

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

Attention: Mr Y M Chan

Your reference:

Our reference:

HKWSD201/50/107534

Date:

3 September 2021

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.36

We refer to emails of 12 August and 1 September 2021 attaching Monthly EM&A Report No.36 for the captioned project prepared by the ET.

We have no further 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/Ismt

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Contract No. 13/WSD/16

Mainlaying in Tseung Kwan O

Monthly EM&A Report No. 36 (Period from 1 to 31 July 2021)

August 2021 (Rev. 0)

	Prepared by: Certified by:	
Name	Charlene Lai	Jacky Leung
Position	Environmental Team	Environmental Team Leader
Signature	ght.	
Date:	14/08/2021	14/08/2021



Revision History

0	1 st Submission	14 August 2021
Rev.	DESCRIPTION OF MODIFICATION	DATE

Appendix P

Interim Report(s)



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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 36th 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 July 2021 to 31 July 2021.
- 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	Location	Works Conducted in the reporting month	
Portion H of the Project Site	TKO 137 Pit B	Pipe Jacking by TBM was conducted.	
	Wan Po Rd – Workfront 1	Pipe trench excavation and pipe laying were in-progress.	
	Wan Po Rd – Workfront 2	Pipe trench excavation and pipe laying were in-progress.	
	Wan Po Rd – Workfront 3	Pipe trench excavation and pipe laying were in-progress.	
Portion J of the	Wan Po Rd – Workfront 4	 Pipe trench excavation and pipe laying were in-progress. 	
Project Site	Wan Po Rd – Pit A	Pit excavation and ELS works were in-progress.	
	Wan Po Rd – Pit B	Pit excavation works were conducted.	
	Wan Po Rd – Pit D	 Pit excavation and ELS works were in-progress. 	
	Landfill Stage 1 – Area A	Construction works for 900HSV chamber were conducted.	



Location	Location	Works Conducted in the reporting month
	Landfill Stage 1 – Area B	Trench excavation and pipe laying were in-progress.
	Cycle Track – Workfront 1	Trench excavation and pipe laying were in-progress.
	Cycle Track – Workfront 2	 Trench excavation and pipe laying were in-progress.
	Pung Loi Rd – Pit WPR1	 Trial pit works and removal of abandoned CLP cable were conducted.
	Velodrome – Pit J1A	Setting up work for trenchless works by hand-shield was conducted
	Velodrome – Pit M	 Pipe jacking preparation works were conducted. Commencement of Micro Tunnel Boring Machine (MTBM) pipe jacking works
	Velodrome – Pit O	Construction works for rescue pit for TBM were conducted.
	Velodrome – Pit P	Pipe jacking preparation works.
	Mau Wu Tsai – Workfront 1	Trench excavation and pipe laying works were conducted.
	Po Lam Road (A0)	Concrete carriageway reinstatement works were conducted.
	Po Lam Road (D1)	Trench excavation and pipe laying works were conducted.
	Po Lam Road (B5)	Trench excavation and pipe laying works were conducted.
	Tsui Lam Road	Trial pit works were conducted.Reinstatement work of trial pit was conducted
	TKO Primary Service Reservoir	 Trench excavation and pipe laying works were conducted. Trai pit excavation works were conducted.

- A6. The major environmental impacts brought by the above construction works include:
 - Construction dust and noise generation from saw cutting of concrete surface, mainlaying of pipes, TBM break through, excavation and drilling works
 - Waste generation from the construction activities
 - 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 saw cutting of concrete surface, mainlaying of pipes, TBM break through, excavation and drilling works through regular water spraying and covering dusty materials with tarpaulin sheet
 - Reduction of noise from equipment and machinery on-site
 - Sorting and storage of general refuse and construction waste
 - Treatment of wastewater through water treatment facilities before discharge

Summary of Exceedance & Investigation & Follow-up

- A8. Noise monitoring was conducted in the reporting month for NSR4 Creative Secondary School on 2, 8, 16, 20 and 28 July 2021 as construction works were conducted within 300m to the noise sensitive receiver. No project-related exceedance of the Action and Limit Level was recorded during the reporting period.
- A9. No examinations were scheduled in the reporting month for NSR4 Creative Secondary School. Academic School Calendar can be found in **Appendix O**.

Complaint Handling and Prosecution

- A10. One project-related environmental complaint was received and the site condition of the concerned area was reviewed by ET. ET noted that although there was no excavation works on-going or scheduled recently, clearance works and works that create disturbance to ground surface were previously conducted. To prevent the muddy water discharge from the construction site, the contractor has implemented and enhanced the mitigation measures to cater for any upcoming rainstorms or heavy precipitation from the site. Sandbags are placed along the site boundary and submersible pump is provided to direct the runoff to the wastewater treatment tank before reusing or discharging into the designated discharge point. Cement application to exposed earth within the site was also observed during the inspection on 13 August 2021, which was being implemented to prevent erosion caused by the precipitation. The temporarily exposed slope and areas were covered by tarpaulin.
- A11. Neither notifications of summons nor prosecution was received for the Project in the reporting month.

Reporting Change

A12. There were no changes reported that may affect the on-going EM&A programme.



Summary of Upcoming Key Issues and Key Mitigation Measures

A13. Key works in August 2021 (the next reporting month) for the Project will include the followings:

Location Location		Forecast Works in Next Reporting Month		
Portion H of the Project Site	TKO 137 Pit B	Pipe jacking works by TBM will be continued.		
	Wan Po Rd – Workfront 1	Trench excavation and pipe laying will be conducted.		
	Wan Po Rd – Workfront 2	Trench excavation and pipe laying works will be conducted.		
	Wan Po Rd – Workfront 3	Trench excavation and pipe laying works will be conducted.		
	Wan Po Rd – Workfront 4	Trench excavation and pipe laying works will be conducted.		
	Wan Po Rd – Pit A	Excavation and ELS works will be conducted.		
	Wan Po Rd – Pit B	 Pit excavation works will be continued. Preparation works for pipe jacking will be conducted. 		
	Wan Po Rd – Pit D	Excavation and ELS works will be conducted.		
	Landfill Stage 1 – Area A	900HSV Chamber construction works will be conducted.		
Portion J of the	Landfill Stage 1 – Area B	Trench excavation and pipe laying works will be conducted.		
Project Site	Cycle Track – Workfront 1	 Trench excavation and pipe laying works will be conducted. 		
	Cycle Track – Workfront 2	Trench excavation and pipe laying works will be conducted.		
	Velodrome – Pit J1A	Trenchless works by hand-shield		
	Velodrome – Pit K	Pipe laying works will be commenced.		
	Velodrome – Pit L	Pipe laying works will be commenced.		
	Velodrome – Pit M	Pipe jacking works will be continued.		
	Velodrome – Pit O	Construction of rescue pit for TBM will be conducted.		
	Velodrome – Pit P	MTBM pipe jacking will be commenced.		
	Mau Wu Tsai – Workfront 1	Trench excavation and pipe mainlaying works will be conducted.		
	Po Lam Road (D1)	Trench backfilling and reinstatement will be continued.		
	Po Lam Road (B5)	Trench excavation and pipe laying works will be conducted.		
	TKO Primary Service Reservoir	Trench excavation and pipe laying works will be conducted.		



- A14. The major environmental impacts brought by the above construction works will include:
 - Construction dust and noise generation of saw cutting of concrete surface, mainlaying of pipes, drilling activities, TBM break through and excavation works.
 - Waste generation from construction activities
 - Impact on water quality from construction activities
- A15. 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 saw cutting of concrete surface, mainlaying of pipes, drilling activities 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
 - 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 fresh water 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 10km long 1200mm diameter fresh water 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 36th Monthly EM&A Report for the Project which summarizes the key findings of the EM&A programme during the reporting period from 1 July 2021 to 31 July 2021.



1.3 Project Organization

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

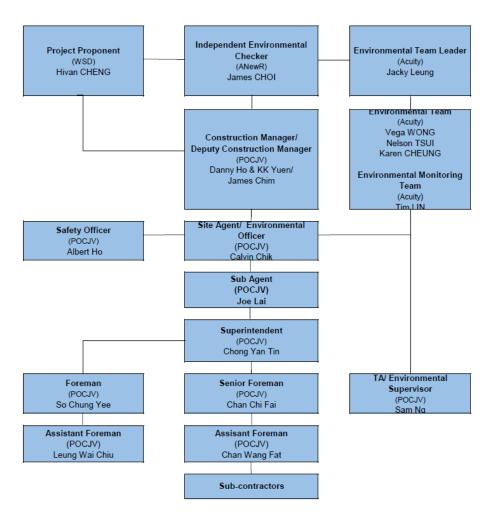


Figure 1.1 Project Organization Chart

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

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	Location	Works Conducted in the reporting month		
Portion H of the Project Site	TKO 137 Pit B	Pipe Jacking by TBM was conducted.		
	Wan Po Rd – Workfront 1	Pipe trench excavation and pipe laying were in-progress.		
	Wan Po Rd – Workfront 2	 Pipe trench excavation and pipe laying were in-progress. 		
	Wan Po Rd – Workfront 3	 Pipe trench excavation and pipe laying were in-progress. 		
	Wan Po Rd – Workfront 4	 Pipe trench excavation and pipe laying were in-progress. 		
	Wan Po Rd – Pit A	 Pit excavation and ELS works were in-progress. 		
	Wan Po Rd – Pit B	 Pit excavation works were conducted. 		
	Wan Po Rd – Pit D	 Pit excavation and ELS works were in-progress. 		
Doution Laftha	Landfill Stage 1 – Area A	 Construction works for 900HSV chamber were conducted. 		
Portion J of the Project Site	Landfill Stage 1 – Area B	Trench excavation and pipe laying were in-progress.		
	Cycle Track – Workfront 1	Trench excavation and pipe laying were in-progress.		
	Cycle Track – Workfront 2	Trench excavation and pipe laying were in-progress.		
	Pung Loi Rd – Pit WPR1	 Trial pit works and removal of abandoned CLP cable were conducted 		
	Velodrome – Pit J1A	Setting up work for trenchless works by hand-shield was conducted		
	Velodrome – Pit M	Pipe jacking preparation works were conducted.		
		 Commencement of Micro Tunnel Boring Machine (MTBM) pipe jacking works 		



Location	Location	Works Conducted in the reporting month	
	Velodrome – Pit O	Construction works for rescue pit for TBM were conducted.	
	Velodrome – Pit P	Pipe jacking preparation works.	
	Mau Wu Tsai – Workfront 1	Trench excavation and pipe laying works were conducted.	
	Po Lam Road (A0)	Concrete carriageway reinstatement works were conducted.	
	Po Lam Road (D1)	Trench excavation and pipe laying works were conducted.	
	Po Lam Road (B5)	Trench excavation and pipe laying works were conducted.	
	Tsui Lam Road	 Trial pit works were conducted. Reinstatement work of trial pit was conducted 	
	TKO Primary Service Reservoir	 Trench excavation and pipe layin works were conducted. Trai pit excavation works were conducted. 	

1.5 Summary of Environmental Status

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 Valid Environmental Licence, Notification, Permit and Documentations

Permit/ Licences/ Notification	Reference	Validity Period	Remarks	
Variation of Environmental Permit	EP no.: EP-503/2015/A Throughout the Contract		-	
Notification of Construction Works under the Air Pollution Control (Construction Dust) Regulation (Form NA)	Ref no.: 423775	Throughout the Contract	-	
Chemical Waste Producer Registration	WPN: 5213-839-P3287-01	Throughout the Contract	-	
Billing Account for Disposal of Construction Waste	A/C no.: 7029491	Throughout the Contract	-	
Water Discharge Licence	WT00032336-2018	Until 31 Dec 2023	-	
Construction Noise Permit (Wan Po Road, Wan O Road and Chun Yat Street)	GW-RE0277-21	Until 30 Sep 2021	-	
Construction Noise Permit (Tseung Kwan O Area 137, N.T.)	GW-RE0383-21	Until 30 Sep 2021	-	
Construction Noise Permit (Hong Kong Velodrome)	GW-RE0494-21	Until 16 Nov 2021	-	



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				
Impact Monitoring	On-going			
Waste Management				
Mitigation Measures in Waste Monitoring 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 ravdius 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.

In accordance with the EM&A Manual, baseline noise level at the noise monitoring stations were established as presented in the Baseline Monitoring Report. Impact noise monitoring will be conducted once per week in the form of 30-minute measurements Leq, L10 and L90 levels recorded at each monitoring station between 0700 and 1900 on normal weekdays.

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 2, 8, 16, 20 and 28 July 2021 as construction works were conducted within 300m to the noise sensitive receiver. Detailed monitoring results can be found in **Appendix G**.

No examinations were scheduled in the reporting month for NSR4 Creative Secondary School. Academic School Calendar can be found in **Appendix O**.

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 would follow the requirements as stipulated in the valid CNPs if works have to be conducted during 1900-0700 in all days or any time on Sundays or general holidays.

Construction noise level was measured in terms of the A-weighted equivalent continuous sound pressure level (LAeq). Leq 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	Continuously in $L_{\text{eq }5\text{min}}/L_{\text{eq }3\text{min}}$ (average of 6 consecutive L_{eq}	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.

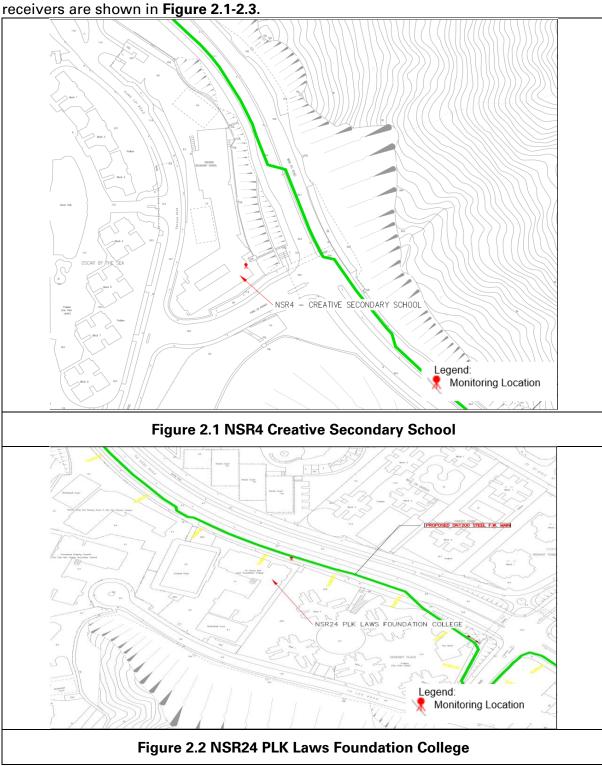
Table 2.2 Noise Monitoring Location

NSR ID	Noise Sensitive Receivers	Monitoring Location	Position
NSR 4	Creative Secondary School	Roof Floor	1 m from facade

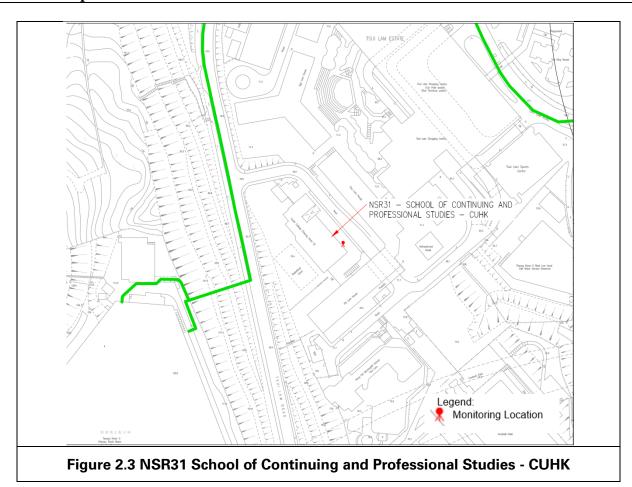


NSR 24	PLK Laws Foundation College	Pedestrian Road on Ground Floor	Free-field
NSR 31	School of Continuing and Professional Studies - CUHK	Roof Floor	1 m from facade

Three noise monitoring locations for impact monitoring at the nearby sensitive







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 were 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 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 would be 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	Calibration Certificate Expiry Date	Detection Limit
Sound Level Meter	Scarlet ST- 11D	820200	18/01/2021	17/01/2022	27-140 dB(A)
Sound Level Meter	NTi XL2	A2A- 13663-E0	09/09/2020	08/09/2021	30-130 dB(A)
Sound Level Meter	Lutron SL- 4033SD	I491835	07/12/2020	06/12/2021	30-130 dB(A)
Sound Level Meter Calibrator	Pulsar 105	63705	06/08/2020	05/08/2021	Nil
Pocket Wind Meter Anemometer	Kestrel 1000 Wind Meter	Nil	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	 70 dB(A) for school and 65 dB(A) during examination period 		
Notes: (a) Limits specified in the GW-TM and IND-TM for construction and operation 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 conducted in the reporting month for NSR4 – Creative Secondary School on 2, 8, 16, 20 and 28 July. Detailed monitoring results are presented in **Appendix G**.

No examinations were scheduled in the reporting month for NSR4 Creative Secondary School. Academic School Calendar can be found in **Appendix O**.



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

3. WASTE MANAGEMENT

3.1 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 the 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

	Quantity					
			Non-inert C&D Materials			
Reporting period	Materials Waste	Chemical Waste (in '000kg)	General Refuse	Recycled materials		
	'000m3)	(iii oookg)	Landfill Paper/card F		Plastics (in '000kg)	Metals (in '000kg)
July-21	2.003	0.000	0.005	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. In this reporting period, 764 times of monitoring was recorded.

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

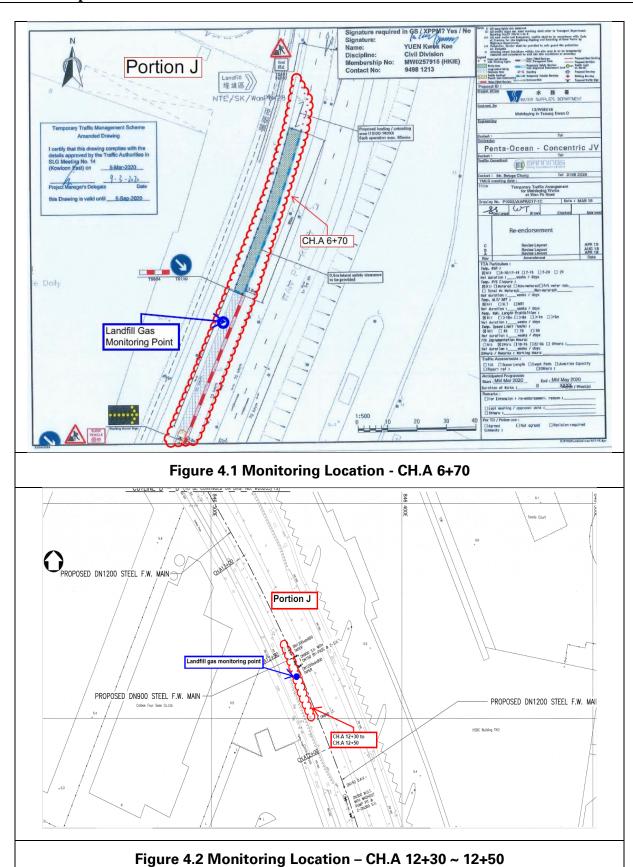
- At the ground surface before excavation commences;
- Immediately before any worker enters the excavation;
- At the beginning of each working day for the entire period when the excavation remains open; and
- Periodically through the working day whilst workers are in the excavation.

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 4.20**.







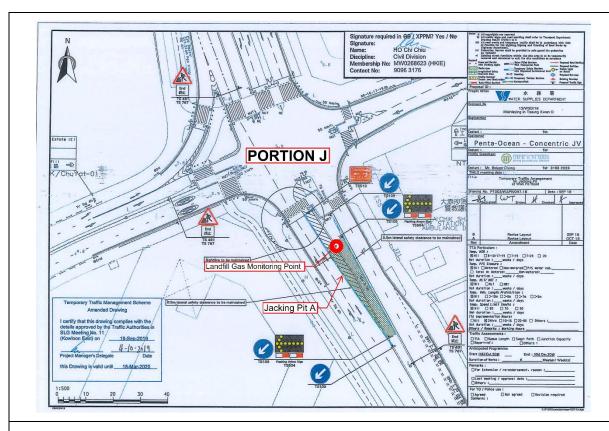


Figure 4.3 Monitoring Location – CH.A 13+50 ~ 14+00 (Pit A)

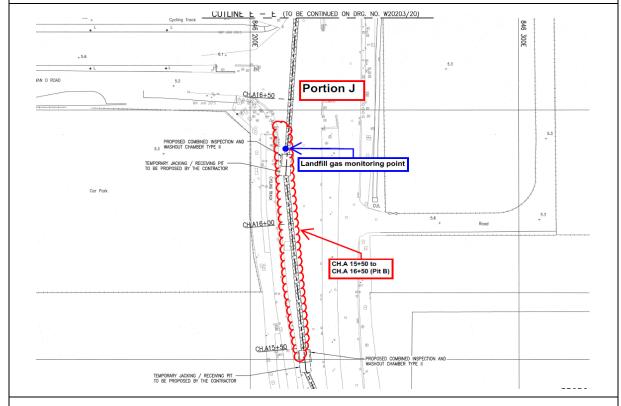
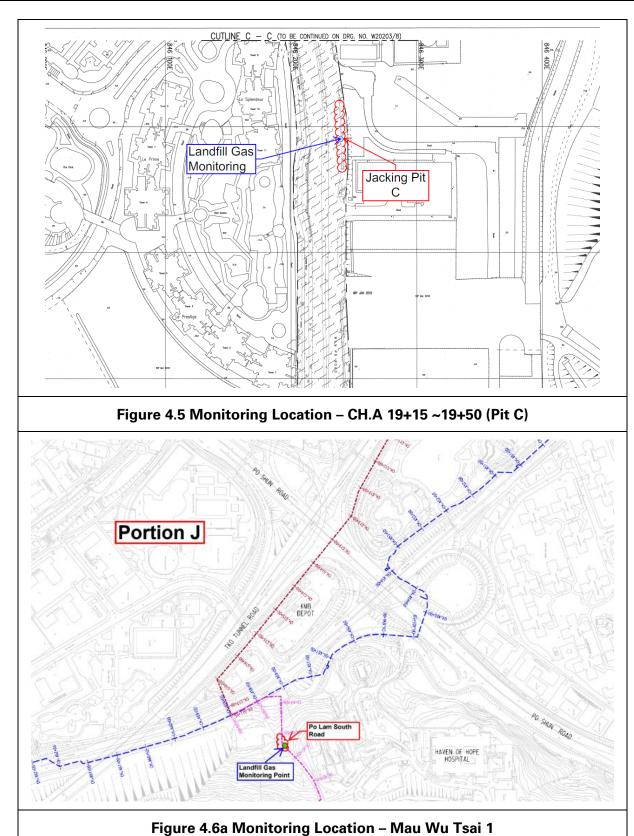


Figure 4.4 Monitoring Location – CH.A 15+50 ~16+50 (Jacking Pit B)







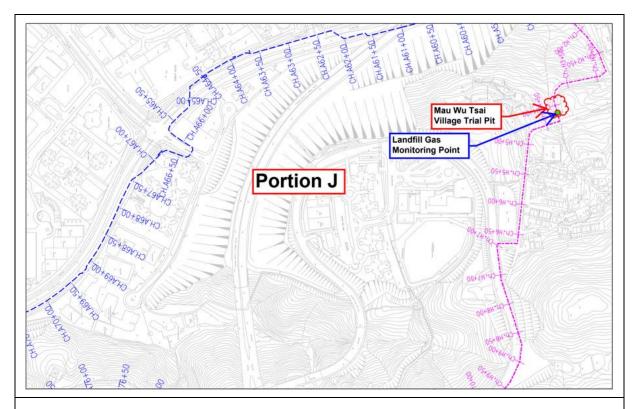


Figure 4.6b Monitoring Location – Mau Wu Tsai 2

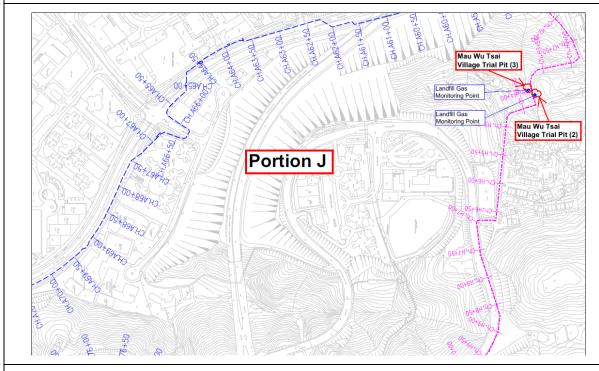


Figure 4.6c Monitoring Location – Mau Wu Tsai 3



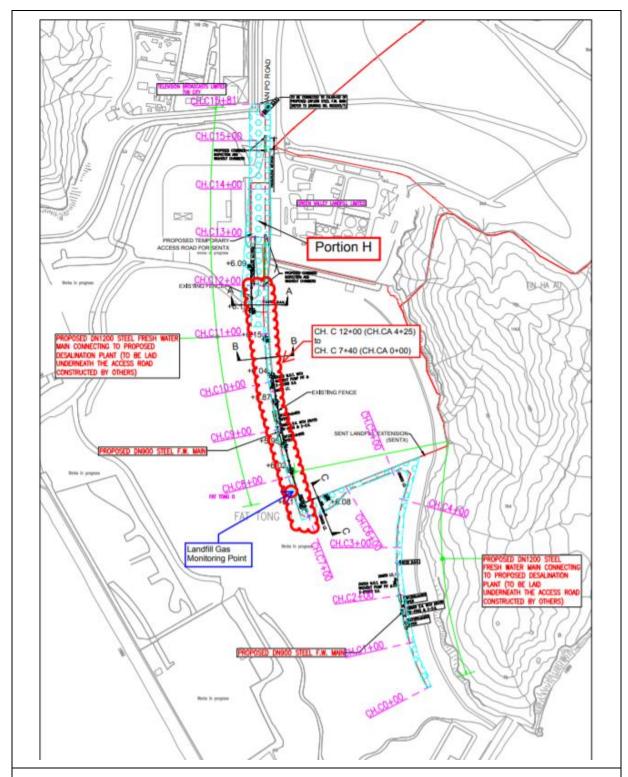


Figure 4.7 Monitoring Location -CH.CA 0+00 to CH.CA 04+25 (CH.C 7+40 ~ 12+00)



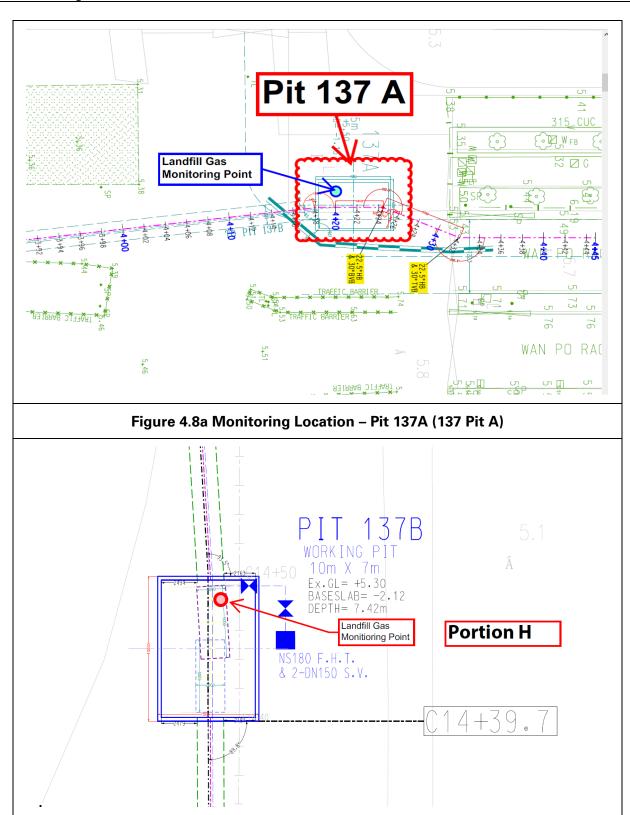


Figure 4.8b Monitoring Location – Pit 137B (137 Pit B)



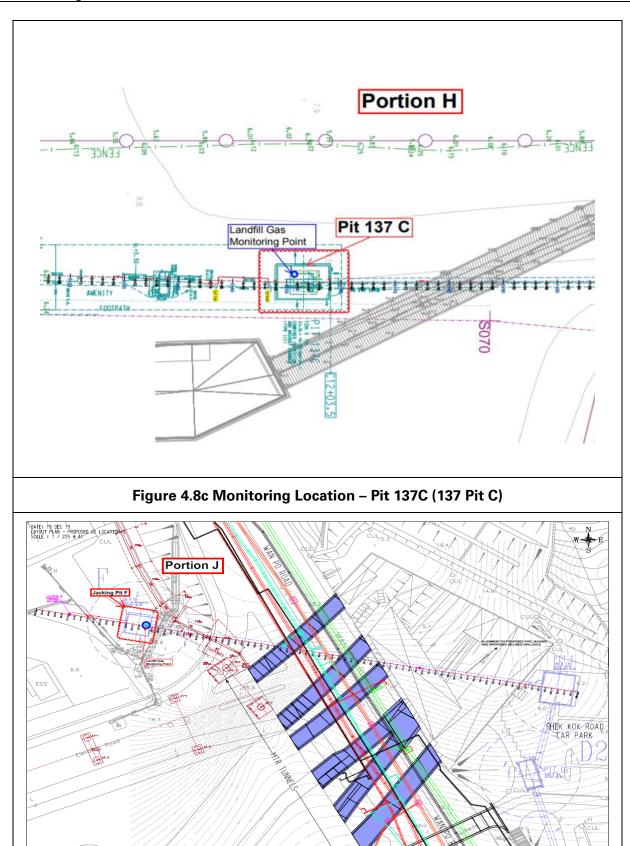


Figure 4.9 Monitoring Location – Jacking Pit F



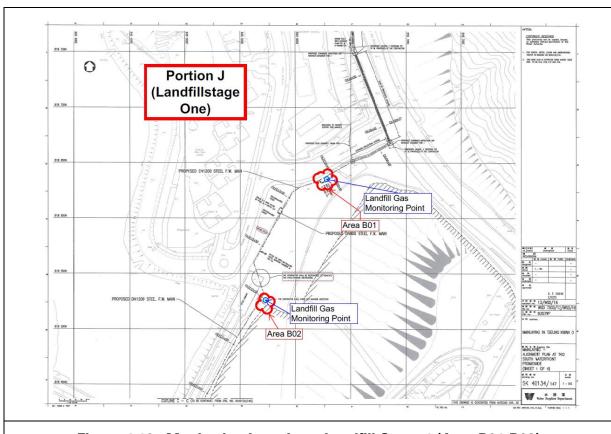


Figure 4.10a Monitoring Location – Landfill Stage 1 (Area B01-B02)

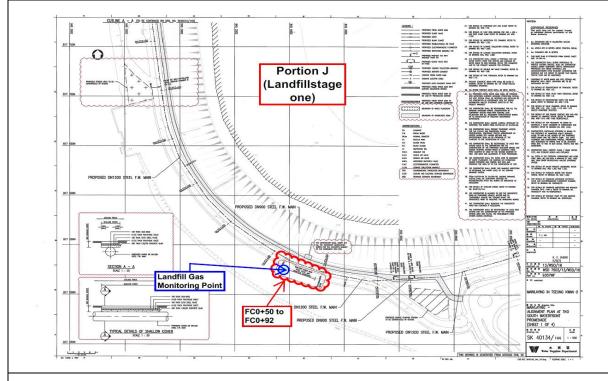


Figure 4.10b Monitoring Location - Landfill Stage 1 (FC0+50-FC0+92)



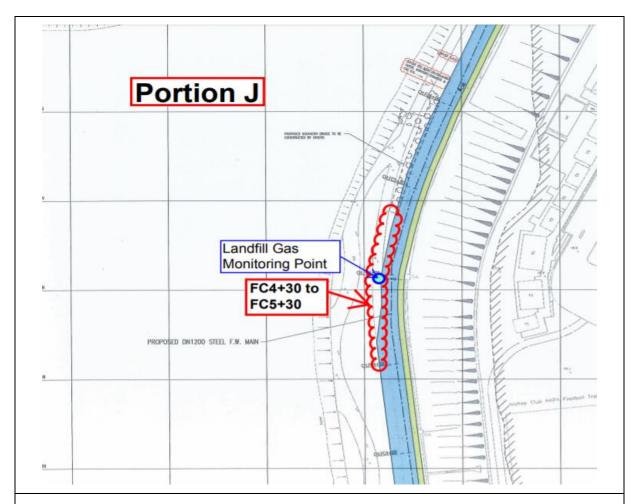


Figure 4.10c Monitoring Location – Landfill Stage 1 (FC4+30-FC5+30)

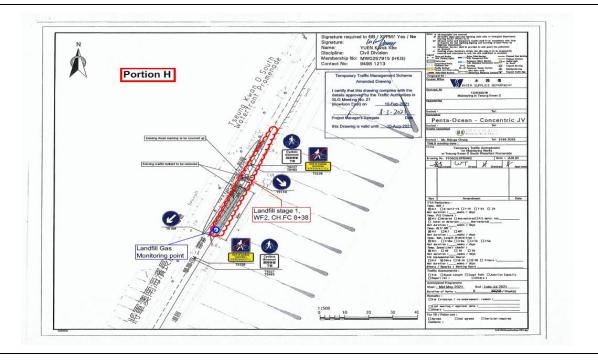


Figure 4.10d Monitoring Location – Landfill Stage 1 (FC8+38)



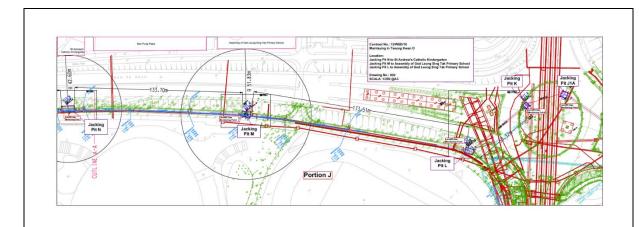


Figure 4.11a Monitoring Location – Pit L-M-N, J1A, K

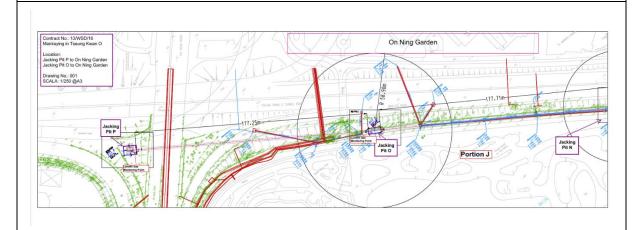


Figure 4.11b Monitoring Location – Pit N-O-P



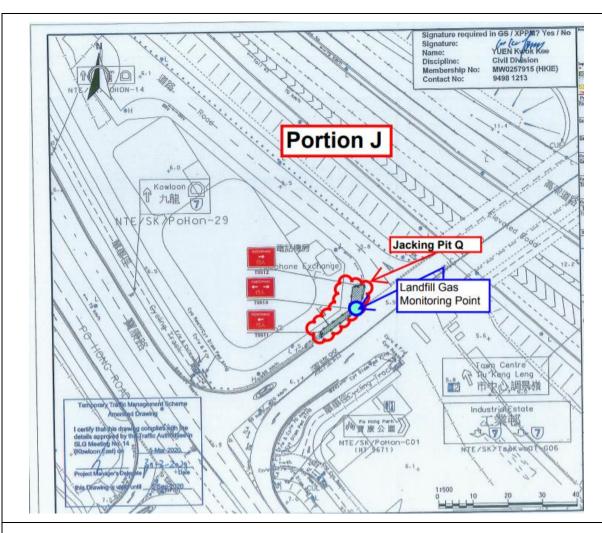
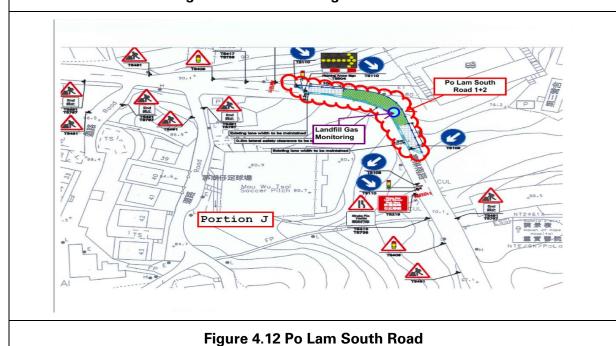


Figure 4.11c Monitoring Location – Pit Q



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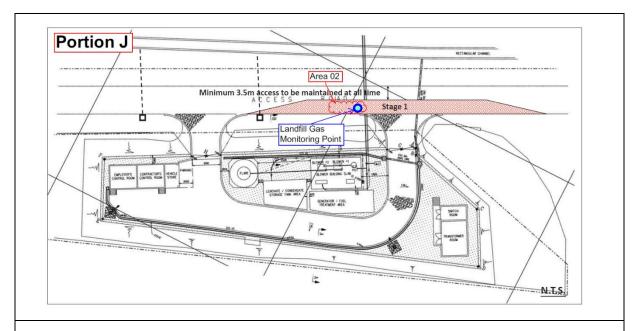


Figure 4.13 Monitoring Location – Area A02

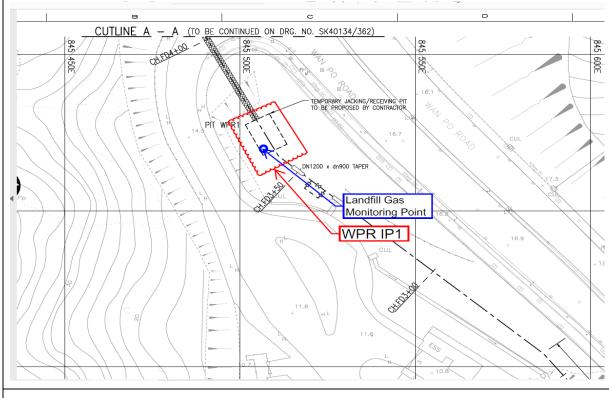


Figure 4.14 Monitoring Location – WPR IP1



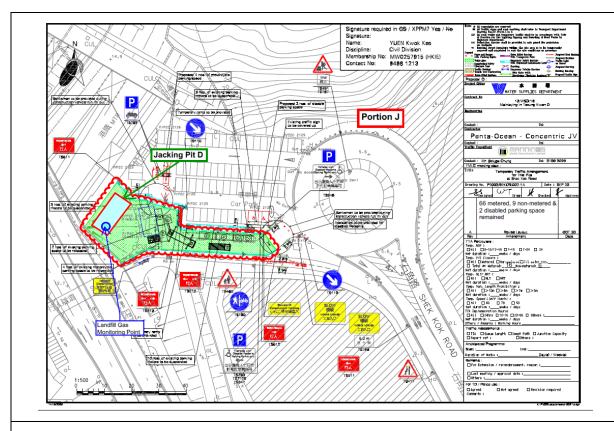


Figure 4.15 Monitoring Location – Jacking Pit D

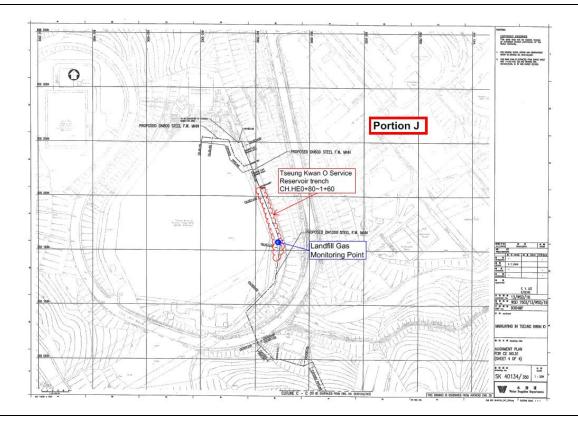


Figure 4.16 Monitoring Location – CH.HE0+80-1+60



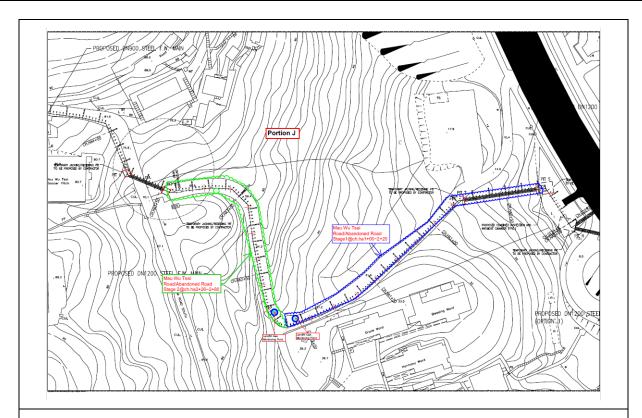


Figure 4.17 Monitoring Location – Mau Wu Tsai Abandoned Road

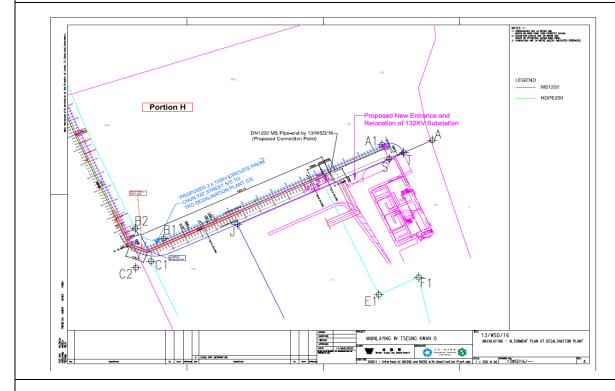


Figure 4.18a Monitoring Location - CH.CT 0+07 ~ 2+58



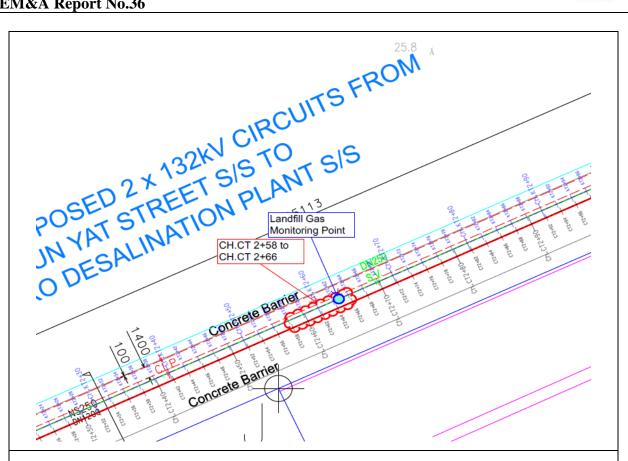


Figure 4.18b Monitoring Location - CH.CT 2+58 ~ 2+66

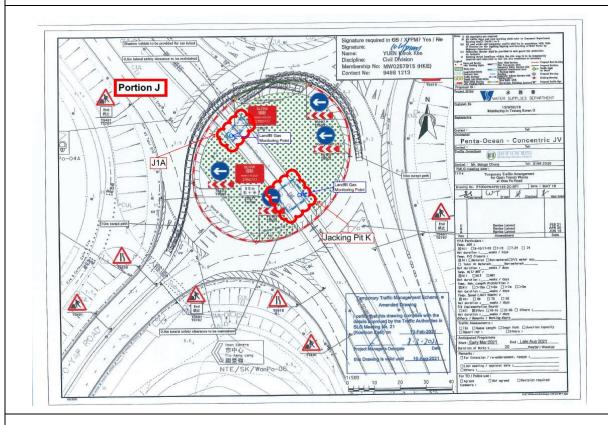


Figure 4.19 Monitoring Location – Pit K



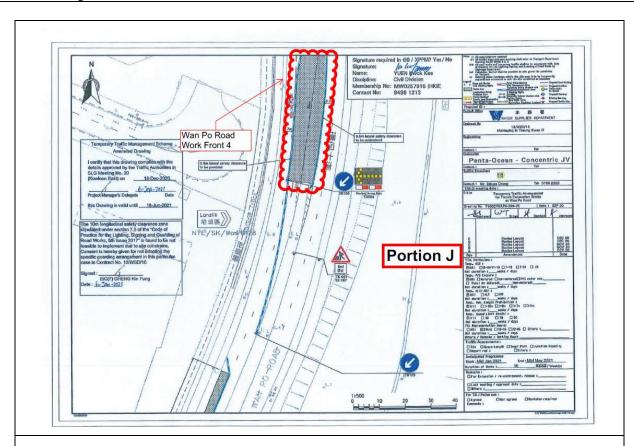


Figure 4.20a Monitoring Location - Wan Po Road 4

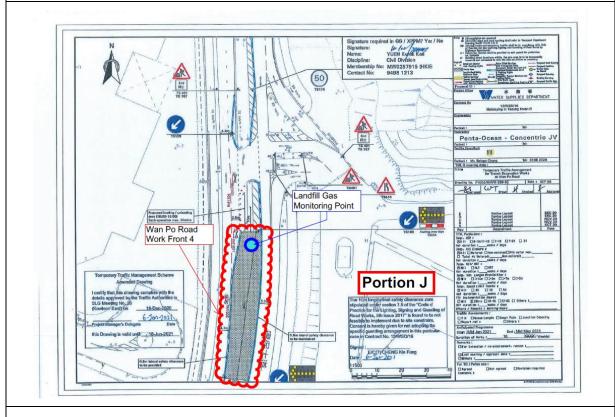


Figure 4.20b Monitoring Location – Wan Po Road 4



4.3 Monitoring Parameters

LFG 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 (O2)	<19% O2	<19% O2
Methane (CH4)	>10% LEL	>80% LEL
Carbon Dioxide (CO2)	>0.5% CO2	>1.5% CO2

4.5 Monitoring Equipment

Landfill Gas monitoring was carried out using intrinsically-safe, portable multigas 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:

	0
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
Portable Gas Detector	QRAE III	27 July 2021
Portable Gas Detector	QRAE III	27 July 2022
MultiRAE Lite	PGM-6208	06 April 2022

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 764 times. All the measured results were presented in **Appendix J** and were within the Action and Limit Levels.



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

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

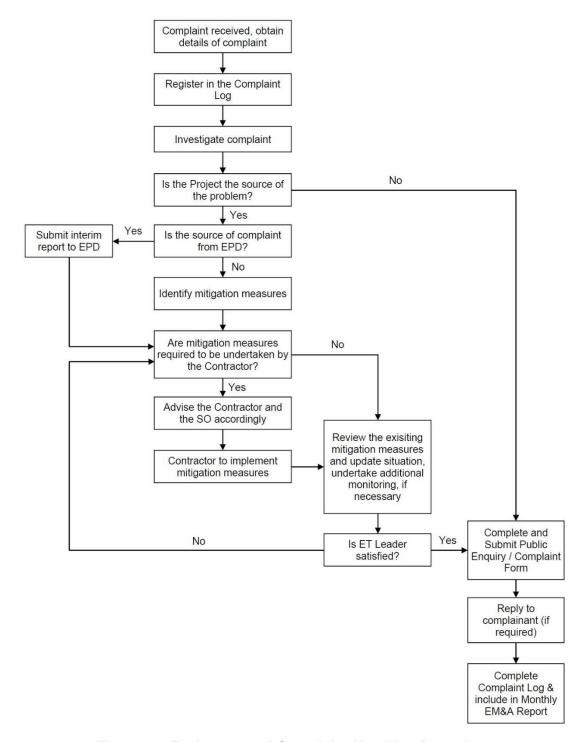


Figure 5.1 Environmental Complaint Handling Procedure



- 5.2 Impact monitoring for noise impact was conducted in the reporting month for NSR4 Creative Secondary School on 2, 8, 16, 20 and 28 July 2021 as construction works were conducted within 300m to the noise sensitive receiver. Detailed monitoring results can be found in **Appendix G**.
- 5.3 No examinations were scheduled in the reporting month for NSR4 Creative Secondary School. Academic School Calendar can be found in **Appendix O**.
- 5.4 No project-related exceedance of the Action Level was recorded during the reporting period.
- 5.5 One project-related environmental complaint was received and the site condition of the concerned area was reviewed by ET. ET noted that although there was no excavation works on-going or scheduled recently, clearance works and works that create disturbance to ground surface were previously conducted. To prevent the muddy water discharge from the construction site, the contractor has implemented and enhanced the mitigation measures to cater for any upcoming rainstorms or heavy precipitation from the site. Sandbags are placed along the site boundary and submersible pump is provided to direct the runoff to the wastewater treatment tank before reusing or discharging into the designated discharge point. Cement application to exposed earth within the site was also observed during the inspection on 13 August 2021, which was being implemented to prevent erosion caused by the precipitation. The temporarily exposed slope and areas were covered by tarpaulin.
- 5.6 No notification of summons and prosecution was received in the reporting period.
- 5.7 Statistics on complaints and regulatory compliance are summarized in **Appendix K**.

6. EM&A SITE INSPECTION

6.1 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 2, 8, 16, 22 and 27 July 2021 at the site portions list in **Table 6.1** below.

Table 6.1 Site Inspection Record

Date	Inspected Site Portion	Time
02 July 2021	Portion F and J	9:30am – 12:30pm
08 July 2021	Portion J and H	9:30am – 12:00pm
16 July 2021	Portion J	9:30am – 12:00pm
22 July 2021	Portion J	9:30am – 12:30pm
27 July 2021	Portion J	9:20am – 12:15pm



- 6.2 One joint site inspection with IEC was carried out on 27 July 2021.
- 6.3 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
02 July 2021	 Chemicals were not placed inside a drip tray at Portion F, Wan Po Road 4, Landfill Stage 1 Area A and CH.FC 4+50. Environmental permit was not observed at the site entrance/exit at Wan Po Road 4, Pit A. Gully was not covered with geo-textile and sandbags at Wan Po Road 3. Untreated wastewater was observed discharging from the site area at Wan Po Road 3. Construction boundary was not protected by sandbags fully at Jacking Pit B. 	 Chemicals were placed in the drip tray or removed. Environmental permit was observed. Gully was covered with geotextile and sandbags. No water was discharged from the construction site. Construction boundary was protected by sandbags fully.
08 July 2021	 Environmental permit was not observed at the exit or entrance at Wan Po Road 2. Untreated water was observed discharging from the site at Wan Po Road 3. A sedimentation tank or water treatment facilities should be added. Chemicals were not placed on a drip tray at Wan Po Road 3. Construction boundary was not fully protected by sandbags at Wan Po Road 3. 	 Environmental permit was observed. No water was discharged from the construction site Chemicals were removed. Construction boundary was fully protected by sandbags.
16 July 2021	 Environmental permit was not observed at Pit L (Hong Kong Velodrome). 	 Environmental permit was observed. Drip tray was cleaned.



Date	Environmental Observations	Follow-up Status
	 Regular cleaning of drip tray should be conducted to prevent overflow of trapped materials at Pit O. (Hong Kong Velodrome). Regular cleaning of deposited materials in the water sedimentation tank to allow efficient drainage at Pit O should be conducted (Hong Kong Velodrome). Oil leakage was observed at Pit N (Hong Kong Velodrome). 	3. Deposited materials in the water sedimentation tank
22 July 2021	was not observed at the	 Environmental permit was observed. Chemical was removed.
27 July 2021	No major observations were re	eported.

- 6.4 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**.
- 6.5 Site inspection proforma of the reporting period is provided in **Appendix L**.



7. FUTURE KEY ISSUES

7.1 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	Location	Forecast Works in Next Reporting Month
Portion H of the Project Site	TKO 137 Pit B	Pipe jacking works by TBM will be continued.
Portion J of the Project Site	Wan Po Rd – Workfront 1	Trench excavation and pipe laying will be conducted.
	Wan Po Rd – Workfront 2	Trench excavation and pipe laying works will be conducted.
	Wan Po Rd – Workfront 3	Trench excavation and pipe laying works will be conducted.
	Wan Po Rd – Workfront 4	Trench excavation and pipe laying works will be conducted.
	Wan Po Rd – Pit A	Excavation and ELS works will be conducted.
	Wan Po Rd – Pit B	Pit excavation works will be continued.Preparation works for pipe jacking will
	Wan Po Rd – Pit D	be conducted. Excavation and ELS works will be conducted.
	Landfill Stage 1 – Area A	900HSV Chamber construction works will be conducted.
	Landfill Stage 1 – Area B	Trench excavation and pipe laying works will be conducted.
	Cycle Track – Workfront 1	Trench excavation and pipe laying works will be conducted.
	Cycle Track – Workfront 2	Trench excavation and pipe laying works will be conducted.
	Velodrome – Pit J1A	Trenchless works by hand-shield
	Velodrome – Pit K	Pipe laying works will be commenced.
	Velodrome – Pit L	Pipe laying works will be commenced.
	Velodrome – Pit M	Pipe jacking works will be continued.
	Velodrome – Pit O	Construction of rescue pit for TBM will be conducted.
	Velodrome – Pit P	MTBM pipe jacking will be commenced.
	Mau Wu Tsai – Workfront 1	Trench excavation and pipe mainlaying works will be conducted.
	Po Lam Road (D1)	Trench backfilling and reinstatement will be continued.
	Po Lam Road (B5)	Trench excavation and pipe laying works will be conducted.



TKO Primary Service	Trench excavation and pipe laying
Reservoir	works will be conducted.

- 7.2 The major environmental impacts brought by the above construction works will include:
 - Construction dust and noise generation of saw cutting of concrete surface, mainlaying of pipes, drilling activities, TBM break through and excavation works.
 - Waste generation from construction activities
 - Impact on water quality from construction activities
- 7.3 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 saw cutting of concrete surface, mainlaying of pipes, drilling activities, TBM break through and excavation works
 - Reduction of noise from equipment and machinery on-site
 - Sorting and storage of general refuse and construction waste
 - Treatment of wastewater with water treatment facilities before discharge
- 7.4 The proactive environmental protection proforma for the next reporting month is listed in **Appendix M**.
- 7.5 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.
- 7.6 The tentative impact monitoring schedule for the next reporting month is attached in **Appendix N**.



8. CONCLUSION AND RECOMMENDATIONS

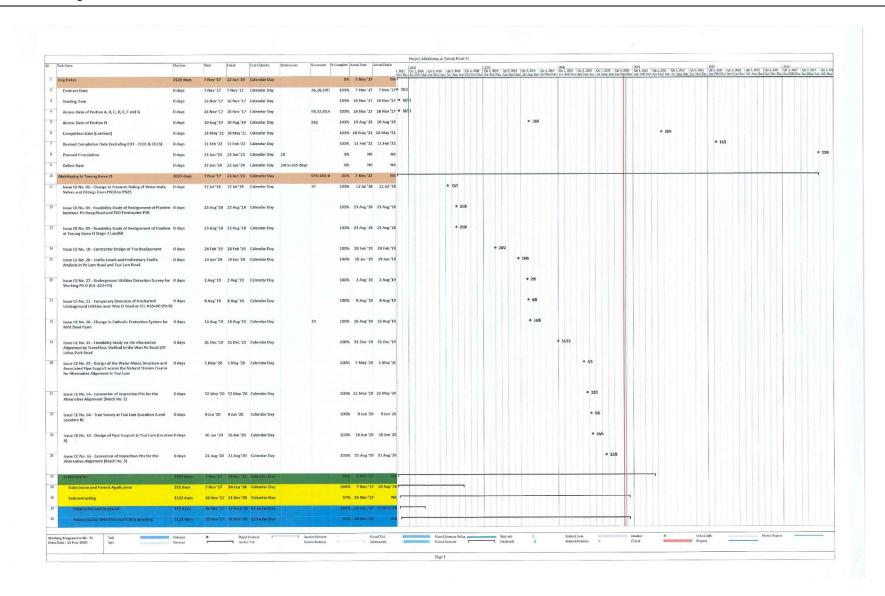
- 8.1 This is the 36th monthly Environmental Monitoring and Audit (EM&A) Report presenting the EM&A works undertaken during the period from 1 July 2021 to 31 July 2021, in accordance with the EM&A Manual and the requirement under EP-503/2015/A.
- 8.2 Impact monitoring for noise impact was conducted in the reporting month for NSR4 Creative Secondary School on 2, 8, 16, 20 and 28 July 2021 as construction works were conducted within 300m to the noise sensitive receiver. Detailed monitoring results can be found in **Appendix G**.
- 8.3 No examinations were scheduled in the reporting month for NSR4 Creative Secondary School. Academic School Calendar can be found in **Appendix O**.
- 8.4 No project-related exceedance of the Action Level was recorded during the reporting period.
- 8.5 Weekly environmental site inspection was conducted during the reporting period. Minor deficiencies were observed during site inspection and were rectified. The environmental performance of the project was therefore considered satisfactory.
- 8.6 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, dust suppression mitigations and proper materials storage.
- 8.7 One project-related environmental complaint was received and the site condition of the concerned area was reviewed by ET. ET noted that although there was no excavation works on-going or scheduled recently, clearance works and works that create disturbance to ground surface were previously conducted. To prevent the muddy water discharge from the construction site, the contractor has implemented and enhanced the mitigation measures to cater for any upcoming rainstorms or heavy precipitation from the site. Sandbags are placed along the site boundary and submersible pump is provided to direct the runoff to the wastewater treatment tank before reusing or discharging into the designated discharge point. Cement application to exposed earth within the site was also observed during the inspection on 13 August 2021, which was being implemented to prevent erosion caused by the precipitation. The temporarily exposed slope and areas were covered by tarpaulin.
- 8.8 No notification of summons or prosecution was received since the commencement of the Contract.
- 8.9 The ET will keep track on the construction works to confirm compliance of environmental requirements and the proper implementation of all necessary mitigation measures.



