

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

Ninth Monthly EM&A Report

11 August 2014

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

www.erm.com

Contract No. HY/2012/07





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

Environmental Resources Management

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

Ninth Monthly EM&A Report

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Summary: This document presents the Ninth Monthly EM&A Report for Tuen Mun – Chek Lap Kok Link – Southern Connection Viaduct Section.		Date: 11 August 2014			
		Approved by: 			
		Mr Craig Reid Partner			
		Certified by: 			
		Mr Jovy Tam ET Leader			
	Ninth Monthly EM&A Report	VAR	JT	CAR	11/08/14
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.: HYDZHMBEEM00_0_2125L.14

13 August 2014

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

By Fax (3691 2899) and By Post

Attention: Mr. Daniel Ip

Dear 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
Monthly EM&A Report for July 2014 (EP-354/2009/B)**

Reference is made to the Monthly Environmental Monitoring and Audit (EM&A) Report (for July 2014) certified by the ET Leader (ET's ref.: "0215660_9th Monthly EM&A_20140811.doc" dated 11 August 2014) and provided to us via email on 13 August 2014.

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

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

Yours sincerely,



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

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

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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 Ninth Monthly EM&A report presenting the EM&A works carried out during the period from 1 to 31 July 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:

Marine-based Works

- Construction of Pile caps at Viaduct B;
- Marine piling platform installation;
- Marine Piling at Viaducts B & E;
- Construction of rockfill platform at Viaduct D landing; and,
- Additional marine ground investigation (GI) and laboratory testing.

Land-based Works

- Construction of pile cap superstructure of Viaduct B;
- Fence installation and relocation of Area 2, Viaducts A, B, C & D;
- Land Piling at Viaducts B & D;
- Piling platform installation for Viaducts B, C, D and E;
- Additional land GI, trial pits & lab testing;
- Utility surveys;
- Slope work of Slope 9SE-B/C8, 9SE-B/C9 & 9SE-B/F9; and,
- Site formation of workshop at Area 1.

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

24-hour TSP monitoring	5 sessions
1-hour TSP monitoring	5 sessions
Noise monitoring	5 sessions
Impact Water Quality Monitoring	14 sessions
Impact Dolphin Monitoring	2 sessions
Joint Environmental site inspection	5 sessions
Post-Translocation Coral monitoring	1 session

Breaches of Action and Limit Levels for Air Quality

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

Breaches of Action and Limit Levels for Noise

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

Breaches of Action and Limit Levels for Water Quality

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

Impact Dolphin Monitoring

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

Daily marine mammal exclusion zone monitoring was undertaken. No sighting of the Indo-Pacific humpback dolphin *Sousa chinensis* (i.e. Chinese White Dolphin) was recorded in July 2014 during the exclusion zone monitoring.

Coral Monitoring

The Third Quarterly Post-Translocation Coral Monitoring was conducted on 24 July 2014 and the results will be detailed in the *Third Quarterly Post-Translocation Coral Monitoring Report*.

Environmental Complaints, Non-compliance & Summons

One (1) complaint was referred by EPD on 23 June 2014 which was considered to be not related to this Contract upon further investigations.

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 next monitoring period of August 2014 include the following:

Marine Works

- Construction of Pile caps at Viaduct B;
- Marine piling platform installation;
- Marine Piling at Viaducts B, D & E;
- Construction of rockfill platform at Viaduct D landing; and,
- Additional marine ground investigation (GI) and laboratory testing.

Land-based Works

- Construction of pile cap superstructure of Viaduct B;
- Fence installation and relocation of Area 2, Viaducts A, B, C & D;
- CEDD Access track temporary re-alignment;
- Land Piling at Viaducts B & D;
- Piling platform installation for Viaducts B, C, D and E;
- Additional land GI, trial pits & lab testing;
- Utility surveys;
- Slope work of Slope 9SE-B/C8, 9SE-B/C9 & 9SE-B/F9; and,
- Site formation of workshop at Area 1.

Future Key Issues

Potential environmental impacts arising from the above upcoming construction activities in the next reporting month of August 2014 are mainly associated with dust, noise, marine water quality, marine ecology and waste management issues.

1.1

BACKGROUND

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

An Environmental Impact Assessment (EIA) of TM-CLKL (the Project) was prepared in accordance with the EIA Study Brief (No. ESB-175/2007) and the *Technical Memorandum of the Environmental Impact Assessment Process (EIAO-TM)*. The EIA Report was submitted under the Environmental Impact Assessment Ordinance (EIAO) in August 2009. Subsequent to the approval of the EIA Report (EIAO Register Number AEIAR-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.

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*. 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 phase of the EM&A programme, including air quality, noise, water quality and marine ecological monitoring as well environmental site inspections, commenced on 31 October 2013.

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

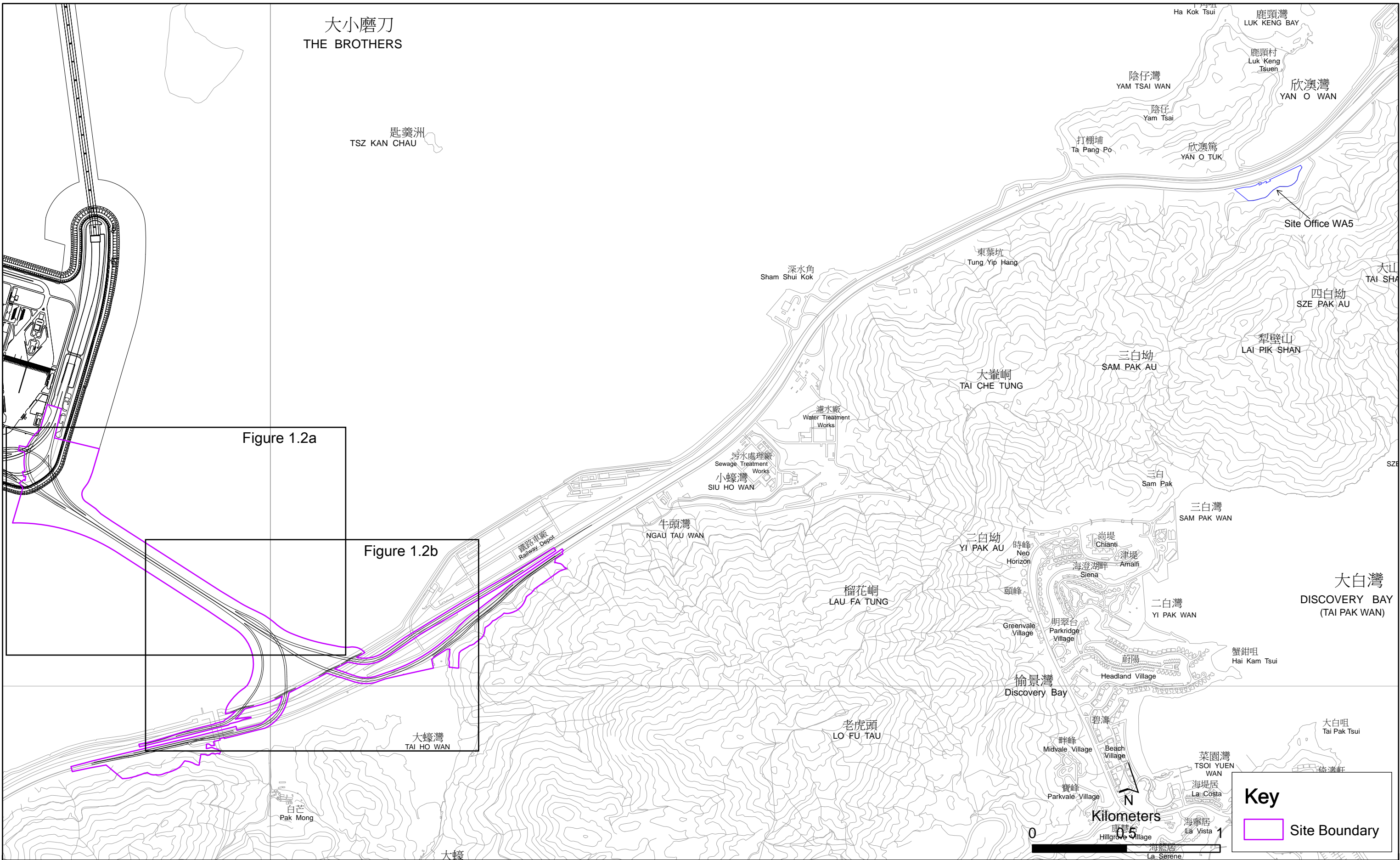



Figure 1.1
 General Layout Plan of the Project

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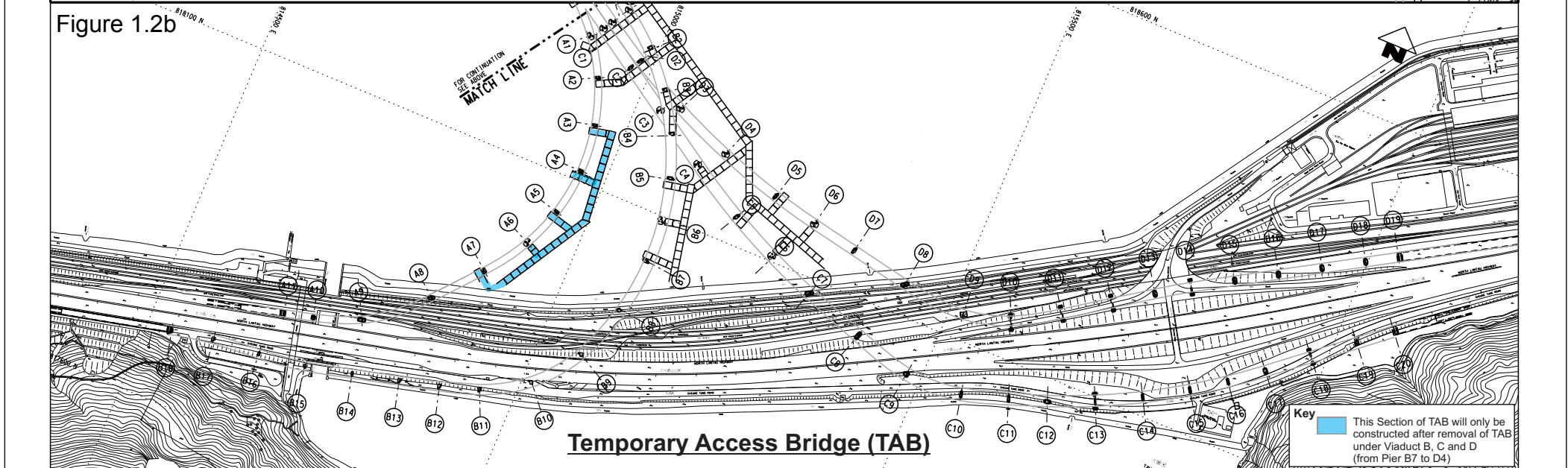
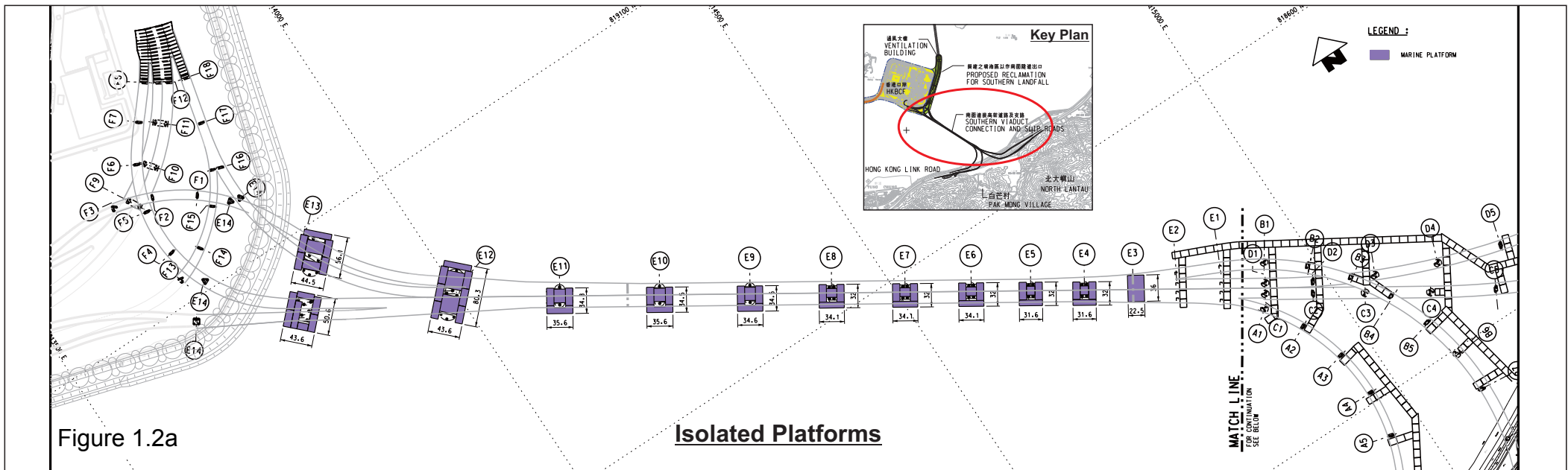


Figure 1.2

General Layout Plan of Contract No. HY/2012/07 - Viaducts A, B, C, D, E & F

1.2 SCOPE OF REPORT

This is the Ninth Monthly EM&A Report under the *Contract No. HY/2012/07 Tuen Mun – Chek Lap Kok Link – Southern Connection Viaduct Section*. This report presents a summary of the environmental monitoring and audit works in July 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 (Highways Department)	Project Coordinator	Stanley Chan	2762 3406	3188 6614
	Senior Engineer	Steven Shum	2762 4133	3188 6614
SOR (AECOM Asia Company Limited)	Chief Resident Engineer	Daniel Ip	3553 3800	2492 2057
	Resident Engineer	Kingman Chan	3691 3950	3691 2899
ENPO / IEC (ENVIRON Hong Kong Ltd.)	ENPO Leader	Y.H. Hui	3465 2888	3465 2899
	IEC	Dr. F.C. Tsang	3465 2828	3465 2899
Contractor (Gammon Construction Limited)	Environmental Manager	Brian Kam	3520 0387	3520 0486
	Environmental Officer	Roy Leung	3520 0387	3520 0486
	24-hour Complaint Hotline		9738 4332	
ET (ERM-HK)	ET Leader	Jovy Tam	2271 3113	2723 5660

1.4 SUMMARY OF CONSTRUCTION WORKS

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

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

Marine-based Works

- Construction of Pile caps at Viaduct B;
- Marine piling platform installation;
- Marine Piling at Viaducts B & E;
- Construction of rockfill platform at Viaduct D landing; and,
- Additional marine ground investigation (GI) and laboratory testing.

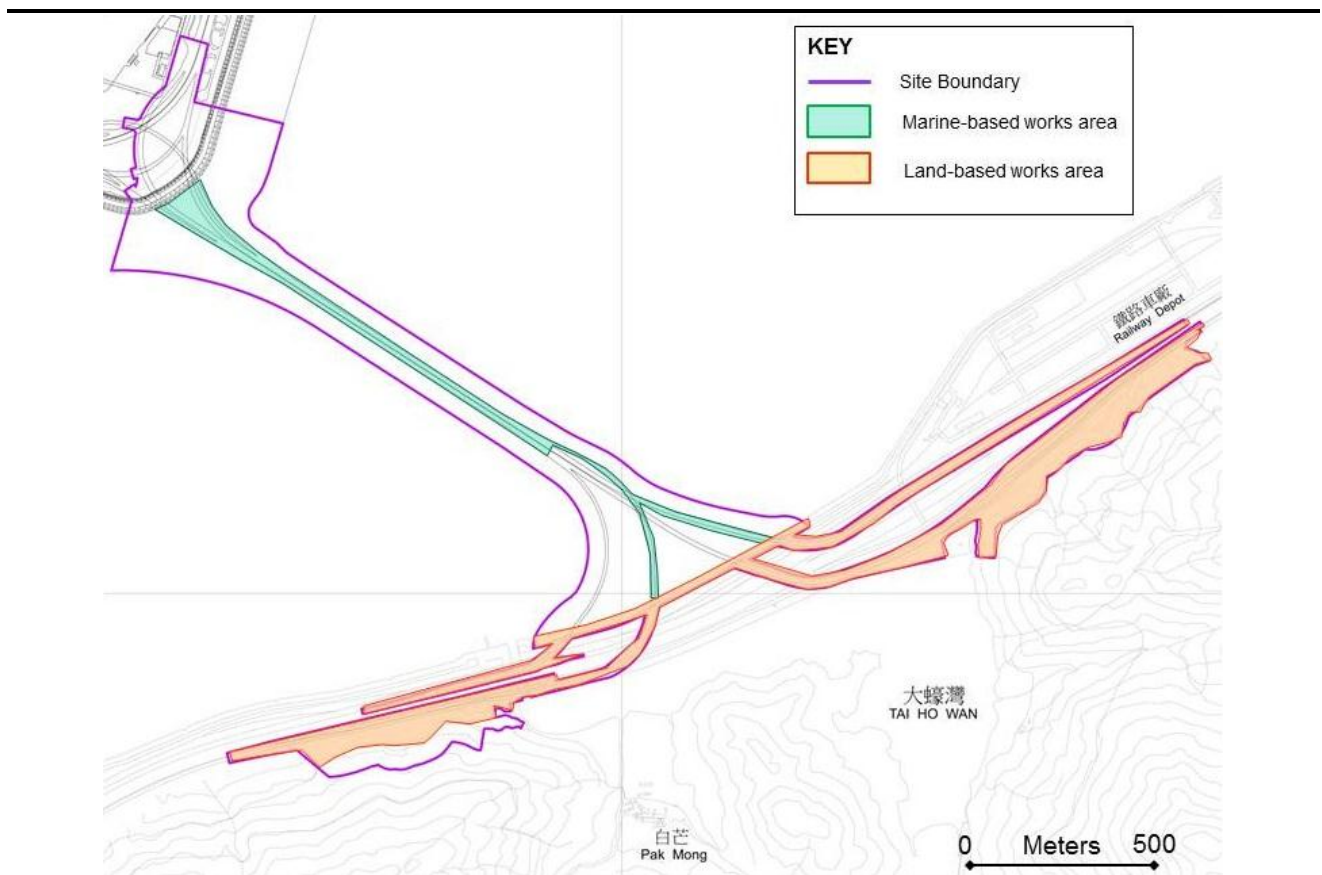
Land-based Works

- Construction of pile cap superstructure of Viaduct B;
- Fence installation and relocation of Area 2, Viaducts A, B, C & D;
- Land Piling at Viaducts B & D;
- Piling platform installation for Viaducts B, C, D and E;
- Additional land GI, trial pits & lab testing;
- Utility surveys;
- Slope work of Slope 9SE-B/C8, 9SE-B/C9 & 9SE-B/F9; and,
- Site formation of workshop at Area 1.

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

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

Figure 1.3 *Locations of Construction Activities in the Reporting Month*



Key

Air Sensitive Receiver

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

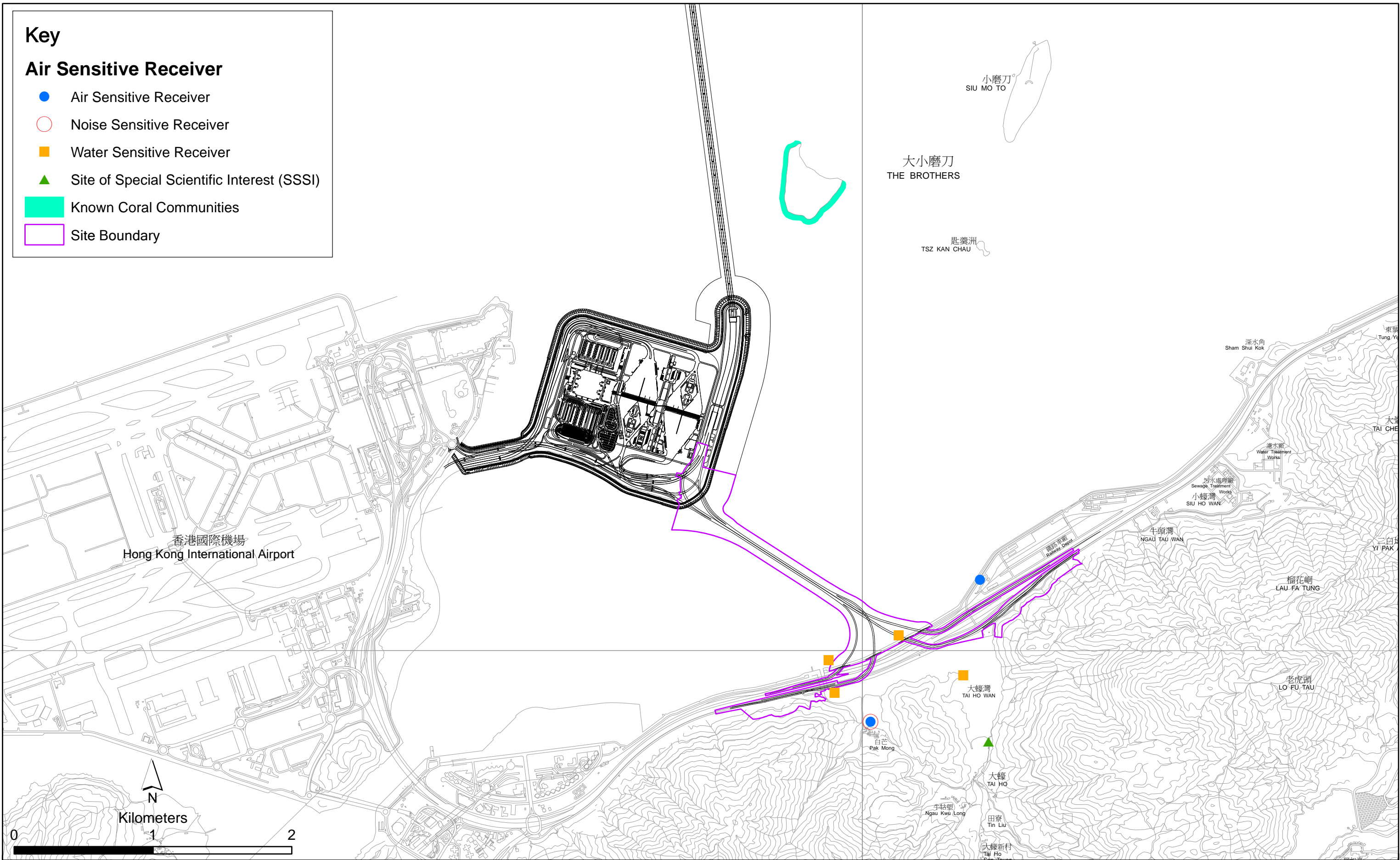
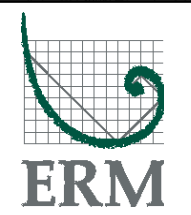


Figure 1.4

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

2.1 AIR QUALITY

2.1.1 Monitoring Requirements and Equipment

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

Table 2.1 *Locations of Impact Air Quality Monitoring Stations*

Monitoring Station	Location	Description	Monitoring Dates
ASR 8	Pak Mong Village Watch Tower	Rooftop of the premise	5, 11, 17, 23 and 29 July 2014
ASR 8A	Area 4	On ground at the Area 4	

High Volume Samplers (HVSs) were used for carrying out 1-hour and 24-hr TSP monitoring on 5, 11, 17, 23 and 29 July 2014 at ASR8 (Pak Mong Village Watch Tower) and ASR8A (Area 4) (*Figure 2.1; Table 2.1*) in accordance with the requirements stipulated in the Updated EM&A Manual. Wind anemometer was installed at the rooftop of Pak Mong Village Watch Tower for logging wind speed and wind direction. Details of the equipment deployed are given in *Table 2.2*. Copies of the calibration certificates for the equipment are presented in *Appendix E*.

Table 2.2 *Air Quality Monitoring Equipment*

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

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

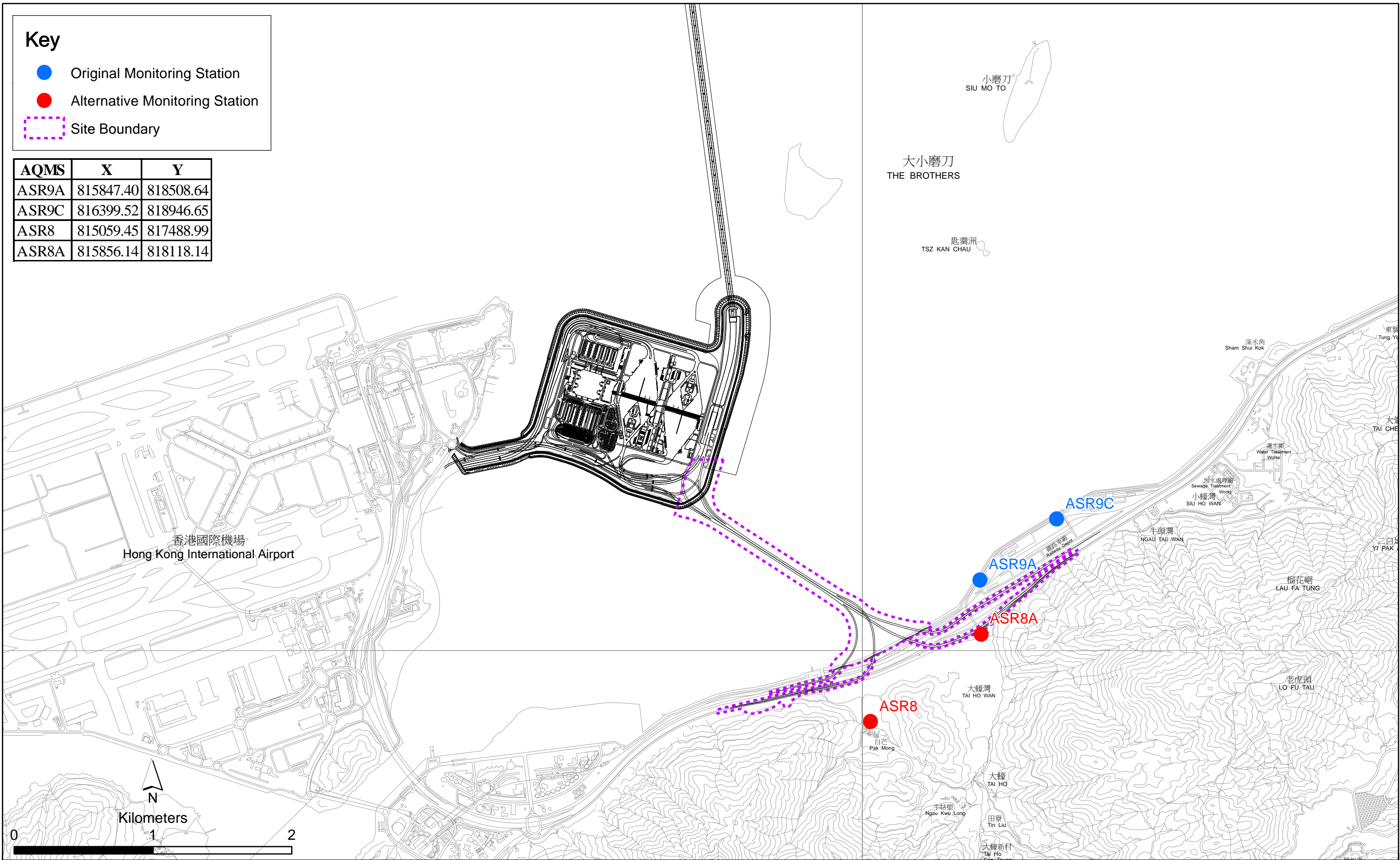


Figure 2.1

Locations of Air Quality Monitoring Stations

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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.

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2.1.2 *Monitoring Schedule for the Reporting Month*

The schedule for air quality monitoring in July 2014 is provided in *Appendix F*.

2.1.3 *Results and Observations*

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

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

	Average ($\mu\text{g}/\text{m}^3$)	Range ($\mu\text{g}/\text{m}^3$)	Action Level ($\mu\text{g}/\text{m}^3$)	Limit Level ($\mu\text{g}/\text{m}^3$)
ASR 8A	60	40 - 74	394	500
ASR 8	67	52 - 102	393	500

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

	Average ($\mu\text{g}/\text{m}^3$)	Range ($\mu\text{g}/\text{m}^3$)	Action Level ($\mu\text{g}/\text{m}^3$)	Limit Level ($\mu\text{g}/\text{m}^3$)
ASR 8A	43	38 - 47	178	260
ASR 8	42	36 - 47	178	260

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

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

Meteorological information collected at the rooftop of Pak Mong Village Watch Tower, including wind speed and wind direction, is provided in *Appendix H*.

2.2 *NOISE MONITORING*

2.2.1 *Monitoring Requirements and Equipment*

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

Noise monitoring was performed on 5, 11, 17, 23 and 29 July 2014 using sound level meter at the designated monitoring station NSR 1 (*Figure 2.2; Table 2.5*) in accordance with the requirements stipulated in the Updated EM&A Manual. Acoustic calibrator was deployed to check the sound level meters at a known sound pressure level. Details of the equipment deployed are provided in *Table 2.6*. Copies of the calibration certificates for the equipment are presented in *Appendix E*.

Key

- Noise Monitoring Station
- Site Boundary

NMS	X	Y
NSR1	815059.45	817488.99

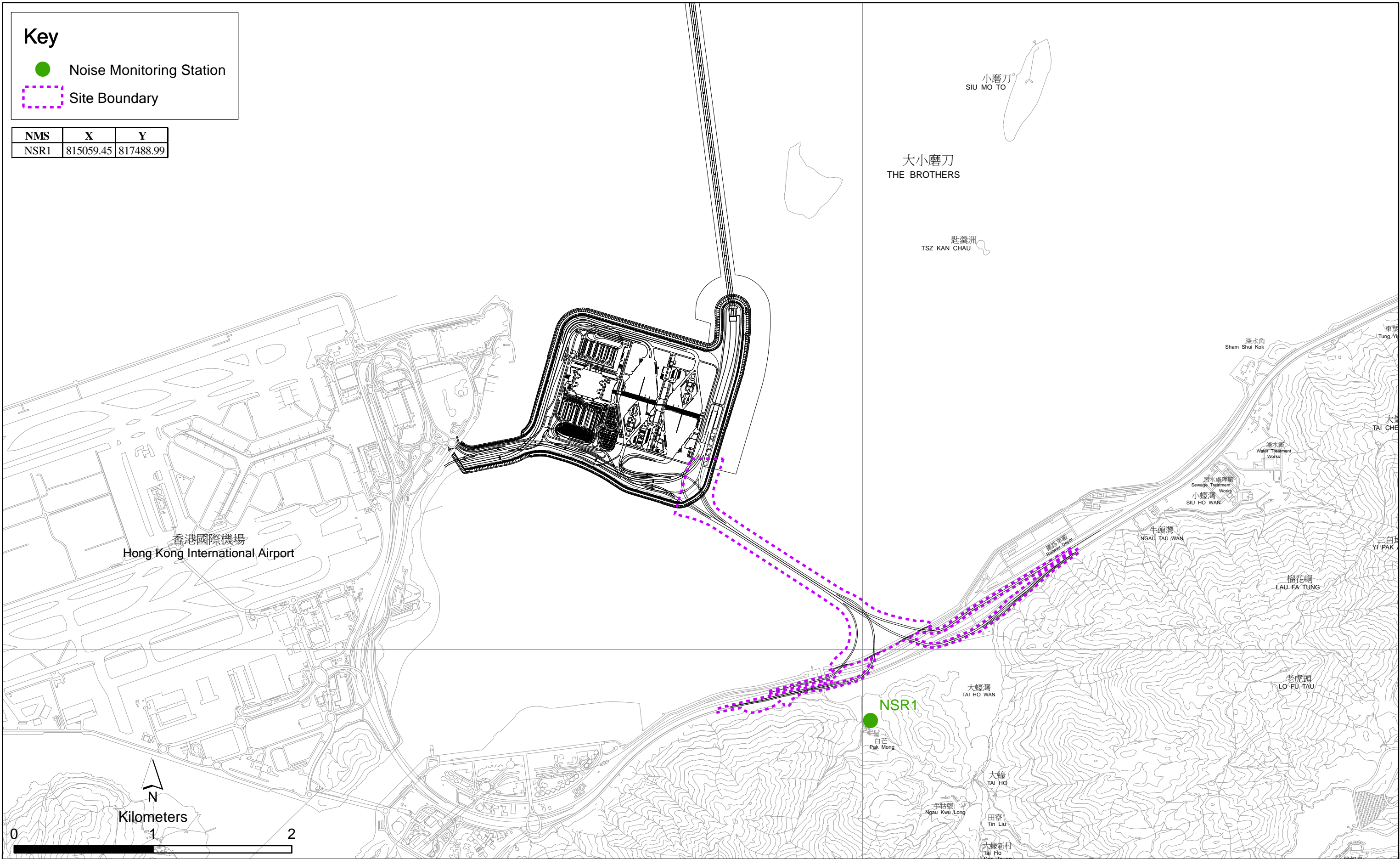


Figure 2.2

Locations of Noise Monitoring Stations

Table 2.5 *Location of Impact Noise Monitoring Station*

Monitoring Station	Location	Description	Parameter	Frequency and Duration	Monitoring Dates
NSR 1	Pak Mong Village Watch Tower	Rooftop of the premise	30-minute measurement at each monitoring station between 0700 and 1900 on normal weekdays (Monday to Saturday). L_{eq} , L_{10} and L_{90} would be recorded.	At least once per week	5, 11, 17, 23 and 29 July 2014

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 *Monitoring Schedule for the Reporting Month*

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

2.2.3 *Results and Observations*

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

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

	Average, dB(A), L_{eq} (30mins)	Range, dB(A), L_{eq} (30mins)	Limit Level, dB(A), L_{eq} (30mins)
NSR 1	57	56 - 58	75

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

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

2.3 WATER QUALITY MONITORING

2.3.1 Monitoring Requirements and Equipment

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

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

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

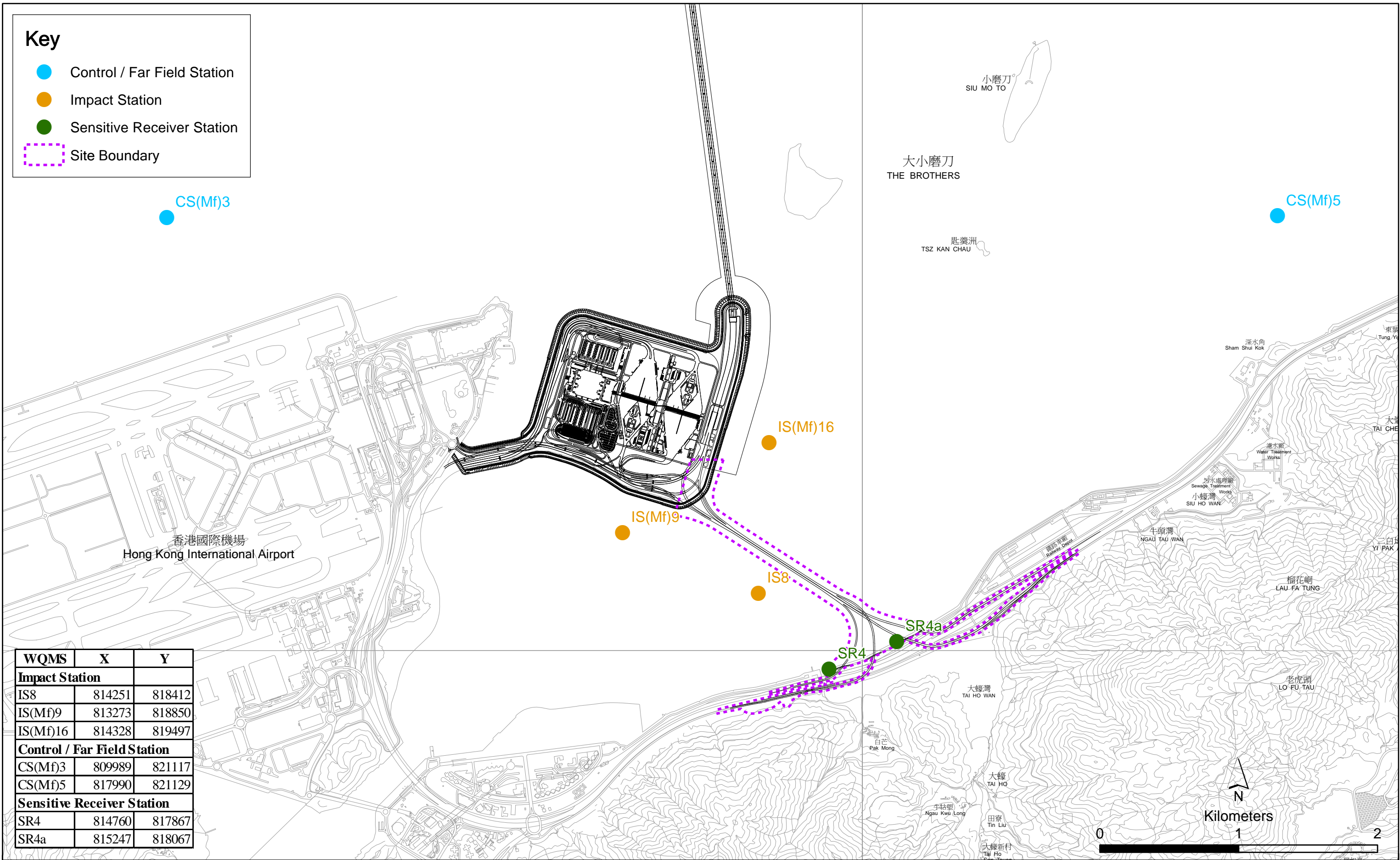
Station ID	Type	Coordinates		*Parameters, unit	Frequency	Depth
		Easting	Northing			
IS(Mf)9	Impact Station (Close to HKBCF construction site)	813273	818850	<ul style="list-style-type: none"> • Temperature(°C) • pH (pH unit) • Turbidity (NTU) • Water depth (m) • Salinity (ppt) • DO (mg/L and % of saturation)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

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

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

Key

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



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

Figure 2.3

Locations of Water Quality Monitoring Stations

Table 2.9 **Water Quality Monitoring Equipment**

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

2.3.2 **Monitoring Schedule for the Reporting Month**

The schedule for water quality monitoring in July 2014 is provided in *Appendix F*.

2.3.3 **Results and Observations**

A total of 14 monitoring events for impact water quality monitoring were conducted at all designated monitoring stations in the reporting month. Impact water quality monitoring results and graphical presentations are provided in *Appendix J*.

No Action and Limit levels exceedances was recorded at all monitoring stations for impact water quality monitoring in the reporting month. No action is thus required to be undertaken in accordance with the Event Action Plan presented in *Appendix L*.

2.4 DOLPHIN MONITORING

2.4.1 Monitoring Requirements

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

2.4.2 Monitoring equipment

Table 2.10 summarises the equipment used for the impact dolphin monitoring.

Table 2.10 Dolphin Monitoring Equipment

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

2.4.3 Monitoring Parameter, Frequencies and Duration

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

2.4.4 Monitoring Location

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

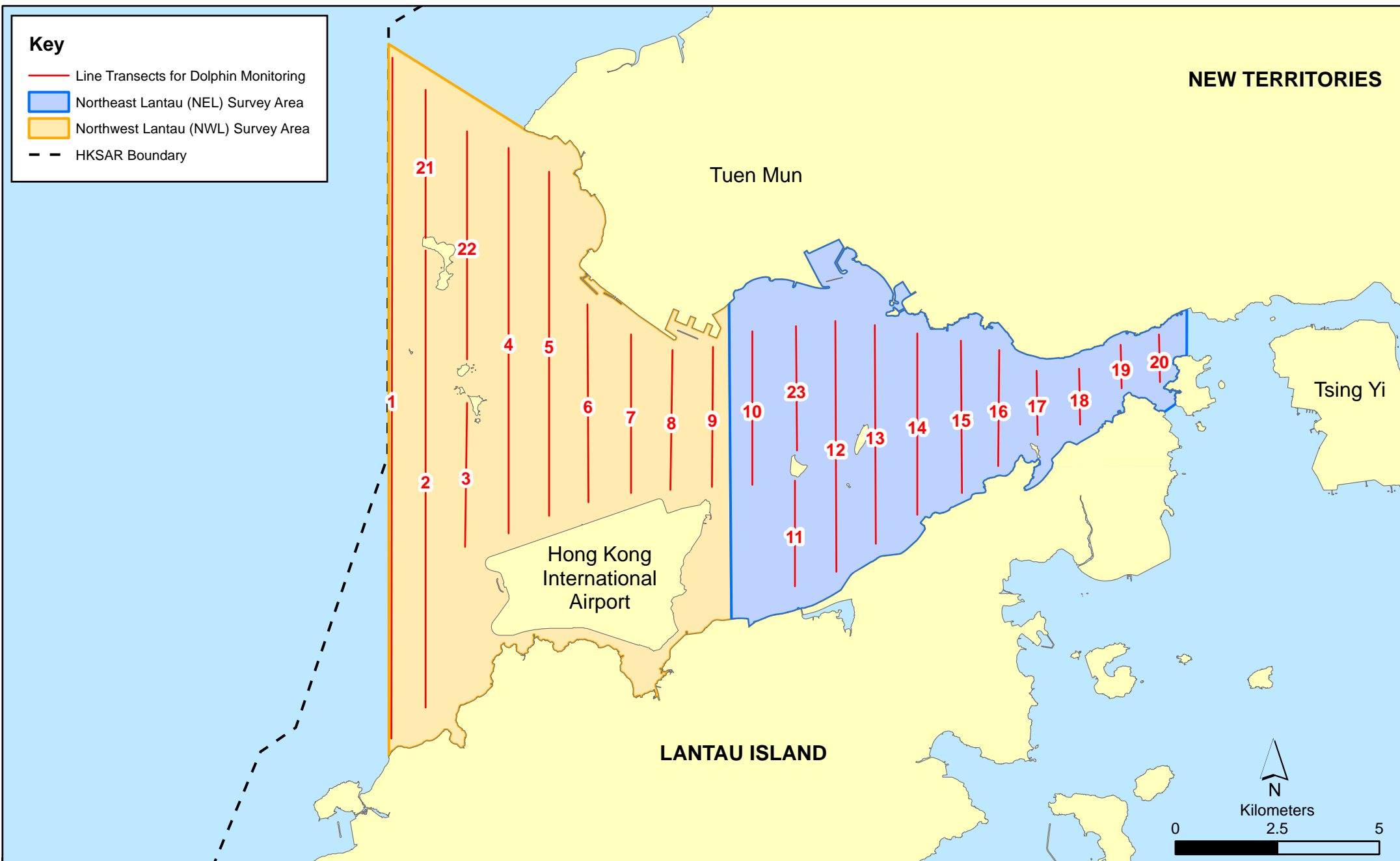


Figure 2.4

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

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
9	End Point	812516	824254		21	End Point	805476	830562
10	Start Point	813525	820872		22	Start Point	806464	824033
10	End Point	813525	824657		22	End Point	806464	829598
11	Start Point	814556	818449		23	Start Point	814559	821739
11	End Point	814556	820992		23	End Point	814559	824768
12	Start Point	815542	818807					
12	End Point	815542	824882					

2.4.5 Action & Limit Levels

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

2.4.6 *Monitoring Schedule for the Reporting Month*

Dolphin monitoring was carried out on 3, 9, 10, 14 and 21 of July 2014 (*Appendix F*).

2.4.7 *Results and Observations*

A total of 296.14 km of survey effort was collected, with 97.1% of the total survey effort being conducted under favourable weather conditions (i.e. Beaufort Sea State 3 or below with good visibility) during the surveys in July 2014. Among the two areas, 111.30 km and 184.83 km of survey effort were collected from NEL and NWL survey areas respectively. The total survey effort conducted on primary and secondary lines were 219.30 km and 76.84 km respectively. The survey efforts are summarized in *Appendix K*.

A total of twelve (12) groups of forty-one (41) Chinese White Dolphins were sighted during the two sets of surveys in July 2014. All except one (1) sighting were made in NWL during the two sets of surveys in July, while only one (1) group of four (4) dolphins was sighted at NEL. Nine (9) of the twelve (12) sightings were made on primary lines during on-effort search, and none of the dolphin groups was associated with operating fishing vessel. No sighting was made in the proximity of TM-CLKL Southern Connection Viaduct Section. The distribution of dolphin sightings during the reporting month is shown in *Figure 2.5*.

Encounter rates of Chinese White Dolphins are deduced from the survey effort and on-effort sighting data made under favourable conditions (Beaufort 3 or below) in July 2014 are shown in *Tables 2.12* and *2.13*.

Table 2.12 *Individual Survey Event Encounter Rates*

		Encounter rate (STG) (no. of on-effort dolphin sightings per 100 km of survey effort)	Encounter rate (ANI) (no. of dolphins from all on-effort sightings per 100 km of survey effort)
		Primary Lines Only	Primary Lines Only
NEL	Set 1: Jul 3 rd /9 th /10 th	2.54	10.16
	Set 2: Jul 14 th /21 st	0.0	0.0
NWL	Set 1: Jul 3 rd /9 th /10 th	3.03	10.61
	Set 2: Jul 14 th /21 st	8.40	26.60

Note: Dolphin Encounter Rates are deduced from the two sets of surveys (two surveys in each set) in July 2014 in Northeast (NEL) and Northwest Lantau (NWL)

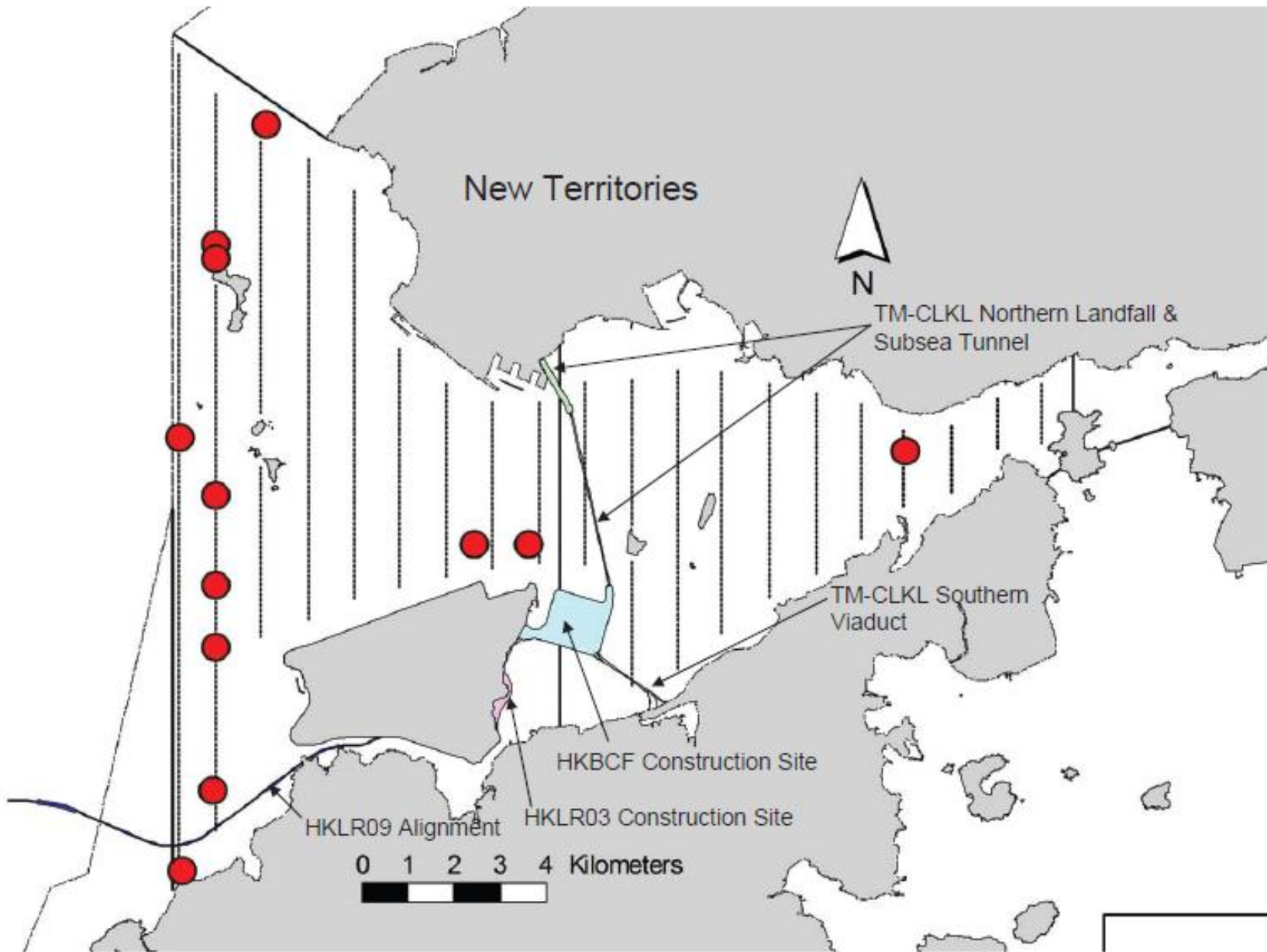


Figure 2.5

Date 01/08/2014

HY/2012/07 TM-CLKL Southern Connection Viaduct Section
 The distribution of dolphin sightings during the reporting period
 (Source: Adopted from HKLR03 Monitoring Survey in July 2014)

Environmental
 Resources
 Management



Table 2.13 Monthly Average Encounter Rates

	Encounter rate (STG) (no. of on-effort dolphin sightings per 100 km of survey effort)		Encounter rate (ANI) (no. of dolphins from all on-effort sightings per 100 km of survey effort)	
	Primary Lines Only	Both Primary and Secondary Lines	Primary Lines Only	Both Primary and Secondary Lines
Northeast Lantau	1.3	0.9	5.3	3.6
Northwest Lantau	5.8	5.6	18.9	18.6

Note: Overall dolphin encounter rates (sightings per 100km of survey effort) from all four surveys are conducted in July 2014 on primary lines only as well as both primary lines and secondary lines in Northeast and Northwest Lantau

The average group size of Chinese White Dolphins in July 2014 was 3.42 individuals per group, which was similar to previous months of dolphin monitoring. Most dolphin groups were composed of 1 - 5 animals, with only one larger group of seven animals. Detailed results of dolphin monitoring in this reporting month are presented in *Appendix K*.

During this month of dolphin monitoring, no unacceptable impact from the construction activities of the TM-CLKL Southern Connection Viaduct Section on Chinese White Dolphins was noticeable from general observations.

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

2.4.8 Marine Mammal Exclusion Zone Monitoring

Daily 250 m marine mammal exclusion zone monitoring was undertaken during the period of dredging activities being undertaken. No sighting of Indo-Pacific humpback dolphin *Sousa chinensis* (i.e. Chinese White Dolphin) were recorded in July 2014 during the exclusion zone monitoring.

2.5 CORAL MONITORING

The Third Quarterly Post-Translocation Coral Monitoring was conducted on 24 July 2014 and the results will be detailed in the *Third Quarterly Post-Translocation Coral Monitoring Report*.

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. In the reporting month, five (5) site inspections were carried out on 2, 10, 16, 24 and 31 July 2014.

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

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

Inspection Date	Environmental Observations	Recommendations/ Remarks
2 July 2014	<p>Area 2</p> <ul style="list-style-type: none"> Tarpaulin sheet was required for grouting. Chemical waste was not placed in drip tray. <p>Pier B15</p> <ul style="list-style-type: none"> General refuse was disposed improperly. <p>Pier B11</p> <ul style="list-style-type: none"> More sandbags were needed to avoid runoff. <p>Area 1</p> <ul style="list-style-type: none"> A rubbish bin was label incorrectly. 	<p>Area 2</p> <ul style="list-style-type: none"> Tarpaulin sheet should be provided for grouting. Chemical waste should be placed in drip tray. <p>Pier B15</p> <ul style="list-style-type: none"> General refuse should be removed. <p>Pier B11</p> <ul style="list-style-type: none"> More sandbags should be added. <p>Area 1</p> <ul style="list-style-type: none"> The label was removed immediately.
10 July 2014	<p>Seafront</p> <ul style="list-style-type: none"> Refuse was disposed improperly. Oil stain was observed on the ground. Chemical containers were not placed in drip tray. A drip tray was unplugged. <p>Barge M025</p> <ul style="list-style-type: none"> Chemical containers were not placed in drip tray. 	<p>Seafront</p> <ul style="list-style-type: none"> The Contractor was reminded to maintain good housekeeping. Oil stain should be removed. Chemical containers should be placed in drip tray. The drip tray should be plugged. <p>Barge M025</p> <ul style="list-style-type: none"> Chemical containers should be placed in drip tray.
16 July 2014	<p>Area 2</p> <ul style="list-style-type: none"> Sandbags were considered inadequate on site. The unpaved slope was not fully cover by tarpaulin sheet. Drainage was not fully protected from runoff. 	<p>Area 2</p> <ul style="list-style-type: none"> More sandbags should be provided. The unpaved slope should be covered by tarpaulin sheet. More sandbags should be provided to prevent runoff.
24 July 2014	<p>Seafront</p> <ul style="list-style-type: none"> Chemical containers were not placed in drip tray. <p>Pier E3</p> <ul style="list-style-type: none"> Dumping permit was expired. 	<p>Seafront</p> <ul style="list-style-type: none"> Chemical containers should be placed in drip tray. <p>Pier E3</p> <ul style="list-style-type: none"> The Contractor was reminded to renew the dumping permits regularly.
31 July 2014	<p>Pak Mong</p> <ul style="list-style-type: none"> General refuse was observed in the project area. Sandbags were not enough to avoid surface runoff. <p>Pier E3</p> <ul style="list-style-type: none"> Stagnant water was observed on the platform. The acoustic decoupling pad was not deployed properly beneath the generators. <p>Pier E11</p> <ul style="list-style-type: none"> The acoustic decoupling pad was not deployed properly beneath the generators. A drip tray was found unplugged. 	<p>Pak Mong</p> <ul style="list-style-type: none"> The Contractor was reminded to maintain good housekeeping. The Contractor was reminded to provide sufficient sandbags to prevent runoff. <p>Pier E3</p> <ul style="list-style-type: none"> Stagnant water was removed immediately. The Contractor was reminded to place the acoustic decoupling pad beneath the generators properly. <p>Pier E11</p> <ul style="list-style-type: none"> The Contractor was reminded to place the acoustic decoupling pad beneath the generators properly. A drip tray stopper should be provided.

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

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, recyclable materials and marine sediment. Reference has been made to the waste flow table prepared by the Contractor (*Appendix M*). The quantities of different types of wastes are summarized in *Table 2.15*.

Table 2.15 Quantities of Different Waste Generated in the Reporting Period

Month/Year	Inert C&D Materials ^(a) (m ³)	Imported Fill (m ³)	Inert Construction Waste Re-used (m ³)	Non-inert Construction Waste ^(b) (kg)	Recyclable Materials ^(c) (kg)	Chemical Wastes (kg)	Marine Sediment (m ³)	
							Category L	Category M (M _p & M _f)
July 2014	4,783	95	80	87,810	27,496	0	847	303

Notes:

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

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

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

2.8 ENVIRONMENTAL LICENSES AND PERMITS

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

Table 2.16 Summary of Environmental Licensing and Permit Status

License/ Permit	License or Permit No.	Date of Issue	Date of Expiry	License/ Permit Holder	Remarks
Environmental Permit	EP-354/2009/B	28 Jan 2014	N/A	HyD	Tuen Mun- Chek Lap Kok Link
Construction Dust Notification	361571	5 Jul 2013	N/A	GCL	-
Construction Dust Notification	362093	17 Jul 2013	N/A	GCL	For Area 23
Billing Account for Disposal	7017735	10 Jul 2013	End of Project	GCL	-
Chemical Waste Registration	5213-961-G2380-13	10 Oct 2013	N/A	GCL	Chemical waste produced in Contract HY/2012/07 (Area 1 adjacent to Cheung Tung Road, Siu Ho Wan)
Chemical Waste Registration	5213-961-G2380-14	10 Oct 2013	N/A	GCL	Chemical waste produced in Contract HY/2012/07 (Area 2 adjacent to Cheung Tung Road, Pak Mong Village)
Chemical Waste Registration	5213-974-G2588-03	4 Nov 2013	N/A	GCL	Chemical waste produced in Contract HY/2012/07 (WA5 adjacent to Cheung Tung Road, Yam O)
Construction Waste Disposal Account	7017735	10 Jul 2013	N/A	GCL	Waste disposal in Contract HY/2012/07
Waste Water Discharge License	WT00019017-2014	13 May 2014	31 May 2019	GCL	Discharge for marine portion
Waste Water Discharge License	WT00019018-2014	13 May 2014	31 May 2019	GCL	Discharge for land portion
Construction Noise Permit	Nil	Application in process	N/A	GCL	For Piling Works
Construction Noise Permit	GW-RS0419-14	15 May 2014	13 Nov 2014	GCL	For loading & unloading on NLH near Viaducts A & B
Construction Noise Permit	GW-RS0226-14	30 Mar 2014	29 Sep 2014	GCL	For loading & unloading on NLH near Viaduct D

License/ Permit	License or Permit No.	Date of Issue	Date of Expiry	License/ Permit Holder	Remarks
Construction Noise Permit	GW-RS0299-14	7 Apr 2014	5 Jul 2014	GCL	Pier B8 at CEDD Access Road
Construction Noise Permit	GW-RS0331-14	4 Apr 2014	6 Jul 2014	GCL	Broad permit for works at seafront & marine piers
Construction Noise Permit	GW-RS0792-14	31 Jul 2014	24 Dec 2014	GCL	Broad Permit for Works at Seafront & Marine Piers & Pier B9
Construction Noise Permit	GW-RS0700-14	21 Jul 2014	31 Dec 2014	GCL	For loading & unloading on NLH near Viaduct A & B
Construction Noise Permit	GW-RW0123-14	27 Feb 2014	27 Aug 2014	GCL	For night works and works in general holiday at WA5
Dumping Permit/ Loading Permit (Type 1 – Open Sea Disposal)	(4) in EP/MD/14-075	25 Sep 2013	N/A	GCL	-
Marine Dumping Permit	EP/MD/14-075	28 Jan 2014	27 Jul 2014	GCL	For dumping Type I Sediment
Chemical Waste Registration	5213-951-G2380-17	12 Jun 2014	N/A	GCL	Viaducts A, B, C, D & E
Construction Noise Permit for night works and works in general holidays	GW-RS0646-14	27 Jun 2014	26 Oct 2014	GCL	Broad Permit for Works at Seafront & Marine Piers & Pier B9
Construction Noise Permit for night works and works in general holidays	GW-RS0647-14	28 Jun 2014	26 Oct 2014	GCL	Pier C7 & D8 at CEDD Access Road
Construction Waste Disposal Account	7017735	10 Jul 2013	N/A	GCL	-

2.9 *IMPLEMENTATION STATUS OF ENVIRONMENTAL MITIGATION MEASURES*

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

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

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

Results for 1-hour TSP, 24-hour TSP, construction noise and impact water quality monitoring complied with the Action/ Limit levels in the reporting period. Cumulative statistics on exceedances is provided in *Appendix N*.

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

The Environmental Complaint Handling Procedure is provided in *Figure 2.6*.

One (1) complaint was referred by EPD on 23 June 2014 regarding to the discharge of muddy water from Site Access 9A to the nearby storm drains. Complaint investigation was conducted on 25 June 2014 and the interim report was submitted to EPD on 4 July 2014. The complaint was considered to be not related to the Contract and it was subsequently closed upon further investigation on 10 July 2014. However, the Contractor was reminded to implement the on-site precautionary measures appropriately for handling the waste water, if any, during rainy season. The complaint investigation findings are detailed in *Appendix N*.

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

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

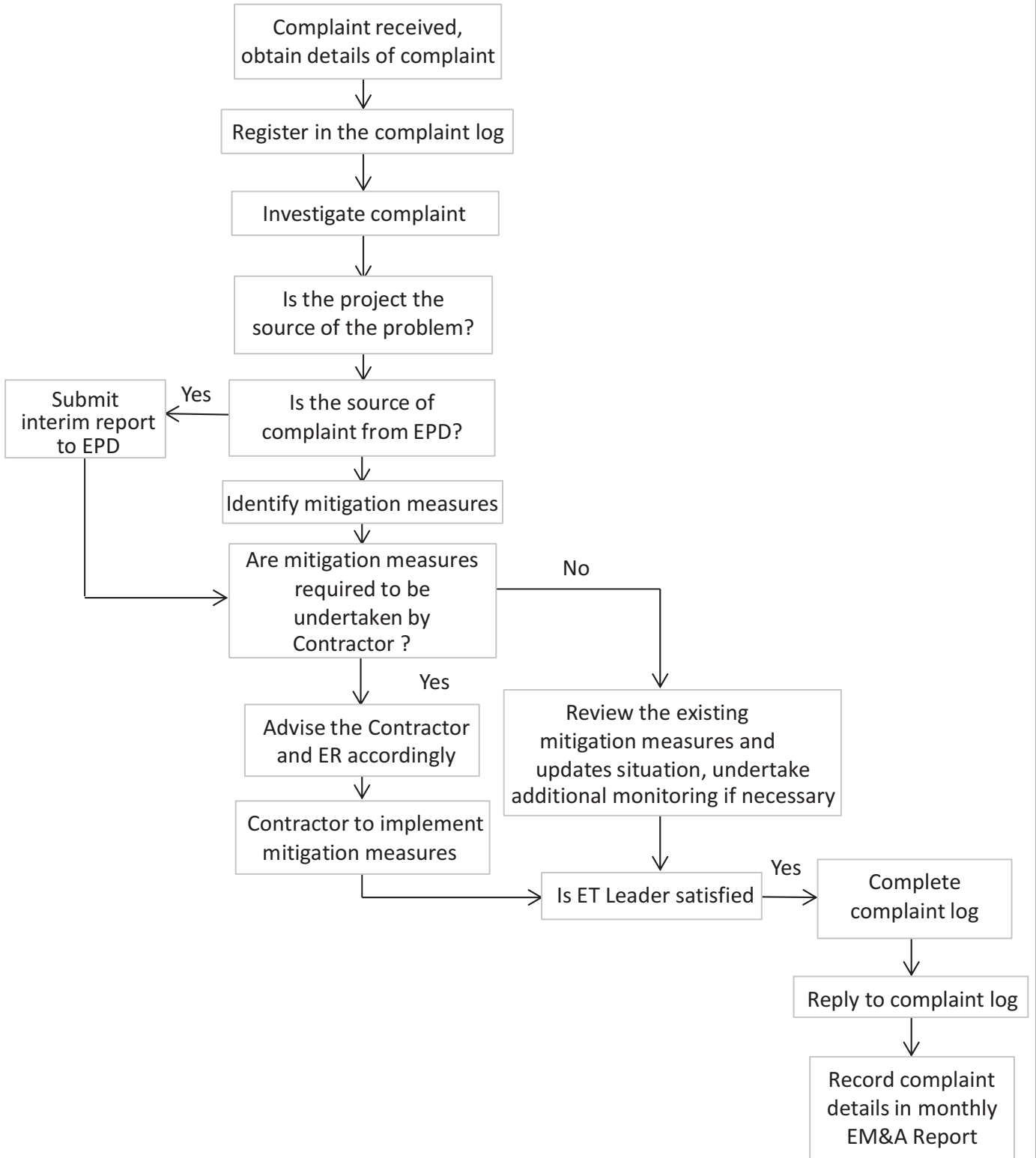


Figure 2.6

Environmental Complaint Handling Procedure

3 *FUTURE KEY ISSUES*

3.1 *CONSTRUCTION PROGRAMME FOR THE COMING MONTHS*

As informed by the Contractor, the major works for this Contract in August 2014 will be:

Marine Works

- Construction of Pile caps at Viaduct B;
- Marine piling platform installation;
- Marine Piling at Viaducts B, D & E;
- Construction of rockfill platform at Viaduct D landing and
- Additional marine ground investigation (GI) and laboratory testing

Land-based Works

- Construction of pile cap superstructure of Viaduct B;
- Fence installation and relocation of Area 2, Viaducts A, B, C & D;
- CEDD Access track temporary re-alignment;
- Land Piling at Viaducts B & D;
- Piling platform installation for Viaducts B, C, D and E;
- Additional land GI, trial pits & lab testing;
- Utility surveys;
- Slope work of Slope 9SE-B/C8, 9SE-B/C9 & 9SE-B/F9; and,
- Site formation of workshop at Area 1

3.2 *KEY ISSUES FOR THE COMING MONTH*

Potential environmental impacts arising from the above upcoming construction activities in the next reporting month of August 2014 are mainly associated with dust, noise, marine water quality, marine ecology and waste management issues.

3.3 *MONITORING SCHEDULE FOR THE COMING MONTH*

The tentative schedule for environmental monitoring in August 2014 is provided in *Appendix F*.

4.1 CONCLUSIONS

This Ninth Monthly EM&A Report presents the findings of the EM&A activities undertaken during the period from 1 to 31 July 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, water quality, and dolphin monitoring were carried out in the reporting month. Results for water quality monitoring, 1-hr TSP, 24-hr TSP and noise monitoring complied with the Action and Limit levels in the reporting period.

A total of twelve (12) groups of forty-one (41) Chinese White Dolphins were sighted during the two sets of surveys in July 2014. All except one (1) sighting were made in NWL during the two sets of surveys in July, while only one (1) group of four (4) dolphins were sighted at NEL. Nine (9) of the twelve (12) sightings were made on primary lines during on-effort search, and none of the dolphin groups was associated with operating fishing vessel. 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.

Environmental site inspection was carried out five (5) times in July 2014. Recommendations on remedial actions were given to the Contractor for the deficiencies identified during the site audits.

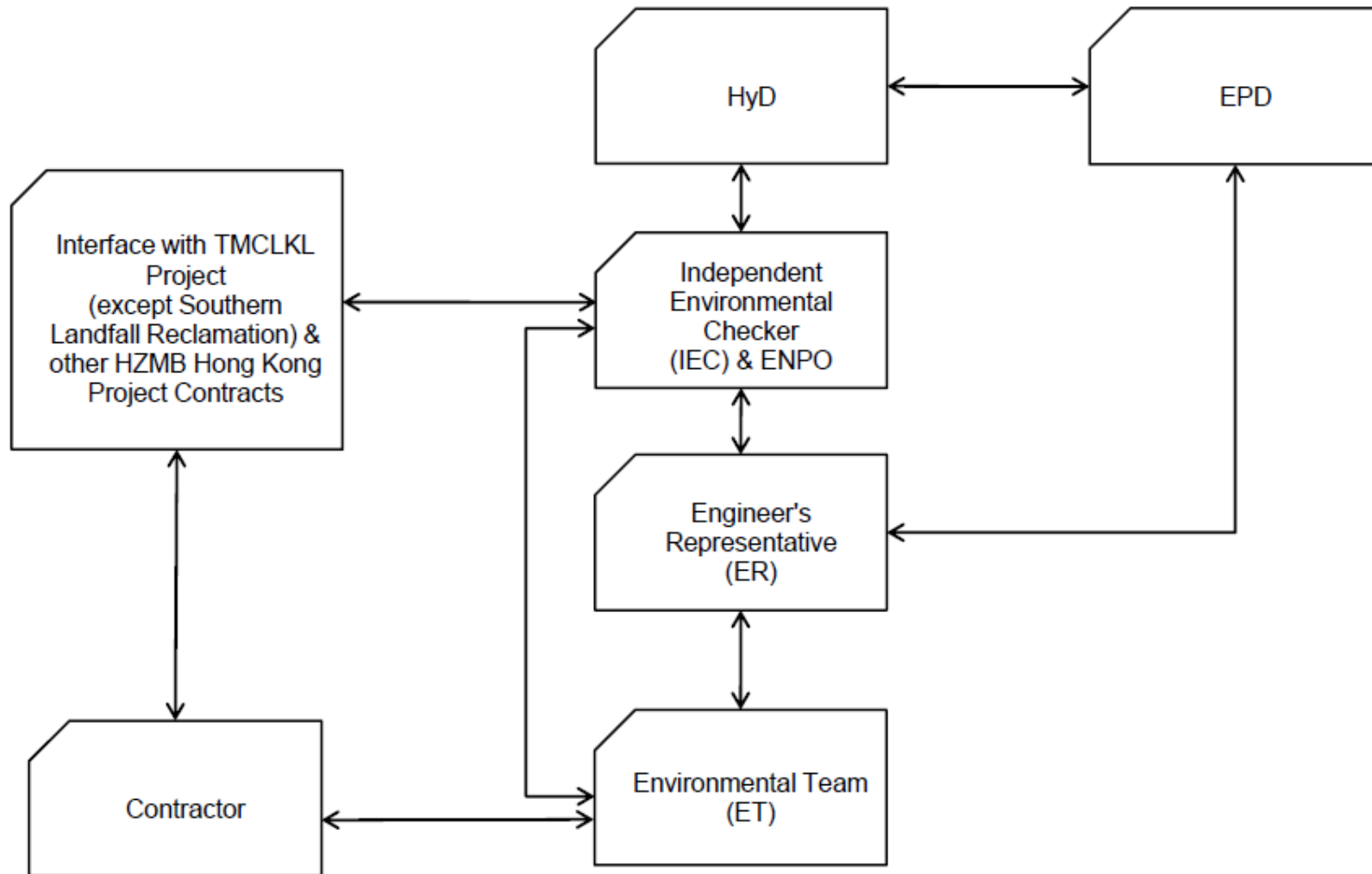
One (1) environmental complaint regarding the discharge of muddy water and soil from Site Access 9A to the nearby storm drains was received on 23 June 2014 and the interim complaint investigation was undertaken on 25 June 2014. The complaint was considered to be not related to the Contract and it was subsequently closed upon further investigation on 10 July 2014.

