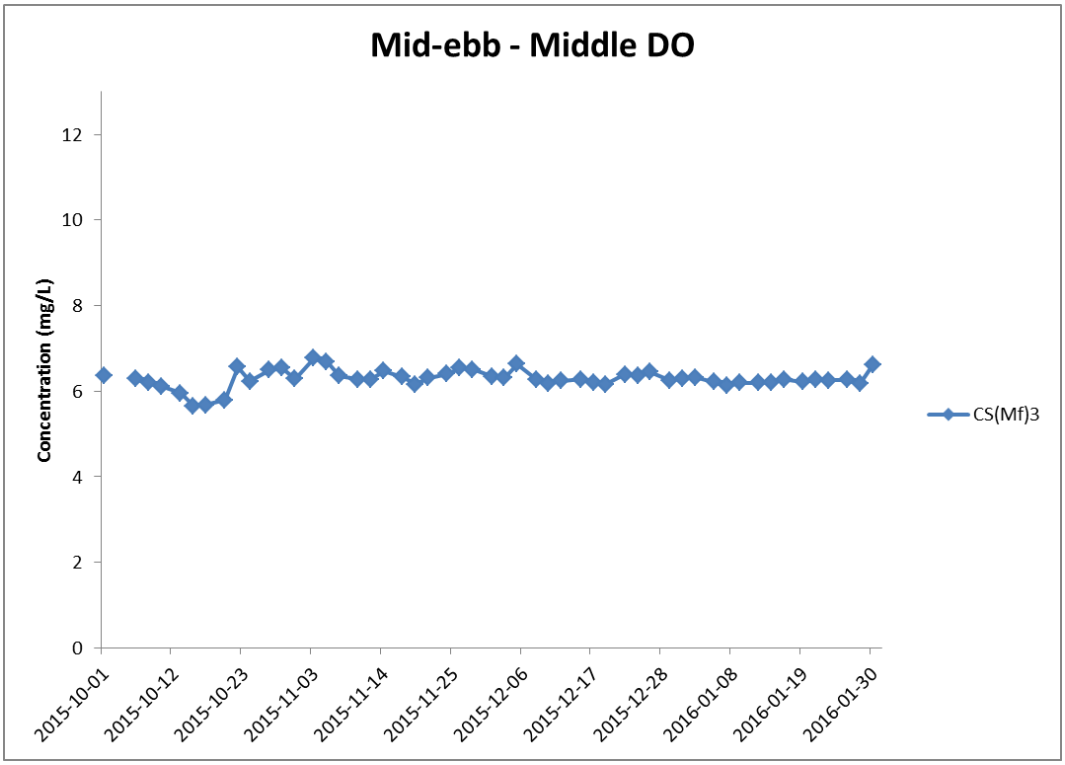


Figure J8 Impact Monitoring – Mean Level of Dissolved Oxygen (mg/L) in surface waters during mid-flood tide between 1 October 2015 and 31 January 2016 at SR4a.

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; Pier construction; Launching gantry operation; and Installation of deck segment and pier head segment.

Environmental Resources Management

ERM



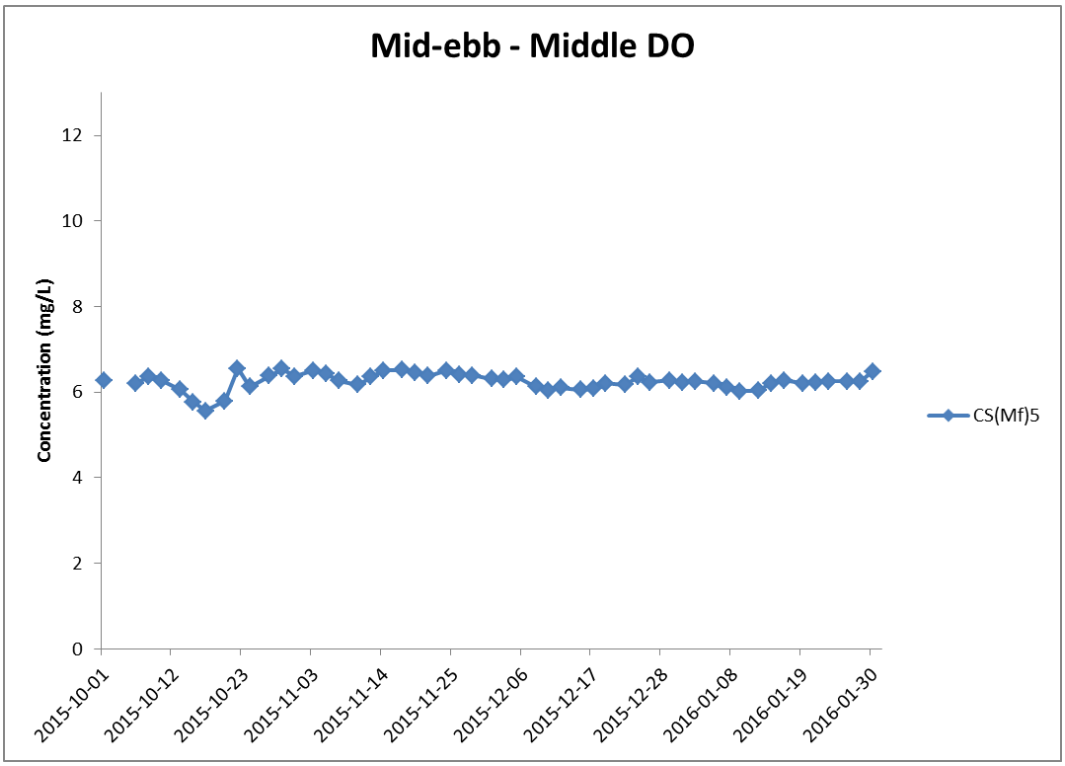


Figure J9 Impact Monitoring – Mean Level of Dissolved Oxygen (mg/L) in mid-depth waters during mid-ebb tide between 1 October 2015 and 31 January 2016 at CS(Mf)3 and CS(Mf)5.

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; Pier construction; Launching gantry operation; and Installation of deck segment and pier head segment.

Environmental Resources Management

ERM

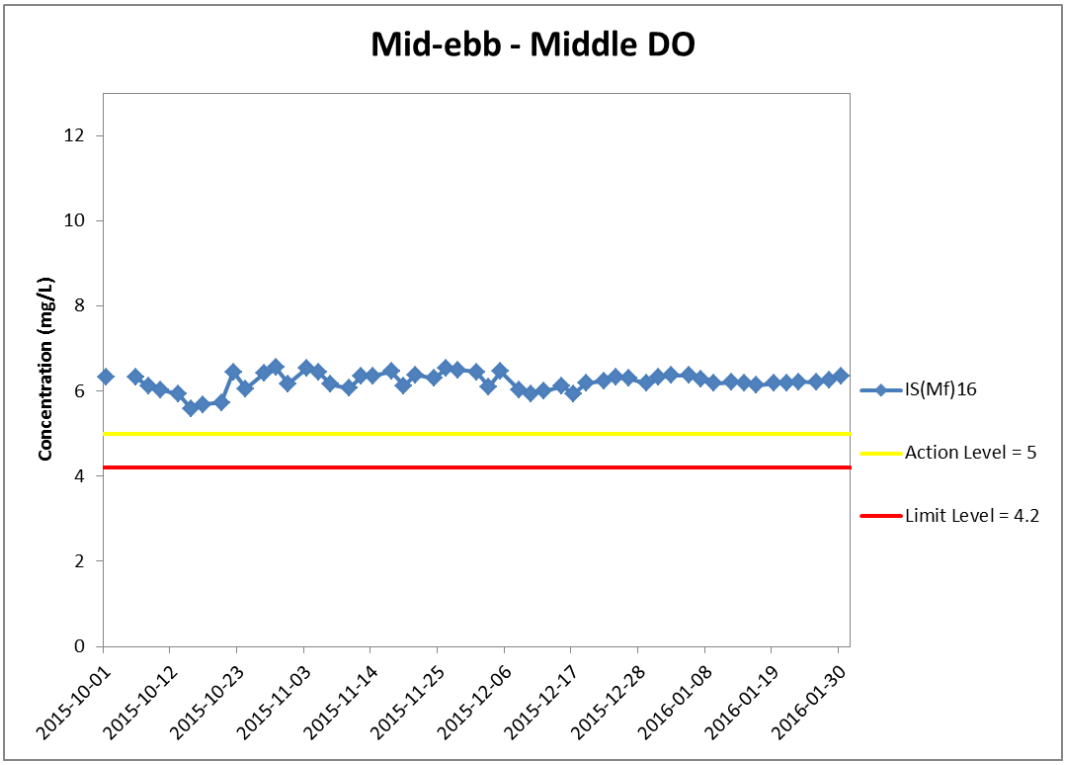
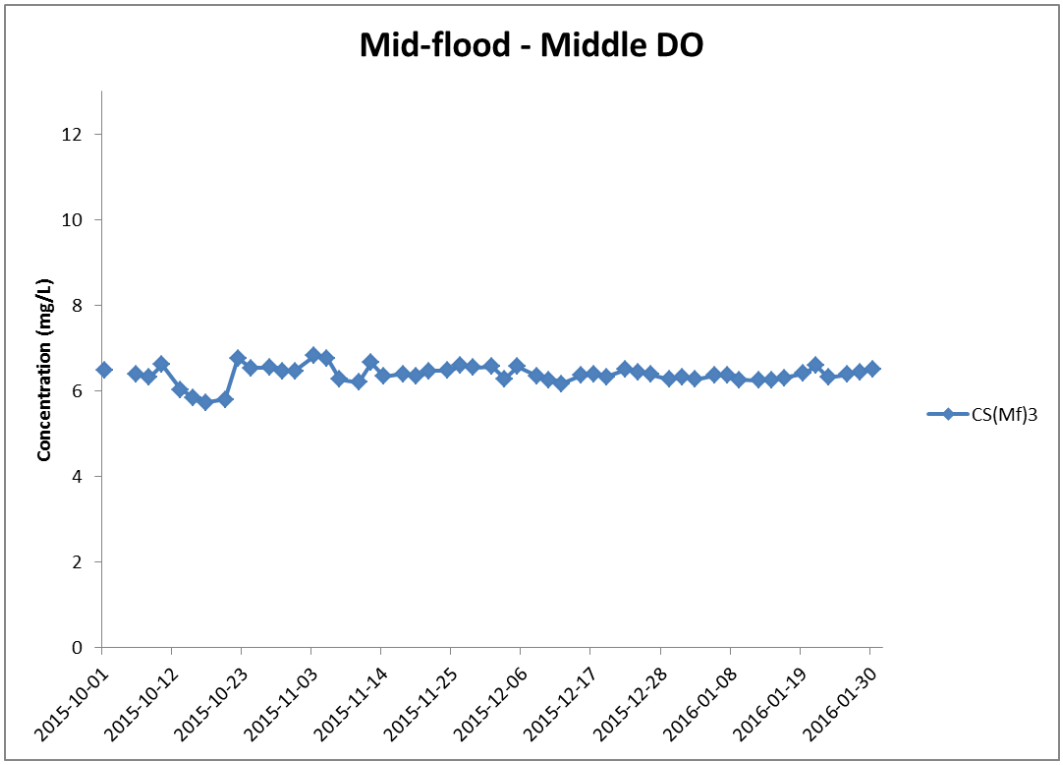


Figure J10 Impact Monitoring – Mean Level of Dissolved Oxygen (mg/L) in mid-depth waters during mid-ebb tide between 1 October 2015 and 31 January 2016 at IS(Mf)16.

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; Pier construction; Launching gantry operation; and Installation of deck segment and pier head segment.

Environmental Resources Management

ERM



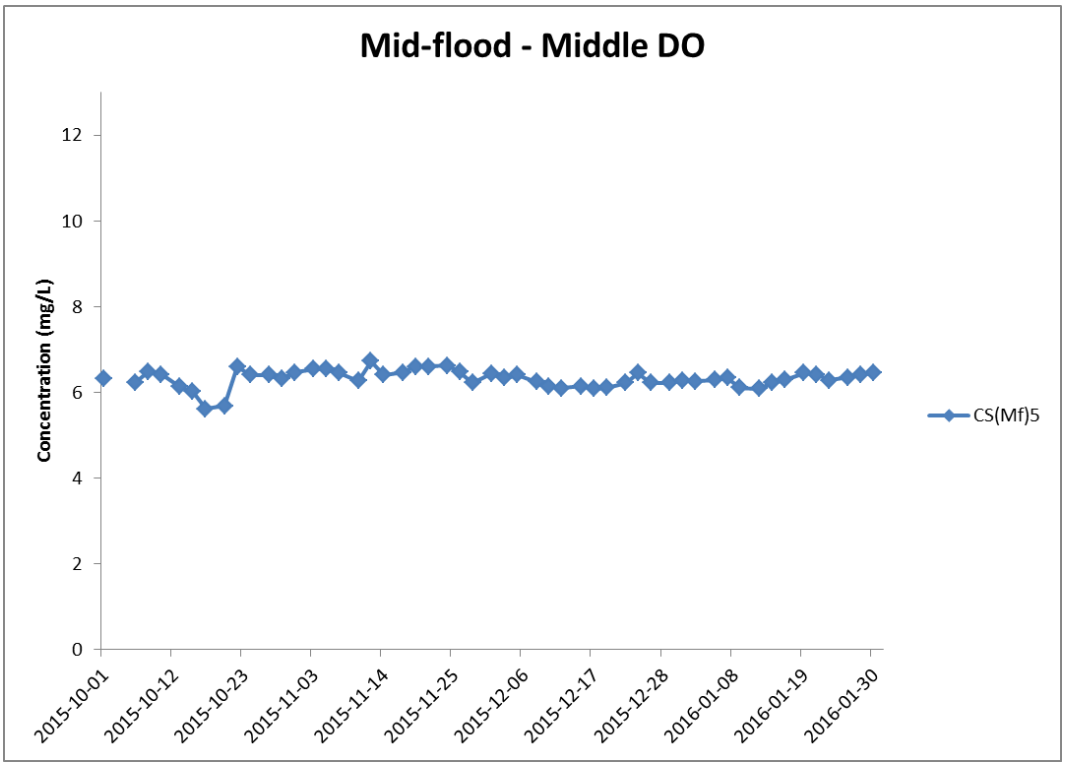


Figure J11 Impact Monitoring – Mean Level of Dissolved Oxygen (mg/L) in mid-depth waters during mid-flood tide between 1 October 2015 and 31 January 2016 at CS(Mf)3 and CS(Mf)5.

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; Pier construction; Launching gantry operation; and Installation of deck segment and pier head segment.

Environmental Resources Management

ERM

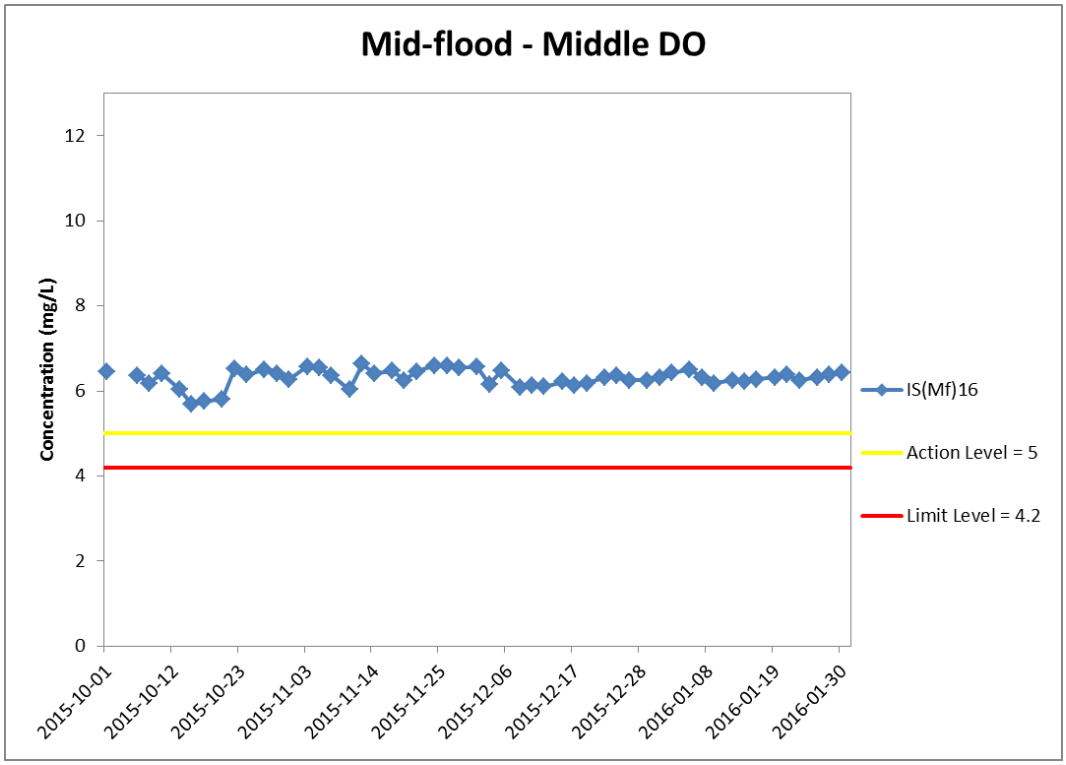
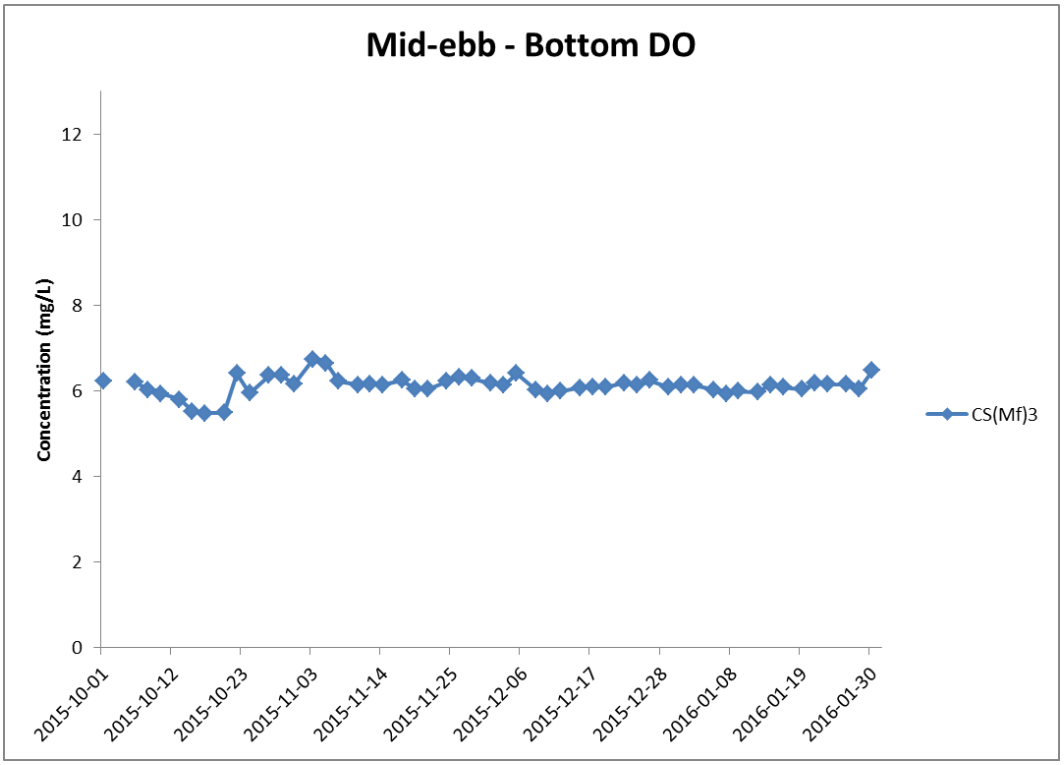


Figure J12 Impact Monitoring – Mean Level of Dissolved Oxygen (mg/L) in mid-depth waters during mid-flood tide between 1 October 2015 and 31 January 2016 at IS(Mf)16.

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; Pier construction; Launching gantry operation; and Installation of deck segment and pier head segment.

