CONTRACT NO: HK/2015/01

WANCHAI DEVELOPMENT PHASE II AND CENTRAL WANCHAI BYPASS SAMPLING, FIELD MEASUREMENT AND TESTING WORKS (STAGE 3)

ENVIRONMENTAL PERMIT NO. EP-356/2009, FURTHER EVIRONMENTAL PERMIT NOS. FEP-02/356/2009, FEP-03/356/2009, FEP-04/356/2009 , FEP-06/356/2009 AND FEP-07/356/2009

MONTHLY ENVIRONMENTAL MONITORING & AUDIT REPORT

APRIL 2016 -

CLIENTS:

Civil Engineering and Development Department

and

Highways Department

PREPARED BY:

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CERTIFIED BY:

Raymond Dai

Environmental Team Leader

DATE:

13 May 2016



Ref.: AACWBIECEM00_0_8077L.16.docx

13 May 2016

By Post and Fax (3912 3010)

AECOM Asia Company Limited Engineer's Representative's Office 25 Hung Hing Road, Causeway Bay, Hong Kong

Attention: Mr. Peter Poon

Dear Mr. Poon,

Re: Contract No. HK/2015/01
Wan Chai Development Phase II - Central-Wan Chai Bypass
Sampling, Field Measurement and Testing Works (Stage 3)

Monthly Environmental Monitoring and Audit Report (April 2016) for EP-356/2009, FEP-02/356/2009, FEP-03/356/2009, FEP-04/356/2009, FEP-06/356/2009 and FEP-07/356/2009

Reference is made to the Environmental Team's submission of the captioned Monthly Environmental Monitoring and Audit (EM&A) Report for April 2016 received by e-mail on 13 May 2016 for our review and comment.

Please be informed that we have no adverse comment on the captioned submission. We write to verify the captioned submission in accordance with Condition 3.4 in the captioned Environmental Permits.

Thank you very much for your kind attention and please do not hesitate to contact the undersigned should you have any queries.

Yours sincerely,

David Yeung

Independent Environmental Checker

Encl.

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c.c.

HyDAttn: Mr. Eddy Wuby fax: 2714 5289CEDDAttn: Mr. Stephen Loby fax: 2577 5040AECOMAttn: Mr. Frankie Fanby fax: 2691 2649AECOMAttn: Mr. Conrad Ngby fax: 2691 2649LamAttn: Mr. Raymond Daiby fax: 2882 3331



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Contract No. HK/2015/01 Wanchai Development Phase II and Central-Wanchai Bypass Sampling, Field Measurement and testing Works (Stage 3) Monthly EM&A Report (April 2016)

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EXECUTIVE SUMMARY

This is the Environmental Monitoring and Audit (EM&A) Monthly Report – April 2016 for the Project of Wan Chai Development Phase II and Central-Wanchai Bypass under Environmental Permit no. EP-356/2009 and Further Environmental permit nos. FEP-02/356/2009, FEP-03/356/2009, FEP-04/356/2009, FEP-06/356/2009 and FEP-07/356/2009. This report presents the environmental monitoring findings and information recorded during the period of 27th March 2016 to 26th April 2016. The cut-off date of reporting is at 26th of each reporting month.

Construction Activities for the Reported Period

- ii. During this reporting period, the major work activities for Contract no. HK/2009/01 included:
 - Nil
- iii. During this reporting period, the major work activities for Contract no. HK/2009/02 included:
 - Nil
- iv. During this reporting period, the major work activities for Contract no. HY/2009/15 included:
 - Reinstatement of vertical seawall at TPCWAE
- v. During this reporting period, the major work activities for Contract no. HY/2009/19 included:
 - Nil
- vi. During this reporting period, the major work activities for Contract no. HK/2012/08 included:
 - Trimming of rock bedding
 - Precast unit construction for Box 1 inside Dry dock
 - Construction of culvert L Nay 8
 - Pre-bored H-pile installation for culvert L1/FRP-L Bay 12 and Bay 13
- vii. During this reporting period, the major work activities for Contract no. HY/2010/08.
 - Diversion pipe maintenance
 - Diaphragm Wall Removal Works

Noise Monitoring

- viii. Two limit level exceedances were recorded at noise monitoring station M1a Habour Road Sports Center on 29 March 2016 and 12 April 2016. The exceedances were concluded as non-project related.
- ix. Two limit level exceedances were recorded as noise monitoring station M6 HK Baptist Church Henrietta Secondary School on 11 April 2016 and 19 April 2016. The exceedances were concluded as non-project related.



x. Noise monitoring during daytime and restricted hour were conducted at the stations M1a, M2b, M3a, M4b, M5b and M6 on a weekly basis in the reporting month.

Air Quality Monitoring

- xi. Due to interruption of electricity supply, the 24hr TSP was rescheduled as follows:
 - CMA1b was rescheduled from 13 April 2016 to 14 April 2016
 - CMA3a was rescheduled from 29 March 2016 and 1 April 2016 to 1 April 2016 and 2 April 2016 respectively
 - CMA5b was rescheduled from 13 April 2016 to 14 April 2016
 - CMA6a was rescheduled from 29 March 2016 and 19 April 2016 to 30 March 2016 and 20 April 2016 respectively
- xii. One action level exceedance of 1hr TSP monitoring was recorded at CMA5b monitoring station – Pedestrian Plaza on 14 April 2016 in this reporting month. The exceedance was concluded as non-project related.
- xiii. 1-hour and 24-hour Total Suspended Particulates (TSP) monitoring were conducted at CMA1b Oil Street Site Office; CMA2a Causeway Bay Community Center; CMA3a CWB PRE Site Office Area; CMA4a Society for the Prevention of Cruelty to Animals; CMA5b Pedestrian Plaza; CMA6a WDII PRE Site Office in the reporting month.

Water Quality Monitoring

- xiv. Due to the hoisting of amber rainstorm warning signal, the WQM was cancelled as follows:WQM on 13 April 2016 Flood tideWQM on 22 April 2016 Ebb tide
- xv. Action and Limit level of water quality monitoring was transited from dry season to wet season from 1 April 2016.
- xvi. With respect to the marine works undertaken at WCR3 by Contract HK/2009/02, the respective water quality monitoring station C1 associated with Contract HK/2009/01 was updated as in association with Contract HK/2009/01 and Contract HK/2009/02.
- xvii. With respect to the marine works undertaken at CBTS by Contract HY/2010/08, the respective water quality monitoring station C7 associated with Contract HY/2009/15 was updated as in association with Contract HY/2009/15 and Contract HY/2010/08.
- xviii. With respect to the marine works undertaken at HKCEC2 by Contract HK/2012/08, the respective water quality monitoring station WSD19, P1, P3, P4, and P5 were associated with Contract HK/2012/08.

Table I Summary of Water Quality Monitoring Exceedances in Reporting Month

	Water quality monitoring Station	Mid-flood					Mid-ebb						
Contract no.		DO		Turbidity		SS		DO		Turbidity		SS	
		AL	LL	AL	LL	AL	LL	AL	LL	AL	LL	AL	LL
HK/2009/01 & HK/2009/02	C1	0	0	0	0	0	0	0	0	0	0	0	0
HK/2012/08	WSD19	0	0	0	0	0	0	0	0	1	1	0	0
1110/2012/00	P1	0	0	0	0	0	0	0	0	0	0	0	0



	Water quality monitoring Station	Mid-flood					Mid-ebb						
Contract no.		D	0	Turb	idity	S	S	D	0	Turb	idity	S	S
		AL	LL	AL	LL	AL	LL	AL	LL	AL	LL	AL	LL
	P3	0	0	0	0	0	0	0	0	0	0	0	0
	P4	0	0	0	0	0	0	0	0	0	0	0	0
	P5	0	0	0	0	0	0	0	0	0	0	0	0
HK/2009/02	RW21-P789	0	0	0	0	0	0	0	0	0	0	0	0
HY/2009/15 & HY/2010/08	C7	0	0	0	0	0	0	0	0	0	0	0	0
Total			0	0	0	0	0	0	0	1	1	0	0

- Remarks: The cessation of seawater intake operation for C6 was confirmed on 17 May 2011 and the water quality monitoring at C6 was then terminated since 17 May 2011.
 - 4-week post construction water quality monitoring at WSD9, WSD10, WSD15 and WSD17 were completed on 6 Feb 2012 and the water quality monitoring at WSD 10 and WSD15 were temporary suspended since 8 Feb 2012, and WSD9 and WSD17 was implemented with respect to HK/2009/02 from 8 Feb 2012 onwards.
 - C8 and C9 were implemented with respect to HY/2009/19 from 28 Jan 2012.
 - C8 & C9 were temporary suspended since 4 March 2013.
 - WSD7 and WSD20 water quality monitoring were temporarily suspended from 27 Apr 2012.
 - C2, C3 C4e and C4w water quality monitoring station was temporarily suspended since 22 Apr 2013
 - P1, P3, P4 and P5 were commenced since 24 Apr 2013
 - C5e and C5w water quality monitoring station was temporarily suspended since 29 Jul
 2013
 - WSD21 water quality monitoring station was temporarily suspended since 12 Mar 2014
 - WSD9 and WSD17 water quality monitoring station was temporarily suspended since 8 Sep 2014 flood tide.
 - The water quality monitoring station C1 shall be associated with Contract No. HK/2009/02 upon commencement of marine works under DP3 at WCR3 area.
- xix. There were 1 action level and 1 limit level of turbidity exceedances recorded in the reporting month.
- xx. Investigation found that the exceedances recorded in this reporting month were not related to Project works. The details of the recorded exceedance can be referred to the **Section 6.4**.
- xxi. Enhanced DO monitoring at 4 monitoring stations in Causeway Bay Typhoon Shelter and Ex-Public Cargo Works Area was conducted three days per week during the reporting period. The action and limit level exceedances of water quality monitoring are summarized in *Table*II.

Table II Summary of Enhanced Dissolved Oxygen Monitoring Exceedances in Reporting Month

		Mid-f	lood	Mid-ebb		
Contract no.	Water quality monitoring Station	D	O	DO		
	The state of the s	AL	LL	AL	LL	
HY/2009/15 & HY/2010/08	C6	0	0	0	0	
HY/2009/15	Ex-WPCWA SW	0	0	0	1	
Tota	0	0	0	1		

Remarks:

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Contract No. HK/2015/01 Wanchai Development Phase II and Central-Wanchai Bypass Sampling, Field Measurement and testing Works (Stage 3) Monthly EM&A Report (April 2016)

- Enhanced DO monitoring at Windsor House Cooling (Station Ref: C7) was temporarily suspended since 22 October 2014 with respect to the formation of temporary reclamation zone TS3 and to be resumed upon removal of the respective temporary reclamation zone.
- 2. Enhanced DO monitoring at Monitoring station at Ex-PCWAE was temporarily suspended from 31 August 2015 with respect to seawall reinstatement works and formation of active works area, to be resumed upon completion of seawall reinstatement works
- xxii. There was no action level and 1 limit level exceedances recorded for enhanced dissolved oxygen monitoring in this reporting month. Investigation found that the exceedance was not related to Project works. The details of the recorded exceedances can be referred to the **Section 6.4**.

Complaints, Notifications of Summons and Successful Prosecutions

- xxiii. There was one environmental complaint received in this reporting month.
- xxiv. The public complaint regarding muddy water discharge referred by EPD was received by ET on 13 April 2016 (EPD Ref.: H05/RS/00008367-16 dated 13 April 2016). The complainant reported that muddy water was discharged from the construction work of Contract HK/2012/08 to the sea outside the Hong Kong Academy for Performing Arts on 13 April 2016 morning.

ET confirmed with the Resident Site Staff that internal transport of soil to the hopper barge for storage via landing barge was conducted by Contractor of HK/2012/08 during 0800 hours to 1000 hours on 13 April 2016 at the sea outside the concerned location and 3 nos. of dump trucks were deployed for the operation.

Protection measure including provision of sandbag bunding along the side of the landing barge was implemented by the Contractor of HK/2012/08.

According to the relevant site records provided by RSS, internal transport of soil to the hopper barge for storage via landing barge was conducted by Contractor of HK/2012/08 during 0800 hours to 1000 hours on 13 April 2016 at the sea outside the concerned location and 3 nos. of dump trucks were deployed for the operation. Protection measure including provision of sandbag bunding along the side of the landing barge was implemented by the Contractor of HK/2012/08. In addition, amber rainstorm warning signal was hoisted from 0630 hours to 1200 hours on 13 April 2016 and during the above time period, muddy water was observed from the upstream of culvert L outside the HK/2012/08 site.

Follow up inspection was conducted on 19 April 2016, protection measures including provision of sandbag bunding along the side of the landing barge was implemented and no mud or soil deposition was observed along the seawall and no discharge point was located within the temporary water channel connecting the Culvert L outfall location to the Victoria Harbour. In addition, piling works was observed at the north side of Zone A1 on 19 April 2016 and construction effluent collection from piling work via sedimentation tank to wastewater treatment facility was implemented and steel barrier was installed around the piling works area to mitigate against potential surface runoff related impact.

xxv. Nevertheless, in view of the public concern, the Contractor was reminded to maintain adequate perimeter embankment protection along the seawall boundary and maintain proper



construction effluent collection system to avoid potential runoff related impact to nearby waters.

Site Inspections and Audit

xxvi. The Environmental Team (ET) conducted weekly site inspections for Contract nos. HK/2009/01, HK/2009/02, HY/2009/15, HY/2009/19, HK/2012/08 and HY/2010/08 under EP no. EP-356/2009 in the reporting month. Major observations and recommendations made during the audit sessions were rectified by the Contractors. No non-conformance was identified during the site inspections.

Future Key Issues

xxvii. In coming reporting month, the principal work activities of individual contracts are anticipated as follows:

Contract no. HK/2009/01 - Wan Chai Development Phase II - Central -Wanchai Bypass at HKCEC

Nil

Contract no. HK/2009/02 – Wan Chai Development Phase II – Central – Wan Chai Bypass at Wan Chai East

- Inspection / trimming of rockfill profile in front of seawall
- · Rock armor installation

<u>Contract no. HY/2009/15 - Central-Wanchai Bypass - Tunnel (Causeway Bay Typhoon Shelter Section)</u>

Reinstatement of vertical seawall at TPCWAE

Contract no. HY/2009/19- Wan Chai Bypass Tunnel (North Point Section) and Island Eastern Corridor Link

Nil

<u>Contract no. HK/2012/08 – Wan Chai Development Phase II – Central- Wan Chai Bypass at Wan Chai West</u>

- Trimming of rock bedding
- Precast unit construction for Box 1 inside Dry dock
- Construction of culvert L Bay 8
- Pre-bored H-pile installation for culvert L1/FRP-L Bay 12 and Bay 13

Contract no. HY/2010/08 - Central - Wan Chai Bypass (CWB) - Tunnel (Slip Road 8)

Diversion pipe maintenance

Contract No. HK/2015/01 Wanchai Development Phase II and Central-Wanchai Bypass Sampling, Field Measurement and testing Works (Stage 3) Monthly EM&A Report (April 2016)

Diaphragm Wall Removal works



1 Introduction

1.1 Scope of the Report

- 1.1.1. Lam Geotechnics Limited (LGL) has been appointed to work as the Environmental Team (ET) under Environmental Permit no. EP-356/2009 and Further Environmental permit nos. FEP-02/356/2009, FEP-03/356/2009, FEP-04/356/2009, FEP-06/356/2009 and FEP-07/356/2009 to implement the Environmental Monitoring and Audit (EM&A) programme as stipulated in the EM&A Manual of the approved Environmental Impact Assessment (EIA) Report for Wan Chai Development phase II and Central-Wan Chai Bypass (Register No.: AEIAR-125/2008) and in the EM&A Manual of the approved EIA Report for Central-Wan Chai Bypass and Island Eastern Corridor Link (Register No. AEIAR-041/2001).
- 1.1.2. This report presents the environmental monitoring and auditing work carried out in accordance to the Section 10.3 of EM&A Manual and "Environmental Monitoring and Audit Requirements" under Particular Specification Section 27.
- 1.1.3. This report documents the finding of EM&A works for Environmental Permit no. EP-356/2009, Further Environmental Permit no. FEP-02/356/2009, FEP-03/356/2009, FEP-04/356/2009, FEP-06/356/2009 and FEP-07/356/2009 during the period of 27th March 2016 to 26th April 2016. The cut-off date of reporting is at 26th of each reporting month.

1.2 Structure of the Report

- **Section 1** *Introduction* details the scope and structure of the report.
- **Section 2** *Project Background* summarizes background and scope of the project, site description, project organization and contact details of key personnel during the reporting period.
- **Section 3 Status of Regulatory Compliance** summarizes the status of valid Environmental Permits / Licenses during the reporting period.
- **Section 4** *Monitoring Requirements* summarizes all monitoring parameters, monitoring methodology and equipment, monitoring locations, monitoring frequency, criteria and respective event and action plan and monitoring programmes.
- **Section 5** *Monitoring Results* summarizes the monitoring results obtained in the reporting period.
- **Section 6 Compliance Audit** summarizes the auditing of monitoring results, all exceedances environmental parameters.
- Section 7 Cumulative Construction Impact due to the Concurrent Projects summarizes the relevant cumulative construction impact due to the concurrent activities of the concurrent Projects.



Section 8 Environmental Site Audit – summarizes the findings of weekly site inspections undertaken within the reporting period, with a review of any relevant follow-up actions within the reporting period.

Section 9 Complaints, Notification of summons and Prosecution – summarizes the cumulative statistics on complaints, notification of summons and prosecution

Section 10 Conclusion



2 Project Background

2.1 Background

- 2.1.1. "Wan Chai Development phase II and Central-Wan Chai Bypass" and "Central-Wan Chai Bypass and Island Eastern Corridor Link" (hereafter called "the Project") are Designed Project (DP) under the Environmental Impact Assessment Ordinance (Cap. 499) (EIAO). The Environmental Impact Assessment (EIA) Reports for Central-Wan Chai Bypass and Island Eastern Corridor Link (Register No. AEIAR-041/2001) and Wan Chai Development phase II and Central-Wan Chai Bypass (Register No.: AEIAR-125/2008) have been approved on 31 August 2001 and 11 December 2008 respectively.
- 2.1.2. The key purpose of Wan Chai Development Phase II (WDII) is to provide land at Wan Chai North and North Point for construction of the Central-Wan Chai Bypass and Island Eastern Corridor Link (CWB). Land formed under the project will be developed as a world-class waterfront promenade joining that at the new Central waterfront for public enjoyment.
- 2.1.3. There is a compelling and present need for the CWB to provide relief to the very congested east-west Connaught Road Central/Harcourt Road / Gloucester Road Corridor (the Corridor) which is currently operating beyond its capacity. The CWB will provide relief to the existing congestion along the Corridor and cater for the anticipated growth of traffic on Hong Kong Island. Without the CWB and its access roads, there will not be sufficient capacity to serve the heavy traffic demands at both strategic and local levels.

2.2 Scope of the Project and Site Description

- 2.2.1. The Project is located mainly in Wan Chai North, Causeway Bay and North Point, and is demarcated by Gloucester Road and Victoria Park Road to the south, Fenwick Pier Street to the west and Tong Shui Road Interchange to the east, as shown in *Figure 2.1*.
- 2.2.2. The study area encompasses existing developments along the Wan Chai, Causeway Bay and North Point shorelines. Major land uses include the Hong Kong Convention & Exhibition Centre (HKCEC) Extension, the Wan Chai Ferry Pier, the ex-Wan Chai Public Cargo Working Area (ex-PCWA), the Royal Hong Kong Yacht Club (RHKYC), the Police Officers' Club, the Causeway Bay Typhoon Shelter (CBTS) and commercial and residential developments.

2.2.3. The scope of the Project comprises:

- Land formation for key transport infrastructure and facilities, including the Trunk Road
 (i.e. CWB) and the associated slip roads for connection to the Trunk Road and for
 through traffic from Central to Wan Chai and Causeway Bay. The land formed for the
 above transport infrastructure will provide opportunities for the development of an
 attractive waterfront promenade for the enjoyment of the public
- Reprovisioning / protection of the existing facilities and structures affected by the land formation works mentioned above
- Extension, modification, reprovisioning or protection of existing storm water drainage outfalls, sewerage outfalls and watermains affected by the revised land use and land formation works mentioned above

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- Upgrading of hinterland storm water drainage system and sewerage system, which would be rendered insufficient by the land formation works mentioned above
- Provision of the ground level roads, flyovers, footbridges, necessary transport facilities and the associated utility services
- Construction of the new waterfront promenade, landscape works and the associated utility services
- The Trunk Road (i.e. CWB) within the study area and the associated slip roads for connection to the Trunk Road.
- 2.2.4. The project also contains various Schedule 2 DPs that, under the EIAO, require Environmental Permits (Eps) to be granted by the DEP before they may be either constructed or operated. *Table 2.1* summarises the five individual DPs under this Project. *Figure 2.1* shows the locations of these Schedule 2 DPs.

Table 2.1 Schedule 2 Designated Projects under this Project

Item	Designated Project	EIAO Reference	Reason for inclusion
DP1	Central-Wanchai Bypass (CWB) including its road tunnel and slip roads	Schedule 2, Part I, A.1 and A.7	Trunk road and road tunnel more than 800 m in length
DP2	Road P2 and other roads which are classified as primary/district distributor roads	Schedule 2, Part I, A.1	Primary / district distributor roads
DP3	Reclamation works including associated dredging works	Schedule 2, Part I, C.1 and C.12	Reclamation more than 5 ha in size and a dredging operation less than 100 m from a seawater intake point
DP5	Wan Chai East Sewage Outfall	Schedule 2, Part I, F.5 and F.6	Submarine sewage pipelines with a total diameter more than 1,200 mm and include a submarine sewage outfall
DP6	Dredging for the Cross-harbour Water Mains from Wan Chai to Tsim Sha Tsui	Schedule 2, Part I, C.12	A dredging operation less than 100 m from a seawater intake point

2.3 Division of the Project Responsibility

- 2.3.1. Due to the multi-contract nature of the Project, there are a number of contracts sub-dividing the whole works area into different work areas to be commenced. Contractors of individual contracts will be required by the EP holder to apply Further Environmental Permits (FEP) such that the impact monitoring stations are sub-divided accordingly to facilitate the implementation of EM&A programme and to streamline the EM&A reporting for individual FEP holders correspondingly.
- 2.3.2. The details of individual contracts are summarized in *Table 2.2*.



Table 2.2 Details of Individual Contracts under the Project

Contract No.	Contract Title	Associated DP(s)	Construction Commencement Date
HK/2009/01	Wan Chai Development Phase II – Central –Wanchai Bypass at Hong	DP3, DP6	23 July 2010
	Kong Convention and Exhibition Centre	DP1, DP2	25 August 2011
HK/2009/02	Wan Chai Development Phase II –	DP3, DP5	5 July 2010
	Central – Wan Chai Bypass at WanChai East	DP1	26 April 2011
HY/2009/11	Wan Chai Development Phase II and Central – Wan Chai Bypass – North Point Reclamation	DP3	17 March 2010 (Completed)
HY/2009/15	Central-Wanchai Bypass – Tunnel	DP3	10 November 2010
	(Causeway Bay Typhoon Shelter Section)		13 July 2011
HK/2010/06	Wan Chai Development Phase II-Central-Wan Chai Bypass over MTR Tsuen Wan Line	DP3	22 March 2011 (Completed)
04/HY/2006	Reconstruction of Bus Terminus near Man Yiu Street and Man Kwong Street	DP1	September 2010 (Completed)
HY/2009/17	Central – Wan Chai Bypass (CWB) at FEHD Whitfield Depot – Advanced piling works.	DP1	5 October 2010 (Completed)
HY/2009/18	Central – Wan Chai Bypass (CWB) – Central Interchange	DP1	21 April 2011
HY/2009/19	Central – Wanchai Bypass Tunnel (North Point Section) and Island Eastern Corridor Link	DP1	24 March 2011
HK/2012/08	Wan Chai Development Phase II Central- Wan Chai Bypass at Wan Chai West	DP1,DP2, DP3	10 March 2014
HY/2010/08	Central- Wanchai Bypass Tunnel – Tunnel (Slip Road 8)	DP1, DP2, DP3	21 March 2013
HY/2011/08	Central-Wan Chai Bypass (CWB) – Tunnel Buildings, Systems and Fittings, and Works Associated with Tunnel Commissioning	DP1	8 October 2014

2.4 Project Organization and Contact Personnel

- 2.4.1. Civil Engineering and Development Department and Highways Department are the overall project controllers for the Wan Chai Development Phase II and Central-Wan Chai Bypass respectively. For the construction phase of the Project, Project Engineer, Contractor(s), Environmental Team and Independent Environmental Checker are appointed to manage and control environmental issues.
- 2.4.2. The proposed project organization and lines of communication with respect to environmental protection works are shown in *Figure 2.2*. Key personnel and contact particulars are summarized in *Table 2.3*:

Table 2.3 Contact Details of Key Personnel

Party	Role	Post	Name	Contact No.	Contact Fax		
AECOM	Engineer's Representative for WDII	Principal Resident Engineer	Mr. Frankie Fan	2587 1778	2587 1877		
	Engineer's Representative for CWB	Principal Resident Engineer	Mr. Peter Poon	3912 3388	3912 3010		
Chun Wo – Leader	Contractor under Contract no.	Project Manager	Mr. Simon Liu	9304 8355	2587 1878		
Joint Venture	HK/2009/01	Site Agent	Mr. Andy Yu	9648 4896			
		Construction Manager	Mr. Terry Wong	9757 9846			
		Construction Manager	Mr. Wyman Wong	9627 2467			
		Construction Manager	Mr. Terry Tsang	6683 9394			
		Environmental Officer	Ms. Wendy Ng	9803 0057			
		Assistant Environmental Engineer	Miss. Connie Chan	6157 7057			
Chun Wo –	Contractor under Contract no. HK/2009/02	Project Manager	Mr. Paul Yu	3658-3085	2827 9996		
CRGL Joint Venture		Quality & Environmental Manager	Mr. C.P. Ho	9191 8856			
China	Contractor under Contract no. HY/2009/15	Project Director	Chris Leung	3557 6393	2566 2192		
State Constructi		Site Manager	Y Huo	3557 6368			
on Engineerin g (HK) Ltd.		Contractor's Representative	Rex Lau	3557 6405			
g (i ii t) Ltd.		Environmental Officer	Andy Mak	3557 6347			
Chun Wo – CRGL –	Contractor under	Project Manager	Rayland Lee	3758 6788	2570 8013		
MBEC_	Contract no. HY/2009/19	Site Agent	David Lau	3758 8879			
Joint Venture		Deputy Site Agent	Eric Fong	6191 9337			
		Environmental Manager / Environmental	M.H. Isa	9884 0810			
		Officer Construction Manager (Marine)	Andy Chan	9879 4325			
		Construction Manager (Land)	Bear Ding	6483 6198			
		Operation Manager (Land)	Yung Kwok Wah	9834 1010			
China	Contractor	Project Director	C. N. Lai	9106 5806	2877 1522		
State- Leader JV	under Contract	Project Manager	Eddie Chung	9189 8118			
	no. HK/2012/08	Site Agent	Keith Tse	9037 1839			

Lam Geotechnics Limited

Party	Role	Post	Name	Contact No.	Contact Fax
		Environmental Officer	James Ma	9130 9549	
		Environmental Supervisor	Y. L. Ho	9856 5669	
China State	Contractor under Contract no. HY/2010/08	Project Director	Chris Leung	3467 4299	2566 8061
		Project Manager	Chan Ying Lun	3418 3001	
		Site Agent	Andrew Wong	3467 4371	
		Environmental Officer	Gabriel Wong	35576466	
		Environmental Supervisor	Desmond Ho Tsz Ho	3557 6466	
Leighton	Contractor under	Project Manager	Paul Evans	2823 1111	21406799
Joint Venture	Contract no. HY/2011/08	Site Agent	Colman Wong	9730 0806	
		Environmental Officer	David Hung	9765 6161	
		Environmental Supervisor	Penny Yiu	2214 7738	
Ramboll Environ Hong Kong Limited	Independent Environmental Checker (IEC)	Independent Environmental Checker (IEC)	Mr. David Yeung	3465 2888	3465 2899
Lam Geotechni cs Limited	Environmental Team (ET)	Environmental Team Leader (ETL)	Mr. Raymond Dai	2882 3939	2882 3331

- 2.4.3. For Contract no. HK/2009/01, the principal work activities in this reporting month included:
 - Nil
- 2.4.4. For Contract no. HK/2009/02, the principal work activities in this reporting month included:
 - Nil
- 2.4.5. For Contract no. HY/2009/15, the principal work activities in this reporting month included:
 - Reinstatement of vertical seawall at TPCWAE
- 2.4.6. For Contract no. HY/2009/19, the principal work activity in this reporting month included:
 - Nil



- 2.4.7. For Contract no. HK/2012/08, the principal work activity in this reporting month included:
 - Trimming of rock bedding
 - Precast unit construction for Box 1 inside Dry dock
 - Construction of culvert L Bay 8
 - Pre-bord H-pile installation for culvert L1/FRP-L Bay 12 and Bay 13
- 2.4.8. For Contract no. HY/2010/08, no principal work activities this reporting month.
 - Diversion pipe maintenance
 - Diaphragm Wall Removal Works
- 2.4.9. In coming reporting month, the principal work activities of individual contracts are anticipated as follows:

<u>Contract no. HK/2009/01 – Wan Chai Development Phase II – Central –Wanchai Bypass at HKCEC</u>

Nil

<u>Contract no. HK/2009/02 – Wan Chai Development Phase II – Central – Wan Chai Bypass at</u> Wan Chai East

- Inspection / trimming of rockfill profile in front of seawall
- · Rock armor installation

<u>Contract no. HY/2009/15 – Central-Wanchai Bypass – Tunnel (Causeway Bay Typhoon Shelter Section)</u>

Reinstatement of vertical seawall at TPCWAE

Contract no. HY/2009/19- Wan Chai Bypass Tunnel (North Point Section) and Island Eastern Corridor Link

Nil

<u>Contract no. HK/2012/08 – Wan Chai Development Phase II – Central- Wan Chai Bypass at Wan Chai West</u>

- Trimming of rock bedding
- Precast unit construction for Box 1 inside Dry dock
- Constructino of culvert L Bay 8
- Pre-bored H-pile installation for culvert L1/FRP-L Bay 12 and Bay 13



Contract no. HY/2010/08 - Central - Wan Chai Bypass (CWB) - Tunnel (Slip Road 8)

- Diversion pipe maintenance
- Diaphragm Wall Removal Works



3 Status of Regulatory Compliance

3.1 Status of Environmental Licensing and Permitting under the Project

3.1.1. A summary of the current status on licences and/or permits on environmental protection pertinent to the Project is shown in *Table 3.1*.

Table 3.1 Summary of the current status on licences and/or permits on environmental protection pertinent to the Project

Permits and/or Licences	Reference No.	Issued Date	Status
Environmental Permit	EP-356/2009	30 Jul 2009	Valid
Environmental Permit	EP-364/2009	17 Aug 2009	Superseded
Environmental Permit	EP-364/2009/A	4 Aug 2010	Superseded
Environmental Permit	EP-364/2009/B	20 Sep 2012	Superseded
Environmental Permit	EP-364/2009/C	11 Jul 2014	Superseded
Environmental Permit	EP-364/2009/D	24 Nov 2016	Valid
Environmental Permit	EP-376/2009	13 Nov 2010	Valid
Further Environmental Permit	FEP-01/356/2009	18 Feb 2010	Surrendered
Further Environmental Permit	FEP-02/356/2009	24 Mar 2010	Valid
Further Environmental Permit	FEP-03/356/2009	24 Mar 2010	Valid
Further Environmental Permit	FEP-04/356/2009	22 Nov 2010	Valid
Further Environmental Permit	FEP-05/356/2009	24 Mar 2011	Surrendered
Further Environmental Permit	FEP-01/364/2009	24 Mar 2010	Valid
Further Environmental Permit	FEP-02/364/2009	21 Apr 2010	Valid
Further Environmental Permit	FEP-03/364/2009	12 Jul 2010	Surrendered
Further Environmental Permit	FEP-04/364/2009/A	14 Oct 2010	Surrendered
Further Environmental Permit	FEP-05/364/2009/A	15 Nov 2010	Valid
Further Environmental Permit	FEP-06/364/2009/A	22 Nov 2010	Valid
Further Environmental Permit	FEP-07/364/2009/B	20 Sep 2012	Surrendered
Further Environmental Permit	FEP-07/364/2009/D	24 Nov 2015	Valid
Further Environmental Permit	FEP-08/364/2009/A	15 Jun 2012	Surrendered
Further Environmental Permit	FEP-06/356/2009	5 Mar 2013	Valid
Further Environmental Permit	FEP-07/356/2009	26 July 2013	Valid



Permits and/or Licences	Reference No.	Issued Date	Status
Further Environmental Permit	FEP-09/364/2009/B	5 March 2013	Valid
Further Environmental Permit	FEP-10/364/2009/B	26 July 2013	Valid
Further Environmental Permit	FEP-11/364/2009/B	2 May 2014	Valid

- 3.1.2. Due to the multi-contract nature of the Project, the status of permits and/or licences under the individual contract(s) are presented as below:
 - <u>Contract no. HK/2010/06 Wan Chai Development Phase II Central Wan Chai Bypass over MTR Tsuen Wan Line under FEP-05/356/2009</u>
- 3.1.3. The construction works were completed and the FEP-05/356/2009 was surrendered by the Contractor on 3 October 2014.

<u>Contract no. HK/2009/01 – Wan Chai Development Phase II – Central –Wanchai Bypass at HKCEC</u>

3.1.4. Summary of the current status on licences and/or permits on environmental protection pertinent and submission for contract no. HK/2009/01 under FEP-02/356/2009 are shown in *Table 3.2* and *Table 3.3*.

Table 3.2 Cumulative Summary of Valid Licences and Permits under Contract no. HK/2009/01

Permits and/or Licences	Reference No.	Issued Date	Valid Period/ Expiry Date	Status
Further	FEP-02/356/2009	24 Mar 2010	N/A	Valid
Environmental Permit	FEP-02/364/2009	21 Apr 2010	N/A	Valid
Notification of Works Under APCO	313088	06 Jan 2010	N/A	Valid
Construction Noise Permit	GW-RS1134-15	23 Oct 2015	08 Nov 2015 to 07 May 2016	Valid
(CNP) for non-piling equipment	GW-RS1135-15	23 Oct 2015	26 Nov 2015 to 25 May 2016	Valid
	GW-RS1228-15	13 Nov 2015	16 Nov 2015 to 13 May 2016	Valid
	GW-RS1309-15	27 Nov 2015	30 Nov 2015 to 26 May 2016	Valid
	GW-RS1338-15	11 Dec 2015	1 Jan 2016 to 30 June 2016	Valid

Permits and/or Licences	Reference No.	Issued Date	Valid Period/ Expiry Date	Status
	GW-RS0041-16	22 Jan 2016	25 Jan 2016 to 23 Jul 2016	Valid
	GW-RS0089-16	05 Feb 2016	20 Feb 2016 to 19 July 2016	Valid
	GW-RS0093-16	05 Feb 2016	22 Feb 2016 to 21 July 2016	Valid
	GW-RS0152-16	18 Feb 2016	25 Feb 2016 to 24 Aug 2016	Valid
	GW-RS0243-16	11 Mar 2016	14 Mar 2016 to 13 Sep 2016	Valid
	GW-RS0384-16	19 Apr 2016	22 Apr 2016 to 19 Oct 2016	Valid
Discharge Licence	WT00021138-2015	13 Apr 2015	31 Mar 2020	Valid
	WT00009641-2011	24 Jul 2011	31 Jul 2016	Valid
Billing account under Waste Disposal Ordinance	7010069	21 Jan 2010	N/A	Valid
Registration as a Chemical Waste Producer	WPN5213-134-C3585-01	21 Jan 2010	N/A	Valid
Dumping Permit (Type 1 – Open Sea Disposal)	EP/MD/16-094	08 Oct 2015	13 Oct 2015 to 12 Apr 2016	Expired
Dumping Permit (Type 1 – Open Sea Disposal (Dedicate Sites) & Type 2 – Confined Marine Disposal)	-	-	-	-

Table 3.3 Summary of submission status under FEP-02/356/2009 Condition

EP Condition	Submission	Date of Submission
Condition 2.6	Management Organization of Main Construction Companies	13 Apr 2010
Condition 2.7	Works Schedule and Location Plan	8 Apr 2010
Condition 2.8	Silt Curtain Deployment Plan (Rev. 5)	24 Aug 2012



EP Condition	Submission	Date of Submission
	Silt Curtain Deployment Plan (Rev. 4)	12 July 2012
	Silt Curtain Deployment Plan (Rev. 3)	27 June 2012
	Silt Curtain Deployment Plan	19 Apr 2010
	Silt Screen Deployment Plan (Rev. 9)	5 Nov 2015
	Silt Screen Deployment Plan (Rev. 8)	7 Sep 2015
	Silt Screen Deployment Plan (Rev. 7)	21 Nov 2014
Condition 2.9	Silt Screen Deployment Plan (Rev. 6)	20 Aug 2014
	Silt Screen Deployment Plan (Rev.5)	24 Jul 2013
	Silt Screen Deployment Plan (Rev.4)	15 Nov 2012
	Silt Screen Deployment Plan	19 Apr 2010
	Supplementary Document on Silt Curtain and Silt Screen Deployment Plan	19 Jul 2010
Conditions 2.8 and 2.9	Report on Field Testing for Silt Curtain	26 Aug 2010
	Report on Field Testing for Silt Curtain (Rev. A)	15 Nov 2010
Condition 2.12(d)	Condition 2.12(d) Alternative Proposal on Concurrent Dredging for Sewage Pipeline and Cross Harbour Water Mains	
Condition 2.17	Noise Management Plan	23 Apr 2010
Condition 2.18	Landscape Plan (Erection of Decorative Screen Hoarding along Construction Site around Hong Kong Exhibition and Convention Centre)	15 May 2010
	Landscape Plan (Night-time Lighting)	22 Oct 2010
	Landscape Plan (Rev. B)	15 Nov 2010
Condition 1.12	Notification of Commencement Date	20 Jun 2011
Condition 2.6 to 2.8	Management Organization, Works Schedule and Location Plan	18 May 2011
Condition 2.9	Silt Screen Deployment Plan	10 Jun 2011
Condition 2.18	Landscape Plan	31 Oct 2013



<u>Contract no. HK/2009/02 – Wan Chai Development Phase II – Central – Wan Chai Bypass at WanChai East</u>

3.1.5. Summary of the current status on licences and/or permits on environmental protection pertinent and submission for contract no. HK/2009/02 under FEP-03/356/2009 are shown in *Table 3.4* and *Table 3.5*.

Table 3.4 Cumulative Summary of Valid Licences and Permits under Contract no. HK/2009/02

Permits and/or Licences	Reference No.	Issued Date	Valid Period/ Expiry Date	Status
Further Environmental Permit	FEP-03/356/2009	24 Mar 2010	N/A	Valid
	FEP-01/364/2009	24 Mar 2010	N/A	Valid
Notification of Works Under APCO	313962	2 Feb 2010	N/A	Valid
	GW-RS1150-15	26 Oct 2015	28 Oct 2015 to 27 Apr 2016	Valid
	GW-RS1187-15	28 Oct 2015	30 Oct 2015 to 27 Apr 2016	Valid
	GW-RS1474-15	5 Jan 2016	8 Jan 2016 to 5 Apr 2016	Expired
Construction Noise Permit (CNP) for non-piling	GW-RS0061-16	26 Jan 2016	29 Jan 2016 to 26 Apr 2016	Expired
equipment	GW-RS0083-16	1 Feb 2016	3 Feb 2016 to 1 Aug 2016	Valid
	GW-RS0311-16	24 Mar 2016	25 Apr 2016 to 24 May 2016	Valid
	GW-RS0310-16	24 Mar 2016	27 Apr 2016 to 30 Apr 2016	Valid
	GW-RS0321-16	1 Apr 2016	5 Apr 2016 to 5 Jul 2016	Valid
	GW-RS0390-16	22 Apr 2016	27 Apr 2016 to 26 Oct 2016	Valid
	GW-RS0399-16	27 Apr 2016	27 Apr 2016 to 26 Oct 2016	Valid
	GW-RS0403-16	27 Apr 2016	30 Apr 2016 to 24 Sept 2016	Valid
	WT00008982-2011	26 Apr 2011	30 April 2016	Valid
Discharge Licence	WT00009691-2011	1 Aug 2011	31 July 2016	Valid
	WT00022295-2015	12 Aug 2015	31 July 2020	Valid
Billing Account under Waste Disposal Ordinance (Land)	7010255	10 Feb 2010	N/A	Valid
Billing Account under Waste Disposal Ordinance (Marine)	7011496	6 Oct 2010	N/A	Valid
Registration as Chemical Waste Producer (Wan Chai)	WPN5213-135-C3 593-01	10 Mar 2010	N/A	Valid
Registration as Chemical Waste Producer (TKO 137)	WPN5213-839-C3 593-02	22 Sep 2010	N/A	Valid

Permits and/or Licences	Reference No.	Issued Date	Valid Period/ Expiry Date	Status
Dumping Permit (Type 1 – Open Sea Disposal)	EP/MD/16-146	24 Dec 2015	1 Jan 2016 to 30 Jun 2016	Valid

Table 3.5 Summary of submission status under FEP-03/356/2009 Condition

EP Condition	Submission	Date of Submission
Condition 1.12	Commencement Date of Construction of Marine Works	8 April 2010
Condition 2.6	Management Organization of Main Construction Companies	10 April 2010
Condition 2.7	Works Schedule and Location Plans	8 April 2010
	Silt Curtain Deployment Plan (Revision A)	20 April 2010
	Silt Curtain Deployment Plan (Revision B)	25 May 2010
	Silt Curtain Deployment Plan (Revision C)	14 Jun 2010
	Silt Curtain Deployment Plan (Revision H)	15 Feb 2011
Condition 2.8	Silt Curtain Deployment Plan (Revision I)	17 Nov 2011
	Silt Curtain Deployment Plan (Revision J)	15 Feb 2012
	Silt Curtain Deployment Plan (Revision K)	3 May 2012
	Silt Curtain Deployment Plan (Revision L)	25 Oct 2012
	Silt Curtain Deployment Plan (Revision M)	30 Nov 2012
	Silt Screen Deployment Plan	21 April 2010
	Supplementary Information for Existing WSD Salt Water Intakes at Quarry Bay and Sai Wan Ho	5 Oct 2010
Condition 2.9	Silt Screen Deployment Plan (Revision B)	15 Feb 2012
	Silt Screen Deployment Plan (Revision C)	3 May 2012
	Silt Screen Deployment Plan (Revision D)	10 Dec 2012
Condition 2.17	Noise Management Plan	6 May 2010
	Landscape Plan (Decorative Screen Hoarding)	11 May 2010
Condition 0.40	Landscape Plan (Control of Night Time Lighting)	2 June 2010
Condition 2.18	Landscape Plan (Combined Version)	20 July 2011
	Landscape Plan (Combined Version)	5 Aug 2011



EP Condition	Submission	Date of Submission
	Acknowledge of Submission	22 Aug 2011

<u>Contract no. HY/2009/15 – Central-Wanchai Bypass – Tunnel (Causeway Bay Typhoon Shelter Section)</u>

3.1.6. Summary of the current status on licences and/or permits on environmental protection pertinent and submission for contract no. HY/2009/15 under FEP-04/356/2009 are shown in *Table 3.6* and *Table 3.7*.

Table 3.6 Cumulative Summary of Valid Licences and Permits under Contract no. HY/2009/15

Permits and/or Licences	Reference No.	Issued Date	Valid Period/ Expiry Date	Status
Further Environmental Permit	FEP-04/356/2009	22 Nov 2010	N/A	Valid
Notification of Works Under APCO	321822	24 Sep 2010	N/A	Valid
Construction Noise Permit (CNP) for concreting works at Eastern Breakwater of CBTS	GW-RS0233-16	14 Mar 2016	14 Mar 2016 to 10 Sep 2016	Valid
Construction Noise Permit (CNP) for reclamation and d-wall works at Ex-PCWA	GW-RS1160-15	26 Oct 2015	28 Oct 2015 to 25 Apr 2016	Valid
Registration as a Chemical Waste Producer	WPN5213-147-C116 9-35	15 Nov 2010	N/A	Valid
Billing Account under Waste Disposal Ordinance	7011553	30 Sep 2010	27 Sep 2010 to 27 Jun 2016	Valid
Billing Account under Waste Disposal Ordinance (Disposal by Vessel)	7011761	14 Apr 2016	17 Apr 2016 to 16 Jul 2016	Valid
Dumping Permit (Type 1 – Open Sea Disposal)	EP/MD/16-206	29 Mar 2016	2 Apr 2016 to 1 May 2016	Valid

Table 3.7 Summary of submission status under FEP-04/356/2009 Condition

FEP Condition	Submission	Date of Submission
Condition 2.6	Management Organization of Main Construction Companies	30 Sep 2010
	Amendment for Management Organization of Main Construction Companies	16 May 2011
Condition 2.7	Works Schedule and Location Plans	27 Oct 2010
	Amendment for Works Schedule and Location Plans	12 Nov 2010



FEP Condition	Submission	Date of Submission
Condition 2.8	ondition 2.8 Silt Curtain Deployment Plan	
	Amendment for Silt Curtain Deployment Plan	24 Feb 2011
	Amendment for Silt Curtain Deployment Plan	11 May 2011
	Amendment for Silt Curtain Deployment Plan	11 Sep 2012
	Amendment for Silt Curtain Deployment Plan	30 Oct 2012
Condition 2.9	Silt Screen Deployment Plan	19 Oct 2010
	Amendment for Silt Screen Deployment Plan	18 Feb 2011
	Amendment for Silt Screen Deployment Plan	15 Jun 2011
Condition 2.18	Proposal for the Removal of Odorous Sediment and Slime	13 Jan 2011
	Amendment for Proposal for the Removal of Odorous Sediment and Slime	8 Mar 2011
	Amendment for Proposal for the Removal of Odorous Sediment and Slime	2 Aug 2011
Condition 2.21	Landscape Plan	18 Feb 2011
0	Noise Management Plan	20 Oct 2010
Condition 2.23	Amendment for Noise Management Plan	27 Jan 2011

3.1.7. Implementation status of the recommended mitigation measures during this reporting period is presented in *Appendix 3.1*.

<u>Contract no. HY/2009/19 – Central- Wan Chai Bypass Tunnel (North Point Section) and Island Eastern Corridor Link</u>

3.1.8. Summary of the current status on licences and/or permits on environmental protection pertinent for contract no. HY/2009/19 is shown in *Table 3.8*

Table 3.8 Cumulative Summary of Valid Licences and Permits under Contract no. HY/2009/19

Permit / Licence / Notification / Approval	Reference No.	Issued Date	Valid Period / Expiry date	Status
Further Environmental Permit	FEP-07/364/2009/D	24 Nov 2015	Granted	Valid
Notification of Works Under APCO	326160	24 Jan 2011	Notified	Valid
Construction Noise Permit (CNP) (For Portion Vi Marine)	-	-	-	-
Discharge License (Sea)	WT00010865-2011	03 Nov 2011	30-Nov-16	Valid
C&D Waste Disposal	7012306	10 Feb 2011	Registered	-
Vessel Disposal	7013285	21 July 2011	Registered	-
Registration as Chemical Waste Producer	5213-151-C3654-01	24 Mar 2011	Registered	-



<u>Contract no. HK/2012/08 – Wan Chai Development Phase II – Central- Wan Chai Bypass at Wan Chai West</u>

3.1.9. Summary of the current status on licences and/or permits on environmental protection pertinent and submission for contract no. HK/2012/08 under FEP-06/356/2009 are shown in *Table 3.9* and *Table 3.10*.

Table 3.9 Cumulative Summary of Valid Licences and Permits under Contract no. HK/2012/08

HK/2012/08	1	1		1
Permits and/or Licences	Reference No.	Issued Date	Valid Period/ Expiry Date	Status
Further Environmental Permit	FEP-06/356/2009	5 Mar 2013	N/A	Valid
Notification of Works Under APCO	355439	4 Feb 2013	N/A	Valid
Registration as a Chemical Waste Producer	5213-134-C3790-01	8 Mar 2013	N/A	Valid
Billing Account under Waste Disposal Ordinance	7016883	18 Feb 2013	18 Jul 2017	Valid
Water Discharge Licence	WT00018223-2014	28 Jan 2014	31 Jan 2019	Superseded by WT0002059 4-2014
	WT00020594-2014	22 Dec 2014	31 Jan 2019	Valid
Construction Noise Permit	GW-RS0079-16	1 Feb 2016	3 Feb 2016 to 2 Aug 2016	Valid
	GW-RS0064-16	1 Feb 2016	2 Feb 2016 to 1 Aug 2016	Valid
	GW-RS0286-16	24 Mar 2016	27 Mar 2016 to 26 Sep 2016	Valid
	GW-RS0212-16	8 Mar 2016	10 Mar 2016 to 8 Sep 2016	Valid
	GW-RS0192-16	4 Mar 2016	9 Mar 2016 to 8 Sep 2016	Valid
	GW-RS0386-16	20 Apr 2016	22 Apr 2016 to 19 Oct 2016	Valid
Dumping Permit (Type 1 – Open Sea Disposal)	EP/MD/16-155	2 Mar 2016	3 Mar 2016 to 31 Mar 2016	Expired
	EP/MD/16-211	13 Apr 2016	18 Apr 2016 to 30 Apr 2016	Valid
Dumping Permit (Type 1 – Open Sea Disposal (Dedicate Sites) & Type 2 – Confined Marine disposal)	EP/MD/16-188	3 Mar 2016	9 Mar 2016 to 8 Apr 2016	Expired
	EP/MD/16-210	6 Apr 2016	9 Apr 2016 to 8 May 2016	Valid

Table 3.10 Summary of submission status under EP-356/2009 and FEP-06/356/2009 Condition

FEP Condition	Submission	Date of Submission
Condition 2.8	Silt Curtain Deployment Plan (Rev. 3)	Submitted on 25 Nov 2013 was returned to CSLJV by EPD.
Condition 2.9	Silt Screen Deployment Plan (Rev. 2)	Generally in order as commented by EPD on 19 Sep 2013
Condition 2.23	Noise Management Plan (Rev. 2)	Generally in order as commented by EPD on 15 Aug 2013
Condition 2.24	Landscape Plan (Rev. 3)	Generally in order as commented by EPD on 31 Oct 2013

Contract no. HY/2010/08 - Central - Wan Chai Bypass (CWB) - Tunnel (Slip Road 8)

3.1.10. Summary of the current status on licences and/or permits on environmental protection pertinent and submission for contract no. HY/2010/08 under FEP-07/356/2009 are shown in Table 3.11 and Table 3.12.

Table 3.11 Cumulative Summary of Valid Licences and Permits under Contract no. HY/2010/08

Permits and/or Licences	Reference No.	Issued Date	Valid Period/ Expiry Date	Status
Further Environmental Permit	FEP-07/356/2009	26 Jul 2013	NA	Valid
	FEP-10/364/2009/B	26 Jul 2013	NA	Valid
Notification of Works Under APCO	357176	2 Apr 2013	NIL	Valid
Registration as a Chemical Waste Producer	WPN5213-147-C11 69-44	27 Mar 2013	NIL	Valid
Billing Account under Waste Disposal Ordinance	7017170	27 Mar 2013	NIL	Valid
Billing Account under Waste Disposal Ordinance (Dumping by Vessel)	7020947	22 Dec 2014	NIL	Valid.
Water Discharge Licence	WT00020753-2015	3 Feb 2015	28 Feb 2017	Valid
Construction Noise Permit	GW-RS1137-15	22 Oct 2015	22 Oct 2015 to 20 Apr 2016	Expired
	GW-RW0061-16	2 Feb 2016	23 Mar 2016 to 30 Apr 2016	Valid
Dumping Permit (Type 1 – Open Sea Disposal)	EP/MD/16-176	23 Mar 2016	23 Mar 2016 to 30 Jun 2016	Valid

Contract No. HK/2015/01 Wanchai Development Phase II and Central-Wanchai Bypass Sampling, Field Measurement and testing Works (Stage 3) Monthly EM&A Report (April 2016)

Permits and/or Licences	Reference No.	Issued Date	Valid Period/ Expiry Date	Status
Dumping Permit (Type 1 – Open Sea Disposal (Dedicate Sites) & Type 2 – Confined Marine disposal)	EP/MD/16-175	1 Apr 2016	1 Apr 2016 to 30 Apr 2016	Valid

Table 3.12 Summary of submission status under EP-356/2009 and FEP-07/356/2009 Condition

FEP Condition	Submission	Date of Submission
Condition 2.8	Silt Curtain Deployment Plan (rev03)	24 Dec 2014
Condition 2.9	Silt Screen Deployment Plan (rev02)	18 Feb 2015
Condition 2.23	Noise Management Plan (rev02)	25 Mar 2014
Condition 2.24	Landscape Plant (rev04)	23 Sep 2014



Monitoring Requirements

4.1 Noise Monitoring

NOISE MONITORING STATIONS

4.1.1. The noise monitoring stations for the Project are listed and shown in *Table 4.1* and *Figure 4.1*. *Appendix 4.1* shows the established Action/Limit Levels for the monitoring works.

Table 4.1 Noise Monitoring Station

Station	Description
M1a	Harbour Road Sports Centre
M2b	Noon Gun Area
МЗа	Tung Lo Wan Fire Station
M4b	Victoria Centre
M5b	City Garden
M6	HK Baptist Church Henrietta Secondary School

NOISE MONITORING PARAMETERS, FREQUENCY AND DURATION

- 4.1.2. The construction noise level shall be measured in terms of the A-weighted equivalent continuous sound pressure level (Leq). Leq (30 minutes) shall be used as the monitoring parameter for the time period between 0700 and 1900 hours on normal weekdays. For all other time periods, Leq (5 minutes) shall be employed for comparison with the Noise Control Ordinance (NCO) criteria. Supplementary information for data auditing, statistical results such as L10 and L90 shall also be obtained for reference.
- 4.1.3. Noise monitoring shall be carried out at all the designated monitoring stations. The monitoring frequency shall depend on the scale of the construction activities. The following is an initial guide on the regular monitoring frequency for each station on a weekly basis when noise generating activities are underway:
 - One set of measurements between 0700 and 1900 hours on normal weekdays.
- 4.1.4. If construction works are extended to include works during the hours of 1900 0700 as well as public holidays and Sundays, additional weekly impact monitoring shall be carried out during respective restricted hours periods. Applicable permits under NCO shall be obtained by the Contractor.

MONITORING EQUIPMENT

4.1.5. As referred to in the Technical Memorandum ™ issued under the NCO, sound level meters in compliance with the International Electrotechnical Commission Publications 651: 1979 (Type 1) and 804: 1985 (Type 1) specifications shall be used for carrying out the noise monitoring. Immediately prior to and following each noise measurement the accuracy of the sound level meter shall be checked using an acoustic calibrator generating a known sound pressure level



- at a known frequency. Measurements may be accepted as valid only if the calibration level from before and after the noise measurement agree to within 1.0 dB.
- 4.1.6. Noise measurements shall not be made in fog, rain, wind with a steady speed exceeding 5 m/s or wind with gusts exceeding 10 m/s. The wind speed shall be checked with a portable wind speed meter capable of measuring the wind speed in m/s.

4.2 Air Monitoring

AIR QUALITY MONITORING STATIONS

4.2.1. The air monitoring stations for the Project are listed and shown in *Table 4.2* and *Figure 4.1*. *Appendix 4.1* shows the established Action/Limit Levels for the monitoring works.

Table 4.2 Air Monitoring Station

Station ID	Monitoring Location	Description
CMA1b	Oil Street Site Office**	North Point
CMA2a	Causeway Bay Community Centre	Causeway Bay
CMA3a	CWB PRE Site Office *	Causeway Bay
CMA4a	Society for the Prevention of Cruelty to Animals	Wan Chai
CMA5b	Pedestrian Plaza***	Wan Chai
CMA6a	WDII PRE Site Office *	Wan Chai

Remarks*: As per the ENPC meeting in March 2011, the monitoring stations CMA3a – Future CWB site office at Wanchai Waterfront Promenade was renamed as remark.

Remarks**: The location ID of monitoring station CMA1b was updated as "Oil Street Site Office" in April 2013.

Remarks***: The station ID and monitoring location was updated in December 2014 with respect to monitoring station relocation.

AIR MONITORING PARAMETERS, FREQUENCY AND DURATION

- 4.2.2. One-hour and 24-hour TSP levels should be measured to indicate the impacts of construction dust on air quality. The 24-hour TSP levels shall be measured by following the standard high volume sampling method as set out in the Title 40 of the Code of Federal Regulations, Chapter 1 (Part 50), Appendix B.
- 4.2.3. All relevant data including temperature, pressure, weather conditions, elapsed-time meter reading for the start and stop of the sampler, identification and weight of the filter paper, and any other local atmospheric factors affecting or affected by site conditions, etc., shall be recorded down in detail.
- 4.2.4. For regular impact monitoring, the sampling frequency of at least once in every six-days, shall be strictly observed at all the monitoring stations for 24-hour TSP monitoring. For 1-hour TSP

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monitoring, the sampling frequency of at least three times in every six-days should be undertaken when the highest dust impact occurs.

SAMPLING PROCEDURE AND MONITORING EQUIPMENT

- 4.2.5. High volume samplers (HVSs) in compliance with the following specifications shall be used for carrying out the 1-hour and 24-hour TSP monitoring:
 - 0.6 1.7 m3 per minute adjustable flow range;
 - equipped with a timing / control device with +/- 5 minutes accuracy for 24 hours operation;
 - installed with elapsed-time meter with +/- 2 minutes accuracy for 24 hours operation;
 - capable of providing a minimum exposed area of 406 cm2;
 - flow control accuracy: +/- 2.5% deviation over 24-hour sampling period;
 - equipped with a shelter to protect the filter and sampler;
 - incorporated with an electronic mass flow rate controller or other equivalent devices;
 - equipped with a flow recorder for continuous monitoring;
 - · provided with a peaked roof inlet;
 - incorporated with a manometer;
 - able to hold and seal the filter paper to the sampler housing at horizontal position;
 - easily changeable filter; and
 - capable of operating continuously for a 24-hour period.
- 4.2.6. Initial calibration of dust monitoring equipment shall be conducted upon installation and thereafter at bi-monthly intervals. The transfer standard shall be traceable to the internationally recognized primary standard and be calibrated annually. The concern parties such as IEC shall properly document the calibration data for future reference. All the data should be converted into standard temperature and pressure condition.

LABORATORY MEASUREMENT / ANALYSIS

- 4.2.7. A clean laboratory with constant temperature and humidity control, and equipped with necessary measuring and conditioning instruments to handle the dust samples collected, shall be available for sample analysis, and equipment calibration and maintenance. The laboratory should be HOKLAS accredited.
- 4.2.8. An alternative non-HOKLAS accredited laboratory was set-up for carrying out the laboratory analysis, the laboratory equipment was approved by the ER on 8 February 2011 and the measurement procedures were witnessed by the IEC. Any measurement performed by the laboratory was be demonstrated to the satisfaction of the ER and IEC. IEC shall regularly audit to the measurement performed by the laboratory to ensure the accuracy of measurement results.
- 4.2.9. Filter paper of size 8" x 10" shall be labelled before sampling. It shall be a clean filter paper with no pinholes, and shall be conditioned in a humidity-controlled chamber for over 24-hours and be pre-weighed before use for the sampling.



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- 4.2.10. After sampling, the filter paper loaded with dust shall be kept in a clean and tightly sealed plastic bag. The filter paper shall then be returned to the laboratory for reconditioning in the humidity controlled chamber followed by accurate weighing by an electronic balance with readout down to 0.1 mg. The balance shall be regularly calibrated against a traceable standard.
- 4.2.11. All the collected samples shall be kept in a good condition for 6 months before disposal.

IMPACT MONITORING FOR ODOUR PATROL

- 4.2.12. Odour patrols along the shorelines of Causeway Bay Typhoon Shelter and ex-Wan Chai Public Cargo Working Area when there is temporary reclamation in Causeway Bay Typhoon Shelter and/or in the ex-Wan Chai Public Cargo Working Area, or when there is dredging of the odorous sediment and slime at the south-western corner of the Causeway Bay Typhoon Shelter. Odour patrols will be carried out at bi-weekly intervals during July, August and September by a qualified person of the ET who shall:
 - be at least 16 years of age;
 - · be free from any respiratory illnesses; and
 - not be allowed to smoke, eat, drink (except water) or use chewing gum or sweets 30 min
 - before and during odour patrol
- 4.2.13. Odour patrol shall be conducted by independent trained personnel / competent persons patrolling and sniffing around the shore as shown in *Figure 4.1* to detect any odour at the concerned hours (afternoon is preferred for higher daily temperature).
- 4.2.14. The qualified person will use the nose (olfactory sensor) to sniff odours at different locations. The main odour emission sources and the areas to be affected by the odour nuisance will be identified.
- 4.2.15. The perceived odour intensity is to be divided into 5 levels which are ranked in the descending order as follows:
 - 0 Not detected. No odour perceived or an odour so weak that it cannot be easily characterized or described;
 - 1 Slight Identifiable odour, and slight chance to have odour nuisance;
 - 2 Moderate Identifiable odour, and moderate chance to have odour nuisance;
 - 3 Strong Identifiable, likely to have odour nuisance;
 - 4 Extreme Severe odour, and unacceptable odour level.
- 4.2.16. The findings including odour intensity, odour nature and possible odour sources, and also the local wind speed and direction at each location will be recorded. In addition, some relevant meteorological and tidal data such as daily average temperature, and daily average humidity, on that surveyed day will be obtained from the Hong Kong Observatory Station for reference. The Action and Limit levels for odour patrol are shown in <u>Appendix 4.1.</u>
- 4.2.17. The qualified odour patrol member has individual n-butanol thresholds complied with the requirement of European Standard Method of Air Quality Determination of Odour Concentration by Dynamic Olfactometry (EN13725) in the range of 20 to 80 ppb.



4.3 Water Quality Monitoring

- 4.3.1. The EIA Report has identified that the key water quality impact would be associated with the dredging works during the construction phase. Marine water quality monitoring for dissolved oxygen (DO), suspended solid (SS) and turbidity is therefore recommended to be carried out at selected WSD flushing water intakes. The impact monitoring should be carried out during the proposed dredging works to ensure the compliance with the water quality standards.
- 4.3.2. The updated EM&A Manual for EP-356/2009 (Version in March 2011) is approval by EPD on 29 April 2011. As such, the Action Level and Limit Level for the wet season (April September) will be effected and applied to the water quality monitoring data from 30 April 2011.

Water Quality Monitoring Stations

4.3.3. Water quality monitoring was undertaken at 8 monitoring stations for WSD salt water intakes and cooling water intakes along the seafront of the Victoria Harbour in the reporting month. The proposed water quality monitoring stations of the Project are shown in *Table 4.3* and *Figure 4.1*. Appendix 4.1 shows the established Action/Limit Levels for the monitoring works.

Table 4.3 Marine Water Quality Stations for Water Quality Monitoring

Station Ref.	Location	Easting	Northing
WSD Salt Water Int	WSD Salt Water Intake		
WSD19	Sheung Wan	833415.0	816771.0
Cooling Water Inta	Cooling Water Intake		
C1	HKCEC Extension	835885.6	816223.0
C7	Windsor House	837193.7	816150.0
P1	HKCEC Phase I	835774.7	816179.4
P3	The Academy of performing Arts	835824.6	816212.0
P4	Shui on Centre	835865.6	816220.0
P5	Government Buildings (Wanchai Tower / Revenue Tower / Immigration Tower)	835895.2	816215.2
Cooling Water Intake / WSD Salt Water Intake			
RW21-P789	Great Eagle Centre/ Sun Hung Kai Centre/ WSD Wanchai salt water intake / China Resources Building	836268.0	816020.0

Remarks: - The cessation of seawater intake operation for C6 was confirmed on 17 May 2011 and the water quality monitoring at C6 was then terminated since 17 May 2011.

- 4-week post construction water quality monitoring at WSD9, WSD10, WSD15 and WSD17 were completed on 6 Feb 2012 and the water quality monitoring at WSD 10 and WSD15 were temporary suspended since 8 Feb 2012, and WSD9 and WSD17 was implemented with respect to HK/2009/02 from 8 Feb 2012 onwards.
- C8 and C9 were implemented with respect to HY/2009/19 from 28 Jan 2012.
- C8 & C9 were temporary suspended since 4 March 2013.
- WSD7 and WSD20 water quality monitoring were temporarily suspended from 27 Apr 2012.
- C2, C3 C4e and C4w water quality monitoring station was temporarily suspended since
 22 Apr 2013
- P1, P3, P4 and P5 were commenced since 24 Apr 2013
- C5e and C5w water quality monitoring station was temporarily suspended since 29 Jul 2013.

- WSD21 water quality monitoring station was temporarily suspended since 12 Mar 2014
- WSD9 and WSD17 water quality monitoring station was temporarily suspended since 8
 Sep 2014 flood tide.
- The water quality monitoring station C1 shall be associated with Contract No. HK/2009/02 upon commencement of marine works under DP3 at WCR3 area.

WATER QUALITY PARAMETERS

- 4.3.4. Monitoring of dissolved oxygen (DO), turbidity and suspended solids (SS) shall be carried out at WSD flushing water intakes and cooling water intakes. DO and Turbidity are measured in-situ while SS is determined in laboratory.
- 4.3.5. In association with the water quality parameters, other relevant data shall also be measured, such as monitoring location/position, time, sampling depth, water temperature, pH, salinity, dissolved oxygen (DO) saturation, weather conditions, sea conditions, tidal stage, and any special phenomena and work underway at the construction site etc.

SAMPLING PROCEDURES AND MONITORING EQUIPMENT

4.3.6. The interval between two sets of monitoring should not be less than 36 hours except where there are exceedances of Action and/or Limit Levels, in which case the monitoring frequency will be increased. *Table 4.4* shows the proposed monitoring frequency and water quality parameters. Duplicate in-situ measurements and water sampling should be carried out in each sampling event. For selection of tides for in-situ measurement and water sampling, tidal range of individual flood and ebb tides should be not less than 0.5m.

Table 4.4 Marine Water Quality Monitoring Frequency and Parameters

Activities	Monitoring Frequency ¹	Parameters ²
During the 4-week baseline monitoring period	Three days per week, at mid-flood and mid-ebb tides	Turbidity, Suspended Solids (SS), Dissolved Oxygen (DO), pH, Temperature, Salinity
During marine construction works	Three days per week, at mid-flood and mid-ebb tides	Turbidity, Suspended Solids (SS), Dissolved Oxygen (DO), pH, Temperature, Salinity
After completion of marine construction works	Three days per week, at mid-flood and mid-ebb tides	Turbidity, Suspended Solids (SS), Dissolved Oxygen (DO), pH, Temperature, Salinity

Notes:

- For selection of tides for in-situ measurement and water sampling, tidal range of individual flood and ebb tides should be not less than 0.5m.
- 2. Turbidity should be measured in situ whereas SS should be determined by laboratory.

DISSOLVED OXYGEN AND TEMPERATURE MEASURING EQUIPMENT

- 4.3.7. The instrument should be a portable, weatherproof dissolved oxygen measuring instrument complete with cable, sensor, comprehensive operation manuals, and use a DC power source. It should be capable of measuring:
 - a dissolved oxygen level in the range of 0-20 mg/l and 0-200% saturation
 - a temperature of 0-45 degree Celsius

- 4.3.8. It should have a membrane electrode with automatic temperature compensation complete with a cable. Sufficient stocks of spare electrodes and cables should be available for replacement where necessary. (e.g. YSI model 59 meter, YSI 5739 probe, YSI 5795A submersible stirrer with reel and cable or an approved similar instrument).
- 4.3.9. Should salinity compensation not be build-in in the DO equipment, in-situ salinity shall be measured to calibrate the DO equipment prior to each DO measurement.

TURBIDITY MEASUREMENT INSTRUMENT

4.3.10. The instrument should be a portable, weatherproof turbidity-measuring instrument complete with comprehensive operation manual. The equipment should use a DC power source. It should have a photoelectric sensor capable of measuring turbidity between 0-1000 NTU and be complete with a cable (e.g. Hach model 2100P or an approved similar instrument).

SAMPLER

4.3.11. A water sampler comprises a transparent PVC cylinder, with a capacity of not less than 2 litres, and can be effectively sealed with latex cups at both ends. The sampler should have a positive latching system to keep it open and prevent premature closure until released by a messenger when the sampler is at the selected water depth (e.g. Kahlsico Water Sampler or an approved similar instrument).

SAMPLE CONTAINER AND STORAGE

4.3.12. Water samples for suspended solids measurement should be collected in high-density polythene bottles, packed in ice (cooled to 4°C without being frozen), and delivered to ALS Technichem (HK) Pty Ltd. as soon as possible after collection for analysis.

WATER DEPTH DETECTOR

4.3.13. A portable, battery-operated echo sounder shall be used for the determination of water depth at each designated monitoring station. This unit can either be handheld or affixed to the bottom of the workboat, if the same vessel is to be used throughout the monitoring programme.

SALINITY

4.3.14. A portable salinometer capable of measuring salinity in the range of 0-40 ppt shall be provided for measuring salinity of the water at each of monitoring location.

MONITORING POSITION EQUIPMENT

4.3.15. A hand-held or boat-fixed type digital Global Positioning System (GPS) with waypoint bearing indication or other equivalent instrument of similar accuracy shall be provided and used during monitoring to ensure the monitoring vessel is at the correct location before taking measurements.

CALIBRATION OF IN-SITU INSTRUMENTS

4.3.16. All in-situ monitoring instrument shall be checked, calibrated and certified by a laboratory accredited under HOKLAS or equivalent before use, and subsequently re-calibrated at 3 monthly intervals throughout all stages of the water quality monitoring. Responses of sensors and electrodes should be checked with certified standard solutions before each use. Wet bulb



- calibration for a DO meter shall be carried out before measurement at each monitoring location.
- 4.3.17. For the on site calibration of field equipment by the ET, the BS 127:1993, "Guide to Field and on-site test methods for the analysis of waters" should be observed.
- 4.3.18. Sufficient stocks of spare parts should be maintained for replacements when necessary. Backup monitoring equipment shall also be made available so that monitoring can proceed uninterrupted even when some equipment is under maintenance, calibration, etc.
- 4.3.19. Current calibration certificates of equipments are presented in Appendix 4.2.

LABORATORY MEASUREMENT / ANALYSIS

4.3.20. Analysis of suspended solids has been carried out in a HOKLAS accredited laboratory, ALS Technichem (HK) Pty Ltd. Water samples of about 1L shall be collected at the monitoring stations for carrying out the laboratory SS determination. The SS determination work shall start within 24 hours after collection of the water samples. The SS determination shall follow APHA 19ed or equivalent methods subject to the approval of IEC and EPD.

ENHANCED WATER QUALITY MONITORING IN THE EX-WAN CHAI PUBLIC CARGO WORKING AREA AND THE CAUSEWAY BAY TYPHOON SHELTER

- 4.3.21. The enhanced water quality monitoring and audit programme is to avoid aggravation of odour nuisance from seawater arising from temporary reclamation in the ex-Wan Chai Public Cargo Working Area and the Causeway Bay Typhoon Shelter.
- 4.3.22. Dissolved oxygen monitoring at the intakes C6 and C7 in Causeway Bay Typhoon Shelter when there is temporary reclamation in Causeway Bay Typhoon Shelter and at the south-western and south-eastern corners of the ex-Wan Chai Public Cargo Working Area. The proposed water quality monitoring stations of the Project are shown in *Table 4.5* and *Figure 4.1*.

Table 4.5 Marine Water Quality Stations for Enhanced Water Quality Monitoring

Station	Location
C6	Excelsior Hotel
C7	Windsor House
Ex-WPCWA-SW	South-western of the ex-Wan Chai Public Cargo Working Area
Ex-WPCWA-SE	South-eastern of the ex-Wan Chai Public Cargo Working Area

Remarks:

- Enhanced DO monitoring at Windsor House Cooling (Station Ref: C7) was temporarily suspended since 22 October 2014 with respect to the formation of temporary reclamation zone TS3 and to be resumed upon removal of the respective temporary reclamation zone.
- 2. Enhanced DO monitoring at Monitoring station at Ex-PCWAE was temporarily suspended from 31 August 2015 with respect to seawall reinstatement works and formation of active works area, to be resumed upon completion of seawall reinstatement works

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4.3.23. The monitoring of dissolved oxygen are to be carried out 3 days per week, at mid-flood and mid-ebb tides for 3 water depths (1m below water surface, mid-depth and 1m above sea bed, except where the water depth less than 6m, the mid-depth may be omitted. If the water depth be equal to or less than 3m, only the mid-depth will be monitored).

DAILY SS MONITORING AND 24 HOURS TURBIDITY MONITORING SYSTEM

- 4.3.24. During dredging of the sediment at the south-western corner of the Causeway Bay Typhoon Shelter, daily monitoring of suspended solids and 24 hour monitoring of turbidity at the cooling water intakes (C6 and C7) shall be conducted.
- 4.3.25. The 24 hours monitoring of turbidty at the cooling water intakes (C6 and C7) shall be established by setting up a continuous water quality monitoring station in front of the intakes during the dredging activities. The monitoring system include the turbidity sensor and data logger which is capable of data capturing at every 5 minutes. The data sahll be downloaded daily and compared with the Action and Limit level determined during the baseline water quality monitoring at the cooling water intake locations.

ADDITIONAL DISSOVLED OXYGEN MONITORING FOR CULVERT L WATER DISCHARGE FLOW

- 4.3.26. In response to the Condition 2.18 of the Environmental Permit no. EP-356/2009 requiring that a silt curtain / impermeable barrier system be installed to channel water discharge flow from Culvert L to locations outside the embayment area, a proposed replacement of the requirement with additional dissolved oxygen monitoring has been conducted at three monitoring stations, namely A, B and C between the eastern seawall of Central Reclamation Phase III and the HKCEC Extension since November 2011 under EP-356/2009 so that DO level between the eastern seawall of Central Reclamation Phase II and the HKCEC extension could be continuously monitored.
- 4.3.27. With respect to the commencement of dredging works under HK/2012/08 and the installation of MTR precast protection unit, the enhanced water quality monitoring for Culvert L was temporarily suspended since 24 July 2013
- 4.3.28. The monitoring of dissolved oxygen are to be carried out once per week, at mid-flood and mid-ebb tides for 3 water depths (1m below water surface, mid-depth and 1m above sea bed, except where the water depth less than 6m, the mid-depth may be omitted. If the water depth be equal to or less than 3m, only the mid-depth will be monitored).



5. Monitoring Results

- 5.0.1. The environmental monitoring will be implemented based on the division of works areas of each designed project managed under different contracts with separate FEP applied by individual contractors. Overall layout showing work areas of various contracts, latest status of work commencement and monitoring stations is shown in <u>Figure 2.1</u> and <u>Figure 4.1</u>. The monitoring results are presented in according to the Individual Contract(s).
- 5.0.2. In the reporting month, the concurrent contracts are as follows:
 - Contract no. HK/2009/01 Wan Chai Development Phase II Central-Wan Chai Bypass at Hong Kong Convention and Exhibition Centre; and
 - Contract no. HK/2009/02 Wan Chai Development Phase II Central-Wan Chai Bypass at Wan Chai East
 - Contract no. HY/2009/15 Central-Wanchai Bypass Tunnel (Causeway Bay Typhoon Shelter Section)
 - Contract no. HY/2009/19- Central- Wan Chai Bypass Tunnel (North Point Section) and Island Eastern Corridor Link
 - Contract no. HK/2012/08 Wan Chai Development Phase II Central- Wan Chai Bypass at Wan Chai West
 - Contract no. HY/2010/08 Central- Wanchai Bypass Tunnel (Slip Road 8 Section)
- 5.0.3. The environment monitoring schedules for reporting month and coming month are presented in *Appendix 5.1*.

5.1 Noise Monitoring Results

Contract no. HK/2009/01 - Wan Chai Development Phase II - Central -Wanchai Bypass at HKCEC, Contract no. HK/2009/02 - Wan Chai Development Phase II - Central - Wan Chai Bypass at WanChai East

5.1.1. The proposed division of noise monitoring stations are summarized in *Table 5.1* below.

Table 5.1 Noise Monitoring Station for Contract nos. HK/2009/01 and HK/2009/02

Station	Description
M1a	Harbour Road Sports Centre

- 5.1.2. Two limit level exceedances were recorded at M1a- Harbour Road Sports Centre on 29 March 2016 and 12 April 2016 in this reporting month.
- 5.1.3. Operation of multiple air compressor at Ex- Wan Chai Swimming Pool (adjacent to Habour Road Sports Centre directly opposite to the monitoring station) under non WDII-CWB Contractor was observed as the major noise contribution during monitoring on 29 March 2016 while breaking works at Ex- Wan Chai Swimming Pool (adjacent to Habour Road Sports Centre directly opposite to the monitoring station) under non WDII-CWB Contractor as major noise contribution during monitoring on 12 April 2016. As such, the exceedances were considered as non-Project related.

5.1.4. Noise monitoring results measured in this reporting period are reviewed and summarized. Details of noise monitoring results and graphical presentation can be referred in <u>Appendix</u> <u>5.2.</u>

<u>Contract no. HY/2009/15 - Central-Wanchai Bypass - Tunnel (Causeway Bay Typhoon Shelter Section)</u>

5.1.5. The noise monitoring for HY/2009/15 was commenced on 10 November 2010. The proposed division of noise monitoring stations are summarized in *Table 5.2* below.

Table 5.2 Noise Monitoring Station for Contract no. HY/2009/15

Station	Description
M2b	Noon Gun Area
МЗа	Tung Lo Wan Fire Station

- 5.1.6. No action or limit level exceedance was recorded in this reporting month.
- 5.1.7. Noise monitoring results measured in this reporting period are reviewed and summarized. Details of noise monitoring results and graphical presentation can be referred in <u>Appendix</u> <u>5.2.</u>

Contract no. HY/2009/19- Wan Chai Bypass Tunnel (North Point Section) and Island Eastern Corridor Link

5.1.8. The proposed division of noise monitoring stations are summarized in *Table 5.3* below.

Table 5.3 Noise Monitoring Station for Contract no. HY/2009/19

Station	Description
M4b	Victoria Centre
M5b	City Garden
M6	HK Baptist Church Henrietta Secondary School

- 5.1.9. Two limit level exceedances were recorded at M6 HK Baptist Church Henrietta Secondary School on 11 and 19 April 2016 in the reporting month.
- 5.1.10. Only welding work was conducted at Pier F8C during the time of measurement on 11 and 19 April 2016 and it was observed that traffic noise was a major noise source during monitoring on 11 and 19 April 2016. It is concluded that the exceedances were not due to project but to traffic noise nearby.
- 5.1.11. Noise monitoring results measured in this reporting period are reviewed and summarized. Details of noise monitoring results and graphical presentation can be referred in <u>Appendix</u> <u>5.2.</u>

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Contract no. HY/2010/08-Central-Wanchi Bypass Tunnel (Slip Road 8 Section)

5.1.12. The proposed division of noise monitoring stations are summarized in **Table 5.4** below.

Table 5.4 Noise Monitoring Station for Contract no. HY/2010/08

Station	Description
M2b	Noon Gun Area
МЗа	Tung Lo Wan Fire Station

- 5.1.13. No action or limit level exceedance was recorded in this reporting month.
- 5.1.14. Noise monitoring results measured in this reporting period are reviewed and summarized. Details of noise monitoring results and graphical presentation can be referred in <u>Appendix</u> <u>5.2.</u>



5.2 Air Monitoring Results

Contract no. HK/2009/01 - Wan Chai Development Phase II - Central -Wanchai Bypass at HKCEC

5.2.1 Air monitoring was commenced on 1 April 2011 in response to the commencement of the land-filling work for Contract no. HK/2009/01. The proposed divisions of air monitoring stations are summarized in *Table 5.5* below.

Table 5.5 Air Monitoring Stations for Contract no. HK/2009/01

Station	Description
CMA5b	Pedestrian Plaza
CMA6a	WDII PRE Site Office

- 5.2.2 One action level exceedance was recorded at monitoring station CMA5b on 14 April 2016 during 1hr TSP monitoring in the reporting month.
- 5.2.3 Only work activities within tunnel section and no construction activities at ground was undertaken on the monitoring date around Pedestrian Plaza under Contract HK/2009/01 and no particular observation regarding air quality impact was observed during sampling. In view of the above, the action level exceedance was considered to be non-project related and contributed by local ambient condition.
- 5.2.4 Air quality monitoring results measured in this reporting period are reviewed and summarized.

 Details of air monitoring results and graphical presentation can be referred in *Appendix 5.3*.

<u>Contract no. HK/2009/02 - Wan Chai Development Phase II – Central – Wan Chai Bypass at WanChai East</u>

5.2.5 Air monitoring was commenced in mid-January 2011 for the land-filling work for Contract no. HK/2009/02. The proposed division of air monitoring stations are summarized in *Table 5.6* below.

Table 5.6 Air Monitoring Station for Contract no. HK/2009/02

Station	Description
CMA4a	Society for the Prevention of Cruelty to Animals

- 5.2.6 No exceedance was recorded in the reporting month. Air quality monitoring results measured in this reporting period are reviewed and summarized. Details of air monitoring results and graphical presentation can be referred in *Appendix 5.3*.
 - <u>Contract no. HY/2009/15 Central-Wanchai Bypass Tunnel (Causeway Bay Typhoon Shelter Section)</u>
- 5.2.7 Air monitoring was commenced on 15 March 2011 for the land filling work for Contract no. HY/2009/15. The proposed division of air monitoring stations are summarized in *Table 5.7* below.



Table 5.7 Air Monitoring Station for Contract no. HY/2009/15

Station	Description
CMA3a	CWB PRE Site Office

5.2.8 No exceedance was recorded in the reporting month. Air quality monitoring results measured in this reporting period are reviewed and summarized. Details of air monitoring results and graphical presentation can be referred in *Appendix 5.3*.

Contract no. HY/2009/19- Wan Chai Bypass Tunnel (North Point Section) and Island Eastern Corridor Link

5.2.9 The proposed division of air monitoring stations are summarized in *Table 5.8* below.

Table 5.8 Air Monitoring Stations for Contract no. HY/2009/19

Station	Description
CMA1b	Oil Street Site Office
CMA2a	Causeway Bay Community Centre

5.2.10 No exceedance was recorded in the reporting month. Air quality monitoring results measured in this reporting period are reviewed and summarized. Details of air monitoring results and graphical presentation can be referred in *Appendix 5.3*.

Contract no. HK/2012/08- Wan Chai Development Phase II - Central-Wan Chai Bypass at Wan Chai West

5.2.11 The proposed division of air monitoring stations are summarized in *Table 5.9* below.

Table 5.9 Air Monitoring Stations for Contract no. HK/2012/08

Station	Description
CMA5b	Pedestrian Plaza

- 5.2.12 One action level exceedance was recorded at monitoring station CMA5b on 14 April 2016 during 1hr TSP monitoring in the reporting month.
- 5.2.13 After investigation, formwork erection and internal transfer of excavated material were undertaken on the monitoring date at around Pedestrian Plaza under Contractor of HK/2012/08, dust suppression measure including haul road and excavated soil maintained in dampened condition were implemented and no particular observation regarding air quality impact was observed during sampling. In view of the above, the action level exceedance was considered to be non-project related and contributed by local ambient condition.
- 5.2.14 Air quality monitoring results measured in this reporting period are reviewed and summarized.

 Details of air monitoring results and graphical presentation can be referred in *Appendix 5.3*.



Contract no. HY/2010/08- Central-Wanchai Bypass Tunnel (Slip Road 8 Section)

The proposed division of air monitoring stations are summarized in *Table 5.10* below.

Table 5.10 Air Monitoring Stations for Contract no. HY/2010/08

Station	Description
CMA3a	CWB PRE Site Office

5.2.15 No exceedance was recorded in the reporting month. Air quality monitoring results measured in this reporting period are reviewed and summarized. Details of air monitoring results and graphical presentation can be referred in *Appendix 5.3*.

5.3 Water quality monitoring Results

- 5.3.1. With respect to the marine works undertaken at WCR3 by Contract HK/2009/02, the respective water quality monitoring station C1 associated with Contract HK/2009/01 was updated as in association with Contract HK/2009/01 and Contract HK/2009/02.
- 5.3.2. With respect to the marine works undertaken at CBTS by Contract HY/2010/08, the respective water quality monitoring station C7 associated with Contract HY/2009/15 was updated as in association with Contract HY/2009/15 and Contract HY/2010/08.
- 5.3.3. With respect to the marine works undertaken at HKCEC2 by Contract HK/2012/08, the respective water quality monitoring station WSD19, P1, P3, P4, and P5 were associated with Contract HK/2012/08.

Table 5.11 Water quality Monitoring Stations for contracts with respect to remaining DP3 work areas after the completion of DP5 & DP6 in 2012 and intake diversion in 2013

Contract No.	work area(s) monitoring Stations,		Division of WQM w.r.t tentative works commenced / to be commenced
HK/2009/01	WCR3	C1 ¹	Apr 2013
HK/2009/02	WCR3, WCR4, TWCR4	RW21-P789 ² , C1 ¹	Apr 2013
HK/2012/08	HKCEC2W, HKCEC2E	WSD19, P1 ³ , P3 ³ , P4 ³ , P5 ³	Aug 2013
HY/2009/15	TCBR2, TCBR3, TCBR1W, TPCWAE, TPCWAW	C6 ⁴ , C7, Ex-WPCWA SW, Ex-WPCWA SE (plus enhanced DO monitoring)	Nov 2010
HY/2010/08	TCBR3, TCBR4	C6 ⁴ , C7 (plus enhanced DO monitoring)	Mar 2014

Remarks:

- 1. The water quality monitoring station C1 shall be associated with Contract No. HK/2009/02 upon commencement of marine works under DP3 at WCR3 area.
- 2. 4 intakes (re-provisioned Wanchai WSD intake, Great Eagle Centre, China Resources Centre & Sun Hung Kai Centre constructed adjacent to each other) taken as a single group for silt screen

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- protection and monitoring. Re-provisioned intake reference: P1: HKCEC Phase 1; P3: APA, P4: Shui On; P5: Government Buildings (Wanchai Tower / Revenue Tower / Immigration Tower)
- 3. The water quality monitoring stations for WSD19, P1, P3, P4, P5 shall be associated with Contract No. HK/2009/01 prior to their transition to Contract HK/2012/08.
- 4. Enhanced DO Monitoring at C6 since the intake abandon in May 2011.

Contract no. HK/2009/01 - Wan Chai Development Phase II - Central -Wanchai Bypass at HKCEC

5.3.4. Water quality monitoring for Contract no. HK/2009/01 was commenced on 23 July 2010. The proposed division of water quality monitoring stations are summarized in *Table 5.12* below.

Table 5.12 Water quality monitoring Stations for Contract no. HK/2009/01

Station Ref.	Location	Easting	Northing	
Cooling Water Intake				
C1	HKCEC Extension	835885.6	816223.0	

- 5.3.5. No action and limit level exceedance was recorded in the reporting month.
- 5.3.6 Water quality monitoring results measured in this reporting period are reviewed and summarized. Details of water quality monitoring results and graphical presentation can be referred in <u>Appendix 5.4.</u>

Contract no. HK/2009/02 - Wan Chai Development Wan Chai Development Phase II - Central - Wan Chai Bypass at WanChai East

5.3.7 Water quality monitoring for Contract no. HK/2009/02 was commenced on 8 July 2010. The proposed division of water quality monitoring stations are summarized in *Table 5.13* below.

Table 5.13 Water quality Monitoring Stations for Contract no. HK/2009/02

Station Ref.	Location	Easting	Northing		
Cooling Water Intake					
C1	HKCEC Extension 835885.6 816223.0				
Cooling Water Intake / WSD Salt Water Intake					
RW21-P789	Great Eagle Centre/ Sun Hung Kai Centre/WSD Wanchai salt water intake / China Resources Building	836268.0	816020.0		

- 5.3.8 No action and limit level exceedance was recorded in the reporting month.
- 5.3.9 Water quality monitoring results measured in this reporting period are reviewed and summarized. Details of water quality monitoring results and graphical presentation can be referred in <u>Appendix 5.4.</u>



Contract no. HK/2012/08 - Wan Chai Development Phase II - Central- Wan Chai Bypass at Wan Chai West

5.3.10 Water quality monitoring for Contract no. HK/2012/08 was commenced on 5 March 2013. The proposed division of water quality monitoring stations are summarized in *Table 5.14* below.

