

**Contract No. HY/2012/08  
Tuen Mun – Chek Lap Kok Link –  
Northern Connection Sub-sea Tunnel  
Section**

*Third Monthly Environmental Monitoring &  
Audit (EM&A) Report*

12 February 2014

**Environmental Resources Management**  
16/F, DCH Commercial Centre  
25 Westlands Road  
Quarry Bay, Hong Kong  
Telephone 2271 3000  
Facsimile 2723 5660

[www.erm.com](http://www.erm.com)

# Contract No. HY/2012/08





## Tuen Mun – Chek Lap Kok Link – Northern Connection Sub-sea Tunnel Section

**Environmental Resources Management**

16/F, DCH Commercial Centre  
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

*Third Monthly Environmental Monitoring & Audit (EM&A) Report*

**Document Code: 0212330\_3rd Monthly EM&A\_20140212.doc**

Client:  DBJV		Project No:  0212330			
Summary:  This document presents the Third Monthly EM&A Report for Tuen Mun – Chek Lap Kok Link Northern Connection Sub-sea Tunnel Section.		Date: 12 February 2014			
		Approved by:  			
		Mr Craig Reid Partner			
		Certified by:  			
		Mr Jovy Tam ET Leader			
	3 <sup>rd</sup> Monthly EM&A Report	VAR	JT	CAR	12/02/14
Revision	Description	By	Checked	Approved	Date
<p>This report has been prepared by Environmental Resources Management the trading name of 'ERM Hong-Kong, Limited', with all reasonable skill, care and diligence within the terms of the Contract with the client, incorporating our General Terms and Conditions of Business and taking account of the resources devoted to it by agreement with the client.</p> <p>We disclaim any responsibility to the client and others in respect of any matters outside the scope of the above.</p>		<p>Distribution</p> <p><input type="checkbox"/> Internal</p> <p><input checked="" type="checkbox"/> Public</p> <p><input type="checkbox"/> Confidential</p>			
		 			

Ref.: HYDHZMBEEM00\_0\_1677L.14

14 February 2014

AECOM  
Supervising Officer Representative's Office  
Room 201, 2<sup>nd</sup> Floor,  
River Trade Terminal Office Building,  
201 Lung Mun Road, Tuen Mun, Hong Kong

By Fax (2450 3099) and By Post

Attention: Messrs. Edwin Ching / Andy Westmorelan

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/2012/08 TM-CLKL Northern Connection Sub-sea Tunnel Section  
Monthly EM&A Report for January 2014 (EP-354/2009/B)**

Reference is made to the Third Monthly Environmental Monitoring and Audit (EM&A) Report (for January 2014) certified by the ET Leader (ET's ref.: "0212330\_3rd Monthly EM&A\_20140212.doc" dated 12 February 2014) and provided to us via email on 13 February 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,



Tony Cheng  
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)  
Dragages – Mr. C.F. Kwong (By Fax: 2670 2798)

Internal: DY, YH, PL, ENPO Site

T:\Projects\HYDHZMBEEM00\02\_Proj\_Mgt\02\_Corr\HYDHZMBEEM00\_0\_1677L.14.doc

## TABLE OF CONTENTS

	<i>EXECUTIVE SUMMARY</i>	<i>I</i>
<i>1</i>	<i>INTRODUCTION</i>	<i>1</i>
<i>1.1</i>	<i>BACKGROUND</i>	<i>1</i>
<i>1.2</i>	<i>SCOPE OF REPORT</i>	<i>2</i>
<i>1.3</i>	<i>ORGANIZATION STRUCTURE</i>	<i>2</i>
<i>1.4</i>	<i>SUMMARY OF CONSTRUCTION WORKS</i>	<i>2</i>
<i>2</i>	<i>EM&amp;A RESULTS</i>	<i>5</i>
<i>2.1</i>	<i>AIR QUALITY</i>	<i>5</i>
<i>2.2</i>	<i>WATER QUALITY MONITORING</i>	<i>7</i>
<i>2.3</i>	<i>DOLPHIN MONITORING</i>	<i>8</i>
<i>2.4</i>	<i>EM&amp;A SITE INSPECTION</i>	<i>12</i>
<i>2.5</i>	<i>WASTE MANAGEMENT STATUS</i>	<i>14</i>
<i>2.6</i>	<i>ENVIRONMENTAL LICENSES AND PERMITS</i>	<i>14</i>
<i>2.7</i>	<i>IMPLEMENTATION STATUS OF ENVIRONMENTAL MITIGATION MEASURES</i>	<i>16</i>
<i>2.8</i>	<i>SUMMARY OF EXCEEDANCES OF THE ENVIRONMENTAL QUALITY PERFORMANCE LIMIT</i>	<i>16</i>
<i>2.9</i>	<i>SUMMARY OF COMPLAINTS, NOTIFICATION OF SUMMONS AND SUCCESSFUL PROSECUTIONS</i>	<i>16</i>
<i>3</i>	<i>FUTURE KEY ISSUES</i>	<i>17</i>
<i>3.1</i>	<i>CONSTRUCTION PROGRAMME FOR THE COMING MONTHS</i>	<i>17</i>
<i>3.2</i>	<i>KEY ISSUES FOR THE COMING MONTH</i>	<i>17</i>
<i>3.3</i>	<i>MONITORING SCHEDULE FOR THE COMING MONTH</i>	<i>17</i>
<i>4</i>	<i>CONCLUSIONS AND RECOMMENDATIONS</i>	<i>18</i>
<i>4.1</i>	<i>CONCLUSIONS</i>	<i>18</i>
<i>4.2</i>	<i>RECOMMENDATIONS</i>	<i>18</i>



<i>APPENDIX A</i>	<i>PROJECT ORGANIZATION</i>
<i>APPENDIX B</i>	<i>THREE MONTHS PROGRAMME</i>
<i>APPENDIX C</i>	<i>ENVIRONMENTAL MITIGATION AND ENHANCEMENT MEASURE IMPLEMENTATION SCHEDULES (EMIS)</i>
<i>APPENDIX D</i>	<i>ACTION AND LIMIT LEVELS</i>
<i>APPENDIX E</i>	<i>CALIBRATION CERTIFICATE</i>
<i>APPENDIX F</i>	<i>MONITORING SCHEDULE</i>
<i>APPENDIX G</i>	<i>AIR QUALITY MONITORING RESULTS</i>
<i>APPENDIX H</i>	<i>METEOROLOGICAL DATA</i>
<i>APPENDIX I</i>	<i>WATER QUALITY MONITORING RESULTS</i>
<i>APPENDIX J</i>	<i>IMPACT DOLPHIN MONITORING</i>
<i>APPENDIX K</i>	<i>EVENT AND ACTION PLAN</i>
<i>APPENDIX L</i>	<i>CUMULATIVE STATISTICS ON EXCEEDANCE AND COMPLAINT</i>
<i>APPENDIX M</i>	<i>WASTE FLOW TABLE</i>

## **EXECUTIVE SUMMARY**

Under *Contract No. HY/2012/08*, Dragages – Bouygues Joint Venture (DBJV) is commissioned by the Highways Department (HyD) to undertake the design and construction of the Northern Connection Sub-sea Tunnel 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) in accordance with *Environmental Permit No. EP-354/2009/A*. ENVIRON Hong Kong Ltd. was employed by HyD as the Independent Environmental Checker (IEC) and Environmental Project Office (ENPO). Another application for variation of environmental permit (VEP) (*EP-354/2009/B*) was granted on 28 January 2014.

The construction phase of the Project under the *EP-354/2009/A* and the subsequent VEP (*EP-354/2009/B*) commenced on 1 November 2013 and will tentatively be completed by the end of 2018. The impact monitoring of the EM&A programme, including air quality, water quality, marine ecological monitoring and environmental site inspections, were commenced on 1 November 2013.

This is the third monthly EM&A report presenting the EM&A works carried out during the period from 1 to 31 January 2014 for the *Contract No. HY/2012/08 Northern Connection Sub-sea Tunnel Section* (the “Project”) 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*

- Dredging and Reclamation;
- Vertical Seawall construction;
- Sloping Seawall construction;
- Marine Sheet Piling for Box Culvert extension; and
- Predrilling for Box culvert Foundation.

### *Land-based Works*

- Site office construction;
- CLP Substation Footing & underground utilities works; and
- CLP Substation Superstructure.

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

24-hour TSP Monitoring	6 sessions
1-hour TSP Monitoring	6 sessions
Impact Water Quality Monitoring	13 sessions
Impact Dolphin Monitoring	2 sessions
Joint Environmental Site Inspection	4 sessions

Daily marine mammal exclusion zone monitoring was undertaken during the period of dredging works. No sighting of the Indo-Pacific humpback dolphin *Sousa chinensis* was recorded in January 2014 during the exclusion zone monitoring.

#### Summary of Breaches of Action/Limit Levels

##### *Breaches of Action and Limit Levels for Air Quality*

Seven Action Level of 1-hr TSP exceedances and one Action Level of 24-hr TSP exceedance for air quality were recorded during the reporting month. The exceedances were considered not related to the construction works of this Contract upon further investigation.

##### *Breaches of Action and Limit Levels for Water Quality*

No exceedances were recorded during the reporting month.

##### *Dolphin Monitoring*

During this month of dolphin monitoring, no unacceptable impact from the construction activities of the TM-CLKL Northern Connection Sub-sea Tunnel 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 unacceptable impacts on dolphins have been detected related to the construction activities of the TM-CLKL Northern Connection Sub-sea 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.

#### Environmental Complaints, Non-compliance & Summons

No non-compliance with EIA recommendations, EP conditions and other requirements associated with the construction of this Contract was recorded in this reporting period.

No environmental complaint was received in this reporting period.

No environmental summons was received in this reporting period.

### 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 February 2014 include the following:

#### *Marine-based Works*

- Dredging and Reclamation;
- Vertical Seawall construction;
- Sloping Seawall construction;
- Marine Sheet Piling for Box Culvert extension; and
- Predrilling for Box culvert Foundation.

#### *Land-based Works*

- AECOM site office construction;
- CLP Substation Footing & underground utilities works; and
- CLP Substation Superstructure.

### Future Key Issues

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

## 1.1

## BACKGROUND

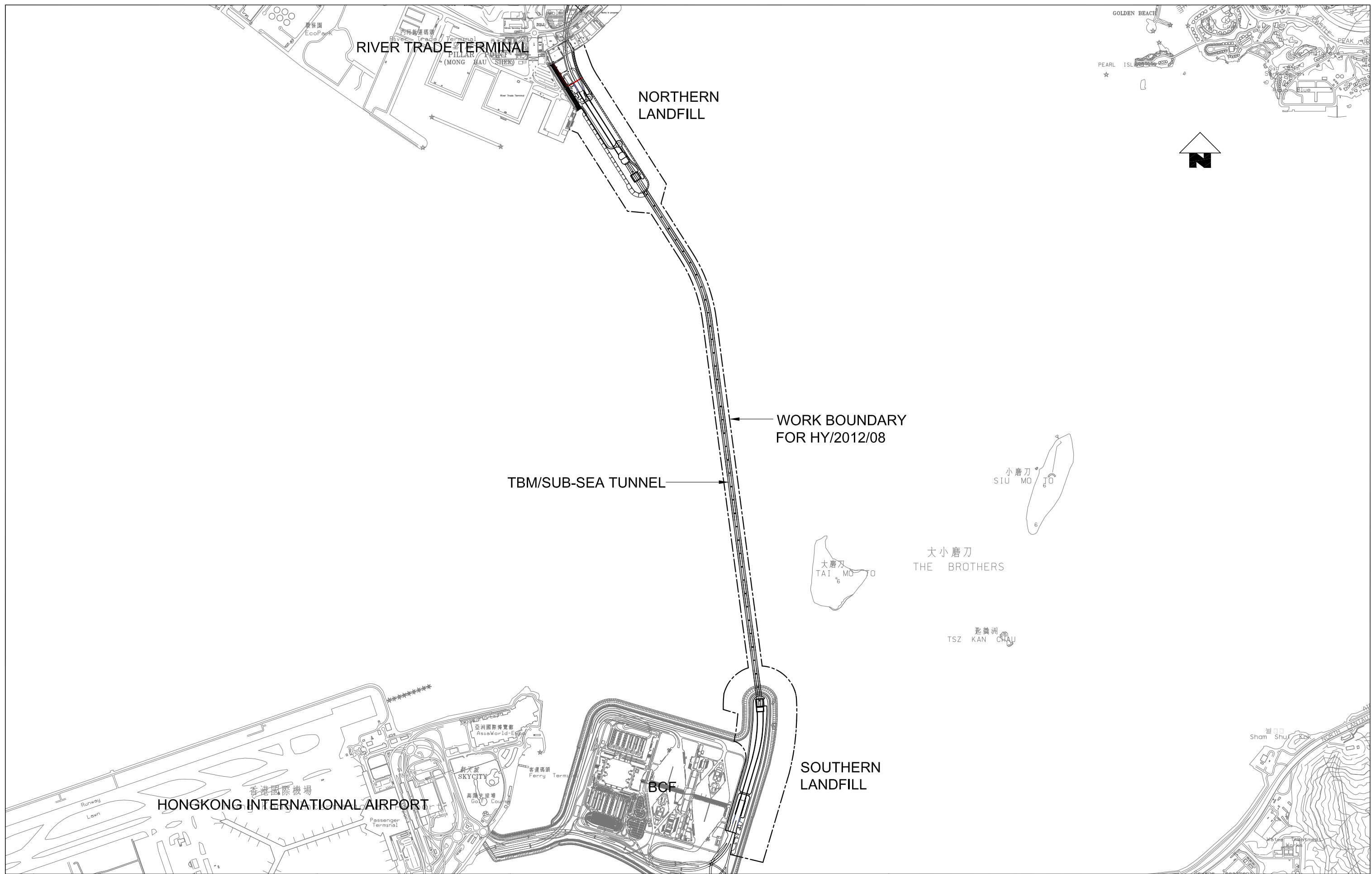
According to the findings of the Northwest New Territories (NWNT) Traffic and Infrastructure Review conducted by the Transport Department, Tuen Mun Road, Ting Kau Bridge, Lantau Link and North Lantau Highway would be operating beyond capacity after 2016. This forecast has been based on the estimated 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 (VEP) (EP-354/2009A) was issued on 8 December 2010. Another application for VEP (EP-354/2009/B) was granted on 28 January 2014.





Under *Contract No. HY/2012/08*, Dragages – Bouygues Joint Venture (DBJV) is commissioned by the Highways Department (HyD) to undertake the design and construction of the Northern Connection Sub-sea Tunnel 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) in accordance with Environmental Permit No. EP-354/2009/A and VEP (EP-354/2009/B). ENVIRON Hong Kong Ltd. was employed by HyD as the Independent Environmental Checker (IEC) and Environmental Project Office (ENPO).

Layout of the Contract components is presented in *Figure 1.1*.

The construction phase of the Contract commenced on 1 November 2013 and will tentatively be completed by 2018. The impact monitoring phase of the EM&A programme, including air quality, water quality, marine ecological monitoring and environmental site inspections, were commenced on 1 November 2013.



Designed By	PKV
Drawn By	DAI
Approved By	SPo
Date	11SEP2013
Rev.	Description
A	FIRST ISSUE
	11SEP13
	PKV
	Checked

Main Contractor	 
Client	
Contractor's Designer	



  
 A member of the Bouygues Construction group  
 Dragages - Bouygues Joint Venture 寶嘉 - 布依格聯營


  
 路政署  
 HIGHWAYS DEPARTMENT


 Ove Arup & Partners  
 Hong Kong Limited

Project Contract No. HY/2012/08  
 Tuen Mun - Chek Lap Kok Link -  
 Northern Connection Sub-Sea Tunnel Section  
 Drawing Title **Figure 1.1**

Drawing no.	TMCLKL8-DBJ-GEN-DWG-00174
Scale	1:25000 @ A3
CADD Ref.	TMCLKL8-DBJ-GEN-DWG-00174-DFT-A
Issue Status	DFT (DRAFT)
Revision	A

## 1.2 SCOPE OF REPORT

This is the third Monthly EM&A Report under the *Contract No. HY/2012/08 Tuen Mun – Chek Lap Kok Link – Northern Connection Sub-sea Tunnel Section*. This report presents a summary of the environmental monitoring and audit works in January 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*

<b>Party</b>	<b>Position</b>	<b>Name</b>	<b>Telephone</b>	<b>Fax</b>
SOR (AECOM Asia Company Limited)	Chief Resident	Edwin Ching	2450 3111	2450 3099
	Engineer	Andrew Westmoreland	2450 3511	2450 3099
ENPO / IEC (ENVIRON Hong Kong Ltd.)	ENPO Leader	Y.H. Hui	3465 2888	3465 2899
	IEC	Tony Cheng	3465 2888	3465 2899
Contractor (Dragages – Bouygues Joint Venture)	Environmental Manager	C.F. Kwong	2293 7322	2670 2798
	Environmental Officer	Bryan Lee	2293 7323	2670 2798
	24hour complaint hotline	Rachel Lam	2293 7342	
ET (ERM-HK)	ET Leader	Jovy Tam	2271 3113	2723 5660

## 1.4 SUMMARY OF CONSTRUCTION WORKS

The construction phase of this Contract was commenced on 1 November 2013. The three-month rolling construction programme is shown in *Appendix B*.

As per DBJV's information, details of major construction works carried out in this reporting period are as follows:

### *Marine-based Works*

- Dredging and Reclamation;
- Vertical Seawall construction;
- Sloping Seawall construction;
- Marine Sheet Piling for Box Culvert extension; and,



- Predrilling for Box culvert Foundation.

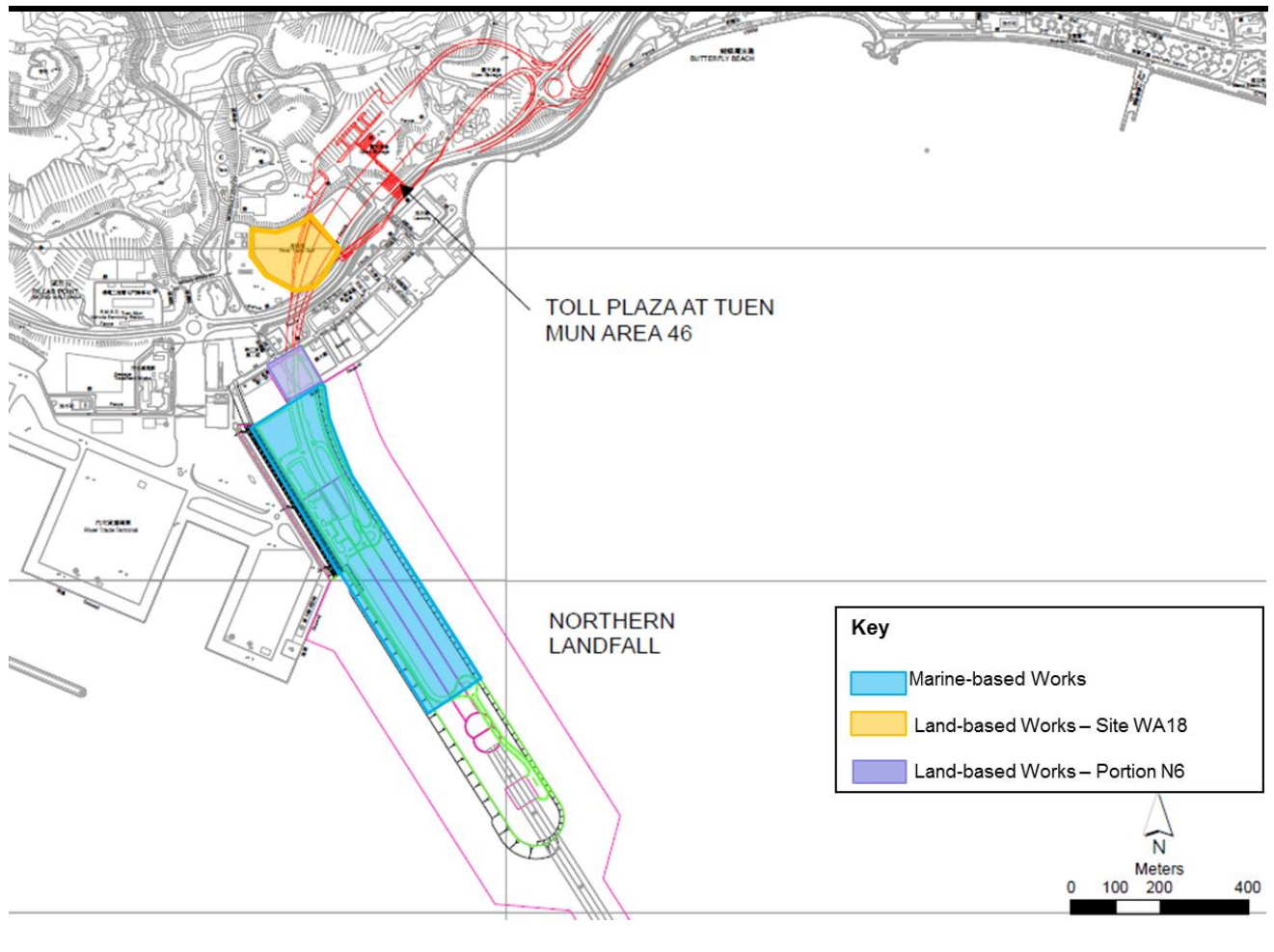
*Land-based Works*

- Site office construction;
- CLP Substation Footing & underground utilities works; and
- CLP Substation Superstructure.

The general layout plan of the site showing the detailed works areas is shown in *Figure 1.2*.

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

Figure 1.2 Locations of Construction Activities – January 2014



The EM&A programme required environmental monitoring for air quality, 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*.

High volume samplers (HVSs) were used to carry out the 1-hour and 24-hour TSP monitoring on 3, 9, 15, 21, 27 and 30 January 2014 at the five (5) air quality monitoring stations in accordance with the requirements stipulated in the Updated EM&A Manual (*Figure 2.1; Table 2.1*). Wind anemometer was installed at the rooftop of ASR5 for logging wind speed and wind direction. Details of the equipment deployed are provided in *Table 2.2*. Copies of the calibration certificates for the equipment are presented in *Appendix E*.

**Table 2.1** Locations of Impact Air Quality Monitoring Stations

Monitoring Station	Monitoring Dates	Location	Description	Parameters & Frequency
ASR1	3, 9, 15, 21, 27 and 30 January 2014	Tuen Mun Fireboat Station	Office	• 1-hour Total Suspended Particulates (1-hour TSP, $\mu\text{g}/\text{m}^3$ ), 3 times per day every 6 days
ASR5		Pillar Point Fire Station	Office	• 24-hour Total Suspended Particulates (24-hour TSP, $\mu\text{g}/\text{m}^3$ ), daily for 24-hour every 6 days
AQMS1		Previous River Trade Golf	Bare ground	
AQMS2/ ASR6*		Bare ground at Ho Suen Street/ Butterfly Beach Laundry*	Bare ground/ Office	
ASR10		Butterfly Beach Park	Recreational uses	

\*Notes: AQMS2 was relocated and HVS was re-installed at ASR6 (Butterfly Beach Laundry) on 17 January 2014. AQMS2 was then superseded by ASR6 for the impact air quality monitoring. Impact air quality monitoring at ASR6 commenced on 21 January 2014.



Figure 2.1

### Air Quality Monitoring Stations for the Enhanced TSP Monitoring

(\*Note: Relocation of AQMS2 to ASR6 was carried out on 17 January 2014 and the impact air quality monitoring was subsequently conducted at ASR6 from 21 January 2014.)

**Table 2.2 Air Quality Monitoring Equipment**

<b>Equipment</b>	<b>Brand and Model</b>
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 Anemometer	MetPak, WindSonic

**2.1.2 Monitoring Schedule for the Reporting Month**

The schedule for air quality monitoring in January 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. Detail impact air quality monitoring results and graphical presentations are presented in *Appendix G*.

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

<b>Station</b>	<b>Average (<math>\mu\text{g}/\text{m}^3</math>)</b>	<b>Range (<math>\mu\text{g}/\text{m}^3</math>)</b>	<b>Action Level (<math>\mu\text{g}/\text{m}^3</math>)</b>	<b>Limit Level (<math>\mu\text{g}/\text{m}^3</math>)</b>
ASR 1	252	95 - 419	331	500
ASR 5	242	108 - 423	340	500
AQMS1	219	107 - 336	335	500
AQMS2/ASR6	227	101 - 377	338	500
ASR10	154	60 - 324	337	500

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

<b>Station</b>	<b>Average (<math>\mu\text{g}/\text{m}^3</math>)</b>	<b>Range (<math>\mu\text{g}/\text{m}^3</math>)</b>	<b>Action Level (<math>\mu\text{g}/\text{m}^3</math>)</b>	<b>Limit Level (<math>\mu\text{g}/\text{m}^3</math>)</b>
ASR 1	150	104 - 175	213	260
ASR 5	149	77 - 197	238	260
AQMS1	170	140 - 228	213	260
AQMS2/ASR6	164	106 - 217	238	260
ASR10	110	71 - 166	214	260

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

A total of six monitoring events were undertaken in which seven Action Level exceedances of 1-hr TSP and one exceedance of 24-hr TSP were observed on 3, 15 and 27 January 2014.

The Event and Action plan is presented in *Appendix K*.

Meteorological information collected at the ASR5, including wind speed and wind direction, is provided in *Appendix H*.

## 2.2 WATER QUALITY MONITORING

### 2.2.1 Monitoring Requirements & Equipment

In accordance with the Updated EM&A Manual, impact water quality monitoring was carried out three days per week during the construction period at nine (9) water quality monitoring stations (*Figure 2.2; Table 2.5*). The Action and Limit Levels of the water quality monitoring is provided in *Appendix D*.

**Table 2.5** *Locations of Water Quality Monitoring Stations and the Corresponding Monitoring Requirements*

Station ID	Type	Coordinates		*Parameters, unit	Depth	Frequency
		Easting	Northing			
IS12	Impact Station	813218	823681	• Temperature(°C)	3 water depths: 1m	Impact monitoring: 3 days per week, at mid-flood and mid-ebb tides during the construction period of the Contract.
IS13	Impact Station	813667	824325	• pH(pH unit)	below sea surface,	
IS14	Impact Station	812592	824172	• Turbidity (NTU)	mid-depth and 1m	
IS15	Impact Station	813356	825008	• Water depth (m)	above sea bed. If	
CS4	Control / Far	810025	824004	• Salinity (ppt)	the water depth is	
	Field Station			• DO (mg/L and	less than 3m, mid-	
CS6	Control / Far	817028	823992	% of	depth sampling	
	Field Station			saturation)	only. If water	
SR8	Sensitive receiver (Gazettal beaches in Tuen Mun)	816306	825715	• SS (mg/L)	depth less than 6m, mid-depth may be omitted.	
SR9	Sensitive receiver (Butterfly Beach)	813601	825858			
SR10A	Sensitive receiver (Ma Wan FCZ)	823741	823495			

\*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 2.6* summarises the equipment used in the impact water quality monitoring programme. Copies of the calibration certificates are attached in *Appendix E*.

**Table 2.6** *Water Quality Monitoring Equipment*

Equipment	Model	Qty.
Water Sampler	Kahlsico Water-Bottle Model 135DW 150	4
Multi-parameter Water Quality System	YSI 6820-C-M/YSI 6920	6
Dissolved Oxygen Meter	YSI Pro 2030	1
pH Meter	HANNA HI 8314	1
Turbidity Meter	HACH 2100Q	1
Monitoring Position Equipment	"Magellan" Handheld GPS Model eXplorist GC DGPS Koden KGP913MK2 <sup>(1)</sup>	4 1



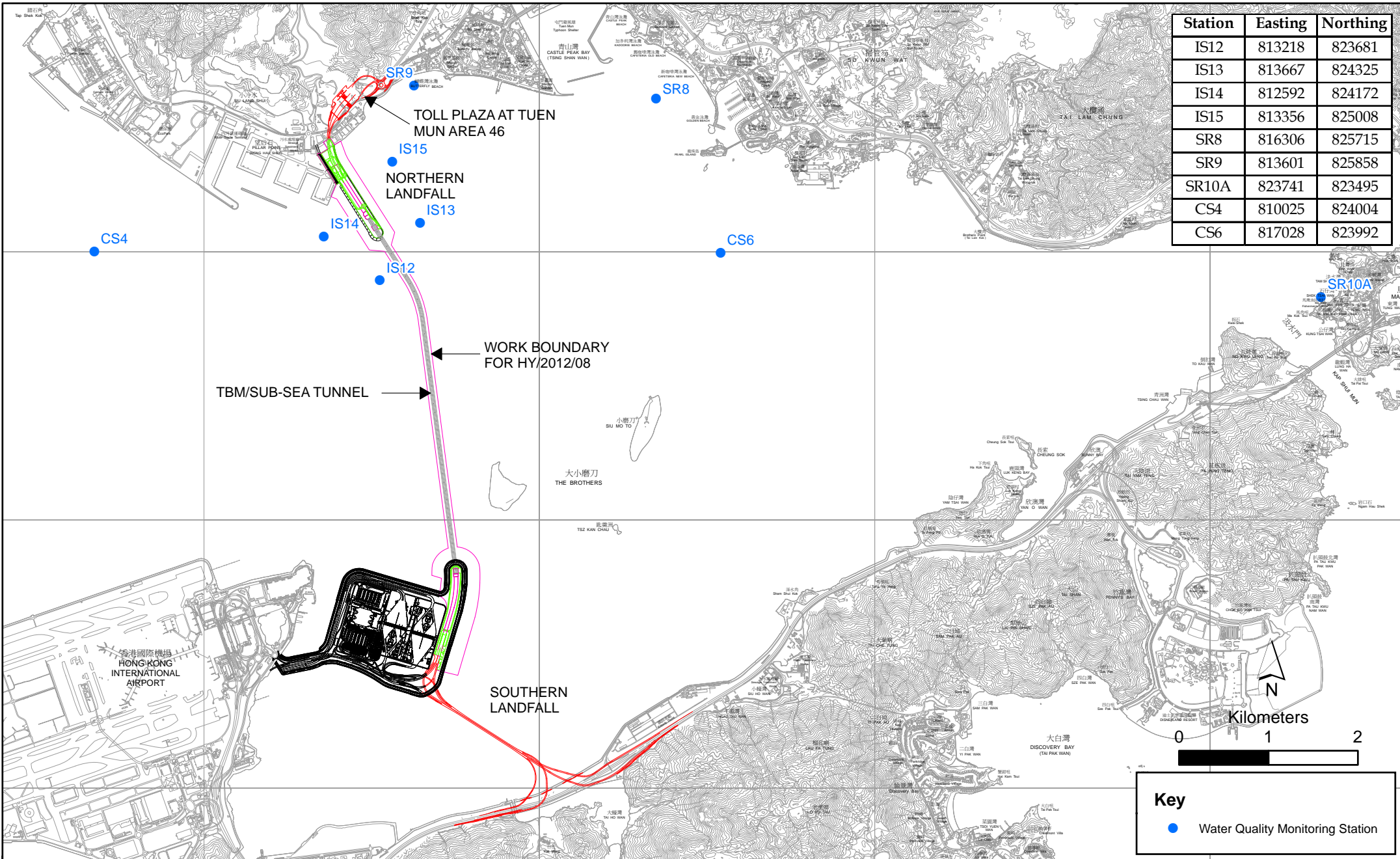


Figure 2.2

Water Quality Monitoring Station



## 2.2.2 *Action & Limit Levels*

The Action and Limit Levels for water quality monitoring are summarized in *Appendix D*.

## 2.2.3 *Monitoring Schedule for the Reporting Month*

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

## 2.2.4 *Results and Observations*

During this reporting period, marine dredging activities were undertaken at Portions N-A and N-B, whilst no dredging was undertaken on 31 January 2014. A closed grab dredger was used and silt curtains (cage-type and single floating type) were deployed during dredging works. The level of dredging activities was within the working rate described in the EP and the approved EIA Report. It is useful to note that heavy marine traffic (not associated with the Project) was commonly observed nearby the Project site and its vicinity.

Impact water quality monitoring was conducted at all designated monitoring stations in the reporting month. Detailed impact water quality monitoring results are presented in *Appendix I*.

A total of thirteen monitoring events were undertaken in which no exceedances was recorded.

## 2.3 *DOLPHIN MONITORING*

### 2.3.1 *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.

### 2.3.2 *Monitoring Equipment*

*Table 2.7* summarises the equipment used for the impact dolphin monitoring.

**Table 2.7** *Dolphin Monitoring Equipment*

<b>Equipment</b>	<b>Model</b>
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

**2.3.3** *Monitoring Parameter, Frequencies & Duration*

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

**2.3.4** *Monitoring Location*

The impact dolphin monitoring was carried out in the NEL and NWL along the line transect as depicted in *Figure 2.3*. The co-ordinates of all transect lines are shown in *Table 2.8* below.

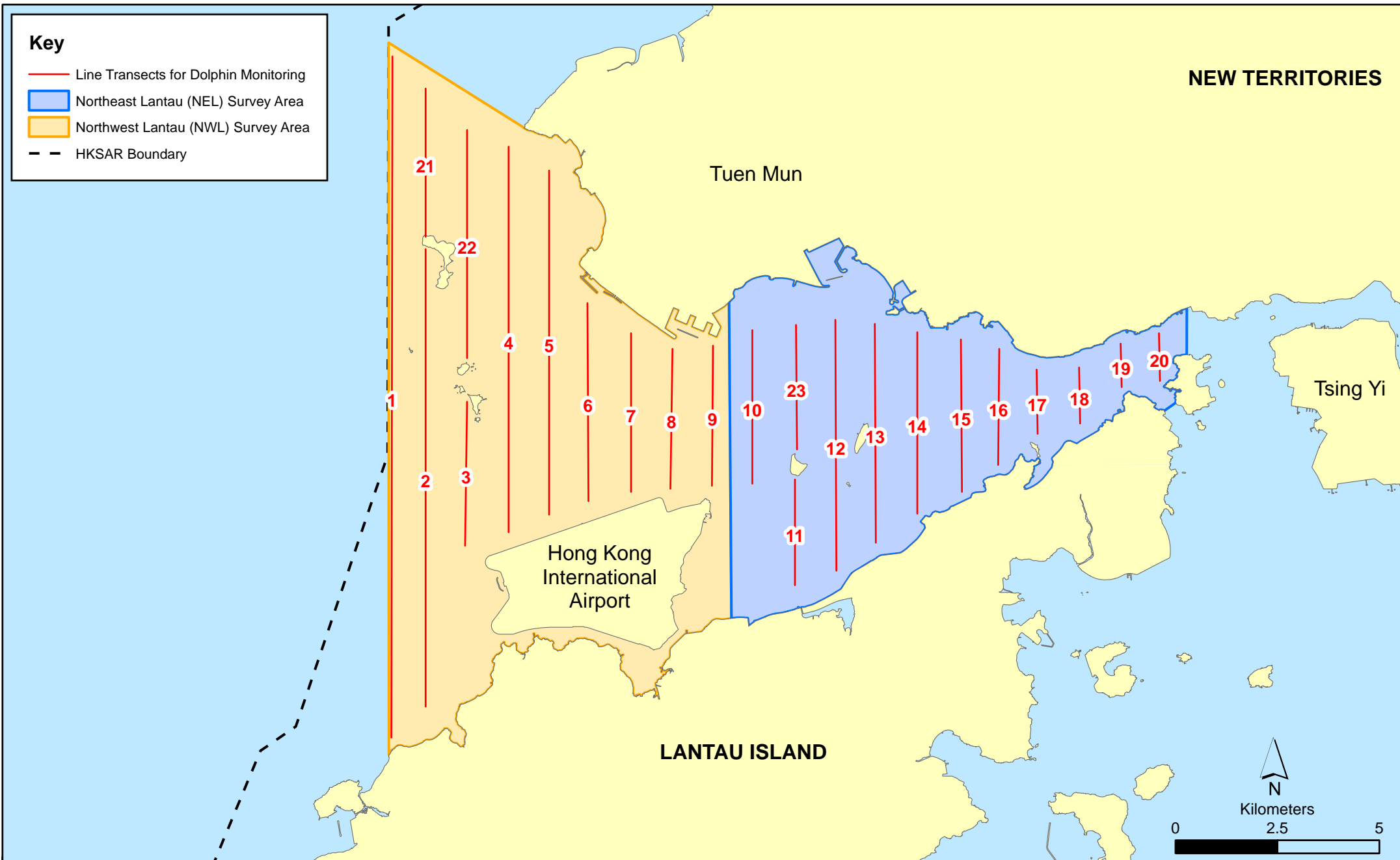


Figure 2.3

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

**Table 2.8 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				

**2.3.5 Action & Limit Levels**

The action and limit levels of dolphin impact monitoring are shown in *Appendix D*. The Event and Action plan is presented in *Appendix K*.

### 2.3.6 *Monitoring Schedule for the Reporting Month*

Dolphin monitoring was carried out on 7, 9, 21 and 23 January 2014. The dolphin monitoring schedule for the reporting period is shown in *Appendix F*.

### 2.3.7 *Results & Observations*

A total of 294.51 km of survey effort was collected, with 98.6% of the total survey effort being conducted under favourable weather conditions (ie Beaufort Sea State 3 or below with good visibility) in January 2014. Amongst the two areas, 115.72 km and 178.79 km of survey effort were collected from NEL and NWL survey areas, respectively. The total survey effort conducted on primary and secondary lines were 211.86 km and 82.65 km, respectively. The survey efforts are summarized in *Appendix J*.

A total of 19 groups of 78 Chinese White Dolphin sightings were recorded during the two sets of surveys in January 2014. All except one sighting were made in NWL during the two sets of surveys in January, with another group of nine animals being sighted in NEL. All except four sightings were made on primary lines during on-effort search, and none of the dolphin groups was associated with an operating fishing vessel.

None of the 19 sightings was made in the proximity of this Project. The distribution of dolphin sightings during the reporting month is shown in *Figure 2.4*.

Encounter rates of Chinese White Dolphins are deduced from the survey effort and on-effort sighting data made under favourable conditions (Beaufort 3 or below with good visibility) in January 2014 with the results present in *Tables 2.9 and 2.10*.

**Table 2.9** *Individual Survey Event Encounter Rates*

		Encounter rate (STG) (no. of on-effort dolphin sightings per 100 km of survey effort)	Encounter rate (ANI) (no. of dolphins from all on-effort sightings per 100 km of survey effort)
		Primary Lines Only	Primary Lines Only
NEL	Set 1: Jan 7 <sup>th</sup> /9 <sup>th</sup>	0.0	0.0
	Set 2: Jan 21 <sup>st</sup> /23 <sup>rd</sup>	0.0	0.0
NWL	Set 1: Jan 7 <sup>th</sup> /9 <sup>th</sup>	10.0	40.0
	Set 2: Jan 21 <sup>st</sup> /23 <sup>rd</sup>	11.8	50.3

Note: Dolphin Encounter Rates are deduced from the Two Sets of Surveys (Two Surveys in Each Set) in January 2014 in Northeast (NEL) and Northwest Lantau (NWL)

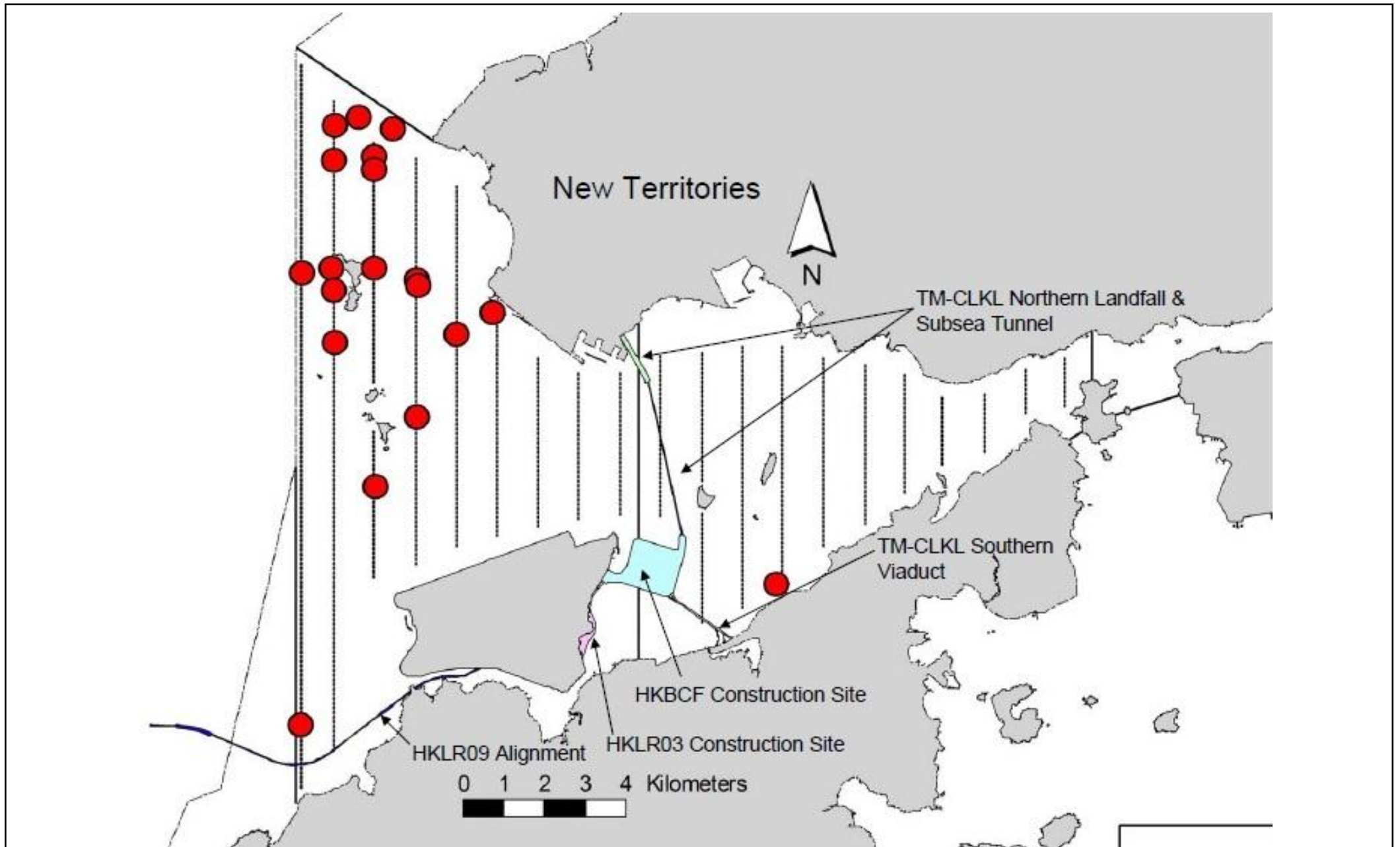


Figure 2.4

HY/2012/08 TM-CLKL Northern Connection Sub-sea Tunnel Section  
 The distribution of dolphin sightings during the reporting period  
 (Source: Adopted from HKLR03 Monitoring Survey in January 2014)

DATE: 06/03/2013

Environmental  
 Resources  
 Management



**Table 2.10 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
<b>Northeast Lantau</b>	0.0	0.9	0.0	8.0
<b>Northwest Lantau</b>	10.9	10.1	45.1	38.9

Note: Overall dolphin encounter rates (sightings per 100km of survey effort) from all four surveys are conducted in January 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 January 2014 was 4.11 individuals per group. Most dolphin groups were composed of only 1 - 4 animals, while several larger groups with 9-10 animals per group.

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

Due to monthly variation in dolphin occurrence within the survey area, it would be more appropriate to draw conclusion on whether any unacceptable impacts on dolphins have been detected related to the construction activities of this Project 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.

### 2.3.8 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 the Indo-Pacific humpback dolphin *Sousa chinensis* were recorded in January 2014 during the exclusion zone monitoring.

## 2.4 EM&A SITE INSPECTION

Site inspections were carried out on a weekly basis to monitor the implementation of proper environmental pollution control and mitigation measures under the Contract. In the reporting month, four (4) site inspections were carried out on 7, 14, 22 and 29 January 2014.

Key observations during the site inspections are described below:



### *Air Quality*

- Water spraying should be applied with breaking works to avoid dust generation. (Portion N6)
- The idle exposed stockpile should be fully covered by tarpaulin. (Portion N6)
- Dark smoke was observed at the dredger. (Dredging Barge - Crown Asia 1)
- Dusty materials on the paved road should be cleared to avoid dust generation. (Site WA-18)

### *Noise*

- No adverse observation was identified in the reporting month.

### *Water Quality*

- Cut-off drain should be provided at the site entrance to avoid silty water runoff. (Portion N6)
- The Contractor was reminded to tie the silt curtain to the sloping seawall. (Portion N-A)
- The Contractor was reminded to regularly check and maintain the cut-off drain to avoid water runoff. (Portion N6)

### *Marine Ecology*

Daily 250 m marine mammal exclusion zone monitoring was undertaken during the period of dredging activities being undertaken. No sighting of the Indo-Pacific humpback dolphin *Sousa chinensis* was recorded in January 2014 during the exclusion zone monitoring. In addition, acoustic decoupling monitoring and marine vessel control for dredging works were implemented in this reporting month.

The first quarterly Coral Post-Translocation Monitoring was conducted on 17 January 2014 and the results will be provided in the *First Quarterly Post-Translocation Monitoring Report*.

### *Chemical and Waste Management*

- Materials other than chemical containers should be removed from the drip tray and chemicals labels should be provided. (Dredging barge - Crown Asia 1)
- Chemical labels should be provided to the chemical containers. (Portion N6)

- Waste materials should be cleared regularly and to maintain site tidiness. (WA-18)
- C&D materials should be properly sorted out for recycling. (Site WA18)

#### *Landscape and Visual Impact*

- No adverse observation was identified in the reporting month.

#### *Miscellaneous*

- No adverse observation was identified in the reporting month.

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

## 2.5 **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.

As advised by the Contractor, 9,012 tonnes of inert C&D Materials are generated and disposed of as public fill in the reporting period. 34,000 m<sup>3</sup> of Category L marine sediment and 12,500 m<sup>3</sup> of Category M marine sediment are generated and disposed of at designated sites. Monthly summary of waste flow table is detailed in *Appendix M*.

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 reminded to properly maintain the site tidiness and dispose of the wastes accumulated on site regularly and properly.

The Contractor was reminded that chemical waste containers should be properly treated and stored 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.

## 2.6 **ENVIRONMENTAL LICENSES AND PERMITS**

The status of environmental licensing and permit is summarized in *Table 2.11* below.

**Table 2.11 Summary of Environmental Licensing and Permit Status**

Statutory Reference	License/ Permit	License or Permit No.	Date of Issue	Date of Expiry	License/ Permit Holder	Remarks
EIAO	Environmental Permit	EP-354/2009/A	8 Dec 2010	Throughout the Contract	HyD	Tuen Mun-Chek Lap Kok Link
NCO	Construction Dust Notification	363510	19 Aug 2013	Throughout the Contract	DBJV	-
WDO	Chemical Waste Registration	5213-422-D2516-01	10 Sep 2013	Throughout the Contract	DBJV	-
WDO	Construction Waste Disposal Account	7018108	19 Aug 2013	Throughout the Contract	DBJV	Waste disposal in Contract HY/2012/08
WPCO	Waste Water Discharge License	WT00017707-2013	18 Nov 2013	30 Nov 2018	DBJV	Discharge of Construction Runoff
NCO	Construction Noise Permit	GW-RW0691-13	15 Oct 2013	14 Apr 2014	DBJV	For Dredging and Reclamation Works
NCO	Construction Noise Permit	GW-RW0035-13	27 Jan 2014	26 Jul 2014	DBJV	For Dredging and Reclamation Works
NCO	Construction Noise Permit	GW-RW0822-13	14 Nov 2013	10 May 2014	DBJV	For works in site WA18
NCO	Construction Noise Permit	GW-RS0814-13	15 Nov 2013	10 May 2014	DBJV	For works in site WA23
NCO	Construction Noise Permit	GW-RW0029-14	27 Jan 2014	26 Jul 2014	DBJV	For Portion N6
DASO	Marine Dumping Permit	EP/MD/14-072	1 Nov 2013	30 Apr 2014	DBJV	For Type 1
DASO	Marine Dumping Permit	EP/MD/14-108	1 Jan 2014	31 Jan 2014	DBJV	For Type 1 (Dedicated site) and Type 2

## 2.7 *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 relevant to this Contract were implemented properly.

## 2.8 *SUMMARY OF EXCEEDANCES OF THE ENVIRONMENTAL QUALITY PERFORMANCE LIMIT*

No exceedances were recorded for water quality monitoring during the reporting month. Seven Action level exceedances of 1-hr TSP and one Action level exceedance of 24-hr TSP for air quality were recorded during the reporting month. The exceedances were considered not related to the construction works of this Contract after further investigation.

Cumulative statistics are provided in *Appendix L*.

## 2.9 *SUMMARY OF COMPLAINTS, NOTIFICATION OF SUMMONS AND SUCCESSFUL PROSECUTIONS*

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

No complaints, notification of summons and prosecution were received in the reporting period.

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

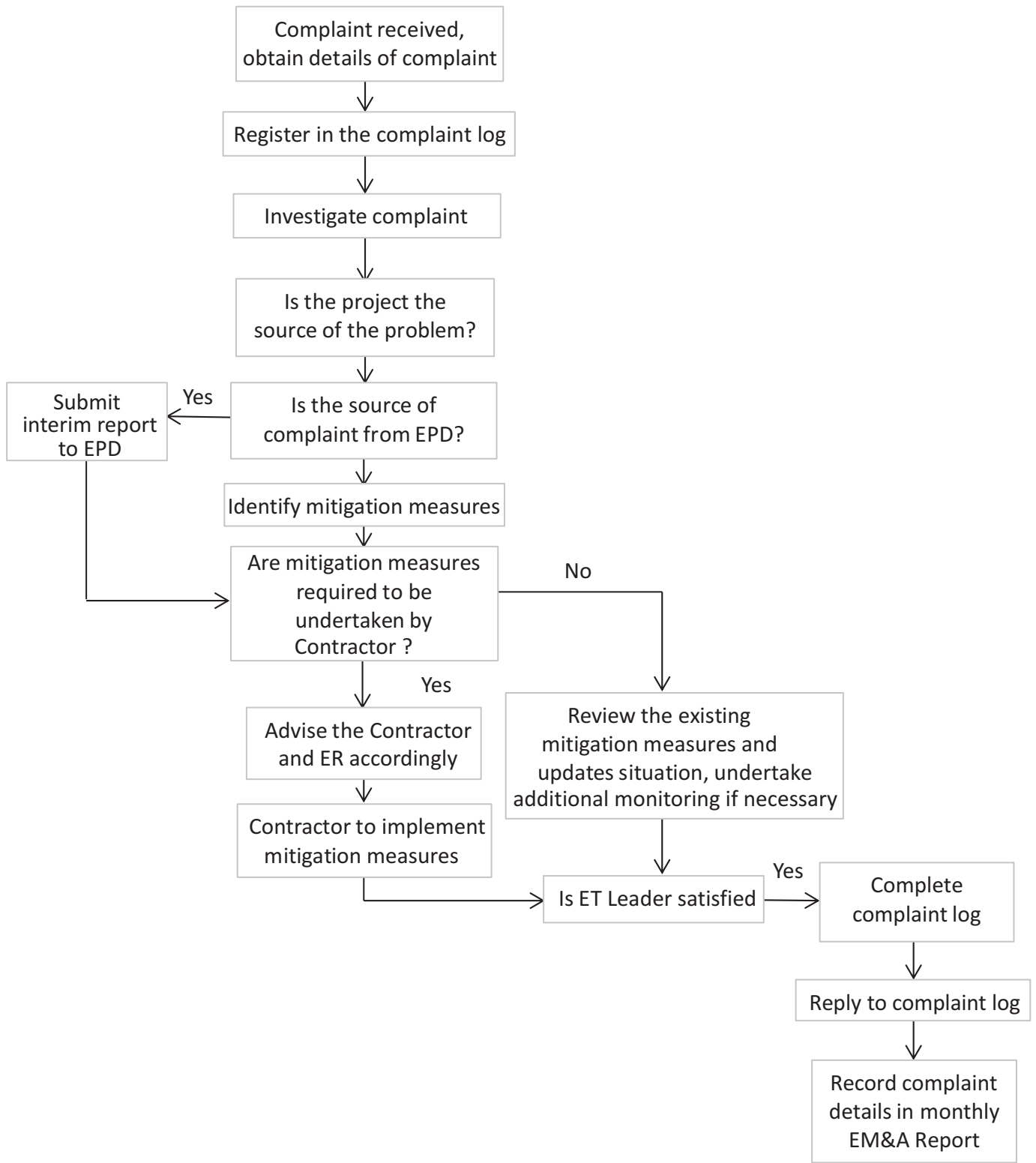


Figure 2.5

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 the Project in February 2014 will be:

##### *Marine-based Works*

- Dredging and Reclamation;
- Vertical Seawall construction;
- Sloping Seawall construction;
- Marine Sheet Piling for Box Culvert extension; and,
- Predrilling for Box culvert Foundation.

##### *Land-based Works*

- AECOM site office construction;
- CLP Substation Footing & underground utilities works; and
- CLP Substation Superstructure.

#### 3.2 **KEY ISSUES FOR THE COMING MONTH**

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

#### 3.3 **MONITORING SCHEDULE FOR THE COMING MONTH**

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

#### 4.1 CONCLUSIONS

This Third Monthly EM&A Report presents the findings of the EM&A activities undertaken during the period from 1 to 31 January 2014, in accordance with the Updated EM&A Manual and the requirements of EP-354/2009/A and EP-354/2009/B.

Air quality (including 1-hour TSP and 24-hour TSP), water quality and dolphin monitoring were carried out in the reporting period. Seven (7) Action Level exceedances of 1-hr TSP and one (1) Action Level exceedance of 24-hr TSP for air quality monitoring were recorded in the reporting month. No exceedances for water quality monitoring was recorded in the reporting month. Investigation works showed that the exceedances were not related the Project works. Nevertheless, the Contractor was reminded to ensure all dust mitigation measures are provided at the construction site and the proper deployment of cage-type silt curtain at the dredging site.

A total of 19 groups of 78 Chinese White Dolphins were recorded during the two sets of surveys in January 2014. All except one sighting were made in NWL during the two sets of surveys in January, with another group being sighted in NEL. None of the 19 sightings was made in the proximity of the TM-CLKL Northern Connection Sub-sea Tunnel Section. During this month of dolphin monitoring, no unacceptable impact from the construction activities of the TM-CLKL Northern Connection Sub-sea Tunnel Section on Chinese White Dolphins was noticeable from general observations.

Environmental site inspection was carried out four (4) times in January 2014. Recommendations on remedial actions were given to the Contractor for the deficiencies identified during the site audits.

#### 4.2 RECOMMENDATIONS

According to the environmental site inspections performed in the reporting month, the following recommendations were provided:

##### *Air Quality*

Temporary stockpiles at the works area should be properly covered by the Contractor when piling is completed.

Regular water spraying should be applied to ground breaking works and dust generating area.



### *Water Quality*

Measures should be undertaken by the Contractor to avoid residual sandy materials leaving from at the edge of loading area which may lead to surface runoff in the vicinity.

The Contractor should avoid sandy materials from entering the drainage area.

The Contractor should ensure that the dredging is undertaken properly to avoid spillage outside the cage-type silt curtain in the dredging site of barge Crown Asia 1.

### *Chemical and Waste Management*

The Contractor should install drip tray stopper and clear water stagnant in the drip tray.

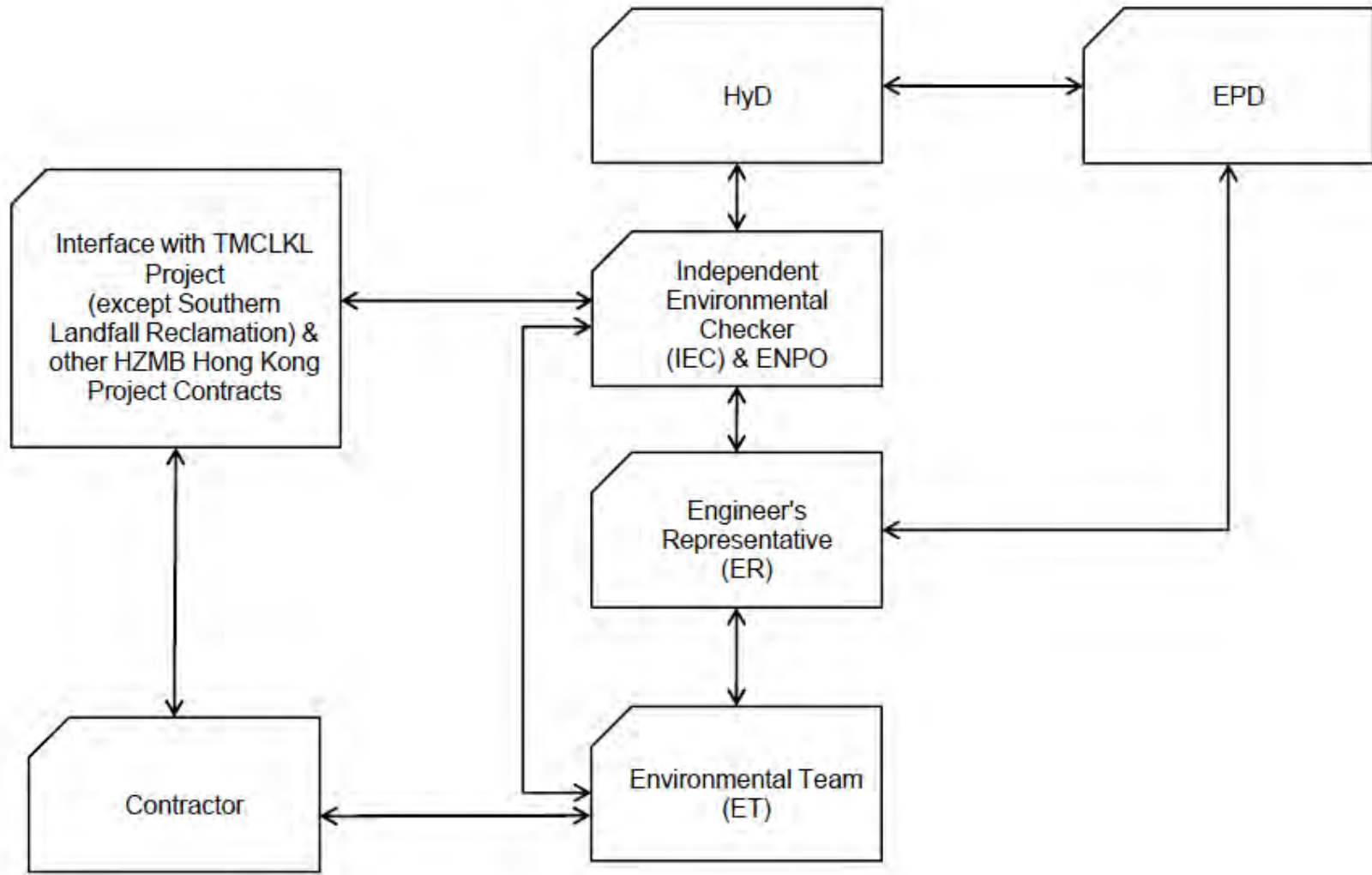
The Contractor should proper label the oil drums.

The Contractor should clear oil stain on the barge.

Drip tray should be provided by the Contractor for the chemical containers

Appendix A

## Project Organization for Environmental Works



↔ Line of Communication

Appendix B

## Three-Month Rolling Construction Programme

Activity ID	Activity Name	Orig Dur	Current Start	Current Finish	% Comp	2013					
						Dec	Jan	Feb	Mar	Apr	May

## TMCLK - Northern Connection Sub-Sea Tunnel Section

### Contract Dates

### Commencement and Completion Dates

Activity ID	Activity Name	Orig Dur	Current Start	Current Finish	% Comp
KD001	Letter of Acceptance Received	0d		26-Jul-13A	100%
KD005	Date for Commencement	0d	05-Aug-13A		100%

### Site Possession Date

Activity ID	Activity Name	Orig Dur	Current Start	Current Finish	% Comp
AD010	Portions: X, N5, N7, (N8A,B&C), N9, (N12-seabed level & below) & WA23	0d	05-Aug-13A		100%
AD020	Portions: WA18 - Zone 18A (SO Office), Zone 18B & 18C	0d	18-Nov-13A		100%
AD030	Portions: N6A & N6B	0d	28-Dec-13A		100%

### General Submissions

#### Programme

Activity ID	Activity Name	Orig Dur	Current Start	Current Finish	% Comp
SCC0273	SO Approve Initial Works Programme - SCC27.2	30d	12-Oct-13A	04-Nov-13A	100%
SCC0274	Prepare & Submit More detailed Initial Works Programme - SCC27.2	60d	05-Nov-13A	10-Feb-14	90%
SCC0275	SO Comment More Detailed Initial Works Programme - SCC27.2	30d	11-Feb-14	12-Mar-14	0%
SCC0276	Resubmit Detailed Works Programme - SCC27.2	21d	13-Mar-14	02-Apr-14	0%
SCC0277	Detailed Works Programme - SCC27.2 - Approval by SO	30d	03-Apr-14	02-May-14	0%

#### General Design Submissions

##### (A3) Design Memorandum

Activity ID	Activity Name	Orig Dur	Current Start	Current Finish	% Comp
GS00100	Prepare & Submit Design Memorandum	49d	08-Aug-13A	01-Nov-13A	100%
GS00110	1st Submission (1st Draft)	0d		01-Nov-13A	100%
GS00120	SO's Comments for 1st Submission	35d	02-Nov-13A	19-Nov-13A	100%
GS00130	Prepare Re-submission	10d	20-Nov-13A	05-Dec-13A	100%
GS00140	2nd Submission (Final)	0d		05-Dec-13A	100%
GS00150	ICE Cert. Issue	6d	06-Dec-13A	19-Dec-13A	100%
GS00195	SO's Condition Approval	35d	06-Dec-13A	08-Jan-14A	100%

##### (A9) Durability Assessment Report

Activity ID	Activity Name	Orig Dur	Current Start	Current Finish	% Comp
GS01500	Preparation of Durability Assessment Report	36d	18-Sep-13A	13-Dec-13A	100%
GS01505	1st Submission (1st Draft)	0d		13-Dec-13A	100%
GS01510	SO's Comments for 1st Submission	35d	14-Dec-13A	24-Jan-14A	100%
GS01515	Prepare Re-submission	10d	25-Jan-14A	12-Feb-14	40%
GS01520	2nd Submission (Final)	0d		12-Feb-14*	0%
GS01525	ICE Cert. Issue	6d	13-Feb-14	19-Feb-14	0%
GS01550	SO's Condition Approval	35d	13-Feb-14	19-Mar-14	0%

##### (A19) AIP for Roadworks & Project Alignment

Activity ID	Activity Name	Orig Dur	Current Start	Current Finish	% Comp
AP00100	Designer prepare AIP - Roadworks & Alignment	9d	17-Sep-13A	27-Sep-13A	100%
AP00105	Review & Comment by JV (Final draft from Designer)	6d	28-Sep-13A	15-Oct-13A	100%
AP00110	Prepare formal submission to SO	6d	16-Oct-13A	07-Nov-13A	100%
AP00115	Formal Submission of AIP to ICE/IPs (except GEO)	0d		07-Nov-13A	100%
AP00120	Advanced Submission of AIP to SO	0d		07-Nov-13A	100%
AP00125	Review & Comment by SO/ ICE/ IPs	28d	08-Nov-13A	22-Nov-13A	100%
AP00130	Advance Comments from SO/ Comments from ICE/ IPs Received	0d		22-Nov-13A	100%
AP00135	Designer to Prepare RTC & Updated AIP	18d	23-Nov-13A	17-Jan-14A	100%
AP00140	Submission of AIP to SO/ ICE together with Reply To Comment (RTC)	0d		17-Jan-14A	100%
AP00145	Reply to IPs Comments in RTC	0d		17-Jan-14A	100%
AP00150	ICE Approval & Issue of Design Check Cert.	18d	23-Nov-13A	16-Jan-14A	100%
AP00155	Check Cert to SO	0d		17-Jan-14A	100%
AP00160	No Objection or Further Minor Comments from IPs Received	0d		13-Feb-14	0%
AP00180	SO Review (35 Days)	35d	18-Jan-14A	21-Feb-14	35%
AP00185	SO Approval with Condition Received	0d		21-Feb-14	0%

##### SO's Site Accommodation

Activity ID	Activity Name	Orig Dur	Current Start	Current Finish	% Comp
GS02490	Preparation of Submission for SO's Site Accommodation	36d	31-Aug-13A	15-Oct-13A	100%
GS02500	1st Submission	0d		04-Oct-13A	100%
GS02510	SO's Comments for 1st Submission	35d	04-Oct-13A	12-Oct-13A	100%
GS02520	Prepare Re-submission	12d	13-Oct-13A	05-Dec-13A	100%
GS02530	ICE Cert. Issue	6d	09-Nov-13A	18-Dec-13A	100%
GS02540	2nd Submission	0d		18-Dec-13A	100%
GS02550	SO's Condition Approval	35d	19-Dec-13A	30-Dec-13A	100%

### Construction Programme - Design Development

#### Northern Landfall

##### North Reclamation (Phase 1)

###### Major Procurement

Activity ID	Activity Name	Orig Dur	Current Start	Current Finish	% Comp
A6415090	Temporary Pontoon - Procurement	57d	27-Jul-13A	03-Oct-13A	100%
A6415100	Temporary Pontoon - Fabrication	36d	29-Nov-13A	30-Jan-14	90%
A6415110	Temporary Pontoon - Delivery to site	6d	07-Feb-14	13-Feb-14	0%

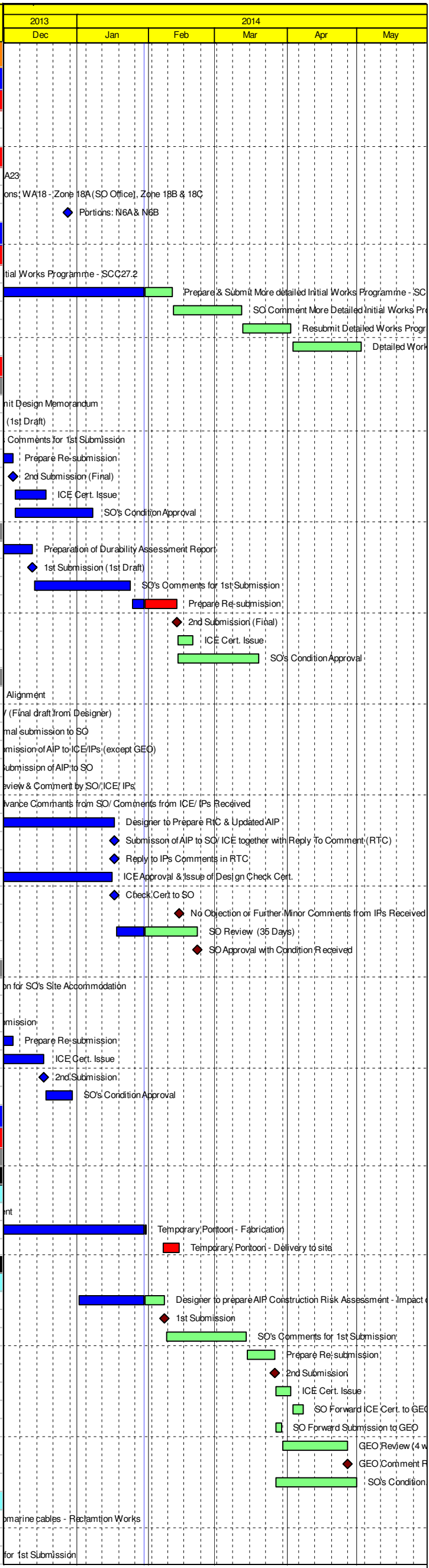
###### Design Submission

##### (B4) AIP Construction Risk Assessment - Impact on North Landfall & Sub-sea Tunnel

Activity ID	Activity Name	Orig Dur	Current Start	Current Finish	% Comp
GS01100	Designer to prepare AIP Construction Risk Assessment - Impact on Nth Landfall & CLP Cab	25d	02-Jan-14A	07-Feb-14	92%
GS01105	1st Submission	0d		07-Feb-14	0%
GS01110	SO's Comments for 1st Submission	35d	08-Feb-14	14-Mar-14	0%
GS01115	Prepare Re-submission	10d	15-Mar-14	26-Mar-14	0%
GS01120	2nd Submission	0d		26-Mar-14	0%
GS01125	ICE Cert. Issue	6d	27-Mar-14	02-Apr-14	0%
GS01130	SO Forward ICE Cert. to GEO	3d	03-Apr-14	07-Apr-14	0%
GS01135	SO Forward Submission to GEO	3d	27-Mar-14	29-Mar-14	0%
GS01140	GEO Review (4 weeks)	28d	30-Mar-14	26-Apr-14	0%
GS01145	GEO Comment Received	0d		26-Apr-14	0%
GS01150	SO's Condition Approval	35d	27-Mar-14	30-Apr-14	0%

##### (B6) Risk Assessment of Submarine Cable - Reclamation works

Activity ID	Activity Name	Orig Dur	Current Start	Current Finish	% Comp
DD68610	Preparation of Risk Assessment of Submarine cables - Reclamation Works	24d	05-Sep-13A	24-Sep-13A	100%
DD68620	1st Submission	0d		24-Sep-13A	100%
DD68630	SO's Comments for 1st Submission	35d	25-Sep-13A	29-Oct-13A	100%



	Actual Work
	Planned Milestone
	Actual Milestone
	Planned Bar
	Planned Bar - Critical



Date	Revision	Checked	Approved

Activity ID	Activity Name	Orig Dur	Current Start	Current Finish	% Comp	2013		2014				
						Dec	Jan	Feb	Mar	Apr	May	
DD68670	Prepare Re-submission	12d	30-Oct-13A	09-Jan-14A	100%							
DD68700	2nd Submission	0d		09-Jan-14A	100%							
DD68740	SO's Condition Approval	35d	10-Jan-14A	14-Feb-14	57%							
DD68750	Commencement of Dredging works at Zone A	0d	08-Mar-14*		0%							
<b>Method Statement Submission</b>												
<b>Method Statement of Ground Investigation (Phase 2 - Northern Landfall &amp; Tunnel)</b>												
MS3380	Preparation Method Statement for Ground Investigation Phase 2	18d	18-Nov-13A	06-Jan-14A	100%							
MS3390	Submit Method Statement to SO	0d		06-Jan-14A	100%							
MS3400	SO's Approval	28d	07-Jan-14A	03-Feb-14	82.14%							
<b>Method Statement of Construction Methodology of Dredging &amp; Disposal</b>												
MS1040	Re-submission	9d	25-Sep-13A	15-Nov-13A	100%							
MS1060	SO's Review	28d	15-Nov-13A	24-Dec-13A	100%							
MS1070	SO's Approval	0d		24-Dec-13A	100%							
<b>Method Statement of Construction Methodology of Sloping &amp; Vertical Seawall</b>												
MS1290	SO Reviews & Comments/ DC Comments	28d	06-Sep-13A	05-Nov-13A	100%							
MS1390	Re-submission	9d	06-Nov-13A	21-Nov-13A	100%							
MS1470	SO's Review	28d	29-Nov-13A	16-Jan-14A	100%							
MS1480	SO's Approval	0d		16-Jan-14A	100%							
<b>Method Statement of Reclamation Sequence &amp; Methods</b>												
MS1120	SO Reviews & Comments/ DC Comments	28d	29-Oct-13A	19-Dec-13A	100%							
MS1130	Re-submission	9d	20-Dec-13A	08-Feb-14	70%							
MS1140	DC Approval & Issue Check Cert.	18d	08-Feb-14	01-Mar-14	0%							
MS1150	SO's Review	28d	08-Feb-14	08-Mar-14	0%							
MS1160	SO's Approval	0d		08-Mar-14	0%							
<b>Method Statement of Full Details of Materials, Plant &amp; Operations involved in Diaphragm Wall</b>												
MS3300	Preparation Full Details of Materials, Plant & Operation involved in Diaphragm Wall	25d	30-Jan-14	06-Mar-14	0%							
MS3310	Submit Method Statement to SO	0d		06-Mar-14	0%							
MS3320	SO Reviews & Comments	28d	07-Mar-14	03-Apr-14	0%							
MS3330	Re-submission	18d	04-Apr-14	29-Apr-14	0%							
<b>Construction</b>												
DDP09030	Coral Translocation works	9d	21-Oct-13A	28-Oct-13A	100%							
DDP10000	Temporary Pontoon Inspection & Obtain License	8d	14-Feb-14	17-Feb-14	0%							
<b>Milestones</b>												
NRC10000	200m Leading Seawall for Reclamation: 0-50 (Zone E)	0d	27-Feb-14		0%							
NRC10010	200m Leading Seawall for Reclamation: 50-100 (Zone E)	0d	07-Mar-14		0%							
NRC10020	200m Leading Seawall for Reclamation: 100-150 (Zone E)	0d	19-Mar-14		0%							
NRC10030	200m Leading Seawall for Reclamation: 150-205 (Zone E)	0d	02-Apr-14		0%							
NRC10040	200m Leading Seawall for Reclamation: 200-250 (Zone D1)	0d	16-Apr-14		0%							
NRC10050	200m Leading Seawall for Reclamation: 250-300 (Zone D1)	0d	22-Apr-14		0%							
<b>Zone E</b>												
NRC13790	Temporary Seawall Stage 1 - Geotextile	5d	27-Dec-13A	08-Jan-14A	100%							
NRC13800	Temporary Seawall Stage 1 - Sand Blanket	5d	03-Jan-14A	23-Jan-14A	100%							
NRC13810	Temporary Seawall Stage 1 - Band Drain	6d	20-Jan-14A	08-Feb-14	0%							
NRC13820	Temporary Seawall Stage 1 - Rockfill - G200 up to -3.0mPD	9d	10-Feb-14	19-Feb-14	0%							
NRC13830	Temporary Seawall Stage 1 - Rockfill - G200 up to +4.0mPD	6d	20-Feb-14	26-Feb-14	0%							
<b>Vertical Seawall</b>												
NRC10150	VS - Bulk Dredging - Zone E - (CH0 to 205)	4d	18-Nov-13A	21-Nov-13A	100%							
NRC10160	VS - Dredging - Zone E - (CH0 to 50)	1d	22-Nov-13A	26-Nov-13A	100%							
NRC10170	VS - Dredging - Zone E - (CH50 to 100)	1d	27-Nov-13A	28-Nov-13A	100%							
NRC10180	VS - Dredging - Zone E - (CH100 to 150)	1d	11-Dec-13A	11-Dec-13A	100%							
NRC10190	VS - Dredging - Zone E - (CH150 to 205)	1d	12-Dec-13A	13-Dec-13A	100%							
NRC10200	VS - Rock Grade 400 - Zone E - (CH0 to 50)	8d	18-Nov-13A	28-Nov-13A	100%							
NRC10210	VS - Rock Grade 400 - Zone E - (CH50 to 100)	8d	29-Nov-13A	02-Dec-13A	100%							
NRC10220	VS - Rock Grade 400 - Zone E - (CH100 to 150)	7d	03-Dec-13A	11-Dec-13A	100%							
NRC10230	VS - Rock Grade 400 - Zone E - (CH150 to 205)	7d	12-Dec-13A	21-Dec-13A	100%							
NRC10240	VS - Levelling Stone - Zone E - (CH0 to 50)	4d	10-Dec-13A	19-Dec-13A	100%							
NRC10250	VS - Levelling Stone - Zone E - (CH50 to 100)	4d	20-Dec-13A	28-Dec-13A	100%							
NRC10260	VS - Levelling Stone - Zone E - (CH100 to 150)	4d	29-Dec-13A	02-Jan-14A	100%							
NRC10270	VS - Levelling Stone - Zone E - (CH150 to 205)	4d	03-Jan-14A	03-Jan-14A	100%							
NRC10280	VS - Seawall Block - Zone E - (CH0 to 50)	8d	10-Dec-13A	07-Jan-14A	100%							
NRC10290	VS - Seawall Block - Zone E - (CH50 to 100)	8d	08-Jan-14A	29-Jan-14A	100%							
NRC10300	VS - Seawall Block - Zone E - (CH100 to 150)	8d	14-Jan-14A	29-Jan-14A	100%							
NRC10310	VS - Seawall Block - Zone E - (CH150 to 205)	8d	22-Jan-14A	13-Feb-14	20%							
NRC10320	VS - Rockfill Type A - Zone E - (CH0 to 50)	1d	25-Jan-14A	30-Jan-14	50%							
NRC10330	VS - Rockfill Type A - Zone E - (CH50 to 100)	1d	07-Feb-14	07-Feb-14	0%							
NRC10340	VS - Rockfill Type A - Zone E - (CH150 to 105)	1d	08-Feb-14	08-Feb-14	0%							
NRC10350	VS - Rockfill Type A - Zone E - (CH150 to 205)	1d	14-Feb-14	14-Feb-14	0%							
NRC10360	VS - Geotextile - Zone E - (CH0 to 50)	1d	25-Jan-14A	08-Feb-14	50%							
NRC10370	VS - Geotextile - Zone E - (CH50 to 100)	1d	10-Feb-14	10-Feb-14	0%							
NRC10380	VS - Geotextile - Zone E - (CH100 to 150)	1d	11-Feb-14	11-Feb-14	0%							
NRC10390	VS - Geotextile - Zone E - (CH150 to 205)	1d	15-Feb-14	15-Feb-14	0%							
NRC10400	VS - Granular Filter - Zone E - (CH0 to 50)	1d	25-Jan-14A	11-Feb-14	50%							
NRC10410	VS - Granular Filter - Zone E - (CH50 to 100)	1d	12-Feb-14	12-Feb-14	0%							
NRC10420	VS - Granular Filter - Zone E - (CH100 to 150)	1d	13-Feb-14	13-Feb-14	0%							
NRC10430	VS - Granular Filter - Zone E - (CH150 to 205)	1d	17-Feb-14	17-Feb-14	0%							
NRC10440	VS - Berm Stone - Zone E - (CH0 to 50)	3d	15-Feb-14	18-Feb-14	0%							
NRC10450	VS - Berm Stone - Zone E - (CH50 to 100)	3d	19-Feb-14	21-Feb-14	0%							
NRC10460	VS - Berm Stone - Zone E - (CH100 to 150)	3d	22-Feb-14	25-Feb-14	0%							
NRC10470	VS - Berm Stone - Zone E - (CH150 to 205)	3d	26-Feb-14	28-Feb-14	0%							
NRC10480	VS - Mass Concrete Coping - Zone E - (CH0 to 50)	9d	15-Feb-14	25-Feb-14	0%							
NRC10490	VS - Mass Concrete Coping - Zone E - (CH50 to 100)	9d	26-Feb-14	07-Mar-14	0%							
NRC10500	VS - Mass Concrete Coping - Zone E - (CH100 to 150)	9d	08-Mar-14	18-Mar-14	0%							
NRC10510	VS - Mass Concrete Coping - Zone E - (CH150 to 205)	9d	19-Mar-14	28-Mar-14	0%							



Activity ID	Activity Name	Orig Dur	Current Start	Current Finish	% Comp	2014					
						Dec	Jan	Feb	Mar	Apr	May
NRC10520	Reclamation - Geotextile - Zone E - (CH0 to 50)	6d	30-Dec-13A	08-Jan-14A	100%		■				
NRC10530	Reclamation - Geotextile - Zone E - (CH50 to 100)	6d	20-Jan-14A	08-Feb-14	0%		■	■			
NRC10540	Reclamation - Geotextile - Zone E - (CH100 to 150)	6d	10-Feb-14	15-Feb-14	0%			■			
NRC10550	Reclamation - Geotextile - Zone E - (CH150 to 205)	6d	17-Feb-14	22-Feb-14	0%			■			
NRC10560	Reclamation - Sand Blanket - Zone E - (CH0 to 50)	2d	04-Jan-14A	24-Jan-14A	100%		■				
NRC10570	Reclamation - Sand Blanket - Zone E - (CH50 to 100)	2d	10-Feb-14	11-Feb-14	0%			■			
NRC10580	Reclamation - Sand Blanket - Zone E - (CH100 to 150)	2d	17-Feb-14	18-Feb-14	0%			■			
NRC10590	Reclamation - Sand Blanket - Zone E - (CH150 to 205)	2d	24-Feb-14	25-Feb-14	0%			■			
NRC10600	Reclamation - Band Drain - Zone E - (CH0 to 50)	4d	20-Jan-14A	30-Jan-14	0%		■				
NRC10610	Reclamation - Band Drain - Zone E - (CH50 to 100)	4d	12-Feb-14	15-Feb-14	0%			■			
NRC10620	Reclamation - Band Drain - Zone E - (CH100 to 150)	4d	19-Feb-14	22-Feb-14	0%			■			
NRC10630	Reclamation - Band Drain - Zone E - (CH150 to 205)	3d	26-Feb-14	28-Feb-14	0%			■			
NRC10640	Public Fill - Zone E - (CH0 to 50) to -2.5mPD	4d	27-Feb-14	03-Mar-14	0%			■			
NRC10650	Public Fill - Zone E - (CH50 to 100) to -2.5mPD	3d	07-Mar-14	10-Mar-14	0%			■			
NRC10660	Public Fill - Zone E - (CH100 to 150) to -2.5mPD	3d	19-Mar-14	21-Mar-14	0%			■			
NRC10670	Public Fill - Zone E - (CH150 to 205) to -2.5mPD	3d	02-Apr-14	04-Apr-14	0%			■			
NRC10680	Public Fill - Zone E - (CH0 to 50) to +2.5mPD	10d	11-Mar-14	21-Mar-14	0%			■			
NRC10690	Public Fill - Zone E - (CH50 to 100) to +2.5mPD	10d	22-Mar-14	02-Apr-14	0%			■			
NRC10700	Public Fill - Zone E - (CH100 to 150) to +2.5mPD	9d	03-Apr-14	14-Apr-14	0%			■			
NRC10710	Public Fill - Zone E - (CH150 to 205) to +2.5mPD	9d	15-Apr-14	28-Apr-14	0%			■			
NRC10720	Public Fill - Zone E - (CH0 to 50) to +6.0mPD	11d	22-Mar-14	03-Apr-14	0%			■			
NRC10730	Public Fill - Zone E - (CH50 to 100) to +6.0mPD	11d	04-Apr-14	17-Apr-14	0%			■			
NRC10740	Public Fill - Zone E - (CH100 to 150) to +6.0mPD	11d	29-Apr-14	13-May-14	0%			■			
NRC10760	Public Fill - Zone E - (CH0 to 50) to +10mPD	9d	04-Apr-14	15-Apr-14	0%			■			
NRC10770	Public Fill - Zone E - (CH50 to 100) to +10mPD	9d	22-Apr-14	02-May-14	0%			■			

### Zone D1

#### Vertical Seawall

Activity ID	Activity Name	Orig Dur	Current Start	Current Finish	% Comp	2013	2014
NRC10800	VS - Bulk Dredging - Zone D1 - (CH205 to 355)	4d	14-Dec-13A	18-Dec-13A	100%		■
NRC10810	VS - Dredging - Zone D1 - (CH205 to 255)	2d	09-Dec-13A	18-Dec-13A	100%	■	■
NRC10820	VS - Dredging - Zone D1 - (CH255 to 305)	1d	19-Dec-13A	07-Jan-14A	100%	■	■
NRC10830	VS - Dredging - Zone D1 - (CH305 to 355)	1d	08-Jan-14A	14-Jan-14A	100%	■	■
NRC10860	VS - Rock Grade 400 - Zone D1 - (CH205 to 255)	8d	30-Jan-14	14-Feb-14	0%		■
NRC10870	VS - Rock Grade 400 - Zone D1 - (CH255 to 305)	7d	15-Feb-14	22-Feb-14	0%		■
NRC10880	VS - Rock Grade 400 - Zone D1 - (CH305 to 355)	7d	24-Feb-14	03-Mar-14	0%		■
NRC10910	VS - Levelling Stone - Zone D1 - (CH205 to 255)	3d	24-Feb-14	26-Feb-14	0%		■
NRC10920	VS - Levelling Stone - Zone D1 - (CH255 to 305)	3d	27-Feb-14	01-Mar-14	0%		■
NRC10930	VS - Levelling Stone - Zone D1 - (CH305 to 355)	3d	03-Mar-14	05-Mar-14	0%		■
NRC10960	VS - Seawall Block - Zone D1 - (CH205 to 255)	7d	27-Feb-14	06-Mar-14	0%		■
NRC10970	VS - Seawall Block - Zone D1 - (CH255 to 305)	7d	07-Mar-14	14-Mar-14	0%		■
NRC10980	VS - Seawall Block - Zone D1 - (CH305 to 355)	7d	15-Mar-14	22-Mar-14	0%		■
NRC11010	VS - Rockfill Type A - Zone D1 - (CH205 to 255)	1d	15-Mar-14	15-Mar-14	0%		■
NRC11020	VS - Rockfill Type A - Zone D1 - (CH255 to 305)	1d	17-Mar-14	17-Mar-14	0%		■
NRC11030	VS - Rockfill Type A - Zone D1 - (CH305 to 355)	1d	24-Mar-14	24-Mar-14	0%		■
NRC11060	VS - Geotextile - Zone D1 - (CH205 to 255)	1d	18-Mar-14	18-Mar-14	0%		■
NRC11070	VS - Geotextile - Zone D1 - (CH255 to 305)	1d	19-Mar-14	19-Mar-14	0%		■
NRC11080	VS - Geotextile - Zone D1 - (CH305 to 355)	1d	25-Mar-14	25-Mar-14	0%		■
NRC11140	VS - Granular Filter - Zone D1 - (CH205 to 255)	1d	20-Mar-14	20-Mar-14	0%		■
NRC11210	VS - Granular Filter - Zone D1 - (CH255 to 305)	1d	21-Mar-14	21-Mar-14	0%		■
NRC11280	VS - Granular Filter - Zone D1 - (CH305 to 355)	1d	26-Mar-14	26-Mar-14	0%		■
NRC11430	VS - Berm Stone - Zone D1 - (CH205 to 255)	3d	11-Apr-14	14-Apr-14	0%		■
NRC11500	VS - Berm Stone - Zone D1 - (CH255 to 305)	3d	15-Apr-14	17-Apr-14	0%		■
NRC11570	VS - Berm Stone - Zone D1 - (CH305 to 355)	2d	22-Apr-14	23-Apr-14	0%		■
NRC11720	VS - Mass Concrete Coping - Zone D1 - (CH205 to 255)	8d	11-Apr-14	23-Apr-14	0%		■
NRC11790	VS - Mass Concrete Coping - Zone D1 - (CH255 to 305)	7d	24-Apr-14	02-May-14	0%		■

#### Sloping Seawall

Activity ID	Activity Name	Orig Dur	Current Start	Current Finish	% Comp	2013	2014
NRC11940	SS - Bulk Dredging - Zone D1 - (CH205 to 355)	4d	16-Jan-14A	30-Jan-14	0%		■
NRC12030	SS - Dredging - Zone D1 - (CH205 to 255)	2d	19-Jan-14A	20-Jan-14A	100%		■
NRC12070	SS - Dredging - Zone D1 - (CH255 to 305)	2d	24-Jan-14A	27-Jan-14A	100%		■
NRC12110	SS - Dredging - Zone D1 - (CH305 to 355)	1d	07-Mar-14	07-Mar-14	0%		■
NRC12240	SS - Rock Grade 400 - Zone D1 - (CH205 to 255) to -2.5mPD	10d	07-Feb-14	18-Feb-14	0%		■
NRC12290	SS - Rock Grade 400 - Zone D1 - (CH255 to 305) to -2.5mPD	10d	22-Feb-14	05-Mar-14	0%		■
NRC12330	SS - Rock Grade 400 - Zone D1 - (CH305 to 355) to -2.5mPD	9d	08-Mar-14	18-Mar-14	0%		■
NRC12950	SS - Rock Grade 400 - Zone D1 - (CH205 to 255) to +2.5mPD	3d	19-Feb-14	21-Feb-14	0%		■
NRC13060	SS - Rock Grade 400 - Zone D1 - (CH255 to 305) to +2.5mPD	2d	06-Mar-14	07-Mar-14	0%		■
NRC13220	SS - Rock Grade 400 - Zone D1 - (CH305 to 355) to +2.5mPD	2d	19-Mar-14	20-Mar-14	0%		■
NRC13530	SS - Armour Rock Underlayer - Zone D1 - (CH205 to 255)	4d	22-Apr-14	25-Apr-14	0%		■
NRC13610	SS - Armour Rock Underlayer - Zone D1 - (CH255 to 305)	4d	26-Apr-14	30-Apr-14	0%		■
NRC14110	SS - Mass Concrete Coping - Zone D1 - (CH205 to 255)	5d	22-Apr-14	26-Apr-14	0%		■
NRC14120	SS - Mass Concrete Coping - Zone D1 - (CH255 to 305)	5d	28-Apr-14	03-May-14	0%		■
NRC14160	Sloping - Rockfill Type A - Zone D1 - (CH205 to 255)	1d	22-Feb-14	22-Feb-14	0%		■
NRC14170	Sloping - Rockfill Type A - Zone D1 - (CH255 to 305)	1d	08-Mar-14	08-Mar-14	0%		■
NRC14180	Sloping - Rockfill Type A - Zone D1 - (CH305 to 355)	1d	21-Mar-14	21-Mar-14	0%		■
NRC14210	Sloping - Geotextile - Zone D1 - (CH205 to 255)	2d	24-Feb-14	25-Feb-14	0%		■
NRC14220	Sloping - Geotextile - Zone D1 - (CH255 to 305)	1d	10-Mar-14	10-Mar-14	0%		■
NRC14230	Sloping - Geotextile - Zone D1 - (CH305 to 355)	1d	22-Mar-14	22-Mar-14	0%		■
NRC14260	Sloping - Granular Filter - Zone D1 - (CH205 to 255)	2d	26-Feb-14	27-Feb-14	0%		■
NRC14270	Sloping - Granular Filter - Zone D1 - (CH255 to 305)	2d	11-Mar-14	12-Mar-14	0%		■
NRC14280	Sloping - Granular Filter - Zone D1 - (CH305 to 355)	1d	24-Mar-14	24-Mar-14	0%		■
NRC14310	Reclamation - Geotextile - Zone D1 - (CH205 to 255)	5d	28-Feb-14	05-Mar-14	0%		■
NRC14320	Reclamation - Geotextile - Zone D1 - (CH255 to 305)	5d	13-Mar-14	18-Mar-14	0%		■
NRC14330	Reclamation - Geotextile - Zone D1 - (CH305 to 355)	4d	25-Mar-14	28-Mar-14	0%		■
NRC14360	Reclamation - Sand Blanket - Zone D1 - (CH205 to 255)	2d	06-Mar-14	07-Mar-14	0%		■
NRC14370	Reclamation - Sand Blanket - Zone D1 - (CH255 to 305)	2d	19-Mar-14	20-Mar-14	0%		■
NRC14380	Reclamation - Sand Blanket - Zone D1 - (CH305 to 355)	2d	29-Mar-14	31-Mar-14	0%		■



## TMCLK - Northern Connection Sub-Sea Tunnel Section

### Three-months Rolling Programme

As of 30Jan14 Progress



Date	Revision	Checked	Approved

Activity ID	Activity Name	Orig Dur	Current Start	Current Finish	% Comp	2014					
						Dec	Jan	Feb	Mar	Apr	May
NRC14410	Reclamation - Band Drain - Zone D1 - (CH205 to 255)	4d	08-Mar-14	12-Mar-14	0%				■	■	■
NRC14420	Reclamation - Band Drain - Zone D1 - (CH255 to 305)	4d	21-Mar-14	25-Mar-14	0%				■	■	■
NRC14430	Reclamation - Band Drain - Zone D1 - (CH305 to 355)	4d	01-Apr-14	04-Apr-14	0%				■	■	■
<b>Reclamation</b>											
NRC13260	Compacted Sandfill - Zone D1 - (CH205 to 255) to -2.5mPD	6d	16-Apr-14	25-Apr-14	0%					■	■
NRC13270	Compacted Sandfill - Zone D1 - (CH255 to 305) to -2.5mPD	6d	26-Apr-14	03-May-14	0%					■	■
NRC13290	Public Fill - Zone D1 - (CH205 to 255) to -2.5mPD	3d	26-Apr-14	29-Apr-14	0%					■	■
<b>Zone D2</b>											
<b>Vertical Seawall</b>											
NRC10840	VS - Dredging - Zone D2 - (CH355 to 405)	2d	01-Mar-14	03-Mar-14	0%				■	■	■
NRC10850	VS - Dredging - Zone D2 - (CH405 to 443)	1d	12-Mar-14	12-Mar-14	0%				■	■	■
NRC10890	VS - Rock Grade 400 - Zone D2 - (CH355 to 405)	8d	04-Mar-14	12-Mar-14	0%				■	■	■
NRC10900	VS - Rock Grade 400 - Zone D2 - (CH405 to 443)	7d	13-Mar-14	20-Mar-14	0%				■	■	■
NRC10940	VS - Levelling Stone - Zone D2 - (CH355 to 405)	3d	06-Mar-14	08-Mar-14	0%				■	■	■
NRC10950	VS - Levelling Stone - Zone D2 - (CH405 to 443)	3d	10-Mar-14	12-Mar-14	0%				■	■	■
NRC10990	VS - Seawall Block - Zone D2 - (CH355 to 405)	7d	24-Mar-14	31-Mar-14	0%				■	■	■
NRC11000	VS - Seawall Block - Zone D2 - (CH405 to 443)	7d	01-Apr-14	09-Apr-14	0%				■	■	■
NRC11040	VS - Rockfill Type A - Zone D2 - (CH355 to 405)	1d	01-Apr-14	01-Apr-14	0%				■	■	■
NRC11050	VS - Rockfill Type A - Zone D2 - (CH405 to 443)	1d	10-Apr-14	10-Apr-14	0%				■	■	■
NRC11090	VS - Geotextile - Zone D2 - (CH355 to 405)	1d	02-Apr-14	02-Apr-14	0%				■	■	■
NRC11100	VS - Geotextile - Zone D2 - (CH405 to 443)	1d	11-Apr-14	11-Apr-14	0%				■	■	■
NRC11350	VS - Granular Filter - Zone D2 - (CH355 to 405)	1d	03-Apr-14	03-Apr-14	0%				■	■	■
NRC11390	VS - Granular Filter - Zone D2 - (CH405 to 443)	1d	12-Apr-14	12-Apr-14	0%				■	■	■
NRC11640	VS - Berm Stone - Zone D2 - (CH355 to 405)	3d	24-Apr-14	26-Apr-14	0%				■	■	■
NRC11680	VS - Berm Stone - Zone D2 - (CH405 to 443)	2d	28-Apr-14	29-Apr-14	0%				■	■	■
<b>Sloping Seawall</b>											
NRC12160	SS - Dredging - Zone D2 - (CH355 to 405)	2d	19-Mar-14	20-Mar-14	0%				■	■	■
NRC12200	SS - Dredging - Zone D2 - (CH405 to 443)	1d	03-Apr-14	03-Apr-14	0%				■	■	■
NRC12430	SS - Rock Grade 400 - Zone D2 - (CH355 to 405) to -2.5mPD	10d	21-Mar-14	01-Apr-14	0%				■	■	■
NRC12840	SS - Rock Grade 400 - Zone D2 - (CH405 to 443) to -2.5mPD	9d	04-Apr-14	15-Apr-14	0%				■	■	■
NRC13330	SS - Rock Grade 400 - Zone D2 - (CH355 to 405) to +2.5mPD	2d	02-Apr-14	03-Apr-14	0%				■	■	■
NRC13440	SS - Rock Grade 400 - Zone D2 - (CH405 to 443) to +2.5mPD	2d	16-Apr-14	17-Apr-14	0%				■	■	■
NRC14190	Sloping - Rockfill Type A - Zone D2 - (CH355 to 405)	1d	04-Apr-14	04-Apr-14	0%				■	■	■
NRC14200	Sloping - Rockfill Type A - Zone D2 - (CH405 to 443)	1d	22-Apr-14	22-Apr-14	0%				■	■	■
NRC14240	Sloping - Geotextile - Zone D2 - (CH355 to 405)	1d	07-Apr-14	07-Apr-14	0%				■	■	■
NRC14250	Sloping - Geotextile - Zone D2 - (CH405 to 443)	1d	23-Apr-14	23-Apr-14	0%				■	■	■
NRC14290	Sloping - Granular Filter - Zone D2 - (CH355 to 405)	2d	08-Apr-14	09-Apr-14	0%				■	■	■
NRC14300	Sloping - Granular Filter - Zone D2 - (CH405 to 443)	1d	24-Apr-14	24-Apr-14	0%				■	■	■
<b>Reclamation</b>											
NRC14340	Reclamation - Geotextile - Zone D2 - (CH355 to 405)	5d	10-Apr-14	15-Apr-14	0%				■	■	■
NRC14350	Reclamation - Geotextile - Zone D2 - (CH405 to 443)	4d	25-Apr-14	29-Apr-14	0%				■	■	■
NRC14390	Reclamation - Sand Blanket - Zone D2 - (CH355 to 405)	2d	16-Apr-14	17-Apr-14	0%				■	■	■
NRC14440	Reclamation - Band Drain - Zone D2 - (CH355 to 405)	4d	22-Apr-14	25-Apr-14	0%				■	■	■
<b>Zone C1</b>											
<b>Vertical Seawall</b>											
NRC14460	VS - Dredging - Zone C1 - (CH443 to 493)	2d	19-Mar-14	20-Mar-14	0%				■	■	■
NRC14470	VS - Dredging - Zone C1 - (CH493 to 543)	1d	28-Mar-14	28-Mar-14	0%				■	■	■
NRC14490	VS - Rock Grade 400 - Zone C1 - (CH443 to 493)	7d	21-Mar-14	28-Mar-14	0%				■	■	■
NRC14500	VS - Rock Grade 400 - Zone C1 - (CH493 to 543)	7d	29-Mar-14	07-Apr-14	0%				■	■	■
NRC14520	VS - Levelling Stone - Zone C1 - (CH443 to 493)	3d	08-Apr-14	10-Apr-14	0%				■	■	■
NRC14530	VS - Levelling Stone - Zone C1 - (CH493 to 543)	3d	11-Apr-14	14-Apr-14	0%				■	■	■
NRC14550	VS - Seawall Block - Zone C1 - (CH443 to 493)	9d	11-Apr-14	24-Apr-14	0%				■	■	■
NRC14560	VS - Seawall Block - Zone C1 - (CH493 to 543)	9d	25-Apr-14	07-May-14	0%				■	■	■
<b>Sloping Seawall</b>											
NRC14730	SS - Dredging - Zone C1 - (CH443 to 493)	2d	21-Dec-13A	27-Dec-13A	100%	■					
NRC14740	SS - Dredging - Zone C1 - (CH493 to 543)	2d	28-Dec-13A	07-Jan-14A	100%	■					
NRC14760	SS - Rock Grade 400 - Zone C1 - (CH443 to 493) to -2.5mPD	12d	30-Dec-13A	13-Jan-14A	100%	■					
NRC14770	SS - Rock Grade 400 - Zone C1 - (CH493 to 543) to -2.5mPD	12d	25-Apr-14	10-May-14	0%				■	■	■
NRC14790	SS - Rock Grade 400 - Zone C1 - (CH443 to 493) to +2.5mPD	3d	22-Apr-14	24-Apr-14	0%				■	■	■
NRC14910	Sloping - Rockfill Type A - Zone C1 - (CH443 to 493)	1d	25-Apr-14	25-Apr-14	0%				■	■	■
NRC14940	Sloping - Geotextile - Zone C1 - (CH443 to 493)	2d	26-Apr-14	28-Apr-14	0%				■	■	■
NRC14970	Sloping - Granular Filter - Zone C1 - (CH443 to 493)	2d	29-Apr-14	30-Apr-14	0%				■	■	■
<b>Zone C2</b>											
<b>Vertical Seawall</b>											
NRC14480	VS - Dredging - Zone C2 - (CH543 to 598)	2d	04-Apr-14	07-Apr-14	0%				■	■	■
NRC14510	VS - Rock Grade 400 - Zone C2 - (CH543 to 598)	7d	08-Apr-14	15-Apr-14	0%				■	■	■
NRC14540	VS - Levelling Stone - Zone C2 - (CH543 to 598)	3d	15-Apr-14	17-Apr-14	0%				■	■	■
<b>Zone B</b>											
<b>Vertical Seawall</b>											
NRC11110	VS - Dredging - Zone B - (CH598 to 648)	3d	12-Apr-14	15-Apr-14	0%				■	■	■
NRC11120	VS - Dredging - Zone B - (CH648 to 698)	3d	26-Apr-14	29-Apr-14	0%				■	■	■
NRC11150	VS - Rock Grade 400 - Zone B - (CH598 to 648)	9d	16-Apr-14	29-Apr-14	0%				■	■	■
<b>Zone F</b>											
NRC13840	Zone F1 - Removal of Existing Seawall Armour Rock	25d	01-Nov-13A	22-Dec-13A	100%	■					
NRC13850	Zone F2 & 3 - Removal of Existing Seawall Armour Rock	26d	07-Dec-13A	22-Dec-13A	100%	■					
NRC13860	Marine Sheet Piling - Zone F2 - (CH137 to 261)	49d	30-Jan-14	03-Apr-14	0%				■	■	■
NRC13870	Zone F2 - Backfill and install up to Tie Rod T1 (-7.5mPD)	27d	04-Apr-14	12-May-14	0%				■	■	■
<b>North TBM Launching Ramp &amp; Change Diameter Shaft</b>											
<b>Design Submission</b>											
<b>(A4) Additional Ground Investigation Plan - Phase 2 - Northern Landfall &amp; Tunnels</b>											
GS2790	Preparation of Additional Ground Investigation (Phase 2)	11d	18-Sep-13A	25-Oct-13A	100%	■					
GS2800	1st Submission	0d		25-Oct-13A	100%	■					
GS2825	SO's Comments for 1st Submission	35d	30-Nov-13A	24-Dec-13A	100%	■					
GS2830	SO's Condition Approval	0d		24-Dec-13A	100%	■					

- Actual Work
- Planned Milestone
- Actual Milestone
- Planned Bar
- Planned Bar - Critical

TMCLK - Northern Connection Sub-Sea Tunnel Section  
 Three-months Rolling Programme  
 As of 30Jan14 Progress