Environmental Resources Management

ERM



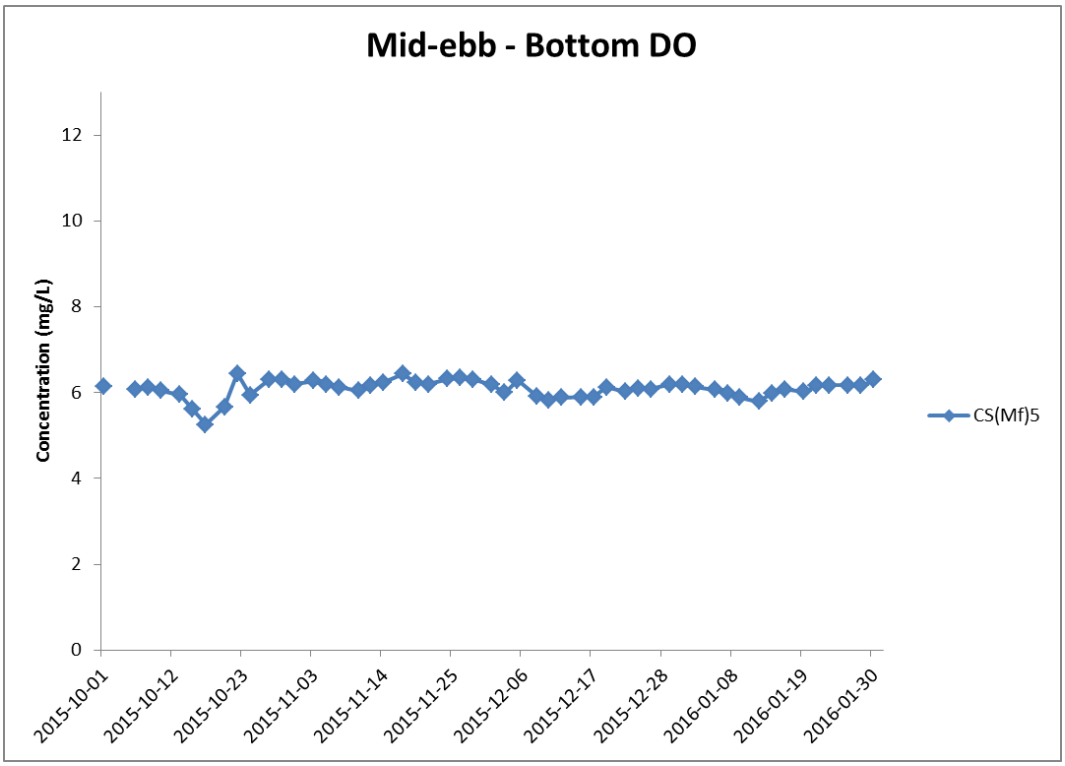
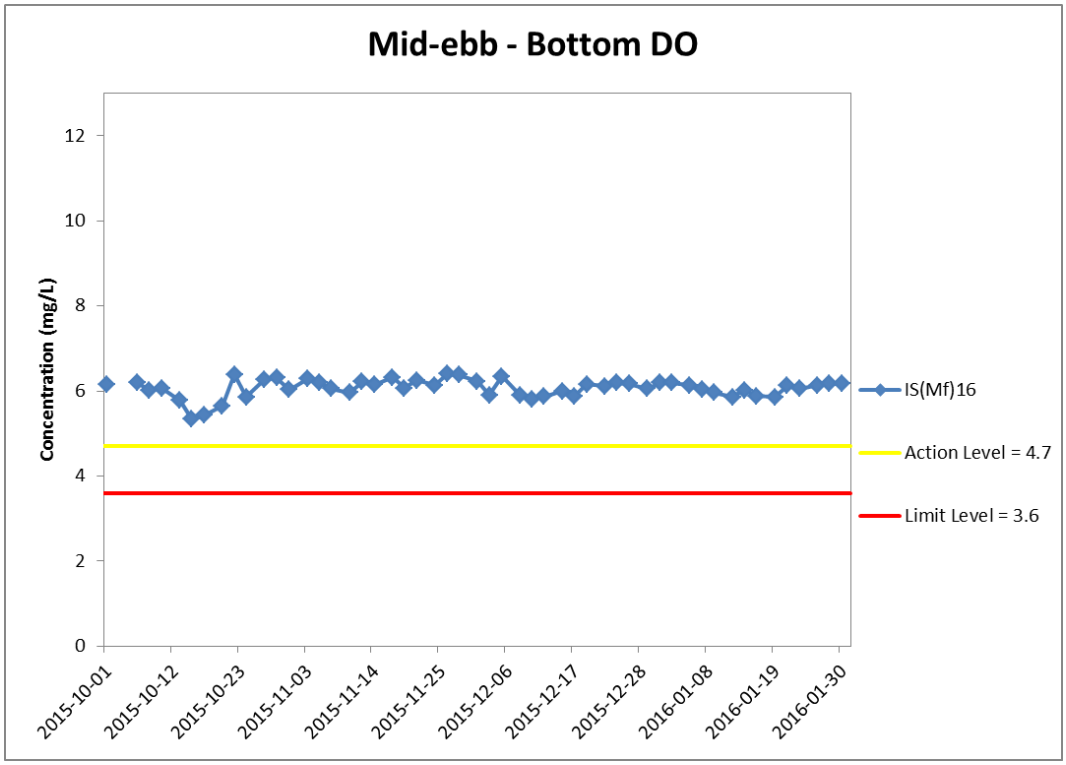


Figure J13 Impact Monitoring – Mean Level of Dissolved Oxygen (mg/L) in bottom waters during mid-ebb tide between 1 October 2015 and 31 January 2016 at CS(Mf)3 and CS(Mf)5.

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; Pier construction; Launching gantry operation; and Installation of deck segment and pier head segment.

Environmental Resources Management

ERM



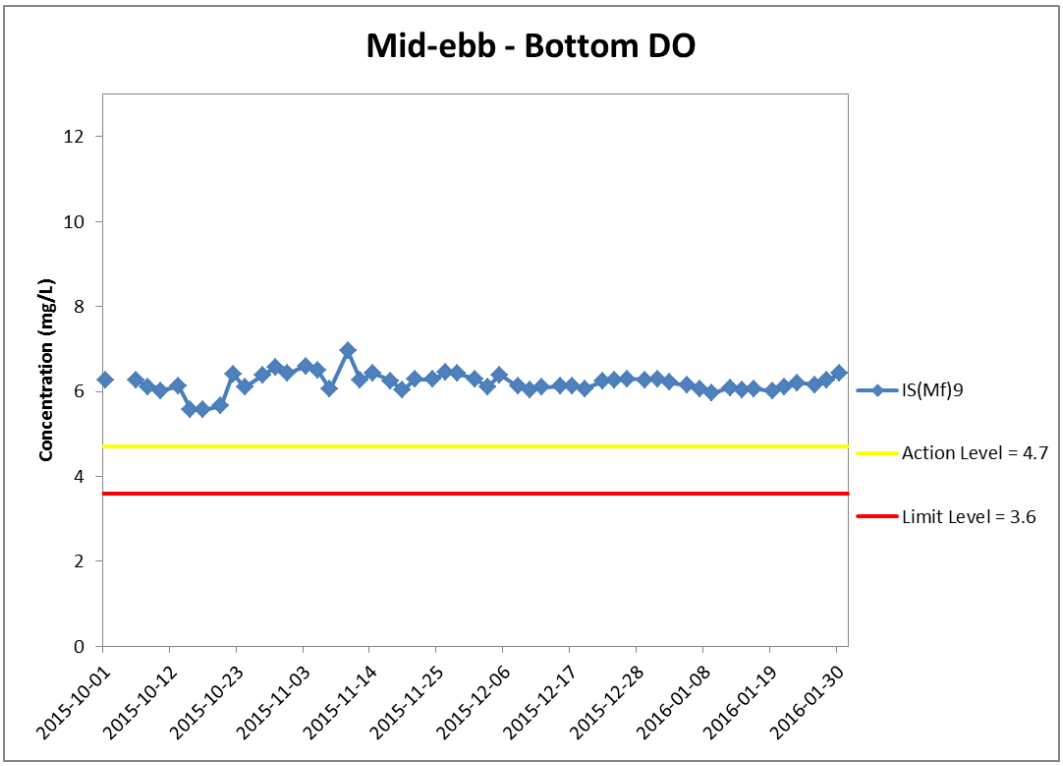
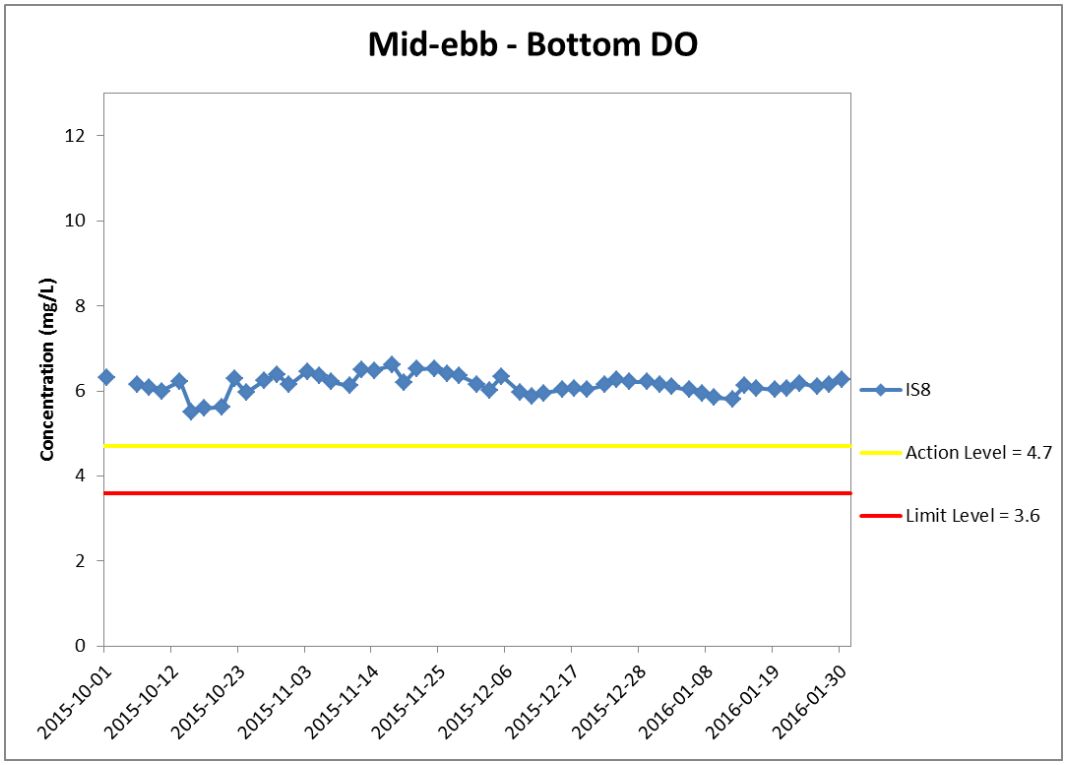


Figure J14 Impact Monitoring – Mean Level of Dissolved Oxygen (mg/L) in bottom waters during mid-ebb tide between 1 October 2015 and 31 January 2016 at IS(Mf)16 and IS(Mf)9.

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; Pier construction; Launching gantry operation; and Installation of deck segment and pier head segment.

Environmental Resources Management

ERM



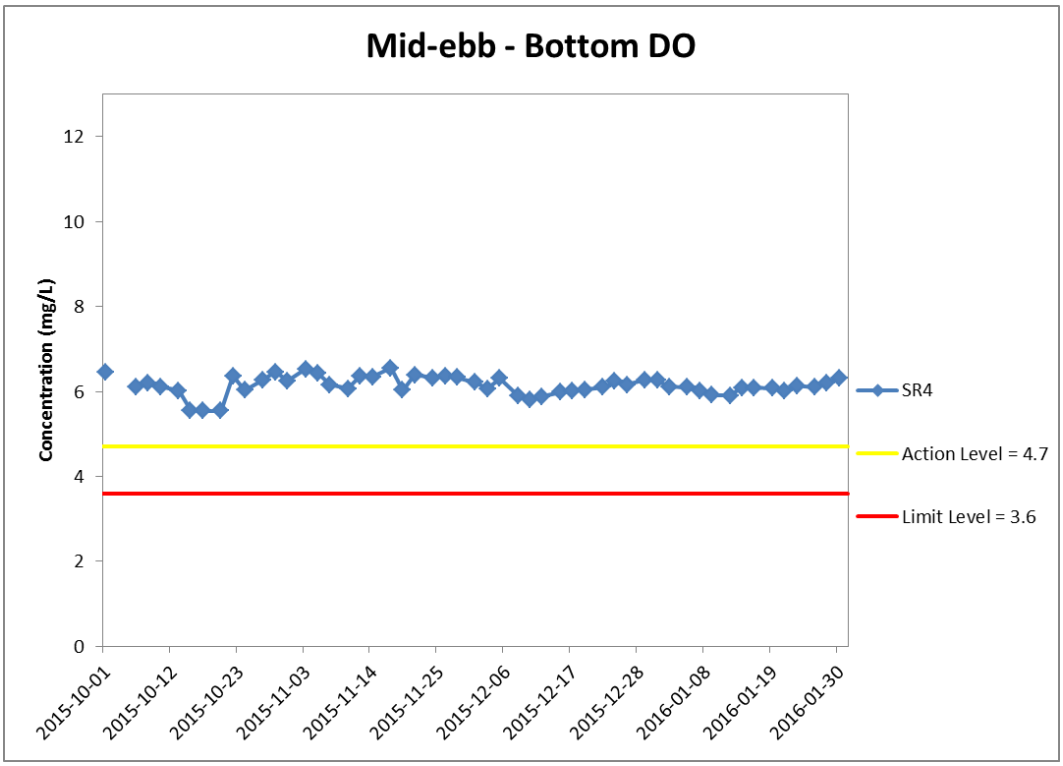


Figure J15 Impact Monitoring – Mean Level of Dissolved Oxygen (mg/L) in bottom waters during mid-ebb tide between 1 October 2015 and 31 January 2016 at IS8 and SR4.

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; Pier construction; Launching gantry operation; and Installation of deck segment and pier head segment.

Environmental Resources Management

ERM

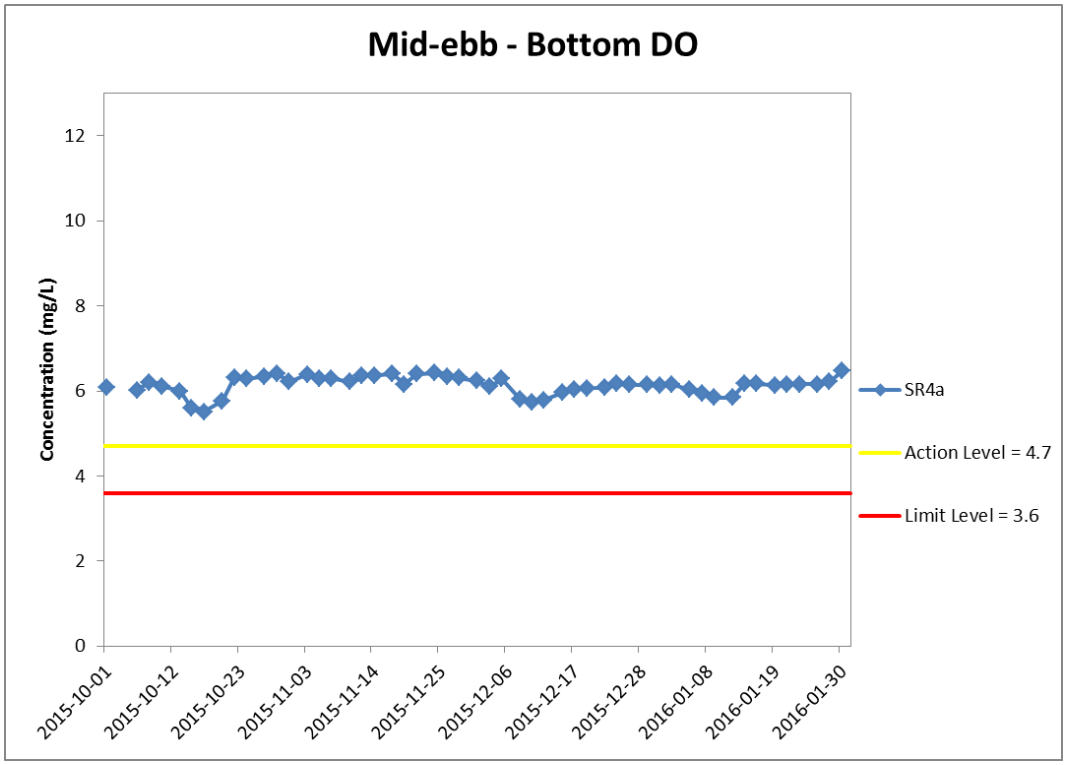
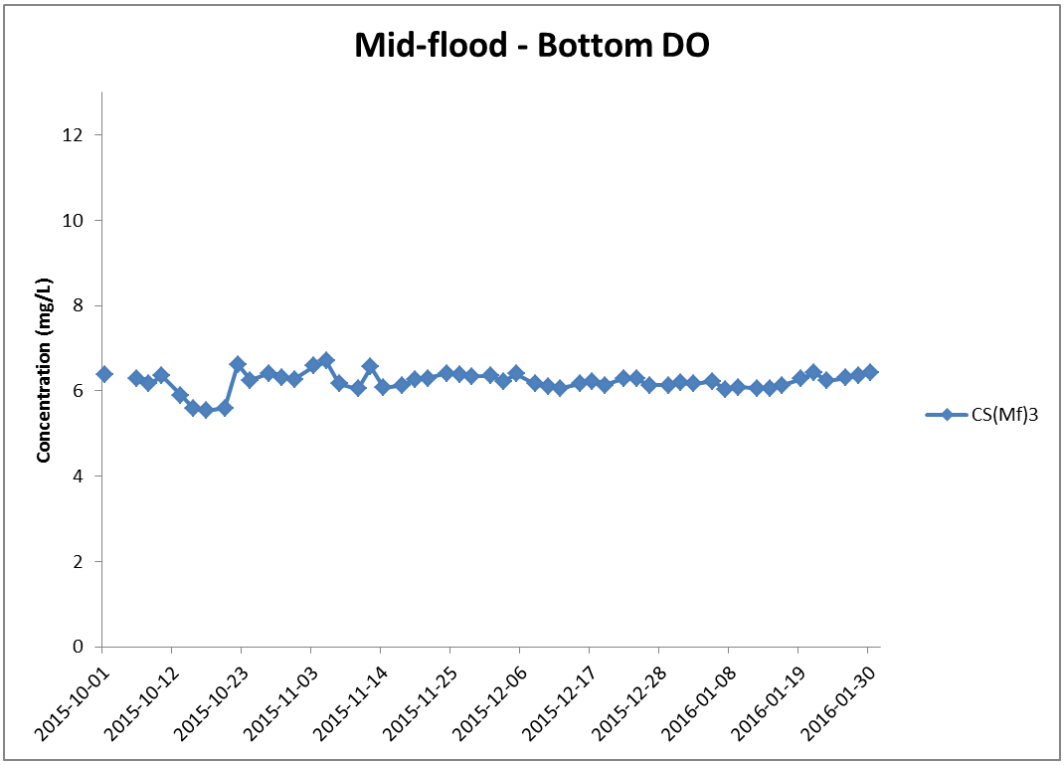


Figure J16 Impact Monitoring – Mean Level of Dissolved Oxygen (mg/L) in bottom waters during mid-ebb tide between 1 October 2015 and 31 January 2016 at SR4a.

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; Pier construction; Launching gantry operation; and Installation of deck segment and pier head segment.

Environmental Resources Management

ERM



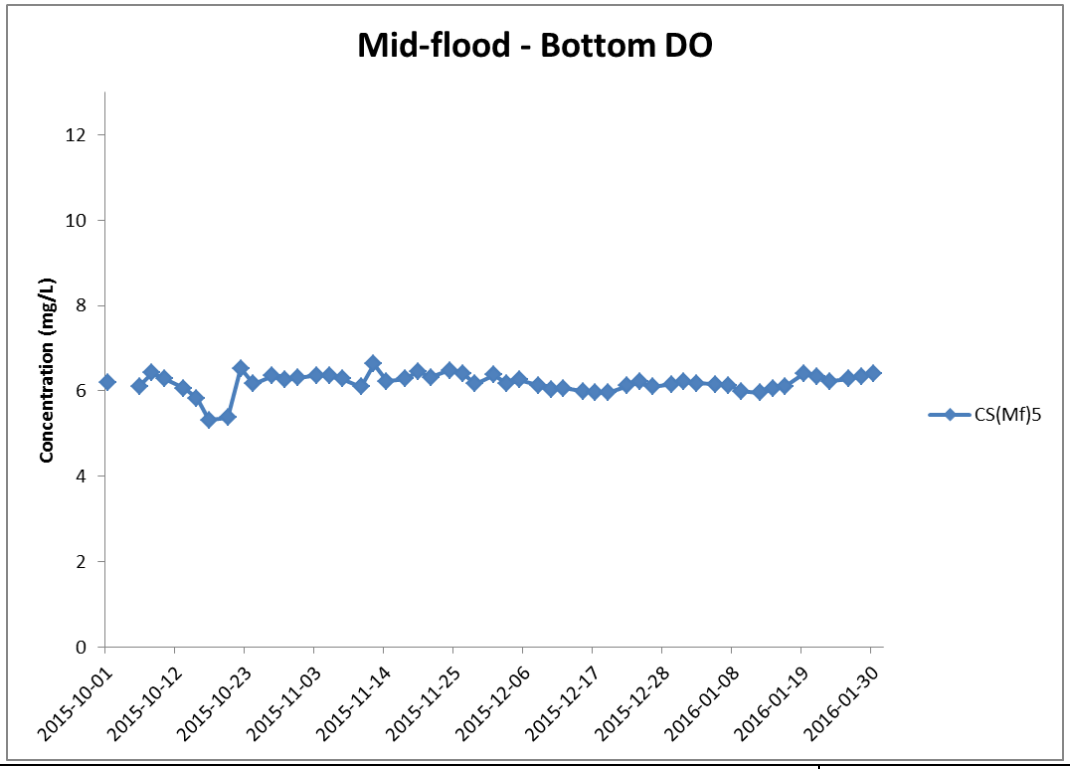
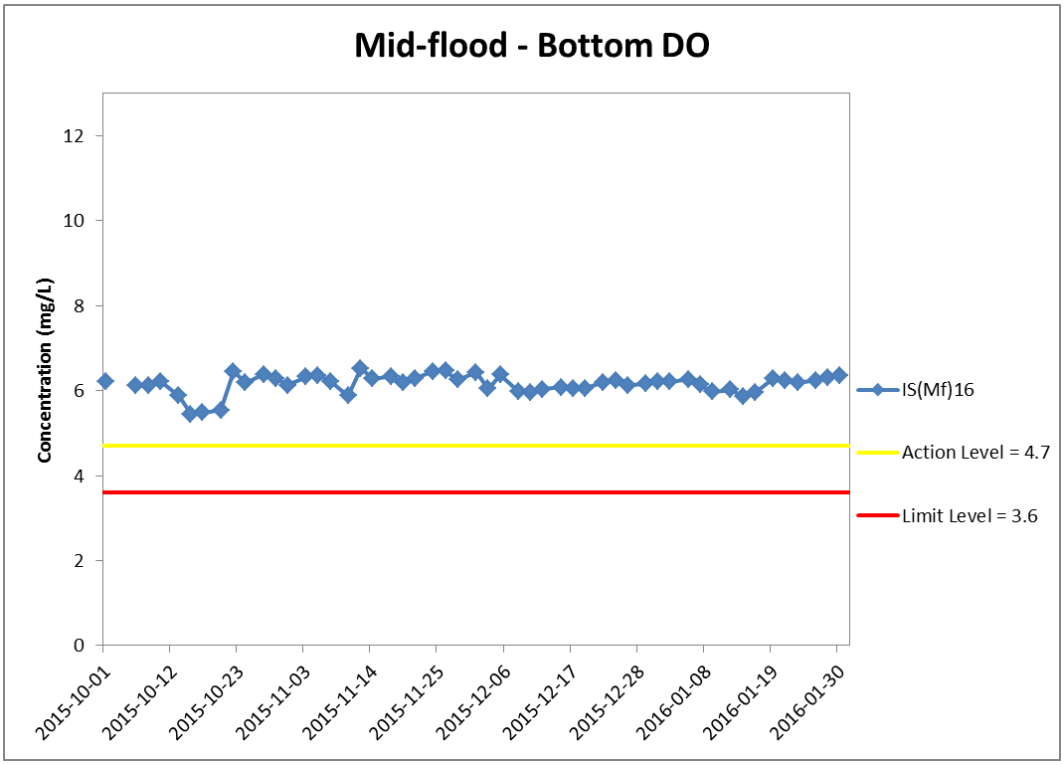


Figure J17 Impact Monitoring – Mean Level of Dissolved Oxygen (mg/L) in bottom waters during mid-flood tide between 1 October 2015 and 31 January 2016 at CS(Mf)3 and CS(Mf)5.

