

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

*First Quarterly Environmental Monitoring &
Audit (EM&A) Report*

29 April 2014

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

**Environmental Resources
Management**

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*First Quarterly Environmental Monitoring & Audit
(EM&A) Report*

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Client: Gammon		Project No: 0215660			
Summary: This document presents the First Quarterly EM&A Report for Tuen Mun – Chek Lap Kok Link Southern Connection Viaduct Section.		Date: 29 April 2014			
		Approved by: 			
		Mr Craig Reid Partner			
		Certified by: 			
		Mr Jovy Tam ET Leader			
	1 st Quarterly EM&A Report	CL	JT	CAR	29/04/14
Revision	Description	By	Checked	Approved	Date
<p>This report has been prepared by Environmental Resources Management the trading name of 'ERM Hong-Kong, Limited', with all reasonable skill, care and diligence within the terms of the Contract with the client, incorporating our General Terms and Conditions of Business and taking account of the resources devoted to it by agreement with the client.</p> <p>We disclaim any responsibility to the client and others in respect of any matters outside the scope of the above.</p>		<p>Distribution</p> <p><input type="checkbox"/> Internal</p> <p><input checked="" type="checkbox"/> Public</p> <p><input type="checkbox"/> Confidential</p>			
		 			

Ref.: HYDHZMBEEM00_0_1895L.14

5 May 2014

AECOM
Supervising Officer Representative's Office
6 Hoi Kok Street,
Tsuen Wan, N.T.

By Fax (2492 2057) and By Post

Attention: Mr. Daniel Ip

Dear Sir,

**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
Quarterly EM&A Report for November 2013 to February 2014 (EP-354/2009/B)**

Reference is made to the Quarterly Environmental Monitoring and Audit (EM&A) Report (for November 2013 to February 2014) certified by the ET Leader (ET's ref.: "0215660_1st Quarterly EM&A_ Rev a_2014_04_29.doc" dated 29 April 2014) and provided to us via email on 29 April 2014.

We are pleased to inform you that we have no adverse comments on the captioned quarterly EM&A Report.

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

Yours sincerely,



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

c.c. HyD – Mr. Stephen Chan (By Fax: 3188 6614)
HyD – Mr. Matthew Fung (By Fax: 3188 6614)
AECOM – Mr. Conrad Ng (By Fax: 3922 9797)
ERM – Mr. Jovy Tam (By Fax: 2723 5660)
Gammon – Mr. Roy Leung (By Fax: 2750 0922)

Internal: DY, YH, ENPO Site

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EXECUTIVE SUMMARY

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

The construction phase of the Contract commenced on 31 October 2013 and will be 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 first quarterly EM&A report presenting the EM&A works carried out during the period from 31 October 2013 to 28 February 2014 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:

October/ November 2013

Marine-based Works

- Ground investigation (GI) work at marine piers;
- Survey towers erection; and
- Filling platform at seawall.

Land-based Works

- Additional GI fieldwork, laboratory testing and permitting;
- Application for tree felling and transplanting;
- Site office relocation;
- Fence relocation at Viaduct A, C and D;
- Site offices erection; and
- Temporary access bridge (TAB).

December 2013

Marine-based Works

- Survey tower erection;
- Marine piling platform installation;

- Construction of rockfill platform at Viaduct D landing; and
- Additional marine GI and laboratory testing.

Land-based Works

- SOR's and Contractor's site offices erection at Area 5;
- Satellite container offices erection along seawall;
- Tree felling at Pak Mong area;
- Fence relocation for Viaducts A, C & D;
- Additional land GI, trial pits and laboratory testing; and
- Utility surveys.

January 2014

Marine-based Works

- Survey tower erection;
- Marine piling platform installation;
- Construction of rockfill platform at Viaduct D landing; and
- Additional marine GI and laboratory testing.

Land-based Works

- SOR's site offices erection at Area 5;
- Satellite container offices erection along seawall (ie CEDD Access Road);
- Fence relocation for Viaducts A, C & D;
- Land piling at Viaduct B;
- Additional land GI, trial pits and laboratory testing; and
- Utility surveys.

February 2014

Marine-based Works

- Marine piling platform installation;
- Preparation works for marine piling at Viaduct B;
- Survey tower erection;
- Construction of rockfill platform at Viaduct D landing; and
- Additional marine GI and laboratory testing.

Land-based Works

- Satellite container offices erection along seawall;
- Fence installation and relocation of Area 2, Viaduct A, B, C & D;
- Land piling at Viaduct B;
- Piling platform installation for Viaducts B, D & E; and
- Additional land GI, trial pits & laboratory testing.

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

24-hour TSP monitoring

23 sessions

1-hour TSP monitoring	23 sessions
Noise monitoring	23 sessions
Water quality monitoring	51 sessions
Dolphin monitoring	8 sessions
Joint Environmental site inspection	17 sessions

Daily marine mammal exclusion zone monitoring was undertaken. One sighting of Indo-Pacific humpback dolphin *Sousa chinensis* was recorded on 23 January 2014 during the exclusion zone monitoring. The dolphin group of three was sighted within the marine mammal exclusion zone of the workfront of the landing platform by the marine mammal observer. The marine works was subsequently suspended for the remaining day since the dolphin group was still present inside the exclusion zone until the end of the scheduled marine construction works.

Breaches of Action and Limit Levels for Air Quality

Two Action Level exceedances for 24-hr TSP were recorded from the air quality monitoring in this reporting period. The exceedances were considered to be due to sporadic events from cumulatively anthropogenic activities in this area of Hong Kong and were unlikely to be due to the construction works under this Contract. No Limit Level exceedance for 1-hr nor 24-hr TSP were detected within the reporting period.

Breaches of Action and Limit Levels for Noise

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

Breaches of Action and Limit Levels for Water Quality

One (1) exceedance of Action Level in depth-averaged SS was recorded for impact water quality monitoring in the reporting period. The exceedance was considered not related to the construction works of this Contract upon further investigation.

Impact Dolphin Monitoring

Whilst one Action Level exceedance was observed for the quarterly dolphin monitoring data between December 2013 and February 2014, 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 quarter. The exceedance is considered to be the natural variation of Chinese White Dolphin ranging pattern upon further investigation.

Environmental Complaints, Non-compliance & Summons

One (1) complaint was referred by EPD on 12 November 2013 and was follow-up timely. The complaint was considered to be not related to this Contract.

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

Reporting Change

There was no reporting change required in the reporting period.

Upcoming Works for the Next Reporting Period

Works to be undertaken in the coming quarter include the following:

Marine Works

- Marine piling platform installation;
- Marine piling at Viaduct B;
- Survey tower erection;
- Construction of rockfill platform at Viaduct D landing; and
- Additional marine GI and laboratory testing.

Land-based Works

- Satellite container offices erection along seawall;
- Fence installation and relocation of Area 2, Viaducts A, B, C & D;
- Land piling at Viaduct B;
- Piling platform installation for Viaducts B, D & E;
- Additional land GI, trial pits & laboratory testing;
- Utility surveys; and
- Soil nail and excavation at slope at 9SE-B/C8.

Future Key Issues

Potential environmental impacts arising from the above upcoming construction activities in the coming quarterly period are mainly associated with air quality, noise, marine water quality, marine ecology and waste management issues.

1.1

BACKGROUND

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

An Environmental Impact Assessment (EIA) of TM-CLKL (the Project) was prepared in accordance with the EIA Study Brief (No. ESB-175/2007) and the *Technical Memorandum of the Environmental Impact Assessment Process (EIAO-TM)*. The EIA Report was submitted under the Environmental Impact Assessment Ordinance (EIAO) in August 2009. Subsequent to the approval of the EIA Report (EIAO Register Number AEIAR-145/2009), 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-354/2009A) was issued on 8 December 2010. Another application for variation of environmental permit (VEP) (EP-354/2009/B) was granted on 28 January 2014.

Under *Contract No. HY/2012/07*, Gammon Construction Limited (GCL) is commissioned by the Highways Department (HyD) to undertake the design and construction of the Southern Connection Viaduct Section of TM-CLKL (“the Contract”) while AECOM Asia Company Limited was appointed by HyD as the Supervising Officer. For implementation of the environmental monitoring and audit (EM&A) programme under the Contract, ERM-Hong Kong, Limited (ERM) has been appointed as the Environmental Team (ET). ENVIRON Hong Kong Ltd. was employed by HyD as the Independent Environmental Checker (IEC) and Environmental Project Office (ENPO) in accordance with Environmental Permit No. EP-354/2009/A.

The construction phase of the Contract commenced on 31 October 2013 and will be tentatively be 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.

1.2 SCOPE OF REPORT

This is the First Quarterly 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 from 31 October 2013 to 28 February 2014.

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 (Highway Department)	Senior Engineer	Steven Shum	2762 4133	3188 6614
	Project Coordinator	Stanley Chan	2762 3406	3188 6614
SOR (AECOM Asia Company Limited)	Chief Resident Engineer	Daniel Ip	3553 3800	2492 2057
	Resident Engineer	Kingman Chan	3691 2950	3691 2899
ENPO / IEC (ENVIRON Hong Kong Ltd.)	ENPO Leader	Y.H. Hui	3465 2888	3465 2899
	IEC	Tony Cheng	3465 2888	3465 2899
Contractor (Gammon Construction Limited)	Environmental Manager	Brian Kam	3520 0387	3520 0486
	Environmental Officer	Roy Leung	3520 0387	3520 0486
	24-hour Complaint Hotline		9738 4332	
ET (ERM-HK)	ET Leader	Jovy Tam	2271 3113	2723 5660

1.4 SUMMARY OF CONSTRUCTION WORKS

The construction phase of the Contract commenced on 31 October 2013. The rolling construction programme for the period of 31 October 2013 to 28 February 2014 is shown in *Appendix B*.

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

November 2013

Marine-based Works

- Ground investigation (GI) work at marine piers;

- Survey towers erection; and
- Filling platform at seawall.

Land-based Works

- Additional GI fieldwork, laboratory testing and permitting;
- Application for tree felling and transplanting;
- Site office relocation;
- Fence relocation at Viaducts A, C and D;
- Site offices erection; and
- Temporary access bridge (TAB).

December 2013

Marine-based Works

- Survey tower erection;
- Marine piling platform installation;
- Construction of rockfill platform at Viaduct D landing; and
- Additional marine GI and laboratory testing.

Land-based Works

- SOR's and Contractor's site offices erection at Area 5;
- Satellite container offices erection along seawall;
- Tree felling at Pak Mong area;
- Fence relocation for Viaducts A, C & D;
- Additional land GI, trial pits and laboratory testing; and
- Utility surveys.

January 2014

Marine-based Works

- Survey tower erection;
- Marine piling platform installation;
- Construction of rockfill platform at Viaduct D landing; and
- Additional marine GI and laboratory testing.

Land-based Works

- SOR's site offices erection at Area 5;
- Satellite container offices erection along seawall (ie CEDD Access Road);
- Fence relocation for Viaducts A, C & D;
- Piling platform installation for Viaduct B;
- Additional land GI, trial pits and laboratory testing; and
- Utility surveys.

February 2014

Marine-based Works

- Marine piling platform installation;
- Preparation works for marine piling at Viaduct B;

- Survey tower erection;
- Construction of rockfill platform at Viaduct D landing; and
- Additional marine GI and laboratory testing.

Land-based Works

- Satellite container offices erection along seawall;
- Fence installation and relocation of Area 2, Viaducts A, B, C & D;
- Land Piling at Viaduct B;
- Piling platform installation for Viaducts B, D & E; and
- Additional land GI, trial pits & laboratory testing.

The general layout plan of the site showing the detailed works areas is shown in *Figures 1.1 to 1.12*. The Environmental Sensitive Receivers in the vicinity of the Project are shown in *Figure 1.13*.

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

1.5

SUMMARY OF EM&A PROGRAMME REQUIREMENTS

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 described in the following sections, which include:

- Monitoring parameters;
- Monitoring schedules for the reporting months and forthcoming months;
- Action and Limit levels for all environmental parameters;
- Event/ Action Plan;
- Results and observations;
- Environmental mitigation measures, as recommended in the Project EIA reports; and
- Environmental requirement in contract documents.

Key

Site Boundary

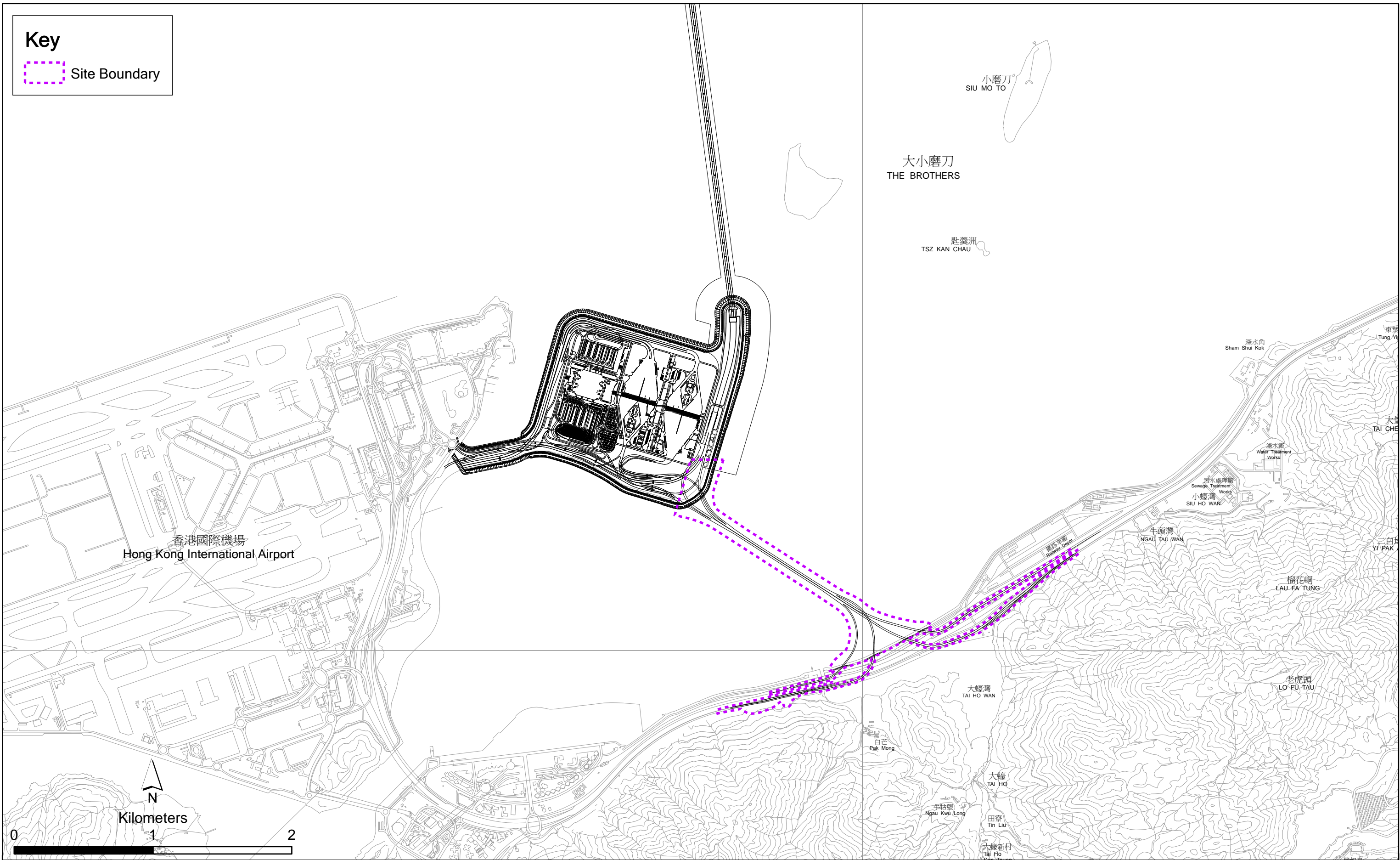
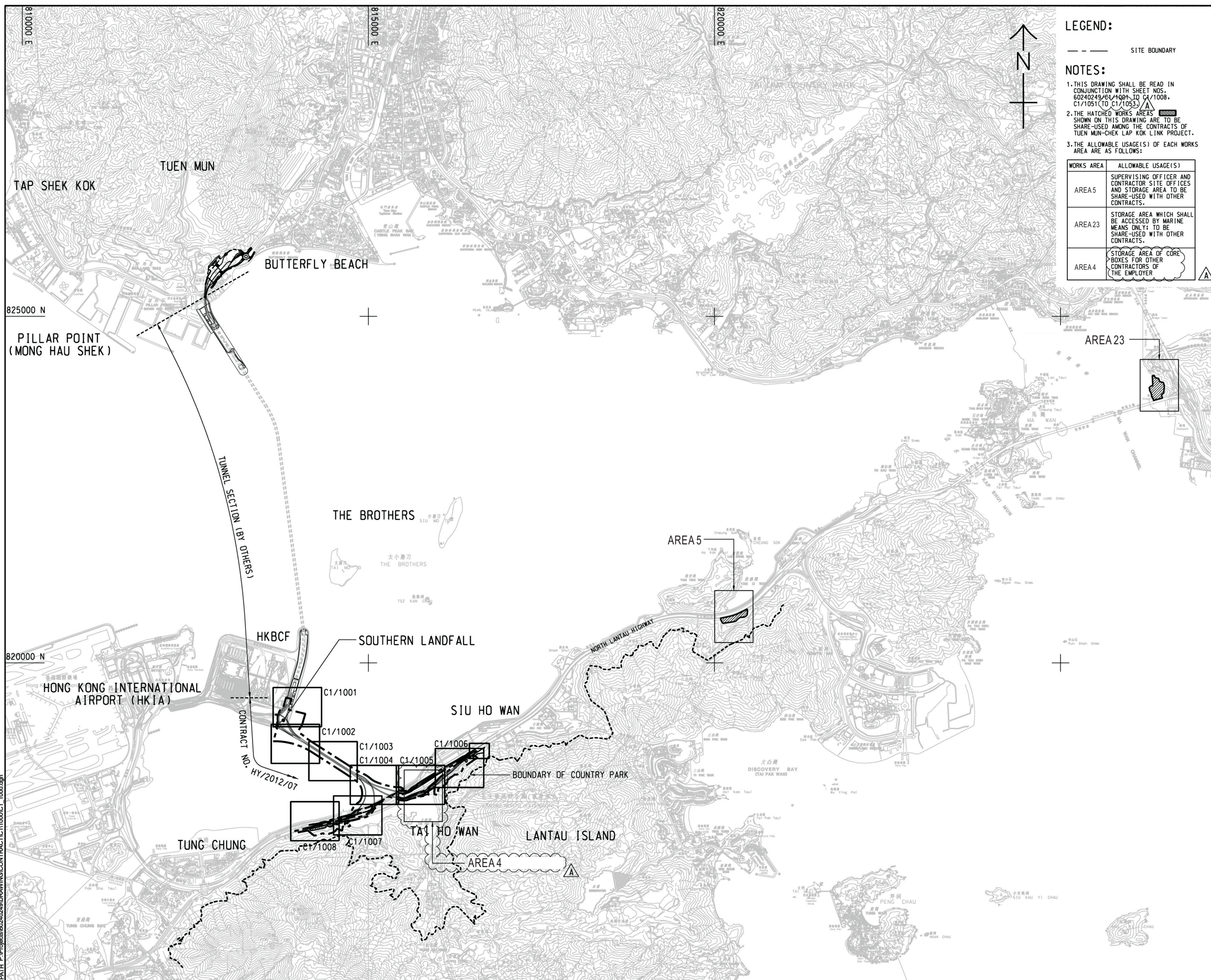


Figure 1.1

General Layout Plan of the Project

Plot File by: LIUJ3 2012/11/15
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 Project Management Initials: Designer: SLYY Checked: PLCK Approved: CWN ISO A1 594mm x 841mm



LEGEND:

--- SITE BOUNDARY

NOTES:

1. THIS DRAWING SHALL BE READ IN CONJUNCTION WITH SHEET NOS. 60240249/61/1001 TO C1/1008, C1/1051 (TO C1/1053).
2. THE HATCHED WORKS AREAS SHOWN ON THIS DRAWING ARE TO BE SHARE-USED AMONG THE CONTRACTS OF TUEN MUN-CHEK LAP KOK LINK PROJECT.
3. THE ALLOWABLE USAGE(S) OF EACH WORKS AREA ARE AS FOLLOWS:

WORKS AREA	ALLOWABLE USAGE(S)
AREA 5	SUPERVISING OFFICER AND CONTRACTOR SITE OFFICES AND STORAGE AREA TO BE SHARE-USED WITH OTHER CONTRACTS.
AREA 23	STORAGE AREA WHICH SHALL BE ACCESSED BY MARINE MEANS ONLY; TO BE SHARE-USED WITH OTHER CONTRACTS.
AREA 4	STORAGE AREA OF CORE BOXES FOR OTHER CONTRACTORS OF THE EMPLOYER



PROJECT
 項目
TUEN MUN - CHEK LAP KOK LINK

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

CLIENT
 業主
HIGHWAYS DEPARTMENT
 港珠澳大橋香港工程管理有限公司
 Hong Kong - Zhuhai - Macao Bridge
 Hong Kong Project Management Office

CONSULTANT
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Fig1.2

ISSUE/REVISION

I/R	DATE	DESCRIPTION	CHK
A	NOV. 12	TENDER ADDENDUM NO.1	CWY
-	OCT. 12	TENDER DRAWING	CWN

STATUS

階段

SCALE **DIMENSION UNIT**
 比例 尺寸單位
 A1 1:25000 METRES

KEY PLAN

圖則編號

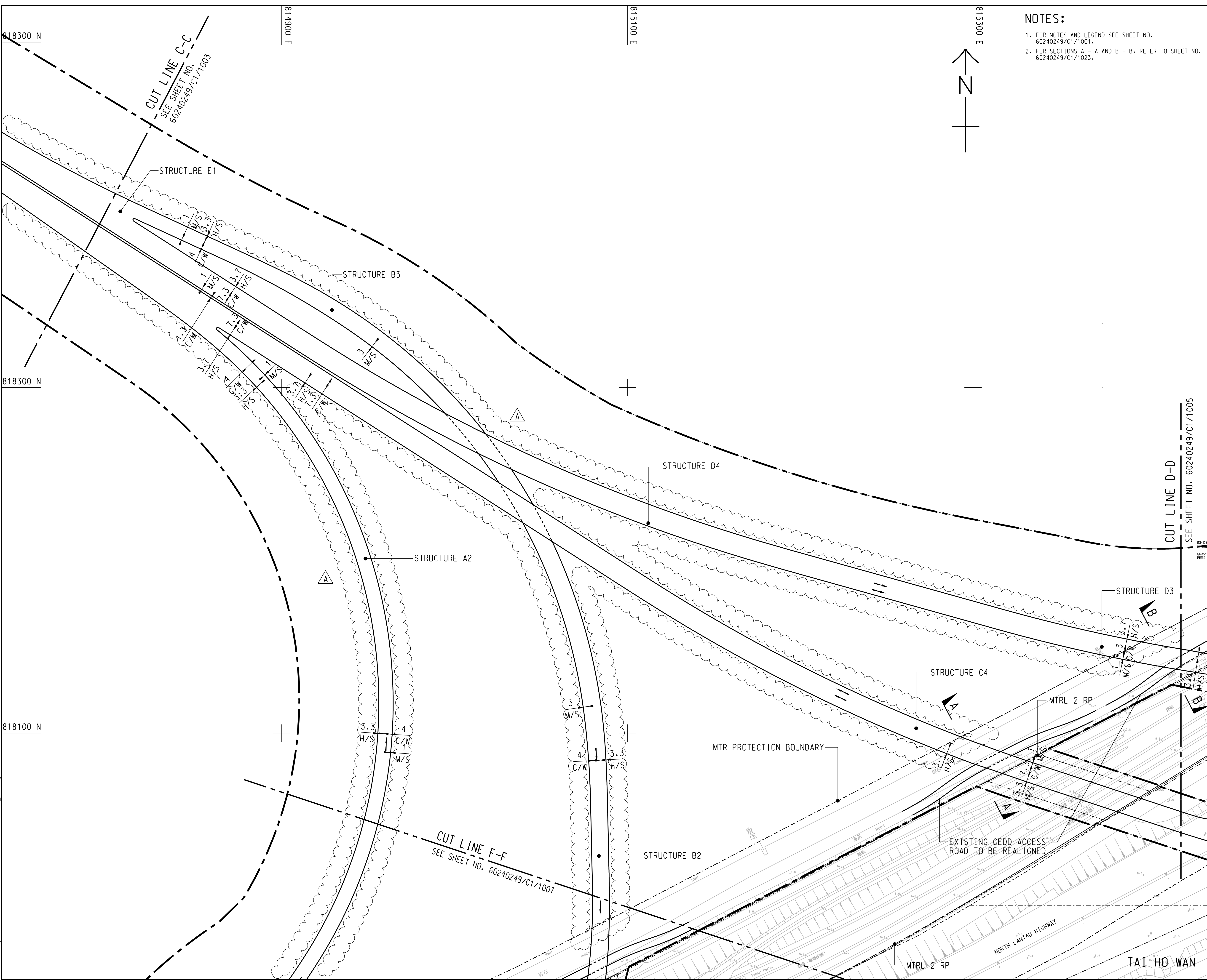
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 60240249 HY/2012/07

SHEET TITLE
 圖紙名稱
 LOCATION PLAN AND KEY PLAN

SHEET NUMBER
 圖紙編號
 60240249/C1/1000A

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NOTES:

- FOR NOTES AND LEGEND SEE SHEET NO. 60240249/C1/1001.
- FOR SECTIONS A - A AND B - B, REFER TO SHEET NO. 60240249/C1/1023.

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局
 Hong Kong - Zhuhai - Macao Bridge
 Hong Kong Project Management Office

CONSULTANT
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Fig1.3

ISSUE/REVISION
修訂

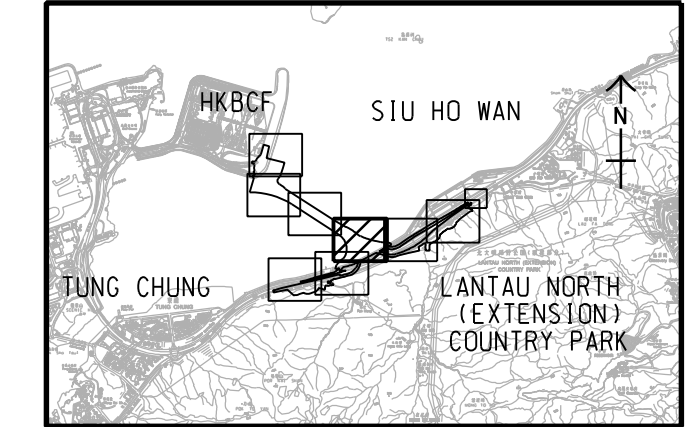
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-	OCT. 12	TENDER DRAWING	CWY

STATUS
階段

SCALE
比例
A1 1:1000

DIMENSION UNIT
尺寸單位
METRES

KEY PLAN 1:100000
索引圖



PROJECT NO.
項目編號
60240249

CONTRACT NO.
合約編號
HY/2012/07

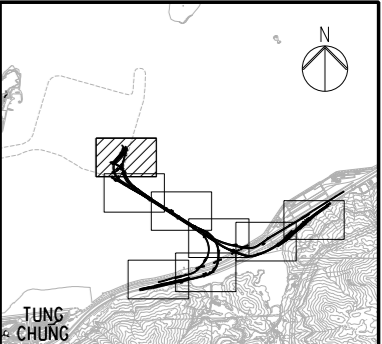
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圖紙名稱
GENERAL LAYOUT

SHEET NUMBER
圖紙編號
60240249/C1/1004A

SHEET 4 OF 8

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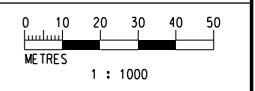


KEY PLAN

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

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

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



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

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

Supervising Officer
AECOM

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

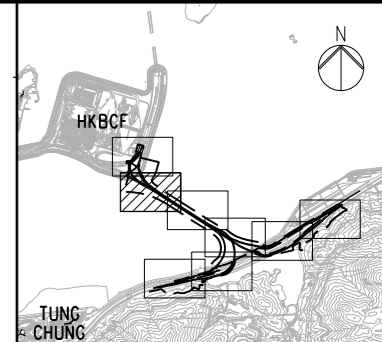
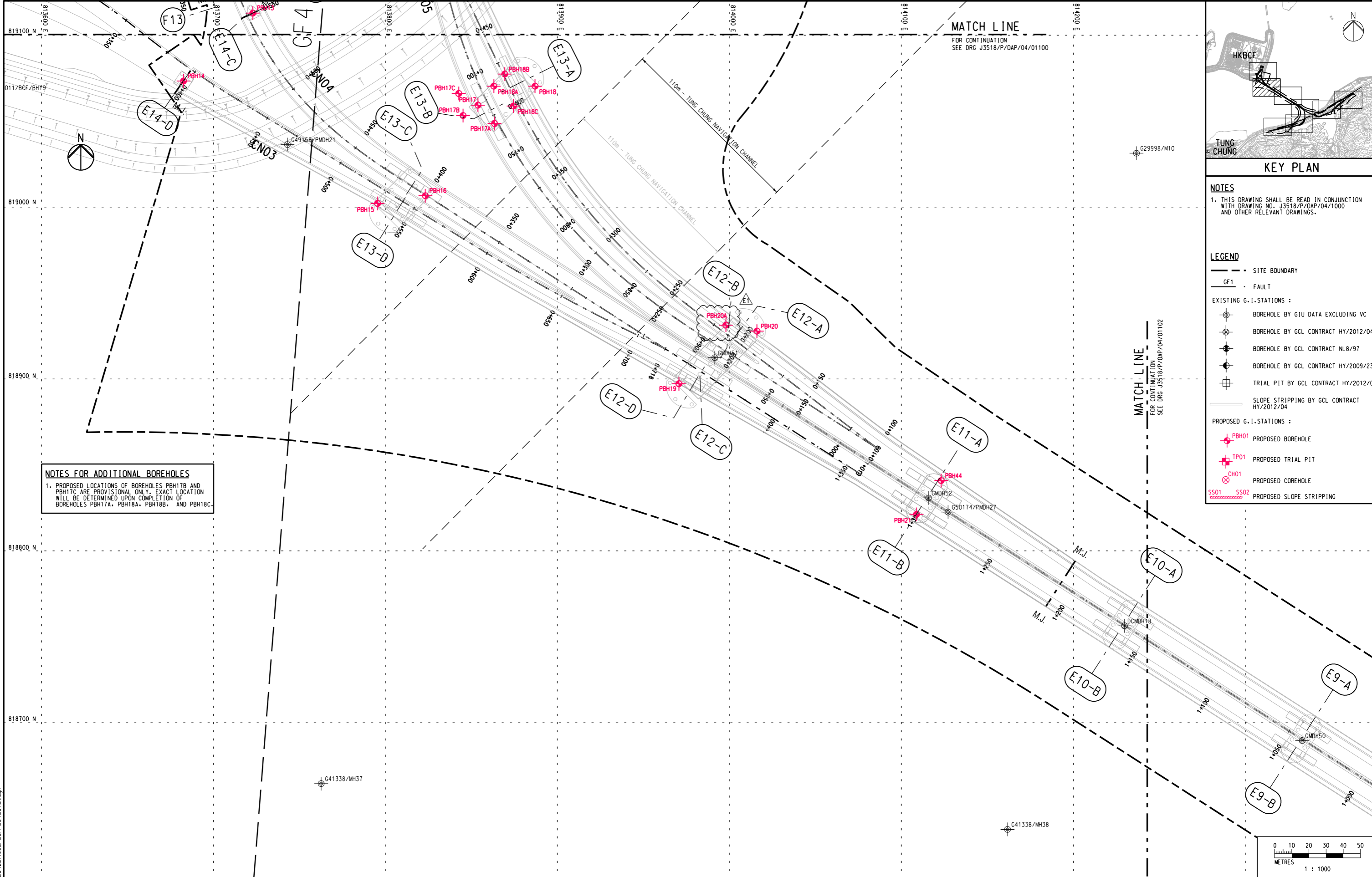
Contractor
Gammon

Drawing title
PROPOSED GROUND INVESTIGATION PLAN
(1)
Fig 1.4

Originator
ARUP

Drawing no. **J3518/P/OAP/04/01100** Rev. **C**

DO NOT SCALE DRAWING. CHECK ALL DIMENSIONS ON SITE.



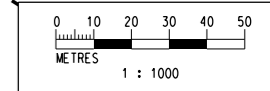
KEY PLAN

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

LEGEND

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

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.



Printed by : 05.11.13
 J:\231499\ARUP\GEO\231499_P_OAP_04_01101.dgn
 File name :

Rev	Description	By	Date	Rev	Description	By	Date	Drawn	Date
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B	SUBMISSION	RC	07/13					Checked	Approved
C	SUBMISSION	RC	09/13					DS	DOP
D	SUBMISSION	RC	10/13					Scale	
E1	FOR INTERNAL REVIEW	RC	11/13					1:1000 @ A1 / 1:2000 @ A3	

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

Supervising Officer
AECOM

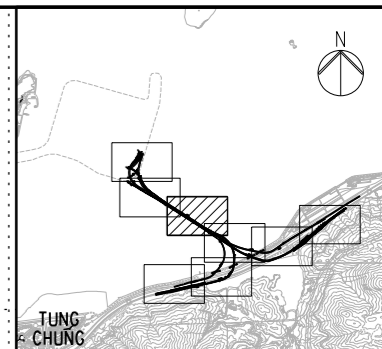
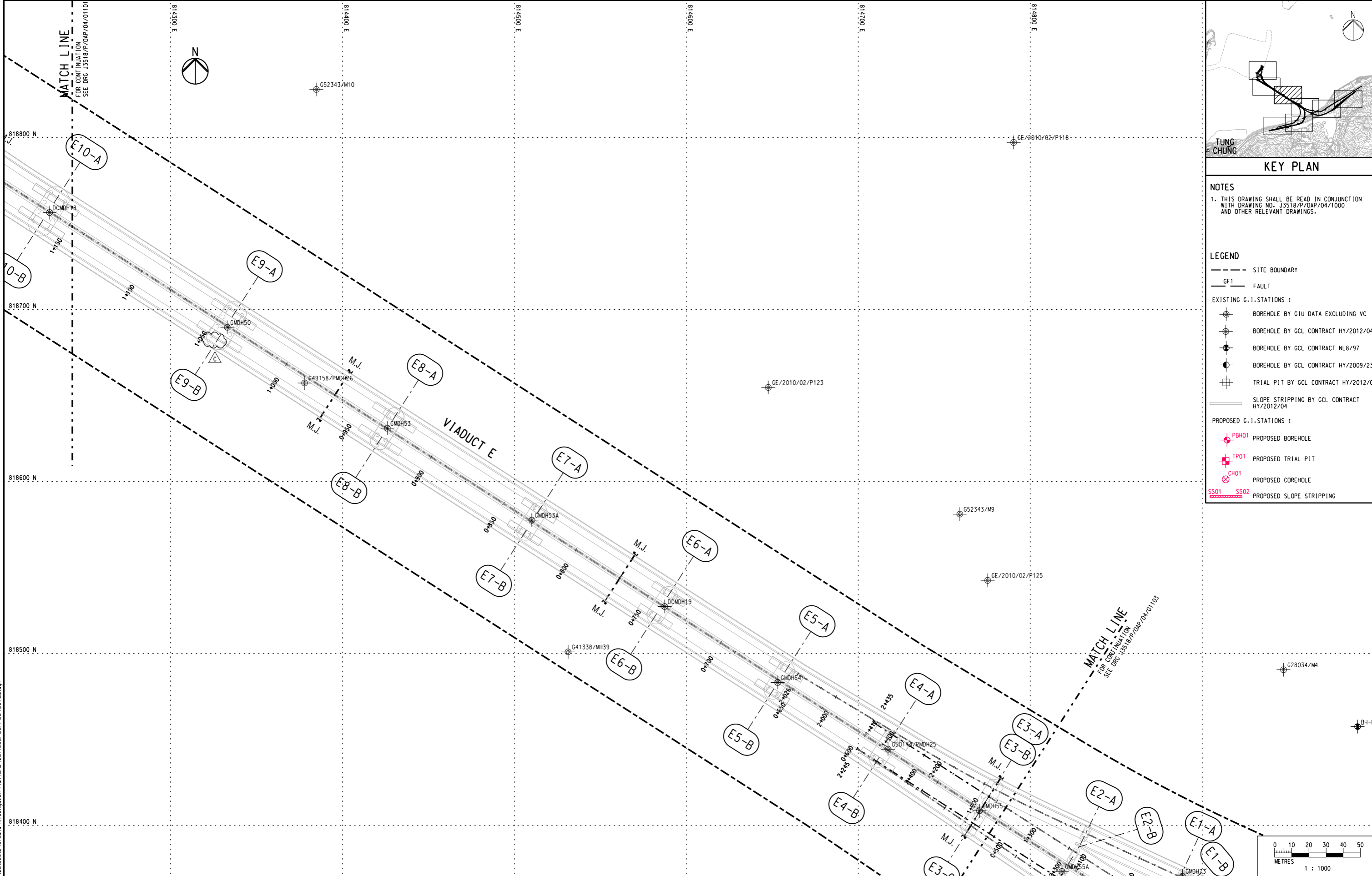
Project Title
Contract No. HY/2012/07
Tuen Mun - Chek Lap Kok Link
Southern Connection Viaduct Section

Contractor
Gammon

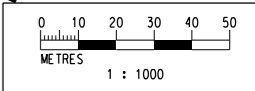
Originator
ARUP

Drawing title
PROPOSED GROUND INVESTIGATION PLAN (2)
Fig 1.5
 Drawing no. **J3518/P/OAP/04/01101** Rev. **E1**

DO NOT SCALE DRAWING. CHECK ALL DIMENSIONS ON SITE.



- NOTES**
- THIS DRAWING SHALL BE READ IN CONJUNCTION WITH DRAWING NO. J3518/P/OAP/04/1000 AND OTHER RELEVANT DRAWINGS.
- LEGEND**
- SITE BOUNDARY
 - GF1 FAULT
- EXISTING G.I. STATIONS :**
- ⊕ BOREHOLE BY GIU DATA EXCLUDING VC
 - ⊕ BOREHOLE BY GCL CONTRACT HY/2012/04
 - ⊕ BOREHOLE BY GCL CONTRACT NLB/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

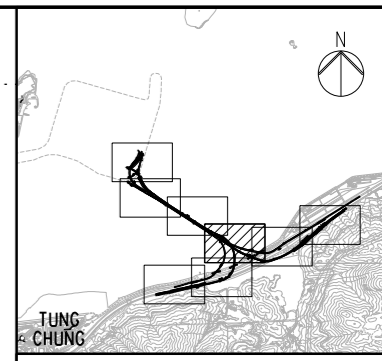
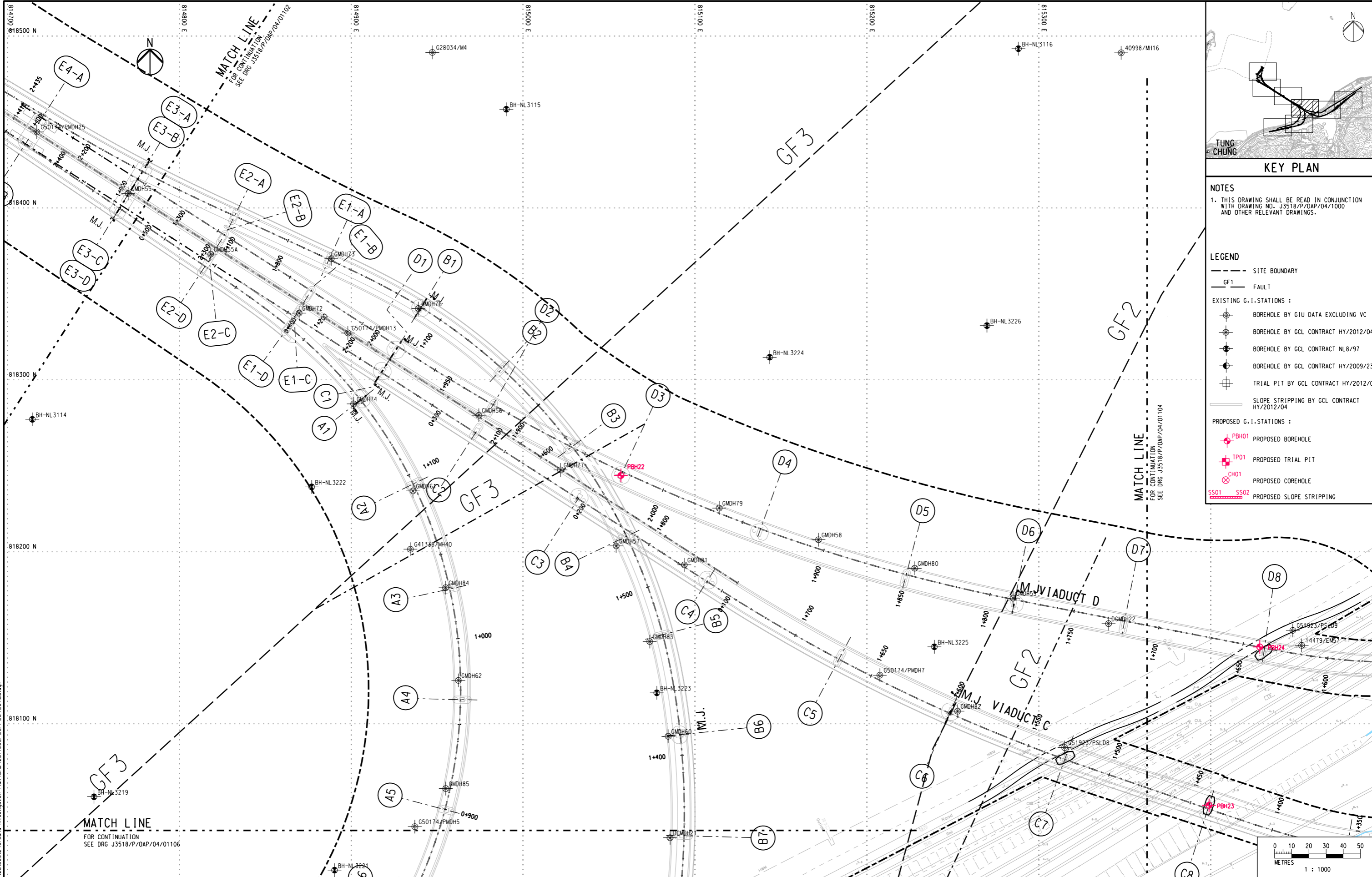


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 Filename : J:\231499\RECORD\20130912 Ground Investigation Plan\CAO\231499_P_OAP_04_01102.dgn

Rev	Description	By	Date	Rev	Description	By	Date	Drawn	Date	Client
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B	SUBMISSION	RC	07/13					Checked	Approved	
C	SUBMISSION	RC	09/13					DS	DOP	
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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			Drawing title PROPOSED GROUND INVESTIGATION PLAN (3) Fig 1.6 Drawing no. J3518/P/OAP/04/01102 Rev. C		

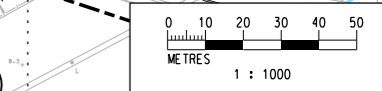
DO NOT SCALE DRAWING. CHECK ALL DIMENSIONS ON SITE.



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



Printed by : 13/9/2013
 Filename : J:\231499\RECORD\20130912\Ground Investigation Plan\CAO\231499_P_OAP_04_01103.dgn

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B	SUBMISSION	RC	07/13					Checked	Approved	
C	SUBMISSION	RC	09/13					DS	DOP	
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										Contractor
										Originator

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

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

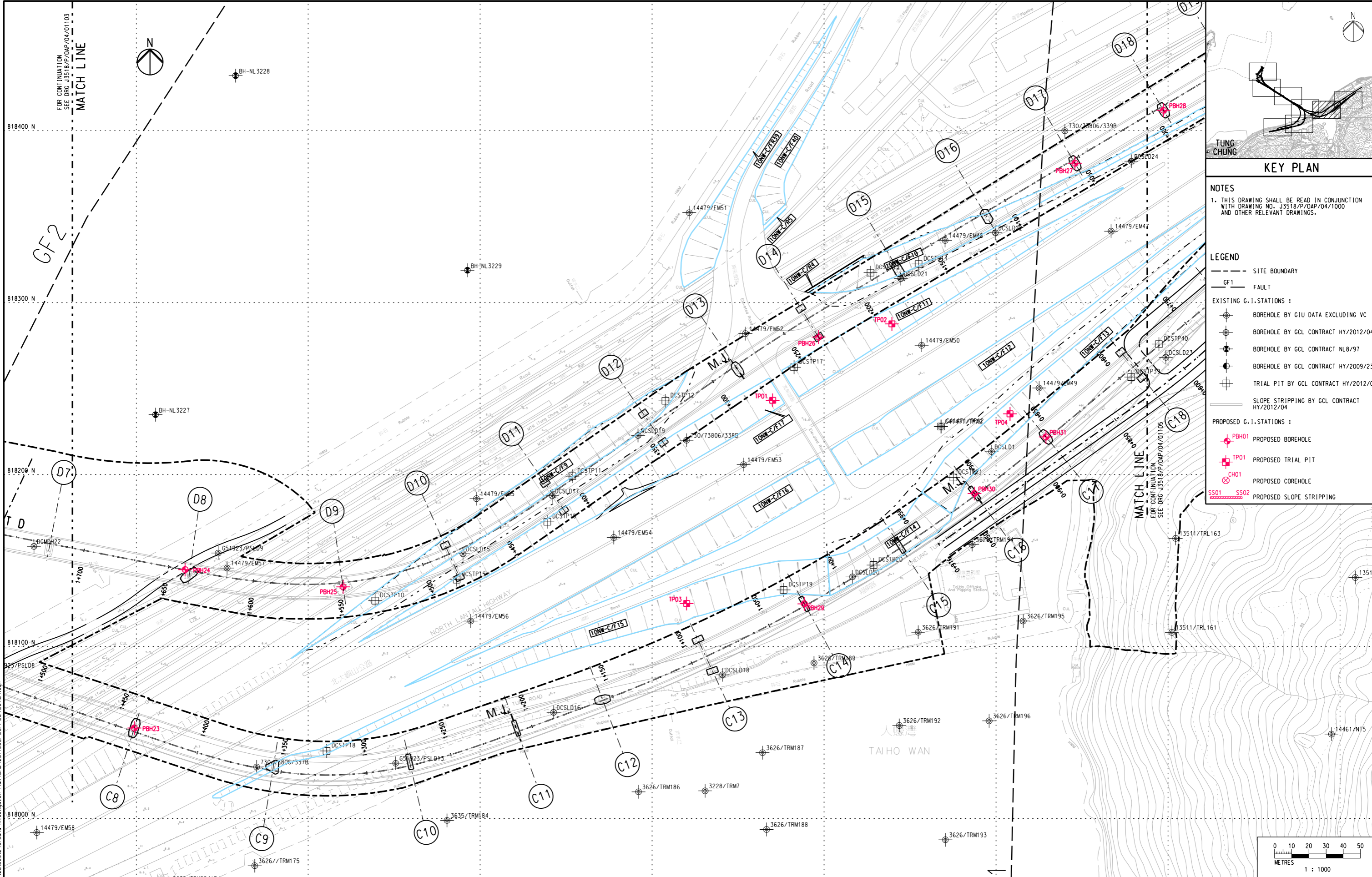
Drawing title
PROPOSED GROUND INVESTIGATION PLAN
(4)
Fig 1.7
 Drawing no. **J3518/P/OAP/04/01103** Rev. **C**

Supervising Officer
AECOM

Contractor
Gammon

Originator
ARUP

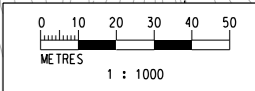
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KEY PLAN

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



Printed by : 12/9/2013
 Filename : J:\231499\RECORD\20130912\Ground Investigation Plan\CAOV231499_P_OAP_04_01104.dgn

Rev	Description	By	Date	Rev	Description	By	Date	Drawn	Date
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B	SUBMISSION	RC	07/13					Checked	Approved
C	SUBMISSION	RC	09/13					DS	DOP
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Client
 路政署
 HIGHWAYS DEPARTMENT
 港珠澳大橋香港工程管理局
 Hong Kong - Zhuhai - Macao Bridge
 Hong Kong Project Management Office

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

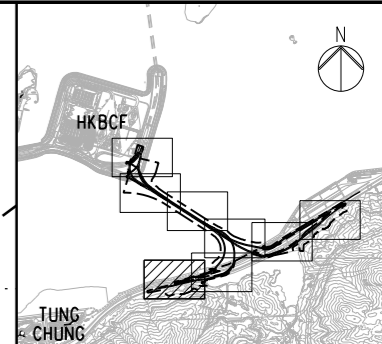
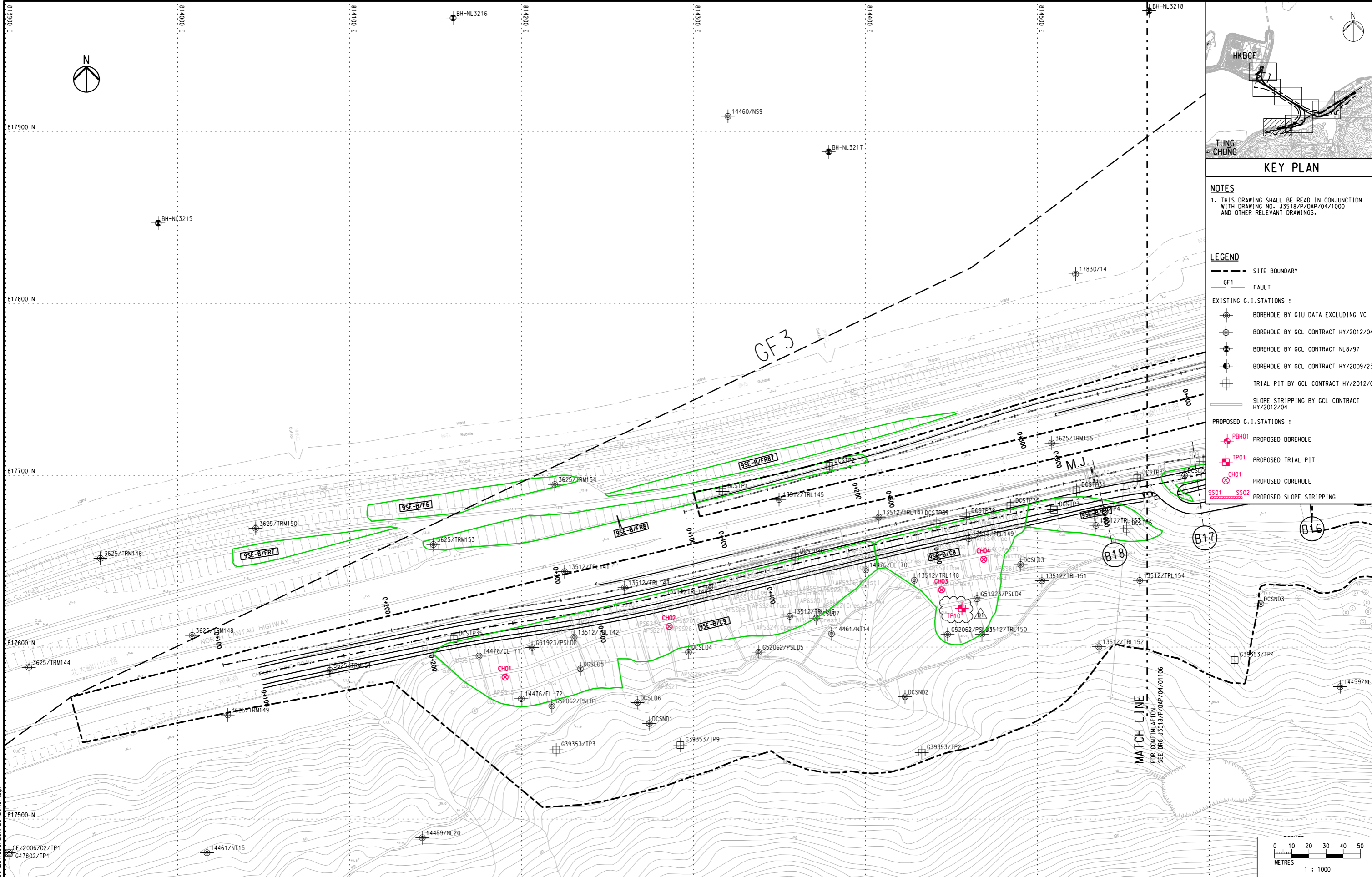
Drawing title
 PROPOSED GROUND INVESTIGATION PLAN
 (5)
 Fig 1.8
 Drawing no. J3518/P/OAP/04/01104
 Rev. C

Supervising Officer
AECOM

Contractor
Gammon

Originator
ARUP

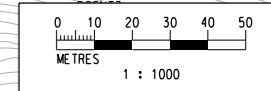
DO NOT SCALE DRAWING. CHECK ALL DIMENSIONS ON SITE.



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



Printed by : 07/11/2013
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B	SUBMISSION	RC	07/13					Checked	Approved
C	SUBMISSION	RC	09/13					DS	DOP
D1	FOR INTERNAL REVIEW	RC	11/13					Scale	
								1:1000 @ A1 / 1:2000 @ A3	

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

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

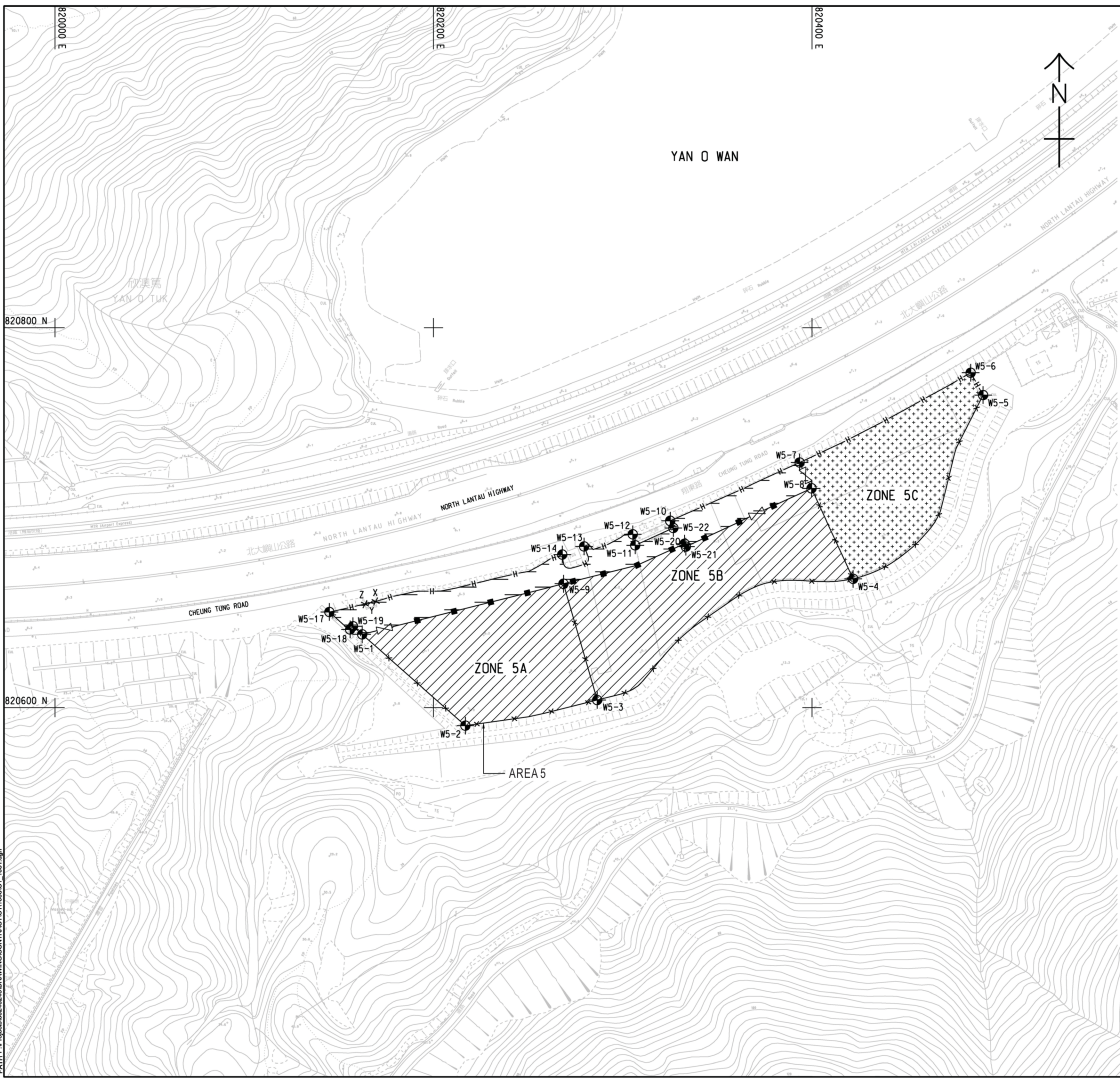
Drawing title
PROPOSED GROUND INVESTIGATION PLAN
(6)
Fig 1.9
 Drawing no. **J3518/P/OAP/04/01107** Rev. **D1**

Supervising Officer
AECOM

Contractor
Gammon

Originator
ARUP

Plot File by: L1UJ3 2012-10-24
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 Project Management Initials: Designer: PLCK Checked: SLYY Approved: CWN
 ISO A1 594mm x 841mm



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 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 SHARED AMONG THE CONTRACTS OF TM-CLKL RELATED CONTRACTS. THE AREAS HATCHED WITH [diagonal lines] ARE TENTATIVELY ALLOCATED FOR THE USE BY THIS CONTRACT.
12. THE COMMON AREA SHALL BE CONCRETE PAVED BY THE CONTRACTOR.

LEGEND:

- [diagonal lines] WORKS AREA UNDER THIS CONTRACT
- [cross-hatch] COMMON AREA (MAINTAINED UNDER THIS CONTRACT) TO BE SHARE-USED WITH OTHER CONTRACTS
- [stippled] WORKS AREA FOR THIS CONTRACT TO BE EARLY HANDED OVER BY THE CONTRACTOR.
- [H symbol] HOARDING AND GATE (TO BE ERECTED AND MAINTAINED UNDER THIS CONTRACT)
- [chain link symbol] CHAIN LINK FENCE AND GATE (TO BE ERECTED AND MAINTAINED BY OTHERS)
- [chain link symbol with X] CHAIN LINK FENCE AND GATE (TO BE ERECTED AND MAINTAINED UNDER THIS CONTRACT)

SETTING OUT COORDINATES OF AREA 5

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



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
 HONG KONG - ZHUIHAI - MAZAO BRIDGE
 港珠澳大橋香港港工務管理處
 Hong Kong - Zhuhai - Maao Bridge
 Hong Kong Project Management Office

CONSULTANT
 顧問公司
 AECOM Asia Company Ltd.
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SUB-CONSULTANTS
 分判工程師公司

Fig 1.10

ISSUE/REVISION

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

STATUS

SCALE 1:1000
DIMENSION UNIT METRES

KEY PLAN

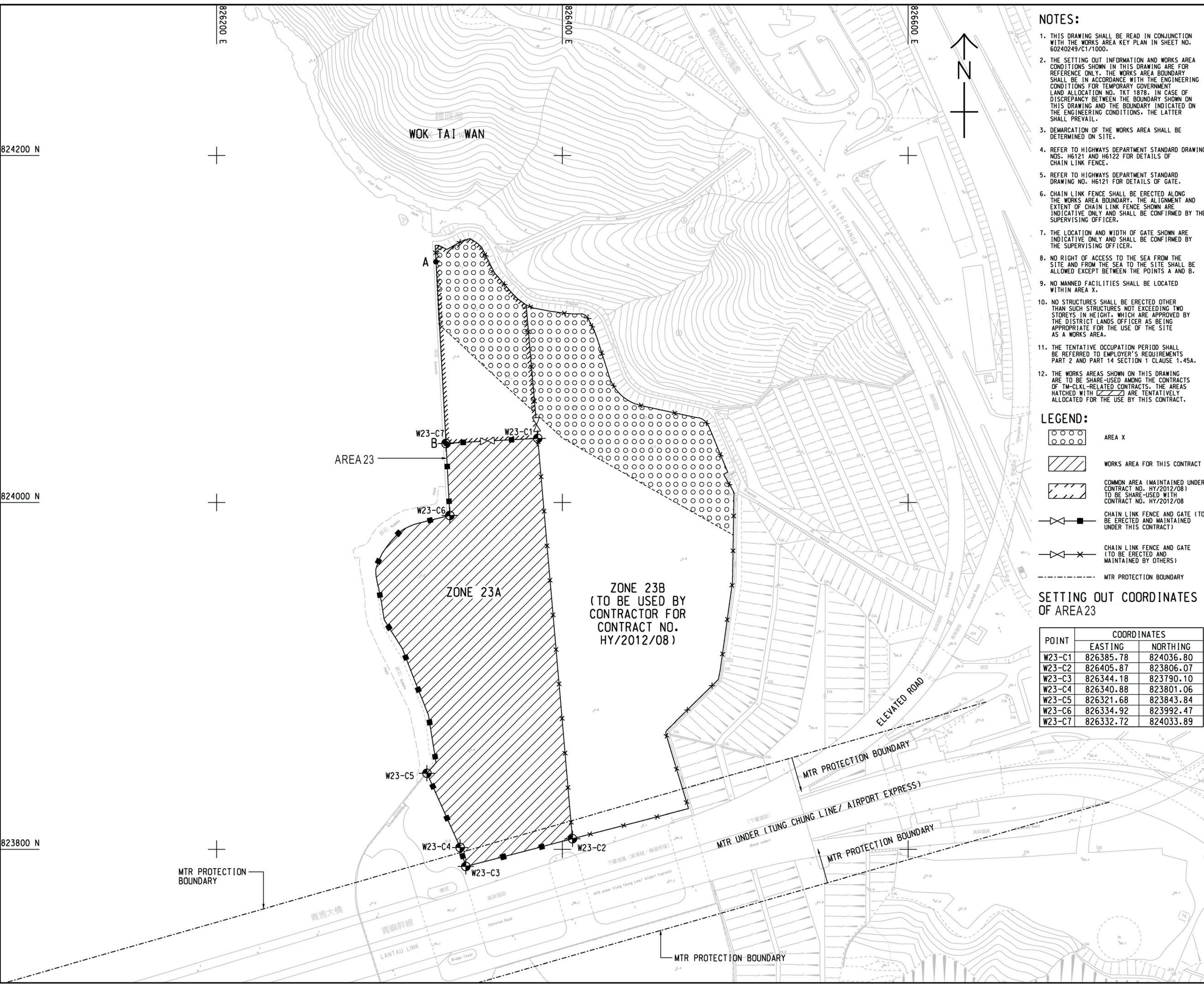
PROJECT NO. 60240249
CONTRACT NO. HY/2012/07

SHEET TITLE
 圖紙名稱
WORKS AREA AND HOARDING PLAN

SHEET NUMBER
 圖紙編號
 60240249/C1/1051

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



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-CKL-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 AREA 23

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

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
港務處大橋及港務工程管理處
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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SUB-CONSULTANTS
分判工程顧問公司

Fig 1.11

ISSUE/REVISION

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

STATUS
階段

SCALE
比例

A1 : 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 AND HOARDING PLAN

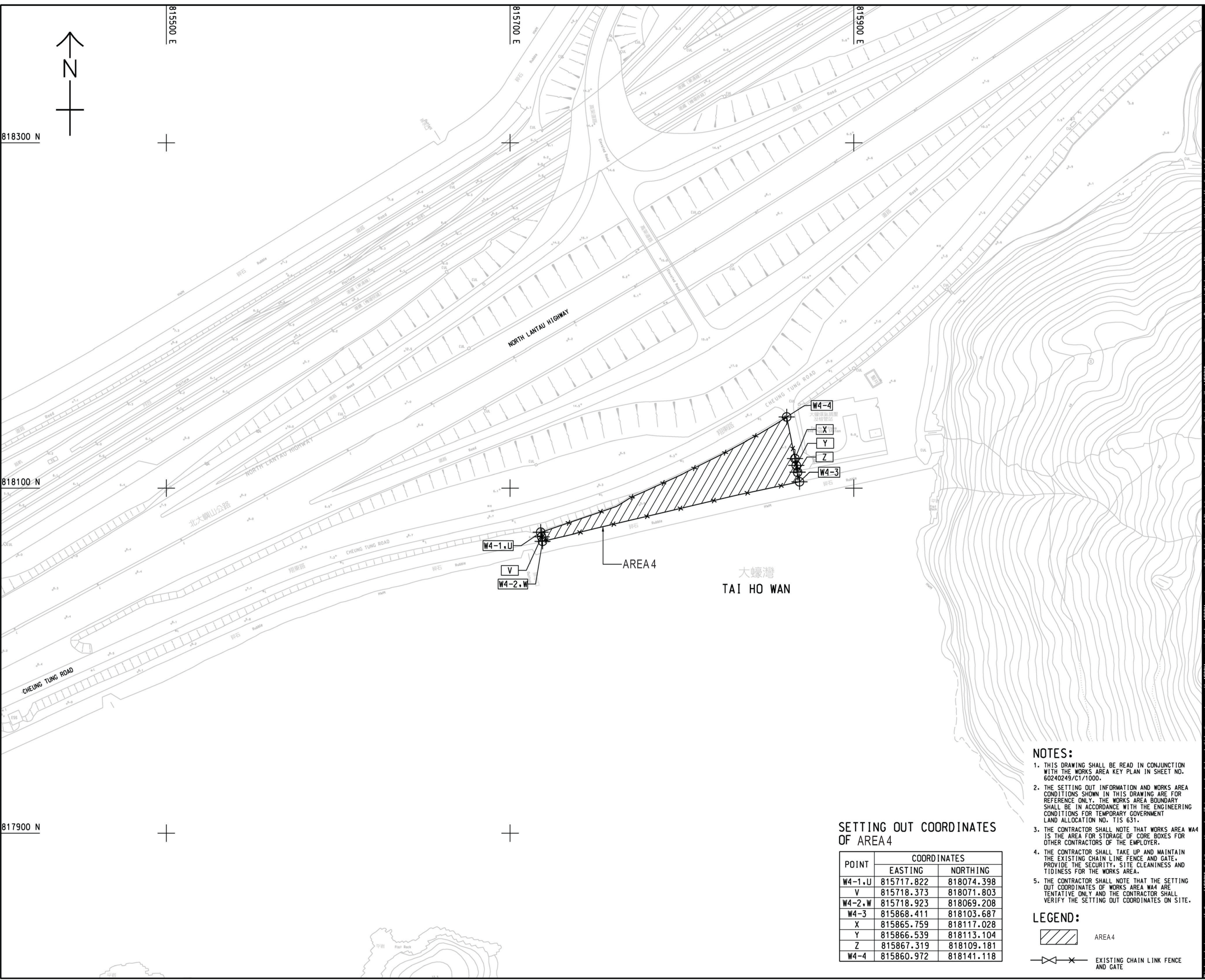
SHEET NUMBER
圖紙編號

60240249/C1/1052

SHEET 2 OF 2

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 ISO A1 594mm x 841mm
 C:\AECOM



SETTING OUT COORDINATES OF AREA 4

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

NOTES:

- THIS DRAWING SHALL BE READ IN CONJUNCTION WITH THE WORKS AREA KEY PLAN IN SHEET NO. 60240249/C1/1000.
- THE SETTING OUT INFORMATION AND WORKS AREA CONDITIONS SHOWN IN THIS DRAWING ARE FOR REFERENCE ONLY. THE WORKS AREA BOUNDARY SHALL BE IN ACCORDANCE WITH THE ENGINEERING CONDITIONS FOR TEMPORARY GOVERNMENT LAND ALLOCATION NO. T1S 631.
- THE CONTRACTOR SHALL NOTE THAT WORKS AREA W4 IS THE AREA FOR STORAGE OF CORE BOXES FOR OTHER CONTRACTORS OF THE EMPLOYER.
- THE CONTRACTOR SHALL TAKE UP AND MAINTAIN THE EXISTING CHAIN LINK FENCE AND GATE, PROVIDE THE SECURITY, SITE CLEANLINESS AND TIDINESS FOR THE WORKS AREA.
- THE CONTRACTOR SHALL NOTE THAT THE SETTING OUT COORDINATES OF WORKS AREA W4 ARE TENTATIVE ONLY AND THE CONTRACTOR SHALL VERIFY THE SETTING OUT COORDINATES ON SITE.

LEGEND:

- AREA 4
- EXISTING CHAIN LINK FENCE AND GATE



PROJECT
 TUEN MUN - CHEK LAP KOK LINK

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

CLIENT
 路政署
 HIGHWAYS DEPARTMENT
 港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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SUB-CONSULTANTS
 分判工程顧問公司

Fig 1.12

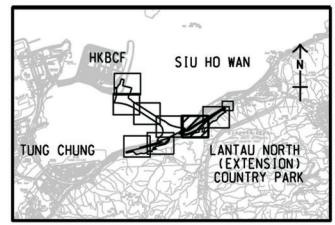
ISSUE/REVISION

I/R	DATE	DESCRIPTION	CHK.
-	NOV. 12	TENDER ADDENDUM NO. 1	CWY, CWN

STATUS
 階段

SCALE **DIMENSION UNIT**
 比例 尺寸單位
 A1 1 : 1000 METRES

KEY PLAN
 索引圖



PROJECT NO. **CONTRACT NO.**
 項目編號 合約編號
 60240249 HY/2012/07

SHEET TITLE
 圖紙名稱
 LOCATION OF AREA 4

SHEET NUMBER
 圖紙編號
 60240249/C1/1053

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Key

Air Sensitive Receiver

- Air Sensitive Receiver
- Noise Sensitive Receiver
- Water Sensitive Receiver
- ▲ Site of Special Scientific Interest (SSSI)
- Known Coral Communities
- Site Boundary

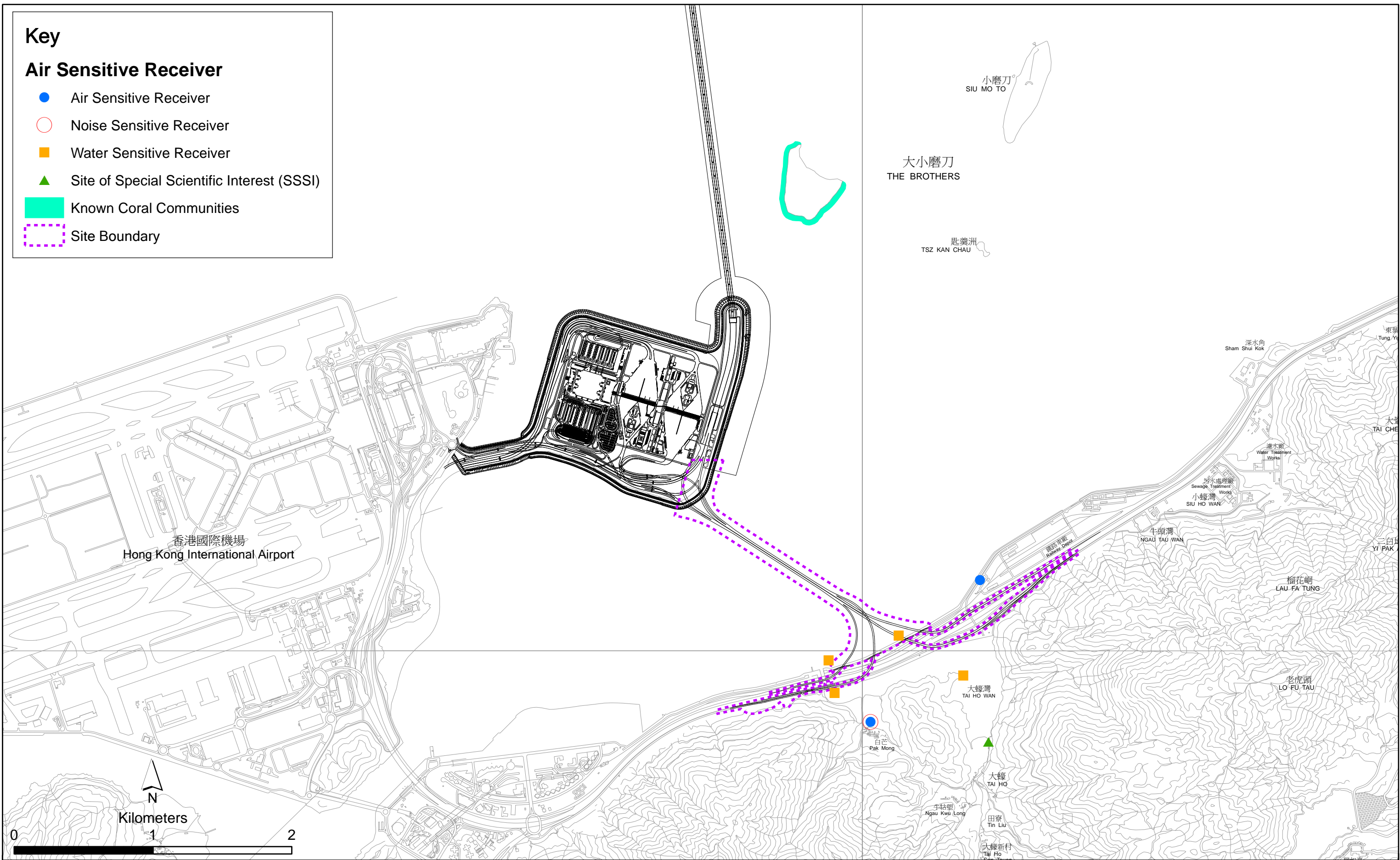


Figure 1.13

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

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Date: 11/4/2014

**Environmental
Resources
Management**



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

The baseline air quality monitoring undertaken by the Hong Kong – Zhuhai – Macao Bridge Hong Kong Projects (HKZMB) during October 2011 has included the two monitoring stations ASR9A and ASR9C for this project. Thus, the baseline monitoring results and Action/ Limit Level presented in HKZMB Baseline Monitoring Report ⁽¹⁾ are adopted for this Project.

⁽¹⁾ Agreement No. CE 35/2011 (EP) Baseline Environmental Monitoring for Hong Kong - Zhuhai - Macao Bridge Hong Kong Projects - Investigation. Baseline Environmental Monitoring Report (Version C). Submitted on 8 March 2012 and subsequently approved by EPD.

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 while the highest dust impact was expected. Impact 24-hour TSP monitoring was carried out once every six (6) days. The Action and Limit Level of the air quality monitoring is provided in *Appendix D*.

Air quality monitoring stations ASR9A and ASR9C in Siu Ho Wan MTRC Depot were the proposed locations in accordance with the Updated EM&A Manual. However, authorization of getting access into Siu Ho Wan MTRC Depot is still being sought for the impact monitoring of the EM&A programme for the captioned Contract. Air quality monitoring on 5 and 11 November 2013 was carried out just outside MTRC Depot at close proximity to the proposed locations, which was then temporarily relocated to the rooftop of Pak Mong Village Watch Tower (ASR 8) and Area 4 (ASR 8A) since 15 November 2013. A proposal for setting up alternative air quality monitoring stations at ASR8A (Area 4) and ASR8 (Rooftop of Pak Mong Village Watch Tower) was submitted on 13 November 2013 which was subsequently approved. Same baseline and Action Level for air quality, as derived from the baseline monitoring data recorded at Siu Ho Wan MTRC Depot, were adopted for these temporary air quality locations (*Figure 2.1; Table 2.1*).

Portable direct reading dust meters were used to carry out the 1-hour TSP monitoring on 5, 11 and 15 November 2013. High Volume Samplers (HVSs) were used for carrying out 1-hour TSP monitoring on 21 and 27 November 2013 and in subsequent months due to the change of monitoring locations from Siu Ho Wan MTR Depot to Pak Mong Village Watch Tower and Area 4 where more reliable power supply is available to power the HVS. 24-hour TSP air quality monitoring was performed using HVS located at each designated monitoring station. The HVS meets all requirements of the Updated EM&A Manual. Brand and model of the equipment is given in *Table 2.2*.

Wind data monitoring equipment was installed at fencing close to ASR9A (Siu Ho Wan MTRC Depot) since 5 November 2013. It was then installed at the rooftop of Pak Mong Village Watch Tower since 15 November 2013 for logging wind speed and wind direction. The wind sensor was setup at location clear of obstructions or turbulence caused by building. The wind data monitoring equipment is recalibrated at least once every six months.

Key

- Original Monitoring Station
- Alternative Monitoring Station
- Site Boundary

AQMS	X	Y
ASR9A	815847.40	818508.64
ASR9C	816399.52	818946.65
ASR8	815059.45	817488.99
ASR8A	815856.14	818118.14

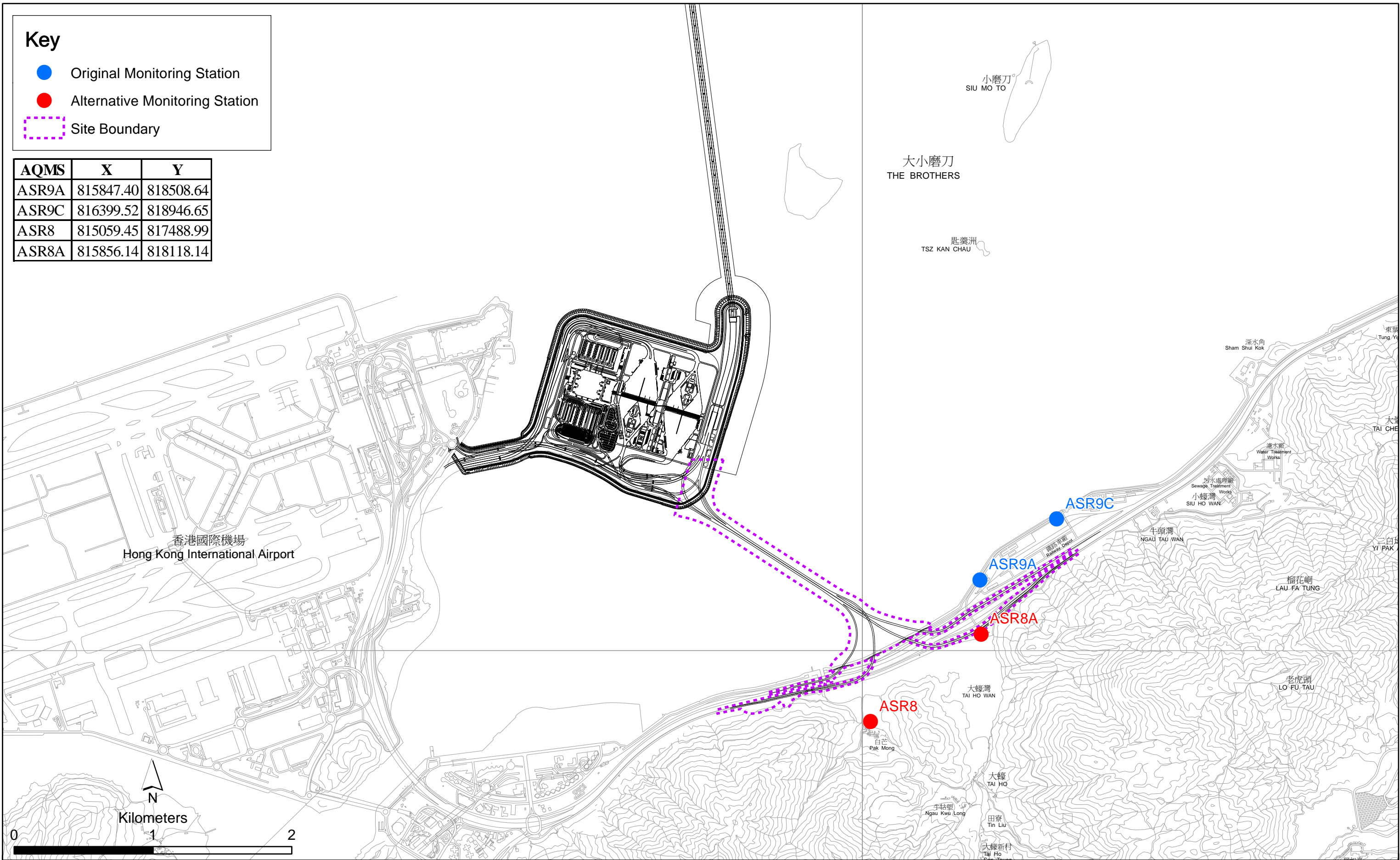


Figure 2.1

Locations of Air Quality Monitoring Stations

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Date: 6/12/2013

Remark: Air Quality Monitoring Stations ASR9A and ASR9C (Siu Ho Wan MTRC Depot) proposed in accordance with the Updated EM&A were temporarily relocated to ASR8A and ASR8, respectively.

**Environmental
Resources
Management**



Table 2.1 *Locations of Impact Air Quality Monitoring Stations and Monitoring Dates in this Reporting Period*

Monitoring Station	Monitoring Period	Location	Description	Parameters & Frequency
ASR9A ⁽¹⁾	5, 11 November 2013	Siu Ho Wan MTRC Depot	On ground near security office	<ul style="list-style-type: none"> 1-hour Total Suspended Particulates (1-hour TSP, $\mu\text{g}/\text{m}^3$), 3 times per day every 6 days
ASR9C ⁽¹⁾	5, 11 November 2013	Siu Ho Wan MTRC Depot	On ground near staff canteen	<ul style="list-style-type: none"> 24-hour Total Suspended Particulates (24-hour TSP, $\mu\text{g}/\text{m}^3$), daily for 24-hour every 6 days
ASR8A	15, 21, 27 November 2013; 3, 9, 13, 19, 24 & 30 December 2013; 3, 9, 15, 21, 27 & 30 January 2014; 5, 8, 12, 18, 24 & 28 February 2014	Area 4	On ground at the Area 4	
ASR8	15, 21, 27 November 2013; 3, 9, 13, 19, 24 & 30 December 2013; 3, 9, 15, 21, 27 & 30 January 2014; 5, 8, 12, 18, 24 & 28 February 2014	Pak Mong Village Watch Tower	Rooftop of the premise	

Notes:

- (1) Air Quality Monitoring Stations ASR9A and ASR9C at Siu Ho Wan MTRC Depot proposed in accordance with the Updated EM&A were temporarily relocated to ASR 8A and ASR8, respectively.

Table 2.2 *Air Quality Monitoring Equipment*

Equipment	Brand and Model
Portable direct reading dust meter (1-hour TSP)	Sibata Digital Dust Monitor (Model No. LD-3B)
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 WE550

2.1.2 Action & Limit Levels

The Action and Limit Levels of the air quality monitoring is provided in *Appendix D*. The Event and Action plan is presented in *Appendix K*.

2.1.3 *Monitoring Schedule for the Reporting Quarter*

The schedules for air quality monitoring in the reporting quarter is provided in *Appendix E*.

2.1.4 *Results and Observations*

The monitoring results for 1-hour TSP and 24-hour TSP are summarized in *Tables 2.3* and *2.4*, respectively. Monitoring results are presented graphically in *Appendix F* and detailed impact air quality monitoring data were reported in the *First to Fourth Monthly EM&A Report*.

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

Period	Station ⁽¹⁾	Average ($\mu\text{g}/\text{m}^3$)	Range ($\mu\text{g}/\text{m}^3$)	Action Level ($\mu\text{g}/\text{m}^3$)	Limit Level ($\mu\text{g}/\text{m}^3$)
November 2013 to	ASR 9A/ASR8A	122	42 - 306	394	500
February 2014	ASR9C/ASR8	133	42 - 361	393	500

Note:

- (1) Air Quality Monitoring Stations ASR9A and ASR9C were temporarily relocated to ASR 8A and ASR8, respectively, since 15 November 2013.

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

Period	Station ⁽¹⁾	Average ($\mu\text{g}/\text{m}^3$)	Range ($\mu\text{g}/\text{m}^3$)	Action Level ($\mu\text{g}/\text{m}^3$)	Limit Level ($\mu\text{g}/\text{m}^3$)
November 2013 to	ASR 9A/ASR8A	86	29 - 210	178	500
February 2014	ASR9C/ASR8	92	29 - 205	178	500

Note:

- (1) Air Quality Monitoring Stations ASR9A and ASR9C were temporarily relocated to ASR 8A and ASR8, respectively, since 15 November 2013.

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

In this reporting period, a total of twenty-three monitoring events were undertaken within the reporting period, in which two Action Level exceedances for 24-hr TSP for air quality were recorded in one monitoring event. Further explanation to the two Action Level exceedances is presented in *Section 2.10*.

Meteorological information collected at Pak Mong Village Watch Tower within the reporting period, including wind speed and wind direction, is provided in *Appendix G*.

2.2 *NOISE MONITORING*

The baseline noise monitoring undertaken by the Hong Kong - Zhuhai - Macao Bridge Hong Kong Projects (HKZMB) during the period of 18 October to 1 November 2011 has included the monitoring station NSR1 for this project.

Thus, the baseline monitoring results and Action/ Limit Level presented in HKZMB Baseline Monitoring Report ⁽¹⁾ are adopted for this Project.

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 at NSR1.

Monitoring location was set up at NSR 1 in accordance with the Updated EM&A Manual. *Figure 2.2* shows the location of the monitoring station. *Table 2.5* describes the details of the monitoring station.

Noise monitoring was performed using sound level meter at each designated monitoring station. The sound level meters deployed comply with the International Electrotechnical Commission Publications (IEC) 651:1979 (Type 1) and 804:1985 (Type 1) specifications. Acoustic calibrator was deployed to check the sound level meters at a known sound pressure level. Brand and model of the equipment is given in *Table 2.6*.

Table 2.5 *Location of Impact Noise Monitoring Station and Monitoring Dates in this Reporting Period*

Monitoring Station	Monitoring Period	Location	Parameters & Frequency
NSR 1	5, 11, 15, 21 & 27 November 2013; 3, 9, 13, 19, 24 & 30 December 2013; 3, 9, 15, 21, 27 & 30 January 2014; 5, 8, 12, 18, 24 & 28 February 2014	Pak Mong Village Watch Tower	<ul style="list-style-type: none"> 30-mins 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 a week

Table 2.6 *Noise Monitoring Equipment*

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

2.2.2 *Action and Limit Levels*

The Action and Limit Levels of the noise monitoring is provided in *Appendix D*. The Event and Action plan is presented in *Appendix K*.

2.2.3 *Monitoring Schedule for the Reporting Quarter*

The schedules for noise monitoring in the reporting quarter is provided in *Appendix E*.

⁽¹⁾ Agreement No. CE 35/2011 (EP) Baseline Environmental Monitoring for Hong Kong - Zhuhai - Macao Bridge Hong Kong Projects - Investigation. Baseline Environmental Monitoring Report (Version C). Submitted on 8 March 2012 and subsequently approved by EPD.

Key

- Noise Monitoring Station
- Site Boundary

NMS	X	Y
NSR1	815059.45	817488.99

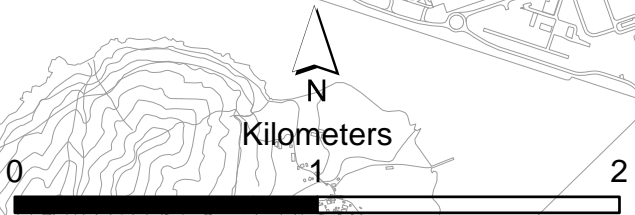
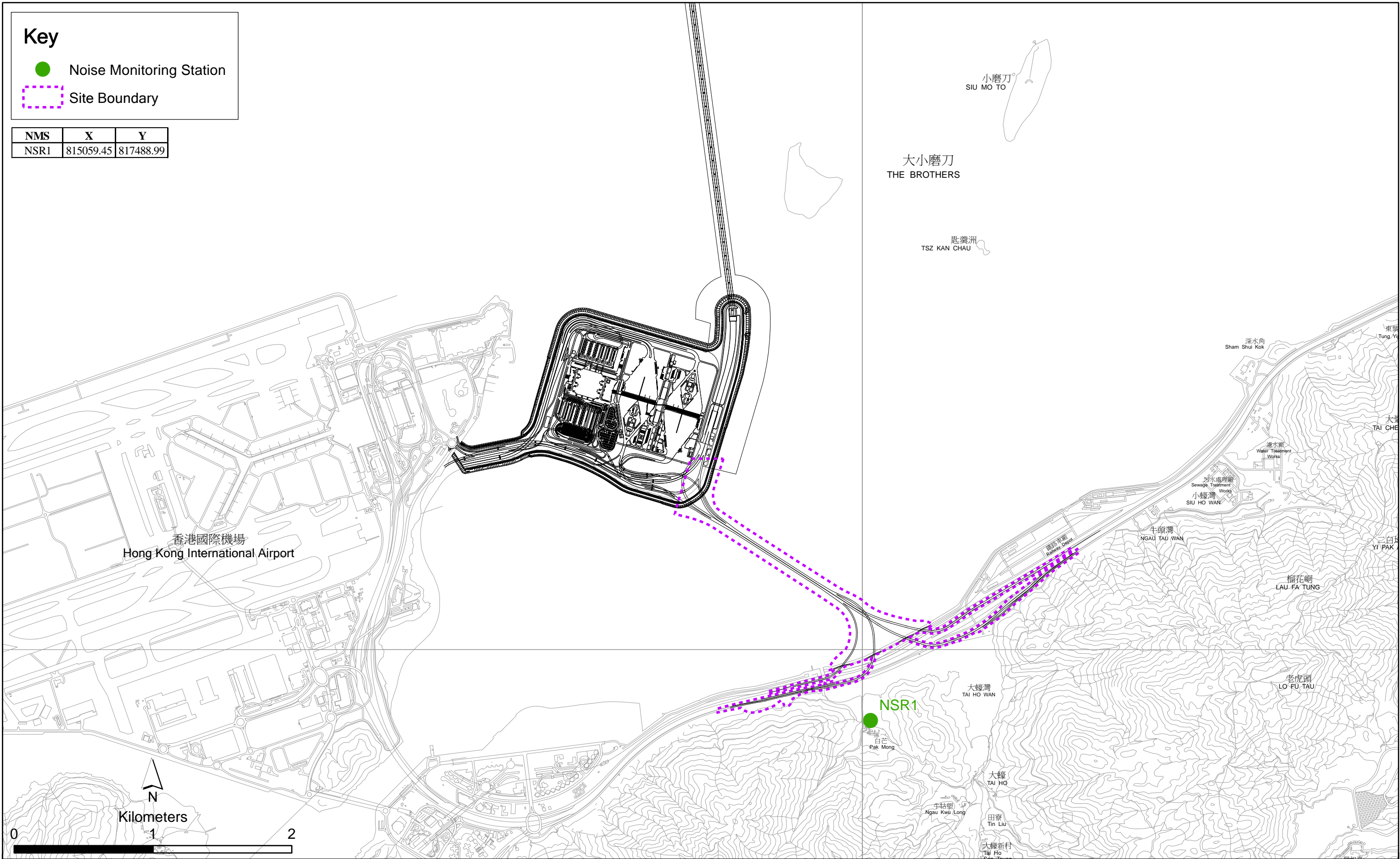


Figure 2.2

Locations of Noise Monitoring Stations

2.2.4 Results and Observations

The monitoring results for noise monitoring are summarized in *Table 2.7*. Monitoring results are presented graphically in *Appendix H* and detailed impact noise monitoring data are reported in the *First to Fourth Monthly EM&A Report*.

Table 2.7 *Summary of Construction Noise Monitoring Results at NSR1 in the Reporting Period*

Period	Average , dB(A),	Range, dB(A),	Limit Level, dB(A),
	L _{eq} (30mins)	L _{eq} (30mins)	L _{eq} (30mins)
November 2013 to February 2014	58	56 - 60	75

A total of twenty-three monitoring events were undertaken in the reporting period with no Action Level and Limit Level exceedance recorded at all monitoring stations in the reporting period. No action is thus required to be undertaken in accordance with the Event Action Plan presented in *Appendix K*.

Major noise sources during the noise monitoring included construction activities, nearby traffic noise and aircraft noise.

2.3 WATER QUALITY MONITORING

The baseline water quality monitoring undertaken by the Hong Kong – Zhuhai – Macao Bridge Hong Kong Projects (HKZMB) between 6 and 31 October 2011 has included all monitoring stations except SR4a for the Project. Thus, the baseline monitoring results except for station SR4a and Action/Limit Level presented in HKZMB Baseline Monitoring Report ⁽¹⁾ are adopted for this Project. Baseline water quality monitoring was conducted at station SR4a from 29 August to 24 September 2013.

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 at seven (7) water quality monitoring stations in accordance with the Updated EM&A Manual (*Figure 2.3; Table 2.8*).

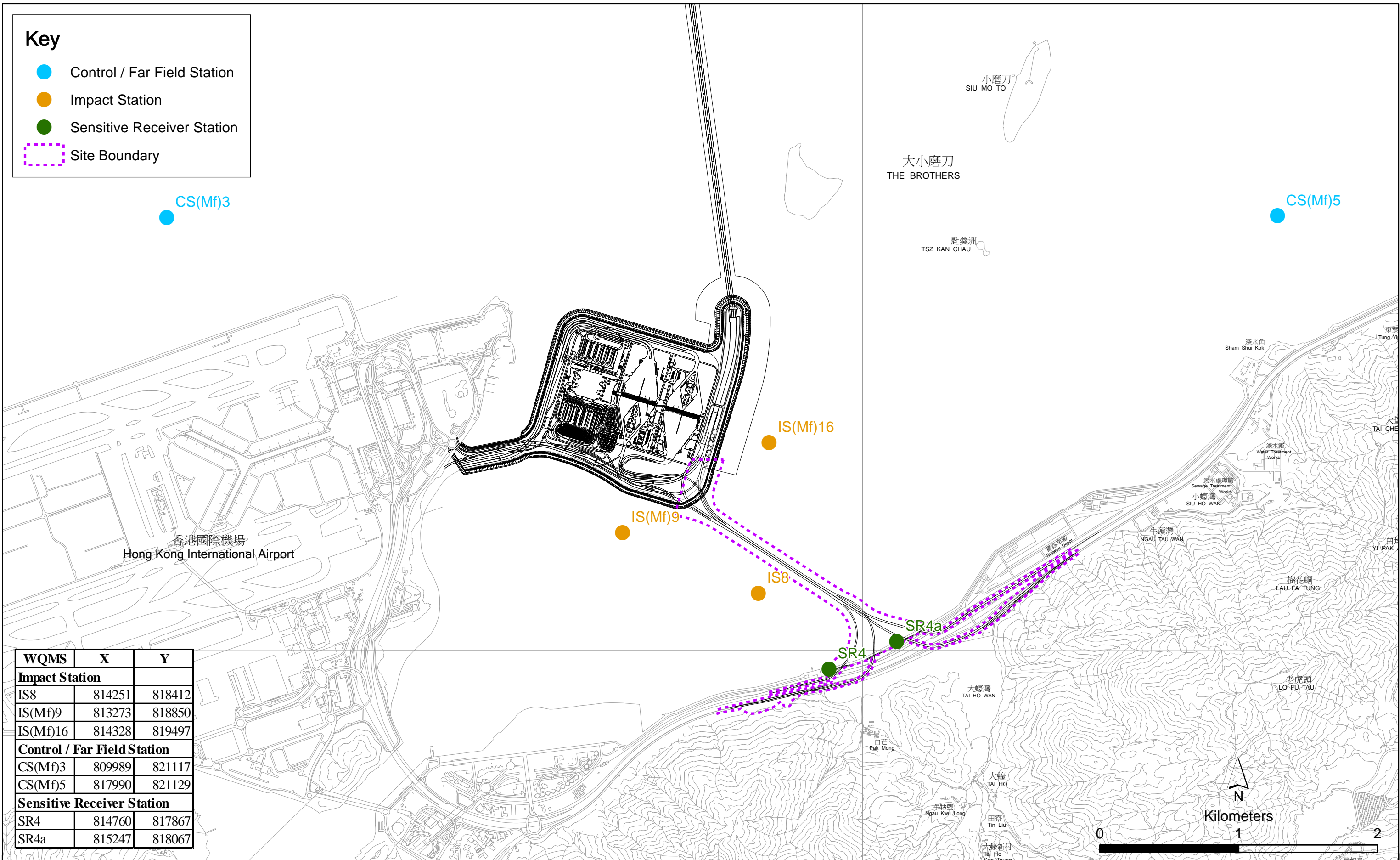
Table 2.8 *Locations of Water Quality Monitoring Stations and the Corresponding Monitoring Requirements*

Station ID	Type	Coordinates	*Parameters, unit	Depth	Frequency
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⁽¹⁾ Agreement No. CE 35/2011 (EP) Baseline Environmental Monitoring for Hong Kong - Zhuhai - Macao Bridge Hong Kong Projects - Investigation. Baseline Environmental Monitoring Report (Version C). Submitted on 8 March 2012 and subsequently approved by EPD.

Key

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



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

Figure 2.3

Locations of Water Quality Monitoring Stations

Station ID	Type	Coordinates		*Parameters, unit	Depth	Frequency
		Easting	Northing			
IS(Mf)9	Impact Station (Close to HKBCF construction site)	813273	818850	<ul style="list-style-type: none"> • Temperature(°C) • pH(pH unit) • Turbidity (NTU) • Water depth (m) • Salinity (ppt) 	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.	Impact monitoring: 3 days per week, at mid-flood and mid-ebb tides during the construction period of the Contract.
IS(Mf)16	Impact Station (Close to HKBCF construction site)	814328	819497	<ul style="list-style-type: none"> • DO (mg/L and % of saturation) • SS (mg/L) 		
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 summarizes the equipment used in the impact water quality monitoring programme.

Table 2.9 Water Quality Monitoring Equipment

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

2.3.2 *Action & Limit Levels*

The Action and Limit Levels of the water quality monitoring is provided in *Appendix D*.

2.3.3 *Monitoring Schedule for the Reporting Quarter*

The schedules for water quality monitoring in the reporting quarter are provided in *Appendix E*.

2.3.4 *Results and Observations*

Impact water quality monitoring was conducted at all designated monitoring stations in the reporting period. Monitoring results are presented graphically in *Appendix I* and detailed impact water quality monitoring results were reported in the *First to Fourth Monthly EM&A Report*.

In this reporting period, major marine construction works included marine piling platform installation, marine piling at Viaduct B and rockfill platform construction at Viaduct D landing. In a total of fifty-one monitoring events undertaken in the reporting quarter, one Action Level exceedance for depth-averaged SS was recorded in one monitoring event on 26 November 2013 which was not due to the construction works of this Contract. Further explanation to the Action Level exceedance is presented in *Section 2.10*.

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
-----------	-------

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

2.4.3 *Monitoring Parameter, Frequencies & 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.

Table 2.11 *Impact Dolphin Monitoring Line Transect Co-ordinates*

Line No.	Easting	Northing	Line No.	Easting	Northing		
1	Start Point	804671	814577	13	Start Point	816506	819480
1	End Point	804671	831404	13	End Point	816506	824859
2	Start Point	805475	815457	14	Start Point	817537	820220
2	End Point	805477	826654	14	End Point	817537	824613
3	Start Point	806464	819435	15	Start Point	818568	820735
3	End Point	806464	822911	15	End Point	818568	824433
4	Start Point	807518	819771	16	Start Point	819532	821420
4	End Point	807518	829230	16	End Point	819532	824209
5	Start Point	808504	820220	17	Start Point	820451	822125
5	End Point	808504	828602	17	End Point	820451	823671
6	Start Point	809490	820466	18	Start Point	821504	822371
6	End Point	809490	825352	18	End Point	821504	823761
7	Start Point	810499	820690	19	Start Point	822513	823268
7	End Point	810499	824613	19	End Point	822513	824321
8	Start Point	811508	820847	20	Start Point	823477	823402
8	End Point	811508	824254	20	End Point	823477	824613
9	Start Point	812516	820892	21	Start Point	805476	827081

Line No.		Easting	Northing	Line No.		Easting	Northing
9	End Point	812516	824254	21	End Point	805476	830562
10	Start Point	813525	820872	22	Start Point	806464	824033
10	End Point	813525	824657	22	End Point	806464	829598
11	Start Point	814556	818449	23	Start Point	814559	821739
11	End Point	814556	820992	23	End Point	814559	824768
12	Start Point	815542	818807				
12	End Point	815542	824882				

2.4.5 *Action & Limit Levels*

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

2.4.6 *Monitoring Schedule for the Reporting Period*

The dolphin monitoring schedules for the reporting period are shown in *Appendix E*.

2.4.7 *Results & Observations*

A total of 1137.92 km of survey effort was collected, with 95.0% of the total survey effort being conducted under favourable weather conditions (i.e. Beaufort Sea State 3 or below with good visibility) in this reporting quarter. Among the two areas, 428.91 km and 709.01 km of survey effort were collected from NEL and NWL survey areas respectively. The total survey effort conducted on primary and secondary lines were 852.63 km and 285.29 km, respectively. The survey efforts are summarized in *Appendix J*.

A total of 59 groups of 249 Chinese White Dolphin sightings were recorded during the two sets of surveys in this reporting quarter. All except four sightings were made during on-effort search. Fifty on-effort sightings were made on primary lines, while five other on-effort sightings were made on secondary lines. During this reporting quarter, only three groups of 16 dolphins were sighted in NEL, while the other 56 groups of 233 dolphins were sighted in NWL.

For the detailed comparison of dolphin occurrence and usage of NEL and NWL survey area between the impact phase and baseline phase monitoring, only the quarterly data of December 2013 – February 2014 from the impact phase monitoring was used in the present report to tally with the three-month period of baseline monitoring (September-November 2011).

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 with good visibility) in the reporting quarter with the results presented in *Tables 2.12* and *2.13*.

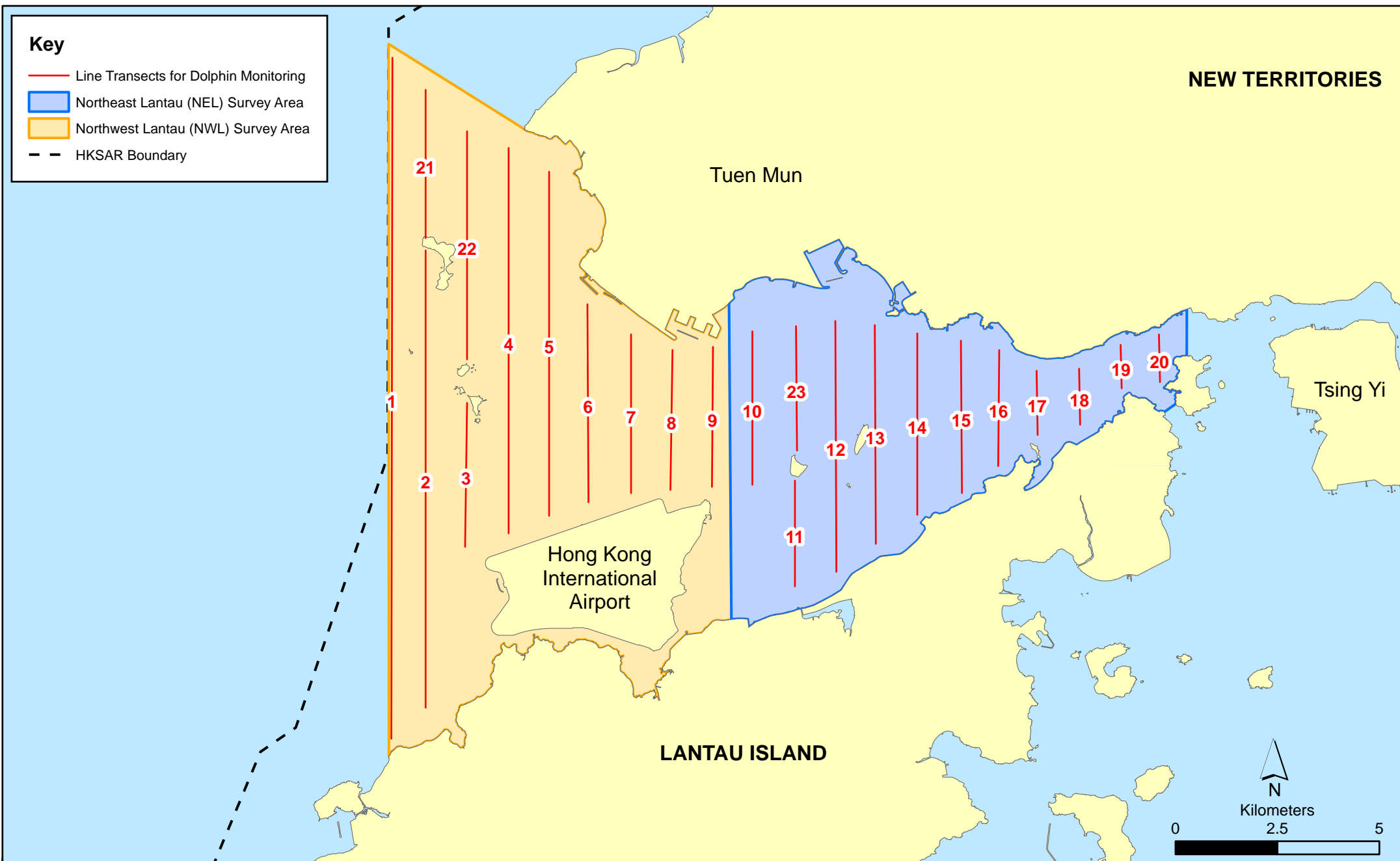


Figure 2.4

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

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: Dec 5 th / 9 th	2.68	8.05
	Set 2: Dec 13 th / 19 th	0.0	0.0
	Set 3: Jan 7 th / 9 th	0.0	0.0
	Set 4: Jan 21 st / 23 rd	0.0	0.0
	Set 5: Feb 6 th / 12 th	0.0	0.0
	Set 6: Feb 14 th / 20 th	0.0	0.0
NWL	Set 1: Dec 5 th / 9 th	6.95	30.57
	Set 2: Dec 13 th / 19 th	6.82	27.27
	Set 3: Jan 7 th / 9 th	10.00	39.99
	Set 4: Jan 21 st / 23 rd	11.84	50.33
	Set 5: Feb 6 th / 12 th	7.44	17.86
	Set 2: Feb 14 th / 20 th	6.20	29.47

Note: Dolphin Encounter Rates are deduced from the Two Sets of Surveys (Two Surveys in Each Set) in the reporting quarter in Northeast (NEL) and Northwest Lantau (NWL)

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)	
	December 2013 - February 2014	September 2011 - November 2011	December 2013 - February 2014	September 2011 - November 2011
	Northeast Lantau	0.45 ± 1.10	6.00 ± 5.05	1.34 ± 3.29
Northwest Lantau	8.21 ± 2.21	9.85 ± 5.85	32.58 ± 11.21	44.66 ± 29.85

Note: Encounter rates deduced from the baseline monitoring period have been recalculated based only on survey effort and on-effort sighting data made along the primary transect lines under favourable conditions.

Group size of Chinese White Dolphins ranged from 1-12 individuals per group in North Lantau region during December 2013 to February 2014. The average dolphin group sizes from these three months were compared with the ones deduced from the baseline period in September to November 2011, as shown in Table 2.14.

Table 2.14 Average Dolphin Group Size

	Average Dolphin Group Size	
	December 2013 - February 2014	September 2011 - November 2011
Overall	0.45 ± 1.10	6.00 ± 5.05
Northeast Lantau	8.21 ± 2.21	9.85 ± 5.85

Northwest Lantau	0.45 ± 1.10	6.00 ± 5.05
------------------	-------------	-------------

During this month of dolphin monitoring, no unacceptable impact from the construction activities of this Contract was recorded from the general observations.

Although the dolphins infrequently occurred along the alignment of TMCLKL southern connection viaduct section in the past and during the baseline monitoring period, it is apparent that dolphin usage has been significantly reduced in NEL.

It is critical to monitor the dolphin usage in North Lantau region in the upcoming quarters to determine whether the dolphins are continuously affected by the various construction activities in relation to the HZMB-related works, and whether suitable mitigation measure can be applied to revert the situation.

2.4.8 *Marine Mammal Exclusion Zone Monitoring*

Daily 250 m marine mammal exclusion zone monitoring was undertaken under this Contract. One sighting of the Indo-Pacific humpback dolphin *Sousa chinensis* within the 250 m marine mammal exclusion zone of the landing platform workfront at TAB D was recorded on 23 January 2014 by the marine mammal observer during the daylight hours. The marine construction work was subsequently suspended. The *Dolphin Intrusion Report* is presented in the *Appendix K* of the *Third Monthly EM&A Report*.

2.5 *BORED PILING MONITORING*

Baseline bored piling monitoring, including land-based theodolite tracking, underwater noise monitoring and acoustic behavioural monitoring, were undertaken from September to October 2013 by qualified dolphin specialist. Detailed baseline monitoring results and Action/ Limit Level are presented in the *Baseline Monitoring Report* ⁽¹⁾ under this Contract.

Since marine bored piling was not carried out in the reporting quarter, no marine bored piling monitoring was being undertaken.

2.6 *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. Seventeen (17) site inspections were carried out in the reporting quarter on 6, 13, 20, 27 November 2013; 4, 11, 18, 27 December 2013; 2, 9, 15, 22, 29 January 2014 and 7, 12, 20, 26 February 2014.

⁽¹⁾ Agreement No. CE 48/2011 (EP) *Baseline Environmental Monitoring for Tuen Mun-Chek Lap Kok Link Southern Connection Viaduct Section*. Baseline Environmental Monitoring Report. Submitted on 19 February 2014 and subsequently approved by EPD.

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

Table 2.15 *Specific Observations Identified during the Weekly Site Inspection in this Reporting Period*

Inspection Date	Aspects	Environmental observations	Recommendations/ Remarks
6, 13, 20, 27 November 2013; 4, 11, 18, 27 December 2013; 2, 9, 15, 22, 29 January 2014; 7, 12, 20, 26 February 2014	Air Quality	<ul style="list-style-type: none"> Dust suppression measures should be implemented more frequently in Area 5. Dust emission from generator in works site. 	<ul style="list-style-type: none"> Dust suppression measures should be implemented more frequently in Area 5. Dust emission from generator in works site.
	Water Quality	<ul style="list-style-type: none"> Part of the floatation unit in one of the silt curtains was not properly maintained. More sandbags should be put around any gullies nearby to avoid excavated mud from construction site from running into it directly. 	<ul style="list-style-type: none"> Part of the floatation unit in one of the silt curtains was not properly maintained. More sandbags should be put around any gullies nearby to avoid excavated mud from construction site from running into it directly.
	Noise	<ul style="list-style-type: none"> No adverse observation was identified in the reporting period. 	—
	Marine Ecology	<ul style="list-style-type: none"> Daily 250 m marine mammal exclusion zone monitoring was implemented under this Contract. The first quarterly Coral Post-Translocation Monitoring was conducted on 17 January 2014 and the results were provided in the <i>First Quarterly Post-Translocation Coral Monitoring Report</i>. Acoustic decoupling measures and marine vessel control for dredging works were implemented. 	—
	Chemical and waste management	<ul style="list-style-type: none"> Drip tray stopper was found missing for the generator in Area 5. Floating debris and trash were observed within the silt curtain. Stagnant water was found accumulated in the drip tray. Stockpiles were not covered properly by tarpaulin sheet. Sandy excavated materials were observed in the ditch next to the trial pits. 	<ul style="list-style-type: none"> The Contractor should provide stoppers to all drip trays in use. The Contractor should clear any floating debris and trash found within the silt curtain. The Contractor should regularly clear any stagnant water accumulated in the drip tray. Stockpiles should be covered properly by tarpaulin sheet. Appropriate measures should be done to prevent sandy excavated materials from entering into any gullies or ditch nearby.

Landscape and visual impact	<ul style="list-style-type: none"> The existing tree within the Project Area was observed to be part of the fencing structure. 	<ul style="list-style-type: none"> No trees within the Project Area should be served as a part of the fencing structure.
Miscellaneous	<ul style="list-style-type: none"> The Environmental Permit should be displayed conspicuously in the site entrance. 	<ul style="list-style-type: none"> The Environmental Permit should be displayed conspicuously in the site entrance.

2.7 WASTE MANAGEMENT STATUS

The Contractor had 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), imported fill and recyclable materials. Reference has been made to the waste flow table prepared by the Contractor (*Appendix L*). The quantities of different types of wastes are summarized in *Table 2.16*.

Table 2.16 Quantities of Different Waste Generated in the Reporting Period

Month/Year	Inert Construction Waste ^(a) (m ³)	Imported Fill (m ³)	Inert Construction Waste Re-used (m ³)	Non-inert Construction Waste ^(b) (tonnes)	Recyclable Materials ^(c) (kg)	Chemical Wastes (kg)	Marine Sediment (m ³)	
							Category L	Category M
November 2013	277	0	240	22.05	0	0	0	0
December 2013	114	0	20	28.04	19	0	0	0
January 2014	138	0	108	22.38	10,240	0	0	0
February 2014	2,901	2,766	124	10.67	780	0	0	0
Total	3,430	2,766	492	83.14	11,039	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 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.

