





Contract No. 13/WSD/16

Mainlaying in Tseung Kwan O

Monthly EM&A Report No. 54 (Period from 1 to 31 January 2023)

8 February 2023 (Rev. 0)

	Prepared by:	Reviewed and Certified by:	
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Position	Environmental Team Member	Environmental Team Leader	
Signature	Loward		
Date:	9 February 2023	9 February 2023	



Water Supplies Department New Works Branch Construction Division 11 Tai Yip Lane Kowloon Bay Kowloon Hong Kong

Your reference:

Our reference:

HKWSD201/50/108611

Date:

16 February 2023

Attention: Mr Terry Law

BY POST

Dear Sirs

Quotation No.: WQ/17/A071

Independent Environmental Checker for Water Supplies Department

- Proposed Desalination Plant in TKO Area 137 for Contract No. 13/WSD/16

Verification of Monthly EM&A Report No.54

We refer to email of 9 February 2023 attaching Monthly EM&A Report No.54 for the captioned project prepared by the ET.

We have no comment and hereby verify the captioned report in accordance with Clause 3.5 of the Environmental Permit no. EP-503/2015/A.

Should you have any queries regarding the above, please do not hesitate to contact the undersigned or our Mr Louis Kwan 2618 2831.

Yours faithfully

ANEWR CONSULTING LIMITED

James Choi

Independent Environmental Checker

CPSJ/KSYL/lsmt

Email: info@anewr.com Web: www.anewr.com Contract No. 13/WSD/16 Mainlaying in Tseung Kwan O Monthly EM&A Report





Revision History

Rev.	DESCRIPTION OF MODIFICATION	DATE
0	1st Submission	08/02/2023

Contract No. 13/WSD/16 Mainlaying in Tseung Kwan O Monthly EM&A Report





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EXECUTIVE SUMMARY

Introduction

- A1. Penta-Ocean Concentric Joint Venture (POCJV) is contracted to carry out the Mainlaying in Tseung Kwan O under Contract No. 13/WSD/16 (hereinafter known as "the Project").
- A2. In accordance with the Environmental Monitoring and Audit (EM&A) Manual for the Project, EM&A works should be carried out by Environmental Team (ET), Acuity Sustainability Consulting Limited (ASCL), during the construction phase of the Project.
- A3. This is the 54th Monthly EM&A Report, prepared by ASCL, for the Project summarizing the monitoring results and audit findings of the EM&A programme at and around Tseung Kwan O (TKO) during the reporting period from 1 January to 31 January 2023.
- A4. The EM&A programme for this contract has covered environmental monitoring on construction noise level at selected NSRs and Contractor's environmental performance auditing in the aspects of construction dust, construction noise, water quality, waste management, landscape and visual and ecology.

Summary of Main Works Undertaken & Key Mitigation Measures Implemented

A5. Key works carried out in this reporting period for the Project included the followings:

Location	Construction activities carried in the reporting month
Wan Po Road and TKO Area 137	Open trench method
Wali Fo Koau aliu 1KO Alea 157	Water main installation inside sleeve pipe
TKO Promenade (Stage 1	Open trench method
Landfill) & Po Yap Road	Water main installation inside sleeve pipe
Roundabout	Trenchless Method (sleeve pipe)
	Open trench method
HK Velodrome	Water main installation inside sleeve pipe
	Trenchless Method (sleeve pipe)
Po Lam Road South / Ling Hong	Open trench method
Road	Water main installation inside sleeve pipe
Tsui Lam Road / Abandoned	Open trench method
Road	Pile cap construction

- A6. The major environmental impacts brought by the above construction works include:
 - Construction dust and noise generation from mainlaying of pipes, and excavation;
 - Waste generation from the construction activities; and
 - Impact on water quality from construction activities
- A7. The key environmental mitigation measures implemented for the Project in this reporting period associated with the above construction works include:
 - Reduction of construction dust generation from mainlaying of pipes, and excavation;
 - Reduction of noise from equipment and machinery on-site;
 - Sorting and storage of general refuse and construction waste; and
 - Treatment of wastewater through water treatment facilities before discharge





Summary of Exceedance & Investigation & Follow-up

- A8. Noise monitoring was scheduled in the reporting month for NSR4 Creative Secondary School on 5, 11, 17, 26 and 31 January 2023 as construction works were conducted within 300m to the noise sensitive receiver. No Action or Limit Level exceedance was recorded during the reporting period.
- A9. Landfill gas monitoring was carried out by the Registered Safety Officer of the Contractor at the excavation locations and within the consultation zones for 408 times. All the measured results were presented in **Appendix J** and were within the Action and Limit Levels.

Complaint Handling and Prosecution

A10. No environmental complaint, notifications of summons and prosecution was received in the reporting month.

Reporting Change

A11. There were no changes reported that may affect the on-going EM&A programme.

Summary of Upcoming Key Issues and Key Mitigation Measures

A12. Key works in the next reporting month for the Project will include the followings:

Location	Construction activities to be carried out in next reporting month		
Wan Po Road and TKO Area 137	Open trench methodWater main installation inside sleeve pipe		
TKO Promenade (Stage 1 Landfill) & Po Yap Road Roundabout	 Open trench method Water main installation inside sleeve pipe Trenchless Method (sleeve pipe) 		
HK Velodrome	 Open trench method Water main installation inside sleeve pipe Trenchless Method (sleeve pipe) 		
Po Lam Road South / Ling Hong Road	Open trench methodWater main installation inside sleeve pipe		
Tsui Lam Road / Abandoned Road	Open trench method		

- A13. The major environmental impacts brought by the above construction works will include:
 - Construction dust and noise generation of mainlaying of pipes, and excavation works;
 - Waste generation from construction activities; and
 - Impact on water quality from construction activities.
- A14. The key environmental mitigation measures for the Project in the coming reporting period associated with the above construction works will include:
 - Reduction of construction dust generation of mainlaying of pipes, and excavation works by regular water spraying and covering of dusty materials with screenings;
 - Reduction of noise from equipment and machinery on-site;
 - Sorting and storage of general refuse and construction waste; and
 - Treatment of wastewater through water treatment facilities before discharge.





1. BASIC PROJECT INFORMATION

1.1 Background

The proposed Desalination Plant at Tseung Kwan O (DPTKO) will produce potable water with an initial capacity of 135 million liters per day (MLD), expandable to an ultimate capacity of 270 MLD in the future to provide a secure and alternative freshwater resource complying with the World Health Organization (WHO) standards. The plant will adopt the Seawater Reverse Osmosis (SWRO) technology, which dominates the market due to its reliability and progressive reduction in cost as the technology advances.

Pursuant to the Environmental Impact Assessment Ordinance (EIAO), the Director of Environmental Protection granted the Variation of Environmental Permit (No. EP-503/2015/A) to Water Supplies Department (WSD) for the Project on 26 January 2018.

The scope of the Contract may be considered in brief, to consist of the laying of about 10 km long 1200 mm diameter freshwater mains and the associated works along the alignment of the Project as shown with the overall view in **Appendix B**.

1.2 The Reporting Scope

This is the 54th Monthly EM&A Report for the Project which summarizes the key findings of the EM&A programme during the reporting period from 1 January to 31 January 2023.

1.3 Project Organization

The Project Organization structure for Construction Phase is presented in **Figure 1.1**.

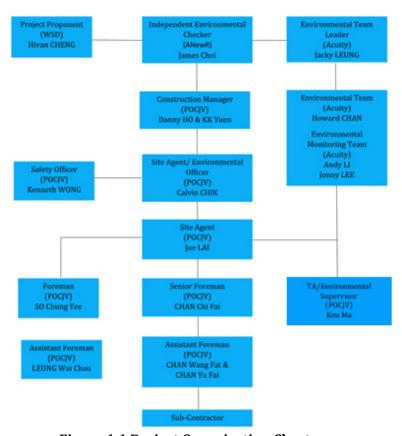


Figure 1.1 Project Organization Chart





Contact details of the key personnel are presented in **Table 1.1** below:

Table 1.1 Contact details of the key personnel

Party	Position	Name	Telephone no.
Penta-Ocean - Concentric Joint Venture	Environmental Officer	Calvin Chik	9863 5630
Acuity Sustainability Consulting Limited	Environmental Team Leader	Jacky Leung	2698 6833
ANewR Consulting Limited	Independent Environmental Checker	James Choi	2618 2831

1.4 Summary of Construction Works

Details of the major construction works undertaken in this reporting period are shown in **Table 1.2** and the construction works locations are shown in **Appendix B**. The construction programme is presented in **Appendix A**.

Table 1.2 Summary of the Construction Works Undertaken during the Reporting Month

Location	Construction activities carried out in the reporting month
Wan Po Road and TKO Area 137	Open trench method
wan i o Road and i Ro in ea 137	 Water main installation inside sleeve pipe
TKO Promenade (Stage 1	Open trench method
Landfill) & Po Yap Road	 Water main installation inside sleeve pipe
Roundabout	 Trenchless Method (sleeve pipe)
	Open trench method
HK Velodrome	 Water main installation inside sleeve pipe
	 Trenchless Method (sleeve pipe)
Po Lam Road South / Ling Hong	Open trench method
Road	Water main installation inside sleeve pipe
Tsui Lam Road / Abandoned	Open trench method
Road	Pile cap construction

A summary of the valid permits, licences, and or notifications on environmental protection for this Project is presented in **Table 1.3**.

Table 1.3 Summary of the Status of Environmental Licence, Notification and Permit

Reference No.	Valid Period		Status	Remark		
Reference No.	From	То	Status	Remark		
Variation of Environmental Permit						
EP no.: EP-503/2015/A		Valid		N/A		
Notification of Construction Works under the Air Pollution Control (Construction Dust) Regulation						
423775			Valid	N/A		





Deference No.	Valid Period		Status	Domonly			
Reference No.	From	То	Status	Remark			
Chemical Waste Producer Registration							
5213-839-P3287-01			Valid	N/A			
Billing Account for Disp	Billing Account for Disposal of Construction Waste						
A/C no.: 7029491			Valid	N/A			
Water Discharge Licenc	Water Discharge Licence						
WT00032336-2018	10 Dec 2018	31 Dec 2023	Valid	N/A			
Construction Noise Per	Construction Noise Permit (CNP)						
GW-RE1145-22	21 Oct 2022	20 Jan 2023	Expired	Wan Po Road near Chun Wang ST.			
GW-RE1268-22	17 Nov 2022	31 Jan 2023	Expired	Construction site near junction of Wan Po Road and Pung Loi Road			

The status for all environmental aspects is presented **Table 1.4**.

Table 1.4 Summary of Status for Key Environmental Aspects under the EM&A Manual

Parameters	Status				
	Noise				
Baseline Monitoring	The baseline noise monitoring result has been reported in Baseline Monitoring Report and submitted to EPD under VEP Condition 3.4.				
Impact Monitoring	On-going On-going				
	Waste Management				
Mitigation Measures in Waste Management Plan On-going					
	Landfill Gas				
Impact Monitoring On-going					
Environmental Audit					
Site Inspection	On-going				

Other than the EM&A works by ET, regular environmental management meetings were conducted in order to enhance environmental awareness and closely monitor the environmental performance of the contractors.

The EM&A programme has been implemented in accordance with the recommendations presented in the approved EIA Report and the EM&A Manual. A summary of implementation status of the environmental mitigation measures for the construction phase of the Project during the reporting period is provided in **Appendix C**.





2. Noise Monitoring

2.1 Monitoring Requirements

To ensure no adverse noise impact, noise monitoring is recommended to be carried out within 300m radius from the nearby noise sensitive receivers (NSRs), during construction phase. The NSRs selected as monitoring station are (i) NSR4 – Creative Secondary School, (ii) NSR24 – PLK Laws Foundation College, and (iii) NSR31 – School of Continuing and Professional Studies – CUHK respectively.

Referring to EM&A Manual Section 4.1.2, the impact noise monitoring should be carried out at all the designated monitoring stations when there are project-related construction activities undertaken within a radius of 300m from the monitoring stations.

Impact monitoring for noise impact was conducted in the reporting month for NSR4 – Creative Secondary School on 5, 11, 17, 26 and 31 January 2023 as construction works were conducted within 300m to the noise sensitive receiver. Detailed monitoring results can be found in **Appendix G**.

2.2 Noise Monitoring Parameters, Time, Frequency

Impact noise monitoring was conducted weekly in the reporting period between 0700-1900 on normal weekdays. Construction works will follow the requirements as stipulated in the valid CNPs if works have to be conducted in the restricted hours.

Construction noise level was measured in terms of the A-weighted equivalent continuous sound pressure level (L_{Aeq}). $L_{eq\,30min}$ was used as the monitoring parameter for the time period between 0700 and 1900 on normal weekdays. **Table 2.1** summarizes the monitoring parameters, frequency, and duration of the impact noise monitoring. The monitoring schedule is provided in **Appendix D**.

Table 2.1 Noise Monitoring Parameters, Time, Frequency and Duration

Time Frequency		Duration	Parameters
Daytime: 0700-1900	Once per week	$\begin{array}{c} \text{Continuously in} \\ L_{\text{eq 5min}}/L_{\text{eq 30min}} \text{(average of 6} \\ \text{consecutive } L_{\text{eq 5min}} \text{)} \end{array}$	L _{eq} , L ₁₀ & L ₉₀

2.3 Noise Monitoring Locations

The monitoring locations should normally be made at a point 1m from the exterior of the NSRs building façade and be at a position 1.2m above the ground. A correction of +3dB(A) should be made to the free-field measurements.

According to the environmental findings detailed in the EIA report and Baseline Monitoring Report, the designated locations for the construction noise monitoring are listed in **Table 2.2** below.

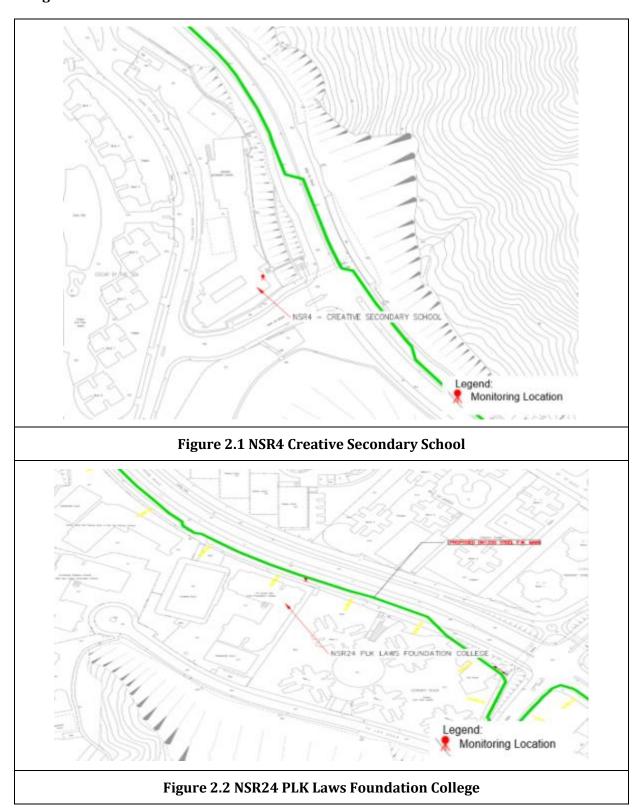
Table 2.2 Noise Monitoring Location

NSR ID	Noise Sensitive Receivers	Monitoring Location	Position
NSR 4	Creative Secondary School	Roof Floor	1 m from facade
NSR 24	PLK Laws Foundation College	Pedestrian Road on Ground Floor	Free-field
NSR 31	School of Continuing and Professional Studies - CUHK	Roof Floor	1 m from facade



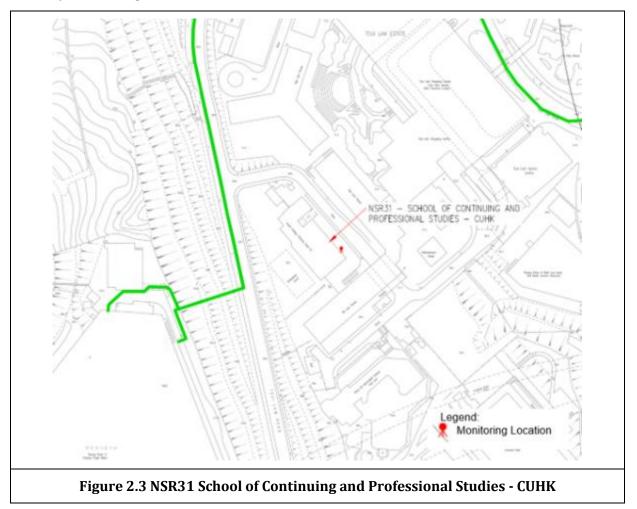


Three noise monitoring locations for impact monitoring at the nearby sensitive receivers are shown in **Figure 2.1-2.3**.









2.4 Impact Monitoring Methodology

Integrated sound level meters were used for the noise monitoring. The meters were in compliance with the International Electrotechnical Commission Publications 651: 1979 (Type 1) and 804: 1985 (Type 1) specifications. Immediately prior to and following each noise measurement the accuracy of the sound level meters was checked using an acoustic calibrator generating a known sound pressure level at a known frequency. Measurements may be accepted as valid only if the calibration level before and after the noise measurements agree to within $1.0~\mathrm{dB}(A)$.

Calibration certificates of the instruments used are presented in **Appendix E**. Noise measurements were not made in the presence of fog, rain, wind with a steady speed exceeding 5 m/s or wind with gusts exceeding 10 m/s. The wind speed was checked with a portable wind speed meter capable of measuring the wind speed in m/s.

Table 2.3 Impact Noise Monitoring Equipment

Equipment	Brand and Model	Serial Number	Date of Calibration	Expiry Date
Sound Level Meter	Svantek 971	96062	27/06/2022	26/06/2023
Sound Level Meter Calibrator	RION NC-75	34524163	09/05/2022	08/05/2023
Pocket Wind Meter Anemometer	Kestrel 1000 Wind Meter	Nil	Nil	Nil





2.5 Action and Limit Levels

The Action/Limit Levels are in line with the criteria of Practice Note for Professional Persons (ProPECC PN 2/93) "Noise from Construction Activities – Non-statutory Controls" and Technical Memorandum on Environmental Impact Assessment Process issued by HKSAR Environmental Protection Department ["EPD"] under the Environmental Impact Assessment Ordinance, Cap 499, S.16 are presented in **Table 2.4**.

Table 2.4 Action and Limit Levels for Noise

Time Period	Action Level	Limit Level (dB(A))
0700-1900 on normal weekdays	When one documented complaint is received from any one of the noise sensitive receivers	
Notes: (a) Limits specified in the GW-TM	and IND-TM for construction and operation i	noise, respectively.

If exceedances are found during noise monitoring, the actions in accordance with the Event and Action Plan will be carried out according to **Appendix F**.

2.6 Monitoring Results and Observations

Referring to EM&A Manual Section 4.1.2, impact monitoring for noise impact was scheduled weekly in the reporting month for NSR4 – Creative Secondary School on 5, 11, 17, 26 and 31 January 2023. Detailed monitoring results are presented in **Appendix G**.

No construction works were conducted within 300m radius of NSR24 and NSR31. Thus, no construction noise monitoring works was carried at these two locations in the reporting month.

No action or limit level exceedance was recorded for construction noise monitoring during the reporting period.





3. WASTE MANAGEMENT

The waste generated from this Project includes inert construction and demolition (C&D) materials, and non-inert C&D materials. Non-inert C&D materials are made up of general refuse, vegetative wastes, and recyclable wastes such as plastics and paper/cardboard packaging waste. Steel materials generated from the project are also grouped into non-inert C&D materials as these materials were not disposed of with other inert C&D materials. With reference to relevant handling records and trip tickets of this Project, the quantities of different types of waste generated in the reporting month are summarised in **Table 3.1**. Details of cumulative waste management data are presented as a waste flow table in **Appendix H**.

Table 3.1 Quantities of waste generated from the Project

			Quai	ntity							
				Non-inert C&D Materials							
Reporting period	Inert C&D Materials (in '000m³)	faterials Waste Others,		ľ	cycled materials						
	(iii oooiii°)	(iii oookg)	disposed at Landfill (in '000m³)	Paper/cardboard (in '000kg)	Plastics (in '000kg)	Metals (in '000kg)					
Jan 2023	0.542	0.000	0.002	0.052	0.000	0.000					





4. LANDFILL GAS MONITORING

4.1 Monitoring Requirement

In accordance with Section 11 of the EM&A Manual, monitoring of landfill gas is required for construction works within the 250m Consultation Zone. Part of the desalination plant and the indicative area of natural slope mitigation works fall within the SENT Landfill Extension Consultation Zone; and part of the 1,200 mm diameter fresh water mains along Wan Po Road falls within the SENT Landfill and SENT Landfill Extension Consultation Zones, TKO Stage II/III Restored Landfill and TKO Stage I Restored Landfill Consultation Zones.

4.2 Monitoring Location

Monitoring of oxygen, methane, carbon dioxide and barometric pressure was performed for excavations at 1m depth or more within the Consultation Zone.

During construction of works within the consultation zones, excavations of 1m depth or more was monitored:

- At the ground surface before excavation commences;
- Immediately before any worker enters the excavation;
- At the beginning of each working day for the entire period when the excavation remains open; and
- Periodically through the working day whilst workers are in the excavation.

For excavations between 300mm and 1m deep, measurements should be carried out:

- Directly after the excavation has been completed; and
- Periodically whilst the excavation remains open.

The area required to be monitored for landfill gas in the reporting period are shown in **Figure 4.1** to **Figure 4.9**.





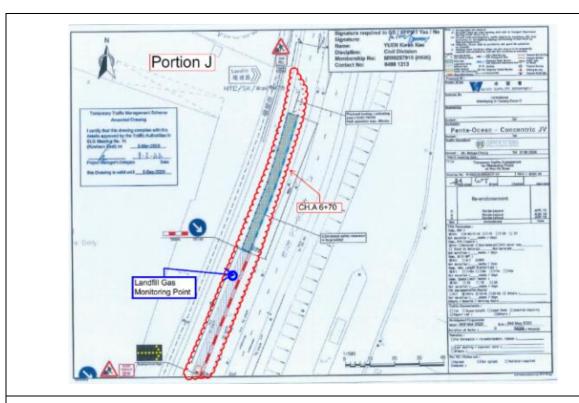


Figure 4.1 Monitoring Location - CH.A 6+70

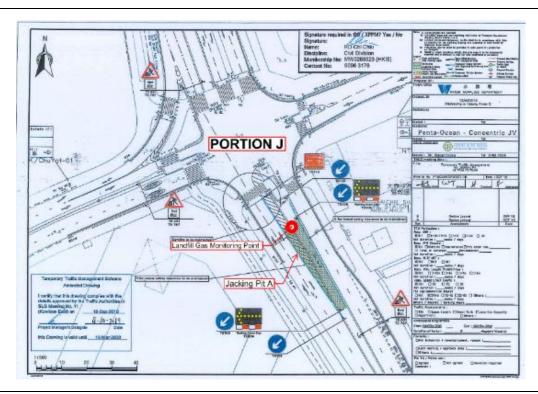


Figure 4.2 Monitoring Location - CH.A 13+50 ~ 14+00 (Pit A)





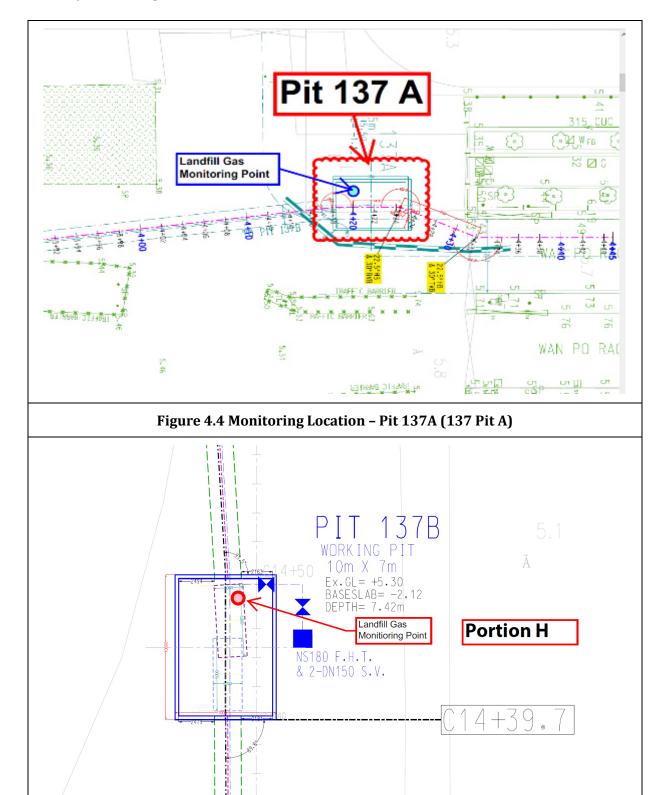


Figure 4.5 Monitoring Location - Pit 137B (137 Pit B)





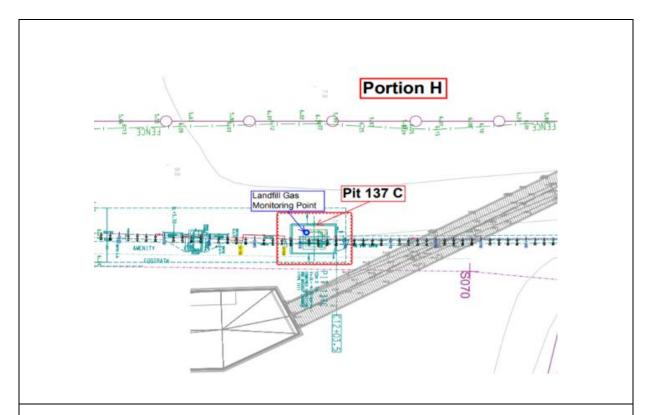


Figure 4.6 Monitoring Location - Pit 137C (137 Pit C)

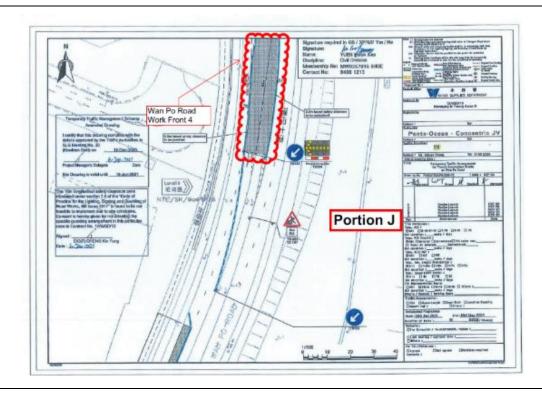


Figure 4.7 Monitoring Location - Wan Po Road 4





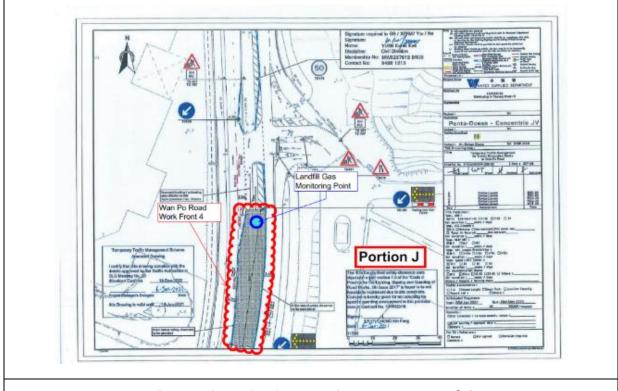


Figure 4.8 Monitoring Location - Wan Po Road 5





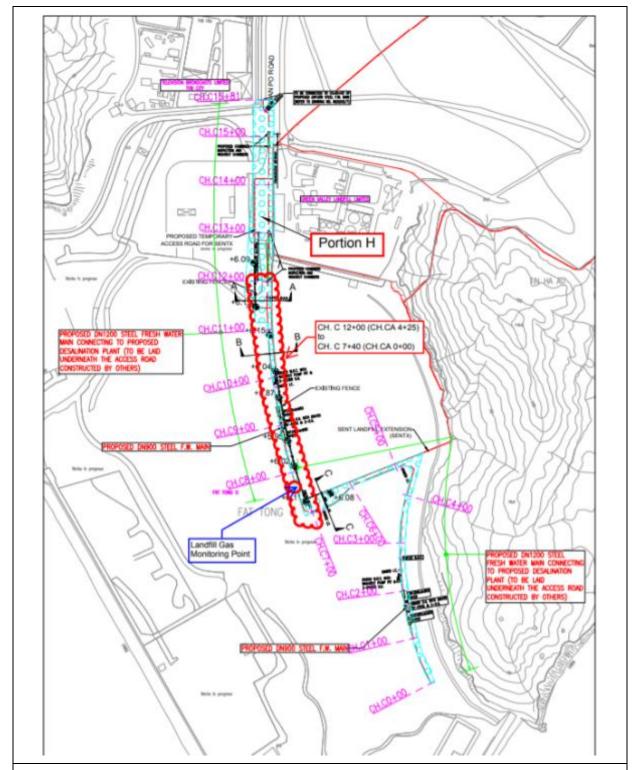


Figure 4.9 Monitoring Location -CH.CA 0+00 to CH.CA 04+25 (CH.C 7+40 ~ 12+00)





4.3 Monitoring Parameters

Landfill Gas monitoring was carried out to identify any migration between the landfill and the Project and to ensure the safety of the construction, operation and maintenance personnel working on-site, visitors and any other person within the Project area.

The following parameters were monitored:

- Methane.
- Oxygen.
- Carbon Dioxide.
- Barometric Pressure.

4.4 Action and Limit Level

Action and Limit Level are provided in **Table 4.1**.

Table 4.1 Action and Limit Level for Landfill Gas Monitoring Equipment

Parameters	Action Level	Limit Level
Oxygen (O ₂)	<19% 02	<19% 02
Methane (CH ₄)	>10% LEL	>20% LEL
Carbon Dioxide (CO ₂)	>0.5% CO ₂	>1.5% CO ₂

4.5 Monitoring Equipment

Landfill Gas monitoring was carried out using intrinsically safe, portable multi-gas monitoring instruments. The gas monitoring equipment is:

- Complying with the Landfill Gas Hazard Assessment Guidance Note as intrinsically safe;
- Capable of continuous barometric pressure and gas pressure measurements;
- Normally operated in diffusion mode unless required for spot sampling, when it should be capable of operating by means of an aspirator or pump;
- Having low battery, fault and over range indication incorporated;
- Capable of storing monitoring data, and shall be capable of being down-loaded directly;
- Measure in the following ranges:

methane	0-100% Lower Explosion Limit (LEL) and 0-100% v/v;
oxygen	0-25% v/v;
carbon dioxide	0-5% v/v; and
barometric pressure	mBar (absolute)

alarm (both audibly and visually) in the event that the concentrations of the following are exceeded:

methane	>10% LEL;
oxygen	<19% by volume; and
carbon dioxide	>0.5% by volume
barometric pressure	mBar (absolute)

Monitoring Equipment used in the reporting period are summarised in **Table 4.2**. The Landfill Gas monitoring equipment calibration certificate is presented in **Appendix I**.





Table 4.2 Landfill Gas Monitoring Equipment

Equipment	Brand and Model	Calibration Expiry Date
Doutable Cas Detector	PGM-2500 QRAE III	27 July 2023
Portable Gas Detector	XT-XWHM-Y-OR	2 September 2023
CO2 Analyzer	TES, 1307H	16 November 2023

4.6 Monitoring Results

In the reporting period, construction works within the consultation zones, excavations of 1m depth or more was monitored. Landfill gas monitoring was carried out by the Registered Safety Officer of the Contractor at the excavation locations for 408 times. All the measured results were presented in **Appendix J** and were within the Action and Limit Levels.

Table 4.3 Action and Limit Levels and Event and Action Plan for LFG Hazard

Parameters	Level	Action
Oxygen (O ₂)	Action Level $< 19\% O_2$	Ventilate trench/void to restore 0 ₂ to > 19%
Oxygen (02)		Stop works
	Limit Level $< 19\% 0_2$	Evacuate personnel/prohibit entry
		Increase ventilation to restore O_2 to > 19%
		Post "No Smoking" signs
	Action Level >10% LEL	Prohibit hot works
Methane (CH ₄)		Increase ventilation to restore CH ₄ to <10% LEL
		Stop works
	Limit Level >20% LEL	Evacuate personnel/prohibit entry
		Increase ventilation to restore CH ₄ to<10% LEL
Carbon Dioxide	Action Level >0.5% CO ₂	Ventilate to restore CO ₂ to < 0.5%
(CO_2)		Stop works
(402)	Limit Level >1.5% CO ₂	Evacuate personnel / prohibit entry
		Increase ventilation to restore CO ₂ to <0.5%





5. SUMMARY OF EXCEEDANCE, COMPLAINTS, NOTIFICATION OF SUMMONS AND PROSECUTIONS

The Environmental Complaint Handling Procedure is shown in below **Figure 5.1**:

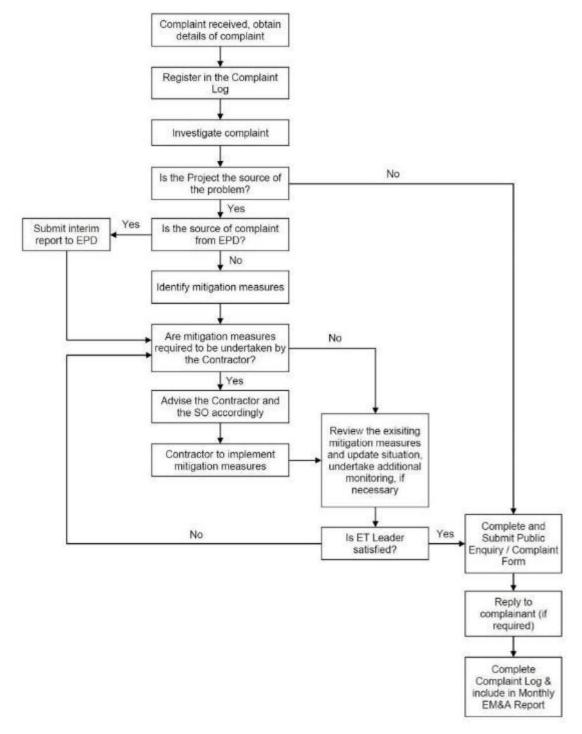


Figure 5.1 Environmental Complaint Handling Procedure





Impact monitoring for noise impact was scheduled in the reporting month for NSR4 – Creative Secondary School on 5, 11, 17, 26 and 31 January 2023 as construction works were conducted within 300m to the noise sensitive receiver. Detailed monitoring results can be found in **Appendix G**.

Landfill gas monitoring was carried out by the Registered Safety Officer of the Contractor at the excavation locations and within the consultation zones for 408 times. All the measured results were presented in **Appendix J** and were within the Action and Limit Levels.

No Action and Limit Level exceedance was recorded during the reporting period.

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

Statistics on complaints and regulatory compliance are summarized in **Appendix K**.





6. EM&A SITE INSPECTION

Site inspections were carried out on a weekly basis to monitor the implementation of proper environmental pollution control and mitigation measures under the Contract. In the reporting period, site inspections were carried out on 5, 12, 17 and 30 January 2023 at the site portions list in **Table 6.1** below. One joint site inspection with IEC was carried out on 30 January 2023.

Table 6.1 Site Inspection Record

Date	Inspected Site Portion	Time
5 January 2023	Portion J	14:30 - 15:30
12 January 2023	Portion J	14:30 - 15:30
17 January 2023	Portion J	14:30 - 15:30
30 January 2023	Portion J	09:00 - 10:00

Minor deficiencies were observed during weekly site inspections. Key observations during the site inspections are summarized in **Table 6.2**.

Table 6.2 Site Observations

Date	Environmental Observations	Follow-up Status
5 January 2023	1. Oil leakage from excavator at Pit O1 was observed. The Contractor was reminded to repair the excavator.	1. The excavator was repaired, no oil leakage was observed.
12 January 2023	No major environmental deficiency was identified.	N/A
17 January 2023	 Chemical containers should be stored with drip tray. (Pit D) Oil stain should be cleared and properly treated the contaminated soil. (Pit D) Dusty materials was observed placed on the pedestrian. The Contractor was reminded to remove the dusty materials and clean the pedestrian afterward. (Work Fount 4) 	 Chemical was removed. Oil stain was cleared. Dusty materials was removed and the pedestrian was cleared.
30 January 2023	1. Chemical container shall be stored with drip tray, and all container for chemical shall be properly labelled. (Pit D, Tower 1)	1. Chemical was removed.

According to the EIA Study Report, Environmental Permit, contract documents and EM&A Manual, the mitigation measures detailed in the documents should be implemented as much as practical during the reporting period. An updated Implementation Status of Environmental Mitigation Measures (EMIS) is provided in **Appendix C**.

Site inspection proforma of the reporting period is provided in **Appendix L**.





7. FUTURE KEY ISSUES

Key works that will be anticipated in the next reporting period for the Project are shown in **Table 7.1**.

Table 7.1. Key works for the next reporting month

Location	Construction activities to be carried out in next reporting month
Wan Po Road and TKO	Open trench method
Area 137	Water main installation inside sleeve pipe
TKO Promenade (Stage 1	Open trench method
Landfill) & Po Yap Road	Water main installation inside sleeve pipe
Roundabout	 Trenchless Method (sleeve pipe)
	Open trench method
HK Velodrome	Water main installation inside sleeve pipe
	 Trenchless Method (sleeve pipe)
Po Lam Road South / Ling	Open trench method
Hong Road	Water main installation inside sleeve pipe
Tsui Lam Road /	• Open transh method
Abandoned Road	Open trench method

The major environmental impacts brought by the above construction works will include:

- Construction dust and noise generation of mainlaying of pipes, TBM break through, and excavation works;
- Waste generation from construction activities; and
- Impact on water quality from construction activities.

The key environmental mitigation measures for the Project in the coming reporting period associated with the above construction works will include:

- Dust suppression by regular wetting and water spraying for excavation works, mainlaying of pipes and TBM break through works;
- Reduction of noise from equipment and machinery on-site;
- Sorting and storage of general refuse and construction waste; and
- Treatment of wastewater with water treatment facilities before discharge.

The proactive environmental protection proforms for the next reporting month is listed in Appendix M.

Referring to EM&A Manual Section 4.1.2, the impact noise monitoring should be carried out at all the designated monitoring stations when there are project-related construction activities undertaken within a radius of 300m from the monitoring stations.

The tentative impact monitoring schedule for the next reporting month is attached in **Appendix N**.





8. CONCLUSION AND RECOMMENDATIONS

This is the 54th monthly Environmental Monitoring and Audit (EM&A) Report presenting the EM&A works undertaken during the period from 1 January to 31 January 2023 in accordance with the EM&A Manual and the requirement under EP-503/2015/A.

Impact monitoring for noise impact was scheduled in the reporting month for NSR4 – Creative Secondary School on 5, 11, 17, 26 and 31 January 2023 as construction works were conducted within 300m to the noise sensitive received. No action and limit level exceedance for construction noise monitoring was recorded in the reporting period.

Landfill gas monitoring was carried out by the Registered Safety Officer of the Contractor at the excavation locations and within the consultation zones for 408 times. All the measured results were presented in **Appendix J** and were within the Action and Limit Levels.

No exceedance of the action and limit level for landfill gas monitoring was recorded during the reporting period.

Weekly environmental site inspections were conducted during the reporting month. Observations and Recommendation were made during site inspection, Contractor was reminded that sedimentation facilities shall be provided on site to remove silt particles from runoff before discharge and to meet the requirements of the TM standard under the WPCO.

According to the environmental site inspections performed in the reporting month, the contractor is reminded to pay attention on maintaining site tidiness, water treatment facilities, and proper materials storage.

No environmental complaint, notification of summons and prosecution was received in the reporting month.

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





Appendix A

Construction Programme

_							Project: Mainlaying in Tseung			T.												
	ask Name	Duration	Start	Finish	Task Calendar	Predecessors	Successors	% Complete	Actual Start	Actual Finish	2018		2019	2020		2021		2022	2	023	2024 2024	2025
(ey Dates	2495 days	Tue 7/11/17	Thu 5/9/24	Calendar Day			0%	Tue 7/11/17	NA	Q4 Q1	Q2 Q3 0	04 Q1 Q2	Q3 Q4 Q1	Q2 Q3	Q4 Q1 Q	02 Q3 Q4	Q1 Q2	Q3 Q4	Q1 Q2 Q3	Q4 Q1 Q2	Q3 Q4 Q1 Q
					Calendar Day		67,59,60FS+27		Tue 7/11/17		♦ 7/11											
	Contract Date	0 days	Tue 7/11/17	Tue 7/11/17			days,61,62,58													,		
	Starting Date	0 days	Thu 16/11/17	Thu 16/11/17	Calendar Day		4,5FS+730 days,6FS+1279 days															
	Access Date of Portion A, B, C, D, E, F, G and J	0 days	Thu 16/11/17	Thu 16/11/17	Calendar Day	3	90,63,71,73,75,78,79	100%	Thu 16/11/17	Thu 16/11/17	♦ 16/11											
	Access Date of Portion H	0 days	Sat 16/11/19	Sat 16/11/19	Calendar Day	3FS+730 days	110	100%	Sat 16/11/19	Sat 16/11/19				♦ 16/11								
	Completion Date (Contract)	0 days	Tue 18/5/21	Tue 18/5/21	Calendar Day	3FS+1279 days	7	100%	Tue 18/5/21	Tue 18/5/21							▶ 18/5					
	EOT for CE No. 23 Inclement Weather - In June 2018	0 days	Tue 18/5/21	Tue 18/5/21	HK Working Day	<i>y</i> 6	8	100%	Tue 18/5/21	Tue 18/5/21						1	▶ 18/5					
	EOT for CE No. 01	246 days	Wed 19/5/21	Wed 19/1/22	Calendar Day	7	9FF	0%	NA	NA								• 19/1				
	Revised Completion Date	0 days	Wed 19/1/22	Wed 19/1/22	Calendar Day	8FF	11FS+365 days	0%	NA	NA								• 19/1				
	Planned Completion	0 days	Thu 5/9/24	Thu 5/9/24	Calendar Day	12FF		0%	NA	NA					100							♦ 5/9
	Defect Date	0 days	Thu 19/1/23	Thu 19/1/23	Calendar Day	9FS+365 days		0%	NA	NA			+						•	19/1		2
V	fainlaying In Tseung Kwan O	2495 days	Tue 7/11/17	Thu 5/9/24	Calendar Day		10FF	77%	Tue 7/11/17	NA	-											-
									Tue 12/6/18			-						7				
	Issued Compensation Events (General)	1316 days	Tue 12/6/18	Tue 18/1/22	Calendar Day																	
	Preliminaries	1636 days		Sat 30/4/22	Calendar Day				Tue 7/11/17						The state of the s			•				
	Submission and Permit Application	322 days	Tue 7/11/17	Mon 24/9/18	Calendar Day			100%	Tue 7/11/17	Mon 24/9/18												
	Subcontracting	1122 days	Thu 16/11/17	Fri 11/12/20	Calendar Day			100%	Thu 16/11/17	Fri 11/12/20						-						
	Site Establishment	220 days	Tue 2/1/18	Thu 9/8/18	Calendar Day			100%	Tue 2/1/18	Thu 9/8/18		7										
	Procurement of Major Material	1485 days	Sat 7/4/18	Sat 30/4/22	Calendar Day			100%	Sat 7/4/18	Sat 30/4/22	•							~				
	Mainlaying in Tseung Kwan O Area 137 (Portion H)	1260 days	Tue 11/12/18	Wed 15/3/23	HK Working Da	у		92%	Tue 11/12/18	NA			+							-		
	Early Possession of Portion H	0 days	Mon 29/7/19	Mon 29/7/19	Calendar Day			100%	Mon 29/7/19	Mon 29/7/19				* 29/7								
	Issue Date of CE No. 07 -Water Supply to No. TKO Desalination Plant at Portion H	0 days	Tue 22/1/19	Tue 22/1/19	Calendar Day		104	100%	Tue 22/1/19	Tue 22/1/19			22/1									
	(NS250 HDPE Pipe) Material Procurement and Delivery in Batches	330 days	Tue 11/12/18		Calendar Day	103		100%	Tue 11/12/18	Tue 5/11/19			.,.									
		597 days	Sat 10/8/19		HK Working Da		761		Sat 10/8/19					Ç			-					
		1162 days			HK Working Da		784,762		Tue 22/1/19													
	Final Connection of NS250 HDPE Pipe to Existing at Wan Po Road	14 days	Tue 28/2/23	Wed 15/3/23	HK Working Day	y 788		0%		NA										•		
	Mainlaying From Boundary of Tseung Kwan O Area 137 to TKO Fresh Water Service Reservoir (Portion I)	1866 days	Tue 7/11/17	Mon 26/2/24	HK Working Da	у		74%	Tue 7/11/17	NA												
	Open Cut Excavation, Pipe Laying and Reinstatement at Wan Po Road	1506 days	Thu 30/8/18	Thu 28/9/23	HK Working Da	У		81%	Thu 30/8/18	NA												
	Trenchless Work at Wan Po Road From Pit A to Pit F	1866 days	Tue 7/11/17	Mon 26/2/24	HK Working Da	у		56%	Tue 7/11/17	NA	-											0.00
	Open Cut Excavation, Pipe Laying and Reinstatement at TKO Landfill Stage 1 and TKO	1221 days	Thu 23/8/18	Fri 7/10/22	HK Working Da	У		91%	Thu 23/8/18	NA		_							~			
	South Waterfront Promenade Water Mains Near Pung Loi Road (CH.FD0+00 - CH.A3+51)	1020 days	Wed 17/6/20	Thu 23/11/23	HK Working Da	у		60%	Wed 17/6/20	NA					-						-	
	Water Mains near Pung Loi Road and Po Yap Road (CH.FE0+00 - CH.A3+58)	758 days	Thu 20/8/20	Sat 11/3/23	HK Working Da	у	765	78%	Thu 20/8/20	NA					φ		_			-7		
	Trenchless Work from Po Yap Road Roundabout to KMB Depot (Pit K to Pit L) (Pit O to	822 days	Fri 28/2/20	Mon 5/12/22	HK Working Da	у	765	55%	Fri 28/2/20	NA				-								
	Pit P) Trenchless Work from Po Yap Road Roundabout (Hong Kong Velodrome)		Tue 2/4/19		HK Working Da		765		Tue 2/4/19				-							-		
			Tue 7/11/17		HK Working Da				Tue 7/11/17		-											
																						-
	DN800 - CH.ADN1200 MS Pipe Static Pressure Test, Pipeline Cleaning, CCTV Inspection, Sterilization and Water Sampling				Calendar Day		TO THE		Wed 24/3/21													
	Static Pressure Test		Wed 24/3/21		Calendar Day				Wed 24/3/21													
	Pipeline Cleaning and CCTV Inspection	1153 days	Wed 12/5/21	Sun 7/7/24	Calendar Day			10%	Wed 12/5/21	NA						· ·						
	Sterilization and Water Sampling	30 days	Mon 8/7/24	Tue 6/8/24	Calendar Day			0%	NA	NA												•
	NS250 HDPE Pipe Static Pressure, Pipeline Cleaning, CCTV Inspection, Sterilization and	60 days	Fri 23/12/22	Mon 20/2/23	Calendar Day			0%	NA	NA									•	~		
	Water Sampling Handover Portion I and Portion H to WSD Region	563 days	Tue 21/2/23	Thu 5/9/24	Calendar Day			0%	NA	NA												7
	Water Supply to Tseung Kwan O Desalination Plant at Fill Bank of Tseung Kwan O Area	445 days	Tue 7/11/17	Sat 11/5/19	HK Working Da	У		99%	Tue 7/11/17	NA			7									
	137 (Portion J)																					

Name	Duration	Start	Finish	Task Calendar	Predecessors	Successors	% Complete	Actual Start	Actual Finish	2018	03 04	019 019 01 02 03	2020	02 03 04	2021	2022 O4 O1 O2	9 03 04	2023 O1 O2	O3 Q4 Q	24 1 Q2 Q3	2025 Q4 Q1 Q2
Dates	2495 days	Tue 7/11/17	Thu 5/9/24	Calendar Day			0%	Tue 7/11/17	NA	Q1 Q1 Q2	40 41	Qi Qz Q	XI XI	45 45 41	4. 4c 4.						
anned Completion	0 days	Thu 5/9/24	Thu 5/9/24	Calendar Day	12FF		0%	NA	NA											•	5/9
nlaying In Tseung Kwan O	2495 days	Tue 7/11/17	Thu 5/9/24	Calendar Day		10FF	77%	Tue 7/11/17	NA					ATTERNATION OF THE PARTY.							
ainlaying From Boundary of Tseung Kwan O Area 137 to TKO Fresh Water Service eservoir (Portion I)	1866 days	Tue 7/11/17	Mon 26/2/24	HK Working Day			74%	Tue 7/11/17	NA												
Trenchless Work at Wan Po Road From Pit A to Pit F	1866 days	Tue 7/11/17	Mon 26/2/24	HK Working Day			56%	Tue 7/11/17	NA											_	
Trenchless Works (Pit A to Pit D)	1354 days	Fri 2/8/19	Mon 26/2/24	HK Working Day		763	51%	Fri 2/8/19	NA			-									
New Routing From Pit A to Pit D)	553 days	Thu 14/4/22	Mon 26/2/24	HK Working Day	/		0%	Thu 14/4/22	NA											,	
XP Application for WPR, SKR and Open Trench at Shek Kok Road	60 days	Tue 19/4/22	Thu 30/6/22	HK Working Day	274	278,279,286	0%	NA	NA												
Trial Pit Excavation at Pit SKR	10 days	Sat 2/7/22	Wed 13/7/22	HK Working Day	275	288,285,284	0%	NA	NA												
Pipe Laying (OC) from Pit SKR to Pit D (1st 200m)	200 days	Thu 14/7/22	Tue 14/3/23	HK Working Day	279	288	0%	NA	NA												
Construction of Pit SKR	90 days	Wed 15/3/23	Thu 6/7/23	HK Working Day	279,284	290	0%	NA	NA												
Headshield Tunneling fom Pit SKR to Pit WPR (64m)	107 days	Fri 7/7/23	Sat 11/11/23	HK Working Day	288	292	0%	NA	NA												
MS Pipe Laying in Segment from Pit SKR to Pit WPR	30 days	Sun 12/11/23	Mon 11/12/23	Calendar Day	290	295,296	0%	NA	NA												
Pipe Connection Works and construction of Inspoection Chamber at Pit WPR	60 days	Tue 12/12/23	Mon 26/2/24	HK Working Day	292,283		0%	NA	NA												
Pipe Connection Works and construction of Washout Chamber at Pit SKR	60 days	Tue 12/12/23	Mon 26/2/24	HK Working Day	292		0%	NA	NA												
ON800 - CH.ADN1200 MS Pipe Static Pressure Test, Pipeline Cleaning, CCTV Inspection, iterilization and Water Sampling	1232 days	Wed 24/3/21	Tue 6/8/24	Calendar Day			13%	Wed 24/3/21	NA												
Static Pressure Test	1112 days	Wed 24/3/21	Mon 8/4/24	Calendar Day			18%	Wed 24/3/21	NA												
DN1200 MS Pipe - Static Pressure Test From DN900 Valve Chamber at Wan Po Road (CH.A12+50) to DN900 Valve Chamber at TKO Landfill Stage I Area A (CH.FB1+66) (Approx. 1.4km)	42 days	Tue 27/2/24	Mon 8/4/24	Calendar Day	224,251,306	774		NA	NA												
Pipeline Cleaning and CCTV Inspection	1153 days	Wed 12/5/21	Sun 7/7/24	Calendar Day			10%	Wed 12/5/21													
DN1200 MS Pipe - Pipeline Cleaning and CCTV Inspection From DN900 Valve Chambe at Wan Po Road (CH.A12+50) to DN900 Valve Chamber at TKO Landfill Stage I Area A		Tue 9/4/24	Sun 7/7/24	Calendar Day	763	782	0%	NA	NA												
Sterilization and Water Sampling	30 days	Mon 8/7/24	Tue 6/8/24	Calendar Day				NA	NA											•	
DN1200 MS Pipe - Portion I & Portion H (Total Water = 9700 cu.m)	30 days	Mon 8/7/24	Tue 6/8/24	Calendar Day	772,773,774,775,777,778	3,7 787	0%	NA	NA												
Handover Portion I and Portion H to WSD Region	563 days	Tue 21/2/23	Thu 5/9/24	Calendar Day			0%		NA												
DN1200 MS Pipe - Portion I & Portion H (Area 137)	30 days	Wed 7/8/24	Thu 5/9/24	Calendar Day	782		0%	NA	NA											-	

Working Programme No. 15
Data Date : 24 May 2022

Milestone

Inactive Task

Manual Task

Manual Summary

Inactive Milestone

Duration-only

Stat-only

Finish-only

Deadline

Frogress

Critical Split

Progress

Critical Split

Progress

Critical Split

Progress

Finish-only

Deadline

Progress

Critical

Manual Progress

Page 1

						Project: Mainlaying in Tseung l																
ask Name	Duration	Start	Finish	Task Calendar	Predecessors	Successors	% Complete	Actual Start	Actual Finish	2018		2019 2019	2020		2021		2022		2023	2024 2024		2025
ey Dates	2495 days	Tue 7/11/17	Thu 5/9/24	Calendar Day			0%	Tue 7/11/17	NA	Q4 Q1	Q2 Q3 Q4	Q1 Q2 Q	3 Q4 Q1	Q2 Q3 Q4	Q1 Q2	Q3 Q4	Q1 Q2	Q3 Q4	Q1 Q2 Q3	Q4 Q1 Q	2 Q3 Q4	Q1 Q2
	0 days	Tue 7/11/17	Tue 7/11/17	Calendar Day		67,59,60FS+27	100%	Tue 7/11/17	Tue 7/11/17	♦ 7/11												
				Calendar Day		days,61,62,58 4,5FS+730 days,6FS+1279																
Statute Date	0 days	Thu 16/11/17			<u> </u>	days																
Access Date of Portion A, B, C, D, E, F, G and J	0 days	Thu 16/11/17	Thu 16/11/17	Calendar Day	3	90,63,71,73,75,78,79	100%	Thu 16/11/17	Thu 16/11/17	▼ 10/11												
Access Date of Portion H	0 days	Sat 16/11/19	Sat 16/11/19	Calendar Day	3FS+730 days	110	100%	Sat 16/11/19	Sat 16/11/19				♦ 16/11									
Completion Date (Contract)	0 days	Tue 18/5/21	Tue 18/5/21	Calendar Day	3FS+1279 days	7	100%	Tue 18/5/21	Tue 18/5/21							18/5	20					00
EOT for CE No. 23 Inclement Weather - In June 2018	0 days	Tue 18/5/21	Tue 18/5/21	HK Working Da	ay 6	8	100%	Tue 18/5/21	Tue 18/5/21						•	18/5						
EOT for CE No. 01	246 days	Wed 19/5/21	Wed 19/1/22	Calendar Day	7	9FF	0%	NA	NA								• 19/1					
Revised Completion Date	0 days	Wed 19/1/22	Wed 19/1/22	Calendar Day	8FF	11FS+365 days	0%	NA	NA								• 19/1					
	0 days	Thu 5/9/24	Thu 5/9/24	Calendar Day	12FF		0%	NA	NA												♦ 5/9	
		Thu 19/1/23	Thu 19/1/23	Calendar Day			0%	NA	NA										19/1			
	0 days				5151505 days	4000																
Mainlaying In Tseung Kwan O	2495 days	Tue 7/11/17	Thu 5/9/24	Calendar Day		10FF		Tue 7/11/17														
Issued Compensation Events (General)	1316 days	Tue 12/6/18	Tue 18/1/22	Calendar Day			100%	Tue 12/6/18	Tue 18/1/22								Y					
Issue CE No. 03 - Upgrading of bandwidth of Internet Services for Site Accommodation	0 days	Tue 12/6/18	Tue 12/6/18	Calendar Day		68	100%	Tue 12/6/18	Tue 12/6/18		♦ 12/6											
Issue CE No. 01 - Change in Pressure Rating of Watermain, Valves and Fittings from PN16	0 days	Thu 12/7/18	Thu 12/7/18	Calendar Day		68	100%	Thu 12/7/18	Thu 12/7/18		• 12/7											
to PN25 Issue CE No. 08 - Change in Number of Fixed IP Address for Broadband Connection for	0 days	Tue 4/12/18	Tue 4/12/18	Calendar Day			100%	Tue 4/12/18	Tue 4/12/18		•	4/12										
Site Accommodation Issue CE No. 10 - Contractor Design of The Realignment	0 days	Thu 28/2/19	Thu 28/2/19	Calendar Day			100%	Thu 28/2/19	Thu 28/2/19			28/2										
	0 days	Wed 15/5/19	Wed 15/5/19	Calendar Day			100%	Wed 15/5/19	Wed 15/5/19			♦ 15/5	i									
	0 days	Fri 16/8/19	Fri 16/8/19	Calendar Day		85	100%	Fri 16/8/19	Fri 16/8/19				16/8									
Issue CE No. 26 - Change in Cathodic Protection System for Mild Steel Pipes									Tue 31/12/19				♦ 31/1	2	-							
Issue CE No. 35 - Feasibility Study on the Alternative Alignment by Trenchless Method in the Wan Po Road J/O Lohas Park Road		Tue 31/12/19											311.	22/5								
Issue CE No. 56 - Excavation of Inspection Pits for the Alternative Alignment (Batch No. 2)	0 days	Fri 22/5/20	Fri 22/5/20	Calendar Day			100%	Fri 22/5/20	Fri 22/5/20													
Issue CE No. 64 - Tree Survey at Tsui Lam (Location A and Location B)	0 days	Tue 9/6/20	Tue 9/6/20	Calendar Day			100%	Tue 9/6/20	Tue 9/6/20					9 /6								,
13542 52 11011	0 days	Thu 13/8/20	Thu 13/8/20	Calendar Day			100%	Thu 13/8/20	Thu 13/8/20					♦ 13/8								
PMSMA10 Issue CE No. 66 - Excavation of Inspection Pits for the Alternative Alignment (Batch No.	0 days	Fri 21/8/20	Fri 21/8/20	Calendar Day			100%	Fri 21/8/20	Fri 21/8/20					21/8	1							
 Issue CE No. 72 - Temporary Reinstatement of Deteriorated Grasscrete Road by 	0 days	Mon 31/8/20	Mon 31/8/20	Calendar Day			100%	Mon 31/8/20	Mon 31/8/20					♦ 31/8	8							
Bituminous Pavement along TKO South Waterfront Promenade Issue CE No. 73 - Reinstatement of existing Geotextile in Area of Stage 1 Landfill	0 days	Wed 9/9/20	Wed 9/9/20	Calendar Day			100%	Wed 9/9/20	Wed 9/9/20					♦ 9/9								
between Chainage FC12+20 and Chainage FC13+26 Issue CE No. 81 - Additional Noise Monitoring for the Realignment Works	0 days	Tue 22/9/20	Tue 22/9/20	Calendar Day			100%	Tue 22/9/20	Tue 22/9/20					* 22	2/9							
									Wed 23/9/20					♦ 23	3/9							
Existing Water Supply system	0 days			Calendar Day																		
Issue CE No. 82 - Suspension of Site Works due to Coronavirus Disease	0 days	Wed 21/10/20	Wed 21/10/20	O Calendar Day			100%	Wed 21/10/20	Wed 21/10/2	0					21/10							
Issue CE No. 85 - Affected Trees across the Natural Stream Course at Tsui Lam (Location A)	0 days	Wed 28/10/20	Wed 28/10/20	O Calendar Day			100%	Wed 28/10/20	Wed 28/10/2	0				•	28/10							
Issue CE No. 90 - Temporary Relocation of Bicycle Parking spaces near HK Velodrome	0 days	Mon 23/11/20	Mon 23/11/20	O Calendar Day			100%	Mon 23/11/20	Mon 23/11/2	.0				•	> 23/11							
Issue CE No. 83 - Inspection pits for the Realignment in Wan Po Road and Lohas Park	0 days	Sat 19/12/20	Sat 19/12/20	Calendar Day			100%	Sat 19/12/20	Sat 19/12/20						19/12						1	
Road Issue CE No. CE - Site Clearance of Affected Trees and Plants for Mainlaying works near	0 days	Fri 18/12/20	Fri 18/12/20	Calendar Day			100%	Fri 18/12/20	Fri 18/12/20						4 18/12							
Po Hong Road and Ling Hong Road Issue CE No. 99 - Excavation of Inspection pit near Mau Wu Tsai Village at Po Lam Road		Wed 20/1/21	Wed 20/1/21	Calendar Day			100%	Wed 20/1/21	Wed 20/1/21						♦ 20/1	100						
South Issue CE No. 101 - Uncharted Irrigation Pipe in TKO South Promenade Waterfront's Cycle		Fri 29/1/21	Fri 29/1/21	Calendar Day			100%	Fri 29/1/21	Fri 29/1/21						29/1							
Track at CH.FC6+64	0 days		Wed 10/2/21				100%		Wed 10/2/21						♦ 10/2							
Issue CE No. 103 - Renewal of Excavation Permit															◆ 23/2							
Issue CE No. 105 - Suspension of Works in Wan Po Road 1st Works Site due to Shortage of Backfilling Material Caused by COVID-19	0 days	Tue 23/2/21	Tue 23/2/21	Calendar Day				Tue 23/2/21														
Issue CE No. 104 - Works in Tsui Lam Section (Batch No.2) were Suspended due to Disruption to Supply of Construction Material Caused b COVID-19	0 days	Fri 26/2/21	Fri 26/2/21	Calendar Day			100%	Fri 26/2/21	Fri 26/2/21						* 26/2							
Issue CE No. 106 - Works in Tsui Lam Section (Batch No.3) were Suspended due to Disruption to Supply of Construction Material Caused b COVID-19	0 days	Fri 26/2/21	Fri 26/2/21	Calendar Day			100%	Fri 26/2/21	Fri 26/2/21						\$ 26/2							
Issue CE No. 108 - Works in Tsui Lam Section (Batch No.3) were Suspended due to	0 days	Fri 26/2/21	Fri 26/2/21	Calendar Day			100%	Fri 26/2/21	Fri 26/2/21						♦ 26/2							
Disruption to Supply of Construction Material Caused b COVID-19 Issue CE No. 107 - Affected Trees near Mau Wu Tsai Village between CH.HA0+00 and Ch	n. O days	Mon 8/3/21	Mon 8/3/21	Calendar Day			100%	Mon 8/3/21	Mon 8/3/21						♦ 8/3							
HA0+70 Issue CE No. 110 - Inaccessible to Works Area Ch.HA2+10 due to Deteriorated Concrete		Thu 8/4/21	Thu 8/4/21	Calendar Day			100%	Thu 8/4/21	Thu 8/4/21						* 8/	/4						
Access	•																					

