

MTR Corporation Limited

**Shatin to Central Link -
Hung Hom to Admiralty Section**

Final EM&A Review Report

[EP No. EP-436/2012/F]

(December 2023)



Certified by:

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Position:

Independent Environmental Checker

Date:

4 December 2023

MTR Corporation Limited

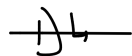
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Alex Siu



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MTR Corporation LimitedConsultancy Agreements
No. C11033B**Shatin to Central Link - Hung Hom to
Admiralty Section****Final EM&A Review Report**

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Table of Contents

	Page
EXECUTIVE SUMMARY	1
1 INTRODUCTION.....	3
1.1 Background	3
1.2 Project Programme	3
1.3 Coverage of the Final EM&A Report.....	4
2 PROJECT INFORMATION.....	5
2.1 Project Management Organisation and Management Structure	5
2.2 Project Works Sites and Areas	5
2.3 Summary of EM&A Requirements	11
2.4 Implementation of Environmental Mitigation Measures	12
3 IMPACT MONITORING AND RESULTS	13
3.1 Air Quality.....	13
3.2 Noise	13
3.3 Water Quality	14
3.4 Waste Management	14
3.5 Landscape and Visual.....	15
4 RECORD OF ENVIRONMENTAL COMPLAINTS	16
5 NON-COMPLIANCE AND DEFICIENCY	17
5.1 Record of Site Inspections	17
5.2 Summary of Environmental Exceedances	17
5.3 Summary of Non-compliance and Corrective Actions	17
5.4 Summary of Environmental Complaints.....	17
5.5 Summary of Summons and Prosecutions	17
6 STATUS OF STATUTORY SUBMISSION.....	18
6.1 Submission required under Environmental Permits.....	18
7 REVIEW AND CONCLUSIONS	22
7.1 Review of the Project EIA Predictions, Effectiveness and Efficiency of Mitigation Measures	22
7.2 Conclusions.....	22

List of Tables

Table 1.1	Summary of Awarded Works Contracts
Table 2.1	Summary of Major Construction Activities
Table 2.2	Summary of Locations of Impact Monitoring Stations
Table 2.3	Summary of Impact EM&A Requirements
Table 3.1	Summary of 24-hour TSP Monitoring Results
Table 3.2	Summary of Construction Noise Monitoring Results
Table 4.1	Records of Environmental Complaints
Table 5.1	Records of Summons
Table 5.2	Records of Successful Prosecution
Table 6.1	Summary of Submissions in accordance with EP conditions

List of Appendices

Appendix A	Project Site Layout Plans
Appendix B	Contacts of Key Personnel
Appendix C	Implementation of Environmental Mitigation Measures
Appendix D	Monitoring Locations
Appendix E	Environmental Quality Performance Limits
Appendix F	Event Action Plan
Appendix G	Graphical Plots of Impact Monitoring Results (Air Quality)
Appendix H	Graphical Plots of Impact Monitoring Results (Noise)
Appendix I	Graphical Plots of Impact Monitoring Results (Water Quality)
Appendix J	Summary of Waste Flow Table

EXECUTIVE SUMMARY

The Shatin to Central Link – Hung Hom to Admiralty Section [SCL (HUH-ADM)] (hereafter referred to as “the Project”) was awarded to respective contractors in since January 2014. The Environmental Monitoring and Audit (EM&A) programme for the Project commenced in May 2014, the commencement date of construction of the Project.

The passenger service of the Project has been commenced on 15 May 2022. All the major construction works with environmental impact concerned have been completed on 14 September 2023.

This Final Environmental Monitoring and Audit (EM&A) Report presenting the results of EM&A works undertaken during the period from May 2014 to September 2023 in accordance with the EM&A Manual and the requirement under the Environmental Permit (EP) No. EP-436/2012 and its subsequently versions (A to F). The latest EP (EP No.: EP-436/2012/F) was issued by Director of Environmental Protection (DEP) on 23 January 2019.

In view of the completion of construction works that have the potential to cause significant environmental impact for the Project, all relevant dust, noise and water quality monitoring works have been terminated on or before 14 September 2023. Apart from the above, regular site inspections under the EM&A programme have also been terminated on 14 September 2023.

Air Quality

Impact air quality monitoring was conducted for 24-hour Total Suspended Particulates (TSP) at four (4) air quality monitoring stations at least once in every six days in accordance with the EM&A Manual. No project-related exceedance for 24-hour TSP has been recorded during the construction period.

Noise

Impact construction noise was measured in terms of $L_{eq(30min)}$ dB(A), L_{10} and L_{90} at two (2) monitoring stations at least once a week during the construction phase. No exceedance of Action or Limit Levels for construction noise was recorded during the construction period.

Water Quality

Impact water quality monitoring was conducted at Victoria Harbour and Shek O Casting Basin during marine works with dissolved oxygen, temperature, turbidity, pH, salinity and suspended solids measured. Four-week post-project monitoring exercise at designated monitoring stations was also carried out following the completion of all marine works in accordance with the requirement stipulated in the EM&A Manual. No project-related exceedance of the Action and Limit Levels was recorded during the whole monitoring period and the post-project monitoring period.

Waste Management

Waste generated from the Project included inert and non-inert construction and demolition (C&D) materials and marine sediment. Inert C&D materials and wastes sorting, reuse and recycle were carried on-site wherever practicable before disposal, while non-inert C&D materials which could not be reused or recycled were disposed of at designated landfill sites. Marine sediment was collected and delivered to designated barging points for disposal.

Landscape and Visual

Bi-weekly inspection of the implementation of landscape and visual mitigation measures was conducted throughout the construction period. Most of the necessary mitigation measures have been implemented and recommended follow-up actions have been discharged by the Contractor.

Environmental Site Inspection

Joint weekly site inspection were conducted at various works sites by representatives of the Contractor, the Engineer and Contractor’s Environmental Team throughout the construction period. The

representative of the Independent Environmental Checker (IEC) joint the site inspections once per month.

Environmental Complaints / Exceedance / Non-compliance / Summons and Prosecution

A total of 49 environmental complaints (including nine (9) project-related and 40 non-project-related) were referred from EPD since the commencement of the construction in May 2014. Investigation was carried out and all the complaints were handled in accordance to the EM&A Manual. No further complaints was received after the implementation of the mitigation measures.

No project-related exceedance of Action and Limit Levels of 24-hour TSP was recorded throughout the whole construction period in all air quality monitoring stations.

No exceedance of air-borne noise Action and Limit Levels were recorded related to the Project throughout the whole construction period in all noise monitoring stations.

No project-related exceedance of Action and Limit Levels of water quality monitoring were recorded during the construction period at all water quality monitoring stations.

Three (3) nos. of summons and one (1) no. of successful environmental prosecution were received since the Project commencement.

1 INTRODUCTION

1.1 Background

1.1.1 The Shatin to Central Link (SCL) is a 17 km extension of the existing Ma On Shan Line (MOL) and East Rail Line (EAL) comprising (i) The East-West Corridor which extends the MOL from Tai Wai to Hung Hom via East Kowloon to connect with the West Rail Line (WRL) at Hung Hom Station (HUH) and Stabling Sidings at Hung Hom Freight Yard (HHS); and (ii) The North-South Corridor which is an extension of the East Rail Line (EAL) at Hung Hom across the harbour to Admiralty Station (ADM). The Project forms part of the SCL.

1.1.2 The Environmental Impact Assessment (EIA) Report and EM&A Manual for SCL (HUH-ADM) (Register No.: AEIAR-166/2012) was approved on 17 February 2012 under the Environmental Impact Assessment Ordinance (EIAO). Following the approval of the EIA Report, an EP (EP No.: EP-436/2012) was granted on 22 March 2012 for construction and operation. Variations of environmental permit (VEP) was subsequently applied for EP-436/2012 and the latest Environmental Permit (EP No: EP-436/2012/F) was issued by DEP on 23 January 2019.

1.2 Project Programme

1.2.1 Eight civil construction works contracts of the Project was awarded since January 2014. All the major construction works have been completed on 14 September 2023 with passenger service commenced on 15 May 2022. **Table 1.1** summarises the information of the awarded Works Contracts.

Table 1.1 Summary of Awarded Works Contracts

Works Contract	Description	Construction Start Date	Contractor	Environmental Team
1121 ⁽¹⁾⁽⁸⁾	NSL Cross Harbour Tunnels	March 2015	Penta-Ocean – China State JV	Wellab Limited
1122 ⁽²⁾	Admiralty South Overrun Tunnel	August 2016	Vinci Construction Grands Projects	AECOM Asia Co. Ltd.
1123 ⁽⁹⁾	Exhibition Station and Western Approach Tunnels	June 2015	Leighton – China State JV	AECOM Asia Co. Ltd.
1124 ⁽⁶⁾	Admiralty SCL Related Works	February 2017	Build King SCL 1124 JV	Action-United Environmental Services and Consulting (AUES)
1126 ⁽³⁾	Reprovisioning of Harbour Road Sports Centre and Wan Chai Swimming Pool	July 2014	Kaden Leader JV	Cinotech Consultants Ltd. (Cinotech)
1128 ⁽⁷⁾	South Ventilation Building to Admiralty Tunnels	November 2014	Dragages Bouygues J.V.	AECOM Asia Co. Ltd.
1129 ⁽⁴⁾	SCL – Advance Works for NSL	May 2014	Hsin Chong Construction Co. Ltd.	AECOM Asia Co. Ltd.
11227 ⁽⁵⁾	Advance Works for NSL Cross Harbour Tunnels	August 2014	Concentric-Hong Kong River Joint Venture	Cinotech Consultants Ltd. (Cinotech)

Notes:

- (1) The environmental team of Works Contract 1121 was taken over by Wellab Limited since 1 January 2019.
- (2) Construction works under Works Contract 1122 were substantially completed since 10 November 2020 and the EM&A programme of the Project was terminated on 12 December 2020.
- (3) Construction works under Works Contract 1126 was completed on 17 May 2015.
- (4) Construction works under Works Contract 1129 was completed on 20 July 2015.
- (5) Construction works in Victoria Harbour and Shek O Casting Basin under Works Contract 11227 were completed on 15 and 20 December 2014 respectively.

- (6) Construction works under Works Contract 1124 were substantially completed since 30 September 2021 and the EM&A programme of the Project was terminated on 30 November 2021.
- (7) Construction works under Works Contract 1128 were substantially completed since 30 September 2021 and the EM&A programme of the Project was terminated on 30 November 2021.
- (8) Construction works under Works Contract 1121 were substantially completed since 30 October 2021 and the EM&A programme of the Project was terminated on 31 January 2022.
- (9) Construction works with environmental impact concerned under Works Contract 1123 were completed since and the EM&A programme of the Project was terminated on 14 September 2023 as agreed with EPD.

1.3 Coverage of the Final EM&A Report

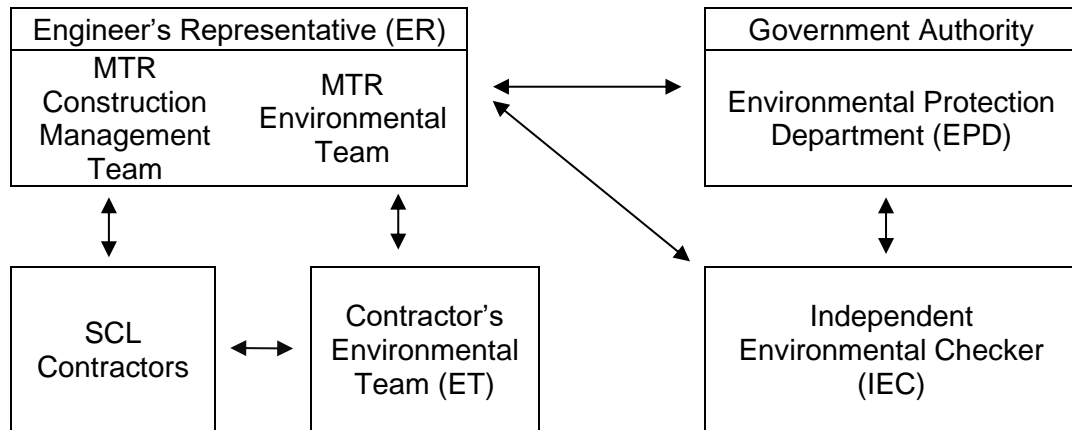
- 1.3.1** The EM&A programme for the Project commenced in May 2014. In considering the completion of major construction works of the Project, this Final EM&A Report is prepared to present the results of EM&A works and the impact monitoring for the construction works undertaken by Environmental Team during the period of May 2014 to September 2023.

2 PROJECT INFORMATION

2.1 Project Management Organisation and Management Structure

2.1.1 The project management organisation chart is shown in **Figure 2.1**. Contacts of key environmental personnel of the Project are shown in **Appendix B**.

Figure 2.1 Project Organisation



2.2 Project Works Sites and Areas

2.2.1 The Project works sites and areas under various Works Contracts and the major construction activities undertaken in the construction phase are summarized in **Table 2.1** and shown in **Appendix A**. The locations of environmental monitoring stations are indicated in **Appendix D**. **Table 2.2** shows the details of the active monitoring stations as reported in **Section 3.1**, **Section 3.2** and **Section Error! Reference source not found.**

Table 2.1 Summary of Major Construction Activities

Works Contract	Works Sites and Areas	Major Construction Activities
1121	Hung Hom & Victoria Harbour	<ul style="list-style-type: none"> Construction only of the North Ventilation Building (NOV); All building services works for the NOV and tunnels; All ABWF works for NOV; The tunnels connecting from NOV to the SCL tunnels (ME4 Tunnel) constructed under the Central Wan Chai Bypass (CWB) project; The walkways and various finishing works inside the tunnels, including a section of the ME4 Tunnel; Site formation and establishment of the casting facility in Shek O; Reinstatement and rehabilitation works of the Shek O casting facility; Formation and removal of temporary reclamation; Temporary marine traffic diversions in Victoria Harbour and CBTS; and Demolition and reprovisioning of the existing Hung Hom Finger Pier.
1122	Site Surface	<ul style="list-style-type: none"> Muck pit construction; Pillar foundation; Gantry crane foundation and erection; Excavator platform installation; Blockwork wall construction;

Works Contract	Works Sites and Areas	Major Construction Activities
1122	Site Surface	<ul style="list-style-type: none"> • Reinstatement works; • Surface drainage works; • Road works; • Construction and demolition of site office; and • Landscape works.
	HKB	<ul style="list-style-type: none"> • Erecting scaffolds, wall concreting and building construction; • BS and ABWF works; • Sliding doors and access panels Installation; • Louver installation; • Tunnel TECS modification; • Mesh green wall Installation; • Landscape works; and • Defect identification and rectification.
	ASOR Tunnel	<ul style="list-style-type: none"> • Drill and blast tunnel; • Concreting tunnel; • BS and ABWF works; • Ventilation and Facilities installation; and • Modification works.
	OTVD	<ul style="list-style-type: none"> • Railing installation works; and • Defect identification and rectification.
	Refuse Collection Point	<ul style="list-style-type: none"> • Footing construction; • ABWF and BS works; • Retaining wall installation; • Utility sewage and drainage works; • Reinstatement works; and • Landscape works.
	LCSD	<ul style="list-style-type: none"> • Cable laying and connection; • Drainage works; and • Reinstatement works.
1123	Exhibition Station (Zone 1 – PTI Area)	<ul style="list-style-type: none"> • Demolition, permanent reprovisioning Wan Chai Ferry Pier; • Footbridge provision of temporary footbridge; • PBSH Works; • King post works; • Pipe pile wall works; • D-wall works; • Diversion works; • Road works; • ELS works; • Structure station/tunnel works; • Station & above ground structure works; • ABWF works; • Waterproofing and backfill; and • Defects rectification.
	Harbour Road Sport Centre (Zone 2)	<ul style="list-style-type: none"> • Demolition; • PBSH works; • King post works; • Pipe pile wall; • ELS works; • Piling; • Structure station/tunnel works; • Station & above ground structure works; and • ABWF works.

Works Contract	Works Sites and Areas	Major Construction Activities
1123	Exhibition Station (Zone 3 – Swimming Pool Area) (including W7a, W7b, W4, W5 and partial W6)	<ul style="list-style-type: none"> • Removal obstruction/backfilling; • D-wall works; • Foundation; • Construction of bus bays; • ELS works; • Structure station/tunnel works; • Station & above ground structure works; • ABWF works, • WCSG reprovision works and • Drainage Works.
	Exhibition Station (Zone 4 – Tunnel at Tonnochy Road)	<ul style="list-style-type: none"> • Utilities diversion/protection; • Ground treatment; • Diversion works; • Foundation • Pipe pile wall works; • ELS works; • Road works; • Station & above ground structure works; • ABWF works; and • WCSG - Reprovision works.
	Fleming Road Junction Area E	<ul style="list-style-type: none"> • Diversion works; • Fleming Road culvert diversion; • Pre-drilling; • Foundation works; • Cofferdam; • Pipe pile wall; • ELS works; • DC works; and • Backfilling.
	Western Vent Shaft and WAT Area C	<ul style="list-style-type: none"> • D-wall works; • Road works; • ELS works; • Structure ventilation shaft/tunnel works; • Track access works; • Backfilling; and • Reinstatement works.
	WAT Area B	<ul style="list-style-type: none"> • ELS works; • Structure tunnel; and • Backfilling.
	WAT Area A	<ul style="list-style-type: none"> • D-wall works; • ELS works; • Structure tunnel works; • Reprovisioning, remedial and improvement works; • Backfilling; and • Reinstatement works.
	Western Vent Shaft (WVS)	<ul style="list-style-type: none"> • D-wall works.
	Kai Tak Barging Point	<ul style="list-style-type: none"> • Storage and barging of fill martial.
	Area W22	<ul style="list-style-type: none"> • Material storage.
	1124	New Admiralty Station

Works Contract	Works Sites and Areas	Major Construction Activities
1124	New Admiralty Station	<ul style="list-style-type: none"> • Alteration and addition works for plant rooms; • Demolition of Vent Shaft X; • Road works including drainage, traffic aids, road markings, lighting, signage, utilities diversion, demolition, reinstatement and TTM schemes to facilitate the construction works and any works require TTM submission; • Tree planting and soft and hard landscaping works; • Construction of ABWF works; and • Supply and installation of doors and ironmongeries, signs and advertising panels, Customer Service Centre (CUC), Platform Supervisor Booths (PSB) and Common Station Components etc.
1126	Wan Chai Sports Ground (WCSG)	<ul style="list-style-type: none"> • Construction of fitness room and kiosk; • Construction of male changing room with HR pump room and store room; • Construction of marshall seats; • Construction of weightlifting room; • Landscaping and external works; • Demolition of part of the existing spectator stand; and • Pre-drill and instrumentation installation for piezometer and utility settlement marker.
	Public Transport Interchange (PTI) Area	<ul style="list-style-type: none"> • Construction of bus lay-by; • Construction of petrol interception; • Manhole construction & underground utilities connection; • Construction of store room; • Construction of ducting for street lighting; • Construction of footing for bus shelter and signage post; • Construction of temporary public toilet; • Soil replacement works; • Construction of concrete pavement, tactile and kerb; • Roadside gully; • Road marking works; • Signage installation; • Construction of ducting work at Hung Hing Road and Convention Avenue; • Construction of pedestrian crossing at Hung Hing Road; and • Installation of traffic signal at Hung Hing Road.
1128	Area W1	<ul style="list-style-type: none"> • Ventilation tunnel works; • Shaft construction; • Removal of temporary reclamation; • Excavation; • Ground treatment; • ELS works; and • Reinstatement works.
	Area W2	<ul style="list-style-type: none"> • POC demolition and construction; • D-wall works; • SOV construction and structure works; • EVA construction; • Retaining wall works; • Pre-drilling;

Works Contract	Works Sites and Areas	Major Construction Activities
1128	Area W2	<ul style="list-style-type: none"> • Piling; • Excavation; • ABFW; • E&M works; • Remedial works, • Reinstatement works; and • Defect rectification.
	Area W3	<ul style="list-style-type: none"> • Demolition; • Excavation; • Piling; • Backfilling; • ABWF works; and • Reinstatement works.
	Area W4	<ul style="list-style-type: none"> • Piling; • Excavation; • Backfilling; and • Reinstatement works.
	Area W6	<ul style="list-style-type: none"> • Road widening works; • Drilling; • Ground treatment; • Excavation; and • Grouting works.
	Area W8	<ul style="list-style-type: none"> • D-wall works; • FPP construction and structure works; • ELS works; • Pre-drilling; • Piling; • Excavation; • Backfilling; • External works; • ABWF works; and • Defects rectification.
	Area W10	<ul style="list-style-type: none"> • Shaft construction; • Horizontal grouting; • Excavation; and • Backfilling.
	Area W14	<ul style="list-style-type: none"> • Bored piling; • Pre-drilling; • Drilling; • ELS works; and • Reinstatement work.
	Area W15&16	<ul style="list-style-type: none"> • Road construction for traffic diversion; • Piling; and • Ground treatment.
1129	Area W1	<ul style="list-style-type: none"> • Site formation; • Hoarding and entrance access erection; • Watermain pipe laying and diversion; • HKE and high mast power cable diversion; • Demolition of existing pile cap; • Covered walkway erection; • Pedestrian diversion; • Pre-drill; • Covered walkway installation; • Pile installation for load test;

Works Contract	Works Sites and Areas	Major Construction Activities
1129	Area W1	<ul style="list-style-type: none"> • Removal of asbestos containing material; • Pre-bored H-pile; • Diversion of utilities; • ELS works; • Excavation; • Pre-boring; • Installation of pre-bore H-piles and post drilling; • H-piles removal; • Post drilling; • Fix steel plates; • Site reinstatement; • Painting and E&Mi; • Grouting trial for underpinning; • Removal of pile cap formwork; • Backfilling; • Painting temporary star case and E&M installation; • Erect eastern pile cap temporary staircase; • Sheetpile extraction; and • Pile cap construction.
	Area W2	<ul style="list-style-type: none"> • Road excavation/formation; • Construct additional U-channel along road; • Modify drain rife and construct gullies; • Lifting of existing manhole; • Remove existing concrete barriers; • Road interface connection (east); • Sheet pile installation; • Hoarding erection; • Instrumentation installation; • Laying of bitumen road base; • Road interface connection (west); • Road marking; • ELS installation; • Pipe laying for temp. 675mm drain pipe diversion; • ELS works; • Excavation works; • Fix steel plates; • Cast base slab; and • Site reinstatement.
	Area W3	<ul style="list-style-type: none"> • Remove concrete barrier and plant set up; • Dig trial trench; • Installation of sheetpile; • Site/ramp formation; • Temporary diversion of DN150 DI fresh water main; • Strengthen abandon box culvert; • Utility diversion; • Remove concrete piles; • Pile P2A (pile head retrieval); • RC pile P4 excavation; • Concrete pile post-drilling; • Remove abandoned box culvert; • Site & carriageway reinstatement; and • Re-diversion of DN150 DI fresh water main to northern sheet pile.

Works Contract	Works Sites and Areas	Major Construction Activities
11227	Shek O Casting Basin	<ul style="list-style-type: none"> Seabed levelling works at channel exit; and Rock filling works in Casting Basin.
	Victoria Harbour	<ul style="list-style-type: none"> Dredging of trial trench in Victoria Harbour.

Table 2.2 Summary of Locations of Impact Monitoring Stations

Monitoring Station ID	Monitoring Station
Air Quality	
AM1 ⁽¹⁾	Horbourfront Horizon
AM2 ⁽²⁾⁽³⁾	Wanchai Sports Ground
AM3 ⁽⁴⁾⁽⁵⁾	Existing Harbour Road Sports Centre
AM4 ⁽²⁾⁽⁶⁾	Pedestrian Plaza
Noise	
NM1 ⁽⁷⁾⁽⁸⁾	Hoi Kung Court
NM2 ⁽³⁾⁽⁴⁾⁽⁹⁾⁽¹⁰⁾	Causeway Centre, Block A
Water Quality	
Shek O Casting Basin ⁽¹¹⁾	
GB3	Turtle Cove Beach
C3	Control Station for ebb tide
C4	Control Station for flood tide
Victoria Harbour⁽¹³⁾	
A	Wan Chai WSD Flushing Water Intake (Reprovisioned)
8 ⁽¹²⁾	Cooling Water Intake for Excelsior Hotel and World Trade Centre / No. 27 – 63 Paterson Street
9 ⁽¹²⁾	Cooling Water Intake for Windsor House
14	Flushing Water Intake for Kowloon Station
21	Cooling Water Intake for East Rail Extension
34	Cooling Water Intake for Metropolis
WSD9	Tai Wan WSD Flushing Water Intake
WSD17	Quarry Bay WSD Flushing Water Intake
C1	Control Station 1
C2	Control Station 2

Notes:

- (1) The impact monitoring was terminated on 31 January 2022.
- (2) The impact monitoring was handed over from Works Contract 1126 to Works Contract 1128 in April 2015, and was subsequently handed over to Works Contract 1123 on 28 October 2015.
- (3) The impact monitoring was terminated on 14 September 2023.
- (4) The impact monitoring was handed over from Works Contract 1126 to Works Contract 1123 in June 2015.
- (5) The impact monitoring was terminated on 6 May 2017 as demolition of Existing Harbour Road Sports Centre commenced on 8 May 2017.
- (6) The impact monitoring was handed over from Works Contract 1128 to Works Contract 1123 on 1 April 2021.
- (7) The impact monitoring was handed over from Works Contract 1129 to Works Contract 1128 in August 2015.
- (8) The impact monitoring was terminated on 9 December 2021.
- (9) The impact monitoring was handed over from Works Contract 1126 to Works Contract 1123 in June 2015.
- (10) Access to the designated monitoring location NM2 (i.e. Causeway Centre, Block A) was denied before the commencement of impact monitoring under Works Contract 1126. An alternative monitoring location at Harbour Centre was approved by the ER, agreed by IEC and EPD.
- (11) Since the major construction works have been completed at the works area adjacent to GB3, C3 and C4, the water quality monitoring have been ceased in November 2017.
- (12) Impact monitoring was suspended as the water takes were not in use.
- (13) Since all dredging / filling operation in Victoria Harbour and IMT construction adjacent to 8, 9, 14, 21, 34, A, WSD9, WSD17, C1 and C2 was completed in December 2019 and in June 2019 respectively, the water quality monitoring at Victoria Harbour was eventually completed on 28 January 2020 and 26 July 2019 respectively.

2.3 Summary of EM&A Requirements

- 2.3.1 The EM&A Program requires environmental monitoring for air quality, noise, water quality, landscape and visual, and waste management as specified in the EM&A Manual. A summary of impact EM&A requirements as applicable to this EM&A Report is presented in **Table 2.3**.

Table 2.3 Summary of Impact EM&A Requirements

Parameters	Parameters	Locations	Monitoring Frequency	Duration
Air Quality	24-hr TSP	Shown in Table 2.2	Once in every 6 days	Construction Stage
Noise	$L_{eq(30min)}$ between 0700 and 1900 on normal weekdays, L_{10} and L_{90} would also be recorded		At least once per week	Construction Stage
Water Quality	DO, temperature, turbidity, pH, salinity and SS ⁽²⁾		3 Days in a Week, at mid-flood and mid-ebb tides ⁽¹⁾	Construction Stage
Landscape and Visual	On-site audit	Active works areas	Bi-weekly	Construction Stage
Waste	On-site audit	Active works areas	Weekly	Construction Stage
General Site Conditions	Environmental site inspection and audit	Active works areas	Weekly (ET) & Monthly (IEC)	Construction Stage

Notes:

- (1) 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, DO, pH, temperature and salinity should be measured in situ whereas SS should be determined by laboratory.

2.3.2 Environmental Quality Performance Limits and the Event Action Plan for air quality, noise and water quality are shown in **Appendix E** and **Appendix F**, respectively.

2.4 Implementation of Environmental Mitigation Measures

2.4.1 The Works Contracts of the Project are required to implement the mitigation measures as specified in the EP, EIA Report and EM&A Manual. During the regular environmental site inspections, the Contractors' implementation of mitigation measures was inspected and reviewed. A schedule of the implementation of environmental mitigation measures recommended in the EIA Report is given in **Appendix C**.

3 IMPACT MONITORING AND RESULTS

3.1 Air Quality

3.1.1 In accordance with the approved EM&A Manuals, 24-hour TSP levels at the designated air quality monitoring stations is required. Impact 24-hour TSP monitoring should be carried out for at least once every 6 days. The locations of the designated air quality monitoring stations are presented in **Table 2.2** and **Appendix D**. The Action and Limit Levels of the air quality monitoring are provided in **Appendix E**. The monitoring was performed using High Volume Sampler (HVS) located at the designated monitoring stations. Detailed monitoring methodology could be referred to respective Monthly EM&A Reports.

Monitoring Results

3.1.2 Monitoring results of 24-hour TSP are presented in **Appendix G**. The statistical analyses of air quality monitoring data for the dust monitoring stations within the reporting periods are summarized in **Table 3.1** below.

Table 3.1 Summary of 24-hour TSP Monitoring Results

Monitoring Station ID	Description	Maximum Level ($\mu\text{g}/\text{m}^3$)	Minimum Level ($\mu\text{g}/\text{m}^3$)	Action Level ($\mu\text{g}/\text{m}^3$)	Limit Level ($\mu\text{g}/\text{m}^3$)
AM1	Horbourfront Horizon	137.0	15.4	182	260
AM2	Wanchai Sports Ground	249.6	7.8	160	260
AM3	Existing Harbour Road Sports Centre	163.6	10.9	169	260
AM4	Pedestrian Plaza	319.1	9.9	198	260

3.1.3 Two (2) and one (1) exceedances of Action Level of 24-hour TSP were recorded at AM2 on 12 November 2018 and 22 July 2023 and AM4 on 2 March 2017, respectively. Investigation of these exceedances had been conducted and the results revealed that the two (2) exceedances at AM2 were non-Project related, while there was no adequate information to conclude that the exceedance at AM4 was related to the Project.

3.1.4 One (1) Limit Level exceedance of 24-hour TSP at AM4 was recorded on 11 January 2021. Based on the investigation, there was no adequate information to conclude the recorded Limit Level exceedance was related to the project-related construction works.

3.2 Noise

3.2.1 In accordance with the EM&A Manual, impact noise monitoring should be conducted for at least once a week during the construction phase of the Project. The locations of the designated noise monitoring stations are presented in **Table 2.2** and **Appendix D**. The Action and Limit Levels of the noise monitoring are provided in **Appendix E**.

3.2.2 Noise monitoring was performed using sound level meter at each designated monitoring station. The sound level meters deployed comply with the International Electrotechnical Commission Publications 651: 1979 (Type 1) and 804: 1985 (Type 1) specifications. Acoustic calibrators were deployed to check the sound level meters at a known sound pressure level. Detailed monitoring procedures could be referred to respective Monthly EM&A Reports.

Monitoring Results

3.2.3 Monitoring results for noise are summarized in **Table 3.2** below and the monitoring data are presented in **Appendix H**.

Table 3.2 Summary of Construction Noise Monitoring Results

Monitoring Station ID	Description	Range, dB(A) $L_{eq(30min)}$	Limit Level, dB(A) $L_{eq(30min)}$
NM1	Hoi Kung Court	54.7 – 74.9	75
NM2	Causeway Centre, Block A	<Baseline	75

3.2.4 No project-related noise complaint was received. Hence, no Action Level exceedance was recorded at the two (2) monitoring stations in the reporting period.

3.2.5 No Limit Level exceedance of noise was recorded at the two (2) monitoring stations in the reporting period.

3.3 Water Quality

3.3.1 Monitoring of marine water quality was carried out during dredging and filling operation and trenching work in Victoria Harbour, Immersed Tunnel construction within Causeway Bay Typhoon Shelter (for Station 9 only), throughout the construction period of removal of earth bunds at Northern and Southern gates, and seabed levelling work in Shek O Casting Basin in accordance with the requirements as stipulated in the EM&A Manual. The locations of the designated water quality monitoring stations are presented in **Table 2.2** and **Appendix D**. The Action and Limit Levels at the monitoring stations were established in the baseline water quality monitoring and are provided in **Appendix E**.

3.3.2 Water quality monitoring was performed using water samplers, monitoring position equipment and water depth detectors. The in-situ equipment was calibrated regularly in accordance with the EM&A Manual. Detailed procedures of the monitoring could be referred to the respective Monthly EM&A Reports.

3.3.3 Monitoring results of water quality monitoring are presented in **Appendix I**. Dissolved oxygen, temperature, turbidity, pH, salinity and suspended solids were measured.

3.3.4 Four-week post-project monitoring exercise at designated monitoring stations was also carried out following the completion of all marine works in the same manner as the impact monitoring.

3.3.5 During the monitoring period, six (6) Action Level exceedances and one (1) Limit Level exceedance for turbidity, and 37 Action Level exceedances and 144 Limit Level exceedances for suspended solids were recorded. After investigation, all exceedances were considered non-Project related. Details of investigation of the exceedances are provided in respective Monthly EM&A Reports.

3.3.6 No exceedance of the Action and Limit Levels of water quality monitoring was recorded during the post-project monitoring period.

3.4 Waste Management

3.4.1 Waste generated from the Project included inert and non-inert construction and demolition (C&D) materials and marine sediment. Inert C&D materials and wastes sorting, reuse and recycle were carried on-site wherever practicable before disposal, while non-inert C&D materials that made up of C&D waste which could not be reused or recycled were disposed of at designated landfill sites. Marine sediment was collected and delivered to designated barging points for disposal. The remaining C&D materials and non-inert wastes were disposed at the public filling reception facilities and the landfills respectively. The summary of waste flow table during the reporting period is detailed in **Appendix J**.

3.4.2 Mitigation measures on waste management had been implemented in accordance with the requirements of the EM&A Manual and the Waste Management Plans for the respective Works Contracts submitted under EP. Observations and recommendations recorded during the site audits were summarised in the respective Monthly EM&A Reports.

3.5 Landscape and Visual

- 3.5.1 Landscape and visual monitoring and auditing have been conducted in accordance with the EM&A Manual throughout the construction stage to ensure that the implementation and maintenance of landscape and visual mitigation measures were achieved. No non-compliance was recorded during the construction period. Details of the site audit findings were recorded in the respective Monthly EM&A Reports. The implementation of mitigation measures for landscape and visual during the construction phase is summarised in **Appendix C**.

4 RECORD OF ENVIRONMENTAL COMPLAINTS

- 4.1.1 In the reporting period, environmental complaints were referred from EPD occasionally. There were a total of 49 environmental complaints since the commencement of the construction for the Project in May 2014. Nine (9) of them were classified as valid complaints after investigations.
- 4.1.2 The complaints have been handled in accordance to the requirements in the EM&A Manual. The ET had provided feasible solutions to the ER and Contractors in mitigating the environmental disturbances/concerns lodged by the complainants. All complaint cases had been resolved and closed. Details of the environmental complaints including investigations and follow-up actions can be referenced in the respective Monthly EM&A Reports.
- 4.1.3 A summary of environmental complaints since the commencement of the Project is shown in **Table 4.1** below.

Table 4.1 Records of Environmental Complaints

Works Contracts ⁽¹⁾	Reporting Period	Frequency	Nature	Cumulative ⁽²⁾	Status
1121	Mar 2015 – Jan 2022	18 (6 of 18 were project-related)	7 nos. – Noise impact; 7 nos. – Water pollution; 1 no. – Chemical handling; 1 no. – Odour nuisance; 1 no. – Dumping activities; and 1 no. – Air nuisance	49 (9 of 49 were project-related)	Cases closed
1122	Aug 2016 – Dec 2020	1 (project-related)	1 no. – Air		Case closed
1123	Jun 2015 – Sep 2023	17 (all were non-project-related)	7 nos. – Noise impact; 3 nos. – Water pollution; 3 nos. – Odour nuisance; and 4 nos. – Air nuisance		Cases closed
1124	Feb 2017 – Nov 2021	1 (project-related)	1 no. – Air		Case closed
1128	Nov 2014 – Nov 2021	12 (1 of 12 was project-related)	7 nos. – Noise impact; 3 nos. – Water pollution; 1 no. – Odour nuisance; and 1 no. – Air nuisance		Cases closed

Notes:

- (1) No environmental complaints records on Works Contracts 1126, 1129 & 11227.
(2) The cumulative figure denotes the summation of all contracts under EP-436/2012/F.

5 NON-COMPLIANCE AND DEFICIENCY

5.1 Record of Site Inspections

5.1.1 Regular site inspections led by the ER and anticipated by ET and respective Contractors were undertaken in accordance with the EM&A Manual in the reporting period. The Contractors' performance on environmental matters were assessed and found in an acceptable manner. The inspection findings and the associated recommendations on improvement to the environmental protection and pollution control works were raised to the Contractors for reference and/or action and recorded in the respective Monthly EM&A Reports. It could be concluded that the environmental protection and pollution control works had been implemented satisfactorily.

5.2 Summary of Environmental Exceedances

5.2.1 Details of the exceedances have been summarized in **Section 3**.

5.3 Summary of Non-compliance and Corrective Actions

5.3.1 No environmental non-compliance was recorded throughout the whole construction period. No associated remedial actions were recommended.

5.4 Summary of Environmental Complaints

5.4.1 Details of the complaints have been summarized in **Section 4**.

5.5 Summary of Summons and Prosecutions

5.5.1 There were three (3) nos. of summons and one (1) no. of successful environmental prosecution received since the Project commencement and the summaries are shown in **Table 5.1** and **Table 5.2** below respectively.

Table 5.1 Records of Summons

Contract	No. of Notification of Summons Received	Status
1123	Two (2)	Prosecution not successful
1121	One (1)	Successful prosecution

Table 5.2 Records of Successful Prosecution

Contract	Regulation	Received Date	Nature of Incident	Status
1121	Sections 8 (1) (a) and 25 (1) (b) of the Dumping at Sea Ordinance, CAP. 466.	Nov 2016	Type 3 Sediment Disposal	The disposal method of Type 3 sediment was reviewed by the Contractor.

6 STATUS OF STATUTORY SUBMISSION

6.1 Submission required under Environmental Permits

6.1.1 A summary of the status of submissions required under the EP No. EP436/2012 and its subsequent version as of November 2023 is shown **Table 6.1**.

Table 6.1 Summary of Submissions in accordance with EP conditions

EP Condition (EP-436/2012/F)	Submission	Submission Date
Condition 1.11	Notification of Commencement Date of Construction of the Project	19 Dec 2012
Condition 2.3	Notification of Setup of Community Liaison Group	22 Jun 2016
Condition 2.5	Management Organisation of Main Construction Companies	5 Jan 2017
Condition 2.6	Construction Programme and EP Submission Schedule	5 Jan 2017
Condition 2.7	Construction Noise Mitigation Measures Plan (CNMMP) Works Contract 1126: Construction Noise Mitigation Measures Plan (CNMMP) Works Contract 1123: Construction Noise Mitigation Measures Plan (CNMMP)	9 Jun 2014 (1 st Submission) 24 Apr 2015 (1 st Submission) 7 Jul 2015 (2 nd Submission) 2 Oct 2015 (3 rd Submission) 2 Jun 2016 (4 th Submission) 28 Oct 2019 (5 th Submission)
Condition 2.8	Continuous Noise Monitoring Plan (CNMP) Works Contract 1126: Continuous Noise Monitoring Plan (CNMP) Works Contract 1123: Continuous Noise Monitoring Plan (CNMP)	9 Jun 2014 (1 st Submission) 24 Apr 2015 (1 st Submission) 7 Jul 2015 (2 nd Submission) 2 Jun 2016 (3 rd Submission) 28 Oct 2019 (4 th Submission)
Condition 2.9	Construction and Demolition Materials Management Plan (C&DMMP)	6 Jul 2012 (1 st Submission) 12 Sep 2012 (2 nd Submission) 15 Oct 2012 (Approved)
Condition 2.10	Works Contract 11227: Silt Curtain Deployment Plan for Trial Trenching in Victoria Harbour Works Contract 1121: Silt Curtain Deployment Plan for Hung Hom Landfall and Trial Trench in Victoria Harbour	11 Jul 2014 17 Feb 2015 (1 st Submission) 2 Apr 2015 (2 nd Submission) 27 Oct 2015 (3 rd Submission) 29 Mar 2016 (4 th Submission)

EP Condition (EP-436/2012/F)	Submission	Submission Date
Condition 2.10	Works Contract 1128: Silt Curtain Deployment Plan	19 Dec 2017 & 15 Jan 2018 (5 th Submission) 21 Mar 2018 (1 st Submission) 13 Apr 2018 (2 nd Submission) 17 Apr 2018 (Approved)
Condition 2.11	Works Contract 11227: Silt Screen Deployment Plan Works Contract 1121: Silt Screen Deployment Plan	11 Jul 2014 13 Feb 2015
Condition 2.12	Sediment Management Plan	6 Jul 2012 (1 st Submission) 12 Sep 2012 (2 nd Submission) 5 Oct 2012 (3 rd Submission) 15 Oct 2012 (Approved) 3 Jul 2014 (4 th Submission)
Condition 2.14	Visual, Landscape, Tree Planting & Tree Protection Plan	14 Nov 2012 (1 st Submission) 3 Dec 2013 (2 nd Submission) 21 Aug 2014 (3 rd Submission) 9 Feb 2015 (4 th Submission) 27 May 2016 (5 th Submission) 29 Nov 2016 (6 th Submission) 19 Jan 2017 (7 th Submission) 11 Apr 2017 (8 th Submission) 20 Apr 2017 (Approved) 7 Feb 2018 (9 th Submission on 1122 revised landscape plans) 7 Mar 2018 (10 th Submission) 9 Mar 2018 (Approved) 18 Jun 2019 (11 th Submission on 1122 revised landscape plan) 5 Sep 2019 (12 th Submission) 19 Aug 2020 (13 th Submission on 1122 revised landscape plan) 21 Sep & 14 Oct 2020 (14 th Submission) 28 Oct 2020 (Approved) 20 Oct 2021 (15 th Submission) 28 Mar 2022 (Final Version)
Condition 2.23.1	Works Contract 11227: Silt Curtain Deployment Plan for Shek O	23 Jul 2014 (1 st Submission)

EP Condition (EP-436/2012/F)	Submission	Submission Date
Condition 2.23.1	Works Contract 1121: Silt Curtain Deployment Plan for Shek O	31 Jul 2014 (Approved) 4 Feb 2015 (1 st Submission) 4 Mar 2015 (2 nd Submission) 9 Mar 2015 (Approved)
Condition 2.24	Contamination Assessment Plan (CAP) and Contamination Assessment Report (CAR) Remedial Action Plan (RAP) for the above-ground diesel tanks for Wan Chai Swimming Pool	CAP: 25 Sep 2012 (1 st Submission) 12 Nov 2012 (2 nd Submission) 22 Nov 2012 (Approved) CAR: 19 Mar 2013 (1 st Submission) 16 Apr 2013 (2 nd Submission) 21 May 2013 (3 rd Submission) 7 Jun 2013 (Approved)
Condition 2.26	As-built Drawings for Landscape and Visual Mitigation Measures	5 Jan 2018 (1 st Submission on Lo Wu Access Road) 11 Dec 2020 (2 nd Submission on Works Contract 1122) 2 Jun 2022 (3 rd Submission on Works Contract 1121, 1124 and 1128) 4 Aug 2022 (4 th Submission on Works Contract 1121, 1124, 1128 and 1129)
Condition 2.28	Operational Ground-borne Noise Mitigation Measures Plan – Batch 1 Operational Ground-borne Noise Mitigation Measures Plan – Batch 2 Final Operational Ground-borne Noise Mitigation Measures Plan	26 Jun 2018 (1 st Submission) 2 Apr 2019 (2 nd Submission) 22 May 2019 (3 rd Submission) 21 Mar 2019 (1 st Submission) 22 May 2019 (2 nd Submission) 31 Jul 2019 (3 rd Submission) 15 Oct 2019 (Approved)
Condition 2.29	As-built Drawing for Operational Ground-borne Noise Mitigation Measures	21 Sep 2020
Condition 2.30	Noise Performance Test Report	14 Jan 2022 (1 st Submission) 28 Feb 2022 (Approved)
Condition 2.31	Fixed Plant Noise Audit Report	14 Mar 2022 (1 st Submission) 22 Mar 2022 (Approved)
Condition 3.3	Baseline Monitoring Report (for noise and air quality)	4 Dec 2013 (1 st Submission)

EP Condition (EP-436/2012/F)	Submission	Submission Date
Condition 3.3	<p>Baseline Water Quality Monitoring Report</p> <p>Baseline Water Quality Monitoring Report for Temporary Marine Works at Shek O Casting Basin</p>	<p>5 Feb 2014 (2nd Submission)</p> <p>23 Sep 2014 (1st Submission)</p> <p>18 Dec 2014 (2nd Submission)</p> <p>8 Jul 2014 (1st Submission)</p> <p>11 Aug 2014 (2nd Submission)</p>
Condition 3.4	<p>Monthly EM&A Reports No.1 - 113</p> <p>Final EM&A Review Report for Works Contract 1127</p> <p>Final EM&A Review Report for Works Contract 1126</p> <p>Final EM&A Review Report for Works Contract 1129</p> <p>Final EM&A Review Report for Works Contract 1122</p> <p>Final EM&A Review Report for Works Contract 1124</p> <p>Final EM&A Review Report for Works Contract 1128</p> <p>Final EM&A Review Report for Works Contract 1121</p> <p>Final EM&A Review Report for Works Contract 1123</p>	<p>Reported in previous Monthly EM&A Reports</p> <p>12 Feb 2015</p> <p>25 Jun 2015 (1st Submission)</p> <p>4 Sep 2015 (2nd Submission)</p> <p>30 Sep 2015</p> <p>11 Feb 2021</p> <p>14 Jan 2022</p> <p>14 Jan 2022</p> <p>15 Feb 2022</p> <p>29 Nov 2023</p>

7 REVIEW AND CONCLUSIONS

7.1 Review of the Project EIA Predictions, Effectiveness and Efficiency of Mitigation Measures

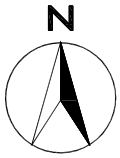
- 7.1.1 The environmental impact hypotheses with respect to construction air quality, construction noise and water quality detailed in the Project's EIA Report had been tested throughout the construction stage of the Project by the regular construction impact monitoring. The environmental impact hypotheses are found to be in order generally throughout the construction stage of the Project.
- 7.1.2 Based on the findings of the regular construction impact monitoring results of the reporting period; the validity of the Project EIA predictions can be concluded and the effectiveness and efficiency of the mitigation measures implemented were found to be satisfactory.
- 7.1.3 In conclusion, the current practices regarding the performance of the environmental management system are found to be satisfactory and should be maintained. Also the environmental mitigation measures as recommended in the approved Project's EIA Report had been concluded to be implemented satisfactorily.

7.2 Conclusions

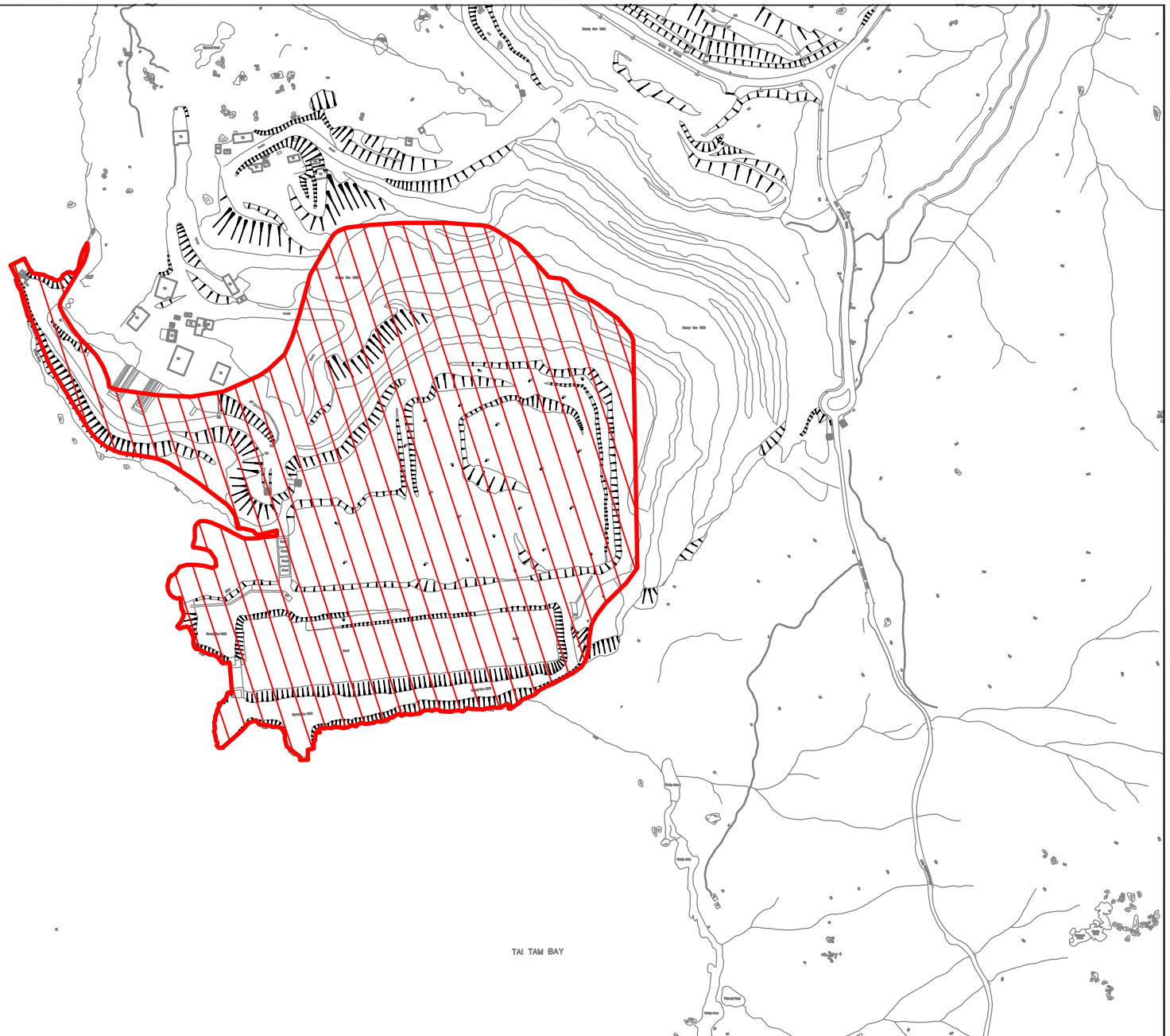
- 7.2.1 This Final Environmental Monitoring and Audit (EM&A) Review Report presents the results of EM&A works and the impact monitoring for the construction works under the Project undertaken during the construction period from May 2014 to September 2023.
- 7.2.2 Impact monitoring for air quality, noise and water quality were conducted in accordance with the approved EM&A Manual in the reporting period. No project-related exceedance of 24-hour TSP, Action or Limit Levels for construction noise as well as water quality was recorded in the reporting period.
- 7.2.3 Bi-weekly inspection of the implementation of waste management, and landscape and visual mitigation measures was conducted throughout the construction period. Observations and recommended follow-up actions have been recorded in the respective Monthly EM&A Reports and discharged by the Contractors.
- 7.2.4 There were nine (9) project-related environmental complaints received since the Project commencement. The complaints were handled in accordance with the procedures stipulated in the EM&A Manual with investigations reported in the respective Monthly EM&A Reports.
- 7.2.5 There was one (1) no. of successful environmental prosecution received since the Project commencement.
- 7.2.6 It is concluded that the EM&A programme for the Project was effective and efficient in monitoring the impacts arising from the Project. The environmental mitigation measures implemented by the Contractors were generally acceptable apart from some minor deficiencies, which were rectified timely by the Contractors. With the success of the overall EM&A programme, the deterioration of the environment caused by the Project was cost-effectively identified and necessary prompt effective mitigation measures were implemented to avoid any unacceptable impacts.

Appendix A

Project Works Area



TAI TAM BAY



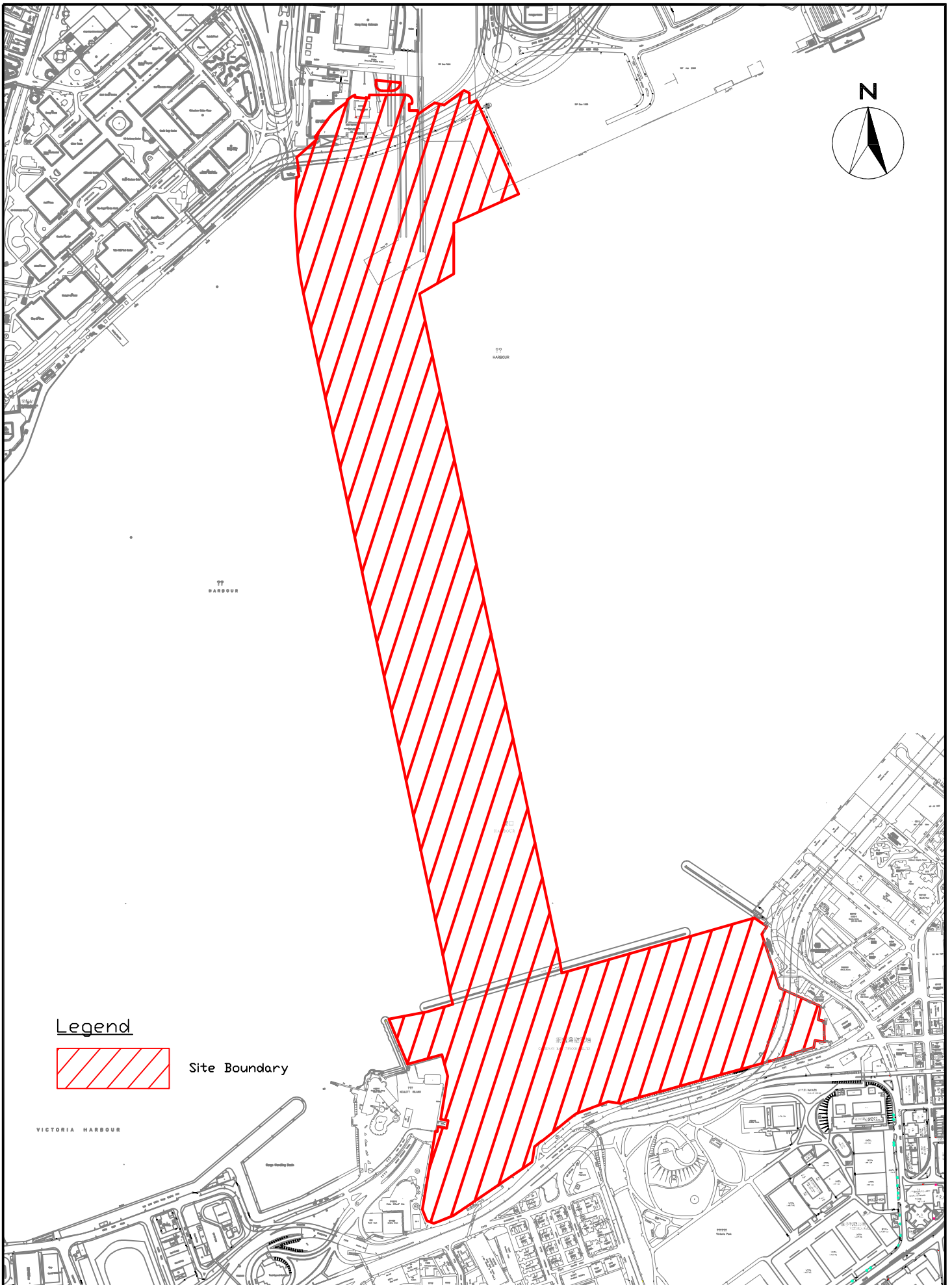
Legend



Site Boundary

TAI TAM BAY

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JOB No.	MA14047	FIGURE NO.	1a
		REV	-



Legend



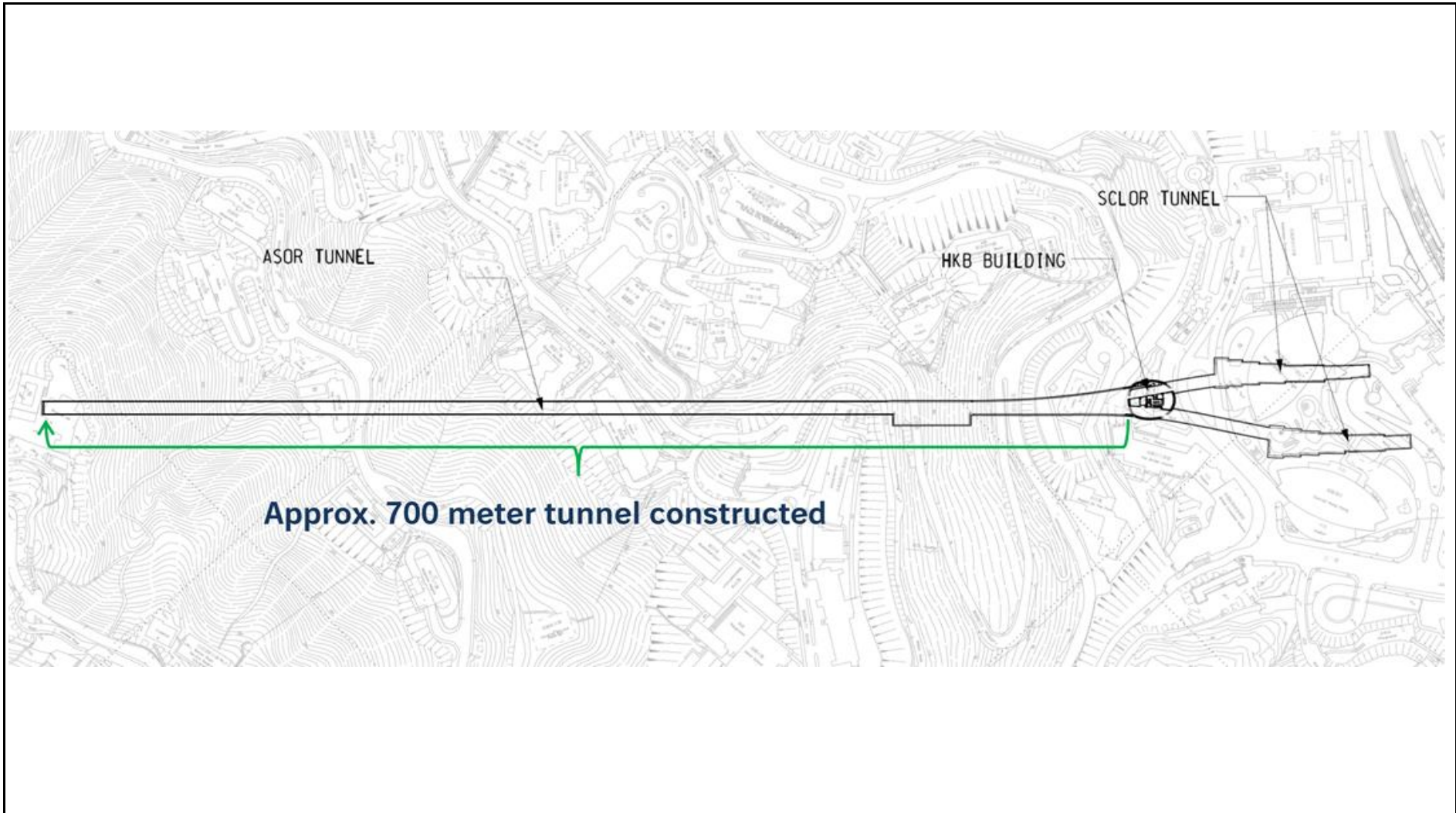
Site Boundary

WELLAB 匯力
consulting . testing . research

SCL 1121 - NSL Cross Harbour Tunnels

**Site Layout Plan
(Victoria Harbour)**

SCALE	1:220	DATE	1/2015
CHECK	JF	DRAWN	VW
JOB No.	MA14047	FIGURE NO.	1b
		REV	-



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SCL Contract 1122
Admiralty South Overrun Tunnel



SITE LAYOUT PLAN of SCL1122


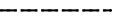


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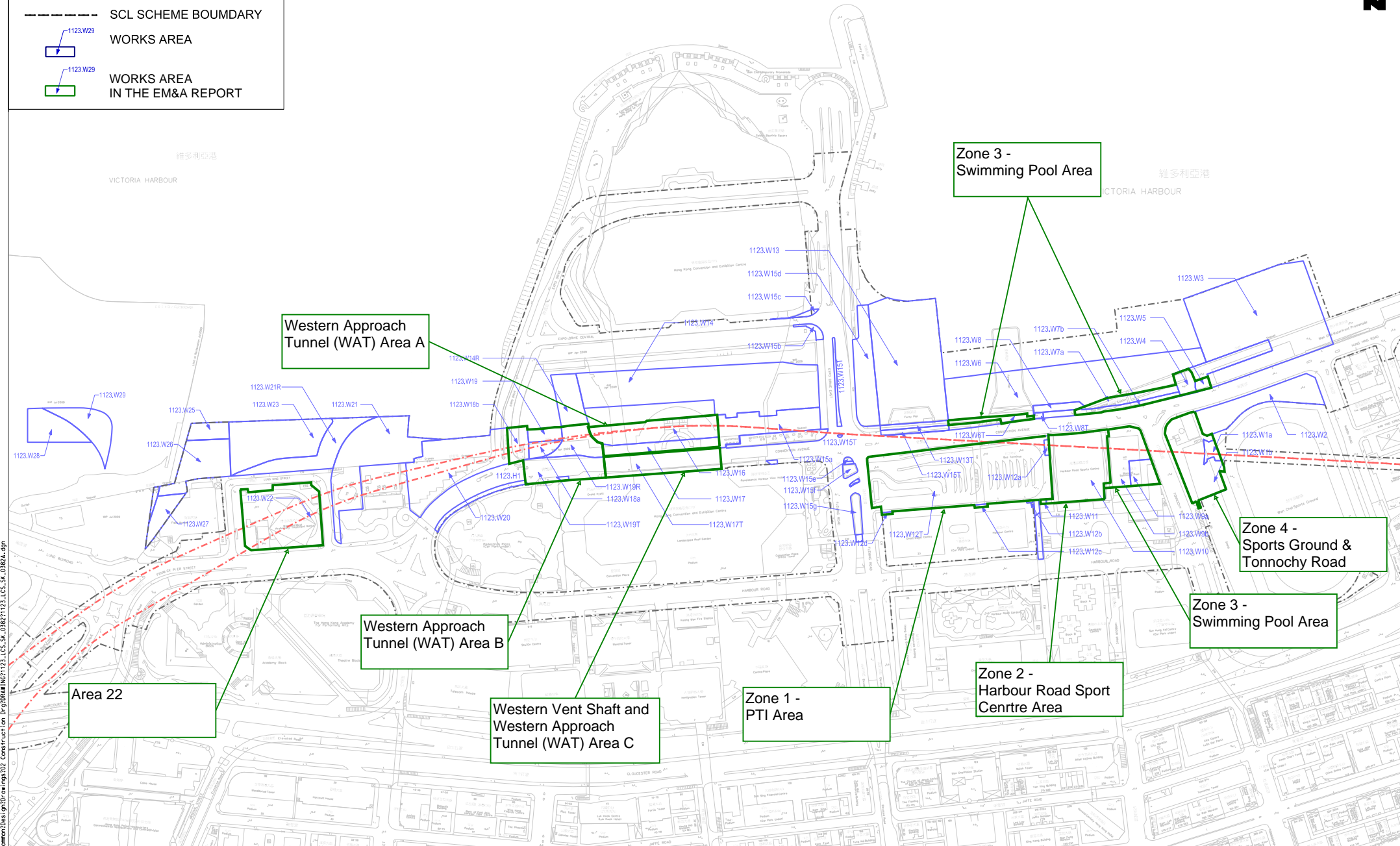
Date: September 2020

Figure 1.1



LEGEND:

	PROPOSED SCL ALIGNMENT
	SCL SCHEME BOUNDARY
	WORKS AREA
	WORKS AREA IN THE EM&A REPORT

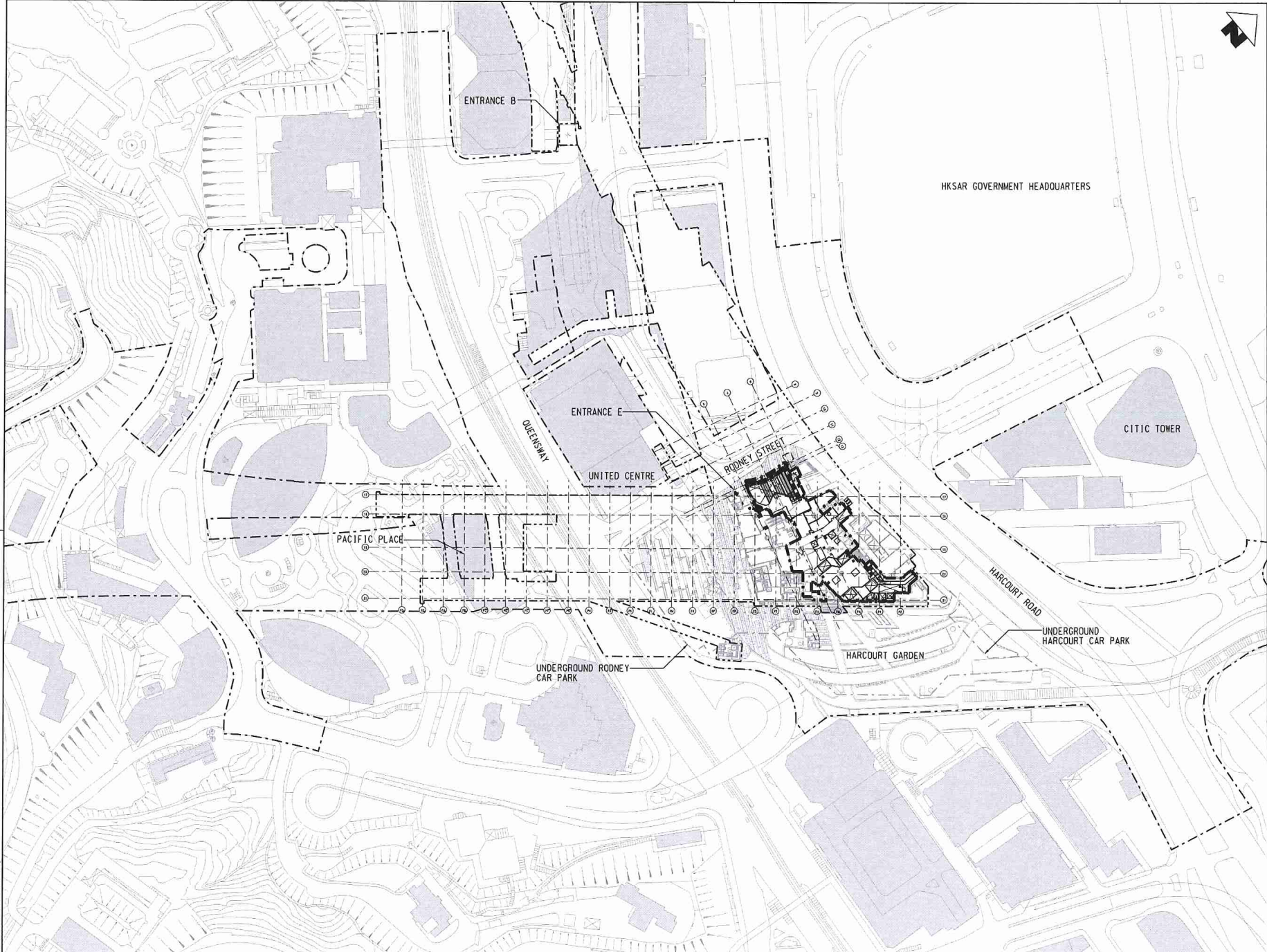


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 REV: 19/MAR/2015

DRAWN C. F. WOOD		MTR		TITLE	
DESIGNED ---		SHATIN TO CENTRAL LINK - CONTRACT 1123		CONTRACT 1123	
CHECKED ---		ORIGINATOR		EXHIBITION STATION AND WESTERN APPROACH TUNNEL	
APPROVED ---		LEIGHTON		SITE LAYOUT PLAN AND WORKS AREA	
DATE 19/MAR/2015		CAD REF.		SCALE	
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DRAWING NO.		Figure 1.1		REV. A	



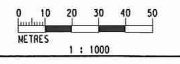
- NOTES:
- GAZETTED BOUNDARY FOR RAILWAY DEVELOPMENT
 - STATION BOUNDARY
 - SCL RELATED WORKS BOUNDARY



RECEIVED
27 APR 2016

BY:

Build King SCL 1124 Joint Venture
FOR CONSTRUCTION



PLOT DRY: G:\CS01\Project\offices\CAD\working\1124\ADM\COMMON\UT\DRAWING\ADM_PDF_COLOUR_A3-1.dwg
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 PLOT DATE: 3/18/2016 2:28:24 PM
 PLOT USER: 2525USUN\SCL_A11_004A.dgn

REV	DESCRIPTION	BY	DATE	APPROVED	REV	DESCRIPTION	BY	DATE	APPROVED
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DRAWN	WSC
DESIGNED	TF
CHECKED	JH
APPROVED	IT
DATE	3/18/2016

MTR

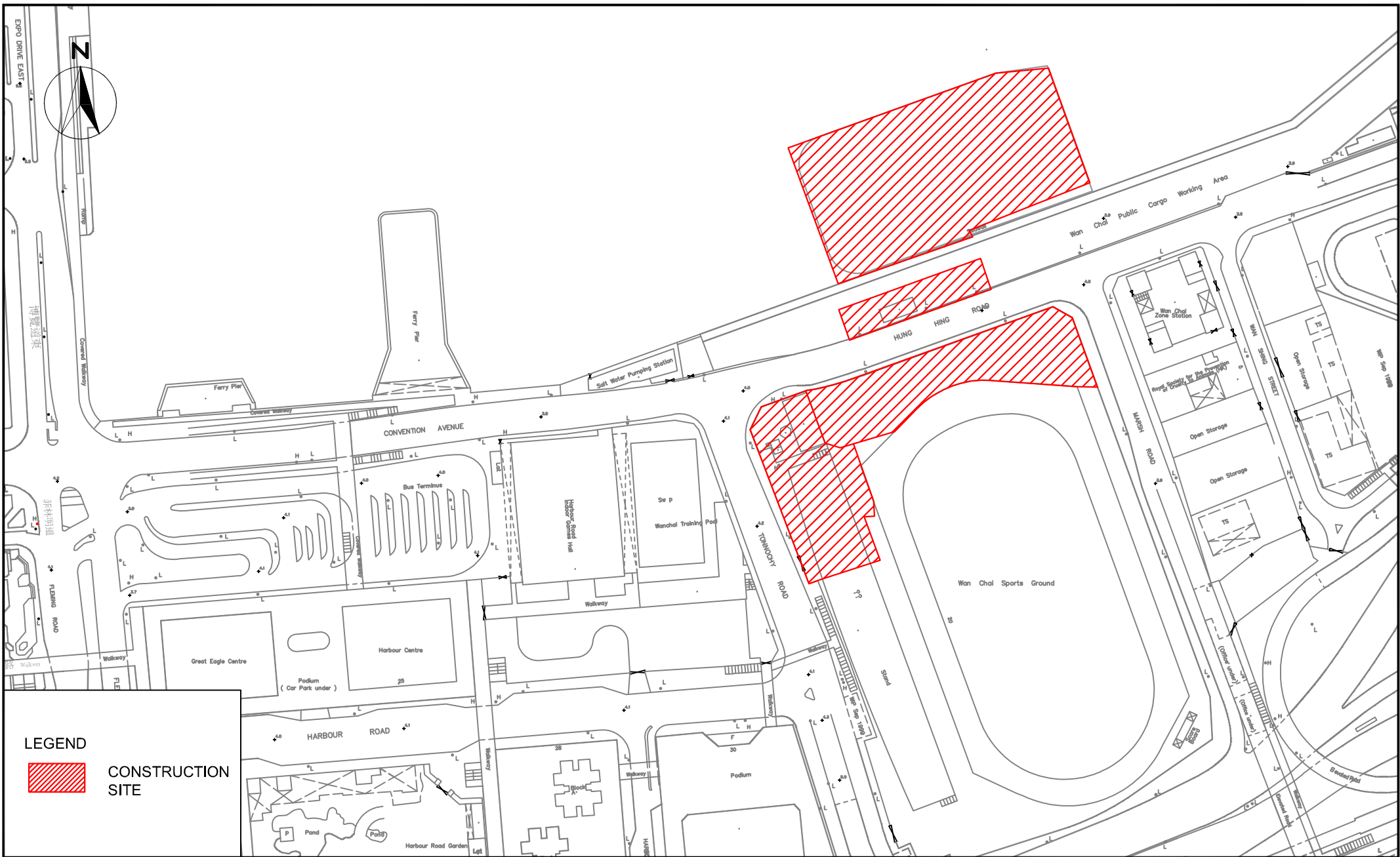
SHATIN TO CENTRAL LINK

Originator: Supported by: Widnell Limited, Urbis Limited, Kenneth Ng & Associates

ARUP

CAAD REF: 1124_W.ADM.DAP_A11_004A.dgn

TITLE		CONTRACT 1124
		ADMIRALTY SCL RELATED WORKS
GROUND FLOOR LEVEL LOCATION PLAN		AT +6.000mPD
SCALE	DRAWING NO.	REV.
1 : 1000	1124/W/ADM/DAP/A11/004	A



LEGEND



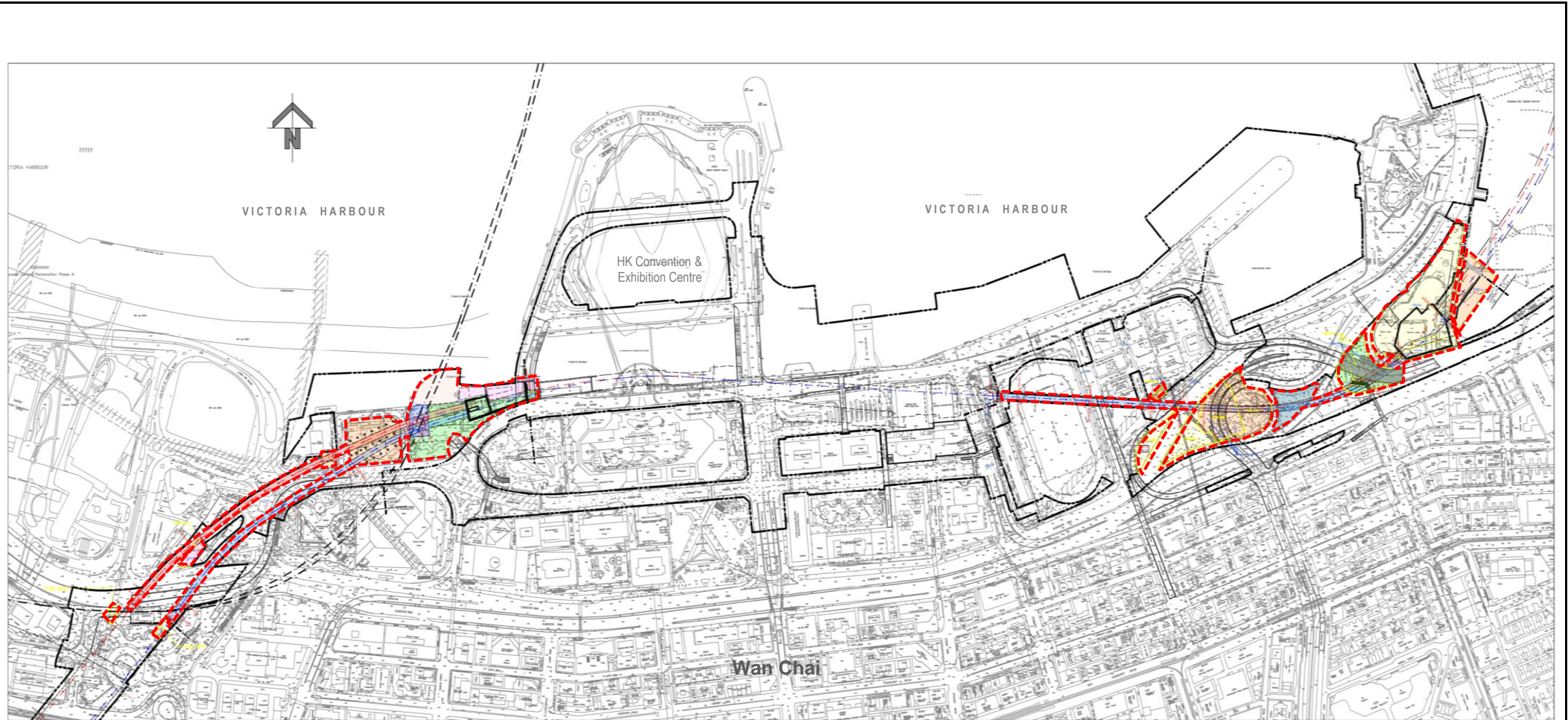
CONSTRUCTION SITE

CINOTECH
 Cinotech Consultants Limited

MTR 1126 REPROVISIONING OF HARBOUR ROAD SPORTS CENTRE AND
 WAN CHAI SWIMMING POOL

SITE LAYOUT PLAN

SCALE	1:2000 @ A4	DATE	NOV 2014	
CHECK	JF	DRAWN	JW	
JOB No.	MA14009	FIGURE NO.	1	REV
				-



 Site Alignment

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SCL Contract 1128
South Ventilation Building to Admiralty Tunnels

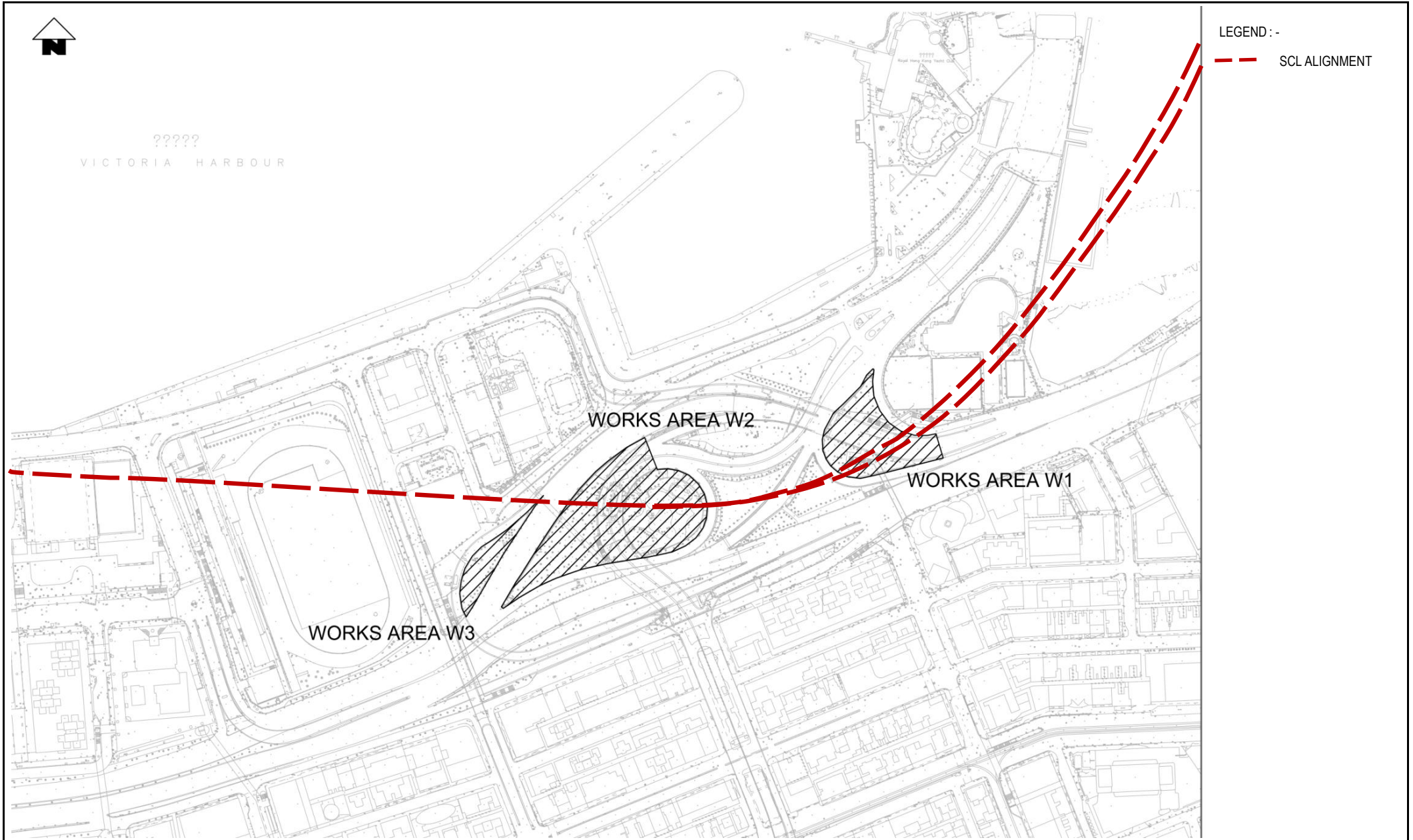


SITE LAYOUT PLAN of SCL1128

Project No.: 60331173

Date: February 2016

Figure 1.1



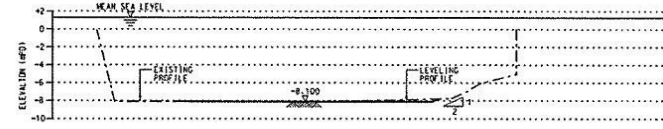
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CONTRACT 1129
ADVANCED WORKS FOR NSL

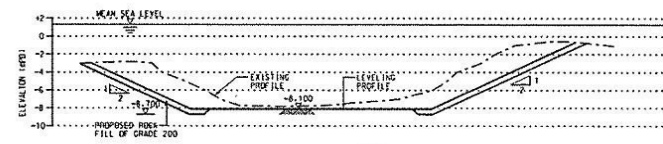
WORKS AREA AND SITE LOCATION OF SCL1129

Project No.: - Date: June 2014

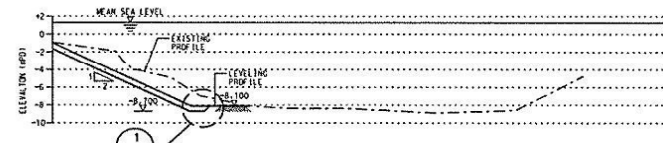
Figure 1.1



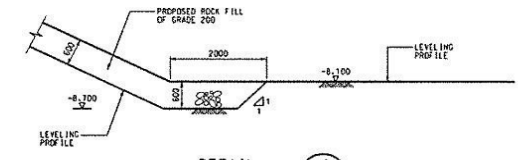
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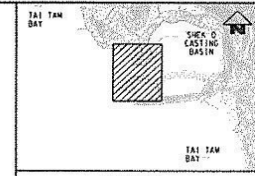
SECTION B
SCALE 1:250



SECTION C
SCALE 1:250



DETAIL 1
SCALE 1:50



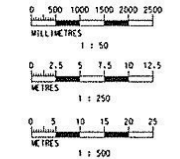
KEY PLAN

- NOTES:**
- UNLESS ADVISED OTHERWISE, LEVELS ARE SHOWN IN METRES RELATIVE TO HONG KONG PRINCIPAL DATUM (HKPD).
 - TOPOGRAPHIC INFORMATION AND HYDROGRAPHIC SURVEY RESULTS SHOWN ON THE DRAWING ARE INDICATIVE ONLY.
 - BASED ON THE AVAILABLE C.L. INFORMATION SILTATION ON SEA BED IS ANTICIPATED. HYDROGRAPHIC SURVEY RESULT IS SHOWN ON THE DRAWING FOR INFORMATION.