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; Pier construction; Launching gantry operation; and Installation of deck segment and pier head segment.

Environmental Resources Management

ERM



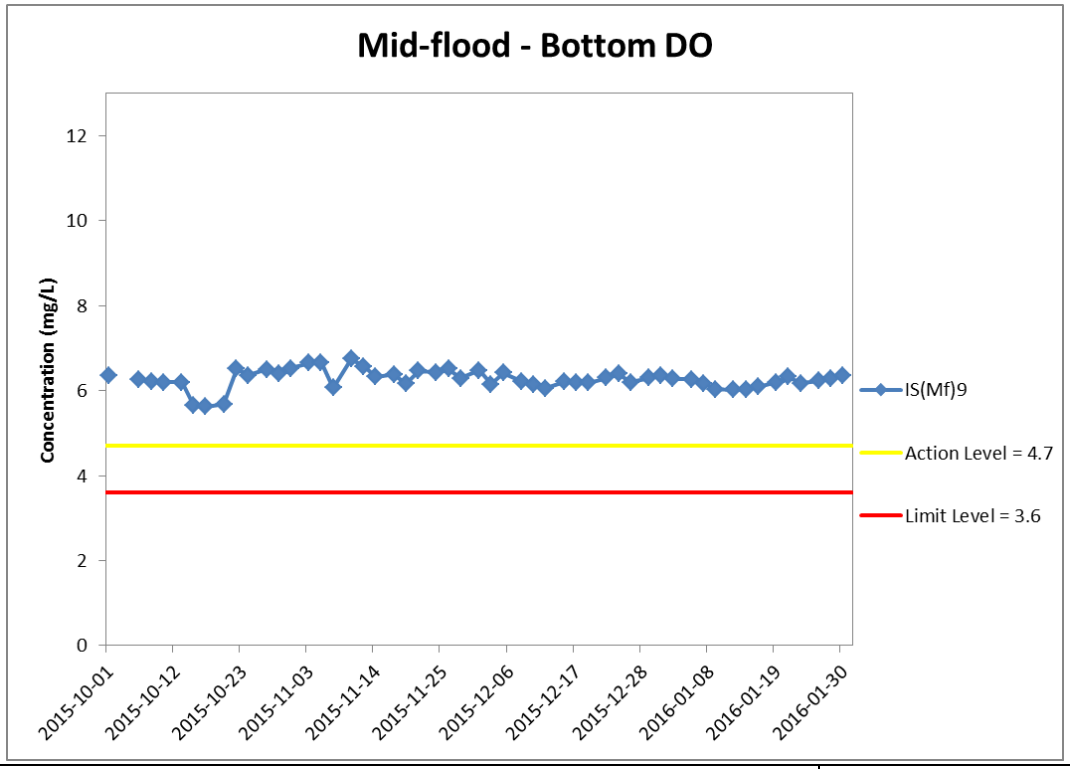
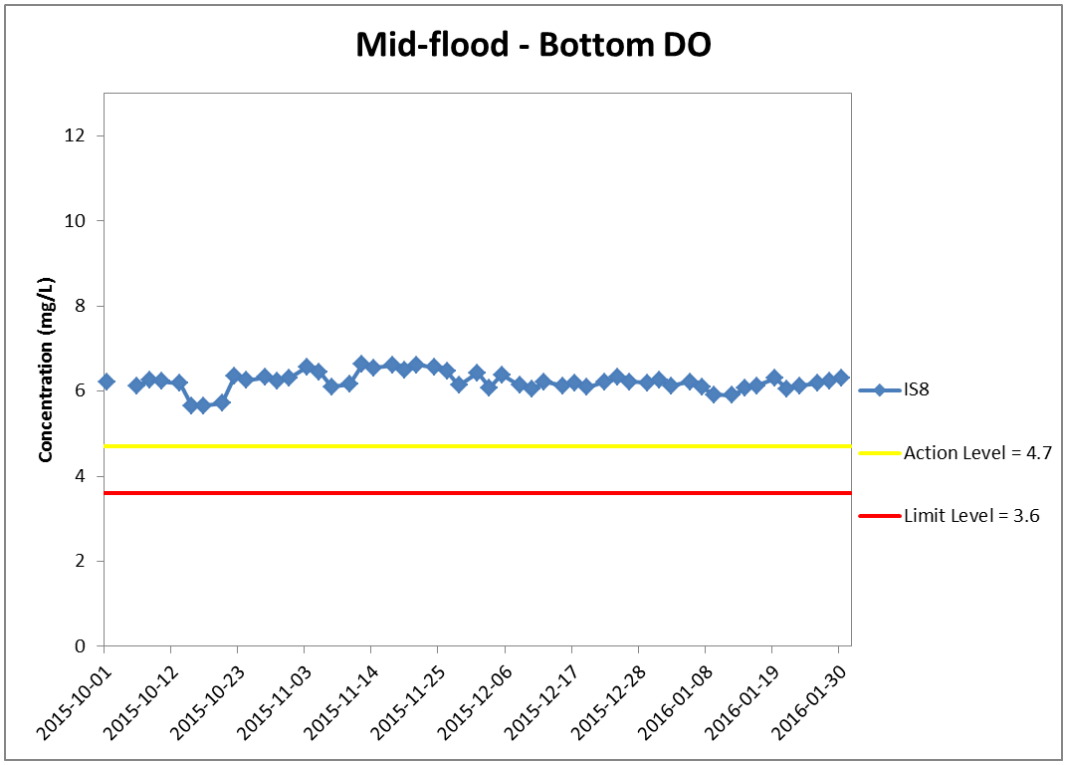


Figure J18 Impact Monitoring – Mean Level of Dissolved Oxygen (mg/L) in bottom waters during mid-flood tide between 1 October 2015 and 31 January 2016 at IS(Mf)16 and IS(Mf)9.

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; Pier construction; Launching gantry operation; and Installation of deck segment and pier head segment.

Environmental Resources Management

ERM



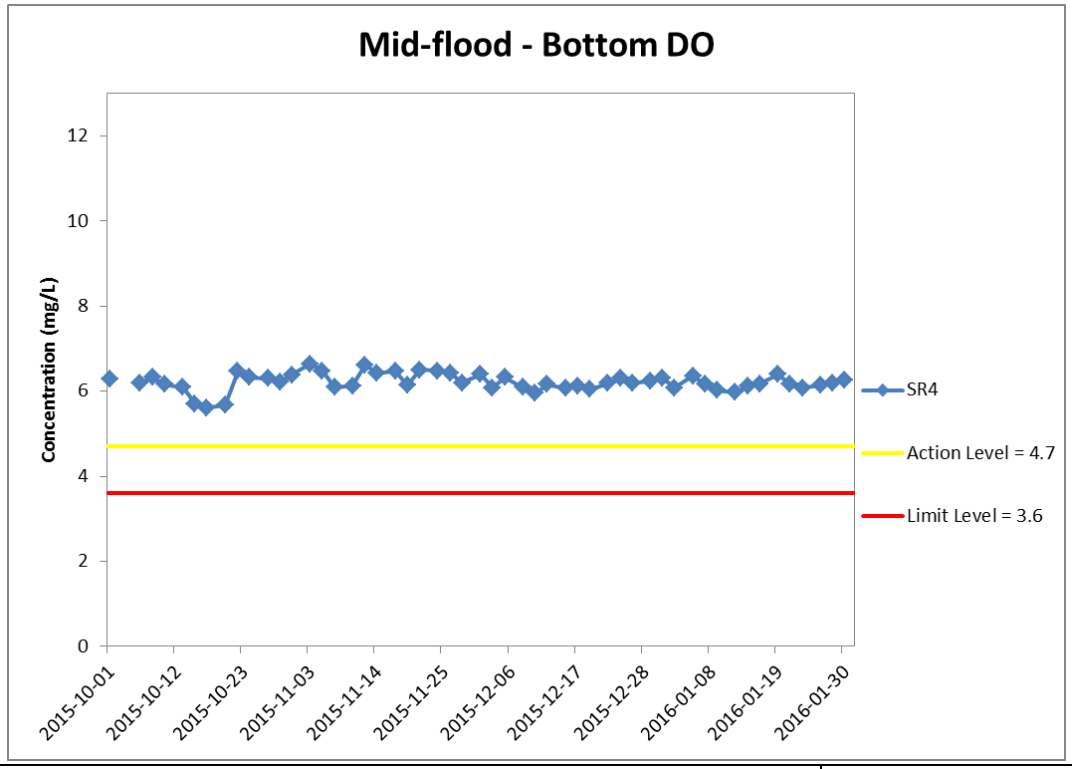


Figure J19 Impact Monitoring – Mean Level of Dissolved Oxygen (mg/L) in bottom waters during mid-flood tide between 1 October 2015 and 31 January 2016 at IS8 and SR4.

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; Pier construction; Launching gantry operation; and Installation of deck segment and pier head segment.

Environmental Resources Management

ERM

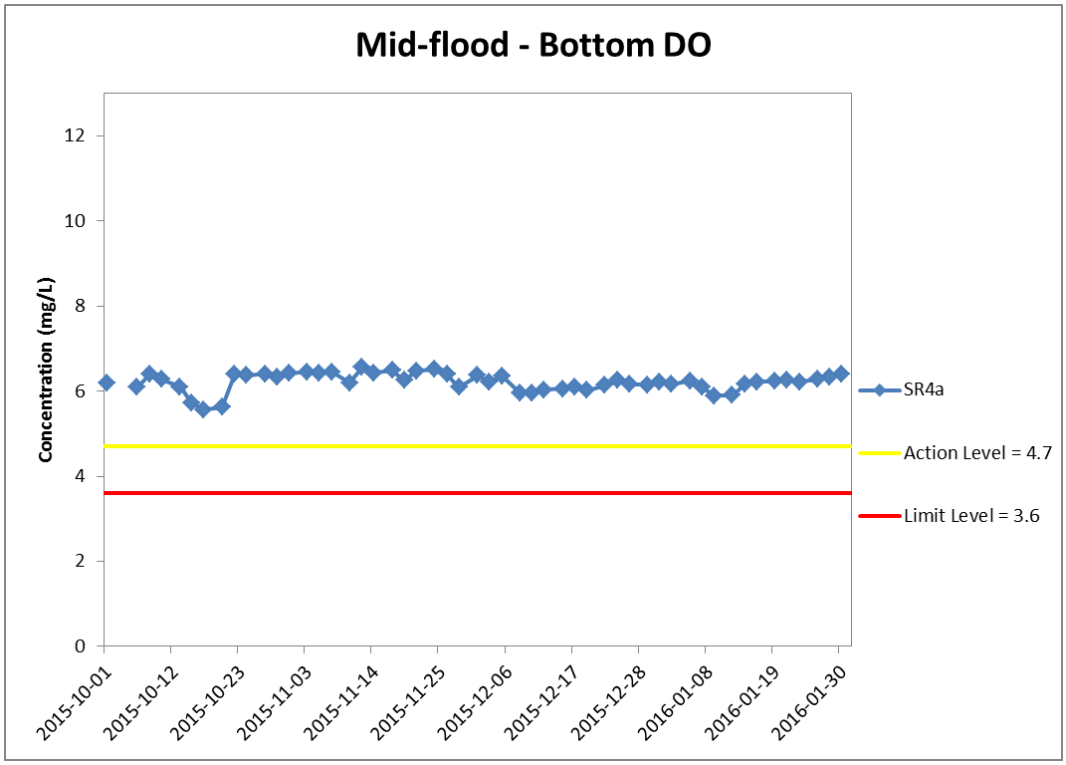
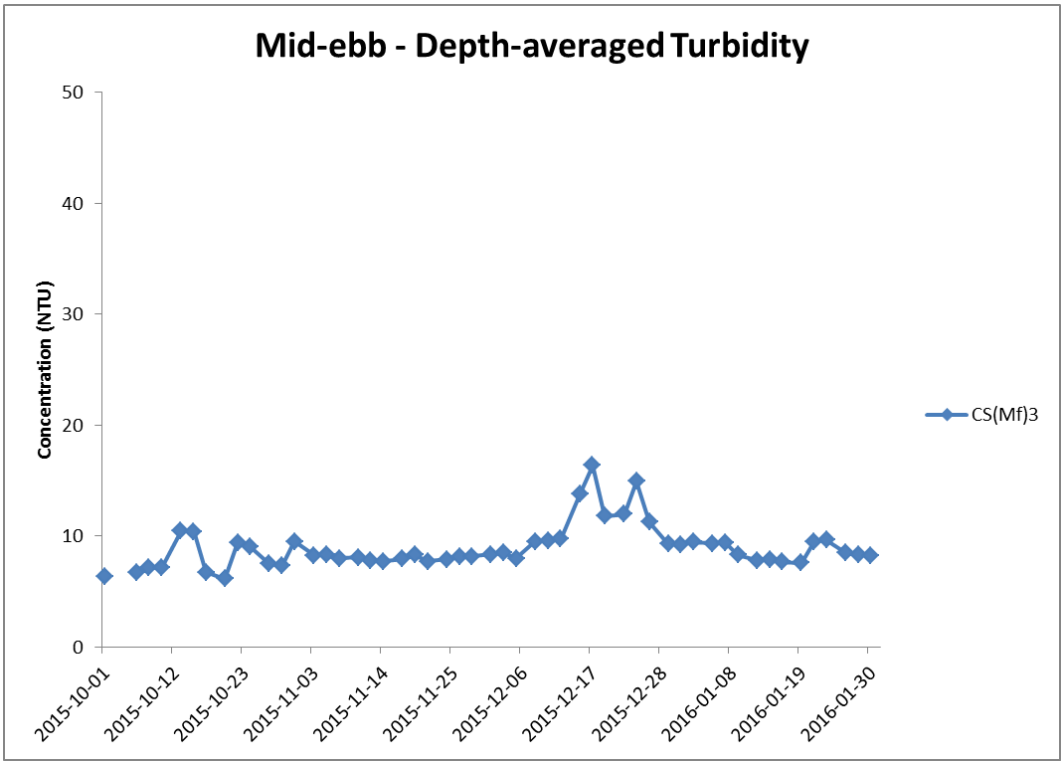


Figure J20 Impact Monitoring – Mean Level of Dissolved Oxygen (mg/L) in bottom waters during mid-flood tide between 1 October 2015 and 31 January 2016 at SR4a.

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; Pier construction; Launching gantry operation; and Installation of deck segment and pier head segment.

Environmental Resources Management

ERM



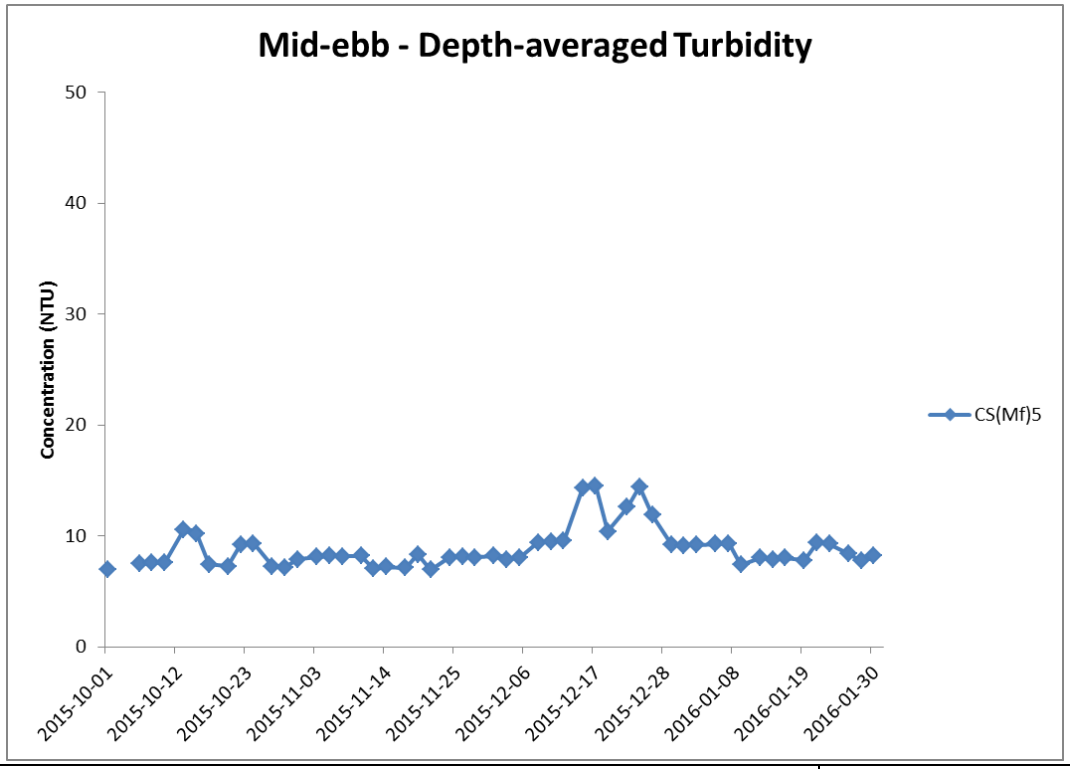
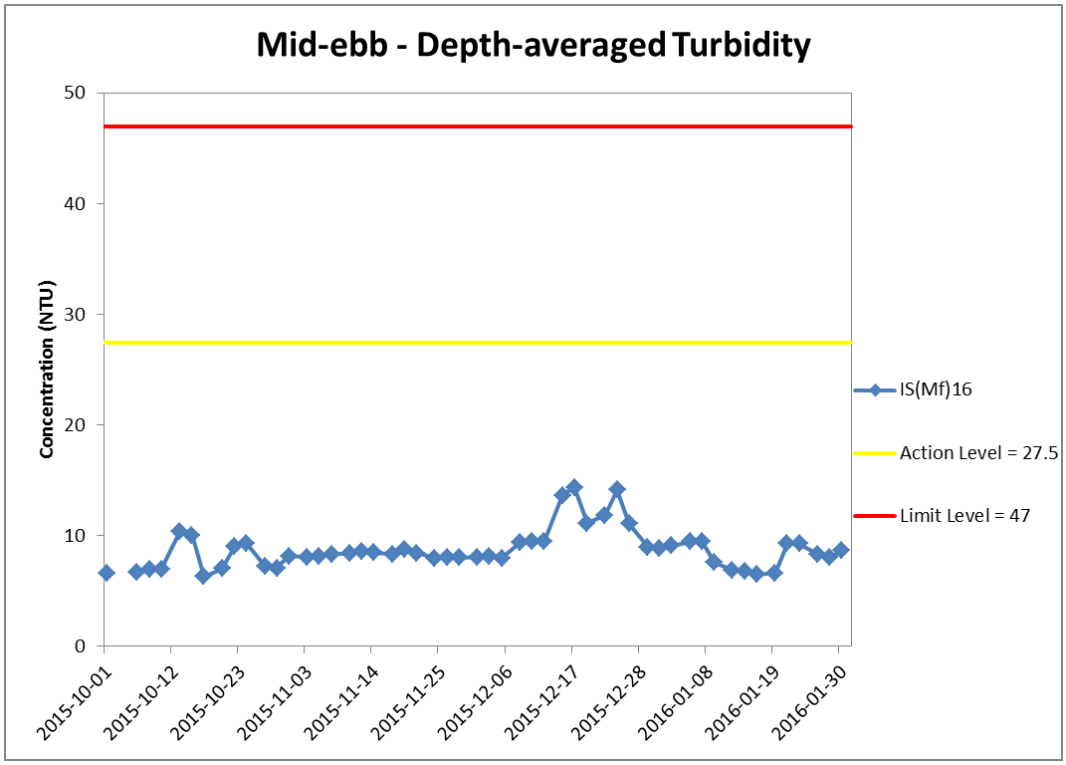


Figure J21 Impact Monitoring – Mean Level of depth-averaged Turbidity (NTU) during mid-ebb tide between 1 October 2015 and 31 January 2016 at CS(Mf)3 and CS(Mf)5.