						Project: Mainlaying in Tseung	Kwan O						, , , , , , , , , , , , , , , , , , ,							
ask Name	Duration	Start	Finish	Task Calendar	Predecessors	Successors	% Complete	Actual Start	Actual Finish	2018	201	9	2020	2021	2022	2	2023	2024 2024	20)25
Issue CE No. 112 - Works Delayed in Portion H due to COVID-19	0 days	Wed 14/4/21	Wed 14/4/21	Calendar Day			100%	Wed 14/4/21	Wed 14/4/21	Q4 Q1 Q2	Q3 Q4 Q1	Q2 Q3 Q4	Q1 Q2 Q3	Q4 Q1 Q2 • 1		Q2 Q3 Q4	Q1 Q2 Q3	Q4 Q1 Q2	Q3 Q4 Q	1 Q2 Q
Issue CE No. 113 - Special Cleaning of Workfronts from CH.A0+00 to CH.A13+70 at W.	an O days	Fri 30/4/21	Fri 30/4/21	Calendar Day			100%	Fri 30/4/21	Fri 30/4/21					* :	30/4					
Po Road Issue CE No. 116 - Special Mosquito and Biting Midges Prevention Measures from	0 days	Mon 24/5/21	Mon 24/5/21	Calendar Day			100%	Mon 24/5/21	Mon 24/5/21					•	24/5					
CH.FB0+00 to Ch.FB5+34 and Ch.FC0+0 0to FC13+26 along TKO South Waterfront Issue CE No. 119 - Professional Indemnity Insurance for the Conforming Designs under	CE 0 days	Mon 31/5/21	Mon 31/5/21	Calendar Day			100%	Mon 31/5/21	Mon 31/5/21					•	31/5					
No.55, 62 and 77 Issue CE No. 120 - Left-in Sheet Pile for Manual Excavation in Po Lam Road at CH.HA6		Mon 31/5/21	Mon 31/5/21	Calendar Day			100%	Mon 31/5/21	Mon 31/5/21		1			•	31/5					
Issue CE No. 127 - Manual Excavation under Unexpectedly long and contonuous exte		Tue 12/10/21	Tue 12/10/21	Calendar Day			100%	Tue 12/10/21	Tue 12/10/21						♦ 12/10					
of UU obstruction in Wan Po Road at CH. A0+88 Issue CE No. 129 - Special Cleaning of Workfronts from CH.HA0+00 to CH.A13+70 at \		Tue 26/10/21	Tue 26/10/21	Calendar Day			100%	Tue 26/10/21	Tue 26/10/21						* 26/10					
po Road in Sep 2021 Issue CE No. 100 - Additional Mainlaying Works at Ling Hong Road and HK Velodrome		Tue 14/12/21	Tue 14/12/21	Calendar Day			100%	Tue 14/12/21	Tue 14/12/21						♦ 14/	12				
Issue CE No. 131 - Additional Traffic Court and Analysis for TTA Application	0 days		Fri 24/12/21	Calendar Day			100%	Fri 24/12/21	Fri 24/12/21						♦ 24	/12		-		
Issue CE No. 138 - Additional Inspection Pits for Realignment of DN800 Water Main in			Fri 24/12/21	Calendar Day			100%	Fri 24/12/21	Fri 24/12/21						* 24	/12		-		
TKOFWPSR Issue CE No. 141 - Provision of Suitable land Transport for Site Supervision in Tseung			Wed 29/12/21						1 Wed 29/12/21						♦ 29	0/12				
Kwan O Area 137 (Dec 2021 - Sept 2022) Issue CE No. 136 - Additional Resurfacing Works at Wan Po Road Near TKO Area 137			Fri 31/12/21	Calendar Day					Fri 31/12/21						♦ 31	1/12				
Issue CE No. 136 - Additional Resurracing Works at Wall Po Road (Real 180 Alea 23) Issue CE No. 57 - Realignment of Water Main by Trenchless Method in SENTX Portion		Tue 18/1/22	Tue 18/1/22	Calendar Day		125FF			Tue 18/1/22						* 1	18/1				
TKO Area 137	1636 days	Tue 7/11/17	Sat 30/4/22	Calendar Day					Sat 30/4/22							-				
Preliminaries	322 days		Mon 24/9/18						Mon 24/9/18		-									
Submission and Permit Application	35 days	Tue 7/11/17		Calendar Day	2				Mon 11/12/17											
Submission of Safety Plan	45 days	Tue 7/11/17		Calendar Day					Thu 21/12/17											
Submission of Site Management Plan and Trip Ticket				Calendar Day					Sun 17/12/17											
Submission of Key People	14 days			Calendar Day					Wed 6/12/17											
Submission of Subcontractor Management Plan	30 days	Tue 7/11/17						Tue 7/11/17											1	
Submission of First Programme	7 days	Tue 7/11/17		Calendar Day		64		Thu 1/2/18	Tue 27/3/18				-							
Submission of Pipe Material (PN16)	54 days	Thu 1/2/18	Tue 27/3/18	Calendar Day Calendar Day		92SS+7 days			Sat 11/8/18											
Approval of Pipe material submission (PN16)	137 days	Wed 28/3/18		Calendar Day		66	100%													
Appointment of Environmental Team	10 days	Wed 9/5/18 Tue 29/5/18	Fri 18/5/18 Thu 14/6/18	Calendar Day		00			Thu 14/6/18											
Environmental Baseline Monitoring	17 days 45 days			Calendar Day					Thu 21/12/17											
Submission of Environmental Management Plan Submission & Approval of CE01 Pipe Material PN25	75 days			Calendar Day		96			Mon 24/9/18											
10000000000000000000000000000000000000	1122 days		Fri 11/12/20	Calendar Day	1,,25				7 Fri 11/12/20	-				_						
Subcontracting Submission and Approval	122 days		Sat 17/3/18	Calendar Day					7 Sat 17/3/18											
Submission of sub-contractor selection procedure	24 days		Sat 9/12/17	Calendar Day	4	72			7 Sat 9/12/17											
Approval of sub-contractor selection procedure	42 days		Sat 20/1/18	Calendar Day		87,82,83FS+10 days,86	100%	Sun 10/12/17	7 Sat 20/1/18											
Submission of Sub-contractor Condition	14 days	Sun 21/1/18		Calendar Day	4	74	100%	Sun 21/1/18	Sat 3/2/18	1										
Approval of Sub-contractor Condition	42 days	Sun 4/2/18	Sat 17/3/18	Calendar Day	73	87,82,83FS+10 days,86	100%	Sun 4/2/18	Sat 17/3/18											
Submission of Supplier Selection Procedure	75 days			Calendar Day	4	76	100%	Thu 16/11/1	7 Mon 29/1/18									1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		
Approval of Supplier Selection Procedure	42 days		Mon 12/3/18			92	100%	Tue 30/1/18	Mon 12/3/18											
Subcontractor Selection and Subcontracting	1115 days		Fri 11/12/20				100%	Thu 23/11/1	7 Fri 11/12/20	-										
Traffic Consultant for Investigation Works	30 days	Thu 23/11/17	Fri 22/12/17	Calendar Day	4		100%	Thu 23/11/1	7 Fri 22/12/17	-										
Consultancy: Landscape for Investigation works	30 days	Fri 5/1/18	Sat 3/2/18	Calendar Day	4	250	100%	Fri 5/1/18	Sat 3/2/18	-										
Consultancy: Traffic consultant	55 days	Wed 21/2/18		Calendar Day			100%	Wed 21/2/18	3 Mon 16/4/18											
Environmental Team	9 days	Mon 16/4/18		Calendar Day		65	100%	Mon 16/4/18	3 Tue 24/4/18	1										
Temporary site office, hoarding & project sign board	75 days	Thu 22/3/18	Mon 4/6/18	Calendar Day	74,72	89FS+13 days	100%	Thu 22/3/18	Mon 4/6/18											
Consultancy: Independent Checking Engineer	12 days		Fri 25/5/18	Calendar Day	72FS+10 days,74FS+10		100%	Mon 14/5/18	3 Fri 25/5/18											
Survey Services	23 days			Calendar Day	days		100%	Wed 26/9/18	3 Thu 18/10/18		•									
king Programme No. 15 Patho (24 May 2022 Split Project Summary		ive Milestone		ration-only anual Summary Rollup	Start-only Finish-only		aternal Milest Deadline	one 💠	Critical S Progress	plit ,										
Date: 24 May 2022 Milestone Inactive Task		ual Task		enual Summary	External Tasks		'ritical		Manual I	rogress										

						Project: Mainlaying in	Tseung Kwan O		2.									
Name	Duration	Start	Finish	Task Calendar	Predecessors	Successors	% Complete	Actual Start	Actual Finish	2018 2	19	2020	2021	2022		1023	2024	2025
Sacrificial Anode Cathodic Protection (SACP)	82 days	Thu 30/5/19	Mon 19/8/19	Calendar Day	19	99	100%	Thu 30/5/19	Mon 19/8/19	Q4 Q1 Q2 Q3 Q4	1 Q2 Q3 Q4	Q1 Q2 Q3 Q4	Q1 Q2 Q	3 Q4 Q1 Q	2 Q3 Q4	Q1 Q2 Q3 Q	Q1 Q2 Q3	Q4 Q1 Q2
	42 days	Thu 6/9/18	Wed 17/10/18	Calendar Day	72.74		100%	Thu 6/9/18	Wed 17/10/18	.8								
Landscaping Works									Fri 11/12/20									
Miscellaneous	1000 days	Sun 18/3/18	Fri 11/12/20	Calendar Day	74,72													
Site Establishment	220 days	Tue 2/1/18	Thu 9/8/18	Calendar Day				Tue 2/1/18	Thu 9/8/18									
Setting up PM's and Contractor Accommodation	90 days	Sat 12/5/18	Thu 9/8/18	Calendar Day	82FS+13 days		100%	Sat 12/5/18	Thu 9/8/18									
Initial Survey of the Site	60 days	Tue 2/1/18	Fri 2/3/18	Calendar Day	4		100%	Tue 2/1/18	Fri 2/3/18									
Procurement of Major Material	1485 days	Sat 7/4/18	Sat 30/4/22	Calendar Day			100%	Sat 7/4/18	Sat 30/4/22									
Preparation of Purchase Order	7 days	Sat 7/4/18	Fri 13/4/18	Calendar Day	64SS+7 days,76	93	100%	Sat 7/4/18	Fri 13/4/18									
1st Batch of Material Delivery	65 days	Sat 14/4/18	Sun 17/6/18	Calendar Day	92	94	100%	Sat 14/4/18	Sun 17/6/18									
1st Batch of Material Delivery on site	0 days	Fri 29/6/18	Fri 29/6/18	Calendar Day	93	95	100%	Fri 29/6/18	Fri 29/6/18	♦ 29/6								
Material Delivery by Batches	1401 days	Sat 30/6/18	Sat 30/4/22	Calendar Day	94		100%	Sat 30/6/18	Sat 30/4/22									
	7 days	Tue 25/9/18	Mon 1/10/18	Calendar Day	68	97	100%	Tue 25/9/18	Mon 1/10/18	3								
Preparation of CE01 Purchase Order			Sun 30/12/18			98			Sun 30/12/18									
1st Batch of CE01 Material Delivery	90 days	Tue 2/10/18				38												
1st Batch of CE01 Material Delivery on site	1 day	Tue 22/1/19	Tue 22/1/19	Calendar Day					Tue 22/1/19									
SCAP Material Submission and Approval	261 days	Tue 20/8/19	Wed 6/5/20	Calendar Day	85	100	100%	Tue 20/8/19	Wed 6/5/20									
SCAP Purchase Order & Material Delivery	115 days	Mon 22/6/20	Wed 14/10/20	Calendar Day	99		100%	Mon 22/6/20	Wed 14/10/20	20								
lainlaying in Tseung Kwan O Area 137 (Portion H)	1260 days	Tue 11/12/18	Wed 15/3/23	HK Working D	ay		92%	Tue 11/12/18	NA							7		
Early Possession of Portion H	0 days	Mon 29/7/19	Mon 29/7/19	Calendar Day			100%	Mon 29/7/19	Mon 29/7/19	9	♦ 29/7							
Issue Date of CE No. 07 -Water Supply to No. TKO Desalination Plant at Portion H	0 days	Tue 22/1/19	Tue 22/1/19	Calendar Day		104	100%	Tue 22/1/19	Tue 22/1/19	4	22/1							
(NS250 HDPE Pipe) Material Procurement and Delivery in Batches	330 days	Tue 11/12/18	Tue 5/11/19	Calendar Day	103		100%	Tue 11/12/18	Tue 5/11/19	-								
Open Cut Excavation, Pipe Laying and Reinstatement at TKO Area 137	597 days	Sat 10/8/19		HK Working D	av	761	100%	Sat 10/8/19	Sat 14/8/21		-			,				
	341 days	Sat 10/8/19	Wed 30/9/20					Sat 10/8/19	Wed 30/9/20		-		11 11 11 11 11 11 11 11 11 11 11 11 11					
DN1200 MS PIPE + NS250 HDPE PIPE - Open Cut									Fri 24/7/20									
CH.CT1+51 - CH.265 DN1200 MS Pipe OC	82 days	Thu 16/4/20	Fri 24/7/20	None														
CH.CT0+51 - CH.1+51 DN1200 MS Pipe OC	44 days	Mon 10/2/20		HK Working D				Mon 10/2/20										
CH.CT0+00 - CH.0+51 DN1200 MS Pipe OC	74 days	Thu 2/1/20	Tue 31/3/20	HK Working D	ау		100%	Thu 2/1/20	Tue 31/3/20									
CH.CAO+00 - CH.4+00 DN1200 MS Pipe OC	192 days	Sat 10/8/19	Tue 31/3/20	HK Working D	ay 5		100%	Sat 10/8/19	Tue 31/3/20									
CH.KT2+80 - CH.3+60 NS250 HDPE Pipe OC with additional Tees and fire Hydra	ant 56 days	Tue 28/7/20	Wed 30/9/20	HK Working D	ау		100%	Tue 28/7/20	Wed 30/9/20	0								
CH.KT2+23 - CH.2+80 NS250 HDPE Pipe OC	29 days	Sat 20/6/20	Sat 25/7/20	HK Working D	ay		100%	Sat 20/6/20	Sat 25/7/20									
CH.KT1+51 - CH.2+23 NS250 HDPE Pipe OC	31 days	Sat 16/5/20	Sat 20/6/20	HK Working D	ay		100%	Sat 16/5/20	Sat 20/6/20									
CH.KT0+51 - CH.1+51 NS250 HDPE Pipe OC	19 days	Tue 10/3/20	Tue 31/3/20	HK Working D	ay		100%	Tue 10/3/20	Tue 31/3/20			•						
CH.KT0+00 - CH.0+51 NS250 HDPE Pipe OC	50 days	Sun 2/2/20	Tue 31/3/20	HK Working D	ay		100%	Sun 2/2/20	Tue 31/3/20									
CH.KA0+00 - CH.4+00 NS250 HDPE Pipe OC	143 days	Thu 10/10/19		HK Working D					Tue 31/3/20									
A distribution of the second second			129 645	HK Working D					Sat 14/8/21			-		,				
Construction of Chambers	385 days		Sat 14/8/21															
Combined DAV & IT Chamber for DN1200 MS pipe at CH.CT2+47	60 days	Tue 5/5/20	Wed 15/7/20					Tue 5/5/20	Wed 15/7/20									
Combined Washout Pump Pit for DN1200 MS pipe and NS250 HDPE pipe at CH.CT2+43	71 days	Wed 3/6/20	Wed 26/8/20	HK Working D	ay			Wed 3/6/20	Wed 26/8/20									
DN900 Valve Chamber with by-pass pipes at CH.CA4+24	385 days	Wed 29/4/20	Sat 14/8/21	HK Working D	Pay		100%	Wed 29/4/20	Sat 14/8/21									
Trenchless Works (DN1200 MS PIPE + NS250 HDPE PIPE) at TKO Area 137	1162 days	Tue 22/1/19	Thu 22/12/22	HK Working E	Day	784,762	83%	Tue 22/1/19	NA									
Issue CE No. 07 - Water Supply to Tseung Kwan O Desalination Plant at Portion '	H' 0 days	Tue 22/1/19	Tue 22/1/19	Calendar Day			100%	Tue 22/1/19	Tue 22/1/19		22/1							
Issue CE No. 17 - Realignment of Water Main by Trenchless Method in TKO Area	137 0 days	Wed 1/1/20	Wed 1/1/20	Calendar Day			100%	Wed 1/1/20	Wed 1/1/20		1	1/1						
Issue CE No. 118 - Non-destructive Void detection survey in Tseung Kwan O Area		Tue 18/5/21	Tue 18/5/21	Calendar Day			100%	Tue 18/5/21	Tue 18/5/21				♦ 18.	75				
between 137 Pit A and 137 Pit B Issue CE No. 57 - Realignment of Water Main by Trenchless Method in SENTX Po		Tue 18/1/22		Calendar Day	55FF	129	100%	Tue 18/1/22	Tue 18/1/22					♦ 18/1	1			
	-,-			•								1						
in TKO Area 137 Tendering & Approval	21 days	Mon 6/1/20	Sun 26/1/20	Calendar Day			1111119/2	Mon 6/1/20	Sun 26/1/20									

Issue LOA Trial Pit Excaval Pit 137A Pit 137B Pit 137C Construction of Mobilization Receiving Pit Jacking Pit 13 Receiving Pit TBM Pipe Jacki Establishmer O WPR920 S (CH.CC0+10 Grouting and Setup for Pip DN1200 MS NS250 HDPE Formwork & Grouting Wo Pipe Laying (Remove ELS Pipe Laying (Remove ELS Pipe Laying (CCH.280+00 Grouting, Re Setup for Pi	if to retender eview & Approval ation for Trenchless Works at TKO Area 137 of jacking / Receiving Pits and Setup & Preliminary Works t 137A (Renopipe) 37B (Renopipe) tt 137C (Renopipe) ting From Pit 137B to Pit 137A ent at Pit 137B Steel Sleeve Pipe for both DN1200 & NS250 (Pit 137B - Pit 137A) to CH.CC.1+24) in Soil mixed with rubbish (114m; 3m/day) d Remove setup at Pit 137A & Pit 137B pe Laying inside jacking Pits 137B to Pit 137A s Pipe Laying inside jacking pipe (114m) (8m per 3 day)	Duration O days 43 days 1 day 156 days 35 days 57 days 14 days 106 days 3 days 58 days 59 days 41 days 42 days 31 days 62 days	Mon 9/11/20 Mon 16/11/20 Thu 12/11/20	Wed 11/3/20 Thu 18/3/21 Wed 11/11/20 Mon 25/1/21 Fri 22/1/21		128 129 135	100% Tue 25/2	Fri 3/4/20 Fri 3/4/20 Mon 29/6/20 Thu 3/9/20 Wed 11/3/20			* 3	2 Q3 Q4	2021 Q1 Q2 Q3	Q4 2022 Q1 0	02 03 04	2023 Q1 Q2	Q3 Q4 Q	024 024 21 Q2 Q3	Q4 Q1
Retendering, Resistance LOA Trial Pit Excaval Pit 137A Pit 137B Pit 137C Construction of Mobilization Receiving Pit Jacking Pit 13 Receiving Pit TBM Pipe Jacki Establishmer O WPR920 S (CH.CC0+10) Grouting and Setup for Pip DN1200 MS NS250 HDPE Formwork & Grouting Wo Pipe Laying (Remove ELS Pipe Laying (KC1+38 TBM Pipe Jack Revised Esta O WPR920 S (CH.CB0+00) Grouting, Resistance LS Setup for Pip	eview & Approval ation for Trenchless Works at TKO Area 137 of jacking / Receiving Pits and Setup & Preliminary Works t 137A (Renopipe) 37B (Renopipe) t 137C (Renopipe) ting From Pit 137B to Pit 137A ent at Pit 137B Steel Sleeve Pipe for both DN1200 & NS250 (Pit 137B - Pit 137A) tto CH.CC.1+24) in Soil mixed with rubbish (114m; 3m/day) d Remove setup at Pit 137A & Pit 137B pe Laying inside jacking Pits 137B to Pit 137A	43 days 1 day 156 days 35 days 57 days 14 days 106 days 3 days 58 days 59 days 49 days 410 days 29 days 42 days 31 days	Mon 18/5/20 Thu 3/9/20 Mon 2/9/19 Mon 2/9/19 Mon 28/10/19 Tue 25/2/20 Mon 9/11/20 Mon 16/11/20 Thu 12/11/20 Mon 18/1/21 Fri 22/1/21	Mon 29/6/20 Thu 3/9/20 Wed 11/3/20 Tue 15/10/19 Sat 4/1/20 Wed 11/3/20 Thu 18/3/21 Wed 11/11/20 Mon 25/1/21 Fri 22/1/21	Calendar Day 127 Calendar Day 128,125 HK Working Day HK Working Day HK Working Day HK Working Day Calendar Day 129 HK Working Day 135	129 135 136,137,138	100% Mon 18/5 100% Thu 3/9/2 100% Mon 2/9/ 100% Mon 28/1 100% Tue 25/2/	Mon 29/6/20 Thu 3/9/20 Med 11/3/20 19 Tue 15/10/19 10/19 Sat 4/1/20 Wed 11/3/20			• 3	3/4	Q1 Q2 Q3	Q4 Q1 G	W (8) (4)		ν	y. (V. (V)	V U
Issue LOA Trial Pit Excaval Pit 137A Pit 137B Pit 137C Construction of Mobilization Receiving Pit Jacking Pit 13 Receiving Pit TBM Pipe Jacki Establishmer O WPR920 S (CH.CC0+10 of Grouting and Setup for Pip DN1200 MS NS250 HDPE Formwork & Grouting Wo Pipe Laying (Remove ELS Pipe Laying (RC1+38 TBM Pipe Jack Revised Esta O WPR920 S (CH.CB0+00) Grouting, Re Setup for Pip	of jacking / Receiving Pits and Setup & Preliminary Works t 137A (Renopipe) 37B (Renopipe) t 137C (Renopipe) ting From Pit 137B to Pit 137A ant at Pit 137B Steel Sleeve Pipe for both DN1200 & NS250 (Pit 137B - Pit 137A) to CH.CC.1+24) in Soil mixed with rubbish (114m; 3m/day) d Remove setup at Pit 137A & Pit 137B pe Laying inside jacking Pits 137B to Pit 137A	1 day 156 days 35 days 57 days 14 days 106 days 58 days 59 days 410 days 29 days 42 days 31 days	Thu 3/9/20 Mon 2/9/19 Mon 28/10/19 Tue 25/2/20 Mon 9/11/20 Mon 16/11/20 Thu 12/11/20 Mon 18/1/21 Fri 22/1/21	Thu 3/9/20 Wed 11/3/20 Tue 15/10/19 Sat 4/1/20 Wed 11/3/20 Thu 18/3/21 Wed 11/11/20 Mon 25/1/21 Fri 22/1/21	Calendar Day 128,125 HK Working Day HK Working Day HK Working Day HK Working Day Calendar Day 129 HK Working Day 135	135 136,137,138	100% Thu 3/9/2 100% Mon 2/9/ 100% Mon 28/1 100% Tue 25/2/	719 Wed 11/3/20 119 Tue 15/10/19 120 Sat 4/1/20 120 Wed 11/3/20				1							
Issue LOA Trial Pit Excaval Pit 137A Pit 137B Pit 137C Construction of Mobilization Receiving Pit Jacking Pit 13 Receiving Pit TBM Pipe Jacki Establishmer O WPR920 S (CH.CC0+10 of Grouting and Setup for Pip DN1200 MS NS250 HDPE Formwork & Grouting Wo Pipe Laying (Remove ELS Pipe Laying (Remove ELS Pipe Laying (Revised Esta O WPR920 S (CH.CB0+00) Grouting, Re Setup for Pip	of jacking / Receiving Pits and Setup & Preliminary Works t 137A (Renopipe) 37B (Renopipe) t 137C (Renopipe) ting From Pit 137B to Pit 137A ant at Pit 137B Steel Sleeve Pipe for both DN1200 & NS250 (Pit 137B - Pit 137A) to CH.CC.1+24) in Soil mixed with rubbish (114m; 3m/day) d Remove setup at Pit 137A & Pit 137B pe Laying inside jacking Pits 137B to Pit 137A	1 day 156 days 35 days 57 days 14 days 106 days 58 days 59 days 410 days 29 days 42 days 31 days	Thu 3/9/20 Mon 2/9/19 Mon 28/10/19 Tue 25/2/20 Mon 9/11/20 Mon 16/11/20 Thu 12/11/20 Mon 18/1/21 Fri 22/1/21	Wed 11/3/20 Tue 15/10/19 Sat 4/1/20 Wed 11/3/20 Thu 18/3/21 Wed 11/11/20 Mon 25/1/21 Fri 22/1/21	HK Working Day HK Working Day HK Working Day HK Working Day Calendar Day 129 HK Working Day 135	136,137,138	100% Mon 2/9/ 100% Mon 2/9/ 100% Mon 28/1 100% Tue 25/2/	Wed 11/3/20 Tue 15/10/19 Tue 15/10/19 Sat 4/1/20 Wed 11/3/20				1							
Pit 137A Pit 137B Pit 137C Construction of Mobilization Receiving Pit Jacking Pit 13 Receiving Pit TBM Pipe Jacki Establishmer O WPR920 S (CH.CC0+10) Grouting and Setup for Pip DN1200 MS NS250 HDPE Formwork & Grouting Wo Pipe Laying (Remove ELS Pipe Laying (Remove ELS C1+38 TBM Pipe Jack Revised Esta O WPR920 S (CH.CB0+00) Grouting, Re Setup for Pip	of jacking / Receiving Pits and Setup & Preliminary Works t 137A (Renopipe) 37B (Renopipe) t 137C (Renopipe) sing From Pit 137B to Pit 137A ent at Pit 137B Steel Sleeve Pipe for both DN1200 & NS250 (Pit 137B - Pit 137A) tto CH.CC.1+24) in Soil mixed with rubbish (114m; 3m/day) d Remove setup at Pit 137A & Pit 137B pe Laying inside jacking Pits 137B to Pit 137A	156 days 35 days 57 days 14 days 106 days 3 days 58 days 59 days 49 days 410 days 29 days 42 days 31 days	Mon 2/9/19 Mon 2/9/19 Mon 28/10/19 Tue 25/2/20 Mon 9/11/20 Mon 9/11/20 Mon 16/11/20 Thu 12/11/20 Mon 18/1/21 Fri 22/1/21	Wed 11/3/20 Tue 15/10/19 Sat 4/1/20 Wed 11/3/20 Thu 18/3/21 Wed 11/11/20 Mon 25/1/21 Fri 22/1/21	HK Working Day HK Working Day HK Working Day HK Working Day Calendar Day 129 HK Working Day 135	136,137,138	100% Mon 2/9/ 100% Mon 2/9/ 100% Mon 28/1 100% Tue 25/2/	Wed 11/3/20 Tue 15/10/19 Tue 15/10/19 Sat 4/1/20 Wed 11/3/20											
Pit 137A Pit 137B Pit 137C Construction of Mobilization Receiving Pit Jacking Pit 13 Receiving Pit TBM Pipe Jacki Establishmer O WPR920 S (CH.CC0+10 c) Grouting and Setup for Pip DN1200 MS NS250 HDPE Formwork & Grouting Wo Pipe Laying (Remove ELS Pipe Laying (Remove ELS Pipe Laying (Revised Esta O WPR920 S (CH.CB0+00) Grouting, Re Setup for Pip	of jacking / Receiving Pits and Setup & Preliminary Works t 137A (Renopipe) 37B (Renopipe) t 137C (Renopipe) sing From Pit 137B to Pit 137A ent at Pit 137B Steel Sleeve Pipe for both DN1200 & NS250 (Pit 137B - Pit 137A) tto CH.CC.1+24) in Soil mixed with rubbish (114m; 3m/day) d Remove setup at Pit 137A & Pit 137B pe Laying inside jacking Pits 137B to Pit 137A	35 days 57 days 14 days 106 days 3 days 58 days 59 days 410 days 29 days 42 days 31 days	Mon 2/9/19 Mon 28/10/19 Tue 25/2/20 Mon 9/11/20 Mon 9/11/20 Thu 12/11/20 Mon 18/1/21 Fri 22/1/21	Tue 15/10/19 Sat 4/1/20 Wed 11/3/20 Thu 18/3/21 Wed 11/11/20 Mon 25/1/21 Fri 22/1/21	HK Working Day HK Working Day HK Working Day Calendar Day 129 HK Working Day 135		100% Mon 2/9/ 100% Mon 28/1 100% Tue 25/2/	Tue 15/10/19 10/19 Sat 4/1/20 20 Wed 11/3/20											
Pit 137B Pit 137C Construction of Mobilization Receiving Pit Jacking Pit 13 Receiving Pit TBM Pipe Jacki Establishmer O WPR920 S (CH.CC0+10 Grouting and Setup for Pip DN1200 MS NS250 HDPE Formwork & Grouting Wo Pipe Laying (Remove ELS Pipe Laying (Remove ELS Pipe Laying (CH.138 TBM Pipe Jack Revised Esta O WPR920 S (CH.CB0+00) Grouting, Re Setup for Pip	and Setup & Preliminary Works t 137A (Renopipe) 37B (Renopipe) t 137C (Renopipe) ting From Pit 137B to Pit 137A ent at Pit 137B Steel Sleeve Pipe for both DN1200 & NS250 (Pit 137B - Pit 137A) to CH.CC.1+24) in Soil mixed with rubbish (114m; 3m/day) d Remove setup at Pit 137A & Pit 137B pe Laying inside jacking Pits 137B to Pit 137A	57 days 14 days 106 days 3 days 58 days 59 days 49 days 410 days 29 days 42 days 31 days	Mon 28/10/19 Tue 25/2/20 Mon 9/11/20 Mon 9/11/20 Mon 16/11/20 Thu 12/11/20 Mon 18/1/21 Fri 22/1/21	Sat 4/1/20 Wed 11/3/20 Thu 18/3/21 Wed 11/11/20 Mon 25/1/21 Fri 22/1/21	HK Working Day HK Working Day Calendar Day 129 HK Working Day 135		100% Mon 28/1	.0/19 Sat 4/1/20 /20 Wed 11/3/20											
Pit 137C Construction of Mobilization Receiving Pit Jacking Pit 13 Receiving Pit TBM Pipe Jacking Pit DN1200 MS NS250 HDPE Formwork & Grouting Wo Pipe Laying (Remove ELS Pipe Laying (Remove ELS Pipe Laying (CH.238 TBM Pipe Jacking Pipe Jacking Pipe Jacking Revised Estate O WPR920 S (CH.CB0+00) Grouting, Research Pipe Pipe Pipe Pipe Pipe Pipe Pipe Pipe	and Setup & Preliminary Works t 137A (Renopipe) 37B (Renopipe) t 137C (Renopipe) ting From Pit 137B to Pit 137A ent at Pit 137B Steel Sleeve Pipe for both DN1200 & NS250 (Pit 137B - Pit 137A) to CH.CC.1+24) in Soil mixed with rubbish (114m; 3m/day) d Remove setup at Pit 137A & Pit 137B pe Laying inside jacking Pits 137B to Pit 137A	14 days 106 days 3 days 58 days 59 days 49 days 410 days 29 days 42 days 31 days	Tue 25/2/20 Mon 9/11/20 Mon 9/11/20 Mon 16/11/20 Thu 12/11/20 Mon 18/1/21 Fri 22/1/21	Wed 11/3/20 Thu 18/3/21 Wed 11/11/20 Mon 25/1/21 Fri 22/1/21	HK Working Day Calendar Day 129 HK Working Day 135		100% Tue 25/2	/20 Wed 11/3/20											
Construction of Mobilization Receiving Pit Jacking Pit 13 Receiving Pit TBM Pipe Jacki Establishmer O WPR920 S (CH.CC0+10 Grouting and Setup for Pip DN1200 MS NS250 HDPE Formwork & Grouting Wo Pipe Laying (Remove ELS Pipe Laying (KC1+38 TBM Pipe Jack Revised Esta O WPR920 S (CH.CB0+00) Grouting, Re Setup for Pip	and Setup & Preliminary Works t 137A (Renopipe) 37B (Renopipe) t 137C (Renopipe) ting From Pit 137B to Pit 137A ent at Pit 137B Steel Sleeve Pipe for both DN1200 & NS250 (Pit 137B - Pit 137A) to CH.CC.1+24) in Soil mixed with rubbish (114m; 3m/day) d Remove setup at Pit 137A & Pit 137B pe Laying inside jacking Pits 137B to Pit 137A	106 days 3 days 58 days 59 days 49 days 410 days 29 days 42 days 31 days	Mon 9/11/20 Mon 9/11/20 Mon 16/11/20 Thu 12/11/20 Mon 18/1/21 Fri 22/1/21	Thu 18/3/21 Wed 11/11/20 Mon 25/1/21 Fri 22/1/21	HK Working Day Calendar Day 129 HK Working Day 135												1.		
Mobilization Receiving Pit Jacking Pit 13 Receiving Pit TBM Pipe Jacki Establishmer O WPR920 S (CH.CC0+10 Grouting and Setup for Pip DN1200 MS NS250 HDPE Formwork & Grouting Wo Pipe Laying (Remove ELS Pipe Laying (KC1+38 TBM Pipe Jack Revised Esta O WPR920 S (CH.CB0+00 Grouting, Re Setup for Pip	and Setup & Preliminary Works t 137A (Renopipe) 37B (Renopipe) t 137C (Renopipe) ting From Pit 137B to Pit 137A ent at Pit 137B Steel Sleeve Pipe for both DN1200 & NS250 (Pit 137B - Pit 137A) to CH.CC.1+24) in Soil mixed with rubbish (114m; 3m/day) d Remove setup at Pit 137A & Pit 137B pe Laying inside jacking Pits 137B to Pit 137A	3 days 58 days 59 days 49 days 410 days 29 days 42 days 31 days	Mon 9/11/20 Mon 16/11/20 Thu 12/11/20 Mon 18/1/21 Fri 22/1/21	Wed 11/11/20 Mon 25/1/21 Fri 22/1/21	Calendar Day 129 HK Working Day 135		100% Mon 9/13	1/20 Thu 18/3/21										_	
Receiving Pit Jacking Pit 13 Receiving Pit 13 Receiving Pit TBM Pipe Jacki Establishmer O WPR920 S (CH.CC0+10 of Grouting and Setup for Pipe DN1200 MS NS250 HDPE Formwork & Grouting Wo Pipe Laying (Remove ELS Pipe Laying (KC1+38 TBM Pipe Jack Revised Esta O WPR920 S (CH.CB0+00) Grouting, Re Setup for Pipe Statup for Pipe Statup Setup For Pipe Statup Setup	t 137A (Renopipe) 37B (Renopipe) t 137C (Renopipe) sing From Pit 137B to Pit 137A ent at Pit 137B Steel Sleeve Pipe for both DN1200 & NS250 (Pit 137B - Pit 137A) tto CH.CC.1+24) in Soil mixed with rubbish (114m; 3m/day) d Remove setup at Pit 137A & Pit 137B pe Laying inside jacking Pits 137B to Pit 137A	58 days 59 days 49 days 410 days 29 days 42 days 31 days	Mon 16/11/20 Thu 12/11/20 Mon 18/1/21 Fri 22/1/21	Mon 25/1/21 Fri 22/1/21	HK Working Day 135														
Jacking Pit 13 Receiving Pit TBM Pipe Jacki Establishmer O WPR920 S (CH.CC0+10 of Grouting and Setup for Pipe DN1200 MS) NS250 HDPE Formwork & Grouting Work Pipe Laying (Remove ELS Pipe Laying (KC1+38 TBM Pipe Jack Revised Estate O WPR920 S (CH.CB0+00) Grouting, Res Setup for Pipe Setup for Pipe Setup For Pipe Setup Setu	37B (Renopipe) t 137C (Renopipe) ting From Pit 137B to Pit 137A ent at Pit 137B Steel Sleeve Pipe for both DN1200 & NS250 (Pit 137B - Pit 137A) to CH.CC.1+24) in Soil mixed with rubbish (114m; 3m/day) d Remove setup at Pit 137A & Pit 137B pe Laying inside jacking Pits 137B to Pit 137A	59 days 49 days 410 days 29 days 42 days 31 days	Thu 12/11/20 Mon 18/1/21 Fri 22/1/21	Fri 22/1/21			100% Mon 9/11	/20 Wed 11/11/2	0			1							
Receiving Pit TBM Pipe Jacki Establishmer O WPR920 S (CH.CC0+10 ') Grouting and Setup for Pip DN1200 MS NS250 HDPE Formwork & Grouting Wo Pipe Laying (Remove ELS Pipe Laying (KC1+38 TBM Pipe Jack Revised Esta O WPR920 S (CH.CB0+00 Grouting, Re Setup for Pi	t 137C (Renopipe) ting From Pit 137B to Pit 137A ent at Pit 137B Steel Sleeve Pipe for both DN1200 & NS250 (Pit 137B - Pit 137A) to CH.CC.1+24) in Soil mixed with rubbish (114m; 3m/day) d Remove setup at Pit 137A & Pit 137B pe Laying inside jacking Pits 137B to Pit 137A	49 days 410 days 29 days 42 days 31 days	Mon 18/1/21 Fri 22/1/21			141FF-30 days	100% Mon 16/1	1/20 Mon 25/1/21											
TBM Pipe Jacki Establishmer O WPR920 S (CH.CC0+10 Grouting and Setup for Pipe DN1200 MS NS250 HDPE Formwork & Grouting Wo Pipe Laying (Remove ELS Pipe Laying (KC1+38 TBM Pipe Jacki Revised Esta O WPR920 S (CH.CB0+00) Grouting, Re Setup for Pipe	ing From Pit 137B to Pit 137A ent at Pit 137B Steel Sleeve Pipe for both DN1200 & NS250 (Pit 137B - Pit 137A) to CH.CC.1+24) in Soil mixed with rubbish (114m; 3m/day) d Remove setup at Pit 137A & Pit 137B pe Laying inside jacking Pits 137B to Pit 137A	410 days 29 days 42 days 31 days	Fri 22/1/21	Thu 18/3/21	HK Working Day 135	140	100% Thu 12/1:	1/20 Fri 22/1/21		1									
TBM Pipe Jacki Establishmer O WPR920 S (CH.CC0+10 Grouting and Setup for Pipe DN1200 MS NS250 HDPE Formwork & Grouting Wo Pipe Laying (Remove ELS Pipe Laying (KC1+38 TBM Pipe Jacki Revised Esta O WPR920 S (CH.CB0+00) Grouting, Re Setup for Pipe	ing From Pit 137B to Pit 137A ent at Pit 137B Steel Sleeve Pipe for both DN1200 & NS250 (Pit 137B - Pit 137A) to CH.CC.1+24) in Soil mixed with rubbish (114m; 3m/day) d Remove setup at Pit 137A & Pit 137B pe Laying inside jacking Pits 137B to Pit 137A	29 days 42 days 31 days			HK Working Day 135	152	100% Mon 18/1	1/21 Thu 18/3/21											
Establishmer O WPR920 S (CH.CC0+10 Grouting and Setup for Pip DN1200 MS NS250 HDPE Formwork & Grouting Wo Pipe Laying (Remove ELS Pipe Laying (KC1+38 TBM Pipe Jack Revised Esta O WPR920 S (CH.CB0+00) Grouting, Re Setup for Pipe	ont at Pit 137B Steel Sleeve Pipe for both DN1200 & NS250 (Pit 137B - Pit 137A) I to CH.CC.1+24) in Soil mixed with rubbish (114m; 3m/day) d Remove setup at Pit 137A & Pit 137B pe Laying inside jacking Pits 137B to Pit 137A	29 days 42 days 31 days		Wed 15/6/22	HK Working Day	170	79% Fri 22/1/2	21 NA					P		-9				
O WPR920 S (CH.CC0+10) Grouting and Setup for Pip DN1200 MS NS250 HDPE Formwork & Grouting Wc Pipe Laying (Remove ELS Pipe Laying (KC1+38 TBM Pipe Jack Revised Esta O WPR920 S (CH.CB0+00) Grouting, Re Setup for Pipe	Steel Sleeve Pipe for both DN1200 & NS250 (Pit 137B - Pit 137A) to CH.CC.1+24) in Soil mixed with rubbish (114m; 3m/day) d Remove setup at Pit 137A & Pit 137B pe Laying inside jacking Pits 137B to Pit 137A	42 days 31 days		Sat 27/2/21	HK Working Day 137	141	100% Fri 22/1/2	21 Sat 27/2/21											
(CH.CCO+10 Grouting and Setup for Pip DN1200 MS NS250 HDPE Formwork & Grouting Wo Pipe Laying (Remove ELS Pipe Laying (KC1+38 TBM Pipe Jack Revised Esta O WPR920 S (CH.CB0+00) Grouting, Re Setup for Pip	to CH.CC.1+24) in Soil mixed with rubbish (114m; 3m/day) d Remove setup at Pit 137A & Pit 137B pe Laying inside jacking Pits 137B to Pit 137A	31 days	Mon 1/3/21	Thu 22/4/21	HK Working Day 140,136FF-30 days	142	100% Mon 1/3/	'21 Thu 22/4/21											
Setup for Pip DN1200 MS NS250 HDPE Formwork & Grouting Wo Pipe Laying (Remove ELS Pipe Laying (KC1+38 TBM Pipe Jack Revised Esta O WPR920 S (CH.CB0+00) Grouting, Re Setup for Pi	pe Laying inside jacking Pits 137B to Pit 137A		Fri 23/4/21	Mon 31/5/21	HK Working Day 141	143	100% Fri 23/4/2												
DN1200 MS NS250 HDPE Formwork & Grouting Wo Pipe Laying (Remove ELS Pipe Laying (KC1+38 TBM Pipe Jack Revised Esta O WPR920 S (CH.CB0+00 Grouting, Re Setup for Pi		62 days				145		1/22 Mon 28/3/22											
Formwork & Grouting Wo Pipe Laying (Remove ELS Pipe Laying (KC1+38 TBM Pipe Jack Revised Esta O WPR920 S (CH.CB0+00 Grouting, Re	Pipe Laying inside jacking pipe (114m) (8m per 3 day)		Wed 12/1/22	Mon 28/3/22	HK Working Day 154,142														
Formwork & Grouting Wo Pipe Laying (Remove ELS Pipe Laying (KC1+38 TBM Pipe Jack Revised Esta O WPR920 S (CH.CB0+00 Grouting, Re		14 days	Tue 29/3/22	Thu 14/4/22	HK Working Day 145	146		/22 Thu 14/4/22											
Grouting Wo Pipe Laying (Remove ELS Pipe Laying (KC1+38 TBM Pipe Jack Revised Esta O WPR920 S (CH.CB0+00 Grouting, Re	E Pipe Laying inside jacking pipe (114m) (8m per day)	0 days	Fri 28/1/22	Fri 28/1/22	HK Working Day 143	144	100% Fri 28/1/2	22 Fri 28/1/22						* 28/	1				
Pipe Laying (Remove ELS Pipe Laying (KC1+38 TBM Pipe Jack Revised Esta O WPR920 S (CH.CB0+00 Grouting, Re	& Setup for Grouting the gap between pipe and Sleeve	3 days	Tue 19/4/22	Thu 21/4/22	HK Working Day 144	147	0% NA	NA						1					
Remove ELS Pipe Laying (KC1+38 TBM Pipe Jack Revised Esta O WPR920 S (CH.CB0+00 Grouting, Re	orks (20 meter/day)	6 days	Fri 22/4/22	Thu 28/4/22	HK Working Day 146	148	0% NA	NA											
Pipe Laying (KC1+38 TBM Pipe Jack Revised Esta O WPR920 S (CH.CB0+00 Grouting, Re	(HB, BVB, Short Pipe), Thrust Block & backfilling inside Pit 137A	24 days	Fri 29/4/22	Sat 28/5/22	HK Working Day 147	149	0% NA	NA											
RC1+38 TBM Pipe Jack Revised Esta O WPR920 S (CH.CB0+00 Grouting, Re Setup for Pi	S and Extract Sheetpile at Pit 137A	2 days	Mon 30/5/22	Tue 31/5/22	HK Working Day 148	150	0% NA	NA							1				
RC1+38 TBM Pipe Jack Revised Esta O WPR920 S (CH.CB0+00 Grouting, Re Setup for Pi	(DN1200 MS Pipe & NS250 HDPE Pipe) From Pit 137A to CH.CC1+38 &	12 days	Wed 1/6/22	Wed 15/6/22	HK Working Day 149		0% NA	NA							u				
Revised Esta O WPR920 S (CH.CB0+00 Grouting, Re	king From Pit 137B to Pit 137C	578 days	Tue 12/1/21	Thu 22/12/22	HK Working Day		74% Tue 12/1	/21 NA		1						•			
O WPR920 S (CH.CB0+00 Grouting, Re	ablishment at Pit 137B	39 days	Fri 19/3/21	Sat 8/5/21	HK Working Day 138	153	100% Fri 19/3/	21 Sat 8/5/21											
(CH.CB0+00 Grouting, Re	Steel Sleeve Pipe for both DN1200 & NS250 (Pit 137C - Pit 137B)	144 days	Sun 9/5/21	Sat 30/10/21	HK Working Day 152	154	100% Sun 9/5/	21 Sat 30/10/21											
Setup for Pi	0 to CH.CB.2+46) in Soil mixed rubbish (246m; 1.5m/day) include 49 da		Mon 1/11/21		HK Working Day 153	155,143		1/21 Fri 17/12/21	200										
	lemove setup at Pit 137C and Pit 137B							/21 Tue 19/4/22											
	ipe Laying inside jacking Pit 137B to Pit 137C	95 days	Tue 12/1/21	Tue 19/4/22	HK Working Day 154	157													
DN1200 MS	S Pipe Laying inside jacking pipe (246m) (3 days per 8m)	93 days	Wed 20/4/22	Wed 10/8/22	HK Working Day 157	158		4/22 NA											
NS250 HDPI	PE Pipe Laying inside jacking pipe (246m) (8m per day)	4 days	Sat 22/1/22	Thu 27/1/22	HK Working Day 155	156	100% Sat 22/1/	/22 Thu 27/1/22											
Formwork 8	& Setup for Grouting the gap between pipe and Sleeve	3 days	Thu 11/8/22	Sat 13/8/22	HK Working Day 156	159	0% NA	NA											
Grouting W	Vorks (20 meter/day)	13 days	Mon 15/8/22	Mon 29/8/22	HK Working Day 158	160	0% NA	NA							1				
Constructio	on of Combined Inspection and Washout Chamber (Type III) at Pit 1370	60 days	Tue 30/8/22	Thu 10/11/22	HK Working Day 159	162,161	0% NA	NA											
Pipe Conne	ection Inside Pit 137C	6 days	Fri 11/11/22	Thu 17/11/22	HK Working Day 160		0% NA	NA							1				
Pipe Laying	g (HB, BVB, Short Pipe), Thrust Block & backfilling inside Pit 137C	24 days	Fri 11/11/22	Thu 8/12/22	HK Working Day 160	163	0% NA	NA							•				
Remove ELS	LS and Remove ELS and Extract Sheetpile at Pit 137C	12 days	Fri 9/12/22	Thu 22/12/22	HK Working Day 162		0% NA	NA								n .			
		14 days	Tue 28/2/23	Wed 15/3/23	HK Working Day 788		0% NA	NA											
	n of NS250 HDPE Pipe to Existing at Wan Po Road	1866 days	s Tue 7/11/17	Mon 26/2/24	HK Working Day		74% Tue 7/11	/17 NA										7	
Reservoir (Portion					HK Working Day		81% Thu 30/8	3/18 NA	-								-		
	Boundary of Tseung Kwan O Area 137 to TKO Fresh Water Service		s Mon 10/9/18		HK Working Day	762	88% Mon 10/									-			
	Boundary of Tseung Kwan O Area 137 to TKO Fresh Water Service 1 I) vation, Pipe Laying and Reinstatement at Wan Po Road	1271 days	Fri 30/10/20)/20 Fri 30/10/20				♦ 3	20/10						
Issue CE No CH.A1+14	Boundary of Tseung Kwan O Area 137 to TKO Fresh Water Service		E .: 30 /40 /30	Fri 30/10/20	Calendar Day		100% FII 30/10	720 FII 30/10/20											

						Project: Mainlaying in Ts					 					*			
Task Name		Duration	Start	Finish	Task Calendar Predecessors	Successors	% Complete	Actual Start	Actual Finish	2018	2019 2019	2020	202	1	2022		2023	2024 2024	2025
	Issue CE No. 96 - Diversion of Uncharged Irrigation pipe at CH.A2+34 at Wan Po	0 days	Mon 18/1/21	Mon 18/1/21	Calendar Day		100%	Mon 18/1/21	Mon 18/1/21	Q4 Q1 Q2	Q1 Q2 Q3 Q			1 Q2 Q3 18/1	Q4 Q1 Q2	2 Q3 Q4	Q1 Q2 Q3 0	Q4 Q1 Q2 Q3	Q4 Q1 Q2 Q
	Road CH.A0+00 - CH.A0+14 OC	45 days	Thu 16/6/22	Mon 8/8/22	HK Working Day 139		0%	NA	NA										
		156 days	Thu 23/5/19	Tue 26/11/19					Tue 26/11/19										
	CH.A0+14 - CH.A0+50 OC																		
	CH.A0+50 - CH.A1+50 OC	42 days	Mon 10/9/18		HK Working Day				Wed 31/10/18										
	CH.A1+50 - CH.A1+60 OC	53 days	Thu 1/11/18	Fri 4/1/19	HK Working Day		100%	Thu 1/11/18											
	CH.A1+60 - CH.A2+14 OC	107 days	Sat 5/1/19	Mon 20/5/19	HK Working Day		100%	Sat 5/1/19	Mon 20/5/19										
	CH.A2+14 - CH.A2+30 OC	150 days	Tue 1/9/20	Thu 4/3/21	HK Working Day		100%	Tue 1/9/20	Thu 4/3/21										
	CH.A2+30 - CH.A2+46 OC	105 days	Tue 27/10/20	Thu 4/3/21	HK Working Day		100%	Tue 27/10/20	Thu 4/3/21										
	CH.A2+46 - CH.A2+70 OC	93 days	Tue 10/11/20	Thu 4/3/21	HK Working Day	178	100%	Tue 10/11/20	Thu 4/3/21										
	CH.A2+70 - CH.A2+86 OC	74 days	Wed 2/12/20	Thu 4/3/21	HK Working Day 177		100%	Wed 2/12/20	Thu 4/3/21					ı i					
	CH.A2+86 - CH.A2+94 OC	48 days	Tue 5/1/21	Thu 4/3/21	HK Working Day	180	100%	Tue 5/1/21	Thu 4/3/21										
	CH.A2+94 - CH.A3+34.5 OC (Excluding Road reinstatement	218 days	Fri 5/3/21	Fri 26/11/21	HK Working Day 179	195	100%	Fri 5/3/21	Fri 26/11/21										
	CH.A3+34.5 - CH.A3+60 OC with DN150 DAV	60 days	Wed 4/5/22	Fri 15/7/22	HK Working Day 197	182	0%	NA	NA			*							
	CH.A3+60 and connecting to Pit 1	30 days	Tue 3/1/23	Thu 9/2/23	HK Working Day 209,181	211,183	0%	NA	. NA										
			Fri 10/2/23	Sat 25/2/23	HK Working Day 182		0%	NA	NA										
	Road reinstatement CH.A2+94 - CH.3+60	14 days				763													
	Frenchless Works (Pit 1 to Pit 2)	811 days	Mon 4/1/21	Thu 28/9/23	HK Working Day	762		Mon 4/1/21											
	Ground Investigation & Drilling Bored Hole at Receiving Pit 1	9 days	Tue 20/4/21	Thu 29/4/21	HK Working Day	192	100%	Tue 20/4/21	Thu 29/4/21										
	Setting out the inspection Pit for Jacking Pit 2	1 day	Mon 4/1/21	Mon 4/1/21	HK Working Day	187	100%	Mon 4/1/21	Mon 4/1/21										
	Mobilization and Excavation of Inspection Pit at Pit 2	28 days	Tue 5/1/21	Fri 5/2/21	HK Working Day 186	188	100%	Tue 5/1/21	Fri 5/2/21				•						
	Review alternative location for Pit 2 by WSD	29 days	Sat 6/2/21	Mon 15/3/21	HK Working Day 187	189	100%	Sat 6/2/21	Mon 15/3/21				-						
	Mobilization and excavation of Inspection Pit 2 after relocation	15 days	Tue 16/3/21	Thu 1/4/21	HK Working Day 188	190	100%	Tue 16/3/21	Thu 1/4/21										
	Mobilization; Ground Investigation & Drilling Bored Hole at Receiving Pit 2	17 days	Wed 7/4/21	Mon 26/4/21	HK Working Day 189	192	100%	Wed 7/4/21	Mon 26/4/21					•					
	Issue EWN no. 405	0 days	Tue 18/5/21	Tue 18/5/21	HK Working Day		100%	Tue 18/5/21	Tue 18/5/21					♦ 18/5					
	Subletting and Re-Design for Pit 1 & Pit 2 (Changing from conventional sheet pilir	ng 84 days	Fri 30/4/21	Tue 10/8/21	HK Working Day 185,190	193	100%	Fri 30/4/21	Tue 10/8/21										
	method to pipe pilling method Tendering, Subletting and Award for Constructing Pit 1 & Pit 2 (Pipe Pilling Metho	od) 57 days	Wed 11/8/21	Tue 19/10/21	HK Working Day 192	198,196	100%	Wed 11/8/21	Tue 19/10/21										
	Construction of Jacking / Receiving Pits	157 days	Wed 20/10/2	1 Tue 3/5/22	HK Working Day		94%	Wed 20/10/2:	1 NA						-				
	Renopipe Release the working area for Luen Hing at Pit 1	0 days		Sat 27/11/21		196		Sat 27/11/21							27/11				
						197		Sat 27/11/21											
	Set up and Driving Pipe Piles and Grouting for Pit 1	50 days	Sat 27/11/21		HK Working Day 195,193									1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1					
	Excavation and ELS installation for Pit 1	48 days	Thu 3/3/22	Tue 3/5/22	HK Working Day 196	208,181		Thu 3/3/22											
	Renopipe Release the working area for Luen Hing TTA Implement at Pit 2	9 days	Wed 20/10/2	1 Fri 29/10/21	HK Working Day 193	199		Wed 20/10/21											
	Mobilization, Establishment, Driving Pipe Piles and Grouting for Pit 2	63 days	Sat 30/10/21	Fri 14/1/22	HK Working Day 198	200	100%	Sat 30/10/21	Fri 14/1/22										
	Excavation and ELS installation for Pit 2	82 days	Sat 15/1/22	Thu 28/4/22	HK Working Day 199	203	100%	Sat 15/1/22	Thu 28/4/22										
	TMB Pipe Jacking Pit 1- Pit 2	420 days	Wed 4/5/22	Thu 28/9/23	HK Working Day		4%	Wed 4/5/22	NA							(
	Additional GI Works beside Pit 2	12 days	Wed 4/5/22	Wed 18/5/22	HK Working Day	203	100%	Wed 4/5/22	Wed 18/5/22										
	Mobilization & setup at Pit 2	40 days	Thu 19/5/22	Wed 6/7/22	HK Working Day 200,202	204	0%	NA	NA										
	TBM Jacking Sleeve Pipe (L=138m, 2m/day)	69 days	Thu 7/7/22	Mon 26/9/22	HK Working Day 203	205	0%	NA	NA										
	Grouting and Remove Setup including Thrust Wall	14 days	Tue 27/9/22	Fri 14/10/22	HK Working Day 204	206	0%	NA	NA										
	Setup Guard Rail	6 days	Sat 15/10/22			207	0%	NA	NA							1			
	Pipe Laying inside Sleeve Pipe (8m pipe, 3 days per Joint)	51 days			HK Working Day 206	208	0%	NA	NA										
						209		NA NA	NA										
	Formwork & Setup for Grouting the Gap between Pipe and Sleeve	3 days		2 Fri 23/12/22			0%												
	Grouting Works (30m/day)	5 days	Sat 24/12/22	Sat 31/12/22	HK Working Day 208	210,182	0%	NA	NA					8					
	Construction of Combined Inspection and Washout Chamber Type I at Pit 2	45 days	Tue 3/1/23		HK Working Day 209	217,218,220	0%	NA	NA										

ask Nam	ie e	Duration	Start	Finish	Task Calendar Predecessors	Successors	% Complete	Actual Start	Actual Finish	2019 2024 2025 2024 2026 2027 2027 2028 2027 2028 2029
	Backfill, Remove ELS and Road Reinstatement at Pit 1	30 days	Fri 10/2/23	Thu 16/3/23	HK Working Day 182		0%	NA	NA	Q1 Q1 Q2 Q3 Q4 Q1 Q1 Q1 Q1 Q2 Q3 Q4 Q1
	Backfill. Remove ELS and Road Reinstatement at Pit 2	30 days	Fri 25/8/23	Thu 28/9/23	HK Working Day 217		0%	NA	NA	
	Open Cut CH.A5+29.5 (Pit 2) to CH.A7+12	1476 days	Thu 30/8/18	Thu 24/8/23	HK Working Day	762	80%	Thu 30/8/18	NA	
			Fri 1/2/19	Fri 1/2/19	Calendar Day			Fri 1/2/19	Fri 1/2/19	◆ 1/2
	Issue CE No. 06 - Unforeseen Underground Condition during Trench Excavation for Mainlaying at Wan Po Road between CH.A6+90 and CH.A7+10									
	Issue CE No. 22 - Instruction to change in Mainlayign Method at Wan Po Road between CH.A6+54 and A6+61	0 days	Mon 20/1/20	Mon 20/1/20	Calendar Day			Mon 20/1/20		
	Issue CE No. 25 - Unforeseen Underground Conditions during Trench Excavation at Wan Po Road between CH.A6+68 and CH.A6+88	0 days	Mon 29/6/20	Mon 29/6/20	Calendar Day		100%	Mon 29/6/20	Mon 29/6/20	
	CH.A5+16 and Connecting to Pit 2	30 days	Fri 21/7/23	Thu 24/8/23	HK Working Day 210,218	212	0%	NA	NA	
	CH.A5+16 - CH.A5+27 OC with DN900 Valve Chamber	115 days	Tue 28/2/23	Thu 20/7/23	HK Working Day 219,210	217	0%	NA	NA	
	CH.A6+54 - CH.A5+27 OC with SACP (CH.A6+00 - CH.A6+20)	272 days	Mon 28/12/20	Fri 26/11/21	HK Working Day 221	218,220	100%	Mon 28/12/20	Fri 26/11/21	
	Construction of Tee Branch and Monitoting Chamber at CH.A5+35	90 days	Tue 28/2/23	Mon 19/6/23	HK Working Day 210,219		0%	NA	NA	
	CH.A6+20 - CH.A6+54 OC	205 days	Wed 22/4/20	Sat 26/12/20	HK Working Day 222	219	100%	Wed 22/4/20	Sat 26/12/20	
		378 days	Mon 14/1/19	Sun 26/4/20	HK Working Day	221	100%	Mon 14/1/19	Sun 26/4/20	
	CH.A6+54 - CH.A6+70 OC + Handshield				HK Working Day	233		Thu 30/8/18		
	CH.A6+70 - CH.A7+12 OC	111 days	Thu 30/8/18	Sat 12/1/19						
	Open Cut CH.A7+12 to CH.A13+79.5	1323 days			HK Working Day	762,763		Wed 19/9/18		
	Issue CE No. 18 - Unforeseen Ground Condition at open trench of Mainlaying at Wan Po Road between CH/A12+89 and Ch.A13+04	0 days	Mon 27/5/19	Mon 27/5/19	Calendar Day		100%	Mon 27/5/19	Mon 27/5/19	
	Issue CE No. 20 - Traffic Count and Preliminary Traffic Analysis in Po Lam Road and	0 days	Wed 19/6/19	Wed 19/6/19	Calendar Day		100%	Wed 19/6/19	Wed 19/6/19	9 • 19/6
	Tsui Lam Road Issue CE No. 19 - Change in Design of Gate Valve Chamber at Wan Po Road near	0 days	Thu 22/8/19	Thu 22/8/19	Calendar Day		100%	Thu 22/8/19	Thu 22/8/19	♦ 22/8
	CH.A12+40 Issue CE No. 84 - Realignment of Water main in Wan Po Road Between CH.A7+35	- 0 days	Tue 22/6/21	Tue 22/6/21	Calendar Day	231	100%	Tue 22/6/21	Tue 22/6/21	\$ 22/6
	CH.ACH,A8+30 Issue CE No. 109 - Manual Excavation under Unexpectedly Long and Continuous	0 days	Mon 22/3/21	Mon 22/3/21	Calendar Day		100%	Mon 22/3/21	Mon 22/3/21	◆ 22/3
	Extend of UU obstruction in Wan Po Road at CH.A11+80 Issue CE No. 127 - Manual Excavation under Unexpectedly long and contonuous		Tue 12/10/21	Tue 12/10/21	Calendar Day		100%	Tue 12/10/21	Tue 12/10/21	21
	extent of UU obstruction in Wan Po Road at CH. A0+88	99 days	Tue 22/6/21		HK Working Day 228	232	100%	Tue 22/6/21	Tue 19/10/21	21
	Tendering, Subletting and Award for Trenchless Works (CE No. 84)					252		Wed 20/10/21		
	Submission and approval of Method Statement of Hand shield for CE No. 84	101 days			HK Working Day 231					
	CH.A7+12 - CH.A7+30 OC	111 days	Fri 26/2/21	Wed 14/7/21	HK Working Day 223	234	100%	Fri 26/2/21	Wed 14/7/21	
	CH.A7+30 - CH.A7+34 OC	41 days	Thu 15/7/21	Tue 31/8/21	HK Working Day 233	235	100%	Thu 15/7/21	Tue 31/8/21	
	CH.A7+34 - CH.A7+50 OC	80 days	Mon 18/10/22	Fri 21/1/22	HK Working Day 234	236,239	100%	Mon 18/10/21	Fri 21/1/22	
	CH.A7+50 - CH.A7+58 OC	36 days	Tue 7/12/21	Thu 20/1/22	HK Working Day 235	240,237	100%	Tue 7/12/21	Thu 20/1/22	2
	CH.A7+58 - CH.A7+82 OC	43 days	Fri 21/1/22	Tue 15/3/22	HK Working Day 236	240,238	100%	Fri 21/1/22	Tue 15/3/22	
	CH.A7+82 - CH.A8+23 Trenchless (Mobilization, Setup and Handshield)	85 days	Tue 19/4/22	Sat 30/7/22	HK Working Day 237,239	240	35%	Tue 19/4/22	NA	
	CH.A8+23 - CH.A8+63 OC	74 days	Fri 21/1/22	Mon 25/4/22	HK Working Day 235	238,240	100%	Fri 21/1/22	Mon 25/4/22	22
	CH.A8+63 - CH.A9+37 OC	100 days	Mon 1/8/22	Mon 28/11/2	2 HK Working Day 236,238,237,239		0%	NA	NA	
					HK Working Day		60%	Thu 3/3/22		
	CH.A9+37 - CH.A10+18 OC	81 days	Thu 3/3/22		*					
	CH.A10+18 - CH.A11+51 OC	340 days	Tue 5/1/21		HK Working Day		90%	Tue 5/1/21		
	CH.A11+51 - CH.A12+12 OC with DN600 IT & DN300 Washout Chamber at CH.A12+00	263 days	Tue 1/9/20	Fri 23/7/21	HK Working Day 244				Fri 23/7/21	
	CH.A12+12 - CH.A12+50 OC With DN900 Valve Chamber	451 days	Sat 23/2/19	Mon 31/8/20	HK Working Day 245,246	243	100%	Sat 23/2/19	Mon 31/8/20	0
	CH.A12+50 - CH.A12+95 OC	125 days	Wed 19/9/18	Thu 21/2/19	HK Working Day	244	100%	Wed 19/9/18	Thu 21/2/19	
	CH.A12+95 - CH.A13+13 OC	84 days	Fri 9/11/18	Thu 21/2/19	HK Working Day	244	100%	Fri 9/11/18	Thu 21/2/19	,
	CH.A13+13 - CH.A13+40 OC + DN150 DAV	60 days	Fri 23/12/22	Thu 9/3/23	HK Working Day 248		0%	NA	NA	
	CH.A13+40 -CH.A 13+80 OC from Open Cut Trench to Jacking Pit A	60 days	Fri 14/10/22	Thu 22/12/22	HK Working Day 280	247,293	0%	NA	NA	
	Trenchless Work at Wan Po Road From Pit A to Pit F	1866 days	Tue 7/11/17	Mon 26/2/24	HK Working Day		56%	Tue 7/11/17	NA	
	Trial Pit Excavation for Pit 1 to Pit 20	462 days		Tue 10/9/19				Tue 20/2/18		9
	5.1990; 546.1903.0; 519 V					763		Fri 2/8/19	NA NA	
	Trenchless Works (Pit A to Pit D)		Fri 2/8/19		HK Working Day	703				A 2/8
	Issue CE No. 27 - Underground Utilities Detection Survey for Working Pit D (CH. A22+75)	0 days	Fri 2/8/19	Fri 2/8/19	Calendar Day		100%	Fri 2/8/19	Fri 2/8/19	◆ 2/8
_	Task	Inact	ive Milestone	D	aration-only Start-only	E E	External Milesto	one 🌵	Critical S	al Split
rc	ogramme No. 15 24 May 2022 Split Project Summary		ive Summary		anual Summary Rollup Finish-only		Deadline		Progress	as and a second