- LEGEND:**
- WORKS BOUNDARY
 - HYDROGRAPHIC SURVEY RECORD
 - TOPOGRAPHICAL SURVEY RECORD
 - LEVELLING SITE SLOPE
 - FINISHOD LEVEL
 - SETTING OUT POINT

SETTING OUT POINT

SETTING OUT POINT	EASTING	NORTHING
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SOP202	842985.229	809064.190
SOP203	842942.124	809033.647
SOP204	842581.026	809033.030



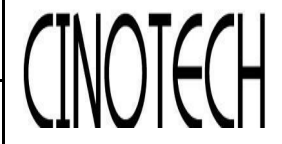
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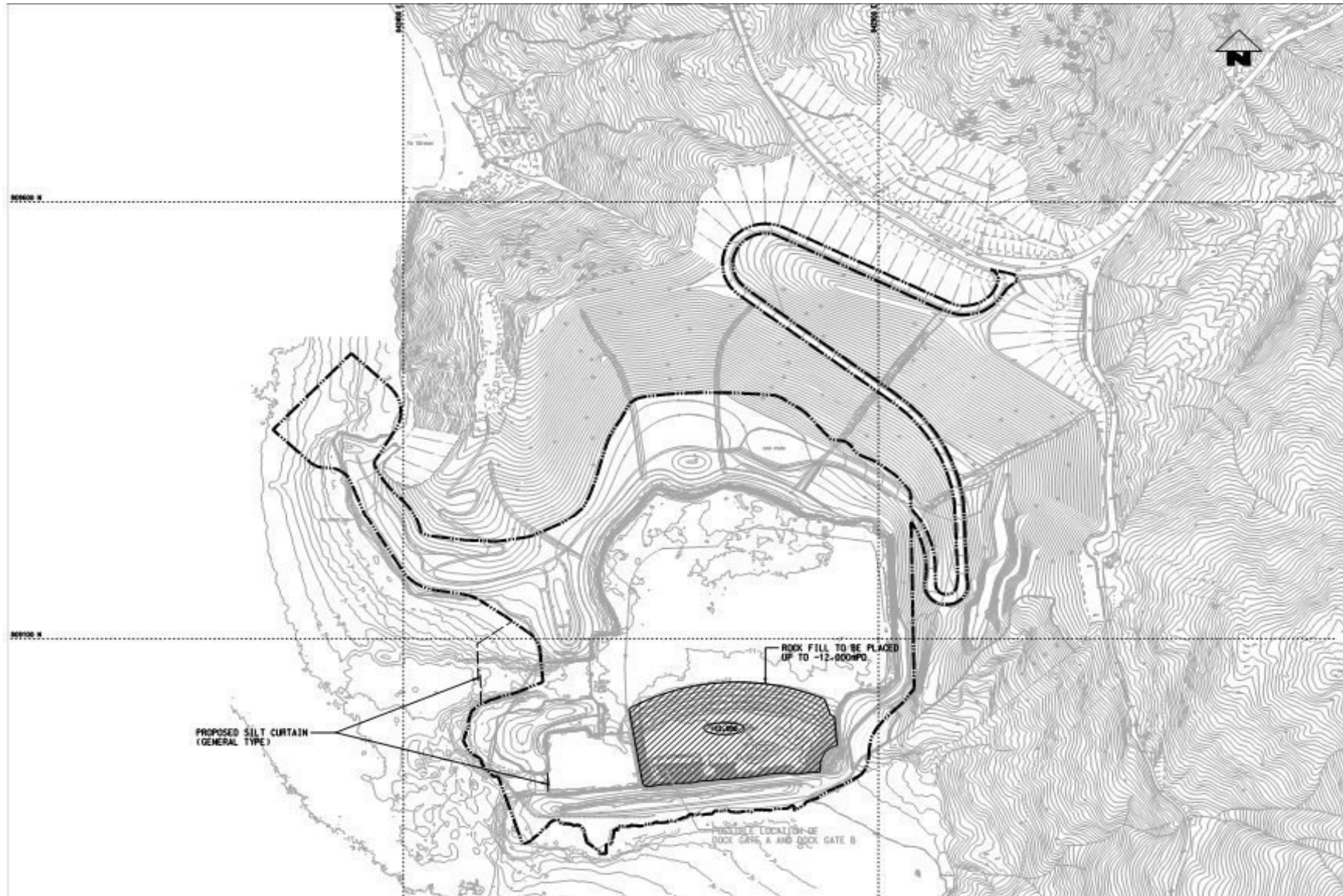
Contract 11227

Advance Works for NSL Cross Harbour Tunnels

The Alignment and Works Area for Works Contract 11227

Scale	N.T.S	Project No.	MA14028
Date	Aug-14	Figure	1a





Title

Contract 11227
 Advance Works for NSL Cross Harbour Tunnels
 The Alignment and Works Area for Works Contract 11227

Scale

N.T.S

Project

No. MA14028

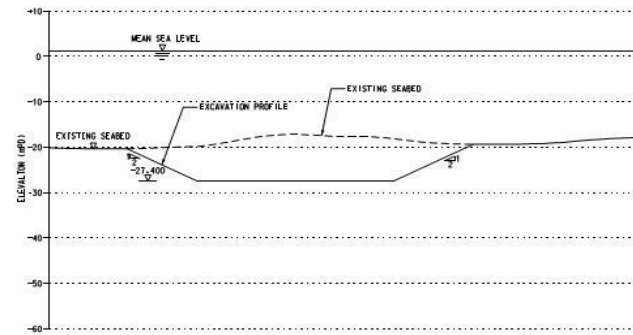
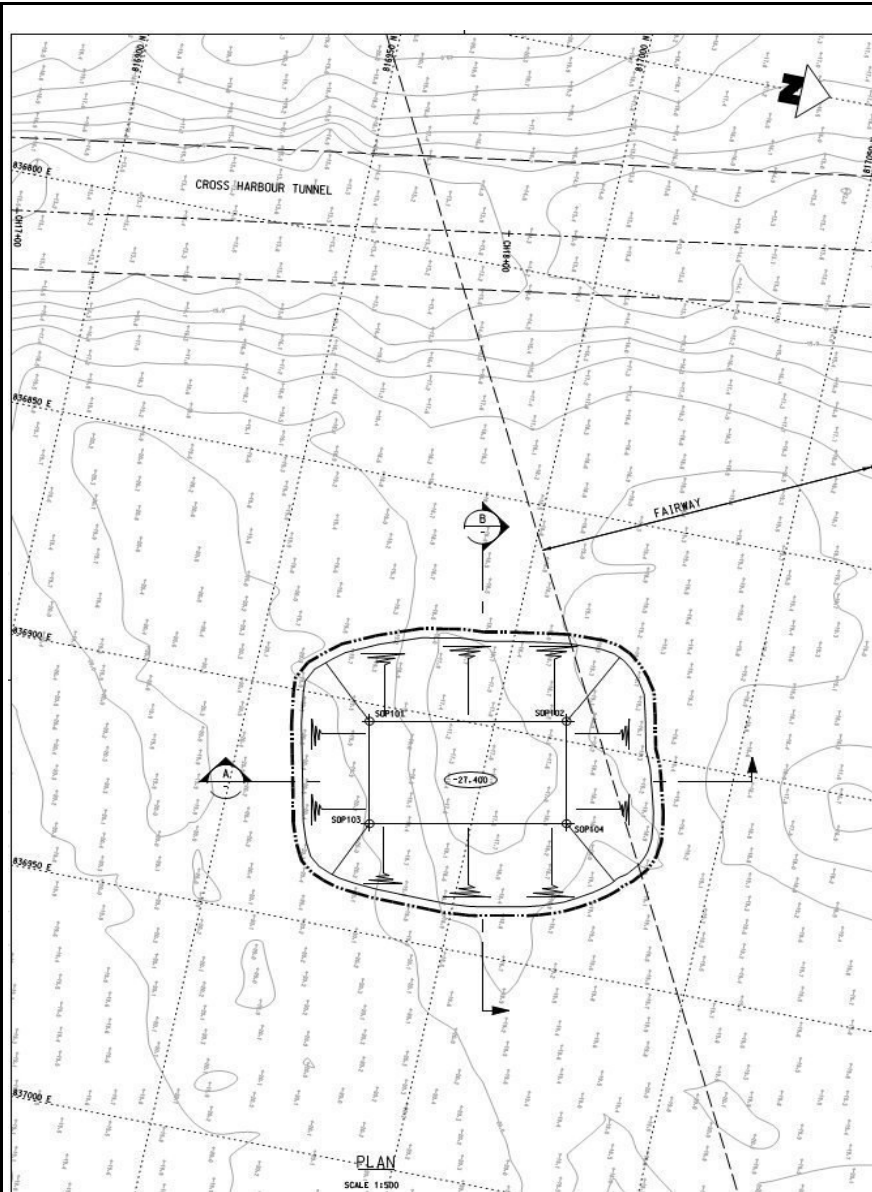
Date

Aug-14

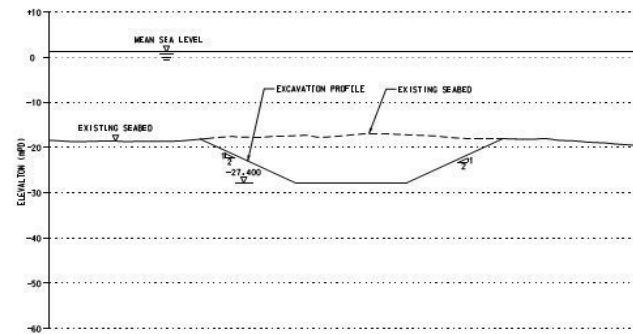
Figure

1b

CINOTECH



SECTION A
SCALE 1:500



SECTION B
SCALE 1:500



KEY PLAN

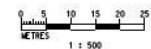
- NOTES:**
- UNLESS NOTED OTHERWISE, LEVELS ARE SHOWN IN METRES RELATIVE TO HONG KONG PRINCIPAL DATUM (HPD).
 - HYDROGRAPHIC SURVEY RESULTS SHOWN ON THE DRAWING ARE INDICATIVE ONLY.

LEGEND:

- WORKS BOUNDARY
- CH18+00 CROSS HARBOUR TUNNEL CHAINAGE
- TRIAL TRENCHING SIDE SLOPE
- EXCAVATION LEVEL
- SOP102 SETTING OUT POINT
- HYDROGRAPHIC SURVEY RECORD (HPD)

SETTING OUT POINT

SETTING OUT POINT	COORDINATES	
	EASTING	NORTHING
SOP101	836903.922	816979.092
SOP102	836895.669	817014.231
SOP103	836926.072	816979.763
SOP104	836917.819	817018.902



Title
Contract 11227
 Advance Works for NSL Cross Harbour Tunnels
 The Alignment and Works Area for Works Contract 11227

Scale
 N.T.S

Date
 Aug-14

Project
 No. MA14028

Appendix
 1c



Appendix B

Project Management Organization and Contracts of Key Personnel

Appendix B Project Management Organization and Contacts of Key Personnel

Title	Name	Telephone
Engineer's Representative		
Construction Manager (Works Contract 1121)	Mr. Cano Ngai	3127 6290
Construction Manager (Works Contract 1122)	Mr. Brian Suen	2176 2788
Atg Chief Construction Manager (Works Contract 1123)	Mr. Raymond Koo	2171 3801
Chief Construction Manager (Works Contracts 1124 & 1128)	Mr. Jacky Mak	2171 3823
Construction Manager (Works Contract 1126)	Mr. Walter Lam	3462 6218
Construction Manager (Works Contract 1129)	Mr. T.C. Lam	3143 9129
Construction Manager (Works Contract 11227)	Mr. Fumihiko Aikawa	3127 6388
Independent Environmental Checker		
Independent Environmental Checker (Works Contracts 1121, 1122, 1123, 1124 & 1128)	Ms. Claudine Lee	2859 5409
Independent Environmental Checker (Works Contracts 1126, 1129 & 11227)	Mr. Fredrick Leong	2859 1739
Environmental Team		
Environmental Team Leader (Works Contracts 1121, 1122, 1123, 1124 & 1128)	Ms. Lisa Poon	3127 6295
Environmental Team Leader (Works Contracts 1121, 1122, 1123 & 1128)	Ms. Felice Wong	2688 1283
Environmental Team Leader (Works Contract 1123)	Mr. Alex Siu	3127 6292
Environmental Team Leader (Works Contracts 1126, 1129 & 11227)	Mr. Richard Kwan	2688 1283
Contractor		
<u>Works Contract 1121</u>		
Environmental Manager	Mr. Danny Cheng	9559 3134
<u>Works Contract 1122</u>		
Project Director	Mr. Francois Dudouit	3765 5610
Environmental Officer	Mr. Ben Chan	9039 1434
<u>Works Contract 1123</u>		
Project Director	Mr. Mark Challis	3973 1997
Environmental Officer	Ms. Yolanda Gao	3973 1498
<u>Works Contract 1124</u>		
Project Director	Mr. Simon Liu	2272 3680
General Manager	Mr. Yee Hon Wing	2272 3680
Environmental Officer	Mr. Nash Wong	2272 3680
<u>Works Contract 1126</u>		
Project Manager	Mr. Peter Tsai	3464 0968
Environmental Officer	Mr. Jacky Lai	5588 5835
<u>Works Contract 1128</u>		
Project Director	Mr. Eddie Chu	2171 3618
Environmental Officer	Ms. Gemini Lam	9130 9104
<u>Works Contract 1129</u>		
Senior Project Manager	Mr. Nelson Cheng	2602 0918 / 9302 5927
Assistant Environmental Manager	Mr. Andy Leung	9489 0035
<u>Works Contract 11227</u>		
Construction Manager	Mr. Yu Ming	2398 8001

Appendix C

Implementation of Environmental Mitigation Measures

Appendix C – Implementation of Environmental Mitigation Measures

EIA Ref. / EM&A Log Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concern to Address	Who to implement the measures?	Location of the measure	When to implement the measures?	Implementation Status
Cultural Heritage Impact						
S4.93 & Table 4.2	Erection of decorative and sensibly designed hoarding along the boundary of the works area	To mitigate the temporary visual impact due to surface works.	Contractor	Works Areas in Causeway Bay and Wan Chai, and Works Shaft in Admiralty	Construction Phase	V
Ecological Impact						
S5.134	Accidental chemical spillage and construction site run-off to the receiving water bodies, mitigation measures such as removing the pollutants before discharge into storm drain and paving the section of construction road between the wheel washing bay and the public road as suggested in Sections 11.216 and 11.219 to 11.256 of the EIA Report shall be adopted.	To minimize the contamination of wastewater discharge	Contractor	All land based works areas	Construction Phase	V
Landscape and Visual Impact						
Construction Phase						
Table 7.9	CM1 - Trees unavoidably affected by the works shall be transplanted as far as possible in accordance with ETWB TC(W) 3/2006 – Tree Preservation.	Transplanting and reuse of affected trees.	MTR	Works Sites	Construction Phase	V
Table 7.9	CM2a - Compensatory tree planting shall be provided in accordance with ETWB TC(W) 3/2006 – Tree Preservation to compensate for felled trees and maintained until end of the establishment period.	Compensation for the removal of existing trees due to the Project.	MTR	Works Sites	Construction Phase	V
Table 7.9	CM2b - Compensatory shrub planting shall be provided to compensate for the loss of shrub planting in amenity areas.	Compensation for the removal of existing shrub planting due to the Project.	MTR	Works Sites	Construction Phase	V
Table 7.9	CM3 - Control of night-time lighting glare	Minimize the night time glare due to the Project during construction phase	MTR	Works Sites	Construction Phase	V
Table 7.9	CM4 - Erection of decorative screen hoarding compatible with the surrounding setting.	Minimize the visual impact of the Project during construction phase	MTR	Works Sites	Construction Phase	V
Table 7.9	CM5 - Management of facilities on work sites which give control on the height and disposition/arrangement of all facilities on the works site to minimize visual impact to adjacent VSRs	Control of height and deposition/ arrangement of temporary facilities in works areas	MTR	Works Sites	Construction Phase	V
Table 7.9	CM6 - All hard and soft landscape areas disturbed temporarily during construction shall be reinstated on like-to-like basis to the satisfaction of the relevant Government Departments.	Reinstatement of temporary works areas.	MTR	Works Sites	Construction Phase	V
Construction Dust Impact						
Table 8.5	Barging facilities: (i) Transportation of spoils to the barging point – Pave all road surfaces within the barging facilities and provide watering once along with the haul road for every working hours to reduce dust emission by 91.7%. This dust suppression efficiency is derived based on the average haul road traffic, average evaporation rate and an assumed application intensity of 1.0 L/m ² once every working hour. Any potential dust impact and watering mitigation would be subject to the actual site condition. For example, a construction activity that produces inherently wet conditions or in cases under rainy weather, the above water application intensity may not be unreservedly applied. While the above watering frequency is to be followed, the extent of watering may vary depending on actual site conditions but should be sufficient to maintain an equivalent intensity of no less than 1.0 L/m ² to achieve the removal efficiency. The dust levels would be monitored and managed under an EM&A programme as specified in the EM&A Manual.	To minimize dust impacts	Contractor	All barging points	Construction phase	V

Appendix C – Implementation of Environmental Mitigation Measures

EIA Ref. / EM&A Log Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concern to Address	Who to implement the measures?	Location of the measure	When to implement the measures?	Implementation Status
	(ii) Unloading of spoil materials – Undertake the unloading process within a 3-sided screen with top tipping hall. Provide water spraying and flexible dust curtains at the discharge point for dust suppression. (iii) Vehicles leaving the barging facilities – Pass vehicles through the wheel washing facilities provided at site exits.					V V
S8.63	For concrete batching plant, the requirements and mitigation measures stipulated in the <i>Guidance Note on the Best Practicable Means for Cement Works (Concrete Batching Plant) BPM 3/2(93)</i> shall be followed and implemented.	To minimize dust impact	Contractor	Concrete Batching Plant	Construction phase	V
Table 8.6	During operation of concrete batching plant: (i) Unloading of aggregates from the tipper trucks to receiving hopper – unload the aggregates from the tipper trucks to the receiving hopper equipped with enclosures on 3 sides and top cover, and water spraying system. (ii) Unloading of cement and PFA from tankers into the silo – Directly load the cement and PFA into the silo via a flexible duct. Install dust collectors at cement/PFA silos. (iii) Storage of aggregates in overhead storage bins – Store the aggregates in fully enclosed overhead storage bins. Cover the top of overhead storage bins with cladding. Install water spraying system at the top of storage bins for watering the aggregates, and fully enclose aggregates storage bins. (iv) Weighing and batching of cementitious materials – Perform the whole process of weighing and mixing in a fully enclosed environment. Equip all the mixers with dust collectors. (v) Loading of concrete from mixer into transit mixer of a truck – Directly load the concrete from the mixer into the transit mixer of a truck in “wet form”. (vi) Tipper trucks and cement tankers leaving the Concrete Batching Plant – Haul road within the site is unpaved. Install wheel washing pit at the gate of the concrete batching plant. (vii) Transportation of materials within the plant – Provide watering twice a day would be provided.	To minimize dust impacts	Contractor	Concrete Batching Plant	Construction phase	V
S8.89	Watering once every working hour on active works areas, exposed areas and paved haul roads to reduce dust emission by 91.7%. This dust suppression efficiency is derived based on the average haul road traffic, average evaporation rate and an assumed application intensity of 1.7 L/m ² for Kowloon side and 1.0 L/m ² for Hong Kong side once every working hour. Any potential dust impact and watering mitigation would be subject to the actual site condition. For example, a construction activity that produces inherently wet conditions or in cases under rainy weather, the above water application intensity may not be unreservedly applied. While the above watering frequency is to be followed, the extent of watering may vary depending on actual site conditions but should be sufficient to maintain an equivalent intensity of no less than 1.7 L/m ² for Kowloon side and 1.0 L/m ² for Hong Kong side to achieve the removal efficiency. The dust levels would be monitored and managed under an EM&A programme as specified in the EM&A Manual.	To minimize dust impact	Contractor	Works areas	Construction Phase	V
S8.89	Enclosing the unloading process at barging point by a 3-sided screen with top tipping hall, provision of water spraying and flexible dust curtains to reduce dust emission	To minimize dust impact	Contractor	All barging points	Construction phase	V

Appendix C – Implementation of Environmental Mitigation Measures

EIA Ref. / EM&A Log Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concern to Address	Who to implement the measures?	Location of the measure	When to implement the measures?	Implementation Status
	<p>that the noise is directed away from the nearby NSRs</p> <ul style="list-style-type: none"> Material stockpiles and other structures shall be effectively utilized, wherever practicable, in screening noise from on-site construction activities 					V
/	<ul style="list-style-type: none"> Install movable noise barriers, acoustic mat or full enclosure, screen the noisy plants during operation Air compressors or Hand-held breaker shall be fitted with valid noise emission labels during operation 	To minimize construction noise impact	Contractor	Works areas	Construction phase	V V
S9.56 & Table 9.16	<p>The following quiet PME shall be used:</p> <ul style="list-style-type: none"> Crane lorry, mobile Crane, mobile Asphalt paver Backhoe with hydraulic breaker Breaker, excavator mounted (hydraulic) Hydraulic breaker Concrete lorry mixer Poker, vibrator, hand-held Concrete pump Crawler crane, mobile Mobile crane Dump truck Excavator Truck Rock drill Lorry Wheel loader Roller vibratory 	To minimize construction noise impact	Contractor	<p>Works areas at:</p> <ul style="list-style-type: none"> Hung Hom Cross Harbour section up to Breakwater of CBTS Breakwater of CBTS to SOV SOV to EXH EXH EXH to open space at the junction of Expo Drive and Convention Avenue Open space at the junction of Expo Drive and Convention Avenue to north of ADM South of ADM to Overrun Tunnel 	Construction phase	V V V V V V V V V V V V V V V V V
S9.58 – S9.59 & Table 9.17	<p>Movable noise barrier shall be used for the following PME:</p> <ul style="list-style-type: none"> Air compressor Asphalt paver Backhoe with hydraulic breaker Bar bender Bar bender and cutter (electric) Breaker, excavator mounted Concrete pump Concrete pump, stationary/lorry mounted Excavator Generator Grout pump Hand held breaker Hydraulic breaker Saw, concrete 	To minimize construction noise impact	Contractor	<p>Works areas at:</p> <ul style="list-style-type: none"> Cross Harbour section up to Breakwater of CBTS Breakwater of CBTS to SOV SOV to EXH EXH EXH to open space at the junction of Expo Drive and Convention Avenue Open space at the junction of Expo Drive and Convention Avenue to north of ADM South of ADM to Overrun Tunnel 	Construction phase	V V V V V V V V V V V V V
S9.60 & Table 9.17	<p>Noise insulating fabric shall be used for</p> <ul style="list-style-type: none"> Drill rig, rotary type Piling, diaphragm wall, bentonite filtering plant Piling, diaphragm wall, grab and chisel Piling, diaphragm wall, hydraulic extractor Piling, large diameter bored, grab and chisel Piling, hydraulic extractor Piling, earth auger, auger Rock drill, crawler mounted (pneumatic) 	To minimize construction noise impact	Contractor	<p>Works areas at:</p> <ul style="list-style-type: none"> Cross Harbour section up to Breakwater of CBTS Breakwater of CBTS to SOV SOV to EXH EXH EXH to open space at the junction of Expo Drive and Convention Avenue Open space at the junction of Expo Drive and Convention Avenue 	Construction phase	V V V V V V V

Appendix C – Implementation of Environmental Mitigation Measures

EIA Ref. / EM&A Log Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concern to Address	Who to implement the measures?	Location of the measure	When to implement the measures?	Implementation Status
				Avenue to north of ADM <ul style="list-style-type: none"> • South of ADM to Overrun Tunnel 		
Water Quality Impact						
Construction Phase						
S11.216	<p>The following mitigation measures are proposed to minimize the potential water quality impacts from the construction works at or close to the seafront:</p> <ul style="list-style-type: none"> • Temporary storage of construction materials (e.g. equipment, filling materials, chemicals and fuel) and temporary stockpile of construction and demolition materials shall be located well away from the seawater front and storm drainage during carrying out of the works. • Stockpiling of construction and demolition materials and dusty materials shall be covered and located away from the seawater front and storm drainage. • Construction debris and spoil shall be covered up and/or disposed of as soon as possible to avoid being washed into the nearby receiving waters. 	To minimize release of construction wastes from construction works at or close to the seafront	Contractor	Construction works at or close to the seafront	Construction Phase	<p style="text-align: center;">V</p> <p style="text-align: center;">V</p> <p style="text-align: center;">V</p>
S11.222 to 11.245	<p>The site practices outlined in ProPECC PN 1/94 "Construction Site Drainage" shall be followed where practicable.</p> <p><u>Surface Run-off</u></p> <ul style="list-style-type: none"> • Surface run-off from construction sites shall be discharged into storm drains via adequately designed sand/silt removal facilities such as sand traps, silt traps and sedimentation basins. Channels or earth bunds or sand bag barriers shall be provided on site to properly direct stormwater to such silt removal facilities. Perimeter channels at site boundaries shall be provided where necessary to intercept storm run-off from outside the site so that it will not wash across the site. Catchpits and perimeter channels shall be constructed in advance of site formation works and earthworks. • Silt removal facilities, channels and manholes shall be maintained and the deposited silt and grit shall be removed regularly, at the onset of and after each rainstorm to prevent local flooding. Any practical options for the diversion and re-alignment of drainage shall comply with both engineering and environmental requirements in order to provide adequate hydraulic capacity of all drains. Minimum distances of 100 m shall be maintained between the discharge points of construction site runoff and the existing saltwater intakes. • Construction works shall be programmed to minimize soil excavation works in rainy seasons (April to September). If excavation in soil cannot be avoided in these months or at any time of year when rainstorms are likely, for the purpose of preventing soil erosion, temporary exposed slope surfaces shall be covered e.g. by tarpaulin, and temporary access roads shall be protected by crushed stone or gravel, as excavation proceeds. Intercepting channels shall be provided (e.g. along the crest / edge of excavation) to prevent storm runoff from washing across exposed soil surfaces. Arrangements shall always be in place in such a way that adequate surface protection measures can be safely carried out well before the arrival of a rainstorm. • Earthworks final surfaces shall be well compacted and the subsequent permanent work or surface protection shall be carried out immediately after the final surfaces are formed to prevent erosion caused by rainstorms. Appropriate drainage like intercepting channels shall be provided where necessary. • Measures shall be taken to minimize the ingress of rainwater into trenches. If excavation of trenches in wet seasons is necessary, they shall be dug and backfilled in short sections. Rainwater pumped out from trenches or foundation excavations shall be discharged into storm drains via silt removal facilities. • Open stockpiles of construction materials (e.g. aggregates, sand and fill material) on sites shall be covered with tarpaulin or similar fabric during rainstorms. • Manholes (including newly constructed ones) shall always be adequately covered and temporarily sealed so as to prevent silt, construction materials or debris from getting into the drainage system, and to prevent storm run-off from getting into foul sewers. Discharge of surface run-off into foul sewers must always be prevented in order not to unduly overload the foul sewerage system. • Good site practices shall be adopted to remove rubbish and litter from construction sites so as to 	To minimize water quality impacts from construction site runoff and general construction activities	Contractor	Works areas	Construction Phase	<p style="text-align: center;">V</p> <p style="text-align: center;">V</p> <p style="text-align: center;">V</p> <p style="text-align: center;">V</p> <p style="text-align: center;">V</p> <p style="text-align: center;">V</p>

Appendix C – Implementation of Environmental Mitigation Measures

EIA Ref. / EM&A Log Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concern to Address	Who to implement the measures?	Location of the measure	When to implement the measures?	Implementation Status
	<p>prevent the rubbish and litter from spreading from the site area. It is recommended to clean the construction sites on a regular basis.</p> <p><u>Boring and Drilling Water</u></p> <ul style="list-style-type: none"> Water used in ground boring and drilling for site investigation or rock / soil anchoring shall as far as practicable be re-circulated after sedimentation. When there is a need for final disposal, the wastewater shall be discharged into storm drains via silt removal facilities. <p><u>Wheel Washing Water</u></p> <ul style="list-style-type: none"> All vehicles and plant shall be cleaned before they leave a construction site to minimize the deposition of earth, mud, debris on roads. A wheel washing bay shall be provided at every site exit if practicable and wash-water shall have sand and silt settled out or removed before discharging into storm drains. The section of construction road between the wheel washing bay and the public road shall be paved with backfall to reduce vehicle tracking of soil and to prevent site run-off from entering public road drains. <p><u>Bentonite Slurries</u></p> <ul style="list-style-type: none"> Bentonite slurries used in diaphragm wall and bore-pile construction shall be reconditioned and used again wherever practicable. If the disposal of a certain residual quantity cannot be avoided, the bentonite slurries shall either be dewatered or mixed with inert fill material for disposal to a public filling area. 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 sewer, storm drains or the receiving waters as set out in the TM-DSS. <p><u>Water for Testing & Sterilization of Water Retaining Structures and Water Pipes</u></p> <ul style="list-style-type: none"> Water used in water testing to check leakage of structures and pipes shall be used for other purposes as far as practicable. Surplus unpolluted water will be discharged into storm drains. Sterilization is commonly accomplished by chlorination. Specific advice from EPD shall be sought during the design stage of the works with regard to the disposal of the sterilizing water. The sterilizing water shall be used again wherever practicable. <p><u>Acid Cleaning, Etching and Pickling Wastewater</u></p> <ul style="list-style-type: none"> Acidic wastewater generated from acid cleaning, etching, pickling and similar activities shall be neutralized to within the pH range of 6 to 10 before discharging into foul sewers. If there is no public foul sewer in the vicinity, the neutralized wastewater shall be tankered off site for disposal into foul sewers or treated to a standard acceptable to storm drains and the receiving waters. <p><u>Wastewater from Site Facilities</u></p> <ul style="list-style-type: none"> Wastewater collected from any temporary canteen kitchens, including that from basins, sinks and floor drains, shall be discharged into foul sewer via grease traps. In case connection to the public foul sewer is not feasible, wastewater generated from kitchens or canteen, if any, shall be collected in a temporary storage tank. A licensed waste collector shall be deployed to clean the temporary storage tank on a regular basis. Drainage serving an open oil filling point shall be connected to storm drains via petrol interceptors with peak storm bypass. Vehicle and plant servicing areas, vehicle wash bays and lubrication bays shall as far as possible be located within roofed areas. The drainage in these covered areas shall be connected to foul sewers via a petrol interceptor. Oil leakage or spillage shall be contained and cleaned up immediately. Waste oil shall be collected and stored for recycling or disposal in accordance with the Waste Disposal Ordinance. 					<p>V</p> <p>V</p> <p>V</p> <p>V</p> <p>V</p> <p>V</p> <p>V</p> <p>V</p> <p>V</p> <p>V</p> <p>V</p> <p>V</p> <p>V</p> <p>V</p> <p>V</p> <p>V</p> <p>V</p> <p>V</p> <p>V</p>
S11.246 & 11.247	<p>Construction work force sewage discharges on site are expected to be discharged to the nearby existing trunk sewer or sewage treatment facilities. If disposal of sewage to public sewerage system is not feasible, appropriate numbers of portable toilets shall be provided by a licensed contractor to serve the construction workers over the construction site to prevent direct disposal of sewage into the water environment. The Contractor shall also be responsible for waste disposal and maintenance practices. Notices shall be posted at conspicuous locations to remind the workers not to discharge any sewage or wastewater into the nearby environment.</p>	<p>To minimize water quality impacts due to sewage generated from construction workforce</p>	<p>Contractor</p>	<p>Works areas</p>	<p>Construction Phase</p>	<p>V</p>

Appendix C – Implementation of Environmental Mitigation Measures

EIA Ref. / EM&A Log Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concern to Address	Who to implement the measures?	Location of the measure	When to implement the measures?	Implementation Status
S11.248	In case seepage of uncontaminated groundwater occurs, groundwater shall be pumped out from the works areas and discharged into the storm system via silt removal facilities. Uncontaminated groundwater from dewatering process shall also be discharged into the storm system via silt traps.	To minimize impact from discharge of uncontaminated groundwater	Contractor	Works areas	Construction Phase	V
S11.249	If land contaminated site is identified from the Stage 2 SI work (refer to Sections 11.188 to 11.191 of the EIA Report), the following mitigation measures shall be implemented for the identified contaminated area. Any transient pile of contaminated soil / material shall be minimized and shall be bottom-lined, bunded and covered with impervious membrane during rain event to avoid generation of contaminated runoff. Appropriate intercepting channels and partial shelters shall be provided where necessary to prevent rainwater from collecting within trenches or footing excavations. Any contaminated water and wastewater generated from the decontamination process shall not be directly discharged to public sewers or site drainage. They shall be treated or tanked away as necessary for proper disposal in compliance with the TM-DSS.	To control site run-off generated from any potential contaminated works areas.	Contractor	Any potential contaminated areas to be identified from the Stage 2 SI	Construction Phase	V
S11.250 & S11.251	No direct discharge of groundwater from contaminated areas shall be adopted. If land contamination impact and generation of contaminated groundwater is identified from the Stage 2 SI works (refer to Sections 11.189 to 11.192 of the EIA Report), the following mitigation measures shall be adopted. Any contaminated groundwater shall be either properly treated in compliance with the requirements of the TM-DSS or properly recharged into the ground. If wastewater treatment is deployed for treating the contaminated groundwater, the wastewater treatment unit shall deploy suitable treatment processes (e.g. oil interceptor / activated carbon) to reduce the pollution level to an acceptable standard and remove any prohibited substances (such as TPH) to an undetectable range. All treated effluent from the wastewater treatment plant shall meet the requirements as stated in TM-DSS and shall be discharged into the foul sewers. If groundwater recharging wells are deployed, the recharging wells shall be installed as appropriate for recharging the contaminated groundwater back into the ground. The recharging wells shall be selected at places where the groundwater quality will not be affected by the recharge operation as indicated in Section 2.3 of the TM-DSS. The baseline groundwater quality shall be determined prior to the selection of the recharge wells, and submit a working plan (including the laboratory analytical results showing the quality of groundwater at the proposed recharge location(s) as well as the pollutant levels of groundwater to be recharged) to EPD for agreement. Pollution levels of groundwater to be recharged shall not be higher than pollutant levels of ambient groundwater at the recharge well. Prior to recharge, any prohibited substance such as TPH products shall be removed as necessary by installing the petrol interceptor. The Contractor shall apply for a discharge licence under the WPCO through the Regional Office of EPD for groundwater recharge operation or discharge of treated groundwater.	To minimize potential water quality impact from discharge of contaminated groundwater	Contractor	Any potential contaminated areas to be identified from the Stage 2 SI	Construction Phase	V
S11.252	The following good site practices shall be adopted for the proposed barging points: <ul style="list-style-type: none"> • all vessels shall be sized so that adequate clearance is maintained between vessels and the seabed in all tide conditions, to ensure that undue turbidity is not generated by turbulence from vessel movement or propeller wash • all hopper barges shall be fitted with tight fitting seals to their bottom openings to prevent leakage of material • construction activities shall not cause foam, oil, grease, scum, litter or other objectionable matter to be present on the water within the site • loading of barges and hoppers shall be controlled to prevent splashing of material into the surrounding water. Barges or hoppers shall not be filled to a level that will cause the overflow of materials or polluted water during loading or transportation 	To minimize water quality impacts generated from the barging points.	Contractor	Barging points	Construction Phase	V
S11.253	There is a need to apply to EPD for a discharge licence for discharge of effluent from the construction site under the WPCO. The discharge quality must meet the requirements specified in the discharge licence. All the runoff and wastewater generated from the works areas shall be treated so that it satisfies all the standards listed in the TM-DSS. Minimum distances of 100 m shall be maintained between the discharge points of construction site effluent and the existing seawater intakes. The	To minimize water quality impact from effluent discharges from construction sites	Contractor	All construction works areas	Construction Phase	V

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EIA Ref. / EM&A Log Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concern to Address	Who to implement the measures?	Location of the measure	When to implement the measures?	Implementation Status
	beneficial uses of the treated effluent for other on-site activities such as dust suppression, wheel washing and general cleaning etc., can minimize water consumption and reduce the effluent discharge volume. If monitoring of the treated effluent quality from the works areas is required during the construction phase of the Project, the monitoring shall be carried out in accordance with the WPCO license which is under the ambit of Regional Office (RO) of EPD.					
S11.254	Contractor must register as a chemical waste producer if chemical wastes would be produced from the construction activities. The Waste Disposal Ordinance (Cap 354) and its subsidiary regulations in particular the Waste Disposal (Chemical Waste) (General) Regulation shall be observed and complied with for control of chemical wastes.	To minimize water quality impact from accidental spillage of chemical	Contractor	All construction works areas	Construction Phase	V
S11.255	Any service shop and maintenance facilities shall be located on hard standings within a bunded area, and sumps and oil interceptors shall be provided. Maintenance of vehicles and equipment involving activities with potential for leakage and spillage shall only be undertaken within the areas appropriately equipped to control these discharges.	To minimize water quality impact from accidental spillage of chemical	Contractor	All construction works areas	Construction Phase	V
S11.256	Disposal of chemical wastes shall be carried out in compliance with the Waste Disposal Ordinance. The "Code of Practice on the Packaging, Labelling and Storage of Chemical Wastes" published under the Waste Disposal Ordinance details the requirements to deal with chemical wastes. General requirements are given as follows: <ul style="list-style-type: none"> Suitable containers shall be used to hold the chemical wastes to avoid leakage or spillage during storage, handling and transport. Chemical waste containers shall be suitably labelled, to notify and warn the personnel who are handling the wastes, to avoid accidents. Storage area shall be selected at a safe location on site and adequate space shall be allocated to the storage area. 	To minimize water quality impact from accidental spillage of chemical	Contractor	All construction works areas	Construction Phase	V V V
Waste Management Implications						
Construction Phase						
S12.75	Good Site Practices and Waste Reduction Measures <ul style="list-style-type: none"> Prepare a Waste Management Plan (WMP) approved by the Engineer/Supervising Officer of the Project based on current practices on construction sites; Training of site personnel in, site cleanliness, proper waste management and chemical handling procedures; Provision of sufficient waste disposal points and regular collection of waste; Appropriate measures to minimize 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 Separation of chemical wastes for special handling and appropriate treatment. 	To reduce waste management impacts	Contractor	All Work Sites	Construction Phase	V V V V V
S12.76	Good Site Practices and Waste Reduction Measures (con't) <ul style="list-style-type: none"> Sorting of demolition debris and excavated materials from demolition works to recover reusable/recyclable portions (i.e. soil, broken concrete, metal etc.); 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; Encourage collection of aluminum cans by providing separate labeled bins to enable this waste to be segregated from other general refuse generated by the workforce; Proper storage and site practices to minimize the potential for damage or contamination of construction materials; Plan and stock construction materials carefully to minimize amount of waste generated and avoid unnecessary generation of waste; and Training shall be provided to workers about the concepts of site cleanliness and appropriate 	To achieve waste reduction	Contractor	All Work Sites	Construction Phase	V V V V V

Appendix C – Implementation of Environmental Mitigation Measures

EIA Ref. / EM&A Log Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concern to Address	Who to implement the measures?	Location of the measure	When to implement the measures?	Implementation Status
	waste management procedures, including waste reduction, reuse and recycle.					
S12.77	Good Site Practices and Waste Reduction Measures (con't) The Contractor shall prepare and implement a WMP as part of the EMP in accordance with ETWB TCW No. 19/2005 which describes the arrangements for avoidance, reuse, recovery, recycling, storage, collection, treatment and disposal of different categories of waste to be generated from the construction activities. Such a management plan shall incorporate site specific factors, such as the designation of areas for segregation and temporary storage of reusable and recyclable materials. The EMP shall be submitted to the Engineer for approval. The Contractor shall implement the waste management practices in the EMP throughout the construction stage of the Project. The EMP shall be reviewed regularly and updated by the Contractor, preferably in a monthly basis.	To achieve waste reduction	Contractor	All Work Sites	Construction Phase	V
S12.78	Good Site Practices and Waste Reduction Measures (con't) C&D materials would be reused in other local concurrent projects as far as possible. If all reuse outlets are exhausted during the construction phase, the C&D materials would be disposed of at Taishan, China as a last resort.	To achieve waste reduction	Contractor	All Work Sites	Construction Phase	V
S12.79	Storage, Collection and Transportation of Waste Should any temporary storage or stockpiling of waste is required, recommendations to minimize the impacts include: <ul style="list-style-type: none"> Waste, such as soil, shall be handled and stored well to ensure secure containment, thus minimizing the potential of pollution; Maintain and clean storage areas routinely; Stockpiling area shall be provided with covers and water spraying system to prevent materials from wind-blown or being washed away; and Different locations shall be designated to stockpile each material to enhance reuse. 	To minimize potential adverse environmental impacts arising from waste storage	Contractor	Work Sites	Construction Phase	V V V V
S12.80	Storage, Collection and Transportation of Waste (con't) Waste haulier with appropriate permits shall be employed by the Contractor for the collection and transportation of waste from works areas to respective disposal outlets. The following suggestions shall be enforced to minimize the potential adverse impacts: <ul style="list-style-type: none"> Remove waste in timely manner Waste collectors shall only collect wastes prescribed by their permits Impacts during transportation, such as dust and odour, shall be mitigated by the use of covered trucks or in enclosed containers Obtain relevant waste disposal permits from the appropriate authorities, in accordance with the Waste Disposal Ordinance (Cap. 354), Waste Disposal (Charges for Disposal of Construction Waste) Regulation (Cap. 345) and the Land (Miscellaneous Provisions) Ordinance (Cap. 28) Waste shall be disposed of at licensed waste disposal facilities Maintain records of quantities of waste generated, recycled and disposed 	To minimize potential adverse environmental impacts arising from waste collection and disposal	Contractor	Work Sites	Construction Phase	V V V V V V
S12.81	Storage, Collection and Transportation of Waste (con't) <ul style="list-style-type: none"> Implementation of trip ticket system with reference to DevB TC(W) No.6/2010 to monitor disposal of waste and to control fly-tipping at PFRFs or landfills. A recording system for the amount of waste generated, recycled and disposed (including disposal sites) shall be proposed. 	To minimize potential adverse environmental impacts arising from waste collection and disposal	Contractor	Work Sites	Construction Phase	V
S12.83 – 12.86	Sorting of C&D Materials <ul style="list-style-type: none"> Sorting to be performed to recover the inert materials, reusable and recyclable materials before disposal off-site. Specific areas shall be provided by the Contractors for sorting and to provide temporary storage areas for the sorted materials. The C&D materials shall at least be segregated into inert and non-inert materials, in which the inert portion could be reused and recycled as far as practicable before delivery to PFRFs as 	To minimize potential adverse environmental impacts during the handling, transportation and disposal of C&D materials	Contractor	Work Sites	Construction Phase	V V V

Appendix C – Implementation of Environmental Mitigation Measures

EIA Ref. / EM&A Log Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concern to Address	Who to implement the measures?	Location of the measure	When to implement the measures?	Implementation Status
	<p>mentioned for beneficial use in other projects. While opportunities for reusing the non-inert portion shall be investigated before disposal of at designated landfills.</p> <ul style="list-style-type: none"> Possibility of reusing the spoil in the Project will be continuously investigated in the detailed design and construction stages, it includes backfilling to cut and cover construction works for the Hung Hom south and north approach tunnels. 					V
S12.88	<p>Sediments</p> <ul style="list-style-type: none"> The basic requirements and procedures for excavated / dredged sediment disposal specified under ETWB TC(W) No. 34/2002 shall be followed. MFC is managing the disposal facilities in Hong Kong for the dredged and excavated sediment, while EPD is the authority of issuing marine dumping permit under the Dumping at Sea Ordinance. 	To ensure the sediment to be disposed of in an authorized and least impacted way	Contractor	All works areas with sediments concern	Construction Phase	V
S12.89	<p>Sediments (con't)</p> <ul style="list-style-type: none"> The contractor for the excavation / dredging works shall apply for the site allocations of marine sediment disposal based on the prior agreement with MFC/CEDD. A request for reservation of sediment disposal space have been submitted to MFC for onward discussions of disposal approach and feasible disposal sites and the letter is attached in Appendix 12.6. The Project proponent shall also be responsible for the application of all necessary permits from relevant authorities, including the dumping permit as required under DASO from EPD, for the disposal of dredged and excavated sediment prior to the commencement of the excavation works. 	To determine the best handling and disposal option of the sediments	MTR / Contractor	All works areas with sediments concern	Detailed Design Stage and Construction Phase	V
S12.91 – 12.94	<p>Sediments (con't)</p> <ul style="list-style-type: none"> Stockpiling of contaminated sediments shall be avoided as far as possible. If temporary stockpiling of contaminated sediments is necessary, the excavated sediment shall be covered by tarpaulin and the area shall be placed within earth bunds or sand bags to prevent leachate from entering the ground, nearby drains and/or surrounding water bodies. The stockpiling areas shall be completely paved or covered by linings in order to avoid contamination to underlying soil or groundwater. Separate and clearly defined areas shall be provided for stockpiling of contaminated and uncontaminated materials. Leachate, if any, shall be collected and discharged according to the Water Pollution Control Ordinance (WPCO). In order to minimise the potential odour / dust emissions during excavation and transportation of the sediment, the excavated sediments shall be wetted during excavation / material handling and shall be properly covered when placed on trucks or barges. Loading of the excavated sediment to the barge shall be controlled to avoid splashing and overflowing of the sediment slurry to the surrounding water. The barge transporting the sediments to the designated disposal sites shall be equipped with tight fitting seals to prevent leakage and shall not be filled to a level that would cause overflow of materials or laden water during loading or transportation. In addition, 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. In order to minimise the exposure to contaminated materials, workers shall, when necessary, wear appropriate personal protective equipments (PPE) when handling contaminated sediments. Adequate washing and cleaning facilities shall also be provided on site. 	To ensure handling of sediments are in accordance to statutory requirements	Contractor	Work Sites, Sediment disposal sites	Construction Phase	V
S12.95	<p>Sediments (con't)</p> <ul style="list-style-type: none"> A possible arrangement for Type 3 disposal is by geosynthetic containment. A geosynthetic containment method is a method whereby the 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. The technology is readily available for the manufacture of the geosynthetic containers to the project-specific requirements. Similar disposal methods have been used for projects in Europe, the USA and Japan and the issues of fill retention by the geosynthetic fabrics, possible rupture of the containers and 	To ensure handling of sediments are in accordance to statutory requirements	Contractor	Work Sites, Sediment disposal sites	Construction Phase	V

Appendix C – Implementation of Environmental Mitigation Measures

EIA Ref. / EM&A Log Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concern to Address	Who to implement the measures?	Location of the measure	When to implement the measures?	Implementation Status
	sediment loss due to impact of the container on the seabed have been addressed.					
S12.97	<p>Containers for Storage of Chemical Waste The Contractor shall register with EPD as a chemical waste producer and to follow the guidelines stated in the Code of Practice on the Packaging, Labelling and Storage of Chemical Wastes. Containers used for storage of chemical waste shall:</p> <ul style="list-style-type: none"> • Be compatible with the chemical wastes being stored, maintained in good condition and securely sealed; • Have a capacity of less than 450 liters unless the specifications have been approved by EPD; and • Display a label in English and Chinese in accordance with instructions prescribed in Schedule 2 of the Waste Disposal (Chemical Waste) (General) Regulation. 	To register with EPD as a Chemical waste producer and store chemical waste in appropriate containers	Contractor	Work Sites	Construction Phase	V V V
S12.98	<p>Chemical Waste Storage Area</p> <ul style="list-style-type: none"> • Be clearly labeled to indicate corresponding chemical characteristics of the chemical waste and used for storage of chemical waste only; • Be enclosed on at least 3 sides; • Have an impermeable floor and bunding, of capacity to accommodate 110% of the volume of the largest container or 20% by volume of the chemical waste stored in that area, whichever is the greatest; • Have adequate ventilation; • Be covered to prevent rainfall from entering; and • Be properly arranged so that incompatible materials are adequately separated. 	To prepare appropriate storage areas for chemical waste at works areas	Contractor	Work Sites	Construction Phase	V V V V V
S12.99	<p>Chemical Waste</p> <ul style="list-style-type: none"> • Lubricants, waste oils and other chemical wastes would be generated during the maintenance of vehicles and mechanical equipments. Used lubricants shall be collected and stored in individual containers which are fully labelled in English and Chinese and stored in a designated secure place. 	To clearly label the chemical waste at works areas	Contractor	Work Sites	Construction Phase	V
S12.100	<p>Collection and Disposal of Chemical Waste <i>A trip-ticket system shall be operated in accordance with the Waste Disposal (Chemical Waste) (General) Regulation</i> to monitor all movements of chemical waste. The Contractor shall employ a licensed collector to transport and dispose of the chemical wastes, to either the approved CWTC at Tsing Yi, or another licensed facility, in accordance with the <i>Waste Disposal (Chemical Waste) (General) Regulation</i>.</p>	To monitor the generation, reuse and disposal of chemical waste	Contractor	Work Sites	Construction Phase	V
S12.101	<p>General Refuse General refuse shall be stored in enclosed bins or compaction units separate from C&D materials and chemical waste. A reputable waste collector shall be employed by the contractor to remove general refuse from the site, separately from C&D materials and chemical wastes. Preferably, an enclosed and covered area shall be provided to reduce the occurrence of wind-blown light material.</p>	To properly store and separate from other C&D materials for subsequent collection and disposal	Contractor	Work Sites	Construction Phase	V
S12.102	<p>General Refuse (con't) The recyclable component of general refuse, such as aluminum cans, paper and cleansed plastic containers shall be separated from other waste. Provision and collection of recycling bins for different types of recyclable waste shall be set up by the Contractor. The Contractor shall also be responsible for arranging recycling companies to collect these materials.</p>	To facilitate recycling of recyclable portions of refuse	Contractor	Work Sites	Construction Phase	V
S12.103	<p>General Refuse (con't) The Contractor shall carry out an education programme for workers in avoiding, reducing, reusing and recycling of materials generation. Posters and leaflets advising on the use of the bins shall also be provided in the sites as reminders.</p>	To raise workers' awareness on recycling issue	Contractor	Work Sites	Construction Phase	V
/	<p>Accidental spillage To prevent accidental spillage of chemicals, the following is recommended:</p> <ul style="list-style-type: none"> • Proper storage and handling facilities will be provided. • All the tanks, containers, storage area will be bunded and the locations will be locked as far as possible from the sensitive watercourse and stormwater drains. • The contractor will register as a chemical waste producer if chemical wastes would be 	To minimize potential adverse environmental impacts arising from accidental spillage	Contractor	Work Sites	Construction Phase	V V V

Appendix C – Implementation of Environmental Mitigation Measures

EIA Ref. / EM&A Log Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concern to Address	Who to implement the measures?	Location of the measure	When to implement the measures?	Implementation Status
	<p>generated. Storage of chemical waste arising from the construction activities will be stored with suitable labels and warnings.</p> <ul style="list-style-type: none"> Disposal of chemical wastes will be conducted in compliance with the requirements as stated in the Waste disposal (Chemical Waste) (General) Regulation. 					V
Land Contamination Impact						
S13.23–13.24	<p>For construction works at sites under the current stage of site investigation (Stage 1 SI):</p> <ul style="list-style-type: none"> Precautionary measures such as visual inspection are recommended to be undertaken during construction activities that disturb soil. The inspection process shall involve a visual observation of excavated soils for discolouration and the presence of oils, together with identifying the presence of odours, which may also indicate soil and/or groundwater contamination. If soil materials suspected to be contaminated are encountered during excavation, sampling and testing shall be undertaken to verify the presence of contamination. The soil extracted during demolition, excavation and cut & cover construction shall be temporary stockpiled. Shall concentrations of contaminants of concern (COCs) exceed relevant RBRGs as indicated by laboratory analyses, remediation works shall be undertaken with reference to the Contamination Assessment Report (CAR) and Remediation Action Plans (RAP). 	To act as a general precautionary measure to screen soils for the presence contamination during excavation works for Cut-and-Cover.	Contractor	Within Project Boundary where signs of contamination is identified	During excavation works for Cut-and-Cover	V
S13.30	<p>For some sites with currently no SI proposed (i.e. sites ID 2-02, 2-18, 2-22, 2-23, 2-27, 2-28), to be conservative, visual inspection shall be conducted during demolition and excavation to detect any abnormal colour, smell or other characteristics of the soil, due to the nearby land use and/ or construction method. If abnormal colour, smell or other characteristics of contamination are identified for any of these sites, sampling and testing shall be undertaken to verify the presence of contamination. The soil extracted during demolition, excavation and cut & cover construction shall be temporary stockpiled. Should the concentrations of contaminants of concern (COCs) exceed relevant RBRGs as indicated by laboratory analyses, remediation works shall be undertaken with reference to the CAR and RAP.</p>	To act as a general precautionary measure to screen soils for the presence contamination during excavation works for Cut-and-Cover.	Contractor	Areas with no SI proposed (Sites ID 2-02, 2-18, 2-22, 2-23, 2-27, 2-28)	During excavation works for Cut-and-Cover	V
S13.36 – 13.38	<p>For areas inaccessible for proper site appraisal and investigation (Stage 2 SI)</p> <p>(i) Site 2-15</p> <ul style="list-style-type: none"> Upon site access being granted, visual inspection shall be carried out where intrusive works and soil excavation is encountered, for attention on any potential contamination due to its current operation A supplementary CAP shall then be submitted to EPD for endorsement. A CAR/RAP shall be prepared and submitted to EPD for endorsement on completion of the SI and analytical testing. Shall remediation be undertaken a Remediation Report (RR) shall be prepared and submitted to EPD for endorsement to demonstrate that the decontamination work is adequate and is carried out in accordance with the endorsed CAR and RAP. Information such as soil treatment/ disposal records (including trip tickets), confirmatory sampling results, and photographs shall be included in the aforesaid RR. No construction work shall be carried out prior to the endorsement of the RR by EPD. 	<p>To identify areas with land contamination concern, report laboratory results and propose remediation measures if necessary.</p> <p>To ensure remediation works have been undertaken to before the commencement of any construction works of the Project.</p>	Contractor	Areas unable to be accessed during Stage 1 SI (Site 2-15)	After land resumption and prior to the construction works commencement at the site	V
S13.39	<p>Potential Remediation of Contaminated Soil</p> <ul style="list-style-type: none"> Excavation profiles must be properly designed and executed with attention to the relevant requirements for environment, health and safety; Excavation shall be carried out during dry season as far as possible to minimise contaminated runoff from contaminated soils; Supply of suitable clean backfill material is needed after excavation; If remediation is required with chemical oxidation proposed as a contaminant mass reduction technology, chemicals will be securely and separately stored away from sources of ignition or oxidisable items. Handling will be undertaken by personnel with appropriate training and personal protective equipment (PPE). Vehicles containing any excavated materials shall be suitably covered to limit potential dust emissions or contaminated wastewater run-off, and truck bodies and tailgates shall be sealed to prevent any discharge during transport or during wet conditions; Speed control for the trucks carrying contaminated materials shall be enforced; 	To remediate contaminated soil	Contractor	Identified contaminated sites	Site remediation	V

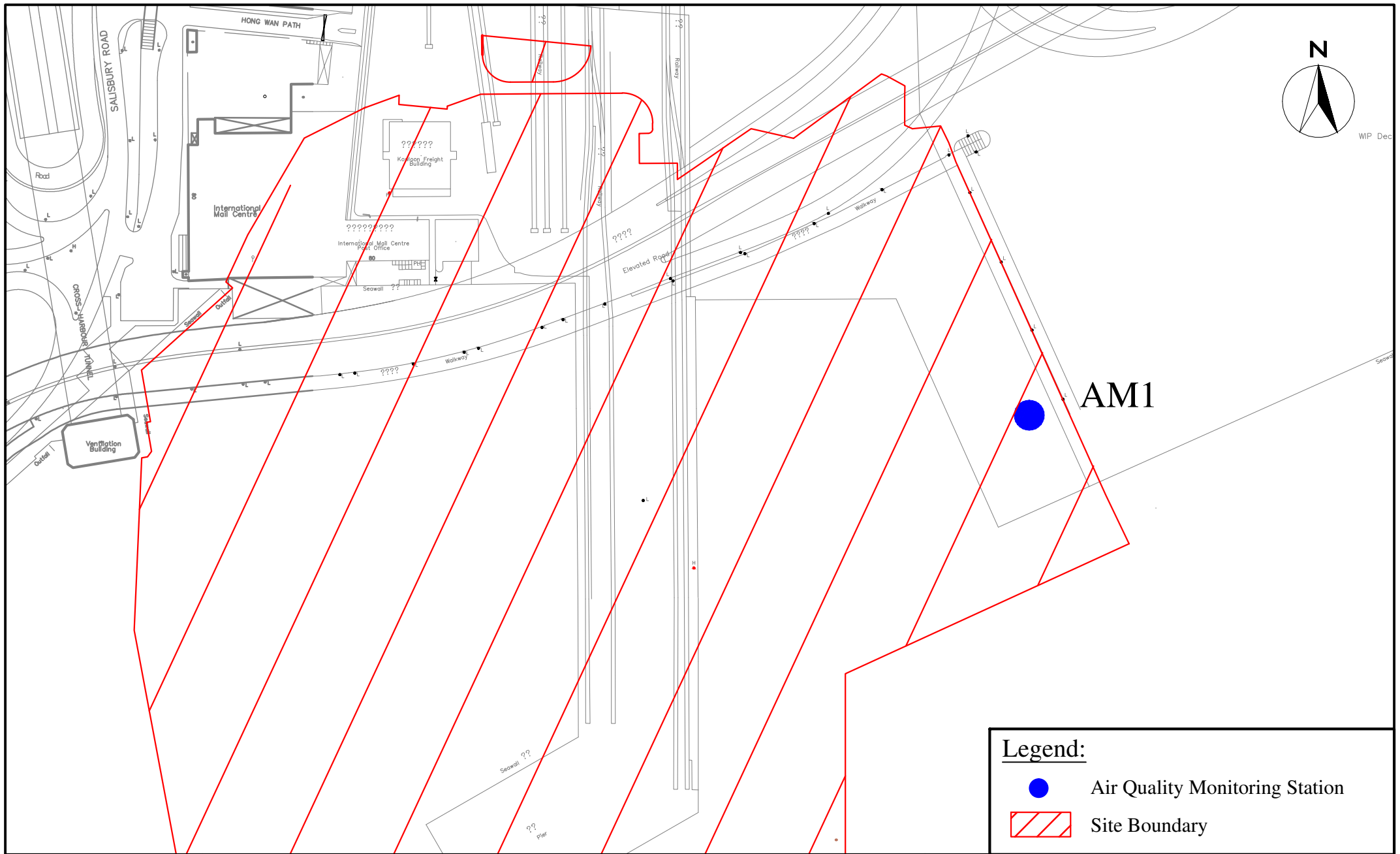
Appendix C – Implementation of Environmental Mitigation Measures

EIA Ref. / EM&A Log Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concern to Address	Who to implement the measures?	Location of the measure	When to implement the measures?	Implementation Status
	<ul style="list-style-type: none"> • Vehicle wheel and body washing facilities at the site's exit points shall be established and used; and • Pollution control measures for air emissions e.g. from biopile blower, noise emissions e.g. from blower, and water discharges e.g. runoff control shall be implemented and complied with relevant regulations and guidelines. 					
S13. 40	<p>In order to minimize the potential adverse effects on health and safety of construction workers during the course of site remediation, the Occupation Safety and Health Ordinance (OSHO) (Chapter 509) and its subsidiary Regulations shall be followed by all site personnel working on the site at all times. In addition, the following basic health and safety measures shall be implemented as far as possible:</p> <ul style="list-style-type: none"> • Set up a list of safety measures for site workers; • Provide written information and training on safety for site workers; • Keep a log-book and plan showing the contaminated zones and clean zones; • Maintain a hygienic working environment; • Avoid dust generation; • Provide face and respiratory protection gear to site workers; • Provide personal protective clothing (e.g. chemical resistant jackboot, liquid tight gloves) to site workers; and • Provide first aid training and materials to site workers. 	To minimise the potentially adverse effects on health and safety of construction workers during the course of site remediation.	Contractor	Identified contaminated sites	Site remediation and prior to construction phase	V

Legend: V = implemented;
x = not implemented;
@ = partially implemented;
N/A = not applicable



Appendix D

Monitoring Locations

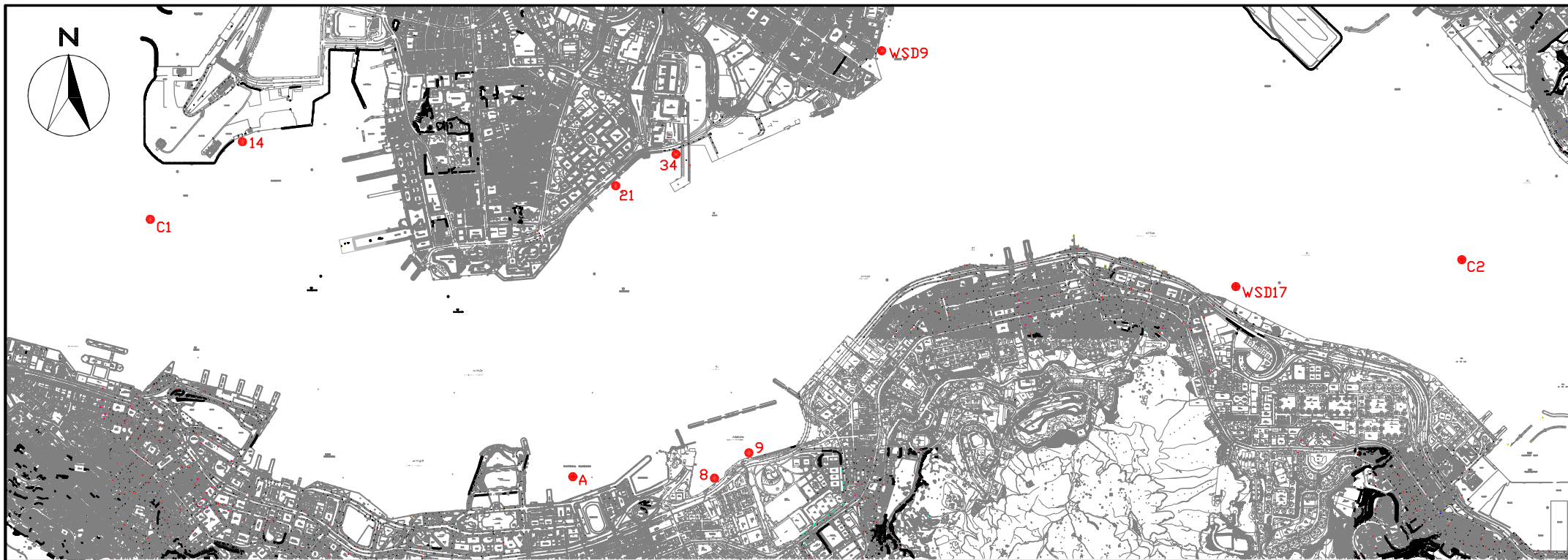


WIP Dec

Legend:

-  Air Quality Monitoring Station
-  Site Boundary

SCALE	A4 @ 1:5000	DATE	Nov 2020	
CHECK	EH	DRAWN	HC	
Project No.	MA14047	FIGURE NO.	4	REV —



COORDINATE	EASTING	NORTHING
A	836268	816045
14	834477	817891
WSD9	837930	818357
WSD17	839863	817077
C1	833977	817442
C2	841088	817223
8	837036	816008
9	837223	816150
21	836484	817642
34	836828	817844

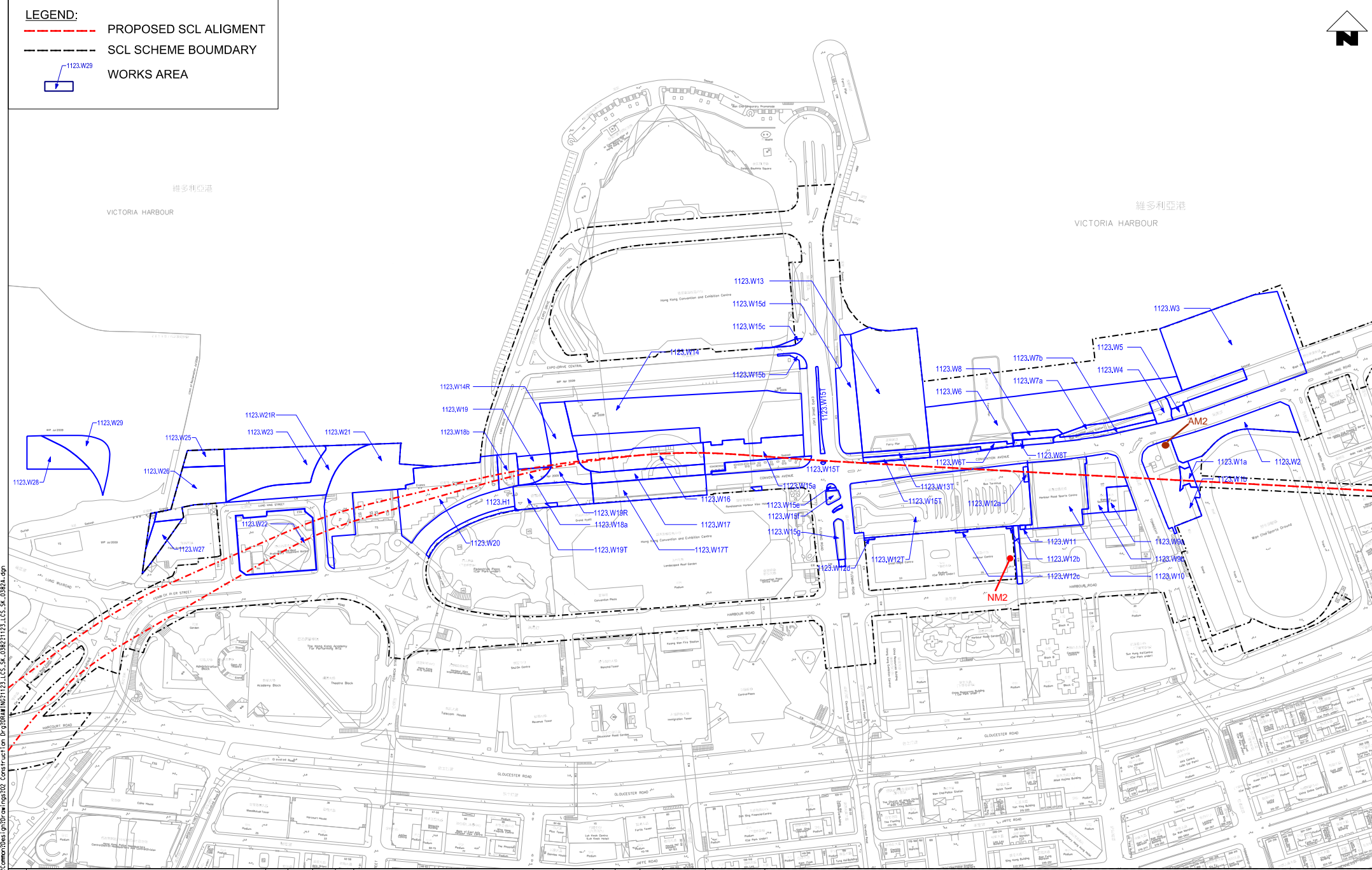
LEGEND

● Water Quality Monitoring Station

SCALE	1:30	DATE	1/2015
CHECK	JF	DRAWN	VW
JOB No.	MA14047	FIGURE NO.	3
		REV	-

LEGEND:

- - - PROPOSED SCL ALIGNMENT
- - - SCL SCHEME BOUNDARY
- ▭ WORKS AREA



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 DATE: 19/MAR/2015

REV	DESCRIPTION	BY	DATE	APPROVED	REV	DESCRIPTION	BY	DATE	APPROVED

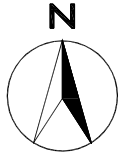
DRAWN	C. F. WOOD
DESIGNED	---
CHECKED	---
APPROVED	---
DATE	19/MAR/2015

SHATIN TO CENTRAL LINK - CONTRACT 1123
 ORIGINATOR

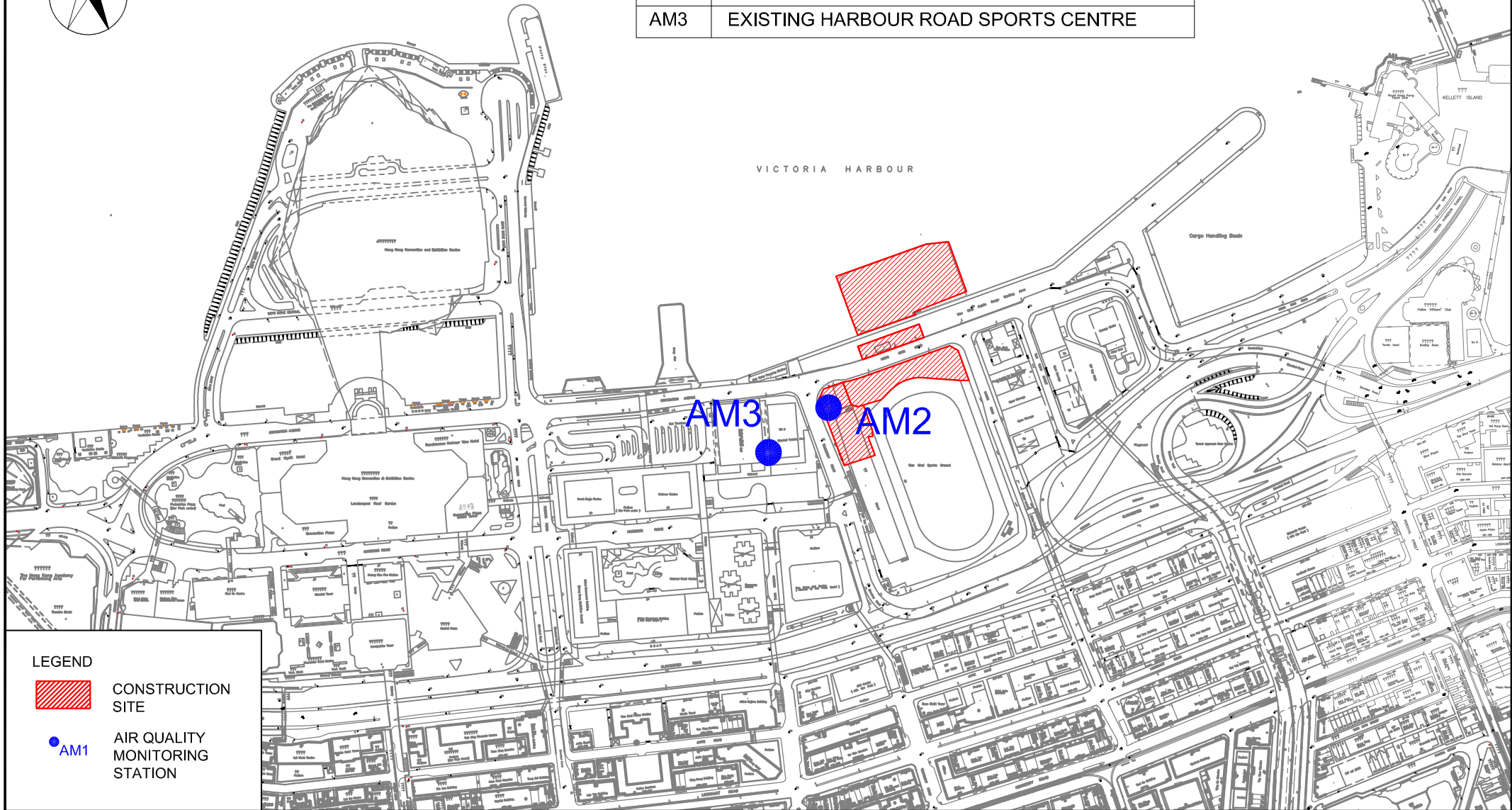
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TITLE
CONTRACT 1123
EXHIBITION STATION AND WESTERN APPROACH TUNNEL
 AIR QUALITY AND NOISE MONITORING LOCATIONS

SCALE: 1 : 3000 @A3
 DRAWING NO.: **Figure 3 1**
 REV. **A**



	AIR QUALITY MONITORING STATION
AM2	WAN CHAI SPORTS GROUND
AM3	EXISTING HARBOUR ROAD SPORTS CENTRE



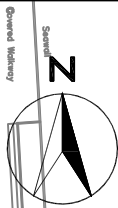
LEGEND	
	CONSTRUCTION SITE
	AIR QUALITY MONITORING STATION



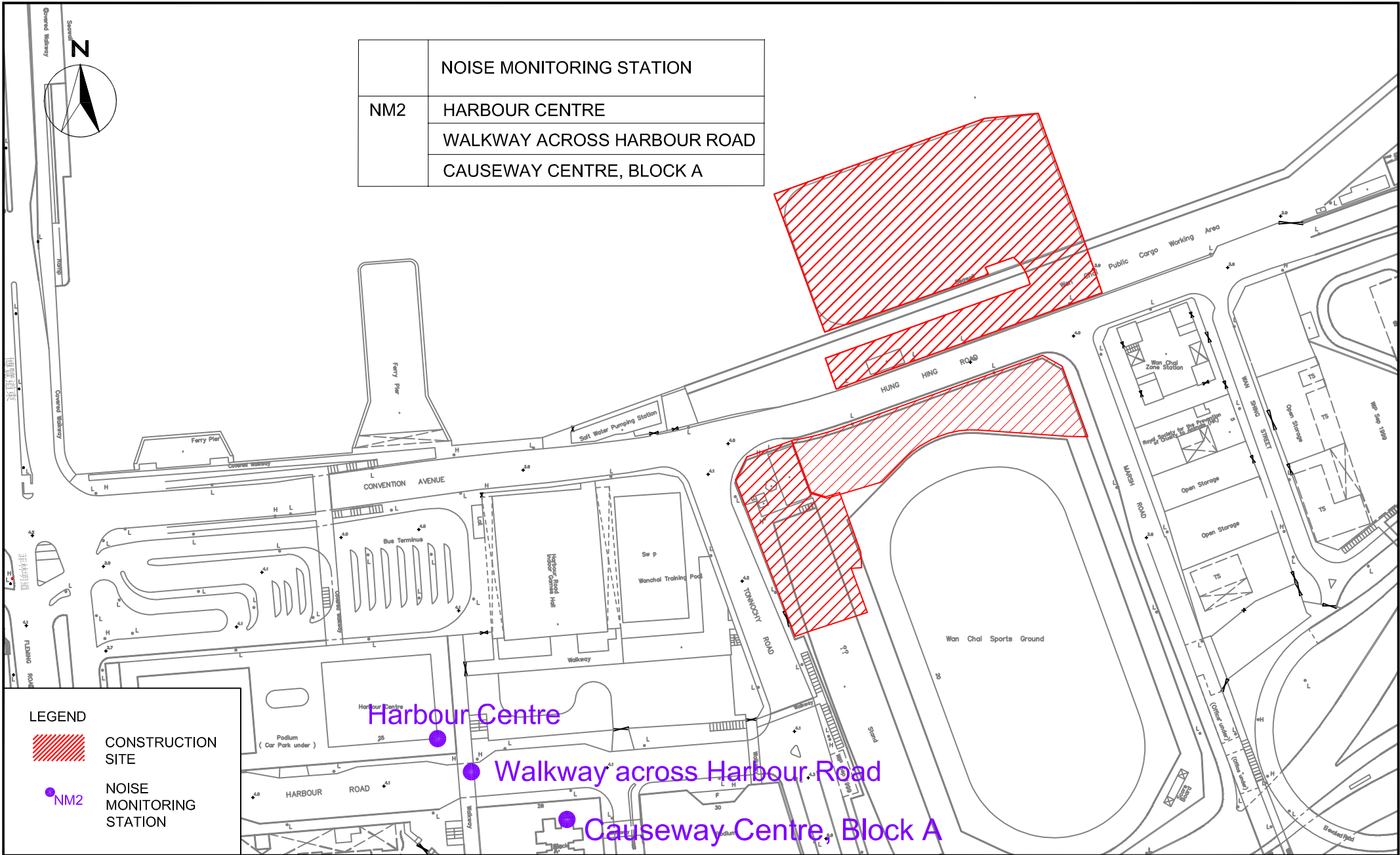
MTR 1126 REPROVISIONING OF HARBOUR ROAD SPORTS CENTRE AND WAN CHAI SWIMMING POOL

LOCATION OF AIR QUALITY MONITORING STATIONS

SCALE	1:5000 @ A4	DATE	NOV 2014
CHECK	JF	DRAWN	JW
JOB No.	MA14009	FIGURE NO.	3
		REV	-



	NOISE MONITORING STATION
NM2	HARBOUR CENTRE
	WALKWAY ACROSS HARBOUR ROAD
	CAUSEWAY CENTRE, BLOCK A



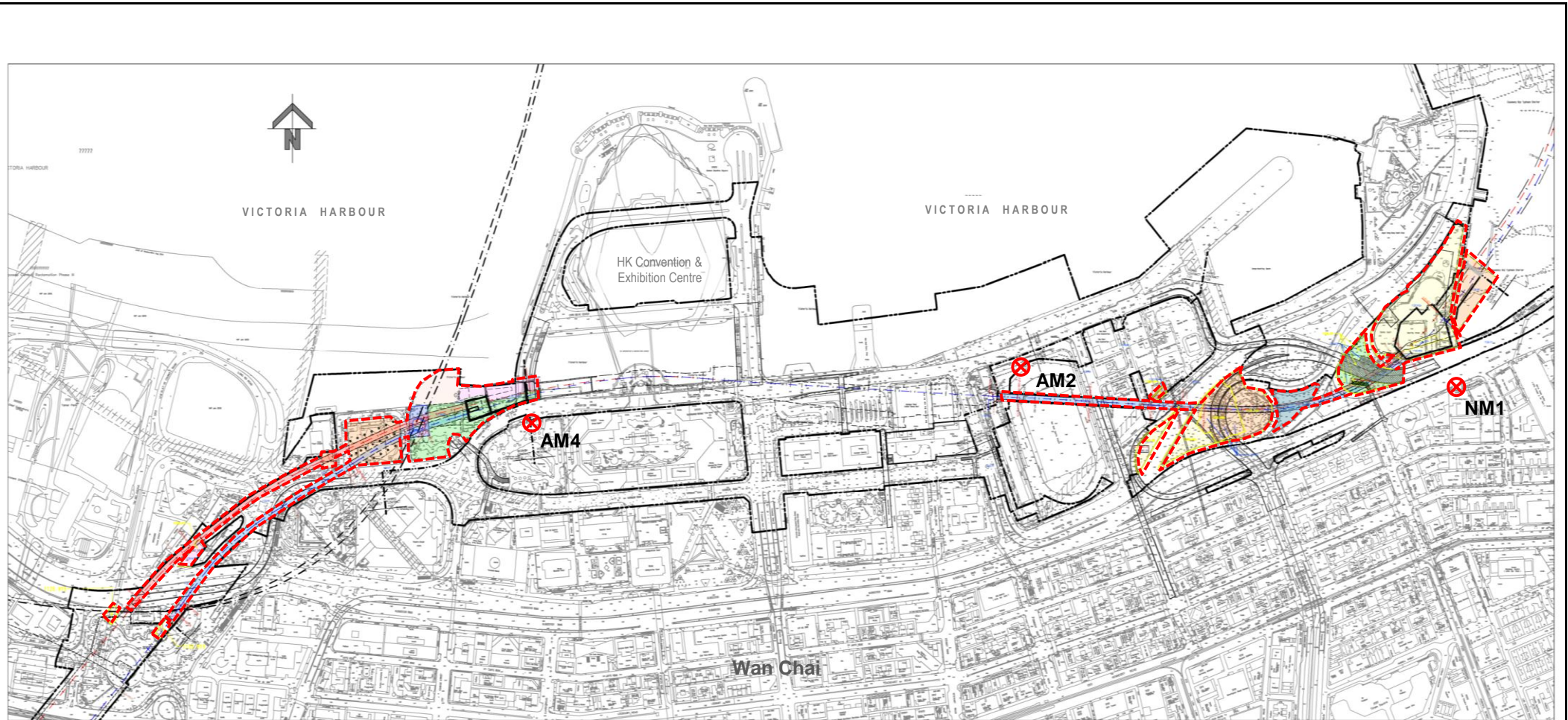
LEGEND	
	CONSTRUCTION SITE
	NOISE MONITORING STATION
NM2	

MTR 1126 REPROVISIONING OF HARBOUR ROAD SPORTS CENTRE AND WAN CHAI SWIMMING POOL

LOCATION OF NOISE MONITORING STATION



SCALE	1:5000 @ A4	DATE	APR 2015	
CHECK	JF	DRAWN	KC	
JOB No.	MA14009	FIGURE NO.	2	REV
				-



- Site Alignment
- ⊗ Monitoring Location

#1 The air quality monitoring at AM2 was handed over from Contract SCL1126 in April 2015 and handed over to Contract SCL1123 on 28 October 2015.