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

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

Appendix A

Project Organization for Environmental Works



↔ Line of Communication

Appendix B

Three-Month Rolling Construction Programme

Activity ID	Activity Name	Orig. Durn.	Act. Start / FC Early Start	Duration % Complete	Rem. Durn.	Act. Finish / FC Early Finish	Late Start	Late Finish	Total Float	Free Float	2014													
											July					August				September				October
											23	30	07	14	21	28	04	11	18	25	01	08	15	22

HY/2012/07 - TM-CLK Link-SC [DWP rD1] - Status Update 21-07-2014

Contract Key Dates

IPS Milestones

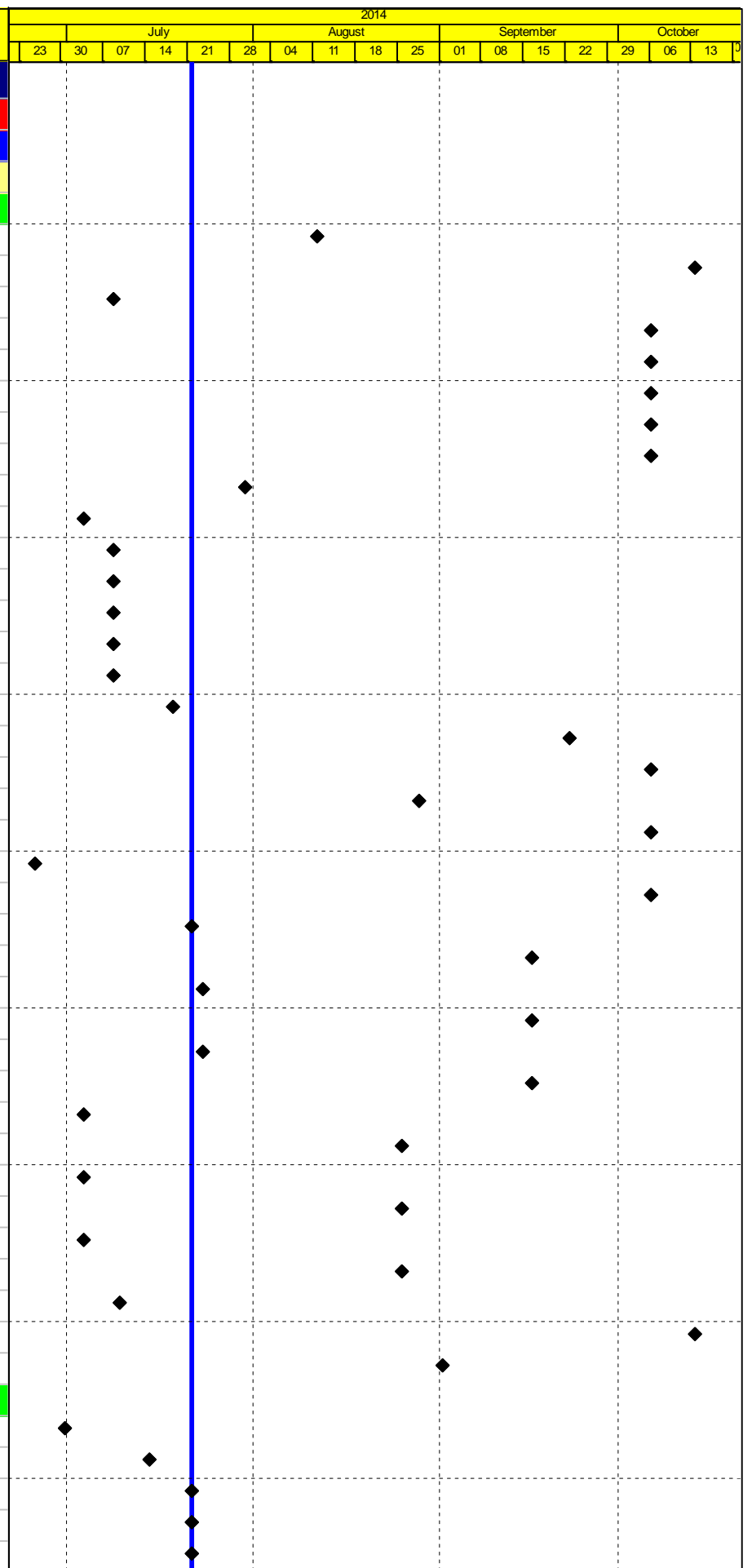
Cost Centre IPS Milestones

CC 2 - Design and Design Checking of the Works

MS2.006	Accept construction traffic impact assessment by the Supervising Officer	0		0%	0	11-Aug-14*		02-Apr-17	965	421
MS2.008	Accept ground investigation reports by the Supervising Officer	0		0%	0	13-Oct-14		02-Apr-17	902	358
MS2.012	Accept report for utilities by the Supervising Officer	0		100%	0	08-Jul-14 A				
MS2.014	Approve AIP for Structure F1, excl Structure F1 between Pier F1c and Pier F1d, by	0		0%	0	06-Oct-14		02-Apr-17	910	184
MS2.018	Approve AIP for Structure F1 between Pier F1c and Pier F1d by the Supervising O	0		0%	0	06-Oct-14		02-Apr-17	910	184
MS2.030	Approve AIP for Structure F3 betw Pier F3c and Pier F3d by Supervising Officer	0		0%	0	06-Oct-14		02-Apr-17	910	184
MS2.038	Approve AIP for Structure F5, excl Structure F5 betw Pier F5c & Pier F5d, by S.O.	0		0%	0	06-Oct-14		02-Apr-17	910	219
MS2.042	Approve AIP for Structure F5 betw Pier F5c and Pier F5d by the Supervising Offic	0		0%	0	06-Oct-14		02-Apr-17	910	219
MS2.047	Submit DDA for Structure E1	0		0%	0	30-Jul-14		02-Apr-17	977	138
MS2.051	Submit DDA for Structure E2	0		100%	0	03-Jul-14 A				
MS2.055	Submit DDA for Structure E5, excluding Structure E5 between Pier E5c and Pier E5d	0		100%	0	08-Jul-14 A				
MS2.059	Submit DDA for Structure E5 between Pier E5c and Pier E5d	0		100%	0	08-Jul-14 A				
MS2.063	Submit DDA for Structure E6	0		100%	0	08-Jul-14 A				
MS2.067	Submit DDA for Structure E7	0		100%	0	08-Jul-14 A				
MS2.071	Submit DDA for Structure E8	0		100%	0	08-Jul-14 A				
MS2.073	Submit AIP for Structure A	0		100%	0	18-Jul-14 A				
MS2.080	Approve DDA for Structure B by the Supervising Officer	0		0%	0	22-Sep-14		02-Apr-17	923	379
MS2.082	Approve AIP for Structure C by the Supervising Officer	0		0%	0	06-Oct-14		02-Apr-17	910	148
MS2.087	Submit DDA for Structure D	0		0%	0	28-Aug-14		02-Apr-17	948	106
MS2.090	Approve AIP for At grade Roadworks and Other Works along NLH by the S.O.	0		0%	0	06-Oct-14		02-Apr-17	910	99
MS2.091	Submit DDA for At grade Roadworks and Other Works along NLH	0		100%	0	25-Jun-14 A				
MS2.094	Approve AIP for At grade Roadworks & Other Works along Cheung Tung Road by	0		0%	0	06-Oct-14		02-Apr-17	910	99
MS2.097	Submit AIP for At grade Roadworks and Other Works at Southern Landfall	0		0%	0	21-Jul-14		02-Apr-17	986	57
MS2.098	Approve AIP for At grade Roadwrks & Other Wrks at Southern Landfall by S.O.	0		0%	0	16-Sep-14		02-Apr-17	929	50
MS2.099	Submit DDA for At grade Roadworks and Other Works at Southern Landfall	0		0%	0	23-Jul-14		02-Apr-17	984	105
MS2.102	Approve AIP for Watermains & All Assoc Wrks frm Tung Chung to South Landfall b	0		0%	0	16-Sep-14		02-Apr-17	929	50
MS2.103	Submit DDA for Watermains & All Assoc Wrks frm Tung Chung to South Landfall	0		0%	0	23-Jul-14		02-Apr-17	984	105
MS2.106	Approve AIP for Irrigation System for Soft Landscape Works by the Supervising Of	0		0%	0	16-Sep-14		02-Apr-17	929	161
MS2.108-2	Approve AIP for Fac Prov for TCSS Wrks for At grade Rds at South Landfall by S.O.	0		100%	0	03-Jul-14 A				
MS2.108-3	Submit DDA for Fac Prov for TCSS Wrks for At grade Rds at Southern Landfall	0		0%	0	25-Aug-14		02-Apr-17	951	105
MS2.110	Approve AIP for Facilities Provision for TCSS Works for Viaducts by S.O.	0		100%	0	03-Jul-14 A				
MS2.111	Submit DDA for Facilities Provision for TCSS Works for Viaducts	0		0%	0	25-Aug-14		02-Apr-17	951	105
MS2.114	Approve AIP for Fac Prov for TCSS Wrks for At grade Rds along NLH by S.O.	0		100%	0	03-Jul-14 A				
MS2.115	Submit DDA for Fac Prov for TCSS Wrks for At grade Rds along NLH	0		0%	0	25-Aug-14		21-Mar-17	939	105
MS2.118	Approve AIP for Facilities Provision for E&M Works by the Supervising Officer	0		100%	0	09-Jul-14 A				
MS2.120	Approve DDA for Facilities Provision for E&M Works by the Supervising Officer	0		0%	0	13-Oct-14		02-Apr-17	902	358
MS2.121	Submit AIP for remaining works	0		0%	0	01-Sep-14		02-Apr-17	944	56

CC 4.1 - Structure E2 and All Associated Works

MS4.1.04	Complete piles of 20% of total pile length for Structure E2	0		100%	0	30-Jun-14 A				
MS4.1.05	Complete piles of 25% of total pile length for Structure E2	0		100%	0	14-Jul-14 A				
MS4.1.06	Complete piles of 30% of total pile length for Structure E2	0		0%	0	21-Jul-14*		02-Apr-17	986	0
MS4.1.07	Complete piles of 35% of total pile length for Structure E2	0		0%	0	21-Jul-14*		02-Apr-17	986	0
MS4.1.08	Complete piles of 40% of total pile length for Structure E2	0		0%	0	21-Jul-14*		02-Apr-17	986	56



■ Actual Work
■ Planned Bar
■ Critical Bar
◆ Milestone

Project ID: J3518DWP rD1-M14
 Layout: J3518-DWP-3MRP Submission - M14
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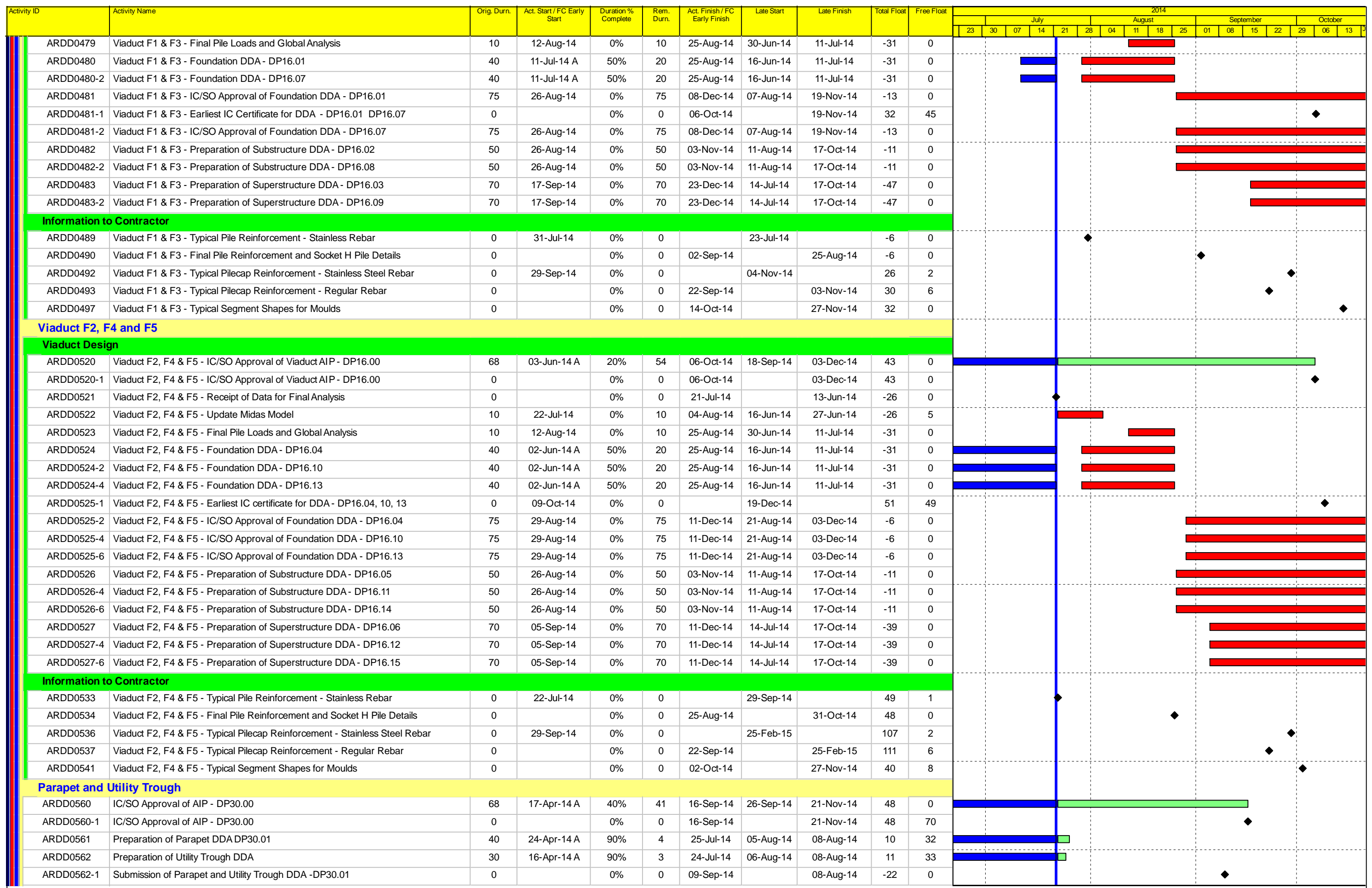
Tuen Mun - Chek Lap Kok Link - Southern Connection
3-Month Rolling Programme (Page 1 of 28 Pages)
(Progress as of 21-Jul-14)

Date	Revision	Checked	Approved
28-Jun-14		FZ	
29-Jul-14		FZ	

DWG. No.:
J3518/GCL/PGM/3MRP-M14

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	2014												
											July			August			September			October			
											23	30	07	14	21	28	04	11	18	25	01	08	15
Detailed Design (v17)																							
Ground Investigation																							
ARDD0009	Consultation with GEO	20	13-Aug-13 A	85%	3	24-Jul-14	29-Mar-17	31-Mar-17	701	57	[Gantt bar: 24-Jul-14 to 31-Mar-17]												
ARDD0010	IC/SO Approval of Ground Investigation Interpretative Report - AP03.00	75	13-Aug-13 A	20%	60	13-Oct-14	09-Jan-17	31-Mar-17	644	0	[Gantt bar: 13-Oct-14 to 31-Mar-17]												
ARDD0010-1	IC/SO Approval of Ground Investigation Interpretative Report - AP03.00	0		0%	0	13-Oct-14		31-Mar-17	644	0	[Milestone: 31-Mar-17]												
ARDD0013-1	Additional GI Fieldwork, Lab Testing and Permitting E5-E8	45	16-Jul-13 A	90%	5	28-Jul-14	20-Sep-18	27-Sep-18	1088	86	[Gantt bar: 28-Jul-14 to 27-Sep-18]												
ARDD0013-2	Additional GI Fieldwork, Lab Testing and Permitting - Other areas	60	16-Jul-13 A	80%	12	06-Aug-14	11-Sep-18	27-Sep-18	1080	78	[Gantt bar: 06-Aug-14 to 27-Sep-18]												
ARDD0015-1	E5-E8 Interpretation	15	17-Sep-13 A	85%	2	24-Jul-14	01-Jul-14	03-Jul-14	-14	73	[Gantt bar: 24-Jul-14 to 03-Jul-14]												
ARDD0015-2	Additional GI Interpretative Report - AP03.00	15	22-Jul-14	0%	15	11-Aug-14	12-May-14	30-May-14	-51	0	[Gantt bar: 11-Aug-14 to 30-May-14]												
ARDD0017-1	Earliest IC certificate for DDA-AP03.00	0		0%	0	22-Sep-14		27-Sep-18	1047	45	[Milestone: 27-Sep-18]												
ARDD0017-2	IC/SO Approval of Additional GI Interpretative Report - AP03.00	75	12-Aug-14	0%	75	24-Nov-14	14-Jun-18	27-Sep-18	1002	0	[Gantt bar: 24-Nov-14 to 27-Sep-18]												
Surveys and Investigations																							
ARDD0025	IC/SO Approval of Utility Report - AP04.00	75	22-Oct-13 A	100%	0	08-Jul-14 A					[Gantt bar: 08-Jul-14 to 08-Jul-14]												
ARDD0025-1	IC/SO Approval of Utility Report - AP04.00	0		100%	0	08-Jul-14 A					[Milestone: 08-Jul-14]												
General Submissions																							
ARDD0039	IC/SO Approval of Maintenance Matrix - AP07.00	75	08-May-14 A	20%	60	13-Oct-14	17-Jun-15	08-Sep-15	236	0	[Gantt bar: 13-Oct-14 to 08-Sep-15]												
ARDD0039-1	IC/SO Approval of Maintenance Matrix - AP07.00	0		0%	0	13-Oct-14		08-Sep-15	236	151	[Milestone: 08-Sep-15]												
ARDD0041-2	IC/SO Approval of O&M Facility Provisions AIP - BP11.00	75	23-Jun-14 A	20%	60	13-Oct-14	07-Jan-15	31-Mar-15	121	0	[Gantt bar: 13-Oct-14 to 31-Mar-15]												
ARDD0041-4	IC/SO Approval of O&M Facility Provisions AIP - BP11.00	0		0%	0	13-Oct-14		31-Mar-15	121	0	[Milestone: 31-Mar-15]												
ARDD0042-1	Preparation of O&M Facility Provisions DDA - BP11.01	40	14-Oct-14	0%	40	08-Dec-14	01-Apr-15	26-May-15	121	0	[Gantt bar: 08-Dec-14 to 26-May-15]												
GCL Erection Sequence and Method																							
ARDD0060-2	Receipt of Final Erection Sequence and Loads - Bridge A	0		100%	0	18-Jul-14 A					[Milestone: 18-Jul-14]												
Gazette and Alignment (assume no gazette change)																							
ARDD0071	IC/SO Approval of Alignment DDA - BP01.01	75	24-Jan-14 A	80%	15	11-Aug-14	23-Jun-14	11-Jul-14	-21	0	[Gantt bar: 11-Aug-14 to 11-Jul-14]												
ARDD0071-1	Earliest IC Cert for Alignment DDA - BP01.01	0		0%	0	21-Jul-14		11-Jul-14	-6	15	[Milestone: 11-Jul-14]												
ARDD0071-2	IC/SO Approval of Alignment DDA - BP01.01	0		0%	0	11-Aug-14		11-Jul-14	-21	14	[Milestone: 11-Jul-14]												
General Viaduct Submission																							
ARDD0076	IC/SO Approval of Viaduct E&M Works AIP - BP21.00	68	15-Mar-14 A	100%	0	09-Jul-14 A					[Gantt bar: 09-Jul-14 to 09-Jul-14]												
ARDD0076-1	IC/SO Approval of Viaduct E&M Works AIP - BP21.00	0		100%	0	09-Jul-14 A					[Milestone: 09-Jul-14]												
ARDD0078	IC/SO Approval of Viaduct E&M Works DDA BP21.01	75	17-Jun-14 A	20%	60	13-Oct-14	06-May-15	28-Jul-15	206	0	[Gantt bar: 13-Oct-14 to 28-Jul-15]												
ARDD0078-1	IC/SO Approval of Viaduct E&M Works DDA BP21.01	0		0%	0	13-Oct-14		28-Jul-15	206	85	[Milestone: 28-Jul-15]												
Viaduct B																							
Viaduct Design																							
ARDD0099-1	Viaduct B - Earliest IC Certificate for DP12.03	0		0%	0	21-Jul-14		03-Jun-14	-34	3	[Milestone: 03-Jun-14]												
ARDD0099-3	Viaduct B - IC/SO Approval of Sub & Superstructure DDA - DP12.03	75	04-Mar-14 A	40%	45	22-Sep-14	30-May-14	31-Jul-14	-37	0	[Gantt bar: 22-Sep-14 to 31-Jul-14]												
ARDD0099-5	Viaduct B - IC/SO Approval of Sub & Superstructure DDA - DP12.03	0		0%	0	22-Sep-14		31-Jul-14	-37	0	[Milestone: 31-Jul-14]												
Associated Construction Milestones																							
ARDD0128	Viaduct B - DDA approval ready for Commencement of Pilecaps (Marine)	0	23-Sep-14	0%	0		07-Aug-14		-47	0	[Milestone: 07-Aug-14]												
ARDD0128-1	Viaduct B - DDA approval ready for Commencement of Pilecaps (Land)	0	23-Sep-14	0%	0		28-Oct-14		35	0	[Milestone: 28-Oct-14]												
ARDD0129	Viaduct B - DDA approval ready for Initial Segment Casting	0	23-Sep-14	0%	0		01-Aug-14		-53	87	[Milestone: 01-Aug-14]												
Viaduct E5 and E6																							
Viaduct Design																							
ARDD0147	Viaduct E5 & E6 - Preparation of Substructure DDA - DP15.09	60	29-Oct-13 A	100%	0	08-Jul-14 A					[Gantt bar: 08-Jul-14 to 08-Jul-14]												
ARDD0148	Viaduct E5 & E6 - Preparation of Superstructure DDA - DP15.09	90	29-Oct-13 A	100%	0	08-Jul-14 A					[Gantt bar: 08-Jul-14 to 08-Jul-14]												
ARDD0149	Viaduct E5 & E6 - Submission of DDA for Viaduct Sub & Superstructure E5 & E6 - I	0		100%	0	08-Jul-14 A					[Milestone: 08-Jul-14]												
ARDD0150-1	Viaduct E5 & E6 - Earliest IC certificate for DDA for Viaduct E5 & E6 - DP15.09	0		0%	0	21-Jul-14		22-May-14	-42	45	[Milestone: 22-May-14]												
ARDD0150-3	Viaduct E5 & E6 - IC/SO Approval of Pile Cap Precast Shells DDA DP15.05	75	15-Apr-14 A	20%	60	13-Oct-14	11-Apr-14	03-Jul-14	-72	0	[Gantt bar: 13-Oct-14 to 03-Jul-14]												
ARDD0150-4	Viaduct E5 & E6 - IC/SO Approval (late) of Sub & Superstructure DDA DP15.09	75	09-Jul-14 A	0%	75	03-Nov-14	21-Mar-14	03-Jul-14	-87	0	[Gantt bar: 03-Nov-14 to 03-Jul-14]												

<ul style="list-style-type: none"> █ Actual Work █ Planned Bar █ Critical Bar ◆ Milestone 	Project ID: J3518DWPPrD1-M14 Layout: J3518-DWP-3MRP Submission - M14 Filter: TASK filters: 3-Month Lookahead, No Level of Effort.	Tuen Mun - Chek Lap Kok Link - Southern Connection 3-Month Rolling Programme (Page 5 of 28 Pages) (Progress as of 21-Jul-14)	<table border="1"> <tr> <th>Date</th> <th>Revision</th> <th>Checked</th> <th>Approved</th> </tr> <tr> <td>28-Jun-14</td> <td></td> <td>FZ</td> <td></td> </tr> <tr> <td>29-Jul-14</td> <td></td> <td>FZ</td> <td></td> </tr> </table>	Date	Revision	Checked	Approved	28-Jun-14		FZ		29-Jul-14		FZ		DWG. No.: J3518/GCL/PGM/3MRP-M14
Date	Revision	Checked	Approved													
28-Jun-14		FZ														
29-Jul-14		FZ														



	Actual Work
	Planned Bar
	Critical Bar
	Milestone

Project ID: J3518DWPrD1-M14
Layout: J3518-DWP-3MRP Submission - M14
Filter: TASK filters: 3-Month Lookahead, No Level of Effort.

**Tuen Mun - Chek Lap Kok Link - Southern Connection
3-Month Rolling Programme (Page 9 of 28 Pages)
(Progress as of 21-Jul-14)**

Date	Revision	Checked	Approved
28-Jun-14		FZ	
29-Jul-14		FZ	

DWG. No.:
J3518/GCL/PGM/3MRP-M14

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	2014																												
											July							August							September							October							
											23	30	07	14	21	28	04	11	18	25	01	08	15	22	29	06	13	20	27	04	11	18	25	01	08	15	22	29	
ARDD0563	Preparation of Utility Truss DDA	60	23-Jun-14 A	40%	36	09-Sep-14	20-Jun-14	08-Aug-14	-22	0																													
ARDD0565	Submission of Utility Truss DDA - DP30.02	0		0%	0	09-Sep-14		08-Aug-14	-22	0																													
ARDD0566	IC/SO Approval of DDA -DP30.01 & DP30.02	75	10-Sep-14	0%	75	23-Dec-14	11-Aug-14	21-Nov-14	-22	0																													
TCSS Provisions																																							
ARDD0570	IC/SO Approval of AIP for TCSS civil provisions - BP10.00	68	03-Apr-14 A	100%	0	03-Jul-14 A																																	
ARDD0570-1	IC/SO Approval of AIP for TCSS civil provisions - BP10.00	0		100%	0	03-Jul-14 A																																	
ARDD0571	Finalisation of TCSS Civil Provisions	30	01-Jul-14 A	50%	15	11-Aug-14	07-Jul-14	25-Jul-14	-11	0																													
ARDD0572	Preparation of DDA for TCSS civil provisions - BP10.01	10	12-Aug-14	0%	10	25-Aug-14	28-Jul-14	08-Aug-14	-11	0																													
ARDD0573	IC/SO Approval of DDA for TCSS civil provisions - BP10.01	75	26-Aug-14	0%	75	08-Dec-14	11-Aug-14	21-Nov-14	-11	0																													
Slopeworks for Viaduct C: 10NW -C/C22, C/C26, C/C27, C/F13, C/F14, C/F15																																							
ARDD0587	IC/SO Approval of Slope Combined AIP/DDA -CP13.01	75	20-Nov-13 A	90%	8	31-Jul-14	15-Oct-14	24-Oct-14	62	0																													
ARDD0587-1	IC/SO Approval of Slope Combined AIP/DDA -CP13.01	0		0%	0	31-Jul-14		24-Oct-14	62	0																													
Slopeworks for Viaduct A: 9SE-B/FR8, B/R1, B/R2																																							
ARDD0595	IC/SO Approval of Slope Combined AIP/DDA -CP11.01	75	31-Jul-14	0%	75	13-Nov-14	11-Jun-15	23-Sep-15	225	0																													
Slopeworks for Viaduct D: 10NW -C/R4, C/F9, C/F10, C/F11, C/F17, C/F50																																							
ARDD0602	Preparation of Slope Combined AIP/DDA - CP14.01	20	10-Dec-13 A	80%	4	25-Jul-14	23-Oct-14	28-Oct-14	67	0																													
ARDD0603	IC/SO Approval of Slope Combined AIP/DDA -CP14.01	75	28-Jul-14	0%	75	07-Nov-14	29-Oct-14	10-Feb-15	67	0																													
Natural Terrian Hazard Assessment																																							
ARDD0612	IC/SO Approval of NTHA Combined General Submission - CP20.01, CP21.01	68	31-Dec-13 A	90%	7	30-Jul-14	18-Sep-18	27-Sep-18	1086	0																													
ARDD0612-1	IC/SO Approval of NTHA Combined General Submission - CP20.01, CP21.01	0		0%	0	30-Jul-14		27-Sep-18	1086	1086																													
ARDD0613	GEO Approval of NTHM Combined AIP/DDA - CP20.02, CP21.02	75	16-Jul-14 A	0%	75	03-Nov-14	08-Dec-14	20-Mar-15	99	0																													
Waterworks, Drainage & Utility Diversions																																							
ARDD0622	IC/SO Approval of Waterworks, Drainage & Utility AIP - BP20.00	68	03-Jan-14 A	40%	41	16-Sep-14	03-Feb-17	31-Mar-17	663	0																													
ARDD0622-1	IC/SO Approval of Waterworks, Drainage & Utility AIP - BP20.00	0		0%	0	16-Sep-14		31-Mar-17	663	0																													
ARDD0624	Preparation of Waterworks, Drainage & Utility DDA - BP20.01	40	06-Mar-14 A	95%	2	23-Jul-14	10-Jul-14	11-Jul-14	-8	0																													
ARDD0628	Submission of Waterworks, Drainage & Utility DDA - BP20.01	0		0%	0	23-Jul-14		11-Jul-14	-8	0																													
ARDD0629	IC/SO Approval of Waterworks, Drainage & Utility DDA - BP20.01	75	24-Jul-14	0%	75	05-Nov-14	14-Jul-14	24-Oct-14	-8	0																													
ARDD0630	Gov't Approval of Submissions for Waterworks, Drainage & Utility Diversions	75	24-Jul-14	0%	75	05-Nov-14	14-Jul-14	24-Oct-14	-8	0																													
Viaduct Approach Ramp Retaining Walls																																							
Approach Ramp D																																							
ARDD0649	Approach D - Preparation of Approach Ramp D AIP Submission - DP21.00	55	29-Oct-13 A	100%	0	04-Jul-14 A																																	
ARDD0650	Approach D - IC/SO Approval of Approach Ramp D AIP - DP21.00	68	05-Jul-14 A	0%	68	23-Oct-14	15-Aug-14	18-Nov-14	18	0																													
ARDD0651	Approach D - Preparation of Approach Ramp D DDA Submission - DP20.01	30	18-Aug-14	0%	30	26-Sep-14	17-Sep-14	28-Oct-14	22	0																													
ARDD0652	Approach D - IC/SO Approval of Approach Ramp D DDA - DP20.01	75	03-Oct-14	0%	75	15-Jan-15	29-Oct-14	10-Feb-15	18	0																													
Approach Ramp C																																							
ARDD0656	Approach C - IC/SO Approval of Approach Ramp C AIP -DP20.00	68	18-Jun-14 A	20%	54	06-Oct-14	30-Sep-14	15-Dec-14	51	0																													
ARDD0656-1	Approach C - IC/SO Approval of Approach Ramp C AIP -DP20.00	0		0%	0	06-Oct-14		15-Dec-14	51	0																													
ARDD0657	Approach C - Preparation of Approach Ramp C DDA Submission - DP20.01	30	18-Jul-14 A	0%	30	01-Sep-14	14-Oct-14	24-Nov-14	60	9																													
ARDD0658	Approach C - IC/SO Approval of Approach Ramp C DDA -DP20.01	75	15-Sep-14	0%	75	29-Dec-14	25-Nov-14	09-Mar-15	51	0																													
Approach Ramp B																																							
ARDD0662	Approach B - IC/SO Approval of Approach Ramp B AIP -DP21.00	68	11-Jun-14 A	20%	54	06-Oct-14	19-May-14	01-Aug-14	-45	0																													
ARDD0662-1	Approach B - IC/SO Approval of Approach Ramp B AIP -DP21.00	0		0%	0	06-Oct-14		01-Aug-14	-45	0																													
ARDD0663	Approach B - Preparation of Approach Ramp B DDA Submission -DP21.01	30	23-Jul-14	0%	30	02-Sep-14	02-Jun-14	11-Jul-14	-37	8																													
ARDD0664	Approach B - IC/SO Approval of Approach Ramp B DDA -DP21.01	75	15-Sep-14	0%	75	29-Dec-14	14-Jul-14	24-Oct-14	-45	0																													
Approach A																																							
ARDD0668	Approach A - IC/SO Approval of Approach Ramp A AIP -DP20.00	68	18-Jun-14 A	20%	54	06-Oct-14	13-Aug-14	28-Oct-14	17	0																													
ARDD0668-1	Approach A - IC/SO Approval of Approach Ramp A AIP -DP20.00	0		0%	0	06-Oct-14		28-Oct-14	17	0																													
ARDD0669	Approach A - Preparation of Approach Ramp A DDA Submission -DP20.01	30	18-Jul-14 A	0%	30	01-Sep-14	27-Aug-14	07-Oct-14	26	9																													

Actual Work
 Planned Bar
 Critical Bar
 Milestone

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Tuen Mun - Chek Lap Kok Link - Southern Connection
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DWG. No.:
J3518/GCL/PGM/3MRP-M14

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	2014															
											July				August				September				October			
											23	30	07	14	21	28	04	11	18	25	01	08	15	22	29	06
ARDD0670	Approach A - IC/SO Approval of Approach Ramp A DDA - DP20.01	75	15-Sep-14	0%	75	29-Dec-14	08-Oct-14	20-Jan-15	17	0																
Approach F																										
ARDD0672	Approach F - Receipt of Topographic and Utility Survey	0		0%	0	26-Sep-14		27-Sep-18	1043	1043																
ARDD0673	Approach F - Preparation of Approach Ramp F AIP Submission - DP22.00 Update	40	03-Jul-14 A	30%	28	28-Aug-14	13-May-14	19-Jun-14	-50	0																
ARDD0674	Approach F - IC/SO Approval of Approach Ramp F AIP - DP22.00	68	29-Aug-14	0%	68	02-Dec-14	20-Jun-14	23-Sep-14	-50	0																
ARDD0675	Approach F - Preparation of Approach Ramp F DDA Submission - DP22.01	50	10-Oct-14	0%	50	18-Dec-14	01-Aug-14	09-Oct-14	-50	0																
Viaduct Pavement																										
ARDD865	Viaduct Pavement - Preparation of AIP Submission - BP02.00	20	10-Mar-14 A	100%	0	26-Jun-14 A																				
ARDD867	Viaduct Pavement - IC/SO Approval of AIP - BP02.00	68	27-Jun-14 A	20%	54	06-Oct-14	13-Jul-18	27-Sep-18	1038	0																
ARDD867-1	Viaduct Pavement - IC/SO Approval of AIP - BP02.00	0		0%	0	06-Oct-14		27-Sep-18	1038	1038																
ARDD869	Viaduct Pavement - Preparation of DDA Submission - BP02.01	20	10-Mar-14 A	100%	0	26-Jun-14 A																				
ARDD871	Viaduct Pavement - IC/SO Approval of DDA - BP02.01	75	27-Jun-14 A	20%	60	13-Oct-14	11-Sep-14	03-Dec-14	37	0																
ARDD871-1	Viaduct Pavement - IC/SO Approval of DDA - BP02.01	0		0%	0	13-Oct-14		03-Dec-14	37	0																
Signs, Markings and Street Furniture																										
ARDD0683	IC/SO Approval of Signs, Markings & Street Furniture AIP - BP03.00	68	01-Mar-14 A	20%	54	06-Oct-14	16-Jan-17	31-Mar-17	650	0																
ARDD0683-1	IC/SO Approval of Signs, Markings & Street Furniture AIP - BP03.00	0		0%	0	06-Oct-14		31-Mar-17	650	0																
ARDD0685	Preparation of Final Signs and Markings Plans	30	04-Jun-14 A	50%	15	11-Aug-14	19-Dec-14	08-Jan-15	108	25																
ARDD0686	Preparation of Detail Sign Gantry Structures	50	16-Jul-14 A	20%	40	15-Sep-14	14-Nov-14	08-Jan-15	83	0																
ARDD0687	Preparation of Signs, Markings & Street Furniture DDA Submission - BP03.01	10	16-Sep-14	0%	10	29-Sep-14	09-Jan-15	22-Jan-15	83	0																
ARDD0688	IC/SO Approval of Signs, Markings & Street Furniture DDA - BP03.01	75	30-Sep-14	0%	75	12-Jan-15	23-Jan-15	07-May-15	83	0																
Landscape																										
ARDD0696	IC/SO Approval of AIP for landscape works - BP22.00	68	14-May-14 A	40%	41	16-Sep-14	29-May-15	24-Jul-15	223	0																
ARDD0696-1	IC/SO Approval of AIP for landscape works - BP22.00	0		0%	0	16-Sep-14		24-Jul-15	223	0																
ARDD0697	Prepare Final Planting Plans and Schedules	20	16-Sep-14	0%	20	14-Oct-14	27-Jul-15	21-Aug-15	223	0																
ARDD0698	Prepare Irrigation Plans	20	16-Sep-14	0%	20	14-Oct-14	27-Jul-15	21-Aug-15	223	0																
ARDD0699	Preparation of DDA Submission for landscape works - BP22.01	20	14-Oct-14	0%	20	11-Nov-14	24-Aug-15	18-Sep-15	223	0																
Remaining Works																										
ARDD0704	Preparation of Remaining Works AIP - ZP01.00	30	22-Jul-14	0%	30	01-Sep-14	02-May-16	10-Jun-16	464	0																
ARDD0705	IC/SO Approval of Remaining Works AIP - ZP01.00	40	02-Sep-14	0%	40	27-Oct-14	13-Jun-16	05-Aug-16	464	0																
Segment Target Geometry And Erection Engineering																										
Viaduct B																										
ARDD0712	Viaduct B - Erection Sequence Analysis	20	09-Jan-14 A	90%	2	23-Jul-14	07-May-14	08-May-14	-54	0																
ARDD0713	Viaduct B - Target Geometry Analysis	20	06-Feb-14 A	90%	2	23-Jul-14	07-May-14	08-May-14	-54	0																
ARDD0714	Viaduct B - Segment Geometry Schedules	10	06-Mar-14 A	90%	1	22-Jul-14	08-May-14	08-May-14	-53	1																
ARDD0714-1	Viaduct B - Final Erection Geometry (Bridge B3)	0		0%	0	23-Jul-14		08-May-14	-54	0																
ARDD0714-2	Viaduct B - Final Erection Geometry (Bridge B2 & B1)	0		0%	0	03-Sep-14		19-Jun-14	-54	3																
Viaduct C																										
ARDD0721	Viaduct C - Confirmation of Erection Sequence from Freyssinet	0		0%	0	06-Oct-14		14-Oct-14	6	0																
ARDD0722	Viaduct C - Erection Sequence Analysis	20	07-Oct-14	0%	20	03-Nov-14	15-Oct-14	11-Nov-14	6	0																
Viaduct D																										
ARDD0726	Viaduct D - Confirmation of Erection Sequence from Freyssinet	0		0%	0	21-Jul-14		02-Jun-14	-35	0																
ARDD0727	Viaduct D - Erection Sequence Analysis	20	22-Jul-14	0%	20	18-Aug-14	03-Jun-14	30-Jun-14	-35	0																
ARDD0728	Viaduct D - Target Geometry Analysis	20	19-Aug-14	0%	20	15-Sep-14	01-Jul-14	28-Jul-14	-35	0																
ARDD0729	Viaduct D - Segment Geometry Schedules	10	16-Sep-14	0%	10	29-Sep-14	29-Jul-14	11-Aug-14	-35	0																
ARDD0729-1	Viaduct D - Final Erection Geometry (Bridge D3)	0		0%	0	29-Sep-14		11-Aug-14	-35	0																
Viaduct E5 and E6																										
ARDD0731	Viaduct E5 & E6 - Confirmation of Erection Sequence from Freyssinet	0		0%	0	21-Jul-14		09-Jun-14	-30	23																
ARDD0732	Viaduct E5 & E6 - Erection Sequence Analysis	30	24-Dec-13 A	25%	23	21-Aug-14	08-May-14	09-Jun-14	-53	0																

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											July							August							September							October						
											23	30	07	14	21	28	04	11	18	25	01	08	15	22	29	06	13	20	27	04	11	18	25	01	08	15	22	29
ARDD0733	Viaduct E5 & E6 - Target Geometry Analysis	30	04-Feb-14 A	25%	23	21-Aug-14	08-May-14	09-Jun-14	-53	0	[Gantt bar: 08-May-14 to 09-Jun-14]																											
ARDD0734	Viaduct E5 & E6 - Segment Geometry Schedules	10	18-Mar-14 A	25%	8	31-Jul-14	29-May-14	09-Jun-14	-38	15	[Gantt bar: 29-May-14 to 09-Jun-14]																											
ARDD0734-1	Viaduct E5 & E6 - Final Erection Geometry	0		0%	0	21-Aug-14		09-Jun-14	-53	20	[Milestone: 09-Jun-14]																											
Viaduct E7 & E8																																						
ARDD0736	Viaduct E7 & E8 - Confirmation of Erection Sequence from Freyssinet	0		0%	0	21-Jul-14		30-May-14	-36	23	[Milestone: 21-Jul-14]																											
ARDD0737	Viaduct E7 & E8 - Erection Sequence Analysis	30	24-Dec-13 A	25%	23	21-Aug-14	30-Apr-14	30-May-14	-59	0	[Gantt bar: 30-Apr-14 to 30-May-14]																											
ARDD0738	Viaduct E7 & E8 - Target Geometry Analysis	30	04-Feb-14 A	25%	23	21-Aug-14	30-Apr-14	30-May-14	-59	0	[Gantt bar: 30-Apr-14 to 30-May-14]																											
ARDD0739	Viaduct E7 & E8 - Segment Geometry Schedules	10	18-Mar-14 A	25%	8	31-Jul-14	21-May-14	30-May-14	-44	15	[Gantt bar: 21-May-14 to 30-May-14]																											
ARDD0739-1	Viaduct E7 & E8 - Final Erection Geometry	0		0%	0	21-Aug-14		30-May-14	-59	20	[Milestone: 30-May-14]																											
Viaduct E1																																						
ARDD0741	Viaduct E1 - Confirmation of Erection Sequence from Freyssinet	0		0%	0	21-Jul-14		03-Jun-14	-34	0	[Milestone: 21-Jul-14]																											
ARDD0742	Viaduct E1 - Erection Sequence Analysis	30	22-Jul-14	0%	30	01-Sep-14	04-Jun-14	15-Jul-14	-34	0	[Gantt bar: 04-Jun-14 to 15-Jul-14]																											
ARDD0743	Viaduct E1 - Target Geometry Analysis	30	02-Sep-14	0%	30	13-Oct-14	16-Jul-14	26-Aug-14	-34	0	[Gantt bar: 16-Jul-14 to 26-Aug-14]																											
ARDD0744	Viaduct E1 - Segment Geometry Schedules	10	14-Oct-14	0%	10	27-Oct-14	27-Aug-14	09-Sep-14	-34	0	[Gantt bar: 27-Aug-14 to 09-Sep-14]																											
Viaduct E2																																						
ARDD0746	Viaduct E2 - Confirmation of Erection Sequence from Freyssinet	0		0%	0	21-Jul-14		15-May-14	-47	23	[Milestone: 21-Jul-14]																											
ARDD0747	Viaduct E2 - Erection Sequence Analysis	30	24-Dec-13 A	25%	23	21-Aug-14	15-Apr-14	15-May-14	-70	0	[Gantt bar: 15-Apr-14 to 15-May-14]																											
ARDD0748	Viaduct E2 - Target Geometry Analysis	30	04-Feb-14 A	25%	23	21-Aug-14	15-Apr-14	15-May-14	-70	0	[Gantt bar: 15-Apr-14 to 15-May-14]																											
ARDD0749	Viaduct E2 - Segment Geometry Schedules	10	18-Mar-14 A	25%	8	31-Jul-14	06-May-14	15-May-14	-55	15	[Gantt bar: 06-May-14 to 15-May-14]																											
ARDD0749-1	Viaduct E2 - Final Erection Geometry	0		0%	0	21-Aug-14		15-May-14	-70	13	[Milestone: 15-May-14]																											
Reprovisioning Works																																						
Chung Tung Road Realignment Viaduct B																																						
ARDD0804	Viaduct B - IC/SO Approval of AIP of CTR Reprovisioning Works AIP - BP33.00	68	31-Dec-13 A	60%	27	28-Aug-14	17-Sep-14	24-Oct-14	42	0	[Gantt bar: 17-Sep-14 to 24-Oct-14]																											
ARDD0804-1	Viaduct B - IC/SO Approval of AIP of CTR Reprovisioning Works AIP - BP33.00	0		0%	0	28-Aug-14		24-Oct-14	42	27	[Milestone: 28-Aug-14]																											
ARDD0807	Viaduct B - IC/SO Approval of CTR Reprovisioning Works DDA - BP33.01	75	11-Jun-14 A	20%	60	13-Oct-14	04-Aug-14	24-Oct-14	9	0	[Gantt bar: 04-Aug-14 to 24-Oct-14]																											
ARDD0807-1	Viaduct B - IC/SO Approval of CTR Reprovisioning Works DDA - BP33.01	0		0%	0	13-Oct-14		24-Oct-14	9	65	[Milestone: 13-Oct-14]																											
Chung Tung Road Realignment Viaduct C																																						
ARDD0881	Viaduct C - IC/SO Approval of AIP of CTR Reprovisioning Works AIP - BP34.00	68	04-Apr-14 A	60%	27	28-Aug-14	28-May-14	04-Jul-14	-38	0	[Gantt bar: 28-May-14 to 04-Jul-14]																											
ARDD0881-1	Viaduct C - IC/SO Approval of AIP of CTR Reprovisioning Works AIP - BP34.00	0		0%	0	28-Aug-14		04-Jul-14	-38	27	[Milestone: 28-Aug-14]																											
ARDD0887	Viaduct C - IC/SO Approval of CTR Reprovisioning Works DDA - BP34.01	75	20-Jun-14 A	20%	60	13-Oct-14	14-Apr-14	04-Jul-14	-71	0	[Gantt bar: 14-Apr-14 to 04-Jul-14]																											
ARDD0887-1	Viaduct C - IC/SO Approval of CTR Reprovisioning Works DDA - BP34.01	0		0%	0	13-Oct-14		04-Jul-14	-71	12	[Milestone: 13-Oct-14]																											
Remaining Reprovisioning Works (Viaduct A&D)																																						
ARDD0813	Viaduct A&D - IC/SO Approval of AIP for Remaining Reprovisioning Works V-A&D	68	30-Apr-14 A	60%	27	28-Aug-14	04-Jun-15	13-Jul-15	228	0	[Gantt bar: 04-Jun-15 to 13-Jul-15]																											
ARDD0813-1	Viaduct A&D - IC/SO Approval of AIP for Remaining Reprovisioning Works V-A&D	0		0%	0	28-Aug-14		13-Jul-15	228	0	[Milestone: 28-Aug-14]																											
ARDD0814	Viaduct A&D - Preparation of DDA of Remaining Reprovisioning Works V-A&D BP35.01	20	28-May-14 A	100%	0	25-Jun-14 A					[Gantt bar: 25-Jun-14 to 25-Jun-14]																											
ARDD0815	Viaduct A&D - IC/SO Approval of DDA of Remaining Reprovisioning Works BP35.01	75	26-Jun-14 A	0%	75	06-Nov-14	09-Jun-15	21-Sep-15	228	0	[Gantt bar: 09-Jun-15 to 21-Sep-15]																											
ESS Substation																																						
ARDD0819	IC/SO Approval of Combined AIP/DDA for ESS Substation - BP31.01	75	12-Nov-13 A	100%	0	26-Jun-14 A					[Gantt bar: 26-Jun-14 to 26-Jun-14]																											
ARDD0821	IC/SO Approval of Combined AIP/DDA for ESS Substation - BP31.01	0		100%	0	26-Jun-14 A					[Milestone: 26-Jun-14]																											
CEDD Access Track																																						
ARDD0808	Preparation of Combined AIP/DDA for CEDD Access Track - BP32.01	30	09-Sep-13 A	80%	6	29-Jul-14	19-Feb-16	26-Feb-16	413	0	[Gantt bar: 19-Feb-16 to 26-Feb-16]																											
ARDD0809	IC/SO Approval of Combined AIP/DDA for CEDD Access Track - BP32.01	75	30-Jul-14	0%	75	11-Nov-14	29-Feb-16	10-Jun-16	413	0	[Gantt bar: 29-Feb-16 to 10-Jun-16]																											
Construction Traffic Impact Assessment																																						
ARDD0811	IC/SO Approval of CTIA - AP05.00	75	25-Feb-14 A	80%	15	11-Aug-14	13-Mar-17	31-Mar-17	689	0	[Gantt bar: 13-Mar-17 to 31-Mar-17]																											
ARDD0816	IC/SO Approval of CTIA - AP05.00	0		0%	0	11-Aug-14		31-Mar-17	689	0	[Milestone: 11-Aug-14]																											
Other Design																																						
Marine Permanent Navigation Aids																																						
BMT0135	Preparation of MPNA DDA - BP36.01	46	11-Jun-14 A	10%	41	17-Sep-14	28-Nov-13	24-Jan-14	-167	0	[Gantt bar: 28-Nov-13 to 24-Jan-14]																											

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Tuen Mun - Chek Lap Kok Link - Southern Connection
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											July				August				September				October			
											23	30	07	14	21	28	04	11	18	25	01	08	15	22	29	06
BMT0140	IC/SO Approval of MPNA DDA BP36.01	75	17-Sep-14	0%	75	31-Dec-14	27-Jan-14	09-May-14	-167	0																
Major Procurement																										
Tower Cranes																										
PR66010	Procure Tower Crane Supplier	96	22-Jul-14	0%	96	13-Nov-14	09-Jun-14	30-Sep-14	-36	0																
Equipment Platforms for Tower Cranes																										
PR66025	Inst.Temp.Eqpt.Platform (piles & deck) @ E3	18	01-Aug-14	0%	18	29-Aug-14	27-Nov-14	17-Dec-14	85	56																
PR66026	Inst.Temp.Eqpt.Platform (piles & deck) @ E4	18	05-Aug-14	0%	18	01-Sep-14	05-Sep-14	30-Sep-14	20	54																
PR66031	Inst.Temp.Eqpt.Platform (piles & deck) @ E9	18	10-Oct-14	0%	18	01-Nov-14	11-May-15	08-Jun-15	163	11																
Deck Segment Installation Equipment																										
Launching Gantry 1																										
PR67040	Launching Gantry Design	95	05-Feb-14 A	95%	5	26-Jul-14	30-Aug-14	04-Sep-14	34	24																
PR67041	Launching Gantry 1 Fabrication	95	15-May-14 A	70%	29	23-Aug-14	02-Aug-14	04-Sep-14	11	0																
PR67042	Launching Gantry 1 Delivery	20	23-Aug-14	0%	20	17-Sep-14	05-Sep-14	29-Sep-14	11	116																
Launching Gantry 2																										
PR67043	Launching Gantry 2 Fabrication	105	16-Jun-14 A	10%	95	12-Nov-14	18-Sep-14	12-Jan-15	50	75																
Lifting Frames																										
PR68010	Lifting Frame Technical Specs, Tender & Place Order	63	15-Jan-14 A	100%	0	23-Jun-14 A																				
Lifting Frames 1 & 2																										
PR68011	Lifting Frame 1&2 Design	70	02-Jun-14 A	35%	46	13-Sep-14	22-Jul-14	13-Sep-14	0	4																
PR68012	Lifting Frame 1&2 Approval	60	13-Aug-14	0%	60	24-Oct-14	05-Sep-14	17-Nov-14	20	20																
PR68013	Lifting Frame 1&2 Fabrication	140	13-Aug-14	0%	140	29-Jan-15	13-Aug-14	29-Jan-15	0	0																
Lifting Frames 3 & 4																										
PR68015	Lifting Frame 3&4 Design	70	02-Jun-14 A	35%	46	13-Sep-14	21-Jun-14	14-Aug-14	-25	4																
PR68016	Lifting Frame 3&4 Approval	60	13-Aug-14	0%	60	24-Oct-14	07-Aug-14	18-Oct-14	-5	20																
PR68017	Lifting Frame 3&4 Fabrication	140	13-Aug-14	0%	140	29-Jan-15	15-Jul-14	30-Dec-14	-25	0																
Lifting Frames 5 & 6																										
PR68019	Lifting Frame 5&6 Design	70	22-Jul-14	0%	70	14-Oct-14	08-Nov-14	31-Jan-15	91	0																
PR68020	Lifting Frame 5&6 Approval	60	03-Oct-14	0%	60	11-Dec-14	13-Feb-15	02-May-15	111	20																
PR68021	Lifting Frame 5&6 Fabrication	140	03-Oct-14	0%	140	21-Mar-15	21-Jan-15	15-Jul-15	91	0																
Unloading Frames																										
Type 1																										
PR69100	Unloading Frame Type 1 Design	50	05-May-14 A	40%	30	25-Aug-14	10-Oct-14	13-Nov-14	66	17																
PR69110	Unloading Frame Type 1 Fabrication	95	22-Jul-14	0%	95	12-Nov-14	10-Oct-14	31-Jan-15	66	0																
Type 2																										
PR69170	Unloading Frame Type 2 Design	50	05-May-14 A	40%	30	25-Aug-14	18-May-15	23-Jun-15	243	17																
PR69180	Unloading Frame Type 2 Fabrication	95	22-Jul-14	0%	95	12-Nov-14	18-May-15	08-Sep-15	243	0																
Type 3																										
PR69220	Unloading Frame Type 3 Design	50	05-May-14 A	90%	5	26-Jul-14	12-Jun-14	17-Jun-14	-33	0																
PR69230	Unloading Frame Type 3 (Lantau) Fabrication	95	16-Jun-14 A	45%	52	22-Sep-14	12-Jun-14	13-Aug-14	-33	0																
PR69240	Unloading Frame Type 3 Delivery	24	23-Sep-14	0%	24	22-Oct-14	14-Aug-14	11-Sep-14	-33	0																
Type 4																										
PR69250	Unloading Frame Type 4 Design	50	05-May-14 A	40%	30	25-Aug-14	29-Oct-14	02-Dec-14	82	17																
PR69260	Unloading Frame Type 4 (BCF) Fabrication	95	22-Jul-14	0%	95	12-Nov-14	29-Oct-14	23-Feb-15	82	0																
Deck Segments & Precast Pile Cap Shells																										
Preliminaries																										
MBBC0014	0-	50	07-Apr-14 A	95%	3	24-Jul-14	16-Jun-14	18-Jun-14	-30	31																
MBBE0010	Set Up Precast Segment Casting Yard & Beds etc	176	15-Oct-13 A	80%	35	01-Sep-14	19-Jun-14	31-Jul-14	-26	91																
MBBE0012	Precast Segment Mould Design (Viaduct B)	42	15-Oct-13 A	30%	29	25-Aug-14	25-Feb-14	31-Mar-14	-117	0																

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											23	30	07	14	21	28	04	11	18	25	01	08	15	22	29	06
MBBE0014	Precast Segment Mould Fabrication & Assembly (Viaduct B)	52	25-Aug-14	0%	52	28-Oct-14	01-Apr-14	07-Jun-14	-117	0																
MBBE0018	Precast Segment Mould Design (Viaduct E5, E6, E7 & E8)	42	15-Oct-13 A	60%	17	09-Aug-14	19-Jun-14	09-Jul-14	-27	0																
MBBE0020	Precast Segment Mould Fabrication & Assembly (Viaduct E5, E6, E7 & E8)	52	09-Aug-14	0%	52	13-Oct-14	10-Jul-14	08-Sep-14	-27	58																
MBBE0024	Precast Segment Mould Design (Viaduct E2)	42	15-Oct-13 A	60%	17	09-Aug-14	26-May-14	14-Jun-14	-47	0																
MBBE0026	Precast Segment Mould Fabrication & Assembly (Viaduct E2)	52	09-Aug-14	0%	52	13-Oct-14	16-Jun-14	15-Aug-14	-47	58																
MBBE0030	Precast Segment Mould Design (Viaduct E1)	42	31-Jul-14	0%	42	18-Sep-14	09-Jul-14	26-Aug-14	-19	0																
MBBE0032	Precast Segment Mould Fabrication & Assembly (Viaduct E1)	52	19-Sep-14	0%	52	20-Nov-14	27-Aug-14	29-Oct-14	-19	24																
MBBE0036	Precast Segment Mould Design (Viaduct D)	42	29-Aug-14	0%	42	20-Oct-14	07-Jul-14	23-Aug-14	-46	0																
MBBE0042	Precast Segment Mould Design (Viaduct C)	42	10-Sep-14	0%	42	30-Oct-14	06-Dec-14	27-Jan-15	73	0																
MBBE0048	Precast Segment Mould Design (Viaduct A)	42	10-Oct-14	0%	42	27-Nov-14	23-Jul-15	09-Sep-15	231	0																
MBBE0054	Precast Segment Mould Design (Viaduct F1 to F5)	42	15-Oct-14	0%	42	02-Dec-14	16-Jan-15	09-Mar-15	77	0																
Viaduct B																										
Precast Pile Caps																										
MBBC0130	B: Commence Pile Cap Shell Delivery	0	05-Jul-14 A	100%	0																					
MBBC0130-1	B: Progressive Pile Cap Shell Manufacture & Delivery remaining shells (6/7 Nr in to	81	05-Jul-14 A	0%	81	27-Oct-14	06-Jun-14	10-Sep-14	-38	0																
PP7050	Production of initial Viaduct B Marine Precast Pile Cap Shells	55	10-Jun-14 A	100%	0	21-Jun-14 A																				
Viaduct D																										
Precast Pile Caps																										
MBDC0120	D: Commence Pile Cap Shell Casting on Approval of DDA	0	29-Aug-14	0%	0		16-Aug-14																			
MBDC0130	D: Commence Pile Cap Shell Delivery	0	13-Oct-14	0%	0		27-Sep-14																			
MBDC0130-8	D: Progressive Pile Cap Shell Manufacture & Delivery remaining shells	90	13-Oct-14	0%	90	28-Jan-15	27-Sep-14	15-Jan-15	-11	30																
PP7410	Production of initial Viaduct D Marine Precast Pile Cap Shells	35	29-Aug-14	0%	35	11-Oct-14	16-Aug-14	26-Sep-14	-11	0																
Materials																										
H-Piles																										
PP7390	Procurement of Viaduct D Socketted H-Piles	70	21-Feb-14 A	100%	0	21-Jul-14 A																				
PP7470	Procurement of Viaduct C Socketted H-Piles	70	21-Jul-14 A	1%	69	14-Oct-14	09-Jul-14	29-Sep-14	-10	18																
PP7550	Procurement of Viaduct A Socketted H-Piles	70	10-Sep-14	0%	70	02-Dec-14	19-Jan-15	17-Apr-15	107	0																
Reinforcement																										
Bored Piles																										
PP7020	Rebar - Cut, Bend & Fabricate Pile Cage for Viaduct B Piles	24	28-Feb-14 A	44%	13	06-Aug-14	09-Jun-14	24-Jun-14	-35	0																
PP7100	Rebar - Cut, Bend & Fabricate Pile Cage for Viaduct E5 & E6 Piles	185	26-Aug-14	0%	185	14-Apr-15	19-Feb-14	04-Oct-14	-153	0																
PP7170	Rebar - Cut, Bend & Fabricate Pile Cage for Viaduct E7 & E8 Piles	185	26-Aug-14	0%	185	14-Apr-15	28-Apr-14	06-Dec-14	-99	0																
PP7240	Rebar - Cut, Bend & Fabricate Pile Cage for Viaduct E2 Piles	106	15-Apr-14 A	20%	85	31-Oct-14	30-Apr-14	11-Aug-14	-67	114																
PP7310	Rebar - Cut, Bend & Fabricate Pile Cage for Viaduct E1 Piles	36	22-Jul-14	0%	36	01-Sep-14	27-Aug-14	10-Oct-14	31	1																
PP7380	Rebar - Cut, Bend & Fabricate Pile Cage for Viaduct D Piles	25	22-Jul-14	0%	25	19-Aug-14	31-Jul-14	28-Aug-14	8	35																
PP7460	Rebar - Cut, Bend & Fabricate Pile Cage for Viaduct C Piles	35	23-Aug-14	0%	35	06-Oct-14	25-Aug-14	07-Oct-14	1	24																
PP7540	Rebar - Cut, Bend & Fabricate Pile Cage for Viaduct A Piles	21	14-Oct-14	0%	21	06-Nov-14	20-Mar-15	17-Apr-15	129	22																
PP7620	Rebar - Cut, Bend & Fabricate Pile Cage for Viaduct F1 & F3 Piles	61	07-Oct-14	0%	61	16-Dec-14	27-Sep-14	09-Dec-14	-6	0																
PP7690	Rebar - Cut, Bend & Fabricate Pile Cage for Viaduct F2, F4 & F5 Piles	73	27-Sep-14	0%	73	23-Dec-14	04-Dec-14	06-Mar-15	56	0																
Marine Pile Caps																										
PP7040	Rebar - Cut, Bend & Fabricate for Viaduct B Marine Pile Caps	36	06-Aug-14	0%	36	18-Sep-14	25-Jun-14	06-Aug-14	-35	4																
PP7110	Rebar - Cut, Bend & Fabricate for Viaduct E5 & E6 Pile Caps	245	24-Sep-14	0%	245	25-Jul-15	19-Mar-14	14-Jan-15	-153	0																
PP7180	Rebar - Cut, Bend & Fabricate for Viaduct E7 & E8 Pile Caps	102	24-Sep-14	0%	102	27-Jan-15	28-May-14	26-Sep-14	-99	0																
PP7250	Rebar - Cut, Bend & Fabricate for Viaduct E2 Pile Caps	185	07-Aug-14	0%	185	20-Mar-15	30-Apr-14	09-Dec-14	-81	0																
PP7320	Rebar - Cut, Bend & Fabricate for Viaduct E1 Pile Caps	67	03-Sep-14	0%	67	22-Nov-14	11-Oct-14	30-Dec-14	30	0																
PP7400	Rebar - Cut, Bend & Fabricate for Viaduct D Marine Pile Caps	47	03-Oct-14	0%	47	26-Nov-14	29-Aug-14	25-Oct-14	-27	14																
Marine Piers - Viaduct E																										
PP7270	Rebar - Cut, Bend & Fabricate for Viaduct E2 Piers	180	04-Sep-14	0%	180	16-Apr-15	30-May-14	03-Jan-15	-81	36																

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Project ID: J3518DWP-3MRP-M14
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Tuen Mun - Chek Lap Kok Link - Southern Connection
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(Progress as of 21-Jul-14)

Date	Revision	Checked	Approved
28-Jun-14		FZ	
29-Jul-14		FZ	

DWG. No.:
J3518/GCL/PGM/3MRP-M14

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	2014															
											July				August				September				October			
											23	30	07	14	21	28	04	11	18	25	01	08	15	22	29	06
TTM00470	Send TTMs to SO & Govt Depts for TMLG Meeting No. 13	0		0%	0	12-Sep-14		10-Oct-14	20	0																
TTM00480	TMLG Meeting No. 13	0		0%	0	26-Sep-14*		24-Oct-14	20	0																
TTM00490	Earliest Implementation of TTM after TMLG Meeting No. 13	0	13-Oct-14	0%	0		22-Sep-15		246	20																
TTM00500	Send TTMs to SO & Govt Depts for TMLG Meeting No. 14	0		0%	0	10-Oct-14		07-Nov-14	20	0																
Tree Felling / Transplant																										
Approved Trees in Contract																										
TR00140	SO Approval of Base Tree Survey Report	30	14-Oct-13 A	90%	3	24-Jul-14	24-Sep-18	27-Sep-18	1089	1089																
TR00200	Tree transplant for Viaduct B - affecting Piers B11 to B17	90	17-Feb-14 A	98%	2	24-Jul-14	15-Feb-16	16-Feb-16	422	1115																
TR00220	Tree transplant for Viaduct B - affecting Pier B18 & Abutment B	90	17-Feb-14 A	98%	2	24-Jul-14	01-Nov-14	03-Nov-14	74	136																
TR00240	Tree transplant for Viaduct B - affecting realigned CTR	90	17-Feb-14 A	98%	2	24-Jul-14	08-Jul-14	10-Jul-14	-10	52																
TR00250	Tree felling for Viaduct B - affecting Slopes 9SE-B/F9, C8 & C9	48	05-May-14 A	13%	42	19-Sep-14	24-Mar-14	29-May-14	-73	0																
TR00260	Tree felling for Viaduct C - affecting Piers C9 to Abutment C	24	30-Jan-14 A	35%	16	14-Aug-14	17-Oct-14	04-Nov-14	61	56																
TR00270	Tree transplant for Viaduct C - affecting Piers C9 to Abutment C	90	17-Feb-14 A	20%	72	29-Oct-14	29-Jul-14	04-Nov-14	5	0																
TR00280	Tree felling for Viaduct C - affecting realigned CTR	30	30-Jan-14 A	35%	20	19-Aug-14	30-May-14	05-Jul-14	-31	53																
TR00290	Tree transplant for Viaduct C - affecting realigned CTR	90	17-Feb-14 A	20%	72	29-Oct-14	12-Mar-14	05-Jul-14	-83	0																
Additional Trees																										
TR01010	Additional tree felling for Viaduct B along CTR	48	19-May-14 A	42%	28	30-Aug-14	16-May-14	03-Jul-14	-41	21																
Site Set Up for Works Area 3 and Site Offices along CEDD Access Road																										
PR30030	Works Area 3-A1/3-A2 - Construct 1.5m steel access bridge	30	22-Jul-14	0%	30	02-Sep-14	18-Aug-18	27-Sep-18	1086	1086																
Temporary Working Platform at North Lantau																										
PR08020	Temp. Working Platform at N.Lantau - Install boundary fence	22	22-Jul-14	0%	22	22-Aug-14	11-Aug-14	11-Sep-14	13	44																
PR08030	Temp. Working Platform at N.Lantau - Modify top of existing seawall	24	25-Nov-13 A	71%	7	31-Jul-14	24-Jan-14	04-Feb-14	-120	5																
PR08050	Temp. Working Platform at N.Lantau - Temp. rockfill & paving between existing & T	42	17-Feb-13 A	71%	12	09-Aug-14	17-Jan-14	04-Feb-14	-125	0																
PR08070	Temp. Working Platform at N.Lantau - Construct steel deck / bollards / fenders	24	02-May-14 A	30%	17	26-Aug-14	27-Jan-14	18-Feb-14	-125	0																
CONSTRUCTION																										
PILING AND SUBSTRUCTURE																										
Viaduct A																										
Milestones - Marine Foundation																										
GFXX111	Viaduct A - ARUP issues Pile Spacing & Diameter for Temporary Platform Design	0	18-Jul-14 A	100%	0																					
General																										
ZA00060	Prepare/submit/approval of MTR Protective Fence submission for Viaduct A	60	22-Jul-14	0%	60	13-Oct-14	27-Jun-14	18-Sep-14	-17	0																
Bridge A2																										
Pier A1 (A2e)																										
Foundation Works																										
GFXX142	A1 (A2e) - Inst.Temp.Working Platform (Common Platform with Pier A1,C1,D1)	23	21-May-14 A	100%	0	05-Jul-14 A																				
GFXX143	A1 (A2e) - Pre-drilling (3 nos)	14	17-Jul-14 A	30%	10	01-Aug-14	02-Apr-15	17-Apr-15	209	0																
GFXX143-2	A1 (A2e) - Confirm Rockhead Levels	8	01-Aug-14	0%	8	11-Aug-14	25-Apr-15	05-May-15	215	102																
Bridge A1																										
Pier A8 (A1d)																										
Preliminary Works for Land Piling																										
PA080020	A08 (A1d) - Erect MTR protective fence / Remove existing fence	12	14-Oct-14	0%	12	28-Oct-14	19-Sep-14	04-Oct-14	-18	0																
PA080030	A08 (A1d) - Install Geo. Instru. & Baseline Monitoring	36	14-Oct-14	0%	36	24-Nov-14	19-Sep-14	01-Nov-14	-19	0																
Pier A9 (A1c)																										
Preliminary Works for Land Piling																										
PA090010	A09 (A1c) - Implement TTMS along north side of NLH E/B	2	14-Oct-14	0%	2	16-Oct-14	24-Oct-14	25-Oct-14	8	0																
PA090020	A09 (A1c) - Erect boundary fence, site clearance & set up site ingress	4	17-Oct-14	0%	4	21-Oct-14	27-Oct-14	30-Oct-14	8	6																
Pier A10 (A1b)																										
Preliminary Works for Land Piling																										

<ul style="list-style-type: none"> ■ Actual Work ■ Planned Bar ■ Critical Bar ◆ Milestone 	Project ID: J3518DWPPrD1-M14 Layout: J3518-DWP-3MRP Submission - M14 Filter: TASK filters: 3-Month Lookahead, No Level of Effort.	Tuen Mun - Chek Lap Kok Link - Southern Connection 3-Month Rolling Programme (Page 16 of 28 Pages) (Progress as of 21-Jul-14)	<table border="1"> <thead> <tr> <th>Date</th> <th>Revision</th> <th>Checked</th> <th>Approved</th> </tr> </thead> <tbody> <tr> <td>28-Jun-14</td> <td></td> <td>FZ</td> <td></td> </tr> <tr> <td>29-Jul-14</td> <td></td> <td>FZ</td> <td></td> </tr> </tbody> </table>	Date	Revision	Checked	Approved	28-Jun-14		FZ		29-Jul-14		FZ		DWG. No.: J3518/GCL/PGM/3MRP-M14
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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	2014															
											July				August				September				October			
											23	30	07	14	21	28	04	11	18	25	01	08	15	22	29	06
SB3B0170	B5 (B3b) - Type 4B Pier Temp. Support Platform	6	14-Oct-14	0%	6	21-Oct-14	24-Oct-14	31-Oct-14	9	0																
Pier B6 (B3a)																										
Foundation Works																										
GFXX157	B6 (B3a) - Predrilling for Piles (3 nos)	12	11-Jun-14 A	100%	0	24-Jun-14 A					█															
GFXX157-2	B6 (B3a) - Confirm Rockhead Levels	8	21-Jun-14 A	100%	0	24-Jun-14 A					█															
GFXX158	B6 (B3a) - Bored Piles (1.80m dia. x 3 nos)	72	21-Jun-14 A	35%	47	15-Sep-14	31-May-14	26-Jul-14	-42	0	█															
GFXX159	B6 (B3a) - Sonic & Interface Coring	12	16-Sep-14	0%	12	29-Sep-14	16-Aug-14	29-Aug-14	-25	0	█															
GFXX160	B6 (B3a) - Dismantle removable panels of temp. platform	4	30-Sep-14	0%	4	06-Oct-14	30-Aug-14	03-Sep-14	-25	0	█															
Pile Cap Works																										
SB3A0070	B6 (B3a) - Marine Pile Cap M2 - Inst.Floating Seal & Casing Head Steelwork	7	07-Oct-14	0%	7	16-Oct-14	04-Sep-14	13-Sep-14	-22	9	█															
Bridge B2																										
Pier B7 (B2f)																										
Foundation Works																										
GFXX152	B7 (B2f) - Predrilling (2 nos)	12	24-Jun-14 A	100%	0	27-Jun-14 A					█															
GFXX152-2	B7 (B2f) - Confirm Rockhead Levels	8	28-Jun-14 A	100%	0	02-Jul-14 A					█															
GFXX153	B7 (B2f) - Bored Piles (2.20m dia. x 2 nos)	66	03-Jul-14 A	25%	50	18-Sep-14	26-May-14	24-Jul-14	-47	0	█															
GFXX154	B7 (B2f) - Sonic & Interface Coring	12	19-Sep-14	0%	12	04-Oct-14	13-Aug-14	26-Aug-14	-31	0	█															
GFXX155	B7 (B2f) - Dismantle removable panels of temp. platform	4	06-Oct-14	0%	4	09-Oct-14	27-Aug-14	30-Aug-14	-31	0	█															
Pile Cap Works																										
SB2F0070	B7 (B2f) - Marine Pile Cap M1 - Inst.Floating Seal & Casing Head Steelwork	6	10-Oct-14	0%	6	17-Oct-14	01-Sep-14	08-Sep-14	-26	8	█															
Pier B8 (B2e)																										
Preliminary Works for Land Piling																										
GFXX310-2	B8 (B2e) - Pre-grouting Works	12	28-May-14 A	100%	0	21-Jun-14 A					█															
PB080050	B8 (B2e) - Complete Civil Preparation Works for Piling	0		100%	0	21-Jun-14 A					█															
Socketted H-Pile Installation																										
GFXX353	B8 (B2e) - Install SH Pile (14 nr)	60	25-Jun-14 A	13%	52	22-Sep-14	12-Apr-14	19-Jun-14	-78	0	█															
Pile Cap Works																										
SB2E0088	B8 (B2e) - Pile cap - Pipe Pile Wall for ELS	24	22-Sep-14	0%	24	24-Oct-14	26-Jul-14	30-Aug-14	-39	0	█															
Pier B9 (B2d)																										
Socketted H-Pile Installation																										
GFXX347-1	B9 (B2d) - Confirm Rockhead Levels	8	07-Jun-14 A	0%	8	30-Jul-14	17-May-14	26-May-14	-54	0	█															
GFXX348	B9 (B2d) - Install SH Pile (14 nr)	71	31-Jul-14	0%	71	24-Oct-14	27-May-14	19-Aug-14	-54	0	█															
Pier B10 (B2c)																										
Preliminary Works for Land Piling																										
PB100070	B10 (B2c) - Construct new Gate G8	20	23-Jun-14 A	50%	10	05-Aug-14	15-Apr-14	03-May-14	-57	0	█															
PB100080	B10 (B2c) - Construct new Gate G9	20	23-Jun-14 A	50%	10	05-Aug-14	15-Apr-14	03-May-14	-57	0	█															
PB100100	B10 (B2c) - Remove original gates G8 & G9	6	07-Aug-14	0%	6	14-Aug-14	08-May-14	15-May-14	-57	0	█															
PB100110	B10 (B2c) - Fence existing openings of orig.gates & convert area to construction sit	10	07-Aug-14	0%	10	19-Aug-14	08-May-14	20-May-14	-57	0	█															
PB100120	B10 (B2c) - Complete Civil Preparation Works for piling to commence	0		0%	0	19-Aug-14		20-May-14	-57	0	█															
Socketted H-Pile Installation																										
GFXX340	B10 (B2c) - Predrilling (2 nos)	16	20-Aug-14*	0%	16	06-Sep-14	22-May-14	10-Jun-14	-75	0	█															
GFXX340-1	B10 (B2c) - Confirm Rockhead Levels	8	08-Sep-14	0%	8	17-Sep-14	11-Jun-14	19-Jun-14	-75	3	█															
GFXX341	B10 (B2c) - Install SH Pile (14 nr)	36	22-Sep-14	0%	36	05-Nov-14	20-Jun-14	01-Aug-14	-78	0	█															
Pier B11 (B2b)																										
Socketted H-Pile Installation																										
GFXX334-1	B11 (B2b) - Install SH Pile (12 nr)	52	22-Apr-14 A	100%	0	09-Jul-14 A					█															
Pile Cap Works																										
SB2B0090	B11 (B2b) - Utility diversion & Cut Slope	36	10-Jul-14 A	25%	27	29-Aug-14	12-Dec-14	15-Jan-15	109	0	█															

█ Actual Work
█ Planned Bar
█ Critical Bar
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Tuen Mun - Chek Lap Kok Link - Southern Connection
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											July					August					September					October									
											23	30	07	14	21	28	04	11	18	25	01	08	15	22	29	06	13								
PC100010	C10 (C3c) - Install Geo. Instru. & Baseline Monitoring	36	03-Sep-14	0%	36	17-Oct-14	31-Oct-14	11-Dec-14	47	0	[Gantt Bar]																								
Pier C11 (C3a)												Preliminary Works for Land Piling																							
PC110010	C11 (C3a) - Install Geo. Instru. & Baseline Monitoring	36	06-Sep-14	0%	36	21-Oct-14	26-Nov-14	09-Jan-15	66	0	[Gantt Bar]																								
Bridge C2												Pier C12 (C2f)												Pier C16 (C2b)											
Preliminary Works for Land Piling												Preliminary Works for Land Piling												Preliminary Works for Land Piling											
PC120010	C12 (C2f) - Install Geo. Instru. & Baseline Monitoring	36	15-Sep-14	0%	36	28-Oct-14	17-Jan-15	03-Mar-15	102	0	[Gantt Bar]																								
PC160010	C16 (C2b) - Install Geo. Instru. & Baseline Monitoring	36	03-Sep-14	0%	36	17-Oct-14	09-Oct-14	19-Nov-14	28	0	[Gantt Bar]																								
Bridge C1												Pier C17 (C2a)												Pier C18 (C3d) Portal											
Preliminary Works for Land Piling												Preliminary Works for Land Piling												Preliminary Works for Land Piling											
PC170010	C17 (C2a) - Install Geo. Instru. & Baseline Monitoring	36	11-Sep-14	0%	36	24-Oct-14	16-Oct-14	26-Nov-14	28	0	[Gantt Bar]																								
PC180010	C18 (C1e) - Install Geo. Instru. & Baseline Monitoring	36	18-Sep-14	0%	36	31-Oct-14	23-Oct-14	03-Dec-14	28	0	[Gantt Bar]																								
Viaduct D												Milestones - Marine Foundation												Milestones - Land Foundation											
GFX228	Viaduct D - ARUP issues Pile Spacing & Diameter for Temporary Platform Design	0		0%	0	21-Jul-14		30-May-14	-42	0	[Milestone]																								
GFX245-1	Pier D4 (D4c) - Start date for piling	0	16-Oct-14	0%	0		26-Aug-14		-42	0	[Milestone]																								
GFX250-1	Pier D3 (D4d) - Start date for piling	0	28-Aug-14	0%	0		19-Jul-14		-34	0	[Milestone]																								
GFX255-1	Pier D2 (D4e) - Start date for piling	0	27-Aug-14	0%	0		20-May-15		214	0	[Milestone]																								
GFX260-1	Pier D1 (D4f) - Start date for piling	0	07-Aug-14	0%	0		24-Oct-14		64	0	[Milestone]																								
ZD00010	Viaduct D - Approval of Foundation DDA	0		0%	0	21-Jul-14		06-Nov-14	78	49	[Milestone]																								
GFX438-4	D18 (D1c) - Start date for piling	0	29-Sep-14	0%	0		07-Nov-14		32	0	[Milestone]																								
GFX438-5	D19 (D1b) - Start date for piling	0	10-Oct-14	0%	0		18-Nov-14		33	11	[Milestone]																								
GFX446A1	D14 (D2c) - Start date for piling	0	02-Sep-14	0%	0		17-Jul-14		-40	0	[Milestone]																								
General - Preliminary Works for Land Piling												Bridge D3												Pier D1 (D4f)											
ZD20010	Viaduct D works area between MTR and NLH - Setup TTMS	4	22-Jul-14	0%	4	26-Jul-14	07-Mar-14	11-Mar-14	-87	0	[Gantt Bar]																								
Foundation Works												Foundation Works												Foundation Works											
GFX259	D1 (D4f) - Inst.Temp.Working Platform (Common Platform with Pier A1,C1,D1)	23	21-May-14 A	100%	0	10-Jul-14 A					[Gantt Bar]																								
GFX260	D1 (D4f) - Predrilling for Piles (3 nos)	14	22-Jul-14	0%	14	06-Aug-14	29-May-14	14-Jun-14	-44	0	[Gantt Bar]																								
GFX260-2	D1 (D4f) - Confirm Rockhead Levels	8	07-Aug-14	0%	8	15-Aug-14	16-Jun-14	24-Jun-14	-44	0	[Gantt Bar]																								
GFX261	D1 (D4f) - Bored Piles (1.80m dia. x 3 nos)	58	07-Aug-14	0%	58	16-Oct-14	16-Jun-14	22-Aug-14	-44	0	[Gantt Bar]																								
GFX262	D1 (D4f) - Sonic & Interface Coring	12	17-Oct-14	0%	12	30-Oct-14	03-Jan-15	16-Jan-15	64	0	[Gantt Bar]																								
Foundation Works												Foundation Works												Foundation Works											
GFX254	D2 (D4e) - Inst.Temp.Working Platform	12	30-Jul-14	0%	12	13-Aug-14	31-May-14	14-Jun-14	-49	0	[Gantt Bar]																								
GFX255	D2 (D4e) - Predrilling (2 nos)	12	13-Aug-14	0%	12	27-Aug-14	16-Jun-14	28-Jun-14	-49	0	[Gantt Bar]																								
GFX255-2	D2 (D4e) - Confirm Rockhead Levels	8	27-Aug-14	0%	8	05-Sep-14	30-Jun-14	09-Jul-14	-49	0	[Gantt Bar]																								
GFX256	D2 (D4e) - Bored Piles (2.35m dia. x 2 nos)	63	27-Aug-14	0%	63	12-Nov-14	30-Jun-14	12-Sep-14	-49	0	[Gantt Bar]																								

<ul style="list-style-type: none"> ■ Actual Work ■ Planned Bar ■ Critical Bar ◆ Milestone 	Project ID: J3518DWPPrD1-M14 Layout: J3518-DWP-3MRP Submission - M14 Filter: TASK filters: 3-Month Lookahead, No Level of Effort.	Tuen Mun - Chek Lap Kok Link - Southern Connection 3-Month Rolling Programme (Page 22 of 28 Pages) (Progress as of 21-Jul-14)	<table border="1"> <tr> <th>Date</th> <th>Revision</th> <th>Checked</th> <th>Approved</th> </tr> <tr> <td>28-Jun-14</td> <td></td> <td>FZ</td> <td></td> </tr> <tr> <td>29-Jul-14</td> <td></td> <td>FZ</td> <td></td> </tr> </table>	Date	Revision	Checked	Approved	28-Jun-14		FZ		29-Jul-14		FZ		DWG. No.: J3518/GCL/PGM/3MRP-M14
Date	Revision	Checked	Approved													
28-Jun-14		FZ														
29-Jul-14		FZ														

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	2014																	
											July				August				September				October					
												23	30	07	14	21	28	04	11	18	25	01	08	15	22	29	06	13
GFXX249	D3 (D4d) - Inst.Temp.Working Platform	20	22-Jul-14	0%	20	13-Aug-14	11-Jun-14	04-Jul-14	-34	0	[Gantt bar: 11-Jun-14 to 04-Jul-14]																	
GFXX250	D3 (D4d) - Predrilling for Piles (3 nos)	12	14-Aug-14	0%	12	27-Aug-14	05-Jul-14	18-Jul-14	-34	0	[Gantt bar: 05-Jul-14 to 18-Jul-14]																	
GFXX250-2	D3 (D4d) - Confirm Rockhead Levels	8	28-Aug-14	0%	8	05-Sep-14	19-Jul-14	28-Jul-14	-34	0	[Gantt bar: 19-Jul-14 to 28-Jul-14]																	
GFXX251	D3 (D4d) - Bored Piles (2.00m dia. x 3 nos)	65	28-Aug-14	0%	65	14-Nov-14	19-Jul-14	06-Oct-14	-34	0	[Gantt bar: 19-Jul-14 to 06-Oct-14]																	
Pier D4 (D4c)																												
Foundation Works																												
GFXX244	D4 (D4c) - Inst.Temp.Working Platform	14	15-Sep-14	0%	14	03-Oct-14	28-Jul-14	12-Aug-14	-42	0	[Gantt bar: 28-Jul-14 to 12-Aug-14]																	
GFXX245	D4 (D4c) - Predrilling (3 nos)	11	03-Oct-14	0%	11	16-Oct-14	13-Aug-14	25-Aug-14	-42	0	[Gantt bar: 13-Aug-14 to 25-Aug-14]																	
GFXX245-2	D4 (D4c) - Confirm Rockhead Levels	8	16-Oct-14	0%	8	25-Oct-14	26-Aug-14	03-Sep-14	-42	0	[Gantt bar: 26-Aug-14 to 03-Sep-14]																	
GFXX246	D4 (D4c) - Bored Piles (2.00m dia. x 3 nos)	70	16-Oct-14	0%	70	09-Jan-15	26-Aug-14	18-Nov-14	-42	0	[Gantt bar: 26-Aug-14 to 18-Nov-14]																	
Pier D5 (D4b)																												
Foundation Works																												
GFXX239	D5 (D4b) - Inst.Temp.Working Platform	15	18-Sep-14	0%	15	08-Oct-14	25-Jul-14	11-Aug-14	-47	0	[Gantt bar: 25-Jul-14 to 11-Aug-14]																	
GFXX240	D5 (D4b) - Predrilling (2 nos)	12	08-Oct-14	0%	12	22-Oct-14	12-Aug-14	25-Aug-14	-47	0	[Gantt bar: 12-Aug-14 to 25-Aug-14]																	
Pier D6 (D4a)																												
Foundation Works																												
GFXX234	D6 (D4a) - Inst.Temp.Working Platform	10	17-Oct-14	0%	10	28-Oct-14	23-Aug-14	03-Sep-14	-44	0	[Gantt bar: 23-Aug-14 to 03-Sep-14]																	
Bridge D2																												
Pier D8 (D3d)																												
Preliminary Works for Land Piling																												
GFXX432	D8 (D3d) - Set up for Pregrouting	5	17-Sep-14	0%	5	22-Sep-14	10-Apr-14	15-Apr-14	-129	0	[Gantt bar: 10-Apr-14 to 15-Apr-14]																	
GFXX433-1	D8 (D3d) - Pregrouting Works	30	23-Sep-14	0%	30	29-Oct-14	16-Apr-14	26-May-14	-129	0	[Gantt bar: 16-Apr-14 to 26-May-14]																	
PD080030	D8 (D3d) - Erect MTR protective fence / remove existing fence	12	28-Jul-14	0%	12	14-Aug-14	12-Mar-14	25-Mar-14	-87	13	[Gantt bar: 12-Mar-14 to 25-Mar-14]																	
PD080032	D8 (D3d) - Install Geo. Instru. & Baseline Monitoring	36	22-Jul-14	0%	36	01-Sep-14	12-Feb-14	25-Mar-14	-129	0	[Gantt bar: 12-Feb-14 to 25-Mar-14]																	
PD080040	D8 (D3d) - Set up piling platform	10	02-Sep-14	0%	10	16-Sep-14	26-Mar-14	08-Apr-14	-100	0	[Gantt bar: 26-Mar-14 to 08-Apr-14]																	
Pier D9 (D3c)																												
Preliminary Works for Land Piling																												
PD090010	D9 (D3c) - Erect MTR boundary fence / remove existing fence	12	04-Jun-14 A	40%	7	01-Aug-14	15-Mar-14	24-Mar-14	-79	0	[Gantt bar: 15-Mar-14 to 24-Mar-14]																	
PD090012	D9 (D3c) - Install Geo. Instru. & Baseline Monitoring	36	01-Aug-14	0%	36	13-Sep-14	25-Mar-14	12-May-14	-103	0	[Gantt bar: 25-Mar-14 to 12-May-14]																	
PD090020	D9 (D3c) - Set up piling platform	10	13-Sep-14	0%	10	25-Sep-14	13-May-14	26-May-14	-79	26	[Gantt bar: 13-May-14 to 26-May-14]																	
Pier D10 (D3b)																												
Preliminary Works for Land Piling																												
PD100010	D10 (D3b) - Erect boundary fence / water filled barrier / remove existing fence	10	04-Jun-14 A	40%	6	29-Jul-14	08-Mar-14	14-Mar-14	-86	0	[Gantt bar: 08-Mar-14 to 14-Mar-14]																	
PD100012	D10 (D3b) - Install Geo. Instru. & Baseline Monitoring	36	30-Jul-14	0%	36	10-Sep-14	15-Mar-14	30-Apr-14	-109	0	[Gantt bar: 15-Mar-14 to 30-Apr-14]																	
PD100020	D10 (D3b) - Set up piling platform	10	11-Sep-14	0%	10	22-Sep-14	02-May-14	17-May-14	-83	0	[Gantt bar: 02-May-14 to 17-May-14]																	
PD100030	D10 (D3b) - Complete Civil Preparation Works for piling to commence	0		0%	0	22-Sep-14		17-May-14	-83	0	[Milestone]																	
Socketted H-Pile Installation																												
GFXX460-1	D10 (D3b) - Predrilling	17	23-Sep-14*	0%	17	14-Oct-14	19-May-14	07-Jun-14	-106	0	[Gantt bar: 19-May-14 to 07-Jun-14]																	
GFXX460-4	D10 (D3b) - Confirm Rockhead Levels	8	15-Oct-14	0%	8	23-Oct-14	22-Jul-14	30-Jul-14	-70	0	[Gantt bar: 22-Jul-14 to 30-Jul-14]																	
Pier D11 (D3a)																												
Preliminary Works for Land Piling																												
PD110010	D11 (D3a) - Erect boundary fence / water filled barrier / remove existing fence	10	04-Jun-14 A	40%	6	29-Jul-14	08-Mar-14	14-Mar-14	-86	0	[Gantt bar: 08-Mar-14 to 14-Mar-14]																	
PD110012	D11 (D3a) - Install Geo. Instru. & Baseline Monitoring	36	30-Jul-14	0%	36	10-Sep-14	15-Mar-14	30-Apr-14	-109	0	[Gantt bar: 15-Mar-14 to 30-Apr-14]																	
PD110020	D11 (D3a) - Set up piling platform	10	11-Sep-14	0%	10	22-Sep-14	02-May-14	17-May-14	-83	0	[Gantt bar: 02-May-14 to 17-May-14]																	
PD110030	D11(D3a) - Complete Civil Preparation Works for piling to commence	0		0%	0	22-Sep-14		17-May-14	-83	0	[Milestone]																	
Socketted H-Pile Installation																												
GFXX460-2	D11 (D3a) - Predrilling	17	23-Sep-14	0%	17	14-Oct-14	19-May-14	07-Jun-14	-106	0	[Gantt bar: 19-May-14 to 07-Jun-14]																	
GFXX460-5	D11 (D3a) - Confirm Rockhead Levels	8	15-Oct-14	0%	8	23-Oct-14	09-Jun-14	17-Jun-14	-106	0	[Gantt bar: 09-Jun-14 to 17-Jun-14]																	

<ul style="list-style-type: none"> Actual Work Planned Bar Critical Bar Milestone 	Project ID: J3518DWPPrD1-M14 Layout: J3518-DWP-3MRP Submission - M14 Filter: TASK filters: 3-Month Lookahead, No Level of Effort.	<p align="center">Tuen Mun - Chek Lap Kok Link - Southern Connection</p> <p align="center">3-Month Rolling Programme (Page 23 of 28 Pages)</p> <p align="center">(Progress as of 21-Jul-14)</p>	<table border="1"> <tr> <th>Date</th> <th>Revision</th> <th>Checked</th> <th>Approved</th> </tr> <tr> <td>28-Jun-14</td> <td></td> <td>FZ</td> <td></td> </tr> <tr> <td>29-Jul-14</td> <td></td> <td>FZ</td> <td></td> </tr> </table>	Date	Revision	Checked	Approved	28-Jun-14		FZ		29-Jul-14		FZ		DWG. No.: J3518/GCL/PGM/3MRP-M14
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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	2014															
											July				August				September				October			
											23	30	07	14	21	28	04	11	18	25	01	08	15	22	29	06
Pier D12 (D2e)																										
Preliminary Works for Land Piling																										
PD120010	D12 (D2e) - Erect boundary fence / water filled barrier / remove existing fence	10	04-Jun-14 A	40%	6	29-Jul-14	05-Jun-14	17-Jun-14	-28	0																
PD120012	D12 (D2e) - Install Geo. Instru. & Baseline Monitoring	36	30-Jul-14	0%	36	10-Sep-14	19-Jun-14	31-Jul-14	-34	0																
PD120020	D12 (D2e) - Set up piling platform	10	11-Sep-14	0%	10	22-Sep-14	01-Aug-14	15-Aug-14	-27	0																
PD120030	D12 (D2e) - Complete Civil Preparation Works for piling to commence	0		0%	0	22-Sep-14		15-Aug-14	-27	0																
Socketted H-Pile Installation																										
GFXX460-3	D12 (D2e) - Predrilling	17	23-Sep-14	0%	17	14-Oct-14	16-Aug-14	04-Sep-14	-31	0																
GFXX460-6	D12 (D2e) - Confirm Rockhead Levels	8	15-Oct-14	0%	8	23-Oct-14	05-Sep-14	15-Sep-14	-31	0																
Pier D13 (D2d)																										
Preliminary Works for Land Piling																										
PD130010	D13 (D2d) - Erect boundary fence / water filled barrier	10	23-Sep-14	0%	10	06-Oct-14	05-Nov-14	15-Nov-14	33	0																
PD130012	D13 (D2d) - Install Geo. Instru. & Baseline Monitoring	36	07-Oct-14	0%	36	17-Nov-14	17-Nov-14	30-Dec-14	35	0																
Bridge D1																										
Pier D14 (D2c)																										
Preliminary Works for Land Piling																										
PD140012	D14 (D2c) - Install Geo. Instru. & Baseline Monitoring	36	22-Jul-14	0%	36	01-Sep-14	04-Jun-14	16-Jul-14	-40	0																
Socketted H-Pile Installation																										
GFXX445-	D14 (D2c) - Confirm Rockhead Levels	8	17-Jun-14 A	0%	8	30-Jul-14	08-Jul-14	16-Jul-14	-12	28																
GFXX446-	D14 (D2c) - Installation of SH Pile (10 nr)	121	02-Sep-14	0%	121	27-Jan-15	17-Jul-14	08-Dec-14	-40	0																
Pier D15 (D2b)																										
Preliminary Works for Land Piling																										
PD150012	D15 (D2b) - Install Geo. Instru. & Baseline Monitoring	36	22-Jul-14	0%	36	01-Sep-14	21-Feb-14	03-Apr-14	-121	0																
PD150020	D15 (D2b) - Set up piling platform	20	02-Sep-14	0%	20	27-Sep-14	04-Apr-14	10-May-14	-93	0																
PD150030	D15 (D2b) - Complete Civil Preparation Works for piling to commence	0		0%	0	27-Sep-14		12-Jun-14	-73	0																
Socketted H-Pile Installation																										
GFXX445-2	D15 (D2b) - Predrilling	18	29-Sep-14	0%	18	21-Oct-14	13-Jun-14	04-Jul-14	-90	0																
Pier D16 (D2a)																										
Preliminary Works for Land Piling																										
PD160012	D16 (D2a) - Install Geo. Instru. & Baseline Monitoring	36	22-Jul-14	0%	36	01-Sep-14	24-Mar-14	10-May-14	-95	22																
PD160020	D16 (D2a) - Set up piling platform	20	29-Sep-14	0%	20	25-Oct-14	12-May-14	12-Jun-14	-93	0																
Pier D17 (D1d)																										
Preliminary Works for Land Piling																										
PD170012	D17 (D1d) - Install Geo. Instru. & Baseline Monitoring	36	22-Jul-14	0%	36	01-Sep-14	18-Sep-14	31-Oct-14	49	0																
PD170020	D17 (D1d) - Set up piling platform	20	02-Sep-14	0%	20	27-Sep-14	01-Nov-14	24-Nov-14	45	0																
PD170030	D17 (D1d) - Complete Civil Preparation Works for piling to commence	0		0%	0	27-Sep-14		24-Nov-14	45	23																
Socketted H-Pile Installation																										
GFXX438-1	D17 (D1d) - Predrilling	19	08-Oct-14*	0%	19	29-Oct-14	03-Nov-14	24-Nov-14	22	0																
Pier D18 (D1c)																										
Preliminary Works for Land Piling																										
PD180012	D18 (D1c) - Install Geo. Instru. & Baseline Monitoring	36	22-Jul-14	0%	36	01-Sep-14	29-Aug-14	13-Oct-14	33	0																
PD180020	D18 (D1c) - Set up piling platform	20	02-Sep-14	0%	20	27-Sep-14	14-Oct-14	06-Nov-14	30	0																
PD180030	D18 (D1c) - Complete Civil Preparation Works for piling to commence	0		0%	0	27-Sep-14		06-Nov-14	30	0																
Socketted H-Pile Installation																										
GFXX438-2	D18 (D1c) - Predrilling	17	17-Jun-14 A	29.41%	12	04-Aug-14	15-Oct-14	28-Oct-14	70	0																
GFXX438-7	D18 (D1c) - Confirm Rockhead Levels	8	05-Aug-14	0%	8	13-Aug-14	29-Oct-14	06-Nov-14	70	38																
GFXX439-2	D18 (D1c) - Installation of SH Pile (10 nr)	70	29-Sep-14	0%	70	20-Dec-14	07-Nov-14	30-Jan-15	32	0																
Pier D19 (D1b) & Abutment D																										

Actual Work
 Planned Bar
 Critical Bar
 Milestone

Project ID: J3518DWPPrD1-M14
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 Filter: TASK filters: 3-Month Lookahead, No Level of Effort.