2.8 *ENVIRONMENTAL LICENSES AND PERMITS*

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

Table 2.17 Summary of Environmental Licensing and Permit Status

License/Permit	License or Permit No.	Date of Issue	Date of Expiry	License/Permit Holder	Remarks
Environmental Permit	EP-354/2009/A	8 Dec 2010	NA	HyD	Tuen Mun- Chek Lap Kok Link
Environmental Permit	EP-354/2009/B	28 Jan 2014	NA	HyD	Tuen Mun- Chek Lap Kok Link
Construction Dust Notification	361571	5 Jul 2013	NA	GCL	-
Construction Dust Notification	362093	17 Jul 2013	NA	GCL	for Area 23
Billing Account for Disposal	7017735	10 Jul 2013	End of Project	GCL	-
Chemical Waste Registration	5213-961-G2380-13	10 Oct 2013	NA	GCL	Chemical waste produced in Contract HY/2012/07
Chemical Waste Registration	5213-961-G2380-14	10 Oct 2013	NA	GCL	Chemical waste produced in Contract HY/2012/07
Chemical Waste Registration	5213-974-G2588-03	4 Nov 2013	NA	GCL	Chemical waste produced in Contract HY/2012/07
Construction Waste Disposal Account	7017735	10 Jul 2013	NA	GCL	Waste disposal in Contract HY/2012/07
Waste Water Discharge License	Nil	Application Ref. 368337	NA	GCL	Discharge for discharge points for Viaduct A & B
Construction Noise Permit	Nil	Application in process	NA	GCL	For Piling Works
Construction Noise Permit	GW-RW0660-13	27 Sep 2013	02 Feb 2014	GCL	For night works and works in general holidays
Construction Noise Permit	GW-RS1129-13	31 Oct 2013	30 Apr 2014	GCL	For night works and works in general holidays
Construction Noise Permit	GW-RS1186-13	23 Oct 2013	24 Dec 2013	GCL	For night works and works in general

License/ Permit	License or Permit No.	Date of Issue	Date of Expiry	License/ Permit Holder	Remarks
					holidays
Construction Noise Permit	GW-RS1187-13	24 Oct 2013	28 Feb 2014	GCL	For night
Construction Noise Permit	GW-RW0925-13	19 Dec 2013	17 Apr 2014	GCL	Renewal of WA5 site office erection
Construction Noise Permit	GW-RS1423-13	11 Dec 2013	30 Apr 2014	GCL	Renewal for marine portion
Construction Noise Permit	GW-RS1413-13	17 Dec 2013	26 Mar 2014	GCL	For loading and unloading on NLH near viaduct A & B
Construction Noise Permit	GW-RS0034-14	14 Jan 2014	29 Mar 2014	GCL	For night works and works in general holiday
Construction Noise Permit	GW-RW0123-14	27 Feb 2014	27 Aug 2014	GCL	For night works and works in general holiday
Dumping Permit/ Loading Permit (Type 1 - Open Sea Disposal)	(4) in EP/MD/14-075	25 Sep 2013	NA	GCL	-
Marine Dumping Permit	EP/MD/14-075	28 January 2014	27 July 2014	GCL	-
Note: HyD - Highway Department; GCL - Gammon Construction Department					

2.9 IMPLEMENTATION STATUS OF ENVIRONMENTAL MITIGATION MEASURES

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

2.10 SUMMARY OF EXCEEDANCES OF THE ENVIRONMENTAL QUALITY PERFORMANCE LIMIT

For air quality monitoring, a total of twenty-three monitoring events were undertaken and two Action Level exceedances were recorded in one monitoring event (*Table 2.18*). Upon further investigation, the recorded exceedances in air quality monitoring were considered to be sporadic events of cumulative anthropogenic activities in this area of Hong Kong and the construction works under this Contract were unlikely the major cause of the recorded exceedances.

For noise monitoring, a total of twenty-three monitoring events were undertaken in the reporting quarter and no exceedance of Action and Limit Levels were recorded.

For water quality monitoring, a total of fifty-one monitoring events were undertaken and one Action Level exceedance on depth-averaged Suspended Solids (SS) was recorded (*Table 2.19*). Upon further investigation, no marine works were being carried out during the mid-ebb tide when exceedance was detected, suggesting that the Action Level exceedance was not due to the construction works of this Contract.

In addition, the construction impact on depth-averaged SS was assessed to compare the quarterly mean values of depth-averaged SS with the relevant ambient mean value. Results showed that the quarterly mean values of depth-averaged SS are well below the ambient mean values (*Table 2.20*). Cumulative statistics on exceedances is presented in *Appendix M*.

Table 2.18 Summary of Exceedances for Impact Air Quality Monitoring

Station	Exceedance Level	1-hr TSP	24-hr TSP	Number of Exceedances	
				1-hr TSP	24-hr TSP
Impact Air Quality Monitoring					
ASR8A	Action Level	-	2013-12-13	0	1
	Limit Level	-	-	0	0
ASR8	Action Level	-	2013-12-13	0	1
	Limit Level	-	-	0	0

Table 2.19 Summary of Exceedances for Impact Water Quality Monitoring

Station	Exceedance Level ^(a)	DO (Surface and Middle)		DO (Bottom)		Turbidity (depth-averaged)		SS (depth-averaged)	
		Mid-ebb	Mid-flood	Mid-ebb	Mid-flood	Mid-ebb	Mid-flood	Mid-ebb	Mid-flood
Impact Water Quality Monitoring									
IS(Mf)9	AL	-	-	-	-	-	-	-	-
	LL	-	-	-	-	-	-	-	-
IS(Mf)16	AL	-	-	-	-	-	-	-	-
	LL	-	-	-	-	-	-	-	-
IS8	AL	-	-	-	-	-	-	-	-
	LL	-	-	-	-	-	-	-	-
SR4	AL	-	-	-	-	-	-	-	-
	LL	-	-	-	-	-	-	-	-
SR4a	AL	-	-	-	-	-	-	2013-11-26	-
	LL	-	-	-	-	-	-	-	-
CS(Mf)3	AL	-	-	-	-	-	-	-	-
	LL	-	-	-	-	-	-	-	-
CS(Mf)5	AL	-	-	-	-	-	-	-	-
	LL	-	-	-	-	-	-	-	-
Total AL Exceedances		0	0	0	0	0	0	1	0
Total LL Exceedances		0	0	0	0	0	0	0	0

Note: (a) AL = Action Level; LL = Limit Level

Table 2.20 Comparison between Quarterly Mean and Ambient Mean Values of Depth-averaged Suspended Solids

Station	Baseline Mean		Ambient Mean ^(a)		Quarterly Mean (October/November 2013 to February 2014)	
	Mid-ebb	Mid-flood	Mid-ebb	Mid-flood	Mid-ebb	Mid-flood
IS(Mf)9	10.90	14.25	14.17	18.53	6.77	6.70
IS(Mf)16	11.40	10.33	14.82	14.43	6.59	6.14
IS8	11.26	13.51	14.64	17.56	6.26	6.50
SR4	10.29	12.30	13.38	15.99	6.67	6.38
SR4a	9.10	9.80	11.83	12.74	6.50	6.42
CS(Mf)3	9.20	12.76	11.96	16.59	6.16	6.07
CS(Mf)5	9.17	11.47	11.92	14.91	6.16	6.13
Grand Total	10.27	12.27	13.35	15.95	6.42	6.29

Notes:
(a) Ambient mean value is defined as a 30% increase of baseline value

2.11 SUMMARY OF COMPLAINTS, NOTIFICATION OF SUMMONS AND SUCCESSFUL PROSECUTIONS

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

One (1) complaint was referred by EPD to various parties of the HZMB projects on 12 November 2013 regarding the noise nuisance arising from the operation or towing of barges by tug boats during restricted hours, particularly during the period from 23:00 to 07:00 of next day by HZMB Projects in the waters outside Tung Chung New Development Pier and near the barging point of CEDD's construction site of Site Formation at Tung Chung Areas 53 and 54.

With reference to the Contractor's site dairy of 12 November 2013, no site activity was undertaken after 18:00 on the concerned day. Thus, the noise complaint was considered as non-project related.

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

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

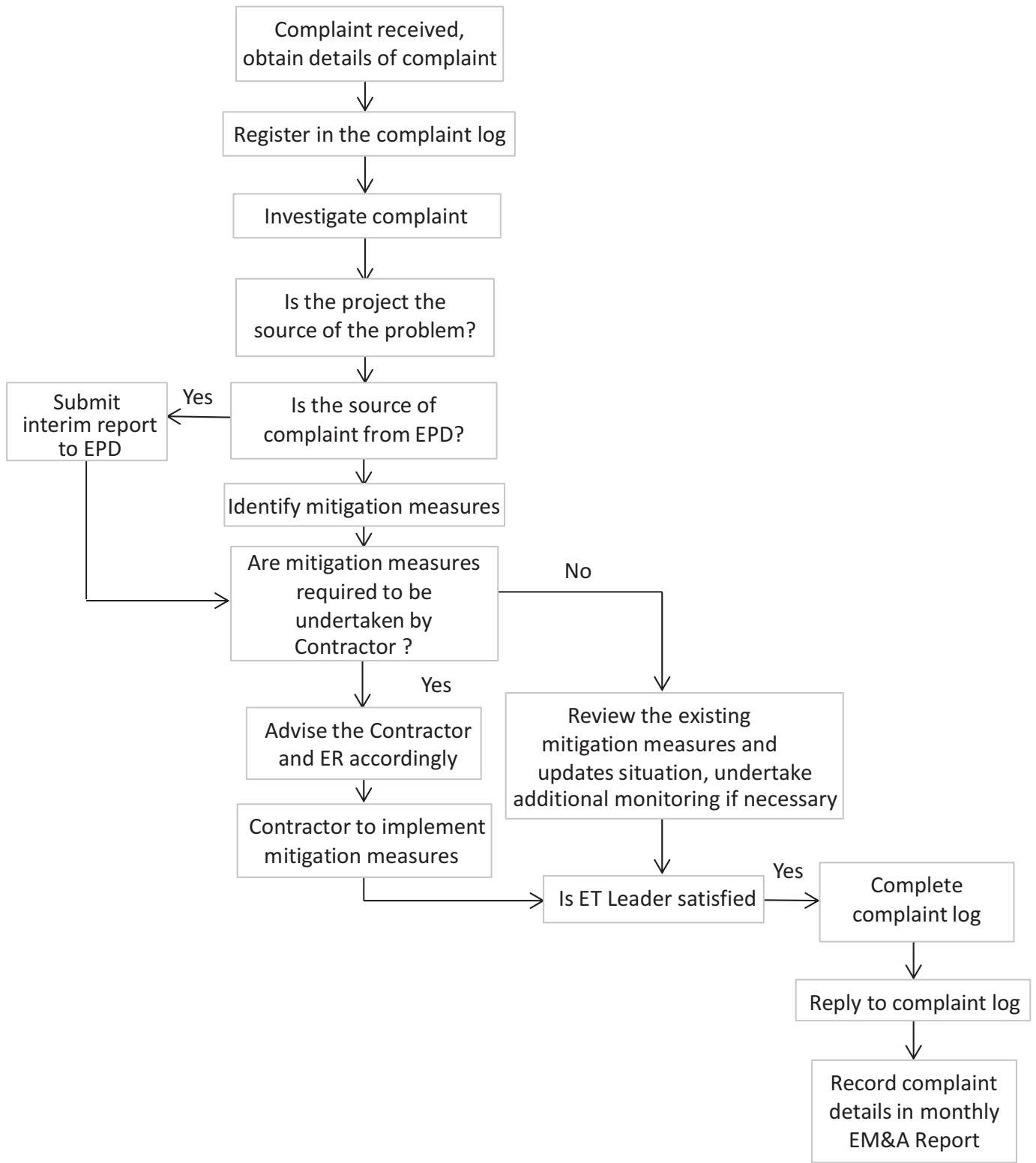


Figure 2.5 Environmental Complaint Handling Procedure

3 *FUTURE KEY ISSUES*

3.1 *CONSTRUCTION ACTIVITIES FOR THE COMING QUARTER*

As informed by the Contractor, the major works for the Contract in the coming quarter are summarized below:

Marine Works

- Marine piling platform installation;
- Marine piling at Viaduct B;
- Survey tower erection;
- Construction of rockfill platform at Viaduct D landing; and
- Additional marine GI and laboratory testing.

Land-based Works

- Satellite container offices erection along seawall;
- Fence installation and relocation of Area 2, Viaducts A, B, C & D;
- Land piling at Viaduct B;
- Piling platform installation for Viaducts B, D & E;
- Additional land GI, trial pits & laboratory testing;
- Utility surveys; and
- Soil nail and excavation at slope 9SE-B/C8.

3.2 *KEY ISSUES FOR THE COMING QUARTER*

Potential environmental impacts arising from the above upcoming construction activities are mainly associated with air quality, noise, marine water quality, marine ecology and waste management issues.

3.3 *MONITORING SCHEDULE FOR THE COMING QUARTER*

Impact monitoring for air quality, noise, marine water quality and marine ecology (include dolphin monitoring and post-translocation coral monitoring) are scheduled to continue for the next reporting period.

The monitoring programme has been reviewed and was considered as adequate to cater for the nature of works in progress. Change to the monitoring programme was thus not considered to be necessary at this stage. The monitoring programme will be evaluated as appropriate in the next reporting period.

This First Quarterly EM&A Report presents the findings of the EM&A activities undertaken during the period from 31 October 2013 to 28 February 2014, in accordance with the Updated EM&A Manual and the requirements of EP-354/2009/B.

Air quality (including 1-hour TSP and 24-hour TSP), noise, marine water quality and dolphin monitoring were carried out in the reporting period. Two Action Level exceedances for 24-hr TSP were recorded during the reporting period. One Action Level exceedance for depth-averaged SS was recorded in marine water quality impact monitoring during the reporting period. Investigation findings showed that the Project works were unlikely to be the major cause of the recorded exceedances in air quality and water quality monitoring.

A total of 59 groups of 249 Chinese White Dolphin sightings were recorded during the two sets of surveys from November 2013 to February 2014. 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. Although the dolphins infrequently occurred along the alignment of TMCLKL southern connection viaduct section in the past and during the baseline monitoring period, it is apparent that dolphin usage has been significantly reduced in NEL. It is critical to monitor the dolphin usage in North Lantau region in the upcoming quarters, to determine whether the dolphins are continuously affected by the various construction activities in relation to the construction works of the Contract, and whether suitable mitigation measure can be applied to revert the situation.

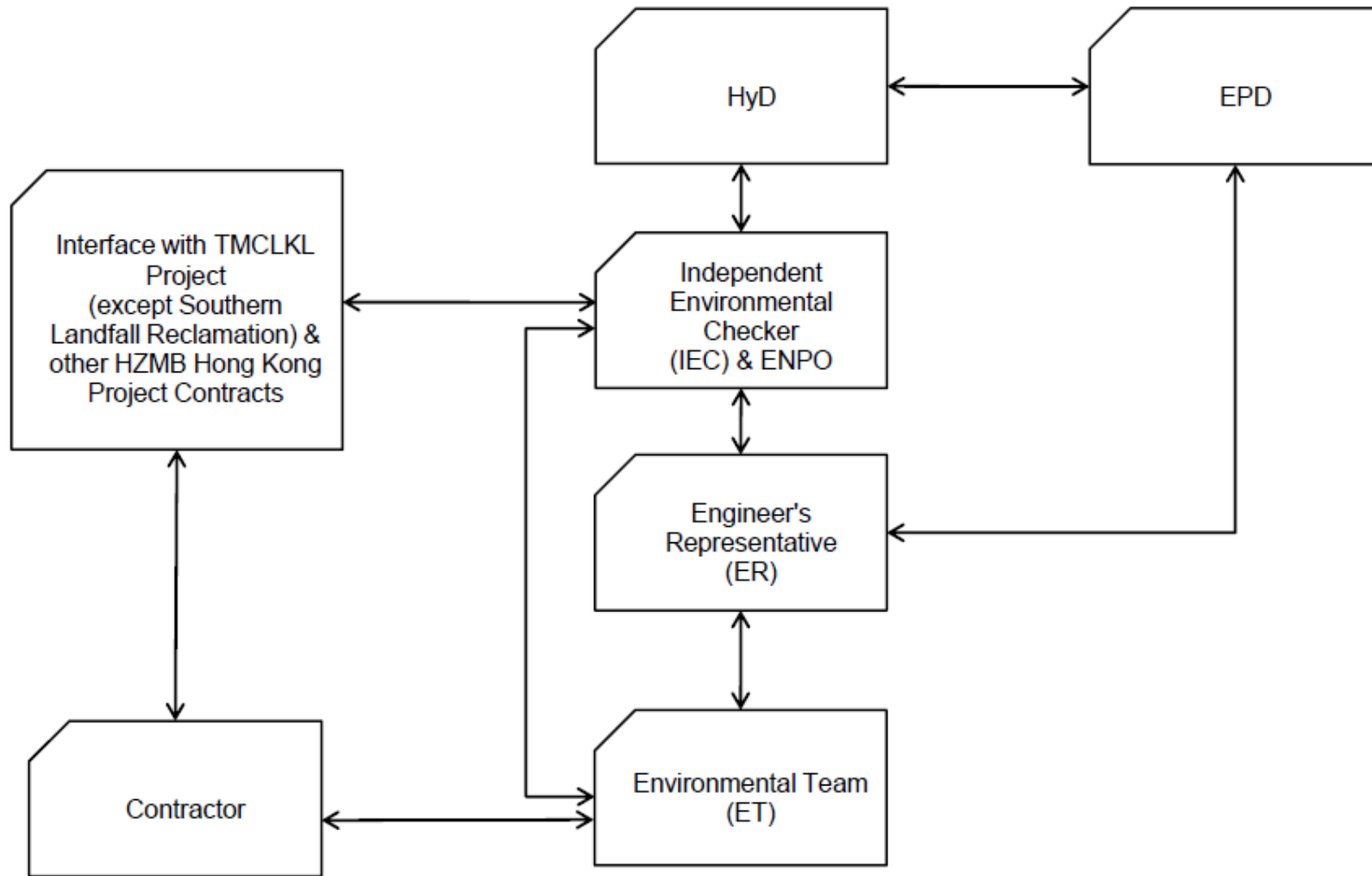
Environmental site inspection was carried out seventeen (17) times in the reporting period. Recommendations on remedial actions provided for the deficiencies identified during the site audits were properly implemented by the Contractor. No non-compliance event was recorded during the reporting period.

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

The monitoring programme has been reviewed and was considered as adequate to cater for the nature of works in progress. Change to the monitoring programme was thus not recommended at this stage. The monitoring programme will be evaluated as appropriate in the next reporting period. The ET will keep track on the construction works to confirm compliance of environmental requirements and the proper implementation of all necessary mitigation measures.

Appendix A

Project Organization for Environmental Works



↔ Line of Communication

Appendix B

Construction Programme for the Reporting Quarter

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	2013												2014																	
											October			November			December			January			February			March														
											30	07	14	21	28	04	11	18	25	02	09	16	23	30	06	13	20	27	03	10	17	24	03	10						
HY/2012/07 - TM-CLK Link-SC [DWP rD]																																								
Contract Key Dates																																								
IPS Milestones																																								
Cost Centre IPS Milestones																																								
CC 1 - Preliminaries and General Requirements																																								
MS1.07	Complete 100% of establishment of main site office accom and fac for Supervising Officer	0		0%	0	31-Dec-13		02-Apr-17	1189	1182																														
MS1.08	Complete 100% of establishment of temp accommodation and fac for the Contractor	0		0%	0	10-Jan-14*		02-Apr-17	1178	1171																														
MS1.09	Complete 100% of provision of Contract Computers and Network Fac for the Superv Officer	0		0%	0	31-Dec-13*		02-Apr-17	1189	1182																														
CC 2 - Design and Design Checking of the Works																																								
MS2.002	Accept Project Design Plan by the Supervising Officer	0		0%	0	08-Nov-13		02-Apr-17	1241	623																														
MS2.004	Accept design memorandum by the Supervising Officer	0		0%	0	08-Nov-13		02-Apr-17	1241	623																														
MS2.005	Submit construction traffic impact assessment	0		0%	0	20-Dec-13		02-Apr-17	1199	105																														
MS2.010	Accept hydrographic survey report by the Supervising Officer	0		0%	0	31-Dec-13*		02-Apr-17	1188	570																														
MS2.046	Approve AIP for Structure E1 by the Supervising Officer	0		0%	0	01-Jan-14		02-Apr-17	1187	226																														
MS2.050	Approve AIP for Structure E2 by the Supervising Officer	0		0%	0	01-Jan-14		02-Apr-17	1187	170																														
MS2.054	Approve AIP for Structure E5, excl Structure E5 betw Pier E5c & Pier E5d, by S.O.	0		0%	0	01-Jan-14		02-Apr-17	1187	170																														
MS2.058	Approve AIP for Structure E5 betw Pier E5c & Pier E5d by the Supervising Officer	0		0%	0	01-Jan-14		02-Apr-17	1187	170																														
MS2.062	Approve AIP for Structure E6 by the Supervising Officer	0		0%	0	01-Jan-14		02-Apr-17	1187	170																														
MS2.066	Approve AIP for Structure E7 by the Supervising Officer	0		0%	0	01-Jan-14		02-Apr-17	1187	170																														
MS2.070	Approve AIP for Structure E8 by the Supervising Officer	0		0%	0	01-Jan-14		02-Apr-17	1187	170																														
MS2.077	Submit AIP for Structure B	0		0%	0	17-Jan-14		02-Apr-17	1171	84																														
MS2.085	Submit AIP for Structure D	0		0%	0	17-Jan-14		02-Apr-17	1171	96																														
MS2.093	Submit AIP for At grade Roadworks and Other Works along Cheung Tung Road	0		0%	0	29-Nov-13		02-Apr-17	1220	96																														
MS2.097	Submit AIP for At grade Roadworks and Other Works at Southern Landfall	0		0%	0	29-Nov-13		02-Apr-17	1220	96																														
MS2.101	Submit AIP for Watermains & All Assoc Works frm Tung Chung to Southern Landfall	0		0%	0	29-Nov-13		02-Apr-17	1220	96																														
MS2.108-1	Submit AIP for Fac Prov for TCSS Works for At grade Roads at Southern Landfall	0		0%	0	14-Feb-14		02-Apr-17	1143	96																														
MS2.109	Submit AIP for Facilities Provision for TCSS Works for Viaducts	0		0%	0	14-Feb-14		02-Apr-17	1143	96																														
MS2.113	Submit AIP for Fac Prov for TCSS Wrks for At grade Rds along NLH	0		0%	0	14-Feb-14		21-Mar-17	1131	96																														
MS2.117	Submit AIP for Facilities Provision for E&M Works	0		0%	0	17-Jan-14		02-Apr-17	1171	96																														
CC 7 - Structure B and All Associated Works																																								
MS7.01	Complete piles of 5% of total pile length for Structure B	0		0%	0	25-Feb-14*		02-Apr-17	1133	7																														
General Submissions																																								
General Requirements																																								
General Management																																								
PR9000	Completion of initial general submissions, mobilisation & setup coordination with external parties	0		0%	0	21-Dec-13		03-Feb-14	32	31																														
Land Works																																								
Additional Land GI																																								
PR03189-1	Relocate MTR fence & GI works at PBH23 (Pier C8)	12	06-Dec-13	0%	12	19-Dec-13	07-Apr-14	23-Apr-14	98	91																														
PR03190	Relocate MTR fence & GI works at PBH42 (Pier B9)	12	22-Nov-13	0%	12	05-Dec-13	07-Jan-14	20-Jan-14	36	0																														
Marine Works																																								
Additional Marine GI																																								
PR02154	PBH17 (Pier E7c / E13-B)	12	31-Oct-13	0%	12	13-Nov-13	05-Nov-13	18-Nov-13	4	0																														
PR02155	PBH18 (Pier E8c / E13-A)	12	14-Nov-13	0%	12	27-Nov-13	19-Nov-13	02-Dec-13	4	2																														
EM&A Works																																								
3. Works Prior to Construction Commencement																																								
EN0070-22	Prepare / submit Baseline Monitoring Report for item 3.4 to 3.6	24	05-Nov-13	0%	24	02-Dec-13	21-Dec-13	21-Jan-14	40	0																														
EN0070-23	ENPO/SOR approval of Baseline Monitoring Report for item 3.4 to 3.6	24	03-Dec-13	0%	24	02-Jan-14	22-Jan-14	20-Feb-14	40	36																														
Design Submissions																																								
Detailed Design (v17)																																								
Ground Investigation																																								
ARDD0017-1	Earliest IC certificate for DDA-AP03.00	0		0%	0	13-Dec-13		16-Jan-14	24	3																														
ARDD0017-2	IC/SO Approval of Additional GI Interpretative Report - AP03.00	75	04-Nov-13	0%	75	14-Feb-14	03-Dec-13	17-Mar-14	21	0																														
ARDD0017-4	IC/SO Approval of Additional GI Interpretative Report - AP03.00	0		0%	0	14-Feb-14		17-Mar-14	21	0																														
Legend																																								
Actual Work																																								
Planned Bar																																								
Critical Bar																																								
Milestone																																								

Project ID: J3518DWP rD-5-04
 Layout: J3518-DWP-3MRP submission - M08
 Filter: TASK filters: 3-Month Lookahead, No Level of Effort.

**Tuen Mun - Chek Lap Kok Link - Southern Connection
 3-Month Rolling Programme (Page 1 of 13 Pages)**

Date	Revision	Checked	Approved
11-Apr-14		HW	

DWG. No.:

J3518/GCL/PGM/3MRP

Activity ID	Activity Name	Orig. Durm.	Act. Start / FC Early Start	Duration % Complete	Rem. Durm.	Act. Finish / FC Early Finish	Late Start	Late Finish	Total Float	Free Float	2013												2014																			
											October			November			December			January			February	March																		
											30	07	14	21	28	04	11	18	25	02	09	16	23	30	06	13	20	27	03	10	17	24	03	10								
Surveys and Investigations																																										
ARDD0025	IC/SO Approval of Utility Report - AP04.00	75	06-Dec-13	0%	75	20-Mar-14	19-Dec-16	31-Mar-17	791	0																																
General Submissions																																										
ARDD0031-1	IC/SO Approval of Project Design Plan - AP01.00	0		0%	0	08-Nov-13		26-Feb-14	78	0																																
ARDD0033-1	IC/SO Approval of Design Memo - AP02.00	0		0%	0	08-Nov-13		11-Dec-13	23	0																																
ARDD0035-1	IC/SO Approval of Durability Assessment Report - AP06.00	0		0%	0	15-Nov-13		11-Dec-13	18	0																																
ARDD0037-3	IC/SO Approval of Seismic Impact Report - AP11.00	0		0%	0	15-Nov-13		11-Dec-13	18	1																																
ARDD0041-1	Preparation of O&M Facility Provisions AIP - AP11.00	50	06-Jan-14	0%	50	14-Mar-14	08-Oct-14	16-Dec-14	197	0																																
ACABAS Submission																																										
ARDD0049	2nd ACABAS Meeting for 1st submission	0		0%	0	11-Nov-13		06-Feb-14	63	0																																
ARDD0050	Approval of 1st ACABAS Submission- AP09.00	0		0%	0	11-Nov-13		06-Feb-14	63	40																																
ARDD0051	Prepare 2nd ACABAS Submission	44	06-Nov-13	0%	44	06-Jan-14	09-Dec-13	06-Feb-14	23	0																																
ARDD0052	2nd Submission to ACABAS	0		0%	0	06-Jan-14		06-Feb-14	23	0																																
ARDD0063	ACABAS Meeting for 2nd submission	0		0%	0	24-Jan-14		26-Feb-14	23	0																																
ARDD0064	Approval of 2nd ACABAS Submission - AP09.00	0		0%	0	24-Jan-14		26-Feb-14	23	0																																
GCL Erection Sequence and Method																																										
ARDD0060-4	Receipt of Final Erection Sequence and Loads - Bridge C	0	10-Feb-14	0%	0		27-Jun-14		100	15																																
Gazette and Alignment (assume no gazette change)																																										
ARDD0068-1	IC/SO Approval of Alignment AIP - BP01.00	0		0%	0	06-Nov-13		03-Apr-14	106	17																																
ARDD0071-1	Earliest IC Cert for Alignment DDA - BP01.01	0		0%	0	29-Nov-13		03-Apr-14	89	45																																
ARDD0071-2	IC/SO Approval of Alignment DDA - BP01.01	0		0%	0	31-Jan-14		03-Apr-14	44	4																																
General Viaduct Submission																																										
ARDD0076	IC/SO Approval of Viaduct E&M Works AIP - BP21.00	68	20-Jan-14	0%	68	23-Apr-14	17-Mar-14	18-Jun-14	40	0																																
Viaduct B																																										
Viaduct Design																																										
ARDD0089-1	Viaduct B - IC/SO Approval of Sub & Superstructure AIP - DP12.00	0		0%	0	04-Dec-13		26-Feb-14	60	34																																
ARDD0094-1	Viaduct B - Earliest IC Certificate for Foundation DDA DP12.01	0		0%	0	17-Dec-13		07-Mar-14	58	48																																
ARDD0094-2	Viaduct B - IC/SO Approval of Foundation (Early) DDA - DP12.01	55	06-Nov-13	0%	55	21-Jan-14	12-Dec-13	26-Feb-14	26	20																																
ARDD0094-3	Viaduct B - IC/SO Approval of Foundation (Late) DDA - DP12.01	75	06-Nov-13	0%	75	18-Feb-14	14-Nov-13	26-Feb-14	6	0																																
ARDD0094-5	Viaduct B - IC/SO Approval of Foundation (Late) DDA - DP12.01	0		0%	0	18-Feb-14		26-Feb-14	6	0																																
ARDD0096	Viaduct B - Preparation of Substructure DDA - DP12.03	50	04-Nov-13	0%	50	10-Jan-14	12-Dec-13	19-Feb-14	28	0																																
ARDD0097	Viaduct B - Preparation of Superstructure DDA - DP12.03	70	04-Nov-13	0%	70	07-Feb-14	14-Nov-13	19-Feb-14	8	0																																
ARDD0098	Viaduct B - Submission of Sub & Superstructure DDA - DP12.03	0		0%	0	07-Feb-14		19-Feb-14	8	0																																
ARDD0098-1	Viaduct B - Submission of Pilecap precast Shells DDA - DP12.02	0		0%	0	08-Nov-13		22-Nov-13	10	0																																
ARDD0099-2	Viaduct B - IC/SO Approval Pile Cap Precast Shells of DDA DP12.02	75	11-Nov-13	0%	75	21-Feb-14	25-Nov-13	07-Mar-14	10	0																																
ARDD0099-3	Viaduct B - IC/SO Approval of Sub & Superstructure DDA - DP12.03	75	10-Feb-14	0%	75	23-May-14	07-Apr-14	18-Jul-14	40	0																																
ARDD0099-7	Viaduct B - IC/SO Approval Pile Cap Precast Shells of DDA DP12.02	0		0%	0	21-Feb-14		07-Mar-14	10	0																																
Information to Contractor																																										
ARDD0104	Viaduct B - Final Pile Reinforcement and Socket H Pile Details	0		0%	0	05-Nov-13		29-Nov-13	18	0																																
ARDD0105	Viaduct B - Precast Pilecap Shell Shape and Reinforcement	0		0%	0	08-Nov-13		03-Feb-14	61	51																																
ARDD0107	Viaduct B - Typical Pilecap Reinforcement - Stainless Steel Rebar	0	06-Dec-13	0%	0		02-Apr-14		83	2																																
ARDD0108	Viaduct B - Typical Pilecap Reinforcement - Regular Rebar	0		0%	0	29-Nov-13		09-Apr-14	93	12																																
ARDD0109	Viaduct B - Final Pilecap Reinforcement	0		0%	0	10-Jan-14		05-May-14	81	0																																
ARDD0111	Viaduct B - Final Pier Shapes and Reinforcement	0		0%	0	10-Jan-14		21-Jul-14	136	21																																
ARDD0112	Viaduct B - Typical Segment Shapes for Moulds	0		0%	0	29-Nov-13		04-Feb-14	47	0																																
ARDD0113	Viaduct B - Typical Segment Reinforcement	0		0%	0	27-Dec-13		20-May-14	102	62																																
ARDD0114	Viaduct B - Final Segment Types and Reinforcement	0		0%	0	07-Feb-14		23-Jun-14	96	56																																
ARDD0116	Viaduct B - Final Anchorage and PT Requirements	0		0%	0	07-Feb-14		23-Jun-14	96	56																																
ARDD0118	Viaduct B - Final Bearing Schedule	0		0%	0	29-Nov-13		21-Jan-14	37	1																																
ARDD0120	Viaduct B - Final Movement Joint (MJ) Schedule	0		0%	0	13-Dec-13		07-Feb-14	40	0																																
Associated Construction Milestones																																										
ARDD0127	Viaduct B - DDA approval ready for Commencement of Piling	0	19-Feb-14	0%	0		05-Mar-14		14	0																																
Viaduct E5 and E6																																										
Viaduct Design																																										
ARDD0140-1	Viaduct E5 & E6 - IC/SO Approval of Sub & Superstructure AIP - DP15.00	0		0%	0	01-Jan-14		17-Mar-14	53	0																																

<p>Actual Work</p> <p>Planned Bar</p> <p>Critical Bar</p> <p>Milestone</p>	<p>Project ID: J3518DWP rD-5-04</p> <p>Layout: J3518-DWP-3MRP submission - M08</p> <p>Filter: TASK filters: 3-Month Lookahead, No Level of Effort.</p>	<p align="center">Tuen Mun - Chek Lap Kok Link - Southern Connection</p> <p align="center">3-Month Rolling Programme (Page 2 of 13 Pages)</p>	<p>Date</p> <p>11-Apr-14</p>	<p>Revision</p>	<p>Checked</p> <p>HW</p>	<p>Approved</p>	<p>DWG. No.:</p> <p align="center">J3518/GCL/PGM/3MRP</p>
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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	2013												2014								
											October			November			December			January			February			March					
											30	07	14	21	28	04	11	18	25	02	09	16	23	30	06	13	20	27	03	10	17
Unloading Frames																															
PR69010	Issue Final Tech.specs to GCL	12	03-Dec-13	0%	12	16-Dec-13	20-Dec-13	06-Jan-14	15	0																					
PR69020	Unloading Gantries Technical Specs / Discussion	24	17-Dec-13	0%	24	16-Jan-14	07-Jan-14	05-Feb-14	15	0																					
Type 1																															
PR69100	Unloading Frame Type 1 Design	50	17-Feb-14	0%	50	16-Apr-14	07-Mar-14	10-May-14	16	0																					
Type 2																															
PR69170	Unloading Frame Type 2 Design	50	17-Feb-14	0%	50	16-Apr-14	07-Mar-14	10-May-14	16	0																					
Type 3																															
PR69220	Unloading Frame Type 3 Design	50	17-Feb-14	0%	50	16-Apr-14	07-Mar-14	10-May-14	16	0																					
Deck Segments & Precast Pile Cap Shells																															
Preliminaries																															
MBBC0012	Pile Cap Shell Mould Design (M1 & M2)	38	01-Nov-13	0%	38	14-Dec-13	21-Nov-13	07-Jan-14	17	0																					
MBBC0014	Pile Cap Shell Mould Fabrication & Erection (M1 & M2)	50	16-Dec-13	0%	50	17-Feb-14	08-Jan-14	08-Mar-14	17	4																					
MBBE0012	Precast Segment Mould Design (Viaduct B)	42	30-Nov-13	0%	42	21-Jan-14	05-Feb-14	25-Mar-14	52	0																					
MBBE0014	Precast Segment Mould Fabrication & Assembly (Viaduct B)	52	22-Jan-14	0%	52	25-Mar-14	26-Mar-14	31-May-14	52	0																					
MBBE0018	Precast Segment Mould Design (Viaduct E5, E6, E7 & E8)	42	30-Nov-13	0%	42	21-Jan-14	01-Nov-14	20-Dec-14	273	0																					
MBBE0020	Precast Segment Mould Fabrication & Assembly (Viaduct E5, E6, E7 & E8)	52	22-Jan-14	0%	52	25-Mar-14	20-Dec-14	26-Feb-15	273	97																					
MBBE0024	Precast Segment Mould Design (Viaduct E2)	42	30-Nov-13	0%	42	21-Jan-14	23-Apr-14	14-Jun-14	115	0																					
MBBE0026	Precast Segment Mould Fabrication & Assembly (Viaduct E2)	52	22-Jan-14	0%	52	25-Mar-14	14-Jun-14	15-Aug-14	115	81																					
MBBE0030	Precast Segment Mould Design (Viaduct E1)	42	22-Feb-14	0%	42	12-Apr-14	02-Jul-14	19-Aug-14	103	0																					
Viaduct B																															
Precast Pile Caps																															
MBBC0120	B: Commence Pile Cap Shell Casting on Approval of DDA	0	22-Feb-14	0%	0		10-Mar-14		13	0																					
PP7050	Production of initial Viaduct B Marine Precast Pile Cap Shells	55	22-Feb-14	0%	55	02-May-14	10-Mar-14	19-May-14	13	0																					
Materials																															
H-Piles																															
PP7030	Procurement of Viaduct B Socketted H-Piles	70	06-Nov-13	0%	70	29-Jan-14	02-Dec-13	26-Feb-14	22	15																					
PP7390	Procurement of Viaduct D Socketted H-Piles	70	21-Feb-14	0%	70	20-May-14	18-Mar-14	14-Jun-14	21	0																					
Reinforcement																															
Bored Piles																															
PP7020	Rebar - Cut, Bend & Fabricate Pile Cage for Viaduct B Piles	24	10-Dec-13	0%	24	09-Jan-14	05-Feb-14	04-Mar-14	44	28																					
PP7100	Rebar - Cut, Bend & Fabricate Pile Cage for Viaduct E5 & E6 Piles	185	10-Jan-14	0%	185	25-Aug-14	20-Feb-14	07-Oct-14	34	16																					
PP7170	Rebar - Cut, Bend & Fabricate Pile Cage for Viaduct E7 & E8 Piles	185	10-Jan-14	0%	185	25-Aug-14	18-Mar-14	31-Oct-14	55	16																					
PP7240	Rebar - Cut, Bend & Fabricate Pile Cage for Viaduct E2 Piles	106	03-Jan-14	0%	106	15-May-14	12-Feb-14	24-Jun-14	32	22																					
Marine Pile Caps																															
PP7040	Rebar - Cut, Bend & Fabricate for Viaduct B Marine Pile Caps	36	14-Feb-14	0%	36	27-Mar-14	07-Jun-14	19-Jul-14	90	43																					
Land Pile Caps																															
PP7752	Rebar - Cut, Bend & Fabricate for Viaduct B Land Pile Caps	26	14-Feb-14	0%	26	15-Mar-14	28-Jul-14	26-Aug-14	132	0																					
In-Situ Formworks / Falseworks																															
PPPF02	Design & Fabrication of Falsework / Formwork & Delivery	120	13-Dec-13	0%	120	14-May-14	28-Jan-14	26-Jun-14	36	0																					
Bearings																															
PPBR00	Procurement of Bearings Supplier	48	09-Nov-13	0%	48	07-Jan-14	18-Feb-14	15-Apr-14	81	37																					
Viaduct B																															
PPBRB1	Design & Approval of Bearings Viaduct B	50	27-Dec-13	0%	50	26-Feb-14	15-Feb-14	15-Apr-14	40	0																					
PPBRB2	Confirmation bearing assumption - Viaduct B	0		0%	0	26-Feb-14		15-Apr-14	40	0																					
PPBRB3	Design review & Issue Viaduct B	12	27-Feb-14	0%	12	12-Mar-14	16-Apr-14	03-May-14	40	0																					
Viaduct E																															
PPBRE1-1	Design & Approval of Bearings Viaduct E1	50	22-Feb-14	0%	50	25-Apr-14	14-May-14	12-Jul-14	63	24																					
Movement Joints																															
PPMJ00	Procurement of MJ Supplier	90	14-Dec-13	0%	90	03-Apr-14	24-May-14	08-Sep-14	127	67																					
Other Sub-Contract Procurement																															
Structural Health Monitoring System (SHMS)																															
PP7770	Procure SHMS Sub-Contractor	42	11-Nov-13	0%	42	31-Dec-13	16-Jan-14	07-Mar-14	54	0																					

<ul style="list-style-type: none"> ■ Actual Work ■ Planned Bar ■ Critical Bar ◆ Milestone 	Project ID: J3518DWP-rD-5-04 Layout: J3518-DWP-3MRP submission - M08 Filter: TASK filters: 3-Month Lookahead, No Level of Effort.	Tuen Mun - Chek Lap Kok Link - Southern Connection 3-Month Rolling Programme (Page 7 of 13 Pages)	Date: 11-Apr-14 Revision: Checked: HW Approved: 	DWG. No.: J3518/GCL/PGM/3MRP
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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	2013												2014									
											October				November				December				January			February			March			
											30	07	14	21	28	04	11	18	25	02	09	16	23	30	06	13	20	27	03	10	17	24
PP7772	SHMS - Prepare & Submit Preliminary System Proposal	30	02-Jan-14	0%	30	07-Feb-14	08-Mar-14	12-Apr-14	54	0																						
PP7774	SHMS - So approval of Preliminary System Proposal	30	08-Feb-14	0%	30	14-Mar-14	10-May-14	14-Jun-14	72	18																						
PP7776	SHMS - Prepare & Submit Final System Proposal	48	08-Feb-14	0%	48	04-Apr-14	14-Apr-14	14-Jun-14	54	0																						
PP7780	SHMS - Prepare Civil Work Provision	90	08-Feb-14	0%	90	30-May-14	13-May-14	28-Aug-14	75	0																						
Site Preparation / Mobilisations																																
Temp Traffic Mgt Submission & Approval																																
TTM00180	TMLG Meeting No. 3	0		0%	0	07-Nov-13*		02-Dec-13	16	0																						
TTM00190	Earliest TTM implementation after TMLG Meeting No. 3	0	22-Nov-13	0%	0		07-Jan-14		32	0																						
TTM00200	Send TTMs to SO & Govt Depts for TMLG Meeting No. 4	0		0%	0	22-Nov-13		17-Dec-13	16	0																						
TTM00210	TMLG Meeting No. 4	0		0%	0	06-Dec-13*		31-Dec-13	16	0																						
TTM00220	Earliest TTM implementation after TMLG Meeting No. 4	0	23-Dec-13	0%	0		14-Jan-14		16	10																						
TTM00230	Send TTMs to SO & Govt Depts for TMLG Meeting No. 5	0		0%	0	20-Dec-13		24-Jan-14	24	0																						
TTM00240	TMLG Meeting No. 5	0		0%	0	03-Jan-14*		07-Feb-14	24	0																						
TTM00250	Earliest Implementation of TTM after TMLG Meeting No. 5	0	20-Jan-14	0%	0		25-Feb-14		27	0																						
TTM00260	Send TTMs to SO & Govt Depts for TMLG Meeting No. 6	0		0%	0	17-Jan-14		21-Feb-14	24	4																						
TTM00270	TMLG Meeting No. 6	0		0%	0	06-Feb-14*		07-Mar-14	20	0																						
TTM00280	Earliest Implementation of TTM after TMLG Meeting No. 6	0	21-Feb-14	0%	0		14-Aug-14		124	20																						
TTM00290	Send TTMs to SO & Govt Depts for TMLG Meeting No. 7	0		0%	0	20-Feb-14		21-Mar-14	20	0																						
Tree Felling / Transplant																																
Approved Trees in Contract																																
TR00160	SO Approval of tree felling method statement	20	13-Nov-13	0%	20	10-Dec-13	25-Nov-13	23-Dec-13	8	0																						
TR00180	SO Approval of tree transplant method statement	20	13-Nov-13	0%	20	10-Dec-13	30-Dec-13	27-Jan-14	33	0																						
TR00190	Tree felling for Viaduct B - affecting Piers B11 to B17	24	10-Dec-13	0%	24	10-Jan-14	23-Dec-13	23-Jan-14	10	0																						
TR00200	Tree transplant for Viaduct B - affecting Piers B11 to B17	90	16-Dec-13	0%	90	10-Apr-14	10-Mar-14	28-Jul-14	65	0																						
TR00210	Tree felling for Viaduct B - affecting Pier B18 & Abutment	24	10-Jan-14	0%	24	11-Feb-14	23-Jan-14	24-Feb-14	10	0																						
TR00220	Tree transplant for Viaduct B - affecting Pier B18 & Abutment B	90	24-Jan-14	0%	90	31-May-14	10-Feb-14	25-Jun-14	10	0																						
TR00230	Tree felling for Viaduct B - affecting realigned CTR	24	10-Dec-13	0%	24	10-Jan-14	10-Feb-14	10-Mar-14	46	36																						
TR00240	Tree transplant for Viaduct B - affecting realigned CTR	90	10-Dec-13	0%	90	01-Apr-14	10-Feb-14	25-Jun-14	46	0																						
TR00250	Tree felling for Viaduct B - affecting Slopes 9SE-B/F9, C8 & C9	48	27-Feb-14	0%	48	09-May-14	26-Mar-14	17-Jun-14	22	2																						
TR00260	Tree felling for Viaduct C - affecting Piers C9 to Abutment C	24	17-Jan-14	0%	24	18-Feb-14	24-Jul-14	26-Aug-14	126	0																						
TR00270	Tree transplant for Viaduct C - affecting Piers C9 to Abutment C	90	17-Jan-14	0%	90	23-May-14	24-Jul-14	20-Nov-14	126	73																						
TR00280	Tree felling for Viaduct C - affecting realigned CTR	30	10-Dec-13	0%	30	17-Jan-14	27-Jan-14	06-Mar-14	37	0																						
TR00290	Tree transplant for Viaduct C - affecting realigned CTR	90	10-Dec-13	0%	90	01-Apr-14	27-Jan-14	05-Jun-14	37	0																						
Site Set Up for Works Area 1																																
PR10010	Works Area 1 - Erect hoarding / fencing & install gates	12	29-Jan-14	0%	12	14-Feb-14	13-Mar-14	27-Mar-14	34	0																						
PR10020	Works Area 1 - Site formation, paving and set up site offices / storage area	54	08-Feb-14	0%	54	15-Apr-14	20-Mar-14	19-Jun-14	34	26																						
Site Set Up for Works Area 2																																
PR20060	Works Area 2 - Erect hoarding / fencing & install gates	12	02-Nov-13	0%	12	15-Nov-13	12-Dec-13	28-Dec-13	34	0																						
PR20070	Works Area 2 - Site formation, paving and set up site offices / storage area	66	09-Nov-13	0%	66	28-Jan-14	19-Dec-13	13-Mar-14	34	0																						
Temporary Working Platform at North Lantau																																
PR08050	Temp. Working Platform at N.Lantau - Temp. rockfill & paving between existing & Temp.Seawa	42	04-Nov-13	0%	42	23-Dec-13	07-Dec-13	28-Jan-14	28	0																						
PR08070	Temp. Working Platform at N.Lantau - Construct steel deck / bollards / fenders	24	09-Dec-13	0%	24	09-Jan-14	15-Jan-14	14-Feb-14	28	0																						
CONSTRUCTION																																
PILING AND SUBSTRUCTURE																																
Viaduct A																																
General																																
ZA00060	Prepare/submit/approval of Protection Fence submission for Viaduct A	60	17-Feb-14	0%	60	09-May-14	16-May-14	08-Aug-14	64	0																						
Bridge A1																																
Pier A8 (A1d)																																
Preliminary Works for Land Piling																																
PA080000	SO approval of CEDD Access Track Temp. Re-alignment submission for A8	0		0%	0	22-Nov-13		14-Aug-14	188	120																						
Viaduct B																																
Milestones - Marine Foundation																																
GFXX167-1	B4 (B3c) - Start date for piling	0	27-Feb-14	0%	0		30-Apr-14		49	0																						

■ Actual Work
■ Planned Bar
■ Critical Bar
◆ Milestone

Project ID: J3518DWP-5-04
 Layout: J3518-DWP-3MRP submission - M08
 Filter: TASK filters: 3-Month Lookahead, No Level of Effort.

Tuen Mun - Chek Lap Kok Link - Southern Connection
3-Month Rolling Programme (Page 8 of 13 Pages)

Date	Revision	Checked	Approved
11-Apr-14		HW	

DWG. No.:

J3518/GCL/PGM/3MRP

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	2013												2014				
											October			November			December			January			February			March	
											30	07	14	21	28	04	11	18	25	02	09	16	23	30	06	13	20
ZC80040	Prepare/submit/approval of Protection Fence submission for Viaduct C	60	25-Nov-13	0%	60	14-Feb-14	21-Feb-14	16-May-14	64	0																	
Bridge C3																											
Pier C7 (C3e)																											
Preliminary Works for Land Piling																											
PC070010	C7 (C3e) - SO approval of CEDD Access Track Temp. Re-alignment submission	0		0%	0	22-Nov-13		27-Jun-14	155	56																	
PC070020	C7 (C3e) - CEDD Access Track Temp. Re-alignment	24	10-Feb-14	0%	24	10-Mar-14	28-Jun-14	01-Aug-14	92	0																	
Viaduct D																											
Milestones - Marine Foundation																											
GFX228	Viaduct D - ARUP issues Pile Spacing & Diameter for Temporary Platform Design	0		0%	0	12-Dec-13		05-Feb-14	42	34																	
General - Preliminary Works for Land Piling																											
ZD20010	Viaduct D works area between MTR and NLH - Setup TTMS	4	14-Nov-13	0%	4	19-Nov-13	07-Jan-14	10-Jan-14	42	3																	
Bridge D2																											
D8 (D3d)																											
Preliminary Works for Land Piling																											
PD080010	D8 (D3d) - SO approval of CEDD Access Track Temp. Re-alignment submission	0		0%	0	22-Nov-13		14-Feb-14	60	34																	
PD080020	D8 (D3d) - CEDD Access Track Temp. Re-alignment	24	09-Jan-14	0%	24	10-Feb-14	15-Feb-14	14-Mar-14	28	0																	
PD080030	D8 (D3d) - Install MTR protection fence / remove existing fence	10	10-Feb-14	0%	10	21-Feb-14	18-Mar-14	28-Mar-14	30	1																	
PD080032	D8 (D3d) - Install Geo. Instru. & Baseline Monitoring	36	10-Jan-14	0%	36	22-Feb-14	15-Feb-14	28-Mar-14	29	0																	
PD080040	D8 (D3d) - Set up piling platform	10	22-Feb-14	0%	10	06-Mar-14	29-Mar-14	12-Apr-14	29	0																	
D9 (D3c)																											
Preliminary Works for Land Piling																											
PD090010	D9 (D3c) - Install MTR protection fence / remove existing fence	10	22-Nov-13	0%	10	04-Dec-13	05-Feb-14	15-Feb-14	57	0																	
PD090012	D9 (D3c) - Install Geo. Instru. & Baseline Monitoring	36	20-Dec-13	0%	36	05-Feb-14	28-Mar-14	15-May-14	79	0																	
PD090020	D9 (D3c) - Set up piling platform	10	05-Feb-14	0%	10	17-Feb-14	16-May-14	29-May-14	71	47																	
D10 (D3b)																											
Preliminary Works for Land Piling																											
PD100010	D10 (D3b) - Install MTR protection fence / remove existing fence	10	04-Dec-13	0%	10	16-Dec-13	17-Feb-14	27-Feb-14	57	0																	
PD100012	D10 (D3b) - Install Geo. Instru. & Baseline Monitoring	36	20-Dec-13	0%	36	05-Feb-14	12-Mar-14	26-Apr-14	65	0																	
PD100020	D10 (D3b) - Set up piling platform	10	05-Feb-14	0%	10	17-Feb-14	28-Apr-14	15-May-14	61	0																	
PD100030	D10 (D3b) - Complete Civil Preparation Works for piling to commence	0		0%	0	17-Feb-14		15-May-14	61	56																	
Pier D11 (D3a)																											
Preliminary Works for Land Piling																											
PD110010	D11 (D3a) - Install MTR protection fence / remove existing fence	10	16-Dec-13	0%	10	30-Dec-13	28-Feb-14	11-Mar-14	57	0																	
PD110012	D11 (D3a) - Install Geo. Instru. & Baseline Monitoring	36	31-Dec-13	0%	36	13-Feb-14	12-Mar-14	26-Apr-14	58	0																	
PD110020	D11 (D3a) - Set up piling platform	10	13-Feb-14	0%	10	25-Feb-14	28-Apr-14	15-May-14	54	0																	
PD110030	D11 (D3a) - Complete Civil Preparation Works for piling to commence	0		0%	0	25-Feb-14		15-May-14	54	49																	
D12 (D2e)																											
Preliminary Works for Land Piling																											
PD120010	D12 (D2e) - Install MTR protection fence / remove existing fence	10	30-Dec-13	0%	10	11-Jan-14	27-May-14	14-Jun-14	107	0																	
PD120012	D12 (D2e) - Install Geo. Instru. & Baseline Monitoring	36	13-Jan-14	0%	36	25-Feb-14	16-Jun-14	28-Jul-14	123	0																	
PD120020	D12 (D2e) - Set up piling platform	10	25-Feb-14	0%	10	08-Mar-14	29-Jul-14	12-Aug-14	100	0																	
Bridge D1																											
D14 (D2c)																											
Preliminary Works for Land Piling																											
PD140010	D14 (D2c) - Install MTR protection fence / remove existing fence	12	22-Nov-13	0%	12	06-Dec-13	11-Jan-14	24-Jan-14	39	0																	
PD140012	D14 (D2c) - Install Geo. Instru. & Baseline Monitoring	36	20-Dec-13	0%	36	05-Feb-14	25-Jan-14	10-Mar-14	28	0																	
PD140020	D14 (D2c) - Set up piling platform	20	05-Feb-14	0%	20	28-Feb-14	11-Mar-14	03-Apr-14	28	0																	
D15 (D2b)																											
Preliminary Works for Land Piling																											
PD150010	D15 (D2b) - Install MTR protection fence / remove existing fence	12	06-Dec-13	0%	12	20-Dec-13	07-Feb-14	20-Feb-14	47	0																	
PD150012	D15 (D2b) - Install Geo. Instru. & Baseline Monitoring	36	21-Dec-13	0%	36	06-Feb-14	21-Feb-14	03-Apr-14	48	19																	
D16 (D2a)																											
Preliminary Works for Land Piling																											
PD160010	D16 (D2a) - Install MTR protection fence / remove existing fence	12	20-Dec-13	0%	12	07-Jan-14	10-Mar-14	22-Mar-14	61	0																	
PD160012	D16 (D2a) - Install Geo. Instru. & Baseline Monitoring	36	08-Jan-14	0%	36	20-Feb-14	24-Mar-14	10-May-14	62	27																	
D17 (D1d)																											

<ul style="list-style-type: none"> Actual Work Planned Bar Critical Bar Milestone 	Project ID: J3518DWP-5-04 Layout: J3518-DWP-3MRP submission - M08 Filter: TASK filters: 3-Month Lookahead, No Level of Effort.	Tuen Mun - Chek Lap Kok Link - Southern Connection 3-Month Rolling Programme (Page 11 of 13 Pages)	Date	Revision	Checked	Approved	DWG. No.: J3518/GCL/PGM/3MRP
			11-Apr-14		HW		

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	2013												2014														
											October			November			December			January			February			March											
											30	07	14	21	28	04	11	18	25	02	09	16	23	30	06	13	20	27	03	10	17	24	03	10			
Preliminary Works for Land Piling																																					
PD170010	D17 (D1d) - Install MTR protection fence / remove existing fence	12	07-Jan-14	0%	12	21-Jan-14	18-Jul-14	02-Aug-14	131	0																											
PD170012	D17 (D1d) - Install Geo. Instru. & Baseline Monitoring	36	22-Jan-14	0%	36	06-Mar-14	05-Aug-14	16-Sep-14	157	39																											
D18 (D1c)																																					
Preliminary Works for Land Piling																																					
PD180010	D18 (D1c) - Install MTR protection fence / remove existing fence	12	21-Jan-14	0%	12	07-Feb-14	12-Aug-14	28-Aug-14	136	0																											
PD180012	D18 (D1c) - Install Geo. Instru. & Baseline Monitoring	36	08-Feb-14	0%	36	21-Mar-14	29-Aug-14	13-Oct-14	165	51																											
D19 (D1b) & Abutment D																																					
Preliminary Works for Land Piling																																					
PD190010	D19 (D1b) - Install MTR protection fence / remove existing fence	12	07-Feb-14	0%	12	21-Feb-14	29-Sep-14	16-Oct-14	159	0																											
PD190012	D19 (D1b) - Install Geo. Instru. & Baseline Monitoring	36	22-Feb-14	0%	36	04-Apr-14	17-Oct-14	27-Nov-14	192	70																											
Viaduct E																																					
Viaduct E1																																					
Bridge E1 - Piling & Substructure																																					
E1A, E1B, E1C & E1D (E1a1-2-3-4)																																					
Foundation Works E1A, E1B, E1C & E1D																																					
Foundation Works																																					
GFXX021	E1A/E1B/E1C/E1D (E1a4/3/2/1) - Inst.Temp.Working Platforms (Heavy & Light)	38	21-Feb-14	0%	38	07-Apr-14	24-Mar-14	13-May-14	26	0																											
Viaduct E2																																					
Bridge E2 - Piling & Substructure																																					
E3A,E3B, E3C & E3D (E2a - 1/2/3/4)																																					
Foundation Works - E3A,E3B, E3C & E3D																																					
Foundation Works																																					
GFXX035	E3 (E2a) - Inst.Temp.Working Platform (Heavy)	25	16-Jan-14	0%	25	15-Feb-14	16-Jan-14	15-Feb-14	0	0																											
GFXX036	E3 (E2a) - Predrilling (6 nos)	24	17-Feb-14	0%	24	15-Mar-14	21-Feb-14	20-Mar-14	4	0																											
E4A & E4B (E2b - 1/2)																																					
Foundation Works - E4A & E4B																																					
Foundation Works																																					
GFXX040	E4 (E2b) - Inst.Temp.Working Platform (Heavy)	18	08-Feb-14	0%	18	28-Feb-14	08-Feb-14	28-Feb-14	0	0																											
E5A & E5B (E2c - 1/2)																																					
Foundation Works - E5A & E5B																																					
Foundation Works																																					
GFXX045	E5 (E2c) - Inst.Temp.Working Platform (Heavy)	18	02-Dec-13*	0%	18	21-Dec-13	02-Dec-13	21-Dec-13	0	0																											
E6A & E6B (E2d - 1/2)																																					
Foundation Works - E6A & E6B																																					
Foundation Works																																					
GFXX050	E6 (E2d) - Inst.Temp.Working Platform (Heavy)	18	23-Dec-13	0%	18	15-Jan-14	23-Dec-13	15-Jan-14	0	0																											
E9A & E9B (E2g - 1/2)																																					
Foundation Works - E9A & E9B																																					
Foundation Works																																					
GFXX065	E9 (E2g) - Inst.Temp.Working Platform (Heavy)	18	25-Nov-13*	0%	18	14-Dec-13	26-Nov-13	16-Dec-13	1	0																											
Viaduct E5, E6, E7 & E8																																					
E11A & E11B (E5E6a/E7E8a)																																					
Foundation Works - E11A & E11B																																					
Foundation Works																																					
GFXX082	E11 (E5E6a/E7E8a) - Inst.Temp.Working Platform (Heavy)	24	16-Jan-14	0%	24	14-Feb-14	20-Jan-14	19-Feb-14	4	0																											
GFXX083	E11 (E5E6a/E7E8a) - Predrilling (7 nos)	25	15-Feb-14	0%	25	15-Mar-14	19-Feb-14	20-Mar-14	4	0																											
E12A, E12B, E12C & E12D (E8b/E7b/E6b/E5b)																																					
Foundation Works - E12																																					
Foundation Works																																					
GFXX087	E12 (E5b/E6b, E7b/E8b + Dolphins) - Inst.Temp.Working Platform (Heavy)	37	16-Dec-13	0%	37	30-Jan-14	17-Dec-13	03-Feb-14	1	0																											
GFXX088	E12 (E5b/E6b, E7b/E8b + Dolphins) - Predrilling (20 nos)	36	03-Feb-14	0%	36	15-Mar-14	04-Feb-14	17-Mar-14	1	0																											
E13A, E13B, E13C & E13D (E8c/E7c/E6c/E5c)																																					
Foundation Works - E13																																					
Foundation Works - E13C (E6c) & E13D (E5c)																																					
GFXX093	E13C/D (E6c/E5c + Dolphin) - Inst.Temp.Working Platform (Heavy)	29	03-Feb-14	0%	29	07-Mar-14	07-Feb-14	12-Mar-14	4	0																											

<ul style="list-style-type: none"> █ Actual Work █ Planned Bar █ Critical Bar ◆ Milestone 	Project ID: J3518DWP-5-04 Layout: J3518-DWP-3MRP submission - M08 Filter: TASK filters: 3-Month Lookahead, No Level of Effort.	Tuen Mun - Chek Lap Kok Link - Southern Connection 3-Month Rolling Programme (Page 12 of 13 Pages)				Date	Revision	Checked	Approved	DWG. No.: J3518/GCL/PGM/3MRP
		11-Apr-14		HW						

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	2013												2014								
											October			November			December			January			February			March					
											30	07	14	21	28	04	11	18	25	02	09	16	23	30	06	13	20	27	03	10	17
At-Grade Roadworks and Other Works along Cheung Tung Road																															
Re-alignment of Cheung Tung Road adjacent to Viaduct B																															
RP00010	Apply for relocation of ESS affected by CTR re-alignment adj. to Viaduct B	12	04-Feb-14	0%	12	17-Feb-14	24-Feb-14	10-Mar-14	17	7																					
RP00020	Construct new ESS adjacent to Viaduct B	60	25-Feb-14	0%	60	23-May-14	10-Mar-14	12-Jun-14	10	0																					
Viaduct B Slope Works																															
SWVB0010	Setup TTM for slopework for Slope 9SE-B/C8, B/C9, B/F9	2	03-Jan-14	0%	2	06-Jan-14	14-Jan-14	16-Jan-14	8	0																					
SWVB0020	Slope 9SE-B/C8, B/C9, B/F9 - Erect safety fence on CTR	12	06-Jan-14	0%	12	20-Jan-14	16-Jan-14	30-Jan-14	8	0																					
SWVB0030	Slope 9SE-B/C8, B/C9, B/F9 - Form haul road	30	20-Jan-14	0%	30	27-Feb-14	30-Jan-14	10-Mar-14	8	0																					
Slope 9SE-B/C9																															
Zone A																															
SWVB1010	9SE-B/C9 Zone A - Form access track over crest of slope	6	27-Feb-14	0%	6	06-Mar-14	19-Mar-14	26-Mar-14	16	0																					
Slope 9SE-B/F9																															
SWVB3010	9SE-B/F9 - Form access track over crest of slope & remove loose fill less than 1m thick	6	27-Feb-14	0%	6	06-Mar-14	10-Mar-14	17-Mar-14	8	0																					
Re-alignment of Cheung Tung Road adjacent to Viaduct C																															
East Portion																															
ESS Sub-Station																															
RP10010	Apply for relocation of ESS near Viaduct C	90	04-Feb-14	0%	90	12-Jun-14	26-Apr-14	16-Sep-14	62	54																					

Appendix C

Environmental Mitigation and Enhancement Measure Implementation Schedules

(Adopted from: 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)

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

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

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

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

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

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

EIA Reference	EM&A Manual Reference	Environmental Protection Measures	Location/ Timing	Implementation Agent	Relevant Standard or Requirement	Implementation Stages			Status
						D	C	O	
6.10	-	All fuel tanks and chemical storage areas should be provided with locks and be sited on sealed areas. The storage areas should be surrounded by bunds with a capacity equal to 110% of the storage capacity of the largest tank.	All areas/ throughout construction period	Contractor	TM-EIAO		Y		✓
6.10	-	Surface run-off from bunded areas should pass through oil/grease traps prior to discharge to the stormwater system.	All areas/ throughout construction period	Contractor	TM-EIAO		Y		<>
6.10	-	Roadside gullies to trap silt and grit shall be provided prior to discharging the stormwater into the marine environment. The sumps will be maintained and cleaned at regular intervals.	Roadside/design and operation	Design Consultant/ Contractor	TM-EIAO	Y		Y	✓
6.10	Section 5	All construction works shall be subject to routine audit to ensure implementation of all EIA recommendations and good working practice.	All areas/ throughout construction period	Contractor	EM&A Manual		Y		✓
<i>Water Quality Monitoring</i>									
6.10	Section 5	Water quality monitoring shall be undertaken for suspended solids, turbidity, and dissolved oxygen. Nutrients and metal parameters shall also be measured for Mf sediment operations (only HKBCF and HKLR required handling of Mf sediment) during baseline, backfilling and post construction period. One year operation phase water quality monitoring at designated stations	Designated monitoring stations as defined in EM&A Manual, Section 5/ Before, through-out marine construction period, post construction and monthly operational phase water quality monitoring for a year.	Contractor	EM&A Manual		Y	Y	✓
ECOLOGY									
8.14	6.3	Specification for and implement pre, during and post construction dolphin abundance monitoring.	All Areas/Detailed Design/ during construction works/post construction	Design Consultant/ Contractor	TMEIA	Y	Y	Y	✓
8.14	6.3	Specification for bored piling monitoring	Detailed Design	Design Consultant	TMEIA	Y			✓
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 3,600m2 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	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		✓
8.15	6.5	Audit coral translocation success	Yam Tsui Wan (receptor site)/Post translocation	Contractor	TMEIA		Y		✓
7.13	6.5	Undertaken gabion wall works in Stream NL1 in the dry season	North Lantau slope works/dry	Contractor	TMEIA		Y		✓

EIA Reference	EM&A Manual Reference	Environmental Protection Measures	Location/ Timing	Implementation Agent	Relevant Standard or Requirement	Implementation Stages			Status
						D	C	O	
			season/construction phase						
7.13	6.5	The loss of habitat shall be supplemented by enhancement planting in accordance with the landscape mitigation schedule.	All areas / As soon as accessible	Contractor	TMEIA		Y		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 prior to undertaking any works adjacent to all retained trees, including trees in contractor's works areas. (Tree	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	
		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		✓
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/ Contractor	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		n/a
10.9	7.6	Ensure no run-off into water body adjacent to the Project Area (CM7)	All areas/ detailed design/ during construction	Design Consultant/ Contractor	TMEIA	Y	Y		<>
10.9	7.6	Avoidance of excessive height and bulk of buildings and structures (CM8)	All areas/ detailed design/ during construction	Design Consultant/ Contractor	TMEIA	Y	Y		✓
10.9	7.6	Recycle/Reuse all felled trees and vegetation, e.g. mulching (CM9)	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	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	AFCD/HyD/ LCSD
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	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	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	HyD/LCSD
10.9	7.6	Aesthetically pleasing design (visually unobtrusive and non-reflective) as regard to the form, material and finishes	All areas/detailed design/ during construction / during operation	Design Consultant/ Contractor	TMEIA	Y	Y	Y	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	Contract mobilisation	Contractor	TMEIA, Works		Y		✓

EIA Reference	EM&A Manual Reference	Environmental Protection Measures	Location/ Timing	Implementation Agent	Relevant Standard or Requirement	Implementation Stages			Status
						D	C	O	
		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.			Branch Technical Circular No. 5/99 for the Trip-ticket System for Disposal of Construction and Demolition Material				
12.6		The Contractor shall apply for and obtain the appropriate licenses for the disposal of public fill, chemical waste and effluent discharges.	Contract mobilisation	Contractor	TMEIA, Land (Miscellaneous Provisions) Ordinance (Cap 28); Waste Disposal Ordinance (Cap 354); Dumping at Sea Ordinance (Cap 466); Water Pollution Control Ordinance.		Y		✓
12.6	8.1	Training shall be provided to workers about the concepts of site cleanliness and appropriate waste management procedures including waste reduction, reuse and recycling.	Contract Mobilisation	Contractor	TMEIA		Y		✓
12.6	8.1	The extent of cutting operation should be optimised where possible. Earth retaining structures and bored pile walls should be proposed to minimise the extent of cutting.	All areas / throughout construction period	Contractor	TMEIA		Y		✓
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		✓

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	Provisions to be made in contract documents to allow and promote the use of recycled aggregates where appropriate.	Detailed Design	Design Consultant	TMEIA	Y			✓
12.6	8.1	The Contractor shall be prohibited from disposing of C&D materials at any sensitive locations. The Contractor should propose the final disposal sites in the EMP and WMP for approval before implementation.	All areas / throughout construction period	Contractor	TMEIA		Y		✓
12.6	8.1	Stockpiled material shall be covered by tarpaulin and /or watered as appropriate to prevent windblown dust/ surface run off.	All areas / throughout construction period	Contractor	TMEIA		Y		✓
12.6	8.1	Excavated material in trucks shall be covered by tarpaulins to reduce the potential for spillage and dust generation.	All areas / throughout construction period	Contractor	TMEIA		Y		✓
12.6	8.1	Wheel washing facilities shall be used by all trucks leaving the site to prevent transfer of mud onto public roads.	All areas / throughout construction period	Contractor	TMEIA		Y		✓
12.6	8.1	Standard formwork or pre-fabrication should be used as far as practicable so as to minimise the C&D materials arising. The use of more durable formwork/plastic facing for construction works should be considered. The use of wooden hoardings should be avoided and metal hoarding should be used to facilitate recycling. Purchasing of construction materials should avoid over-ordering and wastage.	All areas / throughout construction period	Contractor	TMEIA		Y		✓
12.6	8.1	The Contractor should recycle as many C&D 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	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	
		scrap steel mills. Different areas of the sites should be considered for segregation and storage activities.							
12.6	8.1	All falsework will be steel instead of wood.	All areas / throughout construction period	Contractor	TMEIA		Y		✓
12.6	8.1	<p>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:</p> <ul style="list-style-type: none"> - suitable for the substance to be held, resistant to corrosion, maintained in good conditions and securely closed; - Having a capacity of <450L unless the specifications have been approved by the EPD; and - Displaying a label in English and Chinese according to the instructions prescribed in Schedule 2 of the Regulations. Clearly labelled and used solely for the storage of chemical wastes; - Enclosed with at least 3 sides; - Impermeable floor and bund with capacity to accommodate 110% of the volume of the largest container or 20% by volume of the chemical waste stored in the area, whichever is greatest; - Adequate ventilation; - Sufficiently covered to prevent rainfall entering (water collected within the bund must be tested and disposed of as chemical waste, if necessary); and - Incompatible materials are adequately separated. 	All areas / throughout construction period	Contractor	TMEIA		Y		<>
12.6	8.1	Waste oils, chemicals or solvents shall not be disposed of to drain,	All areas / throughout	Contractor	TMEIA		Y		✓

EIA Reference	EM&A Manual Reference	Environmental Protection Measures	Location/ Timing	Implementation Agent	Relevant Standard or Requirement	Implementation Stages			Status
						D	C	O	
			construction period						
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		n/a
12.6	8.1	General refuse arising on-site should be stored in enclosed bins or compaction units separately from C&D and chemical wastes. Sufficient dustbins shall be provided for storage of waste as required under the Public Cleansing and Prevention of Nuisances By-laws. In addition, general refuse shall be cleared daily and shall be disposed of to the nearest licensed landfill or refuse transfer station. Burning of refuse on construction sites is prohibited.	All areas / throughout construction period	Contractor	TMEIA		Y		<>
12.6	8.1	All waste containers shall be in a secure area on hardstanding;	All areas / throughout construction period	Contractor	TMEIA		Y		✓
12.6	8.1	Training shall be provided to workers about the concepts of site cleanliness and appropriate waste management procedure, including waste reduction, reuse and recycling.	All areas / throughout construction period	Contractor	TMEIA		Y		✓
12.6	8.1	Office wastes can be reduced by recycling of paper if such volume is sufficiently large to warrant collection. Participation in a local collection scheme by the Contractor should be advocated. Waste separation facilities for paper, aluminium cans, plastic bottles, etc should be provided on-site.	Site Offices/ throughout construction period	Contractor	TMEIA		Y		<>
12.6	Section 8	EM&A of waste handling, storage, transportation, disposal procedures and documentation through	All areas / throughout	Contractor	EM&A Manual		Y		<>

EIA Reference	EM&A Manual Reference	Environmental Protection Measures	Location/ Timing	Implementation Agent	Relevant Standard or Requirement	Implementation Stages			Status
						D	C	O	
		the site audit programme shall be undertaken.	construction period						
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

Remark:

- ✓ 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

Proforma for Construction Phase EM&A Programme

Ref: _____

COMPLAINT LOG

Log Ref.	Date / Location	Complainant/ Date of Contract	Details of Complaint	Investigation / Mitigation Action	File Closed

Filed by Environmental Team Leader: _____

Date: _____

Ref: _____

IMPLEMENTATION SCHEDULE

EIA Ref*	EM&A Log Ref	Environmental Protection Measures*	Location/ Timing	Implementation Agent	Implementation Stages**			
					Des	C	O	Dec

* All recommendations and requirements resulted during the Course of EIA/EA Process, including ACE and / or accepted public comment to the proposed project

** Des- Design, C-Construction,O-Operation, Dec- Decommissioning

Signed by Project Proponent: _____

Date: _____

Ref: _____

IMPLEMENTATION STATUS PROFORMA

Ref**	Environmental Protection Measures*	Implementation Status

* All recommendations and requirements resulted during the Course of EIA/EA Process, including ACE and / or accepted public comment to the proposed project

** EIA Ref / EM&A Log Ref / Design Document Ref

Signed by Environmental Team Leader: _____ Date: _____

Audited by Independent Environment Checker: _____ Date: _____

Ref: _____

DATA RECOVERY SCHEDULE

Date	Air Quality Monitoring									Noise Monitoring						
	Monitoring Station*									Monitoring Station*						
	A02	A06	A07	A21	A24	A34	A36	A40	A42	R2	R5	R7	R14	R16	R21	R24
1																
2																
3																
4																
5																
6																
7																
8																
9																
10																
11																
12																
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22																
23																
24																
25																
26																
27																
28																
29																
30																
31																
% of R																

* Research type of parameters
 % of R The percentage of Data Recovery is the natural monitoring over the scheduled monitoring

Signed by Environmental Team Leader: _____

Date: _____

Ref: _____

SITE INSPECTION PROFORMA

Date	Location	Req t Ref.*	Observation / Deficiency	Mitigation Action** (Responsible Agency)	Date*** of Confirmation

* EIA Ref / EM&A Log Ref / Design Document Ref / Environmental Protection Contract Clause

** Specific Environmental Mitigation Measures should be stated, such as, equipment, processes, systems, practices or technologies

*** The required completion date to confirm the specified Environmental Protection Action

This Proforma is an Environmental Protection Instruction for: _____ Date: _____

Signed by Environmental Team Leader: _____ Date: _____

Ref: _____

PROACTIVE ENVIRONMENTAL PROTECTION PROFORMA

Ref*	Proposed Construction Method*	Location/ Working Period	Anticipated Impacts	Recommended Mitigation Measures

* EIA Ref / EM&A Log Ref / Design Ref

** Details of equipment, vehicles, plants, processes, technologies for the option of construction method

Signed by Environmental Team Leader:

Date:

Audited by Independent Environment Checker:

Date:

Ref: _____

REGULATORY COMPLIANCE PROFORMA

Ref*	Environmental License / Permit*	Control Area / Facility / Location	Effective Date

* Name of Applicant, Business Corporation, relevant regulation and remark of license / permit conditions

** File reference of the licensee / permittee

Signed by Environmental Team Leader:

Date:

Audited by Independent Environment Checker:

Date:

Appendix D

Summary of Action and Limit Levels

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

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

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

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

Table D3 *Action and Limit Levels for Water Quality*

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

Notes:

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

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

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

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

	North Lantau Social Cluster	
	NEL	NWL
Action Level	STG < 70% of baseline & ANI < 70% of baseline	STG < 70% of baseline & ANI < 70% of baseline
Limit Level	[STG < 40% of baseline & ANI < 40% of baseline] and STG < 40% of baseline & ANI < 40% of baseline	
Notes:		
1.	STG means quarterly encounter rate of number of dolphin sightings, which is 6.00 in NEL and 9.85 in NWL during the baseline monitoring period	
2.	ANI means quarterly encounter rate of total number of dolphins, which is 22.19 in NEL and 44.66 in NWL during the baseline monitoring period	
3.	For North Lantau Social Cluster, AL will be trigger if NEL or NWL fall below the criteria; LL will be triggered if both NEL and NWL fall below the criteria.	

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

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

Appendix E

EM&A Monitoring Schedules

**HY/2012/07 - Tuen Mun - Chek Lap Kok Link - Southern Connection Viaduct Section
Impact Marine Water Quality Monitoring (WQM) Schedule (31 Oct to 30 Nov 13)**

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
27-Oct	28-Oct	29-Oct	30-Oct	31-Oct	01-Nov	02-Nov
				WQM Mid-Ebb 10:32 (08:47 - 12:17) Mid-Flood 16:51 (15:06 - 18:36)		WQM Mid-Ebb 11:58 (10:13 - 13:43) Mid-Flood 17:49 (16:04 - 19:34)
03-Nov	04-Nov	05-Nov	06-Nov	07-Nov	08-Nov	09-Nov
		WQM Mid-Ebb 14:14 (12:29 - 15:59) Mid-Flood 19:30 (17:45 - 21:15)		WQM Mid-Flood 10:20 (08:35 - 12:05) Mid-Ebb 15:51 (14:06 - 17:36)		WQM Mid-Flood 12:28 (10:43 - 14:13) Mid-Ebb 17:57 (16:12 - 19:42)
10-Nov	11-Nov	12-Nov	13-Nov	14-Nov	15-Nov	16-Nov
		WQM Mid-Ebb 8:22 (06:36 - 10:06) Mid-Flood 15:35 (13:50 - 17:20)		WQM Mid-Ebb 10:28 (08:43 - 12:13) Mid-Flood 16:49 (15:04 - 18:34)		WQM Mid-Ebb 12:02 (10:17 - 13:47) Mid-Flood 17:46 (16:01 - 19:31)
17-Nov	18-Nov	19-Nov	20-Nov	21-Nov	22-Nov	23-Nov
		WQM Mid-Ebb 13:56 (12:11 - 15:41) Mid-Flood 19:10 (17:25 - 20:55)		WQM Mid-Flood 9:53 (08:08 - 11:38) Mid-Ebb 15:02 (13:20 - 16:50)		WQM Mid-Flood 11:17 (09:32 - 13:02) Mid-Ebb 16:12 (14:35 - 17:50)
24-Nov	25-Nov	26-Nov	27-Nov	28-Nov	29-Nov	30-Nov
		WQM Mid-Flood 14:06 (12:21 - 15:51) Mid-Ebb 20:11 (18:26 - 21:56)		WQM Mid-Ebb 8:33 (06:48 - 10:18) Mid-Flood 15:19 (13:34 - 17:04)		WQM Mid-Ebb 10:42 (08:57 - 12:27) Mid-Flood 16:30 (14:45 - 18:15)

**HY/2012/07 - Tuen Mun - Chek Lap Kok Link - Southern Connection Viaduct Section
Impact Marine Water Quality Monitoring (WQM) Schedule (Dec 13)**

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
01-Dec	02-Dec	03-Dec	04-Dec	05-Dec	06-Dec	07-Dec
		WQM Mid-Ebb 13:15 (11:30 - 15:00) Mid-Flood 18:27 (16:42 - 20:12)		WQM Mid-Flood 9:23 (07:38 - 11:08) Mid-Ebb 14:52 (13:07 - 16:37)		WQM Mid-Flood 11:04 (09:19 - 12:49) Mid-Ebb 16:35 (14:51 - 18:21)
08-Dec	09-Dec	10-Dec	11-Dec	12-Dec	13-Dec	14-Dec
		WQM Mid-Flood 13:55 (12:10 - 15:40) Mid-Ebb 20:18 (18:33 - 22:03)		WQM Mid-Ebb 8:57 (07:12 - 10:42) Mid-Flood 15:28 (13:43 - 17:13)		WQM Mid-Ebb 11:05 (09:20 - 12:50) Mid-Flood 16:40 (14:55 - 18:25)
15-Dec	16-Dec	17-Dec	18-Dec	19-Dec	20-Dec	21-Dec
		WQM Mid-Ebb 13:03 (11:18 - 14:48) Mid-Flood 18:14 (16:29 - 19:59)		WQM Mid-Ebb 14:09 (12:24 - 15:54) Mid-Flood 19:18 (17:33 - 21:03)		WQM Mid-Flood 10:00 (08:15 - 11:45) Mid-Ebb 15:13 (13:28 - 16:58)
22-Dec	23-Dec	24-Dec	25-Dec	26-Dec	27-Dec	28-Dec
		WQM Mid-Flood 11:53 (10:08 - 13:38) Mid-Ebb 17:33 (15:48 - 19:18)		WQM Mid-Flood 13:25 (11:40 - 15:10) Mid-Ebb 19:58 (18:13 - 21:43)		WQM Mid-Ebb 9:01 (07:16 - 10:46) Mid-Flood 14:59 (13:14 - 16:44)
29-Dec	30-Dec	31-Dec				
		WQM Mid-Ebb 12:15 (10:30 - 14:00) Mid-Flood 17:23 (15:38 - 19:08)				

**HY/2012/07 - Tuen Mun - Chek Lap Kok Link - Southern Connection Viaduct Section
Impact Marine Water Quality Monitoring (WQM) Schedule (Jan 14)**

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
			01-Jan	02-Jan	03-Jan	04-Jan
				WQM Mid-Ebb 13:52 (12:07 - 15:37) Mid-Flood 19:00 (17:15 - 20:45)		WQM Mid-Flood 9:53 (08:08 - 11:28) Mid-Ebb 15:25 (13:40 - 17:10)
05-Jan	06-Jan	07-Jan	08-Jan	09-Jan	10-Jan	11-Jan
		WQM Mid-Flood 12:06 (10:21 - 13:51) Mid-Ebb 18:19 (16:34 - 20:04)		WQM Mid-Flood 13:43 (11:58 - 15:28) Mid-Ebb 20:43 (18:57 - 21:57)		WQM Mid-Ebb 9:46 (08:01 - 11:01) Mid-Flood 15:16 (13:31 - 17:01)
12-Jan	13-Jan	14-Jan	15-Jan	16-Jan	17-Jan	18-Jan
		WQM Mid-Ebb 12:12 (10:27 - 13:42) Mid-Flood 17:22 (15:27 - 18:57)		WQM Mid-Ebb 13:15 (11:30 - 15:00) Mid-Flood 18:34 (16:49 - 20:19)		WQM Mid-Ebb 14:14 (12:29 - 15:59) Mid-Flood 19:44 (17:59 - 21:00)
19-Jan	20-Jan	21-Jan	22-Jan	23-Jan	24-Jan	25-Jan
		WQM Mid-Flood 10:17 (08:32 - 12:02) Mid-Ebb 16:01 (14:16 - 17:46)		WQM Mid-Flood 11:30 (09:45 - 13:15) Mid-Ebb 17:48 (16:03 - 19:33)		WQM Mid-Flood 13:06 (11:21 - 14:51) Mid-Ebb 20:14 (18:29 - 21:29)
26-Jan	27-Jan	28-Jan	29-Jan	30-Jan	31-Jan	
		WQM Mid-Ebb 11:13 (09:28 - 12:28) Mid-Flood 16:15 (14:30 - 18:00)		WQM Mid-Ebb 12:51 (11:06 - 14:36) Mid-Flood 18:04 (16:19 - 19:49)		

**HY/2012/07 - Tuen Mun - Chek Lap Kok Link - Southern Connection Viaduct Section
Impact Marine Water Quality Monitoring (WQM) Schedule (Feb 14)**

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
						01-Feb
					No marine works	No marine works
02-Feb	03-Feb	04-Feb	05-Feb	06-Feb	07-Feb	08-Feb
No marine works	No marine works	WQM Mid-Flood 10:30 (08:45 - 12:15) Mid-Ebb 16:35 (14:50 - 18:20)		WQM Mid-Flood 11:39 (09:54 - 13:24) Mid-Ebb 18:29 (16:44 - 20:14)		WQM Mid-Flood 13:11 (11:26 - 14:56) Mid-Ebb 21:15 (19:30 - 22:30)
09-Feb	10-Feb	11-Feb	12-Feb	13-Feb	14-Feb	15-Feb
		WQM Mid-Ebb 11:25 (09:40 - 13:10) Mid-Flood 16:27 (14:42 - 18:12)		WQM Mid-Ebb 12:25 (10:40 - 14:10) Mid-Flood 17:50 (16:05 - 19:35)		WQM Mid-Ebb 13:20 (11:35 - 15:05) Mid-Flood 19:04 (17:19 - 20:49)
16-Feb	17-Feb	18-Feb	19-Feb	20-Feb	21-Feb	22-Feb
		WQM Mid-Flood 9:02 (07:17 - 10:47) Mid-Ebb 14:55 (13:10 - 16:40)		WQM Mid-Flood 9:59 (08:14 - 11:44) Mid-Ebb 16:12 (14:27 - 17:57)		WQM Mid-Flood 11:12 (09:27 - 12:57) Mid-Ebb 18:07 (16:22 - 19:52)
23-Feb	24-Feb	25-Feb	26-Feb	27-Feb	28-Feb	
		WQM Mid-Ebb 10:06 (08:21 - 11:51) Mid-Flood 14:57 (13:12 - 16:42)		WQM Mid-Ebb 11:53 (10:08 - 13:38) Mid-Flood 17:08 (15:23 - 18:53)		

**HY/2012/07 Tuen Mun - Chek Lap Kok Link - Southern Connection Viaduct Section
Tentative Impact Noise Monitoring Schedule (31 Oct to 30 Nov 2013)**

Noise Monitoring at the rooftop of Pak Mong Village Watch Tower

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

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

**HY/2012/07 Tuen Mun - Chek Lap Kok Link - Southern Connection Viaduct Section
Tentative Impact Air Quality Monitoring Schedule (31 Oct to 30 Nov 2013)**

Air Quality Monitoring at Siu Ho Wan MTRC Depot

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
27-Oct	28-Oct	29-Oct	30-Oct	31-Oct	01-Nov	02-Nov
03-Nov	04-Nov	05-Nov	06-Nov	07-Nov	08-Nov	09-Nov
		1-hour TSP - 3 times 24-hour TSP - 1 time <i>Impact AQM</i>				
10-Nov	11-Nov	12-Nov	13-Nov	14-Nov	15-Nov	16-Nov
	1-hour TSP - 3 times 24-hour TSP - 1 time <i>Impact AQM</i>				1-hour TSP - 3 times 24-hour TSP - 1 time <i>Impact AQM</i>	
17-Nov	18-Nov	19-Nov	20-Nov	21-Nov	22-Nov	23-Nov
				1-hour TSP - 3 times 24-hour TSP - 1 time <i>Impact AQM</i>		
24-Nov	25-Nov	26-Nov	27-Nov	28-Nov	29-Nov	30-Nov
			1-hour TSP - 3 times 24-hour TSP - 1 time <i>Impact AQM</i>			

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

**HY/2012/07 Tuen Mun - Chek Lap Kok Link - Southern Connection Viaduct Section
Tentative Impact Noise Monitoring Schedule (1 Dec to 31 Dec 2013)**

Noise Monitoring at the rooftop of Pak Mong Village Watch Tower

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

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

**HY/2012/07 Tuen Mun - Chek Lap Kok Link - Southern Connection Viaduct Section
Tentative Impact Air Quality Monitoring Schedule (1 Dec to 31 Dec 2013)**

Air Quality Monitoring at WA4 and rooftop of Pak Mong Village Watch Tower

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
01-Dec	02-Dec	03-Dec	04-Dec	05-Dec	06-Dec	07-Dec
		1-hour TSP - 3 times 24-hour TSP - 1 time <i>Impact AQM</i>				
08-Dec	09-Dec	10-Dec	11-Dec	12-Dec	13-Dec	14-Dec
	1-hour TSP - 3 times 24-hour TSP - 1 time <i>Impact AQM</i>				1-hour TSP - 3 times 24-hour TSP - 1 time <i>Impact AQM</i>	
15-Dec	16-Dec	17-Dec	18-Dec	19-Dec	20-Dec	21-Dec
				1-hour TSP - 3 times 24-hour TSP - 1 time <i>Impact AQM</i>		
22-Dec	23-Dec	24-Dec	25-Dec	26-Dec	27-Dec	28-Dec
		1-hour TSP - 3 times 24-hour TSP - 1 time <i>Impact AQM</i>				
29-Dec	30-Dec	31-Dec				
	1-hour TSP - 3 times 24-hour TSP - 1 time <i>Impact AQM</i>					

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

**HY/2012/07 Tuen Mun - Chek Lap Kok Link - Southern Connection Viaduct Section
Tentative Impact Noise Monitoring Schedule (1 Jan to 31 Jan 2014)**

Noise Monitoring at the rooftop of Pak Mong Village Watch Tower

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

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

**HY/2012/07 Tuen Mun - Chek Lap Kok Link - Southern Connection Viaduct Section
Tentative Impact Air Quality Monitoring Schedule (1 Jan to 31 Jan 2014)**

Air Quality Monitoring at WA4 and rooftop of Pak Mong Village Watch Tower

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
			01-Jan	02-Jan	03-Jan	04-Jan
					1-hour TSP - 3 times 24-hour TSP - 1 time <i>Impact AQM</i>	
05-Jan	06-Jan	07-Jan	08-Jan	09-Jan	10-Jan	11-Jan
				1-hour TSP - 3 times 24-hour TSP - 1 time <i>Impact AQM</i>		
12-Jan	13-Jan	14-Jan	15-Jan	16-Jan	17-Jan	18-Jan
			1-hour TSP - 3 times 24-hour TSP - 1 time <i>Impact AQM</i>			
19-Jan	20-Jan	21-Jan	22-Jan	23-Jan	24-Jan	25-Jan
		1-hour TSP - 3 times 24-hour TSP - 1 time <i>Impact AQM</i>				
26-Jan	27-Jan	28-Jan	29-Jan	30-Jan	31-Jan	
	1-hour TSP - 3 times 24-hour TSP - 1 time <i>Impact AQM</i>			1-hour TSP - 3 times 24-hour TSP - 1 time <i>Impact AQM</i>		

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

**HY/2012/07 Tuen Mun - Chek Lap Kok Link - Southern Connection Viaduct Section
Tentative Impact Noise Monitoring Schedule (1 Feb - 28 Feb 2014)**

Noise Monitoring at the rooftop of Pak Mong Village Watch Tower

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

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

**HY/2012/07 Tuen Mun - Chek Lap Kok Link - Southern Connection Viaduct Section
Tentative Impact Air Quality Monitoring Schedule (1 Feb to 28 Feb 2014)**

Air Quality Monitoring at WA4 and rooftop of Pak Mong Village Watch Tower

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
						public holiday 01-Feb
public holiday 02-Feb	public holiday 03-Feb	04-Feb	05-Feb	06-Feb	07-Feb	08-Feb
			1-hour TSP - 3 times 24-hour TSP - 1 time <i>Impact AQM</i>			1-hour TSP - 3 times 24-hour TSP - 1 time <i>Impact AQM</i>
09-Feb	10-Feb	11-Feb	12-Feb	13-Feb	14-Feb	15-Feb
			1-hour TSP - 3 times 24-hour TSP - 1 time <i>Impact AQM</i>			
16-Feb	17-Feb	18-Feb	19-Feb	20-Feb	21-Feb	22-Feb
		1-hour TSP - 3 times 24-hour TSP - 1 time <i>Impact AQM</i>				
23-Feb	24-Feb	25-Feb	26-Feb	27-Feb	28-Feb	
	1-hour TSP - 3 times 24-hour TSP - 1 time <i>Impact AQM</i>				1-hour TSP - 3 times 24-hour TSP - 1 time <i>Impact AQM</i>	

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

**HY/2012/07 Tuen Mun - Chek Lap Kok Link - Southern Connection Viaduct Section
Impact Dolphin Monitoring Survey Schedule - November 2013**

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

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

**HY/2012/07 Tuen Mun - Chek Lap Kok Link - Southern Connection Viaduct Section
Impact Dolphin Monitoring Survey Schedule - December 2013**

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
1-Dec	2-Dec	3-Dec	4-Dec	5-Dec	6-Dec	7-Dec
				Impact Dolphin Monitoring		
8-Dec	9-Dec	10-Dec	11-Dec	12-Dec	13-Dec	14-Dec
	Impact Dolphin Monitoring		Impact Dolphin Monitoring			
15-Dec	16-Dec	17-Dec	18-Dec	19-Dec	20-Dec	21-Dec
				Impact Dolphin Monitoring		
22-Dec	23-Dec	24-Dec	25-Dec	26-Dec	27-Dec	28-Dec
29-Dec	30-Dec	31-Dec				

**HY/2012/07 Tuen Mun - Chek Lap Kok Link - Southern Connection Viaduct Section
Tentative Impact Dolphin Monitoring Survey Schedule (1 Jan to 31 Jan 2014)**

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	10-Jan	11-Jan
		Impact Dolphin Monitoring		Impact Dolphin Monitoring		
12-Jan	13-Jan	14-Jan	15-Jan	16-Jan	17-Jan	18-Jan
19-Jan	20-Jan	21-Jan	22-Jan	23-Jan	24-Jan	25-Jan
	Impact Dolphin Monitoring			Impact Dolphin Monitoring		
26-Jan	27-Jan	28-Jan	29-Jan	30-Jan	31-Jan	

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

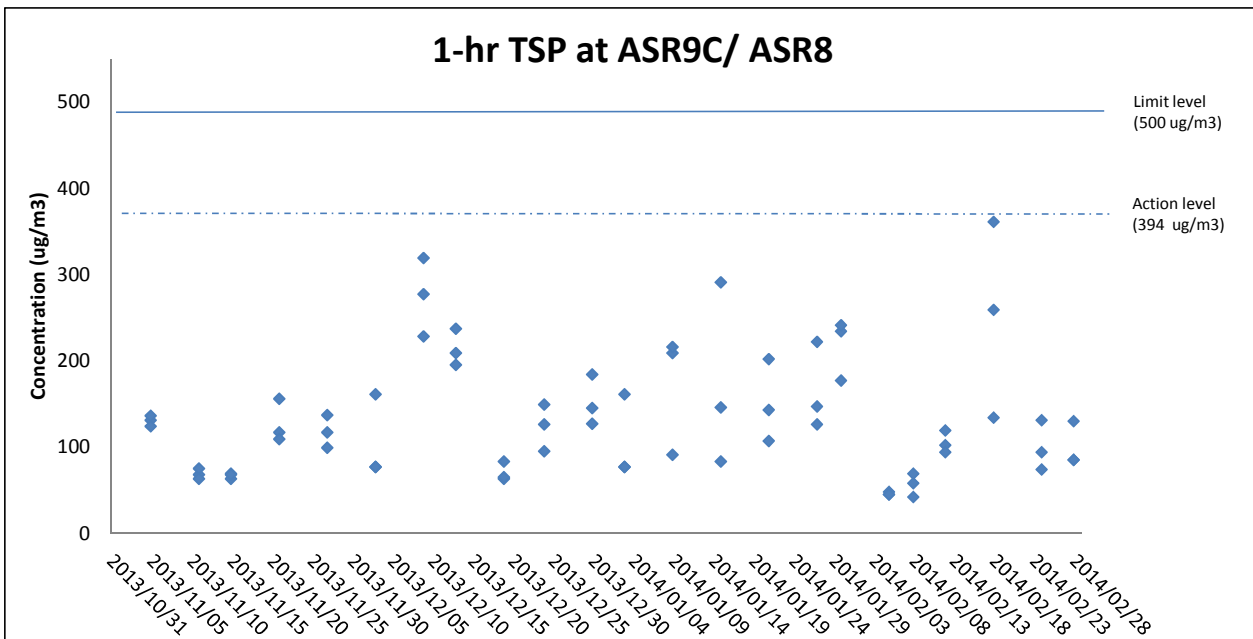
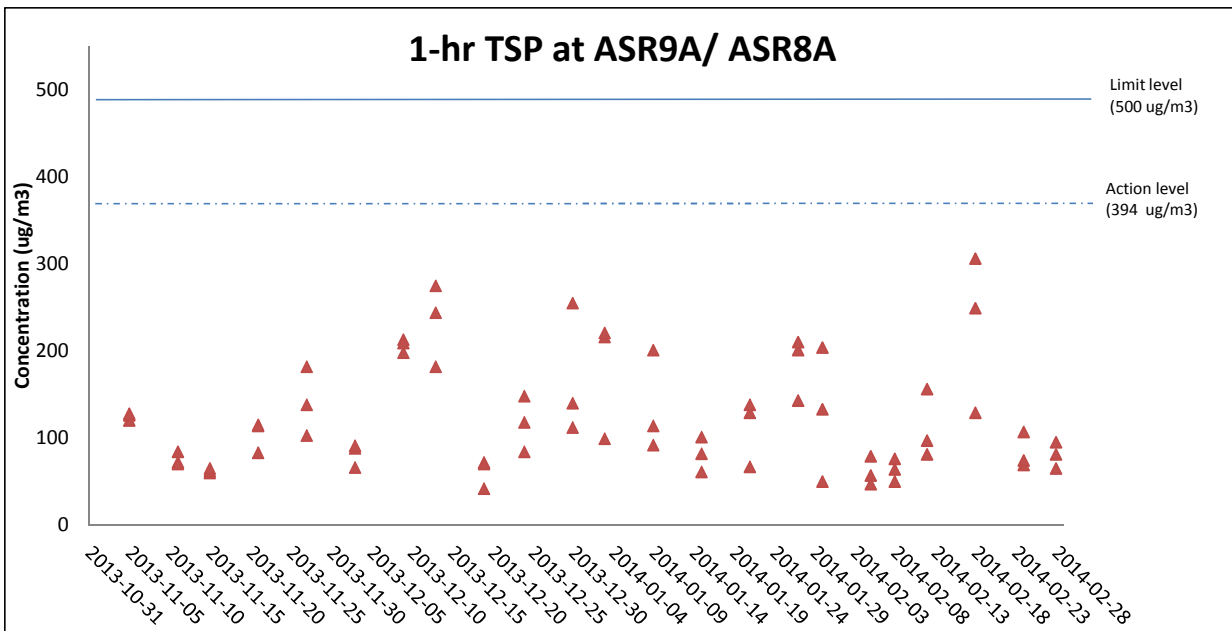
**HY/2012/07 Tuen Mun - Chek Lap Kok Link - Southern Connection Viaduct Section
Tentative Impact Dolphin Monitoring Survey Schedule (1 Feb to 28 Feb 2014)**

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

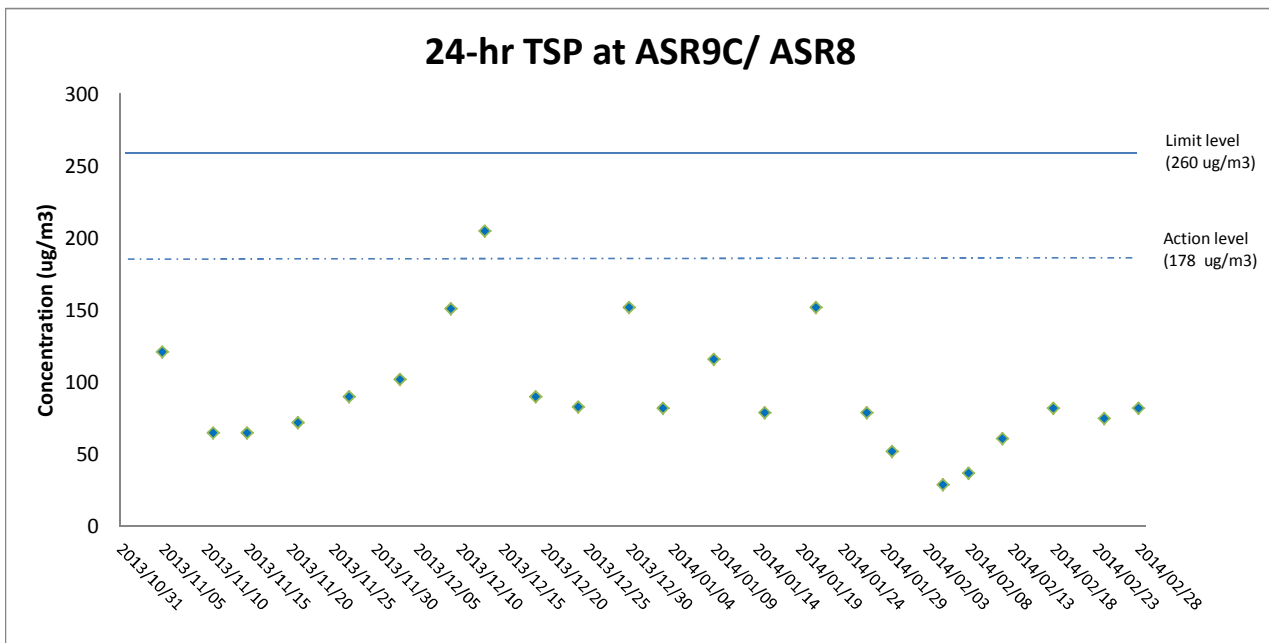
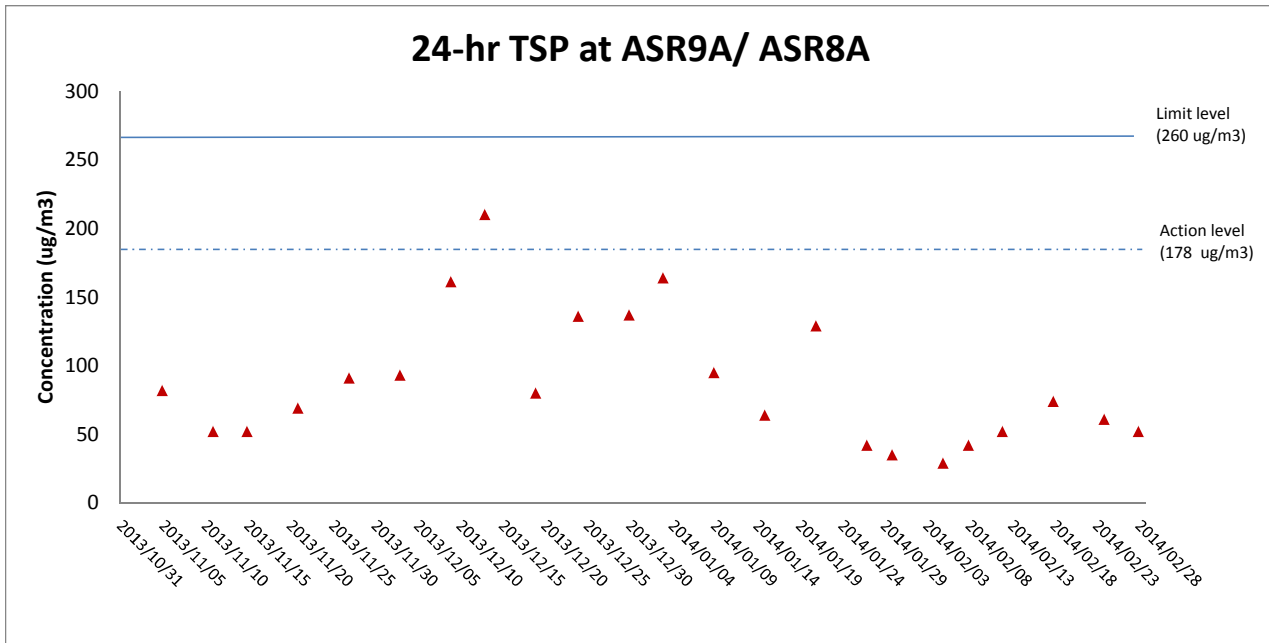
Impact Air Quality
Monitoring Graphical
Presentation



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

Major construction works undertaken within the reporting period include site office erection, fence relocation for Viaduct A, C & D and land piling at Viaduct B.

Marine works within the reporting period include rockfill platform construction, marine piling platform installation and survey tower erection.



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

Major construction works undertaken within the reporting period include site office erection, fence relocation for Viaduct A, C & D and land piling at Viaduct B.

Marine works within the reporting period include rockfill platform construction, marine piling platform installation and survey tower erection.