#2 The air quality monitoring at AM4 was handed over to Contract SCL1123 on 1 April 2021.

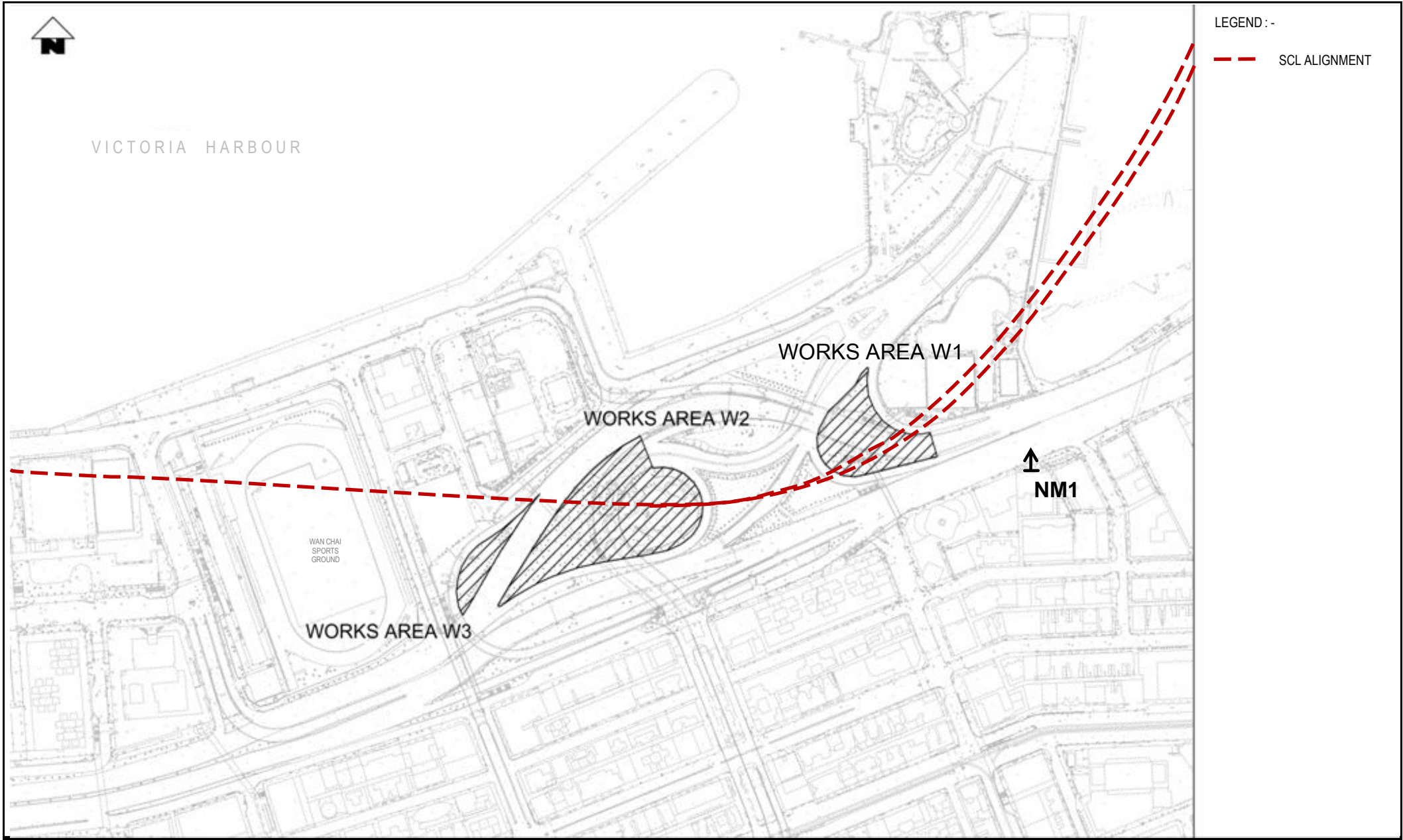
* The noise monitoring at NM1 was handed-over from SCL1129 in August 2015.

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SCL Contract 1128
South Ventilation Building to Admiralty Tunnels

Air Quality and Noise Monitoring Locations





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CONTRACT 1129
ADVANCED WORKS FOR NSL

LOCATION OF AIR-BORNE NOISE SENSITIVE RECEIVER NM1



LEGEND

- Water quality monitoring stations

COORDINATE	EASTING	NORTHING
GB3	841120	810280
C3	841200	806210
C4	843330	807320



SHATIN TO CENTRAL LINK – CONTRACT NO. 11227
 ADVANCE WORKS FOR NSL CROSS HARBOUR TUNNELS
 Locations of the Water Quality
 Monitoring station in Shek O

SCALE	1:450	DATE	AUG 2014
CHECK	JF	DRAWN	VW
JOB No.	MA14028	FIGURE NO.	2
		REV	—

Appendix E

Environmental Quality Performance Limits

Appendix E Environmental Quality Performance Limits

Action and Limits Levels for 24-hour TSP

Monitoring Station	Location	Action Level ($\mu\text{g}/\text{m}^3$)	Limit Level ($\mu\text{g}/\text{m}^3$)
AM1	Harbourfront Horizon	182	260
AM2	Wan Chai Sports Ground	160	260
AM3	Existing Harbour Road Sports Centre	169	260
AM4	Pedestrian Plaza	198	260

Action and Limits Levels for Construction Noise

Monitoring Station	Location	Time Period	Action Level	Limit Level, Leq(30min), dB(A)
NM1	Hoi Kung Court	0700-1900 hours on normal weekdays	When one documented complaint is received	75
NM2	Causeway Centre, Block A			75

Action and Limits Levels for Water Quality

Location	Monitoring Station	Parameters	Action Level	Limit Level
Wet Season				
Victoria Harbour	WSD Salt Water Intake (Stations 14, A, WSD 9 & WSD 17) ⁽¹⁾	DO in mg/L	<2.1	<2.0
		SS in mg/L	6.0	6.0
		Turbidity in NTU	4.7	6.5
	Intakes A, WSD 9, 14 and 17 ⁽²⁾	DO in mg/L	<2.1	<2.0
		SS in mg/L	4.4	4.8
		Turbidity in NTU	5.3	5.6
	Cooling Water Intake (Station 8, 9, 21 & 34) ⁽¹⁾	DO in mg/L	2.8	2.7
		SS in mg/L	6.9	9.1
		Turbidity in NTU	11.3	17.2
Shek O Casting Basin	GB3 ⁽³⁾	DO in mg/L	5.5	5.3
		SS in mg/L	4.5	4.5
		Turbidity in NTU	2.1	2.4
Dry Season				
Victoria Harbour	WSD Salt Water Intake (Stations 14, A, WSD 9 & WSD 17) ⁽¹⁾	DO in mg/L	<2.1	<2.0
		SS in mg/L	6.9	6.9
		Turbidity in NTU	5.0	7.0
	Intakes A and WSD 9 ⁽²⁾	DO in mg/L	<2.1	<2.0
		SS in mg/L	5.0	5.5
		Turbidity in NTU	5.3	5.6
	Cooling Water Intake (Station 8, 9, 21 & 34) ⁽¹⁾	DO in mg/L	3.3	3.2
		SS in mg/L	8.0	10.4
		Turbidity in NTU	12.2	18.5
Shek O Casting Basin	GB3 ⁽³⁾	DO in mg/L	6.8	6.5
		SS in mg/L	9.3	9.3
		Turbidity in NTU	5.0	5.6

Notes:

- (1) Action and Limit Levels were established based on the baseline water quality monitoring for Victoria Harbour for Works Contract 1121.
- (2) Action and Limit Levels were established based on the baseline water quality monitoring for trial trenching works under Works Contract 11227.
- (3) Action and Limit Levels were established based on the baseline water quality monitoring for Shek O Casting Basin for Works Contracts 1121 and 11227.

Appendix F

Event Action Plan

Appendix F Event Action Plan

Event / Action Plan for Construction Dust Monitoring

EVENT	ACTION			
	ET	IEC	ER	Contractor
ACTION LEVEL				
Exceedance for one sample	<ol style="list-style-type: none"> 1. Inform the Contractor, IEC and ER; 2. Discuss with the Contractor and IEC on the remedial measures required; 3. Repeat measurement to confirm findings; 4. Increase monitoring frequency 	<ol style="list-style-type: none"> 1. Check monitoring data submitted by the ET; 2. Check Contractor's working method; 3. Review and advise the ET and ER on the effectiveness of the proposed remedial measures. 	<ol style="list-style-type: none"> 1. Confirm receipt of notification of exceedance in writing. 	<ol style="list-style-type: none"> 1. Identify source(s), investigate the causes of exceedance and propose remedial measures; 2. Implement remedial measures; 3. Amend working methods agreed with the ER as appropriate.
Exceedance for two or more consecutive samples	<ol style="list-style-type: none"> 1. Inform the Contractor, IEC and ER; 2. Discuss with the ER, IEC and Contractor on the remedial measures required; 3. Repeat measurements to confirm findings; 4. Increase monitoring frequency to daily; 5. If exceedance continues, arrange meeting with the IEC, ER and Contractor; 6. If exceedance stops, cease additional monitoring. 	<ol style="list-style-type: none"> 1. Check monitoring data submitted by the ET; 2. Check Contractor's working method; 3. Review and advise the ET and ER on the effectiveness of the proposed remedial measures. 	<ol style="list-style-type: none"> 1. Confirm receipt of notification of exceedance in writing; 2. Review and agree on the remedial measures proposed by the Contractor; 3. Supervise Implementation of remedial measures. 	<ol style="list-style-type: none"> 1. Identify source and investigate the causes of exceedance; 2. Submit proposals for remedial measures to the ER with a copy to ET and IEC within three working days of notification; 3. Implement the agreed proposals; 4. Amend proposal as appropriate.

EVENT	ACTION			
	ET	IEC	ER	Contractor
LIMIT LEVEL				
Exceedance for one sample	<ol style="list-style-type: none"> 1. Inform the Contractor, IEC, EPD and ER; 2. Repeat measurement to confirm findings; 3. Increase monitoring frequency to daily; 4. Discuss with the ER, IEC and contractor on the remedial measures and assess the effectiveness. 	<ol style="list-style-type: none"> 1. Check monitoring data submitted by the ET; 2. Check the Contractor's working method; 3. Discuss with the ET, ER and Contractor on possible remedial measures; 4. Review and advise the ER and ET on the effectiveness of Contractor's remedial measures. 	<ol style="list-style-type: none"> 1. Confirm receipt of notification of exceedance in writing; 2. Review and agree on the remedial measures proposed by the Contractor; 3. Supervise implementation of remedial measures. 	<ol style="list-style-type: none"> 1. Identify source(s) and investigate the causes of exceedance; 2. Take immediate action to avoid further exceedance; 3. Submit proposals for remedial measures to ER with a copy to ET and IEC within three working days of notification; 4. Implement the agreed proposals; 5. Amend proposal if appropriate.
Exceedance for two or more consecutive samples	<ol style="list-style-type: none"> 1. Notify Contractor, IEC, EPD and ER ; 2. Repeat measurement to confirm findings; 3. Increase monitoring frequency to daily; 4. Carry out analysis of the Contractor's working procedures with the ER to determine possible mitigation to be implemented; 5. Arrange meeting with the IEC and ER to discuss the remedial measures to be taken; 6. Review the effectiveness of the Contractor's remedial measures and keep IEC, EPD and ER informed of the results; 7. If exceedance stops, cease additional monitoring. 	<ol style="list-style-type: none"> 1. Check monitoring data submitted by the ET; 2. Check the Contractor's working method; 3. Discuss with ET, ER, and Contractor on the potential remedial measures; 4. Review and advise the ER and ET on the effectiveness of Contractor's remedial measures. 	<ol style="list-style-type: none"> 1. Confirm receipt of notification of exceedance in writing; 2. In consultation with the ET and IEC, agree with the Contractor on the remedial measures to be implemented; 3. Supervise the implementation of remedial measures; 4. 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. 	<ol style="list-style-type: none"> 1. Identify source(s) and investigate the causes of exceedance; 2. Take immediate action to avoid further exceedance; 3. Submit proposals for remedial measures to the ER with a copy to the IEC and ET within three working days of notification; 4. Implement the agreed proposals; 5. Revise and resubmit proposals if problem still not under control; 6. Stop the relevant portion of works as determined by the ER until the exceedance is abated.

Event and Action Plan for Construction Noise Monitoring

EVENT	ACTION			
	ET	IEC	ER	Contractor
Exceedance of Action Level	<ol style="list-style-type: none"> 1. Notify the Contractor, IEC and ER; 2. Discuss with the ER, IEC and Contractor on the remedial measures required; and 3. Increase monitoring frequency to check mitigation effectiveness. 	<ol style="list-style-type: none"> 1. Review the investigation results submitted by the contractor; and 2. Review and advise the ET and ER on the effectiveness of the remedial measures proposed by the Contractor. 	<ol style="list-style-type: none"> 1. Confirm receipt of notification of complaint in writing; 2. Review and agree on the remedial measures proposed by the Contractor; and 3. Supervise implementation of remedial measures. 	<ol style="list-style-type: none"> 1. Investigate the complaint and propose remedial measures; 2. Report the results of investigation to the IEC, ET and ER; 3. Submit noise mitigation proposals to the ER with copy to the IEC and ET within 3 working days of notification; and 4. Implement noise mitigation proposals.
Exceedance of Limit Level	<ol style="list-style-type: none"> 1. Notify the Contractor, IEC, EPD and ER ; 2. Repeat measurement to confirm findings; 3. Increase monitoring frequency; 4. Carry out analysis of Contractor's working procedures to determine possible mitigation to be implemented; 5. Arrange meeting with the IEC and ER to discuss the remedial measures to be taken; 6. Inform IEC, ER and EPD the causes and actions taken for the exceedances; 7. Review the effectiveness of Contractor's remedial measures and keep IEC, EPD and ER informed of the results; and 8. If exceedance stops, cease additional monitoring. 	<ol style="list-style-type: none"> 1. Check monitoring data submitted by the ET; 2. Check the Contractor's working method; 3. Discuss with the ER, ET and Contractor on the potential remedial measures; and 4. Review and advise the ET and ER on the effectiveness of the remedial measures proposed by the Contractor. 	<ol style="list-style-type: none"> 1. Confirm receipt of notification of exceedance in writing; 2. In consultation with the ET and IEC, agree with the Contractor on the remedial measures to be implemented; 3. Supervise the implementation of remedial measures; and 4. 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. 	<ol style="list-style-type: none"> 1. Identify source and investigate the causes of exceedance; 2. Take immediate action to avoid further exceedance; 3. Submit proposals for remedial measures to the ER with copy to the IEC and ET within 3 working days of notification; 4. Implement the agreed proposals; 5. Revise and resubmit proposals if problem still not under control; and 6. Stop the relevant portion of works as determined by the ER until the exceedance is abated.

Event and Action Plan for Continuous Noise Monitoring

EVENT	ACTION			
	ET	IEC	ER	CONTRACTOR
Action/Limit Level	<ol style="list-style-type: none"> 1. Identify source ; 2. Repeat measurement. If two consecutive measurements exceed Action/Limit Level, the exceedance is then confirmed; 3. If exceedance is confirmed, notify IEC, ER and Contractor; 4. Investigate the cause of exceedance and check Contractor's working procedures to determine possible mitigation to be implemented; 5. Discuss jointly with the IEC, ER and Contractor and formulate remedial measures; and 6. Assess effectiveness of Contractor's remedial actions and keep IEC and ER informed of the results. 	<ol style="list-style-type: none"> 1. Check monitoring data submitted by the Works Contract 1123 ET; 2. Check the Contractor's working method; 3. Discuss with the ER, Works Contract 1123 ET and Contractor on the potential remedial measures; and 4. Review and advise the Works Contract 1123 ET and ER on the effectiveness of the remedial measures proposed by the Contractor. 	<ol style="list-style-type: none"> 1. Confirm receipt of notification of exceedance in writing; 2. In consultation with the Works Contract 1123 ET and IEC, agree with the Contractor on the remedial measures to be implemented; 3. Ensure the proper implementation of remedial measures; and 4. 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. 	<ol style="list-style-type: none"> 1. Identify source with the Works Contract 1123 ET; 2. If exceedance is confirmed, investigation the cause of exceedance and take immediate action to avoid further exceedance; 3. Submit proposals for remedial measures to the ER with copy to the IEC and ET of notification; 4. Implement the agreed proposals; 5. Liaise with ER to optimize the effectiveness of the agreed mitigation; 6. Revise and resubmit proposals if problem still not under control; and 7. Stop the relevant portion of works as determined by the ER until the exceedance is abated.

Event and Action Plan for Marine Water Quality Monitoring

EVENT	ACTION			
	ET	IEC	ER	CONTRACTOR
ACTION LEVEL				
Action level being exceeded by one sampling day	<ol style="list-style-type: none"> 1. Inform the Contractor, IEC and ER; 2. Check monitoring data, all plant, equipment and the Contractor's working methods; and 3. Discuss remedial measures with the IEC and Contractor. 	<ol style="list-style-type: none"> 1. Discuss with the ET, ER and Contractor on the implemented mitigation measures; 2. Review proposals on remedial measures submitted by the Contractor and advise the ER accordingly; and 3. Review and advise the ET and ER the effectiveness of the implemented mitigation measures. 	<ol style="list-style-type: none"> 1. Discuss with the ET, IEC and Contractor on the implemented mitigation measures; 2. Make agreement on the remedial measures to be implemented; and 3. Supervise the implementation of agreed remedial measures. 	<ol style="list-style-type: none"> 1. Identify source(s) of impact; 2. Inform the ER and confirm notification of the non-compliance in writing; 3. Rectify unacceptable practice; 4. Check all plant and equipment; 5. Consider changes of working methods; 6. Discuss with the ET, IEC and ER and propose remedial measures to IEC and ER; and 7. Implement the agreed remedial measures.
Action level being exceeded by more than one consecutive sampling days	<ol style="list-style-type: none"> 1. Repeat in-situ measurement to confirm findings; 2. Inform the Contractor, IEC and ER; 3. Check monitoring data, all plant, equipment and the Contractor's working methods; 4. Discuss remedial measures with the IEC and Contractor; and 5. Ensure remedial measures are implemented. 	<ol style="list-style-type: none"> 1. Discuss with the ET, ER and Contractor on the implemented mitigation measures; 2. Review proposals on remedial measures submitted by the Contractor and advise the ER accordingly; and 3. Review and advise the ET and ER the effectiveness of the implemented remedial measures. 	<ol style="list-style-type: none"> 1. Discuss with the ET, IEC and Contractor on the implemented mitigation measures; 2. Make agreement on the remedial measures to be implemented; and 3. Discuss with the ET and IEC on the effectiveness of the implemented remedial measures. 	<ol style="list-style-type: none"> 1. Identify source(s) of impact; 2. Inform the ER and confirm notification of the non-compliance in writing; 3. Rectify unacceptable practice; 4. Check all plant and equipment; 5. Consider changes of working methods; 6. Discuss with the ET, IEC and ER and propose remedial measures to IEC and ER within 3 working days of notification; and 7. Implement the agreed remedial measures.
LIMIT LEVEL				

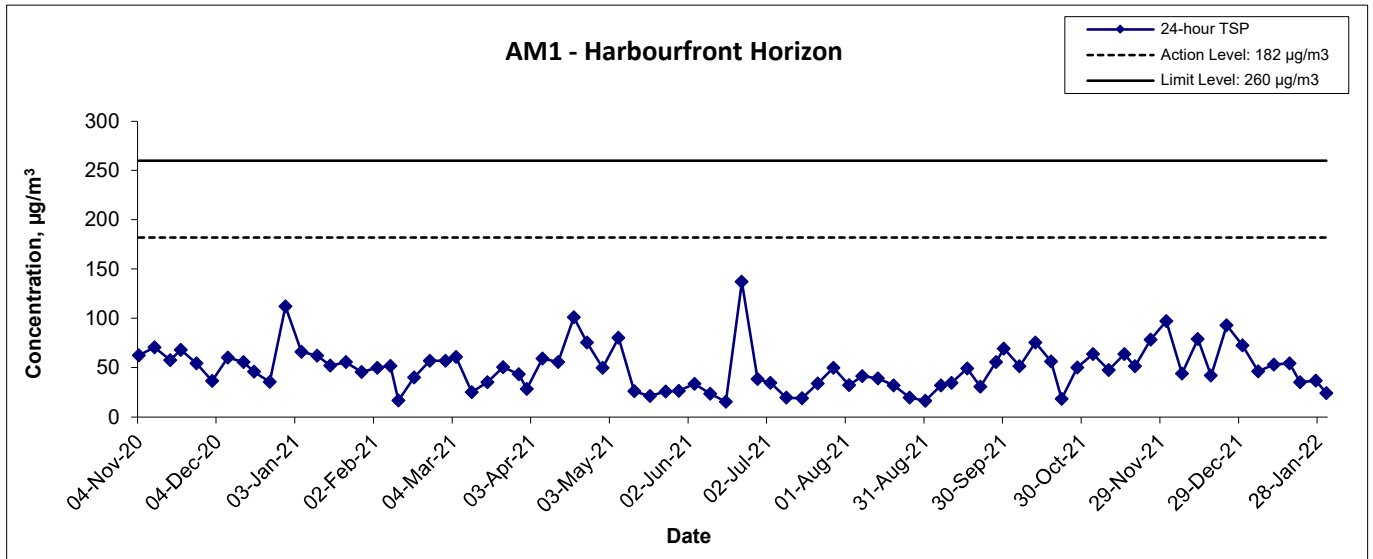
EVENT	ACTION			
	ET	IEC	ER	CONTRACTOR
1. Limit level being exceeded by one sampling day	<ol style="list-style-type: none"> 1. Repeat in-situ measurement to confirm findings; 2. Inform the Contractor, IEC, EPD and ER; 3. Rectify unacceptable practice; 4. Check monitoring data, all plant, equipment and the Contractor's working methods; 5. Discuss with the ET and IEC and propose remedial measures to the IEC, EPD and ER; and 6. Ensure the agreed remedial measures are implemented. 	<ol style="list-style-type: none"> 1. Discuss with the ET, ER and Contractor on the implemented mitigation measures; 2. Review proposals on remedial measures submitted by Contractor and advise the ER accordingly; and 3. Review and advise the ET and ER the effectiveness of the implemented remedial measures. 	<ol style="list-style-type: none"> 1. Discuss with the ET, IEC and Contractor on the implemented mitigation measures; 2. Request the Contractor to critically review the working methods; 3. Make agreement on the remedial measures to be implemented; and 4. Assess the effectiveness of the implemented remedial measures. 	<ol style="list-style-type: none"> 1. Inform the ER and confirm notification of the non-compliance in writing; 2. Rectify unacceptable practice; 3. Check all plant and equipment; 4. Consider changes of working methods; 5. Discuss with ET , IEC and ER and propose remedial measures to IEC and ER within 3 working days of notification; and 6. Implement the agreed remedial measures.
2. Limit level being exceeded by more than one consecutive sampling days	<ol style="list-style-type: none"> 1. Inform the Contractor, IEC, EPD and ER; 2. Check monitoring data, all plant, equipment and the Contractor's working methods; 3. Discuss remedial measures with the IEC, EPD, ER and Contractor; 4. Ensure remedial measures are implemented; and 5. Increase the monitoring frequency to daily until no exceedance of Limit level for two consecutive days. 	<ol style="list-style-type: none"> 1. Discuss with the ET, ER and Contractor on the implemented measures; 2. Review proposals on remedial measures submitted by the Contractor and advise the ER accordingly; and 3. Review and advise the ET and ER the effectiveness of the implemented remedial measures. 	<ol style="list-style-type: none"> 1. Discuss with the ET, IEC and Contractor on the implemented mitigation measures; 2. Request the Contractor to critically review the working methods; 3. Make agreement on the remedial measures to be implemented; 4. Discuss with the the ET, IEC and Contractor on the effectiveness of the implemented remedial measures; and 5. Consider and instruct, if necessary, the Contractor to slow down or to stop all or part of the marine work until 	<ol style="list-style-type: none"> 1. Identify source(s) of impact; 2. Inform the ER and confirm notification of the non-compliance in writing; 3. Rectify unacceptable practice; 4. Check all plant and equipment; 5. Consider changes of working methods; 6. Discuss with the ET, IEC and ER and propose remedial measures to IEC and ER within 3 working days of notification; 7. Implement the agreed remedial measures; and 8. As directed by the ER, to slow down or to

EVENT	ACTION			
	ET	IEC	ER	CONTRACTOR
			no exceedance of Limit level.	stop all or part of the marine works or construction activities.

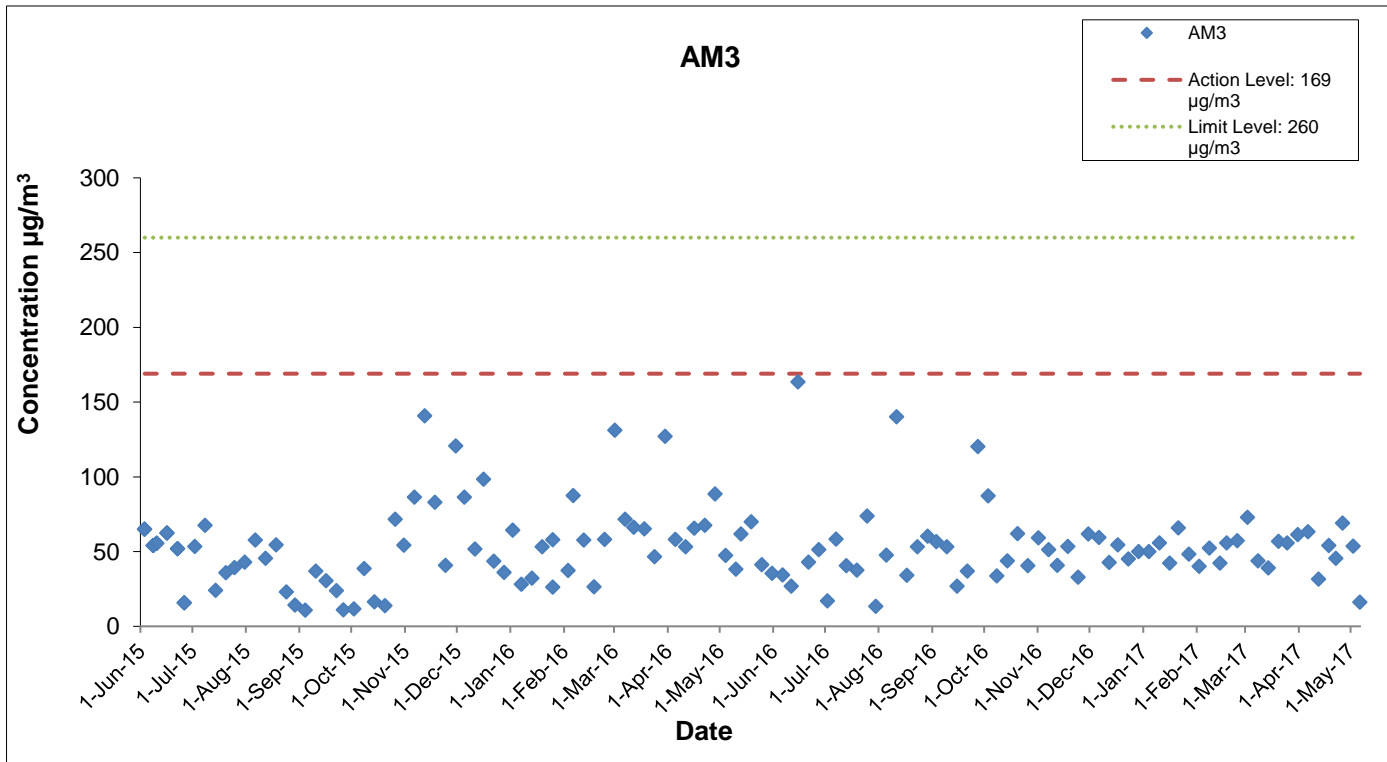
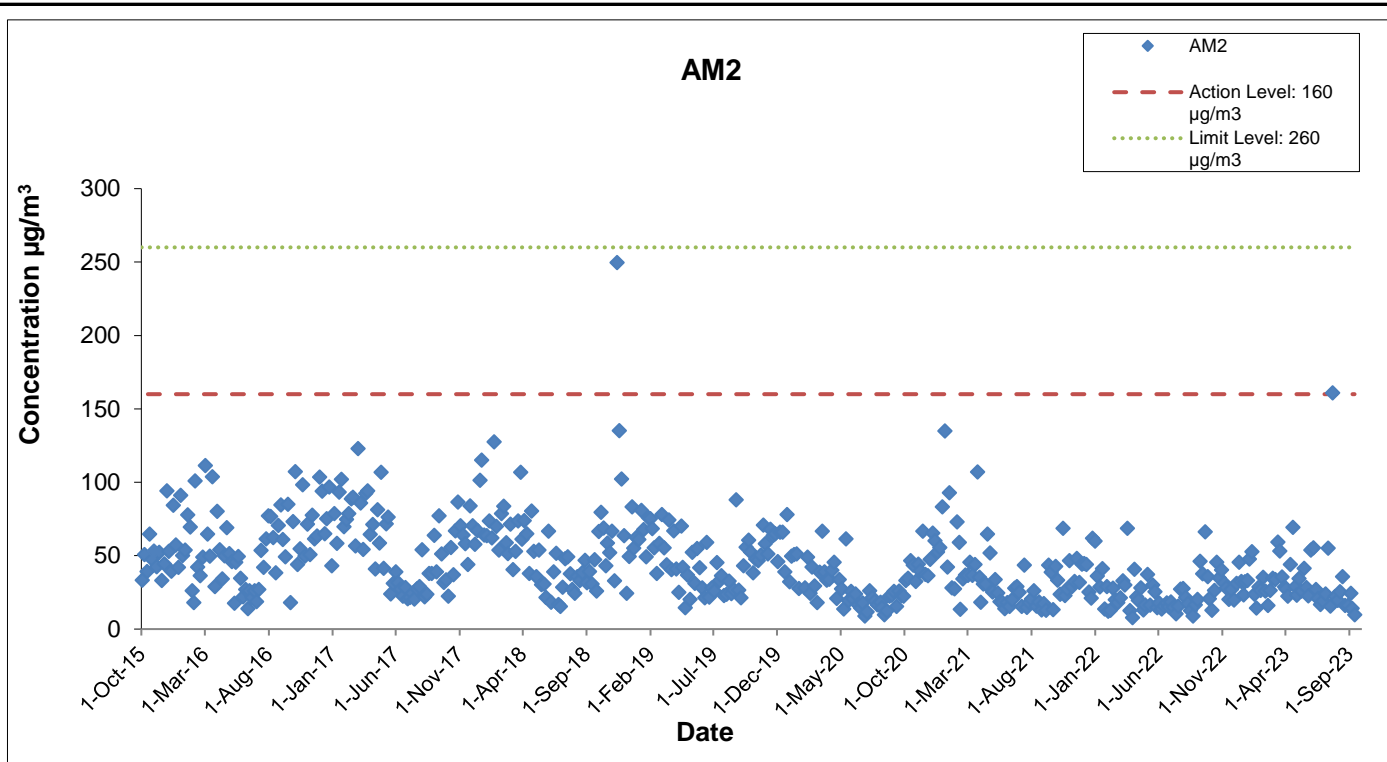
Appendix G

Graphical Plots of Impact Monitoring Results (Air Quality)

24-hr TSP Concentration Levels



Title Contract No. 1121 Shatin to Central Link NSL Cross Harbour Tunnels Graphical Presentation of 24-hour TSP Monitoring Results	Scale N.T.S	Project No. MA14047	consulting . testing . research
	Date Jan 22	Appendix B	



* The monitoring station at AM2 was handed over from Contract SCL1128 on 28 October 2015.

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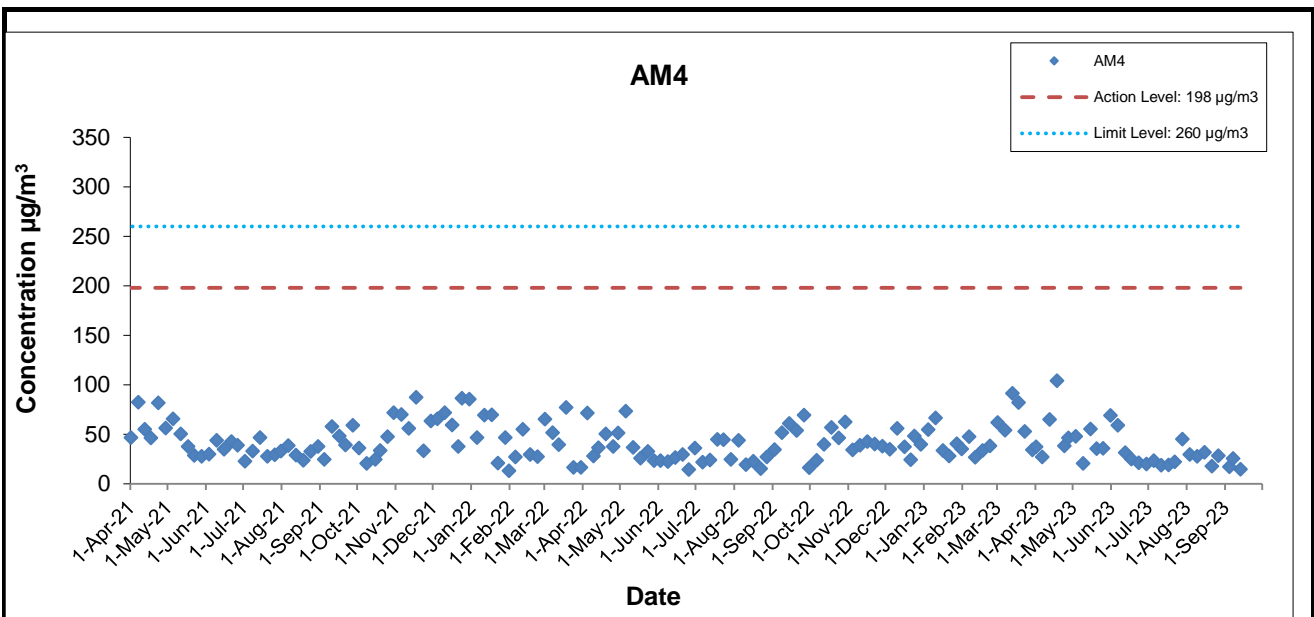
Shatin Central Link Contract No. 1123
Exhibition Station and Western Approach Tunnel



Graphical Presentation of Impact 24-hr TSP Monitoring Results

Date: October 2023

Appendix E



* The impact monitoring at AM4 handed over from Contract SCL1128 in April 2021.

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Shatin Central Link Contract No. 1123
Exhibition Station and Western Approach Tunnel

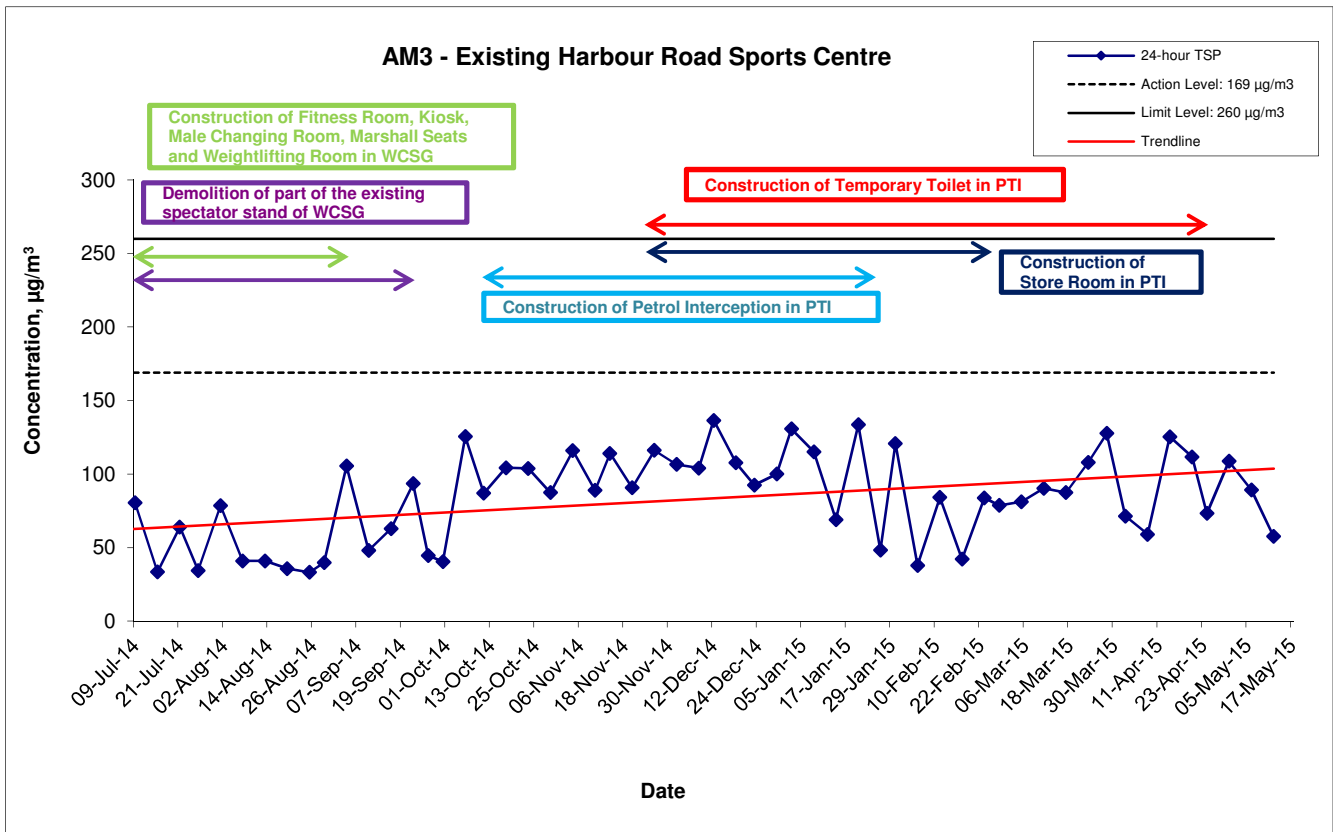
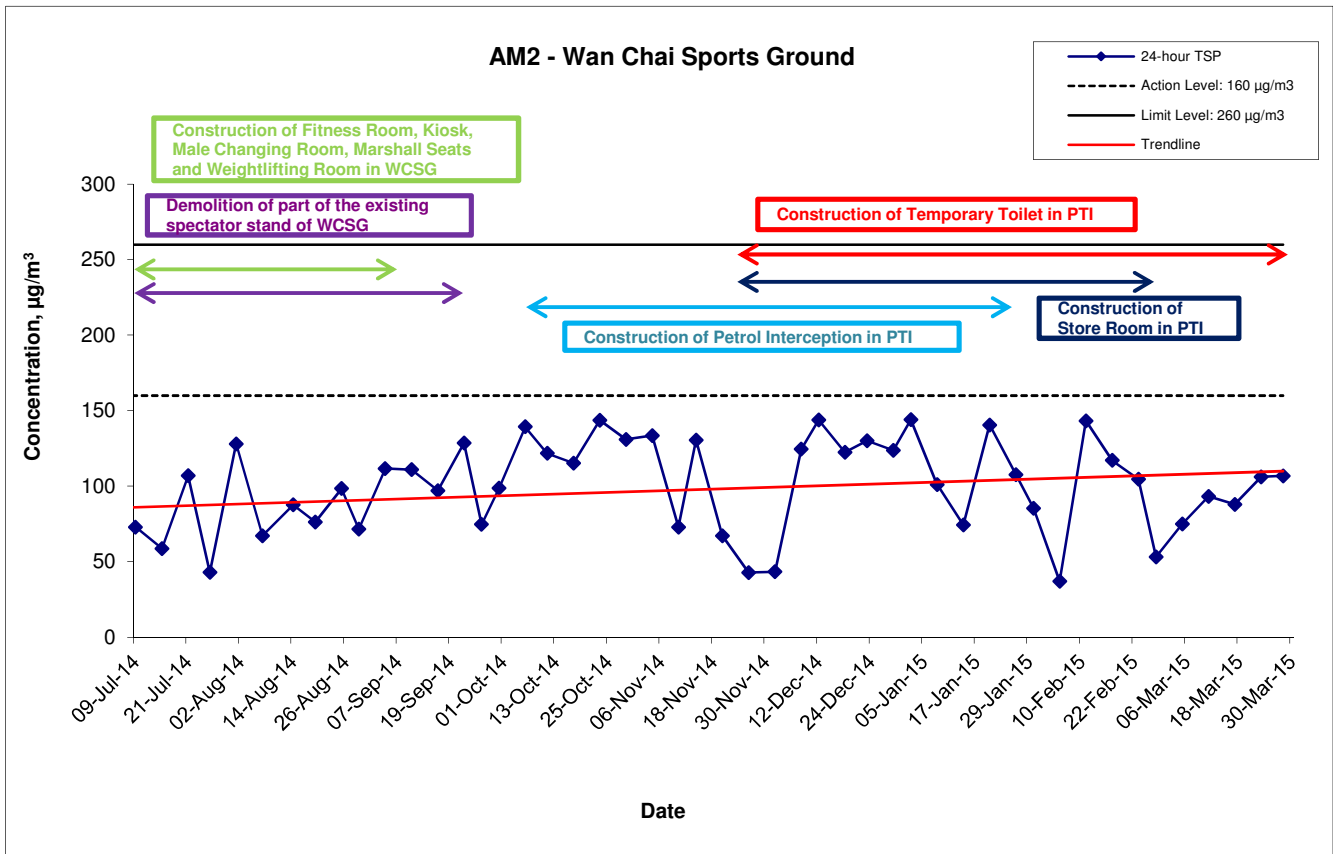


Graphical Presentation of Impact 24-hr TSP Monitoring Results

Date: October 2023

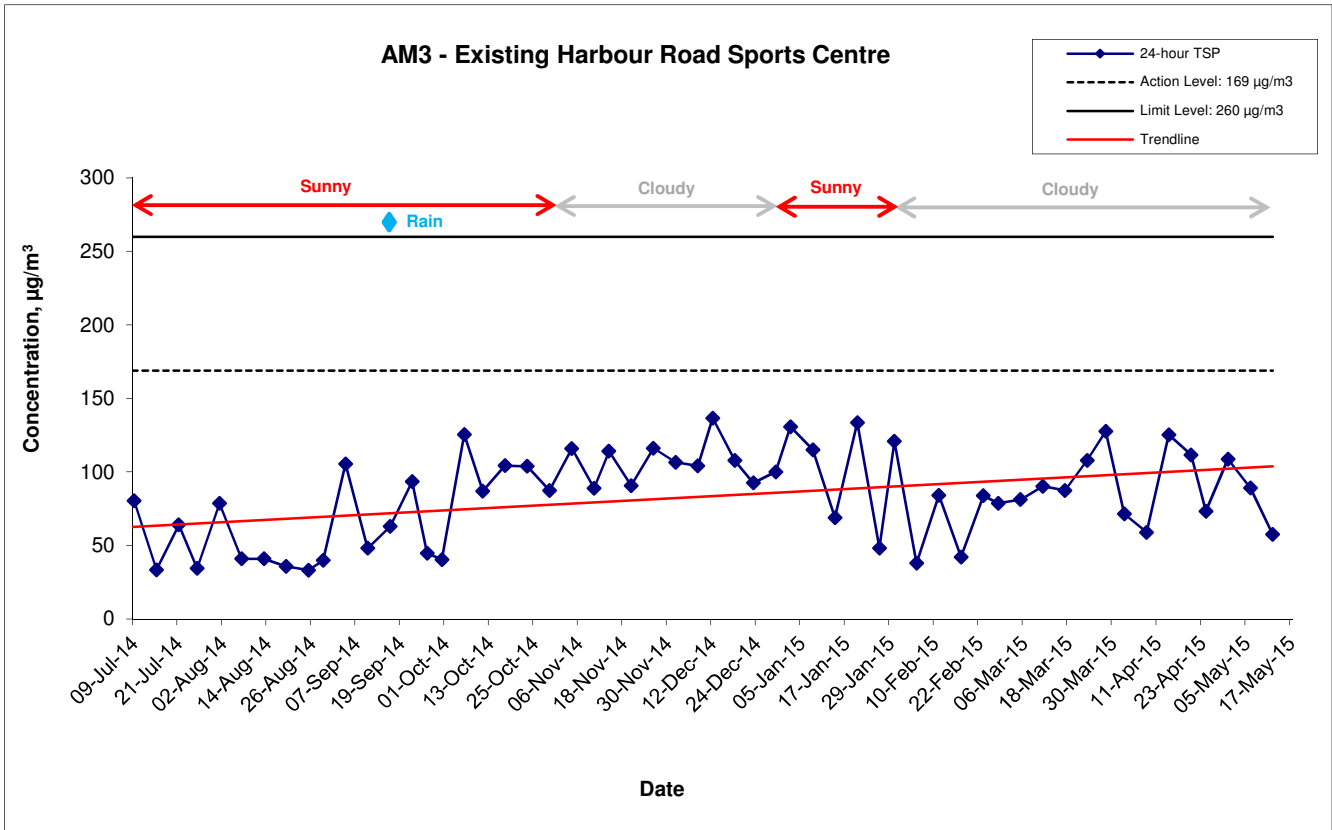
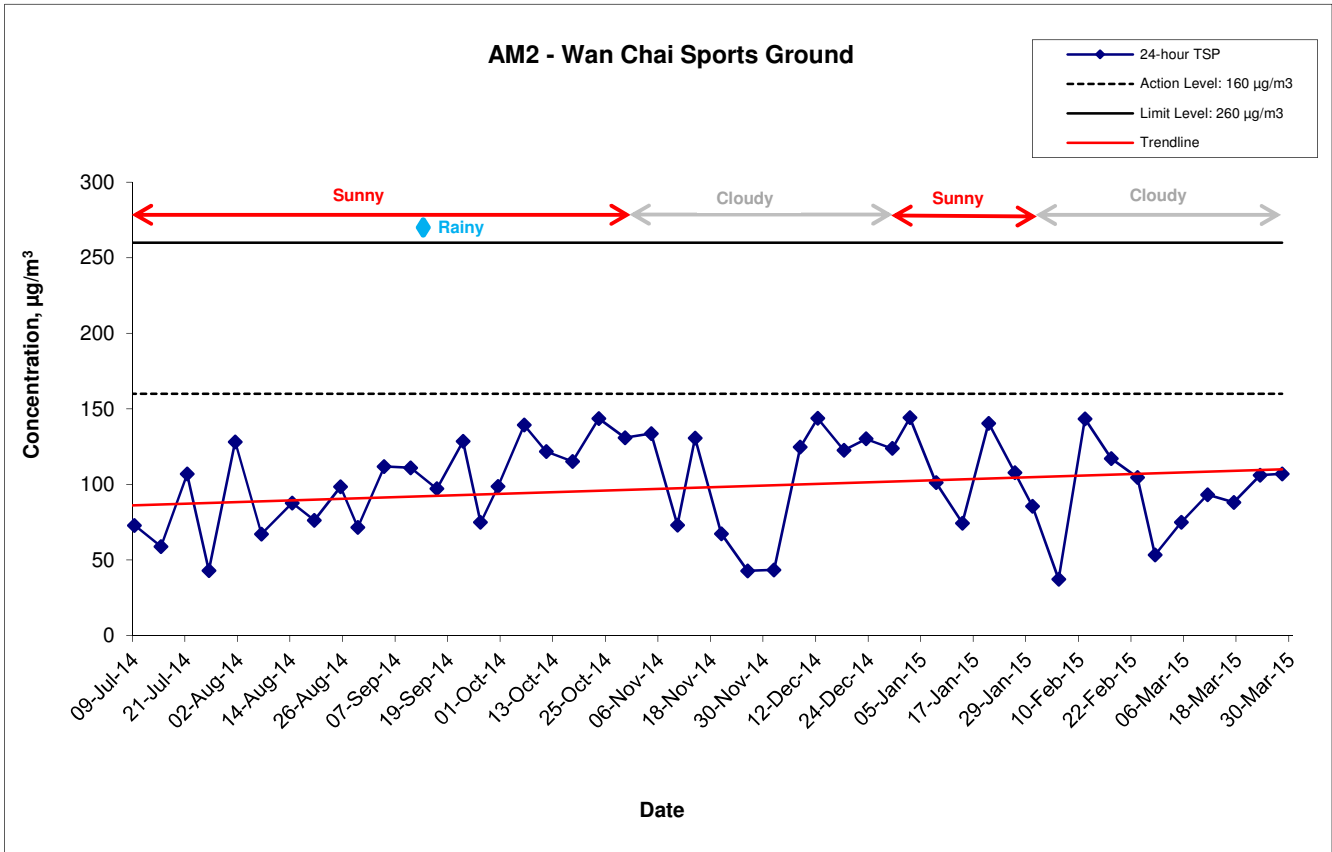
Appendix E

24-hour TSP Concentration Levels (against major construction activities)



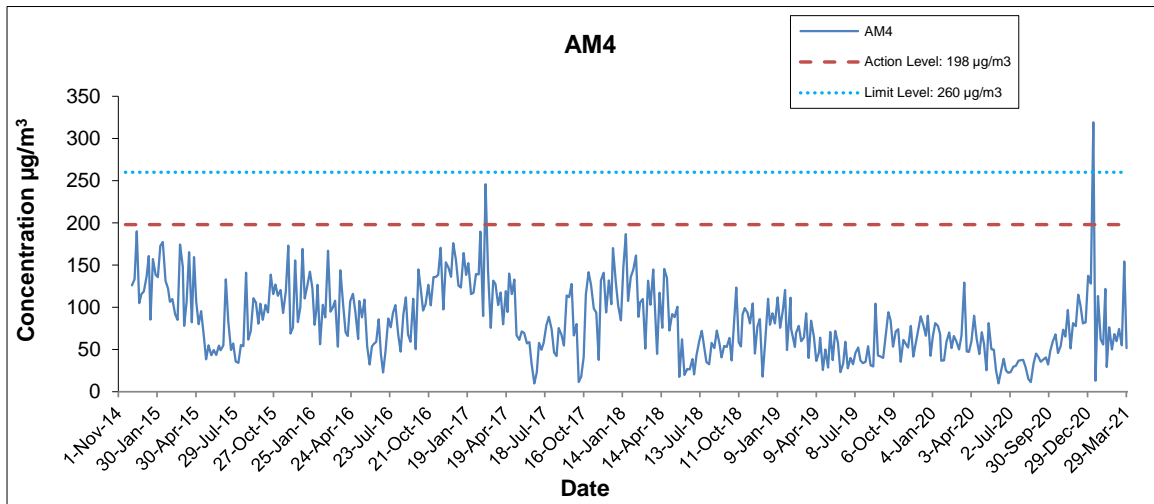
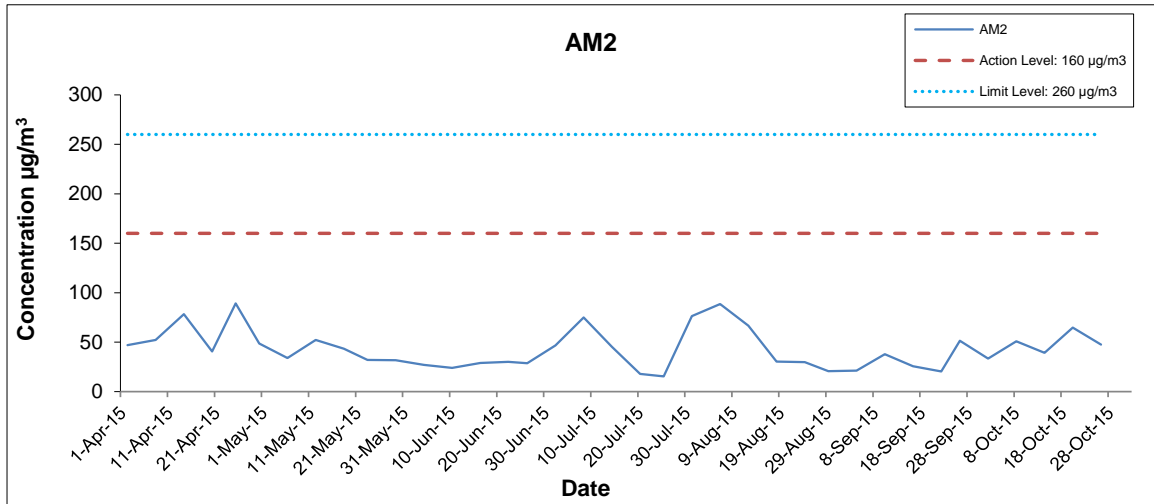
Title Shatin to Central Link – Contract 1126 Reprovisioning of Harbour Road Sports Centre and Wan Chai Swimming Pool Graphical Presentation of 24-hour TSP Monitoring Results	Scale N.T.S	Project No. MA14009	CINOTECH
	Date May-15	Appendix C	

24-hour TSP Concentration Levels (against weather conditions)



Title Shatin to Central Link – Contract 1126 Reprovisioning of Harbour Road Sports Centre and Wan Chai Swimming Pool Graphical Presentation of 24-hour TSP Monitoring Results	Scale N.T.S	Project No. MA14009	
	Date May-15	Appendix C	

Air Quality Monitoring Result



*1 The air quality monitoring station at AM2 was handed over from Contract SCL1126 in April 2015 and handed over to Contract SCL1123 on 28 October 2015.

*2 The air quality monitoring station at AM4 was handed over to Contract SCL1123 on 1 April 2021.

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Shatin Central Link Contract No. 1128
South Ventilation Building to Admiralty Tunnels



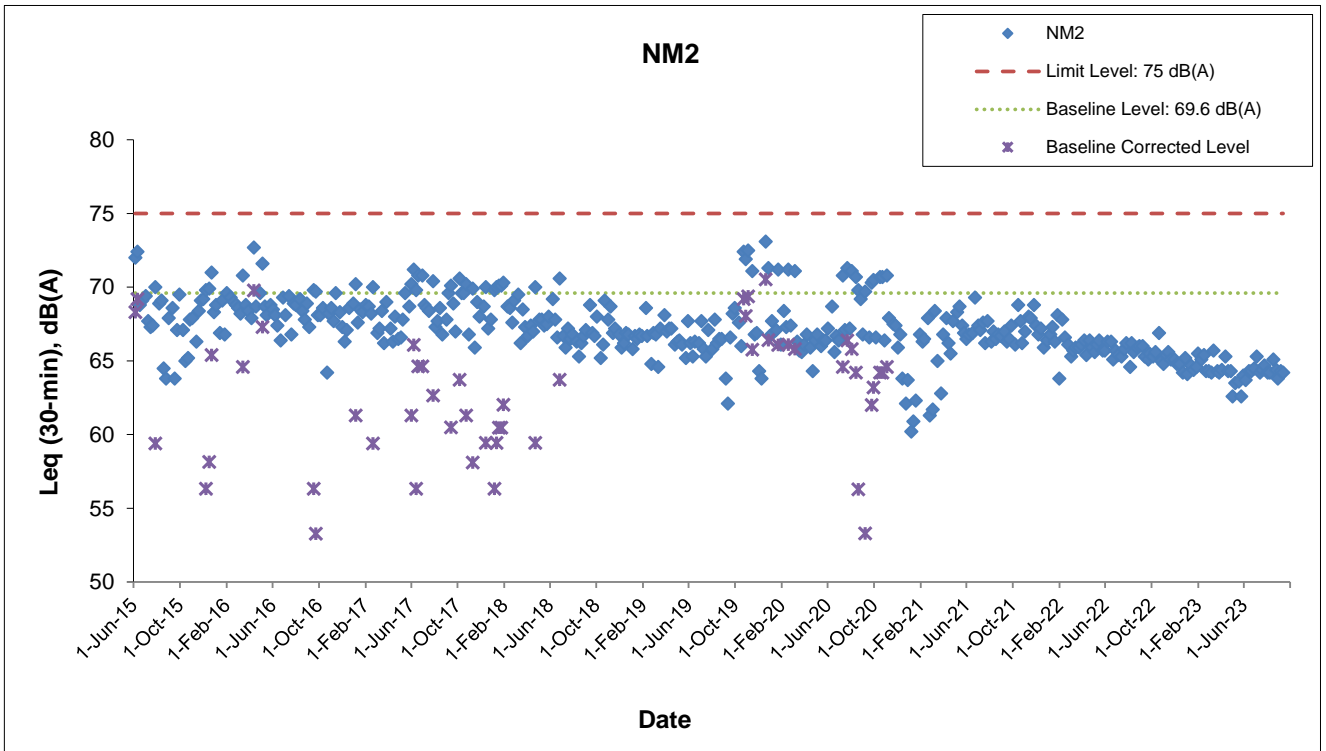
Graphical Presentation of Impact 24-hr TSP Monitoring Results

Date: April 2021

Appendix E

Appendix H

Graphical Plots of Impact Monitoring Results (Noise)



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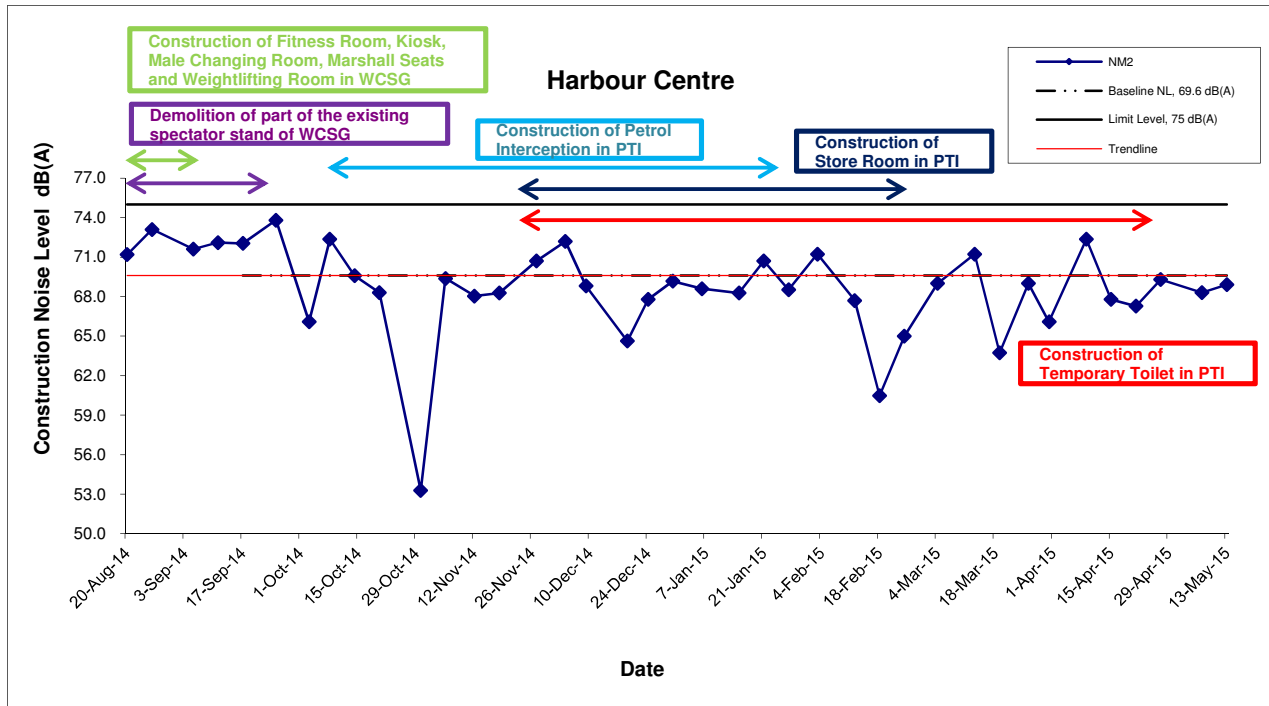
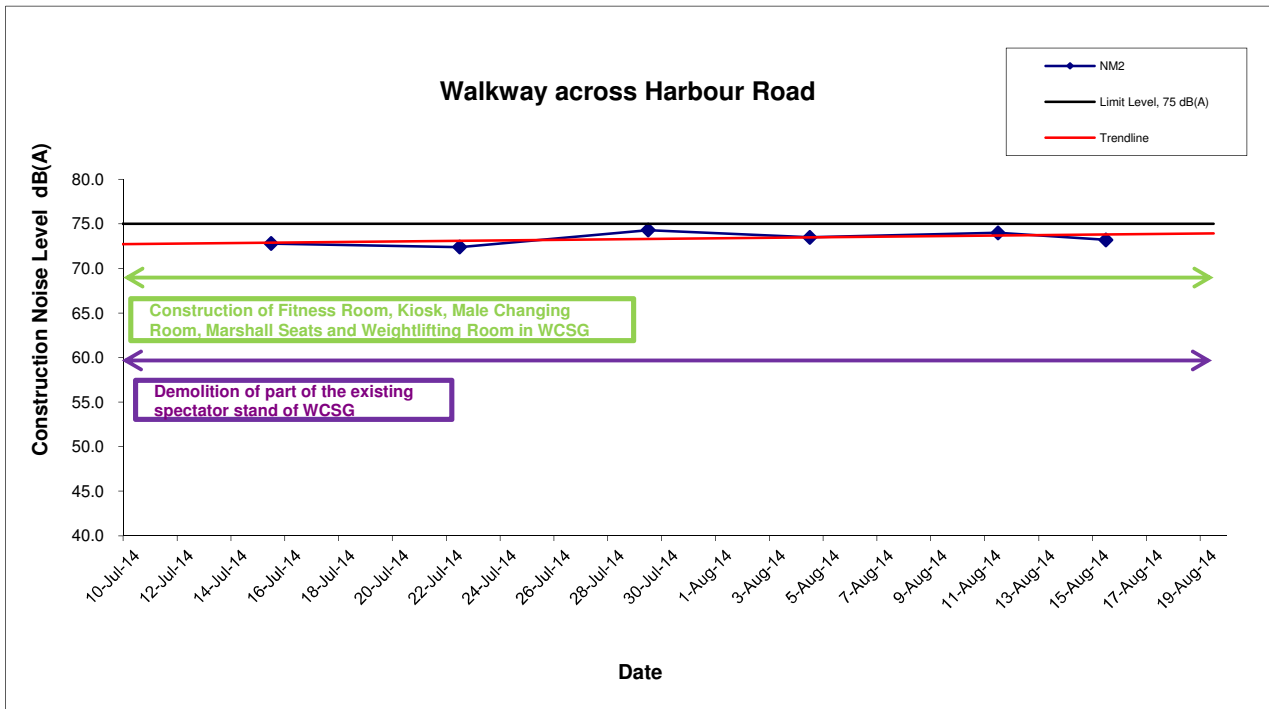
Shatin Central Link Contract No. 1123
 Exhibition Station and Western Approach Tunnel

**Graphical Presentation of Impact Noise
 Monitoring Results**

Date: October-2023

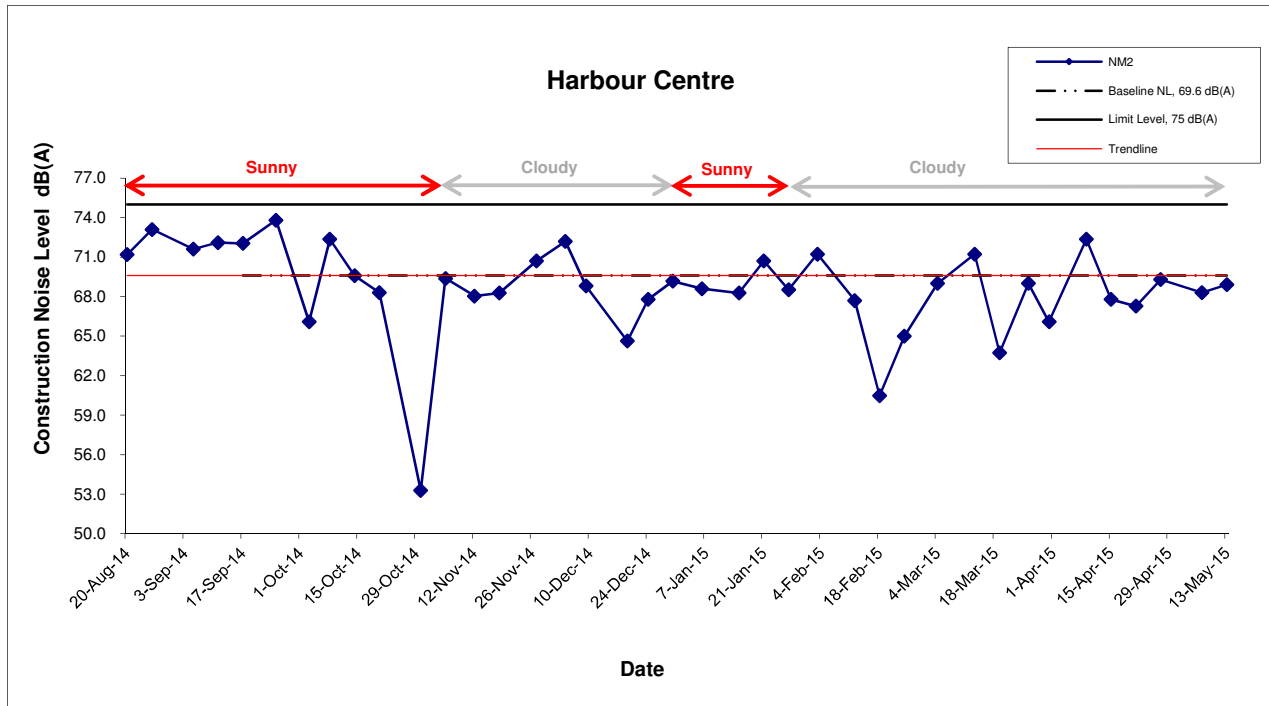
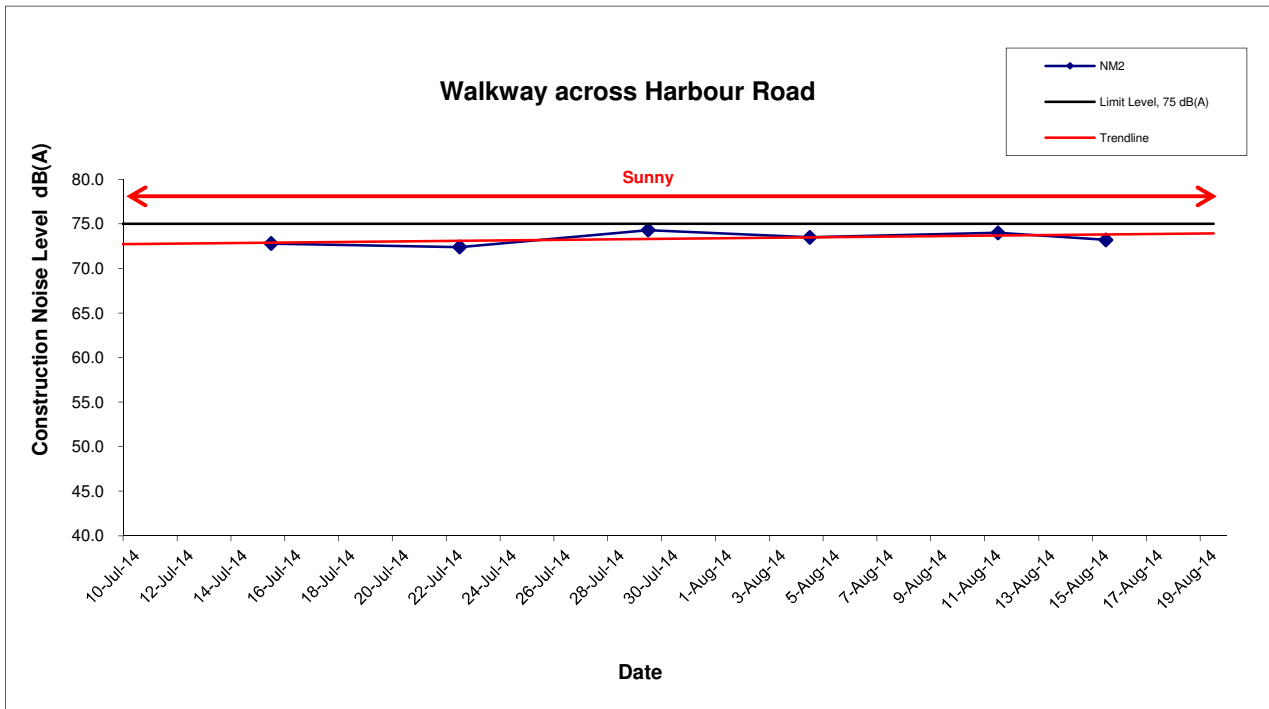
Appendix F

Noise Levels (against major construction activities)



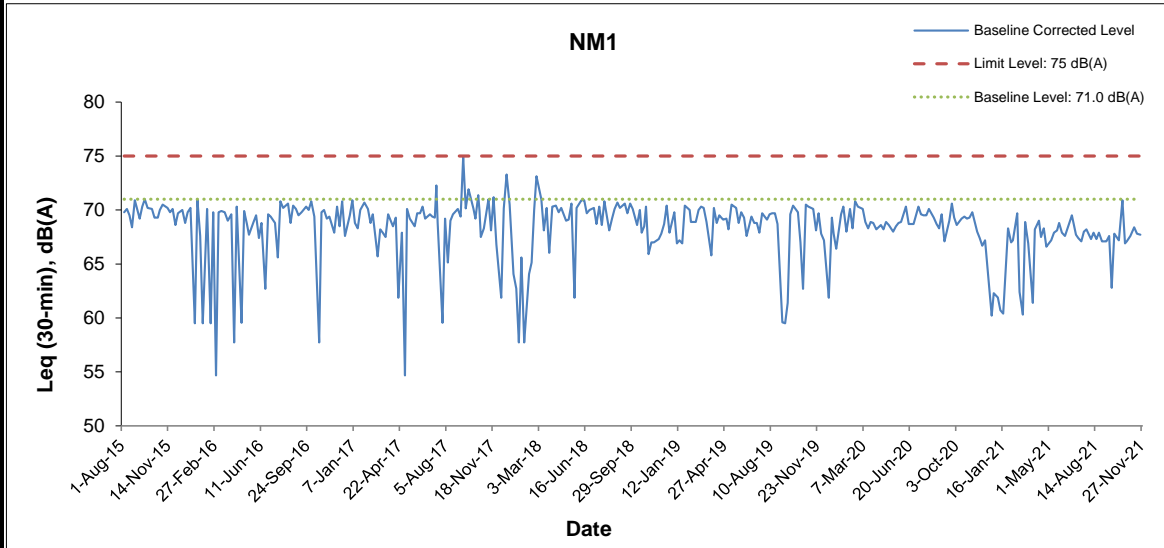
Title Shatin to Central Link - Contract 1126 Reprovisioning of Harbour Road Sports Centre and Wan Chai Swimming Pool Graphical Presentation of Construction Noise Monitoring Results	Scale N.T.S	Project No. MA14009	
	Date May-15	Appendix D	

Noise Levels (against weather conditions)



Title Shatin to Central Link - Contract 1126 Reprovisioning of Harbour Road Sports Centre and Wan Chai Swimming Pool Graphical Presentation of Construction Noise Monitoring Results	Scale N.T.S	Project No. MA14009	
	Date May-15	Appendix D	

Construction Noise Monitoring Results



*The noise monitoring station at NM1 was handed over from SCL1129 in August 2015.

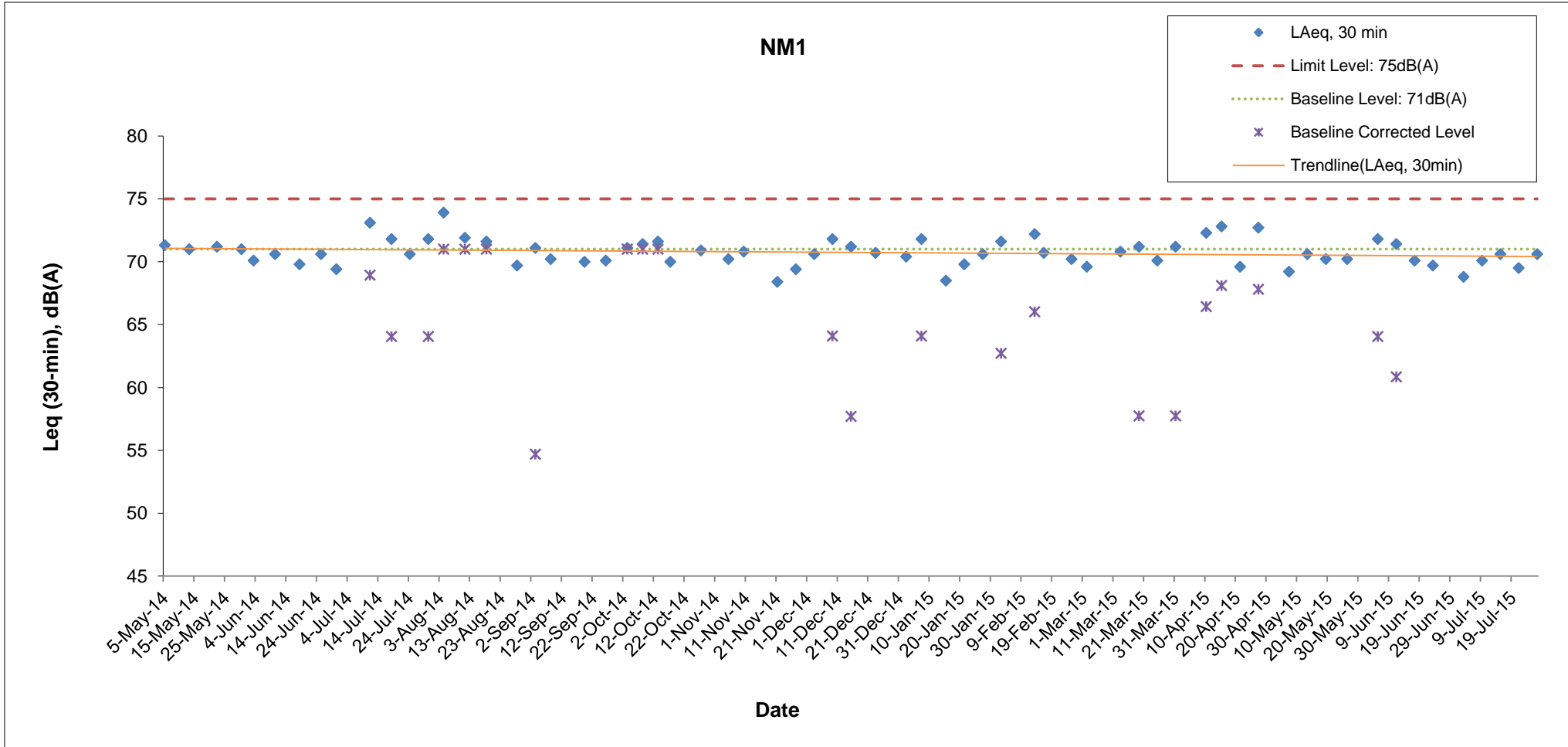
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Shatin Central Link Contract No. 1128
South Ventilation Building to Admiralty Tunnels

Graphical Presentation of Impact Noise Monitoring Results

Date: December 2021

Appendix F



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Shatin Central Link
 Contract No. 1129
 Advance Works for NSL

Graphical Presentation of Impact Daytime Construction Noise Monitoring Results



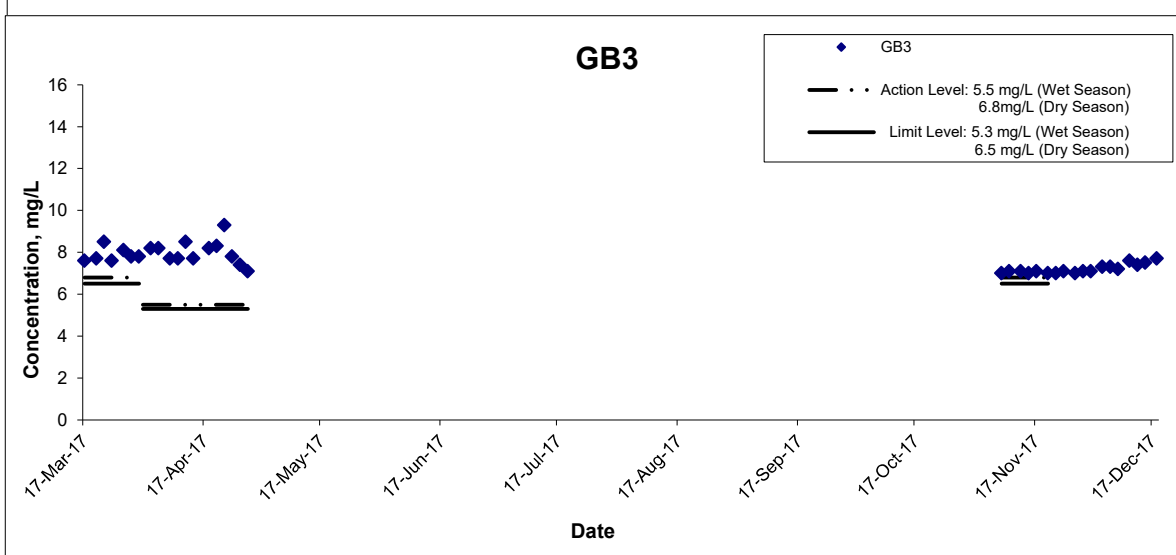
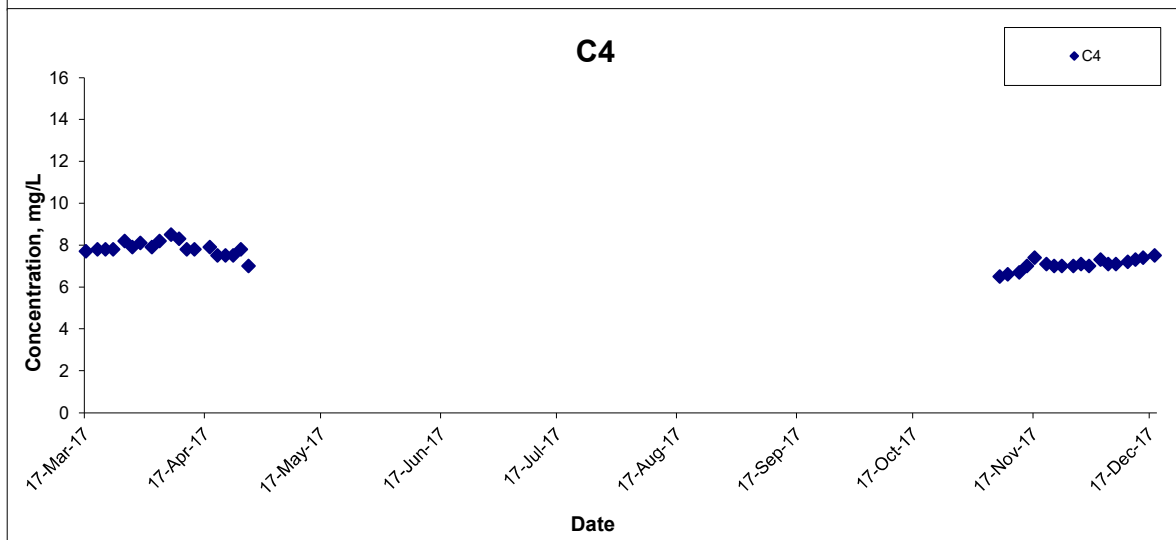
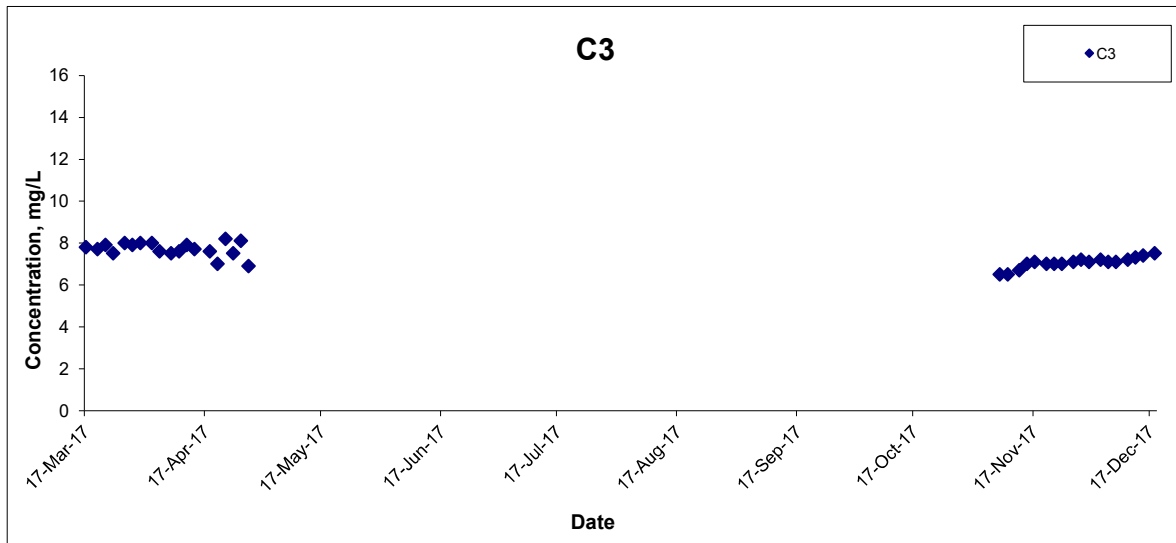
Date: August 2015

Appendix E

Appendix I

**Graphical Plots of Impact Monitoring Results
(Water Quality)**

Dissolved Oxygen (Surface) at Mid-Flood Tide



Title

Shatin to Central Link – Contract 1121
Advance Works for NSL Cross Harbour Tunnels
Graphical Presentation of Water Quality Monitoring
Results

Scale

N.T.S

Date

Dec 17

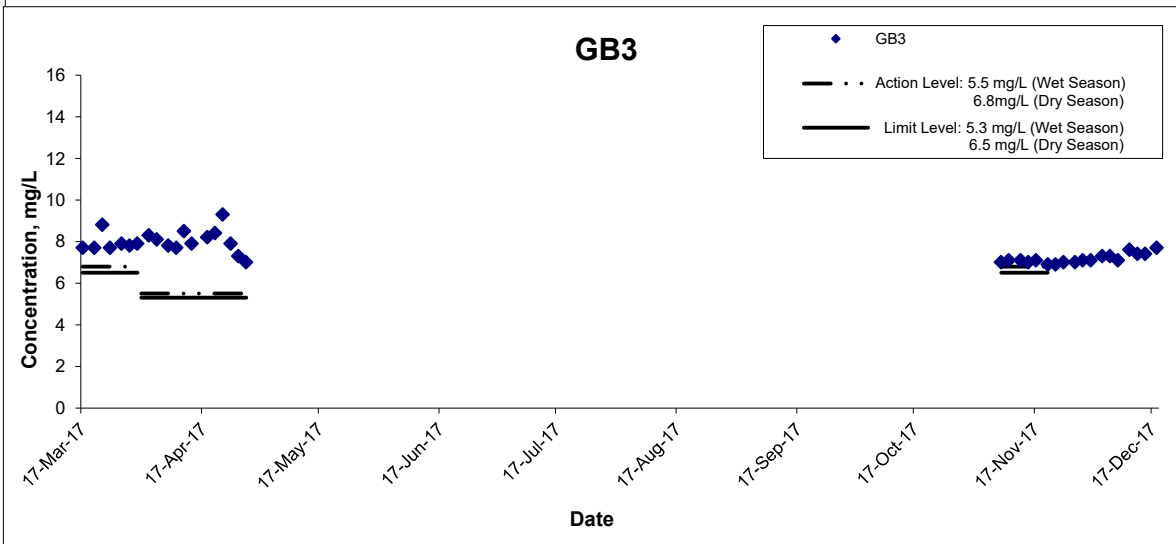
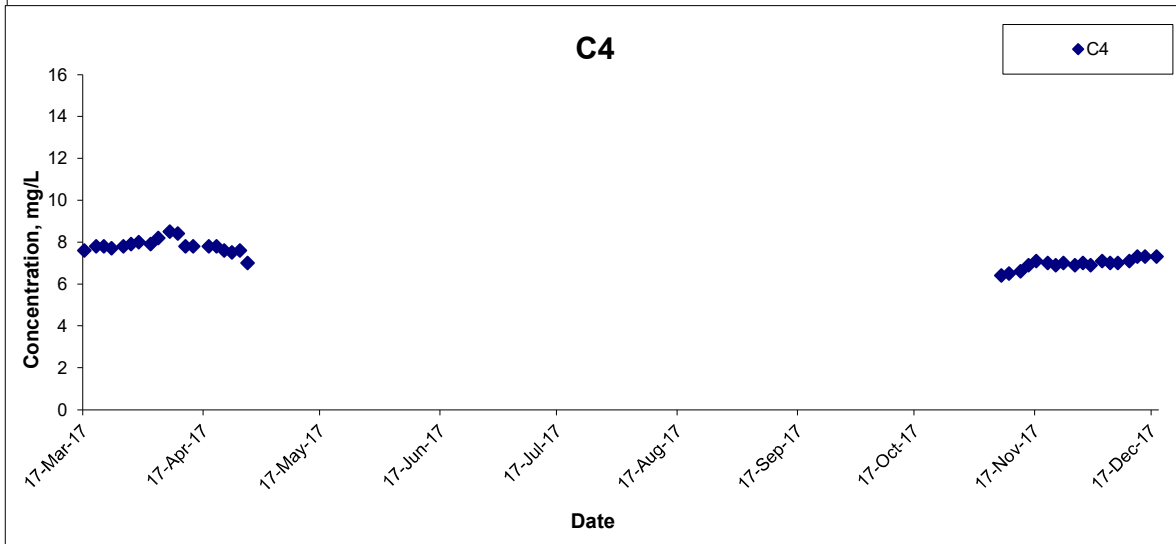
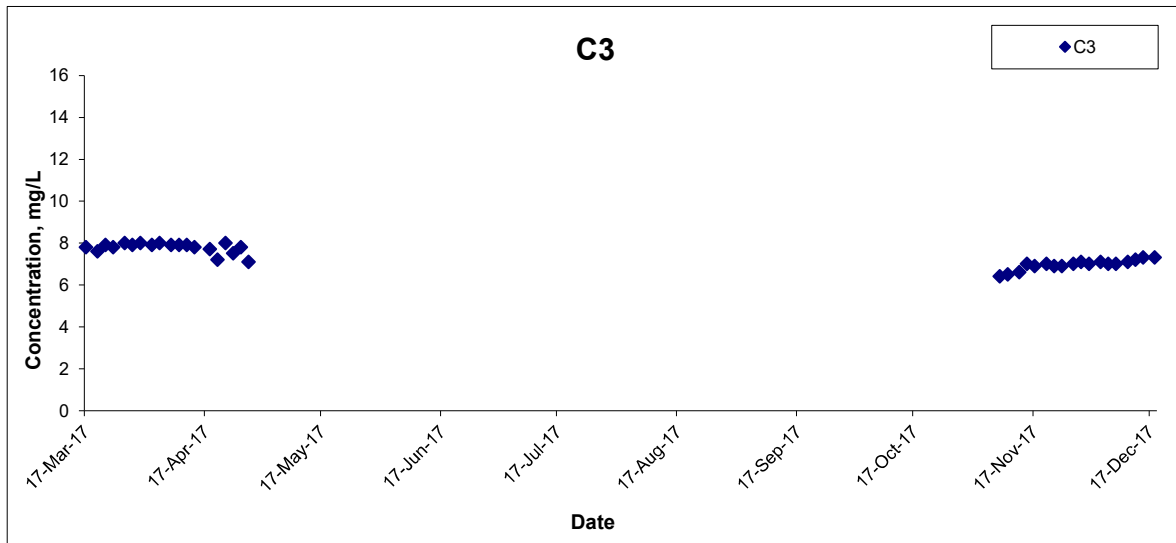
Project No.