Tuen Mun - Chek Lap Kok Link - Southern Connection
3-Month Rolling Programme (Page 24 of 28 Pages)
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DWG. No.:
J3518/GCL/PGM/3MRP-M14

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	2014															
											July				August				September				October			
											23	30	07	14	21	28	04	11	18	25	01	08	15	22	29	06
Preliminary Works for Land Piling																										
PD190012	D19 (D1b) - Install Geo. Instru. & Baseline Monitoring	36	22-Jul-14	0%	36	01-Sep-14	01-Sep-14	15-Oct-14	35	0																
PD190020	D19 (D1b) - Set up piling platform	20	02-Sep-14	0%	20	27-Sep-14	16-Oct-14	07-Nov-14	31	0																
PD190030	D19 (D1b) - Complete Civil Preparation Works for piling to commence	0		0%	0	27-Sep-14		07-Nov-14	31	0																
Socketted H-Pile Installation																										
GFXX438-3	D19 (D1b) - Predrilling	19	05-Sep-14	0%	19	27-Sep-14	17-Oct-14	07-Nov-14	33	0																
GFXX438-8	D19 (D1b) - Confirm Rockhead Levels	8	29-Sep-14	0%	8	09-Oct-14	08-Nov-14	17-Nov-14	33	0																
GFXX439-3	D19 (D1b) - Installation of SH Pile (6 nr)	70	10-Oct-14	0%	70	02-Jan-15	18-Nov-14	10-Feb-15	33	0																
Viaduct E																										
Viaduct E1																										
Bridge E1 - Piling & Substructure																										
Milestones																										
GFXX023A	E1D (E1a1) - Start date for piling	0	22-Jul-14	0%	0		10-Jun-14		-35	0																
GFXX023A	E1C (E1a2) - Start date for piling	0	22-Jul-14	0%	0		10-Jun-14		-35	0																
GFXX023A	E1B (E1a3) - Start date for piling	0	22-Jul-14	0%	0		10-Jun-14		-35	0																
GFXX023A	E1A (E1a4) - Start date for piling	0	22-Jul-14	0%	0		10-Jun-14		-35	0																
GFXX028A	E2C/E2D (E1b2/E1b1) - Start date for piling	0	04-Sep-14	0%	0		17-Jul-14		-42	0																
GFXX028A	E2B (E1b3) - Start date for piling	0	04-Sep-14	0%	0		17-Jul-14		-42	0																
GFXX028A	E2A (E1b4) - Start date for piling	0	04-Sep-14	0%	0		17-Jul-14		-42	0																
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-May-14 A	100%	36	27-Jun-14 A																				
GFXX02	E1A/E1B/E1C/E1D (E1a4/3/2/1) - Predrilling (8 nos)	17	02-Jul-14 A	71%	5	26-Jul-14	25-Nov-14	01-Dec-14	105	0																
GFXX02	E1A/E1B/E1C/E1D (E1a4/3/2/1) - Confirm Rockhead levels	8	26-Jul-14	0%	8	05-Aug-14	17-Sep-18	27-Sep-18	1228	1228																
GFXX02	E1A/E1B/E1C/E1D (E1a4/3/2/1) - Bored Piles (2.00m dia. x 8 nos)	125	09-Jul-14 A	20%	100	18-Nov-14	10-Jun-14	09-Oct-14	-35	0																
E2A, E2B, E2C & E2D (E1b1-2-3-4)																										
Foundation Works - E2A, E2B, E2C & E2D																										
Foundation Works																										
GFXX02	E2A/E2B/E2C/E2D (E1b4/3/2/1) - Inst.Temp.Working Platforms (Heavy & Light)	34	28-Jun-14 A	50%	17	09-Aug-14	31-May-14	20-Jun-14	-42	0																
GFXX02	E2A/E2B/E2C/E2D (E1b4/3/2/1) - Predrilling (7 nos)	21	11-Aug-14	0%	21	03-Sep-14	21-Jun-14	16-Jul-14	-42	0																
GFXX02	E2A/E2B/E2C/E2D (E1b4/3/2/1) - Confirm Rockhead levels	8	04-Sep-14	0%	8	13-Sep-14	22-Oct-14	30-Oct-14	38	80																
GFXX02	E2A/E2B/E2C/E2D (E1b4/3/2/1) - Bored Piles (2.00m dia. x 7 nr)	88	04-Sep-14	0%	88	18-Dec-14	17-Jul-14	30-Oct-14	-42	0																
Viaduct E2																										
Bridge E2 - Piling & Substructure																										
Milestones																										
GFXX075	E3 (E2a) - Completion of piling works	0		0%	0	04-Oct-14		03-Nov-14	25	22																
GFXX076	E4 (E2b) - Completion of piling works	0		0%	0	23-Aug-14		14-Aug-14	-8	109																
E3A, E3B, E3C & E3D (E2a - 1/2/3/4)																										
Foundation Works - E3A, E3B, E3C & E3D																										
Foundation Works																										
GFXX03	E3 (E2a) - Confirm Rockhead levels	8	24-Apr-14 A	100%	0	02-Jul-14 A																				
GFXX037	E3 (E2a) - Bored Piles (2.00m dia. x 6 nos)	90	15-Apr-14 A	90%	9	31-Jul-14	07-Jul-14	16-Jul-14	-13	0																
GFXX038	E3 (E2a) - Sonic & Interface Coring x6no.	20	06-Aug-14	0%	20	28-Aug-14	04-Sep-14	27-Sep-14	25	0																
GFXX03	E3 (E2a) - Selection of bored pile for Full Depth Coring	24	01-Aug-14	0%	24	28-Aug-14	30-Aug-14	27-Sep-14	25	0																
GFXX03	E3 (E2a) - Bored Pile Full Depth Coring & Testing	24	29-Aug-14	0%	24	26-Sep-14	29-Sep-14	28-Oct-14	25	0																
GFXX039	E3 (E2a) - Dismantle Temporary Removable Piling Platform	5	27-Sep-14	0%	5	04-Oct-14	29-Oct-14	03-Nov-14	25	0																
E4A & E4B (E2b - 1/2)																										

- █ Actual Work
- █ Planned Bar
- █ Critical Bar
- ◆ Milestone

Project ID: J3518DWPPrD1-M14
Layout: J3518-DWP-3MRP Submission - M14
Filter: TASK filters: 3-Month Lookahead, No Level of Effort.

Tuen Mun - Chek Lap Kok Link - Southern Connection
3-Month Rolling Programme (Page 25 of 28 Pages)
(Progress as of 21-Jul-14)

Date	Revision	Checked	Approved
28-Jun-14		FZ	
29-Jul-14		FZ	

DWG. No.:
J3518/GCL/PGM/3MRP-M14

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	2014															
											July				August				September				October			
											23	30	07	14	21	28	04	11	18	25	01	08	15	22	29	06
Foundation Works - E4A & E4B																										
Foundation Works																										
GFX04	E4 (E2b) - Confirm Rockhead levels	8	19-Jun-14 A	100%	0	16-Jul-14 A																				
GFX042	E4 (E2b) - Bored Piles (2.20m dia. x 4 nos)	90	19-Jun-14 A	87%	12	04-Aug-14	27-Jun-14	11-Jul-14	-20	0																
GFX043	E4 (E2b) - Sonic & Interface Coring x 4no.	12	04-Aug-14	0%	12	18-Aug-14	11-Jul-14	25-Jul-14	-20	0																
GFX044	E4 (E2b) - Dismantle Temporary Removable Piling Platform	5	18-Aug-14	0%	5	23-Aug-14	25-Jul-14	31-Jul-14	-20	0																
E5A & E5B (E2c - 1/2)																										
Foundation Works - E5A & E5B																										
Foundation Works																										
GFX04	E5 (E2c) - Inst.Temp.Working Platform (Light)	7	22-Jul-14	0%	7	29-Jul-14	17-Jul-14	24-Jul-14	-4	0																
GFX046	E5 (E2c) - Predrilling (4 nos)	22	30-Jul-14	0%	22	23-Aug-14	13-Oct-14	06-Nov-14	61	0																
GFX04	E5 (E2c) - Confirm Rockhead levels	8	25-Aug-14	0%	8	02-Sep-14	07-Nov-14	15-Nov-14	61	103																
E6A & E6B (E2d - 1/2)																										
Foundation Works - E6A & E6B																										
Foundation Works																										
GFX050	E6 (E2d) - Inst.Temp.Working Platform (Heavy)	18	22-Jul-14	0%	18	11-Aug-14	04-Jul-14	24-Jul-14	-15	0																
GFX05	E6 (E2d) - Inst.Temp.Working Platform (Light)	7	12-Aug-14	0%	7	19-Aug-14	25-Jul-14	01-Aug-14	-15	0																
GFX051	E6 (E2d) - Predrilling (4 nos)	18	20-Aug-14	0%	18	10-Sep-14	27-Nov-14	17-Dec-14	82	0																
GFX05	E6 (E2d) - Confirm Rockhead levels	8	11-Sep-14	0%	8	19-Sep-14	18-Dec-14	29-Dec-14	82	183																
E7A & E7B (E2e - 1/2)																										
Foundation Works - E7A & E7B																										
Foundation Works																										
GFX055	E7 (E2e) - Inst.Temp.Working Platforms (Heavy)	19	20-Aug-14	0%	19	11-Sep-14	02-Aug-14	23-Aug-14	-15	0																
GFX05	E7 (E2e) - Inst.Temp.Working Platforms (Light)	7	12-Sep-14	0%	7	19-Sep-14	25-Aug-14	01-Sep-14	-15	0																
GFX056	E7 (E2e) - Predrilling (5 nos)	26	20-Sep-14	0%	26	22-Oct-14	18-Oct-14	17-Nov-14	22	0																
E8A & E8B (E2f - 1/2)																										
Foundation Works - E8A & E8B																										
Foundation Works																										
GFX060	E8 (E2f) - Inst.Temp.Working Platforms (Heavy)	32	20-Sep-14	0%	32	29-Oct-14	02-Sep-14	11-Oct-14	-15	0																
E9A & E9B (E2g - 1/2)																										
Foundation Works - E9A & E9B																										
Foundation Works																										
GFX06	E9 (E2g) - Confirm Rockhead levels	8	06-Jun-14 A	100%	0	25-Jun-14 A																				
GFX067	E9 (E2g) - Bored Piles (2.00m dia. x 6 nr)	105	17-May-14 A	37%	66	10-Oct-14	10-Dec-14	04-Mar-15	119	0																
GFX068	E9 (E2g) - Sonic & Interface Coring	12	10-Oct-14	0%	12	24-Oct-14	05-Mar-15	18-Mar-15	119	0																
E10A & E10B (E2h - 1/2)																										
Foundation Works - E10A & E10B																										
Foundation Works																										
GFX07	E10 (E2h) - Confirm Rockhead levels	8	05-Jun-14 A	100%	0	25-Jun-14 A																				
GFX072	E10 (E2h) - Bored Piles (2.20m dia. x 6 nr)	132	15-May-14 A	24%	100	19-Nov-14	07-Jul-14	04-Nov-14	-12	0																
Viaduct E5, E6, E7 & E8																										
Milestones - Marine Foundation																										
GFX084-1	E11 (E5E6a/E7E8a) - Start date for piling	0	22-Jul-14	0%	0		21-Mar-14		-97	0																
GFX089-1	E12 (E5b/E6b/E7b/E8b + Dolphins) - Start date for piling	0	22-Jul-14	0%	0		17-Mar-14		-101	0																
GFX095-1	E13C/D (E6c/E5c+ dolphin) - Start date for piling	0	13-Aug-14	0%	0		10-Apr-14		-101	0																
E11A & E11B (E5E6a/E7E8a)																										
Foundation Works - E11A & E11B																										
Foundation Works																										

Actual Work
 Planned Bar
 Critical Bar
 Milestone

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Tuen Mun - Chek Lap Kok Link - Southern Connection
3-Month Rolling Programme (Page 26 of 28 Pages)
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Appendix C

Environmental Mitigation and Enhancement Measure Implementation Schedules

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

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

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

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

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

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

EIA Reference	EM&A Manual Reference	Environmental Protection Measures	Location/ Timing	Implementation Agent	Relevant Standard or Requirement	Implementation Stages			Status
						D	C	O	
6.10	-	Open stockpiles of construction materials (e.g. aggregates and sand) on site should be covered with tarpaulin or similar fabric during rainstorms.	All areas/ throughout construction period	Contractor	TM-EIAO		Y		<>
6.10	5.8	Manholes (including any newly constructed ones) should always be adequately covered and temporarily sealed so as to prevent silt, construction materials or debris from getting into the drainage system, and to prevent storm run-off from getting into foul sewers.	All areas/ throughout construction period	Contractor	TM-EIAO		Y		✓
6.10	-	Discharges of surface run-off into foul sewers must always be prevented in order not to unduly overload the foul sewerage system.	All areas/ throughout construction period	Contractor	TM-EIAO		Y		✓
6.10	-	All vehicles and plant should be cleaned before they leave the construction site to ensure that no earth, mud or debris is deposited by them on roads. A wheel washing bay should be provided at every site exit.	All areas/ throughout construction period	Contractor	TM-EIAO		Y		✓
6.10	-	Wheel wash overflow shall be directed to silt removal facilities before being discharged to the storm drain.	All areas/ throughout construction period	Contractor	TM-EIAO		Y		<>
6.10	-	Section of construction road between the wheel washing bay and the public road should be surfaced with crushed stone or coarse gravel.	All areas/ throughout construction period	Contractor	TM-EIAO		Y		<>
6.10	-	Wastewater generated from concreting, plastering, internal decoration, cleaning work and other similar activities, shall be screened to remove large objects.	All areas/ throughout construction period	Contractor	TM-EIAO		Y		✓
6.10	-	Vehicle and plant servicing areas, vehicle wash bays and lubrication facilities shall be located under roofed areas. The drainage in these covered areas shall be connected to foul sewers via a petrol interceptor in accordance with the requirements of the WPCO or collected for 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 3,600 m ² in an area where fishing activities are prohibited.	Area of prohibited fishing activities/Detailed Design/ towards end of construction period	TM-CLKL/ HKBCF Design Consultant/ TM-CLKL/ HKBCF Contractor	TMEIA	Y		Y	n/a To be enforced by AFCD.
8.14	6.3, 6.5	Specification and implementation of marine vessel control specifications	All areas/Detailed Design/ during construction works	Design Consultant/ Contractor	TMEIA	Y	Y		✓
8.14	6.3, 6.5	Design and implementation of acoustic decoupling methods for marine bored piling and the whole lifespan of temporary staging works.	All areas/ Detailed Design/ during marine bored piling and temporary staging works	Design Consultant/ Contractor	TMEIA	Y	Y		<>
8.15	6.3, 6.4	Pre-construction phase survey and coral translocation	Tai Ho Wan (donor site) and Yam Tsui Wan (receptor site) /Detailed Design/Prior to construction	Design Consultant/ Contractor	TMEIA	Y	Y		✓
8.15	6.5	Audit coral translocation success	Yam Tsui Wan (receptor site)/Post translocation	Contractor	TMEIA		Y		✓
7.13	6.5	Undertaken gabion wall works in Stream NL1 in the dry season	North Lantau slope works/dry	Contractor	TMEIA		Y		✓

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

EIA Reference	EM&A Manual Reference	Environmental Protection Measures	Location/ Timing	Implementation Agent	Relevant Standard or Requirement	Implementation Stages			Status
						D	C	O	
		prior to undertaking any works adjacent to all retained trees, including trees in contractor's works areas. (Tree protection measures will be detailed at Tree Removal Application stage) (CM1)							
10.9	7.6	Trees unavoidably affected by the works shall be transplanted where practical. Trees will be transplanted straight to their final receptor site and not held in a temporary nursery. A detailed Tree Transplanting Specification shall be provided in the Contract Specification. Sufficient time for necessary tree root and crown preparation periods shall be allowed in the project programme (CM2)	All areas/detailed design/ during construction	Design Consultant/ Contractor	TMEIA	Y	Y		✓
10.9	7.6	Hillside and roadside screen planting to proposed roads, associated structures and slope works (CM3).	All areas/detailed design/ during construction/post construction	Design Consultant/	TMEIA	Y	Y		✓
10.9	7.6	Hydroseeding or sheeting of soil stockpiles with visually unobtrusive material (in earth tone) (CM4)	All areas/detailed design/ during construction/post construction	Design Consultant/ Contractor	TMEIA	Y	Y		✓
10.9	7.6	Screening of construction works by hoardings around works area in visually unobtrusive colours, to screen works (CM5)	All areas/detailed design/ during construction/post construction	Design Consultant/ Contractor	TMEIA	Y	Y		✓
10.9	7.6	Control night-time lighting and glare by hooding all lights (CM6)	All areas/detailed design/ during construction	Design Consultant/ Contractor	TMEIA	Y	Y		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.	All areas/detailed	Design	TMEIA	Y	Y		✓

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

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

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

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

EIA Reference	EM&A Manual Reference	Environmental Protection Measures	Location/ Timing	Implementation Agent	Relevant Standard or Requirement	Implementation Stages			Status
						D	C	O	
		(water collected within the bund must be tested and disposed of as chemical waste, if necessary); and - Incompatible materials are adequately separated.							
12.6	8.1	Waste oils, chemicals or solvents shall not be disposed of to drain,	All areas / throughout construction period	Contractor	TMEIA		Y		✓
12.6	8.1	Adequate numbers of portable toilets should be provided for on-site workers. Portable toilets should be maintained in reasonable states, which will not deter the workers from utilising them.	All areas / throughout construction period	Contractor	TMEIA		Y		✓
12.6	8.1	Night soil should be regularly collected by licensed collectors.	All areas / throughout construction period	Contractor	TMEIA		Y		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	Site Offices/ throughout construction period	Contractor	TMEIA		Y		<>

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

Notes:

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

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

Status:

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

Appendix D

Summary of Action and Limit Levels

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

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

Calibration Certificates of Monitoring Equipments

High-Volume TSP Sampler
5-Point Calibration Record

Location : ASR 8(A)
 Calibrated by : P.F. Yeung
 Date : 05/05/2014

Sampler

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

Calibration Orifice and Standard Calibration Relationship

Serial Number : 2454
 Service Date : 24 Mar 2014
 Slope (m) : 2.07593
 Intercept (b) : -0.00102
 Correlation Coefficient(r) : 0.99996

Standard Condition

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

Calibration Condition

Pa (hpa) : 1014
 Ta(K) : 295

Resistance Plate		dH [green liquid] (inch water)	Z	X=Qstd (cubic meter/min)	IC (chart)	Y (corrected)
1	18 holes	12.5	3.555	1.713	62	62.35
2	13 holes	10.0	3.180	1.532	56	56.31
3	10 holes	7.5	2.754	1.327	51	51.28
4	7 holes	4.9	2.226	1.073	44	44.25
5	5 holes	3.0	1.742	0.839	37	37.21

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

Sampler Calibration Relationship (Linear Regression)

Slope(m): 28.230 Intercept(b): 13.666 Correlation Coefficient(r): 0.9992

Checked by: Magnum Fan

Date: 15/05/2014

High-Volume TSP Sampler
5-Point Calibration Record

Location : ASR8
 Calibrated by : P.F. Yeung
 Date : 05/05/2014

Sampler

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

Calibration Orifice and Standard Calibration Relationship

Serial Number : 2454
 Service Date : 24 Mar 2014
 Slope (m) : 2.07593
 Intercept (b) : -0.00102
 Correlation Coefficient(r) : 0.99996

Standard Condition

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

Calibration Condition

Pa (hpa) : 1014
 Ta(K) : 295

Resistance Plate		dH [green liquid] (inch water)	Z	X=Qstd (cubic meter/min)	IC (chart)	Y (corrected)
1	18 holes	11.8	3.454	1.664	54	54.30
2	13 holes	9.8	3.148	1.517	49	49.27
3	10 holes	6.8	2.622	1.264	43	43.24
4	7 holes	4.6	2.157	1.039	36	36.20
5	5 holes	2.8	1.683	0.811	30	30.17

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

Sampler Calibration Relationship (Linear Regression)

Slope(m): 28.017 Intercept(b): 7.361 Correlation Coefficient(r): 0.9990

Checked by: Magnum Fan

Date: 15/05/2014

High-Volume TSP Sampler
5-Point Calibration Record

Location : ASR 8(A)
 Calibrated by : P.F.Yeung
 Date : 05/07/2014

Sampler

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

Calibration Office and Standard Calibration Relationship

Serial Number : 2454
 Service Date : 24 Mar 2014
 Slope (m) : 2.07593
 Intercept (b) : -0.00102
 Correlation Coefficient(r) : 0.99996

Standard Condition

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

Calibration Condition

Pa (hpa) : 1004
 Ta(K) : 306

Resistance Plate	dH [green liquid] (inch water)	Z	X=Qstd (cubic meter/min)	IC (chart)	Y (corrected)
1 18 holes	11.8	3.375	1.626	55	54.03
2 13 holes	9.8	3.076	1.482	50	49.12
3 10 holes	6.9	2.581	1.244	43	42.25
4 7 holes	4.6	2.107	1.016	36	35.37
5 5 holes	2.8	1.644	0.792	29	28.49

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

Sampler Calibration Relationship (Linear Regression)

Slope(m): 30.344 Intercept(b): 4.470 Correlation Coefficient(r): 0.9998

Checked by: Magnum Fan

Date: 06/07/2014

High-Volume TSP Sampler
5-Point Calibration Record

Location : ASR8
 Calibrated by : P.F.Yeung
 Date : 05/07/2014

Sampler

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

Calibration Office and Standard Calibration Relationship

Serial Number : 2454
 Service Date : 24 Mar 2014
 Slope (m) : 2.07593
 Intercept (b) : -0.00102
 Correlation Coefficient(r) : 0.99996

Standard Condition

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

Calibration Condition

Pa (hpa) : 1004
 Ta(K) : 396

Resistance Plate	dH [green liquid] (inch water)	Z	X=Qstd (cubic meter/min)	IC (chart)	Y (corrected)
1 18 holes	12.2	3.432	1.654	61	59.93
2 13 holes	10.0	3.107	1.497	56	55.02
3 10 holes	7.2	2.636	1.270	50	49.12
4 7 holes	5.1	2.219	1.069	44	43.23
5 5 holes	3.0	1.702	0.820	36	35.37

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

Sampler Calibration Relationship (Linear Regression)

Slope(m): 29.096 Intercept(b): 11.811 Correlation Coefficient(r): 0.9994

Checked by: Magnum Fan

Date: 06/07/2014



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

ORIFICE TRANSFER STANDARD CERTIFICATION WORKSHEET TE-5025A

Date - Mar 24, 2014 Rootmeter S/N 0438320 Ta (K) - 293
 Operator Tisch Orifice I.D. - 2454 Pa (mm) - 758.19

PLATE OR Run #	VOLUME START (m3)	VOLUME STOP (m3)	DIFF VOLUME (m3)	DIFF TIME (min)	METER DIFF Hg (mm)	ORFICE DIFF H2O (in.)
1	NA	NA	1.00	1.4740	3.2	2.00
2	NA	NA	1.00	1.0340	6.4	4.00
3	NA	NA	1.00	0.9240	7.9	5.00
4	NA	NA	1.00	0.8820	8.8	5.50
5	NA	NA	1.00	0.7270	12.7	8.00

DATA TABULATION

Vstd	(x axis) Qstd	(y axis)	Va	(x axis) Qa	(y axis)
1.0103	0.6854	1.4245	0.9958	0.6755	0.8791
1.0061	0.9730	2.0146	0.9916	0.9590	1.2433
1.0040	1.0866	2.2524	0.9895	1.0709	1.3900
1.0028	1.1370	2.3623	0.9884	1.1206	1.4579
0.9976	1.3722	2.8491	0.9832	1.3524	1.7583
Qstd slope (m) = 2.07593			Qa slope (m) = 1.29991		
intercept (b) = -0.00102			intercept (b) = -0.00063		
coefficient (r) = 0.99996			coefficient (r) = 0.99996		
y axis = SQRT[H2O(Pa/760)(298/Ta)]			y axis = SQRT[H2O(Ta/Pa)]		

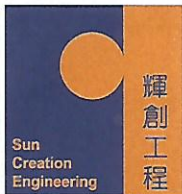
CALCULATIONS

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

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

For subsequent flow rate calculations:

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



輝創工程有限公司

Sun Creation Engineering Limited

Calibration and Testing Laboratory

Certificate of Calibration

校正證書

Certificate No. : C143980

證書編號

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

Date of Receipt / 收件日期 : 23 June 2014

Description / 儀器名稱 : Sound Level Calibrator

Manufacturer / 製造商 : Rion

Model No. / 型號 : NC-73

Serial No. / 編號 : 10997142

Supplied By / 委託者 : Envirotech Services Co.

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

TEST CONDITIONS / 測試條件

Temperature / 溫度 : (23 ± 2)°C

Relative Humidity / 相對濕度 : (55 ± 20)%

Line Voltage / 電壓 : ---

TEST SPECIFICATIONS / 測試規範

Calibration check

DATE OF TEST / 測試日期 : 28 June 2014

TEST RESULTS / 測試結果

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

All results are within manufacturer's specification.

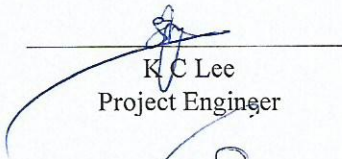
The results are detailed in the subsequent page(s).

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

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

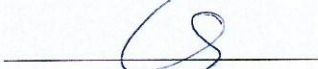
Tested By :

測試


K C Lee
Project Engineer

Certified By :

核證


K M Wu
Engineer

Date of Issue :

簽發日期

2 July 2014

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

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

Sun Creation Engineering Limited – Calibration & Testing Laboratory

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

輝創工程有限公司 – 校正及檢測實驗室

c/o 香港新界屯門興安里一號青山灣機樓四樓

Tel/電話: 2927 2606

Fax/傳真: 2744 8986

E-mail/電郵: callab@suncreation.com

Website/網址: www.suncreation.com



Certificate of Calibration

校正證書

Certificate No. : C143980
證書編號

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

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

- Test procedure : MA100N.

- Results :

5.1 Sound Level Accuracy

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

5.2 Frequency Accuracy

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

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

Note :

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

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

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

Certificate of Calibration

校正證書

Certificate No. : C134957
證書編號

ITEM TESTED / 送檢項目 (Job No. / 序引編號 : IC13-2004)

Description / 儀器名稱 : Sound Level Meter
Manufacturer / 製造商 : Rion
Model No. / 型號 : NL-31
Serial No. / 編號 : 00603867
Supplied By / 委託者 : Envirotech Services Co.
Shop 6, G/F., Casio Mansion, 209 Shaukeiwan Road,
Hong Kong

TEST CONDITIONS / 測試條件

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

TEST SPECIFICATIONS / 測試規範

Calibration check

DATE OF TEST / 測試日期 : 6 August 2013

TEST RESULTS / 測試結果

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

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

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

Tested By : 
測試 K C Lee

Certified By : 
核證 K M Wu

Date of Issue : 8 August 2013
簽發日期

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

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

Certificate of Calibration

校正證書

Certificate No. : C134957
證書編號

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

Equipment ID	Description	Certificate No.
CL280	40 MHz Arbitrary Waveform Generator	C130019
CL281	Multifunction Acoustic Calibrator	DC130171

5. Test procedure : MA101N.

6. Results :

6.1 Sound Pressure Level

6.1.1 Reference Sound Pressure Level

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

6.1.2 Linearity

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

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

6.2 Time Weighting

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

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Certificate of Calibration

校正證書

Certificate No. : C134957
證書編號

6.3 Frequency Weighting

6.3.1 A-Weighting

UUT Setting				Applied Value		UUT Reading (dB)	IEC 61672 Class 1 Spec. (dB)
Range (dB)	Mode	Frequency Weighting	Time Weighting	Level (dB)	Freq.		
30 - 120	L _A	A	Fast	94.00	63 Hz	67.2	-26.2 ± 1.5
					125 Hz	77.3	-16.1 ± 1.5
					250 Hz	84.9	-8.6 ± 1.4
					500 Hz	90.3	-3.2 ± 1.4
					1 kHz	93.6	Ref.
					2 kHz	94.9	+1.2 ± 1.6
					4 kHz	94.7	+1.0 ± 1.6
					8 kHz	92.5	-1.1 (+2.1 ; -3.1)
					12.5 kHz	89.7	-4.3 (+3.0 ; -6.0)

6.3.2 C-Weighting

UUT Setting				Applied Value		UUT Reading (dB)	IEC 61672 Class 1 Spec. (dB)
Range (dB)	Mode	Frequency Weighting	Time Weighting	Level (dB)	Freq.		
30 - 120	L _C	C	Fast	94.00	63 Hz	92.7	-0.8 ± 1.5
					125 Hz	93.4	-0.2 ± 1.5
					250 Hz	93.6	0.0 ± 1.4
					500 Hz	93.6	0.0 ± 1.4
					1 kHz	93.6	Ref.
					2 kHz	93.5	-0.2 ± 1.6
					4 kHz	92.9	-0.8 ± 1.6
					8 kHz	90.7	-3.0 (+2.1 ; -3.1)
					12.5 kHz	87.8	-6.2 (+3.0 ; -6.0)

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

- Mfr's Spec. : IEC 61672 Class 1

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

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

Note :

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

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

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輝創工程有限公司

Sun Creation Engineering Limited

Calibration and Testing Laboratory

Certificate of Calibration

校正證書

Certificate No. : C144558

證書編號

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

Date of Receipt / 收件日期 : 22 July 2014

Description / 儀器名稱 : Sound Level Meter

Manufacturer / 製造商 : Rion

Model No. / 型號 : NL-31

Serial No. / 編號 : 00603867

Supplied By / 委託者 : Envirotech Services Co.

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

TEST CONDITIONS / 測試條件

Temperature / 溫度 : (23 ± 2)°C

Relative Humidity / 相對濕度 : (55 ± 20)%

Line Voltage / 電壓 : ---

TEST SPECIFICATIONS / 測試規範

Calibration check

DATE OF TEST / 測試日期 : 29 July 2014

TEST RESULTS / 測試結果

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

All results are within manufacturer's specification.

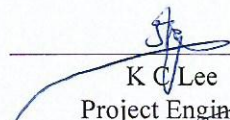
The results are detailed in the subsequent page(s).

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

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

Tested By :

測試


K C Lee
Project Engineer

Certified By :

核證


K M Wu
Engineer

Date of Issue :

簽發日期

30 July 2014

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

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Sun Creation Engineering Limited - Calibration & Testing Laboratory

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

輝創工程有限公司 - 校正及檢測實驗室

c/o 香港新界屯門興安里一號青山灣機樓四樓

Tel/電話: 2927 2606

Fax/傳真: 2744 8986

E-mail/電郵: callab@suncreation.com

Website/網址: www.suncreation.com

Page 1 of 4

Certificate of Calibration

校正證書

Certificate No. : C144558

證書編號

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

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

5. Test procedure : MA101N.

6. Results :

- 6.1 Sound Pressure Level

- 6.1.1 Reference Sound Pressure Level

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

- 6.1.2 Linearity

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

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

- 6.2 Time Weighting

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

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Certificate of Calibration

校正證書

Certificate No. : C144558

證書編號

6.3 Frequency Weighting

6.3.1 A-Weighting

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

6.3.2 C-Weighting

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

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Certificate of Calibration

校正證書

Certificate No. : C144558
證書編號

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

- Mfr's Spec. : IEC 61672 Class 1

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

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

Note :

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輝創工程有限公司 – 校正及檢測實驗室

c/o 香港新界屯門興安里一號青山灣機樓四樓

Tel/電話: 2927 2606

Fax/傳真: 2744 8986

E-mail/電郵: callab@suncreation.com

Website/網址: www.suncreation.com



Performance Check of Turbidity Meter

Equipment Ref. No. : ET/0505/010 Manufacturer : HACH

Model No. : 2100Q Serial No. : 11110 C 014260

Date of Calibration : 07/04/2014 Due Date : 06/07/2014


Theoretical Value of Turbidity Standard (NTU)	Measured Value (NTU)	Difference % *
20	19.5	-2.50
100	103	3.00
800	792	-1.00

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

Acceptance Criteria

Difference : -5 % to 5 %

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

Prepared by : 

Checked by : 



Performance Check of Turbidity Meter

Equipment Ref. No. : ET/0505/010 Manufacturer : HACH
Model No. : 2100Q Serial No. : 11110 C 014260
Date of Calibration : 07/07/2014 Due Date : 06/10/2014

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

005/6.1/001/6

Theoretical Value of Turbidity Standard (NTU)	Measured Value (NTU)	Difference % *
20	20.2	1.00
100	104	4.00
800	794	-0.75


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

Acceptance Criteria

Difference : -5 % to 5 %

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

Prepared by : 

Checked by : 



Internal Calibration & Performance Check of pH Meter

Equipment Ref. No. : ET/EW/007/003 Manufacturer : HANNA
 Model No. : HI 8314 Serial No. : 674469
 Date of Calibration : 10/06/2014 Calibration Due Date : 09/07/2014

Liquid Junction Error

Primary Standard Solution Used : Phosphate Ref No. of Primary Solution: 003/5.2/001/18
 Temperature of Solution : 20.0 $\Delta\text{pH}_{\frac{1}{2}} = \underline{+0.08}$
 pH value of diluted buffer : 6.77 pH (S) = 6.881
 $\Delta\text{pH} = \text{pH(S)} - \text{pH of diluted buffer} = \underline{0.111}$ (Observed Deviation)
 Liquid Junction Error (ΔpH_j) = $\Delta\text{pH} - \Delta\text{pH}_{\frac{1}{2}} = \underline{0.031}$

Shift on Stirring

pH of buffer solution (with stirring), $\text{pH}_s = \underline{6.92}$
 Shift on stirring, $\Delta\text{pH}_s = \text{pH}_s - \text{pH(S)} - \Delta\text{pH}_j = \underline{0.008}$

Noise

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

Verification of ATC

Ref. No. of reference thermometer used: ET/0521/008
 Temperature record from the reference thermometer (T_R): 19.6 °C
 Temperature record from the ATC (T_{ATC}): 19.5 °C
 Temperature Difference, $|T_R - T_{ATC}|$: 0.1 °C

Acceptance Criteria

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

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

* Delete as appropriate

Calibrated by :  Checked by : 



Internal Calibration & Performance Check of pH Meter

Equipment Ref. No. : <u>ET/EW/007/003</u>	Manufacturer : <u>HANNA</u>
Model No. : <u>HI 8314</u>	Serial No. : <u>674469</u>
Date of Calibration : <u>10/07/2014</u>	Calibration Due Date : <u>09/08/2014</u>

Liquid Junction Error

Primary Standard Solution Used : Phosphate Ref No. of Primary Solution: 003/5.2/001/18
 Temperature of Solution : 20.0 $\Delta\text{pH}_{1/2} = \underline{+0.08}$
 pH value of diluted buffer : 6.78 $\text{pH (S)} = \underline{6.881}$
 $\Delta\text{pH} = \text{pH(S)} - \text{pH of diluted buffer} = \underline{0.101}$ (Observed Deviation)
 Liquid Junction Error (ΔpH_j) = $\Delta\text{pH} - \Delta\text{pH}_{1/2} = \underline{0.021}$

Shift on Stirring

pH of buffer solution (with stirring), $\text{pH}_s = \underline{6.92}$
 Shift on stirring, $\Delta\text{pH}_s = \text{pH}_s - \text{pH(S)} - \Delta\text{pH}_j = \underline{0.018}$

Noise

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

Verification of ATC


Ref. No. of reference thermometer used: ET/0521/008
 Temperature record from the reference thermometer (T_R): 19.6 °C
 Temperature record from the ATC (T_{ATC}): 19.5 °C
 Temperature Difference, $|T_R - T_{ATC}|$: 0.1 °C

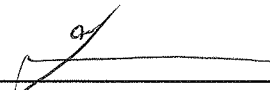
Acceptance Criteria

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

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

* Delete as appropriate

Calibrated by : 

Checked by : 



Internal Calibration Report of Dissolved Oxygen Meter

Equipment Ref. No. : <u>ET/EW/008/006</u>	Manufacturer : <u>YSI</u>
Model No. : <u>Pro 2030</u>	Serial No. : <u>12A 100554</u>
Date of Calibration : <u>18/06/2014</u>	Calibration Due Date : <u>17/09/2014</u>

Temperature Verification

Ref. No. of Reference Thermometer : ET/0521/008
Ref. No. of Water Bath : ---

		Temperature (°C)		
Reference Thermometer reading	Measured	20.0	Corrected	19.6
DO Meter reading	Measured	19.5	Difference	0.1

Standardization of sodium thiosulphate (Na₂S₂O₃) solution

Reagent No. of Na ₂ S ₂ O ₃ titrant	CPE/012/4.5/001/8	Reagent No. of 0.025N K ₂ Cr ₂ O ₇	CPE/012/4.4/001/27
		Trial 1	Trial 2
Initial Vol. of Na ₂ S ₂ O ₃ (ml)		0.00	10.20
Final Vol. of Na ₂ S ₂ O ₃ (ml)		10.20	20.35
Vol. of Na ₂ S ₂ O ₃ used (ml)		10.20	10.15
Normality of Na ₂ S ₂ O ₃ solution (N)		0.02451	0.02463
Average Normality (N) of Na ₂ S ₂ O ₃ solution (N)		0.02457	
Acceptance criteria, Deviation		Less than ± 0.001N	

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

Linearity Checking

*Determination of dissolved oxygen content by Winkler Titration **

Purging Time (min)	2		5		10	
	1	2	1	2	1	2
Initial Vol. of Na ₂ S ₂ O ₃ (ml)	0.00	11.90	23.80	0.00	7.70	12.80
Final Vol. of Na ₂ S ₂ O ₃ (ml)	11.90	23.80	31.40	7.70	12.80	17.80
Vol. (V) of Na ₂ S ₂ O ₃ used (ml)	11.90	11.90	7.60	7.70	5.10	5.00
Dissolved Oxygen (DO), mg/L	7.85	7.85	5.01	5.08	3.36	3.30
Acceptance criteria, Deviation	Less than + 0.3mg/L		Less than + 0.3mg/L		Less than + 0.3mg/L	

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

Purging time, min	DO meter reading, mg/L			Winkler Titration result *, mg/L			Difference (%) of DO Content
	1	2	Average	1	2	Average	
2	7.68	7.72	7.70	7.85	7.85	7.85	1.93
5	5.12	5.14	5.13	5.01	5.08	5.05	1.57
10	3.28	3.24	3.26	3.36	3.30	3.33	2.12
Linear regression coefficient				0.9979			



Internal Calibration Report of Dissolved Oxygen Meter

Zero Point Checking

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

Salinity Checking

Reagent No. of NaCl (10ppt)	CPE/012/4.7/002/21	Reagent No. of NaCl (30ppt)	CPE/012/4.8/002/21
-----------------------------	--------------------	-----------------------------	--------------------

Determination of dissolved oxygen content by Winkler Titration **

Salinity (ppt)	10		30	
	1	2	1	2
Trial				
Initial Vol. of Na ₂ S ₂ O ₃ (ml)	0.00	12.20	24.40	35.40
Final Vol. of Na ₂ S ₂ O ₃ (ml)	12.20	24.40	35.40	46.50
Vol. (V) of Na ₂ S ₂ O ₃ used (ml)	12.20	12.20	11.00	11.10
Dissolved Oxygen (DO), mg/L	8.05	8.05	7.26	7.32
Acceptance criteria, Deviation	Less than + 0.3mg/L		Less than + 0.3mg/L	

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

Salinity (ppt)	DO meter reading, mg/L			Winkler Titration result**, mg/L			Difference (%) of DO Content
	1	2	Average	1	2	Average	
10	7.95	7.98	7.97	8.05	8.05	8.05	1.00
30	7.12	7.15	7.14	7.26	7.32	7.29	2.08

Acceptance Criteria

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

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

Delete as appropriate

Calibrated by :

Approved by :



Performance Check of Salinity Meter

Equipment Ref. No. : ET/EW/008/006 Manufacturer : YSI
Model No. : Pro 2030 Serial No. : 12A 100554
Date of Calibration : 18/06/2014 Due Date : 17/09/2014

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

S/001/5


Salinity Standard (ppt)	Measured Salinity (ppt)	Difference %
30.0	29.7	-1.0

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

Acceptance Criteria

Difference : -10 % to 10 %

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

Checked by : 

Approved by : 

ENVIROTECH SERVICES CO.

Calibration Report of Wind Meter

Date of Calibration : 29 May 2014

Brand of Test Meter: Global Water

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

Direction Sensor: WE570 (S/N:ED0000)

Location : Pak Mong, Siu Ho Wan

Procedures :

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

Results:

Wind Still Test

Wind Speed (m/s)
0.00

Wind Speed Test

Global Wate (m/s)	Anemomete (m/s)
0.23	0.2
1.25	1.2
2.06	2.2

Wind Direction Test

Global Wate (o)	Marine Compass (o)
269.99	270
0.00	0
90.01	90
180.01	180

Calibrated by:

Fai
Yeung Ping Fai
(Technical Officer)

Checked by :

Fat
Ho Kam Fat
(Senior Technical Officer)

Certificate of Calibration

校正證書

Certificate No. : C143205
證書編號

ITEM TESTED / 送檢項目 (Job No. / 序引編號 : IC14-1304)

Date of Receipt / 收件日期 : 19 May 2014

Description / 儀器名稱 : Anemometer
Manufacturer / 製造商 : Lutron
Model No. / 型號 : AM-4201
Serial No. / 編號 : AF.27513
Supplied By / 委託者 : Envirotech Services Co.
Shop 6, G/F., Casio Mansion, 209 Shaukeiwan Road,
Hong Kong

TEST CONDITIONS / 測試條件

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

TEST SPECIFICATIONS / 測試規範

Calibration check

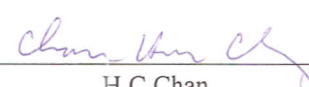
DATE OF TEST / 測試日期 : 26 May 2014

TEST RESULTS / 測試結果

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

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

Tested By : 
測試 : _____
H S Chung
Technician

Certified By : 
核證 : _____
H C Chan
Engineer

Date of Issue : 27 May 2014
簽發日期

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

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

Certificate of Calibration

校正證書

Certificate No. : C143205
證書編號

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

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

- Test procedure : MA130N.
- Results :

Air Velocity

Applied Value (m/s)	UUT Reading (m/s)	Measured Correction		
		Value (m/s)	Measurement Uncertainty	
			Expanded Uncertainty (m/s)	Coverage Factor
2.1	1.8	+0.3	0.2	2.0
4.1	4.0	+0.1	0.3	2.0
6.1	6.1	0.0	0.3	2.0
8.2	8.4	-0.2	0.3	2.0
10.1	10.4	-0.3	0.4	2.0

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

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

Note :

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

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

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

Appendix F

EM&A Monitoring Schedules

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

Noise Monitoring at the rooftop of Pak Mong Village Watch Tower

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

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

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

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

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

Noise Monitoring at rooftop of Pak Mong Village Watch Tower

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

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 August to 31 August 2014)**

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

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

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

**HY/2012/07 - Tuen Mun - Chek Lap Kok Link - Southern Connection Viaduct Section
Impact Marine Water Quality Monitoring (WQM) Schedule (July14)**

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
		01-Jul	02-Jul	03-Jul	04-Jul	05-Jul
		WQM Mid-Flood 8:33 (06:48 - 10:18) Mid-Ebb 15:28 (13:43 - 17:13)		WQM Mid-Flood 9:52 (08:07 - 11:37) Mid-Ebb 16:34 (14:49 - 18:19)		WQM Mid-Flood 11:48 (10:03 - 13:33) Mid-Ebb 18:00 (16:15 - 19:45)
06-Jul	07-Jul	08-Jul	09-Jul	10-Jul	11-Jul	12-Jul
		WQM Mid-Ebb 9:38 (07:53 - 11:23) Mid-Flood 16:29 (14:44 - 18:14)		WQM Mid-Ebb 11:16 (09:31 - 13:01) Mid-Flood 18:25 (16:40 - 20:10)		WQM Mid-Ebb 12:49 (11:04 - 14:34) Mid-Flood 19:59 (18:14 - 21:44)
13-Jul	14-Jul	15-Jul	16-Jul	17-Jul	18-Jul	19-Jul
		WQM Mid-Flood 8:23 (06:38 - 10:08) Mid-Ebb 15:08 (13:23 - 16:53)		WQM Mid-Flood 10:15 (08:30 - 12:00) Mid-Ebb 16:41 (14:56 - 18:26)		WQM Mid-Flood 12:37 (10:52 - 14:22) Mid-Ebb 18:30 (16:45 - 20:15)
20-Jul	21-Jul	22-Jul	23-Jul	24-Jul	25-Jul	26-Jul
		WQM Mid-Ebb 10:09 (08:24 - 11:54) Mid-Flood 17:12 (15:27 - 18:57)		WQM Mid-Ebb 11:39 (09:54 - 13:24) Mid-Flood 18:43 (16:58 - 20:28)		WQM Mid-Ebb 12:53 (11:08 - 14:38) Mid-Flood 19:47 (18:02 - 21:32)
27-Jul	28-Jul	29-Jul	30-Jul	31-Jul		
		WQM Mid-Flood 7:45 (06:00 - 09:30) Mid-Ebb 14:32 (12:47 - 16:17)		WQM Mid-Flood 8:59 (07:14 - 10:44) Mid-Ebb 15:31 (13:46 - 17:16)		

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

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
					01-Aug	02-Aug
						WQM Mid-Flood 10:25 (08:40 - 12:10) Mid-Ebb 16:38 (16:15 - 19:45)
03-Aug	04-Aug	05-Aug	06-Aug	07-Aug	08-Aug	09-Aug
		WQM Mid-Flood 14:42 (12:57 - 16:27) Mid-Ebb 20:11 (18:26 - 21:56)		WQM Mid-Ebb 10:01 (08:16 - 11:46) Mid-Flood 17:33 (15:38 - 19:08)		WQM Mid-Ebb 11:46 (10:01 - 13:31) Mid-Flood 18:55 (17:10 - 20:40)
10-Aug	11-Aug	12-Aug	13-Aug	14-Aug	15-Aug	16-Aug
		WQM Mid-Ebb 14:04 (12:19 - 15:49) Mid-Flood 20:52 (19:07 - 22:37)		WQM Mid-Flood 9:11 (07:26 - 10:56) Mid-Ebb 15:31 (13:45 - 17:15)		WQM Mid-Flood 11:08 (09:23 - 12:53) Mid-Ebb 16:57 (15:12 - 18:42)
17-Aug	18-Aug	19-Aug	20-Aug	21-Aug	22-Aug	23-Aug
		WQM Mid-Ebb 8:31 (06:46 - 10:16) Mid-Flood 15:58 (14:13 - 17:43)		WQM Mid-Ebb 10:35 (08:50 - 12:20) Mid-Flood 17:51 (16:06 - 19:36)		WQM Mid-Ebb 11:56 (10:11 - 13:41) Mid-Flood 18:48 (17:03 - 20:33)
24-Aug	25-Aug	26-Aug	27-Aug	28-Aug	29-Aug	30-Aug
		WQM Mid-Ebb 13:36 (11:51 - 15:21) Mid-Flood 20:00 (18:15 - 21:45)		WQM Mid-Flood 8:12 (06:27 - 09:57) Mid-Ebb 14:34 (12:49 - 16:19)		WQM Mid-Flood 9:31 (07:46 - 11:16) Mid-Ebb 15:38 (13:53 - 17:23)
31-Aug						

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

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

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

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

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

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

Appendix G

Impact Air Quality
Monitoring Results and
Graphical Presentation

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

Project	Works	Date(yyyy-mm-dd)	Station	Time (hh:mm, 24hour)	Parameter	Results (ug/m3)	Action Level (ug/m3)	Limit Level (ug/m3)		
TMCLKL	HY/2012/07	2014/07/05	ASR8A	8:25	1-hr TSP	73	394	500		
TMCLKL	HY/2012/07	2014/07/05	ASR8A	9:27	1-hr TSP	69				
TMCLKL	HY/2012/07	2014/07/05	ASR8A	10:29	1-hr TSP	62				
TMCLKL	HY/2012/07	2014/07/11	ASR8A	8:20	1-hr TSP	44				
TMCLKL	HY/2012/07	2014/07/11	ASR8A	9:22	1-hr TSP	40				
TMCLKL	HY/2012/07	2014/07/11	ASR8A	10:24	1-hr TSP	42				
TMCLKL	HY/2012/07	2014/07/17	ASR8A	8:30	1-hr TSP	60				
TMCLKL	HY/2012/07	2014/07/17	ASR8A	9:32	1-hr TSP	60				
TMCLKL	HY/2012/07	2014/07/17	ASR8A	10:34	1-hr TSP	66				
TMCLKL	HY/2012/07	2014/07/23	ASR8A	8:30	1-hr TSP	70				
TMCLKL	HY/2012/07	2014/07/23	ASR8A	9:32	1-hr TSP	74				
TMCLKL	HY/2012/07	2014/07/23	ASR8A	10:34	1-hr TSP	67				
TMCLKL	HY/2012/07	2014/07/29	ASR8A	8:25	1-hr TSP	60				
TMCLKL	HY/2012/07	2014/07/29	ASR8A	9:27	1-hr TSP	55				
TMCLKL	HY/2012/07	2014/07/29	ASR8A	10:29	1-hr TSP	58				
					Average	60				
					Min.	40				
					Max.	74				

1-hour TSP Monitoring Results at Air Quality Monitoring Station ASR8

Project	Works	Date(yyyy-mm-dd)	Station	Time (hh:mm, 24hour)	Parameter	Results (ug/m3)	Action Level (ug/m3)	Limit Level (ug/m3)		
TMCLKL	HY/2012/07	2014/07/05	ASR8	8:37	1-hr TSP	70	393	500		
TMCLKL	HY/2012/07	2014/07/05	ASR8	9:39	1-hr TSP	61				
TMCLKL	HY/2012/07	2014/07/05	ASR8	10:41	1-hr TSP	59				
TMCLKL	HY/2012/07	2014/07/11	ASR8	8:33	1-hr TSP	54				
TMCLKL	HY/2012/07	2014/07/11	ASR8	9:34	1-hr TSP	52				
TMCLKL	HY/2012/07	2014/07/11	ASR8	10:35	1-hr TSP	58				
TMCLKL	HY/2012/07	2014/07/17	ASR8	8:41	1-hr TSP	67				
TMCLKL	HY/2012/07	2014/07/17	ASR8	9:43	1-hr TSP	90				
TMCLKL	HY/2012/07	2014/07/17	ASR8	10:45	1-hr TSP	60				
TMCLKL	HY/2012/07	2014/07/23	ASR8	8:44	1-hr TSP	102				
TMCLKL	HY/2012/07	2014/07/23	ASR8	9:46	1-hr TSP	78				
TMCLKL	HY/2012/07	2014/07/23	ASR8	10:48	1-hr TSP	67				
TMCLKL	HY/2012/07	2014/07/29	ASR8	8:38	1-hr TSP	63				
TMCLKL	HY/2012/07	2014/07/29	ASR8	9:40	1-hr TSP	60				
TMCLKL	HY/2012/07	2014/07/29	ASR8	10:42	1-hr TSP	58				
					Average	67				
					Min.	52				
					Max.	102				

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

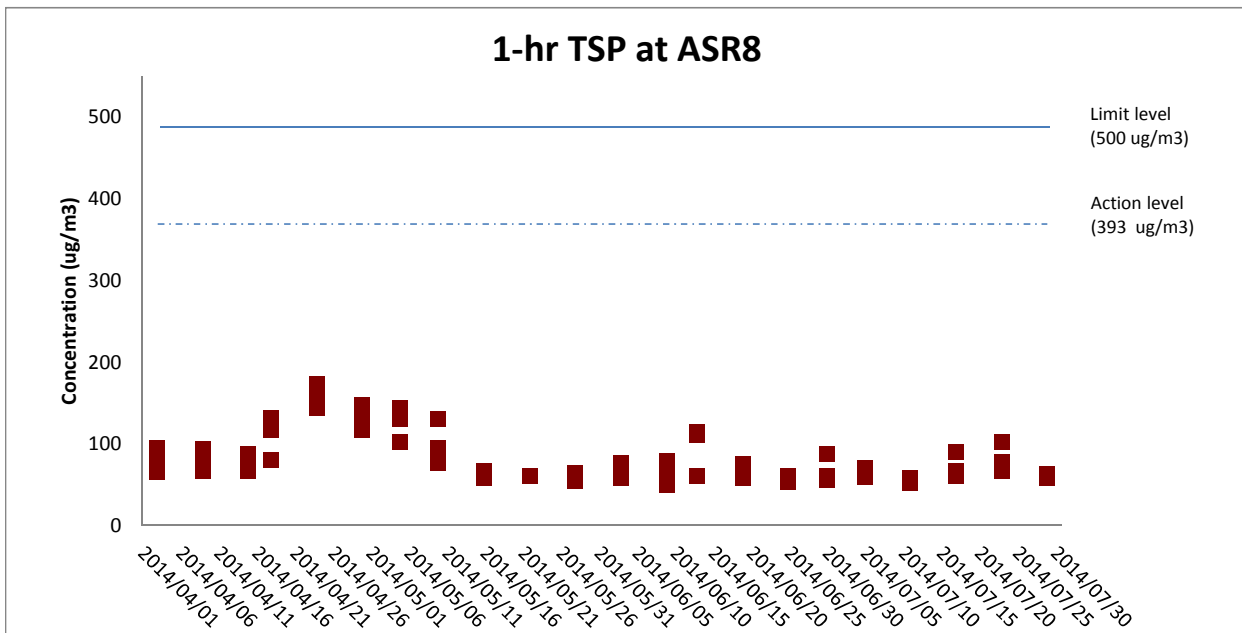
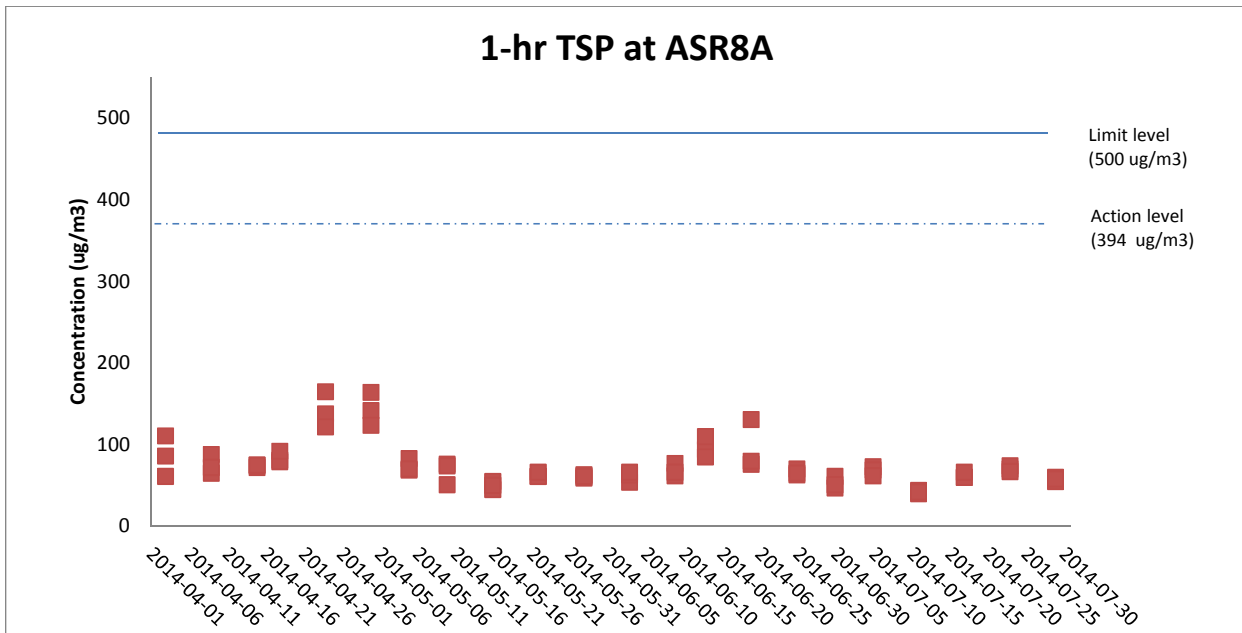
Project	Works	Date(yyyy-mm-dd)	Station	Time (hh:mm, 24hour)	Parameter	Results (ug/m3)	Action Level (ug/m3)	Limit Level (ug/m3)
TMCLKL	HY/2012/07	2014-07-05	ASR8A	11:31	24-hr TSP	45	178	260
TMCLKL	HY/2012/07	2014-07-11	ASR8A	11:26	24-hr TSP	38		
TMCLKL	HY/2012/07	2014-07-17	ASR8A	11:36	24-hr TSP	42		
TMCLKL	HY/2012/07	2014-07-23	ASR8A	11:36	24-hr TSP	47		
TMCLKL	HY/2012/07	2014-07-29	ASR8A	11:31	24-hr TSP	43		
					Average	43		
					Min.	38		
					Max.	47		

24-hour TSP Monitoring Results at Air Quality Monitoring Station ASR8

Project	Works	Date(yyyy-mm-dd)	Station	Time (hh:mm, 24hour)	Parameter	Results (ug/m3)	Action Level (ug/m3)	Limit Level (ug/m3)
TMCLKL	HY/2012/07	2014-07-05	ASR8	11:43	24-hr TSP	40	178	260
TMCLKL	HY/2012/07	2014-07-11	ASR8	11:36	24-hr TSP	36		
TMCLKL	HY/2012/07	2014-07-17	ASR8	11:47	24-hr TSP	42		
TMCLKL	HY/2012/07	2014-07-23	ASR8	11:50	24-hr TSP	47		
TMCLKL	HY/2012/07	2014-07-29	ASR8	11:44	24-hr TSP	44		
					Average	42		
					Min.	36		
					Max.	47		

Action Level Exceedance

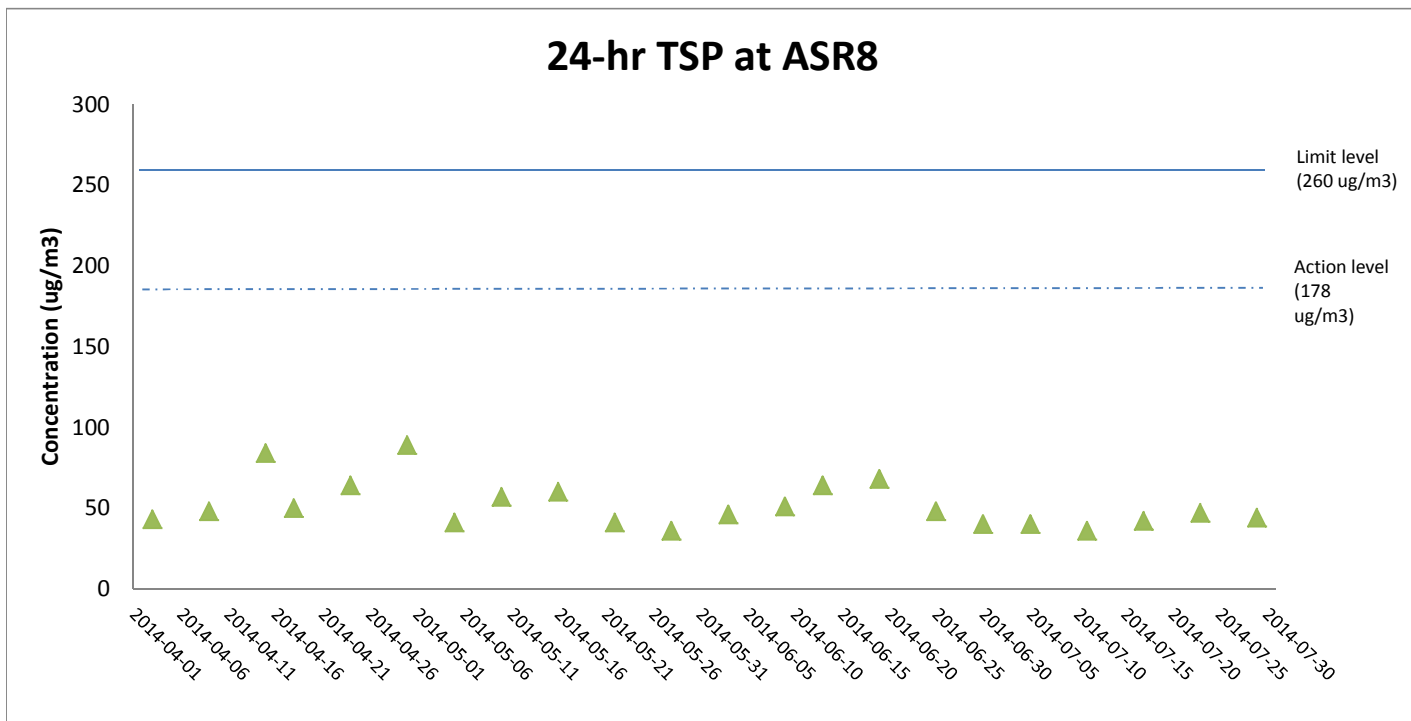
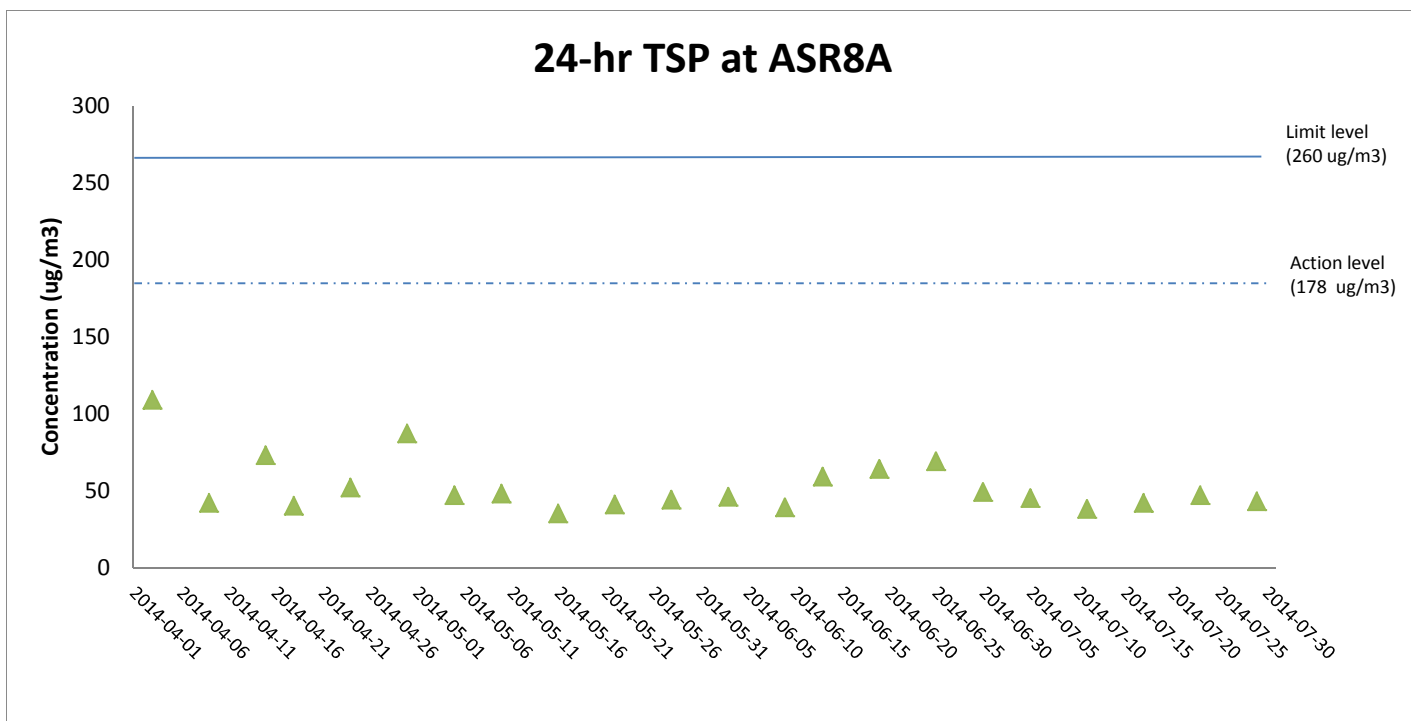
Limit Level Exceedance



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

Major construction works undertaken within the reporting period include site office erection, fence installation and relocation for Area 2, Viaduct A, B, C & D; land piling at Viaduct B & D; piling platform installation for Viaduct B, C, D & E and site formation of workshop at Area 1.

Marine works within the reporting period include construction of pile caps at Viaduct B; marine piling platform installation; marine piling at Viaduct B & E and construction of rockfill platform at Viaduct D landing.



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

Major construction works undertaken within the reporting period include site office erection, fence installation and relocation for Area 2, Viaduct A, B, C & D; land piling at Viaduct B & D; piling platform installation for Viaduct B, C, D & E and site formation of workshop at Area 1.

Marine works within the reporting period include construction of pile caps at Viaduct B; marine piling platform installation; marine piling at Viaduct B & E and construction of rockfill platform at Viaduct D landing.