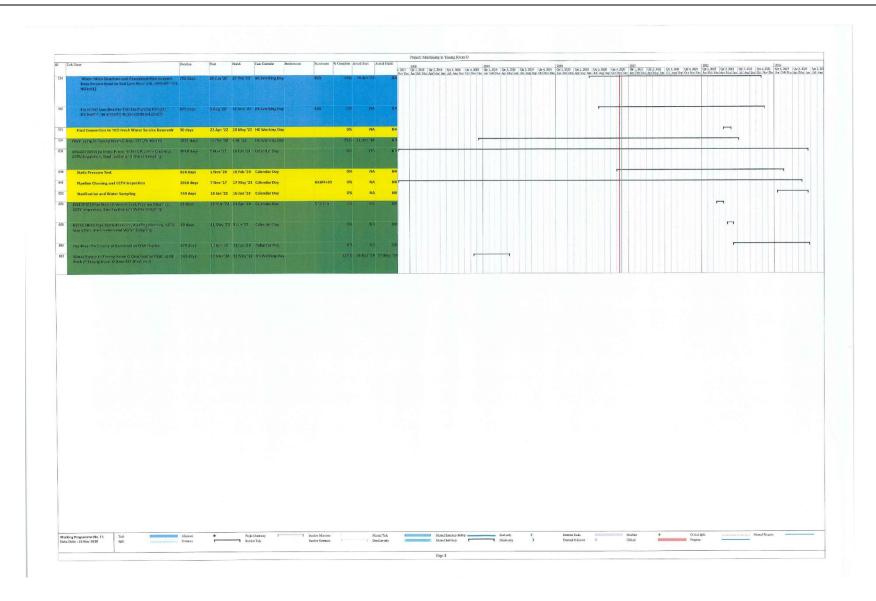
Appendix A

Construction Programme

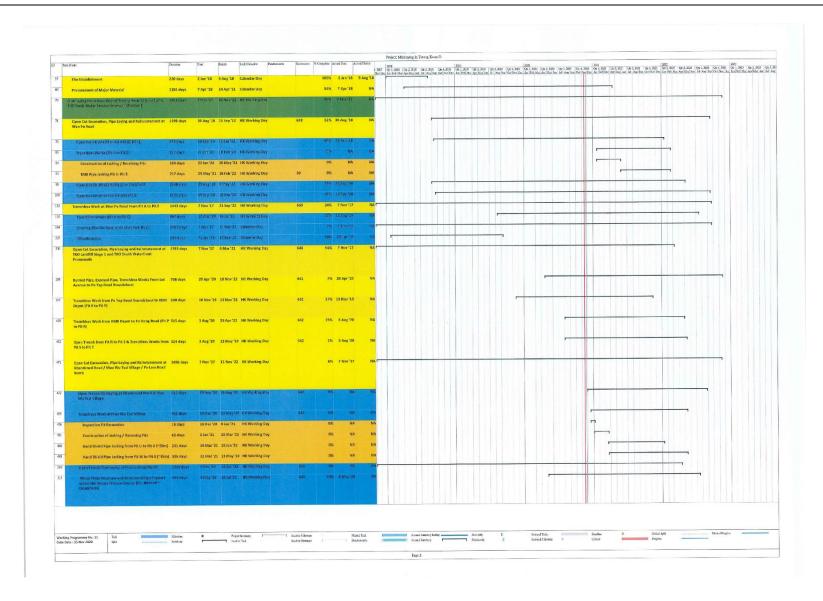




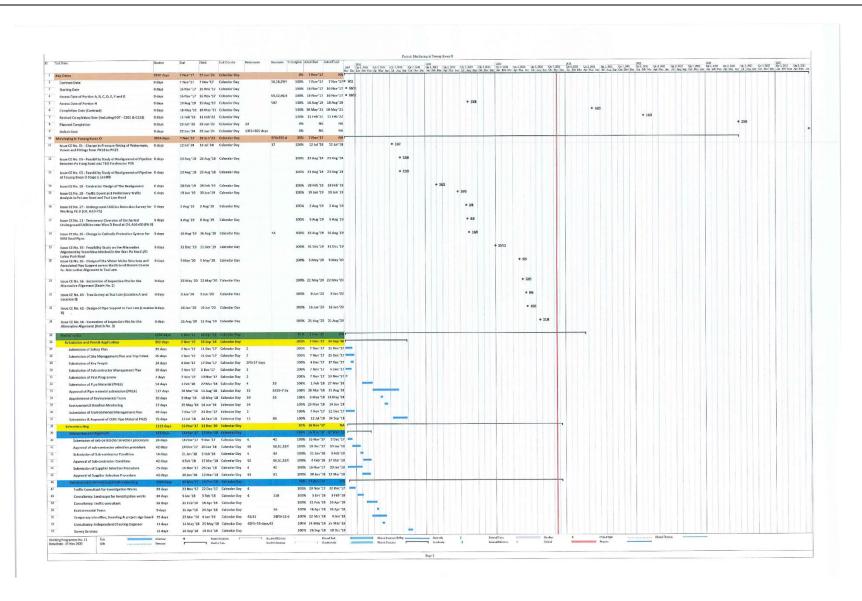




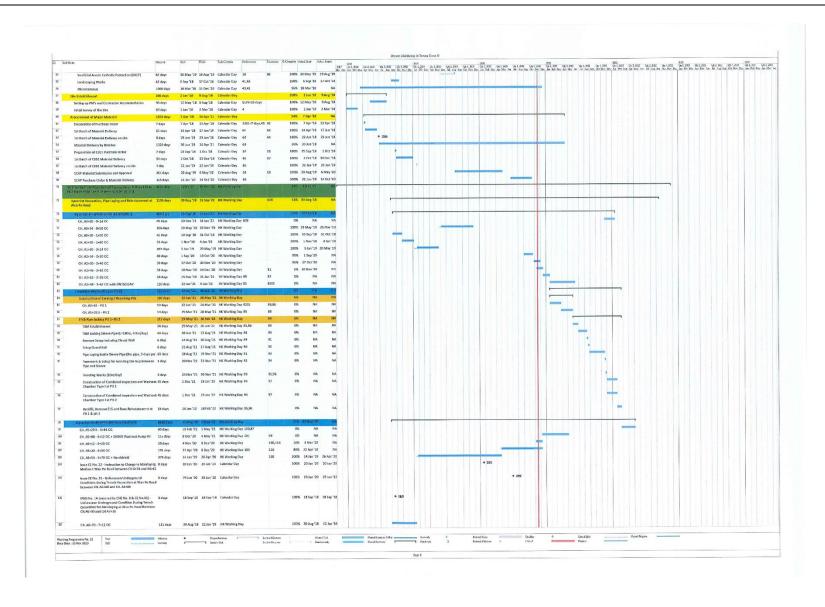




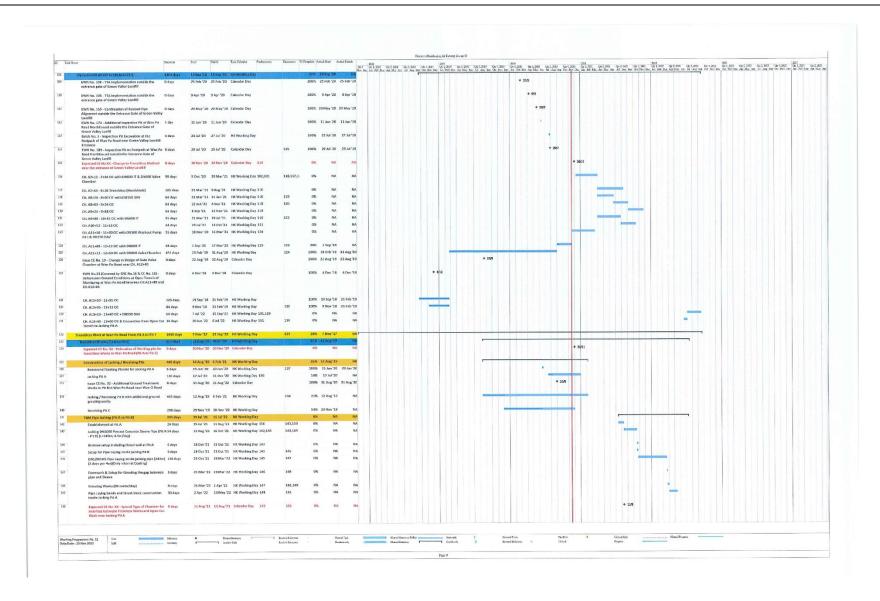




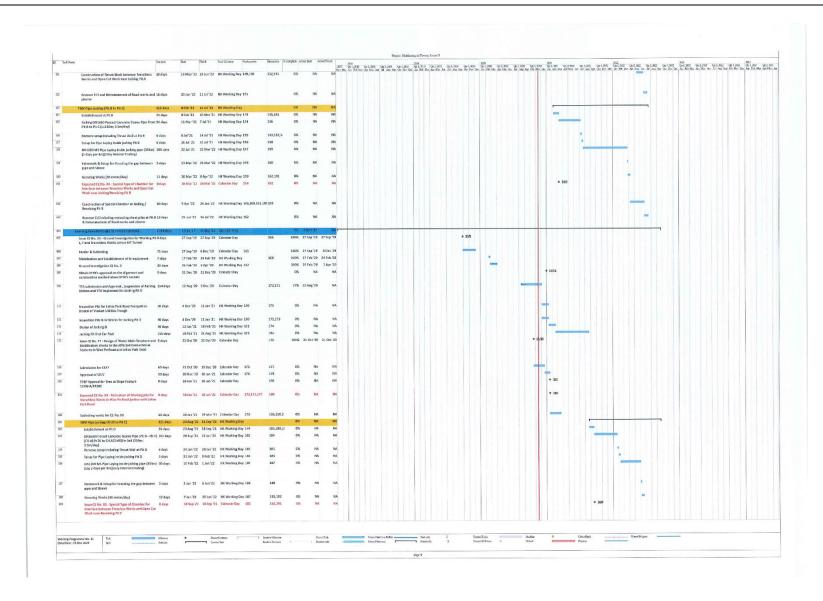




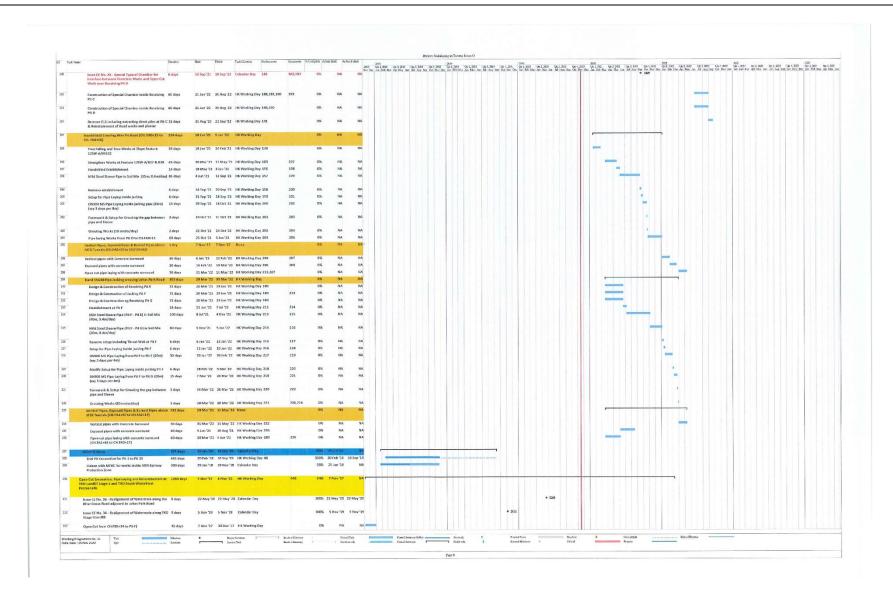




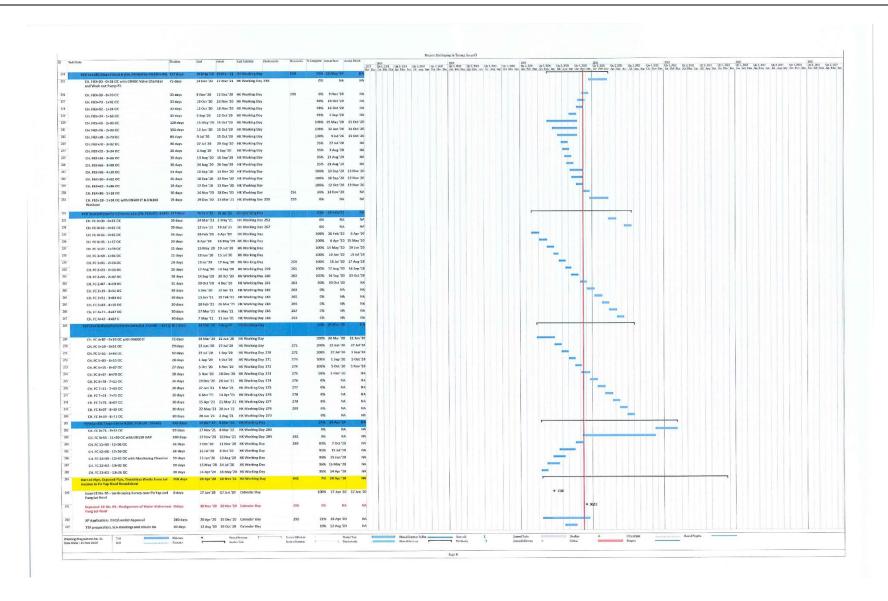




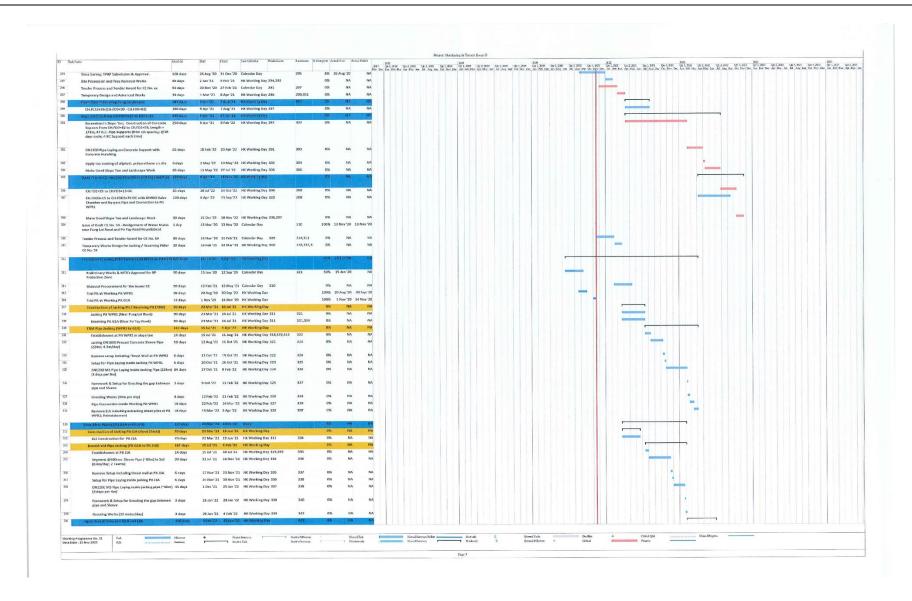




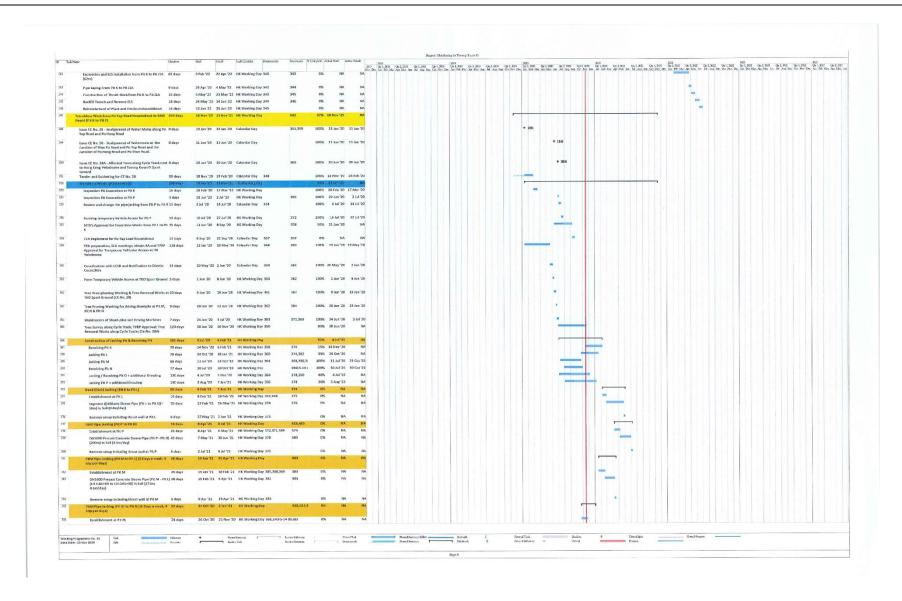




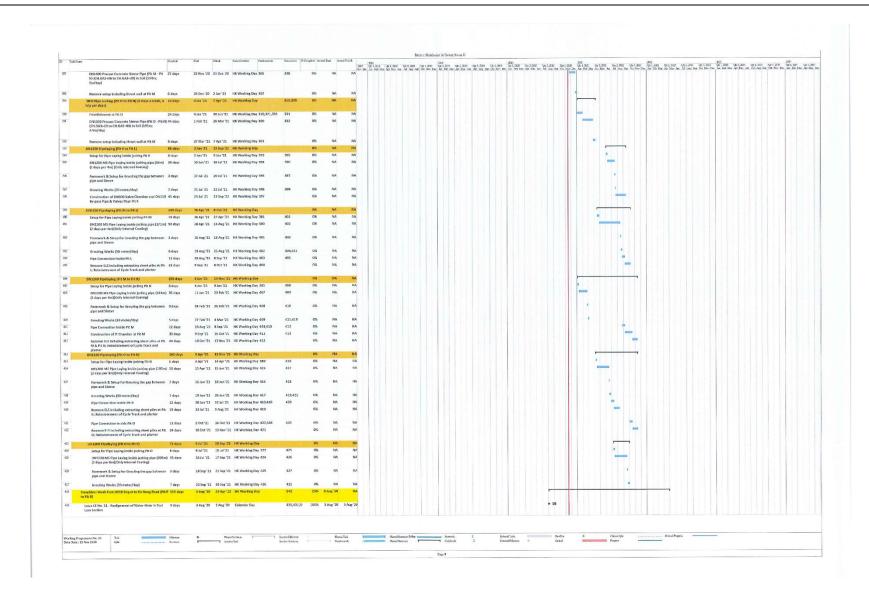




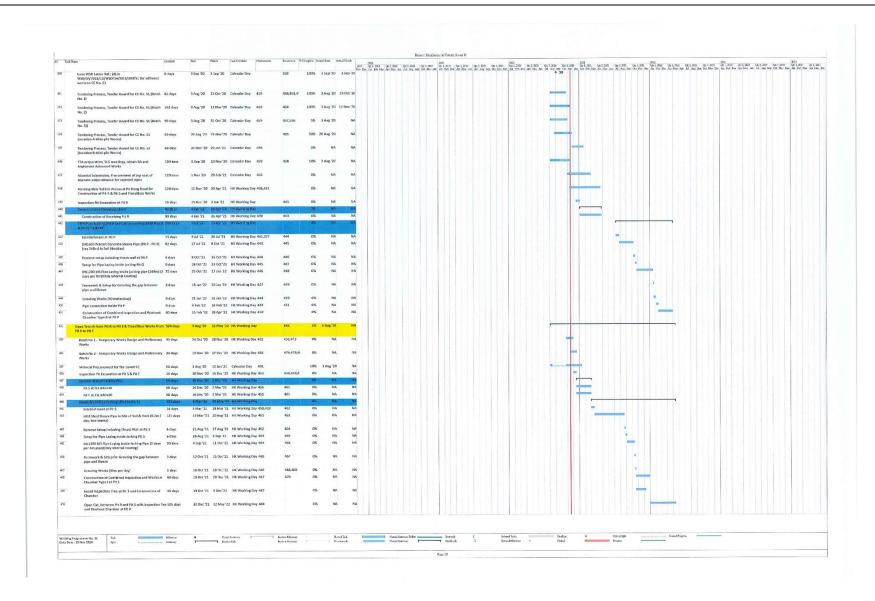




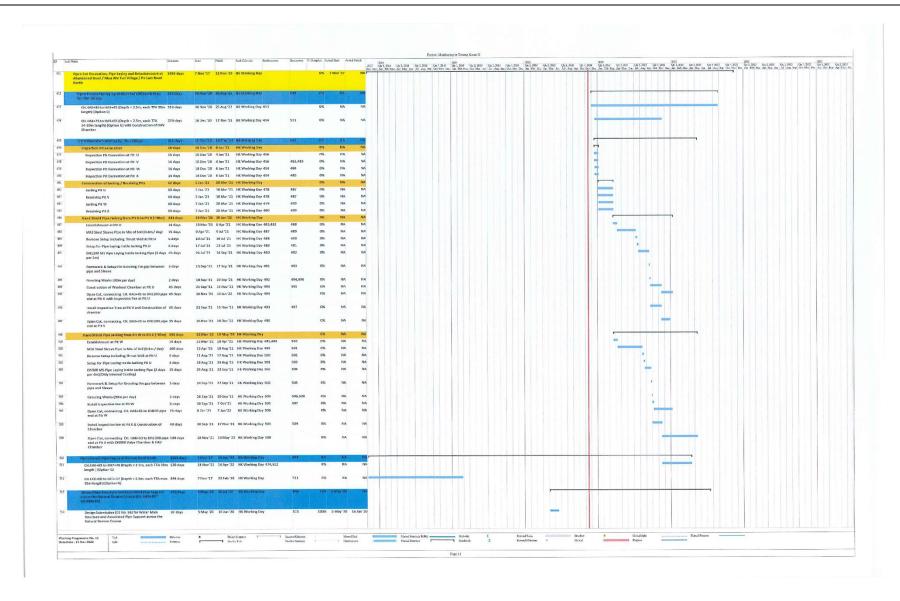




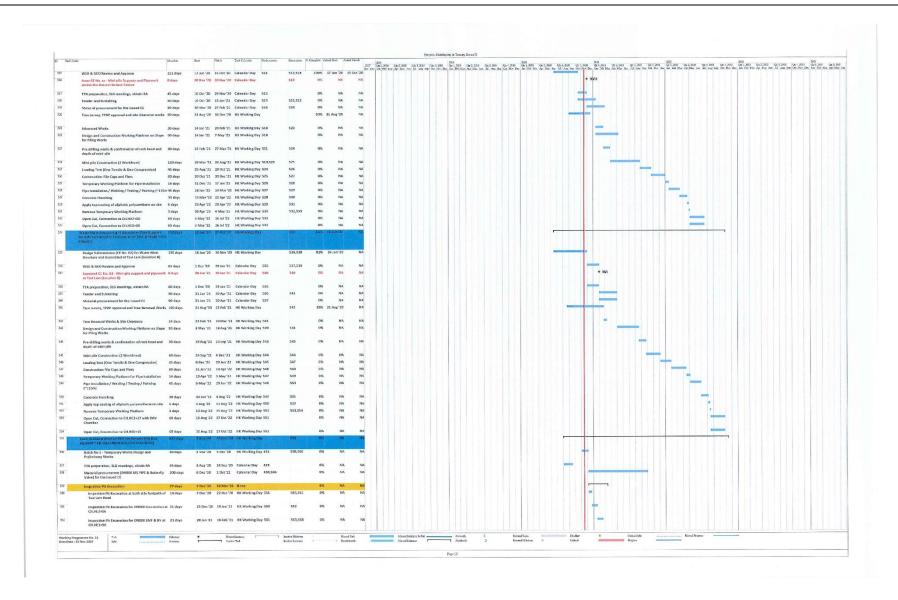




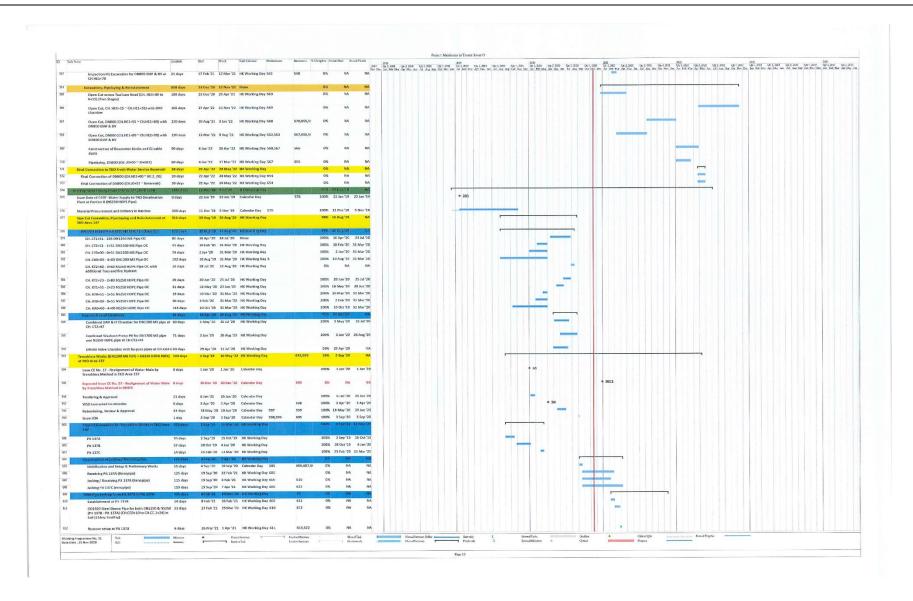




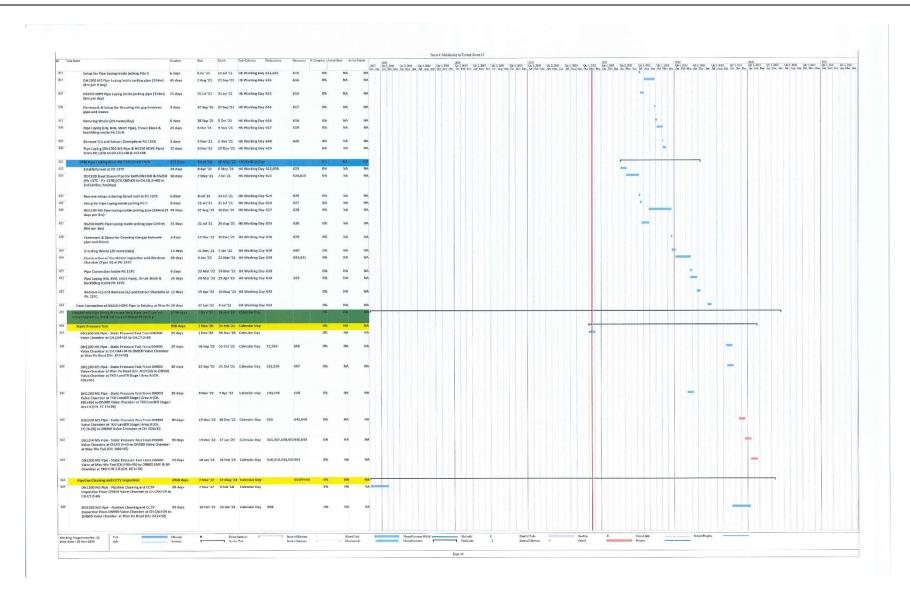




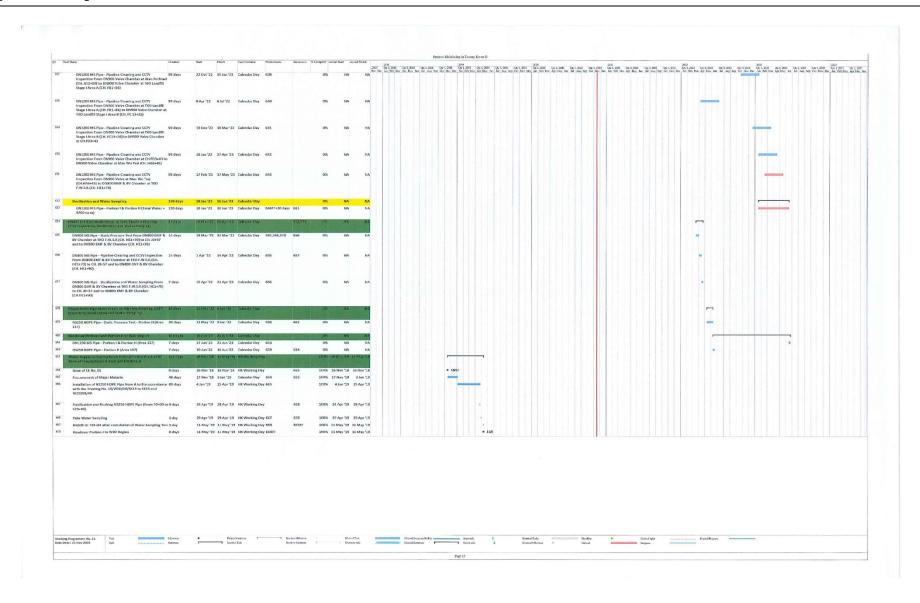














Appendix B

Overview of Mainlaying in Tseung Kwan O



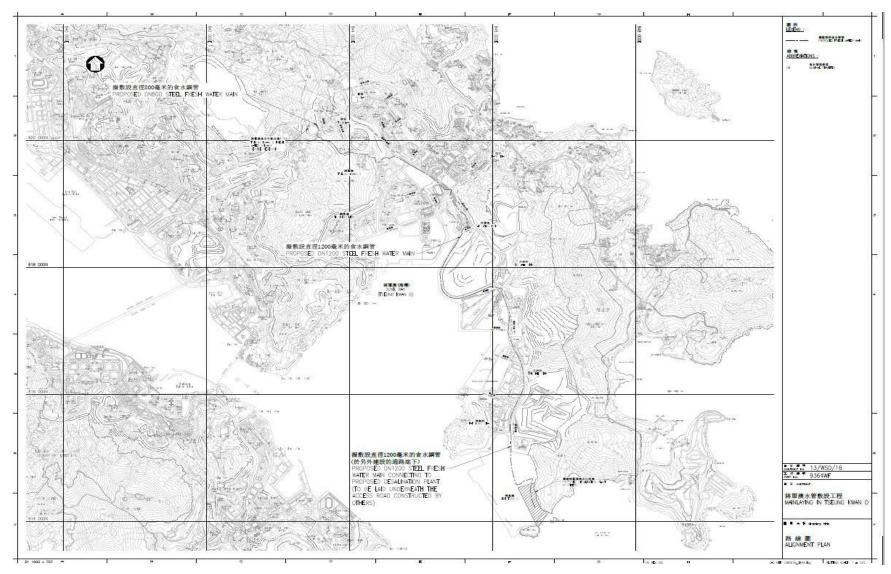


Figure B1. Overview of Mainlaying in TKO



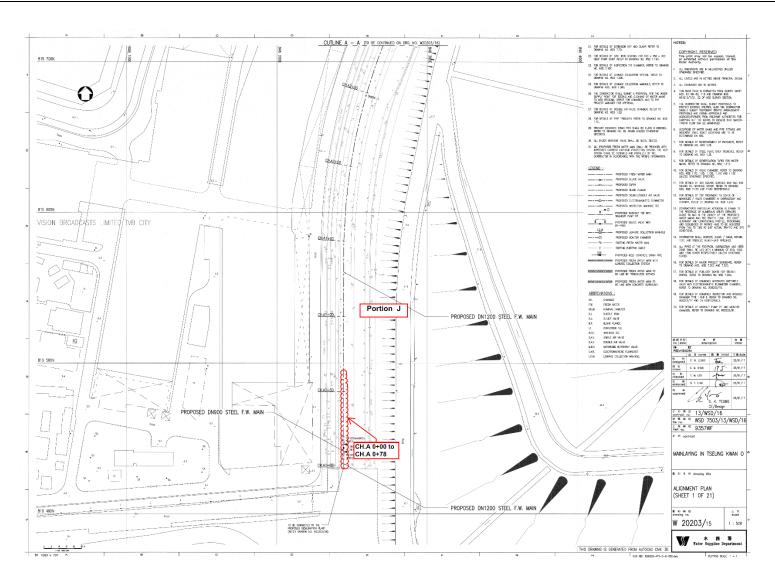


Figure B2. Location Plan for Portion J - CH.A 0+00 to CH.A 0+78



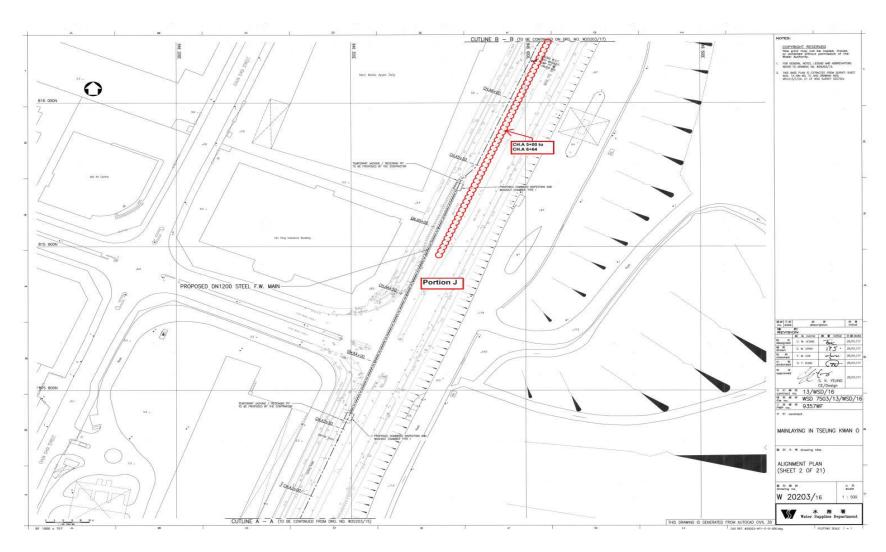


Figure B3a. Location Plan for Portion J - CH.A 5+00 to CH.A 6+64



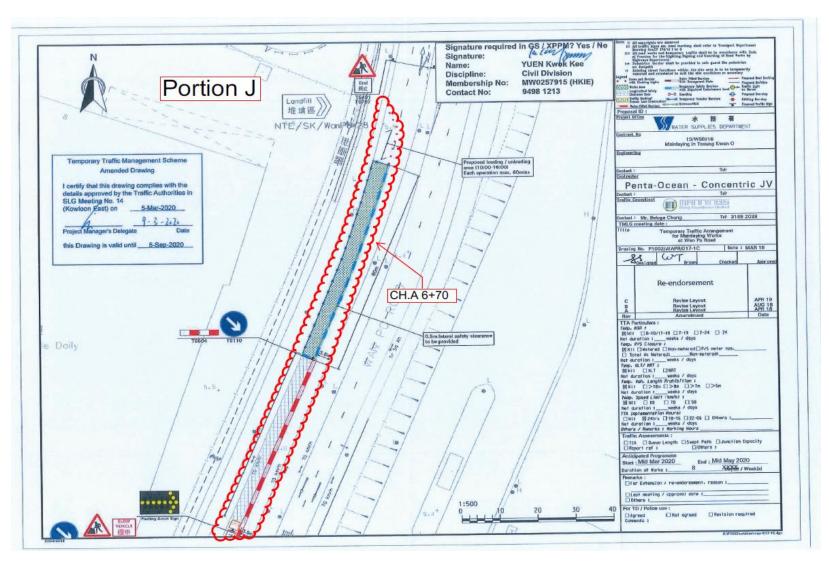


Figure B3b(i). Location Plan for Portion J - CH.A 6+70



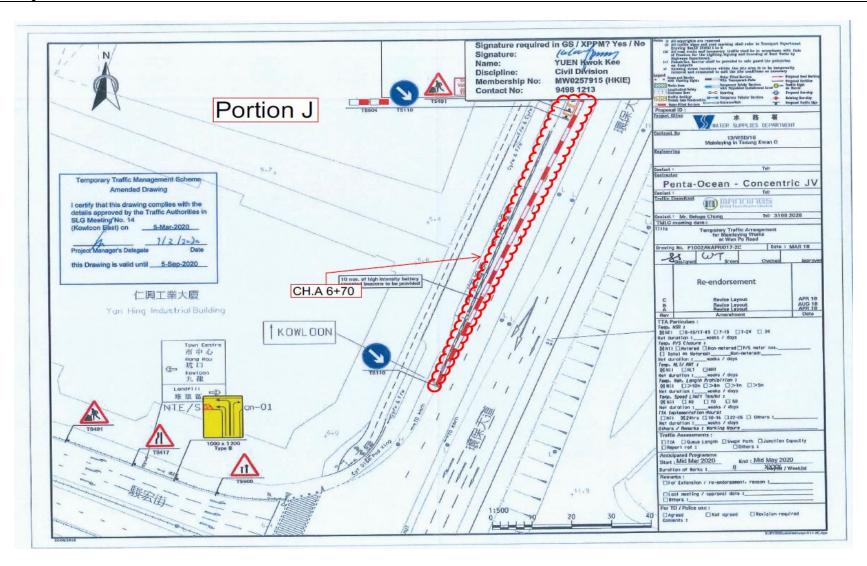


Figure B3b(ii). Location Plan for Portion J - CH.A 6+70



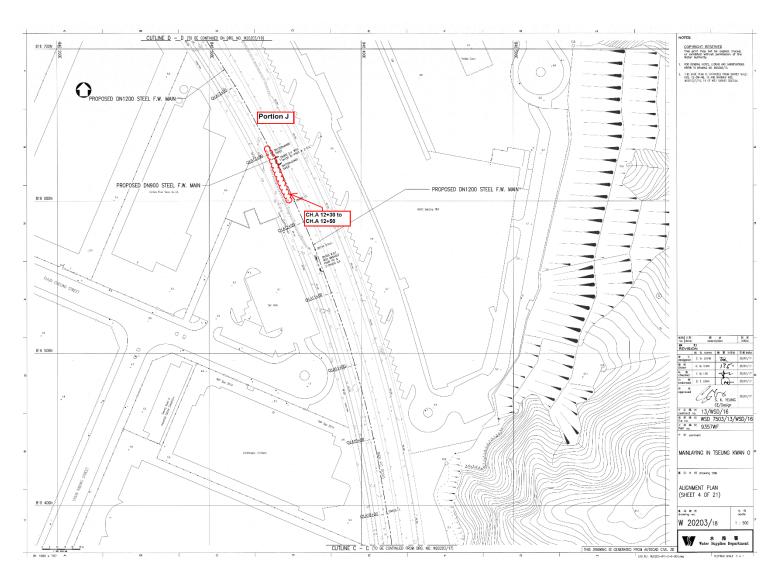


Figure B4. Location Plan for Portion J - CH.A 12+30 to CH.A 12+50



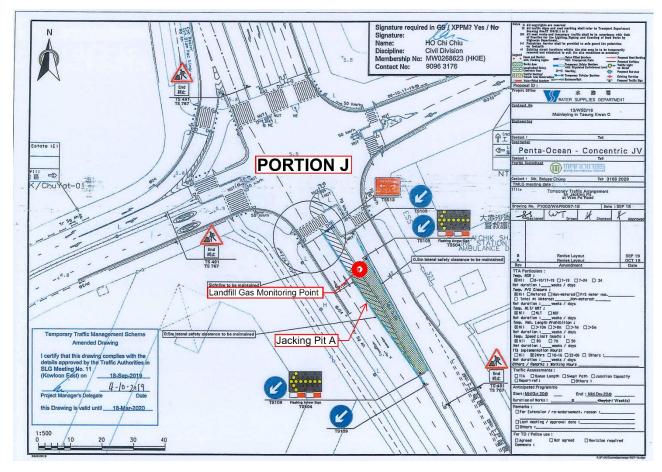


Figure B5. Location Plan for Portion J - CH. A13+50 to CH.A 14+00 (Pit A)



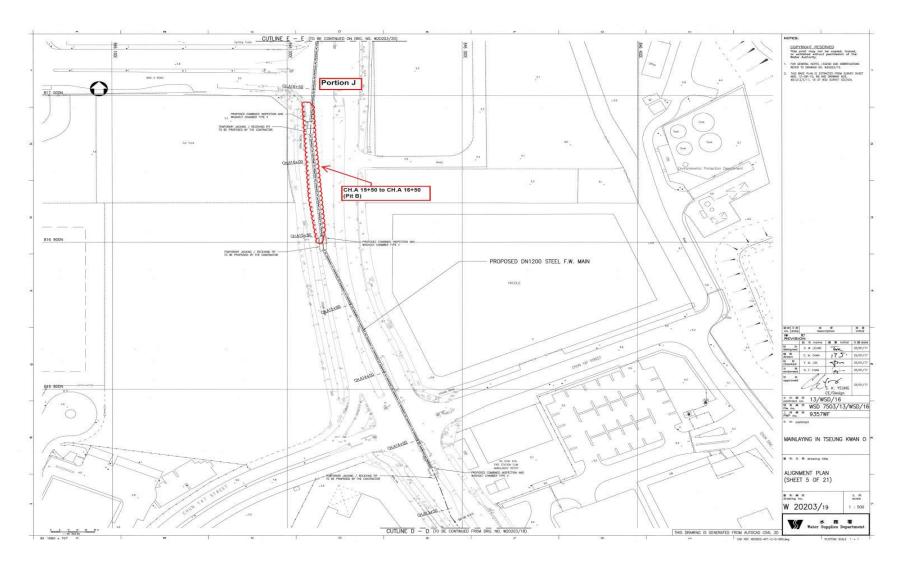


Figure B6. Location Plan for Portion J – CH. A15+50 to CH.A 16+50 (Pit B)



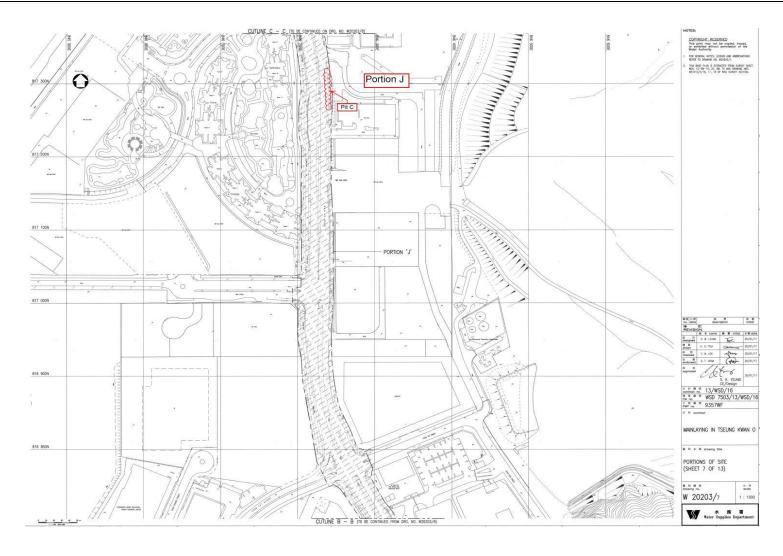


Figure B7. Location Plan for Portion J – CH.A 19+15 to CH.A 19+50 (Pit C)



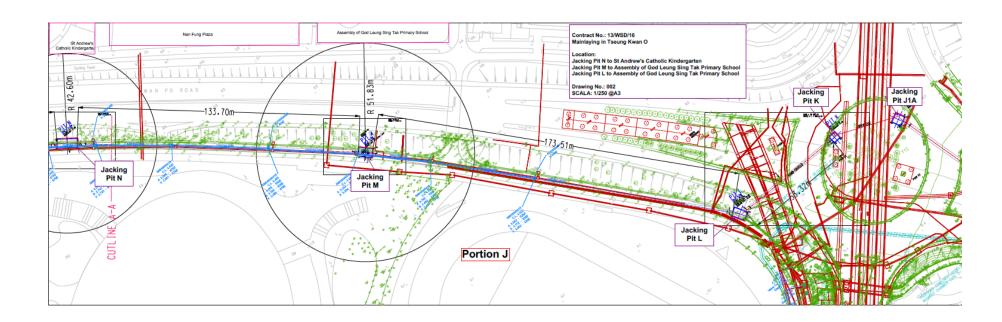


Figure B8a. Location Plan for Portion J - Pit L-M-N, K, J1A



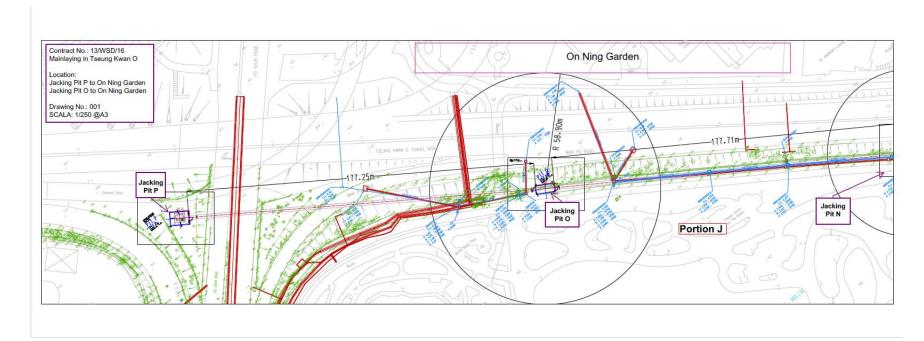


Figure B8b. Location Plan for Portion J – Pit N-O-P



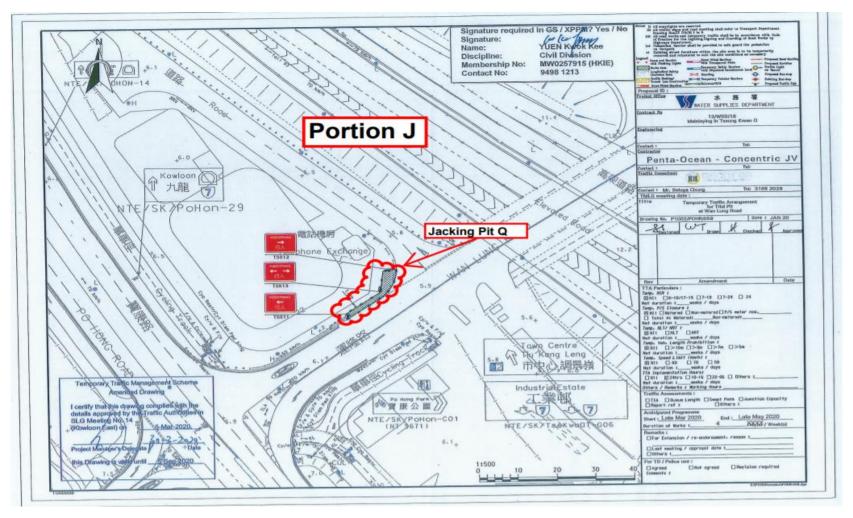


Figure B8c. Location Plan for Portion J – Pit Q



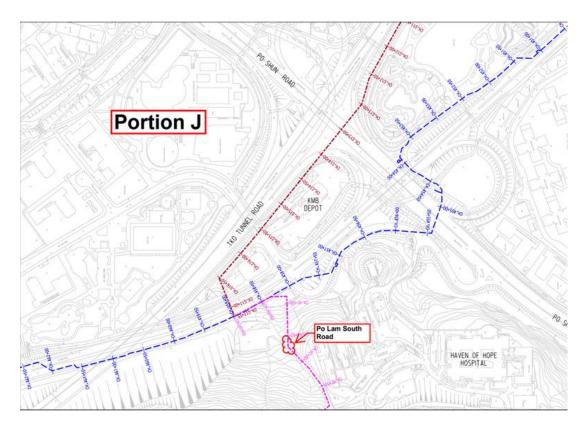


Figure B9a. Location Plan for Mau Wu Tsai 1

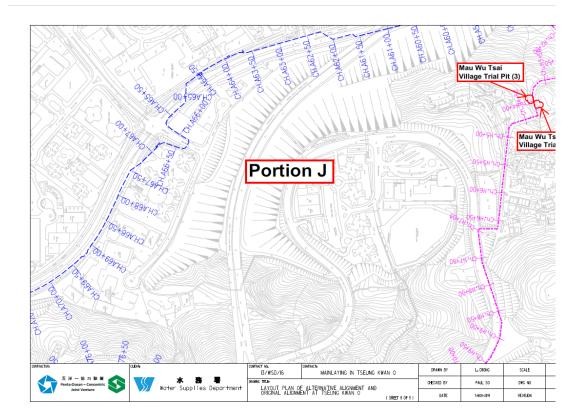


Figure B9b. Location Plan for Mau Wu Tsai 2 & 3



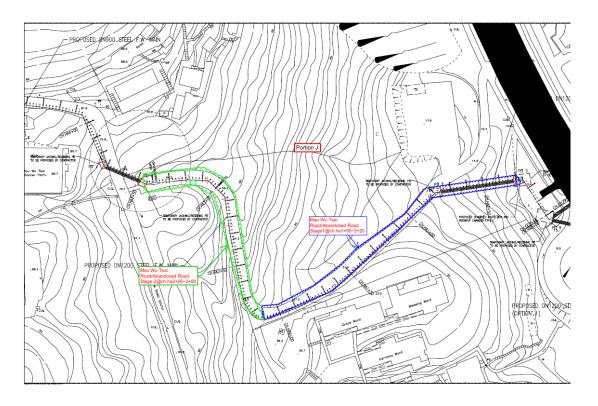


Figure B9c. Abandoned Mau Wu Tsai Road

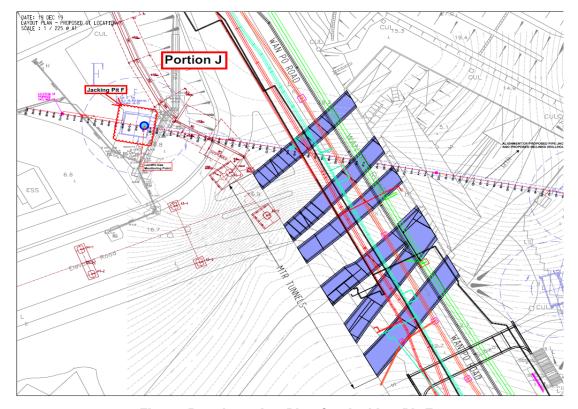


Figure B10. Location Plan for Jacking Pit F



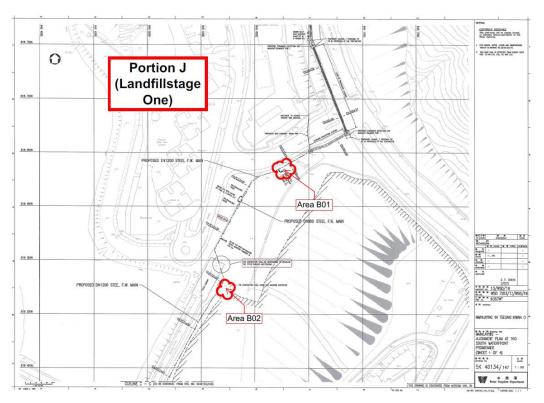


Figure B11a. Location Plan - Landfill Stage 1 (Area B01-B02)

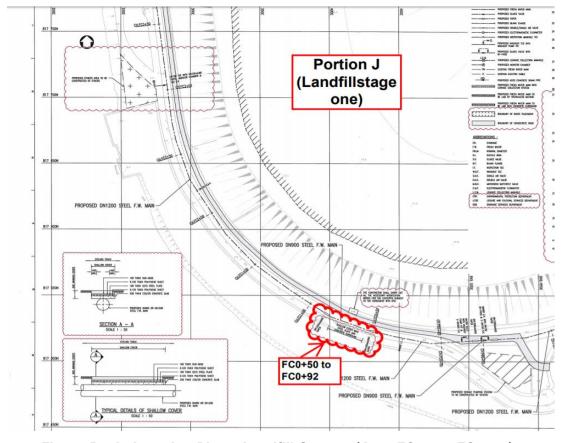


Figure B11b. Location Plan – Landfill Stage 1 (Area FC0+50 -FC0+92)



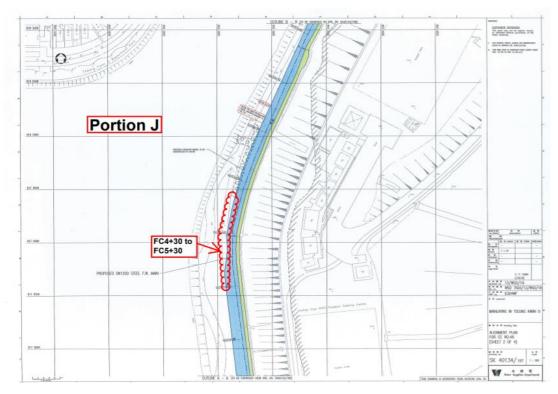


Figure B11c. Location Plan - Landfill Stage 1 (Area FC4+30 -FC5+30)

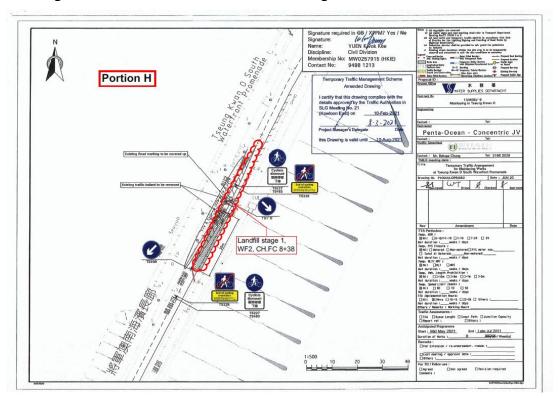


Figure B11d. Location Plan – Landfill Stage 1 (Area FC8+38)