MA14047

Appendix

C

Dissolved Oxygen (Middle) at Mid-Flood Tide



Title

Shatin to Central Link – Contract 1121
Advance Works for NSL Cross Harbour Tunnels
Graphical Presentation of Water Quality Monitoring
Results

Scale

N.T.S

Date

Dec 17

Project No.

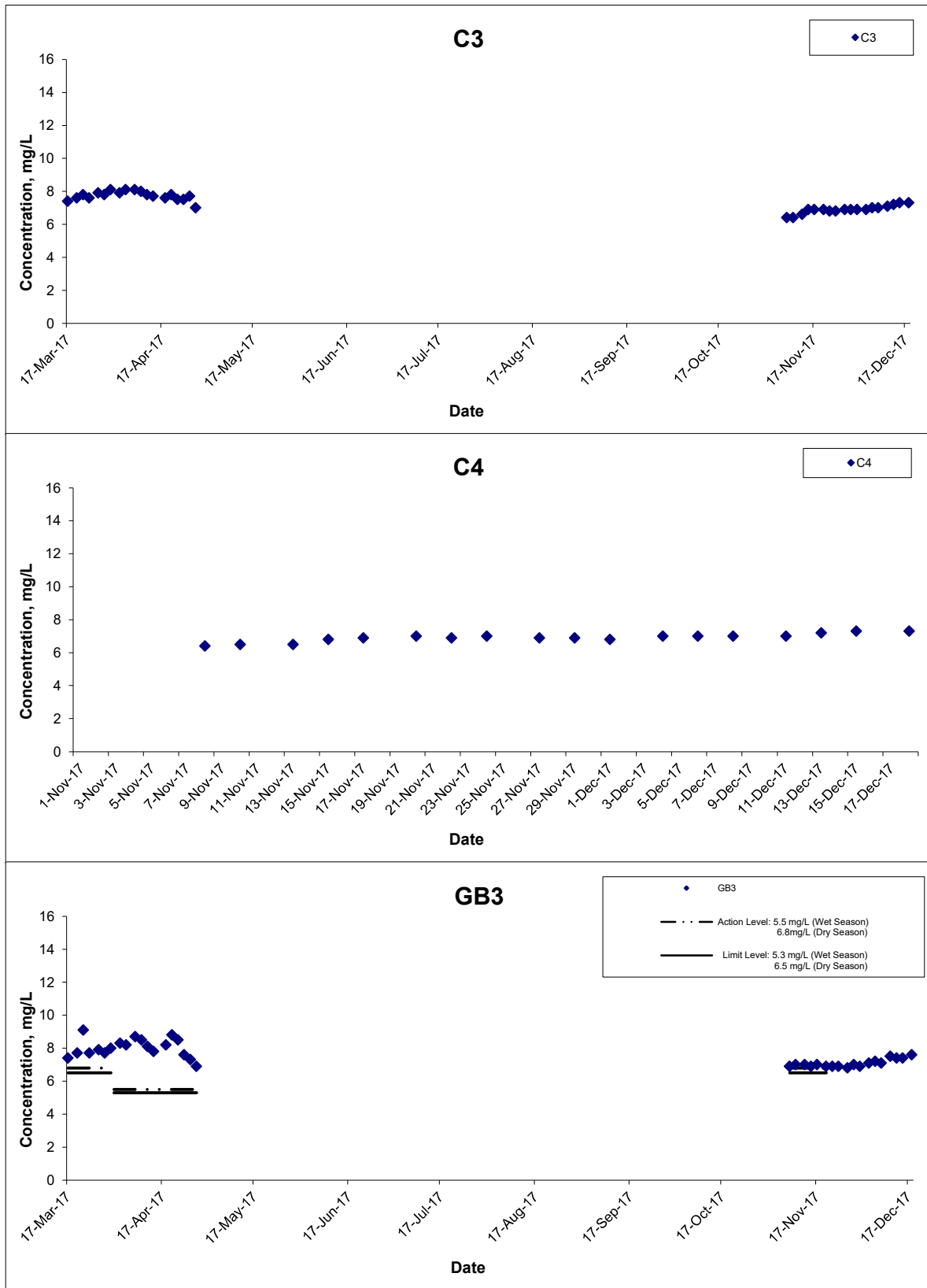
MA14047


Appendix

C

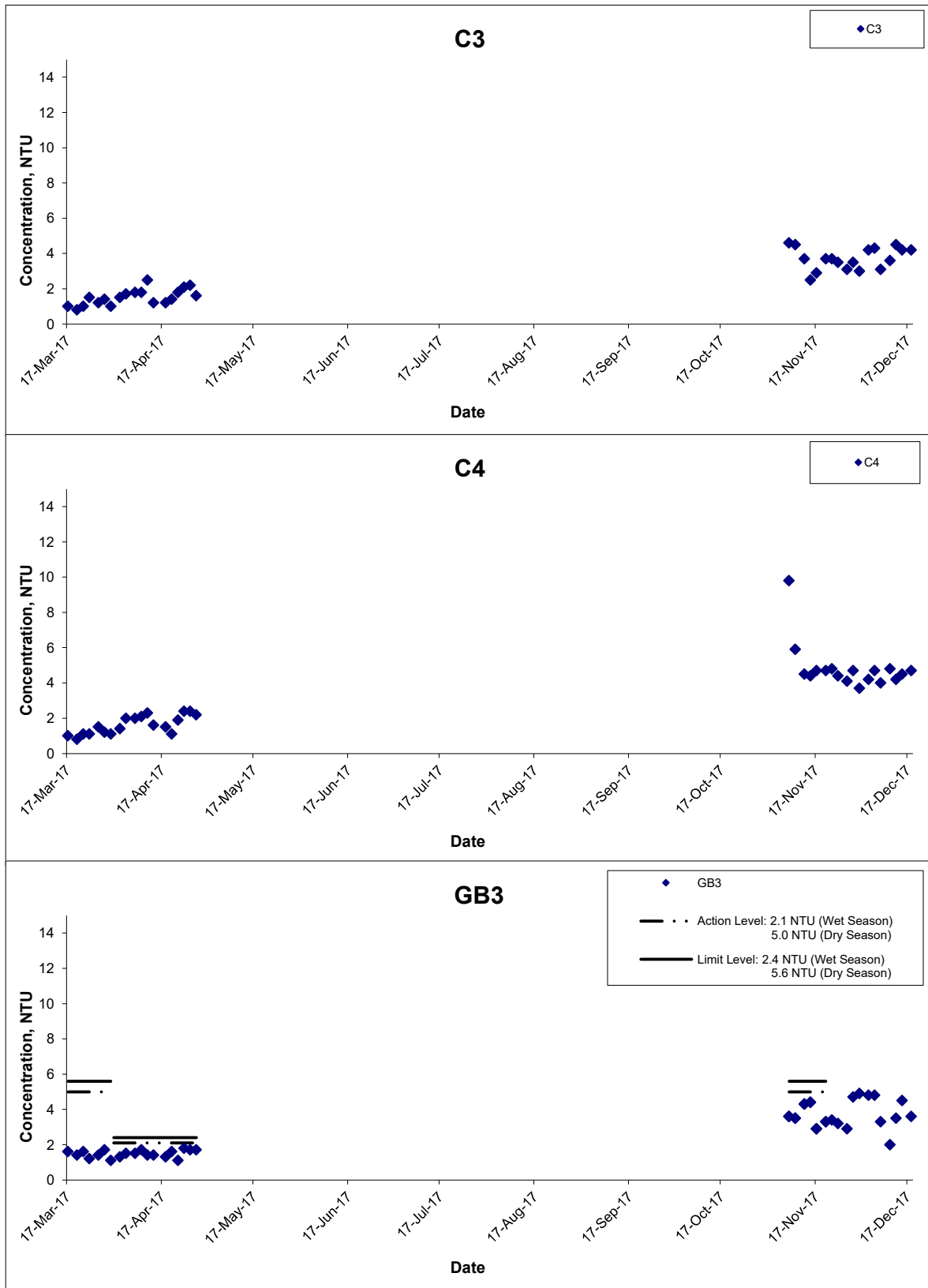


Dissolved Oxygen (Bottom) at Mid-Flood Tide



Title Shatin to Central Link – Contract 1121 Advance Works for NSL Cross Harbour Tunnels Graphical Presentation of Water Quality Monitoring Results	Scale N.T.S	Project No. MA14047	 consulting . testing . research
	Date Dec 17	Appendix C	

Turbidity (Depth-averaged) at Mid-Ebb Tide

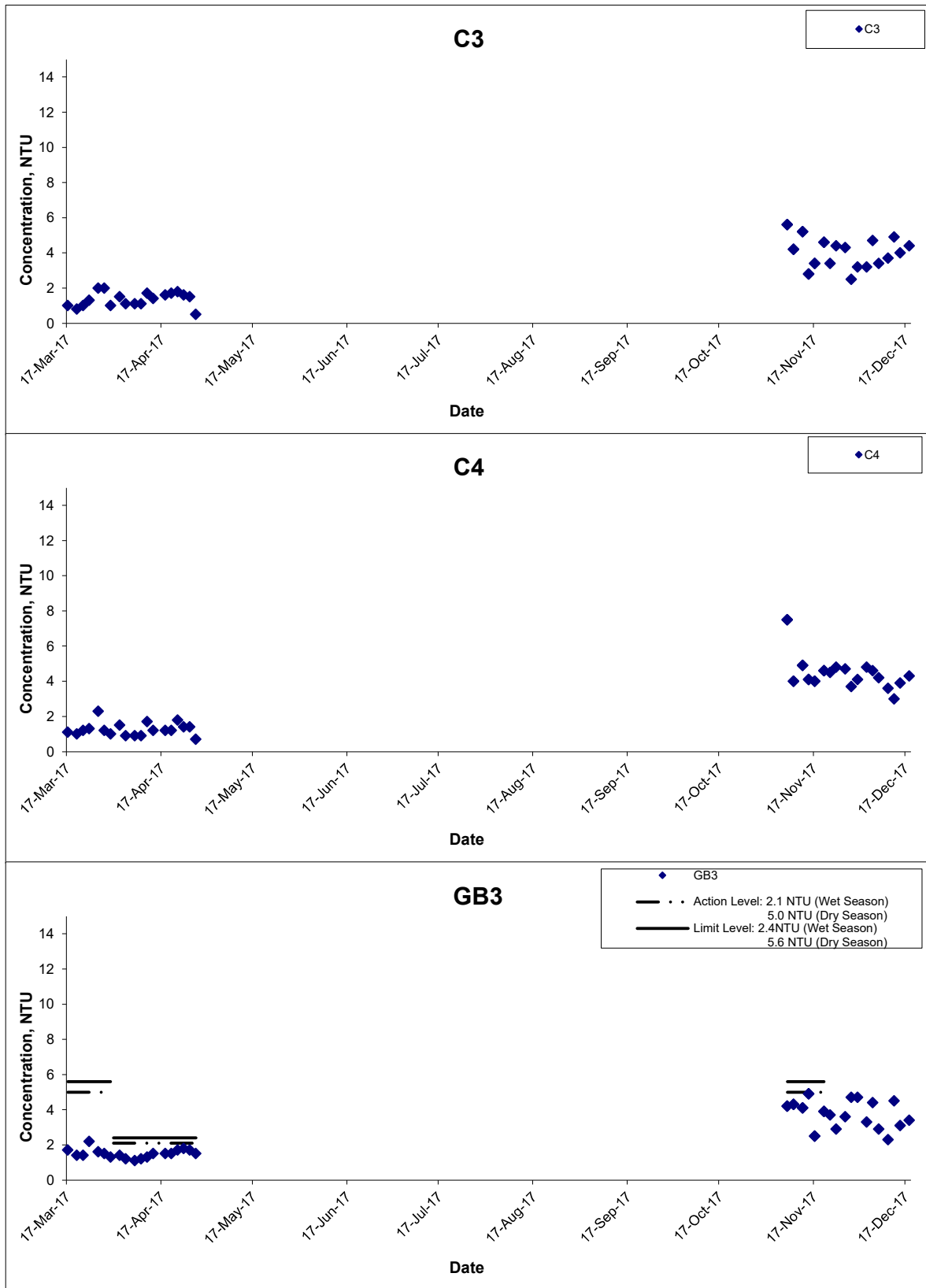


Title
 Shatin to Central Link – Contract 1121
 Advance Works for NSL Cross Harbour Tunnels
 Graphical Presentation of Water Quality Monitoring
 Results

Scale
 N.T.S
Date
 Dec 17

Project No.
 MA14047
Appendix
 C

Turbidity (Depth-averaged) at Mid-Flood Tide



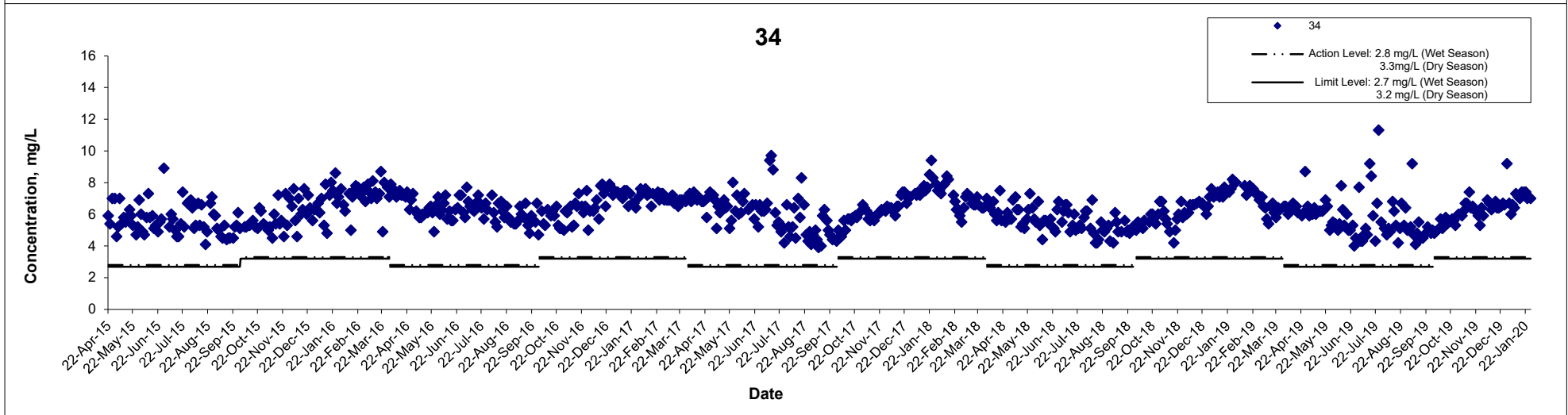
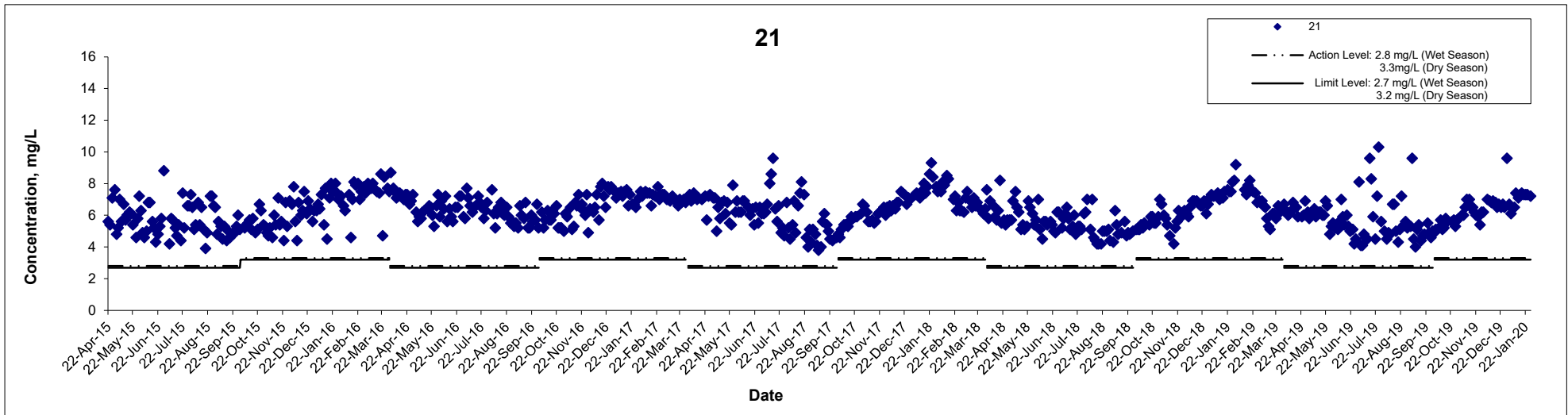
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 Shatin to Central Link – Contract 1121
 Advance Works for NSL Cross Harbour Tunnels
 Graphical Presentation of Water Quality Monitoring
 Results

Scale
 N.T.S
 Date
 Dec 17

Project
 No. MA14047
 Appendix
 C



Dissolved Oxygen (Surface) at Mid-Ebb Tide



Shatin to Central Link – Contract 1121
 Advance Works for NSL Cross Harbour Tunnels

Graphical Presentation of Water Quality Monitoring Results

Scale

N.T.S

Project No.

MA14047

Date

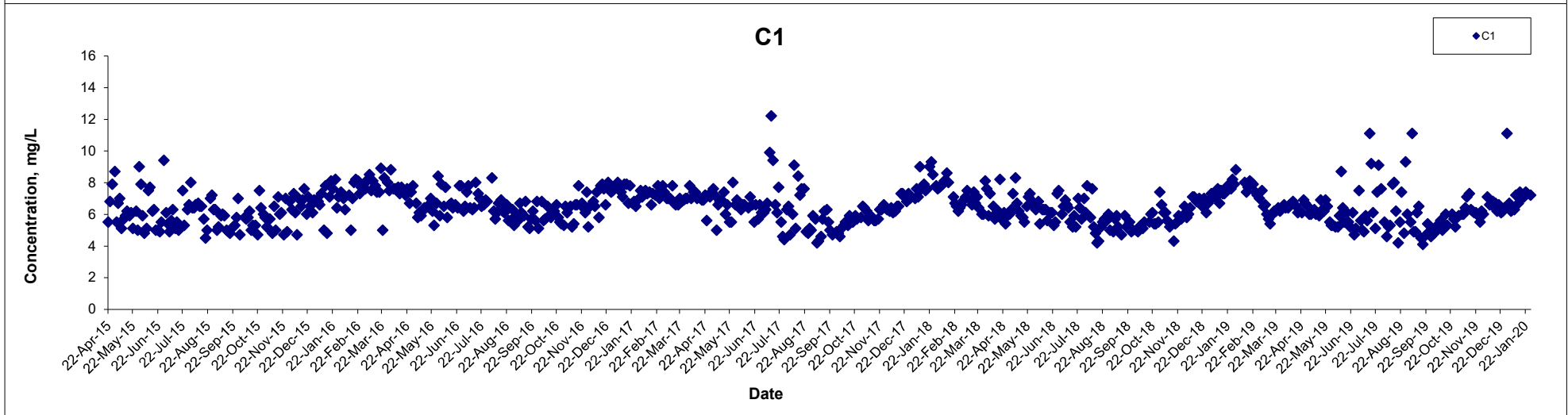
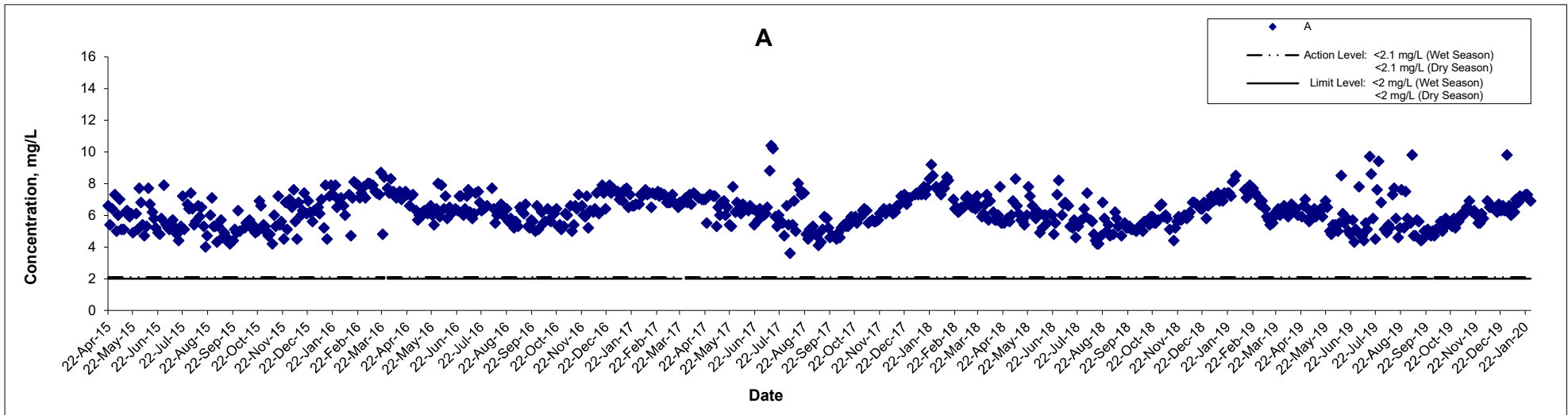
Jan 20

Appendix

C

WELLAB 匯力
 consulting . testing . research

Dissolved Oxygen (Surface) at Mid-Ebb Tide



Shatin to Central Link – Contract 1121
Advance Works for NSL Cross Harbour Tunnels

Graphical Presentation of Water Quality Monitoring Results

Scale

N.T.S

Date

Jan 20

Project No.

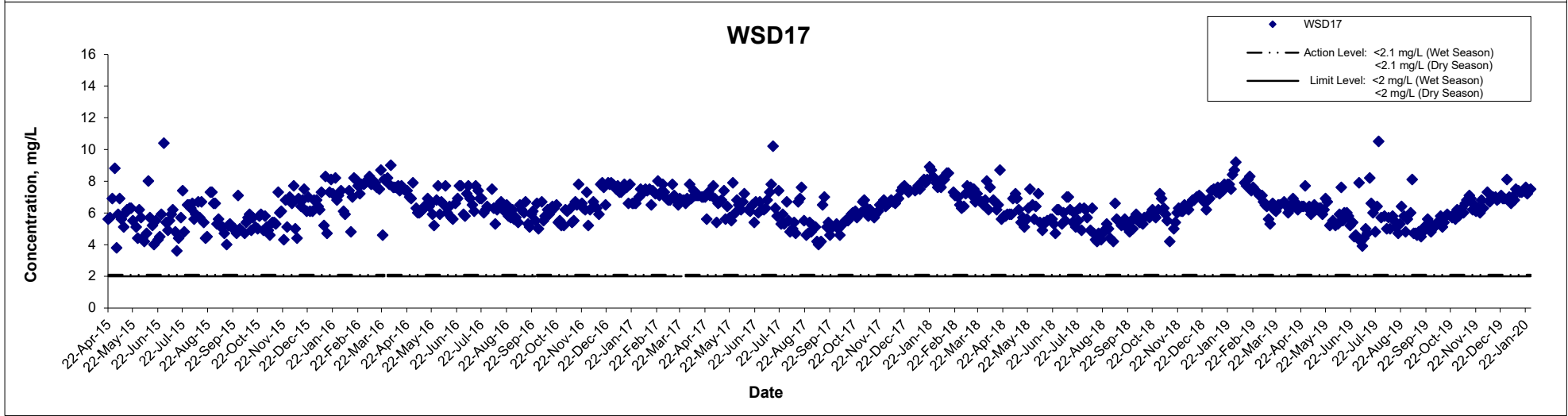
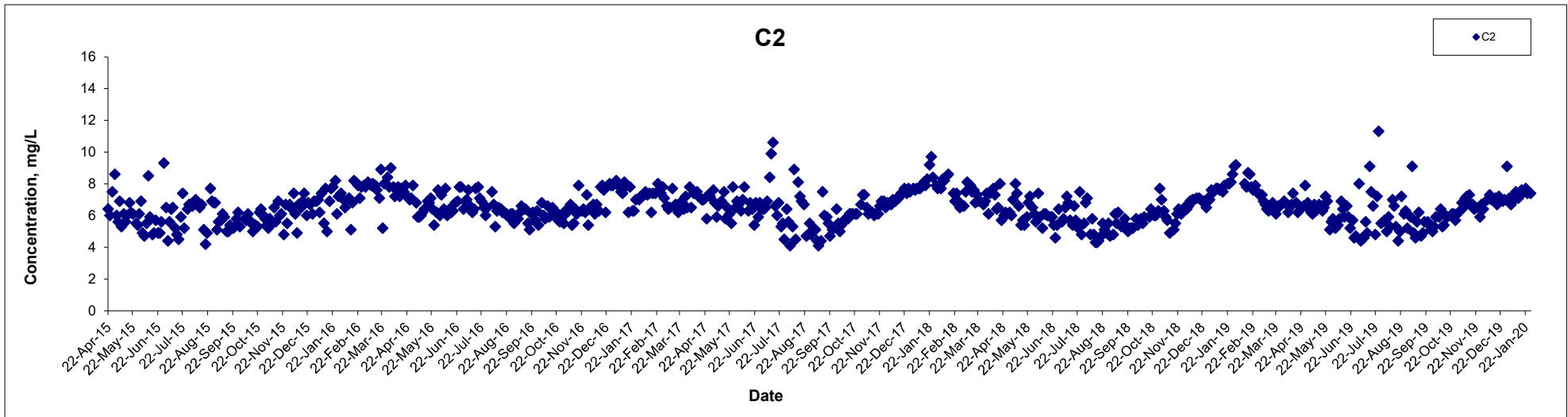
MA14047

Appendix

C

WELLAB 匯力
consulting . testing . research

Dissolved Oxygen (Surface) at Mid-Ebb Tide



Shatin to Central Link – Contract 1121
Advance Works for NSL Cross Harbour Tunnels

Graphical Presentation of Water Quality Monitoring Results

Scale

N.T.S

Date

Jan 20

Project No.

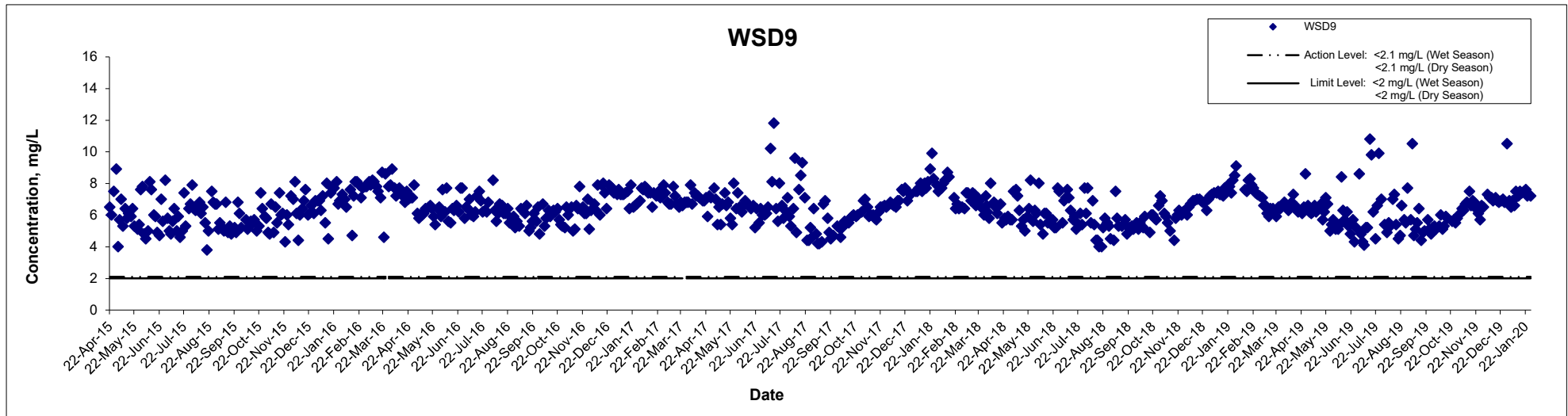
MA14047

Appendix

C

WELLAB 匯力
consulting . testing . research

Dissolved Oxygen (Surface) at Mid-Ebb Tide



Shatin to Central Link – Contract 1121
Advance Works for NSL Cross Harbour Tunnels

Graphical Presentation of Water Quality Monitoring Results

Scale

N.T.S

Date

Jan 20

Project No.

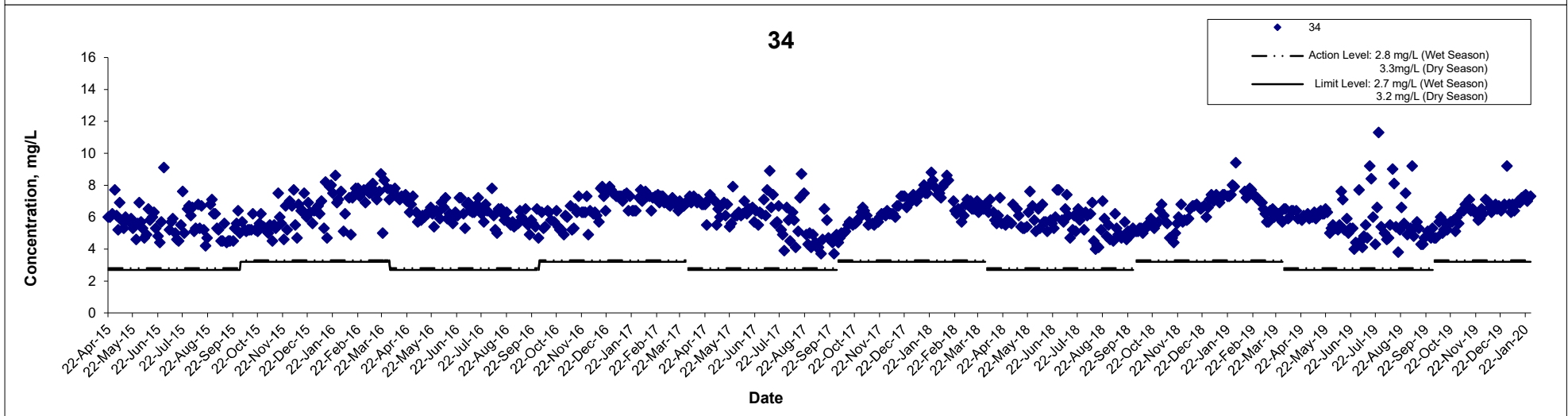
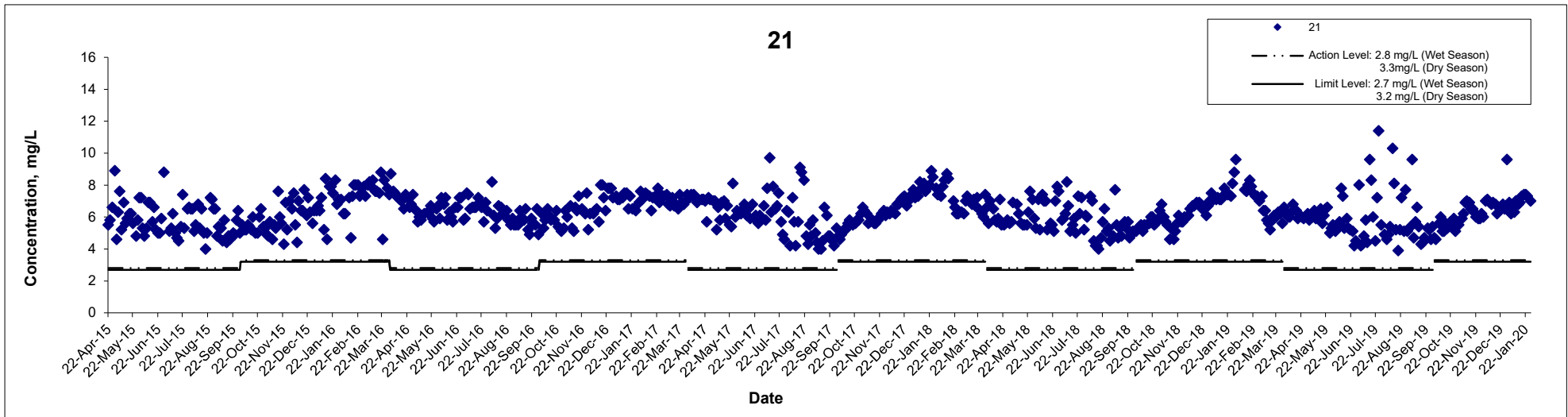
MA14047

Appendix

C

WELLAB 匯力
consulting . testing . research

Dissolved Oxygen (Surface) at Mid-Flood Tide



Shatin to Central Link – Contract 1121
 Advance Works for NSL Cross Harbour Tunnels

Graphical Presentation of Water Quality Monitoring Results

Scale

N.T.S

Project No.

MA14047

Date

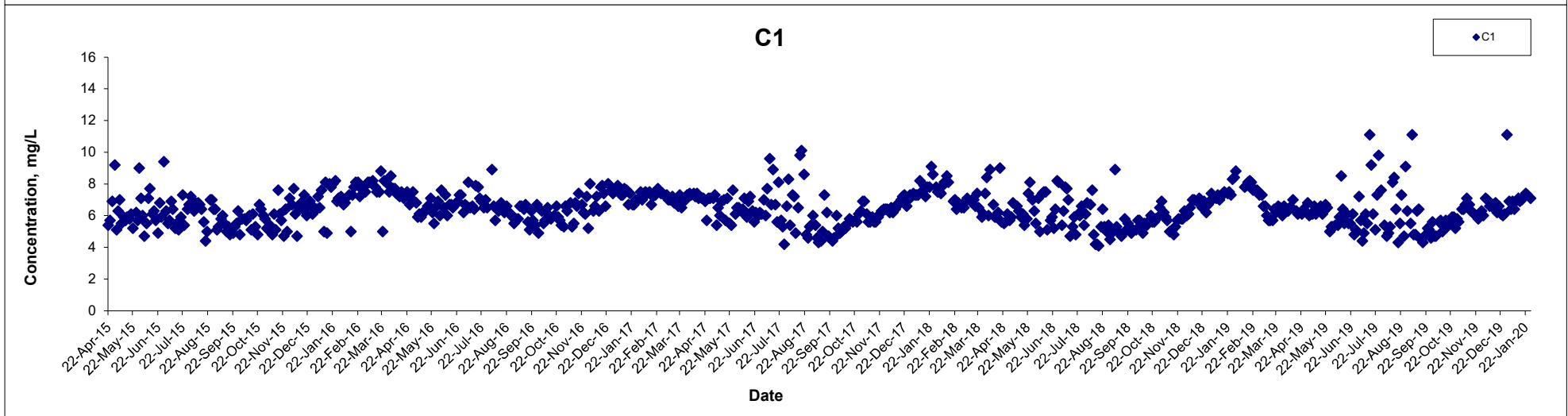
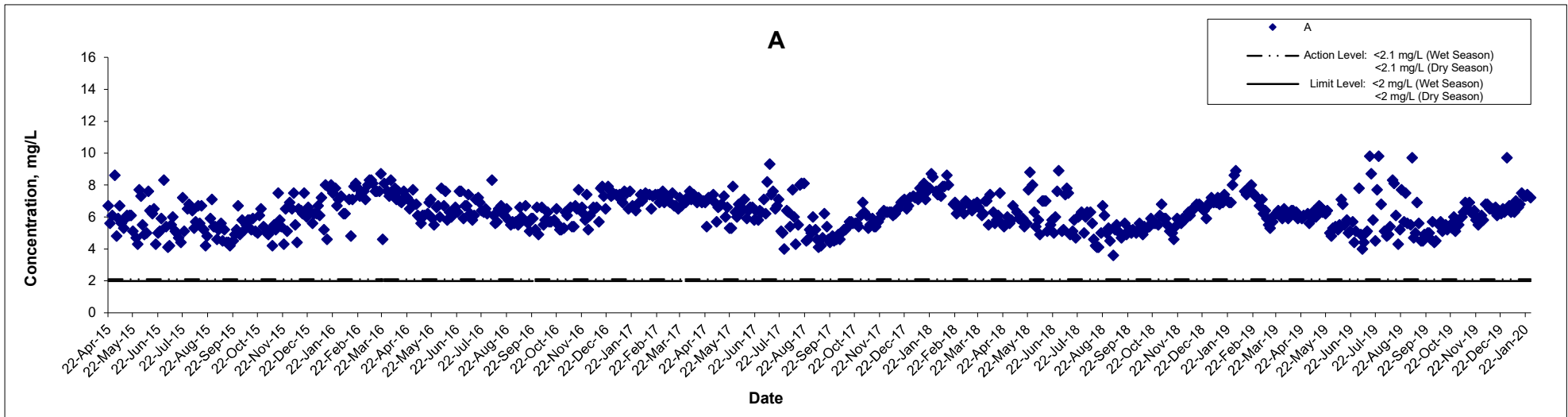
Jan 20

Appendix

C

WELLAB 匯力
 consulting . testing . research

Dissolved Oxygen (Surface) at Mid-Flood Tide



Shatin to Central Link – Contract 1121
Advance Works for NSL Cross Harbour Tunnels

Graphical Presentation of Water Quality Monitoring Results

Scale

N.T.S

Date

Jan 20

Project No.

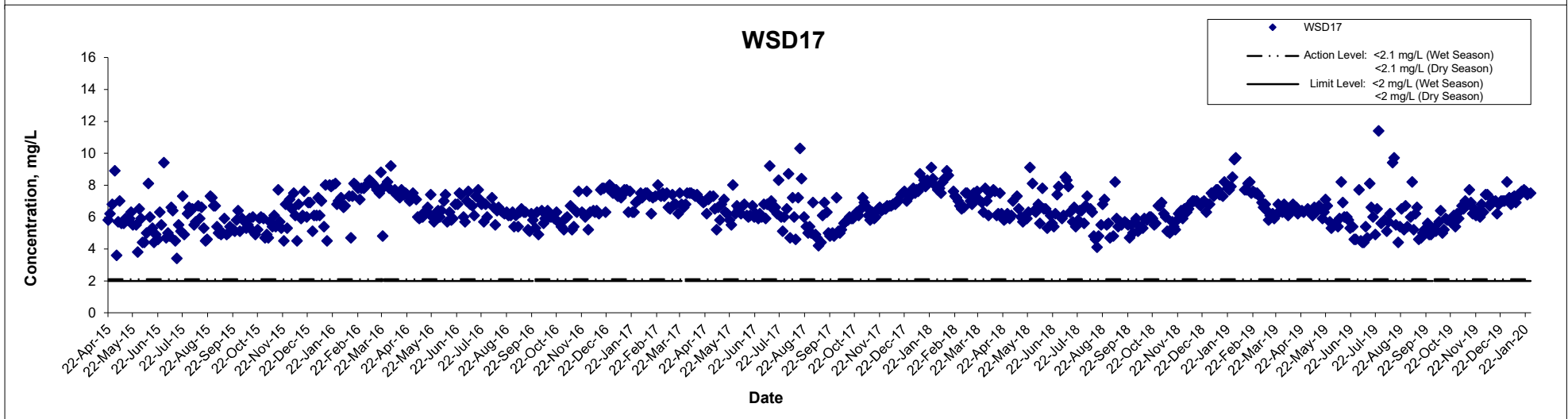
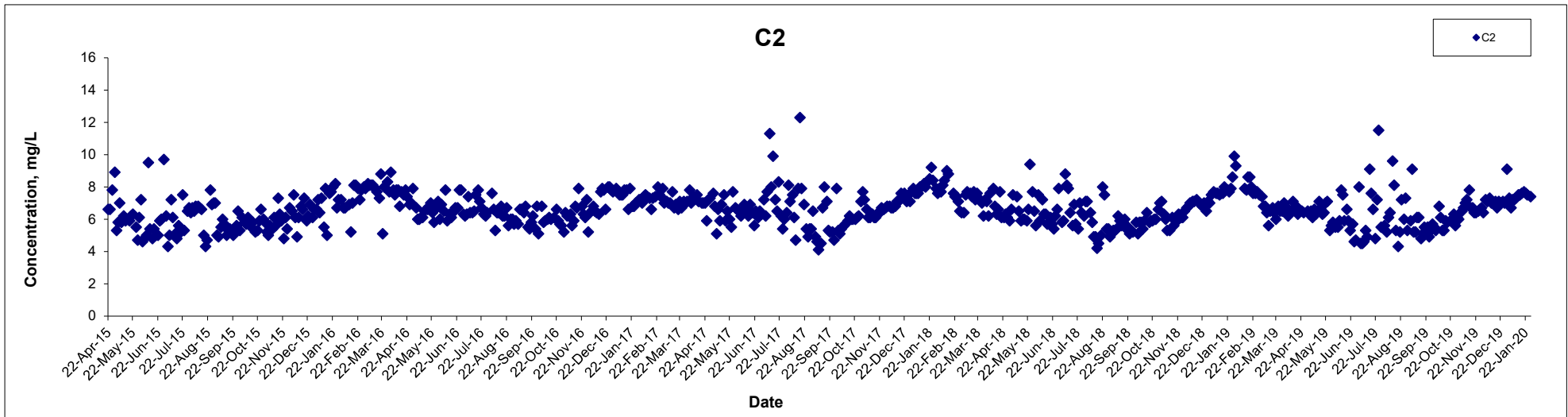
MA14047

Appendix

C

WELLAB 匯力
consulting . testing . research

Dissolved Oxygen (Surface) at Mid-Flood Tide



Shatin to Central Link – Contract 1121
Advance Works for NSL Cross Harbour Tunnels

Graphical Presentation of Water Quality Monitoring Results

Scale

N.T.S

Date

Jan 20

Project No.

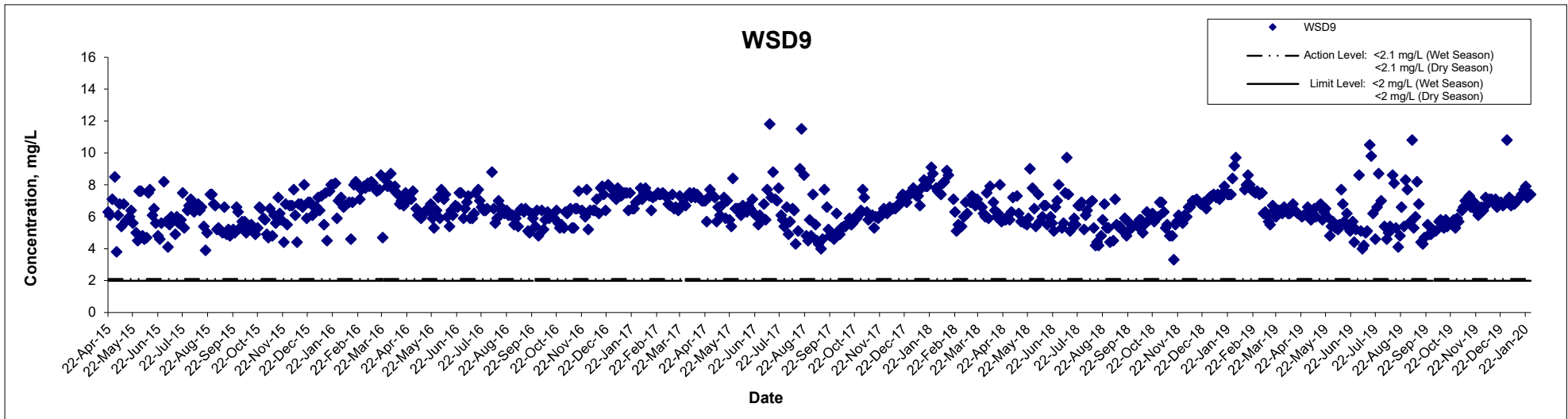
MA14047

Appendix

C

WELLAB 匯力
consulting . testing . research

Dissolved Oxygen (Surface) at Mid-Flood Tide



Shatin to Central Link – Contract 1121
Advance Works for NSL Cross Harbour Tunnels

Graphical Presentation of Water Quality Monitoring Results

Scale

N.T.S

Date

Jan 20

Project No.

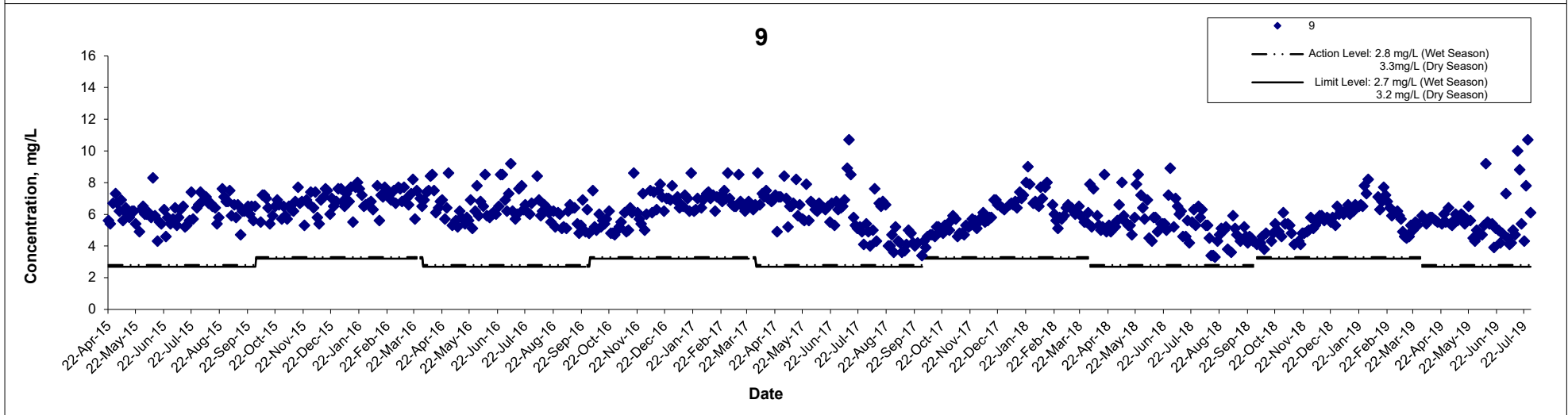
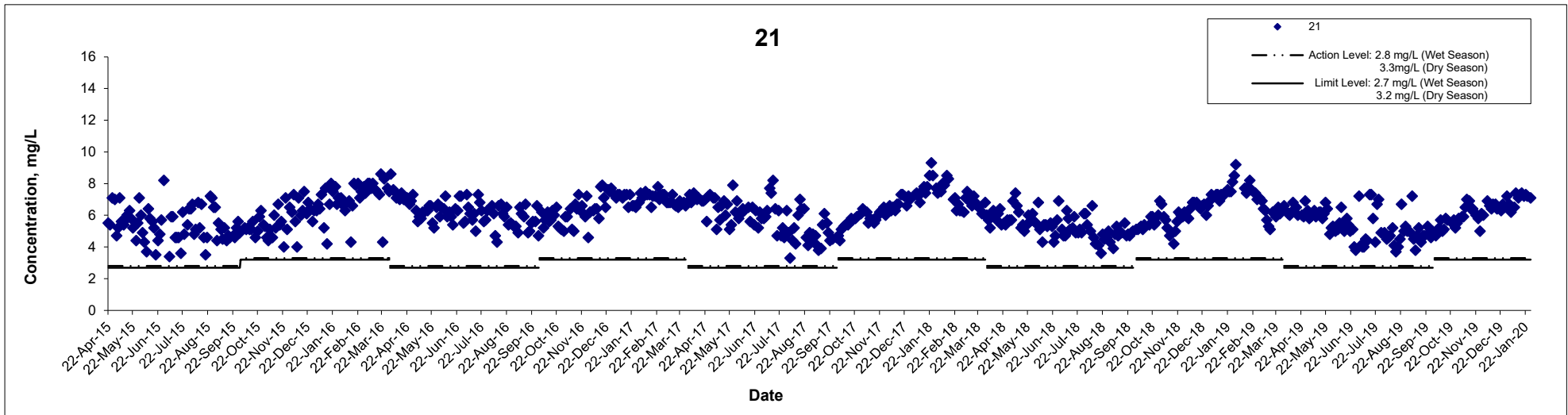
MA14047

Appendix

C

WELLAB 匯力
consulting . testing . research

Dissolved Oxygen (Middle) at Mid-Ebb Tide



Shatin to Central Link – Contract 1121
 Advance Works for NSL Cross Harbour Tunnels

Graphical Presentation of Water Quality Monitoring Results

Scale

N.T.S

Date

Jan 20

Project
 No.

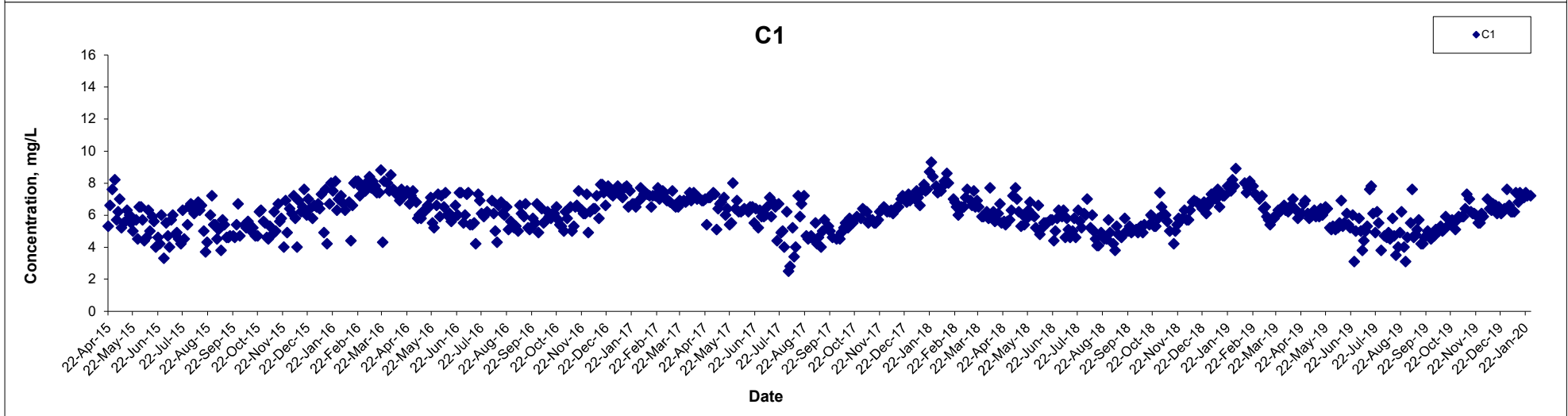
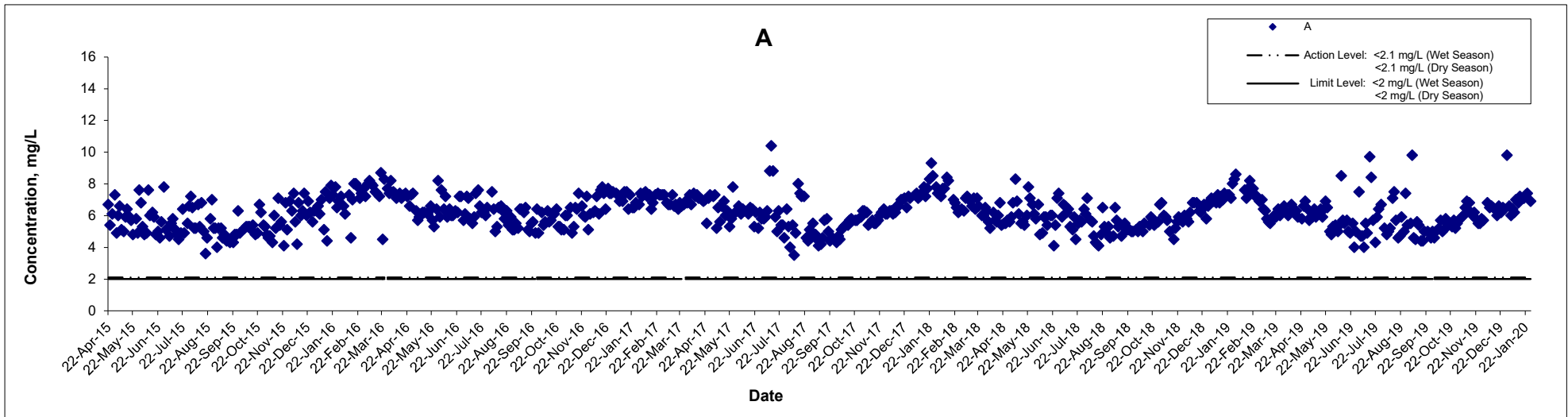
MA14047

Appendix

C

WELLAB 匯力
 consulting . testing . research

Dissolved Oxygen (Middle) at Mid-Ebb Tide



Shatin to Central Link – Contract 1121
 Advance Works for NSL Cross Harbour Tunnels

Graphical Presentation of Water Quality Monitoring Results

Scale

N.T.S

Project No.

MA14047

Date

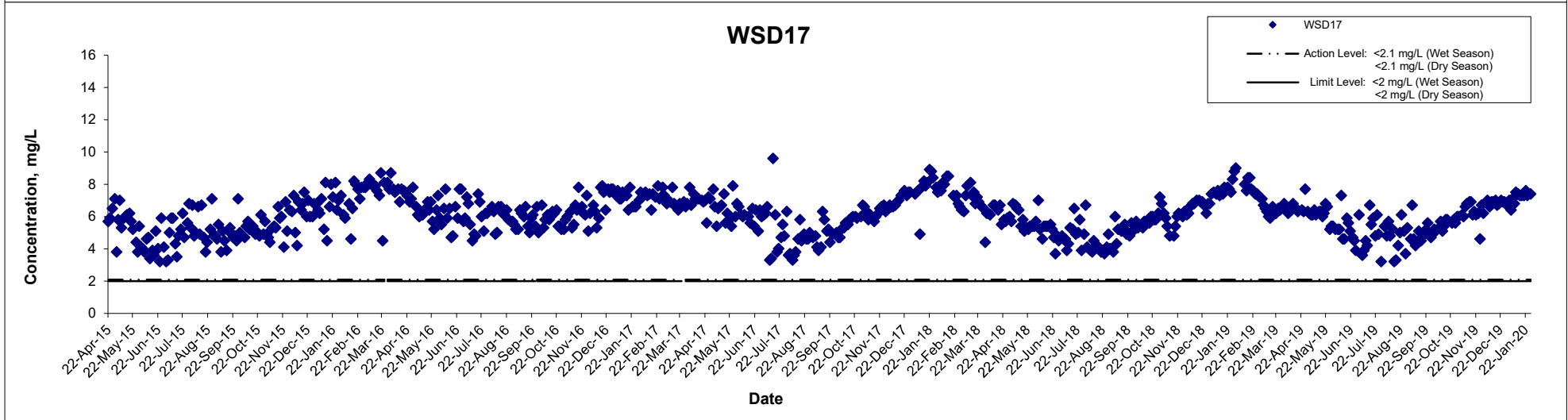
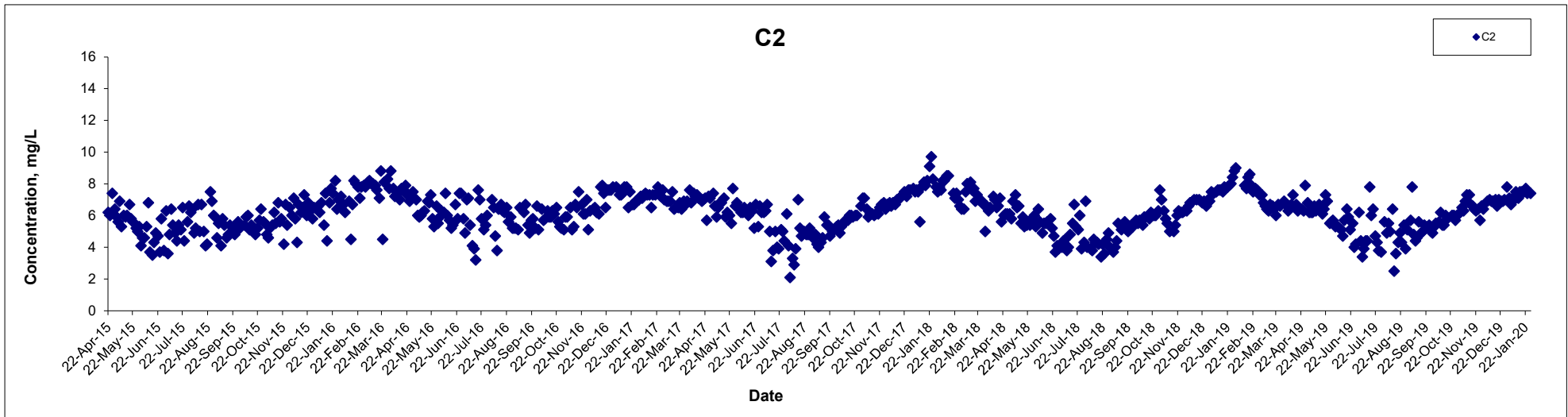
Jan 20

Appendix

C

WELLAB 匯力
 consulting . testing . research

Dissolved Oxygen (Middle) at Mid-Ebb Tide



Shatin to Central Link – Contract 1121
Advance Works for NSL Cross Harbour Tunnels

Graphical Presentation of Water Quality Monitoring Results

Scale

N.T.S

Date

Jan 20

Project No.

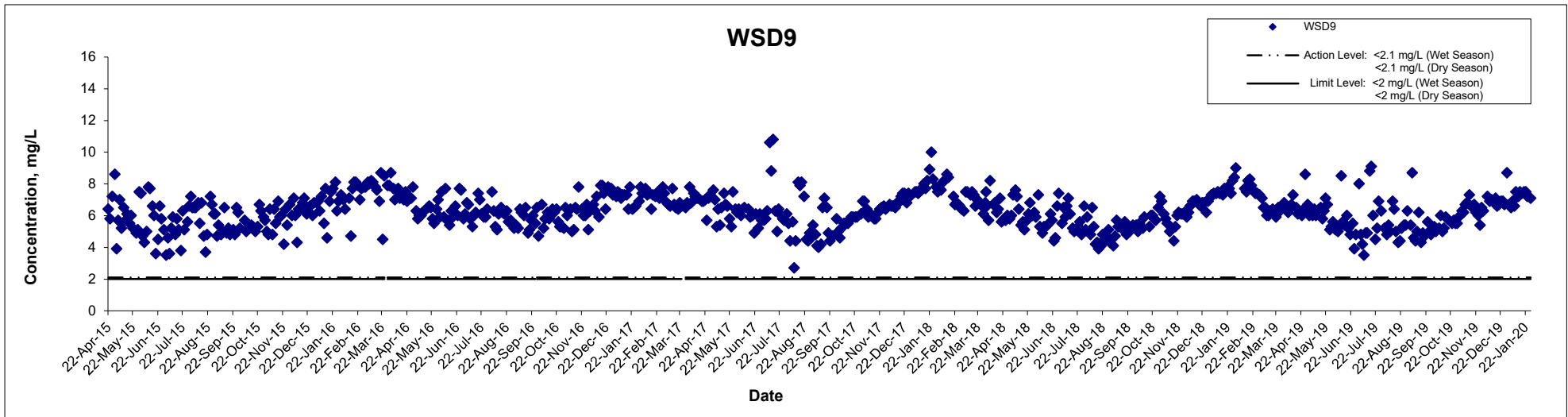
MA14047

Appendix

C

WELLAB 匯力
consulting . testing . research

Dissolved Oxygen (Middle) at Mid-Ebb Tide



Shatin to Central Link – Contract 1121
 Advance Works for NSL Cross Harbour Tunnels

Graphical Presentation of Water Quality Monitoring Results

Scale

N.T.S

Date

Jan 20

Project No.

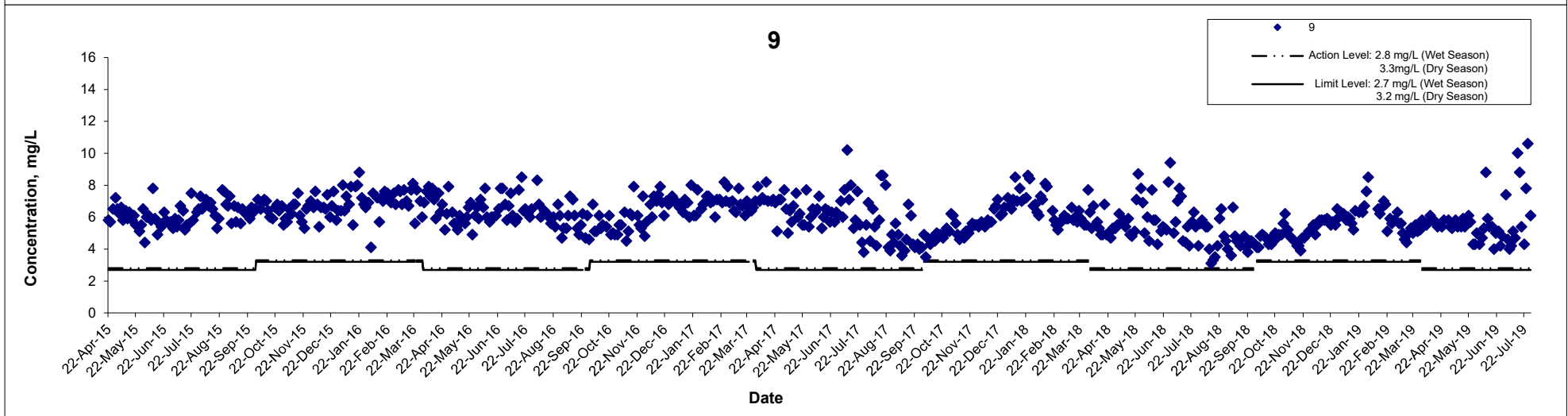
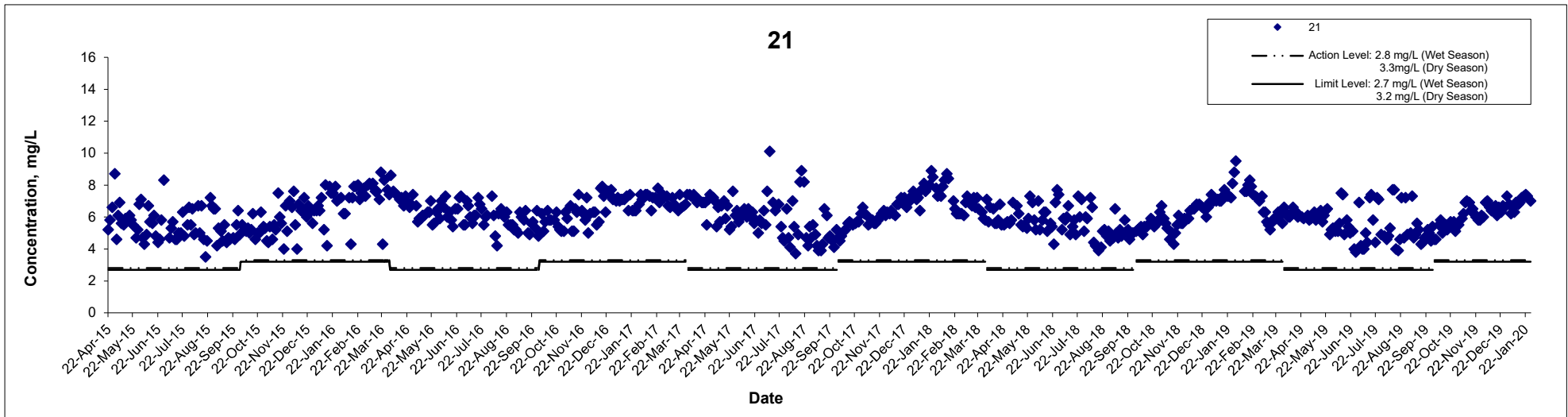
MA14047

Appendix

C

WELLAB 匯力
 consulting . testing . research

Dissolved Oxygen (Middle) at Mid-Flood Tide



Shatin to Central Link – Contract 1121
Advance Works for NSL Cross Harbour Tunnels

Graphical Presentation of Water Quality Monitoring Results

Scale

N.T.S

Date

Jan 20

Project No.

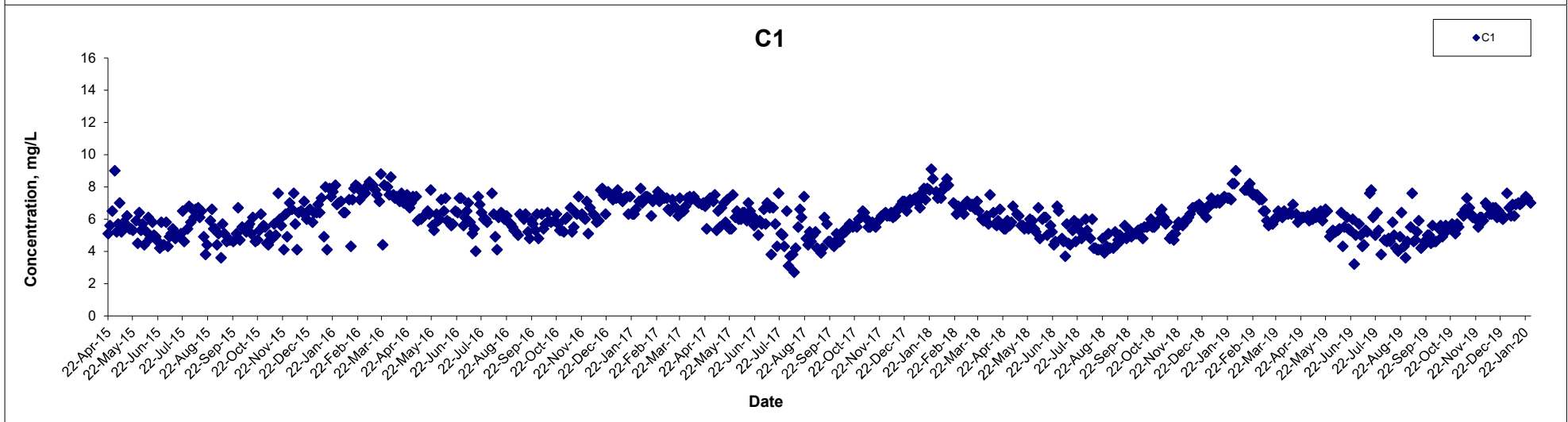
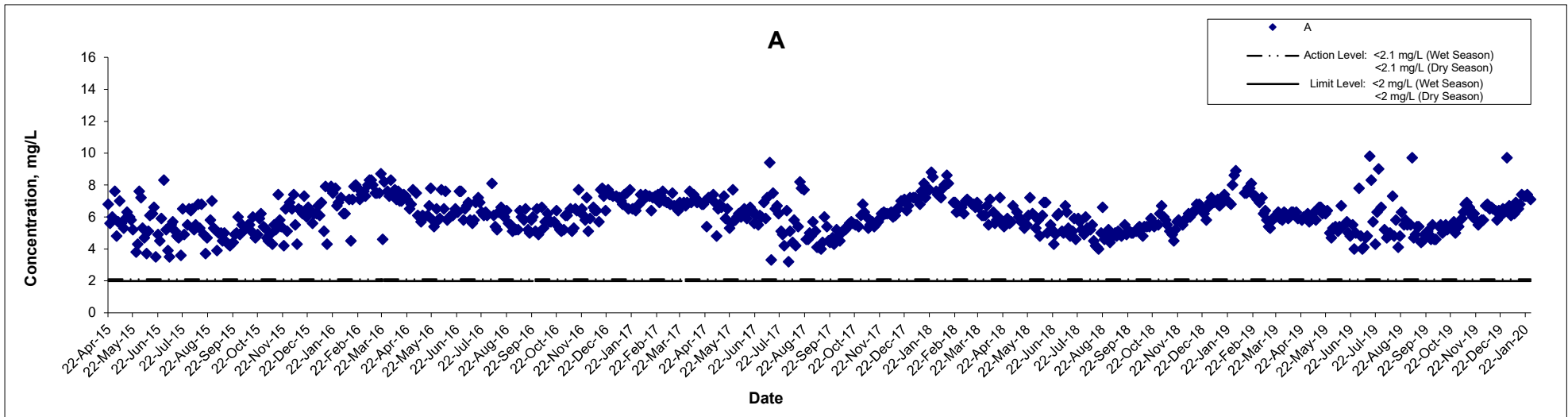
MA14047

Appendix

C

WELLAB 匯力
consulting . testing . research

Dissolved Oxygen (Middle) at Mid-Flood Tide



Shatin to Central Link – Contract 1121
 Advance Works for NSL Cross Harbour Tunnels

Graphical Presentation of Water Quality Monitoring Results

Scale

N.T.S

Date

Jan 20

Project No.

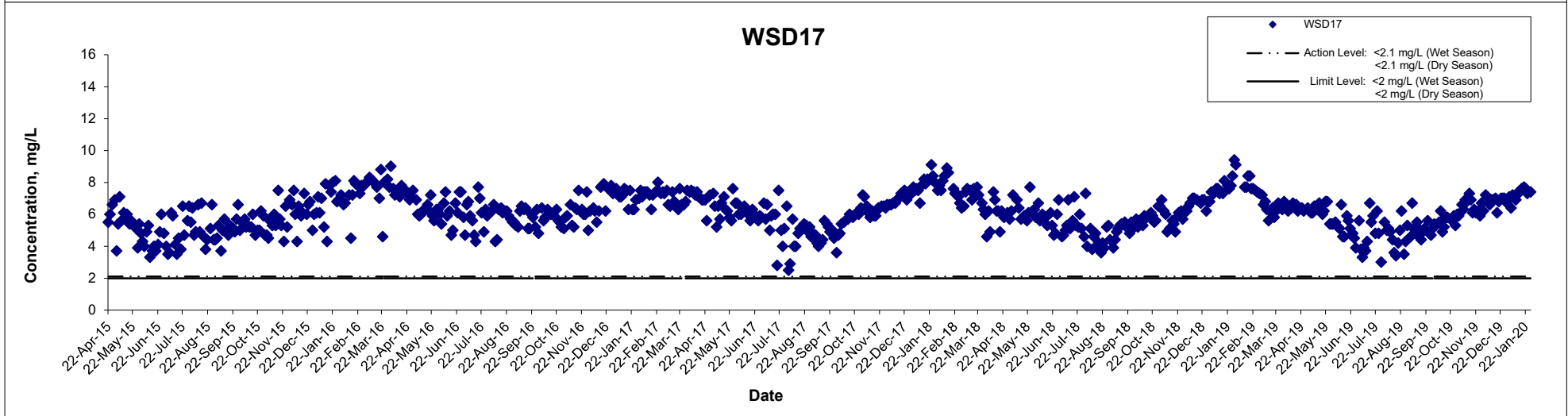
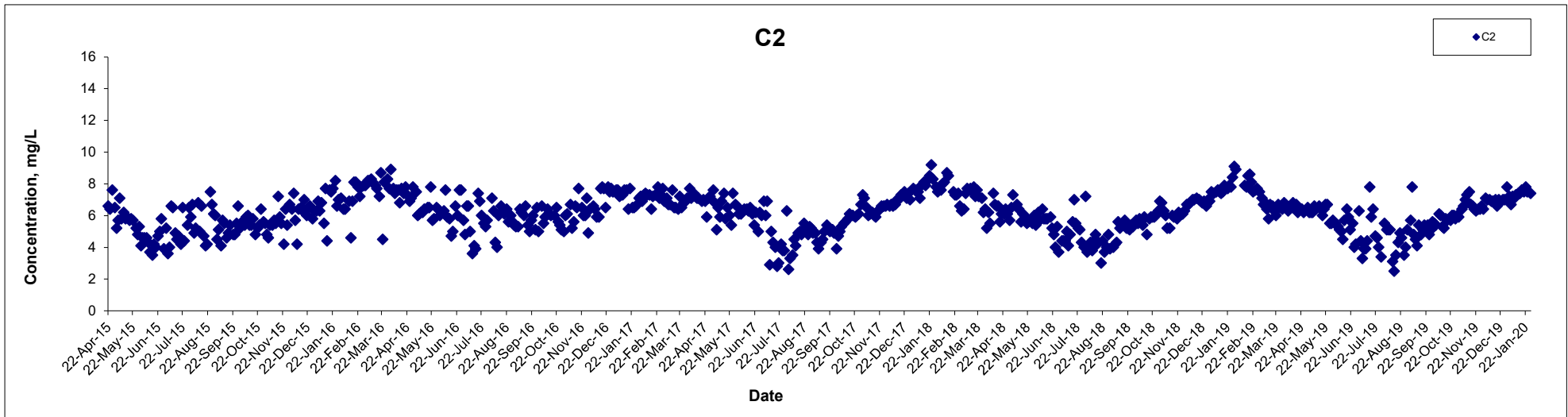
MA14047

Appendix

C

WELLAB 匯力
 consulting . testing . research

Dissolved Oxygen (Middle) at Mid-Flood Tide



Shatin to Central Link – Contract 1121
Advance Works for NSL Cross Harbour Tunnels

Graphical Presentation of Water Quality Monitoring Results

Scale

N.T.S

Date

Jan 20

Project No.