Appendix G

Meteorological Data for the Reporting Month

Appendix H Meteorological Data for Impact Monitoring in the reporting period

Date	Time (24hrs)	Wind Speed (m/s)	Wind Direction (degree)
2013/11/05	09:38:39	0.23	102.51
2013/11/05	09:43:39	0.02	79.11
2013/11/05	09:48:39	1.07	61.28
2013/11/05	09:53:39	0.02	50.92
2013/11/05	09:58:39	0.58	97.16
2013/11/05	10:03:39	0.86	76.77
2013/11/05	10:08:39	0.81	83.45
2013/11/05	10:13:39	0.21	91.48
2013/11/05	10:18:39	0.75	63.29
2013/11/05	10:23:39	0.09	88.13
2013/11/05	10:28:39	0.02	92.92
2013/11/05	10:33:39	0.02	72.87
2013/11/05	10:38:39	0.41	24.85
2013/11/05	10:43:39	1.19	29.75
2013/11/05	10:48:39	1.54	24.18
2013/11/05	10:53:39	1.7	29.08
2013/11/05	10:58:39	1.15	20.84
2013/11/05	11:03:39	1.41	36.21
2013/11/05	11:08:39	0.92	24.62
2013/11/05	11:13:39	1.44	1.11
2013/11/05	11:18:39	1.22	28.08
2013/11/05	11:23:39	0.92	23.06
2013/11/05	11:28:39	1.12	21.06
2013/11/05	11:33:39	0.2	22.84
2013/11/05	11:38:39	0.98	15.15
2013/11/05	11:43:39	1.27	-0.22
2013/11/05	11:48:39	0.35	24.18
2013/11/05	11:53:39	0.69	25.96
2013/11/05	11:58:39	0.66	0.22
2013/11/05	12:03:39	0.31	23.4
2013/11/05	12:08:39	0.18	357.44
2013/11/05	12:13:39	0.31	19.28
2013/11/05	12:18:39	0.55	24.51
2013/11/05	12:23:39	0.64	27.19
2013/11/05	12:28:39	0.49	23.73
2013/11/05	12:33:39	0.06	42.01
2013/11/05	12:38:39	0.37	32.76
2013/11/05	12:43:39	0.18	25.63
2013/11/05	12:48:39	0.26	24.74
2013/11/05	12:53:39	0.29	18.72
2013/11/05	12:58:39	0.76	32.87
2013/11/05	13:03:39	0.12	2.34
2013/11/05	13:08:39	0.02	23.51
2013/11/05	13:13:39	0.02	348.08
2013/11/05	13:18:39	0.58	343.62
2013/11/05	13:23:39	0.41	2.9

Appendix H Meteorological Data for Impact Monitoring in the reporting period

Date	Time (24hrs)	Wind Speed (m/s)	Wind Direction (degree)
2013/11/05	13:28:39	0.86	25.07
2013/11/05	13:33:39	1.65	28.08
2013/11/05	13:38:39	1.07	21.28
2013/11/05	13:43:39	0.98	8.47
2013/11/05	13:48:39	1.41	26.85
2013/11/05	13:53:39	1.7	30.75
2013/11/05	13:58:39	1.27	19.16
2013/11/05	14:03:39	1.44	38.66
2013/11/05	14:08:39	1.64	18.94
2013/11/05	14:13:39	1.58	25.4
2013/11/05	14:18:39	1.32	31.42
2013/11/05	14:23:39	1.76	36.77
2013/11/05	14:28:39	0.87	30.64
2013/11/05	14:33:39	0.87	39.33
2013/11/05	14:38:39	0.69	25.29
2013/11/05	14:43:39	0.61	27.74
2013/11/05	14:48:39	1.33	20.06
2013/11/05	14:53:39	0.75	29.42
2013/11/05	14:58:39	0.5	18.27
2013/11/05	15:03:39	0.32	34.54
2013/11/05	15:08:39	0.73	15.15
2013/11/05	15:13:39	1.42	30.19
2013/11/05	15:18:39	2.16	17.6
2013/11/05	15:23:39	1.94	11.81
2013/11/05	15:28:39	1.41	12.48
2013/11/05	15:33:39	2.23	353.76
2013/11/05	15:38:39	0.49	0.22
2013/11/05	15:43:39	0.54	358.22
2013/11/05	15:48:39	1.09	348.41
2013/11/05	15:53:39	1.04	358.33
2013/11/05	15:58:39	0.4	357.21
2013/11/05	16:03:39	0.95	333.48
2013/11/05	16:08:39	0.95	336.94
2013/11/05	16:13:39	1.42	336.6
2013/11/05	16:18:39	2.05	330.7
2013/11/05	16:23:39	1.27	348.08
2013/11/05	16:28:39	1.84	351.75
2013/11/05	16:33:39	1.33	342.73
2013/11/05	16:38:39	2.69	357.1
2013/11/05	16:43:39	1.16	341.84
2013/11/05	16:48:39	1.32	347.52
2013/11/05	16:53:39	1.19	356.88
2013/11/05	16:58:39	1.1	0
2013/11/05	17:03:39	1.19	334.71
2013/11/05	17:08:39	0.83	346.41
2013/11/05	17:13:39	1.25	360.56

Appendix H Meteorological Data for Impact Monitoring in the reporting period

Date	Time (24hrs)	Wind Speed (m/s)	Wind Direction (degree)
2013/11/05	17:18:39	0.81	356.88
2013/11/05	17:23:39	0.24	6.91
2013/11/05	17:28:39	0.78	21.28
2013/11/05	17:33:39	0.02	32.87
2013/11/05	17:38:39	0.38	19.83
2013/11/05	17:43:39	0.86	22.84
2013/11/05	17:48:39	0.02	75.54
2013/11/05	17:53:39	1.35	19.28
2013/11/05	17:58:39	0.41	43.45
2013/11/05	18:03:39	0.23	21.17
2013/11/05	18:08:39	0.32	22.28
2013/11/05	18:13:39	0.6	26.07
2013/11/05	18:18:39	0.03	40.78
2013/11/05	18:23:39	0.03	159.89
2013/11/05	18:28:39	0.03	193.76
2013/11/05	18:33:39	0.03	160.89
2013/11/05	18:38:39	0.03	160.89
2013/11/05	18:43:39	0.03	103.51
2013/11/05	18:48:39	0.02	51.7
2013/11/05	18:53:39	0.03	51.7
2013/11/05	18:58:39	0.03	51.7
2013/11/05	19:03:39	0.03	51.7
2013/11/05	19:08:39	0.03	63.73
2013/11/05	19:13:39	0.03	63.29
2013/11/05	19:18:39	0.03	87.91
2013/11/05	19:23:39	0.03	87.91
2013/11/05	19:28:39	0.03	87.91
2013/11/05	19:33:39	0.03	87.91
2013/11/05	19:38:39	0.03	87.91
2013/11/05	19:43:39	0.03	146.96
2013/11/05	19:48:39	0.03	199.44
2013/11/05	19:53:39	0.03	186.41
2013/11/05	19:58:39	0.03	204.46
2013/11/05	20:03:39	0.03	204.35
2013/11/05	20:08:39	0.03	202.56
2013/11/05	20:13:39	0.03	206.91
2013/11/05	20:18:39	0.03	163.9
2013/11/05	20:23:39	0.03	169.69
2013/11/05	20:28:39	0.03	159.44
2013/11/05	20:33:39	0.03	159.44
2013/11/05	20:38:39	0.03	159.44
2013/11/05	20:43:39	0.05	159.44
2013/11/05	20:48:39	0.05	159.44
2013/11/05	20:53:39	0.05	146.07
2013/11/05	20:58:39	0.05	146.18
2013/11/05	21:03:39	0.03	146.07

Appendix H Meteorological Data for Impact Monitoring in the reporting period

Date	Time (24hrs)	Wind Speed (m/s)	Wind Direction (degree)
2013/11/05	21:08:39	0.03	163.12
2013/11/05	21:13:39	0.03	147.86
2013/11/05	21:18:39	0.03	150.19
2013/11/05	21:23:39	0.03	149.08
2013/11/05	21:28:39	0.05	167.58
2013/11/05	21:33:39	0.03	167.47
2013/11/05	21:38:39	0.05	167.47
2013/11/05	21:43:39	0.03	167.47
2013/11/05	21:48:39	0.03	151.53
2013/11/05	21:53:39	0.03	133.82
2013/11/05	21:58:39	0.03	161.45
2013/11/05	22:03:39	0.03	161.45
2013/11/05	22:08:39	0.03	161.45
2013/11/05	22:13:39	0.03	161.45
2013/11/05	22:18:39	0.03	139.16
2013/11/05	22:23:39	0.03	118.66
2013/11/05	22:28:39	0.03	42.79
2013/11/05	22:33:39	0.03	222.73
2013/11/05	22:38:39	0.03	172.14
2013/11/05	22:43:39	0.03	172.14
2013/11/05	22:48:39	0.03	172.14
2013/11/05	22:53:39	0.03	149.3
2013/11/05	22:58:39	0.05	149.3
2013/11/05	23:03:39	0.03	150.31
2013/11/05	23:08:39	0.03	150.42
2013/11/05	23:13:39	0.03	150.42
2013/11/05	23:18:39	0.03	171.59
2013/11/05	23:23:39	0.03	171.59
2013/11/05	23:28:39	0.03	171.48
2013/11/05	23:33:39	0.03	176.04
2013/11/05	23:38:39	0.03	176.04
2013/11/05	23:43:39	0.03	176.04
2013/11/05	23:48:39	0.03	175.82
2013/11/05	23:53:39	0.03	171.59
2013/11/05	23:58:39	0.03	171.59
2013/11/11	09:57:32	2.28	23.29
2013/11/11	10:02:32	4.3	136.27
2013/11/11	10:07:32	2.66	80.11
2013/11/11	10:12:32	3.38	151.31
2013/11/11	10:17:32	1.54	118.77
2013/11/11	10:22:32	2.11	131.25
2013/11/11	10:27:32	3.17	82.23
2013/11/11	10:32:32	2.11	146.74
2013/11/11	10:37:32	2.22	157.1
2013/11/11	10:42:32	3.79	115.32
2013/11/11	10:47:32	1.13	160.22

Appendix H Meteorological Data for Impact Monitoring in the reporting period

Date	Time (24hrs)	Wind Speed (m/s)	Wind Direction (degree)
2013/11/11	10:52:32	2.98	123.9
2013/11/11	10:57:32	4.6	97.94
2013/11/11	11:02:32	5.84	135.82
2013/11/11	11:07:32	2.08	84.46
2013/11/11	11:12:32	2.92	164.01
2013/11/11	11:17:32	0.76	122.67
2013/11/11	11:22:32	1.09	131.81
2013/11/11	11:27:32	4.71	110.64
2013/11/11	11:32:32	2.43	126.35
2013/11/11	11:37:32	1.54	117.1
2013/11/11	11:42:32	2.17	99.28
2013/11/11	11:47:32	3.75	116.55
2013/11/11	11:52:32	2.91	144.4
2013/11/11	11:57:32	1.15	81.78
2013/11/11	12:02:32	3.17	143.96
2013/11/11	12:07:32	2.2	116.77
2013/11/11	12:12:32	2.98	51.48
2013/11/11	12:17:32	5.83	110.97
2013/11/11	12:22:32	1.54	180.61
2013/11/11	12:27:32	4.39	110.97
2013/11/11	12:32:32	5.12	126.13
2013/11/11	12:37:32	2.16	95.6
2013/11/11	12:42:32	4.47	131.7
2013/11/11	12:47:32	3.55	86.13
2013/11/11	12:52:32	2.49	112.2
2013/11/11	12:57:32	4.85	142.62
2013/11/11	13:02:32	2.54	130.7
2013/11/11	13:07:32	1.99	129.58
2013/11/11	13:12:32	2.75	114.65
2013/11/11	13:17:32	1.61	153.2
2013/11/11	13:22:32	0.81	145.29
2013/11/11	13:27:32	2.51	115.1
2013/11/11	13:32:32	3.43	136.82
2013/11/11	13:37:32	2.13	167.02
2013/11/11	13:42:32	1.67	186.41
2013/11/11	13:47:32	3.33	101.5
2013/11/11	13:52:32	2.42	115.21
2013/11/11	13:57:32	1.53	132.14
2013/11/11	14:02:32	3.12	89.14
2013/11/11	14:07:32	4.99	160.45
2013/11/11	14:12:32	2.78	128.13
2013/11/11	14:17:32	3.07	126.35
2013/11/11	14:22:32	3.87	121.23
2013/11/11	14:27:32	1.19	147.19
2013/11/11	14:32:32	3.35	77.33
2013/11/11	14:37:32	3.18	105.74

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Date	Time (24hrs)	Wind Speed (m/s)	Wind Direction (degree)
2013/11/11	14:42:32	2.55	120.45
2013/11/11	14:47:32	4.47	97.83
2013/11/11	14:52:32	4.7	138.05
2013/11/11	14:57:32	0.9	86.24
2013/11/11	15:02:32	3.01	113.98
2013/11/11	15:07:32	4.79	129.36
2013/11/11	15:12:32	3.7	100.61
2013/11/11	15:17:32	4.14	128.25
2013/11/11	15:22:32	4.8	122.9
2013/11/11	15:27:32	2	89.81
2013/11/11	15:32:32	2.97	135.71
2013/11/11	15:37:32	2.31	119.67
2013/11/11	15:42:32	6.61	98.83
2013/11/11	15:47:32	1.47	149.64
2013/11/11	15:52:32	1.99	150.19
2013/11/11	15:57:32	5.28	92.26
2013/11/11	16:02:32	5.37	110.64
2013/11/11	16:07:32	2.89	100.84
2013/11/11	16:12:32	3.96	168.02
2013/11/11	16:17:32	2.51	150.53
2013/11/11	16:22:32	3.04	141.06
2013/11/11	16:27:32	1.41	79
2013/11/11	16:32:32	4.96	133.7
2013/11/11	16:37:32	3.44	159.44
2013/11/11	16:42:32	3.56	113.43
2013/11/11	16:47:32	2.36	134.71
2013/11/11	16:52:32	4.51	133.82
2013/11/11	16:57:32	3.41	107.74
2013/11/11	17:02:32	5.4	136.38
2013/11/11	17:07:32	4.3	168.02
2013/11/11	17:12:32	2.11	124.23
2013/11/11	17:17:32	1.32	186.41
2013/11/11	17:22:32	3.81	139.94
2013/11/11	17:27:32	6.26	145.63
2013/11/11	17:32:32	4.53	161.23
2013/11/11	17:37:32	2.03	136.82
2013/11/11	17:42:32	4.11	128.69
2013/11/11	17:47:32	4.71	87.02
2013/11/11	17:52:32	2.88	101.17
2013/11/11	17:57:32	6.58	169.14
2013/11/11	18:02:32	1.9	175.15
2013/11/11	18:07:32	1.87	214.15
2013/11/11	18:12:32	2.66	146.07
2013/11/11	18:17:32	8.47	142.73
2013/11/11	18:22:32	3.72	110.75
2013/11/11	18:27:32	2.58	131.36

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Date	Time (24hrs)	Wind Speed (m/s)	Wind Direction (degree)
2013/11/11	18:32:32	4.3	159.44
2013/11/11	18:37:32	0.81	208.02
2013/11/11	18:42:32	0.83	119.89
2013/11/11	18:47:32	0.9	75.77
2013/11/11	18:52:32	1.99	107.52
2013/11/11	18:57:32	1.82	144.18
2013/11/11	19:02:32	1.96	188.41
2013/11/11	19:07:32	0.6	143.84
2013/11/11	19:12:32	1.36	166.46
2013/11/11	19:17:32	2.88	128.91
2013/11/11	19:22:32	2.51	195.32
2013/11/11	19:27:32	5.75	128.47
2013/11/11	19:32:32	3.55	134.71
2013/11/11	19:37:32	5.44	152.31
2013/11/11	19:42:32	3.61	87.02
2013/11/11	19:47:32	3.66	128.36
2013/11/11	19:52:32	3.26	103.73
2013/11/11	19:57:32	3.06	98.83
2013/11/11	20:02:32	2.68	111.42
2013/11/11	20:07:32	1.93	138.16
2013/11/11	20:12:32	2.78	116.77
2013/11/11	20:17:32	5.26	119.44
2013/11/11	20:22:32	2.14	128.69
2013/11/11	20:27:32	3.23	109.64
2013/11/11	20:32:32	2.88	81.45
2013/11/11	20:37:32	3.61	130.03
2013/11/11	20:42:32	6.65	113.98
2013/11/11	20:47:32	3.15	124.23
2013/11/11	20:52:32	4.76	117.99
2013/11/11	20:57:32	8.52	130.7
2013/11/11	21:02:32	2.49	135.38
2013/11/11	21:07:32	1.51	158.33
2013/11/11	21:12:32	2.43	105.96
2013/11/11	21:17:32	6.19	124.46
2013/11/11	21:22:32	2.65	134.82
2013/11/11	21:27:32	7.37	157.88
2013/11/11	21:32:32	3.93	135.04
2013/11/11	21:37:32	2.57	107.3
2013/11/11	21:42:32	3.18	138.05
2013/11/11	21:47:32	2.05	182.84
2013/11/11	21:52:32	3.85	171.14
2013/11/11	21:57:32	4.22	135.6
2013/11/11	22:02:32	2.45	159.44
2013/11/11	22:07:32	2	103.51
2013/11/11	22:12:32	2.14	103.73
2013/11/11	22:17:32	2.34	108.41

Appendix H Meteorological Data for Impact Monitoring in the reporting period

Date	Time (24hrs)	Wind Speed (m/s)	Wind Direction (degree)
2013/11/11	22:22:32	3.23	134.37
2013/11/11	22:27:32	3.52	96.49
2013/11/11	22:32:32	4.92	134.6
2013/11/11	22:37:32	4.82	116.1
2013/11/11	22:42:32	2.89	144.18
2013/11/11	22:47:32	1.51	122.12
2013/11/11	22:52:32	1.77	134.37
2013/11/11	22:57:32	5.26	126.13
2013/11/11	23:02:32	1.5	71.31
2013/11/11	23:07:32	4.27	139.39
2013/11/11	23:12:32	1.42	143.84
2013/11/11	23:17:32	0.76	144.29
2013/11/11	23:22:32	3.18	120.33
2013/11/11	23:27:32	3.36	135.93
2013/11/11	23:32:32	1.47	136.94
2013/11/11	23:37:32	2.17	170.81
2013/11/11	23:42:32	1.24	129.47
2013/11/11	23:47:32	1.64	112.65
2013/11/11	23:52:32	1.67	112.2
2013/11/11	23:57:32	1.87	160.56
2013/11/15	00:02:32	1.76	331.59
2013/11/15	00:07:32	1.58	330.36
2013/11/15	00:12:32	0.61	358.77
2013/11/15	00:17:32	1.16	359.67
2013/11/15	00:22:32	2.19	2.12
2013/11/15	00:27:32	1.51	334.93
2013/11/15	00:32:32	1.99	335.49
2013/11/15	00:37:32	0.93	333.82
2013/11/15	00:42:32	1.84	328.69
2013/11/15	00:47:32	1.38	349.08
2013/11/15	00:52:32	1.68	310.08
2013/11/15	00:57:32	1.8	338.61
2013/11/15	01:02:32	2.83	339.05
2013/11/15	01:07:32	1.8	329.58
2013/11/15	01:12:32	1.5	334.15
2013/11/15	01:17:32	2.37	353.65
2013/11/15	01:22:32	3.23	347.41
2013/11/15	01:27:32	1.77	333.15
2013/11/15	01:32:32	1.48	352.42
2013/11/15	01:37:32	2.45	344.85
2013/11/15	01:42:32	2.11	2.34
2013/11/15	01:47:32	1.77	10.58
2013/11/15	01:52:32	2.17	335.38
2013/11/15	01:57:32	2.54	355.21
2013/11/15	02:02:32	2.6	324.46
2013/11/15	02:07:32	2.36	348.41

Appendix H Meteorological Data for Impact Monitoring in the reporting period

Date	Time (24hrs)	Wind Speed (m/s)	Wind Direction (degree)
2013/11/15	02:12:32	1.82	11.36
2013/11/15	02:17:32	2.39	334.48
2013/11/15	02:22:32	1.67	357.55
2013/11/15	02:27:32	2.28	358.55
2013/11/15	02:32:32	1.24	1
2013/11/15	02:37:32	1.77	5.24
2013/11/15	02:42:32	1.42	3.57
2013/11/15	02:47:32	3.14	1.34
2013/11/15	02:52:32	1.94	354.09
2013/11/15	02:57:32	3.18	350.19
2013/11/15	03:02:32	1.91	333.26
2013/11/15	03:07:32	1.12	330.58
2013/11/15	03:12:32	1.47	344.4
2013/11/15	03:17:32	1.1	317.66
2013/11/15	03:22:32	1.02	350.08
2013/11/15	03:27:32	1.1	303.84
2013/11/15	03:32:32	1.16	1.45
2013/11/15	03:37:32	1.27	21.06
2013/11/15	03:42:32	2.25	352.98
2013/11/15	03:47:32	1.07	356.55
2013/11/15	03:52:32	1.25	8.58
2013/11/15	03:57:32	2.43	353.54
2013/11/15	04:02:32	1.42	1.56
2013/11/15	04:07:32	2	2.45
2013/11/15	04:12:32	1.9	3.23
2013/11/15	04:17:32	1.06	335.6
2013/11/15	04:22:32	2.11	354.43
2013/11/15	04:27:32	1.45	-47.24
2013/11/15	04:32:32	1.84	358.11
2013/11/15	04:37:32	1.47	344.51
2013/11/15	04:42:32	1.28	334.6
2013/11/15	04:47:32	1.42	357.99
2013/11/15	04:52:32	1.91	1.23
2013/11/15	04:57:32	1.62	351.87
2013/11/15	05:02:32	1.35	344.29
2013/11/15	05:07:32	3.67	322.56
2013/11/15	05:12:32	0.46	284.01
2013/11/15	05:17:32	1.5	12.48
2013/11/15	05:22:32	1.24	353.65
2013/11/15	05:27:32	2.55	6.24
2013/11/15	05:32:32	0.05	7.02
2013/11/15	05:37:32	0.06	127.69
2013/11/15	05:42:32	0.34	164.23
2013/11/15	05:47:32	0.06	128.13
2013/11/15	05:52:32	0.05	120.11
2013/11/15	05:57:32	0.06	120.11

Appendix H Meteorological Data for Impact Monitoring in the reporting period

Date	Time (24hrs)	Wind Speed (m/s)	Wind Direction (degree)
2013/11/15	06:02:32	0.06	143.06
2013/11/15	06:07:32	0.06	134.71
2013/11/15	06:12:32	0.05	137.94
2013/11/15	06:17:32	0.06	137.05
2013/11/15	06:22:32	1.12	98.05
2013/11/15	06:27:32	0.26	145.29
2013/11/15	06:32:32	0.06	117.33
2013/11/15	06:37:32	0.29	258.94
2013/11/15	06:42:32	0.06	261.95
2013/11/15	06:47:32	1.22	269.53
2013/11/15	06:52:32	1.18	350.53
2013/11/15	06:57:32	1.38	354.65
2013/11/15	07:02:32	0.06	272.98
2013/11/15	07:07:32	0.09	300.28
2013/11/15	07:12:32	0.06	246.91
2013/11/15	07:17:32	0.37	9.58
2013/11/15	07:22:32	1.27	313.87
2013/11/15	07:27:32	0.4	353.54
2013/11/15	07:32:32	0.06	344.29
2013/11/15	07:37:32	0.06	344.18
2013/11/15	07:42:32	0.06	344.18
2013/11/15	07:47:32	0.06	58.27
2013/11/15	07:52:32	0.06	314.87
2013/11/15	07:57:32	0.34	286.46
2013/11/15	08:02:32	0.12	294.26
2013/11/15	08:07:32	0.05	277.99
2013/11/15	08:12:32	0.05	277.99
2013/11/15	08:17:32	0.72	345.18
2013/11/15	08:22:32	0.05	346.41
2013/11/15	08:27:32	0.55	337.6
2013/11/15	08:32:32	0.05	-47.69
2013/11/15	08:37:32	0.15	347.63
2013/11/15	08:42:32	0.05	347.63
2013/11/15	08:47:32	0.05	291.14
2013/11/15	08:52:32	0.41	319.33
2013/11/15	08:57:32	0.66	352.2
2013/11/15	09:02:32	1.09	274.32
2013/11/15	09:07:32	1.53	291.25
2013/11/15	09:12:32	1.65	280
2013/11/15	09:17:32	1.67	260.72
2013/11/15	09:22:32	0.67	291.25
2013/11/15	09:27:32	0.05	274.99
2013/11/15	09:32:32	0.05	294.26
2013/11/15	09:37:32	0.26	302.84
2013/11/15	09:42:32	0.14	277.88
2013/11/15	09:47:32	0.81	286.57

Appendix H Meteorological Data for Impact Monitoring in the reporting period

Date	Time (24hrs)	Wind Speed (m/s)	Wind Direction (degree)
2013/11/15	09:52:32	1.84	274.87
2013/11/15	09:57:32	0.32	251.14
2013/11/15	10:02:32	1.99	264.07
2013/11/15	10:07:32	2.52	275.77
2013/11/15	10:12:32	0.17	283.79
2013/11/15	10:17:32	1.58	276.21
2013/11/15	10:22:32	0.18	291.36
2013/11/15	10:27:32	0.03	300.17
2013/11/15	10:32:32	0.2	268.64
2013/11/15	10:37:32	0.52	270.31
2013/11/15	10:42:32	0.69	264.29
2013/11/15	10:47:32	1.64	339.28
2013/11/15	10:52:32	0.73	332.37
2013/11/15	10:57:32	0.03	311.31
2013/11/15	11:02:32	0.14	292.48
2013/11/15	11:07:32	0.03	291.25
2013/11/15	11:12:32	0.03	312.98
2013/11/15	11:17:32	0.03	324.68
2013/11/15	11:22:32	0.03	353.98
2013/11/15	11:27:32	0.03	331.25
2013/11/15	11:32:32	0.03	296.49
2013/11/15	11:37:32	0.03	293.93
2013/11/15	11:42:32	0.03	276.43
2013/11/15	11:47:32	0.18	281.78
2013/11/15	11:52:32	0.03	270.08
2013/11/15	11:57:32	0.14	315.88
2013/11/15	12:02:32	0.37	289.69
2013/11/15	12:07:32	0.23	292.14
2013/11/15	12:12:32	0.03	307.52
2013/11/15	12:17:32	0.06	294.26
2013/11/15	12:22:32	0.29	286.69
2013/11/15	12:27:32	0.61	302.51
2013/11/15	12:32:32	0.38	310.86
2013/11/15	12:37:32	0.81	319
2013/11/15	12:42:32	0.81	322.12
2013/11/15	12:47:32	0.83	302.62
2013/11/15	12:52:32	0.54	294.82
2013/11/15	12:57:32	0.41	286.13
2013/11/15	13:02:32	0.31	286.24
2013/11/15	13:07:32	0.55	281.67
2013/11/15	13:12:32	1.04	293.26
2013/11/15	13:17:32	1.16	300.5
2013/11/15	13:22:32	1.1	287.69
2013/11/15	13:27:32	1.65	307.74
2013/11/15	13:32:32	1.12	286.35
2013/11/15	13:37:32	2.55	316.88

Appendix H Meteorological Data for Impact Monitoring in the reporting period

Date	Time (24hrs)	Wind Speed (m/s)	Wind Direction (degree)
2013/11/15	13:42:32	2.95	301.62
2013/11/15	13:47:32	1.96	295.82
2013/11/15	13:52:32	1.94	294.82
2013/11/15	13:57:32	2.65	299.61
2013/11/15	14:02:32	1.41	302.84
2013/11/15	14:07:32	1.8	303.18
2013/11/15	14:12:32	2.02	305.74
2013/11/15	14:17:32	1.44	302.06
2013/11/15	14:22:32	2.42	301.73
2013/11/15	14:27:32	2.57	290.81
2013/11/15	14:32:32	2.45	310.86
2013/11/15	14:37:32	2.26	293.82
2013/11/15	14:42:32	1.48	308.64
2013/11/15	14:47:32	2.28	287.35
2013/11/15	14:52:32	1.67	286.46
2013/11/15	14:57:32	2.55	288.13
2013/11/15	15:02:32	1.04	286.13
2013/11/15	15:07:32	2.08	312.98
2013/11/15	15:12:32	2.68	260.72
2013/11/15	15:17:32	2.43	296.27
2013/11/15	15:22:32	2.13	301.62
2013/11/15	15:27:32	2.45	310.19
2013/11/15	15:32:32	1.54	286.02
2013/11/15	15:37:32	2.16	305.07
2013/11/15	15:42:32	1.12	290.25
2013/11/15	15:47:32	2.77	316.77
2013/11/15	15:52:32	1.99	316.21
2013/11/15	15:57:32	2.17	312.09
2013/11/15	16:02:32	2.29	315.1
2013/11/15	16:07:32	1.79	292.7
2013/11/15	16:12:32	2.6	301.5
2013/11/15	16:17:32	1.93	290.47
2013/11/15	16:22:32	1.5	289.03
2013/11/15	16:27:32	1.36	283.23
2013/11/15	16:32:32	1.21	281.11
2013/11/15	16:37:32	1.99	292.37
2013/11/15	16:42:32	1.93	266.96
2013/11/15	16:47:32	1.33	266.96
2013/11/15	16:52:32	0.32	259.5
2013/11/15	16:57:32	0.05	243.23
2013/11/15	17:02:32	0.31	204.46
2013/11/15	17:07:32	0.05	257.94
2013/11/15	17:12:32	0.05	233.2
2013/11/15	17:17:32	0.05	191.42
2013/11/15	17:22:32	0.05	196.77
2013/11/15	17:27:32	0.06	196.77

Appendix H Meteorological Data for Impact Monitoring in the reporting period

Date	Time (24hrs)	Wind Speed (m/s)	Wind Direction (degree)
2013/11/15	17:32:32	0.06	195.32
2013/11/15	17:37:32	0.05	153.65
2013/11/15	17:42:32	0.05	168.02
2013/11/15	17:47:32	0.05	175.6
2013/11/15	17:52:32	0.06	196.88
2013/11/15	17:57:32	0.06	168.36
2013/11/15	18:02:32	0.09	153.31
2013/11/15	18:07:32	0.08	211.92
2013/11/15	18:12:32	0.06	238.11
2013/11/15	18:17:32	0.06	168.47
2013/11/15	18:22:32	0.06	142.62
2013/11/15	18:27:32	0.12	159.22
2013/11/15	18:32:32	0.06	150.86
2013/11/15	18:37:32	0.06	148.52
2013/11/15	18:42:32	0.06	162.34
2013/11/15	18:47:32	0.08	162.12
2013/11/15	18:52:32	0.06	162.23
2013/11/15	18:57:32	0.08	167.8
2013/11/15	19:02:32	0.09	167.91
2013/11/15	19:07:32	0.09	203.34
2013/11/15	19:12:32	0.09	141.39
2013/11/15	19:17:32	0.08	141.39
2013/11/15	19:22:32	0.06	206.69
2013/11/15	19:27:32	0.06	166.69
2013/11/15	19:32:32	0.06	166.8
2013/11/15	19:37:32	0.06	139.5
2013/11/15	19:42:32	0.08	139.94
2013/11/15	19:47:32	0.06	139.94
2013/11/15	19:52:32	0.08	139.94
2013/11/15	19:57:32	0.06	189.97
2013/11/15	20:02:32	0.06	200.11
2013/11/15	20:07:32	0.06	200.11
2013/11/15	20:12:32	0.06	171.25
2013/11/15	20:17:32	0.06	187.86
2013/11/15	20:22:32	0.06	149.86
2013/11/15	20:27:32	0.06	162.34
2013/11/15	20:32:32	0.06	175.04
2013/11/15	20:37:32	0.06	175.04
2013/11/15	20:42:32	0.08	174.26
2013/11/15	20:47:32	0.06	166.13
2013/11/15	20:52:32	0.08	162.56
2013/11/15	20:57:32	0.06	191.31
2013/11/15	21:02:32	0.08	191.53
2013/11/15	21:07:32	0.06	202.34
2013/11/15	21:12:32	0.06	142.51
2013/11/15	21:17:32	0.06	167.35

Appendix H Meteorological Data for Impact Monitoring in the reporting period

Date	Time (24hrs)	Wind Speed (m/s)	Wind Direction (degree)
2013/11/15	21:22:32	0.06	175.04
2013/11/15	21:27:32	0.06	173.93
2013/11/15	21:32:32	0.06	173.93
2013/11/15	21:37:32	0.06	173.93
2013/11/15	21:42:32	0.08	173.93
2013/11/15	21:47:32	0.06	173.93
2013/11/15	21:52:32	0.06	173.93
2013/11/15	21:57:32	0.06	170.36
2013/11/15	22:02:32	0.06	170.36
2013/11/15	22:07:32	0.08	170.36
2013/11/15	22:12:32	0.06	168.13
2013/11/15	22:17:32	0.06	200.22
2013/11/15	22:22:32	0.09	200.33
2013/11/15	22:27:32	0.06	185.07
2013/11/15	22:32:32	0.06	163.34
2013/11/15	22:37:32	0.06	223.29
2013/11/15	22:42:32	0.05	157.66
2013/11/15	22:47:32	0.06	202.79
2013/11/15	22:52:32	0.06	168.8
2013/11/15	22:57:32	0.06	162.01
2013/11/15	23:02:32	0.06	153.54
2013/11/15	23:07:32	0.06	193.87
2013/11/15	23:12:32	0.06	186.63
2013/11/15	23:17:32	0.06	145.18
2013/11/15	23:22:32	0.06	253.37
2013/11/15	23:27:32	0.06	219.16
2013/11/15	23:32:32	0.06	180.5
2013/11/15	23:37:32	0.06	196.43
2013/11/15	23:42:32	0.06	197.44
2013/11/15	23:47:32	0.06	197.33
2013/11/15	23:52:32	0.08	197.44
2013/11/15	23:57:32	0.83	6.35
2013/11/21	00:02:32	0.06	157.44
2013/11/21	00:07:32	0.05	157.44
2013/11/21	00:12:32	0.05	157.44
2013/11/21	00:17:32	0.05	184.4
2013/11/21	00:22:32	0.05	184.51
2013/11/21	00:27:32	0.05	219.39
2013/11/21	00:32:32	0.05	219.39
2013/11/21	00:37:32	0.05	219.39
2013/11/21	00:42:32	0.05	219.39
2013/11/21	00:47:32	0.05	219.39
2013/11/21	00:52:32	0.05	214.37
2013/11/21	00:57:32	0.05	166.57
2013/11/21	01:02:32	0.06	166.57
2013/11/21	01:07:32	0.06	166.57

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Date	Time (24hrs)	Wind Speed (m/s)	Wind Direction (degree)
2013/11/21	01:12:32	0.06	167.58
2013/11/21	01:17:32	0.05	151.53
2013/11/21	01:22:32	0.05	151.53
2013/11/21	01:27:32	0.05	222.06
2013/11/21	01:32:32	0.05	222.17
2013/11/21	01:37:32	0.05	246.46
2013/11/21	01:42:32	0.05	302.84
2013/11/21	01:47:32	0.05	150.31
2013/11/21	01:52:32	0.05	150.31
2013/11/21	01:57:32	0.05	182.06
2013/11/21	02:02:32	0.05	183.06
2013/11/21	02:07:32	0.05	171.03
2013/11/21	02:12:32	0.05	171.14
2013/11/21	02:17:32	0.05	171.03
2013/11/21	02:22:32	1.51	141.17
2013/11/21	02:27:32	0.05	130.58
2013/11/21	02:32:32	0.05	206.91
2013/11/21	02:37:32	0.05	270.75
2013/11/21	02:42:32	0.05	162.79
2013/11/21	02:47:32	0.05	234.65
2013/11/21	02:52:32	0.05	310.08
2013/11/21	02:57:32	0.05	195.21
2013/11/21	03:02:32	0.05	210.92
2013/11/21	03:07:32	0.06	225.96
2013/11/21	03:12:32	0.05	157.44
2013/11/21	03:17:32	0.05	170.7
2013/11/21	03:22:32	0.06	157.55
2013/11/21	03:27:32	0.05	162.23
2013/11/21	03:32:32	0.06	133.82
2013/11/21	03:37:32	0.06	133.82
2013/11/21	03:42:32	0.05	133.93
2013/11/21	03:47:32	0.05	140.39
2013/11/21	03:52:32	0.06	159.44
2013/11/21	03:57:32	0.06	148.75
2013/11/21	04:02:32	0.06	165.79
2013/11/21	04:07:32	0.06	169.25
2013/11/21	04:12:32	0.09	155.54
2013/11/21	04:17:32	0.06	186.96
2013/11/21	04:22:32	0.06	218.83
2013/11/21	04:27:32	0.06	191.75
2013/11/21	04:32:32	0.06	136.82
2013/11/21	04:37:32	0.06	190.75
2013/11/21	04:42:32	0.06	151.42
2013/11/21	04:47:32	0.06	165.13
2013/11/21	04:52:32	0.57	149.42
2013/11/21	04:57:32	0.06	151.64

Appendix H Meteorological Data for Impact Monitoring in the reporting period

Date	Time (24hrs)	Wind Speed (m/s)	Wind Direction (degree)
2013/11/21	05:02:32	0.06	140.28
2013/11/21	05:07:32	0.32	171.48
2013/11/21	05:12:32	0.06	174.04
2013/11/21	05:17:32	0.06	286.35
2013/11/21	05:22:32	0.09	156.55
2013/11/21	05:27:32	0.06	158.66
2013/11/21	05:32:32	0.06	145.74
2013/11/21	05:37:32	0.06	141.17
2013/11/21	05:42:32	0.06	141.39
2013/11/21	05:47:32	0.06	153.54
2013/11/21	05:52:32	0.06	153.54
2013/11/21	05:57:32	0.06	152.87
2013/11/21	06:02:32	0.06	155.88
2013/11/21	06:07:32	0.06	151.64
2013/11/21	06:12:32	0.06	174.93
2013/11/21	06:17:32	0.06	145.96
2013/11/21	06:22:32	0.08	137.94
2013/11/21	06:27:32	0.08	137.94
2013/11/21	06:32:32	0.08	159.44
2013/11/21	06:37:32	0.09	161.11
2013/11/21	06:42:32	0.08	150.97
2013/11/21	06:47:32	0.08	143.73
2013/11/21	06:52:32	0.08	143.84
2013/11/21	06:57:32	0.08	100.06
2013/11/21	07:02:32	0.08	192.65
2013/11/21	07:07:32	0.08	171.03
2013/11/21	07:12:32	0.08	171.03
2013/11/21	07:17:32	0.09	158.33
2013/11/21	07:22:32	0.08	160.11
2013/11/21	07:27:32	0.08	160.11
2013/11/21	07:32:32	0.08	160.11
2013/11/21	07:37:32	0.08	149.19
2013/11/21	07:42:32	0.08	102.51
2013/11/21	07:47:32	0.08	149.19
2013/11/21	07:52:32	0.06	163.57
2013/11/21	07:57:32	0.02	113.54
2013/11/21	08:02:32	0.02	131.7
2013/11/21	08:07:32	0.02	152.87
2013/11/21	08:12:32	0.02	152.98
2013/11/21	08:17:32	0.02	150.86
2013/11/21	08:49:43	0.02	126.57
2013/11/21	08:54:43	0.03	112.09
2013/11/21	08:59:43	0.11	162.45
2013/11/21	09:04:43	0.24	113.76
2013/11/21	09:09:43	0.72	156.66
2013/11/21	09:14:43	0.14	51.25

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Date	Time (24hrs)	Wind Speed (m/s)	Wind Direction (degree)
2013/11/21	09:19:43	0.11	134.48
2013/11/21	09:24:43	0.89	67.41
2013/11/21	09:29:43	0.29	2.9
2013/11/21	09:34:43	0.63	164.46
2013/11/21	09:39:43	0.4	189.97
2013/11/21	09:44:43	0.02	146.07
2013/11/21	09:49:43	0.6	163.57
2013/11/21	09:54:43	0.69	64.18
2013/11/21	09:59:43	0.02	62.95
2013/11/21	10:04:43	0.18	116.88
2013/11/21	10:09:43	0.02	105.52
2013/11/21	10:14:43	0.02	136.71
2013/11/21	10:19:43	0.05	95.71
2013/11/21	10:24:43	0.02	197.33
2013/11/21	10:29:43	0.54	162.01
2013/11/21	10:34:43	0.02	169.36
2013/11/21	10:39:43	0.02	132.48
2013/11/21	10:44:43	0.09	136.6
2013/11/21	10:49:43	0.02	196.66
2013/11/21	10:54:43	0.05	236.43
2013/11/21	10:59:43	1.42	145.85
2013/11/21	11:04:43	0.02	49.47
2013/11/21	11:09:43	0.11	123.68
2013/11/21	11:14:43	0.21	23.06
2013/11/21	11:19:43	0	110.08
2013/11/21	11:24:43	0.21	116.99
2013/11/21	11:29:43	0.02	7.24
2013/11/21	11:34:43	0.6	51.81
2013/11/21	11:39:43	0.29	48.25
2013/11/21	11:44:43	0.12	136.04
2013/11/21	11:49:43	0.02	226.63
2013/11/21	11:54:43	0.67	73.31
2013/11/21	11:59:43	0.18	142.17
2013/11/21	12:04:43	0.02	332.59
2013/11/21	12:09:43	0.02	226.41
2013/11/21	12:14:43	0.81	98.5
2013/11/21	12:19:43	0.12	148.3
2013/11/21	12:24:43	1.01	70.19
2013/11/21	12:29:43	0.02	86.46
2013/11/21	12:34:43	0.02	177.72
2013/11/21	12:39:43	0.02	60.39
2013/11/21	12:44:43	0.12	57.94
2013/11/21	12:49:43	2.29	78.22
2013/11/21	12:54:43	0.49	152.87
2013/11/21	12:59:43	0.05	54.71
2013/11/21	13:04:43	0.32	59.94

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Date	Time (24hrs)	Wind Speed (m/s)	Wind Direction (degree)
2013/11/21	13:09:43	0.32	125.79
2013/11/21	13:14:43	0.02	169.25
2013/11/21	13:19:43	0.02	164.35
2013/11/21	13:24:43	0.2	106.18
2013/11/21	13:29:43	0.81	71.53
2013/11/21	13:34:43	0.26	135.15
2013/11/21	13:39:43	0.02	86.91
2013/11/21	13:44:43	0.02	57.27
2013/11/21	13:49:43	0.26	89.47
2013/11/21	13:54:43	0.23	176.49
2013/11/21	13:59:43	0.76	142.95
2013/11/21	14:04:43	0.67	189.75
2013/11/21	14:09:43	0.02	66.07
2013/11/21	14:14:43	0.02	41.11
2013/11/21	14:19:43	0.47	157.55
2013/11/21	14:24:43	0.02	114.32
2013/11/21	14:29:43	0.02	72.65
2013/11/21	14:34:43	0.02	128.13
2013/11/21	14:39:43	0.02	72.2
2013/11/21	14:44:43	0.03	162.45
2013/11/21	14:49:43	0.02	150.08
2013/11/21	14:54:43	0.18	197.1
2013/11/21	14:59:43	0.02	52.03
2013/11/21	15:04:43	0.02	147.63
2013/11/21	15:09:43	0.02	139.5
2013/11/21	15:14:43	0.02	172.81
2013/11/21	15:19:43	0.02	199.55
2013/11/21	15:24:43	0.02	145.85
2013/11/21	15:29:43	0.02	116.21
2013/11/21	15:34:43	0.02	82.79
2013/11/21	15:39:43	0	197.77
2013/11/21	15:44:43	0.02	154.65
2013/11/21	15:49:43	0.35	141.62
2013/11/21	15:54:43	0.02	129.36
2013/11/21	15:59:43	0.02	140.06
2013/11/21	16:04:43	0.02	28.41
2013/11/21	16:09:43	0.02	132.26
2013/11/21	16:14:43	0.2	191.42
2013/11/21	16:19:43	0.02	55.49
2013/11/21	16:24:43	0.02	162.79
2013/11/21	16:29:43	0.15	63.62
2013/11/21	16:34:43	0.02	221.39
2013/11/21	16:39:43	0.02	142.28
2013/11/21	16:44:43	0.02	131.81
2013/11/21	16:49:43	0.02	182.4
2013/11/21	16:54:43	0.02	191.53

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Date	Time (24hrs)	Wind Speed (m/s)	Wind Direction (degree)
2013/11/21	16:59:43	0.92	230.08
2013/11/21	17:04:43	0.02	202.67
2013/11/21	17:09:43	0.02	99.5
2013/11/21	17:14:43	0.02	200.22
2013/11/21	17:19:43	0.02	144.18
2013/11/21	17:24:43	0.02	167.24
2013/11/21	17:29:43	0.67	74.43
2013/11/21	17:34:43	0.02	177.83
2013/11/21	17:39:43	0.02	147.74
2013/11/21	17:44:43	0.02	70.08
2013/11/21	17:49:43	0.44	154.87
2013/11/21	17:54:43	0.02	62.84
2013/11/21	17:59:43	0.02	70.97
2013/11/21	18:04:43	0.02	118.44
2013/11/21	18:09:43	0.02	80.33
2013/11/21	18:14:43	0.02	70.19
2013/11/21	18:19:43	0.02	182.84
2013/11/21	18:24:43	0.02	186.85
2013/11/21	18:29:43	0.02	90.58
2013/11/21	18:34:43	0.02	130.14
2013/11/21	18:39:43	0.09	153.87
2013/11/21	18:44:43	0.47	203.12
2013/11/21	18:49:43	0.02	129.25
2013/11/21	18:54:43	0.02	153.54
2013/11/21	18:59:43	0.02	196.55
2013/11/21	19:04:43	0.03	174.15
2013/11/21	19:09:43	0.02	121.56
2013/11/21	19:14:43	0.02	117.66
2013/11/21	19:19:43	0.02	118.55
2013/11/21	19:24:43	0.09	137.38
2013/11/21	19:29:43	0.02	77.21
2013/11/21	19:34:43	0.02	118.33
2013/11/21	19:39:43	0.02	95.71
2013/11/21	19:44:43	0.02	146.96
2013/11/21	19:49:43	0.02	144.74
2013/11/21	19:54:43	0.02	82.56
2013/11/21	19:59:43	0.02	103.4
2013/11/21	20:04:43	0.02	122.01
2013/11/21	20:09:43	0.02	97.83
2013/11/21	20:14:43	0.02	100.61
2013/11/21	20:19:43	0.02	100.5
2013/11/21	20:24:43	0.02	103.84
2013/11/21	20:29:43	0.02	103.62
2013/11/21	20:34:43	0.02	205.46
2013/11/21	20:39:43	0.02	218.94
2013/11/21	20:44:43	0.02	174.48

Appendix H Meteorological Data for Impact Monitoring in the reporting period

Date	Time (24hrs)	Wind Speed (m/s)	Wind Direction (degree)
2013/11/21	20:49:43	0.02	128.25
2013/11/21	20:54:43	0.02	170.14
2013/11/21	20:59:43	0.02	197.21
2013/11/21	21:04:43	0.02	94.04
2013/11/21	21:09:43	0.02	168.25
2013/11/21	21:14:43	0.41	134.93
2013/11/21	21:19:43	0.02	233.76
2013/11/21	21:24:43	0.02	134.04
2013/11/21	21:29:43	0.02	80.56
2013/11/21	21:34:43	0.02	103.96
2013/11/21	21:39:43	0.02	112.98
2013/11/21	21:44:43	0.02	163.01
2013/11/21	21:49:43	0.02	163.01
2013/11/21	21:54:43	0.02	114.76
2013/11/21	21:59:43	0.02	98.83
2013/11/21	22:04:43	0.02	130.92
2013/11/21	22:09:43	0.02	73.87
2013/11/21	22:14:43	0.02	127.69
2013/11/21	22:19:43	0.02	121.67
2013/11/21	22:24:43	0.02	140.72
2013/11/21	22:29:43	0.02	111.87
2013/11/21	22:34:43	0.17	203.34
2013/11/21	22:39:43	0.02	199.78
2013/11/21	22:44:43	0.02	351.42
2013/11/21	22:49:43	0.02	138.27
2013/11/21	22:54:43	0.02	68.3
2013/11/21	22:59:43	1.87	72.98
2013/11/21	23:04:43	2.66	134.6
2013/11/21	23:09:43	0.72	178.05
2013/11/21	23:14:43	0.02	209.92
2013/11/21	23:19:43	0.02	128.8
2013/11/21	23:24:43	0.03	180.95
2013/11/21	23:29:43	0.02	118.11
2013/11/21	23:34:43	0.02	308.75
2013/11/21	23:39:43	0.02	131.36
2013/11/21	23:44:43	0.02	134.26
2013/11/21	23:49:43	0.02	122.45
2013/11/21	23:54:43	0.02	202.56
2013/11/21	23:59:43	0.58	118.22
2013/11/27	00:04:43	0.54	207.69
2013/11/27	00:09:43	0.02	101.62
2013/11/27	00:14:43	0.02	167.02
2013/11/27	00:19:43	0.02	66.63
2013/11/27	00:24:43	0.02	211.03
2013/11/27	00:29:43	1.79	167.47
2013/11/27	00:34:43	0.02	10.7

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Date	Time (24hrs)	Wind Speed (m/s)	Wind Direction (degree)
2013/11/27	00:39:43	2.57	173.48
2013/11/27	00:44:43	1.38	148.08
2013/11/27	00:49:43	1.27	189.53
2013/11/27	00:54:43	1.07	174.48
2013/11/27	00:59:43	0.44	212.14
2013/11/27	01:04:43	0.23	59.72
2013/11/27	01:09:43	0.05	357.66
2013/11/27	01:14:43	0.92	159
2013/11/27	01:19:43	0.76	124.46
2013/11/27	01:24:43	0.26	150.53
2013/11/27	01:29:43	0.89	157.88
2013/11/27	01:34:43	0.26	174.04
2013/11/27	01:39:43	0.76	157.88
2013/11/27	01:44:43	0.41	229.97
2013/11/27	01:49:43	0.02	48.58
2013/11/27	01:54:43	0.02	144.96
2013/11/27	01:59:43	0.02	110.08
2013/11/27	02:04:43	0.29	225.29
2013/11/27	02:09:43	0.46	96.16
2013/11/27	02:14:43	0.02	36.88
2013/11/27	02:19:43	0.02	140.95
2013/11/27	02:24:43	0.02	134.37
2013/11/27	02:29:43	0.02	117.55
2013/11/27	02:34:43	0.02	109.97
2013/11/27	02:39:43	0.02	191.98
2013/11/27	02:44:43	0.02	41.78
2013/11/27	02:49:43	0.02	89.25
2013/11/27	02:54:43	0.02	151.98
2013/11/27	02:59:43	0.02	169.47
2013/11/27	03:04:43	0.02	152.98
2013/11/27	03:09:43	0.2	93.93
2013/11/27	03:14:43	0.02	124.9
2013/11/27	03:19:43	0.02	113.65
2013/11/27	03:24:43	0.02	56.04
2013/11/27	03:29:43	0.02	180.84
2013/11/27	03:34:43	0.02	94.48
2013/11/27	03:39:43	0.03	215.6
2013/11/27	03:44:43	0.02	145.74
2013/11/27	03:49:43	0.05	127.69
2013/11/27	03:54:43	0.46	77.33
2013/11/27	03:59:43	0.17	160.56
2013/11/27	04:04:43	0.02	43.45
2013/11/27	04:09:43	0.02	254.04
2013/11/27	04:14:43	0.03	100.06
2013/11/27	04:19:43	0.02	14.93
2013/11/27	04:24:43	0.02	154.54

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Date	Time (24hrs)	Wind Speed (m/s)	Wind Direction (degree)
2013/11/27	04:29:43	0.02	46.35
2013/11/27	04:34:43	0.02	256.27
2013/11/27	04:39:43	0.02	195.54
2013/11/27	04:44:43	0.02	67.41
2013/11/27	04:49:43	0.12	197.66
2013/11/27	04:54:43	0.02	94.71
2013/11/27	04:59:43	0.02	120.89
2013/11/27	05:04:43	0.02	204.68
2013/11/27	05:09:43	0.02	183.73
2013/11/27	05:14:43	0.02	215.82
2013/11/27	05:19:43	0.24	39.55
2013/11/27	05:24:43	0.02	114.65
2013/11/27	05:29:43	0.12	63.29
2013/11/27	05:34:43	0.72	158.66
2013/11/27	05:39:43	0.02	14.37
2013/11/27	05:44:43	0.02	175.26
2013/11/27	05:49:43	0.02	136.16
2013/11/27	05:54:43	0.02	106.63
2013/11/27	05:59:43	0.02	265.74
2013/11/27	06:04:43	0.02	87.24
2013/11/27	06:09:43	0.03	164.23
2013/11/27	06:14:43	0.02	93.7
2013/11/27	06:19:43	0.38	92.81
2013/11/27	06:24:43	0.02	30.42
2013/11/27	06:29:43	0.02	136.16
2013/11/27	06:34:43	0.02	53.15
2013/11/27	06:39:43	0.02	145.4
2013/11/27	06:44:43	0.02	183.51
2013/11/27	06:49:43	0.78	40
2013/11/27	06:54:43	0.02	145.85
2013/11/27	06:59:43	0.2	137.94
2013/11/27	07:04:43	0.12	131.14
2013/11/27	07:09:43	0.02	96.94
2013/11/27	07:14:43	0.02	154.99
2013/11/27	07:19:43	0.03	299.5
2013/11/27	07:24:43	0.21	64.96
2013/11/27	07:29:43	0.02	151.87
2013/11/27	07:34:43	0.02	172.14
2013/11/27	07:39:43	0.02	340.06
2013/11/27	07:44:43	0.02	83.68
2013/11/27	07:49:43	0.37	201.45
2013/11/27	07:54:43	0.02	122.34
2013/11/27	07:59:43	0.03	285.46
2013/11/27	08:04:43	0.02	200.22
2013/11/27	08:09:43	1.65	162.23
2013/11/27	08:14:43	0.02	137.49

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Date	Time (24hrs)	Wind Speed (m/s)	Wind Direction (degree)
2013/11/27	08:19:43	0.89	131.81
2013/11/27	08:24:43	0.02	138.61
2013/11/27	08:29:43	0.02	72.87
2013/11/27	08:34:43	0.02	46.13
2013/11/27	08:39:43	0.02	54.15
2013/11/27	08:44:43	0.17	40.22
2013/11/27	08:49:43	0.02	159.33
2013/11/27	08:54:43	0.02	159.55
2013/11/27	08:59:43	0.02	184.74
2013/11/27	09:04:43	0.35	63.96
2013/11/27	09:09:43	0.02	155.88
2013/11/27	09:14:43	0.02	60.5
2013/11/27	09:19:43	0.02	55.6
2013/11/27	09:24:43	0.03	212.37
2013/11/27	09:29:43	0.02	103.62
2013/11/27	09:34:43	0.02	241.89
2013/11/27	09:39:43	0.02	263.29
2013/11/27	09:44:43	0	284.12
2013/11/27	09:49:43	0.54	102.51
2013/11/27	09:54:43	1.62	57.49
2013/11/27	09:59:43	0.02	8.02
2013/11/27	10:04:43	0.02	44.9
2013/11/27	10:09:43	0.18	93.37
2013/11/27	10:14:43	0.02	174.15
2013/11/27	10:19:43	1.93	81.67
2013/11/27	10:24:43	0.02	100.72
2013/11/27	10:29:43	0.02	182.84
2013/11/27	10:34:43	0.32	129.69
2013/11/27	10:39:43	0.02	150.64
2013/11/27	10:44:43	0.02	260.06
2013/11/27	10:49:43	0.06	117.66
2013/11/27	10:54:43	0.05	161.89
2013/11/27	10:59:43	2.05	139.05
2013/11/27	11:04:43	0.31	181.73
2013/11/27	11:09:43	0.02	57.27
2013/11/27	11:14:43	0.49	63.84
2013/11/27	11:19:43	0.49	4.01
2013/11/27	11:24:43	0.02	200
2013/11/27	11:29:43	0.02	271.64
2013/11/27	11:34:43	0.02	262.95
2013/11/27	11:39:43	0.02	338.94
2013/11/27	11:44:43	0.02	245.79
2013/11/27	11:49:43	0.02	337.05
2013/11/27	11:54:43	0.02	213.04
2013/11/27	11:59:43	0.02	299.83
2013/11/27	12:04:43	0.38	239.11

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Date	Time (24hrs)	Wind Speed (m/s)	Wind Direction (degree)
2013/11/27	12:09:43	0.31	250.47
2013/11/27	12:14:43	0.02	269.42
2013/11/27	12:19:43	0.02	183.06
2013/11/27	12:24:43	0.02	215.38
2013/11/27	12:29:43	0.02	261.39
2013/11/27	12:34:43	0.14	248.69
2013/11/27	12:39:43	0.02	4.57
2013/11/27	12:44:43	0.02	147.97
2013/11/27	12:49:43	0.02	269.97
2013/11/27	12:54:43	0.02	44.9
2013/11/27	12:59:43	0.02	271.75
2013/11/27	13:04:43	0.57	270.86
2013/11/27	13:09:43	0.02	7.47
2013/11/27	13:14:43	0.23	344.51
2013/11/27	13:19:43	0.02	77.88
2013/11/27	13:24:43	0.02	41.89
2013/11/27	13:29:43	0.02	349.97
2013/11/27	13:34:43	0.02	262.62
2013/11/27	13:39:43	0.28	274.21
2013/11/27	13:44:43	0.89	252.37
2013/11/27	13:49:43	0.02	314.76
2013/11/27	13:54:43	0.32	325.68
2013/11/27	13:59:43	2.26	9.03
2013/11/27	14:04:43	2.16	16.71
2013/11/27	14:09:43	0.78	334.6
2013/11/27	14:14:43	0.09	1.67
2013/11/27	14:19:43	0.02	337.38
2013/11/27	14:24:43	0.02	267.08
2013/11/27	14:29:43	0.17	190.53
2013/11/27	14:34:43	0.02	266.52
2013/11/27	14:39:43	0.02	244.35
2013/11/27	14:44:43	0.02	244.9
2013/11/27	14:49:43	0.02	315.99
2013/11/27	14:54:43	0.02	272.09
2013/11/27	14:59:43	0.02	185.18
2013/11/27	15:04:43	0.02	276.77
2013/11/27	15:09:43	0.98	224.18
2013/11/27	15:14:43	0.28	250.03
2013/11/27	15:19:43	0.02	315.77
2013/11/27	15:24:43	0.17	231.64
2013/11/27	15:29:43	0.02	287.91
2013/11/27	15:34:43	0.24	221.39
2013/11/27	15:39:43	0.02	267.97
2013/11/27	15:44:43	0.32	293.37
2013/11/27	15:49:43	0.02	275.54
2013/11/27	15:54:43	1.1	8.69

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Date	Time (24hrs)	Wind Speed (m/s)	Wind Direction (degree)
2013/11/27	15:59:43	0.02	250.47
2013/11/27	16:04:43	0.02	236.99
2013/11/27	16:09:43	0.02	284.35
2013/11/27	16:14:43	0.02	257.27
2013/11/27	16:19:43	0.02	240
2013/11/27	16:24:43	0.02	355.77
2013/11/27	16:29:43	0.02	22.17
2013/11/27	16:34:43	0.47	276.66
2013/11/27	16:39:43	0.38	352.87
2013/11/27	16:44:43	0.02	245.13
2013/11/27	16:49:43	0.02	281.11
2013/11/27	16:54:43	0.02	293.15
2013/11/27	16:59:43	0.02	248.91
2013/11/27	17:04:43	0.09	287.13
2013/11/27	17:09:43	0.02	271.64
2013/11/27	17:14:43	0.03	246.13
2013/11/27	17:19:43	0.02	249.69
2013/11/27	17:24:43	0.02	279.11
2013/11/27	17:29:43	0.02	244.35
2013/11/27	17:34:43	0.02	209.36
2013/11/27	17:39:43	0.02	289.14
2013/11/27	17:44:43	0.02	317.44
2013/11/27	17:49:43	0.02	5.01
2013/11/27	17:54:43	0.02	294.04
2013/11/27	17:59:43	0.02	227.08
2013/11/27	18:04:43	0.02	214.82
2013/11/27	18:09:43	0.26	323.45
2013/11/27	18:14:43	0.02	261.95
2013/11/27	18:19:43	0.02	209.47
2013/11/27	18:24:43	0.02	345.74
2013/11/27	18:29:43	0.05	325.46
2013/11/27	18:34:43	0.02	15.6
2013/11/27	18:39:43	0.05	3.34
2013/11/27	18:44:43	0.87	1.34
2013/11/27	18:49:43	0.41	356.43
2013/11/27	18:54:43	0.67	351.53
2013/11/27	18:59:43	0.38	257.27
2013/11/27	19:04:43	1.09	6.69
2013/11/27	19:09:43	0.69	9.81
2013/11/27	19:14:43	0.21	39.33
2013/11/27	19:19:43	0.34	352.53
2013/11/27	19:24:43	0.02	350.19
2013/11/27	19:29:43	0.7	2.23
2013/11/27	19:34:43	0.02	304.51
2013/11/27	19:39:43	0.43	213.48
2013/11/27	19:44:43	0.02	10.36

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Date	Time (24hrs)	Wind Speed (m/s)	Wind Direction (degree)
2013/11/27	19:49:43	1.93	332.14
2013/11/27	19:54:43	0.02	246.57
2013/11/27	19:59:43	0.02	229.86
2013/11/27	20:04:43	0.12	213.7
2013/11/27	20:09:43	0.02	313.2
2013/11/27	20:14:43	0.28	290.81
2013/11/27	20:19:43	0.02	314.99
2013/11/27	20:24:43	0.02	320.56
2013/11/27	20:29:43	1.88	357.77
2013/11/27	20:34:43	0.02	22.62
2013/11/27	20:39:43	1.25	347.19
2013/11/27	20:44:43	0.02	291.36
2013/11/27	20:49:43	0.06	46.91
2013/11/27	20:54:43	0.03	113.09
2013/11/27	20:59:43	1.01	67.63
2013/11/27	21:04:43	0.02	54.48
2013/11/27	21:09:43	0.02	21.17
2013/11/27	21:14:43	0.02	338.5
2013/11/27	21:19:43	0.46	60.84
2013/11/27	21:24:43	0.55	36.66
2013/11/27	21:29:43	1.5	4.35
2013/11/27	21:34:43	3.95	34.32
2013/11/27	21:39:43	0.02	291.14
2013/11/27	21:44:43	0.02	49.69
2013/11/27	21:49:43	0.54	352.42
2013/11/27	21:54:43	0.9	349.97
2013/11/27	21:59:43	0.63	66.52
2013/11/27	22:04:43	0.02	343.96
2013/11/27	22:09:43	0.72	64.4
2013/11/27	22:14:43	0.02	48.8
2013/11/27	22:19:43	0.02	258.83
2013/11/27	22:24:43	1.01	8.02
2013/11/27	22:29:43	0.02	276.99
2013/11/27	22:34:43	0.02	244.57
2013/11/27	22:39:43	0.02	258.38
2013/11/27	22:44:43	0.02	354.09
2013/11/27	22:49:43	0.02	271.75
2013/11/27	22:54:43	0.02	229.64
2013/11/27	22:59:43	0.26	351.98
2013/11/27	23:04:43	1.19	356.88
2013/11/27	23:09:43	0.2	352.76
2013/11/27	23:14:43	0.02	352.31
2013/11/27	23:19:43	0.02	10.81
2013/11/27	23:24:43	0.02	24.74
2013/11/27	23:29:43	0.02	221.73
2013/11/27	23:34:43	0.09	221.39

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Date	Time (24hrs)	Wind Speed (m/s)	Wind Direction (degree)
2013/11/27	23:39:43	0.18	29.86
2013/11/27	23:44:43	0.02	358.55
2013/11/27	23:49:43	0.02	250.03
2013/11/27	23:54:43	0.02	254.48
2013/11/27	23:59:43	0.02	1.45
2013/12/03	00:04:43	0.02	175.82
2013/12/03	00:09:43	0.02	119.33
2013/12/03	00:14:43	0.02	130.03
2013/12/03	00:19:43	0.02	135.15
2013/12/03	00:24:43	0.02	116.66
2013/12/03	00:29:43	0.02	116.77
2013/12/03	00:34:43	0.02	127.24
2013/12/03	00:39:43	0.02	88.8
2013/12/03	00:44:43	0.02	128.8
2013/12/03	00:49:43	0.02	140.17
2013/12/03	00:54:43	0.02	131.48
2013/12/03	00:59:43	0.02	123.34
2013/12/03	01:04:43	0.02	119
2013/12/03	01:09:43	0.02	105.18
2013/12/03	01:14:43	0.02	142.06
2013/12/03	01:19:43	0.02	156.88
2013/12/03	01:24:43	0.02	161.67
2013/12/03	01:29:43	0.02	149.64
2013/12/03	01:34:43	0.02	157.33
2013/12/03	01:39:43	0.02	144.74
2013/12/03	01:44:43	0.02	144.85
2013/12/03	01:49:43	0.02	135.82
2013/12/03	01:54:43	0.02	117.77
2013/12/03	01:59:43	0.02	96.94
2013/12/03	02:04:43	0.02	115.65
2013/12/03	02:09:43	0.02	126.46
2013/12/03	02:14:43	0.02	120.22
2013/12/03	02:19:43	0.02	62.06
2013/12/03	02:24:43	0.02	166.35
2013/12/03	02:29:43	0.02	169.47
2013/12/03	02:34:43	0.02	137.94
2013/12/03	02:39:43	0.08	142.84
2013/12/03	02:44:43	0.02	157.33
2013/12/03	02:49:43	0.02	97.16
2013/12/03	02:54:43	0.02	108.86
2013/12/03	02:59:43	0.02	133.59
2013/12/03	03:04:43	0.02	146.41
2013/12/03	03:09:43	0.02	8.69
2013/12/03	03:14:43	0.02	117.55
2013/12/03	03:19:43	0.02	120.45
2013/12/03	03:24:43	0.02	140.5

Appendix H Meteorological Data for Impact Monitoring in the reporting period

Date	Time (24hrs)	Wind Speed (m/s)	Wind Direction (degree)
2013/12/03	03:29:43	0.02	141.28
2013/12/03	03:34:43	0.02	103.62
2013/12/03	03:39:43	0.02	117.33
2013/12/03	03:44:43	0.02	139.28
2013/12/03	03:49:43	0.02	132.59
2013/12/03	03:54:43	0.02	149.19
2013/12/03	03:59:43	0.02	160.45
2013/12/03	04:04:43	0.02	140.28
2013/12/03	04:09:43	0.02	167.8
2013/12/03	04:14:43	0.02	153.31
2013/12/03	04:19:43	0.02	110.97
2013/12/03	04:24:43	0.02	134.82
2013/12/03	04:29:43	0.02	187.3
2013/12/03	04:34:43	0.02	154.21
2013/12/03	04:39:43	0.02	181.62
2013/12/03	04:44:43	0.02	155.77
2013/12/03	04:49:43	0.02	182.17
2013/12/03	04:54:43	0.02	128.69
2013/12/03	04:59:43	0.02	171.81
2013/12/03	05:04:43	0.02	129.25
2013/12/03	05:09:43	0.02	153.31
2013/12/03	05:14:43	0.02	184.18
2013/12/03	05:19:43	0.02	155.1
2013/12/03	05:24:43	0.02	117.44
2013/12/03	05:29:43	0.02	139.83
2013/12/03	05:34:43	0.02	86.8
2013/12/03	05:39:43	0.02	120.56
2013/12/03	05:44:43	0.02	114.54
2013/12/03	05:49:43	0.02	89.03
2013/12/03	05:54:43	0.02	76.21
2013/12/03	05:59:43	0.03	155.77
2013/12/03	06:04:43	0.09	80.89
2013/12/03	06:09:43	0.02	148.08
2013/12/03	06:14:43	0.02	167.91
2013/12/03	06:19:43	0.02	93.48
2013/12/03	06:24:43	0.02	123.34
2013/12/03	06:29:43	0.02	110.19
2013/12/03	06:34:43	0.02	135.6
2013/12/03	06:39:43	0.02	134.15
2013/12/03	06:44:43	0.02	126.69
2013/12/03	06:49:43	0.02	145.74
2013/12/03	06:54:43	0.02	117.99
2013/12/03	06:59:43	0.02	154.21
2013/12/03	07:04:43	0.02	65.4
2013/12/03	07:09:43	0.02	126.8
2013/12/03	07:14:43	0.02	146.18

Appendix H Meteorological Data for Impact Monitoring in the reporting period

Date	Time (24hrs)	Wind Speed (m/s)	Wind Direction (degree)
2013/12/03	07:19:43	0.02	141.06
2013/12/03	07:24:43	0.02	141.06
2013/12/03	07:29:43	0.02	116.99
2013/12/03	07:34:43	0.02	123.01
2013/12/03	07:39:43	0.02	110.53
2013/12/03	07:44:43	0.02	120.11
2013/12/03	07:49:43	0.02	132.59
2013/12/03	07:54:43	0.02	99.94
2013/12/03	07:59:43	0.02	120.56
2013/12/03	08:04:43	0.02	88.8
2013/12/03	08:09:43	0.02	88.8
2013/12/03	08:14:43	0.02	82.12
2013/12/03	08:19:43	0.02	61.28
2013/12/03	08:24:43	0.02	127.69
2013/12/03	08:29:43	0.02	165.68
2013/12/03	08:34:43	0.02	188.52
2013/12/03	08:39:43	0.02	291.25
2013/12/03	08:44:43	0.02	66.07
2013/12/03	08:49:43	0.5	18.94
2013/12/03	08:54:43	0.02	354.21
2013/12/03	08:59:43	0.02	11.7
2013/12/03	09:04:43	0.02	92.37
2013/12/03	09:09:43	0.31	33.87
2013/12/03	09:14:43	0.18	5.68
2013/12/03	09:19:43	1.18	55.71
2013/12/03	09:24:43	0.12	21.73
2013/12/03	09:29:43	0.69	1.67
2013/12/03	09:34:43	0.02	58.83
2013/12/03	09:39:43	0.02	24.29
2013/12/03	09:44:43	0.63	17.94
2013/12/03	09:49:43	0.41	17.27
2013/12/03	09:54:43	0.02	36.21
2013/12/03	09:59:43	0.02	2.34
2013/12/03	10:04:43	0.4	74.32
2013/12/03	10:09:43	0.69	26.52
2013/12/03	10:14:43	0.02	61.06
2013/12/03	10:19:43	0.41	345.4
2013/12/03	10:24:43	0.02	2.34
2013/12/03	10:29:43	0.02	316.21
2013/12/03	10:34:43	1.3	12.81
2013/12/03	10:39:43	0.41	311.64
2013/12/03	10:44:43	0	9.25
2013/12/03	10:49:43	0.02	291.92
2013/12/03	10:54:43	0.02	30.31
2013/12/03	10:59:43	0.61	61.06
2013/12/03	11:04:43	1.12	350.53

Appendix H Meteorological Data for Impact Monitoring in the reporting period

Date	Time (24hrs)	Wind Speed (m/s)	Wind Direction (degree)
2013/12/03	11:09:43	0.69	350.97
2013/12/03	11:14:43	0.86	8.47
2013/12/03	11:19:43	1.56	3.34
2013/12/03	11:24:43	0.02	265.29
2013/12/03	11:29:43	0.02	19.39
2013/12/03	11:34:43	0.02	320.78
2013/12/03	11:39:43	0.02	252.03
2013/12/03	11:44:43	0.02	162.9
2013/12/03	11:49:43	0.02	257.49
2013/12/03	11:54:43	0.02	228.86
2013/12/03	11:59:43	0.02	232.42
2013/12/03	12:04:43	0.02	342.73
2013/12/03	12:09:43	0.02	14.6
2013/12/03	12:14:43	0.02	288.25
2013/12/03	12:19:43	0.05	2.12
2013/12/03	12:24:43	0.02	342.4
2013/12/03	12:29:43	0.02	272.09
2013/12/03	12:34:43	0.02	283.57
2013/12/03	12:39:43	0.02	343.06
2013/12/03	12:44:43	0.61	34.32
2013/12/03	12:49:43	0.75	46.69
2013/12/03	12:54:43	0.02	139.16
2013/12/03	12:59:43	0.55	54.82
2013/12/03	13:04:43	0.02	52.7
2013/12/03	13:09:43	0.05	44.57
2013/12/03	13:14:43	0.03	107.08
2013/12/03	13:19:43	0.18	70.42
2013/12/03	13:24:43	0.02	146.18
2013/12/03	13:29:43	0.02	124.23
2013/12/03	13:34:43	0.02	225.07
2013/12/03	13:39:43	0.02	178.83
2013/12/03	13:44:43	0.02	184.85
2013/12/03	13:49:43	0.02	59.16
2013/12/03	13:54:43	0.09	209.25
2013/12/03	13:59:43	0.02	53.82
2013/12/03	14:04:43	0.02	238.55
2013/12/03	14:09:43	0.02	331.25
2013/12/03	14:14:43	0.02	236.32
2013/12/03	14:19:43	0.02	281
2013/12/03	14:24:43	0.02	215.38
2013/12/03	14:29:43	0.02	235.32
2013/12/03	14:34:43	0.02	278.22
2013/12/03	14:39:43	0.02	15.71
2013/12/03	14:44:43	0.02	243.45
2013/12/03	14:49:43	0.02	274.76
2013/12/03	14:54:43	0.02	274.76

Appendix H Meteorological Data for Impact Monitoring in the reporting period

Date	Time (24hrs)	Wind Speed (m/s)	Wind Direction (degree)
2013/12/03	14:59:43	0.02	282.67
2013/12/03	15:04:43	0.02	140.5
2013/12/03	15:09:43	0.02	120.89
2013/12/03	15:14:43	0.02	151.64
2013/12/03	15:19:43	0.05	163.45
2013/12/03	15:24:43	0.02	30.97
2013/12/03	15:29:43	0.02	114.32
2013/12/03	15:34:43	0.02	56.27
2013/12/03	15:39:43	0.02	89.81
2013/12/03	15:44:43	0.02	132.92
2013/12/03	15:49:43	0.05	155.43
2013/12/03	15:54:43	0.03	79.33
2013/12/03	15:59:43	0.02	98.61
2013/12/03	16:04:43	0.02	112.98
2013/12/03	16:09:43	0.02	63.96
2013/12/03	16:14:43	0.02	165.01
2013/12/03	16:19:43	0.02	181.06
2013/12/03	16:24:43	0.02	183.06
2013/12/03	16:29:43	0.02	227.3
2013/12/03	16:34:43	0.02	226.96
2013/12/03	16:39:43	0.02	227.19
2013/12/03	16:44:43	0.02	227.3
2013/12/03	16:49:43	0.02	219.39
2013/12/03	16:54:43	0.02	220.5
2013/12/03	16:59:43	0.02	228.3
2013/12/03	17:04:43	0.02	228.3
2013/12/03	17:09:43	0.02	228.41
2013/12/03	17:14:43	0.02	206.13
2013/12/03	17:19:43	0.02	206.24
2013/12/03	17:24:43	0.02	195.21
2013/12/03	17:29:43	0.02	195.99
2013/12/03	17:34:43	0.02	212.59
2013/12/03	17:39:43	0.02	222.62
2013/12/03	17:44:43	0.02	224.18
2013/12/03	17:49:43	0.02	222.4
2013/12/03	17:54:43	0.03	202.79
2013/12/03	17:59:43	0.02	213.7
2013/12/03	18:04:43	0.02	149.64
2013/12/03	18:09:43	0.02	238.22
2013/12/03	18:14:43	0.14	229.53
2013/12/03	18:19:43	0.02	248.8
2013/12/03	18:24:43	0.02	213.7
2013/12/03	18:29:43	0.02	128.91
2013/12/03	18:34:43	0.02	184.29
2013/12/03	18:39:43	0.02	98.94
2013/12/03	18:44:43	0.02	125.91

Appendix H Meteorological Data for Impact Monitoring in the reporting period

Date	Time (24hrs)	Wind Speed (m/s)	Wind Direction (degree)
2013/12/03	18:49:43	0.02	189.53
2013/12/03	18:54:43	0.02	212.26
2013/12/03	18:59:43	0.02	178.61
2013/12/03	19:04:43	0.02	204.12
2013/12/03	19:09:43	0.02	173.82
2013/12/03	19:14:43	0.02	173.82
2013/12/03	19:19:43	0.02	196.1
2013/12/03	19:24:43	0.02	196.21
2013/12/03	19:29:43	0.02	200.22
2013/12/03	19:34:43	0.02	176.6
2013/12/03	19:39:43	0.02	237.99
2013/12/03	19:44:43	0.02	215.6
2013/12/03	19:49:43	0.02	216.6
2013/12/03	19:54:43	0.02	205.35
2013/12/03	19:59:43	0.02	201.23
2013/12/03	20:04:43	0.23	218.72
2013/12/03	20:09:43	0.02	220.17
2013/12/03	20:14:43	0.02	231.87
2013/12/03	20:19:43	0.44	223.84
2013/12/03	20:24:43	0.02	219.39
2013/12/03	20:29:43	0.02	221.28
2013/12/03	20:34:43	0.02	199.22
2013/12/03	20:39:43	0.02	225.4
2013/12/03	20:44:43	0.02	220.84
2013/12/03	20:49:43	0.05	179.16
2013/12/03	20:54:43	0.05	139.28
2013/12/03	20:59:43	0.02	143.29
2013/12/03	21:04:43	0.02	338.61
2013/12/03	21:09:43	0.02	25.74
2013/12/03	21:14:43	0.02	307.19
2013/12/03	21:19:43	0.02	271.64
2013/12/03	21:24:43	0.02	271.75
2013/12/03	21:29:43	0.02	271.87
2013/12/03	21:34:43	0.02	271.64
2013/12/03	21:39:43	0.02	271.75
2013/12/03	21:44:43	0.26	235.21
2013/12/03	21:49:43	0.02	226.52
2013/12/03	21:54:43	0.02	234.76
2013/12/03	21:59:43	0.02	239.89
2013/12/03	22:04:43	0.49	245.24
2013/12/03	22:09:43	0.02	214.71
2013/12/03	22:14:43	0.02	212.81
2013/12/03	22:19:43	0.02	225.85
2013/12/03	22:24:43	0.02	209.47
2013/12/03	22:29:43	0.02	232.65
2013/12/03	22:34:43	0.61	240.45

Appendix H Meteorological Data for Impact Monitoring in the reporting period

Date	Time (24hrs)	Wind Speed (m/s)	Wind Direction (degree)
2013/12/03	22:39:43	0.02	254.04
2013/12/03	22:44:43	0.02	227.3
2013/12/03	22:49:43	0.02	230.64
2013/12/03	22:54:43	0.02	203.12
2013/12/03	22:59:43	0.4	162.23
2013/12/03	23:04:43	0.02	223.51
2013/12/03	23:09:43	0.02	203.79
2013/12/03	23:14:43	0.02	203.9
2013/12/03	23:19:43	0.02	227.86
2013/12/03	23:24:43	0.02	225.74
2013/12/03	23:29:43	0.02	222.4
2013/12/03	23:34:43	0.23	220.84
2013/12/03	23:39:43	0.03	224.96
2013/12/03	23:44:43	0.38	191.87
2013/12/03	23:49:43	0.2	180.95
2013/12/03	23:54:43	0.02	208.8
2013/12/03	23:59:43	0.02	234.09
2013/12/09	00:02:02	0.02	227.86
2013/12/09	00:07:02	0.02	227.86
2013/12/09	00:12:02	0.02	227.97
2013/12/09	00:17:02	0.02	227.86
2013/12/09	00:22:02	0.02	227.97
2013/12/09	00:27:02	0.02	265.52
2013/12/09	00:32:02	0.02	277.33
2013/12/09	00:37:02	0.02	240.67
2013/12/09	00:42:02	0.02	257.27
2013/12/09	00:47:02	0.06	260.84
2013/12/09	00:52:02	0.02	258.61
2013/12/09	00:57:02	0.02	221.17
2013/12/09	01:02:02	0.2	261.62
2013/12/09	01:07:02	0.02	264.62
2013/12/09	01:12:02	0.02	245.91
2013/12/09	01:17:02	0.02	249.03
2013/12/09	01:22:02	0.02	229.3
2013/12/09	01:27:02	0.02	313.98
2013/12/09	01:32:02	0.02	313.98
2013/12/09	01:37:02	0.02	254.48
2013/12/09	01:42:02	0.02	243.68
2013/12/09	01:47:02	0.02	257.27
2013/12/09	01:52:02	0.02	284.23
2013/12/09	01:57:02	0.02	230.08
2013/12/09	02:02:02	0.02	261.28
2013/12/09	02:07:02	0.02	273.43
2013/12/09	02:12:02	0.02	288.58
2013/12/09	02:17:02	0.02	241.11
2013/12/09	02:22:02	0.02	263.62

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Date	Time (24hrs)	Wind Speed (m/s)	Wind Direction (degree)
2013/12/09	02:27:02	0.02	304.07
2013/12/09	02:32:02	0.02	307.63
2013/12/09	02:37:02	0.02	255.15
2013/12/09	02:42:02	0.02	279.89
2013/12/09	02:47:02	0.02	244.9
2013/12/09	02:52:02	0.02	242.79
2013/12/09	02:57:02	0.02	239.78
2013/12/09	03:02:02	0.02	287.47
2013/12/09	03:07:02	0.02	251.36
2013/12/09	03:12:02	0.02	267.97
2013/12/09	03:17:02	0.02	338.72
2013/12/09	03:22:02	0.52	244.46
2013/12/09	03:27:02	0.02	338.27
2013/12/09	03:32:02	0.02	312.98
2013/12/09	03:37:02	0.02	175.49
2013/12/09	03:42:02	0.02	330.14
2013/12/09	03:47:02	0.02	263.51
2013/12/09	03:52:02	0.02	222.62
2013/12/09	03:57:02	1.04	250.25
2013/12/09	04:02:02	0.06	262.28
2013/12/09	04:07:02	0.02	284.9
2013/12/09	04:12:02	0.03	306.96
2013/12/09	04:17:02	0.02	287.35
2013/12/09	04:22:02	0.02	129.25
2013/12/09	04:27:02	0.11	253.26
2013/12/09	04:32:02	0.02	355.54
2013/12/09	04:37:02	0.02	278.55
2013/12/09	04:42:02	0.02	209.36
2013/12/09	04:47:02	0.02	270.97
2013/12/09	04:52:02	0.02	346.96
2013/12/09	04:57:02	0.02	270.31
2013/12/09	05:02:02	0.02	265.52
2013/12/09	05:07:02	0.02	303.51
2013/12/09	05:12:02	2.14	244.9
2013/12/09	05:17:02	0.03	312.2
2013/12/09	05:22:02	0.02	267.74
2013/12/09	05:27:02	0.4	199.78
2013/12/09	05:32:02	0.02	257.27
2013/12/09	05:37:02	0.09	2.79
2013/12/09	05:42:02	0.02	306.3
2013/12/09	05:47:02	0.03	267.97
2013/12/09	05:52:02	0.02	323.01
2013/12/09	05:57:02	0.02	348.64
2013/12/09	06:02:02	0.02	248.58
2013/12/09	06:07:02	0.02	290.14
2013/12/09	06:12:02	0.02	232.42

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Date	Time (24hrs)	Wind Speed (m/s)	Wind Direction (degree)
2013/12/09	06:17:02	0.02	240.45
2013/12/09	06:22:02	0.02	298.05
2013/12/09	06:27:02	0.02	286.69
2013/12/09	06:32:02	0.02	244.57
2013/12/09	06:37:02	0.02	282.56
2013/12/09	06:42:02	0.02	286.57
2013/12/09	06:47:02	1.59	234.21
2013/12/09	06:52:02	0.02	263.96
2013/12/09	06:57:02	0.02	257.49
2013/12/09	07:02:02	0.02	247.13
2013/12/09	07:07:02	0.02	284.01
2013/12/09	07:12:02	0.02	279.67
2013/12/09	07:17:02	0.02	251.25
2013/12/09	07:22:02	0.02	287.8
2013/12/09	07:27:02	0.06	226.07
2013/12/09	07:32:02	0.06	245.57
2013/12/09	07:37:02	0.02	275.32
2013/12/09	07:42:02	0.15	262.84
2013/12/09	07:47:02	0.02	303.06
2013/12/09	07:52:02	0.46	289.36
2013/12/09	07:57:02	0.02	267.52
2013/12/09	08:02:02	0.02	249.25
2013/12/09	08:07:02	0.02	299.16
2013/12/09	08:12:02	0.02	20.17
2013/12/09	08:17:02	0.02	251.92
2013/12/09	08:22:02	0.02	285.91
2013/12/09	08:27:02	0.02	247.02
2013/12/09	08:32:02	0.02	288.25
2013/12/09	08:37:02	0.02	255.93
2013/12/09	08:42:02	0.02	320.11
2013/12/09	08:47:02	0.02	348.86
2013/12/09	08:52:02	0.02	269.19
2013/12/09	08:57:02	0.26	9.69
2013/12/09	09:02:02	0.02	10.47
2013/12/09	09:07:02	0.02	341.39
2013/12/09	09:12:02	0.02	315.77
2013/12/09	09:17:02	0.02	236.55
2013/12/09	09:22:02	0.02	243.45
2013/12/09	09:27:02	0.02	246.13
2013/12/09	09:32:02	0.02	260.39
2013/12/09	09:37:02	0.02	251.48
2013/12/09	09:42:02	0.02	207.13
2013/12/09	09:47:02	0.02	296.49
2013/12/09	09:52:02	1.71	1.78
2013/12/09	09:57:02	0.21	338.16
2013/12/09	10:02:02	0.02	270.64

Appendix H Meteorological Data for Impact Monitoring in the reporting period

Date	Time (24hrs)	Wind Speed (m/s)	Wind Direction (degree)
2013/12/09	10:07:02	0.02	237.44
2013/12/09	10:12:02	0.02	354.76
2013/12/09	10:17:02	0.02	282.34
2013/12/09	10:22:02	0.02	338.94
2013/12/09	10:27:02	0.31	239.55
2013/12/09	10:32:02	0.02	324.79
2013/12/09	10:37:02	0.02	255.82
2013/12/09	10:42:02	0.02	262.84
2013/12/09	10:47:02	0.02	225.52
2013/12/09	10:52:02	0.02	254.37
2013/12/09	10:57:02	0.02	255.49
2013/12/09	11:02:02	0.02	293.82
2013/12/09	11:07:02	0.02	314.21
2013/12/09	11:12:02	0.02	268.3
2013/12/09	11:17:02	0.02	267.3
2013/12/09	11:22:02	0.02	245.13
2013/12/09	11:27:02	0.02	237.88
2013/12/09	11:32:02	0.02	256.94
2013/12/09	11:37:02	0.02	244.79
2013/12/09	11:42:02	0.37	311.53
2013/12/09	11:47:02	0.35	284.46
2013/12/09	11:52:02	0.02	265.74
2013/12/09	11:57:02	0.08	264.85
2013/12/09	12:02:02	0.02	123.68
2013/12/09	12:07:02	0.02	302.06
2013/12/09	12:12:02	0.02	242.79
2013/12/09	12:17:02	0.02	1.45
2013/12/09	12:22:02	0.09	243.68
2013/12/09	12:27:02	1.53	294.82
2013/12/09	12:32:02	0.29	206.24
2013/12/09	12:37:02	0.2	277.1
2013/12/09	12:42:02	0	22.84
2013/12/09	12:47:02	0.05	176.27
2013/12/09	12:52:02	0.08	352.98
2013/12/09	12:57:02	0.02	316.77
2013/12/09	13:02:02	0.21	255.71
2013/12/09	13:07:02	0.37	13.37
2013/12/09	13:12:02	0.14	6.24
2013/12/09	13:17:02	0.02	237.66
2013/12/09	13:22:02	0.21	249.81
2013/12/09	13:27:02	0.61	6.69
2013/12/09	13:32:02	0.02	330.14
2013/12/09	13:37:02	0.02	292.7
2013/12/09	13:42:02	0.02	29.75
2013/12/09	13:47:02	0.02	211.25
2013/12/09	13:52:02	1.94	4.46

Appendix H Meteorological Data for Impact Monitoring in the reporting period

Date	Time (24hrs)	Wind Speed (m/s)	Wind Direction (degree)
2013/12/09	13:57:02	0.06	347.3
2013/12/09	14:02:02	0.26	325.35
2013/12/09	14:07:02	0.02	6.24
2013/12/09	14:12:02	0.61	286.91
2013/12/09	14:17:02	0.02	263.73
2013/12/09	14:22:02	0.02	36.77
2013/12/09	14:27:02	0.02	235.43
2013/12/09	14:32:02	0.02	260.5
2013/12/09	14:37:02	0.02	290.47
2013/12/09	14:42:02	0.02	7.35
2013/12/09	14:47:02	0.02	253.37
2013/12/09	14:52:02	0.02	191.98
2013/12/09	14:57:02	0.02	297.72
2013/12/09	15:02:02	0.46	259.72
2013/12/09	15:07:02	0.02	27.19
2013/12/09	15:12:02	0.08	313.31
2013/12/09	15:17:02	0.02	44.35
2013/12/09	15:22:02	0.02	352.42
2013/12/09	15:27:02	0.02	352.53
2013/12/09	15:32:02	0.02	224.29
2013/12/09	15:37:02	0.2	252.48
2013/12/09	15:42:02	0.21	254.93
2013/12/09	15:47:02	0.03	323.68
2013/12/09	15:52:02	0.02	269.42
2013/12/09	15:57:02	0.02	257.16
2013/12/09	16:02:02	0.99	266.96
2013/12/09	16:07:02	0.02	314.76
2013/12/09	16:12:02	0.02	12.03
2013/12/09	16:17:02	0.02	11.92
2013/12/09	16:22:02	0.02	11.92
2013/12/09	16:27:02	0.02	11.92
2013/12/09	16:32:02	0.02	225.74
2013/12/09	16:37:02	0.02	225.85
2013/12/09	16:42:02	0.02	61.06
2013/12/09	16:47:02	0.02	160
2013/12/09	16:52:02	0.02	160
2013/12/09	16:57:02	0.02	160.11
2013/12/09	17:02:02	0.02	197.88
2013/12/09	17:07:02	0.02	209.36
2013/12/09	17:12:02	0.02	222.95
2013/12/09	17:17:02	0.02	214.37
2013/12/09	17:22:02	0.02	172.37
2013/12/09	17:27:02	0.02	202.9
2013/12/09	17:32:02	0.02	161.67
2013/12/09	17:37:02	0.02	235.54
2013/12/09	17:42:02	0.05	246.69

Appendix H Meteorological Data for Impact Monitoring in the reporting period

Date	Time (24hrs)	Wind Speed (m/s)	Wind Direction (degree)
2013/12/09	17:47:02	0.02	220.06
2013/12/09	17:52:02	0.02	174.04
2013/12/09	17:57:02	0.02	201.89
2013/12/09	18:02:02	0.02	204.57
2013/12/09	18:07:02	0.06	226.07
2013/12/09	18:12:02	0.03	204.9
2013/12/09	18:17:02	0.02	197.21
2013/12/09	18:22:02	0.02	194.21
2013/12/09	18:27:02	0.02	180.28
2013/12/09	18:32:02	0.02	172.37
2013/12/09	18:37:02	0.02	210.7
2013/12/09	18:42:02	0.02	255.15
2013/12/09	18:47:02	0.02	164.9
2013/12/09	18:52:02	0.02	211.36
2013/12/09	18:57:02	0.02	130.03
2013/12/09	19:02:02	0.02	218.27
2013/12/09	19:07:02	0.18	186.74
2013/12/09	19:12:02	0.02	189.3
2013/12/09	19:17:02	0.02	185.18
2013/12/09	19:22:02	0.02	167.13
2013/12/09	19:27:02	0.02	232.98
2013/12/09	19:32:02	0.02	211.7
2013/12/09	19:37:02	0.02	211.7
2013/12/09	19:42:02	0.02	211.81
2013/12/09	19:47:02	0.02	240
2013/12/09	19:52:02	0.02	174.48
2013/12/09	19:57:02	0.02	168.36
2013/12/09	20:02:02	0.02	191.87
2013/12/09	20:07:02	0.02	193.43
2013/12/09	20:12:02	0.02	199.78
2013/12/09	20:17:02	0.02	144.29
2013/12/09	20:22:02	0.02	221.06
2013/12/09	20:27:02	0.02	216.27
2013/12/09	20:32:02	0.23	232.2
2013/12/09	20:37:02	0.02	218.38
2013/12/09	20:42:02	0.02	183.84
2013/12/09	20:47:02	0.03	181.84
2013/12/09	20:52:02	0.02	167.24
2013/12/09	20:57:02	0.03	231.87
2013/12/09	21:02:02	0.02	248.02
2013/12/09	21:07:02	0.02	125.91
2013/12/09	21:12:02	0.26	204.68
2013/12/09	21:17:02	0.02	273.87
2013/12/09	21:22:02	0.02	273.98
2013/12/09	21:27:02	0.02	342.95
2013/12/09	21:32:02	0.52	182.17

Appendix H Meteorological Data for Impact Monitoring in the reporting period

Date	Time (24hrs)	Wind Speed (m/s)	Wind Direction (degree)
2013/12/09	21:37:02	0.02	325.79
2013/12/09	21:42:02	0.02	10.47
2013/12/09	21:47:02	0.02	225.74
2013/12/09	21:52:02	0.2	263.62
2013/12/09	21:57:02	0.14	240.45
2013/12/09	22:02:02	0.02	231.87
2013/12/09	22:07:02	0.02	44.01
2013/12/09	22:12:02	0.02	227.41
2013/12/09	22:17:02	0.23	27.08
2013/12/09	22:22:02	0.02	68.19
2013/12/09	22:27:02	0.02	226.07
2013/12/09	22:32:02	0.02	191.87
2013/12/09	22:37:02	0.02	249.36
2013/12/09	22:42:02	0.02	300.28
2013/12/09	22:47:02	0.02	143.62
2013/12/09	22:52:02	0.02	207.69
2013/12/09	22:57:02	0.02	254.82
2013/12/09	23:02:02	0.02	210.7
2013/12/09	23:07:02	0.02	221.62
2013/12/09	23:12:02	0.02	205.13
2013/12/09	23:17:02	1.27	221.28
2013/12/09	23:22:02	0.08	179.28
2013/12/09	23:27:02	0.02	265.29
2013/12/09	23:32:02	0.17	202.45
2013/12/09	23:37:02	0.12	245.46
2013/12/09	23:42:02	0.02	228.19
2013/12/09	23:47:02	0.28	250.47
2013/12/09	23:52:02	0.02	179.72
2013/12/09	23:57:02	0.02	230.86
2013/12/13	00:04:43	3.04	61.73
2013/12/13	00:09:43	0.02	81.11
2013/12/13	00:14:43	0.35	149.86
2013/12/13	00:19:43	0.02	82.9
2013/12/13	00:24:43	0.02	67.86
2013/12/13	00:29:43	0.02	79.89
2013/12/13	00:34:43	0.18	170.7
2013/12/13	00:39:43	0.02	116.55
2013/12/13	00:44:43	0.02	102.17
2013/12/13	00:49:43	0.02	178.72
2013/12/13	00:54:43	0.02	167.69
2013/12/13	00:59:43	0.02	84.9
2013/12/13	01:04:43	0.02	128.25
2013/12/13	01:09:43	0.02	133.48
2013/12/13	01:14:43	0.02	133.48
2013/12/13	01:19:43	0.02	115.21
2013/12/13	01:24:43	0.02	158.11

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Date	Time (24hrs)	Wind Speed (m/s)	Wind Direction (degree)
2013/12/13	01:29:43	0.02	136.82
2013/12/13	01:34:43	0.11	151.87
2013/12/13	01:39:43	0.02	145.4
2013/12/13	01:44:43	0.02	132.26
2013/12/13	01:49:43	0.02	91.59
2013/12/13	01:54:43	0.02	91.48
2013/12/13	01:59:43	0.02	64.96
2013/12/13	02:04:43	0.02	69.86
2013/12/13	02:09:43	0.02	33.54
2013/12/13	02:14:43	0.02	51.7
2013/12/13	02:19:43	0.02	52.26
2013/12/13	02:24:43	0.02	59.94
2013/12/13	02:29:43	0.02	0.67
2013/12/13	02:34:43	0.02	0.67
2013/12/13	02:39:43	0.02	0.89
2013/12/13	02:44:43	0.02	0.89
2013/12/13	02:49:43	0.02	0.67
2013/12/13	02:54:43	0.02	343.62
2013/12/13	02:59:43	0.02	343.73
2013/12/13	03:04:43	0.02	7.24
2013/12/13	03:09:43	0.52	357.77
2013/12/13	03:14:43	0.02	345.29
2013/12/13	03:19:43	0.02	6.91
2013/12/13	03:24:43	0.02	323.45
2013/12/13	03:29:43	0.02	347.63
2013/12/13	03:34:43	0.02	299.61
2013/12/13	03:39:43	0.02	303.06
2013/12/13	03:44:43	0.02	2.45
2013/12/13	03:49:43	0.02	273.2
2013/12/13	03:54:43	0.02	313.54
2013/12/13	03:59:43	0.02	296.27
2013/12/13	04:04:43	0.02	1.78
2013/12/13	04:09:43	0.28	347.52
2013/12/13	04:14:43	0.12	355.1
2013/12/13	04:19:43	0.02	330.25
2013/12/13	04:24:43	0.02	296.38
2013/12/13	04:29:43	0.02	252.03
2013/12/13	04:34:43	0.02	358.44
2013/12/13	04:39:43	0.02	257.27
2013/12/13	04:44:43	0.02	307.52
2013/12/13	04:49:43	0.02	261.06
2013/12/13	04:54:43	0.02	274.76
2013/12/13	04:59:43	0.02	272.65
2013/12/13	05:04:43	0.02	335.71
2013/12/13	05:09:43	0.02	33.76
2013/12/13	05:14:43	0.41	70.64

Appendix H Meteorological Data for Impact Monitoring in the reporting period

Date	Time (24hrs)	Wind Speed (m/s)	Wind Direction (degree)
2013/12/13	05:19:43	0.02	50.03
2013/12/13	05:24:43	0.02	68.19
2013/12/13	05:29:43	0.29	93.15
2013/12/13	05:34:43	0.02	346.18
2013/12/13	05:39:43	0.03	65.29
2013/12/13	05:44:43	0.02	66.63
2013/12/13	05:49:43	0.02	41
2013/12/13	05:54:43	0.02	91.25
2013/12/13	05:59:43	0.02	93.82
2013/12/13	06:04:43	0.02	123.68
2013/12/13	06:09:43	0.02	131.48
2013/12/13	06:14:43	0.02	131.59
2013/12/13	06:19:43	0.02	216.38
2013/12/13	06:24:43	0.02	216.38
2013/12/13	06:29:43	0.02	216.38
2013/12/13	06:34:43	0.02	213.15
2013/12/13	06:39:43	0.02	213.15
2013/12/13	06:44:43	0.02	213.15
2013/12/13	06:49:43	0.02	213.15
2013/12/13	06:54:43	0.02	213.15
2013/12/13	06:59:43	0.02	213.15
2013/12/13	07:04:43	0.02	213.15
2013/12/13	07:09:43	0.02	340.28
2013/12/13	07:14:43	0.02	283.34
2013/12/13	07:19:43	0.02	283.23
2013/12/13	07:24:43	0.02	283.23
2013/12/13	07:29:43	0.02	283.23
2013/12/13	07:34:43	0.02	283.23
2013/12/13	07:39:43	0.02	247.13
2013/12/13	07:44:43	0.02	111.09
2013/12/13	07:49:43	0	105.52
2013/12/13	07:54:43	0.02	106.74
2013/12/13	07:59:43	0.02	106.63
2013/12/13	08:04:43	0.02	106.74
2013/12/13	08:09:43	0.02	106.18
2013/12/13	08:14:43	0.02	106.18
2013/12/13	08:19:43	0.02	106.18
2013/12/13	08:24:43	0.02	105.85
2013/12/13	08:29:43	0.02	105.85
2013/12/13	08:34:43	0.02	105.63
2013/12/13	08:39:43	0.02	105.52
2013/12/13	08:44:43	0.02	105.52
2013/12/13	08:49:43	0.02	105.4
2013/12/13	08:54:43	0.02	196.55
2013/12/13	09:19:43	0.02	197.99
2013/12/13	09:24:43	0.02	94.82

Appendix H Meteorological Data for Impact Monitoring in the reporting period

Date	Time (24hrs)	Wind Speed (m/s)	Wind Direction (degree)
2013/12/13	09:29:43	0.02	94.37
2013/12/13	09:34:43	0.02	94.15
2013/12/13	09:39:43	0.02	94.04
2013/12/13	09:44:43	0.02	93.93
2013/12/13	09:49:43	0.02	94.04
2013/12/13	09:54:43	0.02	93.93
2013/12/13	09:59:43	0.02	93.93
2013/12/13	10:04:43	0.02	94.04
2013/12/13	10:09:43	0.02	95.60
2013/12/13	10:14:43	0.02	94.48
2013/12/13	10:19:43	0.02	95.49
2013/12/13	10:24:43	0.02	95.15
2013/12/13	10:29:43	0.02	96.27
2013/12/13	10:34:43	0.02	96.38
2013/12/13	10:39:43	0.02	96.38
2013/12/13	10:44:43	0.02	96.49
2013/12/13	10:49:43	0.02	96.49
2013/12/13	10:54:43	0.02	96.27
2013/12/13	10:59:43	0.02	96.38
2013/12/13	11:04:43	0.02	96.38
2013/12/13	11:09:43	0.02	76.99
2013/12/13	11:14:43	0.02	303.73
2013/12/13	11:19:43	0.09	4.46
2013/12/13	11:24:43	0.02	5.91
2013/12/13	11:29:43	0.03	5.35
2013/12/13	11:34:43	0.02	231.87
2013/12/13	11:39:43	0.02	335.15
2013/12/13	11:44:43	0.02	245.24
2013/12/13	11:49:43	0.05	216.49
2013/12/13	11:54:43	0.02	339.05
2013/12/13	11:59:43	0.02	233.31
2013/12/13	12:04:43	0.02	359.00
2013/12/13	12:09:43	0.02	228.19
2013/12/13	12:14:43	0.38	232.09
2013/12/13	12:19:43	0.02	344.29
2013/12/13	12:24:43	0.05	220.17
2013/12/13	12:29:43	0.02	258.72
2013/12/13	12:34:43	0.02	228.75
2013/12/13	12:39:43	0.02	293.48
2013/12/13	12:44:43	0.17	249.58
2013/12/13	12:49:43	0.02	236.32
2013/12/13	12:54:43	0.02	257.94
2013/12/13	12:59:43	0.02	346.41
2013/12/13	13:04:43	0.02	242.45
2013/12/13	13:09:43	0.02	252.14
2013/12/13	13:14:43	0.02	256.71

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Date	Time (24hrs)	Wind Speed (m/s)	Wind Direction (degree)
2013/12/13	13:19:43	0.02	292.14
2013/12/13	13:24:43	0.02	355.77
2013/12/13	13:29:43	0.02	33.54
2013/12/13	13:34:43	0.02	9.14
2013/12/13	13:39:43	0.23	57.60
2013/12/13	13:44:43	0.02	253.93
2013/12/13	13:49:43	0.02	2.56
2013/12/13	13:54:43	0.02	334.93
2013/12/13	13:59:43	0.02	205.13
2013/12/13	14:04:43	0.02	355.10
2013/12/13	14:09:43	0.14	359.89
2013/12/13	14:14:43	0.02	309.86
2013/12/13	14:19:43	0.02	295.71
2013/12/13	14:24:43	0.02	1.34
2013/12/13	14:29:43	0.02	278.44
2013/12/13	14:34:43	0.02	246.69
2013/12/13	14:39:43	0.02	-0.11
2013/12/13	14:44:43	0.02	267.30
2013/12/13	14:49:43	0.02	305.63
2013/12/13	14:54:43	0.02	163.68
2013/12/13	14:59:43	0.02	317.88
2013/12/13	15:04:43	0.02	359.67
2013/12/13	15:09:43	0.02	271.98
2013/12/13	15:14:43	0.02	269.30
2013/12/13	15:19:43	0.02	315.43
2013/12/13	15:24:43	0.02	268.86
2013/12/13	15:29:43	0.02	299.61
2013/12/13	15:34:43	0.02	300.06
2013/12/13	15:39:43	0.05	119.78
2013/12/13	15:44:43	0.02	243.79
2013/12/13	15:49:43	0.02	-0.11
2013/12/13	15:54:43	0.02	313.65
2013/12/13	15:59:43	0.02	245.01
2013/12/13	16:04:43	0.02	65.40
2013/12/13	16:09:43	0.02	323.01
2013/12/13	16:14:43	0.02	320.67
2013/12/13	16:19:43	0.02	264.96
2013/12/13	16:24:43	0.02	254.82
2013/12/13	16:29:43	0.02	294.93
2013/12/13	16:34:43	0.02	309.08
2013/12/13	16:39:43	0.02	259.39
2013/12/13	16:44:43	0.02	259.61
2013/12/13	16:49:43	0.02	235.88
2013/12/13	16:54:43	0.02	235.88
2013/12/13	16:59:43	0.02	235.88
2013/12/13	17:04:43	0.02	235.88

Appendix H Meteorological Data for Impact Monitoring in the reporting period

Date	Time (24hrs)	Wind Speed (m/s)	Wind Direction (degree)
2013/12/13	17:09:43	0.02	270.42
2013/12/13	17:14:43	0.02	263.51
2013/12/13	17:19:43	0.02	238.55
2013/12/13	17:24:43	0.02	268.86
2013/12/13	17:29:43	0.02	268.64
2013/12/13	17:34:43	0.02	275.10
2013/12/13	17:39:43	0.02	259.16
2013/12/13	17:44:43	0.02	239.89
2013/12/13	17:49:43	0.02	287.47
2013/12/13	17:54:43	0.02	287.58
2013/12/13	17:59:43	0.02	211.81
2013/12/13	18:04:43	0.02	211.81
2013/12/13	18:09:43	0.03	211.92
2013/12/13	18:14:43	0.02	211.92
2013/12/13	18:19:43	0.02	250.03
2013/12/13	18:24:43	0.02	220.72
2013/12/13	18:29:43	0.02	246.57
2013/12/13	18:34:43	0.02	246.13
2013/12/13	18:39:43	0.02	248.80
2013/12/13	18:44:43	0.02	248.80
2013/12/13	18:49:43	0.02	248.91
2013/12/13	18:54:43	0.02	215.60
2013/12/13	18:59:43	0.02	269.30
2013/12/13	19:04:43	0.02	219.16
2013/12/13	19:09:43	0.02	219.39
2013/12/13	19:14:43	0.02	319.11
2013/12/13	19:19:43	0.02	283.01
2013/12/13	19:24:43	0.02	270.75
2013/12/13	19:29:43	0.06	212.70
2013/12/13	19:34:43	0.02	305.85
2013/12/13	19:39:43	0.02	320.56
2013/12/13	19:44:43	0.02	201.56
2013/12/13	19:49:43	0.02	272.53
2013/12/13	19:54:43	0.02	283.90
2013/12/13	19:59:43	0.02	254.71
2013/12/13	20:04:43	0.67	242.79
2013/12/13	20:09:43	0.02	221.39
2013/12/13	20:14:43	0.02	223.29
2013/12/13	20:19:43	0.12	283.79
2013/12/13	20:24:43	0.02	306.96
2013/12/13	20:29:43	0.02	239.00
2013/12/13	20:34:43	0.02	239.00
2013/12/13	20:39:43	0.02	268.97
2013/12/13	20:44:43	1.04	254.48
2013/12/13	20:49:43	0.03	266.30
2013/12/13	20:54:43	0.69	310.53

Appendix H Meteorological Data for Impact Monitoring in the reporting period

Date	Time (24hrs)	Wind Speed (m/s)	Wind Direction (degree)
2013/12/13	20:59:43	0.06	173.59
2013/12/13	21:04:43	0.02	300.06
2013/12/13	21:09:43	0.02	278.22
2013/12/13	21:14:43	0.03	284.90
2013/12/13	21:19:43	0.06	283.68
2013/12/13	21:24:43	0.02	298.72
2013/12/13	21:29:43	0.02	285.46
2013/12/13	21:34:43	0.02	303.18
2013/12/13	21:39:43	0.02	278.66
2013/12/13	21:44:43	0.02	251.92
2013/12/13	21:49:43	0.02	302.28
2013/12/13	21:54:43	0.02	303.73
2013/12/13	21:59:43	0.02	259.28
2013/12/13	22:04:43	0.02	224.74
2013/12/13	22:09:43	0.02	334.82
2013/12/13	22:14:43	0.02	334.82
2013/12/13	22:19:43	0.02	334.82
2013/12/13	22:24:43	0.02	205.13
2013/12/13	22:29:43	0.02	205.01
2013/12/13	22:34:43	0.02	197.44
2013/12/13	22:39:43	0.02	197.55
2013/12/13	22:44:43	0.02	197.66
2013/12/13	22:49:43	0.02	197.66
2013/12/13	22:54:43	0.02	197.66
2013/12/13	22:59:43	0.02	197.66
2013/12/13	23:04:43	0.02	197.55
2013/12/13	23:09:43	0.02	197.66
2013/12/13	23:14:43	0.02	197.66
2013/12/13	23:19:43	0.02	197.66
2013/12/13	23:24:43	0.05	292.26
2013/12/13	23:29:43	0.02	252.14
2013/12/13	23:34:43	0.08	7.13
2013/12/13	23:39:43	0.02	294.71
2013/12/13	23:44:43	0.02	5.35
2013/12/13	23:49:43	0.02	303.62
2013/12/13	23:54:43	0.87	244.90
2013/12/13	23:59:43	1.07	267.63
2013/12/14	00:04:43	0.02	271.98
2013/12/14	00:09:43	0.02	247.69
2013/12/14	00:14:43	0.02	279.11
2013/12/14	00:19:43	0.02	271.42
2013/12/14	00:24:43	0.54	261.62
2013/12/14	00:29:43	0.02	236.10
2013/12/14	00:34:43	0.02	200.00
2013/12/14	00:39:43	0.02	200.00
2013/12/14	00:44:43	0.02	200.00

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Date	Time (24hrs)	Wind Speed (m/s)	Wind Direction (degree)
2013/12/14	00:49:43	0.02	200.11
2013/12/14	00:54:43	0.02	200.00
2013/12/14	00:59:43	0.02	200.00
2013/12/14	01:04:43	0.02	200.00
2013/12/14	01:09:43	0.02	200.11
2013/12/14	01:14:43	0.02	200.00
2013/12/14	01:19:43	0.02	302.17
2013/12/14	01:24:43	0.18	298.72
2013/12/14	01:29:43	0.73	346.07
2013/12/14	01:34:43	0.02	271.53
2013/12/14	01:39:43	0.17	264.74
2013/12/14	01:44:43	0.02	311.98
2013/12/14	01:49:43	0.02	195.88
2013/12/14	01:54:43	0.02	258.61
2013/12/14	01:59:43	0.02	233.09
2013/12/14	02:04:43	0.02	213.48
2013/12/14	02:09:43	0.23	254.82
2013/12/14	02:14:43	0.02	248.02
2013/12/14	02:19:43	0.02	326.35
2013/12/14	02:24:43	0.43	266.85
2013/12/14	02:29:43	0.21	361.34
2013/12/14	02:34:43	0.02	248.58
2013/12/14	02:39:43	0.66	274.09
2013/12/14	02:44:43	0.02	87.91
2013/12/14	02:49:43	0.02	155.77
2013/12/14	02:54:43	0.02	32.98
2013/12/14	02:59:43	0.02	32.87
2013/12/14	03:04:43	0.02	32.87
2013/12/14	03:09:43	0.02	32.87
2013/12/14	03:14:43	0.02	32.87
2013/12/14	03:19:43	0.02	32.87
2013/12/14	03:24:43	0.02	151.53
2013/12/14	03:29:43	0.02	151.53
2013/12/14	03:34:43	0.02	151.53
2013/12/14	03:39:43	0.02	151.53
2013/12/14	03:44:43	0.02	151.42
2013/12/14	03:49:43	0.02	151.42
2013/12/14	03:54:43	0.02	141.28
2013/12/14	03:59:43	0.02	141.28
2013/12/14	04:04:43	0.02	139.72
2013/12/14	04:09:43	0.03	129.69
2013/12/14	04:14:43	0.02	165.13
2013/12/14	04:19:43	0.02	165.13
2013/12/14	04:24:43	0.02	165.13
2013/12/14	04:29:43	0.02	165.24
2013/12/14	04:34:43	0.02	165.13

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Date	Time (24hrs)	Wind Speed (m/s)	Wind Direction (degree)
2013/12/14	04:39:43	0.02	165.13
2013/12/14	04:44:43	0.02	165.13
2013/12/14	04:49:43	0.02	174.71
2013/12/14	04:54:43	0.02	111.09
2013/12/14	04:59:43	0.02	178.38
2013/12/14	05:04:43	0.02	178.38
2013/12/14	05:09:43	0.02	178.38
2013/12/14	05:14:43	0.02	178.38
2013/12/14	05:19:43	0.02	178.38
2013/12/14	05:24:43	0.02	178.38
2013/12/14	05:29:43	0.02	178.38
2013/12/14	05:34:43	0.02	201.23
2013/12/14	05:39:43	0.02	201.23
2013/12/14	05:44:43	0.02	201.23
2013/12/14	05:49:43	0.02	201.23
2013/12/14	05:54:43	0.02	201.11
2013/12/14	05:59:43	0.02	201.23
2013/12/14	06:04:43	0.02	201.11
2013/12/14	06:09:43	0.02	201.23
2013/12/14	06:14:43	0.02	201.11
2013/12/14	06:19:43	0.02	201.23
2013/12/14	06:24:43	0.02	201.11
2013/12/14	06:29:43	0.02	136.71
2013/12/14	06:34:43	0.02	138.50
2013/12/14	06:39:43	0.02	138.50
2013/12/14	06:44:43	0.26	68.41
2013/12/14	06:49:43	0.02	27.74
2013/12/14	06:54:43	0.05	113.87
2013/12/14	06:59:43	0.02	102.06
2013/12/14	07:04:43	0.02	36.32
2013/12/14	07:09:43	0.02	47.58
2013/12/14	07:14:43	0.02	129.47
2013/12/14	07:19:43	0.02	215.93
2013/12/14	07:24:43	0.02	234.21
2013/12/14	07:29:43	0.02	234.09
2013/12/14	07:34:43	0.02	234.21
2013/12/14	07:39:43	0.02	234.21
2013/12/14	07:44:43	0.02	234.09
2013/12/14	07:49:43	0.02	234.21
2013/12/14	07:54:43	0.02	18.27
2013/12/14	07:59:43	0.26	53.15
2013/12/14	08:04:43	0.02	7.13
2013/12/14	08:09:43	0.02	152.42
2013/12/14	08:14:43	0.02	1.11
2013/12/14	08:19:43	0.08	360.22
2013/12/14	08:24:43	0.02	332.48

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Date	Time (24hrs)	Wind Speed (m/s)	Wind Direction (degree)
2013/12/14	08:29:43	0.02	45.13
2013/12/14	08:34:43	0.02	358.55
2013/12/14	08:39:43	0.02	33.31
2013/12/14	08:44:43	0.02	33.54
2013/12/14	08:49:43	0.02	41.34
2013/12/14	08:54:43	0.02	54.37
2013/12/14	08:59:43	0.02	54.37
2013/12/14	09:04:43	0.02	54.26
2013/12/14	09:09:43	0.02	54.37
2013/12/14	09:14:43	0.02	69.75
2013/12/14	09:19:43	0.02	126.69
2013/12/14	09:24:43	0.02	77.88
2013/12/14	09:29:43	0.02	87.35
2013/12/14	09:34:43	0.02	-0.45
2013/12/14	09:39:43	0.02	262.28
2013/12/14	09:44:43	0.02	348.30
2013/12/14	09:49:43	0.02	-0.33
2013/12/14	09:54:43	0.02	43.01
2013/12/14	09:59:43	0.02	345.74
2013/12/14	10:04:43	0.02	356.55
2013/12/14	10:09:43	0.12	-0.45
2013/12/14	10:14:43	0.02	359.55
2013/12/14	10:19:43	0.02	0.78
2013/12/14	10:24:43	0.02	-0.45
2013/12/14	10:29:43	0.02	25.52
2013/12/14	10:34:43	0.02	25.52
2013/12/14	10:39:43	0.02	277.33
2013/12/14	10:44:43	0.02	99.05
2013/12/14	10:49:43	0.02	68.41
2013/12/14	10:54:43	0.02	328.02
2013/12/14	10:59:43	0.02	53.70
2013/12/14	11:04:43	0.02	53.82
2013/12/14	11:09:43	0.02	53.82
2013/12/14	11:14:43	0.02	53.70
2013/12/14	11:19:43	0.02	-0.33
2013/12/14	11:24:43	0.02	-0.33
2013/12/14	11:29:43	0.02	-0.45
2013/12/14	11:34:43	0.02	0.11
2013/12/14	11:39:43	0.08	356.66
2013/12/14	11:44:43	0.02	353.65
2013/12/14	11:49:43	0.02	17.94
2013/12/14	11:54:43	0.02	68.97
2013/12/14	11:59:43	0.02	17.38
2013/12/14	12:04:43	0.02	17.38
2013/12/14	12:09:43	0.02	17.27
2013/12/14	12:14:43	0.02	49.92

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Date	Time (24hrs)	Wind Speed (m/s)	Wind Direction (degree)
2013/12/14	12:19:43	0.02	22.28
2013/12/14	12:24:43	0.02	207.35
2013/12/14	12:29:43	0.02	240.33
2013/12/14	12:34:43	0.02	40.00
2013/12/14	12:39:43	0.02	309.64
2013/12/14	12:44:43	0.02	212.92
2013/12/14	12:49:43	0.02	300.39
2013/12/14	12:54:43	0.02	352.87
2013/12/14	12:59:43	0.02	288.25
2013/12/14	13:04:43	0.02	303.40
2013/12/14	13:09:43	0.02	301.84
2013/12/14	13:14:43	0.02	353.54
2013/12/14	13:19:43	0.02	353.20
2013/12/14	13:24:43	0.02	338.27
2013/12/14	13:29:43	0.02	338.38
2013/12/14	13:34:43	0.02	175.71
2013/12/14	13:39:43	0.35	2.79
2013/12/14	13:44:43	0.02	351.31
2013/12/14	13:49:43	0.02	41.56
2013/12/14	13:54:43	0.02	23.73
2013/12/14	13:59:43	0.02	340.17
2013/12/14	14:04:43	0.02	339.61
2013/12/14	14:09:43	0.02	304.74
2013/12/14	14:14:43	0.02	342.40
2013/12/14	14:19:43	0.02	359.55
2013/12/14	14:24:43	0.02	356.10
2013/12/14	14:29:43	0.02	260.06
2013/12/14	14:34:43	0.02	1.45
2013/12/14	14:39:43	0.20	1.78
2013/12/14	14:44:43	0.24	289.58
2013/12/14	14:49:43	0.02	0.11
2013/12/19	08:20:07	0.02	4.23
2013/12/19	08:25:07	0.03	248.13
2013/12/19	08:30:07	1.76	347.86
2013/12/19	08:35:07	0.02	266.85
2013/12/19	08:40:07	0.02	232.53
2013/12/19	08:45:07	0.37	208.47
2013/12/19	08:50:07	0.02	280.89
2013/12/19	08:55:07	0.29	295.93
2013/12/19	09:00:07	0.02	346.52
2013/12/19	09:05:07	0.02	54.93
2013/12/19	09:10:07	0.03	252.81
2013/12/19	09:15:07	0.02	275.54
2013/12/19	09:20:07	0.02	345.40
2013/12/19	09:25:07	0.02	9.92
2013/12/19	09:30:07	0.02	251.59

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Date	Time (24hrs)	Wind Speed (m/s)	Wind Direction (degree)
2013/12/19	09:35:07	0.02	320.56
2013/12/19	09:40:07	0.63	8.91
2013/12/19	09:45:07	0.02	285.91
2013/12/19	09:50:07	0.55	249.69
2013/12/19	09:55:07	0.03	311.87
2013/12/19	10:00:07	0.02	359.22
2013/12/19	10:05:07	0.21	7.02
2013/12/19	10:10:07	0.61	3.90
2013/12/19	10:15:07	0.02	339.83
2013/12/19	10:20:07	0.05	220.50
2013/12/19	10:25:07	0.05	241.34
2013/12/19	10:30:07	0.03	206.57
2013/12/19	10:35:07	0.87	8.91
2013/12/19	10:40:07	0.47	36.10
2013/12/19	10:45:07	0.09	319.11
2013/12/19	10:50:07	2.34	11.81
2013/12/19	10:55:07	0.03	270.97
2013/12/19	11:00:07	0.26	343.18
2013/12/19	11:05:07	1.56	360.56
2013/12/19	11:10:07	0.11	353.87
2013/12/19	11:15:07	0.02	312.53
2013/12/19	11:20:07	0.41	232.76
2013/12/19	11:25:07	0.57	232.09
2013/12/19	11:30:07	0.14	284.01
2013/12/19	11:35:07	0.02	296.38
2013/12/19	11:40:07	0.02	326.46
2013/12/19	11:45:07	0.20	233.87
2013/12/19	11:50:07	0.06	324.57
2013/12/19	11:55:07	0.02	242.79
2013/12/19	12:00:07	0.06	252.59
2013/12/19	12:05:07	0.03	276.43
2013/12/19	12:10:07	0.02	337.94
2013/12/19	12:15:07	0.02	258.72
2013/12/19	12:20:07	0.02	294.26
2013/12/19	12:25:07	0.02	235.54
2013/12/19	12:30:07	0.02	286.69
2013/12/19	12:35:07	0.09	229.19
2013/12/19	12:40:07	0.26	224.40
2013/12/19	12:45:07	0.02	326.57
2013/12/19	12:50:07	0.02	328.25
2013/12/19	12:55:07	0.02	209.14
2013/12/19	13:00:07	0.02	44.46
2013/12/19	13:05:07	0.02	270.53
2013/12/19	13:10:07	0.57	351.75
2013/12/19	13:15:07	0.34	239.11
2013/12/19	13:20:07	0.54	246.57