Date	Revision	Checked	Approved



Activity ID	Activity Name	Orig Dur	Current Start	Current Finish	% Comp	2013		2014				
						Dec	Jan	Feb	Mar	Apr	May	
<b>(A5) Ground Investigation Report (Northern Landfall)</b>												
GS00700	Preparation of Ground Investigation Report (Nth Landfall)	36d	25-Nov-13A	03-Jan-14A	100%							
GS00710	1st Submission	0d		03-Jan-14A	100%							
GS00720	SO's Comments for 1st Submission	35d	04-Jan-14A	18-Jan-14A	100%							
<b>(A18) Instrumentation and Monitoring Plan &amp; AAA Values for North and South Landfalls</b>												
AP01300	Preparation of AIP Instrumentation and Monitoring Plan & AAA	12d	18-Oct-13A	16-Dec-13A	100%							
AP01305	Review & Comment by JV	12d	17-Dec-13A	19-Dec-13A	100%							
AP01310	Designer Prepare AIP	6d	20-Dec-13A	23-Dec-13A	100%							
AP01315	Formal Submission of AIP to ICE/IPs (except GEO)	0d		23-Dec-13A	100%							
AP01320	Advanced Submission of AIP to SO	0d		23-Dec-13A	100%							
AP01325	Review & Comment by SO/ ICE/ IPs	28d	24-Dec-13A	24-Jan-14A	100%							
AP01330	Advance Comments from SO/ Comments from ICE/ IPs Received	0d		24-Jan-14A	100%							
AP01335	Designer to Prepare RTC & Updated AIP	18d	25-Jan-14A	21-Feb-14	22.22%							
AP01340	Submission of AIP to SO/ ICE together with Reply To Comment (RTC)	0d		21-Feb-14	0%							
AP01345	Reply to IPs Comments in RTC	0d		21-Feb-14	0%							
AP01350	ICE Approval & Issue of Design Check Cert.	18d	22-Feb-14	14-Mar-14	0%							
AP01355	Check Cert to SO, SO Submission to GEO	0d		14-Mar-14	0%							
AP01360	No Objection or Further Minor Comments from IPs Received	0d		14-Mar-14	0%							
AP01365	SO forward AIP to GEO	3d	22-Feb-14	24-Feb-14	0%							
AP01370	GEO Review (4 weeks)	28d	25-Feb-14	24-Mar-14	0%							
AP01375	GEO Comment Received	0d		24-Mar-14	0%							
AP01380	SO Review (35 Days)	35d	22-Feb-14	28-Mar-14	0%							
AP01385	SO Approval with Condition Received	0d		28-Mar-14	0%							
<b>(C1) AIP - North C&amp;C Box &amp; Approach Ramp</b>												
AP00200	Preparation of AIP for North C&C Box & Approach Ramp	12d	28-Sep-13A	07-Nov-13A	100%							
AP00205	Review & Comment by JV	6d	08-Nov-13A	25-Nov-13A	100%							
AP00210	Prepare submission to SO	6d	26-Nov-13A	03-Dec-13A	100%							
AP00215	Formal Submission of AIP to ICE/IPs (except GEO)	0d		03-Dec-13A	100%							
AP00220	Advanced Submission of AIP to SO	0d		03-Dec-13A	100%							
AP00225	Review & Comment by SO/ ICE/ IPs	28d	04-Dec-13A	24-Jan-14A	100%							
AP00230	Advance Comments from SO/ Comments from ICE/ IPs Received	0d		24-Jan-14A	100%							
AP00235	Designer to Prepare RTC & Updated AIP	18d	25-Jan-14A	22-Feb-14	16.67%							
AP00240	Submission of AIP to SO/ ICE together with Reply To Comment (RTC)	0d		22-Feb-14	0%							
AP00245	Reply to IPs Comments in RTC	0d		22-Feb-14	0%							
AP00250	ICE Approval & Issue of Design Check Cert.	18d	24-Feb-14	15-Mar-14	0%							
AP00255	Check Cert to SO, SO Submission to GEO	0d		15-Mar-14	0%							
AP00260	No Objection or Further Minor Comments from IPs Received	0d		15-Mar-14	0%							
AP00265	SO forward AIP to GEO	3d	23-Feb-14	25-Feb-14	0%							
AP00270	GEO Review (4 weeks)	28d	26-Feb-14	25-Mar-14	0%							
AP00275	GEO Comment Received	0d		25-Mar-14	0%							
AP00280	SO Review (35 Days)	35d	23-Feb-14	29-Mar-14	0%							
AP00285	SO Approval with Condition Received	0d		29-Mar-14	0%							
<b>(C1) DDA for North C&amp;C Box &amp; Approach Ramp</b>												
DD00280	Preparation DDANth C&C Box and Approach Ramp	18d	31-Mar-14	24-Apr-14	0%							
DD00290	Review & Comment by JV	18d	25-Apr-14	17-May-14	0%							
<b>(D2) AIP Temp.works - Northern Landfall Change Diameter Shaft</b>												
AP01100	Preparation of AIP Nth Landfall TBM Change Diameter Shaft	22d	04-Oct-13A	30-Oct-13A	100%							
AP01105	Review & Comment by JV	5d	31-Oct-13A	25-Nov-13A	100%							
AP01110	Designer Prepare AIP	5d	26-Nov-13A	30-Nov-13A	100%							
AP01115	Formal Submission of AIP to ICE/IPs (except GEO)	0d		26-Nov-13A	100%							
AP01120	Advanced Submission of AIP to SO	0d		30-Nov-13A	100%							
AP01125	Review & Comment by SO/ ICE/ IPs	28d	27-Nov-13A	13-Dec-13A	100%							
AP01130	Advance Comments from SO/ Comments from ICE/ IPs Received	0d		13-Dec-13A	100%							
AP01135	Designer to Prepare RTC & Updated AIP	18d	14-Dec-13A	24-Dec-13A	100%							
AP01140	Submission of AIP to SO/ ICE together with Reply To Comment (RTC)	0d		24-Dec-13A	100%							
AP01145	Reply to IPs Comments in RTC	0d		24-Dec-13A	100%							
AP01150	ICE Approval & Issue of Design Check Cert.	18d	14-Dec-13A	24-Dec-13A	100%							
AP01155	Check Cert to SO, SO Submission to GEO	0d		24-Dec-13A	100%							
AP01160	No Objection or Further Minor Comments from IPs Received	0d		24-Dec-13A	100%							
AP01180	SO Review (35 Days)	35d	25-Dec-13A	02-Feb-14	90%							
AP01185	SO Approval with Condition Received	0d		07-Feb-14	0%							
<b>(D2) DDA Temp.works - Northern Landfall Change Diameter Shaft</b>												
DD03330	Preparation of DDA TBM Change Diameter Shaft	18d	07-Feb-14	27-Feb-14	0%							
DD03340	Review & Comment by JV	18d	28-Feb-14	20-Mar-14	0%							
DD03350	Designer prepare DDA	10d	21-Mar-14	01-Apr-14	0%							
DD03360	Formal Submission of DDA to ICE/ IPs	0d		01-Apr-14	0%							
DD03370	Advanced Submission to SO	0d		01-Apr-14	0%							
DD03380	IPs/ SO's Advance Comments/ ICE Comments	28d	02-Apr-14	29-Apr-14	0%							
DD03390	Comments Received	0d		29-Apr-14	0%							
<b>(D3) AIP Temp.works - TBM Launching Shaft and ELS for North</b>												
AP01200	Preparation of AIP - TBM Launching Shaft and ELS for North	18d	19-Sep-13A	26-Nov-13A	100%							
AP01205	Review & Comment by JV	18d	27-Nov-13A	29-Nov-13A	100%							
AP01210	Prepare Formal Submission to SO	12d	30-Nov-13A	02-Dec-13A	100%							
AP01220	1st Submission to SO/GEO/IPs	0d		02-Dec-13A	100%							
AP01250	ICE Approval & Issue of Design Check Cert.	10d	03-Dec-13A	24-Dec-13A	100%							
AP01280	SO Review (35 Days)	35d	03-Dec-13A	24-Dec-13A	100%							
AP01285	SO Approval with Condition Received	0d		24-Dec-13A	100%							
<b>(D3) DDA Temp.works - TBM Launching Shaft and ELS for North</b>												
DD03690	Preparation of DDA TBM launching Shaft and North ELS	18d	25-Dec-13A	07-Feb-14	88.89%							
DD03700	Review & Comment by JV	10d	08-Feb-14	19-Feb-14	0%							
DD03710	Designer prepare DDA	6d	20-Feb-14	26-Feb-14	0%							
DD03720	Formal Submission of DDA to ICE/ IPs	0d		26-Feb-14	0%							
DD03730	Advanced Submission to SO	0d		26-Feb-14	0%							
DD03740	IPs/ SO's Advance Comments/ ICE Comments	28d	27-Feb-14	26-Mar-14	0%							

- Actual Work
- Planned Milestone
- Actual Milestone
- Planned Bar
- Planned Bar - Critical



Date	Revision	Checked	Approved

Activity ID	Activity Name	Orig Dur	Current Start	Current Finish	% Comp	2013		2014				
						Dec	Jan	Feb	Mar	Apr	May	
DD03750	Comments Received	0d		26-Mar-14	0%							◆ Comments Received
DD03760	Designer to Reply RTC + Update Submission	12d	27-Mar-14	10-Apr-14	0%							◆ Designer to Reply RTC + U
DD03770	Submit Updated DDA to SO/ ICE/ IPs	0d	11-Apr-14		0%							◆ Submit Updated DDA to SO
DD03780	ICE Approval & Issue Check Cert	12d	11-Apr-14	28-Apr-14	0%							◆ ICE Approval & I
DD03790	Submit ICE Check Cert to SO+ SO Forward to GEO	6d	29-Apr-14	07-May-14	0%							◆ Submit ICE
DD03800	IPs Review	28d	11-Apr-14	08-May-14	0%							◆ IPs Review
DD03820	SO Forward DDA to GEO (w/o ICE Cert.)	3d	11-Apr-14	13-Apr-14	0%							◆ SO Forward DDA to GEO
DD03830	GEO Review	28d	15-Apr-14	12-May-14	0%							◆ GEO Re
DD03850	SO's Review	35d	11-Apr-14	15-May-14	0%							◆ SO's R
<b>Method Statement Submission</b>												
<b>Method Statement of Providing the Groundwater Cut-offs &amp; Pumping Test</b>												
MS1900	Preparation Method Statement for Groundwater Cut-off & Pumping Test	25d	21-Feb-14	21-Mar-14	0%							◆ Preparation Method Statement for Grou
MS1910	Submit Method Statement to SO	0d		21-Mar-14	0%							◆ Submit Method Statement to SO
MS1920	SO Reviews & Comments	28d	22-Mar-14	18-Apr-14	0%							◆ SO Reviews & Comm
MS1930	Re-submission	18d	22-Apr-14	14-May-14	0%							◆ Re-sub
<b>Method Statement of Construction Methodology of TBM Launching Shaft</b>												
MS1500	Preparation Method Statement for Launching Shaft	25d	30-Jan-14	06-Mar-14	0%							◆ Preparation Method Statement for Launching Sha
MS1510	Submit Method Statement to SO	0d		06-Mar-14	0%							◆ Submit Method Statement to SO
MS1520	SO Reviews & Comments	28d	07-Mar-14	03-Apr-14	0%							◆ SO Reviews & Comments
MS1530	Re-submission	18d	04-Apr-14	29-Apr-14	0%							◆ Re-submission
<b>CLP Temporary Substation</b>												
<b>Design Submission</b>												
<b>(D5) DDA Temporary CLP Substation</b>												
DD68760	Prepare Design Layout Plan with CLPP	7d	10-Sep-13A	17-Sep-13A	100%							
DD68770	Prepare General Building Plan	14d	18-Sep-13A	05-Oct-13A	100%							
DD68780	Prepare Drainage Plan	18d	07-Oct-13A	28-Oct-13A	100%							
DD68790	Prepare Structural Plan	28d	24-Sep-13A	28-Oct-13A	100%							
DD68800	Prepare BS and FS Design	32d	18-Sep-13A	28-Oct-13A	100%							
DD68810	Advance Submission to SO/CLP	0d		05-Oct-13A	100%							
DD68820	SO/CLP review on JV advance submission	6d	07-Oct-13A	12-Oct-13A	100%							
DD68830	Workshop with SO/CLP	0d	15-Oct-13A		100%							
DD68840	IPs/ SO's Advance Comment	7d	15-Oct-13A	21-Oct-13A	100%							
DD68850	Comments Received	0d		21-Oct-13A	100%							
DD68860	Designer to issue RTC + Update Submission	6d	22-Oct-13A	28-Oct-13A	100%							
DD68870	Submit Updated DDA to SO/ ICE/ CLP	0d	29-Oct-13A		100%							
DD68880	ICE review & Issue Check Cert	12d	29-Oct-13A	09-Dec-13A	100%							
DD68890	Submit ICE Check Cert to SO	6d	17-Dec-13A	23-Dec-13A	100%							
DD68900	CLP Review	28d	29-Oct-13A	22-Nov-13A	100%							
DD68910	CLP minor comment received	0d		06-Dec-13A	100%							
DD68920	SO's Review	35d	29-Oct-13A	31-Jan-14	80%							
DD68930	SO minor comment received	0d		07-Feb-14	0%							
DD68940	Designer to issue RTC + Update Submission	10d	25-Nov-13A	02-Dec-13A	100%							
DD68950	CLP's Final Review	14d	10-Dec-13A	22-Jan-14A	100%							
DD68960	CLP's Final Approval	0d		22-Jan-14A	100%							
DD68970	SO's Final Review	28d	07-Feb-14	06-Mar-14	0%							
DD68980	SO's Final Approval	0d		06-Mar-14	0%							
DDP12350	Submit DDA to FSD	0d	18-Oct-13A		100%							
DDP12360	FSD Review	28d	19-Oct-13A	12-Dec-13A	100%							
DDP12370	FSD minor comment received	0d		12-Dec-13A	100%							
DDP12380	Designer to issue RTC + Update Submission	12d	13-Dec-13A	24-Dec-13A	100%							
DDP12390	FSD's Final Review	28d	25-Dec-13A	08-Feb-14	50%							
DDP12400	FSD's Final Approval	0d		08-Feb-14	0%							
<b>Construction</b>												
DDP12550	RMO Application for TTMS Implementation	6d	30-Jan-14	12-Feb-14	0%							
DDP12560	TTMS Implementation	0d	13-Feb-14		0%							
DDP12720	Trench Excavation & Service Connection	72d	13-Feb-14	14-May-14	0%							
DDP12730	Excavation & Earth Mat Installation (Phase 1 - Northern)	6d	29-Dec-13A	07-Feb-14	66.67%							
DDP12740	Excavation & Earth Mat Installation (Phase 2 - Adj. to HYS)	6d	29-Dec-13A	10-Feb-14	66.67%							
DDP12750	Temporary Substation Construction - Foundation	10d	20-Feb-14A	21-Feb-14	0%							
DDP12760	Temporary Substation Construction - Structure	95d	22-Feb-14	20-Jun-14	0%							
<b>North Approach TBM Tunnelling</b>												
<b>Design Submission</b>												
<b>(D7) DDA Gantry Crane / Tower Crane Supports/Foundation</b>												
DD69000	Preparation of DDA Gantry Crane / Tower Crane Supports/Foundation	18d	12-Feb-14	04-Mar-14	0%							
DD69010	Review & Comment by JV	18d	05-Mar-14	25-Mar-14	0%							
DD69020	Designer prepare DDA	10d	26-Mar-14	07-Apr-14	0%							
DD69030	Formal Submission of DDA to ICE/ IPs	0d		07-Apr-14	0%							
DD69040	Advanced Submission to SO	0d		07-Apr-14	0%							
DD69050	IPs/ SO's Advance Comments/ ICE Comments	28d	08-Apr-14	05-May-14	0%							
<b>(D8) DDA Thrust Frame for TBM Launching</b>												
DD69140	Preparation of DDA Thrust Frame for TBM Launching	18d	24-Mar-14	14-Apr-14	0%							
DD69150	Review & Comment by JV	18d	15-Apr-14	10-May-14	0%							
<b>(G2) AIP - Tunnel Space Proofing - North Approach</b>												
AP2300	Preparation of AIP for North Approach tunnel - Space Proofing	18d	05-Sep-13A	26-Sep-13A	100%							
AP2310	Review & Comment by JV	4d	27-Sep-13A	03-Oct-13A	100%							
AP2315	Designer Prepare AIP	1d	04-Oct-13A	04-Oct-13A	100%							
AP2320	Formal Submission of AIP to ICE/IPs (except GEO)	0d		04-Oct-13A	100%							
AP2325	Advanced Submission of AIP to SO	0d		04-Oct-13A	100%							
AP2330	Review & Comment by SO/ ICE/ IPs	28d	05-Oct-13A	24-Oct-13A	100%							
AP2340	Advance Comment from SO/ Comments from ICE/ IPs Received	0d		24-Oct-13A	100%							
AP2350	Designer to Prepare RTC & Updated AIP	18d	25-Oct-13A	12-Dec-13A	100%							
AP2360	Submission of AIP to SO/ ICE together with Reply To Comment (RTC)	0d		12-Dec-13A	100%							
AP2365	Reply to IPs Comments in RTC	0d		12-Dec-13A	100%							
AP2370	ICE Approval & Issue of Design Check Cert.	18d	12-Dec-13A	19-Dec-13A	100%							

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

TMCLK - Northern Connection Sub-Sea Tunnel Section  
 Three-months Rolling Programme  
 As of 30Jan14 Progress



Date	Revision	Checked	Approved



Activity ID	Activity Name	Orig Dur	Current Start	Current Finish	% Comp	2013		2014							
						Dec	Jan	Feb	Mar	Apr	May				
AP2390	SO Review (35 Days)	35d	13-Dec-13A	31-Jan-14	95%										
AP2410	SO Approval with Condition R received	0d		07-Feb-14	0%										
<b>(G2) AIP - TBM Tunnel Lining &amp; Internal Structures - North Approach</b>															
AP2700	Preparation of AIP for TBM Tunnel Lining & Internal Structures - North Approach	18d	23-Sep-13A	18-Oct-13A	100%										
AP2710	Review & Comment by JV	12d	19-Oct-13A	23-Oct-13A	100%										
AP2715	Designer Prepare AIP	12d	24-Oct-13A	01-Nov-13A	100%										
AP2720	Formal Submission of AIP to SO/GEO/IP/ICE	0d		01-Nov-13A	100%										
AP2770	ICE Approval & Issue of Design Check Cert.	10d	02-Nov-13A	03-Dec-13A	100%										
AP2780	Check Cert to SO, SO Submission to GEO	0d		03-Dec-13A	100%										
AP2840	SO Review (35 Days)	35d	02-Nov-13A	17-Dec-13A	100%										
AP2850	SO Approval with Condition R received	0d		17-Dec-13A	100%										
<b>(G2) DDA for TBM Tunnel Lining Structural Design - North Approach</b>															
DD00700	Preparation of DDA	18d	18-Dec-13A	07-Feb-14	88.89%										
DD00705	Review & Comment by JV	24d	08-Feb-14	07-Mar-14	0%										
DD00710	Designer prepare DDA	15d	08-Mar-14	25-Mar-14	0%										
DD00715	Formal Submission of DDA to ICE/ IPs	0d		25-Mar-14	0%										
DD00720	Advanced Submission to SO	0d		25-Mar-14	0%										
DD00725	IPs/ SO's Advance Comments/ ICE Comments	28d	26-Mar-14	22-Apr-14	0%										
DD00730	Comments Received	0d		22-Apr-14	0%										
DD00735	Designer to Reply RtC + Update Submission	21d	23-Apr-14	19-May-14	0%										
DD01035	Works Commencement - North TBM Segment Mould Fabrication	0d	23-Apr-14*		0%										
<b>(G2) DDA for TBM Tunnel Lining Settlement Analysis &amp; Confinement Pressure - North Approach</b>															
DD00800	Preparation of DDANorth TBM Confinement Pressure	18d	30-Jan-14	26-Feb-14	0%										
DD00805	Review & Comment by JV	24d	27-Feb-14	26-Mar-14	0%										
DD00810	Designer prepare DDA	15d	27-Mar-14	14-Apr-14	0%										
DD00815	Formal Submission of DDA to ICE/ IPs	0d		14-Apr-14	0%										
DD00820	Advanced Submission to SO	0d		14-Apr-14	0%										
DD00825	IPs/ SO's Advance Comments/ ICE Comments	28d	15-Apr-14	12-May-14	0%										
<b>(G5) AIP - Cross Passage - Permanent works - North</b>															
AP3270	Preparation of AIP for Cross Passage	30d	01-Jan-14A	01-Mar-14	30%										
AP3280	Review & Comment by JV	18d	03-Mar-14	22-Mar-14	0%										
AP3285	Designer Prepare AIP	12d	24-Mar-14	07-Apr-14	0%										
AP3290	Formal Submission of AIP to ICE/IPs (except GEO)	0d		07-Apr-14	0%										
AP3295	Advanced Submission of AIP to SO	0d		07-Apr-14	0%										
AP3300	Review & Comment by SO/ ICE/ IPs	28d	08-Apr-14	05-May-14	0%										
<b>(H2) AIP Temp.works - Cross Passage - North</b>															
AP02110	Preparation of Temp works AIP Corss Passage - North	18d	30-Dec-13A	20-Feb-14	30%										
AP02120	Review & Comment by JV	18d	20-Feb-14	13-Mar-14	0%										
AP02130	Designer Prepare AIP - Project Alignment	12d	13-Mar-14	27-Mar-14	0%										
AP02140	Formal Submission of AIP to ICE/IPs (except GEO)	0d		27-Mar-14	0%										
AP02150	Advanced Submission of AIP to SO	0d		27-Mar-14	0%										
AP02160	Review & Comment by SO/ ICE/ IPs	28d	27-Mar-14	24-Apr-14	0%										
AP02170	Advance Commants from SO/ Comments from ICE/ IPs Received	0d		24-Apr-14	0%										
AP02180	Designer to Prepare RtC & Updated AIP	18d	24-Apr-14	17-May-14	0%										
<b>Box Culvert Extension</b>															
<b>Design Submission</b>															
<b>(D10) AIP Temp.works - Extension of Existing Culvert adjacent to RTT</b>															
AP01700	Preparation of AIP Box Culvert Extension ELS	18d	02-Dec-13A	15-Feb-14*	50%										
AP01705	Review & Comment by JV	6d	17-Feb-14	22-Feb-14	0%										
AP01710	Designer Prepare AIP	6d	24-Feb-14	01-Mar-14	0%										
AP01715	Formal Submission of AIP to ICE/IPs	0d		01-Mar-14	0%										
AP01720	Submission of AIP to SO	0d		01-Mar-14	0%										
AP01725	Review & Comment by SO/ ICE/ IPs	28d	02-Mar-14	29-Mar-14	0%										
AP01730	Comments from SO/ Comments from ICE/ IPs Received	0d		29-Mar-14	0%										
AP01735	Designer to Prepare RtC & Updated AIP	18d	31-Mar-14	24-Apr-14	0%										
AP01740	Submission of AIP to SO/ ICE together with Reply To Comment (RTC)	0d		24-Apr-14	0%										
AP01745	Reply to IPs Comments in RTC	0d		24-Apr-14	0%										
AP01750	ICE Approval & Issue of Design Check Cert.	18d	25-Apr-14	17-May-14	0%										
AP01780	SO Review (35 Days)	35d	25-Apr-14	29-May-14	0%										
<b>(D10) DDA Temp.works - Extension of Existing Culvert adjacent to RTT</b>															
DD04375	Works Completion - Zone F Reclamation up to +3.0mPD	0d	15-Apr-14*		0%										
<b>North Ventilation Building</b>															
<b>Design Submission</b>															
<b>(A10) ACABAS Submissions</b>															
GS01600	Preparation of ACABAS submissions	30d	16-Oct-13A	06-Dec-13A	100%										
GS01610	*1st Submission (1st Draft)	0d		06-Dec-13A	100%										
GS01620	SO's Comment	14d	07-Dec-13A	08-Jan-14A	100%										
GS01630	Prepare Re-submission	12d	09-Jan-14A	27-Jan-14A	100%										
GS01640	Submission to ACABAS	0d		27-Jan-14A	100%										
GS01650	ACABAS Approval	14d	30-Jan-14	12-Feb-14	0%										
<b>(A11) Submissions to Design Advisory Panel of ArchSD</b>															
GS01700	Preparation of Submissions to Design Advisory Panel of ArchSD	30d	30-Jan-14	12-Mar-14	0%										
GS01710	1st Submission	0d		12-Mar-14	0%										
GS01720	ArchSD's comment	30d	13-Mar-14	11-Apr-14	0%										
GS01730	Prepare Re-submission	18d	12-Apr-14	08-May-14	0%										
<b>(I1) DDA for North Vent. Bldgs. GBP &amp; Arch. Submission</b>															
DD01200	Preparation of DDANth VB GBP & Arch Submission	18d	24-Apr-14	16-May-14	0%										
<b>(I1) AIP - North &amp; South Ventilation Buildings - GBP</b>															
AP00500	Designer Prepare Nth/Sth Vent. Bldg - GBP	36d	04-Nov-13A	14-Dec-13A	100%										
AP00505	Review & Comment by JV	18d	16-Dec-13A	15-Jan-14A	100%										
AP00510	Designer prepare AIP	12d	16-Jan-14A	27-Jan-14A	100%										
AP00515	Formal Submission of AIP to ICE/IPs	0d		27-Jan-14A	100%										
AP00520	Advanced Submission of AIP to SO	0d		27-Jan-14A	100%										
AP00525	Review & Comment by SO/ ICE/ IPs	28d	28-Jan-14A	24-Feb-14	7.14%										

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



Date	Revision	Checked	Approved

Activity ID	Activity Name	Orig Dur	Current Start	Current Finish	% Comp	2013		2014							
						Dec	Jan	Feb	Mar	Apr	May				
AP00530	Advance Comments from SO/ Comments from ICE/ IPs Received	0d		24-Feb-14	0%					◆	Advance Comments from SO/ Comments from ICE/ IPs Received				
AP00535	Designer to Prepare RTC & Updated AIP	18d	25-Feb-14	17-Mar-14	0%						█	Designer to Prepare RTC & Updated AIP			
AP00540	Submission of AIP to SO/ ICE together with Reply To Comment (RTC)	0d		17-Mar-14	0%						◆	Submission of AIP to SO/ ICE together with Reply To Comment (RTC)			
AP00545	Reply to IPs Comments in RTC	0d		17-Mar-14	0%						◆	Reply to IPs Comments in RTC			
AP00550	ICE Approval & Issue of Design Check Cert.	18d	18-Mar-14	08-Apr-14	0%						█	ICE Approval & Issue of Design Check Cert.			
AP00555	Check Cert to SO	0d		08-Apr-14	0%						◆	Check Cert to SO			
AP00560	No Objection or Further Minor Comments from IPs Received	0d		08-Apr-14	0%						◆	No Objection or Further Minor Comments from IPs Received			
AP00565	SO Review (35 Days)	35d	20-Mar-14	23-Apr-14	0%						█	SO Review (35 Days)			
AP00570	SO Approval with Condition Received	0d		23-Apr-14	0%						◆	SO Approval with Condition Received			
<b>(I2) AIP - North &amp; South Ventilation Buildings - Foundation/Structural Design</b>															
AP00600	Preparation of AIP for North & South Ventilation Bldgs. Foundation/Structural Design	36d	18-Mar-14	03-May-14	0%						█	Preparation of AIP for North & South Ventilation Bldgs. Foundation/Structural Design			
<b>North Surface Roadworks, Utility &amp; Drainage works</b>															
<b>Design Submission</b>															
<b>(A7) Utilities Report</b>															
GS00800	Preparation of Utilities Report by Designer	12d	05-Sep-13A	27-Nov-13A	100%							█	Preparation of Utilities Report by Designer		
GS00805	Review by JV	12d	06-Nov-13A	27-Nov-13A	100%							█	Review by JV		
GS00810	1st Submission (1st Draft)	0d		27-Nov-13A	100%							█	1st Submission (1st Draft)		
GS00820	SO's Comments for 1st Submission	35d	28-Nov-13A	20-Jan-14A	100%							█	SO's Comments for 1st Submission		
GS00830	Prepare Re-submission	22d	21-Jan-14A	21-Feb-14	36.36%							█	Prepare Re-submission		
GS00840	2nd Submission (Final)	0d		21-Feb-14	0%							◆	2nd Submission (Final)		
GS00850	SO's Condition Approval	35d	22-Feb-14	28-Mar-14	0%							█	SO's Condition Approval		
<b>Sub-sea Tunnel</b>															
<b>Sub-sea TBM Tunnelling</b>															
<b>Design Submission</b>															
<b>(B6) Risk Assessment of Submarine Cable - Tunnelling Works</b>															
GS01405	1st Submission	0d		05-Mar-14	0%							◆	1st Submission		
GS01425	CLP Comment Received	0d		07-Apr-14	0%							◆	CLP Comment Received		
GS01430	Prepare Re-submission	12d	10-Apr-14	26-Apr-14	0%							█	Prepare Re-submission		
GS01435	ICE Cert. Issue	6d	28-Apr-14	05-May-14	0%							█	ICE Cert. Issue		
GS01445	2nd Submission	0d		26-Apr-14	0%							◆	2nd Submission		
GS01455	SO Forward Submission to CLP	3d	28-Apr-14	30-Apr-14	0%							█	SO Forward Submission to CLP		
GS01467	SO's Condition Approval	35d	27-Apr-14	31-May-14	0%							█	SO's Condition Approval		
<b>(G1) AIP - TBM Tunnel Lining &amp; Internal Structures - Sub-sea tunnel</b>															
AP00300	Preparation of AIP for TBM Tunnel Lining & Internal Structures	18d	12-Oct-13A	18-Oct-13A	100%							█	Preparation of AIP for TBM Tunnel Lining & Internal Structures		
AP00305	Review & Comment by JV	12d	19-Oct-13A	23-Oct-13A	100%							█	Review & Comment by JV		
AP00310	Designer Prepare AIP	6d	24-Oct-13A	01-Nov-13A	100%							█	Designer Prepare AIP		
AP00315	Formal Submission of AIP to ICE/IPs (except GEO)	0d		01-Nov-13A	100%							█	Formal Submission of AIP to ICE/IPs (except GEO)		
AP00320	Advanced Submission of AIP to SO	0d		01-Nov-13A	100%							█	Advanced Submission of AIP to SO		
AP00325	Review & Comment by SO/ ICE/ IPs	28d	02-Nov-13A	06-Dec-13A	100%							█	Review & Comment by SO/ ICE/ IPs		
AP00330	Advance Comment from SO/ Comments from ICE/ IPs Received	0d		06-Dec-13A	100%							◆	Advance Comment from SO/ Comments from ICE/ IPs Received		
AP00335	Designer to Prepare RTC & Updated AIP	18d	21-Nov-13A	03-Dec-13A	100%							█	Designer to Prepare RTC & Updated AIP		
AP00340	Submission of AIP to SO/ ICE together with Reply To Comment (RTC)	0d		15-Jan-14A	100%							◆	Submission of AIP to SO/ ICE together with Reply To Comment (RTC)		
AP00345	Reply to IPs Comments in RTC	0d		15-Jan-14A	100%							◆	Reply to IPs Comments in RTC		
AP00350	ICE Approval & Issue of Design Check Cert.	18d	10-Dec-13A	02-Jan-14A	100%							█	ICE Approval & Issue of Design Check Cert.		
AP00355	Check Cert to SO, SO Submission to GEO	0d		03-Dec-13A	100%							◆	Check Cert to SO, SO Submission to GEO		
AP00360	No Objection or Further Minor Comments from IPs Received	0d		03-Dec-13A	100%							◆	No Objection or Further Minor Comments from IPs Received		
AP00380	SO Review (35 Days)	35d	03-Dec-13A	24-Dec-13A	100%							█	SO Review (35 Days)		
AP00385	SO Approval with Condition Received	0d		24-Dec-13A	100%							◆	SO Approval with Condition Received		
<b>(G1) AIP - Tunnel Space Proofing - Sub-sea tunnel</b>															
AP2500	Preparation of Technical Proposal of Sub-sea Tunnel - Space Proofing	18d	03-Sep-13A	24-Sep-13A	100%							█	Preparation of Technical Proposal of Sub-sea Tunnel - Space Proofing		
AP2510	Review & comment by JV	8d	25-Sep-13A	28-Sep-13A	100%							█	Review & comment by JV		
AP2515	Prepare Formal Submission	1d	29-Sep-13A	04-Oct-13A	100%							█	Prepare Formal Submission		
AP2520	Proposal Submission to Hyds, SO, Major IPs	0d		04-Oct-13A	100%							█	Proposal Submission to Hyds, SO, Major IPs		
AP2530	Review & Comment by Hyds, SO, Major IPs	28d	05-Oct-13A	29-Nov-13A	100%							█	Review & Comment by Hyds, SO, Major IPs		
AP2540	Advance Comment from SO/ Comments from ICE/ IPs Received	0d		29-Nov-13A	100%							◆	Advance Comment from SO/ Comments from ICE/ IPs Received		
AP2550	Designer to AIP of Tunnel Space Proofing - Sub-sea Tunnel	18d	29-Nov-13A	12-Dec-13A	100%							█	Designer to AIP of Tunnel Space Proofing - Sub-sea Tunnel		
AP2560	Submission of AIP to SO/ ICE/IPs	0d		12-Dec-13A	100%							◆	Submission of AIP to SO/ ICE/IPs		
AP2570	ICE Approval & Issue of Design Check Cert.	10d	13-Dec-13A	24-Dec-13A	100%							█	ICE Approval & Issue of Design Check Cert.		
AP2590	SO Review (35 Days)	35d	13-Dec-13A	31-Jan-14	90%							█	SO Review (35 Days)		
AP2610	SO Approval with Condition Received	0d		07-Feb-14	0%							◆	SO Approval with Condition Received		
<b>(G1) DDA for TBM Tunnel Lining Structural Design - Sub-sea tunnel</b>															
DD6490	Preparation of DDA	18d	07-Feb-14	27-Feb-14	0%							█	Preparation of DDA		
DD6500	Review & Comment by JV	24d	28-Feb-14	27-Mar-14	0%							█	Review & Comment by JV		
DD6505	Designer prepare DDA	15d	28-Mar-14	15-Apr-14	0%							█	Designer prepare DDA		
DD6510	Formal Submission of DDA to ICE/ IPs	0d		15-Apr-14	0%							◆	Formal Submission of DDA to ICE/ IPs		
DD6515	Advanced Submission to SO	0d		15-Apr-14	0%							◆	Advanced Submission to SO		
DD6520	IPs/ SO's Advance Comments/ ICE Comments	28d	16-Apr-14	13-May-14	0%							█	IPs/ SO's Advance Comments/ ICE Comments		
DD6650	Works Commencement - Sub-sea Tunnel Segment Mould Start	0d		23-Apr-14*	0%							◆	Works Commencement - Sub-sea Tunnel Segment Mould Start		
<b>(G1) DDA for TBM Tunnel Lining Settlement Analysis &amp; Confinement Pressure - Sub-sea tunnel</b>															
DD6690	Preparation of DDA TBM Confinement - Sub-sea tunnel	18d	28-Feb-14	20-Mar-14	0%							█	Preparation of DDA TBM Confinement - Sub-sea tunnel		
DD6700	Review & Comment by JV	24d	21-Mar-14	22-Apr-14	0%							█	Review & Comment by JV		
DD6705	Designer prepare DDA	15d	23-Apr-14	12-May-14	0%							█	Designer prepare DDA		
<b>(G3) DDA for TBM Tunnel Internal Structures (Sub-sea)</b>															
DD00900	Preparation of DDA TBM Tunnel Internal Structures (TBM Tunnel)	18d	16-Apr-14	12-May-14	0%							█	Preparation of DDA TBM Tunnel Internal Structures (TBM Tunnel)		
<b>Method Statement Submission</b>															
<b>Method Statement of TBM Tunnel Precast Segment Formwork</b>															
MS2400	Preparation Method Statement for TBM Tunnel Precast Segment Formwork	25d	25-Feb-14	25-Mar-14	0%							█	Preparation Method Statement for TBM Tunnel Precast Segment Formwork		
MS2410	Submit Method Statement to SO	0d		25-Mar-14	0%							◆	Submit Method Statement to SO		
MS2420	SO Reviews & Comments	28d	26-Mar-14	22-Apr-14	0%							█	SO Reviews & Comments		
MS2430	Re-submission	18d	23-Apr-14	15-May-14	0%							█	Re-submission		
<b>Sub-sea Tunnel Cross Passage &amp; Internal Structure</b>															
<b>Design Submission</b>															
<b>(G4) AIP - Cross Passage - Sub-sea tunnel</b>															

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



Activity ID	Activity Name	Orig Dur	Current Start	Current Finish	% Comp	2014					
						Dec	Jan	Feb	Mar	Apr	May
AP00400	Preparation of AIP for Cross Passage	30d	03-Mar-14	07-Apr-14	0%				█		
AP00405	Review & Comment by JV	18d	08-Apr-14	02-May-14	0%					█	
<b>(H1) AIP Temp.works - Cross Passage - Sub-sea tunnel</b>											
AP01400	Preparation of AIP Cross Passage - Ground Freezing	18d	03-Mar-14	22-Mar-14	0%				█		
AP01405	Review & Comment by JV	18d	24-Mar-14	14-Apr-14	0%					█	
AP01410	Designer Prepare AIP - Project Alignment	12d	15-Apr-14	02-May-14	0%						█
<b>Southern Landfall</b>											
<b>South Retrieval Shaft</b>											
<b>Design Submission</b>											
<b>(F1) AIP Temp.works - Retrieval Shaft on Southern Landfall inc. break-out</b>											
AP01600	Preparation of AIP Retrieval Shaft on Sth Landfall incl break out	12d	17-Apr-14	05-May-14	0%						█

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

TMCLK - Northern Connection Sub-Sea Tunnel Section  
 Three-months Rolling Programme  
 As of 30Jan14 Progress



Date	Revision	Checked	Approved

Appendix C

Environmental Mitigation  
and Enhancement Measure  
Implementation Schedules

Contract No. HY/2012/08  
TUEN MUN – CHEK LAP KOK LINK  
Northern Connection Sub-sea Tunnel Section

ENVIRONMENTAL MITIGATION AND ENHANCEMENT MEASURE IMPLEMENTATION SCHEDULE

Air Quality

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	An effective watering programme of twice 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	Watering of the construction sites in Lantau for 8 times/day and in Tuen Mun for 12 times/day to reduce dust emissions by 87.5% and 91.7% respectively and shall be undertaken.	All areas / throughout construction period	Contractor	TMEIA Avoid dust generation		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		<>

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

Contract No. HY/2012/08  
TUEN MUN – CHEK LAP KOK LINK  
Northern Connection Sub-sea Tunnel Section

ENVIRONMENTAL MITIGATION AND ENHANCEMENT MEASURE IMPLEMENTATION SCHEDULE

Air Quality

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	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		✓
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	All site exits / throughout construction period	Contractor	TMEIA Avoid dust		Y		↔

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



Contract No. HY/2012/08  
TUEN MUN – CHEK LAP KOK LINK  
Northern Connection Sub-sea Tunnel Section

ENVIRONMENTAL MITIGATION AND ENHANCEMENT MEASURE IMPLEMENTATION SCHEDULE

Air Quality

EIA Reference	EM&A Manual Reference	Environmental Protection Measures	Location/ Timing	Implementation Agent	Relevant Standard or Requirement	Implementation Stages			Status
						D	C	O	
		any earthworks excavation activity on the site.							
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		✓

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

Contract No. HY/2012/08  
 TUEN MUN – CHEK LAP KOK LINK  
 Northern Connection Sub-sea Tunnel Section

ENVIRONMENTAL MITIGATION AND ENHANCEMENT MEASURE IMPLEMENTATION SCHEDULE

Water Quality

EIA Reference	EM&A Manual Reference	Environmental Protection Measures	Location/ Timing	Implementat ion Agent	Relevant Standard or Requirement	Implementation Stages			Status
						D	C	O	
Marine Works (Sequence A)									
6.10 Figure 6.2a Appendix D6a	Annex A	Construction of seawalls to be advanced by at least 200m before the main reclamation dredging and filling can commence. The protection by advanced seawall is a dynamic process depending on the progress of the construction activities and the stage when such protection could be realised is illustrated in Figure 6.2a and detailed in Appendix D6a. The part of the works where such measures can be undertaken for the majority of the time includes the following locations:  - TM-CLKL northern reclamation;	All areas/ prior to dredging and backfilling works	Contractor	TM-EIAO		Y		N/A

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

Contract No. HY/2012/08  
 TUEN MUN – CHEK LAP KOK LINK  
 Northern Connection Sub-sea Tunnel Section

ENVIRONMENTAL MITIGATION AND ENHANCEMENT MEASURE IMPLEMENTATION SCHEDULE

Water Quality

EIA Reference	EM&A Manual Reference	Environmental Protection Measures	Location/ Timing	Implementat ion Agent	Relevant Standard or Requirement	Implementation Stages			Status
						D	C	O	
6.10	-	a maximum of 50% public fill to be used for all seawall filling below +2.5mPD for TM-CLKL southern and northern landfalls.	TM-CLKL seawall filling	Contractor	TM-EIAO		Y		N/A
6.10	-	a maximum of 30% public fill to be used for reclamation filling below +2.5mPD for TM-CLKL southern landfall	TM-CLKL southern landfall reclamation filling	Contractor	TM-EIAO		Y		N/A
6.10	-	a maximum of 100% public fill to be used for reclamation filling below +2.5mPD for TM-CLKL northern landfall	TM-CLKL northern landfall reclamation filling	Contractor	TM-EIAO		Y		N.A
6.10	-	Use of cage type silt curtains round all	All areas dredging works	Contractor	TM-EIAO		Y		✓

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

Contract No. HY/2012/08  
TUEN MUN – CHEK LAP KOK LINK  
Northern Connection Sub-sea Tunnel Section

ENVIRONMENTAL MITIGATION AND ENHANCEMENT MEASURE IMPLEMENTATION SCHEDULE

Water Quality

EIA Reference	EM&A Manual Reference	Environmental Protection Measures	Location/ Timing	Implementat ion Agent	Relevant Standard or Requirement	Implementation Stages			Status
						D	C	O	
		grab dredgers during the HKBCF, HKLR and TM-CLKL southern reclamation works.							
	Figure 1.1 of Annex C	A layer of floating type silt curtain will be applied when dredging and reclamation works are being undertaken at Portion N-a as shown in Figure 1.1 of Annex C of the EM&A Manual.	All areas/ through out marine works	Contractor	TM-EIAO		Y		✓
6.10	-	Trailer suction hopper dredgers shall not allow mud to overflow.	All areas/ throughout construction period	Contractor	Marine Fill Committee Guidelines. DASO permit conditions.		Y		✓
6.10	-	The use of Lean Material Overboard (LMOB) systems shall be prohibited.	All areas/ throughout construction period	Contractor	Marine Fill Committee Guidelines. DASO permit conditions.		Y		✓

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

Contract No. HY/2012/08  
 TUEN MUN – CHEK LAP KOK LINK  
 Northern Connection Sub-sea Tunnel Section

ENVIRONMENTAL MITIGATION AND ENHANCEMENT MEASURE IMPLEMENTATION SCHEDULE

Water Quality

EIA Reference	EM&A Manual Reference	Environmental Protection Measures	Location/ Timing	Implementat ion Agent	Relevant Standard or Requirement	Implementation Stages			Status
						D	C	O	
6.10 Figure 6.2b Appendix D6b	Annex A	<p>For other parts of the reclamation works construction of seawalls to be advanced by at least 200m before the main reclamation dredging and filling can commence. It should be noted that the protection by advanced seawall is a dynamic process depending on the progress of the construction activities and the stage when such protection could be realised is illustrated in Figure 6.2b and detailed in Appendices D6b. The part of the works where such measures can be undertaken for the majority of the time includes the following locations:</p> <ul style="list-style-type: none"> <li>- TM-CLKL northern reclamation;</li> <li>- Reclamation filling for Portion D of HKBCF; Reclamation filling for FSD berth of HKBCF; and</li> <li>- Reclamation dredging and filling for Portion 1 of HKLR;</li> </ul>	TM-CLKL northern landfall, Portion D of HKBCF and HKLR	Contractor	TM-EIAO		Y		N/A

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

Contract No. HY/2012/08  
TUEN MUN – CHEK LAP KOK LINK  
Northern Connection Sub-sea Tunnel Section

ENVIRONMENTAL MITIGATION AND ENHANCEMENT MEASURE IMPLEMENTATION SCHEDULE

Water Quality

EIA Reference	EM&A Manual Reference	Environmental Protection Measures	Location/ Timing	Implementat ion Agent	Relevant Standard or Requirement	Implementation Stages			Status
						D	C	O	
6.10	-	The filling material for the other parts of the works are the same as Sequence A;	All other areas/backfilling works	Contractor	TM-EIAO		Y		N/A
6.10	5.7	Cage type silt curtain (with steel enclosure) shall be used for grab dredgers working in the site of HKBCF and TM-CLKL southern reclamation. Cage type silt curtains will be applied round all grab dredgers at other works area	HKBCF, HKLR and TM-CLKL grab dredging	Contractor	TM-EIAO		Y		✓
6.10	Annex A	A layer of floating type silt curtain will be applied around all works as defined in Appendix D6b	All areas/ through out marine works	Contractor	TM-EIAO		Y		✓
6.10	-	TM-CLKL northern landfall: - Reclamation filling shall not proceed until at least 200m section of leading seawall at both the east and west sides	All areas/ through out marine works	Contractor	TM-EIAO		Y		N/A

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

Contract No. HY/2012/08  
TUEN MUN – CHEK LAP KOK LINK  
Northern Connection Sub-sea Tunnel Section

ENVIRONMENTAL MITIGATION AND ENHANCEMENT MEASURE IMPLEMENTATION SCHEDULE

Water Quality

EIA Reference	EM&A Manual Reference	Environmental Protection Measures	Location/ Timing	Implementat ion Agent	Relevant Standard or Requirement	Implementation Stages			Status
						D	C	O	
		of the reclamation are formed above +2.5 mPD, except for 100m gaps for marine access;							
General Marine Works									
6.10	-	Use of TMB for the construction of the submarine tunnel.	Tunnel works / Construction phase	Contractor	TM-EIAO		Y		N/A
6.10	-	Export dredged spoils from NWWCZ.	All areas as much as possible / dredging activities	Contractor	DASO Permit conditions		Y		N/A
6.10	-	Where public fill is proposed for filling below +2.5mPD, the fine content in the public fill will be controlled to 25%	All areas/ backfilling works	Contractor	TM-EIAO		Y		N/A
6.10	-	Where sand fill is proposed for filling	All areas/ backfilling works	Contractor	TM-EIAO		Y		N.A

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

Contract No. HY/2012/08  
TUEN MUN – CHEK LAP KOK LINK  
Northern Connection Sub-sea Tunnel Section

ENVIRONMENTAL MITIGATION AND ENHANCEMENT MEASURE IMPLEMENTATION SCHEDULE

Water Quality

EIA Reference	EM&A Manual Reference	Environmental Protection Measures	Location/ Timing	Implementat ion Agent	Relevant Standard or Requirement	Implementation Stages			Status
						D	C	O	
		below +2.5mPD, the fine content in the sand fill will be controlled to 5%.							
6.10	-	Mechanical grabs shall be designed and maintained to avoid spillage and should seal tightly while being lifted.	All areas/ throughout construction period	Contractor	Marine Fill Committee Guidelines. DASO permit conditions.		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		✓
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		✓

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



Contract No. HY/2012/08  
TUEN MUN – CHEK LAP KOK LINK  
Northern Connection Sub-sea Tunnel Section

ENVIRONMENTAL MITIGATION AND ENHANCEMENT MEASURE IMPLEMENTATION SCHEDULE

Water Quality

EIA Reference	EM&A Manual Reference	Environmental Protection Measures	Location/ Timing	Implementat ion Agent	Relevant Standard or Requirement	Implementation Stages			Status
						D	C	O	
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		N/A
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		N/A
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		✓
6.10	5.2	Silt curtain shall have proved effectiveness from the producer and shall be fully maintained throughout the works by the	All areas/ throughout construction period	Contractor	TM-EIAO		Y		↔

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

Contract No. HY/2012/08  
TUEN MUN – CHEK LAP KOK LINK  
Northern Connection Sub-sea Tunnel Section

ENVIRONMENTAL MITIGATION AND ENHANCEMENT MEASURE IMPLEMENTATION SCHEDULE

Water Quality

EIA Reference	EM&A Manual Reference	Environmental Protection Measures	Location/ Timing	Implementat ion Agent	Relevant Standard or Requirement	Implementation Stages			Status
						D	C	O	
		contractor.							
6.10	-	The daily maximum production rates shall not exceed those assumed in the water quality assessment.	All areas/ throughout construction period	Contractor	TM-EIAO		Y		✓
6.10	-	The dredging and filling works shall be scheduled to spread the works evenly over a working day.	All areas/ throughout construction period	Contractor	TM-EIAO		Y		✓
Land Works									
6.10	-	Wastewater from temporary site facilities should be controlled to prevent direct discharge to surface or marine waters.	All areas/ throughout construction period	Contractor	TM-EIAO		Y		✓
6.10	-	Sewage effluent and discharges from on-site kitchen facilities shall be directed to Government sewer in accordance with the requirements of the WPCO or collected for disposal offsite. The use of soakaways shall be avoided.	All areas/ throughout construction period	Contractor	TM-EIAO		Y		✓
6.10	-	Storm drainage shall be directed to storm	All areas/ throughout	Contractor	TM-EIAO		Y		✓

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

Contract No. HY/2012/08  
TUEN MUN – CHEK LAP KOK LINK  
Northern Connection Sub-sea Tunnel Section

ENVIRONMENTAL MITIGATION AND ENHANCEMENT MEASURE IMPLEMENTATION SCHEDULE

Water Quality

EIA Reference	EM&A Manual Reference	Environmental Protection Measures	Location/ Timing	Implementat ion Agent	Relevant Standard or Requirement	Implementation Stages			Status
						D	C	O	
		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.	construction period						
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	All areas/ throughout construction period	Contractor	TM-EIAO		Y		✓

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

Contract No. HY/2012/08  
TUEN MUN – CHEK LAP KOK LINK  
Northern Connection Sub-sea Tunnel Section

ENVIRONMENTAL MITIGATION AND ENHANCEMENT MEASURE IMPLEMENTATION SCHEDULE

Water Quality

EIA Reference	EM&A Manual Reference	Environmental Protection Measures	Location/ Timing	Implementat ion Agent	Relevant Standard or Requirement	Implementation Stages			Status
						D	C	O	
		or debris into any drainage system.							
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		✓

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

Contract No. HY/2012/08  
TUEN MUN – CHEK LAP KOK LINK  
Northern Connection Sub-sea Tunnel Section

ENVIRONMENTAL MITIGATION AND ENHANCEMENT MEASURE IMPLEMENTATION SCHEDULE

Water Quality

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	-	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		N/A
6.10	-	The Contractor shall prepare an oil / chemical cleanup plan and ensure that leakages or spillages are contained and	All areas/ throughout construction period	Contractor	TM-EIAO		Y		✓

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

Contract No. HY/2012/08  
TUEN MUN – CHEK LAP KOK LINK  
Northern Connection Sub-sea Tunnel Section

ENVIRONMENTAL MITIGATION AND ENHANCEMENT MEASURE IMPLEMENTATION SCHEDULE

Water Quality

EIA Reference	EM&A Manual Reference	Environmental Protection Measures	Location/ Timing	Implementat ion Agent	Relevant Standard or Requirement	Implementation Stages			Status
						D	C	O	
		cleaned up immediately.							
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		✓
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		N/A
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	All areas/ throughout construction period	Contractor	EM&A Manual		Y		✓

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

Contract No. HY/2012/08  
TUEN MUN – CHEK LAP KOK LINK  
Northern Connection Sub-sea Tunnel Section

ENVIRONMENTAL MITIGATION AND ENHANCEMENT MEASURE IMPLEMENTATION SCHEDULE

Water Quality

EIA Reference	EM&A Manual Reference	Environmental Protection Measures	Location/ Timing	Implementation Agent	Relevant Standard or Requirement	Implementation Stages			Status
						D	C	O	
		working practice.							
<b>Water Quality Monitoring</b>									
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	✓

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

Contract No. HY/2012/08  
TUEN MUN – CHEK LAP KOK LINK  
Northern Connection Sub-sea Tunnel

ENVIRONMENTAL MITIGATION AND ENHANCEMENT MEASURE IMPLEMENTATION SCHEDULE

Ecology

EIA Reference	EM&A Manual Reference	Environmental Protection Measures	Location/ Timing	Implementation Agent	Relevant Standard or Requirement	Implementation Stages			Status
						D	C	O	
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	6.3,6.5	Specification and implementation of 250m dolphin exclusion zone.	All dredging and reclamation areas/Detailed Design/during all reclamation and dredging works	Design Consultant/ Contractor	TMEIA	Y	Y		✓
8.15	6.3, 6.5	Specification and deployment of an artificial reef of an area of 3,600m <sup>2</sup> 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	✓

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



Contract No. HY/2012/08  
TUEN MUN – CHEK LAP KOK LINK  
Northern Connection Sub-sea Tunnel

ENVIRONMENTAL MITIGATION AND ENHANCEMENT MEASURE IMPLEMENTATION SCHEDULE

Ecology

EIA Reference	EM&A Manual Reference	Environmental Protection Measures	Location/ Timing	Implementation Agent	Relevant Standard or Requirement	Implementation Stages			Status
						D	C	O	
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 dredging and reclamation works	All areas/ Detailed Design/during dredging and reclamation works	Design Consultant/ Contractor	TMEIA	Y	Y		✓
8.15	6.3, 6.4	Pre-construction phase survey and coral translocation	Detailed Design/Prior to construction	Design Consultant/ Contractor	TMEIA	Y	Y		✓
8.15	6.5	Audit coral translocation success	Post translocation	Contractor	TMEIA		Y		<b>N/A</b>

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

Contract No. HY/2012/08  
TUEN MUN – CHEK LAP KOK LINK  
Northern Connection Sub-sea Tunnel

ENVIRONMENTAL MITIGATION AND ENHANCEMENT MEASURE IMPLEMENTATION SCHEDULE

Ecology

EIA Reference	EM&A Manual Reference	Environmental Protection Measures	Location/ Timing	Implementation Agent	Relevant Standard or Requirement	Implementation Stages			Status
						D	C	O	
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		✓
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		✓

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

Contract No. HY/2012/08  
TUEN MUN – CHEK LAP KOK LINK  
Northern Connection Sub-sea Tunnel

ENVIRONMENTAL MITIGATION AND ENHANCEMENT MEASURE IMPLEMENTATION SCHEDULE

Landscape and Visual

EIA Reference	EM&A Manual Reference	Environmental Protection Measures	Location/ Timing	Implementation Agent	Relevant Standard or Requirement	Implementation Stages			Status
						D	C	O	
10.9	7.6	The colour and shape of the toll control buildings, ventilation building and administration building shall adopt a design which could blend it into the vicinity elements, and the details will be developed in detailed design stage (DM2)	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

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

Contract No. HY/2012/08  
TUEN MUN – CHEK LAP KOK LINK  
Northern Connection Sub-sea Tunnel

ENVIRONMENTAL MITIGATION AND ENHANCEMENT MEASURE IMPLEMENTATION SCHEDULE

Landscape and Visual

EIA Reference	EM&A Manual Reference	Environmental Protection Measures	Location/ Timing	Implementation Agent	Relevant Standard or Requirement	Implementation Stages			Status
						D	C	O	
10.9	7.6	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		✓

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

Contract No. HY/2012/08  
TUEN MUN – CHEK LAP KOK LINK  
Northern Connection Sub-sea Tunnel

ENVIRONMENTAL MITIGATION AND ENHANCEMENT MEASURE IMPLEMENTATION SCHEDULE

Landscape and Visual

EIA Reference	EM&A Manual Reference	Environmental Protection Measures	Location/ Timing	Implementation Agent	Relevant Standard or Requirement	Implementation Stages			Status
						D	C	O	
10.9	7.6	Aesthetically pleasing design (visually unobtrusive and non-reflective) as regard to the form, material and finishes shall be incorporated to all buildings, engineering structures and associated infrastructure facilities (OM5)	All areas/detailed design/ during construction / during operation	Design Consultant/ Contractor	TMEIA	Y	Y	Y	N/A
10.9	7.6	Avoidance of excessive height and bulk of buildings and structures (OM6)	All areas/detailed design/ during construction / during operation	Design Consultant/ Contractor	TMEIA	Y	Y	Y	✓

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

Contract No. HY/2012/08  
TUEN MUN – CHEK LAP KOK LINK  
Northern Connection Sub-sea Tunnel

ENVIRONMENTAL MITIGATION AND ENHANCEMENT MEASURE IMPLEMENTATION SCHEDULE

Waste

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		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	Contract Mobilisation	Contractor	TMEIA		Y		✓

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

Contract No. HY/2012/08  
TUEN MUN – CHEK LAP KOK LINK  
Northern Connection Sub-sea Tunnel

ENVIRONMENTAL MITIGATION AND ENHANCEMENT MEASURE IMPLEMENTATION SCHEDULE

Waste

EIA Reference	EM&A Manual Reference	Environmental Protection Measures	Location/ Timing	Implementation Agent	Relevant Standard or Requirement	Implementation Stages			Status
						D	C	O	
		including waste reduction, reuse and recycling							
12.6	8.1	The extent of cutting operation should be optimised where possible. Earth retaining structures and bored pile walls should be proposed to minimise the extent of cutting.	All areas / throughout construction period	Contractor	TMEIA		Y		✓
12.6	8.1	The surplus surcharge should be transferred to a fill bank	Reclamation areas / after surcharge works	Contractor	TMEIA		Y		N/A
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		N/A

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

Contract No. HY/2012/08  
TUEN MUN – CHEK LAP KOK LINK  
Northern Connection Sub-sea Tunnel

ENVIRONMENTAL MITIGATION AND ENHANCEMENT MEASURE IMPLEMENTATION SCHEDULE

Waste

EIA Reference	EM&A Manual Reference	Environmental Protection Measures	Location/ Timing	Implementation Agent	Relevant Standard or Requirement	Implementation Stages			Status
						D	C	O	
12.6	8.1	The 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		✓

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



Contract No. HY/2012/08  
TUEN MUN – CHEK LAP KOK LINK  
Northern Connection Sub-sea Tunnel

ENVIRONMENTAL MITIGATION AND ENHANCEMENT MEASURE IMPLEMENTATION SCHEDULE

Waste

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	Dredged marine mud shall be disposed of in a gazetted marine disposal ground under the requirements of the Dumping at Seas Ordinance.	Reclamation areas / throughout dredging works	Contractor	TMEIA		Y		✓
12.6	8.1	Standard formwork or pre-fabrication should be used as far as practicable so as to minimise the C&D materials arising. The use of more durable formwork/plastic facing for construction works should be considered. The use of wooden hoardings should be avoided and metal hoarding should be used to facilitate recycling. Purchasing of construction materials should avoid over-ordering and wastage.	All areas / throughout construction period	Contractor	TMEIA		Y		✓
12.6	8.1	The Contractor should recycle as many C&D materials (this is a waste section) as possible on-site. The public fill and C&D waste should be segregated and stored in separate containers or skips to facilitate the reuse or recycling of materials and proper disposal. Where practicable, the concrete and masonry should be crushed and used as fill materials. Steel reinforcement bar should be collected for use by scrap steel mills. Different areas of the sites should	All areas / throughout construction period	Contractor	TMEIA		Y		↔

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

Contract No. HY/2012/08  
TUEN MUN – CHEK LAP KOK LINK  
Northern Connection Sub-sea Tunnel

ENVIRONMENTAL MITIGATION AND ENHANCEMENT MEASURE IMPLEMENTATION SCHEDULE

Waste

EIA Reference	EM&A Manual Reference	Environmental Protection Measures	Location/ Timing	Implementation Agent	Relevant Standard or Requirement	Implementation Stages			Status
						D	C	O	
		be considered for segregation and storage activities.							
12.6	8.1	All falsework will be steel instead of wood.	All areas / throughout construction period	Contractor	TMEIA		Y		✓
12.6	8.1	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: <i>f</i> suitable for the substance to be held, resistant to corrosion, maintained in good conditions and securely closed; <i>f</i> Having a capacity of <450L unless the specifications have been approved by the EPD; and <i>f</i> Displaying a label in English and Chinese according to the instructions prescribed in Schedule 2 of the Regulations. <i>f</i> Clearly labelled and used solely for the storage of chemical wastes; <i>f</i> Enclosed with at least 3 sides; <i>f</i> Impermeable floor and bund with capacity to accommodate 110% of the volume of the largest container or 20%	All areas / throughout construction period	Contractor	TMEIA		Y		<>

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

Contract No. HY/2012/08  
TUEN MUN – CHEK LAP KOK LINK  
Northern Connection Sub-sea Tunnel

ENVIRONMENTAL MITIGATION AND ENHANCEMENT MEASURE IMPLEMENTATION SCHEDULE

Waste

EIA Reference	EM&A Manual Reference	Environmental Protection Measures	Location/ Timing	Implementation Agent	Relevant Standard or Requirement	Implementation Stages			Status
						D	C	O	
		by volume of the chemical waste stored in the area, whichever is greatest; <i>f</i> Adequate ventilation; <i>f</i> Sufficiently covered to prevent rainfall entering (water collected within the bund must be tested and disposed of as chemical waste, if necessary); and <i>f</i> 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	All areas / throughout construction period	Contractor	TMEIA		Y		✓

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

Contract No. HY/2012/08  
TUEN MUN – CHEK LAP KOK LINK  
Northern Connection Sub-sea Tunnel

ENVIRONMENTAL MITIGATION AND ENHANCEMENT MEASURE IMPLEMENTATION SCHEDULE

Waste

EIA Reference	EM&A Manual Reference	Environmental Protection Measures	Location/ Timing	Implementation Agent	Relevant Standard or Requirement	Implementation Stages			Status
						D	C	O	
		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.							
12.6	8.1	All waste containers shall be in a secure area on hardstanding;	All areas / throughout construction period	Contractor	TMEIA		Y		✓
12.6	8.1	Training shall be provided to workers about the concepts of site cleanliness and appropriate waste management procedure, including waste reduction, reuse and recycling.	All areas / throughout construction period	Contractor	TMEIA		Y		✓
12.6	8.1	Office wastes can be reduced by recycling of paper if such volume is sufficiently large to warrant collection. Participation in a local collection scheme by the Contractor should be advocated. Waste separation facilities for paper, aluminium cans, plastic bottles, etc should be provided on-site.	Site Offices/ throughout construction period	Contractor	TMEIA		Y		✓
12.6	Section 8	EM&A of waste handling, storage, transportation, disposal procedures and documentation through the site audit programme shall be undertaken.	All areas / throughout construction period	Contractor	EM&A Manual		Y		✓

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

Contract No. HY/2012/08  
TUEN MUN – CHEK LAP KOK LINK  
Northern Connection Sub-sea Tunnel

ENVIRONMENTAL MITIGATION AND ENHANCEMENT MEASURE IMPLEMENTATION SCHEDULE

Cultural Heritage

EIA Reference	EM&A Manual Reference	Environmental Protection Measures	Location/ Timing	Implementation Agent	Relevant Standard or Requirement	Implementation Stages			Status
						D	C	O	
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		✓

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

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

Remark:

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

Appendix D

## Summary of Action and Limit Levels

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

<b>Parameters</b>	<b>Action</b>	<b>Limit</b>
24 Hour TSP Level in $\mu\text{g}/\text{m}^3$	ASR1 = 213 ASR5 = 238 AQMS1 = 213 AQMS2 = 238 ASR10 = 214	260
1 Hour TSP Level in $\mu\text{g}/\text{m}^3$	ASR1 = 331 ASR5 = 340 AQMS1 = 335 AQMS2 = 338 ASR10 = 337	500

**Table D2** *Action and Limit Levels for Water Quality*

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

**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
- (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 D3** *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 D4** *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

Copies of Calibration  
Certificates for Air Quality  
and Water Quality  
Monitoring

High-Volume TSP Sampler  
5-Point Calibration Record

Location : AQM1  
 Calibrated by : P.F.Yeung  
 Date : 09/12/2013

Sampler

Model : TE-5170  
 Serial Number : S/N 1253

Calibration Office and Standard Calibration Relationship

Serial Number : 2323  
 Service Date : 26 Dec 2012  
 Slope (m) : 2.09107  
 Intercept (b) : -0.02838  
 Correlation Coefficient(r) : 0.99996

Standard Condition

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

Calibration Condition

Pa (hpa) : 1014  
 Ta(K) : 293

Resistance Plate	dH [green liquid] (inch water)	Z	X=Qstd (cubic meter/min)	IC (chart)	Y (corrected)
1   18 holes	12.8	3.610	1.740	52	52.47
2   13 holes	10.0	3.191	1.539	46	46.41
3   10 holes	7.4	2.745	1.326	39	39.35
4   7 holes	4.6	2.164	1.048	32	32.29
5   5 holes	2.9	1.718	0.835	25	25.22

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): 29.770 Intercept(b): 0.512 Correlation Coefficient(r): 0.9991

Checked by: Magnum Fan

Date: 15/12/2013

High-Volume TSP Sampler  
5-Point Calibration Record

Location : ASR 1  
 Calibrated by : P.F.Yeung  
 Date : 09/12/2013

Sampler

Model : TE-5170  
 Serial Number : S/N 0146

Calibration Office and Standard Calibration Relationship

Serial Number : 2323  
 Service Date : 26 Dec 2012  
 Slope (m) : 2.09107  
 Intercept (b) : -0.02838  
 Correlation Coefficient(r) : 0.99996

Standard Condition

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

Calibration Condition

Pa (hpa) : 1014  
 Ta(K) : 293

Resistance Plate	dH [green liquid] (inch water)	Z	X=Qstd (cubic meter/min)	IC (chart)	Y (corrected)
1   18 holes	13.0	3.638	1.753	53	53.48
2   13 holes	10.2	3.222	1.555	46	46.41
3   10 holes	7.4	2.745	1.326	40	40.36
4   7 holes	4.9	2.234	1.082	31	31.28
5   5 holes	3.0	1.748	0.849	24	24.22

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): 32.296 Intercept(b): -3.257 Correlation Coefficient(r): 0.9990

Checked by: Magnum Fan

Date: 15/12/2013

High-Volume TSP Sampler  
5-Point Calibration Record

Location : ASR 5  
 Calibrated by : P.F.Yeung  
 Date : 09/12/2013

Sampler

Model : TE-5170  
 Serial Number : S/N 0816

Calibration Office and Standard Calibration Relationship

Serial Number : 2323  
 Service Date : 26 Dec 2012  
 Slope (m) : 2.09107  
 Intercept (b) : -0.02838  
 Correlation Coefficient(r) : 0.99996

Standard Condition

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

Calibration Condition

Pa (hpa) : 1014  
 Ta(K) : 293

Resistance Plate	dH [green liquid] (inch water)	Z	X=Qstd (cubic meter/min)	IC (chart)	Y (corrected)
1   18 holes	12.4	3.553	1.713	53	53.48
2   13 holes	10.0	3.190	1.539	48	48.43
3   10 holes	7.4	2.745	1.326	42	42.38
4   7 holes	4.6	2.164	1.048	34	34.31
5   5 holes	2.8	1.688	0.821	26	26.23

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): 30.020 Intercept(b): 2.020 Correlation Coefficient(r): 0.9990

Checked by: Magnum Fan

Date: 15/12/2013

High-Volume TSP Sampler  
5-Point Calibration Record

Location : ASR 6A  
 Calibrated by : P.F.Yeung  
 Date : 09/12/2013

Sampler

Model : TE-5170  
 Serial Number : S/N 3957

Calibration Office and Standard Calibration Relationship

Serial Number : 2323  
 Service Date : 26 Dec 2012  
 Slope (m) : 2.09107  
 Intercept (b) : -0.02838  
 Correlation Coefficient(r) : 0.99996

Standard Condition

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

Calibration Condition

Pa (hpa) : 1014  
 Ta(K) : 293

Resistance Plate	dH [green liquid] (inch water)	Z	X=Qstd (cubic meter/min)	IC (chart)	Y (corrected)
1   18 holes	12.4	3.553	1.713	55	55.49
2   13 holes	9.7	3.142	1.516	49	49.44
3   10 holes	7.0	2.670	1.290	42	42.38
4   7 holes	4.5	2.140	1.037	34	34.31
5   5 holes	2.8	1.688	0.821	26	26.23

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): 32.563 Intercept(b): 0.037 Correlation Coefficient(r): 0.9993

Checked by: Magnum Fan

Date: 15/12/2013

High-Volume TSP Sampler  
5-Point Calibration Record

Location : ASR 6  
 Calibrated by : P.F. Yeung  
 Date : 17/01/2014

Sampler

Model : TE-5170  
 Serial Number : S/N 3957

Calibration Orifice and Standard Calibration Relationship

Serial Number : 2454  
 Service Date : 12 Mar 2013  
 Slope (m) : 2.05818  
 Intercept (b) : 0.01929  
 Correlation Coefficient(r) : 0.99991

Standard Condition

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

Calibration Condition

Pa (hpa) : 1022  
 Ta(K) : 288

Resistance Plate	dH [green liquid] (inch water)	Z	X=Qstd (cubic meter/min)	IC (chart)	Y (corrected)
1   18 holes	12.4	3.599	1.739	56	57.22
2   13 holes	9.7	3.182	1.537	49	50.06
3   10 holes	7.1	2.722	1.313	43	43.93
4   7 holes	4.5	2.167	1.044	34	34.74
5   5 holes	2.9	1.740	0.836	27	27.59

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

Sampler Calibration Relationship (Linear Regression)

Slope(m): 32.751 Intercept(b): 0.726 Correlation Coefficient(r): 0.9993

Checked by: Magnum Fan

Date: 22/01/2014

High-Volume TSP Sampler  
5-Point Calibration Record

Location : ASR10A  
 Calibrated by : P.F.Yeung  
 Date : 09/12/2013

Sampler

Model : TE-5170  
 Serial Number : S/N 8162

Calibration Office and Standard Calibration Relationship

Serial Number : 2323  
 Service Date : 26 Dec 2012  
 Slope (m) : 2.09107  
 Intercept (b) : -0.02838  
 Correlation Coefficient(r) : 0.99996

Standard Condition

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

Calibration Condition

Pa (hpa) : 1014  
 Ta(K) : 293

Resistance Plate	dH [green liquid] (inch water)	Z	X=Qstd (cubic meter/min)	IC (chart)	Y (corrected)
1   18 holes	12.8	3.610	1.740	62	62.56
2   13 holes	10.6	3.285	1.585	55	55.49
3   10 holes	7.8	2.818	1.361	45	45.40
4   7 holes	5.0	2.256	1.093	34	34.31
5   5 holes	3.1	1.777	0.863	22	22.20

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): 45.377 Intercept(b): -16.281 Correlation Coefficient(r): 0.9991

Checked by: Magnum Fan

Date: 15/12/2013



# WATER

## Certification of Quality

This product has been tested in accordance with procedures established through Global Water Instrumentation's Quality Management System. This product meets or exceeds its manufacturing acceptance criteria.

<b>ITEM DESCRIPTION:</b>	Wind Direction
<b>MODEL NAME/ NUMBER:</b>	WE570
<b>PART NUMBER:</b>	ED0000
<b>SENSOR RANGE:</b>	0-360 °
<b>SENSOR OUTPUT:</b>	4.01-20.03 mA
<b>ACCURACY:</b>	1% of full scale
<b>POWER REQUIRED</b>	10-36 VDC
<b>SERIAL NUMBER:</b>	1337005143
<b>CABLE LENGTH:</b>	25 ft
<b>CERTIFICATES:</b>	CE Compliant

Contact  
Global Water  
for all your  
instrumentation  
needs:

Water Level

Water Flow

Water Samplers

Water Quality

Weather

Remote Monitoring

Control

**Technician:** *Wright, Jess*

**Date:** 9/12/2013

NOT Global Water Instrumentation warrants that its products are free from defects in material & workmanship under normal use & service for a period of one year from date of original shipment from factory. Repaired components are warranted for a period of 90 days from shipment. Contact us for complete warranty details.



**Global Water**

a xylem brand

In the U.S. call toll free  
at 1-800-876-1172  
International 1-979-690-5560  
Fax: 1-979-690-0440  
Email [globalw@globalw.com](mailto:globalw@globalw.com)

Visit our online catalog at  
[www.globalw.com](http://www.globalw.com)  
Our Service Address  
151 Graham Rd  
College Station, TX 77845

# WATER

## Certification of Quality

This product has been tested in accordance with procedures established through Global Water Instrumentation's Quality Management System. This product meets or exceeds its manufacturing acceptance criteria.

<b>ITEM DESCRIPTION:</b>	Wind Speed Sensor
<b>MODEL NAME/ NUMBER:</b>	WE550
<b>PART NUMBER:</b>	EC0000
<b>SENSOR RANGE:</b>	0-110 MPH
<b>SENSOR OUTPUT:</b>	4.00-19.91 mA
<b>ACCURACY:</b>	.2 MPH over the range 11 to 55 MPH
<b>POWER REQUIRED</b>	10-36 VDC
<b>SERIAL NUMBER:</b>	1337005099
<b>CABLE LENGTH:</b>	25 ft
<b>CERTIFICATES:</b>	CE Compliant

Contact  
Global Water  
for all your  
instrumentation  
needs:

Water Level

Water Flow

Water Samplers

Water Quality

Weather

Remote Monitoring

Control

**Technician:** *Wright, Jess*

**Date:** 9/10/2013

**NOT** Global Water Instrumentation warrants that its products are free from defects in material & workmanship under normal use & service for a period of one year from date of original shipment from factory. Repaired components are warranted for a period of 90 days from shipment. Contact us for complete warranty details.



**Global Water**

a **xylem** brand

In the U.S. call toll free  
at 1-800-876-1172

International: 1-979-690-5560

Fax: 1-979-690-0440

Email: [globalw@globalw.com](mailto:globalw@globalw.com)

Visit our online catalog at:  
[www.globalw.com](http://www.globalw.com)

Our Service Address

151 Graham Rd

College Station, TX 77845



## Performance Check of Turbidity Meter

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

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


Date of Calibration : ~~08/10/2013~~ 08/10/2013 Due Date : 07/01/2014  
08/11/2013

Gelex Vial Std	Theoretical Value (NTU)	Measured Value (NTU)	Difference %
0-10 NTU	5	5.23	4.50
10-100 NTU	50	52.1	4.11
100-1000 NTU	550	566	2.87

Acceptance Criteria

Difference : -5 % to 5%

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

Checked by : 

Approved 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 : 07/01/2014                      Due Date : 06/04/2014

Theoretical Value of Turbidity Standard (NTU)	Measured Value (NTU)	Difference % *
20	19.2	-4.08
100	104	3.92
800	793	-0.88

(\* ) Difference = (Measured Value – Theoretical Value) / Theoretical Value

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 : 10/12/2013      Calibration Due Date : 09/01/2014

#### Liquid Junction Error

Primary Standard Solution Used : Phosphate      Ref No. of Primary Solution: 003/5.2/001/16  
 Temperature of Solution : 20.1       $\Delta\text{pH}_{1/2} = \underline{+0.08}$   
 pH value of diluted buffer : 6.79       $\text{pH (S)} = \underline{6.881}$   
 $\Delta\text{pH} = \text{pH(S)} - \text{pH of diluted buffer} = \underline{0.091}$  (Observed Deviation)  
 Liquid Junction Error ( $\Delta\text{pH}_j$ ) =  $\Delta\text{pH} - \Delta\text{pH}_{1/2} = \underline{0.011}$

#### Shift on Stirring

pH of buffer solution (with stirring),  $\text{pH}_s = \underline{6.89}$   
 Shift on stirring,  $\Delta\text{pH}_s = \text{pH}_s - \text{pH(S)} - \Delta\text{pH}_j = \underline{-0.002}$

#### Noise

Noise,  $\Delta\text{pH}_n = \text{difference between max and min reading} : \underline{0.01}$

#### Verification of ATC

Ref. No. of reference thermometer used: ET/0521/008  
 Temperature record from the reference thermometer ( $T_R$ ): 20.2 °C  
 Temperature record from the ATC ( $T_{ATC}$ ): 19.9 °C  
 Temperature Difference,  $|T_R - T_{ATC}|$  : 0.3 °C

#### Acceptance Criteria

Performance Characteristic	Acceptable Range
Liquid Junction Error $\Delta\text{pH}_j$	$\leq 0.05$
Shift on Stirring $\Delta\text{pH}_s$	$\leq 0.02$
Noise $\Delta\text{pH}_n$	$\leq 0.02$
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. : ET/EW/007/003      Manufacturer : HANNA  
 Model No. : HI 8314      Serial No. : 674469  
 Date of Calibration : 10/02/2014      Calibration Due Date : 09/03/2014  
*10/01/2014*      *10/01/2014*

#### Liquid Junction Error

Primary Standard Solution Used : Phosphate      Ref No. of Primary Solution: 003/5.2/001/17  
 Temperature of Solution : 20.0       $\Delta\text{pH}_{1/2} = +0.08$   
 pH value of diluted buffer : 6.80      pH (S) = 6.881  
 $\Delta\text{pH} = \text{pH(S)} - \text{pH of diluted buffer} = 0.081$  (Observed Deviation)  
 Liquid Junction Error ( $\Delta\text{pH}_j$ ) =  $\Delta\text{pH} - \Delta\text{pH}_{1/2} = 0.001$

#### Shift on Stirring

pH of buffer solution (with stirring),  $\text{pH}_s = 6.87$   
 Shift on stirring,  $\Delta\text{pH}_s = \text{pH}_s - \text{pH(S)} - \Delta\text{pH}_j = -0.012$

#### 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 ( $T_R$ ): 20.0 °C  
 Temperature record from the ATC ( $T_{ATC}$ ): 19.9 °C  
 Temperature Difference,  $|T_R - T_{ATC}|$  : 0.1 °C

#### Acceptance Criteria

Performance Characteristic	Acceptable Range
Liquid Junction Error $\Delta\text{pH}_j$	$\leq 0.05$
Shift on Stirring $\Delta\text{pH}_s$	$\leq 0.02$
Noise $\Delta\text{pH}_n$	$\leq 0.02$
Verification of ATC      Temperature Difference	$\leq 0.5^\circ\text{C}$

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

\* Delete as appropriate

Calibrated by :

Checked by :



### Internal Calibration Report of Dissolved Oxygen Meter

Equipment Ref. No. : <u>ET/EW/008/005</u>	Manufacturer : <u>YSI</u>
Model No. : <u>Pro 2030</u>	Serial No. : <u>12A 100353</u>
Date of Calibration : <u>29/10/2013</u>	Calibration Due Date : <u>28/01/2014</u>

**Temperature Verification**

Ref. No. of Reference Thermometer : ET/0521/008

Ref. No. of Water Bath : ---

		Temperature (°C)		
Reference Thermometer reading	Measured	20.3	Corrected	19.9
DO Meter reading	Measured	19.8	Difference	0.1

**Standardization of sodium thiosulphate (Na<sub>2</sub>S<sub>2</sub>O<sub>3</sub>) solution**

Reagent No. of Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> titrant	CPE/012/4.5/001/7	Reagent No. of 0.025N K <sub>2</sub> Cr <sub>2</sub> O <sub>7</sub>	CPE/012/4.4/001/22
		Trial 1	Trial 2
Initial Vol. of Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> (ml)		1.00	12.00
Final Vol. of Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> (ml)		11.55	22.50
Vol. of Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> used (ml)		10.55	10.50
Normality of Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> solution (N)		0.02370	0.02381
Average Normality (N) of Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> solution (N)		0.02376	
Acceptance criteria, Deviation		Less than ± 0.001N	

Calculation: Normality of Na<sub>2</sub>S<sub>2</sub>O<sub>3</sub>, N = 0.25 / ml Na<sub>2</sub>S<sub>2</sub>O<sub>3</sub> used

**Lineality 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 <sub>2</sub> S <sub>2</sub> O <sub>3</sub> (ml)	0.00	11.80	23.40	0.00	8.00	13.00
Final Vol. of Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> (ml)	11.80	23.40	31.50	8.00	13.00	18.10
Vol. (V) of Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> used (ml)	11.80	11.60	8.10	8.00	5.00	5.10
Dissolved Oxygen (DO), mg/L	7.53	7.40	5.17	5.10	3.19	3.25
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	7.66	7.41	7.54	7.53	7.40	7.47	0.93
5	5.31	5.23	5.27	5.17	5.10	5.14	2.50
10	3.20	3.10	3.15	3.19	3.25	3.22	2.20
Linear regression coefficient				0.9987			







## Performance Check of Salinity Meter

Equipment Ref. No. : ET/EW/008/005      Manufacturer : YSI  
Model No. : Pro 2030      Serial No. : 12A 100353  
Date of Calibration : <sup>29/10/2013</sup> ~~29/08/2013~~ <sub>29/08/2013</sub>      Due Date : 28/01/2014

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

S/001/4

Salinity Standard (ppt)	Measured Salinity (ppt)	Difference %
30.0	30.8	2.63

Acceptance Criteria

Difference : <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 : 



### Internal Calibration Report of Dissolved Oxygen Meter

Equipment Ref. No. : <u>ET/EW/008/005</u>	Manufacturer : <u>YSI</u>
Model No. : <u>Pro 2030</u>	Serial No. : <u>12A 100353</u>
Date of Calibration : <u>29/01/2014</u>	Calibration Due Date : <u>28/04/2014</u>

#### Temperature Verification

Ref. No. of Reference Thermometer : ET/0521/008

Ref. No. of Water Bath : ---

	Temperature (°C)			
		Measured	Corrected	
Reference Thermometer reading	Measured	20.2	Corrected	19.8
DO Meter reading	Measured	19.7	Difference	0.1

#### Standardization of sodium thiosulphate ( $Na_2S_2O_3$ ) solution

Reagent No. of $Na_2S_2O_3$ titrant	CPE/012/4.5/001/8	Reagent No. of 0.025N $K_2Cr_2O_7$	CPE/012/4.4/001/24
		Trial 1	Trial 2
Initial Vol. of $Na_2S_2O_3$ (ml)		0.00	10.50
Final Vol. of $Na_2S_2O_3$ (ml)		10.50	20.95
Vol. of $Na_2S_2O_3$ used (ml)		10.50	10.45
Normality of $Na_2S_2O_3$ solution (N)		0.02381	0.02392
Average Normality (N) of $Na_2S_2O_3$ solution (N)		0.02387	
Acceptance criteria, Deviation		Less than $\pm 0.001N$	

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

#### Lineality Checking

##### Determination of dissolved oxygen content by Winkler Titration \*

Purging Time (min)	2		5		10	
	1	2	1	2	1	2
Trial						
Initial Vol. of $Na_2S_2O_3$ (ml)	0.00	11.90	23.50	0.00	8.20	13.20
Final Vol. of $Na_2S_2O_3$ (ml)	11.90	23.50	31.90	8.20	13.20	17.90
Vol. (V) of $Na_2S_2O_3$ used (ml)	11.90	11.60	8.40	8.20	5.00	4.70
Dissolved Oxygen (DO), mg/L	7.63	7.43	5.38	5.25	3.20	3.01
Acceptance criteria, Deviation	Less than + 0.3mg/L		Less than + 0.3mg/L		Less than + 0.3mg/L	

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

Purging time, min	DO meter reading, mg/L			Winkler Titration result *, mg/L			Difference (%) of DO Content
	1	2	Average	1	2	Average	
2	7.65	7.41	7.53	7.63	7.43	7.53	0.00
5	5.38	5.21	5.30	5.38	5.25	5.32	0.38
10	3.22	3.09	3.16	3.20	3.01	3.11	1.59
Linear regression coefficient				0.9998			



## 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/012/4.7/002/15	Reagent No. of NaCl (30ppt)	CPE/012/4.8/002/15
-----------------------------	--------------------	-----------------------------	--------------------

### Determination of dissolved oxygen content by Winkler Titration \*\*

Salinity (ppt)	10		30	
	1	2	1	2
Trial				
Initial Vol. of Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> (ml)	0.00	12.30	24.40	35.80
Final Vol. of Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> (ml)	12.30	24.40	35.80	47.00
Vol. (V) of Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> used (ml)	12.30	12.10	11.40	11.20
Dissolved Oxygen (DO), mg/L	7.88	7.75	7.31	7.18
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	7.88	7.65	7.77	7.88	7.75	7.82	0.64
30	7.23	7.14	7.19	7.31	7.18	7.25	0.83

### Acceptance Criteria

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

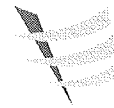
The equipment complies # / does not comply # with the specified requirements and is deemed acceptable # / unacceptable # for use.

# Delete as appropriate

Calibrated by

:

Approved by :



## Performance Check of Salinity Meter

Equipment Ref. No. : ET/EW/008/005                      Manufacturer : YSI  
Model No. : Pro 2030                                      Serial No. : 12A 100353  
Date of Calibration : 29/01/2014                      Due Date : 28/04/2014

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

S/001/5


Salinity Standard (ppt)	Measured Salinity (ppt)	Difference %
30.0	30.9	3.00

Acceptance Criteria

Difference : <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 : 

Appendix F

## EM&A Monitoring Schedules

**HY/2012/08 - Tuen Mun - Chek Lap Kok Link - Northern Connection Sub-sea Tunnel Section  
Impact Marine Water Quality Monitoring (WQM) Schedule (Jan 14)**

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
			01-Jan	02-Jan	03-Jan	04-Jan
			<b>WQM</b> Mid-Ebb 12:56 (11:11 - 14:41) Mid-Flood 18:07 (16:22 - 19:52)		<b>WQM</b> Mid-Flood 9:04 (07:34 - 10:49) Mid-Ebb 14:29 (12:44 - 16:14)	
05-Jan	06-Jan	07-Jan	08-Jan	09-Jan	10-Jan	11-Jan
	<b>WQM</b> Mid-Flood 11:13 (09:28 - 12:58) Mid-Ebb 17:00 (15:15 - 18:45)		<b>WQM</b> Mid-Flood 12:42 (10:57 - 14:27) Mid-Ebb 19:20 (17:35 - 21:05)		<b>WQM</b> Mid-Ebb 7:54 (06:09 - 09:39) Mid-Flood 14:13 (12:28 - 15:58)	
12-Jan	13-Jan	14-Jan	15-Jan	16-Jan	17-Jan	18-Jan
	<b>WQM</b> Mid-Ebb 11:25 (09:40 - 13:10) Mid-Flood 16:35 (14:50 - 18:20)		<b>WQM</b> Mid-Ebb 12:38 (10:53 - 14:23) Mid-Flood 17:53 (16:08 - 19:38)		<b>WQM</b> Mid-Ebb 13:41 (11:56 - 15:26) Mid-Flood 19:06 (17:21 - 20:51)	
19-Jan	20-Jan	21-Jan	22-Jan	23-Jan	24-Jan	25-Jan
	<b>WQM</b> Mid-Flood 9:42 (07:57 - 11:27) Mid-Ebb 15:17 (13:32 - 17:02)		<b>WQM</b> Mid-Flood 10:43 (08:58 - 12:28) Mid-Ebb 16:41 (14:56 - 18:26)		<b>WQM</b> Mid-Flood 12:04 (10:19 - 13:49) Mid-Ebb 18:53 (17:08 - 20:38)	
26-Jan	27-Jan	28-Jan	29-Jan	30-Jan	31-Jan	01-Feb
	<b>WQM</b> Mid-Ebb 9:54 (08:09 - 11:39) Mid-Flood 15:04 (13:19 - 16:49)		<b>WQM</b> Mid-Ebb 11:56 (10:11 - 13:41) Mid-Flood 17:07 (15:22 - 18:52)		<b>WQM *</b> Mid-Ebb <del>13:28</del> <del>(11:43 - 15:13)</del> Mid-Flood <del>18:53</del> <del>(17:08 - 20:38)</del>	

\* Remark: No marine dredging on 31 January 2014, thus WQM was cancelled

**HY/2012/08 - Tuen Mun - Chek Lap Kok Link - Northern Connection Sub-sea Tunnel Section  
Tentative Impact Marine Water Quality Monitoring (WQM) Schedule (Feb 14)**

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
						01-Feb
02-Feb	03-Feb	04-Feb	05-Feb	06-Feb	07-Feb	08-Feb
	<b>WQM</b> Mid-Flood 9:47 (08:02 - 11:32) Mid-Ebb 15:38 (13:53 - 17:23)		<b>WQM</b> Mid-Flood 10:52 (09:07 - 12:37) Mid-Ebb 17:19 (15:34 - 19:04)		<b>WQM</b> Mid-Flood 12:09 (10:24 - 13:54) Mid-Ebb 19:40 (17:55 - 21:25)	
09-Feb	10-Feb	11-Feb	12-Feb	13-Feb	14-Feb	15-Feb
	<b>WQM</b> Mid-Flood 10:36 (08:51 - 12:21) Mid-Ebb 22:57 (21:12 - 24:12)		<b>WQM</b> Mid-Ebb 11:48 (10:03 - 13:33) Mid-Flood 17:06 (15:21 - 18:51)		<b>WQM</b> Mid-Ebb 12:50 (11:05 - 14:35) Mid-Flood 18:25 (17:21 - 20:51)	
16-Feb	17-Feb	18-Feb	19-Feb	20-Feb	21-Feb	22-Feb
	<b>WQM</b> Mid-Flood 8:33 (07:18 - 10:18) Mid-Ebb 14:17 (12:32 - 16:02)		<b>WQM</b> Mid-Flood 9:25 (07:40 - 11:10) Mid-Ebb 15:28 (13:43 - 17:13)		<b>WQM</b> Mid-Flood 10:27 (08:42 - 12:12) Mid-Ebb 16:58 (15:13 - 18:43)	
23-Feb	24-Feb	25-Feb	26-Feb	27-Feb	28-Feb	01-Mar
	<b>WQM</b> Mid-Ebb 8:13 (06:58 - 09:28) Mid-Flood 13:09 (11:24 - 14:54)		<b>WQM</b> Mid-Ebb 10:56 (09:11 - 12:41) Mid-Flood 16:01 (14:16 - 17:46)		<b>WQM</b> Mid-Ebb 12:28 (10:43 - 14:13) Mid-Flood 18:00 (16:15 - 19:45)	

**HY/2012/08 - Tuen Mun - Chek Lap Kok Link  
Northern Connection Sub-sea Tunnel Section  
Air Quality Impact Monitoring Schedule - January 2014**

Air quality monitoring stations: ASR1, ASR5, ASR10, AQMS1, AQMS2/ASR6\*

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

\*Note: monitoring station AQMS2 was relocated to Butterfly Beach Laundry on 17-Jan and re-named as ASR6. 1-hr & 24-hr TSP monitoring at ASR6 started on 21-Jan.



**HY/2012/08 - Tuen Mun - Chek Lap Kok Link  
Northern Connection Sub-sea Tunnel Section  
Tentative Air Quality Impact Monitoring Schedule - February 2014**

Air quality monitoring stations: ASR1, ASR5, ASR6, ASR10, AQMS1

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

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

**HY/2012/08 - Tuen Mun - Chek Lap Kok Link  
Northern Connection Sub-sea Tunnel Section  
Impact Dolphin Monitoring Survey Monitoring Schedule - January 2014**

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

The schedule will be revised after reviewing the progress of the construction works or due to adverse (safety, weather etc) conditions.

**HY/2012/08 - Tuen Mun - Chek Lap Kok Link  
Northern Connection Sub-sea Tunnel Section  
Tentative Impact Dolphin Monitoring Survey Monitoring Schedule - February 2014**

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

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

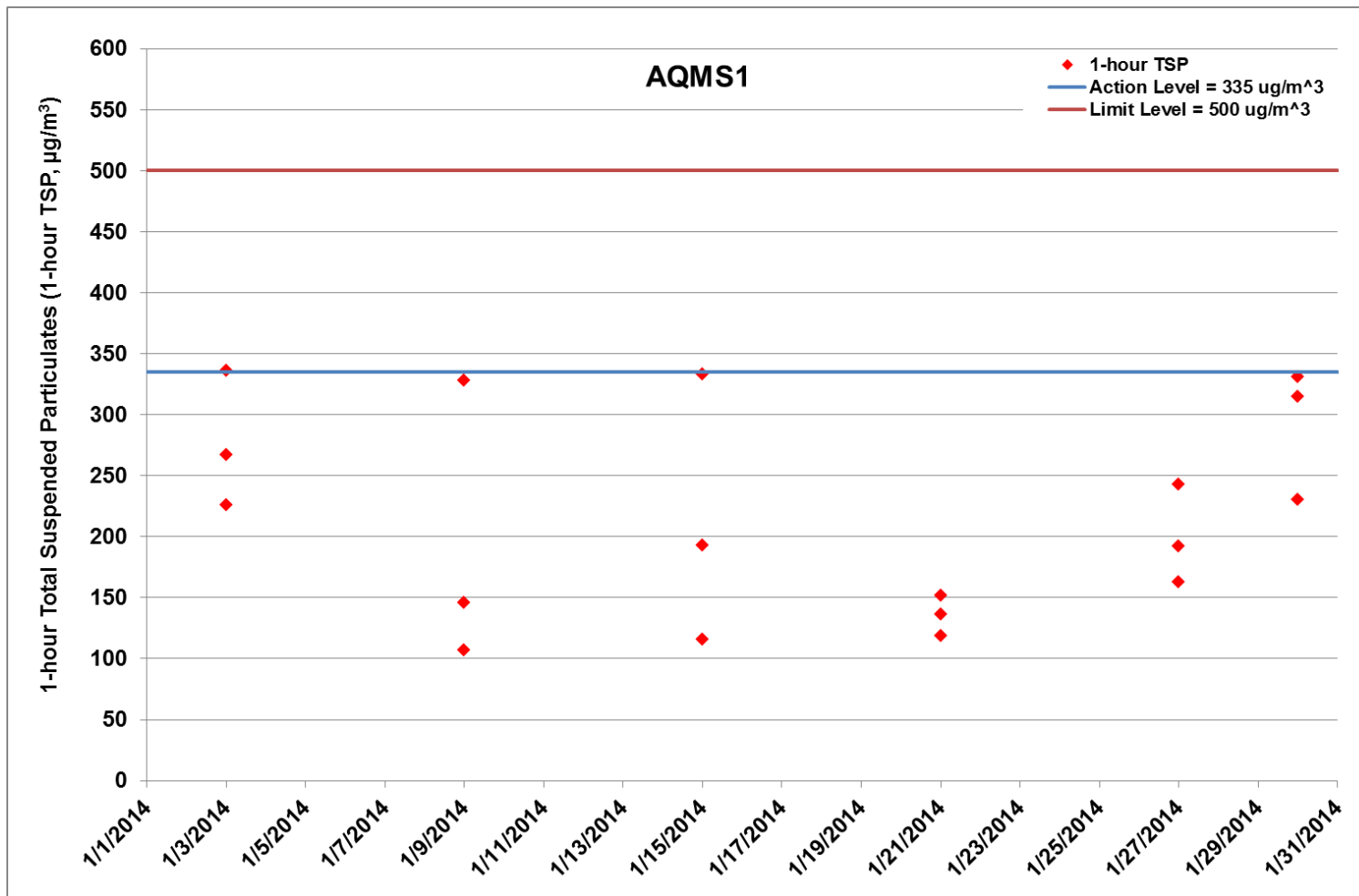


Figure G.1 Impact Monitoring – Mean Level of 1-hour Total Suspended Particulates ( $\text{mg}/\text{L}$ ) at AQMS1 between 1 and 31 January 2014 during impact monitoring period.

Ref: 0212330\_impact AQM\_Graphs\_rev a.xlsx



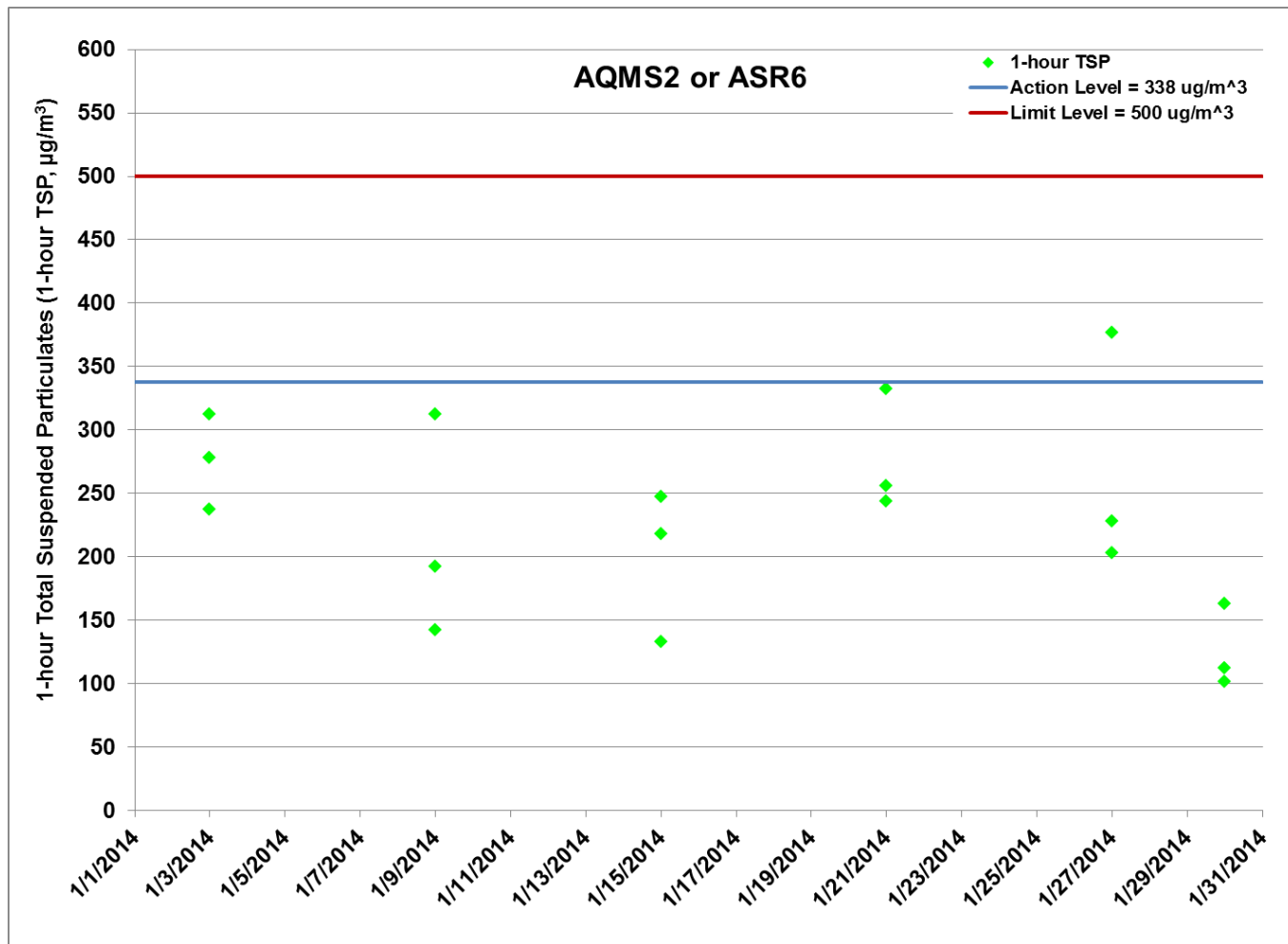


Figure G.2 Impact Monitoring - Mean Level of 1-hour Total Suspended Particulates (mg/L) at AQMS2/ASR6 between 1 and 31 January 2014 during impact monitoring period.

Ref: 0212330\_impact AQM\_Graphs\_rev a.xlsx



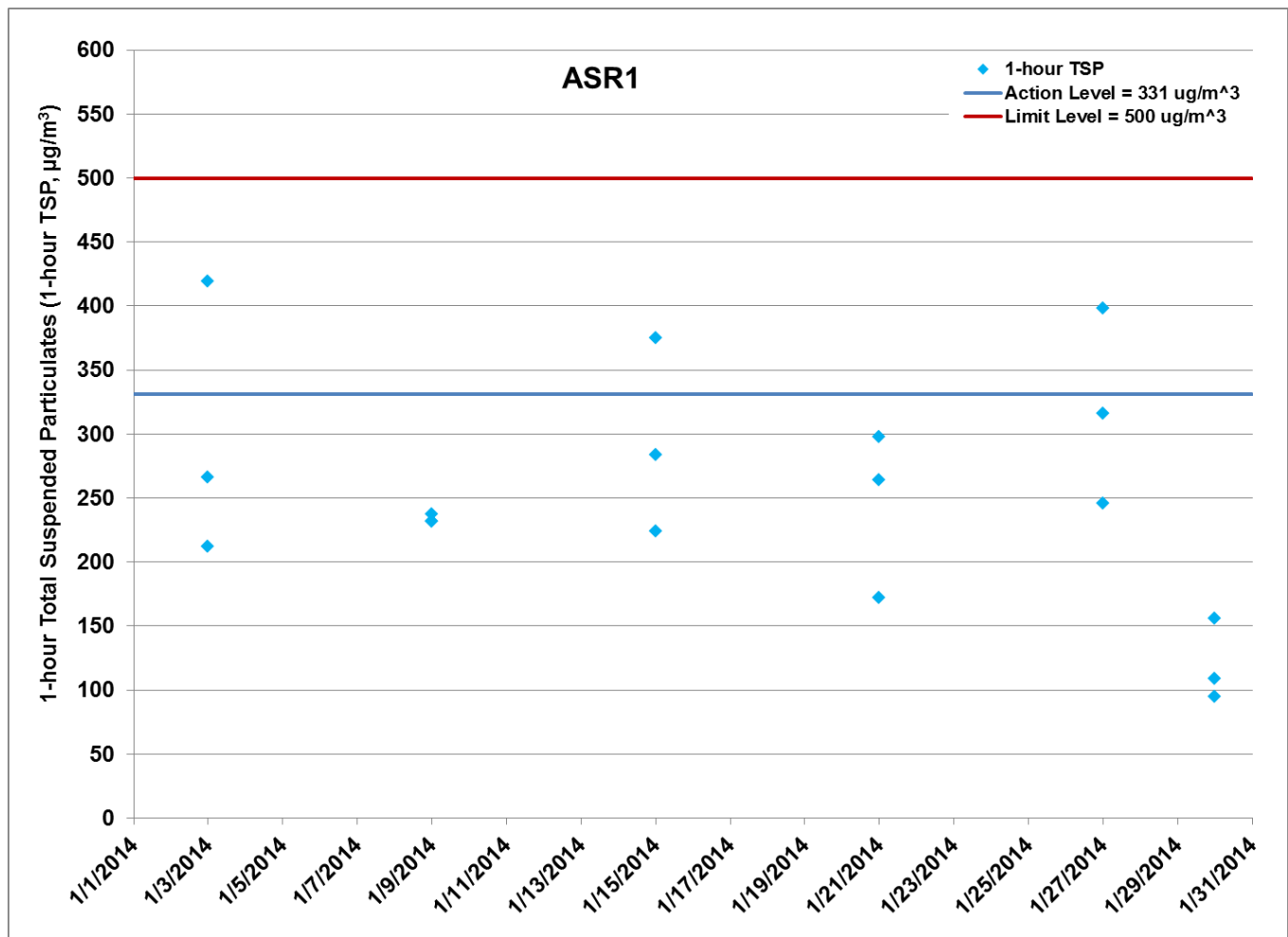


Figure G.3 Impact Monitoring - Mean Level of 1-hour Total Suspended Particulates (mg/L) at ASR1 between 1 and 31 January 2014 during impact monitoring period.