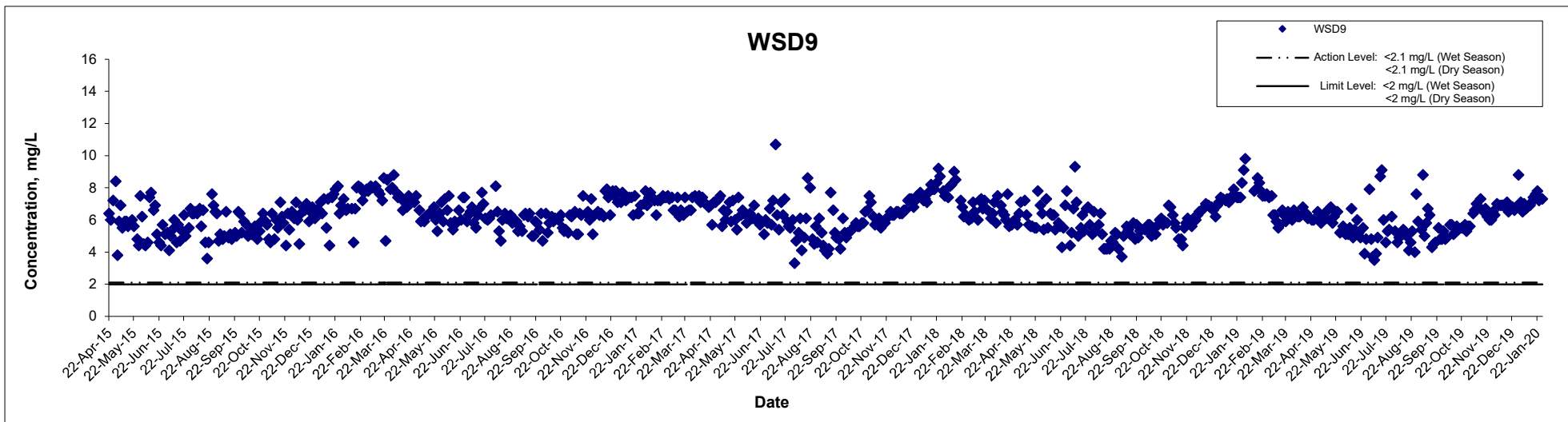
MA14047

Appendix

C

WELLAB 匯力
consulting . testing . research

Dissolved Oxygen (Middle) at Mid-Flood Tide



Shatin to Central Link – Contract 1121
Advance Works for NSL Cross Harbour Tunnels

Graphical Presentation of Water Quality Monitoring Results

Scale

N.T.S

Date

Jan 20

Project

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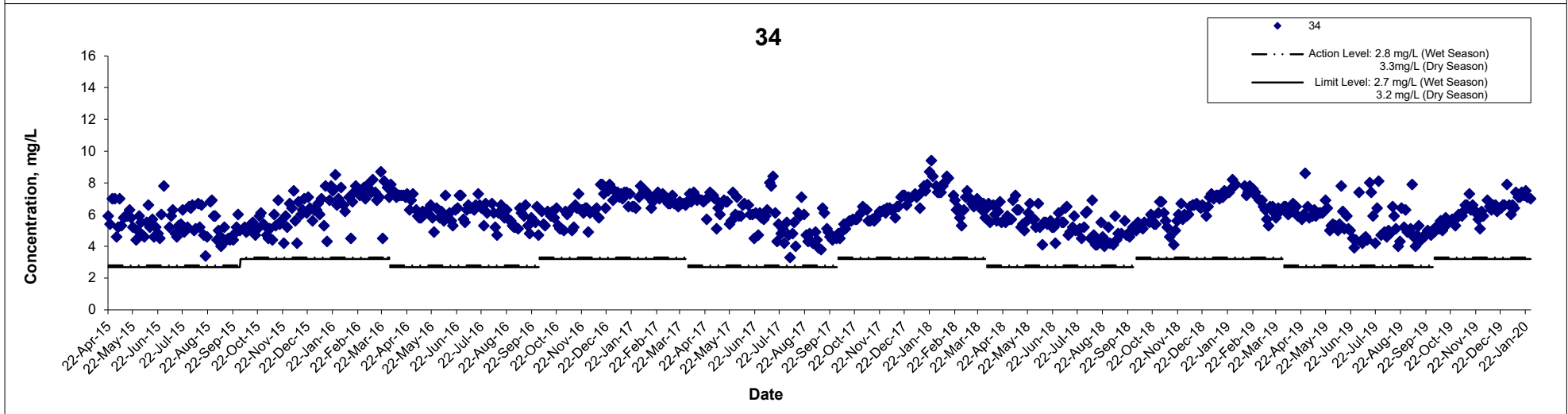
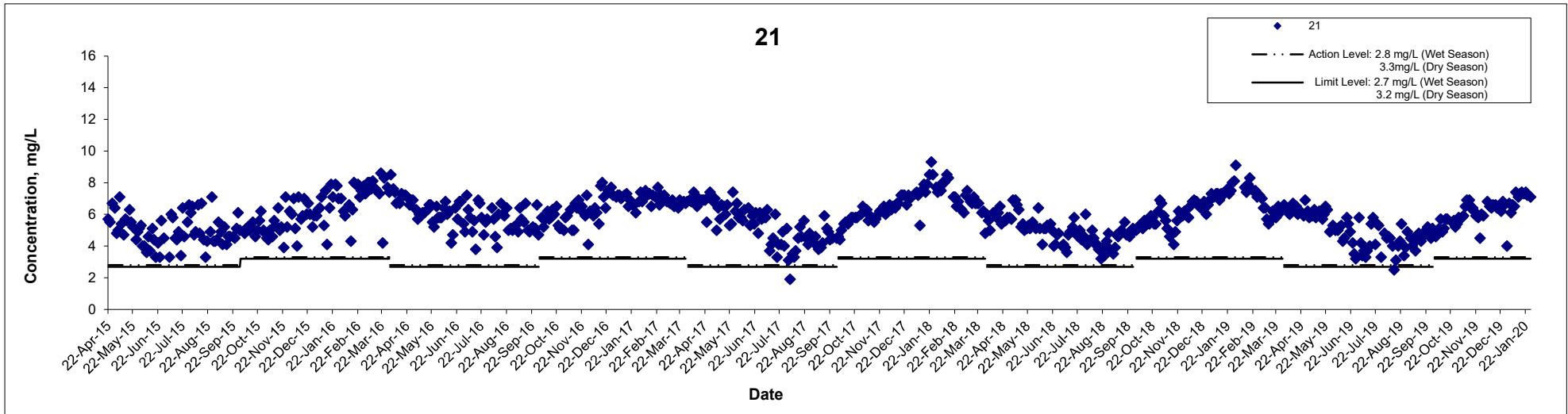
MA14047

Appendix

C

WELLAB 匯力
consulting . testing . research

Dissolved Oxygen (Bottom) at Mid-Ebb Tide



Shatin to Central Link – Contract 1121
 Advance Works for NSL Cross Harbour Tunnels

Graphical Presentation of Water Quality Monitoring Results

Scale

N.T.S

Project No.

MA14047

Date

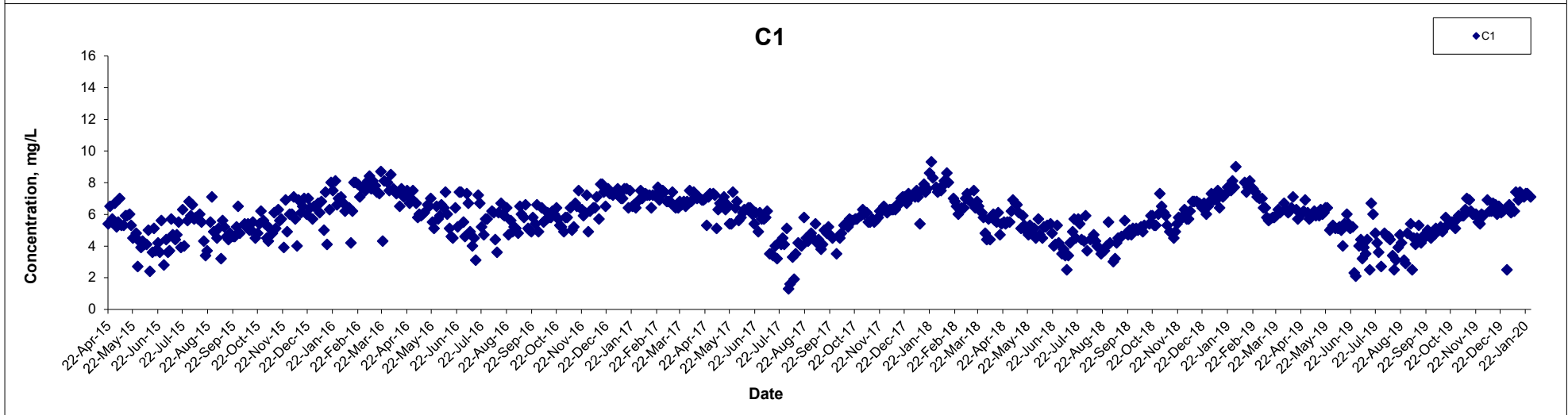
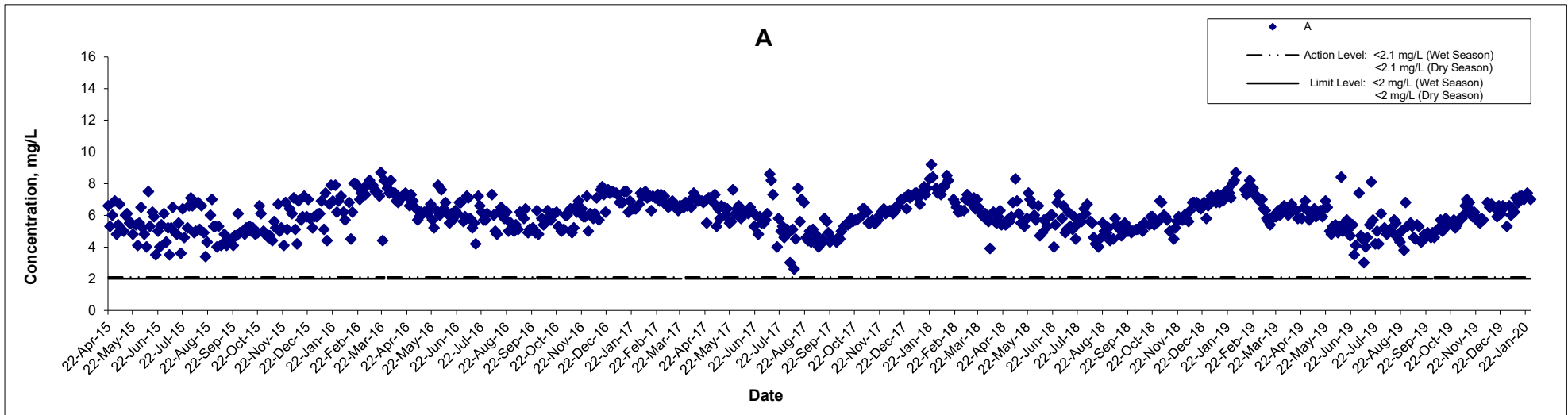
Jan 20

Appendix

C

WELLAB 匯力
 consulting . testing . research

Dissolved Oxygen (Bottom) at Mid-Ebb Tide



Shatin to Central Link – Contract 1121
Advance Works for NSL Cross Harbour Tunnels

Graphical Presentation of Water Quality Monitoring Results

Scale

N.T.S

Date

Jan 20

Project No.

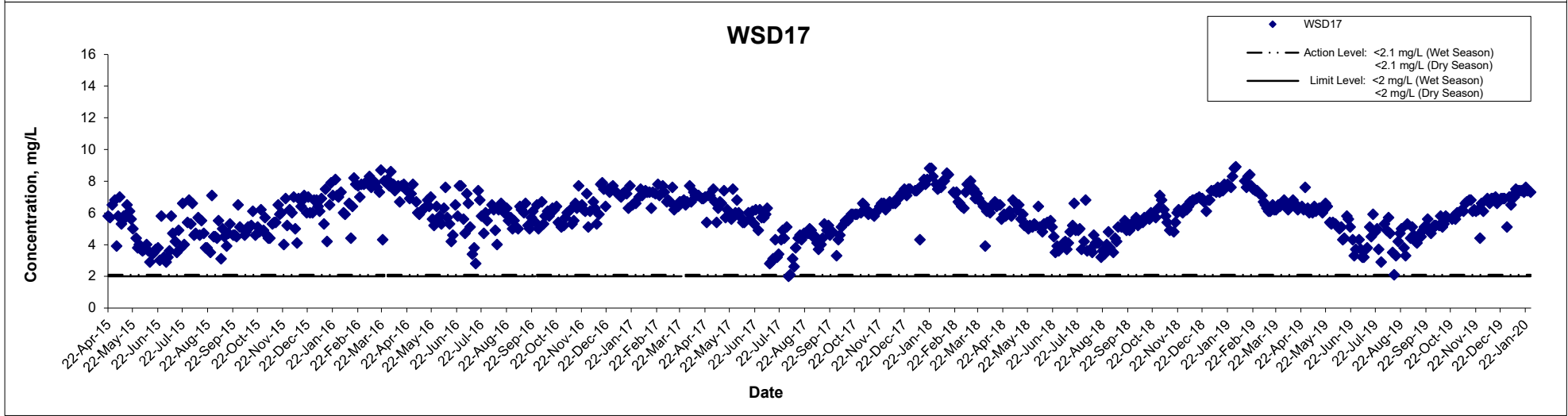
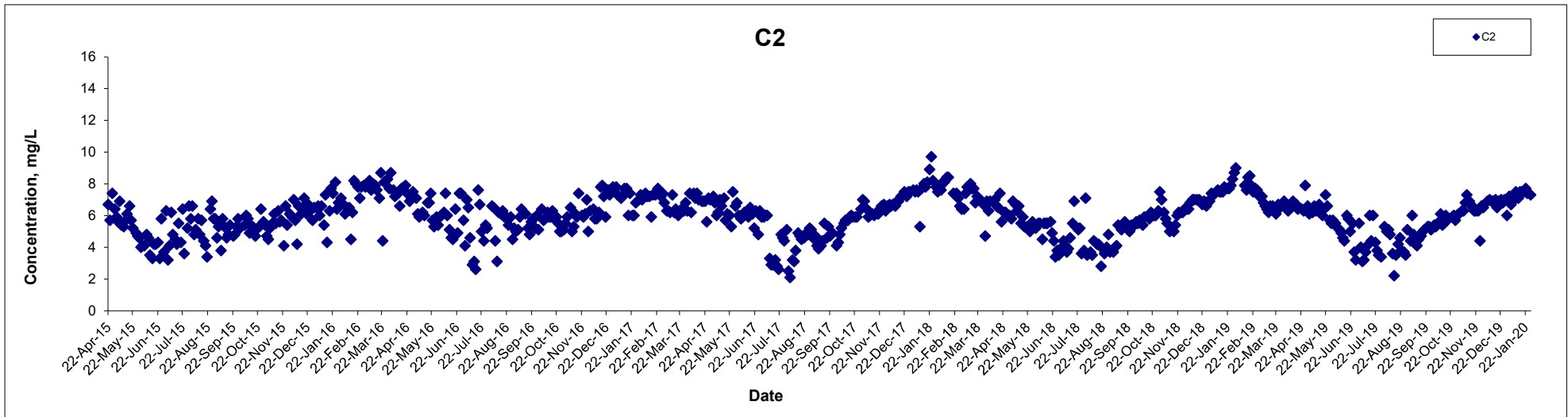
MA14047

Appendix

C

WELLAB 匯力
consulting . testing . research

Dissolved Oxygen (Bottom) at Mid-Ebb Tide



Shatin to Central Link – Contract 1121
Advance Works for NSL Cross Harbour Tunnels

Graphical Presentation of Water Quality Monitoring Results

Scale

N.T.S

Date

Jan 20

Project No.

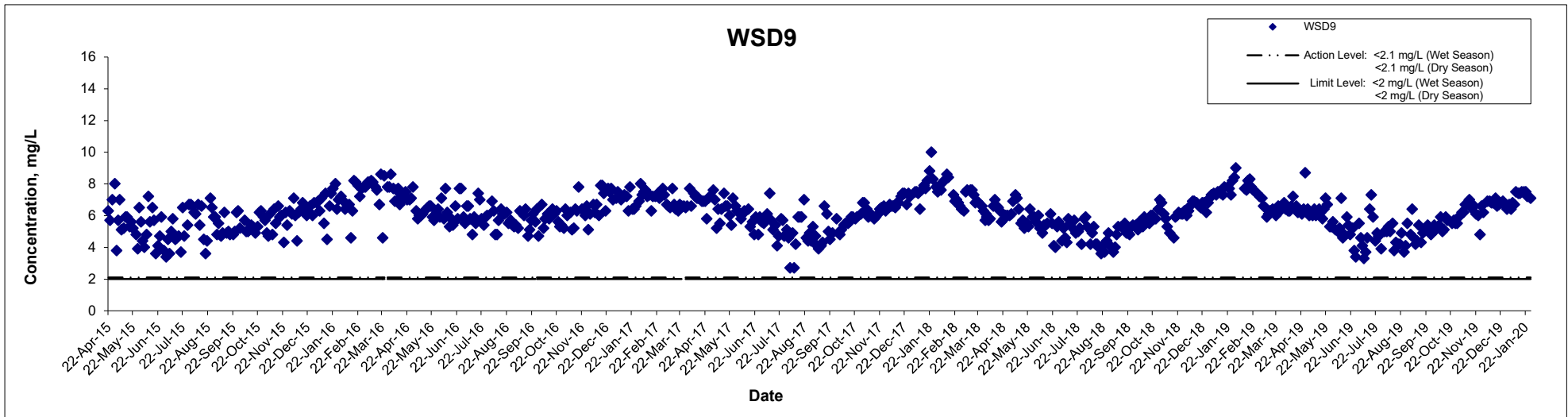
MA14047

Appendix

C

WELLAB 匯力
consulting . testing . research

Dissolved Oxygen (Bottom) at Mid-Ebb Tide



Shatin to Central Link – Contract 1121
 Advance Works for NSL Cross Harbour Tunnels

Graphical Presentation of Water Quality Monitoring Results

Scale

N.T.S

Date

Jan 20

Project No.

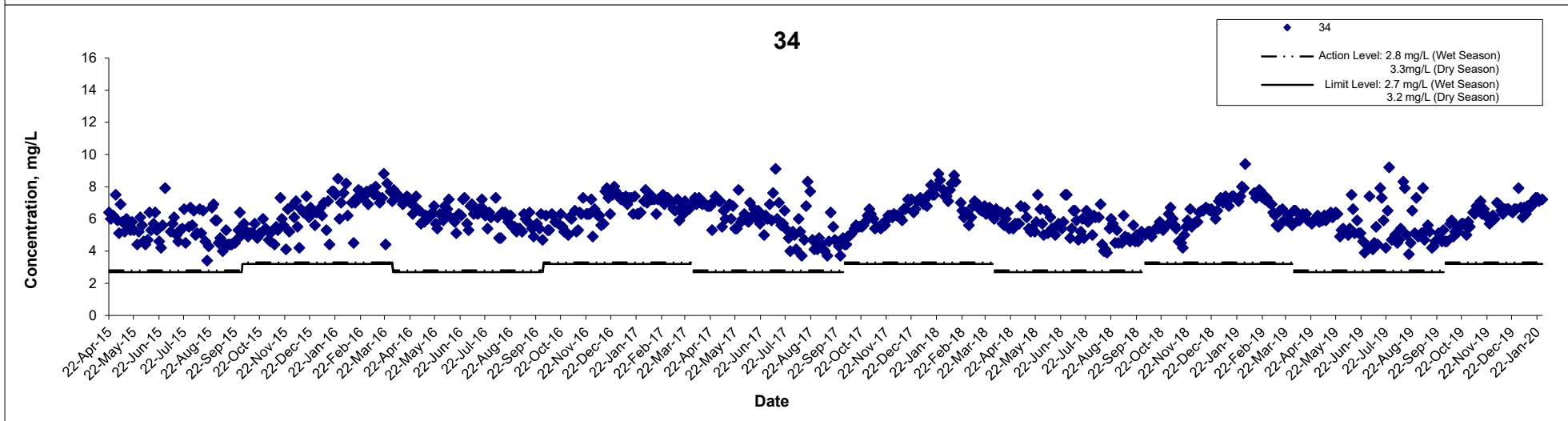
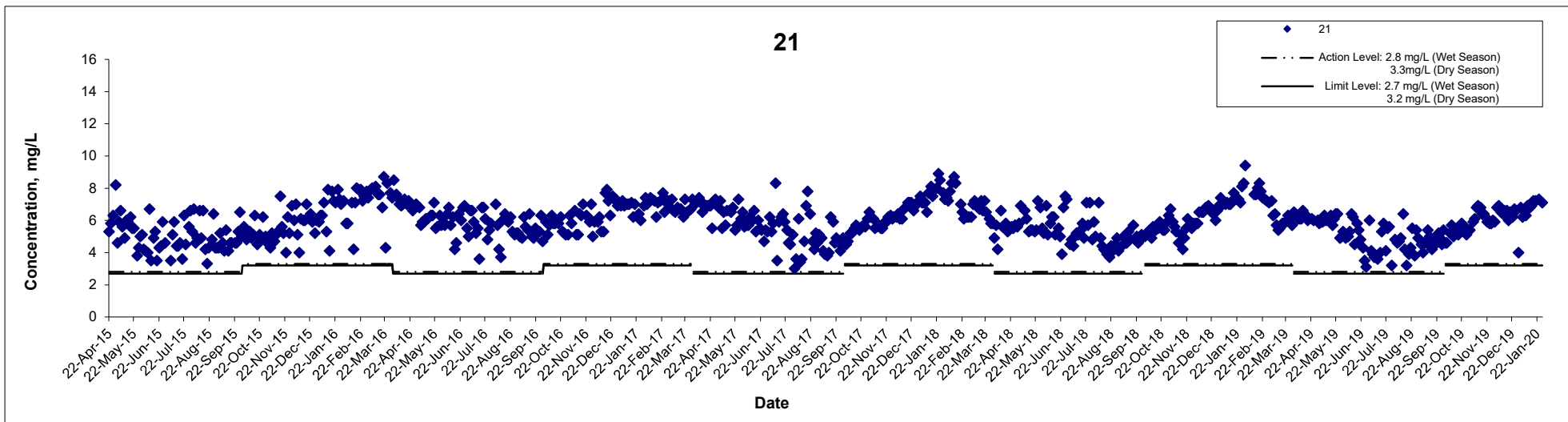
MA14047

Appendix

C

WELLAB 匯力
 consulting . testing . research

Dissolved Oxygen (Bottom) at Mid-Flood Tide



Shatin to Central Link – Contract 1121
 Advance Works for NSL Cross Harbour Tunnels

Graphical Presentation of Water Quality Monitoring Results

Scale

N.T.S

Project No.

MA14047

Date

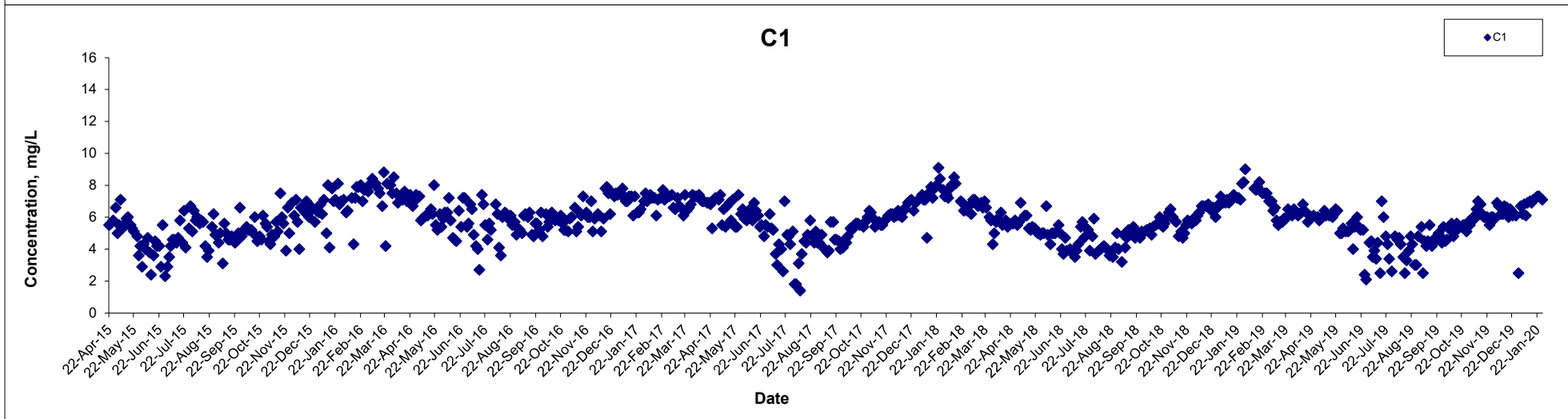
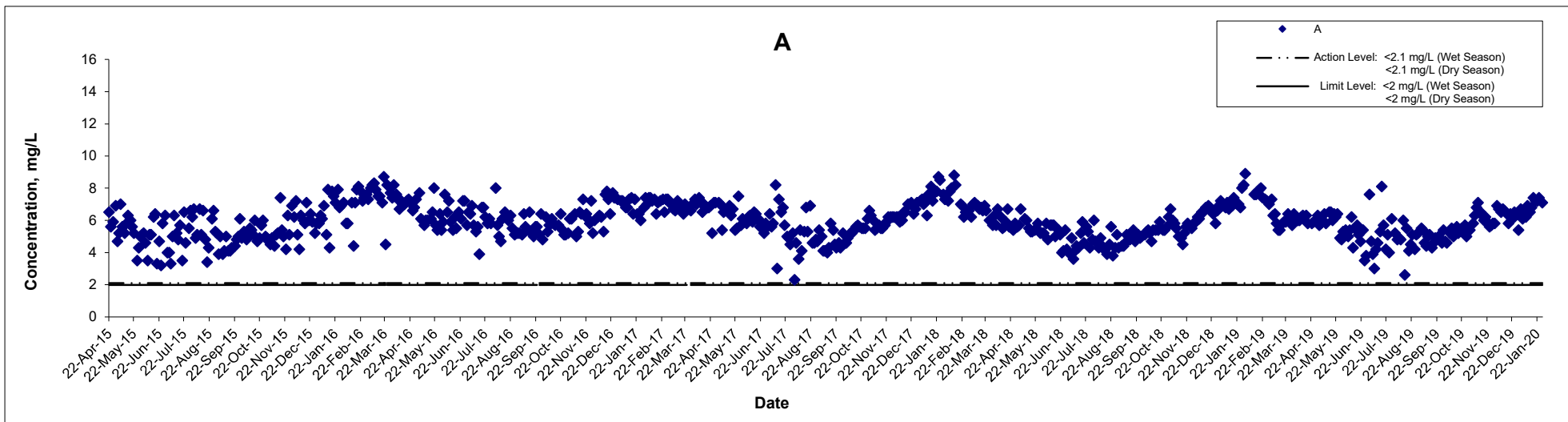
Jan 20

Appendix

C

WELLAB 匯力
 consulting . testing . research

Dissolved Oxygen (Bottom) at Mid-Flood Tide



Shatin to Central Link – Contract 1121
Advance Works for NSL Cross Harbour Tunnels

Graphical Presentation of Water Quality Monitoring Results

Scale

N.T.S

Date

Jan 20

Project No.

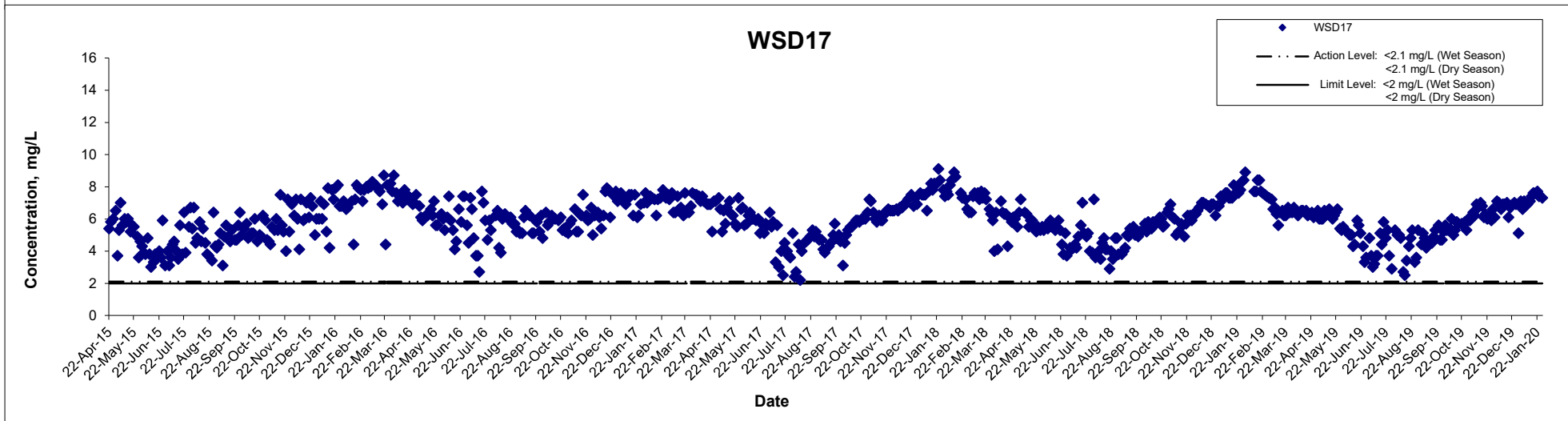
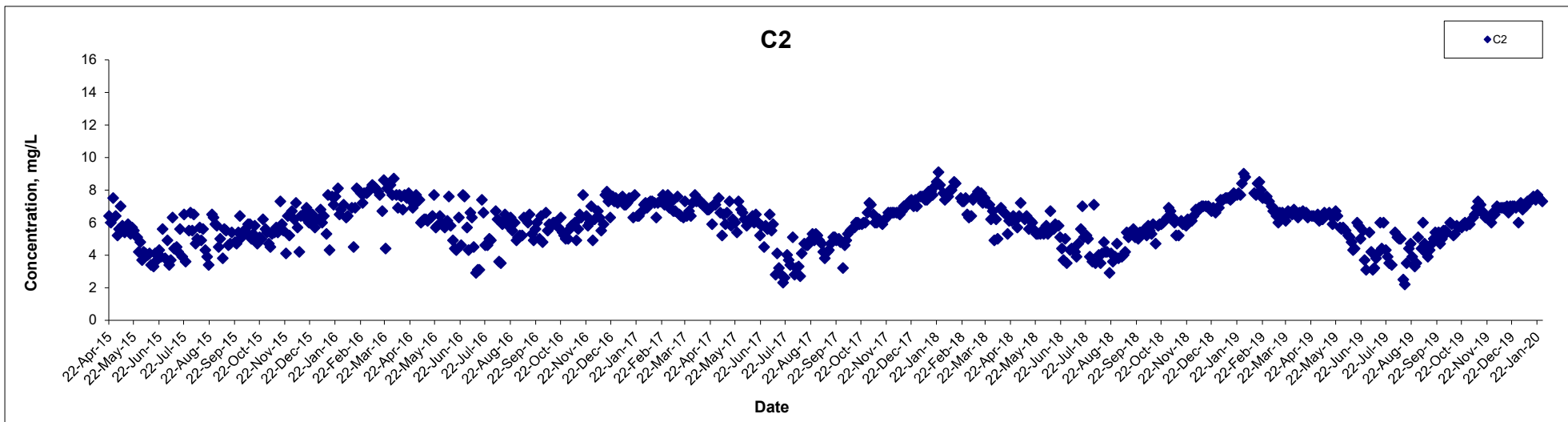
MA14047

Appendix

C

WELLAB 匯力
consulting . testing . research

Dissolved Oxygen (Bottom) at Mid-Flood Tide



Shatin to Central Link – Contract 1121
Advance Works for NSL Cross Harbour Tunnels

Graphical Presentation of Water Quality Monitoring Results

Scale

N.T.S

Date

Jan 20

Project No.

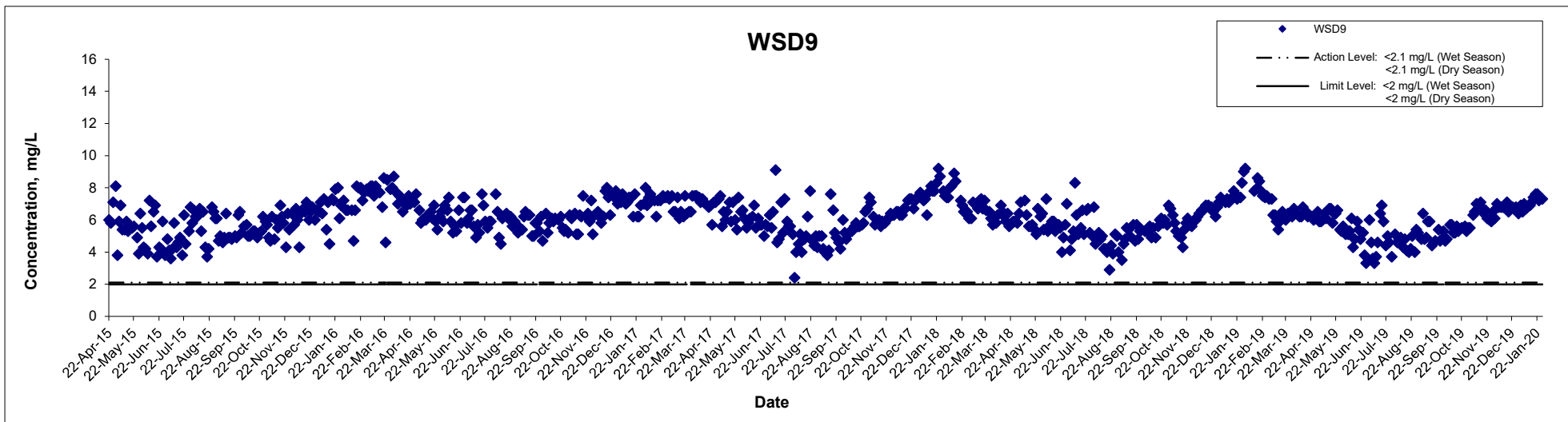
MA14047

Appendix

C

WELLAB 匯力
consulting . testing . research

Dissolved Oxygen (Bottom) at Mid-Flood Tide



Shatin to Central Link – Contract 1121
Advance Works for NSL Cross Harbour Tunnels

Graphical Presentation of Water Quality Monitoring Results

Scale

N.T.S

Date

Jan 20

Project

No.

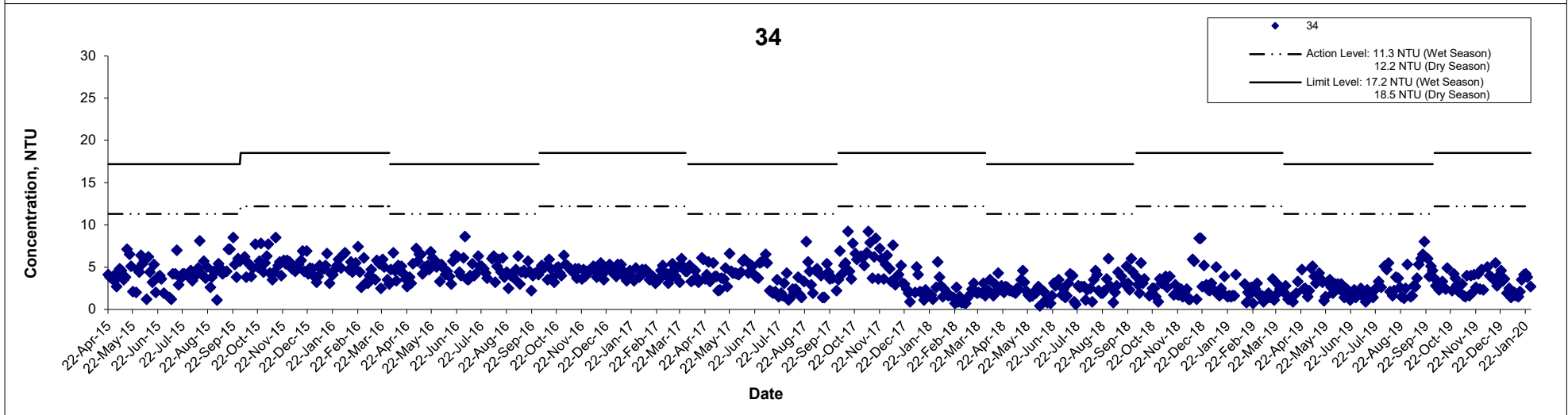
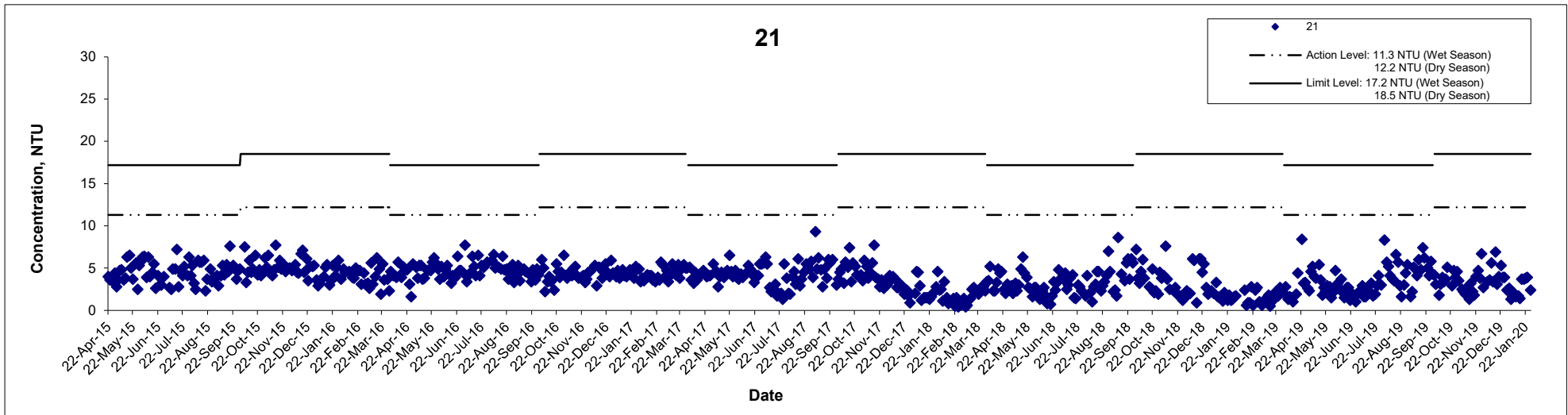
MA14047

Appendix

C

WELLAB 匯力
consulting . testing . research

Turbidity (Depth-averaged) at Mid-Ebb Tide



Shatin to Central Link – Contract 1121
Advance Works for NSL Cross Harbour Tunnels

Graphical Presentation of Water Quality Monitoring Results

Scale

N.T.S

Project No.

MA14047

Date

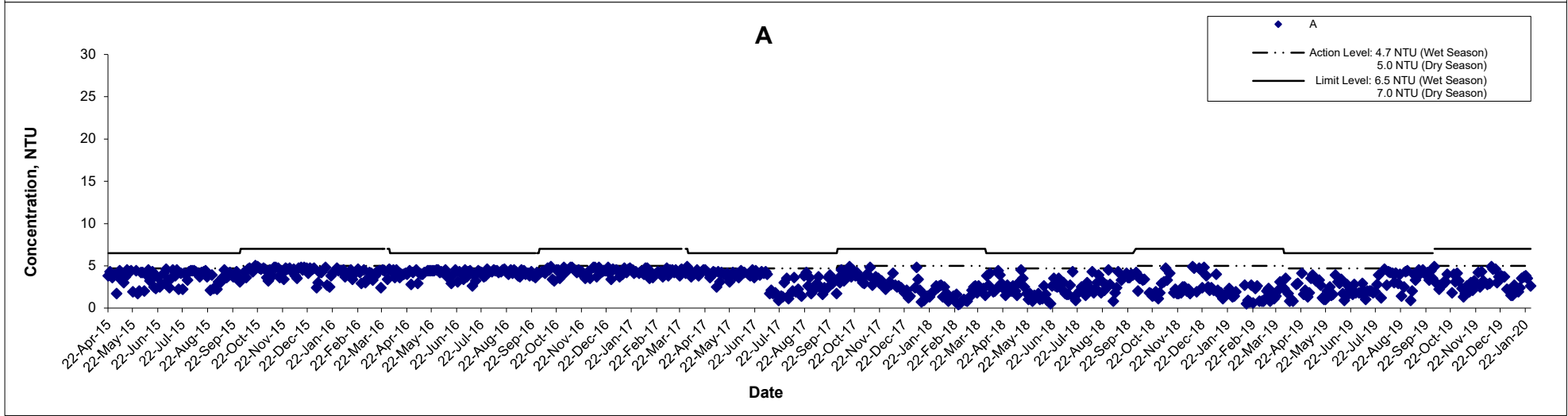
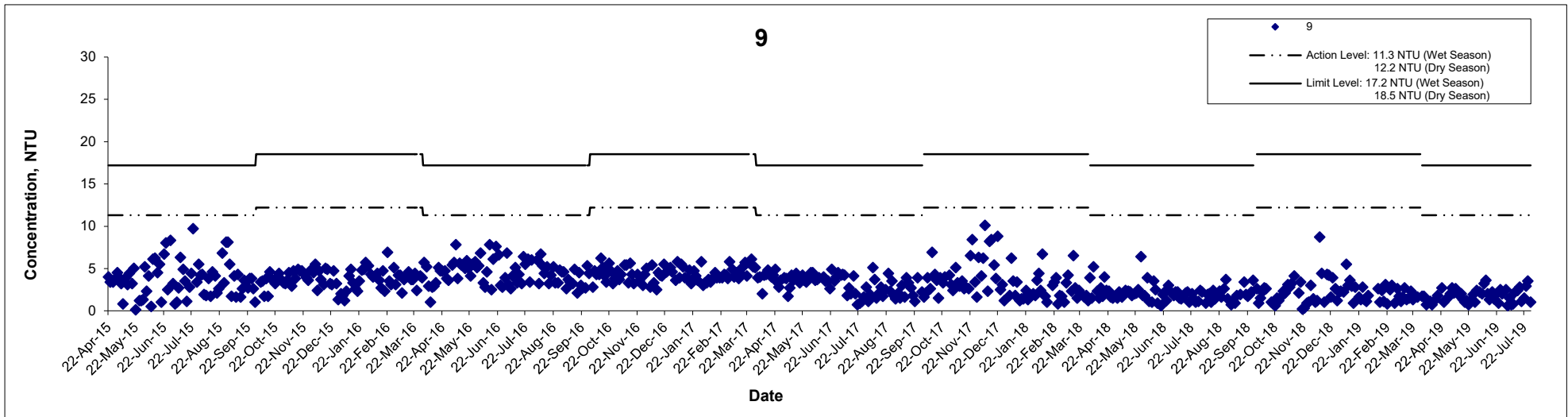
Jan 20

Appendix

C

WELLAB 匯力
consulting . testing . research

Turbidity (Depth-averaged) at Mid-Ebb Tide



Shatin to Central Link – Contract 1121
Advance Works for NSL Cross Harbour Tunnels

Graphical Presentation of Water Quality Monitoring Results

Scale

N.T.S

Date

Jan 20

Project No.

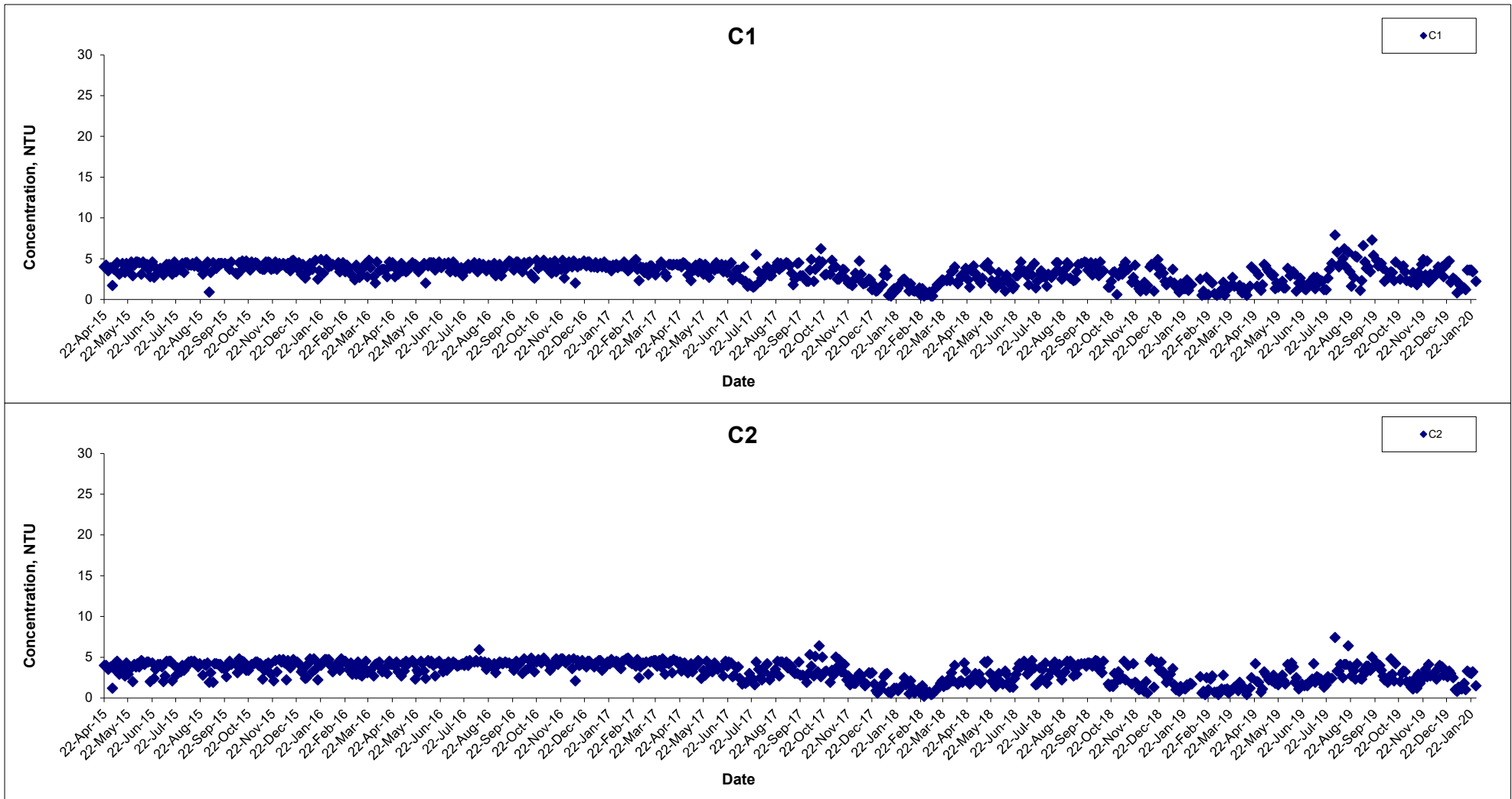
MA14047

Appendix

C

WELLAB 匯力
consulting . testing . research

Turbidity (Depth-averaged) at Mid-Ebb Tide



Shatin to Central Link – Contract 1121
Advance Works for NSL Cross Harbour Tunnels

Graphical Presentation of Water Quality Monitoring Results

Scale

N.T.S

Date

Jan 20

Project No.

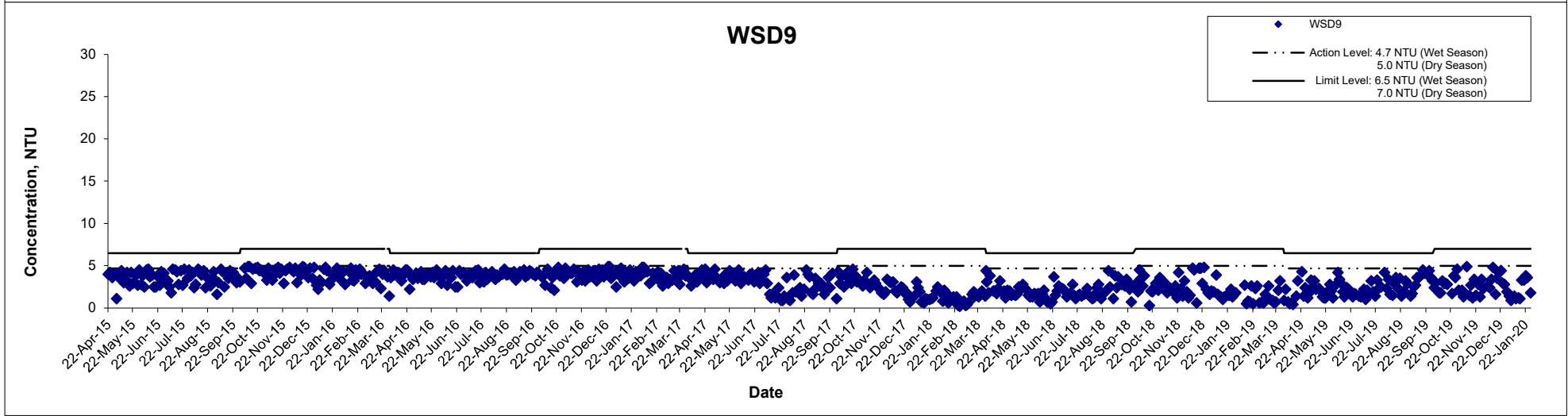
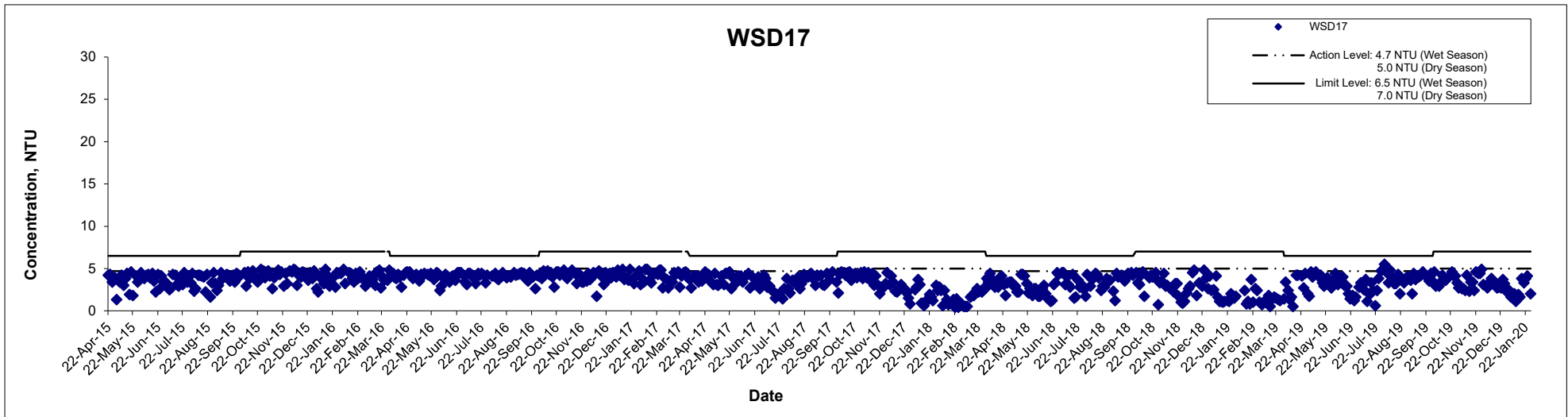
MA14047

Appendix

C

WELLAB 匯力
consulting . testing . research

Turbidity (Depth-averaged) at Mid-Ebb Tide



Shatin to Central Link – Contract 1121
Advance Works for NSL Cross Harbour Tunnels

Graphical Presentation of Water Quality Monitoring Results

Scale

N.T.S

Date

Jan 20

Project No.

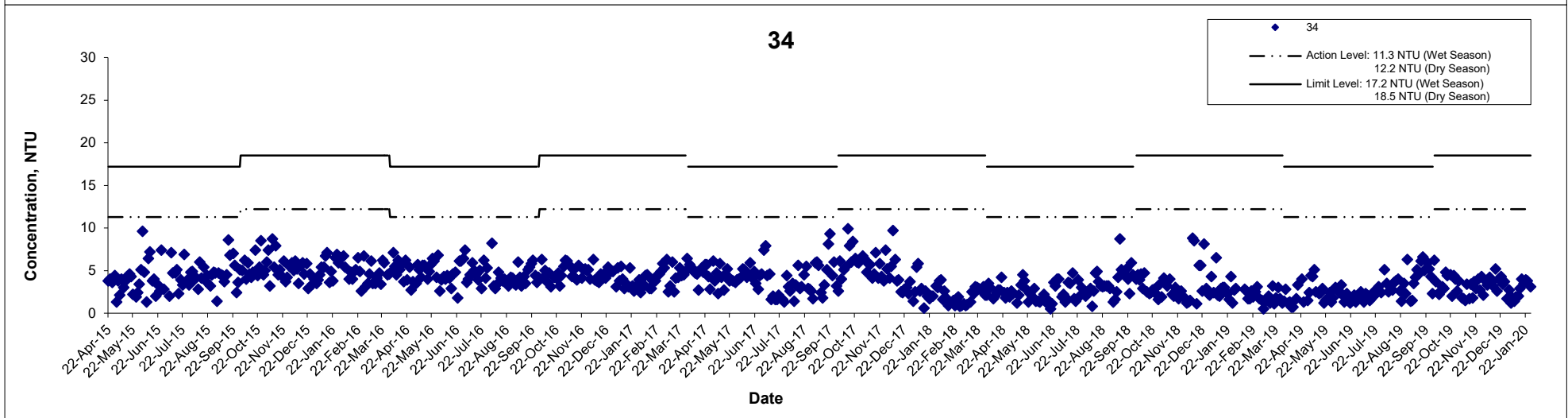
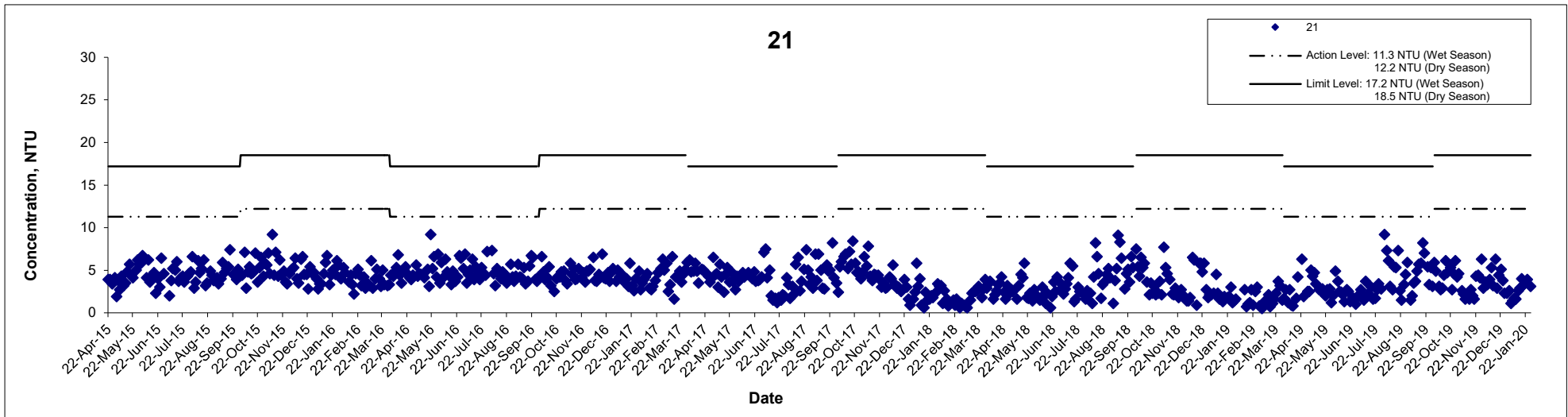
MA14047

Appendix

C

WELLAB 匯力
consulting . testing . research

Turbidity (Depth-averaged) at Mid-Flood Tide



Shatin to Central Link – Contract 1121
Advance Works for NSL Cross Harbour Tunnels

Graphical Presentation of Water Quality Monitoring Results

Scale

N.T.S

Project No.

MA14047

Date

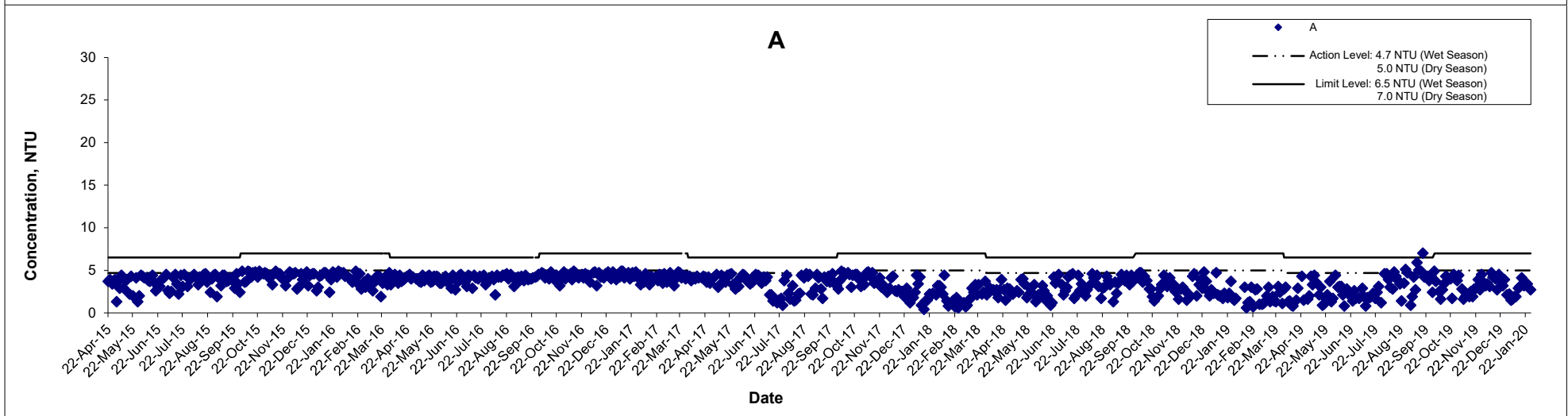
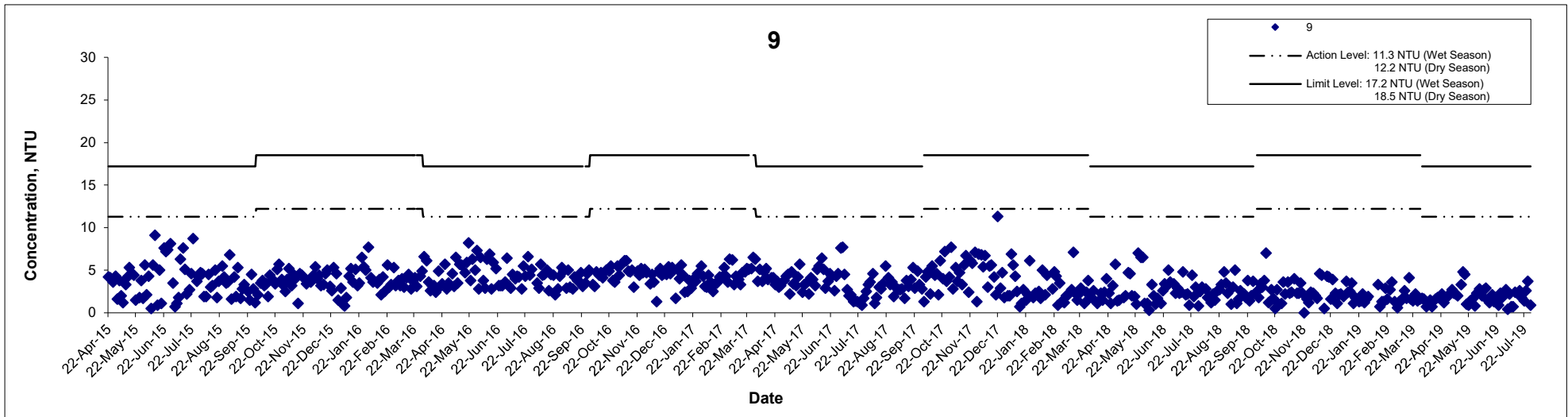
Jan 20

Appendix

C

WELLAB 匯力
consulting . testing . research

Turbidity (Depth-averaged) at Mid-Flood Tide



Shatin to Central Link – Contract 1121
Advance Works for NSL Cross Harbour Tunnels

Graphical Presentation of Water Quality Monitoring Results

Scale

N.T.S

Date

Jan 20

Project No.

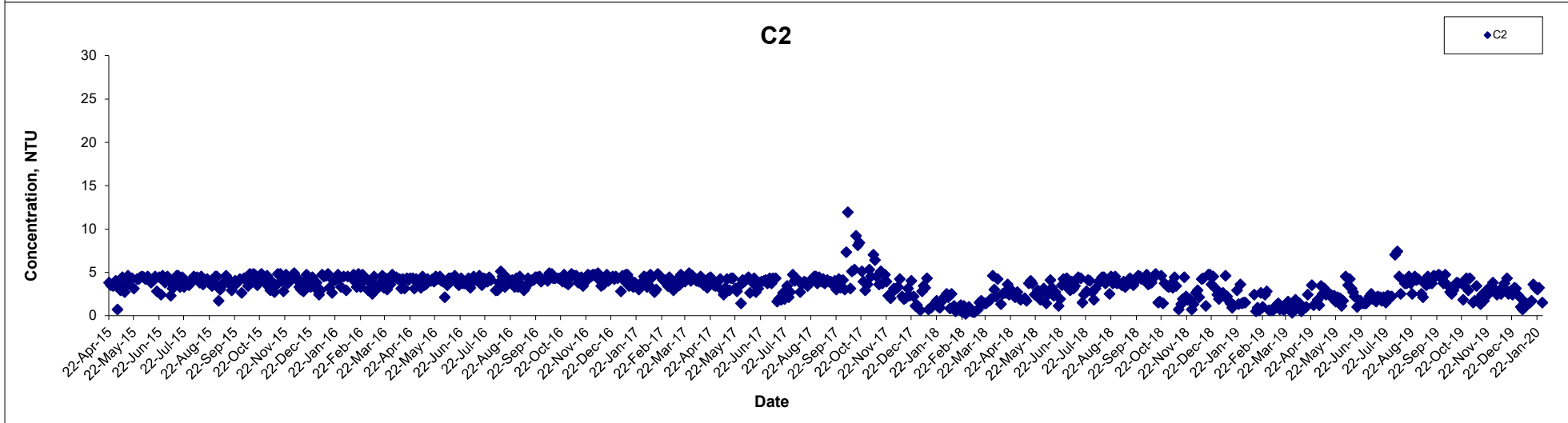
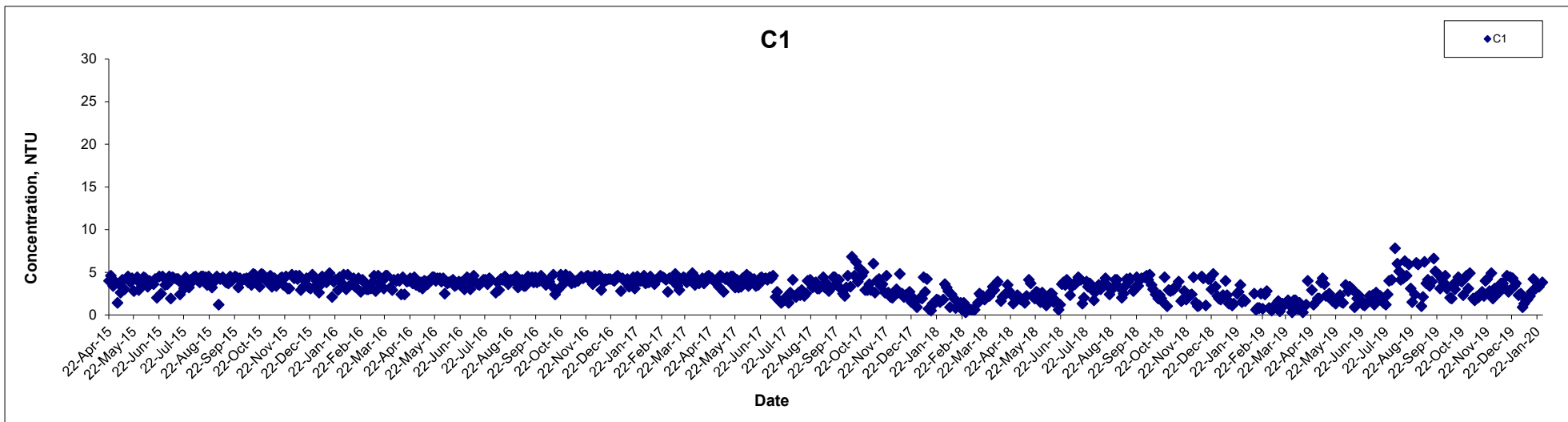
MA14047

Appendix

C

WELLAB 匯力
consulting . testing . research

Turbidity (Depth-averaged) at Mid-Flood Tide

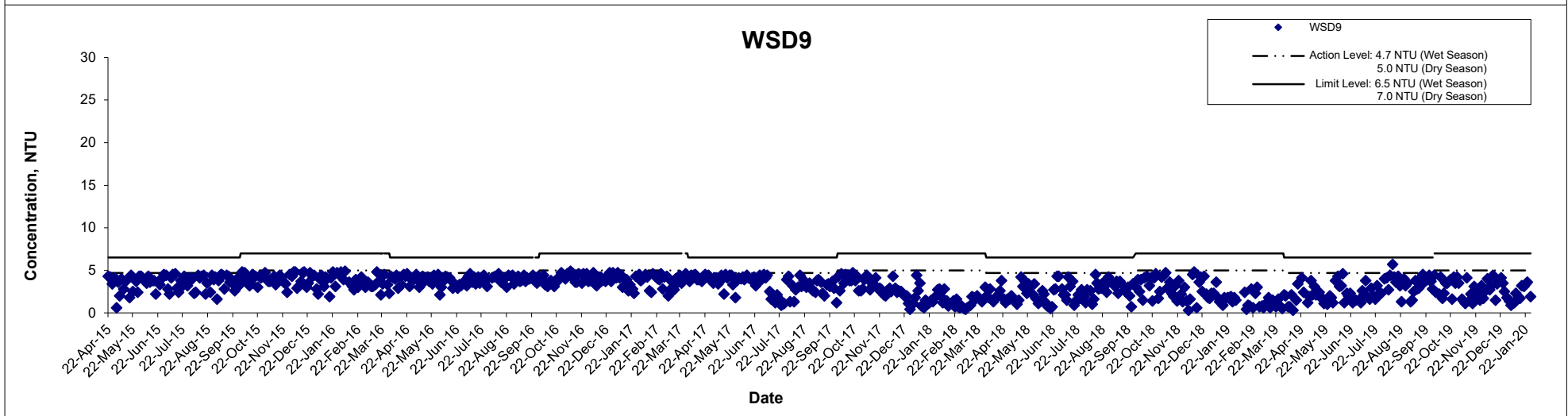
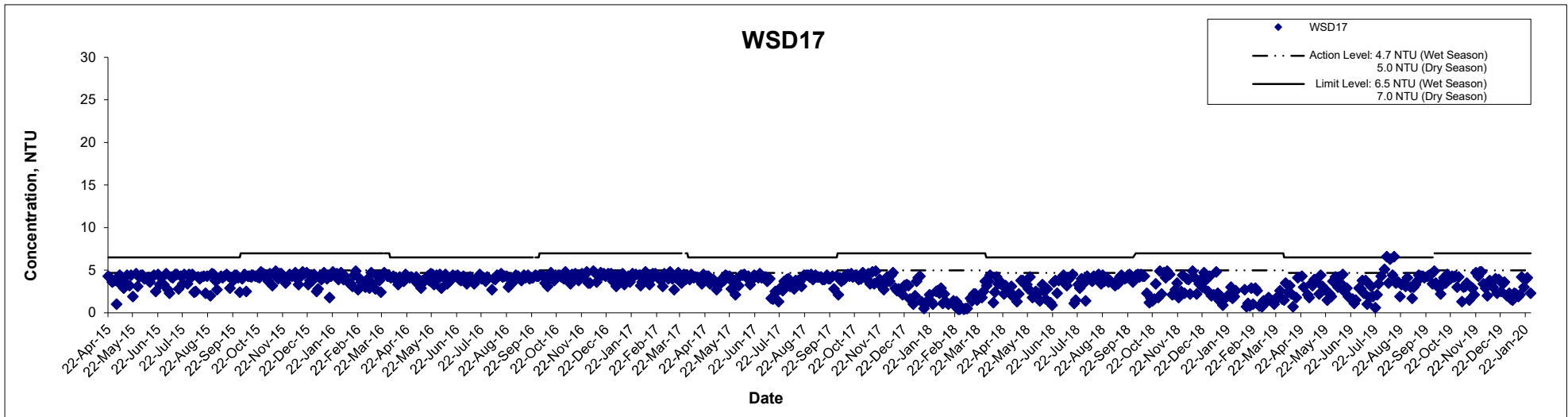


Shatin to Central Link – Contract 1121
 Advance Works for NSL Cross Harbour Tunnels
 Graphical Presentation of Water Quality Monitoring Results

Scale	N.T.S	Project No.	MA14047
Date	Jan 20	Appendix	C

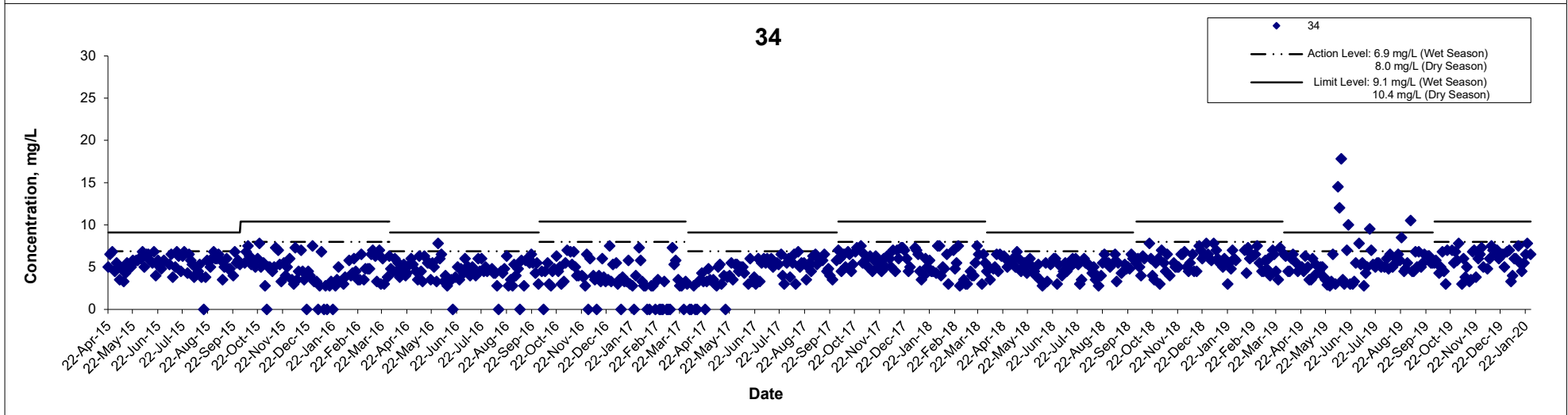
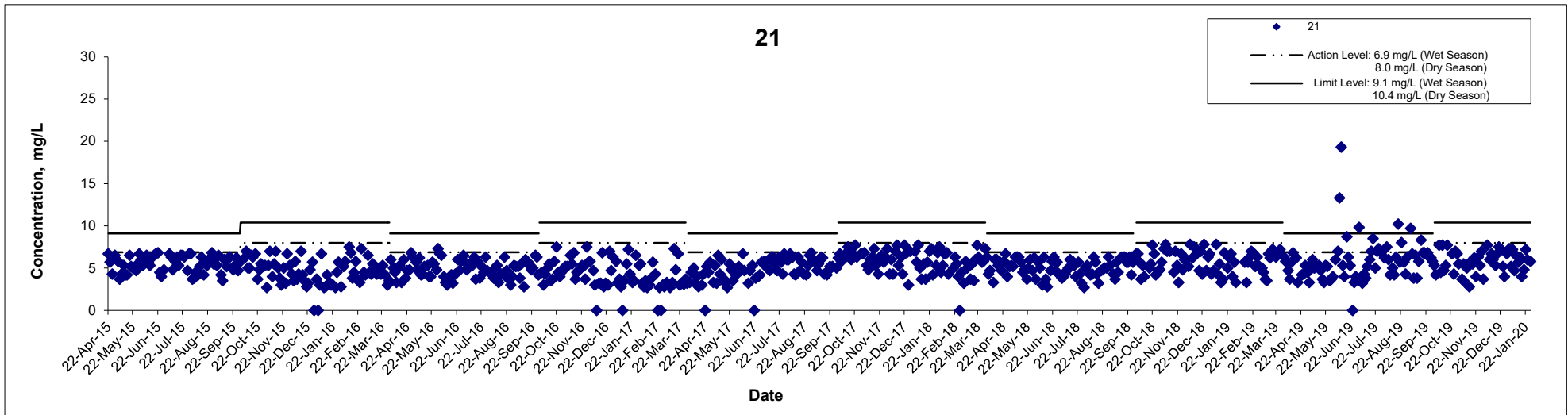


Turbidity (Depth-averaged) at Mid-Flood Tide



Shatin to Central Link – Contract 1121 Advance Works for NSL Cross Harbour Tunnels Graphical Presentation of Water Quality Monitoring Results	Scale	Project No.	
	Date	Appendix	
	N.T.S	MA14047	
	Jan 20	C	

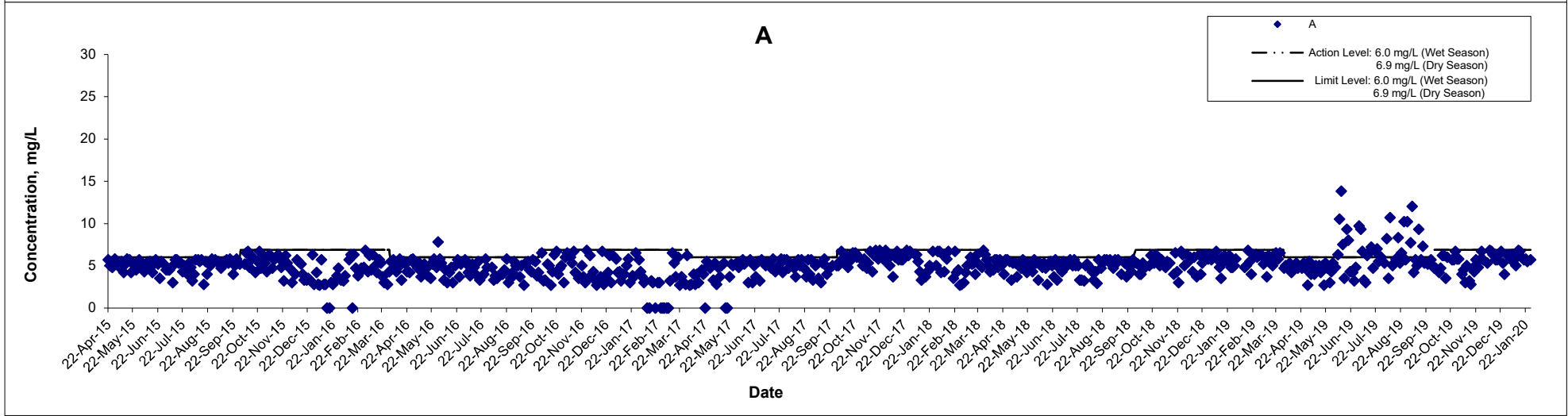
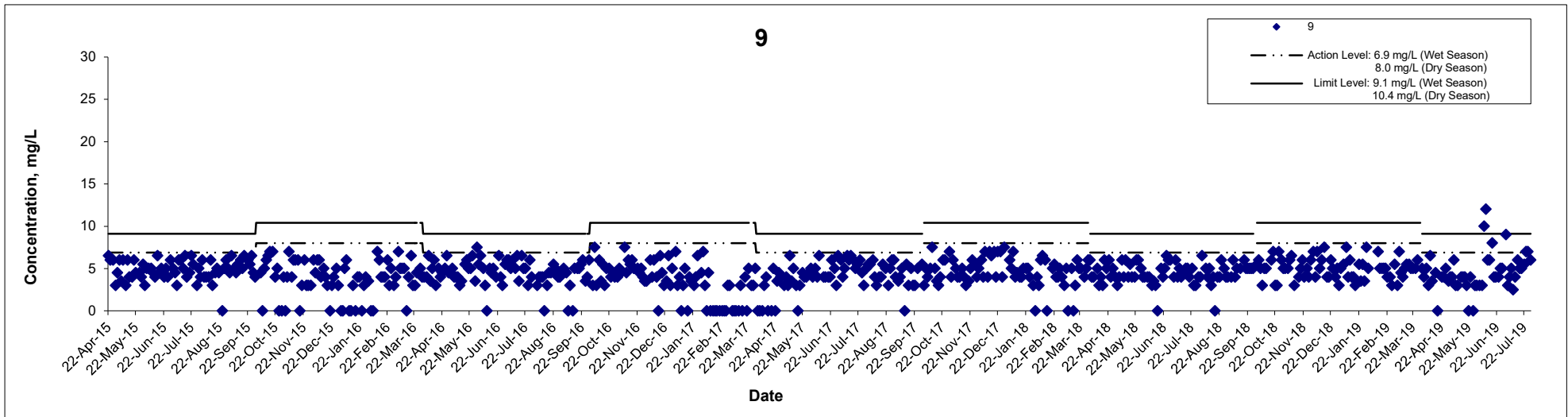
Suspended Solids (Depth-averaged) at Mid-Ebb Tide



Remarks: The graphical point at zero concentration is presented as <2.5 mg/L

Shatin to Central Link – Contract 1121 Advance Works for NSL Cross Harbour Tunnels Graphical Presentation of Water Quality Monitoring Results	Scale	N.T.S	Project No.	MA14047	 consulting . testing . research
	Date	Jan 20	Appendix	C	

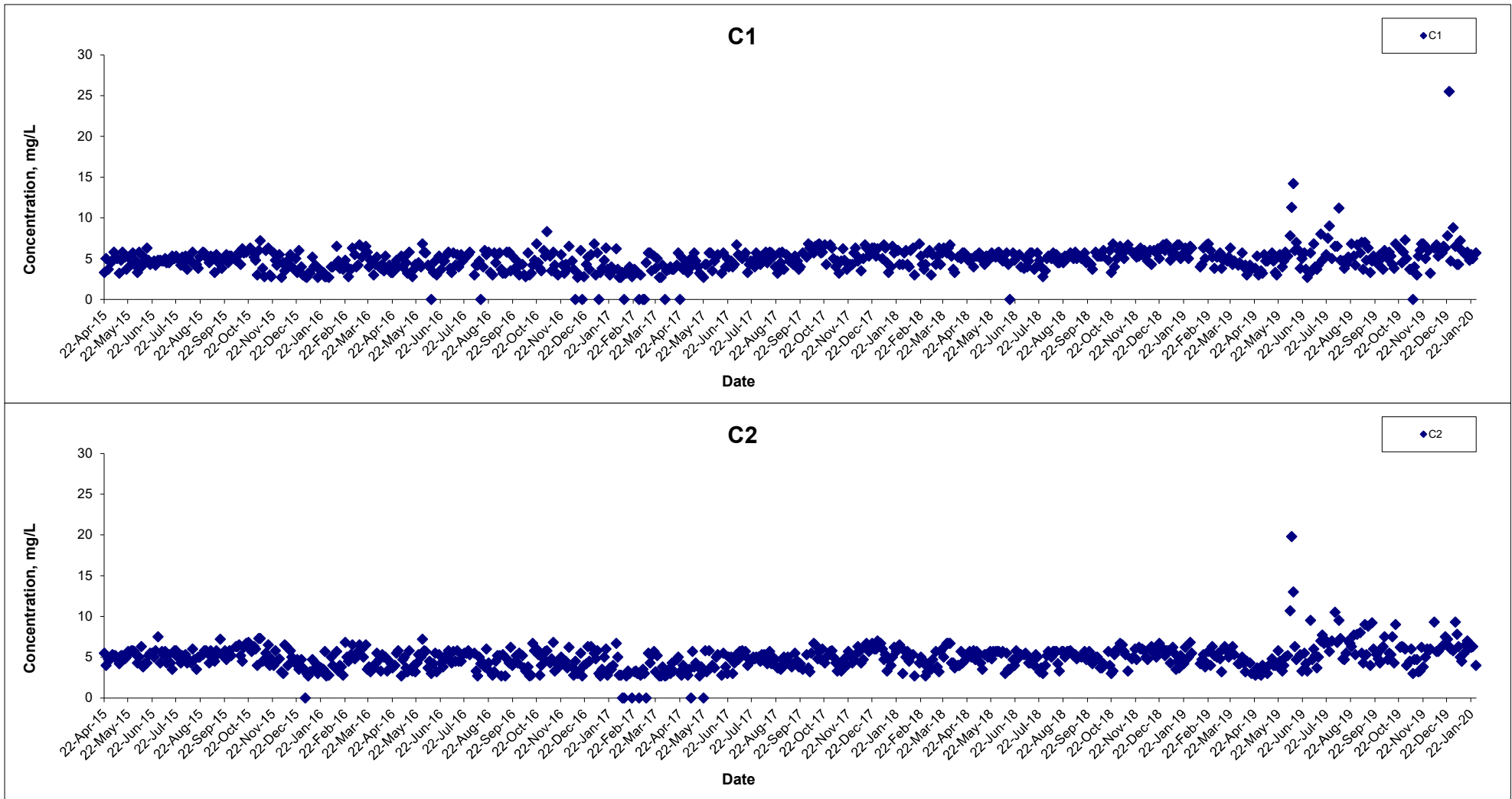
Suspended Solids (Depth-averaged) at Mid-Ebb Tide



Remarks: The graphical point at zero concentration is presented as <2.5 mg/L

Shatin to Central Link – Contract 1121 Advance Works for NSL Cross Harbour Tunnels Graphical Presentation of Water Quality Monitoring Results	Scale	N.T.S	Project No.	MA14047	
	Date	Jan 20	Appendix	C	

Suspended Solids (Depth-averaged) at Mid-Ebb Tide



Remarks: The graphical point at zero concentration is presented as <2.5 mg/L

Shatin to Central Link – Contract 1121
Advance Works for NSL Cross Harbour Tunnels

Graphical Presentation of Water Quality Monitoring Results

Scale

N.T.S

Date

Jan 20

Project No.