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Date	Time (24hrs)	Wind Speed (m/s)	Wind Direction (degree)
2013/12/19	13:25:07	0.02	349.75
2013/12/19	13:30:07	0.81	357.77
2013/12/19	13:35:07	0.02	287.47
2013/12/19	13:40:07	0.02	250.47
2013/12/19	13:45:07	0.08	335.38
2013/12/19	13:50:07	0.09	276.77
2013/12/19	13:55:07	0.41	343.29
2013/12/19	14:00:07	0.03	296.27
2013/12/19	14:05:07	0.05	91.14
2013/12/19	14:10:07	0.02	291.92
2013/12/19	14:15:07	0.26	349.97
2013/12/19	14:20:07	0.09	228.41
2013/12/19	14:25:07	0.05	3.90
2013/12/19	14:30:07	0.92	251.25
2013/12/19	14:35:07	0.32	150.64
2013/12/19	14:40:07	0.09	263.51
2013/12/19	14:45:07	0.17	251.70
2013/12/19	14:50:07	0.57	298.94
2013/12/19	14:55:07	0.02	249.92
2013/12/19	15:00:07	0.28	355.54
2013/12/19	15:05:07	0.02	309.42
2013/12/19	15:10:07	0.02	259.28
2013/12/19	15:15:07	0.21	17.49
2013/12/19	15:20:07	0.02	221.84
2013/12/19	15:25:07	0.02	0.00
2013/12/19	15:30:07	0.09	217.27
2013/12/19	15:35:07	0.35	353.31
2013/12/19	15:40:07	0.02	266.30
2013/12/19	15:45:07	2.06	-33.76
2013/12/19	15:50:07	0.54	355.54
2013/12/19	15:55:07	0.02	214.37
2013/12/19	16:00:07	0.09	257.72
2013/12/19	16:05:07	0.02	60.28
2013/12/19	16:10:07	1.36	357.10
2013/12/19	16:15:07	0.52	209.03
2013/12/19	16:20:07	0.90	353.65
2013/12/19	16:25:07	0.02	321.56
2013/12/19	16:30:07	0.12	321.67
2013/12/19	16:35:07	0.09	338.72
2013/12/19	16:40:07	0.28	299.28
2013/12/19	16:45:07	0.02	0.33
2013/12/19	16:50:07	0.08	308.64
2013/12/19	16:55:07	0.26	191.20
2013/12/19	17:00:07	0.03	246.24
2013/12/19	17:05:07	0.02	331.36
2013/12/19	17:10:07	0.02	217.05

Appendix H Meteorological Data for Impact Monitoring in the reporting period

Date	Time (24hrs)	Wind Speed (m/s)	Wind Direction (degree)
2013/12/19	17:15:07	0.02	42.12
2013/12/19	17:20:07	0.02	224.29
2013/12/19	17:25:07	0.02	238.44
2013/12/19	17:30:07	0.02	229.97
2013/12/19	17:35:07	0.69	338.16
2013/12/19	17:40:07	0.34	9.14
2013/12/19	17:45:07	0.02	207.80
2013/12/19	17:50:07	0.35	35.10
2013/12/19	17:55:07	0.02	259.50
2013/12/19	18:00:07	0.02	46.02
2013/12/19	18:05:07	0.02	218.83
2013/12/19	18:10:07	0.09	250.92
2013/12/19	18:15:07	1.07	241.78
2013/12/19	18:20:07	0.02	254.15
2013/12/19	18:25:07	0.02	205.46
2013/12/19	18:30:07	0.03	249.25
2013/12/19	18:35:07	0.49	16.82
2013/12/19	18:40:07	0.03	231.98
2013/12/19	18:45:07	0.05	237.66
2013/12/19	18:50:07	0.02	329.81
2013/12/19	18:55:07	1.01	224.29
2013/12/19	19:00:07	0.12	220.95
2013/12/19	19:05:07	0.02	298.50
2013/12/19	19:10:07	0.47	282.01
2013/12/19	19:15:07	0.03	328.47
2013/12/19	19:20:07	0.12	221.39
2013/12/19	19:25:07	0.15	244.68
2013/12/19	19:30:07	0.47	256.71
2013/12/19	19:35:07	0.21	226.52
2013/12/19	19:40:07	0.03	43.23
2013/12/19	19:45:07	0.21	69.19
2013/12/19	19:50:07	0.02	339.50
2013/12/19	19:55:07	0.02	-46.24
2013/12/19	20:00:07	0.05	265.07
2013/12/19	20:05:07	0.78	330.58
2013/12/19	20:10:07	0.06	354.21
2013/12/19	20:15:07	0.63	49.25
2013/12/19	20:20:07	0.02	26.52
2013/12/19	20:25:07	0.78	10.58
2013/12/19	20:30:07	0.02	7.13
2013/12/19	20:35:07	0.02	251.36
2013/12/19	20:40:07	0.06	0.67
2013/12/19	20:45:07	0.02	219.16
2013/12/19	20:50:07	0.05	200.67
2013/12/19	20:55:07	0.28	216.82
2013/12/19	21:00:07	0.02	236.32

Appendix H Meteorological Data for Impact Monitoring in the reporting period

Date	Time (24hrs)	Wind Speed (m/s)	Wind Direction (degree)
2013/12/19	21:05:07	0.02	215.93
2013/12/19	21:10:07	0.20	244.46
2013/12/19	21:15:07	0.02	229.64
2013/12/19	21:20:07	0.02	279.78
2013/12/19	21:25:07	0.37	229.19
2013/12/19	21:30:07	0.02	212.81
2013/12/19	21:35:07	0.61	53.26
2013/12/19	21:40:07	0.37	225.40
2013/12/19	21:45:07	0.18	193.87
2013/12/19	21:50:07	0.05	156.43
2013/12/19	21:55:07	0.02	261.06
2013/12/19	22:00:07	0.20	281.67
2013/12/19	22:05:07	0.02	229.64
2013/12/19	22:10:07	0.02	256.04
2013/12/19	22:15:07	0.02	253.15
2013/12/19	22:20:07	0.02	252.03
2013/12/19	22:25:07	0.02	225.63
2013/12/19	22:30:07	0.02	257.72
2013/12/19	22:35:07	0.02	228.52
2013/12/19	22:40:07	0.02	148.97
2013/12/19	22:45:07	0.02	190.08
2013/12/19	22:50:07	0.03	216.04
2013/12/19	22:55:07	0.17	219.61
2013/12/19	23:00:07	0.02	187.97
2013/12/19	23:05:07	0.02	187.97
2013/12/19	23:10:07	0.02	187.97
2013/12/19	23:15:07	0.02	163.68
2013/12/19	23:20:07	0.03	178.16
2013/12/19	23:25:07	0.03	178.16
2013/12/19	23:30:07	0.21	176.94
2013/12/19	23:35:07	0.02	177.49
2013/12/19	23:40:07	0.02	177.49
2013/12/19	23:45:07	0.05	146.30
2013/12/19	23:50:07	0.02	115.32
2013/12/19	23:55:07	0.21	129.81
2013/12/24	00:00:07	0.02	170.70
2013/12/24	00:05:07	0.02	170.03
2013/12/24	00:10:07	0.76	180.95
2013/12/24	00:15:07	0.05	216.04
2013/12/24	00:20:07	0.02	197.10
2013/12/24	00:25:07	0.02	132.81
2013/12/24	00:30:07	0.02	192.31
2013/12/24	00:35:07	0.02	181.73
2013/12/24	00:40:07	0.23	167.91
2013/12/24	00:45:07	0.02	108.52
2013/12/24	00:50:07	0.02	136.27

Appendix H Meteorological Data for Impact Monitoring in the reporting period

Date	Time (24hrs)	Wind Speed (m/s)	Wind Direction (degree)
2013/12/24	00:55:07	0.14	160.11
2013/12/24	01:00:07	0.02	121.23
2013/12/24	01:05:07	0.02	153.09
2013/12/24	01:10:07	0.02	166.80
2013/12/24	01:15:07	0.02	146.63
2013/12/24	01:20:07	0.02	149.19
2013/12/24	01:25:07	0.11	133.70
2013/12/24	01:30:07	0.02	157.10
2013/12/24	01:35:07	0.23	165.91
2013/12/24	01:40:07	0.80	191.75
2013/12/24	01:45:07	0.26	211.03
2013/12/24	01:50:07	0.02	99.83
2013/12/24	01:55:07	0.02	163.79
2013/12/24	02:00:07	0.02	188.64
2013/12/24	02:05:07	0.02	188.52
2013/12/24	02:10:07	0.02	188.41
2013/12/24	02:15:07	0.02	192.76
2013/12/24	02:20:07	0.02	192.76
2013/12/24	02:25:07	0.02	192.31
2013/12/24	02:30:07	0.02	192.31
2013/12/24	02:35:07	0.02	144.07
2013/12/24	02:40:07	0.02	197.44
2013/12/24	02:45:07	0.02	185.74
2013/12/24	02:50:07	0.02	157.88
2013/12/24	02:55:07	0.14	213.82
2013/12/24	03:00:07	0.02	216.16
2013/12/24	03:05:07	0.02	339.94
2013/12/24	03:10:07	0.02	261.17
2013/12/24	03:15:07	0.12	273.87
2013/12/24	03:20:07	0.02	246.69
2013/12/24	03:25:07	0.02	246.24
2013/12/24	03:30:07	0.02	238.55
2013/12/24	03:35:07	0.02	250.47
2013/12/24	03:40:07	0.03	320.11
2013/12/24	03:45:07	0.17	243.34
2013/12/24	03:50:07	0.37	220.72
2013/12/24	03:55:07	0.06	245.13
2013/12/24	04:00:07	0.03	248.80
2013/12/24	04:05:07	0.02	356.55
2013/12/24	04:10:07	0.02	251.92
2013/12/24	04:15:07	0.02	230.64
2013/12/24	04:20:07	0.02	222.73
2013/12/24	04:25:07	0.02	197.55
2013/12/24	04:30:07	0.02	186.41
2013/12/24	04:35:07	0.02	186.63
2013/12/24	04:40:07	0.02	187.52

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Date	Time (24hrs)	Wind Speed (m/s)	Wind Direction (degree)
2013/12/24	04:45:07	0.02	186.18
2013/12/24	04:50:07	0.02	158.55
2013/12/24	04:55:07	0.02	197.21
2013/12/24	05:00:07	0.02	195.88
2013/12/24	05:05:07	0.52	215.60
2013/12/24	05:10:07	0.02	160.22
2013/12/24	05:15:07	0.02	148.52
2013/12/24	05:20:07	0.02	149.53
2013/12/24	05:25:07	0.32	221.62
2013/12/24	05:30:07	0.02	210.25
2013/12/24	05:35:07	0.02	212.92
2013/12/24	05:40:07	0.35	197.33
2013/12/24	05:45:07	0.83	244.01
2013/12/24	05:50:07	0.40	235.88
2013/12/24	05:55:07	0.29	245.35
2013/12/24	06:00:07	0.08	319.33
2013/12/24	06:05:07	0.02	283.57
2013/12/24	06:10:07	0.24	248.47
2013/12/24	06:15:07	0.03	318.22
2013/12/24	06:20:07	0.50	261.62
2013/12/24	06:25:07	1.42	233.87
2013/12/24	06:30:07	0.15	205.91
2013/12/24	06:35:07	0.78	199.67
2013/12/24	06:40:07	0.11	241.45
2013/12/24	06:45:07	0.24	240.11
2013/12/24	06:50:07	0.31	242.34
2013/12/24	06:55:07	0.14	240.56
2013/12/24	07:00:07	0.11	190.64
2013/12/24	07:05:07	0.02	267.30
2013/12/24	07:10:07	0.02	209.58
2013/12/24	07:15:07	0.06	198.66
2013/12/24	07:20:07	0.02	289.36
2013/12/24	07:25:07	0.02	296.71
2013/12/24	07:30:07	0.02	280.33
2013/12/24	07:35:07	0.02	243.23
2013/12/24	07:40:07	0.03	231.20
2013/12/24	07:45:07	0.02	240.78
2013/12/24	07:50:07	0.02	202.67
2013/12/24	07:55:07	0.02	202.56
2013/12/24	08:00:07	0.02	192.87
2013/12/24	08:05:07	0.02	190.19
2013/12/24	08:10:07	0.02	264.29
2013/12/24	08:15:07	0.02	344.62
2013/12/24	08:20:07	0.02	230.64
2013/12/24	08:25:07	0.80	269.75
2013/12/24	08:30:07	0.43	234.09

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Date	Time (24hrs)	Wind Speed (m/s)	Wind Direction (degree)
2013/12/24	08:35:07	0.02	257.49
2013/12/24	08:40:07	0.41	223.40
2013/12/24	08:45:07	0.02	248.69
2013/12/24	08:50:07	0.02	17.94
2013/12/24	08:55:07	0.02	277.55
2013/12/24	09:00:07	0.02	272.65
2013/12/24	09:05:07	0.02	311.98
2013/12/24	09:10:07	0.52	219.28
2013/12/24	09:15:07	0.06	271.42
2013/12/24	09:20:07	0.35	269.64
2013/12/24	09:25:07	0.08	342.62
2013/12/24	09:30:07	0.38	223.06
2013/12/24	09:35:07	0.20	251.92
2013/12/24	09:40:07	0.02	48.02
2013/12/24	09:45:07	1.04	356.66
2013/12/24	09:50:07	0.02	272.09
2013/12/24	09:55:07	0.66	1.23
2013/12/24	10:00:07	1.02	236.77
2013/12/24	10:05:07	0.02	184.96
2013/12/24	10:10:07	0.02	276.66
2013/12/24	10:15:07	0.32	265.29
2013/12/24	10:20:07	0.03	339.39
2013/12/24	10:25:07	0.02	245.57
2013/12/24	10:30:07	0.32	352.76
2013/12/24	10:35:07	0.02	240.22
2013/12/24	10:40:07	0.17	227.19
2013/12/24	10:45:07	0.50	256.49
2013/12/24	10:50:07	0.03	355.88
2013/12/24	10:55:07	1.16	236.21
2013/12/24	11:00:07	0.24	226.85
2013/12/24	11:05:07	0.09	233.43
2013/12/24	11:10:07	0.31	12.26
2013/12/24	11:15:07	0.80	255.38
2013/12/24	11:20:07	0.17	245.35
2013/12/24	11:25:07	0.02	220.72
2013/12/24	11:30:07	0.08	242.90
2013/12/24	11:35:07	0.02	255.93
2013/12/24	11:40:07	0.02	231.87
2013/12/24	11:45:07	0.02	15.38
2013/12/24	11:50:07	0.12	247.91
2013/12/24	11:55:07	0.02	330.81
2013/12/24	12:00:07	0.02	228.75
2013/12/24	12:05:07	0.02	238.44
2013/12/24	12:10:07	0.02	262.62
2013/12/24	12:15:07	0.02	300.06
2013/12/24	12:20:07	0.02	348.08

Appendix H Meteorological Data for Impact Monitoring in the reporting period

Date	Time (24hrs)	Wind Speed (m/s)	Wind Direction (degree)
2013/12/24	12:25:07	0.50	327.24
2013/12/24	12:30:07	0.02	330.14
2013/12/24	12:35:07	0.02	277.99
2013/12/24	12:40:07	0.02	272.09
2013/12/24	12:45:07	0.03	347.19
2013/12/24	12:50:07	0.38	243.34
2013/12/24	12:55:07	0.18	280.56
2013/12/24	13:00:07	0.03	260.50
2013/12/24	13:05:07	0.02	206.24
2013/12/24	13:10:07	0.02	225.52
2013/12/24	13:15:07	0.02	354.43
2013/12/24	13:20:07	0.83	344.40
2013/12/24	13:25:07	0.09	356.99
2013/12/24	13:30:07	0.29	248.58
2013/12/24	13:35:07	0.21	301.06
2013/12/24	13:40:07	0.02	301.62
2013/12/24	13:45:07	0.55	287.02
2013/12/24	13:50:07	0.14	246.91
2013/12/24	13:55:07	0.05	265.63
2013/12/24	14:00:07	0.02	330.14
2013/12/24	14:05:07	1.07	237.10
2013/12/24	14:10:07	0.02	235.54
2013/12/24	14:15:07	0.02	283.68
2013/12/24	14:20:07	0.61	267.08
2013/12/24	14:25:07	0.24	188.41
2013/12/24	14:30:07	0.05	244.57
2013/12/24	14:35:07	0.06	269.42
2013/12/24	14:40:07	0.18	250.36
2013/12/24	14:45:07	0.89	298.38
2013/12/24	14:50:07	0.24	320.33
2013/12/24	14:55:07	0.05	50.25
2013/12/24	15:00:07	0.06	26.96
2013/12/24	15:05:07	0.93	324.01
2013/12/24	15:10:07	0.02	61.84
2013/12/24	15:15:07	0.02	289.25
2013/12/24	15:20:07	0.08	279.67
2013/12/24	15:25:07	0.02	312.09
2013/12/24	15:30:07	0.43	19.72
2013/12/24	15:35:07	0.02	283.12
2013/12/24	15:40:07	0.76	56.49
2013/12/24	15:45:07	0.26	340.61
2013/12/24	15:50:07	0.21	28.08
2013/12/24	15:55:07	0.34	296.27
2013/12/24	16:00:07	0.02	246.02
2013/12/24	16:05:07	0.02	268.41
2013/12/24	16:10:07	0.41	14.15

Appendix H Meteorological Data for Impact Monitoring in the reporting period

Date	Time (24hrs)	Wind Speed (m/s)	Wind Direction (degree)
2013/12/24	16:15:07	0.02	347.08
2013/12/24	16:20:07	0.09	249.03
2013/12/24	16:25:07	0.02	232.53
2013/12/24	16:30:07	0.02	296.04
2013/12/24	16:35:07	0.02	260.95
2013/12/24	16:40:07	0.05	230.08
2013/12/24	16:45:07	0.02	234.32
2013/12/24	16:50:07	0.02	200.00
2013/12/24	16:55:07	0.02	200.22
2013/12/24	17:00:07	0.02	294.60
2013/12/24	17:05:07	0.02	242.90
2013/12/24	17:10:07	0.02	192.53
2013/12/24	17:15:07	0.02	216.27
2013/12/24	17:20:07	0.02	216.16
2013/12/24	17:25:07	0.02	216.27
2013/12/24	17:30:07	0.02	282.45
2013/12/24	17:35:07	0.02	279.55
2013/12/24	17:40:07	0.02	233.43
2013/12/24	17:45:07	0.02	152.65
2013/12/24	17:50:07	0.02	224.96
2013/12/24	17:55:07	0.02	225.07
2013/12/24	18:00:07	0.02	225.07
2013/12/24	18:05:07	0.02	220.28
2013/12/24	18:10:07	0.02	210.03
2013/12/24	18:15:07	0.02	210.25
2013/12/24	18:20:07	0.02	210.25
2013/12/24	18:25:07	0.02	201.56
2013/12/24	18:30:07	0.11	228.52
2013/12/24	18:35:07	0.02	223.06
2013/12/24	18:40:07	0.02	227.63
2013/12/24	18:45:07	0.02	227.41
2013/12/24	18:50:07	0.02	229.64
2013/12/24	18:55:07	0.02	234.32
2013/12/24	19:00:07	0.02	230.64
2013/12/24	19:05:07	0.02	84.57
2013/12/24	19:10:07	0.02	174.82
2013/12/24	19:15:07	0.02	198.55
2013/12/24	19:20:07	0.02	227.74
2013/12/24	19:25:07	0.02	204.90
2013/12/24	19:30:07	0.60	234.21
2013/12/24	19:35:07	0.05	158.33
2013/12/24	19:40:07	0.02	195.77
2013/12/24	19:45:07	0.02	191.09
2013/12/24	19:50:07	0.57	169.14
2013/12/24	19:55:07	0.02	144.07
2013/12/24	20:00:07	0.09	225.07

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Date	Time (24hrs)	Wind Speed (m/s)	Wind Direction (degree)
2013/12/24	20:05:07	0.02	181.28
2013/12/24	20:10:07	0.02	163.57
2013/12/24	20:15:07	0.78	191.53
2013/12/24	20:20:07	0.02	181.06
2013/12/24	20:25:07	0.02	171.70
2013/12/24	20:30:07	0.02	192.53
2013/12/24	20:35:07	0.02	202.23
2013/12/24	20:40:07	0.26	177.27
2013/12/24	20:45:07	0.02	156.10
2013/12/24	20:50:07	0.02	199.44
2013/12/24	20:55:07	0.02	175.93
2013/12/24	21:00:07	0.09	198.44
2013/12/24	21:05:07	0.02	156.66
2013/12/24	21:10:07	0.02	138.61
2013/12/24	21:15:07	0.02	190.97
2013/12/24	21:20:07	0.02	171.92
2013/12/24	21:25:07	0.02	181.95
2013/12/24	21:30:07	0.05	210.92
2013/12/24	21:35:07	0.02	174.93
2013/12/24	21:40:07	0.37	203.57
2013/12/24	21:45:07	0.02	165.35
2013/12/24	21:50:07	0.02	198.66
2013/12/24	21:55:07	0.02	198.77
2013/12/24	22:00:07	0.03	187.74
2013/12/24	22:05:07	0.02	183.40
2013/12/24	22:10:07	0.02	132.92
2013/12/24	22:15:07	0.14	231.87
2013/12/24	22:20:07	0.06	211.59
2013/12/24	22:25:07	0.02	194.87
2013/12/24	22:30:07	0.63	135.04
2013/12/24	22:35:07	0.05	182.84
2013/12/24	22:40:07	0.02	136.71
2013/12/24	22:45:07	0.02	168.80
2013/12/24	22:50:07	0.02	187.74
2013/12/24	22:55:07	0.21	163.90
2013/12/24	23:00:07	0.02	176.60
2013/12/24	23:05:07	0.02	176.60
2013/12/24	23:10:07	0.02	171.48
2013/12/24	23:15:07	0.02	167.91
2013/12/24	23:20:07	0.02	118.55
2013/12/24	23:25:07	0.02	127.69
2013/12/24	23:30:07	0.02	193.87
2013/12/24	23:35:07	0.06	229.42
2013/12/24	23:40:07	0.02	181.73
2013/12/24	23:45:07	0.02	194.65
2013/12/24	23:50:07	0.02	177.49

Appendix H Meteorological Data for Impact Monitoring in the reporting period

Date	Time (24hrs)	Wind Speed (m/s)	Wind Direction (degree)
2013/12/24	23:55:07	0.02	168.69
2013/12/30	00:00:07	0.47	227.86
2013/12/30	00:05:07	0.43	192.87
2013/12/30	00:10:07	0.47	217.49
2013/12/30	00:15:07	0.14	109.19
2013/12/30	00:20:07	0.02	181.39
2013/12/30	00:25:07	0.02	181.50
2013/12/30	00:30:07	0.11	181.50
2013/12/30	00:35:07	0.05	174.15
2013/12/30	00:40:07	0.02	193.09
2013/12/30	00:45:07	0.08	201.56
2013/12/30	00:50:07	0.02	193.09
2013/12/30	00:55:07	0.08	170.25
2013/12/30	01:00:07	0.02	162.67
2013/12/30	01:05:07	0.60	175.82
2013/12/30	01:10:07	0.02	54.93
2013/12/30	01:15:07	0.05	196.99
2013/12/30	01:20:07	0.02	147.30
2013/12/30	01:25:07	0.46	227.19
2013/12/30	01:30:07	0.02	226.18
2013/12/30	01:35:07	0.02	150.53
2013/12/30	01:40:07	0.02	180.72
2013/12/30	01:45:07	0.86	197.66
2013/12/30	01:50:07	0.02	232.09
2013/12/30	01:55:07	0.06	155.21
2013/12/30	02:00:07	0.49	190.75
2013/12/30	02:05:07	0.29	180.84
2013/12/30	02:10:07	0.02	178.16
2013/12/30	02:15:07	0.47	222.95
2013/12/30	02:20:07	0.02	169.81
2013/12/30	02:25:07	0.02	129.81
2013/12/30	02:30:07	0.02	226.74
2013/12/30	02:35:07	0.70	163.34
2013/12/30	02:40:07	0.17	183.84
2013/12/30	02:45:07	0.02	137.60
2013/12/30	02:50:07	0.24	210.58
2013/12/30	02:55:07	0.02	200.00
2013/12/30	03:00:07	0.03	216.71
2013/12/30	03:05:07	0.41	165.57
2013/12/30	03:10:07	0.02	155.21
2013/12/30	03:15:07	0.02	205.79
2013/12/30	03:20:07	0.02	171.25
2013/12/30	03:25:07	0.02	147.41
2013/12/30	03:30:07	0.02	192.09
2013/12/30	03:35:07	0.02	160.00
2013/12/30	03:40:07	0.02	193.43

Appendix H Meteorological Data for Impact Monitoring in the reporting period

Date	Time (24hrs)	Wind Speed (m/s)	Wind Direction (degree)
2013/12/30	03:45:07	0.02	163.01
2013/12/30	03:50:07	0.17	200.56
2013/12/30	03:55:07	0.05	180.61
2013/12/30	04:00:07	0.23	191.87
2013/12/30	04:05:07	0.02	150.42
2013/12/30	04:10:07	0.38	188.08
2013/12/30	04:15:07	0.02	167.58
2013/12/30	04:20:07	0.02	190.64
2013/12/30	04:25:07	0.02	187.63
2013/12/30	04:30:07	0.37	157.66
2013/12/30	04:35:07	0.02	202.67
2013/12/30	04:40:07	0.02	206.46
2013/12/30	04:45:07	0.18	188.97
2013/12/30	04:50:07	0.02	188.86
2013/12/30	04:55:07	0.02	161.34
2013/12/30	05:00:07	0.02	172.03
2013/12/30	05:05:07	0.02	161.78
2013/12/30	05:10:07	0.06	157.77
2013/12/30	05:15:07	0.02	183.40
2013/12/30	05:20:07	0.02	137.72
2013/12/30	05:25:07	0.02	209.03
2013/12/30	05:30:07	0.02	159.89
2013/12/30	05:35:07	0.02	195.54
2013/12/30	05:40:07	0.02	185.07
2013/12/30	05:45:07	0.28	202.23
2013/12/30	05:50:07	0.03	176.94
2013/12/30	05:55:07	0.02	159.22
2013/12/30	06:00:07	0.18	181.06
2013/12/30	06:05:07	0.03	176.38
2013/12/30	06:10:07	0.57	135.71
2013/12/30	06:15:07	0.02	165.57
2013/12/30	06:20:07	0.69	212.03
2013/12/30	06:25:07	0.03	162.23
2013/12/30	06:30:07	0.75	205.91
2013/12/30	06:35:07	0.02	205.01
2013/12/30	06:40:07	0.03	150.08
2013/12/30	06:45:07	0.02	151.87
2013/12/30	06:50:07	0.02	181.28
2013/12/30	06:55:07	0.02	180.17
2013/12/30	07:00:07	0.05	142.84
2013/12/30	07:05:07	0.05	177.72
2013/12/30	07:10:07	0.02	226.07
2013/12/30	07:15:07	0.02	162.79
2013/12/30	07:20:07	0.02	158.22
2013/12/30	07:25:07	0.02	158.22
2013/12/30	07:30:07	0.02	158.33

Appendix H Meteorological Data for Impact Monitoring in the reporting period

Date	Time (24hrs)	Wind Speed (m/s)	Wind Direction (degree)
2013/12/30	07:35:07	0.02	177.05
2013/12/30	07:40:07	0.23	151.87
2013/12/30	07:45:07	0.02	160.00
2013/12/30	07:50:07	0.02	162.56
2013/12/30	07:55:07	0.02	116.55
2013/12/30	08:00:07	0.02	116.43
2013/12/30	08:05:07	0.02	116.43
2013/12/30	08:10:07	0.02	116.43
2013/12/30	08:15:07	0.02	116.43
2013/12/30	08:20:07	0.02	116.32
2013/12/30	08:25:07	0.02	191.75
2013/12/30	08:30:07	0.02	191.75
2013/12/30	08:35:07	0.02	260.84
2013/12/30	08:40:07	0.20	245.01
2013/12/30	08:45:07	0.05	263.73
2013/12/30	08:50:07	0.18	295.15
2013/12/30	08:55:07	0.02	284.35
2013/12/30	09:00:07	0.17	277.10
2013/12/30	09:05:07	0.02	323.45
2013/12/30	09:10:07	0.11	288.25
2013/12/30	09:15:07	0.09	330.14
2013/12/30	09:20:07	0.02	356.10
2013/12/30	09:25:07	0.02	345.40
2013/12/30	09:30:07	0.02	351.53
2013/12/30	09:35:07	0.11	345.07
2013/12/30	09:40:07	0.32	41.00
2013/12/30	09:45:07	0.02	261.84
2013/12/30	09:50:07	0.02	321.67
2013/12/30	09:55:07	0.05	357.55
2013/12/30	10:00:07	0.02	286.80
2013/12/30	10:05:07	0.02	344.40
2013/12/30	10:10:07	0.02	293.93
2013/12/30	10:15:07	0.43	1.00
2013/12/30	10:20:07	0.02	332.14
2013/12/30	10:25:07	0.02	230.19
2013/12/30	10:30:07	0.12	248.91
2013/12/30	10:35:07	0.02	290.47
2013/12/30	10:40:07	0.11	354.65
2013/12/30	10:45:07	0.02	237.44
2013/12/30	10:50:07	0.02	7.24
2013/12/30	10:55:07	0.72	338.94
2013/12/30	11:00:07	0.46	9.92
2013/12/30	11:05:07	0.02	350.64
2013/12/30	11:10:07	0.11	316.88
2013/12/30	11:15:07	0.02	278.55
2013/12/30	11:20:07	0.02	255.49

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Date	Time (24hrs)	Wind Speed (m/s)	Wind Direction (degree)
2013/12/30	11:25:07	0.47	338.38
2013/12/30	11:30:07	0.09	1.11
2013/12/30	11:35:07	0.02	337.60
2013/12/30	11:40:07	0.21	228.64
2013/12/30	11:45:07	0.02	342.73
2013/12/30	11:50:07	0.21	275.21
2013/12/30	11:55:07	0.12	224.40
2013/12/30	12:00:07	0.08	279.11
2013/12/30	12:05:07	0.02	335.15
2013/12/30	12:10:07	0.02	263.73
2013/12/30	12:15:07	0.20	241.11
2013/12/30	12:20:07	0.02	247.80
2013/12/30	12:25:07	0.02	261.95
2013/12/30	12:30:07	0.03	214.82
2013/12/30	12:35:07	0.03	351.98
2013/12/30	12:40:07	0.26	232.76
2013/12/30	12:45:07	0.02	199.89
2013/12/30	12:50:07	0.40	296.04
2013/12/30	12:55:07	0.11	241.78
2013/12/30	13:00:07	0.02	270.75
2013/12/30	13:05:07	0.38	226.52
2013/12/30	13:10:07	0.12	225.96
2013/12/30	13:15:07	0.75	298.16
2013/12/30	13:20:07	0.02	264.29
2013/12/30	13:25:07	0.63	255.38
2013/12/30	13:30:07	0.40	233.31
2013/12/30	13:35:07	0.02	227.52
2013/12/30	13:40:07	0.20	323.23
2013/12/30	13:45:07	0.02	267.52
2013/12/30	13:50:07	0.17	248.36
2013/12/30	13:55:07	0.02	227.52
2013/12/30	14:00:07	0.02	330.81
2013/12/30	14:05:07	0.11	249.25
2013/12/30	14:10:07	0.03	248.02
2013/12/30	14:15:07	0.02	306.07
2013/12/30	14:20:07	0.60	240.78
2013/12/30	14:25:07	0.41	229.75
2013/12/30	14:30:07	0.09	256.49
2013/12/30	14:35:07	0.02	19.39
2013/12/30	14:40:07	0.21	238.33
2013/12/30	14:45:07	0.17	245.46
2013/12/30	14:50:07	0.09	332.59
2013/12/30	14:55:07	0.02	256.04
2013/12/30	15:00:07	0.02	233.09
2013/12/30	15:05:07	0.02	322.45
2013/12/30	15:10:07	0.03	343.73

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Date	Time (24hrs)	Wind Speed (m/s)	Wind Direction (degree)
2013/12/30	15:15:07	0.09	345.07
2013/12/30	15:20:07	0.02	244.01
2013/12/30	15:25:07	0.02	308.75
2013/12/30	15:30:07	0.02	247.24
2013/12/30	15:35:07	0.02	321.45
2013/12/30	15:40:07	0.87	70.42
2013/12/30	15:45:07	0.14	74.87
2013/12/30	15:50:07	0.02	280.33
2013/12/30	15:55:07	0.02	291.92
2013/12/30	16:00:07	0.21	253.15
2013/12/30	16:05:07	0.02	230.53
2013/12/30	16:10:07	0.02	222.95
2013/12/30	16:15:07	0.02	259.16
2013/12/30	16:20:07	0.02	261.62
2013/12/30	16:25:07	0.02	306.30
2013/12/30	16:30:07	0.02	307.97
2013/12/30	16:35:07	0.02	253.70
2013/12/30	16:40:07	0.02	253.70
2013/12/30	16:45:07	0.02	252.81
2013/12/30	16:50:07	0.02	239.22
2013/12/30	16:55:07	0.14	245.35
2013/12/30	17:00:07	0.02	208.13
2013/12/30	17:05:07	0.17	210.81
2013/12/30	17:10:07	0.02	231.98
2013/12/30	17:15:07	0.03	237.88
2013/12/30	17:20:07	0.02	185.29
2013/12/30	17:25:07	0.02	262.62
2013/12/30	17:30:07	0.02	263.06
2013/12/30	17:35:07	0.18	315.43
2013/12/30	17:40:07	0.02	248.02
2013/12/30	17:45:07	0.03	219.16
2013/12/30	17:50:07	0.02	231.64
2013/12/30	17:55:07	0.05	255.04
2013/12/30	18:00:07	0.15	226.18
2013/12/30	18:05:07	0.02	238.66
2013/12/30	18:10:07	0.37	236.43
2013/12/30	18:15:07	0.02	259.05
2013/12/30	18:20:07	0.02	261.17
2013/12/30	18:25:07	0.06	275.32
2013/12/30	18:30:07	0.06	242.45
2013/12/30	18:35:07	0.02	248.47
2013/12/30	18:40:07	0.15	261.06
2013/12/30	18:45:07	0.02	210.03
2013/12/30	18:50:07	0.02	238.11
2013/12/30	18:55:07	0.34	261.50
2013/12/30	19:00:07	0.02	241.67

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Date	Time (24hrs)	Wind Speed (m/s)	Wind Direction (degree)
2013/12/30	19:05:07	0.02	267.30
2013/12/30	19:10:07	0.21	324.68
2013/12/30	19:15:07	0.02	250.92
2013/12/30	19:20:07	0.37	281.34
2013/12/30	19:25:07	0.02	341.95
2013/12/30	19:30:07	0.02	249.81
2013/12/30	19:35:07	0.11	244.90
2013/12/30	19:40:07	0.81	228.19
2013/12/30	19:45:07	0.02	114.32
2013/12/30	19:50:07	0.08	239.55
2013/12/30	19:55:07	0.02	246.46
2013/12/30	20:00:07	0.02	254.26
2013/12/30	20:05:07	0.02	242.01
2013/12/30	20:10:07	0.02	207.35
2013/12/30	20:15:07	0.31	231.42
2013/12/30	20:20:07	0.32	238.55
2013/12/30	20:25:07	0.02	308.19
2013/12/30	20:30:07	0.02	331.48
2013/12/30	20:35:07	0.02	235.77
2013/12/30	20:40:07	0.02	251.03
2013/12/30	20:45:07	0.02	242.01
2013/12/30	20:50:07	0.02	229.86
2013/12/30	20:55:07	0.02	235.10
2013/12/30	21:00:07	0.02	201.56
2013/12/30	21:05:07	0.02	154.21
2013/12/30	21:10:07	0.02	205.79
2013/12/30	21:15:07	0.02	243.57
2013/12/30	21:20:07	0.61	227.08
2013/12/30	21:25:07	0.02	28.97
2013/12/30	21:30:07	0.02	176.49
2013/12/30	21:35:07	0.02	226.96
2013/12/30	21:40:07	0.02	226.85
2013/12/30	21:45:07	0.02	216.38
2013/12/30	21:50:07	0.02	165.46
2013/12/30	21:55:07	0.02	207.80
2013/12/30	22:00:07	0.02	192.76
2013/12/30	22:05:07	0.02	312.65
2013/12/30	22:10:07	0.02	304.62
2013/12/30	22:15:07	0.02	196.55
2013/12/30	22:20:07	0.02	199.55
2013/12/30	22:25:07	0.72	194.09
2013/12/30	22:30:07	0.02	222.28
2013/12/30	22:35:07	0.06	203.23
2013/12/30	22:40:07	0.02	155.54
2013/12/30	22:45:07	0.02	161.45
2013/12/30	22:50:07	0.02	131.03

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Date	Time (24hrs)	Wind Speed (m/s)	Wind Direction (degree)
2013/12/30	22:55:07	0.02	131.14
2013/12/30	23:00:07	0.02	131.14
2013/12/30	23:05:07	0.02	131.14
2013/12/30	23:10:07	0.02	8.58
2013/12/30	23:15:07	0.02	8.58
2013/12/30	23:20:07	0.02	8.58
2013/12/30	23:25:07	0.02	153.65
2013/12/30	23:30:07	0.02	153.54
2013/12/30	23:35:07	0.02	153.54
2013/12/30	23:40:07	0.02	144.18
2013/12/30	23:45:07	0.02	49.47
2013/12/30	23:50:07	0.02	185.18
2013/12/30	23:55:07	0.06	202.79
2014/1/3	00:00:07	0.02	122.45
2014/1/3	00:05:07	0.02	123.01
2014/1/3	00:10:07	0.02	152.53
2014/1/3	00:15:07	0.02	197.99
2014/1/3	00:20:07	0.02	197.99
2014/1/3	00:25:07	0.02	187.19
2014/1/3	00:30:07	0.02	217.83
2014/1/3	00:35:07	0.02	217.83
2014/1/3	00:40:07	0.23	217.94
2014/1/3	00:45:07	0.02	217.38
2014/1/3	00:50:07	0.02	171.14
2014/1/3	00:55:07	0.02	146.52
2014/1/3	01:00:07	0.02	146.52
2014/1/3	01:05:07	0.02	146.52
2014/1/3	01:10:07	0.02	137.72
2014/1/3	01:15:07	0.02	141.84
2014/1/3	01:20:07	0.02	142.06
2014/1/3	01:25:07	0.02	142.06
2014/1/3	01:30:07	0.02	142.06
2014/1/3	01:35:07	0.02	204.12
2014/1/3	01:40:07	0.02	204.12
2014/1/3	01:45:07	0.02	204.12
2014/1/3	01:50:07	0.02	204.12
2014/1/3	01:55:07	0.02	204.12
2014/1/3	02:00:07	0.02	204.23
2014/1/3	02:05:07	0.02	204.12
2014/1/3	02:10:07	0.02	204.12
2014/1/3	02:15:07	0.02	204.12
2014/1/3	02:20:07	0.02	204.23
2014/1/3	02:25:07	0.02	204.23
2014/1/3	02:30:07	0.02	204.23
2014/1/3	02:35:07	0.02	204.23
2014/1/3	02:40:07	0.02	204.23

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Date	Time (24hrs)	Wind Speed (m/s)	Wind Direction (degree)
2014/1/3	02:45:07	0.02	204.23
2014/1/3	02:50:07	0.02	204.23
2014/1/3	02:55:07	0.02	204.23
2014/1/3	03:00:07	0.02	208.13
2014/1/3	03:05:07	0.02	207.69
2014/1/3	03:10:07	0.02	207.69
2014/1/3	03:15:07	0.02	207.69
2014/1/3	03:20:07	0.02	208.47
2014/1/3	03:25:07	0.02	208.47
2014/1/3	03:30:07	0.02	208.47
2014/1/3	03:35:07	0.02	208.47
2014/1/3	03:40:07	0.02	208.47
2014/1/3	03:45:07	0.02	208.47
2014/1/3	03:50:07	0.02	208.47
2014/1/3	03:55:07	0.02	208.47
2014/1/3	04:00:07	0.02	208.47
2014/1/3	04:05:07	0.02	208.58
2014/1/3	04:10:07	0.02	208.58
2014/1/3	04:15:07	0.02	208.47
2014/1/3	04:20:07	0.02	208.47
2014/1/3	04:25:07	0.02	208.47
2014/1/3	04:30:07	0.02	208.47
2014/1/3	04:35:07	0.02	208.47
2014/1/3	04:40:07	0.02	208.47
2014/1/3	04:45:07	0.02	208.58
2014/1/3	04:50:07	0.02	208.47
2014/1/3	04:55:07	0.02	208.58
2014/1/3	05:00:07	0.02	208.47
2014/1/3	05:05:07	0.02	210.14
2014/1/3	05:10:07	0.02	51.03
2014/1/3	05:15:07	0.02	51.03
2014/1/3	05:20:07	0.02	47.02
2014/1/3	05:25:07	0.02	17.94
2014/1/3	05:30:07	0.02	17.83
2014/1/3	05:35:07	0.02	17.94
2014/1/3	05:40:07	0.02	197.55
2014/1/3	05:45:07	0.02	57.05
2014/1/3	05:50:07	0.02	57.05
2014/1/3	05:55:07	0.02	56.94
2014/1/3	06:00:07	0.02	56.94
2014/1/3	06:05:07	0.02	210.36
2014/1/3	06:10:07	0.02	210.47
2014/1/3	06:15:07	0.02	210.36
2014/1/3	06:20:07	0.02	210.36
2014/1/3	06:25:07	0.09	225.52
2014/1/3	06:30:07	0.02	212.92

Appendix H Meteorological Data for Impact Monitoring in the reporting period

Date	Time (24hrs)	Wind Speed (m/s)	Wind Direction (degree)
2014/1/3	06:35:07	0.02	212.92
2014/1/3	06:40:07	0.02	212.92
2014/1/3	06:45:07	0.02	212.92
2014/1/3	06:50:07	0.02	212.92
2014/1/3	06:55:07	0.02	212.92
2014/1/3	07:00:07	0.02	212.92
2014/1/3	07:05:07	0.02	212.92
2014/1/3	07:10:07	0.02	212.92
2014/1/3	07:15:07	0.02	212.92
2014/1/3	07:20:07	0.02	213.04
2014/1/3	07:25:07	0.02	212.92
2014/1/3	07:30:07	0.02	211.03
2014/1/3	07:35:07	0.02	211.03
2014/1/3	07:40:07	0.02	211.03
2014/1/3	07:45:07	0.02	211.03
2014/1/3	07:50:07	0.02	211.03
2014/1/3	07:55:07	0.02	52.92
2014/1/3	08:00:07	0.02	52.81
2014/1/3	08:05:07	0.02	52.81
2014/1/3	08:10:07	0.02	350.86
2014/1/3	08:15:07	0.02	11.36
2014/1/3	08:20:07	0.02	11.25
2014/1/3	08:25:07	0.02	9.92
2014/1/3	08:30:07	0.02	358.55
2014/1/3	08:35:07	0.02	358.44
2014/1/3	08:40:07	0.02	-0.45
2014/1/3	08:45:07	0.02	22.84
2014/1/3	08:50:07	0.02	23.84
2014/1/3	08:55:07	0.02	291.59
2014/1/3	09:00:07	0.11	134.82
2014/1/3	09:05:07	0.02	99.05
2014/1/3	09:10:07	0.02	77.88
2014/1/3	09:15:07	0.09	40.33
2014/1/3	09:20:07	0.02	40.33
2014/1/3	09:25:07	0.02	40.22
2014/1/3	09:30:07	0.02	40.22
2014/1/3	09:35:07	0.02	40.22
2014/1/3	09:40:07	0.02	40.11
2014/1/3	09:45:07	0.02	40.00
2014/1/3	09:50:07	0.21	356.43
2014/1/3	09:55:07	0.02	356.88
2014/1/3	10:00:07	0.02	-48.47
2014/1/3	10:05:07	0.24	353.09
2014/1/3	10:10:07	0.02	340.84
2014/1/3	10:15:07	0.02	69.42
2014/1/3	10:20:07	0.02	353.09

Appendix H Meteorological Data for Impact Monitoring in the reporting period

Date	Time (24hrs)	Wind Speed (m/s)	Wind Direction (degree)
2014/1/3	10:25:07	0.40	347.63
2014/1/3	10:30:07	0.60	-0.11
2014/1/3	10:35:07	0.02	342.17
2014/1/3	10:40:07	0.35	351.87
2014/1/3	10:45:07	0.05	0.00
2014/1/3	10:50:07	0.32	349.30
2014/1/3	10:55:07	0.28	355.99
2014/1/3	11:00:07	0.02	269.42
2014/1/3	11:05:07	0.02	327.91
2014/1/3	11:10:07	0.35	247.58
2014/1/3	11:15:07	0.02	253.26
2014/1/3	11:20:07	0.15	244.90
2014/1/3	11:25:07	0.05	224.96
2014/1/3	11:30:07	0.02	304.07
2014/1/3	11:35:07	0.03	242.56
2014/1/3	11:40:07	0.14	232.65
2014/1/3	11:45:07	0.18	249.58
2014/1/3	11:50:07	0.06	291.48
2014/1/3	11:55:07	0.05	278.55
2014/1/3	12:00:07	0.17	261.17
2014/1/3	12:05:07	0.31	87.02
2014/1/3	12:10:07	0.32	230.97
2014/1/3	12:15:07	0.02	262.62
2014/1/3	12:20:07	0.02	275.77
2014/1/3	12:25:07	0.02	262.62
2014/1/3	12:30:07	0.02	76.77
2014/1/3	12:35:07	0.02	231.87
2014/1/3	12:40:07	0.02	262.51
2014/1/3	12:45:07	1.25	242.45
2014/1/3	12:50:07	0.15	293.82
2014/1/3	12:55:07	0.73	16.16
2014/1/3	13:00:07	0.02	329.92
2014/1/3	13:05:07	0.37	256.60
2014/1/3	13:10:07	0.05	292.26
2014/1/3	13:15:07	0.06	289.25
2014/1/3	13:20:07	0.02	236.77
2014/1/3	13:25:07	0.28	241.23
2014/1/3	13:30:07	0.31	223.96
2014/1/3	13:35:07	0.41	295.60
2014/1/3	13:40:07	0.02	269.08
2014/1/3	13:45:07	0.32	312.42
2014/1/3	13:50:07	0.02	30.42
2014/1/3	13:55:07	0.12	0.45
2014/1/3	14:00:07	0.02	339.39
2014/1/3	14:05:07	0.02	346.41
2014/1/3	14:10:07	0.06	243.68

Appendix H Meteorological Data for Impact Monitoring in the reporting period

Date	Time (24hrs)	Wind Speed (m/s)	Wind Direction (degree)
2014/1/3	14:15:07	0.15	223.18
2014/1/3	14:20:07	0.09	256.16
2014/1/3	14:25:07	1.53	315.88
2014/1/3	14:30:07	0.02	12.59
2014/1/3	14:35:07	0.47	221.73
2014/1/3	14:40:07	0.02	260.28
2014/1/3	14:45:07	0.02	28.19
2014/1/3	14:50:07	0.02	222.51
2014/1/3	14:55:07	0.02	258.27
2014/1/3	15:00:07	0.15	224.29
2014/1/3	15:05:07	0.49	254.93
2014/1/3	15:10:07	0.09	277.55
2014/1/3	15:15:07	0.02	312.65
2014/1/3	15:20:07	0.02	292.92
2014/1/3	15:25:07	0.02	253.37
2014/1/3	15:30:07	0.02	252.48
2014/1/3	15:35:07	0.35	267.41
2014/1/3	15:40:07	0.11	226.96
2014/1/3	15:45:07	0.02	299.83
2014/1/3	15:50:07	0.02	355.10
2014/1/3	15:55:07	0.03	328.02
2014/1/3	16:00:07	0.02	337.49
2014/1/3	16:05:07	0.02	272.53
2014/1/3	16:10:07	0.02	163.01
2014/1/3	16:15:07	0.02	276.32
2014/1/3	16:20:07	0.02	331.03
2014/1/3	16:25:07	0.02	247.91
2014/1/3	16:30:07	0.02	238.44
2014/1/3	16:35:07	0.02	275.77
2014/1/3	16:40:07	0.02	268.97
2014/1/3	16:45:07	0.02	278.44
2014/1/3	16:50:07	0.02	261.28
2014/1/3	16:55:07	0.02	227.86
2014/1/3	17:00:07	0.02	279.44
2014/1/3	17:05:07	0.02	279.33
2014/1/3	17:10:07	0.02	279.89
2014/1/3	17:15:07	0.02	279.89
2014/1/3	17:20:07	0.02	279.89
2014/1/3	17:25:07	0.02	217.05
2014/1/3	17:30:07	0.02	210.81
2014/1/3	17:35:07	0.02	299.05
2014/1/3	17:40:07	0.02	231.87
2014/1/3	17:45:07	0.02	232.09
2014/1/3	17:50:07	0.02	244.01
2014/1/3	17:55:07	0.02	250.36
2014/1/3	18:00:07	0.02	250.03

Appendix H Meteorological Data for Impact Monitoring in the reporting period

Date	Time (24hrs)	Wind Speed (m/s)	Wind Direction (degree)
2014/1/3	18:05:07	0.02	296.04
2014/1/3	18:10:07	0.06	246.57
2014/1/3	18:15:07	0.02	256.38
2014/1/3	18:20:07	0.47	267.97
2014/1/3	18:25:07	0.02	277.33
2014/1/3	18:30:07	0.67	285.46
2014/1/3	18:35:07	0.41	254.93
2014/1/3	18:40:07	0.02	198.66
2014/1/3	18:45:07	0.21	245.57
2014/1/3	18:50:07	0.02	252.70
2014/1/3	18:55:07	0.02	251.36
2014/1/3	19:00:07	0.02	310.42
2014/1/3	19:05:07	0.02	229.97
2014/1/3	19:10:07	0.02	209.92
2014/1/3	19:15:07	0.21	255.38
2014/1/3	19:20:07	0.02	270.42
2014/1/3	19:25:07	0.03	235.43
2014/1/3	19:30:07	0.02	243.68
2014/1/3	19:35:07	0.02	228.08
2014/1/3	19:40:07	0.02	243.45
2014/1/3	19:45:07	0.02	243.45
2014/1/3	19:50:07	0.02	245.13
2014/1/3	19:55:07	0.96	232.53
2014/1/3	20:00:07	0.06	203.12
2014/1/3	20:05:07	0.05	262.84
2014/1/3	20:10:07	0.02	242.23
2014/1/3	20:15:07	0.02	239.78
2014/1/3	20:20:07	0.02	227.08
2014/1/3	20:25:07	0.02	226.96
2014/1/3	20:30:07	0.29	205.68
2014/1/3	20:35:07	0.02	229.86
2014/1/3	20:40:07	0.02	229.86
2014/1/3	20:45:07	0.02	229.86
2014/1/3	20:50:07	0.02	223.40
2014/1/3	20:55:07	0.02	228.52
2014/1/3	21:00:07	0.80	241.89
2014/1/3	21:05:07	0.02	219.28
2014/1/3	21:10:07	0.02	209.14
2014/1/3	21:15:07	0.02	217.05
2014/1/3	21:20:07	0.02	205.46
2014/1/3	21:25:07	0.02	208.25
2014/1/3	21:30:07	0.02	148.08
2014/1/3	21:35:07	0.02	162.56
2014/1/3	21:40:07	0.02	222.06
2014/1/3	21:45:07	0.02	182.95
2014/1/3	21:50:07	0.02	170.03

Appendix H Meteorological Data for Impact Monitoring in the reporting period

Date	Time (24hrs)	Wind Speed (m/s)	Wind Direction (degree)
2014/1/3	21:55:07	0.03	138.05
2014/1/3	22:00:07	0.02	193.31
2014/1/3	22:05:07	0.02	180.72
2014/1/3	22:10:07	0.02	197.99
2014/1/3	22:15:07	0.02	213.15
2014/1/3	22:20:07	0.02	148.64
2014/1/3	22:25:07	0.09	173.82
2014/1/3	22:30:07	0.02	239.22
2014/1/3	22:35:07	0.08	205.24
2014/1/3	22:40:07	0.15	281.00
2014/1/3	22:45:07	0.08	214.71
2014/1/3	22:50:07	0.02	214.82
2014/1/3	22:55:07	0.02	214.71
2014/1/3	23:00:07	0.02	214.71
2014/1/3	23:05:07	0.02	214.71
2014/1/3	23:10:07	0.02	227.19
2014/1/3	23:15:07	0.05	223.62
2014/1/3	23:20:07	0.02	266.41
2014/1/3	23:25:07	0.02	228.64
2014/1/3	23:30:07	0.14	222.06
2014/1/3	23:35:07	0.02	222.06
2014/1/3	23:40:07	0.02	222.06
2014/1/3	23:45:07	0.02	211.48
2014/1/3	23:50:07	0.02	231.20
2014/1/3	23:55:07	0.02	234.65
2014/1/9	00:02:26	0.61	321.00
2014/1/9	00:07:26	0.02	237.77
2014/1/9	00:12:26	0.06	345.96
2014/1/9	00:17:26	0.55	260.17
2014/1/9	00:22:26	0.67	260.84
2014/1/9	00:27:26	0.03	276.21
2014/1/9	00:32:26	0.02	251.03
2014/1/9	00:37:26	0.05	248.25
2014/1/9	00:42:26	0.23	109.97
2014/1/9	00:47:26	0.02	299.83
2014/1/9	00:52:26	0.02	352.42
2014/1/9	00:57:26	0.29	291.81
2014/1/9	01:02:26	0.02	258.72
2014/1/9	01:07:26	0.02	276.21
2014/1/9	01:12:26	0.70	241.45
2014/1/9	01:17:26	0.17	272.31
2014/1/9	01:22:26	0.02	154.43
2014/1/9	01:27:26	0.28	293.70
2014/1/9	01:32:26	0.05	300.50
2014/1/9	01:37:26	0.50	328.91
2014/1/9	01:42:26	0.02	229.97

Appendix H Meteorological Data for Impact Monitoring in the reporting period

Date	Time (24hrs)	Wind Speed (m/s)	Wind Direction (degree)
2014/1/9	01:47:26	0.02	347.41
2014/1/9	01:52:26	0.11	311.42
2014/1/9	01:57:26	0.06	270.97
2014/1/9	02:02:26	0.02	248.69
2014/1/9	02:07:26	0.05	212.81
2014/1/9	02:12:26	0.02	5.24
2014/1/9	02:17:26	0.02	276.66
2014/1/9	02:22:26	0.06	356.21
2014/1/9	02:27:26	0.14	17.60
2014/1/9	02:32:26	1.16	349.97
2014/1/9	02:37:26	0.08	246.57
2014/1/9	02:42:26	2.23	5.01
2014/1/9	02:47:26	0.02	17.60
2014/1/9	02:52:26	0.02	296.94
2014/1/9	02:57:26	0.02	76.55
2014/1/9	03:02:26	0.31	314.09
2014/1/9	03:07:26	0.02	320.67
2014/1/9	03:12:26	0.14	284.12
2014/1/9	03:17:26	0.02	84.12
2014/1/9	03:22:26	0.21	225.18
2014/1/9	03:27:26	0.23	202.79
2014/1/9	03:32:26	0.03	321.23
2014/1/9	03:37:26	0.20	248.80
2014/1/9	03:42:26	0.02	287.80
2014/1/9	03:47:26	0.38	358.33
2014/1/9	03:52:26	0.14	229.75
2014/1/9	03:57:26	0.02	231.31
2014/1/9	04:02:26	0.02	359.00
2014/1/9	04:07:26	0.02	219.72
2014/1/9	04:12:26	0.24	334.60
2014/1/9	04:17:26	1.70	-2.67
2014/1/9	04:22:26	0.20	176.27
2014/1/9	04:27:26	1.02	347.86
2014/1/9	04:32:26	0.02	260.95
2014/1/9	04:37:26	0.02	249.92
2014/1/9	04:42:26	0.15	211.03
2014/1/9	04:47:26	0.02	283.79
2014/1/9	04:52:26	0.18	332.70
2014/1/9	04:57:26	0.05	283.45
2014/1/9	05:02:26	0.43	1.89
2014/1/9	05:07:26	0.02	263.62
2014/1/9	05:12:26	0.72	42.12
2014/1/9	05:17:26	1.27	53.15
2014/1/9	05:22:26	0.28	70.19
2014/1/9	05:27:26	0.05	234.43
2014/1/9	05:32:26	1.16	58.05

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Date	Time (24hrs)	Wind Speed (m/s)	Wind Direction (degree)
2014/1/9	05:37:26	0.12	18.72
2014/1/9	05:42:26	0.28	19.83
2014/1/9	05:47:26	0.35	32.65
2014/1/9	05:52:26	0.02	41.67
2014/1/9	05:57:26	0.02	108.19
2014/1/9	06:02:26	0.11	43.01
2014/1/9	06:07:26	0.17	40.45
2014/1/9	06:12:26	0.03	45.57
2014/1/9	06:17:26	0.23	45.68
2014/1/9	06:22:26	0.15	197.99
2014/1/9	06:27:26	0.02	25.52
2014/1/9	06:32:26	0.02	35.32
2014/1/9	06:37:26	0.02	238.89
2014/1/9	06:42:26	0.02	339.39
2014/1/9	06:47:26	0.02	346.74
2014/1/9	06:52:26	0.52	240.89
2014/1/9	06:57:26	0.02	251.03
2014/1/9	07:02:26	0.02	32.87
2014/1/9	07:07:26	0.02	201.00
2014/1/9	07:12:26	0.02	230.64
2014/1/9	07:17:26	0.02	230.53
2014/1/9	07:22:26	0.02	230.64
2014/1/9	07:27:26	0.02	85.46
2014/1/9	07:32:26	0.02	34.65
2014/1/9	07:37:26	0.02	58.05
2014/1/9	07:42:26	0.02	76.55
2014/1/9	07:47:26	0.02	76.55
2014/1/9	07:52:26	0.02	190.31
2014/1/9	07:57:26	0.02	190.31
2014/1/9	08:02:26	0.32	47.24
2014/1/9	08:07:26	0.02	124.68
2014/1/9	08:12:26	0.02	91.70
2014/1/9	08:17:26	0.05	80.67
2014/1/9	08:22:26	0.02	37.21
2014/1/9	08:27:26	0.02	37.21
2014/1/9	08:32:26	0.02	37.10
2014/1/9	08:37:26	0.02	157.10
2014/1/9	08:42:26	0.02	157.10
2014/1/9	08:47:26	0.02	17.16
2014/1/9	08:52:26	0.02	57.60
2014/1/9	08:57:26	0.02	57.49
2014/1/9	09:02:26	0.02	350.97
2014/1/9	09:07:26	0.02	256.38
2014/1/9	09:12:26	0.02	287.13
2014/1/9	09:17:26	0.02	287.24
2014/1/9	09:22:26	0.02	286.91

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Date	Time (24hrs)	Wind Speed (m/s)	Wind Direction (degree)
2014/1/9	09:27:26	0.02	215.04
2014/1/9	09:32:26	0.02	272.65
2014/1/9	09:37:26	0.02	-16.49
2014/1/9	09:42:26	0.02	353.87
2014/1/9	09:47:26	0.02	243.01
2014/1/9	09:52:26	0.02	350.53
2014/1/9	09:57:26	0.09	346.18
2014/1/9	10:02:26	0.20	336.16
2014/1/9	10:07:26	0.02	24.62
2014/1/9	10:12:26	0.02	42.01
2014/1/9	10:17:26	0.02	-46.91
2014/1/9	10:22:26	0.02	-46.91
2014/1/9	10:27:26	0.02	28.86
2014/1/9	10:32:26	0.02	279.11
2014/1/9	10:37:26	0.02	338.16
2014/1/9	10:42:26	0.02	271.53
2014/1/9	10:47:26	0.02	234.65
2014/1/9	10:52:26	0.31	32.42
2014/1/9	10:57:26	0.02	352.20
2014/1/9	11:02:26	0.05	3.90
2014/1/9	11:07:26	0.02	31.42
2014/1/9	11:12:26	0.57	336.49
2014/1/9	11:17:26	0.02	279.44
2014/1/9	11:22:26	0.02	316.77
2014/1/9	11:27:26	0.02	346.30
2014/1/9	11:32:26	0.02	45.57
2014/1/9	11:37:26	0.02	271.75
2014/1/9	11:42:26	0.02	262.84
2014/1/9	11:47:26	0.02	227.19
2014/1/9	11:52:26	0.02	3.34
2014/1/9	11:57:26	0.02	305.74
2014/1/9	12:02:26	0.02	357.10
2014/1/9	12:07:26	0.02	48.25
2014/1/9	12:12:26	0.02	357.66
2014/1/9	12:17:26	0.02	7.69
2014/1/9	12:22:26	0.02	0.56
2014/1/9	12:27:26	0.02	0.56
2014/1/9	12:32:26	0.02	0.56
2014/1/9	12:37:26	0.02	344.51
2014/1/9	12:42:26	0.02	271.20
2014/1/9	12:47:26	0.02	319.11
2014/1/9	12:52:26	0.11	68.86
2014/1/9	12:57:26	0.02	215.60
2014/1/9	13:02:26	0.14	357.10
2014/1/9	13:07:26	0.02	230.42
2014/1/9	13:12:26	0.02	261.39

Appendix H Meteorological Data for Impact Monitoring in the reporting period

Date	Time (24hrs)	Wind Speed (m/s)	Wind Direction (degree)
2014/1/9	13:17:26	0.14	356.88
2014/1/9	13:22:26	0.02	353.54
2014/1/9	13:27:26	0.02	353.65
2014/1/9	13:32:26	0.02	318.77
2014/1/9	13:37:26	0.02	241.89
2014/1/9	13:42:26	0.02	246.35
2014/1/9	13:47:26	0.02	276.99
2014/1/9	13:52:26	0.02	81.45
2014/1/9	13:57:26	0.02	238.11
2014/1/9	14:02:26	0.02	240.00
2014/1/9	14:07:26	0.02	44.01
2014/1/9	14:12:26	0.02	44.01
2014/1/9	14:17:26	0.02	27.19
2014/1/9	14:22:26	0.02	273.65
2014/1/9	14:27:26	0.02	247.91
2014/1/9	14:32:26	0.02	247.91
2014/1/9	14:37:26	0.02	247.91
2014/1/9	14:42:26	0.17	13.04
2014/1/9	14:47:26	0.02	4.57
2014/1/9	14:52:26	0.02	30.31
2014/1/9	14:57:26	0.55	58.72
2014/1/9	15:02:26	0.02	347.30
2014/1/9	15:07:26	0.49	20.50
2014/1/9	15:12:26	0.02	62.84
2014/1/9	15:17:26	0.03	61.50
2014/1/9	15:22:26	0.02	3.68
2014/1/9	15:27:26	0.31	346.41
2014/1/9	15:32:26	0.02	28.19
2014/1/9	15:37:26	0.11	35.43
2014/1/9	15:42:26	0.24	348.30
2014/1/9	15:47:26	0.02	331.92
2014/1/9	15:52:26	0.12	327.47
2014/1/9	15:57:26	0.06	344.07
2014/1/9	16:02:26	0.02	225.29
2014/1/9	16:07:26	0.02	357.66
2014/1/9	16:12:26	0.02	357.66
2014/1/9	16:17:26	0.23	325.57
2014/1/9	16:22:26	0.02	38.55
2014/1/9	16:27:26	0.32	345.40
2014/1/9	16:32:26	0.02	357.77
2014/1/9	16:37:26	0.12	327.69
2014/1/9	16:42:26	0.02	17.60
2014/1/9	16:47:26	1.45	351.42
2014/1/9	16:52:26	0.02	346.18
2014/1/9	16:57:26	0.02	3.34
2014/1/9	17:02:26	0.02	264.96

Appendix H Meteorological Data for Impact Monitoring in the reporting period

Date	Time (24hrs)	Wind Speed (m/s)	Wind Direction (degree)
2014/1/9	17:07:26	0.02	318.55
2014/1/9	17:12:26	0.35	50.92
2014/1/9	17:17:26	0.03	5.35
2014/1/9	17:22:26	0.02	21.73
2014/1/9	17:27:26	0.73	57.49
2014/1/9	17:32:26	0.02	38.77
2014/1/9	17:37:26	0.06	9.81
2014/1/9	17:42:26	0.90	4.35
2014/1/9	17:47:26	0.02	31.98
2014/1/9	17:52:26	0.02	24.29
2014/1/9	17:57:26	1.06	355.54
2014/1/9	18:02:26	0.87	72.53
2014/1/9	18:07:26	0.02	42.90
2014/1/9	18:12:26	0.18	66.74
2014/1/9	18:17:26	1.51	69.30
2014/1/9	18:22:26	0.84	52.37
2014/1/9	18:27:26	0.15	6.91
2014/1/9	18:32:26	0.02	351.64
2014/1/9	18:37:26	0.31	49.14
2014/1/9	18:42:26	0.69	38.55
2014/1/9	18:47:26	0.37	35.10
2014/1/9	18:52:26	1.53	52.14
2014/1/9	18:57:26	0.03	247.58
2014/1/9	19:02:26	0.02	354.99
2014/1/9	19:07:26	0.02	49.58
2014/1/9	19:12:26	0.17	0.45
2014/1/9	19:17:26	0.02	27.19
2014/1/9	19:22:26	0.02	29.42
2014/1/9	19:27:26	0.02	257.72
2014/1/9	19:32:26	0.49	355.88
2014/1/9	19:37:26	0.40	8.02
2014/1/9	19:42:26	0.02	56.82
2014/1/9	19:47:26	0.02	28.97
2014/1/9	19:52:26	0.15	256.82
2014/1/9	19:57:26	0.02	35.65
2014/1/9	20:02:26	0.02	99.05
2014/1/9	20:07:26	0.02	119.78
2014/1/9	20:12:26	0.02	106.30
2014/1/9	20:17:26	0.02	129.36
2014/1/9	20:22:26	0.02	76.21
2014/1/9	20:27:26	0.02	166.13
2014/1/9	20:32:26	0.02	84.01
2014/1/9	20:37:26	0.02	83.90
2014/1/9	20:42:26	0.02	158.77
2014/1/9	20:47:26	0.08	129.47
2014/1/9	20:52:26	0.02	74.54

Appendix H Meteorological Data for Impact Monitoring in the reporting period

Date	Time (24hrs)	Wind Speed (m/s)	Wind Direction (degree)
2014/1/9	20:57:26	0.02	-46.57
2014/1/9	21:02:26	0.50	74.32
2014/1/9	21:07:26	0.05	50.92
2014/1/9	21:12:26	1.38	120.56
2014/1/9	21:17:26	0.02	75.77
2014/1/9	21:22:26	0.54	152.31
2014/1/9	21:27:26	0.06	105.07
2014/1/9	21:32:26	0.75	178.16
2014/1/9	21:37:26	0.43	217.49
2014/1/9	21:42:26	0.05	191.64
2014/1/9	21:47:26	0.67	158.33
2014/1/9	21:52:26	1.45	293.93
2014/1/9	21:57:26	1.96	227.19
2014/1/9	22:02:26	1.45	194.54
2014/1/9	22:07:26	0.08	294.15
2014/1/9	22:12:26	0.02	87.35
2014/1/9	22:17:26	0.02	68.08
2014/1/9	22:22:26	0.02	138.61
2014/1/9	22:27:26	0.02	55.38
2014/1/9	22:32:26	0.02	139.05
2014/1/9	22:37:26	0.15	132.26
2014/1/9	22:42:26	0.38	177.94
2014/1/9	22:47:26	1.48	235.43
2014/1/9	22:52:26	0.14	177.27
2014/1/9	22:57:26	0.05	87.13
2014/1/9	23:02:26	0.99	165.35
2014/1/9	23:07:26	0.34	108.19
2014/1/9	23:12:26	0.02	301.95
2014/1/9	23:17:26	0.96	204.68
2014/1/9	23:22:26	1.06	261.95
2014/1/9	23:27:26	0.32	105.07
2014/1/9	23:32:26	1.09	159.22
2014/1/9	23:37:26	0.02	165.91
2014/1/9	23:42:26	0.02	317.55
2014/1/9	23:47:26	0.02	17.94
2014/1/9	23:52:26	0.64	78.55
2014/1/9	23:57:26	0.24	204.46
2014/1/15	00:02:26	0.02	28.19
2014/1/15	00:07:26	0.37	249.69
2014/1/15	00:12:26	0.02	23.51
2014/1/15	00:17:26	0.02	56.94
2014/1/15	00:22:26	0.03	-6.69
2014/1/15	00:27:26	0.17	5.01
2014/1/15	00:32:26	0.02	74.87
2014/1/15	00:37:26	0.02	235.10
2014/1/15	00:42:26	0.02	132.14

Appendix H Meteorological Data for Impact Monitoring in the reporting period

Date	Time (24hrs)	Wind Speed (m/s)	Wind Direction (degree)
2014/1/15	00:47:26	0.26	16.49
2014/1/15	00:52:26	0.02	252.59
2014/1/15	00:57:26	0.09	233.98
2014/1/15	01:02:26	0.02	334.82
2014/1/15	01:07:26	0.02	240.22
2014/1/15	01:12:26	0.02	276.88
2014/1/15	01:17:26	0.02	241.45
2014/1/15	01:22:26	0.02	77.10
2014/1/15	01:27:26	0.02	217.94
2014/1/15	01:32:26	0.61	205.79
2014/1/15	01:37:26	0.15	227.74
2014/1/15	01:42:26	0.02	357.88
2014/1/15	01:47:26	0.02	226.18
2014/1/15	01:52:26	0.02	202.12
2014/1/15	01:57:26	1.06	262.40
2014/1/15	02:02:26	0.03	243.79
2014/1/15	02:07:26	0.02	239.22
2014/1/15	02:12:26	0.02	198.66
2014/1/15	02:17:26	0.15	291.81
2014/1/15	02:22:26	0.78	248.69
2014/1/15	02:27:26	0.02	234.09
2014/1/15	02:32:26	0.08	226.18
2014/1/15	02:37:26	0.11	300.95
2014/1/15	02:42:26	0.02	256.49
2014/1/15	02:47:26	0.29	306.96
2014/1/15	02:52:26	0.02	292.48
2014/1/15	02:57:26	0.09	251.81
2014/1/15	03:02:26	0.09	234.99
2014/1/15	03:07:26	0.02	233.43
2014/1/15	03:12:26	0.02	6.46
2014/1/15	03:17:26	0.11	292.81
2014/1/15	03:22:26	0.14	344.29
2014/1/15	03:27:26	0.12	231.31
2014/1/15	03:32:26	0.21	349.19
2014/1/15	03:37:26	0.02	100.06
2014/1/15	03:42:26	0.02	182.73
2014/1/15	03:47:26	0.31	211.81
2014/1/15	03:52:26	0.02	85.35
2014/1/15	03:57:26	0.02	214.93
2014/1/15	04:02:26	0.08	42.67
2014/1/15	04:07:26	0.28	11.03
2014/1/15	04:12:26	0.02	152.87
2014/1/15	04:17:26	0.02	230.08
2014/1/15	04:22:26	0.02	150.08
2014/1/15	04:27:26	0.23	159.22
2014/1/15	04:32:26	0.02	193.20

Appendix H Meteorological Data for Impact Monitoring in the reporting period

Date	Time (24hrs)	Wind Speed (m/s)	Wind Direction (degree)
2014/1/15	04:37:26	0.02	86.57
2014/1/15	04:42:26	0.02	54.37
2014/1/15	04:47:26	0.02	27.63
2014/1/15	04:52:26	0.02	119.33
2014/1/15	04:57:26	0.02	86.80
2014/1/15	05:02:26	0.02	107.08
2014/1/15	05:07:26	0.02	28.86
2014/1/15	05:12:26	0.02	51.25
2014/1/15	05:17:26	0.02	250.03
2014/1/15	05:22:26	0.05	222.73
2014/1/15	05:27:26	0.05	117.66
2014/1/15	05:32:26	0.02	190.31
2014/1/15	05:37:26	0.64	234.99
2014/1/15	05:42:26	0.73	220.95
2014/1/15	05:47:26	0.02	212.59
2014/1/15	05:52:26	0.20	170.36
2014/1/15	05:57:26	0.02	182.28
2014/1/15	06:02:26	0.08	4.01
2014/1/15	06:07:26	0.66	5.24
2014/1/15	06:12:26	0.29	169.03
2014/1/15	06:17:26	0.02	64.96
2014/1/15	06:22:26	0.18	125.91
2014/1/15	06:27:26	0.02	33.43
2014/1/15	06:32:26	0.41	62.62
2014/1/15	06:37:26	1.10	25.74
2014/1/15	06:42:26	0.87	225.52
2014/1/15	06:47:26	0.02	264.85
2014/1/15	06:52:26	0.40	199.78
2014/1/15	06:57:26	0.08	225.85
2014/1/15	07:02:26	0.02	77.77
2014/1/15	07:07:26	0.21	294.93
2014/1/15	07:12:26	0.03	284.46
2014/1/15	07:17:26	0.03	271.20
2014/1/15	07:22:26	0.02	151.64
2014/1/15	07:27:26	0.09	66.52
2014/1/15	07:32:26	0.18	225.18
2014/1/15	07:37:26	0.02	54.48
2014/1/15	07:42:26	0.24	228.41
2014/1/15	07:47:26	0.02	229.97
2014/1/15	07:52:26	0.57	207.91
2014/1/15	07:57:26	0.02	314.76
2014/1/15	08:02:26	0.02	237.33
2014/1/15	08:07:26	0.02	342.73
2014/1/15	08:12:26	0.23	263.18
2014/1/15	08:17:26	0.02	70.08
2014/1/15	08:22:26	0.02	340.84

Appendix H Meteorological Data for Impact Monitoring in the reporting period

Date	Time (24hrs)	Wind Speed (m/s)	Wind Direction (degree)
2014/1/15	08:27:26	1.85	138.72
2014/1/15	08:32:26	0.02	256.71
2014/1/15	08:37:26	0.09	225.18
2014/1/15	08:42:26	0.02	143.40
2014/1/15	08:47:26	0.02	72.87
2014/1/15	08:52:26	0.02	130.14
2014/1/15	08:57:26	0.02	0.22
2014/1/15	09:02:26	0.02	283.57
2014/1/15	09:07:26	0.02	59.61
2014/1/15	09:12:26	0.02	349.86
2014/1/15	09:17:26	0.23	35.10
2014/1/15	09:22:26	1.01	28.41
2014/1/15	09:27:26	0.02	319.33
2014/1/15	09:32:26	0.69	24.40
2014/1/15	09:37:26	0.81	13.70
2014/1/15	09:42:26	0.46	10.58
2014/1/15	09:47:26	0.02	351.31
2014/1/15	09:52:26	0.31	32.20
2014/1/15	09:57:26	0.03	17.49
2014/1/15	10:02:26	0.78	67.74
2014/1/15	10:07:26	0.92	79.67
2014/1/15	10:12:26	1.64	71.64
2014/1/15	10:17:26	0.76	58.16
2014/1/15	10:22:26	0.26	341.28
2014/1/15	10:27:26	2.05	34.21
2014/1/15	10:32:26	1.30	85.46
2014/1/15	10:37:26	0.12	355.99
2014/1/15	10:42:26	0.44	353.54
2014/1/15	10:47:26	0.87	62.28
2014/1/15	10:52:26	0.70	58.50
2014/1/15	10:57:26	1.41	344.40
2014/1/15	11:02:26	0.11	80.11
2014/1/15	11:07:26	1.64	64.85
2014/1/15	11:12:26	0.37	35.10
2014/1/15	11:17:26	0.06	324.68
2014/1/15	11:22:26	0.41	36.32
2014/1/15	11:27:26	0.02	334.15
2014/1/15	11:32:26	0.02	356.10
2014/1/15	11:37:26	0.49	54.26
2014/1/15	11:42:26	0.24	206.69
2014/1/15	11:47:26	0.02	224.07
2014/1/15	11:52:26	0.02	230.19
2014/1/15	11:57:26	0.02	285.35
2014/1/15	12:02:26	0.72	61.50
2014/1/15	12:07:26	0.06	136.82
2014/1/15	12:12:26	1.19	42.01

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Date	Time (24hrs)	Wind Speed (m/s)	Wind Direction (degree)
2014/1/15	12:17:26	0.03	112.65
2014/1/15	12:22:26	1.44	150.97
2014/1/15	12:27:26	1.61	85.68
2014/1/15	12:32:26	1.99	80.11
2014/1/15	12:37:26	1.10	55.60
2014/1/15	12:42:26	0.11	177.83
2014/1/15	12:47:26	0.89	49.92
2014/1/15	12:52:26	0.15	125.46
2014/1/15	12:57:26	0.09	31.20
2014/1/15	13:02:26	0.93	127.47
2014/1/15	13:07:26	0.38	256.60
2014/1/15	13:12:26	1.76	71.64
2014/1/15	13:17:26	1.22	41.00
2014/1/15	13:22:26	0.06	45.01
2014/1/15	13:27:26	0.26	118.77
2014/1/15	13:32:26	1.06	93.48
2014/1/15	13:37:26	0.44	119.55
2014/1/15	13:42:26	0.60	247.69
2014/1/15	13:47:26	1.41	225.85
2014/1/15	13:52:26	0.61	162.45
2014/1/15	13:57:26	2.06	289.47
2014/1/15	14:02:26	0.95	155.77
2014/1/15	14:07:26	0.06	321.34
2014/1/15	14:12:26	1.65	286.57
2014/1/15	14:17:26	0.02	272.31
2014/1/15	14:22:26	0.06	201.89
2014/1/15	14:27:26	0.92	118.55
2014/1/15	14:32:26	1.02	33.20
2014/1/15	14:37:26	0.34	38.33
2014/1/15	14:42:26	0.03	290.25
2014/1/15	14:47:26	3.59	87.47
2014/1/15	14:52:26	1.97	186.30
2014/1/15	14:57:26	1.07	134.04
2014/1/15	15:02:26	0.41	284.79
2014/1/15	15:07:26	0.43	126.35
2014/1/15	15:12:26	0.21	250.92
2014/1/15	15:17:26	0.95	156.66
2014/1/15	15:22:26	0.95	92.48
2014/1/15	15:27:26	1.01	151.75
2014/1/15	15:32:26	0.03	114.76
2014/1/15	15:37:26	0.08	177.60
2014/1/15	15:42:26	0.35	81.67
2014/1/15	15:47:26	0.64	210.14
2014/1/15	15:52:26	0.11	122.79
2014/1/15	15:57:26	1.80	89.69
2014/1/15	16:02:26	1.54	99.16

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Date	Time (24hrs)	Wind Speed (m/s)	Wind Direction (degree)
2014/1/15	16:07:26	0.32	139.50
2014/1/15	16:12:26	0.81	120.33
2014/1/15	16:17:26	2.65	138.61
2014/1/15	16:22:26	0.06	165.57
2014/1/15	16:27:26	3.20	189.97
2014/1/15	16:32:26	0.15	192.20
2014/1/15	16:37:26	1.06	139.28
2014/1/15	16:42:26	0.03	275.21
2014/1/15	16:47:26	0.75	258.50
2014/1/15	16:52:26	0.43	114.65
2014/1/15	16:57:26	0.02	165.24
2014/1/15	17:02:26	0.47	289.92
2014/1/15	17:07:26	1.04	168.58
2014/1/15	17:12:26	0.24	219.61
2014/1/15	17:17:26	0.02	355.99
2014/1/15	17:22:26	2.14	169.47
2014/1/15	17:27:26	0.08	219.39
2014/1/15	17:32:26	0.02	126.91
2014/1/15	17:37:26	0.08	222.51
2014/1/15	17:42:26	0.15	203.57
2014/1/15	17:47:26	0.02	178.83
2014/1/15	17:52:26	0.02	173.04
2014/1/15	17:57:26	0.93	239.00
2014/1/15	18:02:26	0.03	178.61
2014/1/15	18:07:26	0.34	218.27
2014/1/15	18:12:26	0.02	135.49
2014/1/15	18:17:26	0.02	167.13
2014/1/15	18:22:26	0.31	193.65
2014/1/15	18:27:26	0.67	247.35
2014/1/15	18:32:26	0.02	100.28
2014/1/15	18:37:26	0.02	119.55
2014/1/15	18:42:26	0.02	151.53
2014/1/15	18:47:26	0.37	190.53
2014/1/15	18:52:26	0.12	113.87
2014/1/15	18:57:26	0.02	126.80
2014/1/15	19:02:26	0.02	113.65
2014/1/15	19:07:26	0.21	195.65
2014/1/15	19:12:26	0.02	179.61
2014/1/15	19:17:26	0.57	225.40
2014/1/15	19:22:26	0.02	101.62
2014/1/15	19:27:26	0.24	140.61
2014/1/15	19:32:26	0.08	167.69
2014/1/15	19:37:26	0.20	69.97
2014/1/15	19:42:26	0.37	66.74
2014/1/15	19:47:26	0.41	100.17
2014/1/15	19:52:26	0.12	234.09

Appendix H Meteorological Data for Impact Monitoring in the reporting period

Date	Time (24hrs)	Wind Speed (m/s)	Wind Direction (degree)
2014/1/15	19:57:26	0.61	65.07
2014/1/15	20:02:26	0.90	142.84
2014/1/15	20:07:26	0.02	91.25
2014/1/15	20:12:26	0.18	49.47
2014/1/15	20:17:26	0.08	112.42
2014/1/15	20:22:26	0.14	96.16
2014/1/15	20:27:26	0.60	181.17
2014/1/15	20:32:26	0.02	143.06
2014/1/15	20:37:26	0.34	176.60
2014/1/15	20:42:26	0.02	42.23
2014/1/15	20:47:26	0.02	167.58
2014/1/15	20:52:26	0.08	153.65
2014/1/15	20:57:26	0.05	114.54
2014/1/15	21:02:26	0.95	164.46
2014/1/15	21:07:26	0.31	64.74
2014/1/15	21:12:26	0.05	67.86
2014/1/15	21:17:26	0.02	96.60
2014/1/15	21:22:26	0.02	88.25
2014/1/15	21:27:26	0.02	214.26
2014/1/15	21:32:26	0.08	109.97
2014/1/15	21:37:26	0.55	143.96
2014/1/15	21:42:26	0.02	120.67
2014/1/15	21:47:26	0.02	101.17
2014/1/15	21:52:26	0.50	100.39
2014/1/15	21:57:26	0.44	115.99
2014/1/15	22:02:26	0.20	102.06
2014/1/15	22:07:26	0.02	181.39
2014/1/15	22:12:26	1.51	81.11
2014/1/15	22:17:26	1.32	119.22
2014/1/15	22:22:26	0.18	61.28
2014/1/15	22:27:26	0.55	111.53
2014/1/15	22:32:26	0.08	96.82
2014/1/15	22:37:26	0.46	175.26
2014/1/15	22:42:26	0.02	110.86
2014/1/15	22:47:26	0.61	156.77
2014/1/15	22:52:26	0.02	27.08
2014/1/15	22:57:26	0.29	124.23
2014/1/15	23:02:26	0.11	88.91
2014/1/15	23:07:26	0.26	129.36
2014/1/15	23:12:26	0.17	209.92
2014/1/15	23:17:26	0.32	172.03
2014/1/15	23:22:26	0.02	72.76
2014/1/15	23:27:26	0.03	75.10
2014/1/15	23:32:26	0.32	88.91
2014/1/15	23:37:26	0.05	70.19
2014/1/15	23:42:26	0.02	65.85

Appendix H Meteorological Data for Impact Monitoring in the reporting period

Date	Time (24hrs)	Wind Speed (m/s)	Wind Direction (degree)
2014/1/15	23:47:26	0.02	60.50
2014/1/15	23:52:26	0.03	44.90
2014/1/15	23:57:26	0.08	109.19
2014/1/21	00:02:26	0.24	219.39
2014/1/21	00:07:26	0.02	306.74
2014/1/21	00:12:26	0.02	287.24
2014/1/21	00:17:26	0.02	268.86
2014/1/21	00:22:26	0.05	35.21
2014/1/21	00:27:26	0.11	39.67
2014/1/21	00:32:26	0.05	226.18
2014/1/21	00:37:26	0.06	224.29
2014/1/21	00:42:26	0.02	235.65
2014/1/21	00:47:26	0.05	272.20
2014/1/21	00:52:26	0.02	248.13
2014/1/21	00:57:26	0.72	32.31
2014/1/21	01:02:26	0.12	217.72
2014/1/21	01:07:26	0.17	275.88
2014/1/21	01:12:26	1.22	240.56
2014/1/21	01:17:26	0.02	238.77
2014/1/21	01:22:26	0.02	301.73
2014/1/21	01:27:26	0.12	245.57
2014/1/21	01:32:26	0.02	328.25
2014/1/21	01:37:26	0.05	29.08
2014/1/21	01:42:26	0.02	325.46
2014/1/21	01:47:26	0.95	256.71
2014/1/21	01:52:26	0.02	233.65
2014/1/21	01:57:26	0.03	179.94
2014/1/21	02:02:26	0.02	253.59
2014/1/21	02:07:26	0.02	230.64
2014/1/21	02:12:26	1.33	255.38
2014/1/21	02:17:26	0.43	343.96
2014/1/21	02:22:26	0.02	343.18
2014/1/21	02:27:26	0.02	249.03
2014/1/21	02:32:26	0.02	46.02
2014/1/21	02:37:26	0.02	210.47
2014/1/21	02:42:26	0.24	231.09
2014/1/21	02:47:26	0.08	219.05
2014/1/21	02:52:26	0.02	227.41
2014/1/21	02:57:26	0.02	63.40
2014/1/21	03:02:26	0.03	250.58
2014/1/21	03:07:26	0.02	105.07
2014/1/21	03:12:26	0.02	165.13
2014/1/21	03:17:26	0.02	178.83
2014/1/21	03:22:26	0.02	253.59
2014/1/21	03:27:26	0.38	340.72
2014/1/21	03:32:26	0.02	2.34

Appendix H Meteorological Data for Impact Monitoring in the reporting period

Date	Time (24hrs)	Wind Speed (m/s)	Wind Direction (degree)
2014/1/21	03:37:26	1.04	254.26
2014/1/21	03:42:26	0.24	227.41
2014/1/21	03:47:26	0.02	241.56
2014/1/21	03:52:26	0.26	239.55
2014/1/21	03:57:26	2.03	342.17
2014/1/21	04:02:26	0.20	70.53
2014/1/21	04:07:26	0.02	230.19
2014/1/21	04:12:26	0.20	346.07
2014/1/21	04:17:26	0.23	21.50
2014/1/21	04:22:26	0.12	279.11
2014/1/21	04:27:26	0.84	341.50
2014/1/21	04:32:26	0.08	250.70
2014/1/21	04:37:26	0.02	18.83
2014/1/21	04:42:26	0.03	344.51
2014/1/21	04:47:26	0.18	252.59
2014/1/21	04:52:26	0.02	214.71
2014/1/21	04:57:26	0.23	239.55
2014/1/21	05:02:26	0.46	247.47
2014/1/21	05:07:26	0.44	349.75
2014/1/21	05:12:26	0.09	228.86
2014/1/21	05:17:26	0.52	220.28
2014/1/21	05:22:26	0.11	229.53
2014/1/21	05:27:26	0.02	235.54
2014/1/21	05:32:26	0.17	207.91
2014/1/21	05:37:26	0.23	287.91
2014/1/21	05:42:26	0.02	184.07
2014/1/21	05:47:26	0.41	253.70
2014/1/21	05:52:26	0.21	250.36
2014/1/21	05:57:26	0.02	343.96
2014/1/21	06:02:26	0.34	227.63
2014/1/21	06:07:26	0.02	225.63
2014/1/21	06:12:26	0.03	241.89
2014/1/21	06:17:26	0.02	291.92
2014/1/21	06:22:26	0.24	353.09
2014/1/21	06:27:26	0.08	304.51
2014/1/21	06:32:26	0.14	269.86
2014/1/21	06:37:26	0.02	16.94
2014/1/21	06:42:26	0.02	86.35
2014/1/21	06:47:26	0.02	53.26
2014/1/21	06:52:26	0.28	66.52
2014/1/21	06:57:26	0.31	59.61
2014/1/21	07:02:26	0.26	233.76
2014/1/21	07:07:26	0.12	234.76
2014/1/21	07:12:26	0.02	347.19
2014/1/21	07:17:26	0.20	310.86
2014/1/21	07:22:26	0.02	245.35

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Date	Time (24hrs)	Wind Speed (m/s)	Wind Direction (degree)
2014/1/21	07:27:26	0.02	278.11
2014/1/21	07:32:26	0.03	340.95
2014/1/21	07:37:26	0.02	148.30
2014/1/21	07:42:26	0.05	356.77
2014/1/21	07:47:26	0.02	340.50
2014/1/21	07:52:26	0.46	9.03
2014/1/21	07:57:26	0.08	347.74
2014/1/21	08:02:26	3.18	330.25
2014/1/21	08:07:26	0.31	347.19
2014/1/21	08:12:26	1.42	29.30
2014/1/21	08:17:26	0.02	272.53
2014/1/21	08:22:26	0.02	253.26
2014/1/21	08:27:26	0.02	287.58
2014/1/21	08:32:26	0.96	39.22
2014/1/21	08:37:26	0.03	22.62
2014/1/21	08:42:26	0.35	322.23
2014/1/21	08:47:26	0.02	320.67
2014/1/21	08:52:26	2.46	355.88
2014/1/21	08:57:26	0.02	276.10
2014/1/21	09:02:26	0.08	76.66
2014/1/21	09:07:26	0.02	67.41
2014/1/21	09:12:26	0.20	335.71
2014/1/21	09:17:26	0.02	312.42
2014/1/21	09:22:26	0.58	43.12
2014/1/21	09:27:26	0.15	54.60
2014/1/21	09:32:26	0.26	48.91
2014/1/21	09:37:26	1.79	52.59
2014/1/21	09:42:26	1.67	32.65
2014/1/21	09:47:26	0.06	355.32
2014/1/21	09:52:26	2.42	70.53
2014/1/21	09:57:26	0.02	184.96
2014/1/21	10:02:26	1.59	34.87
2014/1/21	10:07:26	0.41	9.47
2014/1/21	10:12:26	0.37	354.43
2014/1/21	10:17:26	1.82	34.54
2014/1/21	10:22:26	1.22	330.14
2014/1/21	10:27:26	0.08	340.39
2014/1/21	10:32:26	0.02	126.13
2014/1/21	10:37:26	2.97	51.14
2014/1/21	10:42:26	1.09	18.16
2014/1/21	10:47:26	0.26	55.49
2014/1/21	10:52:26	0.37	351.42
2014/1/21	10:57:26	1.36	31.09
2014/1/21	11:02:26	1.21	-47.35
2014/1/21	11:07:26	0.47	31.20
2014/1/21	11:12:26	0.02	219.39

Appendix H Meteorological Data for Impact Monitoring in the reporting period

Date	Time (24hrs)	Wind Speed (m/s)	Wind Direction (degree)
2014/1/21	11:17:26	0.23	23.29
2014/1/21	11:22:26	1.10	2.12
2014/1/21	11:27:26	0.76	3.34
2014/1/21	11:30:38	1.04	343.73
2014/1/21	11:35:38	0.02	318.44
2014/1/21	11:40:38	1.59	20.50
2014/1/21	11:45:38	0.05	16.16
2014/1/21	11:50:38	1.76	7.24
2014/1/21	11:55:38	0.21	16.82
2014/1/21	12:00:38	0.99	341.73
2014/1/21	12:05:38	0.02	257.83
2014/1/21	12:10:38	0.17	289.81
2014/1/21	12:15:38	1.09	346.85
2014/1/21	12:20:38	0.58	-26.30
2014/1/21	12:25:38	1.01	353.09
2014/1/21	12:30:38	0.50	42.45
2014/1/21	12:35:38	1.65	354.43
2014/1/21	12:40:38	0.80	325.35
2014/1/21	12:45:38	0.38	41.56
2014/1/21	12:50:38	0.03	76.55
2014/1/21	12:55:38	0.99	320.00
2014/1/21	13:00:38	0.40	23.18
2014/1/21	13:05:38	0.02	283.12
2014/1/21	13:10:38	0.35	217.16
2014/1/21	13:15:38	1.06	313.31
2014/1/21	13:20:38	0.95	346.85
2014/1/21	13:25:38	0.05	306.96
2014/1/21	13:30:38	1.73	350.97
2014/1/21	13:35:38	0.49	23.62
2014/1/21	13:40:38	0.89	55.49
2014/1/21	13:45:38	0.93	347.86
2014/1/21	13:50:38	0.05	341.84
2014/1/21	13:55:38	0.41	339.83
2014/1/21	14:00:38	0.17	69.42
2014/1/21	14:05:38	0.09	346.96
2014/1/21	14:10:38	0.02	28.86
2014/1/21	14:15:38	0.54	317.99
2014/1/21	14:20:38	0.14	323.68
2014/1/21	14:25:38	0.02	350.42
2014/1/21	14:30:38	0.28	23.51
2014/1/21	14:35:38	0.93	350.86
2014/1/21	14:40:38	0.73	33.09
2014/1/21	14:45:38	0.02	198.33
2014/1/21	14:50:38	0.09	16.38
2014/1/21	14:55:38	4.13	350.53
2014/1/21	15:00:38	1.27	353.09

Appendix H Meteorological Data for Impact Monitoring in the reporting period

Date	Time (24hrs)	Wind Speed (m/s)	Wind Direction (degree)
2014/1/21	15:05:38	0.90	339.28
2014/1/21	15:10:38	1.12	1.34
2014/1/21	15:15:38	0.46	10.14
2014/1/21	15:20:38	0.26	342.28
2014/1/21	15:25:38	0.44	345.40
2014/1/21	15:30:38	0.86	55.93
2014/1/21	15:35:38	0.17	354.09
2014/1/21	15:40:38	0.02	283.68
2014/1/21	15:45:38	0.80	350.08
2014/1/21	15:50:38	1.07	6.35
2014/1/21	15:55:38	0.05	11.14
2014/1/21	16:00:38	0.32	68.52
2014/1/21	16:05:38	0.46	348.64
2014/1/21	16:10:38	0.06	9.58
2014/1/21	16:15:38	0.03	8.58
2014/1/21	16:20:38	0.80	-47.58
2014/1/21	16:25:38	0.05	353.87
2014/1/21	16:30:38	0.31	323.34
2014/1/21	16:35:38	0.02	185.96
2014/1/21	16:40:38	0.23	354.76
2014/1/21	16:45:38	0.03	300.06
2014/1/21	16:50:38	0.02	1.23
2014/1/21	16:55:38	1.35	347.86
2014/1/21	17:00:38	0.46	10.36
2014/1/21	17:05:38	0.26	197.44
2014/1/21	17:10:38	0.02	251.92
2014/1/21	17:15:38	0.05	252.48
2014/1/21	17:20:38	0.02	2.56
2014/1/21	17:25:38	0.02	317.33
2014/1/21	17:30:38	0.02	231.64
2014/1/21	17:35:38	0.21	251.59
2014/1/21	17:40:38	0.64	256.16
2014/1/21	17:45:38	0.02	239.11
2014/1/21	17:50:38	0.02	275.32
2014/1/21	17:55:38	0.02	220.28
2014/1/21	18:00:38	0.02	230.19
2014/1/21	18:05:38	0.11	212.70
2014/1/21	18:10:38	0.21	240.33
2014/1/21	18:15:38	0.02	167.69
2014/1/21	18:20:38	0.05	58.83
2014/1/21	18:25:38	0.20	228.30
2014/1/21	18:30:38	0.24	215.04
2014/1/21	18:35:38	0.02	196.99
2014/1/21	18:40:38	0.66	226.63
2014/1/21	18:45:38	0.02	190.64
2014/1/21	18:50:38	0.02	155.54

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Date	Time (24hrs)	Wind Speed (m/s)	Wind Direction (degree)
2014/1/21	18:55:38	0.24	182.51
2014/1/21	19:00:38	0.02	227.30
2014/1/21	19:05:38	0.02	180.84
2014/1/21	19:10:38	0.02	180.72
2014/1/21	19:15:38	0.02	159.78
2014/1/21	19:20:38	0.14	219.72
2014/1/21	19:25:38	0.02	194.32
2014/1/21	19:30:38	0.32	206.24
2014/1/21	19:35:38	0.17	230.53
2014/1/21	19:40:38	0.08	225.07
2014/1/21	19:45:38	0.03	176.27
2014/1/21	19:50:38	0.02	182.06
2014/1/21	19:55:38	0.02	163.34
2014/1/21	20:00:38	0.02	183.29
2014/1/21	20:05:38	0.03	170.14
2014/1/21	20:10:38	0.08	236.32
2014/1/21	20:15:38	0.02	178.38
2014/1/21	20:20:38	0.02	118.77
2014/1/21	20:25:38	0.02	38.89
2014/1/21	20:30:38	0.02	212.81
2014/1/21	20:35:38	0.23	221.39
2014/1/21	20:40:38	0.02	225.07
2014/1/21	20:45:38	0.28	220.50
2014/1/21	20:50:38	0.63	213.04
2014/1/21	20:55:38	0.80	237.44
2014/1/21	21:00:38	0.02	188.75
2014/1/21	21:05:38	0.02	193.20
2014/1/21	21:10:38	0.02	198.44
2014/1/21	21:15:38	0.02	135.38
2014/1/21	21:20:38	0.02	237.44
2014/1/21	21:25:38	0.46	210.81
2014/1/21	21:30:38	0.02	158.55
2014/1/21	21:35:38	0.02	190.08
2014/1/21	21:40:38	0.35	203.12
2014/1/21	21:45:38	0.02	217.16
2014/1/21	21:50:38	0.02	167.69
2014/1/21	21:55:38	0.02	152.20
2014/1/21	22:00:38	0.02	146.07
2014/1/21	22:05:38	0.02	171.70
2014/1/21	22:10:38	0.02	156.10
2014/1/21	22:15:38	0.40	191.09
2014/1/21	22:20:38	0.28	139.61
2014/1/21	22:25:38	0.15	67.52
2014/1/21	22:30:38	0.02	18.05
2014/1/21	22:35:38	0.08	1.34
2014/1/21	22:40:38	0.02	57.94

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Date	Time (24hrs)	Wind Speed (m/s)	Wind Direction (degree)
2014/1/21	22:45:38	0.15	224.18
2014/1/21	22:50:38	0.03	165.01
2014/1/21	22:55:38	0.93	132.70
2014/1/21	23:00:38	0.02	87.69
2014/1/21	23:05:38	0.26	141.62
2014/1/21	23:10:38	0.35	241.34
2014/1/21	23:15:38	0.08	227.97
2014/1/21	23:20:38	0.72	208.47
2014/1/21	23:25:38	0.02	251.59
2014/1/21	23:30:38	0.11	219.61
2014/1/21	23:35:38	0.95	203.12
2014/1/21	23:40:38	0.84	235.65
2014/1/21	23:45:38	0.41	243.57
2014/1/21	23:50:38	0.02	240.11
2014/1/21	23:55:38	0.02	245.01
2014/1/27	00:00:38	0.66	190.86
2014/1/27	00:05:38	3.61	119.22
2014/1/27	00:10:38	0.66	305.40
2014/1/27	00:15:38	0.28	6.35
2014/1/27	00:20:38	0.98	186.63
2014/1/27	00:25:38	3.23	163.79
2014/1/27	00:30:38	2.48	61.06
2014/1/27	00:35:38	1.48	191.20
2014/1/27	00:40:38	1.44	187.08
2014/1/27	00:45:38	3.79	156.43
2014/1/27	00:50:38	0.64	97.16
2014/1/27	00:55:38	3.82	181.28
2014/1/27	01:00:38	0.38	118.77
2014/1/27	01:05:38	5.06	201.23
2014/1/27	01:10:38	4.89	198.55
2014/1/27	01:15:38	5.92	180.72
2014/1/27	01:20:38	7.04	196.32
2014/1/27	01:25:38	5.64	232.42
2014/1/27	01:30:38	2.49	145.63
2014/1/27	01:35:38	0.95	128.47
2014/1/27	01:40:38	5.22	50.25
2014/1/27	01:45:38	0.61	212.48
2014/1/27	01:50:38	1.30	146.52
2014/1/27	01:55:38	0.86	89.25
2014/1/27	02:00:38	4.24	57.49
2014/1/27	02:05:38	4.62	136.60
2014/1/27	02:10:38	3.14	77.33
2014/1/27	02:15:38	2.81	84.90
2014/1/27	02:20:38	0.23	14.60
2014/1/27	02:25:38	1.42	-3.12
2014/1/27	02:30:38	0.02	117.33

Appendix H Meteorological Data for Impact Monitoring in the reporting period

Date	Time (24hrs)	Wind Speed (m/s)	Wind Direction (degree)
2014/1/27	02:35:38	0.06	61.73
2014/1/27	02:40:38	0.34	238.77
2014/1/27	02:45:38	0.81	314.87
2014/1/27	02:50:38	0.37	134.15
2014/1/27	02:55:38	0.66	88.13
2014/1/27	03:00:38	1.41	13.70
2014/1/27	03:05:38	0.54	28.97
2014/1/27	03:10:38	0.61	132.48
2014/1/27	03:15:38	0.63	36.21
2014/1/27	03:20:38	0.11	121.23
2014/1/27	03:25:38	5.84	151.09
2014/1/27	03:30:38	3.49	196.55
2014/1/27	03:35:38	1.58	133.15
2014/1/27	03:40:38	1.33	140.72
2014/1/27	03:45:38	3.55	202.12
2014/1/27	03:50:38	5.15	211.92
2014/1/27	03:55:38	1.30	195.43
2014/1/27	04:00:38	1.16	233.87
2014/1/27	04:05:38	3.21	35.77
2014/1/27	04:10:38	11.38	66.74
2014/1/27	04:15:38	2.95	168.80
2014/1/27	04:20:38	0.98	254.37
2014/1/27	04:25:38	1.42	96.49
2014/1/27	04:30:38	0.63	264.29
2014/1/27	04:35:38	1.76	121.11
2014/1/27	04:40:38	4.40	290.47
2014/1/27	04:45:38	6.61	158.33
2014/1/27	04:50:38	3.62	144.51
2014/1/27	04:55:38	4.31	143.73
2014/1/27	05:00:38	2.40	173.70
2014/1/27	05:05:38	7.48	73.65
2014/1/27	05:10:38	2.17	80.33
2014/1/27	05:15:38	1.21	60.28
2014/1/27	05:20:38	0.06	70.75
2014/1/27	05:25:38	4.25	158.66
2014/1/27	05:30:38	0.06	113.43
2014/1/27	05:35:38	1.35	106.41
2014/1/27	05:40:38	3.61	122.79
2014/1/27	05:45:38	3.14	145.74
2014/1/27	05:50:38	2.54	162.12
2014/1/27	05:55:38	0.14	347.19
2014/1/27	06:00:38	0.81	127.80
2014/1/27	06:05:38	0.90	155.32
2014/1/27	06:10:38	1.15	202.45
2014/1/27	06:15:38	1.32	80.22
2014/1/27	06:20:38	3.87	164.35

Appendix H Meteorological Data for Impact Monitoring in the reporting period

Date	Time (24hrs)	Wind Speed (m/s)	Wind Direction (degree)
2014/1/27	06:25:38	1.07	87.13
2014/1/27	06:30:38	0.76	190.75
2014/1/27	06:35:38	0.47	217.16
2014/1/27	06:40:38	0.72	224.18
2014/1/27	06:45:38	2.06	197.10
2014/1/27	06:50:38	0.84	122.23
2014/1/27	06:55:38	1.97	177.72
2014/1/27	07:00:38	0.12	50.58
2014/1/27	07:05:38	0.67	170.36
2014/1/27	07:10:38	2.36	218.61
2014/1/27	07:15:38	0.60	66.74
2014/1/27	07:20:38	0.44	146.18
2014/1/27	07:25:38	1.24	53.26
2014/1/27	07:30:38	0.81	63.73
2014/1/27	07:35:38	3.99	85.91
2014/1/27	07:40:38	0.21	312.65
2014/1/27	07:45:38	0.20	77.99
2014/1/27	07:50:38	0.75	166.46
2014/1/27	07:55:38	0.02	174.26
2014/1/27	08:00:38	0.02	97.05
2014/1/27	08:05:38	0.02	285.91
2014/1/27	08:10:38	0.28	142.51
2014/1/27	08:15:38	0.02	95.26
2014/1/27	08:20:38	0.15	139.05
2014/1/27	08:25:38	0.02	98.16
2014/1/27	08:30:38	1.30	123.12
2014/1/27	08:35:38	0.17	54.04
2014/1/27	08:40:38	1.09	168.25
2014/1/27	08:45:38	0.46	44.57
2014/1/27	08:50:38	0.86	139.39
2014/1/27	08:55:38	0.95	135.71
2014/1/27	09:00:38	0.63	139.72
2014/1/27	09:05:38	0.24	107.86
2014/1/27	09:10:38	0.02	270.75
2014/1/27	09:15:38	0.02	106.41
2014/1/27	09:20:38	0.28	91.81
2014/1/27	09:25:38	0.41	55.71
2014/1/27	09:30:38	0.32	103.06
2014/1/27	09:35:38	1.35	47.80
2014/1/27	09:40:38	0.23	78.66
2014/1/27	09:45:38	0.12	49.92
2014/1/27	09:50:38	0.80	64.40
2014/1/27	09:55:38	1.32	103.29
2014/1/27	10:00:38	1.50	151.31
2014/1/27	10:05:38	0.78	85.01
2014/1/27	10:10:38	1.70	130.81

Appendix H Meteorological Data for Impact Monitoring in the reporting period

Date	Time (24hrs)	Wind Speed (m/s)	Wind Direction (degree)
2014/1/27	10:15:38	1.02	194.65
2014/1/27	10:20:38	0.05	160.78
2014/1/27	10:25:38	0.40	113.43
2014/1/27	10:30:38	2.08	62.06
2014/1/27	10:35:38	0.44	28.97
2014/1/27	10:40:38	0.02	69.42
2014/1/27	10:45:38	0.89	71.31
2014/1/27	10:50:38	0.60	124.01
2014/1/27	10:55:38	0.02	196.66
2014/1/27	11:00:38	0.02	7.80
2014/1/27	11:05:38	0.02	145.07
2014/1/27	11:10:38	0.02	284.46
2014/1/27	11:15:38	0.23	8.58
2014/1/27	11:20:38	0.73	116.99
2014/1/27	11:25:38	0.26	152.20
2014/1/27	11:30:38	0.95	202.90
2014/1/27	11:35:38	1.77	189.08
2014/1/27	11:40:38	1.79	129.92
2014/1/27	11:45:38	0.21	149.64
2014/1/27	11:50:38	2.42	182.28
2014/1/27	11:55:38	1.22	97.27
2014/1/27	12:00:38	0.86	141.62
2014/1/27	12:05:38	0.02	348.64
2014/1/27	12:10:38	0.70	75.21
2014/1/27	12:15:38	1.28	181.39
2014/1/27	12:20:38	0.11	89.36
2014/1/27	12:25:38	0.46	127.02
2014/1/27	12:30:38	1.67	182.17
2014/1/27	12:35:38	0.44	106.18
2014/1/27	12:40:38	2.88	65.29
2014/1/27	12:45:38	0.69	191.31
2014/1/27	12:50:38	0.72	206.02
2014/1/27	12:55:38	2.08	208.25
2014/1/27	13:00:38	0.34	65.74
2014/1/27	13:05:38	0.49	232.65
2014/1/27	13:10:38	0.02	325.46
2014/1/27	13:15:38	1.84	168.80
2014/1/27	13:20:38	0.70	258.50
2014/1/27	13:25:38	1.36	159.89
2014/1/27	13:30:38	0.02	135.26
2014/1/27	13:35:38	0.11	88.13
2014/1/27	13:40:38	0.14	185.96
2014/1/27	13:45:38	0.03	177.60
2014/1/27	13:50:38	0.15	46.02
2014/1/27	13:55:38	0.09	15.71
2014/1/27	14:00:38	2.16	187.86

Appendix H Meteorological Data for Impact Monitoring in the reporting period

Date	Time (24hrs)	Wind Speed (m/s)	Wind Direction (degree)
2014/1/27	14:05:38	0.55	56.82
2014/1/27	14:10:38	0.02	197.88
2014/1/27	14:15:38	0.49	105.40
2014/1/27	14:20:38	0.76	64.85
2014/1/27	14:25:38	0.02	233.65
2014/1/27	14:30:38	0.58	157.21
2014/1/27	14:35:38	0.02	177.05
2014/1/27	14:40:38	0.44	152.20
2014/1/27	14:45:38	0.02	26.85
2014/1/27	14:50:38	0.58	232.98
2014/1/27	14:55:38	1.15	149.08
2014/1/27	15:00:38	0.20	57.83
2014/1/27	15:05:38	0.05	85.46
2014/1/27	15:10:38	0.02	189.97
2014/1/27	15:15:38	0.02	157.21
2014/1/27	15:20:38	0.02	83.57
2014/1/27	15:25:38	0.38	176.71
2014/1/27	15:30:38	0.70	117.77
2014/1/27	15:35:38	0.37	193.76
2014/1/27	15:40:38	0.03	101.50
2014/1/27	15:45:38	0.46	192.42
2014/1/27	15:50:38	0.40	159.55
2014/1/27	15:55:38	0.02	117.44
2014/1/27	16:00:38	0.44	157.44
2014/1/27	16:05:38	0.02	50.36
2014/1/27	16:10:38	0.11	311.75
2014/1/27	16:15:38	0.43	132.81
2014/1/27	16:20:38	0.03	205.13
2014/1/27	16:25:38	0.02	36.43
2014/1/27	16:30:38	0.23	139.61
2014/1/27	16:35:38	0.02	120.67
2014/1/27	16:40:38	0.02	38.77
2014/1/27	16:45:38	0.02	246.57
2014/1/27	16:50:38	0.02	14.93
2014/1/27	16:55:38	0.02	170.03
2014/1/27	17:00:38	0.02	179.16
2014/1/27	17:05:38	0.02	112.98
2014/1/27	17:10:38	0.12	185.63
2014/1/27	17:15:38	0.02	163.12
2014/1/27	17:20:38	0.67	37.21
2014/1/27	17:25:38	0.02	105.29
2014/1/27	17:30:38	0.02	116.66
2014/1/27	17:35:38	0.29	156.66
2014/1/27	17:40:38	0.06	113.20
2014/1/27	17:45:38	0.28	91.70
2014/1/27	17:50:38	0.84	129.58

Appendix H Meteorological Data for Impact Monitoring in the reporting period

Date	Time (24hrs)	Wind Speed (m/s)	Wind Direction (degree)
2014/1/27	17:55:38	0.02	167.24
2014/1/27	18:00:38	0.02	221.50
2014/1/27	18:05:38	0.02	101.39
2014/1/27	18:10:38	0.20	100.50
2014/1/27	18:15:38	0.44	123.34
2014/1/27	18:20:38	0.02	81.56
2014/1/27	18:25:38	0.41	68.30
2014/1/27	18:30:38	0.78	167.35
2014/1/27	18:35:38	0.11	133.82
2014/1/27	18:40:38	0.32	58.27
2014/1/27	18:45:38	0.66	105.29
2014/1/27	18:50:38	0.24	107.19
2014/1/27	18:55:38	0.47	122.67
2014/1/27	19:00:38	0.29	146.63
2014/1/27	19:05:38	0.02	224.29
2014/1/27	19:10:38	1.04	205.68
2014/1/27	19:15:38	0.02	154.76
2014/1/27	19:20:38	0.38	111.31
2014/1/27	19:25:38	0.73	167.13
2014/1/27	19:30:38	0.02	97.60
2014/1/27	19:35:38	0.03	125.01
2014/1/27	19:40:38	0.02	41.78
2014/1/27	19:45:38	0.02	105.07
2014/1/27	19:50:38	0.03	139.16
2014/1/27	19:55:38	0.02	60.06
2014/1/27	20:00:38	0.02	122.45
2014/1/27	20:05:38	0.90	38.11
2014/1/27	20:10:38	0.90	128.02
2014/1/27	20:15:38	0.35	156.66
2014/1/27	20:20:38	0.03	230.42
2014/1/27	20:25:38	0.02	127.13
2014/1/27	20:30:38	0.55	130.25
2014/1/27	20:35:38	0.02	3.68
2014/1/27	20:40:38	0.34	171.03
2014/1/27	20:45:38	0.02	99.28
2014/1/27	20:50:38	0.02	13.93
2014/1/27	20:55:38	0.83	80.11
2014/1/27	21:00:38	0.08	128.25
2014/1/27	21:05:38	0.69	146.74
2014/1/27	21:10:38	0.60	104.96
2014/1/27	21:15:38	0.06	145.07
2014/1/27	21:20:38	0.02	183.96
2014/1/27	21:25:38	0.02	254.71
2014/1/27	21:30:38	0.02	67.08
2014/1/27	21:35:38	0.02	25.52
2014/1/27	21:40:38	0.02	54.82