Table 5.14 Water quality Monitoring Stations for Contract no. HK/2012/08

Station Ref.	Location	Easting	Northing		
WSD Salt Water	WSD Salt Water Intake				
WSD19	Sheung Wan	833415.0	816771.0		
Cooling Water I	ntake	•			
P1	HKCEC Phase I	835774.7	816179.4		
P3	The Academy of performing Arts	835824.6	816212.0		
P4	Shui on Centre	835865.6	816220.0		
P5	Government Buildings (Wanchai Tower / Revenue Tower / Immigration Tower)	835895.2	816215.2		

- 5.3.11 There were 1 action level and 1 limit level turbidity exceedances recorded at WSD19 on 29 March 2016 and 20 April 2016 in this reporting month.
- 5.3.12 After checking with contractor, despite installation of concrete blocks was conducted near Zone D on 29 March 2016, contractor mitigation measures including the use of localized silt curtain was generally in place. The construction area was located at downstream of WSD19 monitoring station during the monitoring period. In view of the above and no exceedance was recorded on the subsequent monitoring, it was considered that the exceedance was not project related.
- 5.3.13 Despite trimming of rock mound profile was conducted near Zone D on 20 April 2016, contractor mitigation measures including the use of localized silt curtain was generally in place. The location of the construction area was located at downstream of WDS19 monitoring station during the monitoring period. In view of the above and no exceedance was recorded on the subsequent monitoring, it was considered that the exceedance was not project related.
- 5.3.14 Water quality monitoring results measured in this reporting period are reviewed and summarized. Details of water quality monitoring results and graphical presentation can be referred in <u>Appendix 5.4.</u>
 - <u>Contract no. HY/2009/15 Central-Wanchai Bypass Tunnel (Causeway Bay Typhoon Shelter Section)</u>
- 5.3.15 Due to the commencement of the maintenance dredging on 10 November 2010, water quality monitoring for Contract no. HY/2009/15 was commenced on 9 November 2010. The proposed division of water quality monitoring stations are summarized in **Table 5.15** and **Table 5.16** below.



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Table 5.15 Water quality monitoring Stations for Contract no. HY/2009/15

Station Ref.	Location	Easting	Northing	
Cooling Water Intake				
C7	Windsor House	837193.7	816150.0	

Remarks:

 The cessation of seawater intake operation for C6 was confirmed on 17 May 2011, the water quality monitoring at C6 was then terminated since 17 May 2011.

Table 5.16 Enhance Dissolved Oxygen Monitoring Stations for Contract no. HY/2009/15

Station Ref.	Location
C6	Excelsior Hotel
Ex-WPCWA SW	South-western of the ex-Wan Chai Public Cargo Working Area

Remarks:

- 1. Enhanced DO monitoring at Windsor House Cooling (Station Ref: C7) was temporarily suspended since 22 October 2014 with respect to the formation of temporary reclamation zone TS3 and to be resumed upon removal of the respective temporary reclamation zone.
- Enhanced DO monitoring at Monitoring station at Ex-PCWAE was temporarily suspended from 31 August 2015 with respect to seawall reinstatement works and formation of active works area, to be resumed upon completion of seawall reinstatement works
- 5.3.16 There was 1 limit level DO exceedances recorded at Ex-WPCWA SW on 11 April 2016 in the reporting month.
- 5.3.17 After checking with contractor, despite backfilling works was conducted at TPCWAW on 11 April 2016, contractor mitigation measures include the use of tarpaulin sheet between barge and land and provision of bunding for site runoff control was generally in place. Meanwhile, upstream discharge from nearby culvert was noted. In view of the above and no exceedance was recorded on the subsequent monitoring, the exceedance was considered not related to the Project works.
- 5.3.18 Water quality monitoring results measured in this reporting period are reviewed and summarized. Details of water quality monitoring results and graphical presentation can be referred in *Appendix 5.4.*

Contract no. HY/2010/08- Central-Wanchai Bypass Tunnel (Slip Road 8 Section)

5.3.19 The proposed division of water quality monitoring stations are summarized in *Table 5.17* and *Table 5.18* below:

Table 5.17 Water quality monitoring Stations for Contract no. HY/2010/08

Station Ref.	Location	Easting	Northing	
Cooling Water Intake				
C7 Windsor House 837193.7 816150.0				

Table 5.18 Enhance Dissolved Oxygen Monitoring Stations for Contract no. HY/2010/08

Station Ref.	Location
C6	Excelsior Hotel



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Remarks:

- 1. Enhanced DO monitoring at Windsor House Cooling (Station Ref: C7) was temporarily suspended since 22 October 2014 with respect to the formation of temporary reclamation zone TS3 and to be resumed upon removal of the respective temporary reclamation zone.
- 5.3.20 No action or limit level exceedance was recorded in this reporting month.
- 5.3.21 Water quality monitoring results measured in this reporting period are reviewed and summarized. Details of water quality monitoring results and graphical presentation can be referred in **Appendix 5.4**.

5.4 Waste Monitoring Results

<u>Contract no. HK/2009/01 - Wan Chai Development Phase II - Central -Wanchai Bypass at HKCEC</u>

5.4.1. No inert C&D waste and non- inert C&D waste disposed in this reporting month. Details of the waste flow table are summarized in *Table 5.19*.

Table 5.19 Details of Waste Disposal for Contract no. HK/2009/01

Waste Type Quantity this month		Cumulative Quantity-to-Date	Disposal / Dumping Grounds
Inert C&D materials disposed, m ³	NIL	62116.405	TKO137, TM38
Inert C&D materials recycled, m ³	NIL	5856.5	N/A
Non-inert C&D materials disposed, m³	NIL	1673.69	SENT Landfill
Non-inert C&D materials recycled, kg	NIL	203993	N/A
Chemical waste disposed, kg	NIL	10250	N/A
Marine Sediment (Type 1 – Open Sea Disposal), m³	(Type 1 – Open Sea (Bulk Volume)		South of Cheung Chau
Marine Sediment (Type 1 – Open Sea Disposal (Dedicate Sites) & Type 2 – Confined Marine Disposal) , m ³	pe 1 – Open Sea posal (Dedicate s) & Type 2 – Ifined Marine (Bulk Volume)		East of Cha Chau
Dredged Sediment Requiring Type 3 – Special Treatment / Disposal contained in Geosynthetic Containers	NIL (Bulk Volume)	6773 (Bulk Volume)	East of Cha Chau

5.4.2. There were no marine sediment Type 1- Open Sea Disposal and no marine sediments Type 1 - Open Sea Disposal (Dedicate Sites) & Type 2 - Confined Marine Disposal disposed in this reporting month.

<u>Contract no. HK/2009/02 - Wan Chai Development Phase II – Central – Wan Chai Bypass at Wan Chai East</u>

5.4.3. No inert C&D waste and Non-inert C&D waste disposed of in this reporting month. Details of the waste flow table are summarized in *Table 5.20*.

Table 5.20 Details of Waste Disposal for Contract no. HK/2009/02

Waste Type	Quantity this month	Cumulative Quantity-to-Date	Disposal / Dumping Grounds
Inert C&D materials disposed, m ³	NIL	276075.1	TKO137 / TM 38
Inert C&D materials recycled, m ³	NIL	18161	N/A
Non-inert C&D materials disposed, m³	NIL	1515.103	SENT Landfill
Non-inert C&D materials recycled, m ³	N/A	N/A	N/A
Chemical waste disposed, kg	NIL	13860	SENT Landfill
Marine Sediment (Type 1 – Open Sea Disposal), m ³	NIL	240222 (Bulk volume)	South of Cheung Chau
Marine Sediment (Type 1 – Open Sea Disposal (Dedicate Sites) & Type 2 – Confined Marine Disposal), m ³	NIL	146445 (Bulk volume)	East of Sha Chau

5.4.4. There were no marine sediment Type 1 – Open Sea Disposal and no Type 1 Open Sea Disposal (Dedicate Sties) & Type 2 – Confined Marine Disposal disposed in this reporting month.

<u>Contract no. HY/2009/15 - Central-Wanchai Bypass - Tunnel (Causeway Bay Typhoon Shelter Section)</u>

5.4.5. No Inert C&D waste and no non- inert C&D waste disposed of in this reporting month. Details of the waste flow table are summarized in *Table 5.21*

Table 5.21 Details of Waste Disposal for Contract no. HY/2009/15

Waste Type	Quantity this month	Cumulative Quantity-to-Date	Disposal / Dumping Grounds	Remarks
Inert C&D materials disposed, m ³	NIL	141579.2	Tuen Mun Area 38	NIL
diopossa, iii	NIL	65216	TKO137 FB	NIL
Inert C&D materials recycled, m ³	NIL	304	Ex-PCWA	NIL
recycled, m	NIL	111.9	TS4	NIL
Non-inert C&D materials disposed, m³	NIL	252.2	SENT Landfill	NIL
Non-inert C&D materials recycled, kg	NIL	299361.5	N/A	NIL



Waste Type	Quantity this month	Cumulative Quantity-to-Date	Disposal / Dumping Grounds	Remarks
Chemical waste disposed, kg	NIL	8,200	N/A	NIL
Marine Sediment (Type 1 – Open Sea Disposal), m ³	NIL (Bulk Volume)	156909 (Bulk Volume)	Cheung Chau South	Dredging from TCBR1E / TCBR1W / TCBR2/ TCBR3 / TCBR4 / Maintenance dredging
Marine Sediment (Type 1 – Open Sea Disposal (Dedicate Sites) & Type 2 – Confined Marine Disposal), m ³	NIL (Bulk Volume)	322796 (Bulk Volume)	East of Sha Chau / South of the Brothers	Dredging from TCBR1E / TCBR1W / TCBR2/ TCBR3 / TCBR4 / Maintenance dredging
Marine Sediment (Type 3 – Special Treatment / Disposal contained in Geosynthetic Containers) m ³	NIL (Bulk Volume)	12640 (Bulk Volume)	East of Sha Chau / South of the Brothers	Dredging from TCBR1W / Maintenance dredging
Marine Sediment (Type 2 – Confined Marine Disposal), m³	NIL	9350 (Bulk Volume)	East of Sha Chau	Dredging from Eastern Breakwater of CBTS
Marine Sediment (Type 1 – Open Sea Disposal) , m3	NIL (Bulk Volume)	600 (Bulk Volume)	East Sha Chau / South of The Brothers	Dredging from Phase 3 Mooring Re-arrangement
Marine Sediment (Type 2– Confined Marine Disposal) , m3	NIL (Bulk Volume)	14,780 (Bulk Volume)	South of The Brothers	Dredging from Phase 3 Mooring Re-arrangement
Marine Sediment (Type 3 – Special Treatment / Disposal contained in Geosynehetic Containers), m3	NIL (Bulk Volume)	2,760 (Bulk Volume)	South of The Brothers	Dredging from Phase 3 Mooring Re-arrangement

5.4.6. There were no Type 1 Open Sea Disposal (Dedicate Sites) & Type 2 – Confined Marine Disposal disposed, and no Type 1 Open Sea Disposal disposed in this reporting month.

Contract no. HY/2009/19 -Central- WanChai Bypass Tunnel (North Point Section) and Island Eastern Corridor Link

5.4.7. No inert C&D waste and non-inert C&D waste disposed in this reporting month. Details of the waste flow table are summarized in *Table 5.22*.

Table 5.22 Details of Waste Disposal for Contract no. HY/2009/19

Waste Type	Quantity this month	Cumulative Quantity-to-Date	Disposal / Dumping Grounds
Inert C&D materials disposed, m³	NIL	355921.04	TM38
Inert C&D materials recycled, m³	NIL	59367	N/A
Non-inert C&D materials disposed, m ³	NIL	1068.6	N/A
Non-inert C&D materials recycled, kg	NIL	333.14	N/A
Chemical waste disposed, L	NIL	2.12	N/A
Marine Sediment (Type 1 – Open Sea Disposal), m³	NIL	162	South Cheung Chau
Marine Sediment (Type 2 – Confined Marine Disposal) , m³	NIL	681	East Sha Chau
Marine Sediment (Type 1 – Open Sea Disposal (Dedicate Sites) & Type 2 – Confined Marine Disposal) , m3	NIL	4976.00	

5.4.8. There was no marine sediment Type1- Open Sea Disposal and there was no Type 1 – Open Sea Disposal (Dedicate Sites) & Type 2 – Confined Marine Disposal generated were disposed in this reporting month.

<u>Contract no. HK/2012/08 –Wan Chai Development Phase II – Central- Wan Chai Bypass at Wan Chai West</u>

5.4.9. There was no Inert C&D waste and no non-inert C&D waste disposed in this reporting month.

Details of the waste flow table are summarized in *Table 5.23*.

Table 5.23 Details of Waste Disposal for Contract no. HK/2012/08

Waste Type	Quantity this month	Cumulative Quantity-to-Date	Disposal / Dumping Grounds
Inert C&D materials disposed, m ³	NIL	4131	TM38
Inert C&D materials recycled, m ³	NIL	NIL	N/A
Non-inert C&D materials disposed, m ³	NIL	315	N/A
Non-inert C&D materials recycled, kg	NIL	NIL	N/A
Chemical waste disposed, L	NIL	NIL	N/A
Marine Sediment (Type 1 – Open Sea Disposal), m ³	NIL (Bulk volume)	31759 (Bulk volume)	South of Cheung Chau

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Waste Type	Quantity this month	Cumulative Quantity-to-Date	Disposal / Dumping Grounds
Marine Sediment (Type 1 – Open Sea Disposal (Dedicate Sites) & Type 2 – Confined Marine Disposal) , m3	57 (Bulk volume)	108485 (Bulk volume)	South of The Brothers (from 27 Aug 2013 onwards)

Remarks: The details of waste disposal is updated and recorded in calendar month period.

5.4.10. There was Marine Sediment Type 1 – Open Sea Disposal (Delicate Sites) & Type 2 – Confined Marine Disposal disposed in this reporting month and there was no Marine Sediment Type 1 – Open Sea Disposal disposed in this reporting month.

Contract no. HY/2010/08 - Central - Wan Chai Bypass (CWB) - Tunnel (Slip Road 8)

5.4.11. Inert C&D waste was disposed in this reporting month and no non-inert C&D waste disposed in this reporting month. Details of the waste flow table are summarized in *Table 5.24*

Table 5.24 Details of Waste Disposal for Contract no. HY/2010/08

Waste Type	Quantity this month	Cumulative Quantity-to-Date	Disposal / Dumping Grounds
Inert C&D materials disposed, m³	25617.8	25617.8	TM38
	7144.1	7144.1	TKO137
Inert C&D materials recycled, m³	NIL	NIL	N/A
Non-inert C&D materials disposed, m ³	NIL	NIL	N/A
Non-inert C&D materials recycled, kg	NIL	NIL	N/A
Chemical waste disposed, L	NIL	NIL	N/A
Marine Sediment (Type 1 – Open Sea Disposal)	4142	62559.4	South Cheung Chau / Brothers Island *
Marine Sediment (Type 1 – Open Sea Disposal (Dedicate Sites) & Type 2 – Confined Marine disposal)	549.2	28309.2	Brothers Island
Marine Sediment (Type 3 – Special Treatment)	NIL	7780	Brothers Island

Remarks: Under the condition of EP/MD/15-169, dredged sediment required to dispose at South of the Brothers since 9 Feb 2015.

5.4.12. There were Type 1 – Open Sea Disposal and Type 1 – Open Sea Disposal (Dedicate Sites) & Type 2 – Confined Marine Disposal disposed in this reporting month, and no Type 3- Special Treatment disposed in this reporting month.



6. Compliance Audit

6.0.1. The Event Action Plan for construction noise, air quality and water quality are presented in *Appendix 6.1*.

6.1 Noise Monitoring

Contract no. HK/2009/01 - Wan Chai Development Phase II - Central -Wanchai Bypass at HKCEC

- 6.1.1 Two limit level exceedances were recorded at M1a- Harbour Road Sports Centre on 29 March 2016 and 12 April 2016 in this reporting month.
- 6.1.2 Operation of multiple air compressor at Ex- Wan Chai Swimming Pool (adjacent to Habour Road Sports Centre directly opposite to the monitoring station) under non WDII-CWB Contractor was observed as the major noise contribution during monitoring on 29 March 2016 while breaking works at Ex- Wan Chai Swimming Pool (adjacent to Habour Road Sports Centre directly opposite to the monitoring station) under non WDII-CWB Contractor as major noise contribution during monitoring on 12 April 2016. As such, the exceedances were considered as non-Project related.

Contract no. HK/2009/02 - Wan Chai Development Phase II - Central - Wan Chai Bypass at WanChai East

- 6.1.3 Two limit level exceedances were recorded at M1a- Harbour Road Sports Centre on 29 March 2016 and 12 April 2016 in this reporting month.
- 6.1.4 Operation of multiple air compressor at Ex- Wan Chai Swimming Pool (adjacent to Habour Road Sports Centre directly opposite to the monitoring station) under non WDII-CWB Contractor was observed as the major noise contribution during monitoring on 29 March 2016 while breaking works at Ex- Wan Chai Swimming Pool (adjacent to Habour Road Sports Centre directly opposite to the monitoring station) under non WDII-CWB Contractor as major noise contribution during monitoring on 12 April 2016. As such, the exceedances were considered as non-Project related.

<u>Contract no. HY/2009/15 - Central-Wanchai Bypass – Tunnel (Causeway Bay Typhoon Shelter Section)</u>

6.1.5 No exceedance was recorded in the reporting month.

Contract no. HY/2009/19 - Central - Wanchai Bypass Tunnel (North Point Section) and Island Eastern Corridor Link

- 6.1.6. Two limit level exceedances were recorded at M6 HK Baptist Church Henrietta Secondary School on 11 and 19 April 2016 in the reporting month.
- 6.1.7. Only welding work was conducted at Pier F8C during the time of measurement on 11 and 19 April 2016 and it was observed that traffic noise was a major noise source during monitoring on 11 and 19 April 2016. It is concluded that the exceedances were not due to project but to traffic noise nearby.

Contract no. HY/2010/08 - Central-Wanchai Bypass - Tunnel (Slip Raod 8 Section)

6.1.8. No exceedance was recorded in the reporting month.

6.2 Air Monitoring

<u>Contract no. HK/2009/01 - Wan Chai Development Phase II – Central –Wanchai Bypass at HKCEC</u>

- 6.2.1 One action level exceedance was recorded at monitoring station CMA5b on 14 April 2016 during 1hr TSP monitoring in the reporting month.
- 6.2.2 Only work activities within tunnel section and no construction activities at ground was undertaken on the monitoring date around Pedestrian Plaza under Contract HK/2009/01 and no particular observation regarding air quality impact was observed during sampling. In view of the above, the action level exceedance was considered to be non-project related and contributed by local ambient condition.

Contract no. HK/2009/02 – Wan Chai Development Phase II – Central – Wan Chai Bypass at Wan Chai East (CWB Tunnel)

6.2.3 No exceedance was recorded in the reporting month.

Contract no. HY/2009/15 - Central-Wanchai Bypass - Tunnel (Causeway Bay Typhoon Shelter Section)

6.2.4 No exceedance was recorded in the reporting month.

<u>Contract no. HY/2009/19 – Central – Wanchai Bypass Tunnel (North Point Section) and Island Eastern Corridor Link</u>

6.3.4. No exceedance was recorded in the reporting month.

Contract no. HK/2012/08 Wan Chai Development Phase II - Central-Wan Chai Bypass at Wan Chai West

- 6.3.5. One action level exceedance was recorded at monitoring station CMA5b on 14 April 2016 during 1hr TSP monitoring in the reporting month.
- 6.3.6. After investigation, formwork erection and internal transfer of excavated material were undertaken on the monitoring date at around Pedestrian Plaza under Contractor of HK/2012/08, dust suppression measure including haul road and excavated soil maintained in dampened condition were implemented and no particular observation regarding air quality impact was observed during sampling. In view of the above, the action level exceedance was considered to be non-project related and contributed by local ambient condition.

Contract no. HY/2010/08 - Central-Wanchai Bypass - Tunnel (Slip Raod 8 Section)

6.3.7. No exceedance was recorded in the reporting month.

6.3 Water Quality Monitoring

<u>Contract no. HK/2009/01 - Wan Chai Development Phase II – Central –Wanchai Bypass at HKCEC</u>

6.3.1 No exceedance was recorded in the reporting month.

Contract no. HK/2009/02 - Wan Chai Development Phase II – Central – Wan Chai Bypass at WanChai East

6.4 No exceedance was recorded in the reporting month.

<u>Contract no. HY/2009/15 - Central-Wanchai Bypass – Tunnel (Causeway Bay Typhoon Shelter Section)</u>

- 6.4.1 There was 1 limit level DO exceedances recorded at Ex-WPCWA SW on 11 April 2016 in the reporting month.
- 6.4.2 After checking with contractor, despite backfilling works was conducted at TPCWAW on 11 April 2016, contractor mitigation measures include the use of tarpaulin sheet between barge and land and provision of bunding for site runoff control was generally in place. Meanwhile, upstream discharge from nearby culvert was noted. In view of the above and no exceedance was recorded on the subsequent monitoring, the exceedance was considered not related to the Project works.

Contract no. HY/2009/19- Central- Wan Chai Bypass Tunnel (North Point Section) and Island Eastern Corridor Link

6.4.3 No exceedance was recorded in this reporting month.

Contract no. HK/2012/08- Wan Chai Development Phase II – Central- Wan Chai Bypass at Wan Chai West

- 6.4.4 There were 1 action level and 1 limit level turbidity exceedances recorded at WSD19 on 29 March 2016 and 20 April 2016 in this reporting month.
- 6.4.5 After checking with contractor, despite installation of concrete blocks was conducted near Zone D on 29 March 2016, contractor mitigation measures including the use of localized silt curtain was generally in place. The construction area was located at downstream of WSD19 monitoring station during the monitoring period. In view of the above and no exceedance was recorded on the subsequent monitoring, it was considered that the exceedance was not project related.
- 6.4.6 Despite trimming of rock mound profile was conducted near Zone D on 20 April 2016, contractor mitigation measures including the use of localized silt curtain was generally in place. The location of the construction area was located at downstream of WDS19 monitoring station during the monitoring period. In view of the above and no exceedance was recorded on the subsequent monitoring, it was considered that the exceedance was not project related.

Contract no. HY/2010/08 - Central - Wan Chai Bypass (CWB) - Tunnel (Slip Road 8)

6.4.7 No exceedance was recorded in this reporting month.

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- 6.5 Review of the Reasons for and the Implications of Non-compliance
- 6.5.1 There was no non-compliance from the site audits in the reporting period. The observations and recommendations made in each individual site audit session were presented in Section 8.
- 6.5.2 No non-compliances from monitoring was recorded in the reporting month.
- 6.6 Summary of action taken in the event of and follow-up on non-compliance
- 6.6.1 There was no particular action taken since no non-compliance was recorded from the site audit in the reporting period.

7. Cumulative Construction Impact due to the Concurrent Projects

- 7.0.1. According to Condition 3.4 of the EP-356/2009, this section addresses the relevant cumulative construction impact due to the concurrent activities of the current projects including the Central Reclamation Phase III, Central-Wanchai Bypass and Island Eastern Corridor Link projects.
- 7.0.2. According to the Final EM&A Report of Central Reclamation Phase III (CRIII) for Contract HK 12/02, the major construction activities were completed by end of January 2014 and no construction activities were undertaken thereafter and the water quality monitoring was completed in October 2011 and no Project-related exceedance was recorded for air and noise monitoring. It can be concluded that cumulative construction impact due to the concurrent activities of the current projects with the Central Reclamation Phase III (CRIII) was insignificant.
- 7.0.3. According to the construction programme of Central-Wanchai Bypass at Wanchai West at the Central Reclamation Phase III area include structural works for tunnel construction, road works and drainage works, removal of bulkhead wall and landscape establishment works were performed in April 2016 reporting month. As no project related exceedance were recorded during the reporting period, cumulative construction impact due to the concurrent activities of the current projects with the Central Reclamation Phase III (CRIII) was considered as insignificant.
- 7.0.4. According to the construction programme of Wan Chai Development Phase II, Central-Wan Chai Bypass and Island Eastern Corridor Link projects, the major construction activities under Wan Chai Development Phase II were tunnel works, D-wall construction at Wan Chai East and culvert construction, piling and ELS works at Wan Chai West. The major construction activities under Central-Wan Chai Bypass and Island Eastern Corridor Link Projects were bridge construction and road works at Central Interchange, backfilling works at Ex-PCWAW, ELS works and retaining wall construction at Victoria Park, ELS works and tunnel works at TS3; bridge construction, piling and tunnel works at North Point area in the reporting month. In addition, other non-Wan Chai Development Phase II, Central-Wan Chai Bypass and Island Eastern Corridor Link projects was observed undertaken at Wan Chai North area.
- 7.0.5. No significant air impact from construction activities was anticipated in the reporting month. Besides, no project related exceedance was recorded during the air and noise environmental monitoring events in the reporting month. Thus, it is evaluated that the cumulative construction impact from the concurrent projects including Central Reclamation Phase III (CRIII), Wan Chai Development Phase II (WDII), Central-WanChai Bypass (CWB), Island Eastern Corridor Link projects (IECL) was insignificant.



8. Environmental Site Audit

- 8.0.1. During this reporting month, weekly environmental site audits were conducted for Contracts no. HK/2009/01, HK/2009/02, HY/2009/15, HY/2009/19, HK/2012/08 and HY/2010/08. No non-conformance was identified during the site audits.
- 8.0.2. Five site inspections for Contract no. HK/2009/01 were conducted on 30 March 2016, 6, 13, 21, and 27 April 2016 in reporting month. Results of these inspections and outcomes are summarized in *Table 8.1.*

Table 8.1 Summary of Environmental Inspections for Contract no. HK/2009/01

Item	Date	Observations	Action taken by	Outcome
			Contractor	
160421_01	21 Apr	Wheel washing and	Vehicle control was	Completion as
	2016	vehicle control at Gate 1	implemented properly and	observed on 27
		shall be improved to a	no muddy trail was	April 2016
		controlled manner to avoid	observed on the public	
		muddy trail on public road.	road.	

8.0.3. Four site inspections for Contract no. HK/2009/02 were carried out on 31 March 2016, 7, 14, and 19 April 2016 in reporting month. Results of these inspections and outcomes are summarized in *Table 8.2*.

Table 8.2 Summary of Environmental Inspections for Contract no. HK/2009/02

Item	Date	Observations	Action taken by Contractor	Outcome
160407_01	7 Apr 2016	All oil containers in Portion 3&4 shall be placed in drip trays.	Drip trays were provided	Completion as observed on 14 April 2016
160414_01	2016	Muddy dispersion was observed at Culvert O, Contractor is required to immediately increase the capacity of the sedimentation tank installed in Portion 3&4 to increase the hydraulic retention time for a complete water treatment.		Completion as observed on 19 Apr 2016
160419_01	19 Apr 2016	•	•	Completion as observed on 28 Apr 2016

8.0.4. Five site inspections for Contract no. HY/2009/15 were carried out on 29 March 2016, 5, 12, 19 and 26 April 2016 in reporting month. The results of these inspections and outcomes are summarized in *Table 8.3*.



Table 8.3 Summary of Environmental Inspections for Contract no. HY/2009/15

Item	Date	Observations	Action taken by Contractor	Outcome
160405_1	5 Apr 2016	Tarpaulin shall be provide between barge and seawall to avoid drop off during material transportation process (EX-PCWA North)	Tarpaulin sheet was provided to material transportation process	Completion as observed on 12 April 2016
160412_2	12 Apr 2016	Dust suppression measures shall be provided to breaking works. (EX-PCWA Site Entrance)	No further breaking works was observed	Completion as observed on 19 April 2016
160412_3	12 Apr 2016	The soil material left on the top of the seawall block shall be cleared to avoid runoff impact. (Ex-PCWA)	Soil left on the top of seawall block was cleared	Completion as observed on 26 April 2016

- 8.0.5. Four site inspections for Contract no. HY/2009/19 were carried out on 30 March 2016, 6, 13 and 20 April 2016 in reporting month. There was no particular findings observed in this reporting month. Re
- 8.0.6. Five site inspections for Contract no. HK/2012/08 were carried out on 29 March 2016, 5, 12, 19 and 26 April 2016 in this reporting period. The results of these inspections and outcomes are summarized in *Table 8.5*

Table 8.5 Summary of Environmental Inspections for Contract no. HK/2012/08

Item	Date	Observations	Action taken by Contractor	Outcome
160329_01			removed at Zone	Completion as observed on 5 April 2016
160412_01		Drip tray shall be provided for oil container at Zone D	Oil container was removed at Zone D.	Completion as observed on 19 April 2016

8.0.7. Four site inspections for Contract no. HY/2010/08 were carried out on 30 March 2016, 8, 13 and 20 April 2016 in this reporting period. The results of these inspections and outcomes are summarized in *Table 8.6*

Table 8.6 Summary of Environmental Inspections for Contract no. HY/2010/08

Item	Date	Observations	Action taken by Contractor	Outcome
160330_1	30 Mar 2016	The temporary reclamation removal works shall be conducted according to the agreed method statement (removal of excavated material down to -4.5mpD prior to seawall block removal)and the deployment of impermeable barrier shall follow the method statement arrangement(TS3)	Impermeable barrier was provided to works area around excavated area	Completion as observed on 8 April 2016
160330_2	30 Mar 2016	The silt curtain shall be fully deployed to seabed(TS3)	The silt curtain was fully deployed to seabed	Completion as observed on 8 April 2016
160408_1	8 Apr 2016	Covering the stockpile stored on-site to avoid potential dust emission(Victoria Park)	Stockpile stored on-site was covered by impervious sheeting	Completion as observed on 13 April 2016
160408_2	8 Apr 2016	Clear the floating oil and scum around the intake location within the site area and check the integrity of the site screen installed (TS3)	Floating refuses and scum were cleared	Completion as observed on 13 April 2016
160408_3	8 Apr 2016	The silt curtain maintained around the derrick barge shall be maintained free of gap(TS3)	The gaps between silt curtain has been tighten	Completion as observed on 13 April 2016
160413_1	13 Apr 2016	Tarpaulin covering shall be provided for stockpile stored on site to avoid dust and runoff impact (Victoria Park)	Stockpile stored on-site was covered by impervious sheeting	Completion as observed on 20 April 2016
160413_2	13 Apr 2016	Clear the oil within the silt screen system and leaked oil on land as chemical waste (TS3)	Oil within the silt screen and leaked oil on land was cleared	Completion as observed on 20 April 2016
160413_3	13 Apr 2016	Rectify the damaged boundary embankment protection to prevent contaminated surface overflow (TS3)	The damaged section of embankment was repaired	Completion as observed on 20 April 2016

160413_4	13 Apr 2016	Impermeable barrier shall be deployed according to the method statement to enclose the work area carrying out excavation from -4.35mpD to -7mpD and ensure no gap between the silt curtain deployed and all silt curtain and silt screen shall be fully deployed to seabed level (TS3)\	Impermeable barrier was provided to the concerned works area and silt curtain was tighten and deploy to the seabed	Completion as observed on 20 April 2016
160413_5	13 Apr 2016	Review the adequacy of treatment capacity of the water treatment plant and suitable measure shall be provided to avoid potential water quality impact (TS3)	Water treatment plant was operated with adequate capacity and silt curtain was deploy around the discharge point	Completion as observed on 20 April 2016
160420_1	20 Apr 2016	Muddy seepage at the impermeable barrier was observed. The impermeable barrier deploy shall be tightened and to avoid gap at the end and silt curtain shall be provided during seawall removal (TS3)	Impermeable barrier was tighten and no further muddy seepage was observed	Completion as observed on 27 April 2016
160420_2	20 Apr 2016	Boundary bunding protection shall be provided along the entire section of the northern side of seawall and clear the mud deposit along the seawall to avoid runoff impact(TS3 North)	Boundary bunding was provided along the northern side of seawall	Completion as observed on 27 April 2016



9. Complaints, Notification of Summons and Prosecution

- 9.0.1. There was one environmental complaint received in this reporting month.
- 9.0.2. The public complaint regarding muddy water discharge referred by EPD was received by ET on 13 April 2016 (EPD Ref.: H05/RS/00008367-16 dated 13 April 2016). The complainant reported that muddy water was discharged from the construction work of Contract HK/2012/08 to the sea outside the Hong Kong Academy for Performing Arts on 13 April 2016 morning.

ET confirmed with the Resident Site Staff that internal transport of soil to the hopper barge for storage via landing barge was conducted by Contractor of HK/2012/08 during 0800 hours to 1000 hours on 13 April 2016 at the sea outside the concerned location and 3 nos. of dump trucks were deployed for the operation.

Protection measure including provision of sandbag bunding along the side of the landing barge was implemented by the Contractor of HK/2012/08.

According to the relevant site records provided by RSS, internal transport of soil to the hopper barge for storage via landing barge was conducted by Contractor of HK/2012/08 during 0800 hours to 1000 hours on 13 April 2016 at the sea outside the concerned location and 3 nos. of dump trucks were deployed for the operation. Protection measure including provision of sandbag bunding along the side of the landing barge was implemented by the Contractor of HK/2012/08. In addition, amber rainstorm warning signal was hoisted from 0630 hours to 1200 hours on 13 April 2016 and during the above time period, muddy water was observed from the upstream of culvert L outside the HK/2012/08 site.

Follow up inspection was conducted on 19 April 2016, protection measures including provision of sandbag bunding along the side of the landing barge was implemented and no mud or soil deposition was observed along the seawall and no discharge point was located within the temporary water channel connecting the Culvert L outfall location to the Victoria Harbour. In addition, piling works was observed at the north side of Zone A1 on 19 April 2016 and construction effluent collection from piling work via sedimentation tank to wastewater treatment facility was implemented and steel barrier was installed around the piling works area to mitigate against potential surface runoff related impact.

- 9.0.3. Nevertheless, in view of the public concern, the Contractor was reminded to maintain adequate perimeter embankment protection along the seawall boundary and maintain proper construction effluent collection system to avoid potential runoff related impact to nearby waters.
- 9.0.4. The details of cumulative complaint log and updated summary of complaints are presented in *Appendix 9.1*
- 9.0.5. Cumulative statistic on complaints and successful prosecutions are summarized in *Table 9.1* and *Table 9.2* respectively.



Table 9.1 Cumulative Statistics on Complaints

Reporting Period	No. of Complaints
Commencement works (Mar 2010) to February 2016	44
April 2016	1
Total	45

Table 9.2 Cumulative Statistics on Successful Prosecutions

Environmental Parameters	Cumulative No. Brought Forward	No. of Successful Prosecutions this month (Offence Date)	Cumulative No. Project-to-Date
Air	-	0	0
Noise	-	0	0
Water	-	0	0
Waste	-	0	0
Total	-	0	0



10. Conclusion

Lam Geotechnics Limited

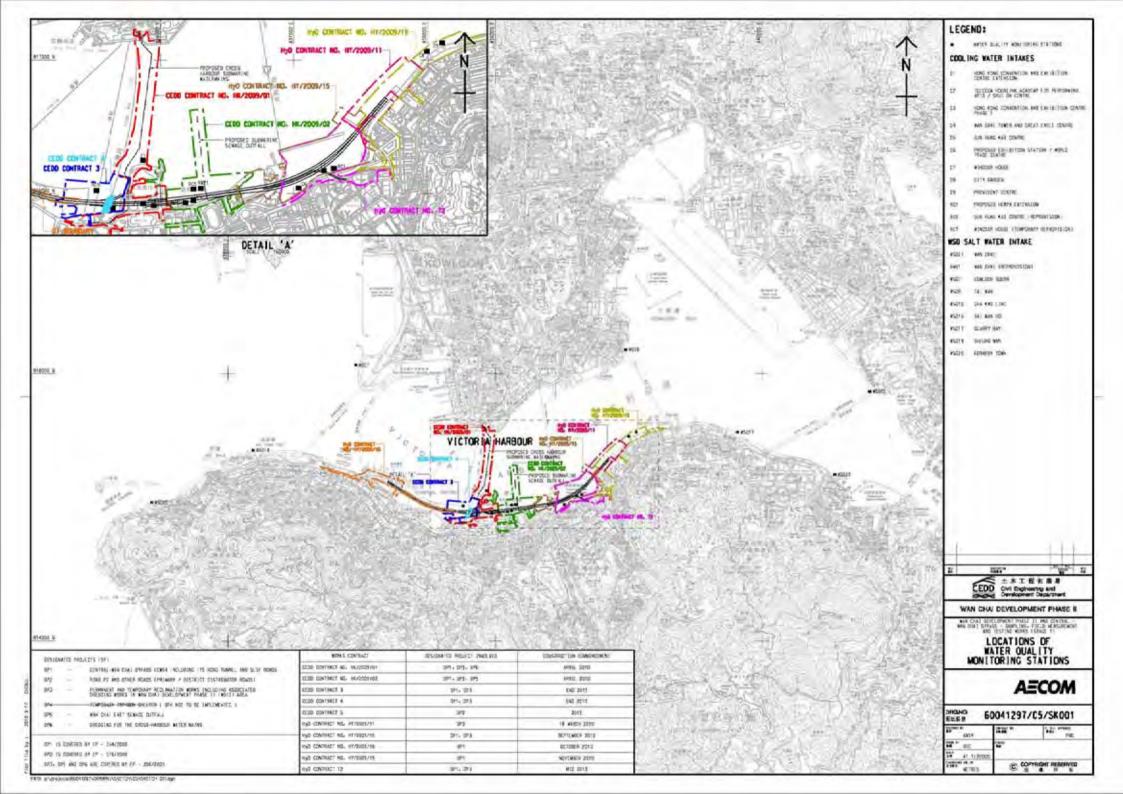
- 10.0.1. The EM&A programme was carried out in accordance with the EM&A Manual requirements, minor alterations to the programme proposed were made in response to changing circumstances.
- 10.0.2. The scheduled construction activities and the recommended mitigation measures for the coming month are listed in Table 10.1.

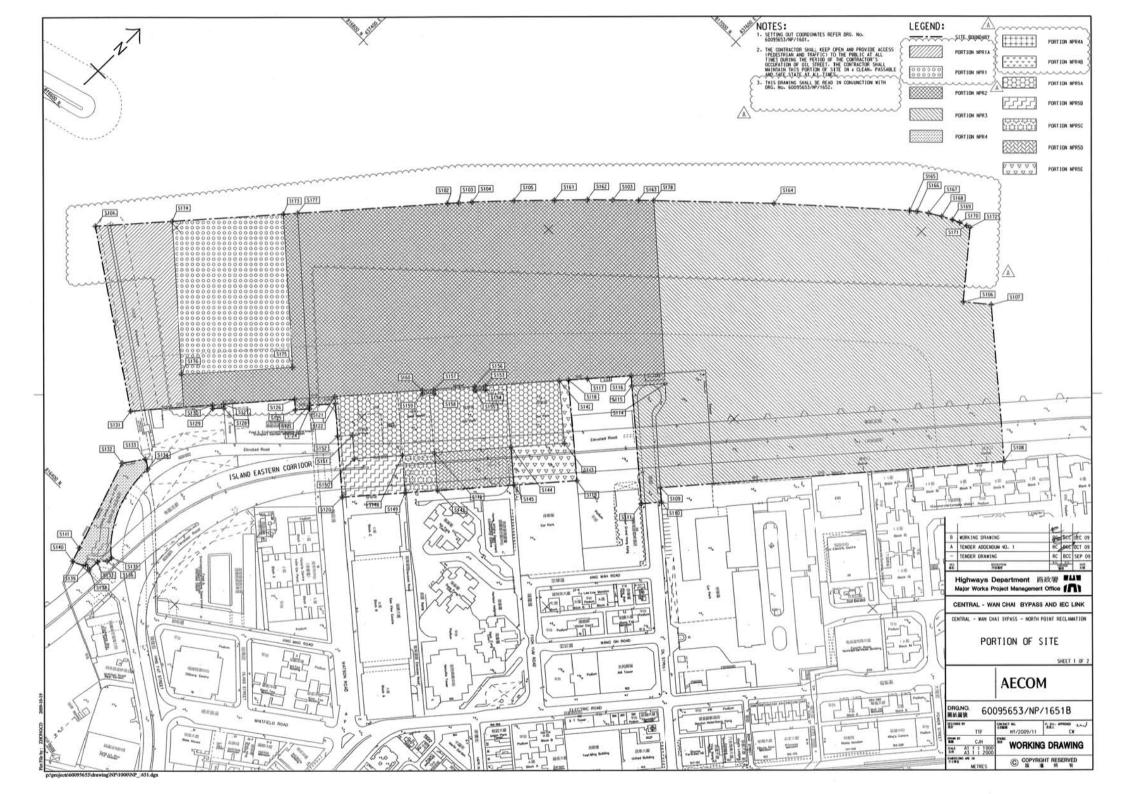
Table 10.1 Construction Activities and Recommended Mitigation Measures in Coming Reporting Month

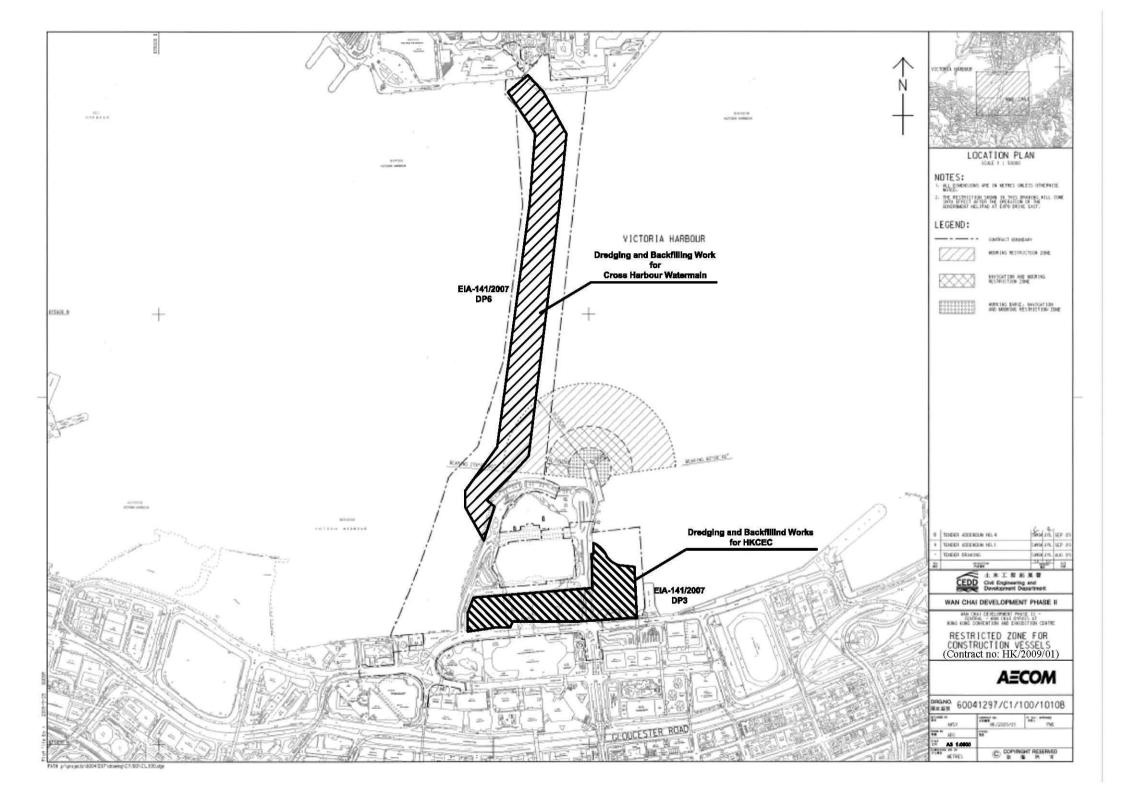
Contract No.	Key Construction Works	Recommended Mitigation Measures
HK/2009/01	• Nil	• Nil
HK/2009/02	 Inspection / trimming of rockfill profile in front of seawall Rock armour installation 	 Daily visual inspection of silt screen and silt curtain to ensure its operation properly. Implement silt curtain in accordance with the associated plans submitted to EPD.
HY/2009/15	Reinstatement of vertical seawall at TPCWAE	 Daily visual inspection of silt screen and silt curtain to ensure its operation properly Implement silt curtain in accordance with the associated plans submitted to EPD.
HY/2009/19	• Nil	• Nil
HK/2012/08	 Trimming of rock bedding Precast unit construction for Box 1 inside Dry dock Construction of culvert L Bay 8 Pre-bored H-pile installation for culvert L1/FRP-L Bay 12 and Bay 13 	 To conform the installation and setting as in the silt screen and silt curtain deployment plan To space out noisy equipment and position as far as possible from sensitive receiver. Daily visual inspection of silt screen and silt curtain to ensure its operation properly
HY/2010/08	Diversion pipe maintenanceDiaphragm Wall Removal Works	 To conform the installation and setting as in the silt screen and silt curtain deployment plan Daily visual inspection of silt screen and silt curtain to ensure its operation properly

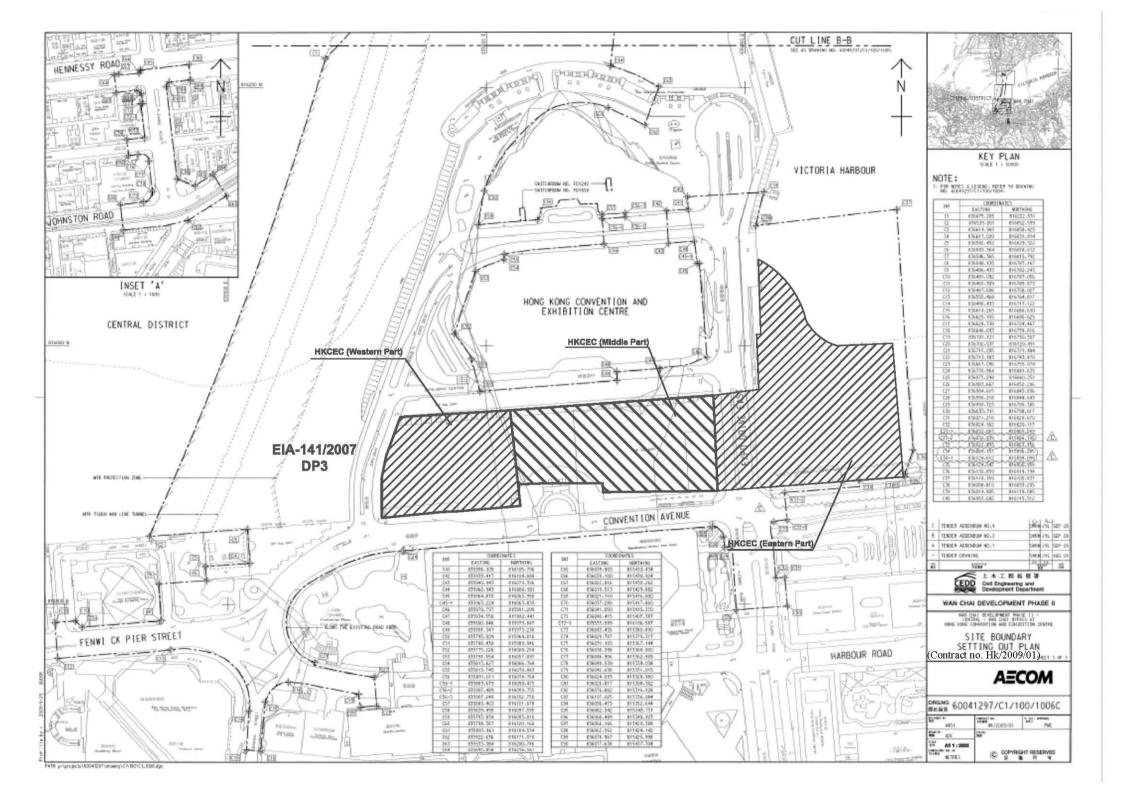
Figure 2.1

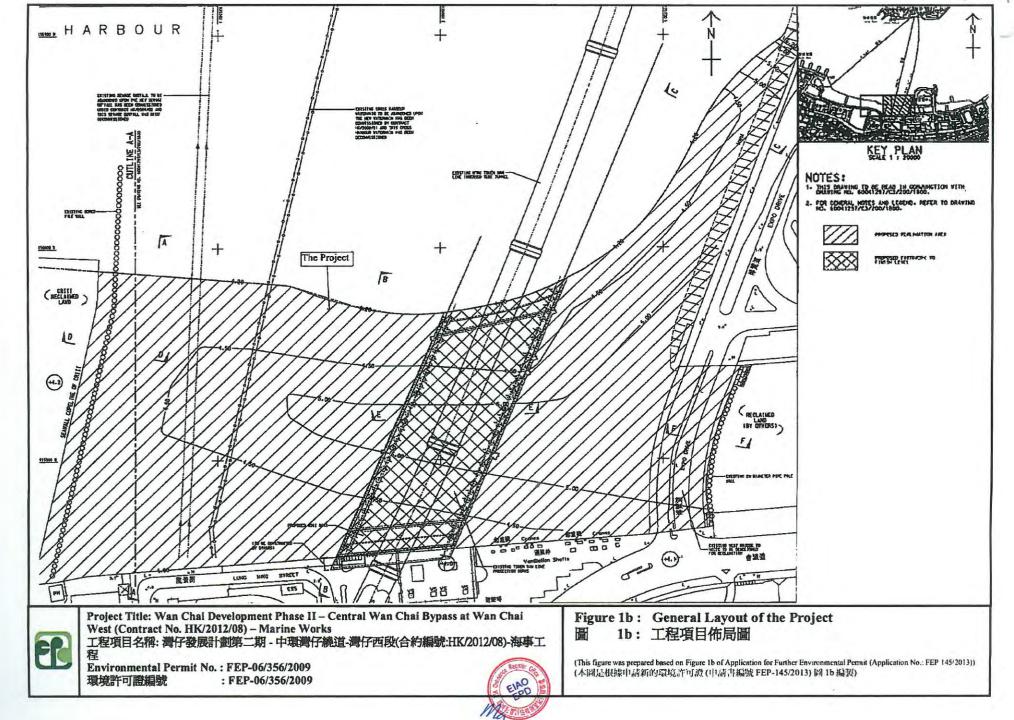
Project Layout

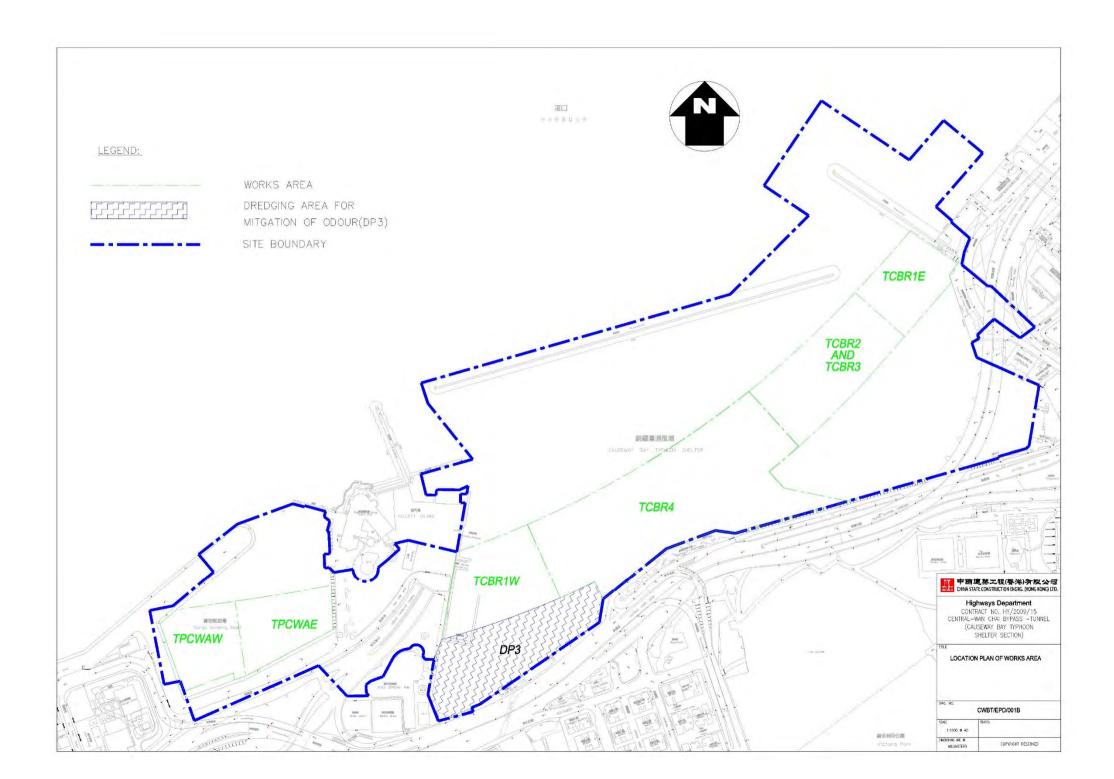


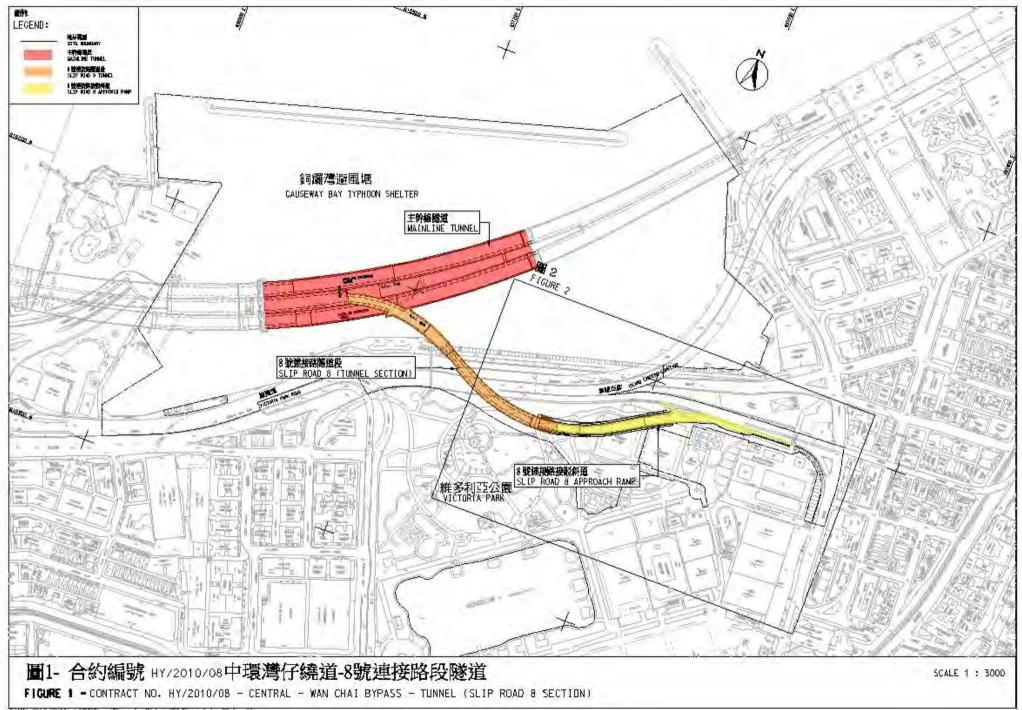


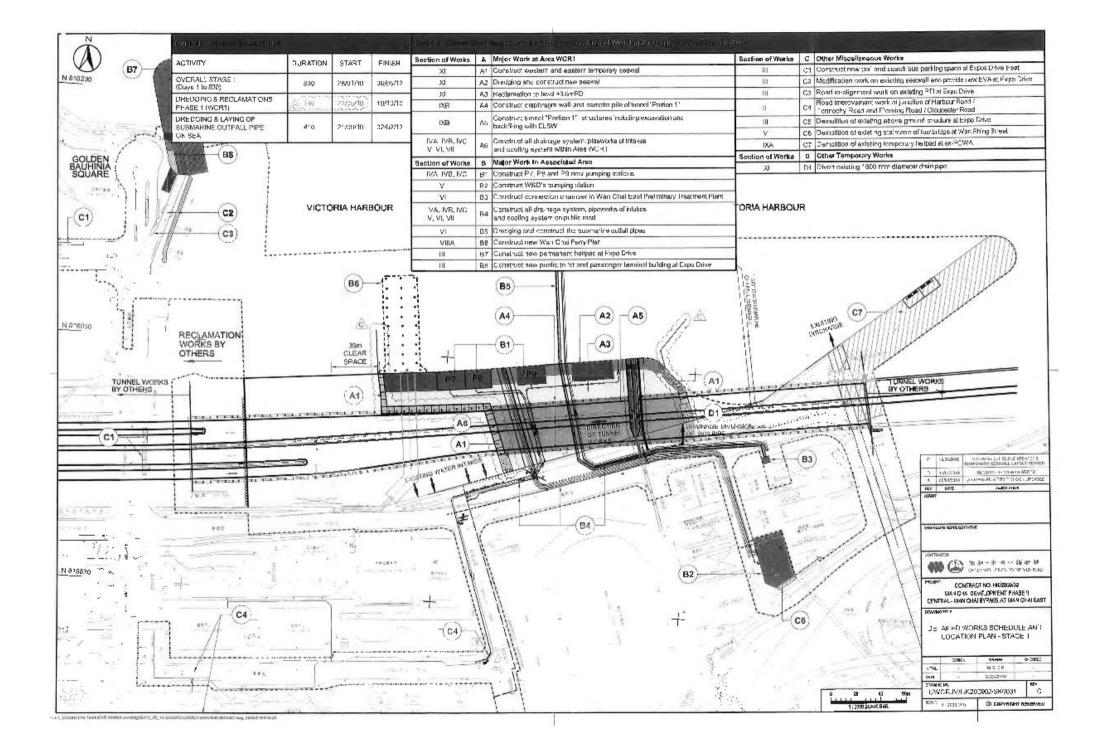












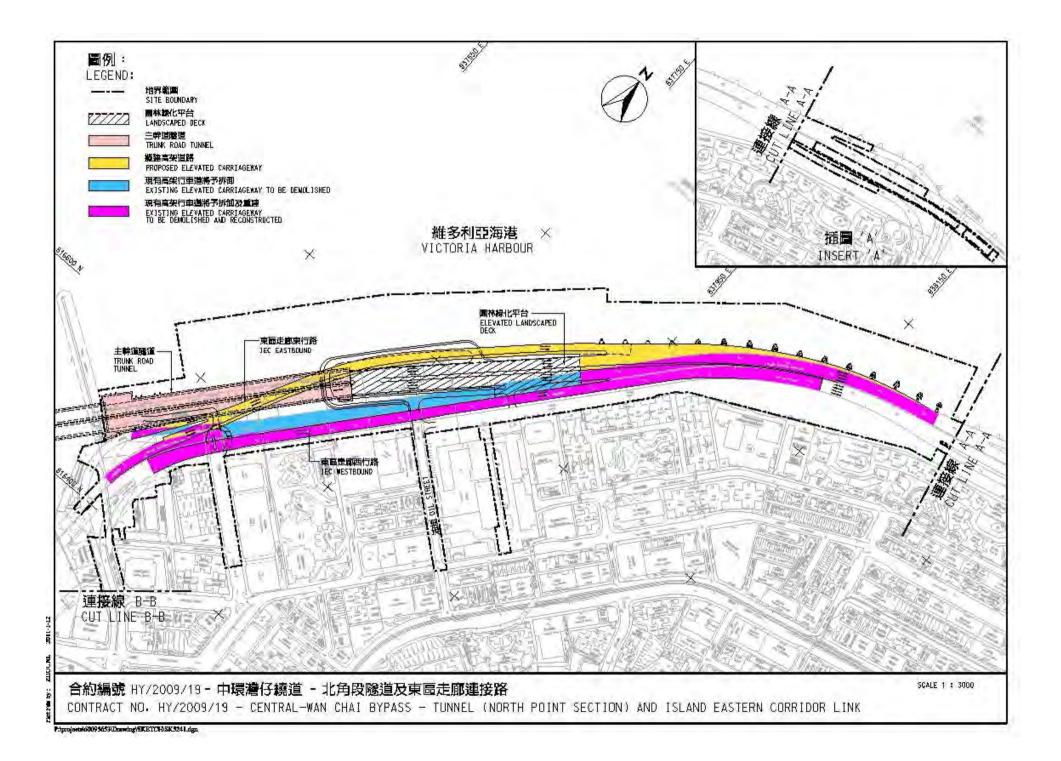


Figure 2.2

Project Organization Chart

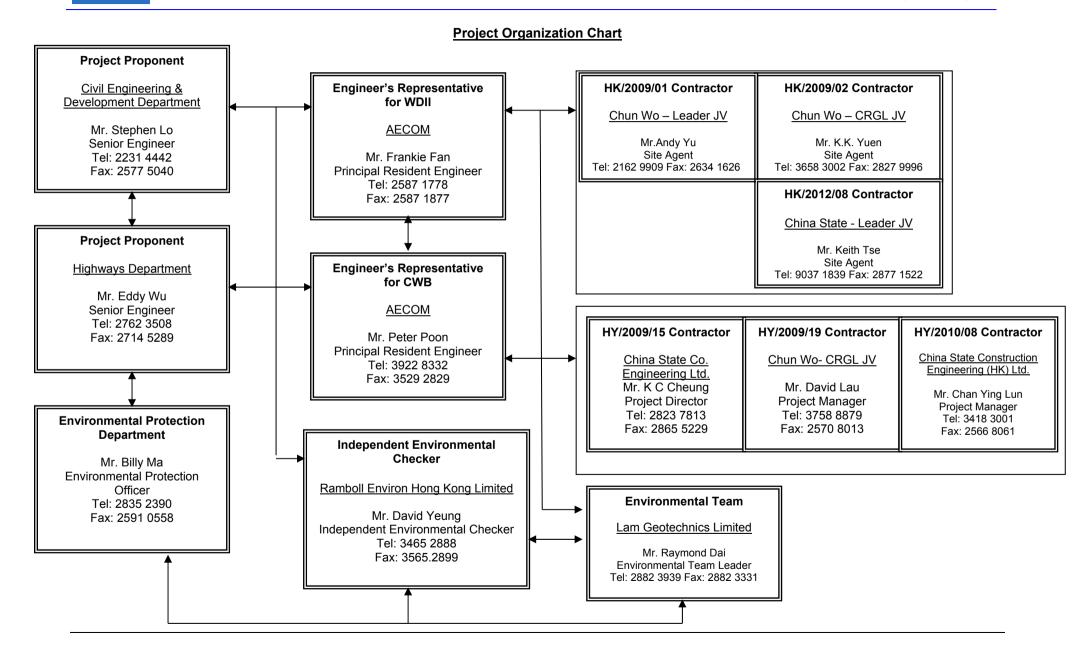
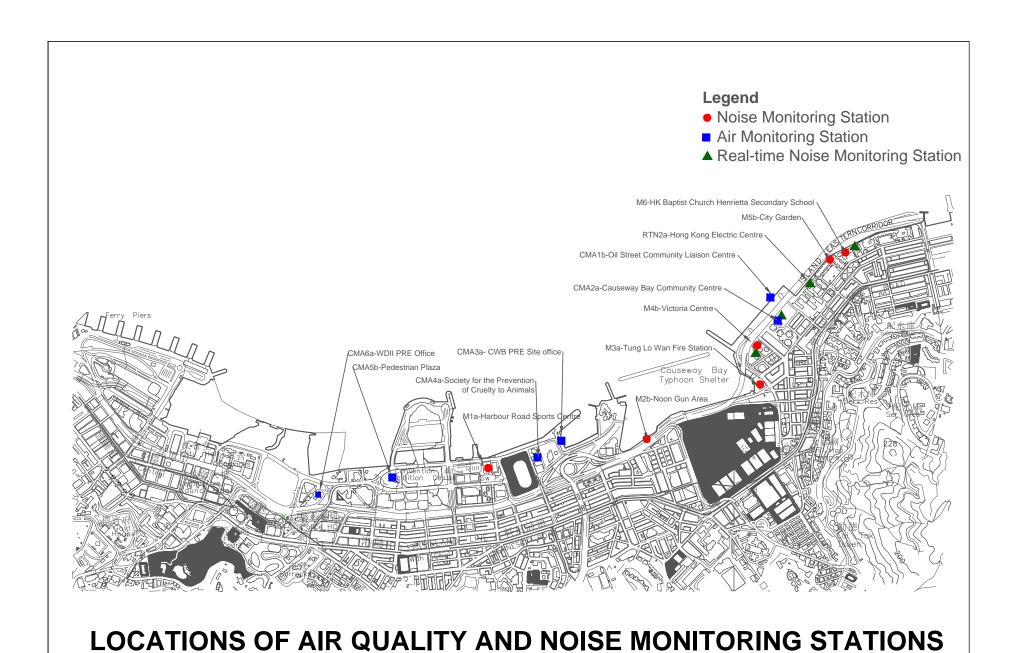
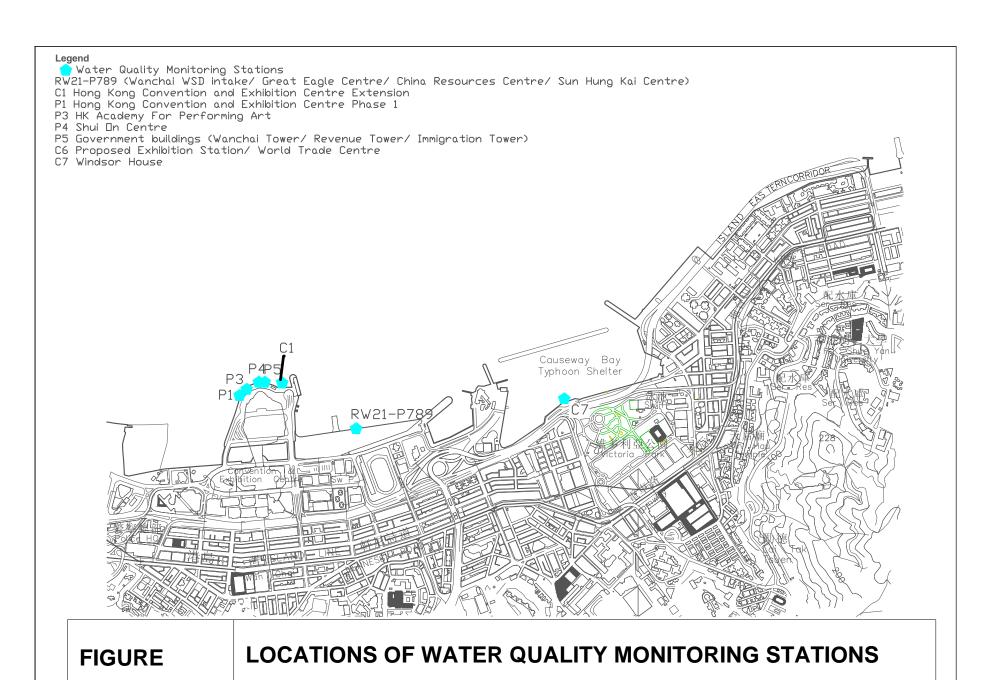
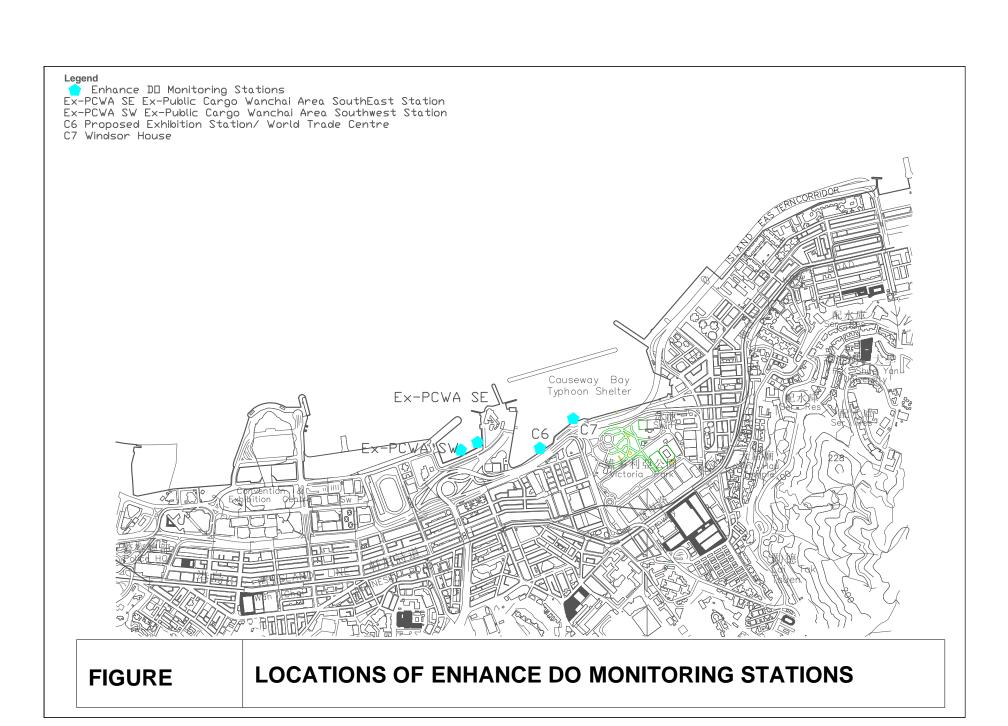


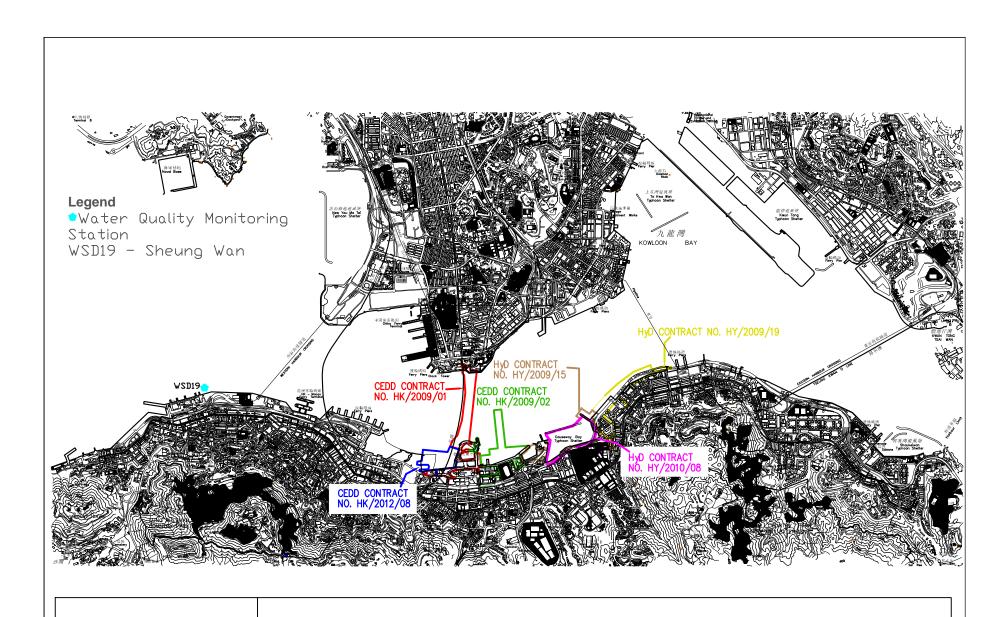
Figure 4.1

Locations of Monitoring Stations



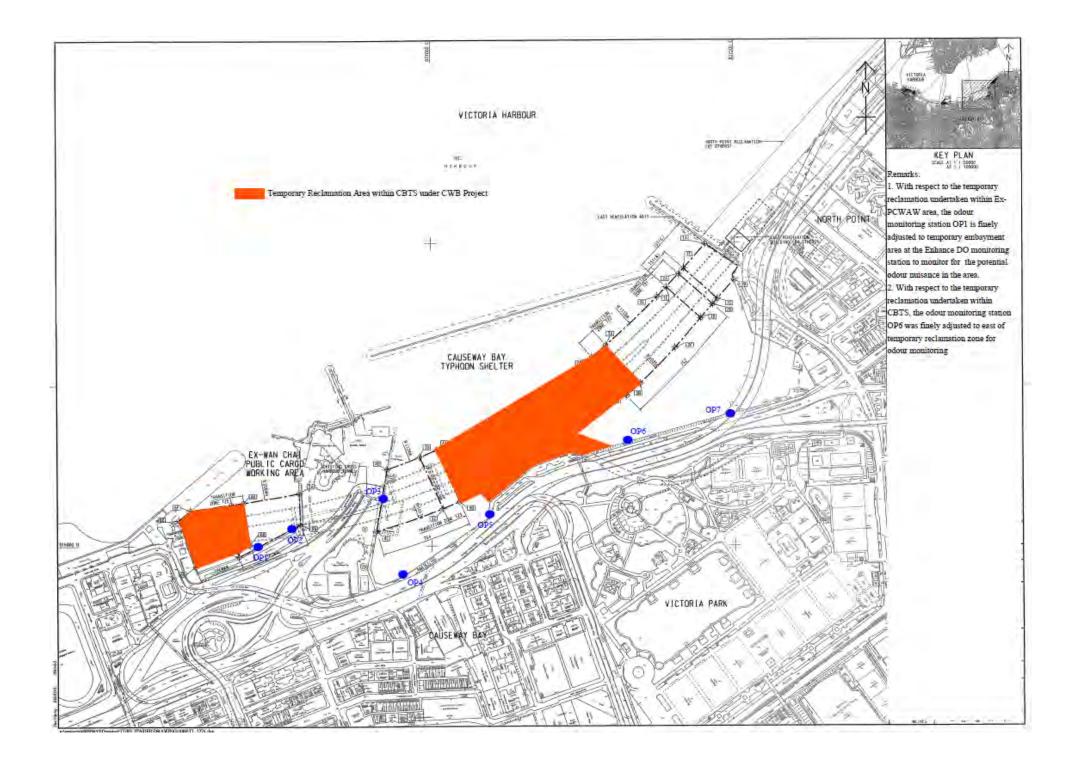






FIGURE

LOCATIONS OF WATER QUALITY MONITORING STATIONS



Appendix 3.1

Environmental Mitigation Implementation Schedule

Environmental Mitigation Implementation Schedule

Implementation Schedule for Air Quality Control

EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation	In		entati ges*	on	Relevant Legislation
			Agent	Des	C	0	Dec	and Guidelines
Constructio								
For the Who	9							·
S3.6.5	Four times a day watering of the work site with active operations.	Work site / during construction	Contractor		√			EIAO-TM
S3.8.1	Implementation of dust suppression measures stipulated in Air Pollution Control (Construction Dust) Regulation. The following mitigation measures, good site practices and a comprehensive dust monitoring and audit programme are recommended to minimise cumulative dust impacts. • Strictly limit the truck speed on site to below 10 km per hour and water spraying to keep the haul roads in wet condition; • Watering during excavation and material handling; • Provision of vehicle wheel and body washing facilities at the exit points of the site, combined with cleaning of public roads where necessary; and • Tarpaulin covering of all dusty vehicle loads transported to, from and between site locations.	Work site / during construction	Contractor		٧			

Appendix 3.1

Contract no. HK/2015/01

Wan Chai Development Phase II and Central-Wanchai Bypass

- Sampling, Field Measurement and Testing Works (Stage 3)

EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation	In		entati ges*	on	Relevant Legislation
22.7 1101	22 To Common To	Bootton, 1mmg	Agent	Des	C	0	Dec	and Guidelines
	I			ı			ı	
S3.5.6	For the dredging activities carried out in the vicinity of Police Officers' Club, the dredging operation will be restricted to only 1 small close grab dredger to minimise the odour impact during the dredging activity. The dredging rate should be reduced as much as practicable for the area in close proximity to the Police Officers' Club. The sediments contain highly contaminated mud which may be disposed with the use of geosynthetic containers (details shall refer to Section 6), grab dredger has to be used for filling up the geosynthetic containers on barges. the dredging rate for the removal of the sediments at the south-west corner of the typhoon shelter shall be slowed down or restricted to specific non-popular hours in weekdays when it is necessary during construction.	Corner of CBTS/implementation of harbour-front enhancement	CEDD <u>'</u>		V			EIAO-TM
S3.8.8	Carry out dredging at the corner of CBTS to remove the sediment and clean the slime attached on the CBTS shoreline seawall	Corner of CBTS & CBTS shoreline seawall/implementation of harbour-front enhancement	CEDD ²		1			EIAO-TM
Operation I	Phase		1					
For the Who	ole Project							

 $^{^{\}rm 1}$ CEDD will identify an implementation agent.

 $^{^{2}}$ CEDD will identify an implementation agent.

EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation	In	nplem Sta	entati ges*	on	Relevant Legislation
			Agent	Des	C	O	Dec	and Guidelines
S3.10.2	Monthly (from July to September) monitoring of odour impacts, for a period of 5 years, is proposed during the operational phase of the Project to ascertain the effectiveness of the Enhancement Package over time, and to monitor any ongoing odour impacts at the ASRs.	Planned ASRs (CBTS Breakwater)/First 5-year period of operation phase	CEDD ¹			√		EIAO-TM
For DP1 - 0	CWB (Within the Project Boundary)							
\$3.6.53 - \$3.6.54	The design parameters of the East and Central Ventilation Buildings as set in Tables 3.10 and 3.11	East and Central Ventilation Buildings / During operation of the Trunk Road	HyD			1		
S3.10.2	Air quality monitoring for the operation performance of the East Ventilation Building and associated East Vent Shaft will be conducted.	East Vent Shaft / During operation of the East Ventilation Building and associated East Vent Shaft	HyD			V		EIAO-TM

• Des - Design, C - Construction, O - Operation, and Dec - Decommissioning

Appendix 3.1

Contract no. HK/2015/01

Wan Chai Development Phase II and Central-Wanchai Bypass

- Sampling, Field Measurement and Testing Works (Stage 3)

Monthly EM&A Report

Table A13.2 Implementation Schedule for Noise Control

EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Stages*				Relevant Legislation and Guidelines	
			Agent	Des	C	0	Dec	and Guidennes
Construction	n Phase							
For the Who	ole Project							

Wan Chai Development Phase II and Central-Wanchai Bypass

- Sampling	Field Measurement an	d Tastino	Morke	anet2)	٤١
- Sampling,	rielu ivieasurement an	u resum	VVOIKS	olaye .	2)

EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation	In		entati ges*	on	Relevant Legislation				
			Agent	Des	C	o	Dec	and Guidelines				
S4.9.4	Good Site Practice:	Work Sites / During	Contractor		√			EIAO-TM, NCO				
	Only well-maintained plant shall be operated on-site and plant shall be serviced regularly during the construction program.	Construction										
	Silencers or mufflers on construction equipment shall be utilized and shall be properly maintained during the construction program.											
	Mobile plant, if any, shall be sited as far away from NSRs as possible.											
	Machines and plant (such as trucks) that may be in intermittent use shall be shut down between works periods or shall be throttled down to a minimum.											
	Plant known to emit noise strongly in one direction shall, wherever possible, be orientated so that the noise is directed away from the nearby NSRs.											
	Material stockpiles and other structures shall be effectively utilized, wherever practicable, in screening noise from on- site construction activities.											
For DP1 -	CWB (Within the Project Boundary)											

Appendix 3.1

Contract no. HK/2015/01

Wan Chai Development Phase II and Central-Wanchai Bypass

- Sampling, Field Measurement and Testing Works (Stage 3)

EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation	In	nplem Sta	entati ges*	on	Relevant Legislation
EIA Kei	Environmental Protection Weasures / Witigation Weasures	Location / Tilling	Agent	Des	С	0	Dec	and Guidelines
S4.8.5 S4.8.5	Use of quiet powered mechanical equipment, movable noise barrier and temporary noise barrier for the following tasks: Slip road 8 tunnel Construction of diaphragm wall and substructures of the tunnel approach ramp Excavation Construction of slabs Backfill Demolition and construction of substructures for the IEC Demolition works of existing piers and crossheads of the marine section of the existing IEC Use of PME grouping for the following tasks: At-grade road construction Substructure for IECL connection	Work Sites / During Construction	Contractor		√			EIAO-TM, NCO
For DP2 -	WDII Major Roads (Road P2)							
S4.8.3 – S4.8.4	Use of quiet powered mechanical equipment, movable noise barrier and temporary noise barrier for the following tasks: Temporary road diversion Resurfacing At-grade roadwork	Work Sites / During Construction	Contractor		√			EIAO-TM, NCO
For DP3 -	Reclamation Works							
S4.8.3 – S4.8.4	Use of quiet powered mechanical equipment for the following task: • Filling behind seawall • Seawall construction	Work Sites / During Construction	Contractor		V			EIAO-TM, NCO

Monthly EM&A Report

EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation	Ir	nplem Sta	entati ges*	on	Relevant Legislation
22.7.10.	Ziviromionia 110000000 izanganon izanganon	200mion, 1mmg	Agent	Des	C	О	Dec	and Guidelines
For DP5 –	Wan Chai East Sewage Outfall							
S4.8.3 – S4.8.4	Use of quiet powered mechanical equipment for the following tasks: • Submarine pipelines (marine section)	Work Sites / During Construction	Contractor		√			EIAO-TM, NCO
	Use of quiet powered mechanical equipment and movable noise barrier for the following tasks: Installation of a new pipeline (land section)							
For DP6 -	Cross-Harbour Water Mains from Wan Chai to Tsim Sha Tsui							
S4.8.3 – S4.8.4	Use of quiet powered mechanical equipment for the following tasks: • Submarine pipelines (marine section) •	Work Sites / During Construction	Contractor					EIAO-TM, NCO

Appendix 3.1

Contract no. HK/2015/01

Wan Chai Development Phase II and Central-Wanchai Bypass

- Sampling, Field Measurement and Testing Works (Stage 3)

EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation	In	ıplem Staş	entati ges*	on	Relevant Legislation
	Ü	0	Agent	Des	C	O	Dec	and Guidelines
0 " "								
Operation I								
For DP1 - 0	CWB (Within the Project Boundary)							

Monthly EM&A Report

- Sampling, Field Measurement and Testing Works (Stage 3)

EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation	In	nplem Sta	entati ges*	on	Relevant Legislation
		g	Agent	Des	C	O	Dec	and Guidelines
S4.8.14 – S4.8.18	For Existing NSRs about 235m length of noise semi-enclosure with transparent panel covering the westbound slip road from the IEC about 230m length of noise semi-enclosure with transparent panel covering the main carriageways (eastbound and westbound) of the CWB and IEC about 135m length of 5.5m high cantilevered noise barrier with 3m cantilever inclined at 45° with transparent panel on the eastbound slip road to the IEC about 95m length of 5.5m high cantilevered noise barrier with 1m cantilever inclined at 45° with transparent panel on the eastbound slip road to the IEC about 350m length of 3.5m high vertical noise barrier with transparent panel on the eastbound slip road to the IEC low noise road surfacing for the trunk road (except tunnel section and beneath the landscaped deck at the eastern portal area) with speed limit of 70 km/hour For Future/Planned NSRs	Near North Point / Before commencement of operation of road project In between the Electric	HyD	Jes V	√# √#	√ √	Dec	EIAO-TM
	about 265m length of noise semi-enclosure with transparent panel covering the westbound slip road from the IEC	Centre (next to City Garden) and CDA(1) site / Before occupation of Planned NSRs in CDA and CDA(1) sites.						

Appendix 3.1

Contract no. HK/2015/01

Wan Chai Development Phase II and Central-Wanchai Bypass

- Sampling, Field Measurement and Testing Works (Stage 3)

EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation	In	Implementa Stages*		on	Relevant Legislation
			Agent	Des	C	0	Dec	and Guidelines
	• The openable windows of the temple, if any, should be	Near Causeway Bay Fire	Project	1				
	orientated so as to avoid direct line of sight to the existing	Station / During detailed	Proponent for					
	Victoria Park Road as far as practicable.	design of the re-	the					
		provisioned Tin Hau	re-provisioned					
		Temple	Tin Hau Temple					

^{*} Des - Design, C - Construction, O - Operation, and Dec - Decommissioning

[#] Only the steel frame for this section of noise semi-enclosure would be erected in advance during the construction of the westbound slip road.