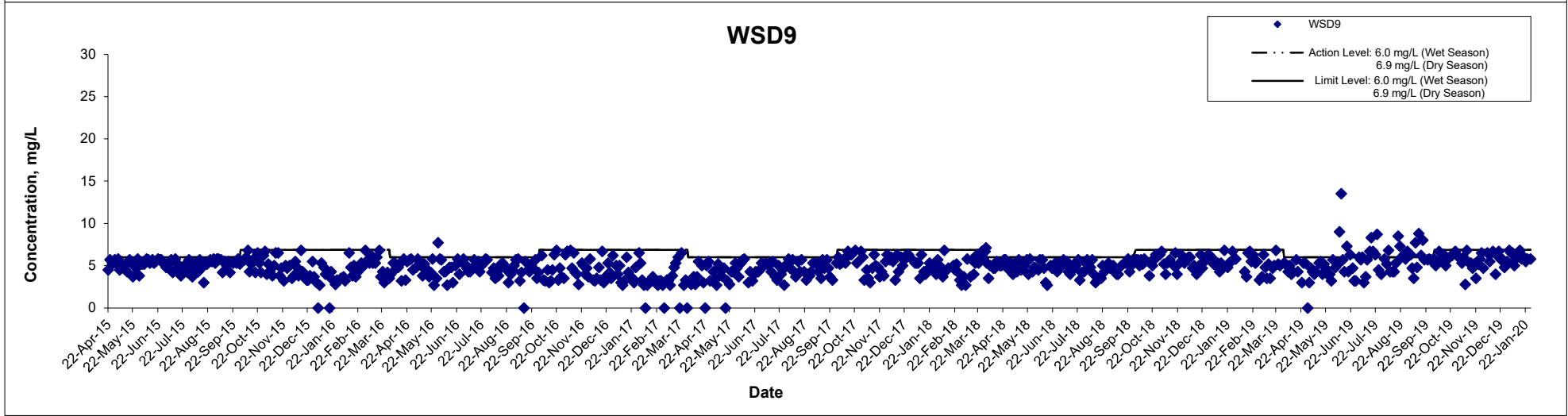
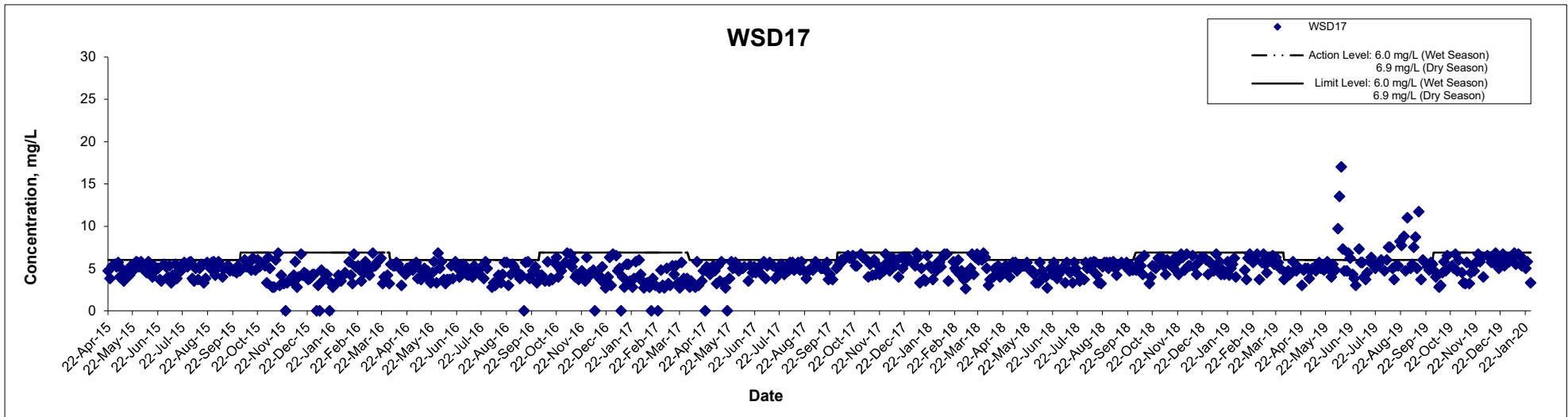
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Appendix

C

WELLAB 匯力
consulting . testing . research

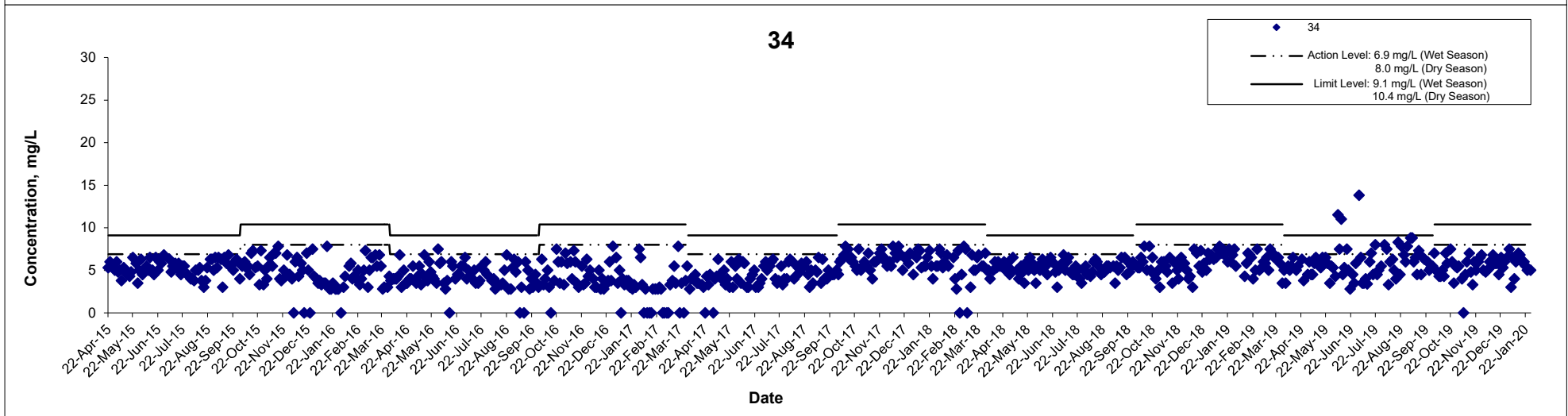
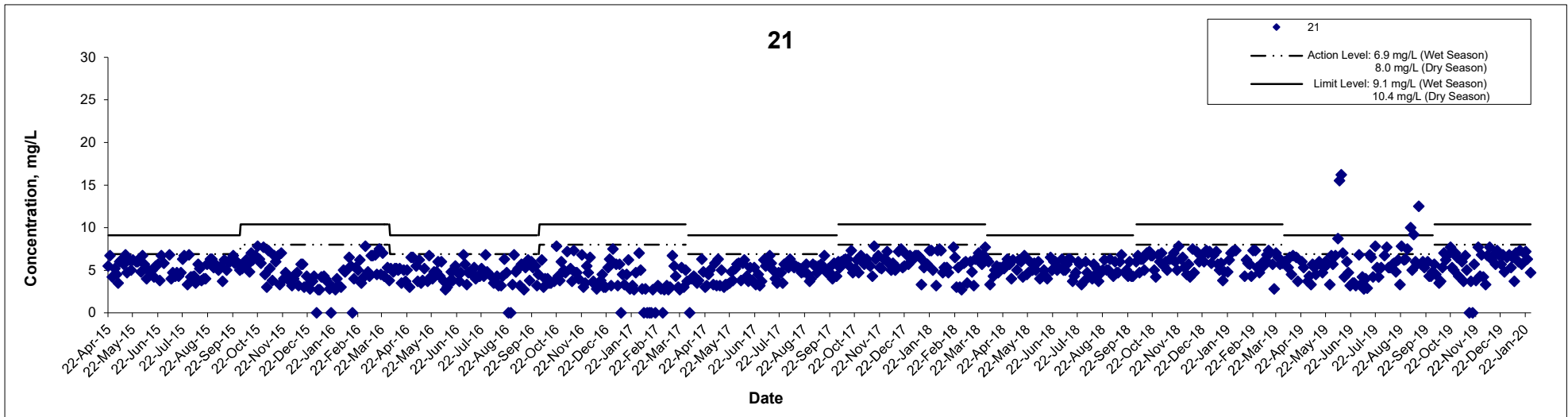
Suspended Solids (Depth-averaged) at Mid-Ebb Tide



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Shatin to Central Link – Contract 1121 Advance Works for NSL Cross Harbour Tunnels Graphical Presentation of Water Quality Monitoring Results	Scale	N.T.S	Project No.	MA14047	
	Date	Jan 20	Appendix	C	

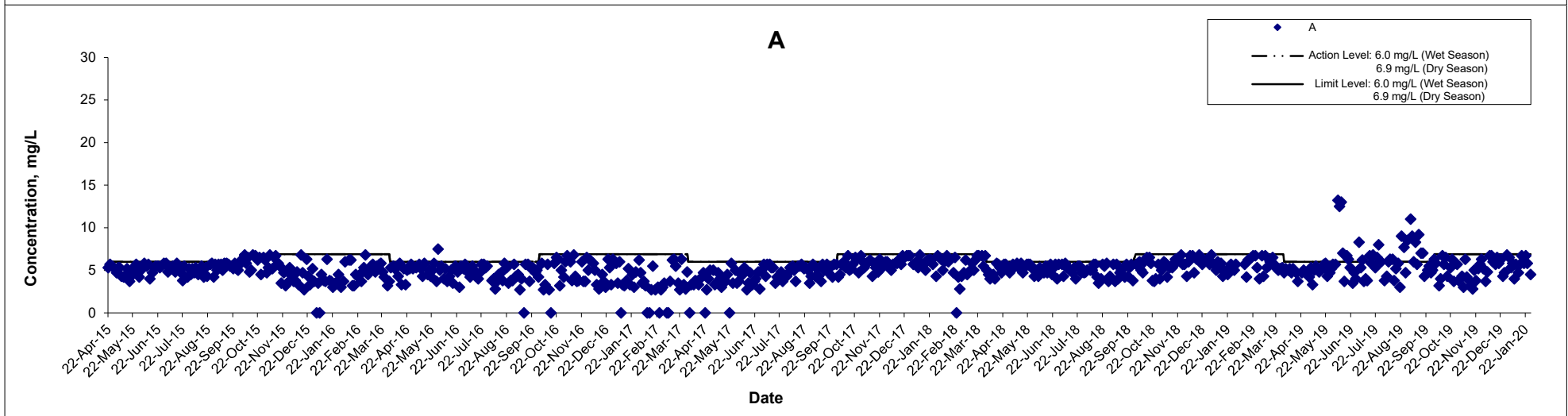
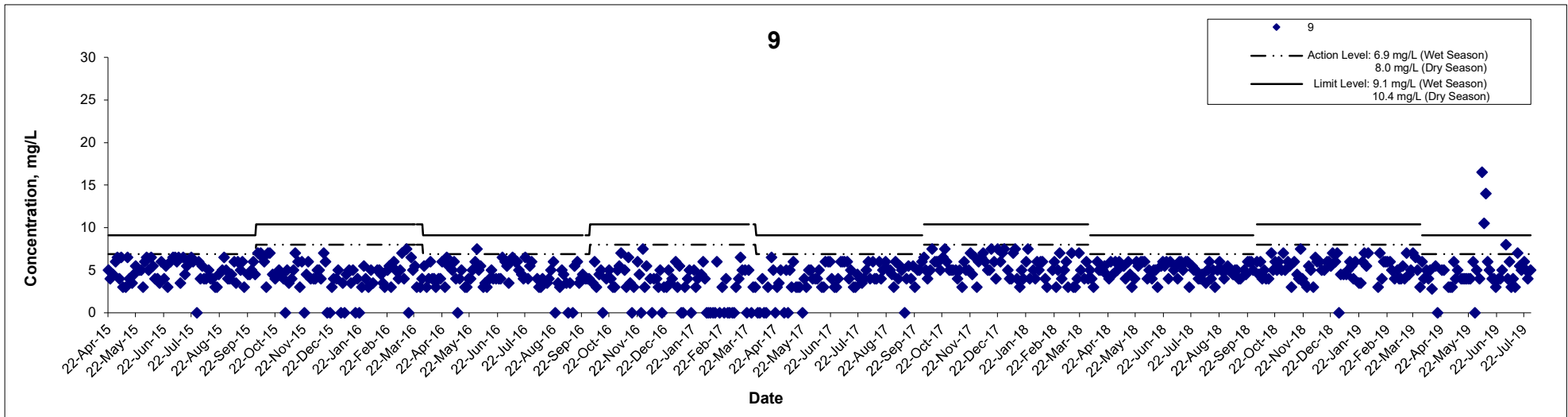
Suspended Solids (Depth-averaged) at Mid-Flood Tide



Remarks: The graphical point at zero concentration is presented as <2.5 mg/L

Shatin to Central Link – Contract 1121 Advance Works for NSL Cross Harbour Tunnels Graphical Presentation of Water Quality Monitoring Results	Scale	N.T.S	Project No.	MA14047	
	Date	Jan 20	Appendix	C	

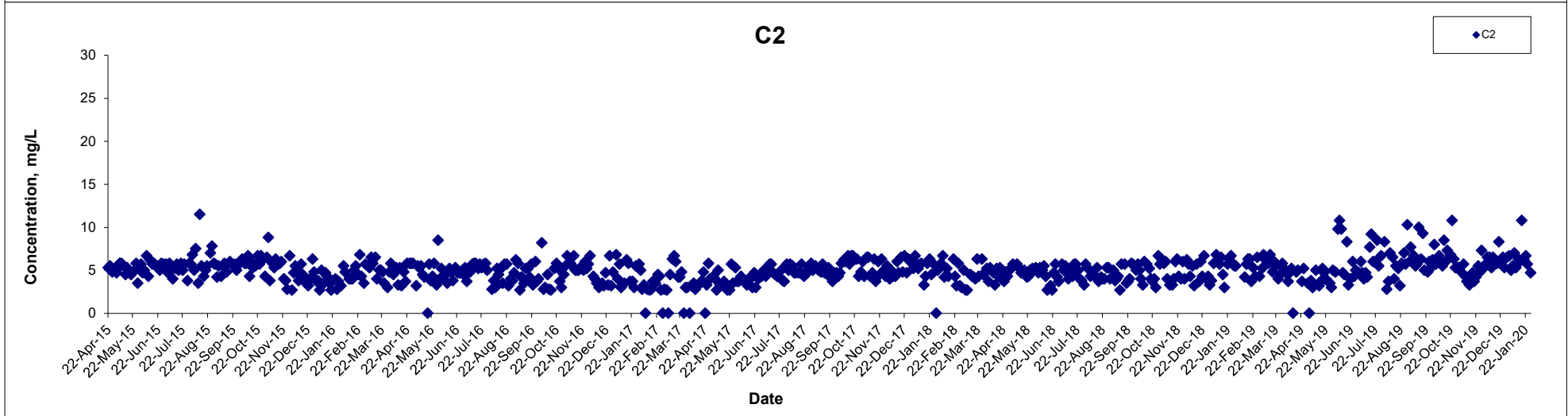
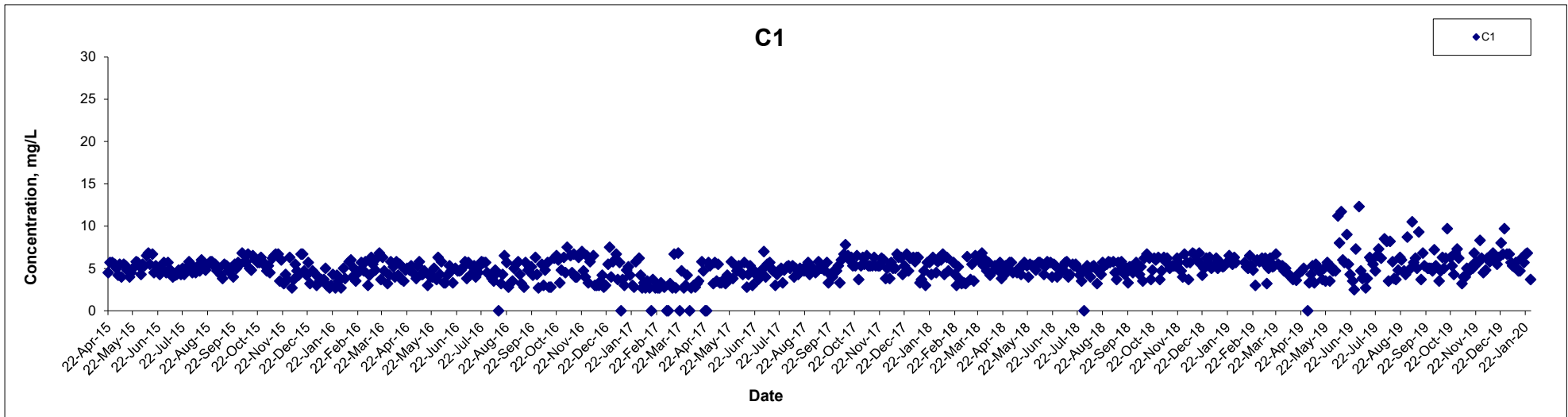
Suspended Solids (Depth-averaged) at Mid-Flood Tide



Remarks: The graphical point at zero concentration is presented as <2.5 mg/L

Shatin to Central Link – Contract 1121 Advance Works for NSL Cross Harbour Tunnels Graphical Presentation of Water Quality Monitoring Results	Scale	N.T.S	Project No.	MA14047	
	Date	Jan 20	Appendix	C	

Suspended Solids (Depth-averaged) at Mid-Flood Tide



Remarks: The graphical point at zero concentration is presented as <2.5 mg/L

Shatin to Central Link – Contract 1121
Advance Works for NSL Cross Harbour Tunnels

Graphical Presentation of Water Quality Monitoring Results

Scale

N.T.S

Date

Jan 20

Project No.

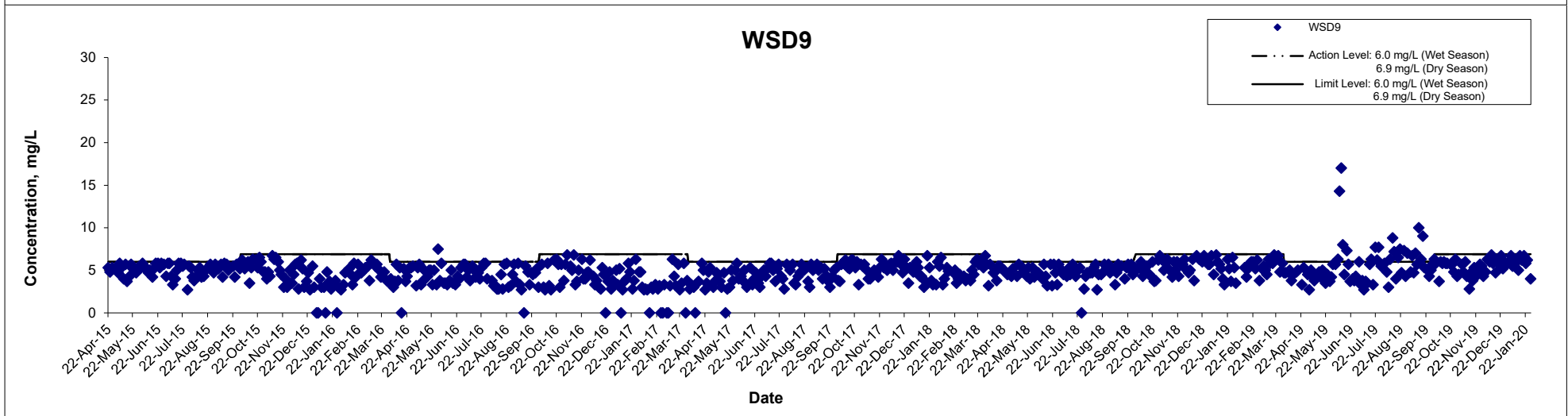
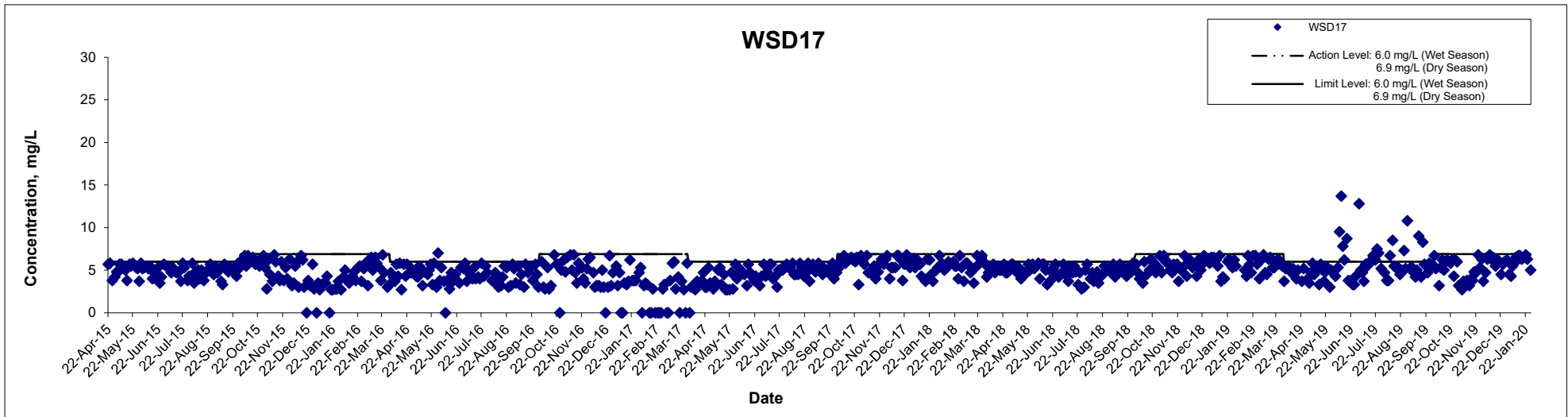
MA14047

Appendix

C

WELLAB 匯力
consulting . testing . research

Suspended Solids (Depth-averaged) at Mid-Flood Tide



Remarks: The graphical point at zero concentration is presented as <2.5 mg/L

Shatin to Central Link – Contract 1121
Advance Works for NSL Cross Harbour Tunnels

Graphical Presentation of Water Quality Monitoring Results

Scale

N.T.S

Date

Jan 20

Project No.

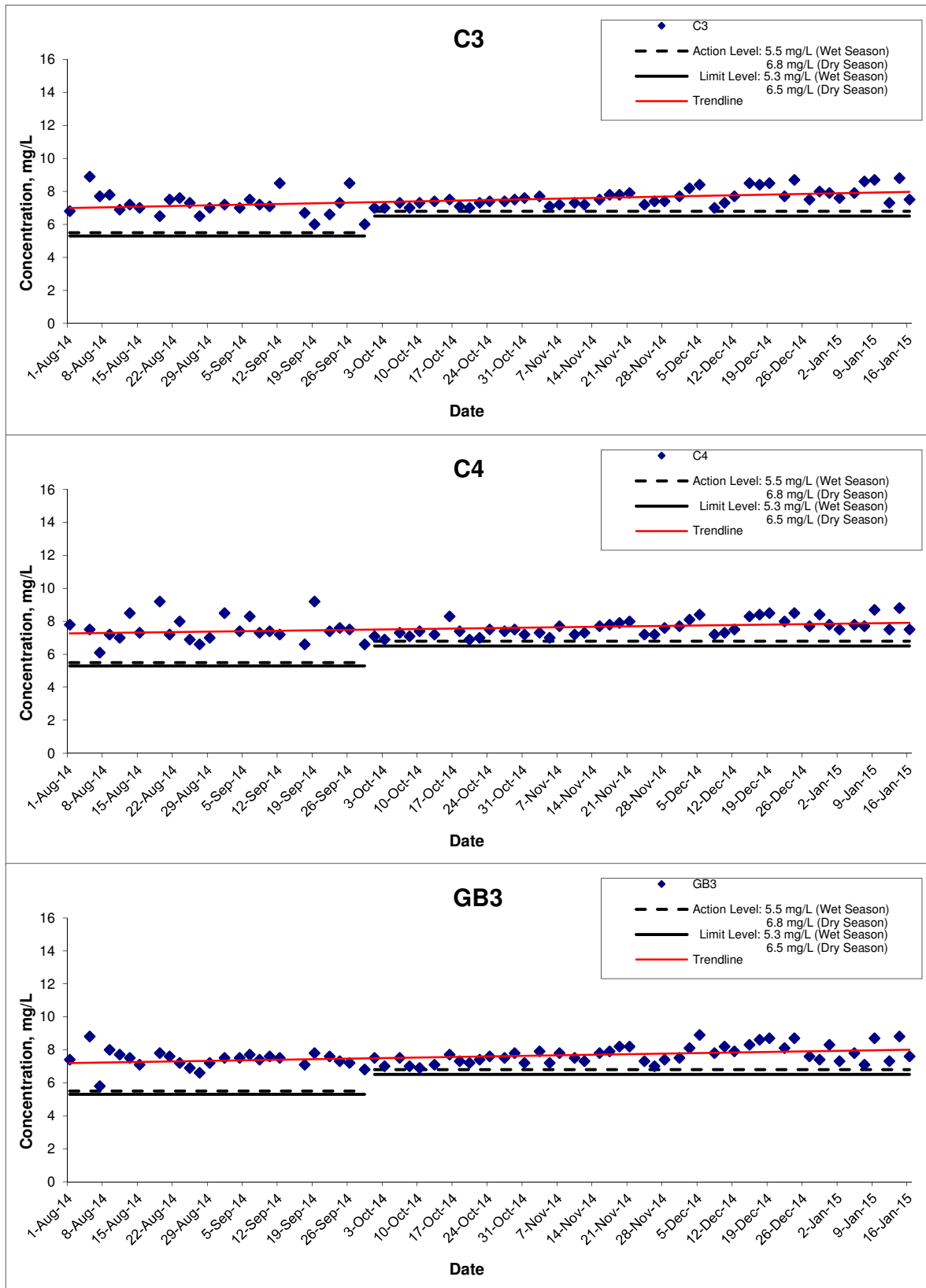
MA14047

Appendix

C

WELLAB 匯力
consulting . testing . research

Dissolved Oxygen (Surface) at Mid-Ebb Tide



Title

Shatin to Central Link – Contract 11227
Advance Works for NSL Cross Harbour Tunnels
Graphical Presentation of Water Quality Monitoring
Results (Shek O)

Scale

N.T.S

Date

Jan 15

Project No.

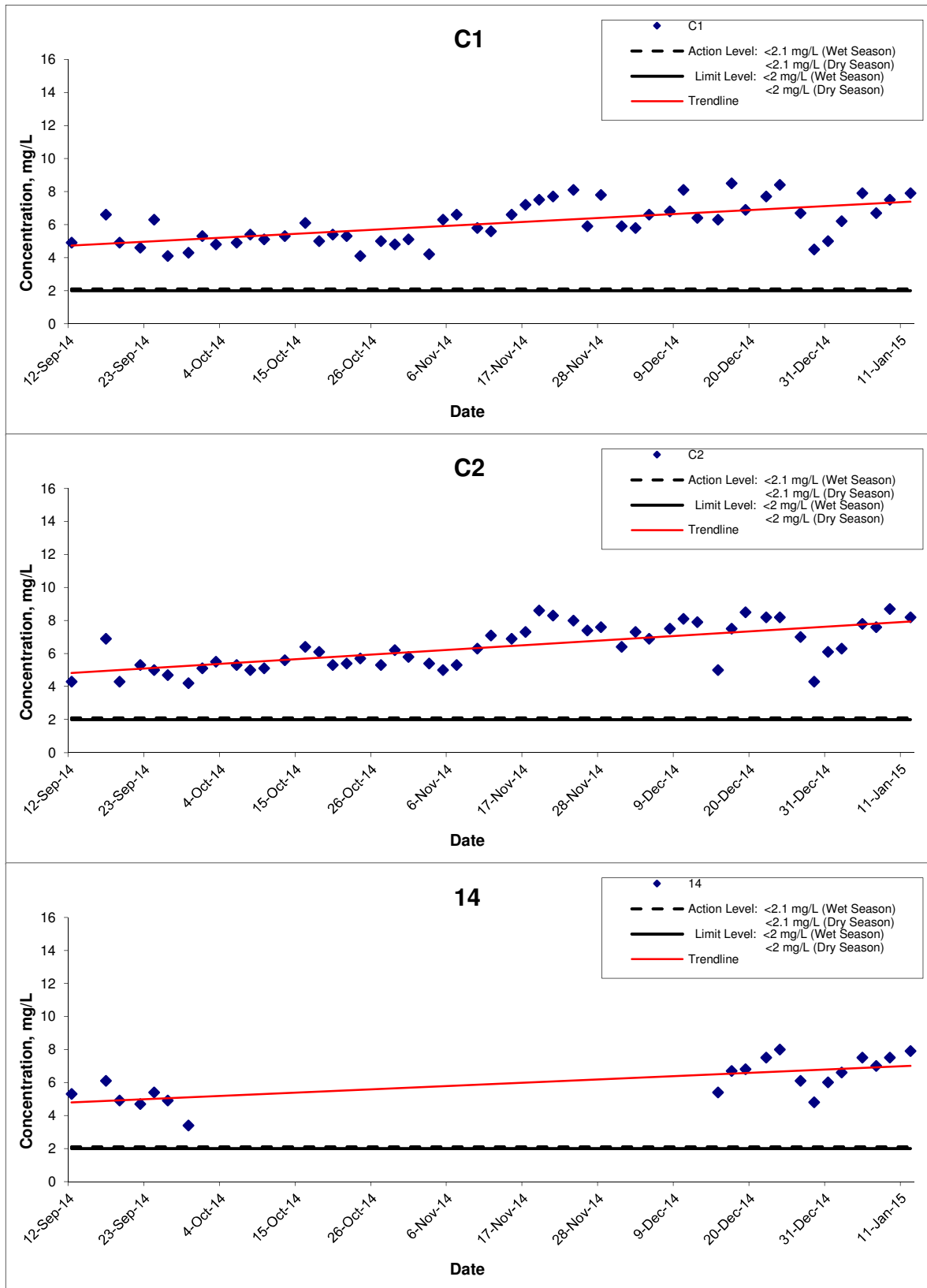
MA14028

Appendix

D



Dissolved Oxygen (Surface) at Mid-Ebb Tide



Title

Shatin to Central Link – Contract 11227
Advance Works for NSL Cross Harbour Tunnels
Graphical Presentation of Water Quality Monitoring
Results (Victoria Harbour)

Scale

N.T.S

Date

Jan 15

Project No.

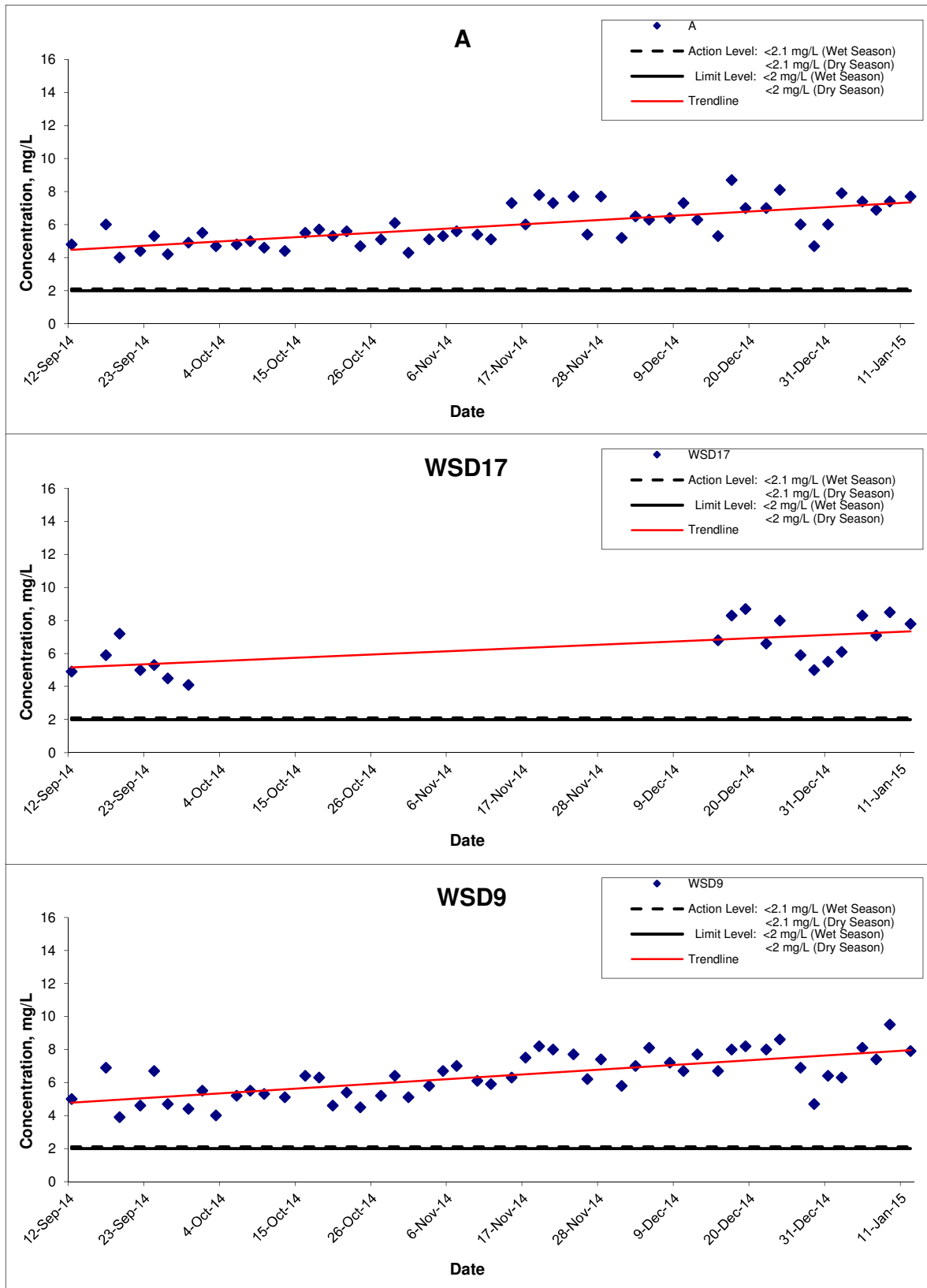
MA14028

Appendix

D



Dissolved Oxygen (Surface) at Mid-Ebb Tide



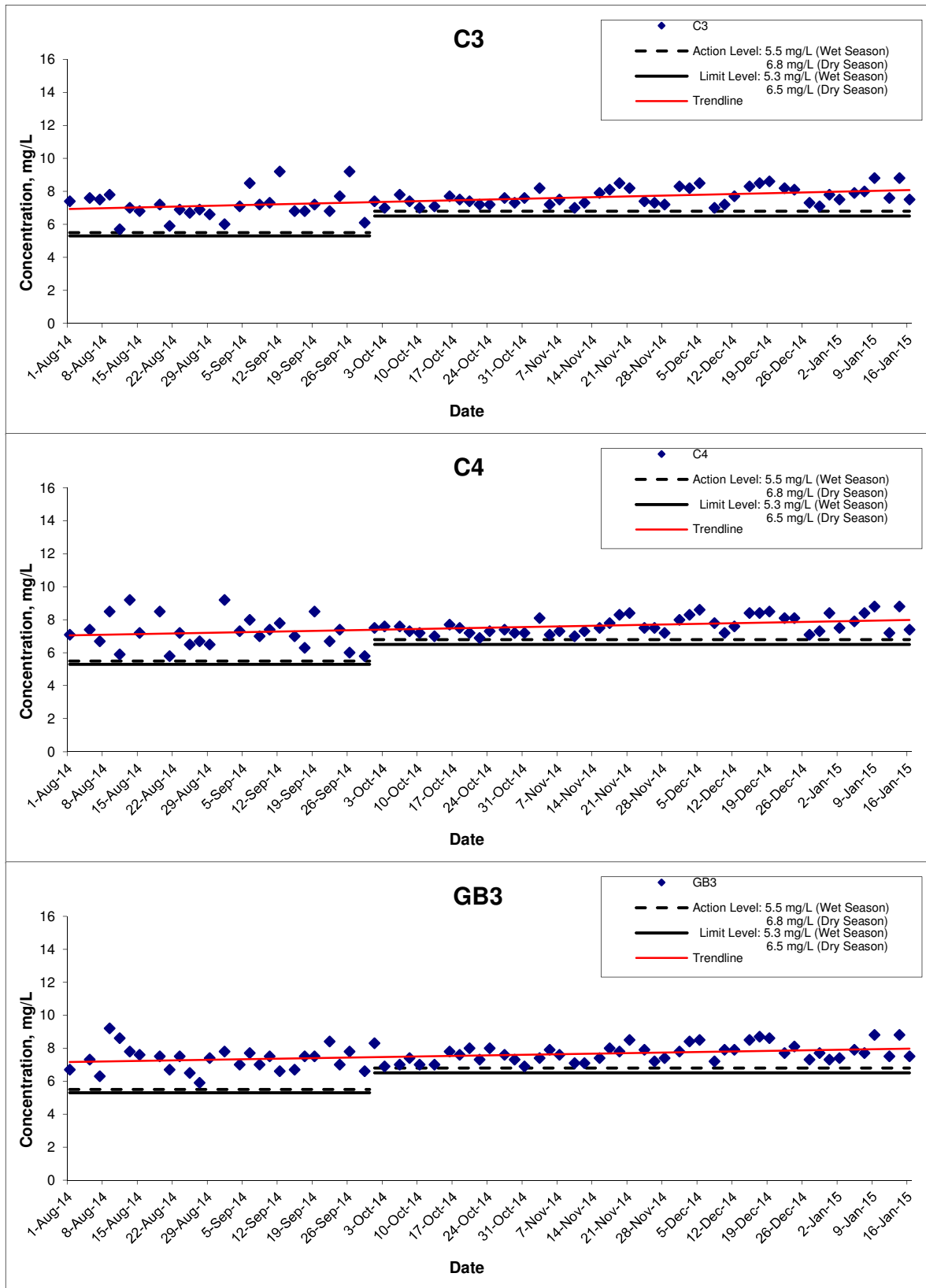
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 Advance Works for NSL Cross Harbour Tunnels
 Graphical Presentation of Water Quality Monitoring
 Results (Victoria Harbour)

Scale
 N.T.S
 Date
 Jan 15

Project
 No. MA14028
 Appendix
 D



Dissolved Oxygen (Surface) at Mid-Flood Tide



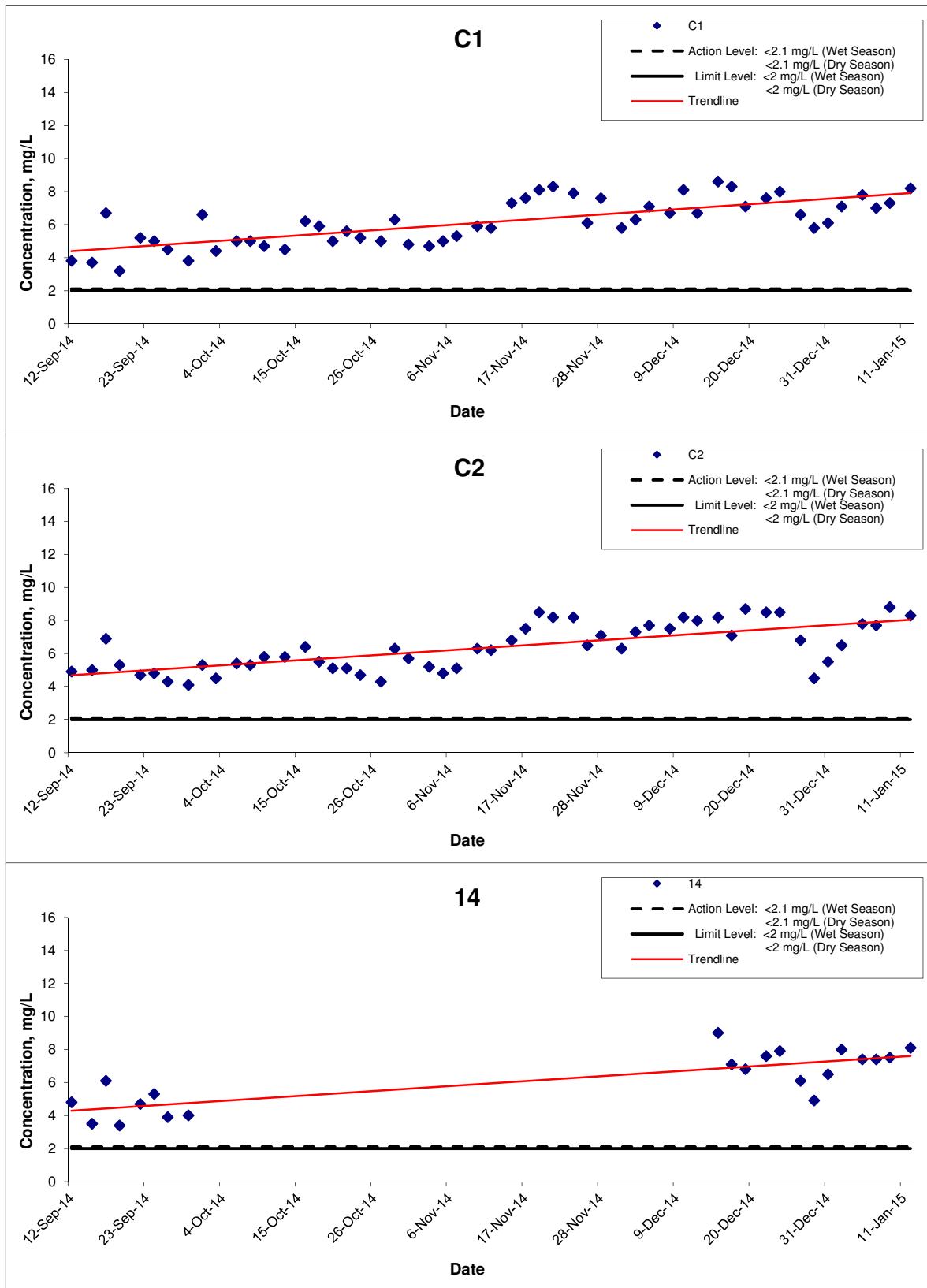
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 Advance Works for NSL Cross Harbour Tunnels
 Graphical Presentation of Water Quality Monitoring
 Results (Shek O)

Scale
 N.T.S
 Date
 Jan 15

Project
 No. MA14028
 Appendix
 D



Dissolved Oxygen (Surface) at Mid-Flood Tide



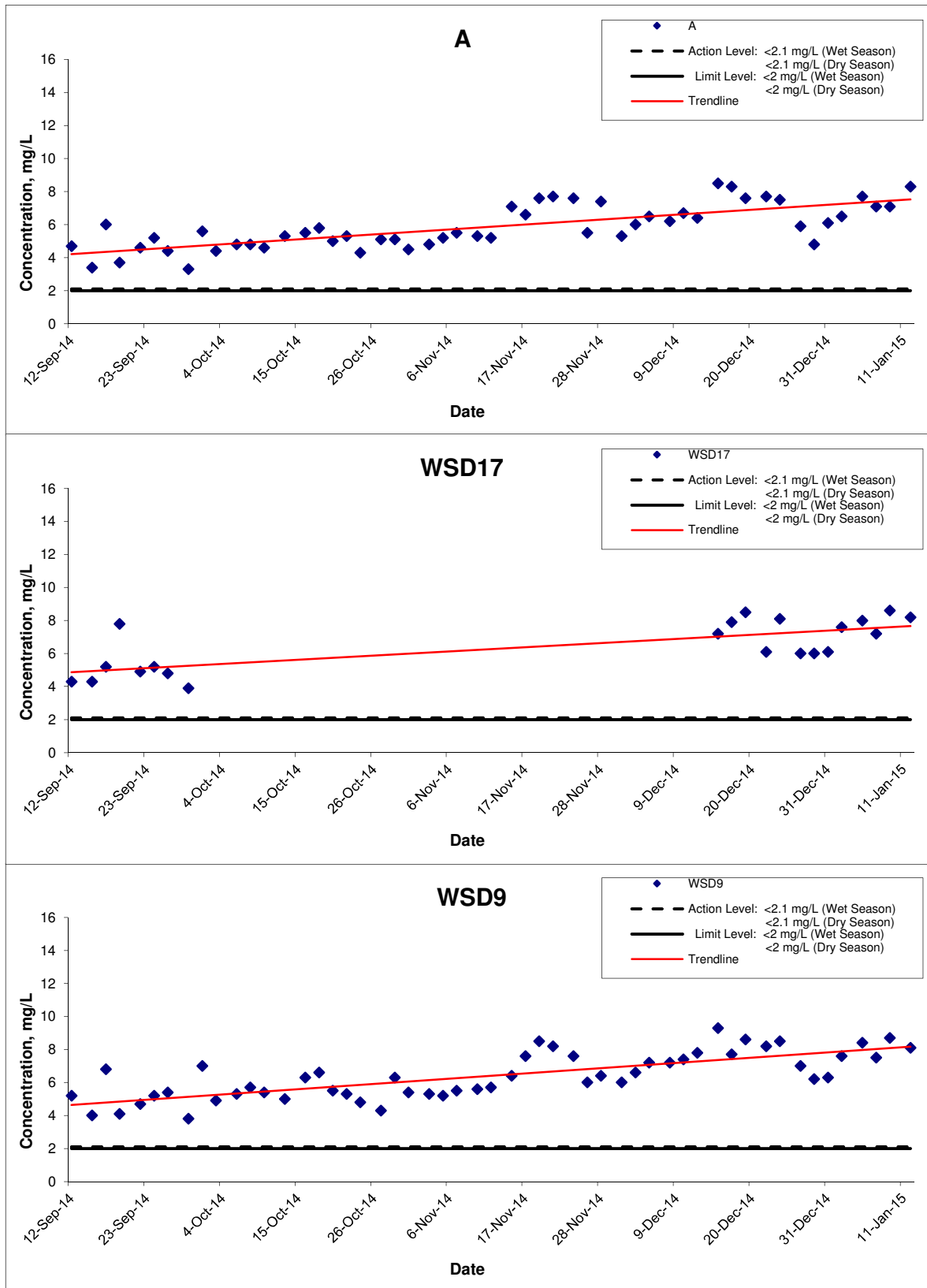
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 Advance Works for NSL Cross Harbour Tunnels
 Graphical Presentation of Water Quality Monitoring
 Results (Victoria Harbour)

Scale
 N.T.S
 Date
 Jan 15

Project
 No. MA14028
 Appendix
 D



Dissolved Oxygen (Surface) at Mid-Flood Tide



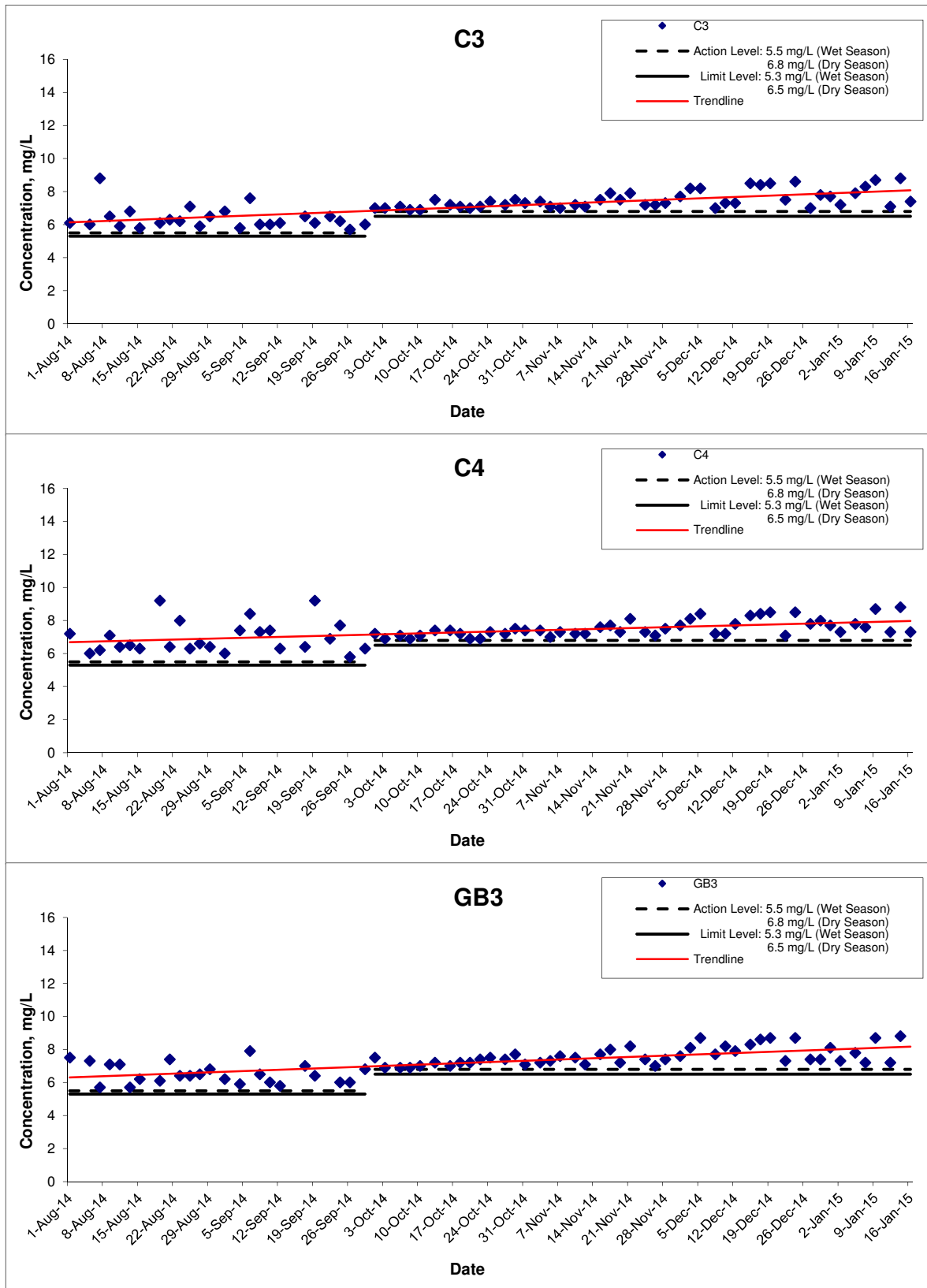
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 Advance Works for NSL Cross Harbour Tunnels
 Graphical Presentation of Water Quality Monitoring
 Results (Victoria Harbour)

Scale
 N.T.S
 Date
 Jan 15

Project
 No. MA14028
 Appendix
 D



Dissolved Oxygen (Middle) at Mid-Ebb Tide



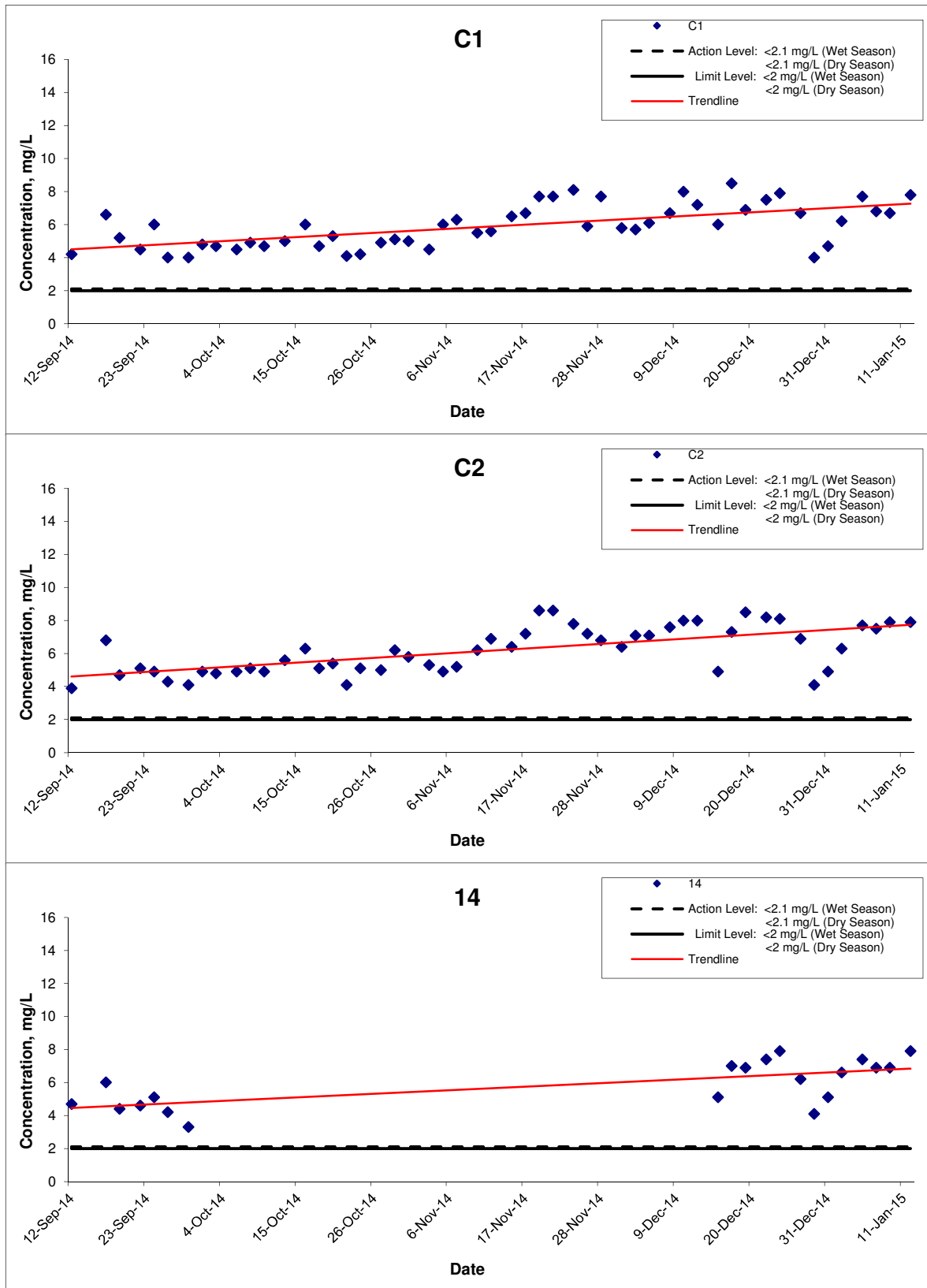
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 Results (Shek O)

Scale
 N.T.S
 Date
 Jan 15

Project
 No. MA14028
 Appendix
 D



Dissolved Oxygen (Middle) at Mid-Ebb Tide



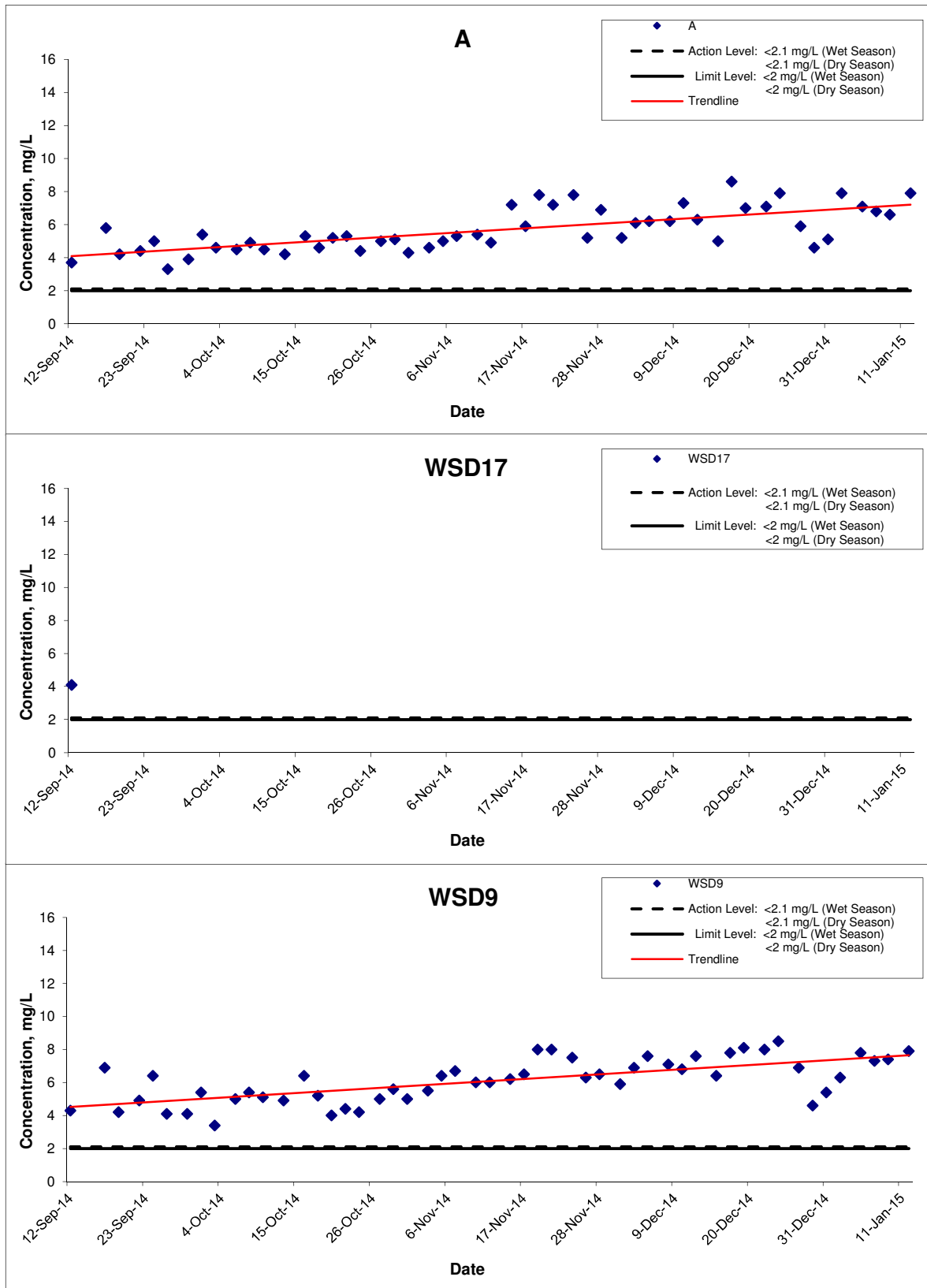
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 Graphical Presentation of Water Quality Monitoring
 Results (Victoria Harbour)

Scale
 N.T.S
 Date
 Jan 15

Project
 No. MA14028
 Appendix
 D



Dissolved Oxygen (Middle) at Mid-Ebb Tide



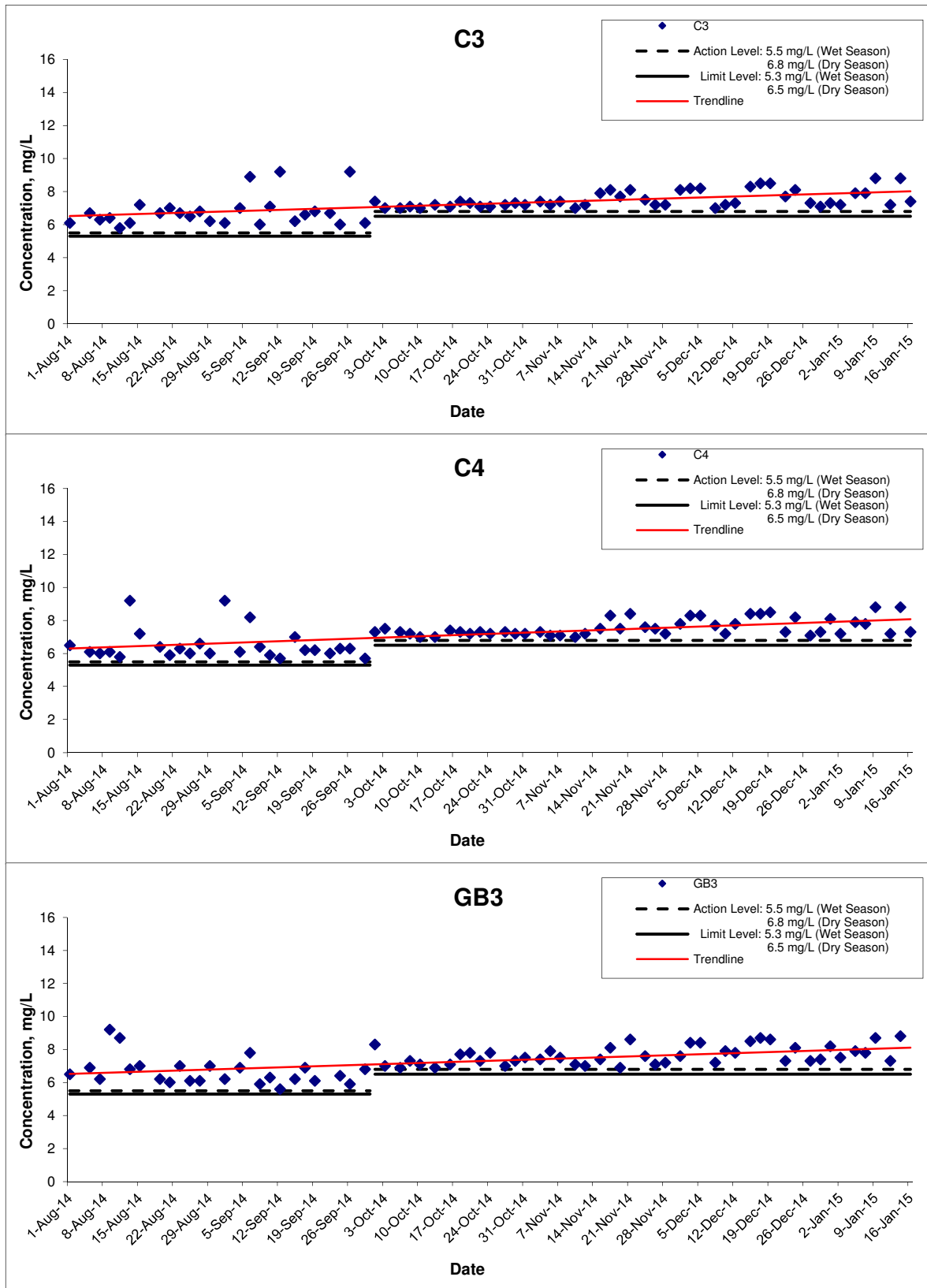
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 Graphical Presentation of Water Quality Monitoring
 Results (Victoria Harbour)

Scale
 N.T.S
 Date
 Jan 15

Project
 No. MA14028
 Appendix
 D



Dissolved Oxygen (Middle) at Mid-Flood Tide



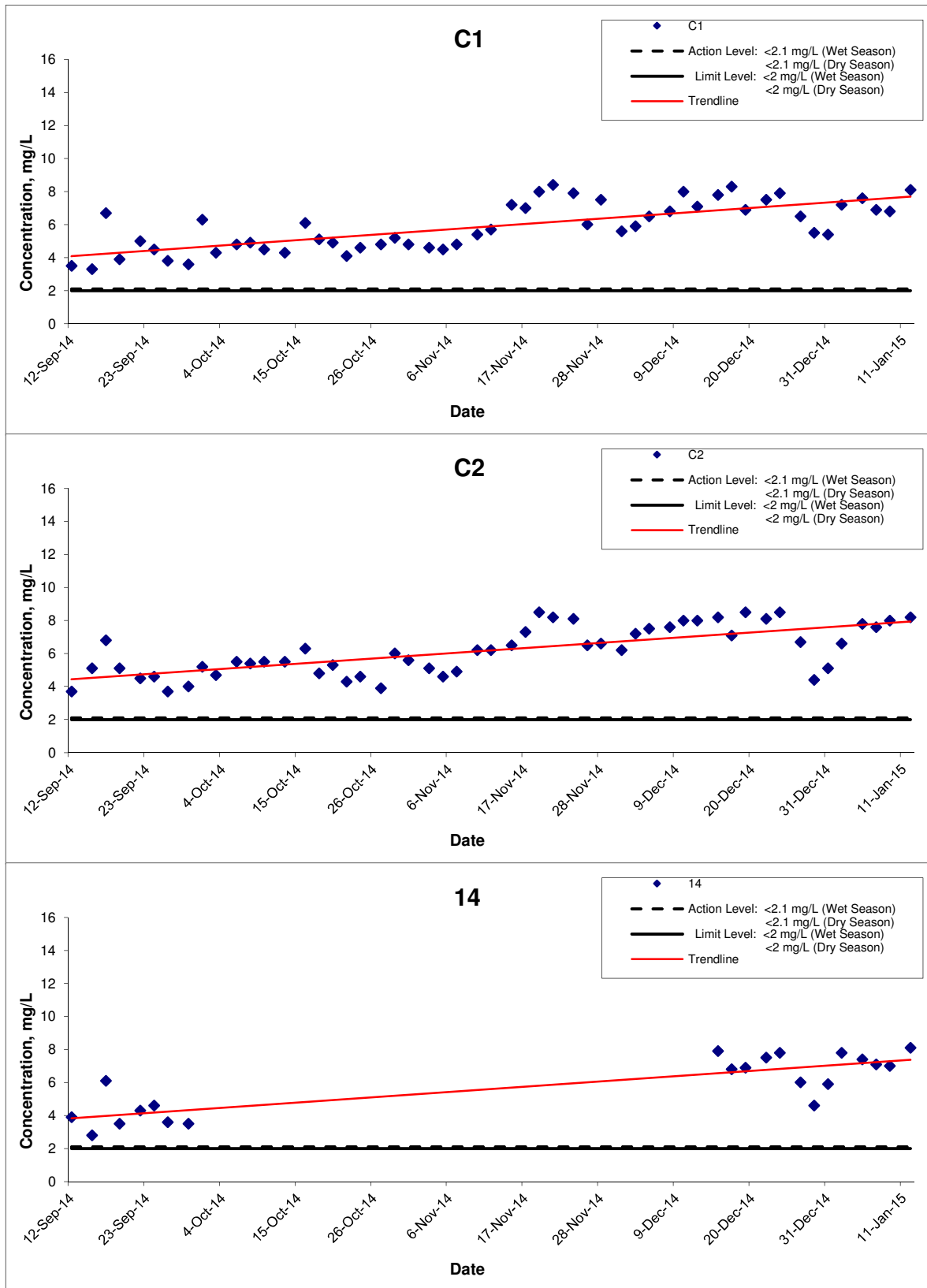
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 Graphical Presentation of Water Quality Monitoring
 Results (Shek O)

Scale
 N.T.S
 Date
 Jan 15

Project
 No. MA14028
 Appendix
 D



Dissolved Oxygen (Middle) at Mid-Flood Tide



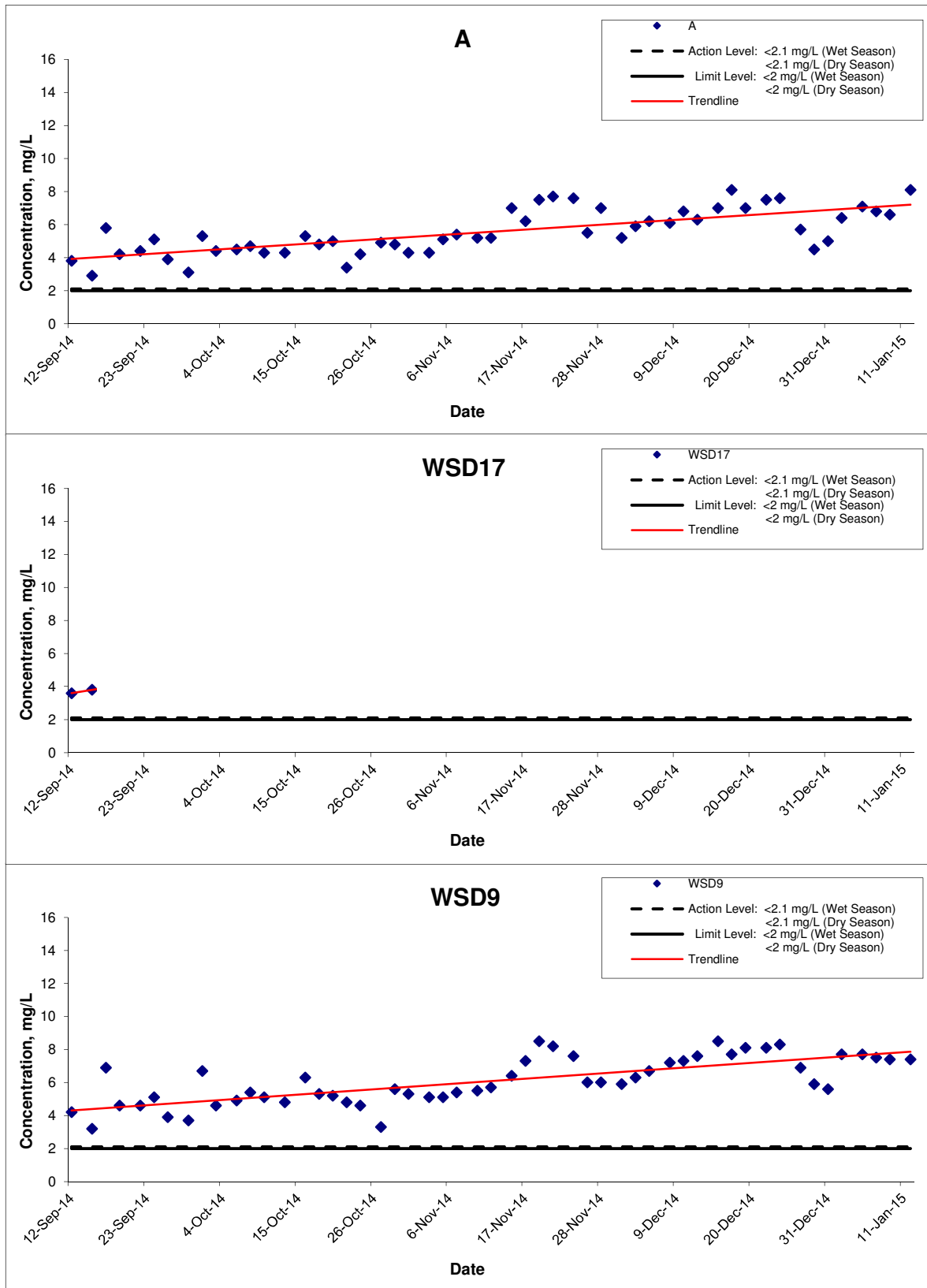
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 Advance Works for NSL Cross Harbour Tunnels
 Graphical Presentation of Water Quality Monitoring
 Results (Victoria Harbour)

Scale
 N.T.S
 Date
 Jan 15

Project
 No. MA14028
 Appendix
 D



Dissolved Oxygen (Middle) at Mid-Flood Tide



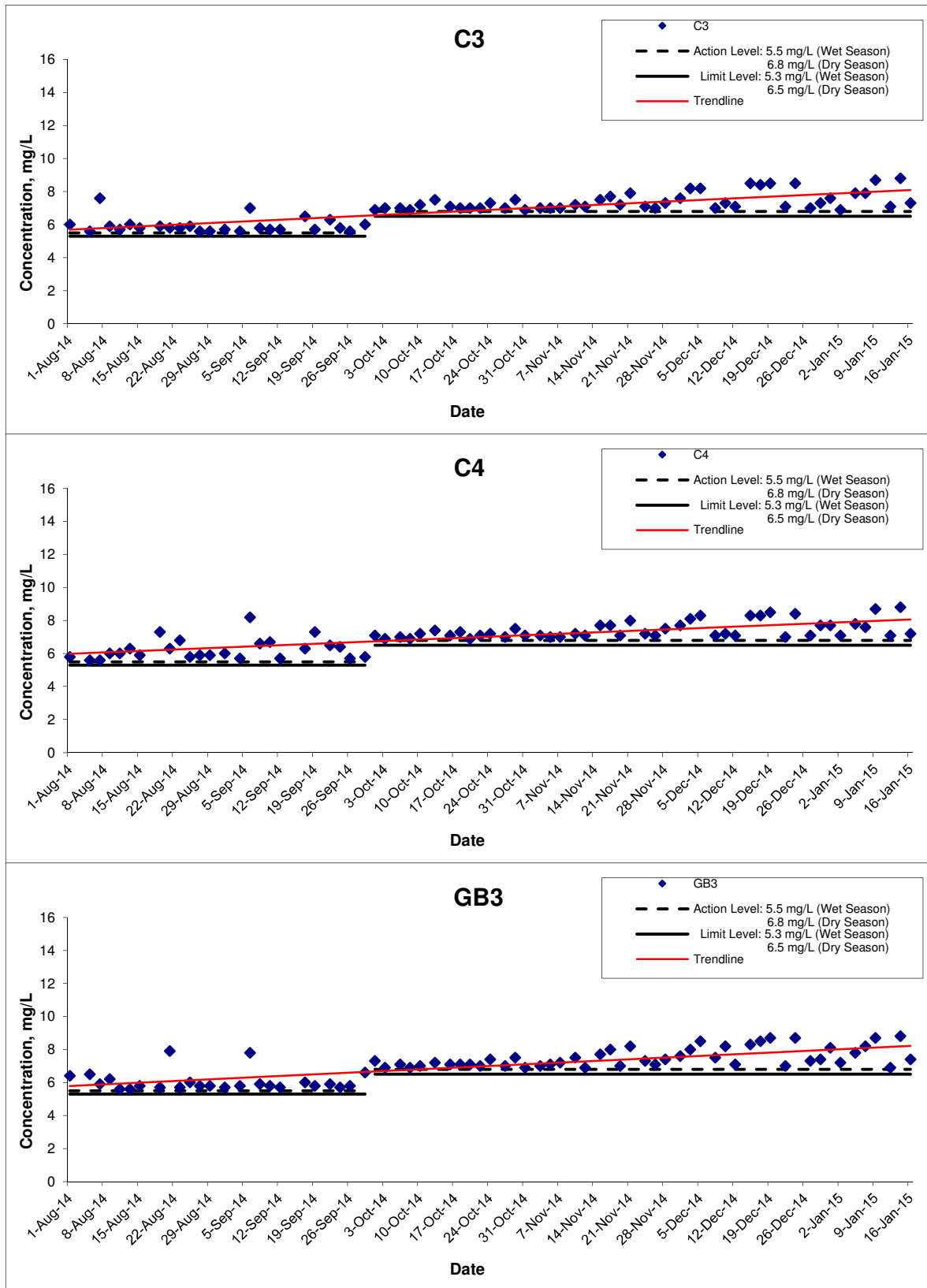
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 Advance Works for NSL Cross Harbour Tunnels
 Graphical Presentation of Water Quality Monitoring
 Results (Victoria Harbour)

Scale
 N.T.S
 Date
 Jan 15

Project
 No. MA14028
 Appendix
 D



Dissolved Oxygen (Bottom) at Mid-Ebb Tide



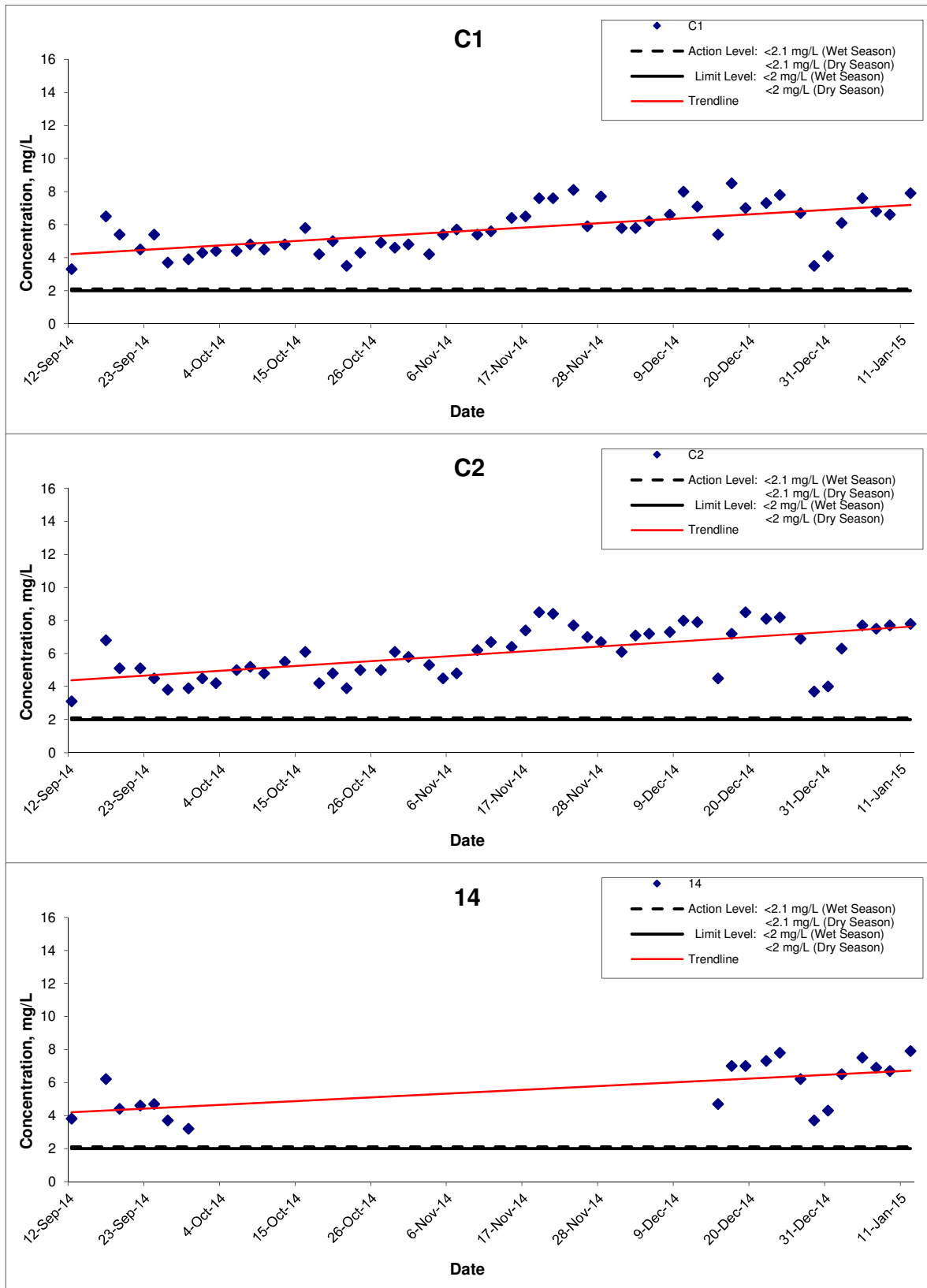
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 Advance Works for NSL Cross Harbour Tunnels
 Graphical Presentation of Water Quality Monitoring
 Results (Shek O)

Scale
 N.T.S
 Date
 Jan 15

Project
 No. MA14028
 Appendix
 D



Dissolved Oxygen (Bottom) at Mid-Ebb Tide



Title

Shatin to Central Link – Contract 11227
Advance Works for NSL Cross Harbour Tunnels
Graphical Presentation of Water Quality Monitoring
Results (Victoria Harbour)

Scale

N.T.S

Date

Jan 15

Project No.