Figure B12. Monitoring Location - Po Lam South Road

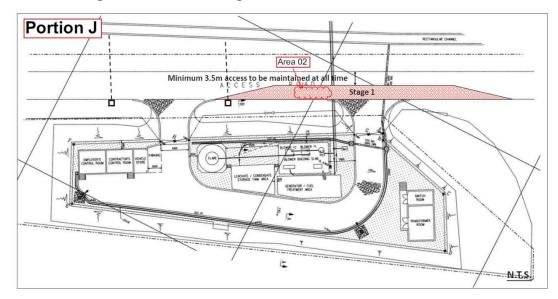


Figure B13. Monitoring Location - Area A02



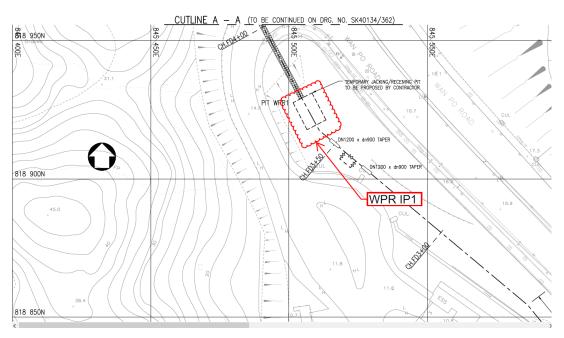


Figure B14. Location Plan for WPR IP1

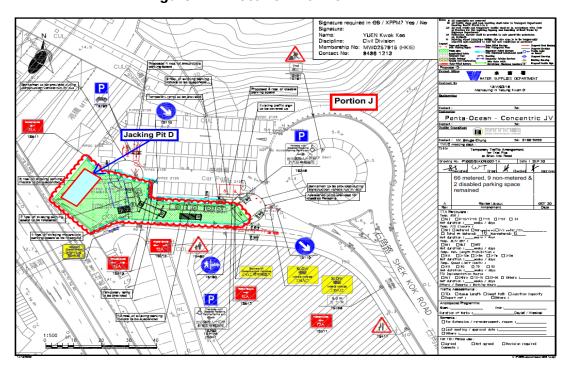


Figure B15. Location Plan for Jacking Pit D



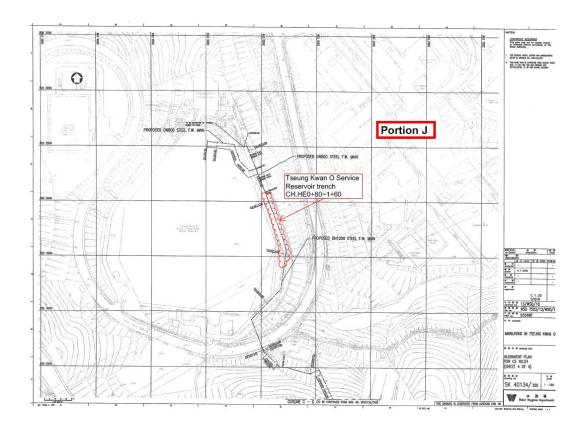


Figure B16. Location Plan for CH.HE0+80-1+60

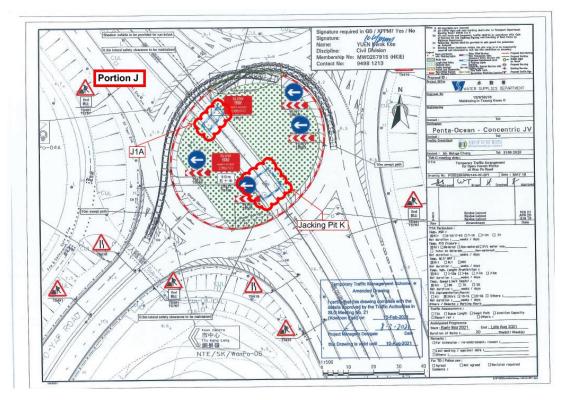


Figure B17. Location Plan for Pit K



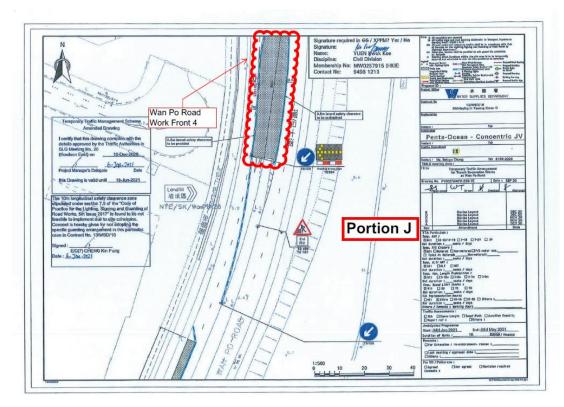


Figure B18a. Location Plan for Wan Po Road 4

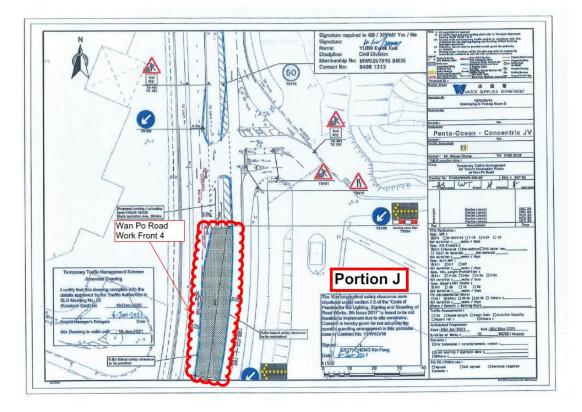


Figure B18b. Location Plan for Wan Po Road 4



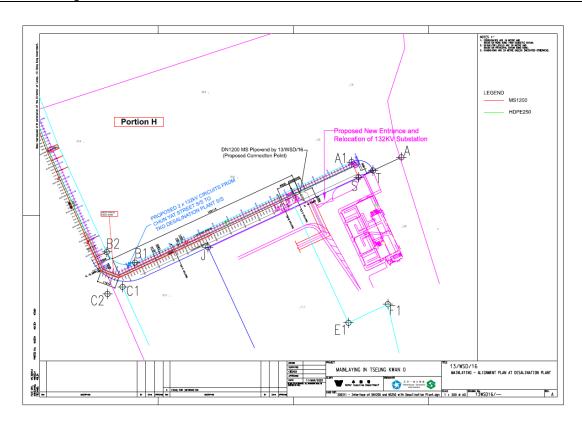


Figure B19a. Location Plan for CH.CT 0+07 - 2+58

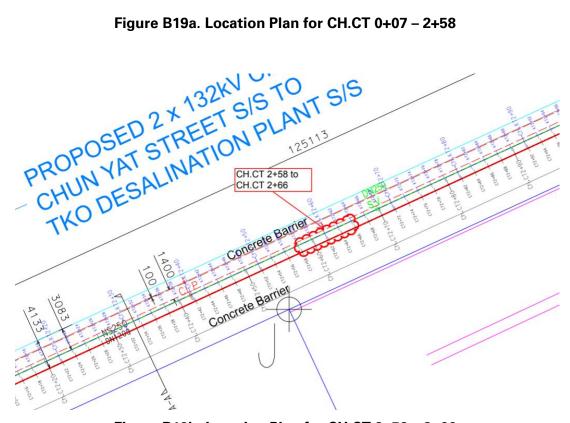


Figure B19b. Location Plan for CH.CT 2+58 - 2+66



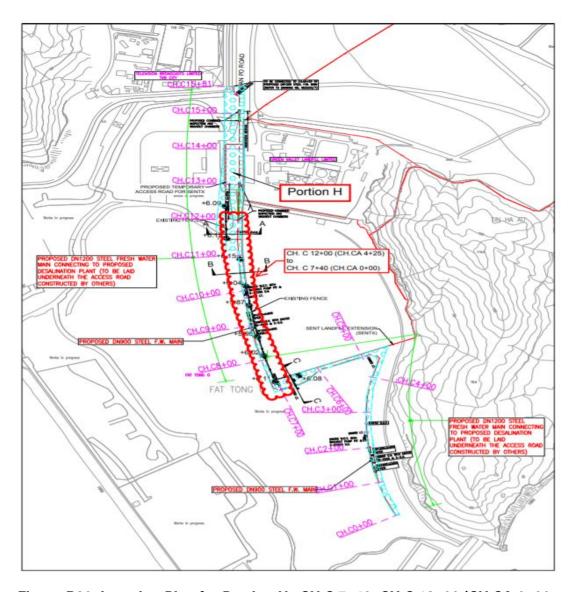


Figure B20. Location Plan for Portion H– CH.C 7+40~CH.C 12+00 (CH.CA 0+00 ~ CH.CA4+25)



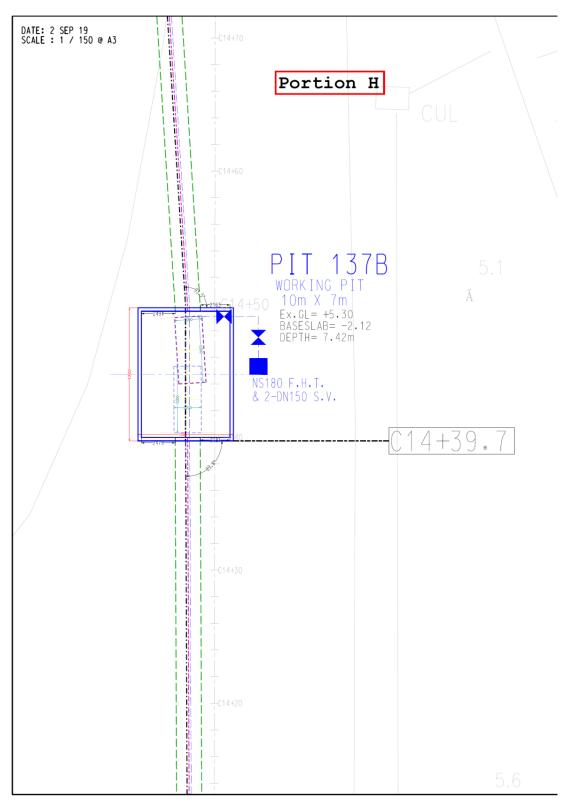


Figure B21a. Location Plan for Portion H- Pit 137B



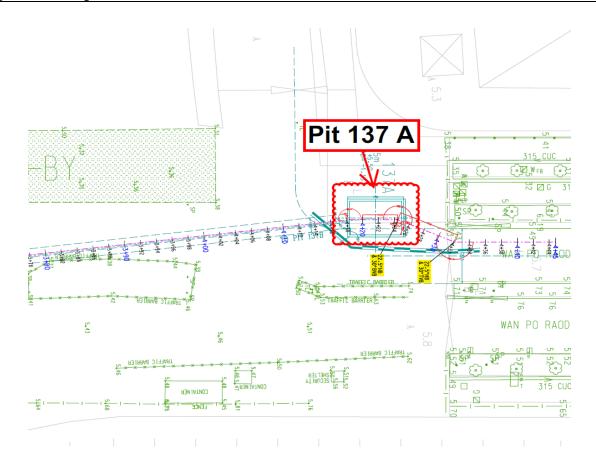


Figure B21b. Location Plan for Portion H- Pit 137A

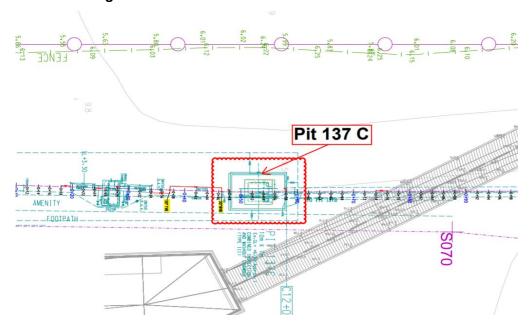


Figure B21c. Location Plan for Portion H- Pit 137C



Appendix C

Summary of Implementation Status of Environmental Mitigation



EIA Reference	Recommended Environmental Protection Measures/ Mitigation Measures	Objectives of the recommended measures	Implementation	Imple: Stage	mentat	ion	Implementation	Relevant Legislation & Guidelines
LIA Nelelelice		& main concerns to address	Agent	D	С	0	status	
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)		√		NA	
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)		√		N/A	



EIA Reference	Recommended Environmental Protection Measures/ Mitigation Measures	Objectives of the recommended measures	Implementation	Impler Stage	nentat	ion	Implementation	Relevant Legislation & Guidelines
EIA Reference		& main concerns to address	Agent	D	С	0	status	
S4.8.1	Road sections between vehicle-wash areas and vehicular entrance will be paved.	Land site/ During Construction	Contractor(s)		√		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)	✓	✓		N/A	
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	
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)		✓		N/A	
S4.8.1	All exposed areas will be kept wet always to minimise 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

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EIA Reference	Recommended Environmental Protection Measures/ Mitigation Measures	Objectives of the recommended measures & main concerns to address	Implementation	Implementation Stage			Implementation	Relevant Legislation & Guidelines
EIA Neiereilce			Agent	D	С	0	status	
S4.8.1	The engine of the construction equipment during idling will be switched off.	Land site/ During construction	Contractor(s)		✓		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	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)		√		Implemented	
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.	Land site/ During construction	Contractor(s)/ Environmenta I Team (ET) & Independent Environmenta I Checker (IEC)		*		Implemented	



EIA Reference	Recommended Environmental Protection Measures/ Mitigation Measures	Objectives of the recommended measures &	Implementation	Implen Stage	nentati	on	Implementation status	Relevant Legislation & Guidelines
		main concerns to address	Agent	D	С	0		Guidennes
Noise			_		. 1		T	
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	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	A Practical Guide for the Reduction of Noise from Construction Works,
S5.7	Mobile plant, if any, will be sited as far away from NSRs as possible.	Noise control/ During construction	Contractor(s)		✓		Implemented	A Practical Guide for the Reduction of Noise from Construction Works,
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	A Practical Guide for the Reduction of Noise from Construction Works,
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	A Practical Guide for the Reduction of Noise from Construction Works,
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	A Practical Guide for the Reduction of Noise from Construction Works,
S5.7	Use of Quite Powered Mechanical Equipment (QPME).	Noise control/ During construction	Contractor(s)		✓		Implemented	A Practical Guide for the Reduction of Noise from Construction Works,
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	Noise control/ During construction	Contractor(s)		√		N/A	A Practical Guide for the Reduction of Noise from Construction Works,



EIA Reference	Recommended Environmental Protection Measures/ Mitigation Measures	Objectives of the recommended measures &	Implementation	Impler Stage	nentat	ion	Implementation status	Relevant Legislation & Guidelines
		main concerns to address	Agent	D	С	0		Guidelines
	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.							
S5.7	The noise insulating sheet should be deployed	Noise control/	Contractor(s)		✓		N/A	A Practical Guide for
	such that there would be no opening or gaps	During						the Reduction of Noise
	on the joints.	construction						from Construction
								Works,
S5.7	Construction activities (e.g. excavation/shoring,	Noise control/	Contractor(s)		✓		Implemented	A Practical Guide for
	reinstatement (asphalt), and pipe jacking) will be	During						the Reduction of Noise
	planned and carried out in sequence, such that	construction						from Construction
	items of PME proposed for these activities will							Works
	not be operated simultaneously.							
S5.7	PMEs will not be used at the works areas near	Noise control /	Contractor(s)		✓		Implemented	A Practical Guide for
	educational institutions with residual impact	During						the Reduction of
	(ie the "influence area" within a radius of	construction						Noise from
	40m) during school hours in order to reduce							Construction Works
OF 7	impact to the educational institutions.	Nia ta a a a a l	011 - (-)	-	1		N/A	
S5.7	Noise enclosures or acoustic sheds would be	Noise control/	Contractor(s)	•	•		N/A	
	used to cover stationary PME such as	Pre- construction/						
	generators. Portable/Movable noise enclosure made of	During						
	material with superficial surface density of at	construction						
	least 7 kg m ⁻² may be used for screening the	Construction						
	noise from operation of the saw/groover,							
	concrete.							
S5.9	Sawcutting pavement, breaking up of	Noise control/	Contractor(s)	1	1		Implemented	
	pavement, excavation /shoring, pipe laying,	Pre-	30111140101(0)				pioiniontoa	
	backfilling, reinstatement (concrete) and	construction/						
	pipe jacking shall be scheduled outside the	During						
	examination period.	construction						



EIA Reference	Recommended Environmental Protection	Objectives of the recommended measures &	Implementation	Imple Stage	mentat	ion	Implementation status	Relevant Legislation & Guidelines
	Measures/ Mitigation Measures	main concerns to address	Agent	D	С	0		
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 (eg 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.	Designated monitoring stations as defined in EM&A Manual/During construction phase	Environmental Team (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)/ Environment al Team (ET) & Independent Environment al Checker (IEC)		•		Implemented	-



EIA Reference	Recommended Environmental Protection Measures/ Mitigation Measures	Objectives of the recommended measures &	Implementati on Agent	Implementation Stage			Implementation status	Relevant Legislation & Guidelines
	ivieasures/ iviitigation ivieasures	main concerns to address	on Agent	D	С	0		Guideillies
Water Quality								
S6.9	Dredged marine sediment will be disposed of in a gazetted marine disposal area in accordance with marine dumping permit conditions of the Dumping at Sea Ordinance (DASO).	Marine Dredging/ During construction	Contractor(s)		✓		N/A	Dumping at Sea Ordinance (DASO)
S6.9	Disposal vessels will be fitted with tight bottom seals in order to prevent leakage of material during transport.	Marine Dredging/ During construction	Contractor(s)		✓		N/A	-
S6.9	Barges will be filled to a level, which ensures that material does not spill over during transport to the disposal site and that adequate freeboard is maintained to ensure that the decks are not washed by wave action.	Marine Dredging/ During construction	Contractor(s)		√		N/A	-
S6.9	After dredging, any excess materials will be cleaned from decks and exposed fittings before the vessel is moved from the dredging area.	Marine Dredging/ During construction	Contractor(s)		✓		N/A	-
S6.9	All vessels should be well maintained and inspected before use to limit any potential discharges to the marine environment.	Marine Dredging/ During construction	Contractor(s)		✓		N/A	-
S6.9	All vessels must have a clean ballast system.	Marine Dredging/ During construction	Contractor(s)		✓		N/A	-
S6.9	No discharge of sewage/grey wastewater should be allowed. Waste water from potentially contaminated area on working vessels should be minimized and collected. These kinds of wastewater should be brought back to port and discharged at appropriate collection and treatment system.	Marine Dredging/ During construction	Contractor(s)		√		N/A	-
S6.9	No soil waste is allowed to be disposed overboard.	Marine Dredging/ During construction	Contractor(s)		✓		N/A	-



EIA Reference	Recommended Environmental Protection Measures/ Mitigation Measures	Objectives of the recommended measures &	Implementati on Agent	Implementation Stage			Implementation status	Relevant Legislation & Guidelines
	ivieasures/ ivilligation ivieasures	main concerns to address	on Agent	D	С	0		
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, rectified after observation and reminder	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)		√		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	-



EIA Reference	Recommended Environmental Protection Measures/ Mitigation Measures	Objectives of the recommended measures &	Implementati on Agent	Impl Stag	emen je	tatio	n	Implementation status	Relevant Legislation &
	ivieasures/ iviitigation ivieasures	main concerns to address	on Agent	D			0		Guidelines
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	-
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	Technical Memorandum for Effluents Discharged into Drainage and Sewerage Systems Inland and Coastal Waters
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)		٧		√	Implemented, rectified after observation	-

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EIA Reference	Recommended Environmental Protection Measures/ Mitigation Measures	recommended measures &	Implementati on Agent	Implementation Stage		on	Implementation status	Relevant Legislation & Guidelines
	ivicasures/ iviitigation ivicasures		on Agent	D	С	Ο		duideiiiles
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)/ Environment al Team (ET) & Independent Environment al Checker (IEC)		*		Implemented	-



EIA Reference	Recommended Environmental Protection Measures/ Mitigation Measures	Objectives of the recommended measures &	Implementation	Imple: Stage	mentat	ion	Implementation Status	Relevant Legislation & Guidelines
		main concerns to address	Agent	D	С	0		
Waste Manage				1	T .			
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 mobilisation/ 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 mobilisation/ 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)		V		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)		√		Implemented	Chapters 2 & 3 Code of Practice on the Packaging Labelling & Storage of



EIA Reference	Recommended Environmental Protection	Objectives of the recommended measures &	Implementation	Imple: Stage	mentat	ion	Implementation Status	Relevant Legislation &
	Measures/ Mitigation Measures	main concerns to address	Agent	D	С	0		Guidelines
								Chemical Wastes published under the Waste Disposal Ordinanc (Cap 354), Section 35
S8.5	Regular cleaning and maintenance programme for drainage systems, sumps and oil interceptors.	Land site/ During construction	Contractor(s)		✓		Implemented, rectified after observation. Reminder issued.	Waste Disposal Ordinance (Cap 354)
S8.5	A recording system for the amount of wastes generated/ recycled and disposal sites. The tripticket 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 waste paper 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)		√		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)		✓		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	All areas/ During	Contractor(s)		✓		Implemented,	-



EIA Reference	Measures / Mitigation Measures	recommended mescures X	Implementation Agent	Implementation Stage			Implementation Status	Relevant Legislation &
				D	С	0	1	Guidelines
	potential for damage or contamination of construction materials.	construction					rectified after observation	
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	A Sediment Quality Report (SQR) for sampling and chemical testing of the sediment will be prepared and submitted to the EPD for approval. The approved detailed sampling and chemical testing will be carried out prior to the commencement of the dredging activities to confirm the sediment disposal method.	Marine works/ During construction	Contractor(s)		✓		N/A	ETWB TC(W) No. 34/2002 and Dumping at Sea Ordinance (DASO)
S8.5	The management of dredged/ excavated sediment management requirement from <i>ETWB TC(W) No.</i> 34/2002 will be incorporated in the Specification of the Contract Documents.	Marine works/ During construction	WSD/ Contractor(s)		√		Implemented	ETWB TC(W) No. 34/2002 and Dumping at Sea Ordinance (DASO)
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)/ Environmen tal Team (ET) & Independent Environmen		✓		Implemented	ETWB TC(W) No. 19/2005, Environmental Management on Construction Sites



EIA Reference	Recommended Environmental Protection Measures/ Mitigation Measures	recommended mescures X	Implementation Agent	Imple: Stage		tion	Implementation Status	Relevant Legislation & Guidelines
				D	С	0		
			tal Checker (IEC)					
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)		V		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)
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	Waste Disposal (Chemical Waste) (General) Regulation; Code of Practice on the Packaging, Handling and Storage of Chemical Wastes
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		✓	1	Implemented	Waste Disposal (Chemical Waste) (General) Regulation; Code of Practice on the Packaging, Handling



EIA Reference	Recommended Environmental Protection Measures/ Mitigation Measures	Objectives of the recommended measures &	Implementation	Implementation Stage			Implementation Status	Relevant Legislation &
		main concerns to address	Agent	D	С	0		Guidelines
								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	Waste Disposal (Chemical Waste) (General) Regulation; Code of Practice on the Packaging, Handling and Storage of Chemical Wastes
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	Waste Disposal (Chemical Waste) (General) Regulation; Code of Practice on the Packaging, Handling and Storage of Chemical Wastes
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	Waste Disposal (Chemical Waste) (General) Regulation; Code of Practice on the Packaging, Handling and Storage of Chemical Wastes
S8.5	Storage areas for chemical waste shall have adequate ventilation.	All area/ During construction/ During operation	Contractor(s)/ WSD		✓	•	Implemented	Waste Disposal (Chemical Waste) (General) Regulation; Code of Practice on the Packaging, Handling and Storage of Chemical Wastes
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		✓	1	Implemented	Waste Disposal (Chemical Waste) (General) Regulation; Code of Practice on the Packaging, Handling and Storage of



EIA Reference	Recommended Environmental Protection	commended Environmental Protection recommended measures & main concerns to address	Implementation	Implementation Stage			Implementation Status	Relevant Legislation &
	ivieasures/ ivitigation ivieasures		Agent	D	С	0		Guidelines
								Chemical Wastes
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	Waste Disposal (Chemical Waste) (General) Regulation; Code of Practice on the Packaging, Handling and Storage of Chemical Wastes
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		•	*	Implemented	Waste Disposal (Chemical Waste) (General) Regulation; Code of Practice on the Packaging, Handling and Storage of Chemical Wastes
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.
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		√	1	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			√		Implemented	Air Pollution Control Ordinance (Cap 311)
S8.7	To facilitate monitoring and control over the	All facilities/ During	ET/ IEC		✓		Implemented	-

Contract No. 13/WSD/16 Mainlaying in Tseung Kwan O Monthly EM&A Report No.36



LIA Rataranca	Recommended Environmental Protection	Objectives of the recommended measures &	Implementation Agent	•			Implementation Status	Relevant Legislation & Guidelines
	ivieasures/ ivilligation ivieasures	main concerns to address	Agent	D	С	0		
	contractors' performance on waste	construction						
	management, a waste inspection and audit							
	programme will be implemented throughout							
	the construction phase.							



EIA Reference	Recommended Environmental Protection Measures/ Mitigation Measures	Objectives of the recommended measures &	Implementation '		Stage Status			Relevant Legislation & Guidelines
	_	main concerns to address		D	С	0		dudennes
	Ecology			1 1	1	ı	T	
S9.7	For slope mitigation works within the Clear Water Bay Country Park, to avoid tree felling and damages to trees, the exact locations of the flexible barrier foundation plates, soil nails and rock dowels can be adjusted during detailed design, and a setback distance from existing trees is recommended to be maintained as far as practical. A detailed specification describing the exact locations of the flexible barrier foundation plates, soil nails and rock dowels will be prepared to illustrate how the setback distance from existing trees would be implemented for tree avoidance.	Slope mitigation works area/ During detailed design/ During construction	Contractor(s)		•		Implemented	-
S9.7	Pruning of tree canopies along the alignment of the flexible barriers shall be limited to a minimum.	Slope mitigation works area/ During construction	Contractor(s)		*		Implemented	
S9.7	The alignment of flexible barriers shall be optimized to preserve all species of conservation interest and minimize the impact to the existing vegetation as far as practicable. All individuals of <i>Marsdenia lachnostoma</i> within the slope mitigation areas shall be retained <i>in- situ</i> , by positioning the alignment of flexible barrier at a minimum 1.5m in a radius away from these individuals.	Slope mitigation works area/ During detailed design/ During construction	Contractor(s)	✓	✓		N/A	-
S9.7 and 9.10	At the detailed design stage prior to the commencement of the slope mitigation works, a vegetation survey shall be carried out at the slope mitigation areas within the Clear Water Bay Country Park to assess the condition and identify the location of each individual of <i>Marsdenia lachnostoma</i> and other flora species of conservation interest that may be directly affected by the construction works.	Slope mitigation works area/ During detailed design/ During construction	Contractor(s)	•	~		Implemented	-
S9.7	Temporary fencing will be installed to fence off	Slope mitigation works	Contractor(s)		✓		N/A	-



EIA Reference	Recommended Environmental Protection	Objectives of the recommended measures &	Implementation	Implen Stage				Relevant Legislation & Guidelines
	ivieasures/ iviitigation ivieasures	main concerns to address	Agent	D	С	0		Guideimes
	the concerned species either in groups of individually within the works area and in the close proximity to prevent from being damaged and disturbed during construction. A sign identifying the site shall be attached to the fence and flagging tape shall be attached to the individuals to visualize their locations.	area/ During construction						
S9.7 and S9.10	A specification for fencing and demarcating individuals of <i>Marsdenai lachnostoma</i> (or other flora species of conservation interest, if found) adjacent to the proposed alignment of the flexible barriers will be prepared to protect the species.	Slope mitigation works area/ During construction	Contractor(s)		✓		N/A	-
S9.7	Induction training shall also be provided to all site personnel in order to brief them on this flora of conservation interest including the locations and their importance.	Slope mitigation works area/ During construction	Contractor(s)		✓		N/A	-
S9.7	The resident site supervisory staff will closely monitor the conditions of concerned individuals during construction of flexible barriers in the close proximity.	Slope mitigation works area/ During construction	Contractor(s)		✓		N/A	-
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	-

Contract No. 13/WSD/16 Mainlaying in Tseung Kwan O Monthly EM&A Report No.36



EIA Reference	Measures/ Mitigation Measures	Objectives of the recommended measures &	Implementation Agent	Implementation Stage			Implementation Status	Relevant Legislation & Guidelines
	mododico, imagadion mododico	main concerns to address	Agont	D	С	0		daldonnos
S9.7	Reinstate temporarily affected areas, particularly the habitats of plantation and shrubland-grassland immediately after completion of construction works, through onsite 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	-
S9.7	Affected habitats within the Clear Water Bay Country Bay shall be reinstated by hydro-seeding and planting of climbers and native shrub seedlings where practical upon completion of the slope mitigation works.	All area/ During construction	Contractor(s)		✓		N/A	-

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



EIA Reference	Recommended Environmental Protection	Objectives of the recommended measures &	Implementation	Imple Stage	ementat	tion		Relevant Legislation &
	Measures/ Mitigation Measures	main concerns to address	Agent	D	С	0		Guidelines
	Landscape & 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 & 11.11	At the detailed design stage, the design team will seek to minimize the landscape footprint of the Project and above ground facilities, while satisfying all other requirements. (MM2)	All area/ Detailed design/ During construction/ During operation	WSD/ Contractor(s)	*	1	1	Implemented	-
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: - green roofs where practical (ie without equipment on the roof); - 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)	*	✓	*	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)	~	1	1	Implemented	ETWB TCW No. 3/2006 - Tree Preservation.
S11.10 & 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	All area/ Detailed design/ During construction/ During operation	WSD/ Contractor(s)	✓		✓	Implemented	DEVB TC(W) No. 10/2013



EIA Reference	Measures / Mitigation Measures	Objectives of the recommended measures &	Implementation Agent	Imple: Stage	mentat	ion		Relevant Legislation & Guidelines
	ivicasures/ ivilligation ivicasures	main concerns to address	Agent	D	С	0		Guidelilles
	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)							
S11.10 & 11.11	Any slope mitigation works necessary to address natural terrain hazards, will be minimized to minimize any potential environmental impact to the Country Park e.g. soil nailing and rock stabilization will aim to avoid existing trees e.g. should any restoration of vegetation be necessary, the best planting matrix with native species will be established, with the aim of resembling the existing vegetation. (MM6)	All area/ Detailed design/ During construction/ During operation	WSD/ Contractor(s)	*	•	•	N/A	
S11.10 & 11.11	Dredging works for the installation of intake structures and outfall diffusers should be minimized to avoid or reduce any potential environmental impacts to as low as reasonably practicable (ALARP). The intake and outfall structures (e.g. intake openings and diffuser heads) will be prefabricated and transferred to site for installation. (MM7)	All area/ Detailed design/ During construction/ During operation	WSD/ Contractor(s)	✓	√	✓	N/A	
S11.10 & 11.11	All night-time lighting will be reduced to a practical minimum both in terms of number of level and will be hooded and directional. (MM8)units and lux level and will be hooded and directional. (MM8)	All area/ Detailed design/ During construction/ During operation	WSD/ Contractor(s)	√	✓	✓	Implemented	-

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



EIA Reference	Recommended Environmental Protection Measures/ Mitigation Measures	Objectives of the recommended measures &	Implementation	Imple: Stage	mentat	ion		Relevant Legislation & Guidelines
		main concerns to address	Agent	D	С	0		Guidennes
	Landfill Gas Hazard			1	1 .	1 .		
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)	•	√	V	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	



EIA Reference	Recommended Environmental Protection Measures/ Mitigation Measures	Objectives of the recommended measures &	Implementation	Impler Stage	nentat	ion	Implementation Status	Relevant Legislation & Guidelines
	ivieasures/ iviitigation ivieasures	main concerns to address	Agent	D	С	0		duideimes
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 of methane. carbon dioxide and oxygen.	All area/ Detailed design/ During construction/ During operation	Contractor(s)	✓	~	*	Implemented	
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)	√	√	√	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	All area/ Detailed design/ During construction/ During operation	Contractor(s)	√	•	*	N/A	



EIA Reference	Recommended Environmental Protection Measures/ Mitigation Measures	Objectives of the recommended measures &	Implementation Agent	Imple Stage	menta		Implementation Status	Relevant Legislation & Guidelines
	-	main concerns to address	Agent	D	С	0		Guidennes
	pathway for landfill gas and hence grilled metal covers should be used.							
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)	~	√	~	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 and for each measurement. The need for venting the manhole/ utility pit and further monitoring will be reviewed after the initial monitoring.	All area/ Detailed design/ During construction/ During operation	Contractor(s)	•	✓	✓	Implemented	
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.	All area/ Detailed design/ During construction/ During operation	Contractor(s)	•	*	*	Implemented	

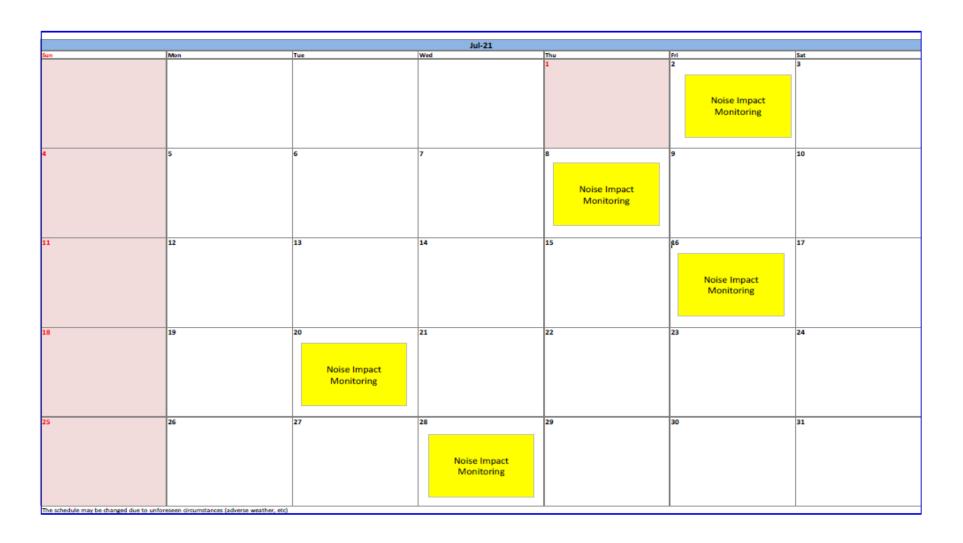
Note: D – Design stage C – Construction O – Operation



Appendix D

Impact Monitoring Schedule of the Reporting Month







Appendix E

Noise Monitoring Equipment Calibration Certificate





綜合試驗有限公司

RCT 音の 可以 月 PK ム ロJ SOILS & MATERIALS ENGINEERING CO., LTD. 香港 新 界 奏 酒 永 基 路 22 - 24 號 椰 林 南 集 南 人 廈 全 幢 The Whole Block of YLK Group Building, Nos. 22-24 Wing Kei Road, Kwai Chung, New Territories, Hong Kong. Tel: (852) 2873 6860 Fax: (852) 2555 7533 E-mail: smec@cigismec.com Website: www.cigismec.com



CERTIFICATE OF CALIBRATION

Certificate No.:

20CA0803 01

Page:

of

Item tested

Description: Manufacturer Type/Model No.:

Acoustical Calibrator (Class 1) Pulsar Instruments Ltd.

Serial/Equipment No.: Adaptors used:

63705

Item submitted by

Curstomer:

Acuity Sustainability Consulting Limited.

Address of Customer: Request No.:

03-Aug-2020

Date of receipt: Date of test:

06-Aug-2020

Reference equipment used in the calibration

Description:	Model:	Serial No.	Expiry Date:	Traceable t
Lab standard microphone	B&K 4180	2341427	11-May-2021	SCL
Preamplifier	B&K 2673	2743150	03-Jun-2021	CEPREI
Measuring amplifier	B&K 2610	2346941	03-Jun-2021	CEPREI
Signal generator	DS 360	33873	19-May-2021	CEPREI
Digital multi-meter	34401A	US36087050	19-May-2021	CEPREI
Audio analyzer	8903B	GB41300350	18-May-2021	CEPREI
Universal counter	53132A	MY40003662	18-May-2021	CEPREI

Ambient conditions

Temperature: Relative humidity: Air pressure:

22 ± 1 °C 55 ± 10 % 1005 ± 5 hPa

Test specifications

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

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

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

Approved Signatory:

Feng Junqi

Date: 07-Aug-2020 Company Chop

综合試験

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

© Soils & Materials Engineering Co., Ltd.

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

HKAS has accredited this laboratory (Reg. No. HOKLAS 028) under HOKLAS for specific calibration activities as listed in the HOKLAS directory of accredited laboratories. The results shown in this certificate are traceable to the International System of Units (SI) or recognised measurement standards. The results relate only to the item(s) calibrated. This certificate shall not be reproduced except in full without approval of the laboratory.





綜合試驗有限公司 SOILS & MATERIALS ENGINEERING CO., LTD.

香港新界·葵蒲永·基路 2 2 - 2 4 號 椰 林 閣 集 園 大 廈 全 幢 The Whole Block of YLK Group Building, Nos. 22-24 Wing Kei Road, Kwal Chung, New Territories, Hong Kong. Tel: (852) 2873 6860 Fax: (852) 2555 7533 E-mail: smec@cigismec.com Website: www.cigismec.com



CERTIFICATE OF CALIBRATION

(Continuation Page)

Certificate No.: 20CA0803 01

Page: 2 2

of

1. Measured Sound Pressure Level

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

	T 0 1 10 1D		(Output level in dB re 20 µP
Frequency	Output Sound Pressure	Measured Output	Estimated Expande
Shown	Level Setting	Sound Pressure Level	Uncertainty
Hz	dB	dB	dB
1000	94.00	93.78	0.10

Sound Pressure Level Stability - Short Term Fluctuations

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

At 1000 Hz

STF = 0.027 dB

Estimated expanded uncertainty

0.005 dB

Actual Output Frequency

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

At 1000 Hz

Actual Frequency = 1000.3 Hz

Estimated expanded uncertainty

0.1 Hz

Coverage factor k = 2.2

Total Noise and Distortion

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

At 1000 Hz

TND = 0.6 %

Estimated expanded uncertainty

0.7 %

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

Calibrated by: Date: Fung Chi Yik 06-Aug-2020

Date: 07-Aug-2020

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

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Form No.CARP156-2/issue 1/Rev.C/01/05/2005

HKAS has accredited this laboratory (Reg. No. HOKLAS 028) under HOKLAS for specific calibration activities as listed in the HOKLAS directory of accredited laboratories. The results shown in this certificate are traceable to the international System of Units (SI) or recognised measurement standards. The results relate only to the item(s) calibrated. This certificate shall not be reproduced except in full without approval of the laboratory.





CERTIFICATE OF CALIBRATION

NO. 20200519040

Name of Product: Sound Level Meter Model: ST-11D Serial Number: 820200 Specification: Class 1 Conclusion: Pass Date of calibration 2021-01-18 Due Date: 2022-0 -17



- This report certifies that all calibration equipment used in the text is traceable with the internal ISO9001 procedures and neet all specification given in the Manual(s) or respectively surpass the land applies only to the unit identified above. This certificate is produced with advance unpulment & procedures which permit compress ensive quality assurance verification of all data supplied herein. This certificate of calibration shall not be reproduced except in full, without written permission of the scartest Tech Collect Taiwan. eet all specification given in the
- III.
- 1. Preliminary inspection:
- 2. Type & serial No. of Micro ho'er AWA14425-27998
- 3. Adjustments to indicated soul d levels:

4. Measuring up limit: 140 dBA

c Fraguency weightings (Acoustic signal tests for Z weighting, other electric sign. 'tests.')

Type of Calibrator_B&K 42 11

Sound Pressure Level 93.8 LB

Equivalent Free-field Sound Leve, reference environment conditions) 93.8 dB

Nominal	Fre	quency weight	ing/dB	Nominal	Fr	Frequency weighting / dB				
frequency /Hz	A	С	z	frequency /Hz		С	Z			
10	-71.0	-14.4	-0.9	1000	0.0	-0.1	-0.3			
20	-50.4	-6.1	-0.1	2000	1.2	-0.2	0.2			
31.5	-39.a	-3.1	0.0	4000	1.0	-0.9	0.3			
63	-26.2	-0.9	0.3	80.40	-1.0	-3.2	-0.5			
12	-16.0	0.3	24	12500	-4.5	-6.4	-0.7			
250	-8.6	-0.1	0.1	16000	-9.6	-11.5	-1.3			
500	3,7	-0.1	0.1	20000	-23.9	-25.9	-0.8			



6. Self-generated noise

Microphone replaced by electrical input signal device

8.9 dB(A)	16.6 dB(C)	19.8 dB ₁ ."\
7. F&S Weighting		
Rate of the F weighting	decrease (dB/s)	35.2
Rate of the S weighting	decrease (dB/s)	4.4
Deviation o	of F&S	0.0

8. Level Linearity (A-weighting at frequency 1 kHz)

Reference sound level 90.0 dB

Max error at 10dB steps upper reference sound level _-0.1 _iB

Max error at 1dB steps within 5dB of the upper limit line ϵ roperating range $\underline{0.0}\,\text{dB}$

Max error at 10dB steps below reference sound level $0.1\,$ 1B

Max error at 1dB steps within 5dB upper the lower limit linear operating range $0.2\,\mathrm{dB}$

9. Tone burst response(A Weighting):

Single Toneburst duration /ms		Toneb. rst response /dB							
,,,,,	Larmax-La	Lasmes-La	LAE-LA	negt~LA					
500	0.0	-4.0	-2.9	7.0					
200	-1.0	-7.4	-6.9	-7.0					
50	-18.0	-26.9	-26.9	-7.0					
10	-27.2		-36.0	-7.0					

10. Peak C sound level (500Hz)

Cycle	One cycle	nominal value	Positive half	nominal value	Negative half	nominal value
LCpeak-LC(dB)	3.5	3.5	2.3	2	2.3	2.4

11. Orerload indication: Pass

12 Statistical analysis function

Sween signal maximum indicated sound level: 112.0 49

Sweep amplitude: 40 di

Scan cycle ime 60 S: Measuremant period: 180 S

Iteris	Measured value/dB	Theoretical calculated value/dB	Error/dB
LAeq,T	103.2	103.2	0.0





Certificate of Calibration

Description:

Sound Level Meter

Manufacturer:

NTi Audio

Type No.:

XL2 (Serial No.: A2A-13663-E0)

Microphone:

ACO 7052 (Serial No.: 73912)

Preamplifier:

NTi Audio MA220 (Serial No.: 5735)

Submitted by:

Customer:

Acuity Sustainability Consulting Limited

Address:

Unit C, 11/F, Ford Glory Plaza. No. 37-39 Wing Hong Street,

Cheung Sha Wan, Kowloon, Hong Kong

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

Within

☐ Outside

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: 08 September 2020

Date of calibration: 09 September 2020

Calibrated by:

Certified by:

Mr. Ng Yan Wa Laboratory Manager

Date of issue: 09 September 2020

Certificate No.: APJ20-104-CC001

Page 1 of 4

Room 422, Leader Industrial Centre, 57-59 Au Pui Wan Street . Fc Tan. Shatin, N.T., Hong Kong Tel: (852) 2668 3423



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

1. 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.

2. Calibration Conditions:

 Air Temperature:
 23.8 °C

 Air Pressure:
 1008 hPa

 Relative Humidity:
 62.5 %

3. Calibration Equipment:

	Type	Serial No.	Calibration Report Number	Traceable to
Multifunction Calibrator	B&K 4226	2288467	AV200041	HOKLAS

4. Calibration Results

Sound Pressure Level

Reference Sound Pressure Level

Setti	Setting of Unit-under-test (UUT)				lied value	UUT Reading,	IEC 61672 Class 1
Range, dB Freq. Weighting Time Weighting		Level, dB	Frequency, Hz	dB	Specification, dB		
30-130	dBA	SPL	Fast	94	1000	94.0	±0.4

Linearity

Setting of Unit-under-test (UUT)			Applied value		CCT Reading,	IEC 61672 Class 1	
Range, dB	Freq. W	eighting	Time Weighting	Level, dB	Frequency, Hz	ав	Specification, dB
				91		94.0	Ref
30-130	dBA.	dBA SPL	Fast	104	1000	104.0	±0.3
				114		114.0	10.3

Time Weighting

Setting of Unit-under-test (UUT)			Appl	ied value	UUT Reading,	IEC 61672 Ctass 1	
Range, dB	Freq. V	Veighting	Time Weighting	Level, dB	Prequency, Hz.	₫R	Specification, dB
30-130	dB∆	SPL.	Fast Slow	94	1000	94.0 -44.0	Re∷ =0.3

Certificate No.: APJ20-104-CC001

Page 2 of 4

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Homograph May Wan May Johnson Finally industrial Johnson



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Frequency Response

Linear Response

Set).	Setting of Unit-under-test (UUT)				Applied value		HCC 61672 Class 1
Range, dB	Freq. W	eighting	Time Weighting	Level, dB	Frequency, Hz	dB	Specification, dB
					31.5	94.3	±2.0
					63	94.3	±1.5
					125	94.3	±1.5
					250	94.2	±1.4
30-130	dВ	B SPL	Fast	94	500	94.1	+1.4
					1000	94.0	Ref
					2000	93.8	J1.6
					4000	93.6	±1.6
					8030	93.4	-2.1; -3.1

A-weighting

Sett.	Setting of Unit-under-test (ULT)				Applied value		HC 61672 Class I
Range, dB	Freq. Weighting		Lime Weighting	Level, dB	Frequency, Hz	ďΒ	Specification, dB
					31.5	54.8	-39.4 _2.0
					63	68.0	-26.2 _1.5
					125	78.1	-16.1=1.5
		IBA SPL	Fast	94	250	85.5	-8.5 ±1.4
30-130	dBA				500	90.8	-3.2±1.4
					1000	94.0	Ref
					2000	95.0	+1.2::1.6
					4000	91.6	±1.0 ±1.5
	1000				8000	92,3	-1.1 =2.1; -3.1

C-weighting

Setting of Unit-under-test (LUT)			Applied value		CUI Reading,	IEC 61672 Class 1	
Range, dB	Freq.	Weighting	Time Weighting	Level, dB	Frequency, Hz	dB	Specification, dB
					31.5	91.2	-3.0 12.0
			1		63	93.4	-0.8±1,5
					125	94.1	-0.2±1,5
					250	94.1	-0.0±1.4
30-130	dBC	SPL	Fast	94	:500	94.1	-0.0 ±1.4
					1000	94.0	Reli
					2000	93.6	-0.2 51,6
					4000	92.8	-0.8±1.6
2000					8000	90.4	-3.0+2.1; -3.1

Certificate No.: APJ20-104-CC001



Page 3 of 4 .

Room 422, Loader Industrial Centre. 57-59 Au Pui Wen Street "Fo Tan, Shatin, N.T., Hong Kong
Tel: (852) 2668 3423 Fax: (852) 2886 5946





5. 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 cB	31.5 Hz	± 0.05
	63 Hz	± 0.05
	125 Hz	<u>1</u> 0.05
	250 Hz	上 0.05
	500 Hz	+ 0.05
	1000 Hz	± 0.05
	2000 Hz	≘ 0.05
	4000 11∠	+ 0.05
	8000 Hz	+ 0.10
104 dB	1000 Etz.	± 0.05
114 dB	1000 Hz	<u>+</u> 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)*I, shall not be liable for any loss or damage resulting from the use of the equipment.

Certificate No.: APJ20-104-CC001



age 4 of 4

Room 422, Leader Industrial Centre, 57-59 Au Pul Wan Street, Fo Tan, Shatin, N.T., Hong Kong Tel: (852) 2668 5423 Fax: (852) 2668 6946





Certificate of Calibration
for
Description: Sound Level Meter
Manufacturer: Lutron
Type No.: SL-40335D (Seriai No.: I491835)
Submatted by:
Customer: Acuity Su tainability Consulting Limited
Address: Unit 1'08, Nos. 301-305 Castle Peak Road, Kwai Chung, V.T.
Upon receipt for calibration, the instrument was found to be:
✓ Within☐ Outside
the allowable tolerance.
The test equipment used for calibration of traceable to National Standards via: - The Government of The Hong Kong Special Administrative Region Standard & Calibration Laboratory
Date of receipt: 12 December 2020
Date of calibration: 97 December 2020
Calibrated by: Calibrated by: Calibrated by: Calibrated by: Mr. Ng Yan Wa Laboratory Manager
Date of issue: 07 December 2020

Certificate No.: APJ20-145 CC001



Room 422, Leader In Juritrial Centre, 57-59 Au Pui Wan Street, Fo Tan, Shatin, N.T., Hong Kong
Tel: (852) 2668 3423 Fax: (852) 2668 6946
Homepage: http://www.aa-lab.com E-mail: inquiry@aa-lab.com



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

1. 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.

2. Calibration Conditions:

Air Temperature: 23.5 °C Air Pressure: 1006 hPa Relative Humidity: 62.5 %

3. Calibration Equipment:

Type Serial No. Calibration Report Number

B&K 4225 2288467 AV200041 HOKLAS

Multifunction Calibrator

Calibration Results

Sound Pressure Level

Reference Sound Pressure Level

Setting of Unit-under-test (UUT)				est (UUT)	App	lied value	UUT Reading,	IEC 61672 Class 1
Range, dB	F	req. W	eighting	Tim: Weighting	Level, dB	Frequency, Hz	dB	Specification, dB
40-140		a.B.A	SPL	Fast	94	1000	94.0	±0.4

Linearity

Setting of Unit-under-test (UUT)				Apriled value		UUT Reading,	IEC 61672 Class 1
Range, dB	Freq. V	Weighting	Time Weighting	Level, /lB	Frequency, Hz	dB	Specification, dB
				94		94.0	Ref
40-140	dBA	SPL	Fası	104	1000	104.0	±0.3
				114		114.0	±0.3

Time Weighting

Sett	ins of J	nit-unae. *	est (UU7.)	App	lied value	UUT Reading,	IEC 61672 Class	
Range, dB	Freq.	Weighting	Time Weighting	Level, dB	Frequency, Hz	dB	Specification, dB	
	/ m.	op.	Fast	0.4	1000	94.0	Ref	
40-146	dBA	SPL	Slow	94	1000	94.0	±0.3	

Certificate No.: APJ20-140-CC001

(A+A) *Ip goe 2 of 4

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Homepage: http://www.aa-lab.com E-mail: inquiry@aa-lab.com



(A+A)*L

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Frequency Response

A-weighting

Sett	ing of Uni	t-under-t	est (UUT)	App	lied value	UUT Reading,	IEC 61672 Class	
Range, dB	Freq. Weighting		Time Weighting	Level, dP requency,		dB	Specification, dB	
				-	31.5	55.1	-39.4 ±2.0	
					63	67.9	-26.2 ±1.5	
					125	78.0	-16.1 ±1.5	
40-140	dBA	SPL	Fast	94	250	85.5	-8.6 \(\) 1.4	
					200	91.1	-3.2 ±1.4	
					1000	94.0	Ref	
					2000	94.3	+1.2 ±1.6	

C-weighting

Sett	Setting of Unit-under-test (UUT)			ied value	UUT Read n	IEC 61672 Class 1
Range, dB	Freq. Weighting	Time Weighting	Level, dB	Frequency, Hz	dB	Specification, dB
				31.5	91/1	-3.0 ±2.0
				63	94.0	-0.8 ±1.5
				125	94.7	-0.2 ±1.5
40-140	dBC SPL	Fast	94	250	94.9	-0.0 ±1.4
		->		500	94.5	-0.0 ±1.4
				1000	94.0	Ref
				2000	92.3	-0.2 ±1.6

Certificate No.: APJ20-14J CC001

(A+A) *L 2 Page 3 of 4

Room 422, Leader Incus trial Centre, 57-59 Au Pui Wan Street, Fo Tan, Shatin, N.T., Hong Kong Tel: (852) 2668 3423 Fax: (852) 2668 6946

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



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5. 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	± 0.05
	63 Hz	± 1.10
	125 Hz	± 5.05
	250 Hz	± 0.05
	500 Hz	± 0.10
	1000 Hz	± 0.05
	2000 Hz	± 0.05
104 dB	1000 Hz	± 0.05
114 dB	1000 Hz	± 0.05

The uncertainties are evaluated for 195% 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, vioration and shock during transportation, overloading, mis-handling, or the capability of any other laboratory to repeat the calibration. (Alla)*L shall not be liable for any loss or damage resulting from the use of the equipment.

Certificate No.: APJ 20-140 CC001

TESTING LABORATES (A+A) *L

Page 4 of 4

Room 422,Leader In lustrial Centre,57-59 Au Pui Wan Street ,Fo Tan, Shatin,N.T.,Hong Kong Tel: (852) 2668 3423 Fax:(852) 2668 6946 Homepage: http://www.aa-lab.com E-mail:inquiry@aa-lab.com







This instrument was produced under rigorous factory production control and documented standard procedures. It was individually visually inspected, leak tested and function tested for display, backlight, button and software performance. The accuracy of each of its primary measurements was individually calibrated and/or tested against standards traceable to the National Institute of Standards and Technology ("NIST") or calibrated intermediary standards. This instrument is certified to have performed at the time of manufacture in compliance with the following specifications as they apply to this meter's specific model, measurements and features.

Methods Used in Calibration and 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 Standard's maximum combined uncertainty is +/-1.04% within the airspeed range 706.6 to 3023.9 fpm (3.59 to 19.93 m/s), and +/-1.66% within the airspeed range 166.6 to 706.6 fpm (0.86 to 3.59 m/s).

Temperature:

Temperature response is verified in comparison with a Eutechnica 4600 Precision Thermometer or a standard Kestrel 4000 Westher & Environmental Meter calibrated weekly against the Eutechnics 4600. The Eutechnics 4600 is calibrated annually and is traceable to NIST with a system accuracy of +/-0.05 °C.

Direction / Heading

The sensitivity of the magnetic directional sensor is verified at the component level by applying a magnetic field to the sensor and measuring the signal output at 4 points, as well as after assembly by orienting the unit to the cardinal directions and measuring the magnetic field output. In both cases, the compass output must be accurate to within +/- 5 degrees.

Relative Humidity:

Relative humidity receives a two-point calibration in humidity and temperature controlled chambers at 75.3% RH and 32.8% RH at 25° C. The calibration tanks are monitored with an Edgetech Model 2002 DewPrime II Standard Chilled Mirror Hygrometer. Following calibration, performance is further verified at an RH of approximately 40.2% against the Edgetech Hygrometer. The Edgetech Hygrometer is calibrated annually and is traceable to NIST with a maximum relative expanded uncertainty of 4/– 0.2% RH.

Barometric Pressure:

Pressure response is verified against a Valsala PTB210A Digital Barometer or a standard Kestrel 4000 Weather & Environmental Meter calibrated weekly against the Valsala Barometer. The Valsala Barometer is calibrated annually and is traceable to NIST with an accuracy of ±/-0.15 hPa at ±20°C defined as the root sum of the squares (RSS) of end point non-linearity, hysteresis error, repeatability error and celibration uncertainty at room temperature.

Approved By:

Michael Naughton, Engineering Manager

The enclosed Kentral Weather & Environmental Meter was manufactured by Nietsen-Keiternan Co. at its facilities located at 21 Creek Circle, Boothwyn, PA 19061 USA.