Appendix H

Meteorological Data for the Reporting Month

Date	Time	Wind speed (m/s)	Wind direction (degree)
05-07-2014	12:00:00 AM	0.07	199.0
05-07-2014	1:00:00 AM	0.05	169.1
05-07-2014	2:00:00 AM	0.05	139.2
05-07-2014	3:00:00 AM	0.14	143.0
05-07-2014	4:00:00 AM	0.04	125.3
05-07-2014	5:00:00 AM	0.05	183.7
05-07-2014	6:00:00 AM	0.09	138.5
05-07-2014	7:00:00 AM	0.07	151.2
05-07-2014	8:00:00 AM	0.15	216.4
05-07-2014	9:00:00 AM	0.04	235.1
05-07-2014	10:00:00 AM	0.15	251.8
05-07-2014	11:00:00 AM	0.41	100.2
05-07-2014	12:00:00 PM	0.31	93.1
05-07-2014	1:00:00 PM	0.32	67.2
05-07-2014	2:00:00 PM	0.33	99.1
05-07-2014	3:00:00 PM	0.32	162.6
05-07-2014	4:00:00 PM	0.53	81.2
05-07-2014	5:00:00 PM	0.57	111.7
05-07-2014	6:00:00 PM	0.12	164.2
05-07-2014	7:00:00 PM	0.30	162.5
05-07-2014	8:00:00 PM	0.15	185.7
05-07-2014	9:00:00 PM	0.19	205.7
05-07-2014	10:00:00 PM	0.08	205.0
05-07-2014	11:00:00 PM	0.03	178.9
06-07-2014	12:00:00 AM	0.09	187.8
06-07-2014	1:00:00 AM	0.14	221.4
06-07-2014	2:00:00 AM	0.06	189.9
06-07-2014	3:00:00 AM	0.18	212.2
06-07-2014	4:00:00 AM	0.09	196.4
06-07-2014	5:00:00 AM	0.03	201.0
06-07-2014	6:00:00 AM	0.04	186.3
06-07-2014	7:00:00 AM	0.09	145.9
06-07-2014	8:00:00 AM	0.12	219.0
06-07-2014	9:00:00 AM	0.19	222.1
06-07-2014	10:00:00 AM	0.18	283.9
06-07-2014	11:00:00 AM	0.18	222.0
06-07-2014	12:00:00 PM	0.36	234.7
06-07-2014	1:00:00 PM	0.35	264.5
06-07-2014	2:00:00 PM	0.11	221.0
06-07-2014	3:00:00 PM	0.19	108.8
06-07-2014	4:00:00 PM	0.05	203.7
06-07-2014	5:00:00 PM	0.05	84.2
06-07-2014	6:00:00 PM	0.07	82.8
06-07-2014	7:00:00 PM	0.06	131.2
06-07-2014	8:00:00 PM	0.10	149.1
06-07-2014	9:00:00 PM	0.23	104.7
06-07-2014	10:00:00 PM	0.18	141.6
06-07-2014	11:00:00 PM	0.15	140.8
11-07-2014	12:00:00 AM	0.04	203.4
11-07-2014	1:00:00 AM	0.04	215.6
11-07-2014	2:00:00 AM	0.02	202.0
11-07-2014	3:00:00 AM	0.04	209.5
11-07-2014	4:00:00 AM	0.03	186.6
11-07-2014	5:00:00 AM	0.03	156.2
11-07-2014	6:00:00 AM	0.04	145.9
11-07-2014	7:00:00 AM	0.02	114.3
11-07-2014	8:00:00 AM	0.02	189.8

Date	Time	Wind speed (m/s)	Wind direction (degree)
11-07-2014	9:00:00 AM	0.02	327.3
11-07-2014	10:00:00 AM	0.09	222.0
11-07-2014	11:00:00 AM	0.33	136.2
11-07-2014	12:00:00 PM	0.06	222.9
11-07-2014	1:00:00 PM	0.08	158.8
11-07-2014	2:00:00 PM	0.09	199.4
11-07-2014	3:00:00 PM	0.08	147.6
11-07-2014	4:00:00 PM	0.14	231.3
11-07-2014	5:00:00 PM	0.31	194.7
11-07-2014	6:00:00 PM	0.20	190.8
11-07-2014	7:00:00 PM	0.02	167.2
11-07-2014	8:00:00 PM	0.04	180.8
11-07-2014	9:00:00 PM	0.09	199.6
11-07-2014	10:00:00 PM	0.03	210.1
11-07-2014	11:00:00 PM	0.03	179.6
12-07-2014	12:00:00 AM	0.02	122.4
12-07-2014	1:00:00 AM	0.08	109.3
12-07-2014	2:00:00 AM	0.03	157.2
12-07-2014	3:00:00 AM	0.03	123.4
12-07-2014	4:00:00 AM	0.02	107.5
12-07-2014	5:00:00 AM	0.03	139.7
12-07-2014	6:00:00 AM	0.09	145.9
12-07-2014	7:00:00 AM	0.12	158.6
12-07-2014	8:00:00 AM	0.25	152.2
12-07-2014	9:00:00 AM	0.20	120.7
12-07-2014	10:00:00 AM	0.31	150.0
12-07-2014	11:00:00 AM	0.80	152.5
12-07-2014	12:00:00 PM	0.21	123.6
12-07-2014	1:00:00 PM	0.63	124.1
12-07-2014	2:00:00 PM	0.69	139.6
12-07-2014	3:00:00 PM	0.33	129.6
12-07-2014	4:00:00 PM	0.07	138.7
12-07-2014	5:00:00 PM	0.21	127.9
12-07-2014	6:00:00 PM	0.20	140.9
12-07-2014	7:00:00 PM	0.05	147.8
12-07-2014	8:00:00 PM	0.02	151.9
12-07-2014	9:00:00 PM	0.02	194.7
12-07-2014	10:00:00 PM	0.02	205.8
12-07-2014	11:00:00 PM	0.08	167.9
17-07-2014	12:00:00 AM	0.03	88.5
17-07-2014	1:00:00 AM	0.02	156.6
17-07-2014	2:00:00 AM	0.02	135.0
17-07-2014	3:00:00 AM	0.18	127.7
17-07-2014	4:00:00 AM	0.02	195.3
17-07-2014	5:00:00 AM	0.05	156.1
17-07-2014	6:00:00 AM	0.02	109.9
17-07-2014	7:00:00 AM	0.17	97.5
17-07-2014	8:00:00 AM	0.34	134.4
17-07-2014	9:00:00 AM	1.23	88.4
17-07-2014	10:00:00 AM	1.61	101.4
17-07-2014	11:00:00 AM	1.95	79.5
17-07-2014	12:00:00 PM	0.86	99.2
17-07-2014	1:00:00 PM	0.99	145.3
17-07-2014	2:00:00 PM	1.07	125.2
17-07-2014	3:00:00 PM	0.78	100.9
17-07-2014	4:00:00 PM	0.98	115.8
17-07-2014	5:00:00 PM	1.50	83.7

Date	Time	Wind speed (m/s)	Wind direction (degree)
17-07-2014	6:00:00 PM	0.73	128.2
17-07-2014	7:00:00 PM	1.13	96.8
17-07-2014	8:00:00 PM	1.07	138.5
17-07-2014	9:00:00 PM	0.57	104.6
17-07-2014	10:00:00 PM	1.29	90.4
17-07-2014	11:00:00 PM	1.05	103.7
18-07-2014	12:00:00 AM	1.03	93.4
18-07-2014	1:00:00 AM	0.50	87.0
18-07-2014	2:00:00 AM	0.80	128.5
18-07-2014	3:00:00 AM	1.21	87.8
18-07-2014	4:00:00 AM	2.17	104.1
18-07-2014	5:00:00 AM	3.65	76.1
18-07-2014	6:00:00 AM	1.07	85.7
18-07-2014	7:00:00 AM	1.69	106.6
18-07-2014	8:00:00 AM	2.28	91.3
18-07-2014	9:00:00 AM	1.50	110.7
18-07-2014	10:00:00 AM	1.53	101.3
18-07-2014	11:00:00 AM	1.72	99.7
18-07-2014	12:00:00 PM	2.41	92.0
18-07-2014	1:00:00 PM	1.78	114.6
18-07-2014	2:00:00 PM	2.36	85.8
18-07-2014	3:00:00 PM	2.04	86.9
18-07-2014	4:00:00 PM	1.02	137.7
18-07-2014	5:00:00 PM	0.96	82.9
18-07-2014	6:00:00 PM	1.04	84.0
18-07-2014	7:00:00 PM	1.39	95.2
18-07-2014	8:00:00 PM	1.87	72.4
18-07-2014	9:00:00 PM	1.88	79.9
18-07-2014	10:00:00 PM	1.56	100.2
18-07-2014	11:00:00 PM	1.21	91.6
23-07-2014	12:00:00 AM	0.02	211.9
23-07-2014	1:00:00 AM	0.08	205.7
23-07-2014	2:00:00 AM	0.12	157.9
23-07-2014	3:00:00 AM	0.02	136.9
23-07-2014	4:00:00 AM	0.06	176.5
23-07-2014	5:00:00 AM	0.04	164.0
23-07-2014	6:00:00 AM	0.08	200.2
23-07-2014	7:00:00 AM	0.12	229.6
23-07-2014	8:00:00 AM	0.20	228.7
23-07-2014	9:00:00 AM	0.33	202.9
23-07-2014	10:00:00 AM	0.34	202.4
23-07-2014	11:00:00 AM	0.16	207.1
23-07-2014	12:00:00 PM	0.13	256.4
23-07-2014	1:00:00 PM	0.23	269.8
23-07-2014	2:00:00 PM	0.39	184.9
23-07-2014	3:00:00 PM	0.12	185.4
23-07-2014	4:00:00 PM	0.05	215.5
23-07-2014	5:00:00 PM	0.08	261.2
23-07-2014	6:00:00 PM	0.21	195.5
23-07-2014	7:00:00 PM	0.02	272.1
23-07-2014	8:00:00 PM	0.22	155.1
23-07-2014	9:00:00 PM	0.41	185.5
23-07-2014	10:00:00 PM	0.30	201.8
23-07-2014	11:00:00 PM	0.22	156.9
24-07-2014	12:00:00 AM	0.69	204.0
24-07-2014	1:00:00 AM	0.11	129.0
24-07-2014	2:00:00 AM	0.53	186.0

Date	Time	Wind speed (m/s)	Wind direction (degree)
24-07-2014	3:00:00 AM	0.54	138.3
24-07-2014	4:00:00 AM	0.75	234.9
24-07-2014	5:00:00 AM	0.69	238.7
24-07-2014	6:00:00 AM	0.81	207.3
24-07-2014	7:00:00 AM	0.66	227.5
24-07-2014	8:00:00 AM	0.37	227.2
24-07-2014	9:00:00 AM	0.16	225.6
24-07-2014	10:00:00 AM	0.25	154.7
24-07-2014	11:00:00 AM	0.20	92.0
24-07-2014	12:00:00 PM	0.22	114.2
24-07-2014	1:00:00 PM	0.27	169.1
24-07-2014	2:00:00 PM	0.25	135.8
24-07-2014	3:00:00 PM	0.32	115.3
24-07-2014	4:00:00 PM	0.13	158.4
24-07-2014	5:00:00 PM	0.28	109.5
24-07-2014	6:00:00 PM	0.52	120.1
24-07-2014	7:00:00 PM	0.60	113.9
24-07-2014	8:00:00 PM	0.81	92.7
24-07-2014	9:00:00 PM	0.09	115.2
24-07-2014	10:00:00 PM	0.18	257.8
24-07-2014	11:00:00 PM	0.08	150.4
29-07-2014	12:00:00 AM	0.22	189.1
29-07-2014	1:00:00 AM	0.20	222.2
29-07-2014	2:00:00 AM	0.20	173.3
29-07-2014	3:00:00 AM	0.08	169.3
29-07-2014	4:00:00 AM	0.05	175.4
29-07-2014	5:00:00 AM	0.12	189.0
29-07-2014	6:00:00 AM	0.02	195.5
29-07-2014	7:00:00 AM	0.01	88.7
29-07-2014	8:00:00 AM	0.11	120.9
29-07-2014	9:00:00 AM	0.15	112.1
29-07-2014	10:00:00 AM	0.03	142.3
29-07-2014	11:00:00 AM	0.08	232.0
29-07-2014	12:00:00 PM	0.19	139.6
29-07-2014	1:00:00 PM	0.85	98.1
29-07-2014	2:00:00 PM	0.33	151.6
29-07-2014	3:00:00 PM	0.46	119.0
29-07-2014	4:00:00 PM	0.62	140.4
29-07-2014	5:00:00 PM	0.80	139.9
29-07-2014	6:00:00 PM	0.41	144.0
29-07-2014	7:00:00 PM	0.67	102.8
29-07-2014	8:00:00 PM	0.54	125.2
29-07-2014	9:00:00 PM	0.27	155.5
29-07-2014	10:00:00 PM	0.31	100.2
29-07-2014	11:00:00 PM	0.09	98.6
30-07-2014	12:00:00 AM	0.18	103.9
30-07-2014	1:00:00 AM	0.10	104.0
30-07-2014	2:00:00 AM	0.02	163.9
30-07-2014	3:00:00 AM	0.02	201.1
30-07-2014	4:00:00 AM	0.03	193.1
30-07-2014	5:00:00 AM	0.02	191.9
30-07-2014	6:00:00 AM	0.06	194.7
30-07-2014	7:00:00 AM	0.01	136.3
30-07-2014	8:00:00 AM	0.02	147.0
30-07-2014	9:00:00 AM	0.06	125.5
30-07-2014	10:00:00 AM	0.10	182.1
30-07-2014	11:00:00 AM	0.16	138.6

Date	Time	Wind speed (m/s)	Wind direction (degree)
30-07-2014	12:00:00 PM	0.07	139.5
30-07-2014	1:00:00 PM	0.17	143.6
30-07-2014	2:00:00 PM	0.14	103.5
30-07-2014	3:00:00 PM	0.12	101.0
30-07-2014	4:00:00 PM	0.09	49.0
30-07-2014	5:00:00 PM	0.21	107.5
30-07-2014	6:00:00 PM	0.11	141.9
30-07-2014	7:00:00 PM	0.12	153.1
30-07-2014	8:00:00 PM	0.02	176.7
30-07-2014	9:00:00 PM	0.09	186.2
30-07-2014	10:00:00 PM	0.11	207.8
30-07-2014	11:00:00 PM	0.03	207.7

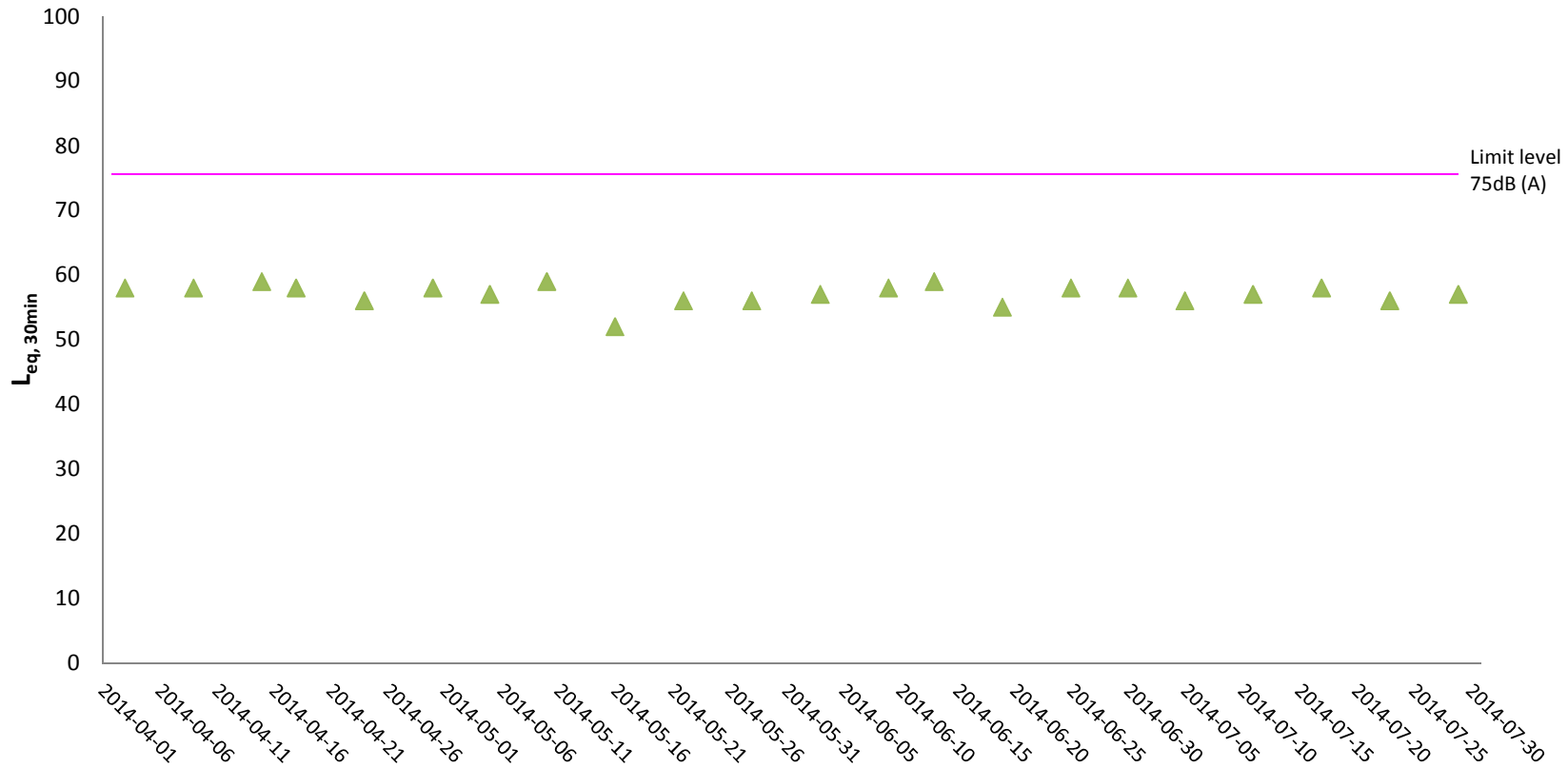
Appendix I

Impact Noise Monitoring Results and Graphical Presentation

Appendix I1 Noise Monitoring Results

Project	Works	Date (yyyy-mm-dd)	Station	Weather Condition	Time (hh:mm, 24hour)	Noise Level for 30-min, dB(A)			Limit Level dB(A)	Temp (° C)	Wind Speed (m/s)	Noise Meter Model/ID	Calibrator Model/ID
						Leq	L10	L90					
TMCLKL	HY/2012/07	2014-07-05	NSR1	Sunny	9:44	56	58	54	75	29	0.6	RION NL31 (S/N 00603867)	RION NC73 (S/N 10997142)
TMCLKL	HY/2012/07	2014-07-11	NSR1	Sunny	9:39	57	58	56	75	27	0.3	RION NL31 (S/N 00603867)	RION NC73 (S/N 10997142)
TMCLKL	HY/2012/07	2014-07-17	NSR1	Sunny	9:50	58	61	52	75	27	2.5	RION NL31 (S/N 00603867)	RION NC73 (S/N 10997142)
TMCLKL	HY/2012/07	2014-07-23	NSR1	Sunny	9:50	56	59	54	75	29	0.2	RION NL31 (S/N 00603867)	RION NC73 (S/N 10997142)
TMCLKL	HY/2012/07	2014-07-29	NSR1	Sunny	9:50	57	60	54	75	28	0.7	RION NL31 (S/N 00603867)	RION NC73 (S/N 10997142)
						Min.	56						
						Max.	58						
						Average	57						

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 installation and relocation for Area 2, Viaduct A, B, C & D; land piling at Viaduct B & D; piling platform installation for Viaduct B, C, D & E and site formation of workshop at Area 1.

Marine works within the reporting period include construction of pile caps at Viaduct B; marine piling platform installation; marine piling at Viaduct B & E and construction of rockfill platform at Viaduct D landing.

Appendix J

Impact Water Quality Monitoring Results and Graphical Presentation

Project	Works	Date (yyyy-mm-dd)	Tide	Weather	Stat	Level	Water Depth	Lev_Cod	Replicate	Start Time	Temp_v	pH_v	Sal_v	DO_v	Turb_v	SS_v	Received Date (SS)
TMCLK	HY/2012/07	2014-07-01	Mid-Flood	Drizzle	CS(Mf)5	Surface	1	1	1	07:25	28.8	7.77	19.1	5.6	3.79	1.4	2014-07-10
TMCLK	HY/2012/07	2014-07-01	Mid-Flood	Drizzle	CS(Mf)5	Surface	1	1	2	07:25	28.8	7.77	19.2	5.7	3.72	1.3	2014-07-10
TMCLK	HY/2012/07	2014-07-01	Mid-Flood	Drizzle	CS(Mf)5	Middle	4.9	2	1	07:25	28.6	7.79	26.4	5.2	3.64	1.4	2014-07-10
TMCLK	HY/2012/07	2014-07-01	Mid-Flood	Drizzle	CS(Mf)5	Middle	4.9	2	2	07:25	28.6	7.78	26.5	5.3	3.6	1.3	2014-07-10
TMCLK	HY/2012/07	2014-07-01	Mid-Flood	Drizzle	CS(Mf)5	Bottom	8.8	3	1	07:25	28.6	7.81	26.5	5.3	4.02	2.6	2014-07-10
TMCLK	HY/2012/07	2014-07-01	Mid-Flood	Drizzle	CS(Mf)5	Bottom	8.8	3	2	07:25	28.6	7.81	26.5	5.4	4.08	3.2	2014-07-10
TMCLK	HY/2012/07	2014-07-01	Mid-Flood	Drizzle	SR4a	Surface	1	1	1	07:46	28.7	7.78	19.1	5.6	3.54	2	2014-07-10
TMCLK	HY/2012/07	2014-07-01	Mid-Flood	Drizzle	SR4a	Surface	1	1	2	07:46	28.7	7.79	19.1	5.5	3.57	1.6	2014-07-10
TMCLK	HY/2012/07	2014-07-01	Mid-Flood	Drizzle	SR4a	Middle		2	1	07:46							2014-07-10
TMCLK	HY/2012/07	2014-07-01	Mid-Flood	Drizzle	SR4a	Middle		2	2	07:46							2014-07-10
TMCLK	HY/2012/07	2014-07-01	Mid-Flood	Drizzle	SR4a	Bottom	4.6	3	1	07:46	28.6	7.79	26.5	5.4	3.81	2.4	2014-07-10
TMCLK	HY/2012/07	2014-07-01	Mid-Flood	Drizzle	SR4a	Bottom	4.6	3	2	07:46	28.6	7.79	26.4	5.4	3.85	2.2	2014-07-10
TMCLK	HY/2012/07	2014-07-01	Mid-Flood	Drizzle	SR4	Surface	1	1	1	07:52	28.7	7.81	19.1	5.7	4.21	<0.5	2014-07-10
TMCLK	HY/2012/07	2014-07-01	Mid-Flood	Drizzle	SR4	Surface	1	1	2	07:52	28.7	7.82	19.1	5.7	4.17	<0.5	2014-07-10
TMCLK	HY/2012/07	2014-07-01	Mid-Flood	Drizzle	SR4	Middle		2	1	07:52							2014-07-10
TMCLK	HY/2012/07	2014-07-01	Mid-Flood	Drizzle	SR4	Middle		2	2	07:52							2014-07-10
TMCLK	HY/2012/07	2014-07-01	Mid-Flood	Drizzle	SR4	Bottom	4.2	3	1	07:52	28.5	7.84	26.4	5.3	4.07	2.6	2014-07-10
TMCLK	HY/2012/07	2014-07-01	Mid-Flood	Drizzle	SR4	Bottom	4.2	3	2	07:52	28.5	7.84	26.3	5.4	4.01	3.1	2014-07-10
TMCLK	HY/2012/07	2014-07-01	Mid-Flood	Drizzle	IS8	Surface	1	1	1	08:12	28.8	7.78	19.2	5.8	3.98	1	2014-07-10
TMCLK	HY/2012/07	2014-07-01	Mid-Flood	Drizzle	IS8	Surface	1	1	2	08:12	28.8	7.78	19.2	5.8	3.94	1.3	2014-07-10
TMCLK	HY/2012/07	2014-07-01	Mid-Flood	Drizzle	IS8	Middle		2	1	08:12							2014-07-10
TMCLK	HY/2012/07	2014-07-01	Mid-Flood	Drizzle	IS8	Middle		2	2	08:12							2014-07-10
TMCLK	HY/2012/07	2014-07-01	Mid-Flood	Drizzle	IS8	Bottom	4.4	3	1	08:12	28.6	7.8	26.5	5.3	4.34	3.7	2014-07-10
TMCLK	HY/2012/07	2014-07-01	Mid-Flood	Drizzle	IS8	Bottom	4.4	3	2	08:12	28.5	7.81	26.6	5.2	4.3	3.4	2014-07-10
TMCLK	HY/2012/07	2014-07-01	Mid-Flood	Drizzle	IS(Mf)16	Surface	1	1	1	08:40	28.8	7.85	19.2	5.6	4.04	3.8	2014-07-10
TMCLK	HY/2012/07	2014-07-01	Mid-Flood	Drizzle	IS(Mf)16	Surface	1	1	2	08:40	28.8	7.84	19.2	5.6	4.08	3.5	2014-07-10
TMCLK	HY/2012/07	2014-07-01	Mid-Flood	Drizzle	IS(Mf)16	Middle	4.3	2	1	08:40	28.7	7.81	26.5	5.4	3.92	3.7	2014-07-10
TMCLK	HY/2012/07	2014-07-01	Mid-Flood	Drizzle	IS(Mf)16	Middle	4.3	2	2	08:40	28.7	7.81	26.5	5.4	3.98	4.5	2014-07-10
TMCLK	HY/2012/07	2014-07-01	Mid-Flood	Drizzle	IS(Mf)16	Bottom	7.8	3	1	08:40	28.5	7.84	26.6	5.4	4.28	4.2	2014-07-10
TMCLK	HY/2012/07	2014-07-01	Mid-Flood	Drizzle	IS(Mf)16	Bottom	7.8	3	2	08:40	28.4	7.84	26.6	5.4	4.25	3.9	2014-07-10
TMCLK	HY/2012/07	2014-07-01	Mid-Flood	Drizzle	IS(Mf)9	Surface	1	1	1	09:20	28.8	7.82	19.2	5.8	4.01	2.5	2014-07-10
TMCLK	HY/2012/07	2014-07-01	Mid-Flood	Drizzle	IS(Mf)9	Surface	1	1	2	09:20	28.8	7.81	19.1	5.8	4.06	2.4	2014-07-10
TMCLK	HY/2012/07	2014-07-01	Mid-Flood	Drizzle	IS(Mf)9	Middle		2	1	09:20							2014-07-10
TMCLK	HY/2012/07	2014-07-01	Mid-Flood	Drizzle	IS(Mf)9	Middle		2	2	09:20							2014-07-10
TMCLK	HY/2012/07	2014-07-01	Mid-Flood	Drizzle	IS(Mf)9	Bottom	4.2	3	1	09:20	28.7	7.83	26.7	5.4	3.94	2.8	2014-07-10
TMCLK	HY/2012/07	2014-07-01	Mid-Flood	Drizzle	IS(Mf)9	Bottom	4.2	3	2	09:20	28.7	7.83	26.7	5.5	3.9	2.9	2014-07-10
TMCLK	HY/2012/07	2014-07-01	Mid-Flood	Drizzle	CS(Mf)3	Surface	1	1	1	10:00	28.8	7.8	19.2	5.9	3.79	2	2014-07-10
TMCLK	HY/2012/07	2014-07-01	Mid-Flood	Drizzle	CS(Mf)3	Surface	1	1	2	10:00	28.7	7.8	19.2	5.8	3.75	2.1	2014-07-10
TMCLK	HY/2012/07	2014-07-01	Mid-Flood	Drizzle	CS(Mf)3	Middle	5.9	2	1	10:00	28.7	7.84	26.7	5.6	4.12	2.1	2014-07-10

Project	Works	Date (yyyy-mm-dd)	Tide	Weather	Stat	Level	Water Depth	Lev_Co d	Replicate	Start Time	Temp_v	pH_v	Sal_v	DO_v	Turb_v	SS_v	Received Date (SS)
TMCLKI	HY/2012/07	2014-07-01	Mid-Flood	Drizzle	CS(Mf)3	Middle	5.9	2	2	10:00	28.6	7.84	26.7	5.7	4.16	2.1	2014-07-10
TMCLKI	HY/2012/07	2014-07-01	Mid-Flood	Drizzle	CS(Mf)3	Bottom	10.8	3	1	10:00	28.7	7.84	26.7	5.4	4.02	3.3	2014-07-10
TMCLKI	HY/2012/07	2014-07-01	Mid-Flood	Drizzle	CS(Mf)3	Bottom	10.8	3	2	10:00	28.7	7.83	26.7	5.4	4.06	4.2	2014-07-10
TMCLKI	HY/2012/07	2014-07-01	Mid-Ebb	Cloudy	CS(Mf)3	Surface	1	1	1	13:43	28.8	7.8	19.3	5.4	3.85	1.7	2014-07-10
TMCLKI	HY/2012/07	2014-07-01	Mid-Ebb	Cloudy	CS(Mf)3	Surface	1	1	2	13:43	28.7	7.81	19.2	5.5	3.81	1.4	2014-07-10
TMCLKI	HY/2012/07	2014-07-01	Mid-Ebb	Cloudy	CS(Mf)3	Middle	5.7	2	1	13:43	28.7	7.77	26.3	5.3	4.18	4.2	2014-07-10
TMCLKI	HY/2012/07	2014-07-01	Mid-Ebb	Cloudy	CS(Mf)3	Middle	5.7	2	2	13:43	28.6	7.76	26.2	5.3	4.22	4.1	2014-07-10
TMCLKI	HY/2012/07	2014-07-01	Mid-Ebb	Cloudy	CS(Mf)3	Bottom	10.4	3	1	13:43	28.4	7.78	26.4	5.1	4.08	4.4	2014-07-10
TMCLKI	HY/2012/07	2014-07-01	Mid-Ebb	Cloudy	CS(Mf)3	Bottom	10.4	3	2	13:43	28.3	7.79	26.3	5.1	4.12	3.7	2014-07-10
TMCLKI	HY/2012/07	2014-07-01	Mid-Ebb	Cloudy	SR4a	Surface	1	1	1	15:53	28.9	7.81	19.1	5.4	3.6	2.6	2014-07-10
TMCLKI	HY/2012/07	2014-07-01	Mid-Ebb	Cloudy	SR4a	Surface	1	1	2	15:53	29	7.82	19.2	5.4	3.63	2.9	2014-07-10
TMCLKI	HY/2012/07	2014-07-01	Mid-Ebb	Cloudy	SR4a	Middle		2	1	15:53							2014-07-10
TMCLKI	HY/2012/07	2014-07-01	Mid-Ebb	Cloudy	SR4a	Middle		2	2	15:53							2014-07-10
TMCLKI	HY/2012/07	2014-07-01	Mid-Ebb	Cloudy	SR4a	Bottom	4.4	3	1	15:53	28.6	7.74	26.6	5.2	3.87	3.1	2014-07-10
TMCLKI	HY/2012/07	2014-07-01	Mid-Ebb	Cloudy	SR4a	Bottom	4.4	3	2	15:53	28.5	7.75	26.5	5.2	3.91	2.6	2014-07-10
TMCLKI	HY/2012/07	2014-07-01	Mid-Ebb	Cloudy	SR4	Surface	1	1	1	15:27	28.9	7.84	19.2	5.5	4.27	2.1	2014-07-10
TMCLKI	HY/2012/07	2014-07-01	Mid-Ebb	Cloudy	SR4	Surface	1	1	2	15:27	29	7.83	19.3	5.5	4.23	2.4	2014-07-10
TMCLKI	HY/2012/07	2014-07-01	Mid-Ebb	Cloudy	SR4	Middle		2	1	15:27							2014-07-10
TMCLKI	HY/2012/07	2014-07-01	Mid-Ebb	Cloudy	SR4	Middle		2	2	15:27							2014-07-10
TMCLKI	HY/2012/07	2014-07-01	Mid-Ebb	Cloudy	SR4	Bottom	3.2	3	1	15:27	28.6	7.79	26.6	5.2	4.13	2.6	2014-07-10
TMCLKI	HY/2012/07	2014-07-01	Mid-Ebb	Cloudy	SR4	Bottom	3.2	3	2	15:27	28.5	7.76	26.7	5.2	4.07	2.6	2014-07-10
TMCLKI	HY/2012/07	2014-07-01	Mid-Ebb	Cloudy	IS8	Surface	1	1	1	15:01	28.8	7.85	19.1	5.5	4.04	<0.5	2014-07-10
TMCLKI	HY/2012/07	2014-07-01	Mid-Ebb	Cloudy	IS8	Surface	1	1	2	15:01	28.9	7.81	19.2	5.6	4	<0.5	2014-07-10
TMCLKI	HY/2012/07	2014-07-01	Mid-Ebb	Cloudy	IS8	Middle		2	1	15:01							2014-07-10
TMCLKI	HY/2012/07	2014-07-01	Mid-Ebb	Cloudy	IS8	Middle		2	2	15:01							2014-07-10
TMCLKI	HY/2012/07	2014-07-01	Mid-Ebb	Cloudy	IS8	Bottom	4	3	1	15:01	28.4	7.78	26.5	5.1	4.4	0.9	2014-07-10
TMCLKI	HY/2012/07	2014-07-01	Mid-Ebb	Cloudy	IS8	Bottom	4	3	2	15:01	28.5	7.77	26.6	5.1	4.36	0.7	2014-07-10
TMCLKI	HY/2012/07	2014-07-01	Mid-Ebb	Cloudy	IS(Mf)16	Surface	1	1	1	14:35	28.8	7.79	19.2	5.6	4.1	<0.5	2014-07-10
TMCLKI	HY/2012/07	2014-07-01	Mid-Ebb	Cloudy	IS(Mf)16	Surface	1	1	2	14:35	28.7	7.8	19.3	5.6	4.14	<0.5	2014-07-10
TMCLKI	HY/2012/07	2014-07-01	Mid-Ebb	Cloudy	IS(Mf)16	Middle	3.4	2	1	14:35	28.7	7.82	26.5	5.4	3.98	0.8	2014-07-10
TMCLKI	HY/2012/07	2014-07-01	Mid-Ebb	Cloudy	IS(Mf)16	Middle	3.4	2	2	14:35	28.6	7.83	26.6	5.4	4.04	0.9	2014-07-10
TMCLKI	HY/2012/07	2014-07-01	Mid-Ebb	Cloudy	IS(Mf)16	Bottom	6.8	3	1	14:35	28.4	7.75	26.6	5.2	4.34	1.5	2014-07-10
TMCLKI	HY/2012/07	2014-07-01	Mid-Ebb	Cloudy	IS(Mf)16	Bottom	6.8	3	2	14:35	28.5	7.74	26.7	5.2	4.31	1.5	2014-07-10
TMCLKI	HY/2012/07	2014-07-01	Mid-Ebb	Cloudy	IS(Mf)9	Surface	1	1	1	14:09	28.8	7.78	19.1	5.5	4.07	1.2	2014-07-10
TMCLKI	HY/2012/07	2014-07-01	Mid-Ebb	Cloudy	IS(Mf)9	Surface	1	1	2	14:09	28.8	7.77	19.2	5.4	4.12	1.2	2014-07-10
TMCLKI	HY/2012/07	2014-07-01	Mid-Ebb	Cloudy	IS(Mf)9	Middle		2	1	14:09							2014-07-10
TMCLKI	HY/2012/07	2014-07-01	Mid-Ebb	Cloudy	IS(Mf)9	Middle		2	2	14:09							2014-07-10
TMCLKI	HY/2012/07	2014-07-01	Mid-Ebb	Cloudy	IS(Mf)9	Bottom	3.8	3	1	14:09	28.3	7.76	26.4	5.2	4	3.2	2014-07-10
TMCLKI	HY/2012/07	2014-07-01	Mid-Ebb	Cloudy	IS(Mf)9	Bottom	3.8	3	2	14:09	28.2	7.75	26.5	5.2	3.96	2.5	2014-07-10

Project	Works	Date (yyyy-mm-dd)	Tide	Weather	Stat	Level	Water Depth	Lev_Co d	Replicate	Start Time	Temp_v	pH_v	Sal_v	DO_v	Turb_v	SS_v	Received Date (SS)
TMCLKI	HY/2012/07	2014-07-03	Mid-Flood	Fine	IS(Mf)9	Middle		2	2	10:47							2014-07-14
TMCLKI	HY/2012/07	2014-07-03	Mid-Flood	Fine	IS(Mf)9	Bottom	4.3	3	1	10:47	28.3	7.71	26.5	5.2	3.88	2.2	2014-07-14
TMCLKI	HY/2012/07	2014-07-03	Mid-Flood	Fine	IS(Mf)9	Bottom	4.3	3	2	10:47	28.3	7.73	26.5	5.2	3.9	3.3	2014-07-14
TMCLKI	HY/2012/07	2014-07-03	Mid-Flood	Fine	CS(Mf)3	Surface	1	1	1	11:13	28.7	7.74	19	5.5	3.74	3.8	2014-07-14
TMCLKI	HY/2012/07	2014-07-03	Mid-Flood	Fine	CS(Mf)3	Surface	1	1	2	11:13	28.8	7.75	19.1	5.6	3.76	5.1	2014-07-14
TMCLKI	HY/2012/07	2014-07-03	Mid-Flood	Fine	CS(Mf)3	Middle	5.5	2	1	11:13	28.6	7.77	26.3	5.3	3.82	3.1	2014-07-14
TMCLKI	HY/2012/07	2014-07-03	Mid-Flood	Fine	CS(Mf)3	Middle	5.5	2	2	11:13	28.5	7.76	26.4	5.3	3.8	4.4	2014-07-14
TMCLKI	HY/2012/07	2014-07-03	Mid-Flood	Fine	CS(Mf)3	Bottom	10.9	3	1	11:13	28.3	7.8	26.6	5.2	3.94	6.7	2014-07-14
TMCLKI	HY/2012/07	2014-07-03	Mid-Flood	Fine	CS(Mf)3	Bottom	10.9	3	2	11:13	28.3	7.79	26.6	5.1	3.96	6.1	2014-07-14
TMCLKI	HY/2012/07	2014-07-03	Mid-Ebb	Fine	CS(Mf)3	Surface	1	1	1	14:49	28.7	7.69	19.1	5.5	3.39	4.7	2014-07-14
TMCLKI	HY/2012/07	2014-07-03	Mid-Ebb	Fine	CS(Mf)3	Surface	1	1	2	14:49	28.8	7.7	19.1	5.4	3.31	3.5	2014-07-14
TMCLKI	HY/2012/07	2014-07-03	Mid-Ebb	Fine	CS(Mf)3	Middle	5.6	2	1	14:49	28.6	7.73	26.2	5.3	3.48	2.9	2014-07-14
TMCLKI	HY/2012/07	2014-07-03	Mid-Ebb	Fine	CS(Mf)3	Middle	5.6	2	2	14:49	28.6	7.74	26.3	5.3	3.49	2.4	2014-07-14
TMCLKI	HY/2012/07	2014-07-03	Mid-Ebb	Fine	CS(Mf)3	Bottom	10.2	3	1	14:49	28.4	7.78	26.5	5.3	3.28	4.3	2014-07-14
TMCLKI	HY/2012/07	2014-07-03	Mid-Ebb	Fine	CS(Mf)3	Bottom	10.2	3	2	14:49	28.5	7.79	26.5	5.2	3.2	3.1	2014-07-14
TMCLKI	HY/2012/07	2014-07-03	Mid-Ebb	Fine	SR4a	Surface	1	1	1	16:34	28.7	7.7	19	5.7	3.17	4.9	2014-07-14
TMCLKI	HY/2012/07	2014-07-03	Mid-Ebb	Fine	SR4a	Surface	1	1	2	16:34	28.7	7.74	19	5.8	3.19	3.9	2014-07-14
TMCLKI	HY/2012/07	2014-07-03	Mid-Ebb	Fine	SR4a	Middle		2	1	16:34							2014-07-14
TMCLKI	HY/2012/07	2014-07-03	Mid-Ebb	Fine	SR4a	Middle		2	2	16:34							2014-07-14
TMCLKI	HY/2012/07	2014-07-03	Mid-Ebb	Fine	SR4a	Bottom	4	3	1	16:34	28.4	7.72	26.5	5.5	3.27	2.9	2014-07-14
TMCLKI	HY/2012/07	2014-07-03	Mid-Ebb	Fine	SR4a	Bottom	4	3	2	16:34	28.4	7.74	26.5	5.5	3.29	3.3	2014-07-14
TMCLKI	HY/2012/07	2014-07-03	Mid-Ebb	Fine	SR4	Surface	1	1	1	16:13	28.8	7.7	19.1	5.3	3.11	4.3	2014-07-14
TMCLKI	HY/2012/07	2014-07-03	Mid-Ebb	Fine	SR4	Surface	1	1	2	16:13	28.8	7.74	19.1	5.3	3.17	3.6	2014-07-14
TMCLKI	HY/2012/07	2014-07-03	Mid-Ebb	Fine	SR4	Middle		2	1	16:13							2014-07-14
TMCLKI	HY/2012/07	2014-07-03	Mid-Ebb	Fine	SR4	Middle		2	2	16:13							2014-07-14
TMCLKI	HY/2012/07	2014-07-03	Mid-Ebb	Fine	SR4	Bottom	4	3	1	16:13	28.4	7.79	26.5	5.0	3.66	3.1	2014-07-14
TMCLKI	HY/2012/07	2014-07-03	Mid-Ebb	Fine	SR4	Bottom	4	3	2	16:13	28.4	7.74	26.5	5.1	3.68	3.4	2014-07-14
TMCLKI	HY/2012/07	2014-07-03	Mid-Ebb	Fine	IS8	Surface	1	1	1	15:52	28.7	7.86	19.1	5.4	3.47	3.1	2014-07-14
TMCLKI	HY/2012/07	2014-07-03	Mid-Ebb	Fine	IS8	Surface	1	1	2	15:52	28.8	7.8	19.1	5.4	3.43	4.3	2014-07-14
TMCLKI	HY/2012/07	2014-07-03	Mid-Ebb	Fine	IS8	Middle		2	1	15:52							2014-07-14
TMCLKI	HY/2012/07	2014-07-03	Mid-Ebb	Fine	IS8	Middle		2	2	15:52							2014-07-14
TMCLKI	HY/2012/07	2014-07-03	Mid-Ebb	Fine	IS8	Bottom	3.8	3	1	15:52	28.4	7.79	26.6	5.5	3.93	5.1	2014-07-14
TMCLKI	HY/2012/07	2014-07-03	Mid-Ebb	Fine	IS8	Bottom	3.8	3	2	15:52	28.5	7.78	26.5	5.5	3.94	3.8	2014-07-14
TMCLKI	HY/2012/07	2014-07-03	Mid-Ebb	Fine	IS(Mf)16	Surface	1	1	1	15:31	28.7	7.73	19	5.8	3.25	4.1	2014-07-14
TMCLKI	HY/2012/07	2014-07-03	Mid-Ebb	Fine	IS(Mf)16	Surface	1	1	2	15:31	28.7	7.72	19.1	5.8	3.27	4.1	2014-07-14
TMCLKI	HY/2012/07	2014-07-03	Mid-Ebb	Fine	IS(Mf)16	Middle	3.5	2	1	15:31	28.6	7.75	26.3	5.5	3.47	4.4	2014-07-14
TMCLKI	HY/2012/07	2014-07-03	Mid-Ebb	Fine	IS(Mf)16	Middle	3.5	2	2	15:31	28.5	7.74	26.3	5.5	3.49	4.3	2014-07-14
TMCLKI	HY/2012/07	2014-07-03	Mid-Ebb	Fine	IS(Mf)16	Bottom	6	3	1	15:31	28.4	7.72	26.6	5.4	3.85	3.1	2014-07-14
TMCLKI	HY/2012/07	2014-07-03	Mid-Ebb	Fine	IS(Mf)16	Bottom	6	3	2	15:31	28.4	7.7	26.6	5.4	3.81	3.6	2014-07-14

Project	Works	Date (yyyy-mm-dd)	Tide	Weather	Stat	Level	Water Depth	Lev_Cod	Replicate	Start Time	Temp_v	pH_v	Sal_v	DO_v	Turb_v	SS_v	Received Date (SS)
TMCLK	HY/2012/07	2014-07-03	Mid-Ebb	Fine	IS(Mf)9	Surface	1	1	1	15:10	28.8	7.7	19	5.7	3.56	4.9	2014-07-14
TMCLK	HY/2012/07	2014-07-03	Mid-Ebb	Fine	IS(Mf)9	Surface	1	1	2	15:10	28.8	7.71	19	5.7	3.58	3.9	2014-07-14
TMCLK	HY/2012/07	2014-07-03	Mid-Ebb	Fine	IS(Mf)9	Middle		2	1	15:10							2014-07-14
TMCLK	HY/2012/07	2014-07-03	Mid-Ebb	Fine	IS(Mf)9	Middle		2	2	15:10							2014-07-14
TMCLK	HY/2012/07	2014-07-03	Mid-Ebb	Fine	IS(Mf)9	Bottom	4	3	1	15:10	28.4	7.74	26.6	5.4	3.79	5.6	2014-07-14
TMCLK	HY/2012/07	2014-07-03	Mid-Ebb	Fine	IS(Mf)9	Bottom	4	3	2	15:10	28.4	7.76	26.6	5.4	3.77	5	2014-07-14
TMCLK	HY/2012/07	2014-07-03	Mid-Ebb	Fine	CS(Mf)5	Surface	1	1	1	16:55	28.8	7.78	19	5.7	3.2	3.3	2014-07-14
TMCLK	HY/2012/07	2014-07-03	Mid-Ebb	Fine	CS(Mf)5	Surface	1	1	2	16:55	28.7	7.79	19.1	5.7	3.28	4.1	2014-07-14
TMCLK	HY/2012/07	2014-07-03	Mid-Ebb	Fine	CS(Mf)5	Middle	4.5	2	1	16:55	28.6	7.8	26.4	5.4	3.84	4.9	2014-07-14
TMCLK	HY/2012/07	2014-07-03	Mid-Ebb	Fine	CS(Mf)5	Middle	4.5	2	2	16:55	28.6	7.82	26.4	5.4	3.86	2.9	2014-07-14
TMCLK	HY/2012/07	2014-07-03	Mid-Ebb	Fine	CS(Mf)5	Bottom	8	3	1	16:55	28.4	7.86	26.5	5.2	3.9	2.2	2014-07-14
TMCLK	HY/2012/07	2014-07-03	Mid-Ebb	Fine	CS(Mf)5	Bottom	8	3	2	16:55	28.3	7.88	26.6	5.2	3.94	2.8	2014-07-14
TMCLK	HY/2012/07	2014-07-05	Mid-Flood	Fine	CS(Mf)5	Surface	1	1	1	10:03	29.1	7.63	26.5	5.7	3.37	3.1	2014-07-16
TMCLK	HY/2012/07	2014-07-05	Mid-Flood	Fine	CS(Mf)5	Surface	1	1	2	10:03	29.1	7.65	26.6	5.7	3.39	3.3	2014-07-16
TMCLK	HY/2012/07	2014-07-05	Mid-Flood	Fine	CS(Mf)5	Middle	2.4	2	1	10:03	29	7.73	26.7	5.2	3.55	3.6	2014-07-16
TMCLK	HY/2012/07	2014-07-05	Mid-Flood	Fine	CS(Mf)5	Middle	2.4	2	2	10:03	28.9	7.75	26.8	5.3	3.53	2.1	2014-07-16
TMCLK	HY/2012/07	2014-07-05	Mid-Flood	Fine	CS(Mf)5	Bottom	3.8	3	1	10:03	28.7	7.81	26.8	5.3	3.82	3.2	2014-07-16
TMCLK	HY/2012/07	2014-07-05	Mid-Flood	Fine	CS(Mf)5	Bottom	3.8	3	2	10:03	28.8	7.83	26.9	5.3	3.8	4.3	2014-07-16
TMCLK	HY/2012/07	2014-07-05	Mid-Flood	Fine	SR4a	Surface	1	1	1	10:34	29	7.73	26.5	5.6	3.31	3	2014-07-16
TMCLK	HY/2012/07	2014-07-05	Mid-Flood	Fine	SR4a	Surface	1	1	2	10:34	29.1	7.75	26.5	5.6	3.29	3.2	2014-07-16
TMCLK	HY/2012/07	2014-07-05	Mid-Flood	Fine	SR4a	Middle		2	1	10:34							2014-07-16
TMCLK	HY/2012/07	2014-07-05	Mid-Flood	Fine	SR4a	Middle		2	2	10:34							2014-07-16
TMCLK	HY/2012/07	2014-07-05	Mid-Flood	Fine	SR4a	Bottom	4.6	3	1	10:34	28.9	7.63	26.6	5.4	3.62	3.5	2014-07-16
TMCLK	HY/2012/07	2014-07-05	Mid-Flood	Fine	SR4a	Bottom	4.6	3	2	10:34	28.8	7.65	26.7	5.5	3.6	4.8	2014-07-16
TMCLK	HY/2012/07	2014-07-05	Mid-Flood	Fine	SR4	Surface	1	1	1	11:05	29	7.69	26.6	5.5	4.24	3.6	2014-07-16
TMCLK	HY/2012/07	2014-07-05	Mid-Flood	Fine	SR4	Surface	1	1	2	11:05	29	7.71	26.5	5.6	4.26	3.3	2014-07-16
TMCLK	HY/2012/07	2014-07-05	Mid-Flood	Fine	SR4	Middle		2	1	11:05							2014-07-16
TMCLK	HY/2012/07	2014-07-05	Mid-Flood	Fine	SR4	Middle		2	2	11:05							2014-07-16
TMCLK	HY/2012/07	2014-07-05	Mid-Flood	Fine	SR4	Bottom	4.3	3	1	11:05	28.8	7.82	26.7	5.2	4.33	3.6	2014-07-16
TMCLK	HY/2012/07	2014-07-05	Mid-Flood	Fine	SR4	Bottom	4.3	3	2	11:05	28.7	7.8	26.7	5.2	4.35	2.7	2014-07-16
TMCLK	HY/2012/07	2014-07-05	Mid-Flood	Fine	IS8	Surface	1	1	1	11:36	29.1	7.81	26.5	5.6	3.83	4.1	2014-07-16
TMCLK	HY/2012/07	2014-07-05	Mid-Flood	Fine	IS8	Surface	1	1	2	11:36	29	7.83	26.4	5.6	3.85	5.4	2014-07-16
TMCLK	HY/2012/07	2014-07-05	Mid-Flood	Fine	IS8	Middle		2	1	11:36							2014-07-16
TMCLK	HY/2012/07	2014-07-05	Mid-Flood	Fine	IS8	Middle		2	2	11:36							2014-07-16
TMCLK	HY/2012/07	2014-07-05	Mid-Flood	Fine	IS8	Bottom	4.4	3	1	11:36	28.9	7.74	26.6	5.2	4.03	4.3	2014-07-16
TMCLK	HY/2012/07	2014-07-05	Mid-Flood	Fine	IS8	Bottom	4.4	3	2	11:36	28.8	7.76	26.7	5.3	4.01	3.8	2014-07-16
TMCLK	HY/2012/07	2014-07-05	Mid-Flood	Fine	IS(Mf)16	Surface	1	1	1	12:07	29	7.63	26.5	5.4	3.76	3.6	2014-07-16
TMCLK	HY/2012/07	2014-07-05	Mid-Flood	Fine	IS(Mf)16	Surface	1	1	2	12:07	28.9	7.65	26.6	5.5	3.78	3.2	2014-07-16
TMCLK	HY/2012/07	2014-07-05	Mid-Flood	Fine	IS(Mf)16	Middle	4.3	2	1	12:07	28.8	7.76	26.7	5.3	3.91	3.8	2014-07-16

Project	Works	Date (yyyy-mm-dd)	Tide	Weather	Stat	Level	Water Depth	Lev_Cod	Replicate	Start Time	Temp_v	pH_v	Sal_v	DO_v	Turb_v	SS_v	Received Date (SS)
TMCLKI	HY/2012/07	2014-07-05	Mid-Flood	Fine	IS(Mf)16	Middle	4.3	2	2	12:07	28.7	7.78	26.8	5.3	3.93	2.9	2014-07-16
TMCLKI	HY/2012/07	2014-07-05	Mid-Flood	Fine	IS(Mf)16	Bottom	7.5	3	1	12:07	28.6	7.81	26.9	5.4	4.03	2.2	2014-07-16
TMCLKI	HY/2012/07	2014-07-05	Mid-Flood	Fine	IS(Mf)16	Bottom	7.5	3	2	12:07	28.7	7.79	26.9	5.4	4.05	2.2	2014-07-16
TMCLKI	HY/2012/07	2014-07-05	Mid-Flood	Fine	IS(Mf)9	Surface	1	1	1	12:38	29	7.74	26.5	5.8	3.81	3.4	2014-07-16
TMCLKI	HY/2012/07	2014-07-05	Mid-Flood	Fine	IS(Mf)9	Surface	1	1	2	12:38	29.1	7.72	26.5	5.9	3.79	4.1	2014-07-16
TMCLKI	HY/2012/07	2014-07-05	Mid-Flood	Fine	IS(Mf)9	Middle		2	1	12:38							2014-07-16
TMCLKI	HY/2012/07	2014-07-05	Mid-Flood	Fine	IS(Mf)9	Middle		2	2	12:38							2014-07-16
TMCLKI	HY/2012/07	2014-07-05	Mid-Flood	Fine	IS(Mf)9	Bottom	4.2	3	1	12:38	28.7	7.83	26.8	5.4	4.03	3.6	2014-07-16
TMCLKI	HY/2012/07	2014-07-05	Mid-Flood	Fine	IS(Mf)9	Bottom	4.2	3	2	12:38	28.8	7.81	26.9	5.5	4.01	3.5	2014-07-16
TMCLKI	HY/2012/07	2014-07-05	Mid-Flood	Fine	CS(Mf)3	Surface	1	1	1	13:09	29.1	7.63	26.5	5.9	3.72	3.2	2014-07-16
TMCLKI	HY/2012/07	2014-07-05	Mid-Flood	Fine	CS(Mf)3	Surface	1	1	2	13:09	29.1	7.61	26.6	6.0	3.74	2.5	2014-07-16
TMCLKI	HY/2012/07	2014-07-05	Mid-Flood	Fine	CS(Mf)3	Middle	5.9	2	1	13:09	29	7.74	26.7	5.6	3.81	3.4	2014-07-16
TMCLKI	HY/2012/07	2014-07-05	Mid-Flood	Fine	CS(Mf)3	Middle	5.9	2	2	13:09	28.9	7.76	26.8	5.6	3.83	3.8	2014-07-16
TMCLKI	HY/2012/07	2014-07-05	Mid-Flood	Fine	CS(Mf)3	Bottom	10.7	3	1	13:09	28.8	7.86	26.9	5.5	3.92	3.6	2014-07-16
TMCLKI	HY/2012/07	2014-07-05	Mid-Flood	Fine	CS(Mf)3	Bottom	10.7	3	2	13:09	28.7	7.83	26.8	5.5	3.9	3.9	2014-07-16
TMCLKI	HY/2012/07	2014-07-05	Mid-Ebb	Fine	CS(Mf)3	Surface	1	1	1	16:15	29	7.76	26.5	5.8	3.84	2.7	2014-07-16
TMCLKI	HY/2012/07	2014-07-05	Mid-Ebb	Fine	CS(Mf)3	Surface	1	1	2	16:15	29	7.78	26.5	5.9	3.86	2.5	2014-07-16
TMCLKI	HY/2012/07	2014-07-05	Mid-Ebb	Fine	CS(Mf)3	Middle	5.8	2	1	16:15	28.9	7.93	26.6	5.6	3.92	2.8	2014-07-16
TMCLKI	HY/2012/07	2014-07-05	Mid-Ebb	Fine	CS(Mf)3	Middle	5.8	2	2	16:15	28.8	7.91	26.7	5.6	3.94	2.6	2014-07-16
TMCLKI	HY/2012/07	2014-07-05	Mid-Ebb	Fine	CS(Mf)3	Bottom	10.5	3	1	16:15	28.7	7.86	26.8	5.3	3.99	3	2014-07-16
TMCLKI	HY/2012/07	2014-07-05	Mid-Ebb	Fine	CS(Mf)3	Bottom	10.5	3	2	16:15	28.7	7.84	26.9	5.3	4.01	2.6	2014-07-16
TMCLKI	HY/2012/07	2014-07-05	Mid-Ebb	Fine	SR4a	Surface	1	1	1	18:50	29	7.63	26.5	5.4	3.41	2.2	2014-07-16
TMCLKI	HY/2012/07	2014-07-05	Mid-Ebb	Fine	SR4a	Surface	1	1	2	18:50	29	7.65	26.5	5.5	3.43	2.7	2014-07-16
TMCLKI	HY/2012/07	2014-07-05	Mid-Ebb	Fine	SR4a	Middle		2	1	18:50							2014-07-16
TMCLKI	HY/2012/07	2014-07-05	Mid-Ebb	Fine	SR4a	Middle		2	2	18:50							2014-07-16
TMCLKI	HY/2012/07	2014-07-05	Mid-Ebb	Fine	SR4a	Bottom	4.3	3	1	18:50	28.7	7.75	26.7	5.3	3.77	2.2	2014-07-16
TMCLKI	HY/2012/07	2014-07-05	Mid-Ebb	Fine	SR4a	Bottom	4.3	3	2	18:50	28.8	7.77	26.8	5.3	3.79	2.8	2014-07-16
TMCLKI	HY/2012/07	2014-07-05	Mid-Ebb	Fine	SR4	Surface	1	1	1	18:19	29	7.65	26.5	5.6	4.32	3.6	2014-07-16
TMCLKI	HY/2012/07	2014-07-05	Mid-Ebb	Fine	SR4	Surface	1	1	2	18:19	29	7.67	26.6	5.6	4.35	3.4	2014-07-16
TMCLKI	HY/2012/07	2014-07-05	Mid-Ebb	Fine	SR4	Middle		2	1	18:19							2014-07-16
TMCLKI	HY/2012/07	2014-07-05	Mid-Ebb	Fine	SR4	Middle		2	2	18:19							2014-07-16
TMCLKI	HY/2012/07	2014-07-05	Mid-Ebb	Fine	SR4	Bottom	4	3	1	18:19	28.8	7.74	26.7	5.3	4.46	3	2014-07-16
TMCLKI	HY/2012/07	2014-07-05	Mid-Ebb	Fine	SR4	Bottom	4	3	2	18:19	28.7	7.72	26.8	5.3	4.48	3.2	2014-07-16
TMCLKI	HY/2012/07	2014-07-05	Mid-Ebb	Fine	IS8	Surface	1	1	1	17:48	29	7.76	26.6	5.7	4.02	2.1	2014-07-16
TMCLKI	HY/2012/07	2014-07-05	Mid-Ebb	Fine	IS8	Surface	1	1	2	17:48	28.9	7.79	26.7	5.8	4.04	3.4	2014-07-16
TMCLKI	HY/2012/07	2014-07-05	Mid-Ebb	Fine	IS8	Middle		2	1	17:48							2014-07-16
TMCLKI	HY/2012/07	2014-07-05	Mid-Ebb	Fine	IS8	Middle		2	2	17:48							2014-07-16
TMCLKI	HY/2012/07	2014-07-05	Mid-Ebb	Fine	IS8	Bottom	4.2	3	1	17:48	28.7	7.85	26.8	5.2	4.11	4.3	2014-07-16
TMCLKI	HY/2012/07	2014-07-05	Mid-Ebb	Fine	IS8	Bottom	4.2	3	2	17:48	28.6	7.88	26.9	5.2	4.13	3.6	2014-07-16

Project	Works	Date (yyyy-mm-dd)	Tide	Weather	Stat	Level	Water Depth	Lev_Cod	Replicate	Start Time	Temp_v	pH_v	Sal_v	DO_v	Turb_v	SS_v	Received Date (SS)
TMCLKI	HY/2012/07	2014-07-08	Mid-Flood	Fine	IS8	Middle		2	2	15:56							2014-07-21
TMCLKI	HY/2012/07	2014-07-08	Mid-Flood	Fine	IS8	Bottom	4.2	3	1	15:56	28.8	7.64	19.1	5.4	5.26	4.2	2014-07-21
TMCLKI	HY/2012/07	2014-07-08	Mid-Flood	Fine	IS8	Bottom	4.2	3	2	15:56	28.9	7.66	19.2	5.4	5.29	3.5	2014-07-21
TMCLKI	HY/2012/07	2014-07-08	Mid-Flood	Fine	IS(Mf)16	Surface	1	1	1	16:20	29	7.77	19	5.7	4.63	6.1	2014-07-21
TMCLKI	HY/2012/07	2014-07-08	Mid-Flood	Fine	IS(Mf)16	Surface	1	1	2	16:20	28.9	7.79	19.1	5.7	4.65	5.7	2014-07-21
TMCLKI	HY/2012/07	2014-07-08	Mid-Flood	Fine	IS(Mf)16	Middle	4.3	2	1	16:20	28.8	7.85	19.2	5.6	4.82	4.4	2014-07-21
TMCLKI	HY/2012/07	2014-07-08	Mid-Flood	Fine	IS(Mf)16	Middle	4.3	2	2	16:20	28.7	7.87	19.2	5.6	4.8	6.1	2014-07-21
TMCLKI	HY/2012/07	2014-07-08	Mid-Flood	Fine	IS(Mf)16	Bottom	7.6	3	1	16:20	28.6	7.72	19.3	5.4	4.9	4.7	2014-07-21
TMCLKI	HY/2012/07	2014-07-08	Mid-Flood	Fine	IS(Mf)16	Bottom	7.6	3	2	16:20	28.6	7.7	19.4	5.5	4.88	5	2014-07-21
TMCLKI	HY/2012/07	2014-07-08	Mid-Flood	Fine	IS(Mf)9	Surface	1	1	1	16:44	29	7.77	19	5.8	4.63	4.8	2014-07-21
TMCLKI	HY/2012/07	2014-07-08	Mid-Flood	Fine	IS(Mf)9	Surface	1	1	2	16:44	28.9	7.75	19.1	5.8	4.65	4.7	2014-07-21
TMCLKI	HY/2012/07	2014-07-08	Mid-Flood	Fine	IS(Mf)9	Middle		2	1	16:44							2014-07-21
TMCLKI	HY/2012/07	2014-07-08	Mid-Flood	Fine	IS(Mf)9	Middle		2	2	16:44							2014-07-21
TMCLKI	HY/2012/07	2014-07-08	Mid-Flood	Fine	IS(Mf)9	Bottom	5	3	1	16:44	28.8	7.82	19.2	5.5	4.82	3.1	2014-07-21
TMCLKI	HY/2012/07	2014-07-08	Mid-Flood	Fine	IS(Mf)9	Bottom	5	3	2	16:44	28.8	7.84	19.2	5.5	4.8	4.6	2014-07-21
TMCLKI	HY/2012/07	2014-07-08	Mid-Flood	Fine	CS(Mf)3	Surface	1	1	1	17:08	29	7.66	19	5.9	4.72	4.7	2014-07-21
TMCLKI	HY/2012/07	2014-07-08	Mid-Flood	Fine	CS(Mf)3	Surface	1	1	2	17:08	29.1	7.64	19.1	5.9	4.7	4.3	2014-07-21
TMCLKI	HY/2012/07	2014-07-08	Mid-Flood	Fine	CS(Mf)3	Middle	5.9	2	1	17:08	28.9	7.72	19.2	5.8	4.88	3.8	2014-07-21
TMCLKI	HY/2012/07	2014-07-08	Mid-Flood	Fine	CS(Mf)3	Middle	5.9	2	2	17:08	28.8	7.73	19.3	5.8	4.86	3.9	2014-07-21
TMCLKI	HY/2012/07	2014-07-08	Mid-Flood	Fine	CS(Mf)3	Bottom	10.7	3	1	17:08	28.7	7.77	19.4	5.7	4.92	4.6	2014-07-21
TMCLKI	HY/2012/07	2014-07-08	Mid-Flood	Fine	CS(Mf)3	Bottom	10.7	3	2	17:08	28.7	7.79	19.4	5.7	4.93	4	2014-07-21
TMCLKI	HY/2012/07	2014-07-08	Mid-Ebb	Fine	CS(Mf)3	Surface	1	1	1	08:23	29	7.76	19	5.8	4.86	3.6	2014-07-21
TMCLKI	HY/2012/07	2014-07-08	Mid-Ebb	Fine	CS(Mf)3	Surface	1	1	2	08:23	29	7.74	19.1	5.8	4.88	3.3	2014-07-21
TMCLKI	HY/2012/07	2014-07-08	Mid-Ebb	Fine	CS(Mf)3	Middle	5.8	2	1	08:23	28.8	7.63	19.2	5.7	4.92	2.9	2014-07-21
TMCLKI	HY/2012/07	2014-07-08	Mid-Ebb	Fine	CS(Mf)3	Middle	5.8	2	2	08:23	28.7	7.61	19.2	5.7	4.93	3.2	2014-07-21
TMCLKI	HY/2012/07	2014-07-08	Mid-Ebb	Fine	CS(Mf)3	Bottom	10.5	3	1	08:23	28.6	7.79	19.3	5.5	5.06	4.9	2014-07-21
TMCLKI	HY/2012/07	2014-07-08	Mid-Ebb	Fine	CS(Mf)3	Bottom	10.5	3	2	08:23	28.7	7.81	19.4	5.6	5.08	4.2	2014-07-21
TMCLKI	HY/2012/07	2014-07-08	Mid-Ebb	Fine	SR4a	Surface	1	1	1	10:33	29.1	7.63	19	5.4	4.8	2.9	2014-07-21
TMCLKI	HY/2012/07	2014-07-08	Mid-Ebb	Fine	SR4a	Surface	1	1	2	10:33	29	7.65	19	5.4	4.83	2.3	2014-07-21
TMCLKI	HY/2012/07	2014-07-08	Mid-Ebb	Fine	SR4a	Middle		2	1	10:33							2014-07-21
TMCLKI	HY/2012/07	2014-07-08	Mid-Ebb	Fine	SR4a	Middle		2	2	10:33							2014-07-21
TMCLKI	HY/2012/07	2014-07-08	Mid-Ebb	Fine	SR4a	Bottom	4.2	3	1	10:33	28.7	7.76	19.2	5.2	4.97	4	2014-07-21
TMCLKI	HY/2012/07	2014-07-08	Mid-Ebb	Fine	SR4a	Bottom	4.2	3	2	10:33	28.8	7.74	19.3	5.3	4.99	3.2	2014-07-21
TMCLKI	HY/2012/07	2014-07-08	Mid-Ebb	Fine	SR4	Surface	1	1	1	10:07	29	7.66	19	5.6	5.03	2.6	2014-07-21
TMCLKI	HY/2012/07	2014-07-08	Mid-Ebb	Fine	SR4	Surface	1	1	2	10:07	28.9	7.68	19.1	5.6	5.05	3.6	2014-07-21
TMCLKI	HY/2012/07	2014-07-08	Mid-Ebb	Fine	SR4	Middle		2	1	10:07							2014-07-21
TMCLKI	HY/2012/07	2014-07-08	Mid-Ebb	Fine	SR4	Middle		2	2	10:07							2014-07-21
TMCLKI	HY/2012/07	2014-07-08	Mid-Ebb	Fine	SR4	Bottom	3.6	3	1	10:07	28.7	7.85	19.2	5.3	6.43	3.8	2014-07-21
TMCLKI	HY/2012/07	2014-07-08	Mid-Ebb	Fine	SR4	Bottom	3.6	3	2	10:07	28.8	7.82	19.3	5.3	6.45	2.6	2014-07-21

Project	Works	Date (yyyy-mm-dd)	Tide	Weather	Stat	Level	Water Depth	Lev_Cod	Replicate	Start Time	Temp_v	pH_v	Sal_v	DO_v	Turb_v	SS_v	Received Date (SS)
TMCLK	HY/2012/07	2014-07-10	Mid-Flood	Fine	SR4	Middle		2	2	17:22							2014-07-22
TMCLK	HY/2012/07	2014-07-10	Mid-Flood	Fine	SR4	Bottom	4.2	3	1	17:22	28.7	7.79	19.5	5.9	4.6	5.2	2014-07-22
TMCLK	HY/2012/07	2014-07-10	Mid-Flood	Fine	SR4	Bottom	4.2	3	2	17:22	28.8	7.8	19.6	5.9	4.62	6.2	2014-07-22
TMCLK	HY/2012/07	2014-07-10	Mid-Flood	Fine	IS8	Surface	1	1	1	17:43	29	7.77	19.3	5.9	4.29	5.2	2014-07-22
TMCLK	HY/2012/07	2014-07-10	Mid-Flood	Fine	IS8	Surface	1	1	2	17:43	29	7.76	19.3	5.8	4.24	4.3	2014-07-22
TMCLK	HY/2012/07	2014-07-10	Mid-Flood	Fine	IS8	Middle		2	1	17:43							2014-07-22
TMCLK	HY/2012/07	2014-07-10	Mid-Flood	Fine	IS8	Middle		2	2	17:43							2014-07-22
TMCLK	HY/2012/07	2014-07-10	Mid-Flood	Fine	IS8	Bottom	4	3	1	17:43	28.8	7.74	19.6	5.6	4.97	4.1	2014-07-22
TMCLK	HY/2012/07	2014-07-10	Mid-Flood	Fine	IS8	Bottom	4	3	2	17:43	28.8	7.73	19.6	5.5	4.99	4.8	2014-07-22
TMCLK	HY/2012/07	2014-07-10	Mid-Flood	Fine	IS(Mf)16	Surface	1	1	1	18:04	29	7.7	19.3	5.8	4.14	3.9	2014-07-22
TMCLK	HY/2012/07	2014-07-10	Mid-Flood	Fine	IS(Mf)16	Surface	1	1	2	18:04	29	7.71	19.4	5.7	4.18	5.2	2014-07-22
TMCLK	HY/2012/07	2014-07-10	Mid-Flood	Fine	IS(Mf)16	Middle	4.4	2	1	18:04	28.9	7.73	19.4	5.4	4.61	4.2	2014-07-22
TMCLK	HY/2012/07	2014-07-10	Mid-Flood	Fine	IS(Mf)16	Middle	4.4	2	2	18:04	28.9	7.72	19.5	5.4	4.69	4.5	2014-07-22
TMCLK	HY/2012/07	2014-07-10	Mid-Flood	Fine	IS(Mf)16	Bottom	7.8	3	1	18:04	28.7	7.76	19.6	5.5	4.5	4.6	2014-07-22
TMCLK	HY/2012/07	2014-07-10	Mid-Flood	Fine	IS(Mf)16	Bottom	7.8	3	2	18:04	28.8	7.75	19.6	5.5	4.54	4.6	2014-07-22
TMCLK	HY/2012/07	2014-07-10	Mid-Flood	Fine	IS(Mf)9	Surface	1	1	1	18:32	29	7.7	19.3	5.3	4.95	4.1	2014-07-22
TMCLK	HY/2012/07	2014-07-10	Mid-Flood	Fine	IS(Mf)9	Surface	1	1	2	18:32	29.1	7.71	19.3	5.3	4.9	3.2	2014-07-22
TMCLK	HY/2012/07	2014-07-10	Mid-Flood	Fine	IS(Mf)9	Middle		2	1	18:32							2014-07-22
TMCLK	HY/2012/07	2014-07-10	Mid-Flood	Fine	IS(Mf)9	Middle		2	2	18:32							2014-07-22
TMCLK	HY/2012/07	2014-07-10	Mid-Flood	Fine	IS(Mf)9	Bottom	4.6	3	1	18:32	28.7	7.72	19.5	5.3	4.73	4.3	2014-07-22
TMCLK	HY/2012/07	2014-07-10	Mid-Flood	Fine	IS(Mf)9	Bottom	4.6	3	2	18:32	28.7	7.73	19.5	5.3	4.8	5.6	2014-07-22
TMCLK	HY/2012/07	2014-07-10	Mid-Flood	Fine	CS(Mf)3	Surface	1	1	1	18:57	29	7.74	19.4	5.5	4.19	7.2	2014-07-22
TMCLK	HY/2012/07	2014-07-10	Mid-Flood	Fine	CS(Mf)3	Surface	1	1	2	18:57	29	7.71	19.3	5.4	4.14	7	2014-07-22
TMCLK	HY/2012/07	2014-07-10	Mid-Flood	Fine	CS(Mf)3	Middle	5.7	2	1	18:57	28.9	7.76	19.5	5.6	4.6	7.2	2014-07-22
TMCLK	HY/2012/07	2014-07-10	Mid-Flood	Fine	CS(Mf)3	Middle	5.7	2	2	18:57	28.9	7.77	19.5	5.6	4.68	7.2	2014-07-22
TMCLK	HY/2012/07	2014-07-10	Mid-Flood	Fine	CS(Mf)3	Bottom	10.4	3	1	18:57	28.7	7.79	19.6	5.3	4.21	7.5	2014-07-22
TMCLK	HY/2012/07	2014-07-10	Mid-Flood	Fine	CS(Mf)3	Bottom	10.4	3	2	18:57	28.8	7.78	19.6	5.4	4.24	7.9	2014-07-22
TMCLK	HY/2012/07	2014-07-10	Mid-Ebb	Fine	CS(Mf)3	Surface	1	1	1	09:31	29	7.76	19.3	5.7	4.3	4.5	2014-07-22
TMCLK	HY/2012/07	2014-07-10	Mid-Ebb	Fine	CS(Mf)3	Surface	1	1	2	09:31	29	7.78	19.4	5.7	4.31	4.8	2014-07-22
TMCLK	HY/2012/07	2014-07-10	Mid-Ebb	Fine	CS(Mf)3	Middle	5.5	2	1	09:31	28.8	7.74	19.5	5.6	4.66	4	2014-07-22
TMCLK	HY/2012/07	2014-07-10	Mid-Ebb	Fine	CS(Mf)3	Middle	5.5	2	2	09:31	28.9	7.75	19.5	5.6	4.69	5.3	2014-07-22
TMCLK	HY/2012/07	2014-07-10	Mid-Ebb	Fine	CS(Mf)3	Bottom	10	3	1	09:31	28.7	7.7	19.6	5.3	4.71	4.5	2014-07-22
TMCLK	HY/2012/07	2014-07-10	Mid-Ebb	Fine	CS(Mf)3	Bottom	10	3	2	09:31	28.7	7.7	19.6	5.3	4.73	5	2014-07-22
TMCLK	HY/2012/07	2014-07-10	Mid-Ebb	Fine	SR4a	Surface	1	1	1	12:00	29.1	7.76	19.4	5.6	4.62	4.1	2014-07-22
TMCLK	HY/2012/07	2014-07-10	Mid-Ebb	Fine	SR4a	Surface	1	1	2	12:00	29	7.75	19.4	5.7	4.64	5.3	2014-07-22
TMCLK	HY/2012/07	2014-07-10	Mid-Ebb	Fine	SR4a	Middle		2	1	12:00							2014-07-22
TMCLK	HY/2012/07	2014-07-10	Mid-Ebb	Fine	SR4a	Middle		2	2	12:00							2014-07-22
TMCLK	HY/2012/07	2014-07-10	Mid-Ebb	Fine	SR4a	Bottom	4	3	1	12:00	28.7	7.73	19.6	5.3	4.76	3.7	2014-07-22
TMCLK	HY/2012/07	2014-07-10	Mid-Ebb	Fine	SR4a	Bottom	4	3	2	12:00	28.7	7.74	19.7	5.3	4.78	4.1	2014-07-22

Project	Works	Date (yyyy-mm-dd)	Tide	Weather	Stat	Level	Water Depth	Lev_Co d	Replicate	Start Time	Temp_v	pH_v	Sal_v	DO_v	Turb_v	SS_v	Received Date (SS)
TMCLK	HY/2012/07	2014-07-12	Mid-Flood	Cloudy	SR4a	Middle		2	2	18:35							2014-07-23
TMCLK	HY/2012/07	2014-07-12	Mid-Flood	Cloudy	SR4a	Bottom	4.6	3	1	18:35	28.9	7.76	19.4	5.5	4.34	3.6	2014-07-23
TMCLK	HY/2012/07	2014-07-12	Mid-Flood	Cloudy	SR4a	Bottom	4.6	3	2	18:35	28.9	7.77	19.4	5.4	4.31	3.4	2014-07-23
TMCLK	HY/2012/07	2014-07-12	Mid-Flood	Cloudy	SR4	Surface	1	1	1	18:56	29.2	7.71	19.2	5.8	4.12	5.5	2014-07-23
TMCLK	HY/2012/07	2014-07-12	Mid-Flood	Cloudy	SR4	Surface	1	1	2	18:56	29.3	7.72	19.2	5.9	4.13	5.2	2014-07-23
TMCLK	HY/2012/07	2014-07-12	Mid-Flood	Cloudy	SR4	Middle		2	1	18:56							2014-07-23
TMCLK	HY/2012/07	2014-07-12	Mid-Flood	Cloudy	SR4	Middle		2	2	18:56							2014-07-23
TMCLK	HY/2012/07	2014-07-12	Mid-Flood	Cloudy	SR4	Bottom	3.8	3	1	18:56	28.9	7.7	19.4	5.3	4.46	5.5	2014-07-23
TMCLK	HY/2012/07	2014-07-12	Mid-Flood	Cloudy	SR4	Bottom	3.8	3	2	18:56	28.9	7.72	19.4	5.4	4.47	4.8	2014-07-23
TMCLK	HY/2012/07	2014-07-12	Mid-Flood	Cloudy	IS8	Surface	1	1	1	19:17	29.2	7.71	19.2	5.8	4.04	4.8	2014-07-23
TMCLK	HY/2012/07	2014-07-12	Mid-Flood	Cloudy	IS8	Surface	1	1	2	19:17	29.2	7.7	19.3	5.7	4.07	5.1	2014-07-23
TMCLK	HY/2012/07	2014-07-12	Mid-Flood	Cloudy	IS8	Middle		2	1	19:17							2014-07-23
TMCLK	HY/2012/07	2014-07-12	Mid-Flood	Cloudy	IS8	Middle		2	2	19:17							2014-07-23
TMCLK	HY/2012/07	2014-07-12	Mid-Flood	Cloudy	IS8	Bottom	4.2	3	1	19:17	28.9	7.74	19.4	5.2	4.12	5.4	2014-07-23
TMCLK	HY/2012/07	2014-07-12	Mid-Flood	Cloudy	IS8	Bottom	4.2	3	2	19:17	28.9	7.73	19.5	5.1	4.1	4.7	2014-07-23
TMCLK	HY/2012/07	2014-07-12	Mid-Flood	Cloudy	IS(Mf)16	Surface	1	1	1	19:38	29.2	7.72	19.2	5.6	4.27	4.8	2014-07-23
TMCLK	HY/2012/07	2014-07-12	Mid-Flood	Cloudy	IS(Mf)16	Surface	1	1	2	19:38	29.2	7.7	19.2	5.6	4.23	4.8	2014-07-23
TMCLK	HY/2012/07	2014-07-12	Mid-Flood	Cloudy	IS(Mf)16	Middle	4.2	2	1	19:38	29.1	7.74	19.4	5.4	4.52	4.7	2014-07-23
TMCLK	HY/2012/07	2014-07-12	Mid-Flood	Cloudy	IS(Mf)16	Middle	4.2	2	2	19:38	29.1	7.73	19.4	5.4	4.5	4.8	2014-07-23
TMCLK	HY/2012/07	2014-07-12	Mid-Flood	Cloudy	IS(Mf)16	Bottom	7.4	3	1	19:38	28.9	7.76	19.5	5.3	4.73	4.3	2014-07-23
TMCLK	HY/2012/07	2014-07-12	Mid-Flood	Cloudy	IS(Mf)16	Bottom	7.4	3	2	19:38	28.9	7.77	19.5	5.3	4.72	4.2	2014-07-23
TMCLK	HY/2012/07	2014-07-12	Mid-Flood	Cloudy	IS(Mf)9	Surface	1	1	1	19:58	29.3	7.76	19.2	5.6	4.13	4.3	2014-07-23
TMCLK	HY/2012/07	2014-07-12	Mid-Flood	Cloudy	IS(Mf)9	Surface	1	1	2	19:58	29.3	7.75	19.2	5.5	4.12	4.8	2014-07-23
TMCLK	HY/2012/07	2014-07-12	Mid-Flood	Cloudy	IS(Mf)9	Middle		2	1	19:58							2014-07-23
TMCLK	HY/2012/07	2014-07-12	Mid-Flood	Cloudy	IS(Mf)9	Middle		2	2	19:58							2014-07-23
TMCLK	HY/2012/07	2014-07-12	Mid-Flood	Cloudy	IS(Mf)9	Bottom	4	3	1	19:58	28.9	7.74	19.5	5.1	4.1	4.1	2014-07-23
TMCLK	HY/2012/07	2014-07-12	Mid-Flood	Cloudy	IS(Mf)9	Bottom	4	3	2	19:58	28.9	7.73	19.5	5.2	4.08	5.5	2014-07-23
TMCLK	HY/2012/07	2014-07-12	Mid-Flood	Cloudy	CS(Mf)3	Surface	1	1	1	20:25	29.3	7.72	19.2	5.4	4.4	3.2	2014-07-23
TMCLK	HY/2012/07	2014-07-12	Mid-Flood	Cloudy	CS(Mf)3	Surface	1	1	2	20:25	29.3	7.73	19.1	5.3	4.42	4	2014-07-23
TMCLK	HY/2012/07	2014-07-12	Mid-Flood	Cloudy	CS(Mf)3	Middle	6	2	1	20:25	29.2	7.76	19.3	5.1	4.34	3.1	2014-07-23
TMCLK	HY/2012/07	2014-07-12	Mid-Flood	Cloudy	CS(Mf)3	Middle	6	2	2	20:25	29.1	7.75	19.4	5.1	4.36	3.9	2014-07-23
TMCLK	HY/2012/07	2014-07-12	Mid-Flood	Cloudy	CS(Mf)3	Bottom	11	3	1	20:25	28.9	7.75	19.5	5.2	4.66	4	2014-07-23
TMCLK	HY/2012/07	2014-07-12	Mid-Flood	Cloudy	CS(Mf)3	Bottom	11	3	2	20:25	28.9	7.74	19.5	5.2	4.6	4.6	2014-07-23
TMCLK	HY/2012/07	2014-07-12	Mid-Ebb	Cloudy	CS(Mf)3	Surface	1	1	1	11:04	29.1	7.81	19.1	5.7	4.92	5.7	2014-07-23
TMCLK	HY/2012/07	2014-07-12	Mid-Ebb	Cloudy	CS(Mf)3	Surface	1	1	2	11:04	29	7.8	19.2	5.7	4.94	5	2014-07-23
TMCLK	HY/2012/07	2014-07-12	Mid-Ebb	Cloudy	CS(Mf)3	Middle	5.8	2	1	11:04	28.9	7.68	19.3	5.6	4.98	5.9	2014-07-23
TMCLK	HY/2012/07	2014-07-12	Mid-Ebb	Cloudy	CS(Mf)3	Middle	5.8	2	2	11:04	28.8	7.66	19.2	5.6	4.99	4.5	2014-07-23
TMCLK	HY/2012/07	2014-07-12	Mid-Ebb	Cloudy	CS(Mf)3	Bottom	10.6	3	1	11:04	28.7	7.84	19.4	5.4	5.12	5.2	2014-07-23
TMCLK	HY/2012/07	2014-07-12	Mid-Ebb	Cloudy	CS(Mf)3	Bottom	10.6	3	2	11:04	28.8	7.86	19.5	5.5	5.14	6	2014-07-23