						Project: Mainlaying in Tseun	g Kwan O										
ask Name		Duration	Start	Finish	Task Calendar Predecessors	Successors	% Complete	Actual Start	Actual Finish	2018 22	019 019 2020		2021	202	22 2023	2024 2024	2025
	Issue CE No. 21 - Temporary Diversion of Uncharted Underground Utilities near	0 days	Thu 8/8/19	Thu 8/8/19	Calendar Day		100%	Thu 8/8/19	Thu 8/8/19	Q4 Q1 Q2 Q3 Q4 Q	Q1 Q2 Q3 Q4 Q1	Q2 Q3 Q4	Q1 Q2 Q	3 Q4 Q1	1 Q2 Q3 Q4 Q1 Q2	Q3 Q4 Q1 Q2 Q	23 Q4 Q1 Q
	Wan O Road at CH. A16+00 (Pit B) Issue CE No. 29 - Tree Transplant Works near CHA13+70	0 days	Thu 17/10/19	Thu 17/10/19	Calendar Day		100%	Thu 17/10/19	Thu 17/10/19		♦ 17/10						
					Calendar Day				Mon 31/8/20			♦ 31/8	3				
	Issue CE No. 32 - Additional grouting Treatment works at Pit B in Wan Po Road nea Wan O Road		Mon 31/8/20	Mon 31/8/20									♦ 18/	5			
	Issue CE No. 118 - Non-destructive Void Detection Survey in TKO Area 137 between 137Pit A and 137Pit B	n 0 days	Tue 18/5/21	Tue 18/5/21	Calendar Day			Tue 18/5/21	Tue 18/5/21								
	Issue CE No. 123 - Void Detection Survey in Wan Po Road between Pit A to Pit C	0 days	Fri 30/7/21	Fri 30/7/21	Calendar Day		100%	Fri 30/7/21	Fri 30/7/21				•	30/7			
	Expected CE No. 52 - Relocation of Working pits for Trenchless Works in Wan Po Road (Pit B to Pit D)	0 days	Thu 31/3/22	Thu 31/3/22	Calendar Day	259	0%	NA	NA						♦ 31/3		
	Expected CE No. 58 - Relocation of Working pits for Trenchless Works in Wan Po	0 days	Thu 31/3/22	Thu 31/3/22	Calendar Day 258		0%	NA	NA						◆ 31/3		
Į.	Road (Pit A to Pit B) Construction of Jacking / Receiving Pit A, B & C	737 days	Mon 12/8/19	Sun 6/2/22	HK Working Day		100%	Mon 12/8/19	Sun 6/2/22	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	V						
	Removal of Existing Planter for Jacking Pit A	6 days	Mon 15/6/20	Sat 20/6/20	HK Working Day	262	100%	Mon 15/6/20	Sat 20/6/20			1					
	Jacking Pit A with additional ground grouting works	462 days	Fri 17/7/20	Sun 6/2/22	HK Working Day 261		100%	Fri 17/7/20	Sun 6/2/22								
	Jacking / Receiving Pit B with additional ground grouting works	664 days	Mon 12/8/19	Fri 5/11/21	HK Working Day	299	100%	Mon 12/8/19	Fri 5/11/21								
		295 days	Fri 29/11/19	Thu 26/11/20					Thu 26/11/20								
	Receiving Pit C with additional ground grouting works																
	Construction of Jacking pit D	372 days	Wed 12/8/20	Thu 11/11/21					Thu 11/11/21								
	TTA submission and Approval , Suspension of Parking Meters and TTA Implement for Jacking Pit D	nt 112 days	Wed 12/8/20	Tue 1/12/20	Calendar Day	267		Wed 12/8/20									
	Inspection Pits & GI Works for Jacking Pit D	27 days	Wed 2/12/20	Tue 5/1/21	HK Working Day 266	317,268	100%	Wed 2/12/20	Tue 5/1/21								
	Design Submission with ICE Certificate for Jacking Pit D	26 days	Fri 15/1/21	Wed 17/2/21	HK Working Day 267	269,270	100%	Fri 15/1/21	Wed 17/2/21	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		100					
	Approval of Design of Jacking Pit D	8 days	Thu 18/2/21	Fri 26/2/21	HK Working Day 268	271	100%	Thu 18/2/21	Fri 26/2/21	N			1				
	Approval Existing Sub-contractor to carry out Construction of Jacking Pit D	0 days	Fri 26/3/21	Fri 26/3/21	HK Working Day 268	271	100%	Fri 26/3/21	Fri 26/3/21				♦ 26/3				
	Mobilization and Pipe Pile Wall Construction for Jacking Pit D	78 days	Thu 1/4/21	Fri 9/7/21	HK Working Day 270,269	272	100%	Thu 1/4/21	Fri 9/7/21								
	Construction of Jacking Pit D at Car Park	104 days	Sat 10/7/21	Thu 11/11/21	HK Working Day 271	303	100%	Sat 10/7/21	Thu 11/11/21								
		553 days	Thu 14/4/22	4.2	HK Working Day		0%	Thu 14/4/22	NA								
	New Routing From Pit A to Pit D)					275			Thu 14/4/22								
	Verbal Instructed to Change Pit A to Pit D by Trenchless Method to Open Cut Method & Handshield	1 day	Thu 14/4/22	Thu 14/4/22	HK Working Day	275	100%	Thu 14/4/22									
	XP Application for WPR, SKR and Open Trench at Shek Kok Road	60 days	Tue 19/4/22	Thu 30/6/22	HK Working Day 274	278,279,286	0%	NA	NA								
	Trial Pit Excavation at Pit A1	3 days	Sat 14/5/22	Tue 17/5/22	HK Working Day		100%	Sat 14/5/22	Tue 17/5/22								
	Remove Central Divider between Wan O Road amd Shek Kok Road	81 days	Mon 16/5/22	Fri 19/8/22	HK Working Day		0%	Mon 16/5/22	NA								
	Trial Pit Excavation at Pit WPR	10 days	Sat 2/7/22	Wed 13/7/22	HK Working Day 275	287	0%	NA	NA								
	Trial Pit Excavation at Pit SKR	10 days	Sat 2/7/22	Wed 13/7/22	HK Working Day 275	288,285,284	0%	NA	NA								
	Pipe Laying (OC) from Pit A1 towward KLN (124m)	124 days	Tue 17/5/22	Thu 13/10/22	HK Working Day	281,248	0%	Tue 17/5/22	NA								
	Pipe Laying (OC) from WPR (N/B)(the 1st Lane to the 3rd lane) (30m)	60 days	Fri 14/10/22	Thu 22/12/22	HK Working Day 280	282	0%	NA	NA								
	Pipe Laying (OC) crossing WPR Junction with Wan O Road to Central Divider	90 days	Fri 23/12/22	Tue 18/4/23	HK Working Day 281		0%	NA	NA								
	(73m)		Fri 20/5/22		HK Working Day	295,287	0%	Fri 20/5/22	NA								
	Pipe Laying (OC) along Central Divider to Pit WPR (340m)	340 days				288	0%	NA	NA								
	Pipe Laying (OC) from Pit SKR to Pit D (1st 200m)	200 days		Tue 14/3/23	HK Working Day 279												
	Pipe Laying (OC) from Pit SKR to Pit D (Remaining 110m)	110 days	Thu 14/7/22		HK Working Day 279	297	0%	NA	NA								
	Construction of Pit A1	90 days	Sat 2/7/22	Tue 18/10/22	HK Working Day 275	289	0%	NA	NA								
	Construction of Pit WPR	90 days	Thu 13/7/23	Sat 28/10/23	HK Working Day 278,283		0%	NA	NA								
	Construction of Pit SKR	90 days	Wed 15/3/23	Thu 6/7/23	HK Working Day 279,284	290	0%	NA	NA								
	Headshield Tunneling fom Pit A to Pit A1 (102m)	170 days	Wed 19/10/2	2 Wed 17/5/23	HK Working Day 286	291	0%	NA	NA								
	Headshield Tunneling fom Pit SKR to Pit WPR (64m)	107 days	Fri 7/7/23	Sat 11/11/23	HK Working Day 288	292	0%	NA	NA								
	MS Pipe Laying in Segment from Pit A to Pit A1	40 days	Thu 18/5/23	Mon 26/6/23	Calendar Day 289	293,294	0%	NA	NA								
	MS Pipe Laying in Segment from Pit SKR to Pit WPR	30 days	Sun 12/11/23	Mon 11/12/2	3 Calendar Day 290	295,296	0%	NA	NA								
	Pipe Connection works & Construction Special Combined Insepction and	60 days	Tue 27/6/23	Tue 5/9/23	HK Working Day 291,248		0%	NA	NA								2
	Washout Chamber at Pit A						0%	NA	NA								
	Pipe Connection works at Pit A1	12 days	Tue 27/6/23	Tue 11/7/23	HK Working Day 291		U/0	IVA	170								

																				-
Name		Duration	Start	Finish	Task Calendar	Predecessors	Successors	% Complete	Actual Start	Actual Finish	2019	2019	2020	202	1	2022	2023	20	024	2025
	,	50.1	T 12/12/22	Mar 20/2/24	LIV Westing Day	202 202		0%	NA	NA	Q4 Q1 Q2 Q3	Q4 Q1 Q	Q3 Q4 Q1 Q	Q2 Q3 Q4 Q1	Q2 Q3 Q4	Q1 Q2 Q3	Q4 Q1 C	2 Q3 Q4 C	21 Q2 Q3 C	24 Q1 Q2
	Pipe Connection Works and construction of Inspoection Chamber at Pit WPR	60 days	Tue 12/12/23																	
	Pipe Connection Works and construction of Washout Chamber at Pit SKR	60 days	Tue 12/12/23	Mon 26/2/24	HK Working Day	292			NA	NA										
Т	Pipe Connection Works and construction of Washout Chamber at Pit D BM Pipe Jacking (Pit B to Pit C)	60 days 157 days	Wed 23/11/22 Mon 8/11/21	Tue 7/2/23 Mon 23/5/22	HK Working Day HK Working Day		MERCHAN		NA Mon 8/11/21	NA Mon 23/5/22					-	,				
	Establishment at Pit B with additional ground treatment for stopping water	112 days	Mon 8/11/21	Thu 24/3/22	HK Working Day	263	300	100%	Mon 8/11/21	Thu 24/3/22										
	ingress Jacking DN1600 Precast Concrete Sleeve Pipe From Pit B to Pit C (L=326m;	30 days	Thu 24/3/22	Wed 4/5/22	HK Working Day	299	301	100%	Thu 24/3/22	Wed 4/5/22										
	2.5m/day) Extracting TBM and remove TBM from Pit B	15 days	Thu 5/5/22	Mon 23/5/22	HK Working Day	300		100%	Thu 5/5/22	Mon 23/5/22										
1	BM Pipe Jacking (Pit D to Pit C)	98 days	Mon 22/11/21	Wed 23/3/22	HK Working Day			100%	Mon 22/11/21	Wed 23/3/22						-				
	Establishment at Pit D	47 days	Mon 22/11/21	Tue 18/1/22	HK Working Day	272	304	100%	Mon 22/11/21	Tue 18/1/22										
	DN1920 Steel Jacked Pipe (Pit D - Pit C) (CH.A19+26 to CH.A22+80) in Soil (370n	n; 51 days	Wed 19/1/22	Tue 22/3/22	HK Working Day	303		100%	Wed 19/1/22	Tue 22/3/22										
	2.5m/day)	0 days	Wed 23/3/22	Wed 23/3/22	HK Working Day			100%	Wed 23/3/22	Wed 23/3/22						◆ 23/3				
	Pipe Jacking stopped on 23/3/2022 m Pit D Crossing Wan Po Road and Lohas Park Road to TKO Landfill Stage I (Area		Tue 7/11/17	Wed 14/6/23	and the second s		763		Tue 7/11/17		-							7		
	ssue CE No. 24 - Ground Investigation for Working Pit E, F and Trenchless Works	0 days	Fri 27/9/19	Fri 27/9/19	Calendar Day		309	100%	Fri 27/9/19	Fri 27/9/19			27/9							
	across MT Tunnel ssue CE No. 80 - Site Clearance for Crossing Lohas Road Junction (Option 5)	0 days	Tue 3/11/20	Tue 3/11/20	Calendar Day			100%	Tue 3/11/20	Tue 3/11/20				♦ 3/11						
-	Fender & Subletting	71 days	Fri 27/9/19	Fri 6/12/19	Calendar Day	307		100%	Fri 27/9/19	Fri 6/12/19										
1	Mobilization and Establishment of GI equipment	7 days	Mon 17/2/20	Mon 24/2/20	HK Working Day		311	100%	Mon 17/2/20	Mon 24/2/20			1							
	Ground Investigation GI No. 3	33 days	Tue 25/2/20	Thu 2/4/20	HK Working Day	y 310		100%	Tue 25/2/20	Thu 2/4/20			-							
	Issue CE No. 77 - Design of Water Main Structure and Modification Works to the	0 days	Wed 21/10/20	Wed 21/10/20	Calendar Day		313,314,315	100%	Wed 21/10/20	Wed 21/10/2	D			\$ 21/10						
	Affected Geotechnical Features in Wan Po Road and Lohas Park Road Quotation Submission and Acceptant for CE No. 77	72 days			Calendar Day	312		100%	Wed 21/10/20	Thu 31/12/20										
	CE No. 77 - Submission of Geotechnical Assessment Repot	42 days		Tue 1/12/20	Calendar Day			100%	Wed 21/10/20	Tue 1/12/20				-						
		72 days		Thu 31/12/20			316,317			Thu 31/12/20		-								
	CE No. 77 - Design Submission	0 days	Fri 3/9/21	Fri 3/9/21	Calendar Day				Fri 3/9/21	Fri 3/9/21					♦ 3/9					
	CE No. 77 - Approval of Design Submission						319			Wed 11/8/21					♦ 11/8					
	Issue CE No. 67 - Realignment of Water Main near Wan Po Road and Lohas Park Road	0 days		Wed 11/8/21			348,347			Mon 14/3/22										
	Obtain MTR's approval on the alignment and construction method about MTR's tunnels			Mon 14/3/22																
	Tender Process and Tender Award for CE No. 67	77 days		Tue 26/10/21 Mon 28/2/22			320,363 348,318FF,347			Tue 26/10/21										
	TTA approval and Implement for CE No. 67	125 days			•		340,310ГГ,347		Tue 7/11/17								-			
	Handshield Crossing Wan Po Road (CH.FA0+15 to CH.FA0+50)	1484 days			HK Working Da	Y	Marian area				Ĭ.				18/1					
	Issue CE No. 98 - Tree Felling at Lohas Park Road	0 days	Mon 18/1/21	Mon 18/1/21			323			Mon 18/1/21										
	TPRP Submission and Approval for Tree at Slope Feature 12SW-A/FR102	121 days	Mon 18/1/21	Tue 18/5/21	Calendar Day	322	324		Mon 18/1/21											
	Tree Felling and Tree Works at Slope Feature 12SW-A/FR102	7 days	Mon 21/6/21	Mon 28/6/21	HK Working Day	y 323		100%	Mon 21/6/21	Mon 28/6/21										
	Approval TTA for Loading and Unloading at R27	0 days	Wed 1/6/22	Wed 1/6/22	HK Working Da	У	326	0%	NA	NA						▶ 1/6	1			
	Strengthen Works at Feature 12SW-A/R27	80 days	Wed 1/6/22	Sat 3/9/22	HK Working Da	y 325		0%	NA	NA										
	Strengthen Works at Feature 12SW-A/R28	98 days	Tue 14/12/21	Thu 14/4/22	HK Working Da	У	329	100%	Tue 14/12/21	Thu 14/4/22										
	Concrete coring and breaking opening on Retaining Wall (R27)	1 day	Tue 7/11/17	Tue 7/11/17	None		335	0%	NA	NA										
	Concrete coring and breaking opening on Retaining Wall (R28)	30 days	Wed 27/4/22	Thu 2/6/22	HK Working Da	y 327	330	3%	Wed 27/4/22	NA										
	Handshield Establishment	14 days	Sat 4/6/22	Mon 20/6/22	HK Working Da	y 329	331	0%	NA	NA										
	Mild Steel Sleeve Pipe in Soil Mix (35m; 0.6m/day)	58 days	Tue 21/6/22	Sat 27/8/22	HK Working Da	y 330	332	0%	NA	NA							1			
	Remove establishment	6 days	Mon 29/8/22	Sat 3/9/22	HK Working Da	y 331	333	0%	NA	NA							1			
	Setup for Pipe Laying inside jacking	6 days	Mon 5/9/22	Sat 10/9/22	HK Working Da	ny 332	334	0%	NA	NA							1			
	DN900 MS Pipe Laying inside jacking pipe (35m) (say 3 days per 8m)	15 days	Tue 13/9/22	Thu 29/9/22	HK Working Da	ay 333	335	0%	NA	NA										
	Formwork & Setup for Grouting the gap between pipe and Sleeve	6 days	Fri 30/9/22	Sat 8/10/22	HK Working Da	ау 334,328	336	0%	NA	NA							1			
	Grouting Works (30 meter/day)	4 days	Mon 10/10/2	2 Thu 13/10/22	2 HK Working Da	ау 335	337	0%	NA	NA							1		1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
	Pipe laying Works From Pit D to CH.FA0+15	24 days	Fri 14/10/22		2 HK Working Da		339	0%	NA	NA		4					•			
	THE BYING THORSE TO BE TO CONTROL TO		-,,	, = -, =																
	nme No. 15 Task Summary Solit Project Summary		ive Milestone		uration-only Ianual Summary Rollup	Start-only Finish-only	С	External Milesto Deadline	ne 🌼	Critical Progres										

	-	10	In the	mal Calculus In 1	Project: Mainlaying in T	I'seung Kwan O	A atual Ct	Actual East-L	
	Duration	Start	Finish	Task Calendar Predecessors	Successors	% Complete	Actual Start	Actual Finish	2019 2024 2024 2018 2019 2020 2021 2021 2021 2022 2023 2024 2023 2024
rtical Pipes, Exposed Pipes & Burned Pipes above MTR Tunnels (CH.FA0+50 to	173 days	Fri 11/11/22	Wed 14/6/23	HK Working Day		0%	NA	NA	Q4 Q1 Q2 Q3 Q4 Q1 Q1 Q1 Q2 Q3 Q4 Q1 Q1 Q2 Q3 Q4 Q1 Q1
. <mark>.FA0+85)</mark> Vertical pipes with Concrete Surround	30 days	Fri 11/11/22	Thu 15/12/22	HK Working Day 337	340	0%	NA	NA	
Exposed pipes with concrete surround	30 days	Fri 16/12/22	Thu 26/1/23	HK Working Day 339	341	0%	NA	NA	
Open cut pipe laying with concrete surround	30 days	Wed 10/5/23	Wed 14/6/23	HK Working Day 359,340		0%	NA	NA	
	289 days	Thu 19/5/22	Tue 9/5/23	HK Working Day		0%	Thu 19/5/22	NA	
nd Shield Pipe Jacking crossing Lohas Park Road		Thu 19/5/22	Thu 19/5/22	HK Working Day	347	100%	Thu 19/5/22	Thu 19/5/22	19/5
MTR's Consent for Construction of Pit E	0 days				348	99%	Wed 1/6/22		▶ 1/6
MTR's Consent for Construction of Pit F	0 days	Wed 1/6/22	Wed 1/6/22	HK Working Day					<i>♦</i> 6/6
MTR's Consent for Construction of Pit G	0 days	Mon 6/6/22	Mon 6/6/22	HK Working Day	349	99%	Mon 6/6/22		◆ 13/6
Loading & Unloading TTA for Pit G	0 days	Mon 13/6/22	Mon 13/6/22	HK Working Day	349	99%	Mon 13/6/22	NA	13/0
Construction of Receiving Pit E	45 days	Mon 23/5/22	Fri 15/7/22	HK Working Day 318,320,343		0%	Mon 23/5/22	NA	
Construction of Jacking Pit F	45 days	Wed 1/6/22	Mon 25/7/22	HK Working Day 320,318,344	350	0%	NA	NA	
Construction of Receiving Pit G	45 days	Mon 13/6/22	Thu 4/8/22	HK Working Day 345,346		0%	NA	NA	
Establishment at Pit F	14 days	Tue 26/7/22	Wed 10/8/22	HK Working Day 348	351	0%	NA	NA	
Mild Steel Sleeve Pipe (Pit F - Pit E) in Soil Mix (40m; 0.4m/day)	100 days	Thu 11/8/22	Thu 8/12/22	HK Working Day 350	352	0%	NA	NA	
Mild Steel Sleeve Pipe (Pit F - Pit G) in Soil Mix (20m; 0.4m/day)	50 days	Fri 9/12/22	Sat 11/2/23	HK Working Day 351	353	0%	NA	NA	
Remove setup Including Thrust Wall at Pit F	6 days	Mon 13/2/23	Sat 18/2/23	HK Working Day 352	354	0%	NA	NA	
Setup for Pipe Laying inside jacking Pit F	6 days	Mon 20/2/23	Sat 25/2/23	HK Working Day 353	355	0%	NA	NA	
DN900 MS Pipe Laying from Pit F to Pit E (40m) (say 3 days per 4m)	30 days	Mon 27/2/23	Sat 1/4/23	HK Working Day 354	356	0%	NA	NA	
Modify Setup for Pipe Laying inside jacking Pit F	6 days	Mon 3/4/23	Thu 13/4/23	HK Working Day 355	357	0%	NA	NA	
	15 days	Fri 14/4/23	Tue 2/5/23	HK Working Day 356	358	0%	NA	NA	
DN900 MS Pipe Laying from Pit F to Pit G (20m) (say 3 days per 4m)		Wed 3/5/23	Fri 5/5/23	HK Working Day 357	359	0%	NA	NA	
Formwork & Setup for Grouting the gap between pipe and Sleeve	3 days					0%	NA	NA	
Grouting Works (30 meter/day)	3 days	Sat 6/5/23	Tue 9/5/23	HK Working Day 358	341,361				
ertical Pipes, Exposed Pipes & Burned Pipes above MTR Tunnels (CH.FA1+50 to I.FA2+17)			Wed 14/6/23		是 性态区域	59%	Tue 7/11/17		
Vertical pipes with Concrete Surround	30 days	Wed 10/5/23				0%	NA	NA	
Exposed pipes with concrete surround	60 days	Tue 15/2/22	Fri 29/4/22	HK Working Day 366		0%	NA	NA	
Site Clearance at Storage Yard	3 days	Mon 1/11/21	Wed 3/11/21	HK Working Day 319	366		Mon 1/11/21		
Plate Load Tests for Tower P2	34 days	Tue 9/11/21	Fri 17/12/21	HK Working Day		100%	Tue 9/11/21	Fri 17/12/21	
Construction footing of Tower P2 at CH.FA1+76	72 days	Sat 18/12/21	Fri 18/3/22	HK Working Day		100%	Sat 18/12/21	Fri 18/3/22	
Open cut pipe laying with concrete surround (CH.FA1+76 to CH.FA2+04)	82 days	Thu 4/11/21	Mon 14/2/22	HK Working Day 363	362	100%	Thu 4/11/21	Mon 14/2/2	22
Open cut pipe laying from CH.FA2+04 to CH.FB0+03 & Connect to DN900SV	42 days	Tue 7/11/17	Wed 27/12/1	7 HK Working Day		0%	NA	NA	
Chamber Cut Excavation, Pipe Laying and Reinstatement at TKO Landfill Stage 1 and TKO	1221 days	Thu 23/8/18	Fri 7/10/22	HK Working Day		91%	Thu 23/8/18	NA	
Waterfront Promenade e CE No. 05 - Feasibility Studey Realignment of pipline at Tseung Kwan O Stage I	I O days	Thu 23/8/18	Thu 23/8/18	Calendar Day		100%	Thu 23/8/18	Thu 23/8/18	8 • 23/8
dfill e CE No. 36 - Realignment of Watermain along the Bituminous Road adjacent to	0 days	Fri 22/5/20	Fri 22/5/20	Calendar Day		100%	Fri 22/5/20	Fri 22/5/20	◆ 22/5
as Park Road e CE No. 34 - Realignment of Watermain along TKO Stage I Landfill	0 days	Tue 5/11/19	Tue 5/11/19	Calendar Day		100%	Tue 5/11/19	Tue 5/11/19	9 ♦ 5/11
Landfill Stage I Area A (CH.FB0+00 to CH.FB5+34)	712 days	Fri 15/5/20	Fri 7/10/22	HK Working Day	764	85%	Fri 15/5/20	NA	
H.FB0+00 DN300 Washout Chamber	60 days	Tue 7/12/21	Mon 21/2/22	2 HK Working Day 374		0%	NA	NA	
:H.FB0+00 - CH.FB 1+66 OC with DN900 Valve Chamber with DN150 by-pass	372 days	Sat 5/9/20	Mon 6/12/21		373	100%	Sat 5/9/20	Mon 6/12/2	21
	379 days		Sat 21/8/21				Fri 15/5/20	Sat 21/8/21	
:H.FB1+66 - CH.FB 5+39 OC					201		Mon 12/4/21		
CH.FB5+34 - CH.FC 0+00 OC	101 days			HK Working Day 394	381				
CH.FB 5+34 DN300 DN600 IT Chamber	30 days	Tue 21/6/22			378	0%	NA	NA	
CH.FB 5+34 DN300 Washout Chamber	60 days		Fri 7/10/22	HK Working Day 377		0%	NA	NA	
O South Waterfront Promenade (CH.FC0+00 - CH.FC 4+87)	443 days	Wed 26/2/20	Tue 24/8/21	HK Working Day		100%	Wed 26/2/20	Tue 24/8/21	
Task Suramary	Inac	tive Milestone	1	Duration-only St.	art-only [External Milesto	one 💠	Critica	ral Split
e No. 15 Split Project Summary		tive Summary			nish-only	Deadline	4	Progre	ress and Progress

Marie Mari	H.FC 0+00 - CH.FC 0+29 OC H.FC 0+29 - CH.FC 0+65 OC H.FC 0+65 - CH.FC 0+95 OC H.FC 1+27 - CH.FC 1+27 OC H.FC 1+59 - CH.FC 1+59 OC H.FC 1+59 - CH.FC 2+23 OC H.FC 2+23 - CH.FC 2+55 OC H.FC 2+25 - CH.FC 2+87 OC H.FC 2+87 - CH.FC 3+19 OC H.FC 3+19 - CH.FC 3+51 OC H.FC 3+19 - CH.FC 3+51 OC H.FC 3+19 - CH.FC 3+51 OC H.FC 3+51 - CH.FC 3+55 OC H.FC 3+51 - CH.FC 3+55 OC H.FC 3+51 - CH.FC 3+51 OC H.FC 3+51 - CH.FC 3+51 OC	38 days 56 days 34 days 30 days 31 days 21 days 25 days 38 days 24 days 20 days 30 days	Mon 12/7/21 Sat 19/6/21 Wed 26/2/20 Mon 6/4/20 Fri 15/5/20 Fri 19/6/20 Wed 15/7/20 Mon 17/8/20 Mon 14/9/20 Fri 30/10/20 Thu 26/11/20	Tue 24/8/21 Tue 24/8/21 Mon 6/4/20 Fri 15/5/20 Fri 19/6/20 Wed 15/7/20 Mon 17/8/20 Mon 14/9/20 Fri 30/10/20 Thu 26/11/20	HK Working Day 381 HK Working Day 382,376 HK Working Day 382 HK Working Day 383 HK Working Day 384 HK Working Day 385 HK Working Day 386 HK Working Day 387	380 383,381 384 385 386 387	100% N 100% S 100% N 100% N 100% F 100% F	Mon 12/7/21 Sat 19/6/21 Wed 26/2/20 Mon 6/4/20 Fri 15/5/20	Tue 24/8/21 Tue 24/8/21 Mon 6/4/20 Fri 15/5/20 Fri 19/6/20	Q4 Q1 Q2 Q3 Q4	2019 2019 2019 Q1 Q2 Q3 Q4	•	Q1 Q2 Q3 Q	4 2022 4 Q1 Q2 Q3	Q4 Q1 Q2	2024 2024 Q3 Q4 Q1	Q2 Q3 Q4	2025 Q1 Q2 Q3
Marie Mari	H.FC 0+29 - CH.FC 0+65 OC H.FC 0+65 - CH.FC 0+95 OC H.FC 0+95 - CH.FC 1+27 OC H.FC 1+27 - CH.FC 1+59 OC H.FC 1+59 - CH.FC 1+91 OC H.FC 1+91 - CH.FC 2+23 OC H.FC 2+23 - CH.FC 2+55 OC H.FC 2+87 - CH.FC 3+19 OC H.FC 3+19 - CH.FC 3+19 OC H.FC 3+19 - CH.FC 3+51 OC H.FC 3+19 - CH.FC 3+51 OC H.FC 3+51 - CH.FC 3+83 OC H.FC 3+83 - CH.FC 4+15 OC H.FC 3+83 - CH.FC 4+15 OC	56 days 34 days 30 days 31 days 21 days 29 days 25 days 38 days 24 days 20 days 30 days	Sat 19/6/21 Wed 26/2/20 Mon 6/4/20 Fri 15/5/20 Fri 19/6/20 Wed 15/7/20 Mon 17/8/20 Mon 14/9/20 Fri 30/10/20 Thu 26/11/20	Tue 24/8/21 Mon 6/4/20 Fri 15/5/20 Fri 19/6/20 Wed 15/7/20 Mon 17/8/20 Mon 14/9/20 Fri 30/10/20 Thu 26/11/20	HK Working Day 382,376 HK Working Day 382 HK Working Day 383 HK Working Day 384 HK Working Day 385 HK Working Day 386 HK Working Day 387	383,381 384 385 386 387 388	100% S 100% N 100% F 100% F	Sat 19/6/21 Wed 26/2/20 Mon 6/4/20 Fri 15/5/20 Fri 19/6/20	Tue 24/8/21 Mon 6/4/20 Fri 15/5/20 Fri 19/6/20	Q1 Q1 Q2 Q3 Q4	01 02 03 04	•	Q1 Q2 Q3 Q	4 01 02 0	Q4 Q1 Q2	Q3 Q4 Q1	Q2 Q3 Q4	Q1 Q2 Q3
Miller M	H.FC 0+29 - CH.FC 0+65 OC H.FC 0+65 - CH.FC 0+95 OC H.FC 0+95 - CH.FC 1+27 OC H.FC 1+27 - CH.FC 1+59 OC H.FC 1+59 - CH.FC 1+91 OC H.FC 1+91 - CH.FC 2+23 OC H.FC 2+23 - CH.FC 2+55 OC H.FC 2+87 - CH.FC 3+19 OC H.FC 3+19 - CH.FC 3+19 OC H.FC 3+19 - CH.FC 3+51 OC H.FC 3+19 - CH.FC 3+51 OC H.FC 3+51 - CH.FC 3+83 OC H.FC 3+83 - CH.FC 4+15 OC H.FC 3+83 - CH.FC 4+15 OC	56 days 34 days 30 days 31 days 21 days 29 days 25 days 38 days 24 days 20 days 30 days	Sat 19/6/21 Wed 26/2/20 Mon 6/4/20 Fri 15/5/20 Fri 19/6/20 Wed 15/7/20 Mon 17/8/20 Mon 14/9/20 Fri 30/10/20 Thu 26/11/20	Tue 24/8/21 Mon 6/4/20 Fri 15/5/20 Fri 19/6/20 Wed 15/7/20 Mon 17/8/20 Mon 14/9/20 Fri 30/10/20 Thu 26/11/20	HK Working Day 382,376 HK Working Day 382 HK Working Day 383 HK Working Day 384 HK Working Day 385 HK Working Day 386 HK Working Day 387	383,381 384 385 386 387 388	100% S 100% N 100% F 100% F	Sat 19/6/21 Wed 26/2/20 Mon 6/4/20 Fri 15/5/20 Fri 19/6/20	Tue 24/8/21 Mon 6/4/20 Fri 15/5/20 Fri 19/6/20			•						
Control Cont	H.FC 0+65 - CH.FC 0+95 OC H.FC 0+95 - CH.FC 1+27 OC H.FC 1+27 - CH.FC 1+59 OC H.FC 1+59 - CH.FC 1+91 OC H.FC 1+91 - CH.FC 2+23 OC H.FC 2+23 - CH.FC 2+55 OC H.FC 2+55 - CH.FC 2+87 OC H.FC 2+87 - CH.FC 3+19 OC H.FC 3+19 - CH.FC 3+51 OC H.FC 3+19 - CH.FC 3+51 OC H.FC 3+51 - CH.FC 3+83 OC H.FC 3+83 - CH.FC 4+15 OC H.FC 3+83 - CH.FC 4+47 OC	34 days 30 days 31 days 21 days 29 days 25 days 38 days 24 days 20 days 30 days	Wed 26/2/20 Mon 6/4/20 Fri 15/5/20 Fri 19/6/20 Wed 15/7/20 Mon 17/8/20 Mon 14/9/20 Fri 30/10/20 Thu 26/11/20	Mon 6/4/20 Fri 15/5/20 Fri 19/6/20 Wed 15/7/20 Mon 17/8/20 Mon 14/9/20 Fri 30/10/20 Thu 26/11/20	HK Working Day 382 HK Working Day 383 HK Working Day 384 HK Working Day 385 HK Working Day 386 HK Working Day 387	383,381 384 385 386 387 388	100% \\ 100% \\ 100% \\ 100% \\ 100% \\ 100% \\	Wed 26/2/20 Mon 6/4/20 Fri 15/5/20 Fri 19/6/20	Mon 6/4/20 Fri 15/5/20 Fri 19/6/20			•						
STATE March Marc	H.FC 0+95 - CH.FC 1+27 OC H.FC 1+27 - CH.FC 1+59 OC H.FC 1+59 - CH.FC 1+91 OC H.FC 1+91 - CH.FC 2+23 OC H.FC 2+23 - CH.FC 2+55 OC H.FC 2+55 - CH.FC 2+87 OC H.FC 2+87 - CH.FC 3+19 OC H.FC 3+19 - CH.FC 3+51 OC H.FC 3+51 - CH.FC 3+83 OC H.FC 3+83 - CH.FC 4+15 OC H.FC 3+85 - CH.FC 4+15 OC	30 days 31 days 21 days 29 days 25 days 38 days 24 days 20 days 30 days	Mon 6/4/20 Fri 15/5/20 Fri 19/6/20 Wed 15/7/20 Mon 17/8/20 Mon 14/9/20 Fri 30/10/20 Thu 26/11/20	Fri 15/5/20 Fri 19/6/20 Wed 15/7/20 Mon 17/8/20 Mon 14/9/20 Fri 30/10/20 Thu 26/11/20	HK Working Day 382 HK Working Day 383 HK Working Day 384 HK Working Day 385 HK Working Day 386 HK Working Day 387	384 385 386 387 388	100% F 100% F 100% V	Mon 6/4/20 Fri 15/5/20 Fri 19/6/20	Fri 15/5/20 Fri 19/6/20			•						
MILLION CONCILION 1	H.FC 1+27 - CH.FC 1+59 OC H.FC 1+59 - CH.FC 1+91 OC H.FC 1+91 - CH.FC 2+23 OC H.FC 2+23 - CH.FC 2+55 OC H.FC 2+55 - CH.FC 2+87 OC H.FC 2+87 - CH.FC 3+19 OC H.FC 3+19 - CH.FC 3+51 OC H.FC 3+51 - CH.FC 3+54 OC H.FC 3+51 - CH.FC 3+54 OC H.FC 3+51 - CH.FC 3+55 OC H.FC 3+55 - CH.FC 3+64 OC	31 days 21 days 29 days 25 days 38 days 24 days 20 days 30 days	Fri 15/5/20 Fri 19/6/20 Wed 15/7/20 Mon 17/8/20 Mon 14/9/20 Fri 30/10/20 Thu 26/11/20	Fri 19/6/20 Wed 15/7/20 Mon 17/8/20 Mon 14/9/20 Fri 30/10/20 Thu 26/11/20	HK Working Day 383 HK Working Day 384 HK Working Day 385 HK Working Day 386 HK Working Day 387	385 386 387 388	100% F 100% F	Fri 15/5/20 Fri 19/6/20	Fri 19/6/20									
Marchian Calculation 1866	H.FC 1+59 - CH.FC 1+91 OC H.FC 1+91 - CH.FC 2+23 OC H.FC 2+23 - CH.FC 2+55 OC H.FC 2+55 - CH.FC 2+87 OC H.FC 2+87 - CH.FC 3+19 OC H.FC 3+19 - CH.FC 3+51 OC H.FC 3+51 - CH.FC 3+83 OC H.FC 3+83 - CH.FC 4+15 OC H.FC 3+85 - CH.FC 4+17 OC	21 days 29 days 25 days 38 days 24 days 20 days 30 days	Fri 19/6/20 Wed 15/7/20 Mon 17/8/20 Mon 14/9/20 Fri 30/10/20 Thu 26/11/20	Wed 15/7/20 Mon 17/8/20 Mon 14/9/20 Fri 30/10/20 Thu 26/11/20	HK Working Day 384 HK Working Day 385 HK Working Day 386 HK Working Day 387	386 387 388	100% F	Fri 19/6/20										
Content of Content o	H.FC 1+91 - CH.FC 2+23 OC H.FC 2+23 - CH.FC 2+55 OC H.FC 2+55 - CH.FC 2+87 OC H.FC 2+87 - CH.FC 3+19 OC H.FC 3+19 - CH.FC 3+51 OC H.FC 3+51 - CH.FC 3+83 OC H.FC 3+83 - CH.FC 4+15 OC H.FC 3+85 - CH.FC 4+17 OC	29 days 25 days 38 days 24 days 20 days 30 days	Wed 15/7/20 Mon 17/8/20 Mon 14/9/20 Fri 30/10/20 Thu 26/11/20	Mon 17/8/20 Mon 14/9/20 Fri 30/10/20 Thu 26/11/20	HK Working Day 385 HK Working Day 386 HK Working Day 387	387 388	100%		Wed 15/7/20									
Control Cont	H.FC 2+23 - CH.FC 2+55 OC H.FC 2+55 - CH.FC 2+87 OC H.FC 2+87 - CH.FC 3+19 OC H.FC 3+19 - CH.FC 3+51 OC H.FC 3+51 - CH.FC 3+83 OC H.FC 3+83 - CH.FC 4+15 OC H.FC 4+15 - CH.FC 4+47 OC	25 days 38 days 24 days 20 days 30 days	Mon 17/8/20 Mon 14/9/20 Fri 30/10/20 Thu 26/11/20	Mon 14/9/20 Fri 30/10/20 Thu 26/11/20	HK Working Day 386 HK Working Day 387	388		Wed 15/7/20										
Company Comp	H.FC 2+55 - CH.FC 2+87 OC H.FC 2+87 - CH.FC 3+19 OC H.FC 3+19 - CH.FC 3+51 OC H.FC 3+51 - CH.FC 3+83 OC H.FC 3+83 - CH.FC 4+15 OC H.FC 4+15 - CH.FC 4+47 OC	38 days 24 days 20 days 30 days	Mon 14/9/20 Fri 30/10/20 Thu 26/11/20	Fri 30/10/20 Thu 26/11/20	HK Working Day 387		100%		Mon 17/8/20									
Control Cont	H.FC 2+87 - CH.FC 3+19 OC H.FC 3+19 - CH.FC 3+51 OC H.FC 3+51 - CH.FC 3+83 OC H.FC 3+83 - CH.FC 4+15 OC H.FC 4+15 - CH.FC 4+47 OC	24 days 20 days 30 days	Fri 30/10/20 Thu 26/11/20	Thu 26/11/20		200		Mon 17/8/20	Mon 14/9/20			-						
Coloration Coloration Coloration Coloration Coloration Coloration Coloration Coloration Coloration Coloration Coloration Co	H.FC 3+19 - CH.FC 3+51 OC H.FC 3+51 - CH.FC 3+83 OC H.FC 3+83 - CH.FC 4+15 OC H.FC 4+15 - CH.FC 4+47 OC	20 days	Thu 26/11/20		11	589	100%	Mon 14/9/20	Fri 30/10/20									
Companies Comp	H.FC 3+83 - CH.FC 3+83 OC H.FC 3+83 - CH.FC 4+15 OC H.FC 4+15 - CH.FC 4+47 OC	30 days		Fri 18/12/20	HK Working Day 388	390	100% F	Fri 30/10/20	Thu 26/11/20			•						
Control of Control o	H.FC 3+83 - CH.FC 4+15 OC H.FC 4+15 - CH.FC 4+47 OC		Cri 10/12/20	111 10/ 12/20	HK Working Day 389	391	100%	Thu 26/11/20	Fri 18/12/20			-						
GELERIA COLUNTA (CARLANDO) GE	H.FC 4+15 - CH.FC 4+47 OC	24 days	LII 19/17/50	Mon 25/1/21	HK Working Day 390	392	100% F	Fri 18/12/20	Mon 25/1/21									
California Cal			Mon 25/1/21	Wed 24/2/21	HK Working Day 391	393	100%	Mon 25/1/21	Wed 24/2/21				B.					
Colif Carlo Carl		17 days	Wed 24/2/21	Mon 15/3/21	HK Working Day 392	394	100%	Wed 24/2/21	Mon 15/3/21									
Materials Mate	n.rc4+47 - cn.rc4+65 c		Mon 15/3/21	Mon 12/4/21	HK Working Day 393	376	100%	Mon 15/3/21	Mon 12/4/21				-			-		
Concession	South Waterfront Promonade (CH ECN+87 - CH EC 8+71)		Tue 24/3/20	Sat 9/10/21	HK Working Day		100%	Tue 24/3/20	Sat 9/10/21			-	-					
CHICASI GUES-SI GUES-S						397												
CHICAGO CHICAGO 24 pt. Feb. F																		
CHECHAI-CHECKAID CALLER STORE SALES No. 1/1/1/20 16 (No. 1/1/10) 17 (No. 1/1/1																		
CHICA SALE CHILD CO. 27 dept. 10x 5/13/20 To 10x 5/																		
OLIC GAT PLAN CALLE (AST) C. CLEC 6-79 - CHEC 7-11 CC CLEC 6-79 - CHEC 7-10 CC CLEC 7-10 CC	H.FC 5+83 - CH.FC 6+15 OC	28 days																
CHECG-97-CHECG-98-OC	H.FC 6+15 - CH.FC 6+47 OC	27 days	Mon 5/10/20	Thu 5/11/20	HK Working Day 399	401								1				
CHICF 711 CC LICE 741 DC 15 49 9 F18/1/12 I 18 Working Day 401 605 1000 F18/1/12 I 18 Working Day 403 605 1000 F18/1/12 I 18 Working Day 411 600 F18/1/12 I 18 Working Day 41	H.FC 6+47 - CH.FC 6+79 OC	25 days	Thu 5/11/20	Thu 3/12/20	HK Working Day 400	402	100%	Thu 5/11/20	Thu 3/12/20									
GER 2-11 CHE 2-12 OC	H.FC 6+79 - CH.FC 7+11 OC	29 days	Thu 3/12/20	Fri 8/1/21	HK Working Day 401	403	100%	Thu 3/12/20	Fri 8/1/21									
GHC PASS - CHEC 8-97 OC 22 days Wed 37/21 S 5327/2/31 His Working Day 405 405 1006 S 1006 Wed 37/21 S 5327/2/31 TU 18/6/21 His Working Day 405 405 1006 S 1007 S 1008 S 27/2/31 TU 18/6/21 His Working Day 405 405 1006 S 1007 S 1008 S 27/2/31 TU 18/6/21 His Working Day 405 405 1006 S 1007 S 1008 S 27/2/31 TU 18/6/21 His Working Day 405 405 1006 S 1007 S 1008 S 27/2/31 TU 18/6/21 His Working Day 405 405 1006 S 1007 S 1008 S 27/2/31 TU 18/6/21 His Working Day 405 405 1006 S 1007 S 1008 S 27/2/31 TU 18/6/21 His Working Day 405 405 1006 S 1008 S 100	H.FC 7+11 - CH.FC 7+43 OC	19 days	Fri 8/1/21	Fri 29/1/21	HK Working Day 402	404	100%	Fri 8/1/21	Fri 29/1/21									
CHIC 9479 - CHIC B4970 C	CH.FC 7+43 - CH.FC 7+75 OC	25 days	Sat 30/1/21	Wed 3/3/21	HK Working Day 403	405	100%	Sat 30/1/21	Wed 3/3/21									
CHER 8-39 - CHER 8-39 C. CHER 9-38 C. CHER 9-38 - CHER 8-39 C. CHER 9-38	CH.FC 7+75 - CH.FC 8+07 OC	22 days	Wed 3/3/21	Sat 27/3/21	HK Working Day 404	406	100%	Wed 3/3/21	Sat 27/3/21									
CHEC 8-49 - CHEC 8-43 CHEC 8-59 OC	CH.FC 8+07 - CH.FC 8+39 OC	40 days	Sat 27/3/21	Tue 18/5/21	HK Working Day 405	407	100%	Sat 27/3/21	Tue 18/5/21									
CREC 843 - CHEC 843 - CHEC 13-250 57 days Tue 14/4/20 Tue 28/1/22 HK Working Day 11	CH.FC 8+39 - CH.FC 8+43 OC	116 days	Mon 24/5/21	Sat 9/10/21	HK Working Day 406		100%	Mon 24/5/21	Sat 9/10/21									
Construct DNISD DAV Chamber at CH.FC 9+83	CH.FC 8+43 - CH.FC 8+59 OC	39 days	Tue 24/8/21	Sat 9/10/21	HK Working Day	411	100%	Tue 24/8/21	Sat 9/10/21									
Construct DNISD DAV Chamber at CH.FC 9+83 30 days Tue 21/6/22 Tue 26/7/22 HK Working Day 411 0% NA NA CH.FC 8+59 - CH.FC 9+83 OC 200 days Fri 15/10/21 Mon 20/6/22 HK Working Day 412,408 423,377,410 80% Fri 15/10/21 NA U.S. Fri 15/10/21 NA U		677 days	Tue 14/4/20	Tue 26/7/22	HK Working Day		89%	Tue 14/4/20	NA			-						
CHFC 8+59 - CHFC 9+83 OC CHFC 9+83 - CHFC 13+26 OC with Monitoring Chamber 402 days Tue 14/4/20 Tue 14/4/20 Tue 19/8/21 HK Working Day 411 1005 Tue 14/4/20 Tue 19/8/21 Water Mains Near Pung Lol Road (CH-FD0+00 - CH.A3+51) 1020 days Wed 17/6/20 Tue 22/12/20 Tue 22/12/		30 days	Tue 21/6/22	Tue 26/7/22	HK Working Day 411		0%	NA	NA									
CH.FC 983 - CH.FC 13+26 OC with Monitoring Chamber 402 days Tue 14/4/20 Thu 19/8/21 HK Working Day 411 100% Tue 14/4/20 Thu 19/8/21 West rains Near Pung Loi Road (EH.FD 0+00 - CH.A3+51) 1020 days Wed 17/6/20 Thu 23/11/23 HK Working Day 50% Wed 17/6/20 NA 15sue CE No. 65 - Landscaping Survey near Po Yap and Pung Loi Road 0 days Wed 17/6/20 Thu 23/11/23 HK Working Day 50% Wed 17/6/20 Na 15sue CE No. 67 - Affected Trees near Pung Loi Road, Po Yap Road and Wan Po Road 0 days Tue 22/12/20 Tue 22/12/20 Calendar Day 416 100% Tue 22/12/20 Tue 22/12/20 Tue 22/12/20 Thu 21/10/21 Thu 11/11/21 Calendar Day 415,614 417 100% Tue 22/12/20 Thu 21/10/21 Thu 11/11/21 Thu 11/11/					HK Working Day 412,408	423,377,410	80%	Fri 15/10/21	NA									
Water Mains Near Pung Loi Road (CH.FDD+00 - CH.A3+S1) Ibsue CE No. 65 - Landscaping Survey near Po Yap and Pung Loi Road O days Wed 17/6/20 Wed 17/6/20 Wed 17/6/20 Wed 17/6/20 Wed 17/6/20 Calendar Day 416 100% Tue 22/12/20 Tue 2																		
Issue CE No. 65 - Landscaping Survey near Po Yap and Pung Loi Road O days Wed 17/6/20 Wed 17/6/20 Calendar Day 416 100% Tue 22/12/20 Tu						711										-		
Issue CE No. 87 - Affected Trees near Pung Loi Road, Po Yap Road and Wan Po Road The 22/12/20 The 12/10/21 The 11/11/21 The 22/12/20 The 22/12/20 The 12/10/21 The 11/11/21 The 22/12/20 The 22/12/20 The 12/10/21 The 12/10/21 The 22/12/20 The 22/12/20 The 12/10/21 The 12/10/21 The 22/12/20 The 12/10/21 The 22/12/20 The 22/12/20 The 12/10/21 The 12/10/21 The 22/12/20 The 12/10/21 The 12/10/21 The 22/12/20 The 12/10/21 The 11/11/21 The 22/12/20 The 22/12/20 The 12/10/21 The												♦ 17/6						
TPRP Submission and Approval Site Possession and Tree Removal Works 121 days Fri 22/10/21 Thu 11/11/21 Calendar Day 416 427 100% Fri 22/10/21 Thu 11/11/21 Thu													A 22/12					
Site Possession and Tree Removal Works 21 days Fri 22/10/21 Thu 11/11/21 Calendar Day 416 427 100% Fri 22/10/21 Thu 11/11/21	ue CE No. 87 - Affected Trees near Pung Loi Road, Po Yap Road and Wan Po Road	0 days	Tue 22/12/20	Tue 22/12/20	Calendar Day								V 22/12					
Site Possession and Tree Removal Works 21 days Fri 22/10/21 Intu 11/11/21 Calendar Day 416 427 Issue CE No. 60 - Realignment of Water Main near Pung Loi Road 0 days Thu 27/5/21 Thu 27/5/21 Thu 27/5/21 Thu 27/5/21 Thu 27/5/21 Thu 27/5/21 Thu 11/11/21 Tender Process and Tender Award for CE No. 60 169 days Thu 27/5/21 Thu 11/11/21 Calendar Day 418 420 100% Thu 27/5/21 Thu 11/11/21 Design & Method Statement Submission and Approval; Preparation Works for CE No. 90 days Sun 7/11/21 Fri 4/2/22 Calendar Day 419 424 100% Sun 7/11/21 Fri 4/2/22 60 100% Thu 27/5/21 Thu 11/11/21	RP Submission and Approval	304 days	Tue 22/12/20	Thu 21/10/21	Calendar Day 415,614	417	100%	Tue 22/12/20	Thu 21/10/21									
Tender Process and Tender Award for CE No. 60 Design & Method Statement Submission and Approval; Preparation Works for CE No. 90 days Sun 7/11/21 Fri 4/2/22 Go Calendar Day 419 420 100% Thu 27/5/21 Thu 11/11/21 Thu 11/11/21 Fri 4/2/22 Calendar Day 419 424 100% Sun 7/11/21 Fri 4/2/22 Calendar Day 419 425 Calendar Day 419 Calendar Day	e Possession and Tree Removal Works	21 days	Fri 22/10/21	Thu 11/11/21	Calendar Day 416	427	100%	Fri 22/10/21	Thu 11/11/21									
Tender Process and Tender Award for CE No. 60 Design & Method Statement Submission and Approval; Preparation Works for CE No. 90 days Sun 7/11/21 Fri 4/2/22 Calendar Day 419 424 100% Sun 7/11/21 Fri 4/2/22 60 100/100/100/100/100/100/100/100/100/1	ue CE No. 60 - Realignment of Water Main near Pung Loi Road	0 days	Thu 27/5/21	Thu 27/5/21	Calendar Day	419,421	100%	Thu 27/5/21	Thu 27/5/21				* 27/5					
Design & Method Statement Submission and Approval; Preparation Works for CE No. 90 days 3 dil 7/11/21 Pri 4/2/22 Calendal Day 4.15	nder Process and Tender Award for CE No. 60	169 days	Thu 27/5/21	Thu 11/11/21	L Calendar Day 418	420	100%	Thu 27/5/21	Thu 11/11/21									
100 to 10		o. 90 days	Sun 7/11/21	Fri 4/2/22	Calendar Day 419	424	100%	Sun 7/11/21	Fri 4/2/22									
		188 days	Thu 27/5/21	Tue 30/11/21	L Calendar Day 418	427,429	100%	Thu 27/5/21	Tue 30/11/21									
	me No. 15 Split Project Summary	1 Inact	ive Summary	1 N	Janual Summary Rollup Finis	sh-only	Deadline		Progress									
		A South Waterfront Promenade (CH.FC4+87 - CH.FC 8+71) H.FC 4+89 - CH.FC 5+19 OC with DN600 IT H.FC 5+19 - CH.FC 5+51 OC H.FC 5+51 - CH.FC 5+83 OC H.FC 5+51 - CH.FC 6+15 OC H.FC 6+15 - CH.FC 6+17 OC H.FC 6+15 - CH.FC 6+79 OC H.FC 6+77 - CH.FC 7+11 OC H.FC 7+11 - CH.FC 7+3 OC H.FC 7+11 - CH.FC 7+3 OC H.FC 7+13 - CH.FC 8+39 OC H.FC 8+39 - CH.FC 8+39 OC H.FC 8+59 - CH.FC 9+83 OC H.FC 9+83 - CH.FC 13+26 OC with Monitoring Chamber H.FC 9+83 - CH.FC 13+26 OC with Monitoring Chamber H.F. Wains Near Pung Loi Road (CH.FD9+00 - CH.A3+51) H.H.F. Wains Near Pung Loi Road (CH.FD9+01 -	### South Waterfront Promenade (CH.FC4+87 - CH.FC 8+71) ### ### South Waterfront Promenade (CH.FC4+87 - CH.FC 8+71) ### ### C4+89 - CH.FC 5+19 OC with DN600 IT ### ### F## C5+19 - CH.FC 5+51 OC ### ### Sudays ### ### C5+19 - CH.FC 5+30 OC ### ### ### C6+15 OC ### ### Sudays ### C6+15 - CH.FC 6+15 OC ### ### Sudays ### C6+15 - CH.FC 6+15 OC ### ### C6+15 - CH.FC 6+17 OC ### ### C6+17 - CH.FC 6+79 OC ### ### C6+17 - CH.FC 6+79 OC ### ### C7+11 OC ### ### ### Sudays ### ### ### C1.FC 7+11 OC ### ### ### Sudays ### ### C1.FC 7+11 OC ### ### Sudays ### ### ### Sudays ### ### ### Sudays ### ### ### ### Sudays ### ### ### ### ### Sudays ### ### ### ### ### ### ### ### ### ### ### ### ### ### ### ### ### ### ### ### ### ### ### ### ### ### ### ### ### ### ### ### ### ### ### ### ### ### ### ### ### ### ### ### ### ### ### ### ### ### ### ### ### ### ### ### ### ### ### ### ### ### ### ### ### ### ### ### ### ### ### ### ### ### ### ### ### ### ### ### ### ### ### ### ### ### ### ### ### ### ### ### ### ### ### ### ### ### ### ### ### ### ### ### ### ### ### ### ### ### ### ### ### ### ### ### ### ### ### ### ### ### ### ### ### ### ### ### ### ### ### ### ### ### ### ### ### ### ### ### ### ### ### ### ### ### ### ### ### ### ### ### ### ### ### ### ### ### ### ### ### ### ### ### ### ### ### ### ### ### ### ### ### ### ### ### ### ### ### ### ### ### ### ### ### ### ### ### ### ### ### ### ### ### ### ### ### ### ### ### ### ### ### ### ### ### ### ### ### ### ### ### ### ### ### ### ### ### ### ### ### ### ### ### ### #### ### ### ### ### ### ### ### ### ### ### ### ### ### ### ### ### ### ### ### ### ### ### ### #### ### ### ### ### #### ### #### #### #### ### ######	ASSOUTH Waterfront Promenade (CH.F.C4+87 - CH.F.C 8+71) A58 days Tue 24/3/20 H.F.C 4+89 - CH.F.C 5+19 OC with DN600 IT 72 days Tue 24/3/20 H.F.C 5+19 - CH.F.C 5+51 OC 29 days Mon 22/6/20 H.F.C 5+15 - CH.F.C 5+51 OC 29 days Mon 27/7/20 H.F.C 5+15 - CH.F.C 5+15 OC 28 days Tue 1/9/20 H.F.C 5+15 - CH.F.C 6+15 OC 28 days Tue 1/9/20 H.F.C 6+15 - CH.F.C 6+17 OC 27 days Mon 5/10/20 H.F.C 6+17 - CH.F.C 6+17 OC 25 days Thu 3/11/20 H.F.C 6+17 - CH.F.C 7+11 OC 29 days Thu 3/11/20 H.F.C 6+17 - CH.F.C 7+11 OC 29 days Fri 8/1/21 H.F.C 7+15 - CH.F.C 7+30 OC 19 days Fri 8/1/21 H.F.C 7+15 - CH.F.C 8+07 OC 25 days Sat 30/1/21 H.F.C 8+07 - CH.F.C 8+39 OC 20 days Wed 3/3/21 H.F.C 8+07 - CH.F.C 8+39 OC 40 days Sat 27/3/21 H.F.C 8+07 - CH.F.C 8+30 OC 116 days Mon 24/5/21 H.F.C 8+09 - CH.F.C 8+30 OC 116 days Mon 24/5/21 Dandfill Stage I Area B (CH.F.C 8+59 - CH.F.C 13+26) 677 days Tue 24/8/20 CONSTRUCT DN150 DAV Chamber at CH.F.C 9+83 30 days Tue 24/8/20 CH.F.C 8+59 - CH.F.C 9+83 OC 200 days Fri 15/10/21 H.F.C 9+83 - CH.F.C 13+26 OC with Monitoring Chamber 402 days Tue 14/4/20 H.F.C 9+83 - CH.F.C 13+26 OC with Monitoring Chamber 402 days Tue 14/4/20 H.F.C 9+83 - CH.F.C 13+26 OC with Monitoring Chamber 402 days Tue 22/12/20 H.F.C 9+83 - CH.F.C 13+26 OC with Monitoring Chamber 402 days Tue 22/12/20 H.F.C 9+83 - CH.F.C 13+26 OC with Monitoring Chamber 402 days Tue 22/12/20 H.F.C 9+83 - CH.F.C 13+26 OC with Monitoring Chamber 402 days Tue 22/12/20 H.F.C 9+83 - CH.F.C 13+26 OC with Monitoring Chamber 402 days Tue 22/12/20 H.F.C 9+83 - CH.F.C 13+26 OC with Monitoring Chamber 402 days Tue 22/12/20 H.F.C 9+83 - CH.F.C 13+26 OC with Monitoring Chamber 402 days Tue 22/12/20 H.F.C 9+83 - CH.F.C 13+26 OC with Monitoring Chamber 402 days Tue 22/12/20 H.F.C 9+83 - CH.F.C 13+26 OC with Monitoring Chamber 402 days Tu	South Waterfront Promenade (CH.FC4+87 - CH.FC 8+71) 458 days Tue 24/3/20 Sat 9/10/21 H.FC 5+19 - CH.FC 5+19 OC with DN600 IT 72 days Mon 22/6/20 Mon 22/17/20 H.FC 5+19 - CH.FC 5+51 OC 29 days Mon 22/6/20 Mon 27/17/20 H.FC 5+19 - CH.FC 5+83 OC 32 days Mon 27/7/20 Tue 1/9/20 H.FC 5+30 - CH.FC 6+15 OC 28 days Tue 1/9/20 Mon 5/10/20 H.FC 5+30 - CH.FC 6+15 OC 27 days Mon 5/10/20 Thu 5/11/20 Thu 5/11/20 Thu 5/11/20 Thu 5/11/20 Thu 5/11/20 Thu 1/12/20 H.FC 6+30 - CH.FC 6+37 OC 29 days Thu 3/12/20 Fif 8/1/21 Fif 8/1/21 Fif 29/1/21 CH.FC 7+31 - CH.FC 7+33 OC 29 days Fif 8/1/21 Fif 29/1/21 CH.FC 7+30 - CH.FC 7+30 OC 20 days Fif 8/1/21 CH.FC 7+30 - CH.FC 7+30 OC 21 days Wed 3/3/21 CH.FC 8+39 - CH.FC 8+39 OC 22 days Wed 3/3/21 CH.FC 8+39 - CH.FC 8+39 OC 24 days Sat 27/3/21 Tue 18/5/21 CH.FC 8+39 - CH.FC 8+39 OC 25 days Tue 24/8/21 CH.FC 8+39 - CH.FC 8+30 OC 26 days Sat 27/3/21 Tue 18/5/21 CH.FC 8+39 - CH.FC 8+30 OC 27 days Wed 3/3/21 CH.FC 8+39 - CH.FC 8+30 OC 29 days Tue 24/8/21 CH.FC 8+39 - CH.FC 8+30 OC 20 days Tue 24/8/21 CH.FC 8+39 - CH.FC 8+30 OC 39 days Tue 24/8/21 CH.FC 8+39 - CH.FC 8+30 OC 39 days Tue 24/8/21 CH.FC 8+39 - CH.FC 8+30 OC 39 days Tue 24/8/21 CH.FC 8+39 - CH.FC 8+30 OC 39 days Tue 24/8/21 CH.FC 8+39 - CH.FC 8+30 OC 30 days Tue 24/8/21 CH.FC 8+39 - CH.FC 13+26 OC with Monitoring Chamber 402 days Tue 14/4/20 Tue 26/17/22 CH.FC 8+39 - CH.FC 13+26 OC with Monitoring Chamber 402 days Tue 14/4/20 Tue 26/17/22 Tue 27/17/20 T	Seath Waterfront Promenade (CH.FC4+87 - CH.FC 8+73) 458 days Tue 24/3/20 Sat 9/10/21 HK Working Day	Seath Waterfoot Promensie (CH.CART - CH.CERT)	Sea Blow Numericon Promemade (CHEC+197 - CHEC 8-191)	1.5. 1.5.	Seath Note Sea	15-00-16-16-16-16-16-16-16-16-16-16-16-16-16-	18-14 18-1	18 18 18 18 18 18 18 18	18 18 18 18 18 18 18 18	Mary Mary	1	1	14 15 15 15 15 15 15 15