2000	2500	3000	3600	3500 OT	4000	4200	のおめ数 4260 :	4300	4500	B¢ll jettes	SENSOI ACCURACY (+1.)*	HESOLUTION	SPECIFICATION RANGE	OPERATIONAL RANGE	терия в при в В при в при
											Larger of 3% of	C.1 m/s 5 ht/min C.1 kraviti	0,6 to 40,0 m/g 118 to 7,874 filtrin 2,2 to 144,0 km/h	0.6 to 60.0 mls 116 to 11.611 f/min 2.2 to 216.0 km/h	mph .5 kt after impelier statup, Off-aris accuracy -1% Q:5° off-artis: -2% Q:10°; -3% Q:1
•	10	٥	•	0	ø	0	9		új	0	reading, least significant digit of 20 filmin	0.1 mah G.1 knote	1.3 to 89.5 mph 1.2 to 77.8 knots	1.3 to 134.2 mph 1.2 to 116,6 knots	Collibration crift = 1% effect 100 hours use at 16 MPH 7 mts. Rephasement Impoller (NK PI 0801) field inetally without tools (US Patent 5,783,783). What speed calibration and testing
												1 B" 9.1 F/B"	9 to 12 B* 2-131.2*	0 to 12 B* 2-198.9 F/S*	should be done with blangle on imperior located at the lop front face of the Kestrel, *F/S only in Ballistics units. Beaution not available in Ballistics units.
							:								Hermotically scaled, precision the miscoliman fed externally and Breunally isolated (US Patent 5,330,645) for rapid response. Affilies of \$2.2 mphl 1 mis or greated provides festivate response and reduction of insolation effect. Calibration onthrough bits. The miscoliman may also
•	4		•	•	•	•		•	٠		0.6 °C	0.1 °F 0.5 °D	-20.0 to 156.0 °F -29.0 to 70.0 °C	14.0.0 to 131.0 °F -10,0 to 55,0 °C	reagenage and reduction or translation office. Configuration only in engage in the mission may associate the description of the configuration of water as smow by submerging thermistic position that createrial—services imperiar prior to taking submerged measurements and one or humbidity.
															sensor membrane is free of figual water prior to briging humbing-based measurements offs submersion.
											:				Polymer capacitive humidity sensor mounted in thin-wallert chamber axis mail to case for rapit, accurate response (US Patent 0.207.074). To achieve stated scouracy, unit must be
		ø	ø	ø	9			•	•		3.0 %RH	0.1 %RH	S to 95% non-conducting	0 to 100%	permitted to equilibrate to external temperature when exposed to large, rapid femperature changes and be kept out of direct sunlight. Calibration 44th 41-2% over 24 months. Humid
														0.50 to 48.87 hHg	sensor may be recalibrated at factory or in field using Kestrel Humbling Cathoration Kill (N.K. 0802). More thile aliesn pieneresistive prospure sensor with sepand-order temperature correction.
											03 InHg	0.91 InHg	8.86 to 32.49 inhip 300.0 to 1100.0 hPaimba 4.35 to 15.95 PS1	19.0 to 1654.7 hPajmbar	Pressure sensor may be recalibrated at factory or in Reid. Adjustable reference a blude all display of station pressure or before this pressure corrected to MSL. Keetrel 4200 display
	۰		۰	۰	•	3	0	•	a	•	1.0 hPajmba: 0.01 PSI	0.1 hPojmbar 0.01 PS	and 32.0 to 195.9 °F	0,64 to 24.00 PSi and	station pressure on a decisional series. Kestral 2500 and 3500 display continuously upda Bross-hour barametric pressure trans indicator; rising rapidly, rising, standy, falling, falling
								:					0.0 to 85.0 °C	14.9 to 131.0 °F -10.9 to 55.0 °C	repidly. Kestrel 4000 series dischays pressure trend through graphing function. PSI chapter Kestrel 4000 series only.
											. 6*	1* 1/16th Cordinal	0 to 360°	O to 360°	2-axis solid-state magneturesistiva sonsor mounted perpendicular to until plana. Accuracy samsor deportivant upon entito vertical position. Self-calibration routine eliminates magnetis entre from battarios or unit a na must be un affer every fult prover-down (extery remains) or
										•		Scale			change). Readout indicates direction to which the back of the unit is pointed when held in vertical orientation. Declination/variation adjustable for True North readout.
				3500					SENCES SENS	anni i da seno da se	LATED MEA	September 1997	NTS SPECIFICATION	SENSORS	
2000	2500	3000	3500	DT	1000	4200	4250	4300	4500	Ball istics	COURACY (+1-)*	O.001 IBS/IT	RANGE Refer to Banges for	EMPLOYED Temperature	ASTES
							•				0.0033 kg/m ³	0.904 kg/m²	Gensors Employed	Relative Humidity Pressure	Missa of air per unit volume
											0.0671	Tichn Traibe Traibe	Refer to Ranges to:	Air Flow User Input (Duet	Volume of air flowing through an opening. Automatically calculated from Air Valocity may externed and user-specified duct these (circle or rectangle) and difform (units:
						•					4,2	C.1 mi/s 1 L/s	Sensors Employed	Shape & Size)	ft, cm or m). Maximum duct dimension input: 258.0 in (21.5 ft) 655.0 cm 6.55 m.
				•				۰	ø		typical: 23,6 ft 7,2 m max: 46,2 t	1 It 1 m	typical; 750 ki 1100 mBar	Prossure User input (Reference	Height above Mean Sea Level ("NSL"). Temperature compensated pressure (become first temperature requires accurate reference berometic processor to prodece may insure ob solido sociarsey. Both accuracy paced corresponds to a reference pressure anywhere from 850 to
											14,7 m 0.07 lgHg	O.DI InHg	max: 366 to 750 mBar	Pressure)	Air greasure that would be greased in identical sandtions at MSL. Station presoure
	•		•	4		• .	p	•	•		2.4 hPojmbor 0.03 PS1	0.1 hPelmber 0.01 PSi	Roler to Rangos for Sensors Employed		e compensated for it call plevation provided by reference attitude. Required accurate reference attitude to produce maximum absolute accuracy.
												temph 1 filterin	Releato Rangos for	Wind Speed	Effective wind relative to a larget or travel direction. Autoroxylching headwind/ioliwind
										•	0.071	0.1 kmih 0.1 m/s 0.1 knots	Sensors Employed	Compass	Falls attor.
				•							3.2 °F 1.9 °C	9.1 °F 0.1 °C	Refer to Ranges for Sensors Employed	Temporaturo Reistre Hurridity Prossure	Difference between dry built temperature and wat built temperature. When spraying, indi- exaporation rate and droplet telema. Safe range for postcide spraying is 4 to 16 TH I 2 to 10.
						٠	8	•			225 ft 89 m	1 ft 2 m	Refer to Ranges for Sensors Employed	Temperature Relative Humidity	Local air density converted to equivalent alevallos abovo sca lavol le a uniform sayor consciting of the international Standard Agresphere.
						_					3.4 °F	D.1 "F	15 to 95 % RH Refer to Range for	Pressure Temperaturo	Temperature that a volume of air must be coaled to at constant pressure for the water was present to condurate lists date and form on a solid datiface. Can also be considered to be t
			•	•	ю	"		•		•	1.9 °C	0.1 *C	Temperature Sensor	Relative Humidity Wind Space	water-to-air daturation temperature.
								٠			0,01 six#7/nr 0.05 kg/m2/hr	0.01 br8 ³ mr 0.01 kg/m²/hr	Refer to Ranges for Geneuro Employed	Temporature Relative Hurridity Pressure User Input (Concrete Temporature)	The late st which missions is lost from the surface of cuting concrete. Requires seen necessariement on enthyr of concrete temperature to exhain of which an accurate IR or probe the amount of IF or "C, and included]. Readings should be taken 20 to these above pour surface with the the mission strated, and weeking of for 6-10 sections, using health average function.
		а			9				ø		7.0°F 4.0°G	0.1 °F	Refer to Ranges for Sensors Employed	Temporalule Reletive Humidity	Perceived temperature resulting from the combined effect of temperature and relative humidity. Calculated based on NWS Heat Index (HS tables, Measurement varge limited by
											.a gpp	0.1 gpp	Refer to Ranges for	Temperature Relative Humidity	extent of published reside. Mass of water vapor in a mass of etc.
											.04 g/kg	6.01 g/kg	Sendora Employed Refer to Ranges for	Pressure Temporaturo	The ralie, expressed as a percentage, of measured air density to the air density of a step.
							•				0.0026	0.001	Sensors Employed	Reletive Humidity Pressure	atmosphere as defined by the ICAO.
									٠		3.2 °F	0.1 TF 0.1 TC	Refer to Ranges for	Temperature Raistive Humidity	Famparative indicated by a sting psyctrometer. Due to nature of the psyctrometric rate it waters at system this approximates the the amorphamic well-stable improximation. The the amorphamic web bub temporature is the temperature a parcel of air would have if see!
											1,810	u. e	Senzoro Employed	Pressure	adic beliculty to constrain temperature us water evaporating into £.
									_	_	1.6 °F	0.1 TF	Refer to Ranges for	Wind Speed	Parcained femperature resulting from combined effect of wind speed and temperature, Calculated based on the NWS Wind Chill Temperature (WCT) Index, revised 2001, with w
• .	•	•	•		•	•	•	•	•	•	2° 0.0	0.1 °C	Sensors Employed	Temperature	ageed adjusted by a factor of 1.5 to yield equivalent results to wind speed measured at 10 above ground. Measurement range limited by extent of published tables.
								Signal Si		ADDIT	ONAL SPE			880000	
•			•												cklight. Manual activation with auto-off. V models only/ cleareturninescont backlight. Manual activation with suits-off.
						•	•	•	•	•	Mutilfunction, mutt-dig	i det emospopopo	matrix display. Choice of a	viation great or visible	red (NV models only) electroluntinescent backlight. Automatic or manual activation,
•		•							•	•					ond. Relative humidity and all madeutements which include RH in their calculation may requ Display apticize away 1 second.
		٠	٠										Gust and Average Wind m		
								•			Max and average wind headwind/tallwind win			endently of data loggin	ng of other values, along with all other wind-related functions: air valueity, crosswind,
					4000	3700	3200	3850	2900	9 2500	Minimum, maximum, a	verage and logged I	history stored and displaye	d for every measured settable from 2 second	value. Large capacity data logger with graphical displey. Manual and auto data storage. Is to 12 hours, overwice on or off. Logs even when display off except for 2 and 5 occupi
						points		points		points	intervals (cade version	4.18 and later). Det	to capeally shown. S-232) or Bluetceth data to		
					•	0		•	•	•	Bluetoeth Data Trans	for Option: Adjucts	stito power consumption as diting. Employs Divotocily	nd radio range from up	to 38 ft 9 meters, individual unt 10 and 4 digit Pill code preprogrammed for easy identific
•	9		•	9			٠				Roal time hours:minut Roal time hours:minut	ps:saconds clack, ca	atandar, automatic temp-ye:	er adjustmont.	
•	•		۰	•			ė,		•		After 45 minutes of no User-selectable = 15 o English, French, Germ	or 60 minutes with no	o key presses or disabled.		
•	•	. 0	•	•	•		9	:	;		CE certified, RoHS an	d WEEE compliant.	ind Adually tested to NIST	craceable standards (vititan corificate of teats available at additional charge). Regional Value Content and Teriff Code Transformation recultements for NAFTA Professesce
•	•	8	•	•	٠	۰	•	•	•	•	Orterior E.		hours. Bettery life reduced		
-	•	-		-	•			٠	٠						y backlight or filicetooth radio transmission use.
:	:	. 4		•	•			. :	9		MIL-STD-810g, Transi Watercroof dP07 and		6.5 Procedure IV: unit only	knipact may damage i	regis casible impeller.
	-						8		•		14" F to 131" F I -10 1	C to 55 °C Messure	emants may be taken beyo new exacens provionment	nd the limits of the spe or the minimum time n	rational temporalision range of the display and batteries by maintaining the unit within the occasion to lake reading.
	•						-		•		22.0 °F to 140.0 °F 1				
		•		a	7	•	-	_			4.8 × 1.9 × 1.1 in / 12.1 5.0 × 1.8 × 1.1 in / 12.1	2 4,8 x 2.8 cm, 3,6	oz / 102 g (including slip-c	in covar .	

s uncertainty of the measurement derived from statistical analysis considering the combined effects from primary sensor specifications, circuit conversions,



Appendix F

Event/Action Plan for Noise Exceedance





Event and Action Plan for Construction Noise Monitoring

Event	Action										
	ET	IEC	ER	Contractor							
Action Level	 Carry out investigation to identify the source and cause of the complaint/ exceedance(s) Notify IEC, ER, and Contractor and report the results of investigation to the Contractor, ER and the IEC Discuss with the Contractor and IEC for remedial measures require 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. 							
imit 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 implemed 6. inform IEC, ER and EPD the cause actions taken for the exceedances 7. Assess effectiveness of Contractor' remedial actions and keep IEC, EF 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 ated. &	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 not under control Stop the relevant portion of works as determined by the ER until the exceedance is abated							



Appendix G

Noise Monitoring Data

Contract No. 13/WSD/16 Mainlaying in Tseung Kwan O Monthly EM&A Report No.36



					Leq-5min	, dB(A)			I	120 .	1 20 .	Limit	
Date	Time	Weather	Reading (1)	Reading (2)	Reading (3)	Reading (4)	Reading (5)	Reading (6)	L _{eq-30min} , dB(A)	L ₁₀ 30 _{mins} , dB(A)	dB(A)	Level, dB(A)	Noise Meter
													NTi XL2
02/07/2021	09:20 - 09:50	cloudy	68.3	68.7	69.2	69.2 68.6	8.6 68.9	67.4	68.6	71.9	60.8	70.0	13663,
02/07/2021	07.20 - 07.30	cloudy	00.3	00.7	07.2				00.0		00.0	70.0	Lutron SL-
													4033SD
08/07/2021	11:18 - 11:48	Sunny	67.4	69.6	65.5	67.9	68.6	68	68.0	71.5	58.7	70.0	NTi XL2
00/07/2021	11.10 - 11.40		07.1	09.0	03.3	07.5	00.0	00	00.0	/ 1.5	30.7	70.0	13663
16/07/2021	11:03 - 11:33	Sunny	67.6	68.6	67.4	69.0	66.6	67.9	67.9	71.1	60.7	70.0	NTi XL2
10/07/2021	11.05 - 11.55	Summy	07.0	00.0	07.4	7.4 09.0	.0 00.0	07.9	67.9	/ 1.1	00.7	70.0	13663
20/07/2021	11:10 - 11:40	cloudy	66.7	68.3	69.7	69.0	68.0	68.9	68.5	71.2	63.5	70.0	NTi XL2
20/07/2021	11.10 - 11.40	cloudy	00.7	00.5	09.7	09.0	00.0	00.9	08.5	/ 1.2	03.3	70.0	13663
28/07/2021	11:16 - 11:46	Sunny	66.0	60 1	65.5	69.4	68.7	68.1	68.0	71.4	60.2	70.0	Scarlet ST-
20/0//2021	11.10 - 11.40	Suilly	00.0	.0 69.1	03.3	03.4	00.7	00.1	00.0	/ 1.4	00.2	70.0	11D

Remarks:

+

^{*}No examinations were scheduled for NSR4 Creative Secondary School in the reporting month. Academic School Calendar can be found in Appendix O.



Appendix H

Waste Flow Table



Monthly Summary Waste Flow Table

Name of Department: WSD Contract No. / Works Order No.: 13/WSD/16

Monthly Summary Waste Flow Table for <u>July 2021</u>

		Actual Quantities o	f <u>Inert</u> Construction Wa	ste Generated Mo	onthly		
Month	Total Quantity Generated (see Note 4)	Hard Rock and Large Broken Concrete (see Note 3)	Reused in the Contract	Reused in other Projects	Disposed of as Public Fill	Imported Fill (see Note 1)	
	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000m ³)	
2018	1.157	0.063	0.000	0.000	1.157	0.518	
2019	5.178	0.043	2.211	0.000	2.520	3.200	
2020	13.173	1.506	0.291	0.000	12.878	1.323	
Jan 2021	2.438	0.120	0.000	0.000	2.438	0.127	
Feb-2021	1.702	0.224	0.000	0.000	1.702	0.537	
Mar-2021	2.780	0.163	0.000	0.000	2.780	1.361	
Apr-2021	2.338	0.271	0.222	0.000	2.116	0.629	
May-2021	2.265	0.125	0.360	0.000	1.906	0.340	
Jun-2021	2.017	0.135	0.221	0.000	1.796	1.148	
Jul-2021	2.003	0.059	0.109	0.000	1.894	1.352	
Total for 2021	15.543	1.097	0.912	0.000	14.632	5.494	

Contract No. 13/WSD/16 Mainlaying in Tseung Kwan O Monthly EM&A Report No.36



		Actual Quantities of	Non-inert Constructio	n Waste Generated Mo	nthly
Month	Metals	Paper/ cardboard packaging	Plastics (see Note 2)	Chemical Waste	Others, e.g. General Refuse disposed at Landfill
	(in '000kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000m ³)
2018	0.000	0.417	0.000	0.000	0.139
2019	0.000	0.062	0.000	0.000	0.102
2020	0.000	0.606	0.000	0.000	0.043
Jan 2021	0.000	0.065	0.000	0.000	0.006
Feb-2021	0.000	0.058	0.000	0.000	0.012
Mar-2021	0.000	0.055	0.000	0.000	0.002
Apr-2021	0.000	0.045	0.000	0.000	0.008
May-2021	0.000	0.049	0.000	0.000	0.006
Jun-2021	0.000	0.051	0.000	0.000	0.000
Jul-2021	0.000	0.052	0.000	0.000	0.005
Total for 2021	0.000	0.375	0.000	0.000	0.039

Notes:

- 1. The waste flow table shall also include C&D materials that are specified in the Contract to be imported for use at the Site.
- 2. Plastic refer to plastic bottles/containers, plastic sheets/foam from packaging materials.
- 3. Broken concrete for recycling into aggregate.

Contract No. 13/WSD/16 Mainlaying in Tseung Kwan O Monthly EM&A Report No.36



- 4. "Total Quantity Generated" only refers to the actual quantities of inert C&D materials generated monthly excluding those that will be recycled (Hard Rock and Large Broken Concrete, Reused in the Contract, Reused in other Projects). Imported fill will not be included in "Total Quantity Generated" as those C&D materials are not generated from this project.
- 5. C&D materials in tonnes are converted to meter cube (m³) on a scale of 0.5.
- 6. Source and types of Imported Fill in the reporting month
 - i. K. Wah Quarry Company Limited: (Soil) 1290.1 m³ (2580.16 tonnes/42 cars)
 - ii. K. Wah Quarry Company Limited: (Sub-base) 61.61 m³ (123.22 tonnes/2 cars)

7. Hard Rock and Large Broken Concrete are disposed to public fill, the breakdown of C&D materials disposed to public fill is shown as below:

Type of C&D Materials	Description of C&D Materials	C&D Waste Disp osed (Volume) (m³)
	Bentonite	26.50
	Broken Concrete	59.85
	Broken Rock	
	Mixed Construction Waste (>50% inert)	
Inert	Building Debris	
mert	Mixed Rock and Soil	1130.60
	Reclaimed Asphalt Pavement	203.40
	Slurry	200.05
	Soil	274.00
	TOTAL =	1894.40
Non-inert	TOTAL =	4.80



Appendix I

Landfill Gas
Equipment
Certificate

Monitoring Calibration





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-250	0 (QRAE III) L	EL/O2/CO	/H2S	
UNIT INFO	DRMATIC	ON:	8			
Customer: P	enta Ocean	n Construction Co Ltd	Serial #: M0	2A016735	Model:	QRAE III
- Cantonion		T SOLITON GOODS TO SOLITON SOL	Firmware :	V2.14		LEL/O2/CO/H2S
			Cal date : 28	-Jul-2020	Inspected:	Teddy
SENSOR DA	TA:		_			
	ш.	LEL sensor (ME)	O2 sensor	CO se	nsor (Tox1)	H2S sensor (Tox2)
Calibration da	ates:	28-Jul-2020	28-Jul-2020		Jul-2020	28-Jul-2020
After Calibrati		50%	18.00%	5	0 ppm	10.1 ppm
Alarm levels ((Low):	10.00%	19.50%	3	5 ppm	10 ppm
Alarm levels ((High):	20.00%	23.50%		00 ppm	20 ppm
TWA Level:			-	3	5 ppm	10 ppm
STEL Level:		-		10	00 ppm	15 ppm
Status: Pump Speed Clock		Low Yes	Back Light Measure		fanual verage]
LEL Gas Sel	ection					
LEL Calibrati	ion Gas	Methane	LEL measurement 0	Gas M	ethane	1
LEL Custom	_	LEL_custom_gas	LEL Custom Factor		1.0	
	r Calibratio	Mix: (18% O2, 50ppm on is highly recommende				Gas lot #13333090 Cy
Notes: The unit was	calibrated a	and checked under good				
Serviced by_	Teddy	Wong tational Ltd				





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

,				<u> </u>						
1	PGM-250	0 (QRAÊ III) LEL	/O2/CO/H2S	at .						
UNIT INFORMAT	<u>'ION :</u>									
Customer: Penta Oce	an Construction Co Ltd	Serial #: M02A0	01708 Model :	QRAE III						
		Firmware: V2.		LEL/O2/CO/H2S						
		Cal date : 28-Jul-	2021 Inspected:	Teddy						
		_								
SENSOR DATA:										
	LEL sensor (ME)	O2 sensor	CO sensor (Tox1)	H2S sensor (Tox2)						
Calibration dates:	28-Jul-2021	28-Jul-2021	28-Jul-2021	28-Jul-2021						
After Calibration levels	50%	17.90%	50 ppm	10.1 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:	FA .		100 ppm	15 ppm						
Status:										
Pump Speed	. Low	Back Light	Manual	1						
Clock	Yes	Measure	Average	1						
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-Ga	as Mix: (18% O2, 50ppm (CO, 10ppm H2S, 50% LE	L CH4, BAL N2)	Gas lot #1412983 Cyl# 15						
*** Fresh Air Calibrat	ion is highly recommende	d to proceed prior for mea	surement each time.							
Replaced Parts:			•							
		i e								
Notes:										
The unit was calibrated	The unit was calibrated and checked under good working condition									
				. ,						
**Next calibration duev	or before 27 July 2022									
12 de 2										
Company to the second										
	Wong mational Ltd									
Korreninte	manorial Liu									



Honeywell Protection Through Detection 1349 Moffett Park Drive,

1349 Moffett Park Drive, Sunnyvale, CA 94089 USA Main: 408-952-8200

www.raesystems.com

Calibration and Test Certificate

Product Name:

MultiRAE Lite

Model Number:

PGM-6208

Serial Number:

M01C031772

Calibration/Inspection Date:

6/4/2021

Calibration Gases:

#	Gas	Concentration	Balance	Lot#
1	Hydrogen Sulfide(H₂S)	10ppm		
2	Carbon Monoxide(CO)	50ppm	Nitrogen(N ₂)	20210508
3	Oxygen(O ₂)	18%		
4	Methane(CH,)	50%LEL		
5	Sulfur Dioxide(SO ₂)	5ppm	Nitrogen(N2)	20210114
6	Carbon Dioxide(CO2)	5000ppm	Nitrogen(N ₂)	20201203

Test Results:

#	Sensor	Span	UOM
1	LEL	51	%LEL
2	SO,	5.2	ppm
3	COSH (H2S / CO)	10.1 / 51	ppm
4	Pb O,	17.8	. %
5	CO ₂	4900	ppm

This instrument has been calibrated using valid calibration gases and instrument manual operation procedures. Test and calibration data is on file with the manufacturer, RAE Systems.

Approved By:

86-05-51832593

ISO 9001 C CERTIFIED



Appendix J

Landfill Gas Monitoring Data



Contract no. 13/WSD/16 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
PGM-2500 (QRAE III)	28 Jul 2020

Sample location	Date of measurement	Sampling time	Monitoring wells / Surface Gas Emission							
			Weather condition	Balance gas (%)	Flammable gas (methane %)	Carbon monoxide(%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)	
Area A	2 _ 7 -201	083≠	Fire	0	Į.	0	20.5	29 / 1007	7.7	
	2-7-2011	1530	Fine	8	J	C	20-5	32/1006	7.5	
	2-7-101	1790	File	C	Q	0	209	32/1005	2.5	
Arch 3	2-7-2021	0345	Fine	0	3	0	20.3	24/1207	2.8	
	2-7-1021	1345	FIRE	0		S	20.3	32/1006	2.8	
	2-7-221	1845	FIRE	0	9	6	20-9	32/1005	2.5	
	· 									
				 _						
			+	 		·				
			 							
			-							
	 	-			·			 		

Name & Designation

<u>Date</u>

Field Operator:

Ting Wal Kin (Safety Office: [RenoPipe])

2-7-2021

Laboratory Staff:

Checked by:

C.F. Low (Foreman)

Tot.

Signature

2-7-2021.

ENVIRONMENTAL RESOURCES MANAGEMENT

13

ENVIRONMENTAL PROTECTION DEPARTMENT



Contract no. 13/WSD/16 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
PGM-2500 (QRAE III)	28 Jul 2020

Sample location	Date of measurement	Sampling time	Monitoring wells / Surface Gas Emission							
			Weather condition	Balance gas (%)	Flammable gas (methane %)	Carbon monoxide(%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)	
CH.FC \$138			Fine	9	٥	13	20.8	2] / (200)	25	
	2/7/2021	1355	Fine	o	0	c	20. 1	31 / 1008	2.5	
CHIEC PRES	1-20-1-5-1-5	ခင်ချင	Fina	G	٥	-13	20 9	29 / (0-5)	2.5	
	2/7/2021	450	Fine	O	\$	3	20-8	31 / 1005	2.5	
Prt C	4/7/2021		Hone.	÷.	٥	C	3.3.4	7-9 / 1007	3	
	ولا ومذ / 1 إ د	1425	i-ive.	O	0		20-9	31 / 1001	, j	
137 BUC	2/3/2021	0,43	Fine	e	0	o'	20-9	14/ 1007	1	
	2/7/2021	1445	Fine	e e	t)	٥	۶ ۲	31 / 1008	7	
137 1913	2/7/2021	গীর্জ	Fine	0	b	5	>0(24 / (50)	1.6	
	> (7/2024	1473	Fine	b	0	ڻ پ	200	11/6-28	10	
132 pr(1)	2-17/2021	1002	Fine	ಲ	0	ð	200	3.9/(00)	8.3	
	>-(7/2021	1202	Mine	٥	٥	٥	20.9	11 / 1005	8.3	
wor!	2 (2 (22)	1013	121018	0	٥	Q	؟ ړو. ۲	100) /	2. 8	
	2/7/2021	1717	Fine	۵ (D.	0	20,	31 / 1238	2.8	

Field Operator:	Name & Designation Si	ignature H	<u>Date</u> 217(2021	
Laboratory Staff:				
Checked by:				
ENVIRONMENTAL RESOURCES MANAGEME		13		ENVIRONMENTAL PROTECTION DEPARTMENT

Acuity Sustainability Consulting Limited



Contract no. 13/WSD/16 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

Sampling equipment used:	Dates calibrated
PGM-2500 (QRAE III)	28 Jul 2020

Sample location	Date of measurement	Sampling time	Monitoring wells / Surface Gas Emission							
			Weather condition	Balance gas (%)	Flammable gas (methane %)	Carbon monoxide(%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)	
CAK2	47/2021	ians	Fine	Q	O.	0	20.9	29 / 1010	3.5	
	2 7 (2021	12,78	France	O	٥	9	30_9	31 / (2015)	3.8	
WPR 3	2/7/2021	10245	Fine	-0	0	ø	20.9	25 / (mi)	2-4	
15 . a 14	2-17/2026	1845	Fine	į į	α	0	20.4	31 / 1008	2. %	
P(1)	2 1 7/2021	19 2.2	Fine		9	D D	>5.9	35 / 6003	5"	
San 3	1 7/2021	12.2.2	1-10 3	9	D	ō	20_9	3. 1 1005	5	
भित्र है	2/7/2021	1135	Fine		è	0	₽, 6<	(دور / اُحر	5.6	
	el?/bays	(87X	line	2	>	5	7.0<	31 / 1005	3,.6	
	· · · · · · · · · · · · · · · · · · ·									
								 		
			-		 	-		1 /		
						 		1 /		
								 · · · /, · · - · ·		

Field Operator:	Name & Designation Ting Wai Kin (Safety Officer [RenoPi	Signature pe])	<u>Date</u> 2 [] [202]	
Laboratory Staff:				
Checked by:				
ENVIRONMENTAL RESOURCES MANAGEME	NT .	13		Environmental Protection Department



Contract no. 13/WSD/16
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
PGM-2500 (QRAE III)	28 Jul 2020
<u> </u>	

Sample location	Date of measurement	Sampling time								
			Weather condition	Balance gas (%)	Flammable gas (methane %)	Carbon monoxide(%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)	
Aras A	3-7-24	0232	Fine	0	ð	0	20.8	29/1007	7.7	
	3-7-201	1330	Fine	0	S	0	20.5	32/1006	7.7	
	3-7-221	1709	F.~e	ĵ.	0	٥	20.5	30 / 1007	2-3	
Area B	3-7-2021	03.42	Fine	0		0	20,4	29/1907	2.5	
	5 - 7 - 20 LI	1348	F: NE	0	0	0	20.9	32/1006	Ζ. γ	
	3-7-2021	1647	Fire	0	0	0	20.9	30/1005	2.5	
			 					 		
		700.00						 		
			 							
			ļ. <u></u> .	 	 			 		
					İ	 		 		
					1			' ',	<u> </u>	

Name & Designation Signature Date

Ting Wai Kin (Safety Officer [RenoPipe]) 7 - 7 - 22 1

Field Operator:
Laboratory Staff:

Checked by:

c.F.dun (foreman,

of - 3-7-202

ENVIRONMENTAL RESOURCES MANAGEMENT

Environmental Protection Department

13



Centract no. 13/WSD/16 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
PGM-2500 (QRAE III)	28 Jul 2020

Sample location	Date of measurement	Sampling time	Monitoring wells / Surface Gas Emission						
<u> </u>			Weather condition	Balance gas (%)	Flammable gas (methane %)	Carbon monoxide(%)	Oxygen (%)	Temp (°C) / Remark Pressure (mbar) Depth (m)	
६५. १८६४		01.75	litut	0	0	0	209	30 / 1007 23	
CH JE CHIH	317/2021	132.2	Pine.	2	2	9	20.9	1-1 (20) 2-5	
UT 4-C CTAT		olso	1-ine	٥	c	O	20-9	30 / 1047 2.5	
	3/7/2021	1400	Fine	9		3	20.5	12. / 1008 2.5	
- PT (117-(2024	6472	Fine	2		0	20.9	30 / (01) : 3	
13 . d.c	317 2021	3472	Plac		9	0	>≥.4	12/105 8	
UF prt C	3(+(xar)	20/16/2	/2 me	0	0	ď	3,0.9	30 / (20) 3	
322 m o 12	312/2021	14405	1-Ine	0	- 47	- 0	1:4	75 / 1209 3	
133 px 18	317/2021	<u> </u>	Hine	. 0	D	9	20,9) J / (m) Y . h	
111	Heim	1422	Pina	Q.	27	0	33.5	12 1001 226	
W bits	1 7 3021	1005	Fine.	9	0	0	201.	30 / 1007 1.3	
. 3710 3	3/7/2021	12.02	- Cime	0	0	2	25.9	3. / /:05 2.3	
Mak 1	1/2/2021	162 15	- line	-0.	2	9	20.9	30 / 100 20	
	1/7/2021	12.12	Fine	į.	i)	2	20.8	3 × / (805) 2 €	

Name & Designation

Signature

<u>Date</u>

Field Operator:

Ting Wai Kin (Safety Officer [RenoPipe])

3/7/2021

Laboratory Staff:

Checked by:

BNVIRONMENTAL RESOURCES MANAGEMENT

ENVIRONMENTAL PROTECTION DEPARTMENT

13



Centract no. 13/WSD/16 Mainlaying in Tseung Kwan O

Penta-Ocean - Concentric Joint Venture

Landfill Gas Monitoring -Field Measurement Recording Sheet

Name of site:

13/WSD/16 - Mainlaying ir. Tseung Kwan O

Dates calibrated
28 Jul 2020

Sample location	Date of measurement	Sampling time	Monitoring wells / Surface Gas Emissio							
			Weather condition	Balance gas (%)	Flammable gas (methanc %)	Carbon monoxide(%)	Oxygen (%)	1	p (°C) / ure (mbar)	Remark Depth (m)
WAKE	3/7/2021	10 >-8	Fine	0	29	٩	20.9	30	1(00)	3.5
15.5 7	1/2/202	1272	12 (ne	9	e e		20.1	32	1 (205	3.5
W853	11713021	to Hy	Pine	a a	0	6	30-9	15	1 1207	2.3
5.40	317 /2011	12.48	Fine		-		¥-6.5	3	1 1005	25
Pith	الإصداراة	3288	line			(2)	22.9	30	(00)	Y
8 mg	3:7/2011	(2.2.2)	Filosof.	٥.	0	۵	20.9	3	1 (505	Ÿ.
11/0	3 (7 2021	1,07	Fine	ls.	ø	ن ع	٩. مر	3,5	100)	3.5
	3/7/2024	Yest	Itine	2			20.9	3 24.	1,002	ه از
					· · · · · · · · · · · · · · · · · · ·			 -	/	
										
				- 	<u> </u>					

Field Operator:	Name & Designation Ting Wai Kin (Safety Officer [Renof	<u>Signature</u> Pipe])	<u>Date</u> ら/ } (>>レ(
Laboratory Staff:					
Checked by:					
ENVIRONMENTAL RESOURCES MANAGEME	ENT .	13		EAVERONMENTAL PROTECTION DEPAI	RIMENT



Contract no. 13/WSD/16 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
PGM-2500 (QRAE III)	28 Jul 2020

mission	Sampling time	Date of measurement	Sample location				
ygen (%) Temp (°C) / Remark Pressure (mbar) Depth (m)	Carbon monoxide(%)	Flammable gas (methane %)	Balance gas (%)	Weather condition			
209 Z3/1008 XX	0	0	0	ابر ا	0230	>-7-2021	Arza A
20.9 31/1007 55	0	9	0	Fine	1350	5-7-2021	
249 51/1005 55	0	0	©.	Fire	1700	5-7-2021	
20.9 28/1028 25	0	Û	C	Fine	৩845	5-7-2021	ATJA B
20.9 51/1907 2.4	a	0	ů	Fine	(34)	5-7-2021	
20.4 71/1005 2.5	0		4	Fine	1545	5-7-211	
//							

Name & Designation

<u>Date</u>

Field Operator:

Ting Wai Kir. (Safety Officer [RenoPipe])

5-7-2021

Laboratory Staff:

Checked by:

C. Fichern (Foreman)

5-7-2021

Signature

ENVIRONMENTAL RESOURCES MANAGEMENT

ENVIRONMENTAL PROTECTION DEPARTMENT

13



Contract no. 13/WSD/16 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

Sampling equipment used:	Dates calibrated
PGM-2500 (QRAE III)	28 Jul 2020

Sample location	Date of measurement	Sampling time	Monitoring wells / Surface Gas Emission					· 10 · 10 · 10 · 10 · 10 · 10 · 10 · 10	
_			Weather condition	Balance gas (%)	Flammable gas (methane %)	Carbon monoxide(%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
CHI-C HID	3/7/2021	0853	Fine	J	?	£/	20-9	31 / (10)	2.5
	1/7/2021	1322	France	3	٥	g.	*** \	32- 1006	2.1
CHFL offer	3/1/2021	900	Fine	C	: Ú	0	20.9	31 / (20%	2.5
	5 13 12021	(4 3D	Hove	0	₽	٥	n.o.c	32 / lobb	3.75
pri C	5 /7/m21	2525	Pint.	.)	0	٥	2-0-1	300) / 16	<u> </u>
<u></u>	5 17124	(452	Tigne.)	1 0	C	J. 60g	30/ 100/	- j
17 pt 6	5 (7)2021	0143	Fire)	0	D.	20.9); / (a) %	3
	5 17 1201	1.643	Fiere	9	0	0	7.5.6	12/ 1086	-j.
11/ 1/13	y (9/2021	্র্রি	Place	3	O	0)	20	21 / 1000	1.6
	y 17 12021	(1622	hine	р°	0	-0	1.04	la / 1000	j.b
475 Ed	5 /7 (2021	(30)	Fine	ò	O O	υ	30-5	1. / (50%	1 1
m is	ر مراجا _ک	12.52	Fine		0	Ð	305	32 / 1000	3-3
1 89W	5 (3)(2)	(4 (),	Project	9	9	0	20.5	35 / 1003	3
	3 / / 2019	(212	Fine	. 0	Þ	8	>5.5	30/ (00%	2.0

	Name & Designation Signature	<u>Date</u>	•
Field Operator:	Ting Wal Kin (Safety Officer [RenoPipe])	5/३/221	•
Laboratory Staff:			
Checked by:			
ENVIRONMENTAL RESOURCES MANA	GEMENT		Environmental Protection Department
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Contract no. 13/WSD/16
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

Sampling equipment used:	Dates calibrated
PGM-2500 (QRAE III)	28 Jul 2020

Sample location	Date of measurement	Sampling time	Monitoring wells / Surface Gas Emission							
			Weather condition	Balance gas (%)	Flammable gas (methane %)	Carbon monoxide(%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)	
MAIL	1 3 /2051		Fine	2	2	9	20.8	A001 1	3.3	
	5 7 /2021		12700	ō	زغ	ā	ا ر دـ د	1001 100	3.5	
WIRS	5/7/2021	(3445	Pine	0	٥	9	20-9	31 / 100%	2.1	
	13/20vi	<u> </u>	line	0	Ь	۵	20 - E	deal / 46	2.3	
prd 17	5 / 7 70 m	(255	Pine	9	0	o	3-0-	31 / (03)	2	
	3.) 4. (Dest	(323	129 43 2	6	0	0	70-3	31/ 1001+	5	
Prt R	1400) 4/5	105	Pine	0	0	ن ت	20-9	800) 1/	3.5	
	\$13/2011	1605	Pine	٥	5	3	20.9	Just comb	3.6	
		·						/		
				<u> </u>	<u> </u>					
		-	<u> </u>					/, -	 	
			T-:							

	Name & Designation	Signature	<u>Date</u>	
Field Operator:	Ting Wai Kin (Safety Officer [RenoPip	oe]) 🖟	5/4/2021	
Laboratory Staff:				
Checked by:				
ENVIRCIMENTAL RESOURCES MANAGEME	N7 .		13	Environmental Protection Department



Contract no. 13/WSD/16 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
PGM-2500 (QRAE III)	28 Jul 2020

Sample location	Date of measurement	Sampling time	Monitoring wells / Surface Gas Emission						
			Weather condition	Balance gas (%)	Flammable gas (methane %)	Carbon monoxide(%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
Area A	6-7-2021	0 <u>\$</u> 30	Fine	0	G.	· · · · · ·	20.3	30/1007	23.4
	6-7-2021	1330	Fine	0	C	C	<u>2.09</u>	31 / 1006	ゔゞ
	6-7-20L1	1700	Fine	0	6	0	20.5	28/ 1007	7.7
Area B	6-7-2061	Q245	Fixe	0	a	9	20.5	36/1006	2.5
	6-7-2021	1345	Fine	0	0	0	24-3	31/1006	2.5
	6-7-2021	1645	Fine	0	G	Ŷ.	20.9	28/1905	2.5
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				-		 		 	<u></u>
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		-				-		 	
				1		 	-	: /	
						· · · · · · · · · · · · · · · · · · ·	· · · · · · · · · · · · · · · · · · ·	- /	ļ

Name & Designation Signature Date

Ting Wai Kin (Safety Officer [RenoPipe]) 6-7-2021

Field Operator:

Laboratory Staff:

Checked by: (Fichen (Forman) Top

6-7-2021.

ENVIRONMENTAL RESOURCES MANAGEMENT

Environmental Protection Department

13



Contract no. 13/WSD/16 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
PGM-2500 (QRAE III)	28 Jul 2020
	,

Sample location	Date of measurement	Sampling time	Monitoring wells / Surface Gas Emission							
			Weather condition	Balance gas (%)	Flammable gas (methane %)	Carbon monoxide(%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)	
CM J-C 1938		3} 55	Fine	-72	i i	Ü	20.1	3. / 100+	2.45	
	6 17 Julian	(32.2	Pine	Ú	0	0	اً ي د2	131 / 1208	25	
of the other		वर्षक	Place	12	٥	0	20.1	30 / (00)	2.03	
	6 /r (2020)	(400	Mae	0	0	٥	>	31 / 1205	2.2 }	
	6 (+120+1	2825	Liling	0	Þ	0	20.5	30 / 100 %	8	
	6 17 (mind		Ping	0	·	to to	>0	31 / 208	4	
OF prt C	p (4/50:4	6945	Fine	- O	q	o ·	⊃a. {	30 / 007	7	
1	6 17 3321	الإنزاع	State		ō	0	20.	31 / 1005	. 7	
137 pris	6/7/2021	0882	Fice	- 0	v	3	33.1	30 / 1003	8-6	
	6/7(100)	(422	Pine.	6	2	0	20.1	31 / (00)	1.6	
187 PITA	h () (>>>)	1003	Phe	0	2	c	ال صد	30 / (00)	2-3	
	b (7/202)	1500	Mag	O	0	>	7.04	31 / 1005	\$	
WPP. I	1 /1/2021	(515	Pilhe	٥	Ü	· · ·	20.5	30 / (50)	2_8	
	6 (7 d)an)	(515	The	9	Q	0	20.8	31 / (20)	7.6	

Field Operator:	Name & Designation Ting Wai Kin (Safety Officer [RencPip	Signature e])	Date 6 (7 (202)		
Laboratory Staff:					
Checked by:					
ENVIRONMENTAL RESOURCES MANAGEME		13		ENVIRONMENTAL PRO	ECTION DEPARTMENT

Acuity Sustainability Consulting Limited



Contract no. 13/WSD/16 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
PGM-2500 (QRAE III)	28 Jul 2020

Sample location	Date of measurement	Sampling time	Monitoring wells / Surface Gas Emission							
			Weather condition	Balance gas (%)	Flammable gas (methane %)	Carbon monoxide(%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)	
F4 2 2 1	6/7-12021	1525	ine	*	o o	9	20. 9	30 / 100)	3.5	
	bif Ironi	15725	think	0	٥		١. سر	31 / (205	3.5	
1. 16 16 3	6 7 1 2021	12,42	line	ග	Ø.	is.	200	30 / (22)	2.8	
	6 2 he bi	14.62	permen	9	s	5	7-12-A	1 / 1008	2.6	
yet h	P13 2011	1122	Find	0	ల	a	20-8	Se / (00)	5"	
	1135/19	1222	tine	0	0	0	no.s	38 / 1008	3"	
47.14	617(20)	1/85	tine	0	o	0	30.9	10/ (01)	1.6	
	p[3]2021	160%	Pine	3	0	Ŋ	20.9	3, / (50%	26	
					1			 	<u> </u>	
								! /		
							-	<u>: /</u>		
				· · · · · · · · · · · · · · · · ·	 -	·	· · · · · · · · · · · · · · · · · · ·	 	 	

Field Operator:	Name & Designation Ting Wai Kin (Safety Officer [RencPip	Signature	Date 6 (7 (202)		
Laboratory Staff:	·	on A	* ş		
Checked by:					
ENVIRONMENTAL RESOURCES MANAGE	MENT	-	13	ENVIRONMENTAL PROTECTION DEPARTMENT	

Acuity Sustainability Consulting Limited



Contract no. 13/WSD/16 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
PGM-2500 (QRAE III)	28 Jul 2020
-	
	i i

Sample location	Date of measurement	Sampling time	Monitoring wells / Surface Gas Emission							
			Weather condition	Balance gas (%)	Flammable gas (methane %)	Carbon monoxide(%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)	
Area A	7-7-2021	0830	Fine	0	0	Û	208	21/1304	7.3	
	7-7-2021	1330	Fine	0	0	0	20.9	30/1009	2.5	
	フーフー2021	1700	Fine	0	O .	ō	20.3	30 / 1008	232	
Area 3	7-7-2021	284×	Fine	0	a	0	20.3	27/1009	2.5	
	7-7-2021	1345	Fine	0	0	0	20-3	30 / 1009	2.5	
0 at 90 a. k	7-7-2021	1644	Fine	0	0	G	Z0.4	30/ 1008	2.5	
								1 /		
								1 /		
			*					1		

Name & Designation

Signature

Date

Field Operator:

Ting Wai Kin (Safety Officer [RenoPipe])

7 -7- 2021

Laboratory Staff:

Checked by:

C.F. chan (Foreman)

Top.

7-7-2021.

Environmental Resources Management

13

ENVIRONMENTAL PROTECTION DEPARTMENT



Contract no. 13/WSD/16 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

Sampling equipment used:	Dates calibrated
PGM-2500 (QRAE III)	28 Jul 2020

Sample location	Date of measurement	Sampling time	Monitoring wells / Surface Gas Emission							
			Weather condition	Balance gas (%)	Flammable gas (methane %)	Carbon monoxide(%)	Oxygen (%)	1 -	p (°C) / ure (mbar)	Remark Depth (m)
U1.74 84%		2835	ine	0	89	o	20.8	30 /	10 (0	2-5
	7/3/2021	(355	Ant	0	0	Q	20.1	52. /	1000	2 "
U1.12 0164		స్యాప	Fine	٥	0	0	20.9	30 /	loto	35
	F(7-(2-2)	(4/63	Elora	0	£2	Ç	29	12-1	6000	2.28
prt C	7/1/2021	_ 3ξ2Σ	Dime.	D	Ø	a	2	130 /	(0)0	<u>g</u>
·	7/7/2021	423	Flore	- చ	Ç7	0	20.9	10 /	6003	ă ă
137 pr7 C	+13/2021	29.62	Fine	0	C)	ນໍ	7.0.5	: 3 = /	/ Lete	1
	7/7/2021	1 445	PINE		0	٥	30.8	13%	8001	-7
1 139 Fel.	71712021	0622	hae	Ü	0	v	3,0,9	7,0	/ 1010	8-6
•	7/7/2021	(455	Fine	ت	÷.	à	1.00	32	/ 008	J. l.
154 pot A	717/2021	1008	Fine	0	Q	Q	205	10	/ iolo	£ }
:	7 7 1004	1505	1) inc	0	0	٥	ا مر	132	/ ladi:	3-3
WIEL	7 (7) may	्रि ।४	34028	٥	0	ن	ا) سر	30	/ 1015	1.1
	117/2004	1212	Jugue e	ر. د	0	D	أردر	30	/ (200	7.

	Name & Designation	<u>Signature</u>	<u>Date</u>	
Field Operator:	Ting Wai Kin (Safety Officer [Renof	Pipe])	7/7/224	
Laboratory Staff:				
Checked by:				
ENVIRONMENTAL RESOURCES MANAGEM	ENT .		73	ENVIRONMENTAL PROTECTION DEPARTMENT



Contract no. 13/WSD/16
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
PGM-2500 (QRAE III)	28 Jul 2020

Sample location	Date of measurement	Sampling time	Monitoring wells / Surface Gas Emission							
			Weather condition	Balance gas	Flammable gas (methane %)	Carbon monoxide(%)	Oxygen (%)	Temp Pressur		Remark Depth (m)
12455	7 7 202	1025	Free	ಎ	0	0	3.5.	30/	1010	3.5
	7 7 702	12.7.2	tine	c	•	19	2008	35./	1206	3.4
MAKS	7 7 200 11	1041	Fine.	÷,	0	D D	245	307	100	2.
. 15	7/7/2011	12.63	12408	. ت	Ď	٥	>0.€	>>-/	1000	1.5
<u> </u>	7 7 7021	1575	Pittor	Q	3	>	7.05	30 /	1010	3,
	7131mn	1222	tine	a a	i i	Э	20.9	32/	dogs	Υ.
4413	1/2/201	1/05	Home	0	9	۵	20-4	30 /	016	3, 6
····	142/2021	66000	Pivol	ت	0	٥	>4_4	\rangle \rangle /	800	36
								/		
				 	-	<u> </u>		1		
				-	1	 		1-/		·
	· · · · · · · · · · · · · · · · · · ·				·			+		

Field Operator:	Name & Designation Signatu Ting Wai Kin (Safety Officer [RenoPipe])	_	7 / 2021	
Laboratory Staff:				
Checked by:				
ENVIRONMENTA". RESOURCES MAN.	Generat :	13		ENVIRONMENTAL PROTECTION DEPARTMENT

Acuity Sustainability Consulting Limited



Contract no. 13/WSD/16 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
PGM-2500 (QRAE III)	28 Jul 2020

l	Date of measurement	Sampling time	Monitoring wells / Surface Gas Emission							
			Weather condition	Balance gas	Flammable gas (methane %)	Carbon monoxide(%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)	
Area A	8-1-24	0230	Fine	٥	٥	0	20 4	28/1012	7.7	
	3-7-22	1330	Fine	9	3	٥	20-5	30/1012	2.2	
	3-7-2021	1700	Fire	0	0	0	20.4	30/1010	2.2	
Area 5	8-7-224	1245	FILE	0	0	j j	200	28/1012	2.3	
	8-7-2041	1345	Fine.	0	0	O O	209	30/1012	2.3	
	5-7-204	1645	Fine	0	o .	0	20.3	30/1010	2.5	
								1		
								/		
					ļ					
							 	 _ /	<u></u>	

Name & Designation

<u>Date</u>

,

Field Operator:

Ting Wai Kin (Safety Officer [RenoPipe]) (

8-7-2021

Laboratory Staff:

Checked by:

c.F.chan

on) .

8-7-2021.

ENVIRONMENTAL RESOURCES MANAGEMENT

13

ENVIRONMENTAL PROTECTION DEPARTMENT



Contract no. 13/WSD/16 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

Sampling equipment used:	Dates calibrated
PGM-2500 (QRAE III)	28 Jul 2020

Sample location	Date of measurement	Sampling time	Monitoring wells / Surface Gas Emission						
			Weather condition	Balance gas (%)	Flammable gas (methane %)	Carbon monoxide(%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
CHIFC FUB		0922	Fine	O	0	E	20.3	31 /1212	3. 43
	Hithor	1355	1-10.8	Q	0	e.	24.9	m / (2/0	2.5
01154 0164	FIF (NOV)	3/03	Fine		a	٥	20_ \$	31 / (0)5	
N. 7	£13-12021	1,453	Hine	o	631	¢>	20_9	32/1010	2.8
brt c	المراضوا في ال	0725	12-38-42	<i>\$</i> 1		0	>0_₹	31 / (06)	. 8
155	2/3/2011	1.478	Hine	0.	0	0	25.5	12/ 10lo	5
137 pit 6	\$ 17-19021	0948	21874	0	9	0	305	31 / (312	7
114 15	8 7 20	1442	Plac	0	0	0	20.8	1- / 1010	,
134 pr18	2 7- 2024	3620	figure.	D	0	0	300	حاد) / الأ	8-6
10.0	8/7/2021	liery	Fine	ם .	0	0	2.5. 9	132 / (1)0	July .
117 pres	الإساليا	\$ 90 %	Flore.	8	0	O	>0 €	. 31 / (012	5-3
95	J. J. vard	(49)	Fine	o	•	O	24	5-/ 1010	8.3
well.	1464	1015	But	೦	0	0	24.5	31 / 1012	249
	AT NOW	1818	Frac	0	0	0	>0.5	32/ 310	2.0

	Name & Designation	Signature	<u>Date</u>	
Field Operator:	Ting Wai Kin (Safety Officer [RencF	Pipe])	118/218	
Laboratory Staff:				
Checked by:				
ENVIRONMENTAL RESOURCES MANAGEME	WT .	13		ENVIRONMENTAL PROTECTION DEPARTMENT



Contract no. 13/WSD/16 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

Sampling equipment used:	Dates calibrated
PGM-2500 (QRAE III)	28 Jul 2020

Sample Date of Sampling location measurement time		_ ~ _	ling Monitoring wells / Surface Gas Emission								
	Weather condition	Balance gas (%)	Flammable gas (methane %)	Carbon monoxide(%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)				
WP 1 2-	flywr1	1025	Fine	o	D	0	20.3	31/1012	3.5		
	भव्य) राष्ट्र	(3,7)	1-1004	o o	0	0	2008	52-/ (010	35		
V. 1. 3	8-17 m21	1645	tane	3	Q	Ø	2.0<	31 / 1012			
	Klylon	(545	Plat	0	0	e	ا\$ ن≪	32/ (00	7.8		
yrt P	117 mil	132.2	Firm	Q	Q	5 7	20.09	21/ (01/2	7.		
13	1/2021	0.22	Fire	٥	2	0	Pag	37/ 1010	5		
ps(B	1/2021	1105	trave	0	9	0	1.00	31/1012	3.60		
	fix hort	2003	pine	0	0	2	1.07	3×/ 100	3.6		
					 -		 	/			
								/			

	Name & Designation Ting Wai Kin (Safety Officer [RenoPi	Signature	Date \$\big \big \big \angle \angle		
Laboratory Staff:					
Checked by:					
ENVIRONMENTAL RESOURCES MANAGEME	NT .	. 12		Environmental Protection D	DEPARTMENT



Contract no. 13/WSD/16 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
PGM-2500 (QRAE III)	28 Jul 2020

Sample location	Date of measurement	Sampling time	Monitoring wells / Surface Gas Emission							
			Weather condition	Balance gas (%)	Flammable gas (methane %)	Carbon monoxide(%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)	
Area A	9-7-2021	0830	Fine	0	0	0	20,3	29/1011	7.7	
	9-7-2021	1330	Fine	0	0	0	2.0.4	32/1010	7.7	
A	9-7-2021	1790	Fine	0	0	0	20.9	31/1007	2.3	
Area B	3-7-2021	0843	Fine	3	0	G	20.9	29/1011	2. 5	
	9-7-2021	1345	Fine	0	2	0	20-1	71/1010	2.5	
	9-7-2021	1643	Fine	0	9	Ç	20.3	31/1009	2.5	
								1		
		-							:	
		1			 	<u> </u>		/		

Name & Designation

<u>Date</u> 9-7-24

Field Operator:

Ting Wai Kin (Safety Officer [RencPipe])

Laboratory Staff:

Checked by:

9-7-2021.

ENVIRONMENTAL RESOURCES MANAGEMENT

13

ENVIRONMENTAL PROTECTION DEPARTMENT



Contract no. 13/WSD/16 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
PGM-2500 (QRAE III)	28 Jul 2020

Sample location	Date of measurement	Sampling time	Monitoring wells / Surface Gas Emission						
			Weather condition	Balance gas (%)	Flammable gas (methane %)	Carbon monoxide(%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
のぶられる		28.7.1	Fine	2	30	c	20.0	32 / 1011	2 7
	9/7/221	955	(Fint	υ	o	-2	7.06	33 / 1005	7.73.
Chipe whole	4/7/22/	0 100	Flac	è	٥	ာ) w. (32 / (21)	2.5
	9/7/2021	1400	Fre	J)	27	c c	20.	33 / (05)	2-5
Pre C	1/3 (2021	0 \ ≯5	Pine	Ų	a	\$	20.9	35/ (30)	ſ
	1 4 (7 /ws1	1425	Fine	· ·	ο .	O	9.04	1301 (201	J
13} 9;10	117 /201	37:468	Prine	0	0	9	20.5	35 / 1011	7
	1 Floor	(પ્લડક)	Place	U	٥	r,	20. !	13) / (50)	7
123 64 8	4/7/2021	०१४५	Ane	(2)	٥	9	20-7	135 /1216	2-6
	1 7 1202	(1622	Flore	Ö	0	2	30.5	30 / 1205	\$.6
179 411	17 xx		Pine	K2	Þ		اً . بد(3r /1011	g 3
	17500	1503	Pluc	0	ė.	0	20,5	1021/16	F-7
1.44N	6 / / 2021	1312	Fine.	ಎ	ڼ	35	ا الله الله	3× / 10(1	3. %
	1171224	12.12	Pine	9	2	/3	20.9	33 / (set	2.8

	Name & Designation	<u>Signature</u>	<u>Date</u>	
Field Operator:	Ting Wai Kin (Safety Officer [Ren	oPipe]) }	(دصر) فرام	
Laboratory Staff:				
Checked by:				
ENVIRONMENTAL RESOURCES MANAGE	EMENT			ENVIRONMENTAL FROTECTION DEPARTMENT
	•	13	•	ENVIRONMENTAL PROTECTION DEPARTMENT

Acuity Sustainability Consulting Limited



Contract no. 13/WSD/16
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

Sampling equipment used:	Dates calibrated
PGM-2500 (QRAE III)	28 Jul 2020

Sample location	Date of measurement	Sampling time	Monitoring wells / Surface Gas Emission							
			Weather condition	Balance gas (%)	Flammable gas (methane %)	Carbon monoxide(%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)	
1778 F	917/2001	1225	illine.	7	Q	ş	20-9	12 / (21)	ال الله	
	5/7-10021	1575	Hime	v	3	Đ	20.5	33 / (408	3.8	
WPR 3	117 (2021	1545	Privat	ţ,	Ω.	O.	3-53	32/10!	2.3	
	4/7/2021	15755	Fine	0	C	3	30.5	35 / (58)	2	
A)ng	117/1021	1055	pre-e	0	Ü	تن	اً دون	3-1 5011	35	
	\$ () min	355	hims	0,0	0	2	320	100 / 16	3	
Prt 18	4/7/m21	1608	Fine	6	0	æ	7.00	32/ 100	3.6	
	9/7/104	lhux	Franc	Ų	ð	- 3	20.5	33 / (00)	3.6	
					7			1	7 - 1	
								/		
								/	·	
								1		
								/	1	
]					'/	-	

atory Staff:	
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Contract no. 13/WSD/16
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
PGM-2500 (QRAE III)	28 Jul 2020
1	

Sample location	Date of measurement	Sampling time	Monitoring wells / Surface Gas Emission							
			Weather condition	Balance gas (%)	Flammable gas (methane %)	Carbon monoxide(%)	Oxygen (%)	Temp (*C) / Pressure (mbar)	Remark Depth (m)	
Area A	10-7-2021	0830	Fire	0	J.	0	20.5	30/1010	7.7.	
	10-7-2021	1330	Fal	0	- O	9	20.5	32/1010	2.2	
	10-7-204	[T00	Fine	0	J	0	229	31/109	7.7.	
Arx B	10-7-261	०४५४	Fine	0	0	0	20.4	30 / 100	2.5	
<u> </u>	13-7-2021	1345	Fine	3	Э	0	25.9	32/1013	2.5	
	10-7-221	1643	Fine	0	0	0	20.9	31/1009	2.5	
								/		
	<u> </u>			-	<u> </u>			/		
					ļ		-	/		
	·					 	 	 - '/		

Name & Designation

Signature

<u>Date</u>

Field Operator:

Ting Wai Kin (Safety Officer [RenoPipe])

10-7-224

Laboratory Staff:

Checked by:

C-7-chan (Foreman)

M.