Table A13.3 Implementation Schedule for Water Quality Control

EIA Ref	Environmental Protection Measures / Mitigation Measures	Location /	Implementation	In		entati ges*	on	Relevant Legislation
22.2.202	Zininomina 1 vectori incustros, iningarion incustros	Timing	Agent	Des	C	0	Dec	and Guidelines
Construction	on Phase							
For DP3 Boundary)	Reclamation Works, DP5 (Wan Chai East Sewage Outfall), DP6 (Cross-Harbo	our Water Mains	from Wan Chai to T	Tsim Sh	a Tsu	i), DP	1 – CW	B (within the Project
\$5.8	A phased reclamation approach is planned for the WDII. Containment of fill within each of the reclamation phases by seawalls is proposed, with the seawall constructed first (above high water mark) with filling carried out behind the completed seawalls. Any gaps that may need to be provided for marine access will be shielded by silt curtains to control sediment plume dispersion away from the site. Filling for seawall construction should be carried out behind the silt curtain	Work site / During the construction period	Contractor		√			EIAO-TM, WPCO
S5.8	Dredging shall be carried out by closed grab dredger for the following works: Seawall construction in all the reclamation areas; Construction of the CWB Tunnel Construction of the proposed WSD water mains; and Construction of the proposed Wan Chai East sewage outfall pipelines.	Work site / During the construction period	Contractor		V			EIAO-TM, WPCO
S5.8, Figure 5.3	Dredging for the Wan Chai East sewage outfall pipelines shall not be carried out concurrently with the following activities: Dredging along the proposed cross-harbour water mains; Dredging along the seawall in the Wan Chai Reclamation (WCR) zone (area between HKCEC Extension and PCWA).	Work site / During the construction period	Contractor		1			EIAO-TM, WPCO

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- Sampling, Field Measurement and Testing Works (Stage 3)

EIA Ref	Environmental Protection Measures / Mitigation Measures		Location /	Implementation	In	nplem Sta	entati ges*	on	Relevant Legislation and Guidelines				
			_			Timing	Agent	Des	C	О	Dec	and Guidelines	
\$5.8		ind the temporary red I not be fully enclosed		s within the	Causeway Bay	Work site / During the construction period	Contractor		٧			EIAO-TM, WPCO	
S5.8	As a mitigation measure, to avoid the accumulation of water borne pollutants within the temporary embayment between CRIII and HKCEC1, an impermeable barrier, suspended from a floating boom on the water surface and extending down to the seabed, will be erected by the contractor before the HKCEC1 commences. The barrier will channel the stormwater discharge flows from Culvert L to the outside of the embayment. The contractor will maintain this barrier until the reclamation works in HKCEC2W are carried out and the new Culvert L extension is constructed.			Work site / During the construction period	Contractor		1			EIAO-TM, WPCO			
S5.8, Figure 5.3	than the maximum	ates in each of the m production rates state hout considering the	ed in the	table below.		Work site / During the construction period	Contractor		√			EIAO-TM, WPCO	
	Reclama	ation Area	Maximum Dredging Rate m³ per hour (for 16 hrs per day) (for 16 hrs per day) Maximum Dredging Rate (m³ per week) per day)										
	Dredging along seawal												
	North Point Shoreline Z Causeway Bay Shoreline Zone	one (NPR) TBW TCBR	6,000 1,500 6,000	375 94 375	42,000 10,500 42,000								
	PCWA Zone	•	5,000	313	35,000								

EIA Ref	Environmental Protection Measures / M	litication Measures		Location /	Implementation	In	plem Sta	entati ges*	on	Relevant Legislation
22.7.40.		inguion nicusures		Timing	Agent	Des	C	0	Dec	and Guidelines
	Wan Chai Shoreline Zone (WCR) HKCEC Shoreline Zone HKCEC Stage 1 & 3 (HKCEC) HKCEC Stage 2 Cross Harbour Water Mains Wan Chai East Submarine Sewage Pipeline Note: 1,500 m³ per day shall be applie	6,000 375 1,500 94 6,000 375 1,500 94 1,500 94 2d for construction of	42,000 10,500 42,000 10,500 10,500 f the western							
S5.8, Figure 5.3	seawall of WCR1. Dredging along the seawall at WCR1 1,500m ³ per day for construction of the proximity of the WSD intake), followed b western seawall (above high water mark much as possible from further dredging at	western seawall (which y partial seawall const) to protect the adjace	ch is in close truction at the	Work site / During the construction period	Contractor		√			EIAO-TM, WPCO
S5.8, Figure 5.3	For dredging within the Causeway Bay partially constructed to protect the nea dredging activities. For example, at To seawalls shall be constructed first (abo seawater intakes at the inner water would the remaining dredging activities along the	rby seawater intakes CBR1W, the southerr we high water mark be protected from the	from further and eastern) so that the	Work site / During the construction period	Contractor		V			EIAO-TM, WPCO
S5.8, Figure 5.3	Silt curtains shall be deployed around seawall dredging and seawall trench filli TCBR and NP.			Work site / During the construction period	Contractor		V			EIAO-TM, WPCO
S5.8, Figure 5.3	2009 with concurrent dredging activities at Cooling water		n Ho, Quarry South	Work site / During the construction period	Contractor		V			EIAO-TM, WPCO

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EIA Ref	Environmental Protection	Environmental Protection Measures / Mitigation Measures	Location /	Implementation	In		entati ges*	on	Relevant Legislation
			Timing	Agent	Des	C	0	Dec	and Guidelines
	TBW, NP and Water Mains Zone Scenario 2B in late 2009/2010 with concurrent dredging activities at Sewage Pipelines Zone and TCBR.	Convention and Exhibition Centre Phase I, Telecom House / HK Academy for Performing Arts / Shun On Centre, Wan Chai Tower / Revenue Tower / Immigration Tower and Sun Hung Kai Centre WSD saltwater intakes at Sheung Wan, Wan Chai Cooling water intakes for Queensway Government Offices, Excelsior Hotel, World Trade Centre and Windsor House.							
	Scenario 2C in 2011 with concurrent dredging activities at HKCEC and TCBR.	WSD saltwater intakes at Sheung Wan and Reprovisioned WSD Wan Chai saltwater intake. Cooling water intakes for MTR South, Excelsior Hotel & World Trade Centre and reprovisioned Windsor House.							
S5.8	Other mitigation measures include: • mechanical grabs, if used, shall be designed and maintained to avoid spillage and sealed tightly while being lifted. For dredging of any contaminated mud, closed watertight grabs must be used; • all vessels shall be sized so that adequate clearance is maintained between vessels and the seabed in all tide conditions, to ensure that undue	Work site / During the construction period	Contractor		√			ProPECC PN 1/94; WPCO (TM-DSS)	
	propeller wash; • all hopper barges and	rated by turbulence from vessel movement or dredgers shall be fitted with tight fitting seals to o prevent leakage of material;							
	 construction activities 	shall not cause foam, oil, grease, scum, litter or tter to be present on the water within the site or							
	dredged material into the	noppers shall be controlled to prevent splashing of ne surrounding water. Barges or hoppers shall not t will cause the overflow of materials or polluted transportation; and							

Wan Chai Development Phase II and Central-Wanchai Bypass

- Sampling, Field Measurement and Testing Works (Stage 3)

EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	In		entati ges*	Relevant Legislation	
	, , , , , , , , , , , , , , , , , , ,	Timing	Agent	Des	C	o	Dec	and Guidelines
	before commencement of the reclamation works, the holder of Environmental Permit has to submit plans showing the phased construction of the reclamation, design and operation of the silt curtain.							
S5.8	Silt screens are recommended to be deployed at the seawater intakes during the reclamation works period. Installation of silt screens at the seawater intake points may cause a potential for accumulation and trapping of pollutants, floating debris and refuse behind the silt screens and may lead to potential water quality deterioration at the seawater intake points. Major sources of pollutants and floating refuse include the runoff and storm water discharges from the nearby coastal areas. As a mitigation measure to avoid the pollutant and refuse entrapment problems and to ensure that the impact monitoring results are representative, regular maintenance of the silt screens and refuse collection shall be performed at the monitoring stations at regular intervals on a daily basis. The Contractor shall be responsible for keeping the water behind the silt screen free from floating rubbish and debris during the impact monitoring period.	Work site / During the construction period	Contractor		V			EIAO-TM, WPCO

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EIA Ref	Environmental Protection Measures / Mitigation Measures	Location /	Implementation	Implementation Stages*				Relevant Legislation
		Timing	Agent	Des	C	О	Dec	and Guidelines
\$5.8	Dredging of contaminated mud is recommended as a mitigation measures for control of operational odour impact from the Causeway Bay typhoon shelter. In recognition of the potential impacts caused by dredging activities close to the seawater intakes, only I small close grab dredger shall be operated within the typhoon shelter (for the dredging to mitigate odour impact) at any time to minimize the potential impact. Double silt curtains shall be deployed to fully enclose the closed grab dredger during the dredging operation. In addition, an impermeable barrier, suspended from a floating boom on the water surface and extended down to the seabed, shall be erected to isolate the adjacent intakes as much as possible from dredging activities. For example, if dredging is to be carried out at the southwest corner of the typhoon shelter, physical barriers shall be erected to west of the cooling water intake for Excelsior Hotel so that the intake would be shielded from most of the SS generated from the dredging operation to the west of the intake. For area in close proximity of the cooling water intake point, the dredging rate shall be reduced as much as practicable. Site audit and water quality monitoring shall be carried out at the seawater intakes during the dredging operations. Daily monitoring of SS at the cooling water intake shall be carried out, and 24 hour monitoring of turbidity at the intakes shall be implemented during the dredging activities. If the monitoring results indicate that the dredging operation has caused significant changes in water quality conditions at the seawater intakes, appropriate actions shall be taken to stop the dredging and mitigation measures such as slowing down the dredging rate shall be implemented.	Causeway Bay typhoon shelter/Imple mentation of harbour-front enhancement.	CEDD <u>3</u>		1			WPCO

EIA Ref	Er	Environmental Protection Measures / Mitigation Measures	Location /	Implementation	Implementation Stages*			on	Relevant Legislation
			Timing	Agent	Des	C	О	Dec	and Guidelines
For the Wh	ole I	Project							
S5.8	•	Construction Runoff and Drainage	• Work site	Contractor		√			ProPECC PN 1/94;
	•	use of sediment traps, wheel washing facilities for vehicles leaving the site, and adequate maintenance of drainage systems to prevent flooding and overflow;	/ During the constructi on period						WPCO (TM-DSS)
	•	Permanent drainage channels shall incorporate sediment basins or traps and baffles to enhance deposition rates. The design of efficient silt removal facilities shall be based on the guidelines in Appendix A1 of ProPECC PN 1/94;							
	•	a sediment tank constructed from pre-formed individual cells of approximately 6 - 8 m3 capacity can be used for settling ground water prior to disposal;							
	•	oil interceptors shall be provided in the drainage system for the tunnels and regularly cleaned to prevent the release of oils and grease into the storm water drainage system after accidental spillages. The interceptor shall have a bypass to prevent flushing during periods of heavy rain;							
	•	precautions and actions to be taken when a rainstorm is imminent or forecast, and during or after rainstorms. Particular attention shall be paid to the control of any silty surface runoff during storm events;							
	•	on-site drainage system shall be installed prior to the commencement of other construction activities. Sediment traps shall be installed in order to minimise the sediment loading of the effluent prior to discharge;							
	•	All temporary and permanent drainage pipes and culverts provided to facilitate runoff discharge shall be adequately designed for the controlled release of storm flows. All sediment control measures shall be regularly inspected and maintained to ensure proper and efficient operation at all times and particularly following rain storms. The temporarily diverted drainage shall be reinstated to its original condition when the construction work is finished or the temporary diversion is no longer							

 $^{^3}$ CEDD will identify an implementation agent.

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- Sampling, Field Measurement and Testing Works (Stage 3)

EIA Ref	Environmental Protection Measures / Mitigation Measures	Location /	Implementation	Implementation Stages*				Relevant Legislation
		Timing	Agent	Des	C	o	Dec	and Guidelines
	required.							
	All fuel tanks and store areas shall be provided with locks and be sited on sealed areas, within bunds of a capacity equal to 110% of the storage capacity.							
	Minimum distances of 100 m shall be maintained between the storm water discharges and the existing or planned WSD flushing water intakes during construction phase.							
S5.8	Sewage from Construction Work Force Construction work force sewage discharges on site shall be connected to the existing trunk sewer or sewage treatment facilities. The construction sewage shall be handled by portable chemical toilets prior to the commission of the on-site sewer system. Appropriate numbers of portable toilets shall be provided by a licensed contractor to serve the large number of construction workers over the construction site. The Contractor shall also be responsible for waste disposal and maintenance practices.	Work site / During the construction period	Contractor		V			ProPECC PN 1/94; WPCO (TM-DSS)
S5.8	Floating Debris and Refuse Collection and removal of floating refuse shall be performed at regular intervals on a daily basis. The contractor shall be responsible for keeping the water within the site boundary and the neighbouring water free from rubbish.	Work site and adjacent water / During the construction period.	Contractor		V			WPCO

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EIA Ref	Environmental Protection Measures / Mitigation Measures	Location /	Implementation	In		entati ges*	on	Relevant Legislation
		Timing	Agent	Des	C	o	Dec	and Guidelines
\$5.8	Storm Water Discharges Minimum distances of 100 m shall be maintained between the existing or planned stormwater discharges and the existing or planned WSD flushing water intakes.	Work site and adjacent water / During the design and construction period.	Contractor	1	√			WPCO
Operation 1	Phase							1
	(within the Project Boundary)							
S5.8	For the operation of CWB, a surface water drainage system would be provided to collect road runoff. The following operation stage mitigation measures are recommended to ensure road runoff would comply with the TM under the WPCO: The drainage from tunnel sections shall be directed through petrol interceptors to remove oil and grease before being discharged to the nearby foul water manholes.	CWB/During design and operational period	HyD/TD ³	V		√		WPCO
	Petrol interceptors shall be regularly cleaned and maintained in good working condition.							
	Oily contents of the petrol interceptors shall be properly handled and disposed of, in compliance with the requirements of the Waste Disposal Ordinance.							
	Sewage arising from ancillary facilities of CWB (for examples, car park,							

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EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	In		entatio	on	Relevant Legislation
				Des	C	o	Dec	and Guidelines
	control room, ventilation and administration buildings and tunnel portals) shall be connected to public sewerage system. Sufficient capacity in public sewerage shall be made available to the proposed facilities. • Road drainage shall also be provided with adequately designed silt trap to minimize discharge of silty runoff. • The design of the operational stage mitigation measures for CWB shall take into account the guidelines published in ProPECC PN 5/93 "Drainage Plans subject to Comment by the EPD." All operational discharges from the CWB into drainage or sewerage systems are required to be licensed by EPD under the WPCO.							

^{*} Des - Design, C - Construction, O - Operation, and Dec - Decommissioning

 $^{^{3}\,\}mathrm{if}$ employ Management, Operation and Maintenance (MOM) Contract

Table A13.4 Implementation Schedule for Waste Management

EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation	Stages				Relevant Legislation and Guidelines
			Agent	Des	C	О	Dec	and Guidelines
Construction	on Phase							
For DP3 -	Reclamation Works							
	Marine Sediments	Work site / During the construction period	Contractor		1			ETWB TCW No. 34/2002
S6.7.2	The dredged marine sediments would be loaded onto barges, transported to and disposed of at the designated disposal sites at South of Cheung Chau, East of Ninepin, East of Tung Lung Chau, South of Tsing Yi or East of Sha Chau to be allocated by the MFC depending on their level of contamination or at other disposal sites after consultation with the MFC and EPD. In accordance with the ETWB TCW No. 34/2002, the contaminated material must be dredged and transported with great care. The mitigation measures recommended in Section 5 of the EIA Report shall be incorporated. The dredged contaminated sediment must be effectively isolated from the environment upon final disposal and shall be disposed of at the Type 2 confined marine disposal contaminated mud pit.							
S6.7.3	Based on the biological screening results, the Category H (>10xLCEL) sediment which failed the biological testing would require Type 3 special disposal. The volume of Category H sediment from the Causeway Bay typhoon shelter which would require special disposal arrangements is estimated to be approximately 0.05 Mm³. A feasible containment method is proposed whereby the dredged sediments are sealed in geosynthetic containers and, at the disposal site, the containers would be dropped into the designated contaminated mud pit where they would be covered by further mud disposal and later by the mud pit capping, thereby meeting the requirements for fully confined mud disposal.							

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EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Implementation Stages*				Relevant Legislation
			Agent	Des	C	o	Dec	and Guidelines
S6.7.5	It will be the responsibility of the Contractor to satisfy the appropriate authorities that the contamination levels of the marine sediment to be dredged have been analysed and recorded. According to the ETWB TCW No. 34/2002, this will involve the submission of a formal Sediment Quality Report to the DEP, at least 3 months prior to the dredging contract being tendered							
S6.7.6	During transportation and disposal of the dredged marine sediments requiring Type 1 and Type 2 disposal, the following measures shall be taken to minimise potential impacts on water quality: Bottom opening of barges shall be fitted with tight fitting seals to prevent leakage of material. Excess material shall be cleaned from the decks and exposed fittings of barges and hopper dredgers before the vessel is moved.							

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EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	In	nplem Sta	entati ges*	on	Relevant Legislation
		g	Agent	Des	C	o	Dec	and Guidelines
	Monitoring of the barge loading shall be conducted to ensure that loss of material does not take place during transportation. Transport barges or vessels shall be equipped with automatic self-monitoring devices as specified by the DEP. Barges or hopper barges shall not be filled to a level that would cause the overflow of materials or sediment laden water during loading or transportation.							
S6.6.12	Floating Refuse During the construction phase, the project proponent's contractor will be responsible for the collection of any refuse within their works area. Floating booms will be provided on the water surface to confine the refuse from the working barges as well as to avoid the accumulation of pollutants within temporary embayment as mentioned in Table 13.3.	Work site / During the construction period	Contractor		√			

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EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation	In		entati ges*	on	Relevant Legislation
	8		Agent	Des	C	0	Dec	and Guidelines
S6.7.7	Recommendations for good site practices during the construction activities include: nomination of an approved person, such as a site manager, to be responsible for good site practices, arrangements for collection and effective disposal to an appropriate facility, of all wastes generated at the site; training of site personnel in proper waste management and chemical waste handling procedures; provision of sufficient waste disposal points and regular collection for disposal; appropriate measures to minimise windblown litter and dust during transportation of waste by either covering trucks or by transporting wastes in enclosed containers; regular cleaning and maintenance programme for drainage systems, sumps and oil interceptors; and a recording system for the amount of wastes generated, recycled and disposed of (including the disposal sites).	Work site / During the construction period	Contractor		1			Waste Disposal Ordinance (Cap.354)

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EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation	In		entati ges*	on	Relevant Legislation
		g	Agent	Des	C	О	Dec	and Guidelines
S6.7.8	Waste Reduction Measures Waste reduction is best achieved at the planning and design stage, as well as by ensuring the implementation of good site practices. Recommendations to achieve waste reduction include: • segregation and storage of different types of waste in different containers, skips or stockpiles to enhance reuse or recycling of materials and their proper disposal; • to encourage collection of aluminium cans, PET bottles and paper, separate labelled bins shall be provided to segregate these wastes from other general refuse generated by the work force; • any unused chemicals or those with remaining functional capacity shall be recycled; • use of reusable non-timber formwork, such as in casting the tunnel box sections, to reduce the amount of C&D material. • prior to disposal of C&D waste, it is recommended that wood, steel and other metals shall be separated for re-use and / or recycling to minimise the quantity of waste to be disposed of to landfill; • proper storage and site practices to minimise the potential for damage or contamination of construction materials; and • plan and stock construction materials carefully to minimise amount of waste generated and avoid unnecessary generation of waste.	Work site / During planning and design stage, and construction stage	Contractor	Jes V			Dec	
İ	generation of waste.							

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EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation	Ir		entati ges*	on	Relevant Legislation and Guidelines
			Agent	Des	C	О	Dec	and Guidelines
S6.7.10	General Refuse General refuse shall be stored in enclosed bins or compaction units separate from C&D material. A licensed waste collector shall be employed by the contractor to remove general refuse from the site, separately from C&D material. A collection area shall be provided where wastes can be stored and loaded prior to removal from site. An enclosed and covered area is recommended to reduce the occurrence of 'wind blow' light material.	Work site / During the construction period	Contractor		V			Public Health and Municipal Services Ordinance (Cap. 132)
\$6.7.11	Chemical Wastes After use, chemical wastes (for example, cleaning fluids, solvents, lubrication oil and fuel) shall be handled according to the Code of Practice on the Packaging, Labelling and Storage of Chemical Wastes. Spent chemicals shall be collected by a licensed collector for disposal at the CWTF or other licensed facility in accordance with the Waste Disposal (Chemical Waste) (General) Regulation.	Work site / During the construction period	Contractor		V			Waste Disposal (Chemical Waste) (General) Regulation Code of Practice on the Packaging, Labelling and Storage of Chemical Wastes
\$6.7.12	Construction and Demolition Material C&D material shall be sorted on-site into inert C&D material (that is, public fill) and C&D waste. All the suitable inert C&D material shall be broken down to 250 mm in size for reuse as public fill in the WDII reclamation. C&D waste, such as wood, glass, plastic, steel and other metals shall be reused or recycled and, as a last resort, disposed of to landfill. A suitable area shall be designated to facilitate the sorting process and a temporary stockpiling area will be required for the separated materials.	Work site / During the construction period	Contractor		1			ETWB TCW No. 33/2002, 31/2004, 19/2005

EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation	In		entati ges*	on	Relevant Legislation
22.7 110.7	23. To office and 12 constants of 12 constants	200mion, 1mmg	Agent	Des	C	О	Dec	and Guidelines
S6.7.13	In order to monitor the disposal of public fill and C&D waste at public filling facilities and landfills, respectively, and to control fly tipping, a trip-ticket system shall be included as one of the contractual requirements and implemented by the Environmental Team undertaking the environmental monitoring and audit work. An Independent Environment Checker shall be responsible for auditing the results of the system.	Work site / During the construction period	Contractor and Independent Environmental Checker		V			ETWB TCW No. 31/2004
S6.7.14	Bentonite Slurry The disposal of residual used bentonite slurry shall follow the good practice guidelines stated in ProPECC PN 1/94 "Construction Site Drainage" and listed as follows: If the disposal of a certain residual quantity cannot be avoided, the used slurry may be disposed of at the marine spoil grounds subject to obtaining a marine dumping licence from EPD on a case-by-case basis. If the used bentonite slurry is intended to be disposed of through the public drainage system, it shall be treated to the respective effluent standards applicable to foul sewers,	Work site / During the construction period	Contractor		V			ProPECC PN 1/94
	storm drains or the receiving waters as set out in the Technical Memorandum of Standards for Effluents Discharged into Drainage and Sewerage Systems, Inland and Coastal Waters. • If the used bentonite slurry is intended to be disposed to public fill reception facilities, it will be mixed with dry soil on site before disposal.							

^{*} Des - Design, C - Construction, O – Operation, and Dec - Decommissioning

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Table A13.5 Implementation Schedule for Land Contamination

EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation	In		entati ges*	on	Relevant Legislation
22.7 2.07	23. To office and 12 consulted 7 to the grander of	Document Timing	Agent	Des	C	0	Dec	and Guidelines
Construction	v== =							
For the Wh	ole Project							
S.12.6	The contaminated site shall be cleaned up before commencement of site clearance and construction work at the concerned area which may disturb the ground.	A King Marine / Before commencement of construction activities at A King Marine.	Project proponent for the re- provisioned Tin Hau Temple	V				"Guidance Notes for Investigation and Remediation of Contaminated Sites of Petrol Filling Stations, Boatyards, and Car Repair/Dismantling Workshops" published by EPD, HKSAR EPD ProPECC Note No. 3/94
S7.10	During soil remediation works, the Contractor for the excavation works shall take note of the following points for excavation: • Excavation profiles must be properly designed and executed; • In case the soil to be excavated is situated beneath the groundwater table, it may be necessary to lower the groundwater table by installing well points or similar means; • Quantities of soil to be excavated must be estimated; • It maybe necessary to split quantities of soil according to soil type, degree and nature of contamination. • Temporary storage of soil at intermediate depot or on-site	A King Marine / During soil remediation works	Contractor	V				Air Pollution Control Ordinance Noise Control Ordinance Waste Disposal Ordinance Waste Disposal (Chemical Waste) (General) Regulation

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EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	In	nplem Sta	entati ges*	on	Relevant Legislation
				Des	C	o	Dec	and Guidelines
	maybe required. The storage site shall include protection facilities for leaching into the ground. eg. Liner maybe required.							
	Supply of suitable clean backfill materials is needed after excavation. Care must be taken of existing buildings and utilities. Precautions must be taken to control of ground settlement Speed controls for vehicles shall be imposed on dusty site areas. Vehicle wheel and body washing facilities at the site's exit points shall be established and used. The following environmental mitigation measures shall be strictly followed during the operation and/or maintenance of the CS/S facilities:							Water Pollution Control Ordinance

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EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation	In		entati ges*	on	Relevant Legislation
		g	Agent	Des	C	O	Dec	and Guidelines
	 Air Quality Mitigation Measures The loading, unloading, handling, transfer or storage of cement shall be carried out in an enclosed system. The loading, unloading, handling, transfer or storage of other materials which may generate airborne dust emissions such as untreated soil and oversize materials sorted out from the screening plant and stabilized soil stockpiled in the designated handling area, shall be carried out in such a manner to prevent or minimise dust emissions. These materials shall be adequately wetted prior to and during the loading, unloading and handling operations. All practicable measures, including speed controls for vehicles, shall be taken to prevent or minimize the dust emission caused by vehicle movement. Tarpaulin or low permeable sheet shall be put on dusty vehicle loads transported between site locations. 							
	Noise Mitigation Measures The mixing facilities shall be sited as far as practicable to the nearby noise sensitive receivers. Simultaneous operation of mixing facilities and other equipment shall be avoided. Mixing process and other associated material handling activities shall be properly scheduled to minimise potential cumulative noise impact on the nearby noise sensitive receivers. Construction Noise Permit shall be applied for the operation of powered mechanical equipment during restricted hours (if any).							

EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation	In	nplem Sta	entati ges*	on	Relevant Legislation and Guidelines
	8		Agent	Des	C	0	Dec	
	Water Quality Mitigation Measures Stockpile of untreated soil shall be covered as far as practicable to prevent the contaminated material from leaching out. The leachate shall be discharged following the requirements of WPCO. Waste Mitigation Measures Treated oversize materials will be used as filling material for backfilling within the site. Sorted materials of size smaller than 5 cm will be collected and transferred to the mixing plant for further decontamination treatment. Stabilized soils shall be broken into suitable size for backfilling or reuse on site. A high standard of housekeeping shall be maintained							
	within the mixing plant area. If necessary, there shall be clear and separated areas for stockpiling of untreated and treated materials.							

^{*} Des - Design, C - Construction, O - Operation, and Dec - Decommissioning

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Wan Chai Development Phase II and Central-Wanchai Bypass

- Sampling, Field Measurement and Testing Works (Stage 3)

Monthly EM&A Report

Table A13.6 Implementation Schedule for Marine Ecology

EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	In	nplem Sta	entati ges*	ion	Relevant Legislation
22.2.2.02		Document, Timing		Des	C	0	Dec	and Guidelines
Construction	on Phase							
For the Wh	ole Project - Schedule 3 DP							
S.9.7.2	Alternative design of the Trunk Road constructed in tunnel shall be adopted to avoid permanent reclamation in CBTS and ex-PWCA Basin.	-	CEDD/HyD	1				EIAO TM Annex 16 (Section 8.4) & EIAO Guidance Note No. 3/2002.
For DP3 -	Reclamation Works							
S.9.7.3	Translocation of those potentially affected coral colonies to the nearby suitable habitats such as Junk Bay is recommended. A detailed translocation plan (including translocation methodology, monitoring of transplanted corals, etc.) should be drafted and approval by AFCD during the detailed design stage of the Project.	Ex-PCWA Basin and along seawall next to a public pier which is about 250 m away from the CBTS	CEDD/HyD	√				EIAO TM Annex 16 (Section 8.4) & EIAO Guidance Note No. 3/2002.

Wan Chai Development Phase II and Central-Wanchai Bypass

- Sampling, Field Measurement and Testing Works (Stage 3)

EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation	In	nplem Stag	entati ges*	on	Relevant Legislation and Guidelines
	Zin i i i i i i i i i i i i i i i i i i	Document, 1mmig	Agent	Des	C	0	Dec	
S.9.7.4	During dredging and filling operations, a number of mitigation measures to control water quality shall be adopted to confine sediment plume within reclamation area and protect marine fauna in proximity to the reclamation. The mitigation measures include the following: • Installation of silt curtains during dredging activities • Use of tightly-closed grab dredger • Reduction of dredging rate • Control of grab descending speed • Construction of leading edges of seawall in the early stages of the reclamation works	Work site / during construction phase	Contractor		√ ·			EIAO TM Annex 16 (Section 8.4) & EIAO Guidance Note No. 3/2002.
	Adoption of multiple-phase construction schedule							

Appendix 3.1

Contract no. HK/2015/01

Wan Chai Development Phase II and Central-Wanchai Bypass

- Sampling, Field Measurement and Testing Works (Stage 3)

EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation	Ir	nplem Sta	entati ges*	on	Relevant Legislation
22.7.10.7	Zarra omnerana i rottottom racustato, ranagantom racustato	20cavion, 1mmg	Agent	Des	C	О	Dec	and Guidelines
S.9.7.6	To minimize potential disturbance impacts on the foraging ardeid population in the CBTS, particularly in the area near the A King Shipyard, appropriate mitigation measures shall be adopted particularly during the construction phase. The following measures are recommended: • Use of Quiet Mechanical Plant during the construction phase shall be adopted wherever possible. • Adoption of multiple-phase construction schedule. • General measures to reduce noise generated during the construction phase (see noise impact assessment) shall be	Work site / during construction phase	Contractor		√			EIAO TM Annex 16 (Section 8.4) & EIAO Guidance Note No. 3/2002.
S.9.7.7	effectively implemented. Seawalls shall be constructed in advance around the reclamation areas within the area of the CBTS to screen adjacent feeding ground from construction phase activities, reduce noise disturbance to the associated seabirds and also to restrict access to this habitat adjacent to works areas by ship traffic.	Work site / during construction phase	Contractor		√			EIAO TM Annex 16 (Section 8.4) & EIAO Guidance Note No. 3/2002.
S.9.7.8	Loss of artificial seawall habitats shall be reinstated by the construction of about 1 km vertical wave absorbing seawall along the coastlines of the new reclamation around the HKCEC and at North Point. The new seawalls are expected to provide large area of hard substrata for settlement and recruitment of intertidal fauna similar to those previously recorded from existing intertidal habitats.	Work site / during construction phase	Contractor		V			EIAO TM Annex 16 (Section 8.4) & EIAO Guidance Note No. 3/2002.

^{*}Des - Design, C - Construction, O - Operation, and Dec - Decommissioning

Table A13.7 Implementation Schedule for Landscape and Visual

EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Ir	nplem Sta	entati ges*	ion	Relevant Legislation and Guidelines	
					Des	C	O	Dec	
Construction	Phase								
For the Whole	Project								
Table 10.5	CM1	Topsoil, where identified, shall be stripped and stored for re-use in the construction of the soft landscape works, where practical.	Work site / During Construction Phase	Contractor	√	1			EIAO TM
Table 10.5	CM2	Existing trees to be retained on site shall be carefully protected during construction.	Work site / During Construction Phase	Contractor	√	√			EIAO TM
Table 10.5	СМЗ	Trees unavoidably affected by the works shall be transplanted where practical.	Work site / During Construction Phase	Contractor	√	√			EIAO TM
Table 10.5	CM4	Compensatory tree planting shall be provided to compensate for felled trees.	Work site / During Construction Phase	Contractor	√	V			EIAO TM
Table 10.5	CM5	Control of night-time lighting.	Work site / During Construction Phase	Contractor		V			EIAO TM
Table 10.5	CM6	Erection of decorative screen hoarding compatible with the surrounding setting.	Work site / During Construction Phase	Contractor		V			EIAO TM
For DP1 - CV	B (With	in the Project Boundary)	•			•			
Table 10.5	CM1	Topsoil, where identified, shall be stripped and stored for re-use in the construction of the soft landscape works, where practical.	Work site / During Construction Phase	Contractor		1			EIAO TM
Table 10.5	CM2	Existing trees to be retained on site shall be carefully protected during construction.	Work site / During Construction Phase	Contractor	V	1			EIAO TM
Table 10.5	CM3	Trees unavoidably affected by the works shall be transplanted where practical.	Work site / During Construction Phase	Contractor	V	V			EIAO TM
Table 10.5	CM4	Compensatory tree planting shall be provided to compensate for felled trees.	Work site / During Construction Phase	Contractor	V	V			EIAO TM
Table 10.5	CM5	Control of night-time lighting.	Work site / During Construction Phase	Contractor		V			EIAO TM

Appendix 3.1

Contract no. HK/2015/01

Wan Chai Development Phase II and Central-Wanchai Bypass

- Sampling, Field Measurement and Testing Works (Stage 3)

EIA Ref	Environmental Protection Measures / Mitigation Measures		Location / Timing	Implementation Agent	Implementation Stages*				Relevant Legislation and Guidelines
					Des	C	О	Dec	
Table 10.5	CM6	Erection of decorative screen hoarding compatible with the surrounding setting.	Work site / During Construction Phase	Contractor		V			EIAO TM
For DP2 – WD	II Majo	r Roads (Road P2)							
Table 10.5	CM1	Topsoil, where identified, shall be stripped and stored for re-use in the construction of the soft landscape works, where practical.	Work site / During Construction Phase	Contractor	1	1			EIAO TM
Table 10.5	CM2	Existing trees to be retained on site shall be carefully protected during construction.	Work site / During Construction Phase	Contractor	√	V			EIAO TM
Table 10.5	CM3	Trees unavoidably affected by the works shall be transplanted where practical.	Work site / During Construction Phase	Contractor	1	V			EIAO TM
Table 10.5	CM4	Compensatory tree planting shall be provided to compensate for felled trees.	Work site / During Construction Phase	Contractor	1	√			EIAO TM
Table 10.5	CM5	Control of night-time lighting.	Work site / During Construction Phase	Contractor		V			EIAO TM
Table 10.5	CM6	Erection of decorative screen hoarding compatible with the surrounding setting.	Work site / During Construction Phase	Contractor		V			EIAO TM
For DP3 - Rec	lamatio	n Works							
Table 10.5	CM5	Control of night-time lighting.	Work site / During Construction Phase	Contractor		V			EIAO TM
Table 10.5	CM6	Erection of decorative screen hoarding compatible with the surrounding setting.	Work site / During Construction Phase	Contractor		V			EIAO TM
For DP5 - Wa	n Chai I	East Sewage Outfall							
Refer to EIA- 058/2001 Table 10.13	CM2	Minimisation of works areas.	Work site / During Construction Phase	Contractor		1			EIAO TM
Refer to EIA- 058/2001 Table 10.13	CM3	Erection of decorative hoardings.	Work site / During Construction Phase	Contractor		V			EIAO TM

Monthly EM&A Report

- Sampling, Field Measurement and Testing Works (Stage 3)

EIA Ref	Environmental Protection Measures / Mitigation Measures		Location / Timing	Implementation Agent	Implementation Stages*				Relevant Legislation and Guidelines
				_	Des	C	О	Dec	
Refer to EIA- 058/2001 Table 10.13	CM4	Control night-time lighting.	Work site / During Construction Phase	Contractor		√			EIAO TM
Refer to EIA- 058/2001	CM5	Minimisation of disruption to public by effective programming of the works.	Work site / During Construction Phase	Contractor		√			EIAO TM
Table 10.13		programming of the works.	Construction I hase						
For DP6 - Cro	ss-Harb	our Water Mains from Wan Chai to Tsim Sha Tsui					•		
Refer to EIA- 058/2001 Table 10.13	CM2	Minimisation of works areas.	Work site / During Construction Phase	Contractor		V			EIAO TM
Refer to EIA- 058/2001 Table 10.13	CM3	Erection of decorative hoardings.	Work site / During Construction Phase	Contractor		1			EIAO TM
Refer to EIA- 058/2001 Table 10.13	CM4	Control night-time lighting.	Work site / During Construction Phase	Contractor		V			EIAO TM
Refer to EIA- 058/2001 Table 10.13	CM5	Minimisation of disruption to public by effective programming of the works.	Work site / During Construction Phase	Contractor		V			EIAO TM
Operation Pha	se								
	Project	- Schedule 3 DP							
Table 10.6, Figure 10.5.1- 10.5.5	OM1	Aesthetic design of buildings and road-related structures, including viaducts, vent buildings, subways, footbridges and noise barriers and enclosure.	Work site / During Design Stage and Operation Phases	CEDD/HyD	1	1	V		ETWB TCW 2/2004
Table 10.6, Figure 10.5.1- 10.5.5	OM2	Shrub and Climbing Plants to soften proposed structures.	Work site / During Design Stage and Operation Phases	CEDD/HyD	V	V	V		ETWB TCW 2/2004

Appendix 3.1

Contract no. HK/2015/01

Wan Chai Development Phase II and Central-Wanchai Bypass

- Sampling, Field Measurement and Testing Works (Stage 3)

EIA Ref	Environmental Protection Measures / Mitigation Measures		Location / Timing	Implementation Agent	Implementation Stages*				Relevant Legislation and Guidelines
					Des	C	0	Dec	
Table 10.6,	OM3	Buffer Tree and Shrub Planting to screen proposed roads	Work site / During	CEDD/HyD/	√	√	√		ETWB TCW 2/2004
Figure 10.5.1-		and associated structures.	Design Stage and						
10.5.5			Operation Phases						
Table 10.6,	OM4	Aesthetic design of proposed waterfront promenade.	Work site / During	$CEDD_{\underline{}}^{4}$	√	√			ETWB TCW 2/2004
Figure 10.5.1-			Design Stage and						
10.5.5			Operation Phases						
Table 10.6,	OM5	Aesthetic streetscape design.	Work site / During	CEDD/HyD	√	√	√		ETWB TCW 2/2004
Figure 10.5.1-			Design Stage and	-					
10.5.5			Operation Phases						
Table 10.6,	OM6	Aesthetic design of roadside amenity areas.	Work site / During	CEDD/HyD	√	√	√		ETWB TCW 2/2004
Figure 10.5.1-			Design Stage and						
10.5.5			Operation Phases						
For DP1 - CW	B (Withi	n the Project Boundary)							
Table 10.6,	OM1	Aesthetic design of buildings and road-related structures,	Work site / During	HyD		√			ETWB TCW 2/2004
Figure 10.5.1-		including viaducts, vent buildings, subways, footbridges	Design Stage and						
10.5.5		and noise barriers and enclosure.	Operation Phases						
Table 10.6,	OM2	Shrub and Climbing Plants to soften proposed structures	Work site / During	HyD		√			ETWB TCW 2/2004
Figure 10.5.1-			Design Stage and						
10.5.5			Operation Phases						
Table 10.6,	OM3	Buffer Tree and Shrub Planting to screen proposed roads	Work site / During	HyD	√	√			ETWB TCW 2/2004
Figure 10.5.1-		and associated structures.	Design Stage and						
10.5.5			Operation Phases						
Table 10.6,	OM5	Aesthetic streetscape design.	Work site / During	HyD	√				ETWB TCW 2/2004
Figure 10.5.1-			Design Stage and						
10.5.5			Operation Phases						
Table 10.6,	OM6	Aesthetic design of roadside amenity areas.	Work site / During	HyD	√	√	√		ETWB TCW 2/2004
Figure 10.5.1-			Design Stage and						
10.5.5			Operation Phases						

⁴ CEDD will identify an implementation agent

EIA Ref	Environmental Protection Measures / Mitigation Measures		Location / Timing	Implementation Agent	Implementation Stages*				Relevant Legislation and Guidelines
				_	Des	С	0	Dec	
Table 10.6, Figure 10.5.1- 10.5.5	OM1	Aesthetic design of buildings and road-related structures, including viaducts, vent buildings, subways, footbridges and noise barriers and enclosure.	Work site / During Design Stage and Operation Phases	CEDD/HyD		V	V		ETWB TCW 2/2004
Table 10.6, Figure 10.5.1- 10.5.5	OM3	Buffer Tree and Shrub Planting to screen proposed roads and associated structures.	Work site / During Design Stage and Operation Phases	CEDD/HyD		V	V		ETWB TCW 2/2004
Table 10.6, Figure 10.5.1- 10.5.5	OM5	Aesthetic streetscape design.	Work site / During Design Stage and Operation Phases	CEDD/HyD		√	√		ETWB TCW 2/2004
Table 10.6, Figure 10.5.1- 10.5.5	OM6	Aesthetic design of roadside amenity areas	Work site / During Design Stage and Operation Phases	CEDD/HyD		V	V		ETWB TCW 2/2004
For DP3 - Reci	lamatio	n Works							
Table 10.6, Figure 10.5.1- 10.5.5	OM4	Aesthetic design of proposed waterfront promenade.	Work site / During Design Stage and Operation Phases	CEDD <u>⁵</u>	√	1	1		ETWB TCW 2/2004

^{*}Des - Design, C - Construction, O - Operation, and Dec - Decommissioning

 $^{^{\}rm 5}$ CEDD will identify an implementation agent

Appendix 4.1

Action and Limit Level



Action and Limit Level

Action and Limit Level for Noise Monitoring

Time Period	Action Level	Limit Level
07:00 – 19:00 hours on normal weekdays	When one documented complaint is received.	75 dB(A) ^{Note 1}

Note 1:

- 70dB(A) and 65 dB(A) for schools during normal teaching periods and school examination periods, respectively.
- If works are to be carried out during the restricted hours, the conditions stipulated in the Construction Noise Permit (CNP) issued by the Noise Control Authority have to be followed.

Action and Limit Level for Air Quality Monitoring

7 10 11 0 11 11 11 11 11 11 11	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,			
Monitoring Location	1-hour TSP Level	in μ g/m 3	24-hour TSP Level in μ g/m ³	
	Action Level	Limit Level	Action Level	Limit Level
CMA1b	320.1	500	176.7	260
CMA2a	323.4	500	169.5	260
CMA3a	311.3	500	171.0	260
CMA4a	312.5	500	171.2	260
CMA5b	332.0	500	181.0	260
CMA6a	300.1	500	187.3	260

Action and Limit Level for Water Quality Monitoring

Parameters	Dry Season		Wet S	Season		
Parameters	Action	Limit	Action	Limit		
WSD Salt Water Intake						
SS in mg L ⁻¹	13.00	14.43	16.26	19.74		
Turbidity in NTU	8.04	9.49	10.01	11.54		
DO in mg/L	3.66	3.28	3.17	2.63		
Cooling Water Intake						
SS in mg L ⁻¹	15.00	22.13	18.42	27.54		
Turbidity in NTU	9.10	10.25	11.35	12.71		
DO in mg/L	3.36	2.73	3.02	2.44		

Remarks:

Action and Limit Level for Enhance DO Monitoring

Doromotoro	Depth	Dry Season		Wet Season	
Parameters		Action	Limit	Action	Limit
C6	Surface and Middle	3.13	2.00	2.60	2.00
Co	Bottom	4.14	3.33	2.91	2.34
C7	Surface and Middle	3.87	3.09	3.31	2.57
C1	Bottom	3.91	3.53	2.75	2.48
Ex-WPCWA SW	Surface and Middle	3.84	3.73	3.19	3.10
EX-VVPCVVA SVV	Bottom	4.71	4.63	3.31	3.25
	Surface and Middle	4.26	3.61	3.55	3.00
Ex-WPCWA SE	Bottom	5.36	5.35	3.76	3.76

Action and Limit Levels for Odour Patrol

Parameters	Action	Limit
Odour Nuisance (from odour intensity analysis or odour patrol)	 When two documented complaint are received; or Odour Intensity of 2 is measured from odour intensity analysis. 	 Five or more consecutive genuine documented complaints within a week; or Odour Intensity of 3 or above is measured from odour intensity analysis.

⁻ Action and Limit Level for the wet season are applied after the EPD approval of Updated EM&A Manual on 29 April 2011.

Appendix 4.2

Copies of Calibration Certificates



G/F., 9/F., 12/F., 13/F. & 20/F., Leader Centre, 37 Wong Chuk Hang Road, Aberdeen, Hong Kong. 香港 黃竹坑追37號利達中心地下,9樓,12樓,13樓及20樓 E-mail: smec@cigismec.com Website: www.cigismec.com

Tel: (852) 2873 6860 Fax: (852) 2555 7533



CERTIFICATE OF CALIBRATION

Certificate No.:

15CA1203 04-01

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of

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Item tested

Description:

Sound Level Meter (Type 1)

Microphone

Expiry Date:

Manufacturer:

B&K

B&K

Type/Model No .:

2236

4188

Serial/Equipment No.:

2100736

2288941

Adaptors used:

Item submitted by

Customer Name:

Lam Geotechnics Limited

Address of Customer:

Request No.

Date of receipt:

03-Dec-2015

Date of test:

04-Dec-2015

Reference equipment used in the calibration

Description:

Signal generator

Signal generator

Multi function sound calibrator

Model: B&K 4226

DS 360

DS 360

Serial No. 2288444 33873

61227

19-Jun-2016 16-Apr-2016 16-Apr-2016

Traceable to:

CIGISMEC CEPREI CEPRE

Ambient conditions

Temperature:

Relative humidity: Air pressure:

22 ± 1 °C 50 ± 10 %

1010 ± 10 hPa

Test specifications

1, The Sound Level Meter has been calibrated in accordance with the requirements as specified in BS 7580: Part 1: 1997 and the lab calibration procedure SMTP004-CA-152

The electrical tests were performed using an electrical signal substituted for the microphone which was removed and 2, replaced by an equivalent capacitance within a tolerance of +20%

The acoustic calibration was performed using an B&K 4226 sound calibrator and corrections was applied for the difference 3, between the free-field and pressure responsess of the Sound Level Meter.

Test results

This is to certify that the Sound Level Meter conforms to BS 7580: Part 1: 1997 for the conditions under which the test was performed.

Details of the performed measurements are presented on page 2 of this certificate.

Huang Jian Min/Feng Jun Qi

Actual Measurement data are documented on worksheets.

Approved Signatory:

Date:

05-Dec-2015

Company Chop:

The results reported in this certificate refer to the condition of the instrument on the date of calibration and carry no implication regarding the long-term stability of the instrument.

C Soils & Materials Engineering Co., Ltd.

Form No.CARP152-1/Issue 1/Rev.C/01/02/2007



G/F, 9/F, 12/F, 13/F & 20/F, Leader Centre, 37 Wong Chuk Hang Road, Aberdeen, Hong Kong. 香港黃门坑道37號利達中心地下,9樓,12樓,13樓及20樓 E-mail: smec@cigismec.com Website: www.cigismec.com

Tel: (852) 2873 6860 Fax: (852) 2555 7533



CERTIFICATE OF CALIBRATION

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Certificate No.:

15CA1203 04-01

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1, Electrical Tests

The electrical tests were performed using an equivalent capacitance substituted for the microphone. The results are given in below with test status and the estimated uncertainties. The "Pass" means the result of the test is inside the tolerances stated in the test specifications. The "-" means the result of test is outside these tolerances.

Test:	Subtest:	Status:	Expanded Uncertanity (dB)	Coverage Factor
Self-generated noise	A	Pass	0.3	
3	C	Pass	1.0	2.1
	Lin	Pass	2.0	2.2
Linearity range for Leq	At reference range, Step 5 dB at 4 kHz	Pass	0.3	
	Reference SPL on all other ranges	Pass	0.3	
	2 dB below upper limit of each range	Pass	0.3	
	2 dB above lower limit of each range	Pass	0.3	
Linearity range for SPL	At reference range, Step 5 dB at 4 kHz	Pass	0.3	
Frequency weightings	A	Pass	0.3	
	C	Pass	0.3	
	Lin	Pass	0.3	
Time weightings	Single Burst Fast	Pass	0.3	
	Single Burst Slow	Pass	0.3	
Peak response	Single 100µs rectangular pulse	Pass	0.3	
R.M.S. accuracy	Crest factor of 3	Pass	0.3	
Time weighting I	Single burst 5 ms at 2000 Hz	Pass	0.3	
	Repeated at frequency of 100 Hz	Pass	0.3	
Time averaging	1 ms burst duty factor 1/103 at 4kHz	Pass	0.3	
	1 ms burst duty factor 1/104 at 4kHz	Pass	0.3	
Pulse range	Single burst 10 ms at 4 kHz	Pass	0.4	
Sound exposure level	Single burst 10 ms at 4 kHz	Pass	0.4	
Overload indication	SPL	Pass	0.3	
	Leq	Pass	0.4	

2, Acoustic tests

The complete sound level meter was calibrated on the reference range using a B&K 4226 acoustic calibrator with 1000Hz and SPL 94 dB. The sensitivity of the sound level meter was adjusted. The test result at 125 Hz and 8000 Hz are given in below with test status and the estimated uncertainties.

Test:	Subtest	Status	Expanded Uncertanity (dB)	Coverage Factor
Acoustic response	Weighting A at 125 Hz	Pass	0.3	
	Weighting A at 8000 Hz	Pass	0.5	

3, Response to associated sound calibrator

N/A

The expanded uncertainties have been calculated in accordance with the ISO Publication "Guide to the expression of uncertainty in measurement", and gives an interval estimated to have a level of confidence of 95%. A coverage factor of 2 is assumed unless explicitly stated.

Calibrated by:

Date:

Fung Chi Yip 04-Dec-2015 End

Checked by:

Date:

Lam Tze Wai 05-Dec-2015

The standard(s) and equipment used in the calibration are traceable to national or international recognised standards and are calibrated on a schedule to maintain the required accuracy level.

Soils & Materials Engineering Co., Ltd.

Form No.CARP152-2/Issue 1/Rev.C/01/02/2007



G/F, 9/F, 12/F, 13/F. & 20/F., Leader Centre, 37 Wong Chuk Hang Road, Aberdeen, Hong Kong. 香港黄竹坑道37號利達中心地下,9樓,12樓,13樓及20樓 E-mail: smec@cigismec.com Website: www.cigismec.com



CERTIFICATE OF CALIBRATION

Certificate No.:

15CA0528 04-03

Page:

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Tel: (852) 2873 6860

Fax: (852) 2555 7533

2

of

Item tested

Description: Manufacturer: Acoustical Calibrator (Class 1)

Type/Model No.: Serial/Equipment No.: Rion Co., Ltd. NC-73 10465798

Adaptors used:

10

Item submitted by

Curstomer:

Lam Geotechnics Ltd.

Address of Customer:

Request No.: Date of receipt:

28-May-2015

Date of test:

30-May-2015

Reference equipment used in the calibration

Description:	Model:	Serial No.	Expiry Date:	Traceable to:
Lab standard microphone	B&K 4180	2341427	15-Apr-2016	SCL
Preamplifier	B&K 2673	2239857	22-Apr-2016	CEPREI
Measuring amplifier	B&K 2610	2346941	22-Apr-2016	CEPREI
Signal generator	DS 360	61227	16-Apr-2016	CEPREI
Digital multi-meter	34401A	US36087050	17-Apr-2016	CEPREI
Audio analyzer	8903B	GB41300350	17-Apr-2016	CEPREI
Universal counter	53132A	MY40003662	16-Apr-2016	CEPREI

Ambient conditions

Temperature: 21 ± 1 °C Relative humidity: 60 ± 10 % Air pressure: 1000 ± 5 hPa

Test specifications

- The Sound Calibrator has been calibrated in accordance with the requirements as specified in IEC 60942 1997 Annex B and the lab calibration procedure SMTP004-CA-156.
- 2, The calibrator was tested with its axis vertical facing downwards at the specific frequency using insert voltage technique.
- 3, The results are rounded to the nearest 0.01 dB and 0.1 Hz and have not been corrected for variations from a reference pressure of 1013.25 hectoPascals as the maker's information indicates that the instrument is insensitive to pressure changes.

Test results

This is to certify that the sound calibrator conforms to the requirements of annex B of IEC 60942: 1997 for the conditions under which the test was performed. This does not imply that the sound calibrator meets IEC 60942 under any other conditions.

Details of the performed measurements are presented on page 2 of this certificate.

n/Feng Jun Qi

Huano Jian

Approved Signatory:

Date: 01-Jun-2015

Company Chos

SENGINEER SENGI

Comments: The results reported in this certificate refer to the condition of the instrument on the date of calibration and carry no implication regarding the long-term stability of the instrument.

@ Soils & Materials Engineering Co., Ltd.

Form No. CARP156-1/Issue 1/Rev. D/01/03/2007



G/F., 9/F., 12/F., 13/F. & 20/F., Leader Centre, 37 Wong Chuk Hang Road, Aberdeen, Hong Kong. 香港黃竹坑道37號利達中心地下,9樓,12樓,13樓及20樓 E-mail: smec@cigismec.com Website: www.cigismec.com

Tel: (852) 2873 6860 Fax: (852) 2555 7533



CERTIFICATE OF CALIBRATION

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Certificate No.:

15CA0528 04-03

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1, Measured Sound Pressure Level

The output Sound Pressure Level in the calibrator head was measured at the setting and frequency shown using a calibrated laboratory standard microphone and insert voltage technique. The results are given in below with the estimated uncertainties.

Frequency	Output Sound Pressure	Measured Output	Estimated Expanded
Shown	Level Setting	Sound Pressure Level	Uncertainty
Hz	dB	dB	dB
1000	94.00	94.06	0.10

2, Sound Pressure Level Stability - Short Term Fluctuations

The Short Term Fluctuations was determined by measuring the maximum and minimum of the fast weighted DC output of the B&K 2610 measuring amplifier over a 20 second time interval as required in the standard. The Short Term Fluctuation was found to be:

At 1000 Hz

STF = 0.002 dB

Estimated expanded uncertainty

0.005 dB

3, **Actual Output Frequency**

The determination of actual output frequency was made using a B&K 4180 microphone together with a B&K 2673 preamplifier connected to a B&K 2610 measuring amplifier. The AC output of the B&K 2610 was taken to an universal counter which was used to determine the frequency averaged over 20 second of operation as required by the standard. The actual output frequency at 1 KHz was:

At 1000 Hz

Actual Frequency = 966.3 Hz

Estimated expanded uncertainty

0.1 Hz

Coverage factor k = 2.2

Total Noise and Distortion 4,

For the Total Noise and Distortion measurement, the unfiltered AC output of the B&K 2610 measuring amplifier was connected to an Agilent Type 8903 B distortion analyser. The TND result at 1 KHz was:

At 1000 Hz

TND = 0.5 %

Estimated expanded uncertainty

0.7 %

The expanded uncertainties have been calculated in accordance with the ISO Publication "Guide to the expression of uncertainty in measurement", and gives an interval estimated to have a level of confidence of 95%. A coverage factor of 2 is assumed unless explicitly stated.

Calibrated by:

End

Fung Chi Yip

Checked by:

Lam Tze Wai

Date:

30-May-2015

Date:

01-Jun-2015

The standard(s) and equipment used in the calibration are traceable to national or international recognised standards and are calibrated on a schedule to maintain the required accuracy level.



Information supplied by customer:

CONTACT: MR. SAM LAM WORK ORDER: HK1610019

CLIENT: LAM GEOTECHNICS LIMITED

DATE RECEIVED: 07/01/2016 DATE OF ISSUE: 14/01/2016

ADDRESS: 11/F, CENTRE POINT, 181-185, GLOUCESTER ROAD,

WANCHAI, HONG KONG

PROJECT: --

METHOD OF PERFORMANCE CHECK/ CALIBRATION:

Ref: APHA22nd ed 2130B

COMMENTS

It is certified that the item under performance check/calibration has been calibrated/checked by corresponding calibrated equipment in the laboratory.

Maximum Tolerance and calibration frequency stated in the report, unless otherwise stated, the internal acceptance criteria of Pilot Testing Limited will be followed.

Scope of Test:	Turbidity	
Equipment Type:	Turbidimeter	
Brand Name:	Xin Rui	
Model No.:	WGZ-3B	
Serial No.:	1309192	
Equipment No.:		
Date of Calibration:	08/01/2016	

Remarks:

This is the Final Report. Results apply to sample(s) as submitted. All pages of this report have been checked and approved for release.

Approved Signatory:

Issue Date: 14/01/2016

Ms. Wong Po Yan, Pauline Testing Engineer



WORK ORDER: HK1610019 **DATE OF ISSUE:** 14/01/2016

CLIENT: LAM GEOTECHNICS LIMITED

Equipment Type:	Turbidimeter	
Brand Name:	Xin Rui	
Model No.:	WGZ-3B	
Serial No.:	1309192	
Equipment No.:		
Date of Calibration:	08/01/2016	
Date of next Calibation:	08/04/2016	

Parameters:

Turbidity

Method Ref: APHA 22nd ed. 2130B

Expected Reading (NTU)	Display Reading (NTU)	Tolerance (%)	
0	0.00		
4	4.09	2.3	
10	10.1	1.0	
40	38.7	-3.3	
100	104	4.0	
400	389	-2.8	
1000	991	-0.9	
	Tolerance Limit (±%)	10.0	

Remark: "Displayed Reading" presents the figures shown on item under calibration/checking regardless of equipment precision or significant figures.



Information supplied by customer:

CONTACT: MR. SAM LAM WORK ORDER: HK1610200

CLIENT: LAM GEOTECHNICS LIMITED

DATE RECEIVED: 07/04/2016 DATE OF ISSUE: 14/04/2016

ADDRESS: 11/F, CENTRE POINT, 181-185, GLOUCESTER ROAD,

WANCHAI, HONG KONG

PROJECT: --

METHOD OF PERFORMANCE CHECK/ CALIBRATION:

Ref: APHA22nd ed 2130B

COMMENTS

It is certified that the item under performance check/calibration has been calibrated/checked by corresponding calibrated equipment in the laboratory.

Maximum Tolerance and calibration frequency stated in the report, unless otherwise stated, the internal acceptance criteria of Pilot Testing Limited will be followed.

Scope of Test:	Turbidity	
Equipment Type:	Turbidimeter	
Brand Name:	Xin Rui	
Model No.:	WGZ-3B	
Serial No.:	1309192	
Equipment No.:		
Date of Calibration:	08/04/2016	

Remarks:

This is the Final Report. Results apply to sample(s) as submitted. All pages of this report have been checked and approved for release.

Approved Signatory:

Ms. Wong Po Yan, Pauline

Testing Engineer

Issue Date: 14/04/2016



WORK ORDER: HK1610200 **DATE OF ISSUE:** 14/04/2016

CLIENT: LAM GEOTECHNICS LIMITED

Equipment Type:	Turbidimeter	
Brand Name:	Xin Rui	
Model No.:	WGZ-3B	
Serial No.:	1309192	
Equipment No.:		
Date of Calibration:	08/04/2016	
Date of next Calibation:	08/07/2016	

Parameters:

Turbidity

Method Ref: APHA 22nd ed. 2130B

Expected Reading (NTU)	Display Reading (NTU)	Tolerance (%)	
0	0.00		
4	3.98	-0.5	
10	9.88	-1.2	
40	41.3	3.3	
100	102	2.0	
400	387	-3.3	
1000	996	-0.4	
	Tolerance Limit (±%)	10.0	

Remark: "Displayed Reading" presents the figures shown on item under calibration/checking regardless of equipment precision or significant figures.



Information supplied by customer:

CONTACT: MR. SAM LAM WORK ORDER: HK1610018

CLIENT: LAM GEOTECHNICS LIMITED

DATE RECEIVED: 07/01/2016 DATE OF ISSUE: 14/01/2016

ADDRESS: 11/F, CENTRE POINT, 181-185, GLOUCESTER ROAD,

WANCHAI, HONG KONG

PROJECT: ---

METHOD OF PERFORMANCE CHECK/ CALIBRATION:

Ref: APHA22nd ed 2130B

COMMENTS

It is certified that the item under performance check/calibration has been calibrated/checked by corresponding calibrated equipment in the laboratory.

Maximum Tolerance and calibration frequency stated in the report, unless otherwise stated, the internal acceptance criteria of Pilot Testing Limited will be followed.

Scope of Test:	Turbidity
Equipment Type:	Turbidimeter
Brand Name:	Xin Rui
Model No.:	WGZ-3B
Serial No.:	1203015
Equipment No.:	
Date of Calibration:	08/01/2016

Remarks:

This is the Final Report. Results apply to sample(s) as submitted. All pages of this report have been checked and approved for release.

Approved Signatory:

Ms. Wong Po Yan, Pauline

Testing Engineer

Issue Date: 14/01/2016



HK1610018 WORK ORDER: DATE OF ISSUE:

14/01/2016

CLIENT:

LAM GEOTECHNICS LIMITED

Equipment Type:	Turbidimeter	
Brand Name:	Xin Rui	
Model No.:	WGZ-3B	
Serial No.:	1203015	
Equipment No.:	<u></u>	
Date of Calibration:	08/01/2016	
Date of next Calibation:	08/04/2016	

Parameters:

Turbidity

Method Ref: APHA 22nd ed. 2130B

Expected Reading (NTU)	Display Reading (NTU)	Tolerance (%)	
0	0.00		
4	3.87	-3.3	
10	10.6	6.0	
40	41.4	3.5	
100	98.4	-1.6	
400	387	-3.3	
1000	976	-2.4	
	Tolerance Limit (±%)	10.0	

Remark: "Displayed Reading" presents the figures shown on item under calibration/checking regardless of equipment precision or significant figures.



Information supplied by customer:

CONTACT: MR. SAM LAM WORK ORDER: HK1610168

CLIENT: LAM GEOTECHNICS LIMITED

DATE RECEIVED: 07/04/2016 DATE OF ISSUE: 14/04/2016

ADDRESS: 11/F, CENTRE POINT, 181-185, GLOUCESTER ROAD,

WANCHAI, HONG KONG

PROJECT: ---

METHOD OF PERFORMANCE CHECK/ CALIBRATION:

Ref: APHA22nd ed 2130B

COMMENTS

It is certified that the item under performance check/calibration has been calibrated/checked by corresponding calibrated equipment in the laboratory.

Maximum Tolerance and calibration frequency stated in the report, unless otherwise stated, the internal acceptance criteria of Pilot Testing Limited will be followed.

Scope of Test:	Turbidity	
Equipment Type:	Turbidimeter	
Brand Name:	Xin Rui	
Model No.:	WGZ-3B	
Serial No.:	1203015	
Equipment No.:		
Date of Calibration:	08/04/2016	

Remarks

This is the Final Report. Results apply to sample(s) as submitted. All pages of this report have been checked and approved for release.

Approved Signatory:

Ms. Wong Po Yan, Pauline

Testing Engineer

Issue Date: 14/04/2016



WORK ORDER: HK1610168 **DATE OF ISSUE:** 14/04/2016

CLIENT: LAM GEOTECHNICS LIMITED

Equipment Type:	Turbidimeter	
Brand Name:	Xin Rui	
Model No.:	WGZ-3B	
Serial No.:	1203015	
Equipment No.:		
Date of Calibration:	08/04/2016	
Date of next Calibation:	08/07/2016	

Parameters:

Turbidity

Method Ref: APHA 22nd ed. 2130B

Expected Reading (NTU)	Display Reading (NTU)	Tolerance (%)	
0	0.00		
4	4.13	3.3	
10	9.75	-2.5	
40	41.2	3.0	
100	98.4	-1.6	
400	407	1.8	
1000	976	-2.4	
	Tolerance Limit (±%)	10.0	

Remark: "Displayed Reading" presents the figures shown on item under calibration/checking regardless of equipment precision or significant figures.



Information supplied by customer:

CONTACT: MR. SAM LAM WORK ORDER: HK1610083

CLIENT: LAM GEOTECHNICS LIMITED

DATE RECEIVED: 05/02/2016 DATE OF ISSUE: 17/02/2016

ADDRESS: 11/F, CENTRE POINT, 181-185, GLOUCESTER ROAD,

WANCHAI, HONG KONG

PROJECT: ---

METHOD OF PERFORMANCE CHECK/ CALIBRATION:

Ref: APHA22nd ed 2130B

COMMENTS

It is certified that the item under performance check/calibration has been calibrated/checked by corresponding calibrated equipment in the laboratory.

Maximum Tolerance and calibration frequency stated in the report, unless otherwise stated, the internal acceptance criteria of Pilot Testing Limited will be followed.

Scope of Test:	Turbidity	
Equipment Type:	Turbidimeter	
Brand Name:	Xin Rui	
Model No.:	WGZ-3B	
Serial No.:	1408039	
Equipment No.:		
Date of Calibration:	05-Feb-16	

Domarke

This is the Final Report. Results apply to sample(s) as submitted. All pages of this report have been checked and approved for release.

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Approved Signatory:

Ms. Wong Po Yan, Pauline

Testing Engineer

Issue Date: 05/02/2016



WORK ORDER: HK1610083 DATE OF ISSUE: 17/02/2016

CLIENT: LAM GEOTECHNICS LIMITED

Equipment Type:	Turbidimeter	
Brand Name:	Xin Rui	
Model No.:	WGZ-3B	
Serial No.:	1408039	
Equipment No.:	<u></u>	
Date of Calibration:	05-Feb-16	
Date of next Calibation:	05-May-16	

Parameters:

Turbidity

Method Ref: APHA 22nd ed. 2130B

Expected Reading (NTU)	Display Reading (NTU)	Tolerance (%)	
0	0.00		
4	4.20	5.0	
10	10.2	2.0	
40	38.7	-3.3	
100	106	6.0	
400	406	1.5	
1000	993	-0.7	
	Tolerance Limit (±%)	10.0	

Remark: "Displayed Reading" presents the figures shown on item under calibration/checking regardless of equipment precision or significant figures.

This report may not be reproduced except with prior written approval from Pilot Testing Limited.



EQUIPMENT PERFORMANCE CHECK / CALIBRATION REPORT

Report No. : HK1610021

Project Name : EQUIPMENT PERFORMANCE CHECK/CALIBRATION REPORT

Date of Issue : 21/01/2016

Customer : LAM GEOTECHNICS LIMITED

Address : 11/F., CENTRE POINT, 181-185 GLOUCESTER ROAD, WAN CHAI, HONG KONG

 Calibration Job No.
 : HK1610021

 Test Item No.
 : HK1610021-01

Test Item Details

Test Item Description : Multifunctional Meter

Manufacturer : YSI

 Model No.
 : Professional Plus

 Serial No.
 : 14E100105

Performance Method : Checked according to in-house method CAL005

(References: Temperature (Section 6 of Intermational Accreditation New Zealand Technical Guide No. 3 Second edition March 2008: Working Thermometer Calibration Procedure), pH value

(APHA 21e 4500H:B), Salinity (Refer to Conductivity APHA 19e 2510B)

, Dissolved oxygen (APHA 19e 4500-O,C))

Test Item Receipt Date : 14-Jan-16
Test Item Calibration Date : 15-Jan-16

Notes: 1. This report shall not be reproduced, except in full, without prior approval from Pilot Testing Limited.

- 2. Results relate to item(s) as received.
- 3. ± indicates the tolerance limit
- 4. N/A = Not applicable
- APHA American Public Health Association, American Water Works Association and Water Environment Federation, Standard Methods for the Examination of Water and Wastewater, APHA-AWWA-WEF. USA
- 6. DO, pH, salinity and temperature performance check was conducted by Pilot Testing Limited.
- Because of high sensitivity and ease of measurement, the conductivity method (according to APHA 19e 2510) is used to determine salinity.

Approved Signatory

Ms. Wong Po Yan, Pauline (Testing Engineer) Issue Date:

21/01/2016



WORK ORDER: HK1610021 DATE OF ISSUE: 21/01/2016

CLIENT: LAM GEOTECHNICS LIMITED

Equipment Type	Multifunctional Meter	
Manufacturer	YSI	
Model No.	Professional Plus	
Serial No.	14E100105	
Date of Calibration	15-Jan-16	
Date of next Calibation	15-Apr-16	

Parameters:

Temperature (Method Ref: Section 6 of Intermational Accreditation New Zealand Technical Guide No.3 Second edition March 2008: Working Thermometer Calibration Procedure)

Reference Reading (°C)	Display Reading (°C)	Deviation (°C)
9.8	10.1	+0.3
20.6	20.4	-0.2
30.3	30.4	+0.1
T	olerance Limit	±2.0

pH Value (Method Ref: APHA21e, 4500H:B)

Expected Reading (pH unit)	Reference Reading (pH unit)	Display Reading (pH unit)	Deviation (pH unit)
4.0	3.98	4.03	+0.05
7.0	7.11	7.08	-0.03
10.0	10.32	10.24	-0.08
	Tolerance Limit	1	±0.20

Conductivity (Method Ref: APHA 19e, 2510)

KCI concentration (mol/L)	Reference Reading (ms/cm)	Display Reading (ms/cm)	Deviation (%)
0.0000	0.00	0.00	-
0.1000	12.89	12.71	-1.40
0.2000	24.80	24.97	+0.69
0.5000	58.67	58.34	-0.56
0.000	Tolerance Limit		±2.0

Dissolved Oxygen (DO) (Method Ref: APHA 19e, 4500-O, C)

Reference DO reading (mg/L)	DO reading od DO probe (mg/L)	Deviation (mg/L)
8.55	8.64	+0.09
5.47	5.34	-0.13
2.94	3.01	+0.07
	Tolerance Limit	±0.20

Remarks:

- (1) Maxium tolerance and calibration frequency stated in the report, unless otherwise stated, the internal acceptance criteria of Pilot Testing Limited will be followed.
- (2) Displayed reading presents the figures shown on item under calibration/checking regardless of equipment precision or significant figures.
- (3) Because of high sensitivity and ease of measurement, the conductivity method (according to APHA 19e 2510) is used to determine salinity.



EQUIPMENT PERFORMANCE CHECK / CALIBRATION REPORT

Report No. : HK1610202

Project Name : EQUIPMENT PERFORMANCE CHECK/CALIBRATION REPORT

Date of Issue : 21/04/2016

Customer : LAM GEOTECHNICS LIMITED

Address : 11/F., CENTRE POINT, 181-185 GLOUCESTER ROAD, WAN CHAI, HONG KONG

Calibration Job No. : HK1610202 Test Item No. : HK1610202-01

Test Item Details

Test Item Description : Multifunctional Meter

Manufacturer : YSI

Model No. : Professional Plus Serial No. : 14E100105

Performance Method : Checked according to in-house method CAL005

(References: Temperature (Section 6 of Intermational Accreditation New Zealand Technical Guide No. 3 Second edition March 2008: Working Thermometer Calibration Procedure), pH value

(APHA 21e 4500H:B), Salinity (Refer to Conductivity APHA 19e 2510B)

, Dissolved oxygen (APHA 19e 4500-O,C))

Test Item Receipt Date : 14-Apr-16
Test Item Calibration Date : 15-Apr-16

Notes: 1. This report shall not be reproduced, except in full, without prior approval from Pilot Testing Limited.

- 2. Results relate to item(s) as received.
- 3. ± indicates the tolerance limit
- 4. N/A = Not applicable
- APHA American Public Health Association, American Water Works Association and Water Environment Federation, Standard Methods for the Examination of Water and Wastewater, APHA-AWWA-WEF. USA
- 6. DO, pH, salinity and temperature performance check was conducted by Pilot Testing Limited.
- Because of high sensitivity and ease of measurement, the conductivity method (according to APHA 19e 2510) is used to determine salinity.

Approved Signatory

Ms. Wong Po Yan, Pauline

(Testing Engineer)

Issue Date:

21/04/2016



WORK ORDER: HK1610202 DATE OF ISSUE: 21/04/2016

CLIENT:

LAM GEOTECHNICS LIMITED

Equipment Type	Multifunctional Meter	
Manufacturer	YSI	
Model No.	Professional Plus	
Serial No.	14E100105	
Date of Calibration	15-Apr-16	
Date of next Calibation	15-Jul-16	

Parameters:

Temperature (Method Ref: Section 6 of International Accreditation New Zealand Technical Guide No.3 Second edition March 2008: Working Thermometer Calibration Procedure)

Reference Reading (°C)	Display Reading (°C)	Deviation (°C)
10.1	9.8	-0.3
20.3	20.6	+0.3
30.3	30.1	-0.2
T	olerance Limit	±2.0

pH Value (Method Ref: APHA21e, 4500H:B)

Expected Reading (pH unit)	Reference Reading (pH unit)	Display Reading (pH unit)	Deviation (pH unit)
4.0	4.08	4.02	-0.06
7.0	7.04	7.07	+0.03
10.0	9.98	10.03	+0.05
	Tolerance Limit		±0.20

Conductivity (Method Ref: APHA 19e, 2510)

KCI concentration (mol/L)	Reference Reading (ms/cm)	Display Reading (ms/cm)	Deviation (%)
0.0000	0.00	0.00	- 4
0.1000	12.89	12.75	-1.09
0.2000	24.80	24.99	+0.77
0.5000	58.67	58.44	-0.39
	Tolerance Limit		±2.0

Dissolved Oxygen (DO) (Method Ref: APHA 19e, 4500-O, C)

Reference DO reading (mg/L)	DO reading od DO probe (mg/L)	Deviation (mg/L)
8.75	8.69	-0.06
4.87	4.92	+0.05
2.84	2.92	+0.08
	Tolerance Limit	±0.20

Remarks:

- (1) Maxium tolerance and calibration frequency stated in the report, unless otherwwise stated, the internal acceptance criteria of Pilot Testing Limited will be followed.
- (2) Displayed reading presents the figures shown on item under calibration/checking regardless of equipment precision or significant figures.
- (3) Because of high sensitivity and ease of measurement, the conductivity method (according to APHA 19e 2510) is used to determine salinity.



EQUIPMENT PERFORMANCE CHECK / CALIBRATION REPORT

Report No. : HK1610022

Project Name : EQUIPMENT PERFORMANCE CHECK/CALIBRATION REPORT

Date of Issue : 21/01/2016

Customer : LAM GEOTECHNICS LIMITED

Address : 11/F., CENTRE POINT, 181-185 GLOUCESTER ROAD, WAN CHAI, HONG KONG

Calibration Job No. : HK1610022 Test Item No. : HK1610022-01

Test Item Details

Test Item Description : Multifunctional Meter

Manufacturer : Y

Model No. : Professional Plus Serial No. : 14M100277

Performance Method : Checked according to in-house method CAL005

(References: Temperature (Section 6 of Intermational Accreditation New Zealand Technical Guide No. 3 Second edition March 2008: Working Thermometer Calibration Procedure), pH value

(APHA 21e 4500H:B), Salinity (Refer to Conductivity APHA 19e 2510B)

, Dissolved oxygen (APHA 19e 4500-O,C))

Test Item Receipt Date : 14-Jan-16 Test Item Calibration Date : 15-Jan-16

Notes: 1. This report shall not be reproduced, except in full, without prior approval from Pilot Testing Limited.

- Results relate to item(s) as received.
- 3. ± indicates the tolerance limit
- 4. N/A = Not applicable
- APHA American Public Health Association, American Water Works Association and Water Environment Federation, Standard Methods for the Examination of Water and Wastewater, APHA-AWWA-WEF. USA
- 6. DO, pH, salinity and temperature performance check was conducted by Pilot Testing Limited.
- Because of high sensitivity and ease of measurement, the conductivity method (according to APHA 19e 2510) is used to determine salinity.

Approved Signatory

Ms. Wong Po Yan, Pauline (Testing Engineer) Issue Date:

21/01/2016



WORK ORDER: HK1610022 DATE OF ISSUE: 21/01/2016

CLIENT: LAM GEOTECHNICS LIMITED

Equipment Type	Multifunctional Meter	
Manufacturer	YSI	
Model No.	Professional Plus	
Serial No.	14M100277	
Date of Calibration	15-Jan-16	
Date of next Calibation	15-Apr-16	

Parameters:

Temperature (Method Ref: Section 6 of Intermational Accreditation New Zealand Technical Guide No.3 Second edition March 2008: Working Thermometer Calibration Procedure)

Reference Reading (°C)	Display Reading (°C)	Deviation (°C)
10.3	10.7	+0.4
20.9	20.4	-0.5
30.1	30.3	+0.2
To	olerance Limit	±2.0

pH Value (Method Ref: APHA21e, 4500H:B)

Expected Reading (pH unit)	Reference Reading (pH unit)	Display Reading (pH unit)	Deviation (pH unit)
4.0	4.06	3.98	-0.08
7.0	7.05	7.16	+0.11
10.0	10.13	10.06	-0.07
***	Tolerance Limit		±0.20

Conductivity (Method Ref: APHA 19e, 2510)

KCl concentration (mol/L)	Reference Reading (ms/cm)	Display Reading (ms/cm)	Deviation (%)
0.0000	0.00	0.00	(1)
0.1000	12.89	12.69	-1.55
0.2000	24.80	25.04	+0.97
0.5000	58.67	59.13	+0.78
	Tolerance Limit		±2.0

Dissolved Oxygen (DO) (Method Ref: APHA 19e, 4500-O, C)

Reference DO reading (mg/L)	DO reading od DO probe (mg/L)	Deviation (mg/L)
8.86	8.71	-0.15
4.59	4.46	-0.13
2.11	2.21	+0.10
	Tolerance Limit	±0.20

Remarks:

- (1) Maxium tolerance and calibration frequency stated in the report, unless otherwise stated, the internal acceptance criteria of Pilot Testing Limited will be followed.
- (2) Displayed reading presents the figures shown on item under calibration/checking regardless of equipment precision or significant figures.
- (3) Because of high sensitivity and ease of measurement, the conductivity method (according to APHA 19e 2510) is used to determine salinity.



EQUIPMENT PERFORMANCE CHECK / CALIBRATION REPORT

Report No. HK1610157

Project Name EQUIPMENT PERFORMANCE CHECK/CALIBRATION REPORT

Date of Issue 20/04/2016

LAM GEOTECHNICS LIMITED Customer

Address 11/F., CENTRE POINT, 181-185 GLOUCESTER ROAD, WAN CHAI, HONG KONG

Performance check / Calibration Job No. HK1610157 Test Item No. HK1610157-01 Test Item Details

Test Item Description

Multifunctional Meter Manufacturer YSI Model No. Professional Plus

14M100277 Serial No.

Performance Method Checked according to in-house method CAL005

(References: Temperature (Section 6 of Intermational Accreditation New Zealand Technical Guide No. 3 Second edition March 2008: Working Thermometer Calibration Procedure), pH value

(APHA 21e 4500H:B), Salinity (Refer to Conductivity APHA 19e 2510B)

Dissolved oxygen (APHA 19e 4500-O,C))

Test Item Receipt Date 13-Apr-16 Test Item Performance check / Calibration Date 15-Apr-16

1. This report shall not be reproduced, except in full, without prior approval from Pilot Testing Limited. Notes:

2. Results relate to item(s) as received.

3. ± indicates the tolerance limit

4. N/A = Not applicable

APHA - American Public Health Association, American Water Works Association and Water Environment Federation, Standard Methods for the Examination of Water and Wastewater, APHA-AWWA-WEF. USA

6. DO, pH, salinity and temperature performance check was conducted by Pilot Testing Limited.

Because of high sensitivity and ease of measurement, the conductivity method (according to APHA 19e 2510)

is used to determine salinity.

Approved Signatory

Ms. Wong Po Yan, Pauline (Testing Engineer)

Issue Date: 20/04/2016



WORK ORDER: HK1610157 DATE OF ISSUE: 20/04/2016

CLIENT: LAM GEOTECHNICS LIMITED

Equipment Type	Multifunctional Meter	
Manufacturer	YSI	
Model No.	Professional Plus	
Serial No.	14M100277	
Date of Performance check / Calibration	15-Apr-16	
Date of next Performance check / Calibation	15-Jul-16	

Parameters:

Temperature (Method Ref: Section 6 of Intermational Accreditation New Zealand Technical Guide No.3 Second edition March 2008: Working Thermometer Calibration Procedure)

Reference Reading (°C)	Display Reading (°C)	Deviation (°C)
10.1	10.3	+0.2
20.3	20.1	-0.2
29.9	30.3	+0.4
17	olerance Limit	±2.0

pH Value (Method Ref: APHA21e, 4500H:B)

Expected Reading (pH unit)	Reference Reading (pH unit)	Display Reading (pH unit)	Deviation (pH unit)
4.0	4.06	4.11	+0.05
7.0	7.05	6.94	-0.11
10.0	10.11	10.09	-0.02
	Tolerance Limit		±0.20

Conductivity (Method Ref: APHA 19e, 2510)

KCI concentration (mol/L)	Reference Reading (ms/cm)	Display Reading (ms/cm)	Deviation (%)
0.0000	0.00	0.00	-
0.1000	12.89	12.77	-0.93
0.2000	24.80	24.97	+0.69
0.5000	58.67	58.54	-0.22
	Tolerance Limit		±2.0

Dissolved Oxygen (DO) (Method Ref: APHA 19e, 4500-O, C)

Reference DO reading (mg/L)	DO reading od DO probe (mg/L)	Deviation (mg/L)
8.54	8.66	+0.12
4.41	4.49	+0.08
2.23	2.19	-0.04
	Tolerance Limit	±0.20

Remarks:

- (1) Maxium tolerance and performance check / calibration frequency stated in the report, unless otherwise stated, the internal acceptance criteria of Pilot Testing Limited will be followed.
- (2) Displayed reading presents the figures shown on item under calibration/checking regardless of equipment precision or significant figures.
- (3) Because of high sensitivity and ease of measurement, the conductivity method (according to APHA 19e 2510) is used to determine salinity.



EQUIPMENT PERFORMANCE CHECK / CALIBRATION REPORT

Report No. : HK1610020

Project Name : EQUIPMENT PERFORMANCE CHECK/CALIBRATION REPORT

Date of Issue : 21/01/2016

Customer : LAM GEOTECHNICS LIMITED

Address : 11/F., CENTRE POINT, 181-185 GLOUCESTER ROAD, WAN CHAI, HONG KONG

Calibration Job No. : HK1610020 Test Item No. : HK1610020-01

Test Item Details

Test Item Description : Multifunctional Meter

Manufacturer : YSI

Model No. : Professional Plus Serial No. : 11F100420

Performance Method : Checked according to in-house method CAL005

(References: Temperature (Section 6 of Intermational Accreditation New Zealand Technical Guide No. 3 Second edition March 2008: Working Thermometer Calibration Procedure), pH value

(APHA 21e 4500H:B), Salinity (Refer to Conductivity APHA 19e 2510B)

, Dissolved oxygen (APHA 19e 4500-O,C))

Test Item Receipt Date : 14-Jan-16
Test Item Calibration Date : 15-Jan-16

Notes: 1. This report shall not be reproduced, except in full, without prior approval from Pilot Testing Limited.

- 2. Results relate to item(s) as received.
- 3. ± indicates the tolerance limit
- 4. N/A = Not applicable
- APHA American Public Health Association, American Water Works Association and Water Environment Federation, Standard Methods for the Examination of Water and Wastewater, APHA-AWWA-WEF. USA
- 6. DO, pH, salinity and temperature performance check was conducted by Pilot Testing Limited.
- Because of high sensitivity and ease of measurement, the conductivity method (according to APHA 19e 2510) is used to determine salinity.

Approved Signatory

Ms. Wong Po Yan, Pauline (Testing Engineer) Issue Date: 21/01/2016



WORK ORDER: HK1610020 DATE OF ISSUE: 21/01/2016

CLIENT: LAM GEOTECHNICS LIMITED

Equipment Type	Multifunctional Meter	
Manufacturer	YSI	
Model No.	Professional Plus	
Serial No.	11F100420	
Date of Calibration	15-Jan-16	
Date of next Calibation	15-Apr-16	

Parameters:

Temperature (Method Ref: Section 6 of Intermational Accreditation New Zealand Technical Guide No.3 Second edition March 2008: Working Thermometer Calibration Procedure)

Reference Reading (°C)	Display Reading (°C)	Deviation (°C)
10.1	10.4	+0.3
19.8	20.3	+0.5
30.4	30.9	+0.5
IT	olerance Limit	±2.0

pH Value (Method Ref: APHA21e, 4500H:B)

Expected Reading (pH unit)	Reference Reading (pH unit)	Display Reading (pH unit)	Deviation (pH unit)
4.0	3.97	4.02	+0.05
7.0	7.15	7.08	-0.07
10.0	10.06	9.98	-0.08
	Tolerance Limit		±0.20

Conductivity (Method Ref: APHA 19e, 2510)

KCI concentration (mol/L)	Reference Reading (ms/cm)	Display Reading (ms/cm)	Deviation (%)
0.0000	0.00	0.00	
0.1000	12.89	12.74	-1.16
0.2000	24.80	24.42	-1.53
0.5000	58.67	58.94	+0.46
	Tolerance Limit		±2.0

Dissolved Oxygen (DO) (Method Ref: APHA 19e, 4500-O, C)

Reference DO reading (mg/L)	DO reading od DO probe (mg/L)	Deviation (mg/L)
8.43	8.51	+0.08
4.44	4.38	-0.06
2.13	2.02	-0.11
	Tolerance Limit	±0.20

Remarks:

- (1) Maxium tolerance and calibration frequency stated in the report, unless otherewise stated, the internal acceptance criteria of Pilot Testing Limited will be followed.
- (2) Displayed reading presents the figures shown on item under calibration/checking regardless of equipment precision or significant figures.
- (3) Because of high sensitivity and ease of measurement, the conductivity method (according to APHA 19e 2510) is used to determine salinity.



EQUIPMENT PERFORMANCE CHECK / CALIBRATION REPORT

Report No. : HK1610201

Project Name : EQUIPMENT PERFORMANCE CHECK/CALIBRATION REPORT

Date of Issue : 21/04/2016

Customer : LAM GEOTECHNICS LIMITED

Address : 11/F., CENTRE POINT, 181-185 GLOUCESTER ROAD, WAN CHAI, HONG KONG

Calibration Job No. : HK1610201 Test Item No. : HK1610201-01

Test Item Details

Test Item Description : Multifunctional Meter

Manufacturer : YSI

Model No. : Professional Plus Serial No. : 11F100420

Performance Method : Checked according to in-house method CAL005

(References: Temperature (Section 6 of Intermational Accreditation New Zealand Technical Guide No. 3 Second edition March 2008: Working Thermometer Calibration Procedure), pH value

(APHA 21e 4500H:B), Salinity (Refer to Conductivity APHA 19e 2510B)

, Dissolved oxygen (APHA 19e 4500-O,C))

Test Item Receipt Date : 14-Apr-16
Test Item Calibration Date : 15-Apr-16

Notes: 1. This report shall not be reproduced, except in full, without prior approval from Pilot Testing Limited.

- 2. Results relate to item(s) as received.
- 3. ± indicates the tolerance limit
- 4. N/A = Not applicable
- APHA American Public Health Association, American Water Works Association and Water Environment Federation, Standard Methods for the Examination of Water and Wastewater, APHA-AWWA-WEF. USA
- 6. DO, pH, salinity and temperature performance check was conducted by Pilot Testing Limited.
- Because of high sensitivity and ease of measurement, the conductivity method (according to APHA 19e 2510) is used to determine salinity.

Approved Signatory

Ms. Wong Po Yan, Pauline (Testing Engineer) Issue Date: 21/04/2016



WORK ORDER: HK1610201 DATE OF ISSUE: 21/04/2016

CLIENT: LAM GEOTECHNICS LIMITED

Equipment Type	Multifunctional Meter	
Manufacturer	YSI	
Model No.	Professional Plus	
Serial No.	11F100420	
Date of Calibration	15-Apr-16	
Date of next Calibation	15-Jul-16	

Parameters:

Temperature (Method Ref: Section 6 of Intermational Accreditation New Zealand Technical Guide No.3 Second edition March 2008: Working Thermometer Calibration Procedure)

Reference Reading (°C)	Display Reading (°C)	Deviation (°C)
10.1	10.6	+0.5
20.4	20.6	+0.2
30.3	29.9	-0.4
	Tolerance Limit	±2.0

pH Value (Method Ref: APHA21e, 4500H:B)

Expected Reading (pH unit)	Reference Reading (pH unit)	Display Reading (pH unit)	Deviation (pH unit)
4.0	3.92	4.01	+0.09
7.0	7.02	7.06	+0.04
10.0	9.96	9.89	-0.07
	Tolerance Limit	±0.20	

Conductivity (Method Ref: APHA 19e, 2510)

KCl concentration (mol/L)	Reference Reading (ms/cm)	Display Reading (ms/cm)	Deviation (%)
0.0000	0.00	0.00	
0.1000	12.89	12.91	+0.16
0.2000	24.80	24.61	-0.77
0.5000	58.67	58.81	+0.24
	Tolerance Limit	±2.0	

Dissolved Oxygen (DO) (Method Ref: APHA 19e, 4500-O, C)

Reference DO reading (mg/L)	DO reading od DO probe (mg/L)	Deviation (mg/L)	
8.73	8.62	-0.11	
4.58	4.63	+0.05	
2.31	2.27	-0.04	
	Tolerance Limit	±0.20	

Remarks:

- (1) Maxium tolerance and calibration frequency stated in the report, unless otherwise stated, the internal acceptance criteria of Pilot Testing Limited will be followed.
- (2) Displayed reading presents the figures shown on item under calibration/checking regardless of equipment precision or significant figures.
- (3) Because of high sensitivity and ease of measurement, the conductivity method (according to APHA 19e 2510) is used to determine salinity.



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

ORIFICE TRANSFER STANDARD CERTIFICATION WORKSHEET TE-5025A

	Tisch	Rootsmeter Orifice I.I		0005	Pa (mm) -	749.3
PLATE OR Run #	VOLUME START (m3)	VOLUME STOP (m3)	DIFF VOLUME (m3)	DIFF TIME (min)	METER DIFF Hg (mm)	ORFICE DIFF H2O (in.)
1 2 3 4 5	NA NA NA NA NA	NA NA NA NA NA	1.00 1.00 1.00 1.00	1.3930 0.9800 0.8790 0.8350 0.6900	3.2 6.4 7.9 8.7 12.7	2.00 4.00 5.00 5.50 8.00

DATA TABULATION

Vstd	(x axis) Qstd	(y axis)	Va	(x axis) Qa	(y axis)
0.9883 0.9841 0.9820 0.9810 0.9757	0.7095 1.0042 1.1172 1.1749 1.4141	1.4090 1.9926 2.2278 2.3365 2.8179	0.9957 0.9915 0.9894 0.9884 0.9830	0.7148 1.0117 1.1256 1.1837 1.4247	0.8889 1.2570 1.4054 1.4740 1.7777
Ostd slop intercept coefficient y axis =	t (b) = ent (r) =	2.00072 -0.01209 0.99995 Pa/760)(298/Ta)]	Qa slope intercept coefficie y axis =	= (b) $=$	1.25282 -0.00763 0.99995

CALCULATIONS

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

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

For subsequent flow rate calculations:

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



Location	:	CMA1b	Calbration Date	:	21-Mar-16
Equipment no.	:	HVS001	Calbration Due Date	: _	21-May-16
CALIBRATION OF	CONTINUO	US FLOW RECORDER			

Temperature, T _a	290	Kelvin	Pressure, Pa	1015	mmHg
	0	rifice Transfer Sta	indard Information		
Equipment No.	Ori001	Slope, m _c	2.00072	Intercept, bc	-0.01209
Last Calibration Date	30-Jun-15		(HxPa)	(1013.3 x 298 / T _a)	1/2
Next Calibration Date	30-Jun-16		= n	$n_c \times Q_{std} + b_c$	

Ambient Condition

			C	alibration of TSP		
Calibration Point		nometer Re (inches of v (down)	100	Q _{std} (m³ / min.) X-axis	Continuous Flow Recorder, W (CFM)	IC (W(P _a /1013.3x298/T _e) ^{1/2} /35.31 Y-axis
1	6.2	6.2	12.4	1.7917	58	58.8439
2	4.8	4.8	9.6	1.5772	52	52.7566
3	3.6	3.6	7.2	1.3667	44	44.6402
4	2.4	2.4	4.8	1.1170	36	36.5238
5	1.6	1.6	3.2	0.9132	24	24.3492

By L	inear	Reg	ression	of \	on X

Slope, m = 38.3937 Intercept, b =

Intercept, b = -8.5301

Correlation Coefficient*

= 0.9915

Calibration Accepted = Yes/Ne**

As per client's provided information, the equipment reference no. of the calibrated High Volume Sampler has been

re-assigned from EL452 to HVS001 with respect to the update in quality management system.