Ref: 0212330\_impact AQM\_Graphs\_rev a.xlsx



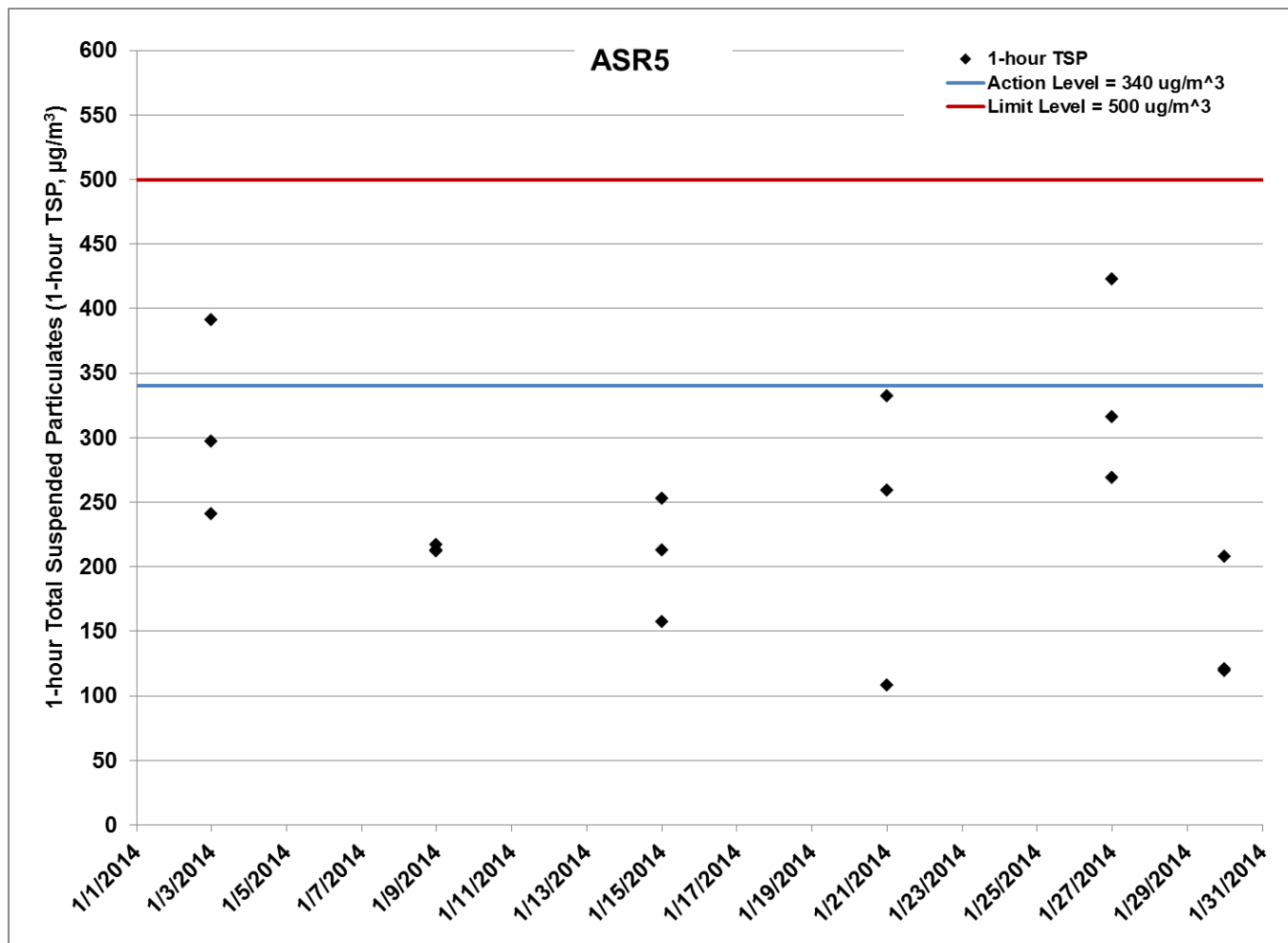


Figure G.4 Impact Monitoring - Mean Level of 1-hour Total Suspended Particulates ( $\mu\text{g}/\text{m}^3$ ) at ASR5 between 1 and 31 January 2014 during impact monitoring period.





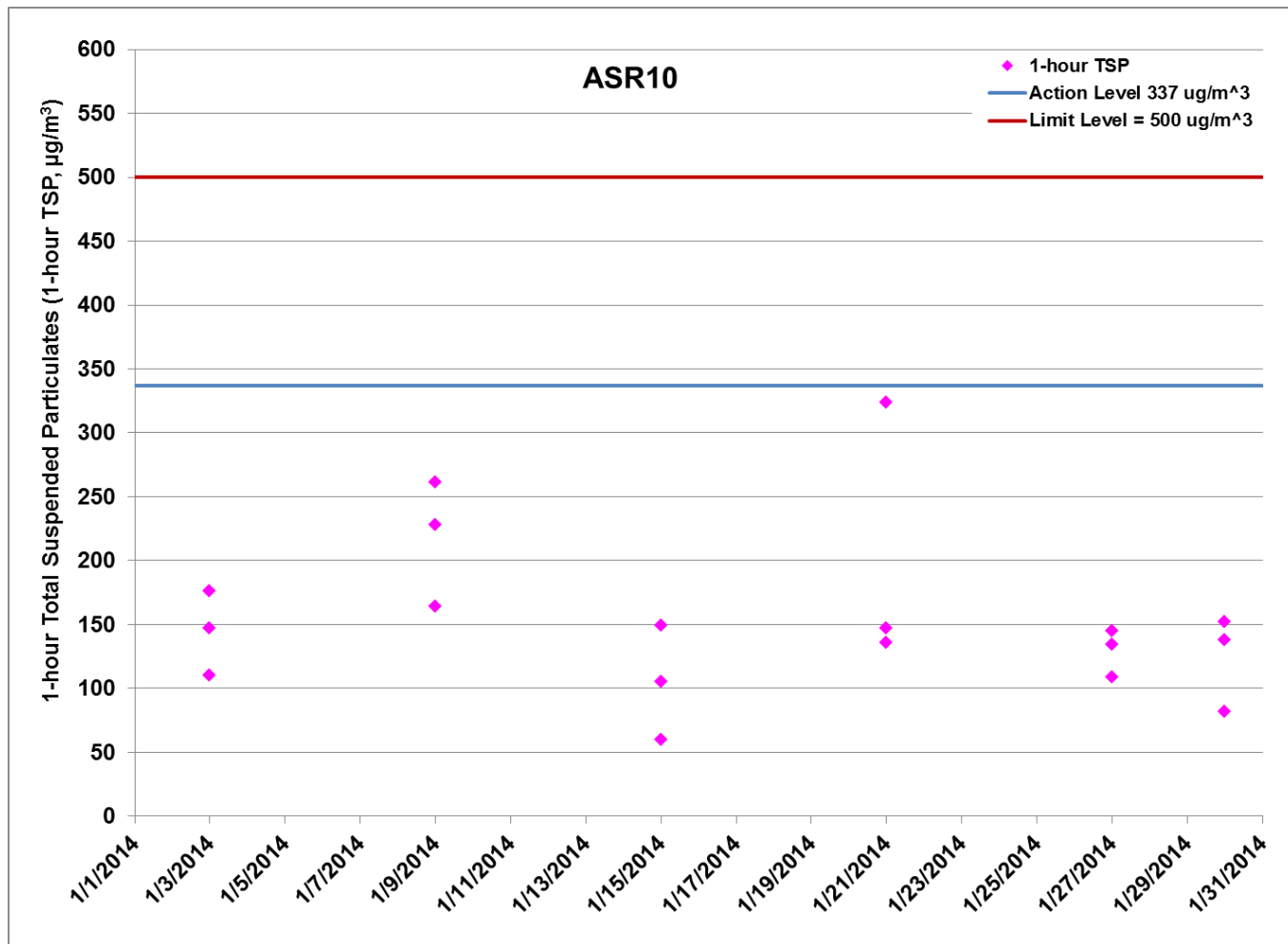


Figure G.5 Impact Monitoring - Mean Level of 1-hour Total Suspended Particulates (mg/L) at ASR10 between 1 and 31 January 2014 during impact monitoring period.



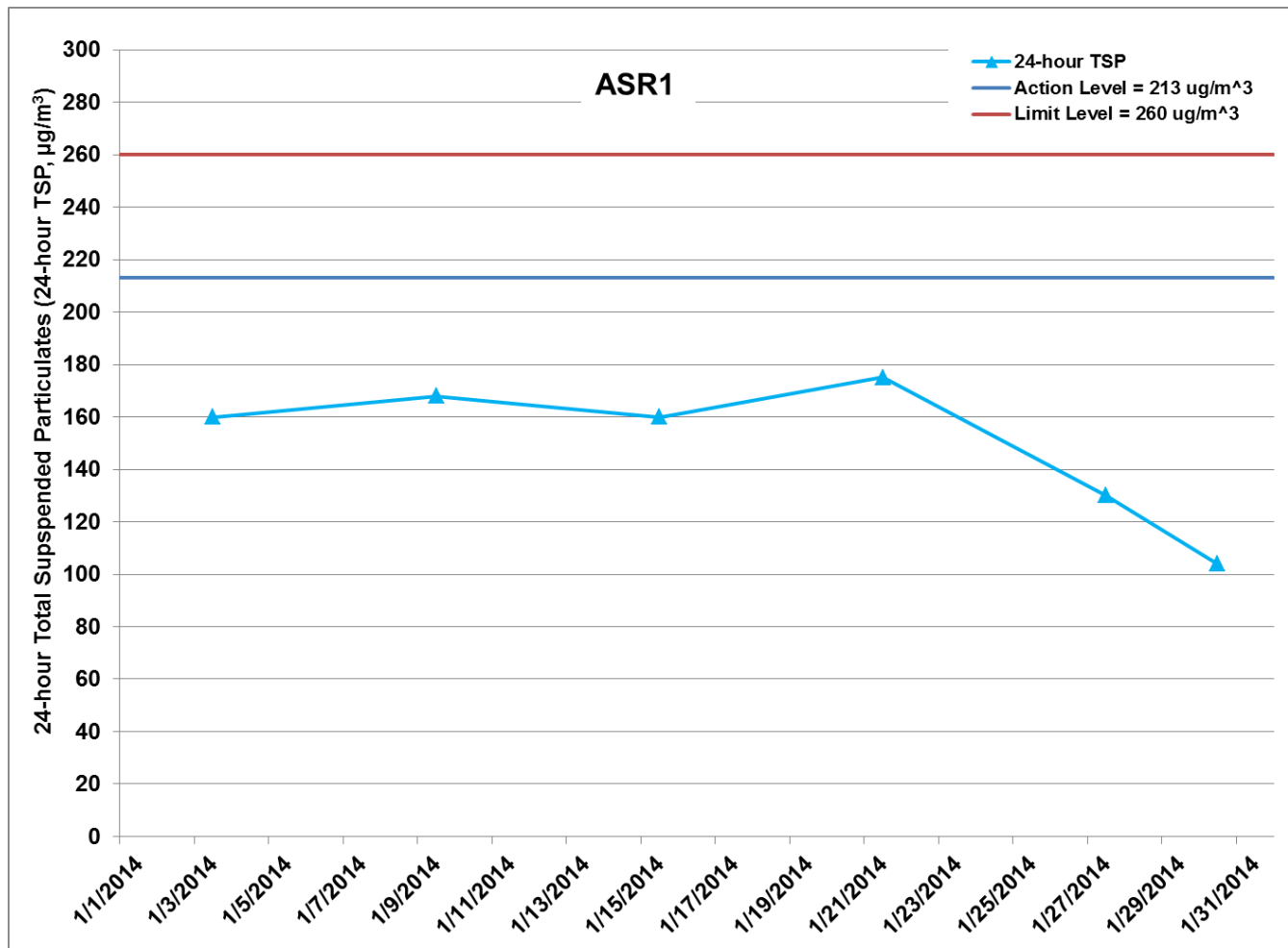


Figure G.6 Impact Monitoring - 24-hour Total Suspended Particulates (mg/L) at ASR1 between 1 and 31 January 2014 during impact monitoring period.

Ref: 0212330\_impact AQM\_Graphs\_rev a.xlsx



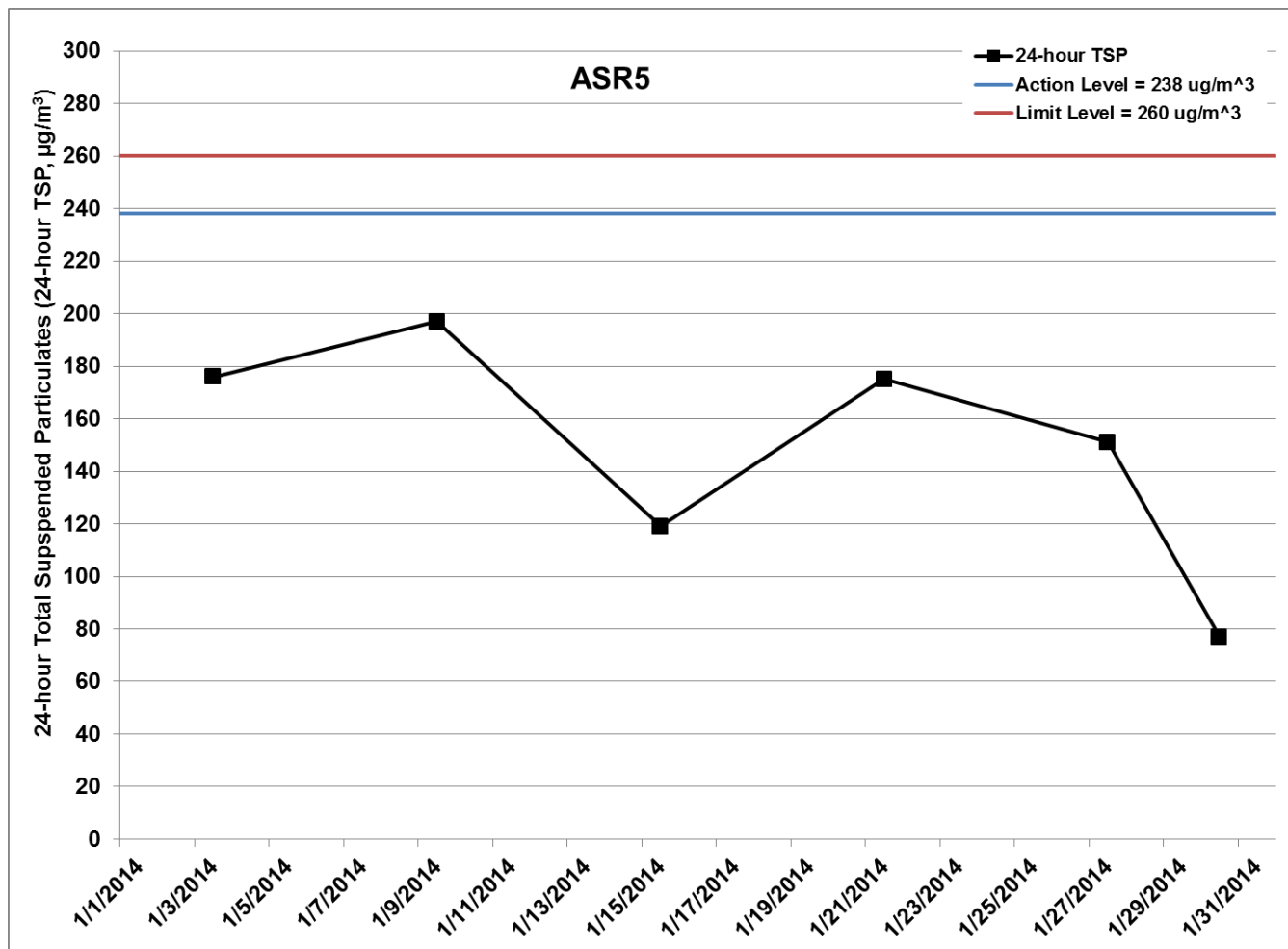


Figure G.7 Impact Monitoring - 24-hour Total Suspended Particulates (mg/L) at ASR5 between 1 and 31 January 2014 during impact monitoring period.

Ref: 0212330\_impact AQM\_Graphs\_rev a.xlsx



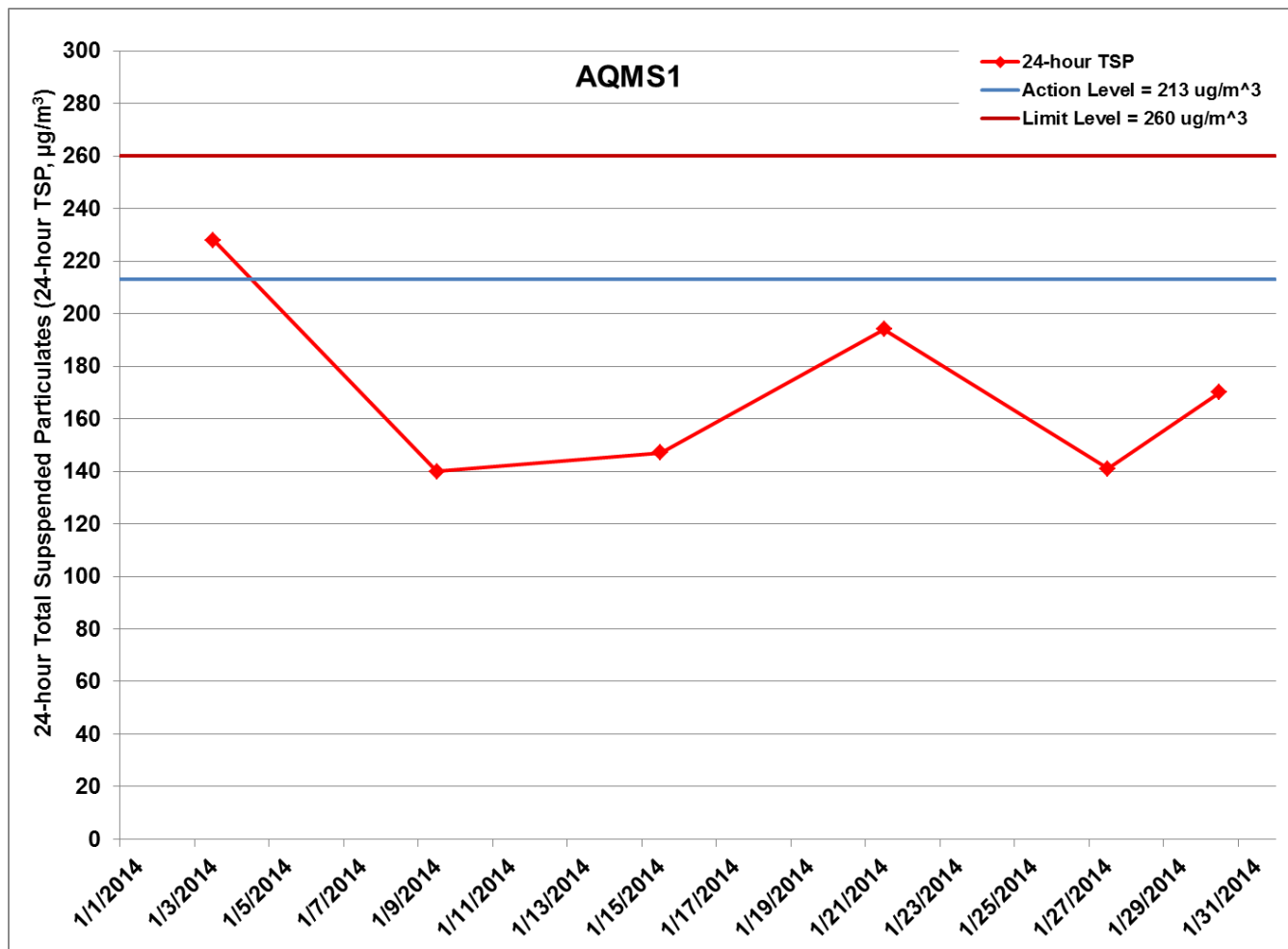


Figure G.8 Impact Monitoring - 24-hour Total Suspended Particulates (mg/L) at AQMS1 between 1 and 31 January 2014 during impact monitoring period.

Ref: 0212330\_impact AQM\_Graphs\_rev a.xlsx



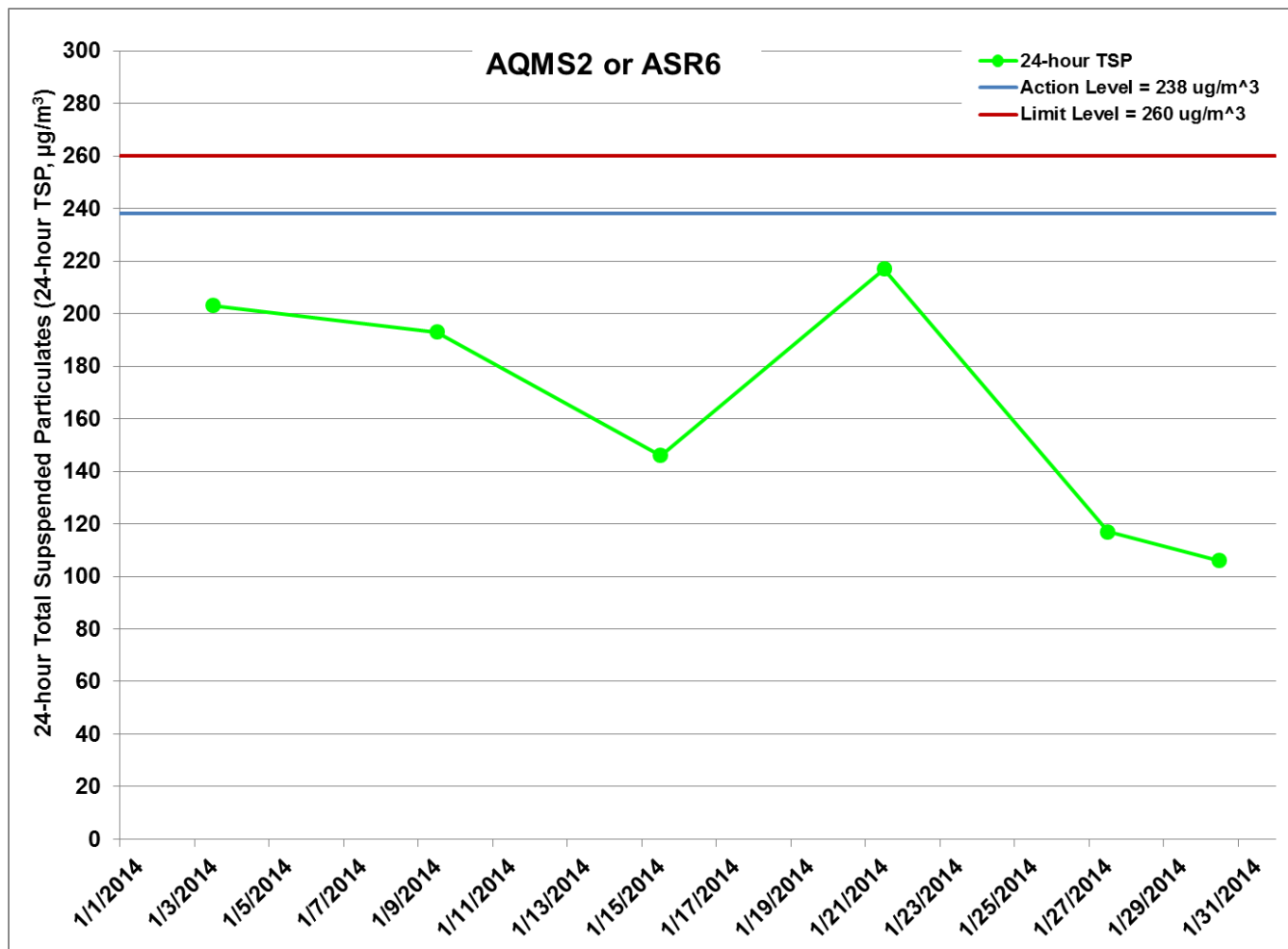


Figure G.9 Impact Monitoring - 24-hour Total Suspended Particulates ( $\text{mg}/\text{L}$ ) at AQMS2/ASR6 between 1 and 31 January 2014 during impact monitoring period.

Ref: 0212330\_impact AQM\_Graphs\_rev a.xlsx



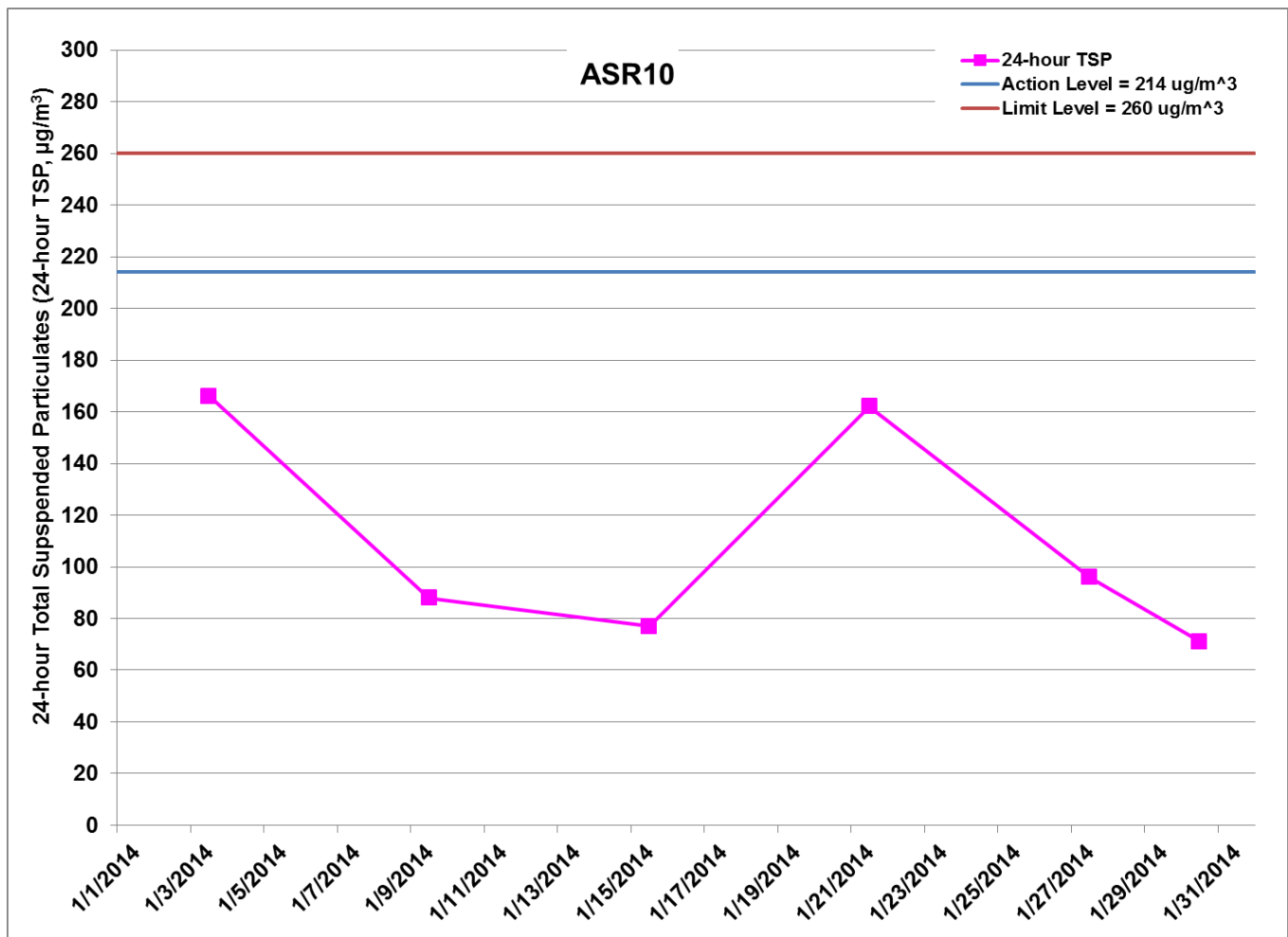


Figure G.10 Impact Monitoring - 24-hour Total Suspended Particulates (mg/L) at ASR10 between 1 and 31 January 2014 during impact monitoring period.

Ref: 0212330\_impact AQM\_Graphs\_rev a.xlsx



Project	Works	Date	Station	Start time	Parameters	Results	units
TMCLKL	HY/2012/08	2014-01-03	AQMS1	13:30	1-hour TSP	267	ug/m <sup>3</sup>
TMCLKL	HY/2012/08	2014-01-03	AQMS1	14:32	1-hour TSP	226	ug/m <sup>3</sup>
TMCLKL	HY/2012/08	2014-01-03	AQMS1	15:34	1-hour TSP	336	ug/m <sup>3</sup>
TMCLKL	HY/2012/08	2014-01-03	AQMS1	16:36	24-hour TSP	228	ug/m <sup>3</sup>
TMCLKL	HY/2012/08	2014-01-03	AQMS2	13:00	1-hour TSP	237	ug/m <sup>3</sup>
TMCLKL	HY/2012/08	2014-01-03	AQMS2	14:02	1-hour TSP	278	ug/m <sup>3</sup>
TMCLKL	HY/2012/08	2014-01-03	AQMS2	15:04	1-hour TSP	312	ug/m <sup>3</sup>
TMCLKL	HY/2012/08	2014-01-03	AQMS2	16:06	24-hour TSP	203	ug/m <sup>3</sup>
TMCLKL	HY/2012/08	2014-01-03	ASR1	13:20	1-hour TSP	266	ug/m <sup>3</sup>
TMCLKL	HY/2012/08	2014-01-03	ASR1	14:22	1-hour TSP	212	ug/m <sup>3</sup>
TMCLKL	HY/2012/08	2014-01-03	ASR1	15:24	1-hour TSP	419	ug/m <sup>3</sup>
TMCLKL	HY/2012/08	2014-01-03	ASR1	16:26	24-hour TSP	160	ug/m <sup>3</sup>
TMCLKL	HY/2012/08	2014-01-03	ASR10	12:50	1-hour TSP	147	ug/m <sup>3</sup>
TMCLKL	HY/2012/08	2014-01-03	ASR10	13:52	1-hour TSP	110	ug/m <sup>3</sup>
TMCLKL	HY/2012/08	2014-01-03	ASR10	14:54	1-hour TSP	176	ug/m <sup>3</sup>
TMCLKL	HY/2012/08	2014-01-03	ASR10	15:56	24-hour TSP	166	ug/m <sup>3</sup>
TMCLKL	HY/2012/08	2014-01-03	ASR5	13:09	1-hour TSP	297	ug/m <sup>3</sup>
TMCLKL	HY/2012/08	2014-01-03	ASR5	14:11	1-hour TSP	391	ug/m <sup>3</sup>
TMCLKL	HY/2012/08	2014-01-03	ASR5	15:13	1-hour TSP	241	ug/m <sup>3</sup>
TMCLKL	HY/2012/08	2014-01-03	ASR5	16:15	24-hour TSP	176	ug/m <sup>3</sup>
TMCLKL	HY/2012/08	2014-01-09	AQMS1	13:55	1-hour TSP	328	ug/m <sup>3</sup>
TMCLKL	HY/2012/08	2014-01-09	AQMS1	14:57	1-hour TSP	146	ug/m <sup>3</sup>
TMCLKL	HY/2012/08	2014-01-09	AQMS1	15:59	1-hour TSP	107	ug/m <sup>3</sup>
TMCLKL	HY/2012/08	2014-01-09	AQMS1	17:01	24-hour TSP	140	ug/m <sup>3</sup>
TMCLKL	HY/2012/08	2014-01-09	AQMS2	13:20	1-hour TSP	312	ug/m <sup>3</sup>
TMCLKL	HY/2012/08	2014-01-09	AQMS2	14:22	1-hour TSP	192	ug/m <sup>3</sup>
TMCLKL	HY/2012/08	2014-01-09	AQMS2	15:24	1-hour TSP	142	ug/m <sup>3</sup>
TMCLKL	HY/2012/08	2014-01-09	AQMS2	16:26	24-hour TSP	193	ug/m <sup>3</sup>
TMCLKL	HY/2012/08	2014-01-09	ASR1	13:42	1-hour TSP	232	ug/m <sup>3</sup>
TMCLKL	HY/2012/08	2014-01-09	ASR1	14:44	1-hour TSP	232	ug/m <sup>3</sup>
TMCLKL	HY/2012/08	2014-01-09	ASR1	15:46	1-hour TSP	237	ug/m <sup>3</sup>
TMCLKL	HY/2012/08	2014-01-09	ASR1	16:48	24-hour TSP	168	ug/m <sup>3</sup>
TMCLKL	HY/2012/08	2014-01-09	ASR10	13:10	1-hour TSP	261	ug/m <sup>3</sup>
TMCLKL	HY/2012/08	2014-01-09	ASR10	14:12	1-hour TSP	164	ug/m <sup>3</sup>
TMCLKL	HY/2012/08	2014-01-09	ASR10	15:14	1-hour TSP	228	ug/m <sup>3</sup>
TMCLKL	HY/2012/08	2014-01-09	ASR10	16:16	24-hour TSP	88	ug/m <sup>3</sup>
TMCLKL	HY/2012/08	2014-01-09	ASR5	13:31	1-hour TSP	213	ug/m <sup>3</sup>
TMCLKL	HY/2012/08	2014-01-09	ASR5	14:33	1-hour TSP	217	ug/m <sup>3</sup>
TMCLKL	HY/2012/08	2014-01-09	ASR5	15:35	1-hour TSP	212	ug/m <sup>3</sup>
TMCLKL	HY/2012/08	2014-01-09	ASR5	16:37	24-hour TSP	197	ug/m <sup>3</sup>
TMCLKL	HY/2012/08	2014-01-15	AQMS1	14:36	1-hour TSP	116	ug/m <sup>3</sup>
TMCLKL	HY/2012/08	2014-01-15	AQMS1	15:38	1-hour TSP	333	ug/m <sup>3</sup>
TMCLKL	HY/2012/08	2014-01-15	AQMS1	16:40	1-hour TSP	193	ug/m <sup>3</sup>
TMCLKL	HY/2012/08	2014-01-15	AQMS1	17:42	24-hour TSP	147	ug/m <sup>3</sup>

TMCLKL	HY/2012/08	2014-01-15	AQMS2	14:05	1-hour TSP	133	ug/m <sup>3</sup>
TMCLKL	HY/2012/08	2014-01-15	AQMS2	15:07	1-hour TSP	218	ug/m <sup>3</sup>
TMCLKL	HY/2012/08	2014-01-15	AQMS2	16:09	1-hour TSP	247	ug/m <sup>3</sup>
TMCLKL	HY/2012/08	2014-01-15	AQMS2	17:11	24-hour TSP	146	ug/m <sup>3</sup>
TMCLKL	HY/2012/08	2014-01-15	ASR1	14:27	1-hour TSP	224	ug/m <sup>3</sup>
TMCLKL	HY/2012/08	2014-01-15	ASR1	15:29	1-hour TSP	284	ug/m <sup>3</sup>
TMCLKL	HY/2012/08	2014-01-15	ASR1	16:31	1-hour TSP	375	ug/m <sup>3</sup>
TMCLKL	HY/2012/08	2014-01-15	ASR1	17:33	24-hour TSP	160	ug/m <sup>3</sup>
TMCLKL	HY/2012/08	2014-01-15	ASR10	13:55	1-hour TSP	60	ug/m <sup>3</sup>
TMCLKL	HY/2012/08	2014-01-15	ASR10	14:57	1-hour TSP	105	ug/m <sup>3</sup>
TMCLKL	HY/2012/08	2014-01-15	ASR10	15:59	1-hour TSP	149	ug/m <sup>3</sup>
TMCLKL	HY/2012/08	2014-01-15	ASR10	17:01	24-hour TSP	77	ug/m <sup>3</sup>
TMCLKL	HY/2012/08	2014-01-15	ASR5	14:16	1-hour TSP	157	ug/m <sup>3</sup>
TMCLKL	HY/2012/08	2014-01-15	ASR5	15:18	1-hour TSP	213	ug/m <sup>3</sup>
TMCLKL	HY/2012/08	2014-01-15	ASR5	16:20	1-hour TSP	253	ug/m <sup>3</sup>
TMCLKL	HY/2012/08	2014-01-15	ASR5	17:22	24-hour TSP	119	ug/m <sup>3</sup>
TMCLKL	HY/2012/08	2014-01-21	AQMS1	13:47	1-hour TSP	136	ug/m <sup>3</sup>
TMCLKL	HY/2012/08	2014-01-21	AQMS1	14:49	1-hour TSP	119	ug/m <sup>3</sup>
TMCLKL	HY/2012/08	2014-01-21	AQMS1	15:51	1-hour TSP	152	ug/m <sup>3</sup>
TMCLKL	HY/2012/08	2014-01-21	AQMS1	16:53	24-hour TSP	194	ug/m <sup>3</sup>
TMCLKL	HY/2012/08	2014-01-21	ASR1	13:38	1-hour TSP	264	ug/m <sup>3</sup>
TMCLKL	HY/2012/08	2014-01-21	ASR1	14:40	1-hour TSP	172	ug/m <sup>3</sup>
TMCLKL	HY/2012/08	2014-01-21	ASR1	15:40	1-hour TSP	298	ug/m <sup>3</sup>
TMCLKL	HY/2012/08	2014-01-21	ASR1	16:42	24-hour TSP	175	ug/m <sup>3</sup>
TMCLKL	HY/2012/08	2014-01-21	ASR10	13:00	1-hour TSP	324	ug/m <sup>3</sup>
TMCLKL	HY/2012/08	2014-01-21	ASR10	14:02	1-hour TSP	136	ug/m <sup>3</sup>
TMCLKL	HY/2012/08	2014-01-21	ASR10	15:04	1-hour TSP	147	ug/m <sup>3</sup>
TMCLKL	HY/2012/08	2014-01-21	ASR10	16:06	24-hour TSP	162	ug/m <sup>3</sup>
TMCLKL	HY/2012/08	2014-01-21	ASR5	13:28	1-hour TSP	259	ug/m <sup>3</sup>
TMCLKL	HY/2012/08	2014-01-21	ASR5	14:30	1-hour TSP	108	ug/m <sup>3</sup>
TMCLKL	HY/2012/08	2014-01-21	ASR5	15:32	1-hour TSP	332	ug/m <sup>3</sup>
TMCLKL	HY/2012/08	2014-01-21	ASR5	15:32	24-hour TSP	175	ug/m <sup>3</sup>
TMCLKL	HY/2012/08	2014-01-21	ASR6	13:15	1-hour TSP	332	ug/m <sup>3</sup>
TMCLKL	HY/2012/08	2014-01-21	ASR6	14:17	1-hour TSP	244	ug/m <sup>3</sup>
TMCLKL	HY/2012/08	2014-01-21	ASR6	15:19	1-hour TSP	256	ug/m <sup>3</sup>
TMCLKL	HY/2012/08	2014-01-21	ASR6	16:21	24-hour TSP	217	ug/m <sup>3</sup>
TMCLKL	HY/2012/08	2014-01-27	AQMS1	14:15	1-hour TSP	192	ug/m <sup>3</sup>
TMCLKL	HY/2012/08	2014-01-27	AQMS1	15:17	1-hour TSP	243	ug/m <sup>3</sup>
TMCLKL	HY/2012/08	2014-01-27	AQMS1	16:19	1-hour TSP	163	ug/m <sup>3</sup>
TMCLKL	HY/2012/08	2014-01-27	AQMS1	17:19	24-hour TSP	141	ug/m <sup>3</sup>
TMCLKL	HY/2012/08	2014-01-27	ASR1	14:04	1-hour TSP	246	ug/m <sup>3</sup>
TMCLKL	HY/2012/08	2014-01-27	ASR1	15:06	1-hour TSP	398	ug/m <sup>3</sup>
TMCLKL	HY/2012/08	2014-01-27	ASR1	16:08	1-hour TSP	316	ug/m <sup>3</sup>
TMCLKL	HY/2012/08	2014-01-27	ASR1	17:10	24-hour TSP	130	ug/m <sup>3</sup>



TMCLKL	HY/2012/08	2014-01-27	ASR10	13:30	1-hour TSP	134	ug/m <sup>3</sup>
TMCLKL	HY/2012/08	2014-01-27	ASR10	14:32	1-hour TSP	109	ug/m <sup>3</sup>
TMCLKL	HY/2012/08	2014-01-27	ASR10	15:34	1-hour TSP	145	ug/m <sup>3</sup>
TMCLKL	HY/2012/08	2014-01-27	ASR10	16:36	24-hour TSP	96	ug/m <sup>3</sup>
TMCLKL	HY/2012/08	2014-01-27	ASR5	13:52	1-hour TSP	423	ug/m <sup>3</sup>
TMCLKL	HY/2012/08	2014-01-27	ASR5	14:54	1-hour TSP	269	ug/m <sup>3</sup>
TMCLKL	HY/2012/08	2014-01-27	ASR5	15:56	1-hour TSP	316	ug/m <sup>3</sup>
TMCLKL	HY/2012/08	2014-01-27	ASR5	16:58	24-hour TSP	151	ug/m <sup>3</sup>
TMCLKL	HY/2012/08	2014-01-27	ASR6	13:41	1-hour TSP	203	ug/m <sup>3</sup>
TMCLKL	HY/2012/08	2014-01-27	ASR6	14:43	1-hour TSP	228	ug/m <sup>3</sup>
TMCLKL	HY/2012/08	2014-01-27	ASR6	15:45	1-hour TSP	377	ug/m <sup>3</sup>
TMCLKL	HY/2012/08	2014-01-27	ASR6	16:47	24-hour TSP	117	ug/m <sup>3</sup>
TMCLKL	HY/2012/08	2014-01-30	AQMS1	13:50	1-hour TSP	331	ug/m <sup>3</sup>
TMCLKL	HY/2012/08	2014-01-30	AQMS1	14:52	1-hour TSP	230	ug/m <sup>3</sup>
TMCLKL	HY/2012/08	2014-01-30	AQMS1	15:54	1-hour TSP	315	ug/m <sup>3</sup>
TMCLKL	HY/2012/08	2014-01-30	ASR1	13:39	1-hour TSP	109	ug/m <sup>3</sup>
TMCLKL	HY/2012/08	2014-01-30	ASR1	14:41	1-hour TSP	156	ug/m <sup>3</sup>
TMCLKL	HY/2012/08	2014-01-30	ASR1	15:43	1-hour TSP	95	ug/m <sup>3</sup>
TMCLKL	HY/2012/08	2014-01-30	ASR5	13:27	1-hour TSP	119	ug/m <sup>3</sup>
TMCLKL	HY/2012/08	2014-01-30	ASR5	14:29	1-hour TSP	208	ug/m <sup>3</sup>
TMCLKL	HY/2012/08	2014-01-30	ASR5	15:31	1-hour TSP	121	ug/m <sup>3</sup>
TMCLKL	HY/2012/08	2014-01-30	ASR10	13:05	1-hour TSP	138	ug/m <sup>3</sup>
TMCLKL	HY/2012/08	2014-01-30	ASR10	14:07	1-hour TSP	152	ug/m <sup>3</sup>
TMCLKL	HY/2012/08	2014-01-30	ASR10	15:09	1-hour TSP	82	ug/m <sup>3</sup>
TMCLKL	HY/2012/08	2014-01-30	ASR6	13:17	1-hour TSP	101	ug/m <sup>3</sup>
TMCLKL	HY/2012/08	2014-01-30	ASR6	14:19	1-hour TSP	163	ug/m <sup>3</sup>
TMCLKL	HY/2012/08	2014-01-30	ASR6	15:21	1-hour TSP	112	ug/m <sup>3</sup>
TMCLKL	HY/2012/08	2014-01-30	AQMS1	16:56	24-hour TSP	170	ug/m <sup>3</sup>
TMCLKL	HY/2012/08	2014-01-30	ASR1	16:45	24-hour TSP	104	ug/m <sup>3</sup>
TMCLKL	HY/2012/08	2014-01-30	ASR5	16:33	24-hour TSP	77	ug/m <sup>3</sup>
TMCLKL	HY/2012/08	2014-01-30	ASR10	16:11	24-hour TSP	71	ug/m <sup>3</sup>
TMCLKL	HY/2012/08	2014-01-30	ASR6	16:23	24-hour TSP	106	ug/m <sup>3</sup>

Appendix H

## Meteorological Data

Meteorological Data for Impact Monitoring in the reporting period			
Date	Time (24hrs)	Average of Wind Direction (degree)	Average of Wind Speed (m/s)
03-Jan-14	0:00	147	0.68
03-Jan-14	1:00	193	0.40
03-Jan-14	2:00	220	0.37
03-Jan-14	3:00	214	0.33
03-Jan-14	4:00	274	0.56
03-Jan-14	5:00	267	0.57
03-Jan-14	6:00	273	0.53
03-Jan-14	7:00	270	0.64
03-Jan-14	8:00	225	0.64
03-Jan-14	9:00	216	0.54
03-Jan-14	10:00	240	0.92
03-Jan-14	11:00	241	1.53
03-Jan-14	12:00	242	1.29
03-Jan-14	13:00	226	1.06
03-Jan-14	14:00	267	1.61
03-Jan-14	15:00	294	2.20
03-Jan-14	16:00	295	1.79
03-Jan-14	17:00	299	1.60
03-Jan-14	18:00	298	1.52
03-Jan-14	19:00	308	1.37
03-Jan-14	20:00	280	0.92
03-Jan-14	21:00	282	0.67
03-Jan-14	22:00	261	0.70
03-Jan-14	23:00	252	0.52
09-Jan-14	0:00	286	1.21
09-Jan-14	1:00	196	1.41
09-Jan-14	2:00	149	1.39
09-Jan-14	3:00	224	0.96
09-Jan-14	4:00	183	1.94
09-Jan-14	5:00	131	3.31
09-Jan-14	6:00	124	3.28
09-Jan-14	7:00	119	2.92
09-Jan-14	8:00	126	2.73
09-Jan-14	9:00	123	2.55
09-Jan-14	10:00	122	2.22
09-Jan-14	11:00	107	2.14
09-Jan-14	12:00	128	1.66
09-Jan-14	13:00	142	1.92
09-Jan-14	14:00	159	2.14
09-Jan-14	15:00	185	1.73
09-Jan-14	16:00	172	1.65
09-Jan-14	17:00	235	1.29
09-Jan-14	18:00	216	1.78
09-Jan-14	19:00	164	1.63
09-Jan-14	20:00	104	2.01
09-Jan-14	21:00	99	1.47
09-Jan-14	22:00	112	1.36
09-Jan-14	23:00	95	1.94
15-Jan-14	0:00	155	3.62

15-Jan-14	1:00	138	3.21
15-Jan-14	2:00	134	3.13
15-Jan-14	3:00	99	3.33
15-Jan-14	4:00	95	3.12
15-Jan-14	5:00	95	4.10
15-Jan-14	6:00	82	4.28
15-Jan-14	7:00	83	4.62
15-Jan-14	8:00	100	4.48
15-Jan-14	9:00	105	3.94
15-Jan-14	10:00	109	2.72
15-Jan-14	11:00	126	1.70
15-Jan-14	12:00	145	1.29
15-Jan-14	13:00	163	1.08
15-Jan-14	14:00	148	1.49
15-Jan-14	15:00	151	1.48
15-Jan-14	16:00	130	1.77
15-Jan-14	17:00	138	1.68
15-Jan-14	18:00	117	2.65
15-Jan-14	19:00	98	1.96
15-Jan-14	20:00	96	1.63
15-Jan-14	21:00	125	1.32
15-Jan-14	22:00	179	0.99
15-Jan-14	23:00	153	1.03
21-Jan-14	0:00	247	0.92
21-Jan-14	1:00	199	0.93
21-Jan-14	2:00	217	0.75
21-Jan-14	3:00	230	0.74
21-Jan-14	4:00	223	0.95
21-Jan-14	5:00	203	3.28
21-Jan-14	6:00	183	3.53
21-Jan-14	7:00	177	4.23
21-Jan-14	8:00	129	4.11
21-Jan-14	9:00	120	4.20
21-Jan-14	10:00	133	4.23
21-Jan-14	11:00	116	3.50
21-Jan-14	12:00	119	2.63
21-Jan-14	13:00	117	2.28
21-Jan-14	14:00	139	1.73
21-Jan-14	15:00	233	1.95
21-Jan-14	16:00	231	1.58
21-Jan-14	17:00	207	1.56
21-Jan-14	18:00	273	1.18
21-Jan-14	19:00	236	0.58
21-Jan-14	20:00	233	0.88
21-Jan-14	21:00	180	0.99
21-Jan-14	22:00	163	1.27
21-Jan-14	23:00	175	2.00
27-Jan-14	0:00	114	3.27
27-Jan-14	1:00	115	3.61
27-Jan-14	2:00	110	4.24
27-Jan-14	3:00	107	3.90

27-Jan-14	4:00	100	2.68
27-Jan-14	5:00	104	3.72
27-Jan-14	6:00	106	4.16
27-Jan-14	7:00	105	3.10
27-Jan-14	8:00	103	2.59
27-Jan-14	9:00	109	2.31
27-Jan-14	10:00	108	2.63
27-Jan-14	11:00	109	3.14
27-Jan-14	12:00	115	2.81
27-Jan-14	13:00	121	2.53
27-Jan-14	14:00	116	2.02
27-Jan-14	15:00	105	2.00
27-Jan-14	16:00	101	2.14
27-Jan-14	17:00	90	2.02
27-Jan-14	18:00	93	1.99
27-Jan-14	19:00	103	2.11
27-Jan-14	20:00	89	1.54
27-Jan-14	21:00	91	1.34
27-Jan-14	22:00	86	1.67
27-Jan-14	23:00	93	1.60
30-Jan-14	0:00	290	0.53
30-Jan-14	1:00	228	0.58
30-Jan-14	2:00	187	0.71
30-Jan-14	3:00	292	0.79
30-Jan-14	4:00	285	0.67
30-Jan-14	5:00	292	0.72
30-Jan-14	6:00	287	0.62
30-Jan-14	7:00	251	0.52
30-Jan-14	8:00	114	0.78
30-Jan-14	9:00	104	1.08
30-Jan-14	10:00	99	1.14
30-Jan-14	11:00	193	0.97
30-Jan-14	12:00	239	1.25
30-Jan-14	13:00	247	1.26
30-Jan-14	14:00	244	1.12
30-Jan-14	15:00	236	1.10
30-Jan-14	16:00	234	1.35
30-Jan-14	17:00	239	0.67
30-Jan-14	18:00	255	0.50
30-Jan-14	19:00	281	0.56
30-Jan-14	20:00	279	0.62
30-Jan-14	21:00	295	0.95
30-Jan-14	22:00	275	0.72
30-Jan-14	23:00	287	0.57

Appendix I

## Impact Water Quality Monitoring Results

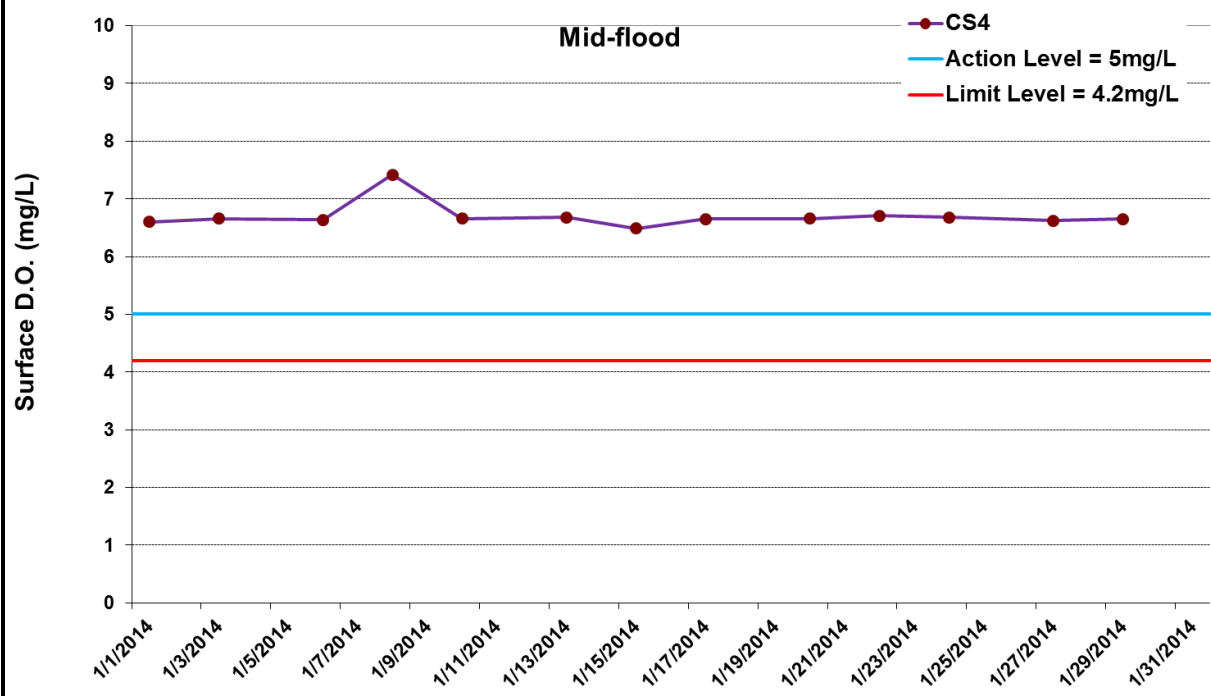
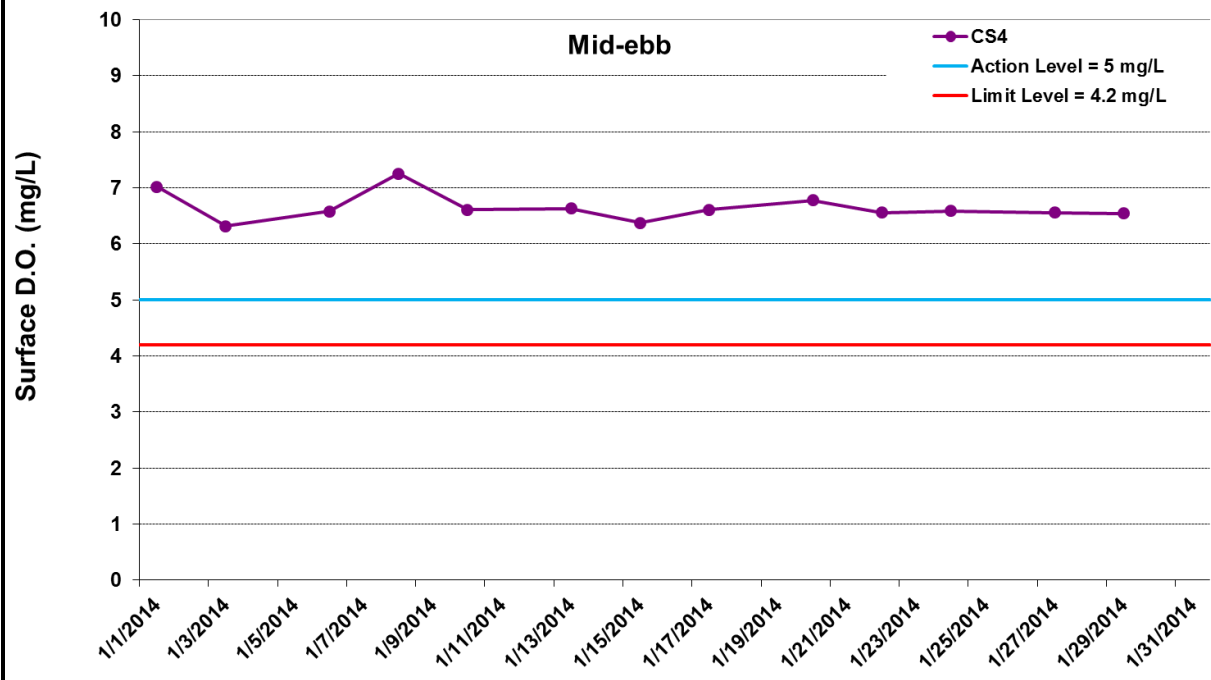


Figure I1 Impact Monitoring - Mean Level of Dissolved Oxygen (mg/L) in surface waters between 1 and 31 January 2014 at CS4. Note no dredging works was undertaken on 31 January 2014.



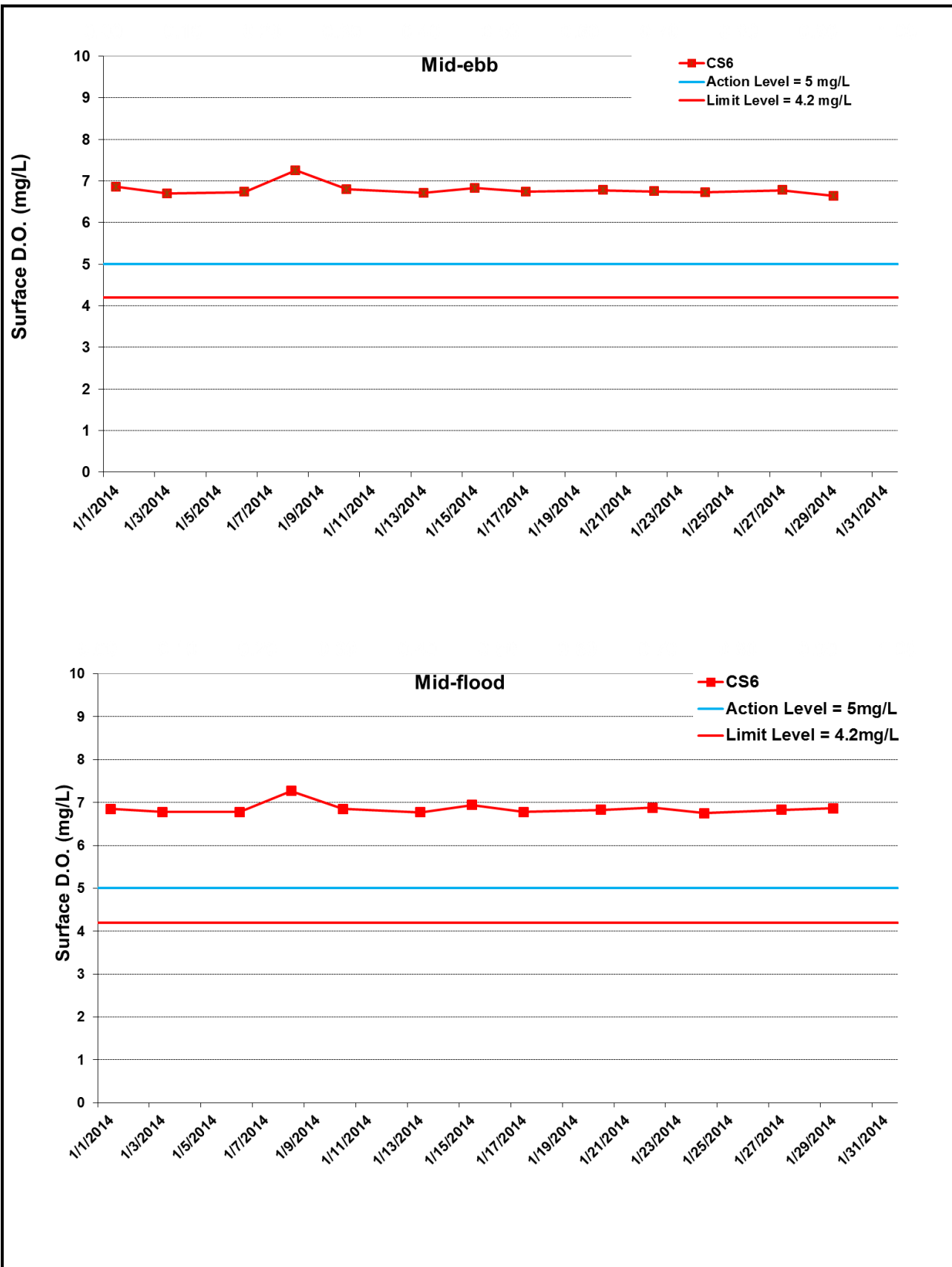


Figure I2 Impact Monitoring - Mean Level of Dissolved Oxygen (mg/L) in surface waters between 1 and 31 January 2014 at CS6. Note no dredging works was undertaken on 31 January 2014.



Ref: 0212330\_Impact-WQM\_January2014\_graphs\_Rev a.xls



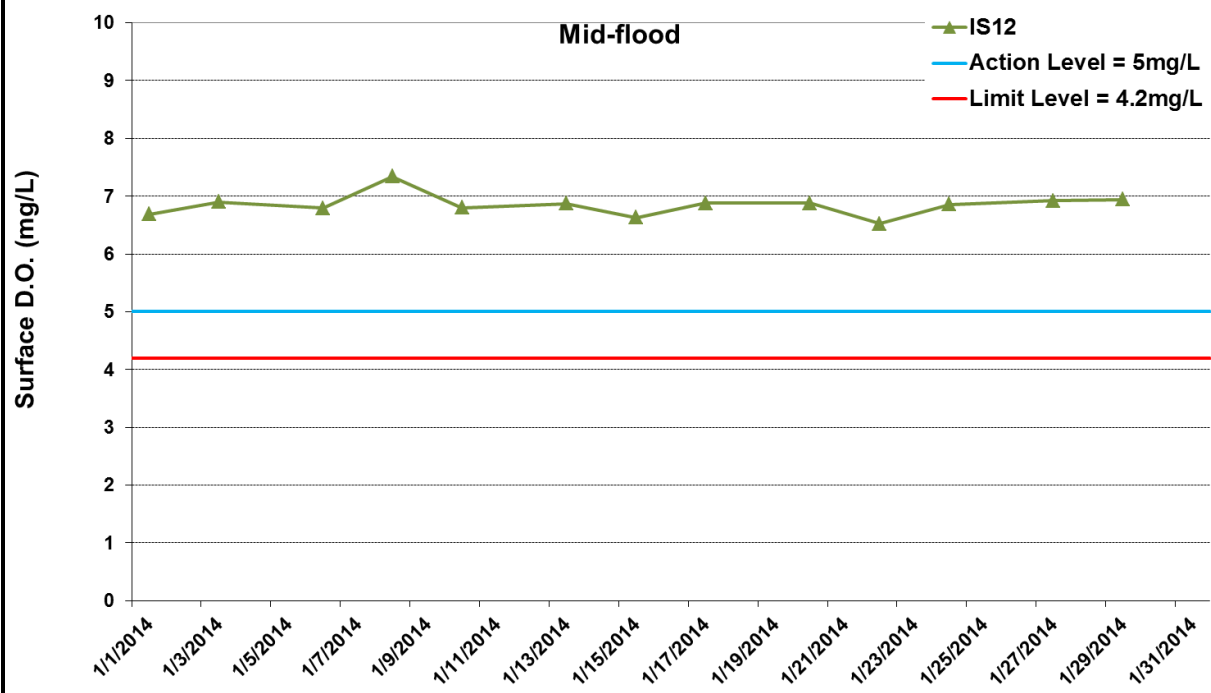
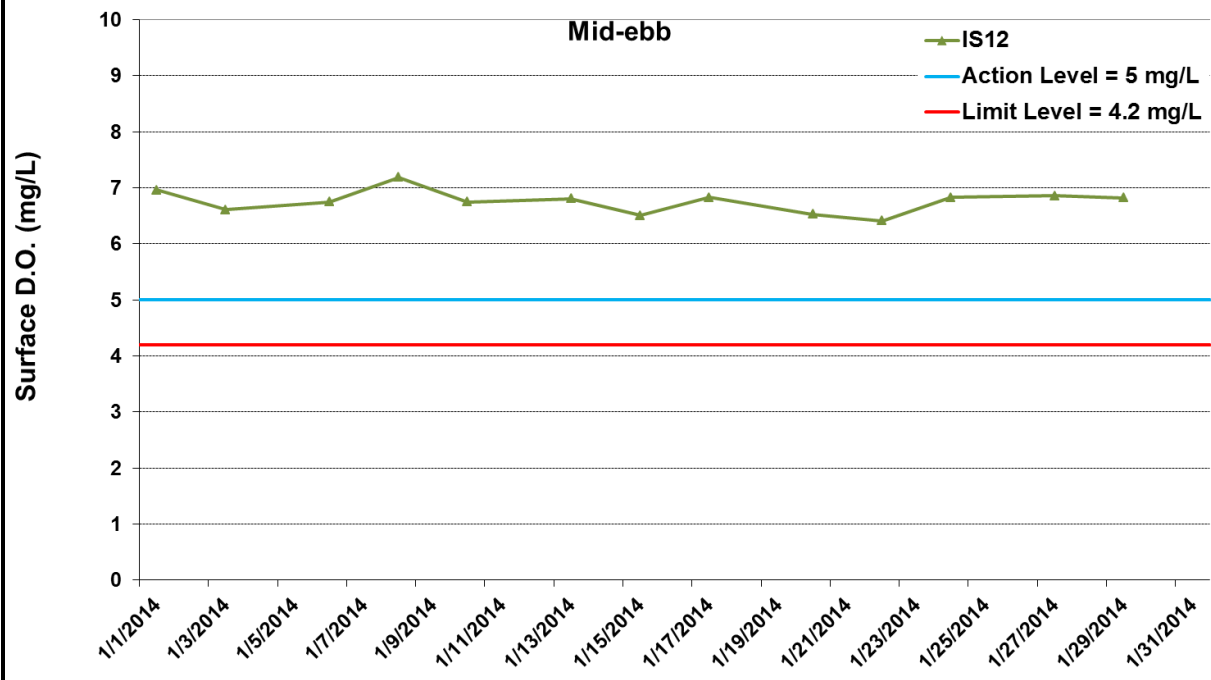


Figure I3 Impact Monitoring - Mean Level of Dissolved Oxygen (mg/L) in surface waters between 1 and 31 January 2014 at IS12. Note no dredging works was undertaken on 31 January 2014.



Ref: 0212330\_Impact-WQM\_January2014\_graphs\_Rev a.xls

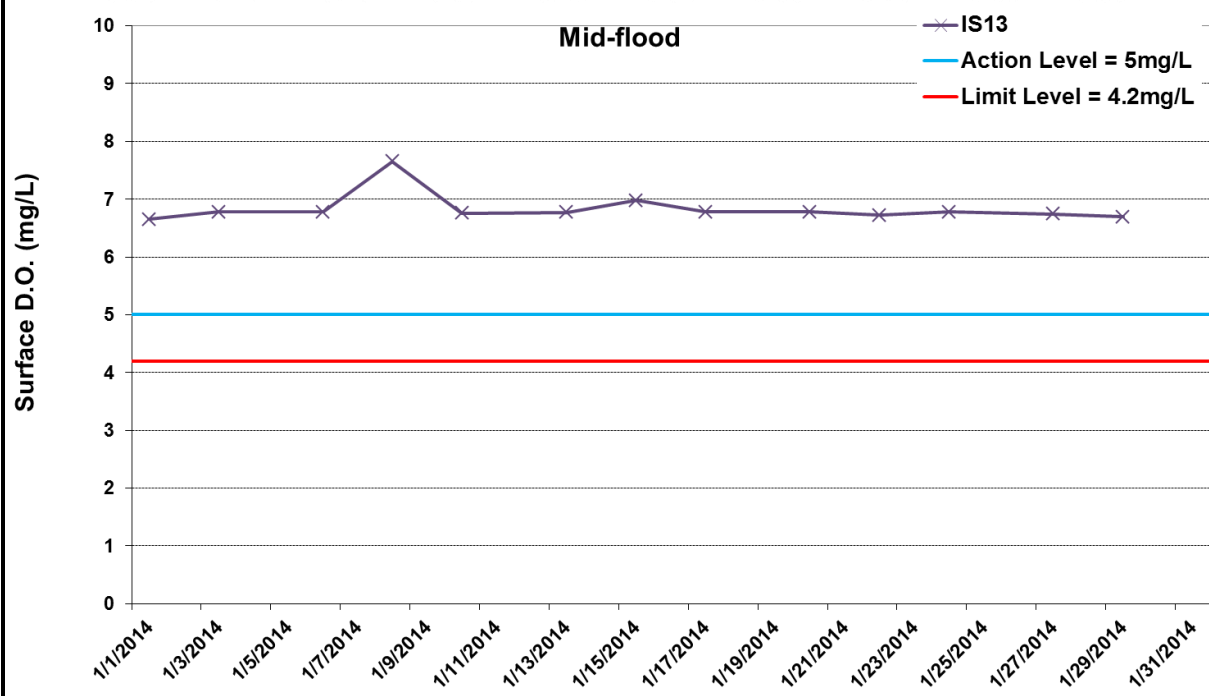
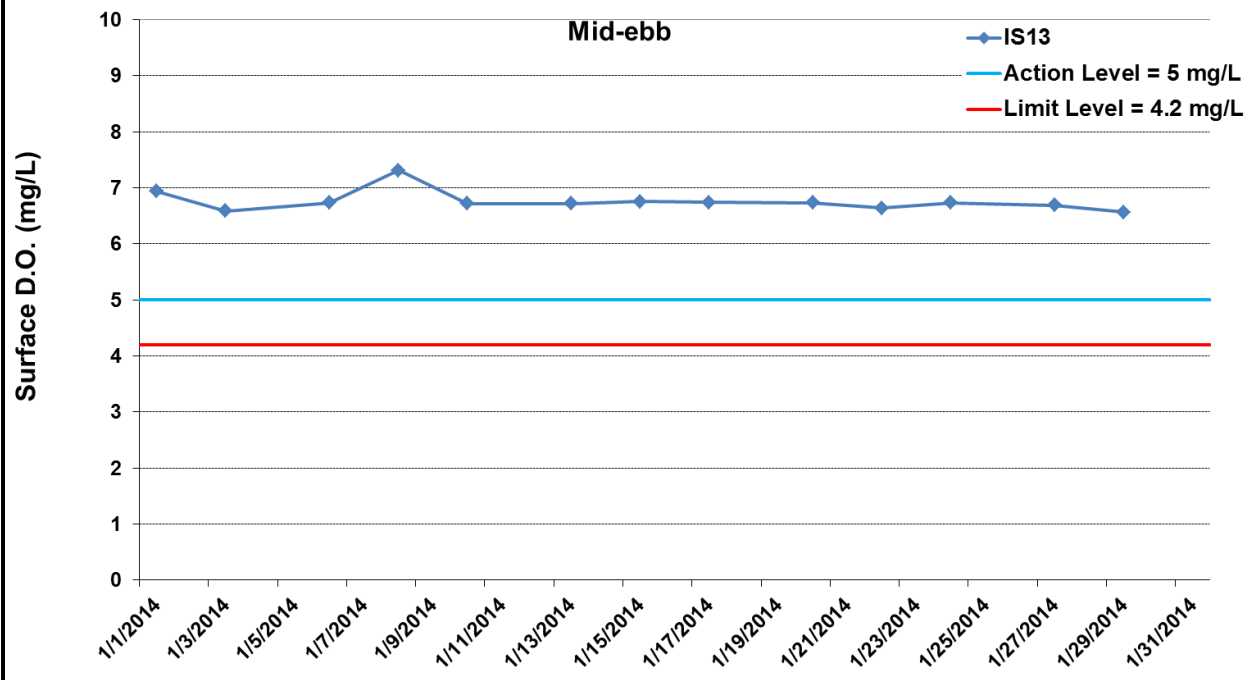


Figure I4 Impact Monitoring - Mean Level of Dissolved Oxygen (mg/L) in surface waters between 1 and 31 January 2014 at IS13. Note no dredging works was undertaken on 31 January 2014.



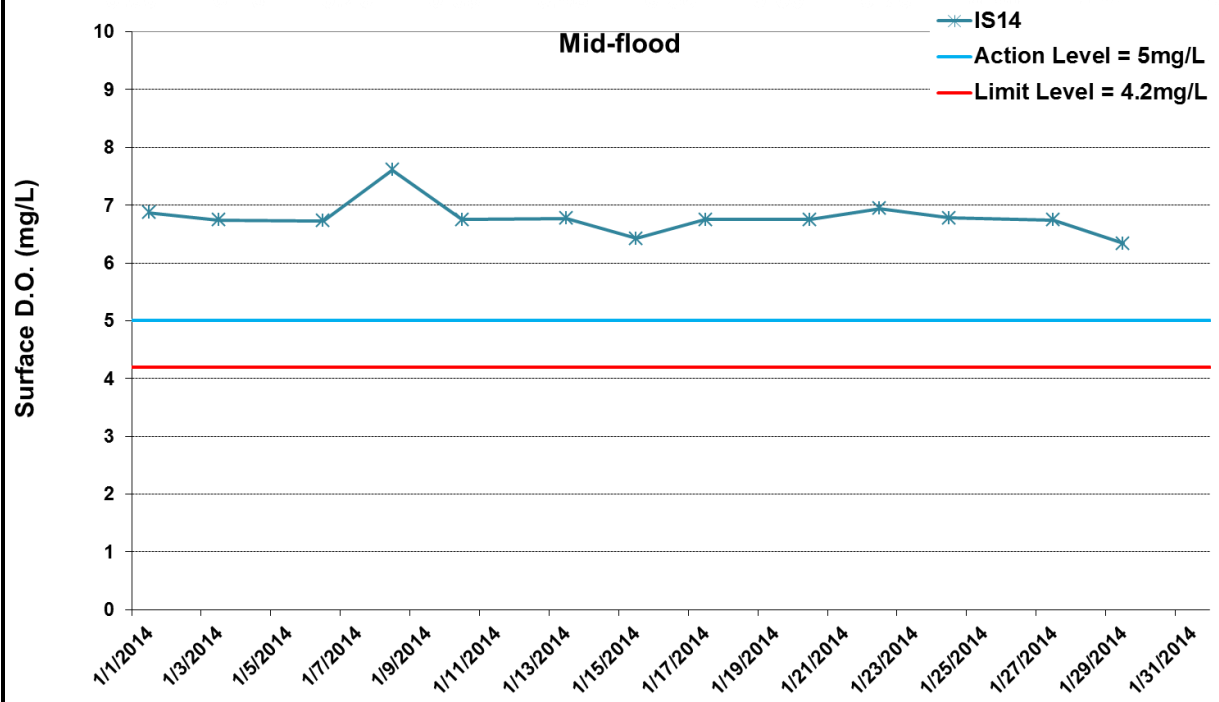
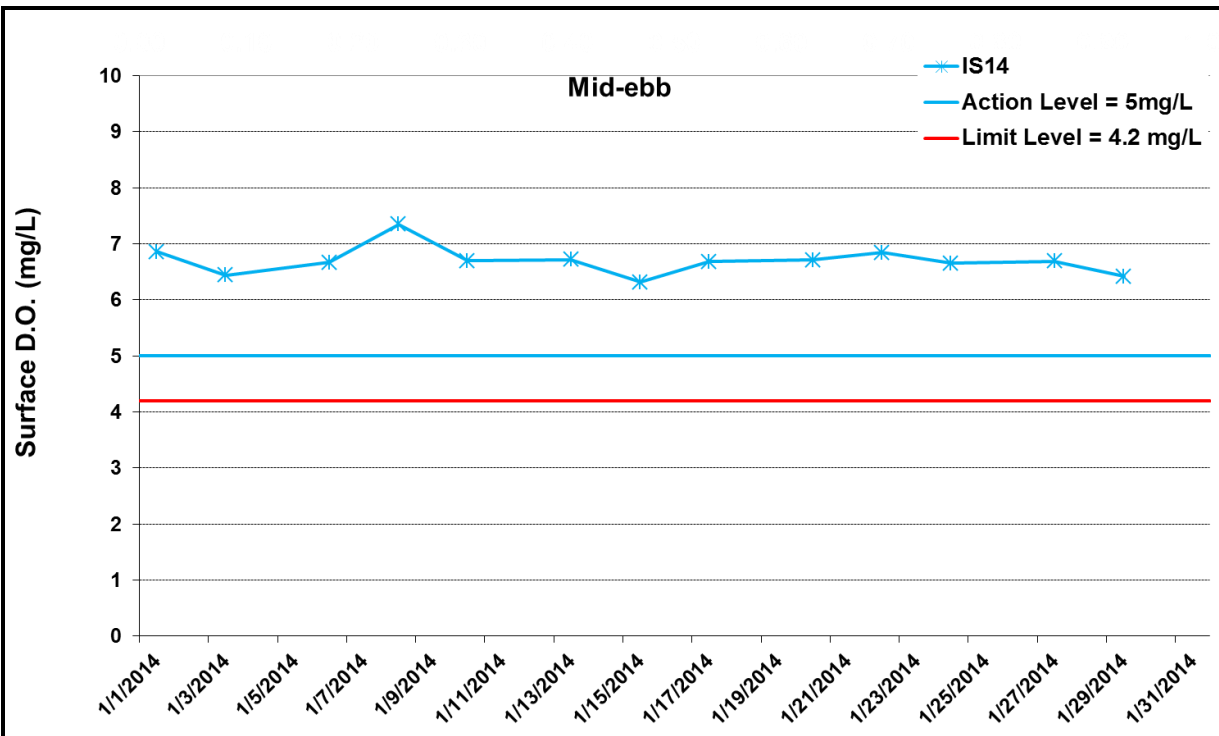


Figure I5 Impact Monitoring - Mean Level of Dissolved Oxygen (mg/L) in surface waters between 1 and 31 January 2014 at IS14. Note no dredging works was undertaken on 31 January 2014.



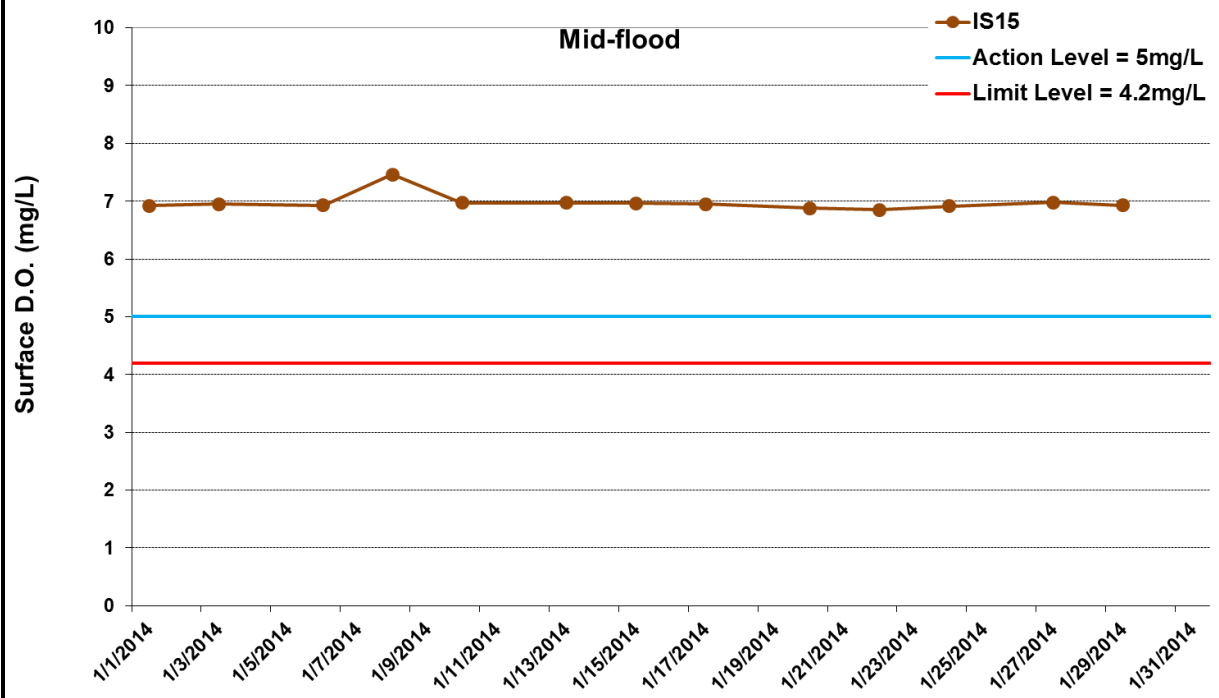
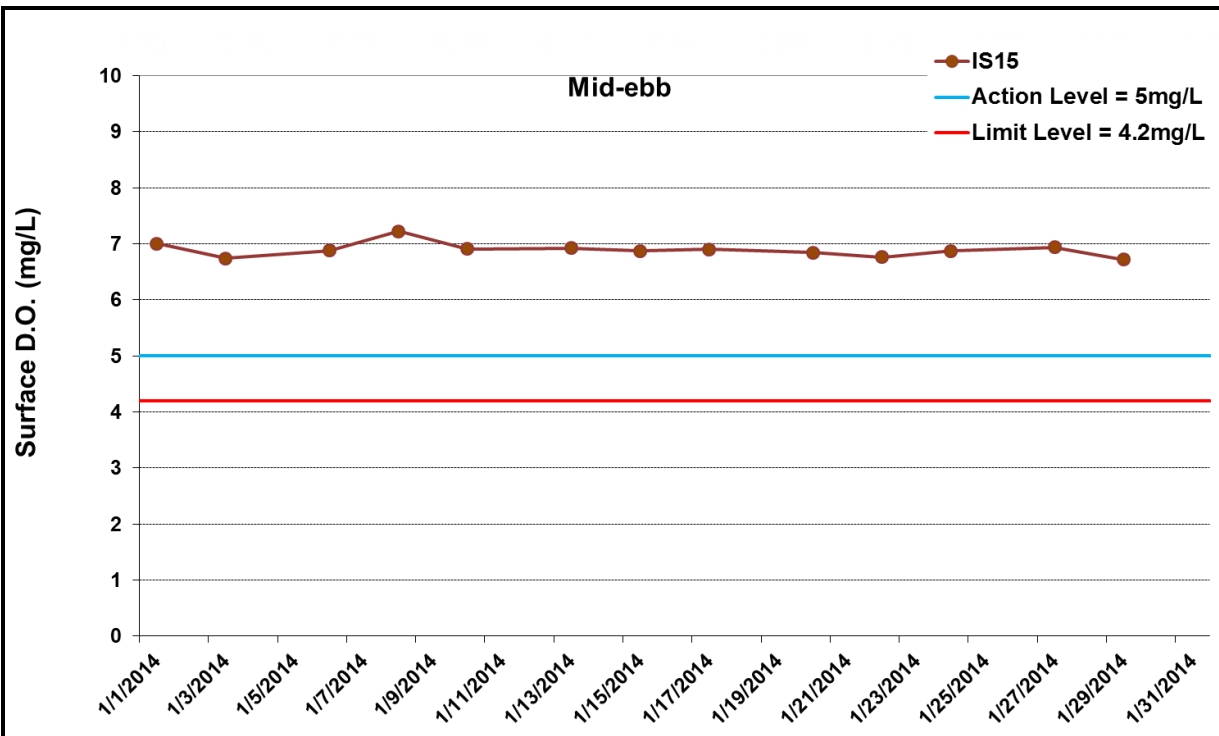


Figure I6 Impact Monitoring - Mean Level of Dissolved Oxygen (mg/L) in surface waters between 1 and 31 January 2014 at IS15. Note no dredging works was undertaken on 31 January 2014.



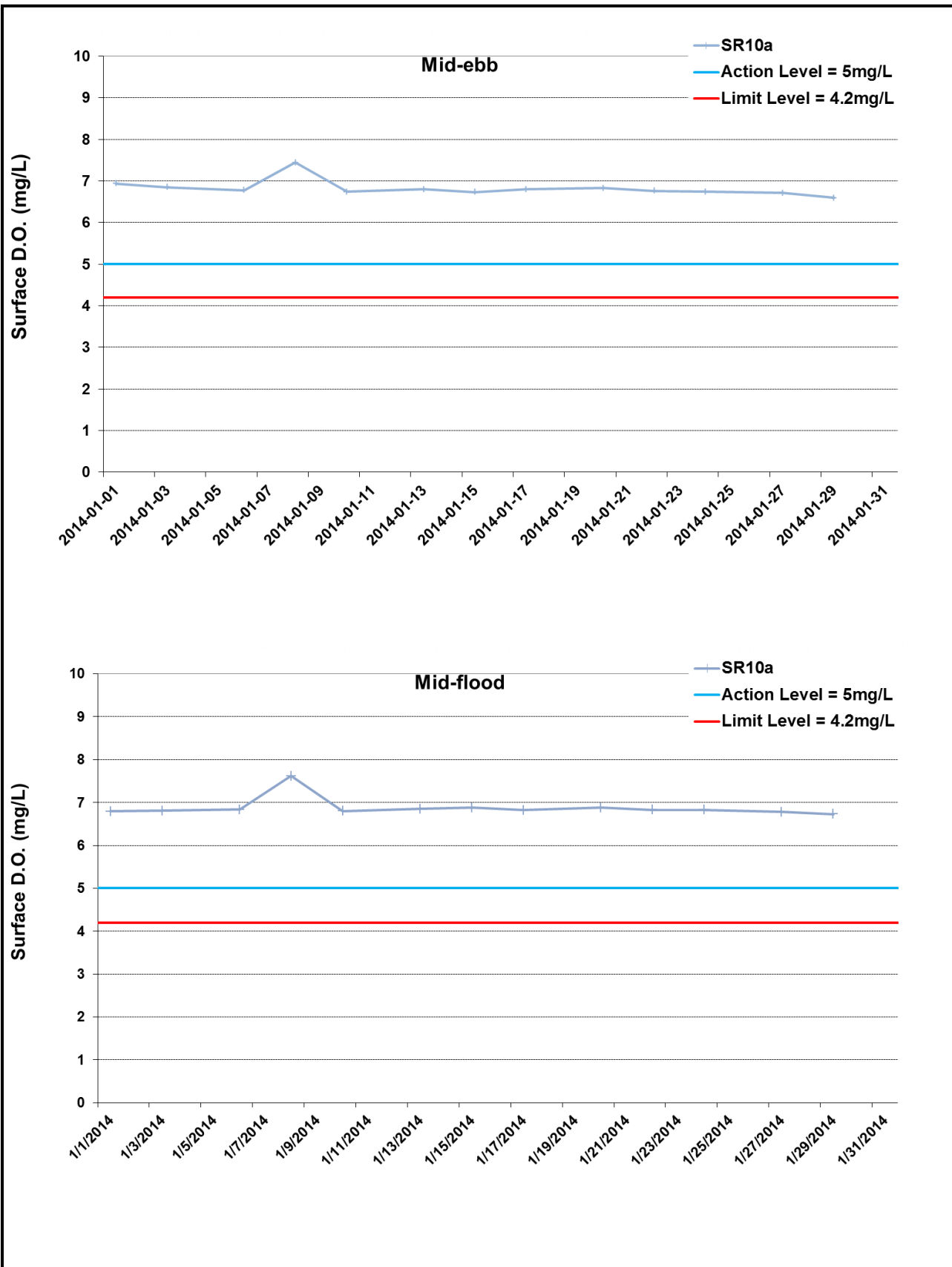


Figure I7 Impact Monitoring - Mean Level of Dissolved Oxygen (mg/L) in surface waters between 1 and 31 January 2014 at SR10a. Note no dredging works was undertaken on 31 January 2014.



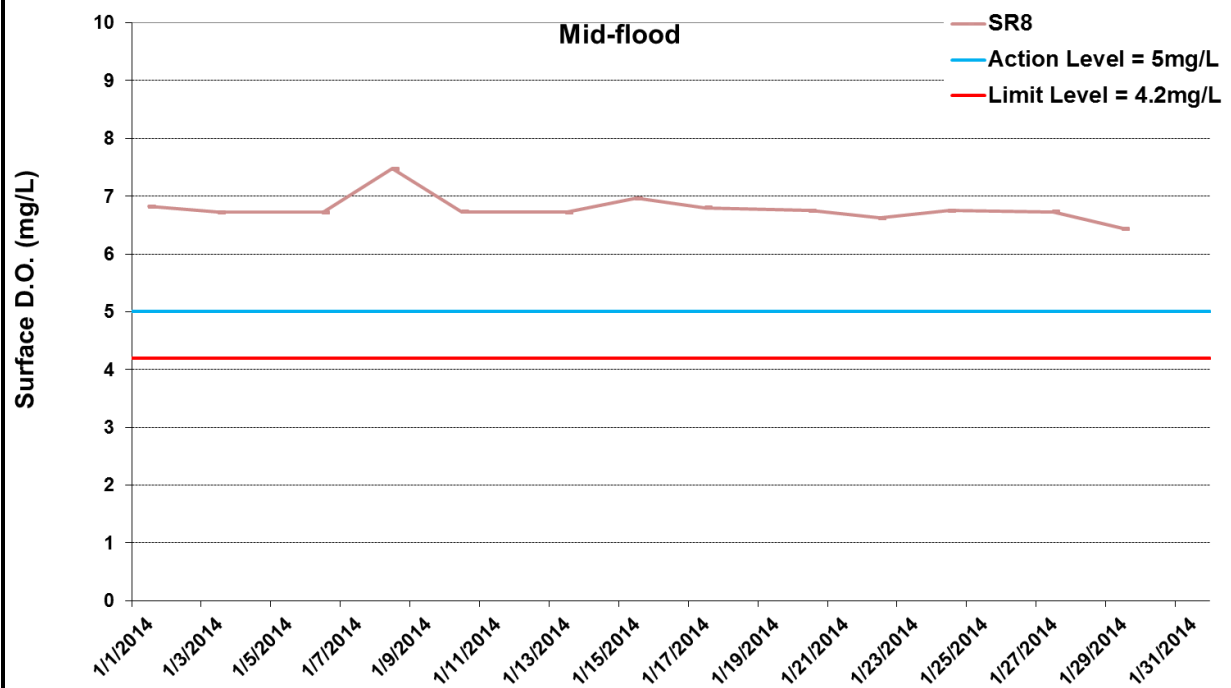
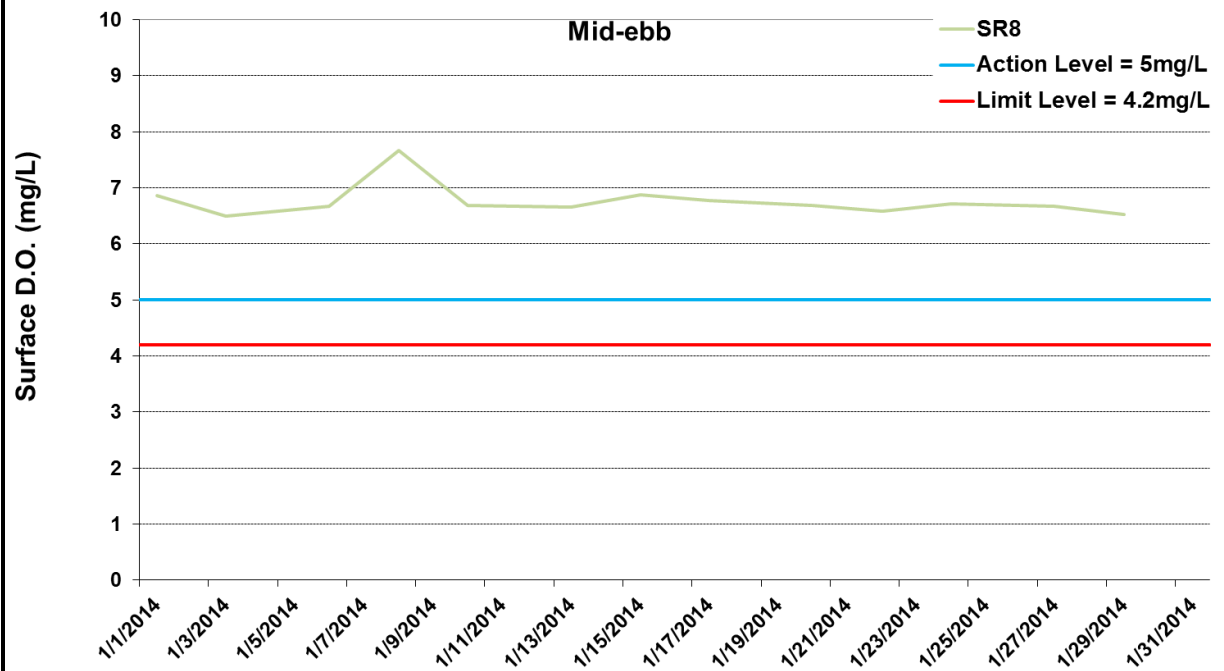


Figure I8 Impact Monitoring - Mean Level of Dissolved Oxygen (mg/L) in surface waters between 1 and 31 January 2014 at SR8. Note no dredging works was undertaken on 31 January 2014.



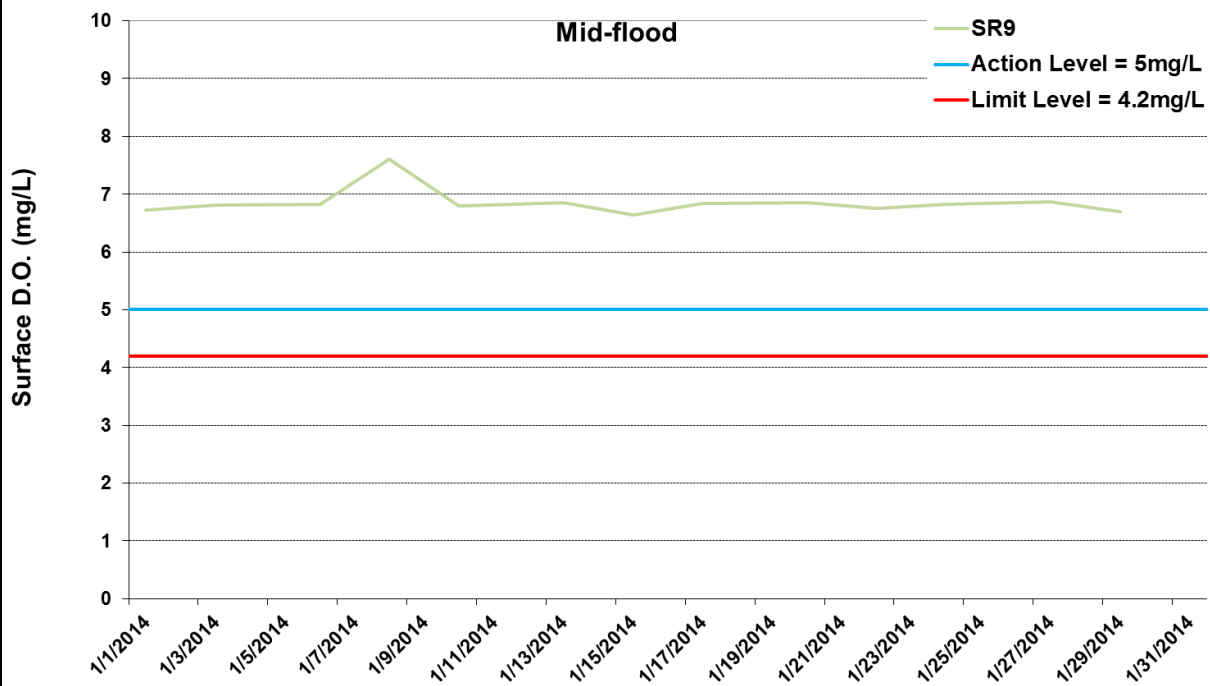
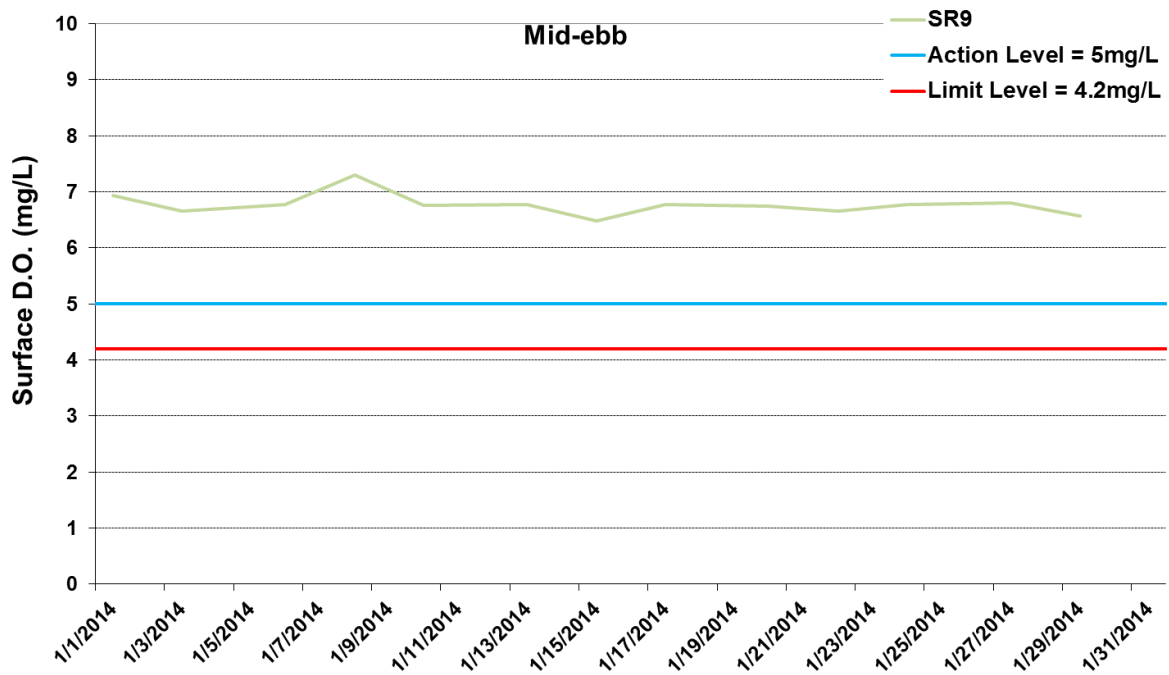
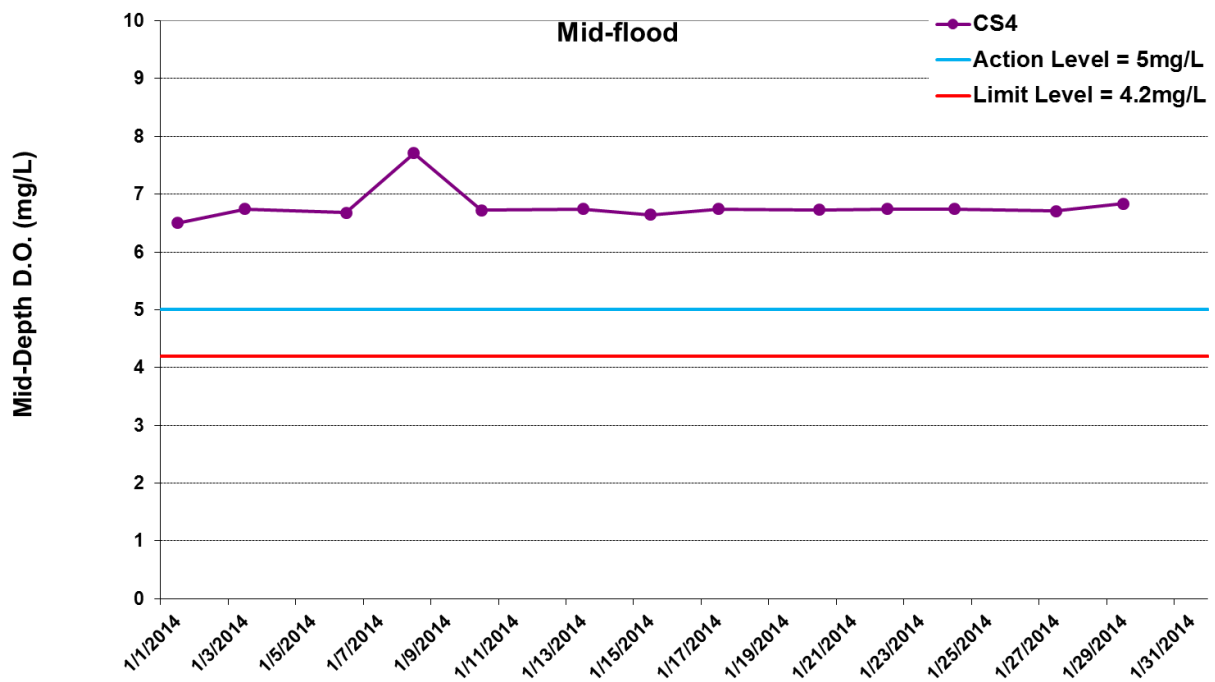
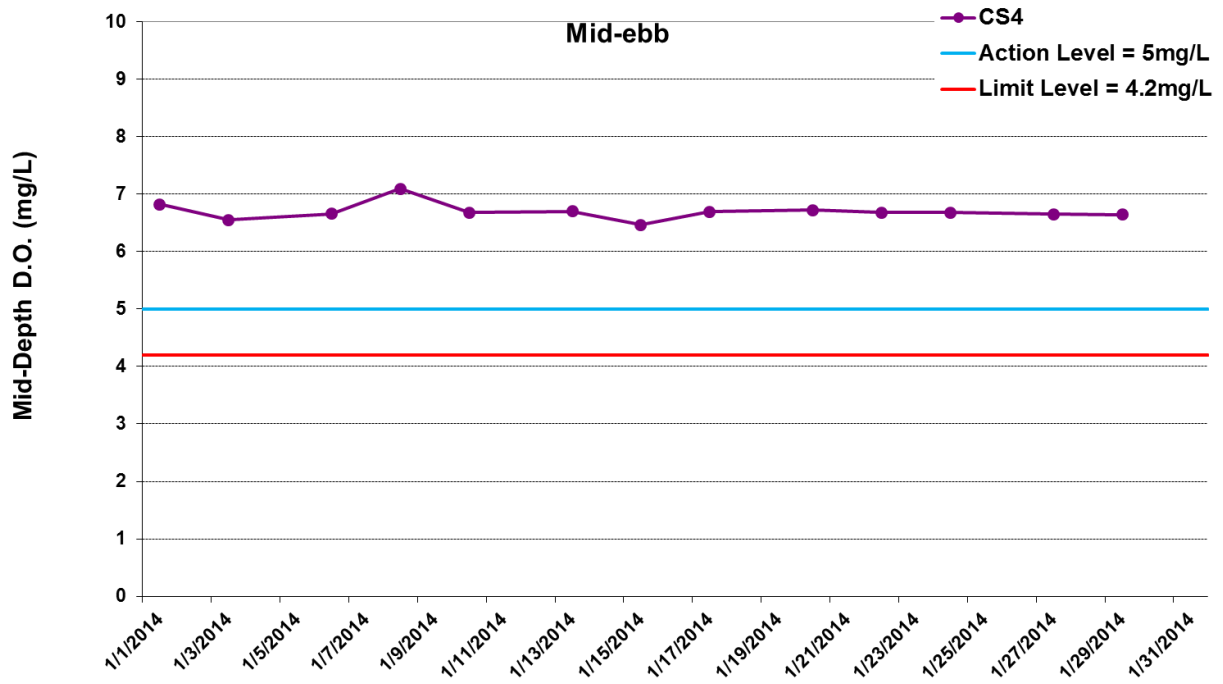


Figure I9 Impact Monitoring - Mean Level of Dissolved Oxygen (mg/L) in surface waters between 1 and 31 January 2014 at SR9. Note no dredging works was undertaken on 31 January 2014.