10-7-2021

Environmental Resources Management

13

Environmental Pactection Department



Contract no. 13/WSD/16 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
PGM-2500 (QRAE III)	28 Jul 2020

Sample location	Date of measurement	Sampling time	Monitoring wells / Surface Gas Emission							
			Weather condition	Balance gas (%)	Flammable gas (methane %)	Carbon monoxide(%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)	
11-12-8738	10/7/20M	2) 56	: Pine	v	12	0	2.0 . (71/011	2.5	
- 4 177	12 (3()32)	455	Pint	e e		2	7.4.	33 / (208	2.5	
CHECOTOR	(0)7(20)	0 400	Phone	Q	.5		20-8	31 / 10 11	2 +5	
	idea Harri	1000	Piere	2	Ç	٥	20.1	20 / (c	2-5	
<u> </u>	(0/7/201	9925	tine	9	63	0	٦- در	31 / (04)	3	
-5	(1) (7) (1)		Flace	9	j.	0	20-9	100) 18	ģ	
17 M	(alala)	্ \\ ५ 5	Hine	10	C	0	ا در	31 / (all	ş —	
	1.0 P/2021		Fine	-77	Ð	0	اً . ب ح	1001	7	
पाने दिशी	to he		Fine	<u> </u>	, o	9	20-9	31 / toll	5.6	
	لاسراد ان		Mac	ນີ	0	2	20.9	1001 125	16	
किए रध	্য পূচ্চা		Hine	12	· ·	i i	20.8	31 / Cost	2.3	
	1,0 / 7 (20)	(505	Sing	- O	0	Ü	10-1	33/ 1009	13	
WP21	Maylos	10/5	l'in-e.	9	1	-3	>0.°€	3, / (2)!	2.1	
	(3)747571	15 13	Place	0	0	<i>©</i>)	35/(00)	2.4	

Name & Designation

Field Operator:

Ting Wai Kin (Safety Officer [RenoPipe])

Laboratory Staff:

Checked by:

ENVIRUNMENTAL RESOURCES MANAGEMENT

ENVIRONMENTAL PROTECTION DEPARTMENT

13



Contract no. 13/WSD/16
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

Sampling equipment used:	Dates calibrated
PGM-2500 (QRAE III)	28 Jul 2020

Sample location	Date of measurement	Sampling time	Monitoring wells / Surface Gas Emission							
			Weather condition	Balance gas (%)	Flammable gas (methane %)	Carbon monoxide(%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)	
10/8/2 2	Next [[c)	023	Fine	Ø.	ي	9	1.61	31 / 100	3.5	
	(0/7/ww/	12.22	t_{loc}	O	ō.	٥	>⊍ ₹)} / (set	3.5	
12 Mile 3	10/3/2024	10 ছের	Pare		٥	٥	ો હ	31 / 1011	7.9	
	(a (3 her)	1545	bine		Q.	۵۲	72-56	133 / 1205	1.5	
45613	الإدراح الد	(022	Payme.	0	ద	#	20.8	110/ 1611	7	
	(1 3 200)	1265	place	C	0	.3	اً.بد	-3) / [out	*	
87.19	(0) 2/3634		side.	<u></u>		3		1 31 / (a) i	3.6	
	1000 2 01	ا د ما ا	ist nec	ര	¢'	ه	20-1	13) / 100	3.6	
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	-		<u> </u>					<u> </u>		
				 				/		
							<u> </u>	1		
					1			1_/		

	Name & Designation	Signature	<u>Date</u>	
Field Operator:	Ting Wai Kin (Safety Officer [RenoP	ripe])	Olylana	
Laboratory Staff:			·	
Checked by:				
ENVIRONMENTAL RESCUZCES MANAGEM	ENT .		3	ENVIRONMENTAL PROTECTION DEPARTMENT



Contract no. 13/WSD/16 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
PGM-2500 (QRAE III)	28 Jul 2020

location measurement time			Sampling time	Monitoring wells / Surface Gas Emission						-
		Weather condition	Balance gas (%)	Flammable gas (methane %)	Carbon monoxide(%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)		
Area A	12 -7 -301	0.850	Fine	0	0_	۵	20.3	30/1012	7.3	
	12-7-2521	1330	Fire	G	0	0	20.3	33/1010	2.3	
Area B	12-7-2421		FINE	0	3	0	25. 4	32/1008	23	
TEAR	12-7-2021	0847	Five	J	9	0	20,4	30/1012	2.3	
	12-7-204	1348	Fine	\$	C	0	20,4	33/1010	2.5	
	1L- 1-2001	1648	Five	<u> </u>	0	0	20.4	32/1002	7.5	
			<u> </u>					-/-		
	İ									
						1977				

Name & Designation

Signature Date

13

Field Operator:

Ting Wai Kin (Safety Officer [RenoPipe])

12-7-2021

Laboratory Staff:

Checked by:

MAN (HITA) (Fareman)

17-7-2021

Environmental Resources Management

ENVIRONMENTAL PROTECTION DEPARTMENT



Confract no. 13/WSD/16
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
PGM-2500 (QRAE III)	28 Jul 2020

Sample location	Date of measurement	Sampling time	Monitoring wells / Surface Gas Emission							
	! :		Weather condition	Balance gas (%)	Flammable gas (methane %)	Carbon monoxide(%)	Oxygen (%)	Temp (°C) / Pressure (moar)	Remark Depth (m)	
Otto 835		0855	D.A.	٥	5	0	20.9	31 / 1011	23	
41	12/3/2021	132.3	\mathcal{V}_0 , i.	Q	9	£)	20.9	55 / (m)	2-5	
CHAR OFFI		0900	FAC	9	9	ڼ	20.8	31 / (21)	2.5	
	12/7/2021		- Prive	2	٥	9	20.5	33 / (00)	2.5	
G 376	World to	2915	Fire	. 0	2		20.8	1 / fall)	
·	10/7/2011		Fire	0	¢.	D	25. ₹	33 / 100	;	
2779	12/7/2021		Fini	5	C3	0	20. 1	31 / 1011	15	
	13/7/2021		15 jai	Ç.	i)	0	1.0.[1005 \ 66	ģ	
374 FE	12[7]	0145	Fall of	0	D.	د:	ا دول	2(/ (at)	1	
<u>'</u>	12/7/201		Fine	ಎ	T	13	20.	3)/ (30)	- 3	
134 ALL B	12/7 702	0 / 22	7 jus.	5	0	0	20.1	1 31 / (31)	5-6	
	13-13-lives	1452	. Mar.	15	O	0	20 (13 / 1505	8-6	
133 6.14	(2) 7 her	(၈၁၄	Fine	5	0	D	>0.√	31 / (89	8-3	
	withou	1707	FIRE		φ.	0	7-42	3)/ (401	12.1	

ENVIRONMENTAL RESOURCES MAN	AGEMENT .	13	•	ENVIRONMENTAL PROTECTION DEPARTMENT
ENVIRONMENTAL RESOURCES MAN	LCTI (W) by	·		
Checked by:				
Laboratory Staff:	,			
Field Operator:	Ting Wai Kin (Safety Officer [RencPipe]		12(71)21	
	Name & Designation	Signature A	<u>Date</u>	

Acuity Sustainability Consulting Limited



Contract no. 13/WSD/16 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

Sampling equipment used:	Dates calibrated
PGM-2500 (QRAE III)	28 Jul 2020

Sample location	Date of measurement				Sampling time	Monitoring wells / Surface Gas Emission							
			Weather condition	Balance gas (%)	Flammable gas (methane %)	Carbon monoxide(%)	Oxygen (%)	Temp (Remark Depth (m)			
WPE?	12 (7) 2221	1515	Eine	0	50	52	20.7	31 /	1011	1.8			
	12 // [2021	1375	1902-6	۵	<i>\$</i> '	6)	20.8	13.7	(00)	3_€			
WPK 2	12 (3 (202)	1277	Frint	3	0	3	30.5	11/	ali	3 - 2			
	14 CH / 4021	Und	Prine.	4	0	t)	20.9	11/	(49)	3.5			
WPR3	12 (3 (M)	1045	Pine		0	ç	Doct	1/	0 (1	1-5			
7-6	(= 1313031	15.62	Eme	; o	O.	٥	20.3		lenel	2.5			
pit 1	1400/1	1033	Fine	. 49	C	3	20.8	31.7	1011	ζ°.			
	12 /7/221	1223	Direct	Ç	0	9	7.00	31./	(44)	3			
Prt 8	12/2/20H	1105	Mich	9		ca Ca	20. 1	31 /	1011	3.6			
	11- (a-jos) 1	1,50%	Fine	ن.	5	9	3-11-6	33. 1	104/	3.6			
								-/					
			ļ					/					

	Name & Designation Si	gnature	<u>Date</u>	
Field Operator:	Ting Wai Kin (Safety Officer [RenoPipe])	A	12/1/221	
Laboratory Staff:				
Checked by:				
ENVIRONMENTAL RESCURCES MAN	AGEMENT .	13		ENVIRONMENTAL PROTECTION DEPARTMENT
		-		



Contract no. 13/WSD/16 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

Sampling equipment used:	Dates calibrated
PGM-2500 (QRAE III)	28 Jul 2020

Sample location	Date of measurement	Sampling time			Monitoring w	vells / Surface G	as Emission		
			Weather condition	Balance gas (%)	Flammable gas (methane %)	Carbon monoxide(%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
Atea A	13 -7-2021	0830	Fine	0	0	D.	204	30/1609	38
	13-7-2021	(350	Fine	o o	Q .	0	20.4	3~/1008	2.3
_ .	33-7-2021	1720	Fire	0	0	0	20.4	32/1007	3.5
ATLA S	13-7-2021	0 8 47	Fire	0	Д	0	20.9	30/1004	2.3
	12-7-2021	(34)	Five	0	٥	٥	7.0.9	32/1008	2.5
	15-7-2021	1645	Fire	0	0	0	20.9	32/1007	2.5
								1	
								 	<u></u>
								/	
								/	

ENVIRONMENTAL RESUJECES IVIA	NACTEMENT :		13	ENVIRONMENTAL PROTECTION DEPARTMENT
Checked by: ENVIRONMENTAL RESOURCES MA	Chan on for (foreman)	H.	13-7-2021	
Laboratory Staff:				
Field Operator:	Ting Wai Kin (Safety Officer [Renol	Pipe])	13-7-2021	
	ivanie de Designacion	<u>Pisnamie</u>	Date	



Contract no. 13/WSD/16 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

Name & Designation

Date of measurement:

Sampling equipment used:	Dates calibrated
PGM-2500 (QRAE III)	28 Jul 2020

Sample location	Date of measurement	Sampling time	Monitoring wells / Surface Gas Emission						
-			Weather condition	Balance gas (%)	Flammable gas (methane %)	Carbon monoxide(%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
CH-FC 8138	13/7/2021	0822	Fine	. 0	0	0	20.9	32/1008	2.5
	13/7/2021	1322	Fine	0	0	0	20.8	34/ (00)	2-2
CHIFC OTH	1) 7 my	ავიი	Fine	С		o	70_g	32/ (00)	2.5
	1317 roz1	1400	Pine	9	0		که ۲	34 / (00)	5-2
prt D	(3)7/m21	0915	Pine	0	0	3	20.19	32/ 1001	1
·	13/7/02/	1412	tine	0	0	. 0	20-6	34/100}	E.
2 Fif	13/7 2021	2925	Fine	0	0	0	20-8	32/ 1009	В
	13 7 -04		Fine	0	Ð	O	ا مرد	34 / (20)	8
137 prt C	13/7/2021	3145	line	D	0	D	ا ۔ در	3~ / [20]	7
	13/7/02/	1 የቀላ	12ine	0.	P	Ð	70- f	34 / 1007	字
134 bid B	13 7 2021	2622	Pine	0	0	0	20-8	32/ (00)	8-6
	13[7]2021	1455	Fine	ъ	0	Ð	>ນູ(ໍ	34 / 120}	8-6
137 p- 18	13/7/2021		Pine	ю	0	D	>0_{	32/ 6005	8-3
	N00/5 1	1202	rine		0	5	كنا	ال ال ال	g_3

Signature

Date



Contract no. 13/WSD/16
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

Name & Designation

Sampling equipment used:	Dates calibrated
PGM-2500 (QRAE (II)	28 Jul 2020

Sample location	Date of measurement	Sampling time	Monitoring wells / Surface Gas Emission							
			Weather condition	Balance gas (%)	Flammable gas (methane %)	Carbon monoxide(%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)	
wpr.	الادر (٦/٦)	1015	Fine	0	9	0	20-1	32 / 1001	1.8	
	13/7/2021	12/2	Fine	ą.	0	0	20-9	34 / (007	2_ &	
WPR 2	() (7/202!	(325	Fine	٥		o	. 20-P	32/ (20)	3-2	
	13 /7 DON	isus	Fine	٥	0	٥	<u>ک</u> -در	34 / (20)	3.5	
WPZ3	(3 (7 (xxx)	1045	Pine	٥	0	0	20-9	12/ (305)	2-8	
	HOE/4/ 51	(४५5	Fine	ي	0	5	20.5	34 / 1007	2~8	
£ 759	13/3/201	1055	Fine		0	۵)_ن<	12/ (20)	5	
	13/7/2021	1222	ine	O	0	o	7.00	34 / (007	5	
Prt B	(3/7/2021	1108	Fine	o	2	0	٧.٥٢	32/1009	3.6	
	13/7/2021	1,002	Fine	٠.	3	0	20.9	34/(007	3.6	
								1		
								- /		

Field Operator:	Ting Wai Kin (Safety Officer [RenoPipe])	A	13 /7/2021	
Laboratory Staff:				
Checked by:				
ENVIRONMENTAL RESOURCES MANAGEMEN	NT -	13		ENVIRONMENTAL PROTECTION DEPARTMENT



Contract no. 13/WSD/16 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
PGM-2500 (QRAE III)	28 Jul 2020

. 7.	Date of measurement	Sampling time	Monitoring wells / Surface Gas Emission						
			Weather condition	Balance gas (%)	Flammable gas (methane %)	Carbon monoxide(%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
Area A	14-7-204	0830	Fire	ō	0	ē	20.9	30 / 100%	7.8
	14-7-204	1330	Fire	à	0	O .	20.9	30 / 1008	3.5
	14-7-221	1700	Finz	0	0	0	20.9	32/1006	23
Area B	14-7-2021	0849	Fine	0	C	ð	20.3	30/1008	2.5
	14-7-2011		Fire	0	٥	C	20.9	30/1008	Z.×
	14-7-121	164>	Fine	0	٥	3	20.9	3c/ 1006	25
	:							1	
								/	
								1	
						-		 	

	Name & Designation	Signature	<u>Date</u>	
Field Operator:	Ting Wai Kin (Safety Officer [RenoPip	pe]) ∯	14-7-2021	
Laboratory Staff:				
Checked by:	CHON CHI FULL (FREEZAM)	bţ	14-4-2021	
ENVIRONMENTAL RESOURCES MA	NAGEMENT .	-		ENVIRONMENTAL PROTECTION DEPARTMENT

13



Contract no. 13/WSD/16 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

Sampling equipment used:	Dates calibrated
PGM-2500 (QRAE II.)	28 Jul 2020

Sample location	Date of measurement	Sampling time	Monitoring wells / Surface Gas Emission						
			Weather condition	Balance gas (%)	Flammable gas (methane %)	Carbon monoxide(%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
CH-FC 838	14/7(20)	৽৪১১	Fine	פ	0	0	20.8	31/ 1005	2.5
	(4/7 m)	1322	Fine	o	2	. 0	2σ. 🕈	33 / (20)	2-8
CH FC 04B1	(4/7/2021	บใจง	Pine	0	0	o	20_₹	31/ [06]	2.5
	14 17 2021	1400	Fine	9	O	0	٧ _ و	33 / (20)	5-2
pit D	(4 /7 m)	0915	Line	0	10	ې	ع، مد	31 / (601	7
`	144 1711	1412	- Hac	0	0	0) J. (33 / (00}	
prt C	14 /7 (W)	2925	Pine	0	0	0	ا ٢٠٠٠	31/ 1001	E
132	14/7/21	1425	Fine	0	٥	D	ع م ک	33 / (00}	8
137 pit C	14. (7) Just	_ ১१४১	Fine		D.	D G	ا مرد	31 / (24)	+
	(4/7 W)	1445	Fine	0,	-0	D	20_ €	33 / (20)	7
137 bid B	16 /7 (m)	2877	Fine	0	D	oʻ	20-1	31 / (00)	8-6
	(4)7 NON	[५55	line	ō	0	D	≫ູ(33 / (20)	£-6
137 pr (1)	الادر (1 / 4)	1005	Eine		0	D	٧-٥٧	31 / (00)	8-3
	(4 /7/2021	1202	Fine	2	0	. 0	€ کور ا	3) / (06)	g_}

Pield Operator:	Ting Wai Kin (Safety Officer [RenoPipe])	A)	12 (3/2021)	
Laboratory Staff:				
Checked by:				
ENVIRONMENTAL RESOURCES MANAGE	MENT	13	•	Environmental Protection Department



Contract no. 13/WSD/16
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

Sampling equipment used:	Dates calibrated
PGM-2500 (QRAE III)	28 Jul 2020

Sample location	Date of measurement	Sampling time	Monitoring wells / Surface Gas Emission							
			Weather condition	Balance gas (%)	Flammable gas (methane %)	Carbon monoxide(%)	Oxygen (%)	_	re (mbar)	Remark Depth (m)
WPR.	14/7/2021	ials	Fine	9	9	0	20-8	31 /	1006	2.8
	14/7 (2021	(5)5	Fin-e	3	. 0	0	20-8	33 /	(33)	2_ €
WPRZ	الادر/ 1/4)		Fine	ی	. ,	0	. >υ-°	31 /	100)	3-2
	(4/7/20x1	しょうとく	Fine	0	0	ם	20-9	33 /	100)	3-5
WPR3	(4 /7 (xxx)	1045	Fine	٥	0	0	20-1	31 /	(00)	J- 6
	14/7/2021	1545	Rine	٥	0	<u> </u>	20.5	33 /	(out	2.8
4 770	14 /3/221	1055	Fine	0	_ 0	ه	٧-١	31 /	[27]	5
	14/7/22/	1222	Fine	0	0	o o	٧.٢	33 /	(50)	7
Pit B	14 /7/20H	विक्	Fine	ó	2	0	۷۔ور	H /	1001	3_6
	14 /7/70×1	5000)	Fine	<i>o.</i>	۵	0	کن ۲	14	1007	3,6
	 				,			 /		
									,	

	Name & Designation	<u>Signature</u>	<u>Date</u>	
Field Operator:	Ting Wai Kin (Safety Officer [RenoPipe	A C	14 /7 /2021	
Laboratory Staff:	•			
Checked by:	-			
Environmental Resources Manageme	NI .		13	Environmental Protection Department



Contract no. 13/WSD/16 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
PGM-250C (QRAE III)	28 Jul 2020

	Date of measurement	Sampling time	Monitoring wells / Surface Gas Emission							
		Weather condition	Balance gas (%)	Flammable gas (methane %)	Carbon monoxide(%)	Oxygen (%)	Temp (°C) / Pressure (mber)	Remark Depth (m)		
Aren A	15-7-2021	0830	Fine	0	3	j j	209	31 / 1009	7.7	
	15-7-201	1330	Fine	Đ	0	o o	20.9	35/1008	ζ.×	
	15-7-2021	1700	Five	3	ō.	,0	229	32/1007	73	
Area B	15-7-2021	0843	Fire	2	0	0	20.3	31 /1009	2.5	
	15-7-2021	1343	FILE	3	0	0	20.4	73 / 1003	2.5	
	15-7-2021	1647	15,28	0	0	0	20.9	72/1007	2.5	
	1							1		
								/		
	_							1. /,		

Name & Designation Signature Date 15-7-2041 Ting Wai Kin (Safety Officer [RenoPipe]) Field Operator: Laboratory Staff: Checked by: CHAN EH TAI (FARMAN) 15 7 - 3031 ENVIRONMENTAL RESOURCES MANAGEMENT ENVIRONMENTAL PROTECTION DEPARTMENT 13



Contract no. 13/WSD/16 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
PGM-2500 (QRAE III)	28 Jul 2020
·	

Sample location	Date of measurement	Sampling time	Monitoring wells / Surface Gas Emission						
			Weather condition	Balance gas (%)	Flammable gas (methane %)	Carbon monoxide(%)	Охудеп (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
CH-FC 8738	15 / 2021	0855	Fine	פ	0	0	20.8	32/1001	2.5
	15/7201	1322	line	v	0	0	20_8	34/ (wo)	2.5
CH FC 0464		ავია	Fine	0	0	o	کی ٍ و ح	١٩٧ / (٥٥٩	5.2
	12/1/07	1400	Fine	D	٥	0	که ٍ ﴿	34 / (00)	2-7
pitD	15 7 702	०९।ऽ	Fine	0	10	٥	20.8	12/ (008	
•	15 7 / 21	1412	Fine	D	G	0	20-8	34/ (00)	1
PT C	15/7/02/	2975	Fine	0	0	0	ا ال	3-/ (001	В
	1x 7 2021	1425	Pine	0	۵	D	20.9	14 / (00)	8
137 prt C	15 7 702	०१५८	Fine	0	۵	٦	ا _ صد	32/(80)	7
<u> </u>	15 7 1002	1445	tine	0,	10	D	≥o_ (34 / (30)	7
137 bid B	15 7 701	٥٤٦٢	Hue	0	0	0	20-8	32/ (00)	8-6
	(5)} 2021	1455	Pine	10	0	Ð	>ນູ (34/ (00)	£-6
137 p-18	18 } [20)1	[005	Pine	0	0	D	>0_€	32 / louf	£-3
	12 3 my	1708	Fine		0	5	>u. f	34/(20)	g_3

Name & Designation

Signature

Date

Field Operator:

Ting Wai Kin (Safety Officer [RenoPipe])

15 [7/2021

Laboratory Staff:

Checked by:

ENVIRONMENTAL RESOURCES MANAGEMENT

13

ENVIRONMENTAL PROTECTION DEPARTMENT



Contract no. 13/WSD/16 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

Name & Designation

Sampling equipment used:	Dates calibrated
PGM-2500 (QRAE III)	28 Jul 2020 .

Sample location	Date of measurement	Sampling time	Monitoring wells / Surface Gas Emission							
			Weather condition	Balance gas (%)	Flammable gas (methane %)	Carbon monoxide(%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)	
WPR.	الادد (٦/ ١٢)	1015	Fine	9	-	0	20- 8	32 / 1001	2_8	
	15/7/2021	1515	Fine	o o	0	0	٧- صد	34/ (00)	2-8	
WPRZ	17 17 (2021	1972	Fing	٥		٥	20-9	32 / (00)	3-2	
	15 /7 /2N	(22)2	Fige	0	0	p	ا/ ي	34 / (20)	3.5	
WPR3	אנילן לין אין אין אין אין אין אין אין אין אין א	1045	Pine	0	0	9	20-1	32/ [009	5-8	
	15/7/2021	1745	h-ing	ی	0	D	20.5	34/ (20)	2-3	
17:0	15 /3/2021	1055	Pine	0	0	a ·	>0_₹	3 / (20)	5	
	17/3/2021	1755	[-iac	0	0	0	ו טער	34 / 1005	7.	
Prif B	15/7/2021	११०४	Fine	o	2	0	۲ مر	32 / (00)	3.6	
·	15/2/2021	(60%	Fine	٥	٥	9	>0. ₹	34 / loub	3,6	
	-		 					/	<u> </u>	
			-			<u> </u>		 	 	
				-				 ',	-	

	Name & Designation	Signature	<u>Date</u>		
Field Operator:	Ting Wai Kin (Safety Officer [RenoPi	pe]) $\#$	15 /7 /2021	•	
Laboratory Staff:					
Checked by:					
Environmental Resources Manageme	- 100				ENVIRONMENTAL PROTECTION DEPARTMENT
			13		



Contract no. 13/WSD/16
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
PGM-2500 (QRAE III)	28 Jul 2020

Sample location	Date of measurement	Sampling time	Monitoring wells / Surface Gas Emission							
			Weather condition	Balance gas (%)	Flammable gas (methane %)	Carbon monoxide(%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)	
ATZA A	16 -7 -2021	0830	Rain	a	0	0	20,4	29 / 10:0	7.7	
	10-7-2021	1330	Rajo	0	J	Ĉ	20-9	30/100%	7.7	
· <u> </u>	16-7-2021	1700	Ran	0	0	0	203	29/1006	7.3	
Area B	16-7-2011	€84x	Rain	c	0	ð.	20.9	29/1010	2.8	
	16-7-2021	1348	Rain	0	0	e	20.4	30 / 1003	2.7	
	16-7-2021	1642	Rain	0	0	0	20.9	23/106	2.5	
·								//		
								1		
	+				.,					

INVESTIGATION OF THE PROPERTY OF THE	· ·	1	13	ENVIRONMENTAL PROTECTION DEPARTMENT
Checked by: ENVIRONMENTAL RESOURCES MAY	CHAN CHI FOR (TOTERN)	7of	16-7-204.	
Laboratory Staff:				
Field Operator:	Ting Wai Kin (Safety Officer [RenoF	P:pe])	16-7-2021	
	TABILLE OF DESIGNATION	Signature	Date	

Acuity Sustainability Consulting Limited



Contract no. 13/WSD/16 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
PGM-2500 (QRAE III)	28 Jul 2020

Sample Iocation	Date of measurement	Sampling time	, , , , , , , , , , , , , , , , , , ,	· · · · · · · · · · · · · · · · · · ·	Monitoring w	vells / Surface C	as Emission		
			Weather condition	Balance gas (%)	Flammable gas (methane %)	Carbon monoxide(%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
CH-FC 8138	16/7/2021	2880	Phin	9	0	0	20.8	30/100	2-5
	16 17 x0X	1322	Rbin	o	9	o	20.7	3 . / (007	5-2
CHIFC 0464	(6 (+ N))	งใจจ	Pherin	0	0	0	20_9) "/ (30)	2.5
·	16 (7 JUN	1400	Rain	9	O	0	20_9	30/ (20)	5-2
pred	\(\(\frac{1}{2}\) \ \(\frac{1}{2}\)	०९।ऽ	Rain	0	0	2	ع، مد	30/ (00)	1
	1500/4]	1412	Rein	D	0		20. f	30/ (00)	ī
Pit C	16 (7/2021	2925	Phin	٥	D		ا ٢٠٠٠	30/ (00)	É
	(6 17 /WH	<u></u> የቀንሄ	Rein	٥	D	O	که ۲	30/(00)	é
137 prt C	16 7 2021	2480	Prin	0	0	D	ا _ صد	10/ (00)	7
<u> </u>	16 (7 /2021	1445	itain	0.	P	Ð	2-∞_ (30/ (00}	7
137 bid B	16/7/2021	2622	Rain	0	0	0	20-8	30/100	8-6
	(6 /7 (2021	1455	Phin	10	0	Ð	>ນູ (30/ (00)	8-6
137 pr (A)	16 13 10021	₹0 0}	Rein	0	0	D	>0_{	30/(009	8-3
<u> </u>	16 /7/xx	1202	line	2	0	9	70_1	30/ (00)	g_3

Name & Designation

Signature ^ Date

Field Operator:

Ting Wal Kin (Safety Officer [RenoPipe])

16 [7/2021

Laboratory Staff:

Checked by:

ENVIRONMENTAL RESOURCES MANAGEMENT

ENVIRONMENTAL PROTECTION DEPARTMENT



Contract no. 13/WSD/16 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

Sampling equipment used:	Dates calibrated
PGM-2500 (QRAE III)	28 Jul 2020
	i

Sample location	Date of measurement	Sampling time			Monitoring w	/ells / Surface G	as Emission		hells mayores exhibit
			Weather condition	Balance gas (%)	Flammable gas (methane %)	Carbon monoxide(%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
WPRI	16 /3 (m)	1015	Lain	0	0	0	20.9	30 / (00)	2 - 4
	[6 /7 (x0x)	12/2	[her or	. 0	0	v	اً عد	fool / of	2-1
WPR 2	16/7 /WW	1022	Ecin	0	U	٥	ــــــــــــــــــــــــــــــــــــــ	30 / 1004	3-5
	1617 /2021	(5>5	Itania	0	0	0	20- (30/1007	3-5
WPR}	16/7/2021	1,045	Blank	9	0	U	20.9	30 / (20)	1-1
	16/7/2021	१८५१	2 min	0	O	В	20-(30 / (00)	2-1
£ 279	الادر (())	1022	lakin	0	0	٥	3-0-6	30 / (00)	5
	الادرا (1 كا	122.2	اكشائر	0	3	0	20-5	foo) \ of	5
pit B	16/7 (1/3)	1602	Rein	0	. 0	0	20.9	30 / [00]	3_6
	Kor () 2)	(605	Rain	0	i ə	٥	20-1	30 / (00)	3.6
 -								/	
								/	

	Name & Designation	Signature	<u>Date</u>	
Field Operator:	Ting Wai Kin (Safety Officer [RenoPipe	A (E	16 /7/221	
Laboratory Staff:				
Checked by:				
ENVIRONMENTAL RESOURCES MANAGENER		13		ENVIRONMENTAL PROTECTION DEPARTMENT



Contract no. 13/WSD/16 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
PGM-2500 (QRAE III)	28 Jul 2020

Sample Date of Samplir location measurement time	Sampling time									
		Weather condition	Balance gas (%)	Flammable gas (methane %)	Carbon monoxide(%)	Oxygen (%)		p (°C) / ure (mbar)	Remark Depth (m)	
Area A	17 -7-2021	0830	Fine	ą	0	0	20.8	29	/ 1006	7.7
	17-7-22	1330	Fine	0	J.	0	20.4		/ loos	22
	17-7-2521	1700	Pe	2	0	Q	20.9	28	/ 1004	Z.2,
Atea B	17-7-1021	284x	Fine	9	0	ű	20.9	23	/ 1006	2.5
	17-7-2021	1547	Fine	0	0	Q	20.9		/ \00%	2.5
	17-7-224	1645	Fina	0	0	0	20.9	28	/ 1924 /	2.5
									/	
								ļ.,		
					1			-	/, 	<u> </u>

	Name & Designation	Signature	<u>Date</u>
Field Operator:	Ting Wai Kin (Safety Officer [RenoPig	oe]) 🛱	17-7-2021

Laboratory Staff:

Checked by: CHANI CHI TOI (FARMAN) By 17-7-2021

ENVIRONMENTAL RESOURCES MANAGEMENT

ENVIRONMENTAL PROTECTION DEPARTMENT



Contract no. 13/WSD/16 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
PGM-2500 (QRAE III)	28 Jul 2020

Sample location	Date of measurement	Sampling time	Moritoring wells / Surface Gas Emission							4 1
:			Weather condition	Balance gas (%)	Flammable gas (methane %)	Carbon monoxide(%)	Oxygen (%)		р (°C) / ше (шbаг)	Remark Depth (m)
CH-FC F138		্ ১৪১১	tine	D	0	0	20.8	71/	1006	2.5
	الارد أ ﴿ [[[ا		Frint	D	٥	0	20.8	30 /	1004	5-2
CH-FC 0464	1717124		tine	0	0	o	20_₹	14/	100	2.5
	14 1 7 Kerel & 1		Fine	9	٥	0	که ۲	30 /	(304	5-2
pit D	الاقد / 1 / ا		Fine	0	0	5	ع، ص	ንኝ /	(006	1
	Mex 1 1 1		Fine	0	0	0	20-8	30 /	(wY	1
pit C	1717171		Fine	0	0	0	20_9	29	1000	8
,	17/7/1	<u>]</u> \\\	Pine	0	Ð	O	20.8	30 /	1004	8
137 prt C	17/7/2021		Fine	0	ō.	ъ	ا ر صد	メ ,	1 206	7
	xx/f/ A	ን የሃሃ	Fine	0	v	0.	20_ f	30	(004	7
134 bid B	17171 FI	0 622	Fine	0	0	0.	10_{	>5	/ (20)	8-6
	(7/7/2m)	1455	Fine	-0	0	Ð	>ນູ (ໍ	30	/ (ouy	S-6
137 pr (A)	13 17 P	1002	pine	0	0	D	20-6	75	(100	F-3
	1404/1/1	1202	Fine	2	0	0	کنر ا	30	1004	g_3

Name & Designation

Signature

99 144 4

Ting Wai Kin (Safety Officer [RenoPipe])

17 (7/2021

<u>Date</u>

Field Operator:
Laboratory Staff:

Checked by:

ENVIRONMENTAL RESOURCES MANAGEMENT

Environmental Protection Department



Contract no. 13/WSD/16 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

Name & Designation

Sampling equipment used:	Dates calibrated
PGM-2500 (QRAE III)	28 Jul 2020

Sample location	Date of measurement	Sampling time	Monitoring wells / Surface Gas Emission							
			Weather condition	Balance gas (%)	Flammable gas (methane %)	Carbon monoxide(%)	Oxygen (%)		o (°C) / re (mbar)	Remark Depth (m)
WP2"	14(2)11	1015	Fine	0	20	0	20. (29/	طنور	2.8
	17/7 (2021	1515	Pine	٥	. 0	0	20-9	30/	(004	3−8
WPRZ	17 17 (2021	(325	Pine	ی		ō	20-9	25/	1306	3-5
. 85.5	13 (7 /2) N	เรวรั	Bine	0	0	D	20_₹	32/	ĺœΨ	3.5
WPR3	19 /7 (WXI	1045	Pine	0	9	9	20-9	19/	loul	2-°6
	1 13/2021	1545	Pine	3	0	บ	20.1	30/	(00)	2.8
f tig	14 /3/2021	1055	1-14-5		0	3	>⊍_{	12/	(206	5
5.7.0	اردد/1/ (ا	1755	Fine			0	۲_در	30/	1004	5
Pit B	1) 17/20H	1125	Fine	o o	2	9). o.C	21/	doc)	3_6
	13/3/2021	1,002	Pine	<u> </u>	3	٥	70-9	30 /	V00)	3,6
								/		
	 							/		

		- Lines	1000			
Field Operator:	Ting Wai Kin (Safety Officer [RenoPipe])	A	13/7/2021	-		
Laboratory Staff:						
Checked by:						
ENVIRONMENTAL RESOURCES MANAGEME	NTP					
	,	13			Environmental Protection Department	
	•					



Contract no. 13/WSD/16 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
PGM-2500 (QRAE III)	28 Jul 2020

	Date of measurement	Sampling time	Monitoring wells / Surface Gas Emission							
			Weather condition	Balance gas (%)	Flammable gas (methane %)	Carbon monoxide(%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)	
Hoza A	19-7-2021	08%	Fire	3	0	0	20.4	26/6072	7.7	
	9-7-2024	1330	Fine	ĉ	0	0	25-4	24/102	7.5	
	19-7-2021	1700	File	· · · · · · · · · · · · · · · · · · ·	C	c	20.5	25/[00]	2.3	
Acea B	19-7-2021	0 <u>8</u> 47	Fire	C	C	0	29.5	26/1002	2.5	
	19-7-20-4	1548	Flag	0	0	0	20.9	25/1202	2 >	
	19-7-224	1643	Fine	0	0	0	20.9	25/1001	25	
			***					/		
								1		
								/		
								/		

Name & Designation

Signature

Date

Field Operator:

Ting Wai Kin (Safety Officer [RencPipe])

19-7-2021

Laboratory Staff:

Checked by:

F. Chan (Foreinan

. 61 (9-7- wy

ENVIRONMENTAL RESOURCES MANAGEMENT

13

ENVIRONMENTAL PROTECTION DEPARTMENT



Contract no. 13/WSD/16 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

Sampling equipment used:	Dates calibrated
PGM-2500 (QRAE III)	28 Jul 2020

Sample location	Date of measurement	Sampling time	Monitoring wells / Surface Gas Bmission						
			Weather condition	Balance gas (%)	Flammable gas (methane %)	Carbon monoxide(%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
CH-FC 838		5280	tine	Ð	0	0	20.9	27/1003	2-5
	17 (20)	1322	Fine	o	0	0	20.8	27/1001	2-5
CH-FC 0464		งใจจ	Fine	0	•	0	20_{	pt / (20)	2.5
	1(/3 m)	1420	<i>Fine</i>	7	J	0	20_9	27/1001	5-2
prt D	KOK []	0915	Fine	0	0	5	20.8	27/60)	1
· · · · · · · · · · · · · · · · · · ·	19 7 Day	1412	Fine	0	ø	0	25-1	27/100!	1
prt C	וציען דין א	2925	fine	0	0	0	20_9	27/ [20]	8
	Med F 1	1428	Pin &	0	Ð	0	20.8	1)/(001	Š
137 pr(C	191.7 m	0145	line	0	D.	D	ا مرد	>} / (00)	Ŧ
	15/7/221	1 የ ሃ ፕ	Pine	0	P	٥	Σφ_ [27/(001	7
137 bil B	19/7/2021	2622	Fine	0	0	0	20-8	27/ (003	5-6
	19/7/2021	1455	Fine	•	0	Ð	≫ູ(27/1601	8-6
137 P- (B	19/7 [WI	1008	Pine	р	0	D	>0_4	y7/100}	8-3
· · · · · · · · · · · · · · · · · · ·	14 (1 / 1)	1202	Pine	0	0	9	کی ا	27/1001	g_3

ENVIRONMENTAL RESOURCES MANA	GEMENT .	13		ENVIRONMENTAL PROTECTION DEPARTMENT
Checked by:				
Laboratory Staff:				
Field Operator:	Ting Wai Kin (Safety Officer [RenoPipe])	\$	14 13/2021	
	Name & Designation Sig	nature	<u>Date</u>	



Contract no. 13/WSD/16 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

Name & Designation

Date of measurement:

Sampling equipment used:	Dates calibrated
PGM-2500 (QRAE III)	28 Jul 2020

Sample location	Date of measurement	Sampling time	Monitoring wells / Surface Gas Emission								
			Weather condition	Balance gas (%)	Flammable gas (methane %)	Carbon monoxide(%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)		
WPR'	1402/1	1215	Fire	0	20	0	20-8	27 / (00)	2.8		
	Mex) 5/11	(2/2)	Fine	ی	. 0	0	20-1	12) / (4	2_8		
WPR 2	16 17 /2021		Fine	٥		0)- oc.	27 / (20)	3-2		
	19 /7 /2021	1222	Fire	٥		ס	20-9	100/ 150	3-5		
WPR3	KK171 ?!	1245	1 ine	٥	0	0	20-9	100} / [00]	2- °€		
	Hee/ 6/ 1	1545	It lac	ی	0	ō	20.9	27/6001	2-0		
pit }	15 (3/2021	1055	Fine		0	٥	€ کید	27/1063	5		
- 19	19/2021	1755	Fine	0	0	0	7.00	27 / 1001	5		
Pit B	19/7/2011	!!७४	1ª Ine	ó	9	0	٧.٠٧	27 / 1003	3.6		
<u> </u>	19/7/2021	1,022	F ine	ۍ.	٥		>0_9	7) / (20)	3.6		
								/			
	·			-	-			/			

Field Operator:	Ting Wai Kin (Safety Officer [RenoPipe])	A	18 /7/2021	
Laboratory Staff:				
Checked by:			· .	
Environmental Resources Manageme	INT -	13		Environmental Protection Department

<u>Date</u>



Contract no. 13/WSD/16
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
PGM-2500 (QRAE III)	28 Jul 2020

Sample location	Date of measurement	Sampling time	Monitoring wells / Surface Gas Emission						
			Weather condition	Balance gas (%)	Flammable gas (methane %)	Carbon monoxide(%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
Acea A	20-7-204	0839	Zain	0	0	ÿ	2.0.4	25/1003	7.7
	20 -7 - 2921	1330	Roin	O	0	^	20-4	24/1083	2.7.
	20-7-2001	1700	RAIN	0	3	0	20.3	25/ 1001	7.7
Aren B	20-7-2021	08े पर	Pain	0	J	0	20.3	25/1503	2.5
	20-7-204	1345	Kasa	D	0	0	20.5	24/1002	2.5
	20-7-2021	1647	Rain	0	0	0	20,5	27/1001	2.5
	-							! /	
								/	
								 	
								 	

ENVIRONMENTAL RESOURCES MAN	AGEMENT .		13	ENVIRONMENTAL PROTECTION DEPARTMENT
Checked by:	C.F. chan (Foreman)	Tof.	20-7-20xy,	
Laboratory Staff:				
Field Operator:	Ting Wai Kin (Safety Officer [RenoP	ipe]) #	20-7-2021	
	Name & Designation	<u>Signature</u>	<u>Date</u>	

Acuity Sustainability Consulting Limited



Contract no. 13/WSD/16 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		
PGM-2500 (QRAE III)	28 Jul 2020		

Sample location	Date of measurement	Sampling time	Monitoring wells / Surface Gas Emission						
			Weather condition	Balance gas (%)	Flammable gas (methane %)	Carbon monoxide(%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
CH-FC 8738	10/7/2021	• ८८६	Rein	Ð	0	0	20.8	26/100}	1.5
	الالم كر وحد	1322	Phin	σ	D	0	۲ کی د	26/1001	2-2
CH FC 0464	1/20/7 /WX	ડ ૧૦૦	Acin	0	0	0	20_{	26/(00)	2.5
	20/7/2021	1420	Rain	9	0	0	20_9	1001 / 04	5-7
pit D_	20/7/2021	0915	lain	0	0	9	ع، ص	26/ (00)	1
·····	ν/7[»μ	1415	Plain	0	. 6	0	20-(1/00 / lool	1
D Fig	20/2 2021	2925	Rain	0	Ð	0."	Ju_ 9	100}	8
	15(7)2021	1425	Rain	0	Đ	0	20.8	26/1001	ě
137 pr(C	ひ(}かり	3996	Rain	0	0	D	ا - مح) / (m)	7
	100 \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	1447	Rain	0	10	D	20_{	76 / 1001	7
134 bid B	ועניב[7] זיב	0622	Rein	0	0	0	20-1	26/ (20)	_ {-e
	וענגן דן ניב	[५55	Rhin		0	0	>v_ (76/1001	8-6
137 17-18	w[][w]	(005	Rein	0	0	D	70-9	/ (20)	F-3
	New 17 [mx	1202	Para	0	0	o o	Ja. P	76/(001	f-}

Name & Designation

<u>Date</u>

Signature

Field Operator:

Ting Wai Kin (Safety Officer [RenoPipe])

10 [7/2021

Laboratory Staff:

Checked by:

ENVIRONMENTAL RESOURCES MANAGEMENT

ENVIRONMENTAL PROTECTION DEPARTMENT



Contract no. 13/WSD/16 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

Sampling equipment used:	Dates calibrated
PGM-2500 (QRAE III)	28 Jul 2020

Sample location	Date of measurement	Sampling time	Monitoring wells / Surface Gas Emission								
			Weather condition	Balance gas (%)	Flammable gas (methane %)	Carbon monoxide(%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)		
WPP.	וענבן דן מנ	1015	Rain	9	-	D	20-9	26/ (00)	2-8		
	>0/7/2021	1515	Rain	٥	. 0	0	20-9	26/ (303	2_8		
WPLZ	Nex/ 1/ 00	7461	Regar	ی	. 0	0	. Do - 8	26/ 100}	3-2		
	120 /7/2021	いひえ	pain	0	0	o	20-€	26 / 1001	3.5		
WPR3	Nex 17 (2)	1045	Min	٥	0	0	20-1	26/ (00)	2-3		
	74 17 W	1542	Pain	ي	0	Ö	20-1	1001	2-0		
f 1.0	14cx/{/	1055	h.i.	0	0	3	20_9	y6 / (ou)	5		
	10 /7/ Oc	1222	Rivin	0	0	و	20_ Y	26/ (00)	5		
pri B	1 x /2/2021	1105	Phin	o	2	0	7_∞€	(المر	3.6		
	रिक्तेंद्री वर	(602	Rein	ن.	٥	0	٧٠.٩	y6 / (ou1	3.6		
						`		/			
								 			

	Name & Designation	Signature	<u>Date</u>	
Field Operator:	Ting Wai Kin (Safety Officer [RenoPip	Je ([ec	20 /7 /2021	
Laboratory Staff;				
Checked by:				
ENVIRONMENTAL RESOURCES MANAGEM	mam .			
ENVIRONMENTAL RESOURCES IVENUAGEM			13	Environmental Protection Department



Contract no. 13/WSD/16 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
PGM-2500 (QRAE III)	28 Jul 2020

Sample location	Date of measurement	Ę.	Sampling time			Monitoring v	vells / Surface G	as Emission	· · · · · · · · · · · · · · · · · · ·	
			Weather condition	Balance gas (%)	Flammable gas (methanc %)	Carbon monoxide(%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)	
Hren A	21-7-2021	0.830	Zein	0	0	0	2-0.3	26/1003	Υ.Υ	
	21-7-2021	1350	Pain	J	0	0	203	Z7/1007	7.	
1 . 17	21-7-24	1709	Ross	0	0	0	20.3	27/1001	7.7	
ALEXB	21-7-264	ગ <i>કેલ</i>	Fain	3	D D	Ö	20.5	25/1007	2.>	
	21-7-2021	(34)	Pain	3	0	0	20.5	27/1907	2.8	
<u></u>	21-7-221	1645	Rain	0	0	8	10.4	27/ (901	2.Υ	
					-					
							-	/,	<u> </u>	
		· - · · · · · · · · · · · · · · · · · ·						7		
								/		
							· · · · · · · · · · · · · · · · · · ·	-/ /		
				_						

Name & Designation

Signature

Field Operator:

Ting Wai Kin (Safety Officer [RenoPipe])

21-7-2021

Laboratory Staff:

Checked by:

C.F. chan

Toler m

Top.

21-7-1021.

Environmental Resources Management

13

ENVIRONMENTAL PROTECTION DEPARTMENT



Contract no. 13/WSD/16
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
PGM-2500 (QRAE III)	28 Jul 2020

Sample location	Date of measurement	Sampling time	Monitoring wells / Surface Gas Emission								
			Weather condition	Balance gas (%)	Flammaole gas (methane %)	Carbon monoxide(%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)		
CH-FC H38	1/2/2011	0855	Rein	ਹ	0	0	20.8	27/604	2.5		
	21/7/2021	1322	Rein	0	9	0	20.8	27/ (00)	2-2		
CHFC 0464	21/7/2021	0900	Pain	0		0	کی و ≤	>)/1004	2.5		
	21/7 (2021	1420	Pain	9	0	0	20.1	7} / (00 K	5-2		
<u> </u>	2//2/2021	०९(5	Rain	0		ə	20.8	y) /1204	1		
·	2/2/2021	1412	Ruin	O	Đ	0	20-6	27/1002	1		
Pit C	21/7/2021		Ren	0	0	0	> ს_ የ	77 / 1004	8		
	2/7/2021		Rein	Ö	Ð	0	20. P	2) / (00)	દ		
137 prt C	Key 2/18		Rein		۵	0	٩_٥٧	77/(204			
<u>'</u>	>1 7 m2		Ilein	0	10	D	Σ∞_(27 / (00)	7		
137 bid B	21/7/1021	2622	Rain	0	0	0	20-1	27/1004	5-6		
	거 / 4 / ** 개	ી ૫૬૬	Phin	- 0	0	D	≫ູ (77/1002	8-6		
137 p (B	21/7/2021	(005	Rain	Ð	0	D	20-6	>> / (904)	£-3		
Ĺ	21(7/2021	1202	Luin		0	5	2028	77/(202	g_}		

Name & Designation Signature Date
Field Operator: Ting Wai Kin (Safety Officer [RenoPipe]) \(\frac{1}{2} \) \(\frac{



Contract no. 13/WSD/16
Mainlaying in Tseung Kwan O
Penta-Ocean - Concentric Joint Venture
Landfill Gas Monitoring —Field Measurement Recording Sheet

Name of site:

13/WSD/16 - Main/aying in Tseung Kwan O

Sampling equipment used:	Dates calibrated
PGM-2500 (QRAE III)	28 Jul 2020
	<u> </u>

location measure	Date of measurement	1	1	1	Sampling time	Monitoring wells / Surface Gas Emission							
			Weather condition	Balance gas (%)	Flammable gas (methane %)	Carbon monoxide(%)	Oxygen (%)	Temp (°C) / Pressure (mbar	Remark Depth (m)				
	ソ / 7 2021	1015	kain	9	9	0	20- 9	27 / 104	2.8				
	V /7 (2021	1515	Rein	5	. 0	0	اً ۔ صد	200) / fr	3-8				
WPR 2	1/2021	1272	lain	0		٥	. 20-f	27/ 304	3-2				
	אנבל לן וע	しょとえ	Rein	0	0	G	20-9	2) / (40)	3.5				
WPR3	14cc) 1/12	1045	/thin	Q	0	0	20-1	27/ 1002	2-8				
	71 /3/2071	1545	Hein	3	0	٥	20.9	17) / 1004	5-8				
4 779	11 /3/2021	1055	Rain	0	0	a	>0_{	77/ (00)	5				
	ועבנ/ג/ וג	1755	Rein	0	0	o o	<u> איר</u> ניער	m) / (00)	5				
Prt B	KOC/4) 14		Kura	o o	2	0	٧.٠٧	77/ (004	3_6				
·	21 /7/021	(60%	Phin	٠	3	Þ	اً وحد	y} / looz	3.6				
								/					
					1			//					

The state of the s		13			ENVIRONMENTAL PROTECTION	DEPARIMENT
ENVIRONMENTAL RESOURCES MANAGEMEN	NT .				ENVIRONMENTAL PROTECTION	Des and dist
Checked by:						
Laboratory Staff:						
Field Operator:	Ting Wai Kin (Safety Officer [RenoPipe])	A	21 /7/2021	•		
	Martie & Designation 5	ranarinte	Date	-		



Contract no. 13/WSD/16 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
PGM-2500 (QRAE III)	28 Jul 2020

Sample location	Date of measurement	Sampling time			Monitoring w	vells / Surface G	as Emission	· AP - 10 - 40 - 10 - 10 - 10 - 10 - 10 - 10	AND THE STREET
			Weather condition	Balance gas (%)	Flammable gas (methane %)	Carbon monoxide(%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
	22-7-204	0830	File	0	0	0	<u></u> ∠c. 4	28/1002	7.7
	20-7-2021	1330	Fine	0	0	g .	20.3	31/1001	3.5
A	22-7-2021	1750	Fire	Û	2	C	203	31 / 999	2.7.
ATRA B	22-7-2021	€ ટ્રેસ્∕	Fire	0	g	0	20.3	29/100	2.7
<u> </u>	22-7-204	1341	Five	£ .	;	O .	20.4	31/1201	2.4
	22-7-104	1942	Fire	G.	C	0	20,9	31/999	2.5
								- /-	
		_							
								/	
								- 4	

Name & Designation

Signature

<u>Date</u>

Field Operator:

Ting Wai Kin (Safety Officer [RenoPipe])

22-7-2021

Laboratory Staff:

Checked by:

(.F.chan Faiemen) by.

ENVIRONMENTAL RESOURCES MANAGEMENT

ENVIRONMENTAL PROTECTION DEPARTMENT



Contract no. 13/WSD/16 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
PGM-2500 (QRAE III)	28 Jul 2020

Sample location	Date of measurement	Sampling time	Monitoring wells / Surface Gas Emission							
			Weather condition	Balance gas (%)	Flammable gas (methane %)	Carbon monoxide(%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)	
CH-FC Sty8	72 17 W	2852	line	Ü	0	0	20.9	30//202	2.5	
	22/7/W21		Fine	Ð	5	0	20.9	32/1000	5-2	
CH-FC 0464			Fine	•	٥		کی و ⊆	30/ (002	2.5	
	22/7/24		Pine	5	ی	0	20. 8	32/1000	5-2	
D Fig	22 17/12/	0915	Pine	O	10	5	20.8	30 / 1002	1	
	22/7/22	1412	Ame	0	0	0	20. (32/ 1200		
Pit C	22 / 7/22		Fine	0	0	0	کی۔ ا	30 / (00)	В	
	22/7/2021		Pine	-0	a	O	20.8	3~/ (00	ğ	
137 pr(C	22 / 7 WH		Fine	0	. 0	G	ا مد	30 / 1502	7	
<u>'</u>	22/7/WY		1-ine	0	70	5) _و.۲	32/1000	7	
137 bid B	22/1/2021		Fine	0	0	0	20-1	3- / (000	3-6	
	~ / t my	१५४९	line	τ	0	Ð	>== {	32/1000	F-6	
137 pr (A)	22/1/24		Fine	ъ	0	D	20-4	30/ (001	8-3	
1	2277 754	1202	Fine	0	0	2	JU!	3~/1000	g_3	

Name & Designation

<u>Date</u>

Signature

Field Operator:

Ting Wai Kin (Safety Officer [RenoPipe])

22 [3/2021

Laboratory Staff:

Checked by:

Enveronmental Resources Management

ENVIRONMENTAL PROTECTION DEPARTMENT



Contract no. 13/WSD/16
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

Name & Designation

Date of measurement:

Sampling equipment used:	Dates calibrated
PGM-2500 (QRAE III)	28 Jul 2020

Sample location	Date of measurement	Sampling time	Monitoring wells / Surface Gas Emission							
			Weather condition	Balance gas (%)	Flammable gas (methane %)	Carbon monoxide(%)	Oxygen (%)		o (°C) /	Remark Depth (m)
WPR!	22/7/2021	کا د ز	Fine	5		0	20.9	30/	1002	2.8
	22/7/2021		Fine	5	. 0	0	١-مد	32/	(200	2-8
WPE 2	75 13 (2021	(2)2	Fine	٥	. 0	٥	. Do - P	7. /	(ov)	3-2
	22/7/2021	12272	fine	•	Ø	O	λο_(°	32/	tureo	3.5
WPR3	22 /7/WH	1045	pine	٥		-	20-1	30 /	[00]	2-B
	HOR/E/ 20	1545	Fine	೨	0	D	20.5	32/	500	2-8
pit A	12 /3/2021	1055	Fine	_ 0	0	<u>.</u>	20_9	30 /	1000	5
	22/7/2021	1755	Pine	0	o	o	٧_در	32/	(000)	5
Pit B	120/2/2021	1108	Fine	0	2	0	20.5	30	(002	3.6
·	الاصرانة/ حد	1,002	Pine	ۍ	٥		70.9	3~/	(240	3,6
								1	,	
			 	-		<u> </u>	<u>L</u>	/	/	

Field Operator:	Ting Wai Kin (Safety Officer [RenoPipa])	A	22/2/21	
Laboratory Staff:			•	
Checked by:				
Environmental Resources Manageme	INT	13		ENVIRONMENTAL PROTECTION DEPARTMENT

<u>Date</u>

Signature



Contract no. 13/WSD/16

Mainlaying in Tseung Kwan O

Penta-Ocean - Concentric Joint Venture

Landfill Gas Monitoring -Field Measurement Recording Sheet

Name of site:

13/WSD/16 - Maintaying in Tseung Kwan O

Date of measurement:

Sampling equipment used:	Dates calibrated
PGM-2500 (QRAE III)	28 Jul 2020

Sample location	Date of measurement		Sampling time			Monitoring w	ells / Surface G	as Emission	· · · · · · · · · · · · · · · · · · ·	
			Weather condition	Balance gas (%)	Flammable gas (methane %)	Carbon monoxide(%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)	
HTBA A	25-7-204	0 \$ 30	Fire	0	ű	2	20.5	29/999	2.Z	
	23-7-2021	1350	Fine	0	0	o o	206	35/437	7.7	
Λ	23-7-2021	1700	FINE	0	0	0	204	33/996	2.2	
Area B	23-7-204	0647 1347	Fine	C	e e	0	20.9	29/999	2.5	
	23-1-202-1	1645	Fire	0	0	0	20.9	35/997	2.5	
		10.07	Fine	·	0	0	20.3	33/496	2.5	
										
···	· · · · · · · · · · · · · · · · · · ·							' /		
		1		·						
	 					·		/		
	1									
					 			<u> </u>		

Name & Designation

Signature

Date

Field Operator:

Ting Wai Kin (Safety Officer [RenoPipe])

23-7-2021

Laboratory Staff:

Checked by:

C.F. Chan (Foregian)

Tot.

23-7-2421

ENVIRONMENTAL RESOURCES MANAGEMENT

13

ENVIRONMENTAL PROTECTION DEPARTMENT



Contract no. 13/WSD/16 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.

Name & Designation

	mpling equipment used:	Dates calibrated
PG	M-2500 (QRAE III)	28 Jul 2020
1		

Sample location	Date of measurement	Sampling time	Monitoring wells / Surface Gas Emission						
			Weather condition	Balance gas (%)	Flammable gas (methane %)	Carbon monoxide(%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
CH-FC FBB	13/7/1021	2855	Fine	D	0	0	20.8	31/88	2.5
	23/7/221	1322	Fine	0	0	0	20_8	33 / (1)	2.3
CH-FC 0464	23/7/2021	0900	kint	0	0	0	20.5	31 / 888	5.5
	2) /7/2511	1400	Fine	Þ	O	O	20.9	33 / (()	2-5
přt D	21 / h2V	0915	12me	0	10	0	20.8	31/999	1
<u>, </u>	11/20H	1415	12ine	0	D	0	20-6	33/ (1)	1
bit C	23/7/22/	2925	Piare	0	0	0	Ju_ 9	31 / 988	દ
	23/7/221	1425	prine	0	ð	ט	₹. صد	33 / 987	É
137 pr(C	13/7/n21	<u> </u>	Pine	0	D	G	م_مد	31 / 000	Ŧ
•	21/7/2021	<u> </u>	P-ine	6	10	Ð	≥0_ (33 / 9/4	7
137 bid B	2317/mu	2622	Fiae	. 0	0	0	20_{	31 / (3)7	£-6
, , , , , , , , , , , , , , , , , , ,	1317/2011	१५55	1-ine	-0	0	0	٣٠ (ا	33 / 999	8-6
137 p 181	الاعزاج إلا	[005	Pine		0	D	>o_{	31 / 199	8-3
	23/7/2021	1202	Fine		0	9	70.8	37 / 597	g_}}

	Name & Designation	Signature A	<u>Date</u>	
Field Operator:	Ting Wal Kin (Safety Officer [RenoPi	pe]) 🜓	13 (3/20H	
Laboratory Staff:		-		
Checked by:				
ENVIRONMENTAL RESOURCES MAN	ACEMENT	1:	3	ENVIRONMENTAL PROTECTION DEPARTMENT



Contract no. 13/WSD/16 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

Name & Designation

Date of measurement:

Sampling equipment used:	Dates calibrated
PGM-2500 (QRAE III)	28 Jul 2020

Sample location	Date of measurement	Sampling time	Monitoring wells / Surface Gas Emission							
			Weather condition	Balance gas (%)	Flammable gas (methane %)	Carbon monoxide(%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)	
WPR-1	1464 17 14	1015	Fine	0		D	20- (31 / 19	2.8	
	13/7/2021	1515	Pine	٥	0	0	20-9	33 / 0/7	2_8	
WPRZ	27, 17 (2021	(3)Z	Fine	٥	0	ی	. 20 - ₹	31 / 198	3-2	
	13 /7/2021	いろく	Fine	٥	0	D	20-9	33 / 997	3.5	
WPR3	-3 /7 (xxx)	1045	Pine	0	9	0	20-1	31 / 889	2-3	
	173 /7/2021	1242	Fine	೨	0	0	20.9	33 / 882	2-8	
A jig	13/3/2V	1055	Hne	0	0	٥ .	20-8	31 / 88	5	
	23/3/2021	1355	Fine	0	0	0	۱_در	33 / 987	5	
PIT B	140x/4/ (x	1125	Fine	0	2	0	20.8	31 / 969	3.6	
	23/7/2021	1602	Pine	υ·	2	Ş	>0. ₹	33 / { } }	3.6	
								/		
				-				1,		

Field Operator:	Ting Wai Kin (Safety Officer [RenoPipe])	A	2) (7 (2021	
Laboratory Staff:				
Checked by:	-		-	
Environmental Resources Manageme	NT .	13		Environmental Protection Department

Date

Signature



Contract no. 13/WSD/16 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
PGM-2500 (QRAE III)	28 Jul 2020

Sample location	Date of measurement	Sampling time	Monitoring wells / Surface Gas Emission						
			Weather condition	Balance gas (%)	Flammable gas (methane %)	Carbon monoxide(%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
Aper A	24 -7 -2021	03.30	Fine	0	2	0	20.3	26/998	7.2
	24-7-2021	1350	Fire	0	0	0	20.5	52/997	χ.χ
	24-7-221	1700	Fine	0	0	Ð	20.9	32/996	7.7.
Aren B	24-7-204	0247	Fire	û	J	o o	2.0.3	28/998	2. y
	24-7-2021	1345	tive	O	0	0	20.3	29/997	2.5
	24-7-2021	1942	Fine	0	f)	.0	٦.٥٩	32/996	2.5
								-/	
								/	
								/	

Name & Designation Date 24-7-2021 Ting Wai Kin (Safety Officer [RenoPipe]) Field Operator: Laboratory Staff: Checked by: C-F-chan (Foreman) ENVIRONMENTAL RESOURCES MANAGEMENT ENVIRONMENTAL PROTECTION DEPARTMENT 13



Contract no. 13/WSD/16
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

Sampling equipment used:	Dates calibrated
PGM-2500 (QRAE III)	28 Jul 2020
·	

Sample location	Date of measurement	Sampling time	Monitoring wells / Surface Gas Bmission						
			Weather condition	Balance gas (%)	Flammable gas (methane %)	Carbon monoxide(%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
CH-FC F138	24/7/2021	0855	Fine	כ	0	0	20.9	10/588	2-5
	241717021	1322	Piae	o	o o	0	کی ٍ و	32 / 35)	2-5
CHFC OHOH		งใจจ	Fae	0	0	0	20_€	30 / 888	2.5
	24 /7 /2021	1420	Fine	Ð	0	0	20.9	32/ (1)	5-2
p75 D	14(2/20x1	०९।ऽ	Pine	0	10	٥	20.8	35/580	1-5
`	24 7 WH	1415	Pine	0	0	0	30-1	32 / 197	7-5
pit C	74[]/2VI	०९२५	Fine	0	б	0	Ju_ 9	30 / 881	B
	24(7)my	1425	fine	٥	ō	O	ع مد	32 / 551	20,000
137 prt C	Kee 1 21 120 X	0145	Fine	D	D.	D	ا مد	30 / 980	ł
	24(7(202)	1447	sine	0.	9	ō	١ - ٥٠٤	32/01	7
134 bilB	24 7 121	0622	Fine	0	0	0.	20-8	30 / 508	5-6
/fs	1404 4 14	1455	Fine	•	0	Ð	>√ુ (3- / 117	£-6
137 pt (1)	Kaltlyc	1005	Pine	0	0	D	20-6	30 / 199	F-3
,	24/3/2021	१५०४	tine	0	-	2	701	3~ / 99}	8-3

Field Operator:	Name & Designation Signature Ting Wai Kin (Safety Officer [RencPipe])	ignature	Date 24 (7(2021	
Laboratory Staff:		•		
Checked by:				
ENVIRONMENTAL RESOURCES MANAGE	MENT	13		Environmental Protection Department



Contract no. 13/WSD/16 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

Sampling equipment used:	Dates calibrated
PGM-2500 (QRAE III)	28 Jul 2020 .