Calibrated by : Kit Au Checked by : Pauline Wong

 $[\]ensuremath{^*}$ if Correlation Coefficient < 0.990, check and recalibration again.

^{**} Delete as appropriate.



CALIBRATION OF CONTIN	IUOUS FL	OW RECO	RDER	Amblent C	Sandikian					
Femperature, T _a		290		Ambient C			1	015	mmHg	
			Orifice 1	Transfer Sta	ndard Informa	ation				
Equipment No.		Ori001		Slope, m _c	2.0007		Intercept, bc	Т	-0.01209	
Last Calibration Date		30-Jun-18	5		(H	x P _a / 10	13.3 x 298/	T_a) 1/	17450-7	
Next Calibration Date		30-Jun-16	3		=		$Q_{std} + b_c$	u		
				Calibratio	n of TSP					
Calibration Point	10.77	nometer Re		Q _{std} C (m ³ / min.)			Continuous Flow Recorder, W		IC /1013.3x298/T _a) ^{1/2} /35.31	
	(up)		(difference)	X-axis (CFM)				Y-axis		
1	6.8	6.8	13.6	1.8	1.8761 64		64		64.9312	
2	5.4	5.4	10.8	1.6	5725		55		55.8002	
3	4.1	4.1	8.2	1.4	581		48		48.6984	
4	2.8	2.8	5.6	1.2	2060		38		38.5529	
5	1.8	1.8	3.6	0.9	682		30		30.4365	
By Linear Regression of Yo	Slope, m	1		7519	- Inte	ercept, b =	-6	.5353		
Calibration		-	0.99 Yes/							
r if Correlation Coefficient <	0.990, che	eck and reca	ilibration agai	n.						

Checked by

Date

Pualine Wong

21-Mar-16

Kit Au

21-Mar-16

Calibrated by

Date



Location		CMA3a	Calbration Date	•	21-Mar-16
Equipment no.	:	HVS012	Calbration Due Date	12	21-May-16

CALIBRATION OF CONTINUOUS FLOW RECORDER

				Ambient Cond	ition			
Temperature, T _a		290)	Kelvin Pro	essure, P _a		1015	mmHg
			Orifice T	ransfer Standa	rd Information		-201-	
Equipment No.		Ori001		Slope, m _c	2.00072	Intercept, b	С	-0.01209
Last Calibration Date		30-Jun-15			(HxP _a /	1013.3 x 298	/T _a) 1/2	
Next Calibration Date	30-Jun-16			$= m_c \times Q_{std} + b_c$				
				Calibration of	TSP			
Calibration Point	Manometer Reading H (inches of water) (up) (down) (difference)		Q _{std} (m ³ / mi	n.)	ntinuous Flow Recorder, W	(W(P _a /101	IC 3.3x298/T _a) ^{1/2} /35.31	
1	7.0	7.0	14.0	1,903		(CFM) 54		Y-axis 54.7857
2	5.6	5.6	11.2	1.703	1.	49		49.7129
3	4.2	4.2	8.4	1.475	7	42		42.6111
4	3.1	3.1	6.2	1.268	7	38		38.5529
5	1.8	1.8	3.6	0.968	2	30		30.4365
By Linear Regression of Y	on X							
	Slope, m	=	25.9	695	Intercept,	b =	5.2051	
Correlation Co	efficient*	=	0.99	985				7
Calibration	Accepted	-	Yes/	No**				

^{*} if Correlation Coefficient < 0.990, check and recalibration again.

Remarks: As per client's provided information, the equipment reference no. of the calibrated High Volume Sampler has been

re-assigned from EL333 to HVS012 with respect to the update in quality management system.

Calibrated by : Kit Au Checked by : Pauline Wong

Date : 21-Mar-16

Date : 21-Mar-16

^{**} Delete as appropriate.



Location		CMA4a	Calbration Date		21-Mar-16
Equipment no.		HVS004	Calbration Due Date	:	21-May-16
	_			_	

CALIBRATION OF CONTINUOUS FLOW RECORDER

				Ambient (Condition			
Γemperature, T₄		290		Kelvin	Pressure, P	re, Pa		mmHg
			Orifice	Transfer Sta	andard Inform	nation		
Equipment No.		Ori001			2.000	72 Intercept,	, bc	-0.01209
Last Calibration Date		30-Jun-1	5		(H	x P _a / 1013.3 x 29	8/T _a) 1/2	
Next Calibration Date	Date 30-Jun-16				=	$m_c \times Q_{std} + b$) _c	
				Calibratio	n of TSP			
Calibration	Manometer Reading		Q	std	Continuous Flow		IC	
Point F		H (inches of water)		(m ³ /	min.)	Recorder, W	(W(P ₄ /10	013.3x298/T _a) ^{1/2} /35.3
	(up)	(down)	(difference)	X-a	xis	(CFM)		Y-axis
1	7.9	7.9	15.8	2.0	217	52		52.7566
2	6.8	6.8	13.6	1.8	761	48		48.6984
3	5.4	5.4	10.8	1.6	725	42		42.6111
4	3.8	3.8	7.6	1.4	040	34		34.4947
5	2.1	2.1	4.2	1.0	453	28		28.4074
By Linear Regression of Y	on X		,					
	Slope, m	=	25.5	5259	Inte	ercept, b =	0.4522	
Correlation Co	oefficient*	Ħ	0.9	928				
Calibration	Accepted	=	Yes	Ne**	5			

^{*} if Correlation Coefficient < 0.990, check and recalibration again.

Date

As per client's provided information, the equipment reference no. of the calibrated High Volume Sampler has been Remarks: re-assigned from EL390 to HVS004 with respect to the update in quality management system. Kit Au Checked by Pauline Wong Calibrated by 21-Mar-16 Date 21-Mar-16

^{**} Delete as appropriate.



Location	:	CMA5b	Calbration Date	:	21-Mar-16
Equipment no.	1.	HVS010	Calbration Due Date		21-May-16

CALIBRATION OF CONTINUOUS FLOW RECORDER

Ambient Condition							
Temperature, T _a	290	Kelvin P	ressure, Pa	1015	mmHg		

	Or	ifice Transfer Standa	ard Information		
Equipment No.	Ori001	Slope, m _c	2.00072	Intercept, bc	-0.01209
Last Calibration Date	30-Jun-15		(HxPa	/1013.3 x 298/T _a)	1/2
Next Calibration Date	30-Jun-16		= /	$m_c \times Q_{std} + b_c$	

			C	alibration of TSP			
Calibration Point		nometer R (inches of (down)		Q _{std} (m³ / min.) X-axis	Rec	order, W	IC (W(P _e /1013.3x298/T _e) ^{1/2} /35.31 Y-axis
1	6.2	6.2	12.4	1.7917		64	64.9312
2	4.9	4.9	9.8	1.5935		58	58.8439
3	3.4	3.4	6.8	1.3284		54	54.7857
4	2.1	2.1	4.2	1.0453		46	46.6693
5	1.4	1.4	2.8	0.8546		40	40.5820
By Linear Regression of \	on X Slope, m	-	25.037	5	Intercept, b =	2	0.0458
	Coefficient*		0.9942 Yes/No				

^{*} if Correlation Coefficient < 0.990, check and recalibration again.

**	Delete	as	appro	priate.
			200	

Remarks : As per client's provided information, the equipment reference no. of the calibrated High Volume Sampler has been

re-assigned from EL222 to HVS010 with respect to the update in quality management system.

 Calibrated by
 :
 Kit Au
 Checked by
 :
 Pauline Wong

 Date
 :
 21-Mar-16
 Date
 :
 21-Mar-16



Location		CMA6a	Calbration Date	:	24-Mar-16
Equipment no.	* -	HVS013	Calbration Due Date	F :	24-May-16

CALIBRATION OF CONTINUOUS FLOW RECORDER

Ambient Condition							
Temperature, T _a	288	Kelvin Pressure, Pa	1020	mmHg			

Orifice Transfer Standard Information									
Equipment No.	Ori001	Slope, m _c	2.00072	Intercept, bc	-0.01209				
Last Calibration Date	30-Jun-15	$(H \times P_a / 1013.3 \times 298 / T_a)^{1/2}$							
Next Calibration Date	30-Jun-16		=	$m_c \times Q_{std} + b_c$					

Calibration of TSP									
Calibration Point	Manometer Reading H (inches of water) (up) (down) (difference)		Q _{std} (m ³ / min.) X-axis	Continuous Flow Recorder, W (CFM)	IC (W(P _a /1013.3x298/T _a) ^{1/2} /35.31 Y-axis				
1	6.6	6.6	13.2	1.8593	60	61.2342			
2	5.4	5.4	10.8	1.6824	54	55.1108			
3	4.2	4.2	8.4	1.4845	48	48.9874			
4	2.8	2.8	5.6	1.2132	40	40.8228			
5	1.8	1.8	3.6	0.9739	32	32.6583			

Yes/Ne** Calibration Accepted

Remarks : As per client's provided information, the equipment reference no. of the calibrated High Volume Sampler has been

re-assigned from EL551 to HVS013 with respect to the update in quality management system

Pauline Wong Calibrated by Kit Au Checked by 24-Mar-16 Date 24-Mar-16

^{*} if Correlation Coefficient < 0.990, check and recalibration again.

^{**} Delete as appropriate.

Appendix 5.1

Monitoring Schedules for Reporting Month and Coming Reporting Month

Contract No. HK/2015/01

Wan Chai Development Phase II and Central-Wan Chai Bypass Sampling, Field Measurement and Testing Works (Stage 3)

Environmental Monitoring Schedule

Anril	201	ĥ

							prii 20						
Sunday		Monday		Tuesday		Wednesday		Thursday		Friday		Saturday	
2	7-Mar		28-Mar	2	9-Mar		30-Mar		31-Mar		1-Apr		2-Ap
						24hr TSP		24hr TSP					
						(CMA3a, CMA6a)		(CMA3a)					
				24hr TSP		1hr TSP		,		24hr TSP		1hr TSP	
				Noise (daytime)		Noise (daytime)							
				(M1a, M2b, M4b)		(M3a, M5b , M6)							
				Impact WQM				Impact WQM				Impact WQM	
				Mid-flood	9:04			Mid-flood	10:13			Mid-flood	13:0
				Mid-ebb	15:41			Mid-ebb	17:43			Mid-ebb	20:2
	3-Apr		4-Apr		5-Apr		6-Apr		7-Apr		8-Apr		9-Ap
								24hr TSP		1hr TSP			
				Noise (daytime)		Noise (daytime)							
				(M2b)		(M1a, M3a, M4b, M5	b. M6)						
				(2)		(,,,	-,,						
				Impact WQM				Impact WQM				Impact WQM	
				Mid-ebb	10:59			Mid-ebb	12:18			Mid-ebb	13:44
				Mid-flood	16:40			Mid-flood	18:27			Mid-flood	20:08
,	10-Apr		11-Apr		12-Apr		13-Apr		14-Apr		15-Apr		16-Ap
								24hr TSP					
								(CMA1b and CMA5b)					
						24hr TSP		1hr TSP					
						2 10.		101					
		Noise (daytime)		Noise (daytime)									
		(M5b, M6)		(M1a, M2b, M3a, M4b)									
		Impact WQM				Impact WQM				Impact WQM			
		Mid-flood	8:40			Mid-flood	10:07			Mid-flood	12:23		
	17-Apr	Mid-ebb	15:17 18-Apr		19-Apr	Mid-ebb	17:23 20-Apr		21-Apr	Mid-ebb	19:57 22-Apr		23-Ap
	17-Арі		то-жрі		15-Aþi		20-Api		21-Api		22-Api		23-Ap
						24hr TSP							
						(CMA6a)							
				24hr TSP		1hr TSP							
				Noise (daytime)									
				(M1a, M2b, M3a, M4b, M5	b, M6)								
		Impact WQM				Impact WQM				Impact WQM			
		Mid-ebb	10:35			Mid-ebb	11:36			Mid-ebb	12:31		
		Mid-flood	16:20			Mid-flood	17:46			Mid-flood	19:01		
2	24-Apr		25-Apr		26-Apr		27-Apr		28-Apr		29-Apr		30-Ap
		24hr TSP		1hr TSP									
		Naine (de dime)		Naise (de dim s)						Nieiee (de diese)			
		Noise (daytime)		Noise (daytime)						Noise (daytime)			
		(M1a, M2b)		(M3a, M4b, M5b)						(M6)			
		Impact WQM											
		Mid-flood	7:32										
		Mid-ebb	14:03										
Pomorko: Duo		000	. 7.03	a signal the WOM on 12 A		l		ı		l		ı	

Remarks: Due to the hoisting of amber rainstorm warning signal, the WQM on 13 April 2016 during flood tide and 22 April 2016 during Ebb tide were cancelled.

Contract No. HK/2015/01

Wan Chai Development Phase II and Central-Wan Chai Bypass Sampling, Field Measurement and Testing Works (Stage 3)

Tentative Environmental Monitoring Schedule May 2016

			May 20						
Sunday	Monday	Tuesday	Wednesday	Thurs		Friday		Saturday	
			27-A	or	28-Apr		29-Apr		30-Apr
				24hr TSP		1hr TSP			
			Impact WQM Mid-flood 8:			Impact WQM	0.44		
			Mid-flood 8:1 Mid-ebb 15:1			Mid-flood Mid-ebb	9:41 17:04		
1-May	2-May	3-May	4-Ma	v	5-May	Wild-CDD	6-May		7-May
	,	, i			Í				,
			24hr TSP	1hr TSP					
		Mata da	Mala a Ada Baras						
		Noise (daytime)	Noise (daytime)						
		Impact WQM		Import MON				Impact WQM	
				Impact WQM	44.45			Mid-ebb	12:41
		Mid-ebb 9:50		Mid-ebb	11:15			Mid-flood	19:12
8-May	9-May	Mid-flood 15:27	11-Ma	Mid-flood	17:26 12-May		13-May	Mid-flood	19:12 14-May
8-мау	9-мау	10-May	11-M	y .	12-May		13-May		14-may
		04h- TOD	4b- TOD						
		24hr TSP	1hr TSP						
		Naine (de dime)	Naine (de time)						
		Noise (daytime)	Noise (daytime)						
	Impact WQM		Impact WQM			Impact WQM			
	Mid-flood 7:32		Mid-flood 8:5			Mid-flood	10:33		
15-May	Mid-ebb 14:13 16-May	17-May	Mid-ebb 15:5 18-Ma		19-May	Mid-ebb	17:55 20-May		21-May
13-ividy	10-iviay	17-ividy	I O-IVIA	y .	15-iviay		20-iviay		Z I-iviay
	24hr TSP	1hr TSP				24hr TSP		1hr TSP	
	24111 135	IIII ISP				24111 135		IIII ISF	
	Naine (de dine)	Naine (de dime)							
	Noise (daytime)	Noise (daytime)							
		Impact WQM		Impact WQM				Impact WQM	
		Impact WQM Mid-ebb 10:07		Mid-ebb	11:12			Mid-flood	18:51
		Mid-flood 16:04		Mid-flood	17:12			Mid-ebb	12:07
22-May	23-May	16:04 24-May	25-Ma		17:35 26-May		27-May		12:07 28-May
ZZ-Iviay	23-way	Z-rividy	20-IVI	"	20-ividy		· · widy		_o-ividy
				24hr TSP		1hr TSP			
				24III 10F		1111 13F			
	Noise (daytime)	Noise (daytime)							
	Noise (daytime)	Noise (daytime)							
	Impact WQM		Impact WQM						
	Mid-ebb 13:09		Mid-ebb 14:2						
	Mid-flood 20:06	1	Mid-flood 21:3	4				i	

Appendix 5.2

Noise Monitoring Results and Graphical Presentations



Noise Monitoring Result

Day Time (0700 - 1900hrs on normal weekdays)

Location: M1a - Harbour Road Sports Centre

			Measure	ement Noi	se Level	Baseline Level	Construction Noise Level	Limit Level
Date	Time	Weather	Leq	L10	L90	Leq	Leq	Leq
			' ' '			Unit: dl	B(A), (30-min)	
29/03/16	15:00	Fine	82.9	86.0	76.5	72	83	75
06/04/16	10:45	Fine	76.5	77.5	74.0	72	74	75
12/04/16	10:32	Cloudy	80.2	80.5	73.5	72	79	75
19/04/16	08:30	Fine	76.5 77.5 75.0		72	74	75	
25/04/16	08:55	Fine	76.5	78.3	74.0	72	74	75

Location: M2b - Noon-day gun area

		Measure	ement Noi	se Level		Baseline Level	Construction Noise Level	Limit Level
Date	Time	Weather	Leq	L10	L90	Leq	Leq	Leq
						Unit: dl	B(A), (30-min)	
29/03/16	10:22	Fine	68.1	69.5	66.0	68	58	75
05/04/16	15:58	Fine	68.7	70.0	66.0	68	62	75
12/04/16	13:00	Cloudy	66.8	68.0	65.0	68	67	75
19/04/16	09:15	Fine	69.0 70.0		67.5	68	63	75
25/04/16	09:49	Fine	68.4	70.0	65.5	68	61	75

Location: M3a - Tung Lo Wan Fire Station

			Measure	ement Noi	se Level	Baseline Level	Construction Noise Level	Limit Level
Date	Time	Weather	Leq	L10	L90	Leq	Leq	Leq
						Unit: dl	B(A), (30-min)	
30/03/16	14:43	Fine	65.8	65.8 67.0 63.5		69	66	75
06/04/16	13:15	Fine	68.5	69.0	67.0	69	69	75
12/04/16	13:42	Cloudy	64.7	66.0	62.5	69	65	75
19/04/16	13:00	Fine	67.5 68.0		66.0	69	68	75
26/04/16	14:15	Fine	65.2 66.5 63.0		63.0	69	65	75

Location: M4b - Victoria Centre

			Measurement Noise Level			Baseline Noise Level	Construction Noise Level	Limit Level
Date	Time	Weather	Leq L10		Leq L10 L90		Leq	Leq
						Unit: dl	B(A), (30min)	
29/03/16	11:00	Fine	69.2	72.5	64.5	67	65	75
06/04/16	13:52	Fine	65.2	67.0	62.5	67	65	75
12/04/16	14:23	Cloudy	65.6	66.0	62.0	67	66	75
19/04/16	13:38	Fine	68.0 69.5 6		65.0	67	60	75
26/04/16	14:53	Fine	65.7 66.5 63.5		67	66	75	

Location: M5b - City Garden

			Measurement Noise Level			Baseline Level	Construction Noise Level	Limit Level
Date	Time	Weather	Leq	L10	L90	Leq	Leq	Leq
						Unit: d	B(A), (30min)	
30/03/16	15:30	Fine	66.5	68.0	64.5	68	67	75
06/04/16	14:50	Fine	68.0	69.0	65.5	68	68	75
11/04/16	11:30	Fine	69.7	70.0	68.5	68	65	75
19/04/16	14:22	Fine	70.8 72.0		68.5	68	68	75
26/04/16	15:43	Fine	70.5 71.0 69.5		69.5	68	67	75

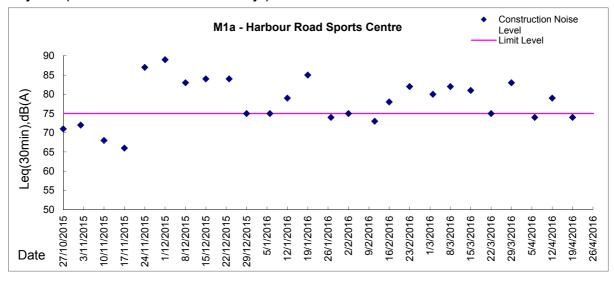
Location: M6 - HK Baptist Church Henrietta Secondary School

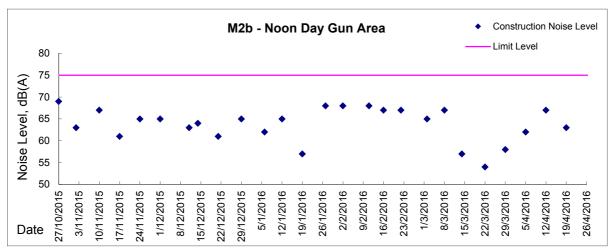
			Measure	ement Noi	se Level	Baseline Level	Construction Noise Level	Limit Level
Date	Time	Weather	Leq	L10	L90	Leq	Leq	Leq
			710 1 705 1 005			Unit: dl	B(A), (30-min)	
30/03/16	16:08	Fine	71.6	72.5	69.5	71	64	70
06/04/16	15:30	Fine	71.6	72.5	69.5	71	64	70
11/04/16	10:17	Fine	72.3	73.0	70.5	71	67	65
19/04/16	15:00	Fine	71.9	73.0	68.0	71	66	65
29/04/16	14:30	Fine	68.8	70.0	66.5	71	69	70

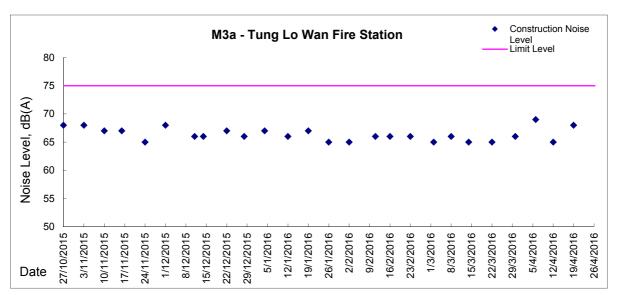
Due to school examination period, Limit Levels at M6 were adjusted to 65dB(A) on 11 and 19 April 2016



Graphic Presentation of Noise Monitoring Result Day Time (0700 - 1900hrs on normal weekdays)

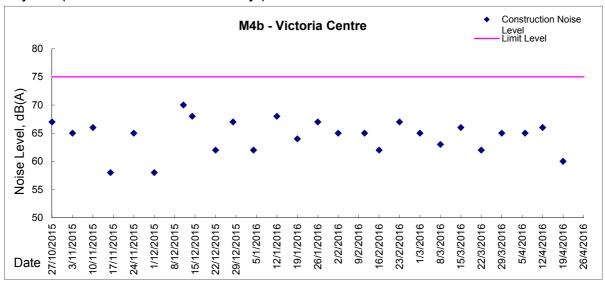


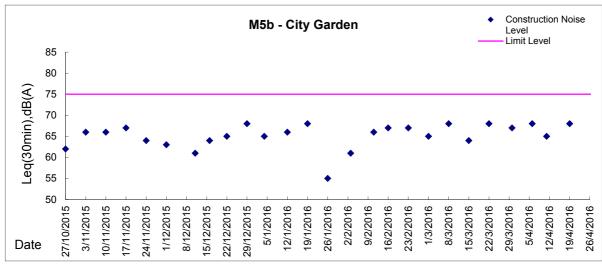


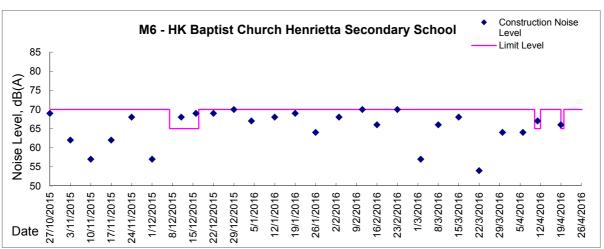




Graphic Presentation of Noise Monitoring Result Day Time (0700 - 1900hrs on normal weekdays)







Appendix 5.3

Air Quality Monitoring Results and Graphical Presentations, and odour Patrol Results



Location: CMA1b - Oil Street Site Office

Report on 24-hour TSP monitoring Action Level (μ g/m3) - 176.7 Limit Level (μ g/m3) - 260

Date	Sampling	Weather	Filter paper	Iter paper Filter Weight, g		Elapse Time	Elapse Time, hr		Flow Rate, m ³ /min			Total	TSP Level,
	Time	Condition	no.	Initial	Final	Initial	Final	Time, hr	Initial, Q _{si}	Final, Q _{sf}	Average	Volume, m ³	μ g /m³
29-Mar-16	8:00	Cloudy	014878	2.7991	3.1109	7899.00	7923.00	24.00	1.24	1.23	1.24	1779	175.3
1-Apr-16	8:00	Cloudy	014883	2.8365	3.0864	7926.05	7950.05	24.00	1.18	1.18	1.18	1698	147.2
7-Apr-16	8:00	Cloudy	015087	2.7405	2.8648	7953.05	7977.05	24.00	1.17	1.17	1.17	1690	73.6
14-Apr-16	14:02	Cloudy	015249	2.8131	2.8797	7989.92	8013.92	24.00	1.17	1.18	1.18	1693	39.3
19-Apr-16	8:00	Cloudy	015246	2.8066	2.9614	8013.92	8037.92	24.00	1.18	1.18	1.18	1698	91.2
25-Apr-16	8:00	Rainy	015299	2.8251	2.8849	8040.92	8064.92	24.00	1.17	1.17	1.17	1684	35.5

Remarks: Due to interruption of electricity, the 24hr TSP monitoring was rescheduled from 13 April 2016 to 14 April 2016.

Report on 1-hour TSP monitoring Action Level (μ g/m3) - 320.1 Limit Level (μ g/m3) - 500

Date	Sampling	Weather	Filter paper	Filter Weigh	nt, g	Elapse Time	e, hr	Sampling	Flo	w Rate, m³/ı	min	Total	TSP Level,
	Time	Condition	no.	Initial	Final	Initial	Final	Time, hr	Initial, Q _{si}	Final, Q _{sf}	Average	Volume, m ³	μg/m³
30-Mar-16	9:50	Cloudy	014869	2.8332	2.8448	7923.00	7924.00	1.00	1.18	1.18	1.18	71	163.5
30-Mar-16	11:00	Cloudy	014860	2.8311	2.8442	7924.00	7925.00	1.00	1.18	1.18	1.18	71	184.6
30-Mar-16	13:00	Cloudy	015006	2.8027	2.8212	7925.00	7926.00	1.00	1.18	1.18	1.18	71	260.7
2-Apr-16	8:50	Cloudy	014963	2.7818	2.7988	7950.05	7951.05	1.00	1.18	1.18	1.18	71	240.1
2-Apr-16	10:15	Cloudy	014960	2.7719	2.7844	7951.05	7952.05	1.00	1.18	1.18	1.18	71	176.5
2-Apr-16	13:00	Cloudy	015184	2.8301	2.8412	7952.05	7953.05	1.00	1.18	1.18	1.18	71	156.8
8-Apr-16	9:10	Cloudy	015179	2.8231	2.8329	7977.05	7978.05	1.00	1.17	1.17	1.17	70	139.3
8-Apr-16	10:55	Cloudy	015170	2.8268	2.8334	7978.05	7979.05	1.00	1.17	1.17	1.17	70	93.8
8-Apr-16	13:00	Cloudy	015173	2.8403	2.8501	7979.05	7980.05	1.00	1.17	1.17	1.17	70	139.3
14-Apr-16	9:45	Cloudy	015256	2.8066	2.8113	7986.92	7987.92	1.00	1.17	1.17	1.17	70	66.7
14-Apr-16	11:00	Cloudy	015253	2.8333	2.8380	7987.92	7988.92	1.00	1.17	1.17	1.17	70	66.7
14-Apr-16	13:00	Cloudy	015250	2.8200	2.8279	7988.92	7989.92	1.00	1.17	1.17	1.17	70	112.2
20-Apr-16	9:05	Cloudy	015322	2.8410	2.8512	8037.92	8038.92	1.00	1.18	1.18	1.18	71	144.3
20-Apr-16	10:55	Cloudy	015319	2.8439	2.8540	8038.92	8039.92	1.00	1.18	1.18	1.18	71	142.9
20-Apr-16	14:00	Cloudy	015316	2.8335	2.8407	8039.92	8040.92	1.00	1.18	1.18	1.18	71	101.9
26-Apr-16	9:15	Cloudy	015424	2.8473	2.8496	8064.92	8065.92	1.00	1.17	1.17	1.17	70	32.8
26-Apr-16	11:00	Cloudy	015422	2.8543	2.8563	8065.92	8066.92	1.00	1.17	1.17	1.17	70	28.5
26-Apr-16	15:00	Cloudy	015418	2.8502	2.8550	8066.92	8067.92	1.00	1.17	1.17	1.17	70	68.5



Location: CMA2a - Causeway Bay Community Centre

Report on 24-hour TSP monitoring Action Level (μ g/m3) - 169.5 Limit Level (μ g/m3) - 260

Date	Sampling	Weather	Filter paper	Filter Weigh	nt, g	Elapse Time	e, hr	Sampling	Flo	w Rate, m³/r	min	Total	TSP Level,
	Time	Condition	no.	Initial	Final	Initial	Final	Time, hr	Initial, Q _{si}	Final, Q _{sf}	Average	Volume, m ³	μ g /m³
29-Mar-16	8:00	Cloudy	014879	2.8246	3.0128	17548.45	17572.45	24.00	1.28	1.28	1.28	1844	102.0
1-Apr-16	8:00	Cloudy	015038	2.7276	2.9065	17575.46	17599.46	24.00	1.22	1.22	1.22	1761	101.6
7-Apr-16	8:00	Cloudy	015133	2.8020	3.0042	17602.46	17626.46	24.00	1.14	1.14	1.14	1642	123.1
13-Apr-16	8:00	Rainy	015162	2.8218	2.8954	17629.46	17653.46	24.00	1.19	1.19	1.19	1716	42.9
19-Apr-16	8:00	Cloudy	015270	2.8639	2.9842	17656.46	17680.46	24.00	1.20	1.20	1.20	1725	69.7
25-Apr-16	8:00	Rainy	015309	2.8402	2.9074	17683.46	17707.46	24.00	1.14	1.14	1.14	1636	41.1

Report on 1-hour TSP monitoring Action Level (µg/m3) - 323.4 Limit Level (µg/m3) - 500

Date	Sampling	Weather	Filter paper	Filter Weigh	nt, g	Elapse Tim	e, hr	Sampling	Flo	w Rate, m ³ /r	min	Total	TSP Level,
	Time	Condition	no.	Initial	Final	Initial	Final	Time, hr	Initial, Q _{si}	Final, Q _{sf}	Average	Volume, m ³	μ g /m³
30-Mar-16	9:57	Cloudy	015053	2.7693	2.7836	17572.45	17573.45	1.00	1.28	1.28	1.28	77	186.4
30-Mar-16	13:00	Cloudy	015048	2.7513	2.7621	17573.45	17574.45	1.00	1.15	1.15	1.15	69	156.6
30-Mar-16	14:15	Cloudy	015043	2.7810	2.7936	17574.45	17575.45	1.00	1.28	1.28	1.28	77	164.3
2-Apr-16	8:08	Cloudy	014921	2.7953	2.8082	17599.46	17600.46	1.00	1.20	1.20	1.20	72	179.4
2-Apr-16	9:12	Cloudy	014917	2.7808	2.7952	17600.46	17601.46	1.00	1.20	1.20	1.20	72	200.2
2-Apr-16	13:00	Cloudy	015139	2.8172	2.8364	17601.46	17602.46	1.00	1.20	1.20	1.20	72	267.0
8-Apr-16	9:15	Cloudy	015097	2.7748	2.7842	17626.46	17627.46	1.00	1.14	1.14	1.14	68	137.5
8-Apr-16	10:57	Cloudy	015094	2.7714	2.7801	17627.46	17628.46	1.00	1.14	1.14	1.14	68	127.2
8-Apr-16	13:00	Cloudy	015122	2.8047	2.8103	17628.46	17629.46	1.00	1.14	1.14	1.14	68	81.9
14-Apr-16	9:49	Cloudy	015278	2.8353	2.8434	17653.46	17654.46	1.00	1.14	1.14	1.14	68	118.3
14-Apr-16	11:00	Cloudy	015275	2.8383	2.8437	17654.46	17655.46	1.00	1.19	1.19	1.19	72	75.5
14-Apr-16	13:00	Cloudy	015272	2.8533	2.8610	17655.46	17656.46	1.00	1.14	1.14	1.14	68	112.5
20-Apr-16	9:17	Cloudy	015259	2.8275	2.8364	17680.46	17681.46	1.00	1.20	1.20	1.20	72	124.0
20-Apr-16	10:56	Cloudy	015292	2.8109	2.8188	17681.46	17682.46	1.00	1.17	1.17	1.17	70	112.5
20-Apr-16	14:02	Cloudy	015296	2.8162	2.8240	17682.46	17683.46	1.00	1.15	1.15	1.15	69	113.5
26-Apr-16	9:42	Cloudy	015438	2.8258	2.8282	17707.46	17708.46	1.00	1.24	1.24	1.24	74	32.3
26-Apr-16	13:00	Cloudy	015433	2.8211	2.8243	17708.46	17709.46	1.00	1.24	1.24	1.24	74	43.1
26-Apr-16	15:01	Cloudy	015327	2.8392	2.8421	17709.46	17710.46	1.00	1.19	1.19	1.19	71	40.8



Location: CMA3a - CWB PRE Site Office Area

Report on 24-hour TSP monitoring Action Level ($\mu g/m3$) - 171 Limit Level ($\mu g/m3$) - 260

Date	Sampling	Weather	Filter paper	Filter Weigh	ıt, g	Elapse Time	e, hr	Sampling	Flo	w Rate, m³/ı	min	Total	TSP Level,
	Time	Condition	no.	Initial	Final	Initial	Final	Time, hr	Initial, Q _{si}	Final, Q _{sf}	Average	Volume, m ³	μg/m³
1-Apr-16	8:00	Cloudy	015007	2.7855	3.0054	5042.18	5066.18	24.00	1.61	1.61	1.61	2322	94.7
2-Apr-16	14:25	Cloudy	015186	2.8387	2.9972	5070.06	5094.06	24.00	1.61	1.61	1.61	2318	68.4
7-Apr-16	8:00	Cloudy	015088	2.7389	2.8700	5094.07	5118.07	24.00	1.41	1.41	1.41	2035	64.4
13-Apr-16	8:00	Rainy	015171	2.8098	2.9081	5121.07	5145.07	24.00	1.56	1.56	1.56	2253	43.6
19-Apr-16	8:00	Cloudy	015248	2.7993	2.9292	5148.07	5172.07	24.00	1.50	1.50	1.50	2157	60.2
25-Apr-16	8:00	Rainy	015300	2.8153	2.9017	5175.08	5199.08	24.00	1.56	1.56	1.56	2241	38.5

Remarks: Due to interruption of electricity, the 24hr TSP monitoring was rescheduled from 29 March and 1 April 2016 to 1 and 2 April 2016 respectively.

Report on 1-hour TSP monitoring Action Level (µg/m3) - 311.3 Limit Level (µg/m3) - 500

Date	Sampling	Weather	Filter paper	Filter Weigh	nt, g	Elapse Time	e, hr	Sampling	Flo	w Rate, m³/ı	min	Total	TSP Level,
	Time	Condition	no.	Initial	Final	Initial	Final	Time, hr	Initial, Q _{si}	Final, Q _{sf}	Average	Volume, m ³	μg/m³
30-Mar-16	8:03	Cloudy	014880	2.8258	2.8523	5039.18	5040.18	1.00	1.44	1.44	1.44	87	306.0
30-Mar-16	9:35	Cloudy	014870	2.8045	2.8157	5040.18	5041.18	1.00	1.41	1.41	1.41	84	132.7
30-Mar-16	10:50	Cloudy	014867	2.8536	2.8662	5041.18	5042.18	1.00	1.41	1.41	1.41	84	149.3
2-Apr-16	8:35	Cloudy	014964	2.7860	2.7955	5067.06	5068.06	1.00	1.40	1.40	1.40	84	112.9
2-Apr-16	10:00	Cloudy	014961	2.7705	2.7799	5068.06	5069.06	1.00	1.29	1.29	1.29	77	121.4
2-Apr-16	13:00	Cloudy	015183	2.8312	2.8394	5069.06	5070.06	1.00	1.40	1.40	1.40	84	97.5
8-Apr-16	9:00	Cloudy	015180	2.8263	2.8301	5118.07	5119.07	1.00	1.20	1.20	1.20	72	52.6
8-Apr-16	10:30	Cloudy	015177	2.8262	2.8357	5119.07	5120.07	1.00	1.35	1.35	1.35	81	117.0
8-Apr-16	13:00	Cloudy	015174	2.8417	2.8455	5120.07	5121.07	1.00	1.35	1.35	1.35	81	46.8
14-Apr-16	9:10	Cloudy	015257	2.8219	2.8274	5145.07	5146.07	1.00	1.39	1.39	1.39	83	65.9
14-Apr-16	10:45	Cloudy	015254	2.8331	2.8386	5146.07	5147.07	1.00	1.35	1.35	1.35	81	67.7
14-Apr-16	13:00	Cloudy	015251	2.8391	2.8478	5147.07	5148.07	1.00	1.39	1.39	1.39	83	104.2
20-Apr-16	8:45	Cloudy	015323	2.8462	2.8527	5172.07	5173.07	1.00	1.36	1.36	1.36	82	79.6
20-Apr-16	10:25	Cloudy	015320	2.8309	2.8368	5173.07	5174.07	1.00	1.29	1.29	1.29	77	76.4
20-Apr-16	13:50	Cloudy	015317	2.8523	2.8596	5174.07	5175.07	1.00	1.36	1.36	1.36	82	89.4
26-Apr-16	9:00	Cloudy	012822	2.8687	2.8730	5199.08	5200.08	1.00	1.35	1.35	1.35	81	53.3
26-Apr-16	14:02	Cloudy	012820	2.8692	2.8733	5200.08	5201.08	1.00	1.20	1.20	1.20	72	57.0
26-Apr-16	15:06	Cloudy	012821	2.8792	2.8862	5201.08	5202.08	1.00	1.35	1.35	1.35	81	86.7



Location: CMA4a - SPCA

Report on 24-hour TSP monitoring Action Level (µg/m3) - 171.2 Limit Level (µg/m3) - 260

Date	Sampling	Weather	Filter paper	Filter Weigh	nt, g	Elapse Time	e, hr	Sampling	Flo	w Rate, m³/ı	min	Total	TSP Level,
	Time	Condition	no.	Initial	Final	Initial	Final	Time, hr	Initial, Q _{si}	Final, Q _{sf}	Average	Volume, m ³	μg/m³
29-Mar-16	8:00	Cloudy	014881	2.8231	3.0204	21824.18	21848.18	24.00	1.43	1.43	1.43	2059	95.8
1-Apr-16	8:00	Cloudy	015040	2.7572	2.9183	21851.18	21875.18	24.00	1.42	1.42	1.42	2047	78.7
7-Apr-16	8:00	Cloudy	015134	2.7992	2.8250	21878.18	21902.18	24.00	1.49	1.49	1.49	2143	12.0
13-Apr-16	8:00	Rainy	015161	2.7804	2.8585	21905.18	21929.18	24.00	1.41	1.41	1.41	2036	38.4
19-Apr-16	8:00	Cloudy	015269	2.8485	2.9708	21932.18	21956.18	24.00	1.50	1.50	1.50	2157	56.7
25-Apr-16	8:00	Rainy	015310	2.8546	2.8898	21959.18	21983.18	24.00	1.41	1.41	1.41	2025	17.4

 $\begin{array}{ccc} \text{Report on 1-hour TSP monitoring} \\ \text{Action Level } (\mu\text{g/m3}) - & 312.5 \\ \text{Limit Level } (\mu\text{g/m3}) - & 500 \end{array}$

Date	Sampling	Weather	Filter paper	Filter Weigh	ıt, g	Elapse Time	e, hr	Sampling	Flo	w Rate, m³/r	min	Total	TSP Level,
	Time	Condition	no.	Initial	Final	Initial	Final	Time, hr	Initial, Q _{si}	Final, Q _{sf}	Average	Volume, m ³	μg/m³
30-Mar-16	9:28	Cloudy	015055	2.7831	2.7923	21848.18	21849.18	1.00	1.58	1.58	1.58	95	97.1
30-Mar-16	10:58	Cloudy	015050	2.7646	2.7753	21849.18	21850.18	1.00	1.58	1.58	1.58	95	113.0
30-Mar-16	13:00	Cloudy	015045	2.7671	2.7775	21850.18	21851.18	1.00	1.58	1.58	1.58	95	109.8
2-Apr-16	8:40	Cloudy	014922	2.7997	2.8085	21875.18	21876.18	1.00	1.42	1.42	1.42	85	103.1
2-Apr-16	9:55	Cloudy	014918	2.7928	2.8028	21876.18	21877.18	1.00	1.50	1.50	1.50	90	111.2
2-Apr-16	10:59	Cloudy	015138	2.8246	2.8334	21877.18	21878.18	1.00	1.50	1.50	1.50	90	97.9
8-Apr-16	10:42	Cloudy	015098	2.7836	2.7907	21902.18	21903.18	1.00	1.45	1.45	1.45	87	81.6
8-Apr-16	13:00	Cloudy	015123	2.8074	2.8128	21903.18	21904.18	1.00	1.41	1.41	1.41	85	63.7
8-Apr-16	14:40	Cloudy	015163	2.8218	2.8259	21904.18	21905.18	1.00	1.41	1.41	1.41	85	48.4
14-Apr-16	9:34	Cloudy	015279	2.8349	2.8385	21929.18	21930.18	1.00	1.41	1.41	1.41	85	42.4
14-Apr-16	10:47	Cloudy	01526	2.8371	2.8423	21930.18	21931.18	1.00	1.41	1.41	1.41	85	61.3
14-Apr-16	13:00	Cloudy	015273	2.8538	2.8610	21931.18	21932.18	1.00	1.41	1.41	1.41	85	84.9
20-Apr-16	9:10	Cloudy	015260	2.8250	2.8295	21956.18	21957.18	1.00	1.42	1.42	1.42	85	52.8
20-Apr-16	10:26	Cloudy	015291	2.8137	2.8196	21957.18	21958.18	1.00	1.42	1.42	1.42	85	69.2
20-Apr-16	13:48	Cloudy	015295	2.8218	2.8286	21958.18	21959.18	1.00	1.42	1.42	1.42	85	79.8
26-Apr-16	8:32	Cloudy	015439	2.8343	2.8373	21983.18	21984.18	1.00	1.41	1.41	1.41	84	35.6
26-Apr-16	10:57	Cloudy	015435	2.8108	2.8135	21984.18	21985.18	1.00	1.41	1.41	1.41	84	32.0
26-Apr-16	14:38	Cloudy	015431	2.8443	2.8464	21985.18	21986.18	1.00	1.41	1.41	1.41	84	24.9



Location: CMA5b - Pedestrian Plaza

Report on 24-hour TSP monitoring Action Level (μ g/m3) - 181 Limit Level (μ g/m3) - 260

Date	Sampling	Weather	Filter paper	Filter Weigh	nt, g	Elapse Time	e, hr	Sampling	Flo	w Rate, m³/ı	min	Total	TSP Level,
	Time	Condition	no.	Initial	Final	Initial	Final	Time, hr	Initial, Q _{si}	Final, Q _{sf}	Average	Volume, m ³	βμg/m³
29-Mar-16	8:00	Cloudy	015009	2.8012	2.9880	6368.09	6392.09	24.00	0.76	0.71	0.73	1057	176.8
1-Apr-16	8:00	Cloudy	015041	2.7780	3.0358	6395.09	6419.09	24.00	0.97	1.05	1.01	1461	176.5
7-Apr-16	8:00	Cloudy	015135	2.8052	2.9718	6422.09	6446.09	24.00	0.66	0.66	0.66	948	175.8
14-Apr-16	16:35	Cloudy	015266	2.8654	2.9452	6452.09	6476.09	24.00	0.77	0.78	0.78	1119	71.3
19-Apr-16	8:00	Cloudy	015265	2.8700	3.0142	6476.09	6500.09	24.00	0.82	0.82	0.82	1183	121.9
25-Apr-16	8:00	Rainy	015311	2.8331	2.9191	6503.09	6527.09	24.00	0.81	0.80	0.80	1158	74.3

Remarks: Due to interruption of electricity, the 24hr TSP monitoring was rescheduled from 13 April 2016 to 14 April 2016.

Report on 1-hour TSP monitoring Action Level (μ g/m3) - 332 Limit Level (μ g/m3) - 500

Date	Sampling	Weather	Filter paper	Filter Weigh	nt, g	Elapse Tim	e, hr	Sampling	Flo	w Rate, m³/ı	min	Total	TSP Level,
	Time	Condition	no.	Initial	Final	Initial	Final	Time, hr	Initial, Q _{si}	Final, Q _{sf}	Average	Volume, m ³	μg/m³
30-Mar-16	9:14	Cloudy	015056	2.7703	2.7852	6392.09	6393.09	1.00	0.83	0.83	0.83	50	300.3
30-Mar-16	10:43	Cloudy	015051	2.7764	2.7921	6393.09	6394.09	1.00	0.83	0.83	0.83	50	316.4
30-Mar-16	13:00	Cloudy	015046	2.7657	2.7817	6394.09	6395.09	1.00	0.83	0.83	0.83	50	322.4
2-Apr-16	8:30	Cloudy	014885	2.8085	2.8170	6419.09	6420.09	1.00	0.82	0.82	0.82	49	172.2
2-Apr-16	9:46	Cloudy	014919	2.8085	2.8137	6420.09	6421.09	1.00	0.67	0.67	0.67	40	129.7
2-Apr-16	10:49	Cloudy	015137	2.8187	2.8298	6421.09	6422.09	1.00	0.82	0.82	0.82	49	224.8
8-Apr-16	8:46	Cloudy	015099	2.7845	2.7940	6446.09	6447.09	1.00	0.81	0.81	0.81	49	195.4
8-Apr-16	10:23	Cloudy	015095	2.7786	2.7872	6447.09	6448.09	1.00	0.77	0.77	0.77	46	185.7
8-Apr-16	13:00	Cloudy	015124	2.8206	2.8255	6448.09	6449.09	1.00	0.73	0.73	0.73	44	111.3
14-Apr-16	8:00	Cloudy	015120	2.8201	2.8441	6449.09	6450.09	1.00	0.81	0.81	0.81	49	492.5
14-Apr-16	14:00	Cloudy	015671	2.8592	2.8686	6450.09	6451.09	1.00	0.85	0.85	0.85	51	184.2
14-Apr-16	15:23	Cloudy	015268	2.8569	2.8627	6451.09	6452.09	1.00	0.74	0.74	0.74	44	131.4
20-Apr-16	8:46	Cloudy	015261	2.8312	2.8376	6500.09	6501.09	1.00	0.74	0.74	0.74	45	143.7
20-Apr-16	10:07	Cloudy	015290	2.8192	2.8301	6501.09	6502.09	1.00	0.82	0.82	0.82	49	221.7
20-Apr-16	13:11	Cloudy	015294	2.8088	2.8207	6502.09	6503.09	1.00	0.82	0.82	0.82	49	242.0
26-Apr-16	8:49	Cloudy	015440	2.8584	2.8635	6527.09	6528.09	1.00	0.80	0.80	0.80	48	105.8
26-Apr-16	10:34	Cloudy	015436	2.8258	2.8323	6528.09	6529.09	1.00	0.80	0.80	0.80	48	134.9
26-Apr-16	14:00	Cloudy	015419	2.8354	2.8401	6529.09	6530.09	1.00	0.80	0.80	0.80	48	97.5



Location: CMA6a - WD2 PRE Office

 $\begin{array}{ccc} \text{Report on 24-hour TSP monitoring} \\ \text{Action Level -} & 187.3 & \mu\text{g/m3} \\ \text{Limit Level -} & 260 & \mu\text{g/m3} \end{array}$

Date	Sampling	Weather	Filter paper	Filter Weigh	nt, g	Elapse Time	e, hr	Sampling	Flo	w Rate, m³/ı	min	Total	TSP Level,
	Time	Condition	no.	Initial	Final	Initial	Final	Time, hr	Initial, Q _{si}	Final, Q _{sf}	Average	Volume, m ³	μg/m³
30-Mar-16	14:03	Cloudy	015005	2.8158	2.8269	107.43	131.43	24.00	1.16	1.16	1.16	1669	6.7
1-Apr-16	8:00	Cloudy	015003	2.7831	2.9901	131.43	155.43	24.00	1.19	1.19	1.19	1710	121.0
7-Apr-16	8:00	Cloudy	015185	2.8385	2.9686	158.44	182.44	24.00	1.21	1.21	1.21	1743	74.6
13-Apr-16	8:00	Rainy	015172	2.8145	2.8840	185.44	209.44	24.00	1.24	1.25	1.24	1791	38.8
20-Apr-16	14:05	Cloudy	015315	2.8364	3.0046	215.44	239.44	24.00	1.16	1.15	1.15	1660	101.3
25-Apr-16	8:00	Rainy	015298	2.8157	2.8991	239.44	263.44	24.00	1.15	1.14	1.14	1648	50.6

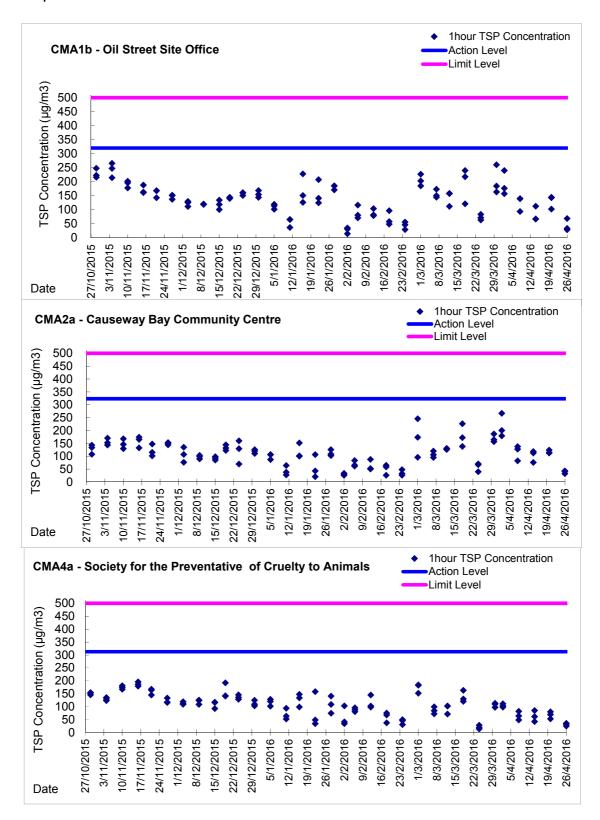
Remarks: Due to interruption of electricity, the 24hr TSP monitoring was rescheduled from 29 March and 19 April 2016 to 30 March and 20 April 2016 repsectively.

Report on 1-hour TSP monitoring Action Level - 300.1 μ g/m³ Limit Level - 500 μ g/m3

Date	Sampling	Weather	Filter paper	Filter Weigh	nt, g	Elapse Time	e, hr	Sampling	Flo	w Rate, m³/ı	min	Total	TSP Level,
	Time	Condition	no.	Initial	Final	Initial	Final	Time, hr	Initial, Q _{si}	Final, Q_{sf}	Average	Volume, m ³	μ g /m³
30-Mar-16	9:00	Cloudy	014909	2.8483	2.8583	104.43	105.43	1.00	1.16	1.16	1.16	70	143.5
30-Mar-16	10:30	Cloudy	014868	2.8297	2.8425	105.43	106.43	1.00	1.16	1.16	1.16	70	183.6
30-Mar-16	13:00	Cloudy	014861	2.8272	2.8425	106.43	107.43	1.00	1.16	1.16	1.16	70	219.5
2-Apr-16	8:20	Cloudy	014965	2.7939	2.8033	155.43	156.43	1.00	1.19	1.19	1.19	71	131.8
2-Apr-16	9:30	Cloudy	014962	2.7635	2.7743	156.43	157.43	1.00	1.19	1.19	1.19	71	151.4
2-Apr-16	10:35	Cloudy	015182	2.8224	2.8303	157.43	158.43	1.00	1.19	1.19	1.19	71	110.7
8-Apr-16	8:30	Cloudy	015181	2.8347	2.8397	182.44	183.44	1.00	1.09	1.09	1.09	65	76.5
8-Apr-16	9:55	Cloudy	015178	2.8250	2.8337	183.44	184.44	1.00	1.15	1.15	1.15	69	126.2
8-Apr-16	13:00	Cloudy	015175	2.8392	2.8445	184.44	185.44	1.00	1.21	1.21	1.21	73	73.0
14-Apr-16	8:50	Cloudy	015258	2.8290	2.8349	209.44	210.44	1.00	1.15	1.15	1.15	69	85.5
14-Apr-16	10:25	Cloudy	015255	2.8024	2.8075	210.44	211.44	1.00	1.15	1.15	1.15	69	73.9
14-Apr-16	13:00	Cloudy	015252	2.8322	2.8392	211.44	212.44	1.00	1.15	1.15	1.15	69	101.4
20-Apr-16	8:35	Cloudy	015324	2.8400	2.8461	212.44	213.44	1.00	1.19	1.19	1.19	71	85.7
20-Apr-16	9:50	Cloudy	015321	2.8537	2.8573	213.44	214.44	1.00	1.10	1.10	1.10	66	54.8
20-Apr-16	13:00	Cloudy	015318	2.8544	2.8622	214.44	215.44	1.00	1.19	1.19	1.19	71	109.6
26-Apr-16	8:30	Cloudy	015426	2.8482	2.8513	263.44	264.44	1.00	1.08	1.08	1.08	65	47.7
26-Apr-16	10:15	Cloudy	015423	2.8583	2.8610	264.44	265.44	1.00	1.14	1.14	1.14	69	39.3
26-Apr-16	13:00	Cloudy	015421	2.8583	2.8610	265.44	266.44	1.00	1.14	1.14	1.14	69	39.3

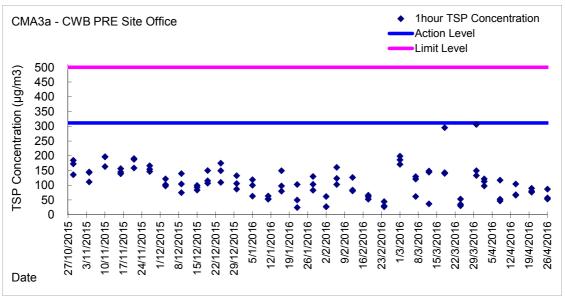


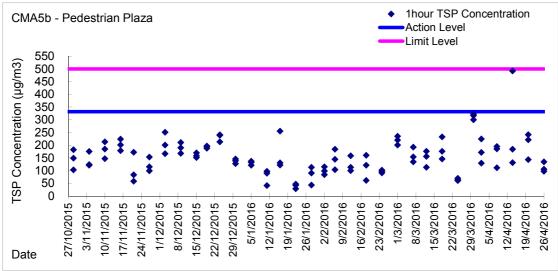
Graphic Presentation of 1 hour TSP Result

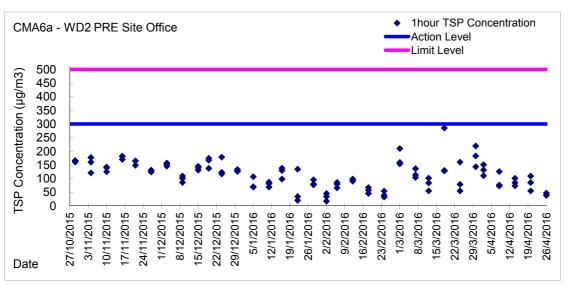




Graphic Presentation of 1 hour TSP Result

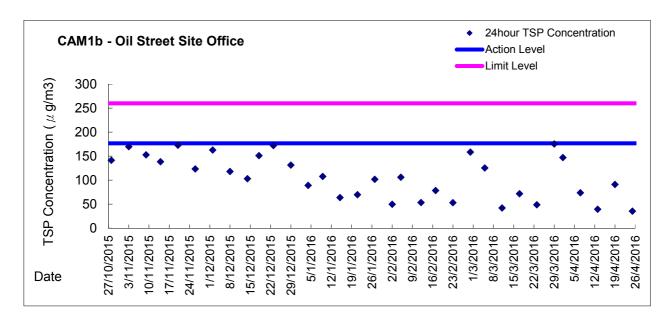


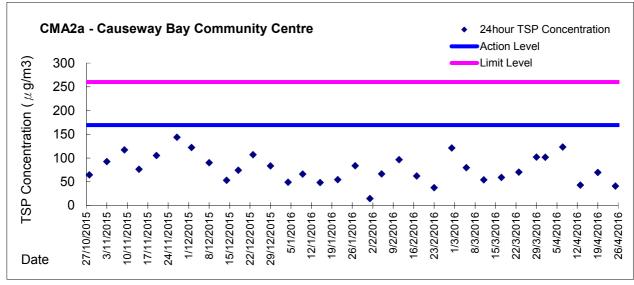


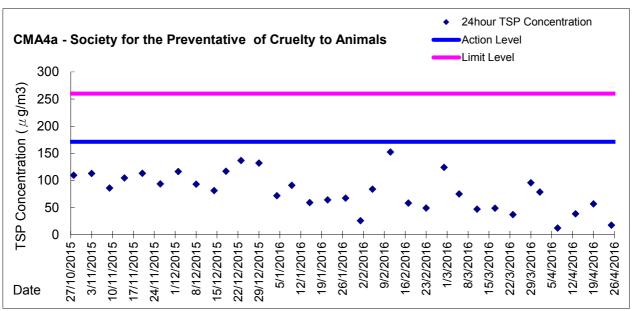




Graphic Presentation of 24 hour TSP Result

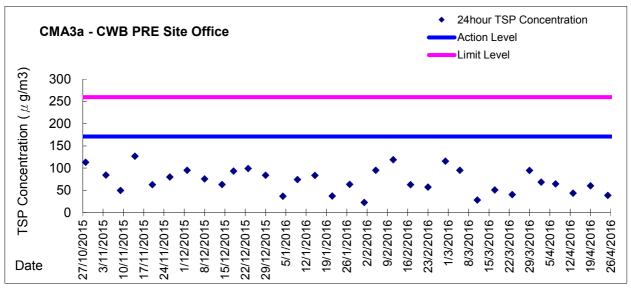


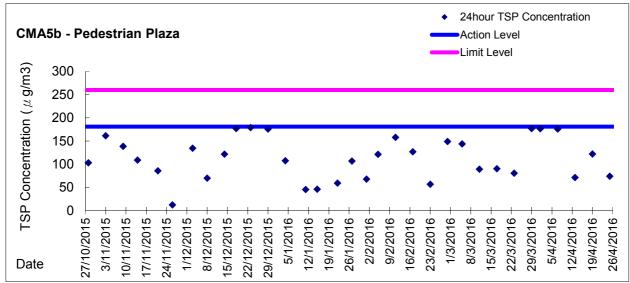


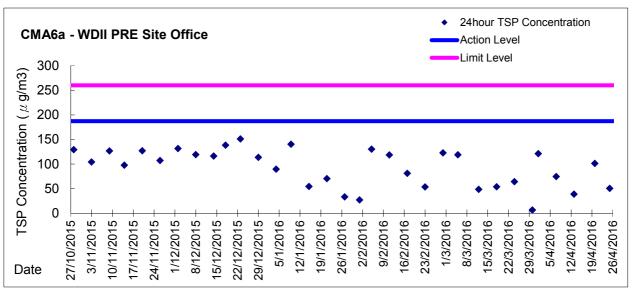




Graphic Presentation of 24 hour TSP Result







Appendix 5.4

Water Quality and Additional Dissolved Oxygen Monitoring Results and Graphical Presentations



Water Monitoring Result at C7 - Windsor House Mid-Flood Tide

Date	Time	Weater Condition	Samplin	•	Wat	er Temp	erature		pH -			Salinit	У	D	O Satur %	ation		DO mg/L			Turbid NTU			ded Solids g/L
			n	n	Va	llue	Average	Va	llue	Average	Va	lue	Average	Va	lue	Average	Va	lue	Average	Va	lue	Average		Average
29/3/2016	10:15	Fine	Middle	-	18.10	18.10	18.10	8.44	8.44	8.46	31.36	31.36	31.36	94.1	94.4	94.2	7.37	7.39	7.38	4.41	4.15	4.24	3	4.00
29/3/2010	10:17	rille	Middle	1	18.10	18.10	10.10	8.47	8.47	6.40	31.36	31.36	31.30	94.4	94.0	94.2	7.39	7.36	7.56	4.15	4.26	4.24	5	4.00
21/2/2016	12:55	Fine	Middle	-	20.50	20.50	20.70	8.27	8.27	8.31	31.32	31.32	31.32	94.8	95.5	94.9	7.07	7.11	7.07	5.38	5.46	5.36	5	4.50
31/3/2016	12:57	riile	Middle	-	20.90	20.90	20.70	8.34	8.34	0.31	31.31	31.31	31.32	94.4	94.9	34.9	7.02	7.06	7.07	5.39	5.21	5.30	4	4.50



Water Monitoring Result at C1 - HKCEC Extension Mid-Flood Tide

	Date	Time	Weater Condition	Samplin	•	Wat	er Temp °C	erature		pH -			Salinit	ТУ	D	O Satur	ation		DO mg/L			Turbid NTU			led Solids g/L
				n	n	Va	lue	Average	Va	ılue	Average	Va	lue	Average	Va	lue	Average	Va	lue	Average	Va	lue	Average		Average
20	9/3/2016	9:48	Fine	Middle	2.5	17.00	17.00	17.00	8.53	8.53	8.54	31.46	31.46	31.47	81.7	81.6	81.6	6.53	8.52	7.01	4.58	4.55	4.55	4	4.00
23	9/3/2010	9:50	rille	Middle	2.5	17.00	17.00	17.00	8.54	8.54	0.54	31.47	31.47	31.47	81.7	81.2	01.0	6.52	6.48	7.01	4.53	4.53	4.55	4	4.00
2.	1/3/2016	10:45	Fine	Middle	3.0	18.50	18.50	18.55	8.50	8.50	8.50	31.47	31.47	31.47	93.1	93.8	93.7	7.22	7.28	7.27	3.86	3.74	3.77	3	3.50
	1/3/2010	10:47	Fille	Middle	3.0	18.60	18.60	16.55	8.50	8.50	6.50	31.46	31.46	31.47	93.7	94.0	93.7	7.27	7.29	1.21	3.74	3.74	3.11	4	3.30



Water Monitoring Result at P1 - HKCEC Phase I Mid-Flood Tide

Date	Time	Weater Condition	Samplin	•	Wat	er Temp °C	oerature		pH -			Salinit	ТУ	D	O Satur %	ation		DO mg/L			Turbid NTU	ity		ded Solids g/L
			n	1	Va	lue	Average	Va	lue	Average	Va	lue	Average	Va	lue	Average	Va	lue	Average	Va	lue	Average		Average
29/3/2016	9:32	Fine	Middle	2.5	17.00	17.00	17.05	8.39	8.39	8.42	31.52	31.52	31.51	85.1	82.6	82.5	6.79	6.57	6.58	4.33	4.39	4.38	3	3.00
29/3/2010	9:34	Fille	Middle	2.5	17.10	17.10	17.05	8.45	8.45	0.42	31.50	31.50	31.31	81.5	80.9	02.5	6.50	6.46	0.56	4.39	4.40	4.30	3	3.00
21/2/2016	10:25	Fine	Middle	3.0	19.30	19.30	19.40	8.32	8.32	8.37	31.43	31.43	31.43	100.4	100.5	99.6	7.66	7.66	7.59	3.81	3.77	3.77	5	5.00
31/3/2016	10:27	rille	Middle	3.0	19.50	19.50	19.40	8.41	8.41	0.37	31.42	31.42	31.43	98.2	99.2	55.0	7.49	7.56	7.59	3.75	3.75	3.77	5	3.00



Water Monitoring Result at P3 - APA Mid-Flood Tide

D	ate	Time	Weater Condition	Samplin	•	Wat	er Temp	perature		pH -			Salinit	У	D	O Satur %	ation		DO mg/L			Turbid NTU	,		ded Solids g/L
				n	n	Va	ılue	Average	Va	ılue	Average	Va	lue	Average	Va	lue	Average	Va	lue	Average	Va	lue	Average	Value	Average
20/3	3/2016	9:36	Fine	Middle	2.5	16.90	16.90	16.90	8.47	8.47	8.48	31.43	31.43	31.43	85.1	83.7	83.2	6.82	6.71	6.67	3.14	3.14	3.10	3	3.00
29/3	5/2010	9:38	rille	Middle	2.5	16.90	16.90	10.90	8.49	8.49	0.40	31.43	31.43	31.43	82.7	81.4	03.2	6.63	6.50	0.07	3.08	3.04	3.10	3	3.00
21/2	3/2016	10:30	Fine	Middle	3.0	18.90	18.90	18.95	8.43	8.43	8.44	31.44	31.44	31.44	96.1	96.6	96.0	7.41	7.44	7.40	3.14	3.13	3.10	3	3.00
31/3	5/2010	10:33	rille	Middle	3.0	19.00	19.00	10.95	8.45	8.45	0.44	31.43	31.43	31.44	96.3	94.9	90.0	7.42	7.31	7.40	3.07	3.04	3.10	3	3.00



Water Monitoring Result at P4 - SOC Mid-Flood Tide

Date	Time	Weater	Samplin	g Depth	Wat	er Temp	erature		рН			Salinit	ty	D	O Satur	ration		DO			Turbic	,	Suspend	led Solids
Date		Condition	n	n	Va	°C ilue	Average	Va	- alue	Average	Va	ppt lue	Average	Va	% lue	Average	Va	mg/L lue	Average	Va	NTL ilue	Average	mç Value	g/L Average
29/3/2016	9:40	Fine	Middle	2.5	16.80	16.80	16.80	8.50	8.50	8.51	31.20	31.20	31.31	91.0	88.6	88.1	7.30	7.11	7.06	4.07	3.87	3.95	3	3.00
29/3/2010	9:42	_	Middle	2.5	16.80	16.80	10.00	8.51	8.51	0.51	31.42	31.42	31.31	87.0	85.6	00.1	6.98	6.85	7.00	3.87	4.00	3.95	3	3.00
31/3/2016	10:35	Fine	Middle	3.0	18.70	18.70	18.75	8.46	8.46	8.47	31.48	31.48	31.48	94.7	95.0	95.2	7.31	7.34	7.35	3.21	3.28	3.25	3	4.00
31/3/2010	10:37	rille	Middle	3.0	18.80	18.80	10.75	8.47	8.47	0.47	31.47	31.47	31.40	95.4	95.6	95.2	7.37	7.38	7.33	3.26	3.25	3.25	5	4.00



Water Monitoring Result at P5 - WCT / RT / IT Mid-Flood Tide

Date	Time	Weater Condition	Samplin		Wat	er Temp °C	perature		pH -			Salinit	ТУ	D	O Satur %	ation		DO mg/L	-		Turbid NTU	,		led Solids g/L
			II.	n	Va	lue	Average	Va	ılue	Average	Va	lue	Average	Va	llue	Average	Va	lue	Average	Va	lue	Average	Value	Average
29/3/2016	9:44	Fine	Middle	2.5	16.90	16.90	16.90	8.51	8.51	8.52	31.22	31.22	43.83	88.8	87.2	86.7	7.11	6.98	6.94	5.92	5.96	6.10	8	7.00
29/3/2010	9:46	Tille	Middle	2.5	16.90	16.90	10.90	8.53	8.53	0.52	31.44	81.44	45.65	85.5	85.2	00.7	6.85	6.82	0.94	6.31	6.20	0.10	6	7.00
31/3/2016	10:40	Fine	Middle	3.0	18.60	18.60	18.65	8.48	8.48	8.49	31.42	31.42	31.45	95.5	96.2	95.3	7.40	7.48	7.38	3.33	3.30	3.29	4	4.00
31/3/2010	10:42	-	Middle	3.0	18.70	18.70	10.03	8.49	8.49	0.49	31.48	31.48	51.45	94.7	94.7	90.0	7.33	7.32	7.50	3.27	3.24	3.29	4	4.00



Water Monitoring Result at RW21-P789 - Sun Hung Kai Centre Mid-Flood Tide

Date	Time	Weater Condition	Samplin	•	Wat	er Temp	perature		pH -			Salini	ty	D	O Satur %	ation		DO mg/L			Turbid NTU	ity		led Solids g/L
			n	n	Va	ılue	Average	Va	lue	Average	Va	lue	Average	Va	lue	Average	Va	lue	Average	Va	lue	Average	Value	Average
29/3/2016	9:58	Fine	Middle	3.5	17.40	17.40	17.40	8.64	8.44	8.51	31.45	31.45	31.46	88.3	87.6	86.8	7.00	6.95	6.88	3.82	3.81	3.82	4	3.50
29/3/2010	10:00	rille	Middle	3.5	17.40	17.40	17.40	8.48	8.48	0.51	31.46	31.46	31.40	86.5	84.8	00.0	6.86	6.72	0.00	3.81	3.82	3.02	3	3.30
31/3/2016	10:55	Fine	Middle	3.5	18.60	18.60	18.65	8.44	8.44	8.46	31.44	31.44	31.44	94.8	94.5	94.1	7.34	7.31	7.28	3.63	3.64	3.61	4	4.50
31/3/2010	10:57	Fille	Middle	3.5	18.70	18.70	16.05	8.47	8.47	0.40	31.43	31.43	31.44	93.8	93.1	94.1	7.26	7.20	7.20	3.59	3.57	3.01	5	4.50



Water Monitoring Result at WSD19 - Sheung Wan Mid-Flood Tide

Date	Time	Weater Condition	Samplin	•	Wat	er Temp °C	perature		pH -			Salinit	ту	D	O Satur %	ation		DO mg/L	-		Turbid NTU	,	_	ded Solids ig/L
			l l	n	Va	lue	Average	Va	llue	Average	Va	lue	Average	Va	lue	Average	Va	lue	Average	Va	lue	Average	Value	Average
29/3/2016	8:42	Fine	Middle	3.5	16.80	16.80	16.85	8.12	8.12	8.20	30.96	30.96	31.04	84.2	83.5	83.5	6.77	6.71	6.71	6.99	7.00	6.93	5	5.50
29/3/2010	8:44	Fille	Middle	3.5	16.90	16.90	10.65	8.28	8.28	6.20	31.11	31.11	31.04	83.1	83.2	65.5	6.67	6.68	0.71	6.89	6.82	0.93	6	5.50
31/3/2016	11:30	Fine	Middle	3.5	19.10	19.10	19.15	8.36	8.36	8.39	31.31	31.31	31.31	97.2	98.1	97.2	7.47	7.54	7.47	5.32	5.13	5.18	8	7.50
31/3/2010	11:32	Fille	Middle	3.5	19.20	19.20	19.15	8.42	8.42	6.39	31.30	31.30	31.31	96.7	96.8	97.2	7.42	7.43	7.47	5.10	5.16	5.16	7	7.50



Water Monitoring Result at C7 - Windsor House Mid-Ebb Tide

Date	Time	Weater Condition		ng Depth	Wat	ter Temp	erature		pH -			Salinit	ty	D	O Satur %	ation		DO mg/L			Turbid NTU		Suspend	led Solids
			r	n	Va	lue	Average	Va	lue	Average	Va	lue	Average	Va	lue	Average	Va	lue	Average	Va	lue	Average	Value	Average
29/3/2016	16:15	Fine	Middle	-	18.40	18.40	18.40	8.34	8.34	8.37	31.31	31.31	31.31	97.3	95.7	95.7	7.54	7.45	7.44	3.37	3.37	3.36	3	3.00
29/3/2010	16:17	rille	Middle	-	18.40	18.40	16.40	8.40	8.40	6.37	31.30	31.30	31.31	95.2	94.4	95.7	7.41	7.35	7.44	3.36	3.33	3.30	3	3.00
31/3/2016	15:55	Fine	Middle	-	19.60	19.60	19.70	8.34	8.34	8.36	31.17	31.17	31.17	93.9	94.6	93.7	7.15	7.20	7.13	3.97	3.99	3.94	3	3.50
31/3/2010	15:57	rille	Middle	-	19.80	19.80	19.70	8.38	8.38	6.30	31.17	31.17	31.17	93.6	92.7	93.7	7.12	7.05	7.13	3.87	3.94	3.94	4	3.50



Water Monitoring Result at C1 - HKCEC Mid-Ebb Tide

Date	Time	Weater Condition	Samplin	g Depth	Wat	er Temp	erature		рН			Salini	ty	D	O Satur	ation		DO			Turbid			led Solids
		Condition	r	n	Va	llue	Average	Va	lue	Average	Va	ppt lue	Average	Va	lue	Average	Va	mg/L lue	Average	Va	ilue	Average	Value	g/L Average
29/3/2016	14:31	Fine	Middle	3.0	16.90	16.90	16.95	8.55	8.55	8.56	31.61	31.61	31.61	86.3	85.5	84.9	6.90	6.83	6.79	3.94	3.99	4.02	3	3.50
29/3/2010	14:33	riile	Middle	3.0	17.00	17.00	10.95	8.56	8.56	6.50	31.61	31.61	31.01	84.6	83.3	04.9	6.76	6.66	0.79	3.99	4.14	4.02	4	3.50
31/3/2016	15:24	Fine	Middle	2.5	19.50	19.50	19.55	8.50	8.50	8.50	31.50	31.50	31.48	82.4	83.9	84.7	6.28	6.34	6.44	3.37	3.37	3.43	4	4.00
31/3/2010	15:26	Fille	Middle	2.5	19.60	19.60	19.55	8.50	8.50	0.50	31.44	31.49	31.40	86.2	86.2	04.7	6.56	6.57	0.44	3.47	3.49	3.43	4	4.00



Water Monitoring Result at P1 - HKCEC Phase I Mid-Ebb Tide

Date	Time	Weater Condition	Samplin	g Depth	Wat	er Temp	oerature		pН			Salini	ty	D	O Satur	ation		DO mg/L			Turbid			led Solids g/L
		Condition	r	n	Va	llue	Average	Va	lue	Average	Va	lue	Average	Va	lue	Average	Va	lue	Average	Va	llue	Average	Value	Average
29/3/2016	14:15	Fine	Middle	3.0	17.70	17.70	17.70	8.43	8.43	8.45	31.64	31.64	31.64	96.5	97.4	97.0	7.61	7.67	7.64	4.70	4.58	4.63	4	4.00
29/3/2016	14:17	rine	Middle	3.0	17.70	17.70	17.70	8.47	8.47	0.45	31.64	31.64	31.04	97.3	96.8	97.0	7.67	7.62	7.04	4.57	4.68	4.03	4	4.00
31/3/2016	15:08	Fine	Middle	2.5	20.60	20.60	20.75	8.36	8.36	8.39	31.63	31.63	31.62	91.0	90.7	90.2	6.77	6.74	6.71	2.94	2.95	2.95	5	4.50
31/3/2010	15:10	-	Middle	2.5	20.90	20.90	20.75	8.42	8.42	6.39	31.60	31.60	31.02	90.1	89.1	90.2	6.70	6.62	0.71	2.96	2.95	2.95	4	4.50



Water Monitoring Result at P3 - APA Mid-Ebb Tide

Date	Time	Weater Condition		g Depth	Wat	er Temp °C	erature		pH -			Salinit	ту	D	O Satur %	ation		DO mg/L			Turbid NTU		Suspend	led Solids g/L
			ſ	n	Va	lue	Average	Va	lue	Average	Va	lue	Average	Va	lue	Average	Va	lue	Average	Va	lue	Average	Value	Average
29/3/2016	14:19	Fine	Middle	3.0	17.00	17.00	17.00	8.51	8.51	8.52	31.64	31.64	31.63	81.1	80.5	80.2	6.48	6.43	6.39	3.43	3.33	3.36	3	3.50
29/3/2010	14:21	Tille	Middle	3.0	17.00	17.00	17.00	8.52	8.52	0.52	31.61	31.61	31.03	80.0	79.0	00.2	6.35	6.30	0.39	3.33	3.36	3.30	4	3.30
31/3/2016	15:12	Fine	Middle	2.5	20.00	19.90	20.03	8.46	8.46	8.47	31.56	31.56	31.51	86.0	87.0	87.3	6.50	6.57	6.59	3.37	3.37	3.39	4	4.00
31/3/2010	15:14	rille	Middle	2.5	20.10	20.10	20.03	8.47	8.47	0.47	31.46	31.46	31.31	88.1	88.0	67.3	6.65	6.65	0.59	3.42	3.39	3.39	4	4.00



Water Monitoring Result at P4 - SOC Mid-Ebb Tide

Date	Time	Weater Condition		ng Depth	Wat	ter Temp	erature		pH -			Salini	ty	D	O Satur %	ation		DO mg/L	-		Turbid		Suspend	led Solids
			r	n	Va	lue	Average	Va	lue	Average	Va	llue	Average	Va	lue	Average	Va	lue	Average	Va	lue	Average	Value	Average
29/3/2016	14:23	Fine	Middle	3.0	16.90	16.90	16.90	8.53	8.53	8.54	31.54	31.54	31.57	89.7	88.7	88.0	7.18	7.10	7.04	3.03	3.22	3.15	3	3.00
29/3/2010	14:25	rille	Middle	3.0	16.90	16.90	10.90	8.54	8.54	0.54	31.60	31.60	31.37	87.1	86.5	00.0	6.97	6.92	7.04	3.20	3.15	3.13	3	3.00
31/3/2016	15:16	Fine	Middle	2.5	20.10	20.10	15.45	8.48	8.48	8.49	31.50	31.50	31.50	86.4	85.5	85.6	6.56	6.48	6.49	3.49	3.47	3.68	4	4.50
31/3/2010	15:18	rille	Middle	2.5	1.80	19.80	15.45	8.49	8.49	0.49	31.49	31.49	31.50	85.4	85.0	65.0	6.47	6.44	0.49	3.87	3.87	3.00	5	4.50



Water Monitoring Result at P5 - WCT / RT / IT Mid-Ebb Tide

Date	Time	Weater	Samplin	ng Depth	Wat	er Temp	erature		рН			Salini	ty	D	O Satur	ation		DO			Turbid		Suspend	led Solids
Date		Condition	r	n	Va	lue °C	Average	Va	- lue	Average	Va	ppt lue	Average	Va	% lue	Average	Va	mg/L lue	Average	Va	NTL ilue	J Average	mç Value	g/L Average
29/3/2016	14:27	Fine	Middle	3.0	16.80	16.80	16.90	8.54	8.54	8.55	31.39	31.39	31.51	88.4	86.5	85.7	7.10	6.91	6.85	4.23	4.29	4.31	4	3.50
29/3/2016	14:29	rine	Middle	3.0	17.00	17.00	16.90	8.55	8.55	6.55	31.62	31.62	31.51	84.0	83.7	65.7	6.71	6.69	0.00	4.34	4.38	4.31	3	3.50
31/3/2016	15:20	Fine	Middle	2.5	19.70	19.70	19.60	8.50	8.50	8.50	31.47	31.47	31.49	88.3	82.0	85.8	6.74	6.63	6.65	3.50	3.37	3.41	5	4.50
31/3/2010	15:22	rille	Middle	2.5	19.50	19.50	19.00	8.50	8.50	0.50	31.51	31.51	31.49	87.0	86.0	03.0	6.63	6.58	0.05	3.39	3.38	3.41	4	4.30



Water Monitoring Result at RW21-P789 - Sun Hung Kai Centre Mid-Ebb Tide

Date	Time	Weater Condition	'	ng Depth	Wat	er Temp	erature		pH -			Salini	ty	D	O Satur %	ation		DO mg/L			Turbid NTU		Suspend	led Solids g/L
			r	n	Va	ılue	Average	Va	lue	Average	Va	llue	Average	Va	lue	Average	Va	lue	Average	Va	lue	Average	Value	Average
29/3/2016	14:49	Fine	Middle	3.5	17.40	17.40	17.45	8.48	8.48	8.50	31.67	31.67	31.67	86.7	86.4	86.6	6.86	6.84	6.85	4.24	4.20	4.25	3	3.00
29/3/2010	14:51	rille	Middle	3.5	17.50	17.50	17.45	8.52	8.52	0.50	31.67	31.67	31.07	86.7	86.4	00.0	6.86	6.84	0.00	4.28	4.28	4.25	3	3.00
31/3/2016	15:37	Fine	Middle	3.5	19.20	19.20	19.25	8.43	8.43	8.45	31.62	31.62	31.57	86.3	84.9	84.6	6.61	6.50	6.47	3.15	3.18	3.18	6	5.50
31/3/2010	15:39	rille	Middle	3.5	19.30	19.30	19.25	8.46	8.46	0.45	31.52	31.52	31.37	84.0	83.0	04.0	6.43	6.35	0.47	3.20	3.19	3.10	5	5.50



Water Monitoring Result at WSD19 - Sheung Wan Mid-Ebb Tide

Date	Time	Weater Condition	Samplin	g Depth	Water Temperature			рН			Salinity			DO Saturation			DO			Turbidity			Suspended Solids	
Date			r	m		Value Averag		Value		Average	ppt Value		Average	e Value		Average	value		Average	NTU Value		Average	mç Value	g/L Average
29/3/2016	13:33	Fine	Middle	3.5	17.90	17.90	18.00	8.33	8.33	8.38	31.56	31.55	31.50	96.4	95.4	95.3	`7.56	7.48	7.44	9.10	9.11	0.04	10	10.00
	13:35	rine	Middle	3.5	18.10	18.10	16.00	8.43	8.43	0.30	31.45	31.45	31.50	95.5	93.9		7.48	7.35	7.44	9.00	8.94	9.04	10	
31/3/2016	17:30	Fine	Middle	3.5	19.30	19.30	19.68	8.25	8.25	8.30	31.26	31.26	31.20	91.7	90.0	89.3	7.01	6.87	6.82	3.86	3.77	3.73	7	7.00
31/3/2010	17:32	rine	Middle	3.5	20.00	20.10	19.00	8.35	8.35	0.30	31.13	31.13		88.2	87.3		6.74	6.67	0.02	3.65	3.63	3.73	7	7.00



Water Monitoring Result at C7 - Windsor House Mid-Flood Tide

Date	Time	Weater	Samplin	g Depth	Wat		erature		рН			Salini	ту	D	O Satur	ation		DO			Turbid		Suspended Solids mg/L	
		Condition	r	n	Va	°C llue	Average	Va	lue -	Average	Va	ppt lue	Average	Va	lue %	Average	Va	mg/L lue	Average	Va	NTU lue	Average		Average
2/4/2016	14:40	Fine	Middle	-	20.20	20.20	20.30	8.38	8.38	8.40	31.15	31.15	31.15	96.8	96.0	95.9	7.29	7.23	7.23	6.19	6.27	6,29	4	4.00
2/4/2010	14:42	Tille	Middle	-	20.40	20.40	20.50	8.42	8.42	0.40	31.14	31.14	31.13	94.5	96.2	55.5	7.18	7.23	1.23	6.34	6.35	6.29	4	4.00
5/4/2016	16:40	Fine	Middle	-	20.70	20.70	20.85	8.31	8.31	8.36	30.82	30.82	30.82	97.3	98.2	97.4	7.26	7.32	7.25	3.95	3.92	4.00	3	3.00
0/4/2010	16:42	Tille	Middle	-	21.00	21.00	20.00	8.40	8.40	0.00	30.81	30.81		97.5	96.4	07.4	7.25	7.18	7.20	4.05	4.08	4.00	3	0.00
7/4/2016	15:40	Fine	Middle	-	21.30	21.30	21.40	8.35	8.35	8.38	30.75	30.75	30.75	92.6	92.1	91.8	6.85	6.80	6.78	2.14	2.14	2.15	<2	<2
11-112010	15:42	1 1110	Middle	-	21.50	21.50	21.40	8.41	8.41	0.00	30.75	30.75	30.75	91.7	90.8	91.0	6.77	6.71	0.70	2.15	2.16	2.10	<2	
9/4/2016	18:53	Cloudy	Middle	-	23.30	23.30	23.30	8.49	8.49	8.49	30.42	30.42	30.42	78.6	79.2	77.7	5.62	5.67	5.56	3.58	3.98	3.89	4	4.00
	18:54	,	Middle	-	23.30	23.30		8.49	8.49		30.42	30.42	00.12	76.8	76.2		5.49	5.45		3.96	4.05		4	
11/4/2016	9:40	Cloudy	Middle	-	21.00	21.00	21.05	8.37	8.37	8.39	30.11	30.11	30.10	72.3	71.5	71.7	5.40	5.34	5.35	5.48	5.23	5.33	3	3.00
	9:42	,	Middle	-	21.10	21.10		8.40	8.40		30.09	30.09		71.4	71.4		5.33	5.33		5.35	5.25		3	
13/4/2016	-	Amber	Middle	-	-	-		-	-		-	-	-	-	-		-	-		-	-		-	
	-	Rainstorm	Middle	-	-	-		-	-		-	-		-	-		-	-		-	-		-	
15/4/2016	14:15	Cloudy	Middle	-	20.50	20.50	20.50	8.46	8.46	8.47	31.01	31.01	31.02	65.9	66.3	- 65.0	4.45	4.98	4.75	6.45	6.32	6.33	7	6.00
	14:17		Middle	-	20.50	20.50		8.47	8.47		31.03	31.01		64.2	63.4		4.82	4.76	<u> </u>	6.29	6.27		5	
18/4/2016	16:45	Cloudy	Middle	-	22.10	22.10	22.20	8.40	8.40	8.42	29.68	29.68	29.68	67.6	66.3	66.3	4.96	4.87	4.87	5.48	5.48	5.48	3	3.00
	16:47		Middle	-	22.30	22.30		8.43	8.43		29.67	29.67		65.4	66.0		4.80	4.84		5.47	5.47		3	
20/4/2016	15:45	Cloudy	Middle	-	21.50	21.50	21.55	8.43	8.43	8.45	31.29	31.29	31.29	73.1	73.3	73.4	5.44	5.45	5.45	3.96	3.95	3.94	6	5.50
	15:47		Middle	-	21.60	21.60		8.47	8.47		31.29	31.29		73.4	73.7		5.45	5.46		3.92	3.91		5	
22/4/2016	17:15	Cloudy	Middle	-	22.80	22.80	22.85	8.38	8.38	8.39	30.39	30.39	30.39	77.4	78.1	77.8	5.58	5.63	5.61	3.04	3.07	2.99	4	5.00
	17:16		Middle	-	22.90	22.90		8.40	8.40		30.39	30.39		78.3	77.5		5.64	5.59		2.94	2.91		6	
25/4/2016	9:45	Fine	Middle	-	22.80	22.80	22.90	8.33	8.33	8.37	29.68	29.68	29.68	73.5	73.0	72.8	5.32	5.28	5.27	4.30	4.30	- 4.30 -	8	7.00
2020.0	9:47		Middle	-	23.00	23.00		8.40	8.40		29.68	29.68		72.3	72.2		5.24	5.23		4.29	4.29		6	