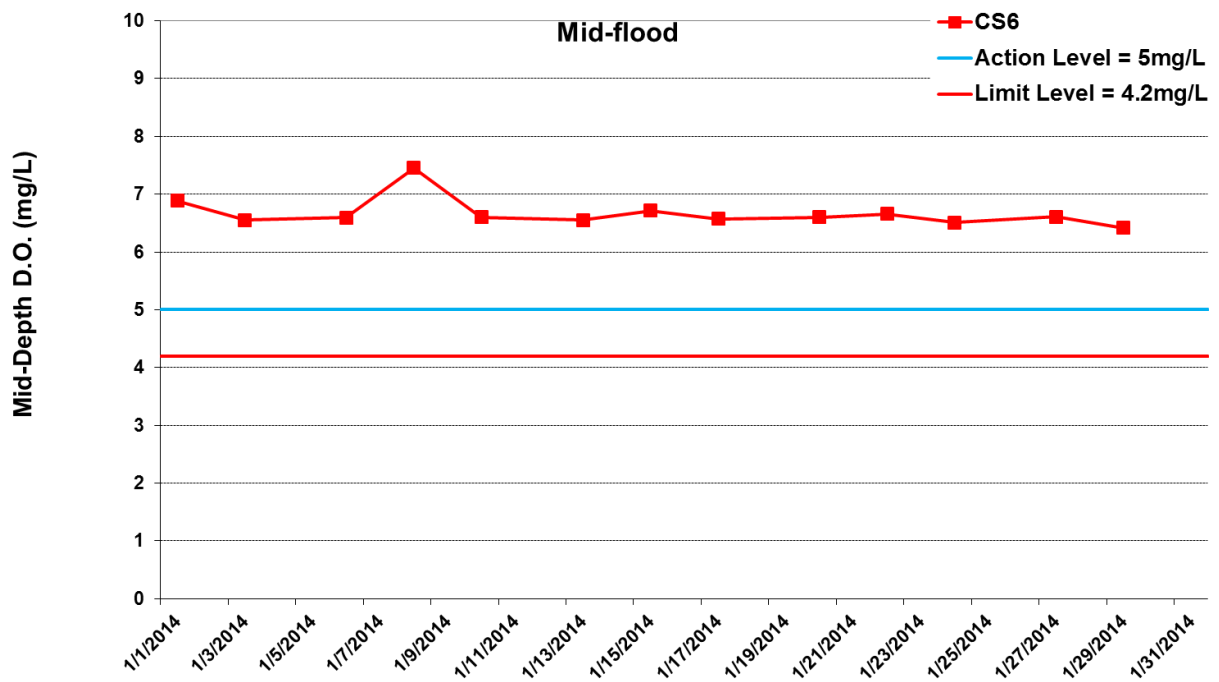
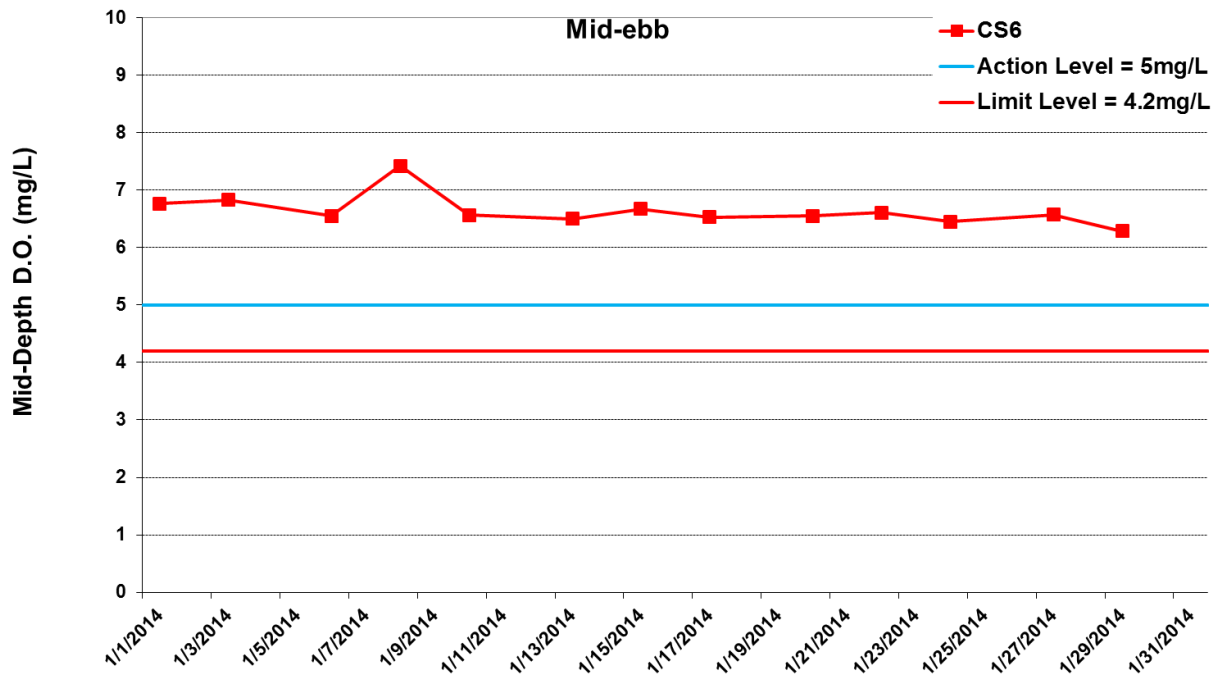


\*No data for Stations SR8 and SR9 due to shallow water depth (< 6m).

**Figure I10 Impact Monitoring - Mean Level of Dissolved Oxygen (mg/L) in mid-depth waters between 1 and 31 January 2014 at the CS4. Note no dredging works was undertaken on 31 January 2014.**



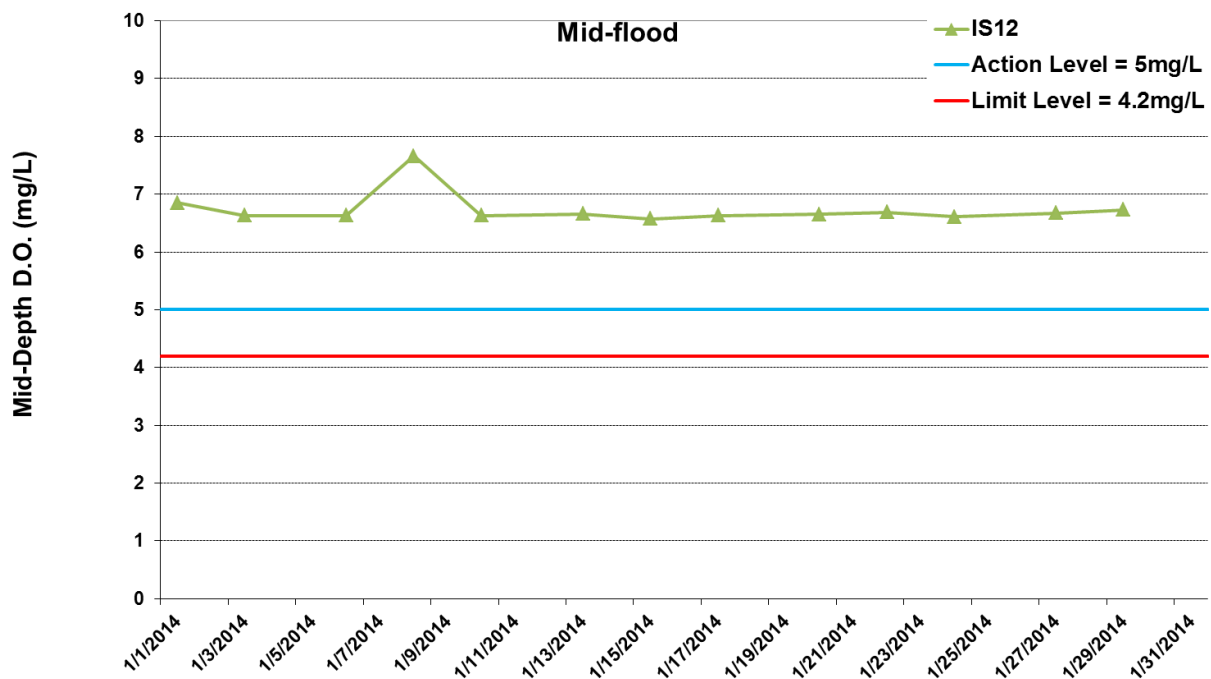
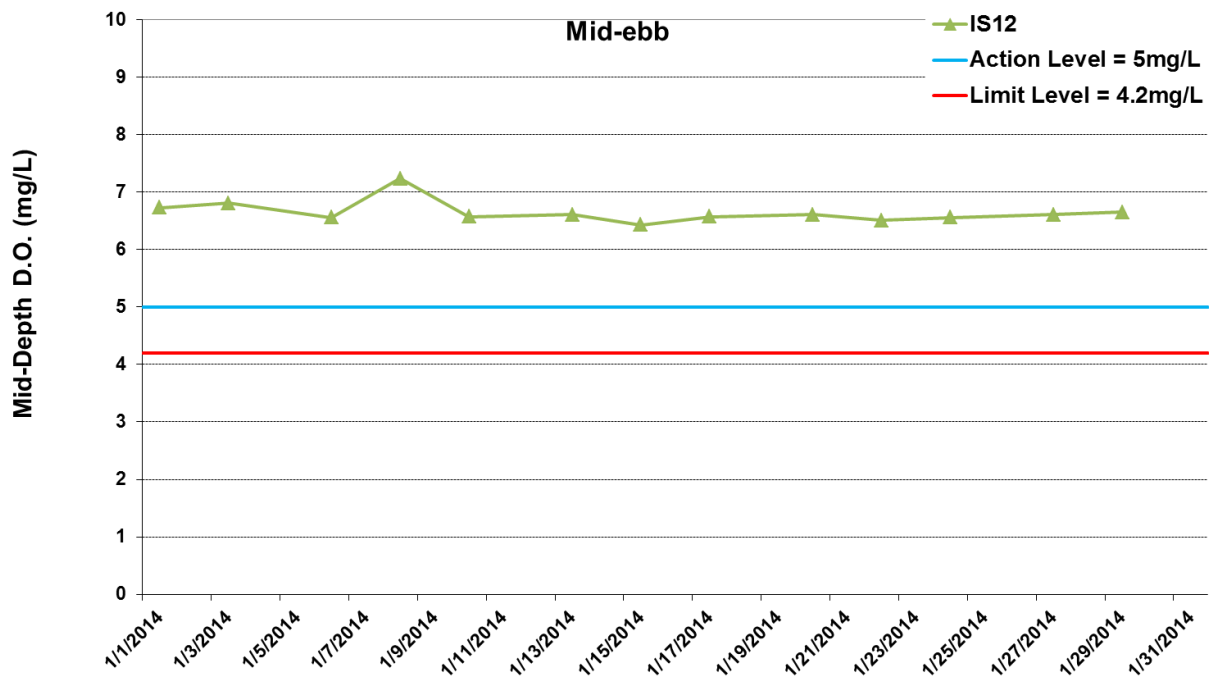




\*No data for Stations SR8 and SR9 due to shallow water depth (< 6m).

**Figure I11 Impact Monitoring - Mean Level of Dissolved Oxygen (mg/L) in mid-depth waters between 1 and 31 January 2014 at CS6. Note no dredging works was undertaken on 31 January 2014.**

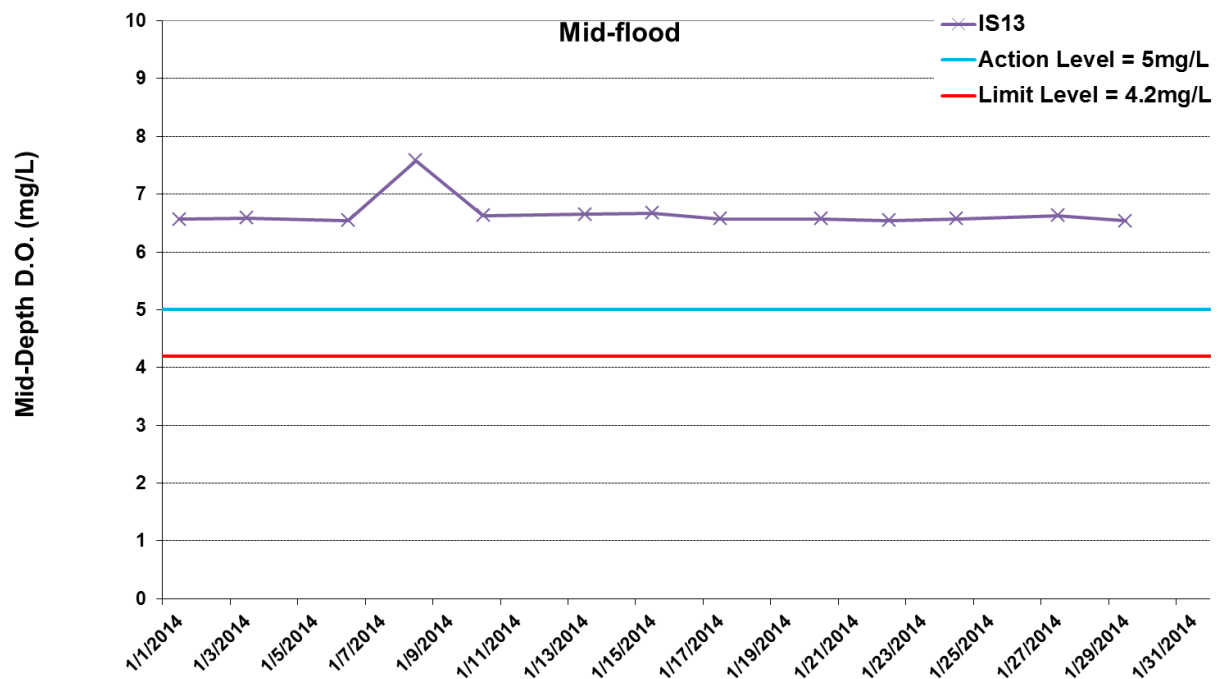
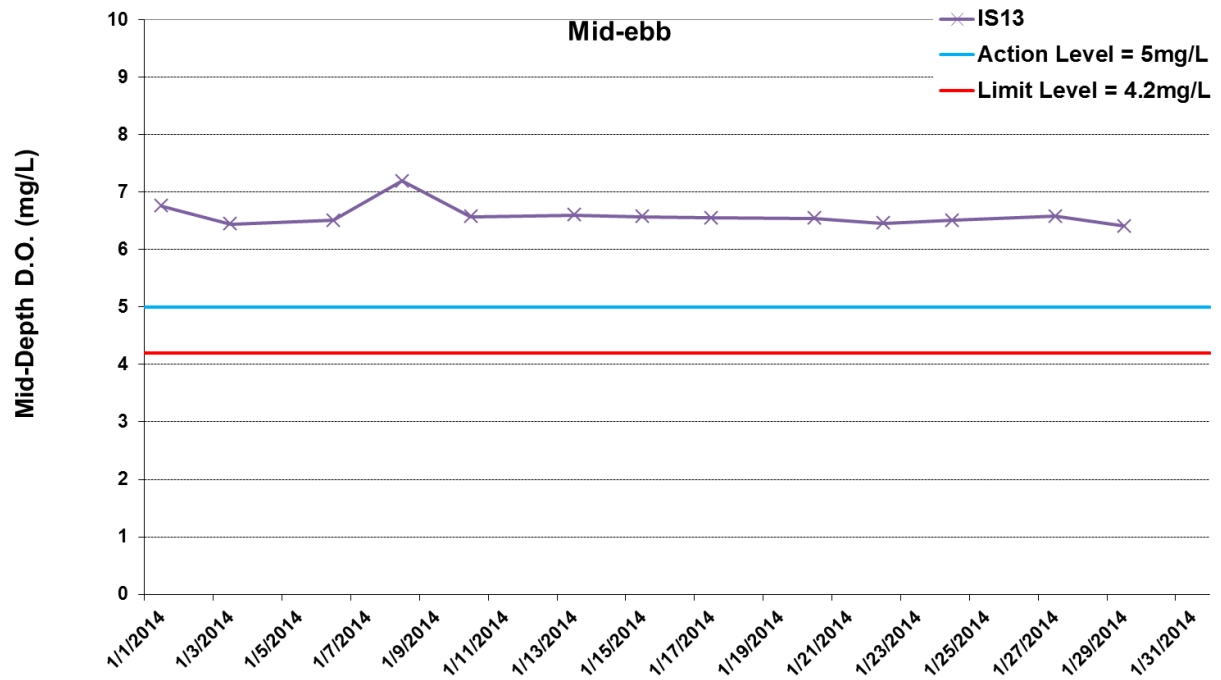




\*No data for Stations SR8 and SR9 due to shallow water depth (< 6m).

**Figure I12 Impact Monitoring - Mean Level of Dissolved Oxygen (mg/L) in mid-depth waters between 1 and 31 January 2014 at IS12. Note no dredging works was undertaken on 31 January 2014.**

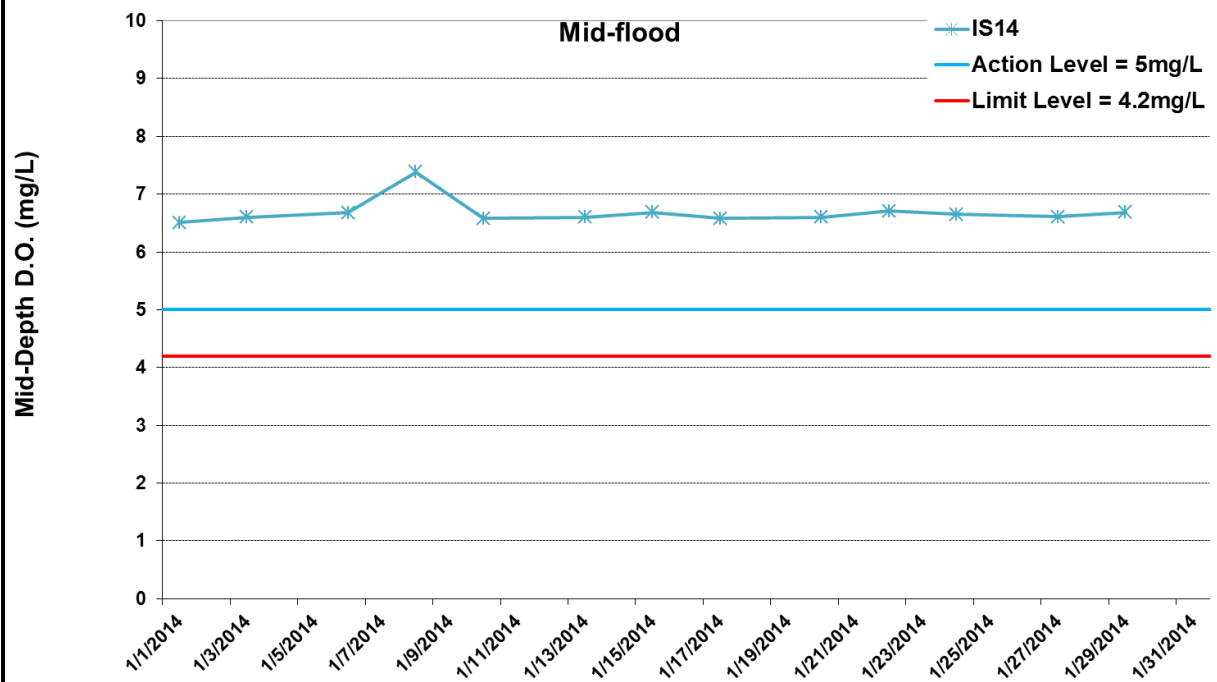
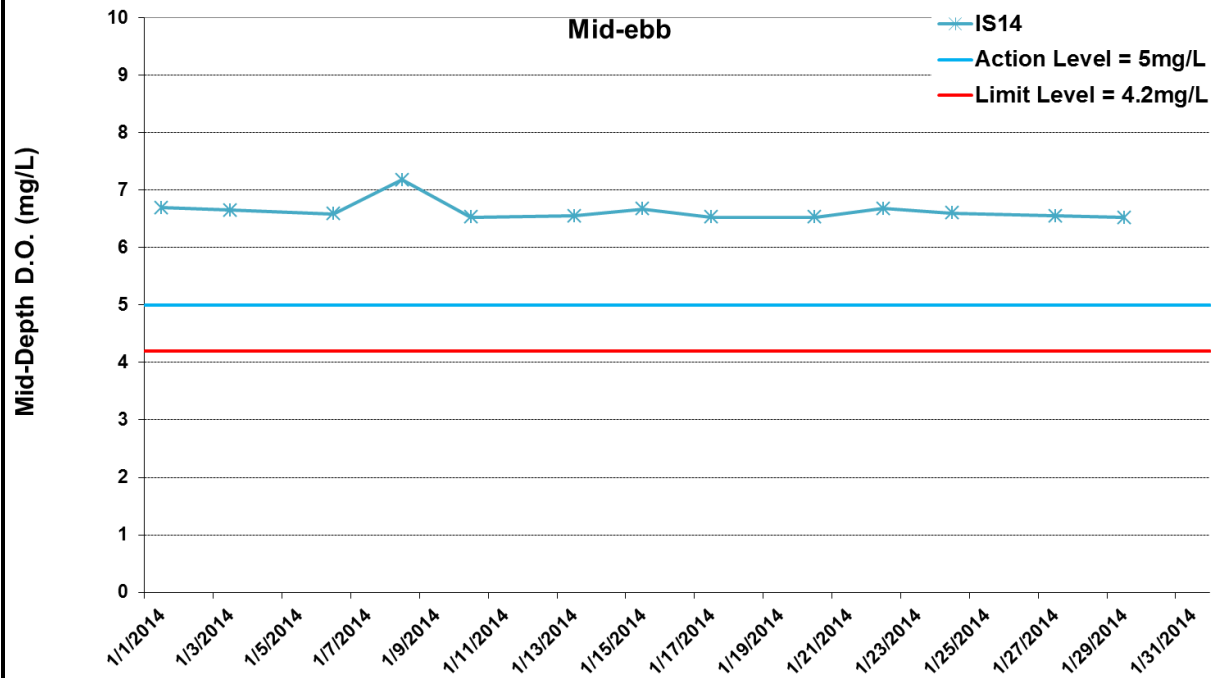




\*No data for Stations SR8 and SR9 due to shallow water depth (< 6m).

**Figure I13 Impact Monitoring - Mean Level of Dissolved Oxygen (mg/L) in mid-depth waters between 1 and 31 January 2014 at IS13. Note no dredging works was undertaken on 31 January 2014.**

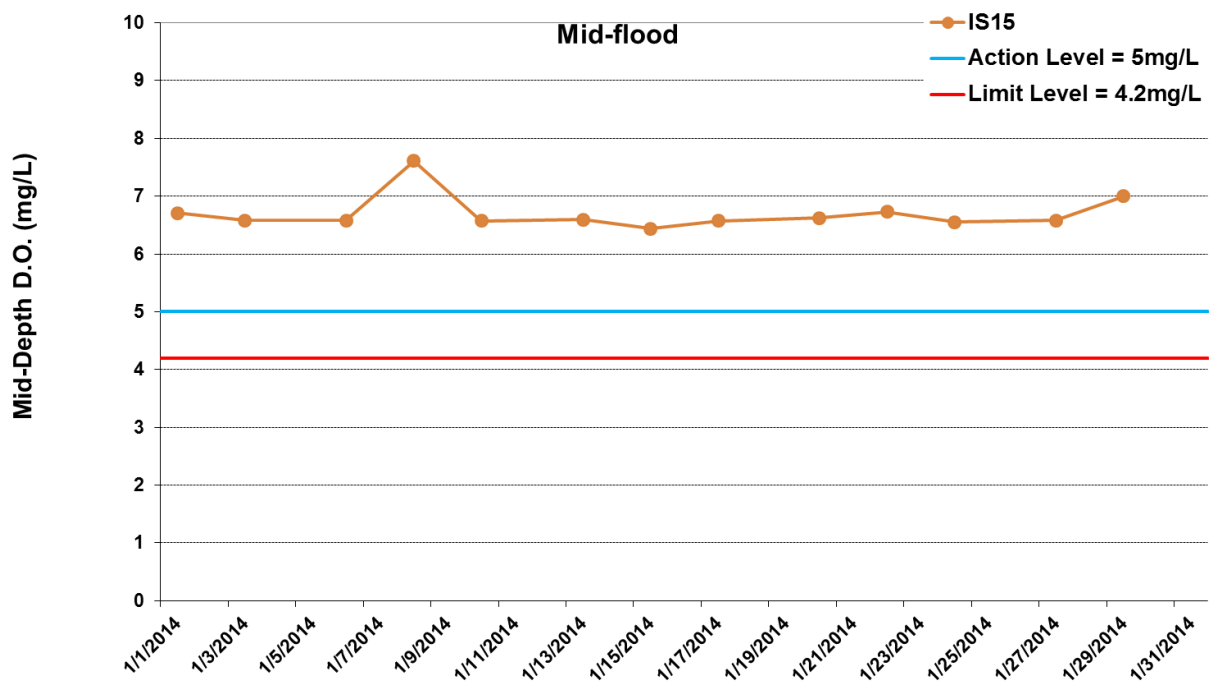
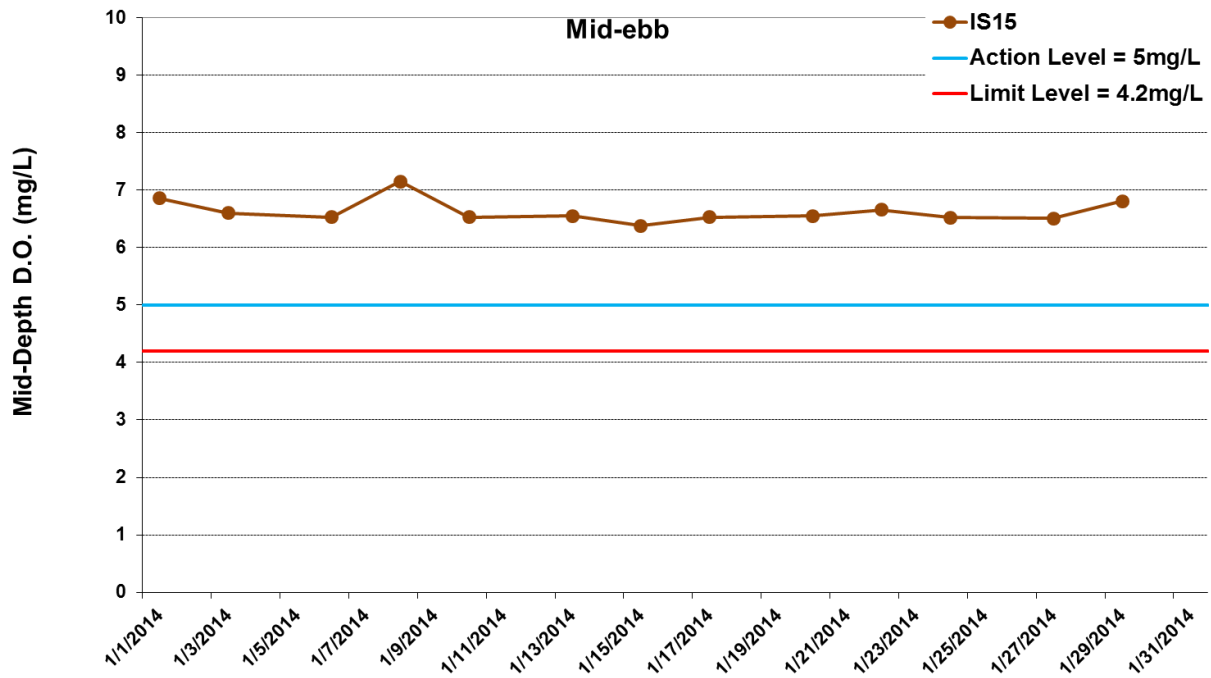




\*No data for Stations SR8 and SR9 due to shallow water depth (< 6m).

**Figure I14 Impact Monitoring - Mean Level of Dissolved Oxygen (mg/L) in mid-depth waters between 1 and 31 January 2014 at IS14. Note no dredging works was undertaken on 31 January 2014.**

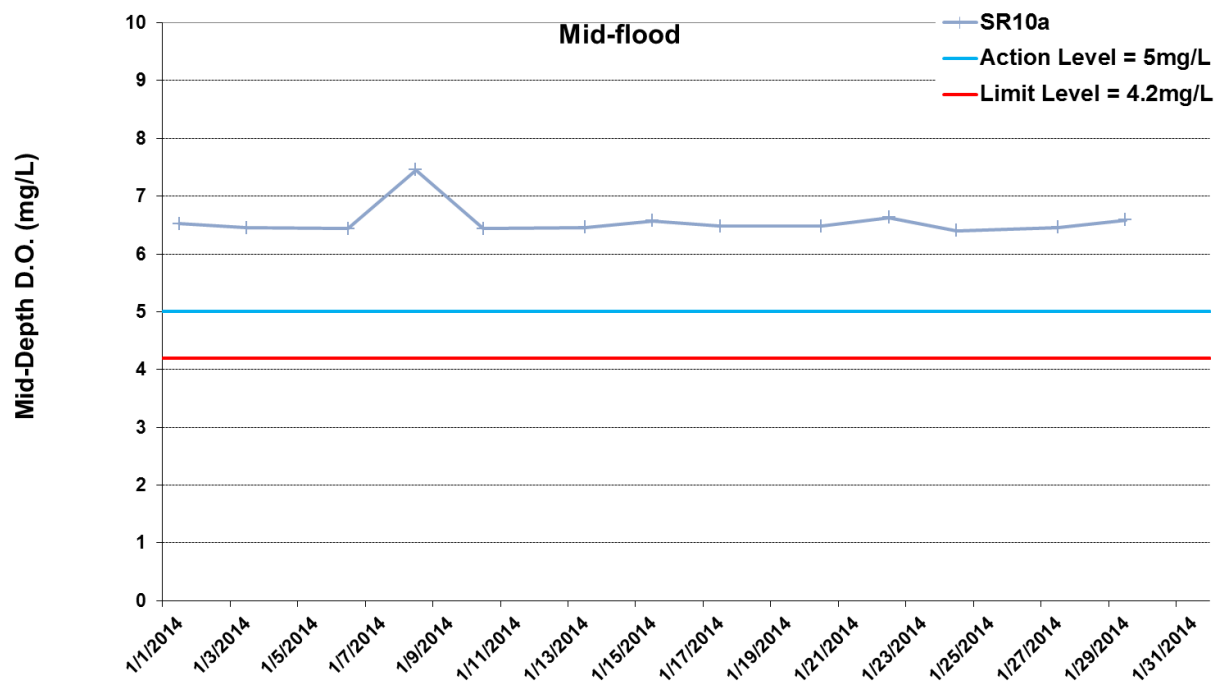
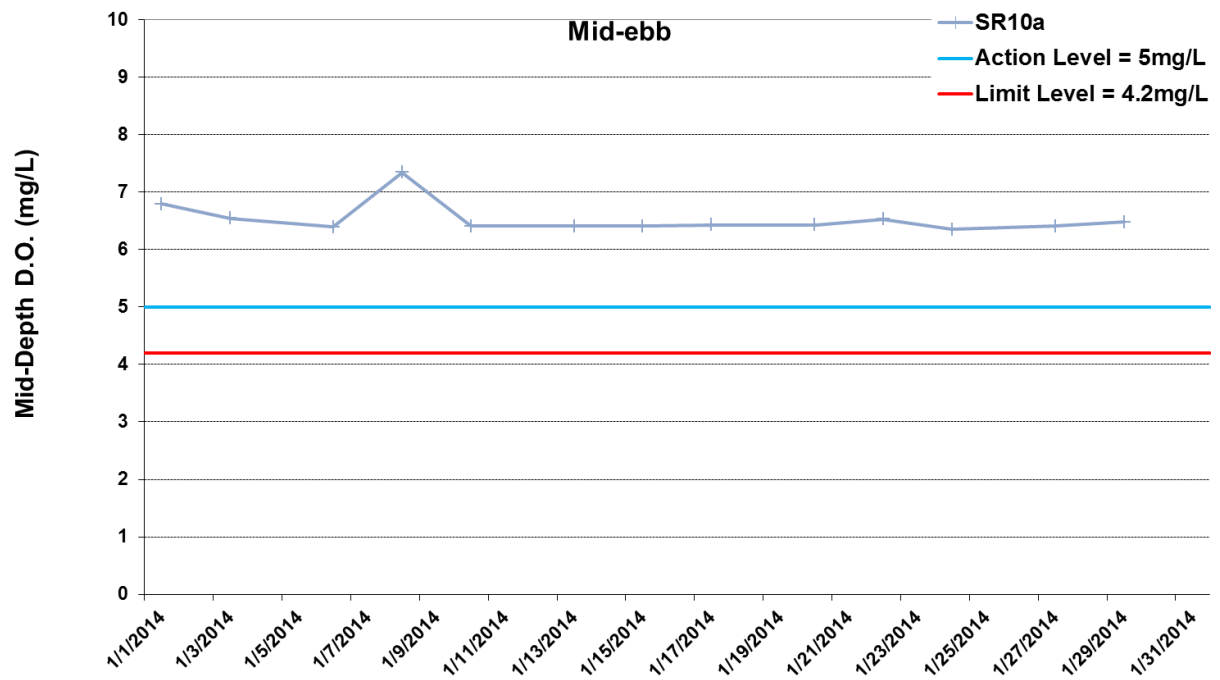




\*No data for Stations SR8 and SR9 due to shallow water depth (< 6m).

Figure I15 Impact Monitoring - Mean Level of Dissolved Oxygen (mg/L) in mid-depth waters between 1 and 31 January 2014 at IS15. Note no dredging works was undertaken on 31 January 2014.





\*No data for Stations SR8 and SR9 due to shallow water depth (< 6m).

**Figure I16 Impact Monitoring - Mean Level of Dissolved Oxygen (mg/L) in mid-depth waters between 1 and 31 January 2014 at SR10a. Note no dredging works was undertaken on 31 January 2014.**



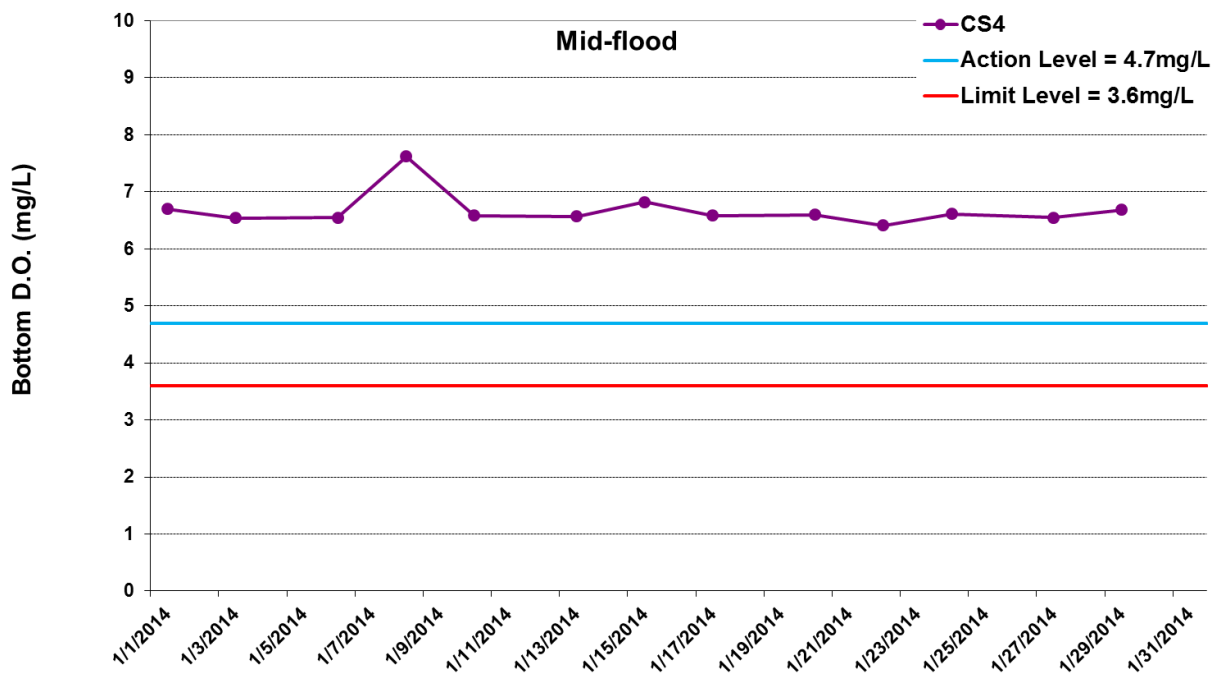
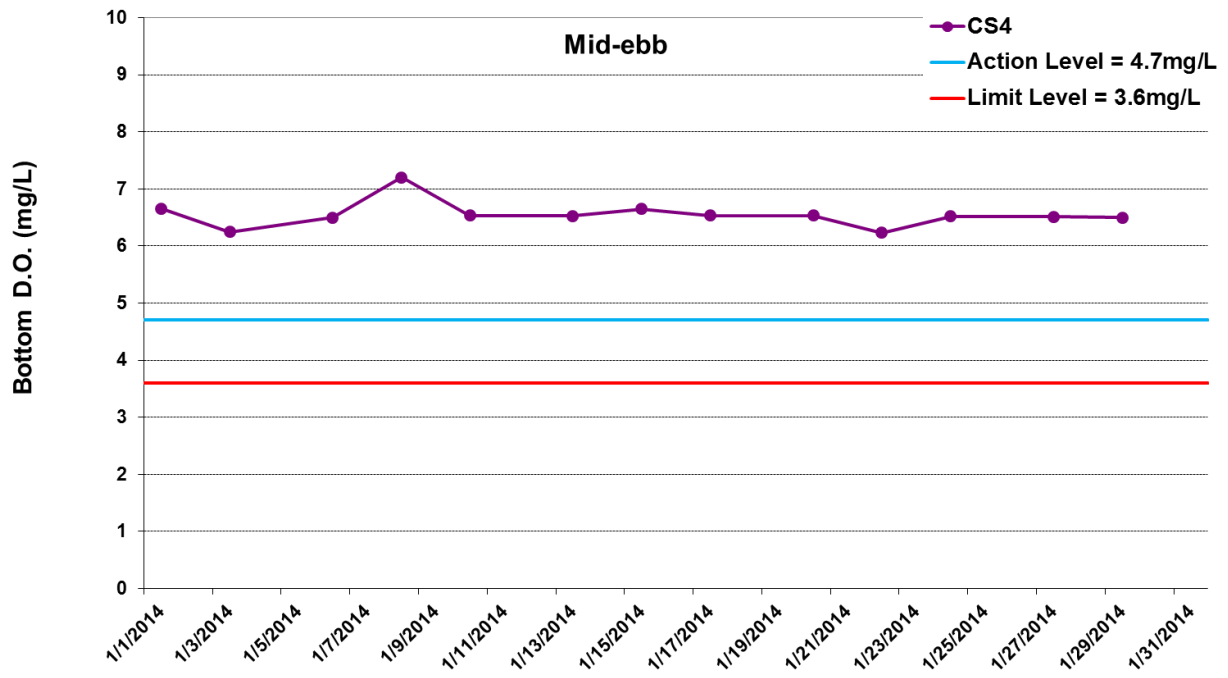


Figure I17 Impact Monitoring - Mean Level of Dissolved Oxygen (mg/L) in bottom water between 1 and 31 January 2014 at CS4. Note no dredging works was undertaken on 31 January 2014.



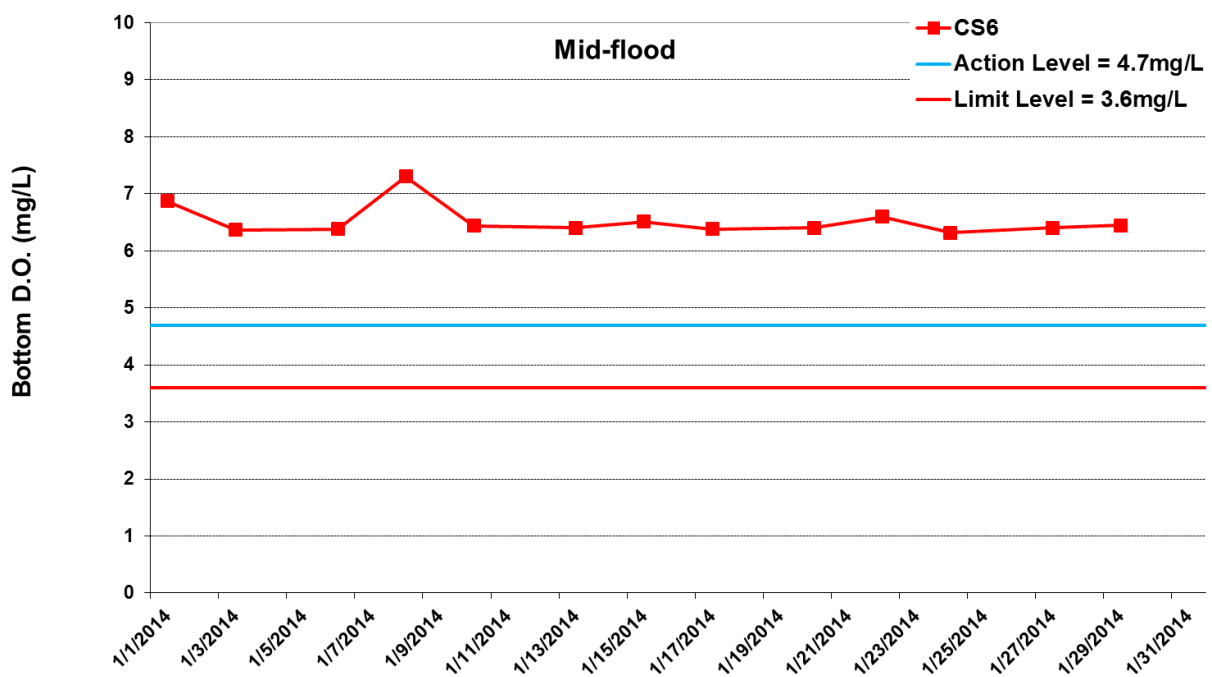
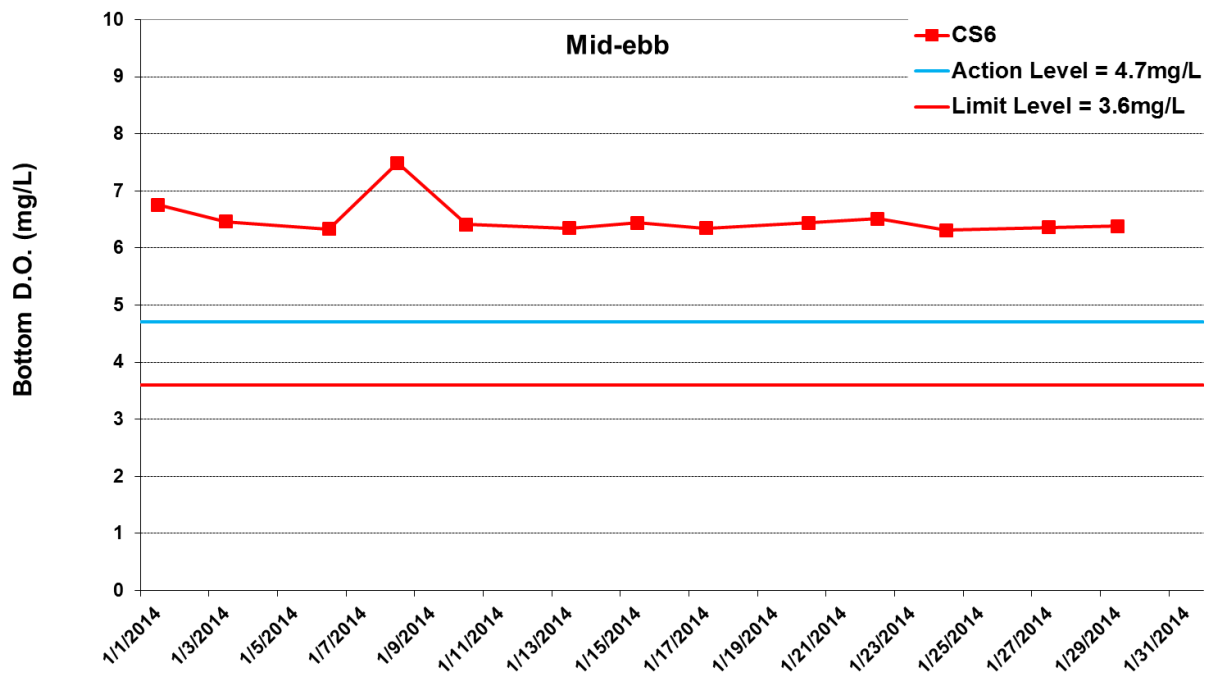


Figure I18 Impact Monitoring - Mean Level of Dissolved Oxygen (mg/L) in bottom water between 1 and 31 January 2014 at CS6. Note no dredging works was undertaken on 31 January 2014.





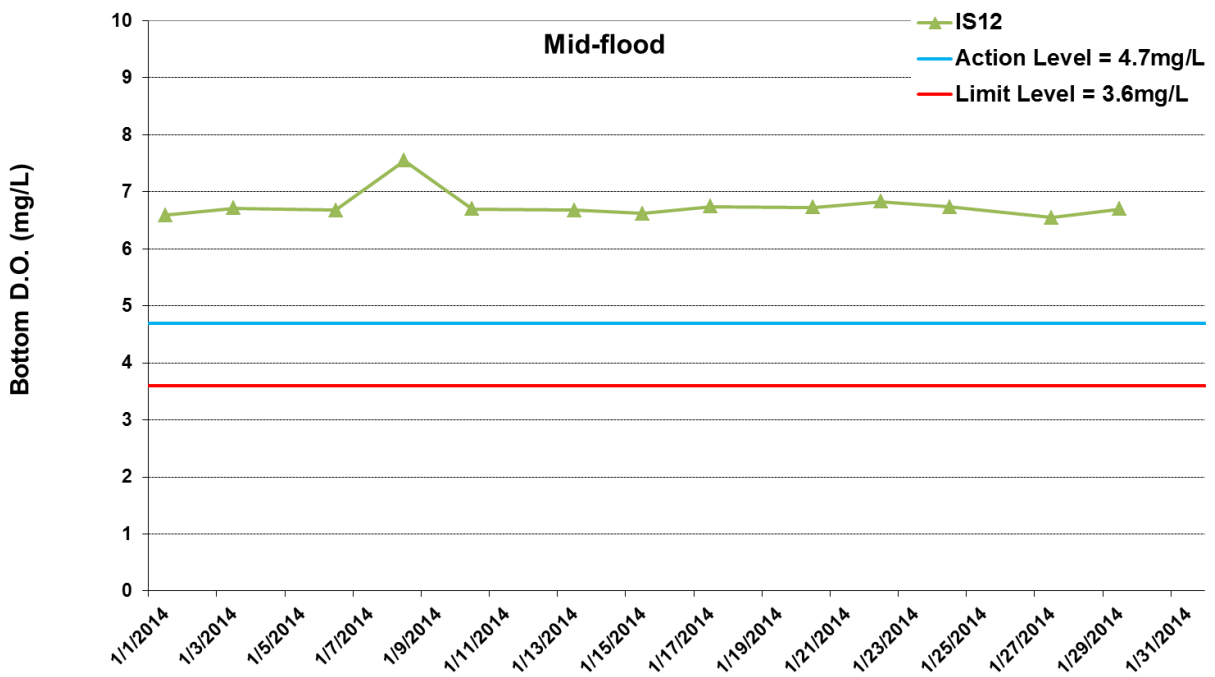
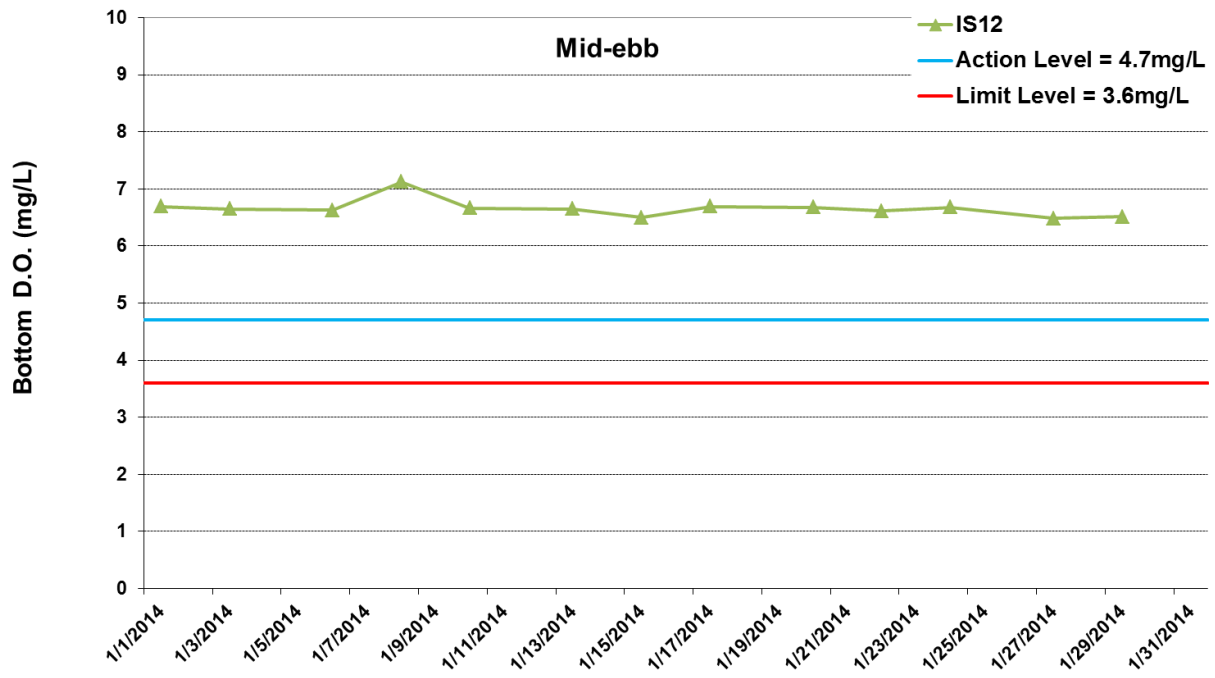


Figure I19 Impact Monitoring - Mean Level of Dissolved Oxygen (mg/L) in bottom water between 1 and 31 January 2014 at IS12. Note no dredging works was undertaken on 31 January 2014.



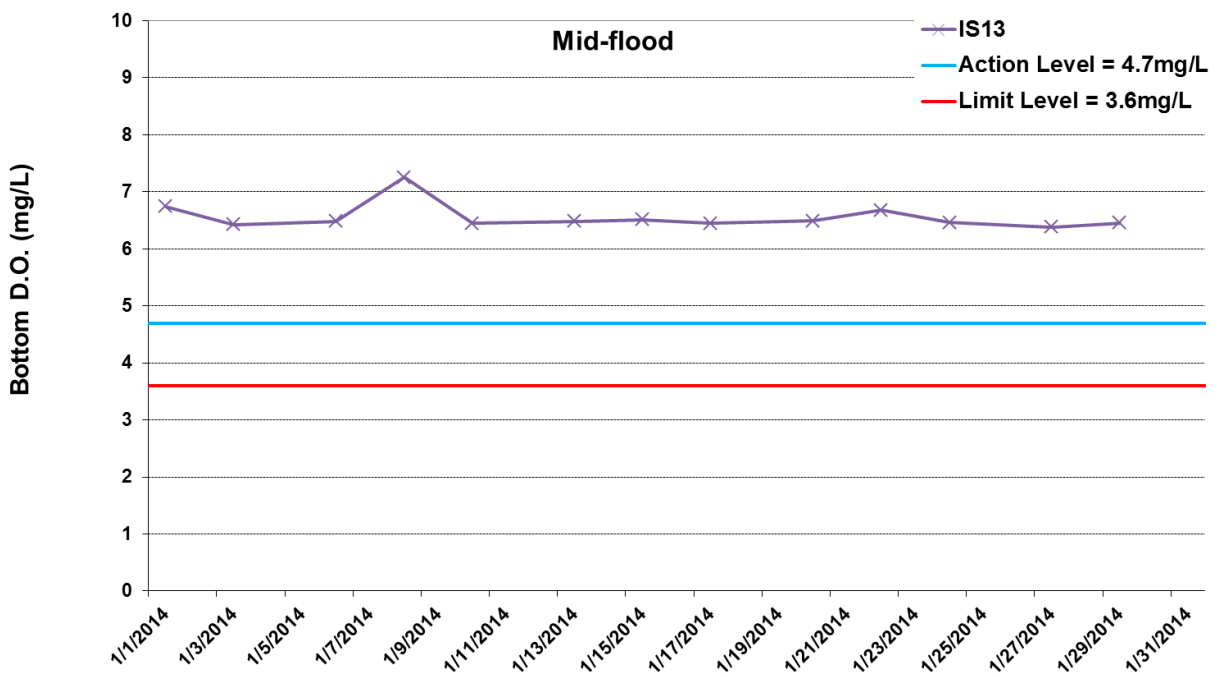
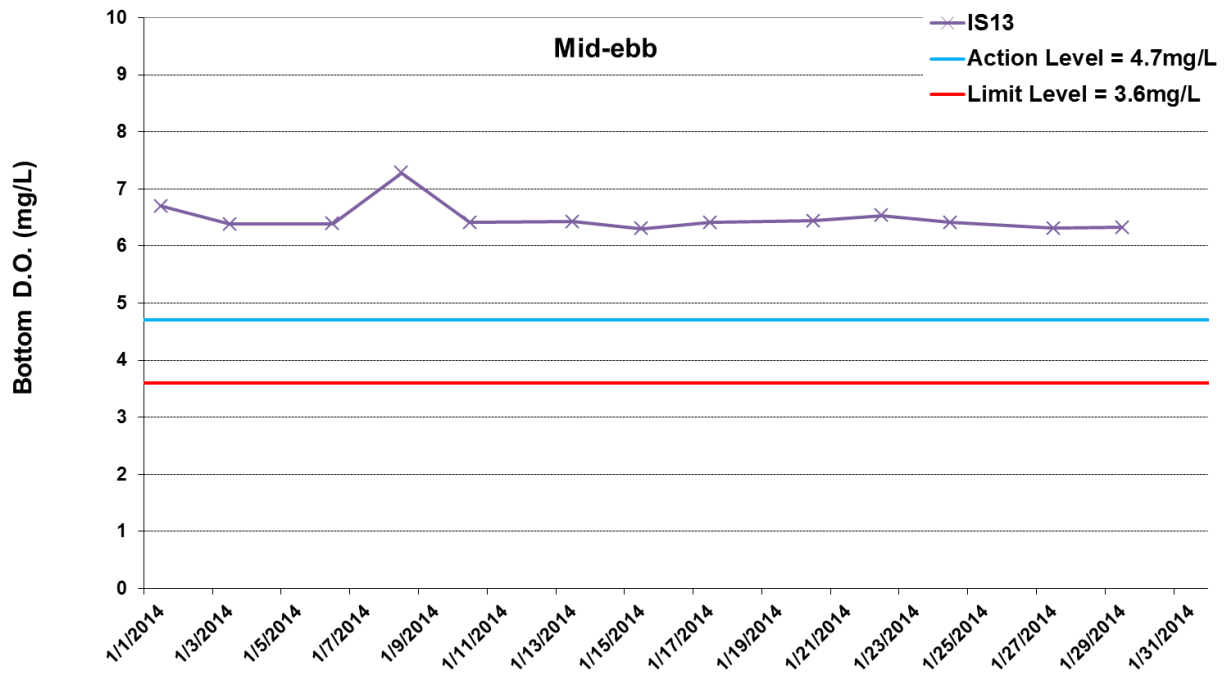


Figure I20 Impact Monitoring - Mean Level of Dissolved Oxygen (mg/L) in bottom water between 1 and 31 January 2014 at IS13. Note no dredging works was undertaken on 31 January 2014.



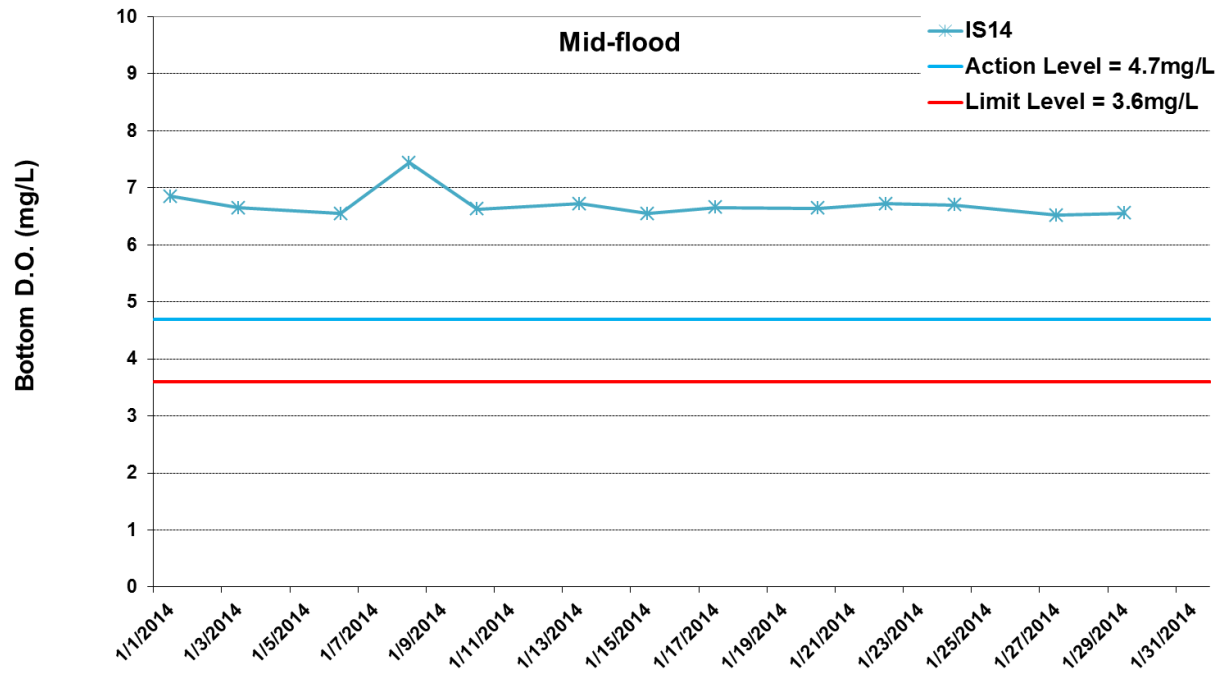
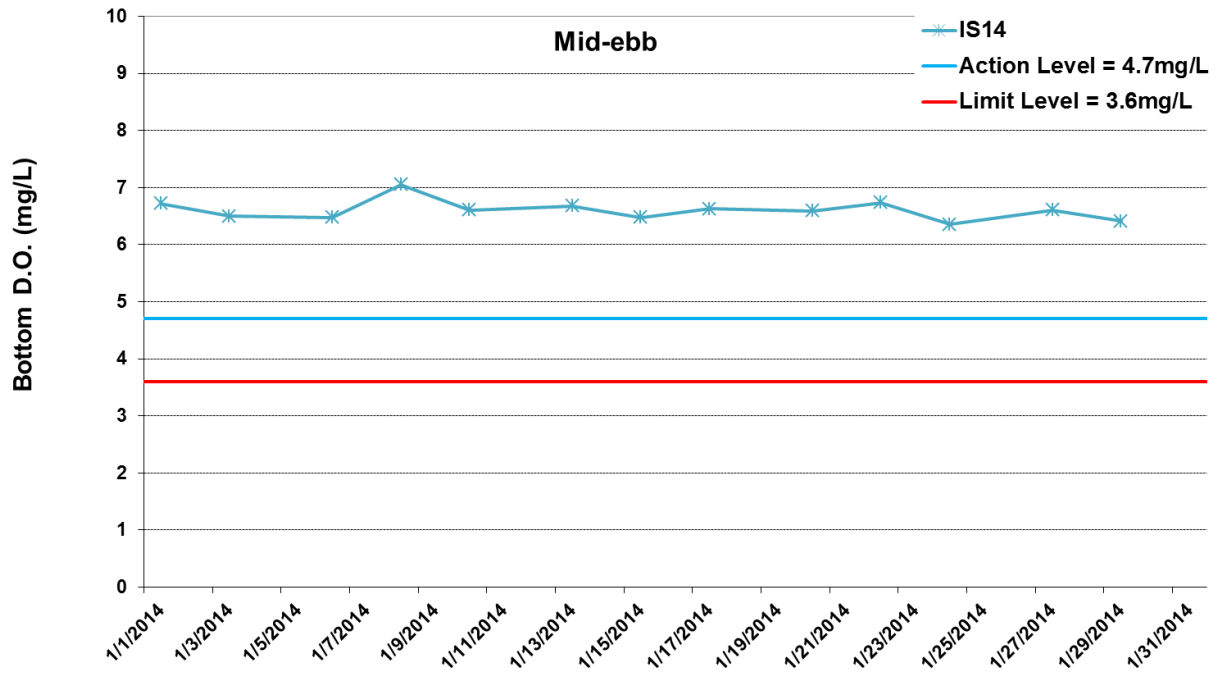


Figure I21 Impact Monitoring - Mean Level of Dissolved Oxygen (mg/L) in bottom water between 1 and 31 January 2014 at IS14. Note no dredging works was undertaken on 31 January 2014.



Ref: 0212330\_Impact-WQM\_January2014\_graphs\_Rev a.xls

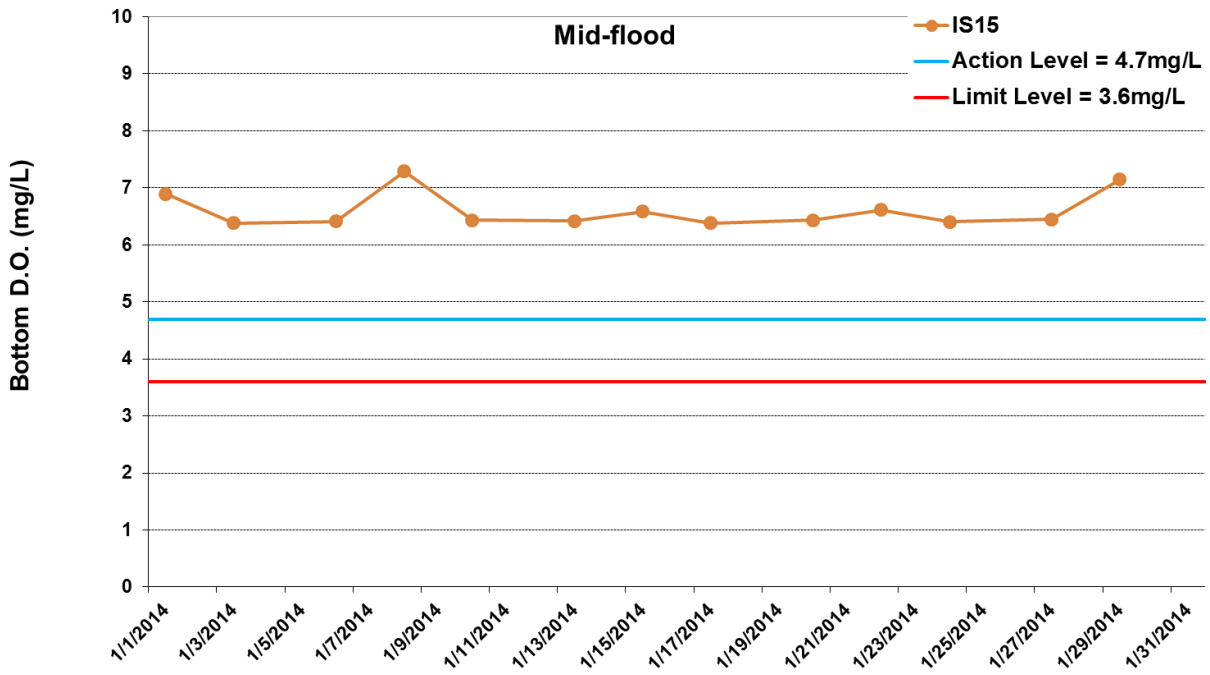
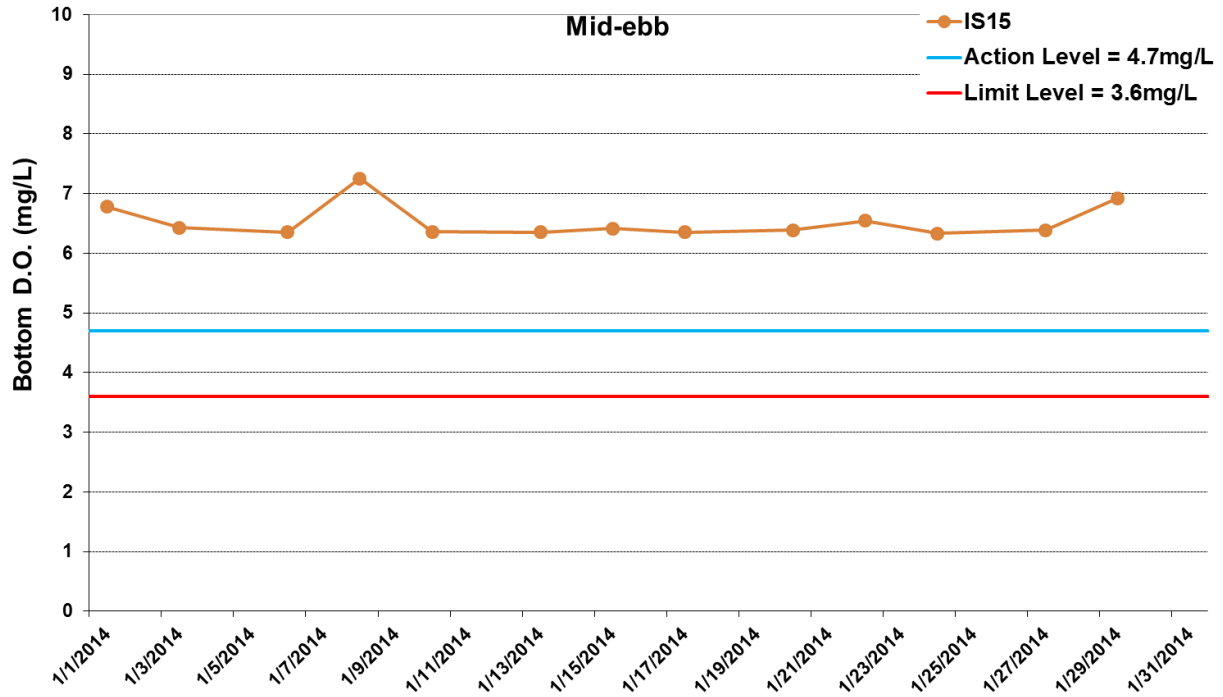


Figure I22 Impact Monitoring - Mean Level of Dissolved Oxygen (mg/L) in bottom water between 1 and 31 January 2014 at IS15. Note no dredging works was undertaken on 31 January 2014.



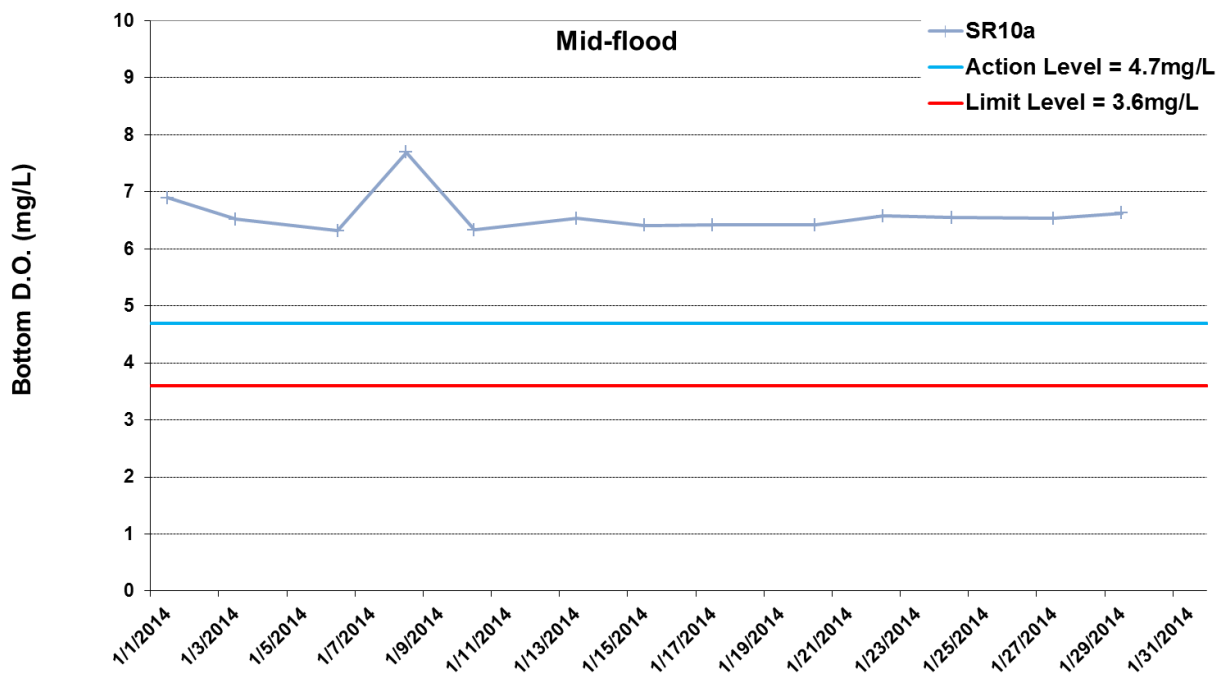
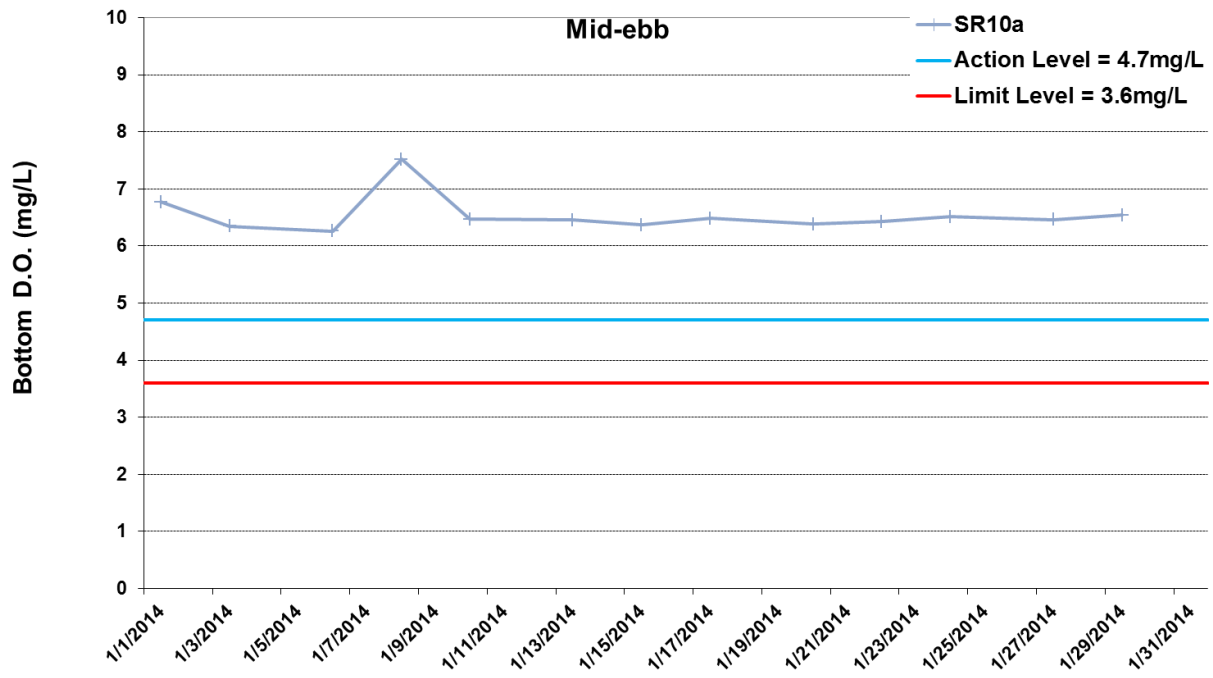


Figure I23 Impact Monitoring - Mean Level of Dissolved Oxygen (mg/L) in bottom water between 1 and 31 January 2014 at SR10a. Note no dredging works was undertaken on 31 January 2014.



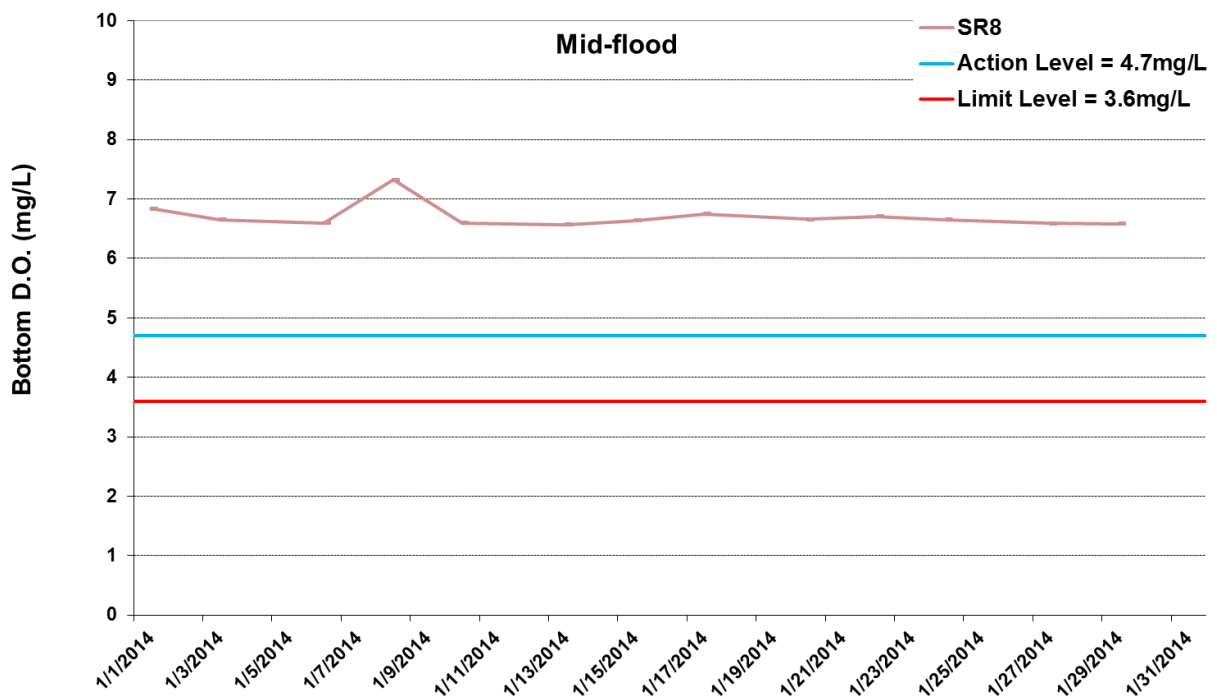
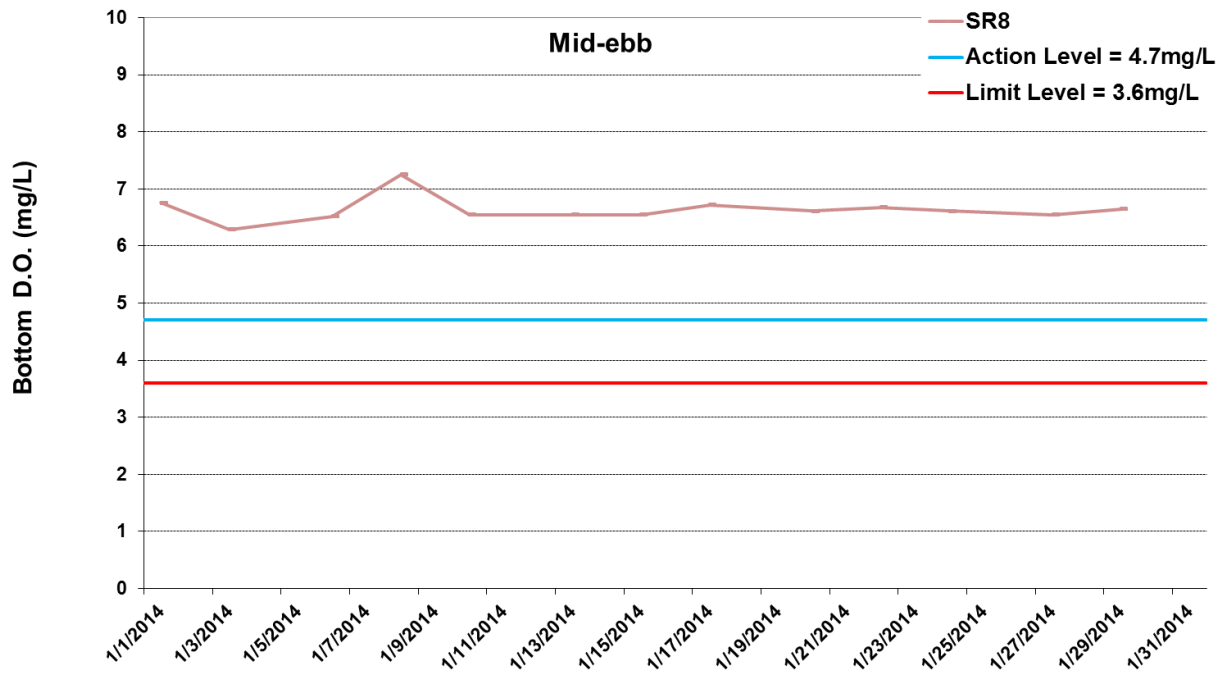


Figure I24 Impact Monitoring - Mean Level of Dissolved Oxygen (mg/L) in bottom water between 1 and 31 January 2014 at SR8. Note no dredging works was undertaken on 31 January 2014.



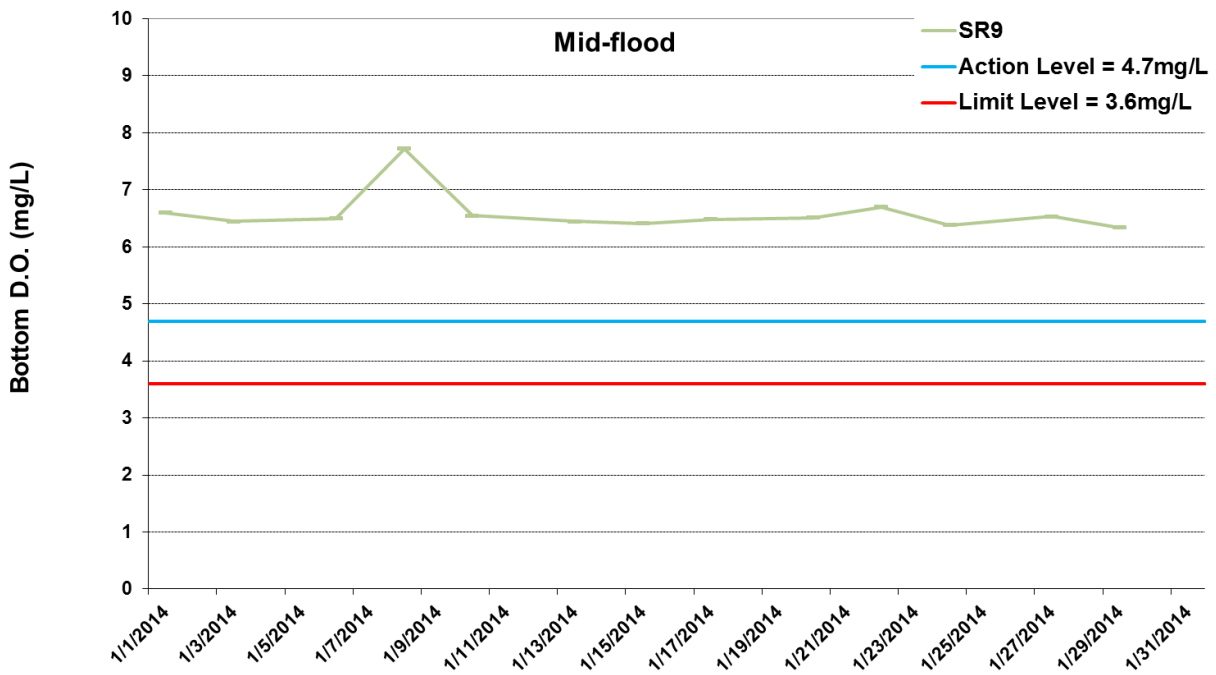
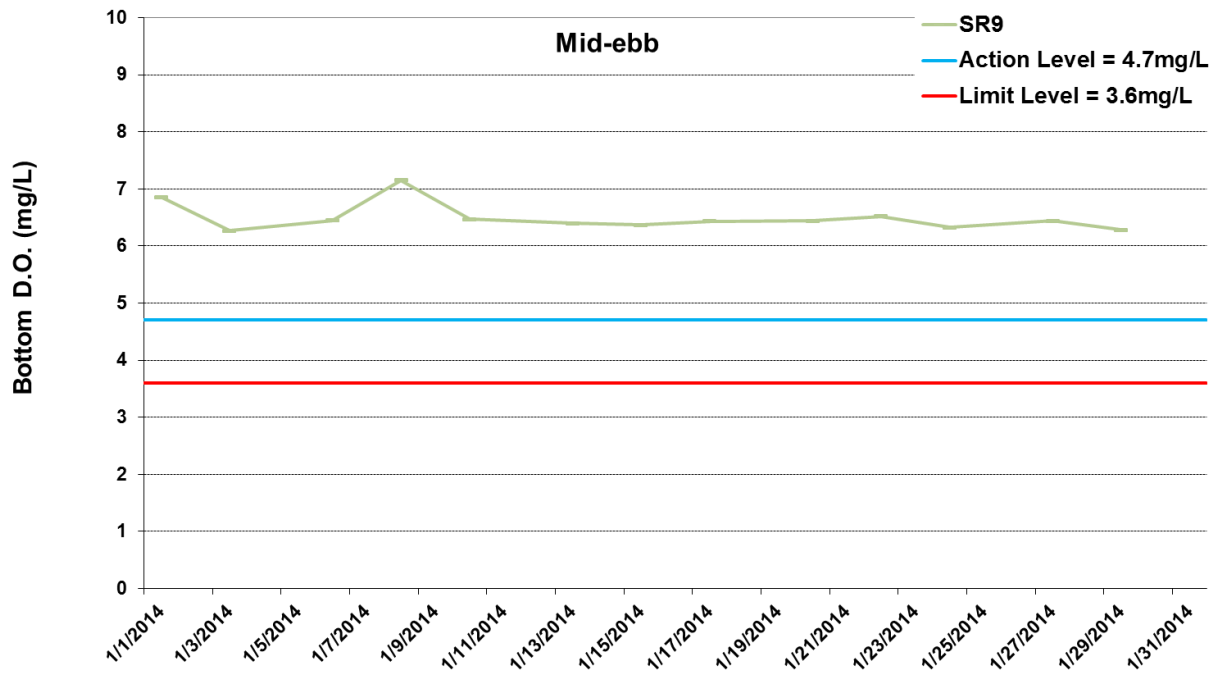


Figure I25 Impact Monitoring - Mean Level of Dissolved Oxygen (mg/L) in bottom water between 1 and 31 January 2014 at SR9. Note no dredging works was undertaken on 31 January 2014.



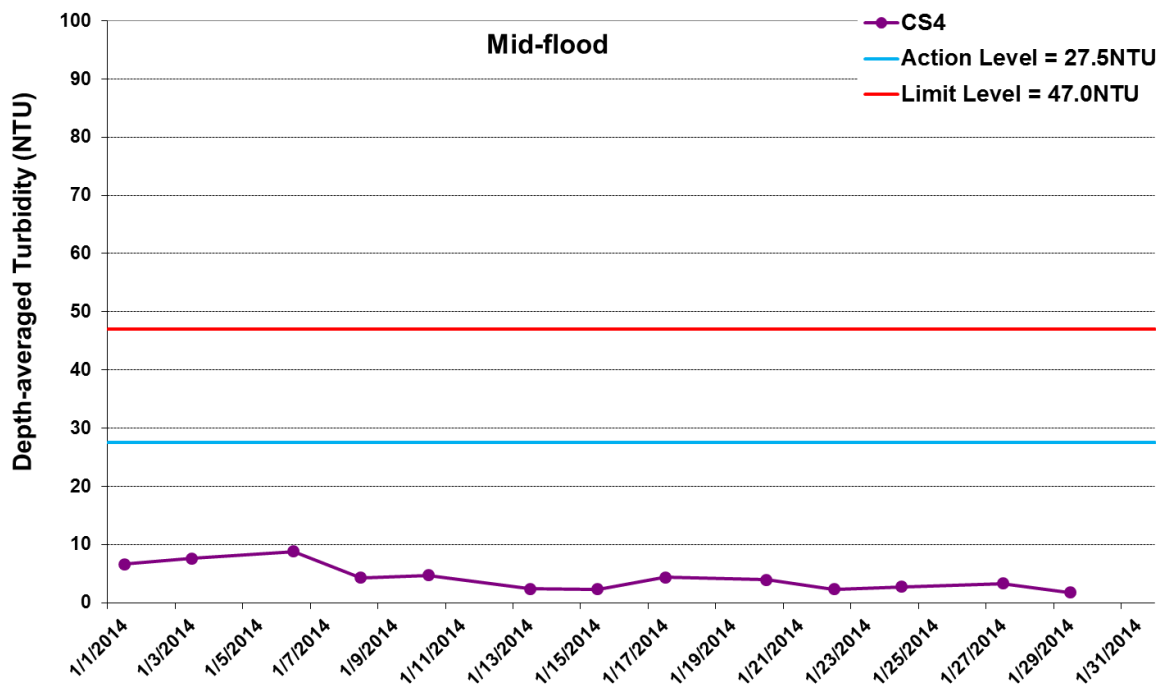
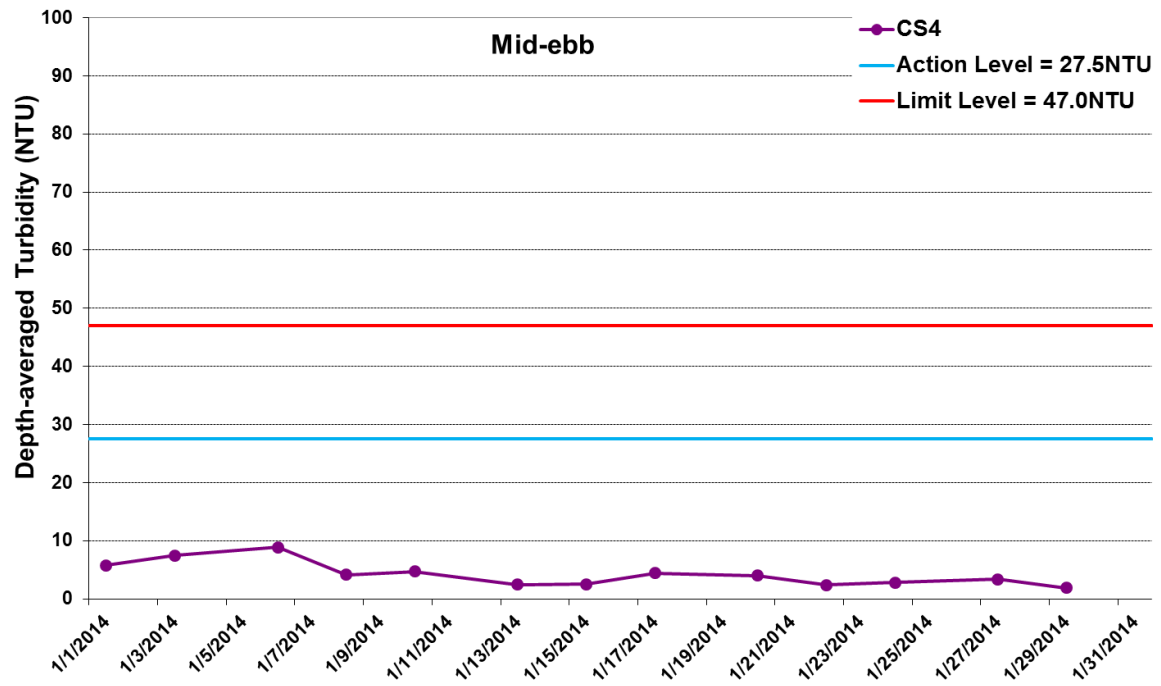


Figure I26 Impact Monitoring - Mean Depth-averaged Level of Turbidity (NTU) between 1 and 31 January 2014 at CS4. Note no dredging works was undertaken on 31 January 2014.





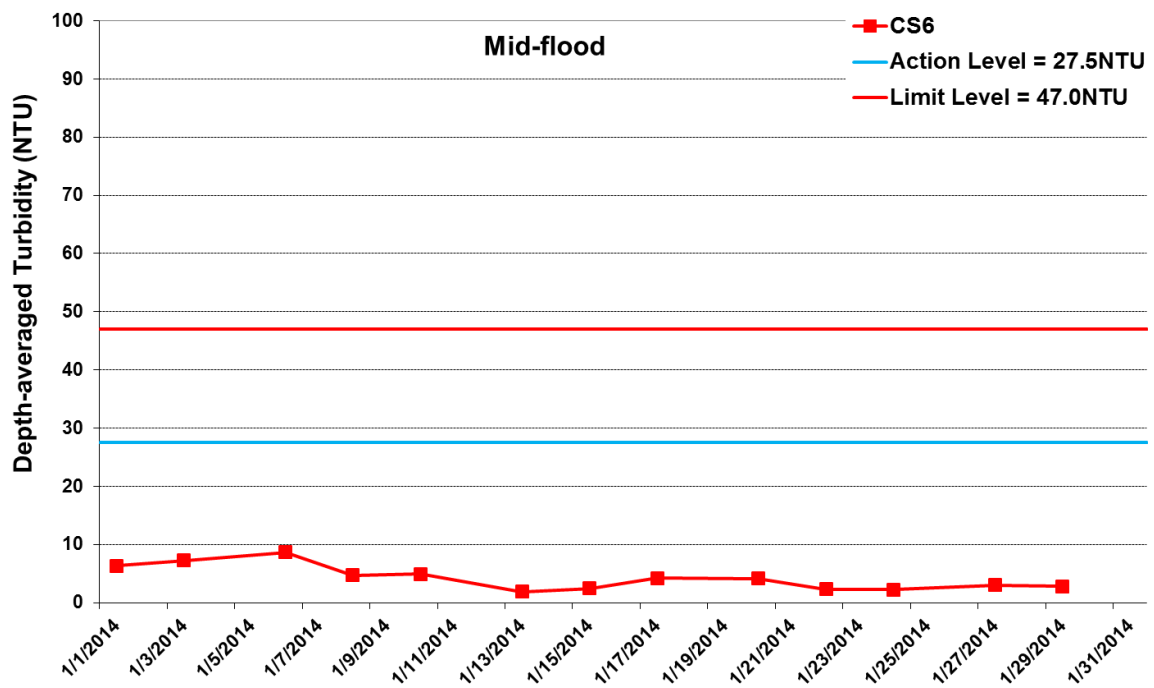
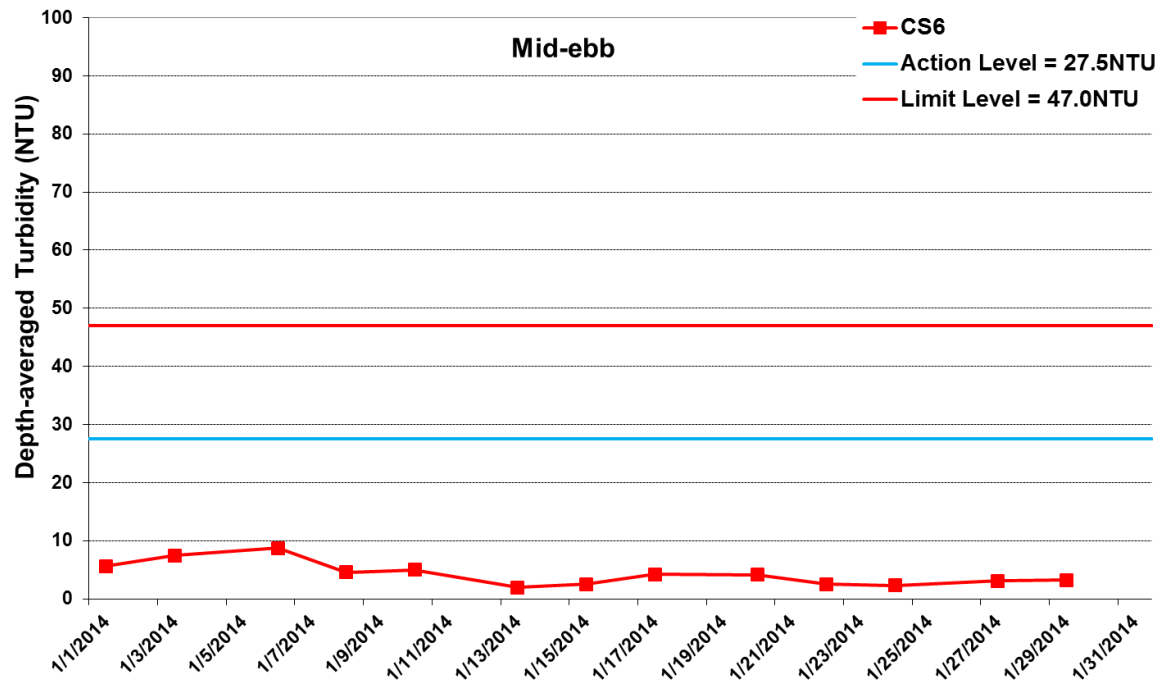


Figure I27 Impact Monitoring - Mean Depth-averaged Level of Turbidity (NTU) between 1 and 31 January 2014 at CS6. Note no dredging works was undertaken on 31 January 2014.



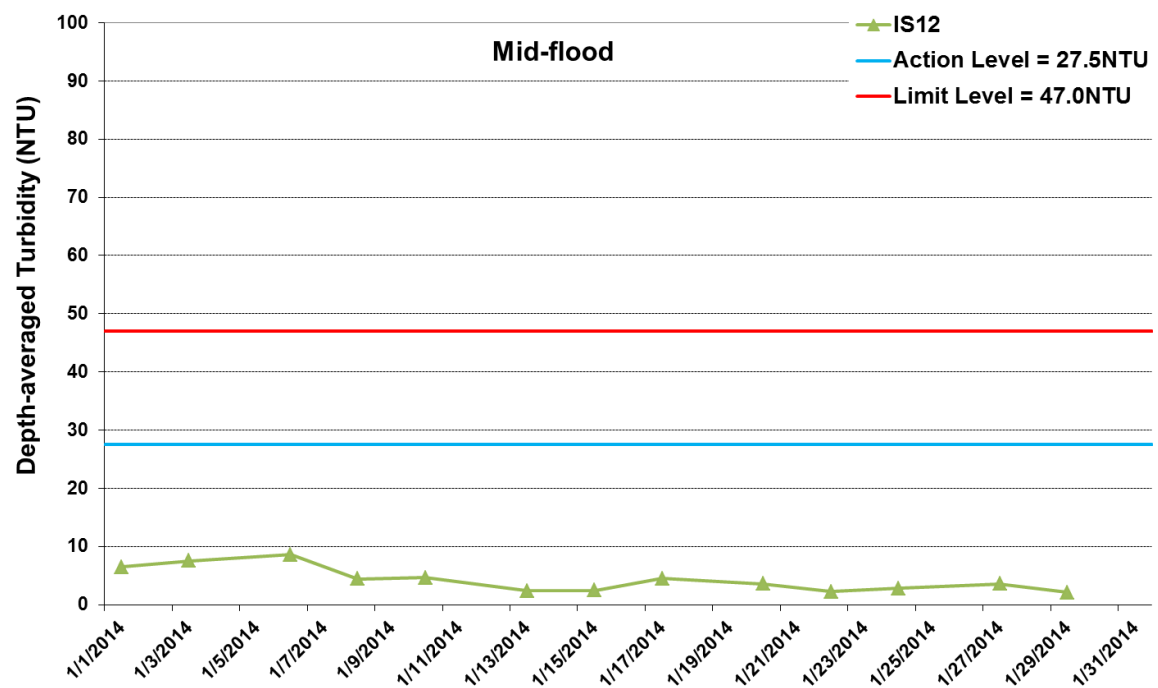
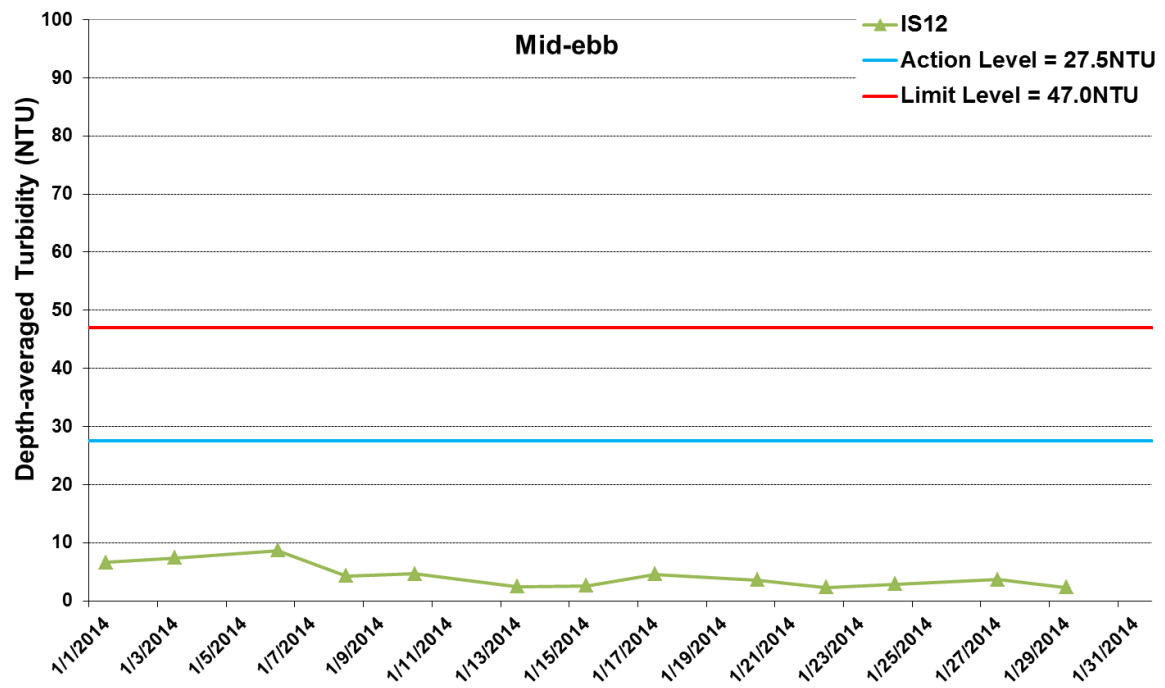


Figure I28 Impact Monitoring - Mean Depth-averaged Level of Turbidity (NTU) between 1 and 31 January 2014 at IS12. Note no dredging works was undertaken on 31 January 2014.



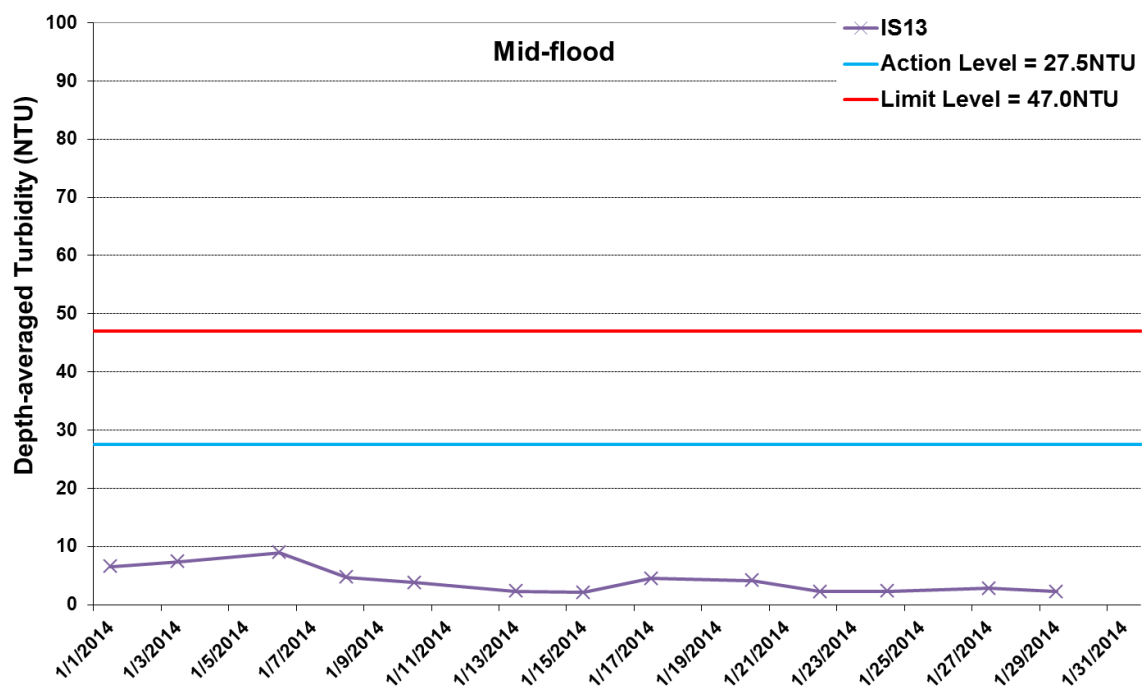
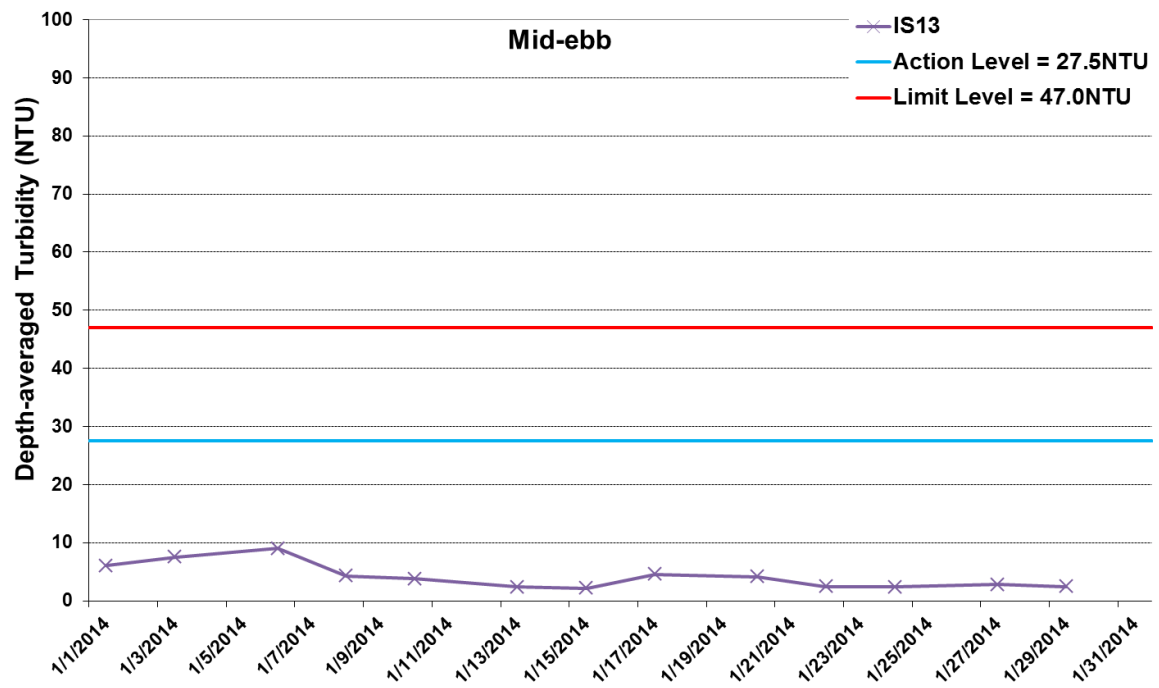


Figure I29 Impact Monitoring - Mean Depth-averaged Level of Turbidity (NTU) between 1 and 31 January 2014 at IS13. Note no dredging works was undertaken on 31 January 2014.