the state of the s	D	Ctort	Finish	Task Calendar Predecessors	Successors	%	Actual Start	Actual Finish							i same		
Name	Duration	Start	rinisn	Task Calendar Predecessors	Successors	Complete	Actual State	Actual I mish	2018	2019	2020	2021	2022	2023 2 Q3 Q4 Q1 Q2 Q3	2024	202 3 O4 O1	25
Open Trench Crossing Pung Loi Avenue	156 days	Mon 20/6/22	Fri 23/12/22	HK Working Day		0%	NA	NA	Q4 Q1 Q2 Q3	Q4 Q1 Q2 Q3	24 Q1 Q2 Q3	Q4 Q1 Q2 Q3	0 Q4 Q1 Q	05 04 01 02 05	Q4 Q1 Q2 Q	9 94 9	, Q2
Obtain Access from EPD (TKO Landfill Stage I Area B)	14 days	Mon 20/6/22	Thu 7/7/22	HK Working Day 411	424	0%	NA	NA									
	100 days	Fri 8/7/22	Fri 4/11/22	HK Working Day 420,423	425	0%	NA	NA									
CH.FD0+00 - CH.FD0+65 OC					725												
Construction DN900 SV Chamber at CH.FD0+25	42 days	Sat 5/11/22	Fri 23/12/22	HK Working Day 424		0%	NA	NA									
Exposed Pipe From CH.FDD0+65 to FDSKR+00	337 days	Mon 3/1/22	Wed 22/2/23	HK Working Day		36%	Mon 3/1/22	NA									
Excavation In Slope Toe; Construction of Flooding Protection Wall with	216 days	Wed 12/1/22	Thu 6/10/22	HK Working Day 421,417	428	50%	Wed 12/1/22	NA									
U-Channel, Length = 135m, @12m @18days Exposed Pipe, Length = 173m, with concrete saddle Supports	42 days	Fri 7/10/22	Thu 24/11/22	HK Working Day 427	430	0%	NA	NA									
3 nos. Trial Pit Exacavtion under existing Flyover	14 days	Mon 3/1/22	Tue 18/1/22	HK Working Day 421		100%	Mon 3/1/22	Tue 18/1/22									
DN1200 Pipe Laying on Concrete Support with Concrete Hunching	65 days	Fri 25/11/22	Wed 15/2/23	HK Working Day 428	431,433	0%	NA	NA									
		Thu 16/2/23	Wed 22/2/23	HK Working Day 430	435	0%	NA	NA						1			+
Apply top coating of aliphatic polyurethane on site	6 days				433										-		-
Open Trench Connecting Trenchless and Exposed Pipe	230 days	Thu 16/2/23	Thu 23/11/23	HK Working Day		0%	NA	NA									
CH.FSKR+00 to CH.FD3+15 OC	90 days	Thu 16/2/23	Wed 7/6/23	HK Working Day 430	435,434	0%	NA	NA									
CH.FDD3+15 to CH.FDD3+51 OC with DN900 Valve Chamber and By-pass Pipe	and 80 days	Thu 8/6/23	Mon 11/9/23	HK Working Day 433	435,764,765	0%	NA	NA									
Connection to Pit WPR1 Make Good Slope Toe and Landscape Work	60 days	Tue 12/9/23	Thu 23/11/23	HK Working Day 433,434,431		0%	NA	NA									
Water Mains near Pung Loi Road and Po Yap Road (CH.FE0+00 - CH.A3+58)	758 days	Thu 20/8/20	Sat 11/3/23	HK Working Day	765	78%	Thu 20/8/20	NA			Ψ-			-			
	36 days	Thu 20/8/20	Wed 30/9/20	HK Working Day		100%	Thu 20/8/20	Wed 30/9/20			-						
Trial Pit at Working Pit WPR1								Sat 14/11/20				1					+
Trial Pit at Working Pit G1A	12 days	Sun 1/11/20	Sat 14/11/20	HK Working Day													
Issue CE No. 59 - Realignment of Water Main near Pung Loi Road and Po Yap Ro Roundabout	und 0 days	Fri 13/11/20	Fri 13/11/20	Calendar Day	440,444	100%	Fri 13/11/20	Fri 13/11/20				♦ 13/11					
Tender Process and Tender Award for CE No. 59	99 days	Fri 13/11/20	Fri 19/2/21	Calendar Day 439	441	100%	Fri 13/11/20	Fri 19/2/21									
Design & Method Statement Submission and Approval; Preparation Works for	Pit J1A 93 days	Sat 20/2/21	Wed 16/6/21	HK Working Day 440	465,442,443	100%	Sat 20/2/21	Wed 16/6/21									
Design & Method Statement Submission and Approval; Preparation Works for	Pit 125 days	Thu 17/6/21	Sat 13/11/21	HK Working Day 441	452	100%	Thu 17/6/21	Sat 13/11/21									
G1A Design & Method Statement Submission and Approval; Preparation Works for		Thu 17/6/21	Sat 13/11/21	HK Working Day 441	450	100%	Thu 17/6/21	Sat 13/11/21									
WPR1	293 days	Fri 13/11/20	Wed 1/9/21	Calendar Day 439	448	100%	Fri 13/11/20	Wed 1/9/21									
TTA preparation, SLG meetings and obtain RA				Paris de la companya del companya de la companya del companya de la companya de l		50%	Fri 9/10/20	NA				,					+
Trenchless Crossing MTR Tunnels (Pit WPR1 to Pit G1A)	717 days	Fri 9/10/20	Sat 11/3/23	HK Working Day								_					
Inspection Pit at Location of Pit G1A	19 days	Fri 9/10/20	Sun 1/11/20	HK Working Day		100%	Fri 9/10/20	Sun 1/11/20									
Construction of Jacking Pit / Receiving Pit (TBM)	151 days	Wed 1/9/21	Sat 5/3/22	HK Working Day		100%	Wed 1/9/21	Sat 5/3/22									
Obtain consent for vehicular access construction for WPR1	0 days	Wed 1/9/21	Wed 1/9/21	HK Working Day 444		100%	Wed 1/9/21	Wed 1/9/21					♦ 1/9				
Tree Truning at WPR1	2 days	Wed 3/11/21	Thu 4/11/21	HK Working Day	450	100%	Wed 3/11/21	Thu 4/11/21					1				
Jacking Pit WPR1 (Near Pung Loi Road)	91.2 days	Fri 5/11/21	Sat 5/3/22	HK Working Day 449,443	454	100%	Fri 5/11/21	Sat 5/3/22									
	13 days	Wed 1/9/21	Wed 15/9/21	HK Working Day	452	100%	Wed 1/9/21	Wed 15/9/21									
Planter Removal and Access Formation to pit G1A					470,454		Mon 27/9/21										-
Receiving Pit G1A (Near Po Yap Road)	91 days	Mon 27/9/21		HK Working Day 451,442	470,434								-				
TBM Pipe Jacking (WPR1 to J1A)	301 days	Mon 7/3/22	Sat 11/3/23	HK Working Day		14%	Mon 7/3/22										
TBM Establishment at Pit WPR1	38 days	Mon 7/3/22	Sat 23/4/22	HK Working Day 450,452	455	100%	Mon 7/3/22	Sat 23/4/22									
Jacking DN1600 Precast Concrete Sleeve Pipe (224m; 2.0m/day)	112 days	Sun 24/4/22	Tue 6/9/22	HK Working Day 454	456	5%	Sun 24/4/22	NA									
Remove setup including Thrust Wall at Pit WPR1	14 days	Wed 7/9/22	Fri 23/9/22	HK Working Day 455	457	0%	NA	NA									
Setup for Pipe Laying inside Jacking Pit WPR1	6 days	Sat 24/9/22	Fri 30/9/22	HK Working Day 456	458	0%	NA	NA									
DN1200 MS Pipe Laying inside Jacking Pipe (224m) (3 days per 8m)	84 days	Mon 3/10/22	Thu 12/1/23	HK Working Day 457	459	0%	NA	NA									
		Fri 13/1/23	Mon 16/1/23		460	0%	NA	NA						1			
Formwork & Setup for Grouting the gap between pipe and Sleeve	3 days																-
Grouting Works (30m per day)	8 days	Tue 17/1/23		HK Working Day 459	461	0%	NA	NA									
Pipe Connection inside Working Pit WPR1	18 days	Mon 30/1/23	Sat 18/2/23	HK Working Day 460	462	0%	NA	NA									
Remove ELS including extracting sheet piles at Pit WPR1; Reinstatement	18 days	Mon 20/2/23	Sat 11/3/23	HK Working Day 461		0%	NA	NA								1	
Trenchless Works (Pit G1A or Pit J1A)	320 days	Mon 3/5/21	Tue 31/5/22	HK Working Day		97%	Mon 3/5/21	NA				-		7			
Programme No. 15 Task Summary		ctive Milestone		uration-only Start- fanual Summary Rollup Finisl	only E	External Milesto Deadline	ne 💠	Critical Progress									
: 24 May 2022 Split Project Summary	l Ina	are Summary	N N	Ianual Summary Konup Finasi Ianual Summary Exter	/	2 commo	*	riogics	Progress	_							

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sk Name	Duration	Start	Finish	Task Calendar	Predecessors	Successors	Complete	Actual Start	ractont l'Illisil	2018	2 2 2	019 019	2020	03 04 2	021	Q4 Q1 Q2	O3 O4 O1	Q2 Q3 Q4	2024 2024 Q1 Q2 Q3	Q4 Q1 Q2
Construction of Jacking Pit J1A (Hand Shield)	32 days	Mon 3/5/21	Wed 9/6/21	HK Working Da	У		100%	Mon 3/5/21	Wed 9/6/21	Qi Qi	Q2 Q3 Q4 T	QI QZ QS	Q4 Q1 Q2	Q3 Q4 V	ZI Q2 Q5	Q4 Q1 Q2	Q5 Q7 Q1	V2 V3 V1	4: 45 45	X. X. X.
Construction of Jacking Pit J1A	32 days	Mon 3/5/21	Wed 9/6/21	HK Working Day	441	467	100%	Mon 3/5/21	Wed 9/6/21						•					
Handshield Pipe Jacking (Pit G1A to Pit J1A)	288 days	Thu 10/6/21	Tue 31/5/22	HK Working Da	у		96%	Thu 10/6/21	NA						-					
Establishment at Pit J1A	16 days	Thu 10/6/21	Tue 29/6/21	HK Working Day	y 465	468	100%	Thu 10/6/21	Tue 29/6/21											
Hand shield pipe jacking (I.D. 1600 segment pipe), 0.65m/day	101 days	Wed 30/6/21		HK Working Day	y 467	469	100%	Wed 30/6/21	Fri 29/10/21											
		Sat 30/10/21	Fri 5/11/21	HK Working Day		470		Sat 30/10/21								1				
Remove Setup at Pit J1A	6 days		Wed 23/3/22			471		Tue 8/3/22	Wed 23/3/22											
Setup for Pipe Laying inside jacking Pit J1A	14 days	Tue 8/3/22							Wed 18/5/22											
DN1200 MS Pipe Laying inside jacking pipe (~70m) (3 days per 4m)	42 days	Thu 24/3/22	Wed 18/5/22			472														
Formwork & Setup for Grouting the gap between pipe and Sleeve	8 days	Thu 19/5/22	Fri 27/5/22	HK Working Da		473		Thu 19/5/22												
Grouting Works (30 meter/day)	3 days	Sat 28/5/22	Tue 31/5/22	HK Working Da	y 472	475	0%	NA	NA											
Open Trench between Pit K and J1A	138 days	Tue 26/4/22	Tue 11/10/22	HK Working Da	У		7%	Tue 26/4/22	NA											
Pipe Laying From Pit K to Pit J1A (OC) (48m)	62 days	Tue 26/4/22	Sat 13/8/22	HK Working Da	y 473	476	13%	Tue 26/4/22	NA											
Construction of Thrust Block from Pit K to Pit J1A	15 days	Mon 15/8/22	Wed 31/8/22	HK Working Da	y 475	477	0%	NA	NA								1			
Backfill Trench and Remove ELS	18 days	Thu 1/9/22	Thu 22/9/22	HK Working Da	y 476	478	0%	NA	NA											
Reinstatement of Plant and Shrubs in Roundabout	14 days	Fri 23/9/22	Tue 11/10/22	HK Working Da	y 477		0%	NA	NA								В			
Trenchless Work from Po Yap Road Roundabout to KMB Depot (Pit K to Pit L) (Pit O to	o 822 days	Fri 28/2/20	Mon 5/12/22	HK Working Da	ay	765	55%	Fri 28/2/20	NA				-							
Pit P) Issue CE No. 50 - Realignment of Watermain at the Junction of Wan Po Road and Po		Thu 11/6/20	Thu 11/6/20	Calendar Day			100%	Thu 11/6/20	Thu 11/6/20					11/6						
Yap Road and the Junction of Po Hong Road and Po Shun Road.	263 days	Fri 28/2/20	Fri 15/1/21	HK Working Da	ıv		100%	Fri 28/2/20	Fri 15/1/21				-	-						
Construction of Jacking Pit K & Pit P				HK Working Da				Fri 28/2/20	Tue 17/3/20											
Inspection Pit Excavation at Pit K	16 days	Fri 28/2/20	Tue 17/3/20																	
Inspection Pit Excavation at Pit P	3 days	Mon 29/6/20	Thu 2/7/20	HK Working Da				Mon 29/6/20												
Forming temporary Vehicle Access for Pit P	10 days	Thu 16/7/20	Mon 27/7/20			486		Thu 16/7/20												
Jacking Pit K	15 days	Sat 14/11/20	Tue 1/12/20	HK Working Da	у	489			Tue 1/12/20											
Jacking Pit P + additional Grouting	137 days	Mon 3/8/20	Fri 15/1/21	HK Working Da	y 484		100%	Mon 3/8/20	Fri 15/1/21											
Hand Shield Jacking (Pit K to Pit L)	125 days	Fri 11/12/20	Tue 18/5/21	HK Working Da	ay		100%	Fri 11/12/20	Tue 18/5/21					-						
MTR'S Consent Obtained	0 days	Fri 11/12/20	Fri 11/12/20	HK Working Da	зу		100%	Fri 11/12/20	Fri 11/12/20					*	11/12					
Establishment at Pit K	59 days	Mon 14/12/20	Fri 26/2/21	HK Working Da	ау 485,531	490	100%	Mon 14/12/20	Fri 26/2/21											
Segment @400mm Sleeve Pipe (Pit L to Pit K)(~ 56m) in Soil (0.8m/day)	59 days	Mon 1/3/21	Thu 13/5/21	HK Working Da	ay 489	491	100%	Mon 1/3/21	Thu 13/5/21											
Remove setup at Pit K	4 days	Thu 13/5/21	Tue 18/5/21	HK Working Da	ay 490	499	100%	Thu 13/5/21	Tue 18/5/21						1					
TBM Pipe Jacking (Pit O to Pit P)	169 days	Wed 19/1/22	Tue 16/8/22	HK Working D	ay		50%	Wed 19/1/22	NA											
WSD accepted to change Sub-Contractor from Wellcon to VTEC	0 days	Wed 16/2/22	Wed 16/2/22	HK Working Da	ay 555		100%	Wed 16/2/22	Wed 16/2/22	2						♦ 16/2				
TBM Establishment at Pit O	79 days	Wed 19/1/22	Thu 28/4/22	HK Working Da	av	495	100%	Wed 19/1/22	Thu 28/4/22			1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1								
	67 days	Fri 29/4/22	Wed 20/7/22	- 1		496	8%	Fri 29/4/22	NA											
Jacking DN1600 Precast Concrete Sleeve Pipe (200m; 3.0m/day)		Thu 21/7/22	Sat 30/7/22	HK Working Da		508,497	0%	NA	NA								1			
Grouting around sleeve pipes	9 days					508	0%	NA	NA											
Remove Pit setup at Pit P	14 days	Mon 1/8/22	Tue 16/8/22			308	120									-				
DN1200 Pipelaying (Pit K to Pit L)	116 days	Tue 14/12/21						Tue 14/12/21												
Setup for Pipe Laying inside jacking Pit K	6 days	Tue 14/12/21		HK Working D		500		Tue 14/12/21												
DN1200 MS Pipe Laying inside jacking pipe (53m) (3 days per 4m) (Only Internal Coating)	15 days	Sat 8/1/22	Tue 25/1/22	HK Working D	ay 499	501	100%	Sat 8/1/22	Tue 25/1/22											
Formwork & Setup for Grouting the gap between pipe and Sleeve	2 days	Wed 26/1/22	Sat 29/1/22	HK Working D	ay 500	502	100%	Wed 26/1/22	Sat 29/1/22							1				
Grouting Works (30 meter/day)	4 days	Wed 9/2/22	Sat 12/2/22	HK Working D	ay 501	503,505	100%	Wed 9/2/22	Sat 12/2/22							1				
Pipe Connection at Pit L	9 days	Thu 10/2/22	Sat 19/2/22	HK Working D	ay 502	504	10%	Thu 10/2/22	NA							1				
Remove ELS at Pit L	24 days	Mon 21/2/22	Sat 19/3/22	HK Working D	ay 503		0%	NA	NA											
Remove ELS at Pit K	24 days	Mon 14/2/22	Sat 12/3/22	HK Working D	eay 502	506	0%	NA	NA											
ng Programme No. 15 Task Summary Solit Project Summary		ive Milestone		Ouration-only Manual Summary Rollup	Start-only Finish-only	C 3	External Milesto Deadline	ne 💠	Critical Progres			1111								
split Project Summary ste : 24 May 2022 Milestone Inactive Task		ral Task		Manual Summary	External To		Critical			l Progress										

					Project: Mainlaying in Tse	oung rental o	1	1									
ne	Duration	Start	Finish	Task Calendar Predecessors	Successors	% Complete	Actual Start	Actual Finish	2018	2019 2019	2020		0021	2022 20	23 20	24	2025
	45.1	M 14/2/22	Wad 11/5/22	UK Working Day 505	515	0%	NA	NA	Q4 Q1 Q2 Q3	Q4 Q1 Q2	Q3 Q4 Q1	Q2 Q3 Q4	Q1 Q2 Q3 Q4	Q1 Q2 Q3 Q4 Q	1 Q2 Q3 Q4 C	1 Q2 Q3 Q4	4 Q1 C
Construction of DN900 Valve Chamber and DN150 By-pass Pipe & Valves Near Pit K	45 days			HK Working Day 505	515									-			
DN1200 Pipelaying (Pit P to Pit O)	92 days	Wed 17/8/22	Mon 5/12/22	HK Working Day		0%	NA	NA									
Setup for Pipe Laying inside jacking Pit O	6 days	Wed 17/8/22	Tue 23/8/22	HK Working Day 496,497	509	0%	NA	NA						1			
	70 days	Wed 24/8/22	Wed 16/11/22	HK Working Day 508	510	0%	NA	NA									
Coating) Formwork & Setup for Grouting the gap between pipe and Sleeve	3 days	Thu 17/11/22	Sat 19/11/22	HK Working Day 509	511	0%	NA	NA						1			
Grouting Works (30 meter/day)	6 days	Mon 21/11/22	Sat 26/11/22	HK Working Day 510	577,512,610	0%	NA	NA						1			
Pipe Connection at Pit O	6 days	Mon 28/11/22	Sat 3/12/22	HK Working Day 511	513	0%	NA	NA						1			
	1 day	Mon 5/12/22		HK Working Day 512		0%	NA	NA									
Remove ELS at Pit O							NA	NA						—			
Reinstatement of Po Yap Road Roundabout	66 days		Fri 29/7/22	HK Working Day													
Reinstatement Works	60 days	Thu 12/5/22	Fri 22/7/22	HK Working Day 506	516	0%	NA	NA									
Handover Inspection with LCSD	6 days	Sat 23/7/22	Fri 29/7/22	HK Working Day 515		0%	NA	NA									
renchless Work from Po Yap Road Roundabout (Hong Kong Velodrome)	1251 days	Tue 2/4/19	Mon 26/6/23	HK Working Day	765	80%	Tue 2/4/19	NA		-							
	0 days	Tue 2/4/19	Tue 2/4/19	Calendar Day	521,522	100%	Tue 2/4/19	Tue 2/4/19		* 2/	/4						
Velodrome and TKO stage 1 Landfill and CCTV survey of existing Drain at Cycle Track Issue CE No. 28 - Realignment of Water Mains along Po Yap Road and Po Hong Road	0 days	Mon 13/1/20	Mon 13/1/20	Calendar Day	521,522	100%	Mon 13/1/20	Mon 13/1/20			* 1	3/1					
Issue CE No. 28A - Affected Trees along Cycle Track next to Hong Kong Velodrome and		Tue 30/6/20	Tue 30/6/20	Calendar Day		100%	Tue 30/6/20	Tue 30/6/20				♦ 30/6					
Tseung Kwan O Sport Ground Tender and Subletting for CE No. 28	99 days	Mon 18/11/19	Mon 24/2/20	Calendar Day 519,518		100%	Mon 18/11/1	9 Mon 24/2/20									++
	128 days	Mon 13/1/20	Tue 19/5/20	Calendar Day 519,518	523	100%	Mon 13/1/20	Tue 19/5/20									
TTA preparation, SLG meetings, obtain RA and TPRP Approval for Temporary Vehicular Access at HK Velodrome																	
Coordination with LCSD and Notification to District Councilors	14 days	Wed 20/5/20	Tue 2/6/20	Calendar Day 522	524		Wed 20/5/20										
Form Temporary Vehicle Access at TKO Sport Ground	5 days	Mon 1/6/20	Mon 8/6/20	HK Working Day 523	525	100%	Mon 1/6/20	Mon 8/6/20				1					
Tree Transplanting Working & Tree Removal Works at TKO Sport Ground (CE No. 28)	10 days	Tue 9/6/20	Fri 19/6/20	HK Working Day 524	526	100%	Tue 9/6/20	Fri 19/6/20									
Tree Pruning Working for driving Sheetpile at Pit M, Pit N & Pit O	3 days	Sat 20/6/20	Tue 23/6/20	HK Working Day 525	527	100%	Sat 20/6/20	Tue 23/6/20									
Mobilization of Sheet-piles and Driving Machines	7 days	Wed 24/6/20	Fri 3/7/20	HK Working Day 526	534,532	100%	Wed 24/6/20	Fri 3/7/20									
Works suspended by closure of vehicular access at Velodrome	8 days	Mon 10/5/21	Mon 17/5/21	Calendar Day		100%	Mon 10/5/21	Mon 17/5/21					1				
Trenchless Works (Pit L to Pit O)	882 days	Sat 4/7/20	Mon 26/6/23	HK Working Day		77%	Sat 4/7/20	NA				-			-		
Construction of Jacking Pit & Receiving Pit	175 days	Sat 4/7/20	Sat 30/1/21	HK Working Day		100%	Sat 4/7/20	Sat 30/1/21				-	7				
Receiving Pit L	81 days	Sat 24/10/20	Sat 30/1/21	HK Working Day 532	489	100%	Sat 24/10/20	Sat 30/1/21									
		Sat 11/7/20	Sat 24/10/20	HK Working Day 527	531,547		Sat 11/7/20										
Jacking Pit M	89 days				331,347												
Receiving Pit N	66 days	Thu 30/7/20	Fri 16/10/20	HK Working Day			Thu 30/7/20										
Jacking / Receiving Pit O + additional Grouting	124 days	Sat 4/7/20	Sat 28/11/20	HK Working Day 527	551	100%	Sat 4/7/20	Sat 28/11/20									
TBM Pipe Jacking (Pit M to Pit L)	273 days	Thu 13/5/21	Mon 11/4/22	HK Working Day		100%	Thu 13/5/21	Mon 11/4/22									
Re-establishment at Pit M for changing jacking direction	64 days	Thu 13/5/21	Thu 29/7/21	HK Working Day 549	537	100%	Thu 13/5/21	Thu 29/7/21									
DN1600 Precast Concrete Sleeve Pipe (Pit M - Pit L) approx. 10m	12 days	Fri 30/7/21	Thu 12/8/21	HK Working Day 536	538,539	100%	Fri 30/7/21	Thu 12/8/21					1			Topon of the second	
TBM suspended, review for Rescue pit construction	5 days	Fri 13/8/21	Wed 18/8/21	HK Working Day 537	540	100%	Fri 13/8/21	Wed 18/8/21					1				
Review and study the alternative construction method (Open Cut in normal	26 days	Fri 13/8/21	Sun 12/9/21	HK Working Day 537	544	100%	Fri 13/8/21	Sun 12/9/21									
condition) Rescue Pit Construction & Retrieval of TBM	39 days	Thu 19/8/21	Tue 5/10/21	HK Working Day 538	541	100%	Thu 19/8/21	Tue 5/10/21									
Set up working platform and lifting grantry at Rescue Pit for Handshield; Formin			Sat 6/11/21	HK Working Day 540	542			21 Sat 6/11/21									
Entrance								1 Thu 2/12/21									
Hand dig tunnel between Pit M and Rescue Pit	22 days	Mon 8/11/21		HK Working Day 541	543											+	
Remove setup & removal of Thrust wall	14 days	Fri 3/12/21	Sat 18/12/21	HK Working Day 542	560		Fri 3/12/21			6							
WSD accepted Alternative Scheme from Pit O to Pit L	0 days	Mon 6/9/21	Mon 6/9/21	HK Working Day 539	545	100%	Mon 6/9/21	Mon 6/9/21					♦ 6/9				
Water mains by Open Cut Method (West Portion - 143m)	171 days	Mon 13/9/21	Mon 11/4/22	HK Working Day 544	560,499	100%	Mon 13/9/2	1 Mon 11/4/22									
TBM Pipe Jacking (Pit M to Pit N)	159 days	Mon 26/10/20	0 Wed 12/5/21	HK Working Day		100%	Mon 26/10/	20 Wed 12/5/21				-	-				
Establishment at Pit M	29 days	Mon 26/10/20	Sat 28/11/20	HK Working Day 532	548	100%	Mon 26/10/	20 Sat 28/11/20									
ogramme No. 15 Task Summary		ve Milestone		uration-only anual Summary Rollup	Start-only E Finish-only	External Milesto Deadline	one 💠	Critical S Progress	plit								
Split Project Summary 24 May 2022 Milestone Inactive Task		ve Summary al Task			External Tasks	Critical	•	Manual F									

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ask Name		Duration	Start	Finish	Task Calendar Predecessors	Successors	% Complete	Actual Start	Actual Finish	2018	201	9 2020	20	21	2022	2023	2024 2024	20	025
	DN1600 Precast Concrete Sleeve Pipe (Pit M - Pit N) (CH.GA1+86 to CH.GA3+20)	119 days	Mon 30/11/20	Wed 28/4/21	HK Working Day 547	549	100%	Mon 30/11/20	Wed 28/4/21	Q4 Q1 Q2	Q3 Q4 Q	Q2 Q3 Q4 Q1	Q2 Q3 Q4 Q	01 Q2 Q3 Q4	Q1 Q2 Q3	Q4 Q1 Q2 Q	5 Q4 Q1 Q2	Q3 Q4 Q	(1 Q2 (
	in Soil (134m; 3.5m/day)					536		Thu 29/4/21											
		11 days	Thu 29/4/21		HK Working Day 548	550													
	TBM Pipe Jacking (Pit O to Pit N)	226 days	Mon 30/11/20	Mon 6/9/21	HK Working Day		100%	Mon 30/11/20	0 Mon 6/9/21					×					
	Establishment at Pit O	51 days	Mon 30/11/20	Sat 30/1/21	HK Working Day 534	552	100%	Mon 30/11/20	Sat 30/1/21										
		31 days	Mon 1/2/21	Thu 11/3/21	HK Working Day 551	553	100%	Mon 1/2/21	Thu 11/3/21				1						
	ingress and obstruction at 8m away from Pit O Retraction of Sleeve pipe	28 days	Fri 12/3/21	Sat 17/4/21	HK Working Day 552	554	100%	Fri 12/3/21	Sat 17/4/21					-					
	Rescue Pit for TBM	74 days	Mon 19/4/21	Sat 17/7/21	HK Working Day 553	555	100%	Mon 19/4/21	Sat 17/7/21										
		30 days		Sat 21/8/21	HK Working Day 554	556,557,493	100%	Mon 19/7/21	Sat 21/8/21					-					
						550,551,155													
	Dismantle and remove set up at Pit O	12 days	Mon 23/8/21		HK Working Day 555			Mon 23/8/21											
	Review and study the alternative construction method (Open Cut in wet condition)	12 days	Mon 23/8/21	Sat 4/9/21	HK Working Day 555	558	100%	Mon 23/8/21	Sat 4/9/21										
		0 days	Mon 6/9/21	Mon 6/9/21	HK Working Day 557	574	100%	Mon 6/9/21	Mon 6/9/21					♦ 6/9					
	DN1200 Pipelaying in side Hang Dig Tunnel (Pit M to Pit L)	33 days	Mon 20/12/21	Sat 29/1/22	HK Working Day		100%	Mon 20/12/2	1 Sat 29/1/22						7				
	setup for pipe laying inside hand dig tunnel	5 days	Mon 20/12/21	Fri 24/12/21	HK Working Day 543,545	561	100%	Mon 20/12/21	1 Fri 24/12/21					1					
	DN1200 MS Pipe Laying inside Hand dig tunnel	10 days	Tue 28/12/21	Sat 8/1/22	HK Working Day 560	562	100%	Tue 28/12/21	Sat 8/1/22										
						563			Mon 17/1/22						1				
	Formwork & Setup for Grouting the gap between pipe and Sleeve	5 days		Mon 17/1/22											1				
	Grouting Works (30 meter/day)	8 days	Wed 19/1/22	Thu 27/1/22	HK Working Day 562	564	100%	Wed 19/1/22	Thu 27/1/22										
	Remove Pit setup	2 days	Fri 28/1/22	Sat 29/1/22	HK Working Day 563	570,566,580	100%	Fri 28/1/22	Sat 29/1/22										No. of Contrast, No. of
	DN1200 Pipelaying in Sleeve pipe (Pit M to Pit N)	147 days	Tue 8/3/22	Sat 3/9/22	HK Working Day		42%	Tue 8/3/22	NA										
	Setup for Pipe Laying inside jacking Pit N	28 days	Tue 8/3/22	Sat 9/4/22	HK Working Day 564	567	100%	Tue 8/3/22	Sat 9/4/22										
	DN1200 MS Pipe Laying inside jacking pipe (134m) (3 days per 8m)(Only Internal	45 days	Mon 11/4/22	Wed 8/6/22	HK Working Day 566	568	75%	Mon 11/4/22	NA										
	Coating)	3 days	Thu 9/6/22	Sat 11/6/22	HK Working Day 567	569	0%	NA	NA						1				
	Formwork & Setup for Grouting the gap between pipe and Sleeve								NA										
	Grouting Works (30 meter/day)	5 days	Mon 13/6/22	Fri 17/6/22	HK Working Day 568	570,575	0%	NA											
	Pipe Connection Inside Pit M	12 days	Sat 18/6/22	Sat 2/7/22	HK Working Day 569,564	571	0%	NA	NA										
	Construction of IT Chamber at Pit M	30 days	Mon 4/7/22	Sat 6/8/22	HK Working Day 570	572	0%	NA	NA										
	Remove ELS including extracting sheet piles at Pit M & Pit N	24 days	Mon 8/8/22	Sat 3/9/22	HK Working Day 571	580	0%	NA	NA										
5.1	DN1200 Pipelaying (Pit O to Pit N)	296 days	Wed 12/1/22	Wed 11/1/23	HK Working Day		24%	Wed 12/1/22	. NA							7			
	Water mains by Open Cut Method (West Portion - 177m)	150 days	Wed 12/1/22	Mon 18/7/22	HK Working Day 558	575	36%	Wed 12/1/22	NA										
		12 days	Tue 19/7/22	Mon 1/8/22	HK Working Day 569,574	576	0%	NA	NA	2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0									
	Pipe Connection Inside Pit N																		
	Remove ELS including extracting sheet piles at Pit N	24 days	Tue 2/8/22	Mon 29/8/22	HK Working Day 575	580	0%	NA	NA										
	Pipe Connection in side Pit O	12 days	Mon 28/11/22	Sat 10/12/22	HK Working Day 511	578	0%	NA	NA						- 0				
	Remove ELS including extracting sheet piles at Pit O	24 days	Mon 12/12/22	Wed 11/1/23	HK Working Day 577	580	0%	NA	NA							•			
	Reinstallation of Cycle track Pavement and Planter	132 days	Thu 12/1/23	Mon 26/6/23	HK Working Day		0%	NA	NA							-			
ĠE.	Reinstalment Works	96 days	Thu 12/1/23	Fri 12/5/23	HK Working Day 576,578,572,564	581	0%	NA	NA										
	Compensation Tree Planting	30 days	Sat 13/5/23	Sat 17/6/23	HK Working Day 580	582	0%	NA	NA							-		The second secon	
		60% &	Mon 19/6/23				0%	NA	NA							1			
	Handover Inspection with LCSD and HyD	6 days																	
	ater Mains from KMB Depot to TKO Fresh Water Preliminary Service Reservoir	1649 days	Tue 7/11/17	Mon 5/6/23				Tue 7/11/17		Y						_			
	Issue CE No. 04 - Feasibility Study of Realignment of Pipeline between Po Hung Road and TKO Freshwater PSR	0 days	Thu 23/8/18	Thu 23/8/18	Calendar Day		100%	Thu 23/8/18	Thu 23/8/18		♦ 23/8								
	Issue CE No. 51 - Realignment of Water Main in Tsui Lam Section	0 days	Mon 3/8/20	Mon 3/8/20	Calendar Day	590,587,736,588,589	100%	Mon 3/8/20	Mon 3/8/20				♦ 3/8						
	Issue WSD Letter Ref.: (4) in WSD/M/7503/13/WSD/16/M15/300/51 for additional	0 days	Thu 3/9/20	Thu 3/9/20	Calendar Day		100%	Thu 3/9/20	Thu 3/9/20				> 3/9						
	works to CE No. 51 Tendering Process, Tender Award for CE No. 51 (Batch No, 1)	82 days	Mon 3/8/20	Fri 23/10/20	Calendar Day 585		100%	Mon 3/8/20	Fri 23/10/20										
		102 days	Mon 3/8/20	Thu 12/11/20			100%												
	Tendering Process, Tender Award for CE No. 51 (Batch No. 2)					725 727													
	Tendering Process, Tender Award for CE No. 51 (Batch No. 3))	200 days	Mon 3/8/20	Thu 18/2/21	Calendar Day 585	735,737	100%	ivion 3/8/20	Thu 18/2/21										
	Task Summary	Inacti	ive Milestone	Г	Ouration-only Start-only	E E	External Milesto	one 🏺	Critical	Split		1					-		
	amme No. 15 May 2022 Split Project Summary	Inacti	ive Summary	, N	Ianual Summary Rollup Finish-only Ianual Summary External Tae	ı c	Deadline Critical	+	Progres Manual										
	Milestone • Inactive Task	Manu	ıal Task	N	national Community External Fac	Page 14			1-Iuliud										_

					Project: Mainlaying in Tseu	ung Kwan O															
ask Name	Duration	Start	Finish	Task Calendar Predecessors	Successors	% Complete	Actual Sta	rt Actual Finish	100	018	201	9	2020	100	21	2022	10	023	2024 2024		2025
			<u></u>					- 10/11		018 Q1 Q2	Q3 Q4 Q1	1 Q2 Q3 Q4	4 Q1 Q2	Q3 Q4 Q	1 Q2 Q3	Q4 Q1	Q2 Q3 Q4 0	Q1 Q2 Q3	Q4 Q1 Q2	Q3 Q4	Q1 Q2
TTA preparation, SLG meetings, obtain RA and implement Advanced Works	100 days	Mon 3/8/20	Tue 10/11/20	Calendar Day 585		100%	Mon 3/8	8/20 Tue 10/11	/20												
Ground Investigation at Pit R	1 day	Mon 21/12/20	Mon 21/12/20	HK Working Day		100%	Mon 21,	/12/20 Mon 21/1	2/20					1							
Issue EWN No 269 - Unexpected High Rockhead Level Encountered at Working Pit F	R O days	Fri 8/1/21	Fri 8/1/21	HK Working Day		100%	Fri 8/1/2	21 Fri 8/1/21						• :	8/1						
				UK Washing Day		100%	Fri 30/7	/21 Fri 30/7/2	1						♦ 30	П					
Receiving of Drawing No. SK40134-517 for Changing Construction Method and Alignment from Pit P to Pit T	0 days	Fri 30/7/21	Fri 30/7/21	HK Working Day		100%	FII 30/7/	/21	•												
Trenchless Works from Pit P to Mau Wu Tsai Abandon Road	688 days	Tue 24/11/20	Wed 22/3/23	HK Working Day	765	54%	Tue 24/	11/20 NA													
Issue EWN No. 241 for Tree Issue for Changing Trenchless (Pit S to Pit T) to Open	0 days	Tue 24/11/20	Tue 24/11/20	HK Working Day	626	100%	Tue 24/	11/20 Tue 24/11	/20					* 24/	11			11			
Cut at Control Site (CS-108)	554 days	Wed 12/5/21	Wed 22/3/23	HK Working Day		39%	Wed 12	/5/21 NA							-			-			
TBM Pipe Jacking (Pit P to Pit Y)				de Contra de la melene de					/21						♦ 12/5						
WSD agreed to carry out Horizontal grout from Pit P to Pit Y (45m)	0 days	Wed 12/5/21	Wed 12/5/21	HK Working Day	598	100%	Wed 12	/5/21 Wed 12/5	/21												
Mobilization and Carry out Horizontal grouting	43 days	Wed 12/5/21	Sat 3/7/21	HK Working Day 597	600	100%	Wed 12,	/5/21 Sat 3/7/21	L												
Receiving Pit Y	74 days	Fri 25/6/21	Mon 20/9/21	HK Working Day		100%	Fri 25/6	/21 Mon 20/9	/21												
			Sat 22/10/21	HV Working Day 508	601	100%	Mon 5/	7/21 Sat 23/10/	/21												
Establishment and Set up for pipe jacking at Pit P	93 days	Mon 5/7/21	Sat 23/10/21	HK Working Day 598	601																
Jacking DN1600 Precast Concrete Sleeve Pipe	79 days	Mon 25/10/21	Thu 27/1/22	HK Working Day 600		100%	Mon 25	/10/21 Thu 27/1/	22												
Stop Works due to incident at KMB deport	106 days	Thu 27/1/22	Thu 12/5/22	Calendar Day	603FF	100%	Thu 27/	1/22 Thu 12/5/	22							Ess					
WSD obtained approval from TD, KMD and HyD	0 days	Thu 12/5/22	Thu 12/5/22	Calendar Day 602FF	604	100%	Thu 12/	5/22 Thu 12/5/	22								12/5				
																			1		
Constuction of Rescure Pit at KMB Depot and Remove TBM	90 days	Fri 13/5/22	Sat 27/8/22	HK Working Day 603	606,608,609,605	1%	Fri 13/5	/22 NA													
Pipe Laying from Pit P to Rescure Pit at KMB Depot	54 days	Mon 29/8/22	Wed 2/11/22	HK Working Day 604	610	0%	NA	NA													
Open Cut at KMB Depot Stage 1	72 days	Mon 29/8/22	Wed 23/11/22	HK Working Day 604	607	0%	NA	NA													
		Thu 24/11/22	Wod 22/2/22	HK Working Day 606		0%	NA	NA													
Open Cut at KMB Depot Stage 2	72 days	Thu 24/11/22	wed 22/2/23	HK Working Day 606		076	IVA														
Open Cut outside at KMB Depot along Po Hong Road Green Area	72 days	Mon 29/8/22	Wed 23/11/22	HK Working Day 604		0%	NA	NA													-
Open Cut Across Po Hong Road (Lane by Lane, 42 W.D. per lanes; 4 Stage)	168 days	Mon 29/8/22	Wed 22/3/23	HK Working Day 604		0%	NA	NA													
Pipe Connection inside Working Pit P	18 days	Mon 28/11/22	Sat 17/12/22	HK Working Day 605,511	611	0%	NA	NA													
						00/	NA	NA													
Construction of Combined chamber at Pit P	48 days	Mon 19/12/22	Sat 18/2/23	HK Working Day 610	612	0%	NA	NA													
Remove ELS including extracting sheet piles at Pit P; Reinstatement	18 days	Mon 20/2/23	Sat 11/3/23	HK Working Day 611		0%	NA	NA													
Hand Shield Pipe Jacking from Pit R to Pit Y	300 days	Fri 18/12/20	Wed 22/12/23	1 HK Working Day		100%	Fri 18/1									~					
Issue CE No. 94 - Site Clearance of Affected Trees and Plants for Mainlaying	0 days	Fri 18/12/20	Fri 18/12/20	Calendar Day	416	100%	Fri 18/1	22/12/21 12/20 Fri 18/12/						* 1	8/12						
works near Po Hong Road and Ling Hong Road	o days														_						
Jacking / Receiving Pit R	25 days	Fri 16/7/21	Fri 13/8/21	HK Working Day	616	100%	Fri 16/7	7/21 Fri 13/8/2	1												
Establishment at Pit R	10 days	Sat 14/8/21	Wed 25/8/21	HK Working Day 615	617	100%	Sat 14/8	8/21 Wed 25/8	3/21						1						
Mild Steel Sleeve Pipe in Mix of Soil (26m)(0.8m/day)	35 days	Thu 26/8/21	Thu 7/10/21	HK Working Day 616	618	100%	Thu 26/	/8/21 Thu 7/10/	/21												
	12 days	Fri 8/10/21	Sat 23/10/21	HK Working Day 617	619	100%	Fri 8/10	0/21 Sat 23/10	/21												
Remove Setup at Pit R	13 days																				
Setup for Pipe Laying inside Jacking Pit R	12 days	Mon 25/10/21	Sat 6/11/21	HK Working Day 618	620	100%	Mon 25	5/10/21 Sat 6/11/	21							•					
DN1200 MS Pipe Laying inside Jacking Pipe (3 days per 4m)(Only Internal	13 days	Fri 5/11/21	Fri 19/11/21	HK Working Day 619	621	100%	Fri 5/11	L/21 Fri 19/11/	/21							1					
Coating) Formwork & Setup for Grouting the gap between pipe and Sleeve	2 days	Sat 20/11/21	Mon 22/11/2:	1 HK Working Day 620	622	100%	Sat 20/	11/21 Mon 22/1	11/21							1					
					624	100%	Mon 17	3/12/21 Wed 22/1	12/21							1					
Grouting Works	9 days	WION 13/12/21	vved 22/12/2.	1 HK Working Day 621	024																
Open Cut Excavation from Pit R to Mau Wu Tsai Abandon Road	239 days	Mon 10/5/21	Fri 25/2/22	HK Working Day	767	100%	Mon 10	0/5/21 Fri 25/2/2	22												
Open Cut, CH.HA0+28 - CH.HA0+48 with DAV Chamber (Connecting to Pit R)	49 days	Fri 24/12/21	Fri 25/2/22	HK Working Day 622,627	625	100%	Fri 24/1	12/21 Fri 25/2/2	22												
Construction of DN900 Valve Chamber with by-pass at CH.HA0+44	36 days	Fri 24/12/21	Thu 10/2/22	HK Working Day 624		100%	Fri 24/1	12/21 Thu 10/2,	/22							-					
					627			0/5/21 Sun 8/8/2													
Open Cut, CH.HA0+48 - CH.HA 1+20 OC with DN600 IT Chamber (Connecting Original CH.HA0+80)	75 days	Mon 10/5/21		HK Working Day 635,595	627																
Construction of Wash Out Chamber & Reserved Tee at CH.HA0+49	36 days	Mon 23/8/21	Tue 5/10/21	HK Working Day 626	624	100%	Mon 23	3/8/21 Tue 5/10,	/21												
Open Trench Pipe laying at Abandoned Road	451 days	Tue 22/9/20	Thu 31/3/22	HK Working Day	767	91%	Tue 22,	/9/20 NA						-							
Issue CE No. 121 - Non-explosive agent in Abandoned Road Near Mau Wu Tsai	0 days	Fri 25/6/21	Fri 25/6/21	HK Working Day		100%	Fri 25/6	6/21 Fri 25/6/2	21						♦ 25/	6					
Village														♦ 22/9							
Issue CE No. 70 - Landscaping Survey near Mau Wu Tsai Village	0 days	Tue 22/9/20	Tue 22/9/20	HK Working Day		100%	Tue 22,	/9/20 Tue 22/9	/20												
lssue CE No. 86 - Tree Affected in Mainlaying Works near Mau Wu Tsai Village	0 days	Mon 12/10/2	0 Mon 12/10/2	0 HK Working Day	632	100%	Mon 12	2/10/20 Mon 12/3	10/20					♦ 12/10	0						
																	Li	1			-
rking Programme No. 15		tive Milestone		National Control of the Control of t	rt-only E ish-only 3	External Milest Deadline	tone 🌼		itical Split ogress												
Date : 24 May 2022 Milestone Split Project Summary Inactive Task		nual Task			ernal Tasks	Critical			anual Progress												
					Page 15																