Water Monitoring Result at C1 - HKCEC Extension Mid-Flood Tide

Date	Time	Weater Condition	Samplin	g Depth	Wat	er Temp °C	perature	pH -				Salini	ty	D	O Satur	ation		DO mg/L			Turbid	ity	Suspended Solids mg/L	
			r	n	Va	lue	Average	Va	lue	Average	Va	lue	Average	Va	lue	Average	Va	lue	Average	Va	llue	Average	Value	Average
2/4/2016	14:02	Fine	Middle	2.5	19.60	19.60	19.50	8.52	8.52	8.53	31.07	31.07	31.12	89.6	89.9	89.6	6.86	6.87	6.85	3.34	3.21	3.20	3	3.00
	14:04		Middle	2.5	19.40	19.40		8.53	8.53		31.17	31.17		89.7	89.0		6.87	6.81		3.12	3.11		3	
5/4/2016	15:20	Fine	Middle	3.0	20.50	20.50	20.55	8.62	8.62	8.62	30.79	30.79	30.79	101.7	101.9	101.7	7.63	7.66	7.63	4.26	4.26	4.24	5	5.50
	15:22		Middle	3.0	20.60	20.60		8.62	8.62		30.79	30.79		101.5	101.7		7.61	7.63		4.23	4.21	= .	6	
7/4/2016	16:25	Fine	Middle	2.5	20.90	20.90	21.00	8.61	8.61	8.62	29.83	29.83	29.83	99.3	98.8	98.9	7.44	7.41	7.42	3.95	3.92	3.92	2	2.00
20.10	16:27		Middle	2.5	21.10	21.10	21.00	8.62	2 8.62	0.02	29.82	29.82	20.00	98.9	98.6	00.0	7.41	7.40	7.72	3.91	3.91	0.02	2	2.00
9/4/2016	21:24	Cloudy	Middle	2.0	22.60	22.60	22.70	8.58	8.58	8.59	31.13	31.13	31.13	85.9	85.6	85.6	6.18	6.15	6.15	7.98	8.13	7.84	8	7.00
57-472010	21:25	Oloddy	Middle	2.0	22.80	22.80	22.70	8.59	8.59	0.00	31.13	31.13	31.10	85.4	85.3	00.0	6.15	6.13		7.55	7.69		6	7.00
11/4/2016	9:00	Cloudy	Middle	2.5	20.30	20.30	20.30	8.54	8.54	8.54	30.31	30.31	30.33	73.9	72.7	72.9	5.59	5.50	5.51	5.87	5.93	5.87	8	8.00
11/4/2016	9:02		Middle	2.5	20.30	20.30		8.54	8.54		30.35	30.35		72.6	72.4		5.49	5.47	J.J.	5.84	5.83		8	6.00
13/4/2016	-	Amber	Middle	-	-	-		-	-		-	-		-	-		-	-		-	-		-	
13/4/2010	-	Rainstorm	Middle	-	-	-			-		-	-		-	-		-	-		-	-	<u> </u>	-	
15/4/2016	11:41	Cloudy	Middle	2.5	20.30	20.30	20.30	8.57	8.57	8.57	31.37	31.37	- 31.38	68.3	66.9	67.4	5.13	5.03	5.06	3.48	3.48	3.75	4	4.00
13/4/2010	11:43	Cloudy	Middle	2.5	20.30	20.30		8.57	8.57		31.38	31.38		67.2	67.0		5.05	5.04	3.00	4.02	4.02		4	
18/4/2016	15:55	Cloudy	Middle	3.0	21.70	21.70	21.75	8.54	8.54	8.55	30.48	30.48	30.48	74.6	74.5	74.0	5.49	5.48	5.46	8.00	7.91	7.87	6	5.50
10/4/2010	15:57	Cloudy	Middle	3.0	21.80	21.80	21.73	8.55	8.55	0.55	30.47	30.47	30.40	73.4	74.1	74.2	5.40	5.45		7.78	7.80	7.07	5	3.30
20/4/2016	17:58	Cloudy	Middle	2.5	21.10	21.10	21.10	8.60	8.60	8.60	31.43	31.43	31.44	68.8	68.5	68.2	5.10	5.07	5.05	10.27	10.23	10.20	10	9.50
20/4/2010	18:00	Cloudy	Middle	2.5	21.10	21.10	21.10	8.60	8.60	6.00	31.45	31.45	31.44	68.1	67.5	00.2	5.04	4.99	5.05	10.07	10.22	10.20	9	9.50
22/4/2016	17:01	Cloudy	Middle	2.5	21.90	21.90	16.43	8.55	8.55	8.55	29.90	29.90	29.91	63.4	61.7	61.0	4.67	4.54	4.49	7.97	7.79	7.89	6	6.00
22/7/2010	17:09	Oloudy	Middle	2.5	0.00	21.90	10.40	8.55	8.55	8.55	29.92	29.92	29.91	59.7	59.0		4.40	4.35		7.85	7.94		6	0.00
25/4/2016	8:16	Fine	Middle	3.5	22.20	22.20	22.25	8.54	8.54	8.54	29.92	29.92	29.93	69.5	70.4	- 68.8	5.08	5.15	5.03	8.34	8.30	8.25	7	7.50
20/-1/2010	8:18	1 1110	Middle	3.5	22.30	22.30	22.20	8.54	8.54	0.04	29.93	29.93	20.00	68.0	67.2	00.0	4.97	4.91	0.00	8.25	8.10	0.20	8	7.00



Water Monitoring Result at P1 - HKCEC Phase I Mid-Flood Tide

Date	Time	Weater Condition	Samplin	g Depth	Wat	er Temp	perature		рН			Salini ppt	ту	D	O Satur %	ation		DO mg/L			Turbid	,	Suspend	ed Solids
		Condition	r	n	Va	lue	Average	Va	lue	Average	Va	lue	Average	Va	lue	Average	Va	lue	Average	Va	lue	Average		Average
2/4/2016	13:46	Fine	Middle	2.5	20.30	20.30	20.35	8.37	8.37	8.40	31.35	31.36	31.34	89.1	88.6	88.9	6.70	6.66	6.68	2.87	2.87	2.81	<2	2.00
2/4/2010	13:48	Tille	Middle	2.5	20.40	20.40	20.00	8.42	8.42	0.40	31.33	31.33	31.54	89.1	88.88	00.5	6.70	6.67	0.00	2.76	2.74	2.01	2	2.00
5/4/2016	15:00	Fine	Middle	3.0	21.30	21.30	21.40	8.51	8.51	8.54	30.80	30.80	30.80	104.9	104.2	103.8	7.75	7.70	7.67	4.58	4.72	4.73	6	5.00
	15:02		Middle	3.0	21.50	21.50		8.56	8.56		30.80	30.80		103.4	102.8		7.64	7.59		4.78	4.85		4	
7/4/2016	16:05	Fine	Middle	2.5	21.60	21.60	21.80	8.39	8.39	8.44	29.89	29.89	29.89	104.4	104.5	103.7	7.69	7.69	7.63	4.61	4.51	4.68	<2	<2
	16:07		Middle	2.5	22.00	22.00		8.49	8.49		29.88	29.88		103.7	102.2		7.63	7.52		4.87	4.71		<2	
9/4/2016	20:55	Cloudy	Middle	2.0	22.90	22.90	22.93	8.53	8.53	8.54	30.35	30.35	30.35	81.8	82.1	81.3	5.89	5.91	5.85	4.29	4.27	4.23	5	5.50
	20:56	,	Middle	2.0	23.00	22.90		8.54	8.54		30.35	30.35		80.3	80.9		5.78	5.82		4.19	4.16		6	
11/4/2016	8:44	Cloudy	Middle	2.5	20.60	20.60	20.65	8.43	8.43	8.45	30.40	30.40	30.40	73.8	74.4	74.4	5.54	5.59	5.58	4.11	4.10	4.11	4	4.00
	8:46		Middle	2.5	20.70	20.70		8.47	8.47		30.40	30.40		74.8	74.5		5.61	5.59		4.14	4.09		4	
13/4/2016	-	Amber Rainstorm	Middle	-	-	-		-	-		-	-		-	-		-	-		-	-		-]
	-	Ramstonn	Middle	-	-	-		-	-		-	-		-	-		-	-		-	-		-	
15/4/2016	11:25	Cloudy	Middle	2.5	20.50	20.50	20.55	8.42	8.42	8.44	31.24	31.24	31.23	65.5	65.9	65.7	4.90	4.93	4.92	6.40	6.41	6.41	3	3.00
	11:27		Middle	2.5	20.60	20.60		8.45	8.45		31.22	31.22		65.7	65.8		4.92	4.92		6.42	6.42		3	
18/4/2016	15:35	Cloudy	Middle	3.0	22.50	22.50	22.60	8.39	8.39	8.43	29.97	29.97	29.97	81.2	79.5	80.2	5.91	5.78	5.83	7.05	7.00	7.00	5	5.00
	15:37		Middle	3.0	22.70	22.70		8.46	8.46		29.96	29.96		80.0	80.2		5.81	5.82		6.96	6.99		5	<u> </u>
20/4/2016	17:42	Cloudy	Middle	2.5	21.40	21.40	21.45	8.50	8.50	8.52	31.52	31.52	31.50	70.4	70.2	69.7	5.18	5.16	5.12	7.52	7.54	7.55	4	5.00
	17:44		Middle	2.5	21.50	21.50		8.53	8.53		31.47	31.47		69.3	68.7		5.09	5.05		7.56	7.57		6	
22/4/2016	16:51	Cloudy	Middle	2.5	22.40	22.40	22.45	8.41	8.41	8.43	30.17	30.17	30.16	71.1	70.0	70.7	5.18	5.08	5.14	6.67	6.71	6.69	5	4.50
	16:53		Middle	2.5	22.50	22.50		8.45	8.45		30.14	30.14		71.3	70.4		5.19	5.12		6.70	6.69		4	
25/4/2016	8:00	Fine	Middle	3.5	22.70	22.70	22.80	8.45	8.45	8.46	30.17	30.17	30.16	73.9	73.6	73.0	5.35	5.32	5.28	6.71	6.56	6.58	4	5.00
	8:02		Middle	3.5	22.90	22.90		8.47	8.47		30.15	30.15		72.2	72.2		5.22	5.22		6.53	6.50		6	



Water Monitoring Result at P3 - APA Mid-Flood Tide

Date	Time	Weater Condition	Samplin	g Depth	Wat	er Temp °C	erature		pН			Salini	ty	D	O Satur	ation		DO mg/L			Turbid NTU		Suspend	
		Condition	r	n	Va	lue	Average	Va	lue -	Average	Va	ppt ilue	Average	Va	ilue	Average	Va	lue	Average	Va	lue	Average	Mg Value	Average
2/4/2016	13:50	Fine	Middle	2.5	19.70	19.70	19.70	8.44	8.44	8.46	31.33	31.33	31.32	92.3	92.1	93.6	7.02	7.02	6.99	2.88	2.99	2.94	<2	<2
	13:52		Middle	2.5	19.70	19.70		8.47	8.47		31.30	31.30		98.9	91.0		6.99	6.91		3.01	2.88		<2	_
5/4/2016	15:05	Fine	Middle	3.0	21.10	21.10	21.15	8.58	8.58	8.59	30.78	30.78	30.77	103.9	103.9	103.7	7.72	7.72	7.70	3.66	3.66	3.66	5	5.50
0, 1,2010	15:07		Middle	3.0	21.20	21.20	20	8.60	8.60	0.00	30.76	30.76	00.11	103.9	103.0		7.71	7.65	70	3.64	3.66	0.00	6	0.00
7/4/2016	16:10	Fine	Middle	2.5	20.90	20.90	21.00	8.53	8.53	8.55	29.83	29.83	29.83	101.5	101.0	101.5	7.51	7.50	7.54	3.39	3.34	3.34	<2	<2
11412010	16:12	TINC	Middle	2.5	21.10	21.10	21.00	8.56	8.56	0.00	29.83	29.83	25.00	102.0	101.5	101.5	7.63	7.52	7.54	3.31	3.32	0.04	<2	
9/4/2016	21:05	Cloudy	Middle	2.0	23.10	23.10	23.15	8.59	8.59	8.59	30.45	30.45	30.45	82.9	83.0	82.4	5.94	5.95	5.91	5.19	5.18	5.21	6	6.00
0/4/2010	21:06	Oloddy	Middle	2.0	23.20	23.20	20.10	8.58	8.58	0.00	30.45	30.45	00.40	82.4	81.3	0 2 .+	5.91	5.83	0.01	5.27	5.20	0.21	6	0.00
11/4/2016	8:48	Cloudy	Middle	2.5	20.30	20.30	20.35	8.48	8.48	8.49	30.40	30.44	30.42	69.1	68.9	68.4	5.22	5.51	5.24	5.70	5.69	5.70	6	6.00
11/4/2010	8:50	Cloudy	Middle	2.5	20.40	20.40	20.00	8.50	8.50	0.43	30.41	30.41	30.42	68.5	67.1	00.4	5.18	5.06	5.24	5.69	5.70	5.70	6	0.00
13/4/2016	-	Amber	Middle	-	-	-		1	-		-	-		-	-		-	-		-	-		-	
13/4/2010	-	Rainstorm	Middle	-	-	-		-	-		-	-		-	-		-	-		-	-		-	
15/4/2016	11:29	Cloudy	Middle	2.5	20.30	20.30	20.30	8.47	8.47	8.49	31.41	31.41	31.42	69.7	70.1	69.3	5.24	5.27	5.21	4.11	3.47	3.85	2	2.00
13/4/2010	11:31	Cloudy	Middle	2.5	20.30	20.30	20.00	8.51	8.51	0.43	31.43	31.43	31.42	69.3	67.9	00.0	5.21	5.12	J.21	3.95	3.85	0.00	2	2.00
18/4/2016	15:40	Cloudy	Middle	3.0	22.40	22.40	22.45	8.48	8.48	8.49	29.78	29.78	29.78	77.5	77.7	77.0	5.66	5.67	5.62	5.68	5.66	5.62	3	3.00
10/4/2010	15:42	Cloudy	Middle	3.0	22.50	22.50	22.40	8.50	8.50	0.43	29.78	29.78	25.70	77.3	75.4	77.0	5.65	5.50	3.02	5.61	5.54	5.02	3	3.00
20/4/2016	17:46	Cloudy	Middle	2.5	21.30	21.30	21.25	8.55	8.55	8.56	31.43	31.45	31.44	69.0	66.6	66.0	5.10	4.93	4.88	6.74	6.70	6.69	6	5.50
20/4/2010	17:48	Cloudy	Middle	2.5	21.20	21.20	21.23	8.56	8.56	0.50	31.44	31.44	31.44	64.6	63.8	00.0	4.78	4.72	4.00	6.65	6.67	0.03	5	3.50
22/4/2016	16:55	Cloudy	Middle	2.5	22.00	22.20	22.10	8.51	8.51	8.52	29.85	29.85	29.84	58.2	58.8	58.7	4.28	4.32	4.31	6.11	5.94	5.97	5	4.50
221412010	16:57	Cloudy	Middle	2.5	22.10	22.10	22.10	8.52	8.52	0.02	29.83	29.83	29.04	59.0	58.8	36.7	4.33	4.32	4.31	5.92	5.90	ວ.ອ <i>າ</i>	4	4.50
25/4/2016	8:04	Fine	Middle	3.5	22.20	22.20	22.25	8.49	8.49	8.50	30.04	30.04	30.03	68.1	67.6	67.6	4.98	4.94	4.94	7.31	7.10	7.14	8	7.00
20/4/2010	8:06	FIIIE	Middle	3.5	22.30	22.30	22.20	8.51	8.51	0.50	30.02	30.02	30.03	67.5	67.2	07.0	4.94	4.91	4.54	7.07	7.06	7.14	6	7.00



Water Monitoring Result at P4 - SOC Mid-Flood Tide

Date	Time	Weater Condition	Samplin	g Depth	Wat	er Temp °C	erature		рН			Salini	ty	D	O Satur	ation		DO mg/L			Turbid NTU		Suspende	
		Condition	r	n	Va	lue	Average	Va	lue	Average	Va	ilue	Average	Va	lue	Average	Va		Average	Va	llue	Average	Value	Average
2/4/2016	13:54	Fine	Middle	2.5	19.80	19.80	19.80	8.48	8.48	8.49	31.15	31.15	31.20	92.7	91.5	91.6	7.04	6.95	6.96	3.99	3.74	3.35	2	2.00
	13:56		Middle	2.5	19.80	19.80		8.49	8.49		31.24	31.24		91.2	91.0		6.93	6.91		2.79	2.88		<2	
5/4/2016	15:10	Fine	Middle	3.0	20.80	20.90	20.88	8.60	8.60	8.60	30.61	30.61	30.61	101.9	102.5	102.2	7.60	7.64	7.62	4.78	4.11	4.34	6	5.50
	15:12		Middle	3.0	20.90	20.90		8.60	8.60		30.61	30.61		102.7	101.7		7.66	7.58		4.22	4.23		5	
7/4/2016	16:15	Fine	Middle	2.5	20.90	20.90	20.90	8.57	8.57	8.58	29.87	29.87	29.87	101.5	102.4	101.2	7.59	7.66	7.57	3.70	3.71	3.70	<2	<2
17-1/2010	16:17	1 1110	Middle	2.5	20.90	20.90	20.00	8.59	8.59	0.00	29.87	29.87	20.01	99.7	101.2	101.2	7.45	7.56	7.07	3.70	3.69	0.70	<2	-2
9/4/2016	21:12	Cloudy	Middle	2.0	23.30	23.30	23.35	8.54	8.54	8.55	31.02	31.02	31.02	84.1	84.5	83.1	5.99	6.01	5.92	9.27	9.25	9.14	8	8.50
9/4/2010	21:13	Cloudy	Middle	2.0	23.40	23.40	25.55	8.55	8.55	0.55	31.02	31.02	31.02	82.8	81.1	03.1	5.89	5.77	5.92	8.94	9.09	9.14	9	6.50
44/4/0040	8:52	Olevertee	Middle	2.5	20.40	20.40	00.05	8.51	8.51	0.50	30.25	30.25	20.00	79.6	78.3	70.0	6.02	5.91	5.00	6.37	6.27	0.00	6	5.00
11/4/2016	8:54	Cloudy	Middle	2.5	20.30	20.30	20.35	8.52	8.52	8.52	30.35	30.35	30.30	77.5	76.7	78.0	5.86	5.79	5.90	6.40	6.48	6.38	4	5.00
13/4/2016	-	Amber	Middle	-	-	-		-	-		-	-		-	-		-	-		-	-		-	
13/4/2010	-	Rainstorm	Middle	-	-	-		-	-		-	-		-	-		-	-		-	-		-	
15/4/2016	11:33	Cloudy	Middle	2.5	20.20	20.20	20.20	8.52	8.52	8.53	31.42	31.42	31.45	72.8	71.9	71.5	5.48	5.40	5.38	4.10	3.97	3.94	3	3.00
13/4/2010	11:35	Cloudy	Middle	2.5	20.20	20.20	20.20	8.54	8.54	0.55	31.47	31.47	31.45	70.8	70.6	71.5	5.32	5.31	5.56	3.94	3.74	3.94	3	3.00
18/4/2016	15:45	Cloudy	Middle	3.0	21.90	21.90	21.95	8.51	8.51	8.52	30.51	30.51	30.51	78.1	78.4	77.5	5.73	5.75	5.68	7.69	7.67	7.70	8	8.00
10/4/2010	15:47	Cloudy	Middle	3.0	22.00	22.00	21.95	8.52	8.52	0.52	30.50	30.50	30.51	77.0	76.6	77.5	5.64	5.61	5.06	7.68	7.75	7.70	8	8.00
20/4/2016	17:50	Cloudy	Middle	2.5	21.10	21.10	21.15	8.57	8.57	8.58	31.32	31.32	31.37	66.7	66.5	66.0	4.94	4.92	4.89	7.31	7.32	7.45	5	5.50
20/4/2010	17:52	Cloudy	Middle	2.5	21.20	21.20	21.15	8.58	8.58	0.50	31.42	31.42	31.37	65.8	65.0	00.0	4.87	4.81	4.09	7.58	7.59	7.45	6	5.50
22/4/2016	16:59	Cloudy	Middle	2.5	21.90	21.90	21.90	8.52	8.52	8.53	29.89	29.89	29.90	64.1	63.1	62.7	4.72	4.64	4.61	7.59	7.61	7.63	6	6.00
22/4/2010	17:01	Cloudy	Middle	2.5	21.90	21.90	21.80	8.53	8.53	0.00	29.91	29.91	29.90	62.3	61.2	02.7	4.58	4.50	4.01	7.62	7.68	7.03	6	0.00
25/4/2016	8:08	Fine	Middle	3.5	22.20	22.20	22.25	8.52	8.52	8.52	29.91	29.91	29.91	67.9	66.1	65.9	4.97	4.84	4.83	7.60	7.50	7.47	9	9.00
20/4/2010	8:10	FIIIE	Middle	3.5	22.30	22.30	22.20	8.52	8.52	0.02	29.91	29.91	29.91	65.7	64.0	00.9	4.80	4.69	4.03	7.41	7.38	1.41	9	9.00



Water Monitoring Result at P5 - WCT / RT / IT Mid-Flood Tide

Date	Time	Weater Condition	Samplin	g Depth	Wat	er Temp °C	perature		рН			Salini	ty	С	O Satur %	ation		DO mg/L			Turbid NTU		Suspende	
		Condition	r	n	Va	lue	Average	Va	lue	Average	Va	llue	Average	Va	lue	Average	Va		Average	Va	llue	Average	Value	Average
2/4/2016	13:58	Fine	Middle	2.5	19.70	19.70	19.60	8.50	8.50	8.51	31.14	31.14	31.17	89.0	87.0	86.2	6.80	6.64	6.58	2.98	2.74	2.80	<2	<2
	14:00		Middle	2.5	19.50	19.50		8.52	8.52		31.20	31.20		84.8	83.8		6.47	6.40		2.73	2.73		<2	
5/4/2016	15:15	Fine	Middle	3.0	20.50	20.50	20.60	8.61	8.61	8.61	30.77	31.77	31.03	101.9	102.9	102.6	7.64	7.71	7.69	4.23	4.13	4.12	4	4.50
	15:17		Middle	3.0	20.70	20.70		8.61	8.61		30.78	30.78		103.1	102.5		7.73	7.68		4.00	4.12		5	
7/4/2016	16:20	Fine	Middle	2.5	20.80	20.80	20.85	8.61	8.61	8.61	29.86	29.86	29.86	100.3	100.5	99.3	7.52	7.53	7.44	3.70	3.89	3.85	<2	<2
2010	16:22		Middle	2.5	20.90	20.90	20.00	8.61	8.61	0.0 .	29.85	29.85	20.00	98.0	98.2	00.0	7.34	7.36		3.90	3.92	0.00	<2	_
9/4/2016	21:20	Cloudy	Middle	2.0	22.60	22.60	22.65	8.45	8.45	8.47	31.01	31.01	31.01	83.5	82.8	82.5	6.01	5.97	5.94	7.72	7.62	7.57	7	7.00
o <u>2</u> 010	21:21	oloudy	Middle	2.0	22.70	22.70	22.00	8.49	8.49	0	31.01	31.01	01.01	81.9	81.7	02.0	5.90	5.88	0.0 .	7.48	7.44	7.01	7	7.00
11/4/2016	8:56	Cloudy	Middle	2.5	20.40	20.40	20.30	8.52	8.52	8.53	30.34	30.34	30.35	72.7	73.1	72.6	5.50	5.53	5.49	6.93	6.74	6.75	6	6.00
11/4/2010	8:58	Cloudy	Middle	2.5	20.20	20.20	20.30	8.53	8.53	0.55	30.36	30.36	30.33	72.8	71.6	72.0	5.51	5.42	3.49	6.64	6.67	0.73	6	0.00
13/4/2016	-	Amber	Middle	-	-	-		-	-		-	-		-	-		-	- 1		-	-		-	
10/4/2010	-	Rainstorm	Middle	-	-	-		-	-		-	-		-	-		-	-		-	-		-	
15/4/2016	11:37	Cloudy	Middle	2.5	20.20	20.20	20.20	8.55	8.55	8.56	31.43	31.43	31.43	69.2	68.6	68.7	5.21	5.16	5.15	3.90	4.02	3.97	4	3.50
13/4/2010	11:39	Oloddy	Middle	2.5	20.20	20.20	20.20	8.56	8.56	0.50	31.43	31.43	31.43	69.3	67.7	00.7	5.14	5.10	5.15	3.99	3.95	0.01	3	3.50
18/4/2016	15:50	Cloudy	Middle	3.0	21.70	21.70	21.75	8.53	8.53	8.53	30.29	30.29	30.29	75.0	74.7	74.5	5.52	5.50	5.48	7.08	7.06	7.06	5	5.50
10/4/2010	15:52	oloddy	Middle	3.0	21.80	21.80	21.70	8.53	8.53	0.00	30.28	30.28	00.20	74.5	73.9	14.0	5.48	5.43	0.40	7.05	7.04	7.00	6	0.00
20/4/2016	17:54	Cloudy	Middle	2.5	21.20	21.20	21.15	8.59	8.59	8.60	31.41	31.41	31.44	69.5	69.3	67.9	5.14	5.13	5.02	8.42	8.31	8.37	6	6.00
25/4/2010	17:56	Cloudy	Middle	2.5	21.10	21.10	21.10	8.60	8.60	0.00	31.46	31.46	01.44	66.8	65.9	07.0	4.94	4.87	0.02	8.27	8.47	0.07	6	0.00
22/4/2016	17:03	Cloudy	Middle	2.5	21.90	21.90	21.85	8.53	8.53	8.54	29.82	29.82	29.87	64.0	62.7	62.2	4.72	4.62	4.58	8.37	8.31	8.11	6	7.00
22/4/2010	17:05	Oloudy	Middle	2.5	21.80	21.80	21.00	8.54	8.54	0.04	29.92	29.92	23.01	61.1	60.8	02.2	4.50	4.48	7.50	7.96	7.81	0.11	8	7.00
25/4/2016	8:12	Fine	Middle	3.5	22.00	22.00	22.10	8.53	8.53	8.54	29.90	29.90	29.90	60.1	61.4	62.4	4.40	4.51	4.57	6.55	6.64	6.60	8	8.00
20/-1/2010	8:14	1 1110	Middle	3.5	22.20	22.20	22.10	8.54	8.54	0.04	29.90	29.90	20.00	64.6	63.5	02. π	4.73	4.65	7.01	6.57	6.64	0.00	8	0.00



Water Monitoring Result at RW21-P789 - Sun Hung Kai Centre Mid-Flood Tide

Date	Time	Weater Condition	Samplin	g Depth	Wat	er Temp	perature		рН			Salini ppt	ty	D	O Satur	ation		DO mg/L			Turbid NTU	,	Suspend	led Solids
		Condition	r	n	Va	lue	Average	Va	lue	Average	Va	lue	Average	Va	lue	Average	Va	lue	Average	Va	lue	Average		Average
2/4/2016	14:13	Fine	Middle	3.5	19.20	19.20	19.30	8.47	8.47	8.49	31.33	31.33	31.30	93.9	94.8	94.4	7.19	7.26	7.22	2.46	2.45	2.45	<2	<u><2</u>
2/4/2010	14:15	Tille	Middle	3.5	19.40	19.40	15.50	8.51	8.51	0.43	31.27	31.27	31.30	94.5	94.3	54.4	7.23	7.21	7.22	2.45	2.44	2.40	<2	<u>==</u>
5/4/2016	15:33	Fine	Middle	3.5	19.60	19.60	19.65	8.53	8.53	8.56	30.97	30.97	30.93	95.8	95.3	95.1	7.31	7.28	7.26	3.95	4.02	4.05	4	4.50
5. 1.2010	15:35		Middle	3.5	19.70	19.70	10.00	8.58	8.58	0.00	30.88	30.88	00.00	94.9	94.2	00.1	7.24	7.19	20	4.10	4.11		5	
7/4/2016	17:15	Fine	Middle	3.5	20.60	20.60	20.70	8.48	8.48	8.52	30.25	30.25	30.25	101.6	101.4	101.6	7.63	7.61	7.62	4.58	4.64	4.62	3	3.00
	17:17	0	Middle	3.5	20.80	20.80	20.10	8.55	8.55	0.02	30.25	30.25	00.20	101.9	101.5	.00	7.64	7.60	1.02	4.63	4.61		3	0.00
9/4/2016	19:22	Cloudy	Middle	3.0	23.20	23.20	23.25	8.47	8.47	8.48	30.04	30.04	30.04	85.6	84.4	84.7	6.13	6.05	6.07	9.68	9.48	9.42	7	7.50
	19:23	,	Middle	3.0	23.30	23.30		8.48	8.48		30.04	30.04		84.6	84.3		6.06	6.04		9.42	9.11	-	8	
11/4/2016	9:10	Cloudy	Middle	3.5	20.20	20.20	20.20	8.46	8.46	8.48	30.41	30.41	30.41	68.3	68.1	68.6	5.17	5.16	5.19	5.32	5.25	5.25	6	5.50
	9:13	,	Middle	3.5	20.20	20.20		8.50	8.50		30.40	30.40		68.5	69.4		5.19	5.25		5.23	5.21		5	
13/4/2016	-	Amber	Middle	-	-	-		-	-		-	-		-	-		-	-		-	-		-	-
	-	Rainstorm	Middle	-	-	-		-	-		-	-		-	-		-	-		-	-		-	
15/4/2016	13:43	Cloudy	Middle	3.5	20.30	20.30	20.30	8.38	8.38	8.42	31.54	31.54	31.51	65.6	66.3	66.2	4.93	4.98	4.97	4.72	4.72	4.71	5	4.50
	13:45		Middle	3.5	20.30	20.30		8.45	8.45		31.48	31.48		66.6	66.2		5.00	4.97		4.71	4.68		4	
18/4/2016	16:01	Cloudy	Middle	3.5	21.80	21.80	21.85	8.45	8.45	8.47	30.27	30.27	30.28	75.4	75.6	75.4	5.54	5.55	5.54	7.55	7.56	7.57	5	5.00
	16:03		Middle	3.5	21.90	21.90		8.48	8.48		30.28	30.28		75.2	75.4		5.52	5.54		7.59	7.58		5	
20/4/2016	15:15	Cloudy	Middle	3.5	21.40	21.40	21.45	8.41	8.41	8.44	31.50	31.50	31.49	64.2	64.0	64.0	4.72	4.71	4.71	6.76	6.73	6.68	5	5.00
	15:17		Middle	3.5	21.50	21.50		8.46	8.46		31.47	31.47		64.1	63.7		4.72	4.69		6.69	6.55		5	
22/4/2016	17:47	Cloudy	Middle	3.0	22.80	22.80	22.85	8.14	8.14	8.18	30.21	30.21	30.21	78.4	79.5	79.0	5.66	5.74	5.70	8.83	8.50	8.47	9	10.00
	17:48		Middle	3.0	22.90	22.90		8.22	8.22		30.21	30.21		79.7	78.2		5.75	5.64		8.37	8.18	 	11	
25/4/2016	9:00	Fine	Middle	4.0	22.10	22.10	22.20	8.43	8.43	8.46	30.00	30.00	30.01	70.9	70.0	70.3	5.19	5.12	5.14	5.04	5.04	5.04	7	7.50
	9:02		Middle	4.0	22.30	22.30		8.48	8.48		30.01	30.01		70.3	69.9		5.15	5.11		5.03	5.04		8	



Water Monitoring Result at WSD19 - Sheung Wan Mid-Flood Tide

Date	Time	Weater Condition	Samplin	g Depth	Wat	er Temp °C	erature		pН			Salini	ту	D	O Satur	ation		DO mg/L			Turbid NTU		Suspende	
		Condition	r	n	Va	lue	Average	Va	lue	Average	Va	ppt lue	Average	Va	lue %	Average	Va	lue	Average	Va	lue	Average		Average
2/4/2016	12:52	Fine	Middle	3.5	20.00	20.00	19.95	8.18	8.18	8.26	31.72	31.72	31.58	92.1	91.6	92.6	6.98	6.94	6.98	8.84	8.83	8.67	6	6.00
	12:54		Middle	3.5	19.90	19.90		8.33	8.33		31.44	31.44		92.9	93.7		7.04	6.95		8.60	8.40		6	
5/4/2016	14:24	Fine	Middle	3.5	21.20	21.20	21.30	8.45	8.45	8.51	30.28	30.28	30.28	94.0	93.8	94.4	6.98	6.97	7.01	6.43	6.42	6.42	9	8.50
0, 1,2010	14:26		Middle	3.5	21.40	21.40	21.00	8.57	8.57	0.01	30.28	30.28	00.20	95.1	94.8	0	7.06	7.03	7.0.	6.42	6.42	012	8	0.00
7/4/2016	18:15	Fine	Middle	3.5	20.80	20.80	20.90	8.52	8.52	8.54	30.02	30.02	30.02	96.4	96.4	96.2	7.23	7.23	7.21	9.48	9.48	9.38	8	7.50
714/2010	18:17	Tille	Middle	3.5	21.00	21.00	20.50	8.55	8.55	0.54	30.02	30.02	30.02	97.0	94.8	30.2	7.26	7.10	7.21	9.34	9.22	5.50	7	7.50
9/4/2016	20:15	Cloudy	Middle	3.0	22.90	22.90	22.95	8.29	8.29	8.30	30.39	30.39	30.40	81.8	82.2	82.5	5.87	5.89	5.91	9.62	9.87	9.69	8	8.00
0/4/2010	20:16	Oloddy	Middle	3.0	23.00	23.00	22.00	8.31	8.31	0.00	30.40	30.40	00.40	82.2	83.9	02.0	5.88	6.01	0.01	9.51	9.77	0.00	8	0.00
11/4/2016	8:01	Cloudy	Middle	3.5	20.50	20.50	20.55	8.37	8.37	8.40	30.48	30.48	30.45	73.5	73.1	72.9	5.54	5.50	5.49	7.67	7.61	7.59	8	8.00
11/4/2010	8:03	Oloddy	Middle	3.5	20.60	20.60	20.00	8.42	8.42	0.40	30.42	30.42	50.45	72.7	72.3	72.0	5.47	5.44	5.45	7.54	7.55	7.55	8	0.00
13/4/2016	-	Amber	Middle	-	-	-		-	-		-	-		-	-		-	-		-	-		-	
13/4/2010	-	Rainstorm	Middle	-	-	-		-	-		-	-		-	-		-	-		-	-		-	
15/4/2016	10:21	Cloudy	Middle	3.5	20.50	20.50	20.55	8.21	8.21	8.26	31.30	31.30	31.27	75.2	75.2	75.4	5.63	5.62	5.63	8.84	8.79	8.77	4	4.50
13/4/2010	10:23	Oloddy	Middle	3.5	20.60	20.60	20.00	8.31	8.31	0.20	31.24	31.24	31.27	75.7	75.3	75.4	5.65	5.63	3.00	8.74	8.72	0.77	5	4.50
18/4/2016	14:45	Cloudy	Middle	3.5	22.00	22.00	22.10	8.37	8.37	8.41	29.56	29.56	29.56	83.1	83.2	83.0	6.11	6.11	6.09	7.44	7.37	7.24	6	5.50
10/4/2010	14:47	Oloddy	Middle	3.5	22.20	22.20	22.10	8.44	8.44	0.41	29.55	29.55	20.00	83.0	82.5	00.0	6.09	6.06	0.00	7.06	7.09	7.24	5	0.00
20/4/2016	16:37	Cloudy	Middle	3.5	21.20	21.20	21.30	8.36	8.36	8.40	31.50	31.50	31.43	68.3	69.1	68.9	5.24	5.10	5.13	9.81	9.95	9.85	7	8.00
20/4/2010	16:39	Oloddy	Middle	3.5	21.40	21.40	21.00	8.44	8.44	0.40	31.36	31.37	31.43	69.2	69.1	00.5	5.10	5.09	5.10	9.81	9.82	5.00	9	0.00
22/4/2016	19:30	Cloudy	Middle	3.0	22.00	22.00	22.05	8.38	8.38	8.39	30.72	30.72	30.72	81.1	81.2	80.7	5.91	5.92	5.88	9.18	9.13	9.10	11	10.50
22/4/2010	19:31	Cloudy	Middle	3.0	22.10	22.10	22.03	8.39	8.39	0.08	30.72	30.72	30.72	80.1	80.3	00.7	5.83	5.85	3.00	9.11	8.96	9.10	10	10.50
25/4/2016	7:05	- Fine	Middle	3.5	22.40	22.40	22.50	8.31	8.31	8.35	29.88	29.88	29.88	75.3	74.4	74.9	5.49	5.43	5.46	8.49	8.53	8.49	7	7.50
23/4/2010	7:07	I IIIC	Middle	3.5	22.60	22.60	22.50	8.39	8.39	0.00	29.87	29.87	29.00	74.9	74.8	14.5	5.45	5.45	3.40	8.53	8.40	0.43	8	7.50



Water Monitoring Result at C7 - Windsor House Mid-Ebb Tide

Date	Time	Weater Condition	Samplin	g Depth	Wat	er Temp	erature		рН			Salinit	y	D	O Satur	ation		DO mg/L			Turbidi	ity	Suspende	
		Condition	r	n	Va	lue	Average	Va	lue	Average	Va	ilue	Average	Va	ilue	Average	Va	lue	Average	Va	lue	Average	Value	Average
2/4/2016	17:25	Cloudy	Middle	-	21.20	21.20	21.25	8.41	8.41	8.42	31.26	31.26	31.26	80.4	83.0	82.0	5.93	6.12	6.04	4.77	4.76	4.66	<2	<2
	17:26		Middle	-	21.30	21.30		8.42	8.42		31.26	31.26		82.4	82.1		6.07	6.03		4.64	4.48		<2	
5/4/2016	11:25	Fine	Middle	-	20.60	20.60	20.75	8.39	8.39	8.41	30.82	30.82	30.82	95.4	93.9	94.1	7.14	7.02	7.03	7.37	7.18	7.31	5	6.00
	11:27		Middle	-	20.90	20.90		8.43	8.43	-	30.82	30.82		95.0	92.2		7.09	6.88		7.33	7.34		7	
7/4/2016	14:48	Fine	Middle	-	21.70	21.70	21.75	8.42	8.42	8.44	30.76	30.76	30.76	86.3	88.8	85.4	6.34	6.52	6.27	4.21	4.22	4.24	<2	<2
17-112010	14:50	Tille	Middle	-	21.80	21.80	21.70	8.45	8.45	0.44	30.76	30.76	00.70	83.3	83.1	00.4	6.11	6.10	0.21	4.26	4.26	7.27	<2	-2
9/4/2016	12:05	Fine	Middle	-	22.00	22.00	22.10	8.42	8.42	8.45	30.41	30.41	30.42	93.0	93.0	93.3	6.80	6.80	6.82	9.46	9.50	9.48	6	7.00
0/4/2010	12:07	Tille	Middle	-	22.20	22.20	22.10	8.47	8.47	0.40	30.40	30.46	00.42	94.0	93.3	00.0	6.87	6.82	0.02	9.49	9.46	0.40	8	7.00
11/4/2016	15:45	Cloudy	Middle	-	20.60	20.60	20.65	8.39	8.39	8.44	30.64	30.64	30.64	72.7	72.2	71.3	5.45	5.41	5.35	7.72	7.67	7.59	3	3.50
11/4/2010	15:47	Cloudy	Middle	-	20.70	20.70	20.00	8.48	8.48	0.44	30.63	30.63	30.04	71.0	69.4	71.5	5.32	5.20	5.55	7.49	7.49	7.55	4	0.00
13/4/2016	17:45	Cloudy	Middle	-	20.70	20.70	20.70	8.42	8.42	8.42	30.83	30.83	30.74	72.8	73.4	72.9	5.45	5.49	5.45	3.11	3.08	3.07	<2	<2
10/4/2010	17:47	Oloudy	Middle	-	20.70	20.70	20.70	8.41	8.42	0.42	30.80	30.50	00.74	72.7	72.5	72.0	5.43	5.42	0.40	3.05	3.04	0.07	<2	-2
15/4/2016	17:55	Cloudy	Middle	-	20.70	20.70	20.75	8.21	8.21	8.26	31.42	31.42	31.42	77.5	78.1	77.9	5.77	5.71	5.78	3.83	3.78	3.78	5	5.00
10/4/2010	17:56	Oloudy	Middle	-	20.80	20.80	20.70	8.30	8.30	0.20	31.41	31.41	01.42	79.1	77.0	77.0	5.89	5.73	0.70	375	3.72	0.70	5	0.00
18/4/2016	11:55	Cloudy	Middle	-	21.80	21.80	21.80	8.57	8.57	8.57	30.16	30.16	30.16	70.3	70.8	70.3	5.18	5.21	5.18	5.23	5.22	5.22	6	6.50
10/4/2010	11:57	Cloudy	Middle	-	21.80	21.80	21.00	8.56	8.56	0.57	30.16	30.16	30.10	69.5	70.6	70.5	5.12	5.20	5.10	5.21	5.20	5.22	7	0.50
20/4/2016	10:45	Cloiudy	Middle	-	21.20	21.20	21.25	8.40	8.40	8.44	31.37	31.37	31.37	76.1	76.3	76.0	5.61	5.63	5.60	8.38	8.17	8.21	6	6.50
20/4/2010	10:47	Cioludy	Middle	-	21.30	21.30	21.25	8.47	8.47	0.44	31.37	31.37	31.37	76.1	75.3	70.0	5.61	5.55	5.00	8.16	8.11	0.21	7	0.50
22/4/2016	-	Amber	Middle	-	-	-		-	-		-	-		-	-		-	-		-	-		-	
22/4/2016	-	Rainstorm	Middle	-	-	-		-	-		-	-		-	-		-	1		-	-		1	
25/4/2016	11:05	Fine	Middle	-	22.70	22.70	22.75	8.42	8.42	8.43	29.61	29.61	29.60	66.0	64.4	64.2	4.79	4.68	4.66	6.53	6.53	6.51	8	7.50
23/4/2010	11:07	Fille	Middle	-	22.80	22.80	22.10	8.44	8.44	0.43	29.59	29.59	29.00	63.6	62.6	04.2	4.62	4.54	4.00	6.50	6.47	0.51	7	7.50



Water Monitoring Result at C1 - HKCEC Mid-Ebb Tide

Date	Time	Weater	Samplin	g Depth	Wat	er Temp	erature		рН			Salini	ty	D	O Satur	ation		DO			Turbidi		Suspende	
		Condition	n	n	Va	ilue	Average	Va	lue	Average	Va	ppt ilue	Average	Va	ilue	Average	Va	mg/L lue	Average	Va	lue	Average	mg Value	Average
2/4/2016	20:48	Cloudy	Middle	2.0	20.30	20.30	20.35	8.60	8.60	8.61	31.50	31.50	31.50	82.0	84.7	84.4	6.37	6.35	6.38	4.18	4.00	3.93	2	2.50
2/4/2010	20:49	Cloudy	Middle	2.0	20.40	20.40	20.00	8.61	8.61	0.01	31.50	31.50	31.50	85.5	85.4	04.4	6.41	6.40	0.50	3.90	3.64	0.00	3	2.50
5/4/2016	10:48	Fine	Middle	2.5	19.90	19.90	19.95	8.57	8.57	8.57	31.17	31.17	31.16	85.4	84.7	84.8	6.47	6.42	6.42	3.82	3.83	3.81	6	5.50
0, 1,2010	10:50		Middle	2.5	20.00	20.00	10.00	8.57	8.57	0.01	31.14	31.14	00	84.5	84.4	0 1.0	6.40	6.40	0.12	3.88	3.70	0.01	5]
7/4/2016	14:16	Fine	Middle	3.5	21.00	21.00	21.05	8.60	8.60	8.60	30.55	30.55	30.55	96.7	97.4	97.4	7.21	7.26	7.26	6.02	5.91	5.84	3	3.50
.,2010	14:18		Middle	3.5	21.10	21.10	21.00	8.60	8.60	0.00	30.55	30.55	00.00	97.8	97.7	0111	7.28	7.27	7.20	5.70	5.71	0.01	4	0.00
9/4/2016	11:25	Fine	Middle	2.5	21.00	21.00	20.85	8.56	8.56	8.57	30.59	30.59	30.60	90.4	90.2	89.8	6.72	6.71	6.68	5.93	5.96	5.82	6	6.50
	11:27	_	Middle	2.5	20.70	20.70		8.58	8.58		30.60	30.60		90.4	88.3		6.74	6.56		5.81	5.57		7	
11/4/2016	14:40	Cloudy	Middle	3.0	20.20	20.20	20.25	8.55	8.55	8.56	30.61	30.61	30.61	79.9	79.5	79.1	6.04	6.01	5.98	5.45	5.42	5.45	5	4.50
	14:42	,	Middle	3.0	20.30	20.30		8.56	8.56		30.60	30.60		78.2	78.7		5.91	5.95		5.46	5.48		4	
13/4/2016	15:25	Cloudy	Middle	3.0	20.40	20.40	20.45	8.56	8.56	8.56	30.03	30.03	30.03	77.0	79.9	78.5	5.82	5.99	5.92	4.94	4.91	4.90	3	2.50
	15:27		Middle	3.0	20.50	20.50		8.56	8.56		30.03	30.03		78.4	78.6		5.92	5.93		4.90	4.86		2	
15/4/2016	17:16	Cloudy	Middle	2.5	20.40	20.40	20.35	8.57	8.57	8.58	31.52	31.52	31.52	71.2	71.5	71.7	5.35	5.37	5.38	4.47	4.58	4.55	3	4.00
	17:18		Middle	2.5	20.30	20.30		8.58	8.58		31.52	31.52		72.1	71.9		5.41	5.39		4.58	4.58		5	
18/4/2016	11:30	Cloudy	Middle	3.0	21.40	21.40	21.45	8.54	8.54	8.54	29.57	29.57	29.57	74.8	74.8	74.5	5.56	5.57	5.54	5.21	5.22	5.24	4	3.50
	11:32		Middle	3.0	21.50	21.50		8.54	8.54		29.57	29.57		74.5	73.8		5.53	5.49		5.20	5.32		3	
20/4/2016	13:30	Cloiudy	Middle	2.5	21.20	21.20	21.25	8.59	8.59	8.59	31.42	31.42	31.42	77.9	78.2	77.8	5.75	5.77	5.74	6.42	6.44	6.47	6	5.50
	13:32		Middle	2.5	21.30	21.30		8.59	8.59		31.42	31.42		77.7	77.3		5.74	5.70		6.55	6.47		5	
22/4/2016	-	Amber Rainstorm	Middle	-	-	-		-	-		-	-		-	-		-	-		-	-		-	
	-	ramstufff	Middle	-	-	-		-	-		-	-		-	-		-	-		-	-		-	
25/4/2016	14:30	Fine	Middle	2.5	23.40	23.40	23.45	8.52	8.52	8.52	29.96	29.96	29.96	77.6	78.3	77.8	5.56	5.60	5.57	8.10	8.00	7.99	6	6.00
	14:32		Middle	2.5	23.50	23.50		8.52	8.52		29.95	29.95		77.7	77.5		5.56	5.55		7.87	7.99		6	



Water Monitoring Result at P1 - HKCEC Phase I Mid-Ebb Tide

Date	Time	Weater Condition	Samplin	g Depth	Wat	er Temp	erature		рН			Salini	ty .	D	O Satur	ation		DO			Turbidi NTU			ed Solids
		Condition	n	n	Va	ilue	Average	Va	lue -	Average	Va	ppt ilue	Average	Va	lue %	Average	Val	mg/L lue	Average	Va	lue	Average	mg Value	Average
2/4/2016	20:20	Cloudy	Middle	2.0	20.40	20.40	20.45	8.58	8.58	8.59	31.49	31.49	31.49	86.8	87.2	86.8	6.49	6.52	6.50	4.63	4.28	4.33	4	4.00
	20:21		Middle	2.0	20.50	20.50		8.59	8.59		31.49	31.49		87.0	86.0		6.50	6.49		4.21	4.18		4	
5/4/2016	10:32	Fine	Middle	2.5	20.60	20.60	20.65	8.43	8.43	8.45	31.28	31.28	31.25	87.0	86.3	86.8	6.51	6.45	6.49	5.49	5.33	5.38	6	5.50
	10:34		Middle	2.5	20.70	20.70		8.47	8.47	0.10	31.21	31.21		86.7	87.3		6.47	6.52		5.42	5.26		5	
7/4/2016	14:00	Fine	Middle	3.5	22.70	22.70	22.85	8.42	8.42	8.47	30.81	30.81	30.81	99.1	97.9	95.8	7.12	7.04	6.89	4.08	4.09	4.09	3	3.50
., ., 2010	14:02		Middle	3.5	23.00	23.00	22.00	8.52	8.52	0	30.80	30.80	00.01	92.6	93.6	00.0	6.66	6.73	0.00	4.10	4.08		4	0.00
9/4/2016	11:09	Fine	Middle	2.5	22.70	22.70	22.70	8.40	8.40	8.44	30.99	30.99	30.95	83.8	85.6	84.1	6.04	6.17	6.07	9.15	9.01	9.04	11	11.50
	11:11		Middle	2.5	22.70	22.70		8.47	8.47		30.90	30.90		84.1	83.0		6.07	5.99		9.01	9.00		12	
11/4/2016	14:20	Cloudy	Middle	3.0	20.80	20.80	20.85	8.34	8.34	8.39	30.64	30.64	30.64	83.1	81.0	81.6	6.21	6.05	6.10	6.28	6.16	6.12	5	5.00
	14:22		Middle	3.0	20.90	20.90		8.43	8.43		30.63	30.63		80.3	81.9		6.00	6.12		6.00	6.02		5	
13/4/2016	15:05	Cloudy	Middle	3.0	20.70	20.70	20.75	8.44	8.44	8.47	29.94	29.94	29.95	80.9	79.4	79.7	6.08	5.97	5.99	3.89	3.92	3.93	3	2.50
	15:07		Middle	3.0	20.80	20.80		8.49	8.49		29.95	29.95		79.3	79.3		5.96	5.96		3.94	3.97		2	
15/4/2016	17:00	Cloudy	Middle	2.5	20.70	20.70	20.80	8.37	8.37	8.41	31.48	31.48	31.44	65.9	66.1	65.8	4.90	4.92	4.89	4.71	4.71	4.71	3	3.00
	17:02		Middle	2.5	20.90	20.90		8.45	8.45		31.40	31.40		65.8	65.2		4.89	4.84		4.71	4.71		3	
18/4/2016	11:14	Cloudy	Middle	3.0	21.60	21.60	21.65	8.44	8.44	8.46	29.48	29.48	29.48	76.0	73.4	73.4	5.64	5.44	5.45	4.21	4.14	4.15	4	4.00
	11:16		Middle	3.0	21.70	21.70		8.48	8.48		29.47	29.47		72.4	71.9		5.37	5.33		4.12	4.11		4	
20/4/2016	13:10	Cloiudy	Middle	2.5	21.20	21.20	21.35	8.48	8.48	8.51	31.57	31.57	31.56	81.8	82.1	81.4	6.02	6.07	6.00	7.05	6.88	6.94	5	6.00
	13:12		Middle	2.5	21.50	21.50		8.54	8.54		31.54	31.54		80.8	81.0		5.94	5.96		6.89	6.94		7	
22/4/2016	-	Amber	Middle	-	-	-		-	-		-	-		-	-		-	-		-	-		-	
	-	Rainstorm	Middle	-	-	-		-	-		-	-		-	-		-	-		-	-		-	
25/4/2016	14:10	Fine	Middle	2.5	24.10	24.10	24.25	8.35	8.35	8.40	30.15	30.15	30.15	78.0	78.2	78.0	5.51	5.52	5.51	8.83	8.72	8.70	6	7.00
	14:12		Middle	2.5	24.40	24.40		8.44	8.44		30.15	30.15		77.7	78.1		5.48	5.51		8.63	8.60		8	1122



Water Monitoring Result at P3 - APA Mid-Ebb Tide

Date	Time	Weater Condition	Samplin	g Depth	Wat	er Temp	erature		рН			Salini	ty	С	O Satur	ation		DO			Turbidi		Suspende	
		Condition	n	n	Va	ilue	Average	Va	lue	Average	Va	ppt alue	Average	Va	ilue	Average	Va	mg/L lue	Average	Va	lue	Average	mg Value	Average
2/4/2016	20:25	Cloudy	Middle	2.0	20.50	20.50	20.55	8.43	8.43	8.44	31.39	31.39	31.39	84.4	84.3	84.0	6.30	6.29	6.27	3.50	3.37	3.47	5	4.50
27 11/2010	20:26	o.ouu,	Middle	2.0	20.60	20.60	20.00	8.44	8.44	0.11	31.39	31.39	01.00	84.1	83.1	0 1.0	6.28	6.20	0.21	3.47	3.52	0.17	4	
5/4/2016	10:36	Fine	Middle	2.5	20.10	20.10	20.15	8.50	8.50	8.51	31.19	31.19	31.18	87.4	87.0	87.6	6.60	6.57	6.61	4.57	4.57	4.59	6	5.50
0, 1,2010	10:38		Middle	2.5	20.20	20.20	20.10	8.52	8.52	0.0 .	31.17	31.17	00	87.7	88.1	01.10	6.62	6.64	0.0 .	4.61	4.60		5	0.00
7/4/2016	14:04	Fine	Middle	3.5	21.20	21.20	21.35	8.55	8.55	8.56	30.56	30.56	30.55	96.8	94.9	95.5	7.18	7.03	7.08	5.05	5.04	5.13	3	3.50
77-112010	14:06	Tille	Middle	3.5	21.50	21.50	21.00	8.57	8.57	0.00	30.53	30.53	00.00	94.8	95.6	00.0	7.02	7.08	7.00	5.19	5.22	0.10	4	0.00
9/4/2016	11:13	Fine	Middle	2.5	21.40	21.40	21.50	8.51	8.51	8.52	30.60	30.60	30.58	92.1	92.8	91.8	6.80	6.85	6.77	5.32	5.46	5.54	5	4.50
07.11.20.10	11:15		Middle	2.5	21.60	21.60	21.00	8.52	8.52	0.02	30.56	30.56	00.00	91.4	90.7	0 1.0	6.74	6.69	0.11	5.64	5.72	0.01	4	
11/4/2016	14:25	Cloudy	Middle	3.0	20.40	20.40	20.50	8.47	8.47	8.49	30.60	30.60	30.60	79.0	80.3	79.8	5.96	6.02	6.00	5.19	5.19	5.14	6	5.50
	14:27	o.ouu,	Middle	3.0	20.60	20.60	20.00	8.50	8.50	0.10	30.59	30.59	00.00	80.0	80.0	7 0.0	6.01	6.01	0.00	5.12	5.07	0.11	5	0.00
13/4/2016	15:10	Cloudy	Middle	3.0	20.50	20.50	20.50	8.52	8.52	8.53	29.90	29.90	29.90	77.9	78.3	78.3	5.88	5.92	5.92	4.10	4.03	4.03	2	2.00
	15:12		Middle	3.0	20.50	20.50		8.53	8.53		29.90	29.90		78.9	78.1		5.96	5.90		4.00	3.97		2	
15/4/2016	17:04	Cloudy	Middle	2.5	20.40	20.40	20.45	8.48	8.48	8.50	31.50	31.50	31.50	70.7	70.5	68.6	5.29	5.28	5.13	4.58	4.58	4.53	3	3.00
	17:06	,	Middle	2.5	20.50	20.50		8.51	8.51		31.49	31.49		67.8	65.3		5.08	4.88		4.52	4.44		3	
18/4/2016	11:18	Cloudy	Middle	3.0	21.50	21.50	21.50	8.50	8.50	8.51	29.45	29.45	29.45	73.3	70.1	73.3	5.45	5.21	5.45	5.20	5.20	5.20	4	3.50
	11:20	,	Middle	3.0	21.50	21.50		8.51	8.51		29.45	29.45		75.3	74.6		5.60	5.55		5.20	5.20		3	
20/4/2016	13:15	Cloiudy	Middle	2.5	21.00	21.00	21.05	8.56	8.56	8.57	31.53	31.53	31.53	77.9	78.7	78.7	5.78	5.83	5.83	5.65	5.65	5.68	4	4.50
	13:17		Middle	2.5	21.10	21.10		8.57	8.57		31.52	31.52		79.1	79.1		5.86	5.86		5.69	5.72		5	
22/4/2016	-	Amber	Middle	-	-	-		-	-		-	-		-	-		-	-		-	-		-	
	-	Rainstorm	Middle	-	-	-		-	-		-	-		-	-		-	-		-	-		-	
25/4/2016	14:15	Fine	Middle	2.5	23.70	23.70	23.80	8.47	8.47	8.49	30.10	30.10	30.10	77.6	77.5	77.4	5.52	5.51	5.50	8.59	8.57	8.61	5	5.00
	14:17		Middle	2.5	23.90	23.90		8.50	8.50		30.10	30.10		77.4	77.1		5.50	5.48		8.69	8.58		5	



Water Monitoring Result at P4 - SOC Mid-Ebb Tide

Date	Time	Weater Condition	Samplin	g Depth	Wat	er Temp	erature		рН			Salini	ty	С	O Satur	ation		DO			Turbidi		Suspende	
		Condition	n	n	Va	ilue	Average	Va	lue	Average	Va	ppt alue	Average	Va	ilue	Average	Va	mg/L lue	Average	Va	lue	Average	mg Value	Average
2/4/2016	20:32	Cloudy	Middle	2.0	20.40	20.40	20.50	8.54	8.54	8.54	31.49	31.49	31.49	83.7	83.6	83.5	6.26	6.25	6.24	4.00	4.02	3.83	3	3.00
27 11/2010	20:33	o.ouu,	Middle	2.0	20.60	20.60	20.00	8.54	8.54	0.01	31.49	31.49	01110	83.6	83.0	00.0	6.24	6.20	0.2	3.66	3.64	0.00	3	0.00
5/4/2016	10:40	Fine	Middle	2.5	20.10	20.10	20.15	8.53	8.53	8.54	31.16	31.16	31.16	88.2	87.8	88.7	6.65	6.62	6.69	4.61	4.90	4.74	6	5.50
0, 1,2010	10:42		Middle	2.5	20.20	20.20	20.10	8.54	8.54	0.01	31.16	31.16	00	89.3	89.5	00.1	6.73	6.75	0.00	4.71	4.72		5	0.00
7/4/2016	14:08	Fine	Middle	3.5	21.10	21.10	21.15	8.58	8.58	8.59	30.42	30.42	30.42	99.3	99.0	99.0	7.39	7.36	7.36	4.74	4.64	4.60	3	3.00
77-472010	14:10	Tille	Middle	3.5	21.20	21.20	21.10	8.60	8.60	0.00	30.42	30.42	00.42	99.4	98.4	00.0	7.39	7.31	7.00	4.51	4.50	4.00	3	0.00
9/4/2016	11:17	Fine	Middle	2.5	21.40	21.40	21.40	8.53	8.53	8.54	30.59	30.59	30.59	87.0	86.6	86.5	6.44	6.40	6.40	4.64	4.62	4.58	6	6.00
0, 1,2010	11:19		Middle	2.5	21.40	21.40	20	8.54	8.54	0.01	30.58	30.58	00.00	86.3	85.9	00.0	6.38	6.36	0.10	4.52	4.54		6	0.00
11/4/2016	14:30	Cloudy	Middle	3.0	20.30	20.30	20.30	8.52	8.52	8.53	30.54	30.54	30.54	80.7	80.5	80.3	6.10	6.08	6.07	4.90	5.00	4.99	4	4.50
111112010	14:32	o.ouu,	Middle	3.0	20.30	20.30	20.00	8.53	8.53	0.00	30.54	30.54	00.01	80.0	80.0	00.0	6.04	6.04	0.01	5.02	5.03		5	
13/4/2016	15:15	Cloudy	Middle	3.0	20.50	20.50	20.55	8.54	8.54	8.55	29.96	29.96	29.96	77.8	78.4	78.3	5.87	5.91	5.91	4.41	4.59	4.67	<2	<2
	15:17		Middle	3.0	20.60	20.60		8.55	8.55		29.96	29.96		78.1	78.9		5.89	5.95		4.81	4.85		<2	
15/4/2016	17:08	Cloudy	Middle	2.5	20.40	20.40	20.45	8.53	8.53	8.54	31.52	31.52	31.52	68.0	68.6	67.9	5.09	5.14	5.11	5.04	5.04	5.04	4	4.00
	17:10	,	Middle	2.5	20.50	20.50		8.54	8.54		31.51	31.51		68.0	66.9		5.09	5.10		5.04	5.03		4	
18/4/2016	11:22	Cloudy	Middle	3.0	21.50	21.50	21.55	8.52	8.52	8.52	29.50	29.50	29.51	74.7	74.2	73.9	5.55	5.51	5.49	4.82	4.85	4.88	3	2.50
	11:24	,	Middle	3.0	21.60	21.60		8.52	8.52		29.51	29.51		73.3	73.3		5.45	5.44		4.89	4.96		2	
20/4/2016	13:20	Cloiudy	Middle	2.5	21.10	21.10	21.15	8.58	8.58	8.59	31.48	31.48	31.48	77.7	78.1	77.5	5.75	5.81	5.74	6.68	6.55	6.56	4	4.00
	13:22		Middle	2.5	21.20	21.20		8.59	8.59		31.48	31.48		77.8	76.3	-	5.75	5.64		6.50	6.52		4	
22/4/2016	-	Amber	Middle	-	-	-		-	-		-	-		-	-		-	-		-	-		-	
	-	Rainstorm	Middle	-	-	-		-	-		-	-		-	-		-	-		-	-		-	
25/4/2016	14:20	Fine	Middle	2.5	23.40	23.40	23.50	8.50	8.50	8.50	30.10	30.10	30.11	79.7	80.3	80.2	5.70	5.74	5.73	7.92	8.18	8.19	5	5.50
	14:22		Middle	2.5	23.60	23.60		8.50	8.50		30.11	30.11		80.4	80.2		5.74	5.73		8.37	8.29		6	



Water Monitoring Result at P5 - WCT / RT / IT Mid-Ebb Tide

Date	Time	Weater Condition	Samplin	g Depth	Wat	er Temp	erature		рН			Salini	ty	D	O Satur	ation		DO			Turbidi		Suspende	
		Condition	n	n	Va	ilue	Average	Va	lue	Average	Va	ppt alue	Average	Va	ilue	Average	Va	mg/L lue	Average	Va	lue	Average	mg Value	Average
2/4/2016	20:38	Cloudy	Middle	2.0	20.50	20.50	20.53	8.59	8.59	8.60	31.54	31.54	31.54	84.9	85.9	84.4	6.34	6.40	6.30	4.47	4.43	4.39	2	2.00
2/4/2010	20:39	Oloudy	Middle	2.0	20.60	20.50	20.00	8.60	8.60	0.00	31.54	31.54	01.04	82.7	84.0	04.4	6.19	6.27	0.00	4.28	4.37	4.00	2	2.00
5/4/2016	10:44	Fine	Middle	2.5	19.80	19.80	19.85	8.55	8.55	8.56	31.17	31.17	31.16	89.3	89.0	88.5	6.77	6.75	6.71	4.80	4.54	4.64	5	5.00
	10:46		Middle	2.5	19.90	19.90		8.56	8.56		31.15	31.15		87.8	87.9		6.66	6.66		4.51	4.71		5	
7/4/2016	14:12	Fine	Middle	3.5	21.00	21.00	21.10	8.59	8.59	8.60	30.54	30.54	30.54	99.1	99.1	98.1	7.37	7.37	7.30	5.25	5.33	5.70	4	3.50
., ., 2010	14:14		Middle	3.5	21.20	21.20	20	8.60	8.60	0.00	30.53	30.53	00.01	98.0	96.0	00.1	7.30	7.14	7.00	6.64	5.56	0.70	3	0.00
9/4/2016	11:21	Fine	Middle	2.5	21.40	21.40	21.45	8.55	8.55	8.55	30.58	30.58	30.58	88.7	88.5	88.0	6.56	6.55	6.51	6.45	6.30	6.22	7	7.50
	11:23		Middle	2.5	21.50	21.50		8.55	8.55		30.57	30.57		87.5	87.3		6.47	6.45		6.06	6.06		8	
11/4/2016	14:35	Cloudy	Middle	3.0	20.20	20.20	20.25	8.54	8.54	8.54	30.56	30.56	30.56	81.5	81.5	81.4	6.15	6.16	6.15	5.20	5.21	5.21	5	5.50
	14:37		Middle	3.0	20.30	20.30		8.54	8.54		30.56	30.56		81.5	81.2		6.16	6.14		5.21	5.20		6	
13/4/2016	15:20	Cloudy	Middle	3.0	20.50	20.50	20.50	8.55	8.55	8.56	29.96	29.96	29.96	76.7	77.5	77.6	5.79	5.85	5.86	4.01	4.00	3.98	3	3.00
	15:22	,	Middle	3.0	20.50	20.50		8.56	8.56		29.96	29.96		78.0	78.3		5.90	5.91		3.96	3.95		3	
15/4/2016	17:12	Cloudy	Middle	2.5	20.40	20.40	20.40	8.55	8.55	8.56	31.52	31.52	31.53	69.2	69.3	69.1	5.19	5.20	5.18	4.72	4.71	4.71	3	3.00
	17:14		Middle	2.5	20.40	20.40		8.57	8.57		31.53	31.53		69.6	68.2		5.22	5.12		4.71	4.71		3	
18/4/2016	11:26	Cloudy	Middle	3.0	21.40	21.40	21.33	8.53	8.53	8.54	29.56	29.56	29.56	74.1	72.3	72.8	5.51	5.38	5.42	5.31	5.45	5.43	4	4.00
	11:28	•	Middle	3.0	21.50	21.00		8.54	8.54		29.56	29.55		72.3	72.4		5.38	5.39		5.47	5.47		4	
20/4/2016	13:25	Cloiudy	Middle	2.5	21.20	21.20	21.25	8.59	8.59	8.59	31.43	31.43	31.43	77.7	77.2	77.0	5.74	5.70	5.68	6.48	6.34	6.48	5	4.50
	13:27	•	Middle	2.5	21.30	21.30		8.59	8.59		31.43	31.43		76.3	76.7		5.63	5.66		6.40	6.69		4	
22/4/2016	-	Amber	Middle	-	-	-		-	-		-	-		-	-		-	-		-	-		-	
	-	Rainstorm	Middle	-	-	-		-	-		-	-		-	-		-	-		-	-		-	
25/4/2016	14:25	Fine	Middle	2.5	23.30	23.30	23.40	8.51	8.51	8.52	30.04	30.04	30.04	78.1	77.4	78.2	5.61	5.54	5.61	9.49	9.48	9.48	4	4.50
	14:27		Middle	2.5	23.50	23.50		8.52	8.52		30.04	30.04		78.3	78.9		5.63	5.64		9.48	9.48		5	



Water Monitoring Result at RW21-P789 - Sun Hung Kai Centre Mid-Ebb Tide

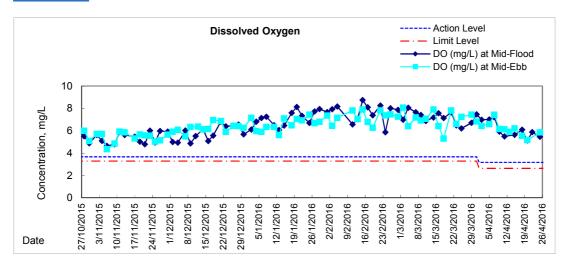
Date	Time	Weater Condition	Samplin	'	Wat	ter Temp	perature		pH -			Salini	ty	D	O Satur %	ation		DO mg/L			Turbidi NTU		Suspende	
			II.	n	Va	lue	Average	Va	lue	Average	Va	lue	Average	Va	lue	Average	Va	ue	Average	Va	lue	Average	Value	Average
2/4/2016	18:00	Cloudy	Middle Middle	3.5	20.80	20.80	20.80	8.39	8.39 8.44	8.42	31.45	31.45	31.38	86.9 85.2	88.0 86.3	86.6	6.47	6.50	6.42	4.43	4.44	4.42	3	2.50
				3.5		20.00		0.44	0.44		31.31	31.31		00.2	00.0		0.02	0.40		4.40	7.72			
5/4/2016	10:57	Fine	Middle	3.5	19.50	19.50	19.55	8.47	8.47	8.50	31.31	31.31	31.31	90.3	92.6	92.3	6.88	7.05	7.03	3.08	2.89	2.93	4	3.50
	10:59		Middle	3.5	19.60	19.60		8.52	8.52		31.30	31.30		93.2	93.0		7.10	7.08		2.88	2.88		3	
7/4/0040	14:20	Ein -	Middle	3.5	20.70	20.70	00.00	8.47	8.47	0.50	30.88	30.88	00.00	100.9	100.5	00.0	7.54	7.50	7.44	3.66	3.64	0.04	<2	
7/4/2016	14:22	Fine	Middle	3.5	20.90	20.90	20.80	8.52	8.52	8.50	30.88	30.88	30.88	98.9	98.7	99.8	7.37	7.36	7.44	3.63	3.61	3.64	<2	<u>≤2</u>
21112212	11:37		Middle	2.5	20.90	20.90		8.48	8.48		30.84	30.84		91.1	89.5		6.79	6.67		4.44	4.20		8	
9/4/2016	11:39	Fine	Middle	2.5	21.10	21.10	21.00	8.53	8.53	8.51	30.82	30.82	30.83	89.6	89.9	90.0	6.66	6.68	6.70	4.24	4.26	4.29	6	7.00
	14:55		Middle	3.5	20.40	20.40		8.50	8.50		30.91	30.91		78.2	78.9		5.88	5.91		5.25	5.28		4	
11/4/2016	14:57	Cloudy	Middle	3.5	20.50	20.50	20.45	8.52	8.52	8.51	30.90	30.90	30.91	78.9	79.0	78.8	5.91	5.93	5.91	5.30	5.31	5.29	5	4.50
	16:35		Middle	3.5	20.30	20.30		8.48	8.48		30.53	70.53		78.1	77.9		5.89	5.88		4.85	4.83		2	
13/4/2016	16:35	Cloudy	Middle	3.5	20.40	20.40	20.35	8.52	8.52	8.50	30.52	30.52	40.53	77.2	76.2	77.4	5.82	5.75	5.84	4.77	4.74	4.80	4	3.00
	18:41		Middle	3.0	20.40	20.40		8.37	8.37		31.66	31.66		77.8	79.0		5.81	5.95		3.93	3.86		5	
15/4/2016	18:42	Cloudy	Middle	3.0	20.60	20.60	20.50	8.42	8.42	8.40	31.66	31.66	31.66	79.8	78.8	78.9	5.96	5.79	5.88	3.84	3.81	3.86	4	4.50
	11:35		Middle	3.5	21.90	21.90		8.57	8.57		29.96	29.90		77.6	78.1		5.70	5.75		7.19	7.16		6	
18/4/2016	11:37	Cloudy	Middle	3.5	22.00	22.00	21.95	8.59	8.59	8.58	29.96	29.96	29.95	77.7	77.6	77.8	5.71	5.70	5.72	7.08	7.00	7.11	6	6.00
	10:19		Middle	3.5	21.00	21.00		8.34	8.34		31.97	31.97		67.2	66.9		4.97	4.95		8.10	8.20		9	
20/4/2016	10:21	Cloiudy	Middle	3.5	21.10	21.10	21.05	8.44	8.44	8.39	31.93	31.93	31.95	68.9	68.7	67.9	5.10	5.07	5.02	8.20	8.19	8.17	8	8.50
	-	Amber	Middle	-	-	-		-	-		-	-		-	-		-	-		-	-		-	
22/4/2016	-	Rainstorm	Middle	-	-	-		-	-		-	-		-	-		-	-		-	-	•	-	1
	14:45		Middle	3.5	22.80	22.80		8.41	8.41		29.95	29.95		74.5	74.5		5.37	5.37		8.39	8.35		9	
25/4/2016	14:47	Fine	Middle	3.5	23.10	23.10	22.95	8.45	8.45	8.43	29.95	29.95	29.95	74.0	73.5	74.1	5.34	5.30	5.35	8.27	8.24	8.31	8	8.50

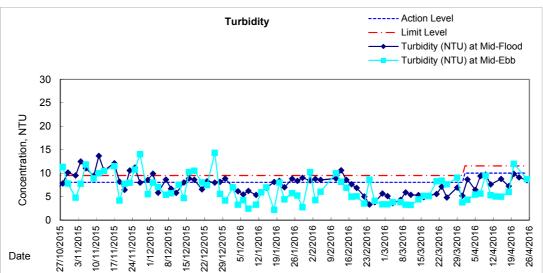


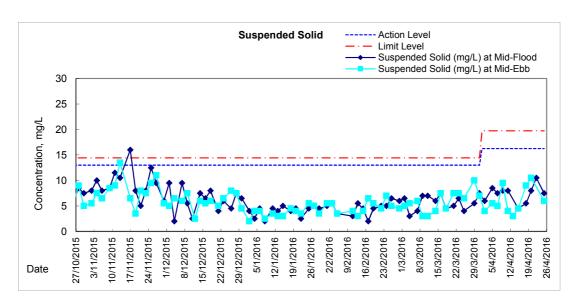
Water Monitoring Result at WSD19 - Sheung Wan Mid-Ebb Tide

Date	Time	Weater	Samplin	g Depth	Wat	er Temp	erature		рН			Salinit	ty	D	O Satur	ation		DO			Turbidi	ity	Suspende	
54.0		Condition	ŗ	n	Va	lue	Average	Va	lue	Average	Va	ppt alue	Average	Va	ilue	Average	Va	mg/L lue	Average	Va	lue	Average	mg Value	Average
2/4/2016	19:30	Cloudy	Middle	3.5	20.70	20.70	20.75	8.34	8.34	8.36	31.46	31.46	31.46	84.8	86.4	86.2	6.31	6.44	6.42	4.45	4.34	4.34	4	4.00
27472010	19:31	Cloudy	Middle	3.5	20.80	20.80	20.70	8.38	8.38	0.00	31.45	31.45	01.40	87.3	86.1	00.2	6.50	6.41	0.42	4.29	4.26	4.04	4	4.00
5/4/2016	9:49	Fine	Middle	3.5	20.00	20.00	20.05	8.21	8.21	8.26	31.00	31.00	31.02	88.0	87.7	87.3	6.65	6.63	6.59	5.31	5.41	5.41	5	5.50
0,4,2010	9:51	Tille	Middle	3.5	20.10	20.10	20.00	8.31	8.31	0.20	31.03	31.03	01.02	86.9	86.5	07.0	6.56	6.53	0.00	5.43	5.47	0.41	6	0.00
7/4/2016	9:50	Fine	Middle	3.5	20.70	20.70	20.85	8.29	8.29	8.36	30.79	30.79	30.80	100.0	100.1	99.3	7.46	7.46	7.42	5.65	5.65	5.64	6	5.00
77-72010	9:52	Tille	Middle	3.5	21.00	21.00	20.00	8.43	8.43	0.00	30.80	30.80	00.00	98.7	98.2	00.0	7.40	7.35	7.42	5.64	5.60	0.04	4	0.00
9/4/2016	13:57	Fine	Middle	3.5	21.80	21.80	21.90	8.36	8.36	8.40	29.20	29.20	29.49	84.2	83.6	83.3	6.21	6.16	6.14	9.55	9.53	9.45	10	9.50
02010	13:59		Middle	3.5	22.00	22.00	200	8.44	8.44	0.10	29.77	29.77	20.10	83.0	82.4	00.0	6.12	6.07	0	9.53	9.20	0.10	9	0.00
11/4/2016	13:20	Cloudy	Middle	3.5	20.70	20.70	20.80	8.46	8.46	8.48	30.27	30.27	30.27	81.6	82.5	81.6	6.12	6.18	6.11	5.29	5.23	5.26	4	4.00
2010	13:22		Middle	3.5	20.90	20.90	20.00	8.49	8.49	0.10	30.27	30.27	00.21	81.6	80.7	01.0	6.11	6.04	0	5.24	5.29	0.20	4	
13/4/2016	14:05	Cloudy	Middle	4.0	20.50	20.50	20.55	8.55	8.55	8.55	30.27	30.27	30.27	78.4	78.9	78.3	5.90	5.93	5.89	5.04	5.03	5.00	3	3.00
	14:07		Middle	4.0	20.60	20.60		8.54	8.54		30.27	30.27		78.7	77.3		5.92	5.81		5.00	4.94		3	
15/4/2016	20:20	Cloudy	Middle	3.0	21.30	21.30	21.35	8.38	8.38	8.40	31.31	31.31	31.31	83.3	84.7	84.3	6.14	6.24	6.21	4.83	4.94	4.99	4	4.50
	20:21		Middle	3.0	21.40	21.40		8.41	8.41		31.31	31.31		84.9	84.1		6.25	6.20		5.07	5.11		5	
18/4/2016	10:17	Cloudy	Middle	3.5	21.10	21.10	21.20	8.28	8.28	8.34	30.05	30.05	30.06	77.1	77.1	75.9	5.75	5.30	5.54	6.01	6.02	5.99	8	9.00
	10:19		Middle	3.5	21.30	21.30		8.39	8.39		30.06	30.06		75.6	73.8		5.62	5.50		6.00	5.92		10	
20/4/2016	11:22	Cloiudy	Middle	3.5	21.10	21.10	21.20	8.46	8.46	8.49	31.40	31.40	31.37	69.5	69.6	69.3	5.15	5.15	5.16	12.00	11.98	11.98	11	10.50
	11:24		Middle	3.5	21.30	21.30		8.52	8.52		31.34	31.34		69.2	68.9		5.22	5.10		11.98	11.94		10	
22/4/2016	-	Amber	Middle	-	-	-		-	-		-	-		-	-		-	-		-	-		-	
	-	Rainstorm	Middle	-	-	-		-	-		-	-		-	-		-	-		-	-		-	
25/4/2016	13:25	Fine	Middle	3.5	23.90	23.90	24.25	8.38	8.38	8.42	29.43	29.43	29.41	83.0	83.2	82.8	5.87	5.88	5.85	8.75	8.77	8.74	5	6.00
	13:27	-	Middle	3.5	24.60	24.60	-	8.45	8.45		29.38	29.38		83.2	81.8		5.88	5.77		8.71	8.71		7	

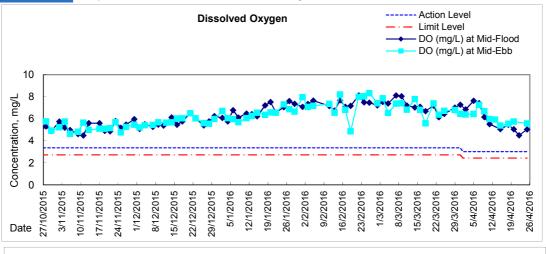
Graphic Presentation of Water Quality Result of WSD19 - Sheung Wan

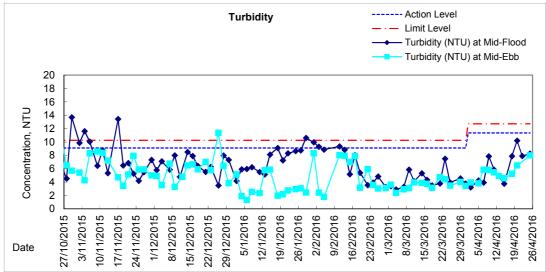


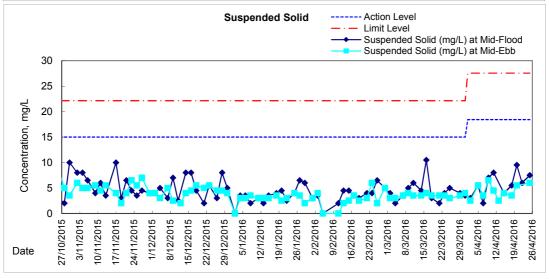




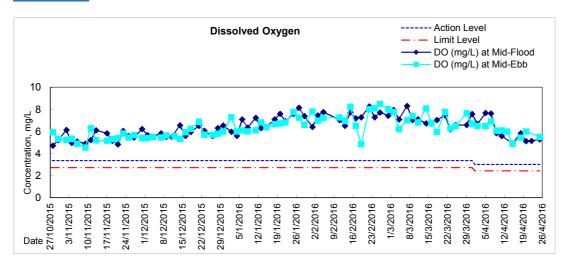
Graphic Presentation of Water Quality Result of C1 - HKCEC

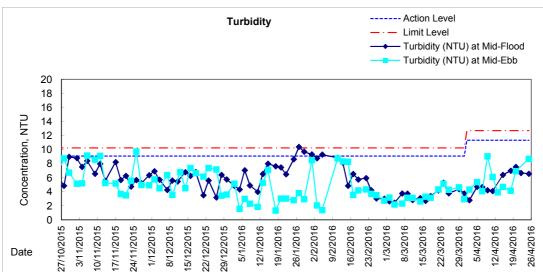


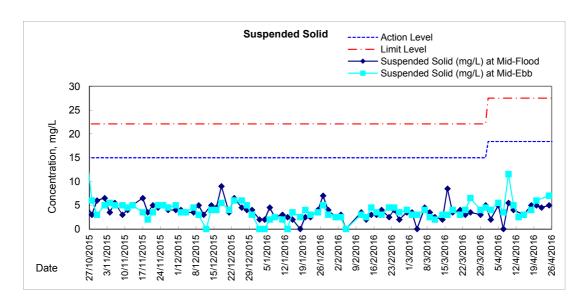




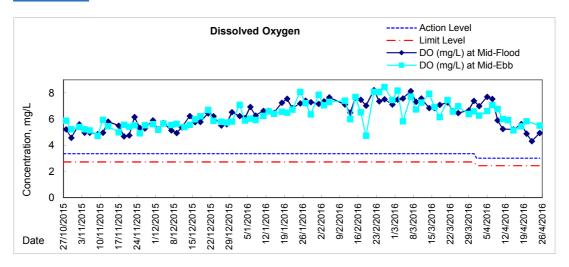
Graphic Presentation of Water Quality Result of P1 - HKCEC Phase I

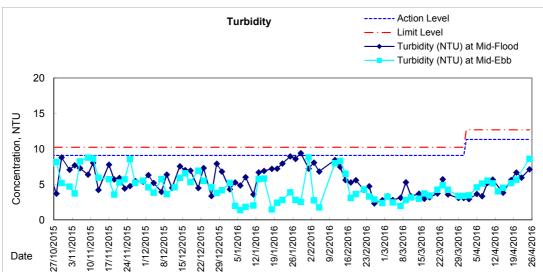


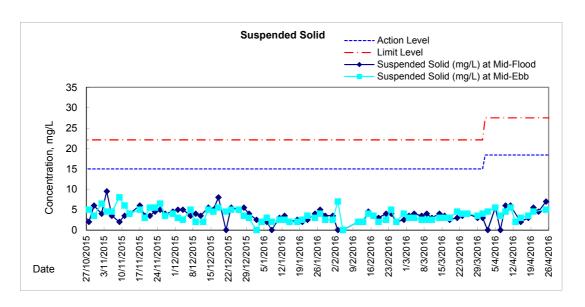




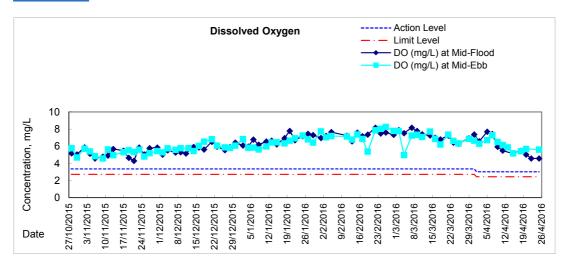


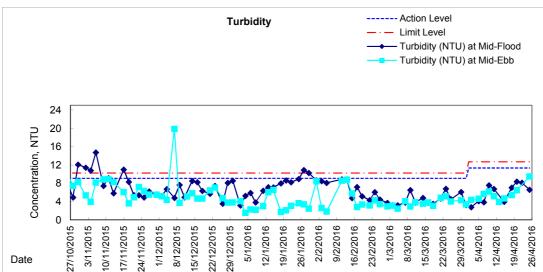


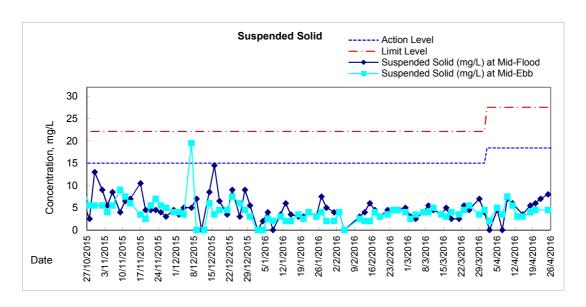




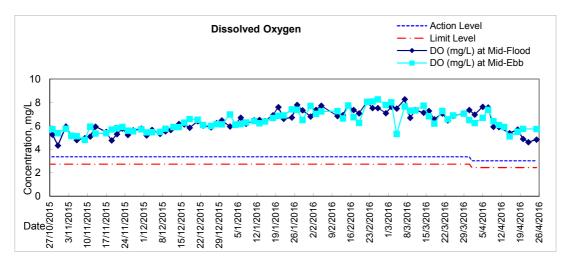
Graphic Presentation of Water Quality Result of P5 - WCT / RT / IT

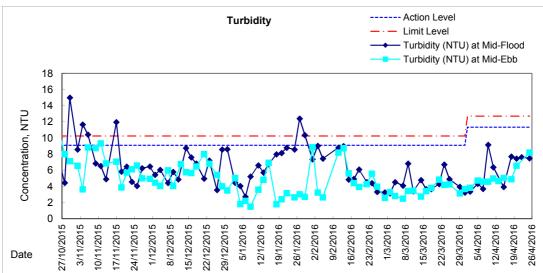


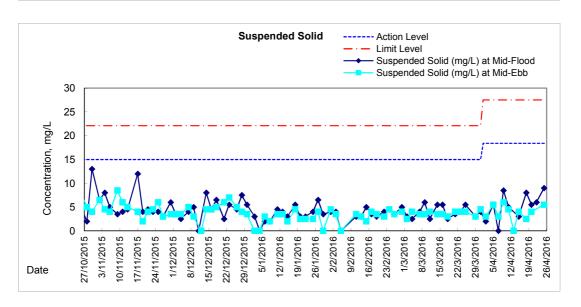




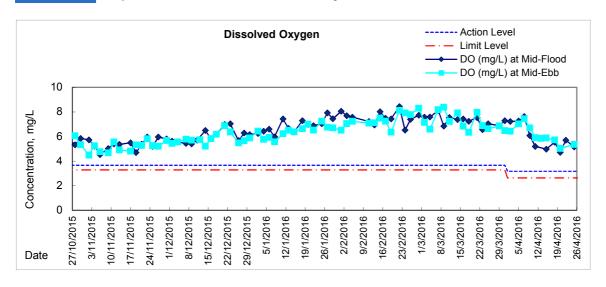
Graphic Presentation of Water Quality Result of P4 - SOC

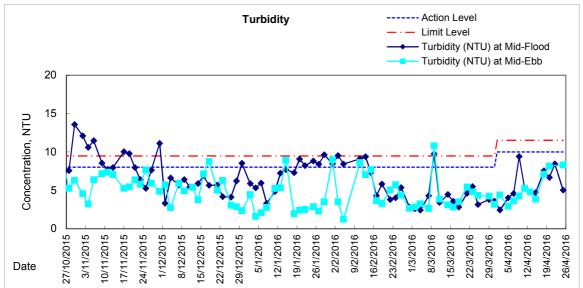


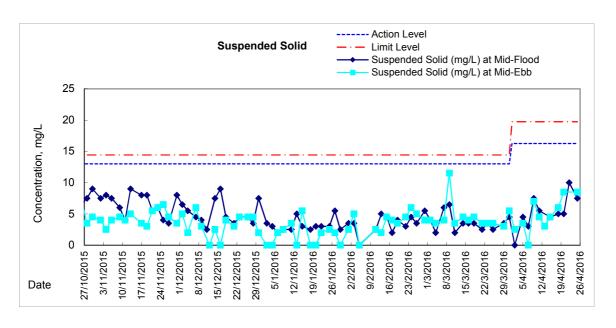




Graphic Presentation of Water Quality Result of RW21-P789 - GEC/CRC/SHK

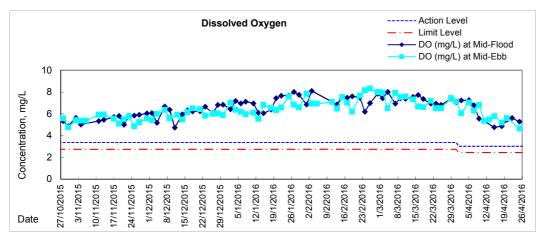


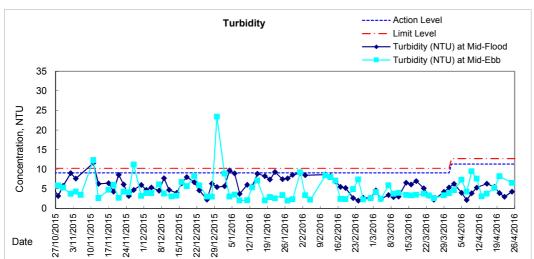


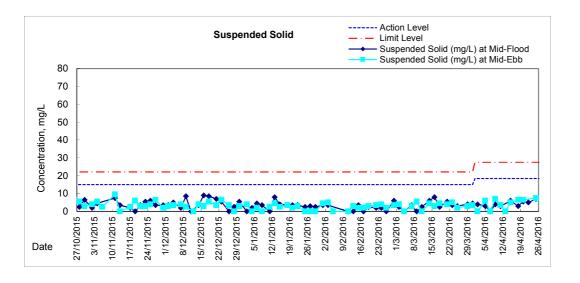




Graphic Presentation of Water Quality Result of C7 - Windsor House









Water Monitoring Result at C6 - Excelsior Hotel Mid-Flood Tide

Date	Time	Weater Condition	Samplin	g Depth		°C	perature		pH -			Salinit ppt			O Satur			DO mg/L	
					Va	lue	Average	Va	lue	Average	Va	ılue	Average	Va	llue	Average	Va	lue	Average
	10:20		Surface	1.0	17.60	17.60	17.6	8.49	8.49	8.5	30.74	30.74	30.7	88.4	88.6	88.5	7.01	7.02	7.02
29/3/2016	-	Fine	Middle	2.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	10:22		Bottom	3.0	17.60	17.60	17.6	8.51	8.51	8.5	30.54	30.54	30.5	93.6	92.5	93.1	7.42	7.35	7.39
	13:00		Surface	1.0	20.00	20.00	20.0	8.41	8.41	8.4	28.76	28.76	28.8	86.2	88.1	87.2	6.61	6.75	6.68
31/3/2016	-	Fine	Middle	2.0	-	,	1	1	1	-	-	-	-	,	-	-	1	-	-
	13:02		Bottom	3.0	19.30	19.30	19.3	8.41	8.41	8.4	30.45	30.45	30.5	92.7	92.1	92.4	7.12	7.08	7.10