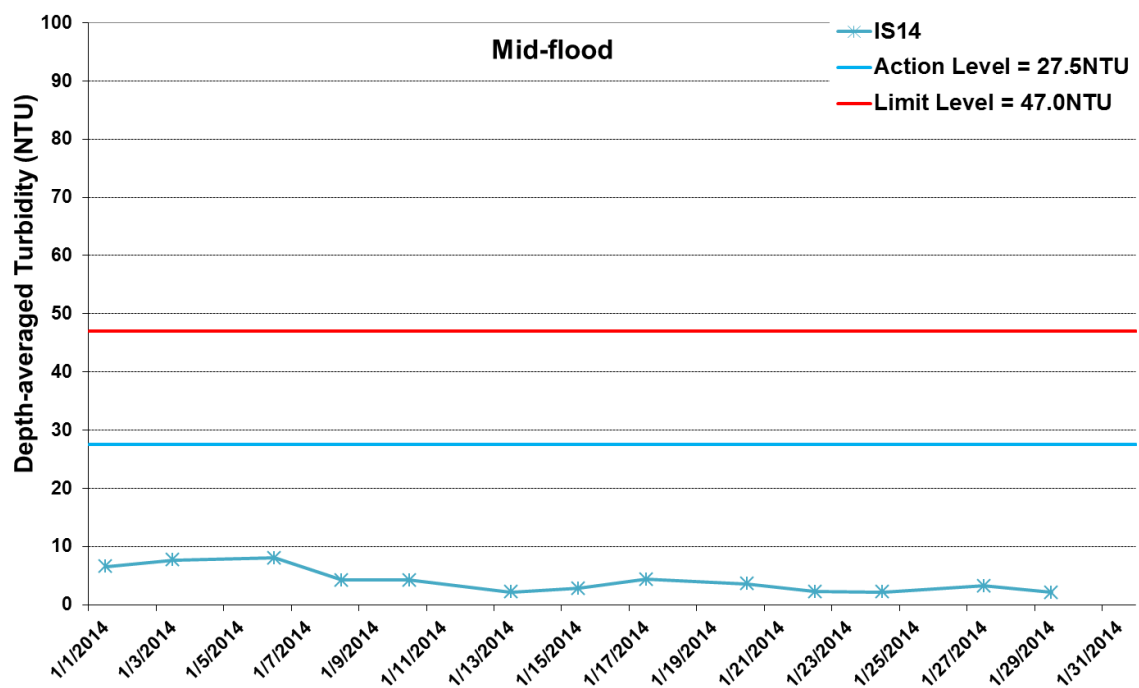
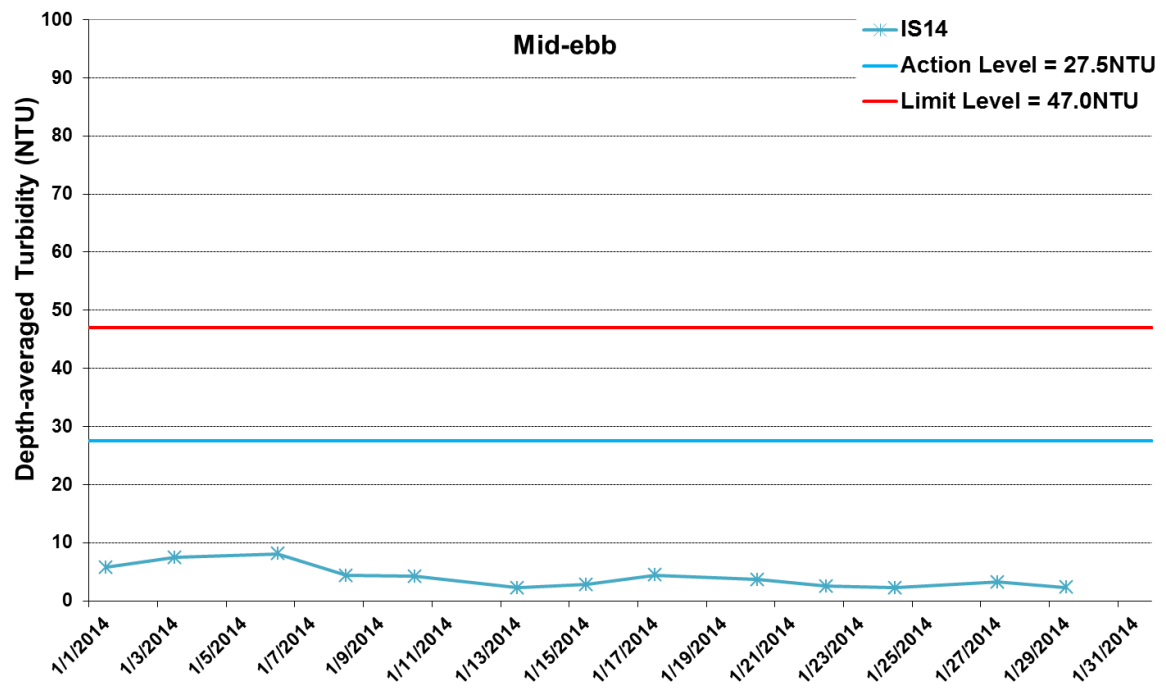


Figure I30 Impact Monitoring - Mean Depth-averaged Level of Turbidity (NTU) between 1 and 31 January 2014 at IS14. Note no dredging works was undertaken on 31 January 2014.



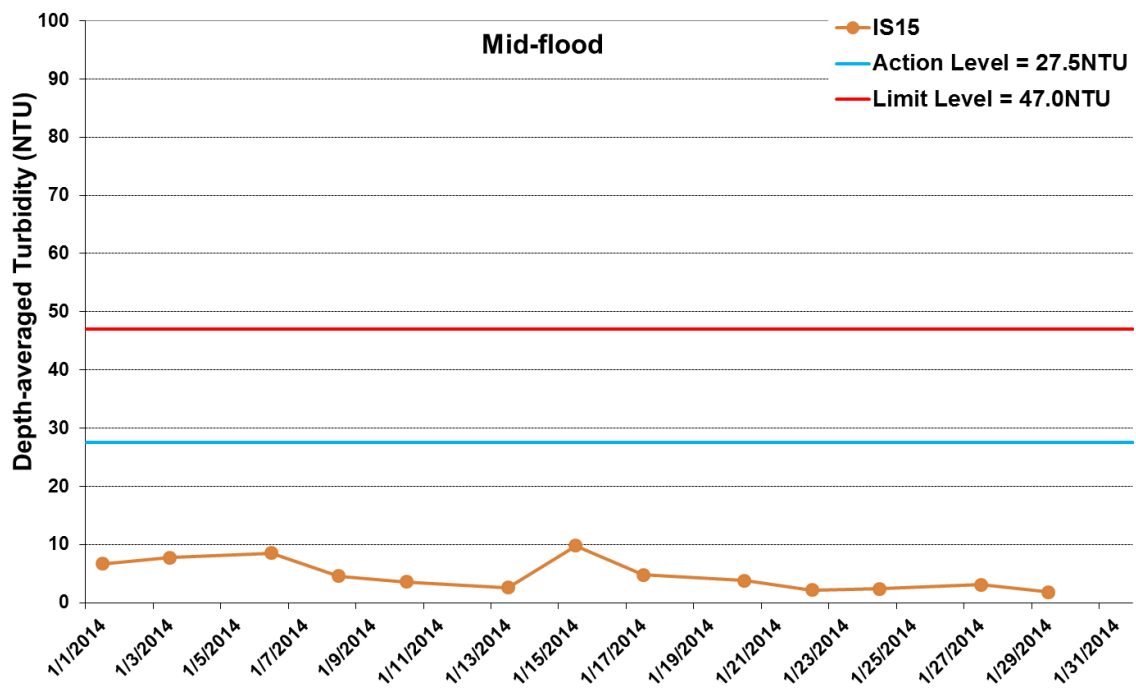
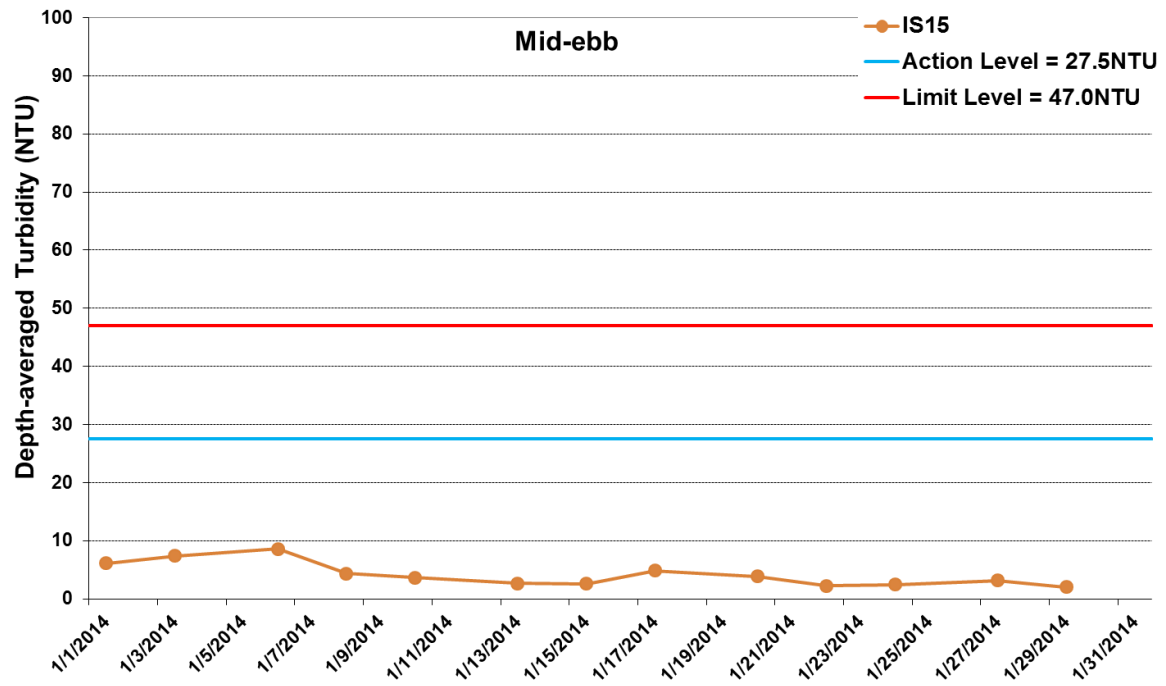


Figure I31 Impact Monitoring - Mean Depth-averaged Level of Turbidity (NTU) between 1 and 31 January 2014 at IS15. Note no dredging works was undertaken on 31 January 2014.



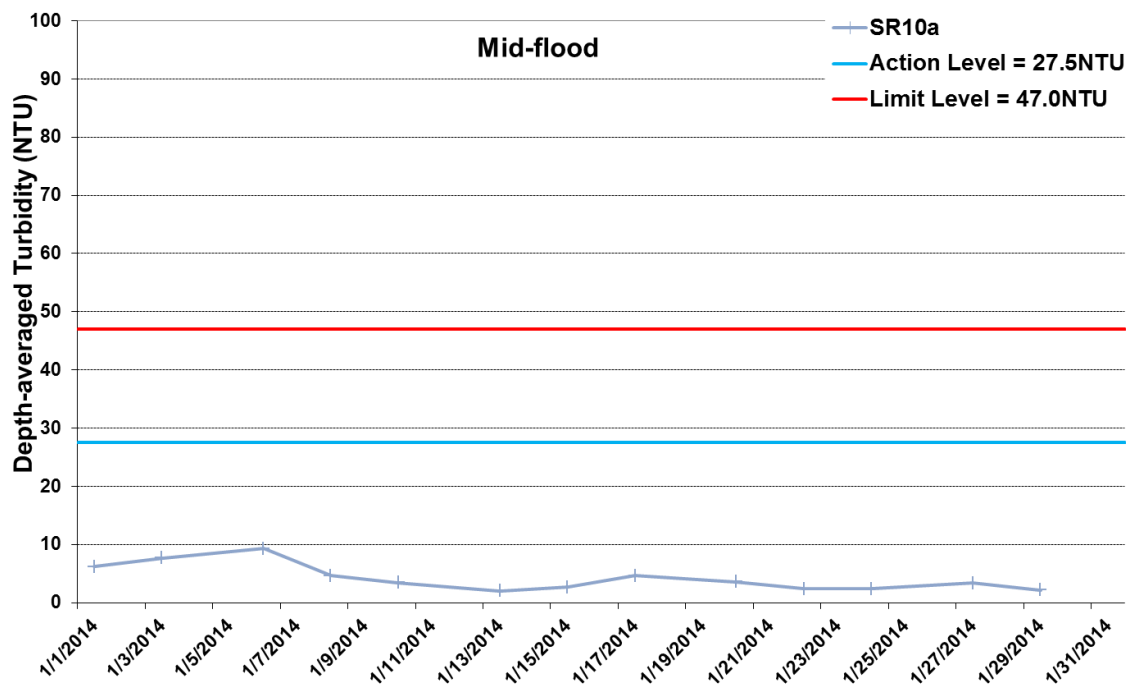
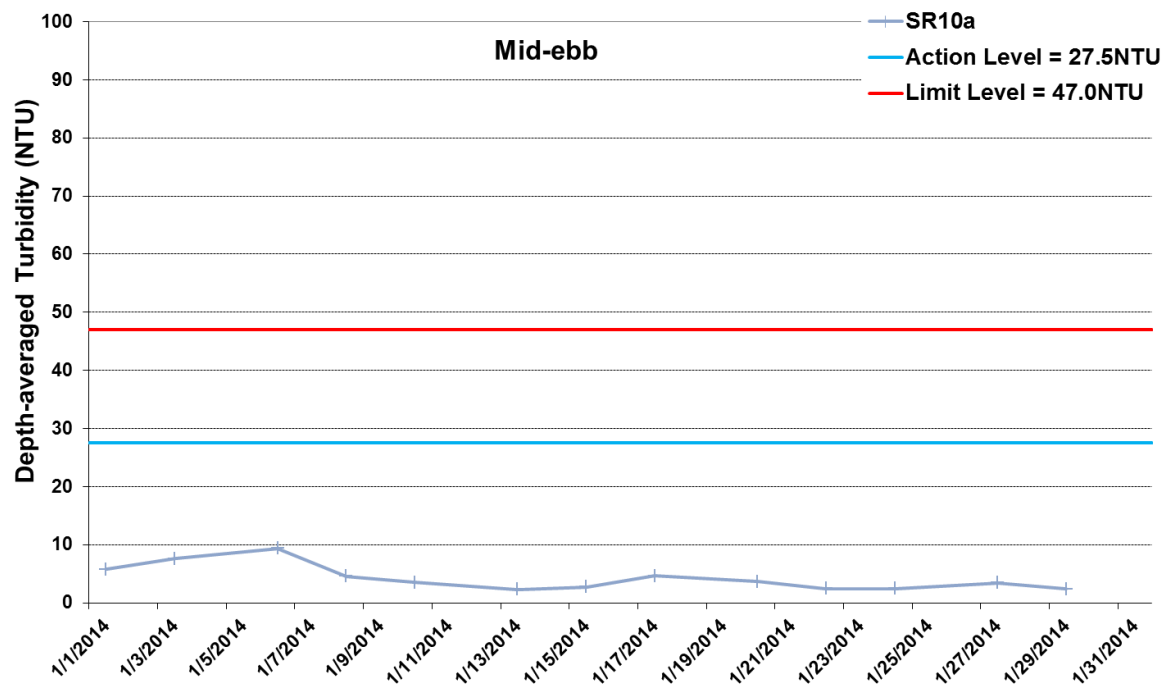


Figure I32 Impact Monitoring - Mean Depth-averaged Level of Turbidity (NTU) between 1 and 31 January 2014 at SR10a. Note no dredging works was undertaken on 31 January 2014.



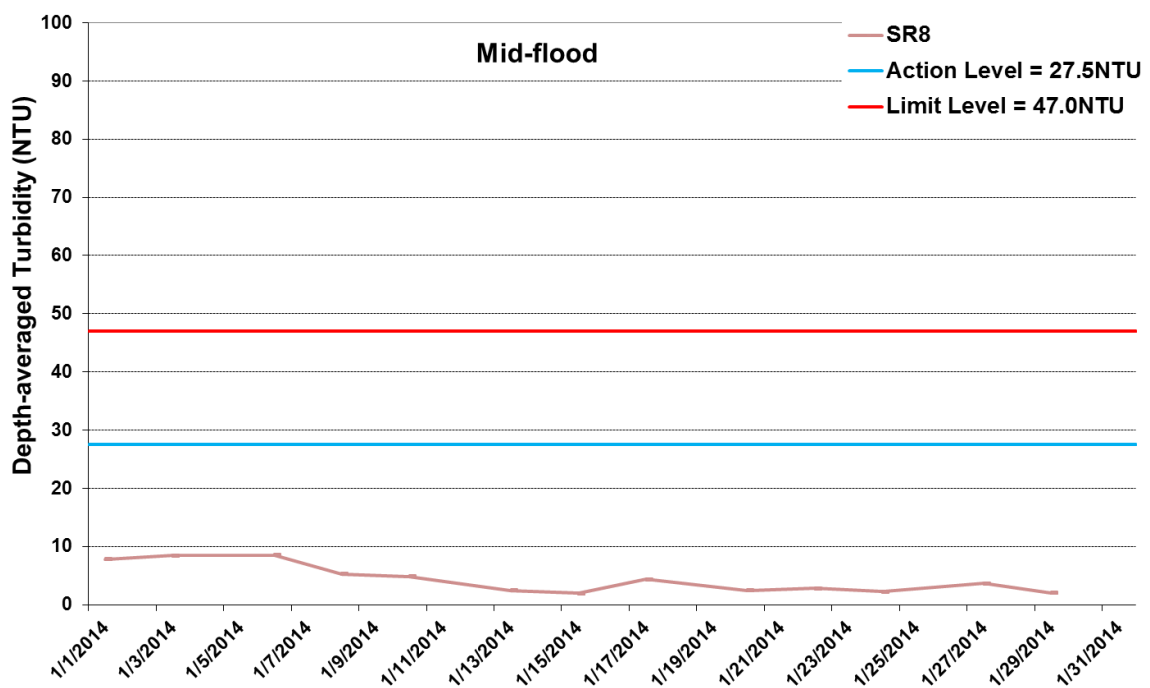
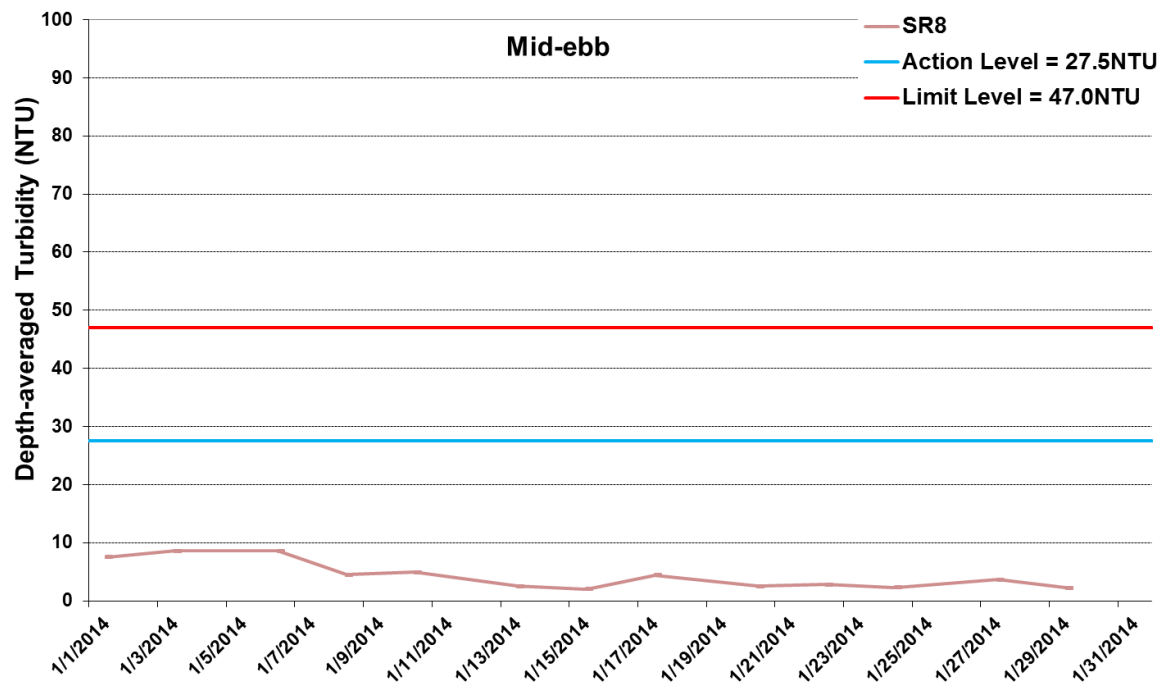


Figure I33 Impact Monitoring - Mean Depth-averaged Level of Turbidity (NTU) between 1 and 31 January 2014 at SR8. Note no dredging works was undertaken on 31 January 2014.



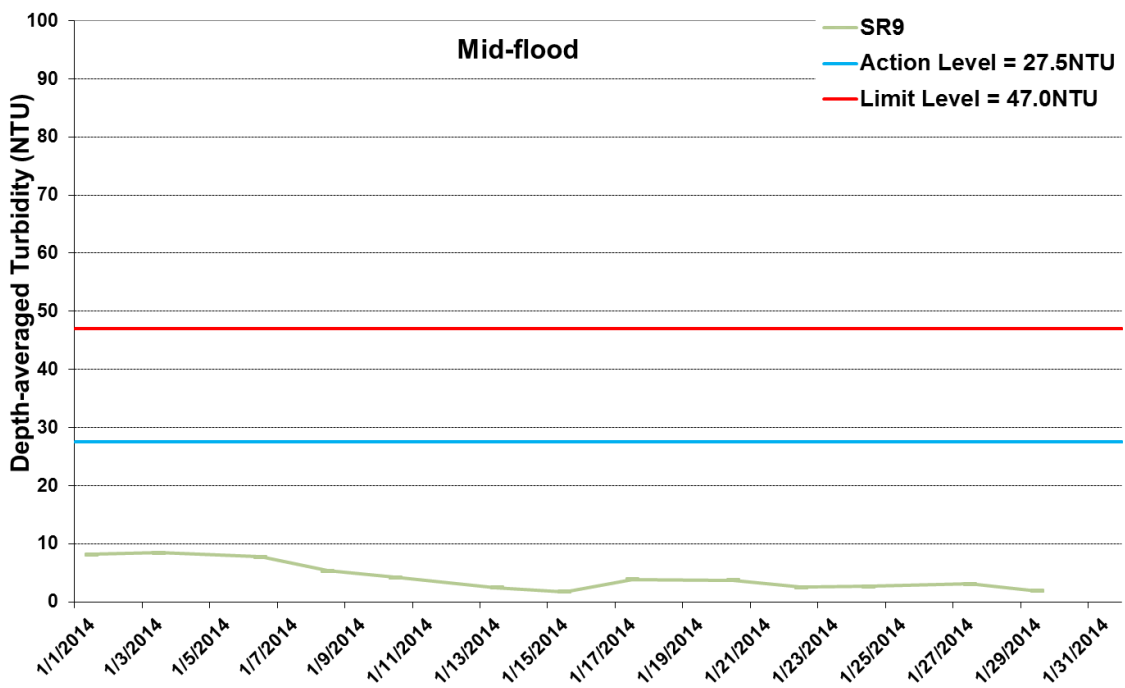
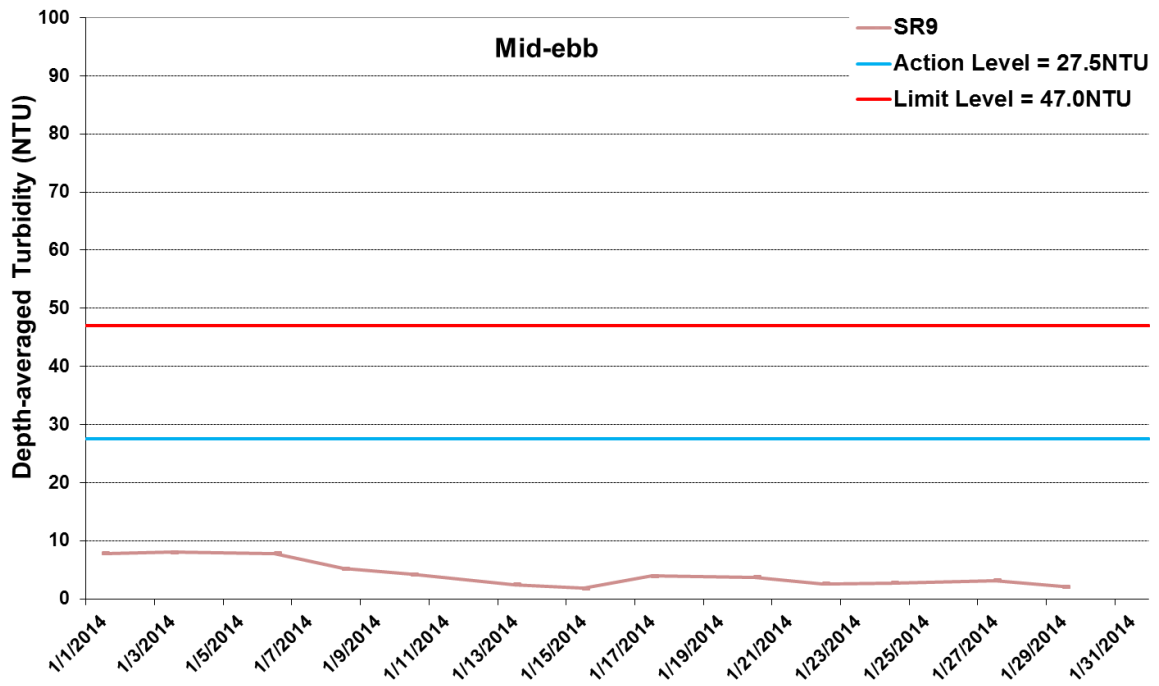


Figure I34 Impact Monitoring - Mean Depth-averaged Level of Turbidity (NTU) between 1 and 31 January 2014 at SR9. Note no dredging works was undertaken on 31 January 2014.





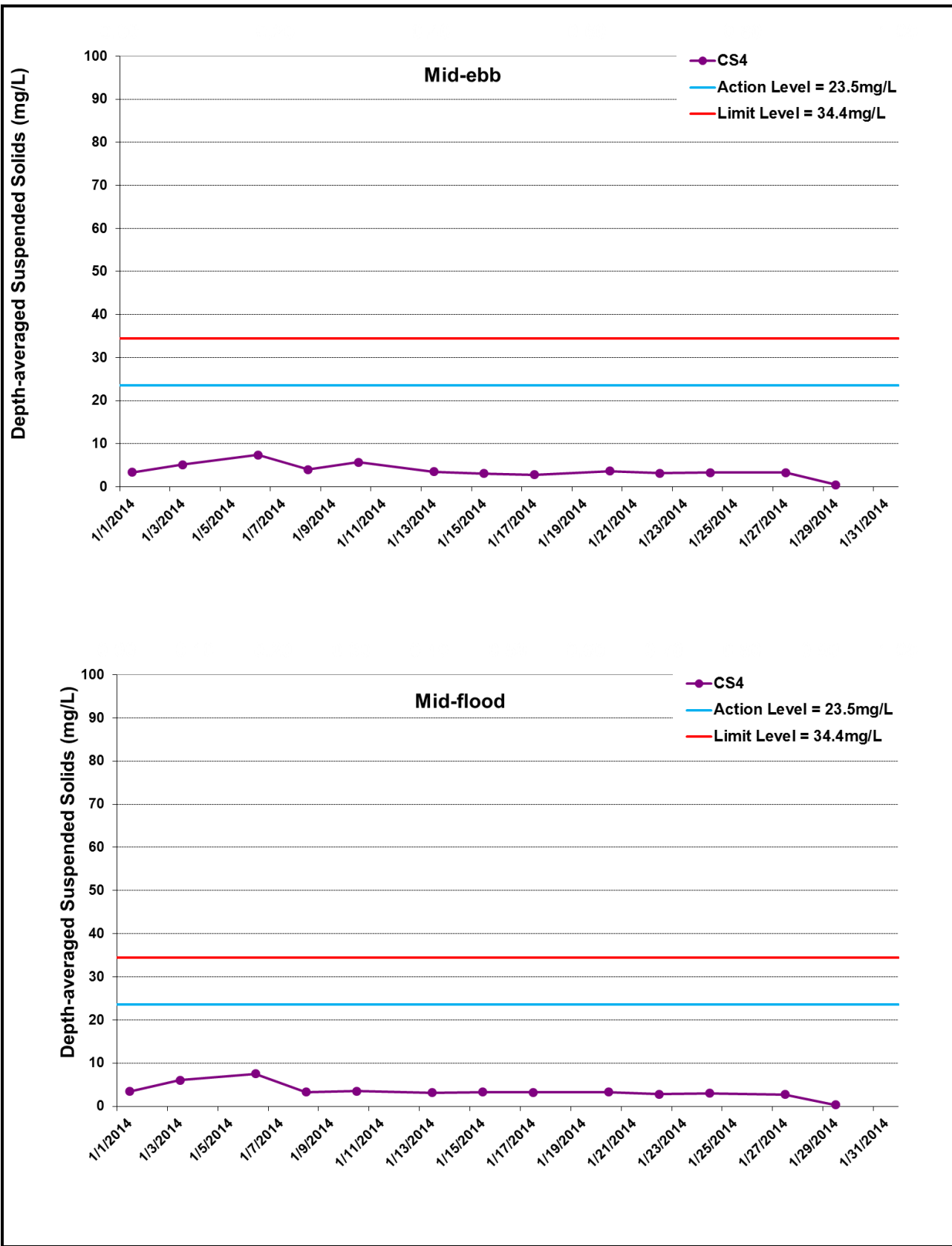


Figure I35 Impact Monitoring - Mean Depth-averaged Level of Suspended Solids (mg/L) between 1 and 31 January 2014 at CS4. Note no dredging works was undertaken on 31 January 2014.



Ref: 0212330\_Impact-WQM\_January2014\_graphs\_Rev a.xls

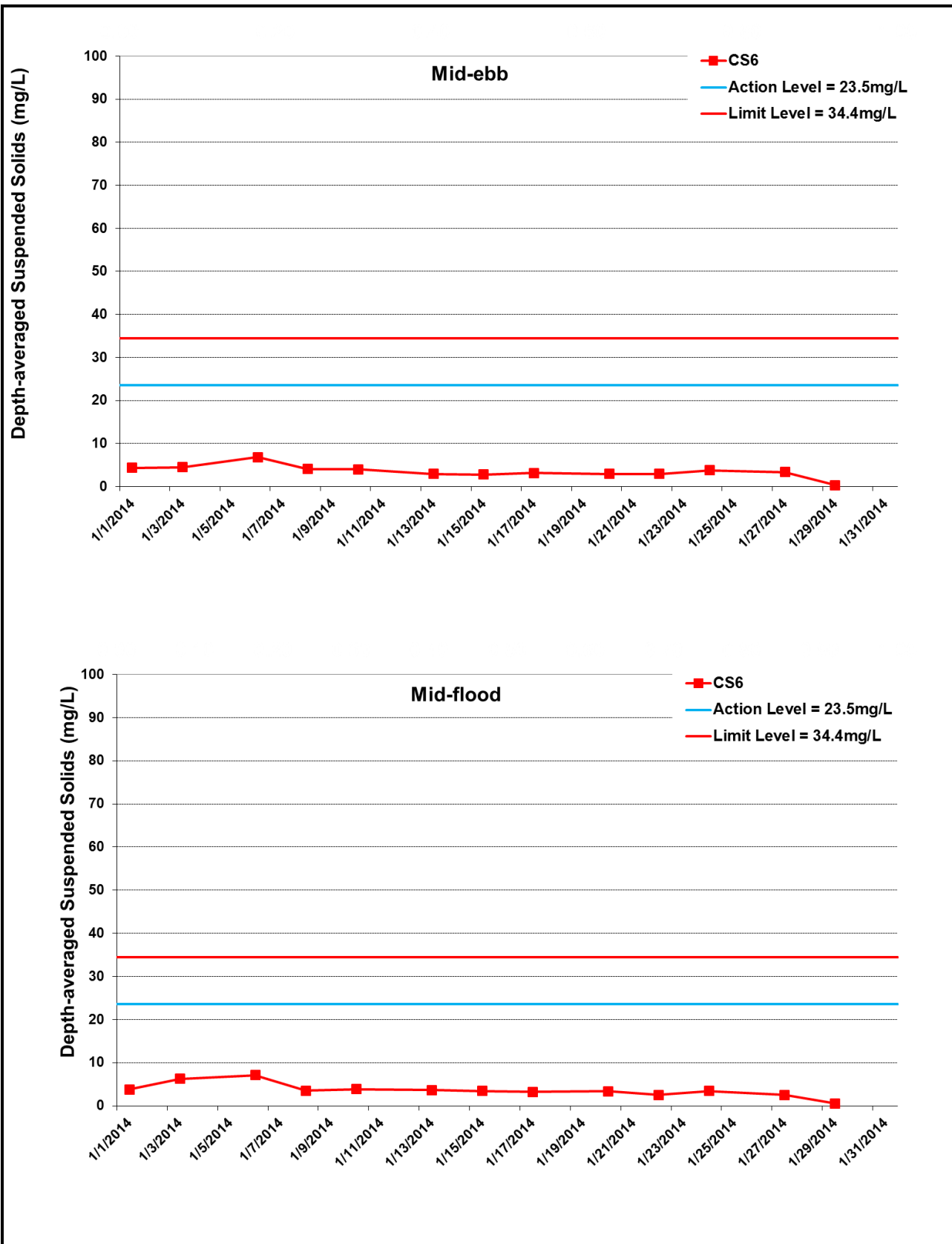


Figure I36 Impact Monitoring - Mean Depth-averaged Level of Suspended Solids (mg/L) between 1 and 31 January 2014 at CS6. Note no dredging works was undertaken on 31 January 2014.



Ref: 0212330\_Impact-WQM\_January2014\_graphs\_Rev a.xls

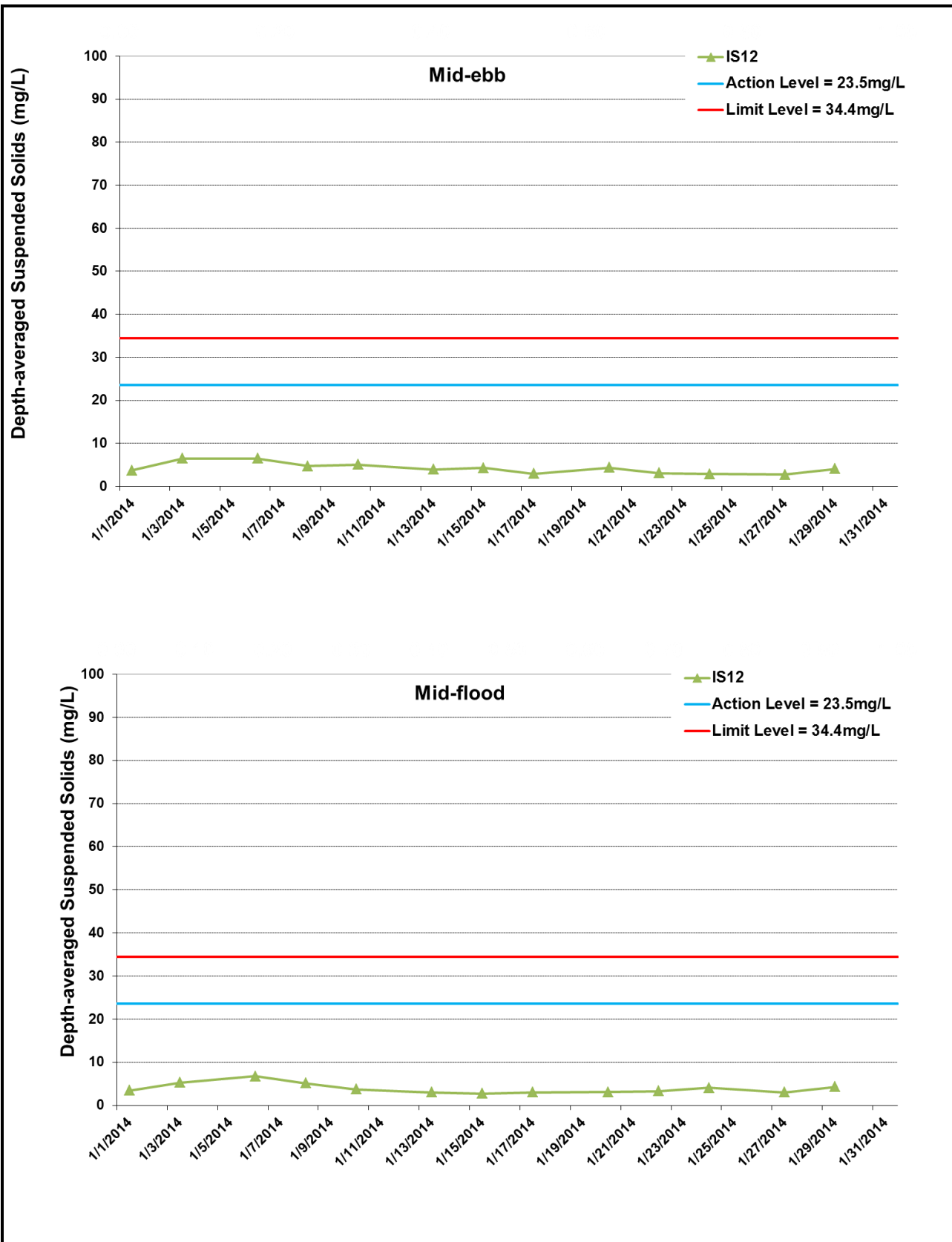


Figure I37 Impact Monitoring - Mean Depth-averaged Level of Suspended Solids (mg/L) between 1 and 31 January 2014 at IS12. Note no dredging works was undertaken on 31 January 2014.



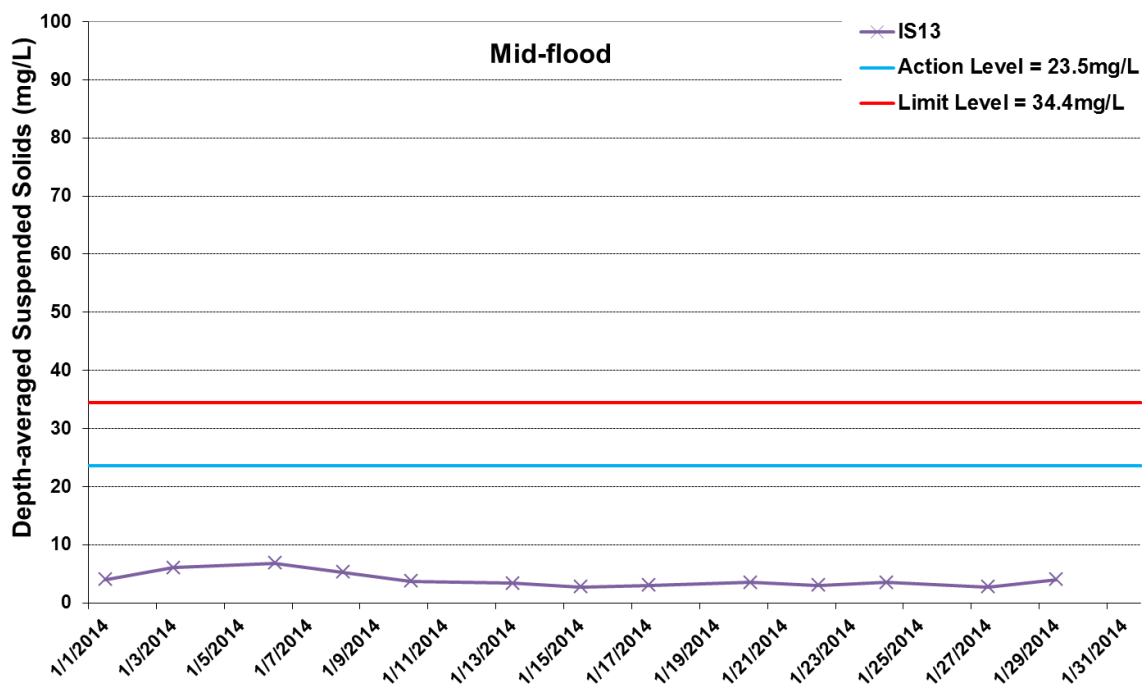
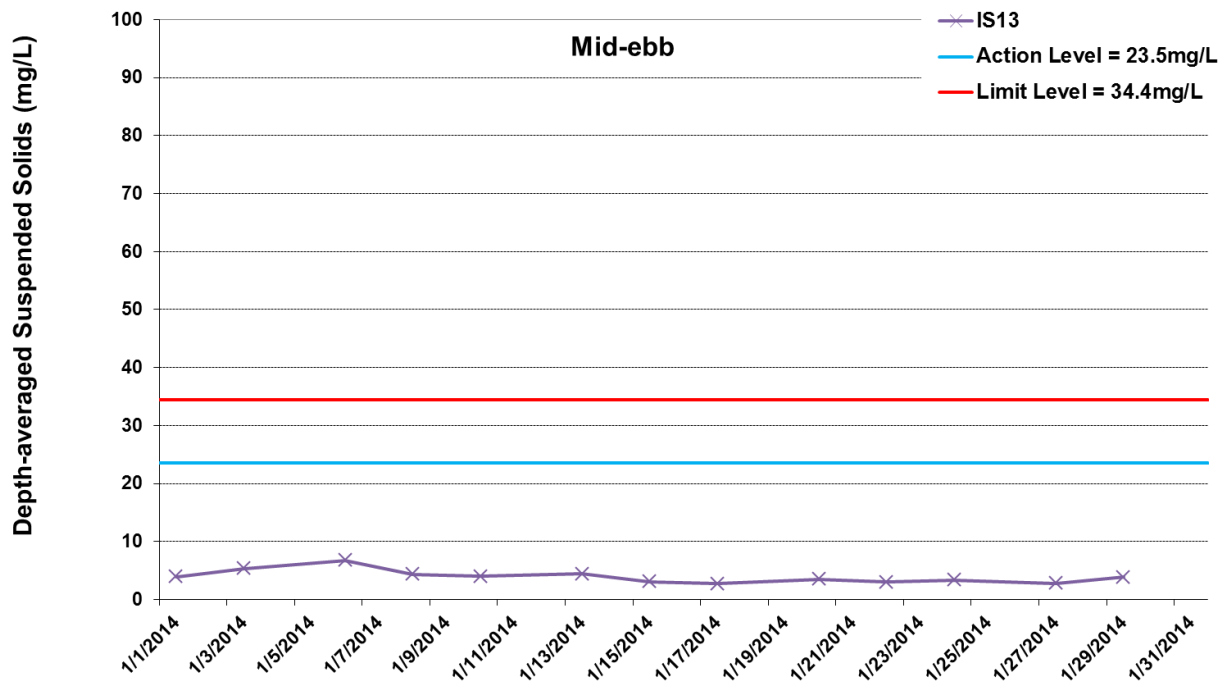


Figure I38 Impact Monitoring - Mean Depth-averaged Level of Suspended Solids (mg/L) between 1 and 31 January 2014 at IS13. Note no dredging works was undertaken on 31 January 2014.



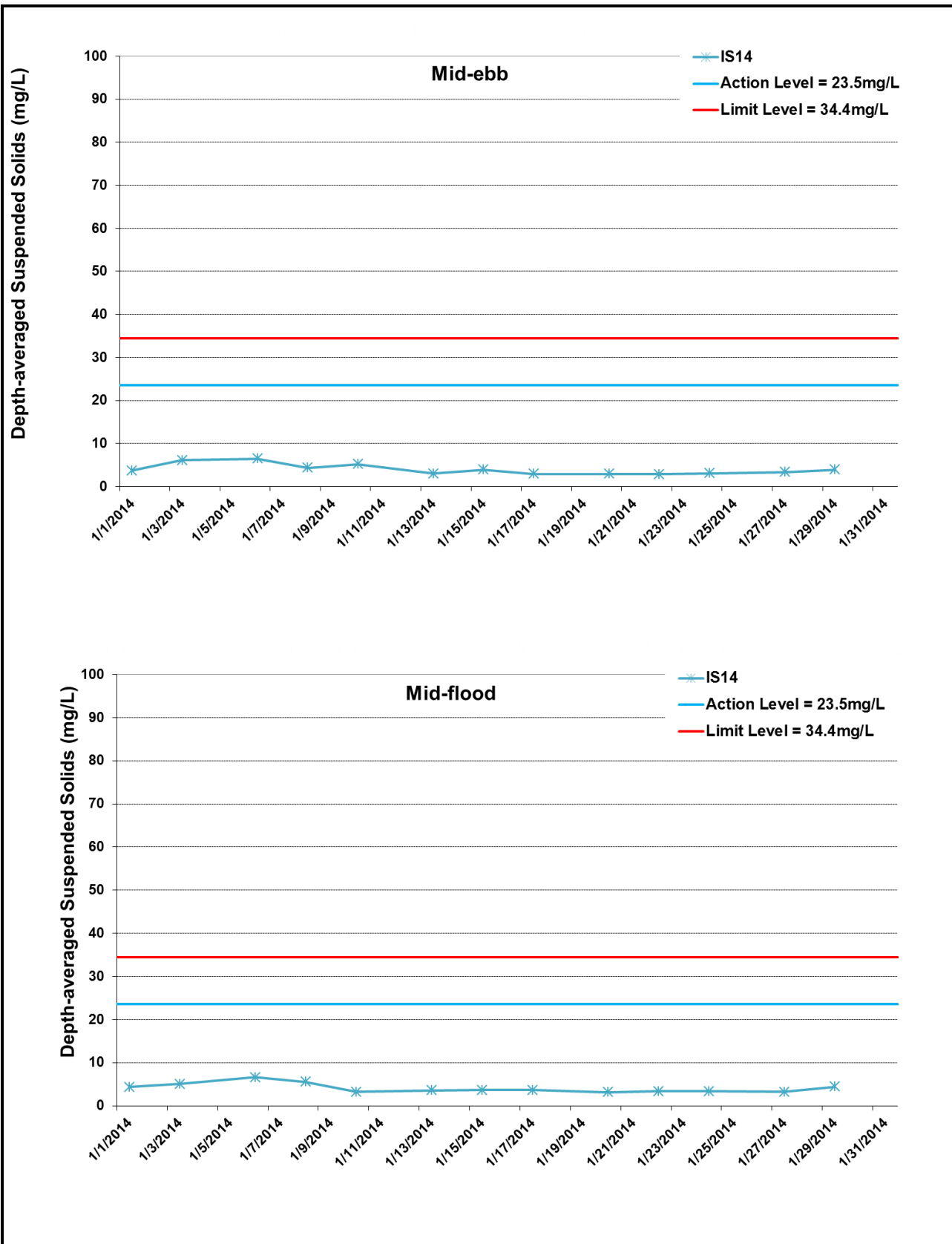


Figure I39 Impact Monitoring - Mean Depth-averaged Level of Suspended Solids (mg/L) between 1 and 31 January 2014 at IS14. Note no dredging works was undertaken on 31 January 2014.



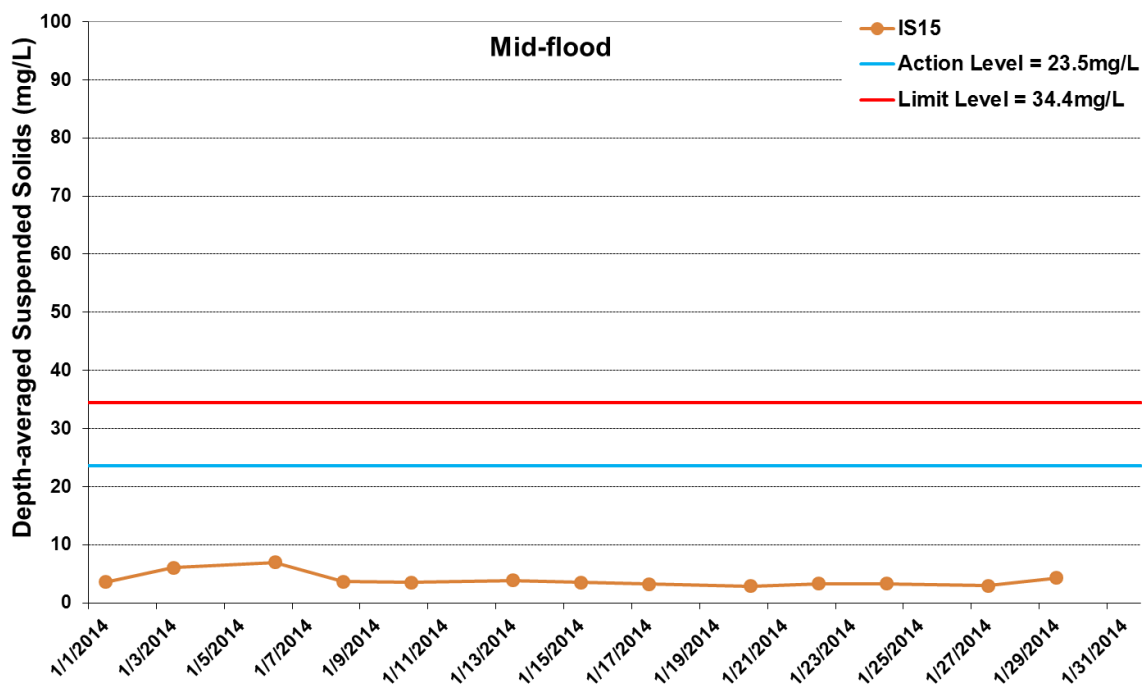
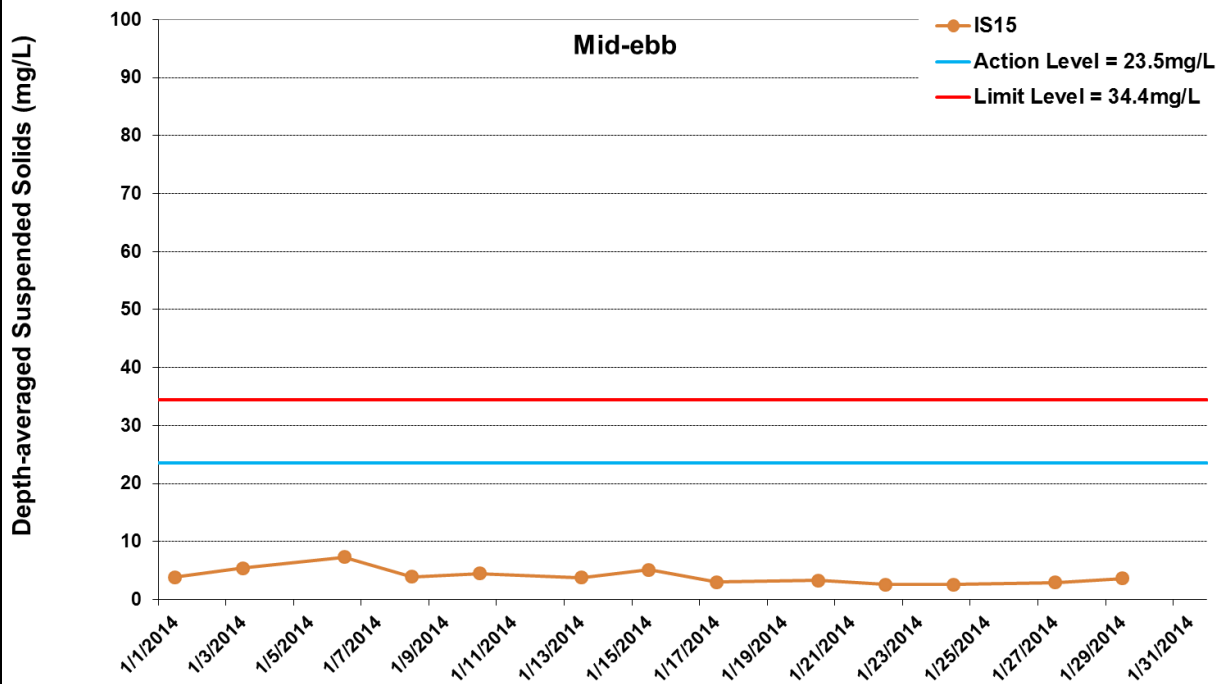


Figure I40 Impact Monitoring - Mean Depth-averaged Level of Suspended Solids (mg/L) between 1 and 31 January 2014 at IS15. Note no dredging works was undertaken on 31 January 2014.



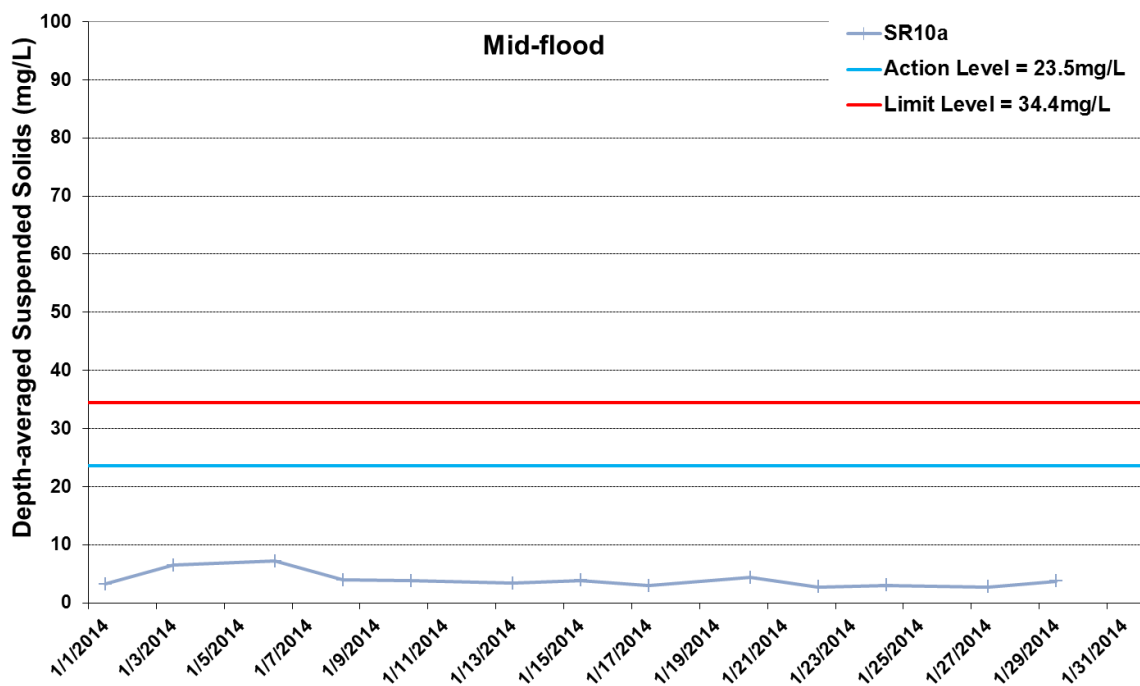
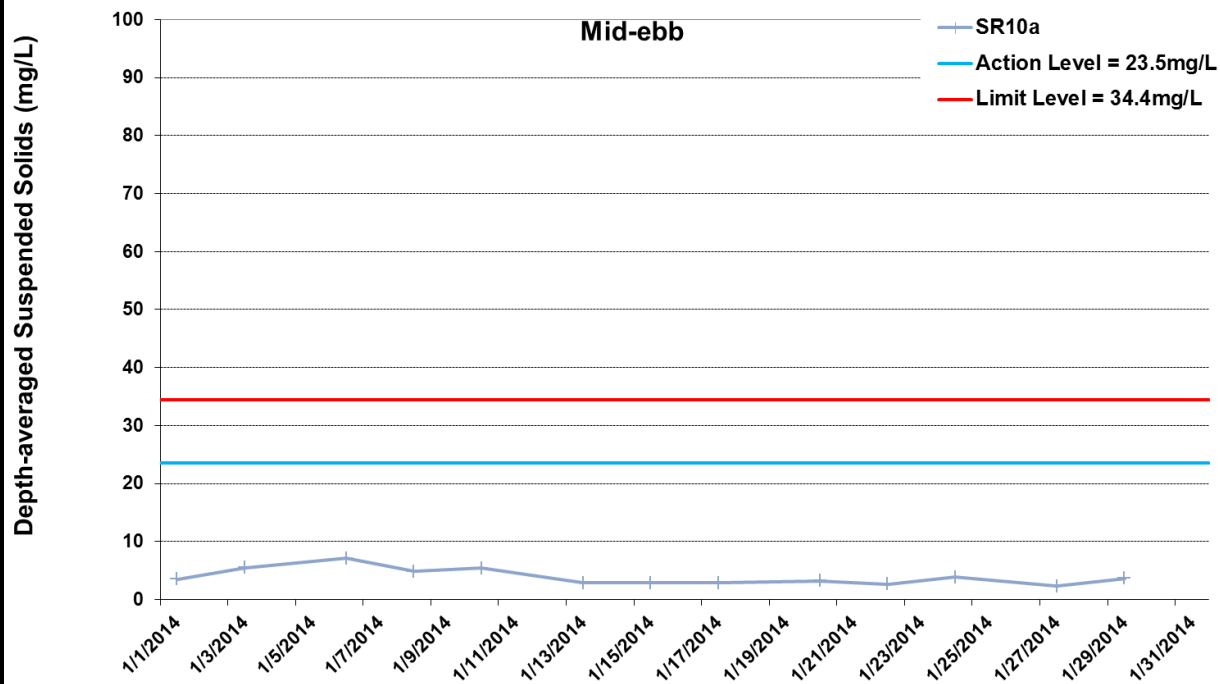


Figure I41 Impact Monitoring - Mean Depth-averaged Level of Suspended Solids (mg/L) between 1 and 31 January 2014 at SR10a. Note no dredging works was undertaken on 31 January 2014.



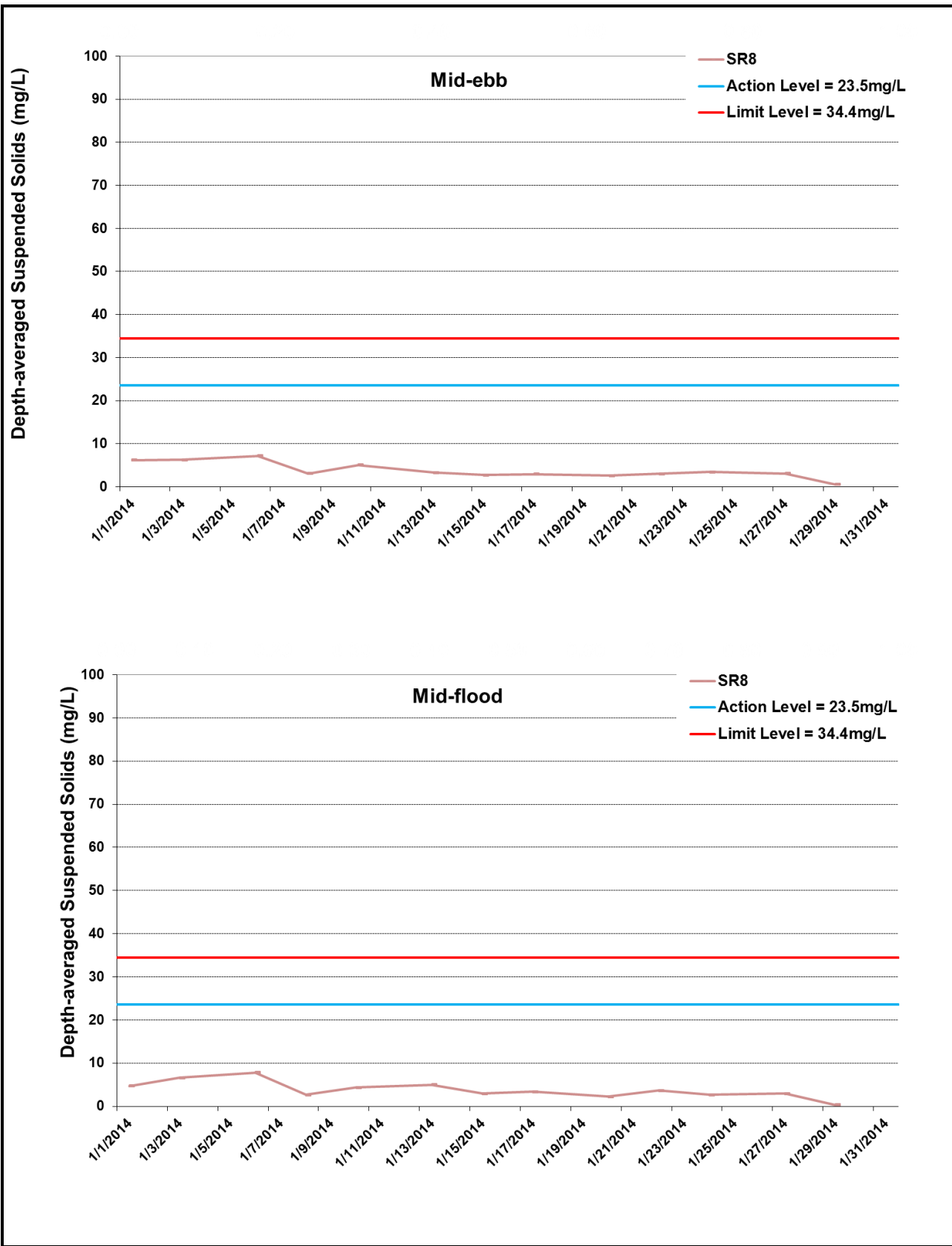


Figure I42 Impact Monitoring - Mean Depth-averaged Level of Suspended Solids (mg/L) between 1 and 31 January 2014 at SR8. Note no dredging works was undertaken on 31 January 2014.



Ref: 0212330\_Impact-WQM\_January2014\_graphs\_Rev a.xls



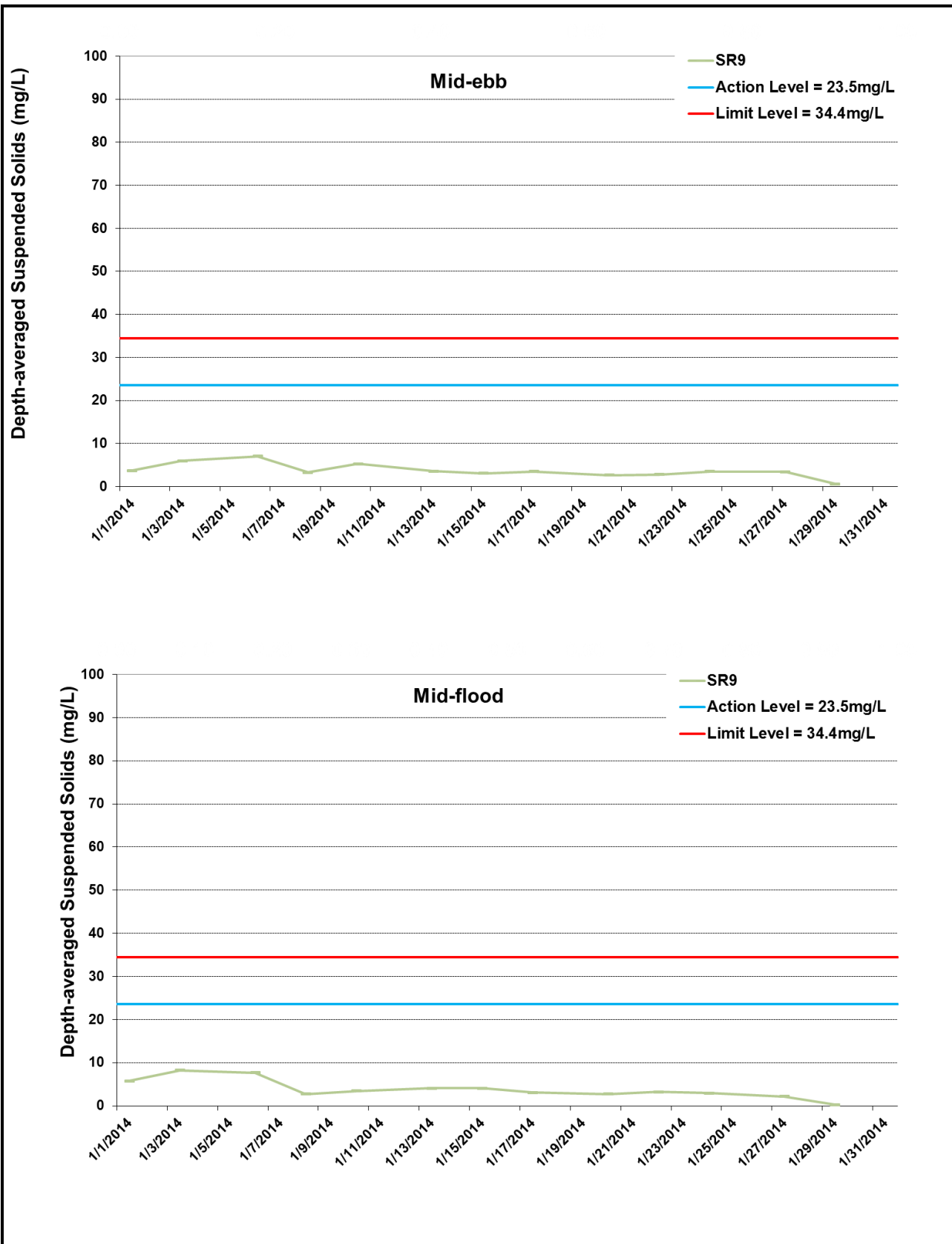


Figure I43 Impact Monitoring - Mean Depth-averaged Level of Suspended Solids (mg/L) between 1 and 31 January 2014 at SR9. Note no dredging works was undertaken on 31 January 2014.



Ref: 0212330\_Impact-WQM\_January2014\_graphs\_Rev a.xls

Project	Works	Date	Tide	Weather	Sea Condition	Stat	Level	Water Depth	Lev_Cod	Replicate	Time	Temp(°C)	pH	Salinity(ppt)	DO(mg/L)	Turbidity(NTU)	SS(mg/L)
TMCLKL	HY/2012/08	2014-01-01	Mid-Flood	Fine	Small Wave	CS4	Surface	1	1	1	19:30	17.6	7.8	28.8	6.59	6.47	3.5
TMCLKL	HY/2012/08	2014-01-01	Mid-Flood	Fine	Small Wave	CS4	Surface	1	1	2	19:30	17.6	7.84	28.8	6.61	6.59	3.7
TMCLKL	HY/2012/08	2014-01-01	Mid-Flood	Fine	Small Wave	CS4	Middle	11.5	2	1	19:30	17.5	7.87	28.9	6.49	6.74	4.1
TMCLKL	HY/2012/08	2014-01-01	Mid-Flood	Fine	Small Wave	CS4	Middle	11.5	2	2	19:30	17.5	7.89	28.9	6.51	6.72	2.2
TMCLKL	HY/2012/08	2014-01-01	Mid-Flood	Fine	Small Wave	CS4	Bottom	22	3	1	19:30	17.5	7.84	29	6.68	6.42	3.3
TMCLKL	HY/2012/08	2014-01-01	Mid-Flood	Fine	Small Wave	CS4	Bottom	22	3	2	19:30	17.5	7.86	29	6.72	6.48	3.8
TMCLKL	HY/2012/08	2014-01-01	Mid-Flood	Fine	Small Wave	CS6	Surface	1	1	1	16:22	17.5	7.72	28.9	6.81	6.17	3.7
TMCLKL	HY/2012/08	2014-01-01	Mid-Flood	Fine	Small Wave	CS6	Surface	1	1	2	16:22	17.6	7.73	28.8	6.89	6.27	3.7
TMCLKL	HY/2012/08	2014-01-01	Mid-Flood	Fine	Small Wave	CS6	Middle	6.6	2	1	16:22	17.5	7.82	29	6.87	6.42	3.6
TMCLKL	HY/2012/08	2014-01-01	Mid-Flood	Fine	Small Wave	CS6	Middle	6.6	2	2	16:22	17.5	7.8	29	6.9	6.43	2.8
TMCLKL	HY/2012/08	2014-01-01	Mid-Flood	Fine	Small Wave	CS6	Bottom	12.2	3	1	16:22	17.7	7.71	29	6.89	6.27	4.6
TMCLKL	HY/2012/08	2014-01-01	Mid-Flood	Fine	Small Wave	CS6	Bottom	12.2	3	2	16:22	17.6	7.74	29.1	6.85	6.38	4.2
TMCLKL	HY/2012/08	2014-01-01	Mid-Flood	Fine	Small Wave	IS12	Surface	1	1	1	18:41	17.5	7.72	28.9	6.67	6.1	3.3
TMCLKL	HY/2012/08	2014-01-01	Mid-Flood	Fine	Small Wave	IS12	Surface	1	1	2	18:41	17.5	7.78	28.9	6.7	6.14	2.6
TMCLKL	HY/2012/08	2014-01-01	Mid-Flood	Fine	Small Wave	IS12	Middle	8	2	1	18:41	17.5	7.88	28.9	6.82	6.49	3.5
TMCLKL	HY/2012/08	2014-01-01	Mid-Flood	Fine	Small Wave	IS12	Middle	8	2	2	18:41	17.6	7.84	28.9	6.88	6.51	2.8
TMCLKL	HY/2012/08	2014-01-01	Mid-Flood	Fine	Small Wave	IS12	Bottom	15	3	1	18:41	17.5	7.87	29	6.57	6.78	3.7
TMCLKL	HY/2012/08	2014-01-01	Mid-Flood	Fine	Small Wave	IS12	Bottom	15	3	2	18:41	17.6	7.86	29	6.61	6.7	4.5
TMCLKL	HY/2012/08	2014-01-01	Mid-Flood	Fine	Small Wave	IS13	Surface	1	1	1	18:27	17.4	7.82	28.8	6.64	6.82	3.6
TMCLKL	HY/2012/08	2014-01-01	Mid-Flood	Fine	Small Wave	IS13	Surface	1	1	2	18:27	17.5	7.83	28.8	6.66	6.8	3.8
TMCLKL	HY/2012/08	2014-01-01	Mid-Flood	Fine	Small Wave	IS13	Middle	5.9	2	1	18:27	17.6	7.92	28.8	6.55	6.39	3.9
TMCLKL	HY/2012/08	2014-01-01	Mid-Flood	Fine	Small Wave	IS13	Middle	5.9	2	2	18:27	17.6	7.93	28.8	6.58	6.41	4
TMCLKL	HY/2012/08	2014-01-01	Mid-Flood	Fine	Small Wave	IS13	Bottom	10.8	3	1	18:27	17.5	7.79	28.9	6.71	6.5	4.4
TMCLKL	HY/2012/08	2014-01-01	Mid-Flood	Fine	Small Wave	IS13	Bottom	10.8	3	2	18:27	17.6	7.8	29	6.77	6.41	4.1
TMCLKL	HY/2012/08	2014-01-01	Mid-Flood	Fine	Small Wave	IS14	Surface	1	1	1	18:59	17.5	7.91	28.9	6.86	6.29	4.4
TMCLKL	HY/2012/08	2014-01-01	Mid-Flood	Fine	Small Wave	IS14	Surface	1	1	2	18:59	17.5	7.92	28.8	6.88	6.39	4.5
TMCLKL	HY/2012/08	2014-01-01	Mid-Flood	Fine	Small Wave	IS14	Middle	8.4	2	1	18:59	17.6	7.68	28.9	6.5	6.62	4.7
TMCLKL	HY/2012/08	2014-01-01	Mid-Flood	Fine	Small Wave	IS14	Middle	8.4	2	2	18:59	17.6	7.72	28.9	6.51	6.68	3
TMCLKL	HY/2012/08	2014-01-01	Mid-Flood	Fine	Small Wave	IS14	Bottom	15.8	3	1	18:59	17.5	7.81	29	6.82	6.71	5
TMCLKL	HY/2012/08	2014-01-01	Mid-Flood	Fine	Small Wave	IS14	Bottom	15.8	3	2	18:59	17.4	7.82	29	6.88	6.63	4.4
TMCLKL	HY/2012/08	2014-01-01	Mid-Flood	Fine	Small Wave	IS15	Surface	1	1	1	18:10	17.5	7.78	28.8	6.94	6.5	3.2
TMCLKL	HY/2012/08	2014-01-01	Mid-Flood	Fine	Small Wave	IS15	Surface	1	1	2	18:10	17.4	7.8	28.9	6.9	6.64	3.3
TMCLKL	HY/2012/08	2014-01-01	Mid-Flood	Fine	Small Wave	IS15	Middle	6.1	2	1	18:10	17.6	7.85	28.9	6.72	6.75	3.4
TMCLKL	HY/2012/08	2014-01-01	Mid-Flood	Fine	Small Wave	IS15	Middle	6.1	2	2	18:10	17.6	7.87	28.9	6.7	6.77	4.3
TMCLKL	HY/2012/08	2014-01-01	Mid-Flood	Fine	Small Wave	IS15	Bottom	11.2	3	1	18:10	17.6	7.8	29	6.88	6.73	3.9
TMCLKL	HY/2012/08	2014-01-01	Mid-Flood	Fine	Small Wave	IS15	Bottom	11.2	3	2	18:10	17.6	7.84	29	6.9	6.77	3.1
TMCLKL	HY/2012/08	2014-01-01	Mid-Flood	Fine	Small Wave	SR8	Surface	1	1	1	17:27	17.6	7.59	28.9	6.83	7.2	3
TMCLKL	HY/2012/08	2014-01-01	Mid-Flood	Fine	Small Wave	SR8	Surface	1	1	2	17:27	17.5	7.6	28.9	6.81	7.24	4.8
TMCLKL	HY/2012/08	2014-01-01	Mid-Flood	Fine	Small Wave	SR8	Middle		2	1	17:27						
TMCLKL	HY/2012/08	2014-01-01	Mid-Flood	Fine	Small Wave	SR8	Middle		2	2	17:27						
TMCLKL	HY/2012/08	2014-01-01	Mid-Flood	Fine	Small Wave	SR8	Bottom	4.6	3	1	17:27	17.7	7.77	28.9	6.88	8.38	6.5
TMCLKL	HY/2012/08	2014-01-01	Mid-Flood	Fine	Small Wave	SR8	Bottom	4.6	3	2	17:27	17.6	7.79	29	6.8	8.34	4.6
TMCLKL	HY/2012/08	2014-01-01	Mid-Flood	Fine	Small Wave	SR9	Surface	1	1	1	17:51	17.5	7.69	29	6.75	7.81	5.3
TMCLKL	HY/2012/08	2014-01-01	Mid-Flood	Fine	Small Wave	SR9	Surface	1	1	2	17:51	17.5	7.7	28.9	6.7	7.89	5.2
TMCLKL	HY/2012/08	2014-01-01	Mid-Flood	Fine	Small Wave	SR9	Middle		2	1	17:51						

TMCLKL	HY/2012/08	2014-01-01	Mid-Flood	Fine	Small Wave	SR9	Middle		2	2	17:51						
TMCLKL	HY/2012/08	2014-01-01	Mid-Flood	Fine	Small Wave	SR9	Bottom	4.6	3	1	17:51	17.6	7.77	29	6.62	8.43	5.9
TMCLKL	HY/2012/08	2014-01-01	Mid-Flood	Fine	Small Wave	SR9	Bottom	4.6	3	2	17:51	17.6	7.73	29	6.58	8.41	6.7
TMCLKL	HY/2012/08	2014-01-01	Mid-Flood	Fine	Small Wave	SR10	Surface	1	1	1	16:57	17.6	7.8	28.8	6.78	6.02	2.2
TMCLKL	HY/2012/08	2014-01-01	Mid-Flood	Fine	Small Wave	SR10	Surface	1	1	2	16:57	17.6	7.88	28.8	6.8	6.08	2.7
TMCLKL	HY/2012/08	2014-01-01	Mid-Flood	Fine	Small Wave	SR10	Middle	7	2	1	16:57	17.5	7.89	29	6.5	5.52	2.8
TMCLKL	HY/2012/08	2014-01-01	Mid-Flood	Fine	Small Wave	SR10	Middle	7	2	2	16:57	17.5	7.91	29	6.54	5.67	2.8
TMCLKL	HY/2012/08	2014-01-01	Mid-Flood	Fine	Small Wave	SR10	Bottom	13	3	1	16:57	17.6	7.62	29	6.88	6.78	4.4
TMCLKL	HY/2012/08	2014-01-01	Mid-Flood	Fine	Small Wave	SR10	Bottom	13	3	2	16:57	17.7	7.68	29	6.9	6.83	4.2
TMCLKL	HY/2012/08	2014-01-01	Mid-Ebb	Fine	Small Wave	CS4	Surface	1	1	1	11:11	17.4	7.78	28.9	7.03	5.46	3.4
TMCLKL	HY/2012/08	2014-01-01	Mid-Ebb	Fine	Small Wave	CS4	Surface	1	1	2	11:11	17.4	7.79	28.9	7.01	5.41	3.7
TMCLKL	HY/2012/08	2014-01-01	Mid-Ebb	Fine	Small Wave	CS4	Middle	11.4	2	1	11:11	17.6	7.78	28.8	6.84	4.94	3.8
TMCLKL	HY/2012/08	2014-01-01	Mid-Ebb	Fine	Small Wave	CS4	Middle	11.4	2	2	11:11	17.5	7.77	28.9	6.8	4.87	2.5
TMCLKL	HY/2012/08	2014-01-01	Mid-Ebb	Fine	Small Wave	CS4	Bottom	21.8	3	1	11:11	17.5	7.77	28.9	6.67	6.84	4.4
TMCLKL	HY/2012/08	2014-01-01	Mid-Ebb	Fine	Small Wave	CS4	Bottom	21.8	3	2	11:11	17.6	7.77	29	6.64	6.88	2.4
TMCLKL	HY/2012/08	2014-01-01	Mid-Ebb	Fine	Small Wave	CS6	Surface	1	1	1	13:34	17.5	7.8	28.8	6.87	5.33	4.6
TMCLKL	HY/2012/08	2014-01-01	Mid-Ebb	Fine	Small Wave	CS6	Surface	1	1	2	13:34	17.5	7.81	28.8	6.84	5.38	3.1
TMCLKL	HY/2012/08	2014-01-01	Mid-Ebb	Fine	Small Wave	CS6	Middle	6.4	2	1	13:34	17.5	7.8	28.9	6.75	5.72	5.4
TMCLKL	HY/2012/08	2014-01-01	Mid-Ebb	Fine	Small Wave	CS6	Middle	6.4	2	2	13:34	17.5	7.8	29	6.78	5.78	5.5
TMCLKL	HY/2012/08	2014-01-01	Mid-Ebb	Fine	Small Wave	CS6	Bottom	11.8	3	1	13:34	17.6	7.82	29	6.77	5.76	4
TMCLKL	HY/2012/08	2014-01-01	Mid-Ebb	Fine	Small Wave	CS6	Bottom	11.8	3	2	13:34	17.5	7.82	29	6.74	5.83	3.5
TMCLKL	HY/2012/08	2014-01-01	Mid-Ebb	Fine	Small Wave	IS12	Surface	1	1	1	11:58	17.4	7.79	28.9	6.94	6.03	4.5
TMCLKL	HY/2012/08	2014-01-01	Mid-Ebb	Fine	Small Wave	IS12	Surface	1	1	2	11:58	17.4	7.79	28.8	6.98	6.09	2.8
TMCLKL	HY/2012/08	2014-01-01	Mid-Ebb	Fine	Small Wave	IS12	Middle	7.4	2	1	11:58	17.4	7.79	28.9	6.75	6.28	3.4
TMCLKL	HY/2012/08	2014-01-01	Mid-Ebb	Fine	Small Wave	IS12	Middle	7.4	2	2	11:58	17.5	7.78	29	6.71	6.32	3.5
TMCLKL	HY/2012/08	2014-01-01	Mid-Ebb	Fine	Small Wave	IS12	Bottom	13.8	3	1	11:58	17.5	7.78	29	6.71	7.32	4.5
TMCLKL	HY/2012/08	2014-01-01	Mid-Ebb	Fine	Small Wave	IS12	Bottom	13.8	3	2	11:58	17.5	7.78	29	6.68	7.39	3.6
TMCLKL	HY/2012/08	2014-01-01	Mid-Ebb	Fine	Small Wave	IS13	Surface	1	1	1	12:18	17.5	7.79	28.9	6.95	5.6	3.7
TMCLKL	HY/2012/08	2014-01-01	Mid-Ebb	Fine	Small Wave	IS13	Surface	1	1	2	12:18	17.4	7.8	28.9	6.92	5.68	4.1
TMCLKL	HY/2012/08	2014-01-01	Mid-Ebb	Fine	Small Wave	IS13	Middle	5.7	2	1	12:18	17.5	7.8	28.9	6.77	5.91	3.4
TMCLKL	HY/2012/08	2014-01-01	Mid-Ebb	Fine	Small Wave	IS13	Middle	5.7	2	2	12:18	17.5	7.8	28.9	6.74	5.97	3.2
TMCLKL	HY/2012/08	2014-01-01	Mid-Ebb	Fine	Small Wave	IS13	Bottom	10.4	3	1	12:18	17.6	7.8	29	6.72	6.54	4.6
TMCLKL	HY/2012/08	2014-01-01	Mid-Ebb	Fine	Small Wave	IS13	Bottom	10.4	3	2	12:18	17.5	7.76	29	6.68	6.63	4.6
TMCLKL	HY/2012/08	2014-01-01	Mid-Ebb	Fine	Small Wave	IS14	Surface	1	1	1	11:38	17.4	7.78	28.9	6.87	5.18	3
TMCLKL	HY/2012/08	2014-01-01	Mid-Ebb	Fine	Small Wave	IS14	Surface	1	1	2	11:38	17.4	7.78	28.9	6.85	5.2	2.8
TMCLKL	HY/2012/08	2014-01-01	Mid-Ebb	Fine	Small Wave	IS14	Middle	8.1	2	1	11:38	17.5	7.79	28.9	6.71	5.22	3.7
TMCLKL	HY/2012/08	2014-01-01	Mid-Ebb	Fine	Small Wave	IS14	Middle	8.1	2	2	11:38	17.5	7.79	28.9	6.68	5.27	3.7
TMCLKL	HY/2012/08	2014-01-01	Mid-Ebb	Fine	Small Wave	IS14	Bottom	15.2	3	1	11:38	17.5	7.78	29	6.74	6.84	4.1
TMCLKL	HY/2012/08	2014-01-01	Mid-Ebb	Fine	Small Wave	IS14	Bottom	15.2	3	2	11:38	17.4	7.77	29	6.7	6.9	5
TMCLKL	HY/2012/08	2014-01-01	Mid-Ebb	Fine	Small Wave	IS15	Surface	1	1	1	12:36	17.5	7.79	28.8	6.98	5.45	3.5
TMCLKL	HY/2012/08	2014-01-01	Mid-Ebb	Fine	Small Wave	IS15	Surface	1	1	2	12:36	17.5	7.8	28.9	7.03	5.49	2.8
TMCLKL	HY/2012/08	2014-01-01	Mid-Ebb	Fine	Small Wave	IS15	Middle	5.9	2	1	12:36	17.5	7.8	29	6.84	6.35	3.5
TMCLKL	HY/2012/08	2014-01-01	Mid-Ebb	Fine	Small Wave	IS15	Middle	5.9	2	2	12:36	17.5	7.8	29	6.87	6.31	4.2
TMCLKL	HY/2012/08	2014-01-01	Mid-Ebb	Fine	Small Wave	IS15	Bottom	10.8	3	1	12:36	17.5	7.8	29	6.8	6.54	4.4
TMCLKL	HY/2012/08	2014-01-01	Mid-Ebb	Fine	Small Wave	IS15	Bottom	10.8	3	2	12:36	17.6	7.8	29	6.76	6.58	4.5
TMCLKL	HY/2012/08	2014-01-01	Mid-Ebb	Fine	Small Wave	SR8	Surface	1	1	1	13:17	17.5	7.8	28.9	6.88	6.94	5
TMCLKL	HY/2012/08	2014-01-01	Mid-Ebb	Fine	Small Wave	SR8	Surface	1	1	2	13:17	17.5	7.81	28.8	6.84	6.98	5.7

TMCLKL	HY/2012/08	2014-01-01	Mid-Ebb	Fine	Small Wave	SR8	Middle		2	1	13:17						
TMCLKL	HY/2012/08	2014-01-01	Mid-Ebb	Fine	Small Wave	SR8	Middle		2	2	13:17						
TMCLKL	HY/2012/08	2014-01-01	Mid-Ebb	Fine	Small Wave	SR8	Bottom	4.2	3	1	13:17	17.5	7.81	29	6.74	8.05	6.3
TMCLKL	HY/2012/08	2014-01-01	Mid-Ebb	Fine	Small Wave	SR8	Bottom	4.2	3	2	13:17	17.5	7.81	29	6.77	8.09	7.6
TMCLKL	HY/2012/08	2014-01-01	Mid-Ebb	Fine	Small Wave	SR9	Surface	1	1	1	12:56	17.5	7.79	28.9	6.91	7.29	4.4
TMCLKL	HY/2012/08	2014-01-01	Mid-Ebb	Fine	Small Wave	SR9	Surface	1	1	2	12:56	17.5	7.78	28.9	6.95	7.33	4
TMCLKL	HY/2012/08	2014-01-01	Mid-Ebb	Fine	Small Wave	SR9	Middle		2	1	12:56						
TMCLKL	HY/2012/08	2014-01-01	Mid-Ebb	Fine	Small Wave	SR9	Middle		2	2	12:56						
TMCLKL	HY/2012/08	2014-01-01	Mid-Ebb	Fine	Small Wave	SR9	Bottom	4.4	3	1	12:56	17.6	7.8	28.9	6.88	8.29	4
TMCLKL	HY/2012/08	2014-01-01	Mid-Ebb	Fine	Small Wave	SR9	Bottom	4.4	3	2	12:56	17.6	7.79	29	6.84	8.21	2.5
TMCLKL	HY/2012/08	2014-01-01	Mid-Ebb	Fine	Small Wave	SR10	Surface	1	1	1	14:19	17.5	7.82	28.9	6.92	5.47	3.1
TMCLKL	HY/2012/08	2014-01-01	Mid-Ebb	Fine	Small Wave	SR10	Surface	1	1	2	14:19	17.5	7.81	28.8	6.95	5.49	2.6
TMCLKL	HY/2012/08	2014-01-01	Mid-Ebb	Fine	Small Wave	SR10	Middle	6.8	2	1	14:19	17.5	7.8	29	6.81	5.24	4.3
TMCLKL	HY/2012/08	2014-01-01	Mid-Ebb	Fine	Small Wave	SR10	Middle	6.8	2	2	14:19	17.5	7.81	29	6.78	5.28	3.2
TMCLKL	HY/2012/08	2014-01-01	Mid-Ebb	Fine	Small Wave	SR10	Bottom	12.6	3	1	14:19	17.6	7.82	29	6.79	6.55	4
TMCLKL	HY/2012/08	2014-01-01	Mid-Ebb	Fine	Small Wave	SR10	Bottom	12.6	3	2	14:19	17.6	7.81	29	6.75	6.59	3.8
TMCLKL	HY/2012/08	2014-01-03	Mid-Flood	Cloudy	Small Wave	CS4	Surface	1	1	1	10:30	17.7	7.76	28	6.64	7.34	6.2
TMCLKL	HY/2012/08	2014-01-03	Mid-Flood	Cloudy	Small Wave	CS4	Surface	1	1	2	10:30	17.8	7.75	28	6.68	7.3	5.8
TMCLKL	HY/2012/08	2014-01-03	Mid-Flood	Cloudy	Small Wave	CS4	Middle	11.5	2	1	10:30	17.6	7.62	28.1	6.72	7.62	6.4
TMCLKL	HY/2012/08	2014-01-03	Mid-Flood	Cloudy	Small Wave	CS4	Middle	11.5	2	2	10:30	17.7	7.68	28.1	6.76	7.64	6.8
TMCLKL	HY/2012/08	2014-01-03	Mid-Flood	Cloudy	Small Wave	CS4	Bottom	22	3	1	10:30	17.6	7.76	28.1	6.57	7.74	5.3
TMCLKL	HY/2012/08	2014-01-03	Mid-Flood	Cloudy	Small Wave	CS4	Bottom	22	3	2	10:30	17.6	7.78	28.1	6.51	7.72	5.7
TMCLKL	HY/2012/08	2014-01-03	Mid-Flood	Cloudy	Small Wave	CS6	Surface	1	1	1	07:34	17.4	7.68	27.8	6.76	7.31	6.7
TMCLKL	HY/2012/08	2014-01-03	Mid-Flood	Cloudy	Small Wave	CS6	Surface	1	1	2	07:34	17.5	7.7	27.8	6.8	7.39	5.9
TMCLKL	HY/2012/08	2014-01-03	Mid-Flood	Cloudy	Small Wave	CS6	Middle	6.6	2	1	07:34	17.5	7.71	27.9	6.58	7.02	6.5
TMCLKL	HY/2012/08	2014-01-03	Mid-Flood	Cloudy	Small Wave	CS6	Middle	6.6	2	2	07:34	17.5	7.71	27.9	6.52	7	7.1
TMCLKL	HY/2012/08	2014-01-03	Mid-Flood	Cloudy	Small Wave	CS6	Bottom	12.2	3	1	07:34	17.4	7.62	28	6.36	7.28	5.8
TMCLKL	HY/2012/08	2014-01-03	Mid-Flood	Cloudy	Small Wave	CS6	Bottom	12.2	3	2	07:34	17.5	7.63	27.9	6.38	7.3	5.5
TMCLKL	HY/2012/08	2014-01-03	Mid-Flood	Cloudy	Small Wave	IS12	Surface	1	1	1	09:34	17.8	7.94	27.8	6.89	7.14	4.5
TMCLKL	HY/2012/08	2014-01-03	Mid-Flood	Cloudy	Small Wave	IS12	Surface	1	1	2	09:34	17.7	7.96	27.8	6.91	7.16	4.8
TMCLKL	HY/2012/08	2014-01-03	Mid-Flood	Cloudy	Small Wave	IS12	Middle	7.5	2	1	09:34	17.7	7.89	28	6.62	7.49	5.9
TMCLKL	HY/2012/08	2014-01-03	Mid-Flood	Cloudy	Small Wave	IS12	Middle	7.5	2	2	09:34	17.7	7.81	27.9	6.64	7.51	5.3
TMCLKL	HY/2012/08	2014-01-03	Mid-Flood	Cloudy	Small Wave	IS12	Bottom	14	3	1	09:34	17.6	7.69	28.1	6.72	7.84	5.5
TMCLKL	HY/2012/08	2014-01-03	Mid-Flood	Cloudy	Small Wave	IS12	Bottom	14	3	2	09:34	17.7	7.61	28.1	6.7	7.81	5.4
TMCLKL	HY/2012/08	2014-01-03	Mid-Flood	Cloudy	Small Wave	IS13	Surface	1	1	1	09:14	17.6	7.8	27.9	6.77	7.4	5.4
TMCLKL	HY/2012/08	2014-01-03	Mid-Flood	Cloudy	Small Wave	IS13	Surface	1	1	2	09:14	17.7	7.81	27.8	6.79	7.38	6.2
TMCLKL	HY/2012/08	2014-01-03	Mid-Flood	Cloudy	Small Wave	IS13	Middle	5.9	2	1	09:14	17.7	7.69	28.1	6.58	7.08	5.6
TMCLKL	HY/2012/08	2014-01-03	Mid-Flood	Cloudy	Small Wave	IS13	Middle	5.9	2	2	09:14	17.8	7.71	28	6.59	7.12	6.2
TMCLKL	HY/2012/08	2014-01-03	Mid-Flood	Cloudy	Small Wave	IS13	Bottom	10.8	3	1	09:14	17.7	7.74	28.2	6.44	7.58	6.8
TMCLKL	HY/2012/08	2014-01-03	Mid-Flood	Cloudy	Small Wave	IS13	Bottom	10.8	3	2	09:14	17.6	7.76	28.2	6.41	7.56	5.8
TMCLKL	HY/2012/08	2014-01-03	Mid-Flood	Cloudy	Small Wave	IS14	Surface	1	1	1	09:54	17.8	7.88	27.9	6.72	7.28	5.6
TMCLKL	HY/2012/08	2014-01-03	Mid-Flood	Cloudy	Small Wave	IS14	Surface	1	1	2	09:54	17.8	7.82	27.9	6.76	7.3	4.3
TMCLKL	HY/2012/08	2014-01-03	Mid-Flood	Cloudy	Small Wave	IS14	Middle	8.2	2	1	09:54	17.7	7.92	28	6.59	7.68	4.4
TMCLKL	HY/2012/08	2014-01-03	Mid-Flood	Cloudy	Small Wave	IS14	Middle	8.2	2	2	09:54	17.7	7.96	28	6.61	7.7	5
TMCLKL	HY/2012/08	2014-01-03	Mid-Flood	Cloudy	Small Wave	IS14	Bottom	15.4	3	1	09:54	17.6	7.88	28.1	6.69	7.9	5.6
TMCLKL	HY/2012/08	2014-01-03	Mid-Flood	Cloudy	Small Wave	IS14	Bottom	15.4	3	2	09:54	17.6	7.9	28.1	6.61	7.88	5.4
TMCLKL	HY/2012/08	2014-01-03	Mid-Flood	Cloudy	Small Wave	IS15	Surface	1	1	1	08:54	17.7	7.7	28	6.94	8	5.9

TMCLKL	HY/2012/08	2014-01-03	Mid-Flood	Cloudy	Small Wave	IS15	Surface	1	1	2	08:54	17.6	7.74	28	6.96	7.96	5.4
TMCLKL	HY/2012/08	2014-01-03	Mid-Flood	Cloudy	Small Wave	IS15	Middle	6	2	1	08:54	17.8	7.73	28.1	6.56	7.47	6.2
TMCLKL	HY/2012/08	2014-01-03	Mid-Flood	Cloudy	Small Wave	IS15	Middle	6	2	2	08:54	17.7	7.77	28	6.6	7.43	7.3
TMCLKL	HY/2012/08	2014-01-03	Mid-Flood	Cloudy	Small Wave	IS15	Bottom	11	3	1	08:54	17.6	7.82	28.1	6.39	7.62	5.8
TMCLKL	HY/2012/08	2014-01-03	Mid-Flood	Cloudy	Small Wave	IS15	Bottom	11	3	2	08:54	17.5	7.88	28.2	6.38	7.68	5.4
TMCLKL	HY/2012/08	2014-01-03	Mid-Flood	Cloudy	Small Wave	SR8	Surface	1	1	1	08:14	17.6	7.62	27.9	6.73	8.64	5.3
TMCLKL	HY/2012/08	2014-01-03	Mid-Flood	Cloudy	Small Wave	SR8	Surface	1	1	2	08:14	17.5	7.64	27.8	6.71	8.66	7.1
TMCLKL	HY/2012/08	2014-01-03	Mid-Flood	Cloudy	Small Wave	SR8	Middle		2	1	08:14						
TMCLKL	HY/2012/08	2014-01-03	Mid-Flood	Cloudy	Small Wave	SR8	Middle		2	2	08:14						
TMCLKL	HY/2012/08	2014-01-03	Mid-Flood	Cloudy	Small Wave	SR8	Bottom	4.4	3	1	08:14	17.6	7.72	28	6.62	8.22	7.6
TMCLKL	HY/2012/08	2014-01-03	Mid-Flood	Cloudy	Small Wave	SR8	Bottom	4.4	3	2	08:14	17.5	7.78	28	6.68	8.28	6.3
TMCLKL	HY/2012/08	2014-01-03	Mid-Flood	Cloudy	Small Wave	SR9	Surface	1	1	1	08:34	17.6	7.62	27.8	6.82	8.36	8.4
TMCLKL	HY/2012/08	2014-01-03	Mid-Flood	Cloudy	Small Wave	SR9	Surface	1	1	2	08:34	17.7	7.64	27.9	6.8	8.38	8.7
TMCLKL	HY/2012/08	2014-01-03	Mid-Flood	Cloudy	Small Wave	SR9	Middle		2	1	08:34						
TMCLKL	HY/2012/08	2014-01-03	Mid-Flood	Cloudy	Small Wave	SR9	Middle		2	2	08:34						
TMCLKL	HY/2012/08	2014-01-03	Mid-Flood	Cloudy	Small Wave	SR9	Bottom	4.8	3	1	08:34	17.6	7.71	28	6.49	8.49	8.1
TMCLKL	HY/2012/08	2014-01-03	Mid-Flood	Cloudy	Small Wave	SR9	Bottom	4.8	3	2	08:34	17.6	7.7	28.1	6.41	8.51	7.7
TMCLKL	HY/2012/08	2014-01-03	Mid-Flood	Cloudy	Small Wave	SR10	Surface	1	1	1	07:54	17.5	7.47	28	6.82	7.5	6.6
TMCLKL	HY/2012/08	2014-01-03	Mid-Flood	Cloudy	Small Wave	SR10	Surface	1	1	2	07:54	17.5	7.49	27.9	6.8	7.54	5.9
TMCLKL	HY/2012/08	2014-01-03	Mid-Flood	Cloudy	Small Wave	SR10	Middle	7	2	1	07:54	17.6	7.6	28	6.43	7.66	7
TMCLKL	HY/2012/08	2014-01-03	Mid-Flood	Cloudy	Small Wave	SR10	Middle	7	2	2	07:54	17.5	7.64	28	6.47	7.64	6.1
TMCLKL	HY/2012/08	2014-01-03	Mid-Flood	Cloudy	Small Wave	SR10	Bottom	13	3	1	07:54	17.4	7.7	28	6.5	7.79	7
TMCLKL	HY/2012/08	2014-01-03	Mid-Flood	Cloudy	Small Wave	SR10	Bottom	13	3	2	07:54	17.5	7.74	28.1	6.53	7.81	6.1
TMCLKL	HY/2012/08	2014-01-03	Mid-Ebb	Cloudy	Small Wave	CS4	Surface	1	1	1	12:44	17.8	7.72	27.9	6.3	7.41	6
TMCLKL	HY/2012/08	2014-01-03	Mid-Ebb	Cloudy	Small Wave	CS4	Surface	1	1	2	12:44	17.9	7.76	27.8	6.34	7.43	4.9
TMCLKL	HY/2012/08	2014-01-03	Mid-Ebb	Cloudy	Small Wave	CS4	Middle	11.2	2	1	12:44	17.8	7.82	28	6.52	7.68	5
TMCLKL	HY/2012/08	2014-01-03	Mid-Ebb	Cloudy	Small Wave	CS4	Middle	11.2	2	2	12:44	17.7	7.86	28	6.58	7.7	4.9
TMCLKL	HY/2012/08	2014-01-03	Mid-Ebb	Cloudy	Small Wave	CS4	Bottom	21.4	3	1	12:44	17.6	7.9	28.2	6.22	7.29	5.1
TMCLKL	HY/2012/08	2014-01-03	Mid-Ebb	Cloudy	Small Wave	CS4	Bottom	21.4	3	2	12:44	17.5	7.92	28.2	6.27	7.31	4.9
TMCLKL	HY/2012/08	2014-01-03	Mid-Ebb	Cloudy	Small Wave	CS6	Surface	1	1	1	15:59	17.7	7.7	27.9	6.69	7.16	4.6
TMCLKL	HY/2012/08	2014-01-03	Mid-Ebb	Cloudy	Small Wave	CS6	Surface	1	1	2	15:59	17.7	7.72	28	6.71	7.2	4.6
TMCLKL	HY/2012/08	2014-01-03	Mid-Ebb	Cloudy	Small Wave	CS6	Middle	6.5	2	1	15:59	17.8	7.81	28	6.82	7.42	4.2
TMCLKL	HY/2012/08	2014-01-03	Mid-Ebb	Cloudy	Small Wave	CS6	Middle	6.5	2	2	15:59	17.7	7.85	28	6.83	7.48	5.2
TMCLKL	HY/2012/08	2014-01-03	Mid-Ebb	Cloudy	Small Wave	CS6	Bottom	12	3	1	15:59	17.7	7.9	28.1	6.45	7.62	4.2
TMCLKL	HY/2012/08	2014-01-03	Mid-Ebb	Cloudy	Small Wave	CS6	Bottom	12	3	2	15:59	17.6	7.94	28.1	6.47	7.68	3.9
TMCLKL	HY/2012/08	2014-01-03	Mid-Ebb	Cloudy	Small Wave	IS12	Surface	1	1	1	13:30	17.8	7.74	27.9	6.62	7.02	6
TMCLKL	HY/2012/08	2014-01-03	Mid-Ebb	Cloudy	Small Wave	IS12	Surface	1	1	2	13:30	17.8	7.72	27.9	6.6	7.08	6.7
TMCLKL	HY/2012/08	2014-01-03	Mid-Ebb	Cloudy	Small Wave	IS12	Middle	7.4	2	1	13:30	17.7	7.8	28	6.82	7.24	6.4
TMCLKL	HY/2012/08	2014-01-03	Mid-Ebb	Cloudy	Small Wave	IS12	Middle	7.4	2	2	13:30	17.7	7.79	28	6.8	7.26	7.1
TMCLKL	HY/2012/08	2014-01-03	Mid-Ebb	Cloudy	Small Wave	IS12	Bottom	13.8	3	1	13:30	17.6	7.82	28.1	6.62	7.84	5.8
TMCLKL	HY/2012/08	2014-01-03	Mid-Ebb	Cloudy	Small Wave	IS12	Bottom	13.8	3	2	13:30	17.6	7.88	28.1	6.68	7.8	6.7
TMCLKL	HY/2012/08	2014-01-03	Mid-Ebb	Cloudy	Small Wave	IS13	Surface	1	1	1	13:50	17.8	7.54	27.9	6.58	7.74	4.4
TMCLKL	HY/2012/08	2014-01-03	Mid-Ebb	Cloudy	Small Wave	IS13	Surface	1	1	2	13:50	17.7	7.58	28	6.6	7.76	5.4
TMCLKL	HY/2012/08	2014-01-03	Mid-Ebb	Cloudy	Small Wave	IS13	Middle	5.7	2	1	13:50	17.7	7.62	28	6.42	7.5	4.4
TMCLKL	HY/2012/08	2014-01-03	Mid-Ebb	Cloudy	Small Wave	IS13	Middle	5.7	2	2	13:50	17.7	7.68	28	6.47	7.58	6.4
TMCLKL	HY/2012/08	2014-01-03	Mid-Ebb	Cloudy	Small Wave	IS13	Bottom	10.4	3	1	13:50	17.8	7.7	28.1	6.36	7.3	6
TMCLKL	HY/2012/08	2014-01-03	Mid-Ebb	Cloudy	Small Wave	IS13	Bottom	10.4	3	2	13:50	17.8	7.74	28.1	6.4	7.38	5.5

