

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

Your reference:

Our reference:

HKWSD201/50/107730

Date:

28 December 2021

Attention: Mr Y M Chan

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.40

We refer to emails of 14 and 21 December 2021 attaching Monthly EM&A Report No.40 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.

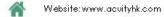
Yours faithfully ANEWR CONSULTING LIMITED

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. 40 (Period from 1 to 30 November 2021)

December 2021 (Rev. 0)

	Prepared by:	Certified by:	
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Position	Environmental Team	Environmental Team Leader	
Signature		A/I	
Date:	10/12/2021	10/12/2021	



# **Revision History**

0	1 <sup>st</sup> Submission	10 December 2021
Rev.	DESCRIPTION OF MODIFICATION	DATE



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#### **EXECUTIVE SUMMARY**

#### <u>Introduction</u>

- 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 40<sup>th</sup> 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 November 2021 to 30 November 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	
	TKO 137 Pit A	Site clearance for pipe jacking works were conducted.	
Portion H of the Project Site	TKO 137 Pit B	Site clearance for pipe jacking works were conducted.	
	TKO 137 Pit C	Site clearance for pipe jacking works were conducted.	
	Wan Po Rd – Workfront 1	Pipe trench excavation and pipe laying were in-progress.	
	Wan Po Rd – Workfront 2	Mini piling works for ELS of jacking pit construction were conducted.	
	Wan Po Rd – Workfront 3	Pipe trench excavation and pipe laying were in-progress.	
Portion Lof the	Wan Po Rd – Workfront 4	Pipe trench excavation and pipe laying were in-progress.	
Project Site	Wan Po Rd – Pit A	Remedial works for pit was conducted.	
r roject site	Wan Po Rd – Pit B	Preparation works for TBM pipe jacking were conducted.	
	Wan Po Rd – Pit D	<ul> <li>Completion of Pit D construction.</li> <li>Preparation works for TBM pipe jacking were conducted.</li> </ul>	
	Landfill Stage 1 – Area A	Pipe trench excavation and pipe laying were in-progress.	
		Plate load test was conducted.	



Location	Location	Works Conducted in the reporting month
	Pet Garden's Road	Pipe trench excavation and pipe laying were in-progress.
	Landfill Stage 1 – Area B	Trench excavation and pipe laying were in-progress.
	Pung Loi Road – Pit WPR1	Sheetpile driving works for pit ELS were conducted.
	Roundabout – Pit G1A	Pit excavation and ELS works were conducted.
	Velodrome – Pit L-M	Trench excavation and pipe laying works were conducted.
	Velodrome – Pit M	Hand-shield pipe jacking works were conducted.
	Velodrome – Pit P	TBM pipe jacking works were conducted.
	Ling Hong Road – Pit Y	Grouting works of cavity between sleeve pipe and MS pipe were conducted.
	Ling Hong Road – Pit R	Grouting works of cavity between sleeve pipe and MS pipe were conducted.
	Mau Wu Tsai – Workfront 2	Trench excavation and pipe laying works were conducted.
	Po Lam Road South	Trench excavation and pipe laying works were conducted.
	Po Lam Road (C2)	Pre-drilling works for mini piling of pipe bridge at Location A westside slope were conducted.
	Po Lam Road (B4)	Trench rock breaking works were conducted.
	TKO Primary Service Reservoir	Trench excavation and pipe laying 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, sheetpiling works, 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, sheetpiling works, excavation and drilling works
  - 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 scheduled in the reporting month for NSR4 Creative Secondary School on 4, 12, 18 and 25 November 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. No project-related environmental complaint was received in the reporting month.
- 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 December 2021 (the next reporting month) for the Project will include the followings:

Location	Location	Forecast Works in Next Reporting Month
	TKO 137 Pit A	<ul> <li>Site clearance for pipe jacking works will be conducted.</li> <li>Preparation works for pipe laying will be conducted.</li> </ul>
Portion H of the Project Site	TKO 137 Pit B	<ul> <li>Site clearance for pipe jacking works will be conducted.</li> <li>Preparation works for pipe laying will be conducted.</li> </ul>
	TKO 137 Pit C	<ul> <li>Site clearance for pipe jacking works will be conducted.</li> <li>Preparation works for pipe laying will be conducted.</li> </ul>
	Wan Po Rd – Workfront 1	Mini piling works for ELS of receiving pit construction will be conducted.
	Wan Po Rd – Workfront 2	Mini piling works for ELS of jacking pit construction will be conducted.
Portion J of the Project Site	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	Remedial works for pit will be conducted.