				<u> </u>	Project: Mainlaying in Ts												
	Duration	Start	Finish	Task Calendar Predecessors	Successors	% Complete	Actual Start	Actual Finish	2018	2019	2020	2021	T	2022	2023	2024	200
			20/0/24	IIVAN III D. 621	661.622	100%	Tue 22/9/20	Mon 20/9/21	Q4 Q1 Q2 Q3	Q4 Q1 Q2 Q	3 Q4 Q1 Q2	Q3 Q4 Q1	Q2 Q3 Q4	Q1 Q2 Q3 Q4	2023 Q1 Q2 Q3 Q4	Q1 Q2 Q3 0	Q4 Q1
Tree survey, TPRP Submission and Receiving TPRP approval	295 days	Tue 22/9/20	Wion 20/9/21	HK Working Day 631	661,633												_
Mobilization and Tree Removal	23 days	Tue 21/9/21	Wed 20/10/21	HK Working Day 632	663,636	100%	Tue 21/9/21	Wed 20/10/21									
Issue CE No. XXX - Change Trenchless (Pit U - Pit V) to Open Cut and Revised the	0 days	Thu 31/3/22	Thu 31/3/22	HK Working Day		0%	NA	NA						* 31/3			
Alignment Open Cut, CH.HA0+80 - CH.HA3+17	141 days	Thu 19/11/20	Fri 14/5/21	HK Working Day	626	100%	Thu 19/11/20	Fri 14/5/21				No.					
Open Cut, CH.HA3+17 - CH.HA3+79	66 days	Tue 26/10/21	Thu 13/1/22	HK Working Day 633		30%	Tue 26/10/21	NA									
pen Trench Pipe Laying at Po Lam Road South (Mau Wu Tsai Village)	382 days	Wed 12/5/21	Tue 23/8/22	HK Working Day		74%	Wed 12/5/21	NA					P				
	127 days	Wed 12/5/21	Tue 12/10/21		639	100%	Wed 12/5/21	Tue 12/10/21									-
Open Cut, CH.HA3+79 - CH.HA4+68 with SACP							NA NA	NA									-
Open Cut, CH.HA4+68 - CH.HA5+21	60 days	Tue 14/6/22	Tue 23/8/22	HK Working Day 638,640													_
Open Cut, CH.HA5+21 - CH.HA5+55 (Pit W)	60 days	Mon 28/3/22	Mon 13/6/22	HK Working Day	639	95%	Mon 28/3/22	NA									
enchless Work at Po Lam Road South	259 days	Wed 14/4/21	Thu 24/2/22	HK Working Day		100%	Wed 14/4/21	Thu 24/2/22									
Inspection Pit Excavation	108 days	Wed 14/4/21	Sat 21/8/21	HK Working Day		100%	Wed 14/4/21	Sat 21/8/21									
Inspection Pit Excavation at Pit W	4 days	Wed 18/8/21	Sat 21/8/21	HK Working Day	646	100%	Wed 18/8/21	Sat 21/8/21					1				
Inspection Pit Excavation at Pit X	3 days	Wed 14/4/21	Fri 16/4/21	HK Working Day	647	100%	Wed 14/4/21	Fri 16/4/21					1				
Construction of Jacking / Receiving Pits	107 days	Sat 24/4/21	Tue 31/8/21	HK Working Day		100%	Sat 24/4/21	Tue 31/8/21					-				
	8 days	Mon 23/8/21	Tue 31/8/21	HK Working Day 643			Mon 23/8/21						1				
Receiving Pit W																	
Jacking Pit X	31 days	Sat 24/4/21	Tue 1/6/21	HK Working Day 644	649		Sat 24/4/21							_			
Hand Shield Pipe Jacking from Pit W to Pit X (~85m)	219 days	Wed 2/6/21	Thu 24/2/22	HK Working Day		100%	Wed 2/6/21	Thu 24/2/22									
Establishment at Pit X	15 days	Wed 2/6/21	Sat 19/6/21	HK Working Day 647	650	100%	Wed 2/6/21	Sat 19/6/21									
Form Entrance Opening at pit X	5 days	Thu 8/7/21	Tue 13/7/21	HK Working Day 649	651	100%	Thu 8/7/21	Tue 13/7/21									
Mild Steel Sleeve Pipe in Mix of Soil (46m) (0.6m / day)	73 days	Wed 14/7/21	Fri 8/10/21	HK Working Day 650	652,653	100%	Wed 14/7/21	Fri 8/10/21									
Rearrangement Wailing and Form Exit Opening at Pit W	14 days	Mon 11/10/2:	Wed 27/10/21	HK Working Day 651	654	100%	Mon 11/10/21	Wed 27/10/21									
Remove Setup it Pi X	5 days	Sat 9/10/21	Fri 15/10/21	HK Working Day 651	654	100%	Sat 9/10/21	Fri 15/10/21					1				
	6 days	Thu 28/10/21		HK Working Day 653,652	655	100%	Thu 28/10/21	Wed 3/11/21					1				
Setup for Pipe Laying inside Jacking Pit X					656			Thu 25/11/21									+
DN900 MS Pipe Laying inside Jacking Pipe (3 days per 4m)(Only Internal)	19 days	Thu 4/11/21		HK Working Day 654													4
Formwork & Setup for Grouting the gap between pipe and Sleeve	2 days	Sat 12/2/22	Mon 14/2/22	HK Working Day 655	657		Sat 12/2/22	Mon 14/2/22									
Grouting Works (30m per day)	9 days	Tue 15/2/22	Thu 24/2/22	HK Working Day 656		100%	Tue 15/2/22	Thu 24/2/22									
pen Trench Pipe Laying at Po Lam Road (West Bound)	465 days	Mon 20/7/20	Fri 11/2/22	HK Working Day	767,768	100%	Mon 20/7/20	Fri 11/2/22									
Issue CE No. 68 - TIA for TTA at Po Lam Road	0 days	Mon 20/7/20	Mon 20/7/20	HK Working Day	660	100%	Mon 20/7/20	Mon 20/7/20				◆ 20/7					
Traffic Survey and Revise TIA, revised TTA Drawings, Obtain RA	177 days	Mon 20/7/20	Sat 20/2/21	HK Working Day 659	665	100%	Mon 20/7/20	Sat 20/2/21									
Mobilization and Tree Removal	29 days	Tue 21/9/21	Wed 27/10/2	1 HK Working Day 632	663,664,662	100%	Tue 21/9/21	Wed 27/10/21					-				
Construction of DAV Chamber at Pit X	41 days	Tue 7/12/21	Wed 26/1/22	HK Working Day 661		100%	Tue 7/12/21	Wed 26/1/22					-	-			
				HK Working Day 661,665,633		100%	Thu 28/10/21	Fri 11/2/22									
Open Cut, fromt Pit X, CH.HA6+00 - CH.HA6+54	86 days		Fri 11/2/22														
Construction of DN900 Valve Chamber and By Pass Pipes	17 days	Tue 11/1/22		HK Working Day 661			Tue 11/1/22										
Open Cut, CH.HA6+54 to CH.HA7+24 (Portion SKR) with SACP	85 days	Mon 22/2/21	Mon 7/6/21	HK Working Day 660	666,663	100%	Mon 22/2/21	Mon 7/6/21									
Open Cut, CH.HA7+24 - CH.HA7+61/CH.HB0+00 Excavation in Rock	189 days	Wed 16/6/21	Sat 29/1/22	HK Working Day 665		100%	Wed 16/6/21	Sat 29/1/22									
Water Main Structure and Associated Pipe Support across the Natural Stream	730 days	Tue 5/5/20	Tue 18/10/22	HK Working Day	768	93%	Tue 5/5/20	NA			-						
Course (Location A) (CH.HB0+00 ~ CH.HB0+ CE) Design Submission (CE No. 55) for Water Main Structure and Associated Pipe	37 days	Tue 5/5/20	Tue 16/6/20	HK Working Day	669	100%	Tue 5/5/20	Tue 16/6/20			-						
Support across the Natural Stream Course WSD & GEO Review and Approve	121 days	Wed 17/6/20	Thu 15/10/20	Calendar Day 668	672	100%	Wed 17/6/20	Thu 15/10/20									
Tendering Process, Tender Award for CE No. 51 (Location A Mini-pile Works)	113 days	Wed 26/8/20	Wed 16/12/2	0 Calendar Day		100%	Wed 26/8/20	Wed 16/12/20									
Issue CE No. 55 - Design of the Water Mains Structure and Associated Pipe Supp		Tue 5/5/20	Tue 5/5/20	Calendar Day		100%	Tue 5/5/20	Tue 5/5/20			•	5/5					
across the Natural Stream Course for Alternative Alignment in Tsui Lam							Fri 16/10/20										
Tender and Subletting (Mini-Pile)	62 days	Fri 16/10/20		0 Calendar Day 669									2				
Issue CE No. 85 - Affected Trees across the Natural Stream Course at Tsui Lam (Location A)	0 days	Wed 28/10/2	20 Wed 28/10/2	O Calendar Day		100%	Wed 28/10/2	0 Wed 28/10/20				♦ 28/10					
	Inact	tive Milestone	Г	uration-only Sta	t-only E	External Mileston	ne 🌼	Critical Spi	t ,,,,,,,,,								
mme No. 15 Task Summary May 2022 Split Project Summary		tive Summary			ish-only	Deadline		Progress Manual Pro									

			les 11	lm 1 2 1 :	D 1	Project: Mainlaying in Tse		A short Co.	A stud Timi 1										
ame	Duration	Start	Finish	Task Calendar	Predecessors	Successors	% Complete	Actual Start	Actual Finish	Q4 Q1 Q2 Q3 Q	2019	2	20 2	21	2022	2023	l or low low	2024	2025
Tree survey, TPRP Submission and Receiving TPRP approval (HyD)	227 days	Mon 31/8/20	Tue 8/6/21	HK Working D	Pay	676	100%	Mon 31/8/20	Tue 8/6/21	Q4 Q1 Q2 Q3 Q	Q1 Q2	Q3 Q4	1 Q2 Q3 Q4	01 Q2 Q3 Q4	Q1 Q2 Q	3 Q4 Q1	Q2 Q3 Q4	Q1 Q2 Q3	Q4 Q1 Q2
East Portion - Foundation Works (PC-C1, PC-T1 & PC-P1)	283 days	Wed 9/6/21	Tue 24/5/22	HK Working I	Day		99%	Wed 9/6/21	NA					Q	-		0		
		Wed 9/6/21	Thu 8/7/21	HK Working D		677		Wed 9/6/21	Thu 8/7/21										
Mobilization and Tree Removal	24 days							Fri 9/7/21	Fri 16/7/21										
Erect Temporary Timber Platform for Piling Works	7 days	Fri 9/7/21	Fri 16/7/21	HK Working D		678													
Pre-drilling works (PD6, PD7 & PD8) & confirmation of rock head and depth of mini-pile	25 days	Sat 17/7/21	Sat 14/8/21	HK Working D	Day 677	679,686			Sat 14/8/21										
Mobilization and Driving Dia. 323mm steel Casting (14 nos)	39 days	Mon 16/8/21	Thu 30/9/21	HK Working D	Day 678	680	100%	Mon 16/8/21	Thu 30/9/21										
Cleaning, Insert T50 reinforcement and Grouting	18 days	Mon 11/10/21	Mon 1/11/21	HK Working D	Day 679	681,684	100%	Mon 11/10/21	Mon 1/11/21										
Setup and Loading Test of Mini-Pile (T-1)	15 days	Tue 1/3/22	Thu 17/3/22	HK Working D	Day 680	683,682	100%	Tue 1/3/22	Thu 17/3/22										
Setup and Loading Test of Mini-Pile (C1-2)	8 days	Fri 18/3/22	Sat 26/3/22	HK Working D	Day 681		100%	Fri 18/3/22	Sat 26/3/22						0000				
Construction Pile Caps (P1) with Pier 1	50 days	Fri 18/3/22	Sat 21/5/22	HK Working [Day 681	684	100%	Fri 18/3/22	Sat 21/5/22										
Remove Timber platform for Piling Works	2 days	Mon 23/5/22	Tue 24/5/22	HK Working [Day 683,680	694	0%	Mon 23/5/22	NA										
West Portion - Foundation Works (PC-P2, PC-P3 & PC-C2)	241 days	Tue 5/10/21	Fri 29/7/22	HK Working I	Day		98%	Tue 5/10/21	NA					-	-				
Mobilization and Tree Removal	3 days	Tue 5/10/21	Thu 7/10/21	HK Working [Day 678	687	100%	Tue 5/10/21	Thu 7/10/21					1					
Erect Temporary Timber Platform for Piling Works	5 days	Thu 28/10/21	Tue 2/11/21	HK Working [688	100%	Thu 28/10/21	Tue 2/11/21					1					
Pre-drilling works (P WPR, PSKR, PD3, PD4 & PD5) & confirmation of rock head		Fri 26/11/21	Tue 14/12/21		Day 687,703,707	689			Tue 14/12/21										
and depth of mini-pile						690		Wed 15/12/21											
Driving Dia. 323mm steel Casting (26 nos)	58 days	Wed 15/12/21		HK Working I															
Cleaning, Insert T50 reinforcement and Grouting	50 days	Sat 26/2/22	Fri 29/4/22	HK Working [692,691		Sat 26/2/22											
Construction Pile Caps with Pier 2	36 days	Mon 21/3/22	Wed 27/7/22	HK Working I	Day 690	692	95%	Mon 21/3/22						*					
Remove Timber platform for Piling Works	2 days	Thu 28/7/22	Fri 29/7/22	HK Working (Day 690,691	694	0%	NA	NA										
Pipelaying on Mini-pile Foundation	66 days	Sat 30/7/22	Tue 18/10/22	HK Working	Day		0%	NA	NA										
Temporary Working Platform for Pipe Installation	6 days	Sat 30/7/22	Fri 5/8/22	HK Working I	Day 684,692	695	0%	NA	NA						1				
Cut Temporary casting and Bend the T50 to designated position	12 days	Sat 6/8/22	Fri 19/8/22	HK Working I	Day 694	696	0%	NA	NA						1				
Pipe Installation / Welding / Testing / Painting	24 days	Sat 20/8/22	Sat 17/9/22	HK Working I	Day 695	697,701	0%	NA	NA										
Concrete Hunching	12 days	Mon 19/9/22	Mon 3/10/22	HK Working	Day 696	698	0%	NA	NA							1			
Apply top coating of aliphatic polyurethane on site	6 days	Wed 5/10/22	Tue 11/10/22	HK Working	Day 697	699	0%	NA	NA							1			
Remove Temporary Working Platform	6 days	Wed 12/10/22	Tue 18/10/22	HK Working	Day 698	702	0%	NA	NA							1			
	551 days	Thu 8/4/21	Tue 14/2/23	- 742		768	60%	Thu 8/4/21	NA					—					
Open Trench Pipe Laying at Po Lam Road (East Bound)			Tue 29/11/22			702	0%	NA	NA		_								
Open Cut, CH.HC0+00 - CH.HC0+08; Connecting to CH.HB	60 days					702	0%	NA	NA										
Open Cut, CH.HC0+08 - CH.HC0+12	60 days		Tue 14/2/23	HK Working															
Open Cut, CH.HC0+12 - CH.HC0+97 with SACP	104 days	Wed 16/6/21	Tue 19/10/21			704,688			Tue 19/10/21										
Open Cut, CH.HC0+97 - CH.HC1+56(Portion B4) with SACP	62 days	Wed 24/11/21	Thu 10/2/22	HK Working	Day 703,707	705	99%	Wed 24/11/22	1 NA										
Open Cut, CH.HC1+56 - CH.HC2+04	60 days	Fri 11/2/22	Tue 26/4/22	HK Working	Day 704	706	0%	NA	NA										
Open Cut, CH.HC2+04 - CH.HC2+70 with SACP	60 days	Wed 27/4/22	Sat 9/7/22	HK Working	Day 705	701	0%	NA	NA										
Open Cut, CH.HC2+70 - CH.HC3+22 with SACP	58 days	Tue 14/9/21	Tue 23/11/21	. HK Working	Day 708	704,688	100%	Tue 14/9/21	Tue 23/11/21										
Open Cut, CH.HC3+22 - CH.HC3+70 /CH.HD0+00	131 days	Thu 8/4/21	Sat 11/9/21	HK Working	Day	707	100%	Thu 8/4/21	Sat 11/9/21										Certification
Water Main Structure and Associated Pipe Support from Po Lam Road to Tsui Lan	771 days	Tue 16/6/20	Thu 19/1/23	HK Working	Day	768	82%	Tue 16/6/20	NA							7			
Road (Location B)(CH.HDD+00 ~ CH.H WPR+01) Issue CE No. 62 - Design of Pipe Support in Tsui Lam (Location B) .	0 days	Tue 16/6/20	Tue 16/6/20	Calendar Da	у	711	100%	Tue 16/6/20	Tue 16/6/20				♦ 16/6						
Design Submission (CE No. 62) for Water Main Structure and Associated at Tsui L	am 356 days	Wed 17/6/20	Fri 27/8/21	HK Working	Day 710	712	100%	Wed 17/6/20	Fri 27/8/21										
WSD & GEO Approval	0 days	Tue 21/9/21	Tue 21/9/21	Calendar Da	y 711	716	100%	Tue 21/9/21	Tue 21/9/21					* 2	/9				
	0 days	Thu 30/9/21	Thu 30/9/21	HK Working		719		Thu 30/9/21						• 3	0/9				
TTA Drawing approval for Tsui Lam Road					•	715FS+18 days		Tue 5/10/21						*					
LCSD's Consent	0 days	Tue 5/10/21	Tue 5/10/21			12L2+TO days									1/11				
Approval of Excavation Permit for Tsui Lam Road	0 days	Mon 1/11/21	Mon 1/11/21	. HK Working	Day 714FS+18 days		100%	ivion 1/11/21	Mon 1/11/21					ľ					
Task Summary	Inact	ive Milestone	D	ouration-only	Start-on	ıly E	External Milesto	ne 🌵	Critical S	plit									
Programme No. 15		ive Summary		Ianual Summary Rollup	Finish-	only 7	Deadline	1	Progress	100000									

						t: Mainlaying in Tseung Kwan O											
fame	Duration	Start	Finish	Task Calendar F	Predecessors Succes	sors % Comple	Actual Start	Actual Finish	2018	2019 2019	0	2021	2022	2023		2024 2024	2025
Tender and sublett Mini-pile works at Location B to current Sub-contractor	73 days	Fri 27/8/21	Mon 22/11/21	HK Working Day	712 721	100%	Fri 27/8/21	Mon 22/11/2	Q4 Q1 Q2 Q3 Q4	Q1 Q2 Q3 Q4 Q	Q2 Q3 Q4	Q1 Q2 Q3	Q4 Q1 Q	2 Q3 Q4 Q1	Q2 Q3 Q4	Q1 Q2 Q3	Q4 Q1 Q2
Tree survey, TPRP Submission and Receiving TPRP approval (HyD)	322 days	Fri 21/8/20		HK Working Day	718	100%	Fri 21/8/20	Mon 20/9/21							2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2		
	69 days	Mon 20/9/21	Sat 11/12/21	HK Working Day		100%		21 Sat 11/12/21									
Mobilization, Tree Removal Works & Site Clearance				Calendar Day		100%		1 Tue 14/12/21									
Obtain RA for TTA implement	38 days	Sun 7/11/21	Tue 14/12/21		715,718 721								-				
Mini-pile Foundation Works	258 days			HK Working Day			Wed 15/12										
Erect Temporary Timber Platform for Piling Works	25 days	Wed 15/12/21		HK Working Day				/21 Sat 15/1/22									
Pre-drilling works & confirmation of rock head and depth of mini-pile	36 days	Wed 26/1/22	Fri 11/3/22	HK Working Day	721 723	100%	Wed 26/1/	22 Fri 11/3/22									
Mobilization and Driving Dia. 273mm steel Casting (18 nos)	51 days	Sat 26/3/22	Tue 31/5/22	HK Working Day	722 724	61%	Sat 26/3/2	2 NA									
Cleaning, Insert T50 reinforcement and Grouting	18 days	Wed 1/6/22	Wed 22/6/22	HK Working Day	723 725	0%	NA	NA									
Setup and Loading Test of Mini-Pile	36 days	Thu 23/6/22	Thu 4/8/22	HK Working Day	724 726	0%	NA	NA									
Construction Pile Caps (PC-C, PC-P1, PC-P2, PC-P3 & PC-T) and Piers (P1, P2 & P3	3) 72 days	Fri 5/8/22	Mon 31/10/22	HK Working Day	725 728	0%	NA	NA .									
Pipelaying on Mini-pile Foundation	66 days	Tue 1/11/22	Thu 19/1/23	HK Working Day		0%	NA	NA	- 1					-			
Temporary Working Platform for Pipe Installation	6 days	Tue 1/11/22	Mon 7/11/22	HK Working Day	726 729	0%	NA	NA						1			
Cut Temporary casting and Bend the T50 to designated position	12 days	Tue 8/11/22	Mon 21/11/22	HK Working Day	728 730	0%	NA	NA									
Pipe Installation / Welding / Testing / Painting (~115m)	24 days	Tue 22/11/22	Mon 19/12/22	HK Working Day	737,729 731	0%	NA	NA									
Concrete Hunching	12 days	Tue 20/12/22	Thu 5/1/23	HK Working Day	730 732	0%	NA	NA									
Apply top coating of aliphatic polyurethane on site	6 days	Fri 6/1/23	Thu 12/1/23	HK Working Day	731 733	0%	NA	NA									
	6 days	Fri 13/1/23	Thu 19/1/23	HK Working Day			NA	NA						1			
Remove Temporary Working Platform	1649 days	Tue 7/11/17	Mon 5/6/23	HK Working Day	768		Tue 7/11/								-		
From Tsui Lam Road to TKO Freshwater PSR (CH.HE.0+00 ~ CH.HE2+11) & (CH.HF0+00 CH.HF3+11)							Fri 19/2/2:										
Batch No 3 - Temporary Works Design and Preliminary Works	30 days	Fri 19/2/21	Thu 25/3/21	HK Working Day													
TTA preparation, SLG meetings, obtain RA	150 days	Mon 3/8/20		Calendar Day		100%	Mon 3/8/2										
Material procurement (DN800 MS PIPE) (360m)	255 days	Fri 19/2/21	Sun 31/10/21	Calendar Day	589 730,	751,755,753 100%	Fri 19/2/2:										
Material procurement (Butterfly Valves)	244 days	Mon 30/8/21	Sat 30/4/22	Calendar Day		100%	Mon 30/8/	21 Sat 30/4/22									
Water Mains CH.HE0+00 - CH.HE0+27)	108 days	Fri 20/1/23	Mon 5/6/23	HK Working Day		0%	NA	NA									
Open Cut across Tsui Lam Road (CH.HE0+00 to 0+06)	48 days	Fri 20/1/23	Mon 20/3/23	HK Working Day	733 741	0%	NA	NA									
Open Cut across Tsui Lam Road (CH.HE0+06 to 0+20)	60 days	Tue 21/3/23	Mon 5/6/23	HK Working Day	740	0%	NA	NA									
Water Mains CH.HE0+27 - CH.HE2+11	414 days	Mon 1/3/21	Mon 25/7/22	HK Working Day	769	75%	Mon 1/3/2	21 NA				-		~			
Issue CE No. 114 - Non-explosive agent near TKO Freshwater Preliminary Service	ce 0 days	Fri 14/5/21	Fri 14/5/21	HK Working Day		100%	Fri 14/5/2	Fri 14/5/21				♦ 14/5					
Reservoir Receiving of Drawing No. SK40134/525 for Proposed Alternative Alignment at	0 days	Fri 20/8/21	Fri 20/8/21	HK Working Day		100%	Fri 20/8/2	Fri 20/8/21				•	20/8				
TKOFWSR Open Cut, CH.HE0+20 -CH.HE0+27 (Excavation in Rock)	59 days	Mon 25/10/21	Tue 4/1/22	HK Working Day		100%	Mon 25/1	0/21 Tue 4/1/22									
Open Cut, CH.HE0+27 -CH.HE1+98(Excavation in Rock)	254 days	Mon 1/3/21	Thu 6/1/22	HK Working Day		100%	Mon 1/3/2	1 Thu 6/1/22									
Construction of Combined EMF and MBV Chamber at CH.HE1+90	128 days	Mon 16/8/21	Tue 18/1/22	HK Working Day	748	100%	Mon 16/8	'21 Tue 18/1/22									
Open Cut CH.1+98 & connecting to the existing DN800 F.W. Main at CH.HE2+1	1 60 days	Wed 19/1/22	Fri 1/4/22	HK Working Day	747 749	0%	NA	NA							A		
Construction of flowmeter kiosks and GI cable ducts for Combined EMF and M		Sat 2/4/22	Mon 25/7/22			0%	NA	NA									
Chamber at CH.HE1+90	1343 days		Tue 24/5/22	HK Working Day			Tue 7/11/							•			
Water Mains CH.HF0+00 - CH.HF3+10 (Inlet A)								21 Sat 12/2/22									
Open Cut CH.HF0+00 - CH.HF0+19	67 days	Sat 20/11/21		HK Working Day		100%											
Open Cut CH.HF0+19 - CH.HF1+30	114 days	Fri 31/12/21	Tue 24/5/22	HK Working Day				21 Tue 24/5/22									
Construction of Combined EMF and MBV Chamber at CH.HF1+30	90 days	Sat 22/1/22	Tue 17/5/22	HK Working Day				2 Tue 17/5/22									
Open Cut CH.HF1+30 - CH.HF1+36	31 days	Sat 22/1/22	Wed 2/3/22	HK Working Day		100%	Sat 22/1/2	2 Wed 2/3/22									
Exposed Pipe CH.HF1+36 - CH.HF2+85	53 days	Thu 25/11/21	Fri 28/1/22	HK Working Day	737 757	100%	Thu 25/11	/21 Fri 28/1/22					7				
Exposed Pipe to the side wall of TKOFWSR	41 days	Thu 24/2/22	Wed 13/4/22	HK Working Day	757	100%	Thu 24/2/	22 Wed 13/4/22									
Form Opening and Cast-in short pipe at TKOFWSR	9 days	Mon 14/2/22	Wed 23/2/22	HK Working Day	755 756	100%	Mon 14/2	/22 Wed 23/2/22					1				
	entraction of the	ive Milestone	Du	ration-only	Start-only		tone 🐡	Critical	Split								

	lp	Ct	Finish	Tool C-12	Dendagger -	Project: Mainlaying in Tseu	er.	Actual Ctort	Actual Finish											
ame	Duration	Start	Finish	Task Calendar	Predecessors	Successors	Complete	Actual Start	Actual Pinish	2018	2 2	019 019 01 Q2 Q3 Q4	2020	202	21	2022	202	3	2024	2025
Construction of flowmeter kiosks and GI cable ducts for Combined EMF and	90 days	Tue 7/11/17	Mon 26/2/18	HK Working Day	,		0%	NA	NA	Q4 Q1	Q2 Q3 Q4 4	Q1 Q2 Q3 Q4	Q1 Q2 0	Q3 Q4 Q1	1 Q2 Q3	Q4 Q1 Q2	Q3 Q4 Q1	Q2 Q3 Q	1 Q1 Q2 Q	3 Q4 Q1 f
MBV Chamber at CH.HF1+30																				
800 - CH.ADN1200 MS Pipe Static Pressure Test, Pipeline Cleaning, CCTV Inspection,	1232 days	Wed 24/3/21	Tue 6/8/24	Calendar Day			13%	Wed 24/3/21	NA											
	1112 days	Wed 24/3/21	Mon 8/4/24	Calendar Day			18%	Wed 24/3/21	NA											
DN1200 MS Pipe - Static Pressure Test From DN900 Valve Chamber at CH.CA4+24 to	49 days	Wed 24/3/21	Tue 11/5/21	Calendar Day	105	772	100%	Wed 24/3/21	Tue 11/5/21											
CH.CT.2+65 (Approx. 0.7km)		r-: 20/0/22	Cat 19/11/22	Calandar Day	121,167,184,213,224	773	0%	NA	NA											
DN1200 MS Pipe - Static Pressure Test From DN900 Valve Chamber at CH.CA4+24 to DN900 Valve Chamber at Wan Po Road (CH.A12+50) (Approx. 1.7km)	51 days	Fri 29/9/23	Sat 18/11/23	Calendar Day	121,167,164,213,224	775	078	IVA	IVA											
DN1200 MS Pipe - Static Pressure Test From DN900 Valve Chamber at Wan Po Road (CH.A12+50) to DN900 Valve Chamber at TKO Landfill Stage I Area A (CH.FB1+66)	42 days	Tue 27/2/24	Mon 8/4/24	Calendar Day	224,251,306	774	0%	NA	NA											
(Approx. 1.4km)	62 days	Tuo 12/0/22	Mon 12/11/22	Calondar Day	372 434	775	0%	NA	NA											
DN1200 MS Pipe - Static Pressure Test From DN900 Valve Chamber at TKO Landfill Stage I Area A (CH.FB1+66) to DN900 Valve Chamber at CH.FD3+43 (approx. 2.1km)	63 days	Tue 12/9/23	MOU 13/11/53	Calendar Day	372,434	775	076	INA	IVA							1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1				
DN1200 MS Pipe - Static Pressure Test From DN900 Valve Chamber at CH.FD 3+43 to	42 days	Tue 12/9/23	Mon 23/10/23	Calendar Day	436,479,517,594,434	776	0%	NA	NA									-		
DN900 Valve Chamber at Mau Wu Tsai (CH.HA0+44) (approx. 1.4km)		T 10/4/22	F=: 20/4/22	Calandar Day			100%	Tue 19/4/22	Fri 29/4/22											
DN1200 MS Pipe - Static Pressure Test From Pit Y (CH>GSKR.20 to CH.HA3+70)	11 days	Tue 19/4/22	Fri 29/4/22	Calendar Day			100%	Tue 19/4/22	FII 25/4/22											
DN1200 MS Pipe - Static Pressure Test From DN900 Valve Chamber at Mau Wu Tsai	30 days	Fri 1/4/22	Sat 30/4/22	Calendar Day	628,623,658	777	0%	NA	NA							•				
(CH.HAO+44) to DN900 Valve at Mau Wu Tsai (CH.HA6+45) (approx. 0.7km) DN1200 MS Pipe - Static Pressure Test From DN900 Valve at Mau Wu Tsai (CH.HA6+45) to DN800 EMF & BV Chamber at TKO F.W.S.R.(CH.HE1+90) &	33 days	Tue 6/6/23	Sat 8/7/23	Calendar Day	658,667,700,709,734	778	0%	NA	NA											
(CH.HF1+30) (Approx. 1.1km)	C. davis	T 26/7/22	Cup 21/7/22	Calandar Day	742	779	0%	NA	NA								1			
F.W.S.R.(CH.HE1+90) to CH.HE2+11 (approx. 20m)	6 days	Tue 26/7/22	Sun 31/7/22	Calendar Day	/42															
DN800 MS Pipe - Static Pressure Test From DN800 EMF & BV Chamber at TKO	6 days	Wed 25/5/22	Mon 30/5/22	Calendar Day	750	780	0%	NA	NA											
F.W.S.R.(CH.HF1+30) to CH.HF3+10 (Approc. 80m) Pipeline Cleaning and CCTV Inspection	1153 days	Wed 12/5/21	Sun 7/7/24	Calendar Day			10%	Wed 12/5/21	NA						-				-	
	r 60 days	Wed 12/5/21	Sat 10/7/21	Calendar Day	761	782	100%	Wed 12/5/21	Sat 10/7/21											
DN1200 MS Pipe - Pipeline Cleaning and CCTV Inspection From DN900 Valve Chamber at CH.CA4+24 to CH.CT.2+65																				
DN1200 MS Pipe - Pipeline Cleaning and CCTV Inspection From DN900 Valve Chamber	r 90 days	Sun 19/11/23	Fri 16/2/24	Calendar Day	762	782	0%	NA	NA											
at CH.CA4+24 to DN900 Valve Chamber at Wan Po Road (CH.A12+50) DN1200 MS Pipe - Pipeline Cleaning and CCTV Inspection From DN900 Valve Chamber	r 90 days	Tue 9/4/24	Sun 7/7/24	Calendar Day	763	782	0%	NA	NA											
at Wan Po Road (CH.A12+50) to DN900 Valve Chamber at TKO Landfill Stage I Area A		Tue 14/11/23	Sun 11/2/24	Calendar Day	764	782	0%	NA	NA											
DN1200 MS Pipe - Pipeline Cleaning and CCTV Inspection From DN900 Valve Chamber at TKO Landfill Stage I Area A (CH.FB1+66) to DN900 Valve Chamber at CH.FD3+43	r 90 days	Tue 14/11/25	Juli 11/2/24	Caleffual Day	704		070													
DN1200 MS Pipe - Pipeline Cleaning and CCTV From DN900 Valve Chamber at CH.FD	90 days	Tue 24/10/23	Sun 21/1/24	Calendar Day	765	782	0%	NA	NA										T	
3+43 to DN900 Valve Chamber at Mau Wu Tsai (CH.HA0+44) DN1200 MS Pipe - Pipeline Cleaning and CCTV Inspection From From DN900 Valve	60 days	Sun 1/5/22	Wed 29/6/22	Calendar Day	767	782	0%	NA	NA											
Chamber at Mau Wu Tsai (CH.HAO+44) to DN900 Valve at Mau Wu Tsai (CH.HA6+45) DN1200 MS Pipe - Pipeline Cleaning and CCTV Inspection From DN900 Valve at Mau	60 days	Sun 9/7/23	Wed 6/9/23	Calendar Day	768	782	0%	NA	NA											
Wu Tsai (CH.HA6+45) to DN800 EMF & BV Chamber at TKO F.W.S.R.(CH.HE1+90) &	oo uays	Juli 9/1/25	Wed 0/3/23	Calcilual Day	700															
DN800 MS Pipe - Pipeline Cleaning and CCTV Inspection From DN800 EMF & BV Chamber at TKO F.W.S.R.(CH.HE1+90) to CH.HE2+11	18 days	Mon 1/8/22	Thu 18/8/22	Calendar Day	769	782	0%	NA	NA											
DN800 MS Pipe - Pipeline Cleaning and CCTV Inspection From DN800 EMF & BV	18 days	Tue 31/5/22	Fri 17/6/22	Calendar Day	770	782	0%	NA	NA											
Chamber at TKO F.W.S.R.(CH.HF1+30) to CH.HF3+10 Sterilization and Water Sampling	30 days	Mon 8/7/24	Tue 6/8/24	Calendar Day			0%	NA	NA										-	,
DN1200 MS Pipe - Portion I & Portion H (Total Water = 9700 cu.m)	30 days	Mon 8/7/24	Tue 6/8/24	Calendar Day	772,773,774,775,777,77	78,7 787	0%	NA	NA											
S250 HDPE Pipe Static Pressure, Pipeline Cleaning, CCTV Inspection, Sterilization and	60 days	Fri 23/12/22	Mon 20/2/23	Calendar Day			0%	NA	NA									'		
ater Sampling NS250 HDPE Pipe - Static Pressure Test - Portion H (Area 137)	30 days	Fri 23/12/22	Sat 21/1/23	Calendar Day	121	785	0%	NA	NA											
						700	001		210											
NS250 HDPE Pipe - Pipeline Cleaning and CCTV Inspection, Sterilization and Water Sampling - Portion H (Area 137)	30 days	Sun 22/1/23	Mon 20/2/23	Calendar Day	/84	788	0%	NA	NA											
andover Portion I and Portion H to WSD Region	563 days	Tue 21/2/23	Thu 5/9/24	Calendar Day			0%	NA	NA											7
DN1200 MS Pipe - Portion I & Portion H (Area 137)	30 days	Wed 7/8/24	Thu 5/9/24	Calendar Day	782		0%	NA	NA											
				Calendar Day	785	164	0%	NA	NA									1		
NS250 HDPE Pipe - Portion H (Area 137)	7 days	Tue 21/2/23	Mon 27/2/23	Calelluar Day	,65	104														
later Supply to Tseung Kwan O Desalination Plant at Fill Bank of Tseung Kwan O Area	445 days	Tue 7/11/17	Sat 11/5/19	HK Working Da	ау		99%	Tue 7/11/17	NA											
37 (Portion J) Issue of CE No. 02	0 days	Fri 16/11/18	Fri 16/11/18	HK Working Da	ıy	791	100%	Fri 16/11/18	Fri 16/11/18		* 10	V11								
		Sat 17/11/18	Thu 3/1/19	Calendar Day	790	792	100%	Sat 17/11/18	Thu 3/1/19											
Procurement of Major Material	48 days																			
Installation of NS250 HDPE Pipe from A to B in accordance with the Drawing No.	89 days	Fri 4/1/19	Thu 25/4/19	HK Working Da	y 791	793	100%	Fri 4/1/19	Thu 25/4/19											
13/WSD/16/SK13 to SK15 and W20203/4A Sterilization and Flushing NS250 HDPE Pipe (From T0+00 to T23+64)	4 days	Wed 24/4/19	Sun 28/4/19	HK Working Da	у 792	794	100%	Wed 24/4/19	Sun 28/4/19			1								
Take Water Sampling	1 day	Mon 29/4/19	Mon 29/4/19	HK Working Da	ay 793	795	100%	Mon 29/4/19	Mon 29/4/19			1								
Backfill at T23+64 after completion of Water Sampling Test	1 day	Sat 11/5/19	Sat 11/5/19	HK Working Da	у 794	796FF	100%	Sat 11/5/19	Sat 11/5/19			1								
Handover Portion J to WSD Region	0 days	Sat 11/5/19	Sat 11/5/19	HK Working Da	y 795FF		100%	Sat 11/5/19	Sat 11/5/19			♦ 11/5								
	1 day	Tue 7/11/17	Tue 7/11/17	None			0%	NA	NA											
A	2 du j	, , , , ,	,								-									
rogramme No. 15 Task Summary		e Milestone		ration-only	Start-only	E .	External Milesto		Critical Sp	olit										
24 May 2022 Split Project Summary	Inactiv	e Summary	Ma	mual Summary Rollup 🚃	Finish-only	3	Deadline		Progress											





Appendix B

Overview of Mainlaying in Tseung Kwan O





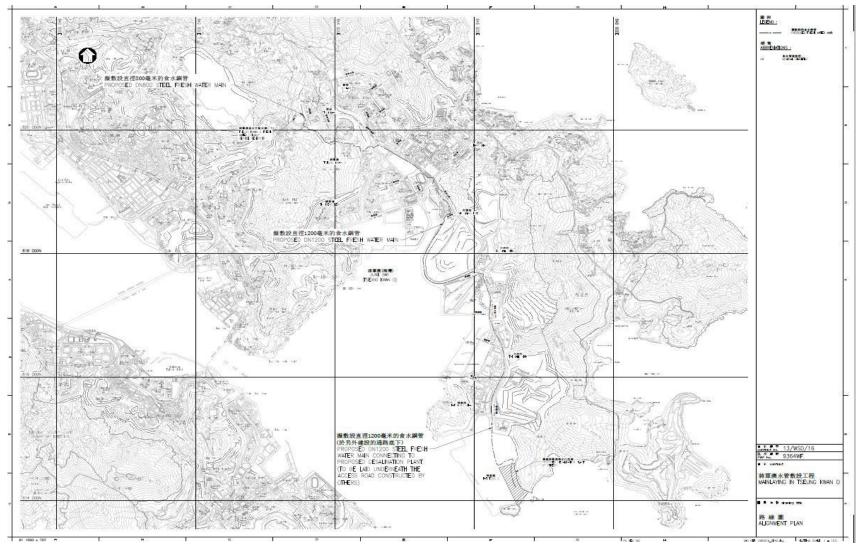


Figure B1. Overview of Mainlaying in TKO





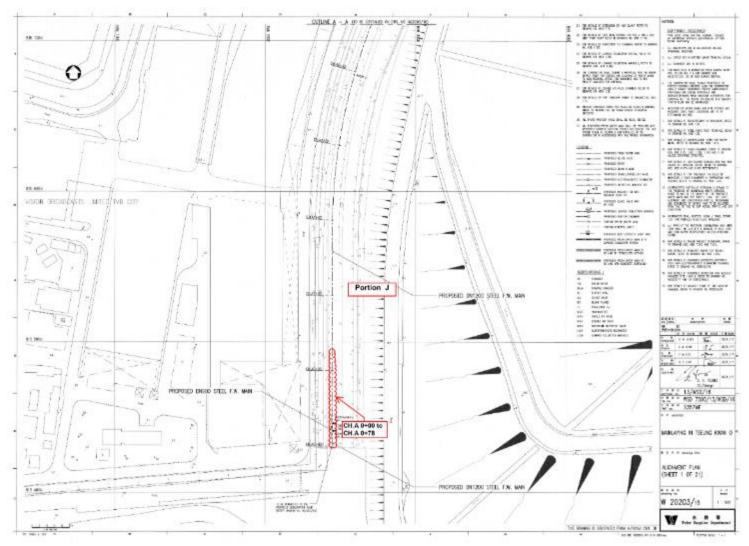


Figure B2. Location Plan for Portion J - CH.A 0+00 to CH.A 0+78





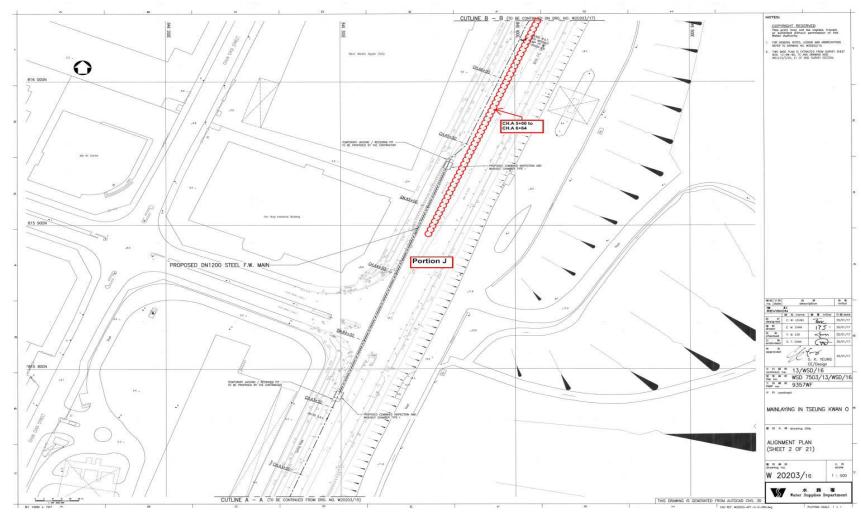


Figure B3. Location Plan for Portion J - CH.A 5+00 to CH.A 6+64





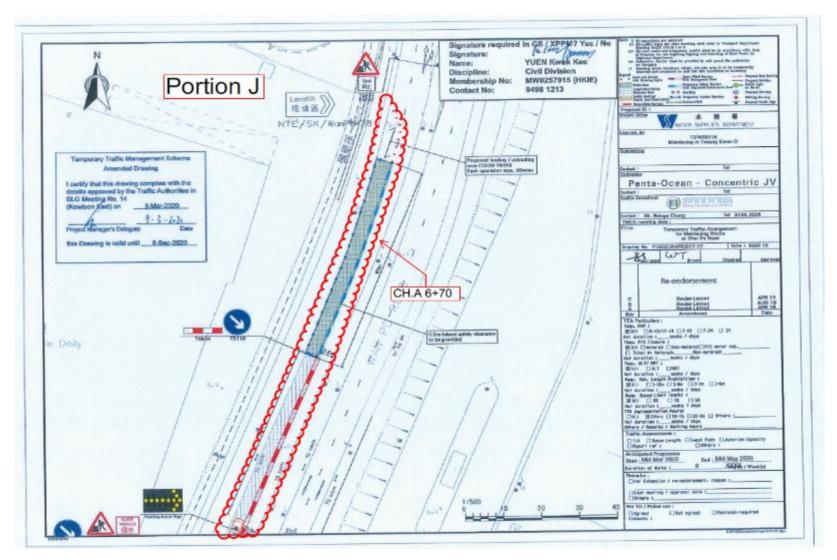


Figure B4. Location Plan for Portion J - CH.A 6+70





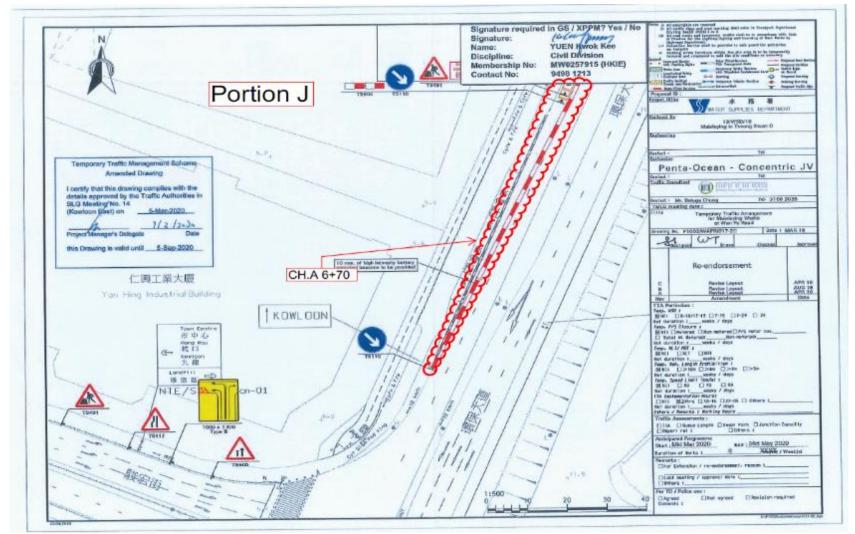


Figure B5. Location Plan for Portion J - CH.A 6+70





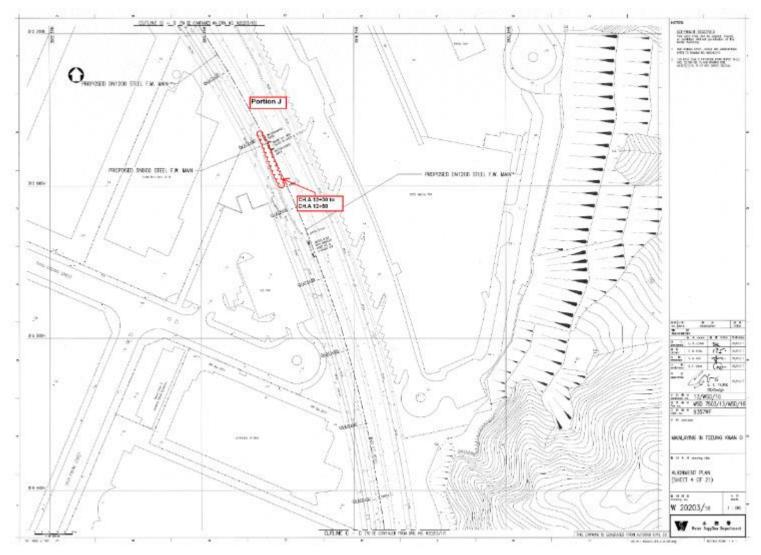


Figure B6. Location Plan for Portion J - CH.A 12+30 to CH.A 12+50

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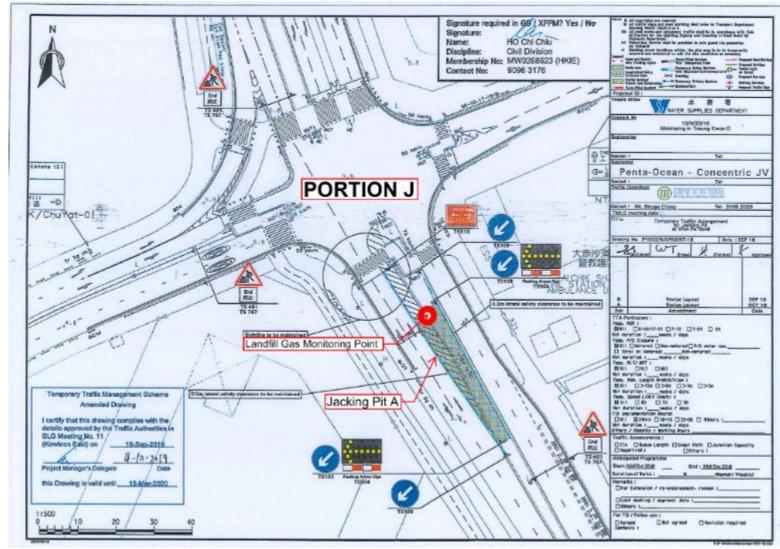


Figure B7. Location Plan for Portion J – CH. A13+50 to CH.A 14+00 (Pit A)





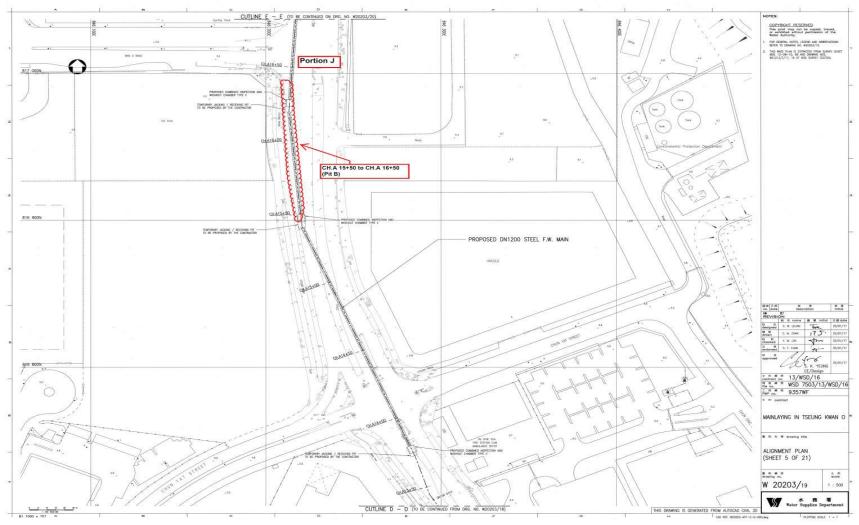


Figure B8. Location Plan for Portion J – CH. A15+50 to CH.A 16+50 (Pit B)





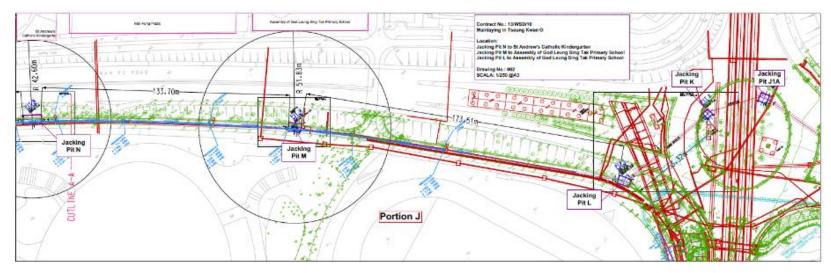


Figure B8a. Location Plan for Portion J – Pit L-M-N, K, J1A

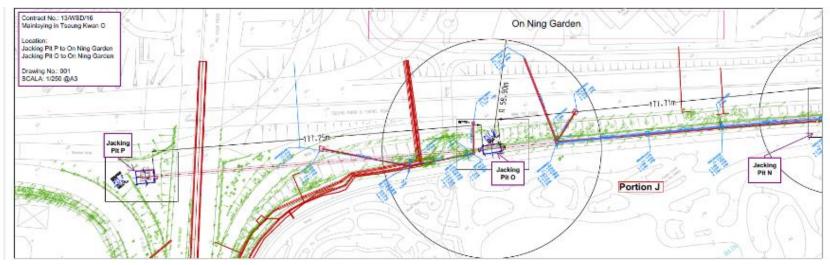


Figure B8b. Location Plan for Portion $J-Pit\ N-O-P$





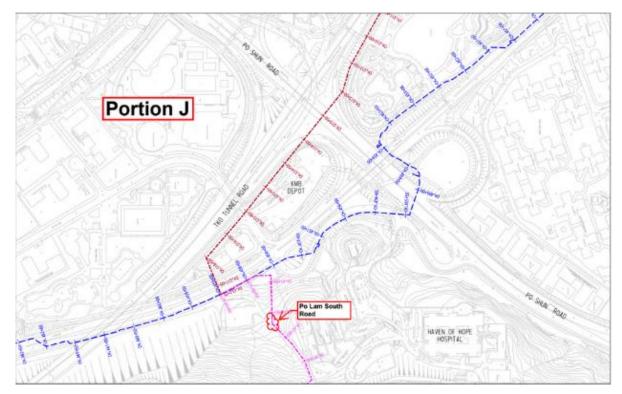


Figure B9a. Location Plan for Mau Wu Tsai 1

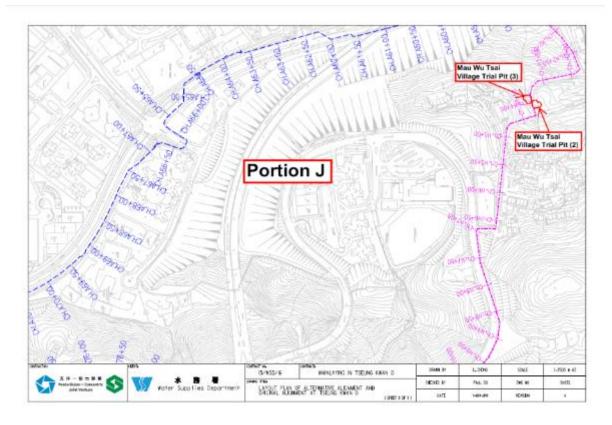


Figure B9b. Location Plan for Mau Wu Tsai 2 & 3





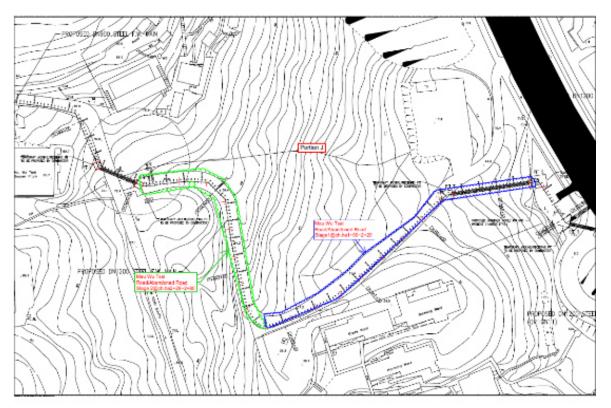


Figure B9c. Abandoned Mau Wu Tsai Road

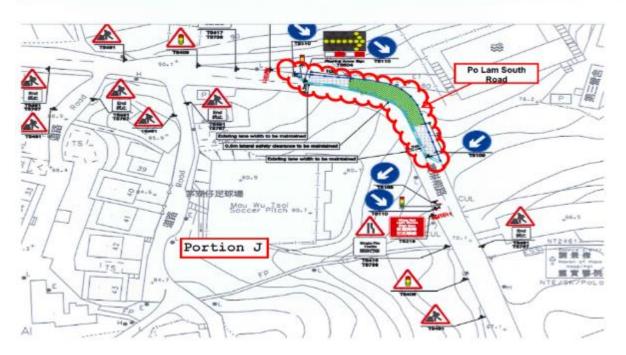


Figure B10. Monitoring Location - Po Lam South Road





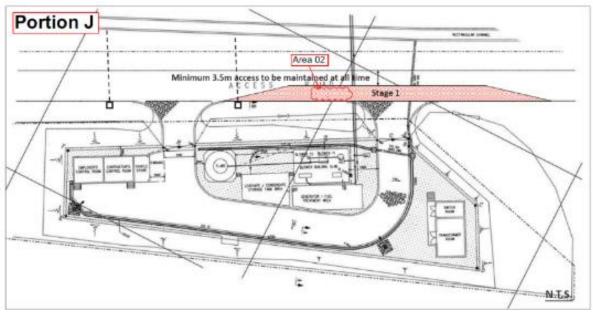


Figure B11. Monitoring Location – Area A02

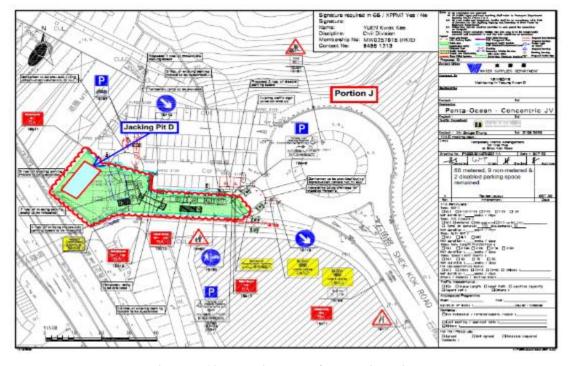


Figure B12. Location Plan for Jacking Pit D





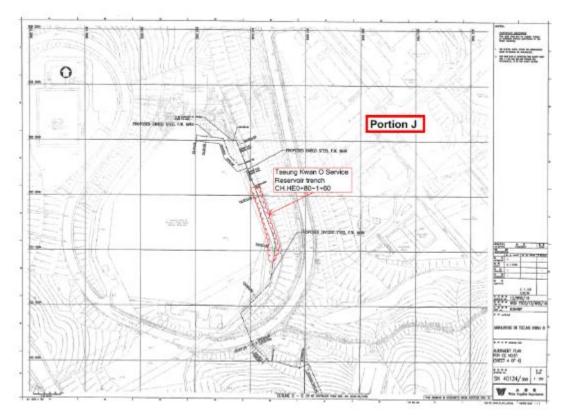


Figure B13. Location Plan for CH.HE0+80-1+60

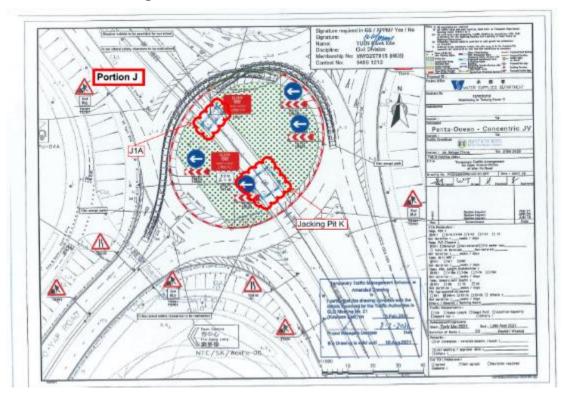


Figure B14. Location Plan for Pit K





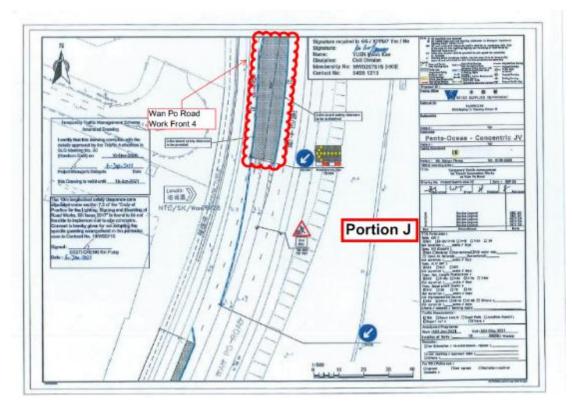


Figure B15. Location Plan for Wan Po Road 4

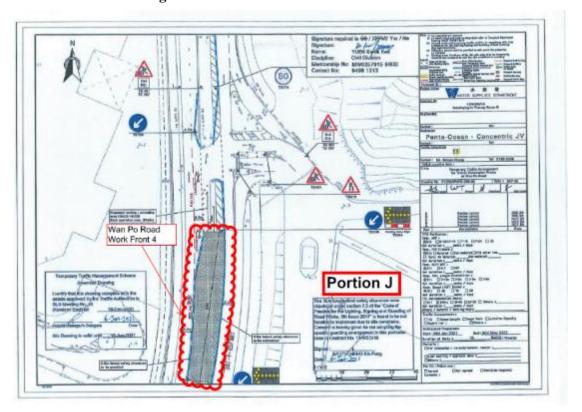


Figure B16. Location Plan for Wan Po Road 4





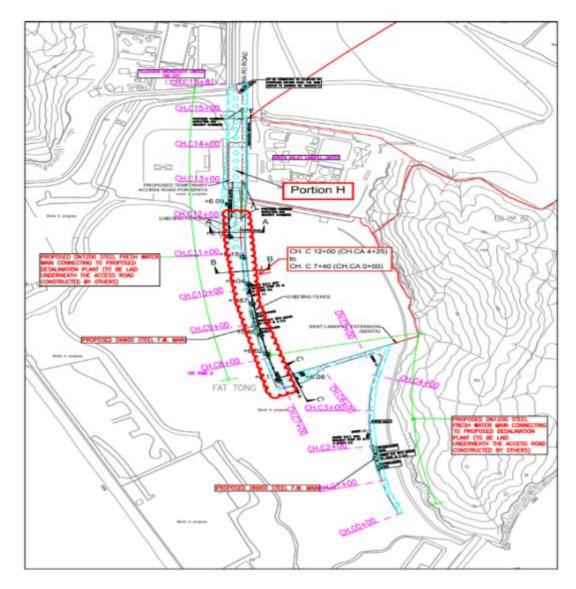


Figure B17. Location Plan for Portion H– CH.C 7+40~CH.C 12+00 (CH.CA 0+00 ~ CH.CA4+25)





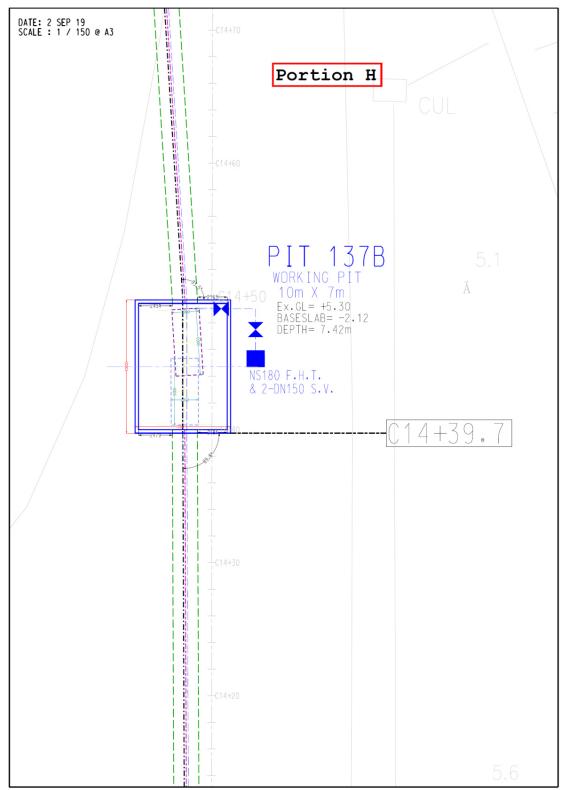


Figure B18. Location Plan for Portion H- Pit 137B





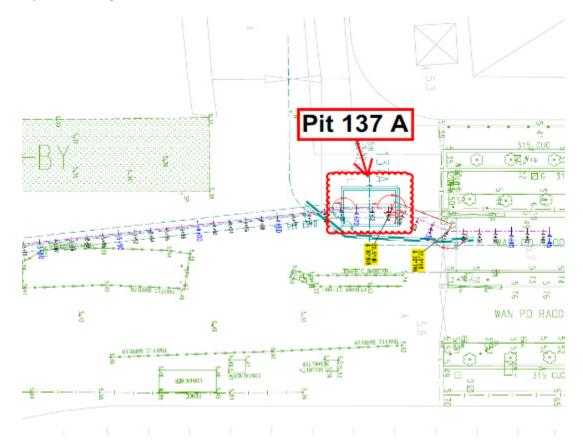


Figure B19. Location Plan for Portion H- Pit 137A

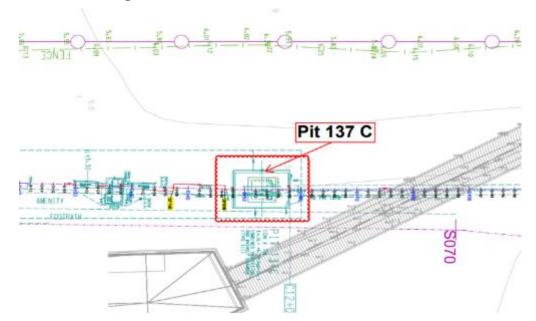


Figure B20. Location Plan for Portion H- Pit 137C





Appendix C

Summary of Implementation Status of Environmental Mitigation





EIA	Recommended Environmental Protection Measures/	Objectives of the recommended measures &	Implementation	Imp	lementa Stage	ation	Implementation	Relevant Legislation &
Reference	Mitigation Measures	main concerns to address	Agent	D	C	О	status	Guidelines
Air Quality								
S4.8.1	Impervious dust screen or sheeting will be provided to enclose scaffolding from the ground floor level of building for construction of superstructure of the new buildings.	Land site/ During Construction	Contractor(s)		✓		N/A	Air Pollution Control (Construction Dust)
S4.8.1	Impervious sheet will be provided for skip hoist for material transport.	Land site/ During Construction, particularly dry season	Contractor(s)		*		N/A	
S4.8.1	The area where dusty work takes place should be sprayed with water or a dust suppression chemical immediately prior to, during and immediately after dusty activities as far as practicable.	Land site/ During Construction	Contractor(s)		✓		Implemented	
S4.8.1	All dusty materials should be sprayed with water or a dust suppression chemical immediately prior to any loading, unloading or transfer operation.	Land site/ During Construction	Contractor(s)		*		Implemented	
S4.8.1	Dropping heights for excavated materials should be controlled to a practical height to minimize the fugitive dust arising from unloading.	Land site/ During Construction	Contractor(s)		✓		Implemented	
S4.8.1	During transportation by truck, materials should not be loaded to a level higher than the side and tail boards and should be dampened or covered before transport.	Land site/ During Construction	Contractor(s)		√		Implemented	
S4.8.1	Wheel washing device should be provided at the exits of the work sites. Immediately before leaving a construction site, every vehicle shall be washed to remove any dusty material from its body and wheels as far as practicable.	Land site/ During Construction	Contractor(s)		√		Implemented	
S4.8.1	Road sections between vehicle-wash areas and vehicular entrance will be paved.	Land site/ During Construction	Contractor(s)		1		N/A	
S4.8.1	Hoarding of not less than 2.4m high from ground level will be provided along the length of the Project Site boundary.	Land site/ During construction	Contractor(s)	✓	✓		Implemented	





EIA	Recommended Environmental Protection Measures/	Objectives of the recommended measures &	Implementation	Imp	lementa Stage	ation	Implementation	Relevant Legislation &	
Reference	Mitigation Measures	main concerns to address	Agent	D	C	О	status	Guidelines	
S4.8.1	Haul roads will be kept clear of dusty materials and will be sprayed with water so as to maintain the entire road surface wet at all times.	Land site/ During construction	Contractor(s)		√		Implemented		
S4.8.1	Temporary stockpiles of dusty materials will be either covered entirely by impervious sheets or sprayed with water to maintain the entire surface wet all the time.	Land site/ During construction	Contractor(s)		√		Implemented after observation	Air Pollution Control (Construction Dust)	
S4.8.1	Stockpiles of more than 20 bags of cement, dry pulverised fuel ash and dusty construction materials will be covered entirely by impervious sheeting sheltered on top and 3-sides.	Land site/ During construction	Contractor(s)		√		Implemented		
S4.8.1	All exposed areas will be kept wet always to minimize dust emission.	Land site/ During construction	Contractor(s)		√		Implemented		
S4.8.1	Ultra-low-Sulphur diesel (ULSD) will be used for all construction plant on-site, as defined as diesel fuel containing not more than 0.005% Sulphur by weight) as stipulated in Environment, Transport and Works Bureau Technical Circular (ETWB-TC(W)) No 19/2005 on Environmental Management on Construction Sites.	Land site/ During construction/ During Operation	Contractor(s)		✓	✓	Implemented	Environment, Transport and Works Bureau Technical Circular (ETWB- TC(W)) No 19/2005 on Environmental Management on Construction Sites	
S4.8.1	The engine of the construction equipment during idling will be switched off.	Land site/ During construction	Contractor(s)		1		Implemented	-	
S4.8.1	Concrete batching plant will be required on site. control measures recommended in the Guidance Note on a Best Practicable Means for Cement Works (Concrete Batching Plant) (BPM 3/2 (93)) will be implemented. The control measures recommended in the Guidance Note on a Best Practicable Means for Cement Works (Concrete Batching Plant) (BPM 3/2 (93)) will be implemented.	Land site/ During construction	Contractor(s)		•		N/A	Guidance Note on a Best	
S4.8.1	Regular maintenance of construction equipment deployed on-site will be conducted to prevent black smoke emission.	Land site/ During construction	Contractor(s)		V		Implemented	-	





EIA Reference	Recommended Environmental Protection Measures/ Mitigation Measures	Objectives of the recommended measures & main concerns to address	Implementation Agent	Implementation Stage D C O		O	Implementation status	Relevant Legislation & Guidelines
S4.10	To ensure proper implementation of the recommended dust mitigation measures and good construction site practices during the construction phase, environmental site audits on weekly basis is recommended throughout the construction period.	construction	Contractor(s)/ (ET & IEC)		✓		Implemented	-