TMCLKL	HY/2012/08	2014-01-03	Mid-Ebb	Cloudy	Small Wave	IS14	Surface	1	1	1	13:10	17.7	7.5	27.8	6.41	7.17	6.9
TMCLKL	HY/2012/08	2014-01-03	Mid-Ebb	Cloudy	Small Wave	IS14	Surface	1	1	2	13:10	17.8	7.51	27.9	6.47	7.21	7.3
TMCLKL	HY/2012/08	2014-01-03	Mid-Ebb	Cloudy	Small Wave	IS14	Middle	8	2	1	13:10	17.6	7.42	28.1	6.62	7.41	5.6
TMCLKL	HY/2012/08	2014-01-03	Mid-Ebb	Cloudy	Small Wave	IS14	Middle	8	2	2	13:10	17.7	7.48	28	6.68	7.49	5.2
TMCLKL	HY/2012/08	2014-01-03	Mid-Ebb	Cloudy	Small Wave	IS14	Bottom	15	3	1	13:10	17.7	7.67	28.1	6.49	7.63	5.6
TMCLKL	HY/2012/08	2014-01-03	Mid-Ebb	Cloudy	Small Wave	IS14	Bottom	15	3	2	13:10	17.7	7.63	28	6.51	7.67	6.1
TMCLKL	HY/2012/08	2014-01-03	Mid-Ebb	Cloudy	Small Wave	IS15	Surface	1	1	1	14:10	17.6	7.84	27.9	6.72	7.14	4.4
TMCLKL	HY/2012/08	2014-01-03	Mid-Ebb	Cloudy	Small Wave	IS15	Surface	1	1	2	14:10	17.7	7.82	27.9	6.76	7.16	5
TMCLKL	HY/2012/08	2014-01-03	Mid-Ebb	Cloudy	Small Wave	IS15	Middle	5.8	2	1	14:10	17.8	7.76	27.9	6.59	7.32	5
TMCLKL	HY/2012/08	2014-01-03	Mid-Ebb	Cloudy	Small Wave	IS15	Middle	5.8	2	2	14:10	17.7	7.79	28	6.61	7.38	5.6
TMCLKL	HY/2012/08	2014-01-03	Mid-Ebb	Cloudy	Small Wave	IS15	Bottom	10.6	3	1	14:10	17.9	7.82	28	6.42	7.62	5.2
TMCLKL	HY/2012/08	2014-01-03	Mid-Ebb	Cloudy	Small Wave	IS15	Bottom	10.6	3	2	14:10	17.8	7.86	28.1	6.43	7.64	7.2
TMCLKL	HY/2012/08	2014-01-03	Mid-Ebb	Cloudy	Small Wave	SR8	Surface	1	1	1	14:58	17.7	7.55	27.9	6.49	8.47	5.1
TMCLKL	HY/2012/08	2014-01-03	Mid-Ebb	Cloudy	Small Wave	SR8	Surface	1	1	2	14:58	17.7	7.57	28	6.51	8.5	7
TMCLKL	HY/2012/08	2014-01-03	Mid-Ebb	Cloudy	Small Wave	SR8	Middle		2	1	14:58						
TMCLKL	HY/2012/08	2014-01-03	Mid-Ebb	Cloudy	Small Wave	SR8	Middle		2	2	14:58						
TMCLKL	HY/2012/08	2014-01-03	Mid-Ebb	Cloudy	Small Wave	SR8	Bottom	3.8	3	1	14:58	17.8	7.7	28.1	6.28	8.59	6.5
TMCLKL	HY/2012/08	2014-01-03	Mid-Ebb	Cloudy	Small Wave	SR8	Bottom	3.8	3	2	14:58	17.7	7.68	28.1	6.3	8.61	6.5
TMCLKL	HY/2012/08	2014-01-03	Mid-Ebb	Cloudy	Small Wave	SR9	Surface	1	1	1	14:30	17.8	7.79	27.8	6.62	8.08	5.2
TMCLKL	HY/2012/08	2014-01-03	Mid-Ebb	Cloudy	Small Wave	SR9	Surface	1	1	2	14:30	17.7	7.8	27.9	6.68	8.1	5.5
TMCLKL	HY/2012/08	2014-01-03	Mid-Ebb	Cloudy	Small Wave	SR9	Middle		2	1	14:30						
TMCLKL	HY/2012/08	2014-01-03	Mid-Ebb	Cloudy	Small Wave	SR9	Middle		2	2	14:30						
TMCLKL	HY/2012/08	2014-01-03	Mid-Ebb	Cloudy	Small Wave	SR9	Bottom	4	3	1	14:30	17.8	7.8	28	6.24	7.96	7.3
TMCLKL	HY/2012/08	2014-01-03	Mid-Ebb	Cloudy	Small Wave	SR9	Bottom	4	3	2	14:30	17.8	7.84	28	6.3	7.98	6
TMCLKL	HY/2012/08	2014-01-03	Mid-Ebb	Cloudy	Small Wave	SR10	Surface	1	1	1	15:23	17.6	7.3	28	6.88	7.36	5.6
TMCLKL	HY/2012/08	2014-01-03	Mid-Ebb	Cloudy	Small Wave	SR10	Surface	1	1	2	15:23	17.7	7.36	28	6.82	7.38	6.1
TMCLKL	HY/2012/08	2014-01-03	Mid-Ebb	Cloudy	Small Wave	SR10	Middle	6.8	2	1	15:23	17.8	7.5	28.1	6.51	7.62	4.5
TMCLKL	HY/2012/08	2014-01-03	Mid-Ebb	Cloudy	Small Wave	SR10	Middle	6.8	2	2	15:23	17.8	7.53	28	6.58	7.66	6.2
TMCLKL	HY/2012/08	2014-01-03	Mid-Ebb	Cloudy	Small Wave	SR10	Bottom	12.6	3	1	15:23	17.7	7.62	28.1	6.3	7.78	4.9
TMCLKL	HY/2012/08	2014-01-03	Mid-Ebb	Cloudy	Small Wave	SR10	Bottom	12.6	3	2	15:23	17.6	7.68	28.1	6.39	7.79	5.5
TMCLKL	HY/2012/08	2014-01-06	Mid-Flood	Fine	Small Wave	CS4	Surface	1	1	1	12:35	17.9	7.79	27.7	6.64	9.07	7.5
TMCLKL	HY/2012/08	2014-01-06	Mid-Flood	Fine	Small Wave	CS4	Surface	1	1	2	12:35	17.9	7.78	27.7	6.63	9.05	7.2
TMCLKL	HY/2012/08	2014-01-06	Mid-Flood	Fine	Small Wave	CS4	Middle	11.5	2	1	12:35	17.8	7.84	27.8	6.67	8.64	7.9
TMCLKL	HY/2012/08	2014-01-06	Mid-Flood	Fine	Small Wave	CS4	Middle	11.5	2	2	12:35	17.7	7.86	27.9	6.69	8.66	7.1
TMCLKL	HY/2012/08	2014-01-06	Mid-Flood	Fine	Small Wave	CS4	Bottom	22	3	1	12:35	17.7	7.87	27.9	6.54	8.62	8.3
TMCLKL	HY/2012/08	2014-01-06	Mid-Flood	Fine	Small Wave	CS4	Bottom	22	3	2	12:35	17.7	7.89	28	6.56	8.64	7
TMCLKL	HY/2012/08	2014-01-06	Mid-Flood	Fine	Small Wave	CS6	Surface	1	1	1	09:28	18	7.85	27.6	6.77	9.23	7.8
TMCLKL	HY/2012/08	2014-01-06	Mid-Flood	Fine	Small Wave	CS6	Surface	1	1	2	09:28	18	7.87	27.7	6.79	9.25	7.2
TMCLKL	HY/2012/08	2014-01-06	Mid-Flood	Fine	Small Wave	CS6	Middle	6.6	2	1	09:28	17.9	7.9	27.8	6.58	8.9	6.9
TMCLKL	HY/2012/08	2014-01-06	Mid-Flood	Fine	Small Wave	CS6	Middle	6.6	2	2	09:28	17.8	7.91	27.9	6.6	8.92	6
TMCLKL	HY/2012/08	2014-01-06	Mid-Flood	Fine	Small Wave	CS6	Bottom	12.2	3	1	09:28	17.7	7.84	28	6.37	7.84	7.9
TMCLKL	HY/2012/08	2014-01-06	Mid-Flood	Fine	Small Wave	CS6	Bottom	12.2	3	2	09:28	17.6	7.82	27.9	6.39	7.86	6.8
TMCLKL	HY/2012/08	2014-01-06	Mid-Flood	Fine	Small Wave	IS12	Surface	1	1	1	11:36	18	7.84	27.8	6.79	8.42	5.9
TMCLKL	HY/2012/08	2014-01-06	Mid-Flood	Fine	Small Wave	IS12	Surface	1	1	2	11:36	17.9	7.86	27.7	6.8	8.44	6.8
TMCLKL	HY/2012/08	2014-01-06	Mid-Flood	Fine	Small Wave	IS12	Middle	7.5	2	1	11:36	17.7	7.92	27.9	6.62	8.31	6.7
TMCLKL	HY/2012/08	2014-01-06	Mid-Flood	Fine	Small Wave	IS12	Middle	7.5	2	2	11:36	17.8	7.9	27.9	6.64	8.33	6.5
TMCLKL	HY/2012/08	2014-01-06	Mid-Flood	Fine	Small Wave	IS12	Bottom	13.9	3	1	11:36	17.7	7.87	28	6.67	8.99	7.5



TMCLKL	HY/2012/08	2014-01-06	Mid-Flood	Fine	Small Wave	IS12	Bottom	13.9	3	2	11:36	17.6	7.89	28	6.69	9.01	7.1
TMCLKL	HY/2012/08	2014-01-06	Mid-Flood	Fine	Small Wave	IS13	Surface	1	1	1	11:13	17.9	7.87	27.7	6.77	9.13	6.1
TMCLKL	HY/2012/08	2014-01-06	Mid-Flood	Fine	Small Wave	IS13	Surface	1	1	2	11:13	18	7.85	27.7	6.79	9.15	6.8
TMCLKL	HY/2012/08	2014-01-06	Mid-Flood	Fine	Small Wave	IS13	Middle	5.9	2	1	11:13	17.9	7.89	27.8	6.54	8.79	7.3
TMCLKL	HY/2012/08	2014-01-06	Mid-Flood	Fine	Small Wave	IS13	Middle	5.9	2	2	11:13	17.8	7.91	27.8	6.55	8.81	6.7
TMCLKL	HY/2012/08	2014-01-06	Mid-Flood	Fine	Small Wave	IS13	Bottom	10.8	3	1	11:13	17.7	7.73	27.9	6.49	8.81	7.9
TMCLKL	HY/2012/08	2014-01-06	Mid-Flood	Fine	Small Wave	IS13	Bottom	10.8	3	2	11:13	17.8	7.75	28	6.48	8.83	6.1
TMCLKL	HY/2012/08	2014-01-06	Mid-Flood	Fine	Small Wave	IS14	Surface	1	1	1	12:02	18	7.8	27.7	6.72	7.9	6.1
TMCLKL	HY/2012/08	2014-01-06	Mid-Flood	Fine	Small Wave	IS14	Surface	1	1	2	12:02	18	7.82	27.8	6.74	7.89	7.7
TMCLKL	HY/2012/08	2014-01-06	Mid-Flood	Fine	Small Wave	IS14	Middle	8.3	2	1	12:02	17.9	7.89	27.9	6.67	7.52	6.4
TMCLKL	HY/2012/08	2014-01-06	Mid-Flood	Fine	Small Wave	IS14	Middle	8.3	2	2	12:02	17.8	7.87	28	6.69	7.54	5.2
TMCLKL	HY/2012/08	2014-01-06	Mid-Flood	Fine	Small Wave	IS14	Bottom	15.5	3	1	12:02	17.7	7.74	28	6.54	8.57	6.9
TMCLKL	HY/2012/08	2014-01-06	Mid-Flood	Fine	Small Wave	IS14	Bottom	15.5	3	2	12:02	17.7	7.76	28.1	6.56	8.59	7.1
TMCLKL	HY/2012/08	2014-01-06	Mid-Flood	Fine	Small Wave	IS15	Surface	1	1	1	10:52	18	7.92	27.7	6.92	8.84	6.9
TMCLKL	HY/2012/08	2014-01-06	Mid-Flood	Fine	Small Wave	IS15	Surface	1	1	2	10:52	18	7.9	27.8	6.94	8.86	7.3
TMCLKL	HY/2012/08	2014-01-06	Mid-Flood	Fine	Small Wave	IS15	Middle	6	2	1	10:52	17.9	7.86	27.9	6.57	8.06	6.4
TMCLKL	HY/2012/08	2014-01-06	Mid-Flood	Fine	Small Wave	IS15	Middle	6	2	2	10:52	17.9	7.85	27.8	6.59	8.08	6.7
TMCLKL	HY/2012/08	2014-01-06	Mid-Flood	Fine	Small Wave	IS15	Bottom	11	3	1	10:52	17.8	7.81	28	6.42	8.61	7.3
TMCLKL	HY/2012/08	2014-01-06	Mid-Flood	Fine	Small Wave	IS15	Bottom	11	3	2	10:52	17.7	7.79	28	6.4	8.63	6.9
TMCLKL	HY/2012/08	2014-01-06	Mid-Flood	Fine	Small Wave	SR8	Surface	1	1	1	10:22	17.9	7.82	27.8	6.71	8.75	7.6
TMCLKL	HY/2012/08	2014-01-06	Mid-Flood	Fine	Small Wave	SR8	Surface	1	1	2	10:22	17.9	7.84	27.9	6.73	8.77	7.3
TMCLKL	HY/2012/08	2014-01-06	Mid-Flood	Fine	Small Wave	SR8	Middle		2	1	10:22						
TMCLKL	HY/2012/08	2014-01-06	Mid-Flood	Fine	Small Wave	SR8	Middle		2	2	10:22						
TMCLKL	HY/2012/08	2014-01-06	Mid-Flood	Fine	Small Wave	SR8	Bottom	4.4	3	1	10:22	17.8	7.86	28	6.59	8.29	8.2
TMCLKL	HY/2012/08	2014-01-06	Mid-Flood	Fine	Small Wave	SR8	Bottom	4.4	3	2	10:22	17.7	7.88	28	6.61	8.31	8
TMCLKL	HY/2012/08	2014-01-06	Mid-Flood	Fine	Small Wave	SR9	Surface	1	1	1	10:36	18	7.84	27.8	6.84	7.69	7.2
TMCLKL	HY/2012/08	2014-01-06	Mid-Flood	Fine	Small Wave	SR9	Surface	1	1	2	10:36	17.9	7.82	27.8	6.82	7.71	8
TMCLKL	HY/2012/08	2014-01-06	Mid-Flood	Fine	Small Wave	SR9	Middle		2	1	10:36						
TMCLKL	HY/2012/08	2014-01-06	Mid-Flood	Fine	Small Wave	SR9	Middle		2	2	10:36						
TMCLKL	HY/2012/08	2014-01-06	Mid-Flood	Fine	Small Wave	SR9	Bottom	4.8	3	1	10:36	17.8	7.86	27.8	6.49	7.77	8.2
TMCLKL	HY/2012/08	2014-01-06	Mid-Flood	Fine	Small Wave	SR9	Bottom	4.8	3	2	10:36	17.8	7.88	27.9	6.51	7.79	7.3
TMCLKL	HY/2012/08	2014-01-06	Mid-Flood	Fine	Small Wave	SR10	Surface	1	1	1	09:53	18	7.73	27.7	6.82	8.35	6.6
TMCLKL	HY/2012/08	2014-01-06	Mid-Flood	Fine	Small Wave	SR10	Surface	1	1	2	09:53	17.9	7.75	27.8	6.85	8.32	6.2
TMCLKL	HY/2012/08	2014-01-06	Mid-Flood	Fine	Small Wave	SR10	Middle	7	2	1	09:53	17.8	7.82	27.9	6.43	10.1	7.8
TMCLKL	HY/2012/08	2014-01-06	Mid-Flood	Fine	Small Wave	SR10	Middle	7	2	2	09:53	17.8	7.84	27.9	6.45	10	7.6
TMCLKL	HY/2012/08	2014-01-06	Mid-Flood	Fine	Small Wave	SR10	Bottom	13	3	1	09:53	17.7	7.89	28	6.31	9.36	7.8
TMCLKL	HY/2012/08	2014-01-06	Mid-Flood	Fine	Small Wave	SR10	Bottom	13	3	2	09:53	17.6	7.91	28	6.33	9.38	7
TMCLKL	HY/2012/08	2014-01-06	Mid-Ebb	Fine	Small Wave	CS4	Surface	1	1	1	15:15	17.9	7.84	27.6	6.57	9.11	7
TMCLKL	HY/2012/08	2014-01-06	Mid-Ebb	Fine	Small Wave	CS4	Surface	1	1	2	15:15	18	7.86	27.7	6.59	9.13	7.3
TMCLKL	HY/2012/08	2014-01-06	Mid-Ebb	Fine	Small Wave	CS4	Middle	11.4	2	1	15:15	17.8	7.81	27.8	6.64	8.69	7.8
TMCLKL	HY/2012/08	2014-01-06	Mid-Ebb	Fine	Small Wave	CS4	Middle	11.4	2	2	15:15	17.8	7.79	27.8	6.67	8.71	8.3
TMCLKL	HY/2012/08	2014-01-06	Mid-Ebb	Fine	Small Wave	CS4	Bottom	21.8	3	1	15:15	17.7	7.92	27.9	6.51	8.67	7.1
TMCLKL	HY/2012/08	2014-01-06	Mid-Ebb	Fine	Small Wave	CS4	Bottom	21.8	3	2	15:15	17.6	7.94	28	6.49	8.69	6.8
TMCLKL	HY/2012/08	2014-01-06	Mid-Ebb	Fine	Small Wave	CS6	Surface	1	1	1	18:34	18.1	7.76	27.6	6.72	9.27	6.3
TMCLKL	HY/2012/08	2014-01-06	Mid-Ebb	Fine	Small Wave	CS6	Surface	1	1	2	18:34	18	7.78	27.7	6.74	9.27	7
TMCLKL	HY/2012/08	2014-01-06	Mid-Ebb	Fine	Small Wave	CS6	Middle	6.5	2	1	18:34	17.9	7.82	27.8	6.54	8.94	6.4
TMCLKL	HY/2012/08	2014-01-06	Mid-Ebb	Fine	Small Wave	CS6	Middle	6.5	2	2	18:34	17.9	7.84	27.9	6.56	8.96	7.7

TMCLKL	HY/2012/08	2014-01-06	Mid-Ebb	Fine	Small Wave	CS6	Bottom	12	3	1	18:34	17.7	7.92	28	6.32	7.88	6.2
TMCLKL	HY/2012/08	2014-01-06	Mid-Ebb	Fine	Small Wave	CS6	Bottom	12	3	2	18:34	17.8	7.9	27.9	6.34	7.89	7.3
TMCLKL	HY/2012/08	2014-01-06	Mid-Ebb	Fine	Small Wave	IS12	Surface	1	1	1	16:02	18	7.82	27.7	6.74	8.47	6.7
TMCLKL	HY/2012/08	2014-01-06	Mid-Ebb	Fine	Small Wave	IS12	Surface	1	1	2	16:02	17.9	7.84	27.8	6.76	8.49	7.3
TMCLKL	HY/2012/08	2014-01-06	Mid-Ebb	Fine	Small Wave	IS12	Middle	7.4	2	1	16:02	17.7	7.87	27.9	6.55	8.36	7.2
TMCLKL	HY/2012/08	2014-01-06	Mid-Ebb	Fine	Small Wave	IS12	Middle	7.4	2	2	16:02	17.8	7.89	27.9	6.57	8.38	6.1
TMCLKL	HY/2012/08	2014-01-06	Mid-Ebb	Fine	Small Wave	IS12	Bottom	13.7	3	1	16:02	17.7	7.79	28	6.64	9.04	5.8
TMCLKL	HY/2012/08	2014-01-06	Mid-Ebb	Fine	Small Wave	IS12	Bottom	13.7	3	2	16:02	17.6	7.8	27.9	6.62	9.06	5.6
TMCLKL	HY/2012/08	2014-01-06	Mid-Ebb	Fine	Small Wave	IS13	Surface	1	1	1	16:25	17.9	7.79	27.7	6.72	9.17	6.7
TMCLKL	HY/2012/08	2014-01-06	Mid-Ebb	Fine	Small Wave	IS13	Surface	1	1	2	16:25	17.9	7.77	27.7	6.74	9.19	6.3
TMCLKL	HY/2012/08	2014-01-06	Mid-Ebb	Fine	Small Wave	IS13	Middle	5.8	2	1	16:25	17.8	7.84	27.8	6.52	8.84	6.3
TMCLKL	HY/2012/08	2014-01-06	Mid-Ebb	Fine	Small Wave	IS13	Middle	5.8	2	2	16:25	17.7	7.86	27.9	6.5	8.86	5.5
TMCLKL	HY/2012/08	2014-01-06	Mid-Ebb	Fine	Small Wave	IS13	Bottom	10.6	3	1	16:25	17.6	7.92	28	6.4	8.87	7.8
TMCLKL	HY/2012/08	2014-01-06	Mid-Ebb	Fine	Small Wave	IS13	Bottom	10.6	3	2	16:25	17.7	7.9	28	6.38	8.89	7.7
TMCLKL	HY/2012/08	2014-01-06	Mid-Ebb	Fine	Small Wave	IS14	Surface	1	1	1	15:39	18	7.8	27.7	6.66	7.93	5.9
TMCLKL	HY/2012/08	2014-01-06	Mid-Ebb	Fine	Small Wave	IS14	Surface	1	1	2	15:39	18	7.79	27.7	6.68	7.95	6.4
TMCLKL	HY/2012/08	2014-01-06	Mid-Ebb	Fine	Small Wave	IS14	Middle	8.1	2	1	15:39	17.9	7.84	27.8	6.58	7.58	6.8
TMCLKL	HY/2012/08	2014-01-06	Mid-Ebb	Fine	Small Wave	IS14	Middle	8.1	2	2	15:39	17.8	7.86	27.9	6.59	7.6	7
TMCLKL	HY/2012/08	2014-01-06	Mid-Ebb	Fine	Small Wave	IS14	Bottom	15.2	3	1	15:39	17.7	7.91	28	6.47	8.62	6.3
TMCLKL	HY/2012/08	2014-01-06	Mid-Ebb	Fine	Small Wave	IS14	Bottom	15.2	3	2	15:39	17.8	7.89	28	6.49	8.64	6.3
TMCLKL	HY/2012/08	2014-01-06	Mid-Ebb	Fine	Small Wave	IS15	Surface	1	1	1	16:48	18	7.74	27.7	6.87	8.87	7.7
TMCLKL	HY/2012/08	2014-01-06	Mid-Ebb	Fine	Small Wave	IS15	Surface	1	1	2	16:48	18	7.76	27.8	6.89	8.89	7.3
TMCLKL	HY/2012/08	2014-01-06	Mid-Ebb	Fine	Small Wave	IS15	Middle	5.9	2	1	16:48	17.9	7.81	27.9	6.52	8.11	7.6
TMCLKL	HY/2012/08	2014-01-06	Mid-Ebb	Fine	Small Wave	IS15	Middle	5.9	2	2	16:48	17.8	7.83	27.9	6.54	8.12	7.7
TMCLKL	HY/2012/08	2014-01-06	Mid-Ebb	Fine	Small Wave	IS15	Bottom	10.8	3	1	16:48	17.7	7.87	28	6.34	8.67	7
TMCLKL	HY/2012/08	2014-01-06	Mid-Ebb	Fine	Small Wave	IS15	Bottom	10.8	3	2	16:48	17.7	7.89	27.9	6.36	8.69	6.7
TMCLKL	HY/2012/08	2014-01-06	Mid-Ebb	Fine	Small Wave	SR8	Surface	1	1	1	17:27	18	7.83	27.7	6.68	8.79	7.9
TMCLKL	HY/2012/08	2014-01-06	Mid-Ebb	Fine	Small Wave	SR8	Surface	1	1	2	17:27	18	7.84	27.8	6.66	8.81	6.6
TMCLKL	HY/2012/08	2014-01-06	Mid-Ebb	Fine	Small Wave	SR8	Middle		2	1	17:27						
TMCLKL	HY/2012/08	2014-01-06	Mid-Ebb	Fine	Small Wave	SR8	Middle		2	2	17:27						
TMCLKL	HY/2012/08	2014-01-06	Mid-Ebb	Fine	Small Wave	SR8	Bottom	4.2	3	1	17:27	17.8	7.88	27.9	6.54	8.34	7.2
TMCLKL	HY/2012/08	2014-01-06	Mid-Ebb	Fine	Small Wave	SR8	Bottom	4.2	3	2	17:27	17.7	7.9	27.8	6.5	8.36	7
TMCLKL	HY/2012/08	2014-01-06	Mid-Ebb	Fine	Small Wave	SR9	Surface	1	1	1	17:09	18.1	7.8	27.8	6.77	7.74	7.2
TMCLKL	HY/2012/08	2014-01-06	Mid-Ebb	Fine	Small Wave	SR9	Surface	1	1	2	17:09	18	7.78	27.9	6.79	7.76	7.2
TMCLKL	HY/2012/08	2014-01-06	Mid-Ebb	Fine	Small Wave	SR9	Middle		2	1	17:09						
TMCLKL	HY/2012/08	2014-01-06	Mid-Ebb	Fine	Small Wave	SR9	Middle		2	2	17:09						
TMCLKL	HY/2012/08	2014-01-06	Mid-Ebb	Fine	Small Wave	SR9	Bottom	4.6	3	1	17:09	17.9	7.84	28	6.44	7.82	7.2
TMCLKL	HY/2012/08	2014-01-06	Mid-Ebb	Fine	Small Wave	SR9	Bottom	4.6	3	2	17:09	17.8	7.86	28	6.46	7.83	6.6
TMCLKL	HY/2012/08	2014-01-06	Mid-Ebb	Fine	Small Wave	SR10	Surface	1	1	1	18:00	17.9	7.8	27.7	6.77	8.39	6.4
TMCLKL	HY/2012/08	2014-01-06	Mid-Ebb	Fine	Small Wave	SR10	Surface	1	1	2	18:00	18	7.82	27.8	6.79	8.41	7.2
TMCLKL	HY/2012/08	2014-01-06	Mid-Ebb	Fine	Small Wave	SR10	Middle	6.9	2	1	18:00	17.8	7.76	27.8	6.4	10.2	7.8
TMCLKL	HY/2012/08	2014-01-06	Mid-Ebb	Fine	Small Wave	SR10	Middle	6.9	2	2	18:00	17.8	7.77	27.9	6.38	10.4	7.3
TMCLKL	HY/2012/08	2014-01-06	Mid-Ebb	Fine	Small Wave	SR10	Bottom	12.7	3	1	18:00	17.7	7.85	28	6.24	9.42	6.6
TMCLKL	HY/2012/08	2014-01-06	Mid-Ebb	Fine	Small Wave	SR10	Bottom	12.7	3	2	18:00	17.6	7.87	28	6.28	9.44	7.3
TMCLKL	HY/2012/08	2014-01-08	Mid-Flood	Cloudy	Small Wave	CS4	Surface	1	1	1	14:01	17.7	7.68	26.7	7.41	4.11	3.3
TMCLKL	HY/2012/08	2014-01-08	Mid-Flood	Cloudy	Small Wave	CS4	Surface	1	1	2	14:01	17.7	7.62	26.7	7.43	4.19	4
TMCLKL	HY/2012/08	2014-01-08	Mid-Flood	Cloudy	Small Wave	CS4	Middle	10.2	2	1	14:01	17.8	7.77	26.7	7.72	4.51	3.7



TMCLKL	HY/2012/08	2014-01-08	Mid-Flood	Cloudy	Small Wave	CS4	Middle	10.2	2	2	14:01	17.8	7.79	26.7	7.7	4.59	2.2
TMCLKL	HY/2012/08	2014-01-08	Mid-Flood	Cloudy	Small Wave	CS4	Bottom	21.4	3	1	14:01	17.9	7.84	26.8	7.63	4.08	3.3
TMCLKL	HY/2012/08	2014-01-08	Mid-Flood	Cloudy	Small Wave	CS4	Bottom	21.4	3	2	14:01	17.9	7.82	26.7	7.61	4.02	3.3
TMCLKL	HY/2012/08	2014-01-08	Mid-Flood	Cloudy	Small Wave	CS6	Surface	1	1	1	10:57	17.5	7.9	26.6	7.26	4.72	3.2
TMCLKL	HY/2012/08	2014-01-08	Mid-Flood	Cloudy	Small Wave	CS6	Surface	1	1	2	10:57	17.6	7.92	26.6	7.28	4.8	3.5
TMCLKL	HY/2012/08	2014-01-08	Mid-Flood	Cloudy	Small Wave	CS6	Middle	6.7	2	1	10:57	17.7	7.82	26.7	7.47	4.62	3.1
TMCLKL	HY/2012/08	2014-01-08	Mid-Flood	Cloudy	Small Wave	CS6	Middle	6.7	2	2	10:57	17.7	7.83	26.7	7.43	4.68	3.8
TMCLKL	HY/2012/08	2014-01-08	Mid-Flood	Cloudy	Small Wave	CS6	Bottom	12.4	3	1	10:57	17.8	7.71	26.7	7.29	4.79	3.2
TMCLKL	HY/2012/08	2014-01-08	Mid-Flood	Cloudy	Small Wave	CS6	Bottom	12.4	3	2	10:57	17.7	7.73	26.8	7.32	4.71	4
TMCLKL	HY/2012/08	2014-01-08	Mid-Flood	Cloudy	Small Wave	IS12	Surface	1	1	1	12:59	17.7	7.93	26.6	7.3	4.04	5.1
TMCLKL	HY/2012/08	2014-01-08	Mid-Flood	Cloudy	Small Wave	IS12	Surface	1	1	2	12:59	17.6	7.9	26.5	7.38	4.06	5.4
TMCLKL	HY/2012/08	2014-01-08	Mid-Flood	Cloudy	Small Wave	IS12	Middle	7.5	2	1	12:59	17.7	7.79	26.7	7.62	4.29	4.2
TMCLKL	HY/2012/08	2014-01-08	Mid-Flood	Cloudy	Small Wave	IS12	Middle	7.5	2	2	12:59	17.7	7.8	26.7	7.7	4.21	5.2
TMCLKL	HY/2012/08	2014-01-08	Mid-Flood	Cloudy	Small Wave	IS12	Bottom	14	3	1	12:59	17.9	7.88	26.7	7.57	4.98	4.7
TMCLKL	HY/2012/08	2014-01-08	Mid-Flood	Cloudy	Small Wave	IS12	Bottom	14	3	2	12:59	17.8	7.82	26.7	7.53	5.02	5.9
TMCLKL	HY/2012/08	2014-01-08	Mid-Flood	Cloudy	Small Wave	IS13	Surface	1	1	1	12:39	17.6	7.74	26.6	7.62	4.42	5
TMCLKL	HY/2012/08	2014-01-08	Mid-Flood	Cloudy	Small Wave	IS13	Surface	1	1	2	12:39	17.6	7.76	26.6	7.68	4.4	4.5
TMCLKL	HY/2012/08	2014-01-08	Mid-Flood	Cloudy	Small Wave	IS13	Middle	5.9	2	1	12:39	17.6	7.82	26.7	7.56	4.62	4.5
TMCLKL	HY/2012/08	2014-01-08	Mid-Flood	Cloudy	Small Wave	IS13	Middle	5.9	2	2	12:39	17.6	7.83	26.7	7.6	4.68	4.9
TMCLKL	HY/2012/08	2014-01-08	Mid-Flood	Cloudy	Small Wave	IS13	Bottom	10.8	3	1	12:39	17.7	7.72	26.7	7.29	4.93	6
TMCLKL	HY/2012/08	2014-01-08	Mid-Flood	Cloudy	Small Wave	IS13	Bottom	10.8	3	2	12:39	17.7	7.78	26.7	7.21	4.97	6.5
TMCLKL	HY/2012/08	2014-01-08	Mid-Flood	Cloudy	Small Wave	IS14	Surface	1	1	1	13:25	17.6	7.87	26.7	7.62	3.94	4.5
TMCLKL	HY/2012/08	2014-01-08	Mid-Flood	Cloudy	Small Wave	IS14	Surface	1	1	2	13:25	17.6	7.83	26.6	7.6	3.96	5.8
TMCLKL	HY/2012/08	2014-01-08	Mid-Flood	Cloudy	Small Wave	IS14	Middle	8.2	2	1	13:25	17.7	7.93	26.7	7.4	4.48	5.4
TMCLKL	HY/2012/08	2014-01-08	Mid-Flood	Cloudy	Small Wave	IS14	Middle	8.2	2	2	13:25	17.8	7.96	26.7	7.36	4.42	5.2
TMCLKL	HY/2012/08	2014-01-08	Mid-Flood	Cloudy	Small Wave	IS14	Bottom	15.4	3	1	13:25	17.8	7.72	26.7	7.43	4.1	5.3
TMCLKL	HY/2012/08	2014-01-08	Mid-Flood	Cloudy	Small Wave	IS14	Bottom	15.4	3	2	13:25	17.8	7.78	26.7	7.45	4.14	7
TMCLKL	HY/2012/08	2014-01-08	Mid-Flood	Cloudy	Small Wave	IS15	Surface	1	1	1	12:19	17.7	7.86	26.6	7.47	4.27	3.1
TMCLKL	HY/2012/08	2014-01-08	Mid-Flood	Cloudy	Small Wave	IS15	Surface	1	1	2	12:19	17.6	7.88	26.5	7.45	4.29	3.9
TMCLKL	HY/2012/08	2014-01-08	Mid-Flood	Cloudy	Small Wave	IS15	Middle	6	2	1	12:19	17.6	7.92	26.6	7.6	4.44	3.7
TMCLKL	HY/2012/08	2014-01-08	Mid-Flood	Cloudy	Small Wave	IS15	Middle	6	2	2	12:19	17.6	7.94	26.7	7.62	4.41	4.2
TMCLKL	HY/2012/08	2014-01-08	Mid-Flood	Cloudy	Small Wave	IS15	Bottom	11	3	1	12:19	17.7	7.5	26.7	7.3	4.81	3.5
TMCLKL	HY/2012/08	2014-01-08	Mid-Flood	Cloudy	Small Wave	IS15	Bottom	11	3	2	12:19	17.7	7.58	26.7	7.28	4.89	3.2
TMCLKL	HY/2012/08	2014-01-08	Mid-Flood	Cloudy	Small Wave	SR8	Surface	1	1	1	11:47	17.6	7.46	26.5	7.47	5.07	2.5
TMCLKL	HY/2012/08	2014-01-08	Mid-Flood	Cloudy	Small Wave	SR8	Surface	1	1	2	11:47	17.6	7.5	26.6	7.48	5.1	2.5
TMCLKL	HY/2012/08	2014-01-08	Mid-Flood	Cloudy	Small Wave	SR8	Middle		2	1	11:47						
TMCLKL	HY/2012/08	2014-01-08	Mid-Flood	Cloudy	Small Wave	SR8	Middle		2	2	11:47						
TMCLKL	HY/2012/08	2014-01-08	Mid-Flood	Cloudy	Small Wave	SR8	Bottom	3.8	3	1	11:47	17.7	7.62	26.7	7.3	5.41	3
TMCLKL	HY/2012/08	2014-01-08	Mid-Flood	Cloudy	Small Wave	SR8	Bottom	3.8	3	2	11:47	17.7	7.7	26.7	7.34	5.49	2.7
TMCLKL	HY/2012/08	2014-01-08	Mid-Flood	Cloudy	Small Wave	SR9	Surface	1	1	1	11:59	17.6	7.9	26.6	7.62	5.14	3.2
TMCLKL	HY/2012/08	2014-01-08	Mid-Flood	Cloudy	Small Wave	SR9	Surface	1	1	2	11:59	17.6	7.93	26.5	7.6	5.16	2.5
TMCLKL	HY/2012/08	2014-01-08	Mid-Flood	Cloudy	Small Wave	SR9	Middle		2	1	11:59						
TMCLKL	HY/2012/08	2014-01-08	Mid-Flood	Cloudy	Small Wave	SR9	Middle		2	2	11:59						
TMCLKL	HY/2012/08	2014-01-08	Mid-Flood	Cloudy	Small Wave	SR9	Bottom	4.2	3	1	11:59	17.7	7.91	26.6	7.7	5.49	2.8
TMCLKL	HY/2012/08	2014-01-08	Mid-Flood	Cloudy	Small Wave	SR9	Bottom	4.2	3	2	11:59	17.7	7.95	26.7	7.74	5.41	2.5
TMCLKL	HY/2012/08	2014-01-08	Mid-Flood	Cloudy	Small Wave	SR10	Surface	1	1	1	11:27	17.6	7.82	26.5	7.63	4.59	3.6
TMCLKL	HY/2012/08	2014-01-08	Mid-Flood	Cloudy	Small Wave	SR10	Surface	1	1	2	11:27	17.5	7.88	26.6	7.6	4.61	3.3

TMCLKL	HY/2012/08	2014-01-08	Mid-Flood	Cloudy	Small Wave	SR10	Middle	7	2	1	11:27	17.6	7.8	26.6	7.42	4.82	4.9
TMCLKL	HY/2012/08	2014-01-08	Mid-Flood	Cloudy	Small Wave	SR10	Middle	7	2	2	11:27	17.7	7.82	26.6	7.48	4.8	3.3
TMCLKL	HY/2012/08	2014-01-08	Mid-Flood	Cloudy	Small Wave	SR10	Bottom	13	3	1	11:27	17.8	7.42	26.7	7.68	4.43	4.2
TMCLKL	HY/2012/08	2014-01-08	Mid-Flood	Cloudy	Small Wave	SR10	Bottom	13	3	2	11:27	17.7	7.4	26.7	7.7	4.47	4
TMCLKL	HY/2012/08	2014-01-08	Mid-Ebb	Cloudy	Small Wave	CS4	Surface	1	1	1	17:35	17.6	7.88	26.7	7.28	4.29	3.8
TMCLKL	HY/2012/08	2014-01-08	Mid-Ebb	Cloudy	Small Wave	CS4	Surface	1	1	2	17:35	17.7	7.9	26.6	7.22	4.3	3.8
TMCLKL	HY/2012/08	2014-01-08	Mid-Ebb	Cloudy	Small Wave	CS4	Middle	10.9	2	1	17:35	17.6	7.49	26.8	7.08	4.1	4.1
TMCLKL	HY/2012/08	2014-01-08	Mid-Ebb	Cloudy	Small Wave	CS4	Middle	10.9	2	2	17:35	17.6	7.48	26.7	7.1	4.14	4.2
TMCLKL	HY/2012/08	2014-01-08	Mid-Ebb	Cloudy	Small Wave	CS4	Bottom	20.8	3	1	17:35	17.7	7.51	26.8	7.19	3.89	4.2
TMCLKL	HY/2012/08	2014-01-08	Mid-Ebb	Cloudy	Small Wave	CS4	Bottom	20.8	3	2	17:35	17.6	7.59	26.8	7.21	3.91	3.8
TMCLKL	HY/2012/08	2014-01-08	Mid-Ebb	Cloudy	Small Wave	CS6	Surface	1	1	1	20:51	17.7	7.87	27.4	7.23	4.91	3.3
TMCLKL	HY/2012/08	2014-01-08	Mid-Ebb	Cloudy	Small Wave	CS6	Surface	1	1	2	20:51	17.6	7.88	27.3	7.28	4.99	3.9
TMCLKL	HY/2012/08	2014-01-08	Mid-Ebb	Cloudy	Small Wave	CS6	Middle	6.5	2	1	20:51	17.5	7.91	27.1	7.44	4.36	3.6
TMCLKL	HY/2012/08	2014-01-08	Mid-Ebb	Cloudy	Small Wave	CS6	Middle	6.5	2	2	20:51	17.4	7.98	27.2	7.4	4.4	4.5
TMCLKL	HY/2012/08	2014-01-08	Mid-Ebb	Cloudy	Small Wave	CS6	Bottom	12	3	1	20:51	17.6	7.94	27.3	7.48	4.2	4.7
TMCLKL	HY/2012/08	2014-01-08	Mid-Ebb	Cloudy	Small Wave	CS6	Bottom	12	3	2	20:51	17.6	7.96	27.4	7.5	4.24	4.2
TMCLKL	HY/2012/08	2014-01-08	Mid-Ebb	Cloudy	Small Wave	IS12	Surface	1	1	1	18:22	17.6	7.82	26.5	7.18	4.17	3.8
TMCLKL	HY/2012/08	2014-01-08	Mid-Ebb	Cloudy	Small Wave	IS12	Surface	1	1	2	18:22	17.7	7.81	26.6	7.19	4.13	2.6
TMCLKL	HY/2012/08	2014-01-08	Mid-Ebb	Cloudy	Small Wave	IS12	Middle	7.3	2	1	18:22	17.6	7.92	26.7	7.2	4.6	4.3
TMCLKL	HY/2012/08	2014-01-08	Mid-Ebb	Cloudy	Small Wave	IS12	Middle	7.3	2	2	18:22	17.6	7.9	26.7	7.27	4.5	5.1
TMCLKL	HY/2012/08	2014-01-08	Mid-Ebb	Cloudy	Small Wave	IS12	Bottom	13.6	3	1	18:22	17.7	7.94	26.7	7.1	4.17	5.5
TMCLKL	HY/2012/08	2014-01-08	Mid-Ebb	Cloudy	Small Wave	IS12	Bottom	13.6	3	2	18:22	17.7	7.96	26.7	7.14	4.11	7
TMCLKL	HY/2012/08	2014-01-08	Mid-Ebb	Cloudy	Small Wave	IS13	Surface	1	1	1	18:45	17.7	7.88	26.6	7.31	4.52	3.6
TMCLKL	HY/2012/08	2014-01-08	Mid-Ebb	Cloudy	Small Wave	IS13	Surface	1	1	2	18:45	17.7	7.9	26.7	7.32	4.58	5
TMCLKL	HY/2012/08	2014-01-08	Mid-Ebb	Cloudy	Small Wave	IS13	Middle	5.7	2	1	18:45	17.6	7.93	26.8	7.2	4.15	3.1
TMCLKL	HY/2012/08	2014-01-08	Mid-Ebb	Cloudy	Small Wave	IS13	Middle	5.7	2	2	18:45	17.6	7.9	26.8	7.18	4.11	4
TMCLKL	HY/2012/08	2014-01-08	Mid-Ebb	Cloudy	Small Wave	IS13	Bottom	10.4	3	1	18:45	17.6	7.97	26.8	7.27	4.2	5.5
TMCLKL	HY/2012/08	2014-01-08	Mid-Ebb	Cloudy	Small Wave	IS13	Bottom	10.4	3	2	18:45	17.7	7.98	26.8	7.29	4.24	5
TMCLKL	HY/2012/08	2014-01-08	Mid-Ebb	Cloudy	Small Wave	IS14	Surface	1	1	1	18:00	17.7	7.64	26.6	7.36	4.36	5.1
TMCLKL	HY/2012/08	2014-01-08	Mid-Ebb	Cloudy	Small Wave	IS14	Surface	1	1	2	18:00	17.7	7.66	26.6	7.33	4.4	4.6
TMCLKL	HY/2012/08	2014-01-08	Mid-Ebb	Cloudy	Small Wave	IS14	Middle	8	2	1	18:00	17.6	7.81	26.7	7.17	4.61	5.1
TMCLKL	HY/2012/08	2014-01-08	Mid-Ebb	Cloudy	Small Wave	IS14	Middle	8	2	2	18:00	17.6	7.83	26.7	7.19	4.69	3.9
TMCLKL	HY/2012/08	2014-01-08	Mid-Ebb	Cloudy	Small Wave	IS14	Bottom	15	3	1	18:00	17.7	7.88	26.8	7.01	4.04	3.2
TMCLKL	HY/2012/08	2014-01-08	Mid-Ebb	Cloudy	Small Wave	IS14	Bottom	15	3	2	18:00	17.7	7.84	26.8	7.09	4.06	4.1
TMCLKL	HY/2012/08	2014-01-08	Mid-Ebb	Cloudy	Small Wave	IS15	Surface	1	1	1	19:05	17.7	7.72	26.7	7.24	4.41	2.4
TMCLKL	HY/2012/08	2014-01-08	Mid-Ebb	Cloudy	Small Wave	IS15	Surface	1	1	2	19:05	17.6	7.7	26.7	7.2	4.4	4.3
TMCLKL	HY/2012/08	2014-01-08	Mid-Ebb	Cloudy	Small Wave	IS15	Middle	5.9	2	1	19:05	17.6	7.83	26.7	7.19	4.22	3.2
TMCLKL	HY/2012/08	2014-01-08	Mid-Ebb	Cloudy	Small Wave	IS15	Middle	5.9	2	2	19:05	17.6	7.87	26.8	7.11	4.28	2.9
TMCLKL	HY/2012/08	2014-01-08	Mid-Ebb	Cloudy	Small Wave	IS15	Bottom	10.8	3	1	19:05	17.6	7.68	26.8	7.27	4.3	5.2
TMCLKL	HY/2012/08	2014-01-08	Mid-Ebb	Cloudy	Small Wave	IS15	Bottom	10.8	3	2	19:05	17.6	7.69	26.8	7.23	4.34	5.3
TMCLKL	HY/2012/08	2014-01-08	Mid-Ebb	Cloudy	Small Wave	SR8	Surface	1	1	1	19:50	17.5	7.82	27	7.68	4.12	3.5
TMCLKL	HY/2012/08	2014-01-08	Mid-Ebb	Cloudy	Small Wave	SR8	Surface	1	1	2	19:50	17.6	7.82	27.4	7.64	4.1	2.8
TMCLKL	HY/2012/08	2014-01-08	Mid-Ebb	Cloudy	Small Wave	SR8	Middle		2	1	19:50						
TMCLKL	HY/2012/08	2014-01-08	Mid-Ebb	Cloudy	Small Wave	SR8	Middle		2	2	19:50						
TMCLKL	HY/2012/08	2014-01-08	Mid-Ebb	Cloudy	Small Wave	SR8	Bottom	3.6	3	1	19:50	17.6	7.9	27.4	7.29	4.9	2.9
TMCLKL	HY/2012/08	2014-01-08	Mid-Ebb	Cloudy	Small Wave	SR8	Bottom	3.6	3	2	19:50	17.6	7.94	27.4	7.21	4.88	3.2
TMCLKL	HY/2012/08	2014-01-08	Mid-Ebb	Cloudy	Small Wave	SR9	Surface	1	1	1	19:25	17.7	7.83	26.6	7.29	5.11	3.8

TMCLKL	HY/2012/08	2014-01-08	Mid-Ebb	Cloudy	Small Wave	SR9	Surface	1	1	2	19:25	17.7	7.87	26.6	7.3	5.09	3.5
TMCLKL	HY/2012/08	2014-01-08	Mid-Ebb	Cloudy	Small Wave	SR9	Middle		2	1	19:25						
TMCLKL	HY/2012/08	2014-01-08	Mid-Ebb	Cloudy	Small Wave	SR9	Middle		2	2	19:25						
TMCLKL	HY/2012/08	2014-01-08	Mid-Ebb	Cloudy	Small Wave	SR9	Bottom	4	3	1	19:25	17.6	7.68	26.7	7.14	5.2	3.1
TMCLKL	HY/2012/08	2014-01-08	Mid-Ebb	Cloudy	Small Wave	SR9	Bottom	4	3	2	19:25	17.6	7.72	26.8	7.16	5.28	2.6
TMCLKL	HY/2012/08	2014-01-08	Mid-Ebb	Cloudy	Small Wave	SR10	Surface	1	1	1	20:16	17.6	7.94	27	7.4	4.2	3.6
TMCLKL	HY/2012/08	2014-01-08	Mid-Ebb	Cloudy	Small Wave	SR10	Surface	1	1	2	20:16	17.6	7.93	26.9	7.48	4.24	4.9
TMCLKL	HY/2012/08	2014-01-08	Mid-Ebb	Cloudy	Small Wave	SR10	Middle	6.8	2	1	20:16	17.5	7.88	27.1	7.36	4.72	4.3
TMCLKL	HY/2012/08	2014-01-08	Mid-Ebb	Cloudy	Small Wave	SR10	Middle	6.8	2	2	20:16	17.4	7.8	27	7.32	4.73	5.4
TMCLKL	HY/2012/08	2014-01-08	Mid-Ebb	Cloudy	Small Wave	SR10	Bottom	12.6	3	1	20:16	17.6	7.78	27.2	7.5	4.69	4.8
TMCLKL	HY/2012/08	2014-01-08	Mid-Ebb	Cloudy	Small Wave	SR10	Bottom	12.6	3	2	20:16	17.5	7.8	27.3	7.54	4.61	6.2
TMCLKL	HY/2012/08	2014-01-10	Mid-Flood	Cloudy	Small Wave	CS4	Surface	1	1	1	15:44	19.1	7.76	27.1	6.64	6.1	3.6
TMCLKL	HY/2012/08	2014-01-10	Mid-Flood	Cloudy	Small Wave	CS4	Surface	1	1	2	15:44	19.2	7.78	27.1	6.67	6.08	4.4
TMCLKL	HY/2012/08	2014-01-10	Mid-Flood	Cloudy	Small Wave	CS4	Middle	11.5	2	1	15:44	19.3	7.84	27.2	6.71	4.54	2.1
TMCLKL	HY/2012/08	2014-01-10	Mid-Flood	Cloudy	Small Wave	CS4	Middle	11.5	2	2	15:44	19.3	7.82	27.3	6.73	4.56	3.7
TMCLKL	HY/2012/08	2014-01-10	Mid-Flood	Cloudy	Small Wave	CS4	Bottom	22	3	1	15:44	19.4	7.69	27.4	6.57	3.43	3
TMCLKL	HY/2012/08	2014-01-10	Mid-Flood	Cloudy	Small Wave	CS4	Bottom	22	3	2	15:44	19.5	7.71	27.5	6.59	3.45	4
TMCLKL	HY/2012/08	2014-01-10	Mid-Flood	Cloudy	Small Wave	CS6	Surface	1	1	1	12:28	19	7.6	27	6.84	5.3	3.5
TMCLKL	HY/2012/08	2014-01-10	Mid-Flood	Cloudy	Small Wave	CS6	Surface	1	1	2	12:28	19	7.62	27.1	6.86	5.32	4.1
TMCLKL	HY/2012/08	2014-01-10	Mid-Flood	Cloudy	Small Wave	CS6	Middle	6.6	2	1	12:28	19.1	7.76	27.2	6.59	4.75	4.2
TMCLKL	HY/2012/08	2014-01-10	Mid-Flood	Cloudy	Small Wave	CS6	Middle	6.6	2	2	12:28	19.2	7.78	27.3	6.61	4.77	3.8
TMCLKL	HY/2012/08	2014-01-10	Mid-Flood	Cloudy	Small Wave	CS6	Bottom	12.2	3	1	12:28	19.3	7.84	27.4	6.43	4.69	3.5
TMCLKL	HY/2012/08	2014-01-10	Mid-Flood	Cloudy	Small Wave	CS6	Bottom	12.2	3	2	12:28	19.4	7.85	27.5	6.45	4.71	3.8
TMCLKL	HY/2012/08	2014-01-10	Mid-Flood	Cloudy	Small Wave	IS12	Surface	1	1	1	14:57	19	7.64	27	6.79	4.7	4
TMCLKL	HY/2012/08	2014-01-10	Mid-Flood	Cloudy	Small Wave	IS12	Surface	1	1	2	14:57	19.1	7.66	27	6.81	4.72	3.2
TMCLKL	HY/2012/08	2014-01-10	Mid-Flood	Cloudy	Small Wave	IS12	Middle	7.5	2	1	14:57	19.2	7.74	27.1	6.62	5.12	3.7
TMCLKL	HY/2012/08	2014-01-10	Mid-Flood	Cloudy	Small Wave	IS12	Middle	7.5	2	2	14:57	19.2	7.72	27.2	6.64	5.14	3.9
TMCLKL	HY/2012/08	2014-01-10	Mid-Flood	Cloudy	Small Wave	IS12	Bottom	14	3	1	14:57	19.3	7.69	27.3	6.69	3.95	3.8
TMCLKL	HY/2012/08	2014-01-10	Mid-Flood	Cloudy	Small Wave	IS12	Bottom	14	3	2	14:57	19.4	7.71	27.3	6.71	3.97	3.6
TMCLKL	HY/2012/08	2014-01-10	Mid-Flood	Cloudy	Small Wave	IS13	Surface	1	1	1	14:34	19	7.71	27.1	6.75	3.85	2.7
TMCLKL	HY/2012/08	2014-01-10	Mid-Flood	Cloudy	Small Wave	IS13	Surface	1	1	2	14:34	19	7.69	27.1	6.77	3.87	2.9
TMCLKL	HY/2012/08	2014-01-10	Mid-Flood	Cloudy	Small Wave	IS13	Middle	6	2	1	14:34	19.1	7.83	27.2	6.62	3.5	4.7
TMCLKL	HY/2012/08	2014-01-10	Mid-Flood	Cloudy	Small Wave	IS13	Middle	6	2	2	14:34	19.2	7.85	27.3	6.64	3.52	3.1
TMCLKL	HY/2012/08	2014-01-10	Mid-Flood	Cloudy	Small Wave	IS13	Bottom	10.9	3	1	14:34	19.3	7.72	27.4	6.44	3.9	4.8
TMCLKL	HY/2012/08	2014-01-10	Mid-Flood	Cloudy	Small Wave	IS13	Bottom	10.9	3	2	14:34	19.4	7.75	27.4	6.46	3.92	4
TMCLKL	HY/2012/08	2014-01-10	Mid-Flood	Cloudy	Small Wave	IS14	Surface	1	1	1	15:20	19	7.74	27	6.74	4.78	3.1
TMCLKL	HY/2012/08	2014-01-10	Mid-Flood	Cloudy	Small Wave	IS14	Surface	1	1	2	15:20	19	7.75	27.1	6.76	4.8	4
TMCLKL	HY/2012/08	2014-01-10	Mid-Flood	Cloudy	Small Wave	IS14	Middle	8.2	2	1	15:20	19.1	7.63	27.2	6.57	3.87	2.4
TMCLKL	HY/2012/08	2014-01-10	Mid-Flood	Cloudy	Small Wave	IS14	Middle	8.2	2	2	15:20	19.2	7.65	27.2	6.59	3.88	3.3
TMCLKL	HY/2012/08	2014-01-10	Mid-Flood	Cloudy	Small Wave	IS14	Bottom	15.3	3	1	15:20	19.3	7.54	27.3	6.64	3.87	2.5
TMCLKL	HY/2012/08	2014-01-10	Mid-Flood	Cloudy	Small Wave	IS14	Bottom	15.3	3	2	15:20	19.3	7.56	27.4	6.62	3.89	3.8
TMCLKL	HY/2012/08	2014-01-10	Mid-Flood	Cloudy	Small Wave	IS15	Surface	1	1	1	14:09	19	7.78	27	6.96	3.57	3.6
TMCLKL	HY/2012/08	2014-01-10	Mid-Flood	Cloudy	Small Wave	IS15	Surface	1	1	2	14:09	19.1	7.8	27.1	6.98	3.6	3.7
TMCLKL	HY/2012/08	2014-01-10	Mid-Flood	Cloudy	Small Wave	IS15	Middle	6	2	1	14:09	19.2	7.81	27.2	6.56	3.09	3.4
TMCLKL	HY/2012/08	2014-01-10	Mid-Flood	Cloudy	Small Wave	IS15	Middle	6	2	2	14:09	19.3	7.83	27.3	6.58	3.11	3.6
TMCLKL	HY/2012/08	2014-01-10	Mid-Flood	Cloudy	Small Wave	IS15	Bottom	11	3	1	14:09	19.4	7.67	27.4	6.42	4.08	3.6
TMCLKL	HY/2012/08	2014-01-10	Mid-Flood	Cloudy	Small Wave	IS15	Bottom	11	3	2	14:09	19.5	7.69	27.5	6.44	4.1	3.1

TMCLKL	HY/2012/08	2014-01-10	Mid-Flood	Cloudy	Small Wave	SR8	Surface	1	1	1	13:34	19.1	7.82	27	6.72	4.51	4.4
TMCLKL	HY/2012/08	2014-01-10	Mid-Flood	Cloudy	Small Wave	SR8	Surface	1	1	2	13:34	19.2	7.8	27.1	6.74	4.53	4.9
TMCLKL	HY/2012/08	2014-01-10	Mid-Flood	Cloudy	Small Wave	SR8	Middle		2	1	13:34						
TMCLKL	HY/2012/08	2014-01-10	Mid-Flood	Cloudy	Small Wave	SR8	Middle		2	2	13:34						
TMCLKL	HY/2012/08	2014-01-10	Mid-Flood	Cloudy	Small Wave	SR8	Bottom	4	3	1	13:34	19.3	7.74	27.2	6.59	5.14	4.8
TMCLKL	HY/2012/08	2014-01-10	Mid-Flood	Cloudy	Small Wave	SR8	Bottom	4	3	2	13:34	19.3	7.76	27.3	6.61	5.16	3.4
TMCLKL	HY/2012/08	2014-01-10	Mid-Flood	Cloudy	Small Wave	SR9	Surface	1	1	1	13:51	19.1	7.64	27	6.79	4.1	2.9
TMCLKL	HY/2012/08	2014-01-10	Mid-Flood	Cloudy	Small Wave	SR9	Surface	1	1	2	13:51	19.2	7.62	27	6.81	4.12	3.6
TMCLKL	HY/2012/08	2014-01-10	Mid-Flood	Cloudy	Small Wave	SR9	Middle		2	1	13:51						
TMCLKL	HY/2012/08	2014-01-10	Mid-Flood	Cloudy	Small Wave	SR9	Middle		2	2	13:51						
TMCLKL	HY/2012/08	2014-01-10	Mid-Flood	Cloudy	Small Wave	SR9	Bottom	4.7	3	1	13:51	19.3	7.71	27.1	6.54	4.25	3.9
TMCLKL	HY/2012/08	2014-01-10	Mid-Flood	Cloudy	Small Wave	SR9	Bottom	4.7	3	2	13:51	19.3	7.7	27.2	6.56	4.22	3.3
TMCLKL	HY/2012/08	2014-01-10	Mid-Flood	Cloudy	Small Wave	SR10	Surface	1	1	1	13:00	19	7.75	27	6.79	4.04	4
TMCLKL	HY/2012/08	2014-01-10	Mid-Flood	Cloudy	Small Wave	SR10	Surface	1	1	2	13:00	19.1	7.77	27	6.81	4.06	4
TMCLKL	HY/2012/08	2014-01-10	Mid-Flood	Cloudy	Small Wave	SR10	Middle	7	2	1	13:00	19.2	7.8	27.1	6.43	3.28	4
TMCLKL	HY/2012/08	2014-01-10	Mid-Flood	Cloudy	Small Wave	SR10	Middle	7	2	2	13:00	19.3	7.82	27.2	6.45	3.3	2.5
TMCLKL	HY/2012/08	2014-01-10	Mid-Flood	Cloudy	Small Wave	SR10	Bottom	13	3	1	13:00	19.4	7.84	27.3	6.32	3	5.1
TMCLKL	HY/2012/08	2014-01-10	Mid-Flood	Cloudy	Small Wave	SR10	Bottom	13	3	2	13:00	19.4	7.82	27.4	6.34	3.02	3.1
TMCLKL	HY/2012/08	2014-01-10	Mid-Ebb	Fine	Small Wave	CS4	Surface	1	1	1	06:09	19.1	7.74	27.1	6.6	6.14	4.7
TMCLKL	HY/2012/08	2014-01-10	Mid-Ebb	Fine	Small Wave	CS4	Surface	1	1	2	06:09	19.2	7.76	27.1	6.62	6.13	5.6
TMCLKL	HY/2012/08	2014-01-10	Mid-Ebb	Fine	Small Wave	CS4	Middle	11.4	2	1	06:09	19.3	7.82	27.2	6.67	4.58	5.6
TMCLKL	HY/2012/08	2014-01-10	Mid-Ebb	Fine	Small Wave	CS4	Middle	11.4	2	2	06:09	19.3	7.8	27.3	6.69	4.59	4.8
TMCLKL	HY/2012/08	2014-01-10	Mid-Ebb	Fine	Small Wave	CS4	Bottom	21.8	3	1	06:09	19.4	7.66	27.4	6.52	3.42	7.2
TMCLKL	HY/2012/08	2014-01-10	Mid-Ebb	Fine	Small Wave	CS4	Bottom	21.8	3	2	06:09	19.3	7.68	27.3	6.54	3.49	6.2
TMCLKL	HY/2012/08	2014-01-10	Mid-Ebb	Fine	Small Wave	CS6	Surface	1	1	1	09:23	19	7.62	27	6.79	5.36	3.8
TMCLKL	HY/2012/08	2014-01-10	Mid-Ebb	Fine	Small Wave	CS6	Surface	1	1	2	09:23	19.1	7.64	27.1	6.81	5.37	4
TMCLKL	HY/2012/08	2014-01-10	Mid-Ebb	Fine	Small Wave	CS6	Middle	6.5	2	1	09:23	19.2	7.69	27.2	6.56	4.79	3.5
TMCLKL	HY/2012/08	2014-01-10	Mid-Ebb	Fine	Small Wave	CS6	Middle	6.5	2	2	09:23	19.2	7.71	27.2	6.57	4.81	3.2
TMCLKL	HY/2012/08	2014-01-10	Mid-Ebb	Fine	Small Wave	CS6	Bottom	12	3	1	09:23	19.3	7.74	27.3	6.42	4.73	4.7
TMCLKL	HY/2012/08	2014-01-10	Mid-Ebb	Fine	Small Wave	CS6	Bottom	12	3	2	09:23	19.4	7.76	27.4	6.4	4.75	4.8
TMCLKL	HY/2012/08	2014-01-10	Mid-Ebb	Fine	Small Wave	IS12	Surface	1	1	1	06:56	19	7.66	27	6.74	4.76	3.7
TMCLKL	HY/2012/08	2014-01-10	Mid-Ebb	Fine	Small Wave	IS12	Surface	1	1	2	06:56	19.1	7.68	27	6.76	4.77	5.6
TMCLKL	HY/2012/08	2014-01-10	Mid-Ebb	Fine	Small Wave	IS12	Middle	7.4	2	1	06:56	19.2	7.71	27.1	6.56	5.16	4.3
TMCLKL	HY/2012/08	2014-01-10	Mid-Ebb	Fine	Small Wave	IS12	Middle	7.4	2	2	06:56	19.3	7.73	27.2	6.58	5.18	4.9
TMCLKL	HY/2012/08	2014-01-10	Mid-Ebb	Fine	Small Wave	IS12	Bottom	13.8	3	1	06:56	19.4	7.77	27.3	6.66	3.99	5.8
TMCLKL	HY/2012/08	2014-01-10	Mid-Ebb	Fine	Small Wave	IS12	Bottom	13.8	3	2	06:56	19.4	7.79	27.4	6.67	4.01	5.8
TMCLKL	HY/2012/08	2014-01-10	Mid-Ebb	Fine	Small Wave	IS13	Surface	1	1	1	07:18	19.1	7.73	27.1	6.71	3.91	4.3
TMCLKL	HY/2012/08	2014-01-10	Mid-Ebb	Fine	Small Wave	IS13	Surface	1	1	2	07:18	19.1	7.75	27.1	6.73	3.93	4.2
TMCLKL	HY/2012/08	2014-01-10	Mid-Ebb	Fine	Small Wave	IS13	Middle	5.8	2	1	07:18	19.2	7.79	27.2	6.56	3.56	3.3
TMCLKL	HY/2012/08	2014-01-10	Mid-Ebb	Fine	Small Wave	IS13	Middle	5.8	2	2	07:18	19.3	7.81	27.3	6.58	3.58	3.4
TMCLKL	HY/2012/08	2014-01-10	Mid-Ebb	Fine	Small Wave	IS13	Bottom	10.6	3	1	07:18	19.4	7.64	27.4	6.42	3.94	4.8
TMCLKL	HY/2012/08	2014-01-10	Mid-Ebb	Fine	Small Wave	IS13	Bottom	10.6	3	2	07:18	19.4	7.66	27.4	6.4	3.9	4
TMCLKL	HY/2012/08	2014-01-10	Mid-Ebb	Fine	Small Wave	IS14	Surface	1	1	1	06:33	19	7.69	27	6.69	4.82	4
TMCLKL	HY/2012/08	2014-01-10	Mid-Ebb	Fine	Small Wave	IS14	Surface	1	1	2	06:33	19	7.71	27.1	6.71	4.84	4.9
TMCLKL	HY/2012/08	2014-01-10	Mid-Ebb	Fine	Small Wave	IS14	Middle	8.1	2	1	06:33	19.1	7.74	27.2	6.52	3.92	4.5
TMCLKL	HY/2012/08	2014-01-10	Mid-Ebb	Fine	Small Wave	IS14	Middle	8.1	2	2	06:33	19.2	7.76	27.3	6.54	3.94	5.4
TMCLKL	HY/2012/08	2014-01-10	Mid-Ebb	Fine	Small Wave	IS14	Bottom	15.1	3	1	06:33	19.3	7.81	27.4	6.6	3.91	5.9

TMCLKL	HY/2012/08	2014-01-10	Mid-Ebb	Fine	Small Wave	IS14	Bottom	15.1	3	2	06:33	19.4	7.83	27.4	6.62	3.93	6.5
TMCLKL	HY/2012/08	2014-01-10	Mid-Ebb	Fine	Small Wave	IS15	Surface	1	1	1	07:41	19	7.82	27	6.92	3.62	4.5
TMCLKL	HY/2012/08	2014-01-10	Mid-Ebb	Fine	Small Wave	IS15	Surface	1	1	2	07:41	19	7.8	27	6.9	3.64	4.5
TMCLKL	HY/2012/08	2014-01-10	Mid-Ebb	Fine	Small Wave	IS15	Middle	5.9	2	1	07:41	19.1	7.73	27.1	6.52	3.13	4.2
TMCLKL	HY/2012/08	2014-01-10	Mid-Ebb	Fine	Small Wave	IS15	Middle	5.9	2	2	07:41	19.2	7.71	27.2	6.54	3.15	4.1
TMCLKL	HY/2012/08	2014-01-10	Mid-Ebb	Fine	Small Wave	IS15	Bottom	10.8	3	1	07:41	19.3	7.76	27.3	6.37	4.13	4.5
TMCLKL	HY/2012/08	2014-01-10	Mid-Ebb	Fine	Small Wave	IS15	Bottom	10.8	3	2	07:41	19.3	7.78	27.4	6.35	4.15	4.9
TMCLKL	HY/2012/08	2014-01-10	Mid-Ebb	Fine	Small Wave	SR8	Surface	1	1	1	08:21	19.1	7.64	27.1	6.67	4.57	4.5
TMCLKL	HY/2012/08	2014-01-10	Mid-Ebb	Fine	Small Wave	SR8	Surface	1	1	2	08:21	19.1	7.62	27.1	6.69	4.59	5.8
TMCLKL	HY/2012/08	2014-01-10	Mid-Ebb	Fine	Small Wave	SR8	Middle		2	1	08:21						
TMCLKL	HY/2012/08	2014-01-10	Mid-Ebb	Fine	Small Wave	SR8	Middle		2	2	08:21						
TMCLKL	HY/2012/08	2014-01-10	Mid-Ebb	Fine	Small Wave	SR8	Bottom	4.2	3	1	08:21	19.2	7.74	27.2	6.54	5.19	4
TMCLKL	HY/2012/08	2014-01-10	Mid-Ebb	Fine	Small Wave	SR8	Bottom	4.2	3	2	08:21	19.3	7.76	27.2	6.56	5.21	6
TMCLKL	HY/2012/08	2014-01-10	Mid-Ebb	Fine	Small Wave	SR9	Surface	1	1	1	08:03	19	7.74	27	6.77	4.14	4.7
TMCLKL	HY/2012/08	2014-01-10	Mid-Ebb	Fine	Small Wave	SR9	Surface	1	1	2	08:03	19.1	7.76	27.1	6.75	4.16	3.6
TMCLKL	HY/2012/08	2014-01-10	Mid-Ebb	Fine	Small Wave	SR9	Middle		2	1	08:03						
TMCLKL	HY/2012/08	2014-01-10	Mid-Ebb	Fine	Small Wave	SR9	Middle		2	2	08:03						
TMCLKL	HY/2012/08	2014-01-10	Mid-Ebb	Fine	Small Wave	SR9	Bottom	4.5	3	1	08:03	19.2	7.79	27.2	6.46	4.29	6.6
TMCLKL	HY/2012/08	2014-01-10	Mid-Ebb	Fine	Small Wave	SR9	Bottom	4.5	3	2	08:03	19.3	7.81	27.3	6.48	4.3	6.2
TMCLKL	HY/2012/08	2014-01-10	Mid-Ebb	Fine	Small Wave	SR10	Surface	1	1	1	08:48	19	7.54	27	6.73	4.07	5.3
TMCLKL	HY/2012/08	2014-01-10	Mid-Ebb	Fine	Small Wave	SR10	Surface	1	1	2	08:48	19	7.56	27	6.75	4.09	5.4
TMCLKL	HY/2012/08	2014-01-10	Mid-Ebb	Fine	Small Wave	SR10	Middle	6.9	2	1	08:48	19.1	7.64	27.1	6.4	3.32	5.5
TMCLKL	HY/2012/08	2014-01-10	Mid-Ebb	Fine	Small Wave	SR10	Middle	6.9	2	2	08:48	19.2	7.66	27.1	6.41	3.34	5.3
TMCLKL	HY/2012/08	2014-01-10	Mid-Ebb	Fine	Small Wave	SR10	Bottom	12.8	3	1	08:48	19.3	7.69	27.2	6.46	3.07	6.2
TMCLKL	HY/2012/08	2014-01-10	Mid-Ebb	Fine	Small Wave	SR10	Bottom	12.8	3	2	08:48	19.3	7.71	27.3	6.48	3.09	4.7
TMCLKL	HY/2012/08	2014-01-13	Mid-Flood	Cloudy	Small Wave	CS4	Surface	1	1	1	17:59	17	7.83	27	6.67	1.86	2.1
TMCLKL	HY/2012/08	2014-01-13	Mid-Flood	Cloudy	Small Wave	CS4	Surface	1	1	2	17:59	17.1	7.85	27.1	6.69	1.88	2.6
TMCLKL	HY/2012/08	2014-01-13	Mid-Flood	Cloudy	Small Wave	CS4	Middle	11.6	2	1	17:59	17.2	7.76	27.2	6.73	2.07	2.2
TMCLKL	HY/2012/08	2014-01-13	Mid-Flood	Cloudy	Small Wave	CS4	Middle	11.6	2	2	17:59	17.3	7.78	27.3	6.75	2.11	4.2
TMCLKL	HY/2012/08	2014-01-13	Mid-Flood	Cloudy	Small Wave	CS4	Bottom	22.1	3	1	17:59	17.4	7.66	27.4	6.56	3.11	4.1
TMCLKL	HY/2012/08	2014-01-13	Mid-Flood	Cloudy	Small Wave	CS4	Bottom	22.1	3	2	17:59	17.4	7.68	27.4	6.58	3.13	3.8
TMCLKL	HY/2012/08	2014-01-13	Mid-Flood	Cloudy	Small Wave	CS6	Surface	1	1	1	14:50	17	7.68	27	6.76	1.7	3.6
TMCLKL	HY/2012/08	2014-01-13	Mid-Flood	Cloudy	Small Wave	CS6	Surface	1	1	2	14:50	17.1	7.69	27.1	6.78	1.72	4
TMCLKL	HY/2012/08	2014-01-13	Mid-Flood	Cloudy	Small Wave	CS6	Middle	6.7	2	1	14:50	17.2	7.72	27.2	6.54	1.78	3.7
TMCLKL	HY/2012/08	2014-01-13	Mid-Flood	Cloudy	Small Wave	CS6	Middle	6.7	2	2	14:50	17.3	7.74	27.3	6.56	1.8	4.9
TMCLKL	HY/2012/08	2014-01-13	Mid-Flood	Cloudy	Small Wave	CS6	Bottom	12.3	3	1	14:50	17.4	7.76	27.4	6.39	2.06	3.2
TMCLKL	HY/2012/08	2014-01-13	Mid-Flood	Cloudy	Small Wave	CS6	Bottom	12.3	3	2	14:50	17.3	7.79	27.5	6.41	2.08	2.2
TMCLKL	HY/2012/08	2014-01-13	Mid-Flood	Cloudy	Small Wave	IS12	Surface	1	1	1	17:10	17	7.82	27	6.86	1.85	2.8
TMCLKL	HY/2012/08	2014-01-13	Mid-Flood	Cloudy	Small Wave	IS12	Surface	1	1	2	17:10	17.1	7.84	27	6.88	1.87	2.9
TMCLKL	HY/2012/08	2014-01-13	Mid-Flood	Cloudy	Small Wave	IS12	Middle	7.5	2	1	17:10	17.2	7.88	27.1	6.65	1.87	3.2
TMCLKL	HY/2012/08	2014-01-13	Mid-Flood	Cloudy	Small Wave	IS12	Middle	7.5	2	2	17:10	17.2	7.89	27.2	6.67	1.89	3.4
TMCLKL	HY/2012/08	2014-01-13	Mid-Flood	Cloudy	Small Wave	IS12	Bottom	14	3	1	17:10	17.3	7.9	27.3	6.69	3.44	2.4
TMCLKL	HY/2012/08	2014-01-13	Mid-Flood	Cloudy	Small Wave	IS12	Bottom	14	3	2	17:10	17.4	7.92	27.3	6.67	3.46	3.5
TMCLKL	HY/2012/08	2014-01-13	Mid-Flood	Cloudy	Small Wave	IS13	Surface	1	1	1	16:50	17	7.8	27	6.76	2.38	3.8
TMCLKL	HY/2012/08	2014-01-13	Mid-Flood	Cloudy	Small Wave	IS13	Surface	1	1	2	16:50	17.1	7.78	27.1	6.78	2.4	2.8
TMCLKL	HY/2012/08	2014-01-13	Mid-Flood	Cloudy	Small Wave	IS13	Middle	5.9	2	1	16:50	17.2	7.84	27.2	6.64	1.96	3.6
TMCLKL	HY/2012/08	2014-01-13	Mid-Flood	Cloudy	Small Wave	IS13	Middle	5.9	2	2	16:50	17.3	7.86	27.2	6.66	1.98	2.9

TMCLKL	HY/2012/08	2014-01-13	Mid-Flood	Cloudy	Small Wave	IS13	Bottom	10.8	3	1	16:50	17.4	7.67	27.3	6.48	2.5	3.2
TMCLKL	HY/2012/08	2014-01-13	Mid-Flood	Cloudy	Small Wave	IS13	Bottom	10.8	3	2	16:50	17.5	7.69	27.4	6.49	2.52	3.7
TMCLKL	HY/2012/08	2014-01-13	Mid-Flood	Cloudy	Small Wave	IS14	Surface	1	1	1	17:30	17	7.74	27	6.76	1.9	3.3
TMCLKL	HY/2012/08	2014-01-13	Mid-Flood	Cloudy	Small Wave	IS14	Surface	1	1	2	17:30	17	7.76	27.1	6.78	1.92	4.2
TMCLKL	HY/2012/08	2014-01-13	Mid-Flood	Cloudy	Small Wave	IS14	Middle	8.3	2	1	17:30	17.1	7.81	27.2	6.59	2.28	2.2
TMCLKL	HY/2012/08	2014-01-13	Mid-Flood	Cloudy	Small Wave	IS14	Middle	8.3	2	2	17:30	17.2	7.83	27.2	6.61	2.3	3.2
TMCLKL	HY/2012/08	2014-01-13	Mid-Flood	Cloudy	Small Wave	IS14	Bottom	15.5	3	1	17:30	17.3	7.84	27.3	6.71	2.26	3.7
TMCLKL	HY/2012/08	2014-01-13	Mid-Flood	Cloudy	Small Wave	IS14	Bottom	15.5	3	2	17:30	17.4	7.86	27.4	6.73	2.28	4.9
TMCLKL	HY/2012/08	2014-01-13	Mid-Flood	Cloudy	Small Wave	IS15	Surface	1	1	1	16:30	17	7.74	27	6.96	2.91	3
TMCLKL	HY/2012/08	2014-01-13	Mid-Flood	Cloudy	Small Wave	IS15	Surface	1	1	2	16:30	17	7.76	27.1	6.98	2.93	4
TMCLKL	HY/2012/08	2014-01-13	Mid-Flood	Cloudy	Small Wave	IS15	Middle	6	2	1	16:30	17.2	7.81	27.2	6.58	2.29	3.9
TMCLKL	HY/2012/08	2014-01-13	Mid-Flood	Cloudy	Small Wave	IS15	Middle	6	2	2	16:30	17.1	7.83	27.3	6.6	2.31	3.8
TMCLKL	HY/2012/08	2014-01-13	Mid-Flood	Cloudy	Small Wave	IS15	Bottom	11	3	1	16:30	17.3	7.94	27.4	6.41	2.5	4.3
TMCLKL	HY/2012/08	2014-01-13	Mid-Flood	Cloudy	Small Wave	IS15	Bottom	11	3	2	16:30	17.4	7.92	27.5	6.42	2.58	4.2
TMCLKL	HY/2012/08	2014-01-13	Mid-Flood	Cloudy	Small Wave	SR8	Surface	1	1	1	16:00	17.1	7.74	27.1	6.71	2.13	4.9
TMCLKL	HY/2012/08	2014-01-13	Mid-Flood	Cloudy	Small Wave	SR8	Surface	1	1	2	16:00	17.2	7.76	27	6.73	2.15	3.7
TMCLKL	HY/2012/08	2014-01-13	Mid-Flood	Cloudy	Small Wave	SR8	Middle		2	1	16:00						
TMCLKL	HY/2012/08	2014-01-13	Mid-Flood	Cloudy	Small Wave	SR8	Middle		2	2	16:00						
TMCLKL	HY/2012/08	2014-01-13	Mid-Flood	Cloudy	Small Wave	SR8	Bottom	4.4	3	1	16:00	17.3	7.81	27.2	6.56	2.75	5.9
TMCLKL	HY/2012/08	2014-01-13	Mid-Flood	Cloudy	Small Wave	SR8	Bottom	4.4	3	2	16:00	17.2	7.8	27.2	6.58	2.77	5.5
TMCLKL	HY/2012/08	2014-01-13	Mid-Flood	Cloudy	Small Wave	SR9	Surface	1	1	1	16:15	17	7.8	27	6.84	1.96	3.2
TMCLKL	HY/2012/08	2014-01-13	Mid-Flood	Cloudy	Small Wave	SR9	Surface	1	1	2	16:15	17.1	7.82	27	6.86	1.98	3.4
TMCLKL	HY/2012/08	2014-01-13	Mid-Flood	Cloudy	Small Wave	SR9	Middle		2	1	16:15						
TMCLKL	HY/2012/08	2014-01-13	Mid-Flood	Cloudy	Small Wave	SR9	Middle		2	2	16:15						
TMCLKL	HY/2012/08	2014-01-13	Mid-Flood	Cloudy	Small Wave	SR9	Bottom	4.8	3	1	16:15	17.2	7.84	27.1	6.44	2.86	5.1
TMCLKL	HY/2012/08	2014-01-13	Mid-Flood	Cloudy	Small Wave	SR9	Bottom	4.8	3	2	16:15	17.3	7.86	27.2	6.46	2.87	4.6
TMCLKL	HY/2012/08	2014-01-13	Mid-Flood	Cloudy	Small Wave	SR10	Surface	1	1	1	15:20	17	7.71	27	6.84	1.76	4.1
TMCLKL	HY/2012/08	2014-01-13	Mid-Flood	Cloudy	Small Wave	SR10	Surface	1	1	2	15:20	17	7.69	27	6.86	1.78	3.6
TMCLKL	HY/2012/08	2014-01-13	Mid-Flood	Cloudy	Small Wave	SR10	Middle	7.1	2	1	15:20	17.1	7.64	27.1	6.45	2.09	3.7
TMCLKL	HY/2012/08	2014-01-13	Mid-Flood	Cloudy	Small Wave	SR10	Middle	7.1	2	2	15:20	17.2	7.66	27.2	6.47	2.11	3.9
TMCLKL	HY/2012/08	2014-01-13	Mid-Flood	Cloudy	Small Wave	SR10	Bottom	13.1	3	1	15:20	17.3	7.8	27.3	6.52	2.16	2.3
TMCLKL	HY/2012/08	2014-01-13	Mid-Flood	Cloudy	Small Wave	SR10	Bottom	13.1	3	2	15:20	17.4	7.82	27.4	6.54	2.17	2.4
TMCLKL	HY/2012/08	2014-01-13	Mid-Ebb	Cloudy	Small Wave	CS4	Surface	1	1	1	09:40	17.1	7.69	27	6.62	1.91	4
TMCLKL	HY/2012/08	2014-01-13	Mid-Ebb	Cloudy	Small Wave	CS4	Surface	1	1	2	09:40	17	7.71	27.1	6.64	1.93	3.9
TMCLKL	HY/2012/08	2014-01-13	Mid-Ebb	Cloudy	Small Wave	CS4	Middle	11.4	2	1	09:40	17.2	7.73	27.2	6.71	2.17	3.6
TMCLKL	HY/2012/08	2014-01-13	Mid-Ebb	Cloudy	Small Wave	CS4	Middle	11.4	2	2	09:40	17.2	7.75	27.2	6.69	2.19	4
TMCLKL	HY/2012/08	2014-01-13	Mid-Ebb	Cloudy	Small Wave	CS4	Bottom	21.8	3	1	09:40	17.3	7.79	27.3	6.52	3.22	3.3
TMCLKL	HY/2012/08	2014-01-13	Mid-Ebb	Cloudy	Small Wave	CS4	Bottom	21.8	3	2	09:40	17.4	7.77	27.4	6.53	3.24	2.3
TMCLKL	HY/2012/08	2014-01-13	Mid-Ebb	Cloudy	Small Wave	CS6	Surface	1	1	1	12:50	17	7.86	27	6.72	1.81	2.8
TMCLKL	HY/2012/08	2014-01-13	Mid-Ebb	Cloudy	Small Wave	CS6	Surface	1	1	2	12:50	17	7.88	27.1	6.7	1.83	3.1
TMCLKL	HY/2012/08	2014-01-13	Mid-Ebb	Cloudy	Small Wave	CS6	Middle	6.5	2	1	12:50	17.1	7.71	27.1	6.49	1.85	2
TMCLKL	HY/2012/08	2014-01-13	Mid-Ebb	Cloudy	Small Wave	CS6	Middle	6.5	2	2	12:50	17.2	7.73	27.2	6.51	1.86	2.6
TMCLKL	HY/2012/08	2014-01-13	Mid-Ebb	Cloudy	Small Wave	CS6	Bottom	12	3	1	12:50	17.3	7.76	27.3	6.34	2.11	3.2
TMCLKL	HY/2012/08	2014-01-13	Mid-Ebb	Cloudy	Small Wave	CS6	Bottom	12	3	2	12:50	17.3	7.78	27.4	6.36	2.12	3.9
TMCLKL	HY/2012/08	2014-01-13	Mid-Ebb	Cloudy	Small Wave	IS12	Surface	1	1	1	10:20	17	7.78	27	6.82	1.91	4
TMCLKL	HY/2012/08	2014-01-13	Mid-Ebb	Cloudy	Small Wave	IS12	Surface	1	1	2	10:20	17.1	7.8	27	6.8	1.93	4.2
TMCLKL	HY/2012/08	2014-01-13	Mid-Ebb	Cloudy	Small Wave	IS12	Middle	7.4	2	1	10:20	17.2	7.82	27.1	6.6	1.9	2.9



TMCLKL	HY/2012/08	2014-01-13	Mid-Ebb	Cloudy	Small Wave	IS12	Middle	7.4	2	2	10:20	17.3	7.84	27.2	6.62	1.92	2.9
TMCLKL	HY/2012/08	2014-01-13	Mid-Ebb	Cloudy	Small Wave	IS12	Bottom	13.8	3	1	10:20	17.4	7.67	27.3	6.64	3.49	3.7
TMCLKL	HY/2012/08	2014-01-13	Mid-Ebb	Cloudy	Small Wave	IS12	Bottom	13.8	3	2	10:20	17.4	7.69	27.4	6.66	3.51	5.6
TMCLKL	HY/2012/08	2014-01-13	Mid-Ebb	Cloudy	Small Wave	IS13	Surface	1	1	1	10:42	17	7.8	27	6.71	2.43	5
TMCLKL	HY/2012/08	2014-01-13	Mid-Ebb	Cloudy	Small Wave	IS13	Surface	1	1	2	10:42	17.1	7.81	27.1	6.73	2.45	4.1
TMCLKL	HY/2012/08	2014-01-13	Mid-Ebb	Cloudy	Small Wave	IS13	Middle	5.8	2	1	10:42	17.2	7.84	27.2	6.59	1.99	4
TMCLKL	HY/2012/08	2014-01-13	Mid-Ebb	Cloudy	Small Wave	IS13	Middle	5.8	2	2	10:42	17.2	7.86	27.2	6.61	2.01	3.6
TMCLKL	HY/2012/08	2014-01-13	Mid-Ebb	Cloudy	Small Wave	IS13	Bottom	10.6	3	1	10:42	17.3	7.74	27.3	6.42	2.56	4.8
TMCLKL	HY/2012/08	2014-01-13	Mid-Ebb	Cloudy	Small Wave	IS13	Bottom	10.6	3	2	10:42	17.4	7.76	27.4	6.43	2.58	4.9
TMCLKL	HY/2012/08	2014-01-13	Mid-Ebb	Cloudy	Small Wave	IS14	Surface	1	1	1	09:59	17	7.84	27	6.71	1.94	2.9
TMCLKL	HY/2012/08	2014-01-13	Mid-Ebb	Cloudy	Small Wave	IS14	Surface	1	1	2	09:59	17	7.86	27.1	6.73	1.96	3.1
TMCLKL	HY/2012/08	2014-01-13	Mid-Ebb	Cloudy	Small Wave	IS14	Middle	8.1	2	1	09:59	17.1	7.89	27.2	6.54	2.34	2.5
TMCLKL	HY/2012/08	2014-01-13	Mid-Ebb	Cloudy	Small Wave	IS14	Middle	8.1	2	2	09:59	17.2	7.91	27.3	6.56	2.36	2.5
TMCLKL	HY/2012/08	2014-01-13	Mid-Ebb	Cloudy	Small Wave	IS14	Bottom	15.2	3	1	09:59	17.3	7.94	27.4	6.67	2.33	3.2
TMCLKL	HY/2012/08	2014-01-13	Mid-Ebb	Cloudy	Small Wave	IS14	Bottom	15.2	3	2	09:59	17.4	7.92	27.5	6.69	2.35	3.7
TMCLKL	HY/2012/08	2014-01-13	Mid-Ebb	Cloudy	Small Wave	IS15	Surface	1	1	1	11:02	17	7.74	27	6.91	2.95	3.3
TMCLKL	HY/2012/08	2014-01-13	Mid-Ebb	Cloudy	Small Wave	IS15	Surface	1	1	2	11:02	17.1	7.76	27	6.93	2.96	3.7
TMCLKL	HY/2012/08	2014-01-13	Mid-Ebb	Cloudy	Small Wave	IS15	Middle	5.9	2	1	11:02	17.2	7.66	27.1	6.54	2.34	4.5
TMCLKL	HY/2012/08	2014-01-13	Mid-Ebb	Cloudy	Small Wave	IS15	Middle	5.9	2	2	11:02	17.3	7.68	27.2	6.56	2.36	2.2
TMCLKL	HY/2012/08	2014-01-13	Mid-Ebb	Cloudy	Small Wave	IS15	Bottom	10.8	3	1	11:02	17.4	7.84	27.3	6.34	2.62	5.2
TMCLKL	HY/2012/08	2014-01-13	Mid-Ebb	Cloudy	Small Wave	IS15	Bottom	10.8	3	2	11:02	17.5	7.82	27.4	6.36	2.64	3.7
TMCLKL	HY/2012/08	2014-01-13	Mid-Ebb	Cloudy	Small Wave	SR8	Surface	1	1	1	11:38	17.1	7.88	27	6.64	2.17	2.5
TMCLKL	HY/2012/08	2014-01-13	Mid-Ebb	Cloudy	Small Wave	SR8	Surface	1	1	2	11:38	17	7.9	27.1	6.66	2.19	3.5
TMCLKL	HY/2012/08	2014-01-13	Mid-Ebb	Cloudy	Small Wave	SR8	Middle		2	1	11:38						
TMCLKL	HY/2012/08	2014-01-13	Mid-Ebb	Cloudy	Small Wave	SR8	Middle		2	2	11:38						
TMCLKL	HY/2012/08	2014-01-13	Mid-Ebb	Cloudy	Small Wave	SR8	Bottom	4.2	3	1	11:38	17.2	7.91	27.2	6.54	2.84	3.5
TMCLKL	HY/2012/08	2014-01-13	Mid-Ebb	Cloudy	Small Wave	SR8	Bottom	4.2	3	2	11:38	17.2	7.93	27.2	6.56	2.86	3.5
TMCLKL	HY/2012/08	2014-01-13	Mid-Ebb	Cloudy	Small Wave	SR9	Surface	1	1	1	11:23	17	7.64	27	6.77	2	2.6
TMCLKL	HY/2012/08	2014-01-13	Mid-Ebb	Cloudy	Small Wave	SR9	Surface	1	1	2	11:23	17	7.66	27.1	6.79	2.02	2.4
TMCLKL	HY/2012/08	2014-01-13	Mid-Ebb	Cloudy	Small Wave	SR9	Middle		2	1	11:23						
TMCLKL	HY/2012/08	2014-01-13	Mid-Ebb	Cloudy	Small Wave	SR9	Middle		2	2	11:23						
TMCLKL	HY/2012/08	2014-01-13	Mid-Ebb	Cloudy	Small Wave	SR9	Bottom	4.6	3	1	11:23	17.1	7.71	27.2	6.39	2.89	3.9
TMCLKL	HY/2012/08	2014-01-13	Mid-Ebb	Cloudy	Small Wave	SR9	Bottom	4.6	3	2	11:23	17.2	7.69	27.3	6.41	2.9	5.3
TMCLKL	HY/2012/08	2014-01-13	Mid-Ebb	Cloudy	Small Wave	SR10	Surface	1	1	1	12:10	17	7.91	27	6.79	1.82	3.2
TMCLKL	HY/2012/08	2014-01-13	Mid-Ebb	Cloudy	Small Wave	SR10	Surface	1	1	2	12:10	17	7.89	27	6.81	1.84	2.6
TMCLKL	HY/2012/08	2014-01-13	Mid-Ebb	Cloudy	Small Wave	SR10	Middle	6.9	2	1	12:10	17.1	7.84	27.1	6.42	2.76	3.5
TMCLKL	HY/2012/08	2014-01-13	Mid-Ebb	Cloudy	Small Wave	SR10	Middle	6.9	2	2	12:10	17.2	7.86	27.1	6.4	2.78	3
TMCLKL	HY/2012/08	2014-01-13	Mid-Ebb	Cloudy	Small Wave	SR10	Bottom	12.8	3	1	12:10	17.4	7.92	27.2	6.49	2.22	2.1
TMCLKL	HY/2012/08	2014-01-13	Mid-Ebb	Cloudy	Small Wave	SR10	Bottom	12.8	3	2	12:10	17.3	7.94	27.3	6.42	2.24	2.6
TMCLKL	HY/2012/08	2014-01-15	Mid-Flood	Fine	Calm	CS4	Surface	1	1	1	19:21	17	7.7	27	6.48	2.1	4.1
TMCLKL	HY/2012/08	2014-01-15	Mid-Flood	Fine	Calm	CS4	Surface	1	1	2	19:21	17.1	7.72	27.1	6.49	2.12	2.8
TMCLKL	HY/2012/08	2014-01-15	Mid-Flood	Fine	Calm	CS4	Middle	11.7	2	1	19:21	17.3	7.95	27.2	6.63	2.24	3.7
TMCLKL	HY/2012/08	2014-01-15	Mid-Flood	Fine	Calm	CS4	Middle	11.7	2	2	19:21	17.2	7.97	27.1	6.65	2.2	2
TMCLKL	HY/2012/08	2014-01-15	Mid-Flood	Fine	Calm	CS4	Bottom	22.4	3	1	19:21	17.4	7.58	27.4	6.81	2.59	3.4
TMCLKL	HY/2012/08	2014-01-15	Mid-Flood	Fine	Calm	CS4	Bottom	22.4	3	2	19:21	17.5	7.59	27.6	6.83	2.58	3.8
TMCLKL	HY/2012/08	2014-01-15	Mid-Flood	Fine	Calm	CS6	Surface	1	1	1	16:08	17	7.43	27.1	6.95	2.69	3.7
TMCLKL	HY/2012/08	2014-01-15	Mid-Flood	Fine	Calm	CS6	Surface	1	1	2	16:08	17.1	7.45	27	6.93	2.7	2.4

TMCLKL	HY/2012/08	2014-01-15	Mid-Flood	Fine	Calm	CS6	Middle	6.8	2	1	16:08	17.1	7.58	27.2	6.72	2.18	3.7
TMCLKL	HY/2012/08	2014-01-15	Mid-Flood	Fine	Calm	CS6	Middle	6.8	2	2	16:08	17.2	7.6	27.2	6.71	2.2	3.3
TMCLKL	HY/2012/08	2014-01-15	Mid-Flood	Fine	Calm	CS6	Bottom	12.5	3	1	16:08	17.3	7.76	27.3	6.52	2.37	3.9
TMCLKL	HY/2012/08	2014-01-15	Mid-Flood	Fine	Calm	CS6	Bottom	12.5	3	2	16:08	17.4	7.75	27.4	6.5	2.36	3.6
TMCLKL	HY/2012/08	2014-01-15	Mid-Flood	Fine	Calm	IS12	Surface	1	1	1	18:46	17	7.85	27	6.64	2.67	2.3
TMCLKL	HY/2012/08	2014-01-15	Mid-Flood	Fine	Calm	IS12	Surface	1	1	2	18:46	17.1	7.86	27	6.62	2.65	2.6
TMCLKL	HY/2012/08	2014-01-15	Mid-Flood	Fine	Calm	IS12	Middle	7.6	2	1	18:46	17.2	7.79	27.2	6.58	2.28	3.2
TMCLKL	HY/2012/08	2014-01-15	Mid-Flood	Fine	Calm	IS12	Middle	7.6	2	2	18:46	17.2	7.77	27.2	6.57	2.27	2.9
TMCLKL	HY/2012/08	2014-01-15	Mid-Flood	Fine	Calm	IS12	Bottom	14.2	3	1	18:46	17.3	7.54	27.4	6.61	2.46	3.2
TMCLKL	HY/2012/08	2014-01-15	Mid-Flood	Fine	Calm	IS12	Bottom	14.2	3	2	18:46	17.4	7.51	27.3	6.63	2.44	2.2
TMCLKL	HY/2012/08	2014-01-15	Mid-Flood	Fine	Calm	IS13	Surface	1	1	1	18:20	17	7.8	27.2	6.98	2.18	2.4
TMCLKL	HY/2012/08	2014-01-15	Mid-Flood	Fine	Calm	IS13	Surface	1	1	2	18:20	17.1	7.82	27.1	6.97	2.19	2.1
TMCLKL	HY/2012/08	2014-01-15	Mid-Flood	Fine	Calm	IS13	Middle	6	2	1	18:20	17.2	7.64	27.2	6.67	2.01	3.3
TMCLKL	HY/2012/08	2014-01-15	Mid-Flood	Fine	Calm	IS13	Middle	6	2	2	18:20	17.1	7.65	27.3	6.68	2.03	2.4
TMCLKL	HY/2012/08	2014-01-15	Mid-Flood	Fine	Calm	IS13	Bottom	11	3	1	18:20	17.4	7.79	27.5	6.5	2.05	2.8
TMCLKL	HY/2012/08	2014-01-15	Mid-Flood	Fine	Calm	IS13	Bottom	11	3	2	18:20	17.3	7.76	27.6	6.52	2.07	3.5
TMCLKL	HY/2012/08	2014-01-15	Mid-Flood	Fine	Calm	IS14	Surface	1	1	1	19:07	17.1	7.64	27.1	6.42	2.86	3.8
TMCLKL	HY/2012/08	2014-01-15	Mid-Flood	Fine	Calm	IS14	Surface	1	1	2	19:07	17.1	7.65	27	6.43	2.88	3.8
TMCLKL	HY/2012/08	2014-01-15	Mid-Flood	Fine	Calm	IS14	Middle	8.2	2	1	19:07	17.2	7.58	27.2	6.68	2.3	4.2
TMCLKL	HY/2012/08	2014-01-15	Mid-Flood	Fine	Calm	IS14	Middle	8.2	2	2	19:07	17.2	7.56	27.1	6.69	2.31	2.3
TMCLKL	HY/2012/08	2014-01-15	Mid-Flood	Fine	Calm	IS14	Bottom	15.4	3	1	19:07	17.4	7.43	27.4	6.54	3.18	4.1
TMCLKL	HY/2012/08	2014-01-15	Mid-Flood	Fine	Calm	IS14	Bottom	15.4	3	2	19:07	17.5	7.45	27.4	6.55	3.17	3.5
TMCLKL	HY/2012/08	2014-01-15	Mid-Flood	Fine	Calm	IS15	Surface	1	1	1	17:55	17	7.69	27	6.97	24.3	3.8
TMCLKL	HY/2012/08	2014-01-15	Mid-Flood	Fine	Calm	IS15	Surface	1	1	2	17:55	17.1	7.71	27.1	6.95	24.2	3.5
TMCLKL	HY/2012/08	2014-01-15	Mid-Flood	Fine	Calm	IS15	Middle	6.1	2	1	17:55	17.2	7.79	27.2	6.42	2.09	3.8
TMCLKL	HY/2012/08	2014-01-15	Mid-Flood	Fine	Calm	IS15	Middle	6.1	2	2	17:55	17.3	7.81	27.3	6.45	2.08	3.4
TMCLKL	HY/2012/08	2014-01-15	Mid-Flood	Fine	Calm	IS15	Bottom	11.1	3	1	17:55	17.3	7.57	27.5	6.58	3.1	3.3
TMCLKL	HY/2012/08	2014-01-15	Mid-Flood	Fine	Calm	IS15	Bottom	11.1	3	2	17:55	17.4	7.55	27.5	6.59	3.08	3.2
TMCLKL	HY/2012/08	2014-01-15	Mid-Flood	Fine	Calm	SR8	Surface	1	1	1	17:03	17	7.95	27.1	6.95	1.8	3.5
TMCLKL	HY/2012/08	2014-01-15	Mid-Flood	Fine	Calm	SR8	Surface	1	1	2	17:03	17	7.96	27.1	6.97	1.81	3.2
TMCLKL	HY/2012/08	2014-01-15	Mid-Flood	Fine	Calm	SR8	Middle		2	1	17:03						
TMCLKL	HY/2012/08	2014-01-15	Mid-Flood	Fine	Calm	SR8	Middle		2	2	17:03						
TMCLKL	HY/2012/08	2014-01-15	Mid-Flood	Fine	Calm	SR8	Bottom	4.3	3	1	17:03	17.2	7.65	27.3	6.64	2.06	2.4
TMCLKL	HY/2012/08	2014-01-15	Mid-Flood	Fine	Calm	SR8	Bottom	4.3	3	2	17:03	17.1	7.64	27.2	6.63	2.09	2.7
TMCLKL	HY/2012/08	2014-01-15	Mid-Flood	Fine	Calm	SR9	Surface	1	1	1	17:30	17	7.78	27.1	6.65	1.4	4.6
TMCLKL	HY/2012/08	2014-01-15	Mid-Flood	Fine	Calm	SR9	Surface	1	1	2	17:30	17.1	7.76	27	6.64	1.38	4.1
TMCLKL	HY/2012/08	2014-01-15	Mid-Flood	Fine	Calm	SR9	Middle		2	1	17:30						
TMCLKL	HY/2012/08	2014-01-15	Mid-Flood	Fine	Calm	SR9	Middle		2	2	17:30						
TMCLKL	HY/2012/08	2014-01-15	Mid-Flood	Fine	Calm	SR9	Bottom	4.6	3	1	17:30	17.2	7.68	27.2	6.42	2.01	3.4
TMCLKL	HY/2012/08	2014-01-15	Mid-Flood	Fine	Calm	SR9	Bottom	4.6	3	2	17:30	17.1	7.67	27.2	6.4	2.02	4
TMCLKL	HY/2012/08	2014-01-15	Mid-Flood	Fine	Calm	SR10	Surface	1	1	1	16:35	17.1	7.68	27	6.88	2.45	3.4
TMCLKL	HY/2012/08	2014-01-15	Mid-Flood	Fine	Calm	SR10	Surface	1	1	2	16:35	17	7.7	27.1	6.87	2.44	3.5
TMCLKL	HY/2012/08	2014-01-15	Mid-Flood	Fine	Calm	SR10	Middle	7.1	2	1	16:35	17.2	7.71	27.2	6.57	2.3	3.1
TMCLKL	HY/2012/08	2014-01-15	Mid-Flood	Fine	Calm	SR10	Middle	7.1	2	2	16:35	17.1	7.73	27.1	6.58	2.28	4.7
TMCLKL	HY/2012/08	2014-01-15	Mid-Flood	Fine	Calm	SR10	Bottom	13.1	3	1	16:35	17.4	7.61	27.5	6.4	3.18	4.9
TMCLKL	HY/2012/08	2014-01-15	Mid-Flood	Fine	Calm	SR10	Bottom	13.1	3	2	16:35	17.4	7.62	27.4	6.42	3.2	3.3
TMCLKL	HY/2012/08	2014-01-15	Mid-Ebb	Fine	Calm	CS4	Surface	1	1	1	10:53	17.4	7.56	27.1	6.37	2.36	3.2