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; Pier construction; Launching gantry operation; and Installation of deck segment and pier head segment.

Environmental Resources Management

ERM



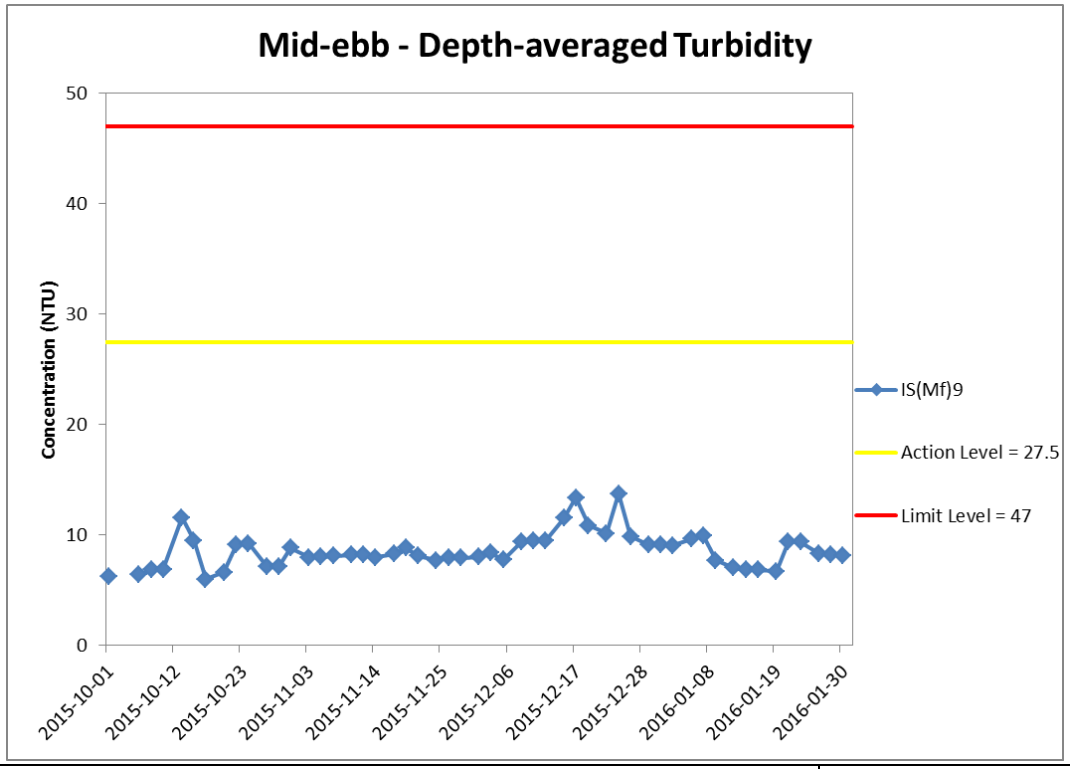
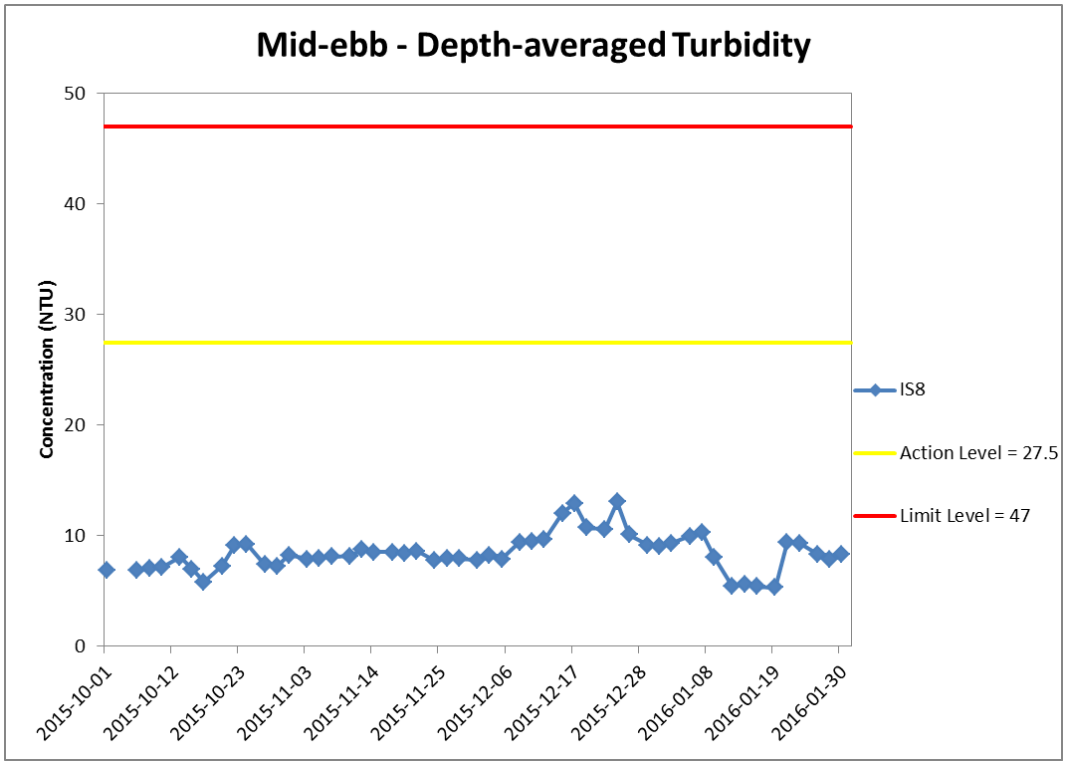


Figure J22 Impact Monitoring – Mean Level of depth-averaged Turbidity (NTU) during mid-ebb tide between 1 October 2015 and 31 January 2016 at IS(Mf)16 and IS(Mf)9.

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; Pier construction; Launching gantry operation; and Installation of deck segment and pier head segment.

Environmental Resources Management

ERM



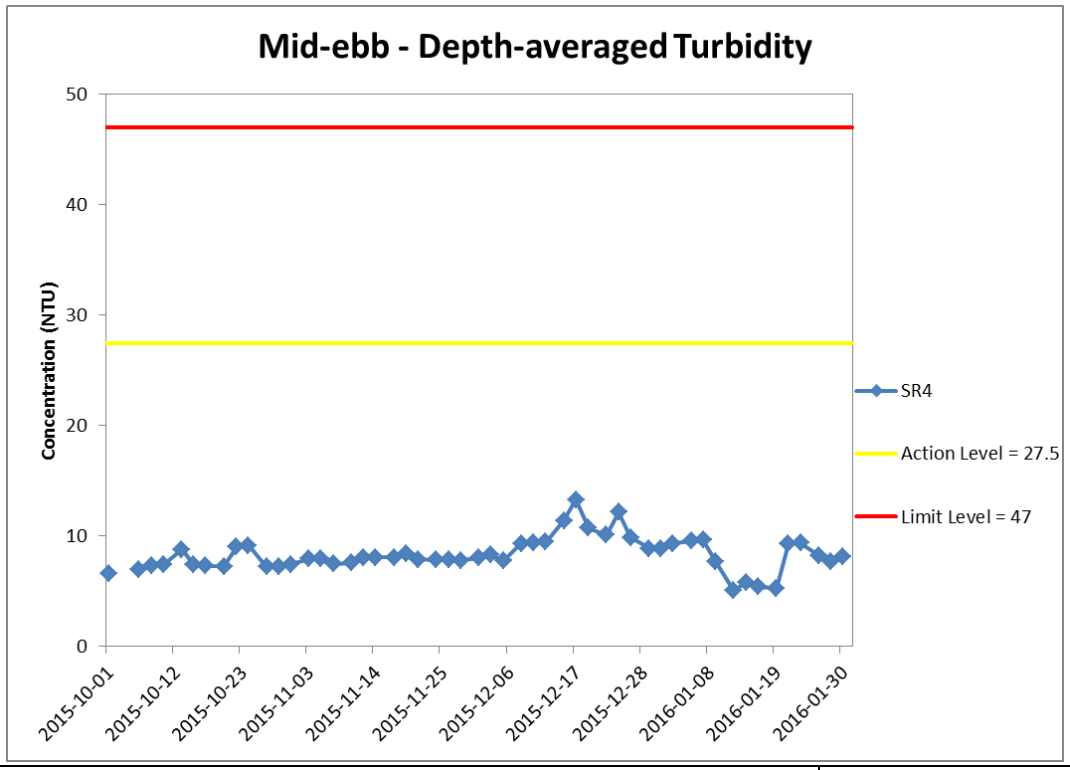


Figure J23 Impact Monitoring – Mean Level of depth-averaged Turbidity (NTU) during mid-ebb tide between 1 October 2015 and 31 January 2016 at IS8 and SR4.

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; Pier construction; Launching gantry operation; and Installation of deck segment and pier head segment.

Environmental Resources Management

ERM

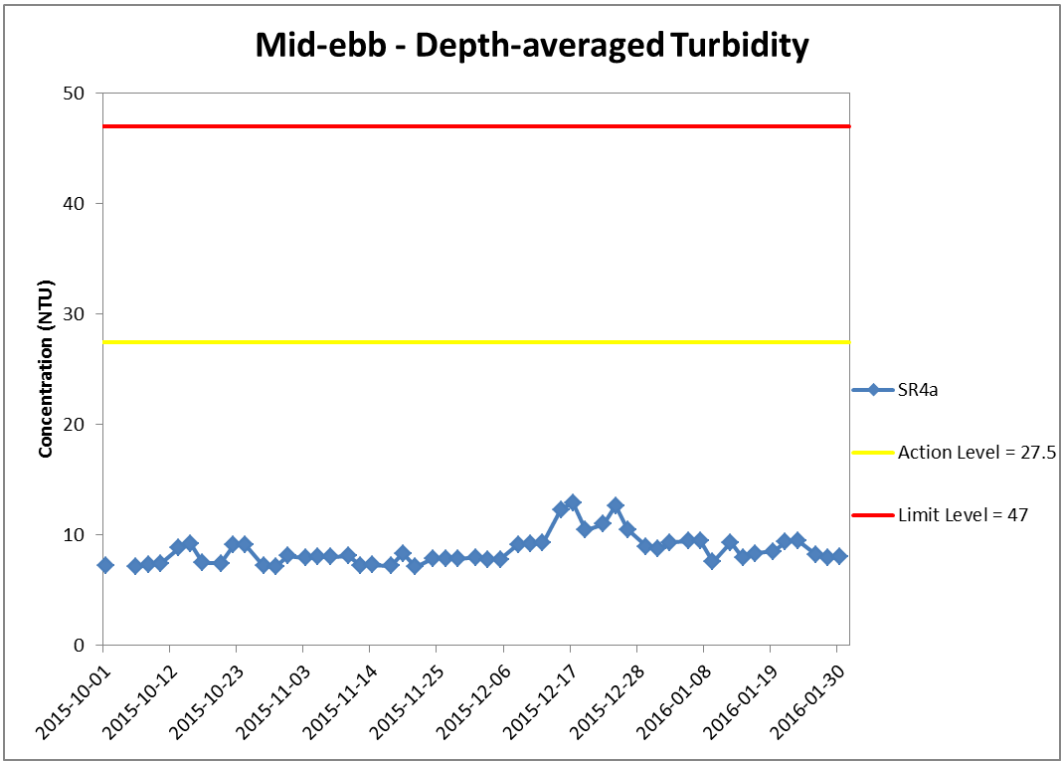
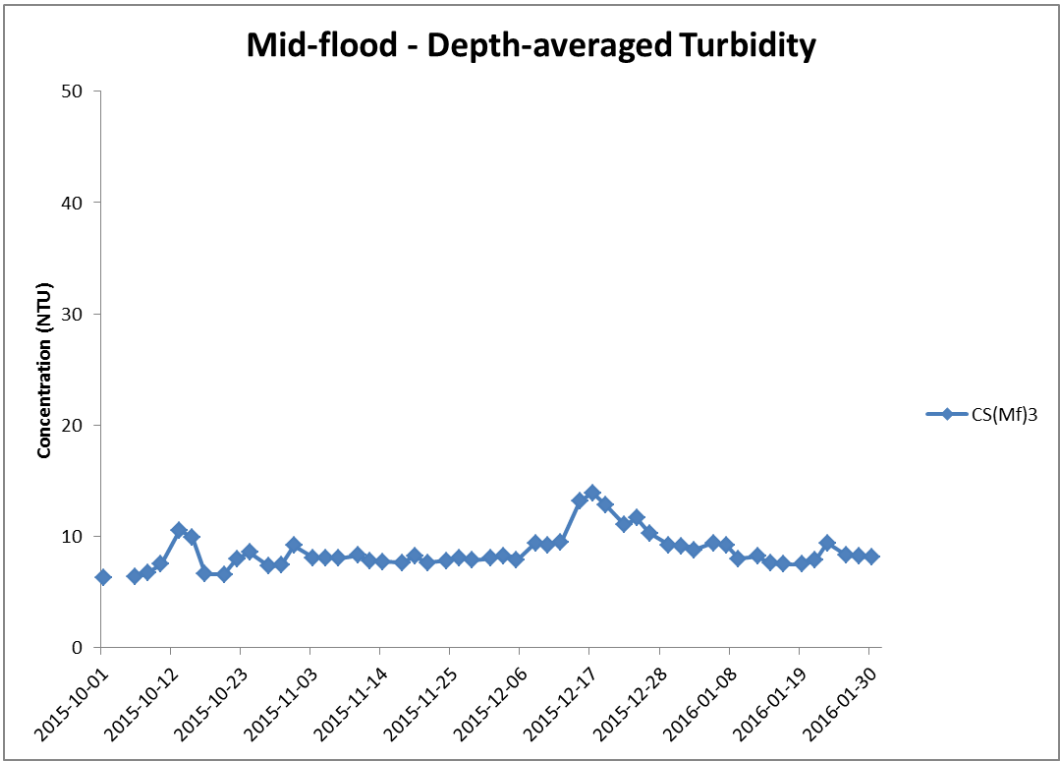


Figure J24 Impact Monitoring – Mean Level of depth-averaged Turbidity (NTU) during mid-ebb tide between 1 October 2015 and 31 January 2016 at SR4a.

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; Pier construction; Launching gantry operation; and Installation of deck segment and pier head segment.

Environmental Resources Management

ERM



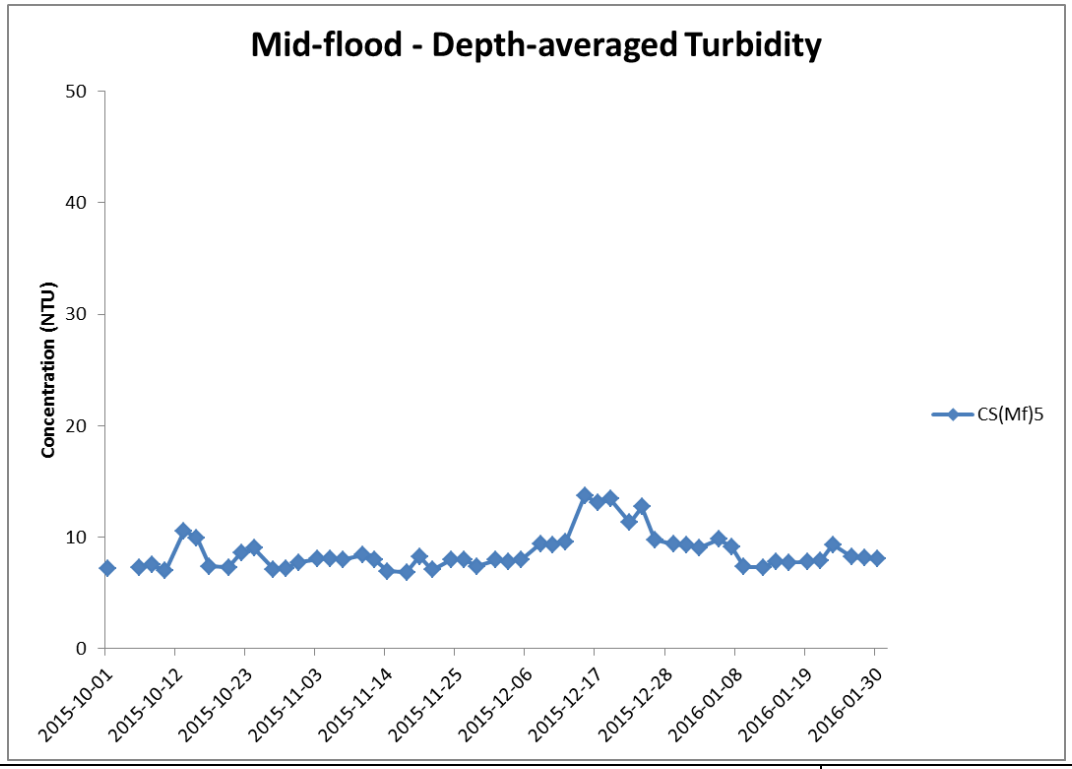
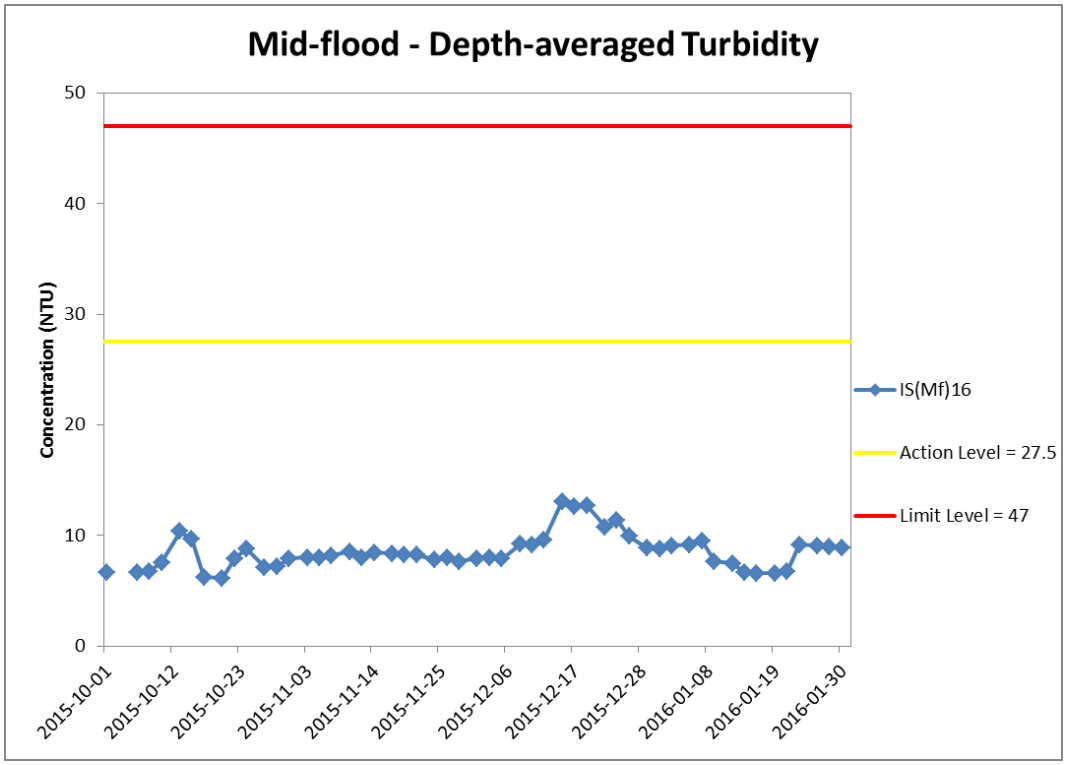


Figure J25 Impact Monitoring – Mean Level of depth-averaged Turbidity (NTU) during mid-flood tide between 1 October 2015 and 31 January 2016 at CS(Mf)3 and CS(MF)5.

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; Pier construction; Launching gantry operation; and Installation of deck segment and pier head segment.