Note: D – Design stage C – Construction O – Operation





EIA	Recommended Environmental Protection Measures/	Objectives of the recommended measures &	Implementation	Imp	lementa Stage	tion	Implementation	Relevant Legislation &	
Reference	Mitigation Measures	main concerns to address	Agent	D	C	0	status	Guidelines	
Noise									
S5.7	Only well-maintained plant will be operated on-site and plant will be serviced regularly during the construction phase.	All area/ During construction	Contractor(s)		√		Implemented after observation	A Practical Guide for the Reduction of Noise from Construction Works,	
S5.7	Silencers or mufflers on construction equipment will be utilised and will be properly maintained during the construction phase.	Noise control/ During construction	Contractor(s)		√		N/A		
S5.7	Mobile plant, if any, will be sited as far away from NSRs as possible.	Noise control/ During construction	Contractor(s)		*		Implemented		
S5.7	Machines and plant (such as trucks) that may be in intermittent use will be shut down between work periods or will be throttled down to a minimum.	Noise control/ During construction	Contractor(s)		√		Implemented		
S5.7	Plants known to emit noise strongly in one direction will, wherever possible, be orientated so that the noise is directed away from the nearby NSRs.	Noise control/ During construction	Contractor(s)		√		Implemented		
S5.7	Material stockpiles and other structures will be effectively utilised, wherever practicable, in screening noise from on-site construction activities.	Noise control/ During construction	Contractor(s)		√		N/A		
S5.7	Use of Quite Powered Mechanical Equipment (QPME).	Noise control/ During construction	Contractor(s)		√		Implemented		
S5.7	Movable noise barriers of 3m in height with skid footing should be used and located within a few metres of stationary plant and mobile plant such that the line of sight to the NSR is blocked by the barriers. The length of the barrier should be at least five times greater than its height. The noise barrier material should have a superficial surface density of at least 7 kg m ⁻² and have no openings or gaps.	Noise control/ During construction	Contractor(s)		✓		N/A		
S5.7	The noise insulating sheet should be deployed such that there would be no opening or gaps on the joints.	Noise control/ During construction	Contractor(s)		~		N/A		
S5.7	Construction activities (e.g. excavation/shoring, reinstatement (asphalt), and pipe jacking) will be planned and carried out in sequence, such that items of PME proposed for these activities will not be operated simultaneously.	Noise control/ During construction	Contractor(s)		√		Implemented		





EIA	Recommended Environmental Protection Measures/	Objectives of the recommended measures &	Implementation	Impl	ementa Stage	tion	Implementation	Relevant Legislation &
Reference	Mitigation Measures	main concerns to address	Agent	D	C	О	status	Guidelines
S5.7	PMEs will not be used at the works areas near educational institutions with residual impact (i.e. the "influence area" within a radius of 40m) during school hours in order to reduce impact to the educational institutions.	Noise control / During construction	Contractor(s)		✓		Implemented	-
S5.7	Noise enclosures or acoustic sheds would be used to cover stationary PME such as generators. Portable/Movable noise enclosure made of material with superficial surface density of at least 7 kg m ⁻² may be used for screening the noise from operation of the saw/groover, concrete.	Noise control/ Pre- construction/ During construction	Contractor(s)	•	*		N/A	-
S5.9	Saw cutting pavement, breaking up of pavement, excavation /shoring, pipe laying, backfilling, reinstatement (concrete) and pipe jacking shall be scheduled outside the examination period.	Noise control/ Pre- construction/ During construction	Contractor(s)	✓	✓		Implemented	-
S5.9	In view the duration of noise exceedance at Creative Secondary School, PLK Laws Foundation College, TKO Kei Tak Primary School and School of Continuing and Professional Studies-CUHK is limited to 8 weeks, the construction work in the influence areas near the four schools shall be scheduled during long school holidays (e.g. summer holiday, Easter holiday or Christmas holiday, etc.) as far as practicable. Scheduling the construction work for the four schools.	Noise control/ Pre- construction/ During construction	Contractor(s)	✓	✓		Implemented	-
S5.10	A noise monitoring programme shall be implemented for the construction phase.	During construction phase	ET		√		Implemented	-
S5.10	The effectiveness of on-site control measures could also be evaluated through the regular site audits.	All facilities/ During construction	Contractor(s)/ ET & IEC		1		Implemented	-





EIA	Recommended Environmental Protection Measures/	Objectives of the recommended measures &	Implementation	Imp	lementa Stage	tion	Implementation	Relevant Legislation &
Reference	8	main concerns to address	Agent	D	C	0	status	Guidelines
Water Qual	•							
S6.9	Silt removal facilities such as silt traps or sedimentation facilities will be provided to remove silt particles from runoff to meet the requirements of the TM standard under the WPCO. The design of silt removal facilities will be based on the guidelines provided in ProPECC PN 1/94. All drainage facilities and erosion and sediment control structures will be inspected on a regular basis and maintained to confirm proper and efficient operation at all times and particularly during rainstorms. Deposited silt and grit will be removed regularly.	Land site & drainage/ During construction	Contractor(s)		•		Implemented	ProPECC PN 1/94 TM Standard under the WPCO
S6.9	Earthworks to form the final surfaces will be followed up with surface protection and drainage works to prevent erosion caused by rainstorms.	Land site & drainage/ During construction	Contractor(s)		√		Implemented	-
S6.9	Appropriate surface drainage will be designed and provided where necessary.	Land site & drainage/ During construction	Contractor(s)		✓		Implemented	-
S6.9	The precautions to be taken at any time of year when rainstorms are likely together with the actions to be taken when a rainstorm is imminent or forecasted and actions to be taken during or after rainstorms are summarised in Appendix A2 of ProPECC PN 1/94.	Land site & drainage/ During construction	Contractor(s)		✓		Implemented	ProPECC PN 1/94
S6.9	Oil interceptors will be provided in the drainage system where necessary and regularly emptied to prevent the release of oil and grease into the storm water drainage system after accidental spillages.	Land site & drainage/ During construction	Contractor(s)		1		N/A	-
S6.9	Temporary and permanent drainage pipes and culverts provided to facilitate runoff discharge, if any, will be adequately designed for the controlled release of storm flows.	Land site & drainage/ During construction	Contractor(s)		✓		N/A	-
S6.9	The temporary diverted drainage, if any, will be reinstated to the original condition when the construction work has finished or when the temporary diversion is no longer required.	Land site & drainage/ During construction	Contractor(s)		✓		N/A	-





EIA Reference	Recommended Environmental Protection Measures/ Mitigation Measures	Objectives of the recommended measures &	Implementation Agent	Impl	ementa Stage	tion	Implementation status	Relevant Legislation & Guidelines
Reference	Witugation Wieasures	main concerns to address	Agent	D	C	О	Status	Guidennes
S6.9	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.	Land site & drainage/ During construction	Contractor(s)		✓		Implemented	-
S6.9 and S6.12	The sterilization water should be dechlorinated with total residual chlorine (TRC) level below 1 mg/L before discharge to public sewer. In situ testing of TRC should also be conducted for the discharge of chlorinated water for pipeline disinfection to ensure sufficient dechlorination before discharge to public sewer.	Sterilization of water mains prior to commissioning	Contractor(s)		√	✓	N/A	Technical Memorandum for Effluents Discharged into Drainage and Sewerage Systems Inland and Coastal Waters
S6.9	The cleaning and flushing water should also be treated and desilted to the relevant discharge requirement stipulated in TM-DSS before discharging.	Sterilization of water mains prior to commissioning	Contractor(s)		√	√	N/A	
S6.9	Site drainage should be well maintained, and good construction practices should be observed to ensure that oil, fuels, solvents and other chemicals are managed, stored and handled properly and do not enter the nearby water streams.	Land site & drainage/ During construction/ During operation	Contractor(s)		✓	✓	Implemented after reminder	-
S6.12	Regular site inspections will be carried out in order to confirm that regulatory requirements are being met and that contractors are implementing the standard site practice and mitigation measures as proposed to reduce potential impacts to water quality.	During construction	Contractor(s)/ ET & IEC		✓		Implemented	-





EIA	Recommended Environmental Protection Measures/	Objectives of the recommended measures &	Implementation	Imp	lementa Stage	tion	Implementation	Relevant Legislation &
Reference	Mitigation Measures	main concerns to address	Agent	D	C	0	Status	Guidelines
Waste Man			_					
S8.5	Nomination of approved personnel to be responsible for standard site practices, arrangements for collection and effective disposal to an appropriate facility of all wastes generated at the site.	Contract mobilization/ During construction	Contractor(s)		✓		Implemented	-
S8.5	Training of site personnel in proper waste management and chemical handling procedures. Training will be provided to workers on the concepts of site cleanliness and appropriate waste management procedures, including waste reduction, reuse and recycling at the beginning of the construction works.	Contract mobilization/ During construction	Contractor(s)		✓		Implemented	-
S8.5	Provision of sufficient waste disposal points and regular collection for disposal.	All area/ During construction/ During operation	Contractor(s)		√	√	Implemented	DEVB TC(W) No. 8/2010, Enhanced Specification for Site Cleanliness and Tidiness.
S8.5	Appropriate measures to reduce windblown litter and dust transportation of waste by either covering trucks or by transporting wastes in enclosed containers.	All area/ During construction	Contractor(s)		✓		Implemented	DEVB TC(W) No. 8/2010, Enhanced Specification for Site Cleanliness and Tidiness.
S8.5	A waste management plan (WMP) as stated in the "ETWB TC(W) No. 19/2005, Environmental Management on Construction Sites" for the amount of waste generated, recycled and disposed of (including the disposal sites) will be established and implemented during the construction phase as part of the Environmental Management Plan (EMP). The Contractor will be required to prepare the EMP and submits it to the Architect/ Engineer under the Contract for approval prior to implementation.	All area/ During construction	Contractor(s)		*		Implemented	ETWB TC(W) No. 19/2005, Environmental Management on Construction Sites
S8.5	Separation of chemical wastes for special handling and appropriate treatment at the Chemical Waste Treatment Centre at Tsing Yi.	All area/ During construction	Contractor(s)		√		N/A.	Chapters 2 & 3 Code of Practice on the Packaging, Labelling & Storage of Chemical Wastes published under the Waste Disposal Ordinance (Cap 354), Section 35





EIA	Recommended Environmental Protection Measures/	Objectives of the recommended measures &	Implementation	Imp	olementa Stage	tion	Implementation	Relevant Legislation &
Reference	Mitigation Measures	main concerns to address	Agent	D	C	О	Status	Guidelines
S8.5	Regular cleaning and maintenance programme for drainage systems, sumps and oil interceptors.	Land site/ During construction	Contractor(s)		✓		Implemented	Waste Disposal Ordinance (Cap 354)
S8.5	A recording system for the amount of wastes generated/ recycled and disposal sites. The trip- ticket system will be included as one of the contractual requirements and implemented by the contractor(s).	Land site/ During construction	Contractor(s)		✓		Implemented	DEVB TC(W) No. 6/2010, Trip Ticket System for Disposal of Construction & Demolition Materials
S8.5	Segregation and storage of different types of waste in different containers, skips or stockpiles to enhance reuse or recycling of material and their proper disposal.	Land site/ During construction/ During operation	Contractor(s)		*		Implemented	WBTC 32/92, The Use of Tropical Hard Wood on Construction Site
S8.5	Encourage collection of aluminium cans and wastepaper by individual collectors during construction with separate labelled bins provided to segregate these wastes from other general refuse by the workforce.	Land site/ During construction	Contractor(s)		✓		Implemented	ETWB TCW No. 33/2002, Management of Construction and Demolition Material Including Rock
S8.5	Any unused chemicals and those with remaining functional capacity will be recycled as far as possible.	Land site/ During construction	Contractor(s)		1		N/A	-
S8.5	Use of reusable non-timber formwork to reduce the amount of C&D materials.	All areas/ During construction	Contractor(s)		✓		N/A	WBTC 32/92, The Use of Tropical Hard Wood on Construction Site
S8.5	Prior to disposal of construction waste, wood, steel and other metals will be separated to the extent practical, for re-use and/or recycling to reduce the quantity of waste to be disposed of to landfill.	All areas/ During construction	Contractor(s)		1		Implemented	DEVB TC(W) No. 6/2010, Trip Ticket System for Disposal of Construction & Demolition Materials
S8.5	Proper storage and site practices to reduce the potential for damage or contamination of construction materials.	All areas/ During construction	Contractor(s)		✓		Implemented	-
S8.5	Plan and stock construction materials carefully to reduce amount of waste generated and avoid unnecessary generation of waste.	All areas/ During construction	Contractor(s)		✓		Implemented	-
S8.5	The management of dredged/ excavated sediment management requirement from ETWB TC(W) No. 34/2002 will be incorporated in the Specification of the Contract Documents.	Marine works/ During construction	WSD/ Contractor(s)		V		Implemented	ETWB TC(W) No. 34/2002 and Dumping at Sea Ordinance (DASO)





EIA	Recommended Environmental Protection Measures/	Objectives of the recommended measures &	Implementation	Imp	lementa Stage	ation	Implementation	Relevant Legislation &
Reference	Mitigation Measures	main concerns to address	Agent	D	C	0	Status	Guidelines
S8.5	The contractor will open a billing account with EPD in accordance with the Waste Disposal (Charges for Disposal of Construction Waste) Regulation for the payment of disposal charges.	Contract mobilisation/ During construction	Contractor(s)		✓		Implemented	Cap 354N Waste Disposal (Charges for Disposal of Construction Waste) Regulation
S8.5	A trip-ticket system will be established in accordance with DEVB TC(W) No. 6/2010 to monitor the reuse of surplus excavated materials off-site and disposal of construction waste and general refuse at transfer facilities/ landfills, and to control fly-tipping.	Contract mobilisation/ During construction	Contractor(s)		*		Implemented	DEVB TC(W) No. 6/2010, Trip Ticket System for Disposal of Construction & Demolition Materials
S8.5	The project proponent will also conduct regular inspection of the waste management measures implemented on site as described in the Waste Management Plan.	All area/ During construction	Contractor(s)/ ET & IEC		√		Implemented	ETWB TC(W) No. 19/2005, Environmental Management on Construction Sites
S8.5	A recording system (similar to summary table as shown in Annex 5 and Annex 6 of Appendix G of ETWB TC(W) No. 19/2005) for the amount of waste generated, recycled and disposed of (including the disposal sites) will be established during the construction phase.	All area/ During construction	Contractor(s)		✓		Implemented	Annex 5 and Annex 6 of Appendix G of ETWB TC(W) No. 19/2005
S8.5	Inert C&D materials (public fill) will be reused within the Project as far as practicable.	All area/ During construction	Contractor(s)		√		Implemented	-
S8.5	Public fill and construction waste shall be segregated and stored in different containers or skips to facilitate reuse or recycling of materials and their proper disposal.	All area/ During construction	Contractor(s)		*		Implemented	-
S8.5	Specific areas of the work site will be designated for such segregation and storage if immediate use is not practicable.	All area/ During construction	Contractor(s)		√		Implemented	-
S8.5	To reduce the potential dust and water quality impacts of site formation works, C&D materials will be wetted as quickly as possible to the extent practice after filling.	All area/ During construction	Contractor(s)		√		Implemented	Air Pollution Control (Construction Dust) Regulation (Cap 311R); WPCO (Cap 358)
S8.5	Open stockpiles of excavated/ fill materials or construction wastes on-site should be covered with tarpaulin or similar fabric.	Land site/ During Construction, particularly dry season	Contractor(s)		√		Implemented	Air Pollution Control (Construction Dust) Regulation (Cap 311R)





EIA	Recommended Environmental Protection Measures/	Objectives of the recommended measures &	Implementation	Imp	olementa Stage	ation	Implementation	Relevant Legislation &
Reference	Mitigation Measures	main concerns to address	Agent	D	C	0	Status	Guidelines
S8.5	Chemical waste container shall be suitable for the substance they are holding, resistant to corrosion, maintained in a good condition, and securely closed.	All area/ During construction/ During operation	Contractor(s)/ WSD		√	✓	Implemented after observation	Waste Disposal (Chemical Waste) (General) Regulation; Code of Practice on the Packaging,
S8.5	Chemical waste container shall have a capacity of less than 450 L unless the specifications have been approved by the EPD.	All area/ During construction/ During operation	Contractor(s)/ WSD		✓	√	Implemented	Handling and Storage of Chemical Wastes
S8.5	A label in English and Chinese shall be displayed on the chemical container in accordance with instructions prescribed in Schedule 2 of the Regulations.	All area/ During construction/ During operation	Contractor(s)/ WSD		✓	√	Implemented	
S8.5	Storage areas for chemical waste shall be enclosed on at least 3 sides.	All area/ During construction/ During operation	Contractor(s)/ WSD		✓	✓	Implemented	
S8.5	Storage areas for chemical waste shall 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.	All area/ During construction/ During operation	Contractor(s)/ WSD		✓	✓	Implemented	
S8.5	Storage areas for chemical waste shall have adequate ventilation.	All area/ During construction/ During operation	Contractor(s)/ WSD		✓	✓	Implemented	
S8.5	Storage areas for chemical waste shall be covered to prevent rainfall entering (water collected within the bund must be tested and disposed of as chemical waste, if necessary).	All area/ During construction/ During operation	Contractor(s)/ WSD		√	*	Implemented	
S8.5	Storage areas for chemical waste shall be arranged so that incompatible materials are appropriately separated.	All area/ During construction/ During operation	Contractor(s)/ WSD		√	√	Implemented	
S8.5	General refuse will be stored in enclosed bins or compaction units separately from construction and chemical wastes.	All area/ During construction/ During operation	Contractor(s)/ WSD		√	1	Implemented after reminder	
S8.5	Adequate number of waste containers will be provided to avoid over-spillage of waste.	All area/ During construction/ During operation	Contractor(s)/ WSD		√	✓	Implemented	DEVB TC(W) No. 8/2010 Enhanced Specification for Site Cleanliness and Tidiness.





EIA	Recommended Environmental Protection Measures/	Objectives of the recommended measures &	Implementation	Imp	lementa Stage	ation	Implementation	Relevant Legislation &
Reference	Mitigation Measures	main concerns to address	Agent	D	C	О	Status	Guidelines
S8.5	A reputable waste collector will be employed by the Contractor to remove general refuse from the site, separately from construction and chemical wastes, on a daily basis to minimise odour, pest and litter impacts.	All area/ During construction/ During operation	Contractor(s)/ WSD		✓	✓	Implemented	-
S8.5	Recycling bins will be provided at strategic locations within the Site to facilitate recovery of recyclable materials (including aluminium can, waste paper, glass bottles and plastic bottles) from the Site. Materials recovered will be sold for recycling.	All area/ During construction/ During operation	Contractor(s)/ WSD		~	✓	Implemented	-
S8.5	To avoid any odour and litter impact, accurate number of portable toilets will be provided for workers on-site.	All area/ During construction	Contractor(s)		√		Implemented	-
S8.5	The burning of refuse on construction sites is prohibited by law.	All area/ During construction	Contractor(s)		✓		Implemented	Air Pollution Control Ordinance (Cap 311)
S8.7	To facilitate monitoring and control over the contractors' performance on waste management, a waste inspection and audit programme will be implemented throughout the construction phase.	All facilities/ During construction	ET/ IEC		✓		Implemented	-





EIA	Recommended Environmental Protection Measures/	Objectives of the recommended measures &	Implementation	Imp	lementa Stage		Implementation	Relevant Legislation &
Reference	Mitigation Measures	main concerns to address	Agent	D	C	О	Status	Guidelines
Ecology								
S9.7	Erect fences along the boundary of the works area before the commencement of works to prevent vehicle movements and encroachment of personnel onto adjacent areas.	All area/ During construction	Contractor(s)		✓		Implemented	-
S9.7	Regularly check the work site boundaries to ensure that they are not breached and that damage does not occur to surrounding areas.	All area/ During construction	Contractor(s)/ Environmental Team (ET)		✓		Implemented	-
S9.7	Avoid any damage and disturbance, particularly those caused by filling and illegal dumping, to the surrounding habitats through proper management of waste disposal.	All area/ During construction	Contractor(s)		√		Implemented	-
S9.7	Reinstate temporarily affected areas, particularly the habitats of plantation and shrubland-grassland immediately after completion of construction works, through on-site tree/shrub planting. The tree/shrub species will be chosen with reference to those in the surrounding area.	All area/ During construction	Contractor(s)		√		N/A	-





EIA Reference	Recommended Environmental Protection Measures/ Mitigation Measures	Objectives of the recommended measures &	Implementation Agent	Im	plement Stage		Implementation Status	Relevant Legislation & Guidelines
	C	main concerns to address		D	C	0		
Landscap	e & Visual							
S11.10 & 11.11	The construction area and area allowed for temporary structures, such as the contractor's office, will be minimized to a practical minimum. (MM1)	All area/ Detailed design/ During construction/ During operation	WSD/ Contractor(s)	✓	✓	✓	Implemented	-
S11.10	At the detailed design stage, the design team will seek to	All area/ Detailed design/	WSD/	✓	✓	✓	Implemented	-
& 11.11	minimize the landscape footprint of the Project and above ground facilities, while satisfying all other requirements. (MM2)	During construction/ During operation	Contractor(s)					
S11.10 & 11.11	Design principles will be adopted to take into account the surrounding area, particularly Clear Water Bay Country Park behind and the nearby waterfront, with due consideration given to: - roadside planting; - aesthetic treatment of all structures; - vertical greening; - screen planting along application site; and - landscape enhancement with amenity planting where practical including planting along the edge (site boundary) fence with native shrubs where feasible to reduce their visual impact and blend them into the surrounding landscape.(MM3)	All area/ Detailed design/ During construction/ During operation	WSD/ Contractor(s)	V	*	·	Implemented	-
S11.10 & 11.11	All trees within the Project Site or the potential slope mitigation works area will be carefully protected during construction according to DEVB TCW No. 10/2013 – Tree Preservation (MM4)	All area/ Detailed design/ During construction/ During operation	WSD/ Contractor(s)	✓	✓	✓	Implemented after reminder	ETWB TCW No. 3/2006 - Tree Preservation.
\$11.10 & 11.11	No tree within the Country Park will be felled. Trees within the Site unavoidably affected by the works will be transplanted where necessary and practical. For trees that need to be felled, compensatory planting will be provided to the satisfaction of relevant Government departments. A compensatory tree planting proposal including locations of tree compensation will be submitted to seek relevant government department's approval, in accordance with DEVB TC(W) No. 10/2013. (MM5)	All area/ Detailed design/ During construction/ During operation	WSD/ Contractor(s)	•	•	•	N/A	DEVB TC(W) No. 10/2013





EIA Reference	Recommended Environmental Protection Measures/ Mitigation Measures	Objectives of the recommended measures &	Implementation Agent	Im	plement Stage		Implementation Status	Relevant Legislation & Guidelines
	C C	main concerns to address	1.90.00	D	C	0	500000	Guidelines
Landfill Ga								
S12.7	During all works, safety procedures should be implemented to minimise the risks of fires and explosions, asphyxiation of workers and toxicity effects resulting from contact with contaminated soil and groundwater.	All area/ Detailed design/ During construction/ During operation	Contractor(s)	✓	✓	✓	Implemented	-
S12.7	During trenching and excavation as well as creation of confined spaces at near to or below ground level, precautions should be clearly laid down and rigidly Gas detection equipment and appropriate breathing apparatus should be available and used when entering confined spaces or trenches deeper than 1 metre.	All area/ Detailed design/ During construction/ During operation	Contractor(s)	•	✓	✓	Implemented	
S12.7	The Contractor should make the workers are aware of potential hazards of working in confined spaces (any chamber, manhole or culvert which is large enough to permit access to personnel). Such work in confined spaces is controlled by the Factories and Industrial Undertakings (Confined Spaces) Regulations of the Factories and Industrial Undertakings Ordinance. Following the Safety Guide to Working in Confined Spaces ensures compliance with the above regulations.	All area/ Detailed design/ During construction/ During operation	Contractor(s)	√	√	✓	Implemented	
S12.7	Safety officers, specifically trained with regard to landfill gas and leachate related hazards and the appropriate actions to take in adverse circumstances, should be present on the site throughout the works, in particular, when works are undertaken below grade.	All area/ Detailed design/ During construction/ During operation	Contractor(s)	✓	*	√	Implemented	
S12.7	All personnel who work on site and all visitors to the site should be made aware of the possibility of ignition of gas in the vicinity of the works, the possible presence of contaminated water and the need to avoid physical contact with it.	All area/ Detailed design/ During construction/ During operation	Contractor(s)	*	✓	√	Implemented	
S12.7	Monitoring for landfill gas should be undertaken in all excavations, manholes, chambers (particularly during pipe jacking) and any confined spaces through the use of an intrinsically safe portable instrument, appropriately calibrated and capable of measuring the concentrations	All area/ Detailed design/ During construction/ During operation	Contractor(s)	✓	✓	√	Implemented	





	of methane. carbon dioxide and oxygen.						
S12.7	Monitoring frequency and areas to be monitored should be specified prior to commencement of groundwork, either by the Safety Officer, or by an appropriately qualified person. All measurements should be recorded and documented.	All area/ Detailed design/ During construction/ During operation	Contractor(s)	✓	✓	√	Implemented
S12.7	Proceed drilling with adequate care and precautions against the potential hazards which may be encountered.	All area/ Detailed design/ During construction/ During operation	Contractor(s)	1	√	✓	Implemented
S12.7	Prior to the commencement of the site works, the drilling contractor should devise a 'method-of- working' statement covering all normal and emergency procedures (including but not limited to number of operatives, experience and special skills of operatives, normal method of operations, emergency procedures, supervisors' responsibilities, storage and use of safety equipment, safety procedures and signs, barriers and guarding). The site supervisor and all operatives must be familiar with this statement.	All area/ During construction/ During operation	Contractor(s)	•	•	•	Implemented
S12.7	Where below ground service entries are necessary to the Incoming Switchgear Room, 132 kV Substation and Chlorine Store (I) and (II), the entry point should be sealed to prevent gas entry. In addition, any below grade cable trenches entering the Incoming Switchgear Room and 132 kV Substation can become the pathway for landfill gas and hence grilled metal covers should be used.	All area/ Detailed design/ During construction/ During operation	Contractor(s)	✓	√	√	N/A
S12.7	It is recommended regular landfill gas monitoring should be carried out at the Incoming Switchgear Room, 132 kV Substation and Chlorine Store (I) and (II). The monitoring frequency will be monthly for the first year of operation. If the monitoring results show no sign of landfill gas migration, reduce the monitoring frequency to once every six months.	All area/ Detailed design/ During construction/ During operation	Contractor(s)	√	1	√	N/A
S12.7	The manholes and utility pits within the Project Site and along the fresh water mains. Each manhole/ utility pit should be monitored with two measurements (at mid depth and base). Each measurement should be monitored for a minimum of 10 minutes. A steady reading and peak reading should be recorded at each manhole/ utility pit	All area/ Detailed design/ During construction/ During operation	Contractor(s)	~	√	√	Implemented

Contract No. 13/WSD/16 Mainlaying in Tseung Kwan O Monthly EM&A Report





	and for each measurement. The need for venting the manhole/ utility pit and further monitoring will be reviewed after the initial monitoring.						
S12.7	All construction, operation and maintenance personnel working on-site as well as visitors should be made aware of the hazards of landfill gas and its possible presence on-site. This should be achieved through a combination of posting warning signs in prominent places and also by access to detailed information on landfill gas hazards and the designs and procedural means by which these hazards are being minimized on-site.	•	Contractor(s)	√	✓	✓	Implemented





Appendix D

Impact Monitoring Schedule of the Reporting Month

Contract No. 13/WSD/16 Mainlaying in Tseung Kwon O Environmental Monitoring Schedule (January 2023)

Sun	Mon	Tue	Wed	Thu	Fri	Sat
1	2	3	4	Impact Noise Monitoring	6	7
8	9	10	Impact Noise Monitoring	12	13	14
15	16	Impact Noise Monitoring	18	19	20	21
22	23	24	25	Impact Noise Monitoring	27	28
29	30	Impact Noise Monitoring				





Appendix E

Noise Monitoring Equipment Calibration Certificate

Certificate of Calibration

for

Description:

Sound Level Meter

Manufacturer:

SVANTEK

Type No.:

971 (Serial No.: 96062)

Microphone:

ACO 7052 E (Serial No.: 79778)

Preamplifier:

SVANTEK SV 18 (Serial No.:97276)

Submitted by:

Customer:

Acuity Sustainability Consulting Limited

Address:

Unit E, 12/F., Ford Glory Plaza,

Nos. 37-39 Wing Hong Street,

Cheung Sha Wan, Kowloon, Hong Kong

Upon receipt for calibration, the instrument was found to be:

Within (31.5 Hz to 4k Hz)

☐ Outside

the allowable tolerance.

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

- The Government of The Hong Kong Special Administrative Region Standard & Calibration Laboratory

Date of receipt: 21 June 2022

Date of calibration: 27 June 2022

Date of NEXT calibration: 26 June 2023

Calibrated by:

Calibration Technician

Certified by:

Mr. Tang Cheuk Hang Quality Manager

Date of issue: 27 June 2022

Certificate No.: APJ22-029-CC002

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Page 1 of 4

Acoustics and Air Testing Laboratory Co. Ltd. 聲學及空氣測試實驗室有限公司

Calibration Precaution:

- The unit-under-test (UUT) was allowed to stabilize in the laboratory for over 24 hours, and switched on to warm up for over 10 minutes before the commencement of the test.
- The results presented are the mean of 3 measurements at each calibration point.

1. Calibration Conditions:

Air Temperature:

24.2 °C

Air Pressure:

1004 hPa

Relative Humidity:

60.8 %

2. Calibration Equipment:

Type

Serial No.

Calibration Report Number

Traceable to

Multifunction Calibrator

B&K 4226

2288467

AV200041

HOKLAS

3. Calibration Results

Sound Pressure Level

Reference Sound Pressure Level

Setti	Setting of Unit-under-test (UUT)			Appl	ied value	UUT Reading,	IEC 61672 Class 1
Range, dB	Freq. V	Veighting	Time Weighting	Level, dB	Frequency, Hz	dB	Specification, dB
25-124.5	dBA	SPL	Fast	94	1000	94.0	±0.4

Linearity

Setting of Unit-under-test (UUT)			Appl	ied value	UUT Reading,	IEC 61672 Class 1	
Range, dB	Freq. W	eighting	Time Weighting	Level, dB	Frequency, Hz	dB	Specification, dB
				94		94.0	Ref
25-124.5	dBA	SPL	Fast	104	1000	104.0	±0.3
				114		114.0	±0.3

Time Weighting

Setting of Unit-under-test (UUT)			Appl	ied value	UUT Reading,	IEC 61672 Class 1	
Range, dB Freq. Weighting Time Weighting		Level, dB	Frequency, Hz	dB	Specification, dB		
25-124.5	JD 4	CDI	Fast	0.4	1000	94.0	Ref
23-124.3	dBA SPL	Slow	94	1000	94.0	±0.3	

Certificate No.: APJ22-029-CC002

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Homepage: http://www.aa-lab.com

E-mail: inquiry@aa-lab.com



Frequency Response

Linear Response

Sett	Setting of Unit-under-test (UUT)			Applied value		UUT Reading,	IEC 61672 Class 1
Range, dB	Freq. W	eighting	Time Weighting	Level, dB	Frequency, Hz	dB	Specification, dB
					31.5	94.3	±2.0
					63	94.2	±1.5
			Fast	94	125	94.1	±1.5
25-124.5	dB	SPL			250	94.1	±1.4
25-124.5	uБ	ub SFL			500	94.0	±1.4
					1000	94.0	Ref
					2000	93.7	±1.6
					4000	93.1	±1.6

A-weighting

Sett	ing of Un	it-under-t	est (UUT)	Applied value		UUT Reading,	IEC 61672 Class 1
Range, dB	Freq. W	eighting	Time Weighting	Level, dB	Frequency, Hz	dB	Specification, dB
					31.5	54.9	-39.4 ±2.0
			Fast	94	63	68.0	-26.2 ±1.5
					125	78.0	-16.1 ±1.5
25-124.5	dBA	SPL			250	85.4	-8.6 ±1.4
23-124.3	UDA	DA SEL			500	90.8	-3.2 ±1.4
					1000	94.0	Ref
					2000	94.9	+1.2 ±1.6
					4000	94.2	+1.0 ±1.6

C-weighting

Setting of Unit-under-test (UUT)			Applied value		UUT Reading,	IEC 61672 Class 1	
Range, dB	Freq. W	Veighting	Time Weighting	Level, dB	Frequency, Hz	dB	Specification, dB
					31.5	91.3	-3.0 ±2.0
			Fast	94	63	93.4	-0.8 ±1.5
		C SPL			125	93.9	-0.2 ±1.5
25-124.5	dBC				250	94.1	-0.0 ±1.4
23-124.3	UBC				500	94.1	-0.0 ± 1.4
					1000	94.0	Ref
					2000	93.6	-0.2 ±1.6
					4000	92.4	-0.8 ±1.6

Certificate No.: APJ22-029-CC002



Page 3 of 4



4. Calibration Results Applied

The results apply to the particular unit-under-test only. All calibration points are within manufacture's specification as IEC 61672 Class 1.

Uncertainties of Applied Value:

94 dB	31.5 Hz	± 0.15
	63 Hz	± 0.05
	125 Hz	± 0.05
	250 Hz	± 0.05
	500 Hz	± 0.05
	1000 Hz	± 0.05
	2000 Hz	± 0.05
	4000 Hz	± 0.10
104 dB	1000 Hz	± 0.05
114 dB	1000 Hz	± 0.05

The uncertainties are evaluated for a 95% confidence level.

Note:

The values given in this certification only related to the values measured at the time of the calibration and any uncertainties quoted will not allow for the equipment long-term drift, variations with environmental changes, vibration and shock during transportation, overloading, mis-handling, or the capability of any other laboratory to repeat the calibration. (A+A)*L shall not be liable for any loss or damage resulting from the use of the equipment.

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CALIBRATION CERTIFICATE

Product : SOUND CALIBRATOR

Type : NC-75

Serial number : 34524163

Manufacturer : RION CO., LTD.

Calibration quantities : Sound pressure level (with reference standard microphone)

Calibration method : Measured by specified secondary standard microphone

according to JCSS calibration procedure specified by RION.

Ambient conditions : Temperature 23.4 °C, Relative humidity 48 %,

Static pressure 100.9 kPa

Calibration date : 09/05/2022 (DD/MM/YYYY)

Calibration location : 3-20-41 Higashimotomachi, Kokubunji, Tokyo 185-8533, Japan

RION CO., LTD. Calibration Room

We hereby certify that the results of this calibration were as follows.

Issue date: 12/05/2022 (DD/MM/YYYY)

Junichi Kawamura
Manager
Quality Assurance Section,
Quality Assurance Department,
Environmental Instrument Division,
RION CO., LTD.

3·20·41 Higashimotomachi, Kokubunji,

Tokyo 185-8533, Japan

This certificate is based on article 144 of the Measurement Law and indicates the result of calibration in accordance with measurement standards traceable to Primary Measurement Standards (National Standards) which realizes the physical units of measurement according to the International System of Units (SI).

The accreditation symbol is attestation of which the result of calibration is traceable to Primary Measurement Standards (National Standards).

The certificate shall not be reproduced except in full, without the written approval of the issuing laboratory.

The calibration laboratory who issued this calibration certificate conforms to ISO/IEC 17025:2017.

This calibration certificate was issued by the calibration laboratory accredited by IAJapan who is a signatory to the Mutual Recognition Arrangement (MRA) of International Laboratory Accreditation Cooperation (ILAC) and Asia Pacific Accreditation Cooperation (APAC). This (These) calibration result(s) may be accepted internationally through ILAC/APAC MRA.



Certificate No. D224269E

CALIBRATION RESULT

1. Sound pressure level (with reference standard microphone)

Measured	Expanded
value	uncertainty *1
93.98 dB	0.09 dB

Specified secondary standard microphone:

Type : 4160 Serial number : 2973341

Reference Sound pressure : 2×10^{-5} Pa

*1 Defines an interval estimated to have a level of confidence of approximately 95 %.

Coverage factor k=2

Calibration result is the calibration value in ambient conditions during calibration.

BE OUT OF JCSS CALIBRATION

1. Frequency

Measured value	Measurement uncertainty (k=2)
1000.0 Hz	$3.9 \times 10^{-4} \mathrm{Hz}$

Working measurement standard universal counter:

Type : 53132A Serial number : MY40005574

(JCSS Calibration Certificate No. 21081499079575510)

2. Total distortion

Measured	
value	
 0.3 %	

Working measurement standard distortion meter:

Type : VA-2230A Serial number : 11076061

(A2LA Calibration Certificate No. 1501-03080)

- closing -







This instrument was produced under rigorous factory production control and documented standard procedures. It was individually inspected and leak tested and the functioning of the display, backlight, buttons and firmware was verified. The accuracy of each of its primary measurements was individually calibrated and/or validated against standards traceable to the National Institute of Standards and Technology ("NIST") or other calibrated standards in accordance with the documented standard test methods detailed below. This instrument is warrantied to perform in compliance with the published specifications for the specific measurements and features of its model number including specified typical drift since its date of manufacture. (See Kestrel Limited Warranty for full warranty terms.)

Standards Used in Testing Wind Speed:

The Kestrel Weather & Environmental Meter impeller installed in this unit was individually tested in a subsonic wind tunnel operating at approximately 300 fpm (1.5 m/s) and 1200 fpm (6.1 m/s) monitored by a Gill Instruments Model 1350 ultrasonic time-of-flight anemometer. The Gill 1350 is calibrated regularly and is traceable to NIST with a maximum combined uncertainty of $\pm 1.04\%$ within the airspeed range 711.4 to 3930 fpm (3.61 to 19.96 m/s), and $\pm 1.66\%$ within the airspeed range 170 to 711.4 fpm (0.86 to 3.61 m/s).

Temperature:

Temperature response is verified in comparison with an Ametek DTI-050 Digital Temperature Indicator and STS Reference Sensor. The DTI-050 is calibrated annually and is traceable to NIST with a maximum relative expanded uncertainty of \pm 0.04C.

Relative Humidity:

Relative humidity is verified in comparison with an Edgetech HT120 Humidity
Transmitter. The HT120 is calibrated annually and is traceable to NIST with a maximum relative expanded uncertainty of ±1.0%RH.

Barometric Pressure:

Pressure response is verified against a Vaisala PTB210A Digital Barometer. The Vaisala Barometer is calibrated annually and is traceable to NIST with a maximum relative expanded uncertainty of ± 0.3hPa.

Approved By:

Michael Naughton

Chief Product Officer, Nielsen-Kellerman

Product Specifications for Kestrel Weather Meters, Model Numbers 1000-3500

			SENSORS	
SENSOR	ACCURACY (+/-)	RESOLUTION	SPECIFICATION RANGE	NOTES
Wind Speed Air Speed	Larger of 3% of reading, least significant digit or 20 ft/min	0.1 m/s 1 t/min 0.1 km/h 0.1 mph 0.1 knots 1 B	0.6 to 40.0 m/s 118 to 7.874 f/min 2.2 to 144.0 km/h 1.3 to 89.5 mph 1.2 to 77.8 knots 0 to 12 B	1 inch 25 mm diameter impeller with precision axle and low-friction Zytel® bearings. Startup speed stated as lower limit, readings may be taken down to 0.4 m/s 79 ft min 1.5 km/h .9 mph .8 kt after impeller startup. Off-axis accuracy -1% @ 5° off axis; -2% @ 10°; -3% @ 15°. Calibration drift - 1% after 100 hours use at 16 MPH 7 m/s. Replacement impeller (NK PN-0801) field installs without tools (US Patent 5,783,753). Wind speed calibration and testing should be done with triangle on impeller located at the top front face of the Kestrel. Measuring wind speeds above 60 m/s / 134.2 mph can damage the impeller.
Ambient Temperature	0.9 °F 0.5 °C	0.1 °F 0.1 °C	-20.0 to 158.0 °F -29.0 to 70.0 °C	Airflow of 2.2 mph 1 m/s or greater provides fastest response and reduction of insolation effect. For greatest accuracy, avoid direct sunlight on the temperature sensor and prolonged sunlight exposure to the unit in low airflow conditions. Calibration drift is negligible for the life of the product. For further details, see Display & Battery Operational Temperature Limits.
Relative Humidity	3%RH	0.1 %RH	5 to 95% 25°C non-condensing	To achieve stated accuracy, unit must be permitted to equilibrate to external temperature when exposed to large, rapid temperature changes and be kept out of direct sunlight. Calibration drift is typically less than ±0.25% per year.
Pressure	1.5 hPa mbar 0.044 inHg 0.022 PSI	0.1 hPa mbar 0.01 inHg 0.01 PSI	25°C/77°F 750-1100 hPa mbar 22.15-32.48 inHg 10.88-15.95 PSI	Monolithic silicon piezo-resistive pressure sensor with second-order temperature correction. Between 1100–1600 mbar, unit will operate with reduced accuracy. Sensor may not operate above 1600 mbar and can be damaged above 6,000 mbar or below 10 mbar. Calibration drift is negligible for the life of the product.

CALCULATED ME	ASUREMENTS		
MEASUREMENT	ACCURACY (+/-)	RESOLUTION	SENSORS EMPLOYED
Altitude	typical: 23.6 ft/7.2 m from 750 to 1100 mBar max: 48.2 ft/14.7 m from 300 to 750 mBar	1 ft 1 m	Pressure, User Input (Reference Pressure)
Barometric Pressure	0.07 inHg 2.4 hPa mbar 0.03 PSI	0.01 inHg 0.1 hPa mbar 0.01 PSI	Pressure, User Input (Reference Altitude)
Delta T	3.2 °F 1.8 °C	0.1 °F 0.1 °C	Temperature, Relative Humidity, Pressure
Dew Point	3.4 °F 1.9 °C 15-95% RH. Refer to Range for Temperature Sensor	0.1 °F 0.1 °C	Temperature, Relative Humidity
Heat Index	7.1°F 4.0°C	0.1 °F 0.1 °C	Temperature, Relative Humidity
Wet Bulb Temperature - Psychrometric	3.2 °F 1.8 °C	0.1 °F 0.1 °C	Temperature, Relative Humidity, Pressure
Wind Chill	1.6 °F 0.9 °C	0.1 °F 0.1 °C	Wind Speed, Temperature

Display	Reflective LCD
Backlight	Standard or dim red (NV models only) backlight. Manual activation with auto-off.
Response Time & Display Update	Display updates every 1 second. After exposure to large environmental changes, all sensors require an equilibration period to reach stated accuracy. Measurements employing RH may require longer periods particularly after prolonged exposure to very high or very low humidity.
Auto Shutdown	After 45 minutes with no key presses.
Clock	Real Time Hour:Minute Display
Certifications	CE certified, RoHS and WEEE compliant. Individually tested to NIST-traceable standards.
Origin	Designed and manufactured in the USA from US and imported components. Complies with Regional Value Content and Tariff Code Transformation requirements for NAFTA Preference Criterion B.
Bluetooth® Data Connect	Wireless range up to 100ft. Employs Kestrel Link protocol for data transmission with Kestrel Link Ballistics App. (iOS/Android)
Battery	Requires one CR2032 battery, included. Up to 300 hours of use, reduced by backlight or Bluetooth use.
Shock Resistance	MIL-STD-810g, Transit Shock, Method 516.7 Procedure IV; unit only; impact may damage replaceable impeller.
Sealing	Waterproof (IP67 and NEMA-6)
Display & Battery Operational Temperature Limits	14° F to 131° F -10 °C to 55 °C Measurements may be taken beyond the limits of the operational temperature range of the display and batteries by maintaining the unit within the operational range and then exposing it to the more extreme environment for the minimum time necessary to take reading.
Storage Temperature	-22.0 °F to 140.0 °F -30.0 °C to 60.0 °C.
Size & Weight	4.8 x 1.9 x 1.1 in 12.2 x 4.8 x 2.8 cm, 3.6 oz 102 g (Including slip-on cover).

^{*}Note: Accuracy calculated as uncertainty of the measurement derived from statistical analysis considering the combined effects from primary sensor specifications, circuit conversions, and all other sources of error using a coverage factor of k=2, or two standard deviations (2Σ)

^{**}Note: For Kestrel 1000, 2000, 2500, 3000, 3500 series these specifications are valid for units with a serial number higher than 2262687. If your product has a lower serial number, please reference the K4000 specifications 329011.





Appendix F

Event / Action Plan for Noise Exceedance





Event and Action Plan for Construction Noise Monitoring

Event	Action							
	ET	IEC	ER	Contractor				
Action Level	1. Carry out investigation to identify the source and cause of the complaint/ exceedance(s) 2. Notify IEC, ER, and Contractor and report the results of investigation to the Contractor, ER and the IEC 3. Discuss with the Contractor and IEC for remedial measures require 4. If the complaint is related to the Project, conduct additional monitoring for checking mitigation effectiveness and report the findings and results to the IEC, ER and the Contractor		Confirm receipt of Notification of Exceedance in writing Require Contractor to propose remedial measures for the analysed noise problem Ensure remedial measures are properly implemented	Submit noise mitigation proposals if required, to the IEC and ER Implement noise mitigation proposals.				
nit Level	1. Notify IEC, ER, EPD and Contract 2. Identify the source(s) of impact by reviewing all the relevant monitor data and the corresponding construction activities. Exceedance should also be confirmed by immediate verification in the field far as practical. 3. Repeat measurement to confirm findings 4. Increase monitoring frequency 5. Carry out analysis of Contractor's working procedures to determine possible mitigation to be impleme 6. inform IEC, ER and EPD the cause actions taken for the exceedances 7. Assess effectiveness of Contractor' remedial actions and keep IEC, EI ER informed of the results 8. If exceedance stops, cease addition monitoring.	Contractor on the potential remedial actions 2. Review Contractor's remedial actions to assure their effectiveness and advise the ER &ET accordingly 3. Supervise the implementation of the remedial measures atted. &	1. Confirm receipt of notification of exceedance in writing 2. Notify Contractor 3. Require Contractor to propose remedial measures for the analyzed noise problem 4. Ensure remedial measures are properly implemented 5. If exceedance continuous, consider what portion of the work is responsible and instruct the Contractor to stop that portion of work until the exceedance is aborted	Take immediate action to avoid further exceedance Identify practicable measures to minimize the noise impact. Submit proposals for remedial actions to ER within three working days of notification Implement the agreed proposals Resubmit proposal if problem still no under control Stop the relevant portion of works as determined by the ER until the exceedance is abated				





Appendix G

Noise Monitoring Data





 Table G 1
 Summary of Noise Monitoring Result

			Leq-5min	, dB(A)			L _{eq-30min} ,	L _{10-30mins} ,	L _{90-30mins}	Limit			
Date	Time	Weather	Reading (1)	Reading (2)	Reading (3)	Reading (4)	Reading (5)	Reading (6)	dB(A)	dB(A)	dB(A)	Level, dB(A)*	Noise Meter
05/01/2023	10:34 - 11:04	Sunny	64.5	64.8	63.4	64.1	63.6	64.6	64.2	68.5	61.3	65.0	Svantek 971
11/01/2023	10:19 - 10:49	Cloudy	65.0	64.2	64.7	64.5	63.9	64.4	64.5	69.4	62.1	65.0	Svantek 971
17/01/2023	10:58 - 11:28	Sunny	64.0	63.2	64.4	64.1	63.7	63.8	63.9	69.6	62.5	65.0	Svantek 971
26/01/2023	10:55 - 11:25	Sunny	68.4	67.9	68.2	68.1	68.5	68.6	68.3	72.4	61.7	70.0	Svantek 971
31/01/2023	11:41 - 12:11	Sunny	70.7	68.2	70.6	68.1	70.3	70.1	69.8	74.4	63.0	70.0	Svantek 971

Remarks:

^{*}Examinations were scheduled for NSR4 Creative Secondary School from 5 January to 18 January 2023.





Appendix H

Waste Flow Table





Appendix H - Waste Flow Table

	Ac	ctual Quantitie	es of Inert C&D	Materials Ge	nerated Month	ıly	Actual Quantities of Non-C&D Wastes Generated Monthly						
Month	Total Quantity Generated	Hard Rock and Large Broken Concrete	Reused in the Contract	Reused in other Project	Disposed as Public Fill	Imported Fill	Metals	Paper / Cardboard packaging	Plastics	Chemical Waste	Other, 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 2023	0.542	0.015	0.122		0.420	0.389		0.052			0.002		
Feb 2023													
Mar 2023													
Apr 2023													
May 2023													
Jun 2023													
Sub-total	0.542	0.015	0.122	0.000	0.420	0.389	0.000	0.052	0.000	0.000	0.002		
Jul 2023													
Aug 2023													
Sep 2023													
Oct 2023													
Nov 2023													
Dec 2023													
Total	0.542	0.015	0.122	0.000	0.420	0.389	0.000	0.052	0.000	0.000	0.002		

Notes:

- Total quantity Generated only refers to the actual Quantitates of inert C&D materials generated monthly excluding those that will be recycled (Hard rock & large broken concrete, reused in contract and reused in another contract). Imported fill will not be included in total quantity generated as those C&D materials are not generated from this project.
- 2) The waste flow table shall also include C&D materials that are specified in the Contract to be imported for use at the Site.
- 3) Plastics refer to plastic bottles/containers, plastic sheets/foam from packaging materials.





Appendix I

Landfill Gas Monitoring Equipment Calibration Certificate



香港新界葵涌葵昌路58-70號永祥工業大廈10樓B室

Unit B, 10/F., Wing Cheung Industrial Building, 58-70 Kwai Cheong Road, Kwai Chung, New Territories, HK Tel: (852) 2751 7770 Fax: (852) 2756 2051 E-mail: rotter@rotter.com.hk

Calibration Report - Gas Detector

PGM-2500 (QRAE I	II) I	LEL/	O2/C	O/H2S
-------------------------	-------	------	------	-------

1	ı	N	J	I	Т	ı	P	J	F	0	R	N	Л	Δ	T	1	0	N	J	•
•	•		w					A		-		м					~			

Customer:	Penta Ocean Construction Co Ltd	Serial #:	M02A001708	Model:	QRAE III
		Firmware :	V2.12	Sensor:	LEL/O2/CO/H2S
		Cal date :	28-Jul-2022	Inspected:	Teddy

SENSOR DATA:

	LEL sensor (ME)	O2 sensor	CO sensor (Tox1)	H2S sensor (Tox2)
Calibration dates:	28-Jul-2022	28-Jul-2022	28-Jul-2022	28-Jul-2022
After Calibration levels	50%	18.00%	50 ppm	10.0 ppm
Alarm levels (Low):	10.00%	19.50%	35 ppm	10 ppm
Alarm levels (High):	20.00%	23.50%	200 ppm	20 ppm
TWA Level :			35 ppm	10 ppm
STEL Level :			100 ppm	15 ppm

Status:			
Pump Speed	Low	Back Light	Manual
Clock	Yes	Measure	Average

LEL Gas Selection

LEL Calibration Gas	Methane	LEL measurement Gas	Methane	
LEL Custom Gas	LEL_custom_gas	LEL Custom Factor	1.0	

Gas types used : 4-Gas Mix: (18% O2, 50ppm CO, 10ppm H2S, 50% LEL CH4, BAL N2)	Gas lot #WO350201-3	
*** Fresh Air Calibration is highly recommended to proceed prior for measurement each time.		

Replaced Parts:

Notes: The unit was calibrated and checked under good working condition

**Next calibration due on or before 27 July 2023

Serviced by_ Teddy Wong Rotter International Ltd

PROMAT (HK) LTD

寶時(香港)有限公司

901 New Trend Centre, 704 Prince Edward Road East, San Po Kong, Kowloon, HK Tel.: 2661 2392 Fax.: 2661 2086 email : sales@promat.hk http://www.promat.hk/



VERIFICATION CERTIFICATE OF CO2 Analyzer

Report No.

: 22040

Date

: 17/11/2022

Client

: Penta Ocean Concentric JV

EQUIPMENT TO BE VERIFIED

Equipment Name

: CO2 Analyzer

Supplier

: TES

Model No.

: 1307H

Serial No.

Date of Verification

: 200901259 : 17/11/2022

Due Verification

: 16/11/2023

VERIFICATION DEVICES USED

Reference Equipment

: CO2 in N2

CO2 in N2

Supplier

: NorLab

NorLab

Model No.

: H1013500PN

H1013.3VN

Lot #

: 0-353-790

1-006-27

Expiry date

: 12/2/2024

10/3/2025

Accuracy

: Within +/-2%

Within +/-2%

ENVIRONMENTAL CONDITION

Ambient Temp

: 25°C

Relative Humidity

: 57%

Verification Result

illeation Result			
Test Number	Concentration (Mole%)	Results	
Test 1	500ppm	505ppm	
Test 2	0.50%	0.52%	

Remarks

- 1 The Gas reference used in this verification has traceable accuracy to Manufacturer Standard
- 2 The above equipment was operated by the competent person
- 3 Promat is Registered ISO9001:2015 Quality Management System in Sales, Repair and Calibration Services

Certification

Verification by

Checked by

Mr. Hei Kong / Technical Engineer

Ms. Ning Lee / Service Coordinator

Calibration Certificate						
Cert. Ref. No.: BW/XT/3RD/17974	Date: 2022 09 02					
Renopipe Construction Company Limited	Purchase Order No.: SME-C-20-21-6/2020-76554					
九龍觀塘海濱道133號萬兆豐中心6樓K2室	Date 2020 07 07 INVOICE NO: AP					
	Email: damonhuang@renopipe.com.hk					

Fax: 3998 3225

Gas Detector Model: XT-XWHM-Y-OR Pump S/N: 420373 Serial No.: MA220-012709 Calibration Record:

Tel: 3998 3193

Inpection before calibration	Visual inspection	Functional Test	
Basic Unit - Case, Clip & Display etc.	OK	OK	
Battery and charge etc.	OK	OK	
Motorized Pump	OK	OK	
Other items			

Type of Sensor	Expiry Date
Oxygen Sensor	
CO & H2S Sensor	
Combustible(LEL) Sensor	

Type of calibration	Date of calibration	H2S (ppm)	CO (ppm)	O2 (%)	LEL (%)
3rd Calibration	ation 2022 09 02		100	18	50
Result of Calib	oration	ОК	ок	ок	ОК

F.O.C Calibration Cost: (As per attached invoice)

Calibration remarks: Oxygen sensor replaced by new one

Customer: Renopipe Construction

Attn: Damon Huang

User Details:

Warranty: Oxygen Sensor 1 years warranty

Next calibration date of this instrument will be :

2023

09

02

Mobile Phone

IMPORTANT NOTES TO BW GAS DETECTOR USERS

USERS MUST READ THE OPERATOR'S MANUAL THOROUGHLY BEFORE OPERATING THIS EQUIPMENT AND FOLLOW THEIR OWN SAFETY SUPERVISOR'S INSTRUCTION TO WORK.

All gas detection instrumentation on the market requires periodic calibration to accurately measure gas. Calibration is only as accurate as the test gas used. BW Technologies quality test gases are made to the highest accuracy and trace-ability to N. I.S.T. Standards.

Calibrated By:

Sara Tse

Service Hotline: 2592 2120 Ms. Tse - Service Dept.

Asia Pacific Industrial Safety Equipment

Asia Technologies





Appendix J

Landfill Gas Monitoring Data

Landfill Gas Monitoring -Field Measurement Recording Sheet

Name of site:

13/WSD/16-Mainlaying in Tseung Kwan

Date of measurement:

Sampling equipment used:	Dates calibrated
PGM-2500 (QRAE III)	28/7/2022
1307H	17/11/2022

Sample location	Date of measurement	1. 1 5	Monitoring wells / Surface Gas Emission						
			Weather condition	Balance gas (%)	Flammable gas (methane %)	Carbon dioxide (%)	Oxygen (%)	Temp (°C)	Remark
Pit A	3/1/23	8:20	sunny	0	0	0	20.9	11/999	9
		11:25		0	0	0	20.9	15/999	9
		3: 13	1::	0	0	0	20.9	13/999	9
		1							

Name & Designation

Signature

<u>Date</u>

Field Operator:

Cheung Hoi Kit

40

3/1/23

Laboratory Staff:

Checked by:

Name of site:

13/WSD/16-Mainlaying in Tseung Kwan

Date of measurement:

Dates calibrated
28/7/2022
17/11/2022

Sample location	Date of measurement	Sampling time	Monitoring wells / Surface Gas Emission							
			Weather condition	Balance gas (%)	Flammable gas (methane %)	Carbon dioxide (%)	Oxygen (%)	Temp (°C)	Remark	
Pit A	4/1/23	8:20	sunny	0	0	0	20.9	11/999	9	
		11:25		0	0	0	20.9	15/999	9	
		3: 13		0	0	0	20.9	13/999	9	
								n 11		
			, G							

Name & Designation

Signature

<u>Date</u>

Field Operator:

Cheung Hoi Kit

40

4/1/23

Laboratory Staff:

Name of site:

13/WSD/16-Mainlaying in Tseung Kwan

Date of measurement:

28/7/2022
17/11/2022

Sample location	Date of measurement	Sampling time	Monitoring wells / Surface Gas Emission							
			Weather condition	Balance gas (%)	Flammable gas (methane %)	Carbon dioxide (%)	Oxygen (%)	Temp (°C)	Remark	
Pit A	5/1/23	8:20	sunny	0	0	0	20.9	11/999	9	
		11:25	/	0	0	0	20.9	15/999	9	
		3: 13		0	0	0	20.9	13/999	9	

Name & Designation

Signature

<u>Date</u>

Field Operator:

Cheung Hoi Kit

70

5/1/23

Laboratory Staff:

Name of site:

13/WSD/16-Mainlaying in Tseung Kwan

Date of measurement:

Sampling equipment used:	Dates calibrated
PGM-2500 (QRAE III)	28/7/2022
1307H	17/11/2022

Sample location	Date of measurement	Sampling time	Monitoring wells / Surface Gas Emission							
			Weather condition	Balance gas (%)	Flammable gas (methane %)	Carbon dioxide (%)	Oxygen (%)	Temp (°C)	Remark	
Pit A	6/1/23	8:20	sunny	0	0	0	20.9	10/999	9	
		11:25		0	0	0	20.9	15/999	9	
		3: 13		0	0	0	20.9	13/999	9	
			The second second	4 - 44 - 5-44 - 5						

Name & Designation

Signature

Date

Field Operator:

Cheung Hoi Kit

70

6/1/23

Laboratory Staff:

Name of site:

13/WSD/16-Mainlaying in Tseung Kwan

Date of measurement:

Sampling equipment used:	Dates calibrated
PGM-2500 (QRAE III)	28/7/2022
1307H	17/11/2022

Sample location	Date of measurement	Sampling time	Monitoring wells / Surface Gas Emission							
			Weather condition	Balance gas (%)	Flammable gas (methane %)	Carbon dioxide (%)	Oxygen (%)	Temp (°C)	Remark	
Pit A	7/1/23	8:20	sunny	0	0	0	20.9	10/999	9	
		11:25		0	0	0	20.9	13/999	9	
		3: 13		0	0	0	20.9	12/999	9	
					LT-21					
			14							

Name & Designation

<u>Signature</u>

<u>Date</u>

Field Operator:

Cheung Hoi Kit

70

7/1/23

Laboratory Staff:

Name of site:

13/WSD/16-Mainlaying in Tseung Kwan

Date of measurement:

Sampling equipment used:	Dates calibrated
PGM-2500 (QRAE III)	28/7/2022
1307H	17/11/2022
3 3	

Sample location	Date of measurement		Monitoring wells / Surface Gas Emission							
			Weather condition	Balance gas (%)	Flammable gas (methane %)	Carbon dioxide (%)	Oxygen (%)	Temp (°C)	Remark	
Pit A	9/1/23	8:20	sunny	0	0	0	20.9	10/999	9	
		11:25		0	0	0	20.9	13/999	9	
		3: 13		0	0	0	20.9	12/999	9	
					1911					
						:				

Name & Designation

Signature

Date

Field Operator:

Cheung Hoi Kit

70

9/1/23

Laboratory Staff:

Name of site:

13/WSD/16-Mainlaying in Tseung Kwan

Date of measurement:

Sampling equipment used:	Dates calibrated
PGM-2500 (QRAE III)	28/7/2022
1307H	17/11/2022

Sample location	Date of measurement	Sampling time	Monitoring wells / Surface Gas Emission							
			Weather condition	Balance gas (%)	Flammable gas (methane %)	Carbon dioxide (%)	Oxygen (%)	Temp (°C)	Remark	
Pit A	10/1/23	8:20	sunny	0	0	0	20.9	10/999	9	
		11:25		0	0	0	20.9	13/999	9	
		3: 13		0	0	0	20.9	12/999	9	
				1. 3. 1.						