TMCLKL	HY/2012/08	2014-01-15	Mid-Ebb	Fine	Calm	CS4	Surface	1	1	2	10:53	17.5	7.55	27	6.38	2.33	3.6
TMCLKL	HY/2012/08	2014-01-15	Mid-Ebb	Fine	Calm	CS4	Middle	11.6	2	1	10:53	17.4	7.83	27.2	6.48	2.36	2.3
TMCLKL	HY/2012/08	2014-01-15	Mid-Ebb	Fine	Calm	CS4	Middle	11.6	2	2	10:53	17.4	7.82	27.3	6.45	2.39	2.5
TMCLKL	HY/2012/08	2014-01-15	Mid-Ebb	Fine	Calm	CS4	Bottom	22.1	3	1	10:53	17.3	7.42	27.4	6.65	2.73	3.9
TMCLKL	HY/2012/08	2014-01-15	Mid-Ebb	Fine	Calm	CS4	Bottom	22.1	3	2	10:53	17.4	7.43	27.5	6.64	2.71	2.9
TMCLKL	HY/2012/08	2014-01-15	Mid-Ebb	Fine	Calm	CS6	Surface	1	1	1	14:03	17.3	7.56	27.2	6.84	2.81	2.7
TMCLKL	HY/2012/08	2014-01-15	Mid-Ebb	Fine	Calm	CS6	Surface	1	1	2	14:03	17.4	7.55	27.3	6.82	2.79	2.9
TMCLKL	HY/2012/08	2014-01-15	Mid-Ebb	Fine	Calm	CS6	Middle	6.7	2	1	14:03	17.4	7.61	27.2	6.68	2.31	2.7
TMCLKL	HY/2012/08	2014-01-15	Mid-Ebb	Fine	Calm	CS6	Middle	6.7	2	2	14:03	17.3	7.62	27.2	6.66	2.3	2.4
TMCLKL	HY/2012/08	2014-01-15	Mid-Ebb	Fine	Calm	CS6	Bottom	12.3	3	1	14:03	17.3	7.69	27.4	6.43	2.45	3.4
TMCLKL	HY/2012/08	2014-01-15	Mid-Ebb	Fine	Calm	CS6	Bottom	12.3	3	2	14:03	17.3	7.71	27.5	6.45	2.47	2.6
TMCLKL	HY/2012/08	2014-01-15	Mid-Ebb	Fine	Calm	IS12	Surface	1	1	1	11:39	17	7.86	27	6.52	2.81	4.2
TMCLKL	HY/2012/08	2014-01-15	Mid-Ebb	Fine	Calm	IS12	Surface	1	1	2	11:39	17.2	7.89	27.1	6.5	2.8	4.1
TMCLKL	HY/2012/08	2014-01-15	Mid-Ebb	Fine	Calm	IS12	Middle	7.5	2	1	11:39	17.3	7.65	27.2	6.43	2.3	3.6
TMCLKL	HY/2012/08	2014-01-15	Mid-Ebb	Fine	Calm	IS12	Middle	7.5	2	2	11:39	17.4	7.67	27.3	6.42	2.33	4.8
TMCLKL	HY/2012/08	2014-01-15	Mid-Ebb	Fine	Calm	IS12	Bottom	14	3	1	11:39	17.3	7.61	27.5	6.49	2.54	4.9
TMCLKL	HY/2012/08	2014-01-15	Mid-Ebb	Fine	Calm	IS12	Bottom	14	3	2	11:39	17.4	7.62	27.4	6.5	2.56	4
TMCLKL	HY/2012/08	2014-01-15	Mid-Ebb	Fine	Calm	IS13	Surface	1	1	1	12:03	17.4	7.74	27.1	6.76	2.25	3.1
TMCLKL	HY/2012/08	2014-01-15	Mid-Ebb	Fine	Calm	IS13	Surface	1	1	2	12:03	17.5	7.75	27.2	6.75	2.23	3.2
TMCLKL	HY/2012/08	2014-01-15	Mid-Ebb	Fine	Calm	IS13	Middle	5.9	2	1	12:03	17.4	7.54	27.3	6.58	2.11	2.7
TMCLKL	HY/2012/08	2014-01-15	Mid-Ebb	Fine	Calm	IS13	Middle	5.9	2	2	12:03	17.4	7.53	27.4	6.56	2.09	3
TMCLKL	HY/2012/08	2014-01-15	Mid-Ebb	Fine	Calm	IS13	Bottom	10.8	3	1	12:03	17.3	7.61	27.5	6.31	2.04	3.5
TMCLKL	HY/2012/08	2014-01-15	Mid-Ebb	Fine	Calm	IS13	Bottom	10.8	3	2	12:03	17.4	7.62	27.4	6.3	2.01	2.9
TMCLKL	HY/2012/08	2014-01-15	Mid-Ebb	Fine	Calm	IS14	Surface	1	1	1	11:16	17.4	7.69	27.1	6.31	2.99	2.9
TMCLKL	HY/2012/08	2014-01-15	Mid-Ebb	Fine	Calm	IS14	Surface	1	1	2	11:16	17.4	7.72	27.2	6.32	2.31	4.3
TMCLKL	HY/2012/08	2014-01-15	Mid-Ebb	Fine	Calm	IS14	Middle	8.1	2	1	11:16	17.4	7.43	27.1	6.68	2.48	3.5
TMCLKL	HY/2012/08	2014-01-15	Mid-Ebb	Fine	Calm	IS14	Middle	8.1	2	2	11:16	17.5	7.42	27.2	6.66	2.5	4
TMCLKL	HY/2012/08	2014-01-15	Mid-Ebb	Fine	Calm	IS14	Bottom	15.1	3	1	11:16	17.4	7.38	27.4	6.48	3.24	3.4
TMCLKL	HY/2012/08	2014-01-15	Mid-Ebb	Fine	Calm	IS14	Bottom	15.1	3	2	11:16	17.3	7.37	27.4	6.47	3.22	5.3
TMCLKL	HY/2012/08	2014-01-15	Mid-Ebb	Fine	Calm	IS15	Surface	1	1	1	12:25	17.4	7.58	27.1	6.88	2.45	5.7
TMCLKL	HY/2012/08	2014-01-15	Mid-Ebb	Fine	Calm	IS15	Surface	1	1	2	12:25	17.5	7.57	27.2	6.86	2.47	4.4
TMCLKL	HY/2012/08	2014-01-15	Mid-Ebb	Fine	Calm	IS15	Middle	6	2	1	12:25	17.4	7.62	27.3	6.39	2.13	6.4
TMCLKL	HY/2012/08	2014-01-15	Mid-Ebb	Fine	Calm	IS15	Middle	6	2	2	12:25	17.3	7.64	27.2	6.37	2.1	4.6
TMCLKL	HY/2012/08	2014-01-15	Mid-Ebb	Fine	Calm	IS15	Bottom	10.9	3	1	12:25	17.3	7.43	27.4	6.41	3.15	6
TMCLKL	HY/2012/08	2014-01-15	Mid-Ebb	Fine	Calm	IS15	Bottom	10.9	3	2	12:25	17.3	7.42	27.5	6.42	3.14	3.8
TMCLKL	HY/2012/08	2014-01-15	Mid-Ebb	Fine	Calm	SR8	Surface	1	1	1	13:15	17.4	7.96	27	6.88	1.94	2.1
TMCLKL	HY/2012/08	2014-01-15	Mid-Ebb	Fine	Calm	SR8	Surface	1	1	2	13:15	17.3	7.95	27.1	6.87	1.92	2.5
TMCLKL	HY/2012/08	2014-01-15	Mid-Ebb	Fine	Calm	SR8	Middle		2	1	13:15						
TMCLKL	HY/2012/08	2014-01-15	Mid-Ebb	Fine	Calm	SR8	Middle		2	2	13:15						
TMCLKL	HY/2012/08	2014-01-15	Mid-Ebb	Fine	Calm	SR8	Bottom	4.1	3	1	13:15	17.4	7.5	27.4	6.54	2.17	3.2
TMCLKL	HY/2012/08	2014-01-15	Mid-Ebb	Fine	Calm	SR8	Bottom	4.1	3	2	13:15	17.3	7.52	27.3	6.55	2.15	3.1
TMCLKL	HY/2012/08	2014-01-15	Mid-Ebb	Fine	Calm	SR9	Surface	1	1	1	12:38	17.3	7.64	27	6.48	1.42	2.9
TMCLKL	HY/2012/08	2014-01-15	Mid-Ebb	Fine	Calm	SR9	Surface	1	1	2	12:38	17.4	7.65	27.1	6.49	1.45	3.5
TMCLKL	HY/2012/08	2014-01-15	Mid-Ebb	Fine	Calm	SR9	Middle		2	1	12:38						
TMCLKL	HY/2012/08	2014-01-15	Mid-Ebb	Fine	Calm	SR9	Middle		2	2	12:38						
TMCLKL	HY/2012/08	2014-01-15	Mid-Ebb	Fine	Calm	SR9	Bottom	4.6	3	1	12:38	17.4	7.58	27.3	6.37	2.14	2.1
TMCLKL	HY/2012/08	2014-01-15	Mid-Ebb	Fine	Calm	SR9	Bottom	4.6	3	2	12:38	17.5	7.56	27.4	6.36	2.16	3.7

TMCLKL	HY/2012/08	2014-01-15	Mid-Ebb	Fine	Calm	SR10	Surface	1	1	1	13:38	17.4	7.7	27	6.74	2.5	2.9
TMCLKL	HY/2012/08	2014-01-15	Mid-Ebb	Fine	Calm	SR10	Surface	1	1	2	13:38	17.5	7.71	27.1	6.73	2.48	3
TMCLKL	HY/2012/08	2014-01-15	Mid-Ebb	Fine	Calm	SR10	Middle	7	2	1	13:38	17.3	7.68	27.2	6.41	2.38	2.8
TMCLKL	HY/2012/08	2014-01-15	Mid-Ebb	Fine	Calm	SR10	Middle	7	2	2	13:38	17.4	7.67	27.3	6.4	2.4	3.1
TMCLKL	HY/2012/08	2014-01-15	Mid-Ebb	Fine	Calm	SR10	Bottom	12.9	3	1	13:38	17.3	7.59	27.4	6.37	3.3	2.3
TMCLKL	HY/2012/08	2014-01-15	Mid-Ebb	Fine	Calm	SR10	Bottom	12.9	3	2	13:38	17.4	7.61	27.5	6.36	3.32	2.9
TMCLKL	HY/2012/08	2014-01-17	Mid-Flood	Fine	Small Wave	CS4	Surface	1	1	1	20:25	17	7.84	28	6.66	3.43	2.6
TMCLKL	HY/2012/08	2014-01-17	Mid-Flood	Fine	Small Wave	CS4	Surface	1	1	2	20:25	17	7.86	28.1	6.64	3.45	4.1
TMCLKL	HY/2012/08	2014-01-17	Mid-Flood	Fine	Small Wave	CS4	Middle	11.6	2	1	20:25	17.1	7.81	28.2	6.73	4.79	3.8
TMCLKL	HY/2012/08	2014-01-17	Mid-Flood	Fine	Small Wave	CS4	Middle	11.6	2	2	20:25	17.1	7.79	28.3	6.75	4.81	2.5
TMCLKL	HY/2012/08	2014-01-17	Mid-Flood	Fine	Small Wave	CS4	Bottom	22.1	3	1	20:25	17.2	7.89	28.4	6.57	4.71	3.6
TMCLKL	HY/2012/08	2014-01-17	Mid-Flood	Fine	Small Wave	CS4	Bottom	22.1	3	2	20:25	17.3	7.9	28.5	6.59	4.8	2.8
TMCLKL	HY/2012/08	2014-01-17	Mid-Flood	Fine	Small Wave	CS6	Surface	1	1	1	17:21	17	7.84	28	6.77	3.63	3
TMCLKL	HY/2012/08	2014-01-17	Mid-Flood	Fine	Small Wave	CS6	Surface	1	1	2	17:21	17.1	7.86	28	6.79	3.65	3
TMCLKL	HY/2012/08	2014-01-17	Mid-Flood	Fine	Small Wave	CS6	Middle	6.7	2	1	17:21	17.2	7.91	28.1	6.56	3.76	3.1
TMCLKL	HY/2012/08	2014-01-17	Mid-Flood	Fine	Small Wave	CS6	Middle	6.7	2	2	17:21	17.2	7.93	28.1	6.58	3.78	3.3
TMCLKL	HY/2012/08	2014-01-17	Mid-Flood	Fine	Small Wave	CS6	Bottom	12.3	3	1	17:21	17.3	7.72	28.2	6.37	5.12	3.3
TMCLKL	HY/2012/08	2014-01-17	Mid-Flood	Fine	Small Wave	CS6	Bottom	12.3	3	2	17:21	17.4	7.75	28.3	6.39	5.14	3.6
TMCLKL	HY/2012/08	2014-01-17	Mid-Flood	Fine	Small Wave	IS12	Surface	1	1	1	19:35	17	7.86	28	6.87	3.43	3.2
TMCLKL	HY/2012/08	2014-01-17	Mid-Flood	Fine	Small Wave	IS12	Surface	1	1	2	19:35	17	7.84	28.1	6.89	3.43	2.6
TMCLKL	HY/2012/08	2014-01-17	Mid-Flood	Fine	Small Wave	IS12	Middle	7.5	2	1	19:35	17.1	7.79	28.2	6.62	4.02	2.7
TMCLKL	HY/2012/08	2014-01-17	Mid-Flood	Fine	Small Wave	IS12	Middle	7.5	2	2	19:35	17.2	7.81	28.2	6.64	4.03	2.2
TMCLKL	HY/2012/08	2014-01-17	Mid-Flood	Fine	Small Wave	IS12	Bottom	14	3	1	19:35	17.3	7.74	28.3	6.73	5.96	3.6
TMCLKL	HY/2012/08	2014-01-17	Mid-Flood	Fine	Small Wave	IS12	Bottom	14	3	2	19:35	17.4	7.76	28.4	6.75	5.98	3.5
TMCLKL	HY/2012/08	2014-01-17	Mid-Flood	Fine	Small Wave	IS13	Surface	1	1	1	19:14	17	7.92	28	6.77	4	2.6
TMCLKL	HY/2012/08	2014-01-17	Mid-Flood	Fine	Small Wave	IS13	Surface	1	1	2	19:14	17	7.94	28.1	6.79	4.02	2.2
TMCLKL	HY/2012/08	2014-01-17	Mid-Flood	Fine	Small Wave	IS13	Middle	6	2	1	19:14	17.1	7.86	28.2	6.6	4.54	2.6
TMCLKL	HY/2012/08	2014-01-17	Mid-Flood	Fine	Small Wave	IS13	Middle	6	2	2	19:14	17.2	7.88	28.3	6.55	4.56	2.3
TMCLKL	HY/2012/08	2014-01-17	Mid-Flood	Fine	Small Wave	IS13	Bottom	10.9	3	1	19:14	17.3	7.74	28.4	6.44	4.86	3.8
TMCLKL	HY/2012/08	2014-01-17	Mid-Flood	Fine	Small Wave	IS13	Bottom	10.9	3	2	19:14	17.4	7.76	28.5	6.46	4.88	4.6
TMCLKL	HY/2012/08	2014-01-17	Mid-Flood	Fine	Small Wave	IS14	Surface	1	1	1	19:58	17	7.91	28	6.74	4.09	3.1
TMCLKL	HY/2012/08	2014-01-17	Mid-Flood	Fine	Small Wave	IS14	Surface	1	1	2	19:58	17.1	7.93	28	6.76	4.11	3.9
TMCLKL	HY/2012/08	2014-01-17	Mid-Flood	Fine	Small Wave	IS14	Middle	8.2	2	1	19:58	17.2	7.87	28.1	6.57	4.13	3.1
TMCLKL	HY/2012/08	2014-01-17	Mid-Flood	Fine	Small Wave	IS14	Middle	8.2	2	2	19:58	17.2	7.85	28.2	6.59	4.15	4.6
TMCLKL	HY/2012/08	2014-01-17	Mid-Flood	Fine	Small Wave	IS14	Bottom	15.3	3	1	19:58	17.3	7.73	28.3	6.66	4.7	3.1
TMCLKL	HY/2012/08	2014-01-17	Mid-Flood	Fine	Small Wave	IS14	Bottom	15.3	3	2	19:58	17.4	7.75	28.3	6.65	4.72	3.9
TMCLKL	HY/2012/08	2014-01-17	Mid-Flood	Fine	Small Wave	IS15	Surface	1	1	1	18:52	17.1	7.84	28	6.94	4.49	2.1
TMCLKL	HY/2012/08	2014-01-17	Mid-Flood	Fine	Small Wave	IS15	Surface	1	1	2	18:52	17.1	7.86	28.1	6.96	4.51	4
TMCLKL	HY/2012/08	2014-01-17	Mid-Flood	Fine	Small Wave	IS15	Middle	6	2	1	18:52	17.2	7.89	28.2	6.56	4.64	2.8
TMCLKL	HY/2012/08	2014-01-17	Mid-Flood	Fine	Small Wave	IS15	Middle	6	2	2	18:52	17.3	7.91	28.2	6.58	4.66	2.5
TMCLKL	HY/2012/08	2014-01-17	Mid-Flood	Fine	Small Wave	IS15	Bottom	11	3	1	18:52	17.4	7.73	28.3	6.37	5.22	4
TMCLKL	HY/2012/08	2014-01-17	Mid-Flood	Fine	Small Wave	IS15	Bottom	11	3	2	18:52	17.4	7.76	28.4	6.39	5.24	3.8
TMCLKL	HY/2012/08	2014-01-17	Mid-Flood	Fine	Small Wave	SR8	Surface	1	1	1	18:20	17	7.84	28	6.81	3.79	3.1
TMCLKL	HY/2012/08	2014-01-17	Mid-Flood	Fine	Small Wave	SR8	Surface	1	1	2	18:20	17.1	7.82	28.1	6.79	3.81	3.3
TMCLKL	HY/2012/08	2014-01-17	Mid-Flood	Fine	Small Wave	SR8	Middle		2	1	18:20						
TMCLKL	HY/2012/08	2014-01-17	Mid-Flood	Fine	Small Wave	SR8	Middle		2	2	18:20						
TMCLKL	HY/2012/08	2014-01-17	Mid-Flood	Fine	Small Wave	SR8	Bottom	4.4	3	1	18:20	17.2	7.88	28.2	6.74	4.94	3.4

TMCLKL	HY/2012/08	2014-01-17	Mid-Flood	Fine	Small Wave	SR8	Bottom	4.4	3	2	18:20	17.3	7.86	28.2	6.76	4.96	3.6
TMCLKL	HY/2012/08	2014-01-17	Mid-Flood	Fine	Small Wave	SR9	Surface	1	1	1	18:37	17	7.9	28	6.83	3.57	2.6
TMCLKL	HY/2012/08	2014-01-17	Mid-Flood	Fine	Small Wave	SR9	Surface	1	1	2	18:37	17.1	7.87	28	6.85	3.59	2.9
TMCLKL	HY/2012/08	2014-01-17	Mid-Flood	Fine	Small Wave	SR9	Middle		2	1	18:37						
TMCLKL	HY/2012/08	2014-01-17	Mid-Flood	Fine	Small Wave	SR9	Middle		2	2	18:37						
TMCLKL	HY/2012/08	2014-01-17	Mid-Flood	Fine	Small Wave	SR9	Bottom	4.7	3	1	18:37	17.2	7.8	28.1	6.47	4.13	3.3
TMCLKL	HY/2012/08	2014-01-17	Mid-Flood	Fine	Small Wave	SR9	Bottom	4.7	3	2	18:37	17.2	7.78	28.2	6.49	4.15	3.5
TMCLKL	HY/2012/08	2014-01-17	Mid-Flood	Fine	Small Wave	SR10	Surface	1	1	1	17:45	17	7.91	28	6.81	5.13	2.7
TMCLKL	HY/2012/08	2014-01-17	Mid-Flood	Fine	Small Wave	SR10	Surface	1	1	2	17:45	17	7.93	28.1	6.83	5.15	2.5
TMCLKL	HY/2012/08	2014-01-17	Mid-Flood	Fine	Small Wave	SR10	Middle	7.1	2	1	17:45	17.1	7.96	28.2	6.47	3.76	2.5
TMCLKL	HY/2012/08	2014-01-17	Mid-Flood	Fine	Small Wave	SR10	Middle	7.1	2	2	17:45	17.2	7.98	28.3	6.49	3.78	2.2
TMCLKL	HY/2012/08	2014-01-17	Mid-Flood	Fine	Small Wave	SR10	Bottom	13.1	3	1	17:45	17.3	7.84	28.4	6.51	4.85	3.8
TMCLKL	HY/2012/08	2014-01-17	Mid-Flood	Fine	Small Wave	SR10	Bottom	13.1	3	2	17:45	17.4	7.8	28.5	6.33	4.87	3.7
TMCLKL	HY/2012/08	2014-01-17	Mid-Ebb	Fine	Small Wave	CS4	Surface	1	1	1	11:56	17	7.9	28.1	6.62	3.51	2.5
TMCLKL	HY/2012/08	2014-01-17	Mid-Ebb	Fine	Small Wave	CS4	Surface	1	1	2	11:56	17.1	7.92	28.1	6.6	3.53	2.4
TMCLKL	HY/2012/08	2014-01-17	Mid-Ebb	Fine	Small Wave	CS4	Middle	11.4	2	1	11:56	17.2	7.95	28.2	6.68	4.84	2.2
TMCLKL	HY/2012/08	2014-01-17	Mid-Ebb	Fine	Small Wave	CS4	Middle	11.4	2	2	11:56	17.2	7.97	28.3	6.7	4.86	2.5
TMCLKL	HY/2012/08	2014-01-17	Mid-Ebb	Fine	Small Wave	CS4	Bottom	21.8	3	1	11:56	17.3	7.87	28.4	6.52	4.86	3.4
TMCLKL	HY/2012/08	2014-01-17	Mid-Ebb	Fine	Small Wave	CS4	Bottom	21.8	3	2	11:56	17.4	7.88	28.4	6.54	4.88	3.9
TMCLKL	HY/2012/08	2014-01-17	Mid-Ebb	Fine	Small Wave	CS6	Surface	1	1	1	15:15	17	7.84	28	6.73	3.67	3
TMCLKL	HY/2012/08	2014-01-17	Mid-Ebb	Fine	Small Wave	CS6	Surface	1	1	2	15:15	17	7.82	28.1	6.75	3.69	2.1
TMCLKL	HY/2012/08	2014-01-17	Mid-Ebb	Fine	Small Wave	CS6	Middle	6.5	2	1	15:15	17.1	7.88	28.2	6.54	3.81	3.5
TMCLKL	HY/2012/08	2014-01-17	Mid-Ebb	Fine	Small Wave	CS6	Middle	6.5	2	2	15:15	17.2	7.86	28.3	6.52	3.79	2.9
TMCLKL	HY/2012/08	2014-01-17	Mid-Ebb	Fine	Small Wave	CS6	Bottom	12	3	1	15:15	17.3	7.64	28.4	6.34	5.16	3.7
TMCLKL	HY/2012/08	2014-01-17	Mid-Ebb	Fine	Small Wave	CS6	Bottom	12	3	2	15:15	17.4	7.66	28.3	6.35	5.18	3.5
TMCLKL	HY/2012/08	2014-01-17	Mid-Ebb	Fine	Small Wave	IS12	Surface	1	1	1	12:41	17	7.8	28	6.82	3.47	2.7
TMCLKL	HY/2012/08	2014-01-17	Mid-Ebb	Fine	Small Wave	IS12	Surface	1	1	2	12:41	17.1	7.82	28.1	6.84	3.49	3.3
TMCLKL	HY/2012/08	2014-01-17	Mid-Ebb	Fine	Small Wave	IS12	Middle	7.4	2	1	12:41	17.2	7.76	28.2	6.56	4.07	2.2
TMCLKL	HY/2012/08	2014-01-17	Mid-Ebb	Fine	Small Wave	IS12	Middle	7.4	2	2	12:41	17.3	7.78	28.2	6.58	4.08	2.3
TMCLKL	HY/2012/08	2014-01-17	Mid-Ebb	Fine	Small Wave	IS12	Bottom	13.8	3	1	12:41	17.5	7.9	28.3	6.68	5.99	3.2
TMCLKL	HY/2012/08	2014-01-17	Mid-Ebb	Fine	Small Wave	IS12	Bottom	13.8	3	2	12:41	17.4	7.92	28.4	6.7	6.01	3.9
TMCLKL	HY/2012/08	2014-01-17	Mid-Ebb	Fine	Small Wave	IS13	Surface	1	1	1	13:03	17.1	7.84	28.1	6.73	4.07	2.5
TMCLKL	HY/2012/08	2014-01-17	Mid-Ebb	Fine	Small Wave	IS13	Surface	1	1	2	13:03	17.1	7.86	28	6.75	4.09	2.5
TMCLKL	HY/2012/08	2014-01-17	Mid-Ebb	Fine	Small Wave	IS13	Middle	5.8	2	1	13:03	17.2	7.89	28.2	6.54	4.58	2.6
TMCLKL	HY/2012/08	2014-01-17	Mid-Ebb	Fine	Small Wave	IS13	Middle	5.8	2	2	13:03	17.3	7.91	28.3	6.56	4.6	2
TMCLKL	HY/2012/08	2014-01-17	Mid-Ebb	Fine	Small Wave	IS13	Bottom	10.6	3	1	13:03	17.4	7.79	28.4	6.42	4.91	3.4
TMCLKL	HY/2012/08	2014-01-17	Mid-Ebb	Fine	Small Wave	IS13	Bottom	10.6	3	2	13:03	17.5	7.77	28.4	6.4	4.93	3.1
TMCLKL	HY/2012/08	2014-01-17	Mid-Ebb	Fine	Small Wave	IS14	Surface	1	1	1	12:18	17.1	7.84	28	6.68	4.13	2.6
TMCLKL	HY/2012/08	2014-01-17	Mid-Ebb	Fine	Small Wave	IS14	Surface	1	1	2	12:18	17.1	7.86	28	6.69	4.15	2.9
TMCLKL	HY/2012/08	2014-01-17	Mid-Ebb	Fine	Small Wave	IS14	Middle	8.1	2	1	12:18	17.2	7.91	28.1	6.52	4.17	2.8
TMCLKL	HY/2012/08	2014-01-17	Mid-Ebb	Fine	Small Wave	IS14	Middle	8.1	2	2	12:18	17.3	7.93	28.2	6.54	4.19	2.2
TMCLKL	HY/2012/08	2014-01-17	Mid-Ebb	Fine	Small Wave	IS14	Bottom	15.1	3	1	12:18	17.4	7.79	28.3	6.62	4.84	3.5
TMCLKL	HY/2012/08	2014-01-17	Mid-Ebb	Fine	Small Wave	IS14	Bottom	15.1	3	2	12:18	17.4	7.76	28.3	6.64	4.83	3.7
TMCLKL	HY/2012/08	2014-01-17	Mid-Ebb	Fine	Small Wave	IS15	Surface	1	1	1	13:24	17	7.89	28	6.91	4.54	2.4
TMCLKL	HY/2012/08	2014-01-17	Mid-Ebb	Fine	Small Wave	IS15	Surface	1	1	2	13:24	17.1	7.91	28	6.89	4.56	2.6
TMCLKL	HY/2012/08	2014-01-17	Mid-Ebb	Fine	Small Wave	IS15	Middle	5.9	2	1	13:24	17.2	7.94	28.1	6.52	4.69	2.8
TMCLKL	HY/2012/08	2014-01-17	Mid-Ebb	Fine	Small Wave	IS15	Middle	5.9	2	2	13:24	17.2	7.96	28.2	6.54	4.71	2.9

TMCLKL	HY/2012/08	2014-01-17	Mid-Ebb	Fine	Small Wave	IS15	Bottom	10.8	3	1	13:24	17.3	7.84	28.3	6.34	5.27	3
TMCLKL	HY/2012/08	2014-01-17	Mid-Ebb	Fine	Small Wave	IS15	Bottom	10.8	3	2	13:24	17.4	7.86	28.3	6.36	5.29	4.1
TMCLKL	HY/2012/08	2014-01-17	Mid-Ebb	Fine	Small Wave	SR8	Surface	1	1	1	14:03	17.1	7.84	28	6.76	3.85	3
TMCLKL	HY/2012/08	2014-01-17	Mid-Ebb	Fine	Small Wave	SR8	Surface	1	1	2	14:03	17.1	7.86	28.1	6.78	3.87	2.2
TMCLKL	HY/2012/08	2014-01-17	Mid-Ebb	Fine	Small Wave	SR8	Middle		2	1	14:03						
TMCLKL	HY/2012/08	2014-01-17	Mid-Ebb	Fine	Small Wave	SR8	Middle		2	2	14:03						
TMCLKL	HY/2012/08	2014-01-17	Mid-Ebb	Fine	Small Wave	SR8	Bottom	4.2	3	1	14:03	17.2	7.91	28.2	6.71	4.97	3.4
TMCLKL	HY/2012/08	2014-01-17	Mid-Ebb	Fine	Small Wave	SR8	Bottom	4.2	3	2	14:03	17.3	7.89	28.2	6.73	4.99	3.1
TMCLKL	HY/2012/08	2014-01-17	Mid-Ebb	Fine	Small Wave	SR9	Surface	1	1	1	13:46	17	7.85	28	6.77	3.62	3.7
TMCLKL	HY/2012/08	2014-01-17	Mid-Ebb	Fine	Small Wave	SR9	Surface	1	1	2	13:46	17	7.87	28.1	6.79	3.64	3.1
TMCLKL	HY/2012/08	2014-01-17	Mid-Ebb	Fine	Small Wave	SR9	Middle		2	1	13:46						
TMCLKL	HY/2012/08	2014-01-17	Mid-Ebb	Fine	Small Wave	SR9	Middle		2	2	13:46						
TMCLKL	HY/2012/08	2014-01-17	Mid-Ebb	Fine	Small Wave	SR9	Bottom	4.5	3	1	13:46	17.1	7.82	28.2	6.42	4.17	3.4
TMCLKL	HY/2012/08	2014-01-17	Mid-Ebb	Fine	Small Wave	SR9	Bottom	4.5	3	2	13:46	17.2	7.84	28.2	6.44	4.19	3.8
TMCLKL	HY/2012/08	2014-01-17	Mid-Ebb	Fine	Small Wave	SR10	Surface	1	1	1	14:45	17	7.91	28	6.79	5.16	2.1
TMCLKL	HY/2012/08	2014-01-17	Mid-Ebb	Fine	Small Wave	SR10	Surface	1	1	2	14:45	17.1	7.93	28	6.81	5.17	2.7
TMCLKL	HY/2012/08	2014-01-17	Mid-Ebb	Fine	Small Wave	SR10	Middle	6.9	2	1	14:45	17.2	7.84	28.1	6.42	3.8	2.6
TMCLKL	HY/2012/08	2014-01-17	Mid-Ebb	Fine	Small Wave	SR10	Middle	6.9	2	2	14:45	17.2	7.86	28.2	6.44	3.82	2.2
TMCLKL	HY/2012/08	2014-01-17	Mid-Ebb	Fine	Small Wave	SR10	Bottom	12.8	3	1	14:45	17.3	7.79	28.3	6.47	4.89	3.3
TMCLKL	HY/2012/08	2014-01-17	Mid-Ebb	Fine	Small Wave	SR10	Bottom	12.8	3	2	14:45	17.4	7.81	28.4	6.49	4.91	4.1
TMCLKL	HY/2012/08	2014-01-20	Mid-Flood	Fine	Small Wave	CS4	Surface	1	1	1	11:10	17	7.74	28	6.65	3.39	3.3
TMCLKL	HY/2012/08	2014-01-20	Mid-Flood	Fine	Small Wave	CS4	Surface	1	1	2	11:10	17	7.76	28	6.66	3.41	3.4
TMCLKL	HY/2012/08	2014-01-20	Mid-Flood	Fine	Small Wave	CS4	Middle	11	2	1	11:10	17.1	7.81	28.1	6.74	4.09	3.1
TMCLKL	HY/2012/08	2014-01-20	Mid-Flood	Fine	Small Wave	CS4	Middle	11	2	2	11:10	17.2	7.83	28.2	6.72	4.11	2.7
TMCLKL	HY/2012/08	2014-01-20	Mid-Flood	Fine	Small Wave	CS4	Bottom	22.1	3	1	11:10	17.3	7.88	28.3	6.59	4.35	3.9
TMCLKL	HY/2012/08	2014-01-20	Mid-Flood	Fine	Small Wave	CS4	Bottom	22.1	3	2	11:10	17.4	7.87	28.4	6.61	4.36	3.3
TMCLKL	HY/2012/08	2014-01-20	Mid-Flood	Fine	Small Wave	CS6	Surface	1	1	1	07:57	17	7.78	28	6.82	5	3.1
TMCLKL	HY/2012/08	2014-01-20	Mid-Flood	Fine	Small Wave	CS6	Surface	1	1	2	07:57	17.1	7.79	28	6.84	5.02	4.2
TMCLKL	HY/2012/08	2014-01-20	Mid-Flood	Fine	Small Wave	CS6	Middle	6.7	2	1	07:57	17.2	7.81	28.1	6.59	4.17	2.7
TMCLKL	HY/2012/08	2014-01-20	Mid-Flood	Fine	Small Wave	CS6	Middle	6.7	2	2	07:57	17.2	7.83	28.2	6.61	4.19	3.4
TMCLKL	HY/2012/08	2014-01-20	Mid-Flood	Fine	Small Wave	CS6	Bottom	12.3	3	1	07:57	17.3	7.67	28.3	6.39	3.12	2.9
TMCLKL	HY/2012/08	2014-01-20	Mid-Flood	Fine	Small Wave	CS6	Bottom	12.3	3	2	07:57	17.4	7.68	28.4	6.41	3.1	3.7
TMCLKL	HY/2012/08	2014-01-20	Mid-Flood	Fine	Small Wave	IS12	Surface	1	1	1	10:18	17	7.7	28	6.88	3.4	2.9
TMCLKL	HY/2012/08	2014-01-20	Mid-Flood	Fine	Small Wave	IS12	Surface	1	1	2	10:18	17	7.72	28.1	6.87	3.42	2.8
TMCLKL	HY/2012/08	2014-01-20	Mid-Flood	Fine	Small Wave	IS12	Middle	7.6	2	1	10:18	17.1	7.74	28.2	6.64	3.57	3.8
TMCLKL	HY/2012/08	2014-01-20	Mid-Flood	Fine	Small Wave	IS12	Middle	7.6	2	2	10:18	17.2	7.7	28.3	6.66	3.59	2.1
TMCLKL	HY/2012/08	2014-01-20	Mid-Flood	Fine	Small Wave	IS12	Bottom	14.1	3	1	10:18	17.3	7.8	28.4	6.72	3.64	3.6
TMCLKL	HY/2012/08	2014-01-20	Mid-Flood	Fine	Small Wave	IS12	Bottom	14.1	3	2	10:18	17.4	7.82	28.4	6.74	3.65	3.4
TMCLKL	HY/2012/08	2014-01-20	Mid-Flood	Fine	Small Wave	IS13	Surface	1	1	1	09:56	17	7.77	28	6.77	3.73	3.8
TMCLKL	HY/2012/08	2014-01-20	Mid-Flood	Fine	Small Wave	IS13	Surface	1	1	2	09:56	17.1	7.75	28.1	6.79	3.75	2.5
TMCLKL	HY/2012/08	2014-01-20	Mid-Flood	Fine	Small Wave	IS13	Middle	5.9	2	1	09:56	17.1	7.81	28.2	6.58	4.63	4.7
TMCLKL	HY/2012/08	2014-01-20	Mid-Flood	Fine	Small Wave	IS13	Middle	5.9	2	2	09:56	17.2	7.83	28.2	6.56	4.65	3.1
TMCLKL	HY/2012/08	2014-01-20	Mid-Flood	Fine	Small Wave	IS13	Bottom	10.7	3	1	09:56	17.3	7.8	28.3	6.48	3.9	3.6
TMCLKL	HY/2012/08	2014-01-20	Mid-Flood	Fine	Small Wave	IS13	Bottom	10.7	3	2	09:56	17.4	7.78	28.4	6.5	3.92	3.1
TMCLKL	HY/2012/08	2014-01-20	Mid-Flood	Fine	Small Wave	IS14	Surface	1	1	1	10:38	17	7.74	28.1	6.74	3.34	3
TMCLKL	HY/2012/08	2014-01-20	Mid-Flood	Fine	Small Wave	IS14	Surface	1	1	2	10:38	17.1	7.76	28.1	6.76	3.32	2.9
TMCLKL	HY/2012/08	2014-01-20	Mid-Flood	Fine	Small Wave	IS14	Middle	8.2	2	1	10:38	17.2	7.8	28.2	6.59	3.78	2.7

TMCLKL	HY/2012/08	2014-01-20	Mid-Flood	Fine	Small Wave	IS14	Middle	8.2	2	2	10:38	17.2	7.82	28.2	6.61	3.8	4.5
TMCLKL	HY/2012/08	2014-01-20	Mid-Flood	Fine	Small Wave	IS14	Bottom	15.3	3	1	10:38	17.3	7.84	28.3	6.63	3.57	2.2
TMCLKL	HY/2012/08	2014-01-20	Mid-Flood	Fine	Small Wave	IS14	Bottom	15.3	3	2	10:38	17.3	7.86	28.4	6.65	3.55	3.7
TMCLKL	HY/2012/08	2014-01-20	Mid-Flood	Fine	Small Wave	IS15	Surface	1	1	1	09:34	17	7.81	28	6.87	3.5	2.6
TMCLKL	HY/2012/08	2014-01-20	Mid-Flood	Fine	Small Wave	IS15	Surface	1	1	2	09:34	17	7.83	28	6.89	3.52	2.9
TMCLKL	HY/2012/08	2014-01-20	Mid-Flood	Fine	Small Wave	IS15	Middle	6.1	2	1	09:34	17.1	7.84	28.1	6.61	4.48	3.2
TMCLKL	HY/2012/08	2014-01-20	Mid-Flood	Fine	Small Wave	IS15	Middle	6.1	2	2	09:34	17.2	7.86	28.2	6.63	4.5	2.8
TMCLKL	HY/2012/08	2014-01-20	Mid-Flood	Fine	Small Wave	IS15	Bottom	11.1	3	1	09:34	17.3	7.73	28.3	6.42	3.33	2.6
TMCLKL	HY/2012/08	2014-01-20	Mid-Flood	Fine	Small Wave	IS15	Bottom	11.1	3	2	09:34	17.4	7.7	28.4	6.44	3.35	3.1
TMCLKL	HY/2012/08	2014-01-20	Mid-Flood	Fine	Small Wave	SR8	Surface	1	1	1	09:03	17.1	7.69	28.1	6.74	2.39	2.2
TMCLKL	HY/2012/08	2014-01-20	Mid-Flood	Fine	Small Wave	SR8	Surface	1	1	2	09:03	17.1	7.71	28.1	6.76	2.41	2.3
TMCLKL	HY/2012/08	2014-01-20	Mid-Flood	Fine	Small Wave	SR8	Middle		2	1	09:03						
TMCLKL	HY/2012/08	2014-01-20	Mid-Flood	Fine	Small Wave	SR8	Middle		2	2	09:03						
TMCLKL	HY/2012/08	2014-01-20	Mid-Flood	Fine	Small Wave	SR8	Bottom	4.5	3	1	09:03	17.2	7.74	28.2	6.67	2.53	2
TMCLKL	HY/2012/08	2014-01-20	Mid-Flood	Fine	Small Wave	SR8	Bottom	4.5	3	2	09:03	17.2	7.76	28.1	6.65	2.55	2.3
TMCLKL	HY/2012/08	2014-01-20	Mid-Flood	Fine	Small Wave	SR9	Surface	1	1	1	09:18	17	7.74	28	6.84	2.47	3.2
TMCLKL	HY/2012/08	2014-01-20	Mid-Flood	Fine	Small Wave	SR9	Surface	1	1	2	09:18	17.1	7.76	28.1	6.86	2.49	2.8
TMCLKL	HY/2012/08	2014-01-20	Mid-Flood	Fine	Small Wave	SR9	Middle		2	1	09:18						
TMCLKL	HY/2012/08	2014-01-20	Mid-Flood	Fine	Small Wave	SR9	Middle		2	2	09:18						
TMCLKL	HY/2012/08	2014-01-20	Mid-Flood	Fine	Small Wave	SR9	Bottom	4.7	3	1	09:18	17.2	7.79	25.2	6.5	4.9	2.1
TMCLKL	HY/2012/08	2014-01-20	Mid-Flood	Fine	Small Wave	SR9	Bottom	4.7	3	2	09:18	17.2	7.77	25.2	6.52	4.92	2.9
TMCLKL	HY/2012/08	2014-01-20	Mid-Flood	Fine	Small Wave	SR10	Surface	1	1	1	08:27	17	7.73	28	6.87	3.53	4.1
TMCLKL	HY/2012/08	2014-01-20	Mid-Flood	Fine	Small Wave	SR10	Surface	1	1	2	08:27	17	7.75	28.1	6.89	3.55	2.7
TMCLKL	HY/2012/08	2014-01-20	Mid-Flood	Fine	Small Wave	SR10	Middle	7	2	1	08:27	17.1	7.82	28.2	6.47	3.32	4.8
TMCLKL	HY/2012/08	2014-01-20	Mid-Flood	Fine	Small Wave	SR10	Middle	7	2	2	08:27	17.2	7.84	28.2	6.49	3.34	5.8
TMCLKL	HY/2012/08	2014-01-20	Mid-Flood	Fine	Small Wave	SR10	Bottom	12.9	3	1	08:27	17.3	7.76	28.3	6.43	3.82	3.7
TMCLKL	HY/2012/08	2014-01-20	Mid-Flood	Fine	Small Wave	SR10	Bottom	12.9	3	2	08:27	17.3	7.78	28.4	6.4	3.8	5
TMCLKL	HY/2012/08	2014-01-20	Mid-Ebb	Fine	Small Wave	CS4	Surface	1	1	1	11:32	17	7.77	28	6.77	3.43	2.1
TMCLKL	HY/2012/08	2014-01-20	Mid-Ebb	Fine	Small Wave	CS4	Surface	1	1	2	11:32	17.1	7.75	28.1	6.79	3.45	3.2
TMCLKL	HY/2012/08	2014-01-20	Mid-Ebb	Fine	Small Wave	CS4	Middle	11.4	2	1	11:32	17.2	7.79	28.2	6.73	4.13	3
TMCLKL	HY/2012/08	2014-01-20	Mid-Ebb	Fine	Small Wave	CS4	Middle	11.4	2	2	11:32	17.3	7.81	28.2	6.71	4.15	4.6
TMCLKL	HY/2012/08	2014-01-20	Mid-Ebb	Fine	Small Wave	CS4	Bottom	21.8	3	1	11:32	17.4	7.82	28.3	6.54	4.42	4
TMCLKL	HY/2012/08	2014-01-20	Mid-Ebb	Fine	Small Wave	CS4	Bottom	21.8	3	2	11:32	17.4	7.84	28.4	6.52	4.44	4.8
TMCLKL	HY/2012/08	2014-01-20	Mid-Ebb	Fine	Small Wave	CS6	Surface	1	1	1	16:43	17	7.71	28	6.77	5.04	3.6
TMCLKL	HY/2012/08	2014-01-20	Mid-Ebb	Fine	Small Wave	CS6	Surface	1	1	2	16:43	17.1	7.73	28.1	6.79	5.06	3.2
TMCLKL	HY/2012/08	2014-01-20	Mid-Ebb	Fine	Small Wave	CS6	Middle	6.5	2	1	16:43	17.2	7.64	28.1	6.54	4.2	2.7
TMCLKL	HY/2012/08	2014-01-20	Mid-Ebb	Fine	Small Wave	CS6	Middle	6.5	2	2	16:43	17.2	7.66	28.2	6.56	4.22	2.3
TMCLKL	HY/2012/08	2014-01-20	Mid-Ebb	Fine	Small Wave	CS6	Bottom	12	3	1	16:43	17.3	7.76	28.3	6.43	3.16	2.7
TMCLKL	HY/2012/08	2014-01-20	Mid-Ebb	Fine	Small Wave	CS6	Bottom	12	3	2	16:43	17.4	7.78	28.4	6.45	3.18	2.9
TMCLKL	HY/2012/08	2014-01-20	Mid-Ebb	Fine	Small Wave	IS12	Surface	1	1	1	14:16	17	7.74	28	6.54	3.44	3.1
TMCLKL	HY/2012/08	2014-01-20	Mid-Ebb	Fine	Small Wave	IS12	Surface	1	1	2	14:16	17	7.76	28.1	6.52	3.46	5.4
TMCLKL	HY/2012/08	2014-01-20	Mid-Ebb	Fine	Small Wave	IS12	Middle	7.5	2	1	14:16	17.1	7.64	28.1	6.62	3.61	3.9
TMCLKL	HY/2012/08	2014-01-20	Mid-Ebb	Fine	Small Wave	IS12	Middle	7.5	2	2	14:16	17.2	7.66	28.2	6.6	3.62	4.4
TMCLKL	HY/2012/08	2014-01-20	Mid-Ebb	Fine	Small Wave	IS12	Bottom	13.9	3	1	14:16	17.3	7.69	28.3	6.69	3.66	4.4
TMCLKL	HY/2012/08	2014-01-20	Mid-Ebb	Fine	Small Wave	IS12	Bottom	13.9	3	2	14:16	17.4	7.71	28.4	6.67	3.68	4.9
TMCLKL	HY/2012/08	2014-01-20	Mid-Ebb	Fine	Small Wave	IS13	Surface	1	1	1	14:36	17.1	7.68	28	6.72	3.8	2.9
TMCLKL	HY/2012/08	2014-01-20	Mid-Ebb	Fine	Small Wave	IS13	Surface	1	1	2	14:36	17	7.69	28.1	6.74	3.82	2.5

TMCLKL	HY/2012/08	2014-01-20	Mid-Ebb	Fine	Small Wave	IS13	Middle	5.8	2	1	14:36	17.2	7.73	28.2	6.53	4.67	3.8
TMCLKL	HY/2012/08	2014-01-20	Mid-Ebb	Fine	Small Wave	IS13	Middle	5.8	2	2	14:36	17.3	7.75	28.3	6.55	4.69	3.7
TMCLKL	HY/2012/08	2014-01-20	Mid-Ebb	Fine	Small Wave	IS13	Bottom	10.5	3	1	14:36	17.4	7.76	28.4	6.43	3.94	3.9
TMCLKL	HY/2012/08	2014-01-20	Mid-Ebb	Fine	Small Wave	IS13	Bottom	10.5	3	2	14:36	17.4	7.78	28.4	6.45	3.96	4
TMCLKL	HY/2012/08	2014-01-20	Mid-Ebb	Fine	Small Wave	IS14	Surface	1	1	1	13:54	17	7.8	28	6.72	3.36	2.9
TMCLKL	HY/2012/08	2014-01-20	Mid-Ebb	Fine	Small Wave	IS14	Surface	1	1	2	13:54	17.1	7.82	28	6.7	3.38	3.9
TMCLKL	HY/2012/08	2014-01-20	Mid-Ebb	Fine	Small Wave	IS14	Middle	8.1	2	1	13:54	17.2	7.73	28.1	6.54	3.82	2.8
TMCLKL	HY/2012/08	2014-01-20	Mid-Ebb	Fine	Small Wave	IS14	Middle	8.1	2	2	13:54	17.2	7.75	28.1	6.52	3.84	2.3
TMCLKL	HY/2012/08	2014-01-20	Mid-Ebb	Fine	Small Wave	IS14	Bottom	15.1	3	1	13:54	17.3	7.63	28.2	6.6	3.62	3.2
TMCLKL	HY/2012/08	2014-01-20	Mid-Ebb	Fine	Small Wave	IS14	Bottom	15.1	3	2	13:54	17.4	7.65	28.3	6.58	3.6	2.4
TMCLKL	HY/2012/08	2014-01-20	Mid-Ebb	Fine	Small Wave	IS15	Surface	1	1	1	14:57	17	7.63	28	6.83	3.54	3.9
TMCLKL	HY/2012/08	2014-01-20	Mid-Ebb	Fine	Small Wave	IS15	Surface	1	1	2	14:57	17.1	7.65	28.1	6.85	3.56	2.5
TMCLKL	HY/2012/08	2014-01-20	Mid-Ebb	Fine	Small Wave	IS15	Middle	6	2	1	14:57	17.2	7.69	28.2	6.54	4.53	3
TMCLKL	HY/2012/08	2014-01-20	Mid-Ebb	Fine	Small Wave	IS15	Middle	6	2	2	14:57	17.2	7.71	28.2	6.56	4.55	3.9
TMCLKL	HY/2012/08	2014-01-20	Mid-Ebb	Fine	Small Wave	IS15	Bottom	10.9	3	1	14:57	17.3	7.74	28.3	6.4	3.37	3.9
TMCLKL	HY/2012/08	2014-01-20	Mid-Ebb	Fine	Small Wave	IS15	Bottom	10.9	3	2	14:57	17.4	7.76	28.4	6.38	3.39	2.4
TMCLKL	HY/2012/08	2014-01-20	Mid-Ebb	Fine	Small Wave	SR8	Surface	1	1	1	15:33	17	7.73	28	6.7	2.44	2.9
TMCLKL	HY/2012/08	2014-01-20	Mid-Ebb	Fine	Small Wave	SR8	Surface	1	1	2	15:33	17	7.75	28.1	6.68	2.46	2.3
TMCLKL	HY/2012/08	2014-01-20	Mid-Ebb	Fine	Small Wave	SR8	Middle		2	1	15:33						
TMCLKL	HY/2012/08	2014-01-20	Mid-Ebb	Fine	Small Wave	SR8	Middle		2	2	15:33						
TMCLKL	HY/2012/08	2014-01-20	Mid-Ebb	Fine	Small Wave	SR8	Bottom	4.3	3	1	15:33	17.1	7.8	28.2	6.63	2.57	2.7
TMCLKL	HY/2012/08	2014-01-20	Mid-Ebb	Fine	Small Wave	SR8	Bottom	4.3	3	2	15:33	17.2	7.78	28.2	6.6	2.59	2.3
TMCLKL	HY/2012/08	2014-01-20	Mid-Ebb	Fine	Small Wave	SR9	Surface	1	1	1	15:18	17	7.73	28	6.73	2.52	2.7
TMCLKL	HY/2012/08	2014-01-20	Mid-Ebb	Fine	Small Wave	SR9	Surface	1	1	2	15:18	17	7.75	28	6.75	2.54	2.3
TMCLKL	HY/2012/08	2014-01-20	Mid-Ebb	Fine	Small Wave	SR9	Middle		2	1	15:18						
TMCLKL	HY/2012/08	2014-01-20	Mid-Ebb	Fine	Small Wave	SR9	Middle		2	2	15:18						
TMCLKL	HY/2012/08	2014-01-20	Mid-Ebb	Fine	Small Wave	SR9	Bottom	4.5	3	1	15:18	17.1	7.77	28.1	6.43	4.93	2.5
TMCLKL	HY/2012/08	2014-01-20	Mid-Ebb	Fine	Small Wave	SR9	Bottom	4.5	3	2	15:18	17.2	7.79	28.2	6.45	4.95	3
TMCLKL	HY/2012/08	2014-01-20	Mid-Ebb	Fine	Small Wave	SR10	Surface	1	1	1	16:10	17	7.67	28	6.82	3.56	3.2
TMCLKL	HY/2012/08	2014-01-20	Mid-Ebb	Fine	Small Wave	SR10	Surface	1	1	2	16:10	17	7.69	28	6.84	3.58	4.3
TMCLKL	HY/2012/08	2014-01-20	Mid-Ebb	Fine	Small Wave	SR10	Middle	6.9	2	1	16:10	17.1	7.73	28.1	6.44	3.39	2.4
TMCLKL	HY/2012/08	2014-01-20	Mid-Ebb	Fine	Small Wave	SR10	Middle	6.9	2	2	16:10	17.1	7.72	28.1	6.42	3.41	3.5
TMCLKL	HY/2012/08	2014-01-20	Mid-Ebb	Fine	Small Wave	SR10	Bottom	12.7	3	1	16:10	17.2	7.75	28.2	6.39	3.84	2.2
TMCLKL	HY/2012/08	2014-01-20	Mid-Ebb	Fine	Small Wave	SR10	Bottom	12.7	3	2	16:10	17.3	7.77	28.3	6.37	3.86	3.8
TMCLKL	HY/2012/08	2014-01-22	Mid-Flood	Fine	Small Wave	CS4	Surface	1	1	1	12:06	16.9	7.6	28.1	6.7	2.58	2.2
TMCLKL	HY/2012/08	2014-01-22	Mid-Flood	Fine	Small Wave	CS4	Surface	1	1	2	12:06	16.8	7.64	28.2	6.72	2.55	2.7
TMCLKL	HY/2012/08	2014-01-22	Mid-Flood	Fine	Small Wave	CS4	Middle	11.4	2	1	12:06	17	7.74	28.2	6.73	2.24	2.2
TMCLKL	HY/2012/08	2014-01-22	Mid-Flood	Fine	Small Wave	CS4	Middle	11.4	2	2	12:06	17.1	7.75	28.3	6.75	2.2	3.1
TMCLKL	HY/2012/08	2014-01-22	Mid-Flood	Fine	Small Wave	CS4	Bottom	21.8	3	1	12:06	17.2	7.93	28.4	6.42	2.15	4.2
TMCLKL	HY/2012/08	2014-01-22	Mid-Flood	Fine	Small Wave	CS4	Bottom	21.8	3	2	12:06	17.3	7.94	28.5	6.4	2.14	2.3
TMCLKL	HY/2012/08	2014-01-22	Mid-Flood	Fine	Small Wave	CS6	Surface	1	1	1	08:58	16.7	7.78	28.1	6.87	2.43	2.1
TMCLKL	HY/2012/08	2014-01-22	Mid-Flood	Fine	Small Wave	CS6	Surface	1	1	2	08:58	16.6	7.8	28.2	6.89	2.44	2
TMCLKL	HY/2012/08	2014-01-22	Mid-Flood	Fine	Small Wave	CS6	Middle	6.5	2	1	08:58	16.8	7.72	28.3	6.64	2.25	2.5
TMCLKL	HY/2012/08	2014-01-22	Mid-Flood	Fine	Small Wave	CS6	Middle	6.5	2	2	08:58	16.9	7.73	28.3	6.67	2.24	2.6
TMCLKL	HY/2012/08	2014-01-22	Mid-Flood	Fine	Small Wave	CS6	Bottom	12	3	1	08:58	17	7.86	28.4	6.59	2.31	2.9
TMCLKL	HY/2012/08	2014-01-22	Mid-Flood	Fine	Small Wave	CS6	Bottom	12	3	2	08:58	17.1	7.87	28.5	6.61	2.3	2.9
TMCLKL	HY/2012/08	2014-01-22	Mid-Flood	Fine	Small Wave	IS12	Surface	1	1	1	11:19	16.8	7.74	28.1	6.51	2.24	3.4



TMCLKL	HY/2012/08	2014-01-22	Mid-Flood	Fine	Small Wave	IS12	Surface	1	1	2	11:19	16.8	7.73	28.2	6.53	2.26	3.6
TMCLKL	HY/2012/08	2014-01-22	Mid-Flood	Fine	Small Wave	IS12	Middle	7.7	2	1	11:19	16.9	7.61	28.3	6.67	2.17	2
TMCLKL	HY/2012/08	2014-01-22	Mid-Flood	Fine	Small Wave	IS12	Middle	7.7	2	2	11:19	17	7.62	28.4	6.7	2.15	4.1
TMCLKL	HY/2012/08	2014-01-22	Mid-Flood	Fine	Small Wave	IS12	Bottom	14.3	3	1	11:19	17.2	7.54	28.4	6.82	2.27	2.5
TMCLKL	HY/2012/08	2014-01-22	Mid-Flood	Fine	Small Wave	IS12	Bottom	14.3	3	2	11:19	17.1	7.55	28.3	6.83	2.28	3.9
TMCLKL	HY/2012/08	2014-01-22	Mid-Flood	Fine	Small Wave	IS13	Surface	1	1	1	10:58	16.7	7.4	28.1	6.71	2.94	2.4
TMCLKL	HY/2012/08	2014-01-22	Mid-Flood	Fine	Small Wave	IS13	Surface	1	1	2	10:58	16.8	7.38	28.2	6.73	2.97	2.7
TMCLKL	HY/2012/08	2014-01-22	Mid-Flood	Fine	Small Wave	IS13	Middle	6	2	1	10:58	16.9	7.48	28.2	6.54	1.77	2.9
TMCLKL	HY/2012/08	2014-01-22	Mid-Flood	Fine	Small Wave	IS13	Middle	6	2	2	10:58	16.9	7.5	28.3	6.55	1.75	2.4
TMCLKL	HY/2012/08	2014-01-22	Mid-Flood	Fine	Small Wave	IS13	Bottom	10.9	3	1	10:58	17	7.73	28.4	6.67	2.04	4.1
TMCLKL	HY/2012/08	2014-01-22	Mid-Flood	Fine	Small Wave	IS13	Bottom	10.9	3	2	10:58	17.1	7.74	28.4	6.68	2.07	3.4
TMCLKL	HY/2012/08	2014-01-22	Mid-Flood	Fine	Small Wave	IS14	Surface	1	1	1	11:41	16.9	7.8	28.2	6.94	2.35	3.7
TMCLKL	HY/2012/08	2014-01-22	Mid-Flood	Fine	Small Wave	IS14	Surface	1	1	2	11:41	16.8	7.78	28.1	6.95	2.37	4
TMCLKL	HY/2012/08	2014-01-22	Mid-Flood	Fine	Small Wave	IS14	Middle	8.3	2	1	11:41	16.9	7.73	28.2	6.7	2.24	3
TMCLKL	HY/2012/08	2014-01-22	Mid-Flood	Fine	Small Wave	IS14	Middle	8.3	2	2	11:41	17.1	7.74	28.3	6.71	2.23	3.2
TMCLKL	HY/2012/08	2014-01-22	Mid-Flood	Fine	Small Wave	IS14	Bottom	15.5	3	1	11:41	17.2	7.83	28.4	6.7	2.07	4.2
TMCLKL	HY/2012/08	2014-01-22	Mid-Flood	Fine	Small Wave	IS14	Bottom	15.5	3	2	11:41	17.1	7.85	28.4	6.74	2.06	2.2
TMCLKL	HY/2012/08	2014-01-22	Mid-Flood	Fine	Small Wave	IS15	Surface	1	1	1	10:34	16.6	7.8	28	6.84	1.84	4.1
TMCLKL	HY/2012/08	2014-01-22	Mid-Flood	Fine	Small Wave	IS15	Surface	1	1	2	10:34	16.7	7.81	28.1	6.86	1.86	2.3
TMCLKL	HY/2012/08	2014-01-22	Mid-Flood	Fine	Small Wave	IS15	Middle	6	2	1	10:34	16.8	7.79	28.1	6.72	2.19	3.2
TMCLKL	HY/2012/08	2014-01-22	Mid-Flood	Fine	Small Wave	IS15	Middle	6	2	2	10:34	16.9	7.8	28.2	6.74	2.2	3.8
TMCLKL	HY/2012/08	2014-01-22	Mid-Flood	Fine	Small Wave	IS15	Bottom	11	3	1	10:34	17	7.64	28.4	6.62	2.37	3.4
TMCLKL	HY/2012/08	2014-01-22	Mid-Flood	Fine	Small Wave	IS15	Bottom	11	3	2	10:34	16.9	7.67	28.4	6.6	2.39	2.8
TMCLKL	HY/2012/08	2014-01-22	Mid-Flood	Fine	Small Wave	SR8	Surface	1	1	1	09:48	16.7	7.81	28	6.61	2.65	4.3
TMCLKL	HY/2012/08	2014-01-22	Mid-Flood	Fine	Small Wave	SR8	Surface	1	1	2	09:48	16.6	7.8	28.1	6.63	2.67	3.1
TMCLKL	HY/2012/08	2014-01-22	Mid-Flood	Fine	Small Wave	SR8	Middle		2	1	09:48						
TMCLKL	HY/2012/08	2014-01-22	Mid-Flood	Fine	Small Wave	SR8	Middle		2	2	09:48						
TMCLKL	HY/2012/08	2014-01-22	Mid-Flood	Fine	Small Wave	SR8	Bottom	4.7	3	1	09:48	16.7	7.79	28.2	6.69	2.85	4.2
TMCLKL	HY/2012/08	2014-01-22	Mid-Flood	Fine	Small Wave	SR8	Bottom	4.7	3	2	09:48	16.8	7.81	28.3	6.72	2.89	2.8
TMCLKL	HY/2012/08	2014-01-22	Mid-Flood	Fine	Small Wave	SR9	Surface	1	1	1	10:12	16.7	7.58	28.1	6.74	2.49	3
TMCLKL	HY/2012/08	2014-01-22	Mid-Flood	Fine	Small Wave	SR9	Surface	1	1	2	10:12	16.8	7.6	28.2	6.77	2.5	4.3
TMCLKL	HY/2012/08	2014-01-22	Mid-Flood	Fine	Small Wave	SR9	Middle		2	1	10:12						
TMCLKL	HY/2012/08	2014-01-22	Mid-Flood	Fine	Small Wave	SR9	Middle		2	2	10:12						
TMCLKL	HY/2012/08	2014-01-22	Mid-Flood	Fine	Small Wave	SR9	Bottom	4.8	3	1	10:12	16.9	7.64	28.3	6.68	2.53	2
TMCLKL	HY/2012/08	2014-01-22	Mid-Flood	Fine	Small Wave	SR9	Bottom	4.8	3	2	10:12	17	7.66	28.4	6.71	2.51	3.5
TMCLKL	HY/2012/08	2014-01-22	Mid-Flood	Fine	Small Wave	SR10	Surface	1	1	1	09:23	16.7	7.64	28.1	6.84	2.87	2.1
TMCLKL	HY/2012/08	2014-01-22	Mid-Flood	Fine	Small Wave	SR10	Surface	1	1	2	09:23	16.6	7.65	28.2	6.82	2.88	3.3
TMCLKL	HY/2012/08	2014-01-22	Mid-Flood	Fine	Small Wave	SR10	Middle	7	2	1	09:23	16.7	7.74	28.3	6.62	2.04	2.4
TMCLKL	HY/2012/08	2014-01-22	Mid-Flood	Fine	Small Wave	SR10	Middle	7	2	2	09:23	16.8	7.76	28.4	6.64	2.07	2.1
TMCLKL	HY/2012/08	2014-01-22	Mid-Flood	Fine	Small Wave	SR10	Bottom	12.9	3	1	09:23	16.9	7.84	28.4	6.57	2.14	3.6
TMCLKL	HY/2012/08	2014-01-22	Mid-Flood	Fine	Small Wave	SR10	Bottom	12.9	3	2	09:23	17	7.85	28.5	6.58	2.15	2.6
TMCLKL	HY/2012/08	2014-01-22	Mid-Ebb	Fine	Small Wave	CS4	Surface	1	1	1	14:56	16.9	7.64	28.1	6.55	2.71	2.9
TMCLKL	HY/2012/08	2014-01-22	Mid-Ebb	Fine	Small Wave	CS4	Surface	1	1	2	14:56	17	7.66	28.1	6.57	2.78	3.1
TMCLKL	HY/2012/08	2014-01-22	Mid-Ebb	Fine	Small Wave	CS4	Middle	11.4	2	1	14:56	16.8	7.72	28.1	6.69	2.35	3.4
TMCLKL	HY/2012/08	2014-01-22	Mid-Ebb	Fine	Small Wave	CS4	Middle	11.4	2	2	14:56	16.9	7.73	28.2	6.67	2.38	3.2
TMCLKL	HY/2012/08	2014-01-22	Mid-Ebb	Fine	Small Wave	CS4	Bottom	21.7	3	1	14:56	17.1	7.84	28.4	6.23	2.03	3.4
TMCLKL	HY/2012/08	2014-01-22	Mid-Ebb	Fine	Small Wave	CS4	Bottom	21.7	3	2	14:56	17	7.86	28.4	6.24	2	2.7

TMCLKL	HY/2012/08	2014-01-22	Mid-Ebb	Fine	Small Wave	CS6	Surface	1	1	1	18:12	16.9	7.74	28	6.74	2.54	3.1
TMCLKL	HY/2012/08	2014-01-22	Mid-Ebb	Fine	Small Wave	CS6	Surface	1	1	2	18:12	17	7.76	28.1	6.75	2.56	2.4
TMCLKL	HY/2012/08	2014-01-22	Mid-Ebb	Fine	Small Wave	CS6	Middle	5.9	2	1	18:12	17.1	7.7	28.2	6.6	2.43	4
TMCLKL	HY/2012/08	2014-01-22	Mid-Ebb	Fine	Small Wave	CS6	Middle	5.9	2	2	18:12	17.2	7.71	28.1	6.62	2.46	2.9
TMCLKL	HY/2012/08	2014-01-22	Mid-Ebb	Fine	Small Wave	CS6	Bottom	11.8	3	1	18:12	17.1	7.8	28.3	6.5	2.51	3
TMCLKL	HY/2012/08	2014-01-22	Mid-Ebb	Fine	Small Wave	CS6	Bottom	11.8	3	2	18:12	17.2	7.1	28.3	6.52	2.5	2.3
TMCLKL	HY/2012/08	2014-01-22	Mid-Ebb	Fine	Small Wave	IS12	Surface	1	1	1	15:44	16.7	7.65	28.1	6.4	2.42	4.4
TMCLKL	HY/2012/08	2014-01-22	Mid-Ebb	Fine	Small Wave	IS12	Surface	1	1	2	15:44	16.8	7.63	28	6.42	2.44	2.6
TMCLKL	HY/2012/08	2014-01-22	Mid-Ebb	Fine	Small Wave	IS12	Middle	7.5	2	1	15:44	16.8	7.58	28.2	6.5	2.29	2.4
TMCLKL	HY/2012/08	2014-01-22	Mid-Ebb	Fine	Small Wave	IS12	Middle	7.5	2	2	15:44	16.9	7.55	28.2	6.51	2.31	2.6
TMCLKL	HY/2012/08	2014-01-22	Mid-Ebb	Fine	Small Wave	IS12	Bottom	14	3	1	15:44	17	7.6	28.3	6.62	2.2	2.7
TMCLKL	HY/2012/08	2014-01-22	Mid-Ebb	Fine	Small Wave	IS12	Bottom	14	3	2	15:44	17.1	7.61	28.4	6.61	2.23	3.9
TMCLKL	HY/2012/08	2014-01-22	Mid-Ebb	Fine	Small Wave	IS13	Surface	1	1	1	16:06	16.8	7.43	28	6.64	3.18	4.7
TMCLKL	HY/2012/08	2014-01-22	Mid-Ebb	Fine	Small Wave	IS13	Surface	1	1	2	16:06	16.9	7.45	28.1	6.63	3.21	2.3
TMCLKL	HY/2012/08	2014-01-22	Mid-Ebb	Fine	Small Wave	IS13	Middle	5.9	2	1	16:06	17	7.56	28.2	6.47	1.85	2.8
TMCLKL	HY/2012/08	2014-01-22	Mid-Ebb	Fine	Small Wave	IS13	Middle	5.9	2	2	16:06	16.9	7.54	28.3	6.45	1.87	2.7
TMCLKL	HY/2012/08	2014-01-22	Mid-Ebb	Fine	Small Wave	IS13	Bottom	10.7	3	1	16:06	17.1	7.63	28.4	6.53	2.19	3.1
TMCLKL	HY/2012/08	2014-01-22	Mid-Ebb	Fine	Small Wave	IS13	Bottom	10.7	3	2	16:06	17	7.6	28.4	6.54	2.23	2.3
TMCLKL	HY/2012/08	2014-01-22	Mid-Ebb	Fine	Small Wave	IS14	Surface	1	1	1	15:20	16.8	7.74	28.1	6.84	2.44	2.8
TMCLKL	HY/2012/08	2014-01-22	Mid-Ebb	Fine	Small Wave	IS14	Surface	1	1	2	15:20	16.9	7.7	28.1	6.85	2.47	2.2
TMCLKL	HY/2012/08	2014-01-22	Mid-Ebb	Fine	Small Wave	IS14	Middle	8.1	2	1	15:20	16.9	7.64	28.2	6.67	2.88	2.7
TMCLKL	HY/2012/08	2014-01-22	Mid-Ebb	Fine	Small Wave	IS14	Middle	8.1	2	2	15:20	17	7.65	28.3	6.69	2.9	3.9
TMCLKL	HY/2012/08	2014-01-22	Mid-Ebb	Fine	Small Wave	IS14	Bottom	15.1	3	1	15:20	17.1	7.8	28.4	6.74	2.12	2.6
TMCLKL	HY/2012/08	2014-01-22	Mid-Ebb	Fine	Small Wave	IS14	Bottom	15.1	3	2	15:20	17	7.82	28.3	6.73	2.11	3.1
TMCLKL	HY/2012/08	2014-01-22	Mid-Ebb	Fine	Small Wave	IS15	Surface	1	1	1	16:29	16.9	7.58	28.1	6.77	1.93	2.2
TMCLKL	HY/2012/08	2014-01-22	Mid-Ebb	Fine	Small Wave	IS15	Surface	1	1	2	16:29	17	7.6	28.1	6.75	1.98	2.5
TMCLKL	HY/2012/08	2014-01-22	Mid-Ebb	Fine	Small Wave	IS15	Middle	5.9	2	1	16:29	17.1	7.71	28.2	6.64	2.22	3
TMCLKL	HY/2012/08	2014-01-22	Mid-Ebb	Fine	Small Wave	IS15	Middle	5.9	2	2	16:29	17	7.73	28.1	6.67	2.24	2.3
TMCLKL	HY/2012/08	2014-01-22	Mid-Ebb	Fine	Small Wave	IS15	Bottom	10.8	3	1	16:29	17.2	7.78	28.3	6.54	2.46	3
TMCLKL	HY/2012/08	2014-01-22	Mid-Ebb	Fine	Small Wave	IS15	Bottom	10.8	3	2	16:29	17.1	7.8	28.4	6.55	2.5	2.5
TMCLKL	HY/2012/08	2014-01-22	Mid-Ebb	Fine	Small Wave	SR8	Surface	1	1	1	17:31	17	7.7	28.1	6.58	2.7	2.3
TMCLKL	HY/2012/08	2014-01-22	Mid-Ebb	Fine	Small Wave	SR8	Surface	1	1	2	17:31	16.9	7.71	28.2	6.59	2.74	3.7
TMCLKL	HY/2012/08	2014-01-22	Mid-Ebb	Fine	Small Wave	SR8	Middle		2	1	17:31						
TMCLKL	HY/2012/08	2014-01-22	Mid-Ebb	Fine	Small Wave	SR8	Middle		2	2	17:31						
TMCLKL	HY/2012/08	2014-01-22	Mid-Ebb	Fine	Small Wave	SR8	Bottom	4.4	3	1	17:31	17	7.74	28.2	6.67	2.81	3.7
TMCLKL	HY/2012/08	2014-01-22	Mid-Ebb	Fine	Small Wave	SR8	Bottom	4.4	3	2	17:31	17.1	7.73	28.2	6.68	2.84	2.4
TMCLKL	HY/2012/08	2014-01-22	Mid-Ebb	Fine	Small Wave	SR9	Surface	1	1	1	17:05	16.9	7.64	28.2	6.67	2.53	2.5
TMCLKL	HY/2012/08	2014-01-22	Mid-Ebb	Fine	Small Wave	SR9	Surface	1	1	2	17:05	17	7.63	28.1	6.65	2.56	2.3
TMCLKL	HY/2012/08	2014-01-22	Mid-Ebb	Fine	Small Wave	SR9	Middle		2	1	17:05						
TMCLKL	HY/2012/08	2014-01-22	Mid-Ebb	Fine	Small Wave	SR9	Middle		2	2	17:05						
TMCLKL	HY/2012/08	2014-01-22	Mid-Ebb	Fine	Small Wave	SR9	Bottom	4.6	3	1	17:05	17.1	7.73	28.2	6.51	2.55	3.6
TMCLKL	HY/2012/08	2014-01-22	Mid-Ebb	Fine	Small Wave	SR9	Bottom	4.6	3	2	17:05	17.1	7.72	28.2	6.53	2.58	2.7
TMCLKL	HY/2012/08	2014-01-22	Mid-Ebb	Fine	Small Wave	SR10	Surface	1	1	1	17:51	17	7.58	28.1	6.76	3.11	2.3
TMCLKL	HY/2012/08	2014-01-22	Mid-Ebb	Fine	Small Wave	SR10	Surface	1	1	2	17:51	16.9	7.57	28.2	6.77	3.14	2.4
TMCLKL	HY/2012/08	2014-01-22	Mid-Ebb	Fine	Small Wave	SR10	Middle	6.8	2	1	17:51	16.9	7.64	28.3	6.52	2.14	4
TMCLKL	HY/2012/08	2014-01-22	Mid-Ebb	Fine	Small Wave	SR10	Middle	6.8	2	2	17:51	16.9	7.65	28.4	6.53	2.19	2.2
TMCLKL	HY/2012/08	2014-01-22	Mid-Ebb	Fine	Small Wave	SR10	Bottom	12.6	3	1	17:51	17	7.67	28.3	6.42	2.09	2.3



TMCLKL	HY/2012/08	2014-01-22	Mid-Ebb	Fine	Small Wave	SR10	Bottom	12.6	3	2	17:51	17.1	7.65	28.4	6.43	2.1	2.7
TMCLKL	HY/2012/08	2014-01-24	Mid-Flood	Fine	Small Wave	CS4	Surface	1	1	1	13:32	17	7.69	28	6.67	3.97	2.7
TMCLKL	HY/2012/08	2014-01-24	Mid-Flood	Fine	Small Wave	CS4	Surface	1	1	2	13:32	17.1	7.71	28.1	6.69	3.99	2.6
TMCLKL	HY/2012/08	2014-01-24	Mid-Flood	Fine	Small Wave	CS4	Middle	11.5	2	1	13:32	17.2	7.73	28.2	6.73	1.92	3.4
TMCLKL	HY/2012/08	2014-01-24	Mid-Flood	Fine	Small Wave	CS4	Middle	11.5	2	2	13:32	17.3	7.75	28.2	6.75	1.94	3.1
TMCLKL	HY/2012/08	2014-01-24	Mid-Flood	Fine	Small Wave	CS4	Bottom	22	3	1	13:32	17.4	7.66	28.3	6.62	2.3	2.8
TMCLKL	HY/2012/08	2014-01-24	Mid-Flood	Fine	Small Wave	CS4	Bottom	22	3	2	13:32	17.4	7.64	28.4	6.6	2.32	3.4
TMCLKL	HY/2012/08	2014-01-24	Mid-Flood	Fine	Small Wave	CS6	Surface	1	1	1	10:19	17	7.73	28	6.74	2.21	2.9
TMCLKL	HY/2012/08	2014-01-24	Mid-Flood	Fine	Small Wave	CS6	Surface	1	1	2	10:19	17.1	7.75	28.1	6.76	2.23	3.4
TMCLKL	HY/2012/08	2014-01-24	Mid-Flood	Fine	Small Wave	CS6	Middle	6.6	2	1	10:19	17.2	7.81	28.2	6.5	2.43	3.6
TMCLKL	HY/2012/08	2014-01-24	Mid-Flood	Fine	Small Wave	CS6	Middle	6.6	2	2	10:19	17.2	7.79	28.2	6.52	2.45	3.5
TMCLKL	HY/2012/08	2014-01-24	Mid-Flood	Fine	Small Wave	CS6	Bottom	12.2	3	1	10:19	17.3	7.82	28.3	6.34	2.07	3
TMCLKL	HY/2012/08	2014-01-24	Mid-Flood	Fine	Small Wave	CS6	Bottom	12.2	3	2	10:19	17.4	7.84	28.4	6.3	2.1	4.2
TMCLKL	HY/2012/08	2014-01-24	Mid-Flood	Fine	Small Wave	IS12	Surface	1	1	1	12:43	17	7.73	28	6.87	2.5	4
TMCLKL	HY/2012/08	2014-01-24	Mid-Flood	Fine	Small Wave	IS12	Surface	1	1	2	12:43	17.1	7.75	28	6.84	2.52	4.3
TMCLKL	HY/2012/08	2014-01-24	Mid-Flood	Fine	Small Wave	IS12	Middle	7.5	2	1	12:43	17.2	7.62	28.1	6.6	2.85	3.8
TMCLKL	HY/2012/08	2014-01-24	Mid-Flood	Fine	Small Wave	IS12	Middle	7.5	2	2	12:43	17.2	7.65	28.1	6.62	2.87	2.7
TMCLKL	HY/2012/08	2014-01-24	Mid-Flood	Fine	Small Wave	IS12	Bottom	14	3	1	12:43	17.3	7.79	28.2	6.73	3.04	4.4
TMCLKL	HY/2012/08	2014-01-24	Mid-Flood	Fine	Small Wave	IS12	Bottom	14	3	2	12:43	17.4	7.81	28.3	6.74	3.06	5.1
TMCLKL	HY/2012/08	2014-01-24	Mid-Flood	Fine	Small Wave	IS13	Surface	1	1	1	12:20	17	7.72	28	6.77	2.09	3.4
TMCLKL	HY/2012/08	2014-01-24	Mid-Flood	Fine	Small Wave	IS13	Surface	1	1	2	12:20	17.1	7.7	28.1	6.79	2.11	4.2
TMCLKL	HY/2012/08	2014-01-24	Mid-Flood	Fine	Small Wave	IS13	Middle	5.9	2	1	12:20	17.2	7.66	28.2	6.56	2.93	3
TMCLKL	HY/2012/08	2014-01-24	Mid-Flood	Fine	Small Wave	IS13	Middle	5.9	2	2	12:20	17.3	7.68	28.2	6.58	2.95	3.3
TMCLKL	HY/2012/08	2014-01-24	Mid-Flood	Fine	Small Wave	IS13	Bottom	10.8	3	1	12:20	17.3	7.81	28.3	6.45	1.85	3.8
TMCLKL	HY/2012/08	2014-01-24	Mid-Flood	Fine	Small Wave	IS13	Bottom	10.8	3	2	12:20	17.4	7.8	28.3	6.47	1.87	3.1
TMCLKL	HY/2012/08	2014-01-24	Mid-Flood	Fine	Small Wave	IS14	Surface	1	1	1	13:10	17	7.81	28	6.77	2.16	2.9
TMCLKL	HY/2012/08	2014-01-24	Mid-Flood	Fine	Small Wave	IS14	Surface	1	1	2	13:10	17	7.83	28.1	6.79	2.18	3.3
TMCLKL	HY/2012/08	2014-01-24	Mid-Flood	Fine	Small Wave	IS14	Middle	8.2	2	1	13:10	17.1	7.74	28.2	6.64	1.96	2.7
TMCLKL	HY/2012/08	2014-01-24	Mid-Flood	Fine	Small Wave	IS14	Middle	8.2	2	2	13:10	17.1	7.76	28.1	6.66	1.98	5.3
TMCLKL	HY/2012/08	2014-01-24	Mid-Flood	Fine	Small Wave	IS14	Bottom	15.4	3	1	13:10	17.2	7.82	28.3	6.7	2.33	2.8
TMCLKL	HY/2012/08	2014-01-24	Mid-Flood	Fine	Small Wave	IS14	Bottom	15.4	3	2	13:10	17.3	7.84	28.4	6.7	2.35	3
TMCLKL	HY/2012/08	2014-01-24	Mid-Flood	Fine	Small Wave	IS15	Surface	1	1	1	11:59	17	7.73	28	6.92	2.04	3
TMCLKL	HY/2012/08	2014-01-24	Mid-Flood	Fine	Small Wave	IS15	Surface	1	1	2	11:59	17.1	7.75	28.1	6.9	2.06	3.5
TMCLKL	HY/2012/08	2014-01-24	Mid-Flood	Fine	Small Wave	IS15	Middle	6	2	1	11:59	17.2	7.82	28.2	6.54	2.19	2.7
TMCLKL	HY/2012/08	2014-01-24	Mid-Flood	Fine	Small Wave	IS15	Middle	6	2	2	11:59	17.2	7.8	28.3	6.56	2.21	3.3
TMCLKL	HY/2012/08	2014-01-24	Mid-Flood	Fine	Small Wave	IS15	Bottom	11	3	1	11:59	17.3	7.86	28.4	6.39	2.88	3.8
TMCLKL	HY/2012/08	2014-01-24	Mid-Flood	Fine	Small Wave	IS15	Bottom	11	3	2	11:59	17.4	7.88	28.4	6.41	2.9	3.4
TMCLKL	HY/2012/08	2014-01-24	Mid-Flood	Fine	Small Wave	SR8	Surface	1	1	1	11:29	17	7.84	28	6.74	2.15	2.7
TMCLKL	HY/2012/08	2014-01-24	Mid-Flood	Fine	Small Wave	SR8	Surface	1	1	2	11:29	17.1	7.82	28.1	6.76	2.17	2.2
TMCLKL	HY/2012/08	2014-01-24	Mid-Flood	Fine	Small Wave	SR8	Middle		2	1	11:29						
TMCLKL	HY/2012/08	2014-01-24	Mid-Flood	Fine	Small Wave	SR8	Middle		2	2	11:29						
TMCLKL	HY/2012/08	2014-01-24	Mid-Flood	Fine	Small Wave	SR8	Bottom	4.4	3	1	11:29	17.2	7.77	28.8	6.64	2.26	3.2
TMCLKL	HY/2012/08	2014-01-24	Mid-Flood	Fine	Small Wave	SR8	Bottom	4.4	3	2	11:29	17.2	7.79	28.2	6.66	2.28	2.4
TMCLKL	HY/2012/08	2014-01-24	Mid-Flood	Fine	Small Wave	SR9	Surface	1	1	1	11:44	17	7.82	28	6.81	2.48	2.8
TMCLKL	HY/2012/08	2014-01-24	Mid-Flood	Fine	Small Wave	SR9	Surface	1	1	2	11:44	17	7.8	28	6.83	2.5	2.9
TMCLKL	HY/2012/08	2014-01-24	Mid-Flood	Fine	Small Wave	SR9	Middle		2	1	11:44						
TMCLKL	HY/2012/08	2014-01-24	Mid-Flood	Fine	Small Wave	SR9	Middle		2	2	11:44						

TMCLKL	HY/2012/08	2014-01-24	Mid-Flood	Fine	Small Wave	SR9	Bottom	4.8	3	1	11:44	17.1	7.92	28.1	6.37	2.86	3
TMCLKL	HY/2012/08	2014-01-24	Mid-Flood	Fine	Small Wave	SR9	Bottom	4.8	3	2	11:44	17.2	7.93	28.1	6.39	2.88	3.1
TMCLKL	HY/2012/08	2014-01-24	Mid-Flood	Fine	Small Wave	SR10	Surface	1	1	1	10:51	17	7.76	28	6.84	1.69	2.2
TMCLKL	HY/2012/08	2014-01-24	Mid-Flood	Fine	Small Wave	SR10	Surface	1	1	2	10:51	17	7.78	28	6.82	1.71	2.6
TMCLKL	HY/2012/08	2014-01-24	Mid-Flood	Fine	Small Wave	SR10	Middle	7.1	2	1	10:51	17.1	7.84	28.1	6.4	3.34	3.1
TMCLKL	HY/2012/08	2014-01-24	Mid-Flood	Fine	Small Wave	SR10	Middle	7.1	2	2	10:51	17.2	7.86	28.2	6.41	3.36	3.3
TMCLKL	HY/2012/08	2014-01-24	Mid-Flood	Fine	Small Wave	SR10	Bottom	13.1	3	1	10:51	17.3	7.69	28.3	6.54	2.08	3.2
TMCLKL	HY/2012/08	2014-01-24	Mid-Flood	Fine	Small Wave	SR10	Bottom	13.1	3	2	10:51	17.3	7.71	28.3	6.56	2.1	3.6
TMCLKL	HY/2012/08	2014-01-24	Mid-Ebb	Fine	Small Wave	CS4	Surface	1	1	1	17:08	17	7.8	28	6.6	3.99	3.5
TMCLKL	HY/2012/08	2014-01-24	Mid-Ebb	Fine	Small Wave	CS4	Surface	1	1	2	17:08	17.1	7.82	28	6.58	4.01	2.4
TMCLKL	HY/2012/08	2014-01-24	Mid-Ebb	Fine	Small Wave	CS4	Middle	11.4	2	1	17:08	17.1	7.84	28.1	6.67	1.97	3.4
TMCLKL	HY/2012/08	2014-01-24	Mid-Ebb	Fine	Small Wave	CS4	Middle	11.4	2	2	17:08	17.2	7.86	28.2	6.68	1.99	2.9
TMCLKL	HY/2012/08	2014-01-24	Mid-Ebb	Fine	Small Wave	CS4	Bottom	21.8	3	1	17:08	17.3	7.73	28.3	6.54	2.41	3.8
TMCLKL	HY/2012/08	2014-01-24	Mid-Ebb	Fine	Small Wave	CS4	Bottom	21.8	3	2	17:08	17.3	7.75	28.3	6.5	2.43	3.6
TMCLKL	HY/2012/08	2014-01-24	Mid-Ebb	Fine	Small Wave	CS6	Surface	1	1	1	20:22	17	7.8	28	6.72	2.26	2.9
TMCLKL	HY/2012/08	2014-01-24	Mid-Ebb	Fine	Small Wave	CS6	Surface	1	1	2	20:22	17.1	7.82	28	6.73	2.28	2.3
TMCLKL	HY/2012/08	2014-01-24	Mid-Ebb	Fine	Small Wave	CS6	Middle	6.5	2	1	20:22	17.2	7.77	28.1	6.44	2.47	5
TMCLKL	HY/2012/08	2014-01-24	Mid-Ebb	Fine	Small Wave	CS6	Middle	6.5	2	2	20:22	17.3	7.75	28.2	6.46	2.49	4.7
TMCLKL	HY/2012/08	2014-01-24	Mid-Ebb	Fine	Small Wave	CS6	Bottom	11.9	3	1	20:22	17.4	7.72	28.3	6.32	2.12	3.7
TMCLKL	HY/2012/08	2014-01-24	Mid-Ebb	Fine	Small Wave	CS6	Bottom	11.9	3	2	20:22	17.3	7.7	28.4	6.3	2.14	4
TMCLKL	HY/2012/08	2014-01-24	Mid-Ebb	Fine	Small Wave	IS12	Surface	1	1	1	17:52	17	7.7	28	6.82	2.57	2.2
TMCLKL	HY/2012/08	2014-01-24	Mid-Ebb	Fine	Small Wave	IS12	Surface	1	1	2	17:52	17.1	7.72	28	6.84	2.59	2.4
TMCLKL	HY/2012/08	2014-01-24	Mid-Ebb	Fine	Small Wave	IS12	Middle	7.4	2	1	17:52	17.2	7.54	28.1	6.55	2.91	3.7
TMCLKL	HY/2012/08	2014-01-24	Mid-Ebb	Fine	Small Wave	IS12	Middle	7.4	2	2	17:52	17.2	7.56	28.2	6.57	2.93	3.4
TMCLKL	HY/2012/08	2014-01-24	Mid-Ebb	Fine	Small Wave	IS12	Bottom	13.8	3	1	17:52	17.3	7.83	28.3	6.67	3.07	2.7
TMCLKL	HY/2012/08	2014-01-24	Mid-Ebb	Fine	Small Wave	IS12	Bottom	13.8	3	2	17:52	17.4	7.86	28.4	6.69	3.09	2.6
TMCLKL	HY/2012/08	2014-01-24	Mid-Ebb	Fine	Small Wave	IS13	Surface	1	1	1	18:13	17	7.76	28	6.72	2.14	3.2
TMCLKL	HY/2012/08	2014-01-24	Mid-Ebb	Fine	Small Wave	IS13	Surface	1	1	2	18:13	17.1	7.78	28.1	6.74	2.15	4
TMCLKL	HY/2012/08	2014-01-24	Mid-Ebb	Fine	Small Wave	IS13	Middle	5.8	2	1	18:13	17.2	7.9	28.2	6.52	3.02	3.5
TMCLKL	HY/2012/08	2014-01-24	Mid-Ebb	Fine	Small Wave	IS13	Middle	5.8	2	2	18:13	17.2	7.89	28.1	6.5	3.04	3
TMCLKL	HY/2012/08	2014-01-24	Mid-Ebb	Fine	Small Wave	IS13	Bottom	10	3	1	18:13	17.3	7.85	28.3	6.42	1.89	3.4
TMCLKL	HY/2012/08	2014-01-24	Mid-Ebb	Fine	Small Wave	IS13	Bottom	10	3	2	18:13	17.4	7.87	28.4	6.4	1.91	2.8
TMCLKL	HY/2012/08	2014-01-24	Mid-Ebb	Fine	Small Wave	IS14	Surface	1	1	1	17:30	17	7.74	28	6.64	2.22	3.3
TMCLKL	HY/2012/08	2014-01-24	Mid-Ebb	Fine	Small Wave	IS14	Surface	1	1	2	17:30	17	7.76	28.1	6.66	2.24	2.9
TMCLKL	HY/2012/08	2014-01-24	Mid-Ebb	Fine	Small Wave	IS14	Middle	5.1	2	1	17:30	17.1	7.79	28.2	6.61	1.99	2.9
TMCLKL	HY/2012/08	2014-01-24	Mid-Ebb	Fine	Small Wave	IS14	Middle	5.1	2	2	17:30	17.1	7.81	28.2	6.59	2.01	3
TMCLKL	HY/2012/08	2014-01-24	Mid-Ebb	Fine	Small Wave	IS14	Bottom	15.1	3	1	17:30	17.2	7.84	28.3	6.04	2.37	3.5
TMCLKL	HY/2012/08	2014-01-24	Mid-Ebb	Fine	Small Wave	IS14	Bottom	15.1	3	2	17:30	17.3	7.86	28.4	6.67	2.39	2.8
TMCLKL	HY/2012/08	2014-01-24	Mid-Ebb	Fine	Small Wave	IS15	Surface	1	1	1	18:42	17	7.72	28	6.86	2.13	2.4
TMCLKL	HY/2012/08	2014-01-24	Mid-Ebb	Fine	Small Wave	IS15	Surface	1	1	2	18:42	17	7.74	28	6.88	2.15	2.3
TMCLKL	HY/2012/08	2014-01-24	Mid-Ebb	Fine	Small Wave	IS15	Middle	5.9	2	1	18:42	17.1	7.77	28.1	6.53	2.26	2.9
TMCLKL	HY/2012/08	2014-01-24	Mid-Ebb	Fine	Small Wave	IS15	Middle	5.9	2	2	18:42	17.2	7.79	28.2	6.51	2.25	2.4
TMCLKL	HY/2012/08	2014-01-24	Mid-Ebb	Fine	Small Wave	IS15	Bottom	10.8	3	1	18:42	17.3	7.8	28.3	6.34	2.93	3.4
TMCLKL	HY/2012/08	2014-01-24	Mid-Ebb	Fine	Small Wave	IS15	Bottom	10.8	3	2	18:42	17.4	7.82	28.4	6.32	2.95	2.2
TMCLKL	HY/2012/08	2014-01-24	Mid-Ebb	Fine	Small Wave	SR8	Surface	1	1	1	19:19	17	7.76	28	6.71	2.22	4
TMCLKL	HY/2012/08	2014-01-24	Mid-Ebb	Fine	Small Wave	SR8	Surface	1	1	2	19:19	17.1	7.78	28	6.73	2.24	2.4
TMCLKL	HY/2012/08	2014-01-24	Mid-Ebb	Fine	Small Wave	SR8	Middle		2	1	19:19						

TMCLKL	HY/2012/08	2014-01-24	Mid-Ebb	Fine	Small Wave	SR8	Middle		2	2	19:19						
TMCLKL	HY/2012/08	2014-01-24	Mid-Ebb	Fine	Small Wave	SR8	Bottom	4.2	3	1	19:19	17.1	7.9	28.1	6.62	2.32	4.2
TMCLKL	HY/2012/08	2014-01-24	Mid-Ebb	Fine	Small Wave	SR8	Bottom	4.2	3	2	19:19	17.2	7.88	28.2	6.6	2.34	3.1
TMCLKL	HY/2012/08	2014-01-24	Mid-Ebb	Fine	Small Wave	SR9	Surface	1	1	1	19:04	17	7.79	28	6.77	2.54	3.2
TMCLKL	HY/2012/08	2014-01-24	Mid-Ebb	Fine	Small Wave	SR9	Surface	1	1	2	19:04	17.1	7.81	28.1	6.79	2.56	3
TMCLKL	HY/2012/08	2014-01-24	Mid-Ebb	Fine	Small Wave	SR9	Middle		2	1	19:04						
TMCLKL	HY/2012/08	2014-01-24	Mid-Ebb	Fine	Small Wave	SR9	Middle		2	2	19:04						
TMCLKL	HY/2012/08	2014-01-24	Mid-Ebb	Fine	Small Wave	SR9	Bottom	4.5	3	1	19:04	17.2	7.82	28.2	6.33	2.9	3.1
TMCLKL	HY/2012/08	2014-01-24	Mid-Ebb	Fine	Small Wave	SR9	Bottom	4.5	3	2	19:04	17.2	7.84	28.1	6.32	2.92	4.6
TMCLKL	HY/2012/08	2014-01-24	Mid-Ebb	Fine	Small Wave	SR10	Surface	1	1	1	19:59	17	7.72	28	6.73	1.76	2.9
TMCLKL	HY/2012/08	2014-01-24	Mid-Ebb	Fine	Small Wave	SR10	Surface	1	1	2	19:59	17	7.74	28.1	6.75	1.77	3.3
TMCLKL	HY/2012/08	2014-01-24	Mid-Ebb	Fine	Small Wave	SR10	Middle	6.8	2	1	19:59	17.1	7.61	28.2	6.34	3.42	4
TMCLKL	HY/2012/08	2014-01-24	Mid-Ebb	Fine	Small Wave	SR10	Middle	6.8	2	2	19:59	17.2	7.63	28.2	6.36	3.4	4.9
TMCLKL	HY/2012/08	2014-01-24	Mid-Ebb	Fine	Small Wave	SR10	Bottom	12.9	3	1	19:59	17.3	7.79	28.3	6.52	2.13	3.2
TMCLKL	HY/2012/08	2014-01-24	Mid-Ebb	Fine	Small Wave	SR10	Bottom	12.9	3	2	19:59	17.4	7.77	28.4	6.5	2.15	4.9
TMCLKL	HY/2012/08	2014-01-27	Mid-Flood	Fine	Small Wave	CS4	Surface	1	1	1	16:29	17.1	7.76	28.1	6.63	3.15	2.8
TMCLKL	HY/2012/08	2014-01-27	Mid-Flood	Fine	Small Wave	CS4	Surface	1	1	2	16:29	17.1	7.78	28	6.61	3.17	2.7
TMCLKL	HY/2012/08	2014-01-27	Mid-Flood	Fine	Small Wave	CS4	Middle	11.5	2	1	16:29	17.2	7.69	28.2	6.7	4.16	2.8
TMCLKL	HY/2012/08	2014-01-27	Mid-Flood	Fine	Small Wave	CS4	Middle	11.5	2	2	16:29	17.3	7.71	28.3	6.72	4.18	2.9
TMCLKL	HY/2012/08	2014-01-27	Mid-Flood	Fine	Small Wave	CS4	Bottom	21.9	3	1	16:29	17.4	7.82	28.3	6.54	2.48	2.1
TMCLKL	HY/2012/08	2014-01-27	Mid-Flood	Fine	Small Wave	CS4	Bottom	21.9	3	2	16:29	17.4	7.8	28.4	6.56	2.5	3
TMCLKL	HY/2012/08	2014-01-27	Mid-Flood	Fine	Small Wave	CS6	Surface	1	1	1	13:19	17	7.77	28	6.82	2.4	2.8
TMCLKL	HY/2012/08	2014-01-27	Mid-Flood	Fine	Small Wave	CS6	Surface	1	1	2	13:19	17.1	7.79	28	6.84	2.42	2.5
TMCLKL	HY/2012/08	2014-01-27	Mid-Flood	Fine	Small Wave	CS6	Middle	6.7	2	1	13:19	17.2	7.8	28.1	6.62	2.94	2.4
TMCLKL	HY/2012/08	2014-01-27	Mid-Flood	Fine	Small Wave	CS6	Middle	6.7	2	2	13:19	17.3	7.82	28.2	6.6	2.92	2.3
TMCLKL	HY/2012/08	2014-01-27	Mid-Flood	Fine	Small Wave	CS6	Bottom	12.3	3	1	13:19	17.4	7.72	28.3	6.41	3.69	2.2
TMCLKL	HY/2012/08	2014-01-27	Mid-Flood	Fine	Small Wave	CS6	Bottom	12.3	3	2	13:19	17.3	7.74	28.4	6.39	3.71	2.9
TMCLKL	HY/2012/08	2014-01-27	Mid-Flood	Fine	Small Wave	IS12	Surface	1	1	1	15:41	17	7.75	28	6.91	2.84	2.8
TMCLKL	HY/2012/08	2014-01-27	Mid-Flood	Fine	Small Wave	IS12	Surface	1	1	2	15:41	17	7.73	28.1	6.93	2.86	3.1
TMCLKL	HY/2012/08	2014-01-27	Mid-Flood	Fine	Small Wave	IS12	Middle	7.5	2	1	15:41	17.1	7.84	28.2	6.66	4.45	2.3
TMCLKL	HY/2012/08	2014-01-27	Mid-Flood	Fine	Small Wave	IS12	Middle	7.5	2	2	15:41	17.1	7.86	28.3	6.68	4.43	2.4
TMCLKL	HY/2012/08	2014-01-27	Mid-Flood	Fine	Small Wave	IS12	Bottom	13.9	3	1	15:41	17.2	7.87	28.4	6.54	3.45	3.6
TMCLKL	HY/2012/08	2014-01-27	Mid-Flood	Fine	Small Wave	IS12	Bottom	13.9	3	2	15:41	17.3	7.91	28.4	6.56	3.47	3.9
TMCLKL	HY/2012/08	2014-01-27	Mid-Flood	Fine	Small Wave	IS13	Surface	1	1	1	15:17	17	7.86	28	6.73	2.73	2.3
TMCLKL	HY/2012/08	2014-01-27	Mid-Flood	Fine	Small Wave	IS13	Surface	1	1	2	15:17	17.1	7.88	28.1	6.75	2.75	2.7
TMCLKL	HY/2012/08	2014-01-27	Mid-Flood	Fine	Small Wave	IS13	Middle	5.9	2	1	15:17	17.2	7.72	28.2	6.62	2.15	2.6
TMCLKL	HY/2012/08	2014-01-27	Mid-Flood	Fine	Small Wave	IS13	Middle	5.9	2	2	15:17	17.3	7.74	28.2	6.64	2.17	2.8
TMCLKL	HY/2012/08	2014-01-27	Mid-Flood	Fine	Small Wave	IS13	Bottom	10.7	3	1	15:17	17.4	7.79	28.4	6.37	3.38	2.8
TMCLKL	HY/2012/08	2014-01-27	Mid-Flood	Fine	Small Wave	IS13	Bottom	10.7	3	2	15:17	17.4	7.76	28.4	6.39	3.4	3.2
TMCLKL	HY/2012/08	2014-01-27	Mid-Flood	Fine	Small Wave	IS14	Surface	1	1	1	16:05	17	7.8	28	6.73	3.9	2.7
TMCLKL	HY/2012/08	2014-01-27	Mid-Flood	Fine	Small Wave	IS14	Surface	1	1	2	16:05	17.1	7.85	28	6.75	3.92	2.2
TMCLKL	HY/2012/08	2014-01-27	Mid-Flood	Fine	Small Wave	IS14	Middle	8.3	2	1	16:05	17.2	7.91	28.1	6.62	3.28	3.3
TMCLKL	HY/2012/08	2014-01-27	Mid-Flood	Fine	Small Wave	IS14	Middle	8.3	2	2	16:05	17.2	7.93	28.2	6.6	3.3	2.8
TMCLKL	HY/2012/08	2014-01-27	Mid-Flood	Fine	Small Wave	IS14	Bottom	15.5	3	1	16:05	17.3	7.72	28.3	6.67	2.33	4.4
TMCLKL	HY/2012/08	2014-01-27	Mid-Flood	Fine	Small Wave	IS14	Bottom	15.5	3	2	16:05	17.4	7.74	28.4	6.37	2.35	3.9
TMCLKL	HY/2012/08	2014-01-27	Mid-Flood	Fine	Small Wave	IS15	Surface	1	1	1	14:53	17	7.91	28	6.97	2.66	4
TMCLKL	HY/2012/08	2014-01-27	Mid-Flood	Fine	Small Wave	IS15	Surface	1	1	2	14:53	17.1	7.92	28	6.99	2.68	3.9