Appendix H Meteorological Data for Impact Monitoring in the reporting period

Date	Time (24hrs)	Wind Speed (m/s)	Wind Direction (degree)
2014/1/27	21:45:38	0.73	81.45
2014/1/27	21:50:38	0.18	71.20
2014/1/27	21:55:38	1.61	60.61
2014/1/27	22:00:38	0.02	48.58
2014/1/27	22:05:38	0.26	56.49
2014/1/27	22:10:38	0.99	72.53
2014/1/27	22:15:38	0.02	98.16
2014/1/27	22:20:38	1.25	47.02
2014/1/27	22:25:38	1.10	69.97
2014/1/27	22:30:38	0.21	55.60
2014/1/27	22:35:38	0.05	92.70
2014/1/27	22:40:38	0.31	162.90
2014/1/27	22:45:38	0.05	108.30
2014/1/27	22:50:38	0.50	106.41
2014/1/27	22:55:38	0.21	104.51
2014/1/27	23:00:38	0.61	83.79
2014/1/27	23:05:38	0.02	31.31
2014/1/27	23:10:38	0.21	114.54
2014/1/27	23:15:38	0.38	71.64
2014/1/27	23:20:38	0.08	58.38
2014/1/27	23:25:38	0.23	94.37
2014/1/27	23:30:38	0.50	71.53
2014/1/27	23:35:38	0.05	102.17
2014/1/27	23:40:38	0.02	126.35
2014/1/27	23:45:38	0.02	41.34
2014/1/27	23:50:38	0.41	46.13
2014/1/27	23:55:38	0.81	62.06
2014/1/30	00:00:38	0.02	210.03
2014/1/30	00:05:38	0.02	212.59
2014/1/30	00:10:38	0.02	186.52
2014/1/30	00:15:38	0.67	215.15
2014/1/30	00:20:38	0.02	210.70
2014/1/30	00:25:38	0.02	189.19
2014/1/30	00:30:38	0.02	191.64
2014/1/30	00:35:38	0.15	243.23
2014/1/30	00:40:38	0.52	208.69
2014/1/30	00:45:38	0.02	176.16
2014/1/30	00:50:38	0.02	220.61
2014/1/30	00:55:38	0.05	216.71
2014/1/30	01:00:38	0.02	187.41
2014/1/30	01:05:38	0.05	217.16
2014/1/30	01:10:38	0.02	219.16
2014/1/30	01:15:38	0.02	215.04
2014/1/30	01:20:38	0.02	215.04
2014/1/30	01:25:38	0.02	215.04
2014/1/30	01:30:38	0.02	215.04

Appendix H Meteorological Data for Impact Monitoring in the reporting period

Date	Time (24hrs)	Wind Speed (m/s)	Wind Direction (degree)
2014/1/30	01:35:38	0.02	215.04
2014/1/30	01:40:38	0.02	215.04
2014/1/30	01:45:38	0.02	233.98
2014/1/30	01:50:38	0.02	233.98
2014/1/30	01:55:38	0.02	233.98
2014/1/30	02:00:38	0.21	217.38
2014/1/30	02:05:38	0.02	213.59
2014/1/30	02:10:38	0.02	213.48
2014/1/30	02:15:38	0.02	190.64
2014/1/30	02:20:38	0.02	228.19
2014/1/30	02:25:38	0.02	248.25
2014/1/30	02:30:38	0.02	233.98
2014/1/30	02:35:38	0.02	233.98
2014/1/30	02:40:38	0.02	233.20
2014/1/30	02:45:38	0.02	219.72
2014/1/30	02:50:38	0.02	220.28
2014/1/30	02:55:38	0.02	220.39
2014/1/30	03:00:38	0.02	211.36
2014/1/30	03:05:38	0.02	229.08
2014/1/30	03:10:38	0.02	229.08
2014/1/30	03:15:38	0.02	229.08
2014/1/30	03:20:38	0.02	229.08
2014/1/30	03:25:38	0.02	229.19
2014/1/30	03:30:38	0.02	229.19
2014/1/30	03:35:38	0.02	229.19
2014/1/30	03:40:38	0.08	229.08
2014/1/30	03:45:38	0.02	220.39
2014/1/30	03:50:38	0.02	220.39
2014/1/30	03:55:38	0.02	217.94
2014/1/30	04:00:38	0.02	217.94
2014/1/30	04:05:38	0.05	202.79
2014/1/30	04:10:38	0.02	190.86
2014/1/30	04:15:38	0.02	190.86
2014/1/30	04:20:38	0.02	190.97
2014/1/30	04:25:38	0.02	190.97
2014/1/30	04:30:38	0.02	190.97
2014/1/30	04:35:38	0.02	208.91
2014/1/30	04:40:38	0.02	212.81
2014/1/30	04:45:38	0.02	227.63
2014/1/30	04:50:38	0.02	199.33
2014/1/30	04:55:38	0.02	200.11
2014/1/30	05:00:38	0.02	200.11
2014/1/30	05:05:38	0.02	178.72
2014/1/30	05:10:38	0.47	176.60
2014/1/30	05:15:38	0.21	219.61
2014/1/30	05:20:38	0.02	211.59

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Date	Time (24hrs)	Wind Speed (m/s)	Wind Direction (degree)
2014/1/30	05:25:38	0.02	187.08
2014/1/30	05:30:38	0.02	186.63
2014/1/30	05:35:38	0.02	173.26
2014/1/30	05:40:38	0.02	173.37
2014/1/30	05:45:38	0.03	208.58
2014/1/30	05:50:38	0.02	208.91
2014/1/30	05:55:38	0.02	209.03
2014/1/30	06:00:38	0.02	135.15
2014/1/30	06:05:38	0.02	176.38
2014/1/30	06:10:38	0.02	160.22
2014/1/30	06:15:38	0.02	211.92
2014/1/30	06:20:38	0.02	155.54
2014/1/30	06:25:38	0.02	193.43
2014/1/30	06:30:38	0.02	222.95
2014/1/30	06:35:38	0.02	160.22
2014/1/30	06:40:38	0.02	206.80
2014/1/30	06:45:38	0.02	210.14
2014/1/30	06:50:38	0.02	205.35
2014/1/30	06:55:38	0.02	214.37
2014/1/30	07:00:38	0.32	213.15
2014/1/30	07:05:38	0.02	216.71
2014/1/30	07:10:38	0.02	186.18
2014/1/30	07:15:38	0.02	177.16
2014/1/30	07:20:38	0.02	177.16
2014/1/30	07:25:38	0.11	224.18
2014/1/30	07:30:38	0.02	213.70
2014/1/30	07:35:38	0.02	234.76
2014/1/30	07:40:38	0.02	234.65
2014/1/30	07:45:38	0.02	234.54
2014/1/30	07:50:38	0.02	234.54
2014/1/30	07:55:38	0.02	234.43
2014/1/30	08:00:38	0.02	234.32
2014/1/30	08:05:38	0.02	234.32
2014/1/30	08:10:38	0.02	234.21
2014/1/30	08:15:38	0.02	234.09
2014/1/30	08:20:38	0.02	233.98
2014/1/30	08:25:38	0.02	233.87
2014/1/30	08:30:38	0.02	233.76
2014/1/30	08:35:38	0.02	148.41
2014/1/30	08:40:38	0.02	148.41
2014/1/30	08:45:38	0.02	148.19
2014/1/30	08:50:38	0.02	148.08
2014/1/30	08:55:38	0.02	93.48
2014/1/30	09:00:38	0.02	93.70
2014/1/30	09:05:38	0.02	93.59
2014/1/30	09:10:38	0.02	31.20

Appendix H Meteorological Data for Impact Monitoring in the reporting period

Date	Time (24hrs)	Wind Speed (m/s)	Wind Direction (degree)
2014/1/30	09:15:38	0.02	26.63
2014/1/30	09:20:38	0.02	17.72
2014/1/30	09:25:38	0.02	341.17
2014/1/30	09:30:38	0.02	277.44
2014/1/30	09:35:38	0.08	52.59
2014/1/30	09:40:38	0.02	115.32
2014/1/30	09:45:38	0.54	356.77
2014/1/30	09:50:38	0.02	323.12
2014/1/30	09:55:38	0.02	347.41
2014/1/30	09:59:40	0.02	28.52
2014/1/30	10:04:40	0.02	4.46
2014/1/30	10:09:40	0.02	8.47
2014/1/30	10:14:40	0.02	289.03
2014/1/30	10:19:40	0.02	300.28
2014/1/30	10:24:40	0.02	3.01
2014/1/30	10:29:40	0.02	309.75
2014/1/30	10:34:40	0.02	334.26
2014/1/30	10:39:40	0.02	269.64
2014/1/30	10:44:40	0.41	19.50
2014/1/30	10:49:40	0.02	37.55
2014/1/30	10:54:40	0.02	21.50
2014/1/30	10:59:40	0.02	-48.25
2014/1/30	11:04:40	0.03	320.11
2014/1/30	11:09:40	0.03	345.29
2014/1/30	11:14:40	0.02	348.52
2014/1/30	11:19:40	0.02	351.42
2014/1/30	11:24:40	0.02	56.71
2014/1/30	11:29:40	0.12	254.48
2014/1/30	11:34:40	0.02	255.93
2014/1/30	11:39:40	0.02	247.47
2014/1/30	11:44:40	0.02	-48.69
2014/1/30	11:49:40	0.02	0.22
2014/1/30	11:54:40	0.11	353.76
2014/1/30	11:59:40	0.41	8.25
2014/1/30	12:04:40	0.02	3.23
2014/1/30	12:09:40	0.02	349.64
2014/1/30	12:14:40	0.46	0.33
2014/1/30	12:19:40	0.02	49.92
2014/1/30	12:24:40	0.02	345.18
2014/1/30	12:29:40	0.02	9.92
2014/1/30	12:34:40	0.02	245.35
2014/1/30	12:39:40	0.02	313.09
2014/1/30	12:44:40	0.02	234.87
2014/1/30	12:49:40	0.02	-48.69
2014/1/30	12:54:40	0.02	335.71
2014/1/30	12:59:40	0.02	328.69

Appendix H Meteorological Data for Impact Monitoring in the reporting period

Date	Time (24hrs)	Wind Speed (m/s)	Wind Direction (degree)
2014/1/30	13:04:40	0.02	296.38
2014/1/30	13:09:40	0.02	310.64
2014/1/30	13:14:40	0.02	299.50
2014/1/30	13:19:40	1.36	352.65
2014/1/30	13:24:40	1.13	6.02
2014/1/30	13:29:40	0.02	350.31
2014/1/30	13:34:40	0.31	25.74
2014/1/30	13:39:40	0.11	5.13
2014/1/30	13:44:40	0.02	308.30
2014/1/30	13:49:40	0.02	5.91
2014/1/30	13:54:40	0.02	24.85
2014/1/30	13:59:40	0.02	303.29
2014/1/30	14:04:40	0.02	332.37
2014/1/30	14:09:40	0.02	53.82
2014/1/30	14:14:40	0.24	28.30
2014/1/30	14:19:40	0.02	334.37
2014/1/30	14:24:40	0.02	290.47
2014/1/30	14:29:40	0.02	335.49
2014/1/30	14:34:40	0.05	340.84
2014/1/30	14:39:40	0.02	285.79
2014/1/30	14:44:40	0.90	-48.36
2014/1/30	14:49:40	0.02	9.36
2014/1/30	14:54:40	0.02	350.08
2014/1/30	14:59:40	0.00	9.36
2014/1/30	15:04:40	0.02	300.06
2014/1/30	15:09:40	0.06	6.57
2014/1/30	15:14:40	0.06	343.18
2014/1/30	15:19:40	0.05	0.45
2014/1/30	15:24:40	0.03	23.40
2014/1/30	15:29:40	0.21	64.07
2014/1/30	15:34:40	0.02	313.87
2014/1/30	15:39:40	0.02	344.85
2014/1/30	15:44:40	0.02	44.35
2014/1/30	15:49:40	0.02	337.72
2014/1/30	15:54:40	0.02	13.59
2014/1/30	15:59:40	0.02	15.04
2014/1/30	16:04:40	0.03	61.73
2014/1/30	16:09:40	0.02	355.21
2014/1/30	16:14:40	0.02	29.64
2014/1/30	16:19:40	0.02	27.08
2014/1/30	16:24:40	0.02	1.11
2014/1/30	16:29:40	0.02	355.32
2014/1/30	16:34:40	0.02	323.34
2014/1/30	16:39:40	0.02	337.49
2014/1/30	16:44:40	0.02	337.38
2014/1/30	16:49:40	0.02	199.78

Appendix H Meteorological Data for Impact Monitoring in the reporting period

Date	Time (24hrs)	Wind Speed (m/s)	Wind Direction (degree)
2014/1/30	16:54:40	0.02	215.60
2014/1/30	16:59:40	0.02	199.44
2014/1/30	17:04:40	0.02	209.69
2014/1/30	17:09:40	0.02	209.69
2014/1/30	17:14:40	0.02	201.00
2014/1/30	17:19:40	0.12	197.99
2014/1/30	17:24:40	0.05	204.12
2014/1/30	17:29:40	0.02	180.06
2014/1/30	17:34:40	0.09	204.12
2014/1/30	17:39:40	0.02	237.44
2014/1/30	17:44:40	0.02	225.96
2014/1/30	17:49:40	0.06	216.27
2014/1/30	17:54:40	0.02	156.32
2014/1/30	17:59:40	0.02	185.52
2014/1/30	18:04:40	0.12	154.76
2014/1/30	18:09:40	0.11	201.23
2014/1/30	18:14:40	0.02	184.74
2014/1/30	18:19:40	0.37	147.19
2014/1/30	18:24:40	0.52	203.79
2014/1/30	18:29:40	0.41	206.91
2014/1/30	18:34:40	0.17	204.23
2014/1/30	18:39:40	0.20	212.59
2014/1/30	18:44:40	0.12	204.90
2014/1/30	18:49:40	0.20	212.03
2014/1/30	18:54:40	0.02	192.87
2014/1/30	18:59:40	0.02	210.36
2014/1/30	19:04:40	0.02	201.11
2014/1/30	19:09:40	0.06	216.94
2014/1/30	19:14:40	0.02	206.91
2014/1/30	19:19:40	0.02	183.73
2014/1/30	19:24:40	0.08	185.40
2014/1/30	19:29:40	0.66	189.19
2014/1/30	19:34:40	0.02	222.51
2014/1/30	19:39:40	0.32	224.74
2014/1/30	19:44:40	0.02	199.22
2014/1/30	19:49:40	0.28	223.51
2014/1/30	19:54:40	0.02	243.34
2014/1/30	19:59:40	0.02	269.42
2014/1/30	20:04:40	0.02	206.35
2014/1/30	20:09:40	0.02	206.35
2014/1/30	20:14:40	0.02	180.95
2014/1/30	20:19:40	0.02	213.82
2014/1/30	20:24:40	0.32	198.44
2014/1/30	20:29:40	0.78	207.13
2014/1/30	20:34:40	0.02	218.05
2014/1/30	20:39:40	0.02	221.17

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Date	Time (24hrs)	Wind Speed (m/s)	Wind Direction (degree)
2014/1/30	20:44:40	0.02	214.48
2014/1/30	20:49:40	0.02	224.62
2014/1/30	20:54:40	0.02	224.29
2014/1/30	20:59:40	0.02	215.71
2014/1/30	21:04:40	0.02	215.60
2014/1/30	21:09:40	0.02	182.28
2014/1/30	21:14:40	0.02	184.07
2014/1/30	21:19:40	0.02	228.19
2014/1/30	21:24:40	0.02	217.38
2014/1/30	21:29:40	0.02	217.38
2014/1/30	21:34:40	0.02	217.38
2014/1/30	21:39:40	0.02	217.49
2014/1/30	21:44:40	0.02	217.60
2014/1/30	21:49:40	0.02	208.13
2014/1/30	21:54:40	0.02	173.59
2014/1/30	21:59:40	0.02	234.54
2014/1/30	22:04:40	0.02	187.41
2014/1/30	22:09:40	0.02	196.66
2014/1/30	22:14:40	0.02	178.05
2014/1/30	22:19:40	0.32	203.57
2014/1/30	22:24:40	0.02	152.20
2014/1/30	22:29:40	0.43	215.26
2014/1/30	22:34:40	0.28	188.52
2014/1/30	22:39:40	0.02	186.74
2014/1/30	22:44:40	0.02	184.29
2014/1/30	22:49:40	0.15	253.70
2014/1/30	22:54:40	0.34	180.39
2014/1/30	22:59:40	0.03	194.32
2014/1/30	23:04:40	0.34	241.11
2014/1/30	23:09:40	0.02	248.13
2014/1/30	23:14:40	0.02	228.41
2014/1/30	23:19:40	0.32	226.74
2014/1/30	23:24:40	0.02	200.11
2014/1/30	23:29:40	0.02	219.16
2014/1/30	23:34:40	0.02	219.16
2014/1/30	23:39:40	0.02	219.16
2014/1/30	23:44:40	0.02	219.16
2014/1/30	23:49:40	0.02	219.28
2014/1/30	23:54:40	0.02	219.28
2014/1/30	23:59:40	0.02	219.16
2014/2/5	10:34:40	0.31	18.05
2014/2/5	10:39:40	1.35	83.45
2014/2/5	10:44:40	0.09	43.68
2014/2/5	10:49:40	3.20	226.63
2014/2/5	10:54:40	0.03	29.86
2014/2/5	10:59:40	2.08	189.30

Appendix H Meteorological Data for Impact Monitoring in the reporting period

Date	Time (24hrs)	Wind Speed (m/s)	Wind Direction (degree)
2014/2/5	11:04:40	0.57	318.55
2014/2/5	11:09:40	2.49	237.77
2014/2/5	11:14:40	1.42	137.83
2014/2/5	11:19:40	0.02	160.33
2014/2/5	11:24:40	0.63	123.34
2014/2/5	11:29:40	0.76	108.19
2014/2/5	11:34:40	0.55	184.62
2014/2/5	11:39:40	0.98	75.65
2014/2/5	11:44:40	1.35	130.47
2014/2/5	11:49:40	1.19	7.47
2014/2/5	11:54:40	0.08	23.40
2014/2/5	11:59:40	0.35	16.16
2014/2/5	12:04:40	3.58	154.43
2014/2/5	12:09:40	1.15	137.49
2014/2/5	12:14:40	0.21	87.69
2014/2/5	12:19:40	0.02	35.54
2014/2/5	12:24:40	0.43	58.83
2014/2/5	12:29:40	0.81	40.22
2014/2/5	12:34:40	0.96	140.06
2014/2/5	12:39:40	0.06	86.13
2014/2/5	12:44:40	0.02	99.94
2014/2/5	12:49:40	0.02	280.45
2014/2/5	12:54:40	0.17	98.61
2014/2/5	12:59:40	1.13	191.75
2014/2/5	13:04:40	0.15	76.43
2014/2/5	13:09:40	1.45	114.99
2014/2/5	13:14:40	0.93	62.84
2014/2/5	13:19:40	0.55	55.26
2014/2/5	13:24:40	0.02	95.26
2014/2/5	13:29:40	0.66	126.80
2014/2/5	13:34:40	0.63	131.36
2014/2/5	13:39:40	0.02	28.52
2014/2/5	13:44:40	0.02	85.79
2014/2/5	13:49:40	0.72	91.14
2014/2/5	13:54:40	2.23	171.25
2014/2/5	13:59:40	1.50	134.15
2014/2/5	14:04:40	0.05	356.99
2014/2/5	14:09:40	0.12	21.84
2014/2/5	14:14:40	0.02	74.76
2014/2/5	14:19:40	0.02	202.01
2014/2/5	14:24:40	0.32	187.63
2014/2/5	14:29:40	1.13	92.70
2014/2/5	14:34:40	0.02	155.54
2014/2/5	14:39:40	0.08	187.08
2014/2/5	14:44:40	0.87	147.97
2014/2/5	14:49:40	0.80	200.22

Appendix H Meteorological Data for Impact Monitoring in the reporting period

Date	Time (24hrs)	Wind Speed (m/s)	Wind Direction (degree)
2014/2/5	14:54:40	0.12	158.33
2014/2/5	14:59:40	0.54	232.20
2014/2/5	15:04:40	0.02	147.63
2014/2/5	15:09:40	1.09	141.06
2014/2/5	15:14:40	5.02	65.85
2014/2/5	15:19:40	1.02	86.80
2014/2/5	15:24:40	2.23	114.76
2014/2/5	15:29:40	0.02	132.03
2014/2/5	15:34:40	0.66	163.79
2014/2/5	15:39:40	0.67	161.56
2014/2/5	15:44:40	2.10	182.84
2014/2/5	15:49:40	1.68	180.17
2014/2/5	15:54:40	0.09	21.95
2014/2/5	15:59:40	0.02	44.68
2014/2/5	16:04:40	0.02	136.82
2014/2/5	16:09:40	0.02	189.53
2014/2/5	16:14:40	0.50	188.41
2014/2/5	16:19:40	0.02	194.76
2014/2/5	16:24:40	0.02	253.93
2014/2/5	16:29:40	1.67	174.93
2014/2/5	16:34:40	0.32	151.75
2014/2/5	16:39:40	2.00	132.37
2014/2/5	16:44:40	0.24	62.62
2014/2/5	16:49:40	0.02	195.54
2014/2/5	16:54:40	1.50	187.52
2014/2/5	16:59:40	0.31	95.71
2014/2/5	17:04:40	1.01	232.31
2014/2/5	17:09:40	2.26	190.08
2014/2/5	17:14:40	1.59	143.84
2014/2/5	17:19:40	0.43	239.44
2014/2/5	17:24:40	0.05	224.85
2014/2/5	17:29:40	0.18	128.36
2014/2/5	17:34:40	2.49	134.37
2014/2/5	17:39:40	0.12	5.46
2014/2/5	17:44:40	1.18	148.86
2014/2/5	17:49:40	0.24	151.75
2014/2/5	17:54:40	0.67	185.74
2014/2/5	17:59:40	0.32	257.38
2014/2/5	18:04:40	0.06	201.34
2014/2/5	18:09:40	0.06	150.08
2014/2/5	18:14:40	0.11	180.61
2014/2/5	18:19:40	0.02	341.73
2014/2/5	18:24:40	0.14	233.98
2014/2/5	18:29:40	2.23	195.65
2014/2/5	18:34:40	0.02	153.31
2014/2/5	18:39:40	0.69	243.12

Appendix H Meteorological Data for Impact Monitoring in the reporting period

Date	Time (24hrs)	Wind Speed (m/s)	Wind Direction (degree)
2014/2/5	18:44:40	2.66	89.14
2014/2/5	18:49:40	0.18	211.70
2014/2/5	18:54:40	0.89	121.23
2014/2/5	18:59:40	3.24	150.19
2014/2/5	19:04:40	0.76	134.04
2014/2/5	19:09:40	1.68	116.10
2014/2/5	19:14:40	1.36	184.07
2014/2/5	19:19:40	0.15	16.94
2014/2/5	19:24:40	0.02	186.74
2014/2/5	19:29:40	0.86	14.82
2014/2/5	19:34:40	0.43	156.99
2014/2/5	19:39:40	0.69	270.75
2014/2/5	19:44:40	2.34	81.67
2014/2/5	19:49:40	0.15	25.74
2014/2/5	19:54:40	2.00	113.65
2014/2/5	19:59:40	0.55	83.57
2014/2/5	20:04:40	0.02	139.50
2014/2/5	20:09:40	0.02	286.02
2014/2/5	20:14:40	0.03	219.05
2014/2/5	20:19:40	0.06	53.37
2014/2/5	20:24:40	0.03	76.10
2014/2/5	20:29:40	0.15	154.54
2014/2/5	20:34:40	0.03	93.04
2014/2/5	20:39:40	0.15	55.04
2014/2/5	20:44:40	0.80	276.32
2014/2/5	20:49:40	0.02	40.89
2014/2/5	20:54:40	0.02	219.50
2014/2/5	20:59:40	0.09	147.63
2014/2/5	21:04:40	0.67	67.41
2014/2/5	21:09:40	0.03	161.00
2014/2/5	21:14:40	0.57	39.33
2014/2/5	21:19:40	1.12	62.28
2014/2/5	21:24:40	0.02	19.39
2014/2/5	21:29:40	0.02	34.32
2014/2/5	21:34:40	0.87	158.77
2014/2/5	21:39:40	0.46	182.17
2014/2/5	21:44:40	0.20	171.25
2014/2/5	21:49:40	0.05	62.06
2014/2/5	21:54:40	0.14	355.99
2014/2/5	21:59:40	0.02	210.81
2014/2/5	22:04:40	0.47	156.43
2014/2/5	22:09:40	0.38	171.36
2014/2/5	22:14:40	1.76	115.21
2014/2/5	22:19:40	0.14	48.13
2014/2/5	22:24:40	0.14	142.40
2014/2/5	22:29:40	0.02	128.25

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Date	Time (24hrs)	Wind Speed (m/s)	Wind Direction (degree)
2014/2/5	22:34:40	1.35	154.21
2014/2/5	22:39:40	0.03	81.89
2014/2/5	22:44:40	0.87	63.84
2014/2/5	22:49:40	0.03	233.09
2014/2/5	22:54:40	0.34	189.19
2014/2/5	22:59:40	0.02	33.76
2014/2/5	23:04:40	0.73	120.67
2014/2/5	23:09:40	0.02	88.25
2014/2/5	23:14:40	0.14	54.48
2014/2/5	23:19:40	2.45	55.71
2014/2/5	23:24:40	0.95	78.11
2014/2/5	23:29:40	0.20	151.31
2014/2/5	23:34:40	1.45	111.09
2014/2/5	23:39:40	0.14	341.06
2014/2/5	23:44:40	0.02	210.81
2014/2/5	23:49:40	0.02	51.25
2014/2/5	23:54:40	0.02	144.40
2014/2/5	23:59:40	0.02	229.30
2014/2/8	00:04:40	0.02	49.92
2014/2/8	00:09:40	0.02	256.38
2014/2/8	00:14:40	0.02	291.70
2014/2/8	00:19:40	0.17	337.27
2014/2/8	00:24:40	0.02	224.07
2014/2/8	00:29:40	0.32	28.97
2014/2/8	00:34:40	0.24	288.47
2014/2/8	00:39:40	0.08	215.82
2014/2/8	00:44:40	0.02	274.21
2014/2/8	00:49:40	0.02	0.22
2014/2/8	00:54:40	0.08	314.76
2014/2/8	00:59:40	0.02	1.56
2014/2/8	01:04:40	0.28	284.23
2014/2/8	01:09:40	0.02	260.84
2014/2/8	01:14:40	0.08	311.87
2014/2/8	01:19:40	0.02	300.95
2014/2/8	01:24:40	0.12	245.01
2014/2/8	01:29:40	0.02	220.61
2014/2/8	01:34:40	0.15	161.23
2014/2/8	01:39:40	0.02	237.55
2014/2/8	01:44:40	0.02	316.66
2014/2/8	01:49:40	0.61	1.34
2014/2/8	01:54:40	0.73	24.85
2014/2/8	01:59:40	0.02	39.00
2014/2/8	02:04:40	0.02	234.09
2014/2/8	02:09:40	0.02	286.80
2014/2/8	02:14:40	0.02	190.31
2014/2/8	02:19:40	0.02	339.94

Appendix H Meteorological Data for Impact Monitoring in the reporting period

Date	Time (24hrs)	Wind Speed (m/s)	Wind Direction (degree)
2014/2/8	02:24:40	0.09	40.56
2014/2/8	02:29:40	0.02	46.13
2014/2/8	02:34:40	0.09	323.23
2014/2/8	02:39:40	0.02	344.07
2014/2/8	02:44:40	0.02	6.57
2014/2/8	02:49:40	0.02	192.98
2014/2/8	02:54:40	1.67	216.27
2014/2/8	02:59:40	0.24	172.03
2014/2/8	03:04:40	0.03	260.84
2014/2/8	03:09:40	0.26	284.01
2014/2/8	03:14:40	0.02	266.85
2014/2/8	03:19:40	0.02	296.60
2014/2/8	03:24:40	0.02	355.21
2014/2/8	03:29:40	0.02	303.29
2014/2/8	03:34:40	0.02	320.22
2014/2/8	03:39:40	0.02	338.72
2014/2/8	03:44:40	0.70	230.31
2014/2/8	03:49:40	0.52	184.96
2014/2/8	03:54:40	0.24	235.65
2014/2/8	03:59:40	0.02	301.73
2014/2/8	04:04:40	0.02	249.03
2014/2/8	04:09:40	0.02	1.11
2014/2/8	04:14:40	0.02	318.77
2014/2/8	04:19:40	0.02	242.67
2014/2/8	04:24:40	0.02	270.75
2014/2/8	04:29:40	0.05	274.65
2014/2/8	04:34:40	0.02	227.30
2014/2/8	04:39:40	0.02	204.23
2014/2/8	04:44:40	0.02	247.58
2014/2/8	04:49:40	0.02	275.10
2014/2/8	04:54:40	0.02	305.63
2014/2/8	04:59:40	0.03	263.29
2014/2/8	05:04:40	0.02	298.50
2014/2/8	05:09:40	0.02	249.36
2014/2/8	05:14:40	0.02	285.68
2014/2/8	05:19:40	0.02	284.90
2014/2/8	05:24:40	0.09	352.20
2014/2/8	05:29:40	0.02	3.90
2014/2/8	05:34:40	0.02	353.76
2014/2/8	05:39:40	0.02	237.55
2014/2/8	05:44:40	0.02	245.68
2014/2/8	05:49:40	0.06	291.59
2014/2/8	05:54:40	0.02	246.13
2014/2/8	05:59:40	0.02	237.55
2014/2/8	06:04:40	0.02	243.90
2014/2/8	06:09:40	0.03	289.81

Appendix H Meteorological Data for Impact Monitoring in the reporting period

Date	Time (24hrs)	Wind Speed (m/s)	Wind Direction (degree)
2014/2/8	06:14:40	0.02	240.00
2014/2/8	06:19:40	0.02	261.06
2014/2/8	06:24:40	0.02	235.88
2014/2/8	06:29:40	0.02	201.34
2014/2/8	06:34:40	0.02	311.20
2014/2/8	06:39:40	0.02	75.43
2014/2/8	06:44:40	0.02	8.36
2014/2/8	06:49:40	0.09	240.00
2014/2/8	06:54:40	0.02	348.08
2014/2/8	06:59:40	0.02	248.13
2014/2/8	07:04:40	0.17	358.44
2014/2/8	07:09:40	0.02	13.04
2014/2/8	07:14:40	0.32	0.00
2014/2/8	07:19:40	0.02	43.34
2014/2/8	07:24:40	0.02	84.12
2014/2/8	07:29:40	0.02	345.52
2014/2/8	07:34:40	0.02	282.45
2014/2/8	07:39:40	0.02	274.32
2014/2/8	07:44:40	0.02	249.69
2014/2/8	07:49:40	0.02	70.08
2014/2/8	07:54:40	0.03	14.15
2014/2/8	07:59:40	0.02	58.38
2014/2/8	08:04:40	0.02	110.75
2014/2/8	08:09:40	0.02	110.75
2014/2/8	08:14:40	0.02	110.75
2014/2/8	08:19:40	0.02	160.78
2014/2/8	08:24:40	0.02	328.58
2014/2/8	08:29:40	0.02	270.08
2014/2/8	08:34:40	0.75	355.77
2014/2/8	08:39:40	0.75	17.83
2014/2/8	08:44:40	0.26	-46.69
2014/2/8	08:49:40	0.02	246.13
2014/2/8	08:54:40	0.02	255.38
2014/2/8	08:59:40	0.02	242.90
2014/2/8	09:04:40	0.02	278.11
2014/2/8	09:09:40	0.02	95.15
2014/2/8	09:14:40	0.02	95.15
2014/2/8	09:19:40	0.02	224.29
2014/2/8	09:24:40	0.02	352.98
2014/2/8	09:29:40	0.05	90.92
2014/2/8	09:34:40	0.20	33.43
2014/2/8	09:39:40	0.02	350.86
2014/2/8	09:44:40	0.02	350.86
2014/2/8	09:49:40	0.02	278.33
2014/2/8	09:54:40	0.02	278.33
2014/2/8	09:59:40	0.02	278.33

Appendix H Meteorological Data for Impact Monitoring in the reporting period

Date	Time (24hrs)	Wind Speed (m/s)	Wind Direction (degree)
2014/2/8	10:04:40	0.02	322.34
2014/2/8	10:09:40	0.02	23.51
2014/2/8	10:14:40	0.02	27.63
2014/2/8	10:19:40	0.02	33.98
2014/2/8	10:24:40	0.02	74.09
2014/2/8	10:29:40	0.02	20.39
2014/2/8	10:34:40	0.02	23.73
2014/2/8	10:39:40	0.02	23.84
2014/2/8	10:44:40	0.02	23.84
2014/2/8	10:49:40	0.02	3.68
2014/2/8	10:54:40	0.02	-46.80
2014/2/8	10:59:40	0.02	354.65
2014/2/8	11:04:40	0.09	59.50
2014/2/8	11:09:40	0.02	60.06
2014/2/8	11:14:40	0.02	60.06
2014/2/8	11:19:40	0.02	63.51
2014/2/8	11:24:40	0.02	346.52
2014/2/8	11:29:40	0.02	56.27
2014/2/8	11:34:40	0.02	56.16
2014/2/8	11:39:40	0.02	56.27
2014/2/8	11:44:40	0.02	232.76
2014/2/8	11:49:40	0.02	243.12
2014/2/8	11:54:40	0.02	270.53
2014/2/8	11:59:40	0.02	358.22
2014/2/8	12:04:40	0.02	358.22
2014/2/8	12:09:40	0.02	358.11
2014/2/8	12:14:40	0.02	59.16
2014/2/8	12:19:40	0.02	34.32
2014/2/8	12:24:40	0.02	0.22
2014/2/8	12:29:40	0.14	54.71
2014/2/8	12:34:40	0.03	13.59
2014/2/8	12:39:40	0.02	55.93
2014/2/8	12:44:40	0.02	26.96
2014/2/8	12:49:40	0.02	26.96
2014/2/8	12:54:40	0.02	-46.57
2014/2/8	12:59:40	0.02	357.66
2014/2/8	13:04:40	0.02	357.77
2014/2/8	13:09:40	0.02	357.66
2014/2/8	13:14:40	0.02	342.17
2014/2/8	13:19:40	0.02	-46.57
2014/2/8	13:24:40	0.02	-46.46
2014/2/8	13:29:40	0.02	66.63
2014/2/8	13:34:40	0.02	66.63
2014/2/8	13:39:40	0.02	66.63
2014/2/8	13:44:40	0.02	66.63
2014/2/8	13:49:40	0.02	66.63

Appendix H Meteorological Data for Impact Monitoring in the reporting period

Date	Time (24hrs)	Wind Speed (m/s)	Wind Direction (degree)
2014/2/8	13:54:40	0.02	66.85
2014/2/8	13:59:40	0.02	66.74
2014/2/8	14:04:40	0.02	66.74
2014/2/8	14:09:40	0.02	66.74
2014/2/8	14:14:40	0.02	66.74
2014/2/8	14:19:40	0.02	5.91
2014/2/8	14:24:40	0.02	354.21
2014/2/8	14:29:40	0.02	223.40
2014/2/8	14:34:40	0.02	351.98
2014/2/8	14:39:40	0.02	335.71
2014/2/8	14:44:40	0.02	332.03
2014/2/8	14:49:40	0.02	220.95
2014/2/8	14:54:40	0.02	210.03
2014/2/8	14:59:40	0.02	0.22
2014/2/8	15:04:40	0.02	14.15
2014/2/8	15:09:40	0.02	10.47
2014/2/8	15:14:40	0.02	9.47
2014/2/8	15:19:40	0.02	285.79
2014/2/8	15:24:40	0.02	338.50
2014/2/8	15:29:40	0.02	350.86
2014/2/8	15:34:40	0.02	311.53
2014/2/8	15:39:40	0.02	230.08
2014/2/8	15:44:40	0.02	245.68
2014/2/8	15:49:40	0.02	232.31
2014/2/8	15:54:40	0.02	265.85
2014/2/8	15:59:40	0.02	248.13
2014/2/8	16:04:40	0.02	265.85
2014/2/8	16:09:40	0.02	276.10
2014/2/8	16:14:40	0.02	279.00
2014/2/8	16:19:40	0.02	326.69
2014/2/8	16:24:40	0.02	317.66
2014/2/8	16:29:40	0.02	303.51
2014/2/8	16:34:40	0.02	303.51
2014/2/8	16:39:40	0.02	303.51
2014/2/8	16:44:40	0.02	303.62
2014/2/8	16:49:40	0.02	303.51
2014/2/8	16:54:40	0.02	303.51
2014/2/8	16:59:40	0.02	303.51
2014/2/8	17:04:40	0.02	85.57
2014/2/8	17:09:40	0.02	62.06
2014/2/8	17:14:40	0.02	62.06
2014/2/8	17:19:40	0.02	62.06
2014/2/8	17:24:40	0.02	62.06
2014/2/8	17:29:40	0.02	62.06
2014/2/8	17:34:40	0.02	62.06
2014/2/8	17:39:40	0.02	62.06

Appendix H Meteorological Data for Impact Monitoring in the reporting period

Date	Time (24hrs)	Wind Speed (m/s)	Wind Direction (degree)
2014/2/8	17:44:40	0.02	62.06
2014/2/8	17:49:40	0.02	62.06
2014/2/8	17:54:40	0.02	62.06
2014/2/8	17:59:40	0.02	62.06
2014/2/8	18:04:40	0.02	62.06
2014/2/8	18:09:40	0.02	62.40
2014/2/8	18:14:40	0.02	62.40
2014/2/8	18:19:40	0.02	62.40
2014/2/8	18:24:40	0.02	62.51
2014/2/8	18:29:40	0.02	62.51
2014/2/8	18:34:40	0.05	94.93
2014/2/8	18:39:40	0.02	67.08
2014/2/8	18:44:40	0.02	66.96
2014/2/8	18:49:40	0.02	154.43
2014/2/8	18:54:40	0.02	6.02
2014/2/8	18:59:40	0.02	57.94
2014/2/8	19:04:40	0.20	64.07
2014/2/8	19:09:40	0.02	89.47
2014/2/8	19:14:40	0.02	84.12
2014/2/8	19:19:40	0.03	76.88
2014/2/8	19:24:40	0.02	79.55
2014/2/8	19:29:40	0.02	84.57
2014/2/8	19:34:40	0.02	136.71
2014/2/8	19:39:40	1.41	55.26
2014/2/8	19:44:40	0.60	199.89
2014/2/8	19:49:40	0.02	99.28
2014/2/8	19:54:40	0.37	259.50
2014/2/8	19:59:40	0.09	77.66
2014/2/8	20:04:40	0.20	164.79
2014/2/8	20:09:40	0.02	52.37
2014/2/8	20:14:40	1.21	172.14
2014/2/8	20:19:40	0.38	121.00
2014/2/8	20:24:40	0.95	142.62
2014/2/8	20:29:40	0.02	147.63
2014/2/8	20:34:40	0.37	103.84
2014/2/8	20:39:40	0.29	216.49
2014/2/8	20:44:40	0.02	126.57
2014/2/8	20:49:40	0.02	94.48
2014/2/8	20:54:40	0.67	86.24
2014/2/8	20:59:40	1.06	164.23
2014/2/8	21:04:40	1.51	145.07
2014/2/8	21:09:40	0.02	91.25
2014/2/8	21:14:40	0.05	161.89
2014/2/8	21:19:40	0.09	124.79
2014/2/8	21:24:40	0.11	60.06
2014/2/8	21:29:40	0.02	120.00

Appendix H Meteorological Data for Impact Monitoring in the reporting period

Date	Time (24hrs)	Wind Speed (m/s)	Wind Direction (degree)
2014/2/8	21:34:40	0.23	102.28
2014/2/8	21:39:40	0.03	118.44
2014/2/8	21:44:40	0.70	77.99
2014/2/8	21:49:40	0.58	155.54
2014/2/8	21:54:40	0.03	72.87
2014/2/8	21:59:40	0.02	147.52
2014/2/8	22:04:40	0.02	97.83
2014/2/8	22:09:40	0.34	24.29
2014/2/8	22:14:40	0.14	92.48
2014/2/8	22:19:40	1.10	142.40
2014/2/8	22:24:40	1.38	34.65
2014/2/8	22:29:40	2.00	130.47
2014/2/8	22:34:40	1.12	76.21
2014/2/8	22:39:40	2.17	145.07
2014/2/8	22:44:40	2.29	136.71
2014/2/8	22:49:40	1.48	93.93
2014/2/8	22:54:40	1.25	175.71
2014/2/8	22:59:40	4.73	69.75
2014/2/8	23:04:40	0.64	90.03
2014/2/8	23:09:40	0.38	342.51
2014/2/8	23:14:40	0.17	274.09
2014/2/8	23:19:40	0.47	166.35
2014/2/8	23:24:40	0.26	87.02
2014/2/8	23:29:40	0.70	158.22
2014/2/8	23:34:40	0.05	167.35
2014/2/8	23:39:40	1.36	62.95
2014/2/8	23:44:40	3.20	61.50
2014/2/8	23:49:40	2.54	84.01
2014/2/8	23:54:40	2.40	64.85
2014/2/8	23:59:40	0.21	77.77
2014/2/12	00:04:40	0.02	267.86
2014/2/12	00:09:40	0.02	267.86
2014/2/12	00:14:40	0.02	254.26
2014/2/12	00:19:40	0.02	275.99
2014/2/12	00:24:40	0.02	301.95
2014/2/12	00:29:40	0.02	299.94
2014/2/12	00:34:40	0.02	259.28
2014/2/12	00:39:40	0.02	251.81
2014/2/12	00:44:40	0.02	251.70
2014/2/12	00:49:40	0.03	40.00
2014/2/12	00:54:40	0.29	18.72
2014/2/12	00:59:40	0.02	325.68
2014/2/12	01:04:40	0.02	299.72
2014/2/12	01:09:40	0.08	336.82
2014/2/12	01:14:40	0.34	356.99
2014/2/12	01:19:40	0.02	238.89

Appendix H Meteorological Data for Impact Monitoring in the reporting period

Date	Time (24hrs)	Wind Speed (m/s)	Wind Direction (degree)
2014/2/12	01:24:40	0.02	228.64
2014/2/12	01:29:40	0.26	33.87
2014/2/12	01:34:40	0.02	344.18
2014/2/12	01:39:40	0.02	264.18
2014/2/12	01:44:40	0.02	261.73
2014/2/12	01:49:40	0.02	272.20
2014/2/12	01:54:40	0.02	-45.35
2014/2/12	01:59:40	0.02	-45.35
2014/2/12	02:04:40	0.02	16.60
2014/2/12	02:09:40	0.02	275.32
2014/2/12	02:14:40	0.83	72.31
2014/2/12	02:19:40	0.02	14.15
2014/2/12	02:24:40	0.02	237.88
2014/2/12	02:29:40	0.69	359.00
2014/2/12	02:34:40	0.02	288.80
2014/2/12	02:39:40	0.02	292.26
2014/2/12	02:44:40	0.02	236.88
2014/2/12	02:49:40	0.02	-45.35
2014/2/12	02:54:40	0.02	27.86
2014/2/12	02:59:40	0.02	-45.35
2014/2/12	03:04:40	0.02	337.05
2014/2/12	03:09:40	0.02	291.70
2014/2/12	03:14:40	1.02	68.86
2014/2/12	03:19:40	0.02	226.41
2014/2/12	03:24:40	0.02	67.30
2014/2/12	03:29:40	0.02	316.43
2014/2/12	03:34:40	0.02	356.32
2014/2/12	03:39:40	0.02	88.36
2014/2/12	03:44:40	0.02	269.30
2014/2/12	03:49:40	0.02	236.21
2014/2/12	03:54:40	0.96	357.55
2014/2/12	03:59:40	0.14	-45.24
2014/2/12	04:04:40	0.31	32.20
2014/2/12	04:09:40	0.02	355.10
2014/2/12	04:14:40	0.02	334.15
2014/2/12	04:19:40	0.02	2.23
2014/2/12	04:24:40	1.54	74.09
2014/2/12	04:29:40	0.02	30.64
2014/2/12	04:34:40	0.67	30.64
2014/2/12	04:39:40	0.29	76.21
2014/2/12	04:44:40	0.02	4.35
2014/2/12	04:49:40	0.02	17.16
2014/2/12	04:54:40	0.02	27.41
2014/2/12	04:59:40	0.08	3.57
2014/2/12	05:04:40	0.02	121.00
2014/2/12	05:09:40	0.02	152.20

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Date	Time (24hrs)	Wind Speed (m/s)	Wind Direction (degree)
2014/2/12	05:14:40	0.02	122.45
2014/2/12	05:19:40	0.02	119.33
2014/2/12	05:24:40	0.08	38.22
2014/2/12	05:29:40	0.02	63.29
2014/2/12	05:34:40	0.02	134.60
2014/2/12	05:39:40	0.02	173.04
2014/2/12	05:44:40	0.02	250.92
2014/2/12	05:49:40	0.02	250.92
2014/2/12	05:54:40	0.02	266.74
2014/2/12	05:59:40	0.02	314.21
2014/2/12	06:04:40	0.02	346.18
2014/2/12	06:09:40	0.02	57.16
2014/2/12	06:14:40	0.63	335.15
2014/2/12	06:19:40	0.28	351.09
2014/2/12	06:24:40	0.02	328.69
2014/2/12	06:29:40	0.12	229.53
2014/2/12	06:34:40	0.02	5.68
2014/2/12	06:39:40	0.02	308.97
2014/2/12	06:44:40	0.02	281.56
2014/2/12	06:49:40	0.02	283.12
2014/2/12	06:54:40	0.02	46.35
2014/2/12	06:59:40	0.02	109.42
2014/2/12	07:04:40	0.02	91.14
2014/2/12	07:09:40	0.08	53.59
2014/2/12	07:14:40	0.06	70.97
2014/2/12	07:19:40	0.02	135.38
2014/2/12	07:24:40	0.02	220.72
2014/2/12	07:29:40	0.02	220.72
2014/2/12	07:34:40	0.02	247.80
2014/2/12	07:39:40	0.02	-45.13
2014/2/12	07:44:40	0.02	150.97
2014/2/12	07:49:40	0.02	69.97
2014/2/12	07:54:40	0.38	27.52
2014/2/12	07:59:40	1.38	10.14
2014/2/12	08:04:40	0.02	199.22
2014/2/12	08:09:40	0.02	224.29
2014/2/12	08:14:40	0.02	226.07
2014/2/12	08:19:40	0.02	170.03
2014/2/12	08:24:40	0.02	201.56
2014/2/12	08:29:40	0.02	201.67
2014/2/12	08:34:40	0.02	249.81
2014/2/12	08:39:40	0.02	249.69
2014/2/12	08:44:40	0.02	249.69
2014/2/12	08:49:40	0.02	249.69
2014/2/12	08:54:40	0.02	47.35
2014/2/12	08:59:40	0.02	46.35

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Date	Time (24hrs)	Wind Speed (m/s)	Wind Direction (degree)
2014/2/12	09:04:40	0.02	46.35
2014/2/12	09:09:40	0.02	46.35
2014/2/12	09:14:40	0.02	150.42
2014/2/12	09:19:40	0.02	150.42
2014/2/12	09:24:40	0.02	150.42
2014/2/12	09:29:40	0.02	150.42
2014/2/12	09:34:40	0.02	150.42
2014/2/12	09:39:40	0.02	150.19
2014/2/12	09:44:40	0.02	150.19
2014/2/12	09:49:40	0.02	150.08
2014/2/12	09:54:40	0.02	126.69
2014/2/12	09:59:40	0.02	126.24
2014/2/12	10:04:40	0.02	231.31
2014/2/12	10:09:40	0.02	231.42
2014/2/12	10:14:40	0.15	287.80
2014/2/12	10:19:40	0.02	265.74
2014/2/12	10:24:40	0.02	265.74
2014/2/12	10:29:40	0.02	265.74
2014/2/12	10:34:40	0.02	332.14
2014/2/12	10:39:40	0.02	81.45
2014/2/12	10:44:40	0.02	97.16
2014/2/12	10:49:40	0.02	106.63
2014/2/12	10:54:40	0.02	308.52
2014/2/12	10:59:40	0.02	46.80
2014/2/12	11:04:40	0.02	114.87
2014/2/12	11:09:40	0.02	147.19
2014/2/12	11:14:40	0.02	226.63
2014/2/12	11:19:40	0.02	226.63
2014/2/12	11:24:40	0.02	191.98
2014/2/12	11:29:40	0.02	242.79
2014/2/12	11:34:40	0.02	243.23
2014/2/12	11:39:40	0.02	83.01
2014/2/12	11:44:40	0.02	83.01
2014/2/12	11:49:40	0.02	83.01
2014/2/12	11:54:40	0.02	83.01
2014/2/12	11:59:40	0.02	83.01
2014/2/12	12:04:40	0.02	83.01
2014/2/12	12:09:40	0.02	83.01
2014/2/12	12:14:40	0.02	83.01
2014/2/12	12:19:40	0.02	248.91
2014/2/12	12:24:40	0.02	72.20
2014/2/12	12:29:40	0.02	70.42
2014/2/12	12:34:40	0.02	70.31
2014/2/12	12:39:40	0.02	50.36
2014/2/12	12:44:40	0.02	50.36
2014/2/12	12:49:40	0.02	257.49

Appendix H Meteorological Data for Impact Monitoring in the reporting period

Date	Time (24hrs)	Wind Speed (m/s)	Wind Direction (degree)
2014/2/12	12:54:40	0.02	330.25
2014/2/12	12:59:40	0.02	348.19
2014/2/12	13:04:40	0.02	214.82
2014/2/12	13:09:40	0.02	290.70
2014/2/12	13:14:40	0.12	54.71
2014/2/12	13:19:40	0.02	53.37
2014/2/12	13:24:40	0.02	321.00
2014/2/12	13:29:40	0.02	276.77
2014/2/12	13:34:40	0.02	288.58
2014/2/12	13:39:40	0.02	360.45
2014/2/12	13:44:40	0.20	360.22
2014/2/12	13:49:40	0.02	235.21
2014/2/12	13:54:40	0.02	73.31
2014/2/12	13:59:40	0.06	198.77
2014/2/12	14:04:40	0.03	4.57
2014/2/12	14:09:40	0.02	41.00
2014/2/12	14:14:40	0.81	2.01
2014/2/12	14:19:40	0.02	310.64
2014/2/12	14:24:40	0.02	337.72
2014/2/12	14:29:40	0.02	249.25
2014/2/12	14:34:40	0.02	334.48
2014/2/12	14:39:40	0.02	230.64
2014/2/12	14:44:40	0.02	294.15
2014/2/12	14:49:40	0.02	354.87
2014/2/12	14:54:40	0.02	-45.46
2014/2/12	14:59:40	0.02	294.48
2014/2/12	15:04:40	0.02	294.60
2014/2/12	15:09:40	0.02	263.62
2014/2/12	15:14:40	0.02	325.57
2014/2/12	15:19:40	0.03	2.23
2014/2/12	15:24:40	0.02	264.85
2014/2/12	15:29:40	0.02	328.91
2014/2/12	15:34:40	0.58	232.42
2014/2/12	15:39:40	0.02	241.45
2014/2/12	15:44:40	0.02	3.57
2014/2/12	15:49:40	0.02	283.12
2014/2/12	15:54:40	0.02	289.92
2014/2/12	15:59:40	0.02	280.22
2014/2/12	16:04:40	0.02	355.32
2014/2/12	16:09:40	0.02	339.39
2014/2/12	16:14:40	0.02	268.19
2014/2/12	16:19:40	0.02	256.71
2014/2/12	16:24:40	0.02	252.81
2014/2/12	16:29:40	0.02	183.62
2014/2/12	16:34:40	0.02	23.18
2014/2/12	16:39:40	0.02	356.66

Appendix H Meteorological Data for Impact Monitoring in the reporting period

Date	Time (24hrs)	Wind Speed (m/s)	Wind Direction (degree)
2014/2/12	16:44:40	0.06	289.14
2014/2/12	16:49:40	0.02	262.84
2014/2/12	16:54:40	0.06	358.44
2014/2/12	16:59:40	0.12	290.25
2014/2/12	17:04:40	0.02	336.49
2014/2/12	17:09:40	0.02	6.46
2014/2/12	17:14:40	0.02	341.50
2014/2/12	17:19:40	0.09	4.01
2014/2/12	17:24:40	0.26	36.99
2014/2/12	17:29:40	0.02	76.55
2014/2/12	17:34:40	0.02	40.33
2014/2/12	17:39:40	0.02	237.66
2014/2/12	17:44:40	0.02	261.50
2014/2/12	17:49:40	0.02	355.77
2014/2/12	17:54:40	0.02	201.89
2014/2/12	17:59:40	0.18	288.13
2014/2/12	18:04:40	0.02	303.62
2014/2/12	18:09:40	0.76	355.77
2014/2/12	18:14:40	0.02	24.18
2014/2/12	18:19:40	0.40	351.31
2014/2/12	18:24:40	0.02	289.92
2014/2/12	18:29:40	0.02	354.21
2014/2/12	18:34:40	0.05	244.46
2014/2/12	18:39:40	0.02	234.99
2014/2/12	18:44:40	0.72	40.22
2014/2/12	18:49:40	0.02	1.67
2014/2/12	18:54:40	1.93	32.31
2014/2/12	18:59:40	0.03	351.75
2014/2/12	19:04:40	0.02	222.28
2014/2/12	19:09:40	0.03	270.08
2014/2/12	19:14:40	0.02	230.75
2014/2/12	19:19:40	0.54	335.38
2014/2/12	19:24:40	0.35	66.18
2014/2/12	19:29:40	0.02	215.60
2014/2/12	19:34:40	0.02	245.57
2014/2/12	19:39:40	0.02	16.94
2014/2/12	19:44:40	0.02	247.80
2014/2/12	19:49:40	0.11	266.96
2014/2/12	19:54:40	0.03	263.29
2014/2/12	19:59:40	0.02	259.72
2014/2/12	20:04:40	0.02	360.67
2014/2/12	20:09:40	0.02	115.65
2014/2/12	20:14:40	0.52	49.03
2014/2/12	20:19:40	0.15	67.52
2014/2/12	20:24:40	0.11	79.00
2014/2/12	20:29:40	0.02	60.28

Appendix H Meteorological Data for Impact Monitoring in the reporting period

Date	Time (24hrs)	Wind Speed (m/s)	Wind Direction (degree)
2014/2/12	20:34:40	0.02	66.52
2014/2/12	20:39:40	0.02	72.53
2014/2/12	20:44:40	0.02	247.91
2014/2/12	20:49:40	0.02	212.37
2014/2/12	20:54:40	0.02	10.03
2014/2/12	20:59:40	0.06	45.68
2014/2/12	21:04:40	0.02	6.69
2014/2/12	21:09:40	0.47	5.13
2014/2/12	21:14:40	0.50	-45.35
2014/2/12	21:19:40	0.02	351.42
2014/2/12	21:24:40	0.02	351.31
2014/2/12	21:29:40	0.02	67.63
2014/2/12	21:34:40	0.02	245.24
2014/2/12	21:39:40	0.02	324.90
2014/2/12	21:44:40	0.02	292.70
2014/2/12	21:49:40	0.02	221.62
2014/2/12	21:54:40	0.03	349.08
2014/2/12	21:59:40	0.02	350.19
2014/2/12	22:04:40	0.52	354.87
2014/2/12	22:09:40	0.02	274.87
2014/2/12	22:14:40	0.02	325.57
2014/2/12	22:19:40	0.02	318.89
2014/2/12	22:24:40	0.02	-45.35
2014/2/12	22:29:40	0.02	277.88
2014/2/12	22:34:40	0.02	277.88
2014/2/12	22:39:40	0.02	261.39
2014/2/12	22:44:40	0.02	283.45
2014/2/12	22:49:40	0.02	281.67
2014/2/12	22:54:40	0.02	262.84
2014/2/12	22:59:40	0.02	262.84
2014/2/12	23:04:40	0.02	247.80
2014/2/12	23:09:40	0.03	99.28
2014/2/12	23:14:40	0.02	229.97
2014/2/12	23:19:40	0.14	155.77
2014/2/12	23:24:40	0.02	211.36
2014/2/12	23:29:40	0.18	179.16
2014/2/12	23:34:40	0.02	202.56
2014/2/12	23:39:40	0.02	245.57
2014/2/12	23:44:40	0.02	318.66
2014/2/12	23:49:40	0.24	251.14
2014/2/12	23:54:40	0.72	321.89
2014/2/12	23:59:40	0.03	265.74
2014/2/18	00:02:23	0.02	25.63
2014/2/18	00:07:23	0.02	231.20
2014/2/18	00:12:23	0.02	231.09
2014/2/18	00:17:23	0.02	231.09

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Date	Time (24hrs)	Wind Speed (m/s)	Wind Direction (degree)
2014/2/18	00:22:23	0.02	231.09
2014/2/18	00:27:23	0.02	339.72
2014/2/18	00:32:23	0.02	339.83
2014/2/18	00:37:23	0.02	339.83
2014/2/18	00:42:23	0.02	339.83
2014/2/18	00:47:23	0.02	339.94
2014/2/18	00:52:23	0.02	339.94
2014/2/18	00:57:23	0.02	339.94
2014/2/18	01:02:23	0.02	339.94
2014/2/18	01:07:23	0.02	340.06
2014/2/18	01:12:23	0.02	339.94
2014/2/18	01:17:23	0.02	250.25
2014/2/18	01:22:23	0.02	250.03
2014/2/18	01:27:23	0.02	250.03
2014/2/18	01:32:23	0.23	135.82
2014/2/18	01:37:23	0.02	76.88
2014/2/18	01:42:23	0.02	95.93
2014/2/18	01:47:23	0.02	135.04
2014/2/18	01:52:23	0.02	138.05
2014/2/18	01:57:23	0.02	152.65
2014/2/18	02:02:23	0.02	201.78
2014/2/18	02:07:23	0.03	171.14
2014/2/18	02:12:23	0.47	80.56
2014/2/18	02:17:23	0.02	125.46
2014/2/18	02:22:23	0.02	43.34
2014/2/18	02:27:23	0.02	253.82
2014/2/18	02:32:23	0.02	72.53
2014/2/18	02:37:23	0.02	102.17
2014/2/18	02:42:23	0.02	122.90
2014/2/18	02:47:23	0.02	83.23
2014/2/18	02:52:23	0.02	79.89
2014/2/18	02:57:23	0.02	58.05
2014/2/18	03:02:23	0.03	131.81
2014/2/18	03:07:23	0.08	68.75
2014/2/18	03:12:23	0.02	121.34
2014/2/18	03:17:23	0.02	136.71
2014/2/18	03:22:23	0.02	156.55
2014/2/18	03:27:23	0.02	148.08
2014/2/18	03:32:23	0.02	181.39
2014/2/18	03:37:23	0.02	112.53
2014/2/18	03:42:23	0.03	113.31
2014/2/18	03:47:23	0.02	91.70
2014/2/18	03:52:23	0.02	94.15
2014/2/18	03:57:23	0.02	122.01
2014/2/18	04:02:23	0.02	249.03
2014/2/18	04:07:23	0.02	198.55

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Date	Time (24hrs)	Wind Speed (m/s)	Wind Direction (degree)
2014/2/18	04:12:23	0.02	180.06
2014/2/18	04:17:23	0.02	134.48
2014/2/18	04:22:23	0.06	101.84
2014/2/18	04:27:23	0.03	106.30
2014/2/18	04:32:23	0.03	77.21
2014/2/18	04:37:23	0.06	119.67
2014/2/18	04:42:23	0.03	106.85
2014/2/18	04:47:23	0.14	93.70
2014/2/18	04:52:23	0.02	105.52
2014/2/18	04:57:23	0.02	105.18
2014/2/18	05:02:23	0.02	118.44
2014/2/18	05:07:23	0.15	97.27
2014/2/18	05:12:23	0.12	139.61
2014/2/18	05:17:23	0.02	104.07
2014/2/18	05:22:23	0.02	114.65
2014/2/18	05:27:23	0.02	220.95
2014/2/18	05:32:23	0.24	240.11
2014/2/18	05:37:23	0.02	239.44
2014/2/18	05:42:23	0.02	-0.11
2014/2/18	05:47:23	0.02	270.97
2014/2/18	05:52:23	0.02	284.90
2014/2/18	05:57:23	0.02	182.06
2014/2/18	06:02:23	0.02	354.09
2014/2/18	06:07:23	0.02	351.53
2014/2/18	06:12:23	0.02	181.28
2014/2/18	06:17:23	0.02	122.01
2014/2/18	06:22:23	0.02	109.19
2014/2/18	06:27:23	0.02	127.24
2014/2/18	06:32:23	0.02	114.76
2014/2/18	06:37:23	0.02	211.36
2014/2/18	06:42:23	0.02	174.60
2014/2/18	06:47:23	0.02	111.20
2014/2/18	06:52:23	0.02	111.20
2014/2/18	06:57:23	0.02	111.31
2014/2/18	07:02:23	0.02	64.18
2014/2/18	07:07:23	0.02	63.29
2014/2/18	07:12:23	0.02	347.74
2014/2/18	07:17:23	0.02	249.25
2014/2/18	07:22:23	0.02	2.12
2014/2/18	07:27:23	0.02	269.08
2014/2/18	07:32:23	0.03	256.60
2014/2/18	07:37:23	0.02	276.21
2014/2/18	07:42:23	0.02	285.13
2014/2/18	07:47:23	0.02	294.26
2014/2/18	07:52:23	0.47	274.76
2014/2/18	07:57:23	0.02	236.32

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Date	Time (24hrs)	Wind Speed (m/s)	Wind Direction (degree)
2014/2/18	08:02:23	0.02	47.35
2014/2/18	08:07:23	0.02	343.62
2014/2/18	08:12:23	0.02	62.84
2014/2/18	08:17:23	0.02	62.84
2014/2/18	08:22:23	0.02	14.82
2014/2/18	08:27:23	0.02	0.56
2014/2/18	08:32:23	0.02	0.56
2014/2/18	08:37:23	0.02	20.39
2014/2/18	08:42:23	0.03	21.39
2014/2/18	08:47:23	0.02	7.13
2014/2/18	08:52:23	0.02	7.13
2014/2/18	08:57:23	0.02	7.24
2014/2/18	09:02:23	0.02	7.58
2014/2/18	09:07:23	0.02	7.58
2014/2/18	09:12:23	0.02	7.47
2014/2/18	09:17:23	0.02	7.58
2014/2/18	09:22:23	0.02	7.47
2014/2/18	09:27:23	0.03	281.23
2014/2/18	09:32:23	0.03	285.57
2014/2/18	09:37:23	0.02	28.41
2014/2/18	09:42:23	0.02	316.99
2014/2/18	09:47:23	0.02	23.73
2014/2/18	09:52:23	0.02	346.85
2014/2/18	09:57:23	0.37	246.69
2014/2/18	10:02:23	0.02	243.68
2014/2/18	10:07:23	0.02	291.48
2014/2/18	10:12:23	0.02	214.93
2014/2/18	10:17:23	0.02	332.92
2014/2/18	10:22:23	0.02	43.23
2014/2/18	10:27:23	0.12	253.70
2014/2/18	10:32:23	0.02	42.79
2014/2/18	10:37:23	0.02	6.13
2014/2/18	10:42:23	0.08	266.30
2014/2/18	10:47:23	0.02	251.36
2014/2/18	10:52:23	0.29	2.23
2014/2/18	10:57:23	0.02	340.17
2014/2/18	11:02:23	0.02	290.25
2014/2/18	11:07:23	0.05	286.35
2014/2/18	11:12:23	0.02	313.76
2014/2/18	11:17:23	0.02	296.04
2014/2/18	11:22:23	0.02	208.47
2014/2/18	11:27:23	0.02	306.63
2014/2/18	11:32:23	0.02	354.54
2014/2/18	11:37:23	0.02	272.09
2014/2/18	11:42:23	0.02	337.49
2014/2/18	11:47:23	0.02	259.39

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Date	Time (24hrs)	Wind Speed (m/s)	Wind Direction (degree)
2014/2/18	11:52:23	0.02	211.59
2014/2/18	11:57:23	0.02	302.62
2014/2/18	12:02:23	0.02	22.84
2014/2/18	12:07:23	0.28	47.80
2014/2/18	12:12:23	0.21	350.19
2014/2/18	12:17:23	0.02	5.57
2014/2/18	12:22:23	0.18	55.60
2014/2/18	12:27:23	0.02	2.79
2014/2/18	12:32:23	0.02	205.79
2014/2/18	12:37:23	0.02	346.63
2014/2/18	12:42:23	0.47	239.55
2014/2/18	12:47:23	0.02	6.35
2014/2/18	12:52:23	0.43	42.34
2014/2/18	12:57:23	0.52	254.04
2014/2/18	13:02:23	0.43	341.84
2014/2/18	13:07:23	0.02	263.06
2014/2/18	13:12:23	0.02	235.77
2014/2/18	13:17:23	0.34	243.01
2014/2/18	13:22:23	0.02	275.99
2014/2/18	13:27:23	1.13	281.11
2014/2/18	13:32:23	0.03	23.73
2014/2/18	13:37:23	1.35	250.47
2014/2/18	13:42:23	0.87	313.31
2014/2/18	13:47:23	1.73	250.70
2014/2/18	13:52:23	0.03	267.19
2014/2/18	13:57:23	0.02	292.03
2014/2/18	14:02:23	2.58	13.59
2014/2/18	14:07:23	2.32	341.39
2014/2/18	14:12:23	0.06	24.85
2014/2/18	14:17:23	0.67	283.23
2014/2/18	14:22:23	0.02	3.12
2014/2/18	14:27:23	0.02	216.71
2014/2/18	14:32:23	0.02	52.14
2014/2/18	14:37:23	0.26	268.30
2014/2/18	14:42:23	1.07	356.32
2014/2/18	14:47:23	1.38	269.08
2014/2/18	14:52:23	0.73	60.39
2014/2/18	14:57:23	0.02	356.10
2014/2/18	15:02:23	0.17	344.07
2014/2/18	15:07:23	0.02	261.28
2014/2/18	15:12:23	0.15	355.21
2014/2/18	15:17:23	0.24	27.74
2014/2/18	15:22:23	0.02	259.83
2014/2/18	15:27:23	0.08	264.18
2014/2/18	15:32:23	0.05	202.79
2014/2/18	15:37:23	0.50	217.16

Appendix H Meteorological Data for Impact Monitoring in the reporting period

Date	Time (24hrs)	Wind Speed (m/s)	Wind Direction (degree)
2014/2/18	15:42:23	0.21	299.39
2014/2/18	15:47:23	0.73	247.91
2014/2/18	15:52:23	0.17	333.59
2014/2/18	15:57:23	0.02	316.99
2014/2/18	16:02:23	0.02	244.35
2014/2/18	16:07:23	0.02	310.64
2014/2/18	16:12:23	0.20	324.12
2014/2/18	16:17:23	0.05	269.97
2014/2/18	16:22:23	0.08	207.58
2014/2/18	16:27:23	0.67	232.53
2014/2/18	16:32:23	0.38	234.54
2014/2/18	16:37:23	0.18	270.19
2014/2/18	16:42:23	0.50	50.70
2014/2/18	16:47:23	0.23	226.74
2014/2/18	16:52:23	0.50	322.67
2014/2/18	16:57:23	0.02	44.57
2014/2/18	17:02:23	0.02	211.03
2014/2/18	17:07:23	0.02	169.36
2014/2/18	17:12:23	0.08	151.20
2014/2/18	17:17:23	0.02	289.58
2014/2/18	17:22:23	0.02	333.04
2014/2/18	17:27:23	0.17	306.07
2014/2/18	17:32:23	0.02	5.46
2014/2/18	17:37:23	1.64	4.79
2014/2/18	17:42:23	0.03	241.34
2014/2/18	17:47:23	0.02	247.47
2014/2/18	17:52:23	1.73	271.98
2014/2/18	17:57:23	3.53	3.01
2014/2/18	18:02:23	1.77	341.17
2014/2/18	18:07:23	0.90	246.46
2014/2/18	18:12:23	0.67	177.27
2014/2/18	18:17:23	0.64	253.82
2014/2/18	18:22:23	0.05	352.76
2014/2/18	18:27:23	0.02	277.99
2014/2/18	18:32:23	0.18	334.48
2014/2/18	18:37:23	0.86	251.70
2014/2/18	18:42:23	0.81	243.90
2014/2/18	18:47:23	1.09	319.11
2014/2/18	18:52:23	0.06	244.57
2014/2/18	18:57:23	0.02	319.00
2014/2/18	19:02:23	0.03	245.01
2014/2/18	19:07:23	0.44	251.48
2014/2/18	19:12:23	0.64	218.05
2014/2/18	19:17:23	0.38	272.09
2014/2/18	19:22:23	0.17	252.37
2014/2/18	19:27:23	0.02	18.83

Appendix H Meteorological Data for Impact Monitoring in the reporting period

Date	Time (24hrs)	Wind Speed (m/s)	Wind Direction (degree)
2014/2/18	19:32:23	0.02	17.38
2014/2/18	19:37:23	0.02	280.33
2014/2/18	19:42:23	0.17	304.74
2014/2/18	19:47:23	0.02	241.00
2014/2/18	19:52:23	1.80	222.73
2014/2/18	19:57:23	0.61	11.59
2014/2/18	20:02:23	0.21	190.08
2014/2/18	20:07:23	0.03	283.57
2014/2/18	20:12:23	0.49	305.85
2014/2/18	20:17:23	0.02	246.02
2014/2/18	20:22:23	0.98	7.58
2014/2/18	20:27:23	1.58	244.35
2014/2/18	20:32:23	1.25	358.11
2014/2/18	20:37:23	0.06	143.29
2014/2/18	20:42:23	1.68	307.63
2014/2/18	20:47:23	0.41	291.03
2014/2/18	20:52:23	0.83	8.58
2014/2/18	20:57:23	2.05	279.11
2014/2/18	21:02:23	0.15	26.41
2014/2/18	21:07:23	0.20	354.43
2014/2/18	21:12:23	1.50	357.21
2014/2/18	21:17:23	0.52	269.30
2014/2/18	21:22:23	1.35	332.26
2014/2/18	21:27:23	0.03	8.69
2014/2/18	21:32:23	0.08	28.97
2014/2/18	21:37:23	0.08	315.21
2014/2/18	21:42:23	0.73	310.53
2014/2/18	21:47:23	0.06	145.96
2014/2/18	21:52:23	0.06	251.03
2014/2/18	21:57:23	0.37	255.49
2014/2/18	22:02:23	0.67	218.61
2014/2/18	22:07:23	0.46	353.87
2014/2/18	22:12:23	0.06	35.43
2014/2/18	22:17:23	1.65	359.78
2014/2/18	22:22:23	0.21	327.02
2014/2/18	22:27:23	3.07	266.41
2014/2/18	22:32:23	0.18	230.64
2014/2/18	22:37:23	0.55	300.95
2014/2/18	22:42:23	0.23	250.81
2014/2/18	22:47:23	0.20	223.96
2014/2/18	22:52:23	0.20	290.47
2014/2/18	22:57:23	0.49	282.01
2014/2/18	23:02:23	0.18	289.25
2014/2/18	23:07:23	0.28	223.96
2014/2/18	23:12:23	0.02	354.54
2014/2/18	23:17:23	0.09	75.99

Appendix H Meteorological Data for Impact Monitoring in the reporting period

Date	Time (24hrs)	Wind Speed (m/s)	Wind Direction (degree)
2014/2/18	23:22:23	0.66	211.81
2014/2/18	23:27:23	0.44	247.69
2014/2/18	23:32:23	0.02	263.73
2014/2/18	23:37:23	0.02	81.34
2014/2/18	23:42:23	1.48	348.75
2014/2/18	23:47:23	0.35	248.13
2014/2/18	23:52:23	1.70	237.55
2014/2/18	23:57:23	0.06	320.78
2014/2/24	00:02:23	0.02	109.86
2014/2/24	00:07:23	0.03	82.79
2014/2/24	00:12:23	0.02	202.01
2014/2/24	00:17:23	0.26	120.11
2014/2/24	00:22:23	0.02	262.28
2014/2/24	00:27:23	0.28	143.51
2014/2/24	00:32:23	0.02	152.09
2014/2/24	00:37:23	1.48	152.53
2014/2/24	00:42:23	0.03	356.32
2014/2/24	00:47:23	0.14	9.36
2014/2/24	00:52:23	0.02	186.41
2014/2/24	00:57:23	0.02	125.35
2014/2/24	01:02:23	0.02	252.59
2014/2/24	01:07:23	0.58	36.10
2014/2/24	01:12:23	0.03	60.61
2014/2/24	01:17:23	0.08	192.31
2014/2/24	01:22:23	0.02	221.28
2014/2/24	01:27:23	0.02	328.47
2014/2/24	01:32:23	0.02	116.10
2014/2/24	01:37:23	0.02	139.28
2014/2/24	01:42:23	0.02	116.32
2014/2/24	01:47:23	0.02	83.68
2014/2/24	01:52:23	0.02	159.67
2014/2/24	01:57:23	0.02	159.44
2014/2/24	02:02:23	0.02	38.55
2014/2/24	02:07:23	0.02	243.12
2014/2/24	02:12:23	0.02	78.22
2014/2/24	02:17:23	0.09	135.49
2014/2/24	02:22:23	0.89	123.34
2014/2/24	02:27:23	0.60	166.35
2014/2/24	02:32:23	0.02	229.86
2014/2/24	02:37:23	0.66	40.89
2014/2/24	02:42:23	0.47	132.92
2014/2/24	02:47:23	0.02	174.26
2014/2/24	02:52:23	0.63	257.94
2014/2/24	02:57:23	2.71	75.43
2014/2/24	03:02:23	0.67	41.34
2014/2/24	03:07:23	0.02	63.73

Appendix H Meteorological Data for Impact Monitoring in the reporting period

Date	Time (24hrs)	Wind Speed (m/s)	Wind Direction (degree)
2014/2/24	03:12:23	0.99	158.44
2014/2/24	03:17:23	0.93	128.91
2014/2/24	03:22:23	0.20	111.75
2014/2/24	03:27:23	0.52	210.47
2014/2/24	03:32:23	1.53	156.99
2014/2/24	03:37:23	0.57	158.33
2014/2/24	03:42:23	0.67	124.46
2014/2/24	03:47:23	0.02	257.38
2014/2/24	03:52:23	0.80	176.71
2014/2/24	03:57:23	0.03	138.05
2014/2/24	04:02:23	2.77	215.82
2014/2/24	04:07:23	0.02	134.37
2014/2/24	04:12:23	0.70	190.64
2014/2/24	04:17:23	0.63	166.35
2014/2/24	04:22:23	0.06	125.35
2014/2/24	04:27:23	2.14	136.38
2014/2/24	04:32:23	1.74	161.00
2014/2/24	04:37:23	0.52	295.60
2014/2/24	04:42:23	0.02	157.33
2014/2/24	04:47:23	0.28	178.05
2014/2/24	04:52:23	0.02	221.62
2014/2/24	04:57:23	0.23	106.85
2014/2/24	05:02:23	1.24	226.41
2014/2/24	05:07:23	0.02	136.04
2014/2/24	05:12:23	0.02	5.91
2014/2/24	05:17:23	1.71	170.81
2014/2/24	05:22:23	1.35	67.19
2014/2/24	05:27:23	0.06	179.05
2014/2/24	05:32:23	0.02	198.33
2014/2/24	05:37:23	3.01	237.88
2014/2/24	05:42:23	1.61	162.34
2014/2/24	05:47:23	2.11	201.34
2014/2/24	05:52:23	0.11	227.19
2014/2/24	05:57:23	0.21	201.00
2014/2/24	06:02:23	0.05	239.89
2014/2/24	06:07:23	0.02	36.88
2014/2/24	06:12:23	0.02	318.89
2014/2/24	06:17:23	0.35	47.69
2014/2/24	06:22:23	0.38	264.62
2014/2/24	06:27:23	0.02	125.35
2014/2/24	06:32:23	1.56	122.67
2014/2/24	06:37:23	0.40	178.61
2014/2/24	06:42:23	0.31	108.52
2014/2/24	06:47:23	0.02	179.05
2014/2/24	06:52:23	0.81	268.19
2014/2/24	06:57:23	0.03	95.38

Appendix H Meteorological Data for Impact Monitoring in the reporting period

Date	Time (24hrs)	Wind Speed (m/s)	Wind Direction (degree)
2014/2/24	07:02:23	0.58	79.89
2014/2/24	07:07:23	0.05	168.13
2014/2/24	07:12:23	0.31	92.48
2014/2/24	07:17:23	0.02	28.08
2014/2/24	07:22:23	0.49	32.09
2014/2/24	07:27:23	2.49	250.81
2014/2/24	07:32:23	1.16	157.88
2014/2/24	07:37:23	0.14	124.79
2014/2/24	07:42:23	0.80	150.42
2014/2/24	07:47:23	2.08	223.51
2014/2/24	07:52:23	0.57	149.19
2014/2/24	07:57:23	1.25	71.09
2014/2/24	08:02:23	0.37	274.54
2014/2/24	08:07:23	0.21	95.82
2014/2/24	08:12:23	1.10	136.49
2014/2/24	08:17:23	0.03	348.86
2014/2/24	08:22:23	0.11	274.32
2014/2/24	08:27:23	1.50	228.52
2014/2/24	08:32:23	0.37	178.83
2014/2/24	08:37:23	0.02	206.69
2014/2/24	08:42:23	2.06	181.50
2014/2/24	08:47:23	0.02	180.17
2014/2/24	08:52:23	0.60	146.30
2014/2/24	08:57:23	0.90	154.54
2014/2/24	09:02:23	0.05	204.01
2014/2/24	09:07:23	0.03	295.93
2014/2/24	09:12:23	0.57	240.89
2014/2/24	09:17:23	0.02	155.43
2014/2/24	09:22:23	0.67	138.50
2014/2/24	09:27:23	0.40	236.99
2014/2/24	09:32:23	0.37	59.39
2014/2/24	09:37:23	0.49	62.73
2014/2/24	09:42:23	1.96	132.37
2014/2/24	09:46:42	0.20	90.58
2014/2/24	09:56:42	1.58	83.68
2014/2/24	10:01:42	1.36	109.30
2014/2/24	10:06:42	0.58	78.11
2014/2/24	10:11:42	1.09	5.24
2014/2/24	10:16:42	1.02	158.77
2014/2/24	10:21:42	2.22	28.52
2014/2/24	10:26:42	0.80	121.89
2014/2/24	10:31:42	0.02	59.50
2014/2/24	10:36:42	3.44	68.52
2014/2/24	10:41:42	1.01	102.51
2014/2/24	10:46:42	5.69	77.99
2014/2/24	10:51:42	2.98	66.52

Appendix H Meteorological Data for Impact Monitoring in the reporting period

Date	Time (24hrs)	Wind Speed (m/s)	Wind Direction (degree)
2014/2/24	10:56:42	1.84	60.72
2014/2/24	11:01:42	1.70	97.49
2014/2/24	11:06:42	3.98	110.31
2014/2/24	11:11:42	2.03	116.66
2014/2/24	11:16:42	0.69	80.33
2014/2/24	11:21:42	0.41	102.40
2014/2/24	11:26:42	1.88	30.75
2014/2/24	11:31:42	2.65	41.34
2014/2/24	11:36:42	2.89	91.36
2014/2/24	11:41:42	5.20	54.15
2014/2/24	11:46:42	1.48	59.94
2014/2/24	11:51:42	0.02	26.30
2014/2/24	11:56:42	2.42	85.68
2014/2/24	12:01:42	2.03	127.91
2014/2/24	12:06:42	1.84	43.90
2014/2/24	12:11:42	3.81	79.22
2014/2/24	12:16:42	1.82	71.87
2014/2/24	12:21:42	3.75	154.21
2014/2/24	12:26:42	0.83	56.71
2014/2/24	12:31:42	1.80	67.97
2014/2/24	12:36:42	1.76	10.14
2014/2/24	12:41:42	0.55	135.49
2014/2/24	12:46:42	0.73	129.25
2014/2/24	12:51:42	3.38	64.74
2014/2/24	12:56:42	3.09	73.20
2014/2/24	13:01:42	0.81	128.36
2014/2/24	13:06:42	1.84	115.54
2014/2/24	13:11:42	1.18	101.28
2014/2/24	13:16:42	1.12	88.13
2014/2/24	13:21:42	1.91	133.70
2014/2/24	13:26:42	2.83	215.26
2014/2/24	13:31:42	3.96	130.92
2014/2/24	13:36:42	0.32	221.73
2014/2/24	13:41:42	1.41	264.96
2014/2/24	13:46:42	1.18	242.34
2014/2/24	13:51:42	0.78	100.28
2014/2/24	13:56:42	1.12	92.14
2014/2/24	14:01:42	1.96	118.44
2014/2/24	14:06:42	2.23	71.53
2014/2/24	14:11:42	0.38	8.13
2014/2/24	14:16:42	0.21	57.83
2014/2/24	14:21:42	1.76	126.35
2014/2/24	14:26:42	3.40	138.72
2014/2/24	14:31:42	0.31	151.09
2014/2/24	14:36:42	3.09	60.17
2014/2/24	14:41:42	2.78	326.24

Appendix H Meteorological Data for Impact Monitoring in the reporting period

Date	Time (24hrs)	Wind Speed (m/s)	Wind Direction (degree)
2014/2/24	14:46:42	0.29	73.09
2014/2/24	14:51:42	0.69	33.65
2014/2/24	14:56:42	0.78	159.78
2014/2/24	15:01:42	0.98	55.15
2014/2/24	15:06:42	0.02	294.37
2014/2/24	15:11:42	0.02	43.34
2014/2/24	15:16:42	2.94	124.46
2014/2/24	15:21:42	1.58	107.52
2014/2/24	15:26:42	0.09	120.45
2014/2/24	15:31:42	1.32	72.09
2014/2/24	15:36:42	0.93	123.23
2014/2/24	15:41:42	0.02	133.82
2014/2/24	15:46:42	2.19	168.02
2014/2/24	15:51:42	0.55	175.93
2014/2/24	15:56:42	0.58	182.40
2014/2/24	16:01:42	0.02	99.39
2014/2/24	16:06:42	0.83	127.24
2014/2/24	16:11:42	1.42	193.43
2014/2/24	16:16:42	0.18	107.86
2014/2/24	16:21:42	0.02	103.29
2014/2/24	16:26:42	0.75	179.16
2014/2/24	16:31:42	2.80	158.55
2014/2/24	16:36:42	0.54	119.11
2014/2/24	16:41:42	0.78	131.25
2014/2/24	16:46:42	0.75	91.03
2014/2/24	16:51:42	0.63	41.11
2014/2/24	16:56:42	1.30	109.30
2014/2/24	17:01:42	3.24	56.60
2014/2/24	17:06:42	1.12	113.98
2014/2/24	17:11:42	1.27	55.38
2014/2/24	17:16:42	0.06	65.85
2014/2/24	17:21:42	0.02	129.36
2014/2/24	17:26:42	0.02	99.72
2014/2/24	17:31:42	0.66	60.95
2014/2/24	17:36:42	0.02	85.57
2014/2/24	17:41:42	0.24	80.22
2014/2/24	17:46:42	0.14	61.50
2014/2/24	17:51:42	0.61	65.18
2014/2/24	17:56:42	0.02	162.01
2014/2/24	18:01:42	0.02	79.78
2014/2/24	18:06:42	0.02	179.28
2014/2/24	18:11:42	0.64	75.88
2014/2/24	18:16:42	0.34	93.59
2014/2/24	18:21:42	0.35	53.82
2014/2/24	18:26:42	0.02	67.74
2014/2/24	18:31:42	0.02	206.24

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Date	Time (24hrs)	Wind Speed (m/s)	Wind Direction (degree)
2014/2/24	18:36:42	0.32	149.75
2014/2/24	18:41:42	2.10	144.29
2014/2/24	18:46:42	2.88	148.52
2014/2/24	18:51:42	0.02	50.03
2014/2/24	18:56:42	0.86	160.45
2014/2/24	19:01:42	1.67	158.89
2014/2/24	19:06:42	0.24	48.58
2014/2/24	19:11:42	0.89	212.26
2014/2/24	19:16:42	0.02	294.82
2014/2/24	19:21:42	0.87	153.98
2014/2/24	19:26:42	0.38	24.18
2014/2/24	19:31:42	0.98	145.07
2014/2/24	19:36:42	0.37	172.37
2014/2/24	19:41:42	0.29	194.65
2014/2/24	19:46:42	0.31	37.21
2014/2/24	19:51:42	0.54	166.46
2014/2/24	19:56:42	0.76	153.76
2014/2/24	20:01:42	0.38	15.38
2014/2/24	20:06:42	0.26	114.87
2014/2/24	20:11:42	0.02	81.23
2014/2/24	20:16:42	0.26	74.09
2014/2/24	20:21:42	0.21	117.99
2014/2/24	20:26:42	0.24	132.81
2014/2/24	20:31:42	0.14	257.49
2014/2/24	20:36:42	1.15	76.21
2014/2/24	20:41:42	1.68	161.11
2014/2/24	20:46:42	1.48	145.96
2014/2/24	20:51:42	0.02	138.38
2014/2/24	20:56:42	0.31	118.11
2014/2/24	21:01:42	1.13	169.92
2014/2/24	21:06:42	0.02	93.37
2014/2/24	21:11:42	0.02	80.56
2014/2/24	21:16:42	1.50	235.32
2014/2/24	21:21:42	0.70	79.44
2014/2/24	21:26:42	0.23	185.63
2014/2/24	21:31:42	0.87	153.20
2014/2/24	21:36:42	0.28	191.31
2014/2/24	21:41:42	0.02	147.86
2014/2/24	21:46:42	0.02	138.50
2014/2/24	21:51:42	0.11	76.43
2014/2/24	21:56:42	0.17	5.57
2014/2/24	22:01:42	2.00	176.16
2014/2/24	22:06:42	0.02	202.45
2014/2/24	22:11:42	0.43	50.47
2014/2/24	22:16:42	0.02	209.25
2014/2/24	22:21:42	0.95	102.73

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Date	Time (24hrs)	Wind Speed (m/s)	Wind Direction (degree)
2014/2/24	22:26:42	0.41	143.96
2014/2/24	22:31:42	0.03	86.46
2014/2/24	22:36:42	0.02	340.17
2014/2/24	22:41:42	0.12	55.38
2014/2/24	22:46:42	1.10	229.64
2014/2/24	22:51:42	1.64	144.07
2014/2/24	22:56:42	0.02	246.80
2014/2/24	23:01:42	0.02	92.59
2014/2/24	23:06:42	0.28	140.28
2014/2/24	23:11:42	0.02	343.06
2014/2/24	23:16:42	0.02	40.00
2014/2/24	23:21:42	1.48	177.83
2014/2/24	23:26:42	0.17	63.40
2014/2/24	23:31:42	0.78	152.20
2014/2/24	23:36:42	0.14	57.49
2014/2/24	23:41:42	1.35	120.22
2014/2/24	23:46:42	0.02	164.57
2014/2/24	23:51:42	0.05	167.91
2014/2/24	23:56:42	0.92	105.07
2014/2/28	00:01:42	1.48	212.37
2014/2/28	00:06:42	0.21	74.76
2014/2/28	00:11:42	1.18	264.96
2014/2/28	00:16:42	0.81	54.71
2014/2/28	00:21:42	1.36	256.38
2014/2/28	00:26:42	0.14	157.21
2014/2/28	00:31:42	0.02	25.85
2014/2/28	00:36:42	0.02	5.13
2014/2/28	00:41:42	0.06	114.65
2014/2/28	00:46:42	0.02	284.23
2014/2/28	00:51:42	0.02	75.99
2014/2/28	00:56:42	0.02	132.59
2014/2/28	01:01:42	1.90	187.08
2014/2/28	01:06:42	1.21	107.41
2014/2/28	01:11:42	3.72	71.64
2014/2/28	01:16:42	0.63	72.42
2014/2/28	01:21:42	0.02	290.36
2014/2/28	01:26:42	0.17	99.28
2014/2/28	01:31:42	1.38	111.42
2014/2/28	01:36:42	0.26	120.67
2014/2/28	01:41:42	0.23	155.43
2014/2/28	01:46:42	1.44	197.99
2014/2/28	01:51:42	0.08	72.09
2014/2/28	01:56:42	0.46	140.72
2014/2/28	02:01:42	0.63	56.04
2014/2/28	02:06:42	0.43	110.19
2014/2/28	02:11:42	1.61	155.77

Appendix H Meteorological Data for Impact Monitoring in the reporting period

Date	Time (24hrs)	Wind Speed (m/s)	Wind Direction (degree)
2014/2/28	02:16:42	1.18	237.88
2014/2/28	02:21:42	3.81	139.83
2014/2/28	02:26:42	1.73	104.07
2014/2/28	02:31:42	0.38	111.75
2014/2/28	02:36:42	2.62	186.30
2014/2/28	02:41:42	4.44	126.35
2014/2/28	02:46:42	2.77	77.21
2014/2/28	02:51:42	0.02	120.89
2014/2/28	02:56:42	0.02	204.35
2014/2/28	03:01:42	0.28	106.52
2014/2/28	03:06:42	0.02	47.80
2014/2/28	03:11:42	3.17	123.34
2014/2/28	03:16:42	0.28	89.92
2014/2/28	03:21:42	0.02	211.48
2014/2/28	03:26:42	2.00	136.27
2014/2/28	03:31:42	0.34	83.45
2014/2/28	03:36:42	0.84	118.22
2014/2/28	03:41:42	0.24	43.90
2014/2/28	03:46:42	0.02	31.64
2014/2/28	03:51:42	0.02	186.63
2014/2/28	03:56:42	1.59	78.33
2014/2/28	04:01:42	1.47	62.95
2014/2/28	04:06:42	0.03	146.07
2014/2/28	04:11:42	0.02	114.43
2014/2/28	04:16:42	0.02	186.52
2014/2/28	04:21:42	1.15	224.51
2014/2/28	04:26:42	0.32	46.35
2014/2/28	04:31:42	3.75	161.00
2014/2/28	04:36:42	3.17	102.73
2014/2/28	04:41:42	1.02	180.39
2014/2/28	04:46:42	2.92	71.31
2014/2/28	04:51:42	0.06	354.87
2014/2/28	04:56:42	0.02	157.10
2014/2/28	05:01:42	0.02	213.59
2014/2/28	05:06:42	0.99	99.05
2014/2/28	05:11:42	0.64	227.52
2014/2/28	05:16:42	1.91	182.95
2014/2/28	05:21:42	1.12	168.58
2014/2/28	05:26:42	0.32	249.25
2014/2/28	05:31:42	1.06	39.11
2014/2/28	05:36:42	3.73	159.22
2014/2/28	05:41:42	2.02	168.13
2014/2/28	05:46:42	2.83	145.07
2014/2/28	05:51:42	0.57	139.05
2014/2/28	05:56:42	1.38	55.15
2014/2/28	06:01:42	1.10	99.28

Appendix H Meteorological Data for Impact Monitoring in the reporting period

Date	Time (24hrs)	Wind Speed (m/s)	Wind Direction (degree)
2014/2/28	06:06:42	0.02	14.04
2014/2/28	06:11:42	0.02	75.54
2014/2/28	06:16:42	0.02	112.98
2014/2/28	06:21:42	0.61	141.84
2014/2/28	06:26:42	0.38	78.11
2014/2/28	06:31:42	0.02	31.87
2014/2/28	06:36:42	0.03	206.69
2014/2/28	06:41:42	0.23	147.63
2014/2/28	06:46:42	1.18	147.52
2014/2/28	06:51:42	1.27	173.93
2014/2/28	06:56:42	1.01	134.04
2014/2/28	07:01:42	0.37	171.70
2014/2/28	07:06:42	3.20	165.46
2014/2/28	07:11:42	0.80	197.21
2014/2/28	07:16:42	0.92	210.81
2014/2/28	07:21:42	0.29	237.10
2014/2/28	07:26:42	0.86	155.32
2014/2/28	07:31:42	2.42	166.69
2014/2/28	07:36:42	1.35	66.18
2014/2/28	07:41:42	1.04	127.91
2014/2/28	07:46:42	0.20	104.85
2014/2/28	07:51:42	1.09	221.17
2014/2/28	07:56:42	0.28	353.43
2014/2/28	08:01:42	0.73	59.83
2014/2/28	08:06:42	1.59	30.64
2014/2/28	08:11:42	2.94	102.17
2014/2/28	08:16:42	3.79	138.61
2014/2/28	08:21:42	0.78	108.86
2014/2/28	08:26:42	0.78	193.76
2014/2/28	08:31:42	0.02	347.86
2014/2/28	08:36:42	0.64	103.40
2014/2/28	08:41:42	0.98	44.23
2014/2/28	08:46:42	2.58	155.32
2014/2/28	08:51:42	1.12	145.29
2014/2/28	08:56:42	0.14	166.13
2014/2/28	09:01:42	2.52	120.56
2014/2/28	09:06:42	0.76	233.09
2014/2/28	09:11:42	0.15	192.76
2014/2/28	09:16:42	0.02	55.82
2014/2/28	09:21:42	0.14	96.82
2014/2/28	09:26:42	0.70	7.47
2014/2/28	09:31:42	3.35	185.52
2014/2/28	09:36:42	2.23	141.50
2014/2/28	09:41:42	2.62	153.31
2014/2/28	09:46:42	0.02	173.70
2014/2/28	09:51:42	1.07	60.72

Appendix H Meteorological Data for Impact Monitoring in the reporting period

Date	Time (24hrs)	Wind Speed (m/s)	Wind Direction (degree)
2014/2/28	09:56:42	0.20	113.09
2014/2/28	10:01:42	1.10	75.88
2014/2/28	10:06:42	2.75	104.74
2014/2/28	10:11:42	1.84	70.53
2014/2/28	10:16:42	2.81	66.18
2014/2/28	10:21:42	1.38	59.83
2014/2/28	10:26:42	0.87	92.14
2014/2/28	10:31:42	0.41	28.30
2014/2/28	10:36:42	1.01	88.69
2014/2/28	10:41:42	0.49	43.90
2014/2/28	10:46:42	1.36	155.32
2014/2/28	10:51:42	0.32	162.34
2014/2/28	10:56:42	3.53	114.21
2014/2/28	11:01:42	1.90	179.39
2014/2/28	11:06:42	0.99	66.52
2014/2/28	11:11:42	0.63	88.91
2014/2/28	11:16:42	1.35	129.47
2014/2/28	11:21:42	0.78	134.60
2014/2/28	11:26:42	0.17	69.86
2014/2/28	11:31:42	1.91	34.65
2014/2/28	11:36:42	0.61	75.32
2014/2/28	11:41:42	2.14	89.81
2014/2/28	11:46:42	1.53	44.01
2014/2/28	11:51:42	0.41	68.86
2014/2/28	11:56:42	2.26	96.27
2014/2/28	12:01:42	0.69	83.12
2014/2/28	12:06:42	1.93	64.40
2014/2/28	12:11:42	0.80	254.15
2014/2/28	12:16:42	4.83	153.31
2014/2/28	12:21:42	0.86	212.48
2014/2/28	12:26:42	1.25	42.56
2014/2/28	12:31:42	1.77	130.14
2014/2/28	12:36:42	2.08	159.44
2014/2/28	12:41:42	2.77	103.73
2014/2/28	12:46:42	1.04	117.55
2014/2/28	12:51:42	1.91	137.60
2014/2/28	12:56:42	1.19	161.89
2014/2/28	13:01:42	1.15	103.18
2014/2/28	13:06:42	0.02	344.40
2014/2/28	13:11:42	4.59	119.44
2014/2/28	13:16:42	1.18	85.01
2014/2/28	13:21:42	0.09	40.67
2014/2/28	13:26:42	0.80	245.01
2014/2/28	13:31:42	1.41	62.95
2014/2/28	13:36:42	1.06	176.16
2014/2/28	13:41:42	1.07	80.67

Appendix H Meteorological Data for Impact Monitoring in the reporting period

Date	Time (24hrs)	Wind Speed (m/s)	Wind Direction (degree)
2014/2/28	13:46:42	2.89	88.69
2014/2/28	13:51:42	0.02	126.13
2014/2/28	13:56:42	0.02	199.67
2014/2/28	14:01:42	0.18	129.58
2014/2/28	14:06:42	1.28	126.69
2014/2/28	14:11:42	0.78	3.34
2014/2/28	14:16:42	0.50	163.68
2014/2/28	14:21:42	0.35	176.71
2014/2/28	14:26:42	0.64	101.95
2014/2/28	14:31:42	0.63	90.25
2014/2/28	14:36:42	1.42	201.45
2014/2/28	14:41:42	1.19	75.65
2014/2/28	14:46:42	0.83	141.50
2014/2/28	14:51:42	0.02	185.07
2014/2/28	14:56:42	1.10	114.43
2014/2/28	15:01:42	0.05	41.67
2014/2/28	15:06:42	0.23	127.58
2014/2/28	15:11:42	0.03	83.90
2014/2/28	15:16:42	0.02	234.32
2014/2/28	15:21:42	1.56	57.83
2014/2/28	15:26:42	0.05	110.42
2014/2/28	15:31:42	0.61	106.41
2014/2/28	15:36:42	0.02	29.64
2014/2/28	15:41:42	0.03	85.01
2014/2/28	15:46:42	0.61	134.15
2014/2/28	15:51:42	0.02	41.23
2014/2/28	15:56:42	0.02	62.73
2014/2/28	16:01:42	0.14	106.96
2014/2/28	16:06:42	1.28	157.44
2014/2/28	16:11:42	0.81	42.56
2014/2/28	16:16:42	0.63	116.32
2014/2/28	16:21:42	0.03	99.28
2014/2/28	16:26:42	0.02	121.11
2014/2/28	16:31:42	1.71	78.89
2014/2/28	16:36:42	0.32	234.43
2014/2/28	16:41:42	0.24	66.41
2014/2/28	16:46:42	0.28	116.99
2014/2/28	16:51:42	0.08	198.33
2014/2/28	16:56:42	0.02	130.14
2014/2/28	17:01:42	0.08	28.30
2014/2/28	17:06:42	0.08	109.86
2014/2/28	17:11:42	0.18	160.67
2014/2/28	17:16:42	0.09	156.32
2014/2/28	17:21:42	0.12	101.95
2014/2/28	17:26:42	0.02	161.00
2014/2/28	17:31:42	2.00	86.80

Appendix H Meteorological Data for Impact Monitoring in the reporting period

Date	Time (24hrs)	Wind Speed (m/s)	Wind Direction (degree)
2014/2/28	17:36:42	0.02	143.18
2014/2/28	17:41:42	0.02	162.79
2014/2/28	17:46:42	0.02	120.89
2014/2/28	17:51:42	0.02	200.11
2014/2/28	17:56:42	0.05	154.99
2014/2/28	18:01:42	0.40	61.73
2014/2/28	18:06:42	0.38	86.46
2014/2/28	18:11:42	0.02	128.13
2014/2/28	18:16:42	0.02	99.28
2014/2/28	18:21:42	0.03	216.82
2014/2/28	18:26:42	0.95	51.03
2014/2/28	18:31:42	0.20	99.16
2014/2/28	18:36:42	0.50	127.58
2014/2/28	18:41:42	1.47	161.23
2014/2/28	18:46:42	0.49	70.31
2014/2/28	18:51:42	0.02	270.75
2014/2/28	18:56:42	1.27	80.22
2014/2/28	19:01:42	0.02	109.97
2014/2/28	19:06:42	0.02	121.34
2014/2/28	19:11:42	0.83	145.18
2014/2/28	19:16:42	0.46	82.34
2014/2/28	19:21:42	0.50	206.02
2014/2/28	19:26:42	0.21	212.81
2014/2/28	19:31:42	0.02	49.58
2014/2/28	19:36:42	0.03	126.57
2014/2/28	19:41:42	0.02	220.06
2014/2/28	19:46:42	0.02	44.23
2014/2/28	19:51:42	0.02	70.86
2014/2/28	19:56:42	0.02	107.52
2014/2/28	20:01:42	0.41	125.24
2014/2/28	20:06:42	0.02	97.27
2014/2/28	20:11:42	0.31	191.75
2014/2/28	20:16:42	1.32	134.37
2014/2/28	20:21:42	0.02	20.28
2014/2/28	20:26:42	0.02	102.62
2014/2/28	20:31:42	0.02	36.88
2014/2/28	20:36:42	0.02	77.66
2014/2/28	20:41:42	0.02	62.06
2014/2/28	20:46:42	0.02	101.62
2014/2/28	20:51:42	0.02	258.05
2014/2/28	20:56:42	0.60	100.06
2014/2/28	21:01:42	0.02	46.35
2014/2/28	21:06:42	0.02	153.20
2014/2/28	21:11:42	0.02	125.24
2014/2/28	21:16:42	0.02	65.74
2014/2/28	21:21:42	0.18	130.14

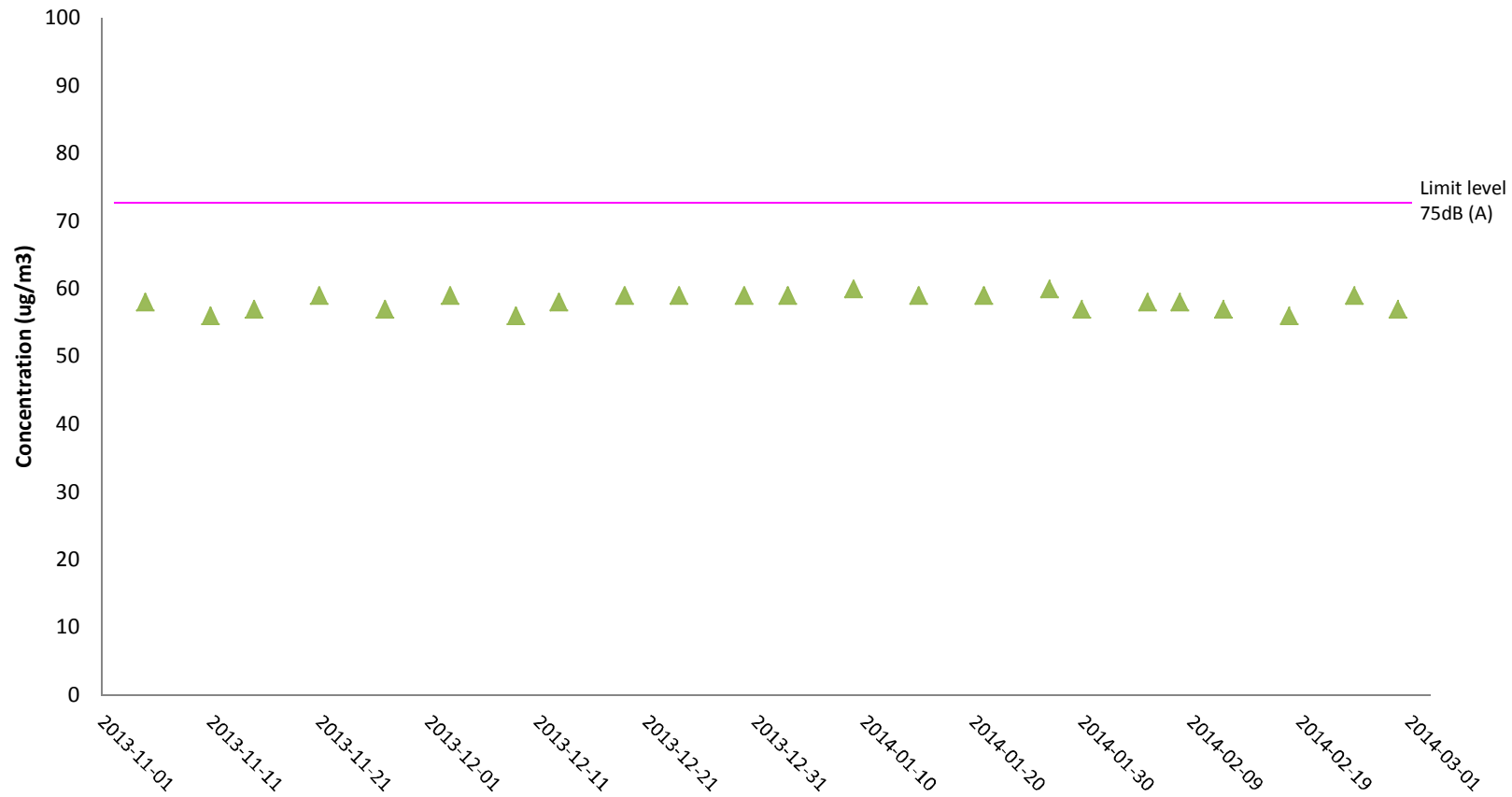
Appendix H Meteorological Data for Impact Monitoring in the reporting period

Date	Time (24hrs)	Wind Speed (m/s)	Wind Direction (degree)
2014/2/28	21:26:42	0.03	58.05
2014/2/28	21:31:42	0.05	230.64
2014/2/28	21:36:42	0.02	22.28
2014/2/28	21:41:42	0.02	210.81
2014/2/28	21:46:42	0.02	96.38
2014/2/28	21:51:42	1.10	108.86
2014/2/28	21:56:42	0.02	177.38
2014/2/28	22:01:42	0.02	96.38
2014/2/28	22:06:42	0.02	198.44
2014/2/28	22:11:42	0.03	155.65
2014/2/28	22:16:42	0.20	167.02
2014/2/28	22:21:42	0.02	134.15
2014/2/28	22:26:42	0.29	186.18
2014/2/28	22:31:42	0.20	127.35
2014/2/28	22:36:42	0.24	194.65
2014/2/28	22:41:42	0.02	220.17
2014/2/28	22:46:42	0.43	127.13
2014/2/28	22:51:42	0.73	228.19
2014/2/28	22:56:42	0.03	84.90
2014/2/28	23:01:42	0.50	179.16
2014/2/28	23:06:42	0.02	54.15
2014/2/28	23:11:42	0.92	191.09
2014/2/28	23:16:42	0.11	202.79
2014/2/28	23:21:42	0.44	147.41
2014/2/28	23:26:42	1.09	153.20
2014/2/28	23:31:42	0.02	127.24
2014/2/28	23:36:42	0.28	100.61
2014/2/28	23:41:42	0.02	78.66
2014/2/28	23:46:42	0.67	122.23
2014/2/28	23:51:42	0.14	156.66
2014/2/28	23:56:42	2.02	127.47

Appendix H

Impact Noise Monitoring Graphical Presentation

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



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

Major construction works undertaken within the reporting period include site office erection, fence relocation for Viaduct A, C & D and land piling at Viaduct B.

Marine works within the reporting period include rockfill platform construction, marine piling platform installation and survey tower erection.

Appendix I

Impact Water Quality Monitoring Graphical Presentation

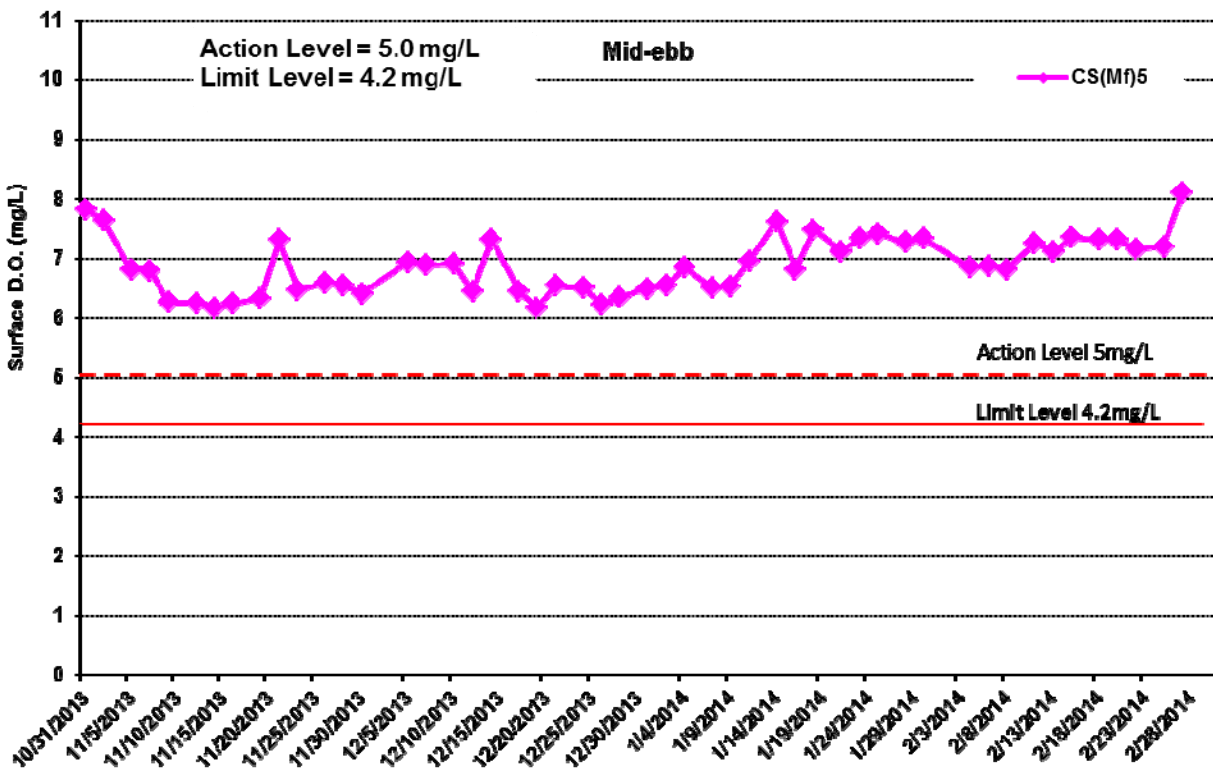
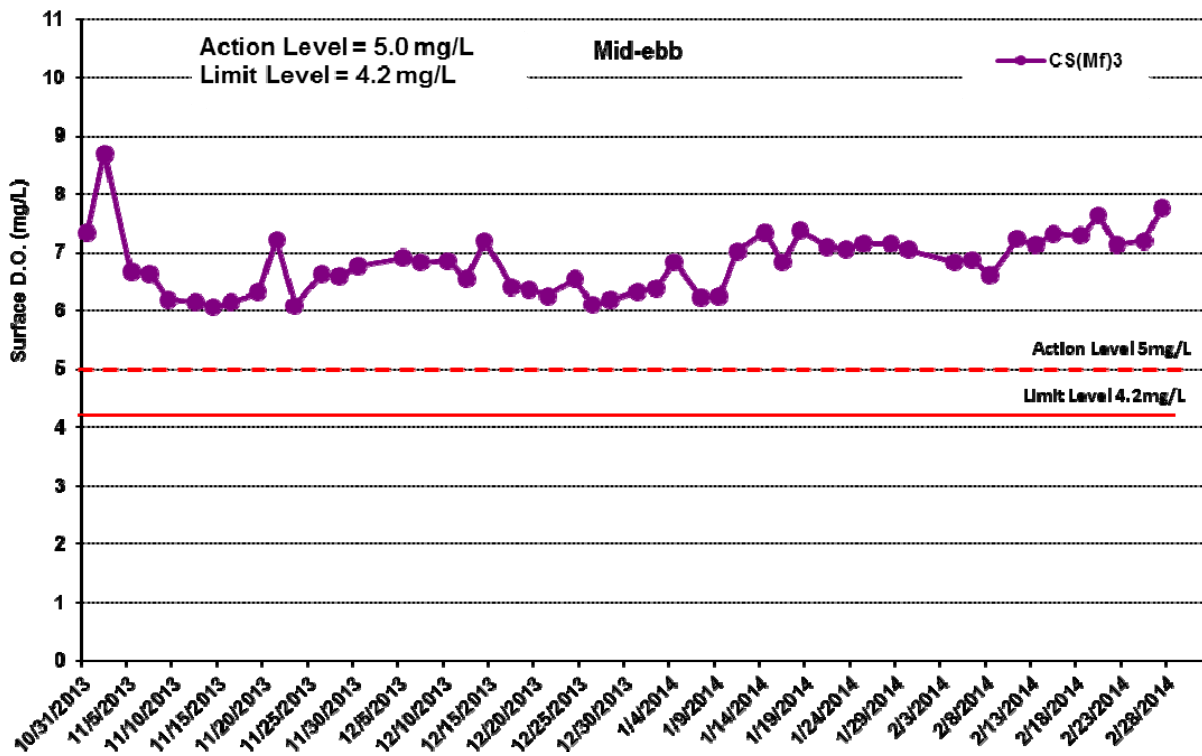


Figure I1 Impact Monitoring – Mean Level of Dissolved Oxygen (mg/L) in surface waters during mid-ebb tide between 31 October 2013 to 28 February 2014 at CS(Mf)3 and CS(Mf)5.