Name & Designation

Signature

<u>Date</u>

Field Operator:

Cheung Hoi Kit

70

10/1/23

Laboratory Staff:

Name of site:

13/WSD/16-Mainlaying in Tseung Kwan

Date of measurement:

Sampling equipment used:	Dates calibrated
PGM-2500 (QRAE III)	28/7/2022
1307H	17/11/2022

Sample location	Date of measurement	Sampling time									
			Weather condition	Balance gas (%)	Flammable gas (methane %)	Carbon dioxide (%)	Oxygen (%)	Temp (°C)	Remark		
Pit A	11/1/23	8:20	rain	0	0	0	20.9	10/999	9		
		11:25		0	0	0	20.9	13/999	9		
		3: 13		0	0	0	20.9	12/999	9		

Name & Designation

Signature

Date

Field Operator:

Cheung Hoi Kit

70

11/1/23

Laboratory Staff:

Name of site:

13/WSD/16-Mainlaying in Tseung Kwan

Date of measurement:

Sampling equipment used:	Dates calibrated
PGM-2500 (QRAE III)	28/7/2022
1307H	17/11/2022

Sample location	Date of measurement	Sampling time	Monitoring wells / Surface Gas Emission							
				Weather condition	Balance gas (%)	Flammable gas (methane %)	Carbon dioxide (%)	Oxygen (%)	Temp (°C)	Remark
Di+ A	12/1/23	8:20	cuppy	0	0	0	20.9	10/999	9	
Pit A	12/1/23	11:25	sunny	0	0	0	20.9	13/999	9	
		3: 13		0	0	0	20.9	12/999	9	
			+ 1							

Name & Designation

Signature

<u>Date</u>

Field Operator:

Cheung Hoi Kit

70

12/1/23

Laboratory Staff:

Name of site:

13/WSD/16-Mainlaying in Tseung Kwan

Date of measurement:

Sampling equipment used:	Dates calibrated
PGM-2500 (QRAE III)	28/7/2022
1307H	17/11/2022

Sample location	Date of measurement	Sampling time	Monitoring wells / Surface Gas Emission						
			Weather condition	Balance gas (%)	Flammable gas (methane %)	Carbon dioxide (%)	Oxygen (%)	Temp (°C)	Remark
D': 4	12/1/22	0.20		0	0	0	20.9	10/999	9
Pit A	13/1/23	8:20 11:25	sunny	0	0	0	20.9	13/999	9
		3: 13		0	0	0	20.9	12/999	9
		,							

Name & Designation

Signature

Date

Field Operator:

Cheung Hoi Kit

70

13/1/23

Laboratory Staff:

Name of site:

13/WSD/16-Mainlaying in Tseung Kwan

Date of measurement:

Sampling equipment used:	Dates calibrated
PGM-2500 (QRAE III)	28/7/2022
1307H	17/11/2022

Sample location	Date of measurement	Sampling time	Monitoring wells / Surface Gas Emission							
			Weather condition	Balance gas (%)	Flammable gas (methane %)	Carbon dioxide (%)	Oxygen (%)	Temp (°C)	Remark	
Pit A	14/1/23	8:20	sunny	0	0	0	20.9	10/999	9	
1107	, ., ==	11:25		0	0	0	20.9	13/999	9	
		3: 13		0	0	0	20.9	12/999	9	
	4									

Name & Designation

Signature

Date

Field Operator:

Cheung Hoi Kit

10

14/1/23

Laboratory Staff:

Name of site:

13/WSD/16-Mainlaying in Tseung Kwan

Date of measurement:

/= /0.000
/7/2022
/11/2022

Sample location	Date of measurement	Sampling time	Monitoring wells / Surface Gas Emission							
			Weather condition	Balance gas (%)	Flammable gas (methane %)	Carbon dioxide (%)	Oxygen (%)	Temp (°C)	Remark	
Pit A	16/1/23	8:20	sunny	0	0	0	20.9	13/999	9	
TILA	10/1/23	11:25	Suring	0	0	0	20.9	15/999	9	
		3: 13		0	0	0	20.9	14/999	9	
					2					
							2			

Name & Designation

Signature

Date

Field Operator:

Cheung Hoi Kit

70

16/1/23

Laboratory Staff:

Name of site:

13/WSD/16-Mainlaying in Tseung Kwan

Date of measurement:

	Dates calibrated
PGM-2500 (QRAE III)	28/7/2022
1307H	17/11/2022

Sample location	Date of measurement		Monitoring wells / Surface Gas Emission							
			Weather condition	Balance gas (%)	Flammable gas (methane %)	Carbon dioxide (%)	Oxygen (%)	Temp (°C)	Remark	
Pit A	17/1/23	8:20	sunny	0	0	0	20.9	13/999	9	
		11:25		0	0	0	20.9	15/999	9	
		3: 13		0	0	0	20.9	14/999	9	

Name & Designation

Signature

Date

Field Operator:

Cheung Hoi Kit

70

17/1/23

Laboratory Staff:

Name of site:

13/WSD/16-Mainlaying in Tseung Kwan

Date of measurement:

Sampling equipment used:	Dates calibrated
PGM-2500 (QRAE III)	28/7/2022
1307H	17/11/2022

Sample location	Date of measurement	Sampling time								
			Weather condition	Balance gas (%)	Flammable gas (methane %)	Carbon dioxide (%)	Oxygen (%)	Temp (°C)	Remark	
Pit A	18/1/23	8:20	sunny	0	0	0	20.9	10/999	9	
		11:25		0	0	0	20.9	13/999	9	
		3: 13		0	0	0	20.9	12/999	9	
Walter Control of the										
									4,110713-020	

Name	&	De	esign	nation

Signature

<u>Date</u>

Field Operator:

Cheung Hoi Kit

10

18/1/23

Laboratory Staff:

Name of site:

13/WSD/16-Mainlaying in Tseung Kwan

Date of measurement:

librated	Sampling equipment used:						
22	00 (QRAE III)	PGM-2500 (
022		1307H					
		.507.1					

Sample location	Date of measurement	Sampling time	Monitoring wells / Surface Gas Emission							
			Weather condition	Balance gas (%)	Flammable gas (methane %)	Carbon dioxide (%)	Oxygen (%)	Temp (°C)	Remark	
Pit A	19/1/23	8:20	sunny	0	0	0	20.9	13/999	9	
		11:25		0	0	0	20.9	15/999	9	
		3: 13		0	0	0	20.9	14/999	9	
1										
			-							

Name & Designation

Signature

Date

Field Operator:

Cheung Hoi Kit

70

19/1/23

Laboratory Staff:

Name of site:

13/WSD/16-Mainlaying in Tseung Kwan

Date of measurement:

Sampling equipment used:	Dates calibrated
PGM-2500 (QRAE III)	28/7/2022
1307H	17/11/2022

Sample location	Date of measurement	Sampling time	Monitoring wells / Surface Gas Emission							
			Weather condition	Balance gas (%)	Flammable gas (methane %)	Carbon dioxide (%)	Oxygen (%)	Temp (°C)	Remark	
Pit A	30/1/23	8:20	sunny	0	0	0	20.9	13/999	9	
		11:25		0	0	0	20.9	15/999	9	
		3: 13		0	0	0	20.9	14/999	9	

Name & Designation

Signature

<u>Date</u>

Field Operator:

Cheung Hoi Kit

10

30/1/23

Laboratory Staff:

Name of site:

13/WSD/16-Mainlaying in Tseung Kwan

Date of measurement:

Sampling equipment used:	Dates calibrated
PGM-2500 (QRAE III)	28/7/2022
1307H	17/11/2022

Sample location	Date of measurement	Sampling time	Monitoring wells / Surface Gas Emission							
			Weather condition	Balance gas (%)	Flammable gas (methane %)	Carbon dioxide (%)	Oxygen (%)	Temp (°C)	Remark	
Pit A	31/1/23	8:20	sunny	0	0	0	20.9	13/999	9	
		11:25	172	0	0	0	20.9	15/999	9	
		3: 13		0	0	0	20.9	14/999	9	
					5.45					

Name & Designation

Signature

Date

Field Operator:

Cheung Hoi Kit

70

31/1/23

Laboratory Staff:

Mainlaying in Tseung Kwan O

Penta-Ocean - Concentric Joint Venture

Wan Po Road Gas Monitoring - Field Measurement Recording Sheet

Name of site:

13/WSD/16 - Mainlaying in Tseung Kwan O

Date of measurement:

Sampling equipment used:	Dates calibrated				
XT-XWHM-Y-OR	2/9/2022				

				Ŋ	Monitoring wells	/ Surface Ga	s Emissio	on	
Sample location	Date of measurement	Sampling time	Weather condition	Balance gas (%)	Flammable gas (methame %)	Carbon monoxide(%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
WPRTTA 4	3/1/2023	0830	Rain/F ine	0	0	0	20.9	19/1009	3.7
	\	1330	Rain/Eine	0	0	0	20.9	18/10/0	3.7
	V	1700	Rain/Fine	0	0	0	20.9	20//0/0	3.7
WPRTTA 5	17	0830	Rain/Fine	0	0	0	20.9	18/1011	3.6
	V	1330	Rain/Fine	0	0	0	20.9	19/10/0	3.6
	~	1700	Rain/Fine	0	0	0	20.9	21/10/0	3.6
		Andrew An							

Name & Designation

Signature

X

Date

1/2023

Field Operator:

Jock Lee (Competent Person [CO-310218])

Laboratory Staff:

Mainlaying in Tseung Kwan O

Penta-Ocean - Concentric Joint Venture

Wan Po Road Gas Monitoring - Field Measurement Recording Sheet

Name of site:

13/WSD/16 - Mainlaying in Tseung Kwan O

Date of measurement:

Sampling equipment used:	Dates calibrated 2/9/2022				
XT-XWHM-Y-OR					

				N	Monitoring wells	/ Surface Ga	s Emissic	on	
Sample location	Date of measurement	Sampling time	Weather condition	Balance gas (%)	Flammable gas (methame %)	Carbon monoxide(%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
WPRTTA 4	<i>لاهد/۱/۱</i>	0830	Rain/Fine	0	0	0	20.9	17/1009	3.7
	V	1330	Rain/ Fine	0	0	0	20.9	18/1009	3.7
		1700	Rain/Fine	0	0	0	20.9	20/10/0	3.7
WPRTTA 5	V	0830	Rain/F inc	0	0	0	20.9	18/10/1	3.6
	V	1330	Rain/Fine	0	0	0	20.9	17/1009	3.6
	√	1700	Rain/Fine	0	0	0	20.9	20/10/0	3.6
								<u> </u>	

Name & Designation

Signature

Date 4/1/2023

Field Operator:

Jock Lee (Competent Person [CO-310218])

Laboratory Staff:

Mainlaying in Tseung Kwan O

Penta-Ocean - Concentric Joint Venture

Wan Po Road Gas Monitoring - Field Measurement Recording Sheet

Name of site:

13/WSD/16 - Mainlaying in Tseung Kwan O

Date of measurement:

Sampling equipment used:	Dates calibrated				
XT-XWHM-Y-OR	2/9/2022				

				1	Monitoring wells	/ Surface Ga	s Emissic	on	
Sample location	Date of measurement	Sampling time	Weather condition	Balance gas (%)	Flammable gas (methame %)	Carbon monoxide(%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
WPRTTA 4	5/1/2023	0830	Rain/Fine	0	0	0	20.9	17/1010	3.7
	Y	1330	Rain/Fine	0	0	0	20.9	18/1009	3.7
	V	1700	Rain/Fine	0	0	0	20.9	20/10/0	3.7
WPRTTA 5	V	0830	Rai n/Fine	0	0	0	20.9	20/1009	3.6
	✓	1330	Rain /Fine	0	0	0	20.9	18/18/0	3.6
	Y	1700	Rain/Fine	0	0	0	20.9	20/10/0	3.6
		and the state of t							

Name & Designation

Signature

Date 3/1/2013

Field Operator:

Jock Lee (Competent Person [CO-310218])

Laboratory Staff:

Mainlaying in Tseung Kwan O

Penta-Ocean - Concentric Joint Venture

Wan Po Road Gas Monitoring - Field Measurement Recording Sheet

Name of site: 13/WSD/16 - Mainlaying in Tseung Kwan O

Date of measurement:

Sampling equipment used:	Dates calibrated				
XT-XWHM-Y-OR	2/9/2022				

				Ŋ	Monitoring wells	/ Surface Ga	s Emissic	on	
Sample location	Date of measurement	Sampling time	Weather condition	Balance gas (%)	Flammable gas (methame %)	Carbon monoxide(%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
WPRTTA 4	6/1/2023	0830	Rain/Fine	0	0	0	20.9	19/10/0	3.7
	V	1330	Rain/Fine	0	0	0	20.9	20/1009	3.7
	٧	1700	Rai n/Fine	0	0	0	20.9	18/10/0	3.7
WPRTTA 5	٧	0830	Rain/Fine	0	0	0	20.9	17/1009	3.6
	V	1330	Rain/Fine	0	0	0	20.9	20/10/0	3.6
	V	1700	Rain/Fine	0	0	0	20.9	20/1011	3.6

Name & Designation

Signature

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Field Operator:

Jock Lee (Competent Person [CO-310218])

Laboratory Staff:

Mainlaying in Tseung Kwan O

Penta-Ocean - Concentric Joint Venture

Wan Po Road Gas Monitoring - Field Measurement Recording Sheet

Name of site:

13/WSD/16 - Mainlaying in Tseung Kwan O

Date of measurement:

Sampling equipment used:	Dates calibrated				
XT-XWHM-Y-OR	2/9/2022				

				Ŋ	Monitoring wells	/ Surface Ga	s Emissic	on	
Sample location	Date of measurement	Sampling time	Weather condition	Balance gas (%)	Flammable gas (methame %)	Carbon monoxide(%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
WPRTTA 4	9/ [/2023	0830	Rain/Eine	0	0	0	20.9	18/1009	3.7
	9 /1 /2023	1330	Rain/Fine	0	0	0	20.9	20/10/6	3.7
	9 / /2023	1700	Rain/Eine	0	0	0	20.9	18/100	3.7
WPRTTA 5	d / 1/2023	0830	Rain/Fine	0	0	0	20.9	17/1009	3.6
	q / 1/2023	1330	Rain/Fine	0	0	0	20.9	20/1009	3.6
	q / (/2023	1700	Rain/Fine	0	0	0	20.9	21/10/0	3.6
						L			

Name & Designation

Signature

X

9/1/202

Field Operator:

Jock Lee (Competent Person [CO-310218])

Laboratory Staff:

Mainlaying in Tseung Kwan O

Penta-Ocean - Concentric Joint Venture

Wan Po Road Gas Monitoring - Field Measurement Recording Sheet

Name of site:

13/WSD/16 - Mainlaying in Tseung Kwan O

Date of measurement:

Sampling equipment used:	Dates calibrated				
XT-XWHM-Y-OR	2/9/2022				

				Ŋ	Monitoring wells	/ Surface Ga	s Emissic	on	
Sample location	Date of measurement	Sampling time	Weather condition	Balance gas (%)	Flammable gas (methame %)	Carbon monoxide(%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
WPRTTA 4	[0/1/2023	0830	Rain/F ine	0	0	0	20.9	19/10/0	3.7
	10 / 1 /2023	1330	Rain/Fine	0	0	0	20.9	20 /10/0	3.7
	/o / [/2023	1700	Rain/Fine	0	0	0	20.9	18/1009	3.7
WPRTTA 5	/o / i /2023	0830	Rain/Fine	0	0	0	20.9	17 /1009	3.6
	(0 / [/2023	1330	Rain/Eine	0	0	0	20.9	19/10/0	3.6
	[8 / 1/2023	1700	Rain/Fine	0	0	0	20.9	20/10/0	3.6
	NII A.W.								

Name & Designation

Signature

Date

0/1/08

Field Operator:

Jock Lee (Competent Person [CO-310218])

Laboratory Staff:

Mainlaying in Tseung Kwan O

Penta-Ocean - Concentric Joint Venture

Wan Po Road Gas Monitoring - Field Measurement Recording Sheet

Name of site: 13/WSD/16 - Mainlaying in Tseung Kwan O

Date of measurement:

Sampling equipment used:	Dates calibrated			
XT-XWHM-Y-OR	2/9/2022			

				Ŋ	Monitoring wells	/ Surface Ga	ıs Emissio	on	
Sample location	Date of measurement	Sampling time	Weather condition	Balance gas (%)	Flammable gas (methame %)	Carbon monoxide(%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
WPRTTA 4	1 / / /2023	0830	Rain/Fine	0	0	0	20.9	17/10/0	3.7
	11 / 1 /2023	1330	Rain/Fine	0	0	0	20.9	19/10	3.7
	11 / 1 /2023	1700	Rain/Fine	0	0	0	20.9	20 //009	3.7
WPRTTA 5	11 / 1/2023	0830	Rain/Fine	0	0	0	20.9	18 11009	3.6
	11 /1/2023	1330	Rain/Fine	0	0	0	20.9	20/1/0/0	3.6
	11 / 1/2023	1700	Rain/Fine	0	0	0	20.9	19/10/0	3.6
	1								.,,,,,,,,,,
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Name & Designation Signature

V Date

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Date

Field Operator:

Jock Lee (Competent Person [CO-310218])

Laboratory Staff:

Mainlaying in Tseung Kwan O

Penta-Ocean - Concentric Joint Venture

Wan Po Road Gas Monitoring - Field Measurement Recording Sheet

Name of site:

13/WSD/16 - Mainlaying in Tseung Kwan O

Date of measurement:

Sampling equipment used:	Dates calibrated			
XT-XWHM-Y-OR	2/9/2022			

				N	Monitoring wells	/ Surface Ga	as Emissio	on	
Sample location	Date of measurement	Sampling time	Weather condition	Balance gas (%)	Flammable gas (methame %)	Carbon monoxide(%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
WPRTTA 4	12/1/2023	0830	Rain/Eine	0	0	0	20.9	18 /1009	3.7
	12/1/2023	1330	Rain/Fine	0	0	0	20.9	20 //0/0	3.7
	12/1/2023	1700	Rain/Fine	0	0	0	20.9	17 /10/0	3.7
WPRTTA 5	12/1/2023	0830	Rain/Fine	0	0	0	20.9	19/1009	3.6
	12/1/2023	1330	Rain/Fine	0	0	0	20.9	18/1009	3.6
	12023/1/ح	1700	Rain/Fine	0	0	0	20.9	20/10/0	3.6
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Name & Designation

Signature

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(2/1/2023

Field Operator:

Jock Lee (Competent Person [CO-310218])

Laboratory Staff:

Mainlaying in Tseung Kwan O

Penta-Ocean - Concentric Joint Venture

Wan Po Road Gas Monitoring - Field Measurement Recording Sheet

Name of site:

13/WSD/16 - Mainlaying in Tseung Kwan O

Date of measurement:

Sampling equipment used:	Dates calibrated
XT-XWHM-Y-OR	2/9/2022

Weather condition	Balance gas (%)	Flammable gas (methame %)	Carbon monoxide(Oxygen	Temp (°C) /	Remark
		(III CHICAINIC 70)	%)	(%)	Pressure (mbar)	Depth (m)
Rain/ Fine	0	0	0	20.9	18 /1009	3.7
Rain/ Fine	0	0	0	20.9	20/10/0	3.7
Rain/Fine	0	0	0	20.9	19 /10/0	3.7
Rain/Fine	0	0	0	20.9	17 /1009	3.6
Rain/ Eine	0	0	0	20.9	18 /10/0	3.6
Rain/F ine	0	0	0	20.9	20/10/0	3.6
				-		
	Rain/Fine Rain/Fine Rain/Fine Rain/Fine	Rain/Fine 0 Rain/Fine 0 Rain/Fine 0 Rain/Fine 0	Rain/Fine 0 0 Rain/Fine 0 0 Rain/Fine 0 0 Rain/Fine 0 0	Rain/Fine 0 0 0 Rain/Fine 0 0 0 Rain/Fine 0 0 0 Rain/Fine 0 0 0	Rain/Fine 0 0 0 20.9 Rain/Fine 0 0 0 20.9 Rain/Fine 0 0 0 20.9 Rain/Fine 0 0 0 20.9	Rain/Fine 0 0 0 20.9 \$\sigma_0\$ //o/o Rain/Fine 0 0 0 20.9 19 //o/o Rain/Fine 0 0 0 20.9 17 //o/o Rain/Fine 0 0 0 20.9 17 //o/o

Name & Designation Signature

Signature

Date

13/1/21

Field Operator:

Jock Lee (Competent Person [CO-310218])

Laboratory Staff:

Mainlaying in Tseung Kwan O

Penta-Ocean - Concentric Joint Venture

Wan Po Road Gas Monitoring - Field Measurement Recording Sheet

Name of site: 1

13/WSD/16 - Mainlaying in Tseung Kwan O

Date of measurement:

Sampling equipment used:	Dates calibrated
XT-XWHM-Y-OR	2/9/2022

				Ŋ	Monitoring wells	/ Surface Ga	as Emissic	on	
Sample location	Date of measurement	Sampling time	Weather condition	Balance gas (%)	Flammable gas (methame %)	Carbon monoxide(%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
WPRTTA 4	16/1/2023	0830	Rain/Fine	0	0	0	20.9	19/10/0	3.7
	У	1330	-Rain/Fine	0	0	0	20.9	18/1009	3.7
	V	1700	Rain/Fine	0	0	0	20.9	20/1009	3.7
WPRTTA 5	y	0830	Rain/Fine	0	0	0	20.9	18/10/6	3.6
	\/	1330	Rain/Fine	0	0	0	20.9	17/1009	3.6
	V	1700	Rain/Fine	0	0	0	20.9	19/10/0	3.6
					A				

Name & Designation

Signature

Date 16/1/202

Field Operator:

Jock Lee (Competent Person [CO-310218])

Laboratory Staff:

Mainlaying in Tseung Kwan O

Penta-Ocean - Concentric Joint Venture

Wan Po Road Gas Monitoring - Field Measurement Recording Sheet

Name of site:

13/WSD/16 - Mainlaying in Tseung Kwan O

Date of measurement:

Sampling equipment used:	Dates calibrated				
XT-XWHM-Y-OR	2/9/2022				

				N	Monitoring wells	/ Surface Ga	s Emissio	on	
Sample location	Date of measurement	Sampling time	Weather condition	Balance gas (%)	Flammable gas (methame %)	Carbon monoxide(%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
WPRTTA 4	17/ //2023	0830	Rain/Fine	0	0	0	20.9	19/10/0	3.7
	1/	1330	Rain/Fine	0	0	0	20.9	20/10/0	3.7
- L = L 1	1/	1700	Rain/Fine	0	0	0	20.9	18/1009	3.7
WPRTTA 5	У	0830	Rain/Fine	0	0	0	20.9	17/1009	3.6
	1/	1330	Rain/Fine	0	0	0	20.9	19/10/0	3.6
1	V	1700	Rain/Fine	0	0	0	20.9	18/109	3.6
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Name & Designation

Signature

8

Date 17/1/2023

Field Operator:

Jock Lee (Competent Person [CO-310218])

Laboratory Staff:

Mainlaying in Tseung Kwan O

Penta-Ocean - Concentric Joint Venture

Wan Po Road Gas Monitoring - Field Measurement Recording Sheet

Name of site:

13/WSD/16 - Mainlaying in Tseung Kwan O

Date of measurement:

Sampling equipment used:	Dates calibrated
XT-XWHM-Y-OR	2/9/2022

				Ŋ	Monitoring wells	/ Surface Ga	s Emissio	on	
Sample location	Date of measurement	Sampling time	Weather condition	Balance gas (%)	Flammable gas (methame %)	Carbon monoxide(%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
WPRTTA 4	(8 /o1/2023	0830	Rain/Fine	0	0	0	20.9	18/1009	3.7
	Y	1330	Rain/Fine	0	0	0	20.9	19/1/0/0	3.7
	Υ	1700	Rain/Fine	0	0	0	20.9	20/1009	3.7
WPRTTA 5	V	0830	Rain/Fine	0	0	0	20.9	18/10/0	3.6
de la ce	٧,	1330	Rain/Fine	0	0	0	20.9	17/1009	3.6
- 4	γ	1700	Rain/Fine	0	0	0	20.9	20/10/0	3.6
							ė.		

Name & Designation

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18/1/2023

Field Operator:

Jock Lee (Competent Person [CO-310218])

Laboratory Staff:

Mainlaying in Tseung Kwan O

Penta-Ocean - Concentric Joint Venture

Wan Po Road Gas Monitoring - Field Measurement Recording Sheet

Name of site:

13/WSD/16 - Mainlaying in Tseung Kwan O

Date of measurement:

Sampling equipment used:	Dates calibrated				
XT-XWHM-Y-OR	2/9/2022				
	W.				

				N	Monitoring wells	/ Surface Ga	s Emissio	on	
Sample location	Date of measurement	Sampling time	Weather condition	Balance gas (%)	Flammable gas (methame %)	Carbon monoxide(%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
WPRTTA 4	19/// 2023	0830	Rain/Fine	0	0	0	20.9	18/10/0	3.7
	1/	1330	Rain/Fine	0	0	0	20.9	17//009	3.7
	V	1700	Rain/Fine	0	0	0	20.9	19/109	3.7
WPRTTA 5	\ <u>'</u>	0830	Rain/Fine	0	0	0	20.9	>0/10/0	3.6
	У	1330	Rain/Fine	0	0	0	20.9	18/10/0	3.6
	\	1700	Rain/Fine	0	0	0	20.9	20//009	3.6
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Name & Designation

Signature

Date 19/1/2023

Field Operator:

Jock Lee (Competent Person [CO-310218])

Laboratory Staff:

Mainlaying in Tseung Kwan O

Penta-Ocean - Concentric Joint Venture

Wan Po Road Gas Monitoring - Field Measurement Recording Sheet

Name of site:

13/WSD/16 - Mainlaying in Tseung Kwan O

Date of measurement:

Sampling equipment used:	Dates calibrated
XT-XWHM-Y-OR	2/9/2022

			Monitoring wells / Surface Gas Emission								
Sample location	Date of measurement	Sampling time	Weather condition	Balance gas (%)	Flammable gas (methame %)	Carbon monoxide(%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)		
WPRTTA 4	20 /r /2023	0830	Rain/Fine	0	0	0	20.9	18/10/0	3.7		
	\/\	1330	Rain/Fine	0	0	0	20.9	19/1009	3.7		
	Y	1700	Rain/Fine	0	0	0 -	20.9	20//0/0	3.7		
WPRTTA 5	V	0830	Rain/Fine	0	0	0	20.9	17 /1009	3.6		
	Y	1330	Rain/Fine	0	0	0	20.9	19 /10/0	3.6		
	V.	1700	Rain/Fine	0	0	0	20.9	20/1009	3.6		

Name & Designation

Signature

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Date

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Field Operator:

Jock Lee (Competent Person [CO-310218])

Laboratory Staff:

Mainlaying in Tseung Kwan O

Penta-Ocean - Concentric Joint Venture

Wan Po Road Gas Monitoring - Field Measurement Recording Sheet

Name of site:

13/WSD/16 - Mainlaying in Tseung Kwan O

Date of measurement:

Sampling equipment used:	Dates calibrated
XT-XWHM-Y-OR	2/9/2022
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			Monitoring wells / Surface Gas Emission								
Sample location	Date of measurement	Sampling time	Weather condition	Balance gas (%)	Flammable gas (methame %)	Carbon monoxide(%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)		
WPRTTA 4	26/1/2023	0830	Rain/Fine	0	0	0	20.9	18/10	3.7		
	//	1330	Rain/Fine	0	0	0	20.9	20/10/0	3.7		
	V	1700	Rain/Fine	0	0	0	20.9	19/1009	3.7		
WPRTTA 5	V	0830	Rain/Fine	0	0	0	20.9	17/10/0	3.6		
7,12,23,23,23	1	1330	Rain/Fine	0	0	0	20.9	18/1009	3.6		
	Y	1700	Rain/Fine	0	0	0	20.9	20/1010	3.6		
	1 1-										

Name & Designation

Signature

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Date 26/1/2023

Field Operator:

Jock Lee (Competent Person [CO-310218])

Laboratory Staff:

Mainlaying in Tseung Kwan O

Penta-Ocean - Concentric Joint Venture

Wan Po Road Gas Monitoring - Field Measurement Recording Sheet

Name of site:

13/WSD/16 - Mainlaying in Tseung Kwan O

Date of measurement:

Sampling equipment used:	Dates calibrated
XT-XWHM-Y-OR	2/9/2022
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			Monitoring wells / Surface Gas Emission							
Sample location	Date of measurement	Sampling time	Weather condition	Balance gas (%)	Flammable gas (methame %)	Carbon monoxide(%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)	
WPRTTA 4	27/1/2023	0830	Rain/Fine	0	0	0	20.9	17/10/0	3.7	
de per	1/	1330	Rain/Fine	0	0	0	20.9	19/1009	3.7	
1 -, 1 ,	У	1700	Rain/Fine	0	0	0	20.9	20/10/0	3.7	
WPRTTA 5	V	0830	Rain/Fine	0	0	0	20.9	18/1009	3.6	
16	\/	1330	Rain/Fine	0	0	0	20.9	17/10/0	3.6	
	V	1700	Rain/Fine	0	0	0	20.9	20/1010	3.6	
1. / 1										
			· ·							

Name & Designation

Signature

Date

27/1/2023

Field Operator:

Jock Lee (Competent Person [CO-310218])

Laboratory Staff:

Mainlaying in Tseung Kwan O

Penta-Ocean - Concentric Joint Venture

Wan Po Road Gas Monitoring - Field Measurement Recording Sheet

Name of site:

13/WSD/16 - Mainlaying in Tseung Kwan O

Date of measurement:

Sampling equipment used:	Dates calibrated
XT-XWHM-Y-OR	2/9/2022

				N	Monitoring wells	/ Surface Ga	s Emissic	n	
Sample location	Date of measurement	Sampling time	Weather condition	Balance gas (%)	Flammable gas (methame %)	Carbon monoxide(%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
WPRTTA 4	30/1/2023	0830	Rain/Fine	0	0	0	20.9	18/1009	3.7
41.1	٧	1330	Rain/Fine	0	0	0	20.9	17 / lofc	3.7
	Υ	1700	Rain/Fine	0	0	0	20.9	20/10/0	3.7
WPRTTA 5	٧	0830	Rain/Fine	0	0	. 0	20.9	19/1009	3.6
	У	1330	Rain/Fine	0	. 0	0	20.9	17/1009	3.6
	\)	1700	Rain/Fine	0	0	0	20.9	18/10/0	3.6

Name & Designation

Signature

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Date 30/1/2023

Field Operator:

Jock Lee (Competent Person [CO-310218])

Laboratory Staff:

Mainlaying in Tseung Kwan O

Penta-Ocean - Concentric Joint Venture

Wan Po Road Gas Monitoring - Field Measurement Recording Sheet

Name of site:

13/WSD/16 - Mainlaying in Tseung Kwan O

Date of measurement:

Sampling equipment used:	Dates calibrated
XT-XWHM-Y-OR	2/9/2022

				N	Monitoring wells	/ Surface Ga	s Emissic	on	
Sample location	Date of measurement	Sampling time	Weather condition	Balance gas (%)	Flammable gas (methame %)	Carbon monoxide(%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
WPRTTA 4	3[/1/2023	0830	Rain/Fine	0	0	0	20.9	19/10/0	3.7
	γ	1330	Rain/Fine	0	0	0	20.9	18/1009	3.7
)r	1700	Rain/Fine	0	0	0	20.9	20/10/0	3.7
WPRTTA 5	Υ	0830	Rain/Fine	0	0	0	20.9	17 //309	3.6
	٧	1330	Rain/Fine	0	0	0	20.9	19/1009	3.6
	Υ	1700	Rain/Fine	0	0	0	20.9	18/10/0	3.6
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Name & Designation

Signature

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Date 31/1/2023

Field Operator:

Jock Lee (Competent Person [CO-310218])

Laboratory Staff:

Mainlaying in Tseung Kwan O

Penta-Ocean - Concentric Joint Venture

Area 137 Gas Monitoring - Field Measurement Recording Sheet

Name of site:

13/WSD/16 - Mainlaying in Tseung Kwan O

Date of measurement:

Sampling equipment used:	Dates calibrated
XT-XWHM-Y-OR	2/9/2022

				M	Ionitoring wells /	Surface Gas	Emission		
Sample location	Date of measurement	Sampling time	Weather condition	Balance gas (%)	Flammable gas (methame %)	monoxide(Oxygen (%)	Temp (°C) / Pressure	Remark Depth
107 Div A	21/2	0830	Rain/Fine-	0	0	%)	20.9	(mbar)	(m) 8.4
Area 137 Pit A	3/1/2023			0	0	0	20.9	1. 1.	8.4
	1/	1330	Rain/Fine	U	U	U		7	
	Y	1700	Rain/Fine	0	0	0	20.9	18/1004	8.4
Area 137 Pit B	Υ	0830	Rain/Eine	0	0	0	20.9	18/10/0	8.6
	Y	1330	Rain/Fipe	0	0	0	20.9	19/10/0	8.6
	V	1700	Rain/Fine	0	0	0	20.9	20/1009	8.6
Area 137 Pit C	Y	0830	Rain/Fine	0	0	0	20.9	2//10/0	10
		1330	Rain/Fine	0	0	0	20.9	18/1009	1
		1700	Rain/Eme	0	0	0	20.9	19/10/0	10

Name & Designation

Signature

Date 3///2633

Field Operator:

Jock Lee (Competent Person [CO-310218])

Laboratory Staff:

Mainlaying in Tseung Kwan O

Penta-Ocean - Concentric Joint Venture

Area 137 Gas Monitoring - Field Measurement Recording Sheet

Name of site:

13/WSD/16 - Mainlaying in Tseung Kwan O

Date of measurement:

Sampling equipment used:	Dates calibrated
XT-XWHM-Y-OR	2/9/2022
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	Date of measurement	Sampling time	Monitoring wells / Surface Gas Emission						
Sample location			Weather condition	Balance gas (%)	Flammable gas (methame %)	manayiaeii	Ovugan	Temp (°C) /	Remark
							Oxygen (%)	Pressure	Depth
						%)		(mbar)	(m)
Area 137 Pit A	4/1/2022	0830	Rain/ Fine	0	0	0	20.9	18/10/0	8.4
	V	1330	Rain/Fine	0	0	0	20.9	19/1009	8.4
	V	1700	Rain/Eine	0	0	0	20.9	20/10/0	8.4
Area 137 Pit B	٧	0830	Rain/Fine	0	0	0	20.9	20/1009	8.6
	V	1330	Rain/ Fine	0	0	0	20.9	18/1009	8.6
	V	1700	Rain/ Fine	0	0	0	20.9	19/10/0	8.6
Area 137 Pit C	V	0830	Rain/Eine	0	0	0	20.9	20/1009	10
	У	1330	Rain/Fine	0	0	0	20.9	20/1009	10
	V	1700	Rain/Fine	0	0	0	20.9	18/10/0	10

Name & Designation

Signature

Date 4/1/2013

Field Operator:

Jock Lee (Competent Person [CO-310218])

Laboratory Staff:

Mainlaying in Tseung Kwan O

Penta-Ocean - Concentric Joint Venture

Area 137 Gas Monitoring - Field Measurement Recording Sheet

Name of site:

13/WSD/16 - Mainlaying in Tseung Kwan O

Date of measurement:

Sampling equipment used:	Dates calibrated		
XT-XWHM-Y-OR	2/9/2022		

				M	Ionitoring wells /	Surface Gas	Emission	1	
Sample location	Date of	Sampling time	Weather	Balance	Flammable gas	Carbon monoxide(Oxygen	Temp (°C) / Pressure	Remark Depth
\$1.00¢.12.	measurement		condition	gas (%)	(methame %)	%)	(%)	(mbar)	(m)
Area 137 Pit A	5/1/2022	0830	Rain/Fine	0	0	0	20.9	17/1009	8.4
	1///	1330	Rain/Fine	0	0	0	20.9	18/1009	8.4
	Y	1700	Rain/Fine	0	0	0	20.9	20/10/0	8.4
Area 137 Pit B	V	0830	Rain/Fine	0	0	0	20.9	21/10/0	8.6
1.5	V	1330	Rain/Fine	0	0	0	20.9	18/10/0	8.6
A 71	V	1700	Rain/Fine	0	0	0	20.9	19/1009	8.6
Area 137 Pit C	V	0830	Rain/Fine	0	0	0	20.9	20/10/0	10
	V	1330	Rain/Fine	0	0	0	20.9	21/10/1	10
	✓	1700	Rain/Fine	0	0	0	20.9	20/10/0	10

Name & Designation

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Date \$///2013

Field Operator:

Jock Lee (Competent Person [CO-310218])

Laboratory Staff:

Mainlaying in Tseung Kwan O

Penta-Ocean - Concentric Joint Venture

Area 137 Gas Monitoring - Field Measurement Recording Sheet

Name of site:

13/WSD/16 - Mainlaying in Tseung Kwan O

Date of measurement:

Sampling equipment used:	Dates calibrated
XT-XWHM-Y-OR	2/9/2022

				M	Ionitoring wells /	Surface Gas	Emission	ı	
Complete la serie de	Date of	Complination	Weather	Dolongo	Flammable gas	Carbon	Oxygen	Temp (°C) /	Remark
Sample location	measurement	Sampling time	Weather	Balance		monoxide((%)	Pressure	Depth
	50		condition	gas (%)	(methame %)	%)	(%)	(mbar)	(m)
Area 137 Pit A	6/1/2022	0830	-Rain/Fine	0	0	0	20.9	18/1009	8.4
	V V	1330	Rain/Fine	0	0	0	20.9	17/1009	8.4
	V	1700	Rain/Fine	0	0	0	20.9	20/10/0	8.4
Area 137 Pit B	V	0830	Rain/Fine	0	0	0	20.9	20/1011	8.6
	V	1330	Rain/Fine	0	0	0	20.9	18/1009	8.6
	٧	1700	Rain/Fine	0	0	0	20.9	17/1009	8.6
Area 137 Pit C	٧	0830	Rain/Fine	0	0	0	20.9	20/10/0	10
	٧	1330	Rain/Fine	0	0	0	20.9	20/1009	10
	λ	1700	Rain/Fine	0	0	0	20.9	19/10/0	10

Name & Designation

Signature

Date

1/2023

Field Operator:

Jock Lee (Competent Person [CO-310218])

Laboratory Staff:

Mainlaying in Tseung Kwan O

Penta-Ocean - Concentric Joint Venture

Area 137 Gas Monitoring - Field Measurement Recording Sheet

Name of site:

13/WSD/16 - Mainlaying in Tseung Kwan O

Date of measurement:

Sampling equipment used:	Dates calibrated
XT-XWHM-Y-OR	2/9/2022
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				M	Ionitoring wells /	Surface Gas	Emission	1	
Sample location	Date of	Sampling time	Weather	Balance	Flammable gas	Carbon monoxide(Oxygen	Temp (°C) /	Remark
	measurement	measurement	condition	gas (%)	(methame %)	monoxide(%)	(%)	Pressure (mbar)	Depth (m)
Area 137 Pit A	9 / 1 /2023	0830	Rain/Fine	0	0	0	20.9	17/10/0	8.4
	9 / / /2023	1330	Rain/Eine	0	0	0	20.9	19/10/0	8.4
	9 / 1 /2023	1700	Rain/Fine	0	0	0	20.9	20 / 1009	8.4
Area 137 Pit B	0 / / /2023	0830	Rain/Fine	0	0	0	20.9	18/10/0	8.6
	9 / / /2023	1330	Rain/Fine	0	0	0	20.9	19 / 1009	8.6
	9 / 1 /2023	1700	Rain/Fine	0	0	0	20.9	20 / 10/c	8.6
Area 137 Pit C	9 / 1 /2023	0830	Rain/Fine	0	0	0	20.9	21/10/0	10
	c/ / / /2023	1330	Rain/Fine	0	0	0	20.9	18 / 1009	10
	9 / / /2023	1700	Rain/Eine	0	0	0	20.9	17 / 10/0	10

Name & Designation

Signature

Date q/(1/2023)

Field Operator:

Jock Lee (Competent Person [CO-310218])

Laboratory Staff:

Mainlaying in Tseung Kwan O

Penta-Ocean - Concentric Joint Venture

Area 137 Gas Monitoring - Field Measurement Recording Sheet

Name of site:

13/WSD/16 - Mainlaying in Tseung Kwan O

Date of measurement:

Sampling equipment used:	Dates calibrated
XT-XWHM-Y-OR	2/9/2022

		- MANA		M	Ionitoring wells /	Surface Gas	Emission	1	
Comple leastion	Date of	Sampling time	Weather	Balance	Flammable gas	Carbon	Oxygen	Temp (°C) /	Remark
Sample location	measurement	Sampling time			(methame %)	monoxide((%)	Pressure	Depth
			condition	gas (%)	(methanie %)	%)	(%)	(mbar)	(m)
Area 137 Pit A	(0 / 1 /2023	0830	Rain/Fine	0	0	0	20.9	18/009	8.4
	fo/ f /2023	1330	Rain/Eine	0	0	0	20.9	19/10/0	8.4
	/c/ / /2023	1700	Rain/Eine	0	0	0	20.9	19/1009	8.4
Area 137 Pit B	<i>[0 1 </i> 2023	0830	Rain/Fine	0	0	0	20.9	20 //0/0	8.6
	/o/ / /2023	1330	Rain/Fine	0	0	0	20.9	20 1/009	8.6
	<i>[o / [/2023</i>	1700	Rain/Eine	0	0	0	20.9	18 //009	8.6
Area 137 Pit C	/o / / /2023	0830	Rain/Eine	0	0	0	20.9	17 1/0/0	10
	16/1/2023	1330	Rain/Eine	0	0	0	20.9	19/1/0/0	10
	/o/ r /2023	1700	Rain/Fine	0	0	0	20.9	× 1/0/0	10

Name & Designation

Signature

Date lo/l/202

Field Operator:

Jock Lee (Competent Person [CO-310218])

Laboratory Staff:

Mainlaying in Tseung Kwan O

Penta-Ocean - Concentric Joint Venture

Area 137 Gas Monitoring - Field Measurement Recording Sheet

Name of site:

13/WSD/16 - Mainlaying in Tseung Kwan O

Date of measurement:

Sampling equipment used:	Dates calibrated
XT-XWHM-Y-OR	2/9/2022

			Monitoring wells / Surface Gas Emission				1		
G. la la satism	Date of	Compling time	Weather	Balance	Flammable gas	Carbon	Oxygen	Temp (°C) /	Remark
Sample location	measurement	Sampling time	condition	gas (%)	(methame %)	monoxide((%)	Pressure	Depth
			Condition	gas (%)	(methanic 70)	%)	(70)	(mbar)	(m)
Area 137 Pit A	11/ 1 /2023	0830	Rain/Fine	0	0	0	20.9	19/10/0	8.4
14/57	11 / 1 /2023	1330	Rain/Fine	0	0	0	20.9	20/1009	8.4
	11 / 1 /2023	1700	Rain/Eine	0	0	0	20.9	17 /1009	8.4
Area 137 Pit B	11/ [/2023	0830	Rain/Fine	0	0	0	20.9	18/10/0	8.6
	11///2023	1330	Rain/Fine	0	0	0	20.9	20 / 10/0	0.0
A I I I I I	11/1 /2023	1700	Rain/Fine	0	0	0	20.9	19 / 1009	8.6
Area 137 Pit C	11/1/2023	0830	Rain/Fine	0	0	0	20.9	17/10/0	10
	11/1 /2023	1330	Rain/Fine	0	0	0	20.9	20 / 10/0	10
	11/ 1 /2023	1700	Rain/Fine	0	0	0	20.9	20 / 1009	10

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Name	XT	Degior	ation
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Signature

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1/1/2023

Field Operator:

Jock Lee (Competent Person [CO-310218])

Laboratory Staff:

Mainlaying in Tseung Kwan O

Penta-Ocean - Concentric Joint Venture

Area 137 Gas Monitoring - Field Measurement Recording Sheet

Name of site:

13/WSD/16 - Mainlaying in Tseung Kwan O

Date of measurement:

Sampling equipment used:	Dates calibrated
XT-XWHM-Y-OR	2/9/2022

				M	Ionitoring wells /	Surface Gas	Emission	1	
Causala la action	Date of	Sampling time	Weather	Balance	Flammable gas	Carbon	Oxygen	Temp (°C) /	Remark
Sample location	measurement	Sampling time	condition		(methame %)	monoxide((%)	Pressure	Depth
	1		condition	gas (%)	(methanie %)	%)	(70)	(mbar)	(m)
Area 137 Pit A	/d/ / /2023	0830	Rain/Fine	0	0	0	20.9	19 / 1009	8.4
	(A/ 1/2023	1330	Rain/Fine	0	0	0	20.9	17 / 1009	8.4
	10/1/2023	1700	Rain/Fine	0	0	0	20.9	20 1/0/0	8.4
Area 137 Pit B	/d/ / /2023	0830	Rain/Fine	0	0	0	20.9	18 //0/0	8.6
	10/ 1/2023	1330	Rain/Fine	0	0	0	20.9	19 / 1009	8.6
. = = =	/d/ / /2023	1700	Rain/Fine	0	0	0	20.9	17/10/0	8.6
Area 137 Pit C	10V 1 /2023	0830	Rain/ Fine	0	0	0	20.9	18/10/0	10
	10/1/2023	1330	Rain/Fine	0	0	0	20.9	20 / /009	10
	12023	1700	Rain/Eine	0	0	0	20.9	19/10/0	10

Name & Designation

Signature

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Date (2/1/2023

Field Operator:

Jock Lee (Competent Person [CO-310218])

Laboratory Staff:

Mainlaying in Tseung Kwan O

Penta-Ocean - Concentric Joint Venture

Area 137 Gas Monitoring - Field Measurement Recording Sheet

Name of site:

13/WSD/16 - Mainlaying in Tseung Kwan O

Date of measurement:

Sampling equipment used:	Dates calibrated		
XT-XWHM-Y-OR	2/9/2022		
,			

			Monitoring wells / Surface Gas Emission							
Sample location	Date of measurement	Sampling time	Weather condition	Balance gas (%)	Flammable gas (methame %)	monoxide(Oxygen (%)	Temp (°C) / Pressure	Remark Depth	
				545 (70)	(memame /e)	%)		(mbar)	(m)	
Area 137 Pit A	13/ / /2023	0830	Rain/Fine	0	0	0	20.9	17/1009	8.4	
	13/1/2023	1330	Rain/Fine	0	0	0	20.9	19/10/0	8.4	
- 1, 6	13/1/2023	1700	Rain/Fine	0	0	0	20.9	20 /10/0	8.4	
Area 137 Pit B	[3/1/2023	0830	Rain/Fine	0	0	0	20.9	18 1/c09	8.6	
	13/1/2023	1330	Rain/ Fine	0	0	0	20.9	19 /10/0	8.6	
	13/1/2023	1700	Rain/Fine	0	0	0	20.9	17/1009	8.6	
Area 137 Pit C	13/1/2023	0830	Rain/Fine	0	0	0	20.9	20/10/0	10	
	13/1/2023	1330	Rain/Fine	0	0	0	20.9	21/1011	10	
	13/1/2023	1700	Rain/Fine	0	0	0	20.9	>0 / 1009	10	

Name & Designation

Signature

Date

3/1/2023

Field Operator:

Jock Lee (Competent Person [CO-310218])

Laboratory Staff:

Mainlaying in Tseung Kwan O

Penta-Ocean - Concentric Joint Venture

Area 137 Gas Monitoring - Field Measurement Recording Sheet

Name of site:

13/WSD/16 - Mainlaying in Tseung Kwan O

Date of measurement:

Sampling equipment used:	Dates calibrated
XT-XWHM-Y-OR	2/9/2022

				M	Ionitoring wells /	Surface Gas	Emission	1	
Sample location	Date of measurement	Sampling time	Weather condition	Balance gas (%)	Flammable gas (methame %)	Carbon monoxide(%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
Area 137 Pit A	16 / 1 /2023	0830	Rain/Fine	0	0	0	20.9	18 / 10/0	8.4
	\/	1330	Rain/Fine	0	0	0	20.9	20/10/0	8.4
	\ <u></u>	1700	Rain/Fine	0	0	0	20.9	17 / 1069	8.4
Area 137 Pit B	У	0830	Rain/Fine	0	0	0	20.9	19/1009	8.6
	V	1330	Rain/Fine	0	0	0	20.9	20/10/0	8.6
	У	1700	Rain/Fine	0	0	0	20.9	18 /1009	8.6
Area 137 Pit C	4	0830	Rain/Fine	0	0	0	20.9	17 /10/0	10
	٧	1330	Rain/Fine	0	0	0	20.9	20 / 10/0	10
	./	1700	Rain/Fine	0	0	0	20.9	18/1009	10

Name & Designation

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5/0//2023

Field Operator:

Jock Lee (Competent Person [CO-310218])

Laboratory Staff:

Mainlaying in Tseung Kwan O

Penta-Ocean - Concentric Joint Venture

Area 137 Gas Monitoring - Field Measurement Recording Sheet

Name of site:

13/WSD/16 - Mainlaying in Tseung Kwan O

Date of measurement:

Sampling equipment used:	Dates calibrated
XT-XWHM-Y-OR	2/9/2022
A.	

		Monitoring wells / Surface Gas Emission							
Sample location	Date of measurement	Sampling time	Weather	Balance	Flammable gas	Carbon monoxide(Oxygen (%)	Temp (°C) / Pressure	Remark Depth
			condition	gas (%)	(methame %)	%)	(%)	(mbar)	(m)
Area 137 Pit A	17/ //2023	0830	Rain/Fine	0	0	0	20.9	19/10/0	8.4
	У	1330	Rain/Fine	0	0	0	20.9	18 / 1009	8.4
methania i	V	1700	Rain/Fine	0	0	0	20.9	20//0/0	8.4
Area 137 Pit B	, ,	0830	Rain/Fine	0	0	0	20.9	17/1009	8.6
	У	1330	Rain/Fine	0	0	0	20.9	19/1009	8.6
Liftin	У	1700	Rain/Fine	0	0	0	20.9	>0/10/0	8.6
Area 137 Pit C	(/	0830	Rain/Fine	0	0	0	20.9	18/10/0	10
	V	1330	Rain/Fine	0	0	0	20.9	17 / 1009	10
	У	1700	Rain/Fine	0	0	0	20.9	20/10/0	10

Name & Designation

Signature ?

Date 17/1/2023

Field Operator:

Jock Lee (Competent Person [CO-310218])

Laboratory Staff:

Mainlaying in Tseung Kwan O

Penta-Ocean - Concentric Joint Venture

Area 137 Gas Monitoring - Field Measurement Recording Sheet

Name of site:

13/WSD/16 - Mainlaying in Tseung Kwan O

Date of measurement:

Sampling equipment used:	Dates calibrated
XT-XWHM-Y-OR	2/9/2022

				M	lonitoring wells /	Surface Gas	Emission		
Sample location	Date of measurement	Sampling time	Weather	Balance	Flammable gas	Carbon monoxide(Oxygen	Temp (°C) / Pressure	Remark Depth
			condition	gas (%)	(methame %)	%)	(%)	(mbar)	(m)
Area 137 Pit A	18/ 1/2023	0830	Rain/Fine	0	0	0	20.9	17 / 10/0	8.4
The state of the s	٧	1330	Rain/Fine	0	0	0	20.9	19/1009	8.4
	V	1700	Rain/Fine	0	0	0	20.9	20/10/6	8.4
Area 137 Pit B	У	0830	Rain/Fine	0	0	0	20.9	18/1009	8.6
	У	1330	Rain/Fine	0	0	0	20.9	17/10/0	8.6
Fritzer.	٧	1700	Rain/Fine	0	0	0	20.9	19/10/0	8.6
Area 137 Pit C	У	0830	Rain/Fine	0	0	0	20.9	18/1009	10
H	V	1330	Rain/Fine	0	0	0	20.9	20/1010	10
	٧	1700	Rain/Fine	0	0	0	20.9	19/10/0	10

Name & Designation

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Field Operator:

Jock Lee (Competent Person [CO-310218])

Laboratory Staff:

Mainlaying in Tseung Kwan O

Penta-Ocean - Concentric Joint Venture

Area 137 Gas Monitoring - Field Measurement Recording Sheet

Name of site:

13/WSD/16 - Mainlaying in Tseung Kwan O

Date of measurement:

Sampling equipment used:	Dates calibrated
XT-XWHM-Y-OR	2/9/2022

				M	Ionitoring wells /	Surface Gas	Emission	l	
Communication	Date of	Compling time	Weather	Balance	Flammable gas	Carbon	Oxygen	Temp (°C) /	Remark
Sample location	measurement	Sampling time				monoxide((%)	Pressure	Depth
	- 1		condition	gas (%)	(methame %)	%)	(70)	(mbar)	(m)
Area 137 Pit A	19/ //2023	0830	Rain/Fine	0	0	0	20.9	19/1/0/0	8.4
	Y	1330	Rain/Fine	0	0	0	20.9	17/1009	8.4
	У	1700	Rain/Fine	0	0	0	20.9	V /10/0	8.4
Area 137 Pit B	V	0830	Rain/Fine	0	0	0	20.9	18/1/0/0	8.6
	٧	1330	Rain/Fine	0	0	0	20.9	17/10/0	8.6
	\/	1700	Rain/Fine	0	0	0	20.9	19 11009	8.6
Area 137 Pit C	V	0830	Rain/Fine	0	0	0	20.9	20/1009	10
	V	1330	Rain/Fine	0	0	0	20.9	21/10/6	10
14	X	1700	Rain/Fine	0	0	0	20.9	18/1009	10

Name & Designation

Signature

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Date

9/1/2023

Field Operator:

Jock Lee (Competent Person [CO-310218])

Laboratory Staff:

Mainlaying in Tseung Kwan O

Penta-Ocean - Concentric Joint Venture

Area 137 Gas Monitoring - Field Measurement Recording Sheet

Name of site:

13/WSD/16 - Mainlaying in Tseung Kwan O

Date of measurement:

Sampling equipment used:	Dates calibrated
XT-XWHM-Y-OR	2/9/2022

			Monitoring wells / Surface Gas Emission						
Sample location	Date of measurement	Sampling time	Weather condition	Balance gas (%)	Flammable gas (methame %)	Carbon monoxide(%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
Area 137 Pit A	مر (/2023	0830	Rain/Fine	0	0	0	20.9	19/10/0	8.4
1-17	V	1330	Rain/Fine	0	0	0	20.9	18 /1009	8.4
	٧	1700	Rain/Fine	0	0	0	20.9	19/1209	8.4
Area 137 Pit B	У	0830	Rain/Fine	0	0	0	20.9	20/10/0	8.6
KEEPI, TOUR	4	1330	Rain/Fine	0	0	0	20.9	P0311 [1	8.6
4:7.4.	V	1700	Rain/Fine	0	0	0	20.9	1 / 10/0	8.6
Area 137 Pit C	, , , , , , , , , , , , , , , , , , ,	0830	Rain/Fine	0	0	0	20.9	20/1009	10
	ý	1330	Rain/Fine	0	0	0	20.9	19/1009	10
- · ·	У	1700	Rain/Fine	0	0	0	20.9	17 /1010	10

Name & Designation

Signature

Date 20/1/202

Field Operator:

Jock Lee (Competent Person [CO-310218])

Laboratory Staff:

Mainlaying in Tseung Kwan O

Penta-Ocean - Concentric Joint Venture

Area 137 Gas Monitoring - Field Measurement Recording Sheet

Name of site:

13/WSD/16 - Mainlaying in Tseung Kwan O

Date of measurement:

Sampling equipment used:	Dates calibrated
XT-XWHM-Y-OR	2/9/2022

				M	Ionitoring wells /	Surface Gas	Emission	1	
Sample location	Date of measurement	Sampling time	Weather condition	Balance gas (%)	Flammable gas (methame %)	Carbon monoxide(%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
Area 137 Pit A	26/1/2023	0830	Rain/Fine	0	0	0	20.9	18/1009	8.4
	٧	1330	Rain/Fine	0	0	0	20.9	20 / 100	8.4
	\/	1700	Rain/Fine	0	0	0	20.9	21/100	8.4
Area 137 Pit B	(/	0830	Rain/Fine	0	0	0	20.9	19 / 1009	8.6
	V	1330	Rain/Fine	0	0	0	20.9	18/10/0	8.6
	٧	1700	Rain/Fine	0	0	0	20.9	17 / 1009	8.6
Area 137 Pit C	٧	0830	Rain/Fine	0	0	0	20.9	19/10/0	10
	V	1330	Rain/Fine	0	0	0	20.9	20/10/0	10
	V	1700	Rain/Fine	0	0	0	20.9	18/1009	10

Name & Designation

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Date 26/1/2023.

Field Operator:

Jock Lee (Competent Person [CO-310218])

Laboratory Staff:

Mainlaying in Tseung Kwan O

Penta-Ocean - Concentric Joint Venture

Area 137 Gas Monitoring - Field Measurement Recording Sheet

Name of site:

13/WSD/16 - Mainlaying in Tseung Kwan O

Date of measurement:

Sampling equipment used:	Dates calibrated
XT-XWHM-Y-OR	2/9/2022

				M	Ionitoring wells /	Surface Gas	Emission	1	
Complete to the section	Date of	Sampling time	Weather	Balance	Flammable gas	Carbon	Oxygen	Temp (°C) /	Remark
Sample location	measurement	Sampling unic	condition	gas (%)	(methame %)	monoxide((%)	Pressure	Depth
Land Tarre			Condition	gas (%)	(methanie 70)	%)	(70)	(mbar)	(m)
Area 137 Pit A	2023 / / آد	0830	Rain/Fine	0	0	0	20.9	19/1/0/0	8.4
	1/	1330	Rain/Fine	0	0	0	20.9	17/1009	8.4
	γ	1700	Rain/Fine	0	0	0	20.9	18/10/0	8.4
Area 137 Pit B	V	0830	Rain/Fine	0	0	0	20.9	20 / 10/0	8.6
	Y	1330	Rain/Fine	0	0	0	20.9	19/1009	8.6
	У	1700	Rain/Fine	0	0	0	20.9	19/1/0/0	
Area 137 Pit C	٧	0830	Rain/Fine	0	0	0	20.9	18 / 1009	10
	V	1330	Rain/Fine	0	0	0	20.9	17/1/0/0	10
	٧	1700	Rain/Fine	0	0	0	20.9	20 /1009	10

Name & Designation

Signature

Date 27/1/202

Field Operator:

Jock Lee (Competent Person [CO-310218])

Laboratory Staff:

Mainlaying in Tseung Kwan O

Penta-Ocean - Concentric Joint Venture

Area 137 Gas Monitoring - Field Measurement Recording Sheet

Name of site:

13/WSD/16 - Mainlaying in Tseung Kwan O

Date of measurement:

Sampling equipment used:	Dates calibrated
XT-XWHM-Y-OR	2/9/2022

				M	onitoring wells /	Surface Gas	Emission		
G la la satissa	Date of	Sampling time	Weather	Balance	Flammable gas	Carbon	Oxygen	Temp (°C) /	Remark
Sample location	measurement	Sampling unic			(methame %)	monoxide((%)	Pressure	Depth
	,		condition	gas (%)	(methanie 70)	%)	(70)	(mbar)	(m)
Area 137 Pit A	30/ 1/2023	0830	Rain/Fine	0	0	0	20.9	19/1/0/0	8.4
11100 107 11011	~ V	1330	Rain/Fine	0	0	0	20.9	17/109	8.4
	У	1700	Rain/Fine	0	0	0	20.9	20/10/0	8.4
Area 137 Pit B	У	0830	Rain/Fine	0	0	0	20.9	18 1/009	8.6
	٧	1330	Rain/Fine	0	0	0	20.9	19/10/0	8.6
	Ч	1700	Rain/Fine	0	0	0	20.9	20/10/0	8.6
Area 137 Pit C	J	0830	Rain/Fine	0	0	0	20.9	17/1009	10
111011111111111111111111111111111111111	V	1330	Rain/Fine	0	0	0	20.9	18/10/0	10
	٧	1700	Rain/Fine	0	0	0	20.9	17/10/0	10

Name & Designation

Signature

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Date \$0/1/2013

Field Operator:

Jock Lee (Competent Person [CO-310218])

Laboratory Staff:

Mainlaying in Tseung Kwan O

Penta-Ocean - Concentric Joint Venture

Area 137 Gas Monitoring - Field Measurement Recording Sheet

Name of site:

13/WSD/16 - Mainlaying in Tseung Kwan O

Date of measurement:

Sampling equipment used:	Dates calibrated
XT-XWHM-Y-OR	2/9/2022

			Monitoring wells / Surface Gas Emission							
Sample location	Date of measurement	Sampling time	Weather condition	Balance gas (%)	Flammable gas (methame %)	monoxide(Oxygen (%)	Pressure	Remark Depth	
	12022	0000			0	%)	20.9	(mbar)	(m) 8.4	
Area 137 Pit A	3///2023	0830	Rain/Fine	0	0	U		18/1009		
	V	1330	Rain/Fine	0	0	0	20.9	20/10/6	8.4	
	V	1700	Rain/Fine	0	0	0	20.9	19 /10/0	8.4	
Area 137 Pit B	٧	0830	Rain/Fine	0	0	0	20.9	17 /1009	8.6	
	1	1330	Rain/Fine	0	0	0	20.9	18 //0/0	8.6	
1	٧/	1700	Rain/Fine	0	0	0	20.9	20 / 1009	8.6	
Area 137 Pit C	' /	0830	Rain/Fine	0	0	0	20.9	19/10/0	10	
	V	1330	Rain/Fine	0	0	0	20.9	18/1009	10	
	Υ	1700	Rain/Fine	0	0	0	20.9	17/10/0	10	

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Date 31/1/2023

Field Operator:

Jock Lee (Competent Person [CO-310218])

Laboratory Staff:

Mainlaying in Tseung Kwan O

Penta-Ocean - Concentric Joint Venture

Landfill Gas Monitoring - Field Measurement Recording Sheet

Name of site:

13/WSD/16 - Mainlaying in Tseung Kwan O

Date of measurement:

Sampling equipment used:	Dates calibrated
XT-XWHM-Y-OR	2/9/2022

					Monitoring wells	/ Surface G	as Emissi	on	
Sample location	Date of measurement	Sampling time	Weather condition	Balance gas (%)	Flammable gas (methame %)	Carbon monoxide(%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
Area A	4/1/2022	0830	Rain/Fine	0	0	0	20.9	18/1009	5.5
11100.11	177720-2	1330	Rain/Fine	0	0	0	20.9	20/1009	5.5
	V	1700	Rain/Eine	0	0	0	20.9	18/10/0	5.5
Area B	V	0830	Rain/Fine	0	0	0	20.9	17/10/0	5.5
	\/	1330	Rain/Fine	0	0	0	20.9	19/10/0	5.5
	· /	1700	Rain/Fine	0	0	0	20.9	18/1011	5.5
	1							1,	
1 . 14.									