Environmental Resources Management

ERM



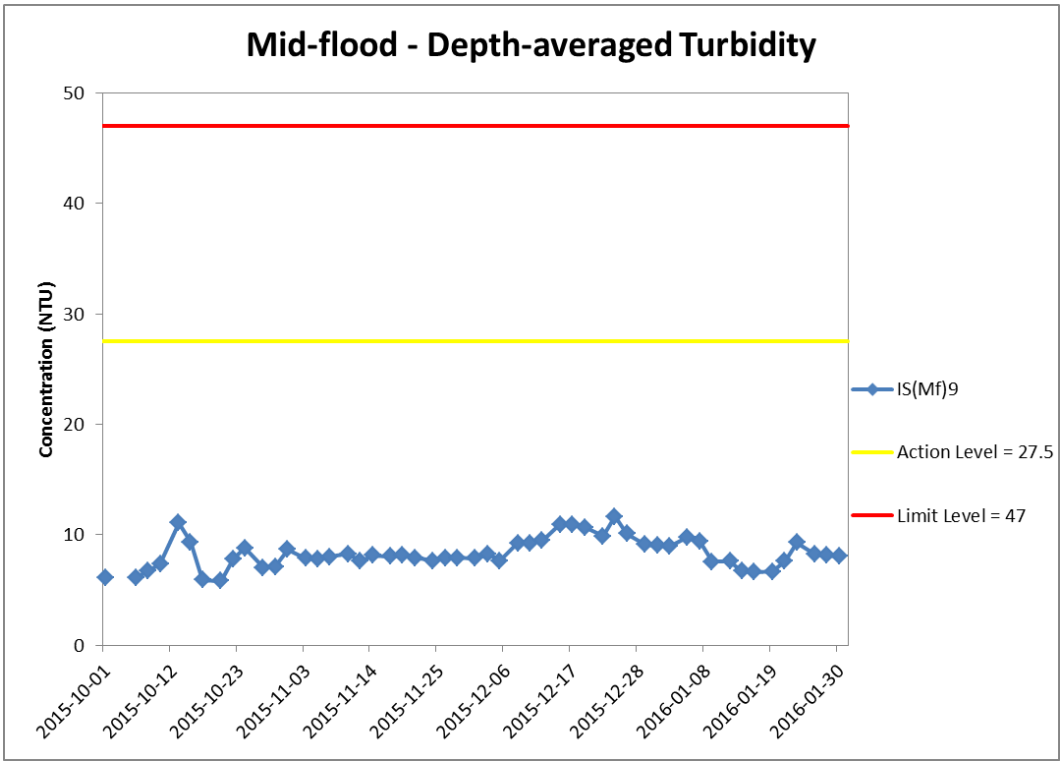
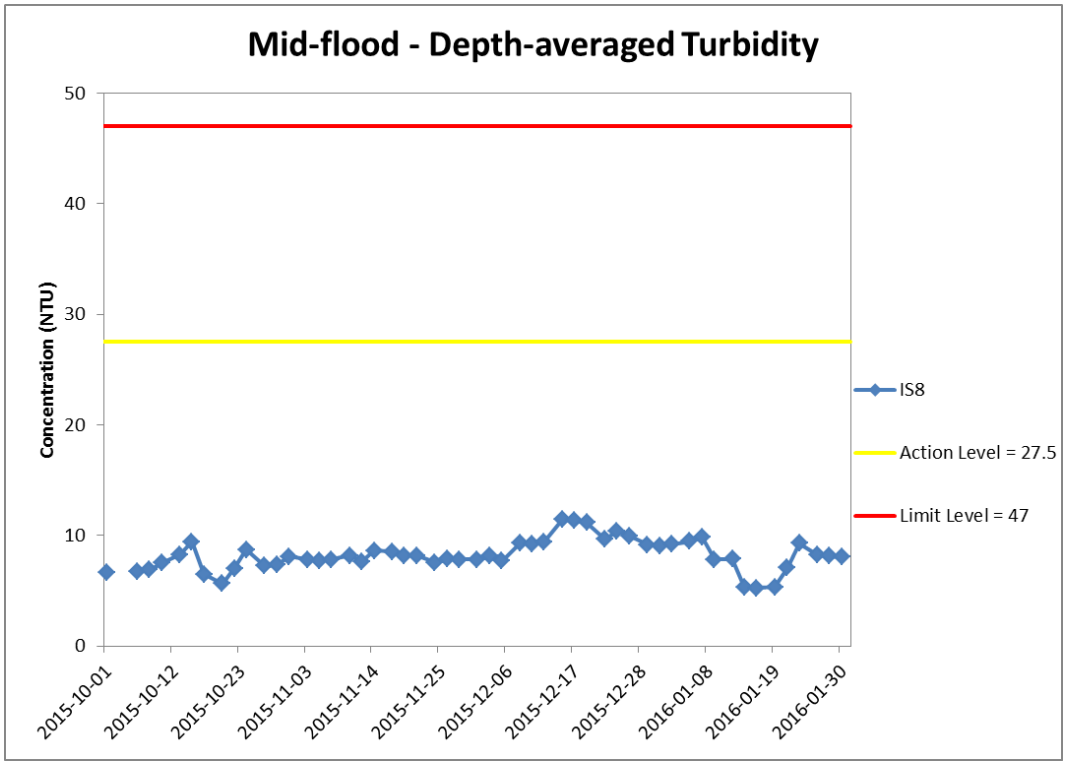


Figure J26 Impact Monitoring – Mean Level of depth-averaged Turbidity (NTU) during mid-flood tide between 1 October 2015 and 31 January 2016 at IS(Mf)16 and IS(Mf)9.

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; Pier construction; Launching gantry operation; and Installation of deck segment and pier head segment.

Environmental Resources Management

ERM



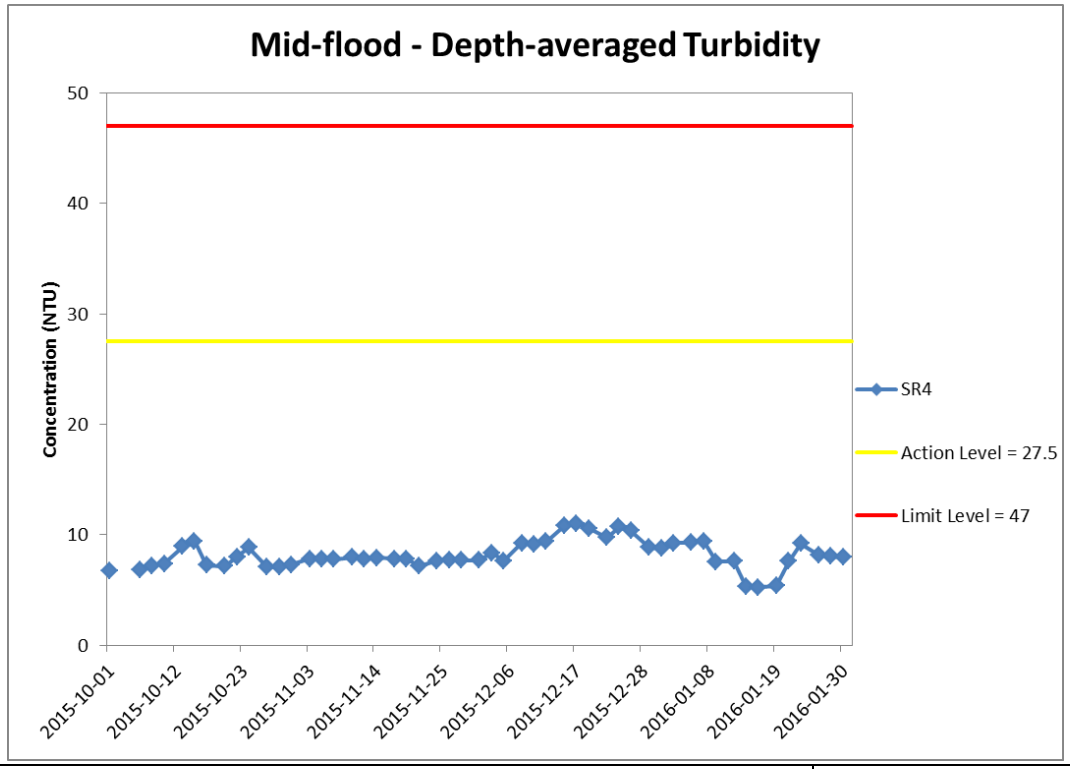


Figure J27 Impact Monitoring – Mean Level of depth-averaged Turbidity (NTU) during mid-flood tide between 1 October 2015 and 31 January 2016 at IS8 and SR4.

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; Pier construction; Launching gantry operation; and Installation of deck segment and pier head segment.

Environmental Resources Management

ERM

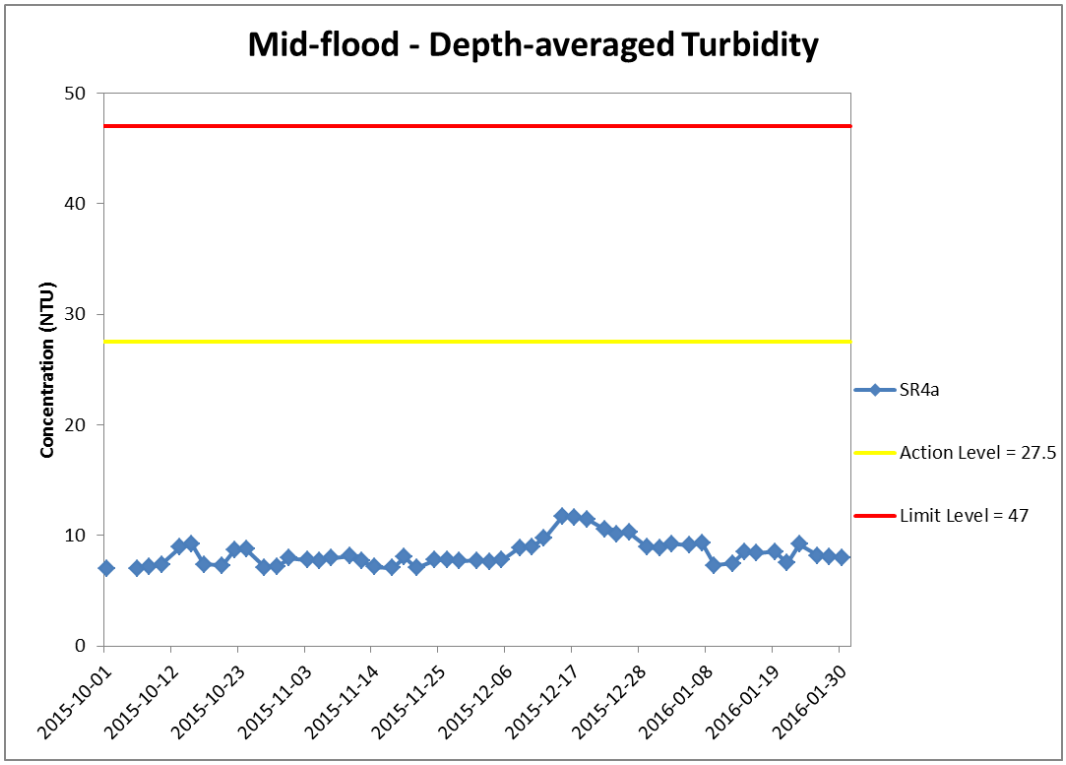
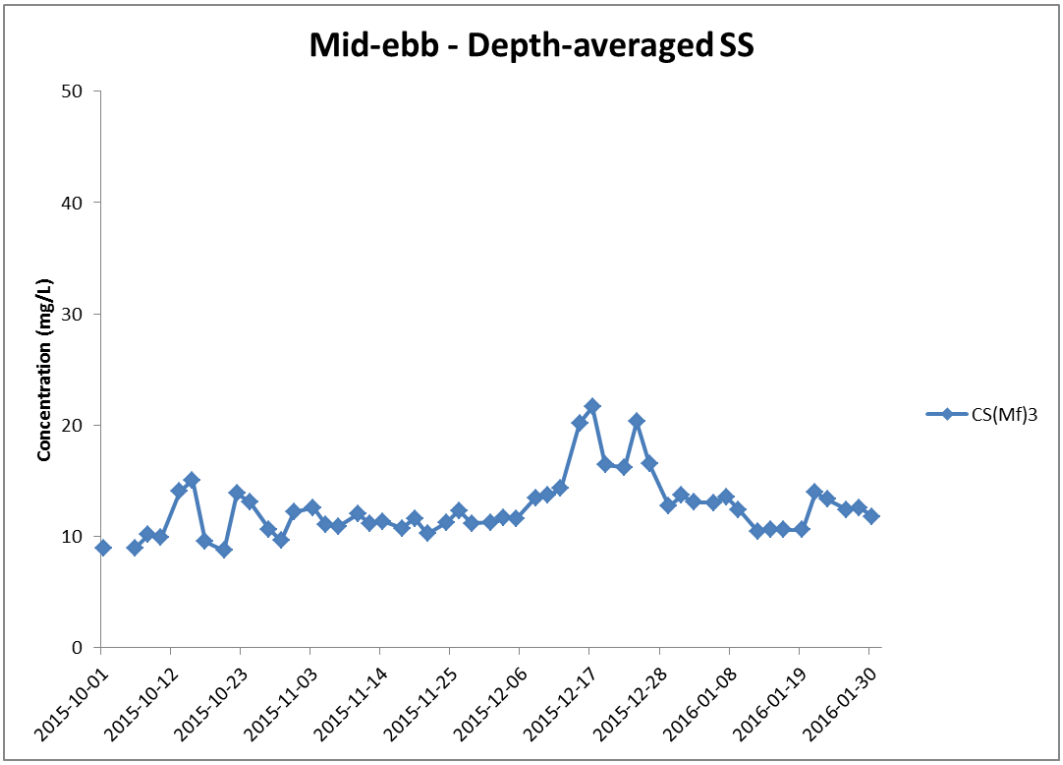


Figure J28 Impact Monitoring – Mean Level of depth-averaged Turbidity (NTU) during mid-flood tide between 1 October 2015 and 31 January 2016 at SR4a.

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; Pier construction; Launching gantry operation; and Installation of deck segment and pier head segment.

Environmental Resources Management

ERM



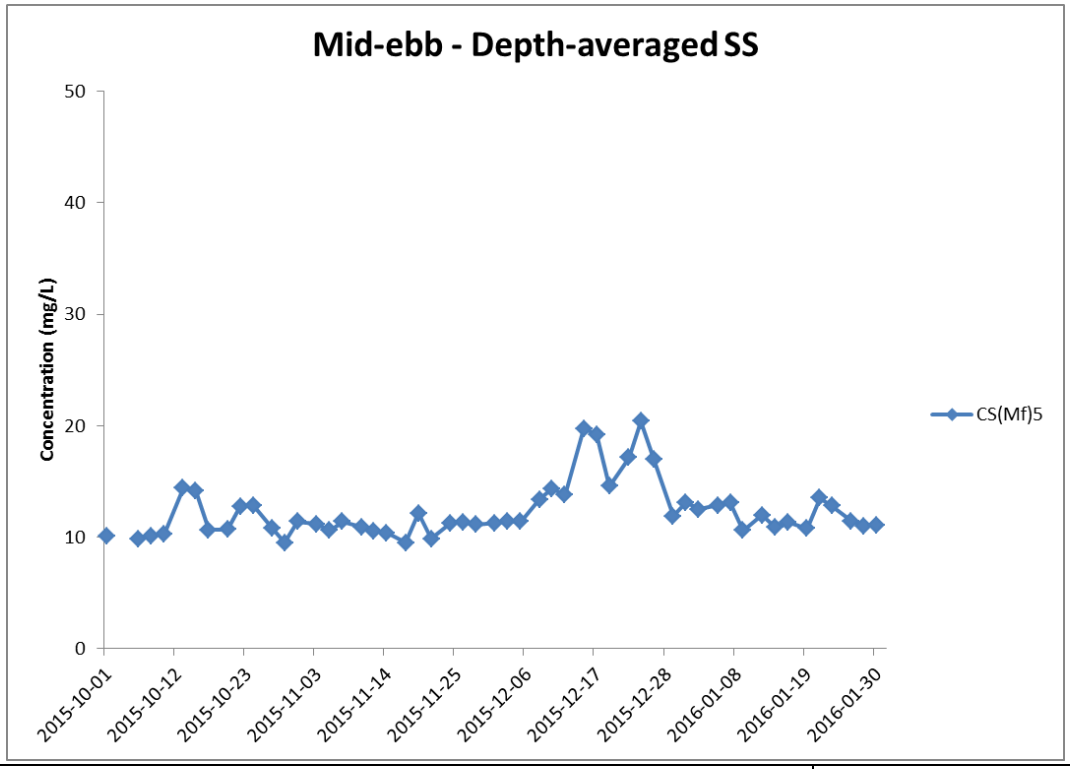
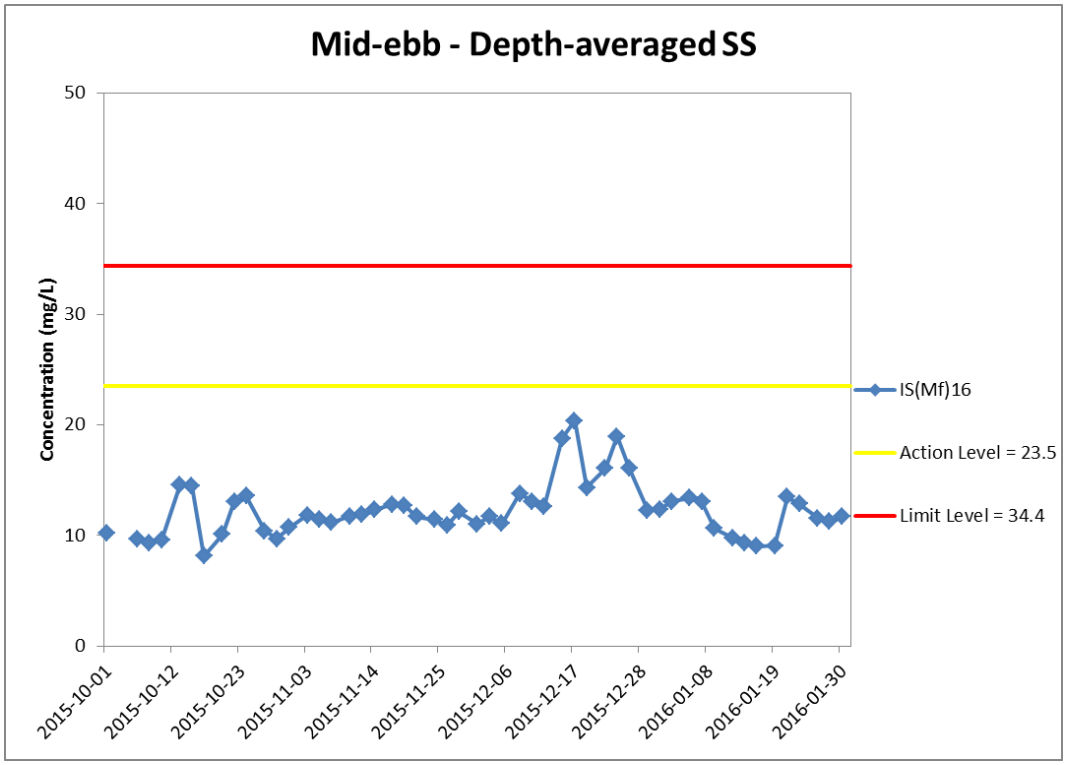


Figure J29 Impact Monitoring – Mean depth-averaged level of Suspended Solids (mg/L) during mid-ebb tide between 1 October 2015 and 31 January 2016 at CS(Mf)3 and CS(Mf)5.

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; Pier construction; Launching gantry operation; and Installation of deck segment and pier head segment.