TMCLKL	HY/2012/08	2014-01-27	Mid-Flood	Fine	Small Wave	IS15	Middle	6	2	1	14:53	17.2	7.88	28.1	6.57	2.65	2.5
TMCLKL	HY/2012/08	2014-01-27	Mid-Flood	Fine	Small Wave	IS15	Middle	6	2	2	14:53	17.2	7.86	28.2	6.59	2.67	2.2
TMCLKL	HY/2012/08	2014-01-27	Mid-Flood	Fine	Small Wave	IS15	Bottom	10.9	3	1	14:53	17.3	7.82	28.3	6.44	3.87	2.8
TMCLKL	HY/2012/08	2014-01-27	Mid-Flood	Fine	Small Wave	IS15	Bottom	10.9	3	2	14:53	17.4	7.84	28.4	6.46	3.9	2.3
TMCLKL	HY/2012/08	2014-01-27	Mid-Flood	Fine	Small Wave	SR8	Surface	1	1	1	14:06	17.1	7.92	28.1	6.72	3.82	2.1
TMCLKL	HY/2012/08	2014-01-27	Mid-Flood	Fine	Small Wave	SR8	Surface	1	1	2	14:06	17	7.9	28.1	6.74	3.84	2.7
TMCLKL	HY/2012/08	2014-01-27	Mid-Flood	Fine	Small Wave	SR8	Middle		2	1	14:06						
TMCLKL	HY/2012/08	2014-01-27	Mid-Flood	Fine	Small Wave	SR8	Middle		2	2	14:06						
TMCLKL	HY/2012/08	2014-01-27	Mid-Flood	Fine	Small Wave	SR8	Bottom	4.5	3	1	14:06	17.2	7.86	28.2	6.6	3.36	3.4
TMCLKL	HY/2012/08	2014-01-27	Mid-Flood	Fine	Small Wave	SR8	Bottom	4.5	3	2	14:06	17.2	7.88	28.1	6.58	3.38	3.5
TMCLKL	HY/2012/08	2014-01-27	Mid-Flood	Fine	Small Wave	SR9	Surface	1	1	1	14:29	17	7.84	28	6.85	3.93	2.4
TMCLKL	HY/2012/08	2014-01-27	Mid-Flood	Fine	Small Wave	SR9	Surface	1	1	2	14:29	17	7.86	28.1	6.87	3.95	2.1
TMCLKL	HY/2012/08	2014-01-27	Mid-Flood	Fine	Small Wave	SR9	Middle		2	1	14:29						
TMCLKL	HY/2012/08	2014-01-27	Mid-Flood	Fine	Small Wave	SR9	Middle		2	2	14:29						
TMCLKL	HY/2012/08	2014-01-27	Mid-Flood	Fine	Small Wave	SR9	Bottom	4.9	3	1	14:29	17.1	7.77	28.2	6.52	2.18	2
TMCLKL	HY/2012/08	2014-01-27	Mid-Flood	Fine	Small Wave	SR9	Bottom	4.9	3	2	14:29	17.2	7.75	28.2	6.54	2.2	2.2
TMCLKL	HY/2012/08	2014-01-27	Mid-Flood	Fine	Small Wave	SR10	Surface	1	1	1	13:43	17	7.81	28	6.79	2.83	2.5
TMCLKL	HY/2012/08	2014-01-27	Mid-Flood	Fine	Small Wave	SR10	Surface	1	1	2	13:43	17	7.82	28.1	6.77	2.85	2.8
TMCLKL	HY/2012/08	2014-01-27	Mid-Flood	Fine	Small Wave	SR10	Middle	7	2	1	13:43	17.1	7.76	28.2	6.45	3.84	3.4
TMCLKL	HY/2012/08	2014-01-27	Mid-Flood	Fine	Small Wave	SR10	Middle	7	2	2	13:43	17	7.78	28.2	6.47	3.86	3.4
TMCLKL	HY/2012/08	2014-01-27	Mid-Flood	Fine	Small Wave	SR10	Bottom	12.9	3	1	13:43	17.2	7.7	28.3	6.52	3.32	2.4
TMCLKL	HY/2012/08	2014-01-27	Mid-Flood	Fine	Small Wave	SR10	Bottom	12.9	3	2	13:43	17.3	7.72	28.4	6.54	3.35	2
TMCLKL	HY/2012/08	2014-01-27	Mid-Ebb	Fine	Small Wave	CS4	Surface	1	1	1	08:09	17	7.68	28.1	6.57	3.22	2.6
TMCLKL	HY/2012/08	2014-01-27	Mid-Ebb	Fine	Small Wave	CS4	Surface	1	1	2	08:09	17.1	7.7	28.1	6.55	3.24	3.9
TMCLKL	HY/2012/08	2014-01-27	Mid-Ebb	Fine	Small Wave	CS4	Middle	11.4	2	1	08:09	17.1	7.73	28.2	6.64	4.2	3.3
TMCLKL	HY/2012/08	2014-01-27	Mid-Ebb	Fine	Small Wave	CS4	Middle	11.4	2	2	08:09	17.2	7.75	28.3	6.66	4.22	3.1
TMCLKL	HY/2012/08	2014-01-27	Mid-Ebb	Fine	Small Wave	CS4	Bottom	21.7	3	1	08:09	17.3	7.77	28.4	6.52	2.53	3.1
TMCLKL	HY/2012/08	2014-01-27	Mid-Ebb	Fine	Small Wave	CS4	Bottom	21.7	3	2	08:09	17.3	7.79	28.4	6.5	2.55	3.5
TMCLKL	HY/2012/08	2014-01-27	Mid-Ebb	Fine	Small Wave	CS6	Surface	1	1	1	11:14	17	7.82	28	6.77	2.43	3.4
TMCLKL	HY/2012/08	2014-01-27	Mid-Ebb	Fine	Small Wave	CS6	Surface	1	1	2	11:14	17.1	7.8	28	6.79	2.45	3.2
TMCLKL	HY/2012/08	2014-01-27	Mid-Ebb	Fine	Small Wave	CS6	Middle	6.6	2	1	11:14	17.2	7.73	28.1	6.56	3.02	3.4
TMCLKL	HY/2012/08	2014-01-27	Mid-Ebb	Fine	Small Wave	CS6	Middle	6.6	2	2	11:14	17.3	7.75	28.2	6.58	3.04	3
TMCLKL	HY/2012/08	2014-01-27	Mid-Ebb	Fine	Small Wave	CS6	Bottom	12.1	3	1	11:14	17.3	7.69	28.3	6.37	3.71	2.8
TMCLKL	HY/2012/08	2014-01-27	Mid-Ebb	Fine	Small Wave	CS6	Bottom	12.1	3	2	11:14	17.4	7.71	28.3	6.35	3.73	4.5
TMCLKL	HY/2012/08	2014-01-27	Mid-Ebb	Fine	Small Wave	IS12	Surface	1	1	1	08:57	17	7.84	28	6.87	2.87	2.5
TMCLKL	HY/2012/08	2014-01-27	Mid-Ebb	Fine	Small Wave	IS12	Surface	1	1	2	08:57	17	7.82	28.1	6.85	2.89	2
TMCLKL	HY/2012/08	2014-01-27	Mid-Ebb	Fine	Small Wave	IS12	Middle	7.4	2	1	08:57	17.1	7.77	28.2	6.62	4.52	2.7
TMCLKL	HY/2012/08	2014-01-27	Mid-Ebb	Fine	Small Wave	IS12	Middle	7.4	2	2	08:57	17.2	7.75	28.2	6.6	4.5	2.8
TMCLKL	HY/2012/08	2014-01-27	Mid-Ebb	Fine	Small Wave	IS12	Bottom	13.7	3	1	08:57	17.3	7.7	28.3	6.47	3.49	2.2
TMCLKL	HY/2012/08	2014-01-27	Mid-Ebb	Fine	Small Wave	IS12	Bottom	13.7	3	2	08:57	17.3	7.72	28.4	6.49	3.51	4
TMCLKL	HY/2012/08	2014-01-27	Mid-Ebb	Fine	Small Wave	IS13	Surface	1	1	1	09:20	17.1	7.76	28	6.7	2.77	2.2
TMCLKL	HY/2012/08	2014-01-27	Mid-Ebb	Fine	Small Wave	IS13	Surface	1	1	2	09:20	17.2	7.78	28.1	6.68	2.79	2.4
TMCLKL	HY/2012/08	2014-01-27	Mid-Ebb	Fine	Small Wave	IS13	Middle	5.8	2	1	09:20	17.3	7.8	28.2	6.57	2.2	3.1
TMCLKL	HY/2012/08	2014-01-27	Mid-Ebb	Fine	Small Wave	IS13	Middle	5.8	2	2	09:20	17.4	7.82	28.3	6.59	2.22	2.7
TMCLKL	HY/2012/08	2014-01-27	Mid-Ebb	Fine	Small Wave	IS13	Bottom	10.5	3	1	09:20	17.3	7.73	28.4	6.32	3.42	2.5
TMCLKL	HY/2012/08	2014-01-27	Mid-Ebb	Fine	Small Wave	IS13	Bottom	10.5	3	2	09:20	17.4	7.75	28.4	6.3	3.44	3.7
TMCLKL	HY/2012/08	2014-01-27	Mid-Ebb	Fine	Small Wave	IS14	Surface	1	1	1	08:33	17	7.73	28	6.68	3.97	3.1

TMCLKL	HY/2012/08	2014-01-27	Mid-Ebb	Fine	Small Wave	IS14	Surface	1	1	2	08:33	17.1	7.75	28	6.7	3.98	3.3
TMCLKL	HY/2012/08	2014-01-27	Mid-Ebb	Fine	Small Wave	IS14	Middle	8.2	2	1	08:33	17.2	7.7	28.1	6.54	3.34	2.9
TMCLKL	HY/2012/08	2014-01-27	Mid-Ebb	Fine	Small Wave	IS14	Middle	8.2	2	2	08:33	17.3	7.68	28.2	6.56	3.35	3.3
TMCLKL	HY/2012/08	2014-01-27	Mid-Ebb	Fine	Small Wave	IS14	Bottom	15.3	3	1	08:33	17.4	7.8	28.3	6.62	2.37	3.9
TMCLKL	HY/2012/08	2014-01-27	Mid-Ebb	Fine	Small Wave	IS14	Bottom	15.3	3	2	08:33	17.3	7.82	28.3	6.6	2.39	3.8
TMCLKL	HY/2012/08	2014-01-27	Mid-Ebb	Fine	Small Wave	IS15	Surface	1	1	1	09:41	17	7.82	28	6.93	2.67	3.4
TMCLKL	HY/2012/08	2014-01-27	Mid-Ebb	Fine	Small Wave	IS15	Surface	1	1	2	09:41	17	7.8	28	6.95	2.69	3.1
TMCLKL	HY/2012/08	2014-01-27	Mid-Ebb	Fine	Small Wave	IS15	Middle	5.9	2	1	09:41	17.1	7.76	28.1	6.52	2.71	2.5
TMCLKL	HY/2012/08	2014-01-27	Mid-Ebb	Fine	Small Wave	IS15	Middle	5.9	2	2	09:41	17.2	7.78	28.2	6.5	2.73	2.4
TMCLKL	HY/2012/08	2014-01-27	Mid-Ebb	Fine	Small Wave	IS15	Bottom	10.7	3	1	09:41	17.3	7.64	28.3	6.4	3.94	2.1
TMCLKL	HY/2012/08	2014-01-27	Mid-Ebb	Fine	Small Wave	IS15	Bottom	10.7	3	2	09:41	17.4	7.66	28.3	6.38	3.96	3.9
TMCLKL	HY/2012/08	2014-01-27	Mid-Ebb	Fine	Small Wave	SR8	Surface	1	1	1	10:16	17.1	7.69	28	6.67	3.87	2.1
TMCLKL	HY/2012/08	2014-01-27	Mid-Ebb	Fine	Small Wave	SR8	Surface	1	1	2	10:16	17.1	7.71	28	6.67	3.89	2.6
TMCLKL	HY/2012/08	2014-01-27	Mid-Ebb	Fine	Small Wave	SR8	Middle		2	1	10:16						
TMCLKL	HY/2012/08	2014-01-27	Mid-Ebb	Fine	Small Wave	SR8	Middle		2	2	10:16						
TMCLKL	HY/2012/08	2014-01-27	Mid-Ebb	Fine	Small Wave	SR8	Bottom	4.3	3	1	10:16	17.2	7.73	28.1	6.54	3.42	3.7
TMCLKL	HY/2012/08	2014-01-27	Mid-Ebb	Fine	Small Wave	SR8	Bottom	4.3	3	2	10:16	17.3	7.75	28.1	6.56	3.4	3.9
TMCLKL	HY/2012/08	2014-01-27	Mid-Ebb	Fine	Small Wave	SR9	Surface	1	1	1	10:01	17	7.73	28	6.82	3.97	3.6
TMCLKL	HY/2012/08	2014-01-27	Mid-Ebb	Fine	Small Wave	SR9	Surface	1	1	2	10:01	17.1	7.75	28.1	6.8	3.99	2.8
TMCLKL	HY/2012/08	2014-01-27	Mid-Ebb	Fine	Small Wave	SR9	Middle		2	1	10:01						
TMCLKL	HY/2012/08	2014-01-27	Mid-Ebb	Fine	Small Wave	SR9	Middle		2	2	10:01						
TMCLKL	HY/2012/08	2014-01-27	Mid-Ebb	Fine	Small Wave	SR9	Bottom	4.7	3	1	10:01	17.2	7.81	28.2	6.43	2.24	3.8
TMCLKL	HY/2012/08	2014-01-27	Mid-Ebb	Fine	Small Wave	SR9	Bottom	4.7	3	2	10:01	17.2	7.79	28.2	6.45	2.26	3.4
TMCLKL	HY/2012/08	2014-01-27	Mid-Ebb	Fine	Small Wave	SR10	Surface	1	1	1	10:36	17	7.73	28	6.72	2.89	2.5
TMCLKL	HY/2012/08	2014-01-27	Mid-Ebb	Fine	Small Wave	SR10	Surface	1	1	2	10:36	17	7.75	28.1	6.7	2.91	2.7
TMCLKL	HY/2012/08	2014-01-27	Mid-Ebb	Fine	Small Wave	SR10	Middle	6.9	2	1	10:36	17.1	7.82	28.2	6.42	3.87	2.5
TMCLKL	HY/2012/08	2014-01-27	Mid-Ebb	Fine	Small Wave	SR10	Middle	6.9	2	2	10:36	17.2	7.84	28.2	6.4	3.89	2
TMCLKL	HY/2012/08	2014-01-27	Mid-Ebb	Fine	Small Wave	SR10	Bottom	12.7	3	1	10:36	17.3	7.69	28.3	6.47	3.4	2
TMCLKL	HY/2012/08	2014-01-27	Mid-Ebb	Fine	Small Wave	SR10	Bottom	12.7	3	2	10:36	17.3	7.65	28.4	6.45	3.38	2.1
TMCLKL	HY/2012/08	2014-01-29	Mid-Flood	Fine	Small Wave	CS4	Surface	1	1	1	18:39	16.7	7.83	28.2	6.63	1.73	0.2
TMCLKL	HY/2012/08	2014-01-29	Mid-Flood	Fine	Small Wave	CS4	Surface	1	1	2	18:39	16.8	7.84	28.1	6.67	1.74	0.7
TMCLKL	HY/2012/08	2014-01-29	Mid-Flood	Fine	Small Wave	CS4	Middle	11.5	2	1	18:39	17.3	7.65	28.3	6.83	1.63	0.2
TMCLKL	HY/2012/08	2014-01-29	Mid-Flood	Fine	Small Wave	CS4	Middle	11.5	2	2	18:39	17.2	7.66	28.4	6.84	1.67	0.1
TMCLKL	HY/2012/08	2014-01-29	Mid-Flood	Fine	Small Wave	CS4	Bottom	21.9	3	1	18:39	17.4	7.8	28.5	6.67	1.71	0.2
TMCLKL	HY/2012/08	2014-01-29	Mid-Flood	Fine	Small Wave	CS4	Bottom	21.9	3	2	18:39	17.3	7.82	28.4	6.7	1.73	0.3
TMCLKL	HY/2012/08	2014-01-29	Mid-Flood	Fine	Small Wave	CS6	Surface	1	1	1	15:22	17.3	7.76	28.2	6.85	2.5	0.4
TMCLKL	HY/2012/08	2014-01-29	Mid-Flood	Fine	Small Wave	CS6	Surface	1	1	2	15:22	17.3	7.74	28.3	6.88	2.53	0
TMCLKL	HY/2012/08	2014-01-29	Mid-Flood	Fine	Small Wave	CS6	Middle	6.5	2	1	15:22	17.4	7.53	28.3	6.41	3.81	0.5
TMCLKL	HY/2012/08	2014-01-29	Mid-Flood	Fine	Small Wave	CS6	Middle	6.5	2	2	15:22	17.4	7.54	28.3	6.42	3.82	0.6
TMCLKL	HY/2012/08	2014-01-29	Mid-Flood	Fine	Small Wave	CS6	Bottom	12	3	1	15:22	17.3	7.63	28.5	6.44	2.14	0.9
TMCLKL	HY/2012/08	2014-01-29	Mid-Flood	Fine	Small Wave	CS6	Bottom	12	3	2	15:22	17.3	7.6	28.4	6.46	2.13	0.9
TMCLKL	HY/2012/08	2014-01-29	Mid-Flood	Fine	Small Wave	IS12	Surface	1	1	1	17:46	16.9	7.69	28.2	6.95	1.73	4.7
TMCLKL	HY/2012/08	2014-01-29	Mid-Flood	Fine	Small Wave	IS12	Surface	1	1	2	17:46	16.8	7.71	28.3	6.94	1.75	4.6
TMCLKL	HY/2012/08	2014-01-29	Mid-Flood	Fine	Small Wave	IS12	Middle	7.6	2	1	17:46	17.1	7.53	28.4	6.72	2.53	3
TMCLKL	HY/2012/08	2014-01-29	Mid-Flood	Fine	Small Wave	IS12	Middle	7.6	2	2	17:46	17.2	7.55	28.3	6.73	2.55	5.1
TMCLKL	HY/2012/08	2014-01-29	Mid-Flood	Fine	Small Wave	IS12	Bottom	14.2	3	1	17:46	17.3	7.6	28.5	6.69	2.03	3.5
TMCLKL	HY/2012/08	2014-01-29	Mid-Flood	Fine	Small Wave	IS12	Bottom	14.2	3	2	17:46	17.2	7.63	28.4	6.7	2.04	4.9

TMCLKL	HY/2012/08	2014-01-29	Mid-Flood	Fine	Small Wave	IS13	Surface	1	1	1	17:20	17.3	7.81	28.1	6.68	1.55	3.4
TMCLKL	HY/2012/08	2014-01-29	Mid-Flood	Fine	Small Wave	IS13	Surface	1	1	2	17:20	17.2	7.78	28.2	6.7	1.57	3.7
TMCLKL	HY/2012/08	2014-01-29	Mid-Flood	Fine	Small Wave	IS13	Middle	5.9	2	1	17:20	17	7.73	28.3	6.53	2.3	3.9
TMCLKL	HY/2012/08	2014-01-29	Mid-Flood	Fine	Small Wave	IS13	Middle	5.9	2	2	17:20	17.1	7.72	28.3	6.54	2.33	3.4
TMCLKL	HY/2012/08	2014-01-29	Mid-Flood	Fine	Small Wave	IS13	Bottom	10.7	3	1	17:20	17	7.81	28.4	6.44	2.7	5.3
TMCLKL	HY/2012/08	2014-01-29	Mid-Flood	Fine	Small Wave	IS13	Bottom	10.7	3	2	17:20	17.2	7.82	28.4	6.47	2.73	4.4
TMCLKL	HY/2012/08	2014-01-29	Mid-Flood	Fine	Small Wave	IS14	Surface	1	1	1	18:13	16.8	7.63	28.1	6.33	2.21	4.7
TMCLKL	HY/2012/08	2014-01-29	Mid-Flood	Fine	Small Wave	IS14	Surface	1	1	2	18:13	16.9	7.64	28.2	6.34	2.23	5
TMCLKL	HY/2012/08	2014-01-29	Mid-Flood	Fine	Small Wave	IS14	Middle	8.2	2	1	18:13	17	7.73	28.3	6.67	1.63	4
TMCLKL	HY/2012/08	2014-01-29	Mid-Flood	Fine	Small Wave	IS14	Middle	8.2	2	2	18:13	17.1	7.75	28.4	6.7	1.64	4.2
TMCLKL	HY/2012/08	2014-01-29	Mid-Flood	Fine	Small Wave	IS14	Bottom	15.3	3	1	18:13	17.2	7.81	28.4	6.55	2.43	5.2
TMCLKL	HY/2012/08	2014-01-29	Mid-Flood	Fine	Small Wave	IS14	Bottom	15.3	3	2	18:13	17.3	7.82	28.5	6.56	2.44	3.2
TMCLKL	HY/2012/08	2014-01-29	Mid-Flood	Fine	Small Wave	IS15	Surface	1	1	1	16:57	17.2	7.54	28.2	6.94	1.44	5.1
TMCLKL	HY/2012/08	2014-01-29	Mid-Flood	Fine	Small Wave	IS15	Surface	1	1	2	16:57	17.3	7.56	28.3	6.92	1.45	3.3
TMCLKL	HY/2012/08	2014-01-29	Mid-Flood	Fine	Small Wave	IS15	Middle	6	2	1	16:57	17.2	7.63	28.2	6.98	1.63	4.4
TMCLKL	HY/2012/08	2014-01-29	Mid-Flood	Fine	Small Wave	IS15	Middle	6	2	2	16:57	17.3	7.64	28.1	7.01	1.65	4.8
TMCLKL	HY/2012/08	2014-01-29	Mid-Flood	Fine	Small Wave	IS15	Bottom	10.9	3	1	16:57	17.1	7.73	28.4	7.15	2.23	4.4
TMCLKL	HY/2012/08	2014-01-29	Mid-Flood	Fine	Small Wave	IS15	Bottom	10.9	3	2	16:57	17.2	7.75	28.3	7.14	2.28	3.8
TMCLKL	HY/2012/08	2014-01-29	Mid-Flood	Fine	Small Wave	SR8	Surface	1	1	1	16:08	17.3	7.53	28.1	6.43	2.11	0.3
TMCLKL	HY/2012/08	2014-01-29	Mid-Flood	Fine	Small Wave	SR8	Surface	1	1	2	16:08	17.4	7.54	28.2	6.44	2.1	0.1
TMCLKL	HY/2012/08	2014-01-29	Mid-Flood	Fine	Small Wave	SR8	Middle		2	1	16:08						
TMCLKL	HY/2012/08	2014-01-29	Mid-Flood	Fine	Small Wave	SR8	Middle		2	2	16:08						
TMCLKL	HY/2012/08	2014-01-29	Mid-Flood	Fine	Small Wave	SR8	Bottom	4.4	3	1	16:08	17.2	7.91	28.2	6.59	1.95	0.2
TMCLKL	HY/2012/08	2014-01-29	Mid-Flood	Fine	Small Wave	SR8	Bottom	4.4	3	2	16:08	17.1	7.93	28.2	6.57	1.93	0.8
TMCLKL	HY/2012/08	2014-01-29	Mid-Flood	Fine	Small Wave	SR9	Surface	1	1	1	16:32	17.1	7.83	28.2	6.68	1.66	0.2
TMCLKL	HY/2012/08	2014-01-29	Mid-Flood	Fine	Small Wave	SR9	Surface	1	1	2	16:32	17.2	7.84	28.3	6.7	1.64	0.3
TMCLKL	HY/2012/08	2014-01-29	Mid-Flood	Fine	Small Wave	SR9	Middle		2	1	16:32						
TMCLKL	HY/2012/08	2014-01-29	Mid-Flood	Fine	Small Wave	SR9	Middle		2	2	16:32						
TMCLKL	HY/2012/08	2014-01-29	Mid-Flood	Fine	Small Wave	SR9	Bottom	4.9	3	1	16:32	17	7.73	28.4	6.33	2.03	0
TMCLKL	HY/2012/08	2014-01-29	Mid-Flood	Fine	Small Wave	SR9	Bottom	4.9	3	2	16:32	17.1	7.7	28.3	6.35	2.06	0.5
TMCLKL	HY/2012/08	2014-01-29	Mid-Flood	Fine	Small Wave	SR10	Surface	1	1	1	15:45	17.3	7.7	28.2	6.73	1.53	3.1
TMCLKL	HY/2012/08	2014-01-29	Mid-Flood	Fine	Small Wave	SR10	Surface	1	1	2	15:45	17.4	7.73	28.3	6.72	1.5	4.3
TMCLKL	HY/2012/08	2014-01-29	Mid-Flood	Fine	Small Wave	SR10	Middle	7.1	2	1	15:45	17.3	7.54	28.4	6.58	2.23	3.4
TMCLKL	HY/2012/08	2014-01-29	Mid-Flood	Fine	Small Wave	SR10	Middle	7.1	2	2	15:45	17.2	7.53	28.3	6.59	2.24	3.1
TMCLKL	HY/2012/08	2014-01-29	Mid-Flood	Fine	Small Wave	SR10	Bottom	13.1	3	1	15:45	17.1	7.83	28.4	6.62	2.71	4.6
TMCLKL	HY/2012/08	2014-01-29	Mid-Flood	Fine	Small Wave	SR10	Bottom	13.1	3	2	15:45	17	7.82	28.5	6.64	2.78	3.6
TMCLKL	HY/2012/08	2014-01-29	Mid-Ebb	Fine	Small Wave	CS4	Surface	1	1	1	10:11	16.7	7.76	28	6.55	1.85	0.9
TMCLKL	HY/2012/08	2014-01-29	Mid-Ebb	Fine	Small Wave	CS4	Surface	1	1	2	10:11	16.8	7.73	28.1	6.53	1.88	0.1
TMCLKL	HY/2012/08	2014-01-29	Mid-Ebb	Fine	Small Wave	CS4	Middle	11.4	2	1	10:11	17	7.79	28.2	6.63	1.88	0.4
TMCLKL	HY/2012/08	2014-01-29	Mid-Ebb	Fine	Small Wave	CS4	Middle	11.4	2	2	10:11	17.1	7.8	28.3	6.65	1.9	0.2
TMCLKL	HY/2012/08	2014-01-29	Mid-Ebb	Fine	Small Wave	CS4	Bottom	21.7	3	1	10:11	17.2	7.71	28.4	6.49	1.94	0.4
TMCLKL	HY/2012/08	2014-01-29	Mid-Ebb	Fine	Small Wave	CS4	Bottom	21.7	3	2	10:11	17.3	7.72	28.3	6.51	1.96	0.7
TMCLKL	HY/2012/08	2014-01-29	Mid-Ebb	Fine	Small Wave	CS6	Surface	1	1	1	13:23	16.7	7.71	28.1	6.64	2.76	0.4
TMCLKL	HY/2012/08	2014-01-29	Mid-Ebb	Fine	Small Wave	CS6	Surface	1	1	2	13:23	16.8	7.72	28	6.63	2.79	0.4
TMCLKL	HY/2012/08	2014-01-29	Mid-Ebb	Fine	Small Wave	CS6	Middle	6.4	2	1	13:23	16.9	7.64	28.2	6.28	4.34	0
TMCLKL	HY/2012/08	2014-01-29	Mid-Ebb	Fine	Small Wave	CS6	Middle	6.4	2	2	13:23	17	7.63	28.3	6.29	4.36	0.9
TMCLKL	HY/2012/08	2014-01-29	Mid-Ebb	Fine	Small Wave	CS6	Bottom	11.8	3	1	13:23	17.2	7.53	28.4	6.37	2.46	0



TMCLKL	HY/2012/08	2014-01-29	Mid-Ebb	Fine	Small Wave	CS6	Bottom	11.8	3	2	13:23	17.3	7.54	28.4	6.39	2.44	0.3
TMCLKL	HY/2012/08	2014-01-29	Mid-Ebb	Fine	Small Wave	IS12	Surface	1	1	1	10:58	16.8	7.69	28.1	6.81	2.05	5.1
TMCLKL	HY/2012/08	2014-01-29	Mid-Ebb	Fine	Small Wave	IS12	Surface	1	1	2	10:58	16.9	7.67	28.1	6.83	2.1	3.6
TMCLKL	HY/2012/08	2014-01-29	Mid-Ebb	Fine	Small Wave	IS12	Middle	7.5	2	1	10:58	17.1	7.41	28.2	6.61	2.82	3.4
TMCLKL	HY/2012/08	2014-01-29	Mid-Ebb	Fine	Small Wave	IS12	Middle	7.5	2	2	10:58	17.1	7.43	28.3	6.69	2.84	3.6
TMCLKL	HY/2012/08	2014-01-29	Mid-Ebb	Fine	Small Wave	IS12	Bottom	13.9	3	1	10:58	17.2	7.66	28.4	6.5	1.97	3.7
TMCLKL	HY/2012/08	2014-01-29	Mid-Ebb	Fine	Small Wave	IS12	Bottom	13.9	3	2	10:58	17.3	7.67	28.4	6.53	2	4.9
TMCLKL	HY/2012/08	2014-01-29	Mid-Ebb	Fine	Small Wave	IS13	Surface	1	1	1	11:22	16.8	7.7	28.1	6.55	1.79	4.6
TMCLKL	HY/2012/08	2014-01-29	Mid-Ebb	Fine	Small Wave	IS13	Surface	1	1	2	11:22	16.9	7.72	28.2	6.58	1.76	3.3
TMCLKL	HY/2012/08	2014-01-29	Mid-Ebb	Fine	Small Wave	IS13	Middle	5.7	2	1	11:22	17	7.65	28.3	6.4	2.5	3.8
TMCLKL	HY/2012/08	2014-01-29	Mid-Ebb	Fine	Small Wave	IS13	Middle	5.7	2	2	11:22	17.1	7.64	28.2	6.42	2.54	3.7
TMCLKL	HY/2012/08	2014-01-29	Mid-Ebb	Fine	Small Wave	IS13	Bottom	10.4	3	1	11:22	17.2	7.78	28.4	6.33	2.9	4.4
TMCLKL	HY/2012/08	2014-01-29	Mid-Ebb	Fine	Small Wave	IS13	Bottom	10.4	3	2	11:22	17.3	7.79	28.3	6.32	2.95	3.3
TMCLKL	HY/2012/08	2014-01-29	Mid-Ebb	Fine	Small Wave	IS14	Surface	1	1	1	10:34	16.7	7.55	28.1	6.44	2.37	3.8
TMCLKL	HY/2012/08	2014-01-29	Mid-Ebb	Fine	Small Wave	IS14	Surface	1	1	2	10:34	16.8	7.58	28.1	6.4	2.4	3.2
TMCLKL	HY/2012/08	2014-01-29	Mid-Ebb	Fine	Small Wave	IS14	Middle	8	2	1	10:34	17	7.64	28.2	6.51	1.87	3.7
TMCLKL	HY/2012/08	2014-01-29	Mid-Ebb	Fine	Small Wave	IS14	Middle	8	2	2	10:34	16.9	7.62	28.3	6.53	1.88	4.9
TMCLKL	HY/2012/08	2014-01-29	Mid-Ebb	Fine	Small Wave	IS14	Bottom	15	3	1	10:34	17.2	7.77	28.4	6.41	2.65	3.6
TMCLKL	HY/2012/08	2014-01-29	Mid-Ebb	Fine	Small Wave	IS14	Bottom	15	3	2	10:34	17.2	7.79	28.4	6.42	2.59	4.1
TMCLKL	HY/2012/08	2014-01-29	Mid-Ebb	Fine	Small Wave	IS15	Surface	1	1	1	11:44	16.9	7.6	28.1	6.71	1.69	3.2
TMCLKL	HY/2012/08	2014-01-29	Mid-Ebb	Fine	Small Wave	IS15	Surface	1	1	2	11:44	16.8	7.65	28.2	6.73	1.73	3.5
TMCLKL	HY/2012/08	2014-01-29	Mid-Ebb	Fine	Small Wave	IS15	Middle	5.9	2	1	11:44	17	7.7	28.3	6.79	1.86	4.3
TMCLKL	HY/2012/08	2014-01-29	Mid-Ebb	Fine	Small Wave	IS15	Middle	5.9	2	2	11:44	17.1	7.73	28.4	6.83	1.88	3.3
TMCLKL	HY/2012/08	2014-01-29	Mid-Ebb	Fine	Small Wave	IS15	Bottom	10.7	3	1	11:44	17.2	7.83	28.5	6.93	2.43	4
TMCLKL	HY/2012/08	2014-01-29	Mid-Ebb	Fine	Small Wave	IS15	Bottom	10.7	3	2	11:44	17.3	7.85	28.5	6.92	2.46	3.5
TMCLKL	HY/2012/08	2014-01-29	Mid-Ebb	Fine	Small Wave	SR8	Surface	1	1	1	12:29	16.9	7.8	28	6.54	2.35	0.3
TMCLKL	HY/2012/08	2014-01-29	Mid-Ebb	Fine	Small Wave	SR8	Surface	1	1	2	12:29	17	7.83	28.1	6.52	2.37	0.7
TMCLKL	HY/2012/08	2014-01-29	Mid-Ebb	Fine	Small Wave	SR8	Middle		2	1	12:29						
TMCLKL	HY/2012/08	2014-01-29	Mid-Ebb	Fine	Small Wave	SR8	Middle		2	2	12:29						
TMCLKL	HY/2012/08	2014-01-29	Mid-Ebb	Fine	Small Wave	SR8	Bottom	4	3	1	12:29	17.1	7.81	28.2	6.63	2.04	0.7
TMCLKL	HY/2012/08	2014-01-29	Mid-Ebb	Fine	Small Wave	SR8	Bottom	4	3	2	12:29	17.2	7.84	28.2	6.67	2.06	0.4
TMCLKL	HY/2012/08	2014-01-29	Mid-Ebb	Fine	Small Wave	SR9	Surface	1	1	1	12:08	16.8	7.71	28	6.57	1.9	0.8
TMCLKL	HY/2012/08	2014-01-29	Mid-Ebb	Fine	Small Wave	SR9	Surface	1	1	2	12:08	16.8	7.73	28.1	6.58	1.92	0.3
TMCLKL	HY/2012/08	2014-01-29	Mid-Ebb	Fine	Small Wave	SR9	Middle		2	1	12:08						
TMCLKL	HY/2012/08	2014-01-29	Mid-Ebb	Fine	Small Wave	SR9	Middle		2	2	12:08						
TMCLKL	HY/2012/08	2014-01-29	Mid-Ebb	Fine	Small Wave	SR9	Bottom	4.6	3	1	12:08	16.9	7.65	28.2	6.27	2.25	0.6
TMCLKL	HY/2012/08	2014-01-29	Mid-Ebb	Fine	Small Wave	SR9	Bottom	4.6	3	2	12:08	17	7.62	28.3	6.29	2.27	0.7
TMCLKL	HY/2012/08	2014-01-29	Mid-Ebb	Fine	Small Wave	SR10	Surface	1	1	1	12:58	16.9	7.66	28.1	6.59	1.7	3.3
TMCLKL	HY/2012/08	2014-01-29	Mid-Ebb	Fine	Small Wave	SR10	Surface	1	1	2	12:58	16.9	7.69	28.1	6.6	1.79	3.4
TMCLKL	HY/2012/08	2014-01-29	Mid-Ebb	Fine	Small Wave	SR10	Middle	6.9	2	1	12:58	17	7.65	28.2	6.47	2.47	5
TMCLKL	HY/2012/08	2014-01-29	Mid-Ebb	Fine	Small Wave	SR10	Middle	6.9	2	2	12:58	17.1	7.64	28.3	6.49	2.49	3.2
TMCLKL	HY/2012/08	2014-01-29	Mid-Ebb	Fine	Small Wave	SR10	Bottom	12.8	3	1	12:58	17.2	7.7	28.4	6.53	2.8	3.3
TMCLKL	HY/2012/08	2014-01-29	Mid-Ebb	Fine	Small Wave	SR10	Bottom	12.8	3	2	12:58	17.3	7.71	28.3	6.55	2.83	3.7

Appendix J

## Impact Dolphin Monitoring Survey



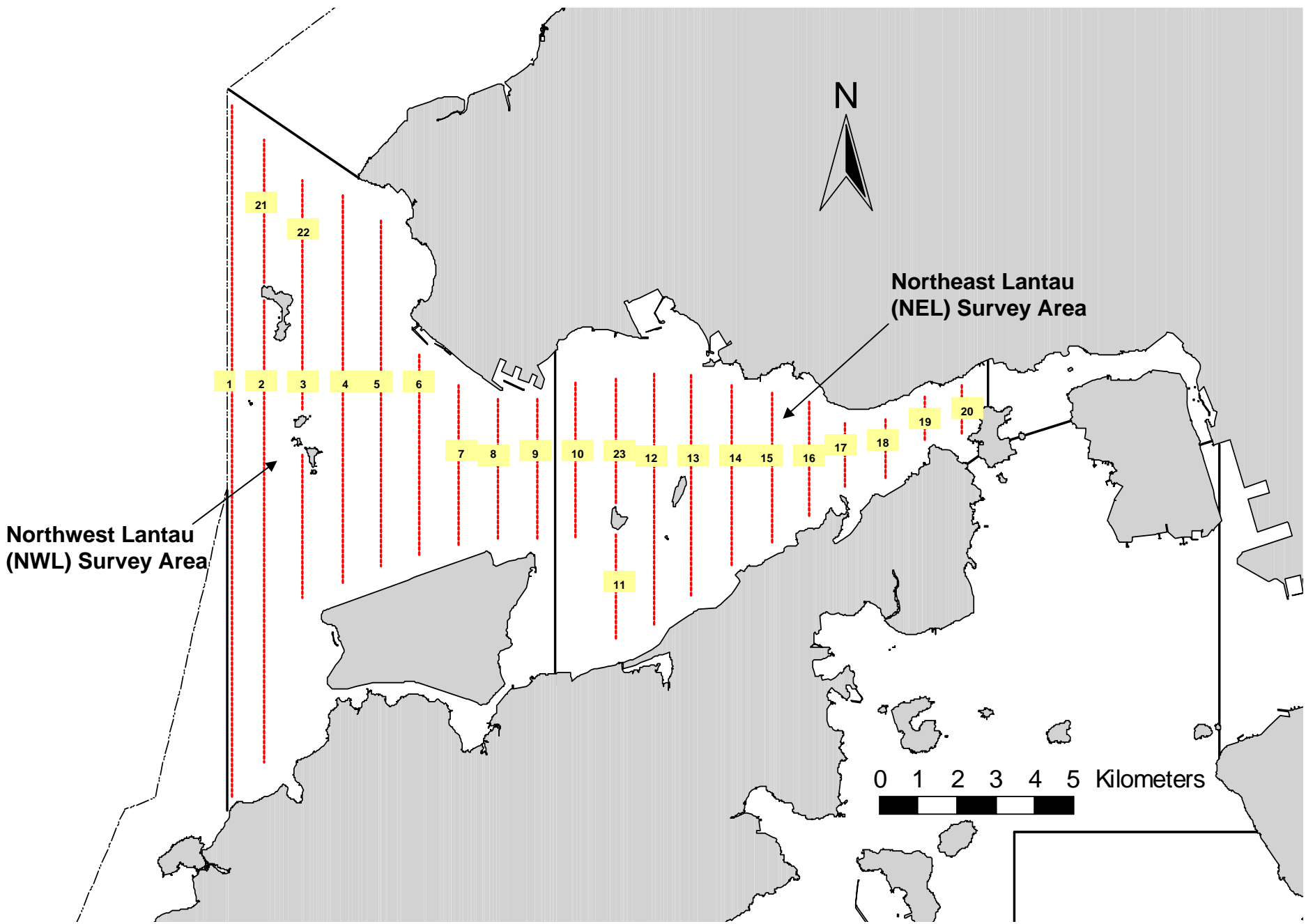


Figure 1. Transect Line Layout in Northwest and Northeast Lantau Survey Areas

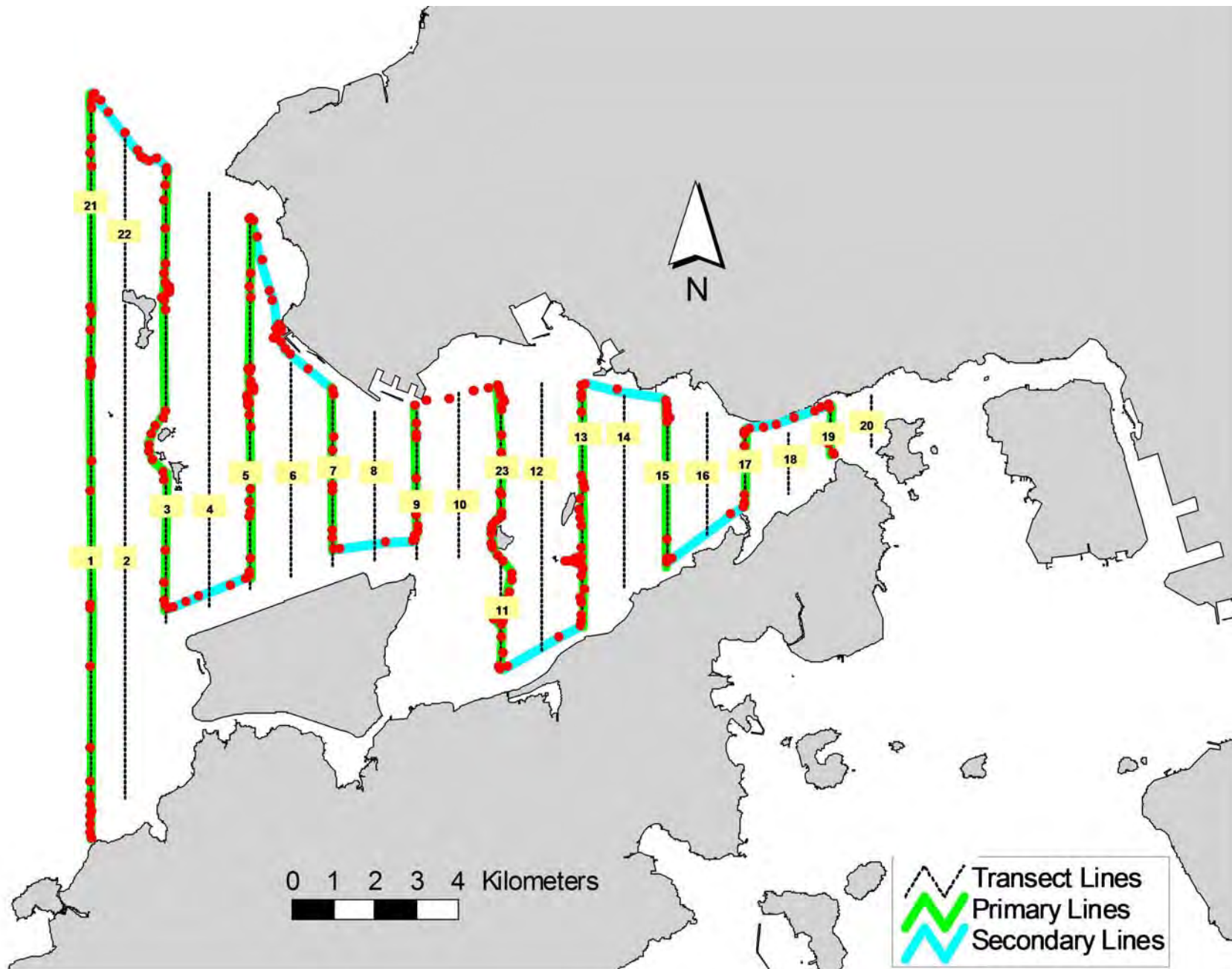


Figure 2. Survey Route on January 7<sup>th</sup>, 2014 (from HKLR03 project0)

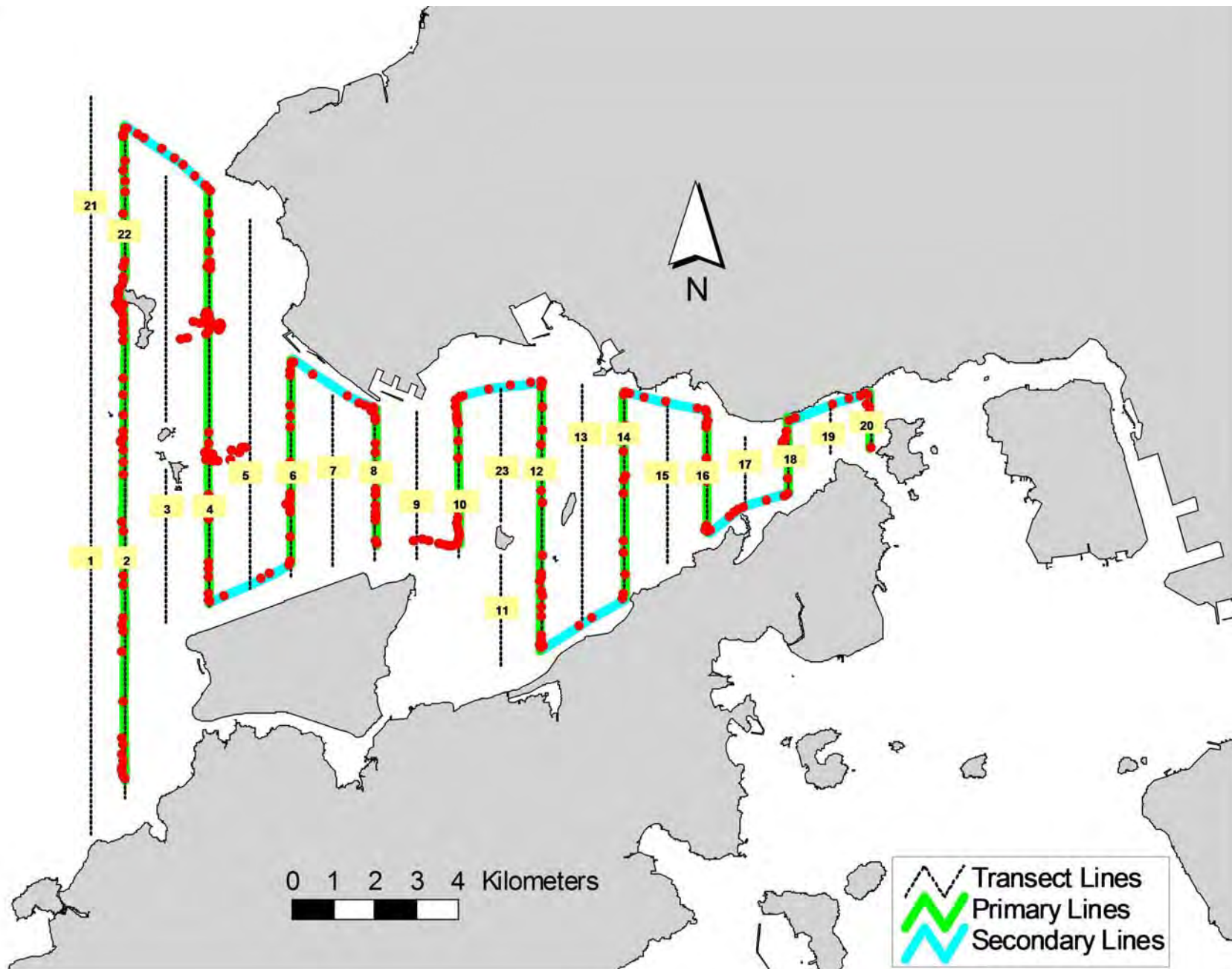


Figure 3. Survey Route on January 9<sup>th</sup>, 2014 (from HKLR03 project)

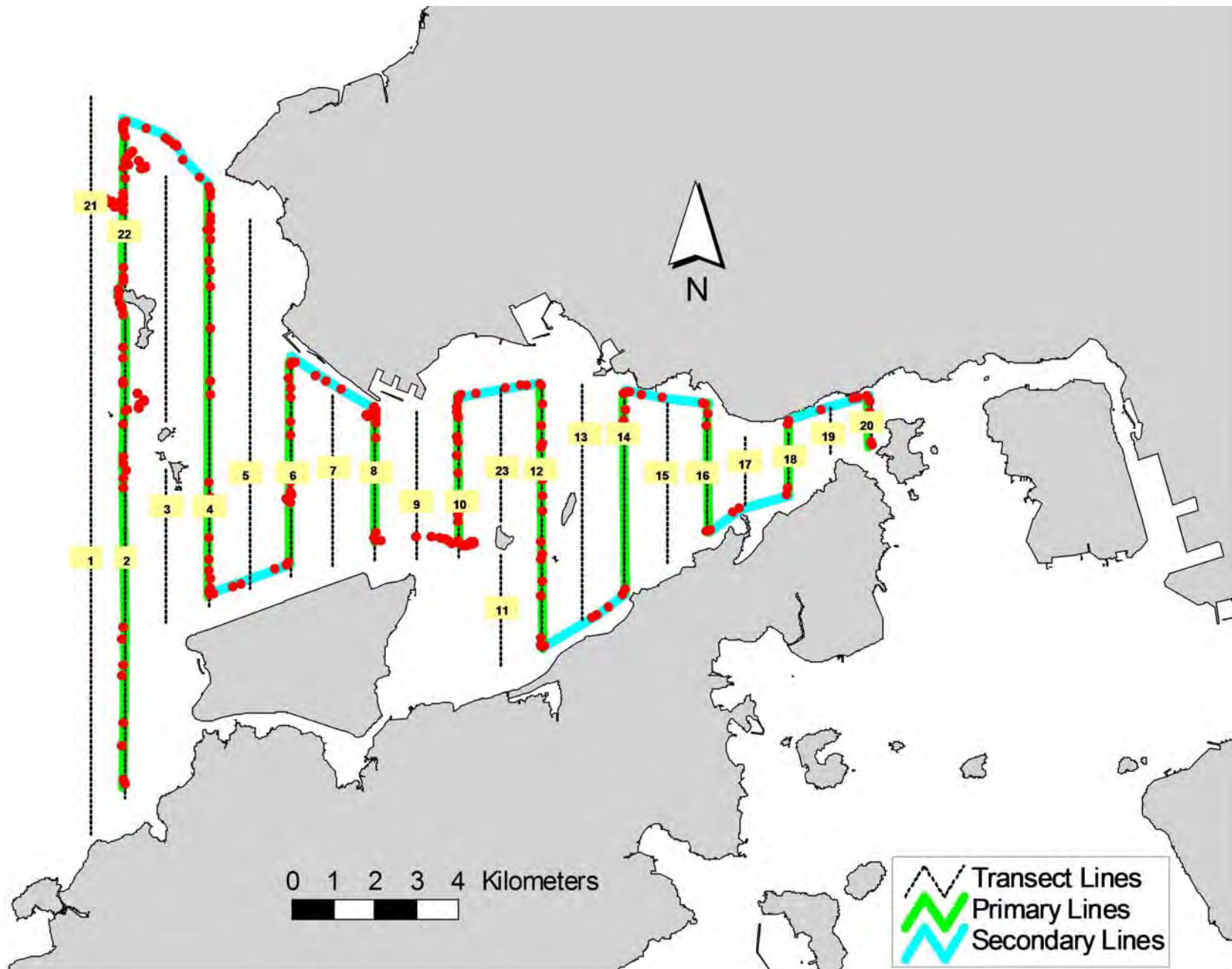


Figure 4. Survey Route on January 21<sup>st</sup>, 2014 (from HKLR03 project)



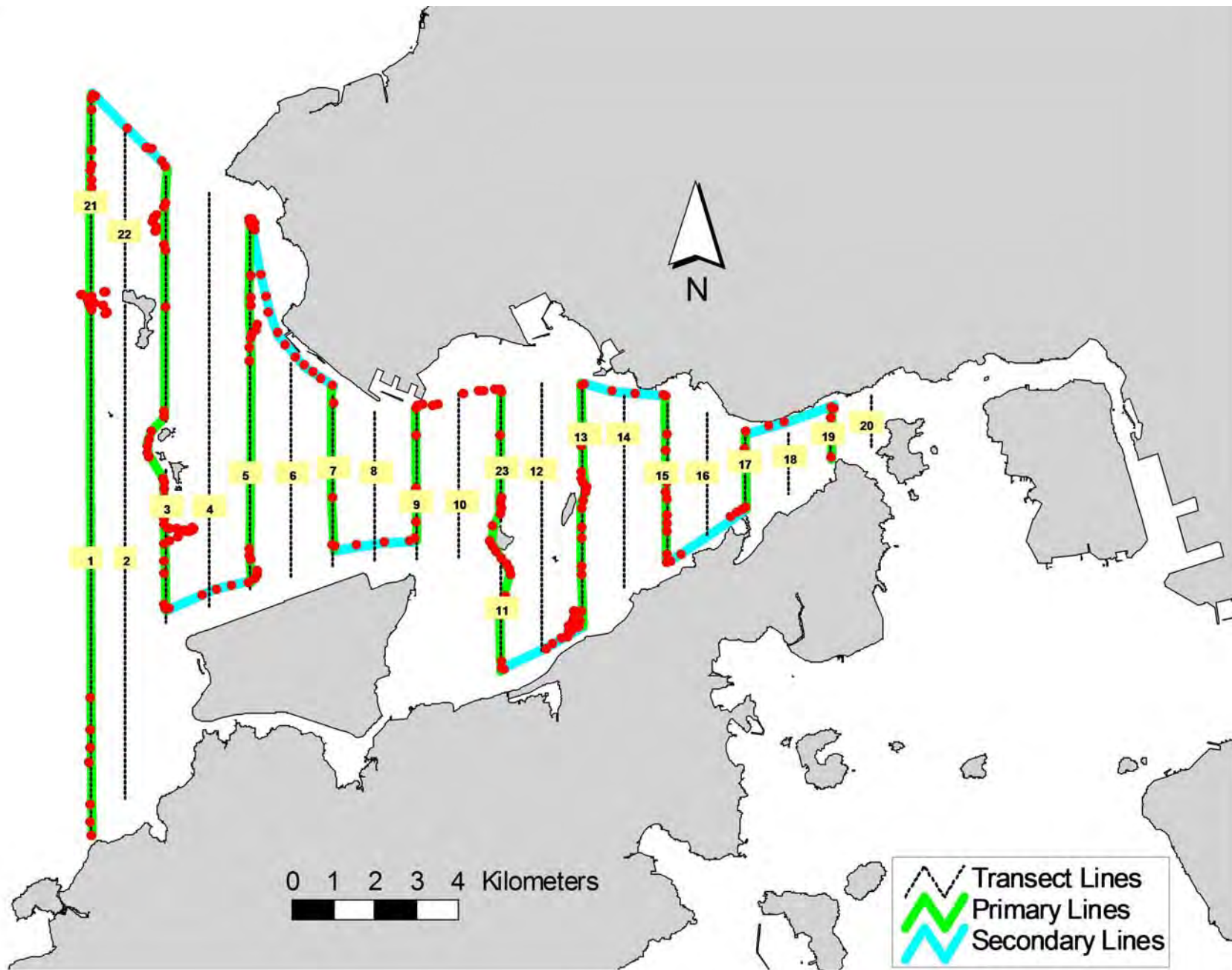


Figure 5. Survey Route on January 23<sup>rd</sup>, 2014 (from HKLR03 project)

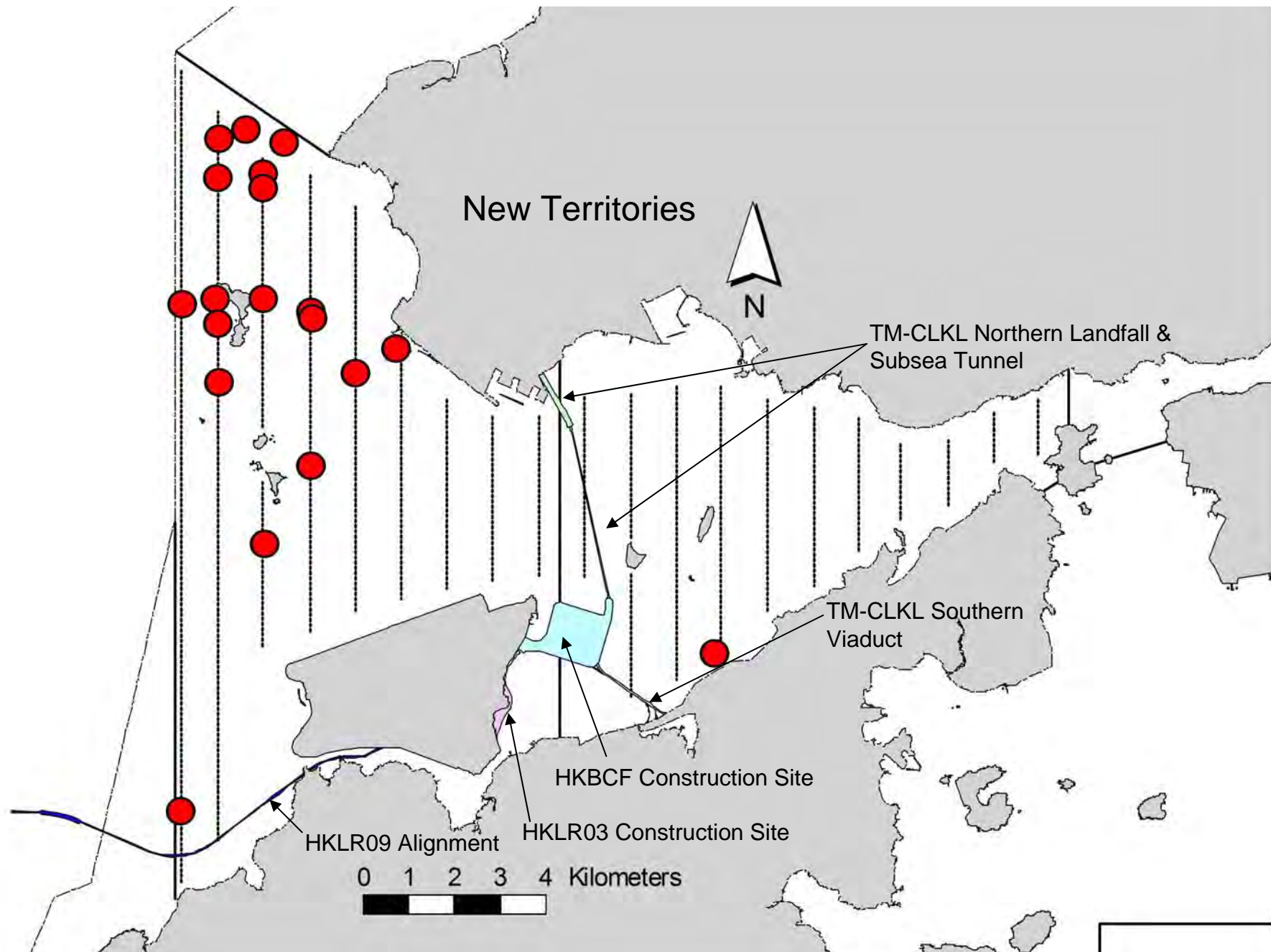


Figure 6. Distribution of Chinese White Dolphin Sightings During January 2014 HKLR03 Monitoring Surveys

## Appendix I. HKLR03 Survey Effort Database (January 2014)

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

DATE	AREA	BEAU	EFFORT	SEASON	VESSEL	TYPE	P/S
7-Jan-14	NE LANTAU	2	1.09	WINTER	STANDARD31516	HKLR	P
7-Jan-14	NE LANTAU	3	14.05	WINTER	STANDARD31516	HKLR	P
7-Jan-14	NE LANTAU	4	1.01	WINTER	STANDARD31516	HKLR	P
7-Jan-14	NE LANTAU	2	3.39	WINTER	STANDARD31516	HKLR	S
7-Jan-14	NE LANTAU	3	7.60	WINTER	STANDARD31516	HKLR	S
7-Jan-14	NW LANTAU	2	9.81	WINTER	STANDARD31516	HKLR	P
7-Jan-14	NW LANTAU	3	28.88	WINTER	STANDARD31516	HKLR	P
7-Jan-14	NW LANTAU	2	8.13	WINTER	STANDARD31516	HKLR	S
7-Jan-14	NW LANTAU	3	3.43	WINTER	STANDARD31516	HKLR	S
9-Jan-14	NE LANTAU	1	4.79	WINTER	STANDARD31516	HKLR	P
9-Jan-14	NE LANTAU	2	14.76	WINTER	STANDARD31516	HKLR	P
9-Jan-14	NE LANTAU	1	2.30	WINTER	STANDARD31516	HKLR	S
9-Jan-14	NE LANTAU	2	8.28	WINTER	STANDARD31516	HKLR	S
9-Jan-14	NW LANTAU	2	10.13	WINTER	STANDARD31516	HKLR	P
9-Jan-14	NW LANTAU	3	21.20	WINTER	STANDARD31516	HKLR	P
9-Jan-14	NW LANTAU	2	5.02	WINTER	STANDARD31516	HKLR	S
9-Jan-14	NW LANTAU	3	2.06	WINTER	STANDARD31516	HKLR	S
21-Jan-14	NE LANTAU	2	4.00	WINTER	STANDARD 31516	HKLR	P
21-Jan-14	NE LANTAU	3	15.27	WINTER	STANDARD 31516	HKLR	P
21-Jan-14	NE LANTAU	4	1.50	WINTER	STANDARD 31516	HKLR	P
21-Jan-14	NE LANTAU	3	10.76	WINTER	STANDARD 31516	HKLR	S
21-Jan-14	NE LANTAU	4	0.40	WINTER	STANDARD 31516	HKLR	S
21-Jan-14	NW LANTAU	2	13.76	WINTER	STANDARD 31516	HKLR	P
21-Jan-14	NW LANTAU	3	14.44	WINTER	STANDARD 31516	HKLR	P
21-Jan-14	NW LANTAU	4	1.29	WINTER	STANDARD 31516	HKLR	P
21-Jan-14	NW LANTAU	2	4.95	WINTER	STANDARD 31516	HKLR	S
21-Jan-14	NW LANTAU	3	3.95	WINTER	STANDARD 31516	HKLR	S
23-Jan-14	NW LANTAU	1	4.93	WINTER	STANDARD31516	HKLR	P
23-Jan-14	NW LANTAU	2	29.22	WINTER	STANDARD31516	HKLR	P
23-Jan-14	NW LANTAU	3	5.21	WINTER	STANDARD31516	HKLR	P
23-Jan-14	NW LANTAU	1	2.20	WINTER	STANDARD31516	HKLR	S
23-Jan-14	NW LANTAU	2	10.18	WINTER	STANDARD31516	HKLR	S
23-Jan-14	NE LANTAU	1	1.41	WINTER	STANDARD31516	HKLR	P
23-Jan-14	NE LANTAU	2	12.52	WINTER	STANDARD31516	HKLR	P
23-Jan-14	NE LANTAU	3	2.59	WINTER	STANDARD31516	HKLR	P
23-Jan-14	NE LANTAU	1	0.47	WINTER	STANDARD31516	HKLR	S
23-Jan-14	NE LANTAU	2	9.53	WINTER	STANDARD31516	HKLR	S

## Appendix II. HKLR03 Chinese White Dolphin Sighting Database (January 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
7-Jan-14	1	1258	2	NW LANTAU	3	87	ON	HKLR	825659	809348	WINTER	NONE	S
7-Jan-14	2	1337	1	NW LANTAU	3	125	ON	HKLR	825152	808472	WINTER	NONE	P
7-Jan-14	3	1452	3	NW LANTAU	2	1171	ON	HKLR	826673	806456	WINTER	NONE	P
7-Jan-14	4	1515	6	NW LANTAU	2	5	ON	HKLR	829275	806451	WINTER	NONE	P
9-Jan-14	1	1336	6	NW LANTAU	3	24	ON	HKLR	823238	807510	WINTER	NONE	P
9-Jan-14	2	1407	10	NW LANATU	2	62	ON	HKLR	826405	807506	WINTER	NONE	P
9-Jan-14	3	1435	1	NW LANTAU	3	56	ON	HKLR	826272	807526	WINTER	NONE	P
9-Jan-14	4	1534	3	NW LANTAU	2	131	ON	HKLR	826675	805395	WINTER	NONE	S
9-Jan-14	5	1546	1	NW LANTAU	2	113	ON	HKLR	826176	805446	WINTER	NONE	P
21-Jan-14	1	1407	2	NW LANTAU	2	99	ON	HKLR	829916	806916	WINTER	NONE	S
21-Jan-14	2	1426	7	NW LANTAU	2	260	ON	HKLR	830008	805474	WINTER	NONE	P
21-Jan-14	3	1444	2	NW LANTAU	2	84	ON	HKLR	829188	805452	WINTER	NONE	P
21-Jan-14	4	1521	9	NW LANTAU	2	434	ON	HKLR	824969	805464	WINTER	NONE	P
23-Jan-14	1	1015	2	NW LANTAU	2	977	ON	HKLR	816090	804642	WINTER	NONE	P
23-Jan-14	2	1101	4	NW LANTAU	2	329	ON	HKLR	826576	804674	WINTER	NONE	P
23-Jan-14	3	1133	3	NW LANTAU	1	957	ON	HKLR	830195	806061	WINTER	NONE	P
23-Jan-14	4	1202	5	NW LANTAU	1	199	ON	HKLR	828976	806450	WINTER	NONE	P
23-Jan-14	5	1250	2	NW LANTAU	2	372	ON	HKLR	821623	806467	WINTER	NONE	P
23-Jan-14	6	1538	9	NE LANTAU	2	365	ON	HKLR	819337	816344	WINTER	NONE	S



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

<b>ID#</b>	<b>DATE</b>	<b>STG#</b>	<b>AREA</b>
CH34	23/01/14	4	NW LANTAU
CH112	23/01/14	2	NW LANTAU
EL01	21/01/14	1	NW LANTAU
	23/01/14	6	NE LANTAU
NL11	23/01/14	3	NW LANTAU
NL24	09/01/14	2	NW LANTAU
	23/01/14	6	NE LANTAU
NL33	09/01/14	2	NW LANTAU
	23/01/14	6	NE LANTAU
NL46	23/01/14	4	NW LANTAU
NL48	07/01/14	4	NW LANTAU
	09/01/14	2	NW LANTAU
	09/01/14	3	NW LANTAU
	21/01/14	1	NW LANTAU
	23/01/14	3	NW LANTAU
NL80	21/01/14	2	NW LANTAU
NL98	09/01/14	2	NW LANTAU
NL103	07/01/14	4	NW LANTAU
NL104	23/01/14	4	NW LANTAU
NL120	09/01/14	2	NW LANTAU
	23/01/14	6	NE LANTAU
NL123	23/01/14	2	NW LANTAU
	23/01/14	5	NW LANTAU
NL136	07/01/14	1	NW LANTAU
	09/01/14	1	NW LANTAU
NL139	07/01/14	1	NW LANTAU
	09/01/14	1	NW LANTAU
	23/01/14	6	NE LANTAU
NL214	07/01/14	4	NW LANTAU
	21/01/14	4	NW LANTAU
NL220	09/01/14	1	NW LANTAU
NL221	07/01/14	4	NW LANTAU
	21/01/14	4	NW LANTAU
NL226	21/01/14	4	NW LANTAU
NL236	21/01/14	3	NW LANTAU
NL242	09/01/14	2	NW LANTAU
	23/01/14	6	NE LANTAU
NL259	23/01/14	4	NW LANTAU
NL261	23/01/14	4	NW LANTAU
NL272	09/01/14	1	NW LANTAU
	21/01/14	2	NW LANTAU
	23/01/14	6	NE LANTAU
NL284	21/01/14	4	NW LANTAU
NL285	23/01/14	2	NW LANTAU
NL308	21/01/14	2	NW LANTAU
WL162	21/01/14	3	NW LANTAU
WL214	09/01/14	4	NW LANTAU

NL136\_20140107\_1



NL139\_20140107\_1



NL48\_20140107\_4



NL103\_20140107\_4



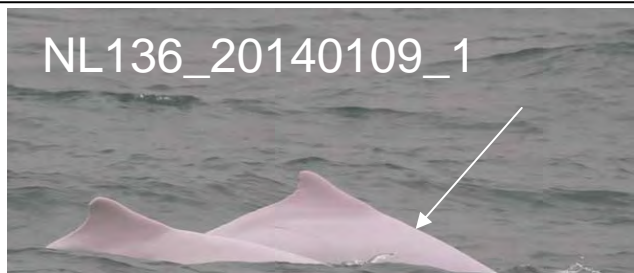
NL214\_20140107\_4



NL221\_20140107\_4



NL136\_20140109\_1



NL139\_20140109\_1



NL220\_20140109\_1



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



NL272\_20140109\_1



NL24\_20140109\_2



NL33\_20140109\_2



NL48\_20140109\_2



NL98\_20140109\_2



NL120\_20140109\_2



NL242\_20140109\_2



NL48\_20140109\_3



WL214\_20140109\_4





EL01\_20140121\_1



NL48\_20140121\_1



NL80\_20140121\_2



NL272\_20140121\_2



NL308\_20140121\_2



NL236\_20140121\_3



WL162\_20140121\_3



NL214\_20140121\_4



NL221\_20140121\_4





NL226\_20140121\_4



NL284\_20140121\_4



CH112\_20140123\_2



NL123\_20140123\_2



NL285\_20140123\_2



NL11\_20140123\_3



NL48\_20140123\_3



CH34\_20140123\_4



NL46\_20140123\_4





NL104\_20140123\_4



NL259\_20140123\_4



NL261\_20140123\_4



NL123\_20140123\_5



EL01\_20140123\_6



NL24\_20140123\_6



NL33\_20140123\_6



NL120\_20140123\_6



NL139\_20140123\_6





Appendix IV. (cont'd)

Appendix K

## Event and Action Plan



**Event and Action Plan for Impact Air Monitoring**

Action Level	Action			
	ET (a)	IEC (a)	SOR (a)	Contractor(s)
Exceedance recorded	<ol style="list-style-type: none"> <li>1. Identify the source.</li> <li>2. Repeat measurement to confirm finding. If two consecutive measurements exceed Action Level, the exceedance is then confirmed.</li> <li>3. Inform the IEC and the SOR.</li> <li>4. Investigate the cause of exceedance and check Contractor's working procedures to determine possible mitigation to be implemented.</li> <li>5. If the exceedance is confirmed to be Project related after investigation, increase monitoring frequency to daily.</li> <li>6. Discuss with the IEC and the Contractor on remedial actions required.</li> <li>7. If exceedance continues, arrange meeting with the IEC and the SOR.</li> <li>8. If exceedance stops, cease additional monitoring.</li> </ol>	<ol style="list-style-type: none"> <li>1. Check monitoring data submitted by the ET.</li> <li>2. Check the Contractor's working method.</li> <li>3. If the exceedance is confirmed to be Project related after investigation, discuss with the ET and the Contractor on possible remedial measures.</li> <li>4. Advise the SOR on the effectiveness of the proposed remedial measures.</li> <li>5. Supervisor implementation of remedial measures.</li> </ol>	<ol style="list-style-type: none"> <li>1. Confirm receipt of notification of failure in writing.</li> <li>2. Notify the Contractor.</li> <li>3. Ensure remedial measures properly implemented.</li> </ol>	<ol style="list-style-type: none"> <li>1. Rectify any unacceptable practice</li> <li>2. Amend working methods if appropriate</li> <li>3. If the exceedance is confirmed to be Project related, submit proposals for remedial actions to IEC within 3 working days of notification</li> <li>4. Implement the agreed proposals</li> <li>5. Amend proposal if appropriate</li> </ol>

	Action			
	ET (a)	IEC (a)	SOR (a)	Contractor(s)
<b>Limit Level</b>				
Exceedance recorded	<ol style="list-style-type: none"> <li>1. Identify the source.</li> <li>2. Repeat measurement to confirm finding. If two consecutive measurements exceed Limit Level, the exceedance is then confirmed.</li> <li>3. Inform the IEC, the SOR, the DEP and the Contractor.</li> <li>4. Investigate the cause of exceedance and check Contractor's working procedures to determine possible mitigation to be implemented.</li> <li>5. If the exceedance is confirmed to be Project related after investigation, increase monitoring frequency to daily.</li> <li>6. Carry out analysis of the Contractor's working procedures to determine possible mitigation to be implemented.</li> <li>7. Arrange meeting with the IEC and the SOR to discuss the remedial actions to be taken.</li> <li>8. Assess effectiveness of the Contractor's remedial actions and keep the IEC, the DEP and the SOR informed of the results.</li> <li>9. If exceedance stops, cease additional monitoring.</li> </ol>	<ol style="list-style-type: none"> <li>1. Check monitoring data submitted by the ET.</li> <li>2. Check Contractor's working method.</li> <li>3. If the exceedance is confirmed to be Project related after investigation, discuss with the ET and the Contractor on possible remedial measures.</li> <li>4. Advise the SOR on the effectiveness of the proposed remedial measures.</li> <li>5. Supervisor implementation of remedial measures.</li> </ol>	<ol style="list-style-type: none"> <li>1. Confirm receipt of notification of failure in writing.</li> <li>2. Notify the Contractor.</li> <li>3. If the exceedance is confirmed to be Project related after investigation, in consultation with the IEC, agree with the Contractor on the remedial measures to be implemented.</li> <li>4. Ensure remedial measures are properly implemented.</li> <li>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.</li> </ol>	<ol style="list-style-type: none"> <li>1. Take immediate action to avoid further exceedance.</li> <li>2. If the exceedance is confirmed to be Project related after investigation, submit proposals for remedial actions to IEC within 3 working days of notification.</li> <li>3. Implement the agreed proposals.</li> <li>4. Amend proposal if appropriate.</li> <li>5. Stop the relevant activity of works as determined by the SOR until the exceedance is abated.</li> </ol>

Note: (a) ET – Environmental Team; IEC – Independent Environmental Checker; SOR – Supervising Officer's Representative

*Event & Action Plan for Water Quality*

Event	ET Leader	IEC	SOR	Contractor
Action level being exceeded by one sampling day	<ol style="list-style-type: none"> <li>Repeat <i>in situ</i> measurement on next day of exceedance to confirm findings;</li> <li>Identify source(s) of impact;</li> <li>Inform IEC, contractor and SOR;</li> <li>Check monitoring data, all plant, equipment and Contractor's working methods.</li> </ol>	<ol style="list-style-type: none"> <li>Check monitoring data submitted by ET and Contractor's working methods.</li> </ol>	<ol style="list-style-type: none"> <li>Confirm receipt of notification of non-compliance in writing;</li> <li>Notify Contractor.</li> </ol>	<ol style="list-style-type: none"> <li>Inform the SOR and confirm notification of the non-compliance in writing;</li> <li>Rectify unacceptable practice;</li> <li>Amend working methods if appropriate.</li> </ol>
Action level being exceeded by two or more consecutive sampling days	<ol style="list-style-type: none"> <li>Repeat measurement on next day of exceedance to confirm findings;</li> <li>Identify source(s) of impact;</li> <li>Inform IEC, contractor, SOR and EPD;</li> <li>Check monitoring data, all plant, equipment and Contractor's working methods;</li> <li>Discuss mitigation measures with IEC, SOR and Contractor;</li> <li>Ensure mitigation measures are implemented;</li> <li>Increase the monitoring frequency to daily until no exceedance of Action level;</li> </ol>	<ol style="list-style-type: none"> <li>Check monitoring data submitted by ET and Contractor's working method;</li> <li>Discuss with ET and Contractor on possible remedial actions;</li> <li>Review the proposed mitigation measures submitted by Contractor and advise the SOR accordingly;</li> <li>Supervise the implementation of mitigation measures.</li> </ol>	<ol style="list-style-type: none"> <li>Discuss with IEC on the proposed mitigation measures;</li> <li>Ensure mitigation measures are properly implemented;</li> <li>Assess the effectiveness of the implemented mitigation measures.</li> </ol>	<ol style="list-style-type: none"> <li>Inform the Supervising Officer and confirm notification of the non-compliance in writing;</li> <li>Rectify unacceptable practice;</li> <li>Check all plant and equipment and consider changes of working methods;</li> <li>Submit proposal of additional mitigation measures to SOR within 3 working days of notification and discuss with ET, IEC and SOR;</li> <li>Implement the agreed mitigation measures.</li> </ol>
Limit level being exceeded by one sampling day	<ol style="list-style-type: none"> <li>Repeat measurement on next day of exceedance to confirm findings;</li> </ol>	<ol style="list-style-type: none"> <li>Check monitoring data submitted by ET and</li> </ol>	<ol style="list-style-type: none"> <li>Confirm receipt of notification of failure in</li> </ol>	<ol style="list-style-type: none"> <li>Inform the SOR and confirm notification of the</li> </ol>

Event	ET Leader	IEC	SOR	Contractor
	<ol style="list-style-type: none"> <li>2. Identify source(s) of impact;</li> <li>3. Inform IEC, contractor, SOR and EPD;</li> <li>4. Check monitoring data, all plant, equipment and Contractor's working methods;</li> <li>5. Discuss mitigation measures with IEC, SOR and Contractor;</li> <li>6.</li> </ol>	<ol style="list-style-type: none"> <li>1. Contractor's working method;</li> <li>2. Discuss with ET and Contractor on possible remedial actions;</li> <li>3. Review the proposed mitigation measures submitted by Contractor and advise the SOR accordingly.</li> </ol>	<ol style="list-style-type: none"> <li>1. writing;</li> <li>2. Discuss with IEC, ET and Contractor on the proposed mitigation measures;</li> <li>3. Request Contractor to review the working methods.</li> </ol>	<ol style="list-style-type: none"> <li>1. non-compliance in writing;</li> <li>2. Rectify unacceptable practice;</li> <li>3. Check all plant and equipment and consider changes of working methods;</li> <li>4. Submit proposal of mitigation measures to SOR within 3 working days of notification and discuss with ET, IEC and SOR.</li> </ol>
Limit level being exceeded by two or more consecutive sampling days	<ol style="list-style-type: none"> <li>1. Repeat measurement on next day of exceedance to confirm findings;</li> <li>2. Identify source(s) of impact;</li> <li>3. Inform IEC, contractor, SOR and EPD;</li> <li>4. Check monitoring data, all plant, equipment and Contractor's working methods;</li> <li>5. Discuss mitigation measures with IEC, SOR and Contractor;</li> <li>6. Ensure mitigation measures are implemented;</li> <li>7. Increase the monitoring frequency to daily until no exceedance of Limit level for two consecutive days;</li> </ol>	<ol style="list-style-type: none"> <li>1. Check monitoring data submitted by ET and Contractor's working method;</li> <li>2. Discuss with ET and Contractor on possible remedial actions;</li> <li>3. Review the Contractor's mitigation measures whenever necessary to assure their effectiveness and advise the SOR accordingly;</li> <li>4. Supervise the implementation of mitigation measures.</li> </ol>	<ol style="list-style-type: none"> <li>1. Discuss with IEC, ET and Contractor on the proposed mitigation measures;</li> <li>2. Request Contractor to critically review the working methods;</li> <li>3. Make agreement on the mitigation measures to be implemented;</li> <li>4. Ensure mitigation measures are properly implemented;</li> <li>5. 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.</li> </ol>	<ol style="list-style-type: none"> <li>1. Take immediate action to avoid further exceedance;</li> <li>2. Submit proposal of mitigation measures to SOR within 3 working days of notification and discuss with ET, IEC and SOR;</li> <li>3. Implement the agreed mitigation measures;</li> <li>4. Resubmit proposals of mitigation measures if problem still not under control;</li> <li>5. As directed by the Supervising Officer, to slow down or to stop all or part of the construction activities until no exceedance of Limit level.</li> </ol>

Note: ET – Environmental Team, IEC – Independent Environmental Checker, SOR – Supervising Officer's Representative

*Event / Action Plan for Impact Dolphin Monitoring*

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

EVENT	ACTION*			
	ET	IEC	SOR	Contractor
	<ol style="list-style-type: none"> <li>3. Identify source(s) of impact;</li> <li>4. Inform the IEC, SOR and Contractor of findings;</li> <li>5. Check monitoring data;</li> <li>6. Repeat review to ensure all the dolphin protective measures are fully and properly implemented and advise on additional measures if necessary.</li> <li>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, 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.</li> </ol>	<p>Contractor the necessity of additional dolphin monitoring and any other potential mitigation measures.</p> <ol style="list-style-type: none"> <li>4. Review proposals for additional monitoring and any other mitigation measures submitted by ET and Contractor and advise SOR of the results and findings accordingly.</li> <li>5. Supervise / Audit the implementation of additional monitoring and/or any other mitigation measures and advise SOR the results and findings accordingly.</li> </ol>	<p>proposals for additional dolphin monitoring and/or any other mitigation measures submitted by ET and Contractor and verified by IEC, SOR to signify the agreement in writing on such proposals and any other mitigation measures.</p> <ol style="list-style-type: none"> <li>3. Supervise the implementation of additional monitoring and/or any other mitigation measures.</li> </ol>	<p>potential mitigation measures.</p> <ol style="list-style-type: none"> <li>3. Jointly submit with ET to IEC a proposal of additional dolphin monitoring and/or any other mitigation measures when necessary.</li> <li>4. Implement the agreed additional dolphin monitoring and/or any other mitigation measures.</li> </ol>

Appendix L

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

*Appendix L Cumulative Statistics on Exceedances*

		Total No. recorded in this reporting month	Total No. recorded since project commencement
1-Hr TSP	Action	7	19
	Limit	0	2
24-Hr TSP	Action	1	5
	Limit	0	1
Water Quality	Action	0	5
	Limit	0	0
Impact Dolphin Monitoring	Action	0	0
	Limit	0	0

*Table Cumulative Statistics on Complaints, Notifications of Summons and Successful Prosecutions*

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



Email  
message

Environmental  
Resources  
Management

**To** ENVIRON - Hong Kong, Limited (ENPO)

**From** ERM- Hong Kong, Limited

**Ref/Project number** Contract No. HY/2012/08 Tuen Mun-Chek Lap  
Kok Link-Northern Connection Sub-sea Tunnel  
Section

**Subject** Notification of Exceedance for Air Quality  
Impact Monitoring

**Date** 14 January 2014

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



**ERM**

---

Dear Sir or Madam,

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

0212330\_3January2014\_1hrTSP\_Station AQMS1  
0212330\_3January2014\_1hrTSP\_Station ASR5  
0212330\_3January2014\_1hrTSP\_Station ASR1  
0212330\_3January2014\_24hrTSP\_Station AQMS1

A total of four Action Level Exceedances were recorded on 3 January 2014.

Regards,

A handwritten signature in black ink, appearing to read 'Jovy Tam', is written over a white background.

Mr Jovy Tam  
Environmental Team Leader

---

**CONFIDENTIALITY NOTICE**

This facsimile transmission is intended only for the use of the addressee and is confidential. If you are not the addressee it may be unlawful for you to read, copy, distribute, disclose or otherwise use the information in this facsimile. If you are not the intended recipient, please telephone or fax us.

---



ERM-Hong Kong, Limited

CONTRACT NO. HY/2012/08  
 TUEN MUN – CHEK LAP KOK LINK –  
 NORTHERN CONNECTION SUB-SEA TUNNEL SECTION

Air Quality Impact Monitoring  
 Notification of Exceedance

<b>Log No.</b>	0212330_3January2014_1hrTSP_Station AQMS1 0212330_3January2014_1hrTSP_Station ASR5 0212330_3January2014_1hrTSP_Station ASR1 0212330_3January2014_24hrTSP_Station AQMS1 [Total No. of Exceedances = 4]	
<b>Date</b>	3 January 2014 (Measured) 12 January 2014 (Laboratory results received by ERM)	
<b>Monitoring Station</b>	ASR1, ASR5, AQMS1	
<b>Parameter(s) with Exceedance(s)</b>	1-hr TSP 24-hr TSP	
<b>Action Levels</b>	1-hr TSP ( $\mu\text{g}/\text{m}^3$ )	ASR1 = 331 ASR5 = 340 ASR10 = 337 AQMS1 = 335 AQMS2 = 338
	24-hr TSP ( $\mu\text{g}/\text{m}^3$ )	ASR1 = 213 ASR5 = 238 ASR10 = 214 AQMS1 = 213 AQMS2 = 238
<b>Limit Levels</b>	1-hr TSP ( $\mu\text{g}/\text{m}^3$ )	500
	24-hr TSP ( $\mu\text{g}/\text{m}^3$ )	260
<b>Measured Levels</b>	Action Level Exceedance on 1-hr TSP is observed at AQMS1 ( $336 \mu\text{g}/\text{m}^3$ ) during 1534 - 1634 hrs. Action Level Exceedance on 1-hr TSP is observed at ASR5 ( $391 \mu\text{g}/\text{m}^3$ ) during 1411 - 1511 hrs. Action Level Exceedance on 1-hr TSP is observed at ASR1 ( $419 \mu\text{g}/\text{m}^3$ ) during 1524 - 1624 hrs. Action Level Exceedance on 24-hr TSP is observed at AQMS1 ( $228 \mu\text{g}/\text{m}^3$ ).	
<b>Works Undertaken (at the time of monitoring event)</b>	On 3 January 2014, marine dredging works were carried out by one dredger Crown Asia 1 at Portion N-A. At the time of monitoring during 1411 to 1634 hrs, dredging was undertaken by one dredger at Portion N-A which is at more than 100 m from the air quality monitoring stations. At Site WA-18, construction of site office and substation were undertaken. At Portion N6, site clearance was undertaken.	

<b>Possible Reason for Action or Limit Level Exceedance(s)</b>	<p>The exceedances are unlikely to be due to the Project, in view of the following:</p> <ul style="list-style-type: none"> <li>• Considering the generally high level of 1-hour TSP between 1411 and 1634 hrs at three of the five monitoring stations, it is probably unlikely that the level of land-based construction activities under this Contract can cause increase in 1-hour TSP of this magnitude and scale. It is considered that the observed exceedances for 1-hour TSP may represent sporadic event associated with traffic emissions and anthropogenic activities during afternoon rush hour at Lung Mun Road and River Trade Terminal.</li> <li>• According to the construction diary provided by the Contractor, the majority of construction works on 3 January 2014 were marine-based with the dredging works being undertaken by one dredger (Crown Asia 1) at Portion N-A, whilst only minor land-based construction works, including site office and substation construction at WA-18 and site clearance at Portion N6. All land-based constructions at WA-18 and Portion N6 were considered to have minor effect on dust generation.</li> <li>• Whilst exceedances of Action Level were observed at AQMS1, ASR1, ASR5, the average 1-hr TSP levels at these monitoring stations (AQMS1 = 276 µg/m<sup>3</sup>; ASR1 = 299 µg/m<sup>3</sup>; ASR5 = 310 µg/m<sup>3</sup>) on 3 January 2014 were in compliance with the Action and Limit Levels.</li> <li>• According to the air quality monitoring recorded by the closest EPD air monitoring station in Yuen Long and Tuen Mun on 3 January 2014, the Air Quality Health Index (AQHI) from 1400 to 1700 hrs showed a Very High to Serious Pollution Level (Yuen Long AQHI ranged from 8 to 10+; Tuen Mun AQHI ranged from 8 to 10). The observed exceedances could be resulting from the area-wide scale pollution in Hong Kong.</li> <li>• With reference to the recorded wind direction (ranged between 267° and 299°, blowing to a westerly direction) and wind speed (ranged from 1.60 to 2.20 m/s) during the period of observed 1-hr TSP exceedances, Stations AQMS1, ASR1 and ASR5 are located upstream of the major construction activities at dredging barge Crown Asia 1 at Portion N-A, Site WA-18 and Portion N6, thus they should not be affected by the dust, if any, generated by the concerned construction activities. Wind speed recorded from 14:00 to 17:00 shows a relatively higher measurement (ranged 1.60 to 2.20 m/s) in comparison to the period outside the monitoring period on the same day. As such, dust particles could be transported in a relatively higher rate across a wide area and resulting in the observed exceedances.</li> <li>• Under the strong wind condition, the recycling yard next to ASR5 is likely to generate large amount of dust with the ongoing of loading and unloading of recycle materials which is not part of the construction works of the Project. This practice under strong wind condition could be one of the major factors contributing to the exceedance at ASR5.</li> <li>• As stated in the EIA report (Section 4.2.3), the background TSP level of Tuen Mun is higher than the other region of Hong Kong, thus the exceedances may be also contributed cumulatively by the other construction works / traffic within the Tuen Mun Area rather than causing by the construction works of the Project.</li> </ul>
<b>Actions Taken / To Be Taken</b>	<p>The Contractor was reminded to ensure all dust mitigating measures are provided at WA 18 and Portion N6. The ET will monitor for future trends in exceedances.</p>
<b>Remarks</b>	<p>The monitoring results, the locations of air quality monitoring stations, wind data and construction works schedule are attached.</p>

Email  
message

**Environmental  
Resources  
Management**

**To** ENVIRON - Hong Kong, Limited (ENPO)

**From** ERM- Hong Kong, Limited

**Ref/Project number** Contract No. HY/2012/08 Tuen Mun-Chek Lap  
Kok Link-Northern Connection Sub-sea Tunnel  
Section

**Subject** Notification of Exceedance for Air Quality  
Impact Monitoring

**Date** 30 January 2014

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



**ERM**

---

Dear Sir or Madam,

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

0212330\_15January2014\_1hrTSP\_Station ASR1

A total of one Action Level Exceedance was recorded on 15 January 2014.

Regards,



Mr Jovy Tam  
Environmental Team Leader

---

**CONFIDENTIALITY NOTICE**

This facsimile transmission is intended only for the use of the addressee and is confidential. If you are not the addressee it may be unlawful for you to read, copy, distribute, disclose or otherwise use the information in this facsimile. If you are not the intended recipient, please telephone or fax us.

---



ERM-Hong Kong, Limited

CONTRACT NO. HY/2012/08  
 TUEN MUN – CHEK LAP KOK LINK –  
 NORTHERN CONNECTION SUB-SEA TUNNEL SECTION

Air Quality Impact Monitoring  
 Notification of Exceedance

<b>Log No.</b>	0212330_15January2014_1hrTSP_Station ASR1 [Total No. of Exceedances = 1]	
<b>Date</b>	15 January 2014 (Measured) 30 January 2014 (Laboratory results received by ERM)	
<b>Monitoring Station</b>	ASR1	
<b>Parameter(s) with Exceedance(s)</b>	1-hr TSP	
<b>Action Levels</b>	1-hr TSP ( $\mu\text{g}/\text{m}^3$ )	ASR1 = 331
	24-hr TSP ( $\mu\text{g}/\text{m}^3$ )	ASR1 = 213
<b>Limit Levels</b>	1-hr TSP ( $\mu\text{g}/\text{m}^3$ )	500
	24-hr TSP ( $\mu\text{g}/\text{m}^3$ )	260
<b>Measured Levels</b>	Action Level Exceedance on 1-hr TSP is observed at ASR1 ( $375 \mu\text{g}/\text{m}^3$ ) during 1631 - 1731 hrs.	
<b>Works Undertaken (at the time of monitoring event)</b>	On 15 January 2014, marine dredging works were carried out by one dredger Crown Asia 1 at Portion N-B. At the time of monitoring during 1631 to 1731 hrs, dredging was undertaken by one dredger at Portion N-B which is at least 200 m from ASR1. At Site WA-18, construction of site office and substation were undertaken. At Portion N6, foundation works was undertaken.	

<b>Possible Reason for Action or Limit Level Exceedance(s)</b>	<p>The exceedance(s) are unlikely to be due to the Project, in view of the following:</p> <ul style="list-style-type: none"> <li>• Considering the generally high level of 1-hour TSP between 1405 and 1640 hrs at all monitoring stations, it is probably unlikely that the level of land-based construction activities under this Contract can cause increase in 1-hour TSP of this magnitude and scale. It is considered that the observed exceedance for 1-hour TSP at ASR1 and generally high level of 1-hour TSP at all monitoring stations may represent sporadic event associated with traffic emissions and anthropogenic activities during evening rush hour at Lung Mun Road and River Trade Terminal.</li> <li>• According to the construction diary provided by the Contractor, the majority of construction works on 15 January 2014 were marine-based with the dredging works being undertaken by one dredger (Crown Asia 1) at Portion N-B, whilst only minor land-based construction works, including site office and substation construction at WA-18 and foundation works at Portion N6. All land-based constructions at WA-18 and Portion N6 were considered to have minor effect on dust generation.</li> <li>• Whilst exceedance of Action Level were observed at ASR1, the average 1-hr TSP level at the monitoring station (ASR1 = 294 µg/m<sup>3</sup>) on 15 January 2014 was in compliance with the Action and Limit Levels.</li> <li>• Same level and extent of construction works were carried out at the same works area on 9<sup>th</sup> January while no exceedance was recorded.</li> <li>• With reference to the recorded wind direction (ranged between 117° and 138°, blowing from a South-easterly direction) and wind speed (ranged from 1.68 to 2.65 m/s) during the period of observed 1-hr TSP exceedance, Station ASR1 is located downstream of the marine-based construction activities at dredging barge Crown Asia 1 at Portion N-B, whilst located at least 400 m away from the land-based construction area (i.e. Site WA-18 and Portion N6), thus ASR1 should not be affected by the dust, if any, generated by the land-based construction activities.</li> <li>• As stated in the EIA report (Section 4.2.3), the background TSP level of Tuen Mun is higher than the other region of Hong Kong, thus the exceedances may be also contributed cumulatively by the other construction works / traffic within the Tuen Mun Area rather than causing by the construction works of the Project.</li> </ul>
<b>Actions Taken / To Be Taken</b>	<p>The Contractor was reminded to ensure all dust mitigating measures are provided at WA 18 and Portion N6. The ET will monitor for future trends in exceedances.</p>
<b>Remarks</b>	<p>The monitoring results, the locations of air quality monitoring stations, wind data and construction works schedule are attached.</p>

Email  
message

Environmental  
Resources  
Management

**To** ENVIRON - Hong Kong, Limited (ENPO)

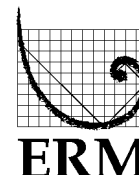
**From** ERM- Hong Kong, Limited

**Ref/Project number** Contract No. HY/2012/08 Tuen Mun-Chek Lap  
Kok Link-Northern Connection Sub-sea Tunnel  
Section

**Subject** Notification of Exceedance for Air Quality  
Impact Monitoring

**Date** 6 February 2014

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



---

Dear Sir or Madam,

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

0212330\_27January2014\_1hrTSP\_Station ASR6  
0212330\_27January2014\_1hrTSP\_Station ASR5  
0212330\_27January2014\_1hrTSP\_Station ASR1

A total of three Action Level Exceedances were recorded on 27 January 2014.

Regards,



Mr Jovy Tam  
Environmental Team Leader

---

**CONFIDENTIALITY NOTICE**

This facsimile transmission is intended only for the use of the addressee and is confidential. If you are not the addressee it may be unlawful for you to read, copy, distribute, disclose or otherwise use the information in this facsimile. If you are not the intended recipient, please telephone or fax us.

---



ERM-Hong Kong, Limited

CONTRACT NO. HY/2012/08  
 TUEN MUN – CHEK LAP KOK LINK –  
 NORTHERN CONNECTION SUB-SEA TUNNEL SECTION

Air Quality Impact Monitoring  
 Notification of Exceedance

<b>Log No.</b>	0212330_27January2014_1hrTSP_Station ASR1 0212330_27January2014_1hrTSP_Station ASR5 0212330_27January2014_1hrTSP_Station ASR6 [Total No. of Exceedances = 3]	
<b>Date</b>	27 January 2014 (Measured) 6 February 2014 (Laboratory results received by ERM)	
<b>Monitoring Station</b>	ASR1 ASR5 ASR6	
<b>Parameter(s) with Exceedance(s)</b>	1-hr TSP	
<b>Action Levels</b>	1-hr TSP ( $\mu\text{g}/\text{m}^3$ )	ASR1 = 331 ASR5 = 340 ASR6 = 338
	24-hr TSP ( $\mu\text{g}/\text{m}^3$ )	ASR1 = 213 ASR5 = 238 ASR6 = 238
<b>Limit Levels</b>	1-hr TSP ( $\mu\text{g}/\text{m}^3$ )	500
	24-hr TSP ( $\mu\text{g}/\text{m}^3$ )	260
<b>Measured Levels</b>	Action Level Exceedance on 1-hr TSP is observed at ASR1 ( $398 \mu\text{g}/\text{m}^3$ ) during 1506 - 1606 hrs. Action Level Exceedance on 1-hr TSP is observed at ASR5 ( $423 \mu\text{g}/\text{m}^3$ ) during 1352 - 1452 hrs. Action Level Exceedance on 1-hr TSP is observed at ASR6 ( $377 \mu\text{g}/\text{m}^3$ ) during 1545 - 1645 hrs.	
<b>Works Undertaken (at the time of monitoring event)</b>	On 27 January 2014, marine dredging works were carried out by one dredger Crown Asia 1 at Portion N-B. At the time of monitoring during 1352 to 1645 hrs, land-based works were undertaken at Site WA-18 for the construction of site office and substation, and at Portion N6 for ground investigation.	



<b>Possible Reason for Action or Limit Level Exceedance(s)</b>	<p>The exceedance(s) are unlikely to be due to the Project, in view of the following:</p> <ul style="list-style-type: none"> <li>• Considering the generally high level of 1-hour TSP between 1352 and 1645 hrs at all monitoring stations (except for ASR10), it is probably unlikely that the level of land-based construction works under this Contract can cause increase in 1-hour TSP of this magnitude and scale. It is considered that the observed exceedances for 1-hour TSP at ASR1, ASR5, ASR6 and generally high level of 1-hour TSP at most of the monitoring stations may represent sporadic event associated with traffic emissions and anthropogenic activities during afternoon rush hour at Lung Mun Road and River Trade Terminal.</li> <li>• According to the construction diary provided by the Contractor, the majority of construction works on 27 January 2014 were marine-based with the dredging works being undertaken by one dredger (Crown Asia 1) at Portion N-B, whilst only minor land-based construction works, including construction of site office and substation at WA-18 and ground investigation works at Portion N6. All land-based constructions at WA-18 and Portion N6 were considered to have minor effect on dust generation.</li> <li>• Whilst exceedance of Action Level were observed at ASR1, ASR5, ASR6, the average 1-hr TSP levels at these monitoring stations (ASR1 = 320 µg/m<sup>3</sup>; ASR5 = 336 µg/m<sup>3</sup>; ASR6 = 269 µg/m<sup>3</sup>) on 27 January 2014 were in compliance with the Action and Limit Levels.</li> <li>• Same level and extent of construction works were carried out at the same works area on 21<sup>st</sup> January while no exceedance was recorded.</li> <li>• With reference to the recorded wind direction (ranged between 90° and 121°, blowing from a Easterly direction) and wind speed (ranged from 2.0 to 2.53 m/s) during the period of the observed 1-hr TSP exceedances, Stations ASR1, ASR5 and ASR6 are located perpendicular to the marine-based construction activities at dredging barge Crown Asia 1 at Portion N-B, and ASR5 and ASR6 are located upstream from the land-based construction area (i.e. Site WA-18 and Portion N6), thus the observed exceedances should not be affected by the dust, if any, generated by the construction activities under this Contract.</li> <li>• As stated in the EIA report (Section 4.7.9.6), the operating chimneys of Butterfly Beach Laundry is identified as one of the point emission source in Tuen Mun, thus the observed exceedances appear to be contributed largely by the stack emission from the Butterfly Beach Laundry rather than causing by the construction works of the Project.</li> <li>• As stated in the EIA report (Section 4.2.3), the background TSP level of Tuen Mun is higher than the other region of Hong Kong, thus the exceedances may be also contributed cumulatively by the other construction works / traffic within the Tuen Mun Area rather than causing by the construction works of the Project.</li> </ul>
<b>Actions Taken/ To Be Taken</b>	<p>The Contractor was reminded to ensure all dust mitigating measures are provided at WA 18 and Portion N6. The ET will monitor for future trends in exceedances.</p>
<b>Remarks</b>	<p>The monitoring results, the locations of air quality monitoring stations, wind data and construction works schedule are attached.</p>

Appendix M

## Waste Flow Table

Name of Department: HyD

Contract No. / Works Order No.: HY/2012/08

**Monthly Summary Waste Flow Table for January 2014** [to be submitted not later than the 15<sup>th</sup> day of each month following reporting month]

(All quantities shall be rounded off to 3 decimal places.)

Month	Actual Quantities of <u>Inert</u> Construction Waste Generated Monthly									
	(a)=(b)+(c)+(d)+(e) Total Quantity Generated	(b) Hard Rock and Large Broken Concrete	(c) Reused in the Contract	(d) Reused in other Projects	(e) Disposed of as Public Fill	Imported Fill to WA 23 & Reclamation Area (Rockfill 400)	Imported Fill to WA 23 & Reclamation Area (Rockfill Type A)	Imported Fill to RTT Barging Point	Marine Disposal (Cat. L)	Marine Disposal (Cat. M <sub>P</sub> &M <sub>F</sub> )
	(in '000 ton)	(in '000 ton)	(in '000 ton)	(in '000 ton)	(in '000 ton)	(in '000 ton)	(in '000 ton)	(in '000 ton)	(in '000 m <sup>3</sup> )	(in '000 m <sup>3</sup> )
Jan	9.012	0.000	0.000	0.000	9.012	177.300	8.544	124.412	34.000	12.500
Feb										
Mar										
Apr										
May										
Jun										
Sub-total										
Jul										
Aug										
Sep										
Oct										
Nov										
Dec										
Total	12.730	0.000	0.000	0.000	12.730	388.841	28.004	169.884	95.600	30.700

Month	Actual Quantities of <u>Non-inert</u> Construction Waste Generated Monthly								
	Metals		Paper/ cardboard packaging		Plastics (see Note 3)		Chemical Waste		Others, e.g. General Refuse disposed at Landfill
	(in '000kg)		(in '000kg)		(in '000kg)		(in '000kg)		(in '000ton)
	generated	recycled	generated	recycled	generated	recycled	generated	recycled	generated
Jan	0.000	0.000	0.130	0.130	0.000	0.000	0.000	0.000	0.045
Feb									
Mar									
Apr									
May									
Jun									
Sub-total									
Jul									
Aug									
Sep									
Oct									
Nov									
Dec									
Total	0.000	0.000	0.510	0.510	0.000	0.000	0.000	0.000	0.217

Forecast of Total Quantities of Construction and Demolition Materials to be Generated from the Contract*							
Total Quantity Generated	Hard Rock and Large Broken Concrete	Reused in the Contract	Reused in other Projects	Disposed of as Public Fill	Imported Fill	Marine Disposal (Cat. L)	Marine Disposal (Cat. M)
(in '000 ton)	(in '000 ton)	(in '000 ton)	(in '000 ton)	(in '000 ton)	(in '000 ton)	(in '000 m <sup>3</sup> )	(in '000 m <sup>3</sup> )
5.000	0.000	0.000	0.000	5.000	180.000	5.000	40.000

Forecast of Total Quantities of Construction and Demolition Materials to be Generated from the Contract*				
Metals	Paper/ cardboard packaging	Plastics (see Note 3)	Chemical Waste	General Refuse disposed of at Landfill
(in '000kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000m <sup>3</sup> )
0.000	0.050	0.000	0.000	0.100

- Notes:
- (1) The performance targets are given in the **ER Appendix 8J Clause 14** and the EM & A Manual(s).
  - (2) The waste flow table shall also include C&D materials to be imported for use at the Site.
  - (3) Plastics refer to plastic bottles/containers, plastic sheets/foam from packaging material.
  - (4) The Contractor shall also submit the latest forecast of the total amount of C&D materials expected to be generated from the Works, together with a breakdown of the nature where the amount of C&D materials expected to be generated from the Works is equal to or exceeding 50,000 m<sup>3</sup>. (**ER Part 8 Clause 8.8.5 (d) (ii)** refers).