Project	Works	Date (yyyy-mm-dd)	Tide	Weather	Stat	Level	Water Depth	Lev_Cod	Replicate	Start Time	Temp_v	pH_v	Sal_v	DO_v	Turb_v	SS_v	Received Date (SS)
TMCLK	HY/2012/07	2014-07-12	Mid-Ebb	Cloudy	SR4a	Surface	1	1	1	13:39	29.1	7.68	19	5.3	4.86	3.3	2014-07-23
TMCLK	HY/2012/07	2014-07-12	Mid-Ebb	Cloudy	SR4a	Surface	1	1	2	13:39	29.2	7.7	19.1	5.3	4.89	2.9	2014-07-23
TMCLK	HY/2012/07	2014-07-12	Mid-Ebb	Cloudy	SR4a	Middle		2	1	13:39							2014-07-23
TMCLK	HY/2012/07	2014-07-12	Mid-Ebb	Cloudy	SR4a	Middle		2	2	13:39							2014-07-23
TMCLK	HY/2012/07	2014-07-12	Mid-Ebb	Cloudy	SR4a	Bottom	4.4	3	1	13:39	28.9	7.81	19.3	5.1	5.03	4.3	2014-07-23
TMCLK	HY/2012/07	2014-07-12	Mid-Ebb	Cloudy	SR4a	Bottom	4.4	3	2	13:39	28.8	7.79	19.4	5.2	5.05	4.6	2014-07-23
TMCLK	HY/2012/07	2014-07-12	Mid-Ebb	Cloudy	SR4	Surface	1	1	1	13:09	29.1	7.71	19.2	5.5	5.09	3.7	2014-07-23
TMCLK	HY/2012/07	2014-07-12	Mid-Ebb	Cloudy	SR4	Surface	1	1	2	13:09	29	7.73	19.1	5.5	5.11	4.3	2014-07-23
TMCLK	HY/2012/07	2014-07-12	Mid-Ebb	Cloudy	SR4	Middle		2	1	13:09							2014-07-23
TMCLK	HY/2012/07	2014-07-12	Mid-Ebb	Cloudy	SR4	Middle		2	2	13:09							2014-07-23
TMCLK	HY/2012/07	2014-07-12	Mid-Ebb	Cloudy	SR4	Bottom	3.4	3	1	13:09	28.9	7.9	19.3	5.2	6.49	3.9	2014-07-23
TMCLK	HY/2012/07	2014-07-12	Mid-Ebb	Cloudy	SR4	Bottom	3.4	3	2	13:09	28.8	7.87	19.4	5.2	6.51	3.2	2014-07-23
TMCLK	HY/2012/07	2014-07-12	Mid-Ebb	Cloudy	IS8	Surface	1	1	1	12:39	29.1	7.82	19.2	5.3	4.83	4.4	2014-07-23
TMCLK	HY/2012/07	2014-07-12	Mid-Ebb	Cloudy	IS8	Surface	1	1	2	12:39	29.2	7.8	19.3	5.3	4.86	5	2014-07-23
TMCLK	HY/2012/07	2014-07-12	Mid-Ebb	Cloudy	IS8	Middle		2	1	12:39							2014-07-23
TMCLK	HY/2012/07	2014-07-12	Mid-Ebb	Cloudy	IS8	Middle		2	2	12:39							2014-07-23
TMCLK	HY/2012/07	2014-07-12	Mid-Ebb	Cloudy	IS8	Bottom	3.8	3	1	12:39	28.9	7.73	19.5	5.2	5.47	5.2	2014-07-23
TMCLK	HY/2012/07	2014-07-12	Mid-Ebb	Cloudy	IS8	Bottom	3.8	3	2	12:39	29	7.75	19.4	5.2	5.49	4.4	2014-07-23
TMCLK	HY/2012/07	2014-07-12	Mid-Ebb	Cloudy	IS(Mf)16	Surface	1	1	1	12:09	29.1	7.87	19.1	5.5	4.92	4.9	2014-07-23
TMCLK	HY/2012/07	2014-07-12	Mid-Ebb	Cloudy	IS(Mf)16	Surface	1	1	2	12:09	29	7.85	19.2	5.5	4.9	5.3	2014-07-23
TMCLK	HY/2012/07	2014-07-12	Mid-Ebb	Cloudy	IS(Mf)16	Middle	4.1	2	1	12:09	28.9	7.74	19.4	5.4	4.98	4.7	2014-07-23
TMCLK	HY/2012/07	2014-07-12	Mid-Ebb	Cloudy	IS(Mf)16	Middle	4.1	2	2	12:09	29	7.76	19.3	5.4	4.99	4.6	2014-07-23
TMCLK	HY/2012/07	2014-07-12	Mid-Ebb	Cloudy	IS(Mf)16	Bottom	4.2	3	1	12:09	28.8	7.81	19.4	5.3	5.07	5	2014-07-23
TMCLK	HY/2012/07	2014-07-12	Mid-Ebb	Cloudy	IS(Mf)16	Bottom	4.2	3	2	12:09	28.7	7.83	19.5	5.3	5.09	4.8	2014-07-23
TMCLK	HY/2012/07	2014-07-12	Mid-Ebb	Cloudy	IS(Mf)9	Surface	1	1	1	11:39	29	7.71	19.1	5.7	4.82	4.3	2014-07-23
TMCLK	HY/2012/07	2014-07-12	Mid-Ebb	Cloudy	IS(Mf)9	Surface	1	1	2	11:39	29.1	7.73	19.2	5.6	4.8	4.4	2014-07-23
TMCLK	HY/2012/07	2014-07-12	Mid-Ebb	Cloudy	IS(Mf)9	Middle		2	1	11:39							2014-07-23
TMCLK	HY/2012/07	2014-07-12	Mid-Ebb	Cloudy	IS(Mf)9	Middle		2	2	11:39							2014-07-23
TMCLK	HY/2012/07	2014-07-12	Mid-Ebb	Cloudy	IS(Mf)9	Bottom	3.6	3	1	11:39	28.9	7.77	19.4	5.3	4.99	3.6	2014-07-23
TMCLK	HY/2012/07	2014-07-12	Mid-Ebb	Cloudy	IS(Mf)9	Bottom	3.6	3	2	11:39	28.8	7.75	19.3	5.3	4.97	4.1	2014-07-23
TMCLK	HY/2012/07	2014-07-12	Mid-Ebb	Cloudy	CS(Mf)5	Surface	1	1	1	14:14	29.2	7.83	19.2	5.5	4.99	4.7	2014-07-23
TMCLK	HY/2012/07	2014-07-12	Mid-Ebb	Cloudy	CS(Mf)5	Surface	1	1	2	14:14	29.1	7.85	19.3	5.5	4.97	4.8	2014-07-23
TMCLK	HY/2012/07	2014-07-12	Mid-Ebb	Cloudy	CS(Mf)5	Middle	4.7	2	1	14:14	29	7.68	19.3	5.3	5.12	6.2	2014-07-23
TMCLK	HY/2012/07	2014-07-12	Mid-Ebb	Cloudy	CS(Mf)5	Middle	4.7	2	2	14:14	29.1	7.66	19.4	5.2	5.14	5.8	2014-07-23
TMCLK	HY/2012/07	2014-07-12	Mid-Ebb	Cloudy	CS(Mf)5	Bottom	8.4	3	1	14:14	28.9	7.79	19.6	5.1	5.18	5.2	2014-07-23
TMCLK	HY/2012/07	2014-07-12	Mid-Ebb	Cloudy	CS(Mf)5	Bottom	8.4	3	2	14:14	28.8	7.77	19.5	5.1	5.2	6	2014-07-23
TMCLK	HY/2012/07	2014-07-15	Mid-Flood	Sunny	CS(Mf)5	Surface	1	1	1	09:00	29	7.81	19.1	5.7	4.68	4.4	2014-07-25
TMCLK	HY/2012/07	2014-07-15	Mid-Flood	Sunny	CS(Mf)5	Surface	1	1	2	09:00	29	7.8	19.1	5.7	4.62	3.8	2014-07-25
TMCLK	HY/2012/07	2014-07-15	Mid-Flood	Sunny	CS(Mf)5	Middle	4.8	2	1	09:00	28.8	7.81	19.2	5.6	4.52	4.6	2014-07-25

Project	Works	Date (yyyy-mm-dd)	Tide	Weather	Stat	Level	Water Depth	Lev_Cod	Replicate	Start Time	Temp_v	pH_v	Sal_v	DO_v	Turb_v	SS_v	Received Date (SS)
TMCLK	HY/2012/07	2014-07-15	Mid-Flood	Sunny	CS(Mf)5	Middle	4.8	2	2	09:00	28.8	7.81	19.2	5.6	4.56	5	2014-07-25
TMCLK	HY/2012/07	2014-07-15	Mid-Flood	Sunny	CS(Mf)5	Bottom	8.6	3	1	09:00	28.7	7.8	19.4	5.5	4.5	3.6	2014-07-25
TMCLK	HY/2012/07	2014-07-15	Mid-Flood	Sunny	CS(Mf)5	Bottom	8.6	3	2	09:00	28.7	7.8	19.4	5.5	4.54	5.5	2014-07-25
TMCLK	HY/2012/07	2014-07-15	Mid-Flood	Sunny	SR4a	Surface	1	1	1	09:18	29	7.8	19	5.7	4.52	4.1	2014-07-25
TMCLK	HY/2012/07	2014-07-15	Mid-Flood	Sunny	SR4a	Surface	1	1	2	09:18	29	7.8	19.1	5.7	4.47	3.5	2014-07-25
TMCLK	HY/2012/07	2014-07-15	Mid-Flood	Sunny	SR4a	Middle		2	1	09:18							2014-07-25
TMCLK	HY/2012/07	2014-07-15	Mid-Flood	Sunny	SR4a	Middle		2	2	09:18							2014-07-25
TMCLK	HY/2012/07	2014-07-15	Mid-Flood	Sunny	SR4a	Bottom	4.6	3	1	09:18	29	7.79	19.3	5.4	4.38	3.8	2014-07-25
TMCLK	HY/2012/07	2014-07-15	Mid-Flood	Sunny	SR4a	Bottom	4.6	3	2	09:18	29	7.8	19.3	5.5	4.42	3.1	2014-07-25
TMCLK	HY/2012/07	2014-07-15	Mid-Flood	Sunny	SR4	Surface	1	1	1	09:36	29	7.78	19.2	5.6	4.73	2.9	2014-07-25
TMCLK	HY/2012/07	2014-07-15	Mid-Flood	Sunny	SR4	Surface	1	1	2	09:36	29.1	7.79	19.2	5.6	4.8	4.5	2014-07-25
TMCLK	HY/2012/07	2014-07-15	Mid-Flood	Sunny	SR4	Middle		2	1	09:36							2014-07-25
TMCLK	HY/2012/07	2014-07-15	Mid-Flood	Sunny	SR4	Middle		2	2	09:36							2014-07-25
TMCLK	HY/2012/07	2014-07-15	Mid-Flood	Sunny	SR4	Bottom	4	3	1	09:36	29	7.8	19.4	5.4	4.85	5.7	2014-07-25
TMCLK	HY/2012/07	2014-07-15	Mid-Flood	Sunny	SR4	Bottom	4	3	2	09:36	29	7.81	19.4	5.3	4.89	4.2	2014-07-25
TMCLK	HY/2012/07	2014-07-15	Mid-Flood	Sunny	IS8	Surface	1	1	1	09:54	29.1	7.79	19.1	5.4	4.28	4.8	2014-07-25
TMCLK	HY/2012/07	2014-07-15	Mid-Flood	Sunny	IS8	Surface	1	1	2	09:54	29.1	7.8	19.2	5.5	4.33	4.6	2014-07-25
TMCLK	HY/2012/07	2014-07-15	Mid-Flood	Sunny	IS8	Middle		2	1	09:54							2014-07-25
TMCLK	HY/2012/07	2014-07-15	Mid-Flood	Sunny	IS8	Middle		2	2	09:54							2014-07-25
TMCLK	HY/2012/07	2014-07-15	Mid-Flood	Sunny	IS8	Bottom	4.2	3	1	09:54	29	7.8	19.3	5.2	4.56	5.6	2014-07-25
TMCLK	HY/2012/07	2014-07-15	Mid-Flood	Sunny	IS8	Bottom	4.2	3	2	09:54	29	7.81	19.4	5.3	4.5	3.9	2014-07-25
TMCLK	HY/2012/07	2014-07-15	Mid-Flood	Sunny	IS(Mf)16	Surface	1	1	1	10:12	29.1	7.78	19.1	5.5	4.46	3.9	2014-07-25
TMCLK	HY/2012/07	2014-07-15	Mid-Flood	Sunny	IS(Mf)16	Surface	1	1	2	10:12	29.2	7.79	19.2	5.5	4.52	4.8	2014-07-25
TMCLK	HY/2012/07	2014-07-15	Mid-Flood	Sunny	IS(Mf)16	Middle	4.3	2	1	10:12	29	7.79	19.2	5.4	4.52	3.2	2014-07-25
TMCLK	HY/2012/07	2014-07-15	Mid-Flood	Sunny	IS(Mf)16	Middle	4.3	2	2	10:12	29.1	7.8	19.3	5.4	4.56	4.9	2014-07-25
TMCLK	HY/2012/07	2014-07-15	Mid-Flood	Sunny	IS(Mf)16	Bottom	7.6	3	1	10:12	29	7.8	19.3	5.3	4.67	4.8	2014-07-25
TMCLK	HY/2012/07	2014-07-15	Mid-Flood	Sunny	IS(Mf)16	Bottom	7.6	3	2	10:12	29	7.8	19.4	5.2	4.6	3.8	2014-07-25
TMCLK	HY/2012/07	2014-07-15	Mid-Flood	Sunny	IS(Mf)9	Surface	1	1	1	10:30	29.1	7.79	19.1	5.5	4.33	4.4	2014-07-25
TMCLK	HY/2012/07	2014-07-15	Mid-Flood	Sunny	IS(Mf)9	Surface	1	1	2	10:30	29.1	7.8	19.2	5.6	4.38	4.7	2014-07-25
TMCLK	HY/2012/07	2014-07-15	Mid-Flood	Sunny	IS(Mf)9	Middle		2	1	10:30							2014-07-25
TMCLK	HY/2012/07	2014-07-15	Mid-Flood	Sunny	IS(Mf)9	Middle		2	2	10:30							2014-07-25
TMCLK	HY/2012/07	2014-07-15	Mid-Flood	Sunny	IS(Mf)9	Bottom	4.4	3	1	10:30	29	7.8	19.4	5.5	4.6	4.2	2014-07-25
TMCLK	HY/2012/07	2014-07-15	Mid-Flood	Sunny	IS(Mf)9	Bottom	4.4	3	2	10:30	29	7.8	19.3	5.4	4.66	5.3	2014-07-25
TMCLK	HY/2012/07	2014-07-15	Mid-Flood	Sunny	CS(Mf)3	Surface	1	1	1	10:48	29.2	7.78	19	5.5	4.4	4	2014-07-25
TMCLK	HY/2012/07	2014-07-15	Mid-Flood	Sunny	CS(Mf)3	Surface	1	1	2	10:48	29.2	7.77	19	5.4	4.34	5	2014-07-25
TMCLK	HY/2012/07	2014-07-15	Mid-Flood	Sunny	CS(Mf)3	Middle	5.9	2	1	10:48	29.1	7.78	19.1	5.4	4.29	3.5	2014-07-25
TMCLK	HY/2012/07	2014-07-15	Mid-Flood	Sunny	CS(Mf)3	Middle	5.9	2	2	10:48	29	7.79	19.2	5.4	4.35	4.9	2014-07-25
TMCLK	HY/2012/07	2014-07-15	Mid-Flood	Sunny	CS(Mf)3	Bottom	10.8	3	1	10:48	29	7.8	19.5	5.3	4.56	3.5	2014-07-25
TMCLK	HY/2012/07	2014-07-15	Mid-Flood	Sunny	CS(Mf)3	Bottom	10.8	3	2	10:48	29	7.8	19.4	5.3	4.6	4.7	2014-07-25

Project	Works	Date (yyyy-mm-dd)	Tide	Weather	Stat	Level	Water Depth	Lev_Cod	Replicate	Start Time	Temp_v	pH_v	Sal_v	DO_v	Turb_v	SS_v	Received Date (SS)
TMCLK	HY/2012/07	2014-07-15	Mid-Ebb	Sunny	CS(Mf)3	Surface	1	1	1	13:23	29.2	7.78	19.2	5.7	4.76	3.3	2014-07-25
TMCLK	HY/2012/07	2014-07-15	Mid-Ebb	Sunny	CS(Mf)3	Surface	1	1	2	13:23	29.2	7.79	19.2	5.6	4.8	3.4	2014-07-25
TMCLK	HY/2012/07	2014-07-15	Mid-Ebb	Sunny	CS(Mf)3	Middle	5.7	2	1	13:23	28.8	7.8	19.3	5.6	4.83	3.4	2014-07-25
TMCLK	HY/2012/07	2014-07-15	Mid-Ebb	Sunny	CS(Mf)3	Middle	5.7	2	2	13:23	28.9	7.8	19.3	5.6	4.81	3	2014-07-25
TMCLK	HY/2012/07	2014-07-15	Mid-Ebb	Sunny	CS(Mf)3	Bottom	10.4	3	1	13:23	28.7	7.81	19.5	5.4	5.03	3.1	2014-07-25
TMCLK	HY/2012/07	2014-07-15	Mid-Ebb	Sunny	CS(Mf)3	Bottom	10.4	3	2	13:23	28.7	7.81	19.5	5.4	5.1	3.6	2014-07-25
TMCLK	HY/2012/07	2014-07-15	Mid-Ebb	Sunny	SR4a	Surface	1	1	1	15:37	29.1	7.75	19.3	5.5	4.7	4.1	2014-07-25
TMCLK	HY/2012/07	2014-07-15	Mid-Ebb	Sunny	SR4a	Surface	1	1	2	15:37	29	7.76	19.3	5.5	4.74	3.4	2014-07-25
TMCLK	HY/2012/07	2014-07-15	Mid-Ebb	Sunny	SR4a	Middle		2	1	15:37							2014-07-25
TMCLK	HY/2012/07	2014-07-15	Mid-Ebb	Sunny	SR4a	Middle		2	2	15:37							2014-07-25
TMCLK	HY/2012/07	2014-07-15	Mid-Ebb	Sunny	SR4a	Bottom	4.4	3	1	15:37	29	7.76	19.3	5.4	4.83	4.3	2014-07-25
TMCLK	HY/2012/07	2014-07-15	Mid-Ebb	Sunny	SR4a	Bottom	4.4	3	2	15:37	29	7.76	19.4	5.4	4.88	3	2014-07-25
TMCLK	HY/2012/07	2014-07-15	Mid-Ebb	Sunny	SR4	Surface	1	1	1	15:11	29.1	7.77	19.2	5.5	4.58	3.1	2014-07-25
TMCLK	HY/2012/07	2014-07-15	Mid-Ebb	Sunny	SR4	Surface	1	1	2	15:11	29	7.76	19.2	5.5	4.52	4.3	2014-07-25
TMCLK	HY/2012/07	2014-07-15	Mid-Ebb	Sunny	SR4	Middle		2	1	15:11							2014-07-25
TMCLK	HY/2012/07	2014-07-15	Mid-Ebb	Sunny	SR4	Middle		2	2	15:11							2014-07-25
TMCLK	HY/2012/07	2014-07-15	Mid-Ebb	Sunny	SR4	Bottom	3.6	3	1	15:11	29	7.77	19.3	5.4	4.68	4.3	2014-07-25
TMCLK	HY/2012/07	2014-07-15	Mid-Ebb	Sunny	SR4	Bottom	3.6	3	2	15:11	29	7.77	19.4	5.3	4.7	3.9	2014-07-25
TMCLK	HY/2012/07	2014-07-15	Mid-Ebb	Sunny	IS8	Surface	1	1	1	14:45	29.1	7.78	19.1	5.6	4.54	5	2014-07-25
TMCLK	HY/2012/07	2014-07-15	Mid-Ebb	Sunny	IS8	Surface	1	1	2	14:45	29.1	7.78	19.2	5.6	4.48	4.6	2014-07-25
TMCLK	HY/2012/07	2014-07-15	Mid-Ebb	Sunny	IS8	Middle		2	1	14:45							2014-07-25
TMCLK	HY/2012/07	2014-07-15	Mid-Ebb	Sunny	IS8	Middle		2	2	14:45							2014-07-25
TMCLK	HY/2012/07	2014-07-15	Mid-Ebb	Sunny	IS8	Bottom	3.8	3	1	14:45	28.9	7.8	19.3	5.3	4.57	5.6	2014-07-25
TMCLK	HY/2012/07	2014-07-15	Mid-Ebb	Sunny	IS8	Bottom	3.8	3	2	14:45	29	7.8	19.4	5.4	4.6	4.3	2014-07-25
TMCLK	HY/2012/07	2014-07-15	Mid-Ebb	Sunny	IS(Mf)16	Surface	1	1	1	14:19	29.1	7.78	19.2	5.6	4.48	4.9	2014-07-25
TMCLK	HY/2012/07	2014-07-15	Mid-Ebb	Sunny	IS(Mf)16	Surface	1	1	2	14:19	29.1	7.78	19.2	5.6	4.5	4.7	2014-07-25
TMCLK	HY/2012/07	2014-07-15	Mid-Ebb	Sunny	IS(Mf)16	Middle	4.1	2	1	14:19	29	7.78	19.3	5.5	4.64	4.7	2014-07-25
TMCLK	HY/2012/07	2014-07-15	Mid-Ebb	Sunny	IS(Mf)16	Middle	4.1	2	2	14:19	29	7.79	19.3	5.4	4.68	4.7	2014-07-25
TMCLK	HY/2012/07	2014-07-15	Mid-Ebb	Sunny	IS(Mf)16	Bottom	7.2	3	1	14:19	28.7	7.79	19.5	5.4	4.8	4.4	2014-07-25
TMCLK	HY/2012/07	2014-07-15	Mid-Ebb	Sunny	IS(Mf)16	Bottom	7.2	3	2	14:19	28.8	7.79	19.5	5.4	4.84	4.9	2014-07-25
TMCLK	HY/2012/07	2014-07-15	Mid-Ebb	Sunny	IS(Mf)9	Surface	1	1	1	13:53	29.1	7.8	19.2	5.7	4.64	2.9	2014-07-25
TMCLK	HY/2012/07	2014-07-15	Mid-Ebb	Sunny	IS(Mf)9	Surface	1	1	2	13:53	29.1	7.81	19.2	5.7	4.68	3.5	2014-07-25
TMCLK	HY/2012/07	2014-07-15	Mid-Ebb	Sunny	IS(Mf)9	Middle		2	1	13:53							2014-07-25
TMCLK	HY/2012/07	2014-07-15	Mid-Ebb	Sunny	IS(Mf)9	Middle		2	2	13:53							2014-07-25
TMCLK	HY/2012/07	2014-07-15	Mid-Ebb	Sunny	IS(Mf)9	Bottom	3.8	3	1	13:53	28.8	7.81	19.4	5.3	4.81	3.2	2014-07-25
TMCLK	HY/2012/07	2014-07-15	Mid-Ebb	Sunny	IS(Mf)9	Bottom	3.8	3	2	13:53	28.8	7.82	19.4	5.3	4.84	3.4	2014-07-25
TMCLK	HY/2012/07	2014-07-15	Mid-Ebb	Sunny	CS(Mf)5	Surface	1	1	1	16:07	29	7.76	19.3	5.6	4.82	3.4	2014-07-25
TMCLK	HY/2012/07	2014-07-15	Mid-Ebb	Sunny	CS(Mf)5	Surface	1	1	2	16:07	29	7.76	19.3	5.5	4.88	3.9	2014-07-25
TMCLK	HY/2012/07	2014-07-15	Mid-Ebb	Sunny	CS(Mf)5	Middle	4.6	2	1	16:07	29	7.76	19.3	5.5	4.76	4.8	2014-07-25

Project	Works	Date (yyyy-mm-dd)	Tide	Weather	Stat	Level	Water Depth	Lev_Cod	Replicate	Start Time	Temp_v	pH_v	Sal_v	DO_v	Turb_v	SS_v	Received Date (SS)
TMCLK	HY/2012/07	2014-07-15	Mid-Ebb	Sunny	CS(Mf)5	Middle	4.6	2	2	16:07	28.9	7.76	19.4	5.5	4.8	4.5	2014-07-25
TMCLK	HY/2012/07	2014-07-15	Mid-Ebb	Sunny	CS(Mf)5	Bottom	8.2	3	1	16:07	28.8	7.75	19.4	5.4	4.66	4.5	2014-07-25
TMCLK	HY/2012/07	2014-07-15	Mid-Ebb	Sunny	CS(Mf)5	Bottom	8.2	3	2	16:07	28.7	7.76	19.5	5.4	4.68	4.1	2014-07-25
TMCLK	HY/2012/07	2014-07-17	Mid-Flood	Fine	CS(Mf)5	Surface	1	1	1	08:30	29.1	7.63	19	5.7	4.03	3.2	2014-07-29
TMCLK	HY/2012/07	2014-07-17	Mid-Flood	Fine	CS(Mf)5	Surface	1	1	2	08:30	29	7.65	19.1	5.7	4.01	3.6	2014-07-29
TMCLK	HY/2012/07	2014-07-17	Mid-Flood	Fine	CS(Mf)5	Middle	4.9	2	1	08:30	28.9	7.72	19.2	5.4	4.13	4.4	2014-07-29
TMCLK	HY/2012/07	2014-07-17	Mid-Flood	Fine	CS(Mf)5	Middle	4.9	2	2	08:30	28.8	7.74	19.3	5.4	4.15	4.2	2014-07-29
TMCLK	HY/2012/07	2014-07-17	Mid-Flood	Fine	CS(Mf)5	Bottom	8.8	3	1	08:30	28.8	7.83	19.3	5.4	4.26	4.5	2014-07-29
TMCLK	HY/2012/07	2014-07-17	Mid-Flood	Fine	CS(Mf)5	Bottom	8.8	3	2	08:30	28.7	7.81	19.4	5.3	4.28	4.9	2014-07-29
TMCLK	HY/2012/07	2014-07-17	Mid-Flood	Fine	SR4a	Surface	1	1	1	09:00	29	7.73	19.1	5.6	4.32	2.8	2014-07-29
TMCLK	HY/2012/07	2014-07-17	Mid-Flood	Fine	SR4a	Surface	1	1	2	09:00	28.9	7.75	19.2	5.6	4.3	2.7	2014-07-29
TMCLK	HY/2012/07	2014-07-17	Mid-Flood	Fine	SR4a	Middle		2	1	09:00							2014-07-29
TMCLK	HY/2012/07	2014-07-17	Mid-Flood	Fine	SR4a	Middle		2	2	09:00							2014-07-29
TMCLK	HY/2012/07	2014-07-17	Mid-Flood	Fine	SR4a	Bottom	4.5	3	1	09:00	28.7	7.81	19.3	5.4	4.46	4.9	2014-07-29
TMCLK	HY/2012/07	2014-07-17	Mid-Flood	Fine	SR4a	Bottom	4.5	3	2	09:00	28.8	7.83	19.3	5.5	4.45	4.8	2014-07-29
TMCLK	HY/2012/07	2014-07-17	Mid-Flood	Fine	SR4	Surface	1	1	1	09:30	29.1	7.76	19	5.7	4.21	4.4	2014-07-29
TMCLK	HY/2012/07	2014-07-17	Mid-Flood	Fine	SR4	Surface	1	1	2	09:30	29	7.78	19.1	5.8	4.19	2.9	2014-07-29
TMCLK	HY/2012/07	2014-07-17	Mid-Flood	Fine	SR4	Middle		2	1	09:30							2014-07-29
TMCLK	HY/2012/07	2014-07-17	Mid-Flood	Fine	SR4	Middle		2	2	09:30							2014-07-29
TMCLK	HY/2012/07	2014-07-17	Mid-Flood	Fine	SR4	Bottom	4.2	3	1	09:30	28.8	7.63	19.2	5.5	4.37	4.6	2014-07-29
TMCLK	HY/2012/07	2014-07-17	Mid-Flood	Fine	SR4	Bottom	4.2	3	2	09:30	28.9	7.65	19.2	5.5	4.4	4.6	2014-07-29
TMCLK	HY/2012/07	2014-07-17	Mid-Flood	Fine	IS8	Surface	1	1	1	10:00	29.1	7.83	19.1	5.8	4.36	4.8	2014-07-29
TMCLK	HY/2012/07	2014-07-17	Mid-Flood	Fine	IS8	Surface	1	1	2	10:00	29.1	7.81	19.2	5.9	4.34	4.2	2014-07-29
TMCLK	HY/2012/07	2014-07-17	Mid-Flood	Fine	IS8	Middle		2	1	10:00							2014-07-29
TMCLK	HY/2012/07	2014-07-17	Mid-Flood	Fine	IS8	Middle		2	2	10:00							2014-07-29
TMCLK	HY/2012/07	2014-07-17	Mid-Flood	Fine	IS8	Bottom	4.3	3	1	10:00	29	7.73	19.3	5.7	4.37	4.3	2014-07-29
TMCLK	HY/2012/07	2014-07-17	Mid-Flood	Fine	IS8	Bottom	4.3	3	2	10:00	28.9	7.75	19.4	5.7	4.35	2.8	2014-07-29
TMCLK	HY/2012/07	2014-07-17	Mid-Flood	Fine	IS(Mf)16	Surface	1	1	1	10:30	29	7.69	19	5.7	4.07	2.3	2014-07-29
TMCLK	HY/2012/07	2014-07-17	Mid-Flood	Fine	IS(Mf)16	Surface	1	1	2	10:30	28.9	7.71	19.1	5.7	4.09	3.5	2014-07-29
TMCLK	HY/2012/07	2014-07-17	Mid-Flood	Fine	IS(Mf)16	Middle	4.3	2	1	10:30	28.8	7.64	19.2	5.5	4.24	2.8	2014-07-29
TMCLK	HY/2012/07	2014-07-17	Mid-Flood	Fine	IS(Mf)16	Middle	4.3	2	2	10:30	28.8	7.66	19.3	5.5	4.26	2	2014-07-29
TMCLK	HY/2012/07	2014-07-17	Mid-Flood	Fine	IS(Mf)16	Bottom	7.5	3	1	10:30	28.7	7.73	19.4	5.3	4.31	3	2014-07-29
TMCLK	HY/2012/07	2014-07-17	Mid-Flood	Fine	IS(Mf)16	Bottom	7.5	3	2	10:30	28.6	7.75	19.3	5.3	4.29	3.5	2014-07-29
TMCLK	HY/2012/07	2014-07-17	Mid-Flood	Fine	IS(Mf)9	Surface	1	1	1	11:00	29.1	7.63	19.1	5.8	4.09	3.6	2014-07-29
TMCLK	HY/2012/07	2014-07-17	Mid-Flood	Fine	IS(Mf)9	Surface	1	1	2	11:00	29.2	7.65	19.1	5.8	4.11	2.4	2014-07-29
TMCLK	HY/2012/07	2014-07-17	Mid-Flood	Fine	IS(Mf)9	Middle		2	1	11:00							2014-07-29
TMCLK	HY/2012/07	2014-07-17	Mid-Flood	Fine	IS(Mf)9	Middle		2	2	11:00							2014-07-29
TMCLK	HY/2012/07	2014-07-17	Mid-Flood	Fine	IS(Mf)9	Bottom	4.1	3	1	11:00	29	7.73	19.2	5.4	4.35	2.7	2014-07-29
TMCLK	HY/2012/07	2014-07-17	Mid-Flood	Fine	IS(Mf)9	Bottom	4.1	3	2	11:00	28.9	7.75	19.3	5.4	4.33	4.4	2014-07-29

Project	Works	Date (yyyy-mm-dd)	Tide	Weather	Stat	Level	Water Depth	Lev_Co d	Replicate	Start Time	Temp_v	pH_v	Sal_v	DO_v	Turb_v	SS_v	Received Date (SS)
TMCLK	HY/2012/07	2014-07-17	Mid-Ebb	Fine	IS(Mf)9	Middle		2	2	15:26							2014-07-29
TMCLK	HY/2012/07	2014-07-17	Mid-Ebb	Fine	IS(Mf)9	Bottom	3.9	3	1	15:26	28.7	7.72	19.3	5.4	4.46	4.9	2014-07-29
TMCLK	HY/2012/07	2014-07-17	Mid-Ebb	Fine	IS(Mf)9	Bottom	3.9	3	2	15:26	28.8	7.7	19.4	5.4	4.44	3.5	2014-07-29
TMCLK	HY/2012/07	2014-07-17	Mid-Ebb	Fine	CS(Mf)5	Surface	1	1	1	17:56	29	7.73	19	5.6	4.13	3.2	2014-07-29
TMCLK	HY/2012/07	2014-07-17	Mid-Ebb	Fine	CS(Mf)5	Surface	1	1	2	17:56	28.9	7.75	19.1	5.6	4.15	2.6	2014-07-29
TMCLK	HY/2012/07	2014-07-17	Mid-Ebb	Fine	CS(Mf)5	Middle	4.8	2	1	17:56	28.8	7.82	19.2	5.3	4.26	2.7	2014-07-29
TMCLK	HY/2012/07	2014-07-17	Mid-Ebb	Fine	CS(Mf)5	Middle	4.8	2	2	17:56	28.7	7.8	19.3	5.3	4.29	4	2014-07-29
TMCLK	HY/2012/07	2014-07-17	Mid-Ebb	Fine	CS(Mf)5	Bottom	8.5	3	1	17:56	28.7	7.63	19.4	5.2	4.44	3.7	2014-07-29
TMCLK	HY/2012/07	2014-07-17	Mid-Ebb	Fine	CS(Mf)5	Bottom	8.5	3	2	17:56	28.6	7.65	19.4	5.2	4.46	4.8	2014-07-29
TMCLK	HY/2012/07	2014-07-19	Mid-Flood	Cloudy	CS(Mf)5	Surface	1	1	1	10:52	29	7.72	19	5.8	11.3	3.8	2014-07-29
TMCLK	HY/2012/07	2014-07-19	Mid-Flood	Cloudy	CS(Mf)5	Surface	1	1	2	10:52	28.9	7.71	19	5.8	11.3	5.4	2014-07-29
TMCLK	HY/2012/07	2014-07-19	Mid-Flood	Cloudy	CS(Mf)5	Middle	4.8	2	1	10:52	28.6	7.75	19.3	5.6	12.2	4.1	2014-07-29
TMCLK	HY/2012/07	2014-07-19	Mid-Flood	Cloudy	CS(Mf)5	Middle	4.8	2	2	10:52	28.7	7.74	19.4	5.5	12.3	5.4	2014-07-29
TMCLK	HY/2012/07	2014-07-19	Mid-Flood	Cloudy	CS(Mf)5	Bottom	8.6	3	1	10:52	28.6	7.76	19.4	5.4	12.7	4.4	2014-07-29
TMCLK	HY/2012/07	2014-07-19	Mid-Flood	Cloudy	CS(Mf)5	Bottom	8.6	3	2	10:52	28.6	7.76	19.4	5.4	12.7	3	2014-07-29
TMCLK	HY/2012/07	2014-07-19	Mid-Flood	Cloudy	SR4a	Surface	1	1	1	11:22	28.9	7.73	19	5.7	12.3	5.1	2014-07-29
TMCLK	HY/2012/07	2014-07-19	Mid-Flood	Cloudy	SR4a	Surface	1	1	2	11:22	28.9	7.74	19.1	5.7	12.4	5.8	2014-07-29
TMCLK	HY/2012/07	2014-07-19	Mid-Flood	Cloudy	SR4a	Middle		2	1	11:22							2014-07-29
TMCLK	HY/2012/07	2014-07-19	Mid-Flood	Cloudy	SR4a	Middle		2	2	11:22							2014-07-29
TMCLK	HY/2012/07	2014-07-19	Mid-Flood	Cloudy	SR4a	Bottom	4.6	3	1	11:22	28.5	7.77	19.3	5.6	13.2	4.4	2014-07-29
TMCLK	HY/2012/07	2014-07-19	Mid-Flood	Cloudy	SR4a	Bottom	4.6	3	2	11:22	28.6	7.76	19.3	5.6	13.1	4.5	2014-07-29
TMCLK	HY/2012/07	2014-07-19	Mid-Flood	Cloudy	SR4	Surface	1	1	1	11:48	28.9	7.75	19.1	5.7	12.6	5	2014-07-29
TMCLK	HY/2012/07	2014-07-19	Mid-Flood	Cloudy	SR4	Surface	1	1	2	11:48	29	7.77	19.1	5.7	12.5	4.8	2014-07-29
TMCLK	HY/2012/07	2014-07-19	Mid-Flood	Cloudy	SR4	Middle		2	1	11:48							2014-07-29
TMCLK	HY/2012/07	2014-07-19	Mid-Flood	Cloudy	SR4	Middle		2	2	11:48							2014-07-29
TMCLK	HY/2012/07	2014-07-19	Mid-Flood	Cloudy	SR4	Bottom	4	3	1	11:48	28.8	7.79	19.4	5.3	14.2	4.3	2014-07-29
TMCLK	HY/2012/07	2014-07-19	Mid-Flood	Cloudy	SR4	Bottom	4	3	2	11:48	28.7	7.78	19.4	5.3	14	3	2014-07-29
TMCLK	HY/2012/07	2014-07-19	Mid-Flood	Cloudy	IS8	Surface	1	1	1	12:20	29	7.78	19	5.6	11.9	5.2	2014-07-29
TMCLK	HY/2012/07	2014-07-19	Mid-Flood	Cloudy	IS8	Surface	1	1	2	12:20	29	7.79	19	5.6	11.7	5.6	2014-07-29
TMCLK	HY/2012/07	2014-07-19	Mid-Flood	Cloudy	IS8	Middle		2	1	12:20							2014-07-29
TMCLK	HY/2012/07	2014-07-19	Mid-Flood	Cloudy	IS8	Middle		2	2	12:20							2014-07-29
TMCLK	HY/2012/07	2014-07-19	Mid-Flood	Cloudy	IS8	Bottom	4.6	3	1	12:20	28.6	7.8	19.3	5.3	13.8	4.5	2014-07-29
TMCLK	HY/2012/07	2014-07-19	Mid-Flood	Cloudy	IS8	Bottom	4.6	3	2	12:20	28.7	7.79	19.3	5.2	13.8	5.8	2014-07-29
TMCLK	HY/2012/07	2014-07-19	Mid-Flood	Cloudy	IS(Mf)16	Surface	1	1	1	12:53	29	7.77	19	5.8	12.3	6.8	2014-07-29
TMCLK	HY/2012/07	2014-07-19	Mid-Flood	Cloudy	IS(Mf)16	Surface	1	1	2	12:53	29.1	7.78	19.1	5.8	12.4	5	2014-07-29
TMCLK	HY/2012/07	2014-07-19	Mid-Flood	Cloudy	IS(Mf)16	Middle	4.4	2	1	12:53	28.8	7.8	19.2	5.4	14.1	5.3	2014-07-29
TMCLK	HY/2012/07	2014-07-19	Mid-Flood	Cloudy	IS(Mf)16	Middle	4.4	2	2	12:53	28.7	7.8	19.2	5.4	14.2	6.4	2014-07-29
TMCLK	HY/2012/07	2014-07-19	Mid-Flood	Cloudy	IS(Mf)16	Bottom	7.8	3	1	12:53	28.7	7.81	19.3	5.3	13.9	4.8	2014-07-29
TMCLK	HY/2012/07	2014-07-19	Mid-Flood	Cloudy	IS(Mf)16	Bottom	7.8	3	2	12:53	28.7	7.8	19.2	5.3	13.7	4.1	2014-07-29

Project	Works	Date (yyyy-mm-dd)	Tide	Weather	Stat	Level	Water Depth	Lev_Cod	Replicate	Start Time	Temp_v	pH_v	Sal_v	DO_v	Turb_v	SS_v	Received Date (SS)
TMCLK	HY/2012/07	2014-07-19	Mid-Flood	Cloudy	IS(Mf)9	Surface	1	1	1	13:33	29	7.79	19.1	5.8	12.1	4.2	2014-07-29
TMCLK	HY/2012/07	2014-07-19	Mid-Flood	Cloudy	IS(Mf)9	Surface	1	1	2	13:33	29.1	7.8	19.1	5.7	12.1	4.7	2014-07-29
TMCLK	HY/2012/07	2014-07-19	Mid-Flood	Cloudy	IS(Mf)9	Middle		2	1	13:33							2014-07-29
TMCLK	HY/2012/07	2014-07-19	Mid-Flood	Cloudy	IS(Mf)9	Middle		2	2	13:33							2014-07-29
TMCLK	HY/2012/07	2014-07-19	Mid-Flood	Cloudy	IS(Mf)9	Bottom	4.2	3	1	13:33	28.9	7.83	19.3	5.4	13.4	4.6	2014-07-29
TMCLK	HY/2012/07	2014-07-19	Mid-Flood	Cloudy	IS(Mf)9	Bottom	4.2	3	2	13:33	28.8	7.83	19.4	5.4	13.3	5.2	2014-07-29
TMCLK	HY/2012/07	2014-07-19	Mid-Flood	Cloudy	CS(Mf)3	Surface	1	1	1	14:03	29.1	7.8	19.2	6.0	11.7	4.9	2014-07-29
TMCLK	HY/2012/07	2014-07-19	Mid-Flood	Cloudy	CS(Mf)3	Surface	1	1	2	14:03	29.1	7.81	19.2	6.0	11.6	4.4	2014-07-29
TMCLK	HY/2012/07	2014-07-19	Mid-Flood	Cloudy	CS(Mf)3	Middle	5.9	2	1	14:03	28.8	7.84	19.5	5.7	12.5	3.8	2014-07-29
TMCLK	HY/2012/07	2014-07-19	Mid-Flood	Cloudy	CS(Mf)3	Middle	5.9	2	2	14:03	28.8	7.83	19.5	5.8	12.3	3.2	2014-07-29
TMCLK	HY/2012/07	2014-07-19	Mid-Flood	Cloudy	CS(Mf)3	Bottom	10.8	3	1	14:03	28.7	7.82	19.6	5.8	12.9	5.9	2014-07-29
TMCLK	HY/2012/07	2014-07-19	Mid-Flood	Cloudy	CS(Mf)3	Bottom	10.8	3	2	14:03	28.7	7.83	19.6	5.8	12.9	4.7	2014-07-29
TMCLK	HY/2012/07	2014-07-19	Mid-Ebb	Cloudy	CS(Mf)3	Surface	1	1	1	15:45	29.2	7.75	19	5.9	12.4	4.8	2014-07-29
TMCLK	HY/2012/07	2014-07-19	Mid-Ebb	Cloudy	CS(Mf)3	Surface	1	1	2	15:45	29.3	7.75	19	5.8	12.4	5.9	2014-07-29
TMCLK	HY/2012/07	2014-07-19	Mid-Ebb	Cloudy	CS(Mf)3	Middle	5.3	2	1	15:45	28.8	7.79	19.4	5.6	13.2	4.9	2014-07-29
TMCLK	HY/2012/07	2014-07-19	Mid-Ebb	Cloudy	CS(Mf)3	Middle	5.3	2	2	15:45	28.7	7.8	19.3	5.7	13.1	4.9	2014-07-29
TMCLK	HY/2012/07	2014-07-19	Mid-Ebb	Cloudy	CS(Mf)3	Bottom	9.6	3	1	15:45	28.7	7.8	19.5	5.5	12.7	5.2	2014-07-29
TMCLK	HY/2012/07	2014-07-19	Mid-Ebb	Cloudy	CS(Mf)3	Bottom	9.6	3	2	15:45	28.7	7.8	19.5	5.6	12.8	5.5	2014-07-29
TMCLK	HY/2012/07	2014-07-19	Mid-Ebb	Cloudy	SR4a	Surface	1	1	1	18:30	29.2	7.78	19.2	5.8	12.7	5	2014-07-29
TMCLK	HY/2012/07	2014-07-19	Mid-Ebb	Cloudy	SR4a	Surface	1	1	2	18:30	29.2	7.78	19.2	5.8	12.7	4.5	2014-07-29
TMCLK	HY/2012/07	2014-07-19	Mid-Ebb	Cloudy	SR4a	Middle		2	1	18:30							2014-07-29
TMCLK	HY/2012/07	2014-07-19	Mid-Ebb	Cloudy	SR4a	Middle		2	2	18:30							2014-07-29
TMCLK	HY/2012/07	2014-07-19	Mid-Ebb	Cloudy	SR4a	Bottom	4.2	3	1	18:30	28.8	7.82	19.3	5.4	13.5	6.4	2014-07-29
TMCLK	HY/2012/07	2014-07-19	Mid-Ebb	Cloudy	SR4a	Bottom	4.2	3	2	18:30	28.8	7.81	19.2	5.3	13.5	7.5	2014-07-29
TMCLK	HY/2012/07	2014-07-19	Mid-Ebb	Cloudy	SR4	Surface	1	1	1	17:50	29.3	7.78	19	5.6	11.3	4.7	2014-07-29
TMCLK	HY/2012/07	2014-07-19	Mid-Ebb	Cloudy	SR4	Surface	1	1	2	17:50	29.3	7.77	19.1	5.6	11.3	4.7	2014-07-29
TMCLK	HY/2012/07	2014-07-19	Mid-Ebb	Cloudy	SR4	Middle		2	1	17:50							2014-07-29
TMCLK	HY/2012/07	2014-07-19	Mid-Ebb	Cloudy	SR4	Middle		2	2	17:50							2014-07-29
TMCLK	HY/2012/07	2014-07-19	Mid-Ebb	Cloudy	SR4	Bottom	4.2	3	1	17:50	29	7.8	19.2	5.4	14.3	5.4	2014-07-29
TMCLK	HY/2012/07	2014-07-19	Mid-Ebb	Cloudy	SR4	Bottom	4.2	3	2	17:50	29.1	7.81	19.1	5.4	14.2	5.5	2014-07-29
TMCLK	HY/2012/07	2014-07-19	Mid-Ebb	Cloudy	IS8	Surface	1	1	1	17:22	29.3	7.79	19.1	5.6	11.7	6.2	2014-07-29
TMCLK	HY/2012/07	2014-07-19	Mid-Ebb	Cloudy	IS8	Surface	1	1	2	17:22	29.2	7.79	19.1	5.5	11.8	6.6	2014-07-29
TMCLK	HY/2012/07	2014-07-19	Mid-Ebb	Cloudy	IS8	Middle		2	1	17:22							2014-07-29
TMCLK	HY/2012/07	2014-07-19	Mid-Ebb	Cloudy	IS8	Middle		2	2	17:22							2014-07-29
TMCLK	HY/2012/07	2014-07-19	Mid-Ebb	Cloudy	IS8	Bottom	4.2	3	1	17:22	28.8	7.79	19.3	5.3	13.8	6.4	2014-07-29
TMCLK	HY/2012/07	2014-07-19	Mid-Ebb	Cloudy	IS8	Bottom	4.2	3	2	17:22	28.8	7.76	19.4	5.3	13.8	4.8	2014-07-29
TMCLK	HY/2012/07	2014-07-19	Mid-Ebb	Cloudy	IS(Mf)16	Surface	1	1	1	16:47	29.3	7.78	19	5.7	12.2	5	2014-07-29
TMCLK	HY/2012/07	2014-07-19	Mid-Ebb	Cloudy	IS(Mf)16	Surface	1	1	2	16:47	29.3	7.79	19.1	5.6	12	5.3	2014-07-29
TMCLK	HY/2012/07	2014-07-19	Mid-Ebb	Cloudy	IS(Mf)16	Middle	4.4	2	1	16:47	28.9	7.79	19.3	5.3	13.6	5	2014-07-29

Project	Works	Date (yyyy-mm-dd)	Tide	Weather	Stat	Level	Water Depth	Lev_Cod	Replicate	Start Time	Temp_v	pH_v	Sal_v	DO_v	Turb_v	SS_v	Received Date (SS)
TMCLK	HY/2012/07	2014-07-19	Mid-Ebb	Cloudy	IS(Mf)16	Middle	4.4	2	2	16:47	28.9	7.78	19.2	5.4	13.5	5	2014-07-29
TMCLK	HY/2012/07	2014-07-19	Mid-Ebb	Cloudy	IS(Mf)16	Bottom	7.4	3	1	16:47	28.7	7.81	19.4	5.1	13.4	7.3	2014-07-29
TMCLK	HY/2012/07	2014-07-19	Mid-Ebb	Cloudy	IS(Mf)16	Bottom	7.4	3	2	16:47	28.7	7.81	19.4	5.1	13.3	6.8	2014-07-29
TMCLK	HY/2012/07	2014-07-19	Mid-Ebb	Cloudy	IS(Mf)9	Surface	1	1	1	16:15	29.3	7.75	19	5.8	12.6	3.8	2014-07-29
TMCLK	HY/2012/07	2014-07-19	Mid-Ebb	Cloudy	IS(Mf)9	Surface	1	1	2	16:15	29.3	7.76	19.1	5.9	12.7	3.9	2014-07-29
TMCLK	HY/2012/07	2014-07-19	Mid-Ebb	Cloudy	IS(Mf)9	Middle		2	1	16:15							2014-07-29
TMCLK	HY/2012/07	2014-07-19	Mid-Ebb	Cloudy	IS(Mf)9	Middle		2	2	16:15							2014-07-29
TMCLK	HY/2012/07	2014-07-19	Mid-Ebb	Cloudy	IS(Mf)9	Bottom	3.8	3	1	16:15	28.9	7.8	19.3	5.5	12.9	4.9	2014-07-29
TMCLK	HY/2012/07	2014-07-19	Mid-Ebb	Cloudy	IS(Mf)9	Bottom	3.8	3	2	16:15	28.8	7.81	19.3	5.5	12.9	3.5	2014-07-29
TMCLK	HY/2012/07	2014-07-19	Mid-Ebb	Cloudy	CS(Mf)5	Surface	1	1	1	19:15	29.2	7.8	19.1	5.8	12.3	5.3	2014-07-29
TMCLK	HY/2012/07	2014-07-19	Mid-Ebb	Cloudy	CS(Mf)5	Surface	1	1	2	19:15	29.1	7.81	19.1	5.7	12.1	4.4	2014-07-29
TMCLK	HY/2012/07	2014-07-19	Mid-Ebb	Cloudy	CS(Mf)5	Middle	4.4	2	1	19:15	29	7.81	19.4	5.5	12.8	3.9	2014-07-29
TMCLK	HY/2012/07	2014-07-19	Mid-Ebb	Cloudy	CS(Mf)5	Middle	4.4	2	2	19:15	28.9	7.82	19.4	5.5	12.8	3.9	2014-07-29
TMCLK	HY/2012/07	2014-07-19	Mid-Ebb	Cloudy	CS(Mf)5	Bottom	7.8	3	1	19:15	28.8	7.79	19.5	5.2	13.1	5.9	2014-07-29
TMCLK	HY/2012/07	2014-07-19	Mid-Ebb	Cloudy	CS(Mf)5	Bottom	7.8	3	2	19:15	28.7	7.79	19.6	5.2	13.2	5.4	2014-07-29
TMCLK	HY/2012/07	2014-07-22	Mid-Flood	Sunny	CS(Mf)5	Surface	1	1	1	15:27	29.2	7.73	19	5.8	2.97	2.7	2014-08-01
TMCLK	HY/2012/07	2014-07-22	Mid-Flood	Sunny	CS(Mf)5	Surface	1	1	2	15:27	29.2	7.72	18.9	5.8	2.96	2.1	2014-08-01
TMCLK	HY/2012/07	2014-07-22	Mid-Flood	Sunny	CS(Mf)5	Middle	4.9	2	1	15:27	29.2	7.78	18.9	5.8	3.14	2.8	2014-08-01
TMCLK	HY/2012/07	2014-07-22	Mid-Flood	Sunny	CS(Mf)5	Middle	4.9	2	2	15:27	29.1	7.76	18.9	5.8	3.16	2.9	2014-08-01
TMCLK	HY/2012/07	2014-07-22	Mid-Flood	Sunny	CS(Mf)5	Bottom	8.8	3	1	15:27	29	7.84	19.1	5.6	3.44	2.4	2014-08-01
TMCLK	HY/2012/07	2014-07-22	Mid-Flood	Sunny	CS(Mf)5	Bottom	8.8	3	2	15:27	29	7.82	19.1	5.6	3.48	2.7	2014-08-01
TMCLK	HY/2012/07	2014-07-22	Mid-Flood	Sunny	SR4a	Surface	1	1	1	15:55	29.2	7.7	18.8	5.8	2.94	2.4	2014-08-01
TMCLK	HY/2012/07	2014-07-22	Mid-Flood	Sunny	SR4a	Surface	1	1	2	15:55	29.2	7.69	18.8	5.9	2.96	2.4	2014-08-01
TMCLK	HY/2012/07	2014-07-22	Mid-Flood	Sunny	SR4a	Middle		2	1	15:55							2014-08-01
TMCLK	HY/2012/07	2014-07-22	Mid-Flood	Sunny	SR4a	Middle		2	2	15:55							2014-08-01
TMCLK	HY/2012/07	2014-07-22	Mid-Flood	Sunny	SR4a	Bottom	4.4	3	1	15:55	29.1	7.8	19.1	5.7	3.14	2.5	2014-08-01
TMCLK	HY/2012/07	2014-07-22	Mid-Flood	Sunny	SR4a	Bottom	4.4	3	2	15:55	29.1	7.82	19.1	5.7	3.12	2.2	2014-08-01
TMCLK	HY/2012/07	2014-07-22	Mid-Flood	Sunny	SR4	Surface	1	1	1	16:20	29.1	7.67	19.2	5.8	3.11	2.9	2014-08-01
TMCLK	HY/2012/07	2014-07-22	Mid-Flood	Sunny	SR4	Surface	1	1	2	16:20	29.1	7.66	19.2	5.7	3.1	2.7	2014-08-01
TMCLK	HY/2012/07	2014-07-22	Mid-Flood	Sunny	SR4	Middle		2	1	16:20							2014-08-01
TMCLK	HY/2012/07	2014-07-22	Mid-Flood	Sunny	SR4	Middle		2	2	16:20							2014-08-01
TMCLK	HY/2012/07	2014-07-22	Mid-Flood	Sunny	SR4	Bottom	4.2	3	1	16:20	29	7.8	19.1	5.8	3.34	3.2	2014-08-01
TMCLK	HY/2012/07	2014-07-22	Mid-Flood	Sunny	SR4	Bottom	4.2	3	2	16:20	29	7.78	19.2	5.9	3.37	2.2	2014-08-01
TMCLK	HY/2012/07	2014-07-22	Mid-Flood	Sunny	IS8	Surface	1	1	1	16:41	29	7.74	18.9	5.7	3.14	3.1	2014-08-01
TMCLK	HY/2012/07	2014-07-22	Mid-Flood	Sunny	IS8	Surface	1	1	2	16:41	29	7.76	19	5.8	3.16	2	2014-08-01
TMCLK	HY/2012/07	2014-07-22	Mid-Flood	Sunny	IS8	Middle		2	1	16:41							2014-08-01
TMCLK	HY/2012/07	2014-07-22	Mid-Flood	Sunny	IS8	Middle		2	2	16:41							2014-08-01
TMCLK	HY/2012/07	2014-07-22	Mid-Flood	Sunny	IS8	Bottom	4.2	3	1	16:41	29	7.84	19.1	5.7	3.34	2.6	2014-08-01
TMCLK	HY/2012/07	2014-07-22	Mid-Flood	Sunny	IS8	Bottom	4.2	3	2	16:41	28.9	7.85	19.1	5.6	3.37	2.4	2014-08-01

Project	Works	Date (yyyy-mm-dd)	Tide	Weather	Stat	Level	Water Depth	Lev_Co d	Replicate	Start Time	Temp_v	pH_v	Sal_v	DO_v	Turb_v	SS_v	Received Date (SS)
TMCLKI	HY/2012/07	2014-07-22	Mid-Ebb	Fine	IS8	Middle		2	2	09:29							2014-08-01
TMCLKI	HY/2012/07	2014-07-22	Mid-Ebb	Fine	IS8	Bottom	3.8	3	1	09:29	28.9	7.83	18.9	5.4	3.45	2.3	2014-08-01
TMCLKI	HY/2012/07	2014-07-22	Mid-Ebb	Fine	IS8	Bottom	3.8	3	2	09:29	28.8	7.86	19.1	5.5	3.49	2.4	2014-08-01
TMCLKI	HY/2012/07	2014-07-22	Mid-Ebb	Fine	IS(Mf)16	Surface	1	1	1	09:08	29	7.76	18.6	5.7	3.02	3	2014-08-01
TMCLKI	HY/2012/07	2014-07-22	Mid-Ebb	Fine	IS(Mf)16	Surface	1	1	2	09:08	29.1	7.7	18.7	5.7	3.05	2.1	2014-08-01
TMCLKI	HY/2012/07	2014-07-22	Mid-Ebb	Fine	IS(Mf)16	Middle	4.2	2	1	09:08	29	7.76	18.8	5.6	3.13	2.8	2014-08-01
TMCLKI	HY/2012/07	2014-07-22	Mid-Ebb	Fine	IS(Mf)16	Middle	4.2	2	2	09:08	29	7.8	18.8	5.6	3.1	3	2014-08-01
TMCLKI	HY/2012/07	2014-07-22	Mid-Ebb	Fine	IS(Mf)16	Bottom	7.3	3	1	09:08	28.8	7.83	18.9	5.4	3.27	2.3	2014-08-01
TMCLKI	HY/2012/07	2014-07-22	Mid-Ebb	Fine	IS(Mf)16	Bottom	7.3	3	2	09:08	28.9	7.86	19	5.4	3.32	2.4	2014-08-01
TMCLKI	HY/2012/07	2014-07-22	Mid-Ebb	Fine	IS(Mf)9	Surface	1	1	1	08:45	29	7.65	18.7	5.8	3.07	2.6	2014-08-01
TMCLKI	HY/2012/07	2014-07-22	Mid-Ebb	Fine	IS(Mf)9	Surface	1	1	2	08:45	29	7.7	18.8	5.8	3.08	2.1	2014-08-01
TMCLKI	HY/2012/07	2014-07-22	Mid-Ebb	Fine	IS(Mf)9	Middle		2	1	08:45							2014-08-01
TMCLKI	HY/2012/07	2014-07-22	Mid-Ebb	Fine	IS(Mf)9	Middle		2	2	08:45							2014-08-01
TMCLKI	HY/2012/07	2014-07-22	Mid-Ebb	Fine	IS(Mf)9	Bottom	3.8	3	1	08:45	28.9	7.73	18.9	5.6	3.24	2.3	2014-08-01
TMCLKI	HY/2012/07	2014-07-22	Mid-Ebb	Fine	IS(Mf)9	Bottom	3.8	3	2	08:45	28.8	7.78	19	5.6	3.27	2.5	2014-08-01
TMCLKI	HY/2012/07	2014-07-22	Mid-Ebb	Fine	CS(Mf)5	Surface	1	1	1	11:19	29.1	7.76	18.6	5.7	2.89	2.5	2014-08-01
TMCLKI	HY/2012/07	2014-07-22	Mid-Ebb	Fine	CS(Mf)5	Surface	1	1	2	11:19	29.2	7.77	18.7	5.6	2.92	2.4	2014-08-01
TMCLKI	HY/2012/07	2014-07-22	Mid-Ebb	Fine	CS(Mf)5	Middle	4.6	2	1	11:19	29.1	7.79	18.8	5.5	3.05	2.1	2014-08-01
TMCLKI	HY/2012/07	2014-07-22	Mid-Ebb	Fine	CS(Mf)5	Middle	4.6	2	2	11:19	29	7.75	18.9	5.5	3.08	2.3	2014-08-01
TMCLKI	HY/2012/07	2014-07-22	Mid-Ebb	Fine	CS(Mf)5	Bottom	8.2	3	1	11:19	28.8	7.8	19.2	5.5	3.42	2.7	2014-08-01
TMCLKI	HY/2012/07	2014-07-22	Mid-Ebb	Fine	CS(Mf)5	Bottom	8.2	3	2	11:19	28.9	7.82	19.1	5.5	3.39	2.9	2014-08-01
TMCLKI	HY/2012/07	2014-07-24	Mid-Flood	Cloudy	CS(Mf)5	Surface	1	1	1	16:58	29.5	7.66	18.2	6.6	3.21	4.4	2014-08-04
TMCLKI	HY/2012/07	2014-07-24	Mid-Flood	Cloudy	CS(Mf)5	Surface	1	1	2	16:58	29.6	7.65	18.3	6.7	3.25	3.3	2014-08-04
TMCLKI	HY/2012/07	2014-07-24	Mid-Flood	Cloudy	CS(Mf)5	Middle	4.7	2	1	16:58	29.5	7.7	18.4	6.5	3.39	3.5	2014-08-04
TMCLKI	HY/2012/07	2014-07-24	Mid-Flood	Cloudy	CS(Mf)5	Middle	4.7	2	2	16:58	29.5	7.73	18.3	6.5	3.4	3.6	2014-08-04
TMCLKI	HY/2012/07	2014-07-24	Mid-Flood	Cloudy	CS(Mf)5	Bottom	8.4	3	1	16:58	29.7	7.75	18.5	6.4	3.53	2.5	2014-08-04
TMCLKI	HY/2012/07	2014-07-24	Mid-Flood	Cloudy	CS(Mf)5	Bottom	8.4	3	2	16:58	29.7	7.71	18.6	6.5	3.5	4.3	2014-08-04
TMCLKI	HY/2012/07	2014-07-24	Mid-Flood	Cloudy	SR4a	Surface	1	1	1	17:19	29.6	7.63	18	6.4	3.38	2.6	2014-08-04
TMCLKI	HY/2012/07	2014-07-24	Mid-Flood	Cloudy	SR4a	Surface	1	1	2	17:19	29.6	7.66	18.1	6.4	3.35	4.2	2014-08-04
TMCLKI	HY/2012/07	2014-07-24	Mid-Flood	Cloudy	SR4a	Middle		2	1	17:19							2014-08-04
TMCLKI	HY/2012/07	2014-07-24	Mid-Flood	Cloudy	SR4a	Middle		2	2	17:19							2014-08-04
TMCLKI	HY/2012/07	2014-07-24	Mid-Flood	Cloudy	SR4a	Bottom	4.5	3	1	17:19	29.6	7.68	18.1	6.2	3.42	4	2014-08-04
TMCLKI	HY/2012/07	2014-07-24	Mid-Flood	Cloudy	SR4a	Bottom	4.5	3	2	17:19	29.6	7.67	18.2	6.2	3.46	3.2	2014-08-04
TMCLKI	HY/2012/07	2014-07-24	Mid-Flood	Cloudy	SR4	Surface	1	1	1	17:41	29.4	7.62	18.2	6.4	3.15	3.7	2014-08-04
TMCLKI	HY/2012/07	2014-07-24	Mid-Flood	Cloudy	SR4	Surface	1	1	2	17:41	29.5	7.64	18.1	6.4	3.18	4.3	2014-08-04
TMCLKI	HY/2012/07	2014-07-24	Mid-Flood	Cloudy	SR4	Middle		2	1	17:41							2014-08-04
TMCLKI	HY/2012/07	2014-07-24	Mid-Flood	Cloudy	SR4	Middle		2	2	17:41							2014-08-04
TMCLKI	HY/2012/07	2014-07-24	Mid-Flood	Cloudy	SR4	Bottom	3.3	3	1	17:41	29.5	7.7	18.3	6.2	3.3	2.7	2014-08-04
TMCLKI	HY/2012/07	2014-07-24	Mid-Flood	Cloudy	SR4	Bottom	3.3	3	2	17:41	29.6	7.74	18.2	6.3	3.36	4.6	2014-08-04

Project	Works	Date (yyyy-mm-dd)	Tide	Weather	Stat	Level	Water Depth	Lev_Co d	Replicate	Start Time	Temp_v	pH_v	Sal_v	DO_v	Turb_v	SS_v	Received Date (SS)
TMCLK	HY/2012/07	2014-07-24	Mid-Ebb	Cloudy	SR4	Middle		2	2	12:06							2014-08-04
TMCLK	HY/2012/07	2014-07-24	Mid-Ebb	Cloudy	SR4	Bottom	2.9	3	1	12:06	29.6	7.73	18.5	6.1	3.38	4	2014-08-04
TMCLK	HY/2012/07	2014-07-24	Mid-Ebb	Cloudy	SR4	Bottom	2.9	3	2	12:06	29.8	7.76	18.4	6.2	3.4	2.9	2014-08-04
TMCLK	HY/2012/07	2014-07-24	Mid-Ebb	Cloudy	IS8	Surface	1	1	1	11:34	29.7	7.7	18.3	6.4	3.15	3.3	2014-08-04
TMCLK	HY/2012/07	2014-07-24	Mid-Ebb	Cloudy	IS8	Surface	1	1	2	11:34	29.7	7.67	18.3	6.4	3.17	3.4	2014-08-04
TMCLK	HY/2012/07	2014-07-24	Mid-Ebb	Cloudy	IS8	Middle		2	1	11:34							2014-08-04
TMCLK	HY/2012/07	2014-07-24	Mid-Ebb	Cloudy	IS8	Middle		2	2	11:34							2014-08-04
TMCLK	HY/2012/07	2014-07-24	Mid-Ebb	Cloudy	IS8	Bottom	3.3	3	1	11:34	29.7	7.76	18.5	6.3	3.37	2.6	2014-08-04
TMCLK	HY/2012/07	2014-07-24	Mid-Ebb	Cloudy	IS8	Bottom	3.3	3	2	11:34	29.8	7.75	18.4	6.3	3.4	4.4	2014-08-04
TMCLK	HY/2012/07	2014-07-24	Mid-Ebb	Cloudy	IS(Mf)16	Surface	1	1	1	11:01	29.8	7.72	18.3	6.2	3.47	3	2014-08-04
TMCLK	HY/2012/07	2014-07-24	Mid-Ebb	Cloudy	IS(Mf)16	Surface	1	1	2	11:01	29.9	7.73	18.2	6.3	3.5	3	2014-08-04
TMCLK	HY/2012/07	2014-07-24	Mid-Ebb	Cloudy	IS(Mf)16	Middle	3.9	2	1	11:01	29.6	7.75	18.4	6.1	3.6	3.6	2014-08-04
TMCLK	HY/2012/07	2014-07-24	Mid-Ebb	Cloudy	IS(Mf)16	Middle	3.9	2	2	11:01	29.7	7.75	18.5	6.1	3.64	3.5	2014-08-04
TMCLK	HY/2012/07	2014-07-24	Mid-Ebb	Cloudy	IS(Mf)16	Bottom	6.8	3	1	11:01	29.6	7.8	18.6	6.0	3.71	2.7	2014-08-04
TMCLK	HY/2012/07	2014-07-24	Mid-Ebb	Cloudy	IS(Mf)16	Bottom	6.8	3	2	11:01	29.6	7.83	18.5	6.0	3.73	3.4	2014-08-04
TMCLK	HY/2012/07	2014-07-24	Mid-Ebb	Cloudy	IS(Mf)9	Surface	1	1	1	10:27	29.8	7.74	18.4	6.5	3.18	2.6	2014-08-04
TMCLK	HY/2012/07	2014-07-24	Mid-Ebb	Cloudy	IS(Mf)9	Surface	1	1	2	10:27	29.7	7.77	18.4	6.5	3.16	3.2	2014-08-04
TMCLK	HY/2012/07	2014-07-24	Mid-Ebb	Cloudy	IS(Mf)9	Middle		2	1	10:27							2014-08-04
TMCLK	HY/2012/07	2014-07-24	Mid-Ebb	Cloudy	IS(Mf)9	Middle		2	2	10:27							2014-08-04
TMCLK	HY/2012/07	2014-07-24	Mid-Ebb	Cloudy	IS(Mf)9	Bottom	3.1	3	1	10:27	29.8	7.78	18.5	6.2	3.38	3.1	2014-08-04
TMCLK	HY/2012/07	2014-07-24	Mid-Ebb	Cloudy	IS(Mf)9	Bottom	3.1	3	2	10:27	29.9	7.79	18.3	6.2	3.4	3.5	2014-08-04
TMCLK	HY/2012/07	2014-07-24	Mid-Ebb	Cloudy	CS(Mf)5	Surface	1	1	1	13:04	29.7	7.69	18.4	6.5	3.32	4.8	2014-08-04
TMCLK	HY/2012/07	2014-07-24	Mid-Ebb	Cloudy	CS(Mf)5	Surface	1	1	2	13:04	29.7	7.66	18.4	6.5	3.36	3.8	2014-08-04
TMCLK	HY/2012/07	2014-07-24	Mid-Ebb	Cloudy	CS(Mf)5	Middle	4.6	2	1	13:04	29.6	7.72	18.5	6.4	3.45	4.5	2014-08-04
TMCLK	HY/2012/07	2014-07-24	Mid-Ebb	Cloudy	CS(Mf)5	Middle	4.6	2	2	13:04	29.7	7.74	18.4	6.4	3.47	4.1	2014-08-04
TMCLK	HY/2012/07	2014-07-24	Mid-Ebb	Cloudy	CS(Mf)5	Bottom	8.1	3	1	13:04	29.8	7.77	18.6	6.3	3.56	5.6	2014-08-04
TMCLK	HY/2012/07	2014-07-24	Mid-Ebb	Cloudy	CS(Mf)5	Bottom	8.1	3	2	13:04	29.7	7.75	18.7	6.4	3.54	4.6	2014-08-04
TMCLK	HY/2012/07	2014-07-26	Mid-Flood	Fine	CS(Mf)5	Surface	1	1	1	18:02	28.4	7.66	19.1	5.8	3	2.2	2014-08-05
TMCLK	HY/2012/07	2014-07-26	Mid-Flood	Fine	CS(Mf)5	Surface	1	1	2	18:02	28.4	7.68	19.1	5.8	3.02	2.9	2014-08-05
TMCLK	HY/2012/07	2014-07-26	Mid-Flood	Fine	CS(Mf)5	Middle	4.9	2	1	18:02	28.2	7.7	19.2	5.7	2.99	4	2014-08-05
TMCLK	HY/2012/07	2014-07-26	Mid-Flood	Fine	CS(Mf)5	Middle	4.9	2	2	18:02	28.3	7.68	19.3	5.7	2.97	3.2	2014-08-05
TMCLK	HY/2012/07	2014-07-26	Mid-Flood	Fine	CS(Mf)5	Bottom	8.6	3	1	18:02	28.1	7.69	19.2	5.6	3.09	3.9	2014-08-05
TMCLK	HY/2012/07	2014-07-26	Mid-Flood	Fine	CS(Mf)5	Bottom	8.6	3	2	18:02	28.1	7.68	19.2	5.6	3.11	3.8	2014-08-05
TMCLK	HY/2012/07	2014-07-26	Mid-Flood	Fine	SR4a	Surface	1	1	1	18:26	28.3	7.69	19	5.7	3.05	3.6	2014-08-05
TMCLK	HY/2012/07	2014-07-26	Mid-Flood	Fine	SR4a	Surface	1	1	2	18:26	28.4	7.7	19	5.8	3.07	3.6	2014-08-05
TMCLK	HY/2012/07	2014-07-26	Mid-Flood	Fine	SR4a	Middle		2	1	18:26							2014-08-05
TMCLK	HY/2012/07	2014-07-26	Mid-Flood	Fine	SR4a	Middle		2	2	18:26							2014-08-05
TMCLK	HY/2012/07	2014-07-26	Mid-Flood	Fine	SR4a	Bottom	4.9	3	1	18:26	28.1	7.82	19.1	5.6	3.29	4.2	2014-08-05
TMCLK	HY/2012/07	2014-07-26	Mid-Flood	Fine	SR4a	Bottom	4.9	3	2	18:26	28.2	7.8	19.3	5.6	3.33	4.1	2014-08-05

Project	Works	Date (yyyy-mm-dd)	Tide	Weather	Stat	Level	Water Depth	Lev_Cod	Replicate	Start Time	Temp_v	pH_v	Sal_v	DO_v	Turb_v	SS_v	Received Date (SS)
TMCLK	HY/2012/07	2014-07-26	Mid-Ebb	Fine	SR4a	Middle		2	2	13:45							2014-08-05
TMCLK	HY/2012/07	2014-07-26	Mid-Ebb	Fine	SR4a	Bottom	4.7	3	1	13:45	28.3	7.81	19.3	5.5	3.26	5.6	2014-08-05
TMCLK	HY/2012/07	2014-07-26	Mid-Ebb	Fine	SR4a	Bottom	4.7	3	2	13:45	28.2	7.83	19.4	5.5	3.28	5	2014-08-05
TMCLK	HY/2012/07	2014-07-26	Mid-Ebb	Fine	SR4	Surface	1	1	1	13:05	28	7.75	19.2	5.6	3.16	3.4	2014-08-05
TMCLK	HY/2012/07	2014-07-26	Mid-Ebb	Fine	SR4	Surface	1	1	2	13:05	28.4	7.7	19.1	5.7	3.21	3.4	2014-08-05
TMCLK	HY/2012/07	2014-07-26	Mid-Ebb	Fine	SR4	Middle		2	1	13:05							2014-08-05
TMCLK	HY/2012/07	2014-07-26	Mid-Ebb	Fine	SR4	Middle		2	2	13:05							2014-08-05
TMCLK	HY/2012/07	2014-07-26	Mid-Ebb	Fine	SR4	Bottom	4.1	3	1	13:05	28.2	7.75	19.3	5.4	3.26	4.6	2014-08-05
TMCLK	HY/2012/07	2014-07-26	Mid-Ebb	Fine	SR4	Bottom	4.1	3	2	13:05	28.3	7.72	19.4	5.4	3.32	4.6	2014-08-05
TMCLK	HY/2012/07	2014-07-26	Mid-Ebb	Fine	IS8	Surface	1	1	1	12:36	28.6	7.69	19.2	5.5	3.2	3.9	2014-08-05
TMCLK	HY/2012/07	2014-07-26	Mid-Ebb	Fine	IS8	Surface	1	1	2	12:36	28.5	7.68	19.1	5.5	3.26	3.6	2014-08-05
TMCLK	HY/2012/07	2014-07-26	Mid-Ebb	Fine	IS8	Middle		2	1	12:36							2014-08-05
TMCLK	HY/2012/07	2014-07-26	Mid-Ebb	Fine	IS8	Middle		2	2	12:36							2014-08-05
TMCLK	HY/2012/07	2014-07-26	Mid-Ebb	Fine	IS8	Bottom	4.2	3	1	12:36	28.4	7.72	19.4	5.3	3.46	4.6	2014-08-05
TMCLK	HY/2012/07	2014-07-26	Mid-Ebb	Fine	IS8	Bottom	4.2	3	2	12:36	28.3	7.7	19.3	5.3	3.43	4.5	2014-08-05
TMCLK	HY/2012/07	2014-07-26	Mid-Ebb	Fine	IS(Mf)16	Surface	1	1	1	12:07	28.5	7.66	19.1	5.6	3.21	4.2	2014-08-05
TMCLK	HY/2012/07	2014-07-26	Mid-Ebb	Fine	IS(Mf)16	Surface	1	1	2	12:07	28.4	7.7	19.1	5.6	3.26	3.7	2014-08-05
TMCLK	HY/2012/07	2014-07-26	Mid-Ebb	Fine	IS(Mf)16	Middle	4.3	2	1	12:07	28.4	7.72	19.2	5.4	3.25	4.8	2014-08-05
TMCLK	HY/2012/07	2014-07-26	Mid-Ebb	Fine	IS(Mf)16	Middle	4.3	2	2	12:07	28.3	7.7	19.2	5.4	3.3	5.1	2014-08-05
TMCLK	HY/2012/07	2014-07-26	Mid-Ebb	Fine	IS(Mf)16	Bottom	7.6	3	1	12:07	28.2	7.75	19.3	5.3	3.55	4.7	2014-08-05
TMCLK	HY/2012/07	2014-07-26	Mid-Ebb	Fine	IS(Mf)16	Bottom	7.6	3	2	12:07	28.3	7.76	19.4	5.4	3.5	4.5	2014-08-05
TMCLK	HY/2012/07	2014-07-26	Mid-Ebb	Fine	IS(Mf)9	Surface	1	1	1	11:36	28.6	7.73	19.2	5.7	3.29	3.1	2014-08-05
TMCLK	HY/2012/07	2014-07-26	Mid-Ebb	Fine	IS(Mf)9	Surface	1	1	2	11:36	28.5	7.75	19.1	5.7	3.25	3.4	2014-08-05
TMCLK	HY/2012/07	2014-07-26	Mid-Ebb	Fine	IS(Mf)9	Middle		2	1	11:36							2014-08-05
TMCLK	HY/2012/07	2014-07-26	Mid-Ebb	Fine	IS(Mf)9	Middle		2	2	11:36							2014-08-05
TMCLK	HY/2012/07	2014-07-26	Mid-Ebb	Fine	IS(Mf)9	Bottom	4.5	3	1	11:36	28.4	7.8	19.4	5.5	3.44	4.9	2014-08-05
TMCLK	HY/2012/07	2014-07-26	Mid-Ebb	Fine	IS(Mf)9	Bottom	4.5	3	2	11:36	28.3	7.81	19.3	5.5	3.45	4.5	2014-08-05
TMCLK	HY/2012/07	2014-07-26	Mid-Ebb	Fine	CS(Mf)5	Surface	1	1	1	14:11	28.5	7.65	19.2	5.8	3.06	3.4	2014-08-05
TMCLK	HY/2012/07	2014-07-26	Mid-Ebb	Fine	CS(Mf)5	Surface	1	1	2	14:11	28.4	7.59	19.1	5.8	3.09	3.7	2014-08-05
TMCLK	HY/2012/07	2014-07-26	Mid-Ebb	Fine	CS(Mf)5	Middle	4.8	2	1	14:11	28.3	7.77	19.3	5.6	3.02	3.7	2014-08-05
TMCLK	HY/2012/07	2014-07-26	Mid-Ebb	Fine	CS(Mf)5	Middle	4.8	2	2	14:11	28.3	7.8	19.2	5.6	3	3.8	2014-08-05
TMCLK	HY/2012/07	2014-07-26	Mid-Ebb	Fine	CS(Mf)5	Bottom	8.6	3	1	14:11	28.2	7.8	19.4	5.5	3.12	4	2014-08-05
TMCLK	HY/2012/07	2014-07-26	Mid-Ebb	Fine	CS(Mf)5	Bottom	8.6	3	2	14:11	28.1	7.81	19.4	5.5	3.15	4.4	2014-08-05
TMCLK	HY/2012/07	2014-07-29	Mid-Flood	Fine	CS(Mf)5	Surface	1	1	1	07:35	28.5	7.71	18	7.0	2.98	4.4	2014-08-08
TMCLK	HY/2012/07	2014-07-29	Mid-Flood	Fine	CS(Mf)5	Surface	1	1	2	07:35	28.4	7.69	18.1	7.1	3.01	5	2014-08-08
TMCLK	HY/2012/07	2014-07-29	Mid-Flood	Fine	CS(Mf)5	Middle	4.8	2	1	07:35	28.3	7.7	18.2	6.7	3.06	4.6	2014-08-08
TMCLK	HY/2012/07	2014-07-29	Mid-Flood	Fine	CS(Mf)5	Middle	4.8	2	2	07:35	28.4	7.69	18.2	6.7	3.12	4.3	2014-08-08
TMCLK	HY/2012/07	2014-07-29	Mid-Flood	Fine	CS(Mf)5	Bottom	9.5	3	1	07:35	28.3	7.82	18.3	6.4	3.26	6.1	2014-08-08
TMCLK	HY/2012/07	2014-07-29	Mid-Flood	Fine	CS(Mf)5	Bottom	9.5	3	2	07:35	28.2	7.78	18.4	6.5	3.3	5.3	2014-08-08