Environmental Resources Management

ERM



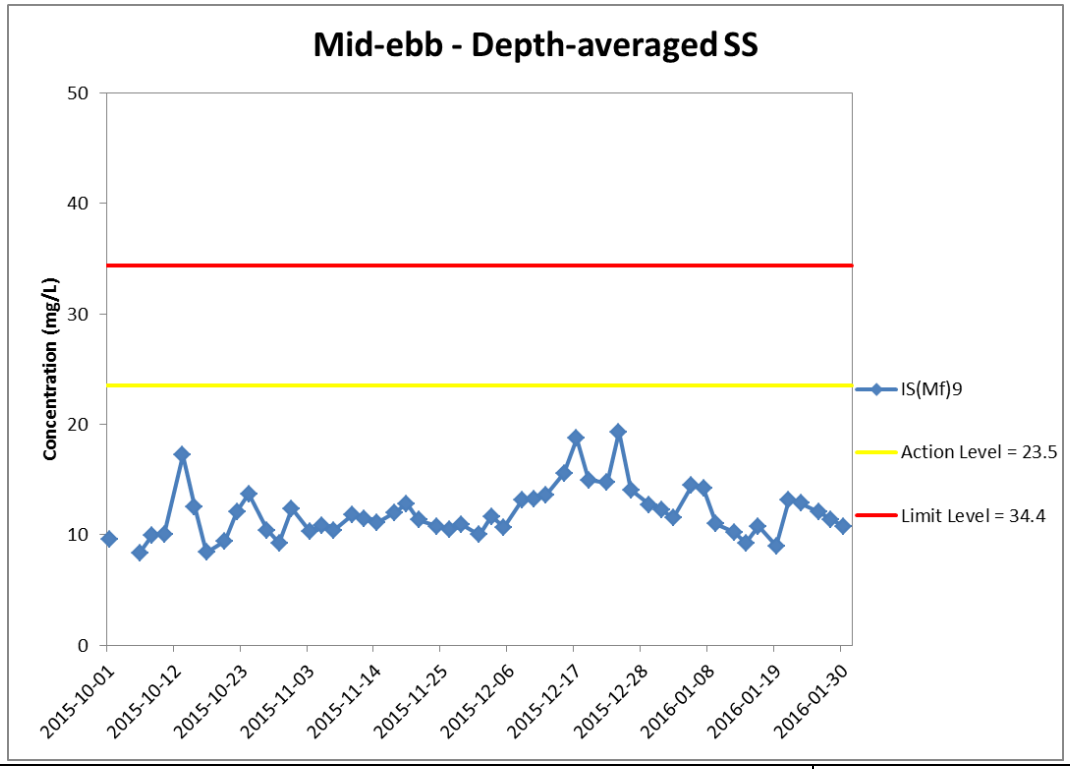
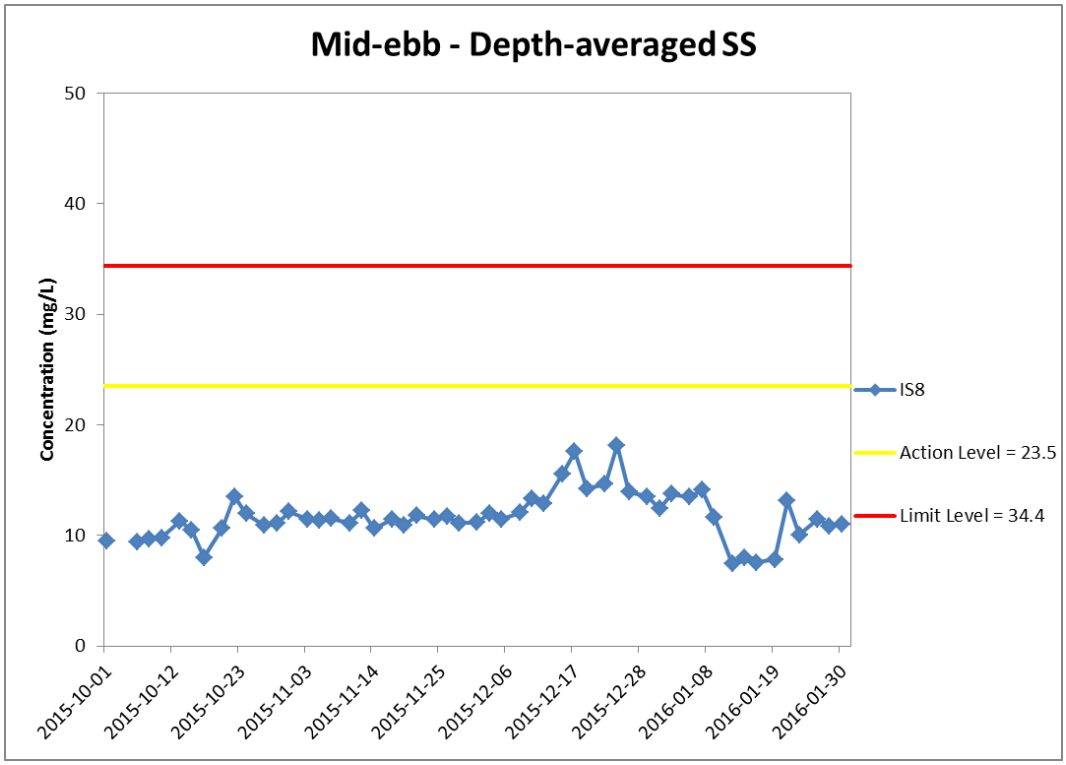


Figure J30 Impact Monitoring – Mean depth-averaged level of Suspended Solids (mg/L) during mid-ebb tide between 1 October 2015 and 31 January 2016 at IS(Mf)16 and IS(Mf)9.

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; Pier construction; Launching gantry operation; and Installation of deck segment and pier head segment.

Environmental Resources Management

ERM



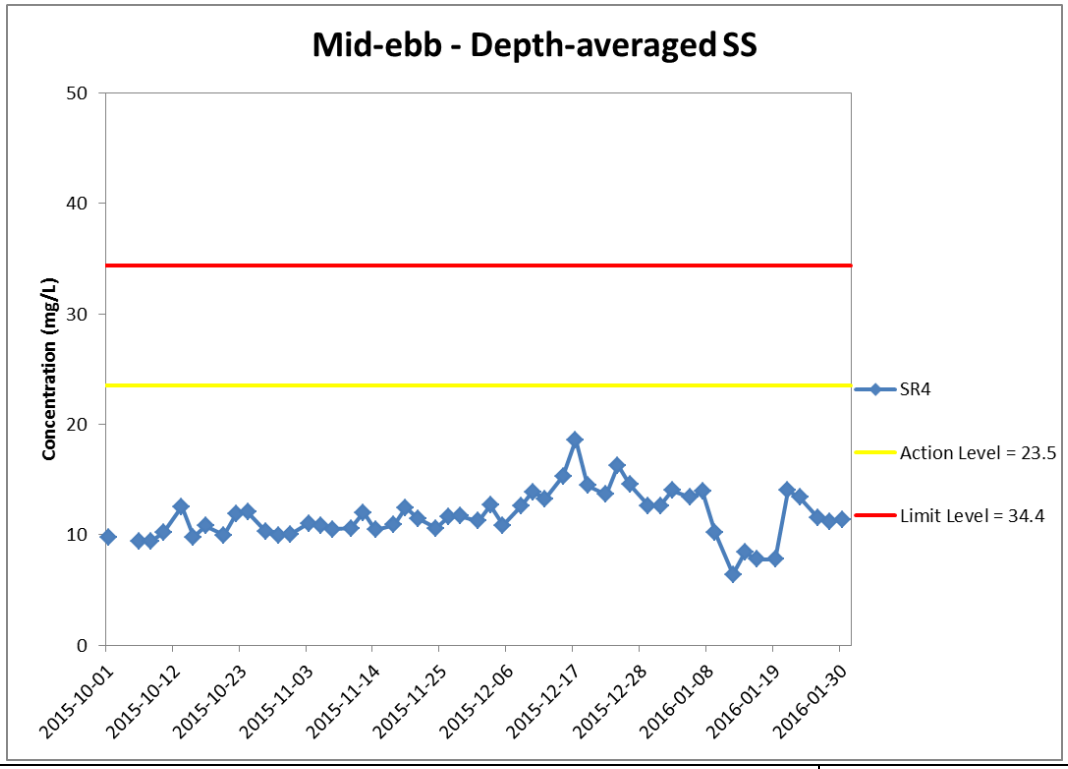


Figure J31 Impact Monitoring – Mean depth-averaged level of Suspended Solids (mg/L) during mid-ebb tide between 1 October 2015 and 31 January 2016 at IS8 and SR4.

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; Pier construction; Launching gantry operation; and Installation of deck segment and pier head segment.

Environmental Resources Management

ERM

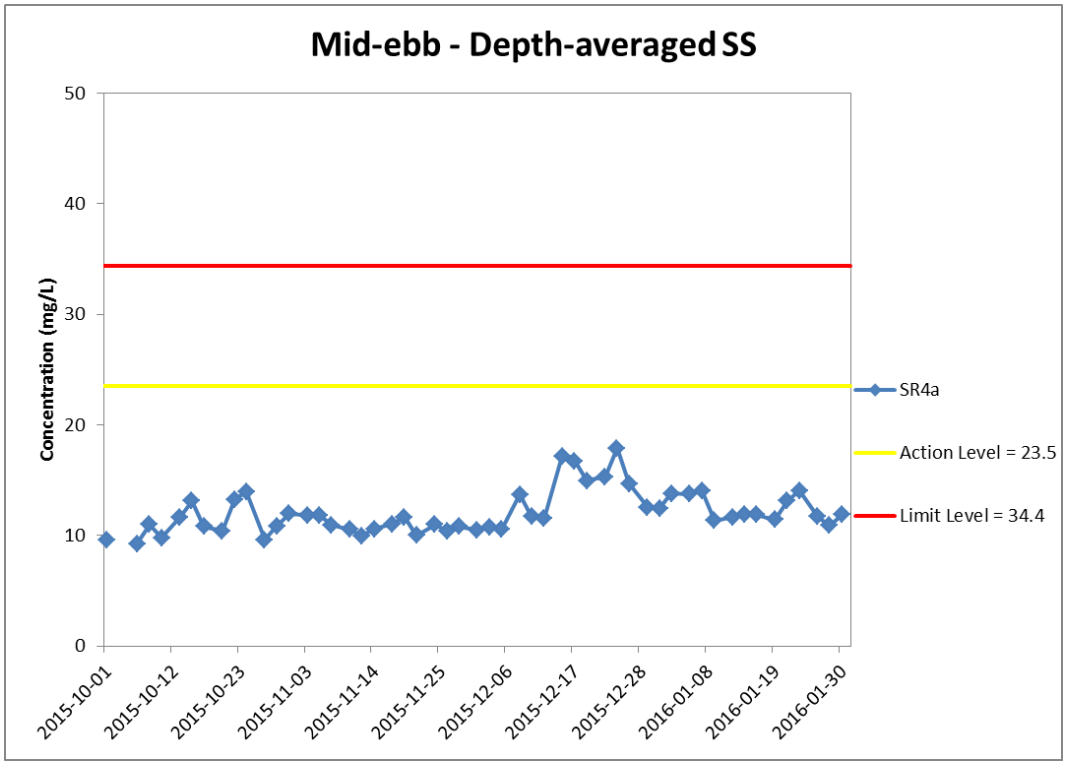
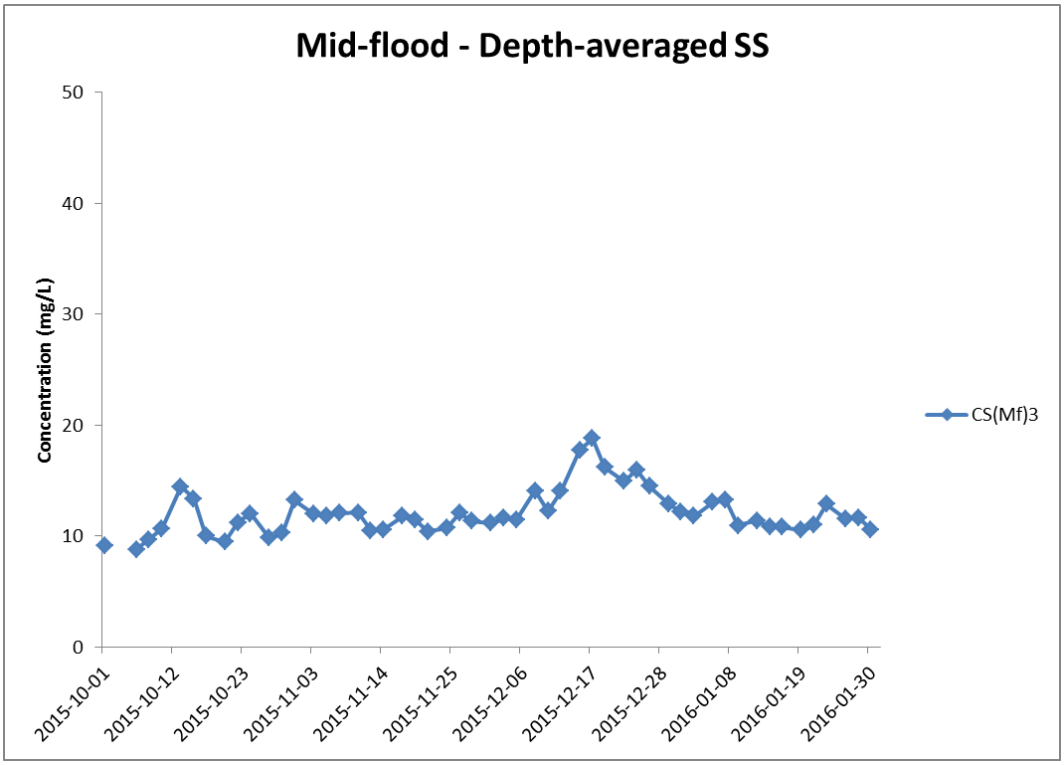


Figure J32 Impact Monitoring – Mean depth-averaged level of Suspended Solids (mg/L) during mid-ebb tide between 1 October 2015 and 31 January 2016 at SR4a.

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; Pier construction; Launching gantry operation; and Installation of deck segment and pier head segment.

Environmental Resources Management

ERM



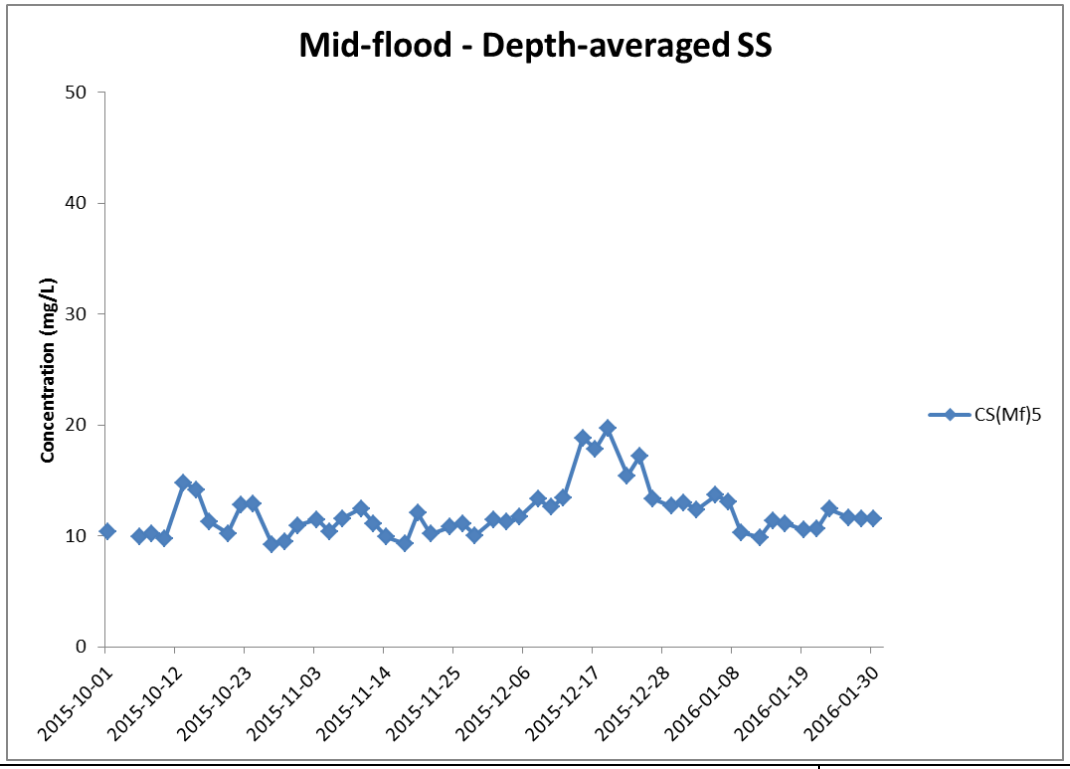
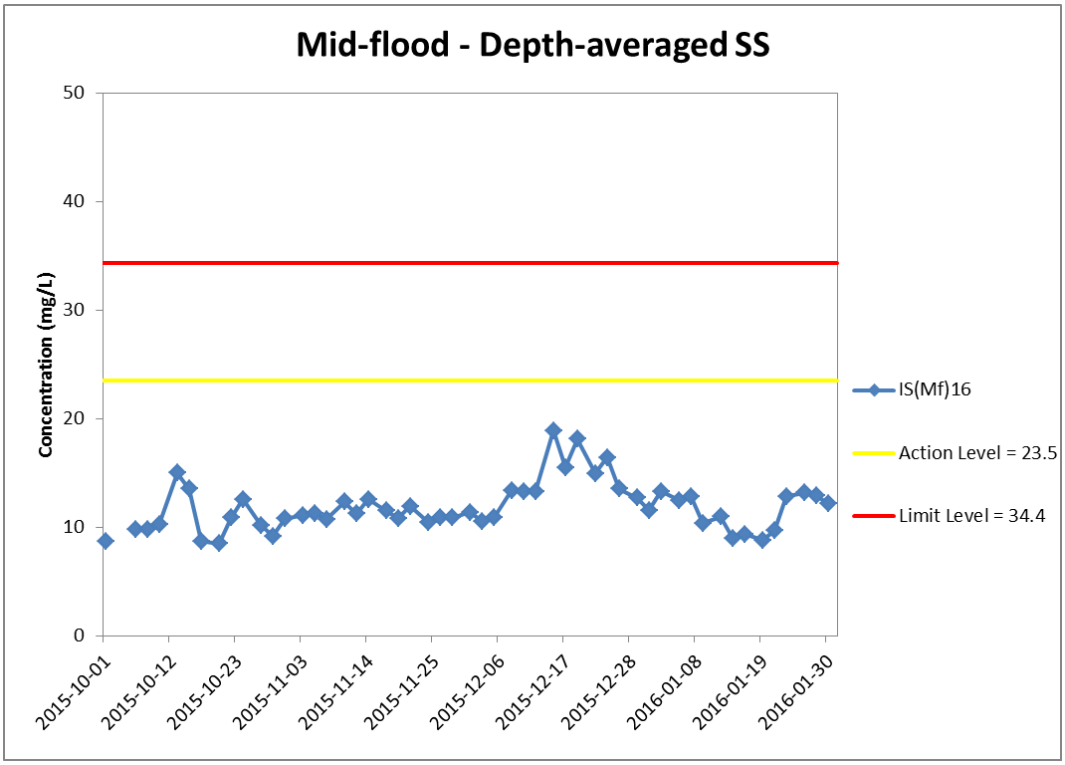


Figure J33 Impact Monitoring – Mean depth-averaged level of Suspended Solids (mg/L) during mid-flood tide between 1 October 2015 and 31 January 2016 at CS(Mf)3 and CS(Mf)5.

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; Pier construction; Launching gantry operation; and Installation of deck segment and pier head segment.

Environmental Resources Management

ERM



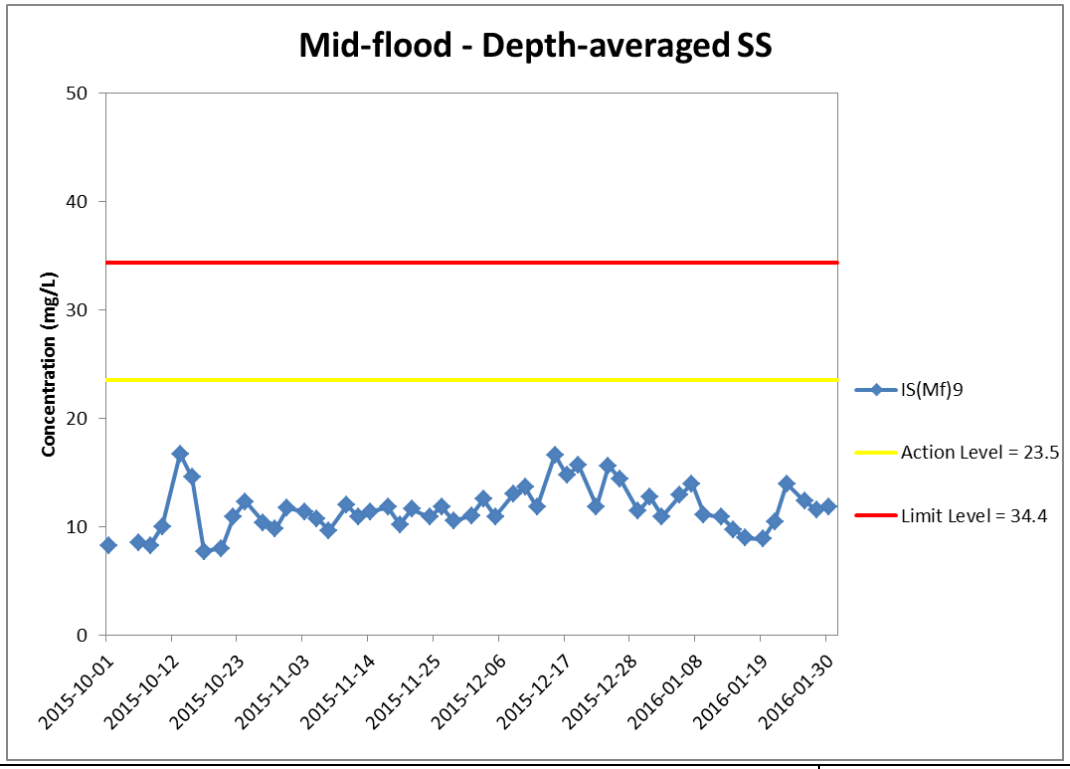
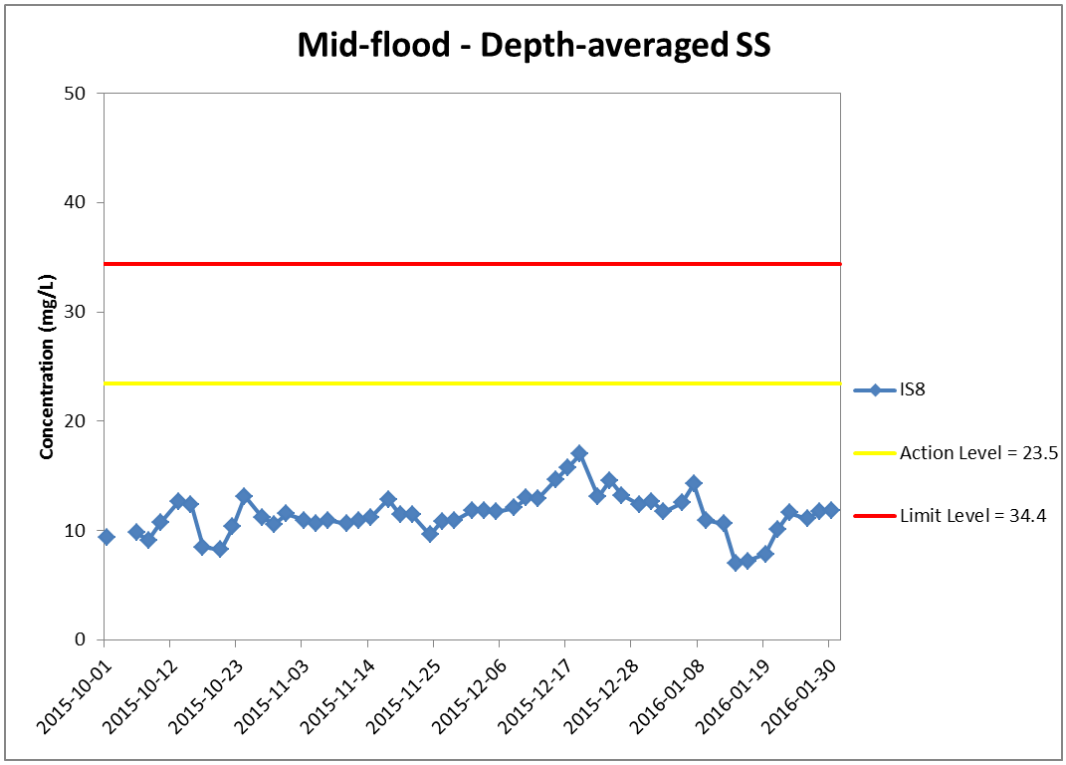


Figure J34 Impact Monitoring – Mean depth-averaged level of Suspended Solids (mg/L) during mid-flood tide between 1 October 2015 and 31 January 2016 at IS(Mf)16 and IS(Mf)9.