Sample location	Date of measurement	Sampling time	Monitoring wells / Surface Gas Emission							
			Weather condition	Balance gas (%)	Flammable gas (methane %)	Carbon monoxide(%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)	
WPR.1	الاند (٦/ ٢٤	1015	Fine	0	20	0	20-1	199 \ 05	1.8	
	24 /7 12021	(5)5	Pine.	ō	. 0	0	20-9	32/ 184	2_8	
WPRZ	24 17 (2021	1025	Pine	0		٥	. 20-9	30/10	3-2	
	24/7/2021	(222	Pin-c	0	0	D	20-9	32/5/7	3-5	
WPR3	Kec/ fl 125	1042	Fine	0	0	9	20-1	30/ 888	7-₽	
· ·	14 /7/2021	१५५5	Fine	ی	0	ō	20.5	32/ Clx	2-8	
£ 1.79	الادر/ () بعد	1055	Fine	0	0	a .	ا_ صر	30/88	5	
	24/7/2021	1222	Fine	0	0	o	۲_دد	32 / 117	5	
911 B	14 or / 2/ 24	1108	Fine	0	2	0	٧.٥٠	30/19	3.6	
,	ادمرادر عد	1,502	Fine	ن.	٥	9	70.9	3-1 997	<u>}</u> .6	
								/		
								1		

	Name & Designation	Signature	<u>Date</u>	
Field Operator:	Ting Wai Kin (Safety Officer [RenoPipe		24/7/2021	
Laboratory Staff:				
Checked by:				
ENVIRONMENTAL RESOURCES MANAGEME	NT -		13	ENVIRONMENTAL PROTECTION DEPARTMENT



Contract no. 13/WSD/16 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: PGM-2500 (QRAE III)	Dates calibrated 28 Jul 2020

Sample location	Date of measurement	Sampling time		CORRECT PORTS					
			Weather condition	Balance gas (%)	Flammable gas (methanc %)	Carbon monoxide(%)	Oxygen (%)		Remark Depth (m)
ATUA A	26-7-2021	0830	Fix	0	0	. d	20.9	29/994	23
	26-7-2021	1330	1=12	0	0	0	209	32/9617	7.7.
Δ	26-7-204	1700	Fire	0	€	0	20.4	71/046	Σ.Υ
AFEA B	26-7-204	7420		9	0	1	20.5	29/949	2,5
	26-7-204	\54Y {4Y	Fire	0	0	o	20.9	32/997	2.5
	21-1-224	\ \\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	Fle	0	C		20.4	71/996	2.5
			<u> </u>			i		_/	
								7	
· · · · · · · · · · · · · · · · · · ·				 		!		/	
	-	-	-	 		 			

Name	æ	De	aric.	rns	tic

Signature

<u>Date</u>

Field Operator:

Ting Wai Kin (Safety Officer [RenoPipe])

26-7-2021

Laboratory Staff:

Checked by:

C-Ficham (Foreman).

Tot.

26-7-2021

Environmental Resources Management

ENVIRONMENTAL PROTECTION DEPARTMENT



Contract no. 13/WSD/16
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

Sampling equipment used:	Dates calibrated
PGM-2500 (QRAE III)	28 Jul 2020
·	

Sample location	Date of measurement	Sampling time	Monitoring wells / Surface Gas Emission						÷ .
			Weather condition	Balance gas (%)	Flammable gas (methane %)	Carbon monoxide(%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
CH-FC 8138	26/7/WW	0855	Fine	Ð	0	0	20.8	31/195	2-5
	26/7/2021	1322	Pine	0	9	O	20.8	33 / 995	2-7
CH-FC 0464			pine	0	0		30 €	31 / 997	2.5
	26/7/WH	1400	Fine	9	٥	0	٧ _ ود	33 / 995	2-2
p56 D	26/7/2011	०९१५	Fine	0	10	٥	ع، ص	31 / 997	2-4
ļ	26/7/2021	१५१५	1-ine	0		0	20-6	23/ 195	2.1
Prt C	26/7/2021	2475	Pine	0	0	0	20-8	31 / 9()	B
<u></u>	2617/WH	1425	Princ	O	Ð	0	20.8	33 / 995	ě
137 ptc	161 HWH	0145	Fine	0	٥	G	ا مد	31 / 887	+
' '	26/ 7 W	1447	Fine	0	10	D	20_ (33 / 985	7
137 bid B	الافرا 7 / 16	2822	Fine	. 0	0	0.	20_{	31/35	5-6
	140x 17 184	1455	Pino	•	_ 0	Ð	>v_ (33 / ९१४	8-6
137 pr (1)	76/7/2021	(005	Fine	ь	0	0	>0_{	31 / ९९٦	8-3
	76 (7 per	1202	Fine		0	0	2028	33 / 98Y	g_3

Environmental Resources Man	ACEMENT	1	3	ENVIRONMENTAL PROTECTION DEPARTMENT
Checked by:				
Laboratory Staff:		•		
Field Operator:	Ting Wai Kin (Safety Officer [R	RenoPipe])	1400/8) 05	
	Tyaine of Designation	Signature	Date	



Contract no. 13/WSD/16 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

Name & Designation

Sampling equipment used:	Dates calibrated
PGM-2500 (QRAE III)	28 Jul 2020
	1

Sample location	Date of measurement	Sampling time	Monitoring wells / Surface Gas Emission						
			Weather condition	Balance gas (%)	Flau:mable gas (methane %)	Carbon monoxide(%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
WPR.	14 /7/2021	1215	Fine	0	20	0	20.8	31 / 497	2_8
	126 /7 (2021	1515	Pine	٥	0	0	20-6	33 / 995	2_8
WPRZ	140C) +1 gc	1272	Fine	٥	9	٥	. 20-9	31 / 997	3-2
	76 /7/2021	1272	Pine	0	G	G	20-8	33 / 994	3.5
WPR3	16 /7/2021	1045	Fine	0	0	-0	20-8	31 / 997	2-3
	HOE/E/ 9K	१४५४	Fine	0	0	0	20.9	33 / 38Y	2. گ
pit A	الاصراد / 6	1055	Fine Hine	0	0	۵	20_9	31 / 9{}	۲
	26 /7/22	1222	Hine	0	0	o o	٧٠.١	33 / 995	درا
Prt B	140x/4/ 04	1105	Fine	ø	2	0	٧.٥٠	31 / 997	3-6
	26 /2/2021	100%	Fine		٥	ə	>0_9	3) / 5(4	3.6
								/	

Field Operator:	Ting Wai Kin (Safety Officer [RenoPipe])	A	26/7/2021	
Laboratory Staff:				
Checked by:				
Environmental Resources Managem	NT .	13		Environmental Protection Department



Contract no. 13/WSD/16 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
PGM-2500 (QRAE III)	28 Jul 2020

Sample location	Date of measurement		Sampling time	Monitoring wells / Surface Gas Emission							
			Weather condition	Balance gas (%)	Flammable gas (methane %)	Carbon monoxide(%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)		
Area 4	27-7-2021	0238	Fire	Ĉ	0	0	20.8	30/997	7.5		
	21-7-200	133.1	Fine	Ĵ	3	c	29.5	34/ 99Y	2.7		
Λ	27-7-201	17:0	Fire	0	6	0	20.5	32/995	2.2		
Area B	27-7-204	3 \$ 47	Fire	S	. n	Ô	20-5	30/947	2.8		
	27-7-204	1348	Five	0	0	0	20.9	34/145	27		
	27-7-2024	1645	F/2-	0	3	0	20-3	32/995	2.5		
					 		·				
								 	 -		
								 /			
		<u> </u>	ļ					/			
	 	·			ļ			/			

Name & Designation

Signature

Date

Field Operator:

Ting Wai Kin (Safety Officer [RenoPipe])

27-7-2021

Laboratory Staff:

Checked by:

C.F. cham (foreman)

10 C

27-7-2021

ENVIRONMENTAL RESOURCES MANAGEMENT

13

ENVIRONMENTAL PROTECTION DEPARTMENT



Contract no. 13/WSD/16 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
PGM-2500 (QRAE III)	28 Jul 2020

Sample location	Date of measurement	Sampling time	Monitoring wells / Surface Gas Emission						·
			Weather condition	Balance gas (%)	Flammable gas (methane %)	Carbon monoxide(%)	Oxygen (%)	Temp (°C) / Pressure (rabar)	Remark Depth (m)
CH-FC 8138	27 17/2021	0855	1º Inc	ゼ	0	0	20.8	12 / 99}	2.5
	1 1 fc	1322	Fine	v	5	0	2ω_9	34/996	2-5
CH-FC 0+64	17 /7/ml	0900	Fine	0	_ 0	0	2-0_€	3- / 587	2.5
	27/7(2021	1400	kine	Ð	ی	0	20.9	34/196	2-7
D Fig	27/7/221	0915	12 Time	0	0	ס	ع، صد	3-/443	2.5
	27/7/14	1415	! ! ine	0	0	0	20-4	54/ 996	2.4
prt C	17/2021	<u> ৩</u> ৭১১	Fine	٥	Ð	0	ا ٢٠٠٧	32/987	8
	New 1 FC	1425	Fine	0	o	O	20.9	34/996	95
137 pr(C	27 /7 /W	3945	F îne	0	D.	D	ا - صد	3- / 997	+
,	27/7/2021	1447	Flac	0	70	Ð	2-5_ €	34/586	7
137 bid B	27 /7 fxx1	2822	Fine	0	0	0	20-8	32/ (1)	5-6
	>7 /2hox	1455	F fore	70	. 0	Ð	>v_ (′	34/996	8-6
137 p- (1)	27 /7/20X1	(005	Fine	0	0	D	20-6	32/997	£-3
	27 /7/204	1202	12 line		0	9	}0_{	74/116	g_3

Name & Designation

Date

Field Operator:

Ting Wai Kin (Safety Officer [RenoPipe])

1400/11/14

Laboratory Staff:

Checked by:

ENVIRONMENTAL RESOURCES MANAGEMENT

ENVIRONMENTAL PROTECTION DEPARTMENT

13

Signature



Contract no. 13/WSD/16
Mainlaying in Tseung Kwan O
Penta-Ocean - Concentric Joint Venture
Landfill Gas Monitoring - Field Measurement Recording Sheet

13/WSD/16 - Mainlaying in Tseung Kwan O

Date of measurement:

Name of site:

Sampling equipment used:	Dates calibrated
PGM-2500 (QRAE III)	28 Jul 2020

Sample location	Date of measurement	Sampling time	Monitoring wells / Surface Gas Emission							
			Weather condition	Balance gas (%)	Flammable gas (methane %)	Carbon monoxide(%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)	
WPR"	17/7/2021	1215	Fine	0	0	D	20.9	32 / 413	1.8	
	13 /7 (20)	1715	Fine	5	. 0	9	20-9	34/996	2_8	
WPRZ	14cx/ 17 fx		Fine	٥	. 0	٥	. 20-P	32 / 993	3-2	
	17 /7 /2V	1222	Pine	0	0	٥	20-5	34 / 986	3-5	
WPZ3	KK 17 14	1045	Fine	0	0	0	20-1	32/997	2 - B	
	17/2/2021	1545	Hine	0	0	0	20.5	34 / 996	2-8	
4. Trg	1404/4	1055	Fine	0	0	3	>0_{	32 / 497	5	
, ,	الادر / 1/ (د	1755	/-ine	0	0	o o	7.02	34/866	5	
8 <u>719</u>	K00/4/14		Fine	0	2	0	١.٥٧	32 / 997	3.6	
·	1400/is/ frc	(00%	Fine	٠.	3	Þ	>0.5	34 / 896	3.6	
								/		
	<u> </u>				ļ <u>.</u>			/		
				<u> </u>			<u>_</u>	/		
L		<u> </u>								

	Name & Designation	Signature	<u>Date</u>	
Field Operator:	Ting Wai Kin (Safety Officer [RenoPipe	A O	27/7/2021	
Laboratory Staff:				
Checked by:	÷			
ENVIRONMENTAL RESOURCES MANAGEME	NT .		,	Environmental Protection Department
			13	



Contract no. 13/WSD/16 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
PGM-2500 (QRAE III)	28 Jul 2021

Sample location	Date of measurement	Sampling time			as Emission				
			Weather condition	Balance gas (%)	Flammable gas (methane %)	Carbon monoxide(%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
Area H	28 -7-2521	0830	Fine	0	C	2	203	31/997	7.7
	28-7-204	1330	Fire	Ū	0	- 0	25.5	33/496	7.3
	28-7-204	1790	Fine Fine	0	0	0	20.3	30/946	7.7
Area B	28-1-204	0247	Fire	0	ŷ	C	20.9	51/447	2,5
	18-7-204	1548	Firz	0	C	0	20.4	33/996	2.5
	13-7-2021	1647	Fin	0	0	0	26.9	3:/ 996	2.\
								//	
	 							- /	
								 /	
								7	

ENVIRONAUM FAL RESOURCES MANAG	ement .		13	ENVIRONMENTAL PROTECTION DEPARTMENT
Checked by: ENVIRONMENTAL RESOURCES MANAGEMENTAL RESOURCE R	Cifisham (Fereman)	Tof.	28-7-2021	
Laboratory Staff:				
Field Operator:	Ting Wai Kin (Safety Officer [RencF	Pipe])	28-7-2021	
	Name & Designation	Signature	<u>Date</u>	

Acuity Sustainability Consulting Limited



Contract no. 13/WSD/16 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.

Name & Decimation

Sampling equipment used:	Dates calibrated
PGM-2500 (QRAE III)	28 Jul 2021

Sample location	Date of measurement	Sampling time	Monitoring wells / Surface Gas Emission						
			Weather condition	Balance gas (%)	Flammabie gas (methane %)	Carbon monoxide(%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
CH-FC 8738	21/7/WZ	0855	fine	Ð	0	0	20.8	31 / 4/18	2.5
	1) (7(wy	1322	Fine	0	ə	0	20 €	33 / 917	2-5
CH-FC 0464		હીજ	Pine	0	0	0	20_9	31 / 198	2.5
	>f 12/2021	1400	Fine	Đ	ن	0	ک ٍ ﴿	33/997	2-5
<u> </u>	28 17/2021	0915	time	0	0	٥	۹، ص2	31/48	2.5
	12 / 1/ Just	1412	Fine	0	0	0	20-6	33/997	2.5
Pit C	1817(xxx		Pine	0	0	0	ا مرد	31/998	8
	261712021		Pine	0	Ð	D	20.9	33/(1)	8
137 prtc	24/7h021	0145	Pine	0	۵	D	١٠-١٠	31/998	7
	17/7/21	1447	∫-ine	o T	10	Ð	١ - ١	33/ 997	7
137 bid B	7 17 (25V)	2822	Prine	0	D	0.	20_{	3//9018	5-6
	12 (7 1/2U	१५४१	Fine	, 0	0	Ð	≫ (33/997	8-6
137 4 - 181	79/1/2071	[0 05	1-ine	ט	0	D	20_(31/18	£-3
	Kx1114	1202	Fine		0	o o	2028	33/99	8-3

ENVIRONMENTAL RESOURCES MANAGEME	ent .	13	*	Environmental Protection Department
Checked by:	· .			
Laboratory Staff:		-		
Field Operator:	Ting Wal Kin (Safety Officer [RenoPipe])	\$	13 (3/2011	
	TAUTHO DE LA COSTRUCTION (1)	TIALLILE	Date	



Contract no. 13/WSD/16
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

Name & Designation

Date of measurement:

Sampling equipment used:	Dates calibrated
PGM-2500 (QRAE III)	28 Jul 2021
	· · · · · · · · · · · · · · · · · · ·

Sample location	Date of measurement	Sampling time	Monitoring wells / Surface Gas Emission					<u> </u>	100
			Weather condition	Balance gas (%)	Flammable gas (methane %)	Carbon monoxide(%)	Охудел (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
wpr'	2017 2021	1015	Fine	9	0	5	20- {	31/598	2-8
	140×17/3×1	(5/5	Fine	٥	. 0	0	20-(33 / 997	3.8
WPR 2	20 17 (2021	1272	Fine	ئ	. 0	٥) - o.C	31 / 99 00	3-3
	28 /7/2021	كرى	Fine	0	0	ū	20-9	33 / 997	3.5
WPR3	Kec) (7) OL	1045	Pine	٥	ی ا	0)_ა-∜	31/198	J- B
	120 /7/2021	१४५४	tine	J	0	o o	201	33 / 59.}	2-8
4 774	1200/7/021	1055	1-ine	0	0	a ')_ <i>ن</i> <	31 / 19 %	5
	146/3/201	1222	1-ine	0	0	o) ـ ند	33 / (4)	5
Prt B	140x/4/84		Fine	6	2	9	Jo. 9	37 / १९ %	3.6
	18 /3/2011	(602	Pine	<i>5</i>	3	٥	70.9	3> / 997	3.6
		ļ						/,	
						 		 	
						 -		1/	<u> </u>

Field Operator:	Ting Wai Kin (Safety Officer [RenoPipe])	\mathcal{A}	28/7/2021	
Laboratory Staff:				
Checked by:			٠	
ENVIRONMENTAL RESOURCES MANAGEMEN	KT.		13	Environmental Protection Department

Date

Signature



Contract no. 13/WSD/16 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
PGM-2500 (QRAE III)	28 Jul 2021

Sample location	Date of measurement	Sampling time			Monitoring w	ells / Surface Gas Emission			
			Weather condition	Balance gas (%)	Flammable gas (methane %)	Carbon monoxide(%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
Aprea A	29-7-2021	0230	Fine	0	C	9	20.9	29/1000	7.7
	29-7-2021		FINE	0	ů	ð	26.9	29/1090	2.5
h	24-7-2021	1790	Fire	0	0	0	20.5	28/998	2.7
Atrea B	24 - 1 - 2021	0 349	Fine	0	0	C	20.3	29/1000	2.5
	29-7-204	1344	Fire	G	0	0	209	29/999	2.7
	29-7-2021	1547	Fine	0	G	0	20.9	28/98	2,5
	<u> </u>								

ENVIRONMENTAL RESOURCES MANAG	ement .			ENAMINATION DEPARTMENT
Checked by:	C.F. Chan (Foremann)	Tof.	29-7-20y	
Laboratory Staff:				
Field Operator:	Ting Wai Kin (Safety Officer [RenoPi	pe]) 👌	29-7-2021	
	Name & Designation	<u>Signature</u>	<u>Date</u>	

Acuity Sustainability Consulting Limited



Contract no. 13/WSD/16 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
PGM-2500 (QRAE III)	28 Jul 2021

Sample location	Date of measurement	Sampling time	Monitoring wells / Surface Gas Emission						
			Weather condition	Balance gas (%)	Flammable gas (methane %)	Carbon monoxide(%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
Ch-tc 838		0855	Fine	9	D	0	20.9	30 / 1557	2-5
	29 (7/2021	1322	Fine	O	0	0	20.9	31 / 999	5-2
CH-FC 0464	79 (7/2021	ပ၂၀၀	1-ine		0	٥	20.9	30 / (55)	2.5
	7(7(204	1400	Fine	7	ن	0	20.9	31 / 998	5-2
prt D	29 (7/W2)	0915	Pine	၁	0	J	ع) در	30 / 1501	2.5
· · · · · · · · · · · · · · · · · · ·	2917/2021	1412	Pine	0	0	0	20- (31 / 998	2.1
prt C	2917/2021	อให้	1-in-e	0	0	0	Ju. 9	30 / 1001	8
	29(7 /WL1	1425	Fine	0	٥	0	20.	31 / 999	
137 prt C	7917(2021	उ ९५5	Pine	. 0	0	D	20_(30/1001	Ť
	29/7/2021	1443	Fine	0	ъ	b	Σ-0- (31 / 1071	7
137 bid B	29/7/2021	3 (75	Fine	0	0	O	20.1	31 / 1001	6-6
	2817/2021	1455	Hine	-0	0	0	ານ (31 / 998	8-6
137 177	14/7/2011	(005	Fine	ъ	0	D	72-64	30 / (20)	8-3
	29/7/2024	1202	Fine		0	0	20.8	3/ /98	8-3

Name & Designation

Date

Field Operator:

29 [7/2021

Ting Wai Kin (Safety Officer [RenoPipe])

Laboratory Staff:

Checked by:

ENVIRONMENTAL RESOURCES MANAGEMENT

ENVIRONMENTAL PROTECTION DEPARTMENT



Contract no. 13/WSD/16
Mainlaying in Tseung Kwan O
Penta-Ocean -- Concentric Joint Venture
Landfill Gas Monitoring —Field Measurement Recording Sheet

Name of site:

13/WSD/16 - Main:aying in Tseung Kwan O

Sampling equipment used:	Dates calibrated
PGM-2500 (QRAE III)	28 Jul 202 1

Sample location	Date of measurement	Sampling time	ling Monitoring wells / Surface Gas Emi						(W. W. J.)
			Weather condition	Balance gas (%)	Flammable gas (methane %)	Carbon monoxide(%)	Охудеп (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
WPR	29/7/2021	1215	Fine	0	2		20-9	30/1-01	2.8
	الاقد / / الد	1515	Pine	٥	e	9	گ₋صد	31/999	7-8
WPR 2	2 17 /2021		Pine	0		3	120-P	30/ 1001	3-2
	25 17 Dox	كري	Pine	0	0	٥	20-5	31 / 499	3-5
WPR3	29 171WX	1045	Frae	0	0	. 0	20-1	30 / 1001	7-3
	76 13/2071	1,745	Fine	ن	0	ס	20.9	31/ 11	20
A try	126/17/221	1055	Pine	٥	0	3	>⊍_{	10 / 600	5
79	الادد/4/ 14	1755	Fine	0	0	0	ا_0د	31 / 151	دم
Prt B	14 /7/20H		Fine	٥	2	0	7.06	30 / 1001	3_6
	29/3/2021	(00%	Pine	υ.	3	ə	70-6	37 / 999	3.6
					<u> </u>			/	
	·			-				//	

	Name & Designation	Signature	<u>Date</u>		
Field Operator:	Ting Wai Kin (Safety Officer [Ren	cPipe]) 🖟	29/7/2021		
Laboratory Staff:					
Checked by:					
Environmental Resources Mana	GEMENT -	13	3	Environmental Protection Depart	MENT



Contract no. 13/WSD/16 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		
PGM-2500 (QRAE III)	28 Jul 2021		

				1	:					:		:			:	:		Sampling time	Monitoring wells / Surface Gas Emission							
		Weather condition	Balance gas (%)	Flammable gas (methane %)	Carbon monoxide(%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)																		
Ara A	30-7-2021	0 850	Rain	0	0	0	20.5	26/1502	22																	
	30-7-2021	1330	Rain	0	3	0	20.5	29/1001	2.4																	
	30-7-2021	1702	RAIN	0	Q	9	20.5	29/1000																		
Arch B	30-7-2021	0247	Rain	0	d	3	2.0.9	26/ 000	2.7.																	
	30-7-204	1345	RAGA	8	0	0	20.9	29/1001	2.5																	
	30 -7 - 2021	1647	PAIN	Ŷ.		Ö	20.9	29/1000	25																	
								: / /																		
					 	<u> </u>																				
							<u> </u>	//	<u> </u>																	

ENVIRONMENTAL RESOURCES MANAGEME	NT .		13	ENVIRONMENTAL PROTECTION DEPARTMENT
Checked by:	C-F-dan (Forenam)	Top.	30-7-2021	
Laboratory Staff:				•
Field Operator:	Ting Wai Kin (Safety Officer [RenoPip	pe])	30-7-2021	
	Name & Designation	Signature A	<u>Date</u>	•

Acuity Sustainability Consulting Limited



Contract no. 13/WSD/16 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
PGM-2500 (QRAE III)	28 Jul 2021

Sample location	Date of measurement	Sampling time	Monitoring wells / Surface Gas Emission							
			Weather condition	Balance gas (%)	Flammable gas (methane %)	Carbon monoxide(%)	Oxygen (%)		p (°C) / ure (mbar)	Remark Depth (m)
CH-FC 543%	الادر (7 / ه	ofle	Rain	0	۵	0	20_9	29	los2	2 -5
	10 /7 [roll	() L L	Reja	0	0	0	20_9	30/	[250	2-5
CHA-C 0464		0000	Phin	0	٥	٥	1.00	25/	(001	2-5
	30 /7 2021	ા (૧૦૦	Rein	0	ა	0	که رو	30/	lovo	2-5
pre D	12 VON		Rain		0	0	1_04	28/	(007	2-5
<u>-</u>	30 /7 WY		12hin	٥	0	0	20-9	30 /	tool	2-5
pr c	30 /7 ww	0925	Rhin	0	0	0	20-1	21	(30)	\$
	30 /7/2011		Rujer	<u>\</u>	٥	٥	7- 0<	30	1501	f
137 pitc	30-17/2021	o945	Rain	د ا	0	0	20-9	2-9	(002	7
1	30 /7/2021	1445	Ruin	. 0	. 0	0	70-1	30	1000	7
17 6-68	Jo /7/202		lain		0	0	70-S	29	1002	1.6
	30 /7/22/		Rain	<u>ا</u>	0	0	20-1	30	lou	f-6
177 but 1	20 /7 [2021	loay	Regin	. 0	٥	0	اً ٥٠٠	11	/ lov2	f-3
· · · · · · · · · · · · · · · · · · ·	30 /7/DON	1506	Ruin	, o	0	٥	20-1	35	\ la50	\$-3

Environmental Resources Manag				
Checked by:	•			
Laboratory Staff:		~	, ,,,,,,,,,	
Field Operator:	Ting Wai Kin (Safety Officer [Rend	Pipe]) 🖟	30 /7/204	· .
	Name & Designation	Signature	<u>Date</u>	



Contract no. 13/WSD/16

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

Name & Designation

Date of measurement:

Sampling equipment used:	Dates calibrated
PGM-2500 (QRAE III)	28 Jul 2021
	7

Jo /7/2221		Weather condition	Balance gas	Flammable	Carbon	O	(m- 40) /	7 1
1. /26.011			(%)	gas (methane %)	monoxide(%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
10 1170	1015	اكهتم	0	2	D	20-9	26 / (00)	2-8
30 /7 (>021	(5)5	pei~	ی	. 0	0	ايرمز	30/1000	3_8
30 17 (2021	(325	Rain	٥		. 0	20-8	2 / 100	3-2
30 /7 /20x1	しょうえ	Rain	0	0	ס	20-9	30 / loro	3.5
الادر (1) ور	10162	kuin	0	9	0	20-9	1001 / 14	2. ₽
	1545	Rain	ي	0	ס	7 9 . {	}0 / WOO	2-8
		Rein		0	۰	٧٧	14/101	5
30 /3/2021	1555	Rain	0	0	0	٧.٢	30/ 1000	5
	११०४	Kein	ó	2	. 0	٧.٠٧	21/1002	3.6
30 /7/WH	(602	Rain	٠	. 3	•	>0_9	}> / (cos	3.6
							//	
	Mec] {\ 06 Mec] {	3- 14/20 1102 3- 14/20 1102 3- 14/20 1102 3- 14/20 1222 3- 14/	100 100	30 /4/20) (1002 /4/20) (1002) /4/20) (1002) /4/20) (1002) /4/20) (1002) /4/20) (1002) /4/20) /4/20) (1002) /4/20)	100 100	30 /4/2011 (1002) 1512 1512 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	100 100	100 100

Field Operator:	Ting Wai Kin (Safety Officer [RenoPipe])	T.	30 /7/2021	
Laboratory Staff:				
Checked by:				
ENVIRONMENTAL RESOURCES MANAGEMEN	т .	13		Environmental Protection Department

Signature



Contract no. 13/WSD/16 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
PGM-2500 (QRAE III)	28 Jul 2021

Sample Date of Sampling location measurement time		Sampling time			as Emission				
		Weather condition	Balance gas (%)	Flammable gas (methane %)	Carbon monoxide(%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)	
Area A	31-7-2021	2330	F.L	Ú	C	0	20.9	27/1001	7.3
	31-7-2021	1330	Fine	٥	ō	е	20,5	31 / 1000	7.7
	31-7-2021	1702	Ei ne	ı c	ů	0	20.9	30 / 998	2.2
Area B	71-7-2021	5849	Fire	C	ű	C	20.3	28/1001	2.7
	31-7-2021	1345	Fine	7	\$	0	20.9	31/1000	25
	31-7-2021	1645	Fire	0	3	10	20.4	30/999	2.5
					<u> </u>			 	
						!		1	<u> </u>
								/	
					1	 	1	/	
					1	 	-	 	
					1			//	· · · · · ·

Environmental Resources Man	NACJEM BNT		13	ENVIRONMENTAL PROTECTION DEPARTMENT
Checked by:	O.F. chan (Foreman)	- Top-	31-7-2021	
Laboratory Staff:				
Field Operator:	Ting Wai Kin (Safety Officer [RenoPip	pe]) 🜓	31-7-2021	
	Name & Designation	Signature	<u>Date</u>	

Acuity Sustainability Consulting Limited



Contract no. 13/WSD/16 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
PGM-2500 (QRAE III)	28 Jul 2021

Sample location	Date of measurement	Sampling time	Monitoring wells / Surface Gas Emission						
			Weather condition	Balance gas (%)	Flammable gas (methane %)	Carbon monoxide(%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
(H-F-c 54)%		0822	Fine	0	Ų	0	20-1	30/1001	2-5
	11/7/2021	1322	_ Pine	0	0	٥	ا ـ مر	31/ 900	2-5
CH.T-C 0164		0000	Fine	٥	0	, o	20_	30 / 1001	2-5
	31/7/2021	1400	Fine	0	ು	0	70.9	31/18	2-5
prt D	11/2 JUN		Rine		0	ò	ا۔ صر	130/ (00)	2-5
	31 17 100		Pine	Ü	٥	D	20-1	31/ 11	2-5
pr(c	31 (7 /2021		Rine	0	0	0	20-6	30/ 1001	P
	11 /7 my	1425	tine	৩	٥	0	∫ . بر	31 / 999	g g
137 PTC	1 /7/22X		pme	٥	0	0	20_9	30/ (001	7
1	31 /7/2021	1495	rine	Ö	O	0	ا ي در	31 / 989	1
1)+ pr(B	31/7/202	2844	Rint	0	D	0	20-5	30/ [20]	8-6
,	31 /7/2021		Pine	o	0	0	20-1	30 / (9)	1-6
Ang fu	31 /7 2021		Fine	٥	٥	0	70_l	30 / (30)	f-3
	11 /7 DOY	1506	Prist	Ö	0	3	20-1	31/88	1-3

Name & Designation

<u>Date</u>

Field Operator:

Ting Wai Kin (Safety Officer [RenoPipe])

31/7/24

Laboratory Staff:

Checked by:

Environmental Rusdurces Management

ENVIRONMENTAL PROTECTION DEPARTMENT

13

Signature



Contract no. 13/WSD/16 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
PGM-2500 (QRAE III)	28 Jul 2021
	1. 47

Sample location	Date of measurement	Sampling time	Monitoring wells / Surface Gas Emission						
			Weather condition	Balance gas (%)	Flammable gas (methane %)	Carbon monoxide(%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
WPR.	11/7/1/1	1015	Fine	0	9	D	20.8	30/1001	1.8
	11 /7 (2021	(अ)	1-ine	٥	. 0	0	20-9	31/199	ર_ છે
WPRZ	31 17 (2021		Fine	٥	0	ō	. Do-9	31/ (25)	3-2
	31/7/2021	しょうえ	Fine	0	0	D	20.8	31 / 999	3.5
W353	<u> </u>	1045	Fine	٥	0	0	20-9	3// [00]	2-8
	31/7/2021	1262	Fine	٥	0	5	20.9	31/ 19	2.8
6 719	31 /3/2021	1055	Pine	0	0	٥	20_{	31 / (50)	5
	31/7/2021	1222	Fine	0	0	Ð	7.5	31 / 989	5
Pit B	31 /7/20H	1128	Fine	ó	2	0	٧.٥٧	31 / (50)	3_6
•	31 /3·12021	1603	Pine	ن.	3	5	٧.٠٢	31/ 861	3.6
								1	
									
								/	

	Name & Designation	215uanite T	Date	
Field Operator:	Ting Wai Kin (Safety Officer RenoPipe	el) A	31/7/2021	
Laboratory Staff:				
Checked by:				
Daniel Da				
Environmental Resources Manageme	int	13		ENVIRONMENTAL PROTECTION DEFARIMENT



Contract no. 13/WSD/16

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

Dates calibrated
6/4/2021
_

Sampling Location	Date of Measurement	Sampling time	Monitoring wells/ Surface Gas Emission Carbon Dioxide (%)	Depth (m)	Remark
Area A	2 -7-2021	8:30	0.04		
		13:30	0.04	5.5	
		17:00	0.04		
Area B	2-7-2021	8:45	0.04		
		13:45	0.04	2-5	
		16:45	0.04		
CH.FC 8+38	7-7-2021	8:55	0.04		
		13:55	0.04	> 2	
CH.FC 0+64	2-7-2021	9:00	0.04	2,5	
		14:00	0.04	213	
Pit C	27-2021	9:25	0.04	8	1
	•	14:25	0.04	D	
137 Pit C	z-7-2021	9:45	0-24	7	
		14:45	0.04	[
137 Pit B	2-7-2021	9:55	0.04	,	
		14:55	0.04	8.6	
137 Pit A	7-7-2021	10:05	0.04	(0)	
		15:05	0-04	83	
WPR 1	2-7-2021	10:15	0.04	- 0	
		15:15	0.04	2.8	

Name & Designation

Ting Wai Kin (Safety Officer [Renopipe])

Date

2-7-2021



Contract no. 13/WSD/16

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

Sampling equipment used:	Dates calibrated
MultiRAE Lite, PGM-6208	6/4/2021
M01C031772	

Sampling Location	Date of Measurement	Sampling time	Monitoring wells/ Surface Gas Emission Carbon Dioxide (%)	Depth (m)	Remark
WPR 2	27-2021	10:25	0.64	3.5	
		15:25	0.04	7.3	_
WPR 3	≥ -7-2021	10:45	0.04	≥	
		15:45	0.04		
Pit A	≥ -7-2021	10:55	0.04	2	
	_	15:55	0.04		
Pit B	27-2021	11:05	0.04	3.6	Ì
	-	16:05	0.04	> 6	
		· -			

Name & Designation

Ting Wai Kin (Safety Officer [Renopipe])

Signature A <u>Date</u>

> -7-2021



Contract no. 13/WSD/16

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

Sampling equipment used:	Dates calibrated
MultiRAE Lite, PGM-6208	6/4/2021

Sampling Location	Date of Measurement	Sampling time	Monitoring wells/ Surface Gas Emission Carbon Dioxide (%)	Depth (m)	Remark
Area A	3 -7-2021	8:30	0.04		
j		13:30	0.04	2.2	
Ì		17:00	0.04		
Area B	३ -7-2021	8:45	0.04		
	,	13:45	0.04	2.5	
	•	16:45	0.04		
CH.FC 8+38	3 -7-2021	8:55	0.04	_	
			8.04	<u> </u>	
CH.FC 0÷64	3 -7-2021	9:00	5.04	2.5	
	14:00	0.04			
Pit C	z -7-2021	9:25	0-04	B	
	,	14:25	0.04	υ	
137 Pit C	3 -7-2021	9:45	0.04	7	
	,	14:45	0.04		
137 Pit B	3 -7-2021	9:55	0.04	8.6	
	,	14:55	0-04	U-16	
137 Pit A	₃ -7-2021	10:05	2.04	8.3	
	7	15:05	0.04	70.5	
WPR 1	3 -7-2021	10:15	0.04	3 O	
	, . 2021	15:15	0.04	2-8	

Name & Designation Signature Date
Ting Wai Kin (Safety Officer [Renopipe]) 3 -7-2021



Contract no. 13/WSD/16

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

Sampling equipment used:	Dates calibrated
MultiRAE Lite, PGM-6208	6/4/2021
M01C031772	

Sampling Location	Date of Measurement	Sampling time	Monitoring wells/ Surface Gas Emission Carbon Dioxide (%)	Depth (m)	Remark
WPR 2 ζ -7-2021		10:25	0.04	35	
	,	15:25	0.04		
WPR 3	ζ -7 - 2021	10:45	0-04		
	/	15:45	0.04	2-8	
Pit A	ζ -7 - 2021	10:55	0.04	-	
		15:55	0.04	5	
Pit B	Pit B ζ -7-2021	11:05	0.04	3.6	
3	16:05	0.04	> 6		

Name & Designation

Ting Wai Kin (Safety Officer [Renopipe])

Signature A <u>Date</u>

3 -7-2021

Acuity Sustainability Consulting Limited



Contract no. 13/WSD/16

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

Sampling equipment used:	Dates calibrated
MultiRAE Lite, PGM-6208 M01C031772	6/4/2021

Sampling Location	Date of Measurement	Sampling time	Monitoring wells/ Surface Gas Emission Carbon Dioxide (7)	Depth (m)	Remark
Area A	<i>5 -</i> 7-2021	8:30	0.64		
		13:30	0.04	5.5	
		17:00	0.04		
Area B	5-7-2021	8:45	U- 04		
		13:45	0-04	5-2	
		16:45	0.04		
CH.FC 8+38	5-7-2021	8:55	0.04	2-5	
Ì		13:55	0.04		
CH.FC 0+64	5 -7-2021	9:00	0.04	` ~	
		14:00	0.04	2,5	
Pit C	5-7-2021	9:25	0.04	ຄ	
	•	14:25	0.04	8	
137 Pit C	5 -7-2021	9:45	0.04	7	
		14:45	0.04		
137 Pit B	5 -7-2021	9:55	0.04	Б (
		14:55	0-04	8.6	
137 Pit A	5 -7-2021	10:05	0.04	Α.	
	•	15:05	0.04	8.3	
WPR 1	5 -7-2021	10:15	0-04	^	
		15:15	76-5	2,8_	

Name & Designation

Ting Wai Kin (Safety Officer [Renopipe])

Signature A <u>Date</u>

5-7-2021

Field Operator: Laboratory Staff:



Contract no. 13/WSD/16

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

Sampling equipment used:	Dates calibrated
MultiRAE Lite, PGM-6208	6/4/2021
M01C031772	

Sampling Location	Date of Measurement	Sampling time	Monitoring wells/ Surface Gas Emission Carbon Dioxide (%)	Depth (m)	Remark
WPR 2	J -7-2021	10:25	0,04	3.5	ļ
		15:25	0.04	, , , ,	
WPR 3	y -7-2021	10:45	0-04	- 0	
		15:45	5.04	2.8	
Pit A	S -7-2021	10:55	0.04	5	
		15:55	70.0		
Pit B	5 -7-2021	11:05	0.04	3-6	
	J	16:05	0.04	>- 6	
					İ
į					
					<u> </u>
		<u> </u>			
				*	
		L	 		

Name & Designation

Ting Wai Kin (Safety Officer [Renopipe])

Signature A

<u>Date</u>

J -7-2021



Contract no. 13/WSD/16

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

Sampling equipment used:	Dates calibrated
MultiRAE Lite, PGM-6208	6/4/2021
M01C031772	

Sampling Location	Date of Measurement	Sampling time	Monitoring wells/ Surface Gas Emission Carbon Dioxide (%)	Depth (m)	Remark
			0.04	 -	
Area A	ю -7-2021	8:30			
		13:30	0.04	2.2	
		17:00	0.04		
Area B	<i>b</i> -7-2021	8:45	0.04		
		13:45	0.04	2.5	
		16:45	0.04		
CH.FC 8+38	b -7-2021	8:55	0.04	≥د ح	
		13:55	0.04		
CH.FC 0+64	CH.FC 0+64 6 -7-2021	9:00	0.04	\ _	
	Ū	14:00	0.34	7.7	
Pit C	b -7-2021	9:25	D-04	8	
		14:25	7.04	0	
137 Pit C	6 -7-2021	9:45	0-04	7	
		14:45	0.04	/	
137 Pit B	b -7-2021	9:55	0.04	0 (
.0	5	14:55	0.04	8.6	
137 Pit A	b -7-2021	10:05	0.04	5)	ļ
D / 2021	L	15:05	0.04	8.3	
WPR 1	6 -7-2021	10:15	0.04	> 0	
***	P	15:15	20.04	≥. 9	

Name & Designation
Ting Wai Kin (Safety Officer [Renopipe])

Signature A <u>Date</u>

6-7-2021



Contract no. 13/WSD/16

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

Sampling equipment used:	Dates calibrated
MultiRAE Lite, PGM-6208	6/4/2021
M01C031772	

Sampling Location	Date of Measurement	Sampling time	Monitoring wells/ Surface Gas Emission Carbon Dioxide (%)	Depth (m)	Remark
WPR 2	6 -7-2021	10:25	0.04	> ←	
		15:25	0.04	315	
WPR 3	6 -7 - 2021	10:45	0.04	5.8	
	,	15:45	0.04	2 . 0	
Pit A	6 -7-2021	10:55	0.04	_	
	V	15:55	0.04	2	
Pit B	6 -7-2021	11:05	0-04	<i>></i> (
	D	16:05	0-04	3.6	
				<u></u>	
	4	-			
			†		

Name & Designation
Ting Wai Kin (Safety Officer [Renopipe])

Signature A <u>Date</u>

6 -7-2021



Contract no. 13/WSD/16

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

Sampling equipment used:	Dates calibrated
MultiRAE Lite, PGM-6208	6/4/2021
M01C031772	

Sampling Location	Date of Measurement	Sampling time	Monitoring wells/ Surface Gas Emission Carbon Dioxide (* %)	Depth (m)	Remark
Area A	7 -7-2021	8:30	0,04		Ì
	`	13:30	0.06	5.5	
		17:00	0.04		
Area B	7 -7-2021	8:45	0.04		
	,	13:45	0.04	2.5	
		16:45	0.04		
CH.FC 8+38	7 -7-2021	8:55	0.04		
		13:55	8-04	2.5	
CH.FC 0+64	7 -7-2021	9:00	0-0×	7.5	
		7.04			
Pit C	フ -7-2021	9:25	0- 0×	e e	
İ		14:25	8-0K	00	
137 Pit C	> -7-2021	9:45	0.04	7	
	,	14:45	0.0%		
137 Pit B	7-2021 رُ	9:55	0.04	8.6	
		14:55	0-06	0.6	.
137 Pit A	7-7-2021	10:05	0.04	8.3	
		15:05	0.06	0 ()	
WPR 1	7-2021	10:15	D. 0°X	2.8	
		15:15	0.04	2. 2	

Name & Designation Signature

Field Operator:

Ting Wai Kin (Safety Officer [Renopipe])

7 -7-2021

Laboratory Staff: Checked by:



Contract no. 13/WSD/16

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

Sampling equipment used:	Dates calibrated
MultiRAE Lite, PGM-6208	6/4/2021
M01C031772	

Sampling Location	Date of Measurement	Sampling time	Monitoring wells/ Surface Gas Emission Carbon Dioxide (%.)	Depth (m)	Remark
WPR 2	7 -7-2021	10:25	0.04	₹5	
		15:25	0.08		
WPR 3	7 -7-2021	10:45	0.04	2-8	
1	,	15:45	0.04	2- 0	
Pit A	7-7-2021	10:55	0.0'X	4	
	· ·	15:55	0.08	5	
Pit B	7-7-2021	11:05	0-04) (
	ŧ	16:05	20.04	3.6	
					

Name & Designation

Ting Wai Kin (Safety Officer [Renopipe])

Signature A <u>Date</u>

>-7-2021



Contract no. 13/WSD/16

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

Sampling equipment used:	Dates calibrated
MultiRAE Lite, PGM-6208	6/4/2021
M01C031772	

Sampling Location	Date of Measurement	Sampling time	Monitoring wells/ Surface Gas Emission Carbon Dioxide (%)	Depth (m)	Remark
Area A	7 -7-2021	8:30	0,06	***	
	U	13:30	0.08	プ・ブ	
		17:00	0,04		
Area B	8-7-2021	8:45	0.06		ŀ
	J	13:45	0.04	2-5	
		16:45	0-04		
CH.FC 8+38	8 -7-2021	8:55	0.04	, -	
2	U	13:55	76-6	2.5	
CH.FC 0+64	දි -7 -2021	9:00	0.04	2.5	
	Ü	14:00	0-04	2.5	
Pit C	9, -7-2021	9:25	Yo	8	
	D	14:25	0.04	<u>D</u>	
137 Pit C	R -7-2021	9:45	0-04	~~	
	0	14:45	0-04		
137 Pit B	8 -7-2021	9:55	0.04	0 (
		14:55	8.84	8,6	
137 Pit A	등 -7-2021	10:05	2004	8-3	
	U	15:05	8-0¥	0-5	
WPR 1	9 -7-2021	10:15	0.04	2-8	
	U	15:15	V6-6	2-0	

Name & Designation
Ting Wai Kin (Safety Officer [Renopipe])

Signature A

<u>ਹਬਾਵ</u> ਨੂੰ -7-2021



Contract no. 13/WSD/16

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

Sampling equipment used:	Dates calibrated
MultiRAE Lite, PGM-6208	6/4/2021
M01C031772	

Sampling Location	Date of Measurement	Sampling time	Monitoring wells/ Surface Gas Emission Carbon Dioxide (%)	Depth (m)	Remark
WPR 2	g -7-2021	10:25	0.04	, -	
		15:25	0.04	3,5	
WPR 3	8 -7-2021	10:45	0.84	2.8	
	U	15:45	2000	~~ 0	
Pit A	g -7-2021	10:55	<u> </u>	5	
	D	15:55	0-04		
Pit B	8 -7-2021	11:05	D-0¥	3.6	
<i>D</i>	16:05	2.0%	J. 6		

Name & Designation
Ting Wai Kin (Safety Officer [Renopipe])

Date 6

8 -7-2021



Contract no. 13/WSD/16

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

Sampling equipment used:	Dates calibrated
MultiRAE Lite, PGM-6208	6/4/2021
M01C031772	

Sampling Location	Date of Measurement	Sampling time	Monitoring wells/ Surface Gas Emission Carbon Dioxide (%)	Depth (m)	Remark
Area A	9 -7-2021	8:30	0.04		
,	(13:30	0,04	5.5	
		17:00	0.64		_
Area B	9 -7-2021	8:45	0.04		
	/	13:45	0.04	2.5	
		16:45	0.04		
CH.FC 8+38	9 -7-2021	8:55	0-04	≥ د ځ-	
	′	13:55	76.6	2-1	
CH.FC 0+64 9 -7-2021	9:00	0.0¥	>-+		
		14:00	0-04	2-5	
Pit C	9 -7-2021	9:25	0.04	8	
	,	14:25	0.0%	0	
137 Pit C	4, -7-2021	9:45	0.0%	7	
	/	14:45	2.0%	/	
137 Pit B	9 -7-2021	9:55	0-06		
	/	14:55	n-0X	8-6	
137 Pit A	<i>4</i>) -7-2021	10:05	0.01/2	5 7	
	7	15:05	D-0K	<u> 8-3 </u>	
WPR 1	م -7-2021	10:15	0.0%	8.6	
	f	15:15	0.0	- 10	

Name & Designation

Ting Wai Kin (Safety Officer [Renopipe])

Signature A Jate

9-7-2021



Contract no. 13/WSD/16

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

Sampling equipment used:	Dates calibrated
MultiRAE Lite, PGM-6208	6/4/2021
M01C031772	

Sampling Location	Date of Measurement	Sampling time	Monitoring wells/ Surface Gas Emission Carbon Dioxide (%)	Depth (m)	Remark
WPR 2	9-7-2021	10:25	0.06	3,5	
	'	15:25	0.0%	2,2,	
WPR 3	9 -7-2021	10:45	0.04		
	1	15:45	0.54	2.8	
Pit A	9 -7-2021	10:55	0.04		
	/	15:55	3.0%	حد	
Pit B	9 -7-2021	11:05	46-0	S (1
	1	16:05	0.04	3. 6	
					ļ

Name & Designation
Ting Wai Kin (Safety Officer [Reno

Ting Wai Kin (Safety Officer [Renopipe])

Signature A Date 9 -7-2021



Contract no. 13/WSD/16

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

Sampling equipment used:	Dates calibrated
MultiRAE Lite, PGM-6208 M01C031772	6/4/2021

Sampling Location	Date of Measurement	Sampling time	Monitoring wells/ Surface Gas Emission Carbon Dioxide (タョ)	Depth (m)	Remark
Area A	10-7-2021	8:30	0.04		
		13:30	0-04	5.5	ĺ
		17:00	0-04		
Area B	(b -7-2021	8:45	o->¢		
1	-	13:45	0-0%	2.5	
		16:45	0.04		
CH.FC 8+38	(0 -7-2021	8:55	0-84	2-5	
		13:55	0.04		
CH.FC 0+64	i 0 -7-2021	9:00	0-04	7-2	
i	Ç	14:00	0.04		
Pit C	10-7 - 2021	9:25	0-0/2	6	
	• -	14:25	0.04	8	
137 Pit C	/b -7-2021	9:45	0-04	7	
-	•	14:45	N-0%	l	
137 Pit B	(0 -7-2021	9:55	0.04	١ ٥	
		14:55	0-04	8.6	
137 Pit A	(° -7-2021	10:05	0.04	5 X	
		15:05	0-04	8-}	
WPR 1	(D -7-2021	10:15	0.04	- 0	
		15:15	0.60	2-8	

Name & Designation Signature

Ting Wai Kin (Safety Officer [Renopipe])

<u>Date</u>

ι 🖰 -7-2021



Contract no. 13/WSD/16

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

Sampling equipment used:	Dates calibrated
MultiRAE Lite, PGM-6208	6/4/2021
M01C031772	

Sampling Location	Date of Measurement	Sampling time	Monitoring wells/ Surface Gas Emission Carbon Dioxide (7,)	Depth (m)	Remark
WPR 2	(6-7-2021	10:25	0,0%	3.5	
	•	15:25	υςογ		
WPR 3	r o -7-2021	10:45	3.0%	٧. ٩	
	(15:45	0.04	0	
Pit A	10-7-2021	10:55	0-04	5	
	· ·	15:55	2.04		
Pit B	(D-7-2021	11:05	0-04	> (1
–		16:05	0.06	3.6	
	<u> </u>				

Name & Designation

Field Operator: T

Ting Wai Kin (Safety Officer [Renopipe])

Signature

<u>Date</u>

lD -7-2021

Laboratory Staff: Checked by:



Contract no. 13/WSD/16

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

Sampling equipment used:	Dates calibrated
MultiRAE Lite, PGM-6208	6/4/2021
M01C031772	

Sampling Location	Date of Measurement	Sampling time	Monitoring wells/ Surface Gas Emission Carbon Dioxide (%)	Depth (m)	Remark
Area A	/と -7-2021	8:30	0.04		
	,	13:30	0.64	5-5	
		17:00	0-04		
Area B	رے -7-2021	8:45	0.05		
	·	13:45	0-04	≥, 5	
		16:45	0.04		
CH.FC 8+38	(스-7-2021	8:55	0-04	\ <u>_</u>	
		13:55	0-24	2.5	
CH.FC 0+64	12 -7-2021	9:00	26.5		
	, –	14:00	0-04	5.2	
Pit C	/2 -7-2021	9:25	0.34	0	
		14:25	0-04	8	
137 Pit C	رک -7-2021	9:45	0-04	7	
		14:45	0.04		
137 Pit B	(2 -7-2021	9:55	0.04	8. 6	
	-	14:55	0.04	0.6	
137 Pit A	(2-7-2021	10:05	0.04	0.3	
	•	15:05	0.06	8-3	
WPR 1	/ 2 -7-2021	10:15	76.6	2.8	
	•	15:15	5-04	0	

Name & Designation

Ting Wai Kin (Safety Officer [Renopipe])

Signature A Date

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Field Operator: Laboratory Staff:



Contract no. 13/WSD/16

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

Sampling equipment used:	Dates calibrated
MultiRAE Lite, PGM-6208	6/4/2021
M01C031772	

Sampling Location	Date of Measurement	Sampling time	Monitoring wells/ Surface Gas Emission Carbon Dioxide (?,)	Depth (m)	Remark
WPR 2	/≥ -7-2021	10:25	0.04	3,5	
		15:25	0.04		
WPR 3	(2 -7-2021	10:45	9-0-		
	·	15:45	9.06	≥-8	
Pit A	/≥ -7-2021	10:55	0.04	5	İ
,		15:55	0.04		
Pit B	/ ≥ -7-2021	11:05	0.04	3. 6	
	,	16:05	75.0	J. 6	
	. = . >/	9:15	0.04		
Pit D	12-7-2021	14:15	0.04		
			<u> </u>		

Name & Designation

Ting Wai Kin (Safety Officer [Renopipe])

Signature A

Date

[2-7-2021

Field Operator: Laboratory Staff:



Contract no. 13/WSD/16

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

Sampling equipment used:	Dates calibrated
MultiRAE Lite, PGM-6208	6/4/2021
M01C031772	

Sampling Location	Date of Measurement	Sampling time	Monitoring wells/ Surface Gas Emission Carbon Dioxide (%)	Depth (m)	Remark
Area A	(3-7-2021	8:30	9.04		ĺ
		13:30	Y	5.5	
		17:00	0.04		
Area B	(3-7-2021	8:45			
		13:45	0.54	2-5	
		16:45	0.04		
CH.FC 8+38	[3 -7-2021	8:55	0.04	2.5	
	13:55	5.04	7-0		
CH.FC 0+64	13 -7-2021	9:00	0-04	2,5	
	-	14:00	o-84	210	
Pit C	(3 -7-2021	9:25	0.04	8	
		14:25	26.0	D	
137 Pit C	/3 -7-2021	9:45	2.04	~~	
		14:45	8.04		
137 Pit B	13 -7-2021	9:55	20.0	8.6	ļ
		14:55	0.04	8.6	
137 Pit A	(3 -7-2021	10:05	0.04	0.7	
		15:05	0.04	8-3	
WPR 1	/3 -7-2021	10:15		1 0	1
		15:15	D-0℃	7-8	

Name & Designation

Ting Wai Kin (Safety Officer [Renopipe])

Signature A Date

13-7-2021

Field Operator: Laboratory Staff:



Contract no. 13/WSD/16

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

Sampling equipment used:	Dates calibrated
MultiRAE Lite, PGM-6208	6/4/2021
M01C031772	

Sampling Location	Date of Measurement	Sampling time	Monitoring wells/ Surface Gas Emission Carbon Dioxide (7/6)	Depth (m)	Remark
WPR 2	(3 -7-2021	10:25	0.04	3.5	
		15:25	0.0%		
WPR 3	(3 -7-2021	10:45	0-04	2.8	1
1		15:45	0.04	2.0	
Pit A	/3 -7-2021	10:55	0.04	7	
	``	15:55	0.04		
Pit B	ι γ -7-2021	11:05	0.04	> /	
		16:05	0.04	3.6	
0-6-0		09=13	0.04	,	
Pito	13-7-2021	14:15	0.04		
-					
		<u> </u>			
					+

Name & Designation

Ting Wai Kin (Safety Officer [Renopipe])

Signature A <u>Date</u>

[] -7-2021



Contract no. 13/WSD/16

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

Sampling equipment used:	Dates calibrated
MultiRAE Lite, PGM-6208	6/4/2021
M01C031772	

Sampling Location	Date of Measurement	Sampling time	Monitoring wells/ Surface Gas Emission Carbon Dioxide (%)	Depth (m)	Remark
Area A	/ Y -7-2021	8:30	0.04		
	- 1	13:30	0.06	2.2	
		17:00	0.06		
Area B	14-7-2021	8:45	0.04		
	4.1	13:45	0,00	-گ - ۲	
		16:45	0.0%		
CH.FC 8+38	(¥-7-2021	8:55	0.04		
	•	13:55	D-0K	3-2	
CH.FC 0+64	CH.FC 0+64 (4 -7-2021	9:00	0.04	.	
		14:00	0-26	2.5	
Pit C	Pit C (\(\psi \ -7-2021 \)	9:25	0.54	a	
	, (14:25	0.04	8	
137 Pit C	<i>(</i>	9:45	D-0K	7	
	• (14:45	0.04	- I	
137 Pit B	(Y -7-2021	9:55	0.00	8، د	
	((14:55	0-08		
137 Pit A	/ (/ -7-2021	10:05	0-04	0 >	
	((15:05	₽.0℃	8.3	
WPR 1	14-7-2021	10:15	0.04	6	
	r t	15:15	0-04	2.8	

Name & Designation

Ting Wai Kin (Safety Officer [Renopipe])

Signature

l ¥ -7-2021

Field Operator: Laboratory Staff.