(Weather condition varied between sunny to rainy within the reporting period. Marine works within the reporting period include rockfill platform construction, marine piling platform installation and survey tower erection.)

Environmental
Resources
Management



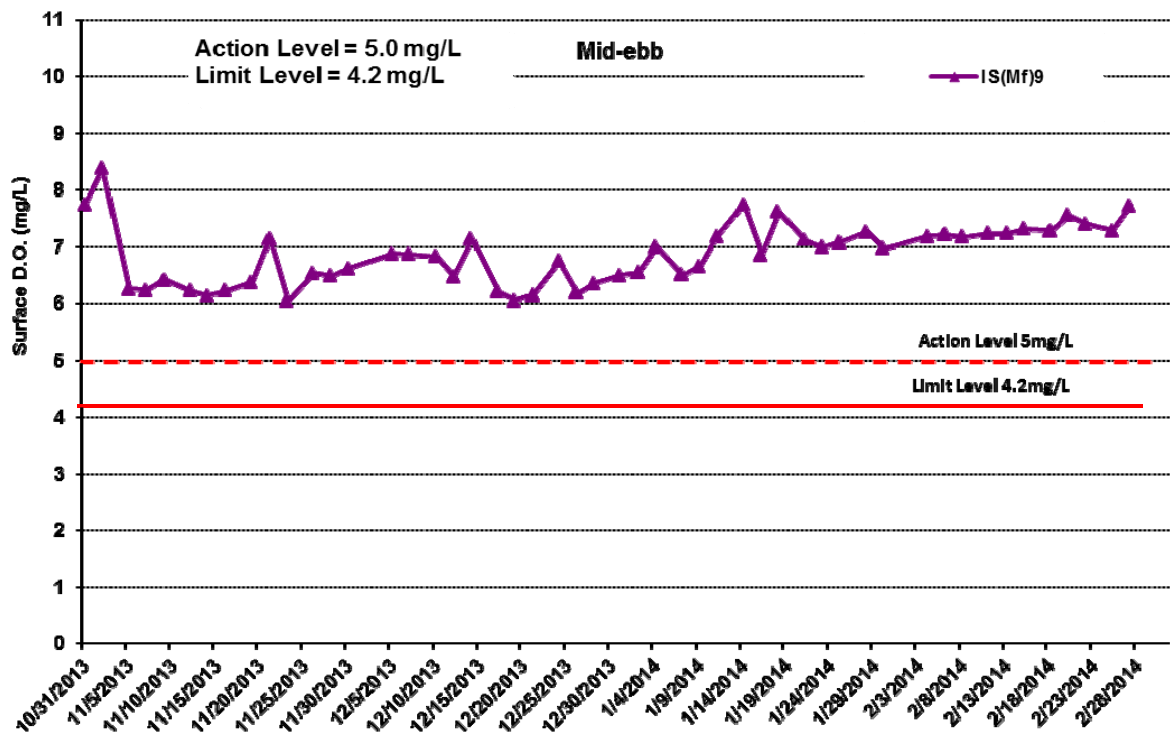
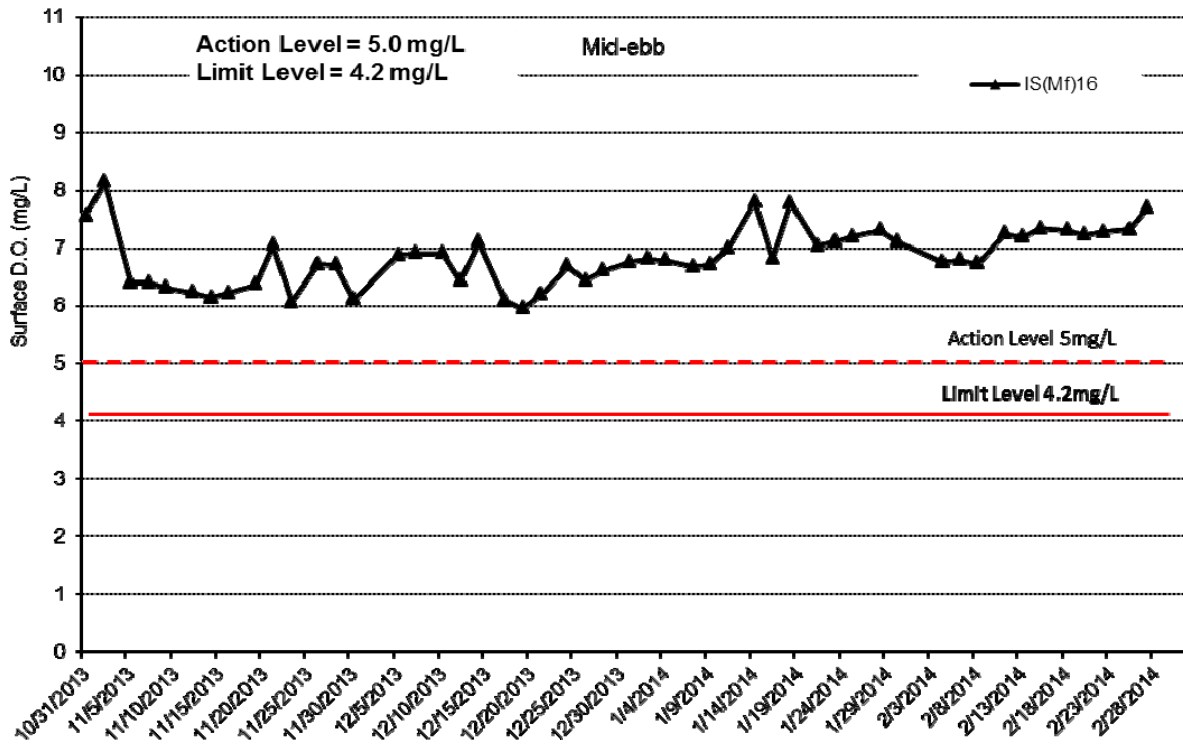


Figure I2 Impact Monitoring – Mean Level of Dissolved Oxygen (mg/L) in surface waters during mid-ebb tide between 31 October 2013 to 28 February 2014 at IS(Mf)16 and IS(Mf)9.

(Weather condition varied between sunny to rainy within the reporting period. Marine works within the reporting period include rockfill platform construction, marine piling platform installation and survey tower erection.)

**Environmental
Resources
Management**



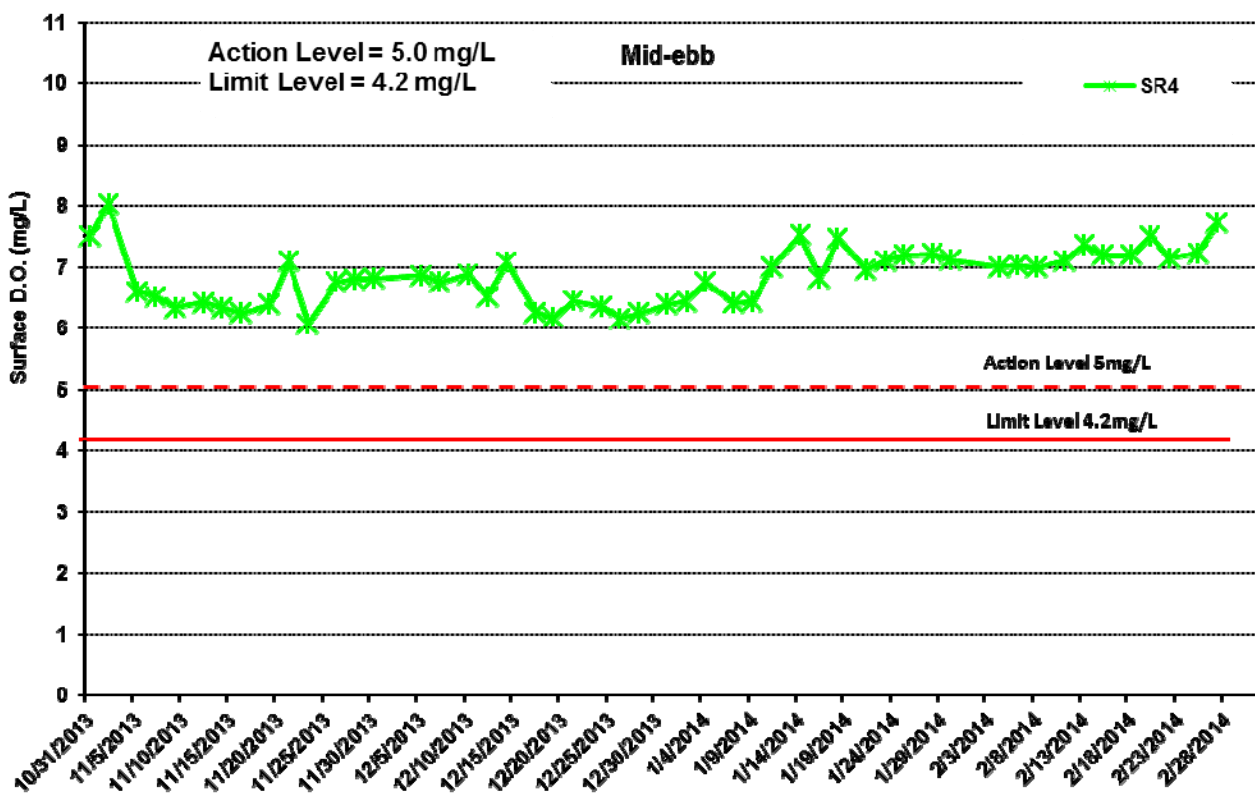
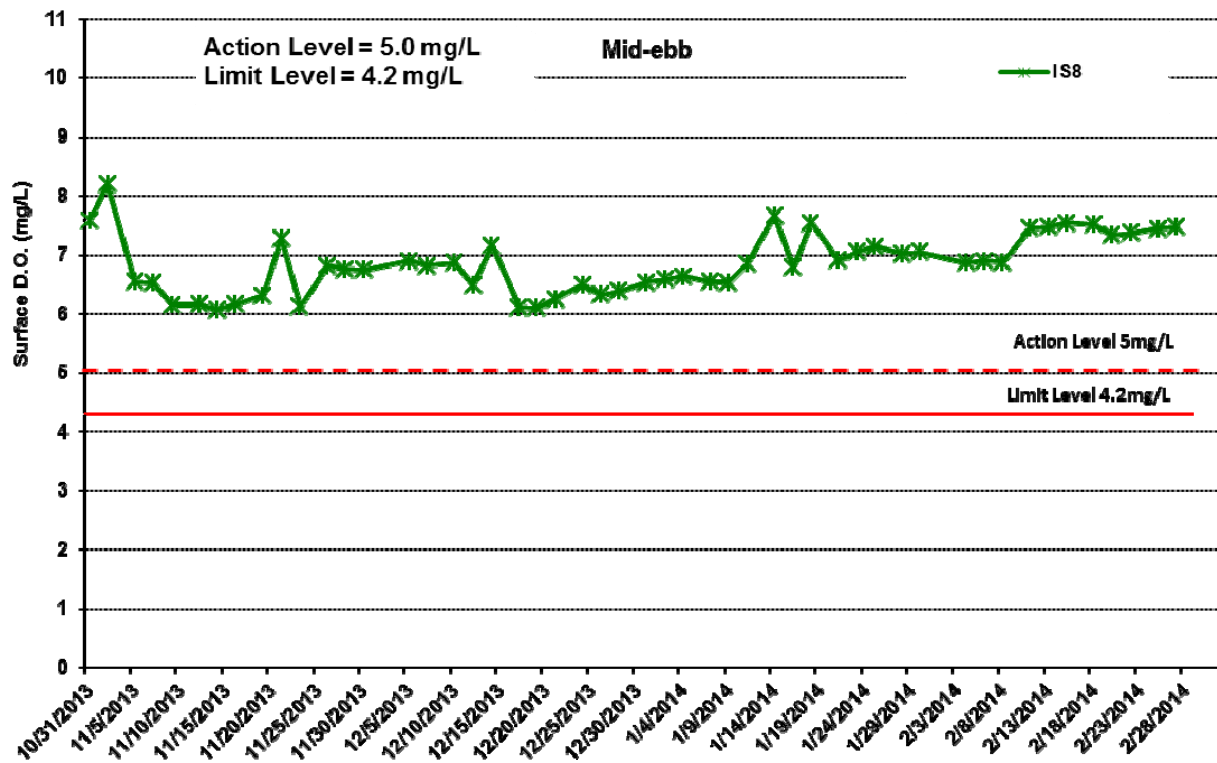


Figure I3 Impact Monitoring - Mean Level of Dissolved Oxygen (mg/L) in surface waters during mid-ebb tide between 31 October 2013 to 28 February 2014 at IS8 and SR4.

(Weather condition varied between sunny to rainy within the reporting period. Marine works within the reporting period include rockfill platform construction, marine piling platform installation and survey tower erection.)

Environmental
Resources
Management



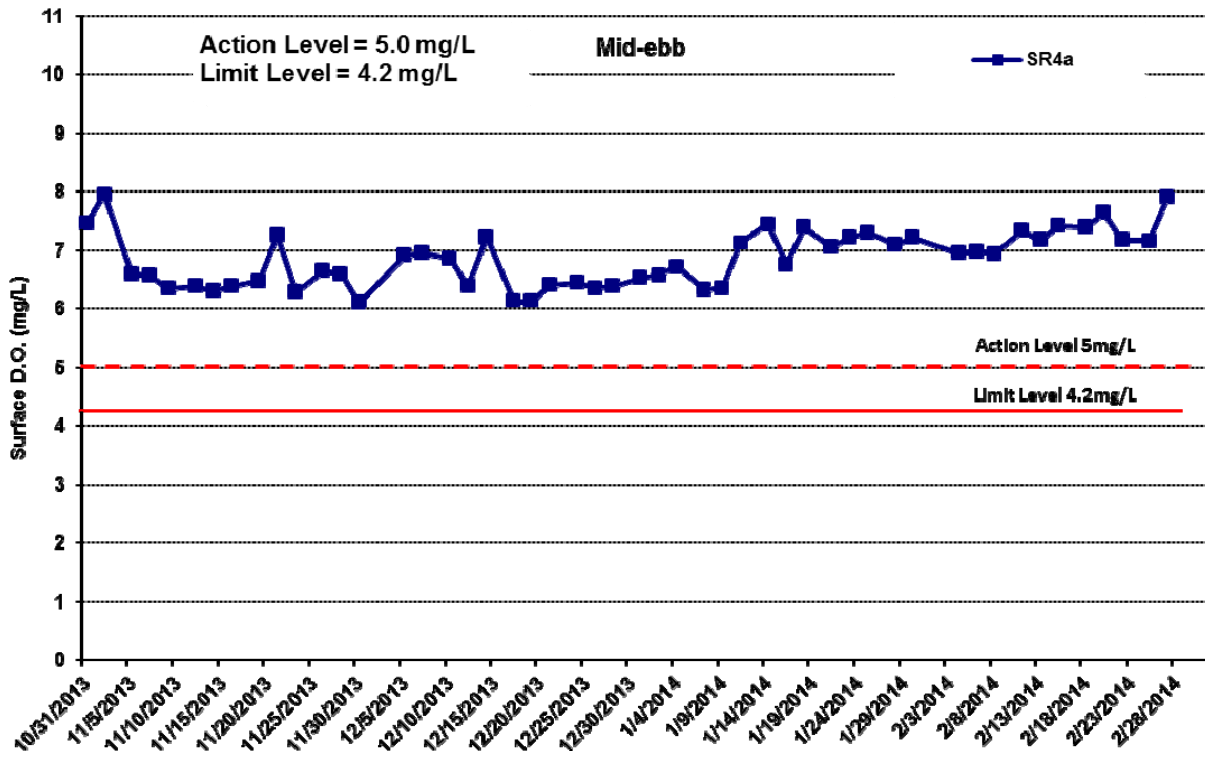


Figure I4 Impact Monitoring - Mean Level of Dissolved Oxygen (mg/L) in surface waters during mid-ebb tide between 31 October 2013 to 28 February 2014 at SR4a.

(Weather condition varied between sunny to rainy within the reporting period. Marine works within the reporting period include rockfill platform construction, marine piling platform installation and survey tower erection.)

**Environmental
Resources
Management**



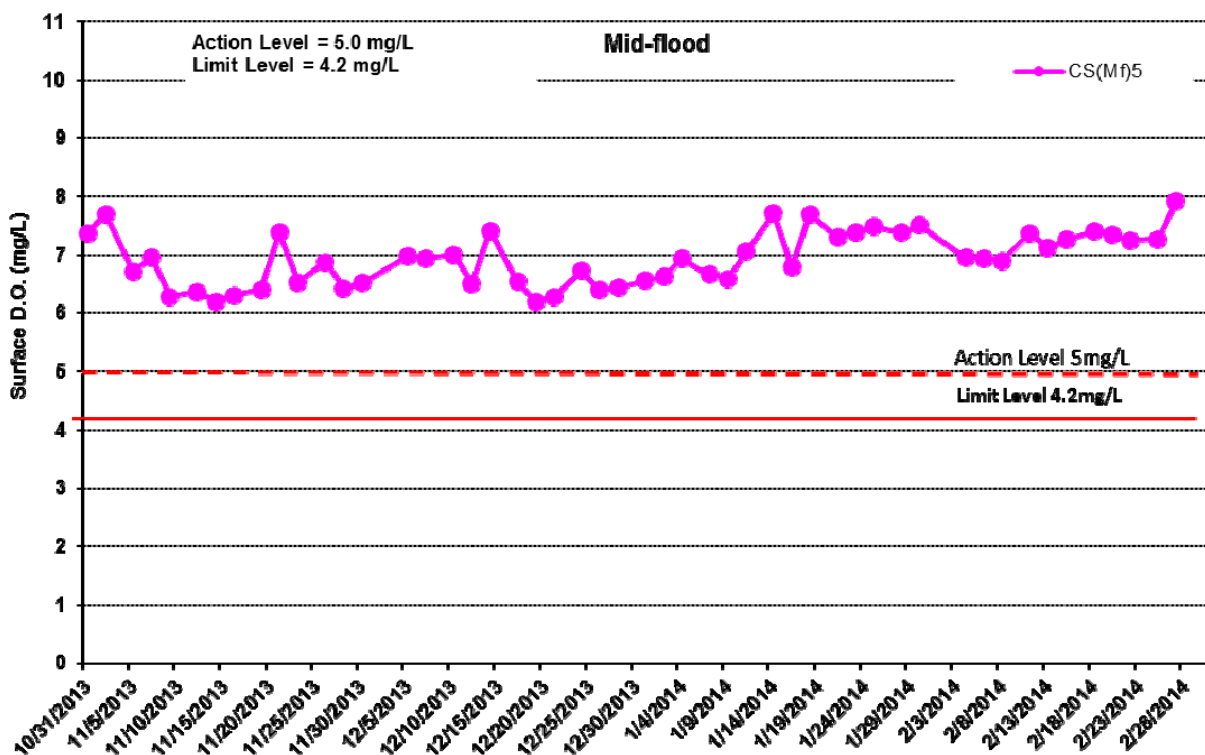
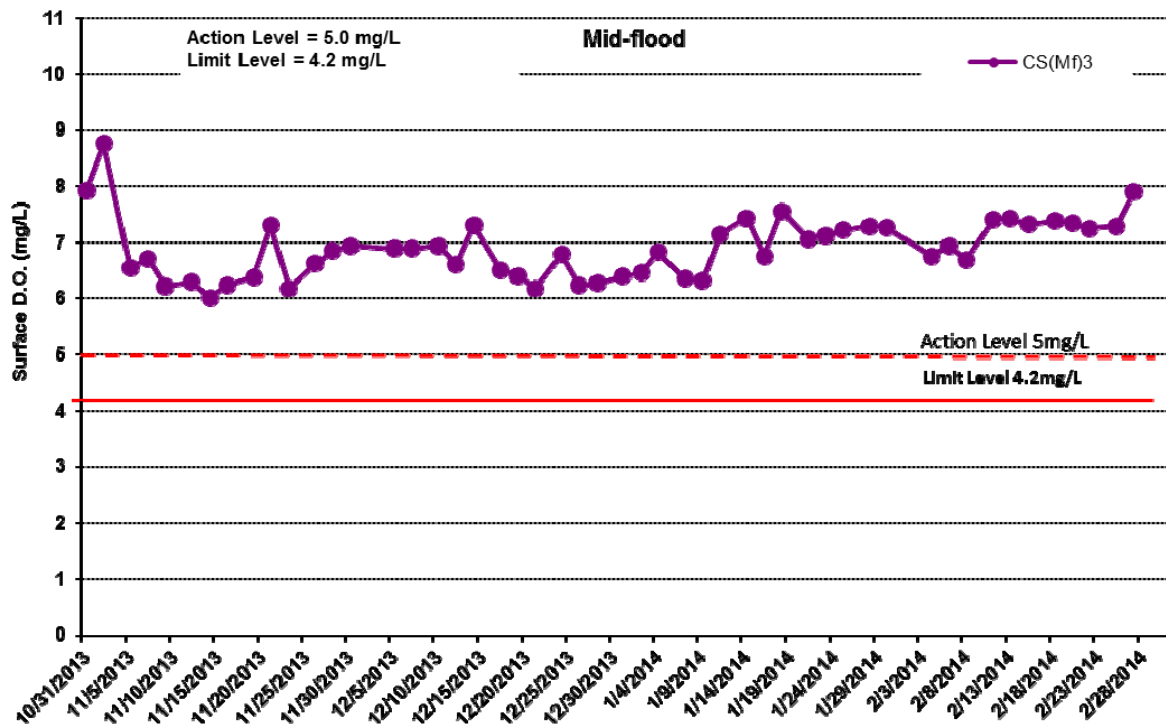


Figure I5 Impact Monitoring - Mean Level of Dissolved Oxygen (mg/L) in surface waters during mid-flood tide between 31 October 2013 to 28 February 2014 at CS(Mf)3 and CS(Mf)5.

(Weather condition varied between sunny to rainy within the reporting period. Marine works within the reporting period include rockfill platform construction, marine piling platform installation and survey tower erection.)

Environmental
Resources
Management



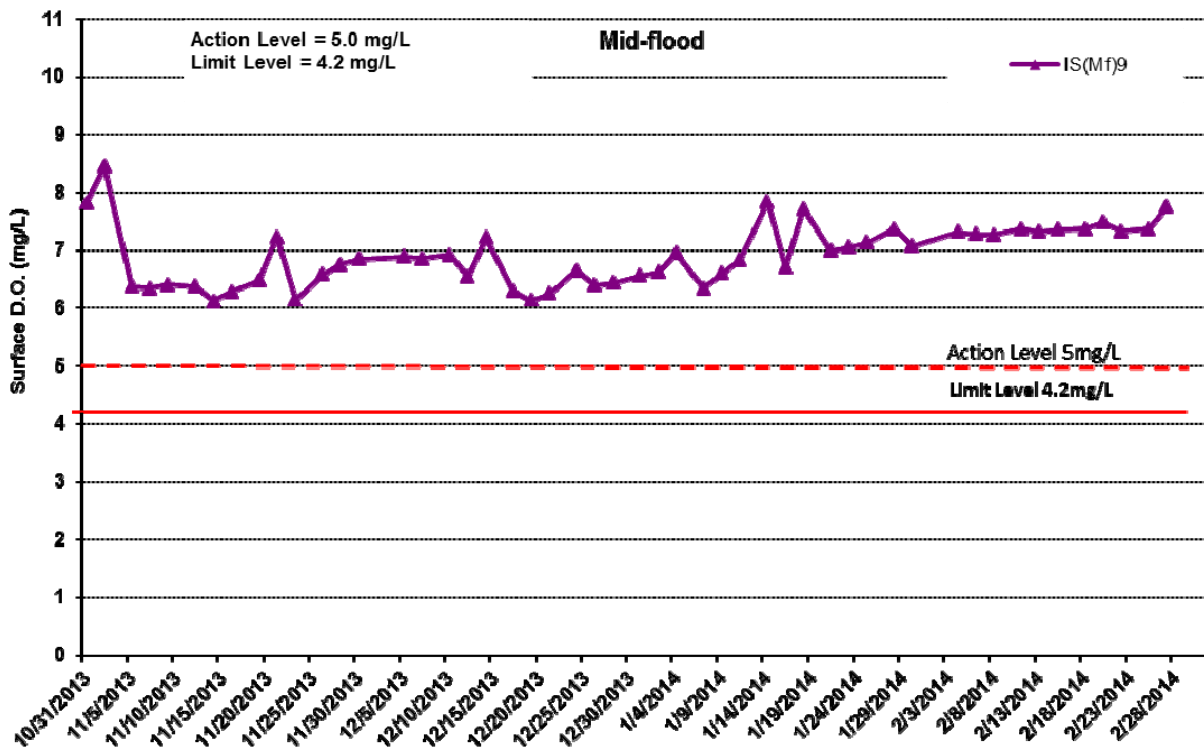
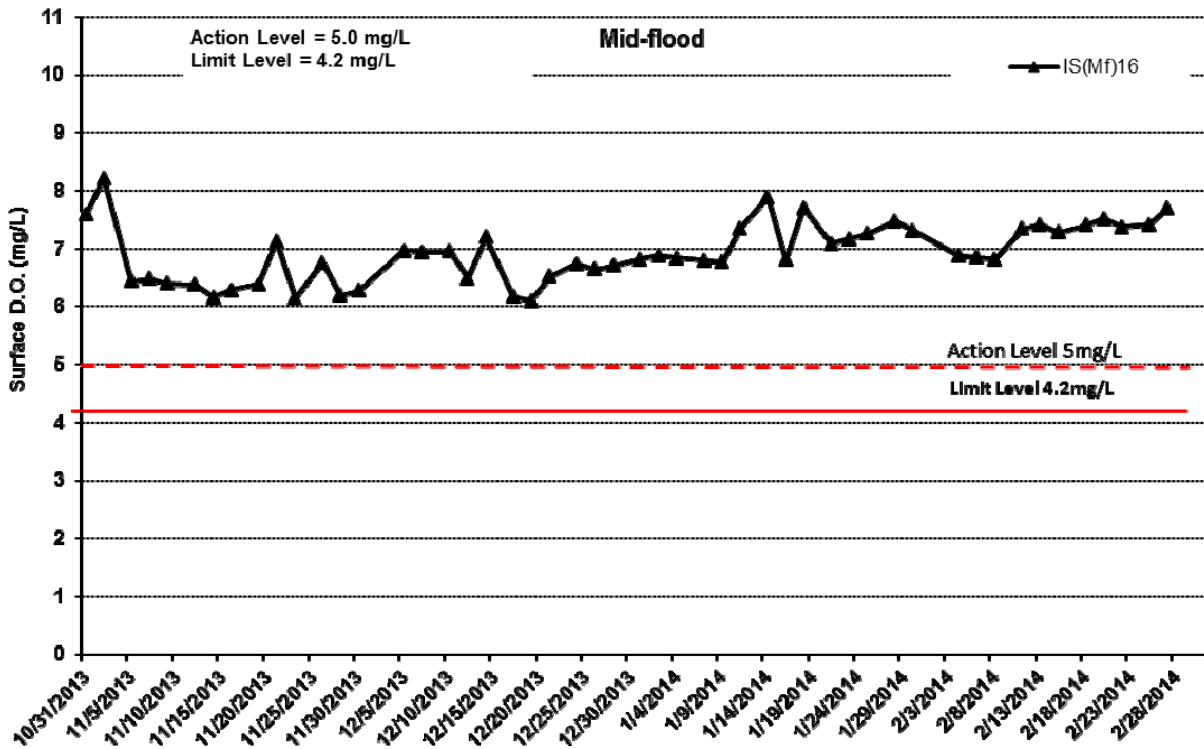


Figure I6 Impact Monitoring - Mean Level of Dissolved Oxygen (mg/L) in surface waters during mid-flood tide between 31 October 2013 to 28 February 2014 at IS(Mf)16 and IS(Mf)9.

(Weather condition varied between sunny to rainy within the reporting period. Marine works within the reporting period include rockfill platform construction, marine piling platform installation and survey tower erection.)

**Environmental
Resources
Management**



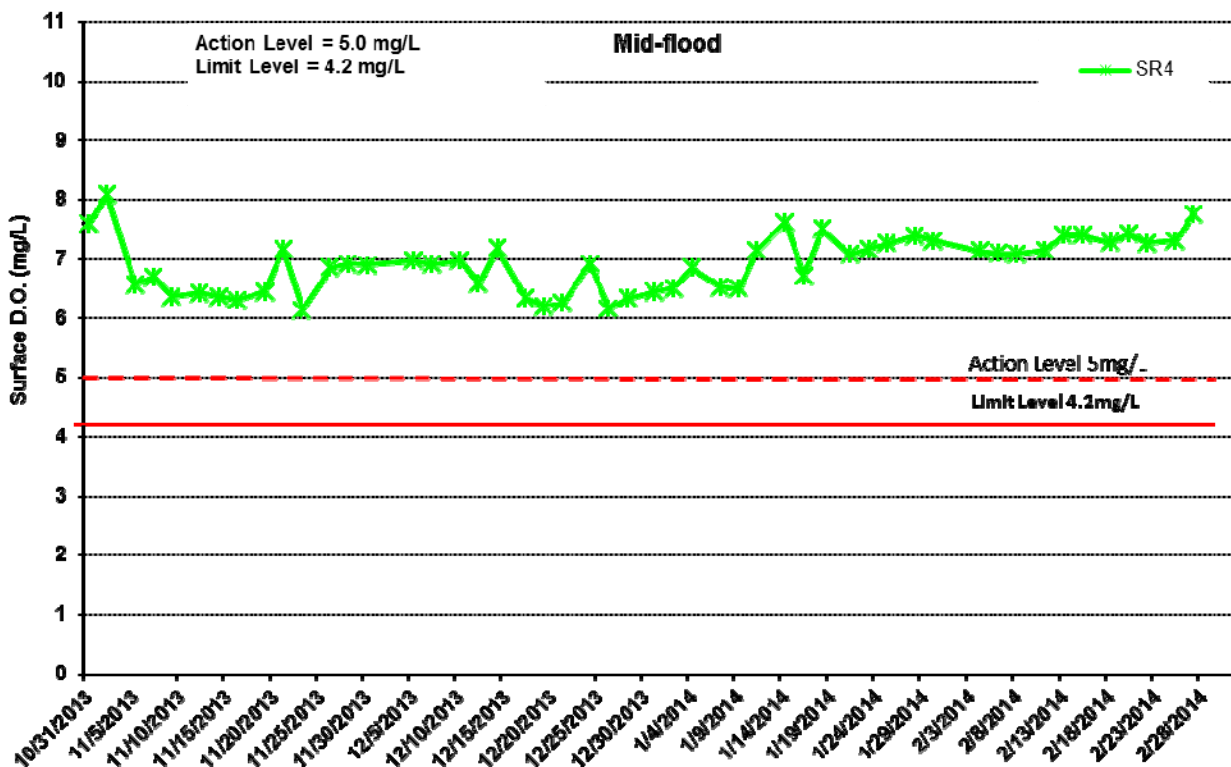
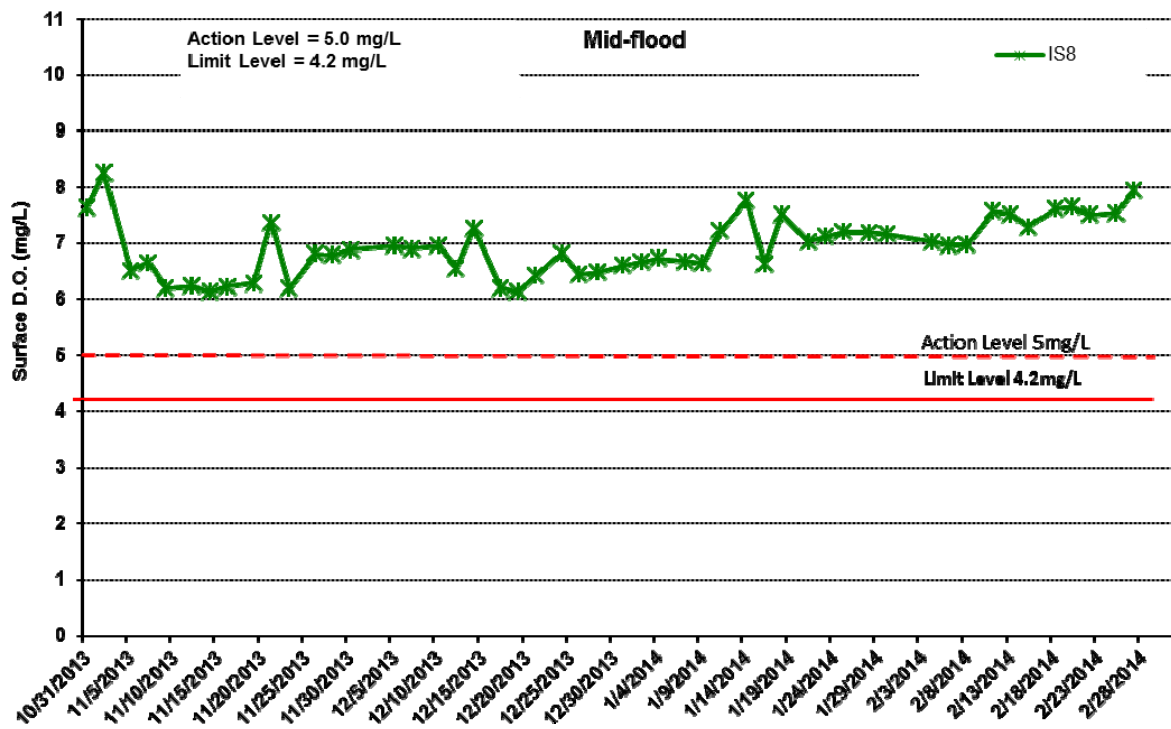


Figure I7 Impact Monitoring - Mean Level of Dissolved Oxygen (mg/L) in surface waters during mid-flood tide between 31 October 2013 to 28 February 2014 at IS8 and SR4.

(Weather condition varied between sunny to rainy within the reporting period. Marine works within the reporting period include rockfill platform construction, marine piling platform installation and survey tower erection.)

**Environmental
Resources
Management**



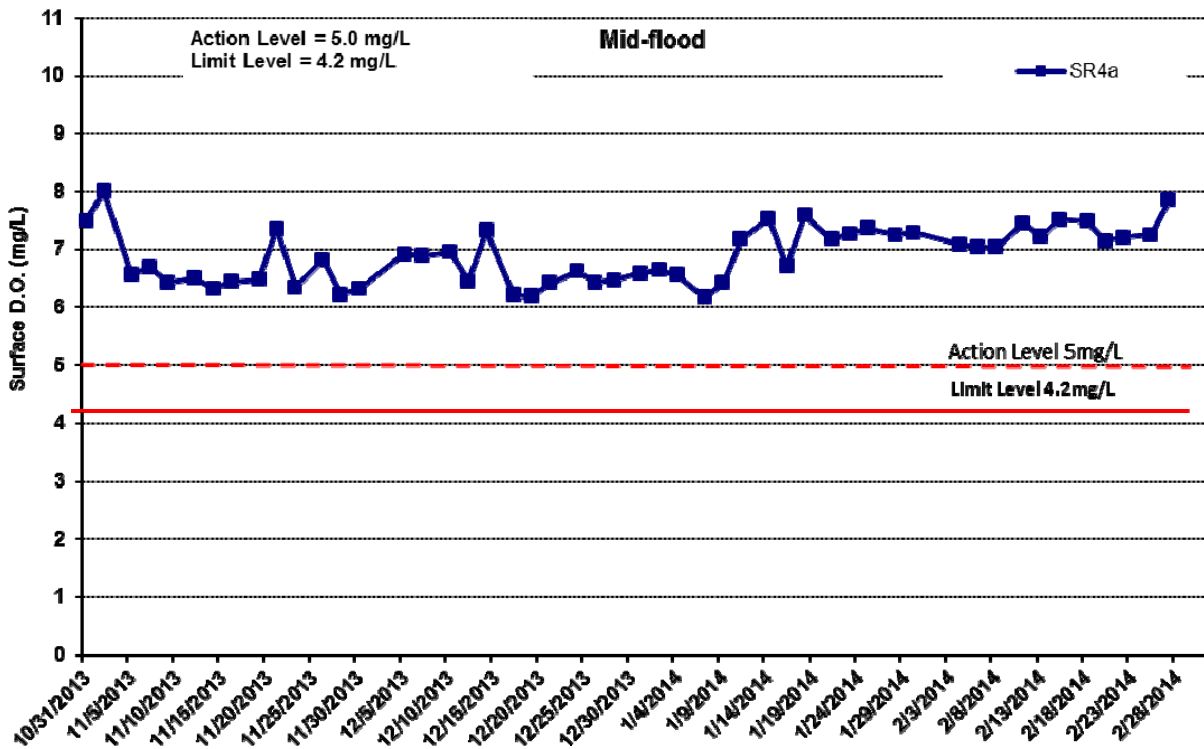


Figure I8 Impact Monitoring - Mean Level of Dissolved Oxygen (mg/L) in surface waters during mid-flood tide between 31 October 2013 to 28 February 2014 at SR4a.

(Weather condition varied between sunny to rainy within the reporting period. Marine works within the reporting period include rockfill platform construction, marine piling platform installation and survey tower erection.)

**Environmental
Resources
Management**



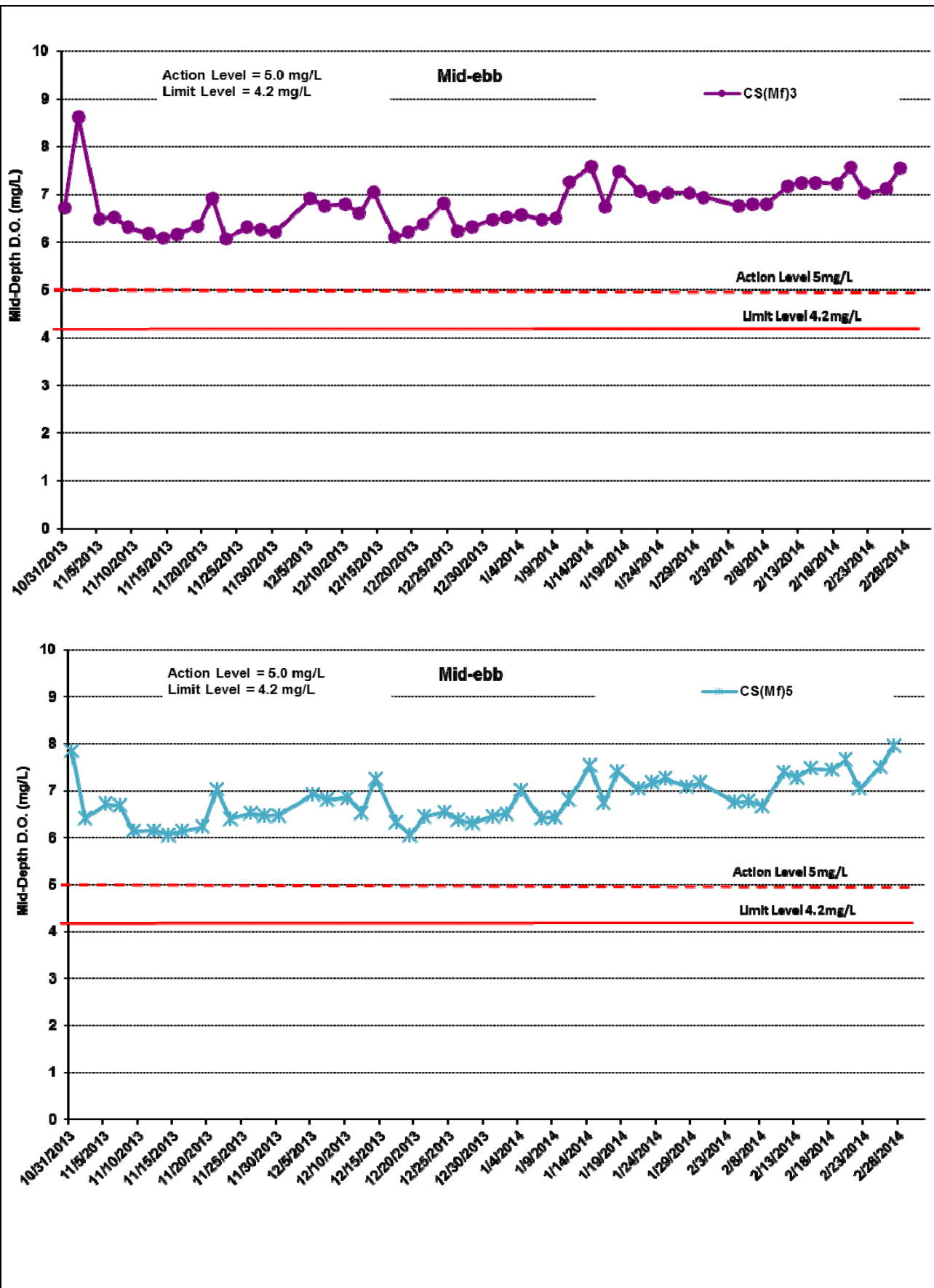


Figure I9 Impact Monitoring – Mean Level of Dissolved Oxygen (mg/L) in mid-depth waters during mid-ebb tide between 31 October 2013 to 28 February 2014 at CS(Mf)3 and IS(Mf)5.

(Weather condition varied between sunny to rainy within the reporting period. Marine works within the reporting period include rockfill platform construction, marine piling platform installation and survey tower erection.)

Environmental
Resources
Management



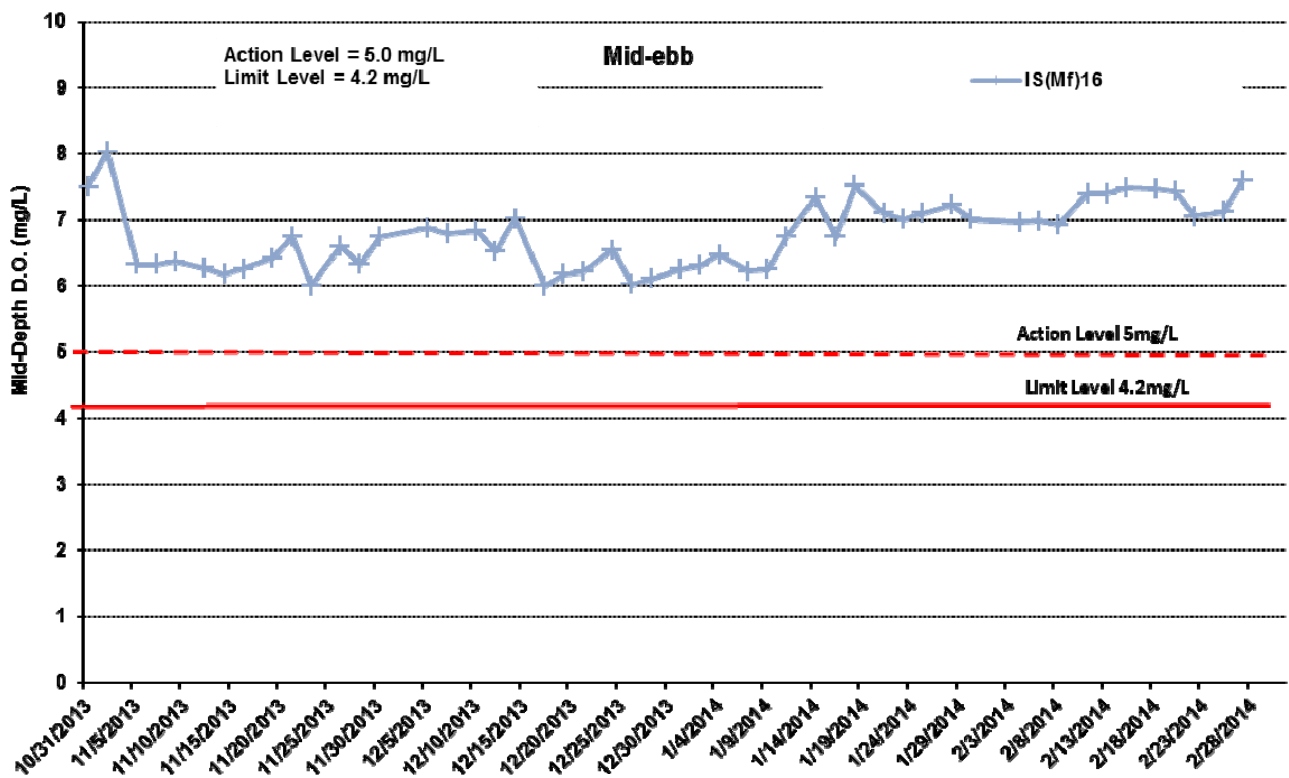


Figure I10 Impact Monitoring - Mean Level of Dissolved Oxygen (mg/L) in mid-depth waters during mid-ebb tide between 31 October 2013 to 28 February 2014 at IS(Mf)16.

(Weather condition varied between sunny to rainy within the reporting period. Marine works within the reporting period include rockfill platform construction, marine piling platform installation and survey tower erection.)

**Environmental
Resources
Management**



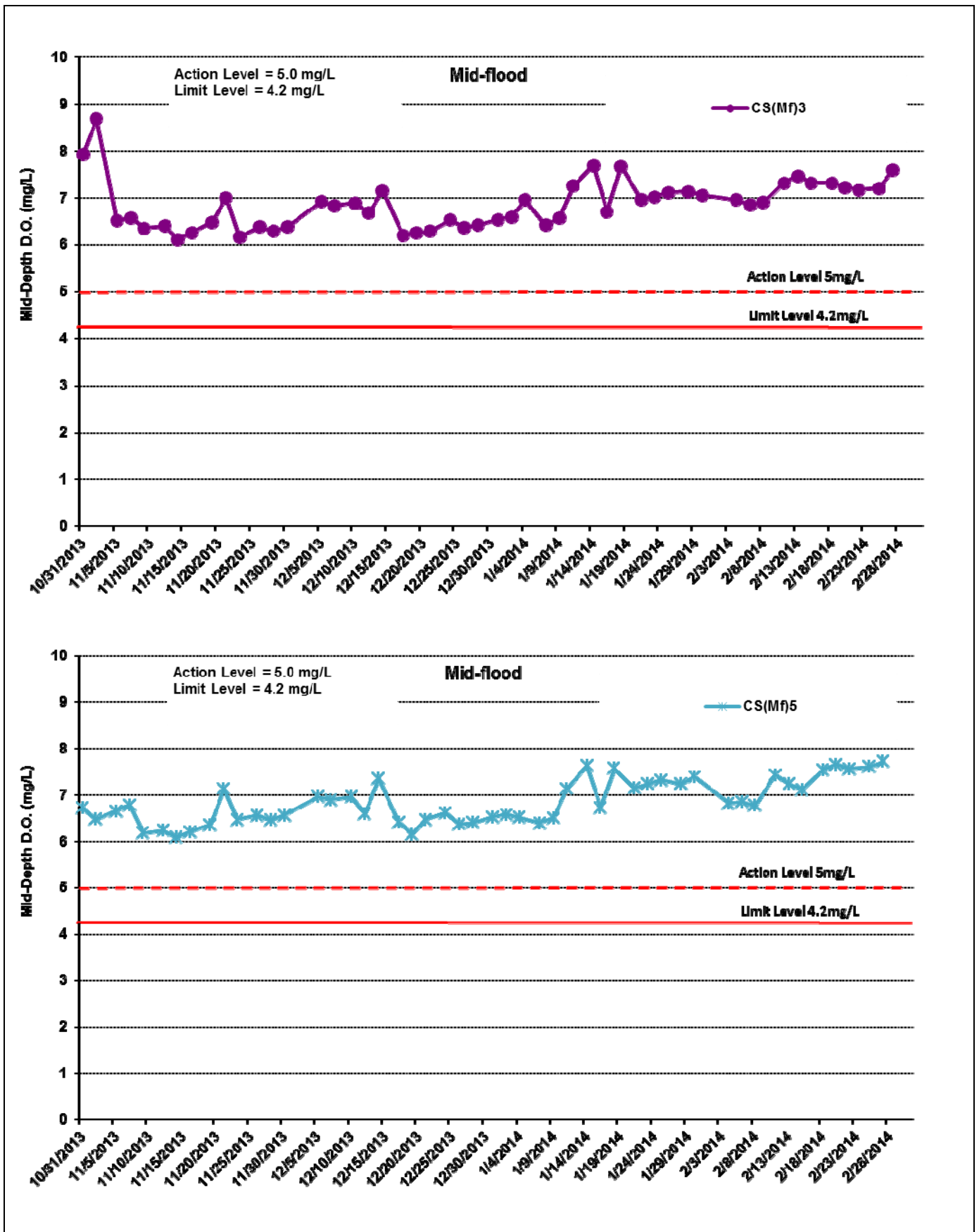


Figure I11 Impact Monitoring – Mean Level of Dissolved Oxygen (mg/L) in mid-depth waters during mid-flood tide between 31 October 2013 to 28 February 2014 at CS(Mf)3 and IS(Mf)5.

(Weather condition varied between sunny to rainy within the reporting period. Marine works within the reporting period include rockfill platform construction, marine piling platform installation and survey tower erection.)

Environmental
Resources
Management



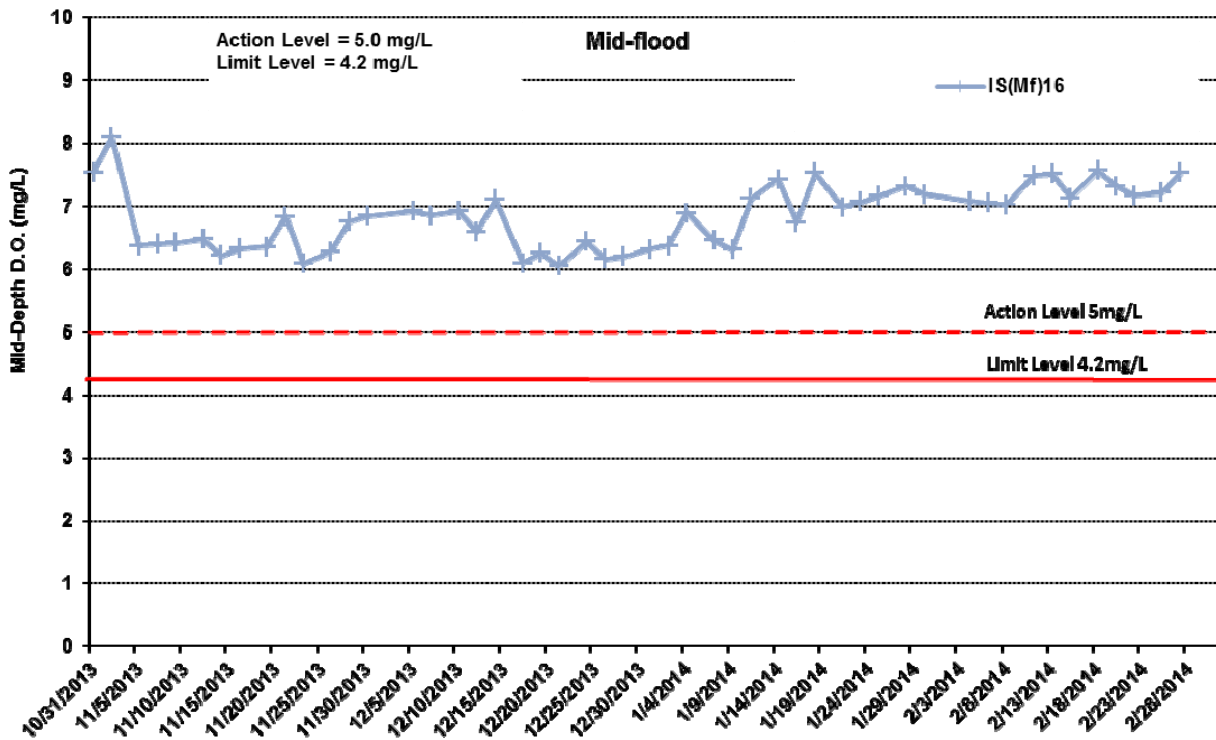


Figure I12 Impact Monitoring – Mean Level of Dissolved Oxygen (mg/L) in mid-depth waters during mid-flood tide between 31 October 2013 to 28 February 2014 at IS(Mf)16.

(Weather condition varied between sunny to rainy within the reporting period. Marine works within the reporting period include rockfill platform construction, marine piling platform installation and survey tower erection.)

**Environmental
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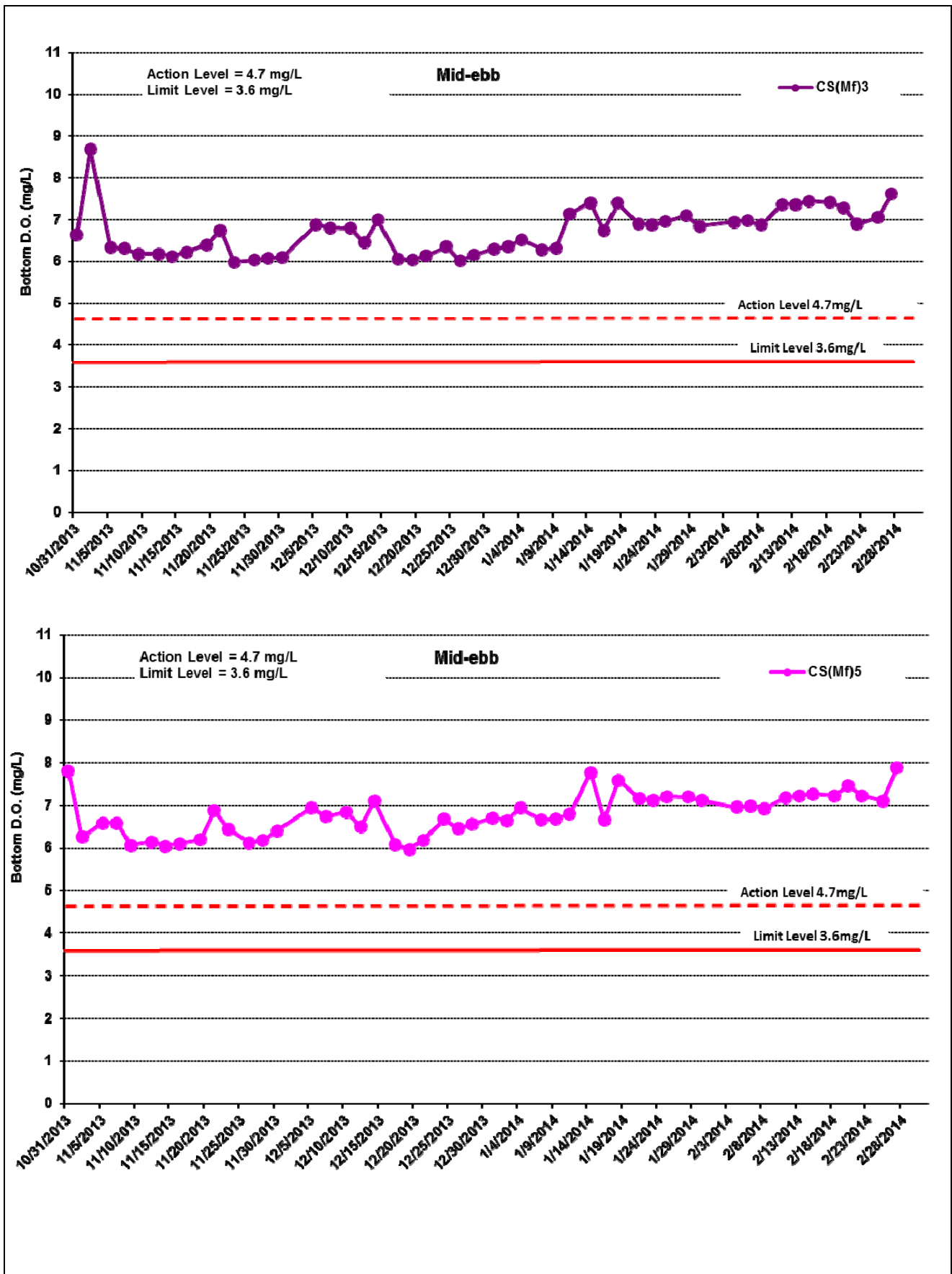


Figure I13 Impact Monitoring - Mean Level of Dissolved Oxygen (mg/L) in bottom waters during mid-ebb tide between 31 October 2013 to 28 February 2014 at CS(Mf)3 and CS(Mf)5.

(Weather condition varied between sunny to rainy within the reporting period. Marine works within the reporting period include rockfill platform construction, marine piling platform installation and survey tower erection.)

Environmental
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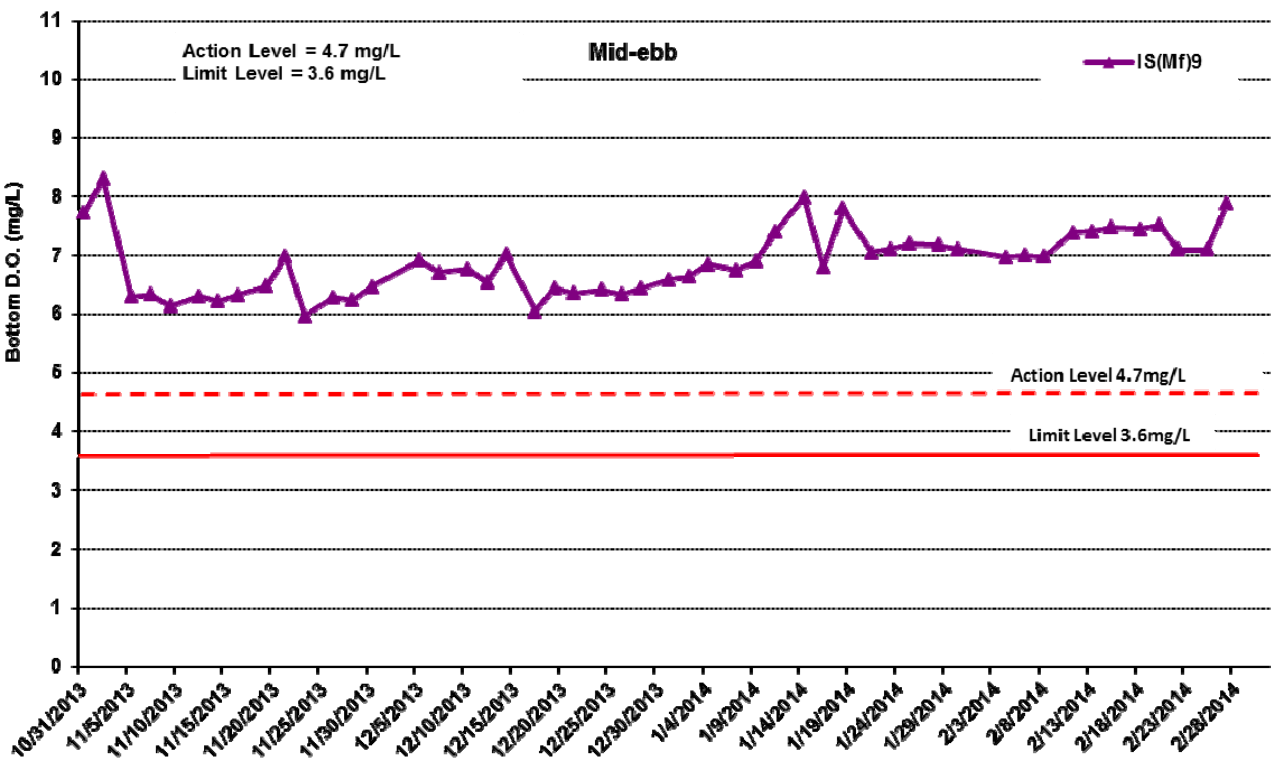
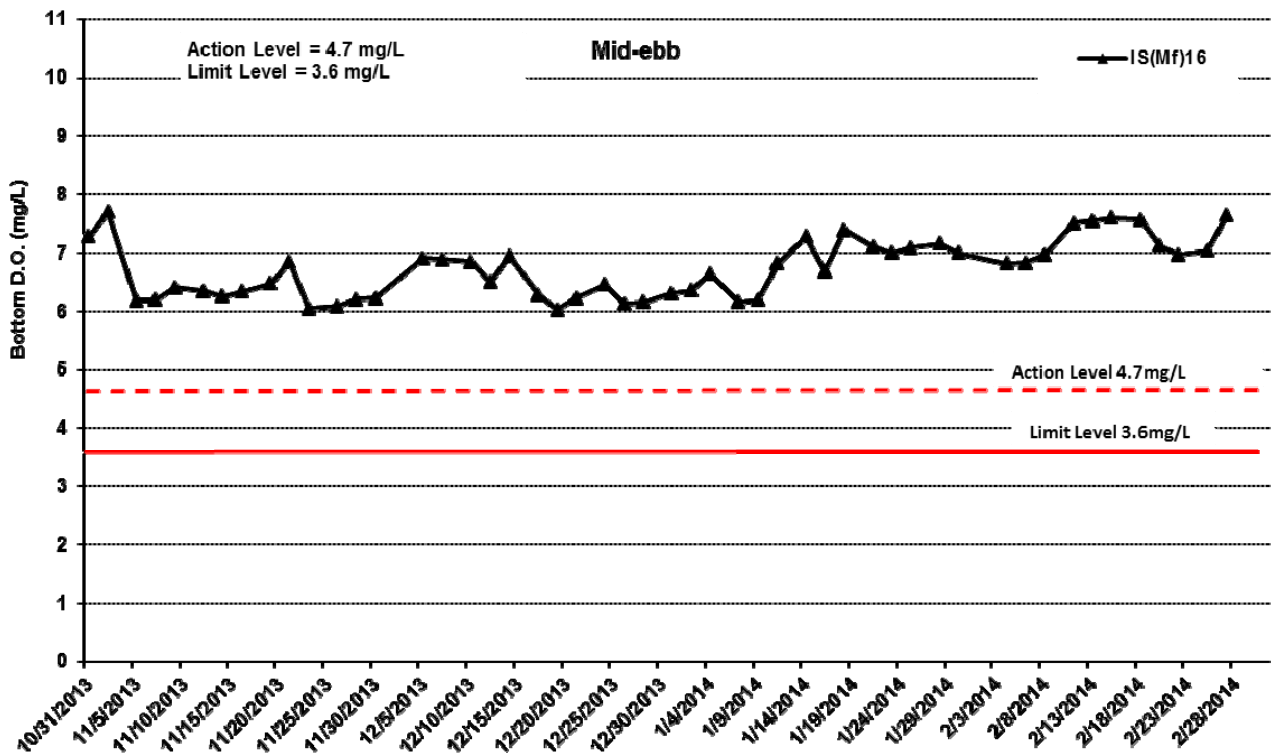


Figure I14 Impact Monitoring - Mean Level of Dissolved Oxygen (mg/L) in bottom waters during mid-ebb tide between 1 to 28 February 2014 at IS(Mf)16 and IS(Mf)9.

(Weather condition varied between sunny to rainy within the reporting period. Marine works within the reporting period include rockfill platform construction, marine piling platform installation and survey tower erection.)

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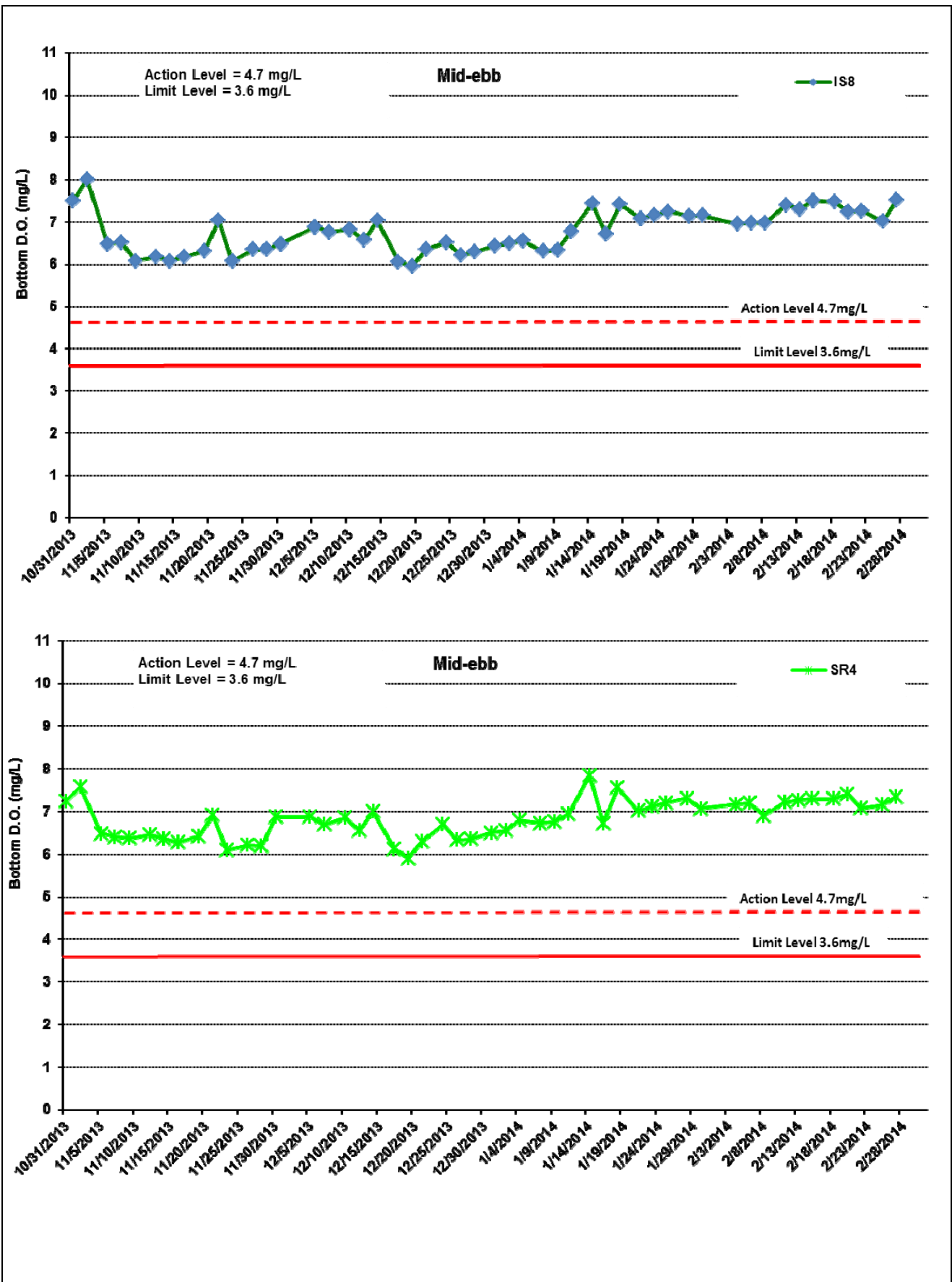


Figure I15 Impact Monitoring - Mean Level of Dissolved Oxygen (mg/L) in bottom waters during mid-ebb tide between 31 October 2013 to 28 February 2014 at IS8 and SR4.
(Weather condition varied between sunny to rainy within the reporting period. Marine works within the reporting period include rockfill platform construction, marine piling platform installation and survey tower erection.)

Environmental
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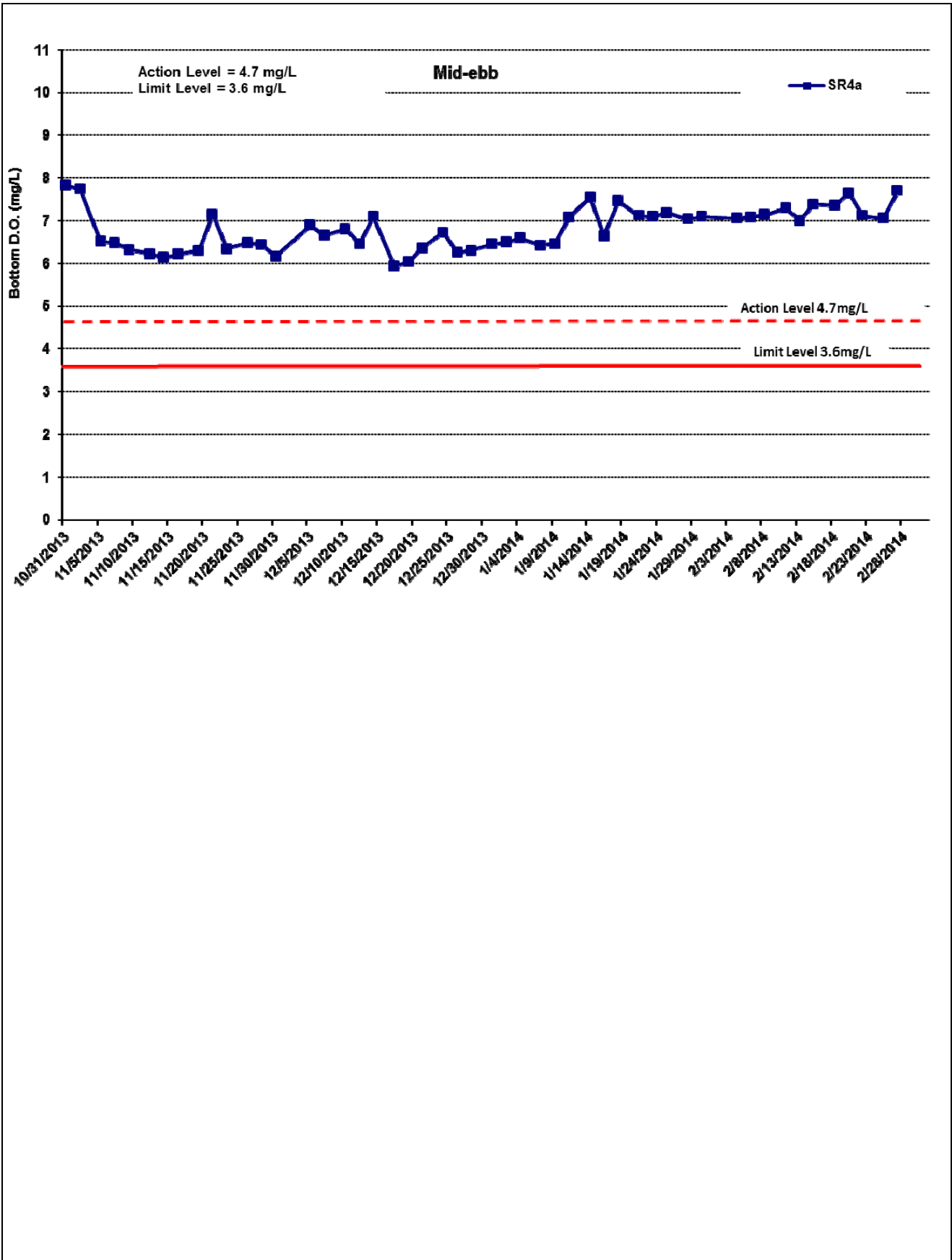


Figure I16 Impact Monitoring – Mean Level of Dissolved Oxygen (mg/L) in bottom waters during mid-ebb tide between 31 October 2013 to 28 February 2014 at SR4a.

(Weather condition varied between sunny to rainy within the reporting period. Marine works within the reporting period include rockfill platform construction, marine piling platform installation and survey tower erection.)

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Resources
Management**



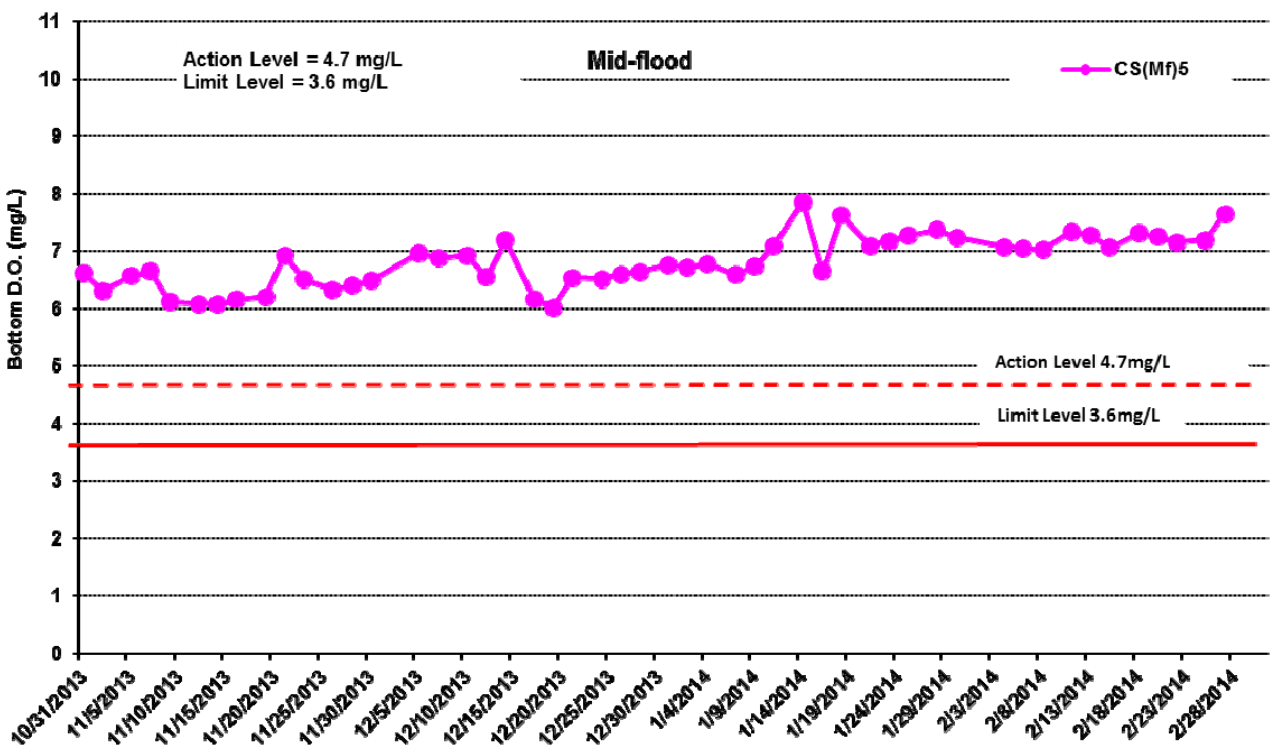
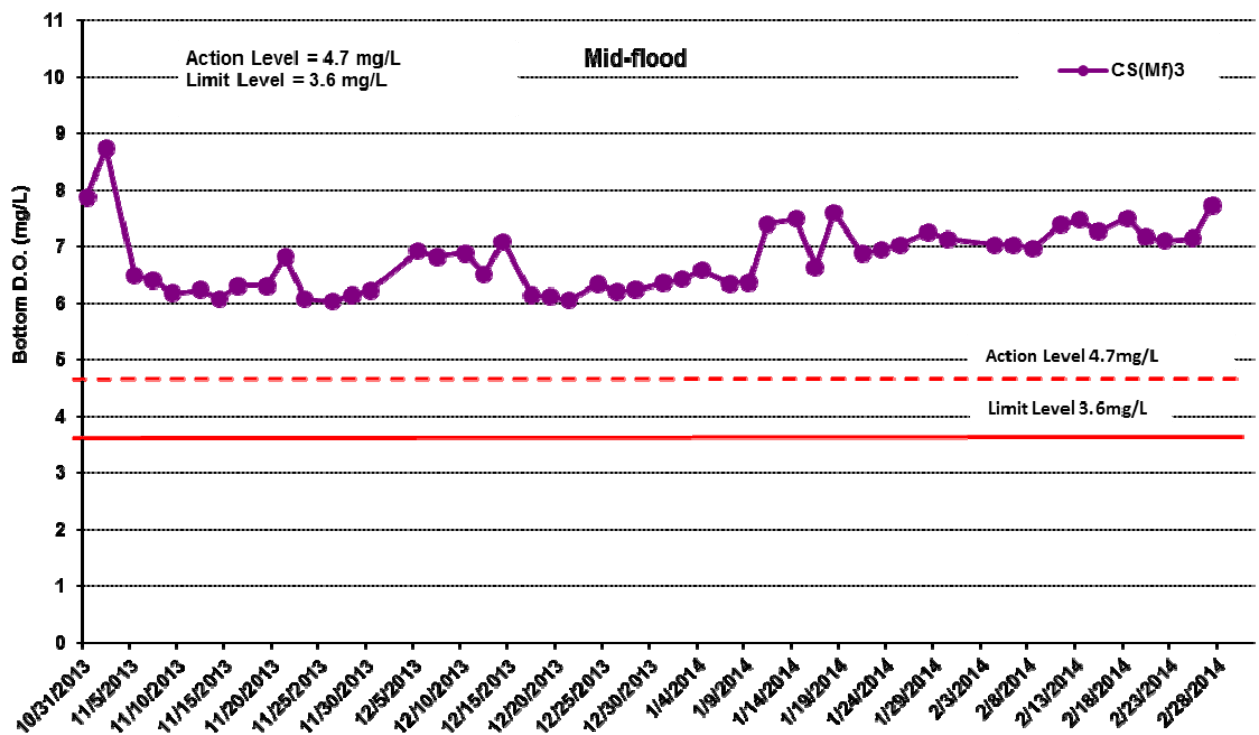


Figure I17 Impact Monitoring - Mean Level of Dissolved Oxygen (mg/L) in bottom waters during mid-flood tide between 31 October 2013 to 28 February 2014 at CS(Mf)3 and CS(Mf)5.

(Weather condition varied between sunny to rainy within the reporting period. Marine works within the reporting period include rockfill platform construction, marine piling platform installation and survey tower erection.)

Environmental Resources Management



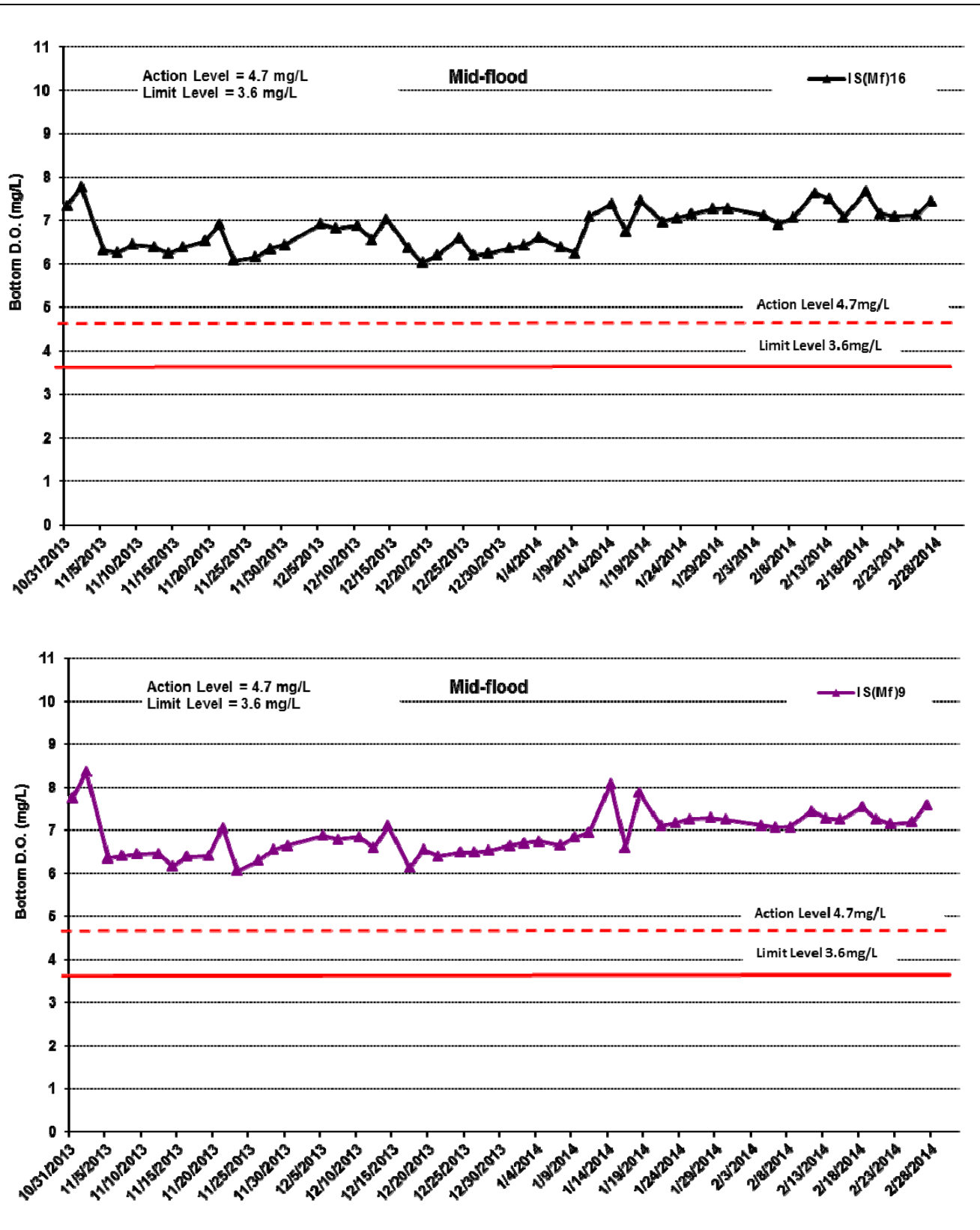


Figure I18 Impact Monitoring - Mean Level of Dissolved Oxygen (mg/L) in bottom waters during mid-flood tide between 31 October 2013 to 28 February 2014 at IS(Mf)16 and IS(Mf)9.

(Weather condition varied between sunny to rainy within the reporting period. Marine works within the reporting period include rockfill platform construction, marine piling platform installation and survey tower erection.)

Environmental
Resources
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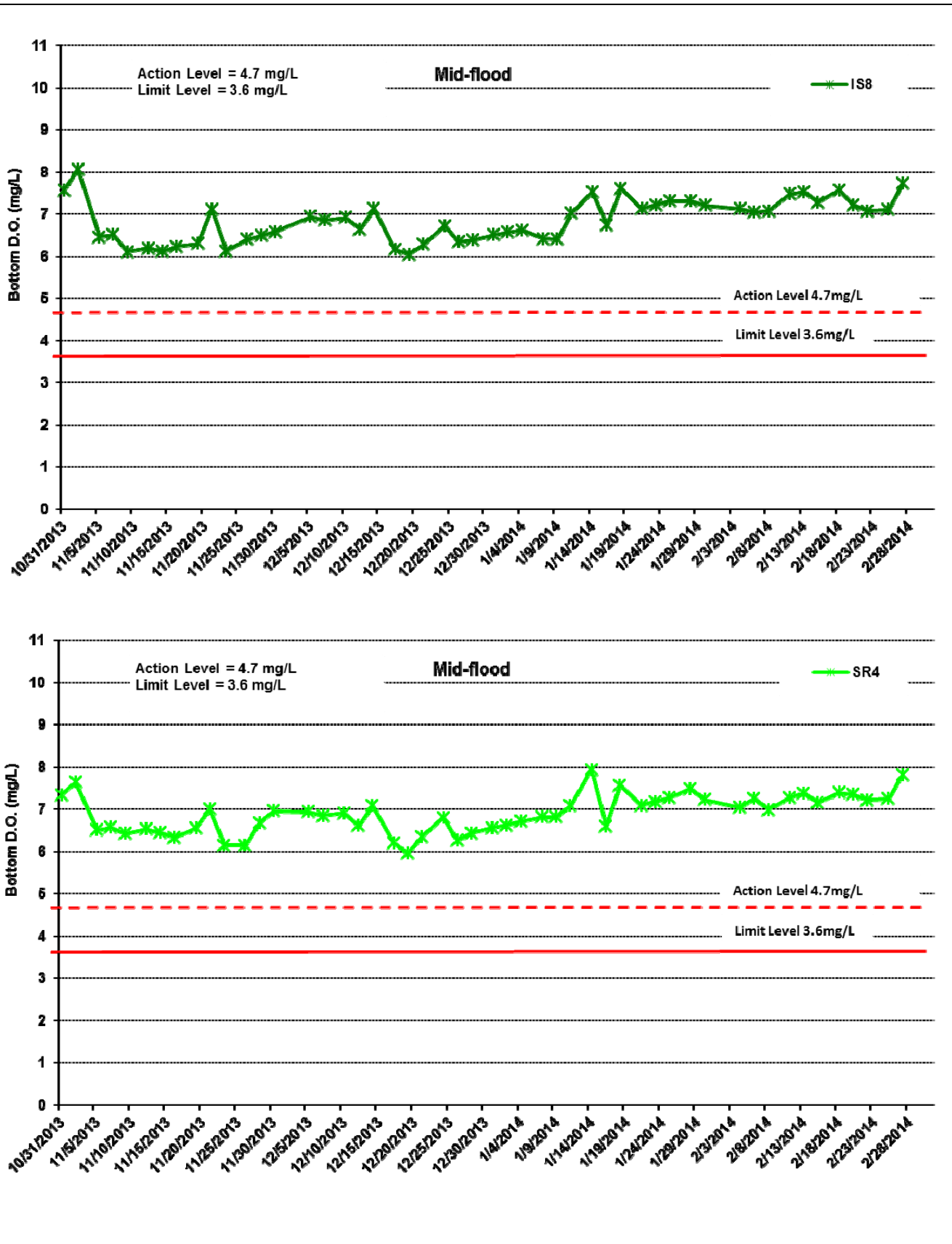


Figure I19 Impact Monitoring - Mean Level of Dissolved Oxygen (mg/L) in bottom waters during mid-flood tide between 31 October 2013 to 28 February 2014 at IS8 and SR4.

(Weather condition varied between sunny to rainy within the reporting period. Marine works within the reporting period include rockfill platform construction, marine piling platform installation and survey tower erection.)

Environmental
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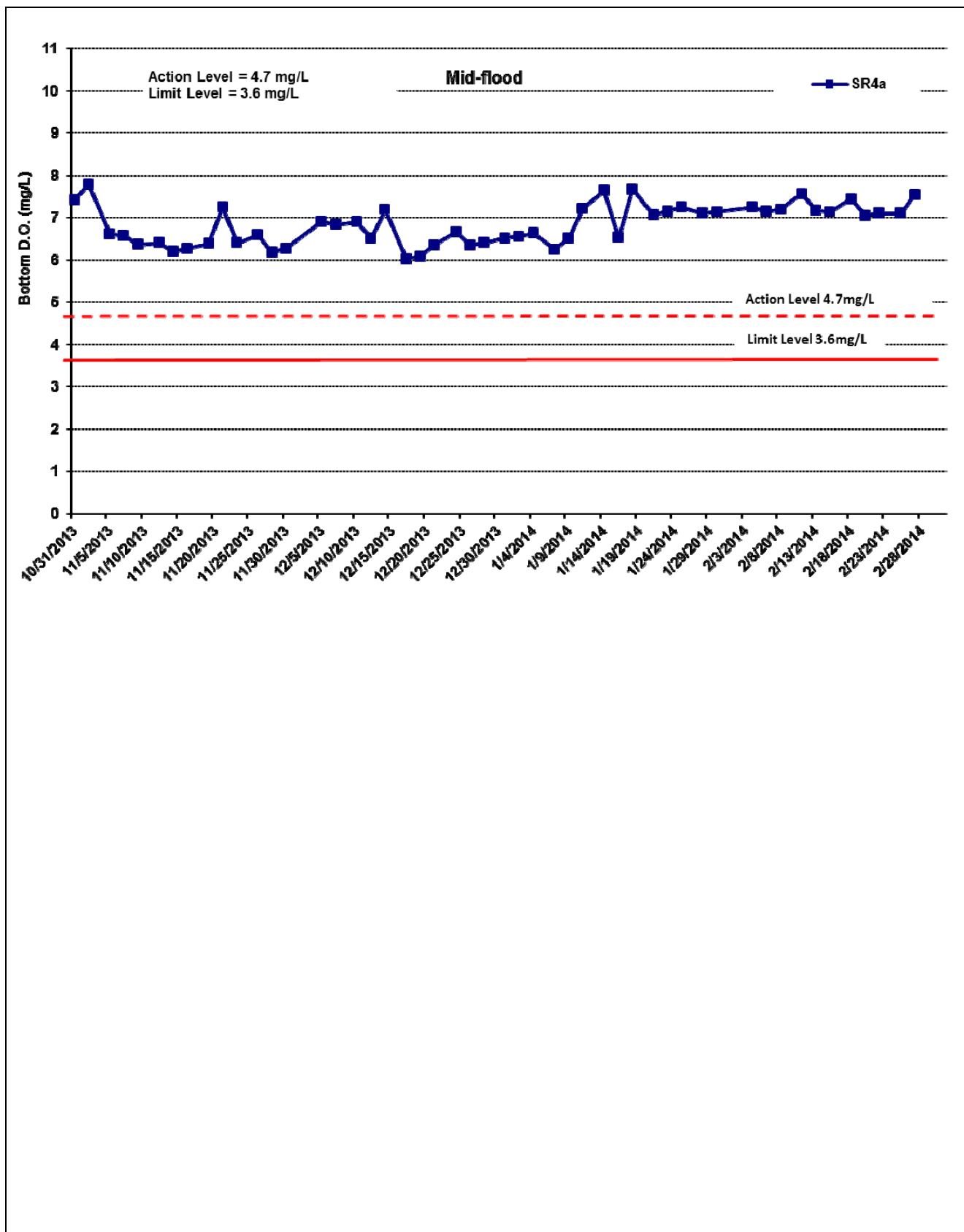


Figure I20 Impact Monitoring - Mean Level of Dissolved Oxygen (mg/L) in bottom waters during mid-flood tide between 31 October 2013 to 28 February 2014 at SR4a.

(Weather condition varied between sunny to rainy within the reporting period. Marine works within the reporting period include rockfill platform construction, marine piling platform installation and survey tower erection.)

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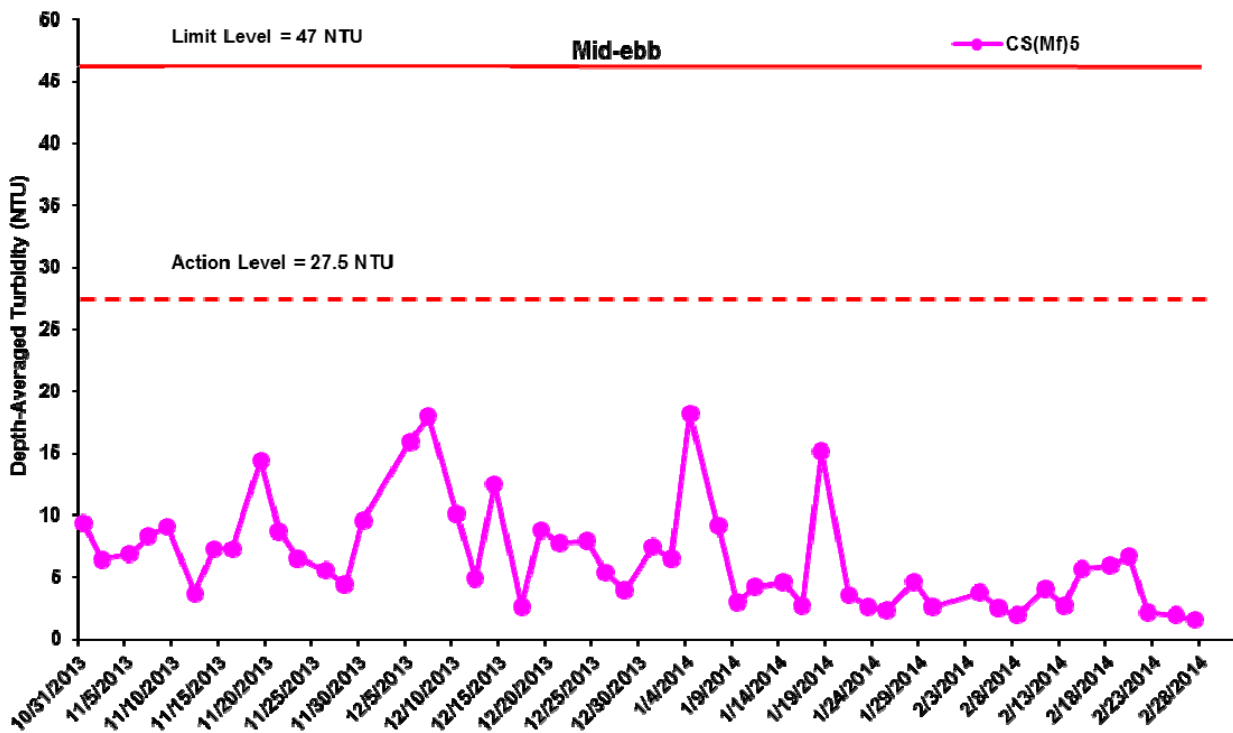
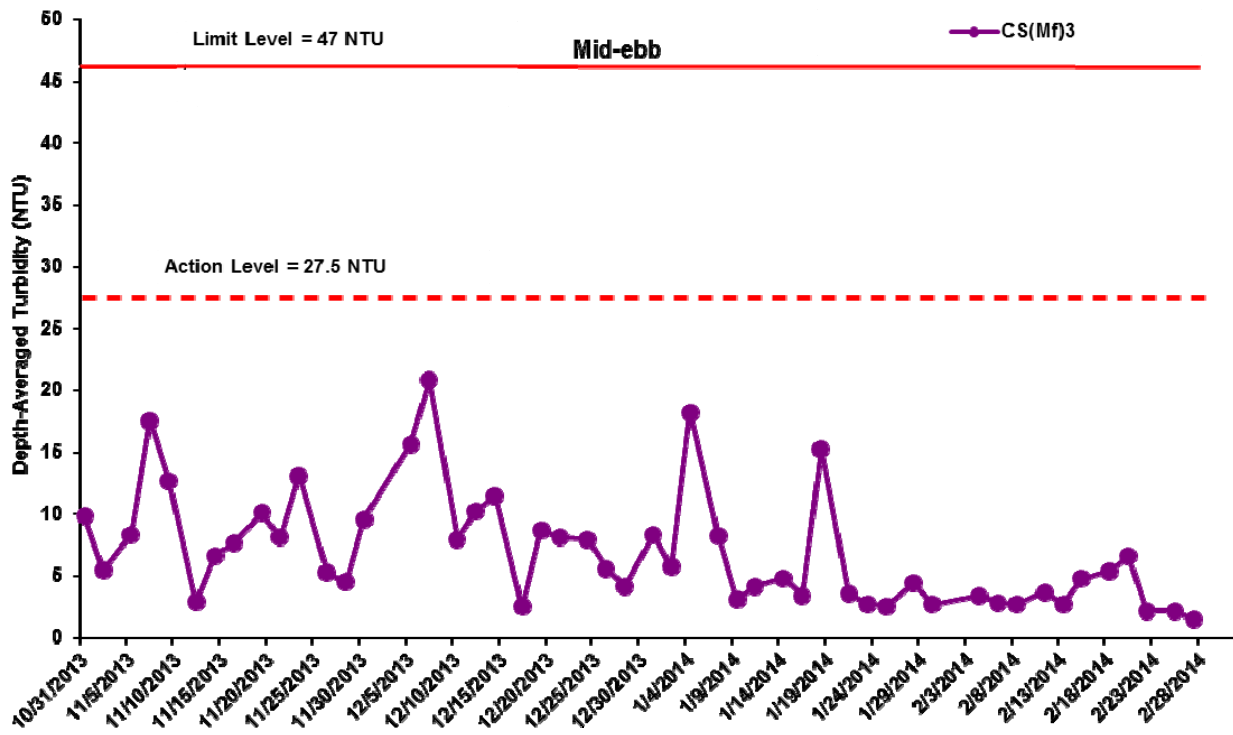


Figure I21 Impact Monitoring – Mean Level of depth-averaged Turbidity (NTU) during mid-ebb tide between 31 October 2013 to 28 February 2014 at CS(Mf)3 and CS(Mf)5.

(Weather condition varied between sunny to rainy within the reporting period. Marine works within the reporting period include rockfill platform construction, marine piling platform installation and survey tower erection.)

**Environmental
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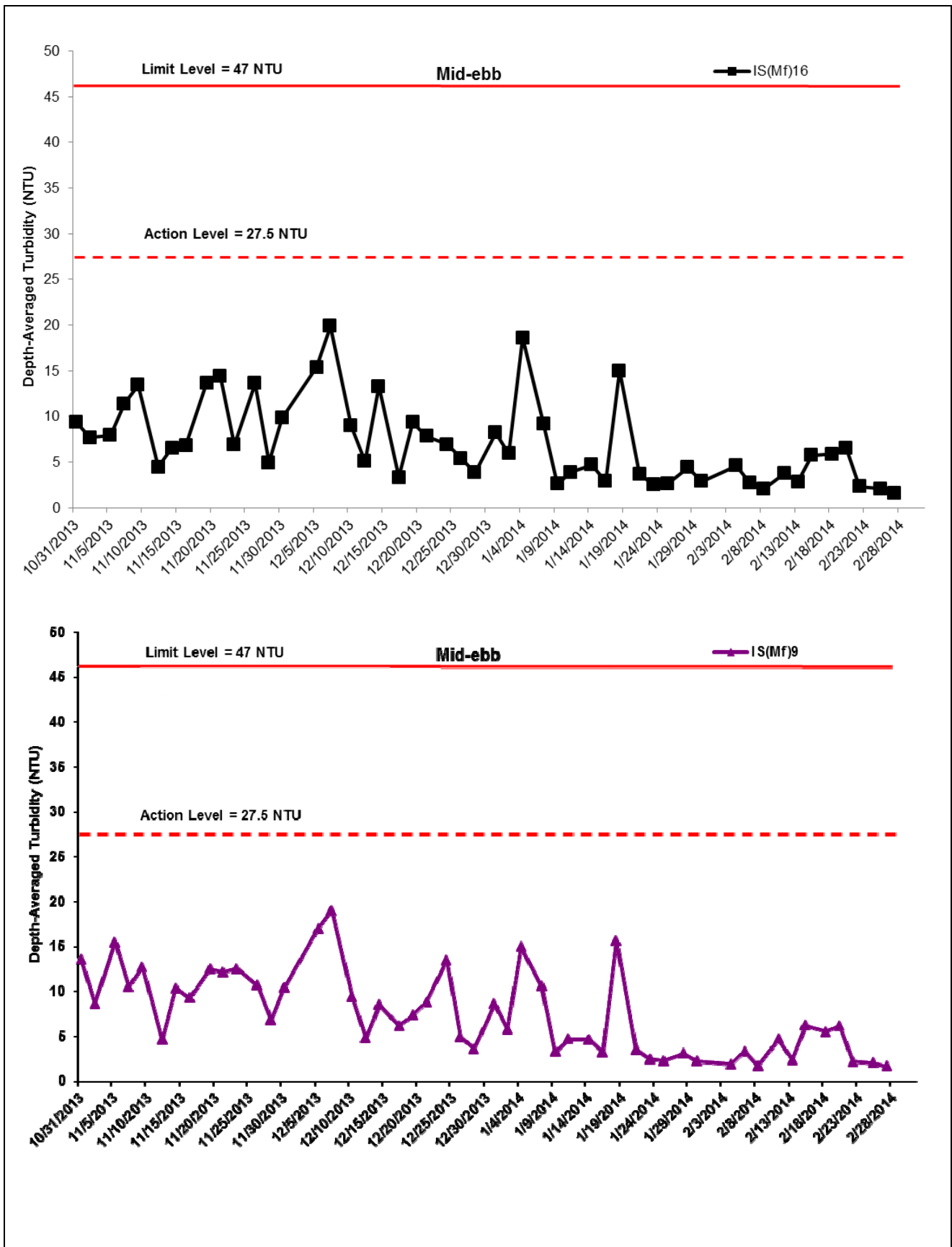


Figure I22 Impact Monitoring - Mean Level of depth-averaged Turbidity (NTU) during mid-ebb tide between 31 October 2013 to 28 February 2014 at IS(Mf)16 and IS(Mf)9.

(Weather condition varied between sunny to rainy within the reporting period. Marine works within the reporting period include rockfill platform construction, marine piling platform installation and survey tower erection.)

Environmental
Resources
Management



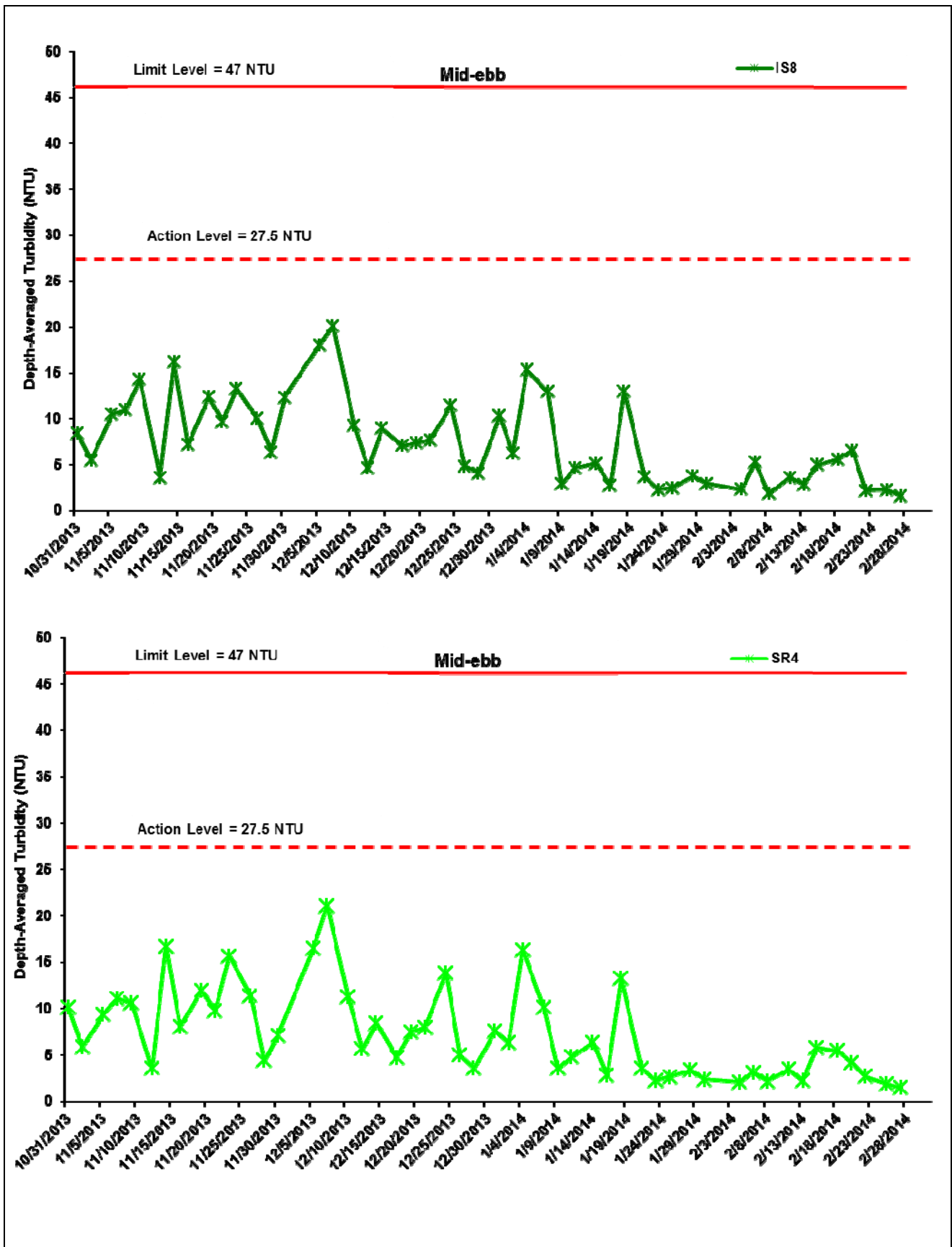


Figure I23 Impact Monitoring - Mean Level of depth-averaged Turbidity (NTU) during mid-ebb tide between 31 October 2013 to 28 February 2014 at IS8 and SR4.

(Weather condition varied between sunny to rainy within the reporting period. Marine works within the reporting period include rockfill platform construction, marine piling platform installation and survey tower erection.)

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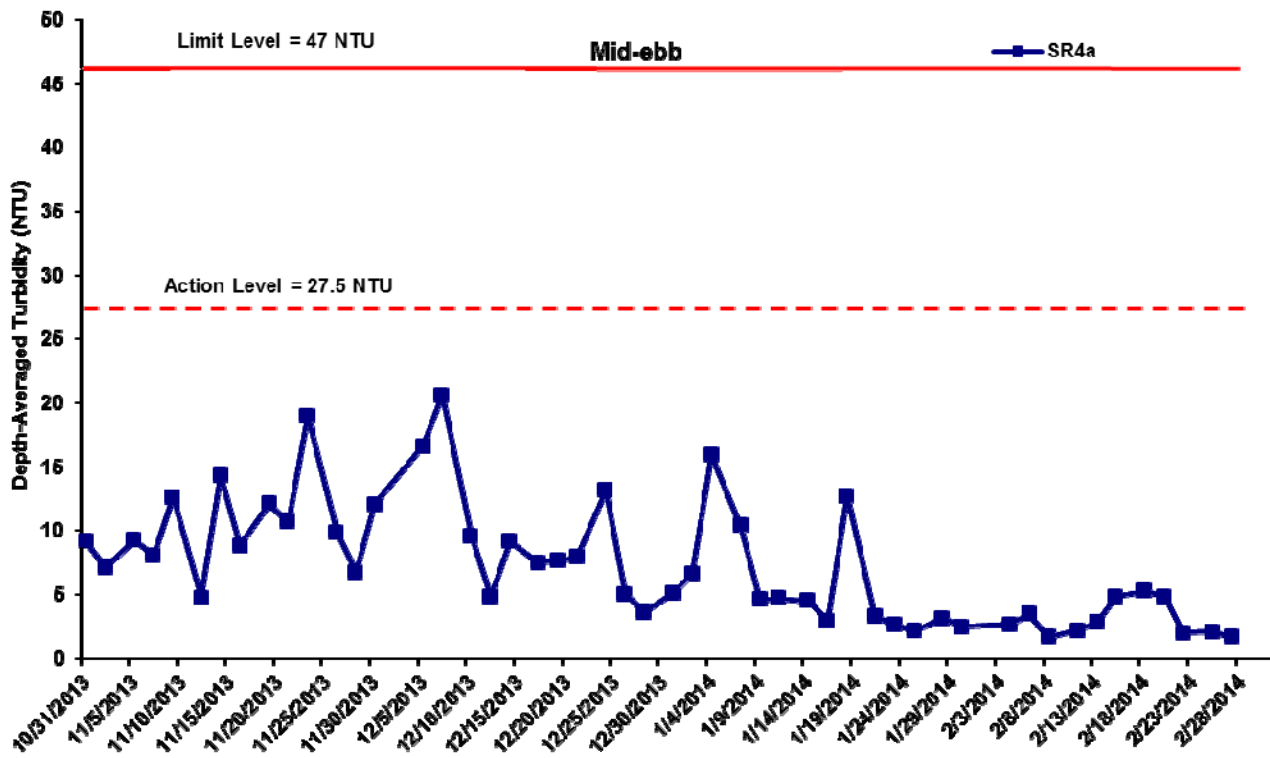


Figure I24 Impact Monitoring - Mean Level of depth-averaged Turbidity (NTU) during mid-ebb tide between 31 October 2013 to 28 February 2014 at SR4a.

(Weather condition varied between sunny to rainy within the reporting period. Marine works within the reporting period include rockfill platform construction, marine piling platform installation and survey tower erection.)

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Management**



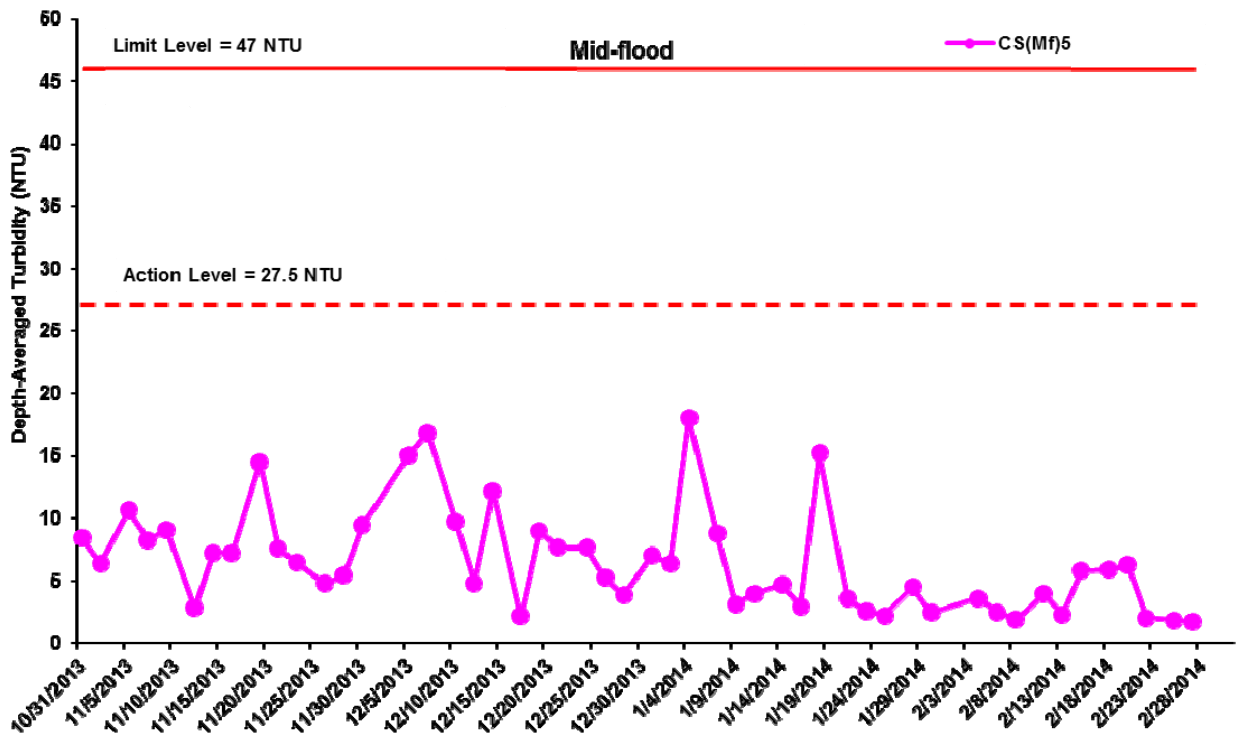
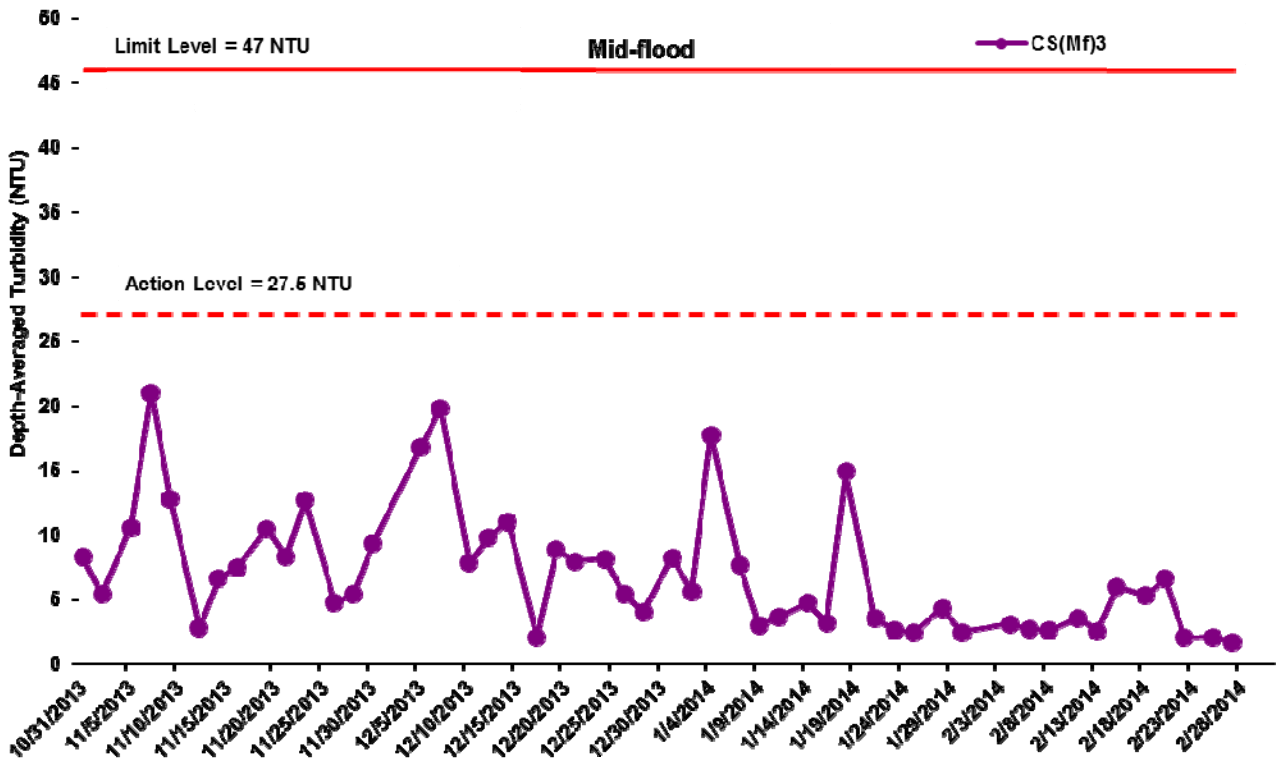


Figure I25 Impact Monitoring – Mean Level of depth-averaged Turbidity (NTU) during mid-flood tide between 31 October 2013 to 28 February 2014 at CS(Mf)3 and CS(Mf)5.