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; Pier construction; Launching gantry operation; and Installation of deck segment and pier head segment.

Environmental Resources Management

ERM



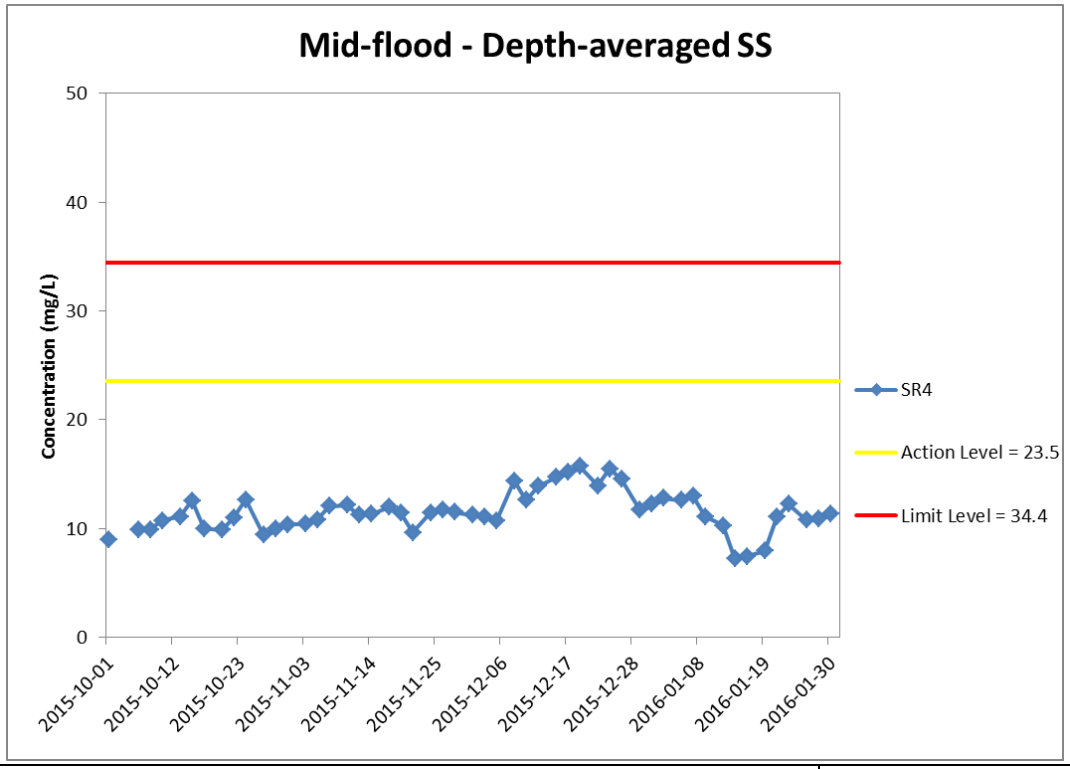


Figure J35 Impact Monitoring – Mean depth-averaged level of Suspended Solids (mg/L) during mid-flood tide between 1 October 2015 and 31 January 2016 at IS8 and SR4.

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; Pier construction; Launching gantry operation; and Installation of deck segment and pier head segment.

Environmental Resources Management

ERM

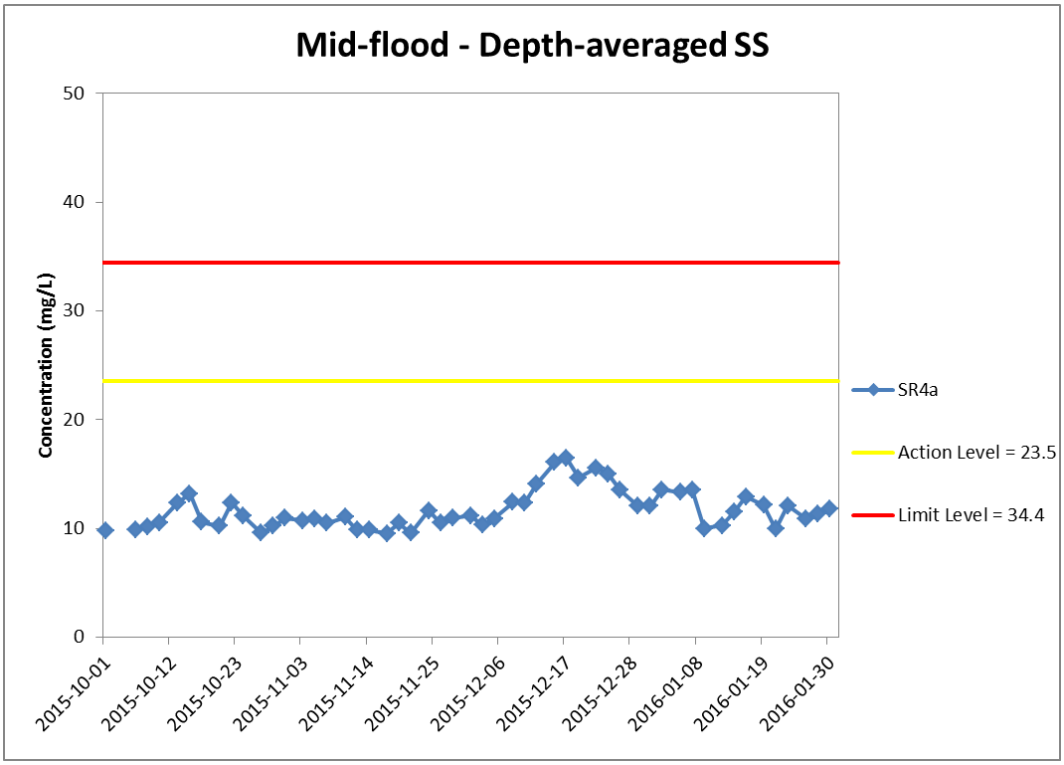


Figure J36 Impact Monitoring – Mean depth-averaged level of Suspended Solids (mg/L) during mid-flood tide between 1 October 2015 and 31 January 2016 at SR4a.

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; Pier construction; Launching gantry operation; and Installation of deck segment and pier head segment.

Environmental Resources Management

ERM

Appendix K

Impact Dolphin Monitoring Survey Results

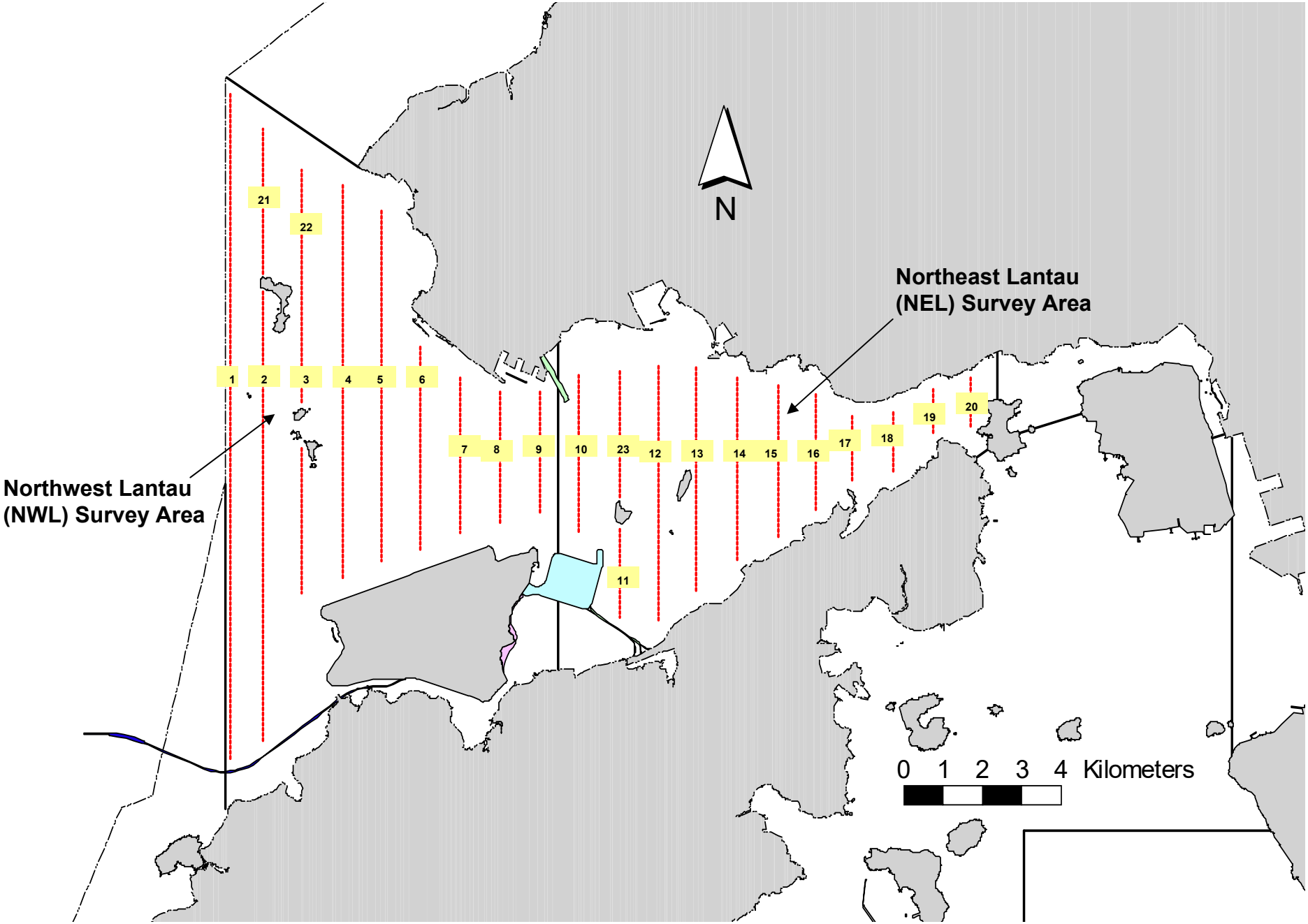


Figure 1. Transect Line Layout in Northwest and Northeast Lantau Survey Areas

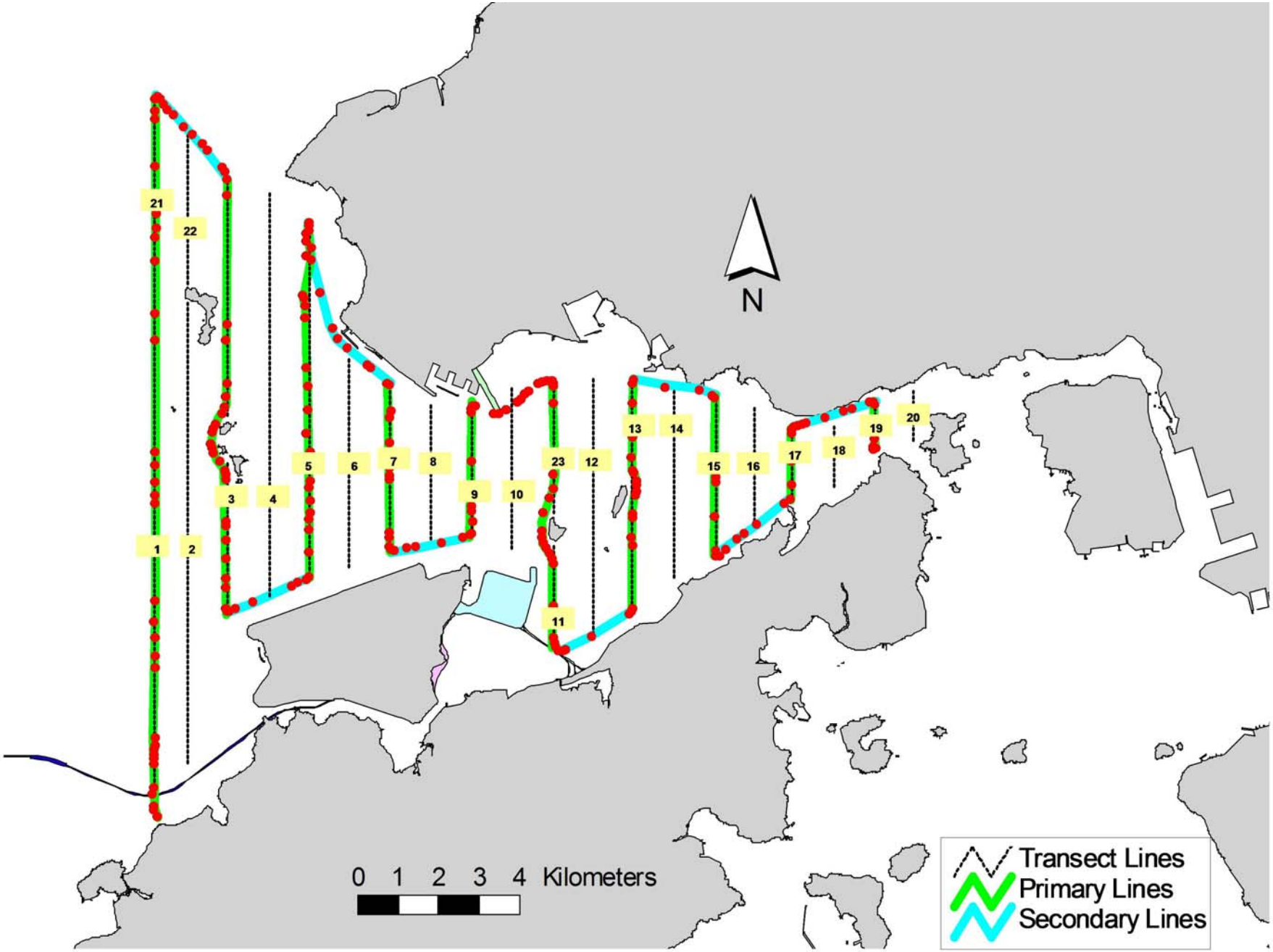


Figure 2. Survey Route on January 8th, 2016 (from HKLR03 project)

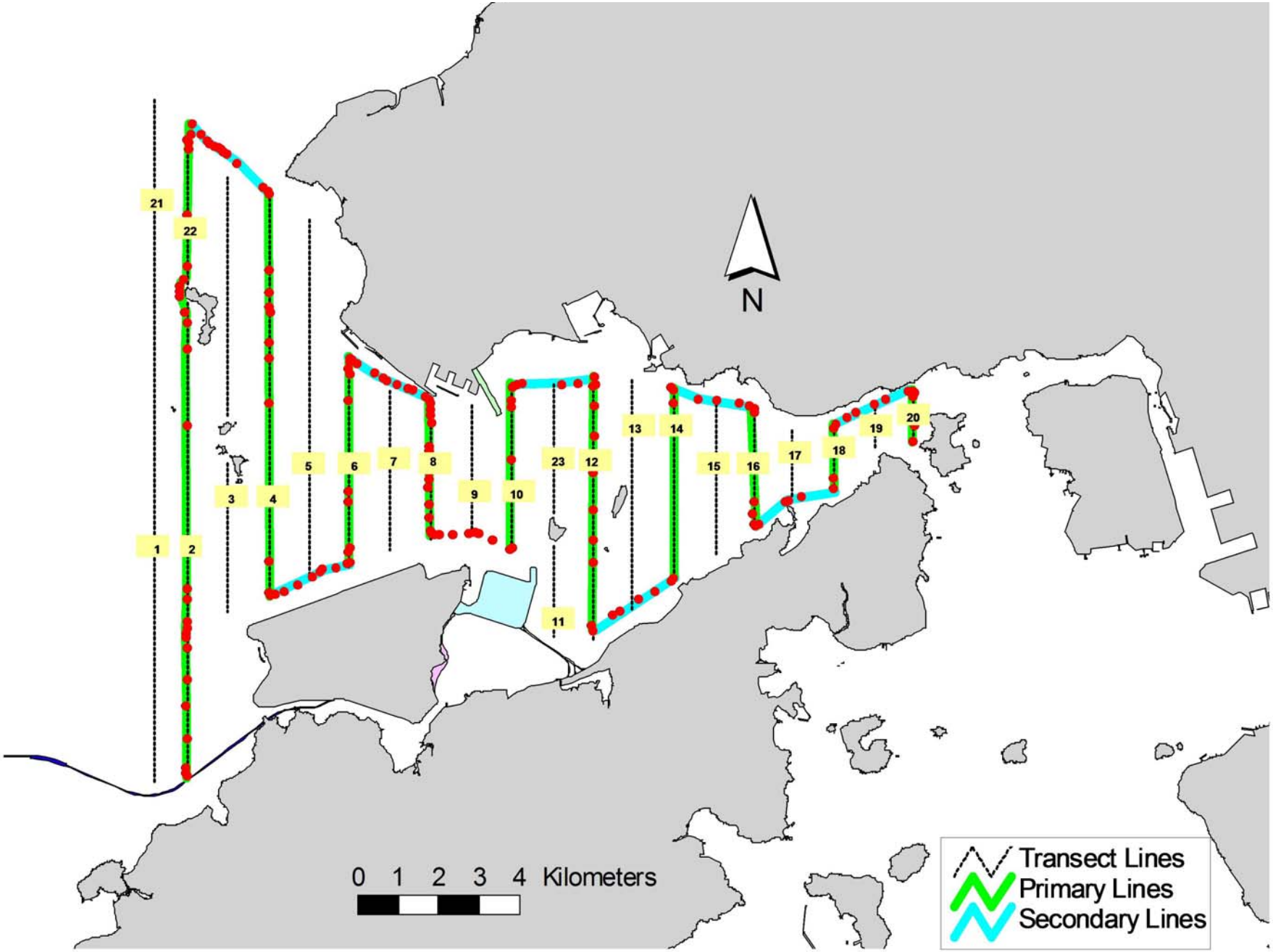


Figure 3. Survey Route on January 11th, 2016 (from HKLR03 project)