Water Monitoring Result at Ex-WPCWA SW - South-western corners of ex-Public Cargo Works Area Mid-Flood Tide

Date	Time	Weater Condition	Samplin		Wat	er Temp	perature		pH -			Salinit	у	D	O Satur	ation		DO mg/l	
		Condition	n	n	Va	lue	Average	Va	lue	Average	Va	lue	Average	Va	lue	Average	Va	ilue	Average
	-		Surface	1	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-
29/3/2016	10:05	Fine	Middle	1.0	17.40	17.40	17.4	8.44	8.44	8.4	31.00	31.00	31.0	86.9	85.4	86.2	6.91	6.78	6.85
	-		Bottom	1	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-
	-		Surface	1	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-
31/3/2016	11:06	Fine	Middle	1.0	18.30	18.30	18.3	8.44	8.44	8.4	31.90	30.90	31.4	83.9	84.0	84.0	6.55	6.56	6.56
	-		Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Remarks:



Water Monitoring Result at C6 - Excelsior Hotel Mid-Ebb Tide

Date	Time	Weater Condition	Samplin	•		er Temp °C lue	erature Average	Va	pH - llue	Average	Va	Salinit ppt	y Average		O Satur % lue	ration Average	Va	DO mg/L	
	-		Surface	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
29/3/2016	16:20	Fine	Middle	1.5	17.70	17.70	17.7	8.49	8.49	8.5	26.40	26.40	26.4	74.7	75.0	74.9	6.06	6.09	6.08
	-		Bottom	1	-	-	-	1	-	1	-	-	-	1	1	-	1	-	-
	16:00		Surface	1.0	19.90	19.90	19.9	8.48	8.48	8.5	29.34	29.34	29.3	85.3	85.1	85.2	6.67	6.64	6.66
31/3/2016	-	Fine	Middle	2.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	16:02		Bottom	3.0	19.40	19.40	19.4	8.43	8.43	8.4	29.42	29.42	29.4	93.0	97.2	95.1	7.19	7.12	7.16



Water Monitoring Result at Ex-WPCWA SW - South-western corners of ex-Public Cargo Works Area Mid-Ebb Tide

	Time	Weater	Samplin	g Depth	\\/ot	ter Temp	oratura		Ha			Salini	h,		O Satur	ation		DO	
Date	Tille	Condition	Samplin	•		°C			- '-			ppt	,		%			mg/l	_
					Va	ılue	Average	Va	ılue	Average	Va	alue	Average	Va	llue	Average	Va	ılue	Average
	-		Surface	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
29/3/2016	15:06	Fine	Middle	1.5	17.60	17.60	17.6	8.42	8.42	8.4	30.91	30.91	30.9	68.6	66.8	67.7	5.43	5.29	5.36
	-		Bottom	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	-		Surface	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
31/3/2016	15:46	Fine	Middle	1.0	19.00	19.00	19.0	8.42	8.42	8.4	30.13	30.13	30.1	79.6	78.4	79.0	6.16	6.06	6.11
	-		Bottom	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1



Water Monitoring Result at C6 - Excelsior Hotel Mid-Flood Tide

		ood Hue	1		l			l			l								
Date	Time	Weater Condition		g Depth	Wat	er Temp °C	perature		pH -			Salinit ppt	:y	D	O Satur %	ation		DO mg/L	
		Condition	n	n	Va	lue	Average	Va	lue	Average	Va	lue	Average	Va	lue	Average	Va	lue	Average
	14:45		Surface	1.0	19.60	19.60	19.6	8.46	8.46	8.5	30.01	30.01	30.0	92.3	92.7	92.5	7.07	7.10	7.09
2/4/2016	-	Cloudy	Middle	2.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	14:47		Bottom	3.0	19.70	19.70	19.7	8.47	8.47	8.5	30.36	30.36	30.4	93.4	91.5	92.5	7.16	7.09	7.13
	16:50		Surface	1.0	20.40	20.40	20.4	8.42	8.42	8.4	30.16	30.16	30.2	97.3	97.2	97.3	7.34	7.33	7.34
5/4/2016	-	Fine	Middle	2.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	16:52		Bottom	3.0	20.60	20.60	20.6	8.47	8.47	8.5	30.05	30.05	30.1	96.5	96.3	96.4	7.32	7.30	7.31
	-		Surface	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7/4/2016	15:35	Fine	Middle	1.5	21.30	21.30	21.3	8.24	8.24	8.2	29.10	29.10	29.1	93.4	90.7	92.1	6.96	6.75	6.86
	-		Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	-		Surface	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9/4/2016	19:05	Cloudy	Middle	1.0	23.10	23.10	23.1	8.39	8.39	8.4	29.37	29.37	29.4	66.3	67.2	66.8	4.76	4.86	4.81
	-		Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	9:42		Surface	1.0	20.50	20.50	20.5	8.44	8.44	8.4	29.67	29.67	29.7	76.4	76.4	76.4	5.78	5.78	5.78
11/4/2016	-	Cloudy	Middle	2.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	9:44		Bottom	3.0	20.40	20.40	20.4	8.45	8.45	8.5	29.67	29.67	29.7	73.9	73.2	73.6	5.60	5.55	5.58
	-		Surface	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
13/4/2016	-	Amber Rainstorm	Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	-		Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	14:05		Surface	1.0	20.30	20.20	20.3	8.42	8.42	8.4	29.60	29.60	29.6	61.2	59.4	60.3	4.65	4.51	4.58
15/4/2016	-	Cloudy	Middle	2.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	14:07		Bottom	3.0	20.20	20.20	20.2	8.45	8.45	8.5	29.81	29.81	29.8	64.7	62.4	63.6	4.91	4.74	4.83
	-		Surface	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
18/4/2016	16:42	Cloudy	Middle	1.0	22.20	22.20	22.2	8.32	8.32	8.3	27.04	27.04	27.0	69.3	69.3	69.3	5.16	5.15	5.16
	-		Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	-		Surface	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
20/4/2016	15:50	Cloudy	Middle	1.0	21.30	21.30	21.3	8.50	8.50	8.5	29.33	29.33	29.3	60.4	60.5	60.5	4.52	4.53	4.53
	-		Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	-		Surface	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
22/4/2016	17:30	Cloudy	Middle	1.0	22.70	22.70	22.7	8.54	8.54	8.5	28.31	28.31	28.3	65.3	65.5	65.4	4.79	4.80	4.80
	-		Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	-		Surface	-	-	-	-	-	1	-	-	-	-	1	1	-	1	-	-
25/4/2016	9:50	Fine	Middle	1.5	22.80	22.80	22.8	8.45	8.45	8.5	28.68	28.68	28.7	74.9	74.6	74.8	5.46	5.44	5.45
	-		Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Water Monitoring Result at Ex-WPCWA SW - South-western corners of ex-Public Cargo Works Area Mid-Flood Tide

Date	Time	Weater Condition	Samplin	g Depth	Wat	er Temp	perature		pH -			Salinii ppt	ty	D	O Satur	ation		DO mg/L	
		Condition	n	n	Va	lue	Average	Va	lue	Average	Va	lue	Average	Va	lue	Average	Va	ilue	Average
	-		Surface	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2/4/2016	14:20	Cloudy	Middle	1.5	19.00	19.00	19.0	8.45	8.45	8.5	30.29	30.29	30.3	90.2	90.6	90.4	7.02	7.01	7.02
	-		Bottom	-	-	-	-	-	1	-	-	-	-	1	-	-	1	-	-
	-		Surface	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5/4/2016	15:42	Fine	Middle	1.0	20.10	20.10	20.1	8.55	8.55	8.6	25.25	25.25	25.3	67.1	67.1	67.1	5.23	5.24	5.24
	-		Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	-		Surface	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7/4/2016	17:55	Fine	Middle	1.5	21.00	21.00	21.0	8.33	8.33	8.3	29.36	29.36	29.4	85.0	86.4	85.7	6.59	6.46	6.53
	-		Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	-		Surface	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9/4/2016	19:35	Cloudy	Middle	1.0	23.00	23.00	23.0	8.40	8.40	8.4	26.42	26.42	26.4	62.5	61.5	62.0	4.54	4.45	4.50
	-		Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	-		Surface	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11/4/2016	9:21	Cloudy	Middle	1.5	20.30	20.30	20.3	8.41	8.41	8.4	29.42	29.42	29.4	79.6	78.8	79.2	6.05	5.99	6.02
	-		Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	-	Amber	Surface	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
13/4/2016	-	Rainstorm	Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	-		Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	-		Surface	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
15/4/2016	13:52	Cloudy	Middle	1.0	20.60	20.60	20.6	8.54	8.54	8.5	23.23	23.23	23.2	47.7	48.0	47.9	3.74	3.76	3.75
	-		Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
40449040	-		Surface	-	-	-	-	-		-	-	-	-	-	-	-	-	-	-
18/4/2016	16:17	Cloudy	Middle	1.0	21.50	21.50	21.5	8.45	8.45	8.5	29.40	29.40	29.4	61.9	61.5	61.7	4.60	4.57	4.59
	-		Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
20/4/2016	15:25	Cloudy	Surface	1.0	21 10	21 10	- 21.1	9.42	- 9.42	- 9.4	- 27.03	- 27.03	27.9	57.2	- 56.6	- 56.0	- 4 31	4 27	4 20
2014/2010	15:25	Cloudy	Middle Bottom	1.0	21.10	21.10	21.1	8.42	8.42	8.4	27.93	27.93	-	57.2	56.6	56.9	4.31	4.27	4.29
	-		Surface	-	_		_	_	-			_			_		-	-	_
22/4/2016	18:05	Cloudy	Middle	1.0	22.80	22.80	22.8	8.67	8.67	8.7	21.48	21.48	21.5	65.6	64.6	65.1	5.00	4.91	4.96
22/7/2010	-	Cloudy	Bottom	-	-	-	-	-	-	-	-	-	-	-	-	- 00.1	5.00	4.91	4.90
	_		Surface	-	_	_	_	_	-	-	_	_	_	-	_	-	-	_	_
25/4/2016	9:15	Fine	Middle	1.5	22.10	22.10	22.1	8.42	8.42	8.4	29.31	29.31	29.3	70.0	69.2	69.6	5.14	5.08	5.11
	-		Bottom	-	-	-		-	-	-	-	-	-	-	-	-	-	-	-
		<u> </u>	Dottom			_													<u> </u>



Water Monitoring Result at C6 - Excelsior Hotel Mid-Ebb Tide

Date	Time	Weater	Samplin	g Depth	Wat		perature		pН			Salinit	ту	D	O Satur	ation		DO	
Jaio		Condition	r	n	Va	°C ilue	Average	Va	lue -	Average	Va	ppt lue	Average	Va	% lue	Average	Va	mg/L lue	Average
	-		Surface	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2/4/2016	17:38	Fine	Middle	1.5	20.80	20.80	20.8	8.37	8.38	8.4	28.95	28.95	29.0	75.6	75.9	75.8	5.69	5.72	5.71
	-		Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	-		Surface	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5/4/2016	11:30	Fine	Middle	1.0	20.60	20.60	20.6	8.46	8.46	8.5	29.21	29.21	29.2	88.5	89.7	89.1	6.69	6.74	6.72
	-		Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	-		Surface	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7/4/2016	14:46	Fine	Middle	1.0	20.90	20.90	20.9	8.31	8.31	8.3	28.94	28.94	28.9	91.5	90.5	91.0	6.88	6.80	6.84
	-		Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	12:15		Surface	1.0	21.50	21.50	21.5	8.50	8.50	8.5	29.79	29.79	29.8	90.1	89.6	89.9	6.70	6.66	6.68
9/4/2016	-	Fine	Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	12:17		Bottom	3.0	20.90	20.90	20.9	8.49	8.49	8.5	30.46	30.46	30.5	91.9	91.8	91.9	6.86	6.84	6.85
	-		Surface	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11/4/2016	15:30	Cloudy	Middle	1.0	20.60	20.60	20.6	8.30	8.30	8.3	28.28	28.28	28.3	66.1	65.8	66.0	5.03	5.03	5.03
	-		Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	-		Surface	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
13/4/2016	17:30	Cloudy	Middle	1.5	20.60	20.60	20.6	8.32	8.32	8.3	24.70	24.70	24.7	72.9	72.1	72.5	5.66	5.59	5.63
	-		Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	-		Surface	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
15/4/2016	18:11	Cloudy	Middle	1.0	20.90	20.90	20.9	8.44	8.44	8.4	29.59	29.59	29.6	73.5	73.8	73.7	5.50	5.52	5.51
	-		Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	-		Surface	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
18/4/2016	12:02	Cloudy	Middle	1.0	21.50	21.60	21.6	8.63	8.63	8.6	23.04	23.04	23.0	67.0	67.0	67.0	5.16	5.16	5.16
	-		Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	10:50		Surface	1.0	20.90	20.90	20.9	8.51	8.51	8.5	29.30	29.30	29.3	62.6	62.8	62.7	4.71	4.72	4.72
20/4/2016	-	Cloudy	Middle	-			-	-						-				-	-
	10:52		Bottom	3.0	20.80	20.80	20.8	8.50	8.50	8.5	30.23	30.23	30.2	69.7	70.4	70.1	5.22	5.27	5.25
	-		Surface	-	-	_	-	-	-	-	-	-	-	-	-	-	-	-	-
22/4/2016	-	Amber Rainstorm	Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	-		Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	-		Surface	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
25/4/2016	11:00	Fine	Middle	1.0	23.60	23.60	23.6	8.42	8.40	8.4	28.82	28.82	28.8	75.0	75.1	75.1	5.38	5.38	5.38
	-		Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



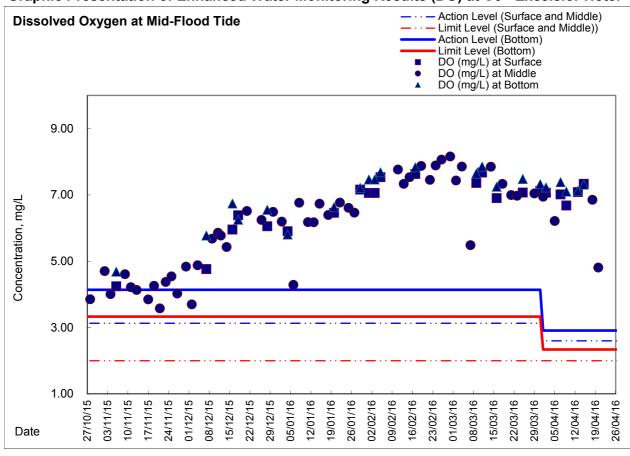
Water Monitoring Result at Ex-WPCWA SW - South-western corners of ex-Public Cargo Works Area Mid-Ebb Tide

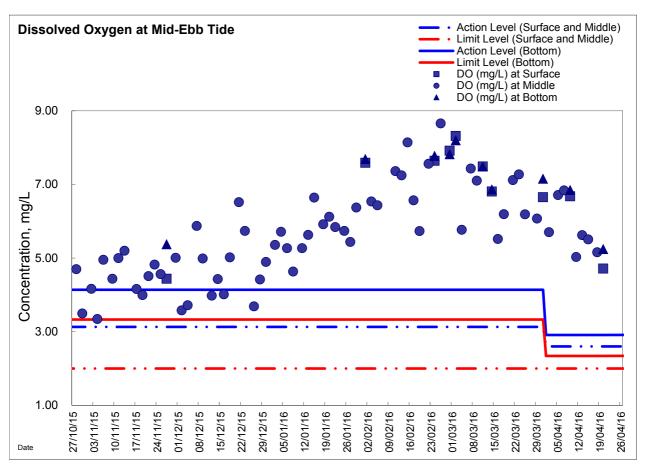
Date	Time	Weater Condition	Samplin	g Depth	Wat	er Temp	perature		pH -			Salinit	у	D	O Satur	ation		DO mg/L	
		Condition	n	n	Va	lue	Average	Va	lue	Average	Va	ppt lue	Average	Va	lue	Average	Va	ilue	Average
	-		Surface	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2/4/2016	18:12	Fine	Middle	1.5	20.80	20.80	20.8	8.38	8.38	8.4	27.66	27.66	27.7	64.4	63.5	64.0	4.91	4.84	4.88
	-		Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	-		Surface	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5/4/2016	11:05	Fine	Middle	1.5	19.70	19.70	19.7	8.44	8.44	8.4	28.85	28.85	28.9	81.0	80.6	80.8	6.24	6.21	6.23
	-		Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	-		Surface	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7/4/2016	14:31	Fine	Middle	1.0	20.50	20.50	20.5	8.53	8.53	8.5	26.05	26.05	26.1	68.2	68.1	68.2	5.25	5.24	5.25
	-		Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	-		Surface	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9/4/2016	11:47	Fine	Middle	1.5	20.40	20.40	20.4	8.46	8.46	8.5	28.96	28.96	29.0	71.2	71.1	71.2	5.41	5.34	5.38
	-		Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	-		Surface	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11/4/2016	15:05	Cloudy	Middle	1.0	20.80	20.80	20.8	8.52	8.52	8.5	22.55	22.55	22.6	32.7	32.5	32.6	2.56	2.55	<u>2.56</u>
	-		Bottom	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-
	-		Surface	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
13/4/2016	16:50	Cloudy	Middle	1.5	21.40	21.40	21.4	8.85	8.85	8.9	13.58	13.58	13.6	63.9	63.8	63.9	5.37	5.36	5.37
	-		Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	-		Surface	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
15/4/2016	18:55	Cloudy	Middle	1.0	20.90	20.90	20.9	8.50	8.50	8.5	24.35	24.34	24.3	60.4	61.3	60.9	4.76	4.83	4.80
	-		Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	-		Surface	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
18/4/2016	11:45	Cloudy	Middle	1.5	21.70	21.70	21.7	8.62	8.62	8.6	25.92	25.92	25.9	70.9	71.0	71.0	5.36	5.37	5.37
	-		Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	-		Surface	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-
20/4/2016	10:25	Cloudy	Middle	1.5	20.90	20.90	20.9	8.50	8.50	8.5	24.79	24.79	24.8	47.9	47.9	47.9	3.69	3.69	3.69
	-		Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	-		Surface	1	-	-	-	1	1	ı	-	-	1	-	-	-	-	-	-
22/4/2016	-	Amber Rainstorm	Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	-		Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	-		Surface	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
25/4/2016	14:58	Fine	Middle	1.0	22.40	22.40	22.4	8.43	8.43	8.4	29.19	29.19	29.2	60.6	60.2	60.4	4.43	4.40	4.42
	-		Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Remarks:

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Graphic Presentation of Enhanced Water Monitoring Results (DO) at C6 - Excelsior Hotel

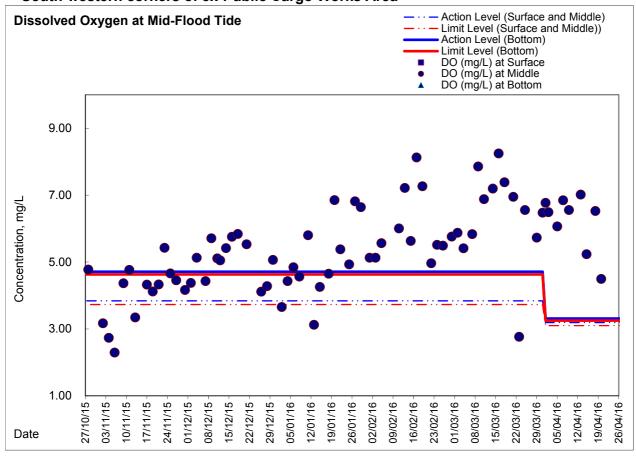


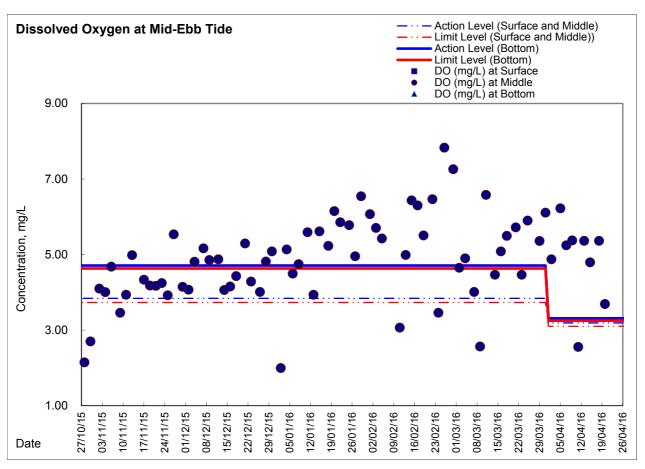




Graphic Presentation of Enhanced Water Monitoring Results (DO) at Ex-WPCWA SW

- South-western corners of ex-Public Cargo Works Area





Appendix 6.1

Event Action Plans

Event/Action Plan for Construction Noise

EVENT		AC	CTION	
	ET	IEC	ER	CONTRACTOR
Action Level being exceeded	 Notify ER, IEC and Contractor; Carry out investigation; Report the results of investigation to the IEC, ER and Contractor; Discuss with the IEC and Contractor on remedial measures required; Increase monitoring frequency to check mitigation effectiveness. (The above actions should be taken within 2 working days after the exceedance is identified) 	1. Review the investigation results submitted by the ET; 2. Review the proposed remedial measures by the Contractor and advise the ER accordingly; 3. Advise the ER on the effectiveness of the proposed remedial measures. (The above actions should be taken within 2 working days after the exceedance is identified)	 Confirm receipt of notification of failure in writing; Notify Contractor; In consolidation with the IEC, agree with the Contractor on the remedial measures to be implemented; Supervise the implementation of remedial measures. (The above actions should be taken within 2 working days after the exceedance is identified) 	Submit noise mitigation proposals to IEC and ER; Implement noise mitigation proposals. (The above actions should be taken within 2 working days after the exceedance is identified)



EVENT		AC	CTION	
	ET	IEC	ER	CONTRACTOR
Limit Level being exceeded	 Inform IEC, ER, Contractor and EPD; Repeat measurements to confirm findings; Increase monitoring frequency; 4. Identify source and investigate the cause of exceedance; 5. Carry out analysis of Contractor's working procedures; 6. Discuss with the IEC, Contractor and ER on remedial measures required; Assess effectiveness of Contractor's remedial actions and keep IEC, EPD and ER informed of the results; If exceedance stops, cease additional monitoring. (The above actions should be taken within 2 working days after the exceedance is identified) 	Discuss amongst ER, ET, and Contractor on the potential remedial actions; Review Contractor's remedial actions whenever necessary to assure their effectiveness and advise the ER accordingly. (The above actions should be taken within 2 working days after the exceedance is identified)	 Confirm receipt of notification of failure in writing; Notify Contractor; In consolidation with the IEC, agree with the Contractor on the remedial measures to be implemented; Supervise the implementation of remedial measures; If exceedance continues, consider stopping the Contractor to continue working on that portion of work which causes the exceedance until the exceedance is abated. The above actions should be taken within 2 working days after the exceedance is identified) 	 Take immediate action to avoid further exceedance; Submit proposals for remedial actions to IEC and ER within 3 working days of notification; Implement the agreed proposals; Submit further proposal if problem still not under control; Stop the relevant portion of works as instructed by the ER until the exceedance is abated. (The above actions should be taken within 2 working days after the exceedance is identified)

Event / Action Dian for Construction Air Quality

EVENT	ACTION			
	ET	IEC	ER	CONTRACTOR
ACTION LEVEL				
Exceedance for one sample	Identify source, investigate the causes of exceedance and propose remedial measures; Inform IEC and ER; Repeat measurement to confirm finding; Increase monitoring frequency to daily. (The above actions should be taken within 2 working days after the exceedance is identified)	Check monitoring data submitted by ET; Check Contractor's working method. (The above actions should be taken within 2 working days after the exceedance is identified)	Notify Contractor. (The above actions should be taken within 2 working days after the exceedance is identified)	Rectify any unacceptable practice; Amend working methods if appropriate (The above actions should be taken within 2 working days after the exceedance is identified)
2. Exceedance for two or more consecutive samples	1. Identify source; 2. Inform IEC and ER; 3. Advise the ER on the effectiveness of the proposed remedial measures; 4. Repeat measurements to confirm findings; 5. Increase monitoring frequency to daily; 6. Discuss with IEC and Contractor on remedial actions required; 7. If exceedance continues, arrange meeting with IEC and ER; 8. If exceedance stops, cease additional monitoring. (The above actions should be taken within 2 working days after the exceedance is identified)	Check monitoring data submitted by ET; Check Contractor's working method; Discuss with ET and Contractor on possible remedial measures; Advise the ET on the effectiveness of the proposed remedial measures; Supervise Implementation of remedial measures. (The above actions should be taken within 2 working days after the exceedance is identified)	Confirm receipt of notification of failure in writing; Notify Contractor; Ensure remedial measures properly implemented. (The above actions should be taken within 2 working days after the exceedance is identified)	Submit proposals for remedial to ER within 3 working days of notification; Implement the agreed proposals; Amend proposal if appropriate. (The above actions should be taken within 2 working days after the exceedance is identified)
LIMIT LEVEL				
Exceedance for one sample	Identify source, investigate the causes of exceedance and propose remedial measures; Inform ER, Contractor and EPD; Repeat measurement to confirm finding; Increase monitoring frequency to daily; Assess effectiveness of Contractor's remedial actions and keep IEC, EPD and ER informed of the results. (The above actions should be taken within 2 working days after the exceedance is identified)	Check monitoring data submitted by ET; Check Contractor's working method; Discuss with ET and Contractor on possible remedial measures; Advise the ER on the effectiveness of the proposed remedial measures; Supervise implementation of remedial measures. (The above actions should be taken within 2 working days after the exceedance is identified)	Confirm receipt of notification of failure in writing; Notify Contractor; Ensure remedial measures properly implemented. (The above actions should be taken within 2 working days after the exceedance is identified)	Take immediate action to avoid further exceedance; Submit proposals for remedial actions to IEC within 3 working days of notification 3. Implement the agreed proposals; Amend proposal if appropriate. (The above actions should be taken within 2 working days after the exceedance is identified)
Exceedance for two or more consecutive samples	Notify IEC, ER, Contractor and EPD; Identify source; Repeat measurement to confirm findings; Increase monitoring frequency to daily; Carry out analysis of Contractor's working procedures to determine possible mitigation to be implemented; Arrange meeting with IEC and ER to discuss the remedial actions to be taken; Assess effectiveness of Contractor's remedial actions and keep IEC, EPD and ER informed of the results; If exceedance stops, cease additional monitoring, (The above actions should be taken within 2 working days after the exceedance is identified)	Discuss amongst ER, ET, and Contractor on the potential remedial actions; Review Contractor's remedial actions whenever necessary to assure their effectiveness and advise the ER accordingly; Supervise the implementation of remedial measures.	Confirm receipt of notification of failure in writing; Notify Contractor; In consolidation with the IEC, agree with the Contractor on the remedial measures to be implemented; Ensure remedial measures properly implemented; If exceedance continues, consider what portion of the work is responsible and instruct the Contractor to stop that portion of work until the exceedance is abated. (The above actions should be taken within 2 working days after the exceedance is identified)	Take immediate action to avoid further exceedance; Submit proposals for remedial actions to IEC within 3 working days of notification 3. Implement the agreed proposals; Resubmit proposals if problem still not under control; Stop the relevant portion of works as determined by the ER until the exceedance is abated. (The above actions should be taken within 2 working days after the exceedance is identified)



Event and Action Dian for Marine Water Quality

EVENT		ACTION		
	ET	IEC	ER	CONTRACTOR
Action level being exceeded by one sampling day	Repeat in-situ measurement to confirm findings; Identify source(s) of impact; Inform IEC and Contractor; Check monitoring data, all plant, equipment and Contractor's working methods; Discuss mitigation measures with IEC and Contractor; (The above actions should be taken within 1 working day after the exceedance is identified) Repeat measurement on next day of exceedance.	Discuss with ET and Contractor on the mitigation measures; Review proposals on mitigation measures submitted by Contractor and advise the ER accordingly; Assess the effectiveness of the implemented mitigation measures. (The above actions should be taken within 1 working day after the exceedance is identified)	Discuss with IEC on the proposed mitigation measures; Make agreement on the mitigation measures to be implemented. (The above actions should be taken within 1 working day after the exceedance is identified)	Inform the ER and confirm notification of the non-compliance in writing; Rectify unacceptable practice; Check all plant and equipment; Consider changes of working methods; Discuss with ET and IEC and propose mitigation measures to IEC and ER; Implement the agree mitigation measures. (The above actions should be taken within 1 working day after the exceedance is identified)
Action level being exceeded by more than one consecutive sampling days	Identify source(s) of impact; Inform IEC and Contractor; Check monitoring data, all plant, equipment and Contractor's working methods; Discuss mitigation measures with IEC and Contractor; Ensure mitigation measures are implemented; Prepare to increase the monitoring frequency to daily; (The above actions should be taken within 1 working day after the exceedance is identified) Repeat measurement on next working day of exceedance.	Discuss with ET and Contractor on the mitigation measures; Review proposals on mitigation measures submitted by Contractor and advise the ER accordingly; Assess the effectiveness of the implemented mitigation measures. (The above actions should be taken within 1 working day after the exceedance is identified)	Discuss with IEC on the proposed mitigation measures; Make agreement on the mitigation measures to be implemented; Assess the effectiveness of the implemented mitigation measures. (The above actions should be taken within 1 working day after the exceedance is identified)	Inform the Engineer and confirm notification of the non-compliance in writing; Rectify unacceptable practice; Check all plant and equipment; Consider changes of working methods; Discuss with ET and IEC and propose mitigation measures to IEC and ER within 3 working days Implement the agreed mitigation measures. (The above actions should be taken within 1 working day after the exceedance is identified)

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EVENT		ACTION		
	ET	IEC	ER	CONTRACTOR
Limit level being exceeded by one sampling day	Repeat in-situ measurement to confirm findings; Identify source(s) of impact; Inform IEC, contractor and EPD; Check monitoring data, all plant, equipment and Contractor's working methods; Discuss mitigation measures with IEC, ER and Contractor; Ensure mitigation measures are implemented; Increase the monitoring frequency to daily until no exceedance of Limit level. (The above actions should be taken within 1 working day after the exceedance is identified)	Discuss with ET and Contractor on the mitigation measures; Review proposals on mitigation measures submitted by Contractor and advise the ER accordingly; Assess the effectiveness of the implemented mitigation measures. (The above actions should be taken within 1 working day after the exceedance is identified)	Discuss with IEC, ET and Contractor on the proposed mitigation measures; Request Contractor to critically review the working methods; Make agreement on the mitigation measures to be implemented; Assess the effectiveness of the implemented mitigation measures. (The above actions should be taken within 1 working day after the exceedance is identified)	Inform the Engineer and confirm notification of the non-compliance in writing; Rectify unacceptable practice; Check all plant and equipment; Consider changes of working methods; Discuss with ET, IEC and ER and propose mitigation measures to IEC and ER within 3 working days; Implement the agreed mitigation measures. (The above actions should be taken within 1 working day after the exceedance is identified)
Limit level being exceeded by more than one consecutive sampling days	Identify source(s) of impact; Inform IEC, contractor and EPD; Check monitoring data, all plant, equipment and Contractor's working methods; Discuss mitigation measures with IEC, ER and Contractor; Ensure mitigation measures are implemented; Increase the monitoring frequency to daily until no exceedance of Limit level for two consecutive days. (The above actions should be taken within 1 working day after the exceedance is identified)	Discuss with ET and Contractor on the mitigation measures; Review proposals on mitigation measures submitted by Contractor and advise the ER accordingly; Assess the effectiveness of the implemented mitigation measures. (The above actions should be taken within 1 working day after the exceedance is identified)	Discuss with IEC, ET and Contractor on the proposed mitigation measures; Request Contractor to critically review the working methods; Make agreement on the mitigation measures to be implemented; Assess the effectiveness of the implemented mitigation measures; Consider and instruct, if necessary, the Contractor to slow down or to stop all or part of the marine work until no exceedance of Limit level. (The above actions should be taken within 1 working day after the exceedance is identified)	Inform the ER and confirm notification of the non-compliance in writing; Rectify unacceptable practice; Check all plant and equipment; Consider changes of working methods; Discuss with ET, IEC and ER and propose mitigation measures to IEC and ER within 3working days; Implement the agreed mitigation measures; As directed by the Engineer, to slow down or to stop all or part of the marine work or construction activities. (The above actions should be taken within 1 working day after the exceedance is identified)

Event and Action Plan for Odour Patrol

Event		ACTION
	Person-in-charge of Odour Monitoring	Implementation Agent Identified by CEDD
Action Level		
Exceedance of Action Level	Identify source/reason of exceedance; Repeat odour patrol to confirm finding.	 Carry out investigation to identify the source/reason of exceedance; Rectify any unacceptable practice Implement more mitigation measures if necessary; Inform EPD or MD if exceedance is considered to be caused by expedient connections or floating debris.
Limit Level	·	· · · · · · · · · · · · · · · · · · ·
Exceedance of Limit Level	Identify source / reason of exceedance; Repeat odour patrol to confirm findings; Increase odour patrol frequency; If exceedance stops, cease additional odour patrol.	 Carry out investigation to identify the source/reason of exceedance. Investigation shall be completed within 2 weeks; Rectify any unacceptable practice; Formulate remedial actions; Ensure remedial actions properly implemented; If exceedance continues, consider what more/enhanced mitigation measures shall be implemented; Inform EPD or MD if exceedance is considered to be caused by expedient connections or floating debris.

Appendix 6.2

Summary for Notification of Exceedance



Ref. No.	Date	Time	Location	Measured TSP Level	Unit	Action Level	Limit Level	Follow-up action	
X_16A002	14-Apr-16	8:00	CMA5b- Pedestrian Plaza	492.5	1 hr TSP (ug/m³)	332.0	500	Possible reason:	Elevated TSP level in relate to local ambient condition around monitoring station
					,			Action taken / to be taken:	Reviewed the trend of air quality measurement across monitoring stations. Analysis of contractor's working procedures. Mitigation measures including maintaining haul road in dampened condition was implemented by contractor.
								Remarks / Other Obs:	Despite formwork erection and internal transfer of excavated material were undertaken on the monitoring date at around Pedestrian Plaza under Contractor of HK/2012/08, dust suppression measure including haul road and excavated soil maintained in dampened condition were implemented and no particular observation regarding air quality impact was observed during sampling. In view of the above, the action level exceedance was considered to be non-project related and contributed by local ambient condition. In addition, non WDII-CWB Project construction activities opposite to the monitoring station was observed on the monitoring date. Nevertheless, the Contractor of HK/2012/09 was reminded to maintain regularly dust suppression measures for any potential dusty surface and dust generating operation around the concerned location to avoid any potential cumulative air quality impact.
X_16A003	14-Apr-16	8:00	CMA5b- Pedestrian Plaza	492.5	1 hr TSP (ug/m³)	332.0	500	Possible reason:	Elevated TSP level in relate to local ambient condition around monitoring station
					, ,			Action taken / to be taken:	Reviewed the trend of air quality measurement across monitoring stations. Analysis of contractor's working procedures.
								Remarks / Other Obs:	Only work activities within tunnel section and no construction activities at ground was undertaken on the monitoring date around Pedestrian Plaza under Contract HK/2009/01 and no particular observation regarding air quality impact was observed during sampling. In view of the above, the action level exceedance was considered to be non-Project related and contributed by local ambient condition. In addition, non WDII-CWB Project construction activities opposite to the monitoring station was observed on the monitoring date. Nevertheless, the Contractor of HK/2009/01 was reminded to maintain regular dust suppression measures for any potential dusty surface and dust generating operation around the concerned location to avoid any potential cumulative air quality impact.

Ref. No.	Date	Time	Location	Construction Noise Level	Unit	Action Level	Limit Level	Follow-up action	
X_16N0022	29-Mar-16	15:00	M1a-Habour Road Sports Centre	83	Leq(30-min)	when one documented complaint was received.	75	Possible reason:	Operation of multiple air compressors and piling works at Ex- Wan Chai Swimming Pool (adjacent to Habour Road Sports Centre) under non WDII-CWB Contractor.
								Action taken / to be taken:	Repeat measurement to confirm result and reviewed the trend of noise measurement. Analysis of
								Remarks / Other Obs:	contractor's working procedure. Diaphragm wall construction at Portion 5 were conducted under Contract HK/2009/02 around the concerned location during the time of measurement while operation of multiple air compressors at Ex-Wan Chai Swimming Pool (adjacent to Habour Road Sports Centre immediately opposite to the monitoring station) under non WDII-CWB Contractor was observed as the major noise contribution during monitoring. As such, the exceedance was considered as non-Project related.
						when one		Possible reason:	Operation of multiple air compressors and piling works at Ex- Wan Chai Swimming Pool (adjacent to
X_16N023	29-Mar-16	15:00	M1a-Habour Road Sports Centre	83	Leq(30-min)	documented complaint was received.	75		Habour Road Sports Centre) under non WDII-CWB Contractor.
								Action taken / to be taken:	Repeat measurement to confirm result and reviewed the trend of noise measurement. Analysis of contractor's working procedure.
								Remarks / Other Obs:	Despite breaking works was conducted under Contract HK/2009/01 at Area 8 (West of Wan Chai Ferry Pier) during the time of measurement, mitigtation measures including the use of acoustic covering was provided to the breaker. In addition, operation of multiple air compressors at Ex-Wan Chai Swimming Pool (adjacent to Habour Road Sports Centre immediately opposite to the monitoring station) under non WDII-CWB Contractor was observed as the major noise contribution during monitoring. As such, the
 						when one		Possible reason:	exceedance was considered as non-Project related. Traffic nearby was observed during monitoring and was considered as the major noise contribution.
X_16N025	11-Apr-16	10:17	M6 - HK Baptist Church Henrietta Secondary School	67	Leq(30-min)	documented complaint was received.	65	i cosible reason.	Traine hearty was specified during monitoring and was considered as the high molec contribution.
								Action taken / to be taken:	Repeat measurement to confirm result and reviewed the trend of noise measurement. Analysis of
								Remarks / Other Obs:	contractor's working procedure. Only welding work was conducted under Contract HY/2009/19 at Pier F8C during the time of measurement and it was observed that traffic noise was a major noise source during monitoring. It is concluded that the exceedance was not due to project but to traffic noise nearby.
X_16N0026	12-Apr-16	10:32	M1a-Habour Road Sports Centre	79	Leq(30-min)	when one documented complaint was received.	75	Possible reason:	Breaking works at Ex- Wan Chai Swimming Pool (adjacent to Habour Road Sports Centre) under non WDII-CWB Contractor.
						10001100.		Action taken / to be taken:	Repeat measurement to confirm result and reviewed the trend of noise measurement. Analysis of contractor's working procedure.
								Remarks / Other Obs:	Diaphragm wall construction at Portion 5 was conducted under Contract HK/2009/02 around the concerned location during the time of measurement while breaking works at Ex- Wan Chai Swimming Pool (adjacent to Habour Road Sports Centre immediately opposite to the monitoring station) under non WDII-CWB Contractor was observed as the major noise contribution during monitoring. As such, the exceedance was considered as non-Project related.
X_16N027	12-Apr-16	10:32	M1a-Habour Road Sports Centre	79	Leq(30-min)	when one documented complaint was received.	75	Possible reason:	Breaking works at Ex- Wan Chai Swimming Pool (adjacent to Habour Road Sports Centre) under non WDII-CWB Contractor.
						.cocivcu.		Action taken / to be taken:	Repeat measurement to confirm result and reviewed the trend of noise measurement. Analysis of
								Remarks / Other Obs:	contractor's working procedure. Welding and backfilling works were conducted under Contract HK/2009/01 at Area 8 (West of Wan Chai Ferry Pier) during the time of measurement while breaking works at Ex- Wan Chai Swimming Pool (adjacent to Habour Road Sports Centre immediately opposite to the monitoring station) under non
									WDII-CWB Contractor was observed as the major noise contribution during monitoring. As such, the exceedance was considered as non-Project related.
X_16N029	19-Apr-16	15:00	M6 - HK Baptist Church Henrietta Secondary School	66	Leq(30-min)	when one documented complaint was received.	65	Possible reason:	exceedance was considered as non-Project related. Traffic nearby was observed during monitoring and was considered as the major noise contribution.
						.cocivcu.		Action taken / to be taken:	Repeated measurement to confirm result and reviewed the trend of noise measurement. Analysis of
								Remarks / Other Obs:	contractor's working procedure. Only welding and concrete pouring works were conducted under Contract HY/2009/19 at Pier F8C during the time of measurement and it was observed that traffic noise was a major noise source during monitoring. It is concluded that the exceedance was not due to project but to traffic noise nearby.

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Ref no.	Date	Tidal	Location	Depth	Parameters (Unit)	Measured	Action Level	Limit Level	Follow-up action	
X_16D007	11-Apr-16	Mid-ebb	Ex-WPCWA SW	Middle	DO(mg/l)	2.56	3.19	3.10	Possible reason:	Possible in relation to the upstream organic discharge.
									Action taken/ to be taken: Remarks/ Other Obs:	Repeated the measurement to confirm the result. No odour nuisance was noted during the DO monitoring. Checking with Contractor works and review previous monitoring data. Despite backfilling works was conducted at TPCWAW on the monitoring date, contractor mitigation measures include the use of tarpaulin sheet between barge and land and provision of bunding for site
										runoff control was generally in place. Meanwhile, upstream discharge from nearby culvert was noted. In view of the above and no exceedance was recorded on the subsequent monitoring, the exceedance was considered not related to the Project works.

Lam Geotechnics Limited

Ref no.	Date	Tidal	Location	Parameters (Unit)	Measured	Action Level	Limit Level	Follow-up action	
X_16W035	29-Mar-16	Mid-ebb	WSD19	DO(mg/l)	7.44	3.66	3.28	Possible reason:	Natural variation or changes of water quality in the vicinity of water quality monitoring station.
				Turbidity	9.04	8.04	9.49	Action taken/ to be taken:	Immediate repeated in-situ measurement to confirm the exceedances. Checking with Contractor works and review previous monitoring data.
				SS	10.00	13.00	14.43	Remarks/ Other Obs:	Despite installation of concrete blocks was conducted under Contract HK/2012/08 near Zone D, contractor mitigation measures including the use of localized silt curtain was generally in place. The location of the construction area was located at downstream of WSD19 monitoring station during the monitoring period. In view of the above and no exceedance was recorded on the subsequent monitoring, it was considered that the exceedance was not project related.
X_16W036	20-Apr-16	Mid-ebb	WSD19	DO(mg/l)	7.44	3.17	2.63	Possible reason:	Natural variation or changes of water quality in the vicinity of water quality monitoring station.
				Turbidity	11.98	10.01	11.54	Action taken/ to be taken:	Immediate repeated in-situ measurement to confirm the exceedances. Checking with Contractor works and review previous monitoring data.
				SS	10.50	16.26	17.74	Remarks/ Other Obs:	Despite trimming of rock mound profile was conducted under Contract HK/2012/08 near Zone D, contractor mitigation measures including the use of localized silt curtain was generally in place. The location of the construction area was located at downstream of WSD19 monitoring station during the monitoring period. In view of the above and no exceedance was recorded on the subsequent monitoring, it was considered that the exceedance was not project related.

Appendix 9.1

Complaint Log

Environmental Complaints Log

Complaint Log No.	Date of Complaint	Received From and Received By	Location of Complainant	Nature of Complaint	Out	come	Status
100321a	21/3/2010	ICC Case no. 1-224618029, Ms. Tsang	Location near Tin Hau	Complaint regarding the loud noise and dark smoke in the course of dredging works on 21 March 2010 (Sunday).	'	A valid Construction Noise Permit no. GW-RS0119-10 was granted from EPD since 18 th Feb. 2010 for the dredging works which carry out at area for North Point Reclamation.	Closed
					2)	Officer from Marine Department, Police and EPD's officer attended the scene for inspection and investigation.	
					3)	The Contractor (CHEC-CRBC JV) strictly comply all the conditions in CNP and take all mitigation measures in order to minimize the potential impacts to surrounding sensitive receivers. A formal letter was issued out by CHEC-CRBC JV and to explain the status of the recent construction activities.	
					4)	No limit level exceedance was recorded on the noise measurement during day time and evening time noise measurement on 23 March 2010. Additional restrict hours noise monitoring at Causeway Bay Community and City Garden was conducted on 5 April 2010 (Public Holiday). No limit level exceedance was recorded in the monitoring.	
					5)	No further complaints were received from Mr. Tsang in the reporting month. The complaint is considered closed.	
100321b	21/3/2010	Unknown	breakwater of the	A public complaint and enquiry regarding loud noises emanated from dredging activities on 21/3/2010 (Sunday) until 2220 hours and between 1920-1946 hours in the evening of 22 March		A valid Construction Noise Permit no. GW-RS0119-10 was granted from EPD since 18 th Feb. 2010 for the dredging works at area for North Point Reclamation during general holidays including Sunday between 0700-2300 hours and any day not being a general holiday between 1900-2300hours. It is complied with the condition of CNP.	Closed
				2010(Monday).	2)	Officer from Marine Department, Police and EPD's officer attended the scene for inspection and investigation.	
					3)	No limit level exceedance was recorded on the noise measurement during day time and evening time noise measurement on 23 March 2010. Additional restrict hours noise monitoring at Causeway Bay Community and City Garden was conducted on 5 April 2010 (Public Holiday). No limit level exceedance was recorded in the monitoring.	
					4)	No further complaints were received in the reporting month. The complaint is considered closed.	



Complaint Log No.	Date of Complaint	Received From and Received By	Location of Complainant	Nature of Complaint	Out	come	Status
100504	4/5/2010	Public complainant received by ICC (ICC case: 1-	Watson Road	Complaint on the noise nuisance due to the large scale of dredging machine (face to Island East Corridor) in particular the hours 1900 to 0800 and request to reduce the noise level.	,	Contractor for HY/2009/11 was granted valid Construction Noise Permit no. GW-RS0119-10 for their dredging works. Contractor has implemented mitigation measures to reduce the working hour not later than 2230.	Closed
		233384048)			2)	According to RSS 's record, no more daytime and night time dredging since the departure of the split hopper barge from the workplace on 29 April 2010 at 1900 hrs to 5 May 2010.	
						No further complaints were received in the reporting month. The complaint is considered closed.	
100731	31/7/2010	Mr. Lee received by ICC (CC Case: 1-250702681)		Complaint on the noise nuisance due to the dredging works. Three construction plants were operated concurrently.		Contractor for HY/2009/11 was granted valid Construction Noise Permit no. GW-RS0371-10 for their dredging works.	Closed
					2)	There was only 1 grab dredger operated by Contractor within NPR project site area for dredging works.	
					3)	No noise exceedance was recorded at noise monitoring station at Victoria Centre on 27 July and 3 August 2010 during daytime and evening time period.	
					4)	It is considered as invalid from the EP and CNP point of view. $ \\$	
100812	12/8/2010	Mr. Wong, Harbour Heights (Management) Ltd.	Harbour Heights	Management office received their resident complained on the noise nuisance from the dredging works at the marine	,	Contractor for HY/2009/11 was granted valid Construction Noise Permit no. GW-RS0371-10 for their dredging works. Contractor has implemented mitigation measures to reduce the working hour not later than 2230.	Closed
				works area adjacent to the Harbour Height during the period from 0700 to 2200.		No noise exceedance was recorded at noise monitoring station at Victoria Centre on 10 and 17 August 2010 during daytime and evening time period.	
						It is considered as invalid complaint. No further complaints were received in the reporting month. The complaint is considered closed.	



Complaint Log No.	Date of Complaint	Received From and Received By	Location of Complainant	Nature of Complaint	Out	come	Status		
101108	8/11/2010	Mr. Nip received by ICC (CC Case)			Sai Wan Ho	Visual concern around the seaside silt screen outside the WSD freshwater intake pump at Sai Wan Ho (Monitoring station ref no WSD15)	1)	Contractor for HY/2009/11has been regular checked of condition and removal of trapped rubbish before the dismantling of the floating silt screen to be replaced by wall mount silt screen.	Closed
				,	2)	Follow-up action had been immediately carried out to check and clear the floating refuse around the seaside silt screen after receipt of the complaint.			
					3)	Removal of seaside silt screen outside the WSD freshwater intake (WSD15) by contractor HY/2009/11 was checked and confirmed dated 9 November 2010. Silt screen has been deployed into the existing steel frame at WSD15 for the protection of WSD salt water intake.			
101110 1	10/11/2010	Mr. Wong, Harbour Heights (Management) Ltd.	Harbour Heights	Management office received their resident complained on the noise nuisance from the power mechanical equipment during the 0700 to 2200hrs		Contractor for HY/2009/11 was granted valid Construction Noise Permit no. GW-RS0870-10 for their dredging works during evening time. Contractor has implemented mitigation measures to reduce the working hour not later than 2230.	Closed		
					2)	No noise exceedance was recorded at noise monitoring station at Victoria Centre on 4 and 10 November 2010 during daytime and evening time period.			
					3)	It is considered as invalid complaint. No further complaints were received in the reporting month. The complaint is considered closed.			
101203	3/12/2010, 01:45a.m.	Block 11, City Garden by ICC referral from	Garden by ICC	Block 11, City Garden by ICC referral from Marine	North Point	Bad odour was generated from the dredging plant off North Point	1)	The first investigation was carried out by Marine Department patrol in the morning on 3 Dec 2010 at around 10:00 and revealed that a few working barges were anchoring in the vicinity without carrying out dredging work.	Closed
		Department			2)	A further specific investigation inspection on contractor's backhoe barge in the vicinity of City Garden was jointly conducted with Engineer Representatives (AECOM/RSS), and ET on 8 Dec 2010 at 11:30. No bad odour was noted during the investigation.			
					3)	Routine dredging operation of the backhoe barge was performed during the jointed investigation inspection and it was revealed that no bad odour was attributed by the dredged materials inspected.			
101206	6/12/2010	Ms Lui, the resident of 27/F, Block 10, City	,	Two barges were generating noise at 22:00 on 6 December 2010 in which the noise from	1)	ET confirmed the following information with resident site staff on the complaint: • It was referred to the filling operation at North Point	Closed		



Complaint Log No.	Date of Complaint	Received From and Received By	Location of Complainant	Nature of Complaint	Outcome	Status
		Garden by ICC (ICC case: 1-266039336)		filling operation was louder than the traffic noise & visual impact was generated due to the spotlight pointing directly to the complainant flat, suspected the filling operation was part of Wanchai Development Phase II; Complainant also raised the same complaint to District Councillor, Mr. Hui on 7 Dec 2010 regarding the night-time noise and suspected earlier start of work at 06:30. Complaint also requested for limiting the plant operating hours from 09:00-21:00.	compliant with valid CNP no. GW-RS0870-10. The noise level recorded on 6 Dec 2010 was complied with the noise criteria during restricted hour;	
110415	15/04/2011	The resident, Mr Law at Victoria Centre by ICC (ICC#1- 281451236)	North Point	A dust generation and a concern of mosquitoes breeding complaint in which suspected the filling operation was part of North Point Reclamation.	 The concerned stockpile was a working stockpile under Contract HY/209/15 and was covered at night time after work. Water spraying on the haul road and potential dust generating material at least 4 times a day was conducted by contractor that complies with the requirement. It is considered invalid but preventive actions can be taken because the stockpile is relatively large and easily visible by complainant. It was recommended that increasing the frequency of water spraying shall be conducted to all potential dust generating materials and activities. Besides, Contractor should consider to cover the idle part of the stockpile The concern of mosquitoes breeding is out the scope of EM&A, the follow-up action is not reported in this monthly EM&A report. 	Closed



Complaint Log No.	Date of Complaint	Received From and Received By	Location of Complainant	Nature of Complaint	Outcome	Status
110419	19/04/2011	Ms Chiu at Victoria Centre at Victoria Centre by ICC (ICC# 1- 272874759)	North Point	The episode of night noise on 19/4/11 and 20/4/11 at 2:50 am and the noise lasted for 30 minutes per night.	According to the RSS's record, there was no construction works undertaken under the EP-356/2009 during the concern time period. There was no abnormal real-time noise monitoring data recorded in RTN1 - FEHD Hong Kong Transport Section Whitefield Depot which is next to the Victoria Centre. It is considered as invalid complaint under this Project.	Closed
110617	9/06/2011	Mr. Law from Victoria Centre Management Office	North Point	An odour nuisance suspected generating from the discharge point – Channel T at Watson Road in part of the site area was related to CWB under Contract no. HY/2009/11	 The complaint was received by ET on 13 Jun 2011. During the weekly site inspection on 7 and 17 June 2011, there was no any odour impact detected in the site area. According to the site record, there was muddy water discharged from the unknown source at upstream of Channel T during heavy rainstorm. No any site surface runoff to the Channel T and out of site boundary was observed in the inspection. 	Closed
			3) In order to prevent muddy water washing out to the water body under heavy rainstorm, a silt curtain was installed at the outfall of the channel by Contractor. ET confirmed with the Resident Site Staff that a silt curtain was installed at the outfall of the channel to prevent muddy water washing out to the water body under heavy rainstorm. Besides, regular cleaning of refuse in the channel has been conducted by Contractor.			
			4) A further site investigation on 28 June 2011 revealed that no odour nuisance was detected at the upstream of the Channel T and no source of odour nuisance was identified at site. As such, it was concluded that the source of odour nuisance was not related to the Project works.			
					5) Although no source of odour nuisance was identified at site, the muddy water and dirt from the unknown source at upstream of Channel T may cause a potential smell during low tide and low water flow. Contractor was reminded to remove the silt curtain at the channel on non-rainy day so as to avoid the accumulation of the sediment and dirt in the water channel.	



Complaint Log No.	Date of Complaint	Received From and Received By	Location of Complainant	Nature of Complaint	Out	come	Status
110709	09/07/2011	Mr. Au from City Garden Management Office	North Point	A complaint letter to Contractor HY/2009/11 was raised by Cayley Property Management Limit on 9 July 2011 regarding a series of pump breakdown events at seawater intake of City Garden on 4, 6, 7 and 8 July 2011. A lot of rubbish such as plastic bags, nylon bags, nylonwire mesh was observed sucking from the seawater intake at the seawater front of Block 7 of City Garden affecting the operation of seawater pump plant.	2)	Contractor conducted formation works for installation of caisson seawall at C27, C28, C29 and C30 on 4, 6, 7 and 8 July 2011 and no dredging work was conducted during this time period Water mitigation measures of an 80m long silt curtain at the site boundary in front of City Garden Relocation of silt curtain and silt curtain at the outfall of the channel were provided and maintained to accommodate the site works. All vessels are equipped with rubbish collection facilities and disposed the rubbish regularly. Also, daily cleaning actions had been taken by contractor to minimize floating refuse within the site boundary. Moreover, it has been reported several times that discharged from outfall pipeline outside the site boundary near the intake of the pump maybe considered as another source of rubbish generation.	Closed
				4)	Referring to the record provided by Cayley Property Management Limit, the trapped rubbish was unlikely generated from the construction works. It was considered that complaint is invalid and not related to project.		
110710	09/07/2011	Complainant by ICC (ICC no. 1-301520309	C (ICC no. 1-	It was received at 00:56 on 10 July 2011. There was complained a derrick barge unloading rockfill material off the shore facing the Harbour Grant HK Hotel causing noise nuisance.	',	ET confirmed with the Resident Site Staff that the complaint was referred to Contract HY/2009/15 for the loading and unloading of fill material at two barges operation in the sea at around 300m adjacent to Island Eastern Corridor (Oil Street Chainage) where is outside the Site of HY/2009/15 in the period of around 19:45 on 9 July to 1:00 on 10 July 2011.	Closed
					2)	The material loading and unloading operation processed in restricted hours was checked without a valid CNP. It was found that the operation was due to an unexpected water leakage of the hopper barge and considered an incident.	
					3)	According to the incident report provided from RSS on 20 July 2011, around 7:30 pm the barge S22 was inclined slightly and slightly water leakage might occur. Due to marine safety concern, the hopper barge would open the hopper to release the contained materials in order to reduce the weight and stabilize the barge. In consider of slight water leakage, the operator decided to use the nearby Derrick Barge ST32 to help for unload the general fill materials first and the unloading operation was started at around 7:45pm, and end at around 1:00 am. Contractor was reminder to provide frequent check of vessel condition	



Complaint Log No.	Date of Complaint	Received From and Received By	Location of Complainant	Nature of Complaint	Out	come	Status
						so as to prevent recurrent by barge defect	
110723a	23a 23/07/2011 Ms. Law at Victoria Centre by ICC no. 1-303887687 Ms. Law at Victoria Centre by ICC no. 1-303887687 North Point She concerned that Highways Department published a notice in their Management Office about construction works will be conducted from 0700 hours to 2300 hours during July to December 2011 including Saturday, Sunday and public holiday.	1) 2) 3)	It was referred by AECOM to ET on 28 July 2011 RSS confirmed that the notice was prepared by Victoria Centre's Management office to their resident and the advice was only given on the extension construction works (for Contract HY/2009/15) to 7am-9pm from Monday to Saturday except Public Holidays and Sundays. As a mitigation measure to minimize the noise nuisance in the vicinity of the residents, rock breaking activities will be				
		Holiday.	4)	August 2011. No noise exceedance was recorded at construction noise monitoring station at Victoria Centre on 19 and 25 July 2011 during daytime while breaking and excavation works were undertaken during monitoring.	Closed		
		5)	In conclusion, it was related to the construction works under Contract HY/2009/15 and mitigation measure was provided. The complainant was satisfied with the arrangement and no further complaint was received after proposed measures.				
110723b	23/07/2011	Ms. Yau at Block	North Point	Reclamation work was conducted at Causeway Bay	1)	It was referred by AECOM to ET on 8 August 2011	
		2, Victoria Centre by ICC no. 1- 304013959		Typhoon Shelter at 7am on 23 July 2011. She complained that the works shall be started later to minimize the noise nuisance to the vicinity of the residents in early morning	2)	With reference to the construction noise monitoring at Vitoria Centre, no exceedance was recorded on 19 and 25 July 2011 during daytime while breaking and excavation works were undertaken during monitoring	
			to		3)	As a mitigation measure to minimize the noise nuisance in the vicinity of the residents, rock breaking activities will be started at 8am and is expected to be completed by mid-August 2011.	Closed
					4)	In conclusion, it was related to the construction works under Contract HY/2009/15 and mitigation measure was provided. The complainant was satisfied with the arrangement and no further complaint was received after proposed measures.	
110727a	27/07/2011	Mr. Law from Victoria Centre Management Office by ICC no. 1-304616162	North Point	It was complained by Mr. Law from Victoria Centre Management Office on 27 July 2011 regarding construction noise generated by the construction operations of	2)	It was referred by AECOM to ET on 28 July 2011 RSS confirmed to start the rock breaking activities for Contract HY/2009/15 at 8am as a mitigation measure to minimize the noise nuisance in the vicinity of the residents. No noise exceedance was recorded at construction noise	Closed



Complaint Log No.	Date of Complaint	Received From and Received By	Location of Complainant	Nature of Complaint	Outcome	Status
				Central-Wanchai Bypass at noon rather than in morning at 7am.	monitoring station at Victoria Centre on 25 August 2011 during daytime while br excavation works were undertaken during mor	eaking and nitoring.
					 In conclusion, it was related to the construence Contract HY/2009/15 and mitigation in provided. No further complaint from compreceived after proposed the mitigation measure. 	neasure was plainant was
110727b	27/07/2011	Ms. Chiu by ICC	excavation works for the Highways Department adjacent to the Victoria Centre was conducted from 7am 3)	1) It was referred by AECOM to ET on 28 July 20)11	
		no.1-304615409		Highways Department adjacent to the Victoria Centre was	With reference to the construction noise re- Vitoria Centre, no exceedance was recorded and 4 and 10 August 2011 during daytime wand excavation works were undertaken during	d on 25 July hile breaking
					 As a mitigation measure to minimize the noise the vicinity of the residents, rock breaking act started at 8am. 	
08/0	08/08/2011				4) However, complainant did not satisfy with th on the noise nuisance from the rock-brea morning in front of Victoria Centre and t complaint via 1823 on 7 August 2011.	king during
				 Highways contacted the complainant on 15 that the noisy rock breaking operation completed. 		
					Remarks: There will be counted as two compl complaint log.	aints in this
110810	10/08/2011	Mr. Yip by ICC no. 1 – 306740207	North Point	Muddy water was discharged from work site to the seafront near Oil Street during heavy rain. The environmental protection measures were not good enough and are needed to rectify.	 It was referred by AECOM to ET on 17 August Confirmed with RE, Muddy water was caused earth being washed to the sea by heavy rain. earth was referred as a small stockpile placed seafront in front of Oil Street within the site handover transition period from contract HY contract HY/2009/19. The necessary mitigative to protect the small stockpile against rainfall at the time of complaint. 	by a heap of The heap of d close to the e area under Y/2009/11 to on measures
					3) Due to the missing of mitigation measures to small stockpile during handover transition properties material was washed into the harbour when came. Muddy water was formed and disperse that caused the water quality and visual copublic. The complaint was considered as valid 4) Contractors were advised to relocate the locate the	period, loose n heavy rain ed in the sea ncern to the



Date of Complaint	Received From and Received By	Location of Complainant	Nature of Complaint	Out	tcome	Status
					away from the coastline as far as practicable. Any loose material placed which needed to be placed near the coastline shall be properly compacted or covered as appropriate. To avoid any further environmental deficiency, Contractors shall ensure all necessary environmental mitigation measures will not be missing during site area handover.	
26/08/2011	Grand Hyatt and a complainant by ICC	and a complainant by ICC nuisan	nuisance generated from the works at Convention Avenue and inside the HKCEC1 reclamation area.	1)	Confirmed with the Resident Site Staff that the construction works were referred to the Contractor HK/2009/01. The Excavator mounted breaker at Convention Avenue and Drilling rig at HKCEC1 reclamation area were the dominant construction poise source during this period	
				3)	The drilling rig at HKCEC1 reclamation area and excavator mounted breaker at Convention Avenue were then temporary suspended after received the complaint.	
				4)	Investigation revealed that the erected noise barrier (4m cantilevered movable noise barrier for the drilling rig and 1m movable noise barrier for the excavator mounted breaker) were not located close to the plants to provide adequate noise screening.	Closed
				5)	Contractor was advised to avoid concurrent operation of construction plants at site. Further enhancement of movable noise barriers at HKCEC1 and providing noise enclosure for the excavator mounted breaker at Convention Avenue are needed.	
				6)	Further site investigation and checking on 31 August and 7 September 2011 revealed that the implemented noise mitigation measures were in proper and minimize the noise impact.	
26/08/2011	A complaint letter from Mr. Au of Cayley Property of City Garden	North Point	Harbor front adjacent to their cooling water intake suction which caused 3 times of system breakdown of the sea water pump on 9, 22 and 25 August 2011.	1)	It was referred by AECOM to ET on 29 August 2011. Confirmed with the Resident Site Staff that the • construction works were referred to the Contractors HY/2009/11 and HY/2009/19. • The pump is located on the site area of HY/2009/19 • A temporary garbage defender was installed on 23 July 2011 by HY/2009/11 and the shape of the defender was adjusted on 8 August 2011 in order to excluse the outfall.	Closed
	26/08/2011	26/08/2011 Grand Hyatt and a complainant by ICC 26/08/2011 A complaint letter from Mr. Au of Cayley Property of City	26/08/2011 Grand Hyatt and a complainant by ICC Solve of the complaint letter from Mr. Au of Cayley Property of City	26/08/2011 Grand Hyatt and a complainant by ICC Wan Chai Wan Chai Construction noise and vibration nuisance generated from the works at Convention Avenue and inside the HKCEC1 reclamation area. Harbor front adjacent to their cooling water intake suction which caused 3 times of system breakdown of the sea water pump on 9, 22 and 25	26/08/2011 Grand Hyatt and a complainant by ICC Wan Chai Construction noise and vibration nuisance generated from the works at Convention Avenue and inside the HKCEC1 reclamation area. 3) 4) 26/08/2011 A complaint letter from Mr. Au of Cayley Property of City Garden North Point Harbor front adjacent to their cooling water intake suction which caused 3 times of system breakdown of the sea water pump on 9, 22 and 25	26/08/2011 Grand Hyatt and a complaint letter from Mr. Au of Carley Property of City Garden 26/08/2011 A complaint letter from Mr. Au of Carley Property of City Garden 26/08/2011 A complaint letter from Mr. Au of Carley Property of City Garden 26/08/2011 A complaint letter from Mr. Au of Carley Property of City Garden 26/08/2011 A complaint letter from Mr. Au of Carley Property of City Garden 26/08/2011 A complaint letter from Mr. Au of Carley Property of City Garden 26/08/2011 A complaint letter from Mr. Au of Carley Property of City Garden 26/08/2011 A complaint letter from Mr. Au of Carley Property of City Garden 26/08/2011 A complaint letter from Mr. Au of Carley Property of City Garden 26/08/2011 A complaint letter from Mr. Au of Carley Property of City Garden 26/08/2011 A complaint letter from Mr. Au of Carley Property of City Garden 26/08/2011 A complaint letter from Mr. Au of Carley Property of City Garden Au of Carley Property of City Garden A complaint letter from Mr. Au of Carley Property of City Garden Au of Carley Property of City Garden A complaint letter from Mr. Au of Carley Property of City Garden Au of Carley Property of City Garden A complaint letter from Mr. Au of Carley Property of City Garden Au of Carley Property of City Garden A complaint letter from Mr. Au of Carley Property of City Garden Au of Carley Property of City Garden A complaint letter from Mr. Au of Carley Property of City Garden Au of Carley Property of City Garden A complaint letter from Mr. Au of Carley Property of City Garden Au of Carley Property of City Garden A complaint letter from Mr. Au of Carley Property of City Garden Au of Carley Property of City Garden A complaint letter from Mr. Au of Carley Property of City Garden Au of Carley Property of City Garden A complaint letter from Mr. Au of Carley Property of City Garden A complaint letter from Mr. Au of Carley Property of City Garden A complaint letter from Mr. Au of Carley Property of City Garden A complaint letter from Mr

The complainant, Tam

complained via

hotline 1823

Wan Chai

111014

14/10/2011

Complaint Log No.	Date of Complaint	Received From and Received By	Location of Complainant	Nature of Complaint	Outcome	Status
					team), contractor of HY/200911 and HY/2009/19 and IECon 29 August 2011. Inspection report of it was submitted to RSS on 19 September 2011.	
					 Daily cleaning near the water intake was conducted twice a day by contractor HY/2009/19. 	
					 In response to City Garden request, the contractors have set up the temporary garbage defender in function and collect the floating refuses, but cannot eliminate all refuses, in particular the refuse coming from the seabed 	
					 According to the complaint letter from Cayley Property, the outcomes of the preventive measures were not complying wih their expectation. 	
					3) During on-site inspection, floating refuses observed occasionally outside the garbage defender. No conclusion could be made for the source of these floating refuses. On the other hand, some of the refuses were observed floating behind the garbage defender during investigation.	
					All daily cleaning actions had been taken by contractor to minimize floating refuse inside the construction site.	
					5) It was noted that the cooling water intake was accessible to the public. As such, fish breeding and fishing activities were observed even though a notice has already hoisted. Also, tripping of rubbish by the passers-by could result in a lot of rubbish accumulated around the intake point.	
					6) Referring to the record provided by CPML, there were a lot of nylon/ plastic bags and nylon wire mesh that matched those rubbishes generated from the public activities.	
					7) Contractors have fulfilled the requirement of site cleanness and no exceedance was recorded during Water Quality Monitoring. It is consider the cause of this complaint is not related to project and environmental issue in this project as well. No more complaint received after ad-hoc inspection	

The polluted fumes and

exhaust from the excavation by sub-contractor of CEDD on

pedestrian way outside no.25

Harbour Road (in front of the

Harbour Centre)

1)

2)

2011.

Closed

RSS notified ET to carry out investigation on 17 October

ET confirmed with the Resident Site Staff that the location

of the excavator was within site area of Contract no.

reprovision works along the Harbour Road. The plants including the excavator have been checked before using

HK/2009/02 undertaking the water cooling main



Complaint Log No.	Date of Complaint	Received From and Received By	Location of Complainant	Nature of Complaint	Outcome	Status
					at the site. However, the polluted fumes and exhausted from the excavator was caused due to insufficient maintenance of the plant after using at site. 3) After receiving the complaint, the excavator was then removal off-site for checking and maintenance works on 17 October 2011. 4) Contractor was reminded to enhance regular checking and maintenance to all plants at site. 5) RSS has replied to the complainant on the arrangement of the measures taken on 17 October 2011. Complainant was satisfied with the response and follow-up action taken	
111104	04/11/2011	Mr. Liu from LCSD complained via Contractor Complaint Hotline	Wan Chai	Complain about a tree near the site of pipe installation works outside Wan Chai Swimming Pool at Harbour Road, the status is not healthy and roof ball of two trees inside the site near Renaissance Hong Kong Harbour View Hotel at Convention Avenue were half cut.	by the Contractor. 1) ET confirmed with the Resident Site Staff that	Waiting RSS respond
111106	06/11/2011	Police officer	Wan Chai	Construction noise generated from the site at about 6:30 a.m on 6 November 2011 and require to stop the machine operation	BC cutter and hoist were operated for Diaphragm Wall construction of Shatin-Central Link to inspect bentonite pipes and ensure no damages and all the joints are tightened in good position. Then, the subcontractor for	Keep in view for three months from the date of complaint recevied



Complaint Log No.	Date of Complaint	Received From and Received By	Location of Complainant	Nature of Complaint	Out	come	Status
					2)	CNP was checked by the police officer. ET confirmed with the Resident Site Staff that same issue was also raised out by RSS at about 7:00a.m on the same day. Besides, it was confirmed that there is no valid Construction Noise Permit for the conducted construction works in the period between 2300 and 0700.	
					3)	Due to insufficient communication between Contractor HK/2009/01 and their Korean Sub-contractor, Korean Sub-contractor had not notified to Contractor before carrying out the inspection of the BC cutter, hoists and bentonite pipes at about 6:00a.m to ensure no damages and all the pipe joints should be tightened and in good position.	
					4)	Contractor was advised to enhance the communication between Contractor and sub-contractor and provide sufficient environmental training to all foreman and operators on restricted hour operation. Futhermore, Construction Noise Permit should be checked and in place for the construction works during restricted hour	
					5)	This complaint was considered in relation to the conducted construction works during restricted hours without valid Construction Noise Permit. No more construction works were conducted during night time period. The construction works will be conducted in accordance with the time period stated in valid CNP. This complaint will be kept in view of any follow-up action from the relevant government activities.	
120405	05/04/2012	N/A	North Point	A complaint regarding excessive noise from construction sites of CBTS was observed daily before 7:30am except on public holidays, and the noise source was mainly from piling works. The complainant requested that construction works should start after 8:30am to avoid nuisance to nearby residents and a speedy follow-up and reply.	2)	RSS notified ET on 5 April 2012. ET confirmed with the Resident Site Staff that no piling works were performed during the concerned period. After reviewing the results of noise monitoring (M2b and M3a), no exceedance was recorded during daytime period and the noise level was below 75dB(A). Site inspection for HY/2009/15 was conducted on 10 April 2012. The condition of noise mitigation measures around CBTS was found satisfactory. RSS confirmed that no pilings were performed during the concerned period. The major works included drilling, diaphragm wall construction and excavations. HyD made a reply to the complainant on 16 April 2012 via 1823. HyD replied that the current works at CBTS were drilling, diaphragm wall construction and deep	Closed



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					from the above works, the Contractor had erected temporary noise barriers and provided noise blankets on plants. RSS would continue to work with the Contractor on the effectiveness of the environmental mitigation measures implemented on site. No further complaint was received after the response.	
130308	06/03/2013	ICC Case#1- 407181502	Tin Hau	A complaint regarding the dropping of fine rock material into surrounding waterbody was observed during rock breaking operation with two excavators in active operation at the Eastern Breakwater of Causeway Bay Typhoon Shelter near the North Point lighthouse.	 RSS notified ET on 8 March 2013 ET confirmed with RSS that excavation works, installation of buoy, flashing light and silt curtain and dredging works were undertaken at Eastern Breakwater during the concerned period on 6 March 2013. One backhoe equipped with breaker and one derrick barge were confirmed in operation while another backhoe was at idle during the concerned period on 6 March 2013. Reviewing the photo record provided by RSS, the condition of the silt curtain deployed around the Eastern Breakwater on 6 March 2013 was found to be in good condition. It is considered that the silt curtain was properly in place during the concerned period and the concerned act of dropping of fine rock material was confined within the silt curtain boundary without adverse impact to the nearby water quality. Further follow up was conducted on 12 March 2013 during weekly environmental audit inspection, the silt curtain deployed around the concerned area was found to be maintained in good condition and the water quality at the concerned work area was generally satisfactory. No violation of the Environmental Permit condition was found. The contracotr was advised and committed to implement preventive meaures to miminize the potential impact of work including conducting regular diver check to ensure the integrity and the extend of silt curtain deployment and to provide adequtae back up stock of silt curtain for emergency use. 	Closed
140612	12/06/2014	EPD ref: EP/860/F2/24 Annex IV	Wan Chai	The complaint is regarding to the water quality of the waterfront outside the Hong Kong Academy for Performing Arts Theatre Block, where a large piece of muddy water was found.	 WSII RSS team notified ET on 12 June 2014; Notification letter from EPD (ref: EP/860/F2/24 Annex IV) was received by ET on 13 June 2014. ET confirmed with RSS that neither marine construction works nor barge operation was conducted at the concerned location during the time of complaint. With respect to the complaint case, muddy dispersion was observed at HKCEC2W works area on 12 June 2014, and 	Interim Report was submitted to EPD on 20 June 2014.



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					3)	the dispersion was observed partly extended beyond the outermost layer silt curtain at 1000hrs. Immediate follow up action was requested. It is considered that Contractor's mitigation measures would require further review on the effectiveness to avoid seepage of muddy dispersion such as regular diver inspection check and daily visual checking of silt curtains. Additional silt curtain at marine access zone was installed by Contractor on 12 June 2014 and the double layer silt curtain were generally in order. Follow-up inspection was further conducted on 16 June 2014. The Contractor's investigation report on the complaint case was submitted to EPA via email on 18 June 2014.	
140723	21/07/2014	ICC Case Ref: 2-341537112	Works area opposite to Ngan Tao Building	The complaint is regarding to construction noise impact to the complainant who could not sleep due to work and machine at the project site opposite to the Ngan Tao Building.	0)	Construction noise impact referred by RSS was received by ET on 25 July 2014 ET confirmed with RSS that horizontal cutting and removal of D-wall at Eastern, Southern and Northern side of TS2 was undertaken by Contractor of HY/2009/15 within Causeway Bay Typhoon Shelter before 23:00hrs on 20 July 2014 that total 3 numbers of derrick lighter and 3 numbers of saw cut machine were in operation, and removal of D-wall at Panel S30A-1 of TS2 was undertaken by Contractor of HY/2009/15 within Causeway Bay Typhoon Shelter around 00:25hrs to 00:56hrs on 21 July 2014 that total 1 number of derrick lighter was in operation.	Final report (Issue1) issued on 31 July 2014. Further to complainant follow-up, Final report (Issue2) Issued on 12 Aug 2014.
					3)	According to the relevant site records under Contract HY/2009/15, before 23:00hrs on 20 July 2014, horizontal cutting and removal of Diaphragm Wall at Eastern, Southern and Northern side of TS2 was conducted under HY/2009/15 within Causeway Bay Typhoon Shelter. Total 3 nos. of derrick lighter and 3 nos. of saw cut machine were in operation at the above period. From around 00:25hrs to 00:56hrs on 21 July 2014, removal of D-wall at Panel S30A-1 of TS2 was undertaken by Contractor of HY/2009/15 within Causeway Bay Typhoon Shelter. Total 1 no. of derrick lighter was found operating at the above period	
					4)	It was considered the condition of CNP GW-RS0592-14 was not fulfilled by the Contractor of HY/2009/15. "From 00:25hrs to 00:57hrs on 21 July 2014, the PME(s) (1 no. of Derrick Lighter) on-site could not follow with any given PME grouping requirement(s) as stated in condition 3.a. and condition 3.d. in no. GW-RS0592-14."	



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					Notwithstanding the above, according to the site recorded provided by the RSS, the derrick lighter was found malfunction at around 23:00hrs on 20 July 2014 while the diaphragm wall cutting procedure was incomplete. Under safety and navigation consideration, the completion of diaphragm wall removal was necessary and of imminent need. 5) The Contractor of HY/2009/15 was advised to review the construction sequence and emergency response procedure for construction activities during restricted hours and night time period to allow for sufficient buffer time for work completion such that the Construction Noise Permit would be followed. Furthermore, the Contractor of HY/2009/15 was suggested to conduct throughout checking of PME used on site prior to work commencement to minimize the potential malfunctioning of PME during the course of work which affect the duration of works.	
141016	14/10/2014	EPD Ref.: EP860/E2/24 Annex IV ICC complaint received by ET on 10 October 2014	Work site next to new Wan Chai Ferry Pier and opposite to Wan Chai Sports Ground.	Construction noise like piling works was heard on 14 October 2014 night until 23:45 hrs. It was suspected that the noise was emanated from the work site next to new Wan Chai Ferry Pier and opposite to Wan Chai Sports Ground.	A public complaint regarding construction noise impact referred by EPD was received by ET on 16 October 2014 (EPD Ref.: EP860/E2/24 Annex IV dated 16 October 2014). The complainant reported that construction noise like piling works was heard on 14 October 2014 night until 23:45 hrs. It was suspected that the noise was emanated from the work site next to new Wan Chai Ferry Pier and opposite to Wan Chai Sports Ground.	Interim investigation report submitted to EPD on 23 October 2014.
					ET confirmed with the Resident Site Staff that From 19:00hrs to 23:00hrs on 14 October 2014, dredging works was conducted under Contractor of HK/2009/02 at WCR3 Area. Total one grab dredger was in operation. Mitigation measures including provision of steel sheeting screening to the power generation part of the grab dredger was implemented by the Contractor of HK/2009/02. From 23:00 hrs to 05:00 hrs, dredging works was conducted under Contractor of HK/2009/02 at WCR3 Area. Total one grab dredger was in operation. Mitigation measures including provision of steel sheeting screening to the power generation part of the grab dredger was implemented by the Contractor of HK/2009/02.	Updated interim investigatio n with supplement ary information submitted to EPD on 17 November 2014

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					From 23:00 hrs to 06:00hrs, panel replacement works was conducted under Contractor of HK/2009/02 at the Temporary Covered Walkway.	
					Total one scissor platform and two hand held drills (battery) were in operation.	
					From 23:00 hrs to 06:00hrs, trial pit works was conducted under Contractor of HK/2009/02 at Hung Hing Road. Total one crane lorry was in operation.	
					According to the relevant site records under Contract HK/2009/02, from 19:00hrs to 23:00hrs on 14 October 2014, dredging works was conducted under Contractor of HK/2009/02 at WCR3 Area. Total one grab dredger was in operation. Mitigation measures including provision of steel sheeting screening to the power generation part of the grab dredger was implemented by the Contractor of HK/2009/02.	
					From 23:00 hrs to 05:00 hrs, dredging works was conducted under Contractor of HK/2009/02 at WCR3 Area. Total one grab dredger was in operation. Mitigation measures including provision of steel sheeting screening to the power generation part of the grab dredger was implemented by the Contractor of HK/2009/02.	
					From 23:00 hrs to 06:00hrs, panel replacement works was conducted under Contractor of HK/2009/02 at the Temporary Covered Walkway. Total one scissor platform and two hand held drills (battery) were in operation. From 23:00 hrs to 06:00hrs, trial pit works was conducted	
					under Contractor of HK/2009/02 at Hung Hing Road. Total one crane lorry was in operation.	
					In view of the above findings, no direct information associated with the noise concern was considered available.	



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141110	07/11/2014	EPD Ref.: H05/RS/000278 15-14 EPD complaint received by ET on 10 November 2014	Construction site at old Wan Chai Ferry Pier	Malodour of construction plant exhaust from the construction site at old Wan Chai Ferry Pier was scented that affecting the swimmers at Wan Chai Swimming Pool.	A public complaint regarding odour concern referred by EPD was received by ET on 07 November 2014 (EPD Ref.: H05/RS/00027815-14 dated 10 November 2014). The complainant reported that Malodour of construction plant exhaust from the construction site at old Wan Chai Ferry Pier was scented that affecting the swimmers at Wan Chai Swimming Pool. ET confirmed with the Resident Site Staff that ELS works was conducted on 7 November 2014 during daytime at Portion 2 (Area oppsite to WanChai Swimming Pool). Total 3 nos. of excavators, 2 nos. of crawler cranes, 2 nos. of generator, 1 no. of crane lorry and 2 no. of dump trucks were operated. Demolition works was conducted on 7 November 2014 during daytime at West of old Wan Chai Ferry Pier. Total 2 nos. of excavators, 1 no. of derrick barge and 1 no. of tug boat were operated. Dredging works was conducted on 7 November 2014 during daytime at WCR3 (East of old Wan Chai Ferry Pier) Total 1 no. of dredger, 1 no. of hopper and 1 no. of tug boat were operated. According to the relevant site records under Contract HK/2009/02, ELS works was conducted on 7 November 2014 during daytime at Portion 2 (Area oppsite to WanChai Swimming Pool). Total 3 nos. of excavators, 2 nos. of crawler cranes, 2 nos. of generator, 1 no. of crane lorry and 2 no. of dump trucks were operated. Demolition works was conducted on 7 November 2014 during daytime at West of old Wan Chai Ferry Pier. Total 2 nos. of excavators, 1 no. of derrick barge and 1 no. of tug boat were operated. Follow-up inspection was conducted during weekly environmental inspection on 13 November 2014, no dark smoke emission was observed from the PMEs operating onsite. The condition of chemical waste storage was considered satisfactory and no malodour was identified. Despite no information related to malodour was identified. Despite no information related to malodour was identified. Despite no information related to conduct regular checking on the condition of PMEs to ensure only well maintained PMEs are used on site.	Interim investigation report submitted to EPD on 17 November 2014. EPD advised no comment on the interim report and case closed on 1 Dec 2014.



Complaint Log No.	Date of Complaint	Received From and Received By	Location of Complainant	Nature of Complaint	Outcome	Status
					Based on the relevant information provided by RSS, despite no information associated with the malodour concern was identified after investigation, the Contractor was reminded to conduct regular checking on the condition of PME used on site to ensure only well maintained PME are used on site The interim report would be submitted to EPD on 17 November 2014.	
141113	12/11/2014	EPD Ref.: H05/RS/000282 53-14 EPD complaint received by ET on 13 November 2014	Construction site at old Wan Chai Ferry Pier	Malodour and dark smoke emission from an excavator located at the construction site at old Wan Chai Ferry Pier was observed that affecting the pedestrians.	A public complaint regarding odour concern referred by EPD was received by ET on 13 November 2014 (EPD Ref.: H05/RS/00028253-14 dated 13 November 2014). The complainant reported thatMalodour and dark smoke emission from an excavator located at the construction site at old Wan Chai Ferry Pier was observed that affecting the pedestrians. (Contract HK/2009/02) ET confirmed with the Resident Site Staff that demolition works was conducted under Contract HK/2009/02 on 12 November 2014 during daytime at old Wan Chai Ferry Pier. Total 2 nos. of excavators, 1 no. of derrick barge and 1 no. tug boat were operated. According to the relevant site records under Contract HK/2009/02, demolition works was conducted on 12 November 2014 during daytime at old Wan Chai Ferry Pier. Total 2 nos. of excavators, 1 no. of derrick barge and 1 no. tug boat were operated. In addition, investigation found that due to malfunctioning of one of the excavators deployed at old Wan Chai Ferry Pier, dark smoke was emitted from the defective excavator for a short period of approximately 30 seconds at around 15:00 hrs on 12 November 2014. The operation of excavator was immediately suspended and followed by repair works. The normal operation of the excavator was resumed after repair. Follow-up inspection was conducted during weekly environmental inspection on 13 November 2014, no dark smoke emission was observed from the PMEs operating onsite and the Contractor of HK/2009/02 was reminded to conduct regular checking on the condition of PMEs to ensure only well maintained PMEs are used on site.	Interim investigation report submitted to EPD on 19 November 2014. EPD advised no comment on the interim report and case closed on 8 Dec 2014.