(Weather condition varied between sunny to rainy within the reporting period. Marine works within the reporting period include rockfill platform construction, marine piling platform installation and survey tower erection.)

Environmental Resources Management



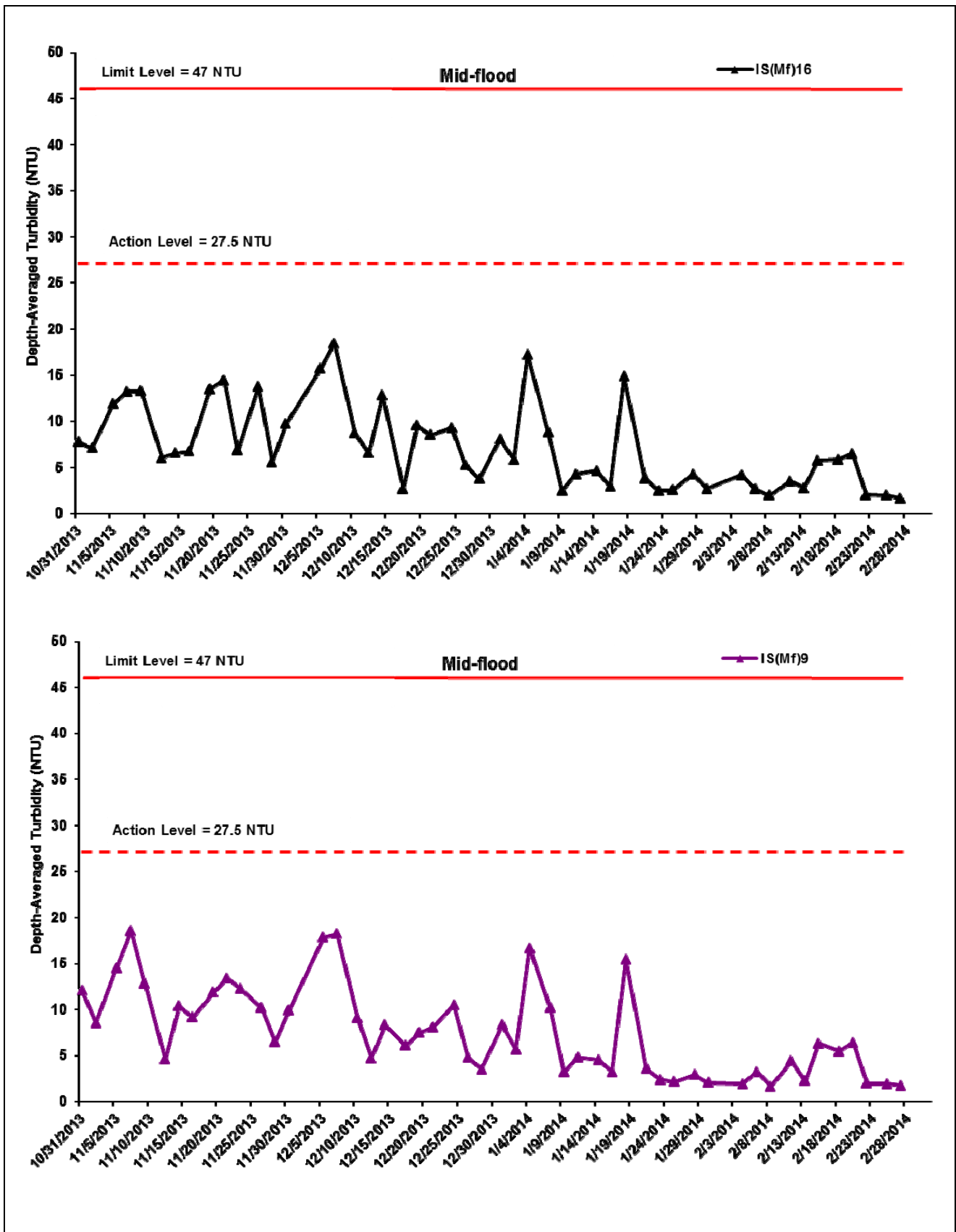


Figure I26 Impact Monitoring - Mean Level of depth-averaged Turbidity (NTU) during mid-flood tide between 31 October 2013 to 28 February 2014 at IS(Mf)16 and IS(Mf)9.

(Weather condition varied between sunny to rainy within the reporting period. Marine works within the reporting period include rockfill platform construction, marine piling platform installation and survey tower erection.)

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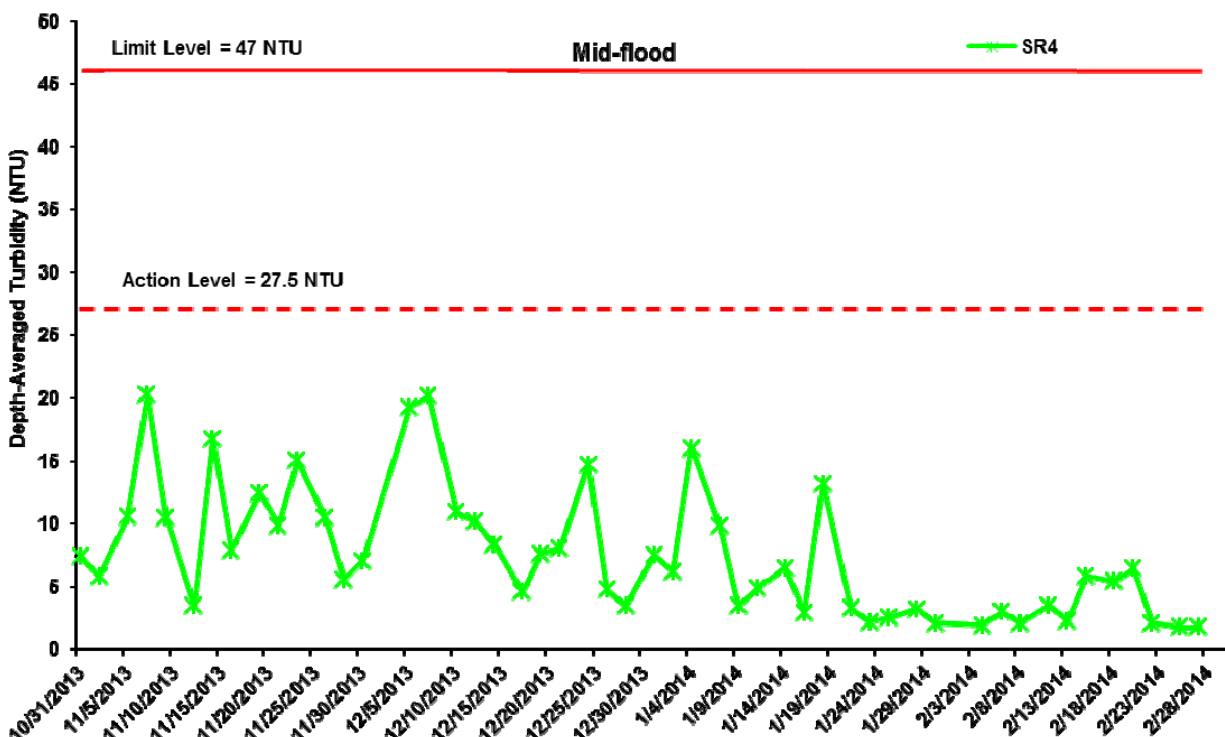
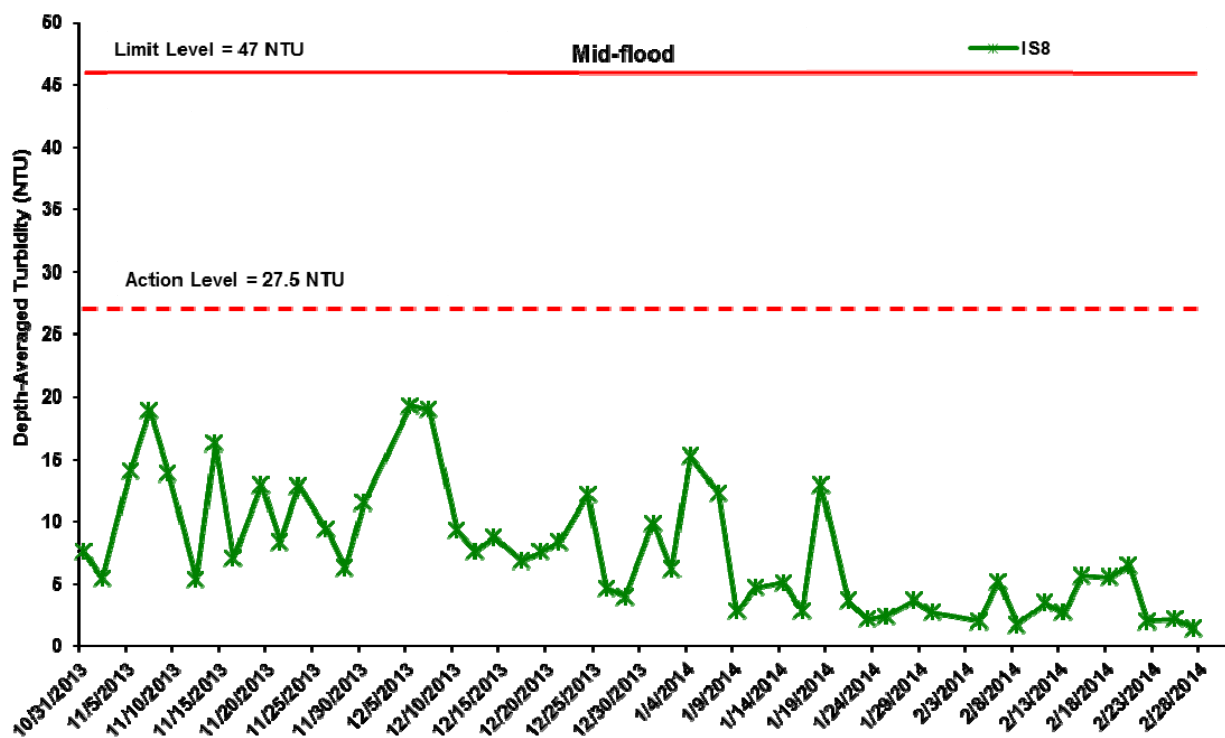
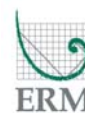


Figure I27 Impact Monitoring – Mean Level of depth-averaged Turbidity (NTU) during mid-flood tide between 31 October 2013 to 28 February 2014 at IS8 and SR4.

(Weather condition varied between sunny to rainy within the reporting period. Marine works within the reporting period include rockfill platform construction, marine piling platform installation and survey tower erection.)

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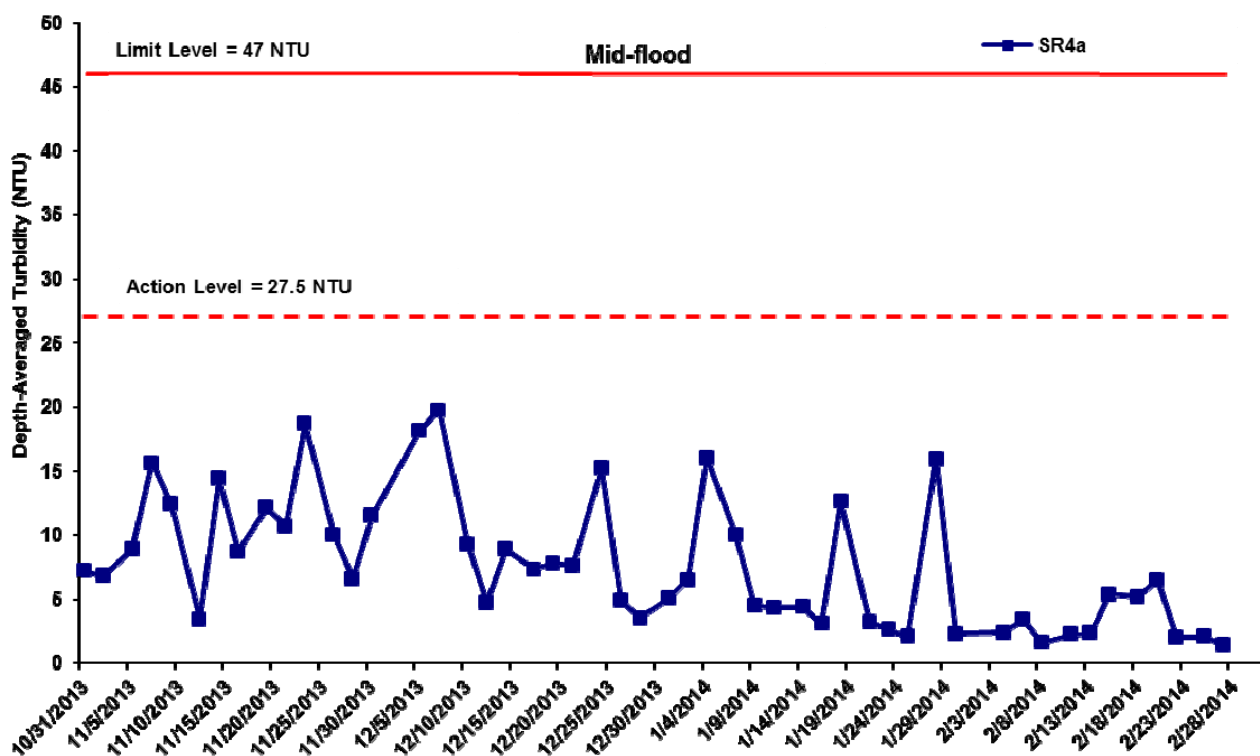


Figure I28 Impact Monitoring - Mean Level of depth-averaged Turbidity (NTU) during mid-flood tide between 31 October 2013 to 28 February 2014 at SR4a.

(Weather condition varied between sunny to rainy within the reporting period. Marine works within the reporting period include rockfill platform construction, marine piling platform installation and survey tower erection.)

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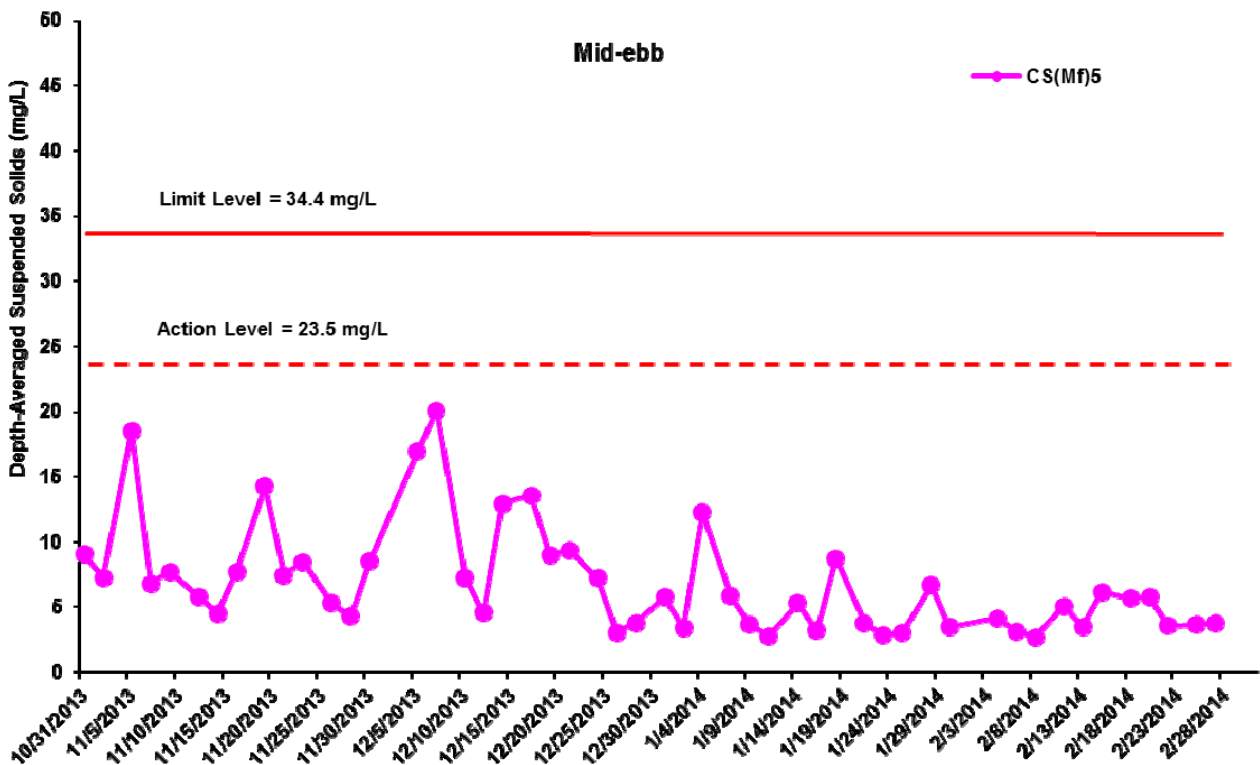
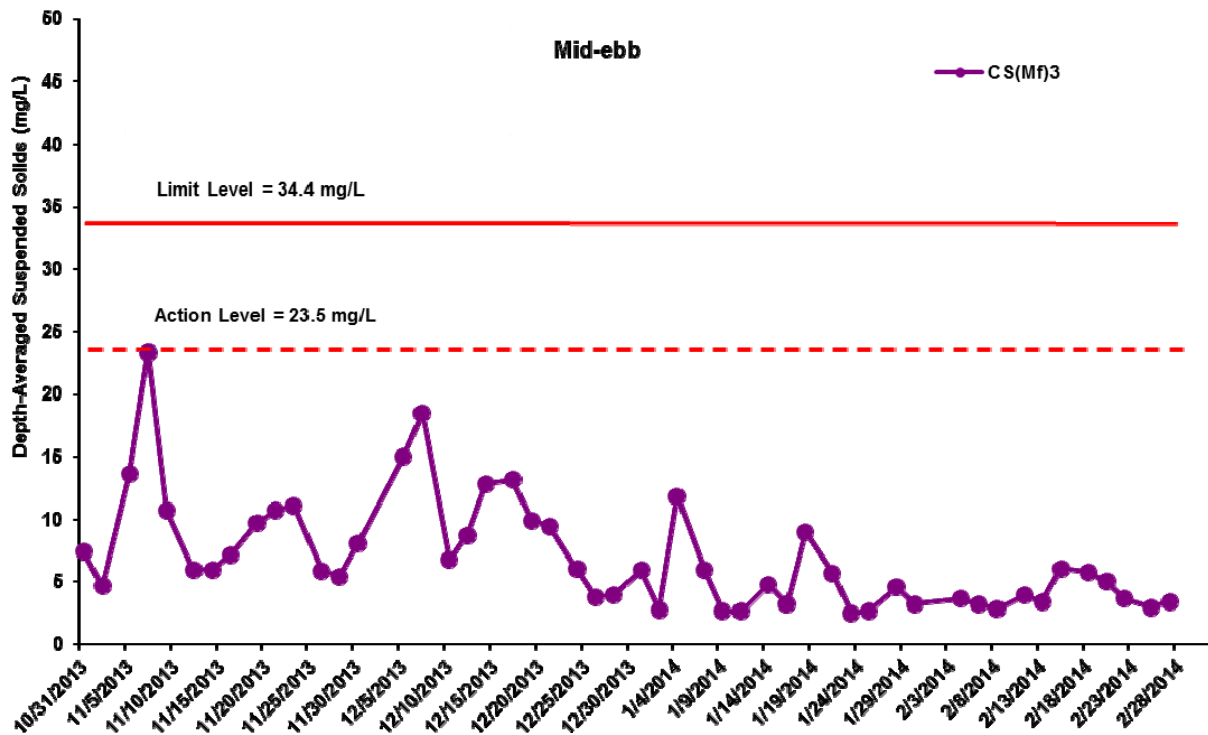


Figure I29 Impact Monitoring - Mean Level of depth-averaged Suspended Solids (mg/L) during mid-ebb tide between 31 October 2013 to 28 February 2014 at CS(Mf)3 and CS(Mf)5.

(Weather condition varied between sunny to rainy within the reporting period. Marine works within the reporting period include rockfill platform construction, marine piling platform installation and survey tower erection.)

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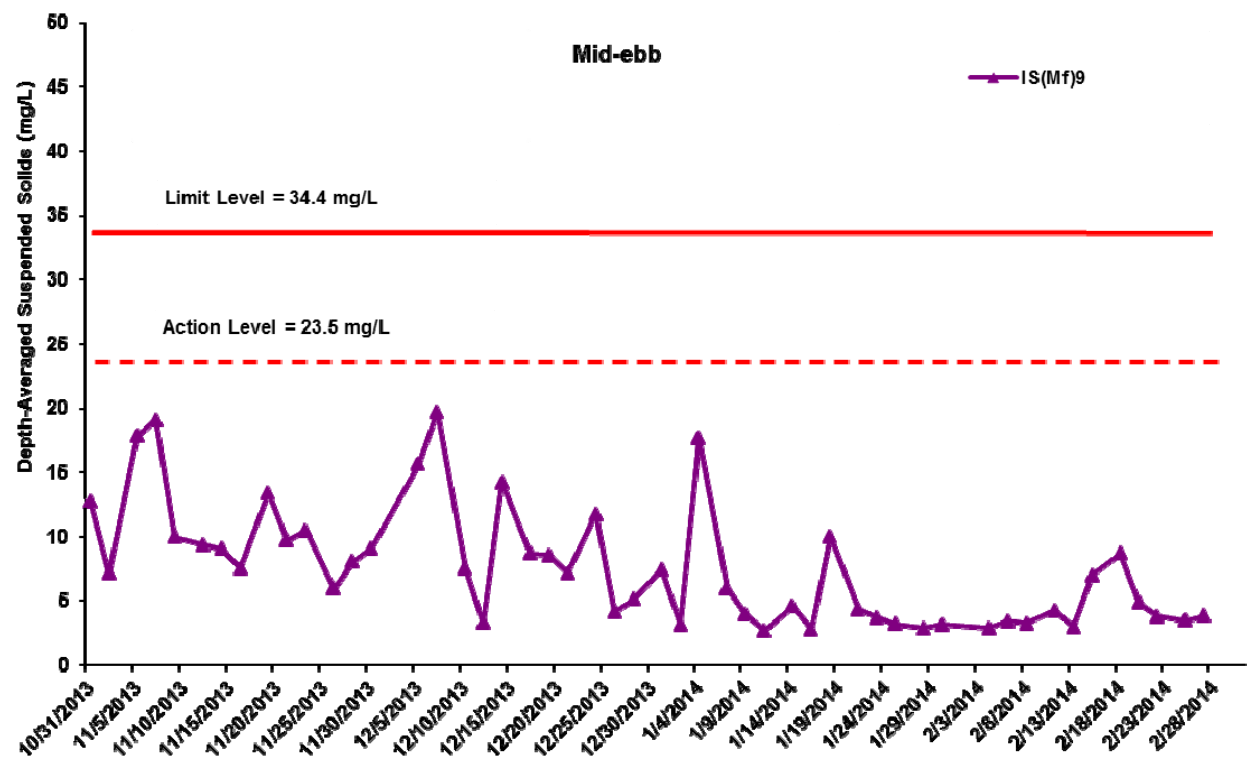
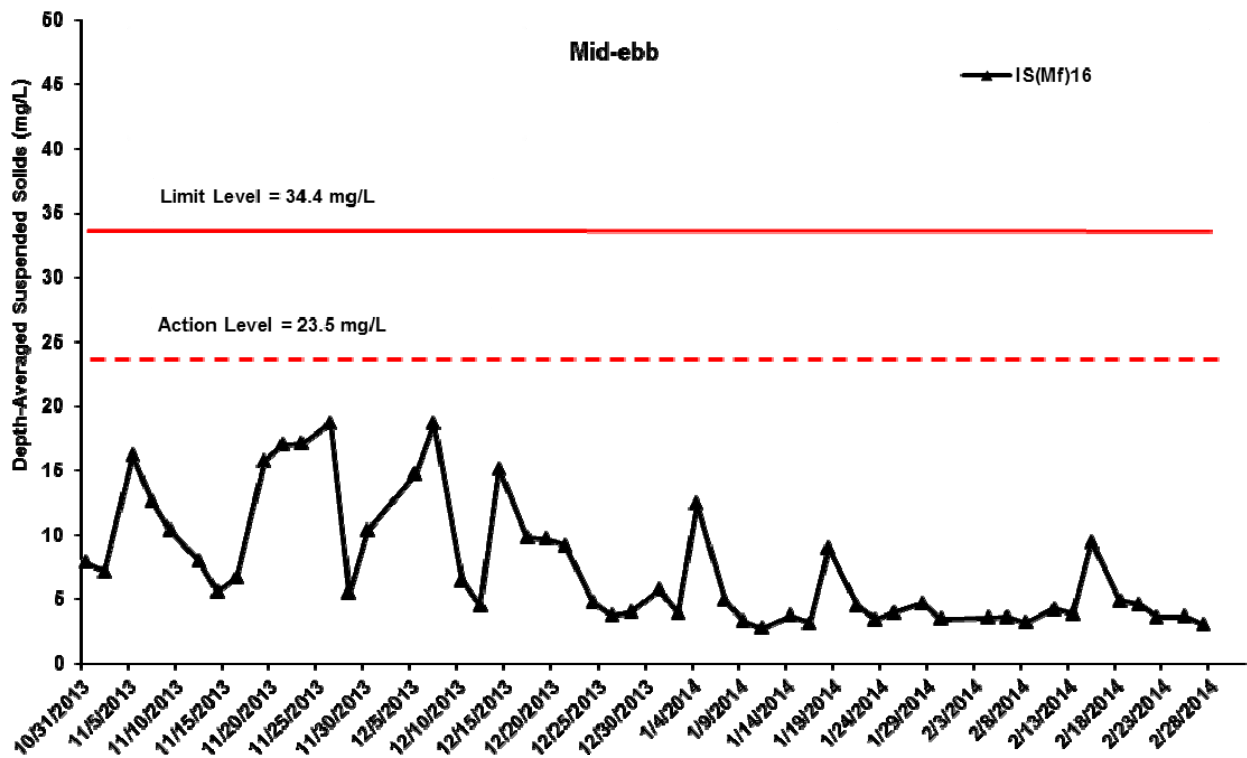


Figure I30 Impact Monitoring - Mean Level of depth-averaged Suspended Solids (mg/L) during mid-ebb tide between 31 October 2013 to 28 February 2014 at IS(Mf)16 and IS(Mf)9.

(Weather condition varied between sunny to rainy within the reporting period. Marine works within the reporting period include rockfill platform construction, marine piling platform installation and survey tower erection.)

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Management**



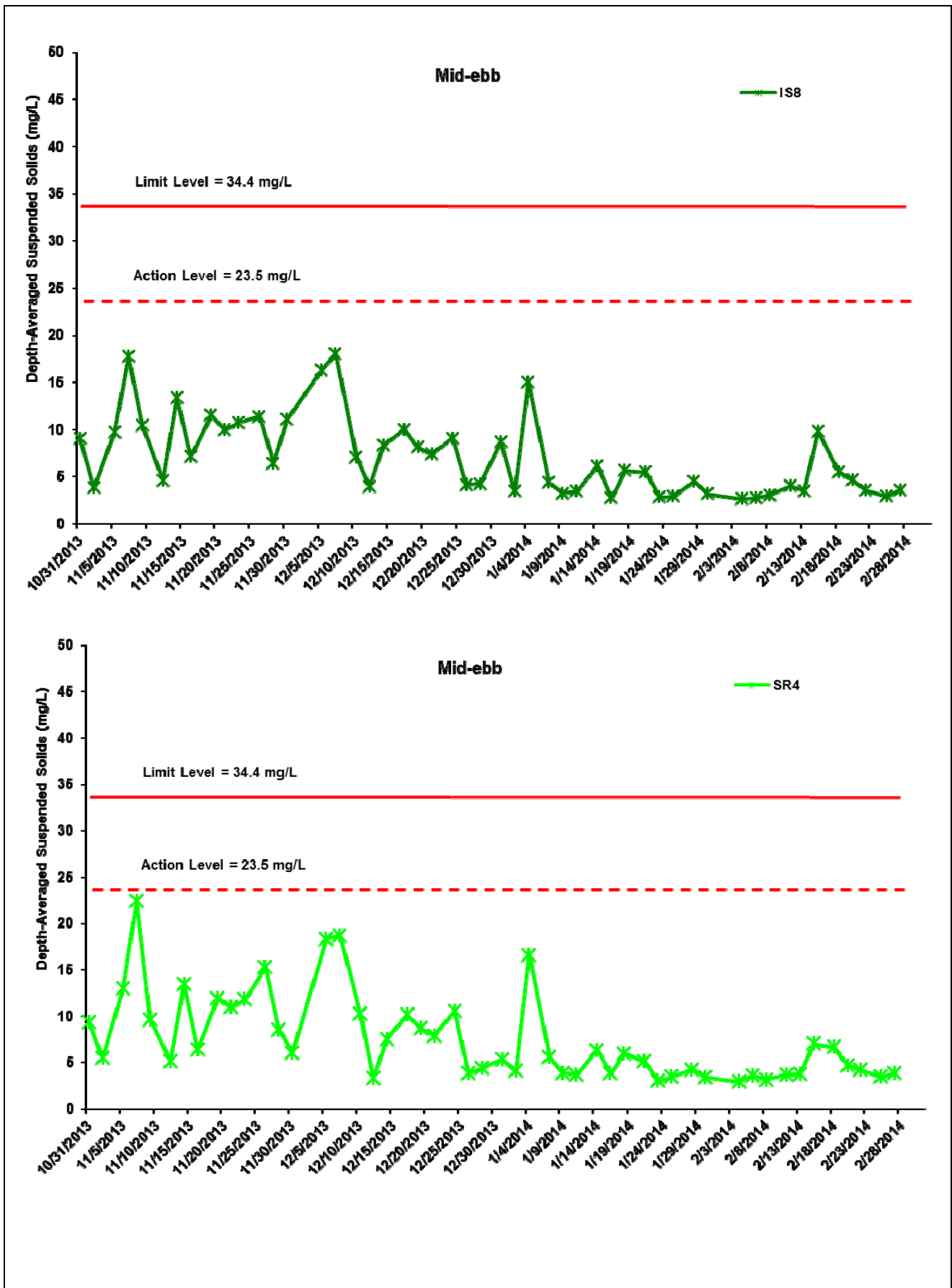


Figure I31 Impact Monitoring – Mean Level of depth-averaged Suspended Solids (mg/L) during mid-ebb tide between 31 October 2013 to 28 February 2014 at IS8 and SR4.

(Weather condition varied between sunny to rainy within the reporting period. Marine works within the reporting period include rockfill platform construction, marine piling platform installation and survey tower erection.)

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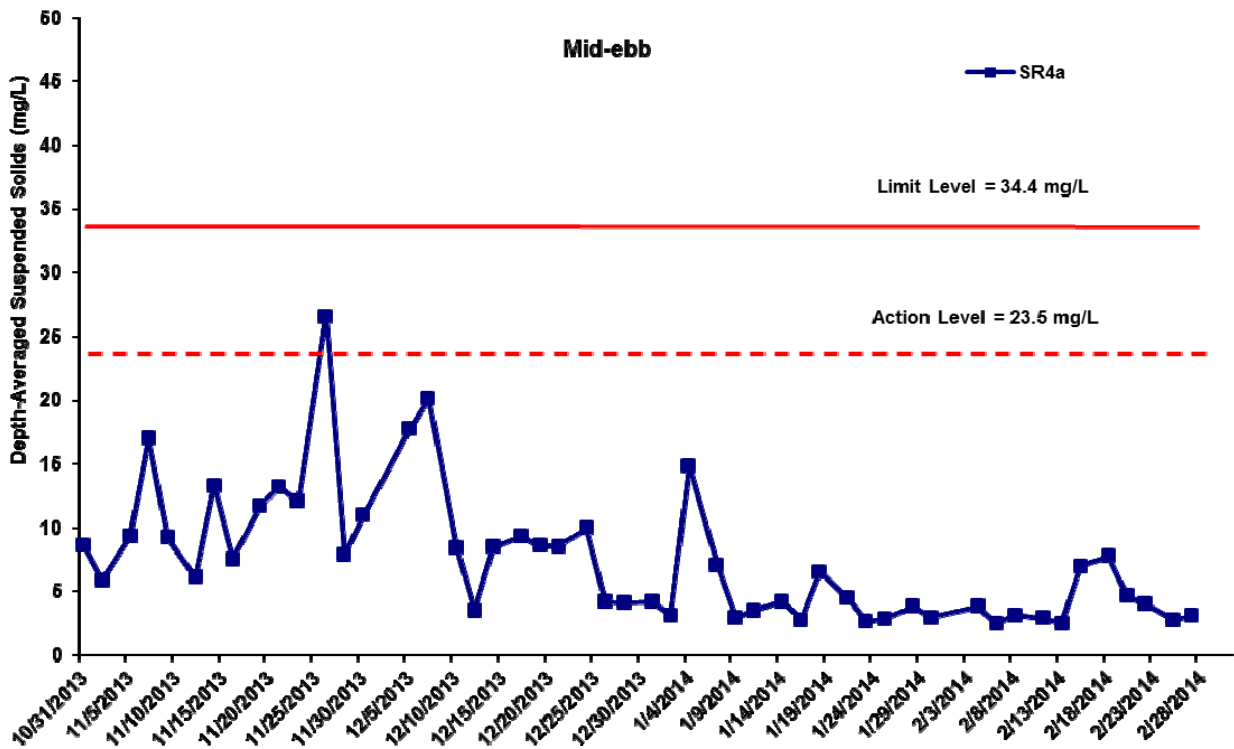


Figure I32 Impact Monitoring - Mean Level of depth-averaged Suspended Solids (mg/L) during mid-ebb tide between 31 October 2013 to 28 February 2014 at SR4a.

(Weather condition varied between sunny to rainy within the reporting period. Marine works within the reporting period include rockfill platform construction, marine piling platform installation and survey tower erection.)

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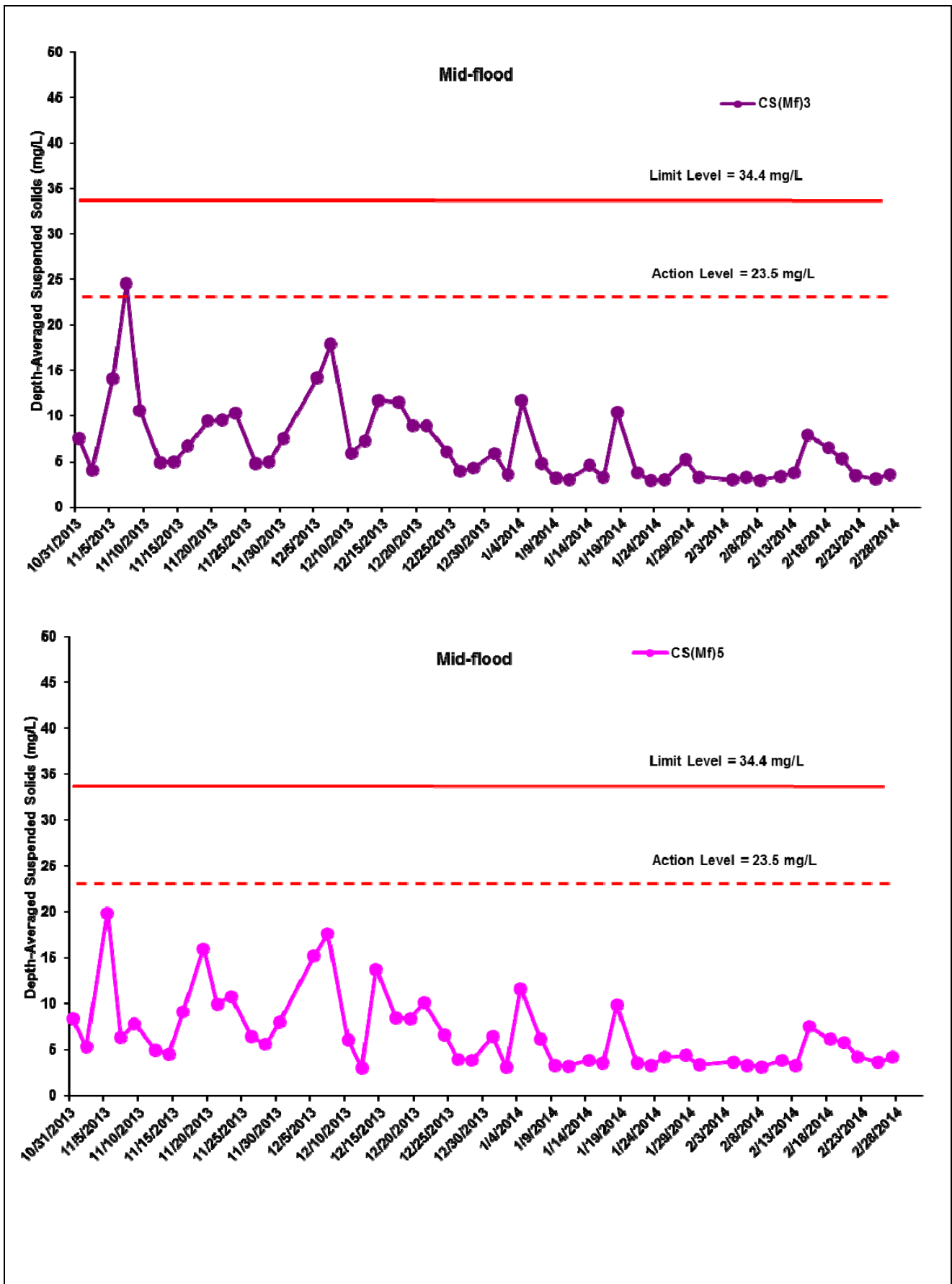


Figure I33 Impact Monitoring – Mean Level of depth-averaged Suspended Solids (mg/L) during mid-flood tide between 31 October 2013 to 28 February 2014 at CS(Mf)3 and CS(Mf)5.

(Weather condition varied between sunny to rainy within the reporting period. Marine works within the reporting period include rockfill platform construction, marine piling platform installation and survey tower erection.)

Environmental Resources Management



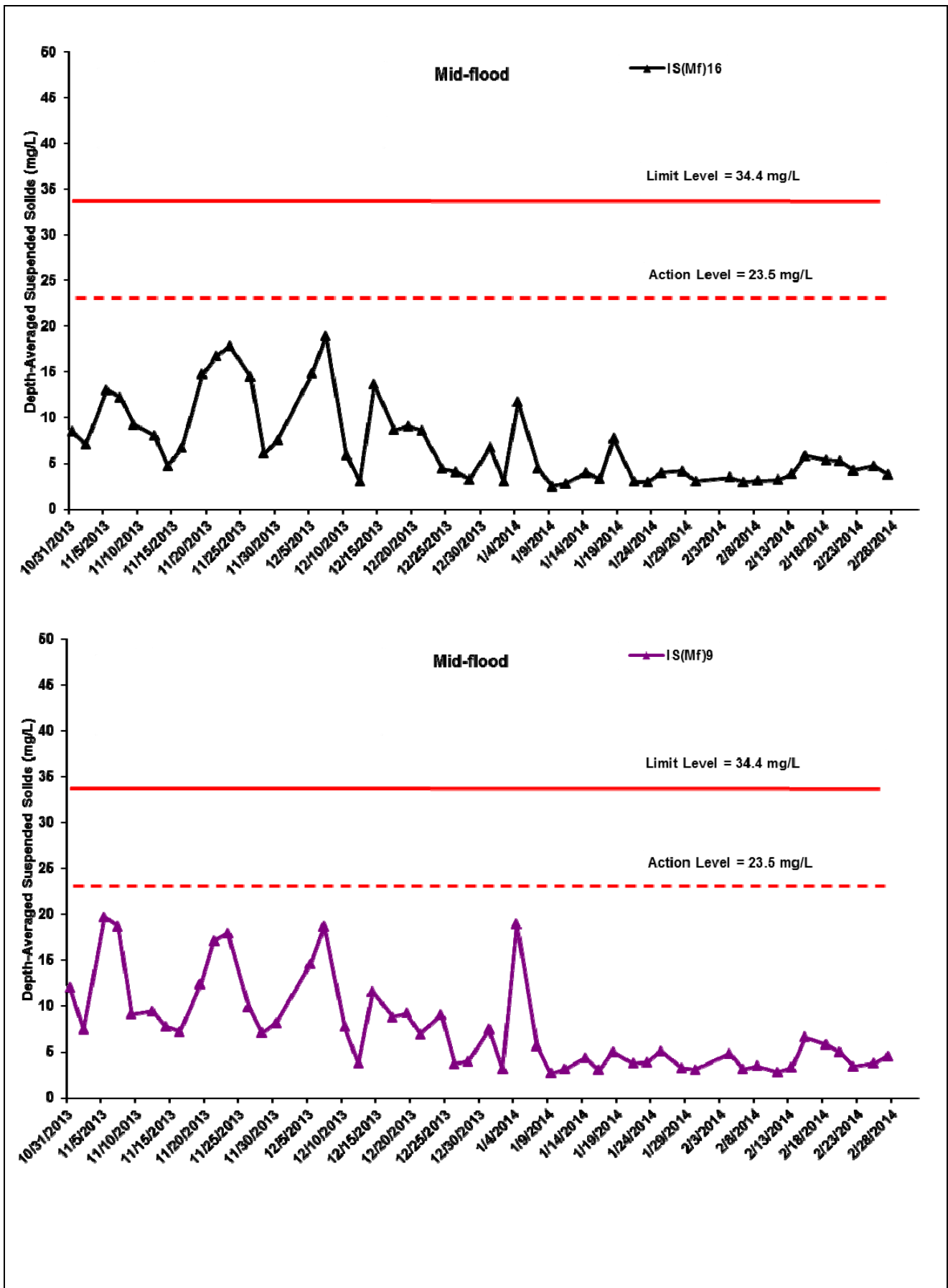


Figure I34 Impact Monitoring - Mean Level of depth-averaged Suspended Solids (mg/L) during mid-flood tide between 31 October 2013 to 28 February 2014 at IS(Mf)16 and IS(Mf)9 .
(Weather condition varied between sunny to rainy within the reporting period. Marine works within the reporting period include rockfill platform construction, marine piling platform installation and survey tower erection.)

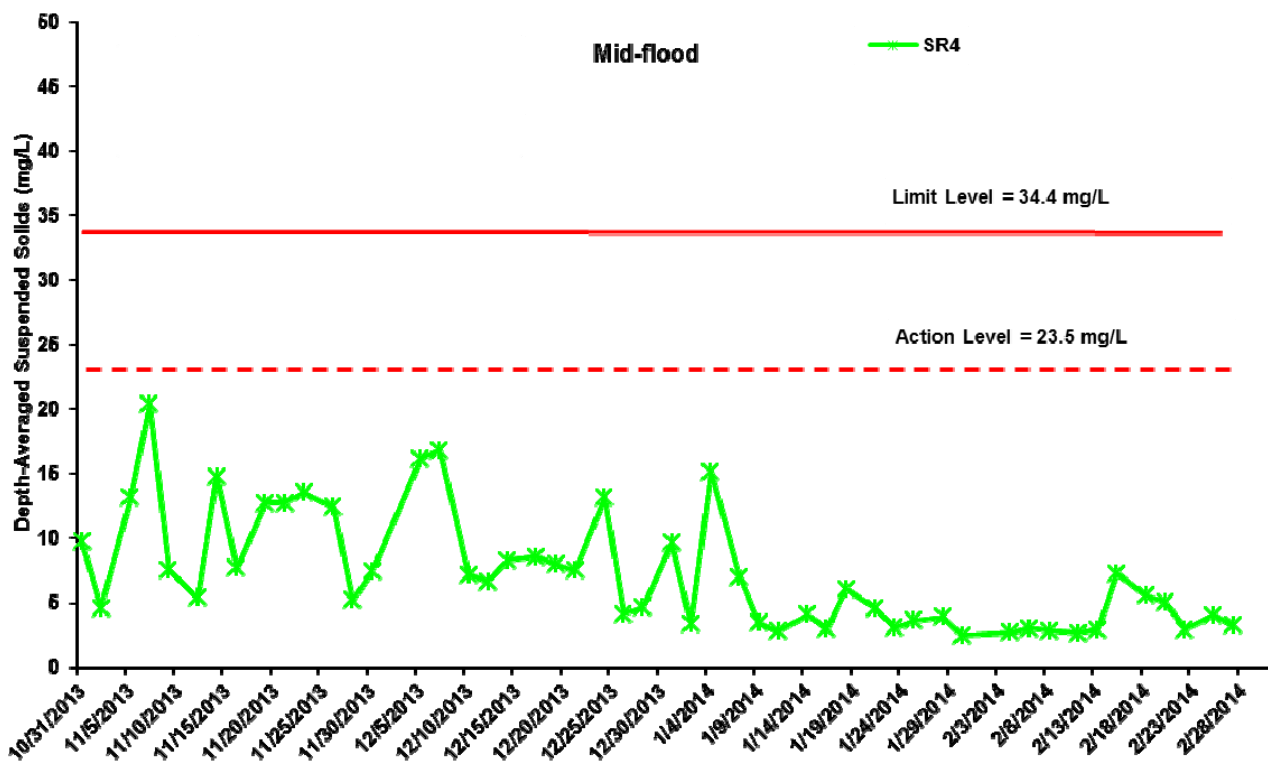
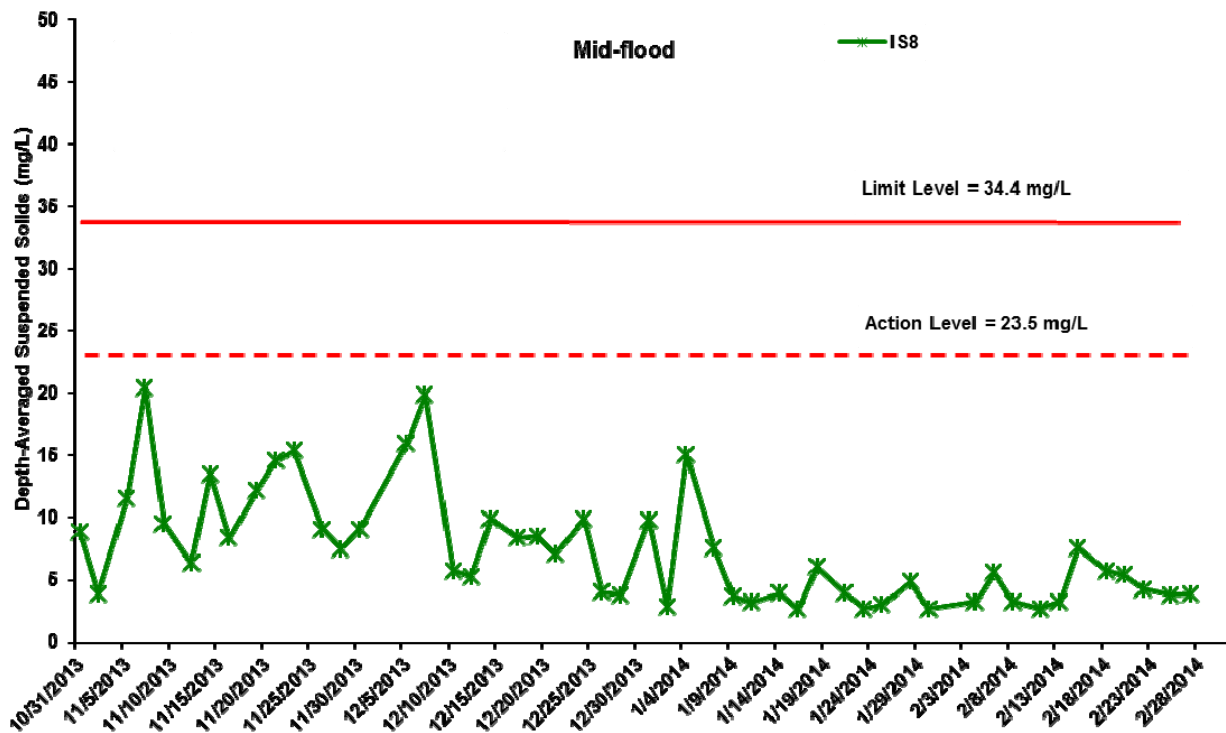
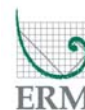


Figure I35 Impact Monitoring - Mean Level of depth-averaged Suspended Solids (mg/L) during mid-flood tide between 31 October 2013 to 28 February 2014 at IS8 and SR4.

(Weather condition varied between sunny to rainy within the reporting period. Marine works within the reporting period include rockfill platform construction, marine piling platform installation and survey tower erection.)

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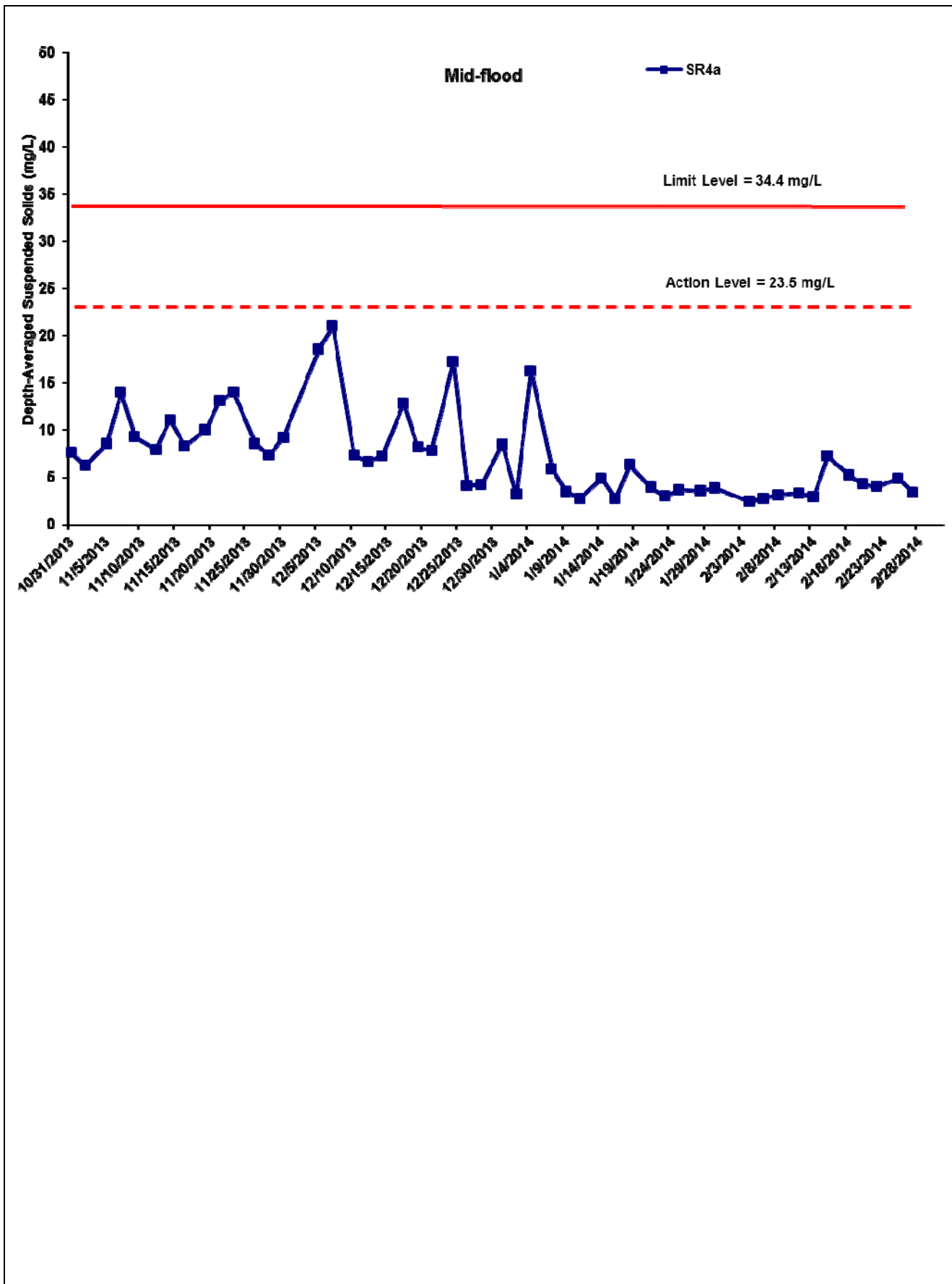


Figure I36 Impact Monitoring - Mean Level of depth-averaged Suspended Solids (mg/L) during mid-flood tide between 31 October 2013 to 28 February 2014 at SR4a.

(Weather condition varied between sunny to rainy within the reporting period. Marine works within the reporting period include rockfill platform construction, marine piling platform installation and survey tower erection.)

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Appendix J

Impact Dolphin Monitoring Survey Results

CONTRACT NO. HY/2012/07

**Hong Kong-Zhuhai-Macao Bridge Tuen Mun – Chek Lap Kok Link
(Southern Connection Viaduct Section)
Dolphin Quarterly Monitoring**

*1st Quarterly Progress Report (November 2013 – February 2014)
submitted to Gammon Construction Limited*

Submitted by
Samuel K.Y. Hung, Ph.D., Hong Kong Cetacean Research Project

5 April 2014

1. Introduction

- 1.1. The Tuen Mun-Chek Lap Kok Link (TM-CLKL) comprises a 1.6 km long dual 2-lane viaduct section between the Hong Kong Boundary Crossing Facilities (HKBCF) and the North Lantau Highway and associated roads at Tai Ho. Gammon Construction Limited (hereinafter called the “Contractor”) was awarded as the main contractor of “Contract No. HY/2012/07 – Hong Kong-Zhuhai-Macao Bridge Tuen Mun-Chek Lap Kok Link – Southern Connection Viaduct Section”.
- 1.2. According to the updated Environmental Monitoring and Audit (EM&A) Manual (for TM-CLKL), monthly line-transect vessel surveys for Chinese White Dolphin should be conducted to cover the Northwest (NWL) and Northeast Lantau (NEL) survey areas as in AFCD annual marine mammal monitoring programme. However, as such surveys have been undertaken by the HKLR03 and HKBCF projects in the same areas (i.e. NWL and NEL), a combined monitoring approach is recommended by the Highways Department, that the TM-CLKL EM&A project can utilize the monitoring data collected by HKLR03 or HKBCF project to avoid any redundancy in monitoring effort. Such exemption for the dolphin monitoring will end upon the completion of the dolphin monitoring carried out by HKLR03 contract as well as the TM-CLKL Northern Connection Sub-Sea Tunnel Section (HY/2012/08)
- 1.3. In November 2013, the Director of Hong Kong Cetacean Research Project (HKCRP), Dr. Samuel Hung, has been appointed by Gammon Construction Limited as the dolphin specialist for the TM-CLKL Southern Viaduct Section EM&A project. He is responsible for the dolphin monitoring study, including the data collection on Chinese White Dolphins during the construction phase (i.e. impact period) of the TM-CLKL project in Northwest Lantau (NWL) and Northeast Lantau (NEL) survey areas.
- 1.4. During the construction period of HKLR, the dolphin specialist would be in charge of reviewing and collating information collected by HKLR03 dolphin monitoring programme to

examine any potential impacts of TM-CLKL construction works on the dolphins.

- 1.5. From the monitoring results, any changes in dolphin occurrence within the study area will be examined for possible causes, and appropriate actions and additional mitigation measures will be recommended as necessary.
- 1.6. This report is the first quarterly progress report under the TM-CLKL construction phase dolphin monitoring programme submitted to the Gammon Construction Limited, summarizing the results of the surveys findings during the period of November 2013 to February 2014 utilizing the survey data collected by HKLR03 project.

2. Monitoring Methodology

2.1. Vessel-based Line-transect Survey

- 2.1.1. According to the requirement of the updated EM&A manual, dolphin monitoring programme should cover all transect lines in NEL and NWL survey areas (see Figure 1) twice per month throughout the entire construction period. The co-ordinates of all transect lines conducted during the HKLR03 dolphin monitoring surveys are shown in Table 1.

Table 1 Co-ordinates of transect lines conducted by HKLR03 project

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

10	Start Point	813525	820872		22	Start Point	806464	824033
10	End Point	813525	824657		22	End Point	806464	829598
11	Start Point	814556	818449		23	Start Point	814559	821739
11	End Point	814556	820992		23	End Point	814559	824768
12	Start Point	815542	818807					
12	End Point	815542	824882					

- 2.1.2. The HKLR03 survey team used standard line-transect methods (Buckland et al. 2001) to conduct the systematic vessel surveys, and followed the same technique of data collection that has been adopted over the last 16 years of marine mammal monitoring surveys in Hong Kong developed by HKCRP (see Hung 2012, 2013). For each monitoring vessel survey, a 15-m inboard vessel with an open upper deck (about 4.5 m above water surface) was used to make observations from the flying bridge area.
- 2.1.3. Two experienced observers (a data recorder and a primary observer) made up the on-effort survey team, and the survey vessel transited different transect lines at a constant speed of 13-15 km per hour. The data recorder searched with unaided eyes and filled out the datasheets, while the primary observer searched for dolphins and porpoises continuously through 7 x 50 *Fujinon* marine binoculars. Both observers searched the sea ahead of the vessel, between 270° and 90° (in relation to the bow, which is defined as 0°). One to two additional experienced observers were available on the boat to work in shift (i.e. rotate every 30 minutes) in order to minimize fatigue of the survey team members. All observers were experienced in small cetacean survey techniques and identifying local cetacean species.
- 2.1.4. During on-effort survey periods, the survey team recorded effort data including time, positions (latitude and longitude), weather conditions (Beaufort sea state and visibility), and distance traveled in each series (a continuous period of search effort) with the assistance of a handheld GPS (*Garmin eTrex Legend*).
- 2.1.5. Data including time, position and vessel speed were also automatically and continuously logged by handheld GPS throughout the entire survey for subsequent review.
- 2.1.6. When dolphins were sighted, the survey team would end the survey effort, and immediately record the initial sighting distance and angle of the dolphin group from the survey vessel, as well as the sighting time and position. Then the research vessel was diverted from its course to approach the animals for species identification, group size estimation, assessment of group composition, and behavioural observations. The perpendicular distance (PSD) of the dolphin group to the transect line was later calculated from the initial sighting distance and angle.
- 2.1.7. Survey effort being conducted along the parallel transect lines that were perpendicular to the coastlines (as indicated in Figure 1) was labeled as “primary” survey effort, while the survey effort conducted along the connecting lines between parallel lines was labeled as “secondary” survey effort. According to HKCRP long-term dolphin monitoring data, encounter rates of Chinese white dolphins deduced from effort and sighting data collected

along primary and secondary lines were similar in NEL and NWL survey areas. Therefore, both primary and secondary survey effort were presented as on-effort survey effort in this report.

2.2. Photo-identification Work

- 2.2.1. When a group of Chinese White Dolphins were sighted during the line-transect survey, the HKLR03 survey team would end effort and approach the group slowly from the side and behind to take photographs of them. Every attempt was made to photograph every dolphin in the group, and even photograph both sides of the dolphins, since the colouration and markings on both sides may not be symmetrical.
- 2.2.2. A professional digital camera (*Canon* EOS 7D or 60D model), equipped with long telephoto lenses (100-400 mm zoom), were available on board for researchers to take sharp, close-up photographs of dolphins as they surfaced. The images were shot at the highest available resolution and stored on Compact Flash memory cards for downloading onto a computer.
- 2.2.3. All digital images taken in the field were first examined, and those containing potentially identifiable individuals were sorted out. These photographs would then be examined in greater detail, and were carefully compared to the existing Chinese White Dolphin photo-identification catalogue maintained by HKCRP since 1995.
- 2.2.4. Chinese White Dolphins can be identified by their natural markings, such as nicks, cuts, scars and deformities on their dorsal fin and body, and their unique spotting patterns were also used as secondary identifying features (Jefferson 2000).
- 2.2.5. All photographs of each individual were then compiled and arranged in chronological order, with data including the date and location first identified (initial sighting), re-sightings, associated dolphins, distinctive features, and age classes entered into a computer database.

2.3. Data Analysis

- 2.3.1. Distribution Analysis – The line-transect survey data was integrated with the Geographic Information System (GIS) in order to visualize and interpret different spatial and temporal patterns of dolphin distribution using sighting positions. Location data of dolphin groups were plotted on map layers of Hong Kong using a desktop GIS (*ArcView*® 3.1) to examine their distribution patterns in details. The dataset was also stratified into different subsets to examine distribution patterns of dolphin groups with different categories of group sizes, young calves and activities.
- 2.3.2. Encounter rate analysis – Encounter rates of Chinese white dolphins (number of on-effort sightings per 100 km of survey effort, and total number of dolphins sighted on-effort per 100 km of survey effort) were calculated in NEL and NWL survey areas in relation to the amount of survey effort conducted during each month of monitoring survey. Only data

collect under Beaufort 3 or below condition would be used for the encounter rate analyses. Dolphin encounter rates were calculated in two ways for comparisons with the HZMB baseline monitoring results as well as to AFCD long-term marine mammal monitoring results.

Firstly, for the comparison with the HZMB baseline monitoring results, the encounter rates were calculated using primary survey effort alone. The average encounter rate of sightings (STG) and average encounter rate of dolphins (ANI) were deduced based on the encounter rates from six events during the present quarter (i.e. six sets of line-transect surveys in North Lantau), which was also compared with the one deduced from the six events during the baseline period (i.e. six sets of line-transect surveys in North Lantau).

Secondly, the encounter rates were calculated using both primary and secondary survey effort collected under Beaufort 3 or below condition as in AFCD long-term monitoring study. The encounter rate of sightings and dolphins were deduced by dividing the total number of on-effort sightings (STG) and total number of dolphins (ANI) by the amount of survey effort for the quarterly period of December 2013 – February 2014.

- 2.3.3. Quantitative grid analysis on habitat use – To conduct quantitative grid analysis of habitat use, positions of on-effort sightings of Chinese White Dolphins collected during the quarterly impact phase monitoring period were plotted onto 1-km² grids among NWL and NEL survey areas on GIS. Sighting densities (number of on-effort sightings per km²) and dolphin densities (total number of dolphins from on-effort sightings per km²) were then calculated for each 1 km by 1 km grid with the aid of GIS. Sighting density grids and dolphin density grids were then further normalized with the amount of survey effort conducted within each grid. The total amount of survey effort spent on each grid was calculated by examining the survey coverage on each line-transect survey to determine how many times the grid was surveyed during the study period. For example, when the survey boat traversed through a specific grid 50 times, 50 units of survey effort were counted for that grid. With the amount of survey effort calculated for each grid, the sighting density and dolphin density of each grid were then normalized (i.e. divided by the unit of survey effort).

The newly-derived unit for sighting density was termed SPSE, representing the number of on-effort sightings per 100 units of survey effort. In addition, the derived unit for actual dolphin density was termed DPSE, representing the number of dolphins per 100 units of survey effort. Among the 1-km² grids that were partially covered by land, the percentage of sea area was calculated using GIS tools, and their SPSE and DPSE values were adjusted accordingly. The following formulae were used to estimate SPSE and DPSE in each 1-km² grid within the study area:

$$\text{SPSE} = ((S / E) \times 100) / \text{SA}\%$$
$$\text{DPSE} = ((D / E) \times 100) / \text{SA}\%$$

where S = total number of on-effort sightings
D = total number of dolphins from on-effort sightings
E = total number of units of survey effort
SA% = percentage of sea area

- 2.3.4. Behavioural analysis – When dolphins were sighted during vessel surveys, their behaviour was observed. Different activities were categorized (i.e. feeding, socializing, traveling, and milling/resting) and recorded on sighting datasheets. This data was then input into a separate database with sighting information, which can be used to determine the distribution of behavioural data with a desktop GIS. Distribution of sightings of dolphins engaged in different activities and behaviours would then be plotted on GIS and carefully examined to identify important areas for different activities of the dolphins.
- 2.3.5. Ranging pattern analysis – Location data of individual dolphins that occurred during the 3-month impact phase monitoring period were obtained from the dolphin sighting database and photo-identification catalogue. To deduce home ranges for individual dolphins using the fixed kernel methods, the program Animal Movement Analyst Extension, was loaded as an extension with ArcView[®] 3.1 along with another extension Spatial Analyst 2.0. Using the fixed kernel method, the program calculated kernel density estimates based on all sighting positions, and provided an active interface to display kernel density plots. The kernel estimator then calculated and displayed the overall ranging area at 95% UD level.

3. Monitoring Results

3.1. *Summary of survey effort and dolphin sightings*

- 3.1.1. During the period of November 2013 to February 2014, eight sets of systematic line-transect vessel surveys were conducted under the HKLR03 monitoring works to cover all transect lines in NWL and NEL survey areas twice per month.
- 3.1.2. From these HKLR03 surveys, a total of 1,137.92 km of survey effort was collected, with 95.0% of the total survey effort being conducted under favourable weather conditions (i.e. Beaufort Sea State 3 or below with good visibility). Among the two areas, 428.91 km and 709.01 km of survey effort were conducted in NEL and NWL survey areas respectively.
- 3.1.3. The total survey effort conducted on primary lines was 852.63 km, while the effort on secondary lines was 285.29 km. Both survey effort conducted on primary and secondary lines were considered as on-effort survey data. Summary table of the survey effort is shown in Appendix I.
- 3.1.4. During the eight sets of HKLR03 monitoring surveys from November 2013 to February 2014, a total of 59 groups of 249 Chinese White Dolphins were sighted. All except four sightings were made during on-effort search. Fifty on-effort sightings were made on primary lines, while five other on-effort sightings were made on secondary lines. During this four-month period, only three groups of 16 dolphins were sighted in NEL (with only one group of three dolphins sighted on primary lines), while the other 56 groups of 233 dolphins were sighted in NWL. Summary table of the dolphin sightings is shown in Appendix II.

- 3.1.5. For the detailed comparison of dolphin occurrence and usage of NEL and NWL survey area between the impact phase and baseline phase monitoring (i.e. Sections 3.2 to 3.7, and Section 3.9), only the quarterly data of December 2013 – February 2014 from the impact phase monitoring was used in the present report to tally with the three-month period of baseline monitoring (September-November 2011). The three-month period (December 2013 – February 2014) was also consistent with seasonality period as defined in the long-term monitoring dolphin research conducted by AFCD (Hung 2012, 2013) to allow direct comparison between the baseline and impact phase monitoring data.
- 3.2. *Distribution*
- 3.2.1. Distribution of dolphin sightings made during the HKLR03 monitoring surveys in December 2013 to February 2014 is shown in Figure 1. The majority of dolphin sightings were made in the northwestern portion of the North Lantau region. Concentration of sightings were located within the Sha Chau and Lung Kwu Chau Marine Park, and to the west of Black Point (Figure 1). On the other hand, a few dolphin groups were sighted near Pillar Point, and near the Brothers Islands (Figure 1).
- 3.2.2. One sighting was made very close to the reclamation site of TMCLKL northern landfall, but none of the dolphin groups were sighted in the vicinity of TMCLKL southern viaduct section, or the HKLR03/HKBCF reclamation site (Figure 1). Only one dolphin sighting was made near the HKLR09 alignment (Figure 1).
- 3.2.3. Sighting distribution of the present impact phase monitoring period (December 2013 – February 2014) was compared to the one in the baseline monitoring period (September to November 2011). During the present quarter, dolphins rarely occurred in NEL region, which was in stark contrast to their frequent occurrence around the Brothers Islands and in the vicinity of HKBCF reclamation site during the baseline period (Figure 1). On the other hand, dolphin occurrence in the northwestern portion of North Lantau region was largely similar between the baseline and impact phase quarters, but there appeared to be fewer dolphins occurred in the middle portion of North Lantau region where dolphins supposedly moved between their core areas around Lung Kwu Chau and the Brothers Islands (Figure 1).
- 3.2.4. As the baseline monitoring period was in autumn season while the present monitoring period was in winter season, a direct comparison in dolphin distribution between the two quarterly periods of winter months in 2012-13 and 2013-14 was also made to avoid the potential bias in seasonal variation. Between the two winter periods, there were still much fewer dolphins sighted in NEL waters as well as the middle portion of North Lantau waters during the winter months of 2013-14 than the winter months of 2012-13 (Figure 2). In fact, both HKLR03 and HKBCF have already commenced their works since the third and first quarters of 2013 respectively, implying that dolphin usage has further declined in the central and eastern portion of North Lantau waters in winter months of 2013-14 from the previous year.
- 3.3. *Encounter rate*
- 3.3.1. During the present quarterly period, the encounter rates of Chinese White Dolphins deduced from the survey effort and on-effort sighting data from the primary transect lines
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under favourable conditions (Beaufort 3 or below) for each set of the HKLR03 surveys in NEL and NWL are shown in Table 2. The average encounter rates deduced from the six sets of HKLR03 surveys were also compared with the ones deduced from the baseline monitoring period (September – November 2011) (Table 3).

Table 2. Dolphin encounter rates (sightings per 100 km of survey effort) during December 2013 – February 2014 deduced from HKLR03 monitoring surveys

SURVEY AREA	HKLR03 DOLPHIN MONITORING DATES	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
Northeast Lantau	Set 1 (5 & 9 Dec 2013)	2.68	8.05
	Set 2 (13 & 19 Dec 2013)	0.00	0.00
	Set 3 (7 & 9 Jan 2014)	0.00	0.00
	Set 4 (21 & 23 Jan 2014)	0.00	0.00
	Set 5 (6 & 12 Feb 2014)	0.00	0.00
	Set 6 (14 & 20 Feb 2014)	0.00	0.00
Northwest Lantau	Set 1 (5 & 9 Dec 2013)	6.95	30.57
	Set 2 (13 & 19 Dec 2013)	6.82	27.27
	Set 3 (7 & 9 Jan 2014)	10.00	39.99
	Set 4 (21 & 23 Jan 2014)	11.84	50.33
	Set 5 (6 & 12 Feb 2014)	7.44	17.86
	Set 6 (14 & 20 Feb 2014)	6.20	29.47

Table 3. Comparison of average dolphin encounter rates from impact monitoring period (December 2013 – February 2014) and baseline monitoring period (September – November 2011) (Note: encounter rates deduced from the baseline monitoring period have been recalculated based only on survey effort and on-effort sighting data made along the primary transect lines under favourable conditions)

	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)	
	December 2013 - February 2014	September - November 2011	December 2013 - February 2014	September - November 2011
Northeast Lantau	0.45 ± 1.10	6.00 ± 5.05	1.34 ± 3.29	22.19 ± 26.81
Northwest Lantau	8.21 ± 2.21	9.85 ± 5.85	32.58 ± 11.21	44.66 ± 29.85

3.3.2. To facilitate the comparison with the AFCD long-term monitoring results, the encounter rates were also calculated for the present quarter using both primary and secondary survey effort. The encounter rates of sightings (STG) and dolphins (ANI) in NWL were 7.00 sightings and 26.77 dolphins per 100 km of survey effort respectively, while the encounter rates of sightings (STG) and dolphins (ANI) in NEL were 0.61 sightings and 3.67 dolphins per 100 km of survey effort respectively.

- 3.3.3. In NEL, the average dolphin encounter rates (both STG and ANI) in the present three-month impact phase were only small fractions of the ones recorded in the 3-month baseline period (reductions of 92.5% and 94.0% respectively between the two periods; Table 3). On the other hand, the average dolphin encounter rates (STG and ANI) in NWL during the present impact phase monitoring period were slightly lower (reductions of 16.6% and 27.0% respectively) than the ones recorded in the 3-month baseline period, indicating a reduced dolphin usage of this survey area during the present construction period.
- 3.3.4. A two-way ANOVA with repeated measures and unequal sample size was conducted to examine whether there were any significant differences in the average encounter rates between the baseline and impact monitoring periods. The two variables that were examined included the two periods (baseline and impact phases) and two locations (NEL and NWL).
- 3.3.5. For the comparison between the baseline period and the present quarter, the p-value for the differences in average dolphin encounter rates of STG and ANI were 0.0774 and 0.1671 respectively. If the alpha value is set at 0.1, significant difference was detected between the baseline and present quarters in the dolphin encounter rates of STG, but not in the encounter rates of ANI.

3.4. Group size

- 3.4.1. Group size of Chinese White Dolphins ranged from 1-12 individuals per group in North Lantau region during December 2013 to February 2014. The average dolphin group sizes from these three months were compared with the ones deduced from the baseline period in September to November 2011, as shown in Table 4.

Table 4. Comparison of average dolphin group sizes from impact monitoring period (December 2013 – February 2014) and baseline monitoring period (September – November 2011)

	Average Dolphin Group Size	
	December 2013 – February 2014	September – November 2011
Overall	3.87 ± 2.84 (n = 38)	3.72 ± 3.13 (n = 66)
Northeast Lantau	5.33 ± 3.21 (n = 3)	3.18 ± 2.16 (n = 17)
Northwest Lantau	3.74 ± 2.82 (n = 35)	3.92 ± 3.40 (n = 49)

- 3.4.2. The average dolphin group sizes in the entire North Lantau region during December 2013 to February 2014 were slightly higher than the ones recorded in the three-month baseline period (Table 5). Although the average group size in NEL was quite high during the present monitoring period when compared to the baseline period, the sample size of the three dolphin groups in 2013 was actually very small for such comparison.

- 3.4.3. Distribution of dolphins with larger group sizes during the present quarter is shown in Figure 3, with comparison to the one in baseline period. In winter months of 2013-14, almost all larger dolphin groups were clustered at the northwestern portion of North Lantau near Sha Chau, Lung Kwu Chau and Black Point, with only one other larger dolphin group sighted near Siu Ho Wan in NEL (Figure 3). This distribution pattern was similar to the baseline period, except that a few more larger dolphin groups were sighted in NEL as well as around the airport platform during the baseline period. Notably, none of the larger dolphin groups were sighted near the TMCLKL alignment in the present monitoring period (Figure 3).
- 3.5. *Habitat use*
- 3.5.1. From December 2013 to February 2014, the most heavily utilized habitats by Chinese White Dolphins mainly concentrated around Lung Kwu Chau, to the west of Sha Chau and Black Point (Figures 4a and 4b). Only two grids in NEL recorded the presence of dolphins near Siu Ho Wan with moderately high dolphin densities. None of the grids along TMCLKL or HKLR09 alignment and around the HKLR03/HKBCF reclamation sites recorded the presence of dolphins during on-effort search in the present quarterly period.
- 3.5.2. However, it should be emphasized that the amount of survey effort collected in each grid during the three-month period was fairly low (6-12 units of survey effort for most grids), and therefore the habitat use pattern derived from the three-month dataset should be treated with caution. A more complete picture of dolphin habitat use pattern will be presented when more survey effort for each grid will be collected throughout the impact phase monitoring programme.
- 3.5.3. When compared with the habitat use patterns during the baseline period, dolphin usage in NEL was noticeably much lower in the present impact monitoring period (Figure 5). During the baseline period, nine grids between Siu Mo To and Shum Shui Kok recorded moderately high to high dolphin densities, which was in stark contrast to the only two grids with dolphin presence during the present impact phase period (Figure 5). On the other hand, the density patterns between the baseline and impact phase monitoring periods were similar in NWL, except that dolphins were rarely present in the eastern portion of this region (Figure 5).
- 3.6. *Mother-calf pairs*
- 3.6.1. During the three-month period, a total of one unspotted calf (UC) and nine unspotted juveniles (UJ) were sighted in NEL and NWL survey areas. These young calves comprised 6.8% of all animals sighted, which was the same percentage recorded during the baseline monitoring period (6.8%).
- 3.6.2. All except one of these young calves were present within and adjacent to the Sha Chau and Lung Kwu Chau Marine Park (Figure 6), and all of them were sighted within larger dolphin groups with at least five individuals. Notably, only one UJ was sighted near Siu Ho Wan in NEL, and none of the young calves were sighted in the vicinity of the TMCLKL/HKLR09 alignments and HKBCF/HKLR03 reclamation sites during the present quarter (Figure 6).

3.7. *Activities and associations with fishing boats*

3.7.1. A total of six dolphin sightings were associated with feeding and socializing activities during the quarterly period. The percentage of feeding activities comprised of 7.9% of the total number of dolphin sightings, which was lower than the one recorded during the baseline period (11.6%). On the contrary, the percentage of socializing activities during the present impact phase monitoring period (7.9%) was slightly higher than the one recorded during the baseline period (5.4%). Only one group of dolphins was engaged in traveling activity, and the rarity of this observed activity was similar to the baseline monitoring period and previous impact phase monitoring periods.

3.7.2. Distribution of dolphins engaged in different activities during the three-month study period is shown in Figure 7. No apparent concentration of sightings was found for feeding activity, but all three sightings associated with socializing activities were located in the waters between Black Point and Lung Kwu Chau (Figure 7).

3.7.3. During the quarterly period, only one of the 38 dolphin groups was found to be associated with an operating hang trawler near the western border of Hong Kong. The extremely low level of fishing boat association in the present and previous quarters was consistently found, and was likely related to the recent trawl ban being implemented in 2013 in Hong Kong waters.

3.8. *Summary of photo-identification works*

3.8.1. From November 2013 to February 2014, over 4,000 digital photographs of Chinese White Dolphins were taken during the impact phase monitoring surveys for the photo-identification work.

3.8.2. In total, 59 individuals sighted 144 times altogether were identified (see summary table in Appendix III and photographs of identified individuals in Appendix IV). Only 13 of these 144 re-sightings were made in NEL, which involved nine different individuals.

3.8.3. Most identified individuals were sighted only once or twice during the three-month period, with the exception of five individuals being sighted thrice, and eight individuals being sighted four to five times. Several individuals were sighted frequently on different survey days during the four-month period, including CH34, NL261 and NL33 (six times each), NL48 and NL139 (seven times each) and NL24 (eight times).

3.8.5. Six well-recognized females were accompanied with their calves during their re-sightings. All of these mothers (NL33, NL93, NL98, NL123, NL202 and NL221) were frequently sighted with their calves throughout the HKLR03 impact phase monitoring period.

3.9. *Individual range use*

3.9.1. Ranging patterns of the 44 individuals identified during the quarterly period of December 2013 – February 2014 were determined by fixed kernel method, and are shown in Appendix V.

3.9.2. The majority of individuals sighted in this quarter were utilizing their range use in NWL,

and only a few individuals had their range extended to NEL survey area, especially around the Brothers Islands (Appendix V).

- 3.9.3. For many individuals that previously utilized the Brothers Islands as their major core area of activities, they have apparently shifted their range use away from this important habitat (e.g. CH34, NL48, NL123), while others have greatly diminished their range use in NEL in the past quarters in 2013-14 (e.g. NL98, NL120, NL261), and further expanded their range use elsewhere in WL waters (e.g. NL33, NL226).

4. Conclusion

- 4.1. During this quarter of dolphin monitoring, no adverse impact from the activities of the TMCLKL construction project on Chinese White Dolphins was noticeable from general observations.
- 4.2. Although the dolphins infrequently occurred along the alignment of TMCLKL southern connection viaduct in the past and during the baseline monitoring period, it is apparent that dolphin usage has been significantly reduced in NEL, and many individuals have shifted away from the important habitat around the Brothers Islands.
- 4.3. It is critical to monitor the dolphin usage in North Lantau region in the upcoming quarters, to determine whether the dolphins are continuously affected by the various construction activities in relation to the HZMB-related works, and whether suitable mitigation measure can be applied to revert the situation.

5. References

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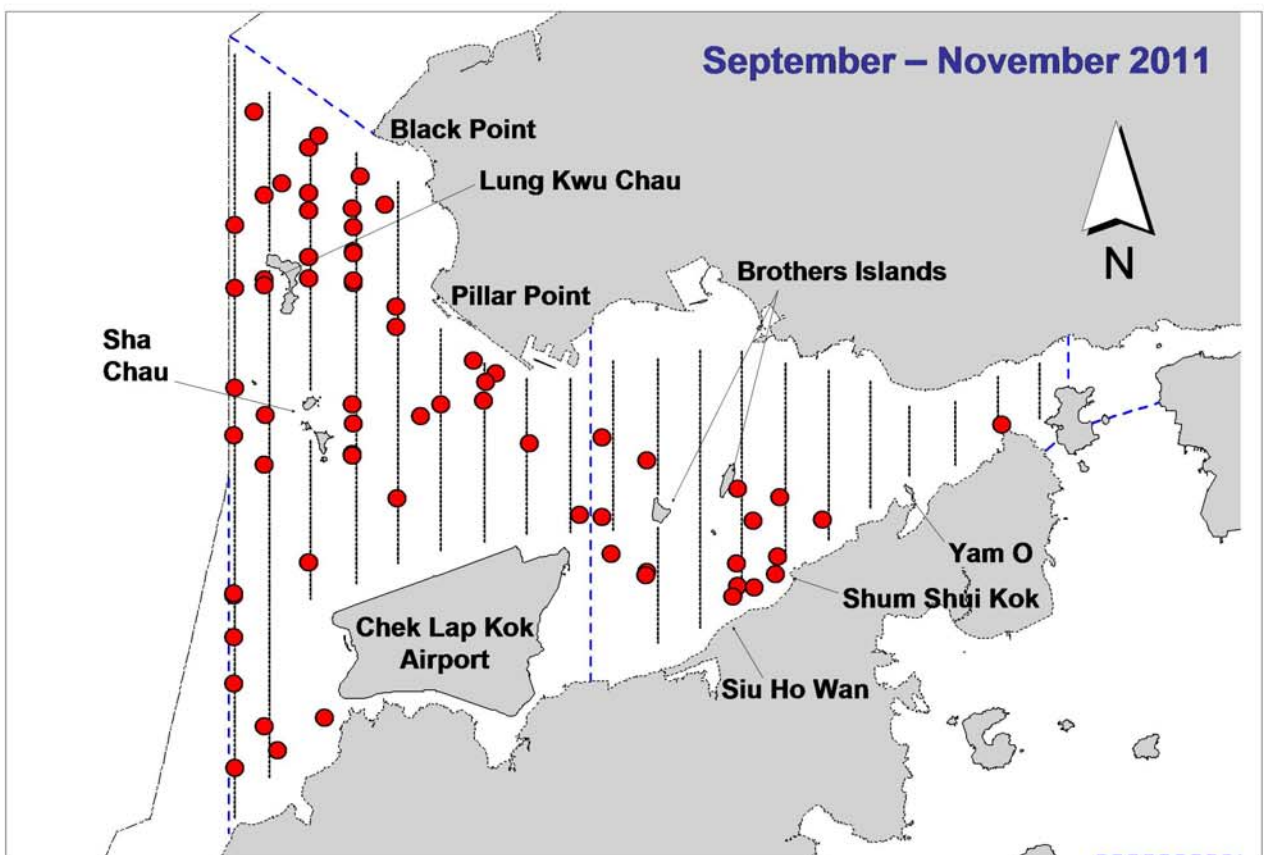
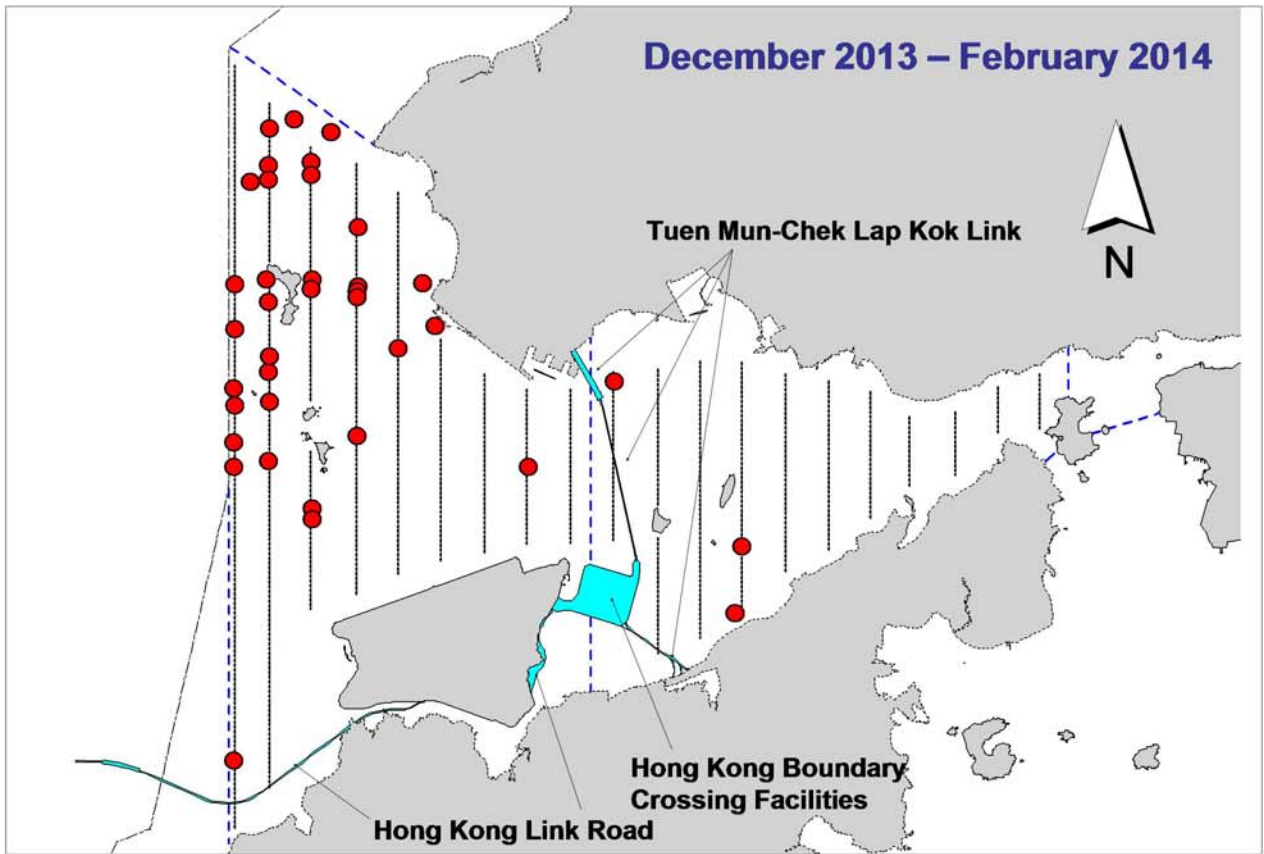


Figure 1. Distribution of Chinese white dolphin sighting in Northwest and Northeast Lantau during HKLR03 impact phase (top) and baseline monitoring surveys (bottom)

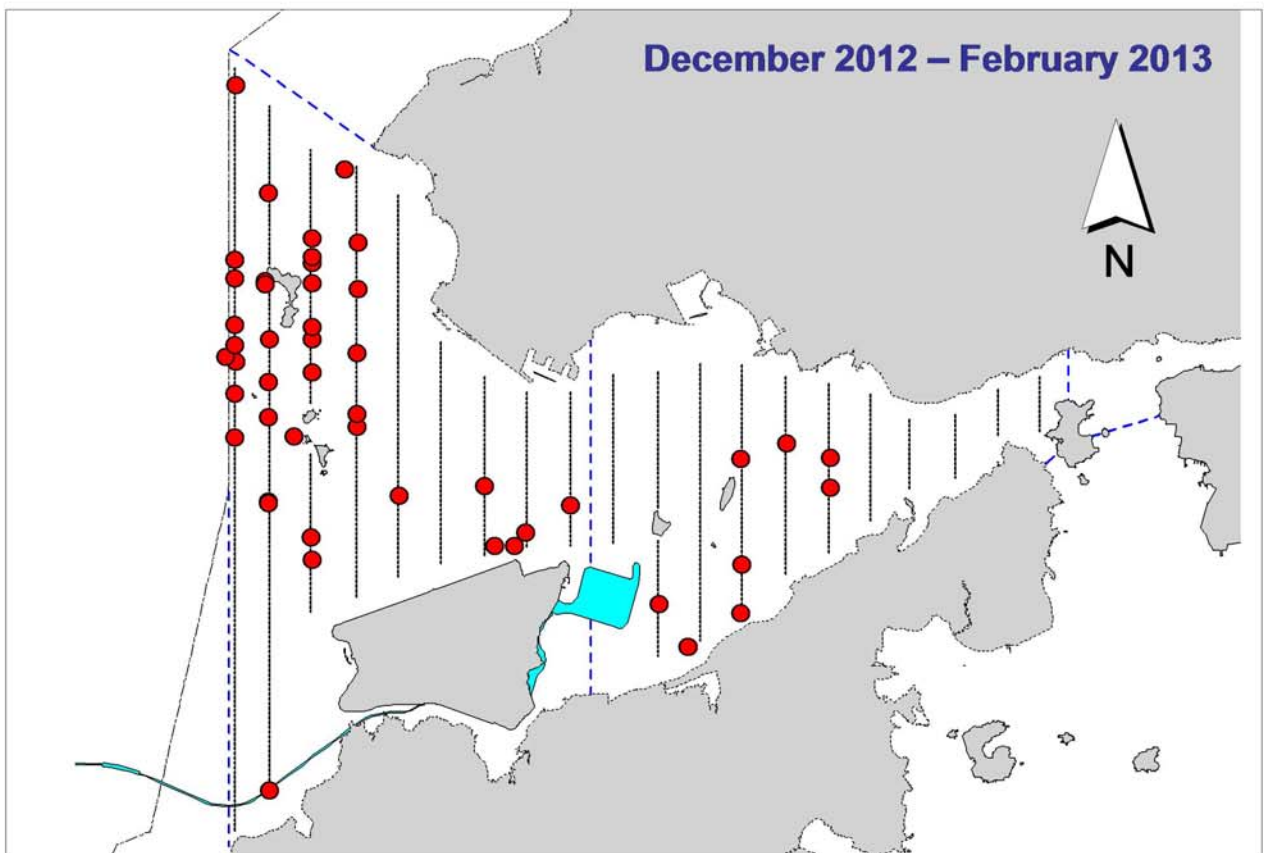
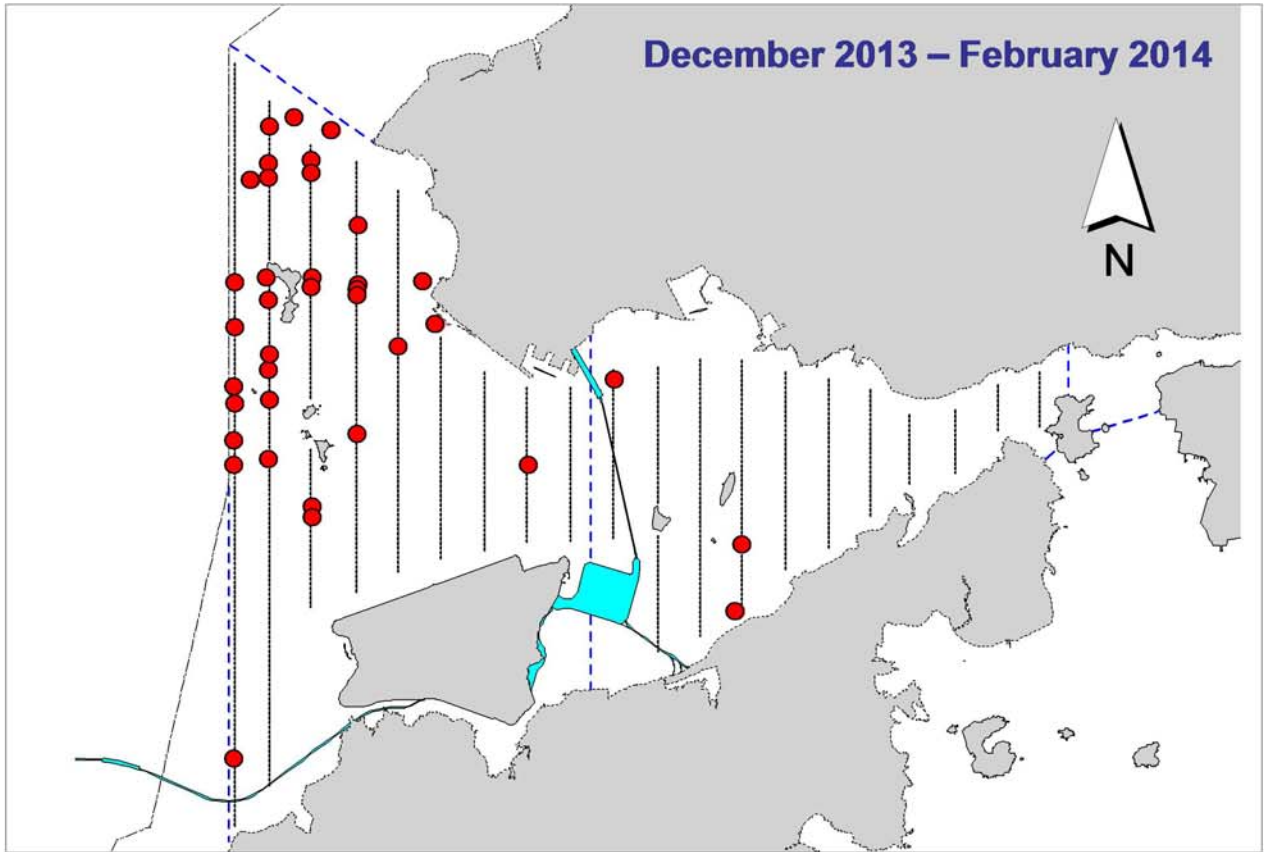


Figure 2. Distribution of Chinese white dolphin sighting in Northwest and Northeast Lantau during the same winter quarter of HKLR03 impact phase in 2013-14 (top) and 2012-13 (bottom)

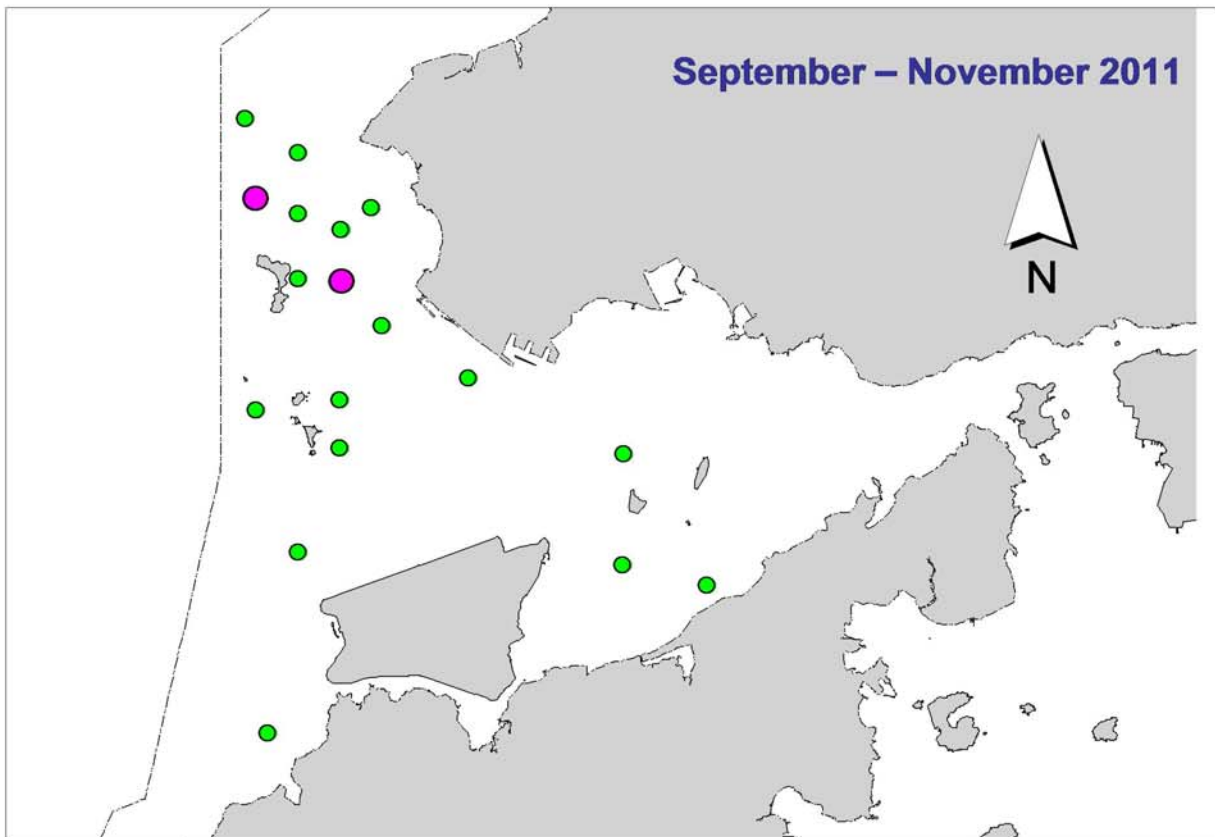
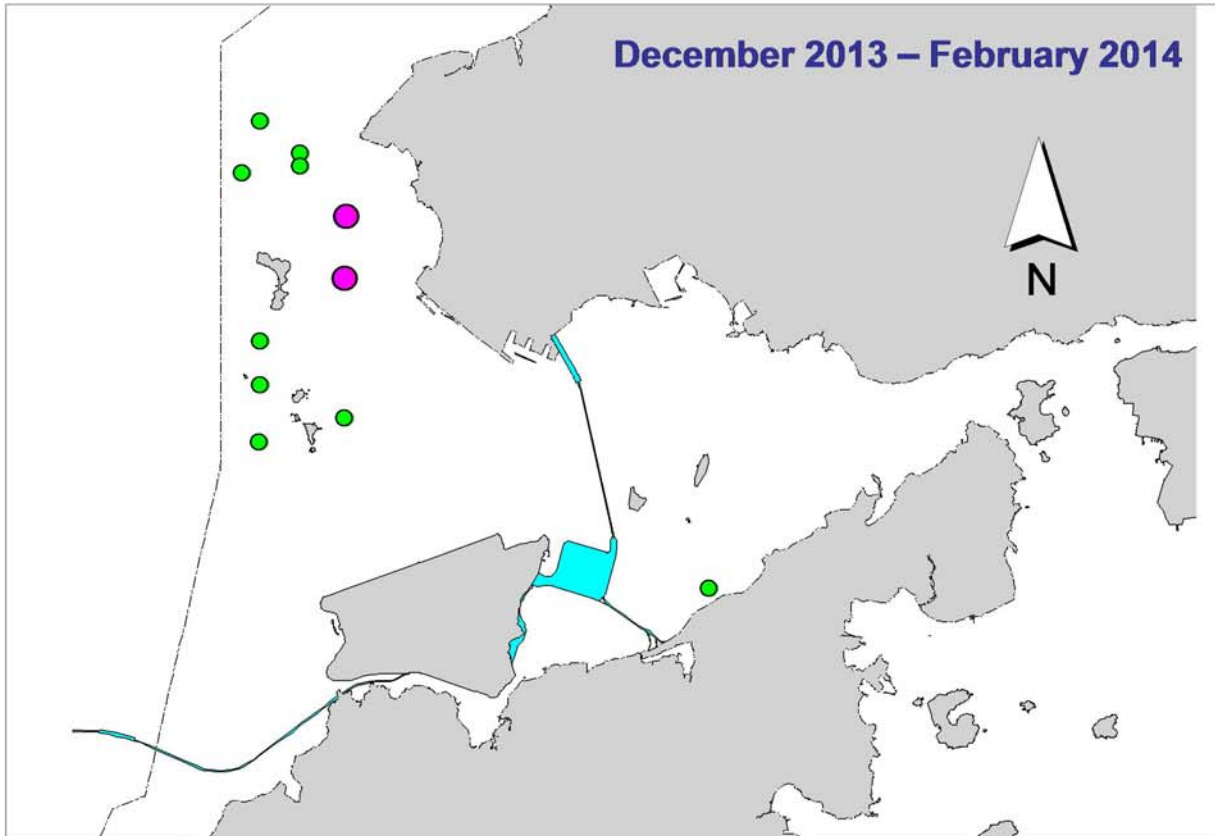


Figure 3. Distribution of Chinese white dolphins with larger group sizes during HKLR03 impact phase (top) and baseline monitoring surveys (bottom) (green dots: group sizes of 5 or more; purple dots: group sizes of 10 or more)

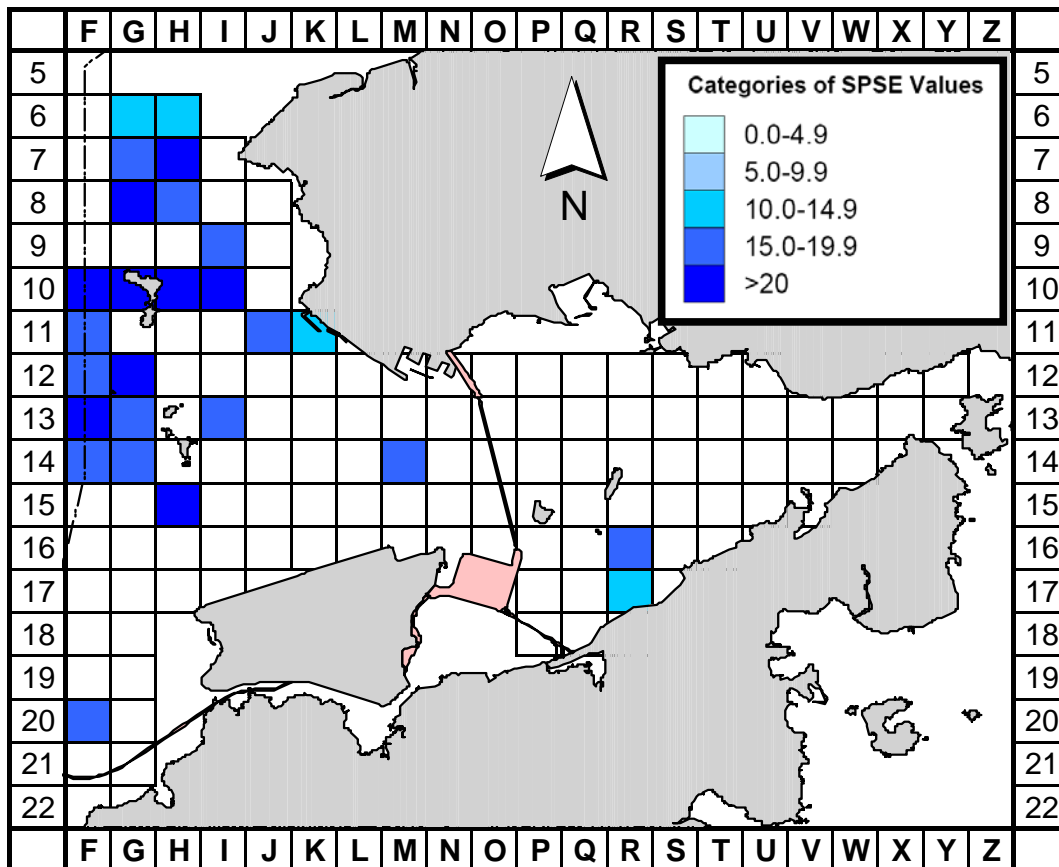


Figure 4a. Sighting density of Chinese white dolphins with corrected survey effort per km² in Northeast and Northwest Lantau survey areas, using data collected during HKLR03 impact monitoring period (Dec 13-Feb 14) (SPSE = no. of on-effort sightings per 100 units of survey effort)

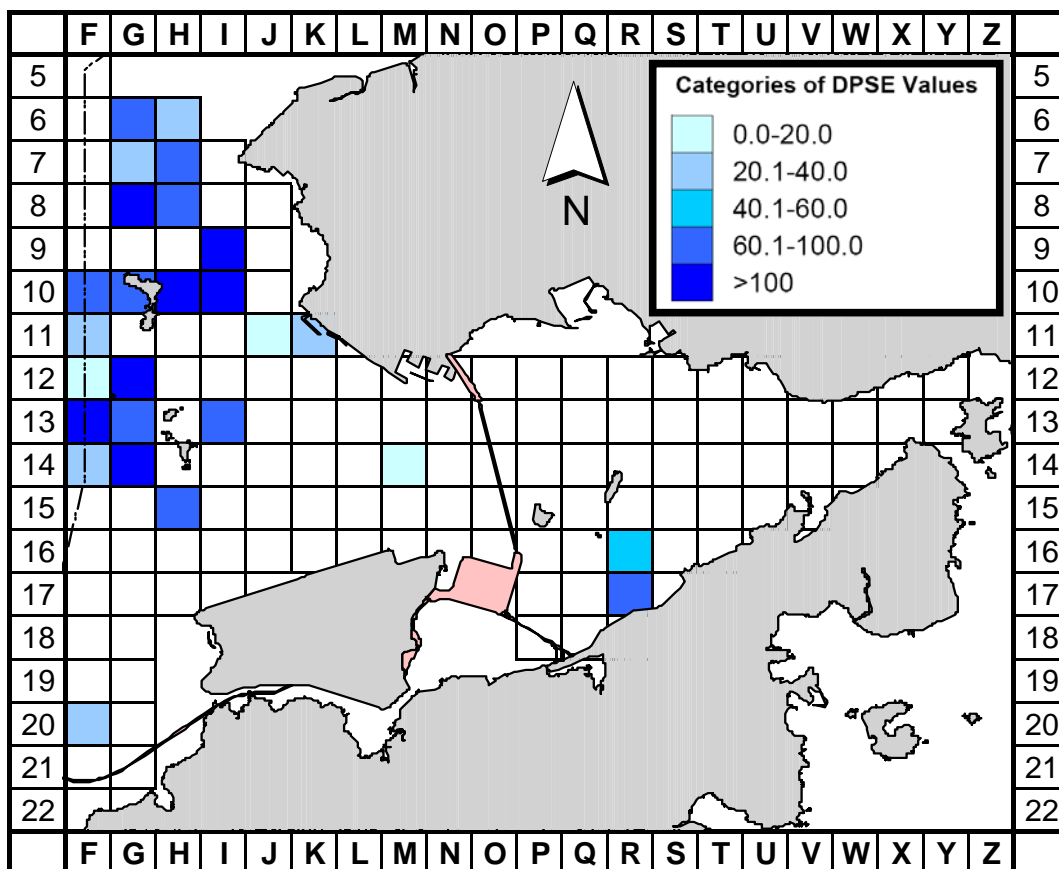


Figure 4b. Density of Chinese white dolphins with corrected survey effort per km² in Northeast and Northwest Lantau survey areas, using data collected during HKLR03 impact monitoring period (Dec 13-Feb 14) (DPSE = no. of dolphins per 100 units of survey effort)

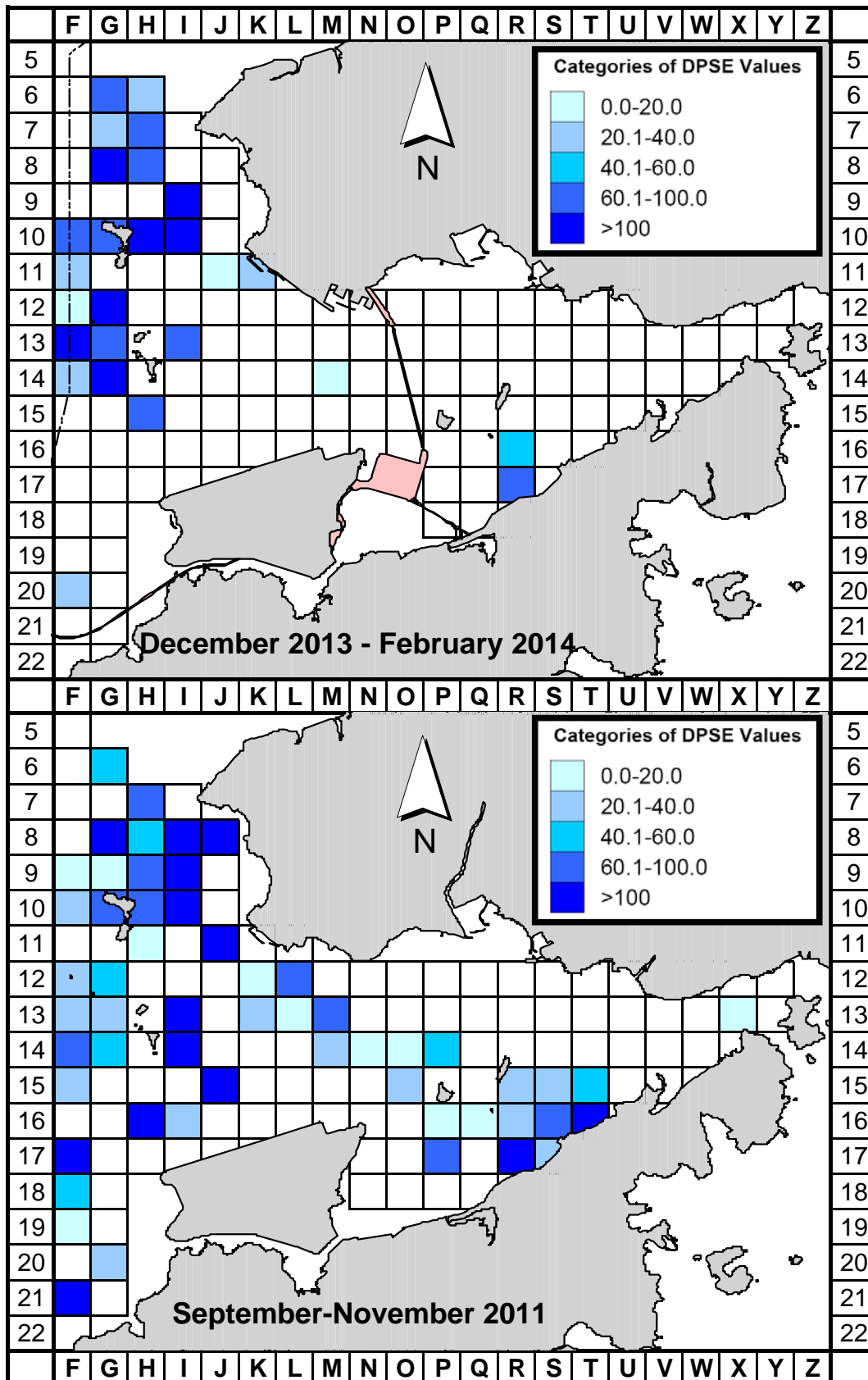


Figure 5. Comparison of density of Chinese white dolphins with corrected survey effort per km² in Northwest and Northeast Lantau survey area between the impact monitoring period (Dec 2013-Feb 2014) and baseline monitoring period (Sept-Nov 2011) (DPSE = no. of dolphins per 100 units of survey effort)