Project	Works	Date (yyyy-mm-dd)	Tide	Weather	Stat	Level	Water Depth	Lev_Cod	Replicate	Start Time	Temp_v	pH_v	Sal_v	DO_v	Turb_v	SS_v	Received Date (SS)
TMCLK	HY/2012/07	2014-07-29	Mid-Flood	Fine	SR4a	Surface	1	1	1	07:53	28.6	7.7	18.1	6.7	3.09	3.7	2014-08-08
TMCLK	HY/2012/07	2014-07-29	Mid-Flood	Fine	SR4a	Surface	1	1	2	07:53	28.5	7.73	18	6.6	3.12	2.9	2014-08-08
TMCLK	HY/2012/07	2014-07-29	Mid-Flood	Fine	SR4a	Middle		2	1	07:53							2014-08-08
TMCLK	HY/2012/07	2014-07-29	Mid-Flood	Fine	SR4a	Middle		2	2	07:53							2014-08-08
TMCLK	HY/2012/07	2014-07-29	Mid-Flood	Fine	SR4a	Bottom	4.8	3	1	07:53	28.4	7.78	18.3	6.0	3.26	4.5	2014-08-08
TMCLK	HY/2012/07	2014-07-29	Mid-Flood	Fine	SR4a	Bottom	4.8	3	2	07:53	28.3	7.8	18.2	6.0	3.31	3.6	2014-08-08
TMCLK	HY/2012/07	2014-07-29	Mid-Flood	Fine	SR4	Surface	1	1	1	08:10	28.4	7.69	18.2	6.0	3.09	2.3	2014-08-08
TMCLK	HY/2012/07	2014-07-29	Mid-Flood	Fine	SR4	Surface	1	1	2	08:10	28.5	7.7	18.3	6.0	3.11	3.6	2014-08-08
TMCLK	HY/2012/07	2014-07-29	Mid-Flood	Fine	SR4	Middle		2	1	08:10							2014-08-08
TMCLK	HY/2012/07	2014-07-29	Mid-Flood	Fine	SR4	Middle		2	2	08:10							2014-08-08
TMCLK	HY/2012/07	2014-07-29	Mid-Flood	Fine	SR4	Bottom	4	3	1	08:10	28.2	7.75	18.3	5.6	3.34	4.6	2014-08-08
TMCLK	HY/2012/07	2014-07-29	Mid-Flood	Fine	SR4	Bottom	4	3	2	08:10	28.3	7.77	18.4	5.6	3.35	3.2	2014-08-08
TMCLK	HY/2012/07	2014-07-29	Mid-Flood	Fine	IS8	Surface	1	1	1	08:17	28.4	7.76	18.2	6.1	3.11	3.4	2014-08-08
TMCLK	HY/2012/07	2014-07-29	Mid-Flood	Fine	IS8	Surface	1	1	2	08:17	28.4	7.75	18.3	6.1	3.15	2.5	2014-08-08
TMCLK	HY/2012/07	2014-07-29	Mid-Flood	Fine	IS8	Middle		2	1	08:17							2014-08-08
TMCLK	HY/2012/07	2014-07-29	Mid-Flood	Fine	IS8	Middle		2	2	08:17							2014-08-08
TMCLK	HY/2012/07	2014-07-29	Mid-Flood	Fine	IS8	Bottom	4.2	3	1	08:17	28.2	7.8	18.5	6.0	3.29	3.3	2014-08-08
TMCLK	HY/2012/07	2014-07-29	Mid-Flood	Fine	IS8	Bottom	4.2	3	2	08:17	28.3	7.81	18.4	5.9	3.33	3.8	2014-08-08
TMCLK	HY/2012/07	2014-07-29	Mid-Flood	Fine	IS(Mf)16	Surface	1	1	1	08:34	28.5	7.79	18.3	6.1	3.2	3.4	2014-08-08
TMCLK	HY/2012/07	2014-07-29	Mid-Flood	Fine	IS(Mf)16	Surface	1	1	2	08:34	28.4	7.8	18.2	6.1	3.21	4.3	2014-08-08
TMCLK	HY/2012/07	2014-07-29	Mid-Flood	Fine	IS(Mf)16	Middle	4.4	2	1	08:34	28.3	7.81	18.3	6.0	3.37	3.6	2014-08-08
TMCLK	HY/2012/07	2014-07-29	Mid-Flood	Fine	IS(Mf)16	Middle	4.4	2	2	08:34	28.4	7.82	18.4	6.0	3.39	3.9	2014-08-08
TMCLK	HY/2012/07	2014-07-29	Mid-Flood	Fine	IS(Mf)16	Bottom	7.7	3	1	08:34	28.3	7.81	18.5	5.9	3.41	2.6	2014-08-08
TMCLK	HY/2012/07	2014-07-29	Mid-Flood	Fine	IS(Mf)16	Bottom	7.7	3	2	08:34	28.2	7.79	18.4	5.9	3.39	4.1	2014-08-08
TMCLK	HY/2012/07	2014-07-29	Mid-Flood	Fine	IS(Mf)9	Surface	1	1	1	08:52	28.5	7.71	18.2	6.1	3.21	4	2014-08-08
TMCLK	HY/2012/07	2014-07-29	Mid-Flood	Fine	IS(Mf)9	Surface	1	1	2	08:52	28.4	7.66	18.3	6.1	3.26	4.4	2014-08-08
TMCLK	HY/2012/07	2014-07-29	Mid-Flood	Fine	IS(Mf)9	Middle		2	1	08:52							2014-08-08
TMCLK	HY/2012/07	2014-07-29	Mid-Flood	Fine	IS(Mf)9	Middle		2	2	08:52							2014-08-08
TMCLK	HY/2012/07	2014-07-29	Mid-Flood	Fine	IS(Mf)9	Bottom	4.4	3	1	08:52	28.3	7.79	18.4	5.9	3.36	4.2	2014-08-08
TMCLK	HY/2012/07	2014-07-29	Mid-Flood	Fine	IS(Mf)9	Bottom	4.4	3	2	08:52	28.2	7.75	18.5	5.9	3.3	4.6	2014-08-08
TMCLK	HY/2012/07	2014-07-29	Mid-Flood	Fine	CS(Mf)3	Surface	1	1	1	09:10	28.4	7.69	18.3	6.1	2.99	3.9	2014-08-08
TMCLK	HY/2012/07	2014-07-29	Mid-Flood	Fine	CS(Mf)3	Surface	1	1	2	09:10	28.5	7.71	18.3	6.1	3.05	3.5	2014-08-08
TMCLK	HY/2012/07	2014-07-29	Mid-Flood	Fine	CS(Mf)3	Middle	5.9	2	1	09:10	28.4	7.73	18.4	6.0	3.17	4.3	2014-08-08
TMCLK	HY/2012/07	2014-07-29	Mid-Flood	Fine	CS(Mf)3	Middle	5.9	2	2	09:10	28.3	7.76	18.4	6.0	3.23	5.8	2014-08-08
TMCLK	HY/2012/07	2014-07-29	Mid-Flood	Fine	CS(Mf)3	Bottom	10.8	3	1	09:10	28.2	7.8	18.5	5.8	3.31	5.2	2014-08-08
TMCLK	HY/2012/07	2014-07-29	Mid-Flood	Fine	CS(Mf)3	Bottom	10.8	3	2	09:10	28.3	7.79	18.4	5.8	3.39	5.4	2014-08-08
TMCLK	HY/2012/07	2014-07-29	Mid-Ebb	Fine	CS(Mf)3	Surface	1	1	1	12:47	28.5	7.76	18.4	6.1	3.06	4.5	2014-08-08
TMCLK	HY/2012/07	2014-07-29	Mid-Ebb	Fine	CS(Mf)3	Surface	1	1	2	12:47	28.6	7.8	18.3	6.1	3.11	4.6	2014-08-08
TMCLK	HY/2012/07	2014-07-29	Mid-Ebb	Fine	CS(Mf)3	Middle	5.8	2	1	12:47	28.4	7.83	18.5	6.0	3.26	4.2	2014-08-08

Project	Works	Date (yyyy-mm-dd)	Tide	Weather	Stat	Level	Water Depth	Lev_Cod	Replicate	Start Time	Temp_v	pH_v	Sal_v	DO_v	Turb_v	SS_v	Received Date (SS)
TMCLK	HY/2012/07	2014-07-29	Mid-Ebb	Fine	CS(Mf)3	Middle	5.8	2	2	12:47	28.5	7.8	18.4	6.0	3.3	4.5	2014-08-08
TMCLK	HY/2012/07	2014-07-29	Mid-Ebb	Fine	CS(Mf)3	Bottom	10.5	3	1	12:47	28.3	7.79	18.6	5.7	3.43	4.4	2014-08-08
TMCLK	HY/2012/07	2014-07-29	Mid-Ebb	Fine	CS(Mf)3	Bottom	10.5	3	2	12:47	28.4	7.81	18.6	5.7	3.48	4.2	2014-08-08
TMCLK	HY/2012/07	2014-07-29	Mid-Ebb	Fine	SR4a	Surface	1	1	1	14:37	28.7	7.69	18.3	6.5	3.24	6.7	2014-08-08
TMCLK	HY/2012/07	2014-07-29	Mid-Ebb	Fine	SR4a	Surface	1	1	2	14:37	28.6	7.71	18.2	6.5	3.19	5.7	2014-08-08
TMCLK	HY/2012/07	2014-07-29	Mid-Ebb	Fine	SR4a	Middle		2	1	14:37							2014-08-08
TMCLK	HY/2012/07	2014-07-29	Mid-Ebb	Fine	SR4a	Middle		2	2	14:37							2014-08-08
TMCLK	HY/2012/07	2014-07-29	Mid-Ebb	Fine	SR4a	Bottom	4.5	3	1	14:37	28.4	7.8	18.4	5.9	3.41	6.4	2014-08-08
TMCLK	HY/2012/07	2014-07-29	Mid-Ebb	Fine	SR4a	Bottom	4.5	3	2	14:37	28.5	7.72	18.5	5.8	3.46	7	2014-08-08
TMCLK	HY/2012/07	2014-07-29	Mid-Ebb	Fine	SR4	Surface	1	1	1	14:14	28.5	7.71	18.3	6.0	3.2	4.4	2014-08-08
TMCLK	HY/2012/07	2014-07-29	Mid-Ebb	Fine	SR4	Surface	1	1	2	14:14	28.6	7.74	18.4	5.9	3.17	3.9	2014-08-08
TMCLK	HY/2012/07	2014-07-29	Mid-Ebb	Fine	SR4	Middle		2	1	14:14							2014-08-08
TMCLK	HY/2012/07	2014-07-29	Mid-Ebb	Fine	SR4	Middle		2	2	14:14							2014-08-08
TMCLK	HY/2012/07	2014-07-29	Mid-Ebb	Fine	SR4	Bottom	3.7	3	1	14:14	28.4	7.75	18.5	5.6	3.46	3.9	2014-08-08
TMCLK	HY/2012/07	2014-07-29	Mid-Ebb	Fine	SR4	Bottom	3.7	3	2	14:14	28.3	7.78	18.5	5.6	3.52	4.6	2014-08-08
TMCLK	HY/2012/07	2014-07-29	Mid-Ebb	Fine	IS8	Surface	1	1	1	13:52	28.5	7.67	18.3	6.1	3.17	3.5	2014-08-08
TMCLK	HY/2012/07	2014-07-29	Mid-Ebb	Fine	IS8	Surface	1	1	2	13:52	28.4	7.68	18.4	6.0	3.23	3.5	2014-08-08
TMCLK	HY/2012/07	2014-07-29	Mid-Ebb	Fine	IS8	Middle		2	1	13:52							2014-08-08
TMCLK	HY/2012/07	2014-07-29	Mid-Ebb	Fine	IS8	Middle		2	2	13:52							2014-08-08
TMCLK	HY/2012/07	2014-07-29	Mid-Ebb	Fine	IS8	Bottom	4	3	1	13:52	28.3	7.81	18.6	5.8	3.44	5.1	2014-08-08
TMCLK	HY/2012/07	2014-07-29	Mid-Ebb	Fine	IS8	Bottom	4	3	2	13:52	28.4	7.86	18.5	5.9	3.41	4.1	2014-08-08
TMCLK	HY/2012/07	2014-07-29	Mid-Ebb	Fine	IS(Mf)16	Surface	1	1	1	13:30	28.5	7.8	18.4	6.0	3.31	6.1	2014-08-08
TMCLK	HY/2012/07	2014-07-29	Mid-Ebb	Fine	IS(Mf)16	Surface	1	1	2	13:30	28.6	7.79	18.3	5.9	3.25	5.3	2014-08-08
TMCLK	HY/2012/07	2014-07-29	Mid-Ebb	Fine	IS(Mf)16	Middle	4.3	2	1	13:30	28.5	7.81	18.5	5.9	3.31	4.5	2014-08-08
TMCLK	HY/2012/07	2014-07-29	Mid-Ebb	Fine	IS(Mf)16	Middle	4.3	2	2	13:30	28.5	7.83	18.5	5.9	3.33	4.2	2014-08-08
TMCLK	HY/2012/07	2014-07-29	Mid-Ebb	Fine	IS(Mf)16	Bottom	7.5	3	1	13:30	28.3	7.76	18.6	5.8	3.55	3.7	2014-08-08
TMCLK	HY/2012/07	2014-07-29	Mid-Ebb	Fine	IS(Mf)16	Bottom	7.5	3	2	13:30	28.4	7.75	18.5	5.8	3.5	3.9	2014-08-08
TMCLK	HY/2012/07	2014-07-29	Mid-Ebb	Fine	IS(Mf)9	Surface	1	1	1	13:09	28.5	7.69	18.3	6.0	3.26	5.5	2014-08-08
TMCLK	HY/2012/07	2014-07-29	Mid-Ebb	Fine	IS(Mf)9	Surface	1	1	2	13:09	28.6	7.72	18.4	6.1	3.3	5	2014-08-08
TMCLK	HY/2012/07	2014-07-29	Mid-Ebb	Fine	IS(Mf)9	Middle		2	1	13:09							2014-08-08
TMCLK	HY/2012/07	2014-07-29	Mid-Ebb	Fine	IS(Mf)9	Middle		2	2	13:09							2014-08-08
TMCLK	HY/2012/07	2014-07-29	Mid-Ebb	Fine	IS(Mf)9	Bottom	4.1	3	1	13:09	28.4	7.75	18.5	5.8	3.42	6.5	2014-08-08
TMCLK	HY/2012/07	2014-07-29	Mid-Ebb	Fine	IS(Mf)9	Bottom	4.1	3	2	13:09	28.4	7.73	18.6	5.8	3.45	4.8	2014-08-08
TMCLK	HY/2012/07	2014-07-29	Mid-Ebb	Fine	CS(Mf)5	Surface	1	1	1	14:59	28.6	7.79	18.1	6.7	3.06	4	2014-08-08
TMCLK	HY/2012/07	2014-07-29	Mid-Ebb	Fine	CS(Mf)5	Surface	1	1	2	14:59	28.5	7.76	18.2	6.8	3.1	3.9	2014-08-08
TMCLK	HY/2012/07	2014-07-29	Mid-Ebb	Fine	CS(Mf)5	Middle	4.7	2	1	14:59	28.5	7.8	18.3	6.5	3.19	3.1	2014-08-08
TMCLK	HY/2012/07	2014-07-29	Mid-Ebb	Fine	CS(Mf)5	Middle	4.7	2	2	14:59	28.4	7.79	18.3	6.5	3.21	3.9	2014-08-08
TMCLK	HY/2012/07	2014-07-29	Mid-Ebb	Fine	CS(Mf)5	Bottom	8.4	3	1	14:59	28.3	7.78	18.4	6.4	3.37	2.9	2014-08-08
TMCLK	HY/2012/07	2014-07-29	Mid-Ebb	Fine	CS(Mf)5	Bottom	8.4	3	2	14:59	28.4	7.77	18.5	6.3	3.42	3.7	2014-08-08

Project	Works	Date (yyyy-mm-dd)	Tide	Weather	Stat	Level	Water Depth	Lev_Cod	Replicate	Start Time	Temp_v	pH_v	Sal_v	DO_v	Turb_v	SS_v	Received Date (SS)
TMCLK	HY/2012/07	2014-07-31	Mid-Flood	Fine	CS(Mf)5	Surface	1	1	1	07:44	28.3	7.61	19.2	5.8	3.01	2.8	2014-08-08
TMCLK	HY/2012/07	2014-07-31	Mid-Flood	Fine	CS(Mf)5	Surface	1	1	2	07:44	28.2	7.65	19	5.8	3.02	3.3	2014-08-08
TMCLK	HY/2012/07	2014-07-31	Mid-Flood	Fine	CS(Mf)5	Middle	4.9	2	1	07:44	28.2	7.72	19.3	5.7	2.98	3.4	2014-08-08
TMCLK	HY/2012/07	2014-07-31	Mid-Flood	Fine	CS(Mf)5	Middle	4.9	2	2	07:44	28.1	7.7	19.1	5.7	2.99	3.2	2014-08-08
TMCLK	HY/2012/07	2014-07-31	Mid-Flood	Fine	CS(Mf)5	Bottom	8.8	3	1	07:44	28.1	7.59	19	5.6	3.1	3.4	2014-08-08
TMCLK	HY/2012/07	2014-07-31	Mid-Flood	Fine	CS(Mf)5	Bottom	8.8	3	2	07:44	28.1	7.6	19.2	5.6	3.1	3.6	2014-08-08
TMCLK	HY/2012/07	2014-07-31	Mid-Flood	Fine	SR4a	Surface	1	1	1	08:12	28.3	7.6	19.1	5.7	3.06	3.4	2014-08-08
TMCLK	HY/2012/07	2014-07-31	Mid-Flood	Fine	SR4a	Surface	1	1	2	08:12	28.2	7.62	19	5.7	3.07	3	2014-08-08
TMCLK	HY/2012/07	2014-07-31	Mid-Flood	Fine	SR4a	Middle		2	1	08:12							2014-08-08
TMCLK	HY/2012/07	2014-07-31	Mid-Flood	Fine	SR4a	Middle		2	2	08:12							2014-08-08
TMCLK	HY/2012/07	2014-07-31	Mid-Flood	Fine	SR4a	Bottom	4.9	3	1	08:12	28.2	7.82	19.2	5.5	3.28	4.2	2014-08-08
TMCLK	HY/2012/07	2014-07-31	Mid-Flood	Fine	SR4a	Bottom	4.9	3	2	08:12	28.1	7.81	19	5.6	3.3	4	2014-08-08
TMCLK	HY/2012/07	2014-07-31	Mid-Flood	Fine	SR4	Surface	1	1	1	08:38	28.2	7.65	18.9	5.7	3.1	3.2	2014-08-08
TMCLK	HY/2012/07	2014-07-31	Mid-Flood	Fine	SR4	Surface	1	1	2	08:38	28.1	7.66	19	5.7	3.11	3.4	2014-08-08
TMCLK	HY/2012/07	2014-07-31	Mid-Flood	Fine	SR4	Middle		2	1	08:38							2014-08-08
TMCLK	HY/2012/07	2014-07-31	Mid-Flood	Fine	SR4	Middle		2	2	08:38							2014-08-08
TMCLK	HY/2012/07	2014-07-31	Mid-Flood	Fine	SR4	Bottom	4.2	3	1	08:38	28.1	7.7	19.3	5.5	3.21	4.1	2014-08-08
TMCLK	HY/2012/07	2014-07-31	Mid-Flood	Fine	SR4	Bottom	4.2	3	2	08:38	28.1	7.69	19.4	5.5	3.2	3.8	2014-08-08
TMCLK	HY/2012/07	2014-07-31	Mid-Flood	Fine	IS8	Surface	1	1	1	09:02	28.1	7.66	19.2	5.6	3.15	3	2014-08-08
TMCLK	HY/2012/07	2014-07-31	Mid-Flood	Fine	IS8	Surface	1	1	2	09:02	28.2	7.64	19.1	5.6	3.13	3.2	2014-08-08
TMCLK	HY/2012/07	2014-07-31	Mid-Flood	Fine	IS8	Middle		2	1	09:02							2014-08-08
TMCLK	HY/2012/07	2014-07-31	Mid-Flood	Fine	IS8	Middle		2	2	09:02							2014-08-08
TMCLK	HY/2012/07	2014-07-31	Mid-Flood	Fine	IS8	Bottom	4.4	3	1	09:02	28.3	7.71	19.4	5.3	3.3	4.7	2014-08-08
TMCLK	HY/2012/07	2014-07-31	Mid-Flood	Fine	IS8	Bottom	4.4	3	2	09:02	28.2	7.7	19.2	5.3	3.32	4.5	2014-08-08
TMCLK	HY/2012/07	2014-07-31	Mid-Flood	Fine	IS(Mf)16	Surface	1	1	1	09:26	28.4	7.69	18.7	5.7	3.15	3.9	2014-08-08
TMCLK	HY/2012/07	2014-07-31	Mid-Flood	Fine	IS(Mf)16	Surface	1	1	2	09:26	28.2	7.65	18.9	5.7	3.14	4.1	2014-08-08
TMCLK	HY/2012/07	2014-07-31	Mid-Flood	Fine	IS(Mf)16	Middle	4.4	2	1	09:26	28.3	7.65	19.2	5.5	3.11	4.6	2014-08-08
TMCLK	HY/2012/07	2014-07-31	Mid-Flood	Fine	IS(Mf)16	Middle	4.4	2	2	09:26	28.2	7.66	19	5.5	3.13	4.9	2014-08-08
TMCLK	HY/2012/07	2014-07-31	Mid-Flood	Fine	IS(Mf)16	Bottom	7.8	3	1	09:26	28.1	7.71	19.4	5.4	3.3	6.6	2014-08-08
TMCLK	HY/2012/07	2014-07-31	Mid-Flood	Fine	IS(Mf)16	Bottom	7.8	3	2	09:26	28.1	7.7	19.3	5.4	3.31	6.3	2014-08-08
TMCLK	HY/2012/07	2014-07-31	Mid-Flood	Fine	IS(Mf)9	Surface	1	1	1	09:52	28.2	7.62	19	5.7	3.19	5.2	2014-08-08
TMCLK	HY/2012/07	2014-07-31	Mid-Flood	Fine	IS(Mf)9	Surface	1	1	2	09:52	28.3	7.64	19.2	5.8	3.17	5	2014-08-08
TMCLK	HY/2012/07	2014-07-31	Mid-Flood	Fine	IS(Mf)9	Middle		2	1	09:52							2014-08-08
TMCLK	HY/2012/07	2014-07-31	Mid-Flood	Fine	IS(Mf)9	Middle		2	2	09:52							2014-08-08
TMCLK	HY/2012/07	2014-07-31	Mid-Flood	Fine	IS(Mf)9	Bottom	4.6	3	1	09:52	28.3	7.72	19.3	5.6	3.37	6.8	2014-08-08
TMCLK	HY/2012/07	2014-07-31	Mid-Flood	Fine	IS(Mf)9	Bottom	4.6	3	2	09:52	28.3	7.71	19.4	5.6	3.35	6.4	2014-08-08
TMCLK	HY/2012/07	2014-07-31	Mid-Flood	Fine	CS(Mf)3	Surface	1	1	1	10:20	28.3	7.58	19.1	5.8	3.22	2.9	2014-08-08
TMCLK	HY/2012/07	2014-07-31	Mid-Flood	Fine	CS(Mf)3	Surface	1	1	2	10:20	28.2	7.59	19	5.8	3.21	3.2	2014-08-08
TMCLK	HY/2012/07	2014-07-31	Mid-Flood	Fine	CS(Mf)3	Middle	6.1	2	1	10:20	28.2	7.71	19.3	5.6	3.26	3.4	2014-08-08

Project	Works	Date (yyyy-mm-dd)	Tide	Weather	Stat	Level	Water Depth	Lev_Cod	Replicate	Start Time	Temp_v	pH_v	Sal_v	DO_v	Turb_v	SS_v	Received Date (SS)
TMCLK	HY/2012/07	2014-07-31	Mid-Flood	Fine	CS(Mf)3	Middle	6.1	2	2	10:20	28.2	7.73	19.2	5.5	3.22	3.1	2014-08-08
TMCLK	HY/2012/07	2014-07-31	Mid-Flood	Fine	CS(Mf)3	Bottom	11.2	3	1	10:20	28.2	7.69	19.2	5.6	3.4	3.3	2014-08-08
TMCLK	HY/2012/07	2014-07-31	Mid-Flood	Fine	CS(Mf)3	Bottom	11.2	3	2	10:20	28.1	7.71	19.2	5.6	3.41	2.9	2014-08-08
TMCLK	HY/2012/07	2014-07-31	Mid-Ebb	Fine	CS(Mf)3	Surface	1	1	1	14:16	28.5	7.66	19	5.8	3.41	4.4	2014-08-08
TMCLK	HY/2012/07	2014-07-31	Mid-Ebb	Fine	CS(Mf)3	Surface	1	1	2	14:16	28.5	7.67	19	5.8	3.44	4.2	2014-08-08
TMCLK	HY/2012/07	2014-07-31	Mid-Ebb	Fine	CS(Mf)3	Middle	5.9	2	1	14:16	28.4	7.72	19.1	5.6	3.38	4.4	2014-08-08
TMCLK	HY/2012/07	2014-07-31	Mid-Ebb	Fine	CS(Mf)3	Middle	5.9	2	2	14:16	28.5	7.7	19.1	5.6	3.4	5	2014-08-08
TMCLK	HY/2012/07	2014-07-31	Mid-Ebb	Fine	CS(Mf)3	Bottom	10.8	3	1	14:16	28.4	7.8	19.2	5.6	3.55	6.4	2014-08-08
TMCLK	HY/2012/07	2014-07-31	Mid-Ebb	Fine	CS(Mf)3	Bottom	10.8	3	2	14:16	28.4	7.84	19.2	5.6	3.58	6.7	2014-08-08
TMCLK	HY/2012/07	2014-07-31	Mid-Ebb	Fine	SR4a	Surface	1	1	1	16:04	28.5	7.72	19.2	5.8	3.1	3.5	2014-08-08
TMCLK	HY/2012/07	2014-07-31	Mid-Ebb	Fine	SR4a	Surface	1	1	2	16:04	28.5	7.74	19.3	5.8	3.14	2.9	2014-08-08
TMCLK	HY/2012/07	2014-07-31	Mid-Ebb	Fine	SR4a	Middle		2	1	16:04							2014-08-08
TMCLK	HY/2012/07	2014-07-31	Mid-Ebb	Fine	SR4a	Middle		2	2	16:04							2014-08-08
TMCLK	HY/2012/07	2014-07-31	Mid-Ebb	Fine	SR4a	Bottom	4.7	3	1	16:04	28.3	7.79	19.4	5.6	3.28	5.6	2014-08-08
TMCLK	HY/2012/07	2014-07-31	Mid-Ebb	Fine	SR4a	Bottom	4.7	3	2	16:04	28.4	7.8	19.3	5.6	3.3	4.7	2014-08-08
TMCLK	HY/2012/07	2014-07-31	Mid-Ebb	Fine	SR4	Surface	1	1	1	15:39	28.5	7.74	19.1	5.7	3.3	2.8	2014-08-08
TMCLK	HY/2012/07	2014-07-31	Mid-Ebb	Fine	SR4	Surface	1	1	2	15:39	28.4	7.72	19.1	5.7	3.28	2.5	2014-08-08
TMCLK	HY/2012/07	2014-07-31	Mid-Ebb	Fine	SR4	Middle		2	1	15:39							2014-08-08
TMCLK	HY/2012/07	2014-07-31	Mid-Ebb	Fine	SR4	Middle		2	2	15:39							2014-08-08
TMCLK	HY/2012/07	2014-07-31	Mid-Ebb	Fine	SR4	Bottom	4	3	1	15:39	28.3	7.74	19.3	5.5	3.34	4.9	2014-08-08
TMCLK	HY/2012/07	2014-07-31	Mid-Ebb	Fine	SR4	Bottom	4	3	2	15:39	28.3	7.76	19.2	5.5	3.36	5	2014-08-08
TMCLK	HY/2012/07	2014-07-31	Mid-Ebb	Fine	IS8	Surface	1	1	1	15:20	28.5	7.68	19.2	5.6	3.34	6.8	2014-08-08
TMCLK	HY/2012/07	2014-07-31	Mid-Ebb	Fine	IS8	Surface	1	1	2	15:20	28.4	7.67	19.2	5.6	3.32	7	2014-08-08
TMCLK	HY/2012/07	2014-07-31	Mid-Ebb	Fine	IS8	Middle		2	1	15:20							2014-08-08
TMCLK	HY/2012/07	2014-07-31	Mid-Ebb	Fine	IS8	Middle		2	2	15:20							2014-08-08
TMCLK	HY/2012/07	2014-07-31	Mid-Ebb	Fine	IS8	Bottom	4.2	3	1	15:20	28.3	7.74	19.3	5.3	3.48	7.5	2014-08-08
TMCLK	HY/2012/07	2014-07-31	Mid-Ebb	Fine	IS8	Bottom	4.2	3	2	15:20	28.4	7.72	19.4	5.3	3.5	7.2	2014-08-08
TMCLK	HY/2012/07	2014-07-31	Mid-Ebb	Fine	IS(Mf)16	Surface	1	1	1	14:57	28.5	7.67	19.1	5.7	3.34	3.3	2014-08-08
TMCLK	HY/2012/07	2014-07-31	Mid-Ebb	Fine	IS(Mf)16	Surface	1	1	2	14:57	28.5	7.69	19.2	5.7	3.3	3.4	2014-08-08
TMCLK	HY/2012/07	2014-07-31	Mid-Ebb	Fine	IS(Mf)16	Middle	4.3	2	1	14:57	28.4	7.72	19.2	5.6	3.41	3.9	2014-08-08
TMCLK	HY/2012/07	2014-07-31	Mid-Ebb	Fine	IS(Mf)16	Middle	4.3	2	2	14:57	28.4	7.74	19.2	5.5	3.42	3.9	2014-08-08
TMCLK	HY/2012/07	2014-07-31	Mid-Ebb	Fine	IS(Mf)16	Bottom	7.6	3	1	14:57	28.3	7.8	19.3	5.4	3.56	4.6	2014-08-08
TMCLK	HY/2012/07	2014-07-31	Mid-Ebb	Fine	IS(Mf)16	Bottom	7.6	3	2	14:57	28.3	7.76	19.2	5.4	3.6	4.4	2014-08-08
TMCLK	HY/2012/07	2014-07-31	Mid-Ebb	Fine	IS(Mf)9	Surface	1	1	1	14:37	28.5	7.72	19.1	5.7	3.34	3.5	2014-08-08
TMCLK	HY/2012/07	2014-07-31	Mid-Ebb	Fine	IS(Mf)9	Surface	1	1	2	14:37	28.4	7.7	19.2	5.7	3.36	3.3	2014-08-08
TMCLK	HY/2012/07	2014-07-31	Mid-Ebb	Fine	IS(Mf)9	Middle		2	1	14:37							2014-08-08
TMCLK	HY/2012/07	2014-07-31	Mid-Ebb	Fine	IS(Mf)9	Middle		2	2	14:37							2014-08-08
TMCLK	HY/2012/07	2014-07-31	Mid-Ebb	Fine	IS(Mf)9	Bottom	4.5	3	1	14:37	28.4	7.79	19.3	5.5	3.5	3.1	2014-08-08
TMCLK	HY/2012/07	2014-07-31	Mid-Ebb	Fine	IS(Mf)9	Bottom	4.5	3	2	14:37	28.4	7.76	19.3	5.5	3.52	3.2	2014-08-08

Project	Works	Date (yyyy-mm-dd)	Tide	Weather	Stat	Level	Water Depth	Lev_Cod	Replicate	Start Time	Temp_v	pH_v	Sal_v	DO_v	Turb_v	SS_v	Received Date (SS)
TMCLK	HY/2012/07	2014-07-31	Mid-Ebb	Fine	CS(Mf)5	Surface	1	1	1	16:28	28.6	7.7	19.3	5.8	3.2	2.5	2014-08-08
TMCLK	HY/2012/07	2014-07-31	Mid-Ebb	Fine	CS(Mf)5	Surface	1	1	2	16:28	28.5	7.66	19.2	5.9	3.24	2.9	2014-08-08
TMCLK	HY/2012/07	2014-07-31	Mid-Ebb	Fine	CS(Mf)5	Middle	4.8	2	1	16:28	28.5	7.74	19.3	5.7	3.27	3.6	2014-08-08
TMCLK	HY/2012/07	2014-07-31	Mid-Ebb	Fine	CS(Mf)5	Middle	4.8	2	2	16:28	28.5	7.76	19.4	5.7	3.29	3.8	2014-08-08
TMCLK	HY/2012/07	2014-07-31	Mid-Ebb	Fine	CS(Mf)5	Bottom	8.5	3	1	16:28	28.4	7.79	19.4	5.7	3.3	6	2014-08-08
TMCLK	HY/2012/07	2014-07-31	Mid-Ebb	Fine	CS(Mf)5	Bottom	8.5	3	2	16:28	28.5	7.81	19.4	5.6	3.28	5.8	2014-08-08

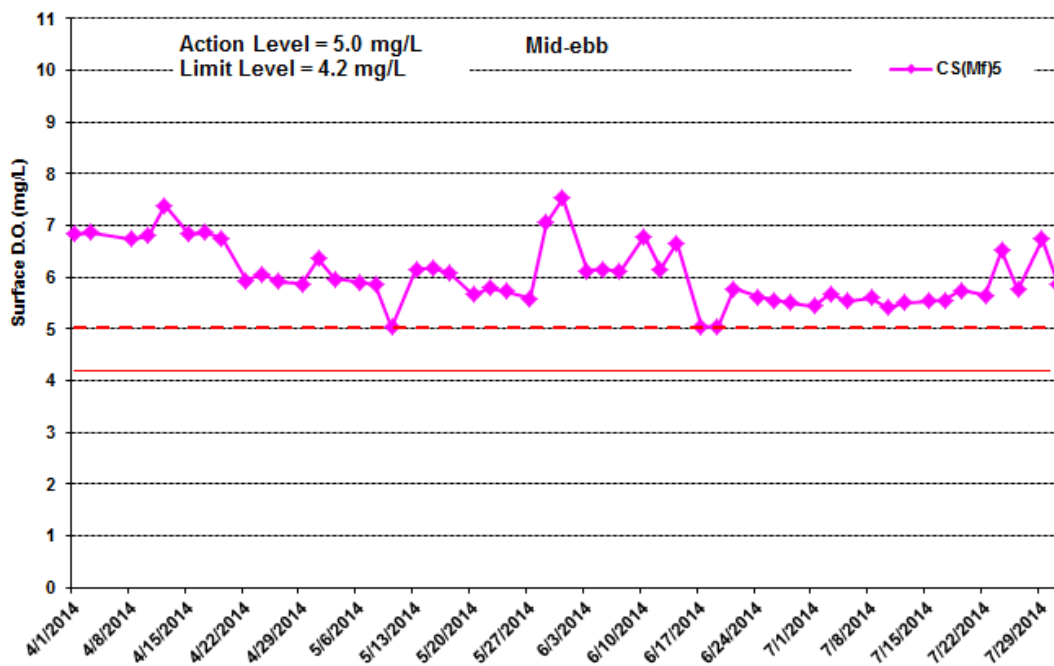
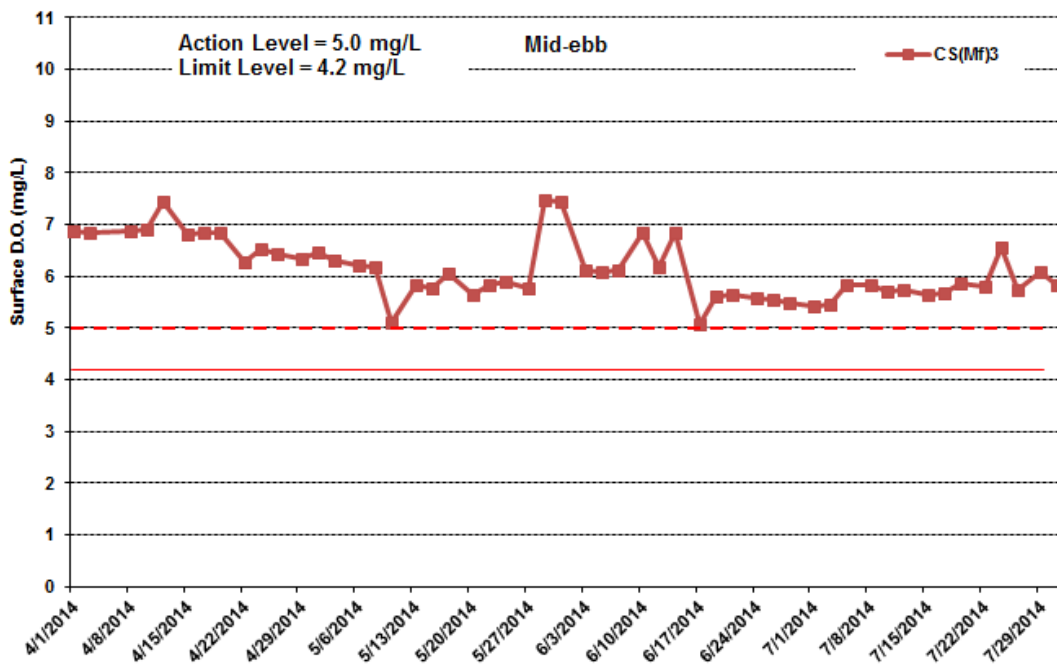


Figure J1 Impact Monitoring - Mean Level of Dissolved Oxygen (mg/L) in surface waters during mid-ebb tide between 1 April and 31 July 2014 at CS(Mf)3 and CS(Mf)5.

(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 marine piling.)

**Environmental
Resources
Management**



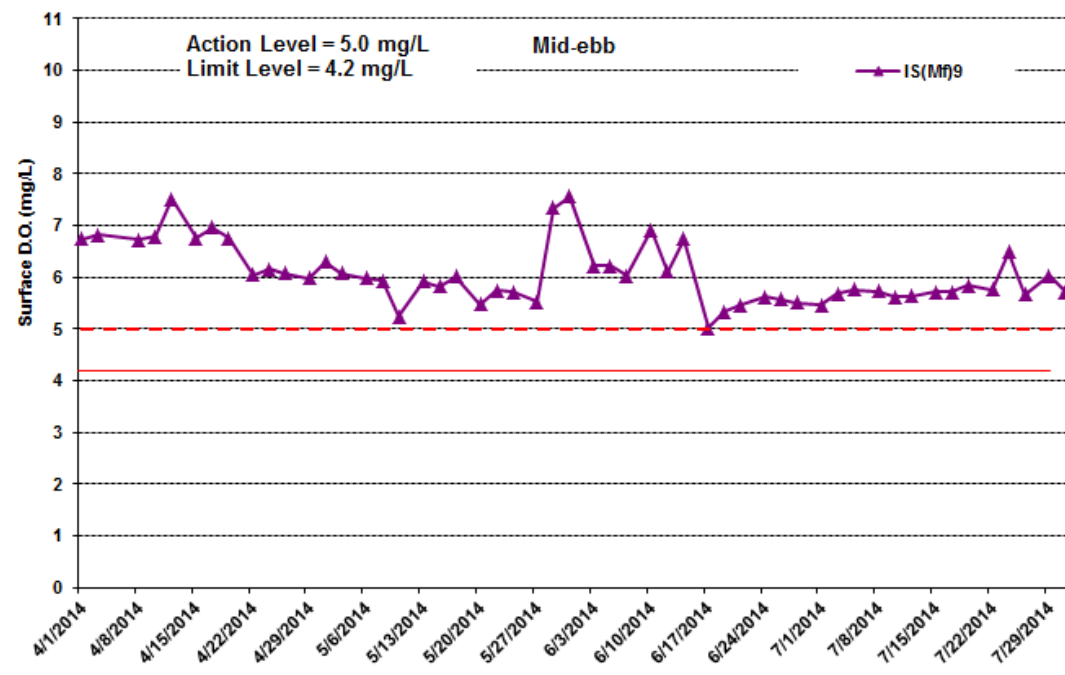
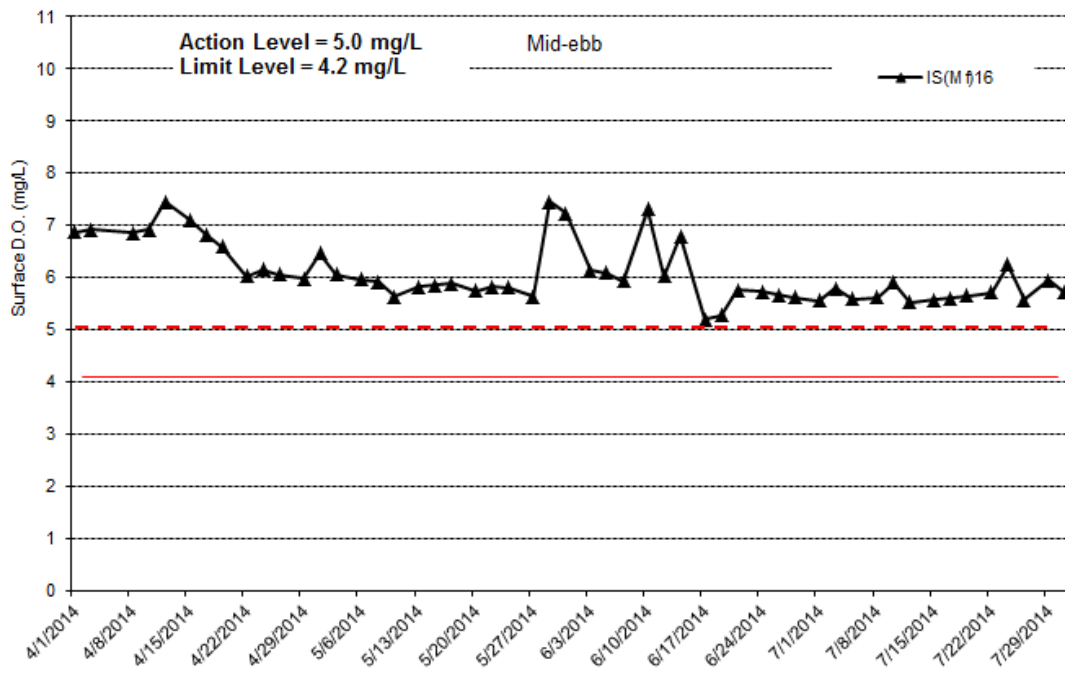


Figure J2 Impact Monitoring - Mean Level of Dissolved Oxygen (mg/L) in surface waters during mid-ebb tide between 1 April and 31 July 2014 at IS(Mf)16 and IS(Mf)9.

(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 marine piling.)

**Environmental
Resources
Management**



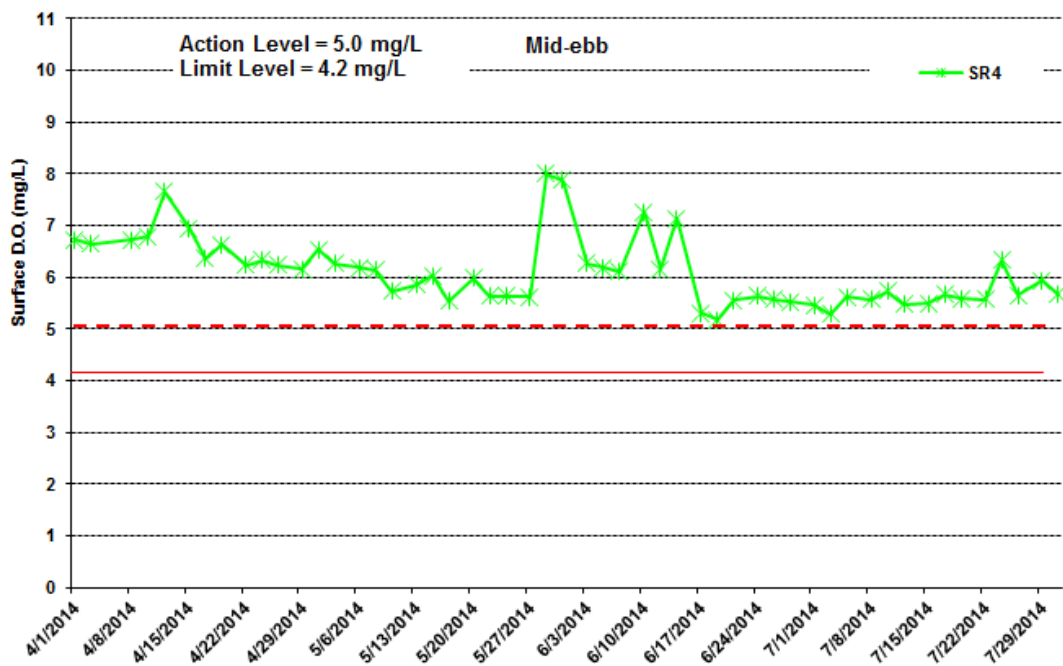
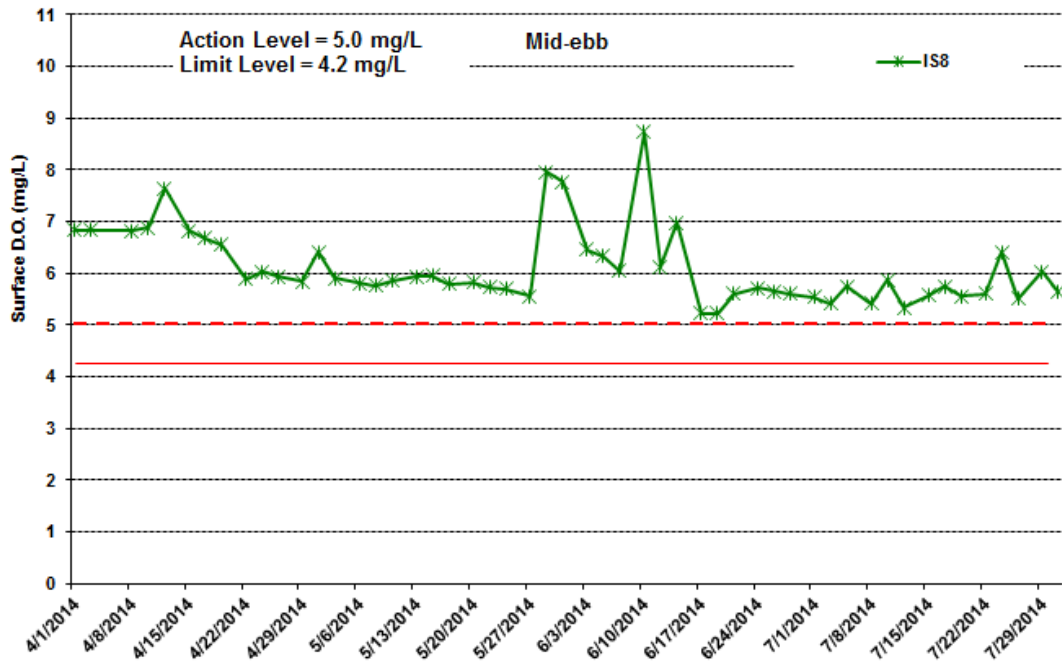


Figure J3 Impact Monitoring - Mean Level of Dissolved Oxygen (mg/L) in surface waters during mid-ebb tide between 1 April and 31 July 2014 at IS8 and SR4.

(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 marine piling.)

**Environmental
Resources
Management**



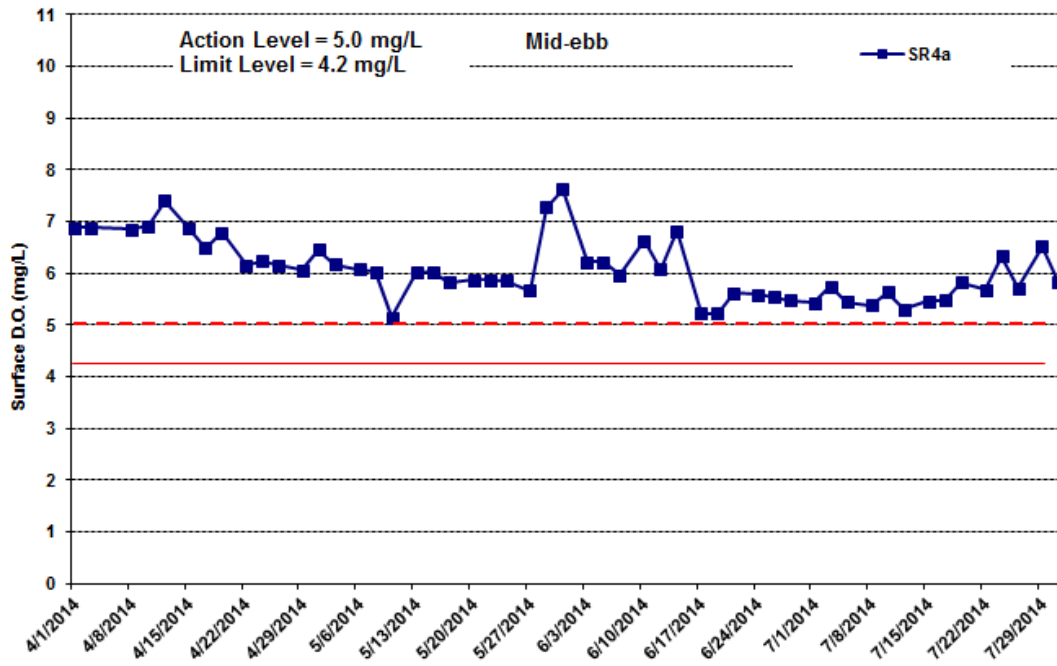


Figure J4 Impact Monitoring - Mean Level of Dissolved Oxygen (mg/L) in surface waters during mid-ebb tide between 1 April and 31 July 2014 at SR4a.

(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 marine piling.)

**Environmental
Resources
Management**



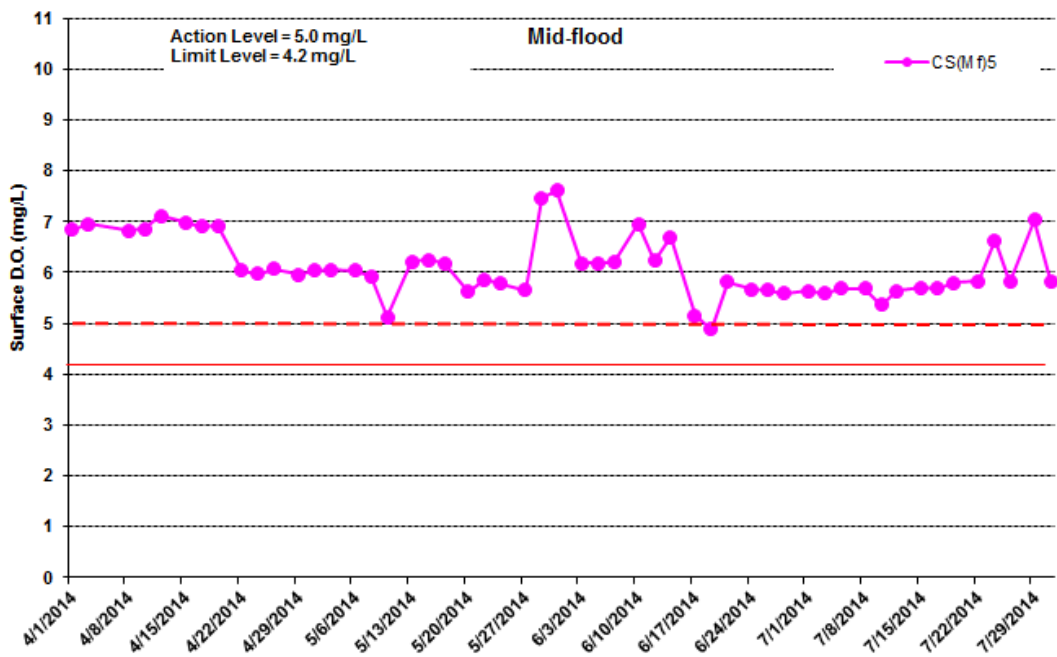
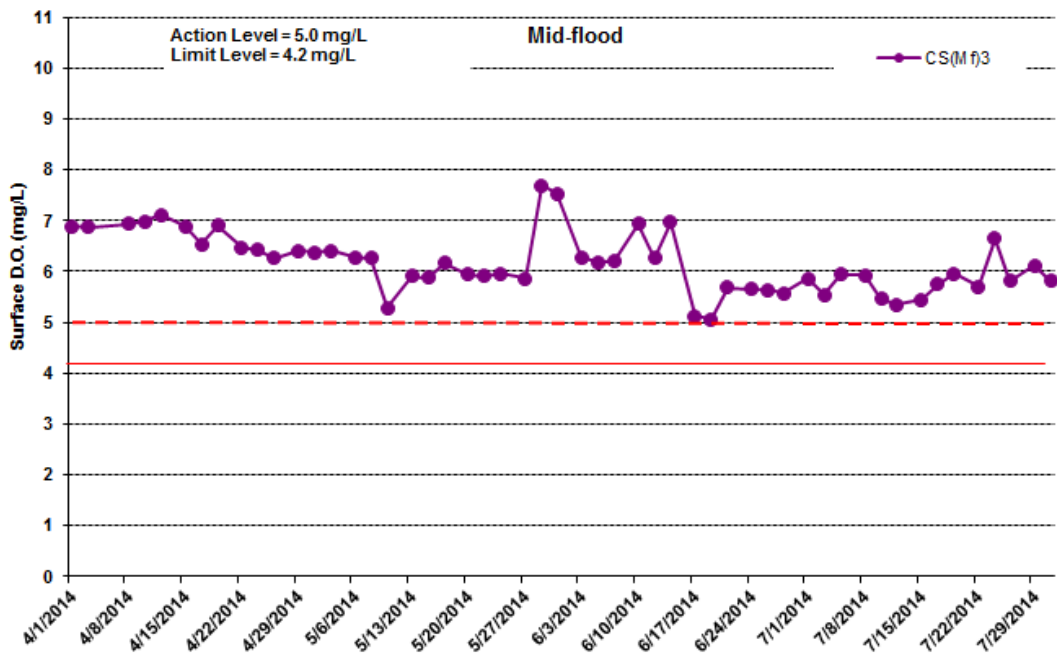


Figure J5 Impact Monitoring - Mean Level of Dissolved Oxygen (mg/L) in surface waters during mid-flood tide between 1 April and 31 July 2014 at CS(Mf)3 and CS(Mf)5.

(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 marine piling.)

**Environmental
Resources
Management**



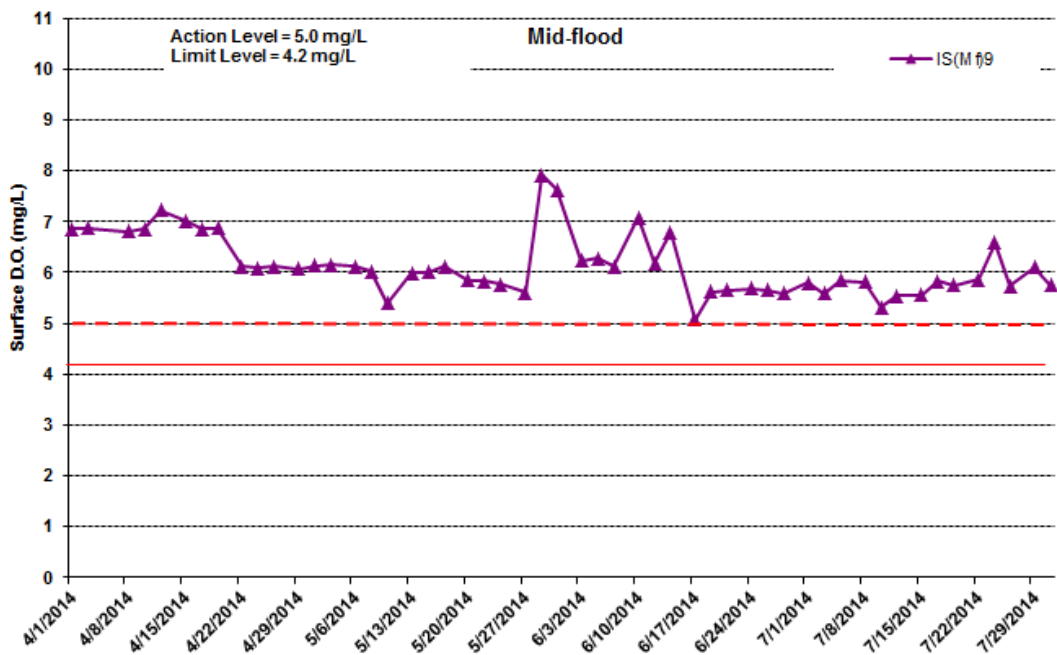
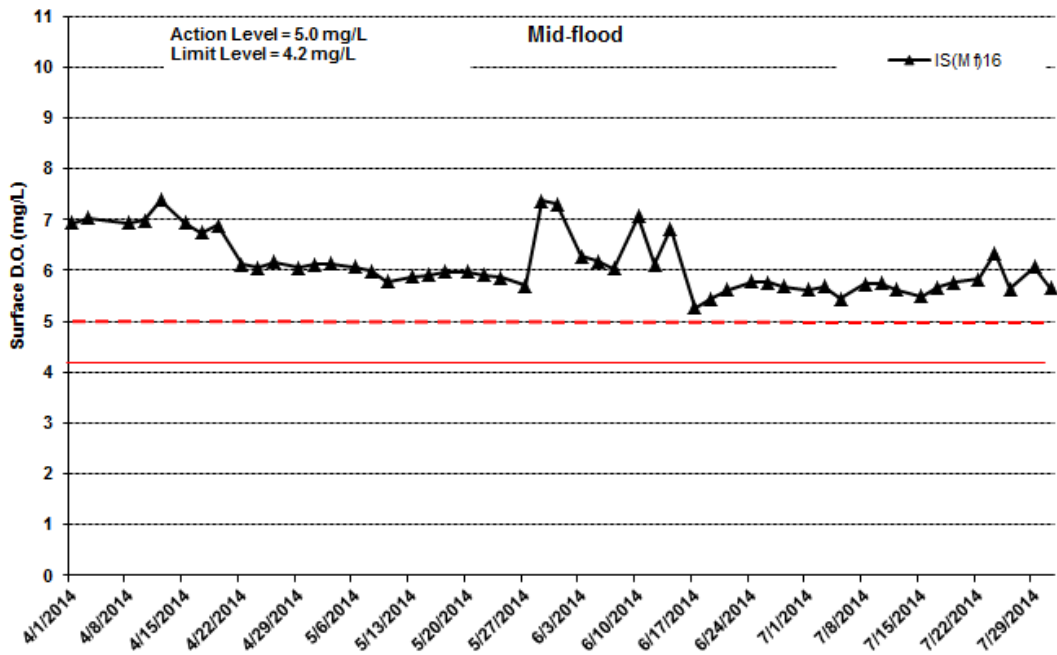


Figure J6 Impact Monitoring - Mean Level of Dissolved Oxygen (mg/L) in surface waters during mid-flood tide between 1 April and 31 July 2014 at IS(Mf)16 and IS(Mf)9.

(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 marine piling.)

**Environmental
Resources
Management**



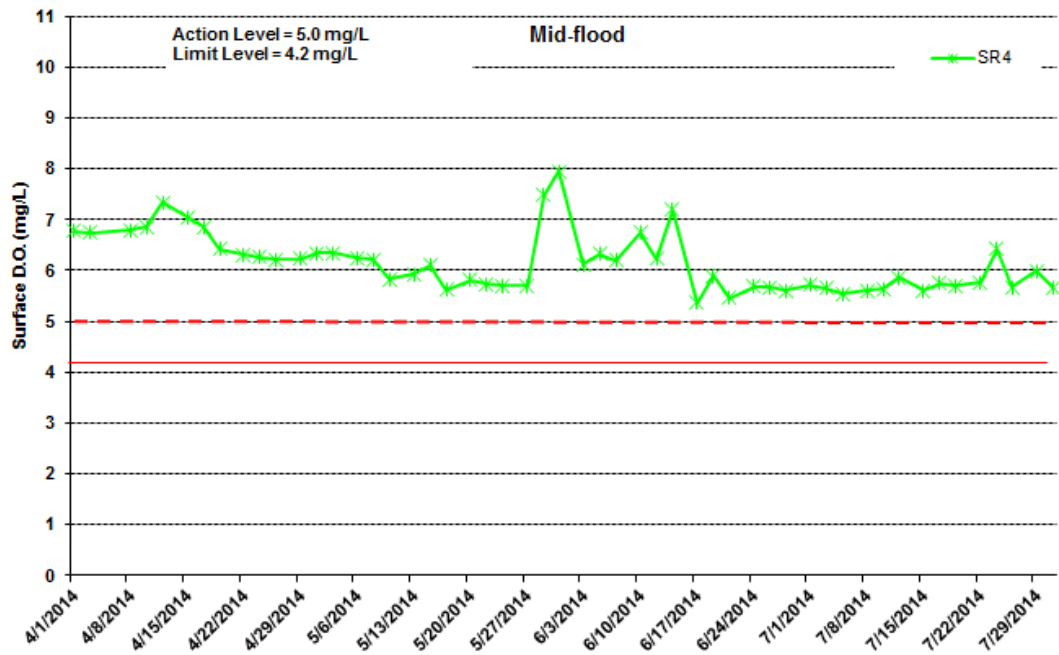
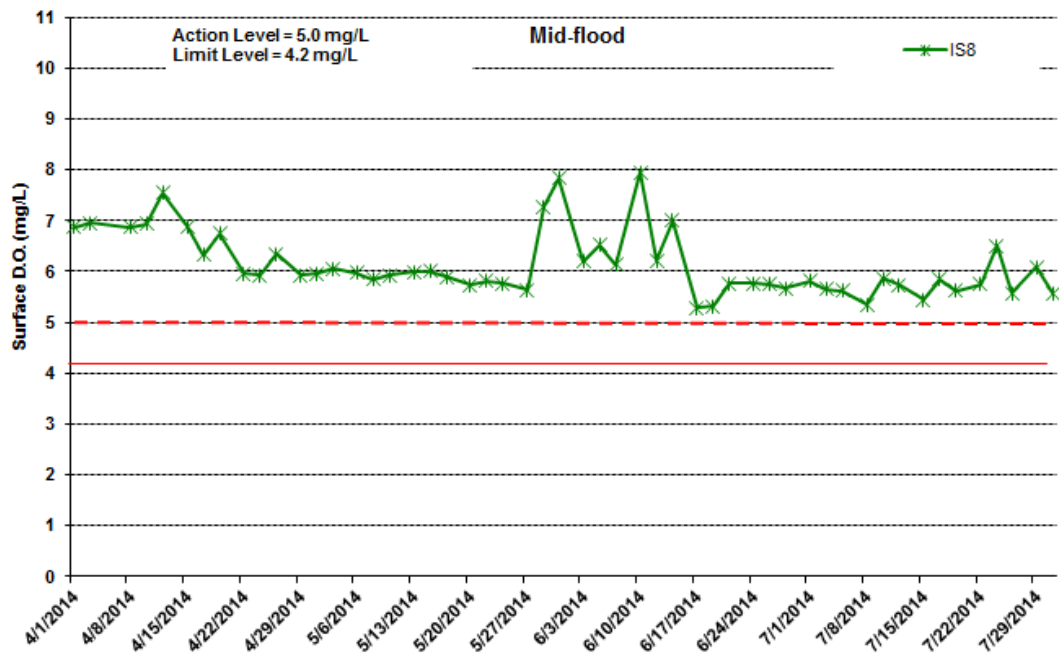


Figure J7 Impact Monitoring - Mean Level of Dissolved Oxygen (mg/L) in surface waters during mid-flood tide between 1 April and 31 July 2014 at IS8 and SR4.

(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 marine piling.)

**Environmental
Resources
Management**



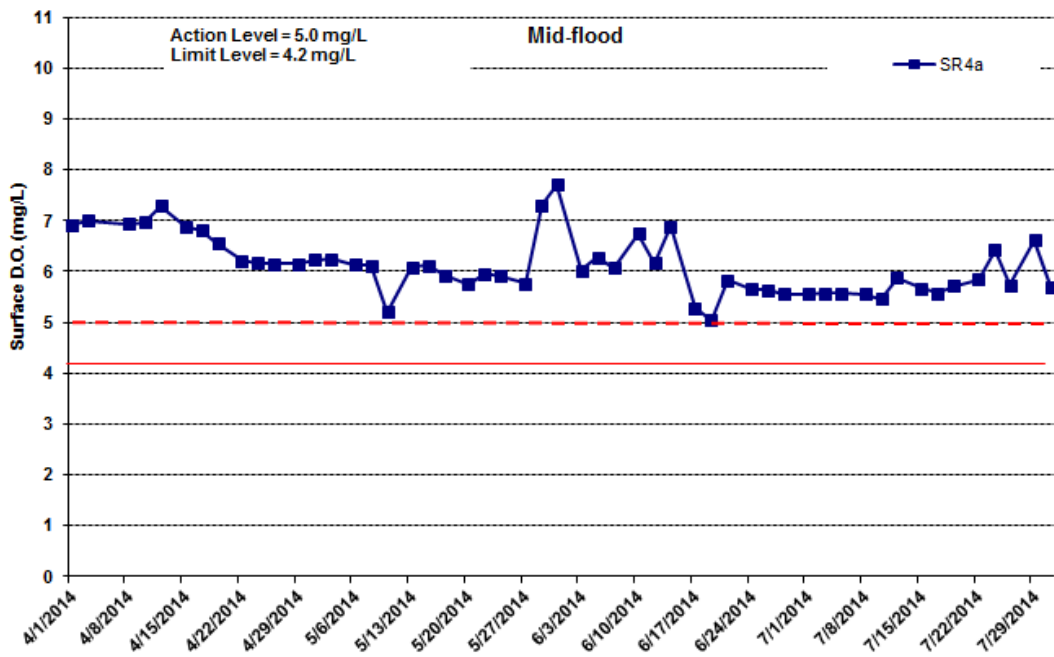


Figure J8 Impact Monitoring - Mean Level of Dissolved Oxygen (mg/L) in surface waters during mid-flood tide between 1 April and 31 July 2014 at SR4a.

(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 marine piling.)

**Environmental
Resources
Management**



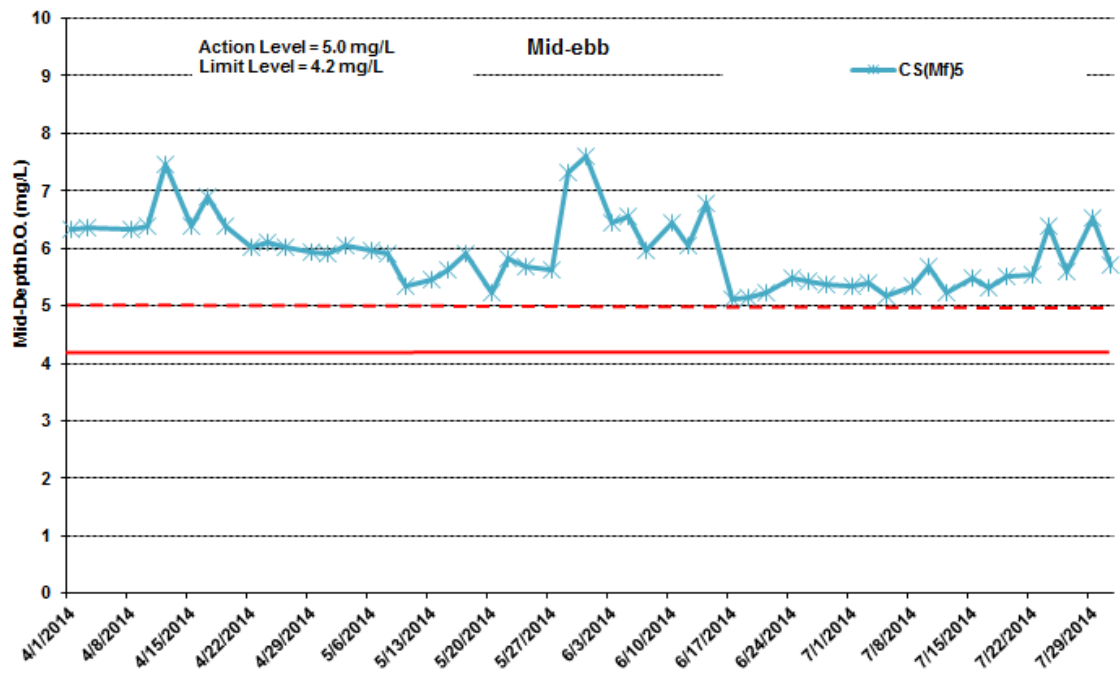
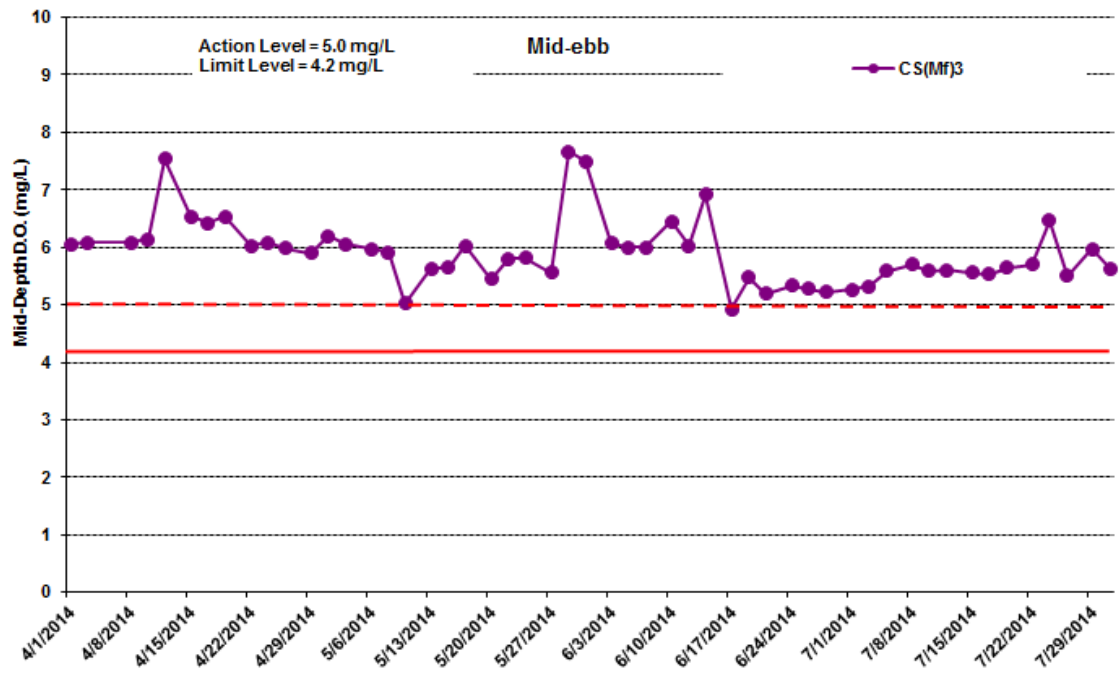


Figure J9 Impact Monitoring - Mean Level of Dissolved Oxygen (mg/L) in mid-depth waters during mid-ebb tide between 1 April and 31 July 2014 at CS(Mf)3 and CS(Mf)5.

(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 marine piling.)

Environmental Resources Management



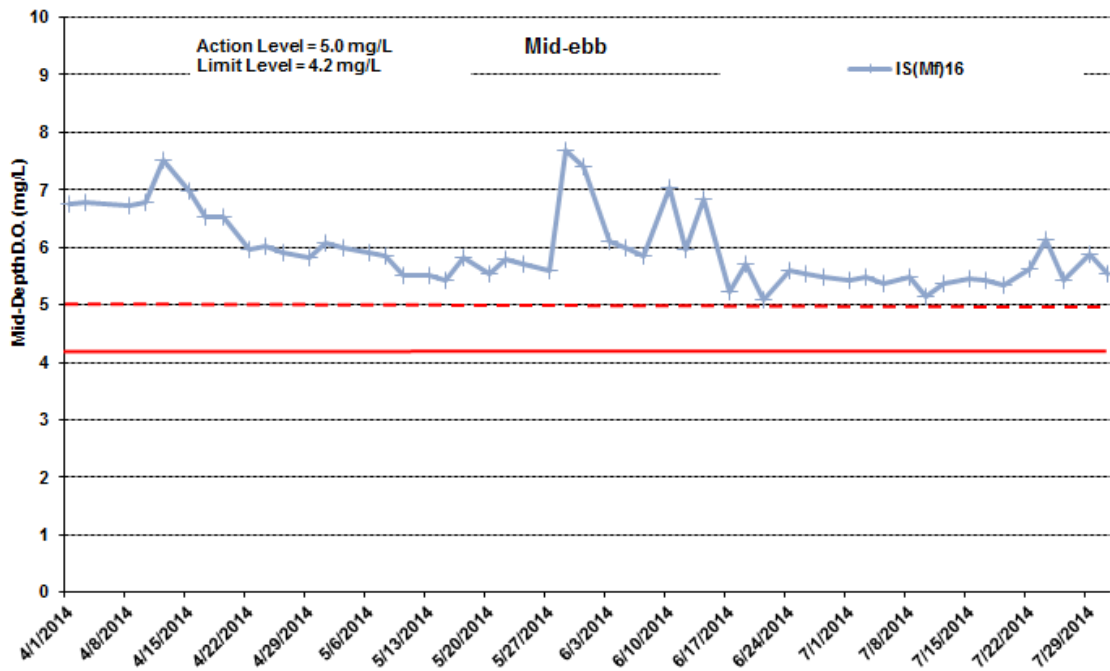


Figure J10 Impact Monitoring – Mean Level of Dissolved Oxygen (mg/L) in mid-depth waters during mid-ebb tide between 1 April and 31 July 2014 at IS(Mf)16.

(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 marine piling.)

**Environmental
Resources
Management**



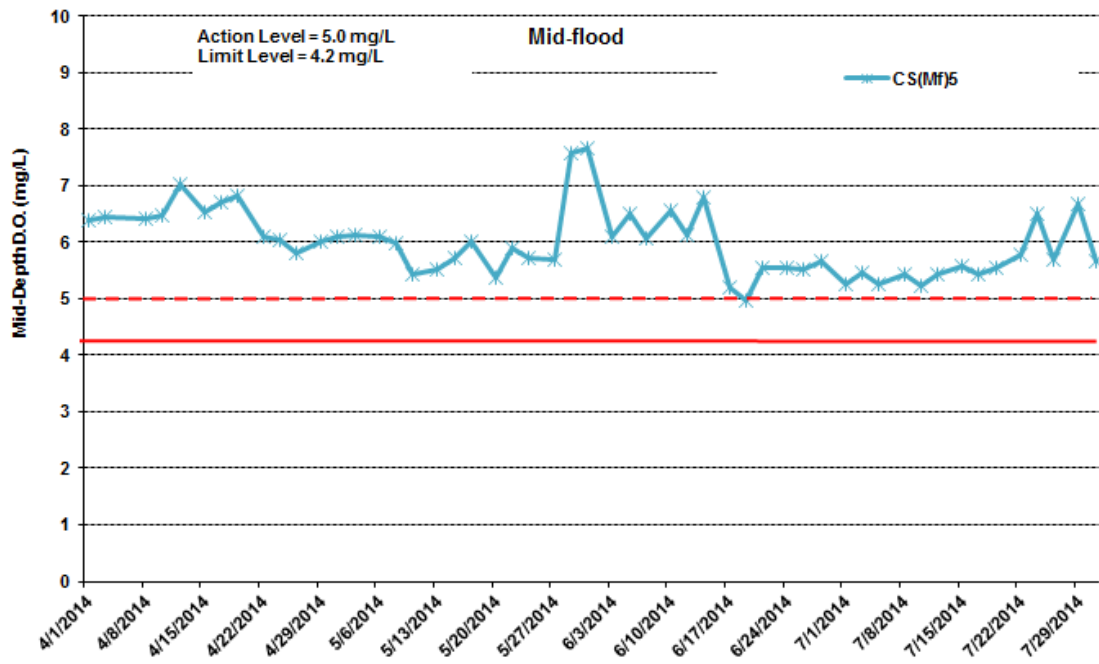
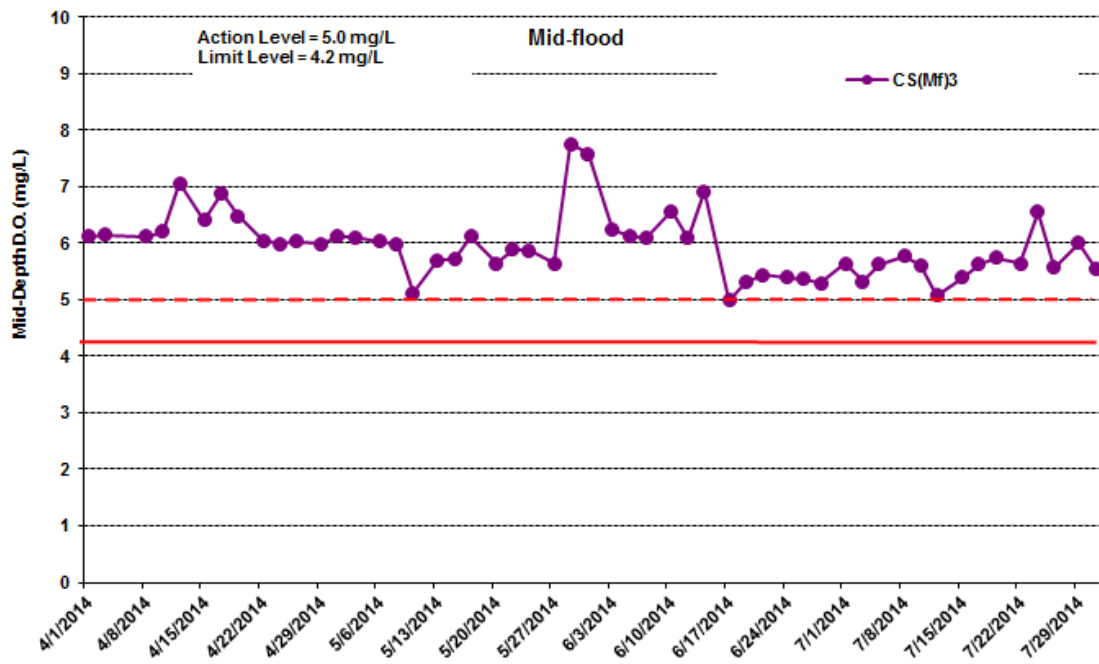


Figure J11 Impact Monitoring - Mean Level of Dissolved Oxygen (mg/L) in mid-depth waters during mid-flood tide between 1 April and 31 July 2014 at CS(Mf)3 and CS(Mf)5.

(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 marine piling.)

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Resources
Management**



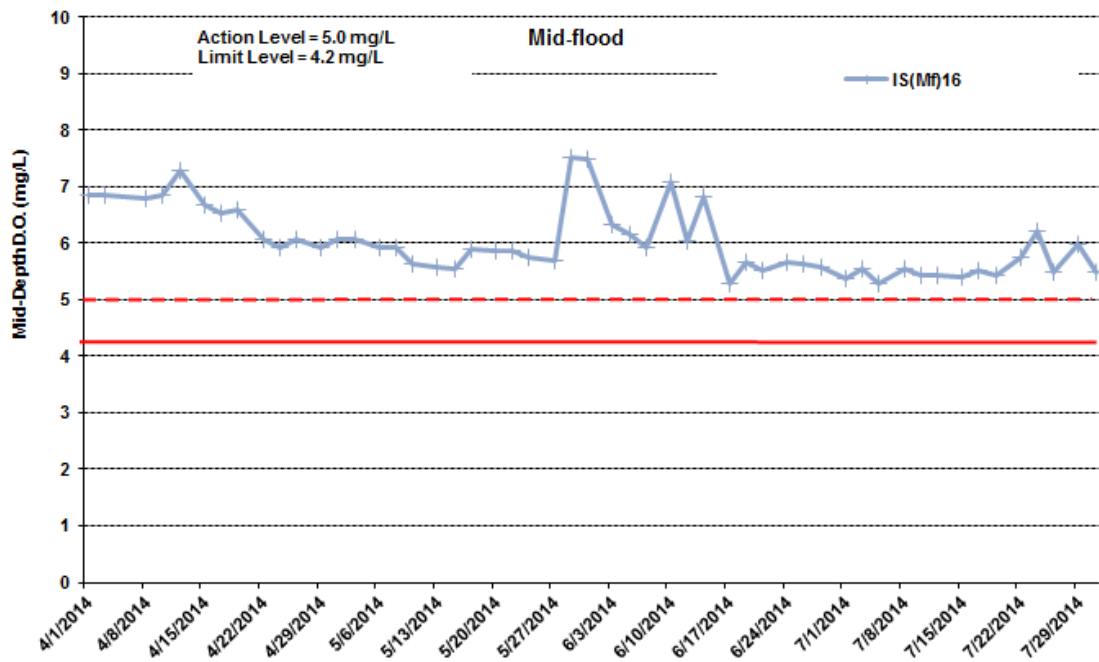


Figure J12 Impact Monitoring - Mean Level of Dissolved Oxygen (mg/L) in mid-depth waters during mid-flood tide between 1 April and 31 July 2014 at IS(Mf)16.