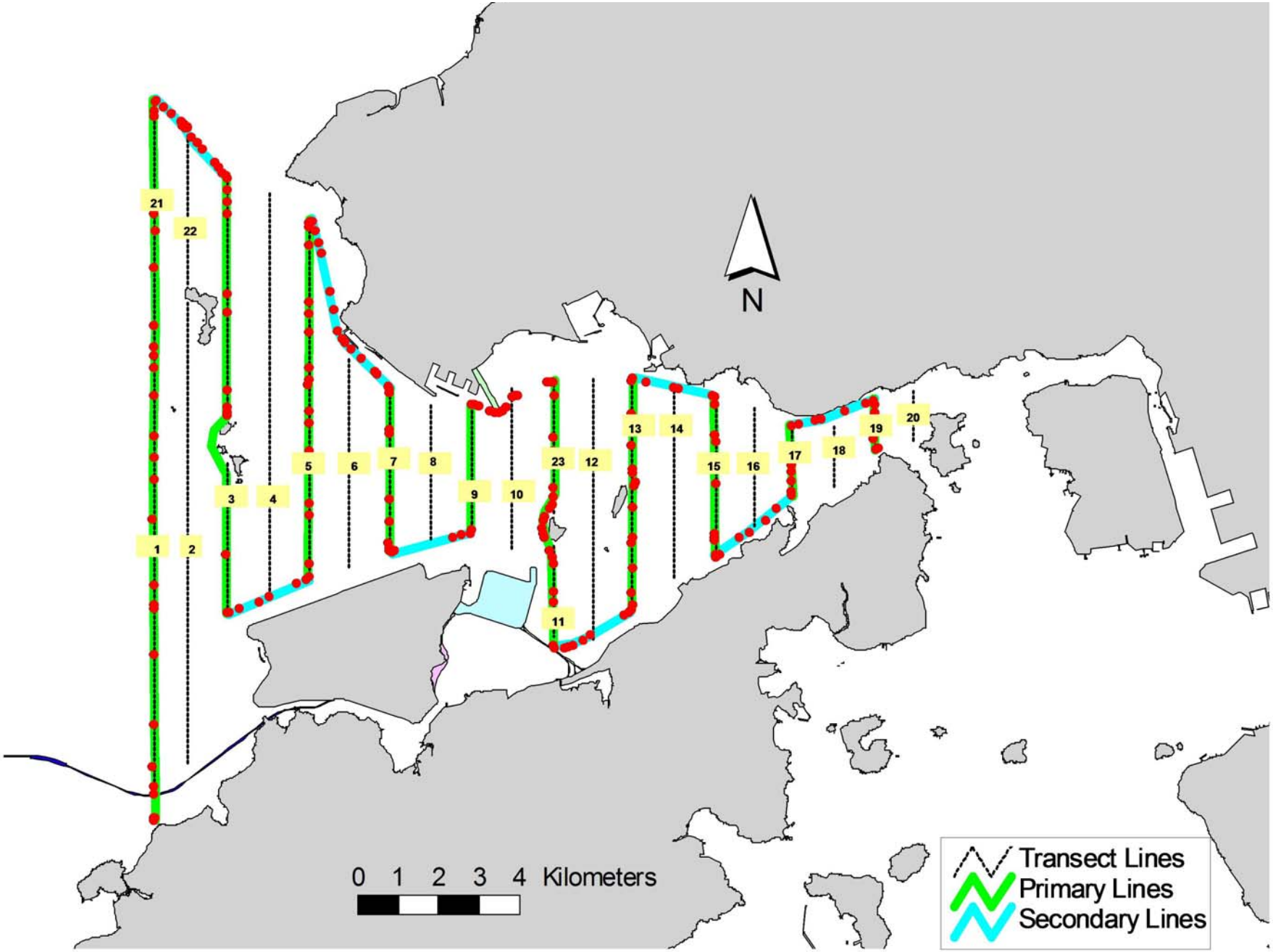


Figure 4. Survey Route on January 13th, 2016 (from HKLR03 project)

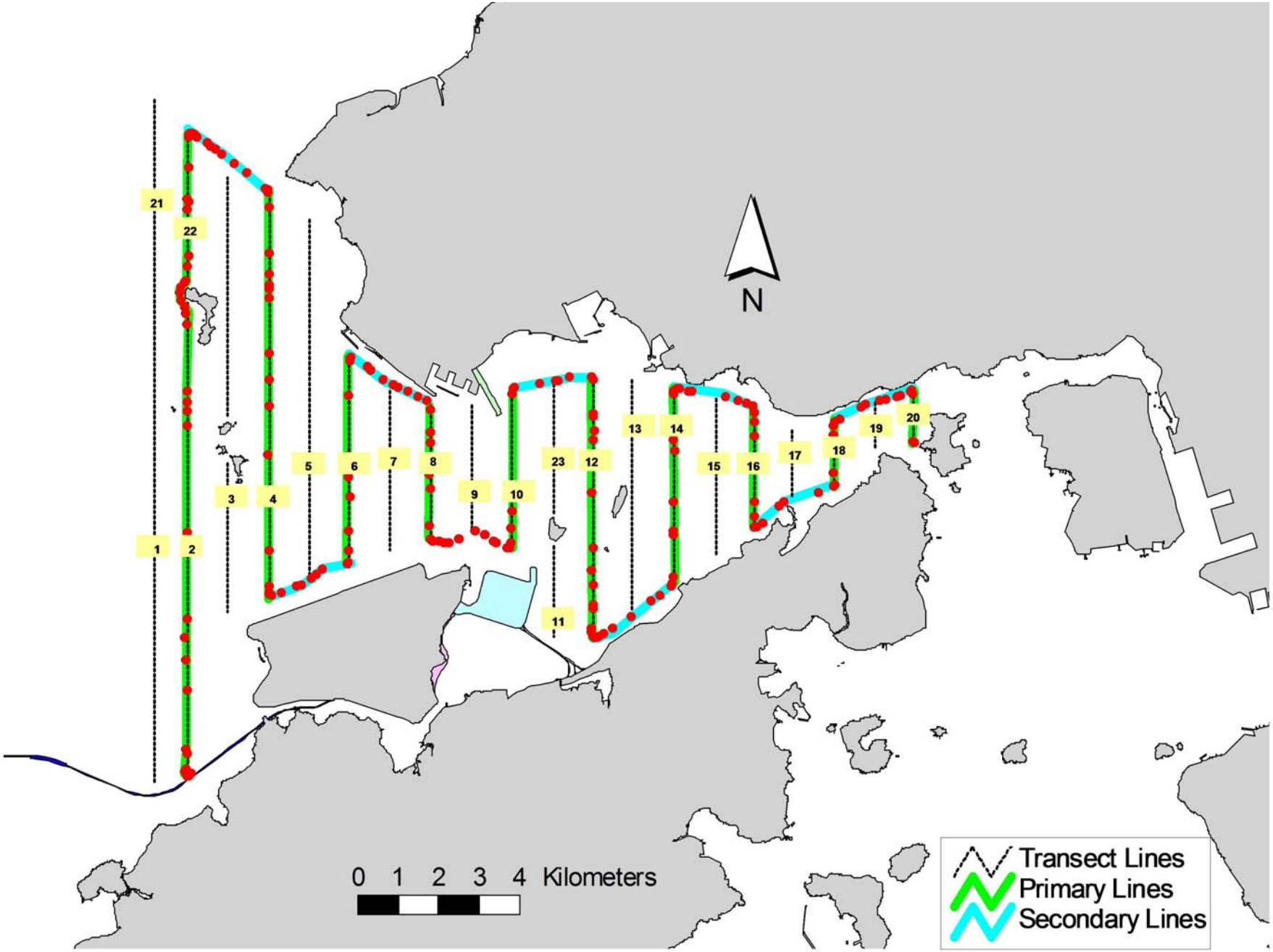


Figure 5. Survey Route on January 19th, 2016 (from HKLR03 project)

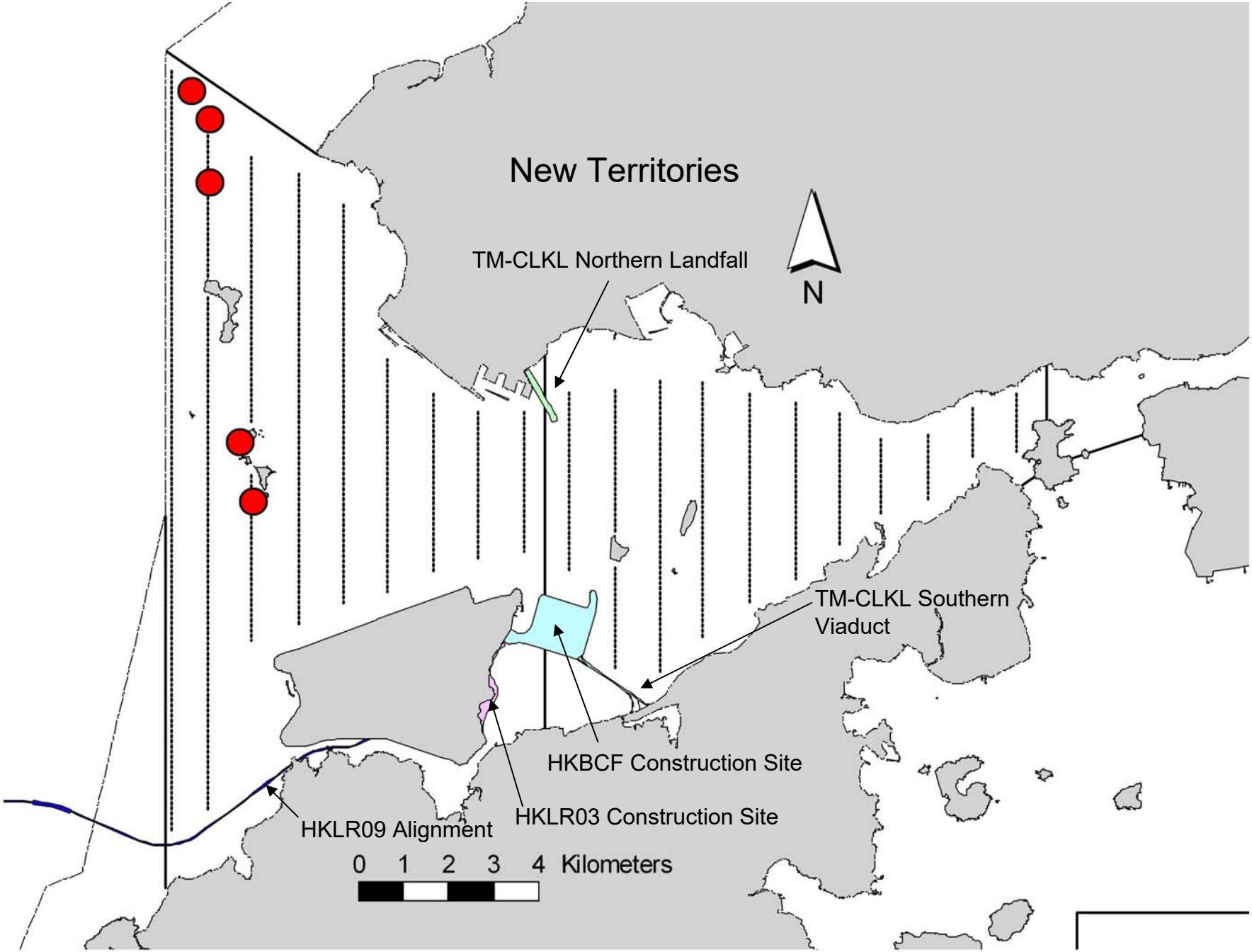


Figure 6. Distribution of Chinese White Dolphin Sightings During January 2016 HKLR03 Monitoring Surveys

Appendix I. HKLR03 Survey Effort Database (January 2016)

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

DATE	AREA	BEAU	EFFORT	SEASON	VESSEL	TYPE	P/S
8-Jan-16	NW LANTAU	2	25.03	WINTER	STANDARD31516	HKLR	P
8-Jan-16	NW LANTAU	3	15.46	WINTER	STANDARD31516	HKLR	P
8-Jan-16	NW LANTAU	2	10.60	WINTER	STANDARD31516	HKLR	S
8-Jan-16	NW LANTAU	3	2.21	WINTER	STANDARD31516	HKLR	S
8-Jan-16	NE LANTAU	2	16.39	WINTER	STANDARD31516	HKLR	P
8-Jan-16	NE LANTAU	2	8.31	WINTER	STANDARD31516	HKLR	S
8-Jan-16	NE LANTAU	3	2.10	WINTER	STANDARD31516	HKLR	S
11-Jan-16	NE LANTAU	1	1.97	WINTER	STANDARD31516	HKLR	P
11-Jan-16	NE LANTAU	2	15.21	WINTER	STANDARD31516	HKLR	P
11-Jan-16	NE LANTAU	3	2.72	WINTER	STANDARD31516	HKLR	P
11-Jan-16	NE LANTAU	2	11.00	WINTER	STANDARD31516	HKLR	S
11-Jan-16	NE LANTAU	3	1.30	WINTER	STANDARD31516	HKLR	S
11-Jan-16	NW LANTAU	2	11.76	WINTER	STANDARD31516	HKLR	P
11-Jan-16	NW LANTAU	3	19.32	WINTER	STANDARD31516	HKLR	P
11-Jan-16	NW LANTAU	2	4.82	WINTER	STANDARD31516	HKLR	S
11-Jan-16	NW LANTAU	3	1.00	WINTER	STANDARD31516	HKLR	S
11-Jan-16	NW LANTAU	4	2.10	WINTER	STANDARD31516	HKLR	S
13-Jan-16	NE LANTAU	1	1.00	WINTER	STANDARD31516	HKLR	P
13-Jan-16	NE LANTAU	2	15.93	WINTER	STANDARD31516	HKLR	P
13-Jan-16	NE LANTAU	2	9.63	WINTER	STANDARD31516	HKLR	S
13-Jan-16	NE LANTAU	3	0.64	WINTER	STANDARD31516	HKLR	S
13-Jan-16	NW LANTAU	2	26.61	WINTER	STANDARD31516	HKLR	P
13-Jan-16	NW LANTAU	3	15.03	WINTER	STANDARD31516	HKLR	P
13-Jan-16	NW LANTAU	2	5.05	WINTER	STANDARD31516	HKLR	S
13-Jan-16	NW LANTAU	3	6.87	WINTER	STANDARD31516	HKLR	S
19-Jan-16	NW LANTAU	2	22.73	WINTER	STANDARD31516	HKLR	P
19-Jan-16	NW LANTAU	3	9.01	WINTER	STANDARD31516	HKLR	P
19-Jan-16	NW LANTAU	2	6.16	WINTER	STANDARD31516	HKLR	S
19-Jan-16	NW LANTAU	3	1.50	WINTER	STANDARD31516	HKLR	S
19-Jan-16	NE LANTAU	1	0.90	WINTER	STANDARD31516	HKLR	P
19-Jan-16	NE LANTAU	2	16.70	WINTER	STANDARD31516	HKLR	P
19-Jan-16	NE LANTAU	3	2.29	WINTER	STANDARD31516	HKLR	P
19-Jan-16	NE LANTAU	1	2.30	WINTER	STANDARD31516	HKLR	S
19-Jan-16	NE LANTAU	2	8.41	WINTER	STANDARD31516	HKLR	S

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

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

DATE	STG #	TIME	HRD SZ	AREA	BEAU	PSD	EFFORT	TYPE	NORTHING	EASTING	SEASON	BOAT ASSOC.	P/S
8-Jan-16	1	1209	1	NW LANTAU	2	591	ON	HKLR	822365	806458	WINTER	NONE	P
11-Jan-16	1	1303	6	NW LANTAU	3	140	ON	HKLR	830351	805495	WINTER	NONE	P
13-Jan-16	1	1355	1	NW LANTAU	3	54	ON	HKLR	823584	806162	WINTER	NONE	S
13-Jan-16	2	1458	2	NW LANTAU	2	83	ON	HKLR	830961	805085	WINTER	NONE	S
19-Jan-16	1	1112	8	NW LANTAU	3	332	ON	HKLR	829044	805503	WINTER	NONE	P

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

ID#	DATE	STG#	AREA
NL48	11/01/16	1	NW LANTAU
	19/01/16	1	NW LANTAU
NL123	11/01/16	1	NW LANTAU
NL182	11/01/16	1	NW LANTAU
	19/01/16	1	NW LANTAU
NL202	19/01/16	1	NW LANTAU
NL210	13/01/16	2	NW LANTAU
NL220	11/01/16	1	NW LANTAU
	19/01/16	1	NW LANTAU
NL284	19/01/16	1	NW LANTAU
NL285	08/01/16	1	NW LANTAU
	11/01/16	1	NW LANTAU
	19/01/16	1	NW LANTAU
NL302	13/01/16	2	NW LANTAU
NL320	11/01/16	1	NW LANTAU
	19/01/16	1	NW LANTAU

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

Appendix IV. (cont'd)

Appendix L

Event Action Plan

Appendix L1 Event/ Action Plan for Air Quality

	ACTION			
EVENT	**ET** [(1)]	**IEC** [(1)]	**SOR** [(1)]	**Contractor**
Action Level				
1. Exceedance for one sample	1. Identify the source. 2. Inform the IEC and the SOR. 3. Repeat measurement to confirm finding. 4. Increase monitoring frequency to daily.	1. Check monitoring data submitted by the ET. 2. Check Contractor's working method.	1. Notify Contractor.	1. Rectify any unacceptable practice 2. Amend working methods if appropriate
2. Exceedance for two or more consecutive samples	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.	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.	1. Confirm receipt of notification of failure in writing. 2. Notify the Contractor. 3. Ensure remedial measures properly implemented.	1. Submit proposals for remedial actions to IEC within 3 working days of notification 2. Implement the agreed proposals 3. Amend proposal if appropriate

	ACTION			
EVENT	**ET** [(1)]	**IEC** [(1)]	**SOR**[(1)]	**Contractor**
Limit Level				
1. Exceedance for one sample	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.	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.	1. Confirm receipt of notification of failure in writing. 2. Notify the Contractor. 3. Ensure remedial measures are properly implemented.	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	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	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.	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.	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	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.	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.	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.	1. Submit noise mitigation proposals to IEC 2. Implement noise mitigation proposals
Limit Level	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.	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.	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.	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	1. Repeat in situ measurement on next day of exceedance to confirm findings; 2. Identify source(s) of impact; 3. Inform IEC, contractor and SOR; 4. Check monitoring data, all plant, equipment and Contractor's working methods.	1. Check monitoring data submitted by ET and Contractor's working methods.	1. Confirm receipt of notification of non-compliance in writing; 2. Notify Contractor.	1. Inform the SOR and confirm notification of the non-compliance in writing; 2. Rectify unacceptable practice; 3. Amend working methods if appropriate.
Action level being exceeded by two or more consecutive sampling days	1. Repeat measurement on next day of exceedance to confirm findings; 2. Identify source(s) of impact; 3. Inform IEC, contractor, SOR and EPD; 4. Check monitoring data, all plant, equipment and Contractor's working methods; 5. Discuss mitigation measures with IEC, SOR and Contractor; 6. Ensure mitigation measures are implemented; 7. Increase the monitoring frequency to daily until no exceedance of Action level;	1. Check monitoring data submitted by ET and Contractor's working method; 2. Discuss with ET and Contractor on possible remedial actions; 3. Review the proposed mitigation measures submitted by Contractor and advise the SOR accordingly; 4. Supervise the implementation of mitigation measures.	1. Discuss with IEC on the proposed mitigation measures; 2. Ensure mitigation measures are properly implemented; 3. Assess the effectiveness of the implemented mitigation measures.	1. Inform the Supervising Officer and confirm notification of the non-compliance in writing; 2. Rectify unacceptable practice; 3. Check all plant and equipment and consider changes of working methods; 4. Submit proposal of additional mitigation measures to SOR within 3 working days of notification and discuss with ET, IEC and SOR; 5. Implement the agreed mitigation measures.
Limit level being exceeded by one sampling day	1. Repeat measurement on next day of exceedance to confirm findings;	1. Check monitoring data submitted by ET and Contractor's working method;	1. Confirm receipt of notification of failure in writing;	1. Inform the SOR and confirm notification of the non-compliance in writing;

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

Appendix L4 Implementation of Event-Action Plan for Dolphin Monitoring

Event	ET Leader	IEC	SOR	Contractor
Action Level	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.	1. Check monitoring data submitted by ET and Contractor; 2. Discuss monitoring results and findings with the ET and the Contractor.	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.	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	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.	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.	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.	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**
Action Level With the numerical values presented in *Table 5.7* of *Baseline Monitoring Report*, 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 *Table 5.8* of *Baseline Monitoring Report*), 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	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	1. Check monitoring data submitted by ET and Contractor; 2. Discuss monitoring with the ET and the Contractor;	1. Discuss with the IEC the repeat monitoring and any other measures proposed by the ET; 2. Make agreement on measures to be implemented.	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
Limit Level				
With the numerical values presented in Table 5.7 of *Baseline Monitoring Report*, 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 *Baseline Monitoring Report*), 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	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.	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.	1. Discuss with the IEC the repeat monitoring and any other measures proposed by the ET; 2. Make agreement on measures to be implemented.	1. Inform the SO and confirm notification of the non- compliance in writing; 2. Discuss with the ET and the IEC and propose measures to the IEC and the SO; 3. Implement the agreed measures.

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

Appendix M

Monthly Summary of Waste Flow Table

Contract No. : HY/2012/07
Tuen Mun Chek Lap Kok Link – Southern Connection Viaduct Section
Monthly Summary Waste Flow Table for 2016 (Year)

Month\Material	Actual Quantities of Inert C&D Materials Generation						Actual Quantities of C&D wastes Generation						Actual Quantities of Recyclables Generation			
	Total Quantity Generated	Hard Rock and Large Broken Concrete	Reused in the Contract	Reused in other Projects	Disposed as Public Fills	Imported Fill	Marine Sediment, Cat. L	Marine Sediment, Cat. Mp	Marine Sediment, Cat. Mf	Marine Sediment, Cat. H	Chemical Waste	General Refuse	Metals	Felled trees	Paper/ cardboard packaging	Plastics
Unit	('000m^3)	('000m^3)	('000m^3)	('000m^3)	('000m^3)	('000m^3)	('000m^3)	('000m^3)	('000m^3)	('000m^3)	('000Kg)	('000Kg)	('000Kg)	('000Kg)	('000Kg)	('000Kg)
Jan	1.941	0.263	0.606	-	1.334	-	-	-	-	-	-	69.400	-	-	0.105	-
Feb																
Mar																
Apr																
May																
Jun																
SUB-TOTAL	**1.941**	**0.263**	**0.606**	**-**	**1.334**	**0.000**	**-**	**-**	**-**	**-**	**-**	**69.400**	**-**	**0.000**	**0.105**	**-**
Jul																
Aug																
Sep																
Oct																
Nov																
Dec																
TOTAL	**1.941**	**0.263**	**0.606**	**-**	**1.334**	**-**	**-**	**-**	**-**	**-**	**-**	**69.400**	**-**	**-**	**0.105**	**-**

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 - 'Reused in the Contract' and 'Disposed as Public Fills' 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	0	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 (January 2016)	0	0	0
Total No. received since project commencement	4	0	0