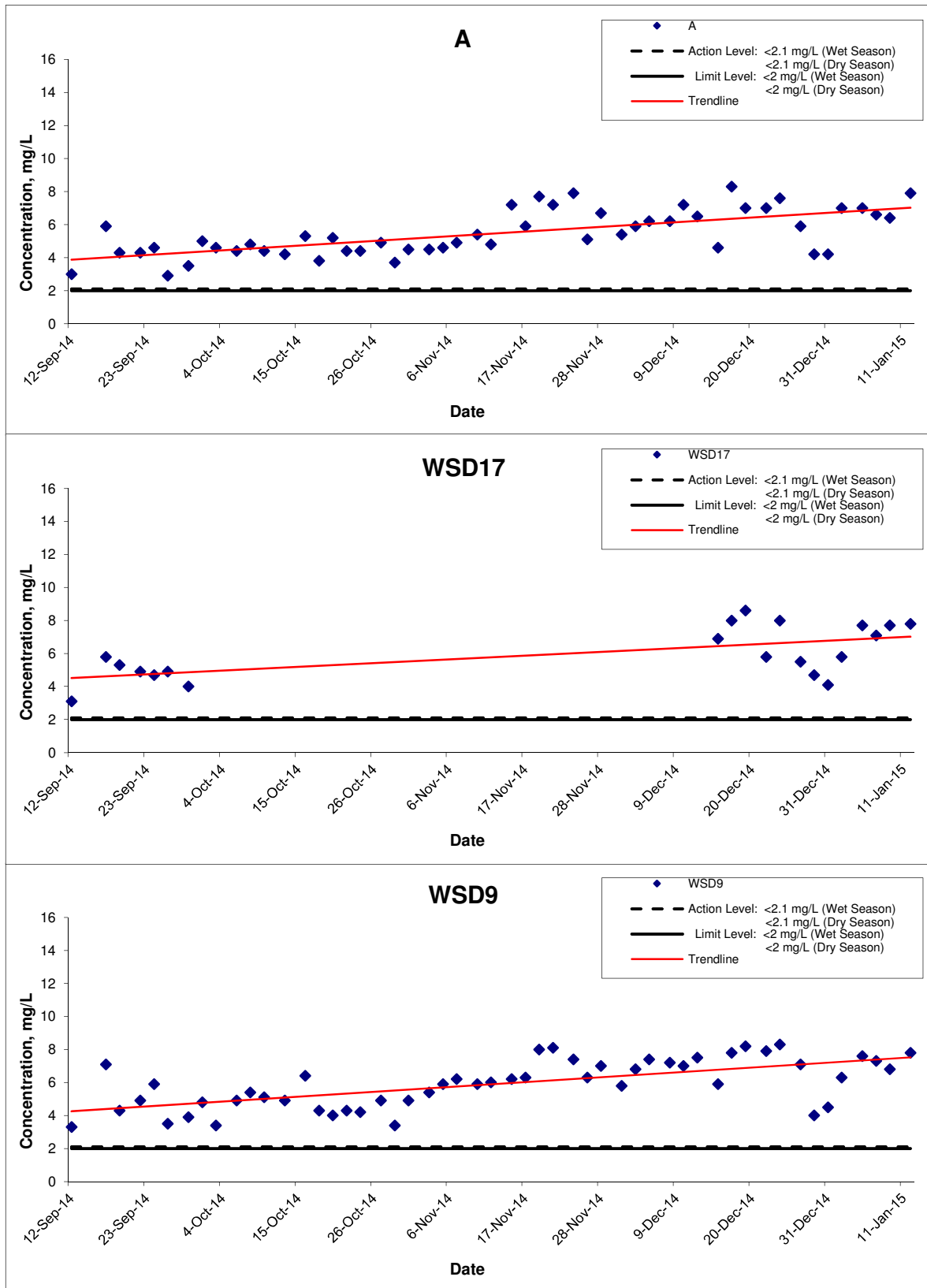
MA14028

Appendix

D



Dissolved Oxygen (Bottom) at Mid-Ebb Tide



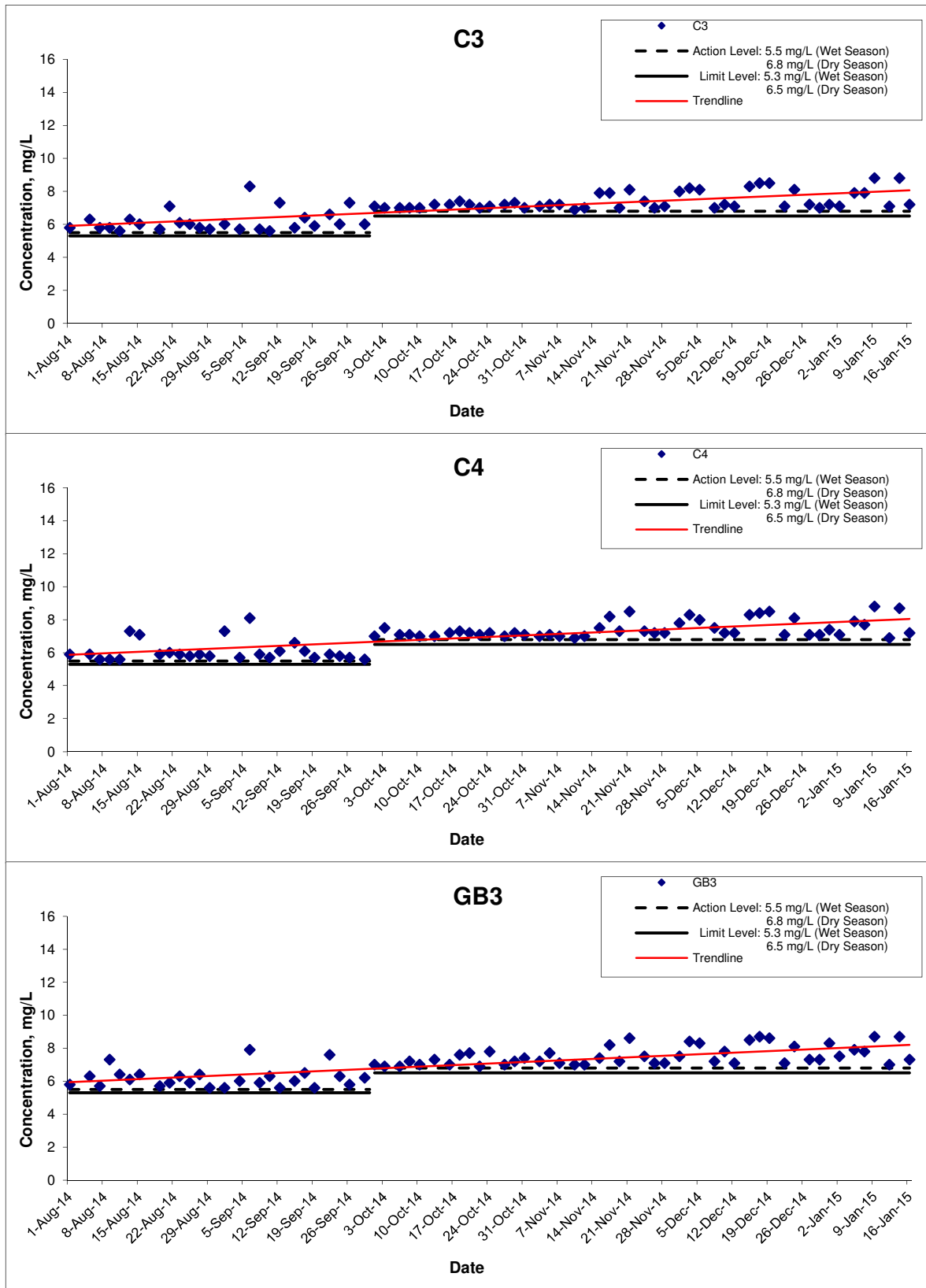
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 Advance Works for NSL Cross Harbour Tunnels
 Graphical Presentation of Water Quality Monitoring
 Results (Victoria Harbour)

Scale
 N.T.S
 Date
 Jan 15

Project
 No. MA14028
 Appendix
 D



Dissolved Oxygen (Bottom) at Mid-Flood Tide



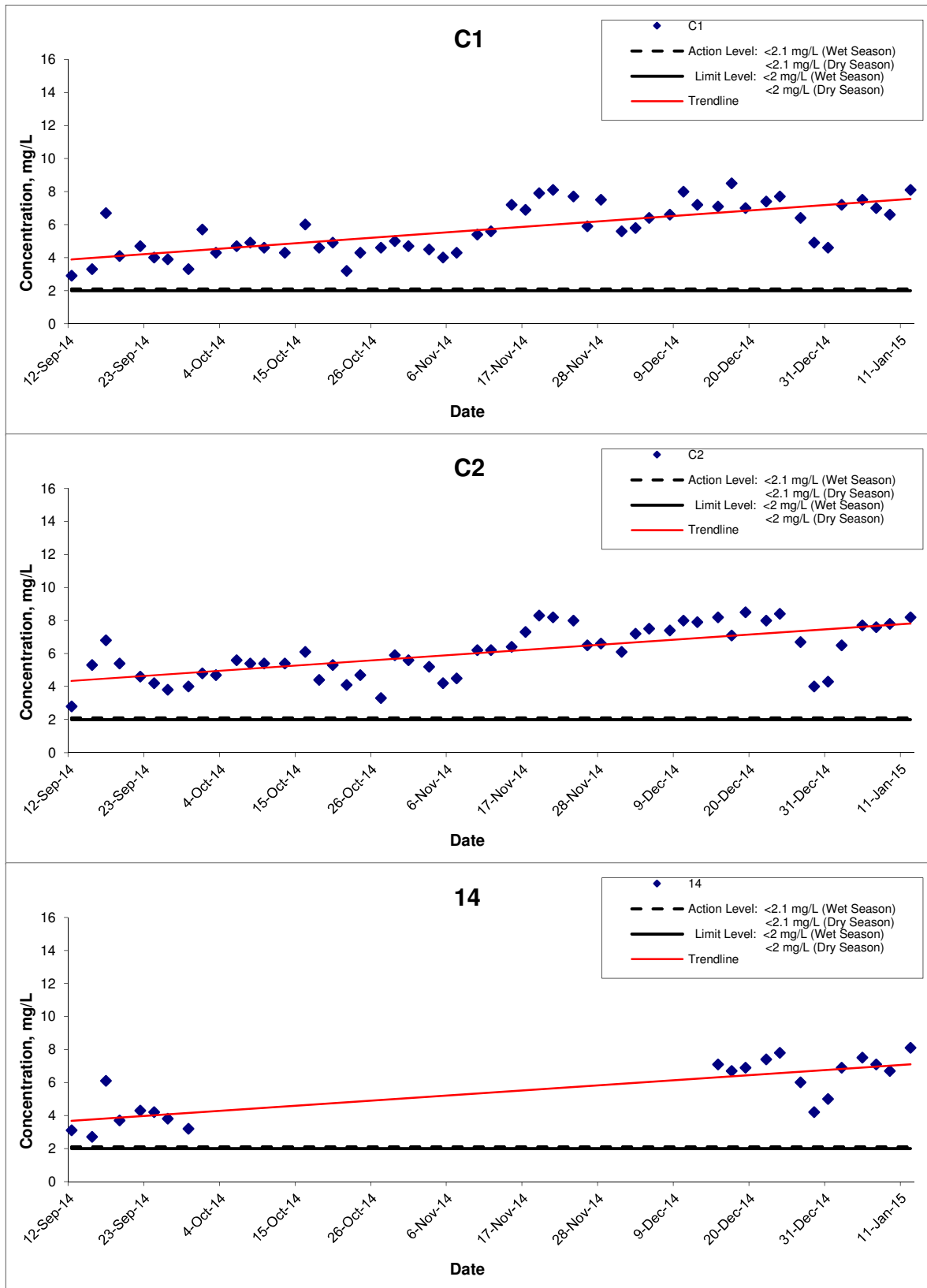
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 Advance Works for NSL Cross Harbour Tunnels
 Graphical Presentation of Water Quality Monitoring
 Results (Shek O)

Scale
 N.T.S
 Date
 Jan 15

Project
 No. MA14028
 Appendix
 D



Dissolved Oxygen (Bottom) at Mid-Flood Tide



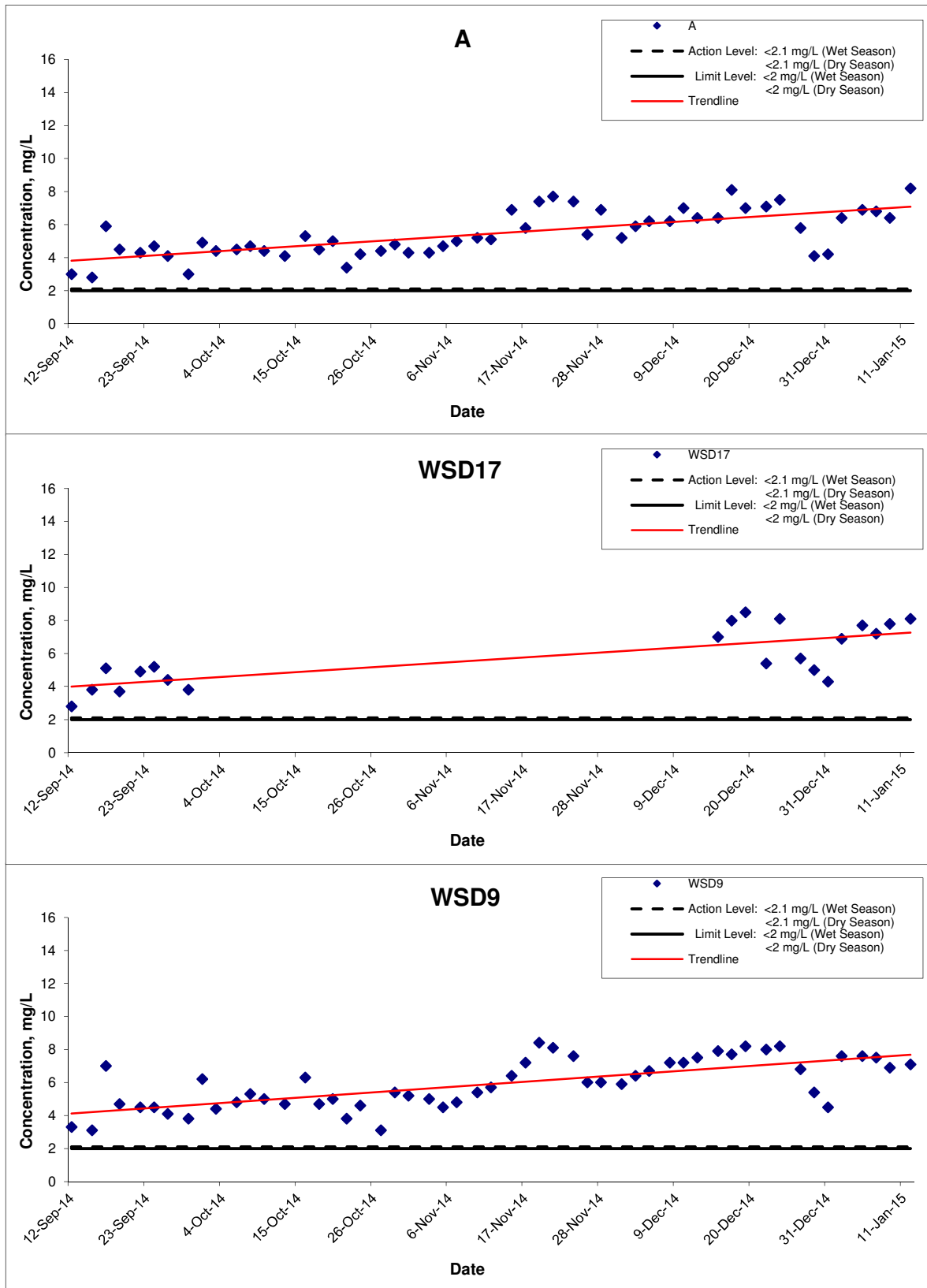
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 Advance Works for NSL Cross Harbour Tunnels
 Graphical Presentation of Water Quality Monitoring
 Results (Victoria Harbour)

Scale
 N.T.S
 Date
 Jan 15

Project
 No. MA14028
 Appendix
 D



Dissolved Oxygen (Bottom) at Mid-Flood Tide



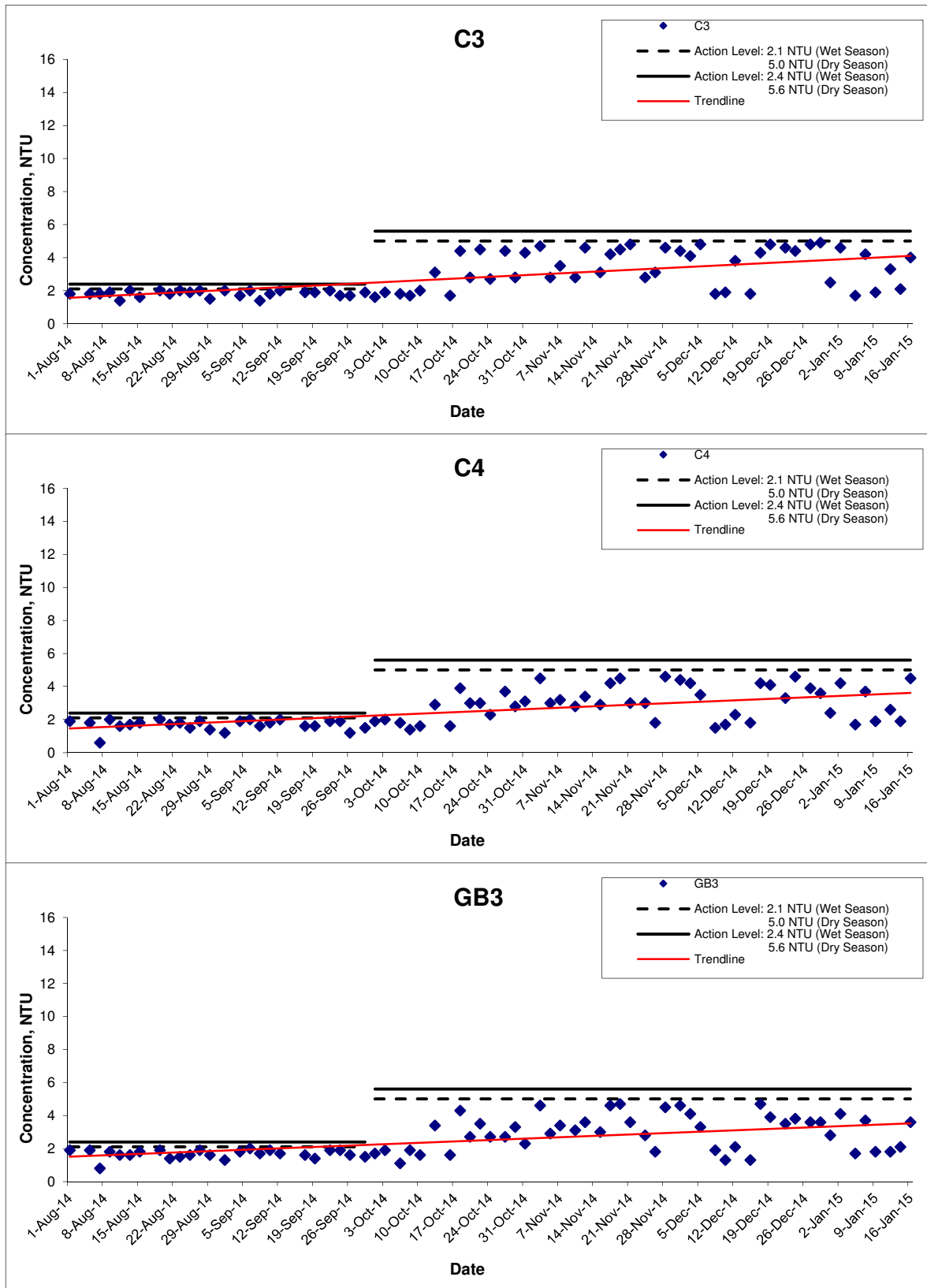
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 Advance Works for NSL Cross Harbour Tunnels
 Graphical Presentation of Water Quality Monitoring
 Results (Victoria Harbour)

Scale
 N.T.S
 Date
 Jan 15

Project
 No. MA14028
 Appendix
 D



Turbidity (Depth-averaged) at Mid-Ebb Tide



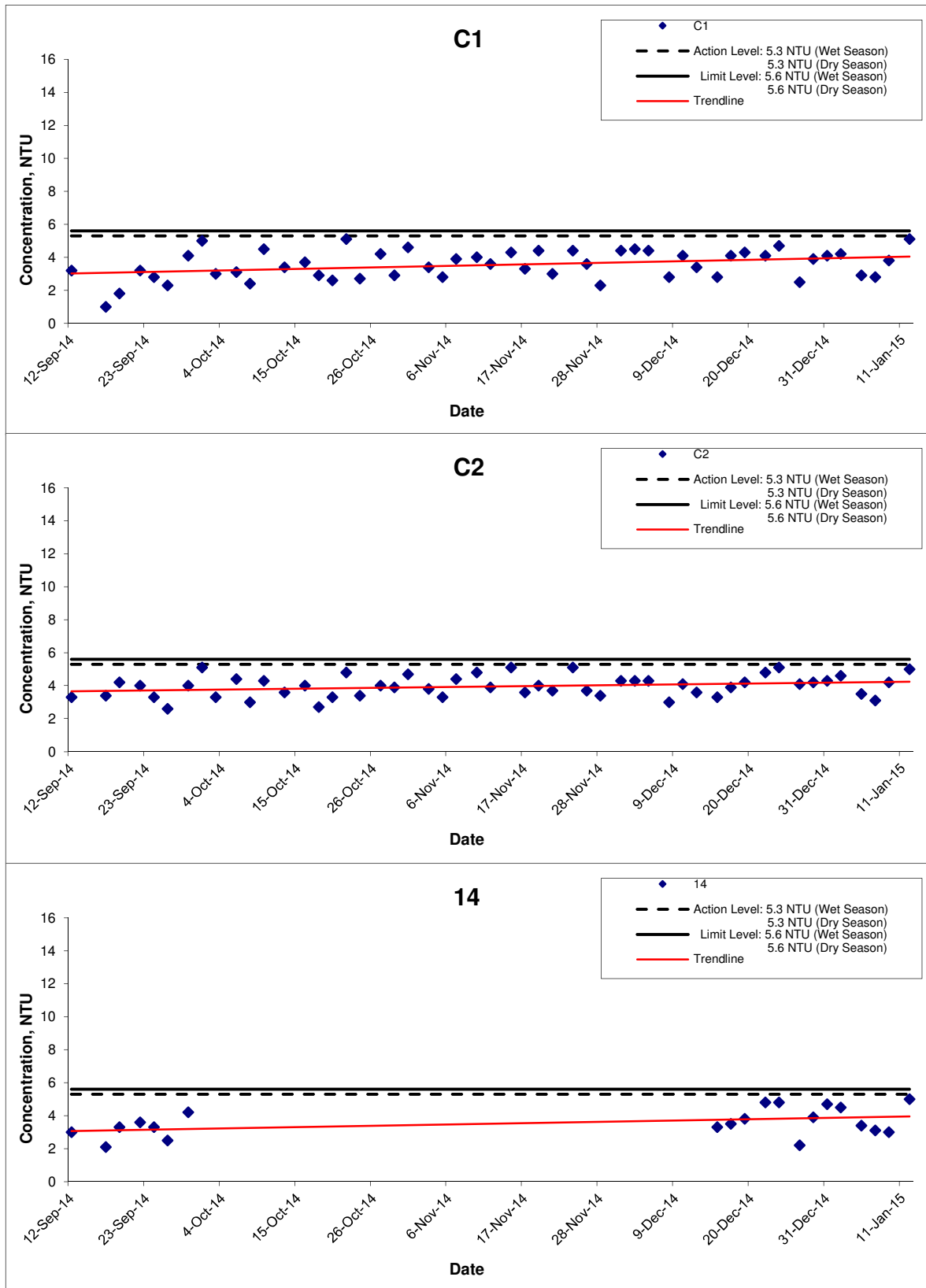
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 Advance Works for NSL Cross Harbour Tunnels
 Graphical Presentation of Water Quality Monitoring
 Results (Shek O)

Scale
 N.T.S
 Date
 Jan 15

Project
 No. MA14028
 Appendix
 D



Turbidity (Depth-averaged) at Mid-Ebb Tide



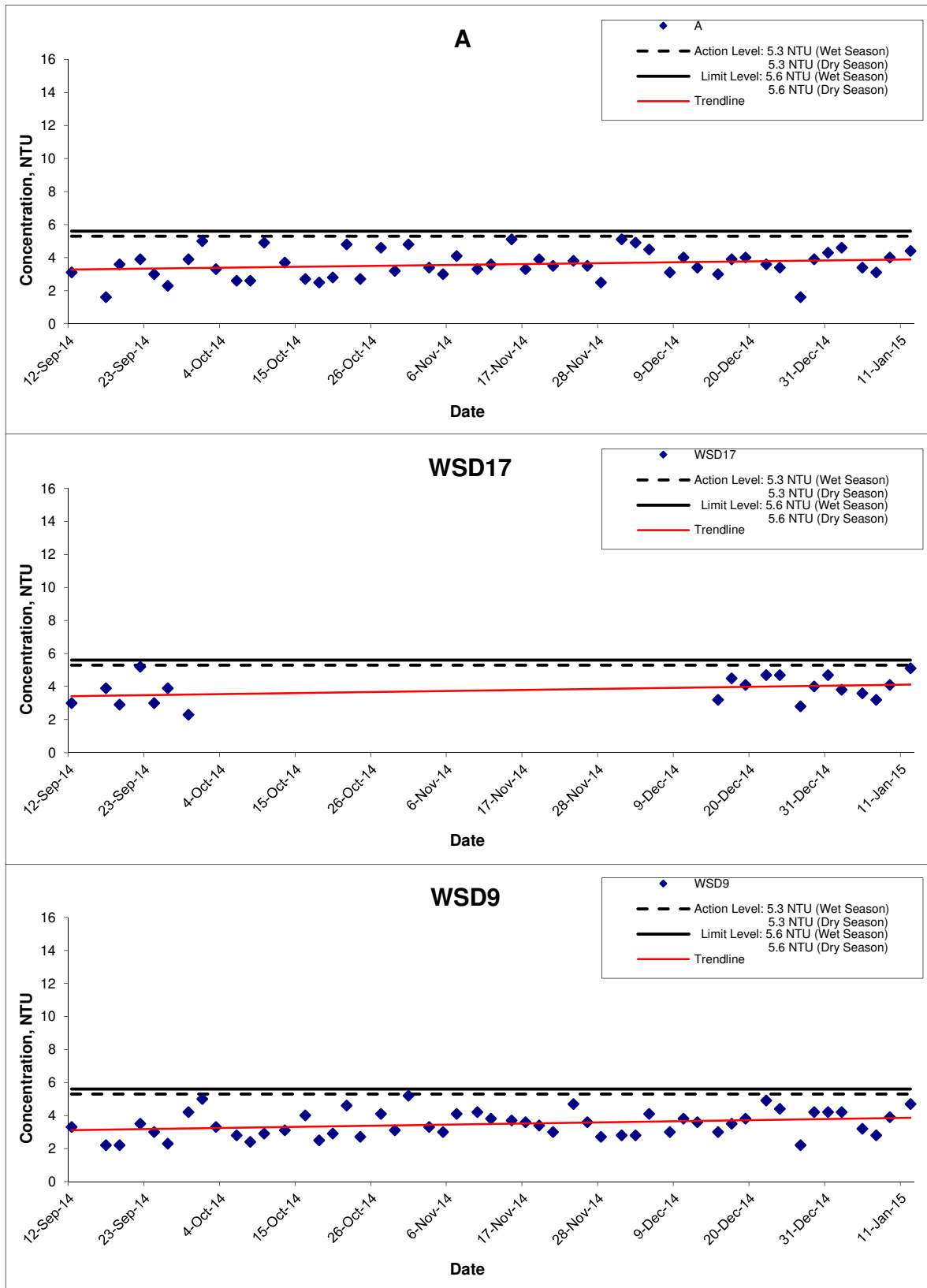
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 Advance Works for NSL Cross Harbour Tunnels
 Graphical Presentation of Water Quality Monitoring
 Results (Victoria Harbour)

Scale
 N.T.S
 Date
 Jan 15

Project
 No. MA14028
 Appendix
 D



Turbidity (Depth-averaged) at Mid-Ebb Tide



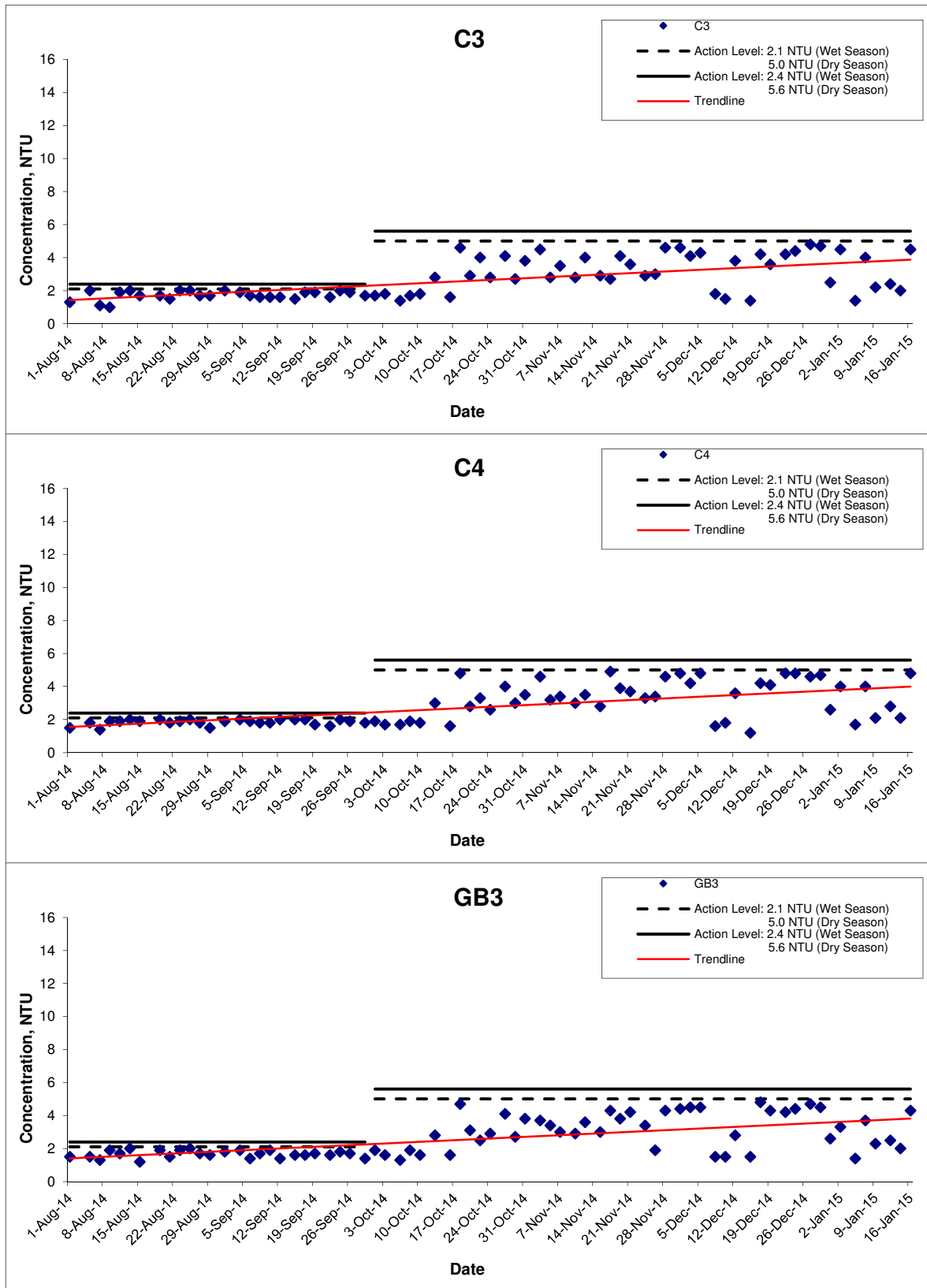
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 Advance Works for NSL Cross Harbour Tunnels
 Graphical Presentation of Water Quality Monitoring
 Results (Victoria Harbour)

Scale
 N.T.S
 Date
 Jan 15

Project
 No. MA14028
 Appendix
 D



Turbidity (Depth-averaged) at Mid-Flood Tide



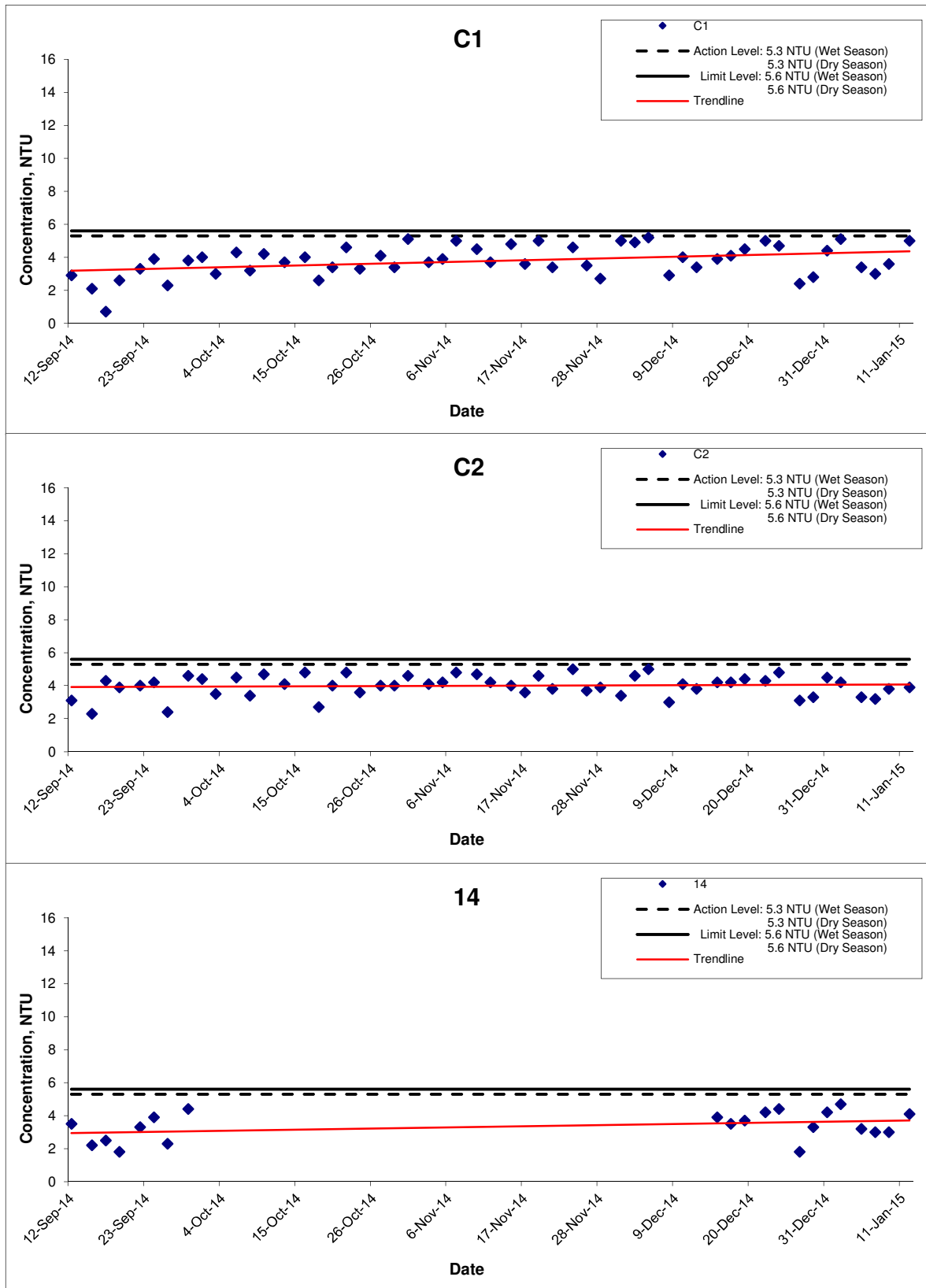
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 Advance Works for NSL Cross Harbour Tunnels
 Graphical Presentation of Water Quality Monitoring
 Results (Shek O)

Scale
 N.T.S
 Date
 Jan 15

Project
 No. MA14028
 Appendix
 D



Turbidity (Depth-averaged) at Mid-Flood Tide



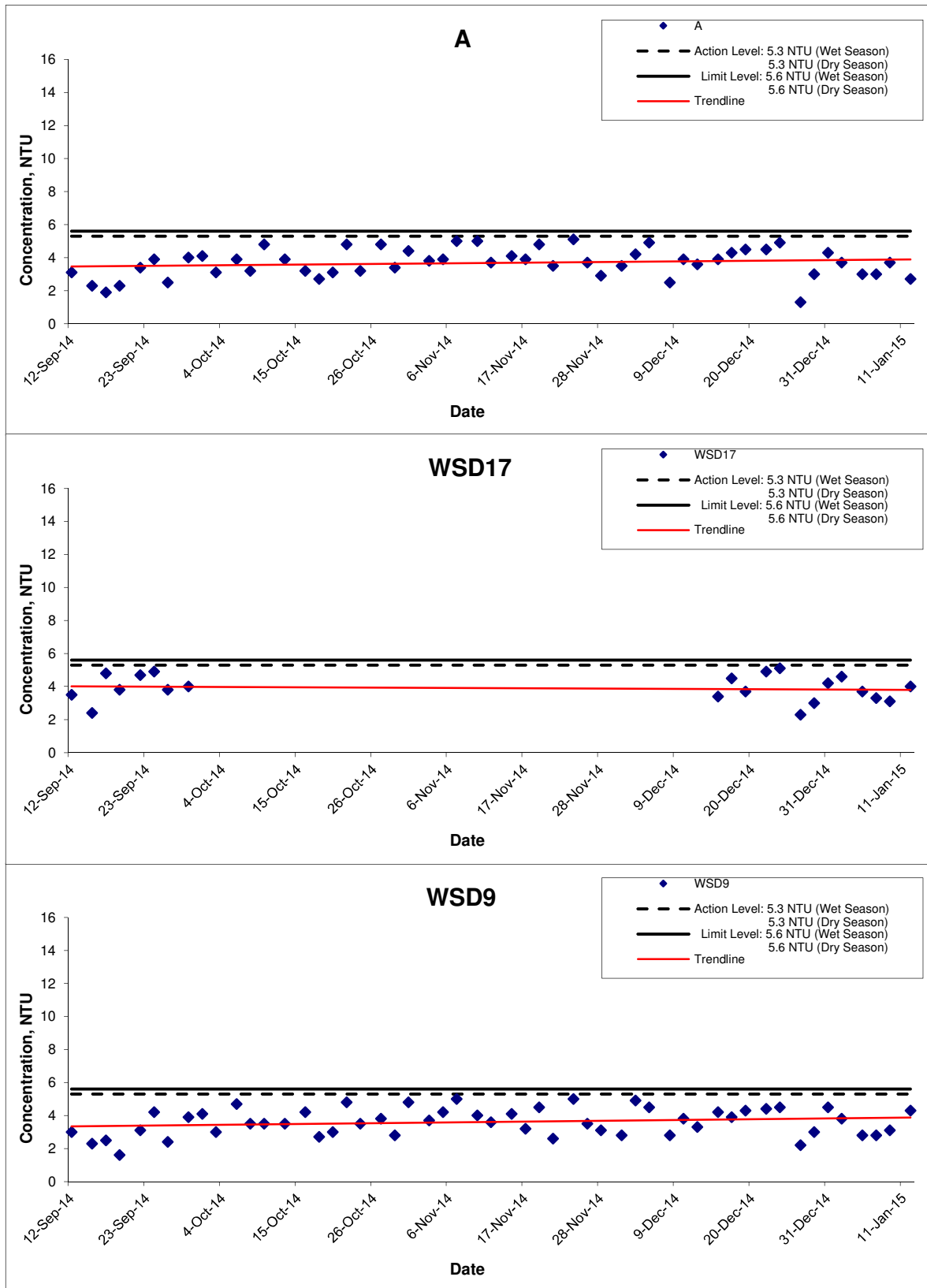
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 Advance Works for NSL Cross Harbour Tunnels
 Graphical Presentation of Water Quality Monitoring
 Results (Victoria Harbour)

Scale
 N.T.S
 Date
 Jan 15

Project
 No. MA14028
 Appendix
 D



Turbidity (Depth-averaged) at Mid-Flood Tide



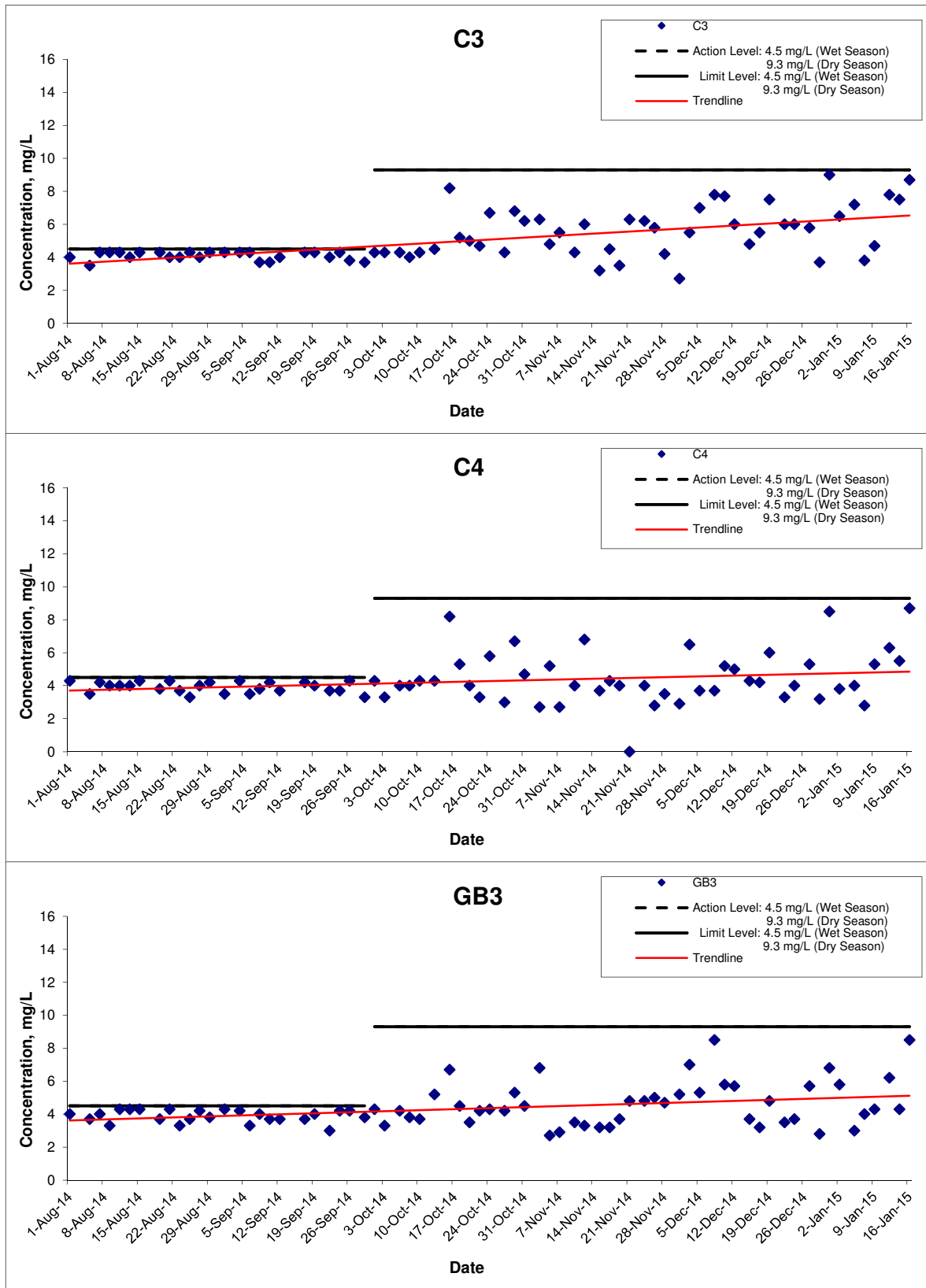
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 Advance Works for NSL Cross Harbour Tunnels
 Graphical Presentation of Water Quality Monitoring
 Results (Victoria Harbour)

Scale
 N.T.S
 Date
 Jan 15

Project
 No. MA14028
 Appendix
 D



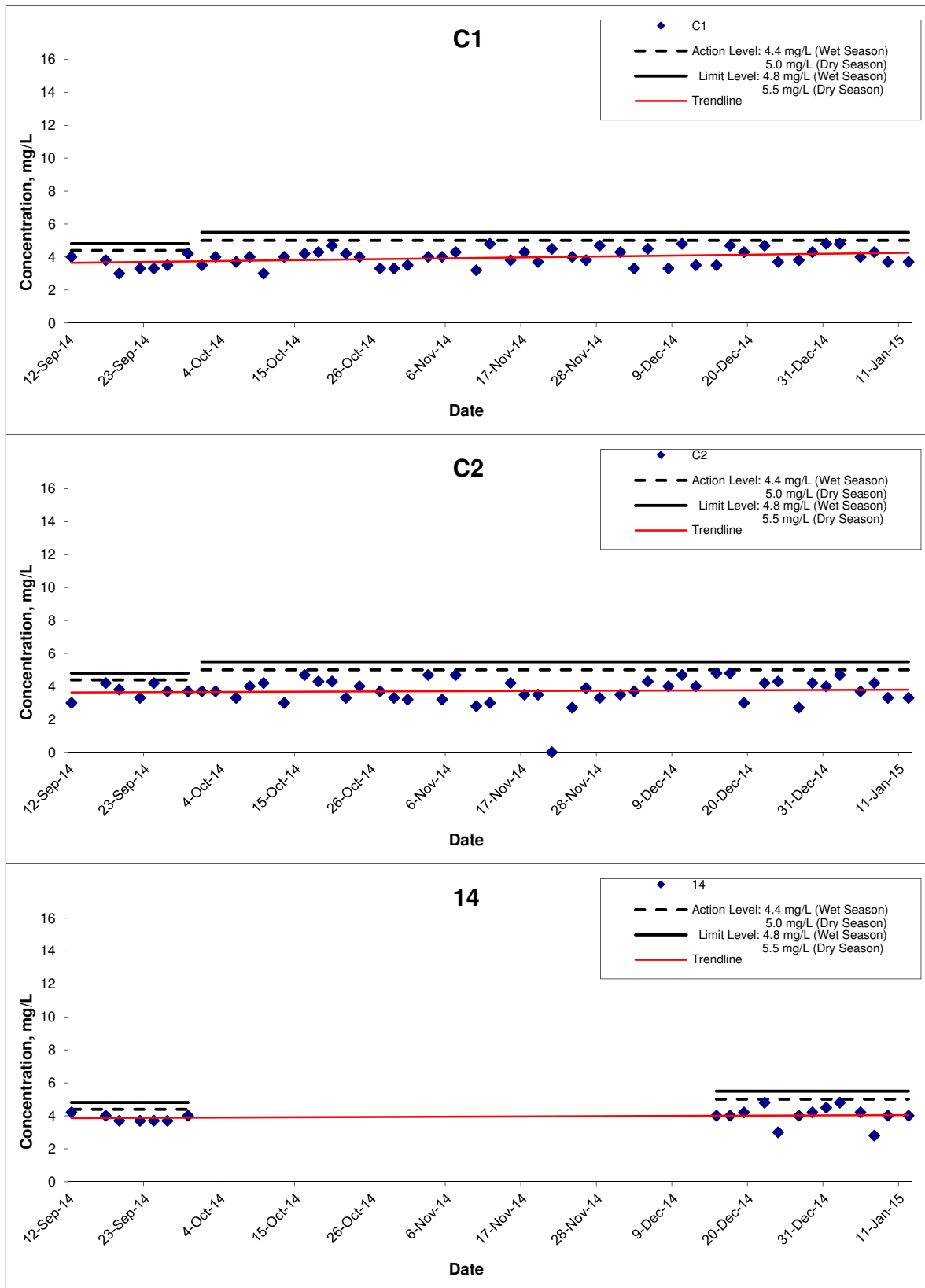
Suspended Solids (Depth-averaged) at Mid-Ebb Tide



Remarks: The graphical point at zero concentration is presented as <2.5 mg/L

Title Shatin to Central Link – Contract 11227 Advance Works for NSL Cross Harbour Tunnels Graphical Presentation of Water Quality Monitoring Results (Shek O)	Scale	N.T.S	Project No. MA14028	
	Date	Jan 15	Appendix D	

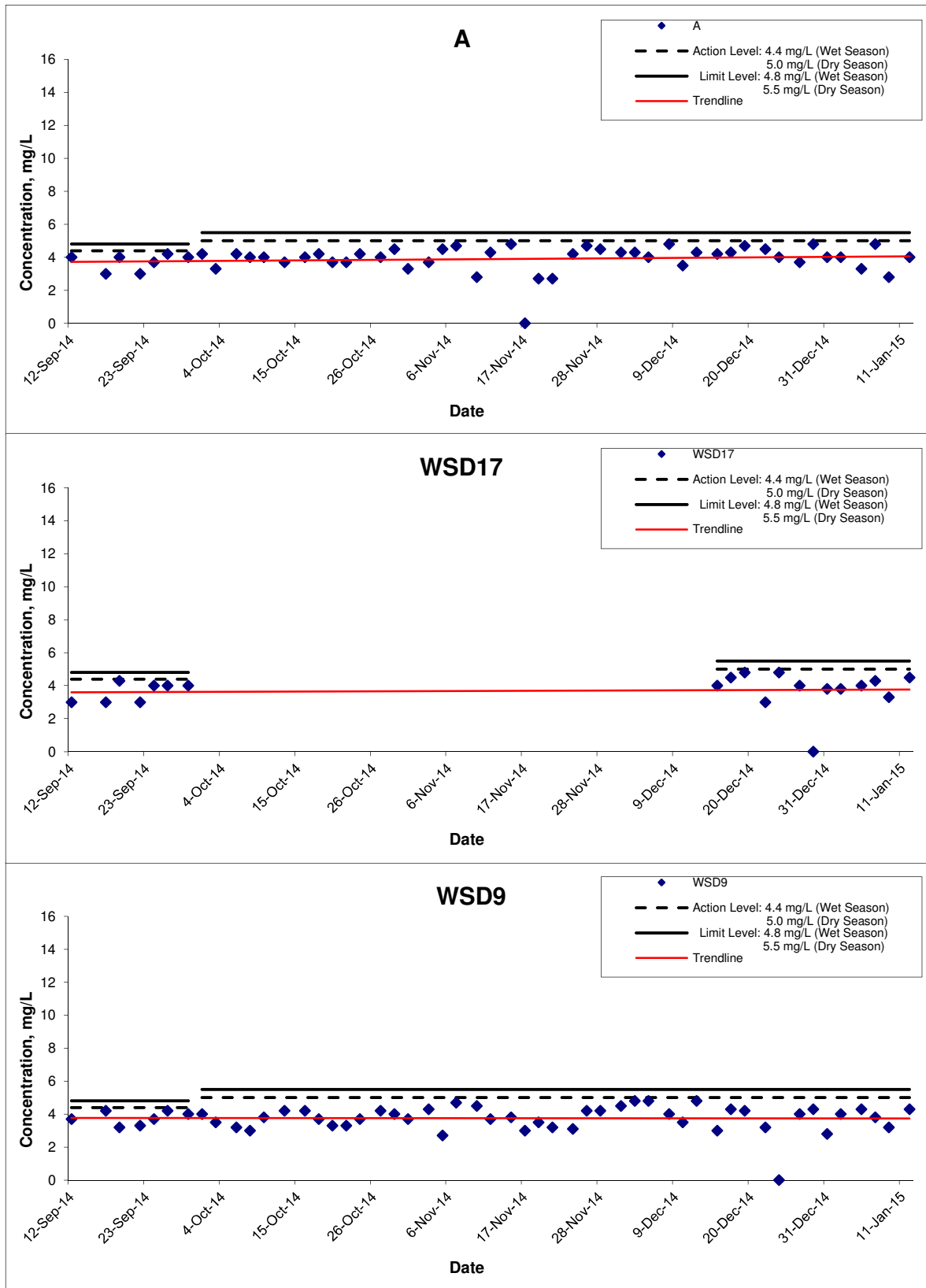
Suspended Solids (Depth-averaged) at Mid-Ebb Tide



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	Date Jan 15	Appendix D	

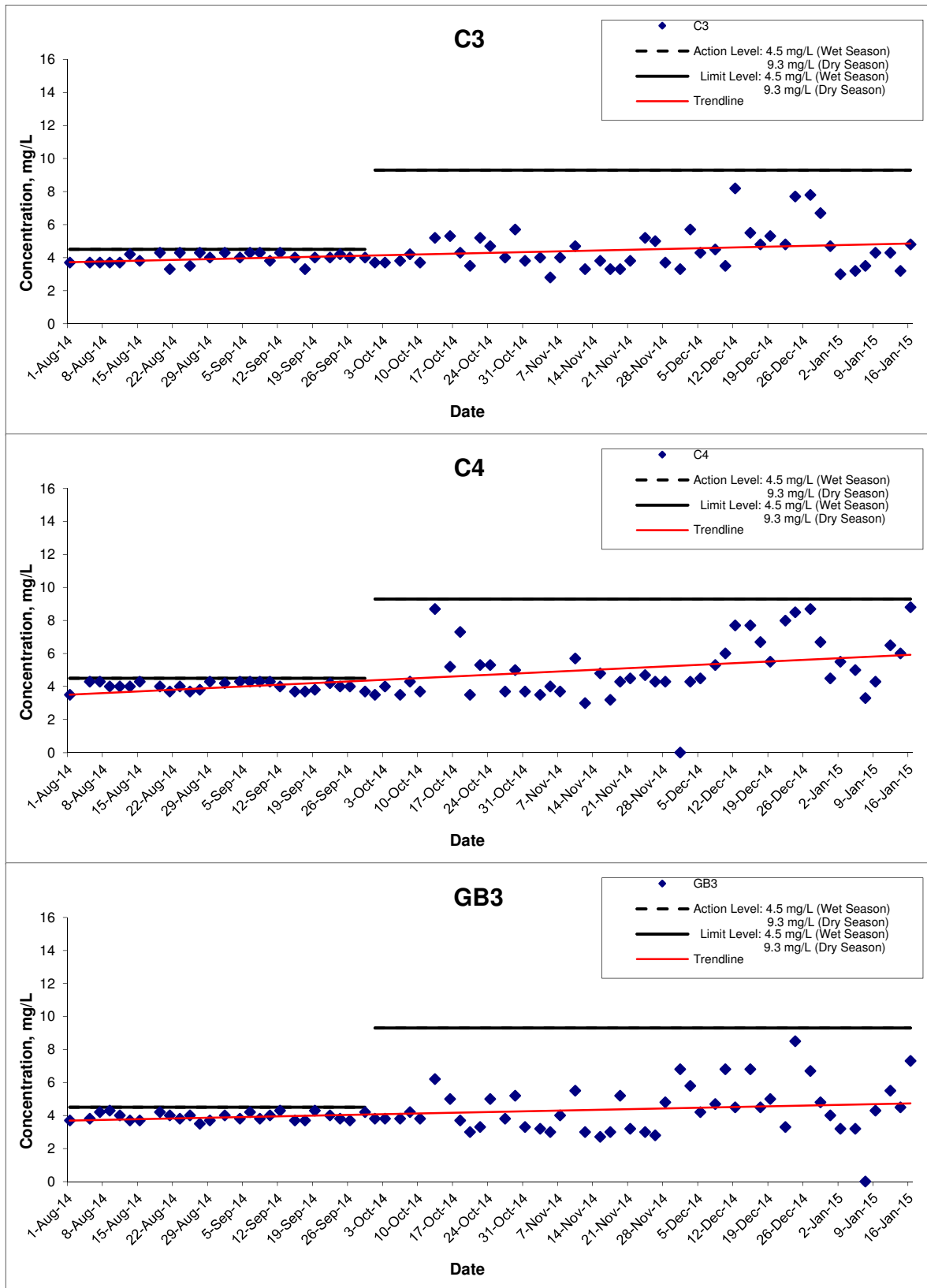
Suspended Solids (Depth-averaged) at Mid-Ebb Tide



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Title Shatin to Central Link – Contract 11227 Advance Works for NSL Cross Harbour Tunnels Graphical Presentation of Water Quality Monitoring Results (Victoria Harbour)	Scale	N.T.S	Project No. MA14028	CINOTECH
	Date	Jan 15	Appendix D	

Suspended Solids (Depth-averaged) at Mid-Flood Tide



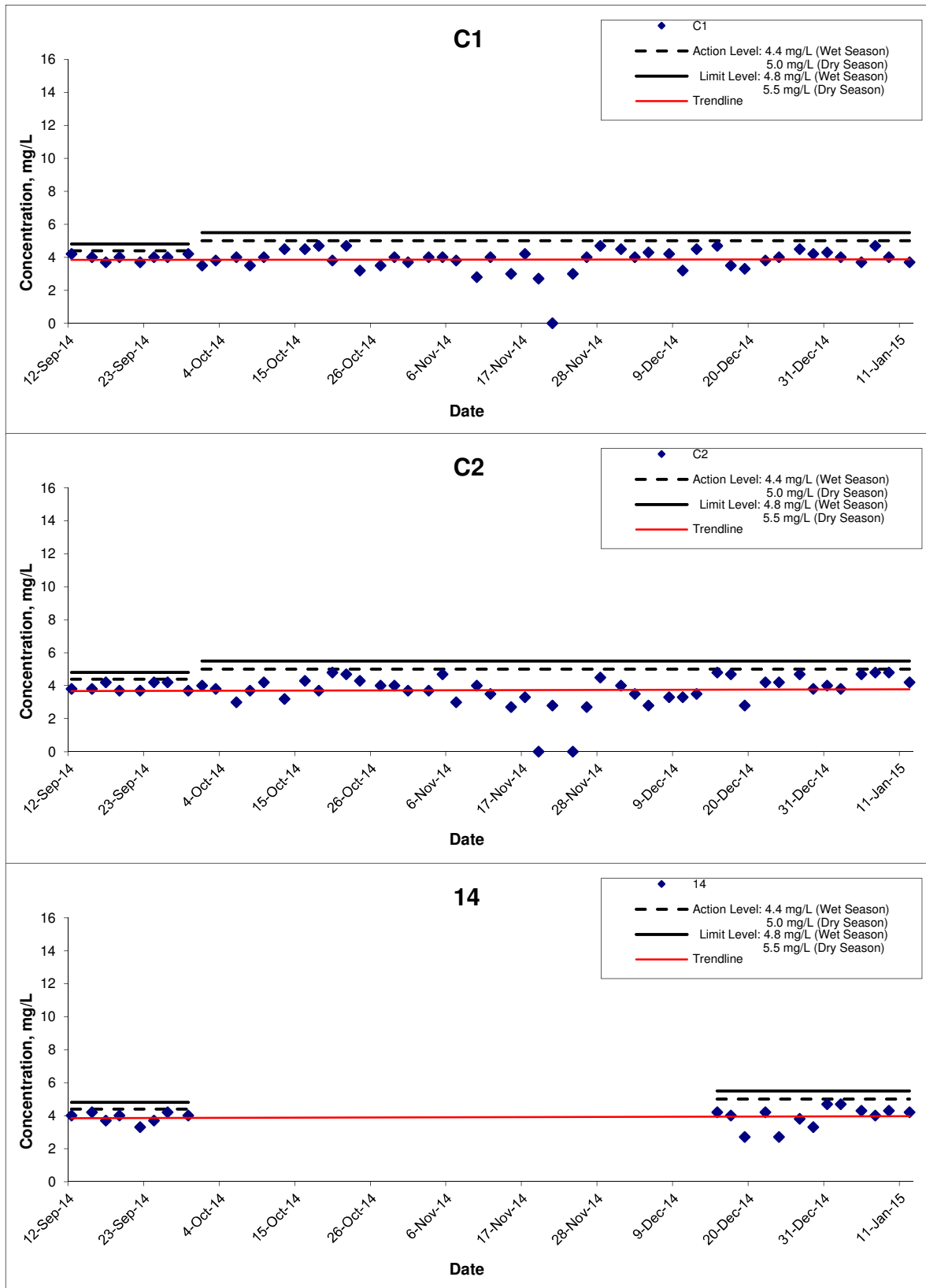
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 Advance Works for NSL Cross Harbour Tunnels
 Graphical Presentation of Water Quality Monitoring
 Results (Shek O)

Scale
 N.T.S
 Date
 Jan 15

Project
 No. MA14028
 Appendix
 D



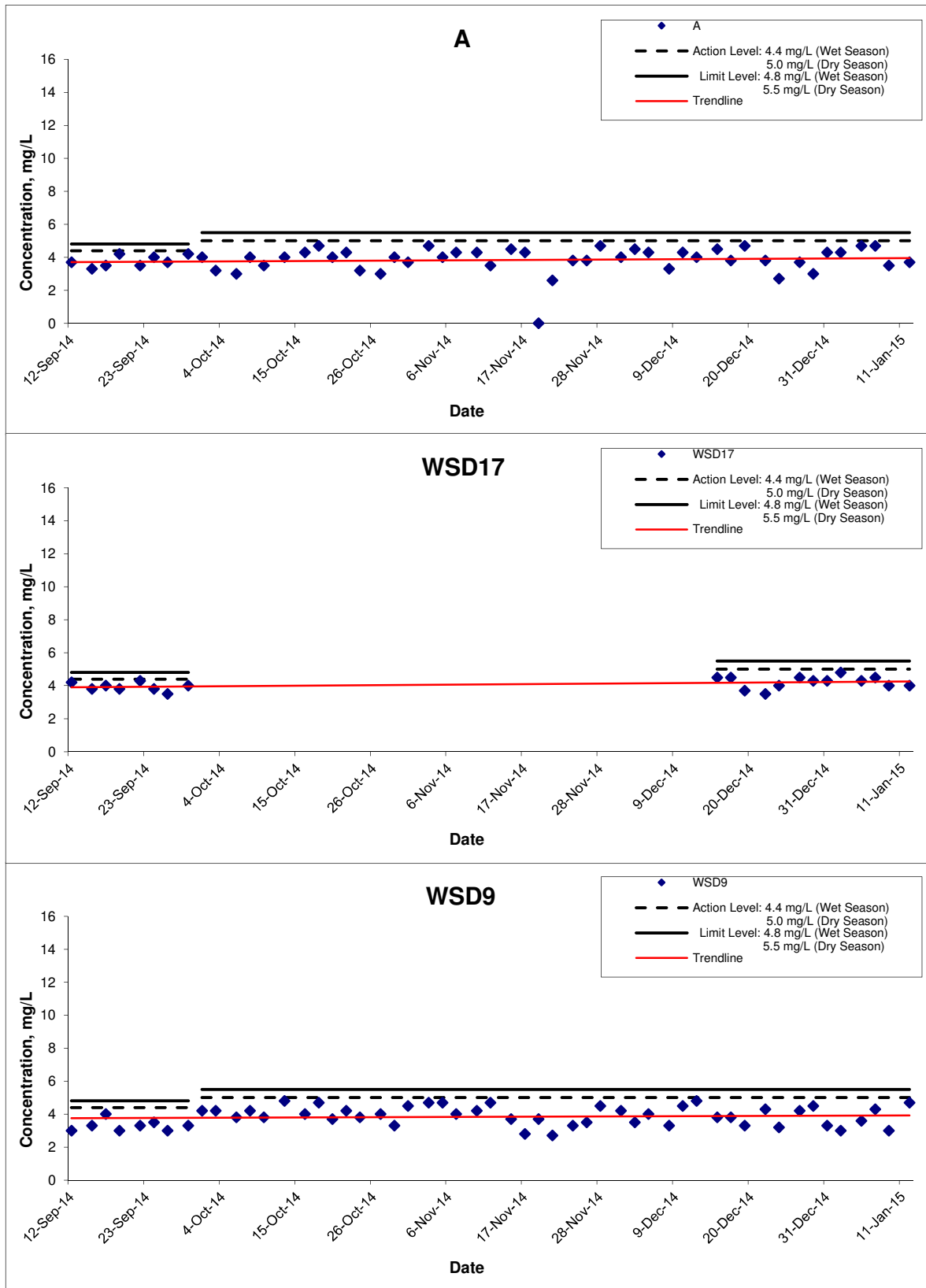
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Title Shatin to Central Link – Contract 11227 Advance Works for NSL Cross Harbour Tunnels Graphical Presentation of Water Quality Monitoring Results (Victoria Harbour)	Scale N.T.S	Project No. MA14028	CINOTECH
	Date Jan 15	Appendix D	

Suspended Solids (Depth-averaged) at Mid-Flood Tide



Remarks: The graphical point at zero concentration is presented as <2.5 mg/L

Title Shatin to Central Link – Contract 11227 Advance Works for NSL Cross Harbour Tunnels Graphical Presentation of Water Quality Monitoring Results (Victoria Harbour)	Scale N.T.S	Project No. MA14028	CINOTECH
	Date Jan 15	Appendix D	

Appendix J

Summary of Waste Flow Table

Appendix J - Summary of Waste Flow

Works Contract 1121 - NSL Cross Harbour Tunnels

Contract No: SCL1121 Monthly Summary Waste Flow Table for 2015 (year)
 Date Reported: December 2015

Month	Actual Quantities of Inert C&D Materials Generated Monthly								Actual Quantities of Non-inert C&D Wastes Generated Monthly				
	Total Quantity Generated	Hard Rocks and Large Broken Concrete (See Note 3)	Reused in the Contract	Reused in other Projects	Disposed as Public Fill	Imported Fill from 1111	Imported Fill from 1112	Delivered to Hong Hum Barging Point and disposed by 1112* [Note: (5)]	Metals	Paper/ cardboard packaging	Plastics (see Note 2)	Chemical Waste	Others, e.g. general refuse
	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000tonne)
Jan	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Feb	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Mar	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Apr	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.005
May	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.007
June	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.015
July	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.0932	0.000	0.000	0.000	0.000	0.010
Aug	0.048	0.000	0.000	23.673	0.000	5.695	18.415	0.000	0.000	0.000	0.000	0.000	0.035
Sept	0.981	0.000	0.000	18.842	0.000	5.748	13.163	N/A	0.000	0.22	0.000	0.000	0.025
Oct	1.514	0.000	0.000	23.126	0.000	7.106	14.189		0.000	0.000	0.000	0.000	0.018
Nov	1.265	0.000	0.000	13.810	0.000	6.210	7.019		27.22	0.000	0.000	0.000	0.060
Dec	1.280	0.000	0.000	18.721	0.000	5.933	9.811		0.000	0.000	0.000	0.000	0.064
Total	5.088	0.000	0.000	98.172	0.000	30.692	62.597	0.0932	27.22	0.22	0.000	0.000	.239

Notes:

- (1) The performance targets are given below:
 - All excavated materials to be sorted for recovering the inert portion of C&D materials, e.g. hard rocks, soil and broken concrete, for reuse on the Site or disposal to designated outlets;
 - All metallic waste to be recovered for collection by recycling contractors;
 - All cardboard and paper packaging (for plant, equipment and materials) to be recovered, properly stockpiled in dry and covered condition to prevent cross contamination;
 - All chemical wastes to be collected and properly disposed of by specialist contractors; and
 - All demolition debris to be stored to recover broken concrete, reinforcement bars, mechanical and electrical fittings, hardware as well as other fitting / materials that have established recycling outlets.
- (2) Plastics refer to plastic bottles/containers, plastic sheets/foam from packaging material.
- (3) Broken concrete for recycling into aggregates.
- (4) The waste flow table shall also include C&D materials that are specified in the Contract to be imported for use at the Site.
- (5) “*” The inert C&D was delivered to the Hong Hum Barging Point and disposed by 1112.



Monthly Summary of Marine Sediment Flow for 2015 (year)

Contract No: SCL1121
Date Reported: December 2015

Month	Volume of Sediments Generated Monthly Bulk Volume)															
	Type 1 – Open Sea Disposal				Type 1 – Open Sea Disposal (Dedicated Site)				Type 2 – Confined Marine Disposal				Type 3 – Special Treatment Disposal			
	Generated from 1111	Generated from 1112	Generated from 1121	Disposed	Generated from 1111	Generated from 1112	Generated from 1121	Disposed	Generated from 1111	Generated from 1112	Generated from 1121	Disposed	Generated from 1111	Generated from 1112	Generated from 1121	Disposed
Unit	(in '000m ³)				(in '000m ³)				(in '000m ³)				(in '000m ³)			
Jan	0.000	0.000	0.000	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Feb	0.000	0.000	0.000	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Mar	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Apr	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
May	0.000	0.000	9.535	9.535	0.000	0.000	0.000	0.000	0.000	0.000	6.583	6.583	0.000	0.000	0.000	0.000
June	0.000	0.000	3.190	3.190	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Sub-Total	0.00	0.00	12.725	12.725	0.00	0.00	0.00	0.00	0.00	0.00	6.538	6.538	0.00	0.00	0.00	0.00
July	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Aug	6.941	0.000	0.000	6.306	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Sept	5.542	0.000	0.000	6.176	0.000	0.000	0.000	0.000	0.000	1.942	0.000	1.542	0.000	0.000	0.000	0.000
Oct	5.675	0.528	0.000	5.538	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Nov	3.984	5.668	0.000	9.696	0.000	0.000	0.000	0.000	0.000	2.323	0.829	3.552	0.000	0.000	0.000	0.000
Dec	1.140	14.440	0.000	15.633	0.000	0.000	0.000	0.000	0.000	1.022	0.000	0.736	0.000	0.000	0.000	0.000
Total	23.282	20.636	12.725	56.075	0.000	0.000	0.000	0.000	0.000	5.287	7.412	12.368	0.000	0.000	0.000	0.000

Monthly Summary Waste Flow Table for 2016 (year)

Contract No: SCL1121
Date Reported: December 2016

Month	Actual Quantities of Inert C&D Materials Generated Monthly										Actual Quantities of Non-inert C&D Wastes Generated Monthly				
	Total Quantity Generated	Hard Rocks and Large Broken Concrete (See Note 3)	Reused in the Contract	Reused in other Projects	Disposed as Public Fill	Imported Fill from 1111	Imported Fill from 1112	Imported Fill from 1114	Imported Fill from 1123	Imported Fill from 1128	Metals	Paper/ cardboard packaging	Plastics (see Note 2)	Chemical Waste	Others, e.g. general refuse
	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000kg)	(in '000kg)	(in '000kg)	(in'000kg)	(in '000tonne)
Jan	0.531	0.000	0.000	19.544	0.000	7.242	13.218	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.111
Feb	0.308	0.000	0.000	8.572	0.000	3.812	4.306	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.081
Mar	0.2	0.000	0.000	8.095	0.000	4.132	3.478	0.000	0.000	0.000	0.000	0.462	0.000	0.000	0.123
Apr	0.66	0.000	0.000	16.374	0.000	3.691	11.359	0.000	0.000	0.000	0.000	0.377	0.000	0.000	0.171
May	5.795	0.000	0.000	1.47	0.124	1.728	2.080	0.000	0.000	0.000	0.000	0.363	0.000	0.000	0.185
June	1.15	0.000	0.000	4.377	0.000	2.627	2.381	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.204
July	5.509	0.000	0.000	7.743	0.000	1.209	8.502	0.000	0.000	0.000	0.000	0.307	0.000	0.000	0.141
Aug	4.915	0.000	0.000	13.977	0.000	0.733	1.953	0.041	0.246	0.015	0.000	0.399	0.000	0.000	0.123
Sept	7.253	0.000	0.000	16.754	0.000	0.275	1.437	0.071	1.404	0.000	0.000	0.000	0.000	0.008	0.142
Oct	14.199	0.000	0.000	17.6	0.000	0.112	3.004	0.013	0.273	0.000	249.210	0.273	0.000	0.000	0.114
Nov	11.196	0.000	0.000	13.451	0.000	0.445	1.290	0.000	0.000	0.000	14.400	0.000	0.000	0.000	0.188
Dec	3.5	0.000	0.000	5.88	0.000	1.286	1.096	0.000	0.000	0.000	167.680	0.000	0.000	0.000	0.2
Total	55.216	0.000	0.000	133.837	0.124	27.292	54.104	0.125	2.196	0.015	430.99	1.601	0.000	0.000	1.783

Notes:

- (1) The performance targets are given below:
 - All excavated materials to be sorted for recovering the inert portion of C&D materials, e.g. hard rocks, soil and broken concrete, for reuse on the Site or disposal to designated outlets;
 - All metallic waste to be recovered for collection by recycling contractors;
 - All cardboard and paper packaging (for plant, equipment and materials) to be recovered, properly stockpiled in dry and covered condition to prevent cross contamination;
 - All chemical wastes to be collected and properly disposed of by specialist contractors; and
 - All demolition debris to be stored to recover broken concrete, reinforcement bars, mechanical and electrical fittings, hardware as well as other fitting / materials that have established recycling outlets.
- (2) Plastics refer to plastic bottles/containers, plastic sheets/foam from packaging material.
- (3) Broken concrete for recycling into aggregates.
- (4) The waste flow table shall also include C&D materials that are specified in the Contract to be imported for use at the Site.
- (5) All the C&D material come from SCL1111, 1112, 1114, 1121, 1123, 1128 will be reused in other project



Monthly Summary of Marine Sediment Flow for 2016 (year)

Contract No: SCL1121
Date Reported: December 2016

Month	Volume of Sediments Generated Monthly Bulk Volume)																
	Type 1 – Open Sea Disposal					Type 1 – Open Sea Disposal (Dedicated Site)					Type 2 – Confined Marine Disposal					Type 3 – Special Treatment Disposal	
	Generated from 1111	Generated from 1112	Generated from 1121	Generated from 1128	Disposed	Generated from 1111	Generated from 1112	Generated from 1121	Generated from 1128	Disposed	Generated from 1111	Generated from 1112	Generated from 1121	Generated from 1128	Disposed	Generated from 1121	Disposed
Unit	(in '000m ³)					(in '000m ³)					(in '000m ³)					(in '000m ³)	
Jan	0.013	16.584	5.342	N/A	21.801	0	0	0	N/A	0	0	0.019	21.339	N/A	21.339	0	0
Feb	0.003	1.253	10.172		11.566	0	0	0		0	0	4.041	11.611		15.152	0	0
Mar	0	3.850	10.842		14.694	0	0	0		0	0	2.298	29.771		32.087	0	0
Apr	0	0	6.253		6.253	0	0	6.825		6.825	0	0.358	31.814		31.814	0.557	0.557
May	0	0	12.046		12.046	0	0	1.675		1.675	0	4.057	31.508		35.838	0.441	0.441
June	0	0	6.775	0.148	6.775	0	0	0	0	0	6.4472	33.845	0.031	40.365	0	0	
Sub-Total	0.016	21.687	51.43	0.148	73.135	0	0	8.5	0	8.5	0	17.220	159.888	0.031	176.595	0.998	0.998
July	0	0	27.008	0.0475	27.056	0	0	0	0	0	0	0	20.254	0.0464	20.254	0	0
Aug	0	0	15.213	0	15.213	0	0	0	0	0	0	0	12.034	0.008	12.034	0	0
Sept	0	0	36.996	0	36.996	0	0	0	0	0	0	0	5.272	0	5.272	0	0
Oct	0	0	0	0	0	0	0	0	0	0	0	0	11.318	0	11.318	0	0
Nov	0	0	1.103	0	1.103	0	0	0	0	0	0	0	20.702	0	20.702	1.996	1.996
Dec	0	0	2.266	0	2.266	0	0	0	0	0	0	0	48.76	0	48.76	1.497	1.497
Total	0.016	21.687	134.016	0.196	155.669	0	0	8.5	0	8.5	0	17.220	278.228	0.0774	294.935	4.491	4.491

Monthly Summary Waste Flow Table for 2017 (year)

Contract No: SCL1121
Date Reported: December 2017

Month	Actual Quantities of Inert C&D Materials Generated Monthly										Actual Quantities of Non-inert C&D Wastes Generated Monthly				
	Total Quantity Generated	Hard Rocks and Large Broken Concrete (See Note 3)	Reused in the Contract	Reused in other Projects	Disposed as Public Fill	Imported Fill from 1111	Imported Fill from 1112	Imported Fill from 1114	Imported Fill from 1123	Imported Fill from 1128	Metals	Paper/ cardboard packaging	Plastics (see Note 2)	Chemical Waste	Others, e.g. general refuse
	(in '000m ³)	(in '000tonne)	(in '000m ³)	(in '000m ³)	(in '000tonne)	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000kg)	(in '000kg)	(in '000kg)	(in'000kg)	(in '000tonne)
Jan	10.211	0.000	0.000	8.265	0.000	0.963	2.191	0.004	0.000	0.000	0.000	0.346	0.000	0.000	0.190
Feb	1.046	0.000	0.000	1.325	0.000	0.766	1.036	0.000	0.000	0.000	0.000	0.210	0.000	0.000	0.111
Mar	0.207	0.000	0.000	1.764	0.000	0.664	0.893	0.000	0.000	0.000	0.000	0.418	0.000	0.000	0.264
Apr	0.322	0.308	0.000	1.563	0.308	0.716	0.832	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.120
May	0.764	0.693	0.000	1.669	0.693	0.402	1.231	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.067
June	2.582	2.582	0.000	0.975	2.582	0.278	0.697	0.000	0.000	0.000	0.000	0.000	0.000	0.200	0.082
July	0.028	0.016	0.000	2.033	0.016	0.296	0.985	0.000	0.000	0.735	0.000	0.000	0.000	0.000	0.077
Aug	0.059	0.000	0.000	1.789	0.000	0.204	0.632	0.000	0.000	0.000	0.452	0.534	0.000	0.000	0.257
Sept	0.046	0.000	0.000	1.226	0.000	0.975	0.205	0.000	0.000	0.000	0.000	0.314	0.000	0.000	0.121
Oct	0.083	0.000	0.000	1.871	0.000	1.537	0.250	0.000	0.000	0.000	0.000	0.000	0.000	1.000	0.070
Nov	2.473	3.709	1.21	1.864	0.000	1.234	0.657	0.000	0.000	0.000	0.000	0.297	0.000	0.000	0.156
Dec	2.838	7.640	2.056	1.463	0.000	0.757	0.913	0.000	0.000	0.000	0.000	0.000	0.000	1.378	0.129
Total	19.991	13.103	3.266	25.807	3.599	8.792	10.52	0.004	0	0.735	0.452	2.119	0	2.578	1.644

Notes:

- (1) The performance targets are given below:
 - All excavated materials to be sorted for recovering the inert portion of C&D materials, e.g. hard rocks, soil and broken concrete, for reuse on the Site or disposal to designated outlets;
 - All metallic waste to be recovered for collection by recycling contractors;
 - All cardboard and paper packaging (for plant, equipment and materials) to be recovered, properly stockpiled in dry and covered condition to prevent cross contamination;
 - All chemical wastes to be collected and properly disposed of by specialist contractors; and
 - All demolition debris to be stored to recover broken concrete, reinforcement bars, mechanical and electrical fittings, hardware as well as other fitting / materials that have established recycling outlets.
- (2) Plastics refer to plastic bottles/containers, plastic sheets/foam from packaging material.
- (3) Broken concrete for recycling into aggregates.
- (4) The waste flow table shall also include C&D materials that are specified in the Contract to be imported for use at the Site.
- (5) All the C&D material come from SCL1111, 1112, 1114, 1121, 1123, 1128 will be reused in other project



Monthly Summary of Marine Sediment Flow for 2017 (year)

Contract No: SCL1121
Date Reported: December 2017

Month	Volume of Sediments Generated Monthly Bulk Volume)																
	Type 1 – Open Sea Disposal					Type 1 – Open Sea Disposal (Dedicated Site)					Type 2 – Confined Marine Disposal					Type 3 – Special Treatment Disposal	
	Generated from 1111	Generated from 1112	Generated from 1121	Generated from 1128	Disposed	Generated from 1111	Generated from 1112	Generated from 1121	Generated from 1128	Disposed	Generated from 1111	Generated from 1112	Generated from 1121	Generated from 1128	Disposed	Generated from 1121	Disposed
Unit	(in '000m ³)					(in '000m ³)					(in '000m ³)					(in '000m ³)	
Jan	0.000	0.000	7.472	0.000	7.472	0.000	0.000	0.000	0.000	0.000	0.000	0.000	29.228	0.000	29.228	2.495	2.495
Feb	0.000	0.000	1.150	0.000	1.150	0.000	0.000	0.000	0.000	0.000	0.000	0.000	16.739	0.000	16.739	0.000	0.000
Mar	0.000	0.000	6.679	0.000	6.679	0.000	0.000	0.000	0.000	0.000	0.000	0.000	5.726	0.000	5.726	0.000	0.000
Apr	0.000	0.000	5.416	0.000	5.416	0.000	0.000	0.000	0.000	0.000	0.000	0.000	2.071	0.000	2.071	0.000	0.000
May	0.000	0.000	6.640	0.000	6.640	0.000	0.000	0.000	0.000	0.000	0.000	0.000	3.923	0.000	3.923	0.000	0.000
June	0.000	0.000	14.182	0.000	14.182	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.116	0.000	1.116	0.000	0.000
Sub-Total	0.000	0.000	41.539	0.000	41.539	0.000	0.000	0.000	0.000	0.000	0.000	0.000	58.803	0.000	58.803	2.495	2.495
July	0.000	0.000	9.473	0.000	9.473	0.000	0.000	0.000	0.000	0.000	0.000	0.000	8.950	0.000	8.950	0.000	0.000
Aug	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	7.337	0.000	7.337	0.000	0.000
Sept	0.000	0.000	4.207	0.000	4.207	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.993	0.000	0.993	0.000	0.000
Oct	0.000	0.000	15.288	0.000	15.288	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Nov	0.000	0.000	7.649	0.000	7.649	0.000	0.000	0.000	0.000	0.000	0.000	0.000	13.579	0.000	13.579	0.000	0.000
Dec	0.000	0.000	9.207	0.000	9.207	0.000	0.000	0.000	0.000	0.000	0.000	0.000	4.615	0.000	4.615	0.000	0.000
Total	0.000	0.000	87.363	0.000	87.363	0.000	0.000	0.000	0.000	0.000	0.000	0.000	94.277	0.000	94.277	2.495	2.495

Monthly Summary Waste Flow Table for 2018 (year)

Contract No: SCL1121
Date Reported: December 2018

Month	Actual Quantities of Inert C&D Materials Generated Monthly										Actual Quantities of Non-inert C&D Wastes Generated Monthly				
	Total Quantity Generated	Hard Rocks and Large Broken Concrete (See Note 3)	Reused in the Contract	Reused in other Projects	Disposed as Public Fill	Imported Fill from 1111	Imported Fill from 1112	Imported Fill from 1114	Imported Fill from 1123	Imported Fill from 1128	Metals	Paper/ cardboard packaging	Plastics (see Note 2)	Chemical Waste	Others, e.g. general refuse
	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000tonne)
Jan	3.026	2.182	1.428	0.253	0	0.979	0.832	0	0	0	235.48	0	0	0	0.170
Feb	0.09	0	4.543	4.191	0	0.173	0.349	0	0	0	37.654	0	0	0	0.08
Mar	2.754	0	0.163	0.003	0	0	0	0	0	0	79.96	4.07	0	0	0.154
Apr	3.546	3.546	0	0	0	0	0	0	0	0	124.25	9.62	0	0	0.141
May	5.86	5.86	0	0	0	0	0	0	0	0	339.21	6.67	0	0	0.150
June	1.446	1.446	0	0	0	0	0	0	0	0	0	2.4	0	0	0.133
July	0.9	0.3	0.6	0	0	0	0	0	0	0	280.08	1.168	0	0	0.126
Aug	0.115	0.1	0.015	0.1	0	0	0	0	0	0	25.49	1.805	0	0	0.142
Sept	0.1	0	0.1	0	0	0	0	0	0	0	60.93	0	0	0	0.0913
Oct	0.24	0.24	0	0.24	0	0	0	0	0	0	224.003	1.825	0	0	0.111
Nov	0.20	0.12	0.08	0.12	0	0	0	0	0	0	0	1.005	0	0	0.117
Dec	0.14	0	0.06	0	0	0	0	0	0	0	1007.8	0	0	0	0.102
Total	18.317	13.668	6.915	4.787	0	1.152	1.181	0	0	0	2014.72	28.563	0	0	1.276

Notes:

- (1) The performance targets are given below:
 - All excavated materials to be sorted for recovering the inert portion of C&D materials, e.g. hard rocks, soil and broken concrete, for reuse on the Site or disposal to designated outlets;
 - All metallic waste to be recovered for collection by recycling contractors;
 - All cardboard and paper packaging (for plant, equipment and materials) to be recovered, properly stockpiled in dry and covered condition to prevent cross contamination;
 - All chemical wastes to be collected and properly disposed of by specialist contractors; and
 - All demolition debris to be stored to recover broken concrete, reinforcement bars, mechanical and electrical fittings, hardware as well as other fitting / materials that have established recycling outlets.
- (2) Plastics refer to plastic bottles/containers, plastic sheets/foam from packaging material.
- (3) Broken concrete for recycling into aggregates.
- (4) The waste flow table shall also include C&D materials that are specified in the Contract to be imported for use at the Site.
- (5) All the C&D material come from SCL1111, 1112, 1114, 1121, 1123, 1128 will be reused in other project



Monthly Summary of Marine Sediment Flow for 2018 (year)

Contract No: SCL1121
Date Reported: December 2018

Month	Volume of Sediments Generated Monthly Bulk Volume)																
	Type 1 – Open Sea Disposal					Type 1 – Open Sea Disposal (Dedicated Site)					Type 2 – Confined Marine Disposal					Type 3 – Special Treatment Disposal	
	Generated from 1111	Generated from 1112	Generated from 1121	Generated from 1128	Disposed	Generated from 1111	Generated from 1112	Generated from 1121	Generated from 1128	Disposed	Generated from 1111	Generated from 1112	Generated from 1121	Generated from 1128	Disposed	Generated from 1121	Disposed
Unit	(in '000m ³)					(in '000m ³)					(in '000m ³)					(in '000m ³)	
Jan	0	0	0.582	0	0.582	0	0	0	0	0	0	0	6.054	0	6.054	0	0
Feb	0	0	4.579	0	4.579	0	0	0	0	0	0	0	0	0	0	0	0
Mar	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
May	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
June	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sub-Total	0	0	5.161	0	5.161	0	0	0	0	0	0	0	6.054	0	6.054	0	0
July	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Aug	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sept	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Oct	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Nov	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dec	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	5.161	0	5.161	0	0	0	0	0	0	0	6.054	0	6.054	0	0

Monthly Summary Waste Flow Table for 2019 (year)