Complaint Log No.	Date of Complaint	Received From and Received By	Location of Complainant	Nature of Complaint	Outcome	Status
141121	Not Specified	EPD Ref: H08/RS/28263-14 EPD complaint information and findings was received by ET via email on 21 Nov 2014	Causeway Bay Typhoon Shelter	Resident in Hing Fat Street complaining about loud noise from dredging work in CBTS up to 10pm at night.	EPD received a construction noise complaint from dredging works at Causeway Bay Typhoon Shelter and a resident in Hing Fat Street complaining about loud noise from dredging work in CBTS up to 10pm at night. EPD investigation found that the operation of a derrick barge is covered by CNP no. GW-RS0701-14. EPD reminded the Contractor of HY/2011/08 to ensure the work strictly follow the permit conditions and endeavor to minimize the noise as so not to disturb the nearby residents.	Complaint case handled by EPD and relevant investigation findings was sent to ET on 21 November 2014
150127	21 Jan 2015	EPD complaint (EPD Ref.: H05/RS/00001 725-15) received by ET on 27 January 2015 and further information from EPD regarding the updated location under complaint was received by ET on 30 January 2015	A portion of Hung Hing Road immediately to the east of Marsh Road near SPCA	Construction dust and grit was emitted from the construction site to the carriageway causing nuisance to the public.	A public complaint regarding air quality impact referred by EPD was received by ET on 27 January 2015 (EPD Case Ref.: H05/RS/00001725-15 dated 27 January 2015) and further information from EPD regarding the updated location under complaint was received by ET on 30 January 2015. The complainant reported that construction dust and grit was emitted from the construction site to the carriageway causing nuisance to the public. ET confirmed with the Resident Site Staff that the major construction activities around the concerned location conducted on 21 January 2015 include breaking of seawall blocks and D-wall at TPCWAW; concreting, grouting and drilling works at TPCWAW Mitigation measures implemented by the Contractor for the above construction works include spraying haul road with water; covering bagged cement with tarpaulin; providing three sided and top covering for grouting stations; providing water spraying to dusty activities such as breaking works According to the relevant site records, breaking of seawall blocks and D-wall, concreting, grouting and drilling works and reclamation/ backfilling works were	Interim report submitted to EPD on 9 February 2015



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					conducted at TPCWAW. Dust mitigation measures including spraying haul road with water, covering bagged cement with tarpaulin, providing three sided and top covering for grouting stations and water spraying to dusty activities such as breaking works were implemented by the Contractor of HY/2009/15 near the concerned location on 21 January 2015.	
					Follow-up investigation was conducted on 27 January 2015 during weekly environmental inspection, dust mitigation measures including water spraying for dusty haul road and major dust generation works; and provision of three sides and top covering for grouting station were confirmed in place.	
					In addition, based on the review of the monitoring data of the monitoring station located at the concerned location raised by the complainant, namely monitoring station CMA3a, no action or limit level exceedance was recorded during air quality monitoring conducted on 20 and 21 January 2015. Nevertheless, the Air Quality Health Index (AQHI) recorded by EPD across Western District and Eastern District on the complaint date was ranged from 4 to 10+ indicating a severely high concentration of ambient air pollutants.	
					As such, the site condition under Contract HY/2009/15 at the concerned location was considered to be generally satisfactory and no non-conformity related to cumulative air quality impact was observed. Nevertheless, in view of the public concern, the contractor was reminded to enhance the dust mitigation measures implemented to minimize potential nuisance to nearby public.	
150622	18 June 2015	EPD Ref.:H05/RS/ 00015054-15 dated 8 June	A mooring location near shore and at location outside Wan Chai Sports	Dark smoke and malodour emission was observed from a hopper barge moored near shore and	A public complaint regarding dark smoke and malodour concern referred by EPD was received by ET on 22 June 2015 (EPD Ref.: H05/RS/00015054-15 dated 22 June 2015). The complainant reported that dark smoke and malodour emission was observed from a hopper barge	Interim report submitted to EPD on 29 June 2015



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		2015	Ground	other construction plants under operation from the reclamation construction site	moored near shore and other construction plants under operation from the reclamation construction site with Contract no. HK/2009/02 at location outside Wan Chai Sports Ground caused air pollution. The complainant alleged that the said situation had been observed for a prolonged period.	
					ET confirmed with the Resident Site Staff that reinforced bar fixing and concreting work (on 17 June 2015 only) were conducted at Portion 2 from 15 June 2015 to 19 June 2015. Total 3 nos. of mobile crane were in operation. On 17 June 2015, one no. of concrete pump truck and two nos. of concrete mixer were in operation. Excavation and Lateral Support was conducted at Portions 3 & 4 from 15 June 2015 to 19 June 2015. Total 4 nos. of excavator, 2 nos. of truck and 2 nos. of crawler crane were in operation. In addition, on 15 June 2015, 17 June 2015 and 19 June 2015, 1 no. of derrick barge was moored near Portions 3 & 4 for transportation of the excavated material away from site. According to the relevant site records under Contract HK/2009/02, from 15 June 2015 to 19 June 2015, reinforced bar fixing and concreting work (on 17 June 2015 only) were conducted at Portion 2 and total 3 nos. of mobile crane, one no. of concrete pump truck (on 17 June 2015 only) and two nos. of concrete mixer (on 17 June 2015 only) were in operation; excavation and lateral support was conducted at Portions 3 & 4 and total 4 nos. of excavator, 2 nos. of truck and 2 nos. of crawler crane were in operation. Based on relevant site record, no hopper barge was moored under Contract HK/2009/02 around the concerned location while 1 no. of derrick barge was moored under Contract HK/2009/02 near Portions 3 & 4 for transportation of the excavated material from Portions 3 & 4 away from site on 15 June 2015,17 June 2015 and 19 June 2015 respectively.	
					Follow-up inspection was conducted during weekly	



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					environmental inspection on 25 June 2015, no dark smoke and malodour emission was observed from the PMEs operating on-site. A derrick barge was observed moored near Portions 3 & 4 and excavated material was transferred to the derrick barge by the excavators on land without barge operation and no particular dark smoke and malodour emission was observed. Nevertheless, the Contractor was reminded to conduct regular checking on the condition of the derrick barge and other PMEs deployed on site to ensure only well maintained PMEs are used to avoid potential dark smoke and maldour emission affecting nearby public.	
150723	20 July 2015	EPD Ref.:H05/RS/ 00018040-15 dated 23 July 2015	Ex-Wanchai Ferry Pier near 720 & & 722 Bus stop	Malodour from marine sediment	A public complaint regarding malodour referred by EPD was received by ET on 23 July 2015 (EPD Ref.: H05/RS/00018040-15 dated 23 July 2015). The complainant reported that malodour from marine sediment was scented at ex-Wanchai ferry pier near route 720 & 722 bus stop. (Contract HK/2009/02). ET confirmed with the Resident Site Staff that Rockfill placing works was conducted by one derrick barge at the concerned location (WCR3) under Contract HK/2009/02 on 20 July 2015. No marine sediment was stored or placed on site at the concerned location under Contract HK/2009/02 on 20 July 2015. According to the relevant site records under Contract HK/2009/02, rockfill placing works was conducted by one derrick barge at WCR3 area on 20 July 2015 and no marine sediment was stored or placed on site at the concerned location on the concerned date. Follow-up inspection was conducted during weekly environmental inspection on 29 July 2015. No marine sediment was observed stored or placed at the concerned location while it was noted that a culvert outfall with potential odour concern is located adjacent to the concerned location.	Interim report submitted to EPD on 30 July 2015.



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					Nevertheless, the Contractor was reminded to review the handling procedures in case of any future marine sediment handling at the concerned location and to consider the implementation of mitigation measures as appropriate to minimize potential malodour impact to nearby public.	
150904	01 Sept 2015	EPD Ref.: H05/RS/0002 2241-15 dated 04 September 2015 received by ET on 4 September 2015	East of New WanChai Ferry Pier	Dropping of excavated material from land to sea during laoding of material	A public complaint regarding dropping of excavated material from land to sea referred by EPD was received by ET on 04 September 2015 (EPD Ref.: H05/RS/00022241-15 dated 04 September 2015). The complainant reported that dropping of excavated materials from land to sea during loading of materials by excavator at the construction site to work boat. (Contract HK/2009/02) ET confirmed with the Resident Site Staff that transferring of C&D materials from land to hopper barge by excavator at seaside along CWB Tunnel Portions 3 and 4 was undertaken by Contract HK/2009/02 on 01 September 2015. Mitigation measure including providing tarpaulin sheet to cover the gap between seawall and the hopper barge to prevent dropping of material to the sea was implemented by the Contractor. According to the relevant site records under Contract HK/2009/02, transferring of C&D materials from land to hopper barge by excavator at seaside along CWB Tunnel Portions 3 and 4 was carried out on 01 September 2015 and mitigation measures including provision of tarpaulin sheet between seawall and the hopper barge was implemented by the Contractor of HK/2009/02 on the concerned date. Follow-up inspection was conducted during weekly environmental inspection on 10 September 2015. Transferring of C&D materials from land to barge by excavator was observed at the concerned location and mitigation measures including provision of tarpaulin sheet between seawall and hopper	Interim report submitted to EPD on 14 September 2015. EPD advised no comment on 5 October 2015 on the interim report submitted and case closed



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					barge and the material transfer works was generally in order. Nevertheless, the Contractor of HK/2009/02 was reminded to maintain the handling procedure for C&D materials transfer from land to hopper barge and regularly inspect the condition of the tarpaulin sheet provided to ensure the nearby water quality are not affected by the loading and unloading of material from land side to hopper barge.	
					The Contractor was reminded to maintain the handling procedure for C&D materials transfer from land to hopper barge and regularly inspect the condition of the tarpaulin sheet provided to ensure the nearby water quality are not affected by the loading and unloading of material from land side to hopper barge.	
150904	02 Sept 2015	EPD Ref.: H04/RS/0002 2385-15 dated 04 September 2015 received by ET on 04 September 2015	Location outside Fleet Arcade	Construction noise was generated from the construction site of HK/2012/08 at location outside Fleet Arcade during night time on weekdays and daytime during General Holidays. The complainant also concerned construction dust and exhaust emission from derrick barges during transporting C&D material at the site.	A public complaint regarding construction noise and dust and exhaust emission referred by EPD was received by ET on 04 September 2015 (EPD Ref.: H04/RS/00022385-15 dated 04 September 2015). The complainant reported that construction noise was generated from the construction site of HK/2012/08 at location outside Fleet Arcade during night time on weekdays and daytime during General Holidays. The complainant also concerned construction dust and exhaust emission from derrick barges during transporting C&D material at the site. (Contract HK/2012/08) ET confirmed with the Resident Site Staff that from 0800 hrs to 1800 hrs on 30 August 2015, removal of scaffold and timber and installation of bulkhead was undertaken by the Contractor of HK/2012/08 at the concerned location. Total one generator and one circular saw were in operation.	Interim report submitted to EPD on 14 September 2015.
					From 1900hrs on 30 August 2015 to 0700 on 31 August 2015, no construction works was undertaken by the Contractor of HK/2012/08 at the concerned location.	

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					From 1900hrs on 31 August 2015 to 0700hrs on 01 September 2015, no construction works was undertaken by the Contractor of HK/2012/08 at the concerned location. From 1900hrs to 2115 hrs on 01 September 2015, unloading of soil was undertaken by the Contractor of HK/2012/08 at the concerned location. Total one derrick barge was in operation. From 2300hrs on 01 September 2015 to 0700hrs on 02 September 2015, no construction works was undertaken by the Contractor of HK/2012/08 at the concerned location. One derrick barge was deployed for unloading of soil on 02 September 2015 during daytime under Contract HK/2012/08 at the concerned location.	
					Based on the relevant site records, from 0800 hrs to 1800 hrs on 30 August 2015, removal of scaffold and timber and installation of bulkhead was undertaken by the Contractor of HK/2012/08 at the concerned location. Total one generator and one circular saw were in operation and the relevant Construction Noise Permit GW-RS0296-15 for the concerned operation was confirmed in place.	
					From 1900hrs on 30 August 2015 to 0700 on 31 August 2015, no construction works was undertaken by the Contractor of HK/2012/08 at the concerned location and from 1900hrs on 31 August 2015 to 0700hrs on 01 September 2015, no construction works was undertaken by the Contractor of HK/2012/08 at the concerned location.	
					From 1900hrs to 2115 hrs on 01 September 2015, unloading of soil was undertaken by the Contractor of HK/2012/08 at the concerned location. Total one derrick barge was in operation and the Construction Noise Permit GW-RS0296-15 for the concerned operation was confirmed in place.	

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					From 2300hrs on 01 September 2015 to 0700hrs on 02 September 2015, no construction works was undertaken by the Contractor of HK/2012/08 at the concerned location. In view of the above, the construction activities conducted under Contract HK/2012/08 during the concerned period was in compliance with the statutory requirement.	
					In addition, one derrick barge was deployed for unloading of soil on 02 September 2015 during daytime under Contract HK/2012/08 at the concerned location. Follow-up inspection was conducted during weekly environmental inspection on 08 September 2015 and no dark smoke emission was observed from the derrick barge moored outside the concerned location. Nevertheless, the Contractor of HK/2012/08 was reminded to conduct regular checking on the condition of the all derrick barges deployed on site to ensure only well maintained equipment are used to avoid potential dark smoke emission affecting nearby public and the Contractor of HK/2012/08 was reminded to upkeep the site control system for construction works carrying out at restricted hours and night time for Construction Noise Permit compliance.	
					The Contractor was reminded to conduct regular checking on the condition of derrick barges deployed on site to ensure only well maintained equipments are used on site to avoid potential dark smoke emission affecting nearby public.	
					The Contractor of HK/2012/08 was reminded to upkeep the site control system for construction works carrying out at restricted hours and night time for Construction Noise Permit compliance.	
150917	17 Sep 2015	A public complaint regarding water quality referred by EPD was	Central and Wan Chai Reclamation coastline (between LUNG WUI ROAD to LUNG WO ROAD,	Silt from Central and Wan Chai Reclamation was spotted along the coastline (between LUNG WUI ROAD to LUNG WO ROAD, Central & Wan	Based on the site records confirmed by RSS, removal of seawall blocks by derrick barge was undertaken by Contract HK/2012/08 at Central Reclamation Phase III works area while mitigation measures including provision of silt curtain implemented by the Contractor of HK/2012/08 during the	Interim investigation report submitted to EPD on 25



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		received by ET on 17 September 2015	Central & Wan Chai, Hong Kong)	Chai, Hong Kong)	seawall block removal works. According to relevant record, muddy dispersion at HKCEC2W (area opposite to Lung King Street) was observed by the Environmental Team on 14 September 2015 afternoon. The muddy patch was observed dispersing outside the outer layer silt curtain deployed by the Contractor of HK/2012/08 towards the Central Reclamation Phase III area while the outer layer silt curtain was observed partially opened.	September 2015
					In view of the above observations, the Contractor was advised to rectify any environmental deficiencies such that adequate protection such as silt curtain shall be provided for exposed soil slope to mitigate for potential runoff related water quality impact to the surrounding waters; outer layer silt curtain deployed shall be entirely closed during works to safeguard the surrounding water quality. Any opening for marine vessel shall be closed promptly after passage and localized silt curtain deployed on site shall be properly maintained to avoid any gap or opening to effectively safeguard the nearby waters.	
151015	11 Oct 2015	A public complaint regarding direct discharge of muddy effluent referred by RSS was received by ET on 14 October 2015	Seafront opposite to Watson Road adjacent to Eastern Breakwater	Pink fluid was observed discharged into marine waters at seafront opposite to Watson Road adjacent to the Eastern Breakwater on 11 October 2015.	Based on the site records confirmed by RSS, no construction activity near the seaside between Eastern Breakwater and the Dumping Jetty was undertaken by Contract HY/2009/19 while at site area away from the seawall, construction of EVB substructure, EVB and APS structure was undertaken on 11 October 2015. In addition, no works involving the use of paint was carried out at the concerned site area (Site Portion between Eastern Breakwater and the Dumping Jetty) and along the alignment of the Culvert T1 under Contract HY/2009/19 and no temporary storage of paint was located at the concerned site area and along the alignment of the Culvert T1 under HY/2009/19 on 11 October 2015.	HyD will consolidate all input from relevant parties to form a reply to ICC.
					Follow-up inspection was conducted during weekly environmental inspection on 14 October 2015. No construction works involving the use of paint was observed undertaken at the concerned location while a few number of small containers of paint was observed placed around the concerned location and the paint containers were sealed and no sign of leakage was observed. The few containers were further checked and was found not matching the pink fluid observed on the complaint date. On the other hand, a culvert discharge outfall was found located within the concerned area where the pink fluid was observed. Based on the above, no direct information indicating the pink	



Complaint Log No.	Date of Complaint	Received From and Received By	Location of Complainant	Nature of Complaint	Outcome	Status
					fluid was originated from the worksarea under HY/2009/19 was considered available. Nevertheless, the Contractor was reminded that paints stored on site shall be properly labelled and stored in sealed container at weather proof location to avoid potential spillage.	
151028	26 Oct 2015	A public complaint regarding construction noise impact referred by EPD was received by ET on 28 October 2015 (EPD Ref:H05/RS/00 027330-15 Dated 28 October 2015)	Construction Site next to ex-Wan Chai Ferry Pier	Operation of grab dredger at construction site near the ex- Wan Chai Ferry Pier from around 0100 to 0400 hours on 26 October 2015 caused noise nuisance.	According to the relevant site records under Contract HK/2009/02, from 01:00hrs to 04:00hrs on 26 October 2015, rock filling was conducted under Contractor of HK/2009/02 at WCR3 Area. Total one grab dredger was in operation. Mitigation measures including provision of steel sheeting screening to the power generation part of the grab dredger was implemented by the Contractor of HK/2009/02 and the relevant Construction Noise Permit GW-RS1121-15 for the concerned construction works was in place. The construction activity conducted under Contract HK/2009/02 during the concerned period was in compliance with the statutory requirement. Nevertheless, the Contractor was reminded to upkeep the site control system for construction works carrying out at restricted hours and night time for Construction Noise Permit compliance in view of the nearby public concern.	The interim report would be submitted to EPD on 05 November 2015
151116	13 November 2015	A public complaint regarding water quality referred by EPD was received by ET on 16 November 2015 (EPD Ref: H05/RS/000291 26-15)	Construction Site at HKCEC and seafront outside Lung Wo Road	Muddy water was discharged from the construction site at HKCEC and dispersed to seafront outside Lung Wo Road on 13 November 2015 afternoon. The complainant also alleged that the deployment of the silt curtain did not follow the design requirement under the environmental permit that the curtain should be hanged to seabed level	Based on the site records, rock mound trimming works was conducted under Contract HK/2012/08 at HKECE2 area on 13 November 2015 and mitigation measures including provision of localized silt curtain around the works area was implemented by the Contractor. Follow-up inspection was conducted during weekly environmental inspection on 17 November 2015, both outer layer silt curtain and localized layer of silt curtain around the active works area were observed deployed while the localized silt curtain deployed around the marine works area was observed partially opened for marine access. Despite no muddy dispersion was generated around the localized silt curtain enclosed area, the Contractor was advised to promptly improve the condition of the silt curtain to ensure the effectiveness of the mitigation measure deployed and to ensure the silt curtain is closed after marine vessel movement. Based on further review on the current construction stage at HKECE2, the dredging works and trench filling works were completed and filling works were conducted behind seawall or temporarily seawall in form of rockbund, the outer layer of silt curtain currently serves as the additional mitigation measure to	The interim investigation report would be submitted to EPD on 1 December 2015.



Complaint Log No.	Date of Complaint	Received From and Received By	Location of Complainant	Nature of Complaint	Outcome	Status
					the required silt curtain deployment for safeguarding the water quality in the area. To clarify for the current silt curtain arrangement, the Contractor was advised to submit an updated silt curtain deployment plan with respect to the latest silt curtain arrangement for the current construction stage. In addition, contaminated discharge at Culvert L originating from upstream locations was intermittently observed based on previous site records. Nevertheless, in view of the public concern, the Contractor was reminded to conduct regular checking on the condition and maintenance for the silt curtain deployed on site to ensure the effectiveness of the mitigation measure. A joint meeting for the complaint was held amongst the EPD, WDII RSS team, the ET and the Contractor of HK/2012/08 on 24 November 2015 and a joint silt curtain diver inspection check amongst EPD, ET, IEC, WDII RSS and the Contractor was conducted on 27 November 2015 to confirm the silt curtain condition and the silt curtain deployed at the HKCEC2 water channel was found generally in order.	
160413 (HK20120 8)	13 April 2016	A public complaint referred by EPD was received by ET on 13 April 2016 (EPD Ref.: H05/RS/00008 367-16 dated 13 April 2016)	Outside the Hong Kong Academy for Performing Arts	Muddy water discharge from construction site	A public complaint regarding muddy water discharge referred by EPD was received by ET on 13 April 2016 (EPD Ref.: H05/RS/00008367-16 dated 13 April 2016). The complainant reported that muddy water was discharged from the construction work of Contract HK/2012/08 to the sea outside the Hong Kong Academy for Performing Arts on 13 April 2016 morning. ET confirmed with the Resident Site Staff that internal transport of soil to the hopper barge for storage via landing barge was conducted by Contractor of HK/2012/08 during 0800 hours to 1000 hours on 13 April 2016 at the sea outside the concerned location and 3 nos. of dump trucks were deployed for the operation. Protection measure including provision of sandbag bunding along the side of the landing barge was implemented by the Contractor of HK/2012/08. According to the relevant site records provided by RSS, internal transport of soil to the hopper barge for storage via landing barge was conducted by Contractor of HK/2012/08 during 0800 hours to 1000 hours on 13	EPD Ref.: H05/RS/000 08367-16 dated 13 April 2016

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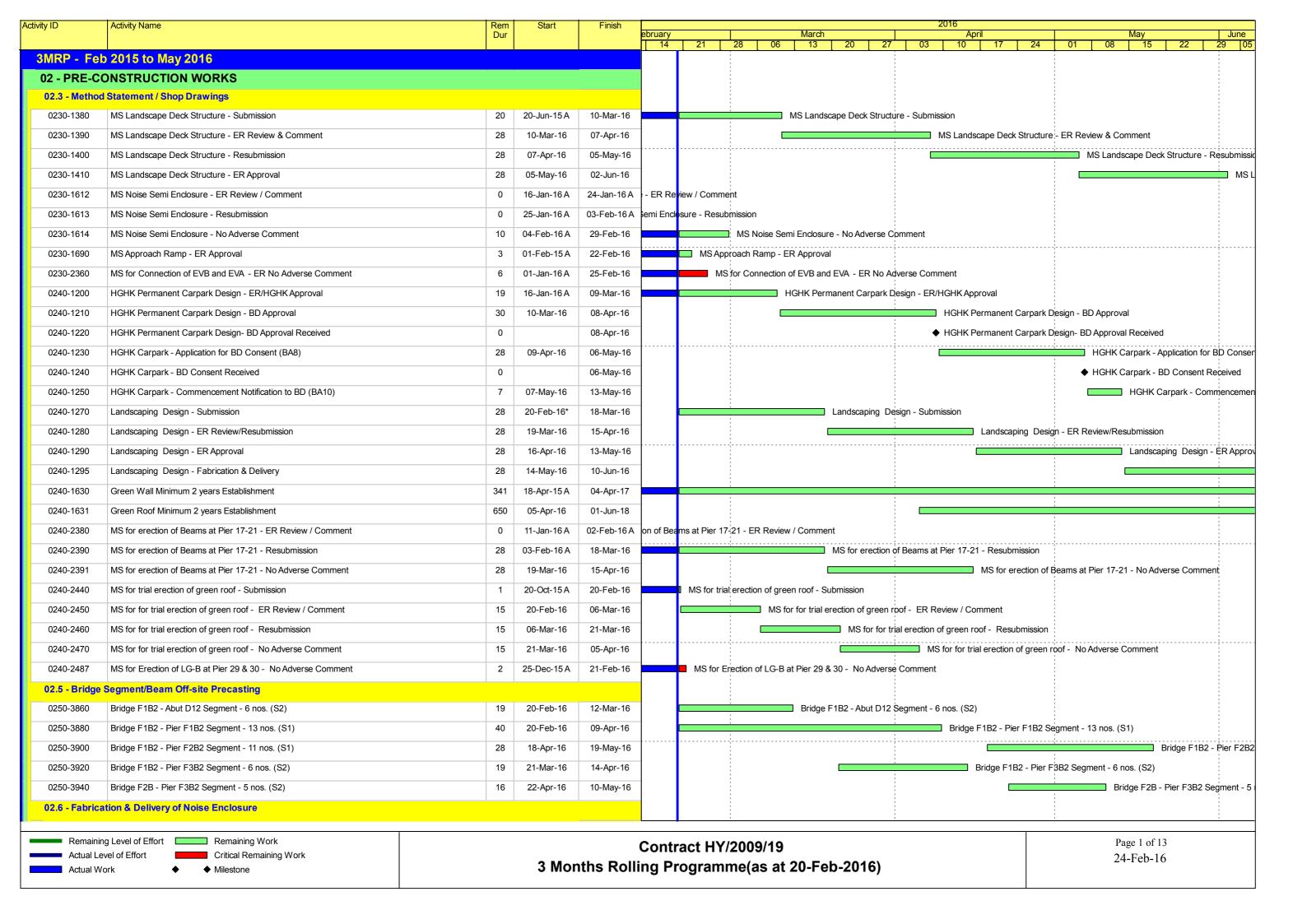
Complaint Log No.	Date of Complaint	Received From and Received By	Location of Complainant	Nature of Complaint	Outcome	Status
					April 2016 at the sea outside the concerned location and 3 nos. of dump trucks were deployed for the operation. Protection measure including provision of sandbag bunding along the side of the landing barge was implemented by the Contractor of HK/2012/08. In addition, amber rainstorm warning signal was hoisted from 0630 hours to 1200 hours on 13 April 2016 and during the above time period, muddy water was observed from the upstream of culvert L outside the HK/2012/08 site.	
					Follow up inspection was conducted on 19 April 2016, protection measures including provision of sandbag bunding along the side of the landing barge was implemented and no mud or soil deposition was observed along the seawall and no discharge point was located within the temporary water channel connecting the Culvert L outfall location to the Victoria Harbour. In addition, piling works was observed at the north side of Zone A1 on 19 April 2016 and construction effluent collection from piling work via sedimentation tank to wastewater treatment facility was implemented and steel barrier was installed around the piling works area to mitigate against potential surface runoff related impact.	
					Nevertheless, in view of the public concern, the Contractor was reminded to maintain adequate perimeter embankment protection along the seawall boundary and maintain proper construction effluent collection system to avoid potential runoff related impact to nearby waters.	

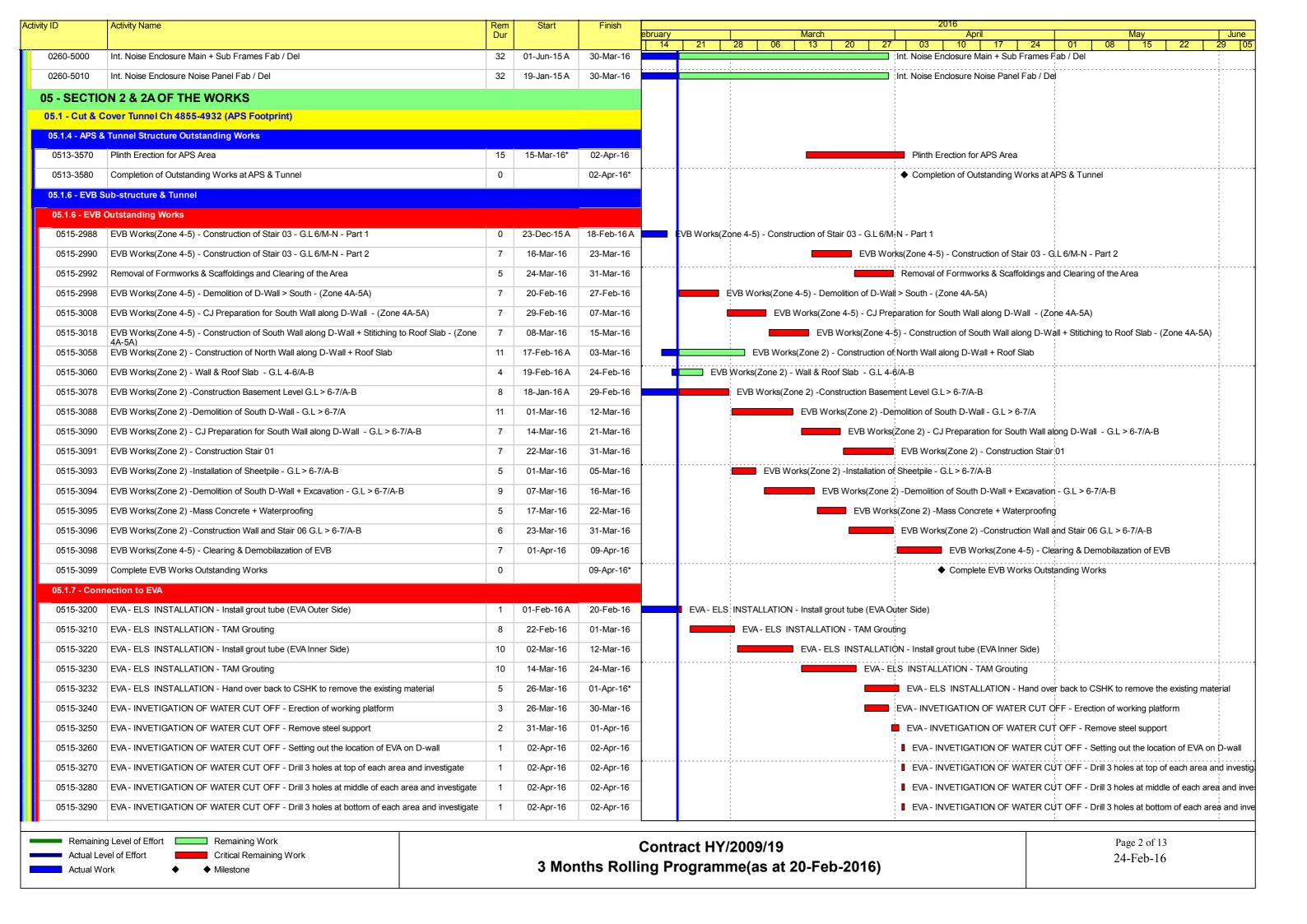
Appendix 10.1

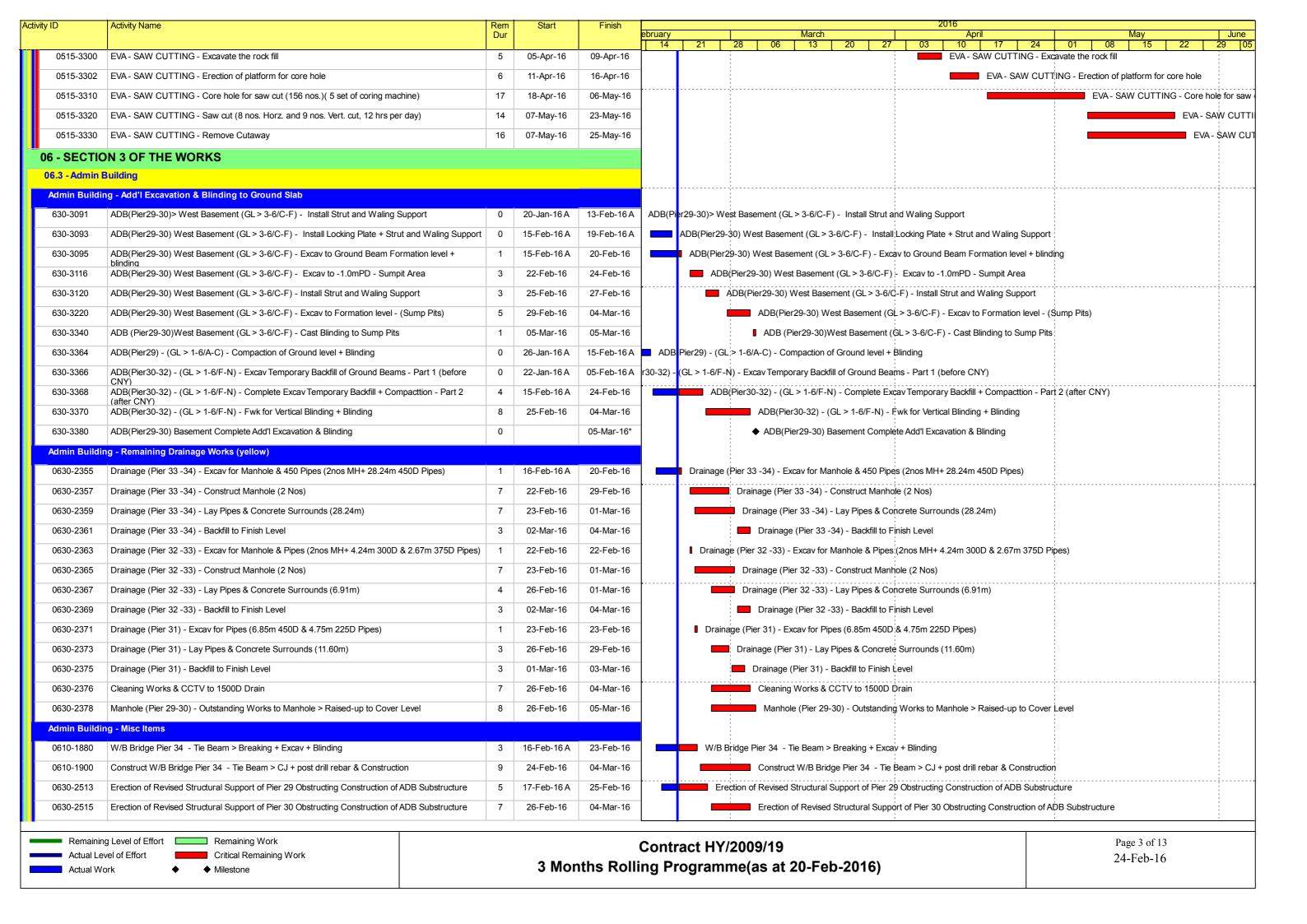
Construction Programme of Individual Contracts

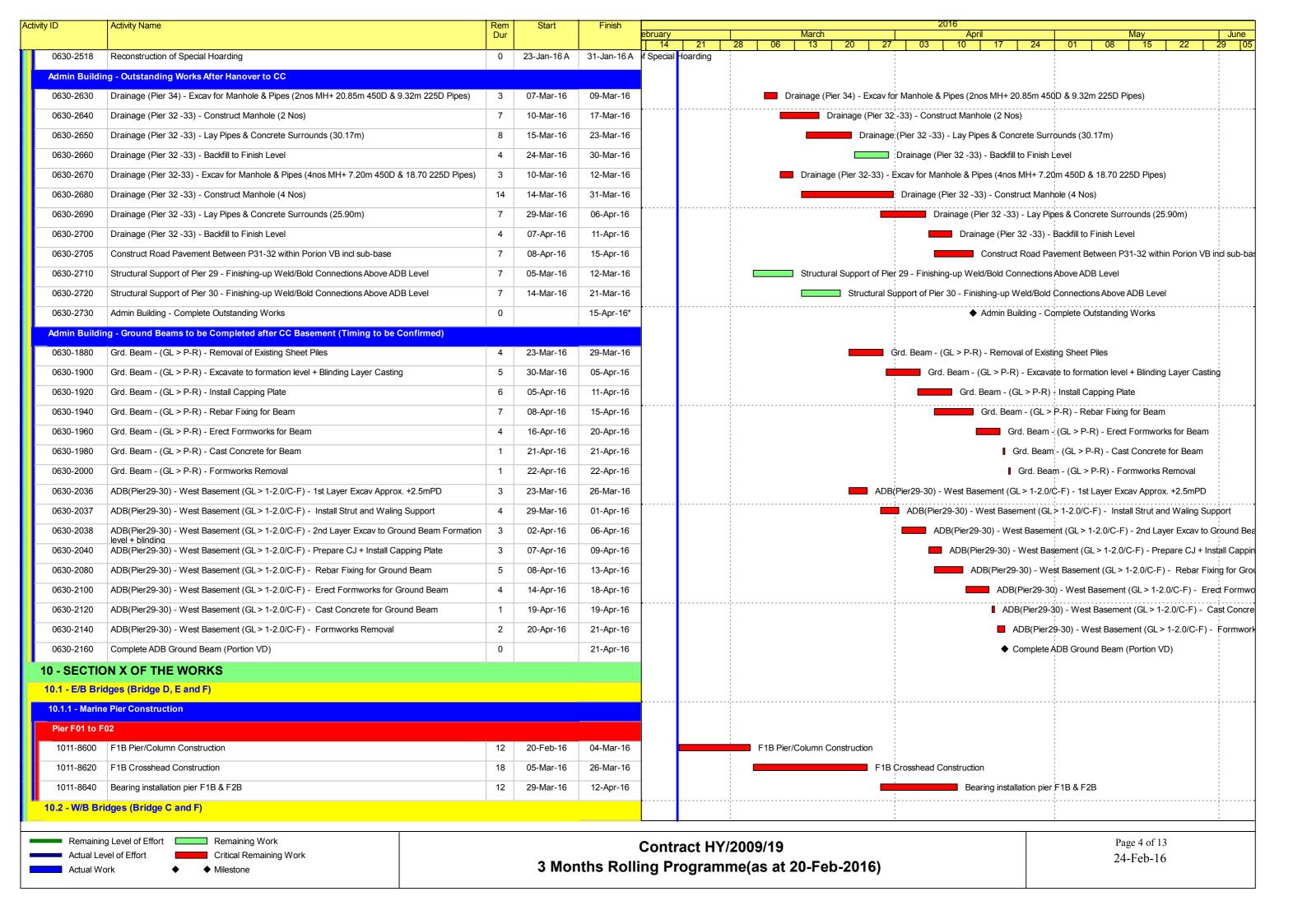
CEDD CONTRACT HK/2009/01 **CHUN WO - LEADER JOINT VENTURE** Activity ID Start Activity Name Finish Qtr 1 Qtr 2 Mar Jan Feb Apr HK/2009/01 - Revised Works Progress Rev. 6H (Data Date: 20 Jan 16) Section 3 of the Works - CWB Tunnel, Slip Roads 2 & 3, Works in Area 8 CWB Tunnelling Works (Stage 1 : CH2947 - CH3045) Stage 1 - Tunnel Structure Works (Bay 1 to Bay 7 : Ch2947 - Ch 3045) Tunnel Structure at Stage 1A & 1B (CH2947 - CH3045) S3A-TS-2080 Backfilling to formation level for Stage 1B (CH 80 to CH 120) Backfilling to formation level for Stage 1B (CH 80 to CH 120) 200d 19/01/15 A 05/02/16 CWB Tunnelling Works (Stage 2 : Ch3045 - Ch3129) Stage 2 - Tunnel Structure Works (Bay 7 to Bay 10 : CH3045 - CH3129) S3B-TS-9000A Backfilling to Formation Level (CWB) - 12,000cu.m 29/12/15 A 05/02/16 Backfilling to Formation Level (CWB) - 12,000cu.m CWB Tunnelling Works (Stage 3 : Ch3129 - Ch3245) Stage 3 - Tunnel Structure Works (Bay 11 to Bay 20 : Ch3129 - Ch3245) Tunnel Structure at Stage 3A & 3B (CH3129 - CH3245) S3C-TS-2000E Bay 10 to Bay 13 Slip Road 3 Top Slab 15d 25/12/15 A 22/01/16 Bay 10 to Bay 13 Slip Road 3 Top Slab S3C-TS-2000E Bay 10 to Bay 13 Slip Road 3 Scaffold Removal 14d 23/01/16 05/02/16 Bay 10 to Bay 13 Slip Road 3 \$caffold Removal S3C-TS-2000E Bay 10 to Bay 13 Slip Road 3 Road Barrier 13d 06/02/16 18/02/16 Bay 10 to Bay 13 Slip Road 3 Road Barrier S3C-TS-2000L(Removal of 1st layer of strut/waling 9d 04/12/15 A 05/02/16 Removal of 1st layer of strut/waling S3C-TS-2000N Construction of Bay 10 Slip Road 3 Road Barrier 28/01/16 18/02/16 Construction of Bay 10 Slip Road 3 Road Barrier 7d Bay 14 CWB and Slip Road 3 Road Barrier S3C-TS-2030H Bay 14 CWB and Slip Road 3 Road Barrier 19/11/15 A 18/02/16 14d S3C-TS-2030K Backfilling to Road formation level from Bay 10 to Bay 14 12/01/16 A 05/02/16 Backfilling to Road formation level from Bay 10 to Bay 14 S3C-TS-2090C Bay 15,16 & 17 Slip Road 3 Road Barrier 25/01/16* 10/02/16 14d Bay 15,16 & 17 Slip Road 3 Road Barrier S3C-TS-2090D Bay 15,16 & 17 Slip Road 2 Road Barrier 25/01/16* 10/02/16 Bay 15,16 & 17 Slip Road 2 Road Barrier 14d S3C-TS-2110E Removal Scaffold at Bay 18 to 20 13/01/16 A 05/02/16 Removal Scaffold at Bay 18 to 20 17d S3C-TS-2110F Bay 18, 19 & 20 CWB, Slip Road 3 and Slip Road 2 Road Barrier 06/02/16 14/02/16 Bay 18, 19 & 20 CWB, Slip Road 3 and Slip Road 2 Road Barrier S3C-TS-2150 Backfilling up to Future Road Formation for Bay 19 - Bay20 32d 06/04/16 07/05/16 CEDD CONTRACT NO. HK/2009/01 Date Revision Checked Appro... Page 1 of 2 Remaining Work Summa... 15-Sep-15 Master Programme 6H Actual Work Wan Chai Development Phase II - Central-Wan Chai Bypass at HKCEC (Contract 1) Progress Updated on 20 Jan 2016 執ASK filters: 3-Month (Works), Summary Bar 3-Month Rolling Prog. Critical Remaining Work WORKS PROGRAMME Rev.4 - 3 Month Programme starting from 20/01/16 蘯Print on: 25/01/16 08:57

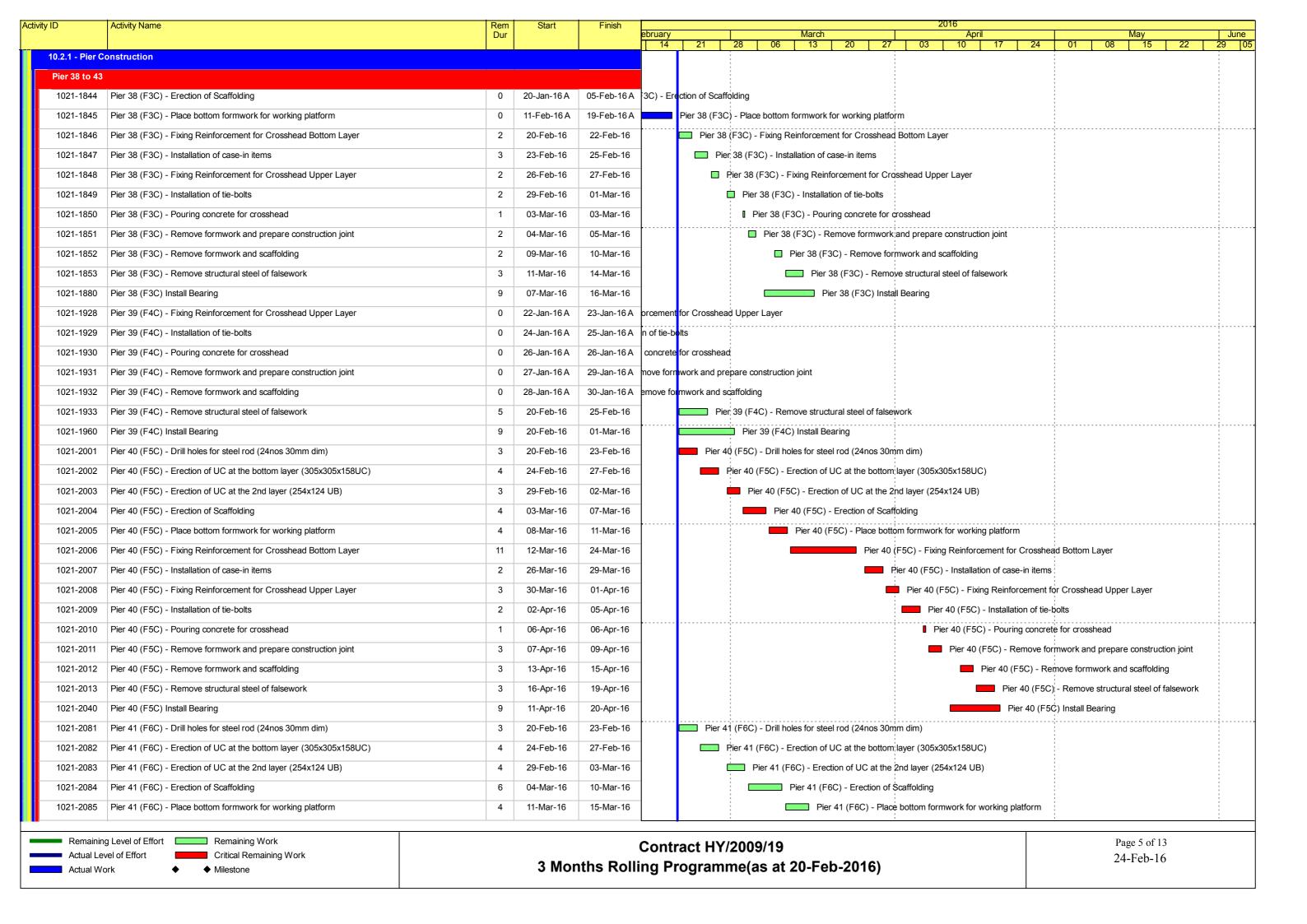
CEDD CONTRACT HK/2009/01 **CHUN WO - LEADER JOINT VENTURE** Activity ID Start Activity Name Finish Qtr 1 Qtr 2 Mar Jan Feb Apr Section 8 of the Works - Works in Area 6 (Utilities other than Watermains in Fenwick Pier Street) **Sewerage Works** S8-3010 Planter Reinstatement 29/07/15 A 05/02/16 Planter Reinstatement Road Reinstatement 05/02/16 S8-3020 21d 25/09/15 A Road Reinstatement Section 9 of the Works - Remaindar of the Works **Box Culvert Construction** S9-1070 Backfill the Temporary Water Channel from East to West (BG/BI Connection 30d 02/06/15 A 05/02/16 Backfill the Temporary Water Channel from East to West (BG/BI Connection Point at Water Chan Point at Water Channel) Reprovision of Expo Drive East Construction of Retaining Wall Extension to Top of Box Culvert Bay 7 01/03/16 01/02/16* Construction of Retaining Wall Extension to Top of Box Culvert B S9-2060 30d Waterworks in Area 9 **Abandaned Pipes Removal** S9-7090 Zone A4-4 Abandoned Pipes P7/P9 Removal Works 30d 14/10/15 A 01/02/16 Zone A4-4 Abandoned Pipes P7/P9 Removal Works S9-7100 05/02/16 Zone X1-4a Abandoned Pipes P5 Removal Works/ grouting Zone X1-4a Abandoned Pipes P5 Removal Works/ grouting 14d 27/10/15 A Variation Order No.153 - Design and Construct CWB Bypass Tunnel from CH3246 to CH3278 Works at Area 8 - CWB Tunnel, Slip Roads 2 & 3, Works in Area 8 CWB Tunnelling Works (Stage 4: Ch3246 - Ch3278) Stage 4 - Tunnel Structure Works (Bay 21 to Bay 22 : CH3246 - CH3278) S4-TS-0005 Pile Head Fabrication 15d 18/01/16 A 23/01/16 Pile Head Fabrication S4-TS-0010 Bay 21 Base Slab 18/01/16 A 28/01/16 Bay 21 Base Slab Bay 22 Base Slab 21/01/16 04/02/16 Bay 22 Base Slab S4-TS-0020 10d S4-TS-0030 Removal of 3rd and 4th layer of Strut/Waling 05/02/16 04/03/16 28d Removal of 3rd and 4th layer of Strut/Waling Bay 21 & 22 Wall S4-TS-0040 Bay 21 & 22 Wall 15d 05/03/16 20/03/16 S4-TS-0050 Bay 21 & 22 Wall & OHVD Base Slab 15d 21/03/16 04/04/16 Bay 21 & 22 Wall S4-TS-0060 Bay 21 & 22 OHVD Wall Stem and Top Slab 15d 05/04/16 20/04/16 CEDD CONTRACT NO. HK/2009/01 Date Revision Checked Appro... Page 2 of 2 Remaining Work Summa... 15-Sep-15 Master Programme 6H Actual Work Wan Chai Development Phase II - Central-Wan Chai Bypass at HKCEC (Contract 1) Progress Updated on 20 Jan 2016 執ASK filters: 3-Month (Works), Summary Bar 3-Month Rolling Prog. Critical Remaining Work WORKS PROGRAMME Rev.4 - 3 Month Programme starting from 20/01/16 Milestone 蘯Print on: 25/01/16 08:57



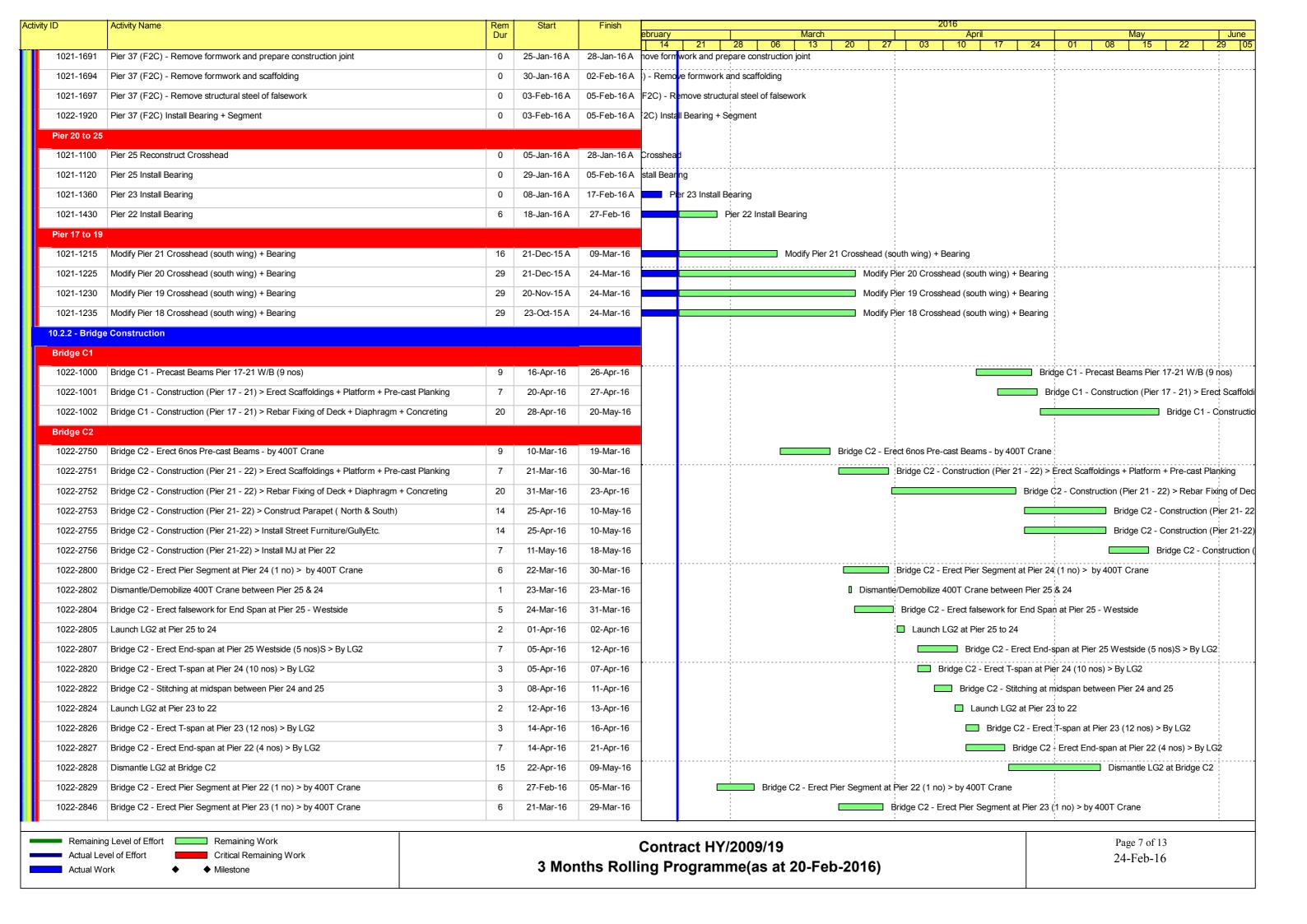


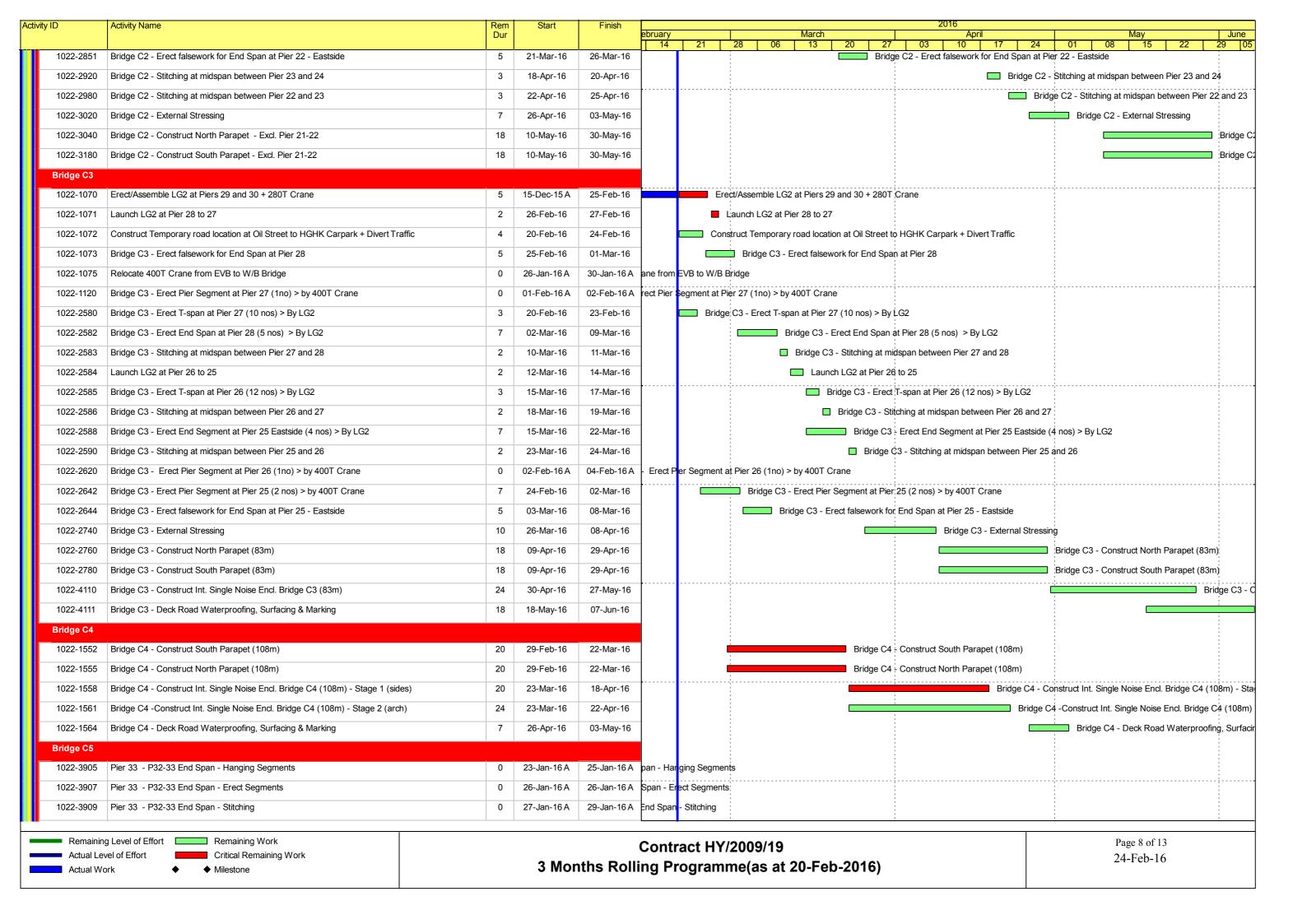


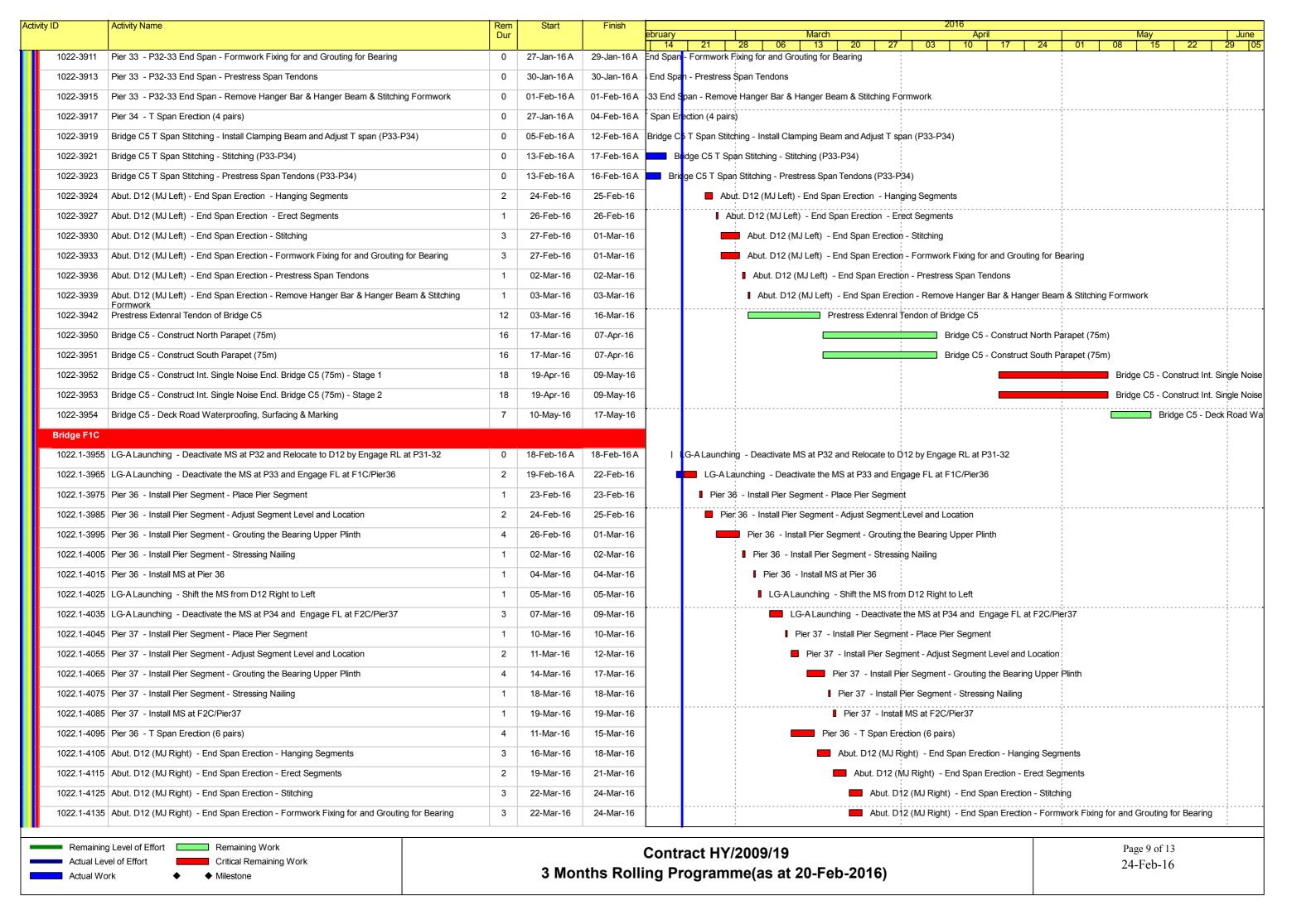


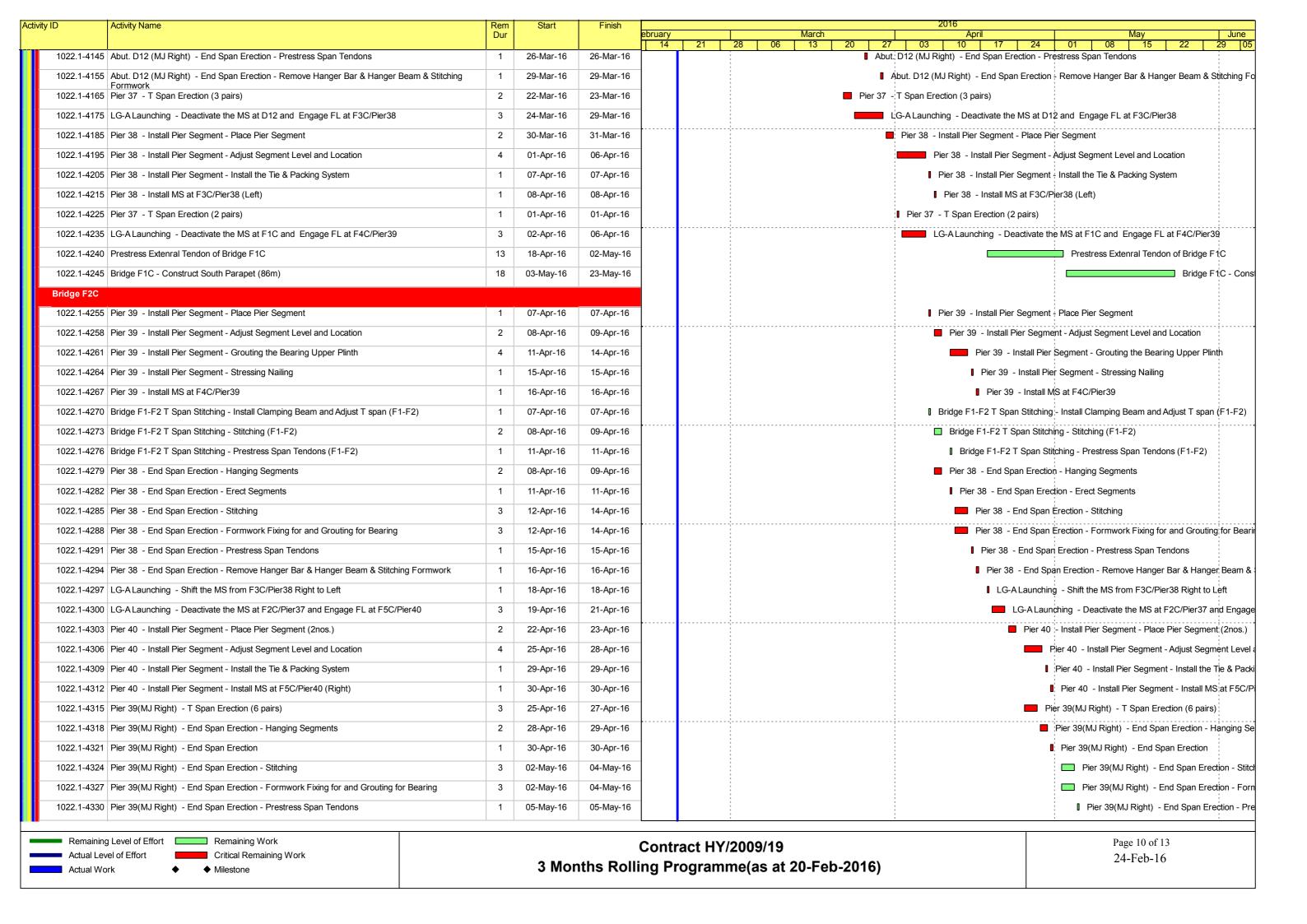


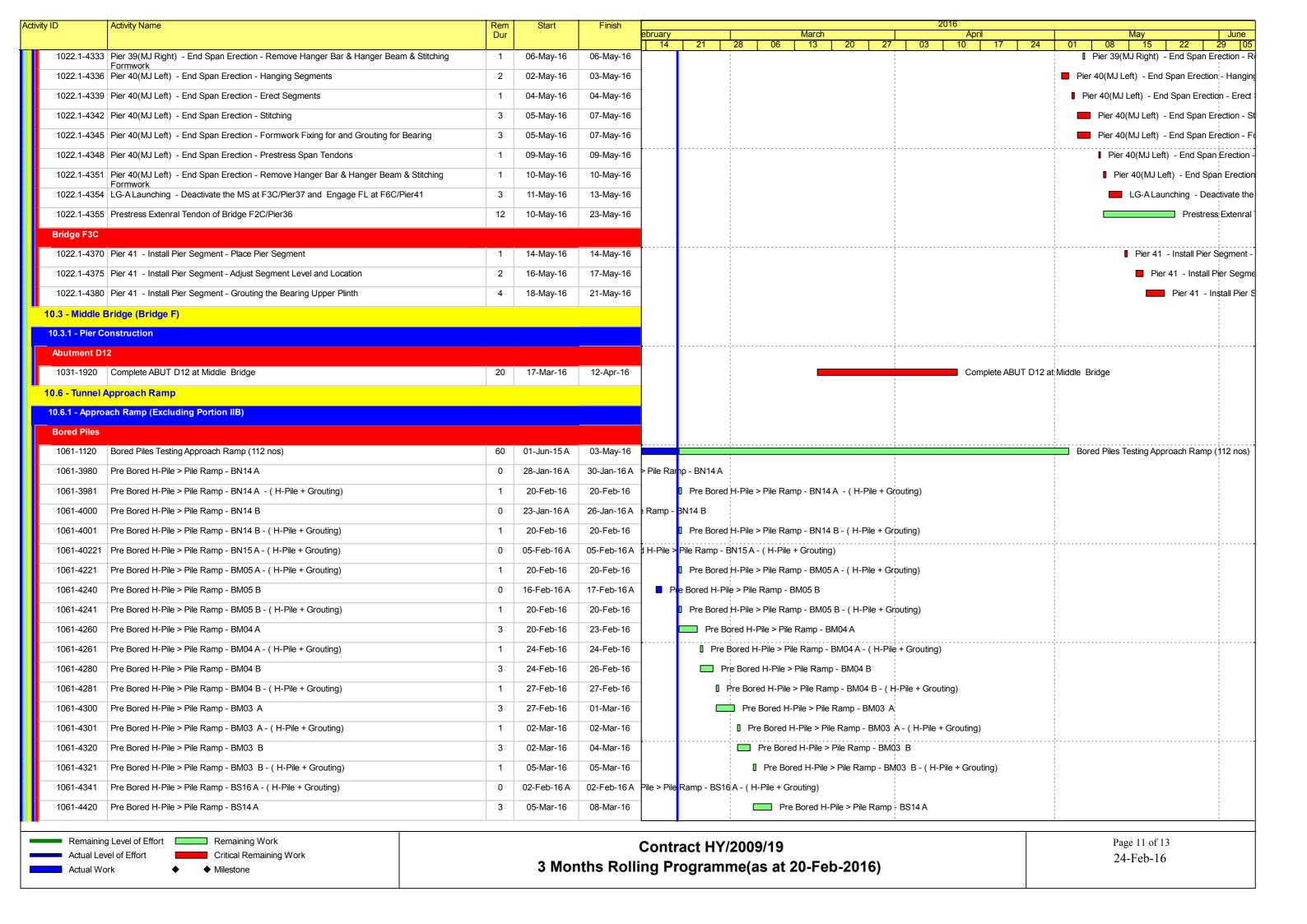
ID	Activity Name	Rem Dur	Start	Finish	ebruary	2016 March April May Jur
1021-2086	Pier 41 (F6C) - Fixing Reinforcement for Crosshead Bottom Layer	2	16-Mar-16	17-Mar-16	14 2	1 28 06 13 20 27 03 10 17 24 01 08 15 22 29 ☐ Pier 41 (F6C) - Fixing Reinforcement for Crosshead Bottom Layer
1021-2087	Pier 41 (F6C) - Installation of case-in items	3	18-Mar-16	21-Mar-16	-	Pier 41 (F6¢) - Installation of case-in items
1021-2088	Pier 41 (F6C) - Fixing Reinforcement for Crosshead Upper Layer	2	22-Mar-16	23-Mar-16	-	☐ Pier 41 (F6C) - Fixing Reinforcement for Crosshead Upper Layer
1021-2089	Pier 41 (F6C) - Installation of tie-bolts	2	24-Mar-16	26-Mar-16	-	Pier 41 (F6C) - Installation of tie-bolts
1021-2090	Pier 41 (F6C) - Pouring concrete for crosshead	2	29-Mar-16	30-Mar-16	-	Pier 41 (F6C) - Pouring concrete for crosshead
1021-2091	Pier 41 (F6C) - Remove formwork and prepare construction joint	2	31-Mar-16	01-Apr-16		☐ Pier 41 (F6C) - Remove formwork and prepare construction joint
1021-2092	Pier 41 (F6C) - Remove formwork and scaffolding	2	07-Apr-16	08-Apr-16	-	☐ Pier 41 (F6C) - Remove formwork and scaffolding
1021-2093	Pier 41 (F6C) - Remove structural steel of falsework	3	09-Apr-16	12-Apr-16	-	Pier 41 (F6C) - Remove structural steel of falsework
1021-2120	Pier 41 (F6C) Install Bearing	9	02-Apr-16	13-Apr-16	-	Pier 41 (F6C) Install Bearing
1021-2161	Pier 42 (F7C) - Drill holes for steel rod (24nos 30mm dim)	2	03-Mar-16	04-Mar-16	-	Pier 42 (F7C) - Drill holes for steel rod (24nos 30mm dim)
1021-2162	Pier 42 (F7C) - Erection of UC at the bottom layer (305x305x158UC)	9	05-Mar-16	15-Mar-16		Pier 42 (F7C) - Erection of UC at the bottom layer (305x305x158UC)
1021-2163		4	16-Mar-16	19-Mar-16	-	Pier 42 (F7C) - Erection of UC at the 2nd layer (254x124 UB)
	Pier 42 (F7C) - Erection of UC at the 2nd layer (254x124 UB)	3		23-Mar-16	_	
1021-2164	Pier 42 (F7C) - Erection of Scaffolding		21-Mar-16		-	Pier 42 (F7C) - Erection of Scaffolding
	Pier 42 (F7C) - Place bottom formwork for working platform	4	24-Mar-16	30-Mar-16		Pier 42 (F7C) - Place bottom formwork for working platform
	Pier 42 (F7C) - Fixing Reinforcement for Crosshead Bottom Layer	2	31-Mar-16	01-Apr-16		☐ Pier 42 (F7C) - Fixing Reinforcement for Crosshead Bottom Layer
1021-2167	Pier 42 (F7C) - Installation of case-in items	3	02-Apr-16	06-Apr-16		Pier 42 (F7C) - Installation of case-in items
	Pier 42 (F7C) - Fixing Reinforcement for Crosshead Upper Layer	2	07-Apr-16	08-Apr-16		☐ Pier 42 (F7C) - Fixing Reinforcement for Crosshead Upper Layer
1021-2169	Pier 42 (F7C) - Installation of tie-bolts	2	09-Apr-16	11-Apr-16		Pier 42 (F7C) - Installation of tie-bolts
1021-2170	Pier 42 (F7C) - Pouring concrete for crosshead	2	12-Apr-16	13-Apr-16		☐ Pier 42 (F7C) - Pouring concrete for crosshead
1021-2171	Pier 42 (F7C) - Remove formwork and prepare construction joint	2	14-Apr-16	15-Apr-16		☐ Pier 42 (F7C) - Remove formwork and prepare construction joint
1021-2172	Pier 42 (F7C) - Remove formwork and scaffolding	1	20-Apr-16	20-Apr-16		Pier 42 (F7C) - Remove formwork and scaffolding
1021-2173	Pier 42 (F7C) - Remove structural steel of falsework	2	21-Apr-16	22-Apr-16		Pier 42 (F7C) - Remove structural steel of falsework
1021-2200	Pier 42 (F7C) Install Bearing	9	16-Apr-16	26-Apr-16		Pier 42 (F7C) Install Bearing
1021-2241	Pier 43 (F8C) - Drill holes for steel rod (24nos 30mm dim)	2	21-Mar-16	22-Mar-16		Pier 43 (F8C) - Drill holes for steel rod (24nos 30mm dim)
1021-2242	Pier 43 (F8C) - Erection of UC at the bottom layer (305x305x158UC)	5	23-Mar-16	30-Mar-16		Pier 43 (F8C) - Erection of UC at the bottom layer (305x305x158UC)
1021-2243	Pier 43 (F8C) - Erection of UC at the 2nd layer (254x124 UB)	3	31-Mar-16	02-Apr-16		Pier 43 (F8C) - Erection of UC at the 2nd layer (254x124 UB)
1021-2244	Pier 43 (F8C) - Erection of Scaffolding	3	05-Apr-16	07-Apr-16		Pier 43 (F8C) - Erection of Scaffolding
1021-2245	Pier 43 (F8C) - Place bottom formwork for working platform	5	08-Apr-16	13-Apr-16		Pier 43 (F8C) - Place bottom formwork for working platform
1021-2246	Pier 43 (F8C) - Fixing Reinforcement for Crosshead Bottom Layer	1	14-Apr-16	14-Apr-16		
1021-2247	Pier 43 (F8C) - Installation of case-in items	3	15-Apr-16	18-Apr-16		Pier 43 (F8C) - Installation of case-in items
1021-2248	Pier 43 (F8C) - Fixing Reinforcement for Crosshead Upper Layer	2	19-Apr-16	20-Apr-16		☐ Pier 43 (F8C) - Fixing Reinforcement for Crosshead Upper
1021-2249	Pier 43 (F8C) - Installation of tie-bolts	1	21-Apr-16	21-Apr-16		Pier 43 (F8C) - Installation of tie-bolts
1021-2250	Pier 43 (F8C) - Pouring concrete for crosshead	2	22-Apr-16	23-Apr-16		☐ Pier 43 (F8C) - Pouring concrete for crosshead
1021-2251	Pier 43 (F8C) - Remove formwork and prepare construction joint	2	25-Apr-16	26-Apr-16		☐ Pier 43 (F8C) - Remove formwork and prepare con
1021-2252	Pier 43 (F8C) - Remove formwork and scaffolding	3	30-Apr-16	03-May-16		Pier 43 (F8C) - Remove formwork and so
1021-2253	Pier 43 (F8C) - Remove structural steel of falsework	2	04-May-16	05-May-16	 	☐ Pier 43 (F8C) - Remove structural ste
1021-2290	Pier 43 (F8C) Install Bearing	9	27-Apr-16	06-May-16		Pier 43 (F8C) Install Bearing
Pier 36 to 37						
1021-1640	Pier 36 (F1C) Install Bearing	0	11-Jan-16 A	26-Jan-16 A	aring	
	ļ					
	g Level of Effort Remaining Work				Contract	HY/2009/19 Page 6 of 13
Actual Le	ovel of Effort Critical Remaining Work		0.14			ramme(as at 20-Feb-2016)

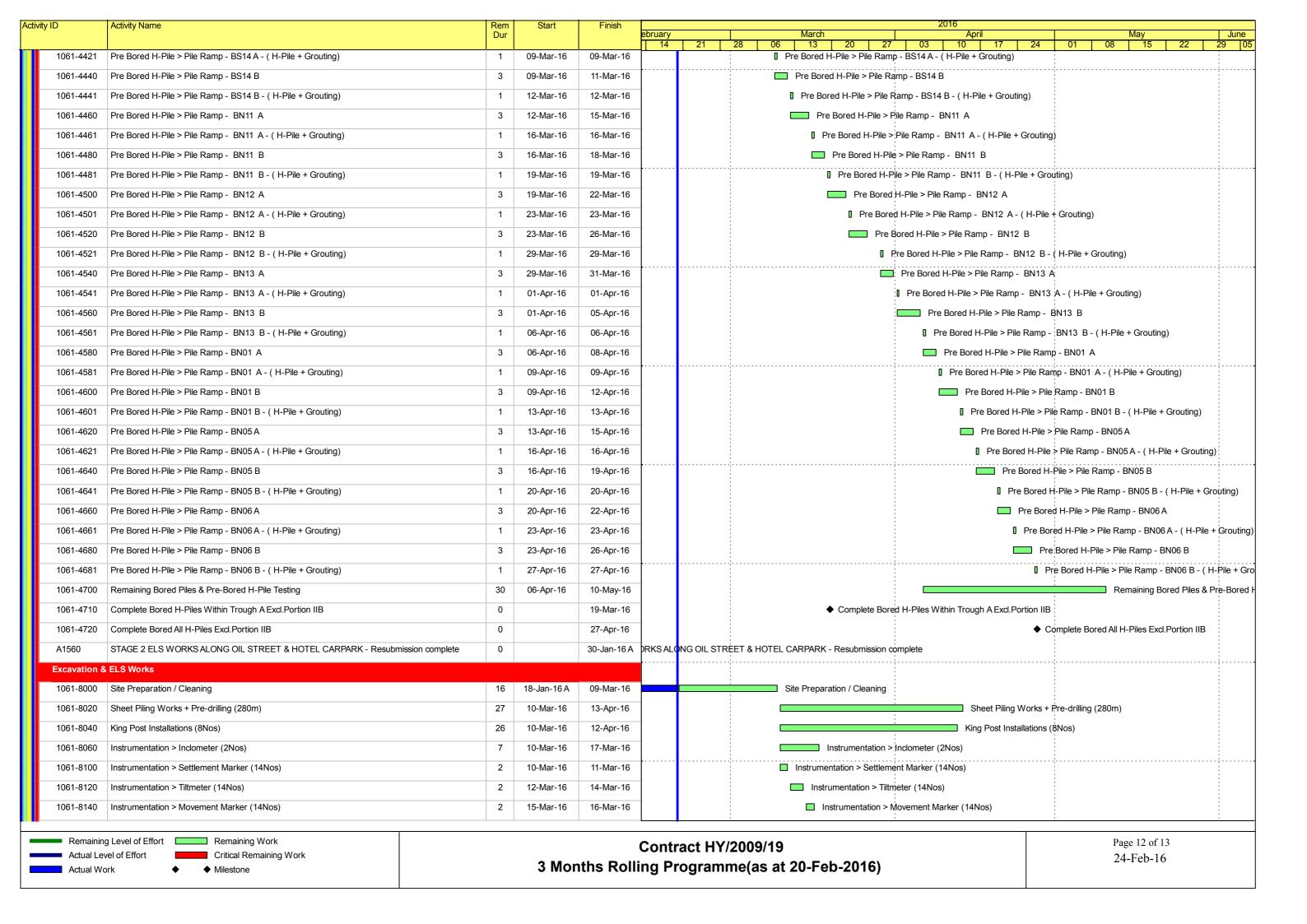


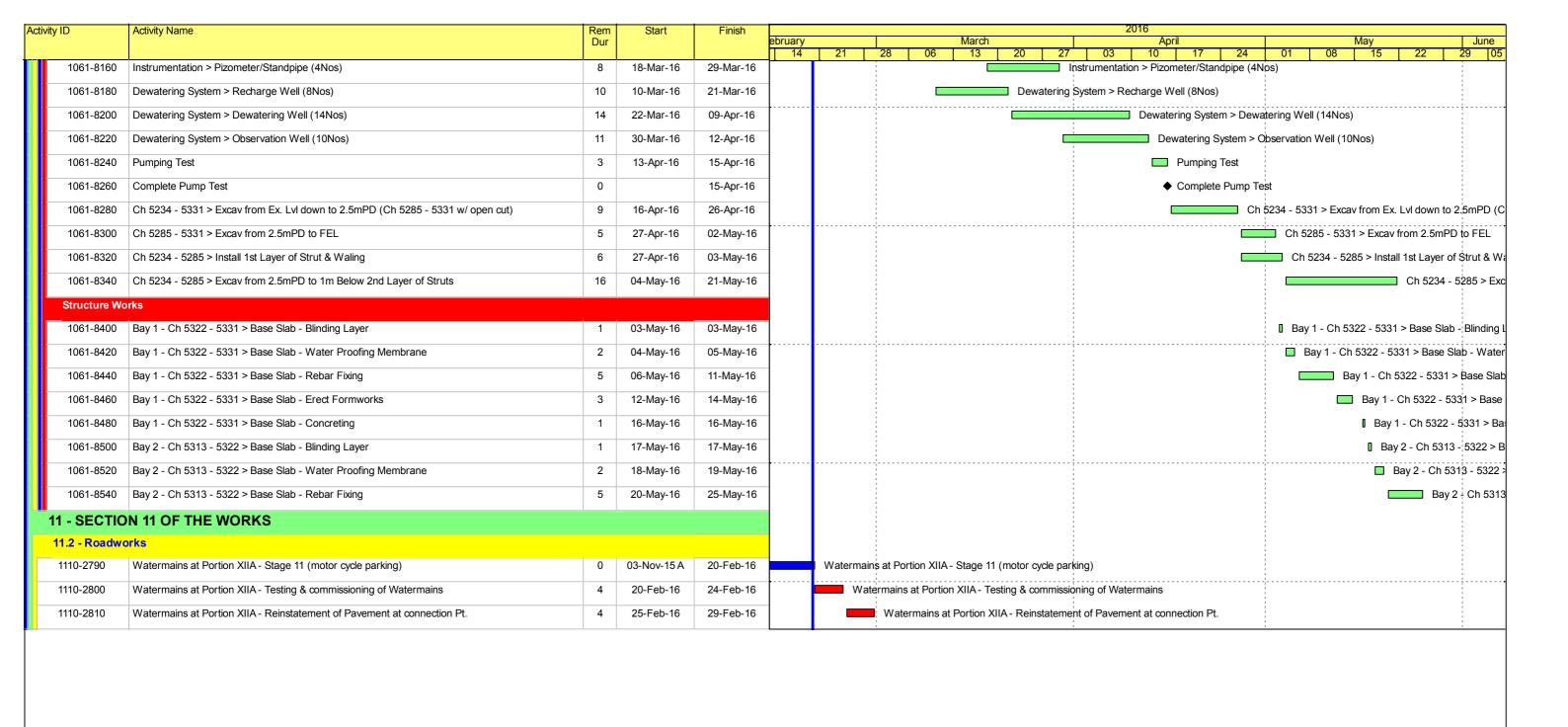




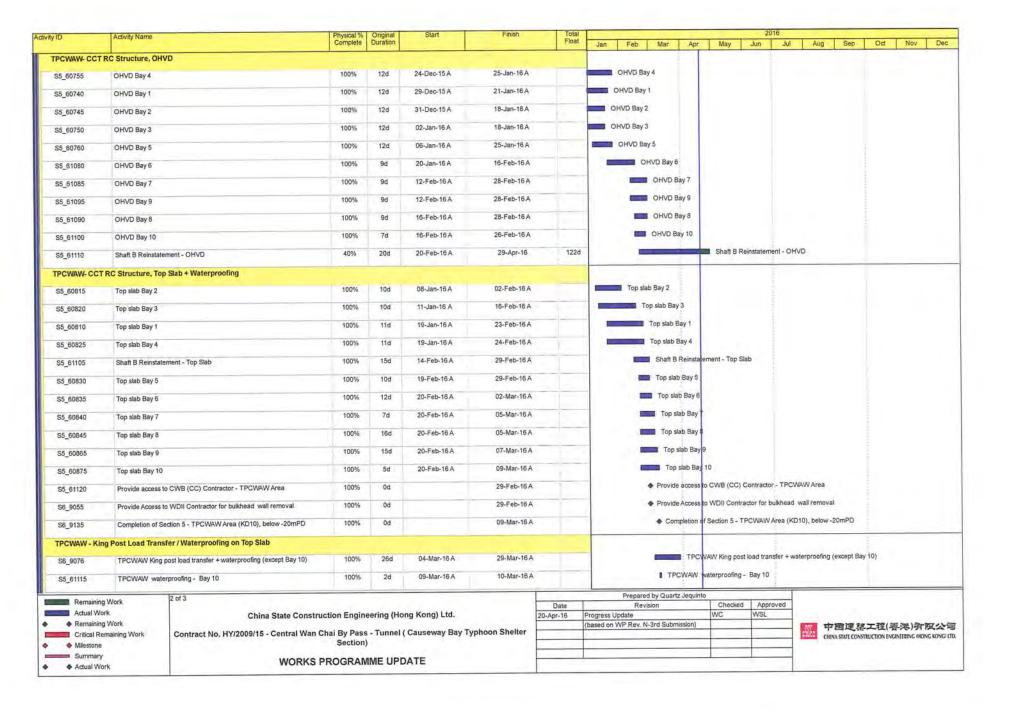








7				CAAD - M	1U67 Programme	Layeut											28-A	Apr-16 18
ity ID	Activity Name	Physical % Complete	Original Duration	Start	Finish	Total Float						_	016					
Y/2009/15 -	-Works Programme Update 20 April 2016						Jai	in F	eb Ma	г Ар	r May	Jun	Jul	Aug	Sep	Oct	Nov	De
Stage and Se	ection Completion									-			_					
KD_5745	KD10 - Completion of Section 5, (1863d)	100%	0d		25-Mar-16	4				◆ KD10	Completion of	f Section 5,	(1863d)					
KD_5740	KD9 - Completion of Section 4, (1739d)	0%	0d		22-Jul-16*	-385d							•	KD9 - Com	pletion of S	ection 4, (17	739d)	
KD_5750	KD11 - Completion of Section 6, (1949d)	0%	0d	11	30-Aug-16	-214d										Completion of		16, (19
TPCWAW			211															-
TPCWAW ELS	Works - East Section		_		_	_							1			_		_
S6_6180	East excavation to formation	100%	85d	18-Sep-15 A	24-Dec-15	4	East ex	xcavation	to formation									
S5_61070	Demolition of bulkhead wall TPCWAE/TPCWAW	100%	34d	06-Dec-15 A	09-Jan-16 /		- 0	Demolition	of bulkhead	wall TPCV	/AE/TPCWAV	v						
TPCWAW-CCT	RC Structure, Base Slab						-					_	-					_
S5_60600	Waterproofing + Base slab Bay 1 (incl. removal of 7th layer struts after casting of base slab)	100%	15d	03-Dec-15 A	23-Dec-15	4	Vaterp	proofing +	Base slab B	ay 1: (incl. r	emoval of 7th	layer struts	after castin	ng of base s	slab)			
S5_60620	Waterproofing + Base slab Bay 5	100%	11d	05-Dec-15 A	29-Dec-15	4	Wate	erproofing	+ Base slab	Bay 5								
S5_60625	Waterproofing + Base slab Bay 6	100%	11d	16-Dec-15 A	19-Jan-16 A			Water	roofing + Ba	ise slab Ba	y 6							
S5_60630	Waterproofing + Base slab Bay 7	100%	7d	07-Jan-16 A	05-Feb-167	A		v	/aterproofin	g + Base s	lab Bay 7							
S5_60635	Waterproofing + Base slab Bay 8	100%	6d	12-Jan-16 A	05-Feb-16 A			v	/aterproofing	g + Base s	lab Bay 8							
S5_61065	Waterproofing + Base slab Bay 9 (stitching with TPCWAE)	100%	6d	15-Jan-16 A	05-Feb-187	¥		v	Vaterproofing	g + Base s	ab Bay 9 (stite	hing with Ti	PCWAE)					
TPCWAW-CCT	RC Structure, Wall																	
S5_60675	Wall Bay 2 (+ repropping and removal of 5th & 6th struts)	100%	10d	10-Dec-15 A	05-Jan-16 A		w.	all Bay 2 (+ repropping	and remo	val of 5th & 6t	h struts)						
S5_60680	Wall Bay 3 (+ repropping and removal of 5th & 6th struts)	100%	21d	10-Dec-15 A	07-Jan-16 A		w w	Vall Bay 3	+ reproppin	g and rem	oval of 5th & 6	th struts)						
S5_60670	Wall Bay 1 (+ repropping and removal of 5th & 6th struts)	100%	21d	15-Dec-15 A	10-Jan-16 A		- v	Wall Bay 1	(+ reproppir	ng and ren	oval of 5th &	6th struts)						
\$5_60685	Wall Bay 4 (+ repropping and removal of 5th & 6th struts)	100%	22d	20-Dec-15 A	11-Jan-16 A		- 1	Wall Bay	(+ reproppi	ng and rer	noval of 5th &	6th struts)						
S5_60690	Wall Bay 5 (+ removal of 5th strut)	100%	10d	02-Jan-16 A	29-Jan-16 A			Wa Wa	Bay 5 (+ re	moval of 5	th strut)							
S5_60695	Wall Bay 6 (+ removal of 5th strut)	100%	7d	21-Jan-16 A	25-Feb-16 A				Wall B	ay 6 (+ ren	noval of 5th st	rut)						
S5_60700	Wall Bay 7 (+ removal of 5th strut)	100%	8d	16-Feb-16 A	25-Feb-16 A				Wall B	ay 7 (+ ren	noval of 5th st	rut)						
S5_60705	Wall Bay 8 (+ removal of 5th strut)	100%	9d	16-Feb-16 A	25-Feb-16 A				Wall B	ay 8 (+ rer	noval of 5th st	rut)						
S5_61075	Wall Bay 9 (+ removal of 5th strut)	100%	8d	16-Feb-16 A	25-Feb-16 A				Wall B	ay 9 (+ ren	noval of 5th st	rut)						
TPCWAW -Main	ntenance Walkway											-						
\$6_9085	TPCWAW - Maintenance walkway / profile barrier	100%	23d	20-Dec-15 A	23-Mar-16 A					TPCW	W - Maintena	nce walkwa	y / profile b	parrier				
	Work 1 of 3						_											
Remaining Actual Worl	***************************************					Date			ared by Qua evision	rtz Jequint	Checked	Appro	ved					
• Remaining	China State Constru	ction Engine	ering (Hon	g Kong) Ltd.		20-Apr-16 P		s Update			WC	WSL						
	naining Work Contract No. HY/2009/15 - Central Wan C	hai By Page	- Tunnel /	Causeway Ray Tunk	noon Shalter	(1	pased or	n WP Re	N-3rd Sub	mission)								
♦ Milestone	- Schiller Wall	Section)	, anner (outserray Day Typi	John Sheller				1 1 1 1 1			1						
Summary		21.70							_									
Actual Worl	k WORKS F	ROGRAMI	ME UPD	ATE														
			the state of the s															



tivity ID	Activity Name	Physical %		Start	Finish	Total						21	016					
		Complete	Duration			Float	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
TPCWAW Ren	moval of Temporary Reclamation																	
S6_9140	Backfilling/Removal of ELS + Re charge water	0%	25d	30-Mar-16 A	07-May-16	-379d					Back	filling/Remov	val of ELS	+ Re charg	ge water			
S6_9105	Remove general fill/ seawall block (concurrent activities)	0%	25d	08-May-16	01-Jun-16	-379d				i I		Remove	e general	fill/ seawall !	block (conc	urrent activ	rities)	
S6_9120	Saw cut diaphragm wall	0%	102d	21-May-16	30-Aug-16*	-379d				Ē.					Saw cut	diaphragn	n wall	
\$6_7550	Completion of Section 6- (KD11), above - 20mPD	0%	0d		30-Aug-16	-214d				1					Comple	tion of Sec	tion 6- (KD	(11), abo
Works in Por	tion 11 under KD9 (incl. Reinstatement of Vertical Seawall)									1						1		
S6_9144	Reinstate vertical seawall (by marine plant)	0%	24d	18-Jun-16	15-Jul-16	-325d				1			R	einstate ver	tical seaws	ill (by marir	ne plant)	
S6_9147	Reinstate ground level at Portion 11	0%	6d	16-Jul-16	22-Jul-16	-325d								Reinstate	ground leve	at Portion	11	
S6_9148	Completion of KD9- Works in Portion 11	0%	Od		22-Jul-16	-385d				1				Completion	n of KD9- V	Vorks in Po	ortion 11	

1		Remaining Work
-		Adual Work
•		Remaining Work
	-	Critical Remaining Work
•	•	Milestone
	_	Summary
		Actual Work

3 of 3

China State Construction Engineering (Hong Kong) Ltd.