(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 marine piling.)

**Environmental
Resources
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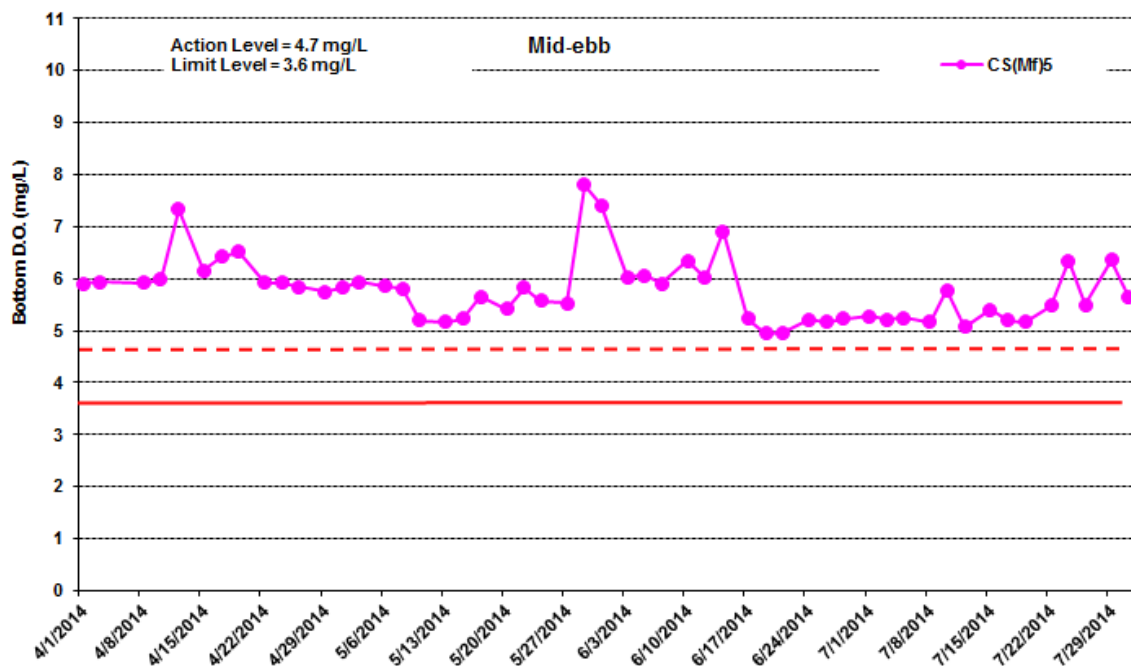
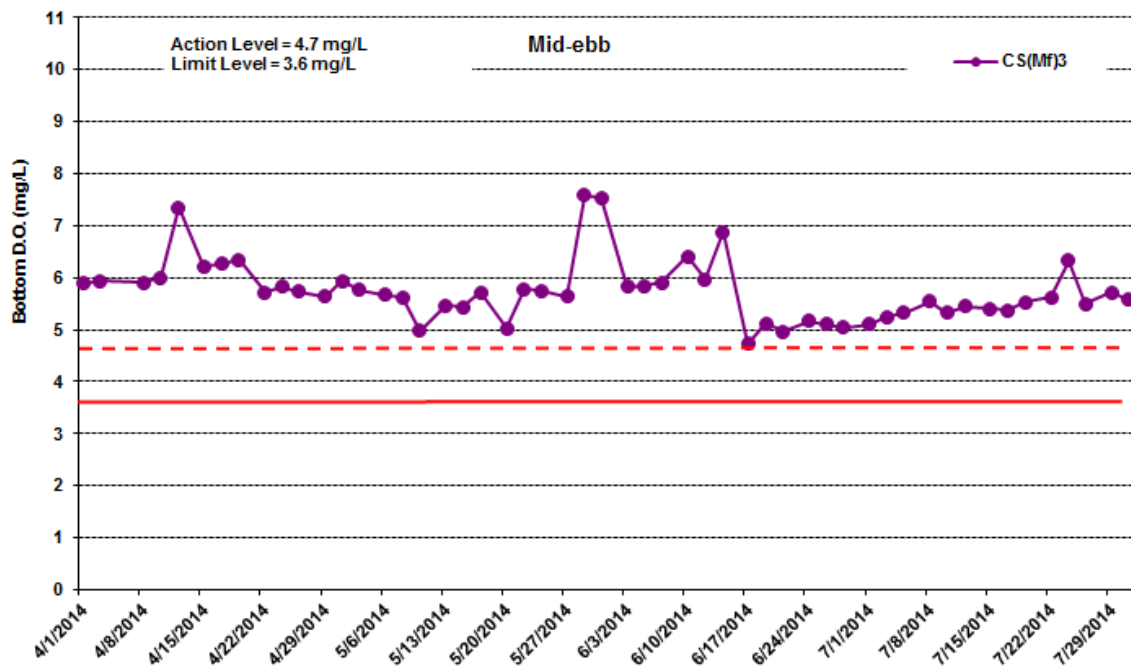


Figure J13 Impact Monitoring - Mean Level of Dissolved Oxygen (mg/L) in bottom waters during mid-ebb tide between 1 April and 31 July 2014 at CS(Mf)3 and CS(Mf)5.

(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 marine piling.)

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Resources
Management**



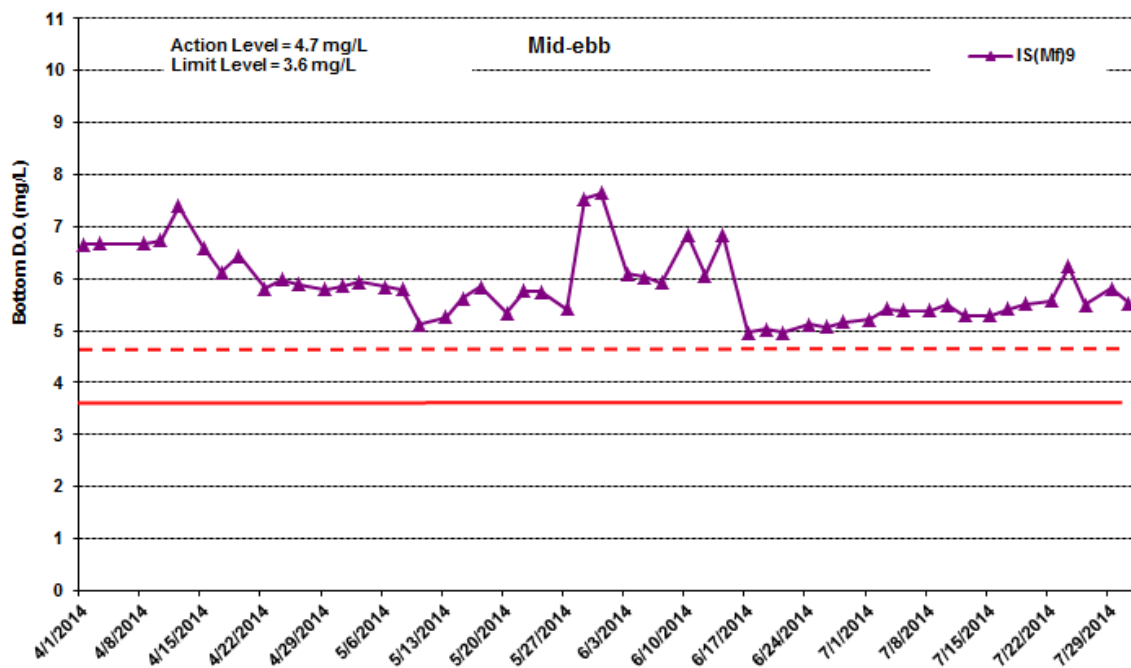
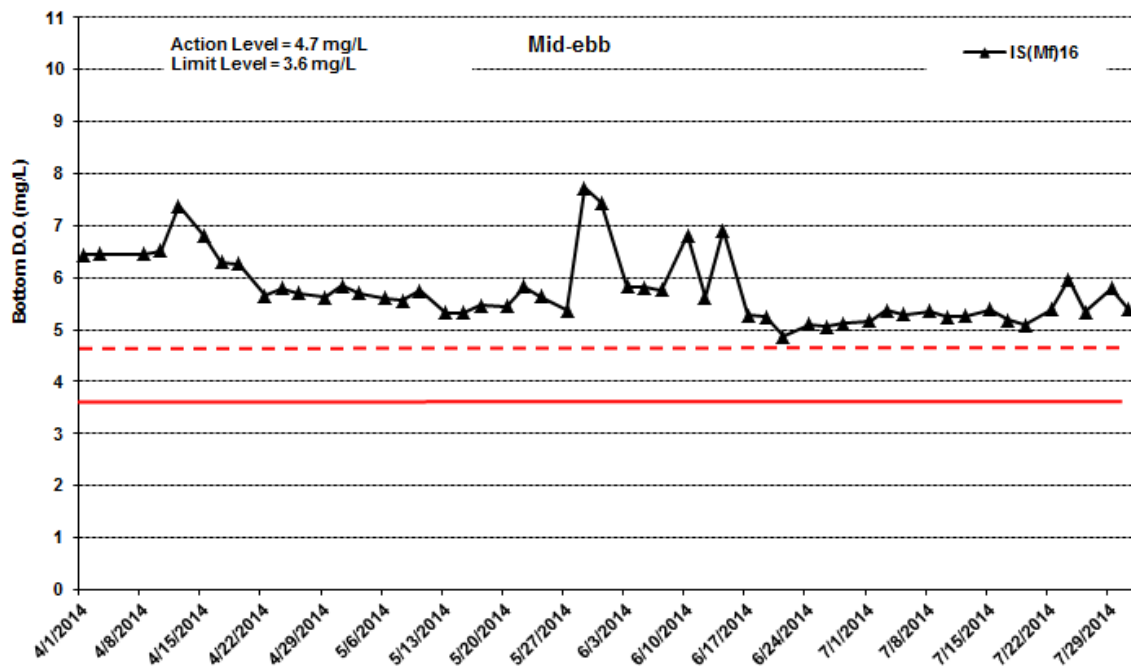


Figure J14 Impact Monitoring - Mean Level of Dissolved Oxygen (mg/L) in bottom waters during mid-ebb tide between 1 April and 31 July 2014 at IS(Mf)16 and IS(Mf)9.

(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 marine piling.)

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Resources
Management**



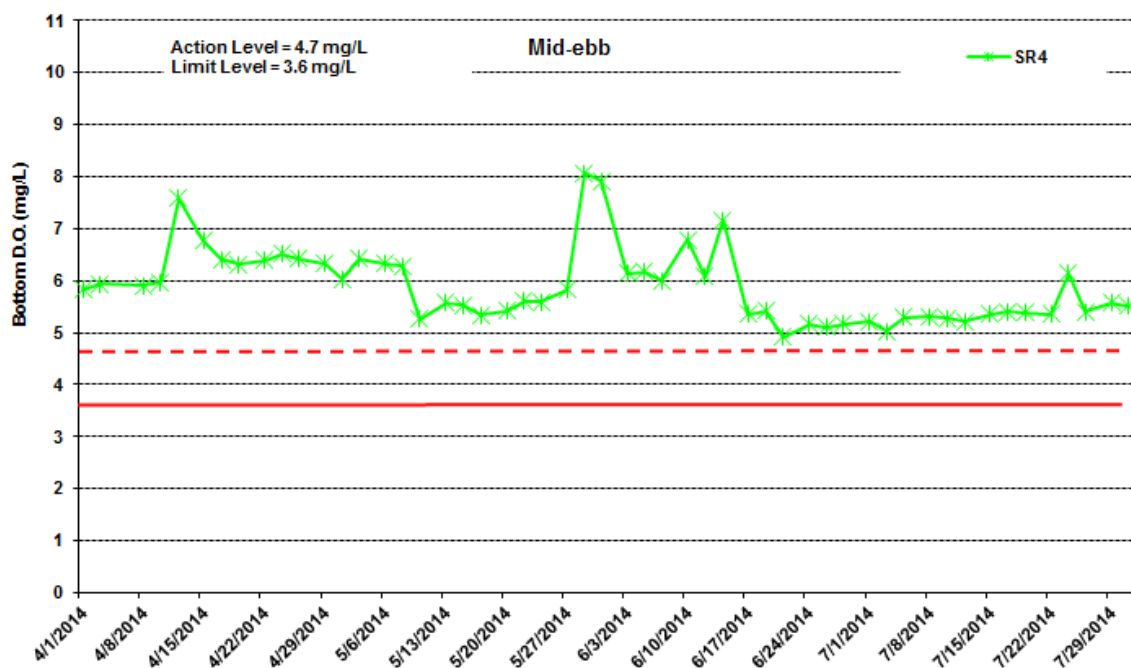
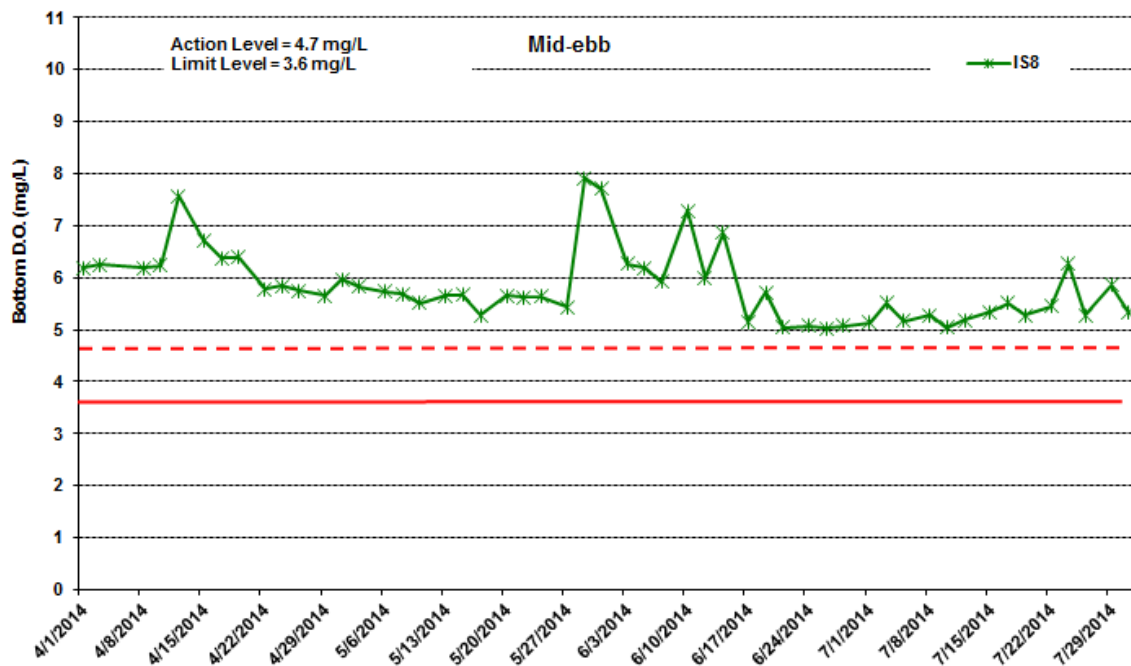
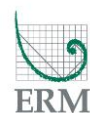


Figure J15 Impact Monitoring - Mean Level of Dissolved Oxygen (mg/L) in bottom waters during mid-ebb tide between 1 April and 31 July 2014 at IS8 and SR4.

(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 marine piling.)

**Environmental
Resources
Management**



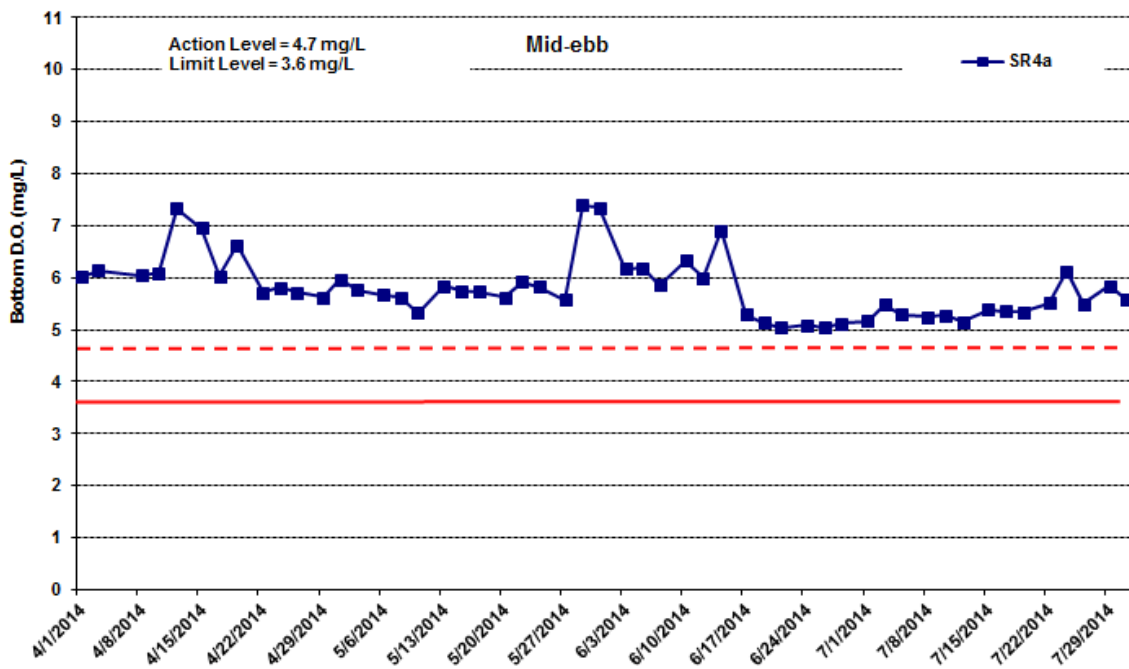


Figure J16 Impact Monitoring - Mean Level of Dissolved Oxygen (mg/L) in bottom waters during mid-ebb tide between 1 April and 31 July 2014 at SR4a.

(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 marine piling.)

**Environmental
Resources
Management**



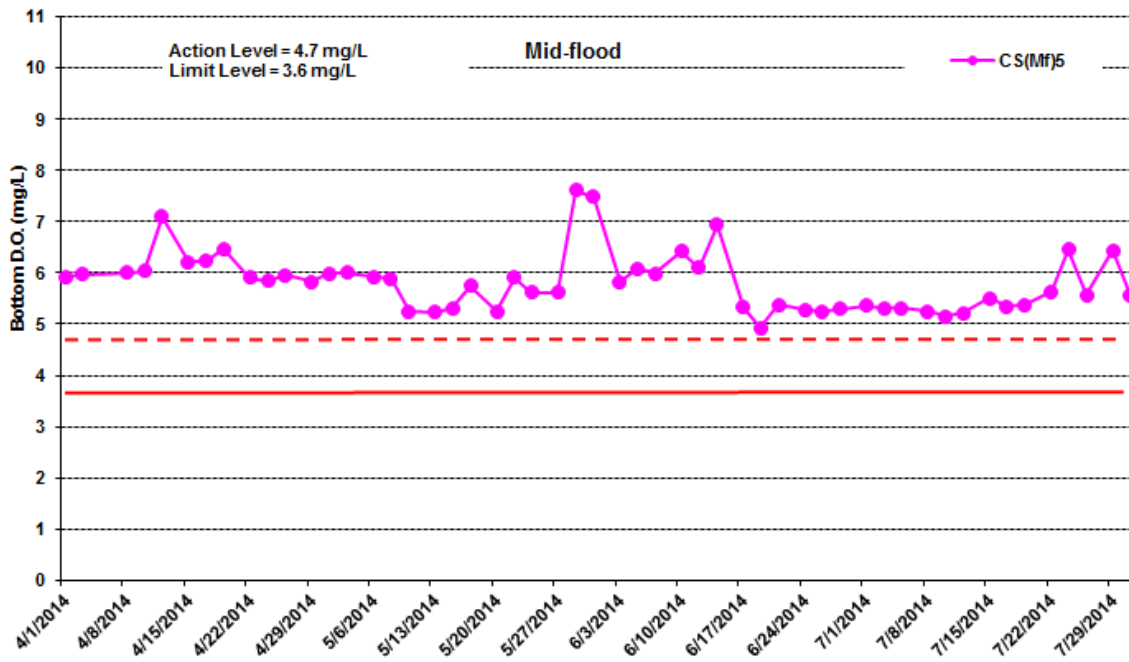
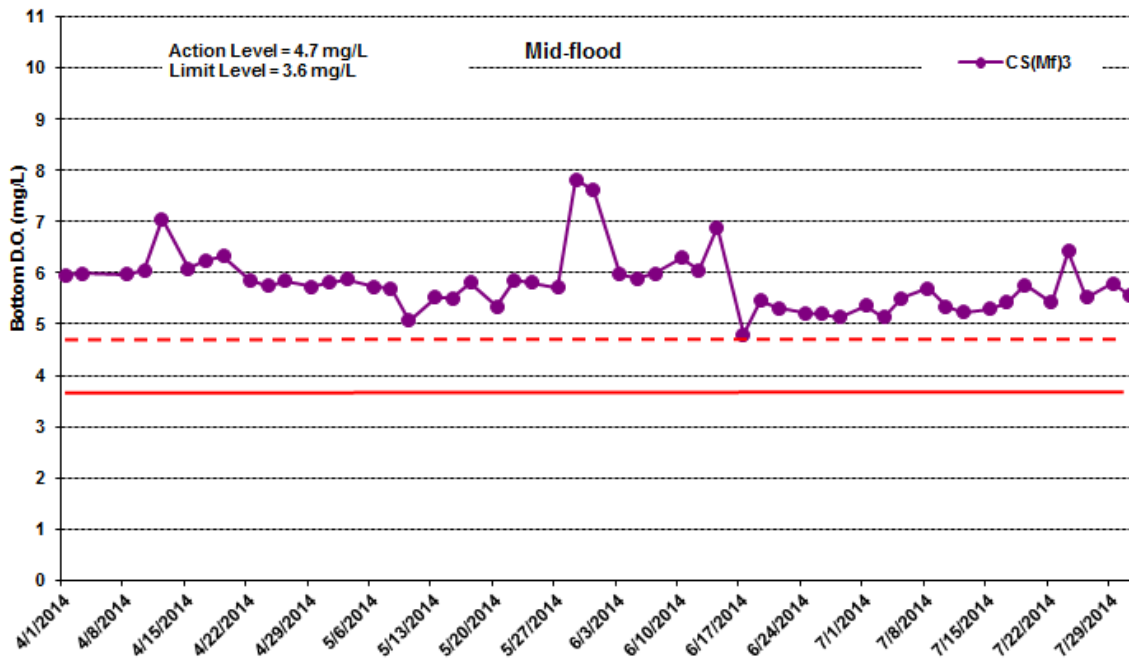


Figure J17 Impact Monitoring - Mean Level of Dissolved Oxygen (mg/L) in bottom waters during mid-flood tide between 1 April and 31 July 2014 at CS(Mf)3 and CS(Mf)5.

(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 marine piling.)

**Environmental
Resources
Management**



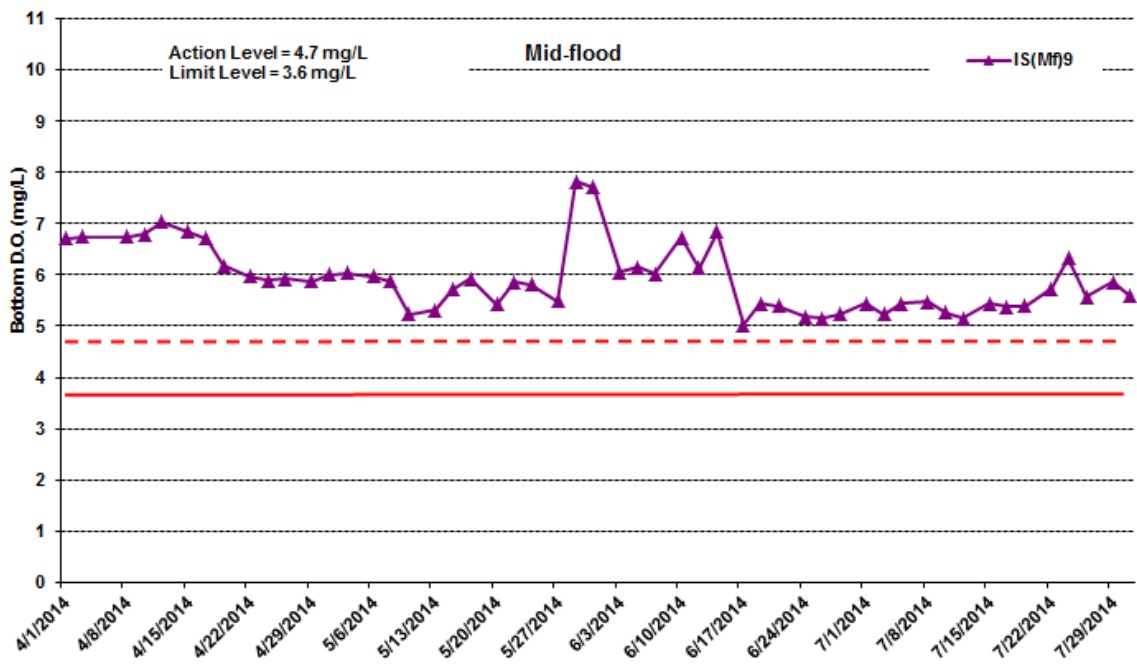
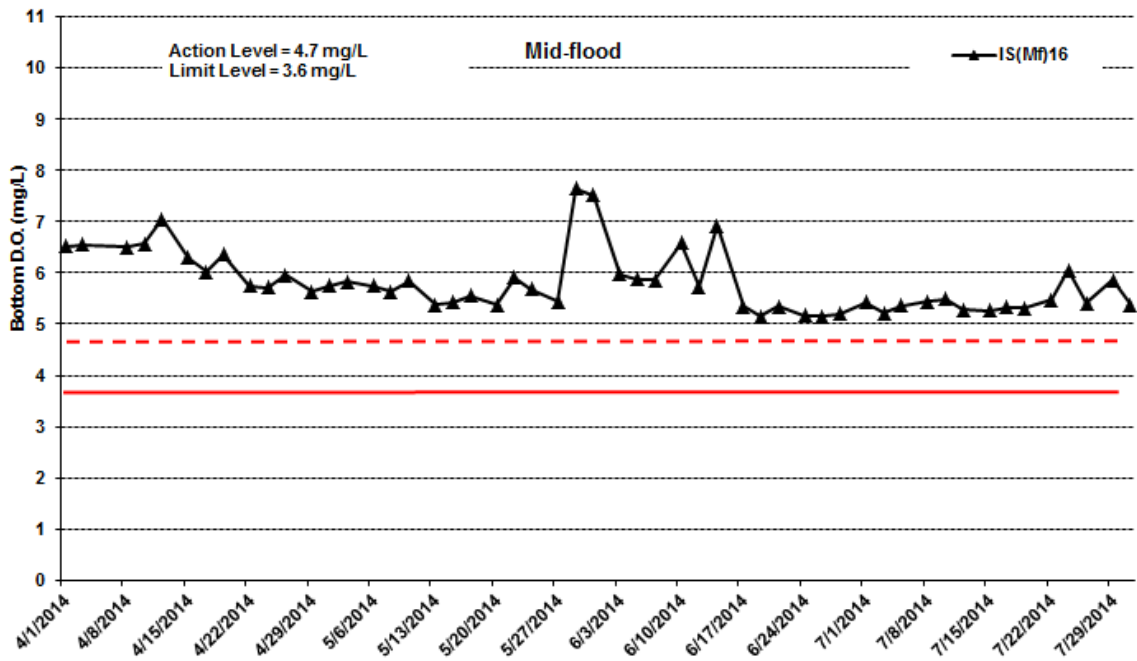


Figure J18 Impact Monitoring - Mean Level of Dissolved Oxygen (mg/L) in bottom waters during mid-flood tide between 1 April and 31 July 2014 at IS(Mf)16 and IS(Mf)9.

(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 marine piling.)

**Environmental
Resources
Management**



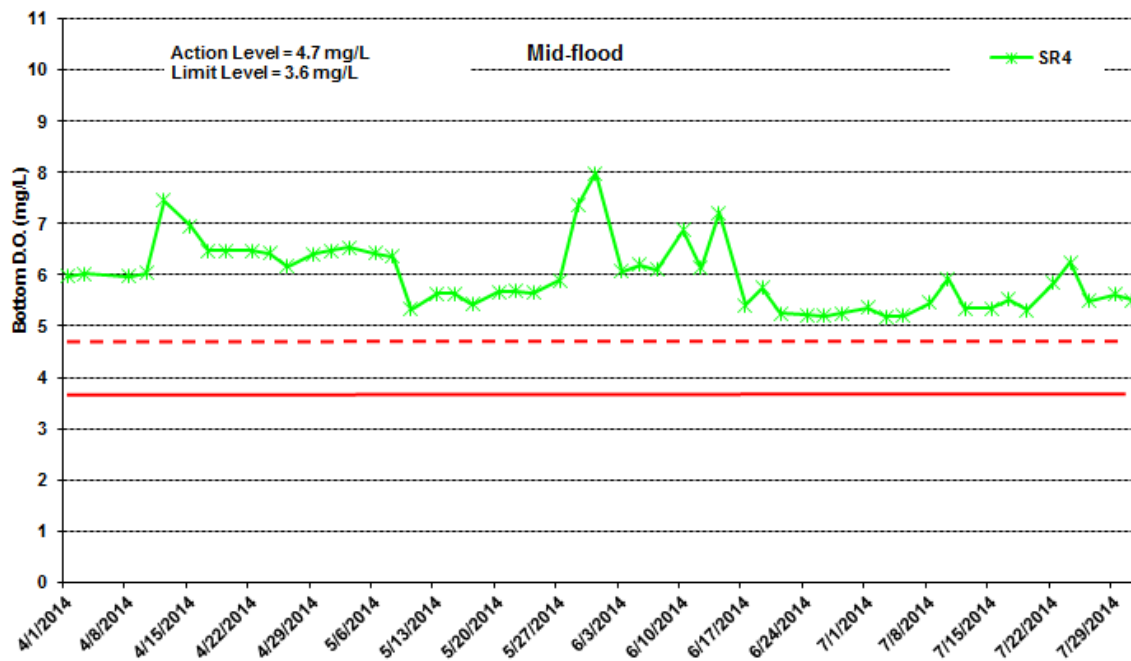
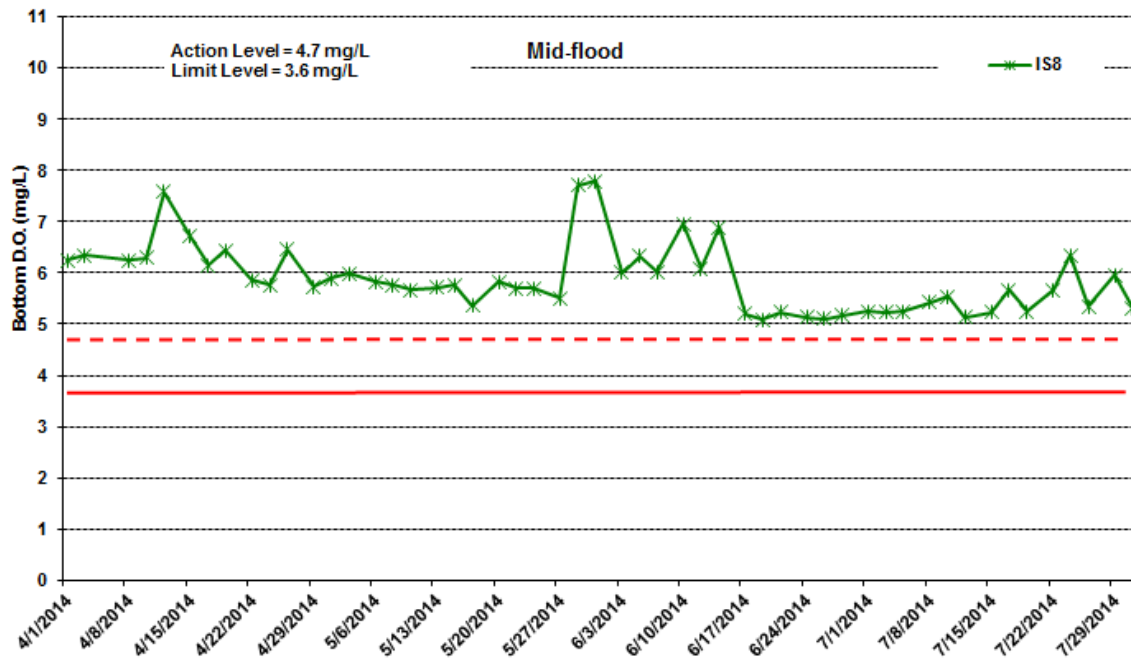


Figure J19 Impact Monitoring - Mean Level of Dissolved Oxygen (mg/L) in bottom waters during mid-flood tide between 1 April and 31 July 2014 at IS8 and SR4.

(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 marine piling.)

**Environmental
Resources
Management**



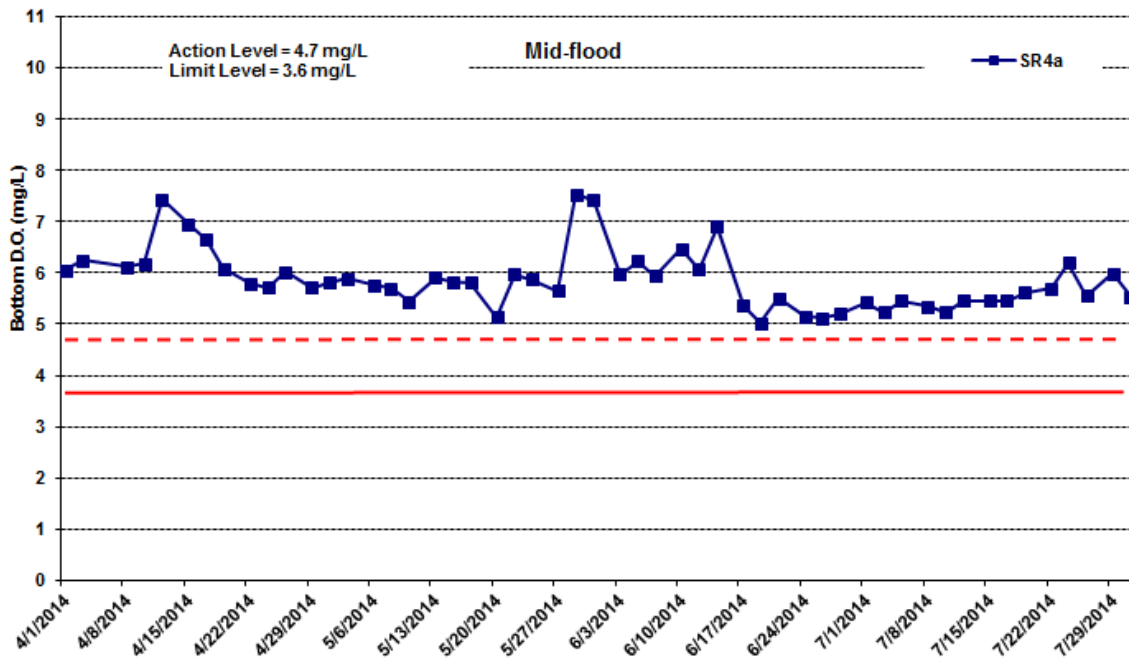


Figure J20 Impact Monitoring - Mean Level of Dissolved Oxygen (mg/L) in bottom waters during mid-flood tide between 1 April and 31 July 2014 at SR4a.

(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 marine piling.)

**Environmental
Resources
Management**



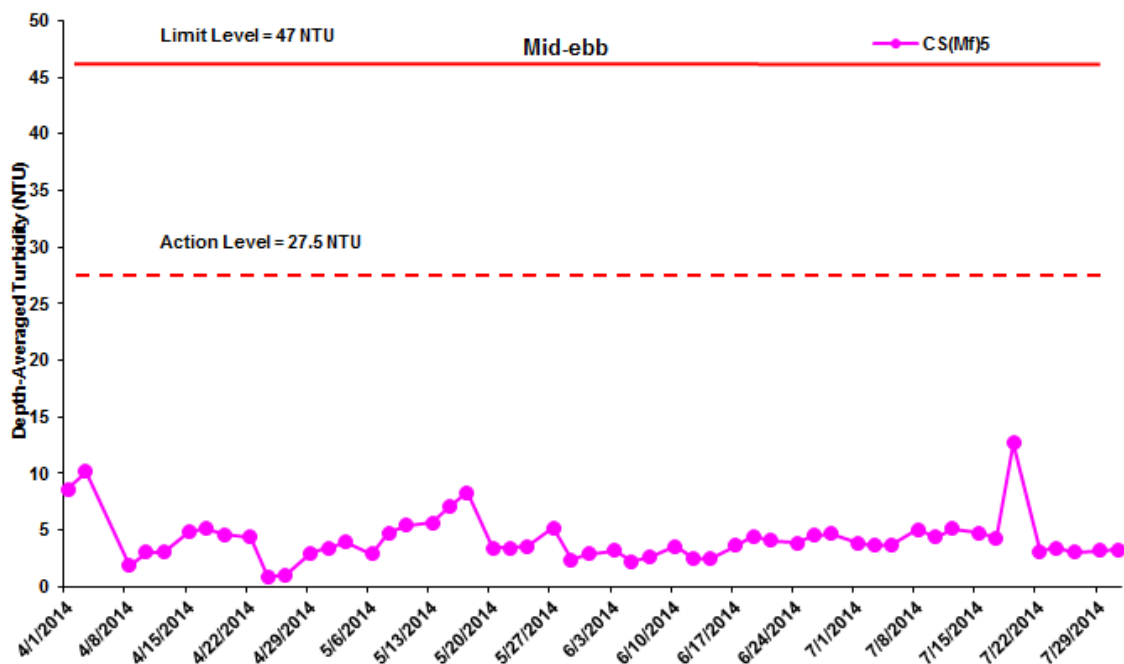
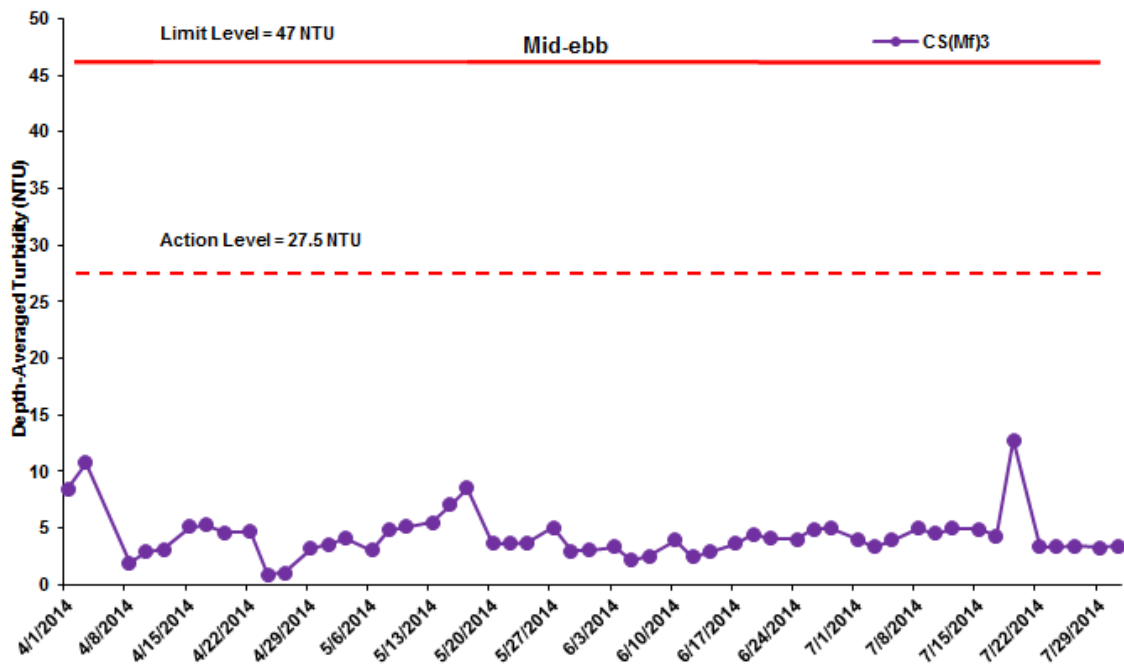


Figure J21 Impact Monitoring - Mean Level of depth-averaged Turbidity (NTU) during mid-ebb tide between 1 April and 31 July 2014 at CS(Mf)3 and CS(Mf)5.

(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 marine piling.)

**Environmental
Resources
Management**



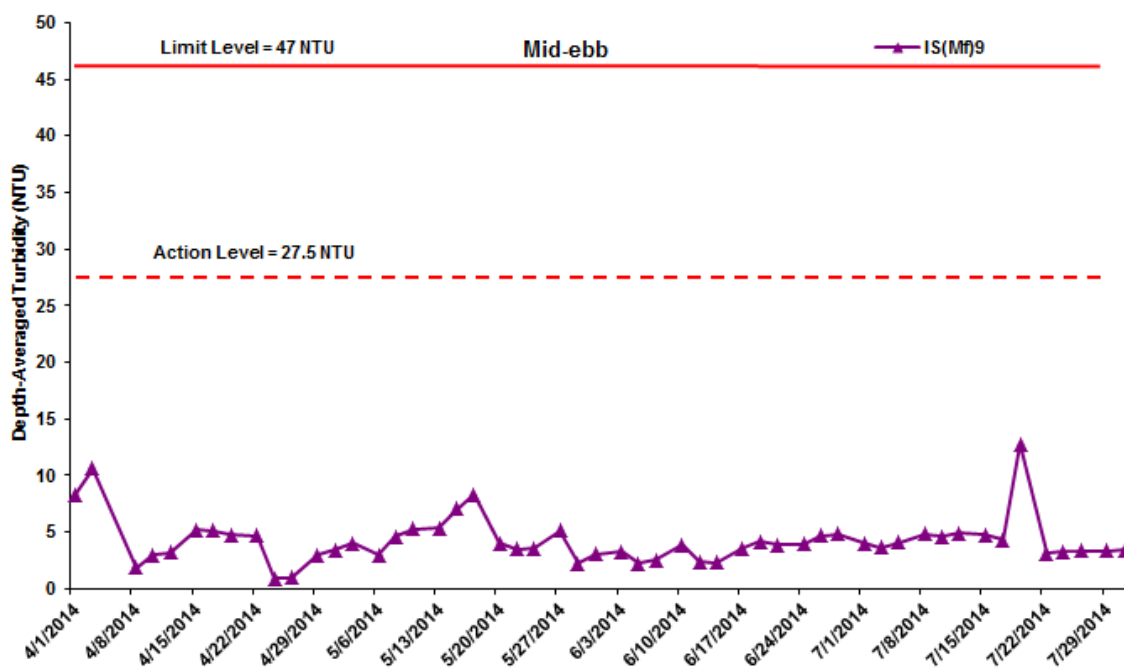
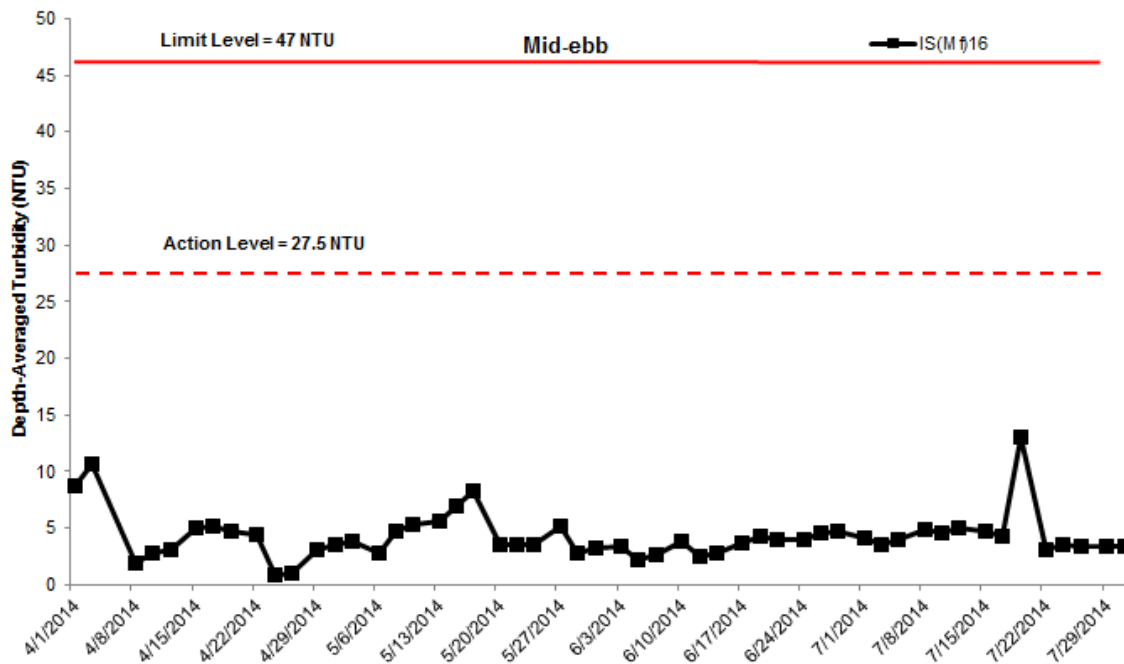


Figure J22 Impact Monitoring - Mean Level of depth-averaged Turbidity (NTU) during mid-ebb tide between 1 April and 31 July 2014 at IS(Mf)16 and IS(Mf)9.

(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 marine piling.)

Environmental Resources Management



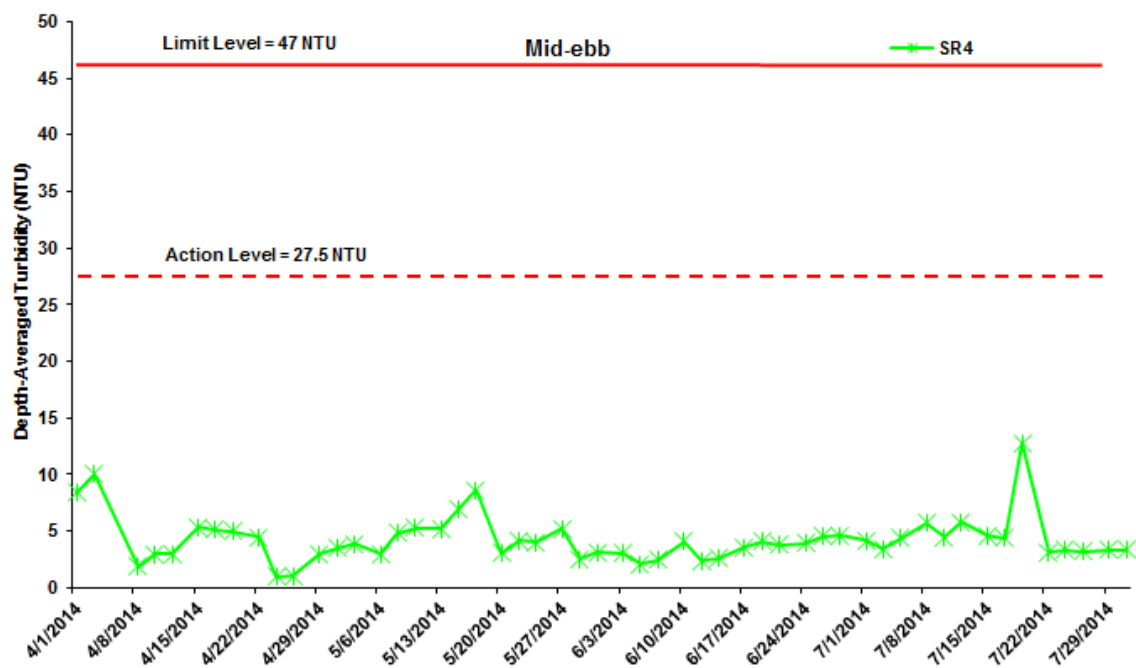
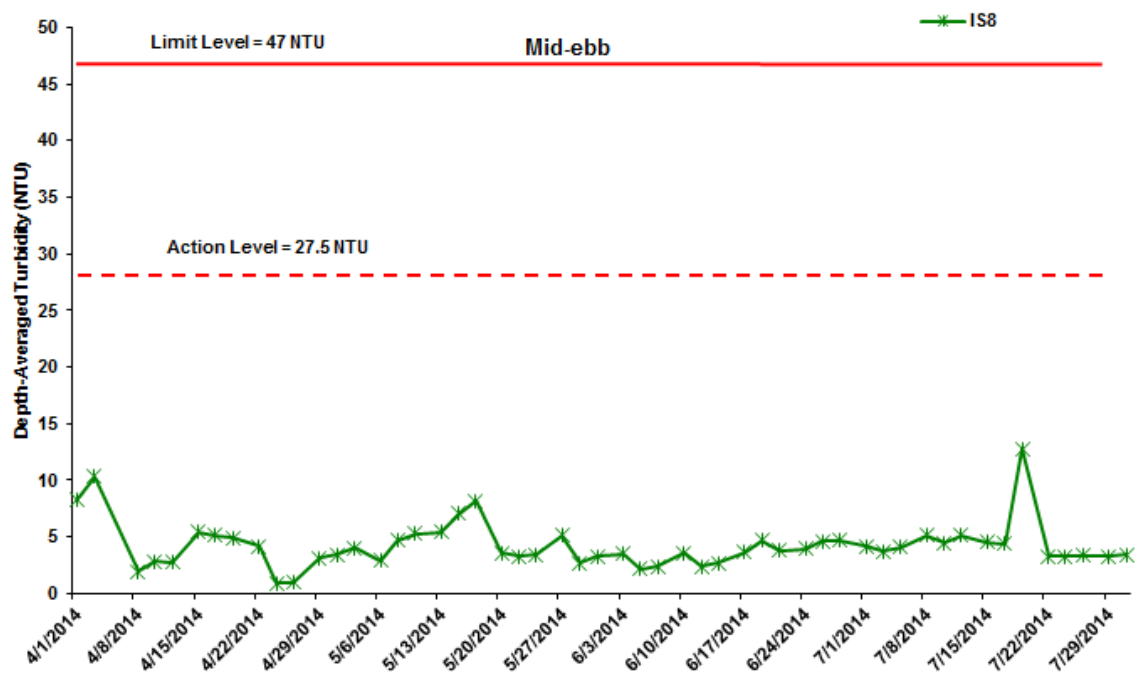


Figure J23 Impact Monitoring - Mean Level of depth-averaged Turbidity (NTU) during mid-ebb tide between 1 April and 31 July 2014 at IS8 and SR4.

(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 marine piling.)

**Environmental
Resources
Management**



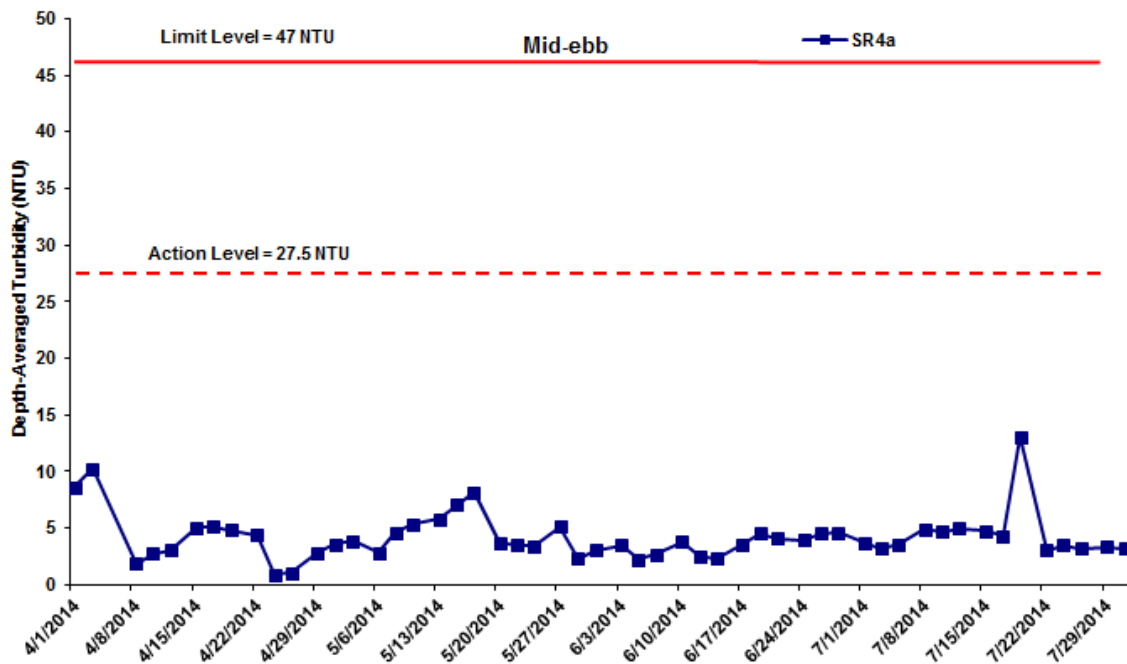


Figure J24 Impact Monitoring - Mean Level of depth-averaged Turbidity (NTU) during mid-ebb tide between 1 April and 31 July 2014 at SR4a.

(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 marine piling.)

**Environmental
Resources
Management**



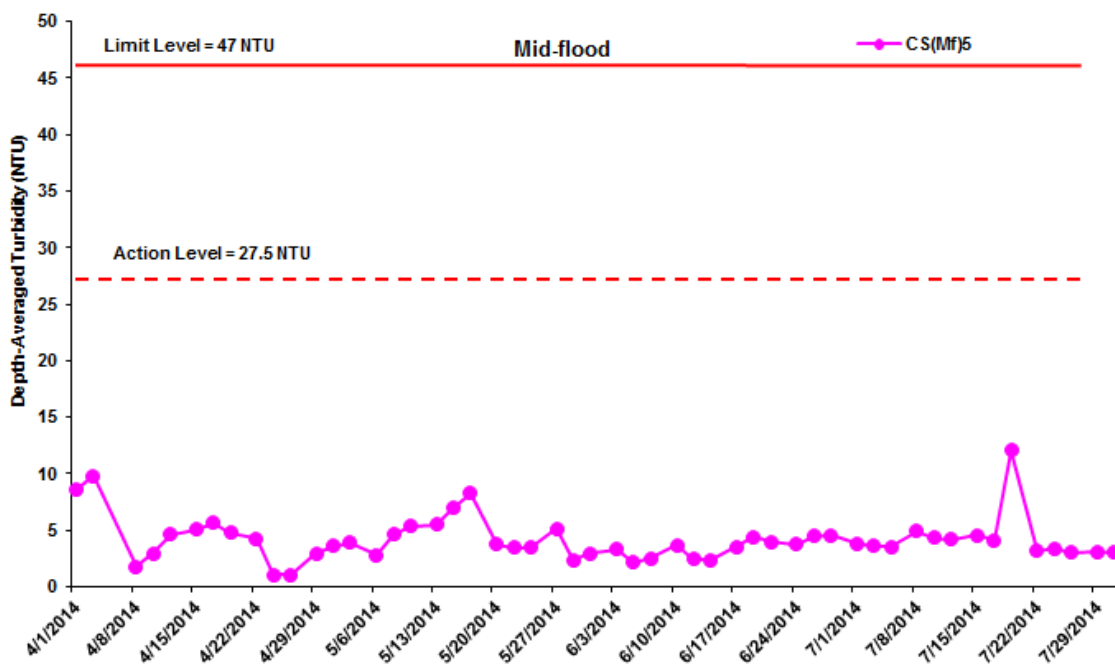
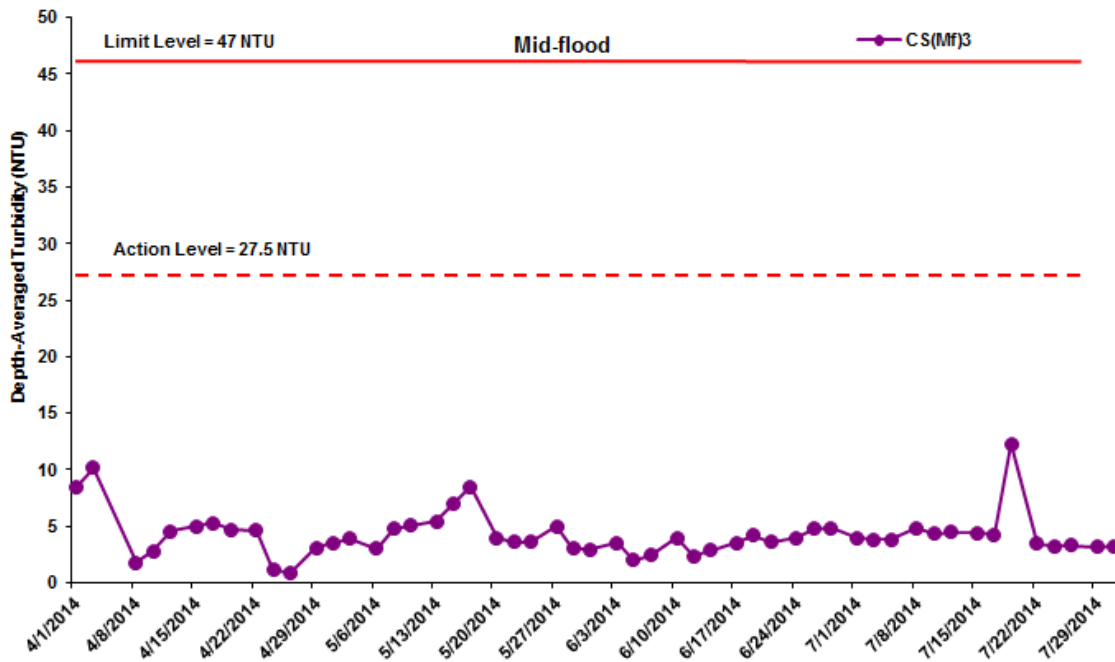


Figure J25 Impact Monitoring - Mean Level of depth-averaged Turbidity (NTU) during mid-flood tide between 1 April and 31 July 2014 at CS(Mf)3 and CS(MF)5.

(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 marine piling.)

**Environmental
Resources
Management**



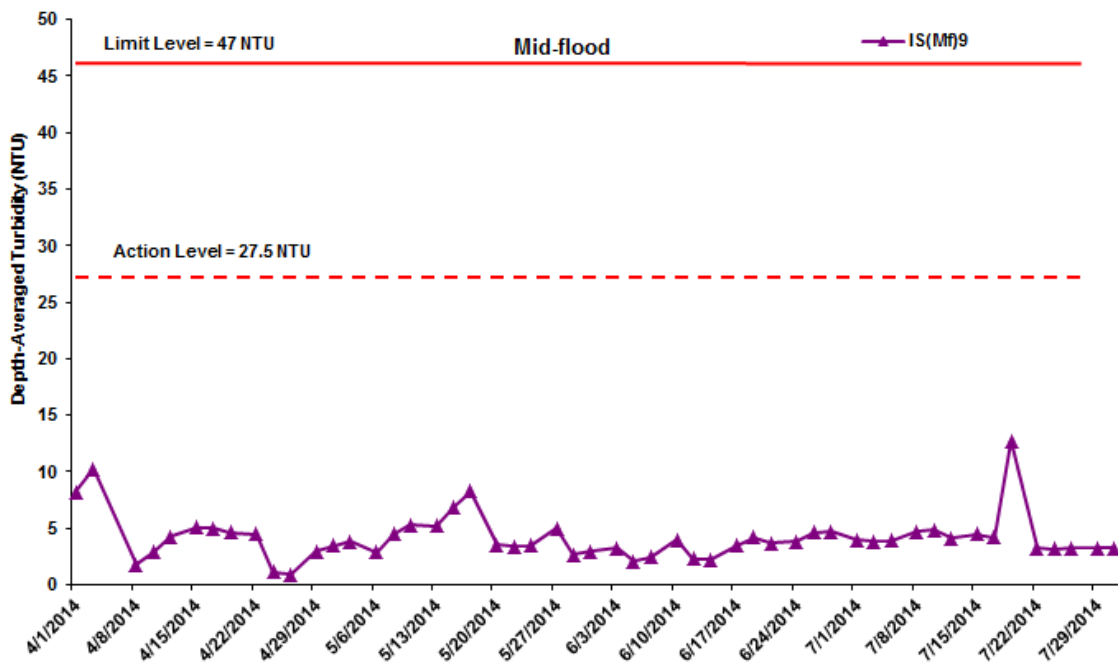
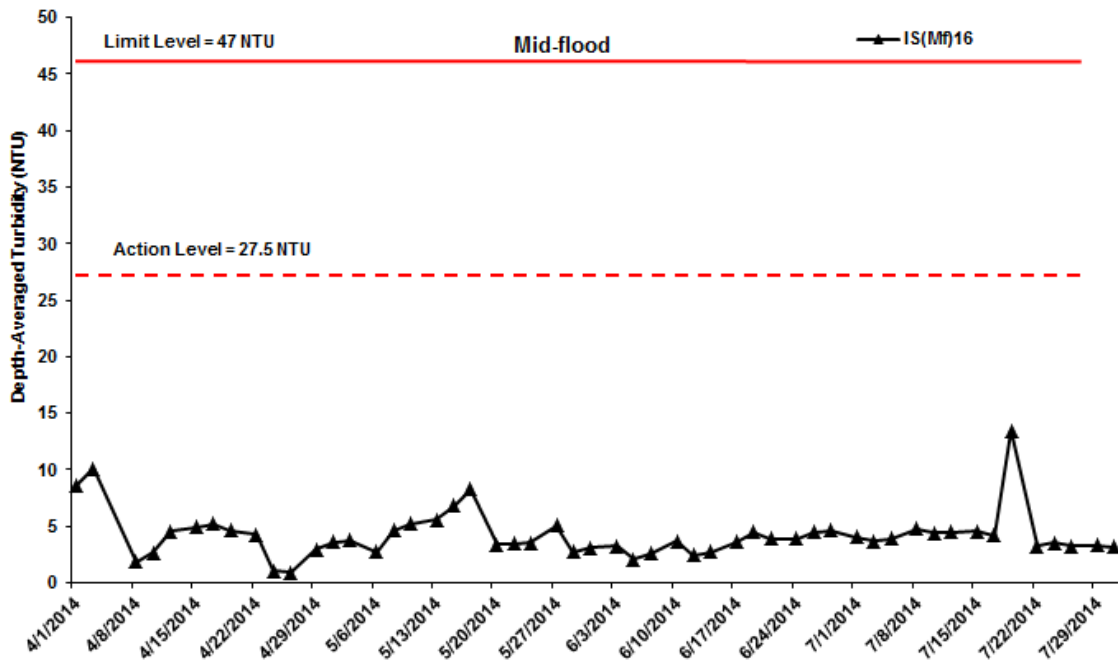


Figure J26 Impact Monitoring – Mean Level of depth-averaged Turbidity (NTU) during mid-flood tide between 1 April and 31 July 2014 at IS(Mf)16 and IS(Mf)9.

(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 marine piling.)

**Environmental
Resources
Management**



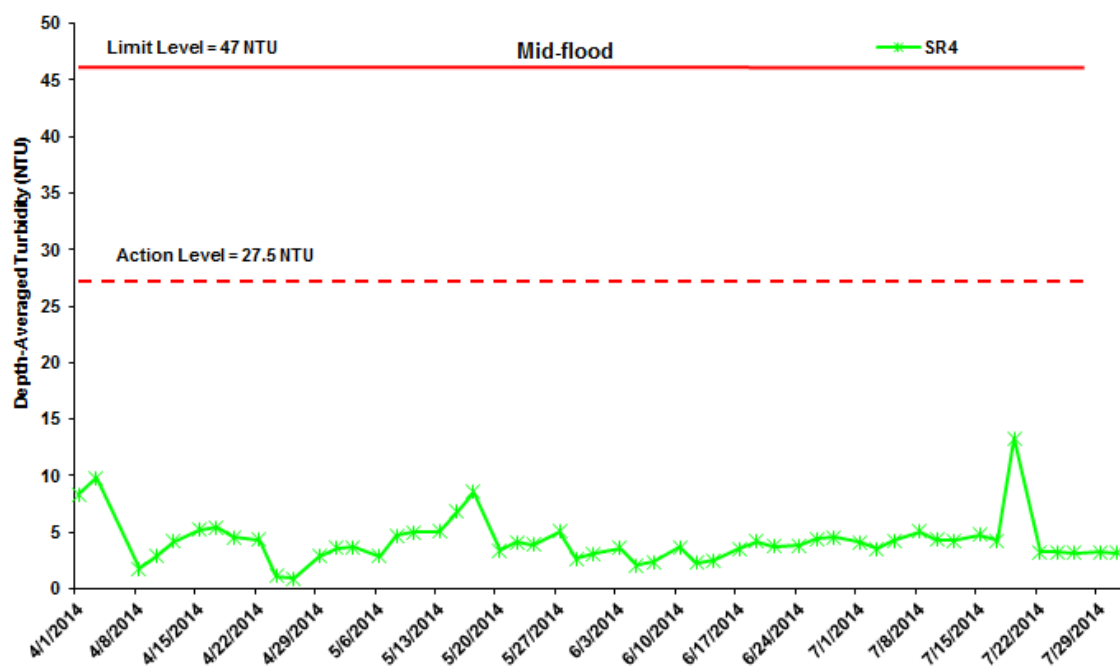
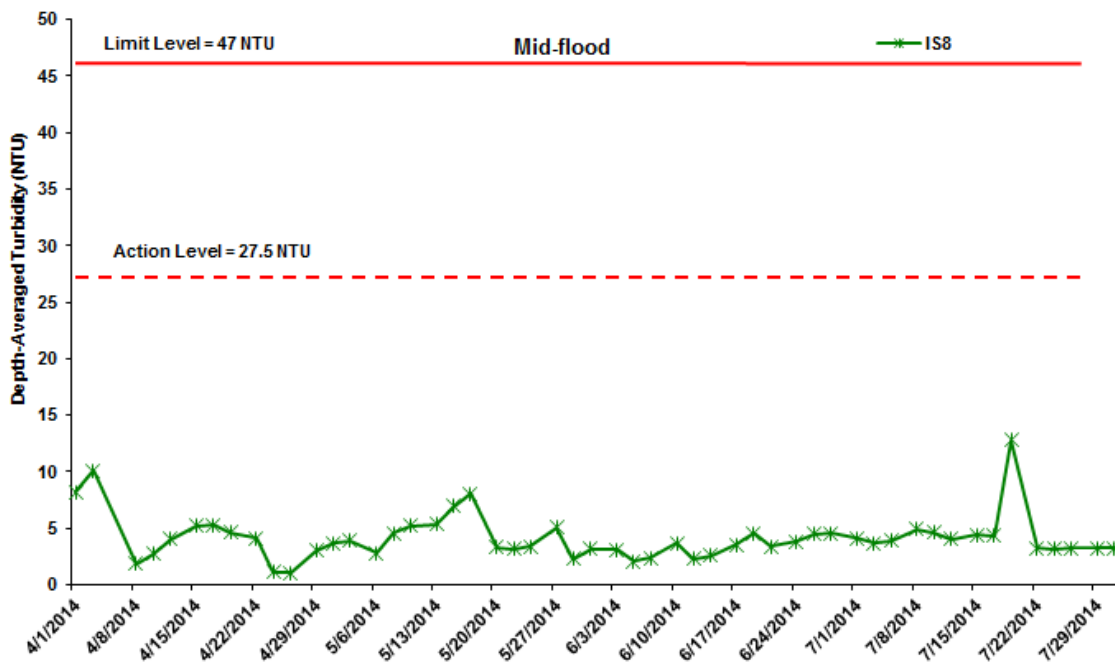


Figure J27 Impact Monitoring - Mean Level of depth-averaged Turbidity (NTU) during mid-flood tide between 1 April and 31 July 2014 at IS8 and SR4.

(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 marine piling.)

**Environmental
Resources
Management**



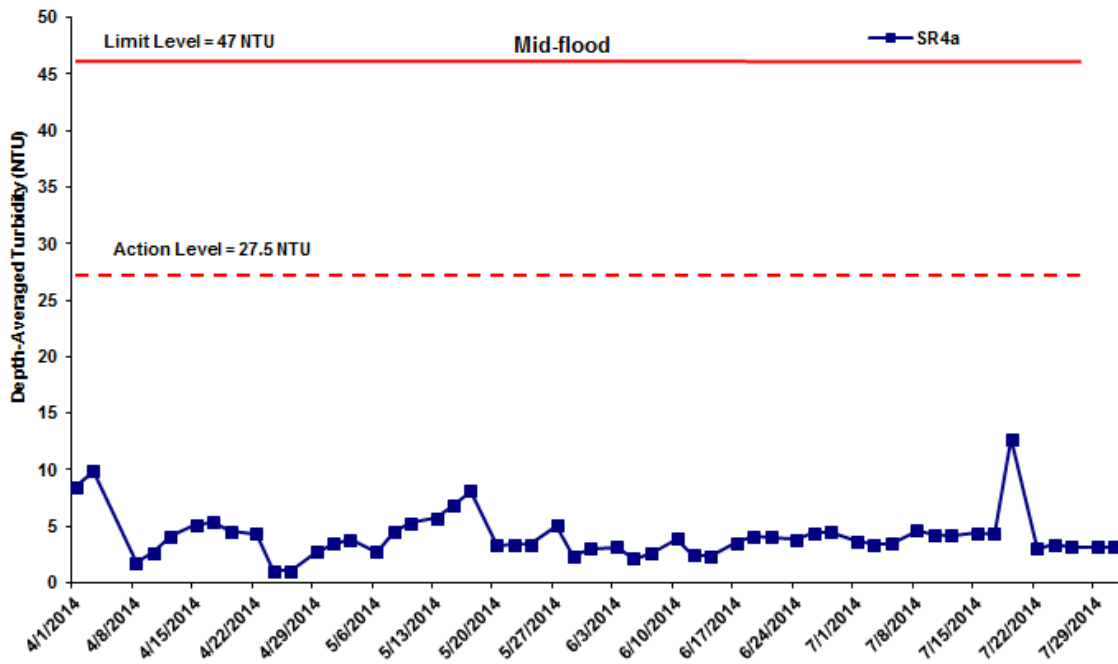


Figure J28 Impact Monitoring - Mean Level of depth-averaged Turbidity (NTU) during mid-flood tide between 1 April and 31 July 2014 at SR4a.

(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 marine piling.)

**Environmental
Resources
Management**



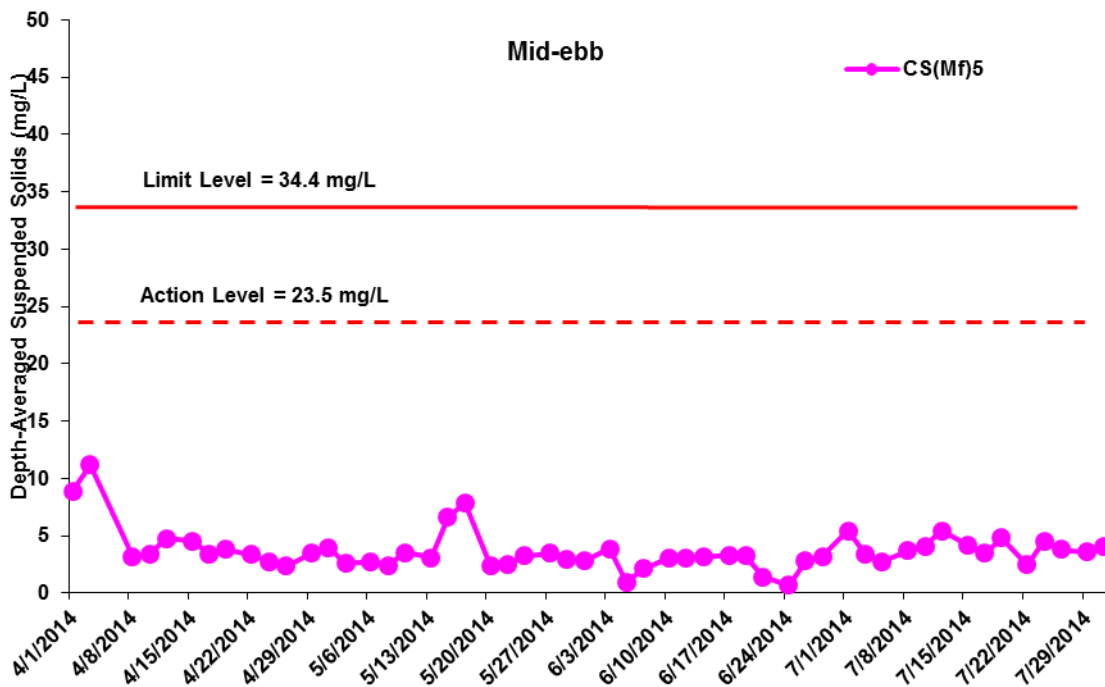
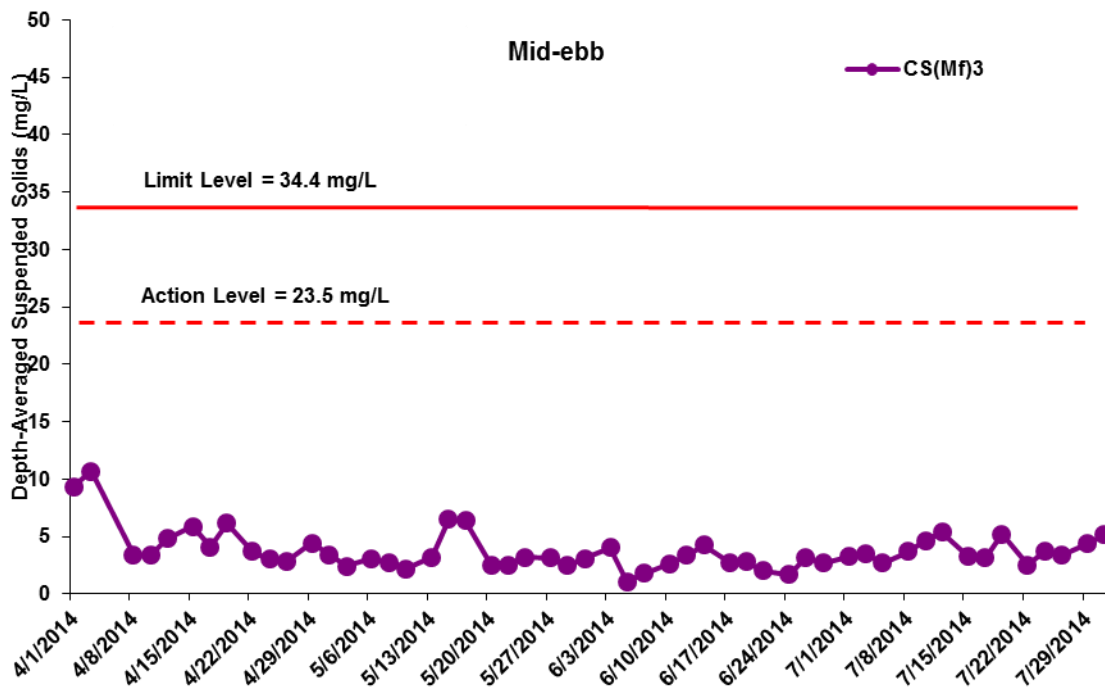


Figure J29 Impact Monitoring - Mean depth-averaged level of Suspended Solids (mg/L) during mid-ebb tide between 1 April and 31 July 2014 at CS(Mf)3 and CS(Mf)5.

(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 marine piling.)

**Environmental
Resources
Management**



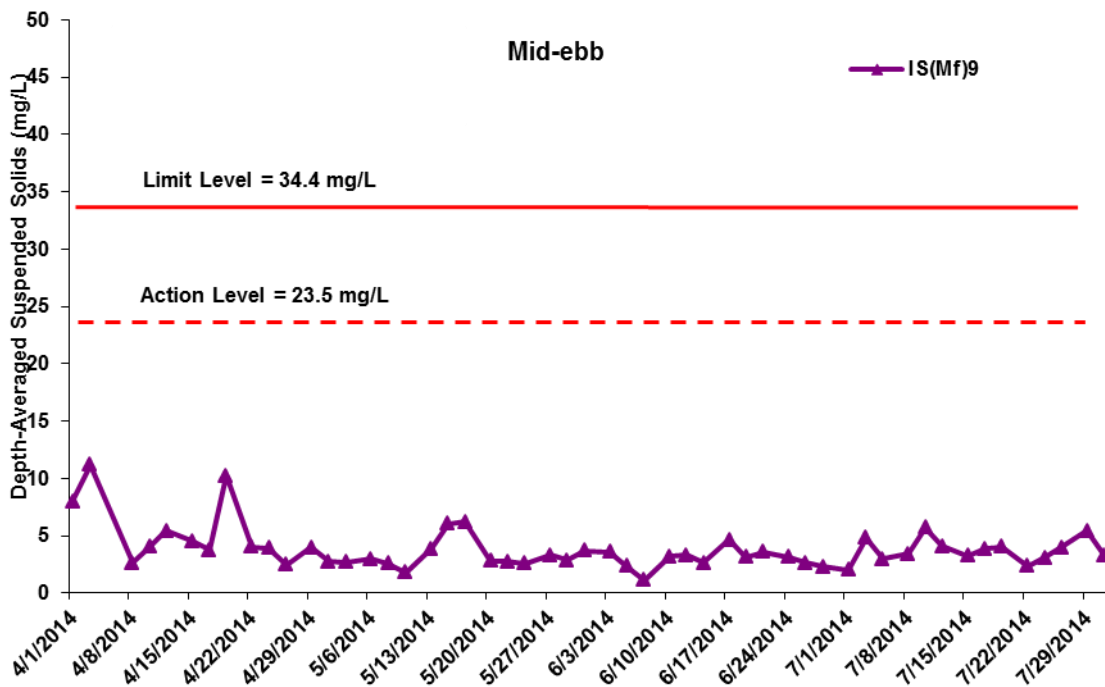
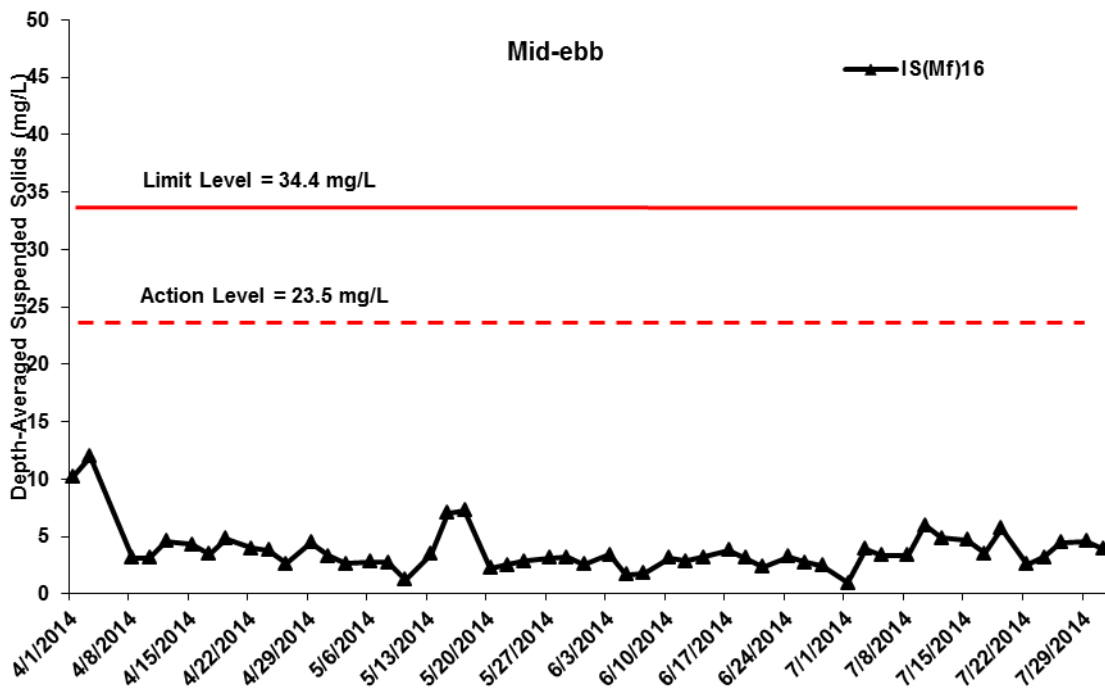


Figure J30 Impact Monitoring - Mean depth-averaged level of Suspended Solids (mg/L) during mid-ebb tide between 1 April and 31 July 2014 at IS(Mf)16 and IS(Mf)9.