Contract No: SCL1121

Date Reported: December 2019

Month	Actual Quantities of Inert C&D Materials Generated Monthly										Actual Quantities of Non-inert C&D Wastes Generated Monthly				
	Total Quantity Generated	Hard Rocks and Large Broken Concrete (See Note 3)	Reused in the Contract	Reused in other Projects	Disposed as Public Fill	Imported Fill from 1111	Imported Fill from 1112	Imported Fill from 1114	Imported Fill from 1123	Imported Fill from 1128	Metals	Paper/ cardboard packaging	Plastics (see Note 2)	Chemical Waste	Others, e.g. general refuse
	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000tonne)
Jan	1.324	0	1.324	0	0	0	0	0	0	0	0	0	0	0	0.113
Feb	0	0	0	0	0	0	0	0	0	0	0	0.717	0	0	0.052
Mar	0.532	0	0.4	0.132	0	0	0	0	0	0	0	0	0	0	0.114
Apr	0.841	0	0	0.841	0	0	0	0	0	0	0	1.302	0	0	0.100
May	1.216	0	1.216	0	0	0	0	0	0	0	59.78	1.26	0	0	0.0614
June	2.048	0	2.048	0	0	0	0	0	0	0	0	1.42	0	0	0.014
July	0.107	0	0	0	0.107	0	0	0	0	0	58.08	1.59	0	1.12	0.05285
Aug	0.0678	0	0	0	0.0678	0	0	0	0	0	9.45	3.083	0	0	0.0248
Sept	0.0126	0	0	0	0.0126	0	0	0	0	0	0	2.711	0	0	0.0237
Oct	0.1402	0	0	0	0.1402	0	0	0	0	0	29.12	2.556	0	0	0.0426
Nov	0.1348	0	0	0	0.1348	0	0	0	0	0	17.74	1.425	0	0	0.027
Dec	0	0	0	0	0	0	0	0	0	0	42.34	2.751	0	0	0.02734
Total	6.4234	0	4.988	0.973	0.4624	0	0	0	0	0	216.51	18.815	0	1.12	0.65269

Notes:

- (1) The performance targets are given below:
 - All excavated materials to be sorted for recovering the inert portion of C&D materials, e.g. hard rocks, soil and broken concrete, for reuse on the Site or disposal to designated outlets;
 - All metallic waste to be recovered for collection by recycling contractors;
 - All cardboard and paper packaging (for plant, equipment and materials) to be recovered, properly stockpiled in dry and covered condition to prevent cross contamination;
 - All chemical wastes to be collected and properly disposed of by specialist contractors; and
 - All demolition debris to be stored to recover broken concrete, reinforcement bars, mechanical and electrical fittings, hardware as well as other fitting / materials that have established recycling outlets.
- (2) Plastics refer to plastic bottles/containers, plastic sheets/foam from packaging material.
- (3) Broken concrete for recycling into aggregates.
- (4) The waste flow table shall also include C&D materials that are specified in the Contract to be imported for use at the Site.
- (5) All the C&D material come from SCL1111, 1112, 1114, 1121, 1123, 1128 will be reused in other project

Monthly Summary Waste Flow Table for 2020 (year)

Contract No: SCL1121

Date Reported: Dec 2020

Month	Actual Quantities of Inert C&D Materials Generated Monthly										Actual Quantities of Non-inert C&D Wastes Generated Monthly				
	Total Quantity Generated	Hard Rocks and Large Broken Concrete (See Note 3)	Reused in the Contract	Reused in other Projects	Disposed as Public Fill	Imported Fill from 1111	Imported Fill from 1112	Imported Fill from 1114	Imported Fill from 1123	Imported Fill from 1128	Metals	Paper/ cardboard packaging	Plastics (see Note 2)	Chemical Waste	Others, e.g. general refuse
	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000kg)	(in '000kg)	(in '000kg)	(in'000kg)	(in '000tonne)
Jan	0	0	0	0	0	0	0	0	0	0	3.80	1.354	0	0.138	0.0253
Feb	0	0	0	0	0	0	0	0	0	0	32.86	1.239	0	0	0.0262
Mar	0	0	0	0	0	0	0	0	0	0	24.72	1.410	0	0	0.0554
Apr	0	0	0	0	0	0	0	0	0	0	0	1.063	0	0	0.0254
May	0.0624	0	0	0	0.0624	0	0	0	0	0	0	1.117	0	0	0.0620
June	0.0499	0	0	0	0	0	0	0	0.0499	0	0	1.767	0	0	0.0504
July	0.0116	0	0	0	0.0116	0	0	0	0	0	20.50	1.301	0	0	0.0658
Aug	0.5188	0	0	0	0.0288	0	0	0	0.49	0	25.64	1.223	0	0	0.0285
Sept	0.6330	0	0	0	0.2689	0	0	0	0.3641	0	9.61	2.265	0	0	0.0463
Oct	0.4043	0	0	0	0.4043	0	0	0	0	0	14.85	1.204	0.28	0	0.0532
Nov	0.3053	0	0	0	0.3053	0	0	0	0	0	4.05	1.289	0	0	0.0507
Dec	0.0338	0	0	0	0.0338	0	0	0	0	0	4.07	1.272	0	0	0.0272
Total	2.0191	0	0	0	1.1151	0	0	0	0.9040	0	140.1	16.504	0.28	0.138	0.5164

Notes:

- (1) The performance targets are given below:
 - All excavated materials to be sorted for recovering the inert portion of C&D materials, e.g. hard rocks, soil and broken concrete, for reuse on the Site or disposal to designated outlets;
 - All metallic waste to be recovered for collection by recycling contractors;
 - All cardboard and paper packaging (for plant, equipment and materials) to be recovered, properly stockpiled in dry and covered condition to prevent cross contamination;
 - All chemical wastes to be collected and properly disposed of by specialist contractors; and
 - All demolition debris to be stored to recover broken concrete, reinforcement bars, mechanical and electrical fittings, hardware as well as other fitting / materials that have established recycling outlets.
- (2) Plastics refer to plastic bottles/containers, plastic sheets/foam from packaging material.
- (3) Broken concrete for recycling into aggregates.
- (4) The waste flow table shall also include C&D materials that are specified in the Contract to be imported for use at the Site.
- (5) All the C&D material come from SCL1111, 1112, 1114, 1121, 1123, 1128 will be reused in other project

Monthly Summary Waste Flow Table for 2021 (year)

Contract No: SCL1121

Date Reported: Dec 2021

Month	Actual Quantities of Inert C&D Materials Generated Monthly										Actual Quantities of Non-inert C&D Wastes Generated Monthly				
	Total Quantity Generated	Hard Rocks and Large Broken Concrete (See Note 3)	Reused in the Contract	Reused in other Projects	Disposed as Public Fill	Imported Fill from 1111	Imported Fill from 1112	Imported Fill from 1114	Imported Fill from 1123	Imported Fill from 1128	Metals	Paper/ cardboard packaging	Plastics (see Note 2)	Chemical Waste	Others, e.g. general refuse
	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000kg)	(in '000kg)	(in '000kg)	(in'000kg)	(in '000tonne)
Jan	0.1902	0	0	0	0.1902	0	0	0	0	0	2.36	0.667	0	0	0.0352
Feb	0.2086	0	0	0	0.2086	0	0	0	0	0	2.11	1.684	0	0	0.0262
Mar	0.0312	0	0	0	0.0312	0	0	0	0	0	1.30	9.379	0	0	0.0268
Apr	0.0835	0	0	0	0.0835	0	0	0	0	0	4.84	1.183	0	0	0.0205
May	0.1145	0	0	0	0.1145	0	0	0	0	0	24.27	1.028	0	0	0.0256
June	0.0373	0	0	0	0.0373	0	0	0	0	0	0	1.049	0	0	0.0136
July	0.0487	0	0	0	0.0487	0	0	0	0	0	4.26	0.958	0	0	0.0251
Aug	0.2484	0	0	0	0.2484	0	0	0	0	0	6.36	6.552	0	0	0.0348
Sept	0.0413	0	0	0	0.0413	0	0	0	0	0	1.00	3.641	0	0	0.0263
Oct	0.0177	0	0	0	0.0177	0	0	0	0	0	3.31	1.287	0	0	0.0098
Nov	0.1022	0	0	0	0.1022	0	0	0	0	0	11.41	1.913	0.8	0	0.0166
Dec	0.0000	0	0	0	0.0000	0	0	0	0	0	13.57	2.480	0	0	0.0051
Total	1.1236	0	0	0	1.1236	0	0	0	0	0	74.79	31.821	0.8	0	0.2656

Notes:

- (1) The performance targets are given below:
 - All excavated materials to be sorted for recovering the inert portion of C&D materials, e.g. hard rocks, soil and broken concrete, for reuse on the Site or disposal to designated outlets;
 - All metallic waste to be recovered for collection by recycling contractors;
 - All cardboard and paper packaging (for plant, equipment and materials) to be recovered, properly stockpiled in dry and covered condition to prevent cross contamination;
 - All chemical wastes to be collected and properly disposed of by specialist contractors; and
 - All demolition debris to be stored to recover broken concrete, reinforcement bars, mechanical and electrical fittings, hardware as well as other fitting / materials that have established recycling outlets.
- (2) Plastics refer to plastic bottles/containers, plastic sheets/foam from packaging material.
- (3) Broken concrete for recycling into aggregates.
- (4) The waste flow table shall also include C&D materials that are specified in the Contract to be imported for use at the Site.
- (5) All the C&D material come from SCL1111, 1112, 1114, 1121, 1123, 1128 will be reused in other project

Monthly Summary Waste Flow Table for 2022 (year)

Contract No: SCL1121

Date Reported: Jan 2022

Month	Actual Quantities of Inert C&D Materials Generated Monthly										Actual Quantities of Non-inert C&D Wastes Generated Monthly				
	Total Quantity Generated	Hard Rocks and Large Broken Concrete (See Note 3)	Reused in the Contract	Reused in other Projects	Disposed as Public Fill	Imported Fill from 1111	Imported Fill from 1112	Imported Fill from 1114	Imported Fill from 1123	Imported Fill from 1128	Metals	Paper/ cardboard packaging	Plastics (see Note 2)	Chemical Waste	Others, e.g. general refuse
	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000tonne)
Jan	0	0	0	0	0	0	0	0	0	0	6.45	0.000	0.2	0	0.0138
Feb															
Mar															
Apr															
May															
June															
July															
Aug															
Sept															
Oct															
Nov															
Dec															
Total	0.0000	0	0	0	0.0000	0	0	0	0	0	6.45	0.0	0.2	0	0.0138

Notes:

- (1) The performance targets are given below:
 - All excavated materials to be sorted for recovering the inert portion of C&D materials, e.g. hard rocks, soil and broken concrete, for reuse on the Site or disposal to designated outlets;
 - All metallic waste to be recovered for collection by recycling contractors;
 - All cardboard and paper packaging (for plant, equipment and materials) to be recovered, properly stockpiled in dry and covered condition to prevent cross contamination;
 - All chemical wastes to be collected and properly disposed of by specialist contractors; and
 - All demolition debris to be stored to recover broken concrete, reinforcement bars, mechanical and electrical fittings, hardware as well as other fitting / materials that have established recycling outlets.
- (2) Plastics refer to plastic bottles/containers, plastic sheets/foam from packaging material.
- (3) Broken concrete for recycling into aggregates.
- (4) The waste flow table shall also include C&D materials that are specified in the Contract to be imported for use at the Site.
- (5) All the C&D material come from SCL1111, 1112, 1114, 1121, 1123, 1128 will be reused in other project

Works Contract 1122 - Admiralty South Overrun Tunnel

Summary of Waste Flow Table in the Construction Phase

Reporting Year 2016											
Month	Actual Quantities of Inert C&D Materials Generated Monthly						Actual Quantities of C&D Wastes Generated Monthly				
	Total Quantity Generated	Hard Rock and Large Broken Concrete	Reused in the Contract	Reused in Other Projects	Disposed as Public Fill	Imported Fill	Metals	Paper / Cardboard Packaging	Plastics	Chemical Waste	Others, e.g. general refuse
	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000m ³)
January	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
February	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
March	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
April	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
May	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
June	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Sub-total	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
July	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
August	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.029
September	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.065
October	0.012	0.000	0.000	0.000	0.012	0.000	0.000	0.000	0.000	0.000	0.102
November	6.815	0.000	0.000	6.815	0.000	0.000	0.000	0.000	0.000	0.000	0.023
December	12.904	0.000	0.000	12.904	0.000	0.000	0.000	0.000	0.000	0.600	0.018
Total	19.731	0.000	0.000	19.719	0.012	0.000	0.000	0.000	0.000	0.600	0.237

Reporting Year 2017											
Month	Actual Quantities of Inert C&D Materials Generated Monthly						Actual Quantities of C&D Wastes Generated Monthly				
	Total Quantity Generated	Hard Rock and Large Broken Concrete	Reused in the Contract	Reused in Other Projects	Disposed as Public Fill	Imported Fill	Metals	Paper / Cardboard Packaging	Plastics	Chemical Waste	Others, e.g. general refuse
	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000m ³)
January	10.039	0.000	0.000	10.031	0.007	0.000	0.000	0.000	0.000	1.000	0.022
February	13.474	0.000	0.000	13.474	0.000	0.000	0.001	0.000	0.000	0.000	0.028
March	12.871	0.000	0.000	12.871	0.000	0.000	0.000	0.000	0.000	0.000	0.024
April	11.836	0.000	0.000	11.836	0.000	0.000	0.000	0.000	0.000	0.600	0.012
May	10.822	0.000	0.000	10.822	0.000	0.000	0.000	0.000	0.000	0.800	0.020
June	7.663	0.000	0.000	7.663	0.000	0.000	0.000	0.000	0.000	0.400	0.025
Sub-total	66.705	0.000	0.000	66.697	0.007	0.000	0.001	0.000	0.000	2.800	0.132
July	0.663	0.000	0.000	0.201	0.462	0.000	0.000	0.000	0.000	0.200	0.023
August	1.662	0.000	0.000	0.863	0.799	0.000	0.000	0.000	0.000	0.000	0.028
September	0.746	0.000	0.000	0.604	0.141	0.000	0.000	0.000	0.000	0.600	0.041
October	0.050	0.000	0.000	0.000	0.050	0.000	0.000	0.000	0.000	0.000	0.054
November	0.198	0.000	0.000	0.000	0.198	0.000	0.000	0.000	0.000	0.400	0.042
December	0.275	0.000	0.000	0.000	0.275	0.000	0.000	0.000	0.000	0.000	0.024
Total	70.298	0.000	0.000	68.365	1.933	0.000	0.001	0.000	0.000	4.000	0.345

Assumption: The densities of Rock, Soil, Mixed Rock and Soil, and Regular Spoil are 2.0 ton/m³; the density of general refuse is 1.0 ton/m³; the density of waste oil is 1.0 ton/m³.

Reporting Year 2018											
Month	Actual Quantities of Inert C&D Materials Generated Monthly						Actual Quantities of C&D Wastes Generated Monthly				
	Total Quantity Generated	Hard Rock and Large Broken Concrete	Reused in the Contract	Reused in Other Projects	Disposed as Public Fill	Imported Fill	Metals	Paper / Cardboard Packaging	Plastics	Chemical Waste	Others, e.g. general refuse
	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000m ³)
January	0.212	0.000	0.000	0.000	0.212	0.000	0.000	0.000	0.000	0.200	0.039
February	0.139	0.000	0.000	0.000	0.139	0.000	0.000	0.000	0.000	0.000	0.035
March	0.095	0.000	0.000	0.000	0.095	0.000	0.000	0.000	0.000	0.000	0.025
April	0.156	0.000	0.000	0.000	0.156	0.000	0.000	0.000	0.000	0.000	0.044
May	0.094	0.000	0.000	0.000	0.094	0.000	0.000	0.000	0.000	0.400	0.029
June	0.278	0.000	0.000	0.000	0.278	0.000	0.000	0.000	0.000	0.000	0.030
Sub-total	0.974	0.000	0.000	0.000	0.974	0.000	0.000	0.000	0.000	0.600	0.202
July	0.218	0.000	0.000	0.000	0.218	0.000	0.000	0.000	0.000	0.000	0.027
August	0.072	0.000	0.000	0.000	0.072	0.000	0.000	0.000	0.000	0.000	0.029
September	0.093	0.000	0.000	0.000	0.093	0.000	0.000	0.000	0.000	0.400	0.020
October	0.119	0.000	0.000	0.000	0.119	0.000	0.000	0.000	0.000	0.000	0.014
November	0.150	0.000	0.000	0.000	0.150	0.000	0.000	0.000	0.000	0.000	0.016
December	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.020
Total	1.626	0.000	0.000	0.000	1.626	0.000	0.000	0.000	0.000	1.000	0.328

Reporting Year 2019											
Month	Actual Quantities of Inert C&D Materials Generated Monthly						Actual Quantities of C&D Wastes Generated Monthly				
	Total Quantity Generated	Hard Rock and Large Broken Concrete	Reused in the Contract	Reused in Other Projects	Disposed as Public Fill	Imported Fill	Metals	Paper / Cardboard Packaging	Plastics	Chemical Waste	Others, e.g. general refuse
	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000m ³)
January	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.023
February	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.400	0.022
March	0.002	0.000	0.000	0.000	0.002	0.000	0.000	0.000	0.000	0.000	0.025
April	0.034	0.000	0.000	0.000	0.034	0.000	0.000	0.000	0.000	0.000	0.004
May	0.092	0.000	0.000	0.000	0.092	0.000	0.000	0.000	0.000	0.000	0.017
June	0.104	0.000	0.000	0.000	0.104	0.000	0.000	0.000	0.000	0.000	0.031
Sub-total	0.232	0.000	0.000	0.000	0.232	0.000	0.000	0.000	0.000	0.400	0.122
July	0.357	0.000	0.000	0.000	0.357	0.000	0.000	0.000	0.000	0.000	0.063
August	0.036	0.000	0.000	0.000	0.036	0.000	0.000	0.000	0.000	0.000	0.025
September	0.002	0.000	0.000	0.000	0.002	0.000	0.000	0.000	0.000	0.000	0.031
October	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.007
November	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.004
December	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001
Total	0.627	0.000	0.000	0.000	0.627	0.000	0.000	0.000	0.000	0.400	0.253

Assumption: The densities of Rock, Soil, Mixed Rock and Soil, and Regular Spoil are 2.0 ton/m³; the density of general refuse is 1.0 ton/m³; the density of waste oil is 1.0 ton/m³.

Reporting Year 2020											
Month	Actual Quantities of Inert C&D Materials Generated Monthly						Actual Quantities of C&D Wastes Generated Monthly				
	Total Quantity Generated	Hard Rock and Large Broken Concrete	Reused in the Contract	Reused in Other Projects	Disposed as Public Fill	Imported Fill	Metals	Paper / Cardboard Packaging	Plastics	Chemical Waste	Others, e.g. general refuse
	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000m ³)
Jan	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.010
Feb	0.023	0.000	0.000	0.000	0.023	0.000	0.000	0.000	0.000	0.000	0.004
Mar	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.006
Apr	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.011
May	0.009	0.000	0.000	0.000	0.009	0.000	0.000	0.000	0.000	0.000	0.028
Jun	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.015
Sub-total	0.033	0.000	0.000	0.000	0.033	0.000	0.000	0.000	0.000	0.000	0.075
Jul	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.005
Aug	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002
Sep	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002
Oct	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002
Nov	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001
Dec	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.005
Total	0.033	0.000	0.000	0.000	0.033	0.000	0.000	0.000	0.000	0.000	0.092

Summary of Construction Waste Generated in the Construction Phase											
Year	Actual Quantities of Inert C&D Materials Generated Monthly						Actual Quantities of C&D Wastes Generated Monthly				
	Total Quantity Generated	Hard Rock and Large Broken Concrete	Reused in the Contract	Reused in Other Projects	Disposed as Public Fill	Imported Fill	Metals	Paper / Cardboard Packaging	Plastics	Chemical Waste	Others, e.g. general refuse
	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000m ³)
2016	19.731	0.000	0.000	19.719	0.012	0.000	0.000	0.000	0.000	0.600	0.237
2017	70.298	0.000	0.000	68.365	1.933	0.000	0.001	0.000	0.000	4.000	0.345
2018	1.626	0.000	0.000	0.000	1.626	0.000	0.000	0.000	0.000	1.000	0.328
2019	0.627	0.000	0.000	0.000	0.627	0.000	0.000	0.000	0.000	0.400	0.253
2020	0.033	0.000	0.000	0.000	0.033	0.000	0.000	0.000	0.000	0.000	0.092
Total	92.315	0.000	0.000	88.084	4.231	0.000	0.001	0.000	0.000	6.000	1.255

Assumption: The densities of Rock, Soil, Mixed Rock and Soil, and Regular Spoil are 2.0 ton/m³; the density of general refuse is 1.0 ton/m³; the density of waste oil is 1.0 ton/m³.

Contract No.:MTR SCL 1123 - Exhibition Station and Western Approach Tunnel

Month	Actual Quantities of Inert C&D Materials Generated						Actual Quantities of C&D Wastes Generated				
	Total Quantity Generated	Hard Rock and Large Broken Concrete	Reused in the Contract	Reused in Other Projects	Disposed as Public Fill	Imported Fill	Metals	Paper / Cardboard Packaging	Plastics	Chemical Waste	Others, e.g. general refuse
	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000m ³)
Total	591.805	0.000	9.374	347.095	228.414	27.338	23510.651	44.785	13.064	7.953	23.626

Summary Waste Flow Table for 2023

Month	Actual Quantities of Inert C&D Materials Generated Monthly						Actual Quantities of C&D Wastes Generated Monthly					Actual Quantities of Marine Dumping Monthly	
	Total Quantity Generated	Hard Rock and Large Broken Concrete	Reused in the Contract	Reused in Other Projects	Disposed as Public Fill	Imported Fill	Metals	Paper / Cardboard Packaging	Plastics	Chemical Waste	Others, e.g. general refuse	Type 1	Type 2
	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000m ³)	(in '000m ³)	(in '000m ³)
Jan	0.088	0.000	0.000	0.000	0.088	0.000	0.000	0.000	0.000	0.000	0.133	0.000	0.000
Feb	0.183	0.000	0.000	0.000	0.183	0.000	0.000	0.095	0.005	0.000	0.142	0.000	0.000
Mar	0.267	0.000	0.000	0.000	0.267	0.000	0.000	0.000	0.000	0.000	0.112	0.000	0.000
Apr	0.169	0.000	0.000	0.000	0.169	0.000	0.000	0.000	0.000	0.000	0.067	0.000	0.000
May	0.178	0.000	0.000	0.000	0.178	0.000	0.000	0.000	0.000	0.000	0.074	0.000	0.000
Jun	0.166	0.000	0.000	0.000	0.166	0.000	0.000	9.561	0.011	0.000	0.106	0.000	0.000
Sub-total	1.051	0.000	0.000	0.000	1.051	0.000	0.000	9.656	0.016	0.000	0.633	0.000	0.000
July	0.029	0.000	0.000	0.000	0.029	0.000	0.000	0.000	0.000	0.000	0.040	0.000	0.000
August	0.000	0.000	0.000	0.000	0.003	0.000	0.000	0.000	0.000	0.000	0.010	0.000	0.000
September	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
October													
November													
December													
Total	1.080	0.000	0.000	0.000	1.083	0.000	0.000	9.656	0.016	0.000	0.683	0.000	0.000

Comments:

- 1) Assumption: The densities of Rock, Soil, Mixed Rock and Soil, and Regular Spoil are 2.0 ton/m³; the density of general refuse is 1.0 ton/m³; the density of waste oil is 1.0 kg/L.
- 2) The cut-off date of waste amount in Sep is 30/9/2023 for Public Fill Facilities and Landfill.
- 3) The amounts of waste in Sep are 10.26 tons for Landfill and 6.58 tons for Public Fill.
- 4) The amount of import fill in Sep is 0 tons, for cut-off date as 30/9/2023.
- 5) The amount of metal waste generated in Sep is 0 kg, for cut-off date as 30/9/2023.
- 6) The amount of paper waste generated in Sep is 0 kg, for cut-off date as 30/9/2023.
- 7) The amount of plastic waste generated in Sep is 0 kg, for cut-off date as 30/9/2023.

Summary Waste Flow Table for 2022

Month	Actual Quantities of Inert C&D Materials Generated Monthly						Actual Quantities of C&D Wastes Generated Monthly					Actual Quantities of Marine Dumping Monthly	
	Total Quantity Generated	Hard Rock and Large Broken Concrete	Reused in the Contract	Reused in Other Projects	Disposed as Public Fill	Imported Fill	Metals	Paper / Cardboard Packaging	Plastics	Chemical Waste	Others, e.g. general refuse	Type 1	Type 2
	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000m ³)	(in '000m ³)	(in '000m ³)
Jan	1.394	0.000	0.000	0.000	1.394	0.000	4.125	1.650	0.580	0.000	0.290	0.000	0.000
Feb	1.145	0.000	0.000	0.000	1.145	0.000	31.710	0.000	0.000	0.000	0.191	0.000	0.000
Mar	1.930	0.000	0.000	0.000	1.930	0.000	0.010	0.390	0.080	0.000	0.197	0.000	0.000
Apr	0.826	0.000	0.000	0.000	0.826	0.000	0.005	0.245	0.060	0.000	0.230	0.000	0.000
May	0.948	0.000	0.000	0.000	0.948	0.000	0.005	0.300	0.045	0.000	0.289	0.000	0.000
Jun	0.220	0.000	0.000	0.000	0.220	0.000	0.034	2.255	0.211	0.000	0.266	0.000	0.000
Sub-total	6.462	0.000	0.000	0.000	6.462	0.000	35.889	4.840	0.976	0.000	1.463	0.000	0.000
July	0.307	0.000	0.000	0.000	0.307	0.000	0.015	0.720	0.145	0.000	0.031	0.000	0.000
August	0.164	0.000	0.000	0.000	0.164	0.000	167.525	0.310	0.035	0.000	0.055	0.000	0.000
September	0.071	0.000	0.000	0.000	0.071	0.000	11.408	0.680	0.122	0.000	0.032	0.000	0.000
October	0.123	0.000	0.000	0.000	0.123	0.000	0.000	0.000	0.000	0.000	0.042	0.000	0.000
November	0.033	0.000	0.000	0.000	0.033	0.000	0.005	0.190	0.025	0.000	0.078	0.000	0.000
December	0.081	0.000	0.000	0.000	0.081	0.000	417.480	0.000	0.000	6.000	0.100	0.000	0.000
Total	7.241	0.000	0.000	0.000	7.241	0.000	632.322	6.740	1.303	6.000	1.800	0.000	0.000

Comments:

- 1) Assumption: The densities of Rock, Soil, Mixed Rock and Soil, and Regular Spoil are 2.0 ton/m³; the density of general refuse is 1.0 ton/m³; the density of waste oil is 1.0 kg/L.
- 2) The cut-off date of waste amount in December is 31/12/2022 for Public Fill Facilities and Landfill.
- 3) The amounts of waste in December are 99.95 tons for Landfill and 161.46 tons for Public Fill.
- 4) The amount of import fill in December is 0 tons, for cut-off date as 31/12/2022.
- 5) The amount of metal waste generated in December is 0 kg, for cut-off date as 31/12/2022.
- 6) The amount of paper waste generated in December is 0 kg, for cut-off date as 31/12/2022.
- 7) The amount of plastic waste generated in December is 0 kg, for cut-off date as 31/12/2022.

Summary Waste Flow Table for 2021

Month	Actual Quantities of Inert C&D Materials Generated Monthly						Actual Quantities of C&D Wastes Generated Monthly					Actual Quantities of Marine Dumping Monthly	
	Total Quantity Generated	Hard Rock and Large Broken Concrete	Reused in the Contract	Reused in Other Projects	Disposed as Public Fill	Imported Fill	Metals	Paper / Cardboard Packaging	Plastics	Chemical Waste	Others, e.g. general refuse	Type 1	Type 2
	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000m ³)	(in '000m ³)	(in '000m ³)
Jan	2.855	0.000	0.000	0.000	2.855	0.582	57.165	0.000	0.000	0.000	0.640	0.000	0.000
Feb	1.673	0.000	0.000	0.000	1.673	0.408	68.720	0.250	0.045	0.000	0.461	0.000	0.000
Mar	1.596	0.000	0.000	0.000	1.596	1.059	134.887	0.180	0.018	0.000	0.576	0.000	0.000
Apr	0.604	0.000	0.000	0.000	0.604	1.066	3.786	0.160	0.019	0.000	0.471	0.000	0.000
May	0.338	0.000	0.000	0.000	0.338	0.101	5.499	0.170	0.026	0.000	0.123	0.000	0.000
Jun	0.450	0.000	0.000	0.000	0.450	0.000	32.445	0.000	0.000	0.000	0.124	0.000	0.000
Sub-total	7.517	0.000	0.000	0.000	7.517	3.216	302.502	0.760	0.108	0.000	2.396	0.000	0.000
July	0.538	0.000	0.000	0.000	0.538	0.000	0.000	0.000	0.000	0.000	0.086	0.000	0.000
August	0.215	0.000	0.000	0.000	0.215	0.000	13.260	0.100	0.000	0.000	0.024	0.000	0.000
September	0.775	0.000	0.000	0.000	0.775	0.000	15.250	0.535	0.110	0.000	0.244	0.000	0.000
October	1.132	0.000	0.000	0.000	1.132	0.000	8.580	0.400	0.066	0.000	0.144	0.000	0.000
November	0.717	0.000	0.000	0.000	0.717	0.000	14.475	0.000	0.000	0.000	0.146	0.000	0.000
December	0.967	0.000	0.000	0.000	0.967	0.000	4.325	0.400	0.000	0.000	0.174	0.000	0.000
Total	11.861	0.000	0.000	0.000	11.861	3.216	358.392	2.195	0.284	0.000	3.214	0.000	0.000

Comments:

- 1) Assumption: The densities of Rock, Soil, Mixed Rock and Soil, and Regular Spoil are 2.0 ton/m³; the density of general refuse is 1.0 ton/m³; the density of waste oil is 1.0 kg/L.
- 2) The cut-off date of waste amount in December is 31/12/2021 for Public Fill Facilities and Landfill.
- 3) The amounts of waste in December are 348.26 tons for Landfill and 1934.4 tons for Public Fill.
- 4) The amount of import fill in December is 0 tons, for cut-off date as 31/12/2021.
- 5) The amount of metal waste generated in December is 4325 kg, for cut-off date as 31/12/2021.
- 6) The amount of paper waste generated in December is 0 kg, for cut-off date as 31/12/2021.
- 7) The amount of plastic waste generated in December is 0 kg, for cut-off date as 31/12/2021.

Summary Waste Flow Table for 2020

Month	Actual Quantities of Inert C&D Materials Generated Monthly						Actual Quantities of C&D Wastes Generated Monthly					Actual Quantities of Marine Dumping Monthly	
	Total Quantity Generated	Hard Rock and Large Broken Concrete	Reused in the Contract	Reused in Other Projects	Disposed as Public Fill	Imported Fill	Metals	Paper / Cardboard Packaging	Plastics	Chemical Waste	Others, e.g. general refuse	Type 1	Type 2
	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000m ³)	(in '000m ³)	(in '000m ³)
Jan	0.977	0.000	0.000	0.000	0.977	0.013	1656.870	0.000	0.000	0.000	0.699	0.000	0.000
Feb	1.391	0.000	0.000	0.000	1.391	0.191	406.447	0.420	0.040	0.000	0.700	0.000	0.000
Mar	1.410	0.000	0.000	0.000	1.410	0.010	613.385	0.490	0.080	0.000	1.035	0.000	0.000
Apr	2.082	0.000	0.000	0.000	2.082	0.407	1380.857	0.310	0.020	0.000	1.078	0.000	0.000
May	1.392	0.000	0.000	0.000	1.392	0.013	315.856	0.350	0.010	0.000	1.242	0.000	0.000
Jun	1.858	0.000	0.000	0.000	1.858	0.154	339.852	0.360	0.015	0.000	0.860	0.000	0.000
Sub-total	9.109	0.000	0.000	0.000	9.109	0.786	4713.267	1.930	0.165	0.000	5.613	0.000	0.000
July	0.897	0.000	0.000	0.000	0.897	1.990	669.775	0.250	0.030	0.000	0.801	0.000	0.000
August	0.813	0.000	0.000	0.000	0.813	1.347	207.843	0.360	0.090	0.000	0.866	0.000	0.000
September	2.782	0.000	0.000	0.000	2.782	0.572	198.928	0.420	0.100	0.000	0.862	0.000	0.000
October	2.436	0.000	0.000	0.000	2.436	1.380	136.510	1.000	0.180	0.000	0.795	0.000	0.000
November	11.406	0.000	0.000	0.000	11.406	0.979	220.676	0.530	0.085	0.000	0.879	0.000	0.000
December	2.062	0.000	0.000	0.000	2.062	0.855	69.925	2.715	0.345	0.000	0.685	0.000	0.000
Total	29.505	0.000	0.000	0.000	29.505	7.910	6216.924	7.205	0.995	0.000	10.500	0.000	0.000

Comments:

- 1) Assumption: The densities of Rock, Soil, Mixed Rock and Soil, and Regular Spoil are 2.0 ton/m³; the density of general refuse is 1.0 ton/m³; the density of waste oil is 1.0 kg/L.
- 2) The cut-off date of waste amount in December is 31/12/2020 for Public Fill Facilities and Landfill.
- 3) The amounts of waste in December are 684.9 tons for Landfill and 4123.88 tons for Public Fill.
- 4) The amount of import fill in December is 1326.47 tons, for cut-off date as 31/12/2020.
- 5) The amount of metal waste generated in December is 69925kg, for cut-off date as 31/12/2020.
- 6) The amount of paper waste generated in December is 2715 kg, for cut-off date as 31/12/2020.
- 7) The amount of plastic waste generated in December is 345 kg, for cut-off date as 31/12/2020.

Summary Waste Flow Table for 2019

Month	Actual Quantities of Inert C&D Materials Generated Monthly						Actual Quantities of C&D Wastes Generated Monthly					Actual Quantities of Marine Dumping Monthly	
	Total Quantity Generated	Hard Rock and Large Broken Concrete	Reused in the Contract	Reused in Other Projects	Disposed as Public Fill	Imported Fill	Metals	Paper / Cardboard Packaging	Plastics	Chemical Waste	Others, e.g. general refuse	Type 1	Type 2
	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000m ³)	(in '000m ³)	(in '000m ³)
Jan	11.879	0.000	0.076	5.548	6.255	0.434	372.718	0.280	0.057	0.000	0.205	0.000	0.000
Feb	3.812	0.000	0.000	3.573	0.239	0.235	508.505	0.340	0.095	0.315	0.088	0.000	0.000
Mar	20.434	0.000	0.021	4.673	15.740	0.163	491.265	0.500	0.100	0.000	0.216	3.500	0.000
Apr	8.753	0.000	0.000	8.098	0.655	0.019	667.401	0.300	0.080	0.000	0.177	0.000	0.000
May	5.474	0.000	0.000	5.139	0.335	0.000	477.808	0.230	0.072	0.000	0.157	0.000	0.000
Jun	3.895	0.000	0.513	2.993	0.388	0.010	677.046	0.320	0.050	0.000	0.278	0.000	0.000
Sub-total	54.246	0.000	0.610	30.025	23.612	0.861	3194.743	1.970	0.454	0.315	1.121	3.500	0.000
July	1.006	0.000	0.000	0.000	1.006	0.048	742.482	0.290	0.040	0.000	0.368	0.000	0.000
August	1.331	0.000	0.000	0.000	1.331	0.697	1362.862	0.300	0.080	0.000	0.409	0.000	0.000
September	1.157	0.000	0.000	0.000	1.157	0.548	1473.308	0.280	0.050	0.000	0.482	0.000	0.000
October	0.741	0.000	0.000	0.000	0.741	1.263	717.442	0.200	0.080	0.000	0.484	0.000	0.000
November	0.475	0.000	0.000	0.000	0.475	0.045	1201.028	0.320	0.055	0.000	0.515	0.000	0.000
December	0.582	0.000	0.000	0.000	0.582	0.047	2440.478	0.400	0.060	0.282	0.636	0.000	0.000
Total	59.539	0.000	0.610	30.025	28.904	3.508	11132.343	3.760	0.819	0.597	4.015	3.500	0.000

Comments:

- 1) Assumption: The densities of Rock, Soil, Mixed Rock and Soil, and Regular Spoil are 2.0 ton/m³; the density of general refuse is 1.0 ton/m³; the density of waste oil is 1.0 kg/L.
- 2) The cut-off date of waste amount in Dec is 31/12/2019 for Public Fill Facilities and Landfill.
- 3) The amounts of waste in Dec are 635.63 tons for Landfill and 1164.42 tons for Public Fill.
- 4) The amount of import fill in Dec is 93.08 tons, for cut-off date as 19/12/2019.
- 5) The amount of metal waste generated in Dec is 2440478 kg, for cut-off date as 31/12/2019.
- 6) The amount of paper waste generated in Dec is 400 kg, for cut-off date as 31/12/2019.
- 7) The amount of plastic waste generated in Dec is 60 kg, for cut-off date as 31/12/2019.
- 8) The amount of chemical waste generated in Dec is 252 L for liquid and 30kg for solid, for cut-off date as 31/12/2019.

Summary Waste Flow Table for 2018

Month	Actual Quantities of Inert C&D Materials Generated Monthly						Actual Quantities of C&D Wastes Generated Monthly					Actual Quantities of Marine Dumping Monthly	
	Total Quantity Generated	Hard Rock and Large Broken Concrete	Reused in the Contract	Reused in Other Projects	Disposed as Public Fill	Imported Fill	Metals	Paper / Cardboard Packaging	Plastics	Chemical Waste	Others, e.g. general refuse	Type 1	Type 2
	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000m ³)	(in '000m ³)	(in '000m ³)
Jan	19.873	0.000	0.553	16.791	2.529	0.563	258.958	0.850	0.087	0.000	0.155	10.294	0.000
Feb	10.708	0.000	0.826	9.138	0.744	0.509	104.767	0.320	0.048	0.000	0.116	1.804	0.000
Mar	28.905	0.000	0.280	27.160	1.465	0.164	276.367	0.480	0.057	0.000	0.112	0.000	3.521
Apr	33.493	0.000	0.429	32.199	0.866	0.139	469.766	0.230	0.048	0.000	0.138	0.000	2.841
May	27.385	0.000	0.483	26.099	0.803	0.064	192.146	0.190	0.029	0.000	0.091	0.000	3.612
Jun	16.568	0.000	0.518	15.603	0.446	0.029	138.703	0.300	0.047	0.000	0.113	0.000	0.608
Sub-total	136.933	0.000	3.089	126.990	6.853	1.467	1440.707	2.370	0.316	0.000	0.725	12.098	10.582
July	13.834	0.000	0.393	12.890	0.551	0.111	370.115	0.410	0.125	0.000	0.094	0.000	0.608
August	6.036	0.000	0.072	5.753	0.212	0.111	153.947	0.300	0.078	0.000	0.104	0.000	0.000
September	0.135	0.000	0.000	0.042	0.093	0.277	2.860	0.000	0.000	0.000	0.110	0.000	0.000
October	10.254	0.000	0.000	9.875	0.378	0.194	293.581	0.760	0.205	0.000	0.125	0.000	0.000
November	9.864	0.000	0.126	9.458	0.280	0.096	197.300	0.000	0.000	0.000	0.125	0.000	0.000
December	15.378	0.000	0.042	0.427	14.909	0.067	643.174	0.500	0.125	0.000	0.097	2.363	0.000
Total	192.434	0.000	3.722	165.435	23.276	2.322	3101.684	4.340	0.849	0.000	1.381	14.461	11.190

Comments:

- 1) Assumption: The densities of Rock, Soil, Mixed Rock and Soil, and Regular Spoil are 2.0 ton/m³; the density of general refuse is 1.0 ton/m³; the density of waste oil is 1.0 kg/L.
- 2) The cut-off date of waste amount in Dec is 31/12/2018 for Public Fill Facilities and Landfill.
- 3) The amounts of waste in Dec are 96.73 tons for Landfill and 29878.78 tons for Public Fill.
- 4) The amounts of C&D waste reused in the contract in Dec is 84 tons, for cut-off date as 31/12/2018.
- 5) The amounts of C&D waste reused in other projects in Dec is 853.55 tons for SCL 1123 Kai Tak Barging Point for cut-off date as 31/12/2018.
- 6) The amount of import fill in Dec is 133.35 tons, for cut-off date as 31/12/2018.
- 7) The amount of metal waste generated in Dec is 643174 kg, for cut-off date as 31/12/2018.
- 8) The amount of paper waste generated in Dec is 500 kg, for cut-off date as 31/12/2018.
- 9) The amount of plastic waste generated in Dec is 125 kg, for cut-off date as 31/12/2018.
- 10) The cut-off date of the amount of marine sediment (Type 1 & Type 2) disposed in Dec is 31/12/2018.

Summary Waste Flow Table for 2017

Month	Actual Quantities of Inert C&D Materials Generated Monthly						Actual Quantities of C&D Wastes Generated Monthly					Actual Quantities of Marine Dumping Monthly	
	Total Quantity Generated	Hard Rock and Large Broken Concrete	Reused in the Contract	Reused in Other Projects	Disposed as Public Fill	Imported Fill	Metals	Paper / Cardboard Packaging	Plastics	Chemical Waste	Others, e.g. general refuse	Type 1	Type 2
	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000m ³)	(in '000m ³)	(in '000m ³)
Jan	11.933	0.000	0.007	5.733	6.193	0.147	18.320	0.310	0.548	0.000	0.044	0.000	0.000
Feb	9.718	0.000	0.000	3.770	5.948	0.114	26.030	0.670	0.040	0.000	0.048	0.000	0.000
Mar	17.671	0.000	0.042	12.401	5.228	1.079	77.355	0.220	0.035	0.000	0.056	0.000	0.000
Apr	6.614	0.000	0.000	3.860	2.754	0.333	17.653	0.140	0.027	0.000	0.055	0.000	0.000
May	3.926	0.000	0.042	0.278	3.606	0.161	142.382	0.300	0.850	0.020	0.274	6.958	0.000
Jun	7.179	0.000	0.000	3.897	3.283	0.065	99.961	0.210	0.029	0.000	0.051	3.819	0.880
Sub-total	57.042	0.000	0.091	29.939	27.012	1.899	381.701	1.850	1.529	0.020	0.530	10.777	0.880
July	9.455	0.000	0.105	4.562	4.789	0.039	22.032	0.220	0.028	0.000	0.153	5.124	0.000
August	23.814	0.000	1.388	19.677	2.749	0.325	88.583	0.800	0.057	0.210	0.092	3.801	0.000
September	30.310	0.000	0.644	26.030	3.636	0.676	161.422	0.58	0.048	0.000	0.084	0.563	0.000
October	24.985	0.000	0.189	23.121	1.675	0.305	79.391	0.300	0.049	0.726	0.141	0.507	0.000
November	27.928	0.000	0.021	25.772	2.135	0.036	539.732	0.190	2.668	0.000	0.149	3.681	0.000
December	23.025	0.000	0.245	19.011	3.768	0.175	440.621	0.210	0.039	0.000	0.095	5.385	0.560
Total	196.558	0.000	2.683	148.111	45.764	3.456	1713.482	4.150	4.418	0.956	1.243	29.838	1.440

Comments:

- 1) Assumption: The densities of Rock, Soil, Mixed Rock and Soil, and Regular Spoil are 2.0 ton/m³; the density of general refuse is 1.0 ton/m³; the density of waste oil is 1.0
- 2) The cut-off date of waste amount in November is 31/12/2017 for Public Fill facilities and Landfill.
- 3) The amounts of waste in December are 95.33 tons for Landfill and 7536.87 tons for Public Fill.
- 4) The amounts of C&D waste reused in the contract in December is 490 tons, for cut-off date as 31/12/2017.
- 5) The amounts of C&D waste reused in other projects in December is 38022.16 tons for SCL 1123 Kai Tak Barging Point for cut-off date as 31/12/2017.
- 6) The amount of import fill in December is 349.17 tons, for cut-off date as 16/12/2017.
- 7) The amount of metal waste generated in December is 440621 kg, for cut-off date as 31/12/2017.
- 8) The amount of paper waste generated in December is 210 kg, for cut-off date as 31/12/2017.
- 9) The amount of plastic waste generated in December is 39 kg, for cut-off date as 31/12/2017.
- 10) The cut-off date of the amount of marine sediment (Type 1 & Type 2) disposed in December is 31/12/2017.

Summary Waste Flow Table for 2016

Month	Actual Quantities of Inert C&D Materials Generated Monthly						Actual Quantities of C&D Wastes Generated Monthly				
	Total Quantity Generated	Hard Rock and Large Broken Concrete	Reused in the Contract	Reused in Other Projects	Disposed as Public Fill	Imported Fill	Metals	Paper / Cardboard Packaging	Plastics	Chemical Waste	Others, e.g. general refuse
	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000m ³)
Jan	4.851	0.000	0.000	0.000	4.665	0.186	16.083	0.755	0.010	0.000	0.031
Feb	4.931	0.000	0.000	0.000	4.931	0.000	2.620	0.000	0.990	0.000	0.020
Mar	5.371	0.000	0.000	0.055	5.316	0.000	19.242	0.480	0.018	0.000	0.033
Apr	4.954	0.000	0.000	0.012	4.524	0.418	13.115	0.350	0.010	0.400	0.064
May	4.232	0.000	0.000	0.000	3.845	0.388	16.340	0.500	0.020	0.000	0.099
Jun	8.968	0.000	0.000	0.000	7.029	1.939	14.145	0.400	0.798	0.000	0.041
Sub-total	33.308	0.000	0.000	0.067	30.310	2.930	81.545	2.485	1.846	0.400	0.289
July	8.467	0.000	0.000	0.000	7.232	1.235	38.230	0.320	0.569	0.000	0.069
August	7.436	0.000	0.000	0.362	6.086	0.989	17.700	0.830	0.030	0.000	0.086
September	9.436	0.000	0.260	2.297	6.879	0.000	20.505	0.250	1.317	0.000	0.079
October	7.094	0.000	1.339	0.488	5.268	0.000	15.166	0.544	0.010	0.000	0.042
November	5.996	0.000	0.210	0.000	5.786	0.000	25.350	0.540	0.040	0.000	0.043
December	7.807	0.000	0.539	0.310	6.877	0.080	24.460	0.440	0.527	0.000	0.040
Total	79.544	0.000	2.348	3.524	68.439	5.234	222.956	5.409	4.339	0.400	0.647

Comments:

- 1) Assumption: The densities of Rock, Soil, Mixed Rock and Soil, and Regular Spoil are 2.0 ton/m³; the density of general refuse is 1.0 ton/m³; the density of waste oil is 1.0 kg/L.
- 2) The cut-off date of waste amount in December is 31/12/2016 for Public Fill facilities and Landfill.
- 3) The amounts of waste in December are 39.83 tons for Landfill and 13754.91 tons for Public Fill.
- 4) The amounts of C&D waste reused in the project in December is approximately 1078 tons, for cut-off date as 31/12/2016.
- 5) The amount of import fill in December is 160 tons, for cut-off date as 31/12/2016.
- 6) The amounts of C&D waste reused in other projects in December is 620.94 tons for SCL 1123 Kai Tak Barging Point, for cut-off date as 31/12/2016.
- 7) The amount of metal waste generated in December is 24460 kg, for cut-off date as 31/12/2016.
- 8) The amount of paper waste generated in December is 440 kg, for cut-off date as 31/12/2016.
- 9) The amount of plastic waste generated in December is 527 kg, for cut-off date as 31/12/2016.

Summary Waste Flow Table for 2015

Month	Actual Quantities of Inert C&D Materials Generated Monthly						Actual Quantities of C&D Wastes Generated Monthly				
	Total Quantity Generated	Hard Rock and Large Broken Concrete	Reused in the Contract	Reused in Other Projects	Disposed as Public Fill	Imported Fill	Metals	Paper / Cardboard Packaging	Plastics	Chemical Waste	Others, e.g. general refuse
	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000m ³)
Jan											
Feb											
Mar											
Apr	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001
May	0.000	0.000	0.000	0.000	0.000	0.000	2.070	0.000	0.000	0.000	0.006
Jun	0.199	0.000	0.000	0.000	0.199	0.000	1.050	0.000	0.000	0.000	0.008
Sub-total	0.199	0.000	0.000	0.000	0.199	0.000	3.120	0.000	0.000	0.000	0.015
July	0.940	0.000	0.000	0.000	0.940	0.000	36.710	0.230	0.000	0.000	0.009
August	0.632	0.000	0.011	0.000	0.622	0.000	2.000	0.294	0.000	0.000	0.018
September	1.485	0.000	0.000	0.000	1.485	0.000	1.712	0.025	0.010	0.000	0.018
October	2.303	0.000	0.000	0.000	2.303	0.000	30.040	0.292	0.000	0.000	0.032
November	3.270	0.000	0.000	0.000	3.045	0.225	24.621	0.439	0.006	0.000	0.028
December	5.215	0.000	0.000	0.000	3.748	1.467	34.345	0.050	0.025	0.000	0.023
Total	14.045	0.000	0.011	0.000	12.342	1.692	132.548	1.330	0.041	0.000	0.142

Comments:

- 1) Assumption: The densities of Rock, Soil, Mixed Rock and Soil, and Regular Spoil are 2.0 ton/m³; the density of general refuse is 1.0 ton/m³; the density of waste oil is 1.0 ton/m³.
- 2) The cut-off date of waste amount in Dec is 31/12/2015 for Public Fill facilities and Landfill.
- 3) The amounts of waste in Dec are 23.41 tons for Landfill and 7496.36 tons for Public Fill.
- 4) The amount of imported fill from other project in Dec is 2541 tons, for cut-off date as 31/12/2015.
- 5) The amount of metal waste generated in Dec is 34345 kg, for cut-off date as 31/12/2015.
- 6) The amount of paper waste generated in Dec is 50 kg, for cut-off date as 31/12/2015.
- 7) The amount of plastic waste generated in Dec is 25 kg, for cut-off date as 31/12/2015.

MTR 1124
Monthly Summary Waste Flow Table for 2018

Name of Employer: MTR Corporation Limited									Contract No.: MTR1124				
Month	Actual Quantities of Inert C&D Materials Generated Monthly								Actual Quantities of Non-Inert C&D Wastes Generated Monthly				
	Total Quantity Generated	Broken Concrete	Building Debris	Mixed Rock & Soil	Bentonite	Rubbish	Rock	Soil	Metals	Paper/ cardboard packaging	Plastics	Chemical Waste	Others, e.g. general refuse
	(in '000m3)	(in '000m3)	(in '000m3)	(in '000m3)	(in '000m3)	(in '000m3)	(in '000m3)	(in '000m3)	(in '000m3)	(in '000m3)	(in '000m3)	(in '000m3)	(in '000m3)
Jan	0.023	0.023	0	0	0	0	0	0	0	0	0	0	0.204
Feb	0.031	0.031	0	0	0	0	0	0	0	0	0	0	0.241
Mar	0.034	0.034	0	0	0	0	0	0	0	0	0	0	0.225
Apr	0.011	0.011	0	0	0	0	0	0	0	0	0	0	0.301
May	0.021	0.021	0	0	0	0	0	0	0	0	0	0	0.284
Jun	0.027	0.027	0	0	0	0	0	0	0	0	0	0	0.188
Jul	0.022	0.022	0	0	0	0	0	0	0	0	0	0	0.144
Aug	0.027	0.027	0	0	0	0	0	0	0	0	0	0	0.111
Sep	0.015	0.015	0	0	0	0	0	0	0	0	0	0	0.066
Oct	0.021	0.021	0	0	0	0	0	0	0	0	0	0	0.073
Nov	0.015	0.015	0	0	0	0	0	0	0	0	0	0	0.099
Dec	0.014	0.014	0	0	0	0	0	0	0	0	0	0	0.071
Total	0.261	0.261	0	0	0.00	0	0	0	0	0	0	0	2.007

Notes:

- 1) Density of waste materials:
- | | | |
|---|---|-----|
| Bentonite, broken concrete, building debris, mixed rock & soil , soil, slurry | = | 2.0 |
| General Refuse | = | 1.0 |
| Waste Oil | = | 1.0 |

MTR 1124

Monthly Summary Waste Flow Table for 2019

Name of Employer: MTR Corporation Limited									Contract No.: MTR1124				
Month	Actual Quantities of Inert C&D Materials Generated Monthly								Actual Quantities of Non-Inert C&D Wastes Generated Monthly				
	Total Quantity Generated	Broken Concrete	Building Debris	Mixed Rock & Soil	Bentonite	Rubbish	Rock	Soil	Metals	Paper/ cardboard packaging	Plastics	Chemical Waste	Others, e.g. general refuse
	(in '000m3)	(in '000m3)	(in '000m3)	(in '000m3)	(in '000m3)	(in '000m3)	(in '000m3)	(in '000m3)	(in '000m3)	(in '000m3)	(in '000m3)	(in '000m3)	(in '000m3)
Jan	0.019	0.019	0	0	0	0	0	0	0	0	0	0	0.119
Feb	0.015	0.015	0	0	0	0	0	0	0	0	0	0	0.068
Mar	0.023	0.023	0	0	0	0	0	0	0	0	0	0	0.137
Apr	0.003	0.003	0	0	0	0	0	0	0	0	0	0	0.107
May	0.025	0.025	0	0	0	0	0	0	0	0	0	0	0.163
Jun	0.011	0.011	0	0	0	0	0	0	0	0	0	0	0.125
Jul	0.000	0	0	0	0	0	0	0	0	0	0	0	0.241
Aug	0.000	0	0	0	0	0	0	0	0	0	0	0	0.232
Sep	0.000	0	0	0	0	0	0	0	0	0	0	0	0.191
Oct	0.000	0	0	0	0	0	0	0	0	0	0	0	0.177
Nov	0.000	0	0	0	0	0	0	0	0	0	0	0	0.138
Dec	0.000	0	0	0	0	0	0	0	0	0	0	0	0.126
Total	0.096	0.096	0	0	0	0	0	0	0	0	0	0	1.824

Notes:

- 1) Density of waste materials:
 - Bentonite, broken concrete, building debris, mixed rock & soil , soil, slurry = 2.0
 - General Refuse = 1.0
 - Waste Oil = 1.0

MTR 1124

Monthly Summary Waste Flow Table for 2020

Name of Employer: MTR Corporation Limited									Contract No.: MTR1124				
Month	Actual Quantities of Inert C&D Materials Generated Monthly								Actual Quantities of Non-Inert C&D Wastes Generated Monthly				
	Total Quantity	Broken Concrete	Building Debris	Mixed Rock & Soil	Bentonite	Rubbish	Rock	Soil	Metals	Paper/ cardboard	Plastics	Chemical Waste	Others, e.g. general
	(in '000m3)	(in '000m3)	(in '000m3)	(in '000m3)	(in '000m3)	(in '000m3)	(in '000m3)	(in '000m3)	(in '000m3)	(in '000m3)	(in '000m3)	(in '000m3)	(in '000m3)
Jan	0.000	0	0	0	0	0	0	0	0	0	0	0	0.175
Feb	0.005	0	0	0	0.005	0	0	0	0	0	0	0	0.097
Mar	0.000	0	0	0	0	0	0	0	0	0	0	0	0.149
Apr	0.000	0	0	0	0	0	0	0	0	0	0	0	0.097
May	0.000	0	0	0	0	0	0	0	0	0	0	0	0.102
Jun	0.004	0	0	0	0.004	0	0	0	0	0	0	0	0.098
Jul	0.015	0.015	0	0	0	0	0	0	0	0	0	0	0.136
Aug	0.000	0	0	0	0	0	0	0	0	0	0	0	0.123
Sep	0.000	0	0	0	0	0	0	0	0	0	0	0	0.119
Oct	0.000	0	0	0	0	0	0	0	0	0	0	0	0.152
Nov	0.000	0	0	0	0	0	0	0	0	0	0	0	0.276
Dec	0.000	0	0	0	0	0	0	0	0	0	0	0	0.166
Total	0.024	0.015	0.000	0.000	0.009	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.691

Notes:

- 1) Density of waste materials:
 Bentonite, broken concrete, building debris, mixed rock & soil , soil, slurry = 2.0
 General Refuse = 1.0
 Waste Oil = 1.0

MTR 1124
Monthly Summary Waste Flow Table for 2021

Name of Employer: MTR Corporation Limited									Contract No.: MTR1124				
Month	Actual Quantities of Inert C&D Materials Generated Monthly								Actual Quantities of Non-Inert C&D Wastes Generated Monthly				
	Total Quantity Generated	Broken Concrete	Building Debris	Mixed Rock & Soil	Bentonite	Rubbish	Rock	Soil	Metals	Paper/ cardboard packaging	Plastics	Chemical Waste	Others, e.g. general refuse
	(in '000m3)	(in '000m3)	(in '000m3)	(in '000m3)	(in '000m3)	(in '000m3)	(in '000m3)	(in '000m3)	(in '000m3)	(in '000m3)	(in '000m3)	(in '000m3)	(in '000m3)
Jan	0.000	0	0	0	0	0	0	0	0	0	0	0	0.139
Feb	0.000	0	0	0	0	0	0	0	0	0	0	0	0.065
Mar	0.000	0	0	0	0	0	0	0	0	0	0	0	0.115
Apr	0.000	0	0	0	0	0	0	0	0	0	0	0	0.164
May	0.000	0	0	0	0	0	0	0	0	0	0	0	0.137
Jun	0.000	0	0	0	0	0	0	0	0	0	0	0	0.179
Jul	0.000	0	0	0	0	0	0	0	0	0	0	0	0.154
Aug	0.000	0	0	0	0	0	0	0	0	0	0	0	0.108
Sep	0.000	0	0	0	0	0	0	0	0	0	0	0	0.072
Oct	0.000	0	0	0	0	0	0	0	0	0	0	0	0.038
Nov	0.000	0	0	0	0	0	0	0	0	0	0	0	0.132
Dec	0.000	0	0	0	0	0	0	0	0	0	0	0	0.000
Total	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.303

Notes:

- 1) Density of waste materials:
 Bentonite, broken concrete, building debris, mixed rock & soil , soil, slurry = 2.0
 General Refuse = 1.0
 Waste Oil = 1.0

Contract No: **MTR SCL 1126 - Re provisioning of Harbour Road Sports Centre and Wan Chai Swimming Pool**

Date of Report: **December, 2014**

Monthly Summary Waste Flow Table for 2014 at Wan Chai Sports Ground and Passengener Transport Interchange

Monthly	Actual Quantities of C&D Materials Generated Monthly						Actual Quantities of Non-inert C&D Wastes Generated Monthly					Remarks
	Total Quantity Generated	Hard Rocks and Large Broken Concrete	Reused in the Contract	Reused in other Projects	Disposed as Public Fill	Imported Fill	Metals	Paper/ cardboard packaging	Plastics (see Note 2)	Chemical Waste	Others, e.g. general refuse (see Note 3)	
	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000m ³)	
Jul	0.267	0.000	0.000	0.000	0.267	0.000	3.780	0.000	0.000	0.000	0.020	
Aug	0.260	0.010	0.000	0.000	0.250	0.000	11.090	0.000	0.000	0.000	0.031	
Sept	0.163	0.009	0.000	0.000	0.154	0.000	24.550	0.000	0.000	0.000	0.023	
Oct	0.907	0.000	0.000	0.000	0.907	0.000	28.285	0.000	0.000	0.000	0.016	
Nov	1.033	0.000	0.000	0.000	1.033	0.000	0.000	0.000	0.000	0.000	0.036	
Dec	3.766	0.000	0.000	0.000	3.766	0.000	0.000	0.000	0.000	0.000	0.047	
Total	6.395	0.019	0.000	0.000	6.376	0.000	67.705	0.000	0.000	0.000	0.173	

Notes:

- 1) The waste flow table shall also include C&D materials that are specified in the contract to be imported for use at the site.
- 2) Plastic refer to plastic bottle/ containers, plastic sheets/ foam from packaging material.
- 3) The general refuse with non-recyclable materials were disposed to Landfill.
Assume the densities of Rock, Soil, Mix Rock and Soil, are Regular Spoil to be 2.0 tonnes/m³. Assumption the densities of general refuse is 1.0 tonnes/m³

Contract No: MTR SCL 1126 - Re provisioning of Harbour Road Sports Centre and Wan Chai Swimming Pool

Date of Report: May, 2015

Monthly Summary Waste Flow Table for 2015 at Public Transport Interchange

Monthly	Actual Quantities of C&D Materials Generated Monthly						Actual Quantities of Non-inert C&D Wastes Generated Monthly					Remarks
	Total Quantity Generated	Hard Rocks and Large Broken Concrete	Reused in the Contract	Reused in other Projects	Disposed as Public Fill	Imported Fill	Metals	Paper/ cardboard packaging	Plastics (see Note 2)	Chemical Waste	Others, e.g. general refuse (see Note 3)	
	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000m ³)	
Total 2014	6.395	0.019	0.000	0.000	6.376	0.000	67.705	0.000	0.000	0.000	0.173	Total Quatity in 2014
Jan	2.100	0.000	0.000	0.000	2.100	0.000	0.000	0.000	0.000	0.000	0.032	
Feb	0.305	0.000	0.000	0.000	0.305	0.000	0.000	0.000	0.000	0.000	0.027	
Mar	0.297	0.000	0.000	0.000	0.297	0.000	0.000	0.000	0.000	0.000	0.056	
Apr	0.116	0.000	0.000	0.000	0.116	0.000	0.000	0.000	0.000	0.000	0.075	
May	0.151	0.000	0.000	0.000	0.151	0.000	0.000	0.000	0.000	0.000	0.056	
Jun												
Sub-total	9.363	0.019	0.000	0.000	9.343	0.000	67.705	0.000	0.000	0.000	0.420	
Jul												
Aug												
Sep												
Oct												
Nov												
Dec												
Total	9.363	0.019	0.000	0.000	9.343	0.000	67.705	0.000	0.000	0.000	0.420	

Notes:

- 1) The waste flow table shall also include C&D materials that are specified in the contract to be imported for use at the site.
- 2) Plastic refer to plastic bottle/ containers, plastic sheets/ foam from packaging material.
- 3) The general refuse with non-recyclable materials were disposed to Landfill.
Assume the densities of Rock, Soil, Mix Rock and Soil, are Regular Spoil to be 2.0 tonnes/m³. Assumption the densities of general refuse is 1.0 tonnes/m³

SCL Contract 1128

Latest Programme for Generation & Import of Materials in each Reporting Period	Quantity for off-site disposal of Inert C&D materials (m3)																			Quantity for off-site disposal of Non-inert C&D materials					Quantities of Marine Dumping (Sediment)											
	Inert C&D material (m3)																			Metals (kg)	Paper / Cardboard (kg)	Plastics (kg)	Chemical Waste (kg)	General Waste (m ³)	Disposed as MD at Hung Hom Barging Point											
	TKO137FB (1)	TKO137SF (2)	TM38FB (3)	CWPFBP (4)	Reuse in Other Projects														Reused in Mainland						Total (m ³)	Total	Total	Total	Total	Type 1	Type 2					
					WDII C1 (5)	CWB (6)	SCL1121 (7)	SCL 1103 (8)	WDII C3 (9)	WDII C2 (10)	8217 (11)	HY/2010/08 (12)	SCL 1112 (13)	Area 56A (14)	M+ (15)	XRL 810B (16)	PSK226 (17)	(m ³)		(m ³)																
2014/11	313.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
2014/12	359.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2014 Total	672.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Remark: *Assume the density is 2 tonnes per cubic metre for inert C&D materials, general waste and marine sediment.

- 1.0 TKO137FB Fill Bank at Tseung Kwan O Area 137
- 2.0 TKO137SF Sorting Facilities at Tseung Kwan O Area 137
- 3.0 TM38FB Fill Bank at Tuen Mun
- 4.0 CWPFBP Chai Wan Public Fill Barging Point
- 5.0 WDII C1 HK/2009/01 Wan Chai Development Phase II - Central - Wan Chai Bypass at Hong Kong Convention and Exhibition Centre
- 6.0 CWB HK/2009/15 Central - Wan Chai Bypass - Tunnel (Causeway Bay Typhoon Shelter Section)
- 7.0 SCL1121 Cross Harbour Tunnels
- 8.0 SCL1103 Hin Keng to Diamond Hill tunnels and Fung Tak Public Transport Interchange
- 9.0 WDII C3 Wan Chai development Phase II - Central-Wan Chai Bypass at Wan Chai West
- 10.0 WDII C2 HK/2009/02 Wan Chai Development Phase 2, Central - WanChai Bypass at Wan Chai East
- 11.0 8,217.0 Backfilling of the Shek Yam Construction Adit
- 12.0 CWB- Wan Chai Bypass - Tunnel (Slip Road 8 Section)
- 13.0 SCL1112 Hung Hom Station & Stabling Sidings
- 14.0 Area 56A Construction site at Area 56A, Kau To, Sha Tin
- 15.0 M+ Main Works Contract for M+ Museum Project
- 16.0 XRL 810 B West Kowloon Terminus Station South
- 17.0 PSK226 J3698 PSK226 - Proposed Residential Development at T.P.T.L. 226 Pak Shek Kok (Gammon)

SCL Contract 1128

Latest Programme for Generation & Import of Materials in each Reporting Period	Quantity for off-site disposal of Inert C&D materials (m3)																			Quantity for off-site disposal of Non-inert C&D materials					Quantities of Marine Dumping (Sediment)				
	Inert C&D material (m3)																			Metals (kg)	Paper / Cardboard (kg)	Plastics (kg)	Chemical Waste (kg)	General Waste (m ³)	Disposed as MD at Hung Hom Bargaining Point				
	TKO137FB (1)	TKO137SF (2)	TM38FB (3)	CWPFBP (4)	Reuse in Other Projects														Reused in Mainland						Total (m ³)	Total	Total	Total	Total
					WDII C1 (5)	CWB (6)	SCL1121 (7)	SCL 1103 (8)	WDII C3 (9)	WDII C2 (10)	8217 (11)	HY/2010/08 (12)	SCL 1112 (13)	Area 56A (14)	M+ (15)	XRL 810B (16)	PSK226 (17)	(m ²)		(m ²)									
2017/01	1,126.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	613.0	46.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1,785.0	0.0	0.0	0.0	0.0	64.0	0.0	0.0		
2017/02	1,646.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	274.8	0.0	467.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5,924.4	8,313.5	0.0	0.0	0.0	0.0	63.6	0.0	0.0	
2017/03	1,242.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	592.2	3,370.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5,204.5	10,409.0	0.0	0.0	0.0	0.0	58.3	0.0	0.0	
2017/04	578.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	93.1	291.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	12,538.0	13,500.9	0.0	0.0	0.0	0.0	60.0	0.0	0.0	
2017/05	3,392.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1,150.2	0.0	1,419.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	16,186.3	22,148.8	0.0	0.0	0.0	0.0	35.4	0.0	0.0	
2017 Sub-total	7,985.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2,038.0	139.1	2,771.3	3,370.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	39,853.2	56,157.2	0.0	0.0	0.0	0.0	281.3	0.0	0.0	
2017/06	3,421.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	91.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2,635.7	6,148.1	0.0	0.0	0.0	0.0	40.8	0.0	0.0	
2017/07	3,206.1	0.0	0.0	0.0	0.0	0.0	736.0	0.0	0.0	2,396.7	54.8	0.0	622.2	0.0	0.0	0.0	0.0	0.0	0.0	1,256.1	8,271.8	0.0	0.0	0.0	0.4	61.6	0.0	0.0	
2017/08	3,005.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	82.4	53.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3,945.6	7,086.6	0.0	0.0	0.0	0.0	59.3	0.0	0.0	
2017/09	2,482.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3,757.2	6,239.8	0.0	0.0	0.0	0.0	56.3	0.0	0.0	
2017/10	12,792.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	495.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5,230.3	18,518.3	0.0	0.0	0.0	0.0	45.4	0.0	0.0	
2017/11	11,350.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	155.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6,908.4	18,414.6	0.0	0.0	0.0	0.0	53.1	0.0	0.0	
2017/12	11,855.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2,095.4	13,951.1	0.0	0.0	0.0	0.0	680.0	68.5	0.0	0.0
2017 Total	56,099.0	0.0	0.0	0.0	0.0	0.0	736.0	0.0	2,038.0	2,709.6	3,531.0	3,370.0	622.2	0.0	0.0	0.0	0.0	0.0	0.0	65,681.8	134,787.5	0.0	0.0	0.0	680.4	666.3	0.0	0.0	

Remark: *Assume the density is 2 tonnes per cubic metre for inert C&D materials, general waste and marine sediment.

- 1.0 TKO137FB Fill Bank at Tseung Kwan O Area 137
- 2.0 TKO137SF Sorting Facilities at Tseung Kwan O Area 137
- 3.0 TM38FB Fill Bank at Tuen Mun
- 4.0 CWPFBP Chai Wan Public Fill Bargaining Point
- 5.0 WDII C1 HK/2009/01 Wan Chai Development Phase II - Central - Wan Chai Bypass at Hong Kong Convention and Exhibition Centre
- 6.0 CWB HK/2009/15 Central - Wan Chai Bypass - Tunnel (Causeway Bay Typhoon Shelter Section)
- 7.0 SCL1121 Cross Harbour Tunnels
- 8.0 SCL1103 Hin Keng to Diamond Hill tunnels and Fung Tak Public Transport Interchange
- 9.0 WDII C3 Wan Chai development Phase II - Central-Wan Chai Bypass at Wan Chai West
- 10.0 WDII C2 HK/2009/02 Wan Chai Development Phase 2, Central - WanChai Bypass at Wan Chai East
- 11.0 8,217.0 Backfilling of the Shek Yam Construction Adit
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- 14.0 Area 56A Construction site at Area 56A, Kau To, Sha Tin
- 15.0 M+ Main Works Contract for M+ Museum Project
- 16.0 XRL 810 B West Kowloon Terminus Station South
- 17.0 PSK226 J3698 PSK226 - Proposed Residential Development at T.P.T.L. 226 Pak Shek Kok (Gammon)

SCL Contract 1128

Latest Programme for Generation & Import of Materials in each Reporting Period	Quantity for off-site disposal of Inert C&D materials (m3)																			Quantity for off-site disposal of Non-inert C&D materials					Quantities of Marine Dumping (Sediment)		
	Inert C&D material (m3)																			Metals (kg)	Paper / Cardboard (kg)	Plastics (kg)	Chemical Waste (kg)	General Waste (m ³)	Disposed as MD at Hung Hom Bargaining Point		
	TKO137FB (1)	TKO137SF (2)	TM38FB (3)	CWPFBP (4)	Reuse in Other Projects														Reused in Mainland						Total (m ³)	Total	Total
					WDII C1 (5)	CWB (6)	SCL1121 (7)	SCL 1103 (8)	WDII C3 (9)	WDII C2 (10)	8217 (11)	HY/2010/08 (12)	SCL 1112 (13)	Area 56A (14)	M+ (15)	XRL 810B (16)	PSK226 (17)	(m ²)		(m ²)							
2018/01	3,047.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	708.5	3,748.9	0.0	0.0	0.0	7,504.3	0.0	0.0	0.0	0.0	38.3	0.0	0.0
2018/02	2,092.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	547.7	87.3	0.0	0.0	2,727.9	0.0	0.0	0.0	0.0	41.6	0.0	0.0
2018/03	2,107.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1,389.9	96.1	0.0	0.0	3,593.6	0.0	800.0	0.0	0.0	108.3	0.0	0.0
2018/04	207.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	207.4	0.0	165.0	0.0	0.0	33.0	0.0	0.0	
2018/05	3,007.4	0.0	657.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3,664.8	0.0	0.0	0.0	0.0	48.1	0.0	0.0	
2018/06	4,794.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	31.0	4,825.0	0.0	0.0	0.0	0.0	58.4	0.0	0.0	
2018 Sub-total	15,256.2	0.0	657.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	708.5	5,686.6	183.4	31.0	0.0	22,523.1	0.0	965.0	0.0	0.0	327.7	0.0	0.0
2018/07	1,607.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	15.6	0.0	1,623.0	0.0	0.0	0.0	0.0	80.8	0.0	0.0
2018/08	422.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	422.2	0.0	1,180.0	0.0	0.0	115.6	0.0	0.0
2018/09	359.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	359.7	0.0	0.0	0.0	0.0	94.3	0.0	0.0
2018/10	473.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	473.2	0.0	0.0	0.0	0.0	86.2	0.0	0.0
2018/11	268.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	268.1	0.0	0.0	0.0	0.0	84.2	0.0	0.0
2018/12	535.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	535.6	0.0	0.0	0.0	0.0	98.1	0.0	0.0
2018 Total	18,922.5	0.0	657.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	708.5	5,686.6	183.4	46.6	0.0	26,204.9	0.0	2,145.0	0.0	0.0	887.1	0.0	0.0

Remark: *Assume the density is 2 tonnes per cubic metre for inert C&D materials, general waste and marine sediment.

- 1.0 TKO137FB Fill Bank at Tseung Kwan O Area 137
- 2.0 TKO137SF Sorting Facilities at Tseung Kwan O Area 137
- 3.0 TM38FB Fill Bank at Tuen Mun
- 4.0 CWPFBP Chai Wan Public Fill Bargaining Point
- 5.0 WDII C1 HK/2009/01 Wan Chai Development Phase II - Central - Wan Chai Bypass at Hong Kong Convention and Exhibition Centre
- 6.0 CWB HK/2009/15 Central - Wan Chai Bypass - Tunnel (Causeway Bay Typhoon Shelter Section)
- 7.0 SCL1121 Cross Harbour Tunnels
- 8.0 SCL1103 Hin Keng to Diamond Hill tunnels and Fung Tak Public Transport Interchange
- 9.0 WDII C3 Wan Chai development Phase II - Central-Wan Chai Bypass at Wan Chai West
- 10.0 WDII C2 HK/2009/02 Wan Chai Development Phase 2, Central - WanChai Bypass at Wan Chai East
- 11.0 8,217.0 Backfilling of the Shek Yam Construction Adit
- 12.0 CWB- Wan Chai Bypass - Tunnel (Slip Road 8 Section)
- 13.0 SCL1112 Hung Hom Station & Stabling Sidings
- 14.0 Area 56A Construction site at Area 56A, Kau To, Sha Tin
- 15.0 M+ Main Works Contract for M+ Museum Project
- 16.0 XRL 810 B West Kowloon Terminus Station South
- 17.0 PSK226 J3698 PSK226 - Proposed Residential Development at T.P.T.L. 226 Pak Shek Kok (Gammon)

SCL Contract 1128

Latest Programme for Generation & Import of Materials in each Reporting Period	Quantity for off-site disposal of Inert C&D materials (m3)																			Quantity for off-site disposal of Non-inert C&D materials					Quantities of Marine Dumping (Sediment)		
	Inert C&D material (m3)																			Metals (kg)	Paper / Cardboard (kg)	Plastics (kg)	Chemical Waste (kg)	General Waste (m ³)	Disposed as MD at Hung Hom Bargaining Point		
	TKO137FB (1)	TKO137SF (2)	TM38FB (3)	CWPFBP (4)	Reuse in Other Projects														Reused in Mainland						Total (m ³)	Total	Total
					WDII C1 (5)	CWB (6)	SCL1121 (7)	SCL 1103 (8)	WDII C3 (9)	WDII C2 (10)	8217 (11)	HY/2010/08 (12)	SCL 1112 (13)	Area 56A (14)	M+ (15)	XRL 810B (16)	PSK226 (17)	(m ³)		(m ³)							
2019/01	800.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	800.7	0.0	0.0	0.0	0.0	90.6	0.0	0.0
2019/02	649.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	649.5	0.0	0.0	0.0	0.0	79.0	0.0	0.0
2019/03	1,392.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1,392.3	0.0	0.0	0.0	0.0	78.1	0.0	0.0
2019/04	1,046.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1,046.5	0.0	0.0	0.0	0.0	73.5	0.0	0.0
2019/05	918.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	918.9	0.0	0.0	0.0	0.0	65.1	0.0	0.0
2019/06	375.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	375.6	0.0	0.0	0.0	0.0	69.7	0.0	0.0
2019 Sub-total	5,183.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5,183.5	0.0	0.0	0.0	0.0	456.0	0.0	0.0
2019/07	243.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	243.2	0.0	0.0	0.0	425.0	56.5	0.0	0.0
2019/08	149.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	149.2	0.0	0.0	0.0	0.0	64.9	0.0	0.0
2019/09	76.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	76.1	0.0	0.0	0.0	0.0	51.4	0.0	0.0
2019/10	449.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	449.7	0.0	0.0	0.0	0.0	81.4	0.0	0.0
2019/11	498.5	0.0	0.0	102.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	600.9	0.0	0.0	0.0	0.0	56.0	0.0	0.0
2019/12	626.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	626.8	0.0	0.0	0.0	0.0	83.4	0.0	0.0
2019 Total	7,227.0	0.0	0.0	102.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7,329.4	0.0	0.0	0.0	425.0	849.6	0.0	0.0

Remark: *Assume the density is 2 tonnes per cubic metre for inert C&D materials, general waste and marine sediment.

- 1.0 TKO137FB Fill Bank at Tseung Kwan O Area 137
- 2.0 TKO137SF Sorting Facilities at Tseung Kwan O Area 137
- 3.0 TM38FB Fill Bank at Tuen Mun
- 4.0 CWPFBP Chai Wan Public Fill Bargaining Point
- 5.0 WDII C1 HK/2009/01 Wan Chai Development Phase II - Central - Wan Chai Bypass at Hong Kong Convention and Exhibition Centre
- 6.0 CWB HK/2009/15 Central - Wan Chai Bypass - Tunnel (Causeway Bay Typhoon Shelter Section)
- 7.0 SCL1121 Cross Harbour Tunnels
- 8.0 SCL1103 Hin Keng to Diamond Hill tunnels and Fung Tak Public Transport Interchange
- 9.0 WDII C3 Wan Chai development Phase II - Central-Wan Chai Bypass at Wan Chai West
- 10.0 WDII C2 HK/2009/02 Wan Chai Development Phase 2, Central - WanChai Bypass at Wan Chai East
- 11.0 8,217.0 Backfilling of the Shek Yam Construction Adit
- 12.0 CWB- Wan Chai Bypass - Tunnel (Slip Road 8 Section)
- 13.0 SCL1112 Hung Hom Station & Stabling Sidings
- 14.0 Area 56A Construction site at Area 56A, Kau To, Sha Tin
- 15.0 M+ Main Works Contract for M+ Museum Project
- 16.0 XRL 810 B West Kowloon Terminus Station South
- 17.0 PSK226 J3698 PSK226 - Proposed Residential Development at T.P.T.L. 226 Pak Shek Kok (Gammon)

SCL Contract 1129 Advance Works For NSL

Monthly Summary C&D Material Flow Table for 2014 to 2015

updated to 31 July 2015

Latest Programme for Generation & Import of Materials in each Reporting Period	Quantity for off-site disposal of Inert C&D materials (tonne)					Quantity for off-site disposal of Non-inert C&D materials					
	Inert C&D material (tonne)				*m ³ (2t/m ³)	Metals (kg)	Paper / Cardboard (kg)	Plastics (kg)	Chemical Waste (kg)	General Waste (m ³)	Sediment (m ³)
	CWPFBP(1)	TKO137FB(2)	TKO137SF(3)	^Other Site	Total (m ³)	Total	Total		Total	Total	Total
2014/01 (Actual)	0	0	0	0	0	0	0	0	0	0	0
2014/02 (Actual)	0	0	0	0	0	0	0	0	0	0	0
2014/03 (Actual)	610	0	0	0	305	0	0	0	0	0	0
2014/04 (Actual)	615	149	0	0	382	0	0	0	0	0	0
2014/05 (Actual)	2,517	14	0	0	1,266	0	0	0	0	5	0
2014/06 (Actual)	125	38	0	0	82	4,210	0	0	0	5	0
Sub-total	3,867	202	0	0	2,035	4,210	0	0	0	10	0
2014/07 (Actual)	1,326	232	0	0	779	0	307	0	0	4	0
2014/08 (Actual)	3,316	125	0	0	1,721	0	0	0	400	9	0
2014/09 (Actual)	2,063	364	0	0	1,213	0	108	0	0	11	0
2014/10 (Actual)	1,089	49	0	0	569	0	214	0	0	8	0
2014/11 (Actual)	284	62	0	0	173	0	0	0	0	3	0
2014/12 (Actual)	419	112	8	0	270	112	506	0	0	14	0
Sub-total	8,497	943	8	0	4,724	0	1,135	0	400	50	0
2015/1 (Actual)	0	80	0	0	40	0	0	0	0	17	0
2015/2 (Actual)	0	89	9	0	49	0	88	0	0	17	0
2015/3 (Actual)	0	128	0	0	64	0	0	0	0	1	0
2015/4 (Actual)	0	163	6	0	85	0	0	0	0	3	0
2015/5 (Actual)	0	73	0	0	37	0	0	0	0	2	0
2015/6 (Actual)	0	76	18	0	47	0	0	0	0	1	0
2015/7 (Actual)	0	0	25	0	13	0	0	0	0	3	0
Sub-total	0	611	58	0	335	0	88	0	0	43	0
Total	12,364	1,756	67	0	7,093	4,210	1,223	0	400	103	0

- Remark:**
- *Assume the density is 2 tonnes per cubic metre
 - ^Required to be approved by EPD and MTR
 - 1 CWPFBR Chai Wan Public Fill Barging Point
 - 2 TKO137FB Fill Bank at Tseung Kwan O Area 137
 - 3 TKO137SF Sorting Facilities at Tseung Kwan O Area 137

Works Contract 11227 - Advance Works for NSL Cross Harbour Tunnels

Monthly Summary Waste Flow Table for Year 2014

Month	Actual Quantities of Inert C&D Materials Generated Monthly						Actual Quantities of C&D Wastes Generated Monthly				
	Total Quantity Generated	Hard Rock and Broken Concrete	Reused in the Contract	Reused in other Projects	Disposed as Public Fill	Imported Fill	Metals	Paper / Cardboard Packaging	Plastics	Chemical Waste	Others, e.g. general refuse
	('000m ³)	('000m ³)	('000m ³)	('000m ³)	('000m ³)	('000m ³)	('000kg)	('000kg)	('000kg)	('000kg)	('000m ³)
August	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000
September	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
October	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
November	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
December	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Total	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000