Contract no. 13/WSD/16

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

Sampling equipment used:	Dates calibrated
MultiRAE Lite, PGM-6208	6/4/2021
M01C031772	

Sampling Location	Date of Measurement	Sampling time	Monitoring wells/ Surface Gas Emission Carbon Dioxide (%)	Depth (m)	Remari
WPR 2	ι¥-7-2021	10:25	0.04	7.5	
	'	15:25	0.06		
WPR 3	7-2021 ₍ الإ	10:45	0.0%	, 6	
İ	17	15:45	0.04	2,8	
Pit A	(¢ -7-2021	10:55	0-04	,~.	i
	()	15:55	0.04	5	
Pit B ((/c-7-2021	11:05	0.04	3,6	
	, [16:05	¥5-6		
24.0	.(, 7 2.2/	9-15	36.0		İ
PitD	14-7-2021	14=15	5-0×		
·					

					-
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					l

Name & Designation
Ting Wai Kin (Safety Officer [Renopipe])

Signature A Date

[((-7-2021



Contract no. 13/WSD/16

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

Sampling equipment used:	Dates calibrated
MultiRAE Lite, PGM-6208	6/4/2021
M01C031772	

Sampling Location	Date of Measurement	Sampling time	Monitoring wells/ Surface Gas Emission Carbon Dioxide (%)	Depth (m)	Remark
Area A	(5-7-2021	8:30	9,04		
	•	13:30	0.04	2.2	
		17:00	\$6-3		
Area B	(5-7-2021	8:45	D- 84		
		13:45	D- 94	2,7	
		16:45	0-84		
CH.FC 8+38	じケ-7-2021	8:55	20.04	2-5	
	Ų-	13:55	26-0		
CH.FC 0+64 /5 -7-2021	9:00	D-04	2.5		
	-	14:00	0-84		
Pit C (5-7-2021	9:25	0.04	D		
		14:25	0.04	8	
137 Pit C	(S-7-2021	9:45	0-04	フ	
	(•	14:45	0-98	(
137 Pit B	/5-7-2021	9:55	0-98	8.6	
		14:55	D-0K	8.6	
137 Pit A	15-7-2021	10:05	2-3¢	n **	
	·	15:05	0-04	8-3	
WPR 1	15-7-2021	10:15	3-06	2.8	
		15:15	0-04		

Name & Designation

Ting Wai Kin (Safety Officer [Renopipe])

Signature A <u>Date</u>

(5-7-2021



Contract no. 13/WSD/16 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

Sampling equipment used:	Dates calibrated
MultiRAE Lite, PGM-6208 M01C031772	6/4/2021

Sampling Location	Date of Measurement	Sampling time	Monitoring wells/ Surface Gas Emission Carbon Dioxide (%)	Depth (m)	Remark
WPR 2	(5-7-2021	10:25	90.0	3.5	
	Ī	15:25	0.06		
WPR 3	(5-7-2021	10:45	0.0%	2.8	
		15:45	0.04	-0	
Pit A	(5 -7-2021	10:55	0.00	5	
	,,,	15:55	26-0		
Pit B	7-2021 ڪئ	11:05	26.0		
	,	16:05	0-0%	3.6	
PitD	15-7-2021	09-15	0.0%		
	(3-1-204)	14:15	0.04	f	
					<u> </u>
	}				
					l

Name & Designation Ting Wai Kin (Safety Officer [Renopipe]) <u>Signature</u>

(5 -7-2021

Laboratory Staff.

Field Operator: Checked by:



Contract no. 13/WSD/16 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

Sampling equipment used:	Dates calibrated
MultiRAE Lite, PGM-6208	6/4/2021
M01C031772	

Sampling Location	Date of Measurement	Sampling time	Monitoring wells/ Surface Gas Emission Carbon Dioxide (%)	Depth (m)	Remark
Area A	16 -7-2021	8:30			
Ì		13:30	c,04	5.5	
		17:00	0.04	713	
Area B	16 -7-2021	8:45	0.84		
		13:45	0.0 ⁴	2.5	
		16:45	g. 6)4		
CH.FC 8+38	16 -7-2021	8:55	6.014		
		13:55	0.04	2.5	
CH.FC 0+64	l6 -7-2021	9:00	0.04	2,5	
		14:00	5.6 ¹ 4		
Pit C {(, -7-2021	{(, -7-2021	9:25	+¥0. o		
	•	14:25	c,0 ⁴ 4	કે	
137 Pit C	(6 -7-2021	9:45	0.04	7	
		14:45	C'014		
137 Pit B	(6 -7-2021	9:55	0.04	8.6	i
	- 4	14:55	c - υ\		
137 Pit A	16 -7-2021	10:05	0.04	9.2	
	·	15:05	0.04	B.3	
WPR 1	i6 -7-2021	10:15	0.04	- 2	
		15:15	. U,0V	2.3	ļ

Name & Designation

Ting Wai Kin (Safety Officer [Renopipe])

Signature A <u>Date</u>

-7-2021



Contract no. 13/WSD/16 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

Sampling equipment used:	Dates calibrated
MultiRAE Lite, PGM-6208	6/4/2021
M01C031772	

Sampling Location	Date of Measurement	Sampling time	Monitoring wells/ Surface Gas Emission Carbon Dioxide (%)	Depth (m)	Remark
WPR 2	16 -7-2021	10:25	0.04		
		15:25	०.जर्	ک <u>،</u> ک	
WPR 3	⁶ -7-2021	10:45	باق,ن		
		15:45	c.e¥	5.8	
Pit A	IG -7-2021	10:55	الآق ج		
		15:55	o oly	5	
Pit B	16 -7-2021	11:05	0,64		
		16:05	باه. o	3.6	
PLD	. 771	9:15	c,tų	ſ	
ハセレ	16-7-221	14:15	०.७५		
		-			
		<u> </u>			

Name & Designation

Ting Wai Kin (Safety Officer [Renopipe])

Signature 4 Date .

16 -7-2021



Contract no. 13/WSD/16 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

Sampling equipment used:	Dates calibrated
MultiRAE Lite, PGM-6208	6/4/2021
M01C031772	

	Date of	te of Sampling time	Monitoring wells/ Surface Gas Emission	Depth (m)	Remark
Sampling Location	Measurement	Sampling time	Carbon Dioxide (🐈)	Depar (m)	
Area A	7-7-2021	8:30	<i>پای</i> . ۵		
		13:30	40.0	ş.ç	
		17:00	₽,04		
Area B	17 -7-2021	8:45	6 , 04		
	·	13:45	0.04	2.5	
		16:45	0.04		
CH.FC 8+38	\1 -7-2021	8:55	۴'۵. ٥	۲.5	
		13:55	o, લેવ		
CH.FC 0+64	7-2021 קו	9:00	0,gis		
	,	14:00	0.04	2.5	
Pit C 17-7	17-7-2021	9:25	0,04		
		14:25	٧٤٥,٥		
137 Pit C	17-7-2021	9:45	νίο, ο	7	
		14:45	40,0		
137 Pit B	7-2021	9:55	40.0		
		14:55	6.04 9.	ક.ક	
137 Pit A	7-2021 -7	10:05	ياق و	_	
		15:05	0.54	8-3	
WPR 1	17-7-2021	10:15	ه ۱ ونو	2.8	
		15:15	0.04	2.0	

Name & Designation

Ting Wai Kin (Safety Officer [Renopipe])

Signature A <u>Date</u>

7-2021-קי



Contract no. 13/WSD/16 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

Sampling equipment used:	Dates calibrated
MultiRAE Lite, PGM-6208 M01C031772	6/4/2021

Sampling Location	Date of Measurement	Sampling time	Monitoring wells/ Surface Gas Emission Carbon Dioxide (🐉)	Depth (m)	Remark
WPR 2	17 -7-2021	10:25	0.01/		
VVEIVE	. 202	15:25	5,04	3.5	
WPR 3	11-7-2021	10:45			
		15:45	0.3	7.8	
Pit A	17 -7-2021	10:55	6.0 ¹ 4	5	
	·	15:55	9.54		
Pit B	17-7-2021	11:05	۽ ان ج		
		16:05	٥٠٥٠٢	3.4	
PriD	17-7-2521	9:17		- 1	
		14:45	5.94		
			 		
					1

Name & Designation
Ting Wai Kin (Safety Officer [Renopipe])

Signature T Date

[7 -7-2021



Contract no. 13/WSD/16 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

Dates calibrated
6/4/2021

Sampling Location	Date of Measurement	Sampling tîme	Monitoring wells/ Surface Gas Emission	Depth (m)	Remark
			Carbon Dioxide (🎉)		
Area A	ነ -7-2021	8:30	0.01-		
		13:30	40.0	\$.5	
		17:00	49, م		-
Area B	/ 1 -7-2021	8:45	0.9 <u>L</u>		
		13:45	خ رمان	2,5	İ
		16:45	9.04		
CH.FC 8+38	l9 -7-2021	8:55	\$,00	2.5	
		13:55	0,04		
CH.FC 0+64	<u>1</u> 9 -7-2021	9:00	باه. ن	5.2	
		14:00	8.64		
Pit C	I9 -7 -202 1	9:25	γ6.6	8	
		14:25	. 5 ¹ -		
137 Pit C	i ^a -7-2021	9:45	8,04	7	
		14:45	0.649	· · · · · · · · · · · · · · · · · · ·	
137 Pit B	!9 -7-2021	9:55	0,04	8-6	
		14:55	٧٥.٥		
137 Pit A	i9 -7-2021	10:05	0.04	€.3	
		15:05	2,8 ⁴		
WPR 1	19-7-2021	10:15	0.04	2.8	
		15:15	0,04		

Name & Designation

Ting Wai Kin (Safety Officer [Renopipe])

Signature A <u>Date</u>

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Contract no. 13/WSD/16

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

Sampling equipment used:	Dates calibrated
MultiRAE Lite, PGM-6208	6/4/2021
M01C031772	

Sampling Location	Date of Measurement	Sampling time	Monitoring wells/ Surface Gas Emission Carbon Dioxide (🐒)	Depth (m)	Remark
WPR 2	(9 -7-2021	10:25	5.64	3.5	
		15:25	42,0		
WPR 3	19-7-2021	10:45	¥2.0	2,8	
		15:45	46,0		
Pit A	19-7-2021	10:55	0.04	Š	
		15:55	د،وا		
Pit B	ાષ્ટ્ર -7-2021	11:05	P. 0-	3,6	
		16:05	a.0l4		
PitD	19-7-221	1:12	۵.۵۱۰	!	
		1:4:12	0.04		

Name & Designation
Ting Wai Kin (Safety Officer [Renopipe])

Signature A <u>Date</u>

19 -7-2021



Contract no. 13/WSD/16 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

Sampling equipment used:	Dates calibrated
MultiRAE Lite, PGM-6208	6/4/2021
M01C031772	

Sampling Location	Date of Measurement	Sampling time	Monitoring wells/ Surface Gas Emission Carbon Dioxide (%)	Depth (m)	Remark
Area A	2=-7-2021	8:30	5,54		
		13:30	0.04	5.5	
		17:00	0,514		
Area B	z» -7-2021	8:45	0.04		
		13:45	ه به لن	2.5	
		16:45	6,014		
CH.FC 8+38	Z+ -7-2021	8:55	٥,٥٢٠	2,5	
		13:55	0.04		
CH.FC 0+64	zo -7-2021	9:00	PC . 04		
		14:00	٥,٥٩	25	
Pit C	27-2021	9:25	0.04		
		14:25	6, ټالې	8	
137 Pit C	ze -7-2021	9:45	6.04		
		14:45	s. blu	7	
137 Pit B	20-7-2021	9:55	٥, ونړ	2.0	
}		14:55	6-54	8.6	
137 Pit A	20-7-2021	10:05	0.84	0.5	
		15:05	8.04	8.3	
WPR 1.	2∘ -7-2021	10:15	0.04	•	
		15:15	0.54	2.8	

Name & Designation

<u>Signature</u>

Field Operator:

Ting Wai Kin (Safety Officer [Renopipe])

20 -7-2021

Laboratory Staff:

Checked by:



Contract no. 13/WSD/16 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

Sampling equipment used:	Dates calibrated
MultiRAE Lite, PGM-6208	6/4/2021
M01C031772	

Sampling Location	Date of Measurement	Sampling time	Monitoring wells/ Surface Gas Emission Carbon Dioxide (5/6)	Depth (m)	Remark
WPR 2	WPR 2 20-7-2021	10:25	0.04		
		15:25	40.0	3.5	
WPR 3	²·-7-2021	10:45	Υσ.ο		
İ		15:45	0.04	2.8	
Pit A	z• -7-2021	10:55	0, 94	1-	
		15:55	0.04	5	
Pit B	20-7-2021	11:05	Ø.94	- (
-		16:05	2,04	3.6	
_	= 0.01	9:15	0,614		
Pit D	20-7-2021	14:15	0,0 ^{\(\frac{\pi}{2}\)}}	1	
	_,				

Name & Designation

Ting Wai Kin (Safety Officer [Renopipe])

Signature

<u>Date</u>

30 -7-2021

Field Operator: Laboratory Staff:



Contract no. 13/WSD/16 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

Sampling equipment used:	Dates calibrated
MultiRAE Lite, PGM-6208	6/4/2021
M01C031772	

Sampling Location	Date of Measurement	Sampling time	Monitoring wells/ Surface Gas Emission Carbon Dioxide (🏂)	Depth (m)	Remark
Area A	21 -7-2021	8:30	٧٥.٥		
		13:30	26.0	\$.5	
		17:00	40, و	5	
Area B	2! -7-2021	8:45	0.54		
		13:45	φ.σ.	7.5	
İ		16:45	0.04		
CH.FC 8+38	21-7-2021	8:55	0.94		
		13:55	ئ ج ، ئ	2.5	
CH.FC 0+64	2/ -7-2021	9:00	0.04	2.5	
		14:00	40.0		
Pit C	21-7-2021	9:25	0,04	_	
		14:25	0,04	8	
137 Pit C	2\ -7-2021	9:45	٢٥,٥	_	
		14:45	باق.ن	7	
137 Pit B	21-7-2021	9:55	۲۰.0		
İ		14:55	3,G4	8.6	
137 Pit A	ري -7-2021	10:05	5,84		
	-	15:05	s_0\	5 . آڏ	
WPR 1	24 -7-2021	10:15	5,84	- >	
		15:15	6,04	2.8	

Name & Designation

Ting Wai Kin (Safety Officer [Renopipe])

Signature A Date

2¦ -7-2021



Contract no. 13/WSD/16
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

Sampling equipment used:	Dates calibrated
MultiRAE Lite, PGM-6208	6/4/2021
M01C031772	

Sampling Location	Date of Measurement	Sampling time	Monitoring wells/ Surface Gas Emission Carbon Dioxide (5/2)	Depth (m)	Remark
WPR 2	2.1 -7-2021	10:25	ν, ο		
		15:25	6.04	2.5	
WPR 3	21-7-2021	10:45	٠.٥٠٠		
		15:45	0. c ¹ 4	5.8	
Pit A	고;-7-2021	10:55	0,04	5	
		15:55	4c.0	>	
Pit B	11-7-2021	11:05	2,34		
	•	16:05	3,04	3.6	
7:40	21-7-2021	9:15	5.04		
1.20		14:15	n.154		
					_

Name & Designation

Ting Wai Kin (Safety Officer [Renopipe])

Signature A <u>Date</u>

Z; -7-2021



Contract no. 13/WSD/16 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

Sampling equipment used:	Dates calibrated
MultiRAE Lite, PGM-6208	6/4/2021
M01C031772	

Sampling Location	Date of Measurement	Sampling time	Monitoring wells/ Surface Gas Emission Carbon Dioxide (%)	Depth (m)	Remark
Area A	22-7-2021	8:30	0.04		
ļ		13:30	10.0	5.5	
		17:00	40.0		
Area B	22-7-2021	8:45	46,0		
		13:45	a.,o1;	2,5	
		16:45	0,04	~·5	
CH.FC 8+38	22- 7-2021	8:55	٥ ـ ١٥ ـ ـ ـ ـ ـ ـ ـ ـ ـ ـ ـ ـ ـ ـ ـ ـ ـ		
		13:55	ور څانې	52	
CH.FC 0+64	11-7-2021	9:00	9.04	2.5	
		14:00	ه, ۵۶		
Pit C	22-7-2021	9:25	0.04	8	
		14:25	0,64		
137 Pit C	-7-7-2021	9:45	6.04		
		14:45	40.0	77	
137 Pit B	2-7-2021	9:55	10,0	8.6	
		14:55	5,84		
137 Pit A	د 7-2021	10:05	بان.٥	<i>-</i> -	Ì
	15:05	p.94	8.3		
WPR 1	22-7-2021	10:15	Q. 0 ⁴ 4		
		15:15	5.54	2-8	

Name & Designation

Ting Wai Kin (Safety Officer [Renopipe])

Signature A Date

マヱ-7-2021



Contract no. 13/WSD/16 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

Sampling equipment used:	Dates calibrated
MultiRAE Lite, PGM-6208 M01C031772	6/4/2021

Sampling Location	Date of Measurement	Sampling time	Monitoring wells/ Surface Gas Emission Carbon Dioxide (,)	Depth (m)	Remark
WPR 2	72 -7-2021	10:25	0.54		
		15:25	0.04	3,5	
WPR 3	ะ เ-7-2021	10:45	٥,٥١٠		
		15:45	6,04	ኔ.ያ	
Pit A	22-7-2021	10:55	μίο.α		
		15:55	5.3%+	5	
Pit B	น-7-2021	11:05	٠.٥٤	3, 6	
		16:05	6.54		
B. b.		9:15	ه کان	į	
Pt D	227-202	14:15	6,512		
				.,,	
	.,				

Name & Designation

Ting Wai Kin (Safety Officer [Renopipe])

Signature

<u>Date</u>

12-7-2021

Laboratory Staff: Checked by:

Field Operator:



Contract no. 13/WSD/16 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

Sampling equipment used:	Dates calibrated
MultiRAE Lite, PGM-6208	6/4/2021
M01C031772	

Sampling Location	Date of Measurement	Sampling time	Monitoring wells/ Surface Gas Emission Carbon Dioxide (💋)	Depth (m)	Remark
Area A	Z3 -7-2021	8:30	0.01		1
		13:30	0,04	5,5	
		17:00	0.04		
Area B	23 -7-2021	8:45	6,34		
		13:45	0,04	215	
		16:45	6,04		
CH.FC 8+38	8:55	6 OH			
		13:55	40.0	5.7	
CH.FC 0+64 23 -7-2021	23 -7-2021	9:00	0,14		
İ		14:00	0.04	5.2	
Pit C	² 3 -7-2021	9:25	باور ن		
		14:25	3,614	₹	
137 Pit C	ኒን-7-2021	9:45	0.84		
		14:45	٥.٥٤	7	
137 Pit B	 2-7-2021	9:55	ان ه	0.1	ľ
		14:55	ე.ეს	8.6	
137 Pit A	27-7-2021	10:05	0.处4	Q .3	
		15:05	g, D ⁱ †	3.7	
WPR 1	2 > -7-2021	10:15	0.84	* P	
		15:15	بادر م	5' &	

Name & Designation

Ting Wai Kin (Safety Officer [Renopipe])

Signature A <u>Date</u>

23 -7-2021



Contract no. 13/WSD/16

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

Sampling equipment used:	Dates calibrated
MultiRAE Lite, PGM-6208 M01C031772	6/4/2021

Sampling Location	Date of Measurement	Sampling time	Monitoring wells/ Surface Gas Emission Carbon Dioxide (1/2)	Depth (m)	Remark
WPR 2	23-7-2021	10:25	6.94	•	
	,	15:25	0,94	3.s	
WPR 3	23-7-2021	10:45	2,014		
:		15:45	6,54	۲٠۶	
Pit A	₹3 -7-2021	10:55	9,04	_	
		15:55	4,00	5	
Pit B	ひ _{>} -7-2021	11:05	٥,54		
		16:05	9,04	ን. ኔ	
PIŁ D		9:15	0.04	(
310 7		14-15	0814		
				· · ·	

Name & Designation

Ting Wai Kin (Safety Officer [Renopipe])

Signature

23-7-2021



Contract no. 13/WSD/16 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

Sampling equipment used:	Dates calibrated
MultiRAE Lite, PGM-6208 M01C031772	6/4/2021

Sampling Location	Date of Sar	Sampling time	Monitoring wells/ Surface Gas Emission	Depth (m)	Remark
Sampling Location	Measurement	Oamping and	Carbon Dioxide (🚜)		
Area A	24 -7-2021	8:30	6,04		
		13:30	0.34	4	
		17:00	8,84	5.5	
Area B	24 -7-2021	8:45	2,62		İ
	- 1	13:45	3.04	2.5	
		16:45	9.34		
CH.FC 8+38 2年-7-2021	2¥ -7-2021	8:55	0,0 1	_ ,	
	-	13:55	3.04	2.5	
CH.FC 0+64	24-7-2021	9:00	o, 61+	. 2.5	
		14:00	٠,٥١٤		
Pit C	24 -7-2021	9:25	پگر. د	8	
1		14:25	0.04		
137 Pit C	24 -7-2021	9:45	٧٥,٥		
		14:45	9,84	7	
137 Pit B	강 -7-2021	9:55	0.04		
		14:55	م هرنه	2.6	
137 Pit A	24 -7-2021 10:05	0,04	5.5	Ì	
	•	15:05	د باب	8.3	
WPR 1	간 -7-2021	10:15	٥٠٥٠٪	2.8	
	15:15	15:15	Tuo Tuo	2.8	

Name & Designation

Ting Wai Kin (Safety Officer [Renopipe])

<u>Date</u>

24-7-2021



Contract no. 13/WSD/16 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

Sampling equipment used:	Dates calibrated
MultiRAE Lite, PGM-6208	6/4/2021
M01C031772	

Sampling Location	Date of Measurement	Sampling time	Monitoring wells/ Surface Gas Emission Carbon Dioxide (%)	Depth (m)	Remark
WPR 2	24 -7-2021	10:25	0,674	_	
		15:25	6,04	35	, .
WPR 3	WPR 3 24 -7-2021	10:45	9.04	- 4	
		15:45	ی.۵۲	2.8	
Pit A	간 -7-2021	10:55	9,54		
, -		15:55	70.0	5	
Pit B - 14-7-202	각-7-2021	11:05	0,04	3,6	
		16:05	ت.ع ^ل		
1	-1 ⁻⁷ 3 1	9:15	+0,0	ļ ļ	
yfD	14-: -001	24-7-2021 7:15	0,34		
					-
		-			
					1

Name & Designation
Ting Wai Kin (Safety Officer [Renopipe])

Signature A <u>Date</u>

Z4 -7-2021



Contract no. 13/WSD/16

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

Sampling equipment used:	Dates calibrated
MultiRAE Lite, PGM-6208 M01C031772	6/4/2021
MU1C031772	

D	Date of Sampling to	Sampling time	Monitoring wells/ Surface Gas Emission Carbon Dioxide (∮e¹)	Depth (m)	Remark
Sampling Location	Measurement	t Samping unie			
Area A	Z6 -7-2021	8:30	40.0		
		13:30	٧٥, د		
		17:00	¥6,8	5.5	
Area B	z ⁶ -7-2021	8:45	0.94		
		13:45	0,04		
		16:45	الان و	2-5	
CH.FC 8+38	び -7-2021	8:55	٠,٥١٠		
	!	13:55	40,0	2.5	
CH.FC 0+64	z₄ -7-2021	9:00	9,04		
		14:00	40.6	2.5	
Pit C	24 -7-2021	9:25	0,0%		
		14:25	0,84	Q.	
137 Pit C	26 -7-2021	9:45	بنه,د	~	
		14:45	3,34		
137 Pit B	<u> 2</u> -7-2021	9:55	g.04		
		14:55	9.04	8,6	
137 Pit A	7-2021 -7-2021	10:05	واق ٥	8.3	
		15:05	0.04		
WPR 1	น -7-2021	10:15	0.04		
	15:15	15:15	o.gi-4	2.%	

Name & Designation

Ting Wai Kin (Safety Officer [Renopipe])

Signature A Date

% -7-2021



Contract no. 13/WSD/16

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

Sampling equipment used:	Dates calibrated
MultiRAE Lite, PGM-6208	6/4/2021
M01C031772	

O F	Date of Samplin	Sampling time	Monitoring wells/ Surface Gas Emission	Depth (m)	Remark
Sampling Location	Measurement	Sampling time	Carbon Dioxide (🏂)		
WPR 2	26-7-2021	10:25	p,04	>	
	15:25	G 10 t	3.5		
WPR 3	رز -7-2021	10:45	0.04		
~		15:45	3,84	7.8	
Pit A	26-7-2021	10:55	5,01+	2	
		15:55	٥٠٥٢	აა	
Pit B	26-7-2021	11:05	0,04	3.6	
İ		16:05	s.6+t		
.	26-7 - 2021	9:15	410.0	2.5	
htp		14512	1-0,0		
			<u> </u>	•	
	· · ·				

Name & Designation

Ting Wai Kin (Safety Officer [Renopipe])

Signature A Date

z6-7-2021

Acuity Sustainability Consulting Limited



Contract no. 13/WSD/16 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

Sampling equipment used:	Dates calibrated
MultiRAE Lite, PGM-6208 M01C031772	6/4/2021

Sampling Location	Date of Measurement	Sampling time	Monitoring wells/ Surface Gas Emission Carbon Dioxide (1/4)	Depth (m)	Remark
Area A	27-7-2021	8:30	0.04		
		13:30	0.34	5.5	
		17:00	5.34	567	
Area B	77-7-2021	8:45	0.54		
		13:45	0,04	2.5	
		16:45	0.04	L.,	
CH.FC 8+38	ัวา -7-2021	8:55	0,84	٠ ٤ 5	
		13:55	₽Ø. o		
CH.FC 0+64	+64 17-7-2021	9:00	9.%U	2.5	
		14.00	40.0		
Pit C	₂₇ -7-2021	9:25	σ.p\ \	કે	
		14:25	0.04		
137 Pit C	ะ ก-7-2021	9:45	ن او د	7	
		14:45	Jo,0		
137 Pit B	ฆ-7-2021	9:55	C' 6ft		
		14:55	p.0l4	8.6	
137 Pit A	ე7-7-2021	10:05	5,64	0.1	
		15:05	3.194	<u></u>	
WPR 1	7-2021-7-זכ	10:15	0.00	- 6	1
	15:15	5.54	2.8		

Name & Designation

Ting Wai Kin (Safety Officer [Renopipe])

Signature A <u>Date</u>

77-7-2021



Contract no. 13/WSD/16

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

Sampling equipment used:	Dates calibrated
MultiRAE Lite, PGM-6208	6/4/2021
M01C031772	

Date of Measurement	Sampling time	Monitoring wells/ Surface Gas Emission Carbon Dioxide (%)	Depth (m)	Remark
บา-7-2021	10:25	40.0		
	15:25	4,0	3.5	
ኒ7-7-2021	10:45	باه. ه		
	15:45	40.0	2-&	
นา-7-2021	10:55	49,0	ኍ	
	15:55	42.0	>	
য়-7-2021	11:05	٠,٥٠	- (
	16:05		۶.۶	
7 <i>-7m</i> J	9:15	0.84	2.5	
1(-1-20)	14:15	5,01		
		-		
	Measurement บา-7-2021 บา-7-2021	Measurement Sampling time v1-7-2021 10:25 15:25 15:25 v1-7-2021 10:45 15:45 10:55 v1-7-2021 10:55 15:55 11:05 16:05 9 15	Measurement Sampling time Carbon Dioxide (∑) 21-7-2021 10:25 6.6½ 15:25 6.0½ 21-7-2021 10:45 6.9½ 15:45 6.9½ 21-7-2021 10:55 6.6½ 15:55 6.6½ 21-7-2021 11:05 2.6½ 16:05 9.0½ 27-7-274 9½ 0.6½	Measurement Sampling time Carbon Dioxide (実) Depti (III) 21-7-2021 10:25 0.64 3.5 27-7-2021 10:45 0.64 2.8 21-7-2021 10:55 0.64 5 21-7-2021 11:05 0.64 5 21-7-2021 11:05 0.64 3.6 27-7-2021 11:05 0.64 3.6 27-7-2021 9! 5 0.64 3.6 27-7-2021 11:05

Name & Designation

Ting Wai Kin (Safety Officer [Renopipe])

Signature

<u>Date</u>

-7-2021



Contract no. 13/WSD/16 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

Sampling equipment used:	Dates calibrated
MultiRAE Lite, PGM-6208	6/4/2021
M01C031772	

Committee Legation	Date of	Sampling time	Monitoring wells/ Surface Gas Emission	Depth (m)	Remark
Sampling Location	Measurement	Sampling time	Carbon Dioxide (ppm)	Dopin (m)	Tterritin
Area A	73 -7-2021	8:30	0.84		
		13:30	ao4	5,5	
		17:00	0,34		
Area B	78-7-2021	8:45	0.04		
		13:45	5,84	2.5	
		16:45	ð, a ⁱ 4		
CH.FC 8+38	25-7-2021	8:55	٥, ١٠٠	2.5	
		13:55	0,04		
CH.FC 0+64	CH.FC 0+64 28-7-2021	9:00	40.0		1
		14:00	0.04	2.5	
Pit C	28 -7-2021	9:25	0.04	_	
		14:25	0.04	3	
137 Pit C	za-7-2021	9:45	0.04	-	ļ
		14:45	0.64	(
137 Pit B	28 -7-2021	9:55	6.04		
,		14:55	بان، ه	8.6	
137 Pit A	28-7-2021	10:05	0.04		1:
		15:05	0.04	8.5	
WPR 1	23-7-2021	10:15	3.04	_	
		15:15	a,ou	2.8	

Name & Designation

Ting Wai Kin (Safety Officer [Renopipe])

Signature

<u>Date</u>

28-7-2021

Field Operator: Laboratory Staff:

Checked by:



Contract no. 13/WSD/16 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

Sampling equipment used:	Dates calibrated
MultiRAE Lite, PGM-6208	6/4/2021
M01C031772	

Sampling Location	Date of Measurement	Sampling time	Monitoring wells/ Surface Gas Emission Carbon Dioxide ()	Depth (m)	Remark
WPR 2	29 -7-2021	10:25		7 (
		15:25	9,04	3/5	
WPR 3	26 -7-2021	10:45	باه.٥	2.8	
		15:45	₽io, c	2.0	
Pit A	28 -7-2021	10:55	ياه، ٥	5	
		15:55	٥٫٥٤		
Pit B 29 -7-2021	28 -7-2021	11:05	c,ol+		
		16:05	ن ول	3.6	
	28 -7 -2024	9:15	გ ე! ફ	2,5	
PAD	28 - (- 0.24	14 = 15	0.44		
					<u> </u>

Name & Designation

Ting Wai Kin (Safety Officer [Renopipe])

Signature A Date

28-7**-**2021



Contract no. 13/WSD/16 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

Sampling equipment used:	Dates calibrated
MultiRAE Lite, PGM-6208	6/4/2021
M01C031772	

Sampling Location	Date of	Sampling time	Monitoring wells/ Surface Gas Emission Carbon Dioxide (%)	Depth (m)	Remark
	Measurement				
Area A	න්-7-2021	8:30	0.94%		
		13:30	5,54%	5.5	
		17:00	0.64%		
Area B	પ ી-7-2021	8:45	6.04%		
		13:45	0.0420	2,5	
		16:45	6.04%	213	
CH.FC 8+38 29-7-2021	29-7-2021	8:55	6.042		
		13:55	5.04%	25	
CH.FC 0+64 약-7-2	ਪ੍ਰੰ-7-2021	9:00	5.04%	2.5	
	1	14:00	0.0420		
Pit C	z9-7-2021	9:25	0.04%	8	
		14:25	0.54%		
137 Pit C	z ⁹ -7-2021	9:45	0,04%	7	
		14:45	0.04%	·	
137 Pit B	યો-7-2021	9:55	8.0426		
		14:55	0.04%	8.6	
137 Pit A	-29-7-2021 .	10:05	0,042	0.7	
	-	15:05	0,04%	8.3	
WPR 1	1 ³ -7-2021	10:15	2.01.25		
	1 2027	15:15	0.642	2.9	

Name & Designation

Ting Wai Kin (Safety Officer [Renopipe])

Signature A Date

υ-7-2021



Contract no. 13/WSD/16 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

Sampling equipment used:	Dates calibrated
MultiRAE Lite, PGM-6208	6/4/2021
M01C031772	

Sampling Location	Date of Measurement	Sampling time	Monitoring wells/ Surface Gas Emission Carbon Dioxide (5.)	Depth (m)	Remark
WPR 2	ව්-7-2021	10:25	0,04%		
		15:25	0.042	3.5	
WPR 3	- 9-7-2021	10:45	0.04%		
ì		15:45	0.04%	2.8	
Pit A	19-7-2021	10:55	0.04%		
		15:55	0,0470	5	
Pit B	29-7-2021	11:05	2,9416.	n (
		16:05	0.04%	3,6	
Pih	29-7-200	9:15	0.64%	2.5	
Pitb	2(., 200	14:15	0.64%		

Name & Designation

Ting Wai Kin (Safety Officer [Renopipe])

Signature 1 Date

A-7-2021



Contract no. 13/WSD/16
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

Sampling equipment used:	Dates calibrated
MultiRAE Lite, PGM-6208	6/4/2021
M01C031772	

Sampling Location	Date of Measurement	Sampling time	Monitoring wells/ Surface Gas Emission Carbon Dioxide (%)	Depth (m)	Remark
Area A	3o-7-2021	8:30	0.04		
		13:30	0,04	L.	
		17:00	٠.٥١٠	5.5	
Area B	<i>⊋</i> 0-7-2021	8:45	با٥. و		
		13:45	٧٢, ٥	7.2	
		16:45	6.94		
CH.FC 8+38 3º -7-;	3° -7-2021	8:55	٥.٥٧	•	
		13:55	۴٥.۵	1.5	
CH.FC 0+64	<i>></i> ≈-7-2021	9:00	0.04	.	
		14:00	0.04	2.5	
Pit C	<i>3</i> o-7-2021	9:25	8.0ly		
		14:25	0.64	8	
137 Pit C	3⇔-7-2021	9:45	0.04		
		14:45	ast 0,04	7	
137 Pit B	30 -7-2021	9:55	9,0i÷		
		14:55	0.04	8.6	
137 Pit A	≫ -7-2021	10:05	0.84		
		15:05	0.04	8.3	
WPR 1	³ ° -7-2021	10:15	0.84		
		15:15	0.04	2.8	

Name & Designation

Ting Wai Kin (Safety Officer [Renopipe])

Signature A

Date

7-2021م_ةح



Contract no. 13/WSD/16 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

Sampling equipment used:	Dates calibrated
MultiRAE Lite, PGM-6208	6/4/2021
M01C031772	

Sampling Location	Date of Measurement	Sampling time	ng time Monitoring wells/ Surface Gas Emission Carbon Dioxide (🐔)		Remark
WPR 2 30 -7-2021		10:25	9.04		
	15:25	40.0	3,5		
WPR 3 3-7-2021	10:45	e.94	``		
İ		15:45	0.04	3.5	
Pit A	₹9-7-2021	10:55	٠,٥٢	_	
		15:55	6_04	5	
Pit B 3> -7-2021	11:05	0.04	,		
		16:05	o.0i4	3.6	
Pitp	30-7-2021	σ9:15	0.04		
		14215	c.o.4	2.5	

Name & Designation

Ting Wai Kin (Safety Officer [Renopipe])

Signature N Date

3₀-7-2021

Field Operator: Laboratory Staff:

Checked by:



Contract no. 13/WSD/16

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

Sampling equipment used:	Dates calibrated
MultiRAE Lite, PGM-6208	6/4/2021
M01C031772	

Sampling Location	Date of Measurement	Sampling time	Monitoring wells/ Surface Gas Emission Carbon Dioxide (%)	Depth (m)	Remark
Area A	31 -7-2021	8:30	0,64		
	<u> </u>	13:30	P/0,3	5.5	
		17:00	0.54		
Area B	3 -7-2021	8:45	p.04		
		13:45	40,0	2.5	
ĺ		16:45	٥, ۵ ل		
CH.FC 8+38	3 -7-2021	8:55	0.04		
		13:55	ناړ. ٥	25	
CH,FC 0+64	3 -7-2021	1-7-2021 9:00	6.0Lf		
	·	14:00	0.0 ∸ t	2.5	
Pit C	ال 3۱-7-2021	9:25	d.0¥	0	
		14:25	0.04	8	
137 Pit C	3 -7-2021	9:45	5,04		
		14:45	0.04	i	
137 Pit B	3)-7-2021	9:55	4.0.0	• (
		14:55	₩°,0	8.8	
137 Pit A	3!-7-2021	10:05	0.014		
		15:05	0,04	8.3	
WPR 1	3) -7-2021	10:15	ي. ورد	- 0	
	15:15	15:15	6,04	58	

Name & Designation

Ting Wai Kin (Safety Officer [Renopipe])

Signature A

<u>Date</u>

-7-2021



Contract no. 13/WSD/16 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

Sampling equipment used:	Dates calibrated
MultiRAE Lite, PGM-6208	6/4/2021
M01C031772	

Sampling Location	Date of	Compling time	Monitoring wells/ Surface Gas Emission	Danille (m)	Damada
Measurement		Sampling time	Carbon Dioxide (🔏)	Depth (m)	Remark
WPR 2	3! -7-2021	10:25	0.04		
		15:25	0.04	3.5	
WPR 3	>(-7-2021	10:45	०,१५		
		15:45	ν ^{β6} ις.	2.8	
Pit A	3/ -7-2021	10:55	6.34		
		15:55	0,54	5	
Pit B	Pit B 3 ₁ -7-2021	11:05	<i>\$</i> .0\4		
		16:05	0.04	₹.6	
PED	31-7-2021	9:15	9,04		
UDV	***	14:15	٥,00	2.5	
					L

Name & Designation

Ting Wai Kin (Safety Officer [Renopipe])

Signature A

<u>Date</u>

5 -7-2021



Appendix K

Complaint Log and Regulatory Compliance Proforma



Statistical Summary of Environmental Complaints

Reporting Period	Environmen	ronmental Complaint Statistics			
	Frequency	Cumulative	Complaint Nature		
01 July 2021 - 31 July 2021	1	3	One project-related environmental complaint was received and the site condition of the concerned area was reviewed by ET. ET noted that although there was no excavation works on-going or scheduled recently, clearance works and works that create disturbance to ground surface were previously conducted. To prevent the muddy water discharge from the construction site, the contractor has implemented and enhanced the mitigation measures to cater for any upcoming rainstorms or heavy precipitation from the site. Sandbags are placed along the site boundary and submersible pump is provided to direct the runoff to the wastewater treatment tank before reusing or discharging into the designated discharge point. Cement application to exposed earth within the site was also observed during the inspection on 13 August 2021, which was being implemented to prevent erosion caused by the precipitation. The temporarily exposed slope and areas were covered by tarpaulin.		



Statistical Summary of Environmental Summons

Reporting Period	Environmental Summons Statistics			
	Frequency	Cumulative	Details	
01 July 2021 - 31 July 2021	0	0	N/A	

Statistical Summary of Environmental Prosecution

Reporting Period	Environmental Prosecution Statistics			
	Frequency	Cumulative	Details	
01 July 2021 - 31 July 2021	0	0	N/A	



Appendix L

Site Inspection Proforma





Unit 1908, Nos. 301-305 Castle Peak Road, Kwai Chung, N.T. O: 2333-6823 | F: 2333-1316 | E: general@acuityhk.com | www.acuityhk.com

Contract no. 13/WSD/16 Mainlaying in Tseung Kwan O

MEERLY ENVIRONMENTAL INSPECTION CHECKLIST

WEE	KLY ENVIRONMENTAL INSPECTIO	N CHECKLIST		
Inspection Date: 02/07/2024 Inspection Time: 29:30 - 12:30	Inspected by: EII _Chavlent Lav Contractor:	WSD TO	t kin Fa	Ĭ
Weather Condition Surry Fi Temperature Alar Li Wind Kalm Li	Humidity High Modera	Storm	Hazy	
		N/A Yes	No	Photo/Remarks
0.00 General 0.01 Is the current Environmental Permit dis	played conspicuously at all vehicle site			065 (2)
entrances/exits for public's information 0.02 Is ET Leader's log-book kept readily a			1	
Construction Dust Are dusty materials, such as excavated	materials, building debris and construction			comprised.
materials, and exposed earth surface pr	operly covered to prevent dust emission? ing or vacuum cleaning devices provided to dusty		. Ц	and olisty
construction works for dust suppression				when zerence
1.03 Are fumes or smoke emitting plants or	construction activities shielded by a screen?			notane / snow emoting plant / orthograph autinty observed
1.04 Are wheel-washing facilities with high-	pressure water jets provided at all site exits?	I		
1.05 Is wheel-washing provided to all vehicle	es leaving the site?	V		
1.06 Are road section near the site exit free f				
1.07 Are all main haul roads inside the site p emission during vehicle movement?	aved or sprayed with water to minimize dust			parel
1.08 Are water spraying provided immediate materials?	ly prior to any loading or transfer of dusty			Comparted, Congress
1.09 Are covers provided to all dump trucks leaving the site?	carrying dusty materials when entering and		1 🗆	
boulders, poles, pillars sprayed with wa				
site?	six months after the last construction activity on			
1.12 Does the operation of plants on site free	form dark smoke emission?			VARMM Laver
		L		

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	Contract no. 13/WSD/16 Mainlaying in Tseung Kwan O							
		N/A	Yes	No	Photo/Remarks			
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?				# / (T = 200 = 500)			
1.15	Are de-hagging, hatching and mixing processes of bagged cement curried out in sheltered areas?							
1.16	Are hoarding of at least 2.4m high provided along the site boundary adjoining areas accessible by the public?			П				
1.17	Is open burning prohibited?		7					
2.00	Construction Noise (Airborne)			-	*			
2.01	Are quiet plants adopted on site?				unase laber			
2.02	Are the PMEs operating on site well-maintained to minimize the generation of excessive niose?		\checkmark		Vagiculary Vaguer			
2.03	Are plants throttled down or turned off when not in use?		V		montenance.			
2.04	Are the plants known to emit noise strongly in one direction oriented to face away from NSRs!	Ŋ			2 No inspection			
2.05	Are moveable barriers provided to screen NSRs from plant or noisy operations?	V			I nur to whe			
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?							
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 sitc?							
	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 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?		V					
3.02	Is effluent discharged according to the effluent discharge license?				0694)			
3.03	Is wastewater discharge from site properly treated prior to discharge?		П		Obst 41			

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Unit 1908, Nos. 301-305 Castle Peak Road, Kwai Chung, N.T. O: 2333-6823 | F: 2333-1316 | E: genera:@acuityhk.com | www.acuityhk.com

	Contract no. 13/WSD/16 Mainlaying in Tseung Kwan O								
		N/A	Yes	No	Photo/Remarks				
3.04	Are perimeter channels provided to intercept storm runoff from outside the site?				06(15)				
3.05	Are sand/silt removal facilities such as sand/silt traps and sediment basins provided to remove sand/silt particles from runoff?		V						
3.06	Is surface runoff diverted to sedimentation facilities?				obs (4)				
3.07	Is the drainage system properly maintained?				Obc (3)				
3.08	Are construction works carefully programmed to minimize soil excavation works during fainty seasons?								
3.09	Are exposed soil surface protected by paving as soon as possible to reduce the potential of soil crossion?		V						
3.10	Are temporary access roads protected by crushed gravel?		1						
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?		V		Y				
3.13	Are open stockpiles of construction materials on site covered by tarpaulin or similar fabric during construction?		V.						
3.14	Is runoff from wheel-washing facilities avoided?								
3.15	Is oil leakage or spillage prevented?				obs (1)				
3.16	Are there any measures to prevent the release of oil and grease into the storm drainage system?				oks (1)				
3.17	Are the oil interceptors/ grease traps properly maintained?	V			10 velve				
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 scaled 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?		d						
3.21	Are sufficient chemical toilets provided on site to handle sewage from construction work force. ¹		V		•				
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?		\checkmark						

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Unit 1908, Nos. 301-305 Castle Peak Road, Kwai Chung, N.T. O: 2333-6823 | F: 2333-1316 | E: general@acuityhk.com | www.acuityhk.com

	Contract no. 13/WSD/16 Mainlaying in Tseung Kwan O							
		N/A	Yes	No	Photo/Remarks			
4.02	is a recording system implemented to record the amount of wastes generated, recycled and disposed of?							
4.03	Is the Contractor registered as a chemical waste producer?							
4.04	Are chemical waste separated from other waste and collected by a licensed chemical waste collector?	N						
4.05	Are trip tickets for chemical waste disposal available for inspection?	I			<u> </u>			
4.06	is chemical waste reused and recycled on site as far as practicable?				-			
4.07	Are all containers for chemical waste properly labelled?							
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?		V		reminder (2			
4.13	Are sufficient general refuse disposal/collection points provided on site?		V					
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?		V					
4.19	Are unused C&D materials or chemicals recycled or reused to reduce the quantity of waste?	V						
4.20	Are public fill and C&D waste reuse on site as far as practicable to avoid disposal off-site?		\checkmark					
4.21	Are the construction materials stored properly to minimize the potential for damage or contamination?		V					
4.22	is a dumping license obtained to deliver public fill to public filling areas?		V					

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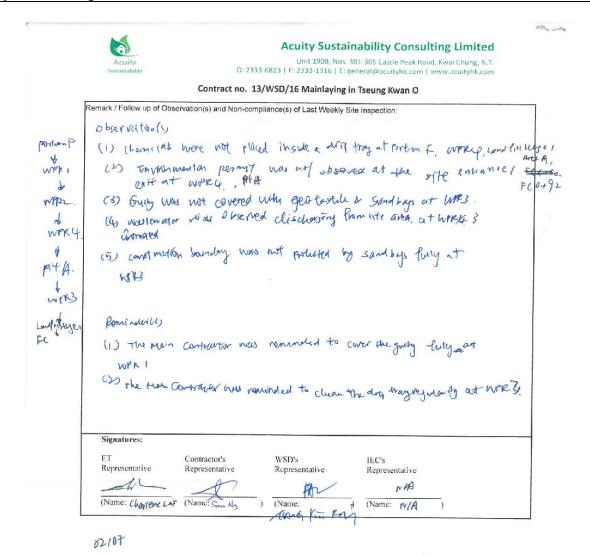
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Contract no. 13/WSD/16 Mainlaying in Tseung Kwan O Photo/Remarks 5.00 Landscape and Visual 5.01 Are Is site hoarding provided? 5.02 Are vegetation disturbance minimized or soil protected to reduce potential soil crosion? 5.03 Is construction light oriented away from the sensitive receivers? 5.04 is grass hydroseeding provided to slopes as soon as the completion of works? 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 Ecology 6.01 Is site runoff properly treated to prevent any silly runoff? Obs (4) 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? Is the FM&A properly implemented in general? V

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Contract no. 13/WSD/16 Mainlaying in Tseung Kwan O

WEEKLY ENVIRONMENTAL INSPECTION CHECKLIST

	on Date: 28/07/2011 Inspected by: ET. Charlene laid	WSD:	chn	Check	kī
Weath			_		
Condit	ion Sunny Fine Overcast Drizzle Rain	Sto	m	Hazy	
Tempe	cature 3 C Humidity High Modera:	e Lo	w		
Wind	V Calm Light Breeze Strong				
		N/A	Yes	No	Photo/Remarks
0.00	General				
	Is the current Environmental Permit displayed conspicuously at all vehicle site				065(1)
	entrances/exits for public's information at any time?	L		لـــا	0 30.)
0.02	ls ET Leader's log-book kept readily available for inspections?				
			L_Y]		
1.00	Construction Dust		***********		assy meterias
1.01	Are dusty materials, such as excavated materials, building debris and construction				went by mette
	materials, and exposed earth surface properly covered to prevent dust emission?	لسنسا			Quistin
1.02	Are screenings, enclosures, water spraying or vacuum cleaning devices provided to dusty				screening.
	construction works for dust suppression?		V		
1.03	Are Jumes or smoke emitting plants or construction activities shielded by a screen?				emitting plant/ ountilities
					autivities
	Are wheel-washing facilities with high-pressure water jets provided at all site exits?	Y			
1.05	ls wheel-washing provided to all vehicles leaving the site?	1			
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		7		porol
4.00	emission during vehicle movement?				enty moterials
1.08	Are water spraying provided immediately prior to any loading or transfer of dusty materials?				were left wet to
1.09	Are covers provided to all dump trucks carrying dusty materials when entering and leaving the site?	1			Associated,
1.10	Are the working areas for uprooting of trees, shrubs, or vegetation or the removal of	-/ i			
	boulders, poles, pillars sprayed with water to maintain the entire surface wet?	Y			
1.11	Is exposed earth properly treated within six months after the last construction activity on				
	site?		V	Ш	
1.12	Does the operation of plants on site free form dark smoke emission?		\checkmark		Nemm (su)

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) where the same of the	Contract no. 13/WSD/16 Mainlaying in Tseung Kwan O							
		N/A	Yes	No	Photo/Remarks			
1.13	Are vehicles travelling at speed not exceeding 15km/hr within the site?	V						
1.14	Are stock of more than 20 bags of cement or day PFA covered or sheltered on top and 3 sides?	V			- Augusta			
1.15	Are de-bagging, batching and mixing processes of bagged cement carried out in sheltered areas?	П	V	П	The state of the s			
1.16	Are hourding of at least 2.4m high provided along the site boundary adjoining areas accessible by the public?			Ī				
1.17	Is open burning prohibited?							
2.00	Construction Noise (Airborne)							
	Are quiet plants adopted on site?		1		lame lang			
2.02	Are the PMEs operating on site well-maintained to minimize the generation of excessive nose?		1		V Regular			
2.03	Are plants throttled down or turned off when not in use?		1					
2.04	Are the plants known to emit noise strongly in one direction oriented to face away from NSRs?				END VISIT to			
2.05	Are moveable barriers provided to screen NSRs from plant or noisy operations?				mort.			
2.06	Are silencers, mufflers and enclosures provided to plants?							
2.07	Are the hoods, cover panels and inspection hatches of PMFs closed during operation?		V					
2.08	Are purposely-built site hoarding construction with appropriate materials provided along the site boundary?	V						
	Are noisy operation properly scheduled to minimize exposure and cumulative impacts to nearby sensitive receivers?			П				
2.10	Are valid noise emission label(s) affixed to all hand-held breakers operating on site?		\Box	$\overline{\Box}$				
	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?		I					
2.14	Are valid construction noise permit(s) displayed at all vehicular exits?		1					
3.00	Water Quality							
	Is effluent discharge license obtained for wastewater discharge from site?		V					
	Is effluent discharged necording to the effluent discharge license?				JUS (1)			
3.03	is wastewater discharge from site properly treated prior to discharge?				9 par (2)			

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Unit 1908, Nos. 301-305 Castle Peak Road, Kwai Chung, N.T. O: 2333-6823 | F: 2333-1316 | E: general@acuityhk.com | www.acuityhk.com

3.04 Are perimeter channels provided to intercept storm natiol from outside the site? 3.05 Are sand/all removal finelities such as sand/all traps and sediment besins provided to consive and/all particles from nanel? 3.06 Is surface runoff civered to sedimentation facilities? 3.07 Is the drainage system properly maintained? 3.08 Are construction works care fully programmed to minimize soil excavation works during anily seasons? 3.09 Are expected oil surface protected by priving as soon as possible to reduce the potential of soil crosson? 3.10 Are temporary access reads protected by erushed graver? 3.11 Are exposed alope surface protected by erushed graver? 3.12 Is trench excavation avoided in the vest season as fir as practicable, or if necessary, tack filled in short sections after excavation? 3.13 Are gene stackplies of construction materials on site covered by tarpadin or similar fabric during construction? 3.14 Is runoff from wheel-weshing facilities are older? 3.15 Is useful leading to 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 interceptored grease traps properly maintained? 3.18 Are debris and rubbish generated on aite collected, handled and disposed of properly to system? 3.19 Are affected chemical formed and the locations tocked as far as possible from the essible water capacity of the storage capacity of the largest tark? 3.19 Are larks, containers, storage area bunded and the locations locked as far as possible from the essible water content and information as it is considered and the locations locked as far as possible from the essible water content and information capacity water properly collected and treated prior to discharge? 3.20 Are tarks, containers, storage area bunded and the locations locked as far as possible from the essible water content and location water from the essible and treated prior to discharge? 3.21 Are sufficient chemical folices provided on aire to handle sewage fro	Contract no. 13/WSD/16 Mainlaying in Tseung Kwan O								
3.05 Are send/silt removal facilities such as sand/silt traps and sediment basins provided to remove sand/silt particles from runoff? 3.06 Is surface runoff divorted to sedimentation facilities? 3.07 Is the drainings system properly maintained? 3.08 Are construction works carefully programmed to minimize soil excavation works during rainy sessons? 3.09 Are exposed soil surface protected by paving as soon as possible to reduce the potential of soil crosson? 3.10 Are temporary access roads protected by crushed gravet? 3.11 Are exposed soles surface properly protected? 3.12 Is trench excavation works during responsible to reduce the potential of soil crosson? 3.13 Are open stockpiles of construction materials on site covered by larpaulin or similar fabric during construction? 3.14 Is runoff from wheel-vurshing facilities avoided? 3.15 Is oil leakuage or spillage prevented? 3.16 Are there any measures to prevent the release of oil and grease into the storm draining postular and the storm of the st					No	Photo/Remarks			
emove sand/sfill particles from runoff? 3.06 Is surface runoff diverted to sedimentation facilities? 3.07 Is the drainage system properly maintained? 3.08 Are construction works carefully programmed to minimize soil excavation works during rainy sessons? 3.09 Are exposed soil surface protected by paving as soon as possible to reduce the potential of soil crosion? 3.10 Are temporary access roads protected by crushed gravet? 3.11 Are exposed alope 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 stockpites of construction materials on site covered by tarpaulin or similar fabric string 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 cellected, handled and disposed of property to system? 3.19 Are all filed lanks and storage areas provided with focks and be sited on sealed areas, within bunds of expactly equal to 110% of the storage exposity of the largest tank? 3.19 Are all filed lanks and storage areas provided with focks and be sited on sealed areas, within bunds of expactly equal to 110% of the storage expocity of the largest tank? 3.20 Are tanks, containers, storage area bunded and the locations tocked as far as possible from the sensitive votacroouse and stormwater drains? 3.21 Are surficent elemical toilets maintenance of the portable chemical toilets provided by he ficensed containtors? 3.22 Are sevenge disposal and toilet maintenance of the portable chemical toilets provided by he ficensed containtors? 3.23 Are sevenge disposal and toilet maintenance of the portable chemical toilets provided by he ficensed containtors?	3.04	Are perimeter channels provided to intercept storm runoff from outside the site?				obs (4)			
3.06 Is surface runoff diverted to sedimentation facilities?	3.05	Are sand/silt removal facilities such as sand/silt traps and sediment basins provided to	ГТ	[]/					
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	Contract no. 13/WSD/16 Mainlaying in Te	seung Kw	an O		
		N/A	Yes	No	Photo/Remarks
4.02	is a recording system implemented to record the amount of wastes generated, recycled and disposed of?		N		
4.03	is the Contractor registered as a chemical waste producer?				
4.04	Are chemical waste separated from other waste and collected by a licensed chemical waste collector?	V			
4.05	Are trip tickets for chemical waste disposal available for inspection?		П		
4.06	is chemical waste reused and recycled on site as far as practicable?				
4.07	Are all containers for chemical waste properly labelled?		7		
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 aren enclosed on at least 3 stdes and adequately ventilated?		V		
4.11	is an impermeable fluor 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?		V		
	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?		V		
4.14	is general refuse disposed of properly and regularly?				
	Are appropriate measures adopted to minimize windblown litter and dust during transportation of waste?		\square'		
	Are individual collectors for aluminum cans, plastic bottles and packaging material and office paper provided to encourage waste segregation?				Water Control of the
	Are C&D wastes sorted on site?		V		***************************************
	Are C&D waste disposed of properly?		1		
	Are unused C&D materials or chemicals recycled or reused to reduce the quantity of waste?	D.			
	Are public fill and C&D waste reuse on site as far as practicable to avoid disposal off-site?		V		
	Are the construction materials stored properly to minimize the potential for damage or contamination?				
4.22	s a dumping license obtained to deliver public fill to public filling areas?		V		

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Contract no. 13/WSD/16 Mainlaying in Tseung Kwan O Photo/Remarks 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? 5.05 Are damages to trees outside site boundary due construction works avoided? 5.06 ls excavation works carried out manually instead of machinery operation within 2.5m vicinity of 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 Ecology 6.01 Is site runoff properly treated to prevent any silly runoff? 065629 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? 7.00 Overall 7.01 Is the EM&A properly implemented in general?