(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 marine piling.)

**Environmental
Resources
Management**



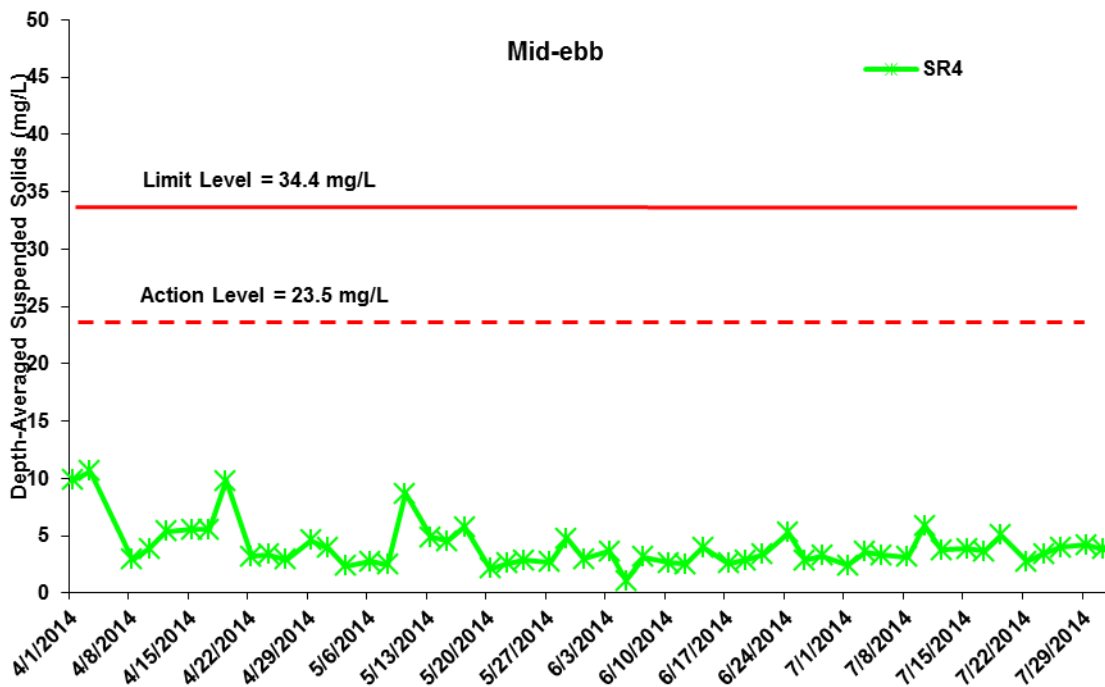
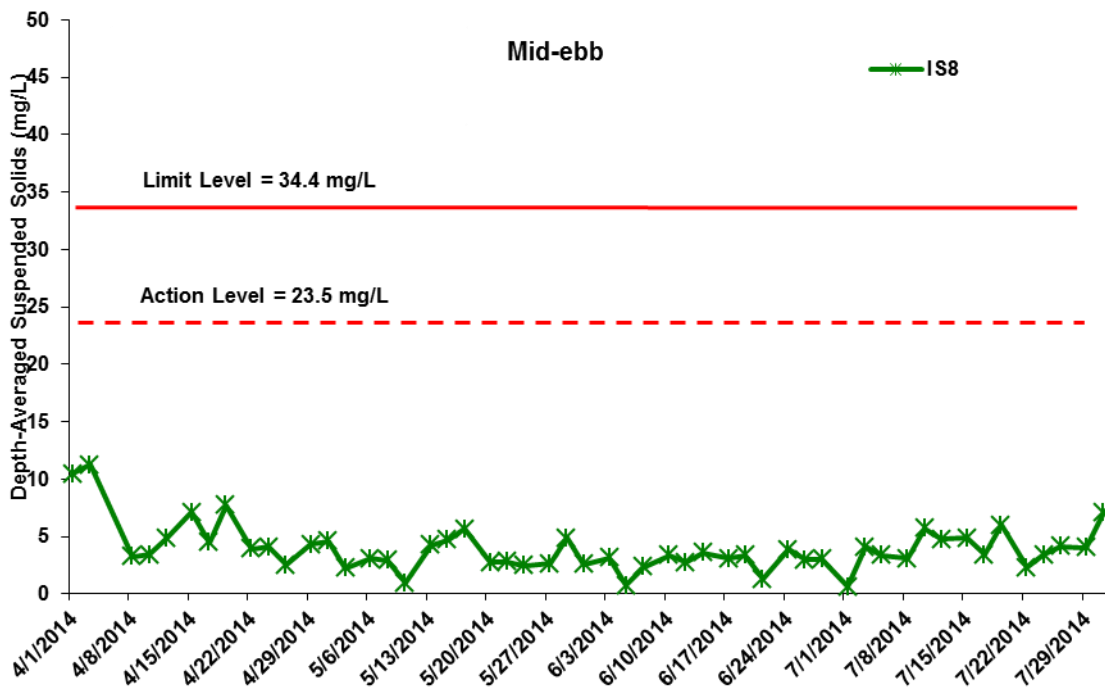


Figure J31 Impact Monitoring - Mean depth-averaged level of Suspended Solids (mg/L) during mid-ebb tide between 1 April and 31 July 2014 at IS8 and SR4.

(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 marine piling.)

**Environmental
Resources
Management**



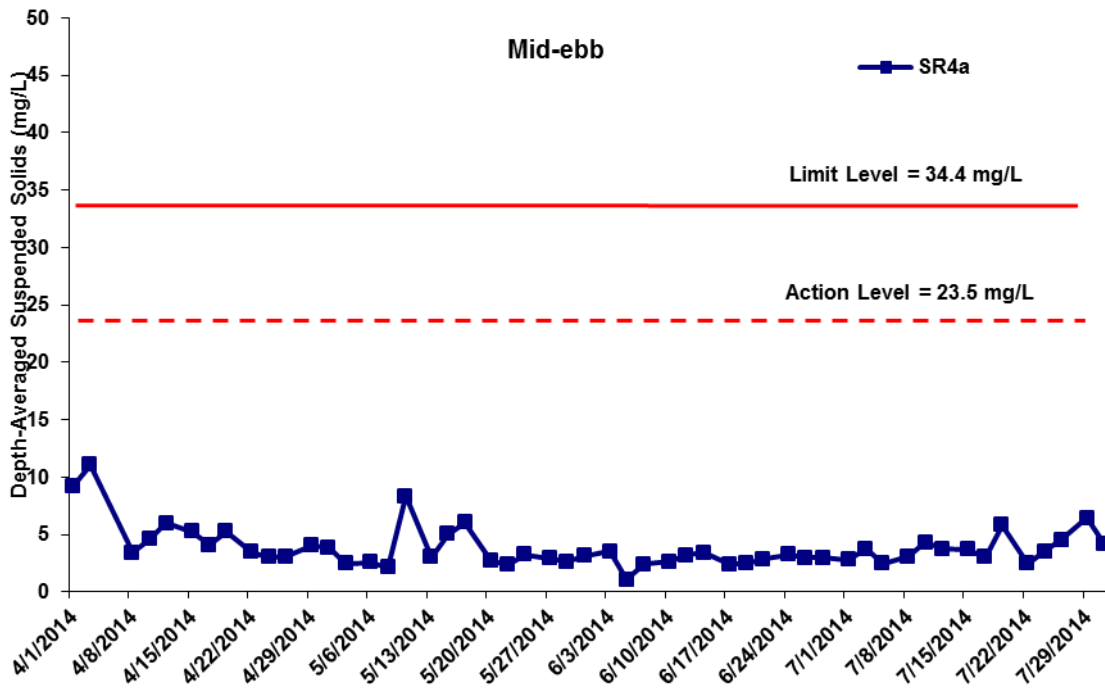


Figure J32 Impact Monitoring - Mean depth-averaged level of Suspended Solids (mg/L) during mid-ebb tide between 1 April and 31 July 2014 at SR4a.

(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 marine piling.)

**Environmental
Resources
Management**



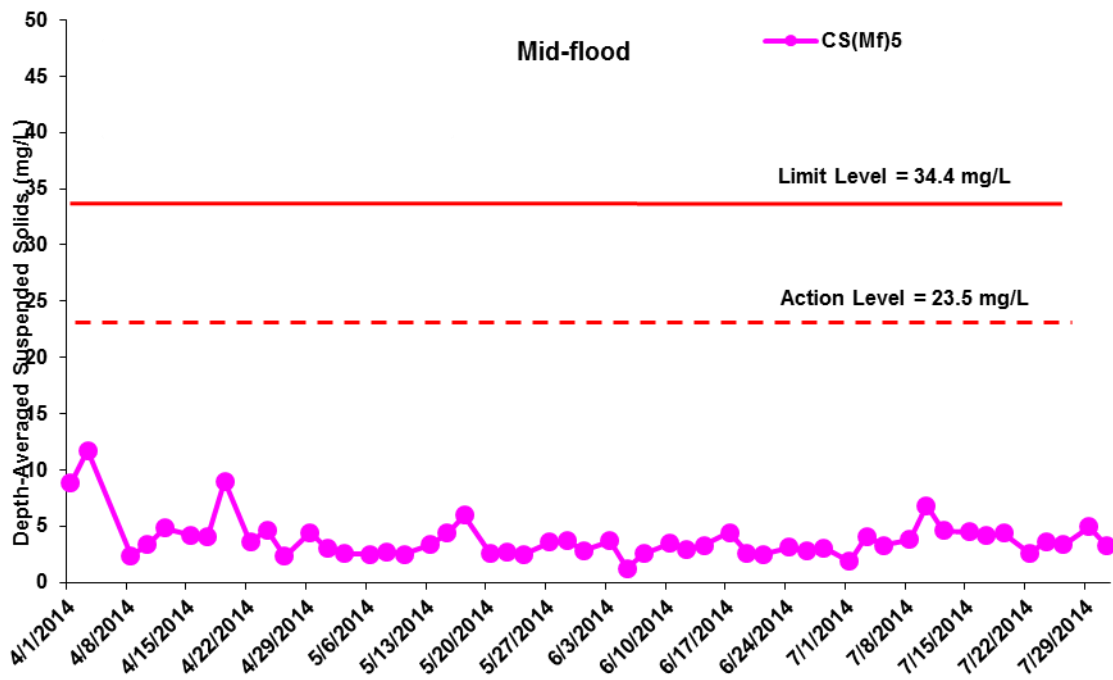
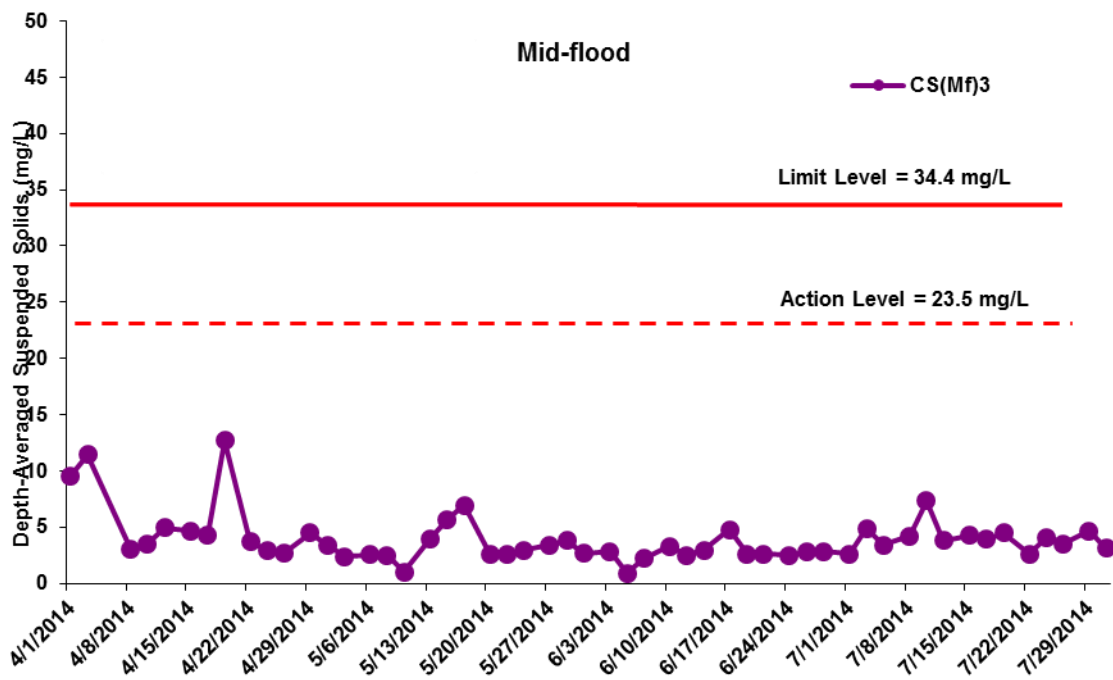


Figure J33 Impact Monitoring - Mean depth-averaged level of Suspended Solids (mg/L) during mid-flood tide between 1 April and 31 July 2014 at CS(Mf)3 and CS(Mf)5.

(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 marine piling.)

**Environmental
Resources
Management**



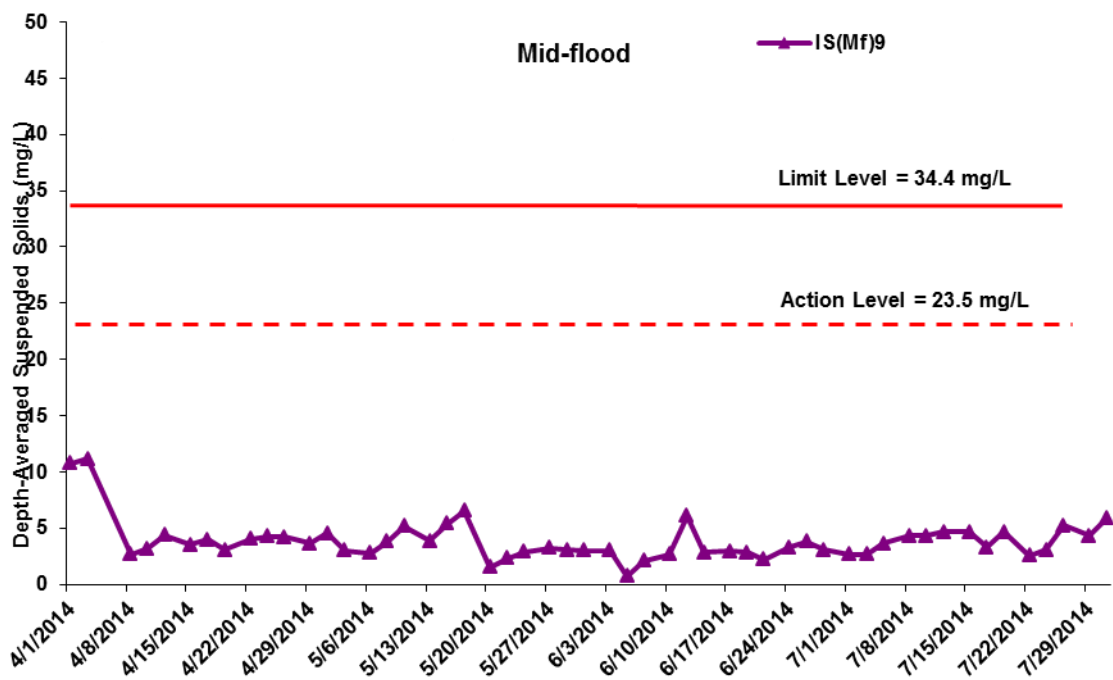
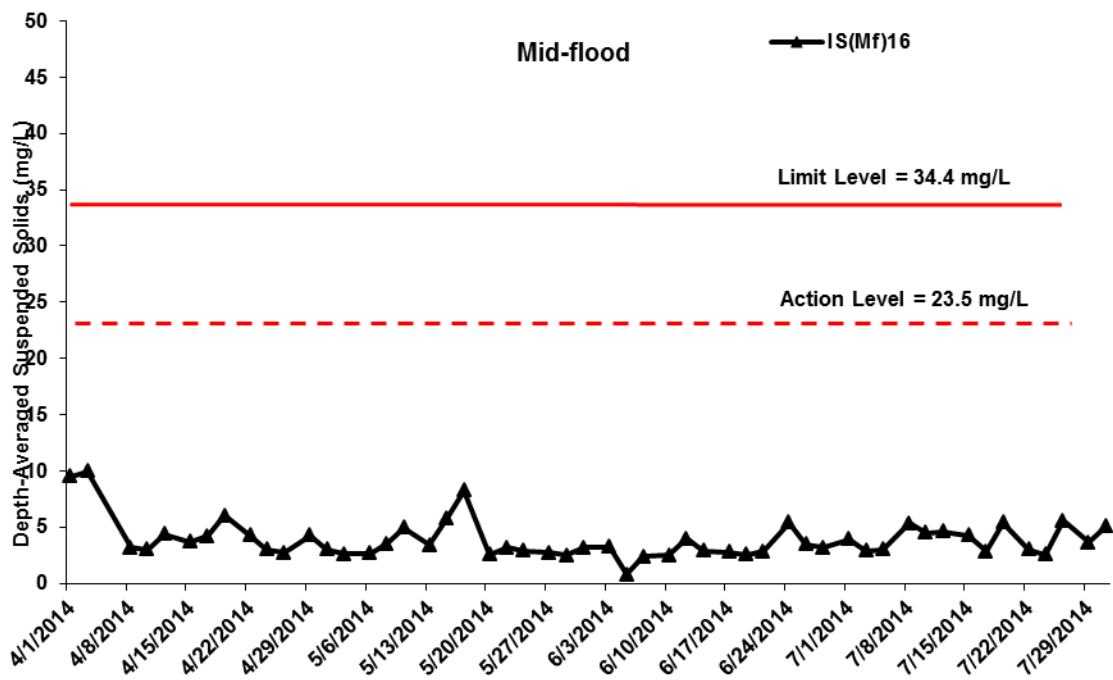


Figure J34 Impact Monitoring - Mean depth-averaged level of Suspended Solids (mg/L) during mid-flood tide between 1 April and 31 July 2014 at IS(Mf)16 and IS(Mf)9.

(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 marine piling.)

**Environmental
Resources
Management**



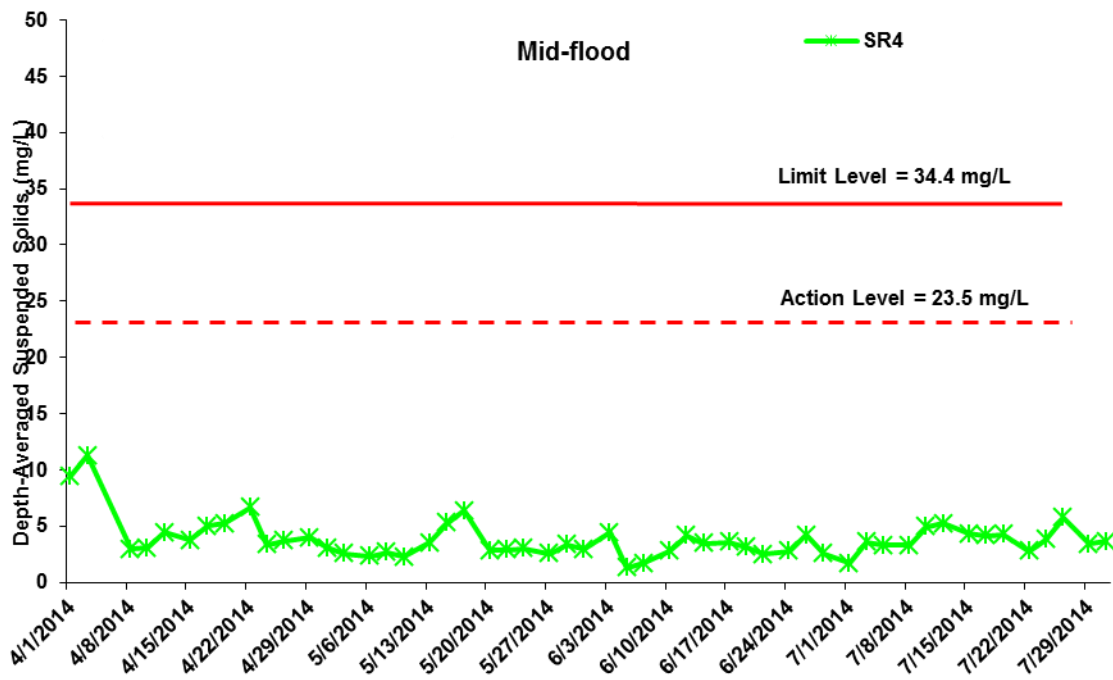
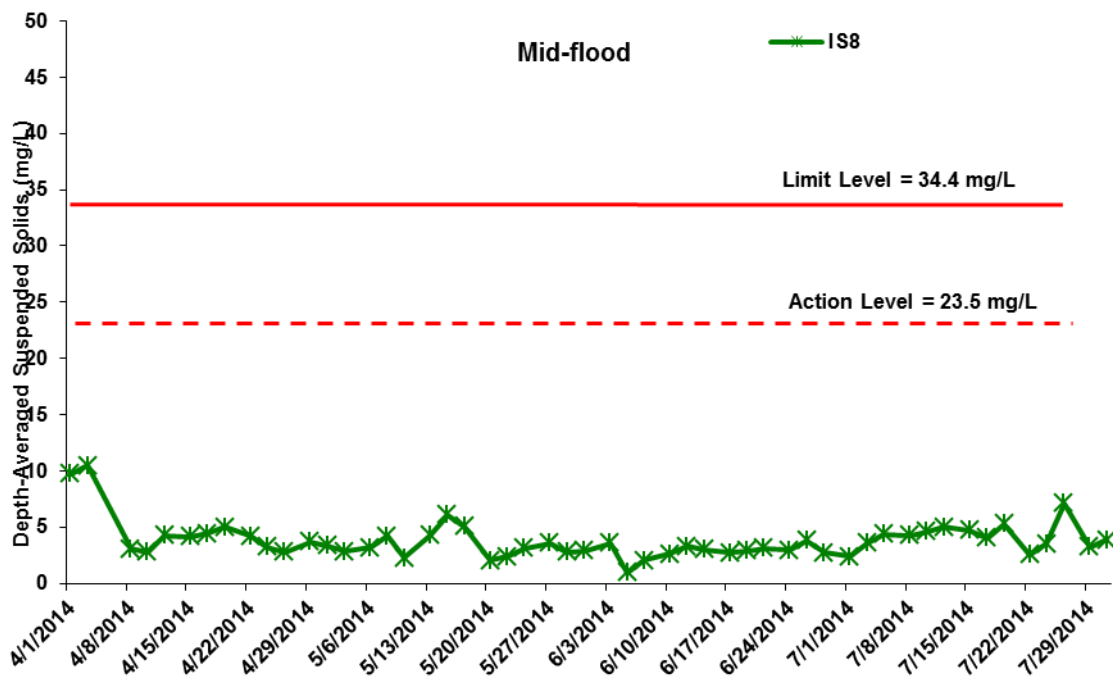


Figure J35 Impact Monitoring - Mean depth-averaged level of Suspended Solids (mg/L) during mid-flood tide between 1 April and 31 July 2014 at IS8 and SR4.

(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 marine piling.)

**Environmental
Resources
Management**



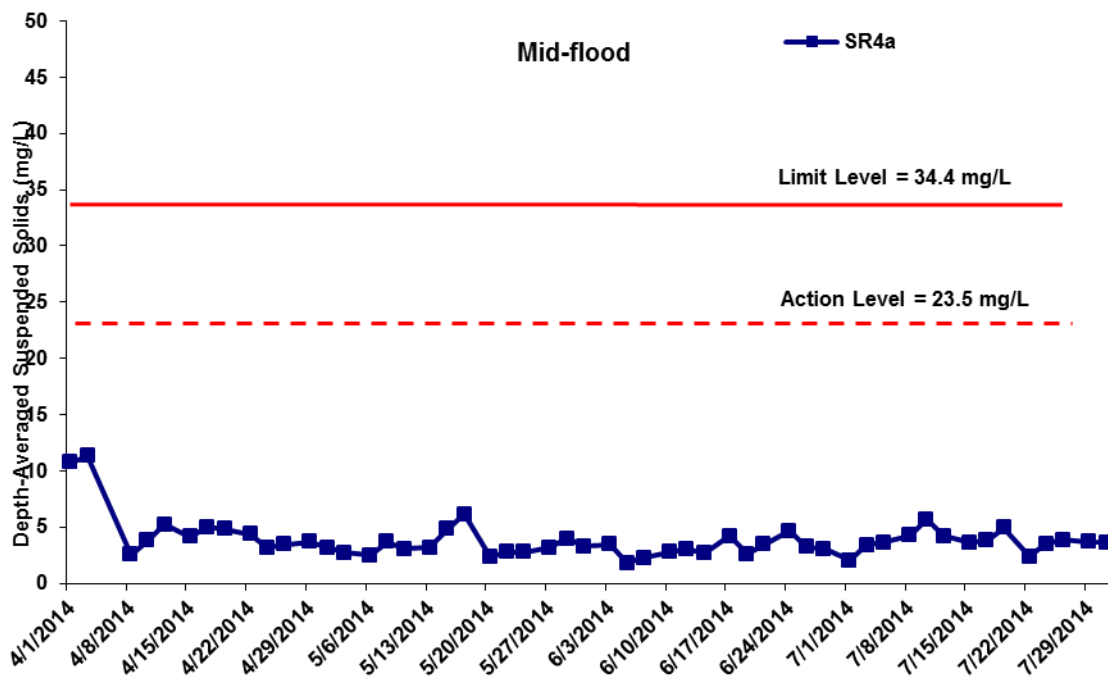


Figure J36 Impact Monitoring - Mean depth-averaged level of Suspended Solids (mg/L) during mid-flood tide between 1 April and 31 July 2014 at SR4a.

(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 marine piling.)

**Environmental
Resources
Management**



Appendix K

Impact Dolphin Monitoring Survey Results

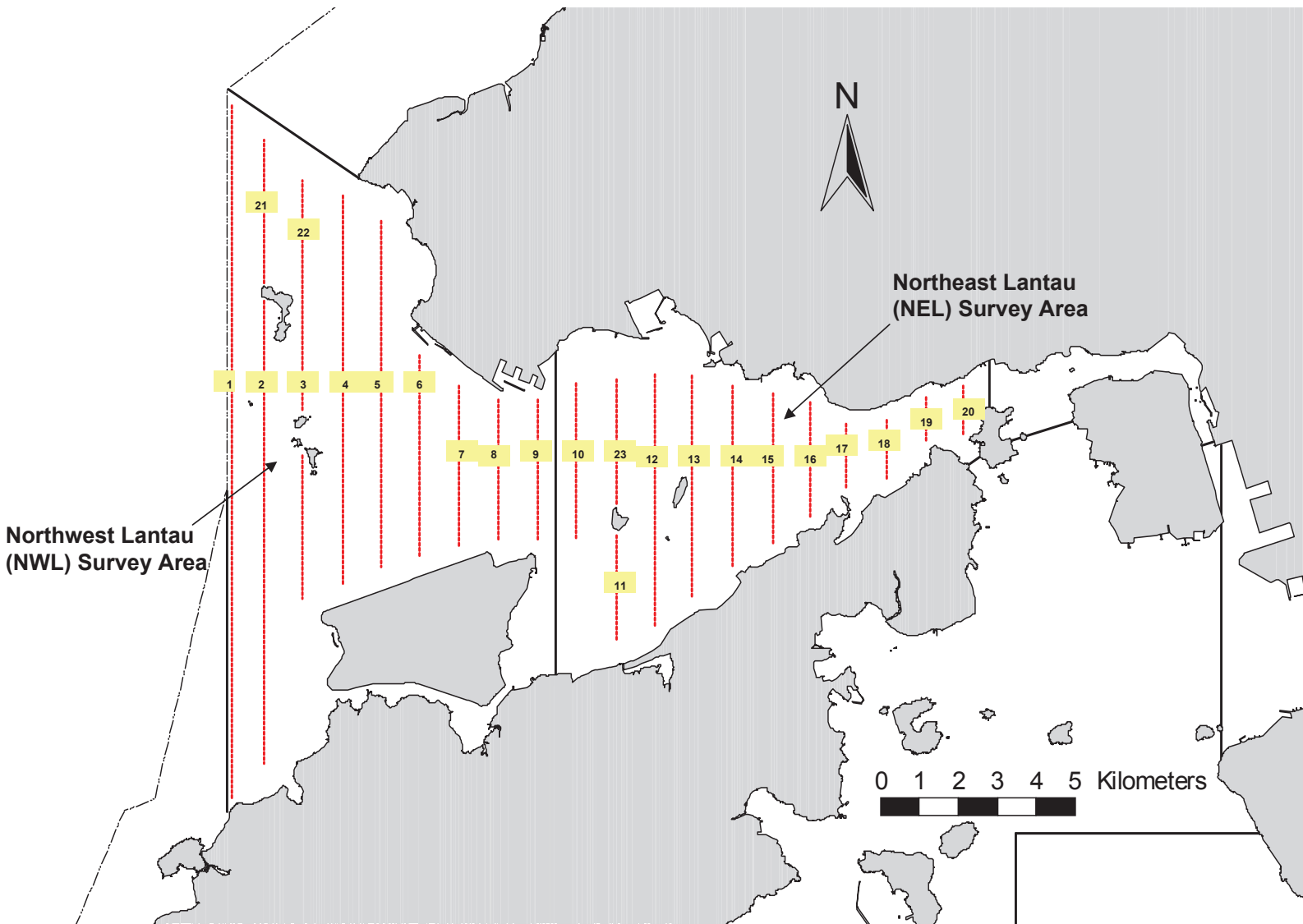


Figure 1. Transect Line Layout in Northwest and Northeast Lantau Survey Areas

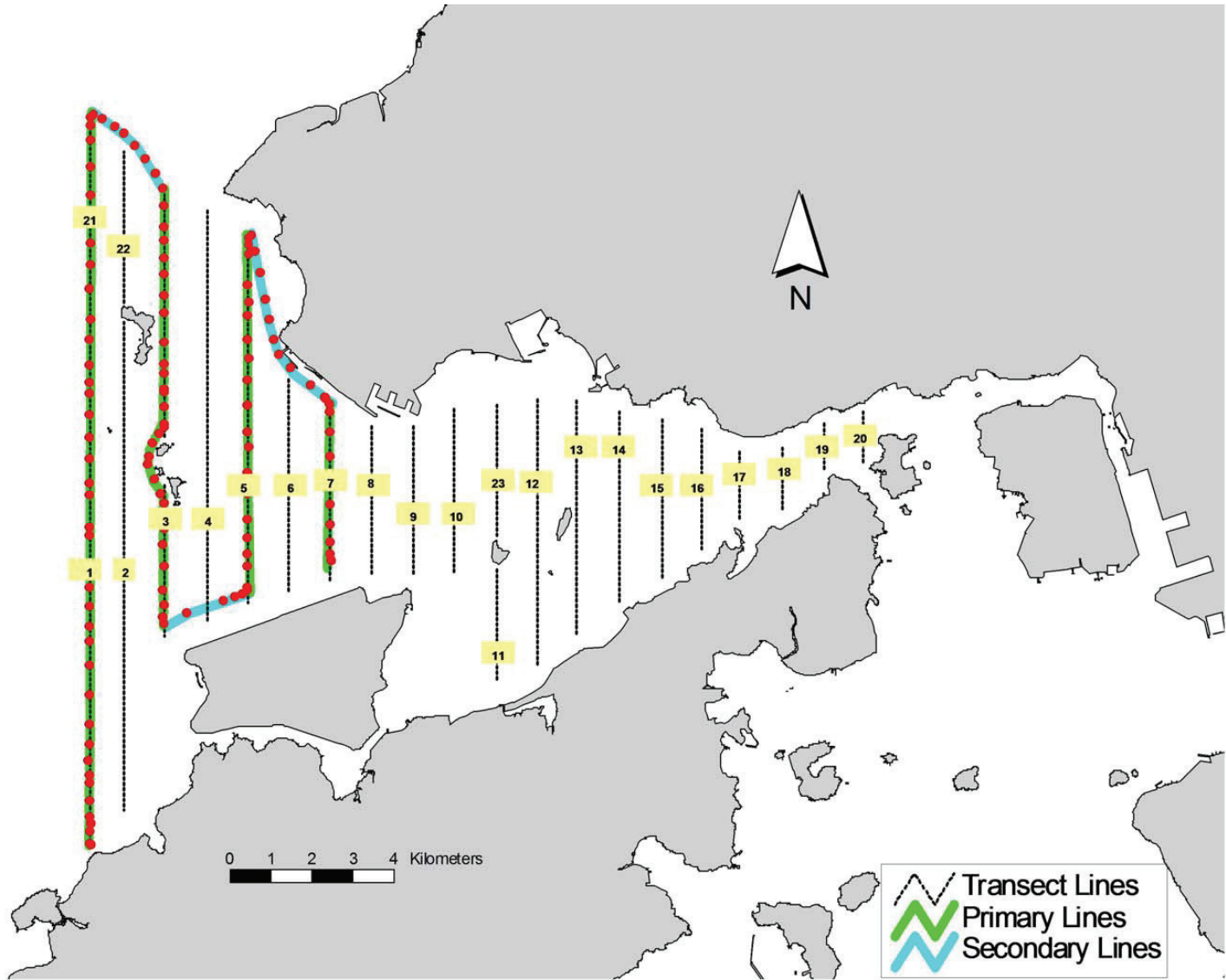


Figure 2. Survey Route on July 3rd, 2014 (from HKLR03 project)

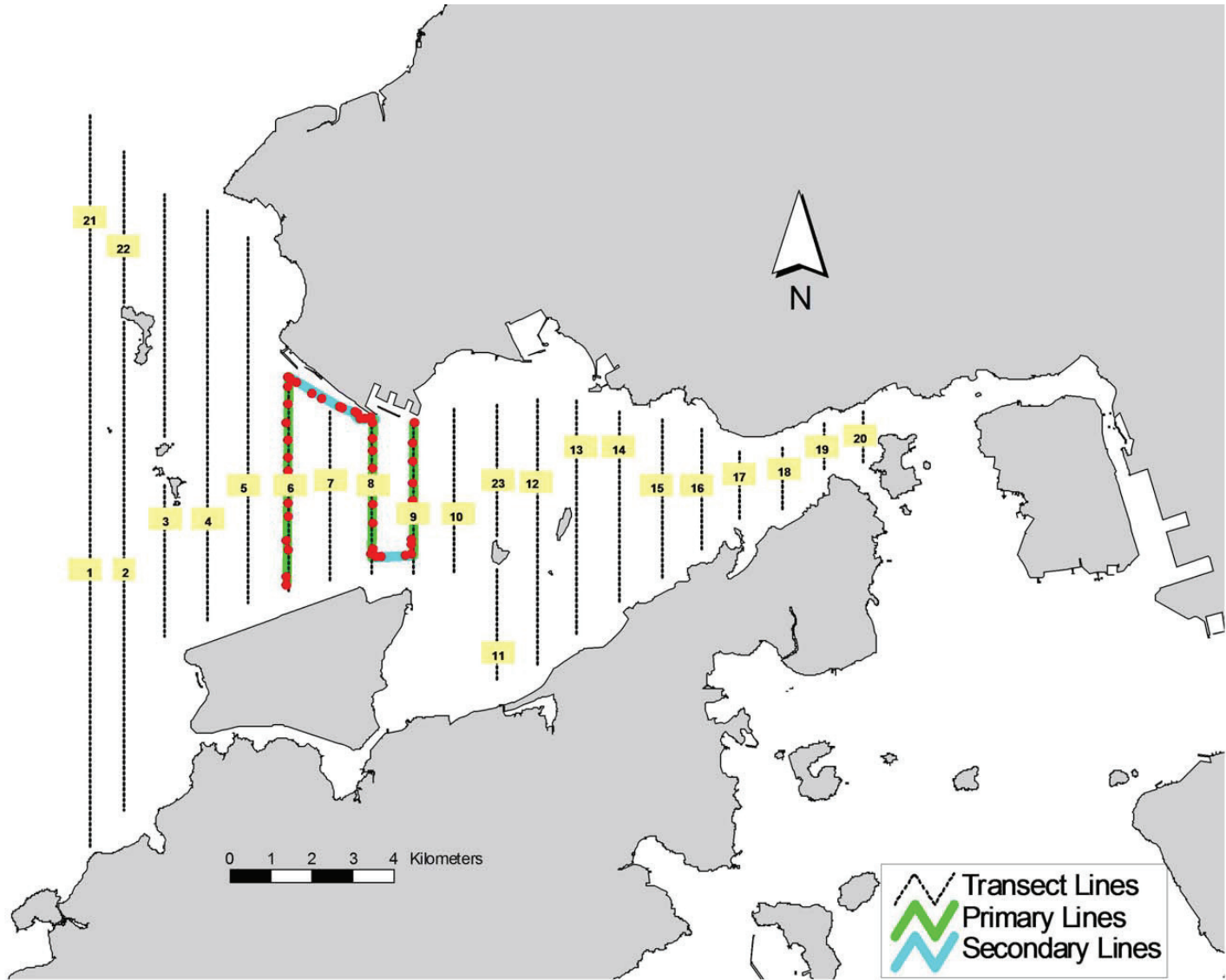


Figure 3. Survey Route on July 9th, 2014 (from HKLR03 project)

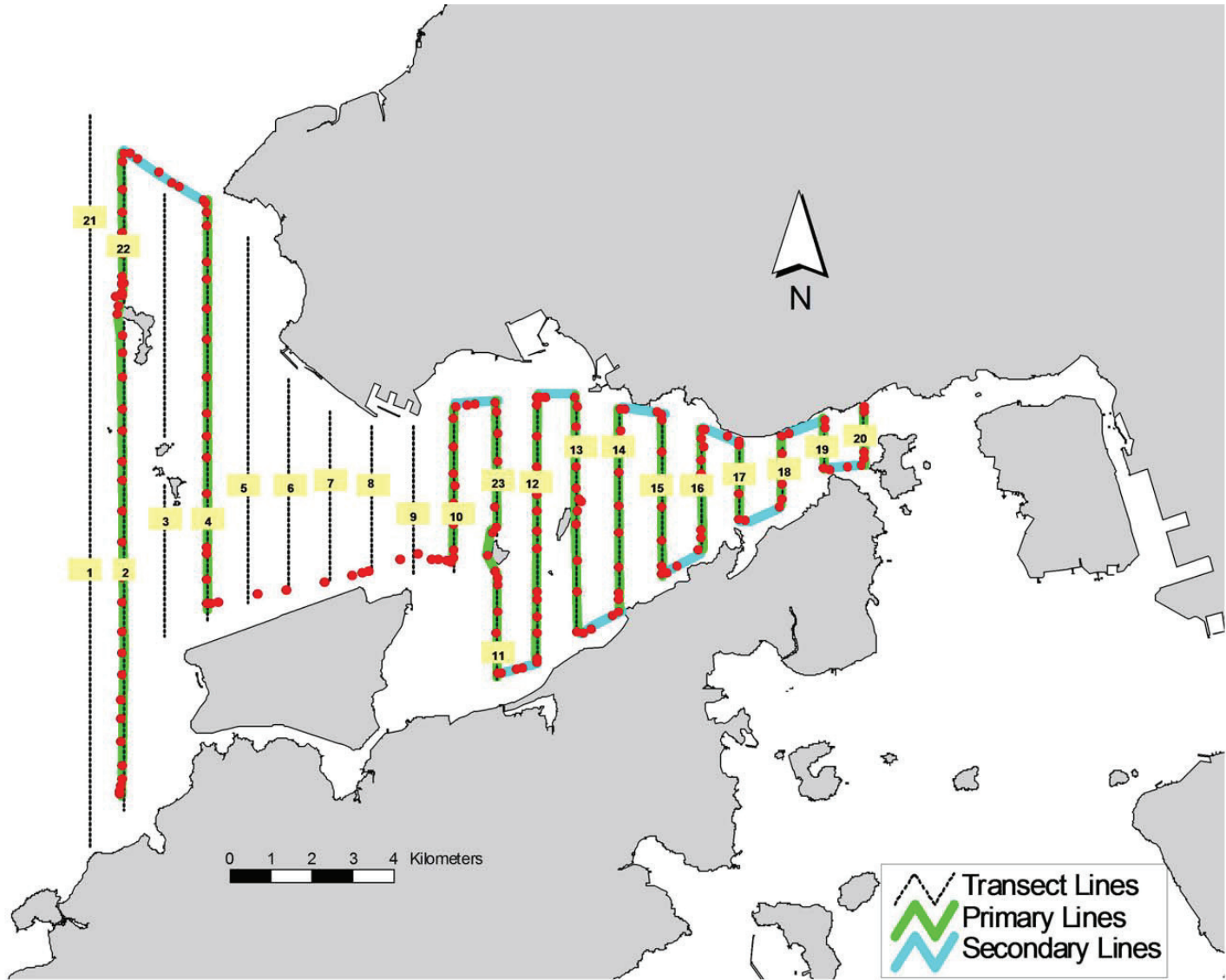


Figure 4. Survey Route on July 10th, 2014 (from HKLR03 project)

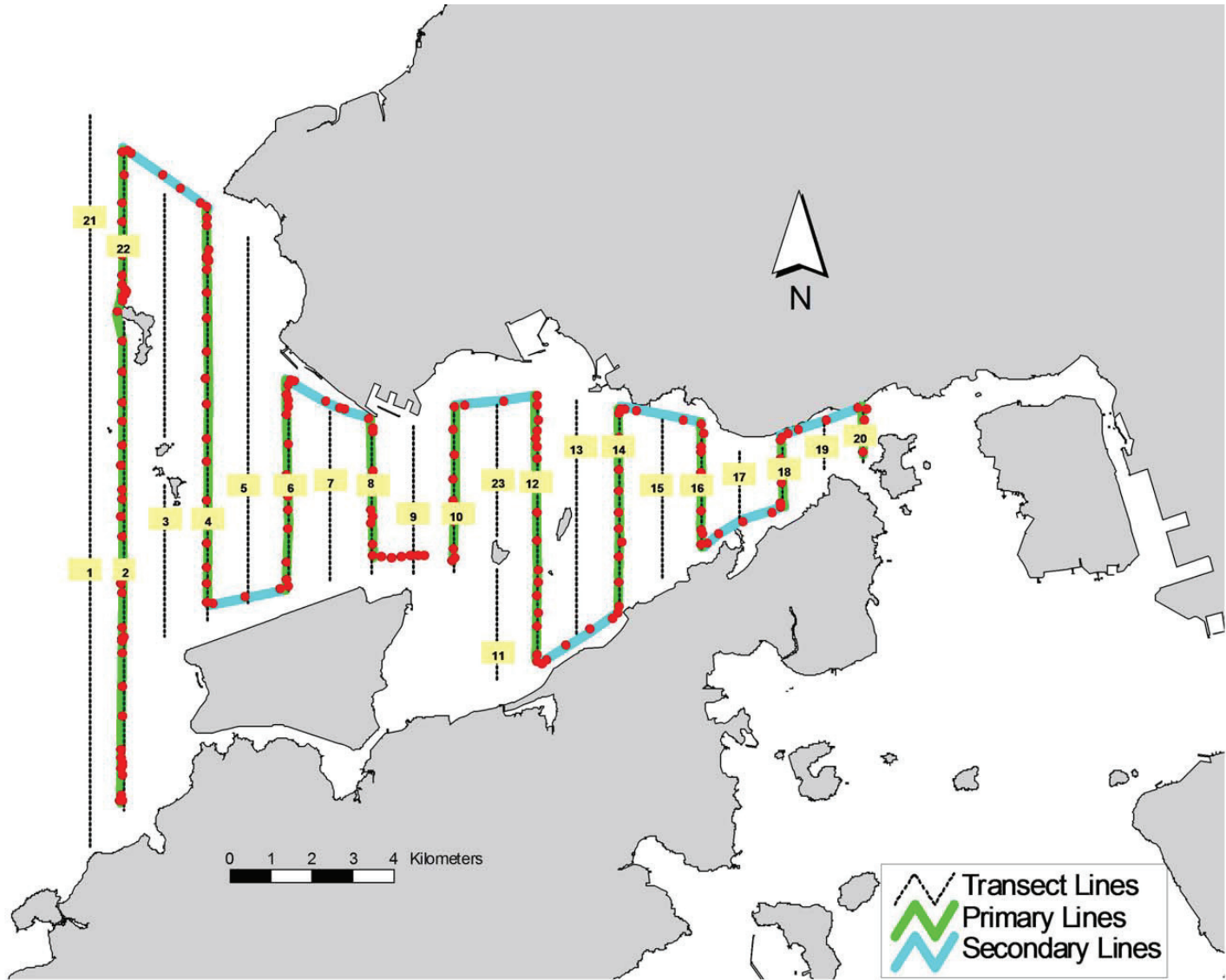


Figure 5. Survey Route on July 14th, 2014 (from HKLR03 project)

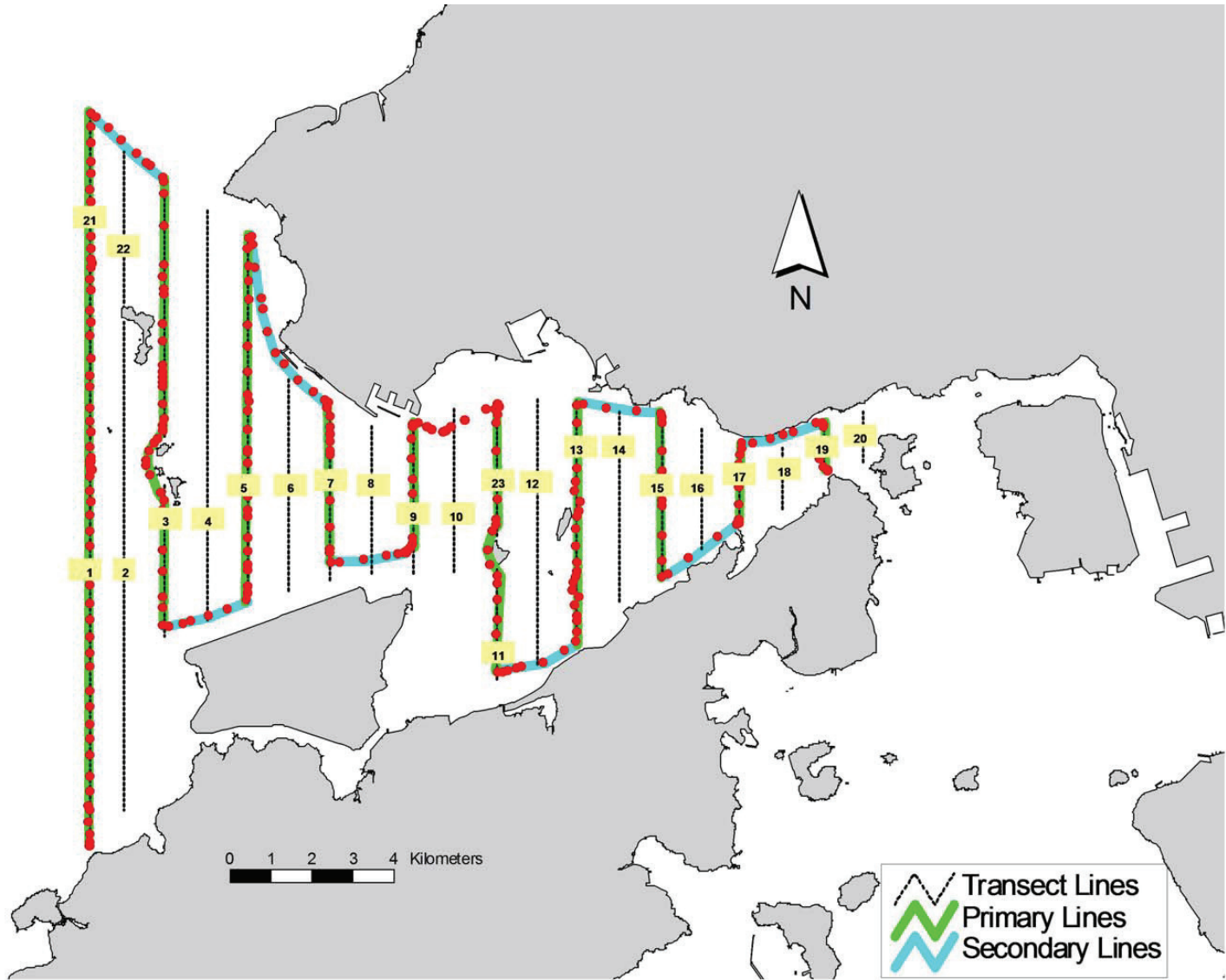


Figure 6. Survey Route on July 21st, 2014 (from HKLR03 project)

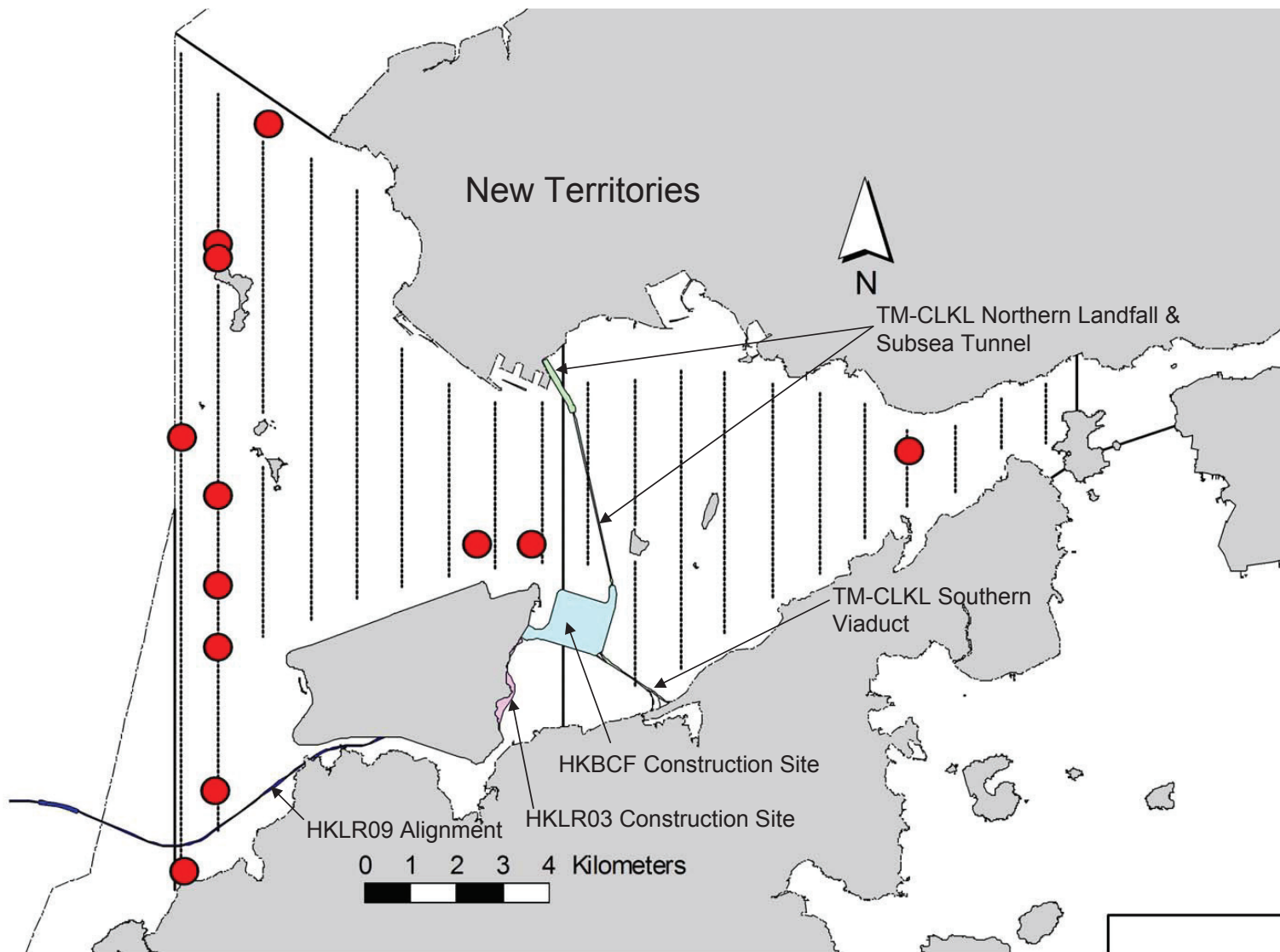


Figure 7. Distribution of Chinese White Dolphin Sightings during July 2014 HKLR03 Monitoring Surveys

Appendix I. HKLR03 Survey Effort Database (July 2014)

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

DATE	AREA	BEAU	EFFORT	SEASON	VESSEL	TYPE	P/S
3-Jul-14	NE LANTAU	2	1.89	SUMMER	STANDARD31516	HKLR	P
3-Jul-14	NE LANTAU	2	2.14	SUMMER	STANDARD31516	HKLR	S
3-Jul-14	NW LANTAU	2	7.87	SUMMER	STANDARD31516	HKLR	P
3-Jul-14	NW LANTAU	3	23.09	SUMMER	STANDARD31516	HKLR	P
3-Jul-14	NW LANTAU	4	5.90	SUMMER	STANDARD31516	HKLR	P
3-Jul-14	NW LANTAU	2	2.90	SUMMER	STANDARD31516	HKLR	S
3-Jul-14	NW LANTAU	3	7.84	SUMMER	STANDARD31516	HKLR	S
3-Jul-14	NW LANTAU	4	0.60	SUMMER	STANDARD31516	HKLR	S
9-Jul-14	NW LANTAU	1	1.80	SUMMER	STANDARD31516	HKLR	P
9-Jul-14	NW LANTAU	2	9.28	SUMMER	STANDARD31516	HKLR	P
9-Jul-14	NW LANTAU	2	3.22	SUMMER	STANDARD31516	HKLR	S
10-Jul-14	NW LANTAU	1	8.81	SUMMER	STANDARD31516	HKLR	P
10-Jul-14	NW LANTAU	2	12.85	SUMMER	STANDARD31516	HKLR	P
10-Jul-14	NW LANTAU	3	2.29	SUMMER	STANDARD31516	HKLR	P
10-Jul-14	NW LANTAU	1	0.73	SUMMER	STANDARD31516	HKLR	S
10-Jul-14	NW LANTAU	2	6.69	SUMMER	STANDARD31516	HKLR	S
10-Jul-14	NE LANTAU	1	14.94	SUMMER	STANDARD31516	HKLR	P
10-Jul-14	NE LANTAU	2	16.33	SUMMER	STANDARD31516	HKLR	P
10-Jul-14	NE LANTAU	3	6.20	SUMMER	STANDARD31516	HKLR	P
10-Jul-14	NE LANTAU	1	3.93	SUMMER	STANDARD31516	HKLR	S
10-Jul-14	NE LANTAU	2	6.90	SUMMER	STANDARD31516	HKLR	S
10-Jul-14	NE LANTAU	3	0.80	SUMMER	STANDARD31516	HKLR	S
14-Jul-14	NW LANTAU	2	19.59	SUMMER	STANDARD31516	HKLR	P
14-Jul-14	NW LANTAU	3	11.09	SUMMER	STANDARD31516	HKLR	P
14-Jul-14	NW LANTAU	2	2.05	SUMMER	STANDARD31516	HKLR	S
14-Jul-14	NW LANTAU	3	3.80	SUMMER	STANDARD31516	HKLR	S
14-Jul-14	NW LANTAU	4	0.93	SUMMER	STANDARD31516	HKLR	S
14-Jul-14	NE LANTAU	1	2.00	SUMMER	STANDARD31516	HKLR	P
14-Jul-14	NE LANTAU	2	14.57	SUMMER	STANDARD31516	HKLR	P
14-Jul-14	NE LANTAU	3	2.40	SUMMER	STANDARD31516	HKLR	P
14-Jul-14	NE LANTAU	4	1.20	SUMMER	STANDARD31516	HKLR	P
14-Jul-14	NE LANTAU	2	10.51	SUMMER	STANDARD31516	HKLR	S
14-Jul-14	NE LANTAU	3	0.30	SUMMER	STANDARD31516	HKLR	S
21-Jul-14	NW LANTAU	1	5.90	SUMMER	STANDARD31516	HKLR	P
21-Jul-14	NW LANTAU	2	31.10	SUMMER	STANDARD31516	HKLR	P
21-Jul-14	NW LANTAU	3	3.70	SUMMER	STANDARD31516	HKLR	P
21-Jul-14	NW LANTAU	2	7.90	SUMMER	STANDARD31516	HKLR	S
21-Jul-14	NW LANTAU	3	4.90	SUMMER	STANDARD31516	HKLR	S
21-Jul-14	NE LANTAU	1	2.80	SUMMER	STANDARD31516	HKLR	P
21-Jul-14	NE LANTAU	2	13.70	SUMMER	STANDARD31516	HKLR	P
21-Jul-14	NE LANTAU	2	10.70	SUMMER	STANDARD31516	HKLR	S

Appendix II. HKLR03 Chinese White Dolphin Sighting Database (July 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
03-Jul-14	1	0958	4	NE LANTAU	2	317	ON	HKLR	823230	820459	SUMMER	NONE	P
03-Jul-14	2	1302	4	NW LANTAU	3	ND	OFF	HKLR	821327	811071	SUMMER	NONE	
03-Jul-14	3	1642	2	NW LANTAU	3	161	ON	HKLR	814628	804722	SUMMER	NONE	P
10-Jul-14	1	1110	5	NW LANTAU	2	588	ON	HKLR	827483	805459	SUMMER	NONE	P
10-Jul-14	2	1150	5	NW LANTAU	2	0	ON	HKLR	829928	806565	SUMMER	NONE	S
14-Jul-14	1	1022	3	NW LANTAU	2	572	ON	HKLR	816276	805395	SUMMER	NONE	P
14-Jul-14	2	1036	1	NW LANTAU	2	866	ON	HKLR	819222	805442	SUMMER	NONE	P
14-Jul-14	3	1044	5	NW LANTAU	2	118	ON	HKLR	820484	805434	SUMMER	NONE	P
14-Jul-14	4	1105	7	NW LANTAU	2	471	ON	HKLR	822311	805448	SUMMER	NONE	P
14-Jul-14	5	1144	2	NW LANTAU	2	819	ON	HKLR	827173	805448	SUMMER	NONE	P
21-Jul-14	1	1113	1	NW LANTAU	2	694	ON	HKLR	823509	804668	SUMMER	NONE	P
21-Jul-14	2	1436	2	NW LANTAU	2	325	ON	HKLR	821325	812267	SUMMER	NONE	S

Appendix III. Individual dolphins identified during HKLR03 monitoring surveys in July 2014

ID#	DATE	STG#	AREA
CH34	10/07/14	1	NW LANTAU
NL80	14/07/14	4	NW LANTAU
NL93	10/07/14	1	NW LANTAU
NL123	03/07/14	1	NE LANTAU
NL139	03/07/14	1	NE LANTAU
NL145	14/07/14	3	NW LANTAU
NL182	10/07/14	2	NW LANTAU
NL210	10/07/14	2	NW LANTAU
NL247	14/07/14	4	NW LANTAU
NL261	03/07/14	1	NE LANTAU
NL285	03/07/14	1	NE LANTAU
NL287	14/07/14	3	NW LANTAU
NL300	14/07/14	4	NW LANTAU
NL301	14/07/14	4	NW LANTAU
WL30	10/07/14	1	NW LANTAU
WL124	03/07/14	3	NW LANTAU



Appendix IV. Photographs of Identified Individual Dolphins in July 2014 (HKLR03)



Appendix IV. (cont'd)

Appendix L

Event Action Plan

Appendix L1 *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 L2 Event/ Action Plan for Construction Noise

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

Appendix L3 *Event/ Action Plan for Water Quality*

Event	ET Leader	IEC	SOR	Contractor
Action level being exceeded by one sampling day	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 L4 Implementation of Event-Action Plan for Dolphin Monitoring

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

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

Appendix L5 Event and Action Plan on Dolphin Acoustic Behaviour

EVENT	ACTION			
	ET Leader	IEC	SO	Contractor
<u>Action Level</u>				
With the numerical values presented in <i>Table 5.7</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 M

Monthly Summary of Waste Flow Table

Contract No. : HY/2012/07

Tuen Mun Chek Lap Kok Link – Southern Connection Viaduct Section

Monthly Summary Waste Flow Table for 2014 (Year)

Month\Material	Actual Quantities of Inert C&D Materials Generation						Actual Quantities of C&D wastes Generation					Actual Quantities of Recyclables Generation			
	Total Quantity Generated	Hard Rock and Large Broken Concrete	Reused in the Contract	Reused in other Projects	Disposed as Public Fills	Imported Fill	Marine Sediment, Cat. L	Marine Sediment, Cat. Mp	Marine Sediment, Cat. Mf	Chemical Waste	General Refuse	Metals	Felled trees	Paper/ cardboard packaging	Plastics
Unit	('000m ³)	('000m ³)	('000m ³)	('000m ³)	('000m ³)	('000m ³)	('000m ³)	('000m ³)	('000m ³)	('000Kg)	('000Kg)	('000Kg)	('000Kg)	('000Kg)	('000Kg)
Jan	0.138	0.011	0.108	-	0.030	-	-	-	-	22.380	-	10.240	-	-	-
Feb	4.809	0.010	0.124	-	0.010	4.674	-	-	-	10.670	-	0.780	-	-	-
Mar	3.279	0.009	0.960	-	0.221	2.098	-	-	0.275	12.390	-	46.050	-	-	-
Apr	1.111	0.000	0.080	-	0.118	0.914	-	-	-	87.650	-	15.760	-	-	-
May	2.038	-	0.040	-	1.546	0.451	0.386	-	-	98.030	-	8.460	0.126	-	-
Jun	3.050	0.025	0.120	2.473	0.357	0.099	0.338	0.267	0.055	77.290	-	20.980	0.140	-	-
SUB-TOTAL	14.426	0.055	1.432	2.473	2.283	8.237	0.724	0.267	0.055	0.275	308.410	-	102.270	0.266	-
Jul	4.829	0.129	0.08	-	4.654	0.095	0.847	0.252	0.051	87.810	-	27.370	0.126	-	-
Aug															
Sep															
Oct															
Nov															
Dec															
TOTAL	19.255	0.184	1.512	2.473	6.937	8.332	1.571	0.519	0.106	0.275	396.220	-	129.640	0.392	-

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 N

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

Appendix N1 Cumulative Statistics on Exceedances

		Total No. recorded in this reporting month	Total No. recorded since project commencement
1-Hr TSP	Action	0	0
	Limit	0	0
24-Hr TSP	Action	0	2
	Limit	0	0
Noise	Action	0	0
	Limit	0	0
Water Quality	Action	0	1
	Limit	0	0
Impact Dolphin Monitoring	Action	0	3
	Limit	0	0

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

Reporting Period	Cumulative Statistics		
	Complaints	Notifications of Summons	Successful Prosecutions
This Reporting Month (July 2014)	0	0	0
Total No. received since project commencement	2	0	0



ENVIRONMENTAL COMPLAINT/ ENQUIRY FORM

Complaint/ Enquiry Received*

Date: 23 June 2014

Time: Undisclosed

From: EPD

Via: facsimile

Complainant/ Enquirer*:

Name: Undisclosed

Tel: Undisclosed

Address: Undisclosed

Media: ~~Dust~~ Noise Water Quality ~~Other~~

Description: A complaint was received on 23 June 2014 regarding the muddy water was discharged from the construction site next to Pak Mong village of Tuen Mun-Chek Lap Kok Link-Southern Viaduct Section on to the nearby storm drains.

Investigation Report & Response

Result of Investigation

After receiving the complaint log, the construction activities were checked and reviewed with appropriate follow-up actions conducted by the Contractor. Paving works were being undertaken on 23 June 2014. No slope works or soil generation works were recorded to be undertaken by the Contractor.

An initial investigation was conducted on 25 June by ET with EPD, Contractor and SOR. Based on the weather information from the Hong Kong Observatory (HKO), heavy rain was recorded on 23 June 2014 (*Figure 1.1*). Rain water was found accumulating in the Site Access 9A (*Figure 1.2*) which was probably related to the heavy rain. Besides direct rainfall, the construction site was next to a slope which was partly unpaved. Soil was suspected to be flushed from the slope. However, there was no evidence that the accumulated muddy water was being discharged from the site.

The following actions had been undertaken by the Contractor to deal with the accumulation of muddy water before receiving the complaint (*Figure 1.3*):

- A set of waste water treatment plant was being established. Any runoff in the Site Access 9A was pumped to the temporary sedimentation tank.
- Unpaved area and exposed slope had been covered by tarpaulin sheet to prevent direct flushing by rainfall.
- Clearing of mud and soil residue had been performed constantly on site.

Mitigation Measures and Follow-Up Actions Recommended to Contractor

The follow-up actions listed below were being undertaken by the Contractor after receiving the complaint (Figure 1.4):

- Muddy water that was accumulated at the Site Access 9A due to the heavy rainfall was removed off-site by licensed suction tanker.
- Water sample from the treatment plant was taken for suspended solid analysis to ensure the effluent quality was in compliance with the discharge licence conditions.
- The slope next to the storm drains had been hydro-seeded which aimed at stabilizing the soil on the slope.

After the complaint investigation, the following recommendations were proposed to the Contractor:

- The Contractor was reminded to conduct the environmental protection measures in EM&A Manual, in particularly those related to land works of the Contract (please refer to Appendix A of the EM&A Manual for details of water quality mitigation measures related to land works). No waste water should be discharged until the water quality can fulfill the requirement of the Waste Water Discharge License.
- As the rainy season has approached, similar situation of accumulation of muddy water may occur again in the construction site. The Contractor was reminded to ensure their works strictly comply with the Water Pollution Control Ordinance (WPCO) license conditions.
- The Contractor was recommended to introduce a high volume waste water treatment system which is capable of handling waste water due to continuous heavy rainfall.

Follow-up Investigation Report

Result of Investigation

According to HKO record, heavy rainfall was recorded on 10 July (Figure 1.5). Investigation was thus conducted afterwards by ET with EPD, Contractor and SOR to check if the precaution measures were implemented appropriately and effectively (Figure 1.6).

Observations were as follow:

- No accumulation or illegal discharge of muddy water was observed after heavy rainfall.
- Muddy water from rainfall was collected into the sedimentation tank for water treatment.
- The water treatment plant was considered able to handle muddy water generated from heavy rainfall. It will be deployed until the end of rainy season or longer if necessary.

Site Access 9B (adjacent to the same slope at) was also visited. A set of water treatment plant was established to avoid muddy water generated by rainfall (Figure 1.7). Lack of precaution measures was not identified at Site Access 9B.

Overall, no non-compliance was identified in the investigation of the complaint. The onsite precaution measures were implemented appropriately.

Date of File Closed : 30 July 2014

Approved and Filed by:



(Jovy Tam, ET Leader)

Date: 30 July 2014

Figure 1.1 Rainfalls from 22 to 23 June 2014

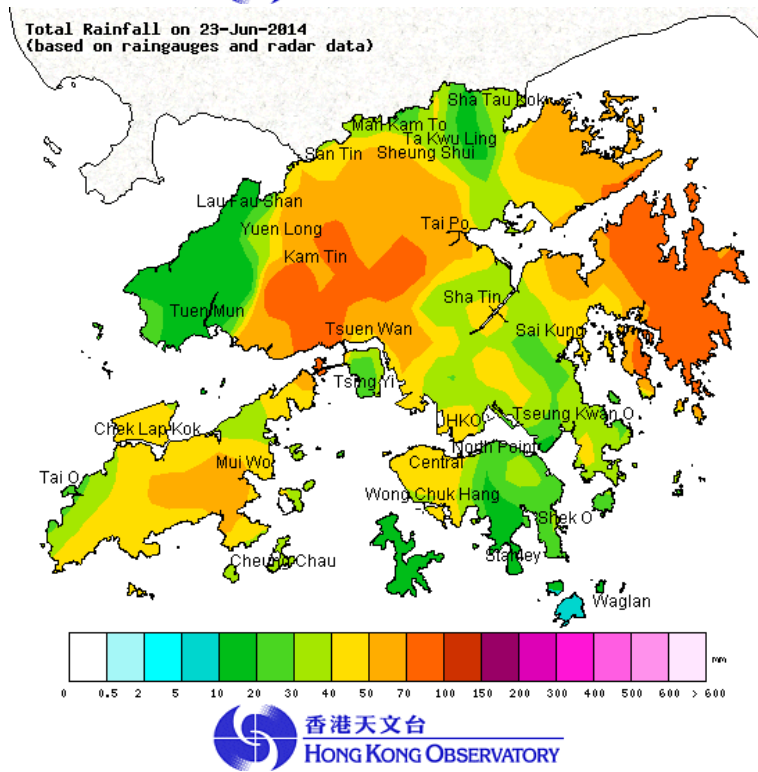
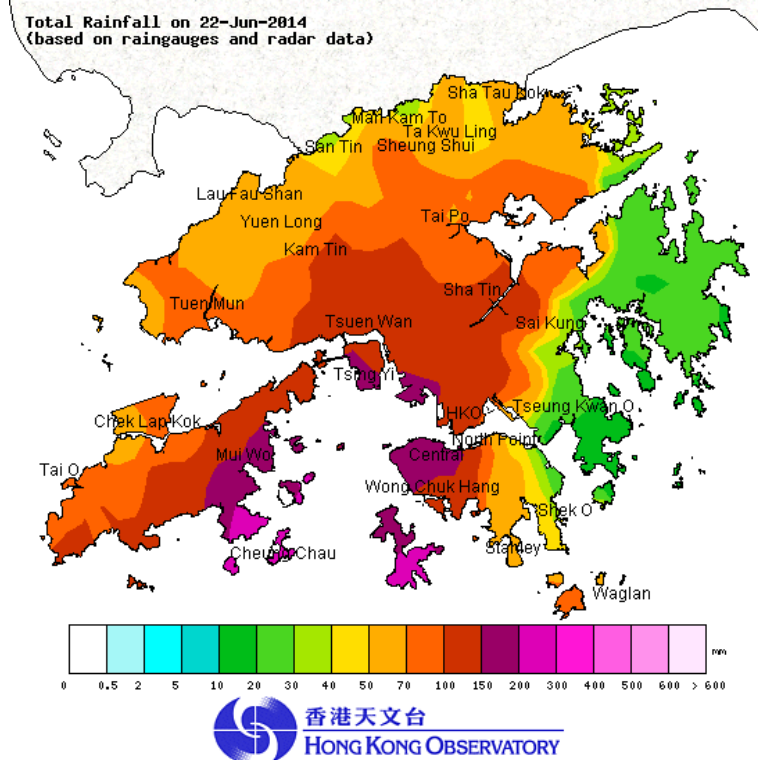


Figure 1.2

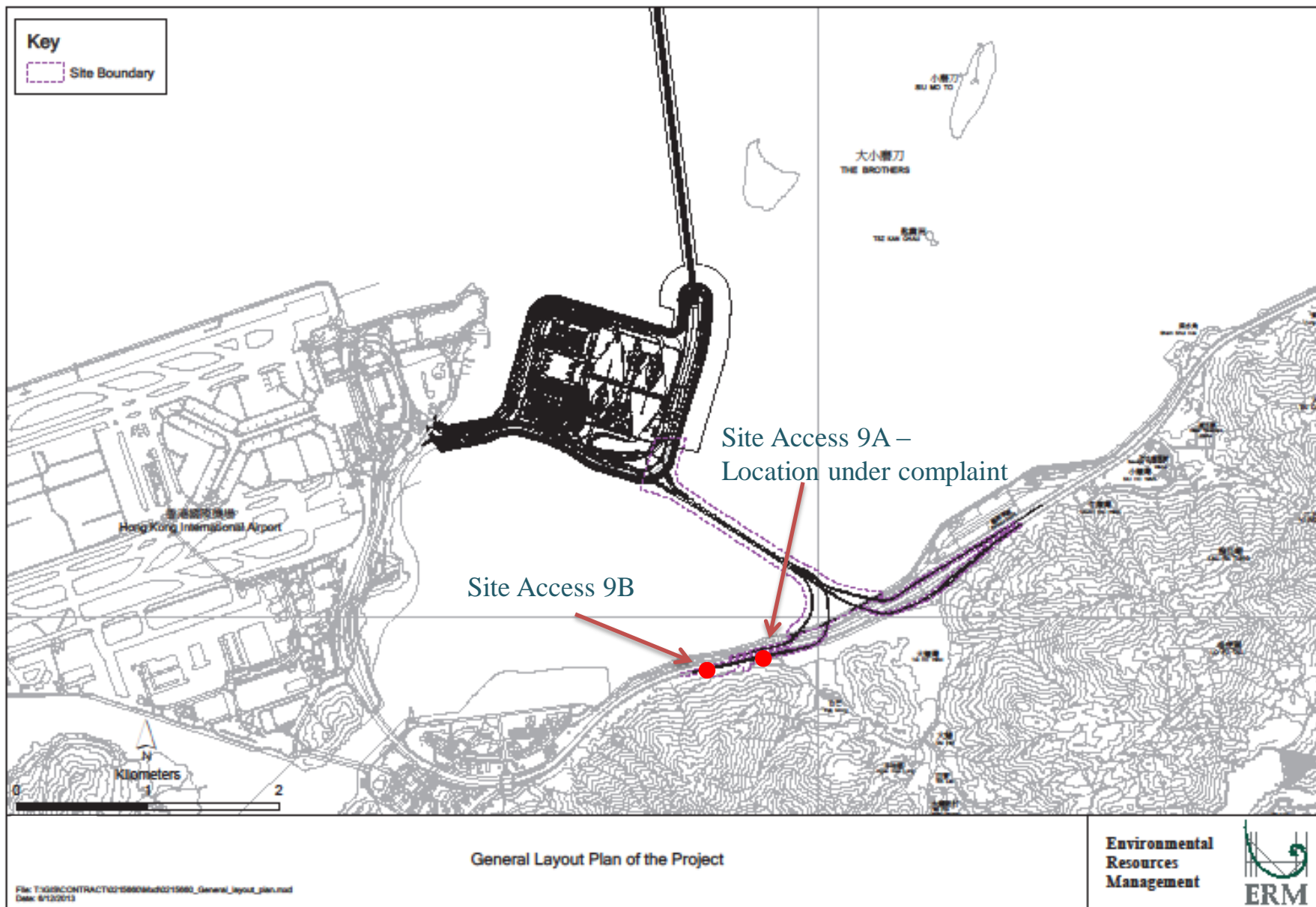


Figure 1.3 Measures undertaken by the Contractor to deal with the accumulation of muddy water before receiving the complaint (Photos taken on 25 June 2014)

Water treatment plant



Tarpaulin sheet cover



General mud and soil removal



Figure 1.4 Follow-up actions undertaken by the Contractor after receiving the complaint (Photos taken on 26 June 2014)

Water sample for Suspended Solid analysis



Hydro-seeding at unpaved slope

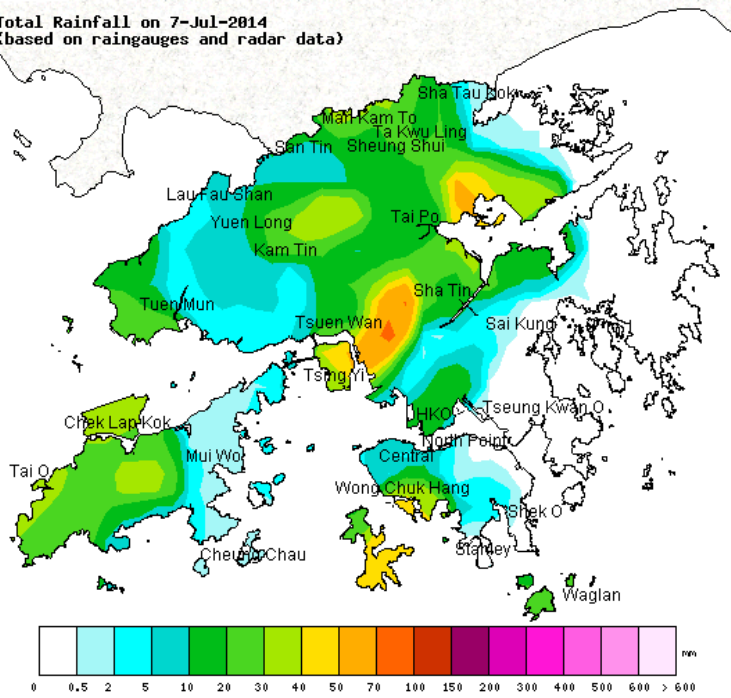


Hydro-seeding at unpaved slope nearby drainage



Figure 1.5 Rainfall on 10 July 2014

Total Rainfall on 7-Jul-2014
(based on raingauges and radar data)



Figures 1.6 Follow-up investigation (Photos taken on 10 July 2014)

Collection of muddy water



Water Treatment plant



Figure 1.7 Inspections at Site Access 9B (Photo taken on 10 July 2014)

Water treatment plant