Contract No. HY/2009/15 - Central Wan Chai By Pass - Tunnel (Causeway Bay Typhoon Shelter Section)

WORKS	PROGRAMME	UPDATE
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Date	Revision	Checked	Approved
20-Apr-16	Progress Update	WC	WSL
	(based on WP Rev. N-3rd Submission)		

t	中國建
а	CHINA STATE CO

禁工程(事業)介限公司 CONSTRUCTION ENGINEERING HONG KONG LITE

	Activity Name	Ori Dur	Dur	Scheduled/ Actual Start	Scheduled/ Actual Finish	Total Float	Calendar	April			May				June	-		July
			1	The State of the S	100000000000000000000000000000000000000				17 24	01	08 15	22	29	05		26		1 10
9B-T34-B1-1030	A STATE OF THE STA	1	0	31-Mar-16 A	31-Mar-16 A		Calendar Day	I Base Slab - Concrete										
9B-T34-B1-1040	•	5	0	01-Apr-16 A	06-Apr-16 A		Calendar Day	Base Slab - Curing						1 1			1	1
S9B-T34-B1-1050	Wall (North) - Waterproofing & Working Platform	5	5	22-Apr-16	25-Apr-16	-542	Calendar Day		Wa Wa	II (North) - W.	aterproofing & We	orking Platfo	orm, Wall (1	North) - Water	roofing & Work	king Platform		4
S9B-T34-B1-1060	Wall (North) - Rebar Fixing	3	3	26-Apr-16	28-Apr-16	-542	Calendar Day				- Rebar Fixing, V						1	1
S9B-T34-B1-1070	Wall (North) - Formwork	2	2	29-Apr-16*	30-Apr-16	-542	Calendar Day				rth) - Formwork, \				4	1	1	1
S9B-T34-B1-1080	Wall (North) - Concrete	1	1	01-May-16	01-May-16	-531	Calendar Day				orth) - Concrete,						1	1
S9B-T34-B1-1090	Wall (North) - Curing & Formwork Dismantling	3	3	02-May-16	04-May-16	-531	Calendar Day				all (North) - Curing				h) - Curina & F	ormiwork Dier	mantling	1
S9B-T34-B1-1100	Wall (South) - Waterproofing & Working Platform	3	3	22-Apr-16	24-Apr-16	-538	Calendar Day		Wall		terproofing & Wo							, {
S9B-T34-B1-1110	Wall (South) - Rebar Fixing	3	3	25-Apr-16	27-Apr-16	-538	Calendar Day				- Rebar Fixing, W	4	1	1	looning & Work	ing i lation	1	1
S9B-T34-B1-1120	Wall (South) - Formwork	2	2	01-May-16	02-May-16	-542	Calendar Day		1 -		South) - Form wor	1	7	1		3	1	Ē
S9B-T34-B1-1130	Wall (South) - Concrete	1	1	03-May-16	03-May-16	-526	Calendar Day				(South) - Concre	4	1.	-1	1		1	
S9B-T34-B1-1140	Wall (South) - Curing & Formwork Dismantling	3	3	04-May-16	06-May-16	-526	Calendar Day		3		A CONTRACTOR OF THE PARTY OF TH					0.5		1
S9B-T34-B1-1150		5	5	22-Apr-16	25-Apr-16	-536	Calendar Day		100		Wall (South) - Cu						Dismantling	
S9B-T34-B1-1160		2	2	01-May-16	02-May-16	-542	Calendar Day		vva		ebar Fixing & Wo				Fixing & Worki	ing Platform		1
A THE RESERVE TO SERVE THE RESERVE TO SERVE THE RESERVE THE RESERV	Wall (Middle) - Concrete	- 1	1	03-May-16	03-May-16	-542			1		Middle) - Formwo				1	1	1	1
S9B-T34-B1-1180		3	3				Calendar Day	1 1 1 1	1		(Middle) - Concre	1	1	A P.	1			1
S9B-T34-B1-1185			-	04-May-16	06-May-16	-542	Calendar Day		1		Wall (Middle) - Ci					g & Formwark	Dismantlin	ng
S9B-T34-B1-1190		8	8	07-May-16	13-May-16	-542	Calendar Day				*********			Construct Roa				
	The state of the s	8	8	14-May-16	20-May-16	-542	Calendar Day		1			OHVDE	Base Slab (North) - Scaffo	Iding Erection,	OHVD Base	Slab (North	n) - Scaffc
S9B-T34-B1-1200		8	8	21-May-16	27-May-16	-526	Calendar Day						OHVDE	ase Slab (Nor	th) - Formwork	& Rebar Fixir	nġ, OHVD E	Base Slab
S9B-T34-B1-1210	, , , , , , , , , , , , , , , , , , , ,	16	16	28-May-16	10-Jun-16	-526	Calendar Day		1		1			0	HVD Base Slat	b (North) - Co	oricrete & C	uring, OH
S9B-T34-B1-1220		8	8	11-Jun-16	17-Jun-16	-526	Calendar Day		1	3		4		=	OHVE	Base Slab (I	North) - Har	nger Wall
S9B-T34-B1-1230	100000000000000000000000000000000000000	8	8	14-May-16	20-May-16	-534	Calendar Day		1			OHVD E	Base Slab (South) - Scaffe	olding Erection,	OHVD Base	Slab (South	th) - Scaff
S9B-T34-B1-1240		8	8	21-May-16	27-May-16	-526	Calendar Day		-				OHVDE	ase Slab (Sou	th) - Formwork	& Rebar Fixi	ng, OHVD I	Base Sla
S9B-T34-B1-1250	OHVD Base Slab (South) - Concrete & Curing	16	16	28-May-16	10-Jun-16	-526	Calendar Day							0	HVD Base Stat	b (South) - Co	oncrete & C	Suring, OF
S9B-T34-B1-1260	OHVD Base Slab (South) - Hanger Wall & Scaffolding to Roof	8	8	31-May-16	06-Jun-16	-513	Calendar Day		i		1	i		OHVD I	Base Slab (Sou	th) - Hanger	Wall & Scal	affolding to
S9B-T34-B1-1270	Roof - Waterproofing	8	8	11-Jun-16	17-Jun-16	-526	Calendar Day		1			1		i .	Roof -	Waterproofin	a. Roof - W	Waterproo
S9B-T34-B1-1280	Roof - Rebar Fixing & Formwork	14	14	18-Jun-16	29-Jun-16	-526	Calendar Day		1		1	1	4 1	1 1			loof - Rebar	*
S9B-T34-B1-1290	Roof - Concrete	1	1	30-Jun-16	30-Jun-16	-526	Calendar Day		******		********	•••					Roof - Con	
S9B-T34-B1-1300	Roof - Curing	16	16	01-Jul-16	14-Jul-16	-526	Calendar Day				İ	1	3	1 1	1		11001 - 0011	IOICIC, NO
S9B-T34-B1-1310	Roof - Scaffolding Disman tling	8	8	15-Jul-16	21-Jul-16	-291	Calendar Day			1		Ť	1					
Bay 2									1			1		1 1		1		4
S9B-T34-B2-1050	Wall (North) - Waterproofing & Working Platform	5	5	22-Apr-16	25-Apr-16	-534	Calendar Day		Wa Wa	II (North) - W	aterproofing & Wo	orking Platfo	orm, Wall (N	lorth) - Waterp	roofing & Work	king Platform	į.	1
S9B-T34-B2-1060	Committee and the second	3	3	26-Apr-16	28-Apr-16	-534	Calendar Day			Wall (North)	-Rebar Fixing, V	Vall (North)	- Rebar Fix	ing	******			1
S9B-T34-B2-1070	Wall (North) - Formwork	2	2	29-Apr-16*	30-Apr-16	-534	Calendar Day		4 4	Wall (No	rth) - Formwork, \	Wall (North)	- Formwor	k!	3	1	1	1
S9B-T34-B2-1080	Wall (North) - Concrete	1	1	01-May-16	01-May-16	-531	Calendar Day			■ Wall (N	orth) - Concrete,	Wall (North)) - Concrete	1	- 1	4	1	1
S9B-T34-B2-1090	Wall (North) - Curing & Formwork Dismantling	3	3	02-May-16	04-May-16	-531	Calendar Day		4	wa wa	all (North) - Curing	& Formwor	rk Dismant	ing, Wall (Nor	h) - Curing & F	ormwork Disr	mantling	i .
S9B-T34-B2-1100	Wall (South) - Waterproofing & Working Platform	3	3	22-Apr-16	24-Apr-16	-530	Calendar Day		Wall		terproofing & Wo							1
S9B-T34-B2-1110	Wall (South) - Rebar Fixing	3	3	25-Apr-16	27-Apr-16	-530	Calendar Day				Rebar Fixing, W							4
S9B-T34-B2-1122	Wall (South) - Formwork	2	2	01-May-16	02-May-16	-534	Calendar Day		1 1	1	South) - Formwor	1	1	1	1	3	1	1
S9B-T34-B2-1130	Wall (South) - Concrete	1	1	03-May-16	03-May-16	-534	Calendar Day		1		(South) - Concre	1					1	1
S9B-T34-B2-1140	Wall (South) - Curing & Formwork Dismantling	3	3	04-May-16	06-May-16	-534	Calendar Day		1		Wall (South) - Cu				and Comme	0.5		
The second secon	Wall (Middle) - Rebar Fixing & Working Platform	5	5	22-Apr-16	25-Apr-16	-528	Calendar Day		W/s		ebar Fixing & Wo						Dismantling	3
	Wall (Middle) - Formwork	2	2	01-May-16	02-May-16	-534	Calendar Day		vv a						Fixing & Worki	ing Platform	4	4
	Wall (Middle) - Concrete	1	1		+	-534			1		Middle) - Formwo				4		1	\$
S9B-T34-B2-1180		2	- 5	03-May-16	03-May-16		Calendar Day				(Middle) - Concre	- 4						1
S9B-T34-B2-1185		3	3	04-May-16	06-May-16	-534	Calendar Day		3		Wall (Middle) - Ci	1		1			Dismantlin	ng
	A COLOR OF THE COL	8	8	07-May-16	13-May-16	-534	Calendar Day			-	Constr			100000000000000000000000000000000000000	dside Barriers		1	1
S9B-T34-B2-1200		8	8	21-May-16	27-May-16	-542	Calendar Day						OHVDE	ase Slab (Nor	th) - Formwork	& Rebar Fixir	ng, OHVD E	Base Slat
S9B-T34-B2-1210	, ,	16	16	28-May-16	10-Jun-16	-526	Calendar Day				1			0	HVD Base Slat	b (North) - Co	oricrete & C	uring, OF
S9B-T34-B2-1220		8	8	11-Jun-16	17-Jun-16	-526	Calendar Day		1		: B	1		-	OHVE	Base Slab (North) - Har	inger Wal
S9B-T34-B2-1230		8	8	21-May-16	27-May-16	-542	Calendar Day		1			-	OHVD	ase Slab (Sou	th) - Scaffoldin	g Erection, O	HVD Base	\$lab (So
S9B-T34-B2-1240		8	8	28-May-16	03-Jun-16	-542	Calendar Day					1		OHVD Base	Slab (South) -	Formwork &	Rebar Fixir	ng, OHVE
S9B-T34-B2-1241	OHVD Base Slab (South) - Concrete & Curing	16	16	04-Jun-16	17-Jun-16	-542	Calendar Day								OHVE	Base Slab (Sputh) - Co	oncrete &
S9B-T34-B2-1250	OHVD Base Slab (South) - Hanger Wall & Scaffolding to Roof	8	8	18-Jun-16	24-Jun-16	-542	Calendar Day									OHVD B		
S9B-T34-B2-1260	OHVD Base Slab (North) - Scaffolding Erection	8	8	14-May-16	20-May-16	-542	Calendar Day					OHVDE	Base Slab (North) - Scaffe	Iding Erection,	1		
S9B-T34-B2-1270	Roof - Waterproofing	8	8	25-Jun-16	01-Jul-16	-542	Calendar Day		3	3	1	1	1)			Roof - Wa	1
S9B-T34-B2-1280	Roof - Rebar Fixing & Formwork	14	14	02-Jul-16	13-Jul-16	-542	Calendar Day		1			4	3	1 1	1		1	1
	The state of the s	1.7	1.3					T.								-10		

Current Works

Critical Works

Remaining Level of Effort

CHUN WO - CRGL JOINT VENTURE CEDD CONTRACT NO. HK/2009/02

WD II - Central Wanchai Bypass at Wan Chai East (Contract 2)
3-MONTH ROLLING PROGRAMME (dd 20-Apr-16)

1104131011	OHECKEU	Approved
	Revision	ACVISION OFFICERED

CEDD CONTRACT HK/2009/02 Page 3 of 10

ID	Activity Name	On Du	and the second	Scheduled/ Actual Start	Scheduled/	Total	Calendar				neil		-			016						
			Dur	Actual Start	Actual Finish	Float		20 27	7 03		pril 17	24	01	08	May	22	20 1 05	Jun		1 00		July
S9B-T34-B2-1290	Roof - Concrete	1	1	14-Jul-16	14-Jul-16	-542	Calendar Day	20 21	03	10	1	24	0.1	00	15	22	29 05	12	19	26	03	10
S9B-T34-B2-1300	Roof - Curing	16	16	15-Jul-16	28-Jul-16	-542	Calendar Day		+	•••		************			-4				*********			
Bay 3								1		i	\$	1		1	1	1 1		i	4	1		
S9B-T34-B3-1050	Wall (North) - Waterproofing & Working Platform	5	5	25-Apr-16	28-Apr-16	-536	Calendar Day			1			Wall (Nor	th) - Water	nmofina	& Working Platfo	m Wall (North	h) - Watern	mofina & M	orkina Blatf	orm	1
S9B-T34-B3-1060	Wall (North) - Rebar Fixing	3	3	29-Apr-16	01-May-16	-536	Calendar Day	1	1 3	3	\$	1	- 1-			ing, Wall (North)			looting & vv	Of King Flati	Offin	
S9B-T34-B3-1070	Wall (North) - Formwork	2	2	03-May-16	04-May-16	-537	Calendar Day		1	3	1	4					The second second		1	1		1
S9B-T34-B3-1080	Wall (North) - Concrete	1	1	05-May-16	05-May-16	-537										work, Wall (North						į
S9B-T34-B3-1090	10 10 10 10 10 10 10 10 10 10 10 10 10 1	3	3				Calendar Day			1	1	1		1		crete, Wall (Nort		1			1	1
S9B-T34-B3-1100	Wall (South) - Waterproofing & Working Platform	5	_	06-May-16	08-May-16	-537	Calendar Day		4	4	â:	1	and the second second	The second second		Curing & Formw			The second			ng
S9B-T34-B3-1110			5	25-Apr-16	28-Apr-16	-534	Calendar Day	i i	1	i	\$. I					& Working Platfo		and the same	proofing & V	Vorking Plat	form	1
S9B-T34-B3-1110	(,	3	3	29-Apr-16	01-May-16	-534	Calendar Day	1	1	1	1			1	1	ing, Wall (South)		9				1
		2	2	03-May-16	04-May-16	-535	Calendar Day		1.3		. i			Wall (South	i) - Form	work, Wall (Sout) - Formwork	1	i			
		1	1	05-May-16	05-May-16	-535	Calendar Day						0	Wall (Sou	th) - Cor	crete, Wall (Sou	h) - Concrete	Carabarrase.			7	
S9B-T34-B3-1140	Wall (South) - Curing & Formwork Dismantling	3	3	06-May-16	08-May-16	-535	Calendar Day	1	1	1	4			Wall	(South)	- Curing & Formw	ork Dismantlin	g, Wall (So	uth) - Curin	g & Formwo	rk Dismantl	ling
S9B-T34-B3-1150	Wall (Middle) - Rebar Fixing & Working Platform	5.	5	29-Apr-16	02-May-16	-529	Calendar Day	1		1	1	3 1	Wa Wa	II (Middle)	- Rebar F	ixing & Working	Platform, Wall	(Middle) - F	Rebar Fixing	& Working	Platform	
S9B-T34-B3-1160	Wall (Middle) - Formwork	2	2	03-May-16	04-May-16	-529	Calendar Day	1	1	1	1					work, Wall (Mide		1	The second		1	
S9B-T34-B3-1170	Wall (Middle) - Concrete	1	1	05-May-16	05-May-16	-529	Calendar Day	3	3	1	1	3			*	ncrete, Wall (Mid		7	1	1	1	1
S9B-T34-B3-1180	Wall (Middle) - Curing & Formwork Dismantling	3	3	06-May-16	08-May-16	-529	Calendar Day		+							- Curing & Formy			iddlo) - Curi	na & Formu	ork Diemon	atlina
S9B-T34-B3-1185	Construct Roadside Barriers	8	8	09-May-16	17-May-16	-417	HK Working Day	1		1	1			1		Construct Roadsi	1				, Distrian	unig
S9B-T34-B3-1190	OHVD Base Slab (North) - Scaffolding Erection	8	8	21-May-16	27-May-16	-534	Calendar Day	3	1	1	7	4										1
S9B-T34-B3-1200	OHVD Base Slab (North) - Formwork & Rebar Fixing	8	8	28-May-16	03-Jun-16	-534		1	1 1	1	1			1	1	100	IVD Base Slat					1
S9B-T34-B3-1210	OHVD Base Slab (North) - Concrete & Curing	16	16				Calendar Day	1	1	1	3	3		1	3		OHVD	Base Slab	1		Rebar Fixing	
S9B-T34-B3-1220	OHVD Base Slab (North) - Hanger Wall & Scaffolding to Roof	10	10	04-Jun-16	17-Jun-16	-534	Calendar Day			4											North) - Con	
S9B-T34-B3-1230		8	8	18-Jun-16	24-Jun-16	-534	Calendar Day	3		1	1			1	1	1 1		1			ase Slab (N	1
	OHVD Base Slab (South) - Scaffolding Erection	8	8	21-May-16	27-May-16	-534	Calendar Day	*		1					1	0	IVD Base Slat	b (South) -	Scaffolding	Erection, O	HVD Base S	Slab (Sou
S9B-T34-B3-1240	OHVD Base Slab (South) - Formwork & Rebar Fixing	8	8	28-May-16	03-Jun-16	-534	Calendar Day		1	1	+	1			1		OHVD	Base Slab	(South) - F	ormwork &	Rebar Fixin	g, OHVE
S9B-T34-B3-1250	OHVD Base Slab (South) - Concrete & Curing	16	16	04-Jun-16	17-Jun-16	-534	Calendar Day	3		1	1			1	7	1 1		- 5 -	OHVD I	Base Slab (South) - Cor	ncrete &
S9B-T34-B3-1260	OHVD Base Slab (South) - Hanger Wall & Scaffolding to Roof	8	8	18-Jun-16	24-Jun-16	-534	Calendar Day	1	11		1			1	1		1	1	-	OHVD B	ase Slab (Se	outh) - H
Bay 4										1	1									******		
S9B-T34-B4-1050	Wall (North) - Waterproofing & Working Platform	5	5	20-Apr-16	23-Apr-16	-524	Calendar Day	4	1	1		Wall (I	North) - W	aterproofing	& Work	ing Platform, Wa	(North) - Wat	terproofing	& Working I	Platform	L.	1
S9B-T34-B4-1060	Wall (North) - Rebar Fixing	3	3	24-Apr-16	26-Apr-16	-524	Calendar Day	1	į	1	1	w W	all (North)	- Rebar Fi	xing, Wa	(North) - Rebar	Fixing			1	1	1
S9B-T34-B4-1070	Wall (North) - Formwork	2	2	09-May-16	10-May-16	-537	Calendar Day	1	1	1	3			. W	all (North	n) - Formwork, W	ell (North) - Fo	mwork	1			
S9B-T34-B4-1080	Wall (North) - Concrete	1	1	11-May-16	11-May-16	-537	Calendar Day	1		1	1					rth) - Concrete, W	The second second	1.0			1	1
S9B-T34-B4-1090	Wall (North) - Curing & Formwork Dismantling	3	3	12-May-16	14-May-16	-537	Calendar Day	********	+							(North) - Curing			Wall (North	Curing 8	Formwork (Diemontli
S9B-T34-B4-1100	Wall (South) - Waterproofing & Working Platform	5	5	20-Apr-16	23-Apr-16	-521	Calendar Day	1	1	1	1	Wall (South I - W			king Platform, Wa					I UIIIWOIK L	Jisinanui
S9B-T34-B4-1110	Wall (South) - Rebar Fixing	3	3	24-Apr-16	26-Apr-16	-521	Calendar Day	3	1.1	1	1					II (South) - Reba		aterprooring	& WORKING	Flationn	1	1
S9B-T34-B4-1120	Wall (South) - Formwork	2	2	09-May-16	10-May-16	-535	Calendar Day	1	1	1	1	- "	all (South)									ĺ
S9B-T34-B4-1130	Wall (South) - Concrete	1	1	11-May-16		-535					1					n) - Formwork, W		1	1			1
S9B-T34-B4-1140		3	3		11-May-16		Calendar Day							********		uth) - Concrete, V						L
S9B-T34-B4-1150	1 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2		5	12-May-16	14-May-16	-535	Calendar Day	1	1 1	1	1			1	1	(South) - Curing					Formwork	Dismant
S9B-T34-B4-1160	Wall (Middle) - Formwork	5	5	20-Apr-16	23-Apr-16	-285	Calendar Day	1	1	1		Wall (I	Middle) - R			ing Platform, Wal	1		Working P	latform	P D	1
	The state of the s	2	2	09-May-16	10-May-16	-302	Calendar Day		*	3	1			■ W	all (Midd	le) - Formwork, V	all (Middle) - F	Formwork			į.	1
S9B-T34-B4-1170	Wall (Middle) - Concrete	1	1	11-May-16	11-May-16	-302	Calendar Day	1	1	1	1					idle) - Concrete, 1			i	1		
S9B-T34-B4-1180	Wall (Middle) - Curing & Formwork Dismantling	3	3	12-May-16	14-May-16	-302	Calendar Day		1						Wall	(Middle) - Curing	& Formwork D	Dismantling,	Wall (Midd	le) - Curing	& Formwork	k Disman
S9B-T34-B4-1185	Construct Roadside Barriers	8	8	16-May-16	23-May-16	-239	HK Working Day	3	13	1							t Roadside Ba					
S9B-T34-B4-1190	OHVD Base Slab (North) - Scaffolding Erection	8	8	24-May-16	30-May-16	-303	Calendar Day		1.5	-	1	3		1	-		OHVD Base	Slab (Nort	h) - Scaffold	ding Erection	OHVD Ba	ase Slab
S9B-T34-B4-1200	OHVD Base Slab (North) - Formwork & Rebar Fixing	8	8	31-May-16	06-Jun-16	-303	Calendar Day	1	1.1	1	1			3	3	1 1					k & Rebar F	
S9B-T34-B4-1210	OHVD Base Slab (North) - Concrete & Curing	16	16	07-Jun-16	20-Jun-16	-303	Calendar Day	1	1	1	1	4		1	1			4			ab (North) -	1
S9B-T34-B4-1220	OHVD Base Slab (North) - Hanger Wall & Scaffolding to Roof	8	8	21-Jun-16	27-Jun-16	-303	Calendar Day	-		1	1.	1		1	1	1 1		i			D Base Sla	
S9B-T34-B4-1230	OHVD Base Slab (South) - Scaffolding Erection	8	8	24-May-16	30-May-16	-303	Calendar Day	*******			4		*********				OUVD Page	Clob (Coul				1
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S9B-T34-B4-1300	Roof - Curing	16	16	11-Jul-16	24-Jul-16	-303	Calendar Day	i i	1.1	-	1	1		1	}			1	1	1	8	
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◆ Milestone
◆ Critical Milestones
Current Works
Critical Works
Remaining Level of Effort

CHUN WO - CRGL
JOINT VENTURE

CEDD CONTRACT NO. HK/2009/02

WD II - Central Wanchai Bypass at Wan Chai East (Contract 2)
3-MONTH ROLLING PROGRAMME (dd 20-Apr-16)

Date	Revision	Checked	Approved
20-Apr-16	W = 1		
	1		
	ALC: I		

Activity ID Activity Name Dur Actual Start Actual Finish Float S9B-T34-B5-1060 Wall (North) - Rebar Fixing 24-Apr-16 26-Apr-16 -517 Calendar Day S9B-T34-B5-1070 Wall (North) - Formwork -537 Calendar Day Wall (North) - Formwork, Wall (North) - Formwork S9B-T34-B5-1080 Wall (North) - Concrete 17-May-16 17-May-16 -535 Calendar Day Wall (North) - Concrete, Wall (North) - Concrete S9B-T34-B5-1090 Wall (North) - Curing & Formwork Dismantling Calendar Day Wall (North) - Curing & Formwork Dismantling, Wall (North) - Curing & Formwork Dism S9B-T34-B5-1100 Wall (South) - Waterproofing & Working Platform 24-Apr-16 -518 Wall (South) - Waterproofing & Working Platform, Wall (South) - Waterproofing & Working Platform 26-Apr-16 Calendar Day S9B-T34-B5-1110 Wall (South) - Rebar Fixing 29-Apr-16 Wall (South) - Repar Fixing, Wall (South) - Repar Fixing S9B-T34-B5-1120 Wall (South) - Formwork 17-May-16 18-May-16 -537 Calendar Day Wall (South) - Formwork, Wall (South) - Formwork S9B-T34-B5-1130 Wall (South) - Concrete 19-May-16 19-May-16 -537 Calendar Day Wall (South) - Concrete, Wall (South) - Concrete S9B-T34-B5-1140 Wall (South) - Curing & Formwork Dismantling 20-May-16 22-May-16 Calendar Day Wall (South) - Curing & Formwork Dismantling, Wall (South) - Curing & Formwork Dis-S9B-T34-B5-1150 Wall (Middle) - Rebar Fixing & Working Platform 15-Apr-16 A 20-Apr-16 A Wall (Middle) - Rebar Fixing & Working Platform S9B-T34-B5-1170 Wall (Middle) - Concrete 20-Apr-16 20-Apr-16 Calendar Day Wall (Middle) - Concrete, Wall (Middle) - Concrete S9B-T34-B5-1180 Wall (Middle) - Curing & Formwork Dismantling 21-Apr-16 23-Apr-16 -504 Calendar Day Wall (Middle) - Curing & Formwork Dismantling, Wall (Middle) - Curing & Formwork Dismantling S9B-T34-B5-1185 Construct Roadside Barriers 30-May-16 -423 HK Working Day Construct Roadside Barriers, Construct Roadside Barriers S9B-T34-B5-1190 OHVD Base Slab (North) - Scaffolding Erection 31-May-16 06-Jun-16 OHVD Base Slab (North) - Scaffolding Erection, OHVD Base S S9B-T34-B5-1200 OHVD Base Slab (North) - Formwork & Rebar Fixing Calendar Day OHVD Base Slab (North) - Form work & Rebar Fixing S9B-T34-B5-1210 OHVD Base Slab (North) - Concrete & Curing 14-Jun-16 27-Jun-16 -537 Calendar Day OHVD Base Slab (North) - Con S9B-T34-B5-1220 OHVD Base Slab (North) - Hanger Wall & Scaffolding to Roof 04-Jul-16 -537 OHVD Base Slab (No S9B-T34-B5-1230 OHVD Base Slab (South) - Scaffolding Erection 31-May-16 06-Jun-16 -534 Calendar Day OHVD Base Slab (South) - Scaffolding Erection, OHVD Base S S9B-T34-B5-1240 OHVD Base Slab (South) - Formwork & Rebar Fixing 07-Jun-16 13-Jun-16 OHVD Base Slab (South) - Formwork & Rebar Fixing S9B-T34-B5-1250 OHVD Base Slab (South) - Concrete & Curing 16 27-Jun-16 -534 Calendar Day OHVD Base Slab (South) + Con S9B-T34-B5-1290 Roof - Concrete 17-Jul-16 17-Jul-16 -441 S9B-T34-B5-1300 Roof - Curing 18-Jul-16 30-Jul-16 Calendar Day S9B-T34-B6-1050 Wall (North) - Waterproofing & Working Platform Wall (North) - Waterproofing & Working Platform 30-Mar-16 A 01-Apr-16 A S9B-T34-B6-1055 Wall (North) - Rebar Fixing 02-Apr-16 A 04-Apr-16 A Wall (North) - Rebar Fixing Calendar Day S9B-T34-B6-1060 Wall (North) - Formwork 05-Apr-16 A 06-Apr-16 A Calendar Day Wall (North) - Form S9B-T34-B6-1070 Wall (North) - Concrete 07-Apr-16 A 07-Apr-16 A I Wall (North) - Concrete Calendar Day S9B-T34-B6-1080 Wall (North) - Curing & Formwork Dismantling 08-Apr-16 A 11-Apr-16 A Calendar Day Wall (North) - Curing & Formwork Dismantling S9B-T34-B6-1090 Wall (South) - Waterproofing & Working Platform Calendar Day Wall (South) - Waterproofing & Working Platform S9B-T34-B6-1100 Wall (South) - Rebar Fixing Wall (South) - Rebar Fixing 28-Mar-16 A 30-Mar-16 A Calendar Day S9B-T34-B6-1110 Wall (South) - Formwork Calendar Day Wall (South) - Formivo S9B-T34-B6-1120 Wall (South) - Concrete 03-Apr-16 A 03-Apr-16 A Calendar Day I Wall (South) - Concret S9B-T34-B6-1130 Wall (South) - Curing & Formwork Dismantling 04-Apr-16 A Calendar Day Wall (South) - Curing & Formwork Dismantling S9B-T34-B6-1170 Wall (Middle) - Curing & Formwork Dismantling 18-Mar-16 A 20-Mar-16 A Wall (Middle) - Curing & Formwork Dismantling Calendar Day S9B-T34-B6-1185 Construct Roadside Barriers 21-Mar-16 A HK Working Day Construct Roadside Barriers S9B-T34-B6-1190 OHVD Base Slab (North) - Scaffolding Erection 20-Apr-16 26-Apr-16 Calendar Day OHVD Base Slab (North) - Scaffolding Erection, OHVD Base Slab (North) - Scaffolding Erection S9B-T34-B6-1200 OHVD Base Slab (North) - Formwork & Rebar Fixing 27-Apr-16 03-May-16 Calendar Day OHVD Base Slab (North) - Formwork & Rebar Fixing, OHVD Base Slab (North) - Formwork & Rebar Fixing S9B-T34-B6-1210 OHVD Base Slab (North) - Concrete & Curing 17-May-16 04-May-16 -491 Calendar Day OHVD Base Slab (North) - Concrete & Curing, OHVD Base Slab (North) - Concrete & Curing S9B-T34-B6-1220 OHVD Base Slab (North) - Hanger Wall & Scaffolding to Roof 18-May-16 24-May-16 OHVD Base Slab (North) - Hanger Wall & Scaffolding to Roof, OHVD Base Slab (N S9B-T34-B6-1230 OHVD Base Slab (South) - Scaffolding Erection 11-Apr-16 A 18-Apr-16 A Calendar Day OHVD Base Slab (South) - Scaffolding Erection S9B-T34-B6-1240 OHVD Base Slab (South) - Formwork & Rebar Fixing 20-Apr-16 26-Apr-16 Calendar Day OHVD Base Slab (South) - Formwork & Rebar Fixing, OHVD Base Slab (South) - Formwork & Rebar Fixing S9B-T34-B6-1250 OHVD Base Slab (South) - Concrete & Curing 10-May-16 -483 Calendar Day OHVD Base Slab (South) - Concrete & Curing, OHVD Base Slab (South) - Concrete & Curing S9B-T34-B6-1260 OHVD Base Slab (South) - Hanger Wall & Scaffolding to Roof 11-May-16 17-May-16 -483 OHVD Base Slab (South) - Hanger Wall & Scaffolding to Roof, OHVD Base Slab (South) - Ha S9B-T34-B6-1270 Roof - Waterproofing 01-Jul-16 Calendar Day Roof - Waterproofing, Roo S9B-T34-B6-1280 Roof - Rebar Fixing & Formwork 14 05-Jul-16 16-Jul-16 -537 Calendar Day S9B-T34-B6-1290 Roof - Concrete 17-Jul-16 Calendar Day S9B-T34-B6-1300 Roof - Curing Calendar Day 18-Jul-16 31-Jul-16 -537 S9B-T34-B7-1050 Wall (North) - Waterproofing & Working Platform Calendar Day Wall (North) - Waterproofing & Working Platform S9B-T34-B7-1060 Wall (North) - Rebar Fixing Wall (North) - Rebar Fixing 03-Apr-16 A 05-Apr-16 A Calendar Day S9B-T34-B7-1070 Wall (North) - Formwork 06-Apr-16 A Calendar Day Wall (North) - Form work S9B-T34-B7-1080 Wall (North) - Concrete 09-Apr-16 A 09-Apr-16 A Calendar Day I Wall (North) - Concrete S9B-T34-B7-1090 Wall (North) - Curing & Formwork Dismantling 10-Apr-16 A 12-Apr-16 A Wall (North) - Curing & Formwork Dismantling S9B-T34-B7-1100 Wall (South) - Waterproofing & Working Platform 29-Mar-16 A 31-Mar-16 A Wall (South) - Waterproofing & Working Platform Calendar Day S9B-T34-B7-1110 Wall (South) - Rebar Fixing 01-Apr-16 A 03-Apr-16 A Calendar Day Wall (South) - Rebar Fxing S9B-T34-B7-1120 Wall (South) - Formwork 04-Apr-16 A Wall (South) - For Calendar Day Milestone Revision Checked Approved 20-Apr-16 Critical Milestones CHUN WO - CRGL CEDD CONTRACT NO. HK/2009/02 Current Works Critical Works JOINT VENTURE WD II - Central Wanchai Bypass at Wan Chai East (Contract 2) Remaining Level of Effort 3-MONTH ROLLING PROGRAMME (dd 20-Apr-16)

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Activity ID Dur Actual Start Actual Finish Float Wall (Middle) - Formwork S9B-T34-B9-1160 21-Mar-16 A 22-Mar-16 A Calendar Day S9B-T34-B9-1170 Wall (Middle) - Concrete 23-Mar-16 A 23-Mar-16 A Calendar Day Wall (Middle) - Concrete S9B-T34-B9-1180 Wall (Middle) - Curing & Formwork Dismantling 24-Mar-16 A Wall (Middle) - Curing & Formwork Dismantling 26-Mar-16 A Calendar Day S9B-T34-B9-1185 Construct Roadside Barriers 27-Mar-16 A 27-Apr-16 HK Working Day struct Roadside Barriers, Construct Roadside Barrier S9B-T34-B9-1190 OHVD Base Slab (North) - Scaffolding Erection 03-May-16 09-May-16 -422 Calendar Day OHVD Base Slab (North) - Scaffolding Erection, OHVD Base Slab (North) - Scaffolding Erection S9B-T34-B9-1200 OHVD Base Slab (North) - Formwork & Rebar Fixing 10-May-16 16-May-16 OHVD Base Slab (North) - Formwork & Rebar Fixing, OHVD Base Slab (North) - Formwork & S9B-T34-B9-1210 OHVD Base Slab (North) - Concrete & Curing 17-May-16 30-May-16 -422 Calendar Day OHVD Base Slab (North) - Concrete & Curing, OHVD Base Slab (North) S9B-T34-B9-1220 OHVD Base Slab (North) - Hanger Wall & Scaffolding to Roof 31-May-16 06-Jun-16 -422 OHVD Base Slab (North) - Hanger Wall & Scaffolding to Roof S9B-T34-B9-1230 OHVD Base Slab (South) - Scaffolding Erection 09-May-16 -422 Calendar Day OHVD Base Slab (South) - Scaffolding Erection, OHVD Base Slab (South) - Scaffolding Erection S9B-T34-B9-1240 OHVD Base Slab (South) - Formwork & Rebar Fixing 10-May-16 16-May-16 -422 OHVD Base Slab (South) - Formwork & Rebar Fixing, OHVD Base Slab (South) - Formwork & S9B-T34-B9-1250 OHVD Base Slab (South) - Concrete & Curing 17-May-16 30-May-16 -422 Calendar Day OHVD Base Slab (South) - Concrete & Curing, OHVD Base Slab (South) S9B-T34-B9-1260 OHVD Base Slab (South) - Hanger Wall & Scaffolding to Roof 31-May-16 06-Jun-16 -422 Calendar Day OHVD Base Slab (South) - Hanger Wall & Scaffolding to Roof, S9B-T34-B9-1270 Roof - Waterproofing 06-Jun-16 -422 Roof - Waterproofing, Roof - Waterproofing S9B-T34-B9-1280 Roof - Rebar Fixing & Formwork 07-Jun-16 18-Jun-16 -422 Calendar Day Roof - Rebar Fixing & Formwork, Roof - Reb S9B-T34-B9-1290 Roof - Concrete Calendar Day Roof - Concrete, Roof - Concrete S9B-T34-B9-1300 Roof - Curing 03-Jul-16 20-Jun-16 -422 Calendar Day Roof - Curing, Roof -S9B-T34-B9-1310 Roof - Scaffolding Dismantling 10-Jul-16 -279 Roof - Scaf S9B-T34-B10-1050 Wall (North) - Waterproofing & Working Platform 20-Apr-16 23-Apr-16 -422 Wall (North) - Waterproofing & Working Platform, Wall (North) - Waterproofing & Working Platform Calendar Day S9B-T34-B10-1060 Wall (North) - Rebar Fixing 24-Apr-16 -422 Wall (North) - Rebar Fixing, Wall (North) - Rebar Fixing S9B-T34-B10-1070 Wall (North) - Formwork 04-May-16 03-May-16 -428 Calendar Day Wall (North) - Formwork, Wall (North) - Formwork S9B-T34-B10-1080 | Wall (North) - Concrete 05-May-16 05-May-16 Wall (North) - Concrete, Wall (North) - Concrete S9B-T34-B10-1090 Wall (North) - Curing & Formwork Dismantling 06-May-16 08-May-16 -428 Wall (North) - Curing & Formwork Dismantling, Wall (North) - Curing & Formwork Dismantling Calendar Day S9B-T34-B10-1100 Wall (South) - Waterproofing & Working Platform 04-Apr-16 A 06-Apr-16 A Wall (South) - Waterproofing & Working Platform S9B-T34-B10-1110 Wall (South) - Rebar Fixing 07-Apr-16 A 09-Apr-16 A Wall (South) - Rebar Fixing Calendar Day S9B-T34-B10-1120 Wall (South) - Formwork 10-Apr-16 A 11-Apr-16 A Calendar Day Wall (South) - Formwork S9B-T34-B10-1130 Wall (South) - Concrete I Wall (South) - Concrete Calendar Day S9B-T34-B10-1150 | Wall (Middle) - Rebar Fixing & Working Platform 18-Mar-16 A 22-Mar-16 A Calendar Day Wall (Middle) - Rebar Fixing & Working Platform S9B-T34-B10-1160 Wall (Middle) - Formwork Calendar Day Wall (Middle) - Formwork S9B-T34-B10-1170 Wall (Middle) - Concrete 25-Mar-16 A 25-Mar-16 A Calendar Day I Wall (Middle) - Concrete S9B-T34-B10-1180 Wall (Middle) - Curing & Formwork Dismantling 26-Mar-16 A Calendar Day Wall (Middle) - Curing & Formwork Dismantling S9B-T34-B10-1185 Construct Roadside Barriers 29-Mar-16 A 27-Apr-16 HK Working Da S9B-T34-B10-1190 OHVD Base Slab (North) - Scaffolding Erection 09-May-16 15-May-16 Calendar Day OHVD Base Slab (North) - Scaffolding Erection, OHVD Base Slab (North) - Scaffolding Erection S9B-T34-B10-1200 OHVD Base Slab (North) - Formwork & Rebar Fixing 16-May-16 22-May-16 -428 Calendar Day OHVD Base Slab (North) - Formwork & Rebar Fixing, OHVD Base Slab (North) - Fo S9B-T34-B10-1210 OHVD Base Slab (North) - Concrete & Curing 23-May-16 -428 OHVD Base Slab (North) - Concrete & Curing, OHVD Base Slab S9B-T34-B10-1220 OHVD Base Slab (North) - Hanger Wall & Scaffolding to Roof 06-Jun-16 12-Jun-16 -428 Calendar Day OHVD Base Slab (North) - Hanger Wall & Scaffolding S9B-T34-B10-1230 OHVD Base Slab (South) - Scaffolding Erection 09-May-16 15-May-16 OHVD Base Slab (South) - Scaffolding Erection, OHVD Base Slab (South) - Scaffolding Erection S9B-T34-B10-1240 OHVD Base Slab (South) - Formwork & Rebar Fixing 16-May-16 22-May-16 -428 Calendar Day OHVD Base Slab (South) - Formwork & Rebar Fixing, OHVD Base Slab (South) - For S9B-T34-B10-1250 OHVD Base Slab (South) - Concrete & Curing 23-May-16 05-Jun-16 -428 OHVD Base Slab (South) - 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Formwork Wall (North) - Formwork Wall (North) - Formwork S9B-T34-B11-1080 Wall (North) - Concrete 29-Apr-16 29-Apr-16 -635 Calendar Day Wall (North) - Concrete, Wall (North) - Concrete S9B-T34-B11-1090 Wall (North) - Curing & Formwork Dismantling 30-Apr-16 02-May-16 Wall (North) - Curing & Formwork Dismantling, Wall (North) - Curing & Formwork Dismantling S9B-T34-B11-1100 Wall (South) - Waterproofing & Working Platform 20-Apr-16 22-Apr-16 -634 Calendar Day Wall (South) - Waterproofing & Working Platform, Wall (South) - Waterproofing & Working Platform S9B-T34-B11-1110 Wall (South) - Rebar Fixing 23-Apr-16 25-Apr-16 -634 Wall (South) - Rebar Fixing, Wall (South) - Rebar Fixing S9B-T34-B11-1120 Wall (South) - Formwork 27-Apr-16 28-Apr-16 -635 Calendar Day Wall (South) - Formwork, Wall (South) - Formwork S9B-T34-B11-1130 Wall (South) - Concrete 29-Apr-16 29-Apr-16 -635 Calendar Day Wall (South) - Concrete, Wall (South) - Concrete S9B-T34-B11-1140 Wall (South) - Curing & Formwork Dismantling 02-May-16 -635 Calendar Day Wall (South) - Curing & Formwork Dismantling, Wall (South) - Curing & Formwork Dismantling Milestone Revision Checked Approved 20-Apr-16 Critical Milestones CHUN WO - CRGL CEDD CONTRACT NO. HK/2009/02 Current Works Critical Works JOINT VENTURE Remaining Level of Effort WD II - Central Wanchai Bypass at Wan Chai East (Contract 2) 3-MONTH ROLLING PROGRAMME (dd 20-Apr-16)

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Activity ID Activity Name Dur Actual Start Actual Finish Float S9B-T34-B11-1150 Wall (Middle) - Rebar Fixing & Working Platform 0 21-Mar-16 A 25-Mar-16 A Calendar Day S9B-T34-B11-1160 Wall (Middle) - Formwork Wall (Middle) - Formwork Calendar Day S9B-T34-B11-1170 Wall (Middle) - Concrete 28-Mar-16 A 28-Mar-16 A Calendar Day | Wall (Middle) - Concrete S9B-T34-B11-1180 Wall (Middle) - Curing & Formwork Dismantling Calendar Day Wall (Middle) - Curing & Formwork Disman S9B-T34-B11-1185 Construct Roadside Barriers 03-May-16 10-May-16 HK Working Da Construct Roadside Barriers, Construct Roadside Barriers S9B-T34-B11-1190 OHVD Base Slab (North) - Scaffolding Frection Calendar Day OHVD Base Slab (North) - Scaffolding Erection, OHVD Base Slab (North) - Scaffolding Ere S9B-T34-B11-1200 OHVD Base Slab (North) - Formwork & Rebar Fixing 18-May-16 24-May-16 -635 Calendar Day OHVD Base Slab (North) - Formwork & Rebar Fixing, OHVD Base Slab (North) -S9B-T34-B11-1210 OHVD Base Slab (North) - Concrete & Curing 16 16 25-May-16 07-Jun-16 OHVD Base Slab (North) - Concrete & Curing: OHVD Base S9B-T34-B11-1220 OHVD Base Slab (North) - Hanger Wall & Scaffolding to Roof 08-Jun-16 14-Jun-16 -635 Calendar Day OHVD Base Slab (North) - Hanger Wall & Scaffold S9B-T34-B11-1230 OHVD Base Slab (South) - Scaffolding Erection 11-May-16 17-May-16 -635 OHVD Base Slab (South) - Scaffolding Erection, OHVD Base Slab (South) - Scaffolding Erec S9B-T34-B11-1240 OHVD Base Slab (South) - Formwork & Rebar Fixing 18-May-16 24-May-16 -635 Calendar Day OHVD Base Slab (South) - Formwork & Rebar Fixing, OHVD Base Slab (South) -S9B-T34-B11-1250 OHVD Base Slab (South) - Concrete & Curing 16 16 25-May-16 07-Jun-16 -635 Calendar Da OHVD Base Slab (South) - Concrete & Curing, OHVD Base S9B-T34-B11-1260 OHVD Base Slab (South) - Hanger Wall & Scaffolding to Roof 08-Jun-16 14-Jun-16 -635 Calendar Day OHVD Base Slab (South) - Hanger Wall & Scaffold S9B-T34-B11-1270 Roof - Waterproofing 08-Jun-16 14-Jun-16 -635 Roof - Waterproofing, Roof - Waterproofing S9B-T34-B11-1280 Roof - Rebar Fixing & Formwork 26-Jun-16 Calendar Day Roof - Rebar Fixing & Formwor S9B-T34-B11-1290 Roof - Concrete 27-Jun-16 27-Jun-16 -515 Calendar Day Roof - Concrete: Roof - Concre S9B-T34-B11-1300 Roof - Curing 11-Jul-16 Roof - Cu S9B-T34-B11-1310 Roof - Scaffolding Dismantling 12-Jul-16 18-Jul-16 -288 Calendar Day S9B-T34-B12-1185 Construct Roadside Barriers 03-May-16 HK Working Day Construct Roadside Barriers, Construct Roadside Barriers S9B-T34-B12-1270 Roof - Waterproofing 08-Jun-16 14-Jun-16 -635 Roof - Waterproofing, Roof - Waterproofing S9B-T34-B12-1280 Roof - Rebar Fixing & Formwork 15-Jun-16 Roof - Rebar Fixing & Formy S9B-T34-B12-1290 Roof - Concrete 27-Jun-16 -635 27-Jun-16 Calendar Day Roof - Concrete, Roof - Concre S9B-T34-B12-1300 Roof - Curing 11-Jul-16 -635 Roof + Cu S9B-T34-B12-1310 Roof - Scaffolding Disman tling 12-Jul-16 19-Jul-16 -288 Calendar Day S9B-T34-B13-1050 Wall (North) - Waterproofing & Working Platform Wall (North) - Waterproofing & Working Platform, Wall (North) - Waterproofing & Working Platform S9B-T34-B13-1060 Wall (North) - Rebar Fixing 24-Apr-16 26-Apr-16 -431 Calendar Day Wall (North) - Rebar Fixing, Wall (North) - Rebar Fixing S9B-T34-B13-1070 Wall (North) - Formwork 28-Apr-16 27-Apr-16 -431 Wall (North) - Formwork, Wall (North) - Formwork S9B-T34-B13-1080 Wall (North) - Concrete 29-Apr-16 29-Apr-16 -431 Calendar Day Wall (North) - Concrete, Wall (North) - Concrete S9B-T34-B13-1090 Wall (North) - Curing & Formwork Dismantling 30-Apr-16 02-May-16 -431 Wall (North) - Curing & Formwork Dismantling, Wall (North) - Curing & Formwork Dismantling S9B-T34-B13-1100 Wall (South) - Waterproofing & Working Platform 20-Apr-16 22-Apr-16 -429 Calendar Day Wall (South) - Waterproofing & Working Platform, Wall (South) - Waterproofing & Working Platform S9B-T34-B13-1110 Wall (South) - Rebar Fixing 23-Apr-16 25-Apr-16 -429 Calendar Da Wall (South) - Rebar Fixing, Wall (South) - Rebar Fixing S9B-T34-B13-1120 Wall (South) - Formwork 27-Apr-16 -429 Calendar Day Wall (South) - Formwork, Wall (South) - Formwork S9B-T34-B13-1130 Wall (South) - Concrete 28-Apr-16 28-Apr-16 -429 Wall (South) - Concrete, Wall (South) - Concrete S9B-T34-B13-1140 Wall (South) - Curing & Formwork Dismantling 01-May-16 Calendar Day Wall (South) - Curing & Formwork Dismantling, Wall (South) - Curing & Formwork Dismantling S9B-T34-B13-1150 Wall (Middle) - Rebar Fixing & Working Platform Calendar Day 05-Apr-16 A 09-Apr-16 A Wall (Middle) Rebar Fixing & Working Platform S9B-T34-B13-1160 Wall (Middle) - Formwork 21-Apr-16 Calendar Day Wall (Middle) - Formwork, Wall (Middle) - Formwork S9B-T34-B13-1170 Wall (Middle) - Concrete 22-Apr-16 22-Apr-16 -423 Calendar Day Wall (Middle) - Concrete, Wall (Middle) - Concrete S9B-T34-B13-1180 Wall (Middle) - Curing & Formwork Dismantling Wall (Middle) - Curing & Formwork Dismantling, Wall (Middle) - Curing & Formwork Dismantling 25-Apr-16 S9B-T34-B13-1185 Construct Roadside Barriers 03-May-16 10-May-16 Construct Roadside Barriers, Construct Roadside Barriers -343 HK Working Da S9B-T34-B13-1190 OHVD Base Slab (North) - Scaffolding Erection 11-May-16 17-May-16 OHVD Base Slab (North) - Scaffolding Erection, OHVD Base Slab (North) - Scaffolding Erec S9B-T34-B13-1200 OHVD Base Slab (North) - Formwork & Rebar Fixing 18-May-16 24-May-16 -431 Calendar Day OHVD Base Slab (North) - Formwork & Rebar Fixing, OHVD Base Slab (North) -S9B-T34-B13-1210 OHVD Base Slab (North) - Concrete & Curing 16 25-May-16 07-Jun-16 -431 OHVD Base Slab (North) - Concrete & Curing, OHVD Base S9B-T34-B13-1220 OHVD Base Slab (North) - Hanger Wall & Scaffolding to Roof 08-Jun-16 14-Jun-16 -431 Calendar Day OHVD Base Slab (North) - Hanger Wall & Scaffold S9B-T34-B13-1230 OHVD Base Slab (South) - Scaffolding Erection 11-May-16 17-May-16 -431 OHVD Base Slab (South) - Scaffolding Erection, OHVD Base Slab (South) - Scaffolding Erec S9B-T34-B13-1240 OHVD Base Slab (South) - Formwork & Rebar Fixing 18-May-16 24-May-16 -431 Calendar Day OHYD Base Slab (South) - Formwork & Rebar Fixing, OHVD Base Slab (South) -S9B-T34-B13-1250 OHVD Base Slab (South) - Concrete & Curing 16 25-May-16 07-Jun-16 -431 Calendar Da OHVD Base Slab (South) - Congret's & Curing, OHVD Base S9B-T34-B13-1260 OHVD Base Slab (South) - Hanger Wall & Scaffolding to Roof 14-Jun-16 -431 Calendar Day OHVD Base Slab (South) - Hanger Wall & Scaffold S9B-T34-B13-1270 Roof - Waterproofing 08-Jun-16 14-Jun-16 -431 Calendar Da Roof - Waterproofing, Roof - Waterproofing S9B-T34-B13-1280 Roof - Rebar Fixing & Formwork 15-Jun-16 26-Jun-16 -431 Calendar Day Roof - Rebar Fixing & Formwor S9B-T34-B13-1290 Roof - Concrete 27-Jun-16 27-Jun-16 -431 Calendar Day Roof - Concrete, Roof - Concre S9B-T34-B14-1185 | Construct Roadside Barriers Construct Roadside Barriers, Construct Roadside Barriers 08-Jun-16 14-Jun-16 -410 Calendar Day Roof - Waterproofing, Roof - Waterproofing S9B-T34-B14-1280 Roof - Rebar Fixing & Formwork 15-Jun-16 Roof - Rebar Fixing & Formwork Milestone Revision Checked Approved 20-Apr-16 Critical Milestones CHUN WO - CRGL CEDD CONTRACT NO. HK/2009/02 Current Works Critical Works JOINT VENTURE WD II - Central Wanchai Bypass at Wan Chai East (Contract 2) Remaining Level of Effort 3-MONTH ROLLING PROGRAMME (dd 20-Apr-16)

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Formwork 8 S9B-T34-B15-1300 Roof - Scaffolding Dismantling 18-Jul-16 25-Jul-16 -295 Calendar Day S9B-T34-B16-1020 Base Slab - Concrete 20-Mar-16 A 20-Mar-16 A S9B-T34-B16-1030 Base Slab - Curing 21-Mar-16 A Base Slab - Curing 26-Mar-16 A Calendar Day S9B-T34-B16-1040 Wall (North) - Waterproofing & Working Platform 23-Apr-16 Wall (North) - Waterproofing & Working Platform, Wall (North) - Waterproofing & Working Platform S9B-T34-B16-1050 Wall (North) - Rebar Fixing 24-Apr-16 26-Apr-16 -577 Calendar Day Wall (North) - Rebar Fixing, Wall (North) - Rebar Fixing S9B-T34-B16-1060 Wall (North) - Formwork 27-Apr-16 28-Apr-16 -577 Calendar Day Wall (North) - Formwork, Wall (North) - Formwork S9B-T34-B16-1070 Wall (North) - Concrete 29-Apr-16 -577 Calendar Day Wall (North) - Concrete, Wall (North) - Concrete S9B-T34-B16-1080 Wall (North) - Curing & Formwork Dismantling 30-Apr-16 02-May-16 -577 Wall (North) - Curing & Formwork Dismantling, Wall (North) - Curing & Formwork Dismantling S9B-T34-B16-1090 Wall (South) - Waterproofing & Working Platform 24-Apr-16 26-Apr-16 Calendar Day Wall (South) - Waterproofing & Working Platform, Wall (South) - Waterproofing & Working Platform S9B-T34-B16-1100 Wall (South) - Rebar Fixing Wall (South) - Rebar Fixing, Wall (South) - Repar Fixing 27-Apr-16 29-Apr-16 -581 Calendar Day S9B-T34-B16-1110 Wall (South) - Formwork 01-May-16 Calendar Day Wall (South) - Formwork, Wall (South) - Formwork S9B-T34-B16-1120 Wall (South) - Concrete 02-May-16 Calendar Day 02-May-16 ■ Wall (South) - Concrete, Wall (South) - Concrete S9B-T34-B16-1130 Wall (South) - Curing & Formwork Dismantling 05-May-16 Calendar Day Wall (South) - Curing & Formwork Dismantling, Wall (South) - Curing & Formwork Dismantling S9B-T34-B16-1135 Construct Roadside Barriers (North and South) 06-May-16 12-May-16 -458 HK Working Day Construct Roadside Barriers (North and South), Construct Roadside Barriers (North and South) S9B-T34-B16-1140 Wall (Middle) - Rebar Fixing & Working Platform 08-Jul-16 11-Jul-16 Wall (Mid S9B-T34-B16-1150 Wall (Middle) - Formwork 10-Jul-16 12-Jul-16 -656 Calendar Day S9B-T34-B17-1020 Base Slab - Rebar Fixing Base Slab - Rebar Fixing Calendar Day S9B-T34-B17-1030 Base Slab - Concrete 27-Mar-16 A 27-Mar-16 A I Base Slab - Concrete Calendar Day S9B-T34-B17-1040 Base Slab - Curing 28-Mar-16 A 07-Apr-16 A Calendar Day S9B-T34-B17-1050 Wall (North) - Waterproofing & Working Platform 20-Apr-16 24-Apr-16 -300 Calendar Day Wall (North) - Waterproofing & Working Platform, Wall (North) - Waterproofing & Working Platform S9B-T34-B17-1060 Wall (North) - Rebar Fixing 27-Apr-16 Wall (North) - Rebar Fixing, Wall (North) - Rebar Fixing -300 S9B-T34-B17-1070 Wall (North) - Formwork 03-May-16 04-May-16 -306 Calendar Day Wall (North) - Formwork, Wall (North) - Formwork S9B-T34-B17-1080 Wall (North) - Concrete 05-May-16 05-May-16 Calendar Day Wall (North) - Concrete, Wall (North) - Concrete S9B-T34-B17-1090 Wall (North) - Curing & Formwork Dismantling 06-May-16 08-May-16 -306 Calendar Day Wall (North) - Curing & Formwork Dismantling, Wall (North) - Curing & Formwork Dismantling S9B-T34-B17-1100 Wall (South) - Waterproofing & Working Platform 20-Apr-16 24-Apr-16 Wall (South) - Waterproofing & Working Platform, Wall (South) - Waterproofing & Working Platform Milestone Revision Checked Approved 20-Apr-16 Critical Milestones CHUN WO - CRGL CEDD CONTRACT NO. HK/2009/02 Current Works Critical Works WD II - Central Wanchai Bypass at Wan Chai East (Contract 2) JOINT VENTURE Remaining Level of Effort

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9d/panel; 2G+1C) 65 46 15-Mar-16 A 08-Jun-16 HK Working Day S10-T5-1055 Bored Pile Proof Coring at Tunnel Portion 5 Bored Pile Proof Coling at Tunnel Portion 5 10-Mar-16 A 26-Mar-16 A Calendar Day S10-T5-1060 Pump Test / Instrumentation - Tunnel Portion 5 29-Mar-16 A 15-May-16 Pump Test / Instrumentation - Tunnel Portion 5, Pump Test / Instrumentation - Tunnel Portion S10-T5-2010 Tunnel Portion 5 - Excavate to Level S1A and Install Strut S1A (12,000m3@ 900m3/d) 15-May-16 06-Jun-16 Calendar Day Tunnel Portion 5 - Excavate to Level S1A and Install Strut S1A S10-T5-2020 Tunnel Portion 5 - Excavate to Level S1 and Install Strut S1 (32,000m3@ 1100m3/d) 35 35 06-Jun-16 07-Jul-16 -622 Calendar Day Tunnel Portion S10-T5-2030 Tunnel Portion 5 - Excavate to Level S2 and Install Strut S2 (42,000m3@ 1100m3/d) 16-Aug-16 -622 Calendar Day Diaphragm Wall Construction S9B-T5-DW-1240 D-wall panel P261 15-Mar-16 A Calendar Day S9B-T5-DW-1250 D-wall panel P211 30-Mar-16 A 10-Apr-16 A Calendar Day S9B-T5-DW-1260 D-wall panel C228 Calendar Day D-wall panel C228 S9B-T5-DW-1270 D-wall panel C270 D-wall panel C270 19-Mar-16 A 27-Mar-16 A Calendar Day S9B-T5-DW-1280 D-wall panel C222 Calendar Day D-wall panel C222, D-wall panel C222 17-Mar-16 A 24-Mar-16 A Calendar Day D-wall panel C216 S9B-T5-DW-1300 D-wall panel P225 26-Apr-16 Calendar Day D-wall panel P225, D-wall panel P225 S9B-T5-DW-1310 D-wall panel C232 21-Apr-16 29-Apr-16 Calendar Day D-wall panel C232, D-wall panel C232 S9B-T5-DW-1320 D-wall panel C226 20-Mar-16 A D-wall panel C226 Calendar Day S9B-T5-DW-1330 D-wall panel P229 25-Mar-16 A 15-Apr-16 A Calendar Day S9B-T5-DW-1340 D-wall panel C230 29-Apr-16 07-May-16 D-wall panel C230, D-wall panel C230 Calendar Day S9B-T5-DW-1350 D-wall panel P227 03-May-16 11-May-16 Calendar Day D-wall panel P227, D-wall panel P227 S9B-T5-DW-1360 D-wall panel P267 28-Mar-16 A 05-Apr-16 A 19-Apr-16 A 27-Apr-16 D-wall panel P209, D-wall panel P209 Calendar Day S9B-T5-DW-1380 D-wall panel P213 23-Apr-16 01-May-16 Calendar Day D-wall panel P213, D-wall panel P213 S9B-T5-DW-1390 D-wall panel C230A 27-Apr-16 05-May-16 -629 Calendar Day D-wall panel C230A, D-wall panel C230A S9B-T5-DW-1400 D-wall panel C224 18-Apr-16 A 08-May-16 Calendar Day D-wall panel C224, D-wall panel C224 S9B-T5-DW-1410 D-wall panel C214 D-wall panel C214 12-Apr-16 A 17-Apr-16 A Calendar Day S9B-T5-DW-1420 D-wall panel C218 20-Apr-16 28-Apr-16 -617 Calendar Day D-wall panel C218, D-wall panel C218 S9B-T5-DW-1430 D-wall panel C209A 02-May-16 D-wall panel C209A, D-wall panel C209A Calendar Day S9B-T5-DW-1440 D-wall panel P219 27-Apr-16 05-May-16 -617 Calendar Day D-wall panel P219, D-wall panel P219 S9B-T5-DW-1450 D-wall panel P215 09-May-16 D-wall panel P215, D-wall panel P215 S9B-T5-DW-1460 D-wall panel C220 D-wall panel C220 01-Apr-16 A 14-Apr-16 A Date Milestone Revision Checked Approved 20-Apr-16 Critical Milestones CHUN WO - CRGL CEDD CONTRACT NO. 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3-MONTH ROLLING PROGRAMME (dd 20-Apr-16)

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tivity ID	Activity Name	On Du	Rem	Scheduled/	Scheduled/	Total	Calendar					Name of the					2016								
			Dur	Actual Start	Actual Finish	Float		Lange Control			Apri					May					Jun	е			July
S9B-T5-DW-1470	D-wall panel P221	0	0	08-Apr-16 A	16-Apr-16 A		Calandar Barr	20	27	03	10	17	24	01	80	1	15	22	29	05	12	19	26	03	10
Control of the Contro		9	U	00-Apr-10 A	10-Apr-10 A		Calendar Day		1			D-wall panel	P221		1	- 8	1	1		i	1	1	1	1	1
Section 11 of th	ne Works - Remainder of Works								1	1	1 3				į		1	- 1		1	1	7	1	1	1
Demolition Work	S.								1		1	1	- 1		1	li li	1				1	*	1		1 1
S11-DEMO-1010	Fill up and compact with approved material from +1.5mPD to finished GL	22	9	22-Mar-16 A	27-Арг-16	115	Calendar Day			<u> </u>			Fill	up and d	compact	with app	roved m	aterial fro	m +1.5m	PD to fin	ished GL	1	1	1.1	1 1
S11-DEM O-1014	Realignment of HEC power calble and protection works before backfilling	6	6	22-Mar-16 A	08-May-16	115	Calendar Day							4.00.00	1	1		1	- 11 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -	1	on works t	- 17	kfilling		1 /
S11-DEM O-1015	Cable joint and backfilling to GL (by HEC)	14	14	09-May-16	21-May-16	115	Calendar Day	*******			į		******								GL (by H		,		4
S11-DEM O-1100	Demolition of existing WSD salt water pumping station	60	60	20-Apr-16	12-Jun-16	-118	Calendar Day		1		1					_	_	1-1		ojimmig te			existing W	SD salt was	er pumping st
S11-DEM O-1105	Remove marine deposit between the southern D-wall and old WSD salt water pumping station	30	30	10-May-16	13-Jun-16	-88	HK Working Day		1						1 -					i .		1		1	the southern D
Formation and H	ard Landscaping Works										1	Ť				1		1		1	1,0	inove ma	ine depos	Dotwoon	ic sodificin b
S11-FM-2010	Erect Temporary Conctractor's Office At Tunnel Portion 2	50	0	19-Feb-16 A	09-Apr-16 A		Calendar Day			4	Erect Tem	porary Conct	ractor's	Office A	t Tunnel	Portion 2	2	1		i	1	1	1	1	1 1
Soft Landscapin	ng & Establishment Works						-													·					
Section 8D of the	Works - Establishment Works in Area 8														Ì		1	1		1	1	1	1	1	1 1
S8D-0010	Carry out establishment work on new ferry pier	324	130	28-Aug-15 A	13-Aug-16	0	Calendar Day	<u></u>							1									<u> </u>	
Section 12 of the	Works - Protection and Preservation of Existing Trees						•		1	1					+		1	- 1		ř.	1	1	1.	1	1
S12-0010	Protection and preservation of existing trees	2375	821	24-Feb-10 A	19-Apr-18	-671	Calendar Day			1	1				1	-		- :		1	1	- 1	1	1	

♦ Milestone
♦ Critical Milestones
Current Works
Critical Works
Remaining Level of Effort

CHUN WO - CRGL
JOINT VENTURE

CEDD CONTRACT NO. HK/2009/02

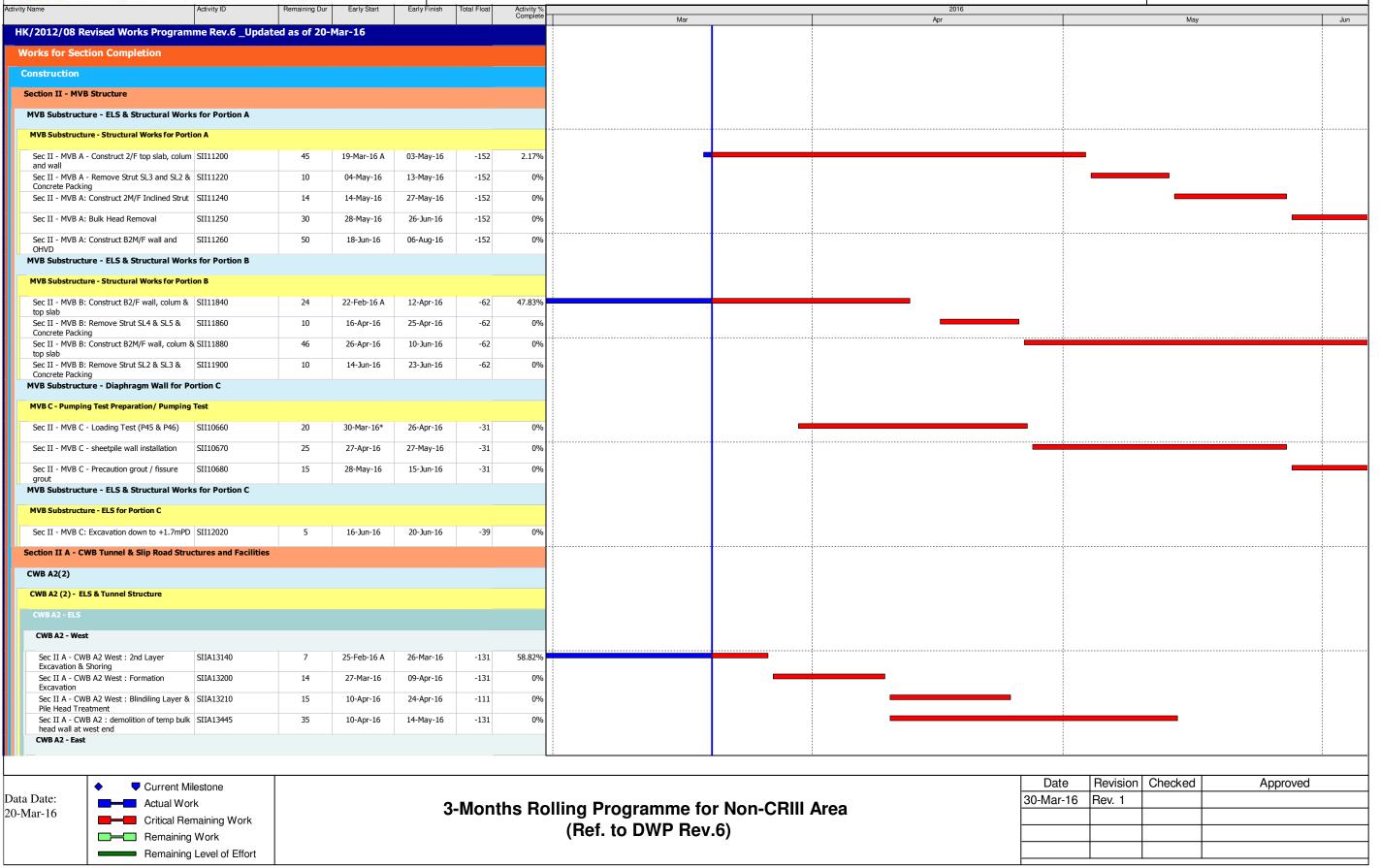
WD II - Central Wanchai Bypass at Wan Chai East (Contract 2)
3-MONTH ROLLING PROGRAMME (dd 20-Apr-16)

Revision	Checked	Approved
	Revision	Revision Checked



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MANIET IF	JIIINA STATE	- LEADER JO	JINI VENI	JKE			Central - wan Chal Bypass at wan Chal West		
ity Name	Activity ID	Remaining Dur	Early Start	Early Finish	Total Float	Activity % Complete	2016 Mar Apr	May	Jun
Sec II A - CWB A2 East : 2nd Layer Excavation & Shoring	SIIA13360	7	02-Mar-16 A	26-Mar-16	-112	65%			
Sec II A - CWB A2 East : Formation	SIIA13400	14	31-Mar-16	13-Apr-16	-116	0%		ļ	
Sec IIA - CWB A2 East : Blinding Layer &	Pile SIIA13420	12	14-Apr-16	27-Apr-16	-92	0%		!	
Heads Treatment Sec IIA - CWB A2 : demolition of temp but	ılk SIIA13448	30	24-Mar-16	22-Apr-16	-95	0%		!	
head wall at East end CWB A2 - Tunnel Structure								· ·	
Sec II A - CWB A2 : base, wall, OHVD & r	oof SIIA11700	60	15-May-16	13-Jul-16	-131	0%			
(bay 1 - Adjacent to Zone A1) Sec II A - CWB A2 : base, wall, OHVD & r	oof SIIA11740	60	29-May-16	27-Jul-16	-131	0%			_
(bay 2) Sec II A - CWB A2 : base, wall, OHVD & r	oof SIIA12492	60	15-May-16	13-Jul-16	-131	0%			<u> </u>
(bay 3) Sec II A - CWB A2 : base, wall, OHVD & r		60	29-May-16	27-Jul-16	-131	0%			_
(bay 4) CWB B & A2(1))								!	
CWB B - ELS & Tunnel Structure									
CWB B - ELS								ļ.	
								!	
CWB B - ELS Stage 1 - West	CHARACC	_	24.3 45.4	24.4	40=	201			
Sec II A - CWB B West: 3rd Layer Excavation & Shoring	SIIA13562	5	21-Jan-16 A	24-Mar-16	-125	0%		!	
Sec II A - CWB B West: 4th Layer Excava & Shoring		25	25-Mar-16	18-Apr-16	-125	0%			
Sec II A - CWB B West: Formation Excavation	SIIA13602	4	19-Apr-16	22-Apr-16	-125	0%		ļ.	
Sec II A - CWB B West: Blinding Layer & Head Treatment	Pile SIIA13622	14	19-Apr-16	02-May-16	-125	0%		į	
CWB B - ELS Stage 2 - Concrete Plug								!	
Sec II A - CWB CP & WP: Wet Excavation Temporary Works	& SIIA 15120	32	27-Jan-16 A	20-Apr-16	-76	0%		<u> </u>	
Sec II A - CWB CP & WP: Treatment to Concrete Plug	SIIA 15160	12	21-Apr-16	02-May-16	-76	0%		į	
Sec II A - CWB B: Demolish Sheetpile Bulkhead wall at Concrete Plug	SIIA 15170	14	03-May-16	16-May-16	-76	0%			
Sec II A - CWB CP & WP: Blinding Layer Cutting of C4 Bulkhead	& SIIA 15180	12	17-May-16	28-May-16	-76	0%			
CWB B - Tunnel Structure								ļ.	
Sec II A - CWB B: base, wall, OHVD & roo (bay 1 - Adajcent to Zone A2)	f SIIA13560	85	21-Apr-16	14-Jul-16	-125	0%			-
Sec II A - CWB B: base, wall, OHVD & roo	f SIIA13600	70	28-Apr-16	06-Jul-16	-125	0%			-
(bay 2) Sec II A - CWB B: base, wall, OHVD & roo	f SIIA13660	65	09-May-16	12-Jul-16	-125	0%			
(bay 3 - Adjacent to C4) CWB C (W)								,	
CWB C(W) - ELS & Tunnel Structure									
CWB C(W) - ELS									
CWB C(W) - ELS Stage 1 East									
Sec II A - CWB CW East: 3rd Layer	SIIA12121	18	20-Mar-16	06-Apr-16	-102	0%			
Excavation & Shoring Sec II A - CWB CW East: Formation	SIIA12141	4	07-Apr-16	10-Apr-16	-102	0%			
Excavation Sec II A - CWB CW East: Blindling Layer		9	11-Apr-16	19-Apr-16	-102	0%			
Barrette Trimming Sec II A - CWB CW: Demolish Bulkhead a		26	20-Apr-16	15-May-16	-102	0%			
MVB (adj. to bay 3) CWB C(W) - ELS Stage 2 Concrete Plug	311 (133 10	20	20,10110	13 Hay 10	102	0.70			
	SIIA 12150	4	24-Eah 16 A	23-Mar-16	00	80%			
Sec II A - CWB CW CP: Grouting			24-Feb-16 A		-90				
Sec II A - CWB CW CP: Wet Excavation	SIIA 12170	7	24-Mar-16	30-Mar-16	-90	0%			
Sec II A - CWB CW CP: Treatment to Concrete Plug	SIIA 12190	11	31-Mar-16	10-Apr-16	-90	0%			
Sec II A - CWB CW CP: Cut Sheetpile	SIIA 12210	11	11-Apr-16	21-Apr-16	-90	0%			
Sec II A - CWB CW CP: Blinding Layer & Cutting of C4 Bulkhead	SIIA 12230	12	22-Apr-16	03-May-16	-90	0%		!	



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	Activity ID	Remaining Dur	Early Start	Early Finish	Total Float	Activity % Complete
CWB C(W) - Tunnel Structure						Complete
Sec II A - CWB CW: base, wall, OHVD & roo (bay 1)		60	16-May-16	14-Jul-16	-102	0%
Sec II A - CWB CW: base, wall, OHVD & roo (bay 2)	f SIIA12180	60	17-Jun-16	15-Aug-16	-102	0%
CWB C (E)	'					
CWB C(E) - ELS & Tunnel Structure						
CWB C(E) - ELS						
Sec IIA - CWB CE: 2nd Layer Excavation &	SIIA13162	14	16-Mar-16 A	02-Apr-16	-134	12.5%
Shoring Sec IIA - CWB CE: 3rd Layer Excavation &		14	03-Apr-16	16-Apr-16	-134	0%
shoring			·	·		
	SIIA13165	7	17-Apr-16	23-Apr-16	-134	0%
Sec II A - CWB CE: Blinding Layer & Barrette Trimming	e SIIA13166	11	24-Apr-16	04-May-16	-134	0%
Sec II A - CWB CE: Demolish Bulkhead at MVB (adj. to bay 3)	SIIA13270	26	05-May-16	30-May-16	-134	0%
Sec II A - CWB CE: Demolish Bulkhead at C1 Interface	SIIA13290	26	31-May-16	25-Jun-16	-134	0%
CWB C(E) - Tunnel Structure						
Sec II A - CWB CE: base, wall, OHVD & roof	SIIA13220	60	05-May-16	03-Jul-16	-103	0%
(bay 2) Sec II A - CWB CE: base, wall, OHVD & roof	SIIA13260	60	31-May-16	29-Jul-16	-108	0%
(bay 1) (after MVB Bulkhead Removal) CWB C - Exhaust Duct						
CWB C - Exhaust Duct Piling						
Sec II A - Exhaust Duct at Slip Rd3: Set Up & Loading Test	SIIA12860	14	21-Mar-16	06-Apr-16	-67	0%
CWB C - Exhaust Duct Temp Work & ELS						
Sec II A - Exhaust Duct at Slip Rd3: Temp. Sheetpiling	SIIA12880	21	07-Apr-16	27-Apr-16	-80	0%
Sec II A - Exhaust Duct at Slip Rd3: Excavation	n SIIA12900	30	28-Apr-16	27-May-16	-80	0%
& Shoring Sec II A - Exhaust Duct at Slip Rd3: Blinding 8	SIIA12910	10	28-May-16	06-Jun-16	-80	0%
Capping Plate Sec II A - Exhaust Duct at Slip Rd3: Demolish	SIIA12920	30	07-Jun-16	06-Jul-16	-80	0%
Bulkheads CWB C - Exhaust Duct Structural Work						
Sec II A - Exhaust Duct at Slip Rd3: bottom	CTIA 12040	30	07-Jun-16	06 1.1 16	-66	0%
slab, wall and top slab (bay 2)	JIIA1277U	30	07-7011-10	06-Jul-16	-00	0%
CWB D - Slip Road 1						
CWB D - Slip Road 1 - Dwall Construction & P						
Sec II A - CWB SR1: Concrete Plug (MTR TWI	_) SIIA12340	12	17-Feb-16 A	31-Mar-16	-65	78.18%
CWB D - Slip Road 1 - Pumping Test Preparat	ion/ Pumping Test					
Sec II A - CWB SR1: Sonic Test for Dwall	SIIA12380	43	30-Dec-15 A	01-May-16	1004	28.33%
Sec II A - CWB SR1: Install dewatering/	SIIA12400	54	20-Mar-16	12-May-16	-72	0%
recharging/ observation wells CWB D - Slip Road 1 - ELS & Tunnel Structure	<u> </u>					
CWB D - Slip Road 1 - ELS						
CWB D - SR1 - ELS - East						
Sec II A - CWB SR1 East: 2nd Layer Excavation & Shoring	SIIA 12482	12	16-Mar-16 A	31-Mar-16	-93	25%
Sec II A - CWB SR1 East: Formation Excavation	SIIA 12502	3	01-Apr-16	03-Apr-16	-93	0%
Sec II A - CWB SR1 East: Blinding & Pile	SIIA 12522	10	04-Apr-16	13-Apr-16	-50	0%
Head Treatment CWB D - SR1 - ELS - Middle						
Sec II A - CWB SR1 Middle: 2nd Layer	SIIA 12530	18	15-Mar-16 A	06-Apr-16	-48	57.14%
Excavation & Shoringg Sec II A - CWB SR1 Middle: 3rd Layer	SIIA 12550	10	07-Apr-16	16-Apr-16	-48	0%
Excavation & Shoring	SIIA 12550	10	07-Apr-16	16-Aþr-16	-40	0%



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	Activity ID	Remaining Dur	Early Start	Early Finish	Total Float	Activity of
y Name						Activity % Complete
Sec II A - CWB SR1 Middle: Formation Excavation	SIIA 12570	2	17-Apr-16	18-Apr-16	-48	0%
Sec II A - CWB SR1 Middle: Blinding Layer Pile Head Treatment	& SIIA 12590	10	13-May-16	22-May-16	-72	0%
CWB D - SR1 - ELS - West	1	1				
Sec II A - CWB SR1 West: 1st Layer Excavation & Shoring	SIIA 12600	8	01-Apr-16	08-Apr-16	-65	0%
Sec II A - CWB SR1 West: 2nd Layer	SIIA 12620	8	09-Apr-16	16-Apr-16	-65	0%
Excavation & Shoring Sec II A - CWB SR1 West: 3rd Layer	SIIA 12640	8	17-Apr-16	24-Apr-16	-65	0%
Excavation & Shoring Sec II A - CWB SR1 West: Formation	SIIA 12660	3	25-Apr-16	27-Apr-16	-65	0%
Excavation Sec II A - CWB SR1 West: Blinding Layer	SIIA 12680	1	28-Apr-16	28-Apr-16	-65	0%
CWB D - Slip Road 1 - Tunnel Structure						
Sec II A - CWB SR1: base, wall & roof (bay	1) SIIA12500	30	04-Apr-16	03-May-16	-74	0%
Sec II A - CWB SR1: base, wall & roof (bay		30	21-Apr-16	20-May-16	-74	0%
					-74	0%
Sec II A - CWB SR1: base, wall & roof (bay		30	08-May-16	06-Jun-16		
Sec II A - CWB SR1: base, wall & roof (bay		30	25-May-16	23-Jun-16	-74	0%
Sec II A - CWB SR1: base, wall & roof (bay		30	11-Jun-16	10-Jul-16	-74	0%
CWB D - Slip Road 1 - Trough / Retaining	Wall					
CWB D - Slip Road 1 - Trough/Retaining Wa	II Temp Work & ELS					
Sec II A - CWB SR1 Trough & RW: Preboring for installing Sheetpile (120 nos@ 3 nos./day	SIIA12740	20	17-Mar-16 A	16-Apr-16	-93	16.67%
Sec II A - CWB SR1 Trough & RW: install sheetpile	SIIA12760	21	28-Mar-16	25-Apr-16	-93	0%
Sec II A - CWB SR1 Trough & RW: Excavatio & Shoring	n SIIA12780	20	26-Apr-16	20-May-16	-93	0%
CWB D - Slip Road 1 - Trough/Retaining Wa	II Structure					
Sec II A - CWB SR1 Trough & RW: Trough	SIIA12800	18	21-May-16	11-Jun-16	-93	0%
Structure (bay 1) Sec II A - CWB SR1 Trough & RW: Trough	SIIA13720	18	06-Jun-16	27-Jun-16	-93	0%
Structure (bay 2) Sec II A - CWB SR1 Trough & RW: Retaining	SIIA13800	15	17-Jun-16	05-Jul-16	-93	0%
Walls RW3 (bay 1) Section III - Road D11 & Part of Road P2,	Area 4, Implement	1st Stage ITA				
Roadwork & Utilities						
Remaining Works for Handing Over Area 4						
Utilities	SIII11080	23	29-Feb-16 A	20-Apr-16	13	42.5%
Remaining Roadwork at West	SIII1100	36	20-Feb-16 A	06-May-16	0	40%
<u> </u>		7			0	
Others	SIII11120	/	07-May-16	16-May-16	U	0%
Works after the Box Culvert Reinstatement						
	SIII10240	76	15-Jun-16	12-Sep-16	-68	0%
Box Culvert L1 & FRP-L - Bay 8						
Box Culvert L1 & FRP-L - Bay 8 Structure						
Sec VI C - Culvert L - Diversion of flow from temp channel into Cul L	CUL10252	2	24-Mar-16	25-Mar-16	40	0%
Culvert L - Bay 8 - Temporary Works for Flow	v CUL10260	31	03-Feb-16 A	29-Apr-16	14	43.64%
Diversion & Box Culvert Construction Culvert L - bay 8 - construct pile cap	CUL11320	25	30-Apr-16	31-May-16	14	0%
Culvert L - bay 8 - construct base slab	CUL11322	25	01-Jun-16	30-Jun-16	14	0%
Box Culvert L1 & FRP-L - Bay 12 to 13						
Box Culvert L1 & FRP-L - Bay 12 to 13 Pi	ling					
Culvert L - bay 13 - construct pre-bored H-pile		32	22-Feb-16 A	30-Apr-16	-98	40.74%
(PC10 & PC11)	e COL12550	32	22-1 ED-10 A	30-Apr-10	-90	40.7470



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- OI	MAGIAIL	and the second					Ochtrar - Wan Onar Bypass at Wan Onar West	
y Name	Activity ID	Remaining Dur	Early Start	Early Finish	Total Float	Activity % Complete	2016 Mar Apr	May
Box Culvert L1 & FRP-L - Bay 12 to 13 Te	mp Work & ELS							
Culvert L - bay 12 & 13 - pile head treatment	CUL12480	90	03-May-16	18-Aug-16	-63	0%	•	
and construct pile cap PC9, PC10 & PC11 Box Culvert L1 & FRP-L - Bay 12 to 13 St	ructure							
Culvert L - bay 12 & 13 - Construct Precast	CUL12545	75	16-May-16*	12-Aug-16	-58	0%		
Units (off site)	CUL12343	/5	10-May-10	12-Aug-10	-36	070		
Section VI C - Area 3, 6, 8A & 8C								
Area 8A & 8C - Seawall Modification								
Modification of Seawall								
Modification of Seawall - Zone 1 & 2								
Sec VIC - Zone 1: Working Platform & P7 to	PRS10060	24	21-Mar-16*	21-Apr-16	-124	0%		
P17, P23 & P24 Area 8A - MTR Pump Room Clearance & H								
			16 Am 16	21	444	00/		
Sec VI C - Clearance of pump house for Handover	PRS-1060	5	16-Apr-16	21-Apr-16	-111	0%		
Area 6 - Box Culvert bay 5-6								
Sec VI C - Culvert L - bay 5, 6 - backfill to +4.0mPD	CUL11787	10	22-Oct-15 A	31-Mar-16	0	77.78%		
Sec VI C - backfill to formation level at Area 6	SVIC10020	7	24-Mar-16	31-Mar-16	0	0%		
Section VI D - Area 8B & 10								
WDII Box 1 Construction								
WDII Box 1 Existing Pile Head and Dry Dock								
		(2)	24 M 46*	10.7 16		201		
Sec VI D - Precast Box 1 (bottom slab and temp bulk head wall)	WD-C3032	62	31-Mar-16*	18-Jun-16	0	0%		
Sec VID - Precast Box Beam	WD-C3052	40	16-Apr-16	03-Jun-16	-37	0%		
WDII Box I Existing Pile Head Treatment								
Sec VIC - Pile Head at Pile B3	PRS10300	5	09-Mar-16 A	25-Mar-16	-106	77.27%		
Sec VIC - Pile Head at Pile B4	PRS10320	14	26-Mar-16	15-Apr-16	-106	0%		
WDII Box 1 ELS								
Sec VIC - Excavation at Zone 3	WD-C3994	9	27-Apr-16	07-May-16	-124	0%		
								_
Sec VIC - Removal of Platform of Bored Pile		2	09-May-16	10-May-16	-124	0%		
Sec VIC - Install Column, C1, Struct S1 & RS1	WD-C3998	10	11-May-16	23-May-16	-124	0%		
Sec VIC - Excavation of Fluid	WD-C4000	8	24-May-16	01-Jun-16	-124	0%		
Sec VIC - Excavation of Rockfill to -7.5mPD	WD-C4020	4	02-Jun-16	06-Jun-16	-124	0%		
Sec VIC - 2nd Layer of Strut	WD-C4040	7	07-Jun-16	15-Jun-16	-124	0%		
Sec VIC - Excavation down to -11.5mPD	WD-C4060	4	16-Jun-16	20-Jun-16	-124	0%		
Section IV - Slip Road 3								
Roadwork & Utilities (Lung King Street)								
Stage 1 - MH1.2 to MH1.3 Road & Drainage	SIV11000	45	21-Mar-16*	18-May-16	-108	0%		
Stage 2 - MH1.3 to MH1.4 Road & Drainage	SIV11020	45	19-May-16	12-Jul-16	-108	0%		
Section VII - Remainder Works			<u> </u>					
Promenade Seawall Parapet Construction	1							
Sec VII - construct block seawall mass concre	te SVII10400	120	28-May-16*	20-Oct-16	39	0%		
coping & backfill to pavement formation Section VIII - Landscape Softworks			., ==			- 70		
Soft Landscaping Works								
Sec VIII - Trees Planting	SVIII10040	180	21-Mar-16	28-Oct-16	0	0%		





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tivity Name	Activity ID	Remaining Dur	Early Start	Early Finish	Total Float	Activity % Complete
						Complete
Section X - Protection & Preservation of T	rees					
Soft Landscaping Works						
Sec X - Protection & Preservation of Trees	SX10020	489	31-Jan-13 A	21-Jul-17	0	70.04%
VO : Construction of Box 4A & 4B						
Box 4A						
Concrete Fill with 300 dia. carrier drain (Approx 50m)	. 4A10000	21	06-Jun-16	30-Jun-16	-60	0%
Internal Suspended Slab & Internal Wall	4A10020	30	17-Jun-16	22-Jul-16	-60	0%