Name & Designation

Signature

Date 3/12/2023

Field Operator:

Jock Lee (Competent Person [CO-310218])

Laboratory Staff:

Mainlaying in Tseung Kwan O

Penta-Ocean - Concentric Joint Venture

Landfill Gas Monitoring - Field Measurement Recording Sheet

Name of site:

13/WSD/16 - Mainlaying in Tseung Kwan O

Date of measurement:

Sampling equipment used:	Dates calibrated
XT-XWHM-Y-OR	2/9/2022

			Monitoring wells / Surface Gas Emission								
Sample location	Date of measurement	Sampling time	Weather condition	Balance gas (%)	Flammable gas (methame %)	Carbon monoxide(%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)		
Area A	3/1/2023	0830	Rain/Fine	0	0	0	20.9	18/1009	5.5		
	V	1330	Rain/Fine	0	0	0	20.9	2//10/0	5.5		
	٧	1700	Rain/Fine	0	0	0	20.9	20/10/0	5.5		
Area B	Ч	0830	Rain/Fine	0	0	0	20.9	19/1009	5.5		
	V	1330	Rain/Fine	0	0	0	20.9	20/10/0	5.5		
	У	1700	Rain/Fine	0	0	0	20.9	21/10/0	5.5		

Name & Designation

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)ate

3/1/2023.

Field Operator:

Jock Lee (Competent Person [CO-310218])

Laboratory Staff:

Mainlaying in Tseung Kwan O

Penta-Ocean - Concentric Joint Venture

Landfill Gas Monitoring - Field Measurement Recording Sheet

Name of site:

13/WSD/16 - Mainlaying in Tseung Kwan O

Date of measurement:

Sampling equipment used:	Dates calibrated
XT-XWHM-Y-OR	2/9/2022

			Monitoring wells / Surface Gas Emission							
Sample location	Date of measurement	Sampling time	Weather condition	Balance gas (%)	Flammable gas (methame %)	Carbon monoxide(%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)	
Area A	5/1/2022	0830	Rain/Fine	0	0	0	20.9	17/1009	5.5	
	(/	1330	Rain/Fine	0	0	0	20.9	20/1009	5.5	
	V	1700	Rain/Fine	0	0	0	20.9	18/10/0	5.5	
Area B	٧	0830	Rain/Fine	0	0	0	20.9	17/10/0	5.5	
	V/	1330	Rain/Fine	0	0	0	20.9	20/1009	5.5	
1 - '	У	1700	Rain/Fine	0	0	0	20.9	18/1009	5.5	
								. /		
1										

Name & Designation

Signature

Date 1/1/2023

Field Operator:

Jock Lee (Competent Person [CO-310218])

Laboratory Staff:

Mainlaying in Tseung Kwan O

Penta-Ocean - Concentric Joint Venture

Landfill Gas Monitoring - Field Measurement Recording Sheet

Name of site:

13/WSD/16 - Mainlaying in Tseung Kwan O

Date of measurement:

Sampling equipment used:	Dates calibrated
XT-XWHM-Y-OR	2/9/2022

					Monitoring wells	/ Surface G	as Emissi	on	
Sample location	Date of measurement	Sampling time	Weather condition	Balance gas (%)	Flammable gas (methame %)	Carbon monoxide(%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
Area A	<i>\$دەد/ 1/6</i>	0830	Rain/Fine	0	0	0	20.9	18/100	5.5
	\ \ \ \ \	1330	Rain/Fine	0	0	0	20.9	17/1009	5.5
	У	1700	Rain/Fine	0	0	0	20.9	18/1009	5.5
Area B	У	0830	Rain/Fine	0	0	0	20.9	20/10/0	5.5
	У	1330	Rain/Fine	0	0	0	20.9	21/10/0	5.5
	χ	1700	Rain/Fine	0	0	0	20.9	20/10/1	5.5
								, , , ,	

Name & Designation

Signature

Date 6/1/2023

Field Operator:

Jock Lee (Competent Person [CO-310218])

Laboratory Staff:

Mainlaying in Tseung Kwan O

Penta-Ocean - Concentric Joint Venture

Landfill Gas Monitoring - Field Measurement Recording Sheet

Name of site:

13/WSD/16 - Mainlaying in Tseung Kwan O

Date of measurement:

Sampling equipment used:	Dates calibrated
XT-XWHM-Y-OR	2/9/2022

			Monitoring wells / Surface Gas Emission							
Sample location	Date of measurement	Sampling time	Weather condition	Balance gas (%)	Flammable gas (methame %)	Carbon monoxide(%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)	
Area A	<i>q / 1 /</i> 2023	0830	Rain/Fine	0	0	0	20.9	19/10/0	5.5	
	G / [/2023	1330	Rain/Eine	0	0	0	20.9	20/1009	5.5	
	9 / 1 /2023	1700	Rain/Einc	0	0	0	20.9	18/1009	5.5	
Area B	9 / 1 /2023	0830	Rain/Fine	0	0	0	20.9	20/10/0	5.5	
	9 / / /2023	1330	Rain/Eine	0	0	0	20.9	19/10/0	5.5	
	9 / 1 /2023	1700	Rain/Eine	0	0	0	20.9	20/1009	5.5	

Name & Designation

Signature

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te 9/1/2013

Field Operator:

Jock Lee (Competent Person [CO-310218])

Laboratory Staff:

Mainlaying in Tseung Kwan O

Penta-Ocean - Concentric Joint Venture

Landfill Gas Monitoring - Field Measurement Recording Sheet

Name of site:

13/WSD/16 - Mainlaying in Tseung Kwan O

Date of measurement:

Sampling equipment used:	Dates calibrated
XT-XWHM-Y-OR	2/9/2022

			Monitoring wells / Surface Gas Emission							
Sample location	Date of measurement	Sampling time	Weather condition	Balance gas (%)	Flammable gas (methame %)	Carbon monoxide(%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)	
Area A	/o / _[/2023	0830	Rain/Eine	0	0	0	20.9	18 //0/0	5.5	
	10/ 1 /2023	1330	Rain/Fine	0	0	0	20.9	10/10/2	5.5	
	[0/] /2023	1700	Rain/Fine	0	0	0	20.9	17 11009	5.5	
Area B	10/1/2023	0830	Rain/Eine	0	0	0	20.9	19/1009	5.5	
	[0/[/2023	1330	Rain/Fine	0	0	0	20.9	20/1/0/0	5.5	
	16/1/2023	1700	Rain/Eine	0	0	0	20.9	18 /1009	5.5	
								/		
1										

Name & Designation

Signature

Date

10/1/23

Field Operator:

Jock Lee (Competent Person [CO-310218])

Laboratory Staff:

Mainlaying in Tseung Kwan O

Penta-Ocean - Concentric Joint Venture

Landfill Gas Monitoring - Field Measurement Recording Sheet

Name of site:

13/WSD/16 - Mainlaying in Tseung Kwan O

Date of measurement:

Sampling equipment used:	Dates calibrated
XT-XWHM-Y-OR	2/9/2022

					Monitoring wells	/ Surface G	as Emissi	on	
Sample location	Date of measurement	Sampling time	Weather condition	Balance gas (%)	Flammable gas (methame %)	Carbon monoxide(%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
Area A	11 / 1 /2023	0830	Rain/Eine-	0	0	0	20.9	17/1009	5.5
	11 / 1 /2023	1330	Rain/Fine	0	0	0	20.9	20/10/0	5.5
	1/ / 1 /2023	1700	Rain/Fine	0	0	0	20.9	18/10/0	5.5
Area B	11 / 1 /2023	0830	Rain/Fine	0	0	0	20.9	19 / 1009	5.5
	1/ / 1 /2023	1330	Rain/Eine	0	0	0	20.9	20/1009	5.5
	11/1 /2023	1700	Rain/Fine	0	0	0	20.9	18 / 10/c	5.5
								1 1	

Name & Designation

Signature

Date

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Field Operator:

Jock Lee (Competent Person [CO-310218])

Laboratory Staff:

Mainlaying in Tseung Kwan O

Penta-Ocean - Concentric Joint Venture

Landfill Gas Monitoring - Field Measurement Recording Sheet

Name of site:

13/WSD/16 - Mainlaying in Tseung Kwan O

Date of measurement:

Sampling equipment used:	Dates calibrated
XT-XWHM-Y-OR	2/9/2022

				Monitoring wells / Surface Gas Emission							
Sample location	Date of measurement	Sampling time	Weather condition	Balance gas (%)	Flammable gas (methame %)	Carbon monoxide(%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)		
Area A	L/ / /2023	0830	Rain/Fine	0	0	0	20.9	18/1009	5.5		
12 5	12/1 /2023	1330	Rain/Fine	0	0	0	20.9	19/10/0	5.5		
	اردا /2023	1700	Rain/Fine	0	0	0	20.9	20/1/0/2	5.5		
Area B	(2/) /2023	0830	Rain/Fine	0	0	0	20.9	17 1/009	5.5		
Table 1	1)/1/2023	1330	Rain/Fine	0	0	0	20.9	18/1209	5.5		
	12/1/2023	1700	Rain/Fine	0	0	0	20.9	20 1/0/0	5.5		
		a a						(
					i.						

Name & Designation

Signature

Date

12/1/2023

Field Operator:

Jock Lee (Competent Person [CO-310218])

Laboratory Staff:

Mainlaying in Tseung Kwan O

Penta-Ocean - Concentric Joint Venture

Landfill Gas Monitoring - Field Measurement Recording Sheet

Name of site:

13/WSD/16 - Mainlaying in Tseung Kwan O

Date of measurement:

Sampling equipment used:	Dates calibrated
XT-XWHM-Y-OR	2/9/2022

				Monitoring wells / Surface Gas Emission							
Sample location	Date of measurement	Sampling time	Weather condition	Balance gas (%)	Flammable gas (methame %)	Carbon monoxide(%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)		
Area A	1t / 1 /2023	0830	Rain/Fine	0	0	0	20.9	19 / 1009	5.5		
	16/1/2023	1330	Rain/Fine	0	0	0	20.9	20/10/0	5.5		
	Y	1700	Rain/Fine	0	0	0	20.9	18/10/0	5.5		
Area B	٧	0830	Rain/Fine	0	0	0	20.9	17 /1009	5.5		
	J	1330	Rain/Fine	0	0	0	20.9	19/10/0	5.5		
	V	1700	Rain/Fine	0	0	0	20.9	2/1/0/0	5.5		
								. ,			

Name & Designation

Signature

Date /6/1/2023

Field Operator:

Jock Lee (Competent Person [CO-310218])

Laboratory Staff:

Mainlaying in Tseung Kwan O

Penta-Ocean - Concentric Joint Venture

Landfill Gas Monitoring - Field Measurement Recording Sheet

Name of site:

13/WSD/16 - Mainlaying in Tseung Kwan O

Date of measurement:

Sampling equipment used:	Dates calibrated
XT-XWHM-Y-OR	2/9/2022

					Monitoring wells	/ Surface G	as Emissi	on	
Sample location	Date of measurement	Sampling time	Weather condition	Balance gas (%)	Flammable gas (methame %)	Carbon monoxide(%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
Area A	13 / / /2023	0830	Rain/Fine	0	0	0	20.9	17/10/0	5.5
	13/1/2023	1330	Rain/Fine	0	0	0	20.9	19/1/0/0	5.5
	13/1/2023	1700	Rain/Fine	0	0	0	20.9	>0/1009	5.5
Area B	13 / 1 /2023	0830	Rain/Fine	0	0	0	20.9	18/100	5.5
1	13/1/2023	1330	Rain/Fine	0	0	0	20.9	20/1009	5.5
14214	3/ 1/2023	1700	Rain/Fine	0	0	0	20.9	19/10/0	5.5
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1 7 1 7									

Name & Designation

Signature

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Date 13/1/202

Field Operator:

Jock Lee (Competent Person [CO-310218])

Laboratory Staff:

Mainlaying in Tseung Kwan O

Penta-Ocean - Concentric Joint Venture

Landfill Gas Monitoring - Field Measurement Recording Sheet

Name of site:

13/WSD/16 - Mainlaying in Tseung Kwan O

Date of measurement:

Sampling equipment used:	Dates calibrated
XT-XWHM-Y-OR	2/9/2022

					Monitoring wells	/ Surface G	as Emissi	on	
Sample location	Date of measurement	Sampling time	Weather condition	Balance gas (%)	Flammable gas (methame %)	Carbon monoxide(%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
Area A	17/ / /2023	0830	Rain/Fine	0	0	0	20.9	17/10/0	5.5
	1/	1330	Rain/Fine	0	0	0	20.9	19/1009	5.5
	γ	1700	Rain/Fine	0	0	0	20.9	20//0/0	5.5
Area B	V	0830	Rain/Fine	0	0	0	20.9	18 1/0/0	5.5
1, 1	ý	1330	Rain/Fine	0	0	0	20.9	17 1/009	5.5
	ý	1700	Rain/Fine	0	0	0	20.9	19/1/0/0	5.5
	,							,	
11.									

Name & Designation

Signature

Date 17/1/2023

Field Operator:

Jock Lee (Competent Person [CO-310218])

Laboratory Staff:

Mainlaying in Tseung Kwan O

Penta-Ocean - Concentric Joint Venture

Landfill Gas Monitoring - Field Measurement Recording Sheet

Name of site:

13/WSD/16 - Mainlaying in Tseung Kwan O

Date of measurement:

Sampling equipment used:	Dates calibrated
XT-XWHM-Y-OR	2/9/2022

			Monitoring wells / Surface Gas Emission							
Sample location	Date of measurement	Sampling time	Weather condition	Balance gas (%)	Flammable gas (methame %)	Carbon monoxide(%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)	
Area A	18/ //2023	0830	Rain/Fine	0	0	0	20.9	19/10/0	5.5	
	γ	1330	Rain/Fine	0	0	0	20.9	18 1/009	5.5	
	٧	1700	Rain/Fine	0	0	0	20.9	20/10/0	5.5	
Area B	У	0830	Rain/Fine	0	0	0	20.9	17/1009	5.5	
	٧	1330	Rain/Fine	0	0	0	20.9	18/10/0	5.5	
	*	1700	Rain/Fine	0	0	0	20.9	19/1009	5.5	
г										

Name & Designation

Signature

Y

Date

18/1/2023

Field Operator:

Jock Lee (Competent Person [CO-310218])

Laboratory Staff:

Mainlaying in Tseung Kwan O

Penta-Ocean - Concentric Joint Venture

Landfill Gas Monitoring - Field Measurement Recording Sheet

Name of site:

13/WSD/16 - Mainlaying in Tseung Kwan O

Date of measurement:

Sampling equipment used:	Dates calibrated
XT-XWHM-Y-OR	2/9/2022

			Monitoring wells / Surface Gas Emission							
Sample location	Date of measurement	Sampling time	Weather condition	Balance gas (%)	Flammable gas (methame %)	Carbon monoxide(%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)	
Area A	26 / 1 /2023	0830	Rain/Fine	0	0	0	20.9	19/10/0	5.5	
	V	1330	Rain/Fine	0	0	0	20.9	18/1009	5.5	
A 4 - 1 - 1 -	V	1700	Rain/Fine	0	0	0	20.9	19/1009	5.5	
Area B	V	0830	Rain/Fine	0	0	0	20.9	20/10/0	5.5	
	V	1330	Rain/Fine	0	0	0	20.9	17 / 1009	5.5	
	Ý	1700	Rain/Fine	0	0	0	20.9	18/1010	5.5	
								, , , , ,		

Name & Designation

Signature

J

Date 20/(/202)

Field Operator:

Jock Lee (Competent Person [CO-310218])

Laboratory Staff:

Mainlaying in Tseung Kwan O

Penta-Ocean - Concentric Joint Venture

Landfill Gas Monitoring - Field Measurement Recording Sheet

Name of site:

13/WSD/16 - Mainlaying in Tseung Kwan O

Date of measurement:

Sampling equipment used:	Dates calibrated
XT-XWHM-Y-OR	2/9/2022

					Monitoring wells / Surface Gas Emission						
Sample location	Date of measurement	Sampling time	Weather condition	Balance gas (%)	Flammable gas (methame %)	Carbon monoxide(%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)		
Area A	19///2023	0830	Rain/Fine	0	0	0	20.9	19/10/0	5.5		
. 41 = 1	У	1330	Rain/Fine	0	0	0	20.9	17 //009	5.5		
-7,-1,-	Υ	1700	Rain/Fine	0	0	0	20.9	18/1/0/0	5.5		
Area B	У	0830	Rain/Fine	0	0	0	20.9	20/1/0	5.5		
	V	1330	Rain/Fine	0	0	0	20.9	18 /1009	5.5		
	У	1700	Rain/Fine	0	0	0	20.9	17 1/0/0	5.5		
14 to 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1								, ,			
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Name & Designation

Signature

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Date 19/1/2023

Field Operator:

Jock Lee (Competent Person [CO-310218])

Laboratory Staff:

Mainlaying in Tseung Kwan O

Penta-Ocean - Concentric Joint Venture

Landfill Gas Monitoring - Field Measurement Recording Sheet

Name of site:

13/WSD/16 - Mainlaying in Tseung Kwan O

Date of measurement:

Sampling equipment used:	Dates calibrated
XT-XWHM-Y-OR	2/9/2022

		4.44.000.00	Monitoring wells / Surface Gas Emission							
Sample location	Date of measurement	Sampling time	Weather condition	Balance gas (%)	Flammable gas (methame %)	Carbon monoxide(%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)	
Area A	26/1/2023	0830	Rain/Fine	0	0	0	20.9	19/1010	5.5	
	Y	1330	Rain/Fine	0	0	0	20.9	17/1009	5.5	
	V	1700	Rain/Fine	0	0	0	20.9	18/1009	5.5	
Area B	v	0830	Rain/Fine	0	0	0	20.9	20/1010	5.5	
	1	1330	Rain/Fine	0	0	0	20.9	18/1010	5.5	
	У	1700	Rain/Fine	0	0	0	20.9	17/1009	5.5	
								1 1		

Name & Designation

Signature

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Date 26/1/2023

Field Operator:

Jock Lee (Competent Person [CO-310218])

Laboratory Staff:

Mainlaying in Tseung Kwan O

Penta-Ocean - Concentric Joint Venture

Landfill Gas Monitoring - Field Measurement Recording Sheet

Name of site:

13/WSD/16 - Mainlaying in Tseung Kwan O

Date of measurement:

Sampling equipment used:	Dates calibrated
XT-XWHM-Y-OR	2/9/2022

-11:17:2					Monitoring wells / Surface Gas Emission						
Sample location	Date of measurement	Sampling time	Weather condition	Balance gas (%)	Flammable gas (methame %)	Carbon monoxide(%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)		
Area A	١ / ١ / / 2023	0830	Rain/Fine	0	0	0	20.9	17/1009	5.5		
r*	У	1330	Rain/Fine	0	0	0	20.9	19/10/0	5.5		
	٧	1700	Rain/Fine	0	0	0	20.9	18/10/0	5.5		
Area B	11	0830	Rain/Fine	0	0	0	20.9	20 11009	5.5		
	V	1330	Rain/Fine	0	0	0	20.9	19/1009	5.5		
Title Technic	۲	1700	Rain/Fine	0	0	0	20.9	20/10/0	5.5		
								, ,			
-T / 1							×				

Name & Designation

Signature

Date 2///2023

Field Operator:

Jock Lee (Competent Person [CO-310218])

Laboratory Staff:

Mainlaying in Tseung Kwan O

Penta-Ocean - Concentric Joint Venture

Landfill Gas Monitoring - Field Measurement Recording Sheet

Name of site:

13/WSD/16 - Mainlaying in Tseung Kwan O

Date of measurement:

Sampling equipment used:	Dates calibrated
XT-XWHM-Y-OR	2/9/2022

	Mary and				Monitoring wells / Surface Gas Emission						
Sample location	Date of measurement	Sampling time	Weather condition	Balance gas (%)	Flammable gas (methame %)	Carbon monoxide(%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)		
Area A	₃ 0/ 1 /2023	0830	Rain/Fine	0	0	0	20.9	18 /1009	5.5		
, La = = 1	V	1330	Rain/Fine	0	0	0	20.9	17 /10/0	5.5		
	Y	1700	Rain/Fine	0	0	0	20.9	20 / 10/0	5.5		
Area B	٧	0830	Rain/Fine	0	0	0	20.9	19/1009	5.5		
	√	1330	Rain/Fine	0	0	0	20.9	17 / 1009	5.5		
- r- '- ı	У	1700	Rain/Fine	0	0	0	20.9	18/10/0	5.5		

Name & Designation

Signature

Date 30/1/2023

Field Operator:

Jock Lee (Competent Person [CO-310218])

Laboratory Staff:

Mainlaying in Tseung Kwan O

Penta-Ocean - Concentric Joint Venture

Landfill Gas Monitoring - Field Measurement Recording Sheet

Name of site:

13/WSD/16 - Mainlaying in Tseung Kwan O

Date of measurement:

Sampling equipment used:	Dates calibrated
XT-XWHM-Y-OR	2/9/2022

		Monitoring wells / Surface Gas Emission							
Sample location	Date of measurement	Sampling time	Weather condition	Balance gas (%)	Flammable gas (methame %)	Carbon monoxide(%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
Area A	₹1/1 /2023	0830	Rain/Fine	0	0	0	20.9	17/1010	5.5
	γ	1330	Rain/Fine	0	0	0	20.9	19/10/0	5.5
	٧	1700	Rain/Fine	0	0	0	20.9	18/1009	5.5
Area B	٧	0830	Rain/Fine	0	0	0	20.9	20/10/0	5.5
	٧	1330	Rain/Fine	0	0	0	20.9	19/1009	5.5
	٧	1700	Rain/Fine	0	0	0	20.9	17/1009	5.5
								, , ,	

Name & Designation

Signature

31/1/2023

Field Operator:

Jock Lee (Competent Person [CO-310218])

Laboratory Staff:





Appendix K

Complaint Log and Regulatory Compliance Proforma





Table K-1 Statistical Summary of Environmental Complaints

Reporting Period	Environmental Complaint Statistics						
noporting reriou	Frequency	Cumulative	Complaint Nature				
1 – 31 January 2023	0	3	N/A				

Table K-2 Statistical Summary of Environmental Summons

Danarting Davied	Environmental Summons Statistics					
Reporting Period	Frequency	Cumulative	Details			
1 – 31 January 2023	0	0	N/A			

Table K-3 Statistical Summary of Environmental Prosecution

Donouting Dovied	Environmental Prosecution Statistics					
Reporting Period	Frequency	Cumulative	Details			
1 - 31 January 2023	0	0	N/A			





Appendix L

Site Inspection Proforma





WEEKLY ENVIRONMENTAL INSPECTION CHECKLIST

Inspection Date: 5/ (2023 Inspected by: ET: Howard Chan WSD: Mr. W T-An Contractor: Mr. Len Ma. IEC:							
Weath				7			
Condi		Sto		Hazy			
Wind	rature	e Lo	w				
	The state of the s				***		
		N/A	Yes	No	Photo/Remarks		
0.00	General	100					
0.01	Is the current Environmental Permit displayed conspicuously at all vehicle site entrances/exits for public's information at any time?				1		
0.02							
	Is ET Leader's log-book kept readily available for inspections?						
1.00	Construction Dust						
1.01	Are dusty materials, such as excavated materials, building debris and construction materials, and exposed earth surface properly covered to prevent dust emission?				203		
1.02	Are screenings, enclosures, water spraying or vacuum cleaning devices provided to dusty						
	construction works for dust suppression?	\checkmark					
1.03	Are fumes or smoke emitting plants or construction activities shielded by a screen?						
1.04	Are wheel-washing facilities with high-pressure water jets provided at all site exits?						
1.05	Is wheel-washing provided to all vehicles leaving the site?						
1.06	Are road section near the site exit free from dusty material?						
1.07	Are all main haul roads inside the site paved or sprayed with water to minimize dust				110150		
	emission during vehicle movement?	\mathcal{L}	Ш				
1.08	Are water spraying provided immediately prior to any loading or transfer of dusty materials?						
1.09	Are covers provided to all dump trucks carrying dusty materials when entering and leaving the site?	V			-		
1.10	Are the working areas for uprooting of trees, shrubs, or vegetation or the removal of		$\overline{}$	$\overline{}$			
	boulders, poles, pillars sprayed with water to maintain the entire surface wet?	V					
	Is exposed earth properly treated within six months after the last construction activity on site?						
1.12	Does the operation of plants on site free form dark smoke emission?						
1.13	Are vehicles travelling at speed not exceeding 15km/hr within the site?						
1.14	Are stock of more than 20 bags of cement or day PFA covered or sheltered on top and 3 sides?				1792		
_							



		N/A	Yes	No	Photo/Remarks
	Are de-bagging, batching and mixing processes of bagged cement carried out in sheltered areas?	$\sqrt{}$			3
	Are hoarding of at least 2.4m high provided along the site boundary adjoining areas accessible by the public?				
1.17	Is open burning prohibited?				
2.00	Construction Noise (Airborne)				
7.000,000,000	Are quiet plants adopted on site?				
	Are the PMEs operating on site well-maintained to minimize the generation of excessive noise?				
2.03	Are plants throttled down or turned off when not in use?				1
	Are the plants known to emit noise strongly in one direction oriented to face away from NSRs?	í			
2.05	Are moveable barriers provided to screen NSRs from plant or noisy operations?				3
2.06	Are silencers, mufflers and enclosures provided to plants?	V			
2.07	Are the hoods, cover panels and inspection hatches of PMEs closed during operation?		V		
	Are purposely-built site hoarding construction with appropriate materials provided along the site boundary?				
	Are noisy operation properly scheduled to minimize exposure and cumulative impacts to nearby sensitive receivers?	V			
2.10	Are valid noise emission label(s) affixed to all hand-held breakers operating on site?				1
2.11	Are valid noise emission label(s) affixed to all air compressors operating on site?				O lean
2.12	Are all construction noise permit(s) applied for percussive piling work?	Q			
2.13	Are construction noise permit(s) applied for general construction works during restricted hours?				
2.14	Are valid construction noise permit(s) displayed at all vehicular exits?				
3.00	Water Quality				
3.01	Is effluent discharge license obtained for wastewater discharge from site?				
3.02	Is effluent discharged according to the effluent discharge license?		\checkmark		
3.03	Is wastewater discharge from site properly treated prior to discharge?				
3.04	Are perimeter channels provided to intercept storm runoff from outside the site?				
	Are sand/silt removal facilities such as sand/silt traps and sediment basins provided to remove sand/silt particles from runoff?				
3.06	Is surface runoff diverted to sedimentation facilities?				



	Contract No.: 15/ WSD/10 Waimaying in 1	N/A	Yes	No	Photo/Remarks
3.07	Is the drainage system properly maintained?				
3.08	Are construction works carefully programmed to minimize soil excavation works during rainy seasons?				
7000 (100-00)	Are exposed soil surface protected by paving as soon as possible to reduce the potential of soil erosion?				
3.10	Are temporary access roads protected by crushed gravel?	Ø			
3.11	Are exposed slope surface properly protected?				
3.12	Is trench excavation avoided in the wet season as far as practicable, or if necessary, backfilled in short sections after excavation?				
15-24-51-411	Are open stockpiles of construction materials on site covered by tarpaulin or similar fabric during construction?				
3.14	Is runoff from wheel-washing facilities avoided?				
3.15	Is oil leakage or spillage prevented?				001
3.16	Are there any measures to prevent the release of oil and grease into the storm drainage system?				
3.17	Are the oil interceptors/ grease traps properly maintained?				_
	Are debris and rubbish generated on site collected, handled and disposed of properly to avoid them entering the streams?				
	Are all fuel tanks and storage areas provided with locks and be sited on sealed areas, within bunds of capacity equal to 110% of the storage capacity of the largest tank?				
	Are tanks, containers, storage area bunded and the locations locked as far as possible from the sensitive watercourse and stormwater drains?				
3.21	Are sufficient chemical toilets provided on site to handle sewage from construction work force?				
	Are sewage disposal and toilet maintenance of the portable chemical toilets provided by the licensed contractors?				
3.23	Is concrete washing water properly collected and treated prior to discharge?	\Box			
4.01	Waste Management Is a trip-ticket system implemented to monitor the disposal of C&D and solid wastes at public filling facilities and landfills?				
	Is a recording system implemented to record the amount of wastes generated, recycled and disposed of?				
	Is chemical waste separated from other waste and collected by a licensed chemical waste collector?				
4.04	Are trip tickets for chemical waste disposal available for inspection?	$\sqrt{}$			
4.05	Is chemical waste reused and recycled on site as far as practicable?	$\sqrt{}$			





4.06 Are all containers for chemical waste properly labelled? 4.07 Is drip tray provided for chemical storage? 4.08 Is chemical waste storage area used solely for storage of chemical waste and properly labelled? 4.09 Are incompatible chemical wastes stored in different areas?	
4.08 Is chemical waste storage area used solely for storage of chemical waste and properly labelled?	
4.09 Are incompatible chemical wastes stored in different areas?	
4.10 Is the chemical waste storage area enclosed on at least 3 sides and adequately ventilated?	
4.11 Is an impermeable floor and bunding, of capacity to accommodate 110% of the volume of the	
largest container or of 20% by volume of the chemical waste stored in that area, whichever is the greatest, provide?	
4.12 Are a routine cleaning and maintenance programme implemented for drainage systems, sump pits, and oil interceptors?	
4.13 Are sufficient general refuse disposal/collection points provided on site?	
4.14 Is general refuse disposed of properly and regularly?	
4.15 Are appropriate measures adopted to minimize windblown litter and dust during transportation of waste?	
4.16 Are individual collectors for aluminum cans, plastic bottles and packaging material and office	
paper provided to encourage waste segregation?	
4.17 Are C&D wastes sorted on site?	
4.18 Are C&D waste disposed of properly?	
4.19 Are unused C&D materials or chemicals recycled or reused to reduce the quantity of waste?	
4.20 Are public fill and C&D waste reuse on site as far as practicable to avoid disposal off-site?	
4.21 Are the construction materials stored properly to minimize the potential for damage or contamination?	
4.22 Is a dumping license obtained to deliver public fill to public filling areas?	
5.00 Landscape and Visual	
5.01 Are Is site hoarding provided?	
5.02 Are vegetation disturbance minimized or soil protected to reduce potential soil erosion?	
5.03 Is construction light oriented away from the sensitive receivers?	
5.04 Is grass hydroseeding provided to slopes as soon as the completion of works?	





		N/A	Yes	No	Photo/Remarks
5.05	Are damages to trees outside site boundary due construction works avoided?				
5.06	Is excavation works carried out manually instead of machinery operation within 2.5m vicinity of any preserved trees?				
5.07	Are the retained and transplanted tree(s) properly protected and in good conditions?				Rol
5.08	Are surgery works carried out for damaged trees?				
6.00	Ecology		7		1977
6.01	Is site runoff properly treated to prevent any silly runoff?			Ш	
6.02	Are silt trap installed and well-maintained?				
6.03	Are stockpiles properly covered to avoid generating silty runoff?		V		
6.04	Are construction works restricted to works area which are clearly defined?				
7.00	Overall				
7.01	Is the EM&A properly implemented in general?				





Remark / Follow up of Observation(s) and Non-compliance(s) of Last Weekly Site Inspection:
Observation:
Ooli Oil leakge from excavation at Fit OI was observed. Contractor was reminded to repair the excavator.
contractor was reminded to repair the excavator.
·
Reminder 2
ROI: Contractor was reminded that dusty materials should not be stored inside the tree protection zone. (Pito)
not be stored Inside the tree protection zone. (Pito)
ROIZ Contractor was reminded to replace the Saded NRMM label.
2032 Stackpile of dusty materials should be covered properly. (Pit iv)
Signatures:
ET Contractor's WSD's IEC's Representative Representative Representative
Xaul N
(Name: Lowrolly) (Name: Les Ma) (Name: July) (Name:)





WEEKLY ENVIRONMENTAL INSPECTION CHECKLIST

Inspection Date: 1 1 2023 Inspected by: ET: Howard Char WSD: Mr. Fac 13e Contractor: Mr. Kenneth May IEC: Inspection Time: 14-30 - 15-30								
Inspection Time: 14-30 - 15-30								
Conditi	on Sunny Fine Overcast Drizzle Rain	Stor		Hazy				
Temper Wind	ratureC HumidityHighModerate	E Lov	V					
	V		•					
		N/A	Yes	No	Photo/Remarks			
0.01	General Is the current Environmental Permit displayed conspicuously at all vehicle site entrances/exits for public's information at any time?		$\sqrt{}$					
0.02	Is ET Leader's log-book kept readily available for inspections?							
1.00	Construction Dust							
Constitution	Are dusty materials, such as excavated materials, building debris and construction materials, and exposed earth surface properly covered to prevent dust emission?							
- 5	Are screenings, enclosures, water spraying or vacuum cleaning devices provided to dusty construction works for dust suppression?							
1.03	Are fumes or smoke emitting plants or construction activities shielded by a screen?							
1.04	Are wheel-washing facilities with high-pressure water jets provided at all site exits?							
1.05	Is wheel-washing provided to all vehicles leaving the site?							
	Are road section near the site exit free from dusty material?							
	Are all main haul roads inside the site paved or sprayed with water to minimize dust emission during vehicle movement?							
	Are water spraying provided immediately prior to any loading or transfer of dusty materials?							
	Are covers provided to all dump trucks carrying dusty materials when entering and leaving the site?							
	Are the working areas for uprooting of trees, shrubs, or vegetation or the removal of boulders, poles, pillars sprayed with water to maintain the entire surface wet?							
- 1	Is exposed earth properly treated within six months after the last construction activity on site?							
	Does the operation of plants on site free form dark smoke emission?		V					
	Are vehicles travelling at speed not exceeding 15km/hr within the site?							
	Are stock of more than 20 bags of cement or day PFA covered or sheltered on top and 3 sides?							



Member of the Aurecon Group Contract No.: 13/WSD/16 Mainlaying in Tseung Kwan O Photo/Remarks 1.15 Are de-bagging, batching and mixing processes of bagged cement carried out in sheltered 1.16 Are hoarding of at least 2.4m high provided along the site boundary adjoining areas accessible by the public? 1.17 Is open burning prohibited? Construction Noise (Airborne) Are quiet plants adopted on site? 2.01 2.02 Are the PMEs operating on site well-maintained to minimize the generation of excessive 2.03 Are plants throttled down or turned off when not in use? Are the plants known to emit noise strongly in one direction oriented to face away from Are moveable barriers provided to screen NSRs from plant or noisy operations? Are silencers, mufflers and enclosures provided to plants? 2.07 Are the hoods, cover panels and inspection hatches of PMEs closed during operation? 2.08 Are purposely-built site hoarding construction with appropriate materials provided along the site boundary? 2.09 Are noisy operation properly scheduled to minimize exposure and cumulative impacts to nearby sensitive receivers? Are valid noise emission label(s) affixed to all hand-held breakers operating on site? Are valid noise emission label(s) affixed to all air compressors operating on site? Are all construction noise permit(s) applied for percussive piling work? 2.13 Are construction noise permit(s) applied for general construction works during restricted hours? 2.14 Are valid construction noise permit(s) displayed at all vehicular exits? **Water Quality** Is effluent discharge license obtained for wastewater discharge from site? 3.02 Is effluent discharged according to the effluent discharge license? 3.03 Is wastewater discharge from site properly treated prior to discharge? 3.04 Are perimeter channels provided to intercept storm runoff from outside the site? 3.05 Are sand/silt removal facilities such as sand/silt traps and sediment basins provided to remove sand/silt particles from runoff? 3.06 Is surface runoff diverted to sedimentation facilities?



Contract No.: 13/WSD/16 Mainlaying in Tseung Kwan O Photo/Remarks 3.07 Is the drainage system properly maintained? 3.08 Are construction works carefully programmed to minimize soil excavation works during rainy 3.09 Are exposed soil surface protected by paving as soon as possible to reduce the potential of soil 3.10 Are temporary access roads protected by crushed gravel? 3.11 Are exposed slope surface properly protected? 3.12 Is trench excavation avoided in the wet season as far as practicable, or if necessary, backfilled in short sections after excavation? 3.13 Are open stockpiles of construction materials on site covered by tarpaulin or similar fabric during construction? 3.14 Is runoff from wheel-washing facilities avoided? 3.15 Is oil leakage or spillage prevented? 3.16 Are there any measures to prevent the release of oil and grease into the storm drainage system? 3.17 Are the oil interceptors/ grease traps properly maintained? 3.18 Are debris and rubbish generated on site collected, handled and disposed of properly to avoid them entering the streams? 3.19 Are all fuel tanks and storage areas provided with locks and be sited on sealed areas, within bunds of capacity equal to 110% of the storage capacity of the largest tank? 3.20 Are tanks, containers, storage area bunded and the locations locked as far as possible from the sensitive watercourse and stormwater drains? Are sufficient chemical toilets provided on site to handle sewage from construction work force? 3.22 Are sewage disposal and toilet maintenance of the portable chemical toilets provided by the licensed contractors? 3.23 Is concrete washing water properly collected and treated prior to discharge? Waste Management Is a trip-ticket system implemented to monitor the disposal of C&D and solid wastes at public filling facilities and landfills? 4.02 Is a recording system implemented to record the amount of wastes generated, recycled and disposed of? 4.03 Is chemical waste separated from other waste and collected by a licensed chemical waste Are trip tickets for chemical waste disposal available for inspection? 4.05 Is chemical waste reused and recycled on site as far as practicable?



	Contract 10 15/ WSD/10 Flammaying in 1	N/A	Yes	No	Photo/Remarks
4.06	Are all containers for chemical waste properly labelled?				
4.07	Is drip tray provided for chemical storage?				
4.08	Is chemical waste storage area used solely for storage of chemical waste and properly labelled?				
4.09	Are incompatible chemical wastes stored in different areas?				
4.10	Is the chemical waste storage area enclosed on at least 3 sides and adequately ventilated?				
4.11	Is an impermeable floor and bunding, of capacity to accommodate 110% of the volume of the				
	largest container or of 20% by volume of the chemical waste stored in that area, whichever is the greatest, provide?				-
	Are a routine cleaning and maintenance programme implemented for drainage systems, sump pits, and oil interceptors?	V			
4.13	Are sufficient general refuse disposal/collection points provided on site?				-
4.14	Is general refuse disposed of properly and regularly?		$\sqrt{}$		Rol
4.15	Are appropriate measures adopted to minimize windblown litter and dust during transportation of waste?				
4.16	Are individual collectors for aluminum cans, plastic bottles and packaging material and office			П	
	paper provided to encourage waste segregation?				
4.17	Are C&D wastes sorted on site?				
	Are C&D waste disposed of properly?				
4.19	Are unused C&D materials or chemicals recycled or reused to reduce the quantity of waste?				
4.20	Are public fill and C&D waste reuse on site as far as practicable to avoid disposal off-site?		V		
4.21	Are the construction materials stored properly to minimize the potential for damage or contamination?				
4.22	Is a dumping license obtained to deliver public fill to public filling areas?				
5.00	Landscape and Visual				
5.01	Are Is site hoarding provided?				
5.02	Are vegetation disturbance minimized or soil protected to reduce potential soil erosion?				
5.03	ls construction light oriented away from the sensitive receivers?				
5.04	Is grass hydroseeding provided to slopes as soon as the completion of works?				









Remark / Follow up of Observat	tion(s) and Non-compliance(s)	of Last Weekly Site Inspecti	tion:	
Observation:				
1/21				
Reminderi				
Roli Contractor	was reminded sposed of proje	that general rly. (location A	refuse should collected	
a desig	noted area. (10	scation A).	disposed of properly at	
2632 Contractor (location B		d to clean A	he storm drain regularly.	
Signatures:	a daga a			\neg
ET Representative	Contractor's Representative	WSD's Representative	IEC's Representative	
(Name; Howard Chan)	(Name: Konneth Wong)	(Name: Zu Tol)	(Name:)	





WEEKLY ENVIRONMENTAL INSPECTION CHECKLIST

	ion Date: 17/1/2022 Inspected by: ET: Howard Chan Contractor: 14230	WSD: IEC: _	Mr. C.K	Chu	
Weath		Sto	m [Hazy	
Temne	rature [2-5] C Humidity High Moderate				
Wind	Calm Light Breeze Strong		"		
		N/A	Yes	No	Photo/Remarks
0.00	General				
	Is the current Environmental Permit displayed conspicuously at all vehicle site entrances/exits for public's information at any time?			Ш	
0.02	Is ET Leader's log-book kept readily available for inspections?				
1.00	Construction Dust		1		
1.01	Are dusty materials, such as excavated materials, building debris and construction materials, and exposed earth surface properly covered to prevent dust emission?				
1.02	Are screenings, enclosures, water spraying or vacuum cleaning devices provided to dusty				
	construction works for dust suppression?		Ш	Ш	
1.03	Are fumes or smoke emitting plants or construction activities shielded by a screen?	\bigvee			
1.04	Are wheel-washing facilities with high-pressure water jets provided at all site exits?				
1.05	Is wheel-washing provided to all vehicles leaving the site?				
1.06	Are road section near the site exit free from dusty material?				003
	Are all main haul roads inside the site paved or sprayed with water to minimize dust emission during vehicle movement?				
1.08	Are water spraying provided immediately prior to any loading or transfer of dusty materials?				
1.09	Are covers provided to all dump trucks carrying dusty materials when entering and leaving the site?				
1.10	Are the working areas for uprooting of trees, shrubs, or vegetation or the removal of				
	boulders, poles, pillars sprayed with water to maintain the entire surface wet?	V	Ш		
1.11	Is exposed earth properly treated within six months after the last construction activity on site?				
1.12	Does the operation of plants on site free form dark smoke emission?				
1.13	Are vehicles travelling at speed not exceeding 15km/hr within the site?				
1.14	Are stock of more than 20 bags of cement or day PFA covered or sheltered on top and 3 sides?				





1.15 Are the bagging, batching and mixing processes of bagged cement carried out in sheltered			N/A	Yes	No	Photo/Remarks
accessible by the public? 1.17 Se open burning prohibited? 2.00 Construction Noise (Airborne) 2.01 Are quiet plants adopted on site? 2.02 Are the PMEs operating on site well-maintained to minimize the generation of excessive noise? 2.03 Are plants throttled down or turned off when not in use? 2.04 Are the plants known to emit noise strongly in one direction oriented to face away from NSRs? 2.05 Are silencers, murflers and enclosures provided to screen NSRs from plant or noisy operations? 2.06 Are silencers, murflers and enclosures provided to plants? 2.07 Are the boods, cover panels and inspection hatches of PMEs closed during operations? 2.08 Are purposely-built site hoarding construction with appropriate materials provided along the site boundary? 2.09 Are noisy operation properly scheduled to minimize exposure and cumulative impacts to nearby sensitive receivers? 2.10 Are valid noise emission label(s) affixed to all hand-held breakers operating on site? 2.11 Are valid noise emission label(s) affixed to all air compressors operating on site? 2.12 Are all construction noise permit(s) applied for percussive piling work? 2.13 Are construction noise permit(s) applied for general construction works during restricted hours? 2.14 Are valid noise emission label(s) displayed at all vehicular exits? 2.15 Are construction noise permit(s) displayed at all vehicular exits? 2.16 Are valid construction noise permit(s) displayed at all vehicular exits? 2.17 Are valid noise applied for percussive piling work? 2.18 Are valid acconstruction noise permit(s) displayed at all vehicular exits? 2.19 Are valid acconstruction noise permit(s) displayed at all vehicular exits? 2.10 Are valid acconstruction noise permit(s) displayed at all vehicular exits? 2.11 Are valid acconstruction noise permit(s) displayed at all vehicular exits? 2.12 Are valid construction noise permit(s) displayed at all vehicular exits? 2.13 Are construction noise						
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remove sand/silt particles from runoff?	3.04	Are perimeter channels provided to intercept storm runoff from outside the site?				
3.06 Is surface runoff diverted to sedimentation facilities?	3.05	The second secon				
	3.06	Is surface runoff diverted to sedimentation facilities?				



Contract No.: 13/WSD/16 Mainlaying in Tseung Kwan O Photo/Remarks Is the drainage system properly maintained? 3.08 Are construction works carefully programmed to minimize soil excavation works during rainy 3.09 Are exposed soil surface protected by paving as soon as possible to reduce the potential of soil 3.10 Are temporary access roads protected by crushed gravel? 3.11 Are exposed slope surface properly protected? 3.12 Is trench excavation avoided in the wet season as far as practicable, or if necessary, backfilled in short sections after excavation? 3.13 Are open stockpiles of construction materials on site covered by tarpaulin or similar fabric during construction? 3.14 Is runoff from wheel-washing facilities avoided? 3.15 Is oil leakage or spillage prevented? 3.16 Are there any measures to prevent the release of oil and grease into the storm drainage system? 3.17 Are the oil interceptors/ grease traps properly maintained? 3.18 Are debris and rubbish generated on site collected, handled and disposed of properly to avoid them entering the streams? 3.19 Are all fuel tanks and storage areas provided with locks and be sited on sealed areas, within bunds of capacity equal to 110% of the storage capacity of the largest tank? 3.20 Are tanks, containers, storage area bunded and the locations locked as far as possible from the sensitive watercourse and stormwater drains? 3.21 Are sufficient chemical toilets provided on site to handle sewage from construction work force? 3.22 Are sewage disposal and toilet maintenance of the portable chemical toilets provided by the Is concrete washing water properly collected and treated prior to discharge? 4.00 Waste Management 4.01 Is a trip-ticket system implemented to monitor the disposal of C&D and solid wastes at public filling facilities and landfills? 4.02 Is a recording system implemented to record the amount of wastes generated, recycled and 4.03 Is chemical waste separated from other waste and collected by a licensed chemical waste 4.04 Are trip tickets for chemical waste disposal available for inspection? 4.05 Is chemical waste reused and recycled on site as far as practicable?





		N/A	Yes	No	Photo/Remarks
4.06	Are all containers for chemical waste properly labelled?				_
4.07	ls drip tray provided for chemical storage?				001
4.08	is chemical waste storage area used solely for storage of chemical waste and properly labelled?				
4.09	Are incompatible chemical wastes stored in different areas?				
4.10	Is the chemical waste storage area enclosed on at least 3 sides and adequately ventilated?				
	is an impermeable floor and bunding, of capacity to accommodate 110% of the volume of the largest container or of 20% by volume of the chemical waste stored in that area, whichever is the greatest, provide?				
	Are a routine cleaning and maintenance programme implemented for drainage systems, sump pits, and oil interceptors?	V			
4.13	Are sufficient general refuse disposal/collection points provided on site?		$\sqrt{}$		_
4.14	Is general refuse disposed of properly and regularly?		$ \overline{\ } $		Rol. Ros
4.15	Are appropriate measures adopted to minimize windblown litter and dust during transportation of waste?	6			
4.16	Are individual collectors for aluminum cans, plastic bottles and packaging material and office paper provided to encourage waste segregation?				
4.17	Are C&D wastes sorted on site?				
4.18	Are C&D waste disposed of properly?				
4.19	Are unused C&D materials or chemicals recycled or reused to reduce the quantity of waste?				
	Are public fill and C&D waste reuse on site as far as practicable to avoid disposal off-site?				
	Are the construction materials stored properly to minimize the potential for damage or contamination?				
4.22	Is a dumping license obtained to deliver public fill to public filling areas?				
5.00	Landscape and Visual		П		
	Are Is site hoarding provided?	V		Ш	
5.02	Are vegetation disturbance minimized or soil protected to reduce potential soil erosion?				
5.03	Is construction light oriented away from the sensitive receivers?				
5.04	ls grass hydroseeding provided to slopes as soon as the completion of works?				





Contract No.: 13/WSD/16 Mainlaying in Tseung Kwan O No Photo/Remarks 5.05 Are damages to trees outside site boundary due construction works avoided? 5.06 Is excavation works carried out manually instead of machinery operation within 2.5m vicinity of any preserved trees? 5.07 Are the retained and transplanted tree(s) properly protected and in good conditions? 5.08 Are surgery works carried out for damaged trees? 6.00 6.01 Is site runoff properly treated to prevent any silly runoff? 6.02 Are silt trap installed and well-maintained? 6.03 Are stockpiles properly covered to avoid generating silty runoff? 6.04 Are construction works restricted to works area which are clearly defined? Overall 7.00 7.01 Is the EM&A properly implemented in general?





Remark / Follow up of Observation(s) and Non-compliance(s) of Last Weekly Site Inspection:
Observation 2
Ool2 Chemical containers should be Stored with drip tray. (Pit D) CO22 Oil stain should be cleared and properly treated the (Pit D) containabled soil (Pit D)
0032 Dusty materials was observed placing on the pedestrian. The Cartractur was reminded to remove the dusty materials and clean the pedestrian afternal. (W1=4)
Leminderi
Roli Gen The Contractor was reminded to improve the housekeeping assite.
Ro2: General refuse should be collected and disposed of properly. (PitD)
Signatures:
ET Contractor's WSD's IEC's Representative Representative Representative
(Name: Ken Mame: Ken Mame: Chu Chruk K.) (Name:)





WEEKLY ENVIRONMENTAL INSPECTION CHECKLIST

	on Date: 30 (1 20)3 Inspected by: ET: Noward Chan Contractor: Mr. Ken Ma.	WSD:	Mr. Bles	s Kwan	
	on Time: 01200 - 10200				
Weath				_	
Condit	ion V Sunny Fine Overcast Drizzle Rain	Sto	rm	Hazy	
Tempe	rature	Lov	v		
Wind	Calm Light Breeze Strong				
				5 - 61 Sec. 300	
		N/A	Yes	No	Photo/Remarks
0.00	General		,	W	
0.01	ls the current Environmental Permit displayed conspicuously at all vehicle site				
	entrances/exits for public's information at any time?				
0.02	Is ET Leader's log-book kept readily available for inspections?				
1.00	Construction Dust				
1.01	Are dusty materials, such as excavated materials, building debris and construction				
	materials, and exposed earth surface properly covered to prevent dust emission?	V			
1.02	Are screenings, enclosures, water spraying or vacuum cleaning devices provided to dusty				
	construction works for dust suppression?	1			
1.03	Are fumes or smoke emitting plants or construction activities shielded by a screen?				
1.04	Are wheel-washing facilities with high-pressure water jets provided at all site exits?				
1.05	Is wheel-washing provided to all vehicles leaving the site?		$\overline{\Box}$	П	
		V	Ш		
1.06	Are road section near the site exit free from dusty material?				
	Are all main haul roads inside the site paved or sprayed with water to minimize dust				
	emission during vehicle movement?	W_		Ш	
	Are water spraying provided immediately prior to any loading or transfer of dusty materials?				
1.09	Are covers provided to all dump trucks carrying dusty materials when entering and				
	leaving the site?	V			
	Are the working areas for uprooting of trees, shrubs, or vegetation or the removal of				
	boulders, poles, pillars sprayed with water to maintain the entire surface wet?				
- 1	Is exposed earth properly treated within six months after the last construction activity on site?				
1.12	Does the operation of plants on site free form dark smoke emission?				
			\checkmark		
1.13	Are vehicles travelling at speed not exceeding 15km/hr within the site?		\checkmark		
	Are stock of more than 20 bags of cement or day PFA covered or sheltered on top and 3 sides?				



		N/A	Yes	No	Photo/Remarks
	Are de-bagging, batching and mixing processes of bagged cement carried out in sheltered areas?				
	Are hoarding of at least 2.4m high provided along the site boundary adjoining areas accessible by the public?				
1.17	Is open burning prohibited?		$\sqrt{}$		
2.00	Construction Noise (Airborne)			-	
W.009813.0091	Are quiet plants adopted on site?				
	Are the PMEs operating on site well-maintained to minimize the generation of excessive noise?				
2.03	Are plants throttled down or turned off when not in use?				
	Are the plants known to emit noise strongly in one direction oriented to face away from NSRs?				I -ray
2.05	Are moveable barriers provided to screen NSRs from plant or noisy operations?				
2.06	Are silencers, mufflers and enclosures provided to plants?				
2.07	Are the hoods, cover panels and inspection hatches of PMEs closed during operation?				
2.08	Are purposely-built site hoarding construction with appropriate materials provided along the site boundary?				
	Are noisy operation properly scheduled to minimize exposure and cumulative impacts to nearby sensitive receivers?	Ø			
2.10	Are valid noise emission label(s) affixed to all hand-held breakers operating on site?	$\sqrt{}$			
2.11	Are valid noise emission label(s) affixed to all air compressors operating on site?				
	Are all construction noise permit(s) applied for percussive piling work?				
2.13	Are construction noise permit(s) applied for general construction works during restricted hours?				
	Are valid construction noise permit(s) displayed at all vehicular exits?				
3.00	Water Quality				
	Is effluent discharge license obtained for wastewater discharge from site?		\square	Ш	
	Is effluent discharged according to the effluent discharge license?				
	Is wastewater discharge from site properly treated prior to discharge?				
3.04	Are perimeter channels provided to intercept storm runoff from outside the site?				
3.05	Are sand/silt removal facilities such as sand/silt traps and sediment basins provided to remove sand/silt particles from runoff?				
3.06	Is surface runoff diverted to sedimentation facilities?				



		N/A	Yes	No	Photo/Remarks
3.07	Is the drainage system properly maintained?		V		
3.08	Are construction works carefully programmed to minimize soil excavation works during rainy seasons?				
3.09	Are exposed soil surface protected by paving as soon as possible to reduce the potential of soil erosion?				
3.10	Are temporary access roads protected by crushed gravel?		\checkmark		
3.11	Are exposed slope surface properly protected?	\checkmark			
3.12	Is trench excavation avoided in the wet season as far as practicable, or if necessary, backfilled in short sections after excavation?	Ø			
	Are open stockpiles of construction materials on site covered by tarpaulin or similar fabric during construction?				
3.14	Is runoff from wheel-washing facilities avoided?	\Box			
3.15	Is oil leakage or spillage prevented?				
3.16	Are there any measures to prevent the release of oil and grease into the storm drainage system?		\checkmark		
3.17	Are the oil interceptors/ grease traps properly maintained?	V			
	Are debris and rubbish generated on site collected, handled and disposed of properly to avoid them entering the streams?				
	Are all fuel tanks and storage areas provided with locks and be sited on sealed areas, within bunds of capacity equal to 110% of the storage capacity of the largest tank?				
	Are tanks, containers, storage area bunded and the locations locked as far as possible from the sensitive watercourse and stormwater drains?		V		
3.21	Are sufficient chemical toilets provided on site to handle sewage from construction work force?				
	Are sewage disposal and toilet maintenance of the portable chemical toilets provided by the licensed contractors?				
	Is concrete washing water properly collected and treated prior to discharge?				
4.01	Waste Management Is a trip-ticket system implemented to monitor the disposal of C&D and solid wastes at public filling facilities and landfills?				
- 1	is a recording system implemented to record the amount of wastes generated, recycled and disposed of?				
	is chemical waste separated from other waste and collected by a licensed chemical waste collector?				
4.04	Are trip tickets for chemical waste disposal available for inspection?				
4.05	s chemical waste reused and recycled on site as far as practicable?				



		N/A	Yes	No	Photo/Remarks
4.06	Are all containers for chemical waste properly labelled?				Ool
4.07	Is drip tray provided for chemical storage?				Dol
4.08	Is chemical waste storage area used solely for storage of chemical waste and properly labelled?				
4.09	Are incompatible chemical wastes stored in different areas?				
4.10	Is the chemical waste storage area enclosed on at least 3 sides and adequately ventilated?				-
	Is an impermeable floor and bunding, of capacity to accommodate 110% of the volume of the largest container or of 20% by volume of the chemical waste stored in that area, whichever is the greatest, provide?				
4.12	Are a routine cleaning and maintenance programme implemented for drainage systems, sump pits, and oil interceptors?				
4.13	Are sufficient general refuse disposal/collection points provided on site?		\square		
4.14	Is general refuse disposed of properly and regularly?				<u>Zo</u>
4.15	Are appropriate measures adopted to minimize windblown litter and dust during transportation of waste?				
4.16	Are individual collectors for aluminum cans, plastic bottles and packaging material and office paper provided to encourage waste segregation?		V		
4.17	Are C&D wastes sorted on site?				
4.18	Are C&D waste disposed of properly?				Rol
4.19	Are unused C&D materials or chemicals recycled or reused to reduce the quantity of waste?				(100.85.7)
4.20	Are public fill and C&D waste reuse on site as far as practicable to avoid disposal off-site?				
4.21	Are the construction materials stored properly to minimize the potential for damage or contamination?				
4.22	ls a dumping license obtained to deliver public fill to public filling areas?		V		
5.00	Landscape and Visual		П	П	
5.01	Are Is site hoarding provided?		Ш	Ш	
5.02	Are vegetation disturbance minimized or soil protected to reduce potential soil erosion?				
5.03	ls construction light oriented away from the sensitive receivers?	V			Ş
5.04	Is grass hydroseeding provided to slopes as soon as the completion of works?				





		N/A	Yes	No	Photo/Remarks
5.05	Are damages to trees outside site boundary due construction works avoided?				
5.06	Is excavation works carried out manually instead of machinery operation within 2.5m vicinity of any preserved trees?				
5.07	Are the retained and transplanted tree(s) properly protected and in good conditions?				
5.08	Are surgery works carried out for damaged trees?	i/			
6.00	Ecology		. 7		
6.01	Is site runoff properly treated to prevent any silly runoff?		\/_		
6.02	Are silt trap installed and well-maintained?				
ı		1	Ш		
6.03	Are stockpiles properly covered to avoid generating silty runoff?				
	Are stockpiles properly covered to avoid generating silty runoff? Are construction works restricted to works area which are clearly defined?				
6.04					





Remark / Follow up of Observat	tion(s) and Non-compliance(s)	of Last Weekly Site Inspection	n:
Observations			
Oolz Chenical and all	container Shall container for che	be stored u emical shall be	with drip tray, (PiLD, Town) properly labelled.
Leminder			
2012 Contractor	was reminded	to improve the	housekeeping marte. (Rt D).
Signatures:			
ET	Contractor's	WSD's	IEC's
Representative	Representative	Representative	Representative
X and	M	7	
(Name: flux (har)	(Name: Ker Ma)	(Name:)	(Name: wins Kway





Appendix M

Proactive Environmental Protection Proforma





Proactive Environmental Protection for the Next Reporting Month

Reporting Period	Activity	Major Environmental Impact	Environmental Mitigation Measure
1 – 28 February 2023	 Excavation of trench Mainlaying of pipe Backfilling of the trench Work fronts for open trench Work fronts for pipe jacking 	- Construction dust - Noise generation; - Construction waste - Impact of water quality	 Dust suppression by regular wetting and water spraying Reduction of noise from equipment and machinery on-site Sorting and storage of general refuse and construction waste Chemical shall be stored properly with drip tray. Treatment of water with water treatment facilities before discharge. Rainwater pumped from trench should be discharged via waster water treatment facilities. Retained tree shall be carefully protected and tree protect zone should be established.





Appendix N

Impact Monitoring Schedule of Next Reporting Month

Tentative Environmental Monitoring Schedule (February 2023)

Sun	Mon	Tue	Wed	Thu	Fri	Sat
			1	2	3	4
_						
5	6	7	8	9	10	11
						T
						Impact Noise Monitoring
12	13	14	15	16	17	18
12		14	15	10	17	16
					Impact Noise	
					Impact Noise Monitoring	
19	20	21	22	23	24	25
				Impact Noise		
				Impact Noise Monitoring		
26	27	28				
The schedule may be changed due to unforesee						

The schedule may be changed due to unforeseen circumstances (adverse weather, etc.)