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Acuity Sustainability Consulting Limited

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Contract no. 13/WSD/16 Mainlaying in Tseung Kwan O

Remark / Follow up of Observation(s) and Non-compliance(s) of Last Weekly Site Inspection: Observation Co (1) Gention wenter fermit was will observed at exit/entrance at WTR2. Os untreated navel may that observed dischargely from the Sitatures. A seamenteers m lank / wester treatment facilities should be WPF 2 (4) Consumotring boundary was not buy mounter by sangley's at were WIR3 Signatures: Contractor's WSD's IEC's Representative Representative Representative Representative KIA (Name: Charlens Low) (Name: Sam No. (Name: CHU (Name: N/A

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Contract no. 13/WSD/16 Mainlaying in Tseung Kwan O

WEEKLY ENVIRONMENTAL INSPECTION CHECKLIST

Inspecti	on Date: 16/07/2011 Inspected by: ET. Charles Contractor: Squarty.	WSD:	(.w.i	ai	-
Weath			_		
Condit		Sto	-	Hazy	
Tempe		e Lo	× ·		·
Wind	Calm light Breeze Strong				·
	·	N/A	Yes	No	Photo/Remarks
		IN-CA	105	NO	Photo/Remarks
0.00	General				***************************************
0.01	ls the current Environmental Permit displayed conspicuously at all vehicle site				Nbs(1)
	entrances/exits for public's information at any time?				
0.02	Is ET Leader's log-book kept readily available for inspections?		17		
	Construction Dust				
	Are dusty materials, such as excavated materials, building debris and construction materials, and exposed earth surface properly covered to prevent dust emission?		V		
	Arc screenings, enclosures, water spraying or vacuum cleaning devices provided to dusty				- Joseph A
	construction works for dust suppression?			П	wasteresish more
					were observed
1.03	Are filmes or smoke emitting plants or construction activities shielded by a screen?				in Punel Simple
					emoting plant 1
	, and the second			LJ	autivities were
1.04	Are wheel-washing facilities with high-pressure water jots provided at all site exits?		П		observed.
1.05	Is wheel-washing provided to all vehicles leaving the site?				
	is wheel valuining provided to all voinces rearing the site:	LV			
1.06	Are road section near the site exit free from dusty material?				
4.07			<u>V</u>		
1.07	Are all main haul roads inside the site paved or sprayed with water to minimize dust emission during vehicle movement?				pared.
1.08	Are water spraying provided immediately prior to any loading or transfer of dusty				NO HARINA!
	materials?	_/			transfer of Lusty
1.09	Are covers provided to all dump trucks carrying dusty materials when entering and				waterdus obscissof
	leaving the site?			Ш	Dod F. Ch.
1.10	Are the working areas for uprooting of trees, shrubs, or vegetation or the removal of				
1.44	boulders, poles, pillars sprayed with water to maintain the entire surface wet?				
	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 000	, and the state of		V		Mkimiry (ale)

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Unit 1908, Nos. 301-305 Castle Peak Road, Kwai Chung, N.T. O: 2333-6823 | F: 2333-1316 | F: general@acuityhk.com | www.acuityhk.com

	Contract no. 13/WSD/16 Mainlaying in Ts	eung Kwa	an O		
		N/A	Yes	No	Photo/Remarks
1.13	Are vehicles travelling at speed not exceeding 15km/hr within the site?		П	П	
1.14	Are stock of more than 20 bags of coment or day PFA covered or sheltered on top and 3 sides?		\overline{V}		
1.15	Are de-bagging, hatching and mixing processes of bagged cement carried out in sheltered ureas?	V			
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?				
2.00	Construction Noise (Airborne)		/		
2.01	Are quiet plan's acopted on site?		V		√ Qrm E label
2.02	Are the PMEs operating on site well-maintained to minimize the generation of excessive niose?				V Reputer inspection
2.03	Are plants throttled down or turned off when not in use?		V		
2.04	Are the plants known to emit noise strongly in one direction oriented to face away from NSRs?	V		П	2 an visit to portion
2.05	Are moveable barriers provided to screen NSRs from plant or noisy operations?	$\sqrt{}$			Near-topisk.
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?				NO PME aperation du
2.08	Are purposely-built site hoarding construction with appropriate materials provided along the site boundary?				Not.
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?	N			
	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?		V		
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			-	
	ls effluent discharge license obtained for wastewater discharge from site?		V		
3.02	Is effluent discharged according to the effluent discharge license?		V		
3.03	Is wastewater discharge from site properly freated prior to discharge?		星		obs (3).

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Unit 1908, Nos. 301-305 Castie Peak Road, Kwai Chung, N.T. O: 2333-6823 | F: 2333-1316 | E: general@acuityhk.com | www.acuityhk.com

Contract no. 13/WSD/16 Mainlaying in Tseung Kwan O Photo/Remarks 3.04 Are perimeter channels provided to intercept storm runoff frem outside the site? V 3.05 Are sand/silt removal facilities such as sand/silt traps and sediment basins provided to emove sand/silt particles from runoff? s surface runoff diverted to sedimentation facilities? 3.07 Is the drainage system properly maintained? 3.08 Are construction works carefully programmed to minimize soil excavation works during 1 ainv seasons? Are exposed soil surface protected by paving as soon as possible to reduce the potential of oil crosion? Are temporary access roads protected by crushed gravel? 3.11 Arc exposed slope surface properly protected? Is trench excavation avoided in the wet season as far as practicable, or if necessary, ackfilled in short sections after excavation? 3.13 Are open stockpiles of construction materials on site covered by tarpaulin or similar fabric during construction? s runoff from wheel-washing facilities avoided? 3.15 Is oil leakage or spillage prevented? のかしつりり 3.16 Are there any measures to prevent the release of oil and grease into the storm drainage pbs (2) (4) 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 scaled 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 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? 4.01 Is a trip-ticket system implemented to monitor the disposal of C&D and solid wastes at public filling facilities and landfills?

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Unit 1908, Nos. 301-305 Castle Peak Road, Kwai Chung, N.T. O: 2333-6823 | F: 2333-1316 | E: general@acuityhk.com | www.acuityhk.com

	Contract no. 13/WSD/16 Mainlaying in Tseung Kwan O									
		N/A	Yes	No	Photo/Remarks					
4.02	is a recording system implemented to record the amount of wastes generated, recycled and disposed of?									
4.03	Is the Contractor registered us a chemical waste producer?									
4.04	Are chemical waste separated from other waste and collected by a ficensed chemical waste collector?									
4.05	Are trip tickets for chemical waste disposal available for inspection?									
4.06	Is chemica, waste reused and recycled on site as far as practicable?	V								
4.07	Are all containers for chemical waste properly labelled?									
4.08	is chemical waste storage area used solely for storage of chemical waste and properly labelled?		1							
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 drairage systems, sump pits, and oil interceptors?		V							
4.13	Are sufficient general refuse disposal/collection points provided on site?		1							
4.14	Is general, refuse disposed of property and regularly?		V							
4.15	Are appropriate measures adopted to minimize windblown litter and dust during transportation of waste?		X							
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?		V							
4.18	Are C&D waste disposed of properly?		\checkmark							
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 or, 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	s a dumping license obtained to deliver public fill to public filling areas?		1							

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Unit 1908, Nos. 301-305 Castle Peak Road, Kwai Chung, N.T. 0: 2333-6823 | F: 2333-1316 | E: general@acuityhk.com | www.acuityhk.com

	Contract no. 13/WSD/16 Mainlaying in Tseung Kwan O								
		N/A	Yes	No	Photo/Remarks				
5.00	Landscape and Visual								
5.01	Are Is site boarding provided?								
5.02	Are vegetation disturbance minimized or soil protected to reduce potential soil erosion?		V						
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?								
5 05	Are damages to trees outside site boundary due construction works avoided?		/						
	Is excavation works carried out manually instead of machinery operation within 2.5m vicinity of any preserved trees?	M	V						
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	Ecology								
	Is site runoff properly treated to prevent any silly runoff?		•,		065(3)				
6.02	Are silt trap installed and well-maintained?								
6.03	Are stockpiles properly covered to avoid generating stilty runoff?		1						
	Are construction works restricted to works area which are clearly defined?								
7.00	Overall			-	-				
7.01	Is the EM&A properly implemented in general?								

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Unit 1908, Nos. 301-305 Castle Peak Road, Kwai Cheng, N.T O: 2333-6823 | F: 2333-1316 | E: general@acuityhk.com | www.acuityhk.com

Contract no. 13/WSD/16 Mainlaying in Tseung Kwan O

Remark i Follow up of Observation(s) and Non-compliance(s) of Last Weekly Site Inspection: Observation(1) (U Environmental front gras not observed cet. Pit L (H.K. Nelochrone) HIR. (2) Requer change of dry should be conducted to prevent previous of trapped materials. at 11 0. (A.le. reloling) (3) Regular clienty of the depotated meteries in the water sedimentation take to allow efficient seawage at the kills are no should be a (pit 0) (4) Oil teakage was a tegred of PATN (the values) Reminelly (1) Horselegge was reminded at rit N. M. K. Velodismes (2) The Man Contrador shall Consider to the topically scalinertation face with Clark treathy against to change proper treatment of washington before discharge, at lit M. (11.16-versionine) Signatures: Contractor's WSD's Representative Representative Representative Representative NA (Namethoderela) (Name: Souls)) (Name: C.W. 1/20) (Name: N/A)

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Unit 1908, Nos. 301-305 Castle Peak Road, Kwai Chung, N.T. O: 2333-6823 | F: 2333-1316 | E: general@acuityhk.com | www.acuityhk.com

Contract no. 13/WSD/16 Mainlaying in Tseung Kwan O

WEEKLY ENVIRONMENTAL INSPECTION CHECKLIST

	on Date: 2267-[242] Inspected by: ET: Chanfield 1819 on Time: 89:30 - [2:30	WSD: IEC:_	An wa	itale.	
Weathe					
Condit	on Sunny Fine Overcast Drizzle Rain	Sto	ım	Hazy	
Tempe	ature 30-C Humidity High Moderat	le I.o.	ov.		
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				Obs (1)
	entrances/exits for public's information at any time?				0 85 (1)
0.02	Is ET Leader's log-book kept readily available for inspections?				
		Ш	V		
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?				
1.02	Are screenings, enclosures, water spraying or vacuum cleaning devices provided to dusty				*
	construction works for dust suppression?		V		Screening with
					178
1.03	Are fumes or smoke emitting plants or construction activities shielded by a screen?				
		NA.	~		
4.04		1			
1.04	Are wheel-washing facilities with high-pressure water jets provided at all site exits?	V			
1.05	Is wheel-washing provided to all vehicles leaving the site?		一	一	
			Ш		
1.06	Are road section near the site exit free from dusty material?	П		- []	
1.07	Are all main haul roads inside the site paved or sprayed with water to minimize dust				
	emission during vehicle movement?		0		haved.
	Are water spraying provided immediately prior to any loading or transfer of dusty				•
	materials?		Y		
1.09	Are covers provided to all dump trucks carrying dusty materials when entering and		$\overline{\Box}$		NO DUMP MULLS
	leaving the site?		Ш		observed
	Are the working areas for uprooting of trees, shrubs, or vegetation or the removal of				
	boulders, poles, pillans sprayed with water to maintain the entire surface wet?		ш		
	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?				
	and operation of plants on site free form that smoke emission;		V		VARMMlabel

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Unit 1908, Nos. 301-305 Castle Peak Road, Kwai Chung, N.T. O: 2333-6823 | F: 2333-1316 | E: general@acuityhk.com | www.acuityhk.com

	Contract no. 13/WSD/16 Mainlaying in Tseung Kwan O								
		N/A	Yes	No	Photo/Remarks				
1.13	Are vehicles travelling at speed not exceeding 15km/hr within the site?	V							
1.14	Are stock of more than 20 bags of coment or day PFA covered or sheltered on top and 3 sides?								
1.15	Are de-bagging, batching and mixing processes of bagged cement carried out in sheltered areas?	V							
1.16	Are hoarding of at least 2.4m high provided along the site boundary adjoining areas accessible by the public?		П						
1.17	Is open burning prohibited?		V						
2.00	Construction Noise (Airborne)								
	Are quiet plants adopted on site?				Igniselabel				
2.02	Are the PMEs operating on site well-maintained to minimize the generation of excessive niose?		\checkmark		(briggy V kegular introvion				
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?	V			I for whit that				
2.05	Are moveable barriers provided to screen NSRs from plant or noisy operations?) Brear to				
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?	V	}						
2.09	Arc noisy operation properly scheduled to minimize exposure and cumulative impacts to nearby sensitive receivers?		\checkmark						
2.10	Arc valid noise emission label(s) affixed to all hand-held breakers operating on site?	iZ.	,						
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?		\checkmark						
2.14	Are valid construction noise permit(s) displayed at all vehicular exits?		V						
3.00	Water Quality								
3.01	is offluent discharge license obtained for wastewater discharge from site?		V						
	Is effluent discharged according to the effluent discharge license?		V		West disther				
3.03	Is wastewater discharge from site properly treated prior to discharge?	. Z	V						

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Unit 1908, Nos. 301-305 Castle Peak Road, Kwai Chung, N.T. O: 2333-6823 | F: 2333-1316 | E: general@acuityhk.com | www.acuityhk.com

Contract no. 13/WSD/16 Mainlaying in Tseung Kwan O Photo/Remarks 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? 3.07 Is the drainage system properly maintained? V 3.08 Are construction works carefully programmed to minimize soil excavation works during rainy seasons? 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? 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? V 3.15 Is oil leakage or spillage prevented? Olsin 3.16 Are there any measures to prevent the release of oil and grease into the storm drainage phsly 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, rithin bunds of capacity equal to 110% of the storage capacity of the largest tank? 3.20 Arc 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 3.23 Is concrete washing water properly collected and treated prior to discharge? 4.00 Waste Management Is a trip-ticket system implemented to monitor the disposal of C&D and solid wastes at public filling facilities and landfills?

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Unit 1908, Nos. 301-305 Castle Peak Road, Kwai Chung, N.T. O: 2333-6823 | F: 2333-1316 | E: general@acuityhk.com | www.acuityhk.com

	Contract no. 13/WSD/16 Mainlaying in Ts	seung Kwa	n O		
		N/A	Yes	No	Photo/Remarks
4.02	Is a recording system implemented to record the amount of wastes generated, recycled and disposed of?		V		
4.03	Is the Contractor registered as a chemical waste producer?		V		
4.04	Are chemical waste separated from other waste and collected by a licensed chemical waste collector?				
4.05	Are trip tickets for chemical waste disposal available for inspection?				
4.06	Is chemical waste reused and recycled on site as far as practicable?	V			Barrey .
4.07	Are all containers for chemical waste properly labelled?		1		
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?	V			
4.10	Is the chemical waste storage area enclosed on at least 3 sides and adequately ventilated?		Q		
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 amplemented for drainage systems, sump pits, and oil interceptors?		V		
4.13	Are sufficient general refuse disposal/collection points provided on site?		V		
4.14	is general refuse disposed of properly and regularly?		V		
4.15	Are appropriate measures adopted to minimize windblown litter and dust during transportation of waste?		V		
4.16	Are individual collectors for aluminum cans, plastic bottles and packaging material and office paper provided to encourage waste segregation?		V		
4.17	Arc C&D wastes sorted on site?		V		3 10 10 10 10 10 10 10 10 10 10 10 10 10
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?		V		

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Unit 1908, Nos. 301-305 Castle Peak Road, Kwai Chung, N.T. O: 2333-6823 | F: 2333-1316 | E: general@acuityhk.com | www.acuityhk.com

	Contract no. 13/WSD/16 Mainlaying in Tseung Kwan O							
		N/A	Yes	No	Photo/Remarks			
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 crosion?		V					
5.03	is construction light oriented away from the sensitive receivers?	N/			-			
5.04	is grass hydroseeding provided to slopes as soon as the completion of works?	V						
5.05	Are damages to trees outside site boundary due construction works avoided?		V					
5.06	is excavation works carried out manually instead of machinery operation within 2.5m vicinity of any preserved trees?	V						
5.07	Are the retained and transplanted tree(s) properly protected and in good conditions?		1					
5.08	Are surgery works carried out for damaged trees?	V	2					
6.00	Ecology				**************************************			
6.01	ls site runoff properly treated to prevent any silly runofl?		V					
6.02	Are silt trap installed and well-maintained?	V						
6.03	Are stockpiles properly covered to avoid generating silty runoff?		./		-			
6.04	Are construction works restricted to works area which are clearly defined?		V					
7.00	Overall							
7.01	Is the EM&A properly implemented in general?		1					

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Unit 1908, Nos. 301-305 Castle Peak Road, Kwai Chung, N.T. O: 2333-6823 | F: 2333-1316 | E: general@acuityhk.com | www.acuityhk.com

Contract no. 13/WSD/16 Mainlaying in Tseung Kwan O

Damad / E-Il-			
Remark / Follow up of Observ	/ation(s) and Non-compl	iance(s) of Last Weekly Site	Inspection:
100000000000000000000000000000000000000			
observations	_		
		Ÿ	
(1) Distronmental	being was inthe	almound at sie +	entrance losse of PIC
12 dimentes vier	not or uni	0000000 -1 31D	entrannel exist out Pit 4. Pit 0
(1) Charles (Well	LIDE ADSOLDE IN	a dulp they act	F-4 0
		•	
			*
Reminder (S)			
1 married and the same of the			
in the contract	a done from	hould be conducted	of PEY, Pit P. Pito
M Regular chan	of darkends	2000-101	,
con the Main	CONTRACTOR MAKE H	eminded to increa	settle water sedimentation time
	**	3 -1 . 41	
capacity +	o treat moute a	iter before curscle	rea at lit .
of my	A DARLE MA	itely pelose cusing	Je.
Signatures:			773700000
ET	Contractor's	WSD's	IEC's
Representative	Representative	Representative	Representative
P.	K	Λ	a da
-W	100	_KV	15/18
(Name: Charlene Lar)	(Name: San Ns.	(Name: An War, Tak)	(Name: N/A)

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Unit 1908, Nos. 301-305 Castle Peak Road, Kwai Chung, N.T. O: 2333-6823 [F: 2333-1316] E: general@acuityhk.com | www.acuityhk.com

Contract no. 13/WSD/16 Mainlaying in Tseung Kwan O

WEEKLY ENVIRONMENTAL INSPECTION CHECKLIST

Inspection Date: 27 071200 Inspected by: ET: Annieur Contractor: Straight	WSD: Alex Krintin. IEC: Louis Kyon
Weather /	
Condition Sunny Fine Overcast Drizzle Rain	Storm Hazy
Temperature 32 C Humidity Itieh Modern	us. Diana
	LOW LOW
Wind Calm Light Breeze Strong	
	N/A Yes No Photo/Remarks
	N/A res No Photo/Remarks
0.00 General	
0.01 Is 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	purtyonetegan
1.01 Are dusty materials, such as excavated materials, building debris and construction	arkapt net
materials, and exposed earth surface properly covered to prevent dust emission?	To insert where a mark 200 in
1.02 Are screenings, enclosures, water spraying or vacuum cleaning devices provided to dusty	no dust
construction works for dust suppression?	O O O O O O O O O O O O O O O O O O O
	words chosenved
1.03 Are fumes or smoke emitting plants or construction activities shielded by a screen?	D. J. da
Parameter state of the state of	no livre somble
. ^	contint part
1.04 Are wheel-washing facilities with high-pressure water jets provided at all site exits?	and while obsence
1.04 Pile Wilco-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	D baned
emission during vehicle movement?	
1.08 Are water spraying provided immediately prior to any loading or transfer of dusty materials?	owky andersy
1.09 Are covers provided to all dump trucks carrying dusty materials when entering and	no backen traver
leaving the site?	in dim traly observe
1.10 Are the working areas for uprooting of trees, shrubs, or vegetation or the removal of	The comp who clears
boulders, poles, pillars sprayed with water to maintain the entire surface wet?	
1.11 [s 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?	
	- NRMM laker
2/1	
ATT.	
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Unit 1908, Nos. 301-305 Castle Peak Road, Kwai Chung, N.T. O: 2333-6823 | F: 2333-1316 | E: general@acuityhk.com | www.acuityhk.com

	Contract no. 13/WSD/16 Mainlaying in Tseung Kwan O									
		N/A	Yes	No	Photo/Remarks					
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		\Box							
	sides?									
1.15	Are de-bagging, batching and mixing processes of bagged coment carried out in sheltered		\Box	$\overline{}$						
	areas?									
1.16	Are hoarding of at least 2.4m high provided along the site boundary adjoining areas									
	accessible by the public?				2					
1.17	Is open burning prohibited?		/							
					-					
2.00	Construction Noise (Airborne)									
	Are quiet plants adopted on site?		\square		LORMETOLA					
1	Are the PMEs operating on site well-maintained to minimize the generation of excessive									
	niose?				1 regular Merchin					
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		\Box	<u> </u>	9 0 10=1-					
	NSRs?		\Box	Ш	G As visit					
2.05	Are moveable barriers provided to screen NSRs from plant or noisy operations?				marting.					
2.06	Are silencers, mufflers and enclosures provided to plants?				The state of the s					
2.07	Are the hoods, cover panels and inspection hatches of PMEs closed during operation?	7		П	No sperotu					
2.08	Are purposely-built site hoarding construction with appropriate materials provided along			$\overline{-}$	81 LAC 040					
	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?									
	Are construction noise permit(s) applied for general construction works during restricted			П						
	hours?									
2.14	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?				NAME OF THE OWNER OF THE OWNER OF THE OWNER OF THE OWNER OF THE OWNER OF THE OWNER OF THE OWNER OF THE OWNER O					
3.02	Is effluent discharged according to the effluent discharge license?				4 No Water					
3.03	Is wastewater discharge from site properly treated prior to discharge?	$\overline{\Box}$	П) was observe					

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	Contract no. 13/WSD/16 Mainlaying in Tseung Kwan O							
		N/A	Yes	No	Photo/Remarks			
201								
3.04	Are perimeter channels provided to intercept storm runoff from outside the site?		-1					
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?		<u> </u>	$\overline{}$				
		Ш		Ш				
3.07	ts the drainage system properly maintained?							
2.00				Ш				
3.08	Are construction works carefully programmed to minimize soil excavation works during							
3 00	rainy seasons? Are exposed soil surface protected by paying as soon as possible to reduce the potential of				7.77			
3.03	soil crosion?		\square					
3.10	Are temporary access roads protected by crushed gravel?							
	and the second processed by Grashed graver.							
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		p lin					
2.11	during construction?		/		3			
3.14	Is runoff from wheel-washing facilities avoided?							
3 15	Is oil leakage or spillage prevented?							
0.10	is on reakage or spiritage prevented:		/		/ distray			
3.16	Are there any measures to prevent the release of oil and grease into the storm drainage		=	_	- 0			
	system?		/	Ш				
3.17	Are the oil interceptors/ grease traps properly maintained?		$\overline{}$					
		(· · · · · · · · · · · · · · · · · · ·			
3.18	Are debris and rubbish generated on site collected, handled and disposed of properly to							
	avoid them entering the streams?	Ш						
3.19	Are all fuel tanks and storage areas provided with locks and be sited on sealed areas,			П				
	within bunds of capacity equal to 110% of the storage capacity of the largest tank?			Ш_				
3.20	Are tanks, containers, storage area bunded and the locations locked as far as possible from							
3 21	the sensitive watercourse and stormwater drains? Are sufficient chemical toilets provided on site to handle sewage from construction work							
0.21	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				-			
4.01	is a trip-ticket system implemented to monitor the disposal of C&D and solid wastes at public filling facilities and landfils?		\Box					
	months and man 16;		1	Ш				

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	Contract no. 13/WSD/16 Mainlaying in Ts	seung Kwa	n O		
		N/A	Yes	No	Photo/Remarks
4.02	is a recording system implemented to record the amount of wastes generated, recycled and disposed of?				
4.03	Is the Contractor registered as a chemical waste producer?				
4.04	Are chemical waste separated from other waste and collected by a licensed chemical waste collector?				
4.05	Are trip tickets for chemical waste disposal available for inspection?				
4.06	is chemical waste reused and recycled on site as far as practicable?				
4.07	Are all containers for chemical waste properly labelled?				
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?				Management and a second a second and a second and a second and a second and a second and a second and a second and a second and a second and a second a second and a second and a second and a second and a second and a second and a second a second and a second and a second and a
4.10	is the chemical waste storage area enclosed on at least 3 sides and adequately ventilated?		7		
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?		Z		The restauration of the
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?		7		
4.16	Are individual collectors for aluminam cans, plastic bottles and packaging material and office paper provided to encourage waste segregation?		7		
4.17	Are C&D wastes sorted on site?		2		
4.18	Are C&D waste disposed of properly?				*
4.19	Are unused C&D materials or chemica's recycled or reused to reduce the quantity of waste?		A		
4.20	Are public fill and C&D waste reuse on site as far as practicable to avoid disposal off-site?		Z		
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?				-

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000000000000000000000000000000000000000	Contract no. 13/WSD/16 Mainlaying in Ts	eung Kwa	n O		
		N/A	Yes	Nο	Photo/Remarks
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?				
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 trec(s) properly protected and in good conditions?				
5.08	Arc surgery works carried out for damaged trees?				
6.00	Ecology				
6.01	Is site runoff properly treated to prevent any silly runoff?				No worker jeischerze Broken
6.02	Are silt trap installed and well-maintained?				
3.03	Are stockpiles properly covered to avoid generating silty runoff?				
6.04	Are construction works restricted to works area which are clearly defined?				
7.00	Overall	4			
7.01	Is the EM&A properly implemented in general?				

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Contract no. 13/WSD/16 Mainlaying in Tseung Kwan O

			300	
Remark / Follow up of Obser	vation(s) and Non-comp	liance(s) of Last Weekly S	Site Inspection:	
observation (s)				100
No puljor obs	encetions were	reported on +	the properties	-y
Remiroleel.			- Ju fami	e farparlin
CO Stagnant W	ruter on top 8	of the inaters	Edinuatorion tank at hyphene are	14 000
Sheetcorer	should be a	leaned to preve	nt Engrene are	safety concern
CPIE D)			/ /	
Chicas				
Signatures:				
ET	Contractor's	WSD's	IEC's	
Representative	Representative	Representative	Representative	
0	- F	, 7		٠,
(Name: Chelene)	(Name: Soun Us) (Name: Alex Kim W	IN (Name: Louis KI	Nan

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Appendix M

Proactive Environmental Protection Proforma



Proactive Environmental Protection for the Next Reporting Month

Reporting Period	Activity	Major Environmental Impact	Environmental Mitigation Measure
1 August 2021 - 31 August 2021	 Excavation of trench Mainlaying of pipe Backfilling of the trench Work fronts for open trench Work fronts for pipe jacking 	Construction dust and noise generation; construction wastes; 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 Treatment of water with water treatment facilities before discharge



Appendix N

Impact Monitoring Schedule of Next Reporting Month (Tentative)

Contract No. 13/WSD/16 Mainlaying in Tseung Kwan O Monthly EM&A Report No.36



			Aug-21			
Sun	Mon	Tue	Wed	Thu	Fri	Sat
Sun 1	2	3	Noise Impact Monitoring	5	6	7
			Noise Impact Monitoring			14
			18	Noise Impact Monitoring		21
22			Noise Impact Monitoring	26	27	28
The schedule may be changed due to unforce		31				

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



Appendix O

Academic Calendar(s)



				CF	REA	ΓIVF	SF	100	NDARY SCHOOL CALENDAR 2020-2021
August	2	Su	Мо	Tu	We	Th	Fr	Sa	TOAKT COTTOGE CALENDAR ECEC-ECET
	+-	9	10	11	12	13	14	15	
		16	17	18	19	20	21	22	19/8 First School day
		23	24A	25B	26C	27D	28E	29	
		30	31F						
September	2			1A	2B	3C	4D	5	
	3	6	7E	8F	9A	10B	11C	12	
		13	14D	15E	16F	17A	18B	19	18/09 Swimming gala
	4	20	21C	22D	23E	24F	25A	26	
	5	27	28B	29C	30				28/9 F1/MY1 3-Way Conference, 30/9 Staff Development Day 1
October						1	2	3	1/10 National Day. 2/10 The Day following Mid-Autumn Festival
	T	4	5D	6E	7F	8A	9B	10	
	6	11	12C	13D	14E	15F	16A	17	13/10 F6 3-Way Conference
		18	19	20	21	22	23	24	19-24 Term Break
	7	25	26	27B	28C	29D	30E	31	26/10 Chung Yeung Festival Holiday.
November	8	1	2F	3A	4B	5C	6D	7	
	1	8	9	10E	11F	12A	13B	14	9/11/2020 Staff Development Day 2, 10/11 F5 3-Way Conference
	9	15	16C	17D	18E	19F	20A	21	
	10	22	23B	24C	25D	26E	27F	28	
	11	29	30A						
December	+ ' '	20	504	1B	2C	3D	4D	5	
COULIDE	12	6	7E	8F	9A	10B	11C	12	
	12	13	14D	15E	16F	17A	18B	19	15/12 F4 3-Way Conference
	+	20	21	22	23	24	25	26	25/12 Christmas Day 16/12 The First Weekday after Chrismas Day
	+	27	28	29	30	31	2.7	20	21/12-2/1 Christimas & New Year Holiday
lanuan:	+	21	20	29	30	31	1	2	1/1 New Year's Day
lanuary	13	3	4C	5D	6E	75	8A	9	
						7F		16	7/1 F3 3-Way Conference, 6-19/1 F6 HKDSE & IBDP Mock Exams
	14	10	11B	12C	13D	14E	15F	16	
	15	17	18A	19B	20C	21D	22E	23	
	16	24	25F	26A	27B	28C	29D	30	
	1	31							
ebruary	17		1E	2F	3A	4B	5C	6	
	_	7	8D	9E	10	11	12	13	12-15 New year Holiday. 10-20/2 Chinese New Year Holiday
		14	15	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	20	
	18	21	22F	23A	24B	25C	26D	27	
		28							
March	19		1E	2F	3A	4B	5C	6	4/3 F2 3-Way Conference, 5/3 Last school day for F6 HKDSE students
		7	8D	9E	10F	11A	12B	13	
	20	14	15C	16D	17E	18F	19A	20	
		21	22	23	24	25	26	27	22-26/3 Creative Week
	21	28	29B	30C	31D				
April						1			01/04-10/04 Easter Holiday. 02/04 Good Friday, 03/04 The Day following Good Friday
		4		6	7	8	9	10	04/04 Ching Ming Festival. 05/04 Easter Monday, 9-19/4 F6 HKDSE Exams-CSS Hall
	22	11	12E	13F	14A	15B	16C	17	16/4 Last school day for F6 IBDP students
		18	19D	20E	21F	22A	23B	24	
	23	25	26C	27D	28E	29F	30A		27/4 F1/MY1 3-Way Conference 30/4-19/5 F6 IBDP May Exams
May								1	1/5 Labour Day
	24	2	3B	4C	5D	6E	7F	8	4-17/5 F5 HKDSE Final Exams
	25	9	10A	11B	12C	13D	14E	15	
	26	16	17F	18A	19	20B	21C	22	19/5 Birthday of Buddha, 21-27/5 F4 HKDSE Exams & F5 IBDP Final Exams
		23	24D	25E	26F	27A	28B	29	, , , , , , , , , , , , , , , , , , , ,
	27	30	31C						
lune	1			1D	2E	3F	4A	5	
	28	6	7B	8C	9D	10E	11F	12	
	29	13	14	15A	16B	17C	18D	19	14/06 Tuen Ng Festival
	30	20	21E	22F	23A	24B	25C	26	
	100	27	28D	29E	30F	273	200	20	
uly	+	21	200	LJL	001	4	2	3	01/07 HKSAR Establishment Day, 2/7-14/8 Summer Holiday
uly	+	4	5	6	7	8	9	10	O 1707 FINOPIN Establishinent Day, 277-14/0 Summer Hollday
	+								
	+	11	12	13	14	15	16	17	
	+	18	19	20	21	22	23	24	
	-	25	26	27	28	29	30	31	
August	_	1	2	3	4	5	6	7	
	\perp	8	9	<u>10</u>	11	12	<u>13</u>	14	
	\perp	15	16	17	18	19	20	21	
		22	23	24	25	26	27	28	
		29	30	31					

Sourced from:

https://1e833fb1-5af5-4de8-901f-

f9aeda4354b2.filesusr.com/ugd/611a22_ea5d81f9881541de9c3c7049ba46860d.pdf



Appendix O
Interim Report(s)

Interim Report on Environmental Complaint

Project Title	Proposed Desalination Plant in TKO Area 137 for Contract 13/WSD/16 Mainlaying in Tseung Kwan O
Source of Complaint	Email from EPD to WSD dated on 28 July 2021
Location of Incident	Construction Site near to Mau Wu Tsai of Po Lam Road South at Tseung Kwan O
Complaint Code	13/WSD/16_C003
Complaint description	EPD has received a complaint from a member of the public regarding the discharge of stormwater with suspended particles, or in general muddy water from the construction site near to Mau Wu Tsai of Po Lam Road South at Tseung Kwan O on 09 July 2021 (Site Plan attached in Appendix A).
Investigation finding	Our Environmental Team under WSD Contract No. 13/WSD/16 received the complaint case on 29 July 2021 and carried out the complaint investigation from 29 July 2021.
	The site diary showed that shoring plate cutting works for hand shield tunneling were carried out at the concerned area on 09 July 2021, which has no use of water and disturbance to ground surface. It has no record of leakage of muddy water as reported by the Contractor.
	The site condition of the concerned area was reviewed. We noted that although there was no excavation works on-going or scheduled recently, clearance works and works that create disturbance to ground surface were previously conducted. To prevent the muddy water discharge from the construction site, the contractor has implemented and enhanced the mitigation measures to cater for any upcoming rainstorms or heavy precipitation from the site. Sandbags are placed along the site boundary and submersible pump is provided to direct the runoff to the wastewater treatment tank before reusing or discharging into the designated discharge point.
	Site inspection at the concerned area has been carried out by ET on 13 August 2021. There was precipitation during the site walk, while no runoff of muddy water was observed at the site boundary.
	Also, cement application to exposed earth within the site was observed during the inspection, which was being implemented to prevent erosion caused by the precipitation. The temporarily exposed slope and areas were covered by tarpaulin.
	The Contractor has been reminded to inspect regularly and maintain the above water pollution mitigation measures, especially during or after rainstorms.
Actions taken / to be taken	The Contractor has been recommended by WSD to take immediate preventive measures to enhance stormwater management for construction sites (e.g. cover any stockpiled materials within the construction site with tarpaulin).

	Moreover, ET will perform spot checking on the concerned area on the implementation status of mitigation measures. Contractor is reminded to comply with all regulations and requirement stipulated in the EM&A Manual.
Prepared by	Charlene Lai
Date	06 August 2021

Appendix A – Site Layout of Concerned Area



 $Appendix \ B-Photo \ Records \ from \ Site \ Inspection$

Cement being applied to exposed surface:



Appendix B – Photo Records from Site Inspection (cont')

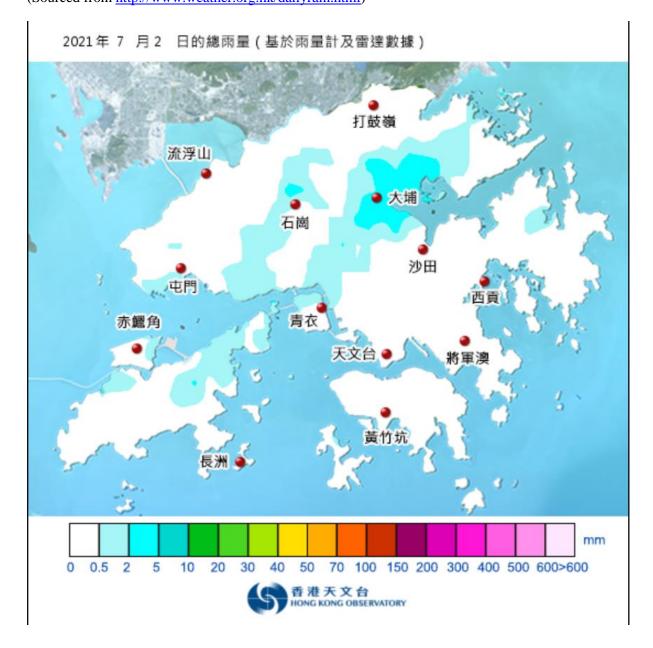
Sandbags placed along the site boundary and submersible pump to direct runoff:

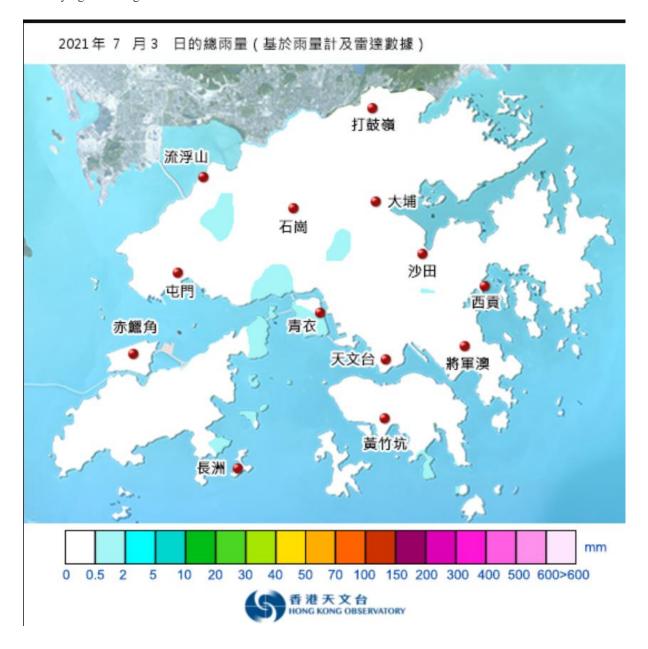


Appendix C – Site Diary on 09 July 2021

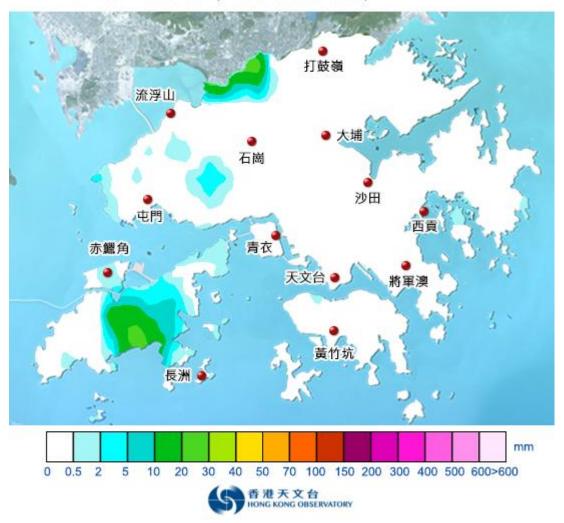
	HA3+80	HA4+50	Po Lam Road South	0339	Place concrete to bend block	1	L13	2	P81	- 1	L13	2	P81	LH
		1011100		0213	Breaking up rock in trench	5	L01	1	P04	5	L01	1	P04	LH
				0215	Banksman at (00:00 to 08:00 & 16:00 to 24:00)			4	P01		1.01	4	P01	LH
					Bunksman at 100.00 to 00.00 to 10.00 to 24.00)			-	P40		_	1	P40	LH
							_	-			-			LH
							_	1	P22		_	1	P22	
														LH
25			Po Lam Road C2 & D1	0906	Erection of working platform	2	L01	- 1	P04	2	L01	- 1	P04	LF
				0221	Dispose artificial hard materials off site	- 1	L06	1	P31			1	P31	Li
				0312	External repairs to steel pipes with epoxy coatings			1	P22			1	P22	LI
				0213	Breaking up rock in trench			- 1	P80			1	P80	L
				0806	Point cloud survey			- 1	P40			- 1	P40	L
									P28			1	P28	LI
									P02			1	P02	LI
						3	1.25	-	F02	3	L25	-	FU2	PV
							E-star-J				E-star?			
						-		_				-		
			Po Lam Raod B4 & B5	0208	Break up concrete carriageway	2	L01	1	P04	2	L01	- 1	P04	LI
				0221	Dispose artificial hard materials off site				P31	- 1	L06	- 1	P31	L
				0214	Excavate soil trench			- 1	P80			1	P80	L
								1	P40			1	P40	L
								- 1	P22			- 1	P22	L
								- 1	P73			1	P73	
26	HC3+20	HC3+80	Po Lam Road A0	0802	No site activities			2	P04			2	P04	LI
20	1100120	1100100	Near Tsui Lam	0002	TO SEE MANUFACTURE			-	P27		_	1	P27	L
			Near Isui Lam	_			_	-			_			
				_		_	_	1	P30		-	- 1	P30	L
								1	P01			- 1	P01	LI
								- 1	P45			1	P45	LF
				l										l
								_						
			Po Lam Road		Set up for band shield tunneling	3	LOI	-1	P04	3	LOI	1	P04	LH
					Set up for hand shield tunneling shoring plate cutting for hand shield tunneling	3		1		3			P04 P40	
						3		1 1	P40	3				LF
						3			P40 P22	3		-1	P40 P22	LI- LI-
						3			P40	3		-1	P40	Li
			Jacking Pit X		shoring plate certing for based shield turneling	3			P40 P22	3		-1	P40 P22	Li
			Jacking Pit X Trial Pit	0802		3			P40 P22	3		-1	P40 P22	Li
			Jacking Pit X		shoring plate certing for based shield turneling	3			P40 P22	3		-1	P40 P22	Li
			Jackine Pit X Trial Pit Tsui Lam Road	0802	therine plate cutting for based sheld tenreling No site activities	3			P40 P22	3		-1	P40 P22	Li
			Jacking Pit X Trial Pit Tsui Lam Road Tseung Kwan O Servoir Reservoir		shoring plate certing for based shield turneling	3			P40 P22	3		-1	P40 P22	Li
			Jackine Pit X Trial Pit Tsui Lam Road	0802	therine plate cutting for based sheld tenreling No site activities	3			P40 P22	3		-1	P40 P22	LF
			Jacking Pit X Trial Pit Tsui Lam Road Tseung Kwan O Servoir Reservoir	0802	therine plate cutting for based sheld tenreling No site activities	3			P40 P22	3		-1	P40 P22	Li
			Jacking Pit X Trial Pit Twi Lam Road Teung Kwan O Servoir Reservoir Trial Pit 1 Teung Kwan O Servoir Reservoir	0802	therine plate cutting for based sheld tenreling No site activities	3			P40 P22	3 1		-1	P40 P22	Li
			Jacking Pit X Trial Pit Tsui Lam Road Tsung Kwan O Servoir Reservoir Trial Pit 1	0802	sherine plate cutting for hand sheld tomeline No site activities No site activities	3			P40 P22	3		-1	P40 P22	Li
			Jacking Pit X Trial Pit Twi Lam Road Teung Kwan O Servoir Reservoir Trial Pit 1 Teung Kwan O Servoir Reservoir	0802	sherine plate cutting for hand sheld tomeline No site activities No site activities	3			P40 P22	3		-1	P40 P22	Li
27	HEA-25	UELAN	Jackins Rt X Trial Pix Trial Pix Trial Lam Road Thoung Kwan O Servoir Reservoir Trial Pix 1 Troung Kwan O Servoir Reservoir Trial Pix 2	0802 0802	therine plate cutting for based shield tearneling No sile activities No sile activities No sile activities No sile activities		LIO	2	P40 P22 P04		LIO	2	P40 P22 P04	Li
27	HE0+25	HE1+60	Jacking Pit X Trial Pit Twi Lam Road Teung Kwan O Servoir Reservoir Trial Pit 1 Teung Kwan O Servoir Reservoir	0802 0802 0802	sherine rilate cuttine for hand sheld tomeline No site activities No site activities No site activities Break up concrete carriageway	3 1	LIO		P40 P22 P04	3 1	LIO	1 1 2	P40 P22 P04 P04	1.1
27	HE0+25	HE1+60	Jackins Rt X Trial Pix Trial Pix Trial Lam Road Thoung Kwan O Servoir Reservoir Trial Pix 1 Troung Kwan O Servoir Reservoir Trial Pix 2	0802 0802 0802 0802	therine plate cuttine for hand shield tearnine No sile activities No sile activities No sile activities Head, up concrete carriageway General site clearance	4	LOI	1 2	P40 P22 P04 P04 P04 P80	4	L10	1 1 1	P40 P22 P04 P04 P04 P04	
27	HE0+25	HE1+60	Jackins Rt X Trial Pix Trial Pix Trial Lam Road Thoung Kwan O Servoir Reservoir Trial Pix 1 Troung Kwan O Servoir Reservoir Trial Pix 2	0802 0802 0802	sherine rilate cuttine for hand sheld tomeline No site activities No site activities No site activities Break up concrete carriageway	4 1 1	L01 L01 L06 L05	1 2	P40 P22 P04 P04 P04 P80 P40	4	L01 L01 L06 L05	1 1 1	P40 P22 P04 P04 P04 P80 P40	
27	HE0+25	HE1+60	Jackins Rt X Trial Pix Trial Pix Trial Lam Road Thoung Kwan O Servoir Reservoir Trial Pix 1 Troung Kwan O Servoir Reservoir Trial Pix 2	0802 0802 0802 0802	therine plate cuttine for hand shield tearnine No sile activities No sile activities No sile activities Head, up concrete carriageway General site clearance	4	LOI	1 2	P40 P22 P04 P04 P04 P80 P40 P22	4	L10	1 1 1 1 1	P40 P22 P04 P04 P04 P80 P40 P22	
27	HE0+25	HE1+60	Jackins Rt X Trial Pix Trial Pix Trial Lam Road Thoung Kwan O Servoir Reservoir Trial Pix 1 Troung Kwan O Servoir Reservoir Trial Pix 2	0802 0802 0802 0802	therine plate cuttine for hand shield tearnine No sile activities No sile activities No sile activities Head, up concrete carriageway General site clearance	4 1 1	L01 L01 L06 L05	1 2 1 1 1 1	P40 P22 P04 P04 P04 P80 P40 P22 P02	4	L01 L01 L06 L05	1 1 1 1 1 1 1 1	P40 P22 P04 P04 P04 P80 P40 P22 P02	
27	HE0+25	HE1+60	Jackins Rt X Trial Pix Trial Pix Trial Lam Road Thoung Kwan O Servoir Reservoir Trial Pix 1 Troung Kwan O Servoir Reservoir Trial Pix 2	0802 0802 0802 0802	therine plate cuttine for hand shield tearnine No sile activities No sile activities No sile activities Head, up concrete carriageway General site clearance	4 1 1	L01 L01 L06 L05	1 2	P40 P22 P04 P04 P04 P80 P40 P22 P02 P01	4	L01 L01 L06 L05	1 1 2	P40 P22 P04 P04 P80 P40 P22 P02 P01	
27	HE0+25	HE1+60	Jackins Rt X Trial Pix Trial Pix Trial Lam Road Thoung Kwan O Servoir Reservoir Trial Pix 1 Troung Kwan O Servoir Reservoir Trial Pix 2	0802 0802 0802 0802	therine plate cuttine for hand shield tearnine No sile activities No sile activities No sile activities Head, up concrete carriageway General site clearance	4 1 1	L01 L01 L06 L05	1 2 1 1 1 1	P40 P22 P04 P04 P04 P80 P40 P22 P01 P28	4	L01 L01 L06 L05	1 1 2 1 1 1 1 1 1	P40 P22 P04 P04 P80 P40 P22 P01 P28	
27	НЕ0+25	HE1+60	Jackins Rt X Trial Pix Trial Pix Trial Lam Road Thoung Kwan O Servoir Reservoir Trial Pix 1 Trial Pix 1 Trial Pix 2	0802 0802 0802 0802	therine plate cuttine for hand shield tearnine No sile activities No sile activities No sile activities Head, up concrete carriageway General site clearance	4 1 1	L01 L01 L06 L05	1 2 1 1 1 1	P40 P22 P04 P04 P04 P80 P40 P22 P02 P01	4	L01 L01 L06 L05	1 1 2	P40 P22 P04 P04 P80 P40 P22 P02 P01	
27	HE0+25	HE1+60	Jackins Rt X Trial Pix Trial Pix Trial Lam Road Thoung Kwan O Servoir Reservoir Trial Pix 1 Trial Pix 1 Trial Pix 2	0802 0802 0802 0802	therine plate cuttine for hand shield tearnine No sile activities No sile activities No sile activities Head, up concrete carriageway General site clearance	4 1 1	L01 L01 L06 L05	1 2 1 1 1 1	P40 P22 P04 P04 P04 P80 P40 P22 P01 P28	4	L01 L01 L06 L05	1 1 2 1 1 1 1 1 1	P40 P22 P04 P04 P80 P40 P22 P01 P28	
27	HE0+25	HE1+60	Jackins Rt X Trial Pix Trial Pix Trial Lam Road Thoung Kwan O Servoir Reservoir Trial Pix 1 Trial Pix 1 Trial Pix 2	0802 0802 0802 0802	therine plate cuttine for hand shield tearnine No sile activities No sile activities No sile activities Head, up concrete carriageway General site clearance	4 1 1	L01 L01 L06 L05	1 2 1 1 1 1 1 1	P40 P22 P04 P04 P80 P40 P22 P02 P01 P28 P31	4	L01 L01 L06 L05	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	P40 P22 P04 P04 P80 P40 P22 P02 P01 P28 P31	
27	HE0+25	HEI+60	Jackins Rt X Trial Pix Trial Pix Trial Lam Road Thoung Kwan O Servoir Reservoir Trial Pix 1 Trial Pix 1 Trial Pix 2	0802 0802 0802 0802	therine plate cuttine for hand shield tearnine No sile activities No sile activities No sile activities Head, up concrete carriageway General site clearance	4 1 1	L01 L01 L06 L05	1 2 1 1 1 1 1 1	P40 P22 P04 P04 P80 P40 P22 P02 P01 P28 P31	4	L01 L01 L06 L05	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	P40 P22 P04 P04 P80 P40 P22 P02 P01 P28 P31	
27	HE0+25	HE1+60	Jackins Rt X Trial Pix Trial Pix Trial Lam Road Thoung Kwan O Servoir Reservoir Trial Pix 1 Trial Pix 1 Trial Pix 2	0802 0802 0802 0802	therine plate cuttine for hand shield tearnine No sile activities No sile activities No sile activities Head, up concrete carriageway General site clearance	4 1 1	L01 L01 L06 L05	1 2 1 1 1 1 1 1	P40 P22 P04 P04 P80 P40 P22 P02 P01 P28 P31	4	L01 L01 L06 L05	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	P40 P22 P04 P04 P80 P40 P22 P02 P01 P28 P31	

Appendix D – Weather Conditions for the Past Seven Days Prior to the Complaint has been Received (Sourced from http://www.weather.org.hk/dailyrain.html)



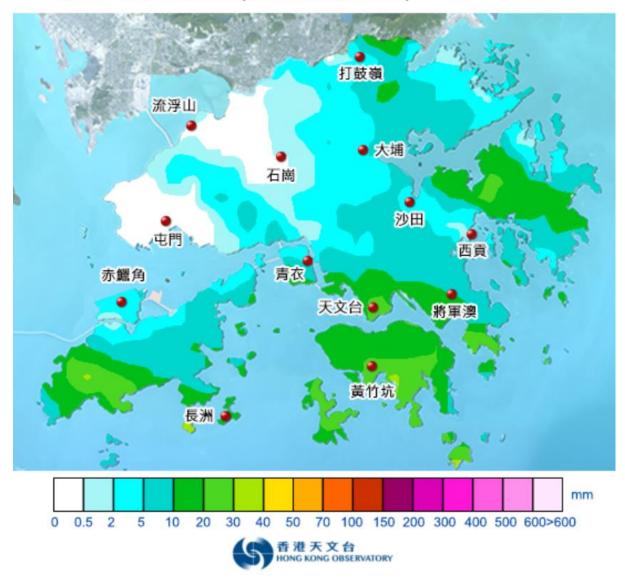


2021年 7 月 4 日的總雨量(基於雨量計及雷達數據)

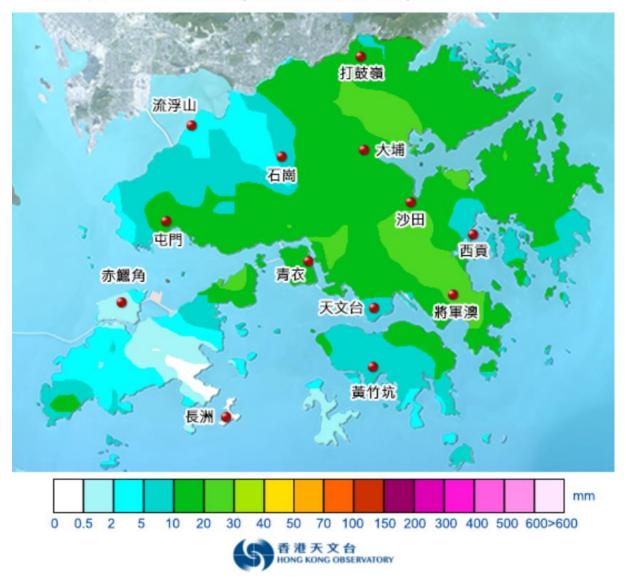


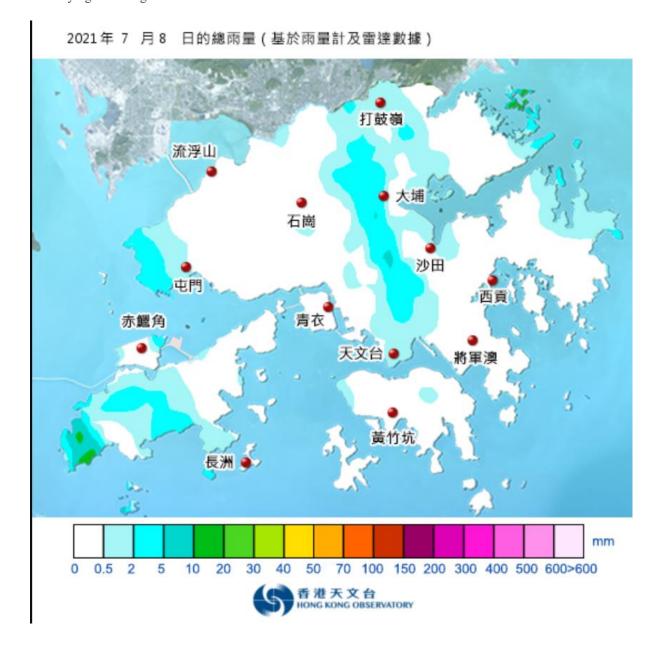
2021年 7 月 5 日的總兩量 (基於兩量計及雷達數據) 打鼓嶺 流浮山 ● 大埔 石崗 沙田 西貢 赤鱲角 天文台 • 將軍澳 mm 0.5 40 50 70 100 150 200 300 400 500 600>600 10 20 30 香港天文台 HONG KONG OBSERVATORY

2021年 7 月 6 日的總兩量 (基於兩量計及雷達數據)



2021年 7 月 7 日的總兩量 (基於兩量計及雷達數據)





2021年 7 月 9 日的總兩量 (基於兩量計及雷達數據) 打鼓嶺 流浮山 大埔 沙田 赤鱲角 mm 0.5 2 5 10 20 30 40 50 70 100 150 200 300 400 500 600>600 香港天文台 HONG KONG OBSERVATORY