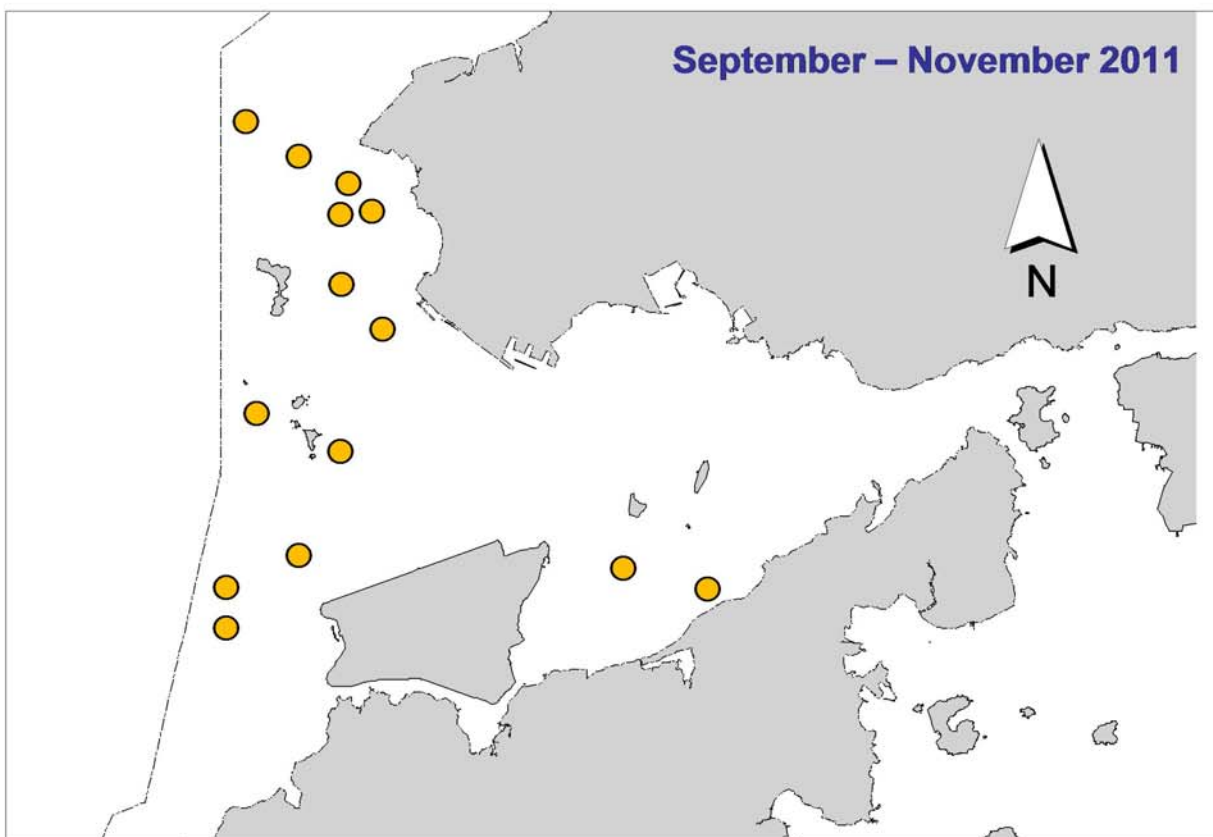
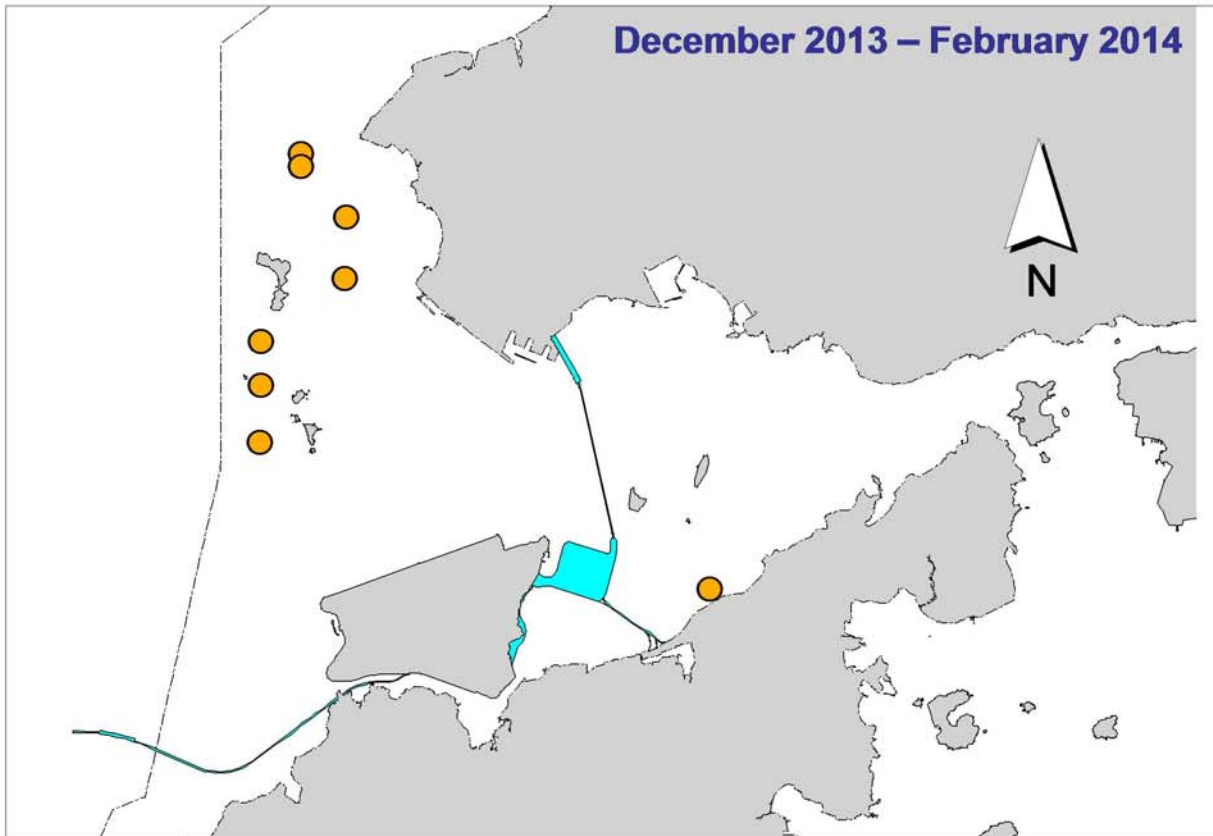


Figure 6. Distribution of young calves of Chinese white dolphins during HKLR03 impact phase (top) and baseline monitoring surveys (bottom)

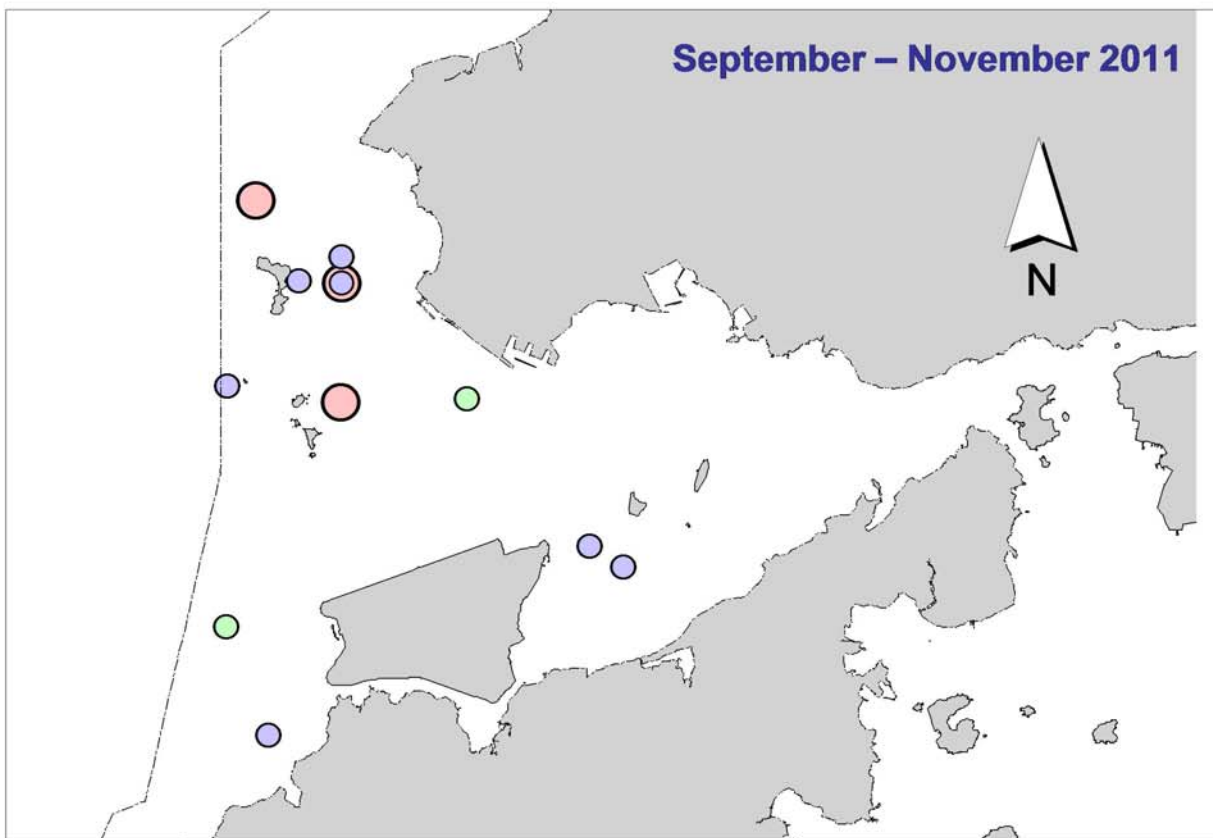
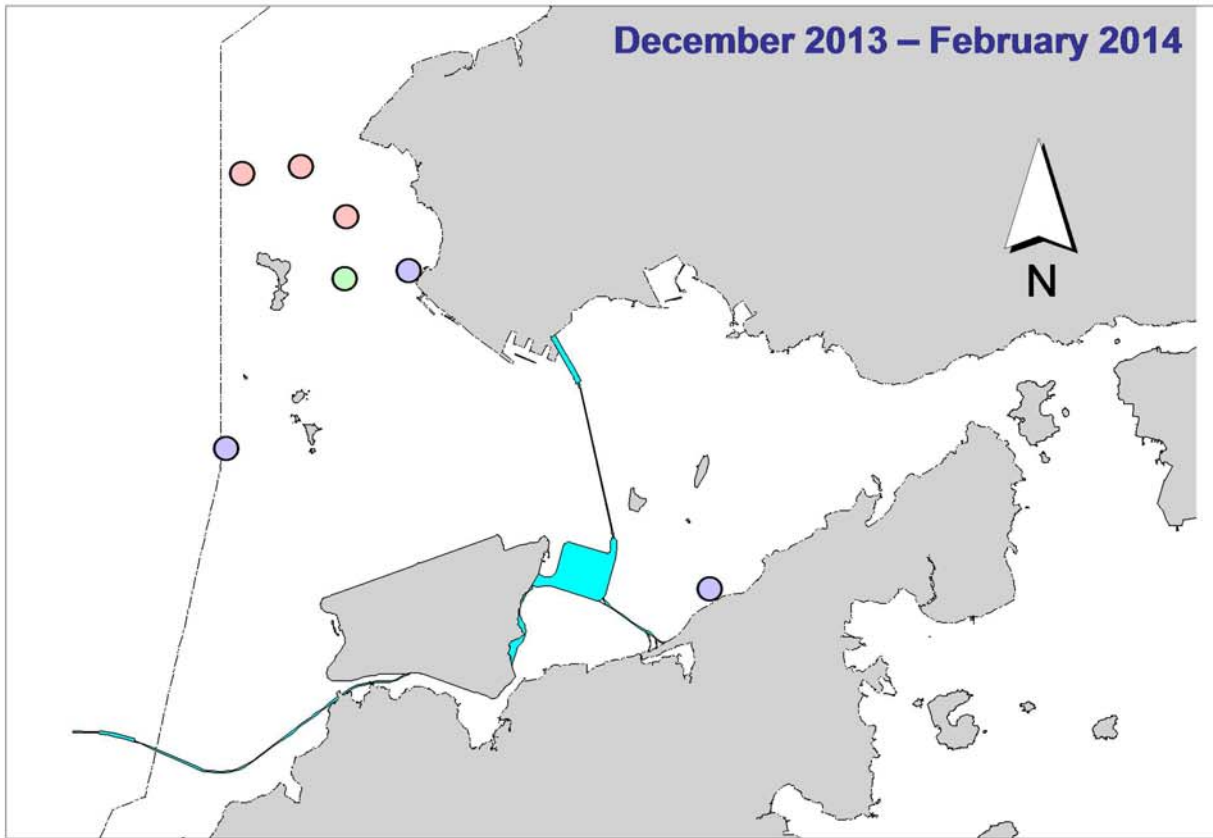


Figure 7. Distribution of Chinese white dolphins engaged in feeding (purple dots), socializing (pink dots) and traveling (green dots) activities during HKLR03 impact phase (top) and baseline monitoring surveys (bottom)

Appendix I. HKLR03 Survey Effort Database (November 2013 - February 2014)

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

DATE	AREA	BEAU	EFFORT	SEASON	VESSEL	TYPE	P/S
1-Nov-13	NW LANTAU	1	6.43	AUTUMN	STANDARD31516	HKLR	P
1-Nov-13	NW LANTAU	2	28.32	AUTUMN	STANDARD31516	HKLR	P
1-Nov-13	NW LANTAU	3	19.23	AUTUMN	STANDARD31516	HKLR	P
1-Nov-13	NW LANTAU	1	2.25	AUTUMN	STANDARD31516	HKLR	S
1-Nov-13	NW LANTAU	2	5.73	AUTUMN	STANDARD31516	HKLR	S
1-Nov-13	NW LANTAU	3	4.87	AUTUMN	STANDARD31516	HKLR	S
1-Nov-13	NE LANTAU	2	3.67	AUTUMN	STANDARD31516	HKLR	P
5-Nov-13	NE LANTAU	2	34.75	AUTUMN	STANDARD31516	HKLR	P
5-Nov-13	NE LANTAU	2	10.65	AUTUMN	STANDARD31516	HKLR	S
5-Nov-13	NW LANTAU	2	13.99	AUTUMN	STANDARD31516	HKLR	P
5-Nov-13	NW LANTAU	2	6.61	AUTUMN	STANDARD31516	HKLR	S
8-Nov-13	NW LANTAU	0	1.73	AUTUMN	STANDARD31516	HKLR	P
8-Nov-13	NW LANTAU	1	10.57	AUTUMN	STANDARD31516	HKLR	P
8-Nov-13	NW LANTAU	2	39.88	AUTUMN	STANDARD31516	HKLR	P
8-Nov-13	NW LANTAU	3	1.5	AUTUMN	STANDARD31516	HKLR	P
8-Nov-13	NW LANTAU	1	1.29	AUTUMN	STANDARD31516	HKLR	S
8-Nov-13	NW LANTAU	2	5.53	AUTUMN	STANDARD31516	HKLR	S
8-Nov-13	NW LANTAU	3	2.36	AUTUMN	STANDARD31516	HKLR	S
13-Nov-13	NE LANTAU	1	5.7	AUTUMN	STANDARD31516	HKLR	P
13-Nov-13	NE LANTAU	2	21.79	AUTUMN	STANDARD31516	HKLR	P
13-Nov-13	NE LANTAU	3	9.6	AUTUMN	STANDARD31516	HKLR	P
13-Nov-13	NE LANTAU	2	11.71	AUTUMN	STANDARD31516	HKLR	S
13-Nov-13	NE LANTAU	3	1.1	AUTUMN	STANDARD31516	HKLR	S
13-Nov-13	NW LANTAU	1	1.93	AUTUMN	STANDARD31516	HKLR	P
13-Nov-13	NW LANTAU	2	5.89	AUTUMN	STANDARD31516	HKLR	P
13-Nov-13	NW LANTAU	3	6.87	AUTUMN	STANDARD31516	HKLR	P
13-Nov-13	NW LANTAU	2	4.22	AUTUMN	STANDARD31516	HKLR	S
5-Dec-13	NE LANTAU	1	21.06	WINTER	STANDARD31516	HKLR	P
5-Dec-13	NE LANTAU	2	16.22	WINTER	STANDARD31516	HKLR	P
5-Dec-13	NE LANTAU	1	6.64	WINTER	STANDARD31516	HKLR	S
5-Dec-13	NE LANTAU	2	5.18	WINTER	STANDARD31516	HKLR	S
5-Dec-13	NW LANTAU	2	11.53	WINTER	STANDARD31516	HKLR	P
5-Dec-13	NW LANTAU	3	3.89	WINTER	STANDARD31516	HKLR	P
5-Dec-13	NW LANTAU	2	3.87	WINTER	STANDARD31516	HKLR	S
5-Dec-13	NW LANTAU	3	2.51	WINTER	STANDARD31516	HKLR	S
9-Dec-13	NW LANTAU	2	19.03	WINTER	STANDARD31516	HKLR	P
9-Dec-13	NW LANTAU	3	37.52	WINTER	STANDARD31516	HKLR	P
9-Dec-13	NW LANTAU	2	5.22	WINTER	STANDARD31516	HKLR	S
9-Dec-13	NW LANTAU	3	6.78	WINTER	STANDARD31516	HKLR	S
13-Dec-13	NE LANTAU	1	4.5	WINTER	STANDARD31516	HKLR	P
13-Dec-13	NE LANTAU	2	31.16	WINTER	STANDARD31516	HKLR	P
13-Dec-13	NE LANTAU	1	3.9	WINTER	STANDARD31516	HKLR	S
13-Dec-13	NE LANTAU	2	9.44	WINTER	STANDARD31516	HKLR	S
13-Dec-13	NW LANTAU	2	8.88	WINTER	STANDARD31516	HKLR	P
13-Dec-13	NW LANTAU	3	6.4	WINTER	STANDARD31516	HKLR	P
13-Dec-13	NW LANTAU	2	4.12	WINTER	STANDARD31516	HKLR	S
19-Dec-13	NW LANTAU	3	14.06	WINTER	STANDARD31516	HKLR	P
19-Dec-13	NW LANTAU	4	36.79	WINTER	STANDARD31516	HKLR	P
19-Dec-13	NW LANTAU	5	6.1	WINTER	STANDARD31516	HKLR	P
19-Dec-13	NW LANTAU	3	8.79	WINTER	STANDARD31516	HKLR	S
19-Dec-13	NW LANTAU	4	2.91	WINTER	STANDARD31516	HKLR	S

Appendix I. (cont'd)

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

DATE	AREA	BEAU	EFFORT	SEASON	VESSEL	TYPE	P/S
19-Dec-13	NW LANTAU	5	0.90	WINTER	STANDARD31516	HKLR	S
7-Jan-14	NE LANTAU	2	1.09	WINTER	STANDARD31516	HKLR	P
7-Jan-14	NE LANTAU	3	14.05	WINTER	STANDARD31516	HKLR	P
7-Jan-14	NE LANTAU	4	1.01	WINTER	STANDARD31516	HKLR	P
7-Jan-14	NE LANTAU	2	3.39	WINTER	STANDARD31516	HKLR	S
7-Jan-14	NE LANTAU	3	7.6	WINTER	STANDARD31516	HKLR	S
7-Jan-14	NW LANTAU	2	9.81	WINTER	STANDARD31516	HKLR	P
7-Jan-14	NW LANTAU	3	28.88	WINTER	STANDARD31516	HKLR	P
7-Jan-14	NW LANTAU	2	8.13	WINTER	STANDARD31516	HKLR	S
7-Jan-14	NW LANTAU	3	3.43	WINTER	STANDARD31516	HKLR	S
9-Jan-14	NE LANTAU	1	4.79	WINTER	STANDARD31516	HKLR	P
9-Jan-14	NE LANTAU	2	14.76	WINTER	STANDARD31516	HKLR	P
9-Jan-14	NE LANTAU	1	2.3	WINTER	STANDARD31516	HKLR	S
9-Jan-14	NE LANTAU	2	8.28	WINTER	STANDARD31516	HKLR	S
9-Jan-14	NW LANTAU	2	10.13	WINTER	STANDARD31516	HKLR	P
9-Jan-14	NW LANTAU	3	21.2	WINTER	STANDARD31516	HKLR	P
9-Jan-14	NW LANTAU	2	5.02	WINTER	STANDARD31516	HKLR	S
9-Jan-14	NW LANTAU	3	2.06	WINTER	STANDARD31516	HKLR	S
21-Jan-14	NE LANTAU	2	4	WINTER	STANDARD 31516	HKLR	P
21-Jan-14	NE LANTAU	3	15.27	WINTER	STANDARD 31516	HKLR	P
21-Jan-14	NE LANTAU	4	1.5	WINTER	STANDARD 31516	HKLR	P
21-Jan-14	NE LANTAU	3	10.76	WINTER	STANDARD 31516	HKLR	S
21-Jan-14	NE LANTAU	4	0.4	WINTER	STANDARD 31516	HKLR	S
21-Jan-14	NW LANTAU	2	13.76	WINTER	STANDARD 31516	HKLR	P
21-Jan-14	NW LANTAU	3	14.44	WINTER	STANDARD 31516	HKLR	P
21-Jan-14	NW LANTAU	4	1.29	WINTER	STANDARD 31516	HKLR	P
21-Jan-14	NW LANTAU	2	4.95	WINTER	STANDARD 31516	HKLR	S
21-Jan-14	NW LANTAU	3	3.95	WINTER	STANDARD 31516	HKLR	S
23-Jan-14	NW LANTAU	1	4.93	WINTER	STANDARD31516	HKLR	P
23-Jan-14	NW LANTAU	2	29.22	WINTER	STANDARD31516	HKLR	P
23-Jan-14	NW LANTAU	3	5.21	WINTER	STANDARD31516	HKLR	P
23-Jan-14	NW LANTAU	1	2.2	WINTER	STANDARD31516	HKLR	S
23-Jan-14	NW LANTAU	2	10.18	WINTER	STANDARD31516	HKLR	S
23-Jan-14	NE LANTAU	1	1.41	WINTER	STANDARD31516	HKLR	P
23-Jan-14	NE LANTAU	2	12.52	WINTER	STANDARD31516	HKLR	P
23-Jan-14	NE LANTAU	3	2.59	WINTER	STANDARD31516	HKLR	P
23-Jan-14	NE LANTAU	1	0.47	WINTER	STANDARD31516	HKLR	S
23-Jan-14	NE LANTAU	2	9.53	WINTER	STANDARD31516	HKLR	S
6-Feb-14	NW LANTAU	1	1.68	WINTER	STANDARD 31516	HKLR	P
6-Feb-14	NW LANTAU	2	35.03	WINTER	STANDARD 31516	HKLR	P
6-Feb-14	NW LANTAU	3	2.9	WINTER	STANDARD 31516	HKLR	P
6-Feb-14	NW LANTAU	2	11.99	WINTER	STANDARD 31516	HKLR	S
6-Feb-14	NW LANTAU	3	1.2	WINTER	STANDARD 31516	HKLR	S
6-Feb-14	NE LANTAU	1	5.59	WINTER	STANDARD 31516	HKLR	P
6-Feb-14	NE LANTAU	2	8.66	WINTER	STANDARD 31516	HKLR	P
6-Feb-14	NE LANTAU	3	2.6	WINTER	STANDARD 31516	HKLR	P
6-Feb-14	NE LANTAU	1	4.45	WINTER	STANDARD 31516	HKLR	S
6-Feb-14	NE LANTAU	2	6.5	WINTER	STANDARD 31516	HKLR	S
12-Feb-14	NE LANTAU	2	13.78	WINTER	STANDARD 31516	HKLR	P
12-Feb-14	NE LANTAU	3	5.91	WINTER	STANDARD 31516	HKLR	P
12-Feb-14	NE LANTAU	1	2.02	WINTER	STANDARD 31516	HKLR	S
12-Feb-14	NE LANTAU	2	5.36	WINTER	STANDARD 31516	HKLR	S
12-Feb-14	NE LANTAU	3	3.53	WINTER	STANDARD 31516	HKLR	S
12-Feb-14	NW LANTAU	2	11.72	WINTER	STANDARD 31516	HKLR	P

Appendix I. (cont'd)

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

DATE	AREA	BEAU	EFFORT	SEASON	VESSEL	TYPE	P/S
12-Feb-14	NW LANTAU	3	15.87	WINTER	STANDARD 31516	HKLR	P
12-Feb-14	NW LANTAU	2	3.67	WINTER	STANDARD 31516	HKLR	S
12-Feb-14	NW LANTAU	3	7.72	WINTER	STANDARD 31516	HKLR	S
14-Feb-14	NE LANTAU	2	11.72	WINTER	STANDARD 31516	HKLR	P
14-Feb-14	NE LANTAU	3	5.58	WINTER	STANDARD 31516	HKLR	P
14-Feb-14	NE LANTAU	2	7.68	WINTER	STANDARD 31516	HKLR	S
14-Feb-14	NE LANTAU	3	2.72	WINTER	STANDARD 31516	HKLR	S
14-Feb-14	NW LANTAU	2	17.02	WINTER	STANDARD 31516	HKLR	P
14-Feb-14	NW LANTAU	3	24.77	WINTER	STANDARD 31516	HKLR	P
14-Feb-14	NW LANTAU	2	9.82	WINTER	STANDARD 31516	HKLR	S
14-Feb-14	NW LANTAU	3	2.18	WINTER	STANDARD 31516	HKLR	S
20-Feb-14	NW LANTAU	3	22.68	WINTER	STANDARD 31516	HKLR	P
20-Feb-14	NW LANTAU	4	6.16	WINTER	STANDARD 31516	HKLR	P
20-Feb-14	NW LANTAU	3	7.31	WINTER	STANDARD 31516	HKLR	S
20-Feb-14	NE LANTAU	2	17.92	WINTER	STANDARD 31516	HKLR	P
20-Feb-14	NE LANTAU	3	2.19	WINTER	STANDARD 31516	HKLR	P
20-Feb-14	NE LANTAU	1	0.97	WINTER	STANDARD 31516	HKLR	S
20-Feb-14	NE LANTAU	2	8.94	WINTER	STANDARD 31516	HKLR	S

Appendix II. HKLR03 Chinese White Dolphin Sighting Database (November 2013 - February 2014)

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

DATE	STG #	TIME	HRD SZ	AREA	BEAU	PSD	EFFORT	TYPE	NORTHING	EASTING	SEASON	BOAT ASSOC.	P/S
1-Nov-13	1	1049	4	NW LANTAU	2	74	ON	HKLR	823145	809509	AUTUMN	NONE	P
1-Nov-13	2	1152	3	NW LANTAU	3	214	ON	HKLR	826947	807517	AUTUMN	NONE	P
1-Nov-13	3	1203	7	NW LANTAU	3	159	ON	HKLR	827235	807539	AUTUMN	NONE	P
1-Nov-13	4	1225	1	NW LANTAU	2	137	ON	HKLR	827490	807539	AUTUMN	NONE	P
1-Nov-13	5	1236	3	NW LANTAU	2	358	ON	HKLR	828232	807530	AUTUMN	NONE	P
1-Nov-13	6	1252	7	NW LANTAU	2	ND	OFF	HKLR	828941	807583	AUTUMN	NONE	
1-Nov-13	7	1312	4	NW LANTAU	2	72	ON	HKLR	830018	805999	AUTUMN	NONE	S
1-Nov-13	8	1458	11	NW LANTAU	3	60	ON	HKLR	821228	804642	AUTUMN	NONE	P
5-Nov-13	1	1421	5	NW LANTAU	2	378	ON	HKLR	828097	808508	AUTUMN	NONE	P
8-Nov-13	1	1041	4	NW LANTAU	1	302	ON	HKLR	824489	807678	AUTUMN	NONE	P
8-Nov-13	2	1103	8	NW LANTAU	2	694	ON	HKLR	827091	807858	AUTUMN	NONE	P
8-Nov-13	3	1152	7	NW LANTAU	3	299	ON	HKLR	827660	805459	AUTUMN	NONE	P
8-Nov-13	4	1215	9	NW LANTAU	2	756	ON	HKLR	825357	805465	AUTUMN	NONE	P
8-Nov-13	5	1232	5	NW LANTAU	2	ND	OFF	HKLR	825025	805464	AUTUMN	NONE	
8-Nov-13	6	1249	4	NW LANTAU	2	7	ON	HKLR	823806	805462	AUTUMN	NONE	P
8-Nov-13	7	1400	2	NW LANTAU	2	155	ON	HKLR	818382	804657	AUTUMN	NONE	P
8-Nov-13	8	1426	8	NW LANTAU	2	149	ON	HKLR	823675	804648	AUTUMN	NONE	P
8-Nov-13	9	1526	1	NW LANTAU	2	45	ON	HKLR	826872	806446	AUTUMN	NONE	P
8-Nov-13	10	1536	4	NW LANTAU	1	225	ON	HKLR	825643	806454	AUTUMN	NONE	P
8-Nov-13	11	1606	4	NW LANTAU	2	223	ON	HKLR	821988	806457	AUTUMN	NONE	P
13-Nov-13	1	1451	1	NW LANTAU	3	343	ON	HKLR	825118	808482	AUTUMN	NONE	P
5-Dec-13	1	1127	3	NE LANTAU	1	275	ON	HKLR	820787	816500	WINTER	NONE	P
9-Dec-13	1	1119	1	NW LANTAU	3	77	ON	HKLR	822544	811516	WINTER	NONE	P
9-Dec-13	2	1238	4	NW LANTAU	2	132	ON	HKLR	826515	807547	WINTER	NONE	P
9-Dec-13	3	1256	12	NW LANTAU	2	103	ON	HKLR	827833	807540	WINTER	NONE	P
9-Dec-13	4	1518	4	NW LANTAU	3	177	ON	HKLR	823088	804646	WINTER	NONE	P
9-Dec-13	5	1539	1	NW LANTAU	2	866	ON	HKLR	826577	804664	WINTER	NONE	P
19-Dec-13	1	1203	2	NW LANTAU	3	73	ON	HKLR	824648	805453	WINTER	NONE	P
19-Dec-13	2	1216	6	NW LANTAU	3	150	ON	HKLR	823972	805483	WINTER	NONE	P
7-Jan-14	1	1258	2	NW LANTAU	3	87	ON	HKLR	825659	809348	WINTER	NONE	S
7-Jan-14	2	1337	1	NW LANTAU	3	125	ON	HKLR	825152	808472	WINTER	NONE	P
7-Jan-14	3	1452	3	NW LANTAU	2	1171	ON	HKLR	826673	806456	WINTER	NONE	P

Appendix II. (cont'd)

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

DATE	STG #	TIME	HRD SZ	AREA	BEAU	PSD	EFFORT	TYPE	NORTHING	EASTING	SEASON	BOAT ASSOC.	P/S
7-Jan-14	4	1515	6	NW LANTAU	2	5	ON	HKLR	829275	806451	WINTER	NONE	P
9-Jan-14	1	1336	6	NW LANTAU	3	24	ON	HKLR	823238	807510	WINTER	NONE	P
9-Jan-14	2	1407	10	NW LANTAU	2	62	ON	HKLR	826405	807506	WINTER	NONE	P
9-Jan-14	3	1435	1	NW LANTAU	3	56	ON	HKLR	826272	807526	WINTER	NONE	P
9-Jan-14	4	1534	3	NW LANTAU	2	131	ON	HKLR	826675	805395	WINTER	NONE	S
9-Jan-14	5	1546	1	NW LANTAU	2	113	ON	HKLR	826176	805446	WINTER	NONE	P
21-Jan-14	1	1407	2	NW LANTAU	2	99	ON	HKLR	829916	806916	WINTER	NONE	S
21-Jan-14	2	1426	7	NW LANTAU	2	260	ON	HKLR	830008	805474	WINTER	NONE	P
21-Jan-14	3	1444	2	NW LANTAU	2	84	ON	HKLR	829188	805452	WINTER	NONE	P
21-Jan-14	4	1521	9	NW LANTAU	2	434	ON	HKLR	824969	805464	WINTER	NONE	P
23-Jan-14	1	1015	2	NW LANTAU	2	977	ON	HKLR	816090	804642	WINTER	NONE	P
23-Jan-14	2	1101	4	NW LANTAU	2	329	ON	HKLR	826576	804674	WINTER	NONE	P
23-Jan-14	3	1133	3	NW LANTAU	1	957	ON	HKLR	830195	806061	WINTER	NONE	P
23-Jan-14	4	1202	5	NW LANTAU	1	199	ON	HKLR	828976	806450	WINTER	NONE	P
23-Jan-14	5	1250	2	NW LANTAU	2	372	ON	HKLR	821623	806467	WINTER	NONE	P
23-Jan-14	6	1538	9	NE LANTAU	2	365	ON	HKLR	819337	816344	WINTER	NONE	S
6-Feb-14	1	1040	2	NW LANTAU	2	895	ON	HKLR	822535	804645	WINTER	HANG	P
6-Feb-14	2	1049	4	NW LANTAU	2	515	ON	HKLR	823908	804658	WINTER	NONE	P
6-Feb-14	3	1109	2	NW LANTAU	2	422	ON	HKLR	825591	804672	WINTER	NONE	P
6-Feb-14	4	1204	3	NW LANTAU	1	888	ON	HKLR	826473	806445	WINTER	NONE	P
6-Feb-14	5	1428	4	NE LANTAU	2	ND	OFF	HKLR	824423	813528	WINTER	NONE	
12-Feb-14	1	1449	1	NW LANTAU	2	290	ON	HKLR	828878	805462	WINTER	NONE	P
14-Feb-14	1	1237	1	NW LANTAU	2	ND	OFF	HKLR	826601	809051	WINTER	NONE	
14-Feb-14	2	1348	4	NW LANTAU	3	133	ON	HKLR	821401	806466	WINTER	NONE	P
14-Feb-14	3	1525	1	NW LANTAU	3	112	ON	HKLR	824262	804649	WINTER	NONE	P
20-Feb-14	1	1046	7	NW LANTAU	3	72	ON	HKLR	822688	805449	WINTER	NONE	P
20-Feb-14	2	1135	7	NW LANTAU	3	648	ON	HKLR	828813	805029	WINTER	NONE	P

Appendix III. Individual dolphins identified during HKLR03 monitoring surveys in November 2013 - February 2014

ID#	DATE	STG#	AREA
CH34	05/11/13	1	NW LANTAU
	08/11/13	4	NW LANTAU
	08/11/13	5	NW LANTAU
	09/12/13	3	NW LANTAU
	23/01/14	4	NW LANTAU
	20/02/14	1	NW LANTAU
CH112	23/01/14	2	NW LANTAU
EL01	05/11/13	1	NW LANTAU
	05/12/13	1	NE LANTAU
	21/01/14	1	NW LANTAU
	23/01/14	6	NE LANTAU
	06/02/14	5	NE LANTAU
NL11	23/01/14	3	NW LANTAU
NL24	08/11/13	4	NW LANTAU
	08/11/13	5	NW LANTAU
	05/12/13	1	NE LANTAU
	09/12/13	4	NW LANTAU
	19/12/13	2	NW LANTAU
	09/01/14	2	NW LANTAU
	23/01/14	6	NE LANTAU
	20/02/14	1	NW LANTAU
NL33	05/11/13	1	NW LANTAU
	08/11/13	4	NW LANTAU
	08/11/13	5	NW LANTAU
	08/11/13	11	NW LANTAU
	09/01/14	2	NW LANTAU
	23/01/14	6	NE LANTAU
NL37	08/11/13	2	NW LANTAU
NL46	01/11/13	3	NW LANTAU
	23/01/14	4	NW LANTAU
NL48	08/11/13	9	NW LANTAU
	09/12/13	3	NW LANTAU
	07/01/14	4	NW LANTAU
	09/01/14	2	NW LANTAU
	09/01/14	3	NW LANTAU
	21/01/14	1	NW LANTAU
	23/01/14	3	NW LANTAU
NL49	08/11/13	2	NW LANTAU
	09/12/13	3	NW LANTAU

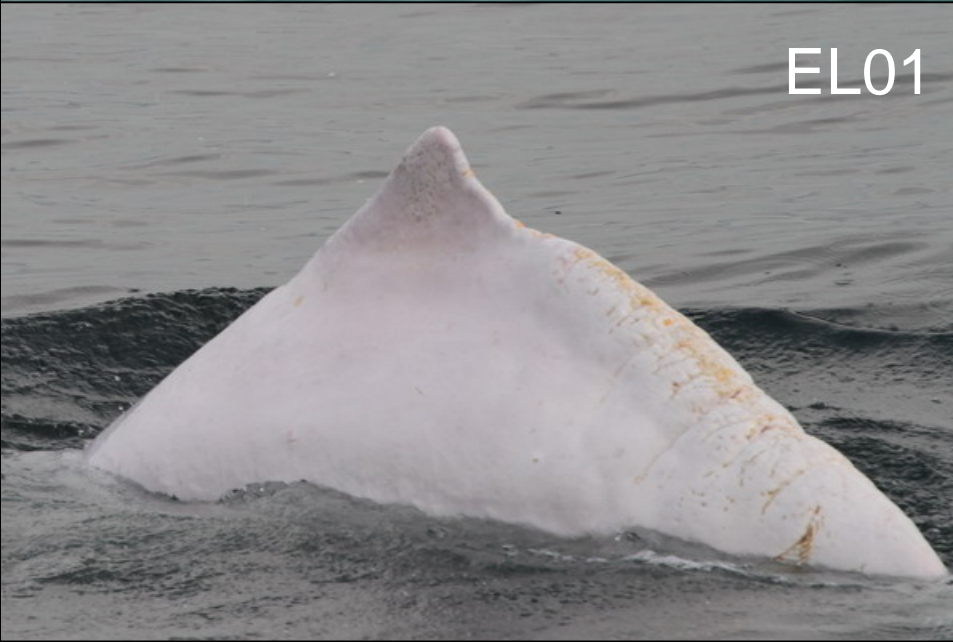
ID#	DATE	STG#	AREA
NL80	01/11/13	3	NW LANTAU
	01/11/13	6	NW LANTAU
	08/11/13	6	NW LANTAU
	21/01/14	2	NW LANTAU
NL93	01/11/13	8	NW LANTAU
	20/02/14	2	NW LANTAU
NL98	01/11/13	2	NW LANTAU
	19/12/13	2	NW LANTAU
	09/01/14	2	NW LANTAU
	20/02/14	1	NW LANTAU
NL103	08/11/13	3	NW LANTAU
	07/01/14	4	NW LANTAU
NL104	09/12/13	3	NW LANTAU
	23/01/14	4	NW LANTAU
NL120	09/01/14	2	NW LANTAU
	23/01/14	6	NE LANTAU
	06/02/14	5	NE LANTAU
NL123	08/11/13	11	NW LANTAU
	23/01/14	2	NW LANTAU
	23/01/14	5	NW LANTAU
NL136	01/11/13	8	NW LANTAU
	09/12/13	2	NW LANTAU
	07/01/14	1	NW LANTAU
	09/01/14	1	NW LANTAU
	20/02/14	2	NW LANTAU
NL139	01/11/13	8	NW LANTAU
	08/11/13	1	NW LANTAU
	09/12/13	2	NW LANTAU
	07/01/14	1	NW LANTAU
	09/01/14	1	NW LANTAU
	23/01/14	6	NE LANTAU
	20/02/14	1	NW LANTAU
NL145	01/11/13	3	NW LANTAU
NL150	08/11/13	3	NW LANTAU
NL165	01/11/13	8	NW LANTAU
	08/11/13	1	NW LANTAU
	09/12/13	3	NW LANTAU
	20/02/14	1	NW LANTAU
NL182	01/11/13	6	NW LANTAU
NL188	08/11/13	8	NW LANTAU

Appendix III. (cont'd)

ID#	DATE	STG#	AREA
NL202	06/02/14	3	NW LANTAU
NL210	14/02/14	1	NW LANTAU
NL212	08/11/13	3	NW LANTAU
NL214	07/01/14	4	NW LANTAU
	21/01/14	4	NW LANTAU
NL220	09/01/14	1	NW LANTAU
NL221	07/01/14	4	NW LANTAU
	21/01/14	4	NW LANTAU
NL226	01/11/13	1	NW LANTAU
	05/12/13	1	NE LANTAU
	21/01/14	4	NW LANTAU
NL236	01/11/13	7	NW LANTAU
	08/11/13	2	NW LANTAU
	21/01/14	3	NW LANTAU
NL242	08/11/13	4	NW LANTAU
	08/11/13	5	NW LANTAU
	19/12/13	2	NW LANTAU
	09/01/14	2	NW LANTAU
	23/01/14	6	NE LANTAU
NL244	09/12/13	1	NW LANTAU
NL259	01/11/13	8	NW LANTAU
	23/01/14	4	NW LANTAU
	20/02/14	2	NW LANTAU
NL260	20/02/14	2	NW LANTAU
NL261	01/11/13	1	NW LANTAU
	08/11/13	1	NW LANTAU
	08/11/13	10	NW LANTAU
	09/12/13	3	NW LANTAU
	23/01/14	4	NW LANTAU
	06/02/14	5	NE LANTAU
NL262	01/11/13	8	NW LANTAU
	09/12/13	3	NW LANTAU
NL269	01/11/13	8	NW LANTAU
NL272	01/11/13	1	NW LANTAU
	08/11/13	4	NW LANTAU
	09/01/14	1	NW LANTAU
	21/01/14	2	NW LANTAU
	23/01/14	6	NE LANTAU

ID#	DATE	STG#	AREA
NL284	01/11/13	1	NW LANTAU
	09/12/13	3	NW LANTAU
	21/01/14	4	NW LANTAU
	20/02/14	1	NW LANTAU
NL285	08/11/13	11	NW LANTAU
	23/01/14	2	NW LANTAU
NL286	06/02/14	3	NW LANTAU
NL296	05/11/13	1	NW LANTAU
	20/02/14	2	NW LANTAU
NL300	08/11/13	6	NW LANTAU
NL301	01/11/13	4	NW LANTAU
	01/11/13	6	NW LANTAU
NL308	21/01/14	2	NW LANTAU
SL35	08/11/13	10	NW LANTAU
WL04	01/11/13	8	NW LANTAU
	09/12/13	2	NW LANTAU
WL05	01/11/13	8	NW LANTAU
	09/12/13	3	NW LANTAU
WL11	08/11/13	2	NW LANTAU
WL15	08/11/13	10	NW LANTAU
WL46	09/12/13	3	NW LANTAU
WL79	08/11/13	4	NW LANTAU
WL98	08/11/13	4	NW LANTAU
WL124	08/11/13	8	NW LANTAU
WL162	21/01/14	3	NW LANTAU
WL179	09/12/13	4	NW LANTAU
WL214	09/01/14	4	NW LANTAU

Appendix IV. Fifty-nine individual dolphins that were identified during November 2013 – February 2014 under HKLR03 impact phase monitoring surveys



Appendix IV. (cont'd)



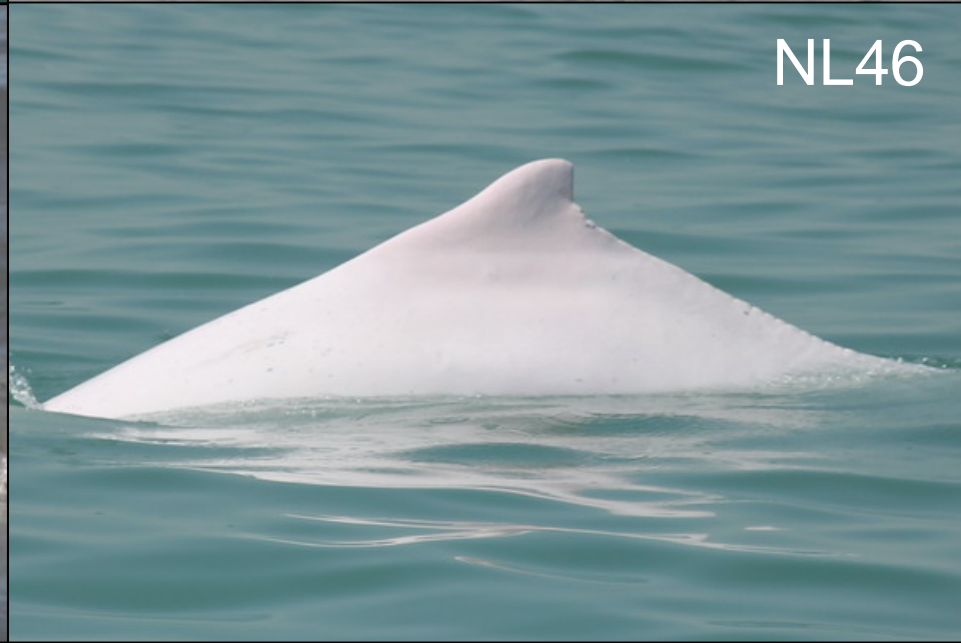
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NL33



NL37



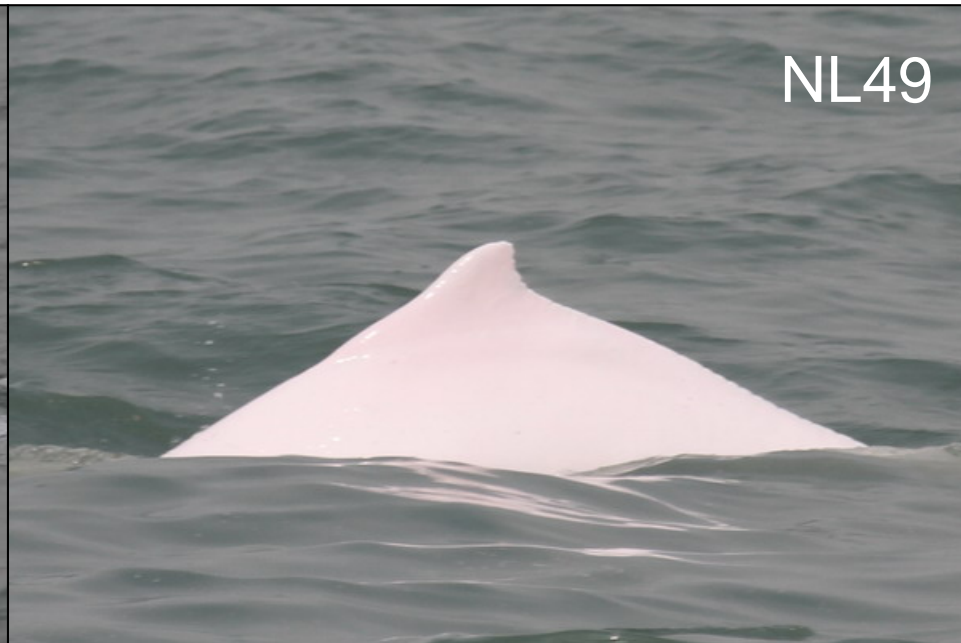
NL46

Appendix IV. (cont'd)

NL48



NL49



NL80



NL93



Appendix IV. (cont'd)



Appendix IV. (cont'd)

NL123



NL136



NL139



NL145



Appendix IV. (cont'd)

NL150



NL165



NL182

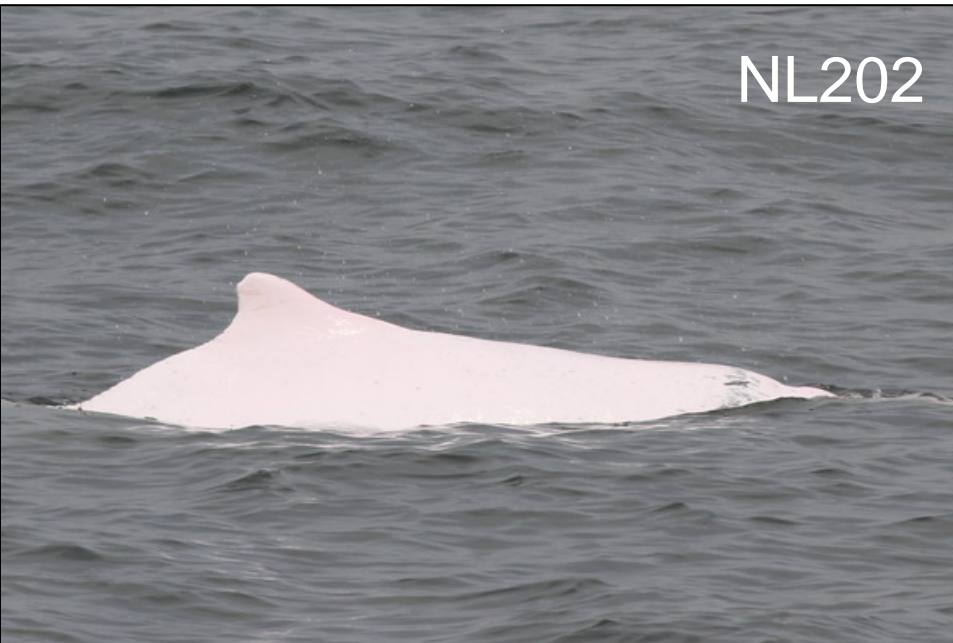


NL188



Appendix IV. (cont'd)

NL202



NL210



NL212

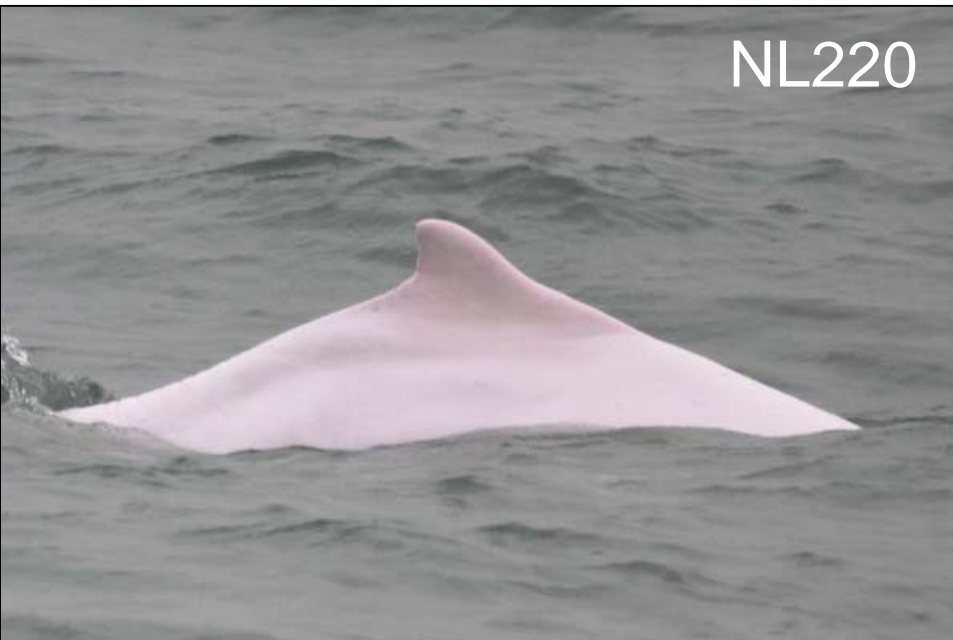


NL214



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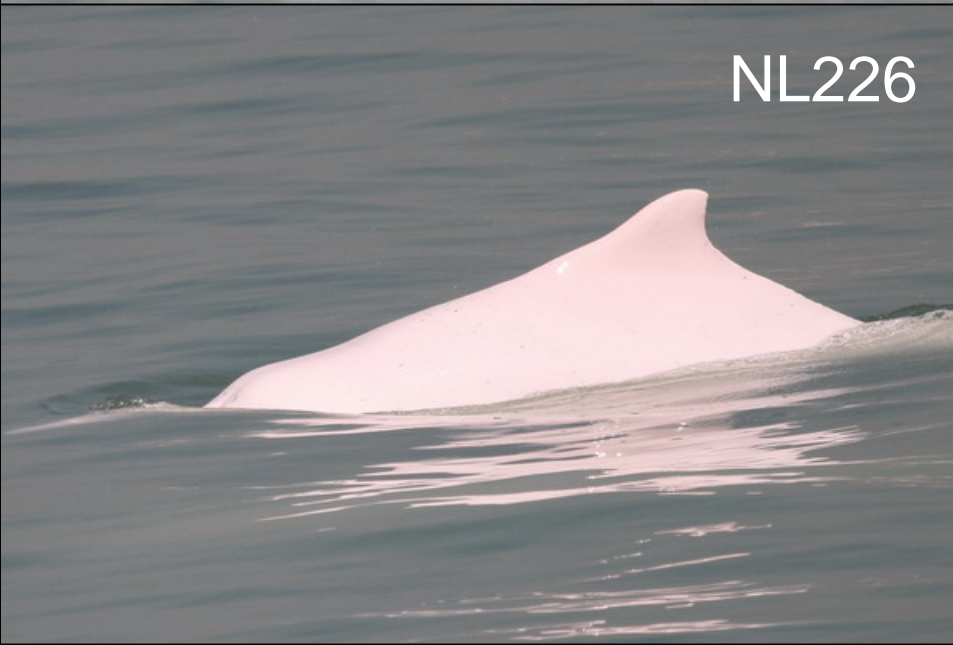
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NL221



NL226



NL236



Appendix IV. (cont'd)

NL242



NL244



NL259



NL260

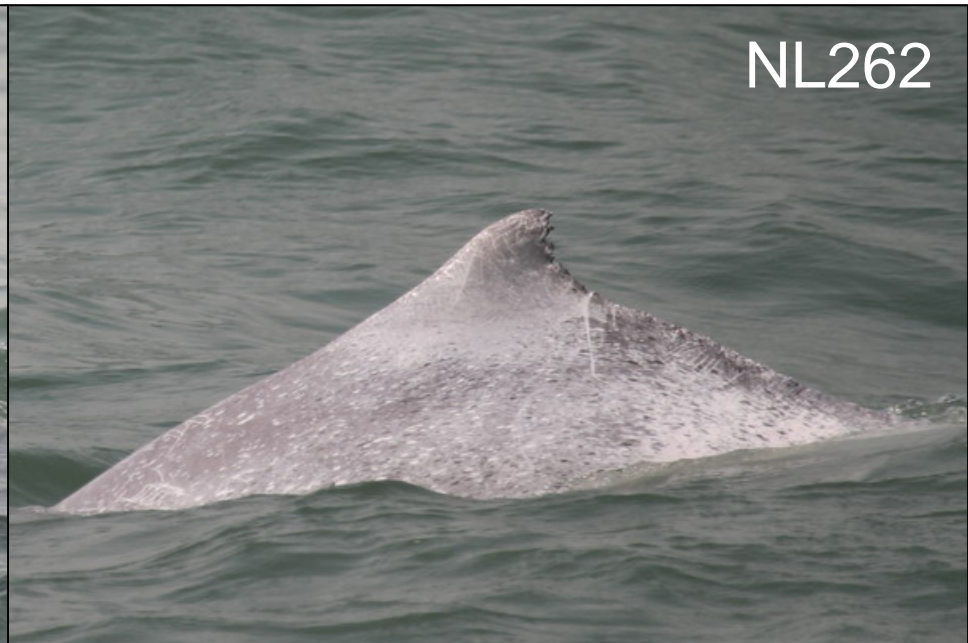


Appendix IV. (cont'd)

NL261



NL262



NL272



NL284



Appendix IV. (cont'd)

NL285



NL286



NL296



NL300



Appendix IV. (cont'd)

NL301



NL308



SL35



WL04



Appendix IV. (cont'd)

WL05



WL11



WL15



WL46



Appendix IV. (cont'd)

WL79



WL98



WL124



WL162



Appendix IV. (cont'd)

WL179



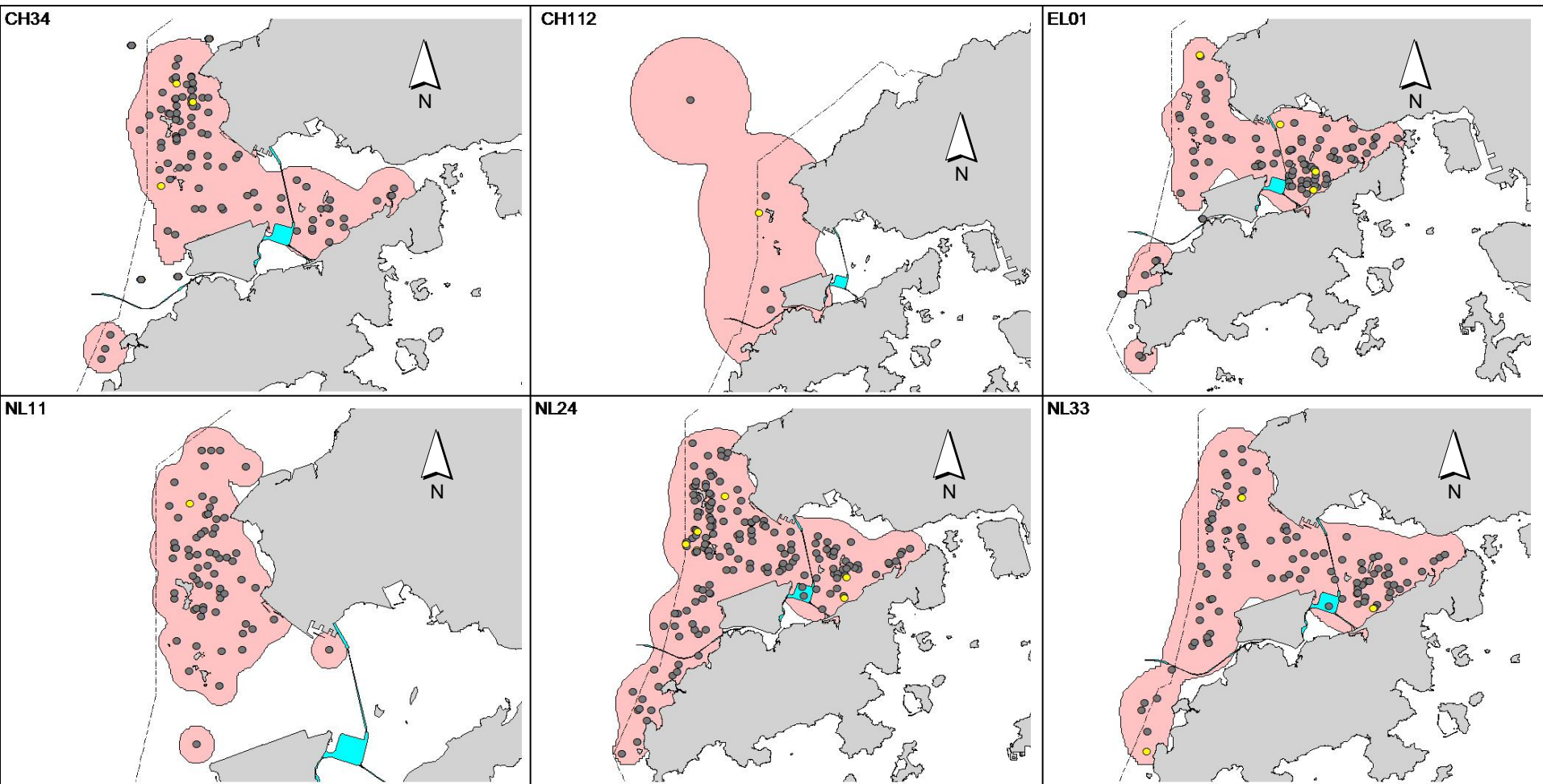
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NL269

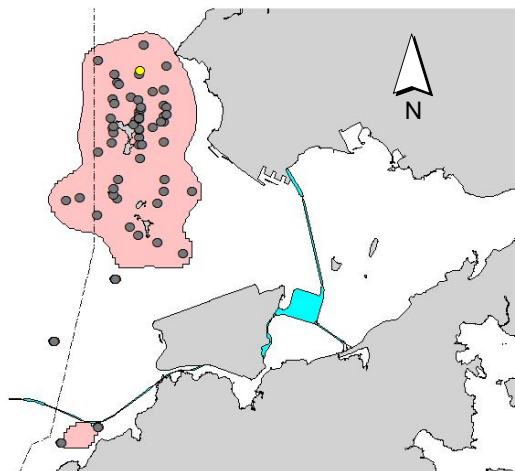


Appendix V. Ranging patterns (95% kernel ranges) of 44 individual dolphins that were sighted during HKLR03 impact phase monitoring period (note: yellow dots indicates sightings made in December 2013 – February 2014)

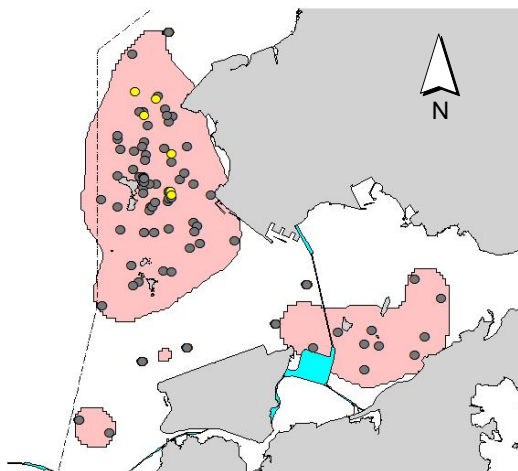


Appendix V. (cont'd)

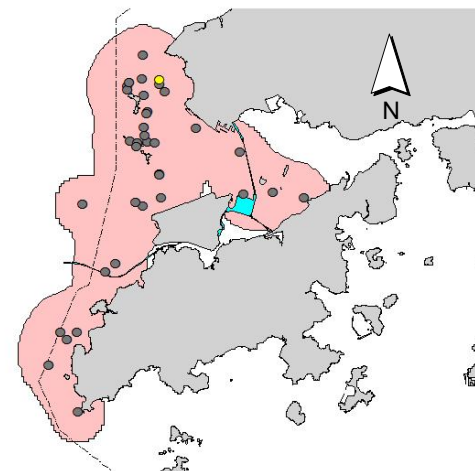
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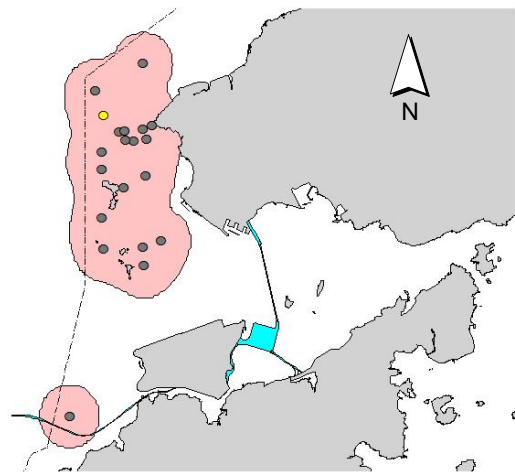
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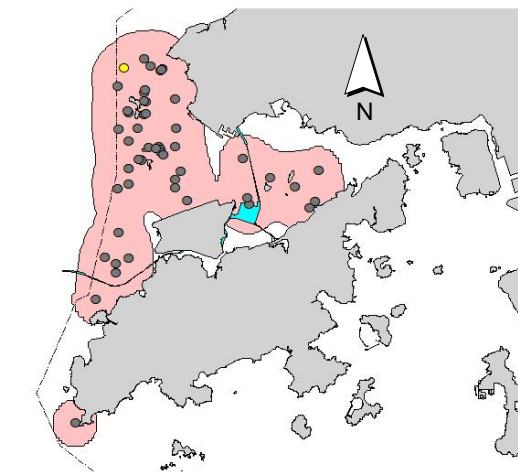
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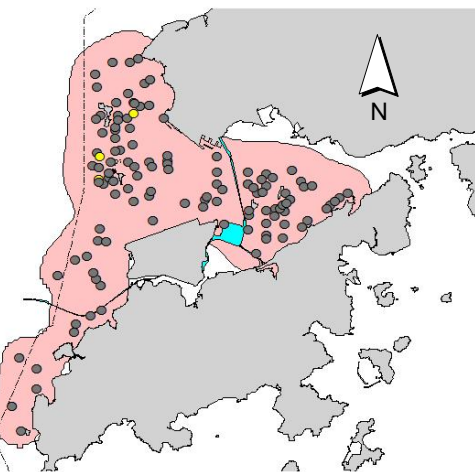
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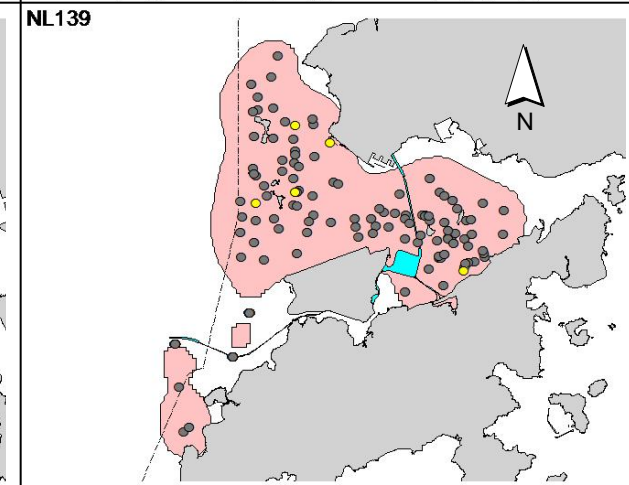
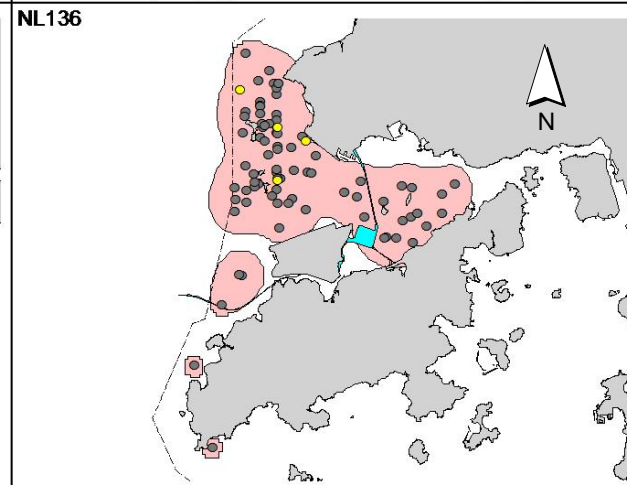
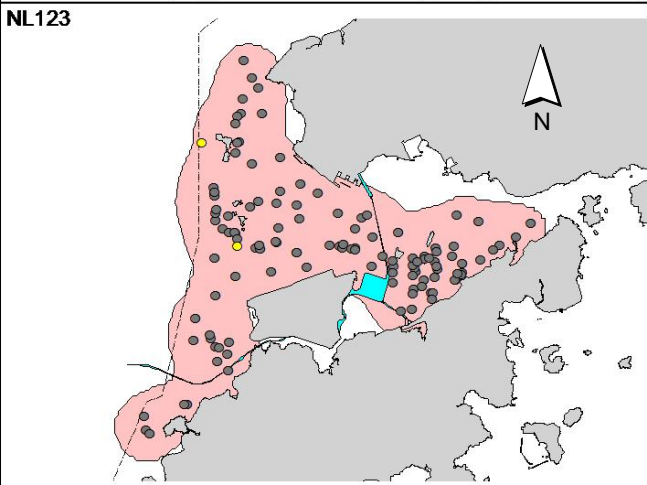
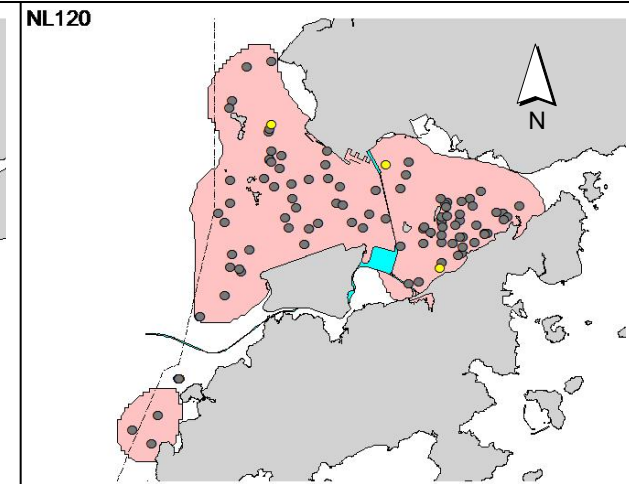
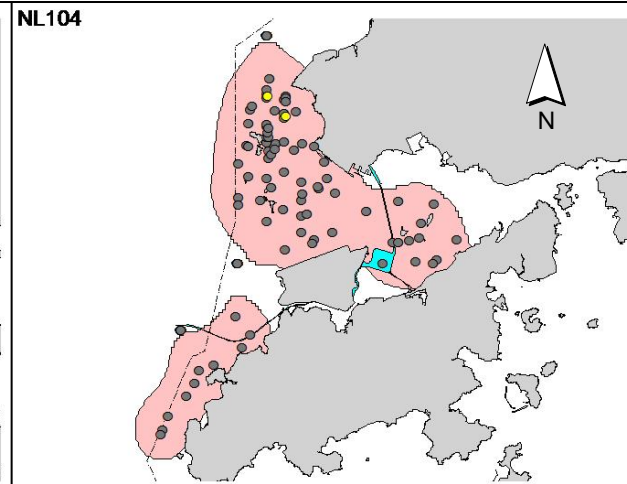
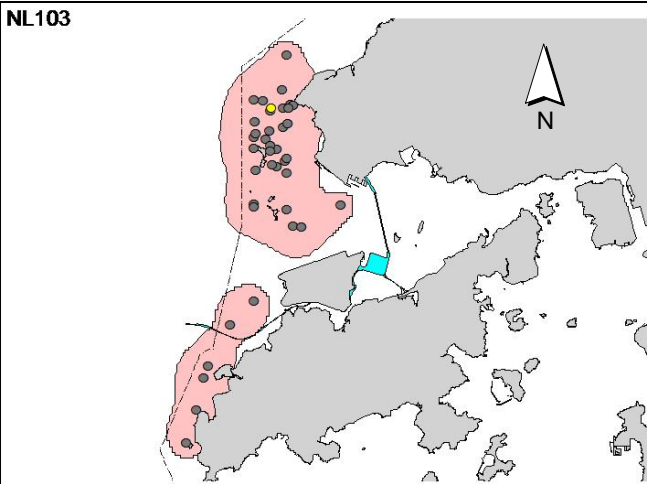
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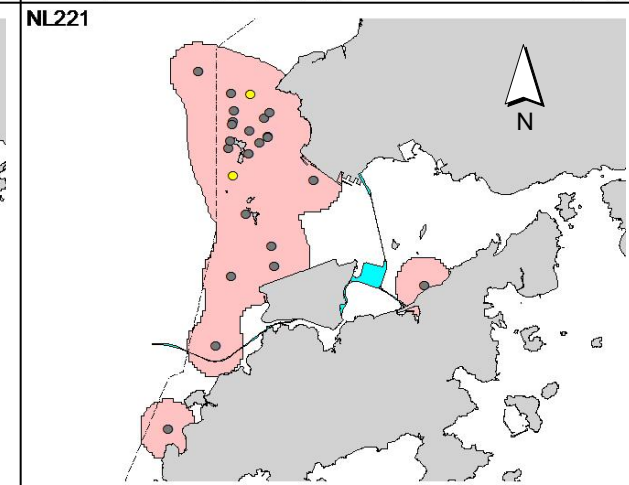
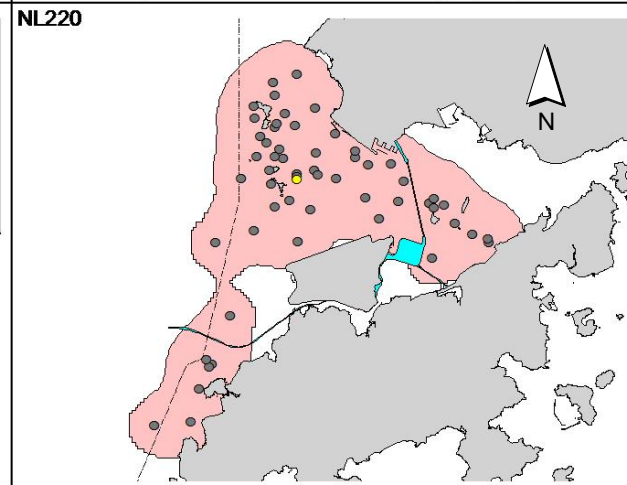
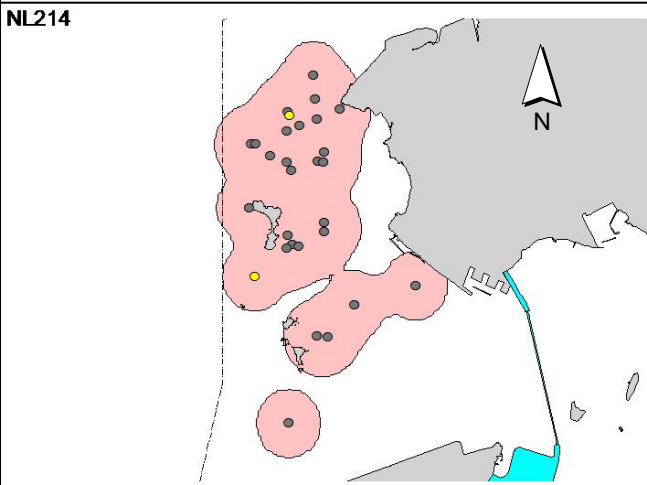
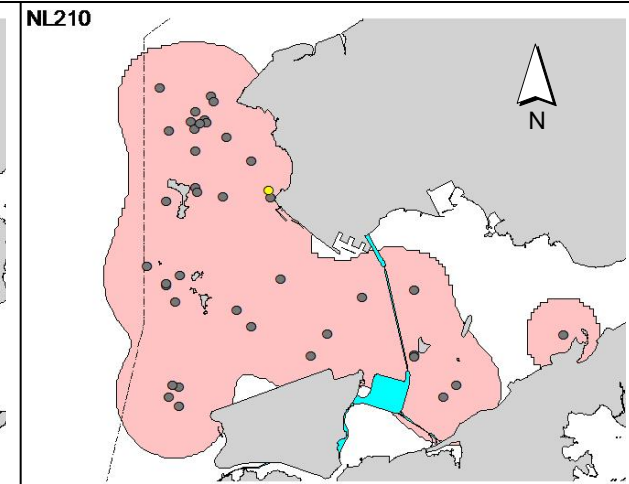
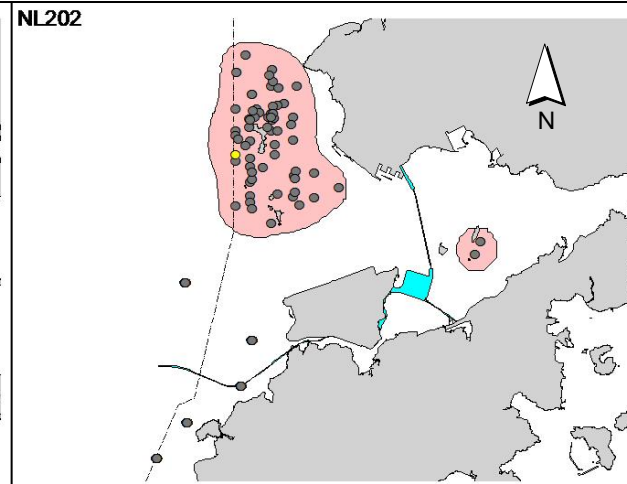
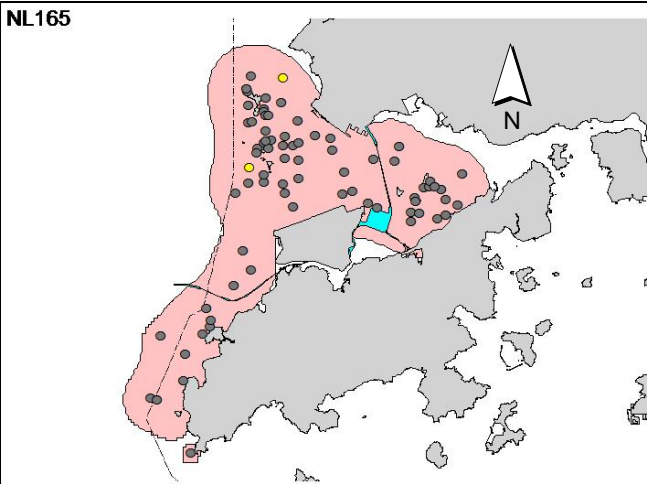
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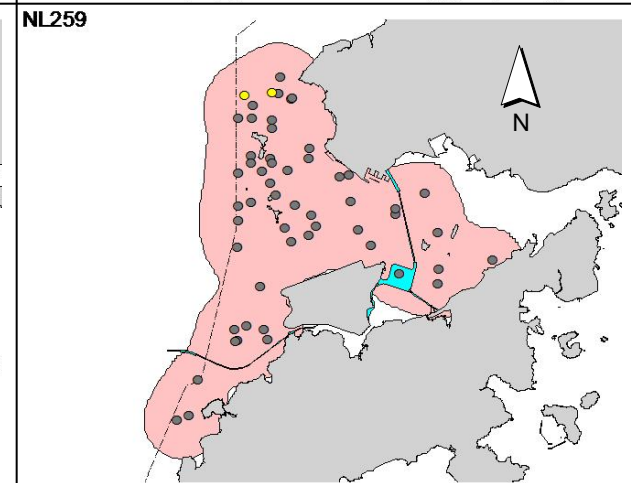
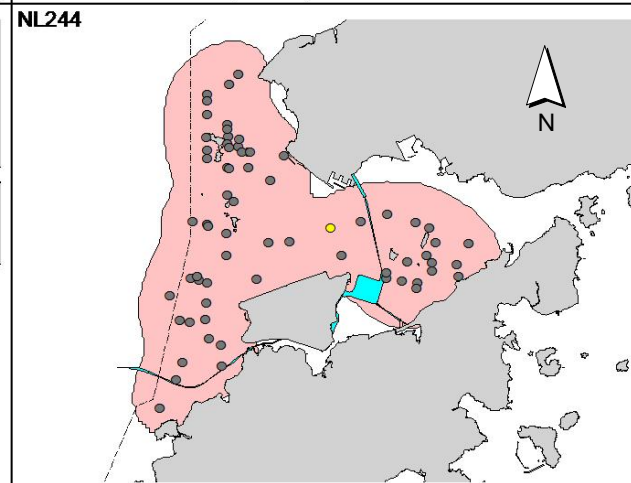
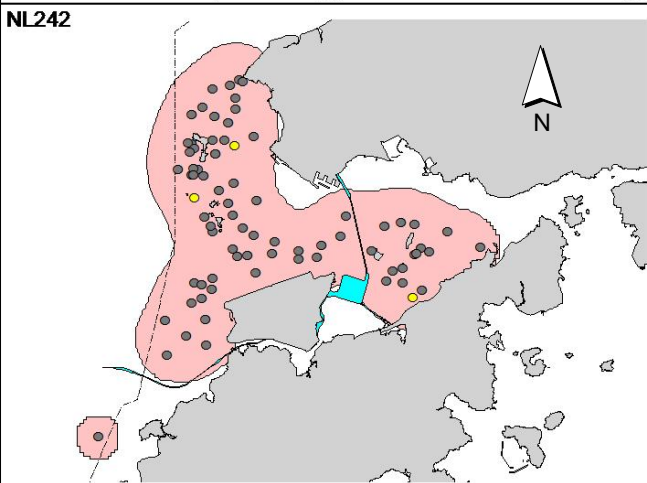
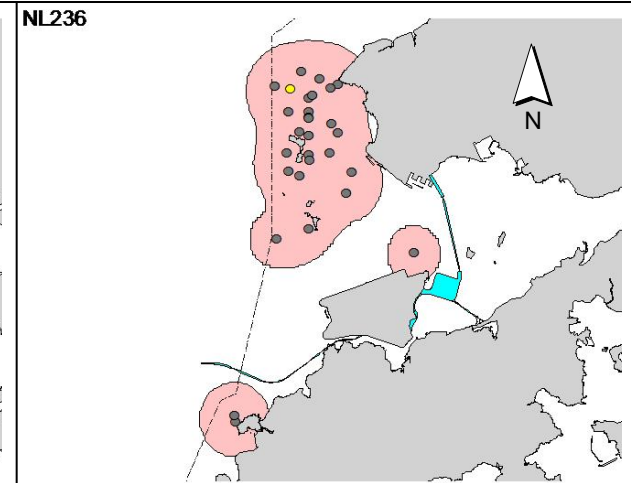
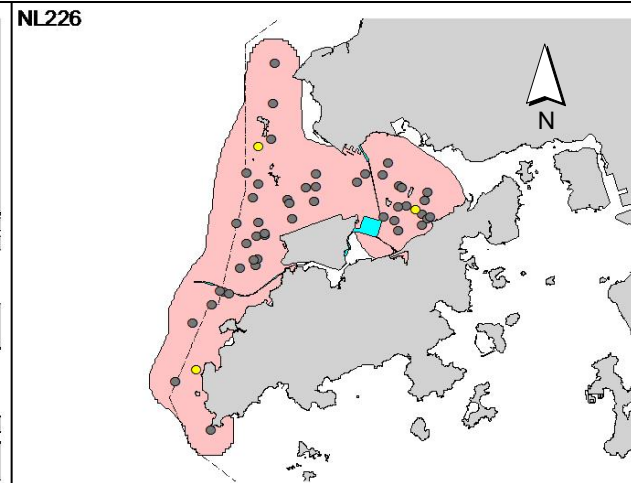
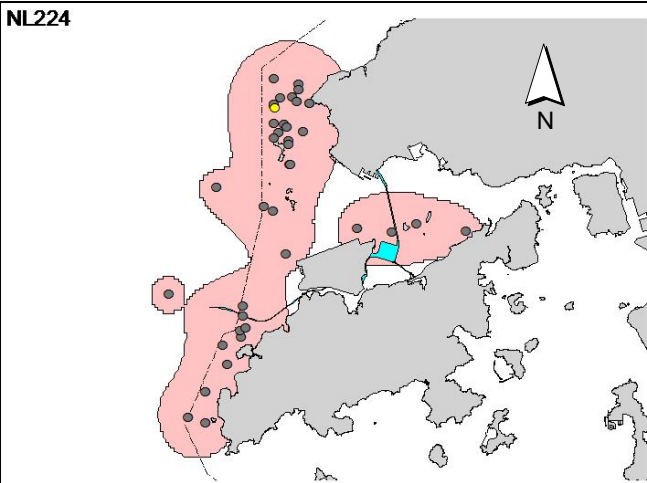
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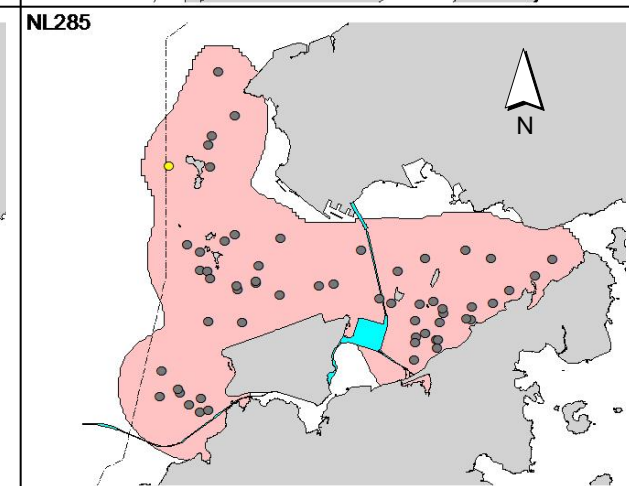
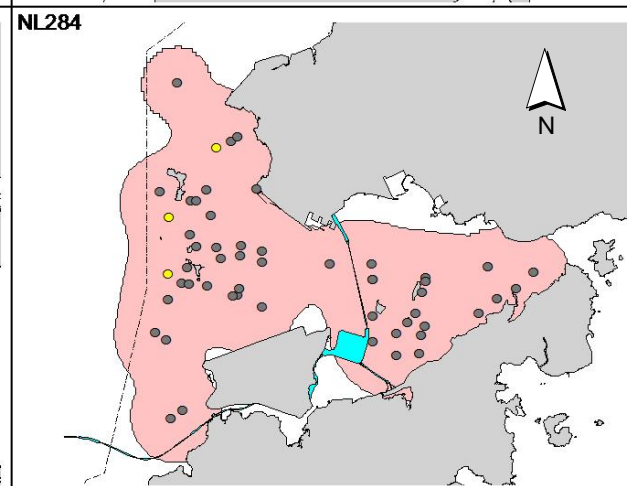
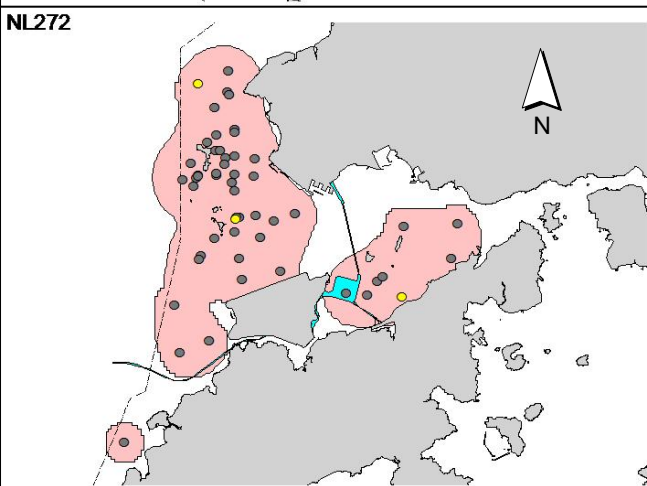
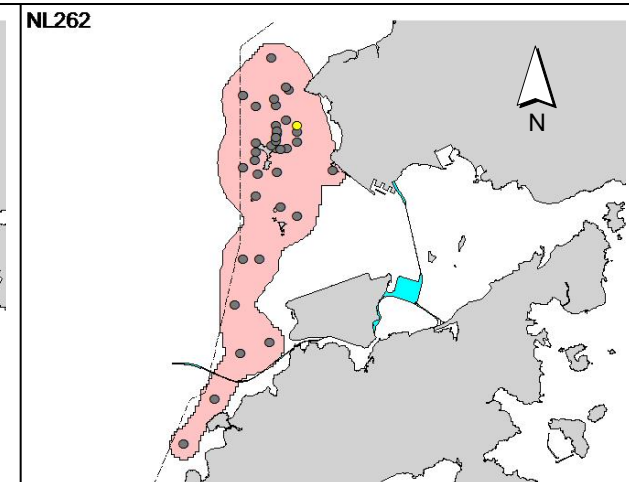
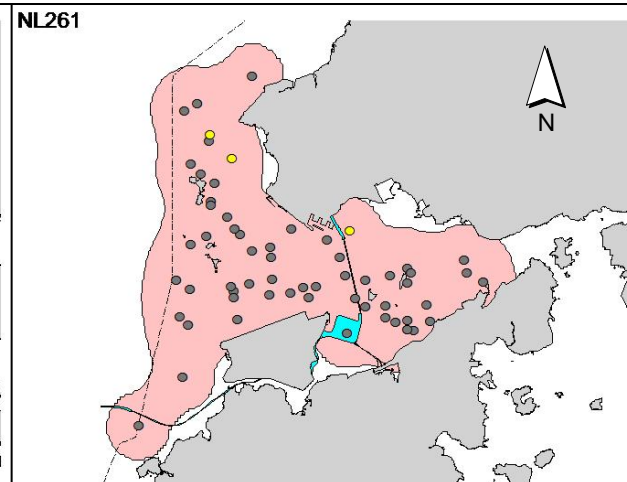
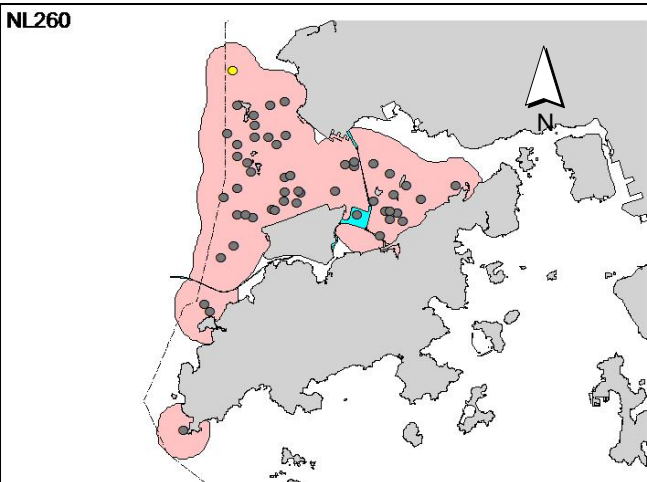
Appendix V. (cont'd)



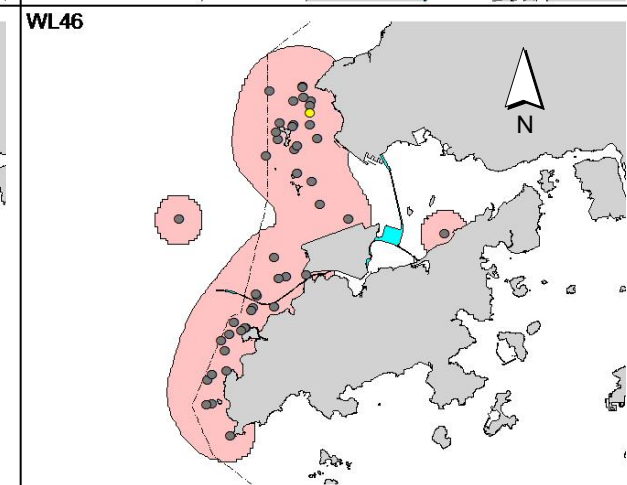
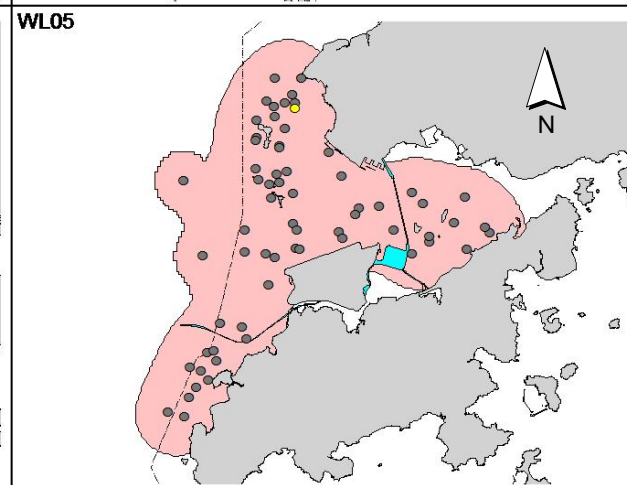
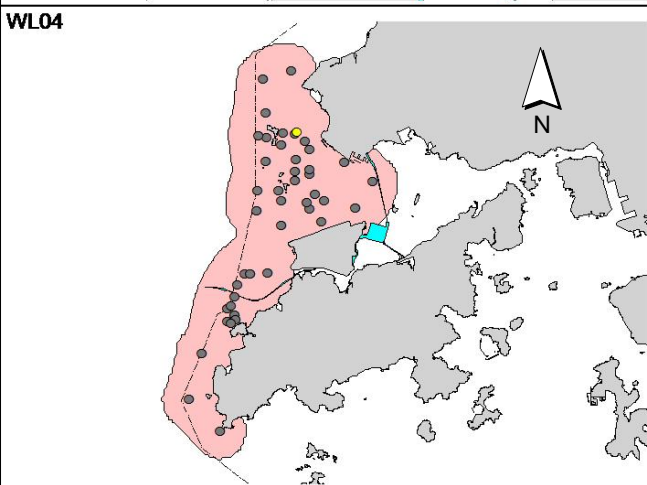
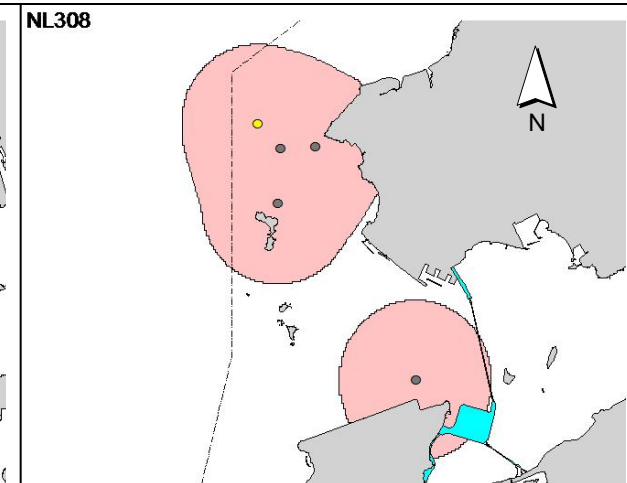
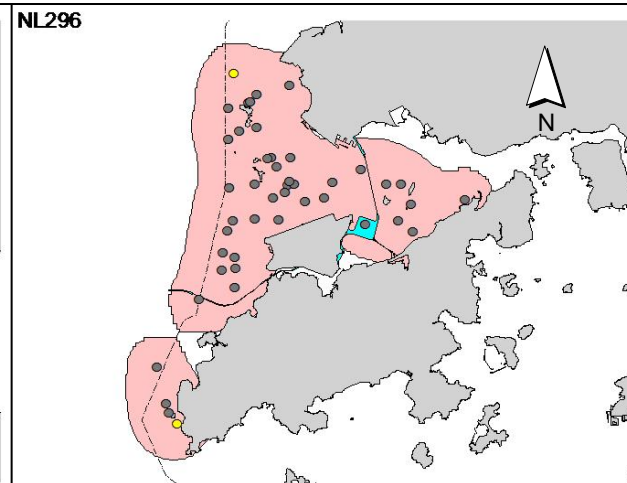
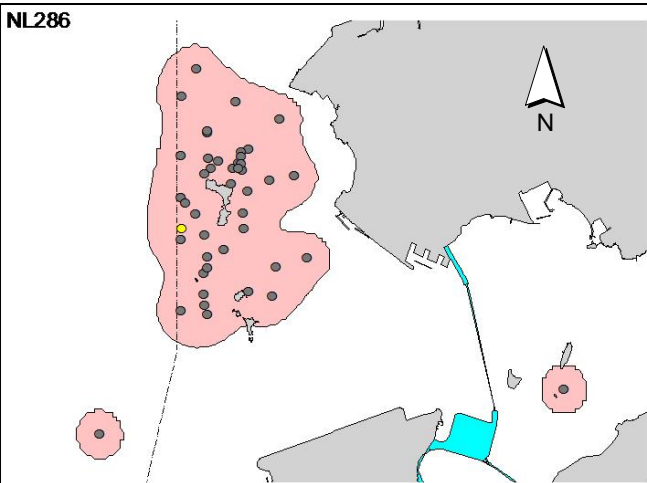
Appendix V. (cont'd)



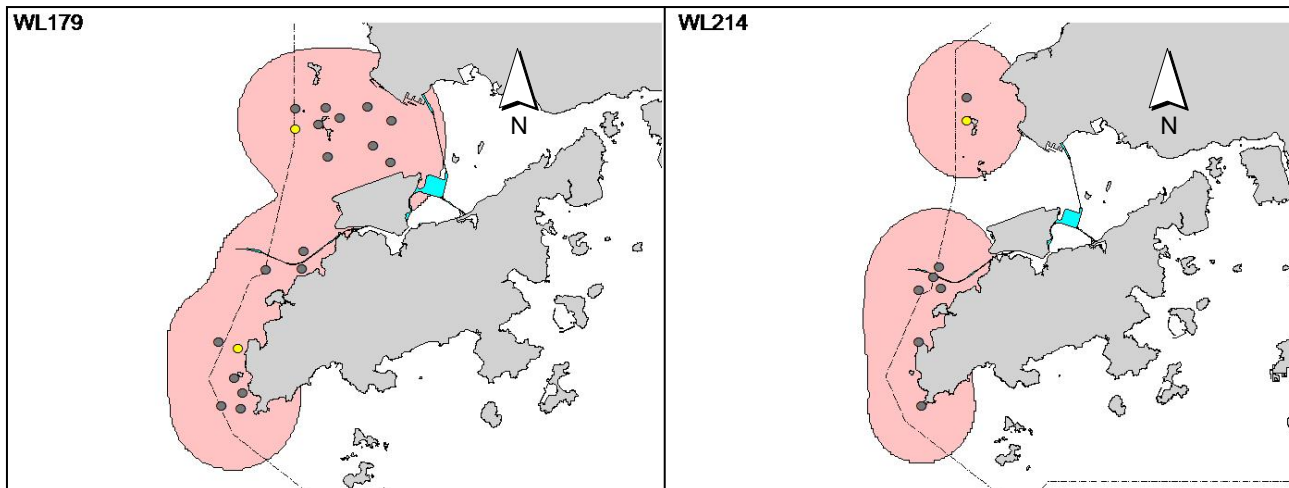
Appendix V. (cont'd)



Appendix V. (cont'd)



Appendix V. (cont'd)



Appendix K

Event Action Plan

Appendix K1 Event/ Action Plan for Air Quality

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

Appendix K2 Event/ Action Plan for Construction Noise

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

Appendix K3 *Event/ Action Plan for Water Quality*

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

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

Appendix K4 Implementation of Event-Action Plan for Dolphin Monitoring

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

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

Appendix K5 Event and Action Plan on Dolphin Acoustic Behaviour

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

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

Abbreviations: ET – Environmental Team, IEC – Independent Environmental Checker, SO – Supervising Office

Appendix L

Quarterly Summary of Waste Flow Table

Monthly Summary Waste Flow Table for Nov 2013 - Feb 2014

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	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	Chemical Waste	General Refuse	Metals	Felled trees	Paper/ cardboard packaging	Plastics
Unit	('000m ³)	('000m ³)	('000m ³)	('000m ³)	('000m ³)	('000m ³)	('000m ³)	('000m ³)	('000m ³)	('000Kg)	('000Kg)	('000Kg)	('000Kg)	('000Kg)	('000Kg)
Nov-13	0.277	-	0.240	-	0.037	-	-	-	-	22.050	-	-	-	-	-
Dec-13	0.114	0.027	0.020	-	0.094	-	-	-	-	28.040	-	0.019	-	-	-
Jan-14	0.138	0.011	0.108	-	0.030	-	-	-	-	22.380	-	10.240	-	-	-
Feb-14	2.901	0.010	0.124	-	0.010	2.766	-	-	-	10.670	-	0.780	-	-	-
TOTAL	3.430	0.049	0.492	0.000	0.172	2.766	0.000	0.000	0.000	83.140	0.000	11.039	0.000	0.000	0.000

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.

Appendix M

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

Appendix M1 Cumulative Statistics on Exceedances

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

Appendix M2 Cumulative Statistics on Complaints, Notifications of Summons and Successful Prosecutions

Reporting Period	Cumulative Statistics		
	Complaints	Notifications of Summons	Successful Prosecutions
November 2013	1	0	0
December 2013	0	0	0
January 2014	0	0	0
February 2014	0	0	0
Total No. received since project commencement	1	0	0

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To ENVIRON - Hong Kong, Limited (ENPO)

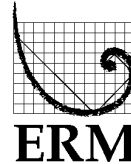
From ERM- Hong Kong, Limited

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

Subject Notification of Exceedance for Impact Dolphin
Monitoring

Date 8 April 2014

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



Dear Sir or Madam,

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

0215660_Dec2013/Feb2014_dolphin_STG&ANI_NEL

A total of one action exceedance was recorded in the quarterly impact
dolphin monitoring data between December 2013 and February 2014.

Regards,



Mr Jovy Tam
Environmental Team Leader

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ERM-Hong Kong, Limited

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

Impact Dolphin Monitoring
 Notification of Exceedance

Log No.	0215660_Dec2013/Feb2014_dolphin_STG&ANI_NEL [Total No. of Exceedances = 1]	
Date	December 2013 to February 2014 (monitored) 03 April 2014 (results received by ERM)	
Monitoring Area	Northeast Lantau (NEL) and Northwest Lantau (NWL)	
Parameter(s) with Exceedance(s)	Quarterly encounter rate of dolphin sightings (STG) Quarterly encounter rate of total number of dolphins (ANI)	
Action Levels	North Lantau Social cluster	NEL: STG < 4.2 & ANI < 15.5 or NWL: STG < 6.9 & ANI < 31.3
Limit Levels		NEL: STG < 2.34 & ANI < 8.9 and NWL: STG < 3.9 & ANI < 17.9
Recorded Levels	NEL	STG = 0.4 & ANI = 1.3
	NWL	STG = 8.2 & ANI = 32.6
	Action Level Exceedance is recorded in the quarterly impact dolphin monitoring between December 2013 and February 2014.	
Statistical Analyses	A two-way ANOVA with repeated measures and unequal sample size was conducted using Period (2 levels: baseline vs impact) and Location (2 levels: NEL and NWL) as fixed factors to examine whether there were any significant differences in the averages encounter rates between the baseline and impact monitoring periods. By setting $\alpha = 0.1$ as the significance level in the statistical tests, a significant difference in STG ($p = 0.0774$) between baseline and present quarter was detected but not in ANI ($p = 0.1671$).	

Works Undertaken (in the monitoring quarter)	<p>In the quarter between December 2013 and February 2014, the major marine works under <i>Contract No. HY/2012/07</i> included:</p> <ul style="list-style-type: none"> • Survey tower erection; • Marine piling platform installation; • Preparation works for marine piling at Viaduct B; and • Construction of rockfill platform at Viaduct D landing.
Possible Reason for Action or Limit Level Exceedance(s)	<p>The exceedance is considered to be the natural variation of Chinese white dolphin (CWD) <i>Sousa chinensis</i> ranging pattern and unlikely to be due to the Project, in view of the following:</p> <ul style="list-style-type: none"> • According to the long-term monitoring results of marine mammals collected by AFCD, the CWD in winter months (December to February) are usually ranging in waters around Sha Chau, Lung Kwu Chau and north Lantau, with some of them in the east and south of Lantau waters and outer Deep Bay, but less frequently at NEL • As per the findings from the EIA report (Section 8.11.9), the major influences on the CWD are marine traffics and bored piling. The Contractor has implemented the marine bored piling monitoring and marine traffic control as per the requirements in the EP-354/2009/B and the updated EM&A Manual. Likewise, bored piling works were undertaken within a metal casing as described in the EP and the approved EIA Report. • Seasonal variation in individual ranging pattern has been well documented in the long-term monitoring of marine mammals conducted by AFCD and in the literatures ⁽¹⁾ ⁽²⁾. • According to the findings of EIA report (Section 8.9) and Baseline Dolphin Monitoring, dolphin sightings at the northeast Lantau are not particularly high, which is commensurate with the quarterly findings that dolphin sightings at NEL is relatively lower than that at NWL.
Actions Taken / To Be Taken	<p>With reference to the site inspection records in this quarter, the respective marine ecological mitigation measures (including 250 m dolphin exclusion zone, marine bored piling monitoring, underwater acoustic decoupling plan and marine traffic control) have been implemented properly by the Contractor throughout the marine works period. No formation of underwater sockets into rock shall be carried out for the marine bored piles construction in May and June which is the peak calving season of Chinese White Dolphins. No immediate additional action is considered necessary. The ET will monitor for future trends in exceedance(s).</p>
Remarks	<p>The quarterly monitoring results and the transact location of impact dolphin monitoring are attached.</p>

(1) Jefferson & Hung (2010) A review of the status of the Indo-Pacific Humpback Dolphin (*Sousa chinensis*) in Chinese Waters. *Aquatic Mammals* (30): 149 – 158.

(2) Chen et al., (2010) Distribution, abundance, and individual movements of Indo-Pacific humpback dolphins (*Sousa chinensis*) in the Pearl River Estuary, China. *Mammalia* (74): 117 – 125.

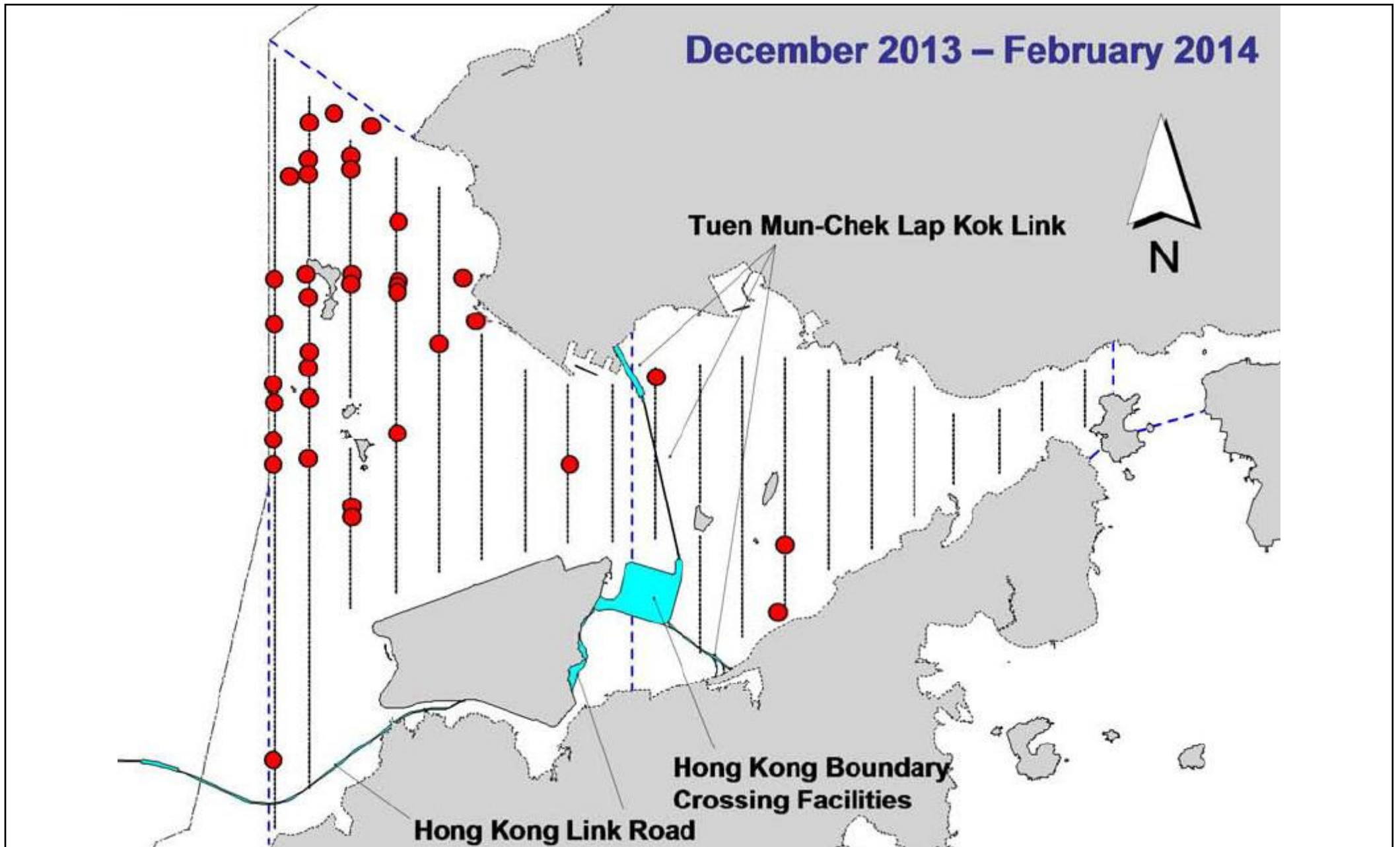


Figure 1.

Distribution of Chinese white dolphin (*Sousa chinensis*) in Northwest and Northeast Lantau during impact phase monitoring from December 2013 to February 2014

DATE: 06/03/2013

(Source: Contract No. HY/2011/03 - HZMB HKLR - Section between Scenic Hill and HKBCF)

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Appendix II. HKLR03 Chinese White Dolphin Sighting Database (November 2013 - February 2014)

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

DATE	STG #	TIME	HRD SZ	AREA	BEAU	PSD	EFFORT	TYPE	NORTHING	EASTING	SEASON	BOAT ASSOC.	P/S
1-Nov-13	1	1049	4	NW LANTAU	2	74	ON	HKLR	823145	809509	AUTUMN	NONE	P
1-Nov-13	2	1152	3	NW LANTAU	3	214	ON	HKLR	826947	807517	AUTUMN	NONE	P
1-Nov-13	3	1203	7	NW LANTAU	3	159	ON	HKLR	827235	807539	AUTUMN	NONE	P
1-Nov-13	4	1225	1	NW LANTAU	2	137	ON	HKLR	827490	807539	AUTUMN	NONE	P
1-Nov-13	5	1236	3	NW LANTAU	2	358	ON	HKLR	828232	807530	AUTUMN	NONE	P
1-Nov-13	6	1252	7	NW LANTAU	2	ND	OFF	HKLR	828941	807583	AUTUMN	NONE	
1-Nov-13	7	1312	4	NW LANTAU	2	72	ON	HKLR	830018	805999	AUTUMN	NONE	S
1-Nov-13	8	1458	11	NW LANTAU	3	60	ON	HKLR	821228	804642	AUTUMN	NONE	P
5-Nov-13	1	1421	5	NW LANTAU	2	378	ON	HKLR	828097	808508	AUTUMN	NONE	P
8-Nov-13	1	1041	4	NW LANTAU	1	302	ON	HKLR	824489	807678	AUTUMN	NONE	P
8-Nov-13	2	1103	8	NW LANTAU	2	694	ON	HKLR	827091	807858	AUTUMN	NONE	P
8-Nov-13	3	1152	7	NW LANTAU	3	299	ON	HKLR	827660	805459	AUTUMN	NONE	P
8-Nov-13	4	1215	9	NW LANTAU	2	756	ON	HKLR	825357	805465	AUTUMN	NONE	P
8-Nov-13	5	1232	5	NW LANTAU	2	ND	OFF	HKLR	825025	805464	AUTUMN	NONE	
8-Nov-13	6	1249	4	NW LANTAU	2	7	ON	HKLR	823806	805462	AUTUMN	NONE	P
8-Nov-13	7	1400	2	NW LANTAU	2	155	ON	HKLR	818382	804657	AUTUMN	NONE	P
8-Nov-13	8	1426	8	NW LANTAU	2	149	ON	HKLR	823675	804648	AUTUMN	NONE	P
8-Nov-13	9	1526	1	NW LANTAU	2	45	ON	HKLR	826872	806446	AUTUMN	NONE	P
8-Nov-13	10	1536	4	NW LANTAU	1	225	ON	HKLR	825643	806454	AUTUMN	NONE	P
8-Nov-13	11	1606	4	NW LANTAU	2	223	ON	HKLR	821988	806457	AUTUMN	NONE	P
13-Nov-13	1	1451	1	NW LANTAU	3	343	ON	HKLR	825118	808482	AUTUMN	NONE	P
5-Dec-13	1	1127	3	NE LANTAU	1	275	ON	HKLR	820787	816500	WINTER	NONE	P
9-Dec-13	1	1119	1	NW LANTAU	3	77	ON	HKLR	822544	811516	WINTER	NONE	P
9-Dec-13	2	1238	4	NW LANTAU	2	132	ON	HKLR	826515	807547	WINTER	NONE	P
9-Dec-13	3	1256	12	NW LANTAU	2	103	ON	HKLR	827833	807540	WINTER	NONE	P
9-Dec-13	4	1518	4	NW LANTAU	3	177	ON	HKLR	823088	804646	WINTER	NONE	P
9-Dec-13	5	1539	1	NW LANTAU	2	866	ON	HKLR	826577	804664	WINTER	NONE	P
19-Dec-13	1	1203	2	NW LANTAU	3	73	ON	HKLR	824648	805453	WINTER	NONE	P
19-Dec-13	2	1216	6	NW LANTAU	3	150	ON	HKLR	823972	805483	WINTER	NONE	P
7-Jan-14	1	1258	2	NW LANTAU	3	87	ON	HKLR	825659	809348	WINTER	NONE	S
7-Jan-14	2	1337	1	NW LANTAU	3	125	ON	HKLR	825152	808472	WINTER	NONE	P
7-Jan-14	3	1452	3	NW LANTAU	2	1171	ON	HKLR	826673	806456	WINTER	NONE	P

Appendix II. (cont'd)

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

DATE	STG #	TIME	HRD SZ	AREA	BEAU	PSD	EFFORT	TYPE	NORTHING	EASTING	SEASON	BOAT ASSOC.	P/S
7-Jan-14	4	1515	6	NW LANTAU	2	5	ON	HKLR	829275	806451	WINTER	NONE	P
9-Jan-14	1	1336	6	NW LANTAU	3	24	ON	HKLR	823238	807510	WINTER	NONE	P
9-Jan-14	2	1407	10	NW LANTAU	2	62	ON	HKLR	826405	807506	WINTER	NONE	P
9-Jan-14	3	1435	1	NW LANTAU	3	56	ON	HKLR	826272	807526	WINTER	NONE	P
9-Jan-14	4	1534	3	NW LANTAU	2	131	ON	HKLR	826675	805395	WINTER	NONE	S
9-Jan-14	5	1546	1	NW LANTAU	2	113	ON	HKLR	826176	805446	WINTER	NONE	P
21-Jan-14	1	1407	2	NW LANTAU	2	99	ON	HKLR	829916	806916	WINTER	NONE	S
21-Jan-14	2	1426	7	NW LANTAU	2	260	ON	HKLR	830008	805474	WINTER	NONE	P
21-Jan-14	3	1444	2	NW LANTAU	2	84	ON	HKLR	829188	805452	WINTER	NONE	P
21-Jan-14	4	1521	9	NW LANTAU	2	434	ON	HKLR	824969	805464	WINTER	NONE	P
23-Jan-14	1	1015	2	NW LANTAU	2	977	ON	HKLR	816090	804642	WINTER	NONE	P
23-Jan-14	2	1101	4	NW LANTAU	2	329	ON	HKLR	826576	804674	WINTER	NONE	P
23-Jan-14	3	1133	3	NW LANTAU	1	957	ON	HKLR	830195	806061	WINTER	NONE	P
23-Jan-14	4	1202	5	NW LANTAU	1	199	ON	HKLR	828976	806450	WINTER	NONE	P
23-Jan-14	5	1250	2	NW LANTAU	2	372	ON	HKLR	821623	806467	WINTER	NONE	P
23-Jan-14	6	1538	9	NE LANTAU	2	365	ON	HKLR	819337	816344	WINTER	NONE	S
6-Feb-14	1	1040	2	NW LANTAU	2	895	ON	HKLR	822535	804645	WINTER	HANG	P
6-Feb-14	2	1049	4	NW LANTAU	2	515	ON	HKLR	823908	804658	WINTER	NONE	P
6-Feb-14	3	1109	2	NW LANTAU	2	422	ON	HKLR	825591	804672	WINTER	NONE	P
6-Feb-14	4	1204	3	NW LANTAU	1	888	ON	HKLR	826473	806445	WINTER	NONE	P
6-Feb-14	5	1428	4	NE LANTAU	2	ND	OFF	HKLR	824423	813528	WINTER	NONE	
12-Feb-14	1	1449	1	NW LANTAU	2	290	ON	HKLR	828878	805462	WINTER	NONE	P
14-Feb-14	1	1237	1	NW LANTAU	2	ND	OFF	HKLR	826601	809051	WINTER	NONE	
14-Feb-14	2	1348	4	NW LANTAU	3	133	ON	HKLR	821401	806466	WINTER	NONE	P
14-Feb-14	3	1525	1	NW LANTAU	3	112	ON	HKLR	824262	804649	WINTER	NONE	P
20-Feb-14	1	1046	7	NW LANTAU	3	72	ON	HKLR	822688	805449	WINTER	NONE	P
20-Feb-14	2	1135	7	NW LANTAU	3	648	ON	HKLR	828813	805029	WINTER	NONE	P