Location	Location	Forecast Works in Next Reporting Month
	Wan Po Rd – Pit B	<ul> <li>Preparation works for TBM pipe jacking will be conducted.</li> <li>TBM pipe jacking will be commenced.</li> </ul>
	Wan Po Rd – Pit D	<ul> <li>Preparation works for TBM pipe jacking will be conducted.</li> <li>TBM pipe jacking will be commenced.</li> </ul>
	Landfill Stage 1 – Area A	Trench excavation and pipe laying works will be conducted.
	Pet Garden's Road	Trench excavation and pipe laying works will be conducted.
	Landfill Stage 1 – Area B	Trench excavation and pipe laying works will be conducted.
	Pung Loi Road – Pit WPR1	Sheetpile driving works for pit ELS will be conducted.
	Roundabout – Pit G1A	Pit excavation and ELS works will be conducted.
	Velodrome – Pit K	Preparation works for pipe laying will be conducted.
	Velodrome – Pit L-Pit M	Trench excavation and pipe laying works will be conducted.
	Velodrome – Pit M	Hand-shield pipe jacking works will be conducted.
	Velodrome – Pit N	Site clearance works will be conducted.
	Velodrome – Pit O to Pit N	Site clearance works will be conducted.
	Velodrome – Pit P	TBM pipe jacking will be continued.
	Mau Wu Tsai – Workfront 2	Trench excavation and pipe laying works will be conducted.
	Po Lam Road South	Trench excavation and pipe laying works will be conducted.
	Po Lam Road (C2)	Pre-drilling works for mini piling of pipe bridge at Location A westside slope will be conducted.
		<ul> <li>Mini piling works for Location A westside slope will be commenced.</li> </ul>
	Po Lam Road (B4)	Trench rock breaking 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, sheetpiling works 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, TBM break through, sheetpiling works 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 40<sup>th</sup> Monthly EM&A Report for the Project which summarizes the key findings of the EM&A programme during the reporting period from 1 November 2021 to 30 November 2021.

#### 1.3 Project Organization

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



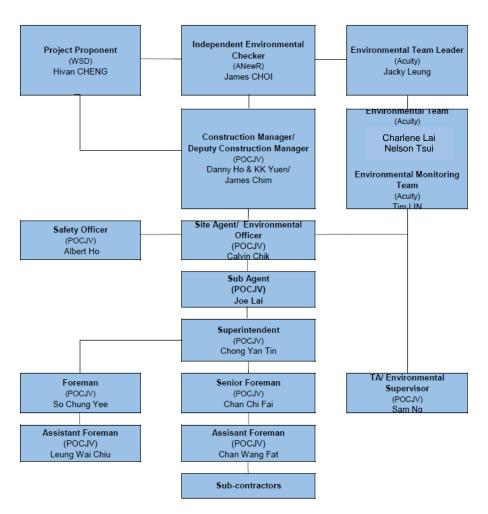


Figure 1.1 Project Organization Chart

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	
	TKO 137 Pit A	Site clearance for pipe jacking works were conducted.	
Portion H of the Project Site	TKO 137 Pit B	Site clearance for pipe jacking works were conducted.	
	TKO 137 Pit C	Site clearance for pipe jacking works were conducted.	
	Wan Po Rd – Workfront 1	<ul> <li>Pipe trench excavation and pipe laying were in-progress.</li> </ul>	
	Wan Po Rd – Workfront 2	<ul> <li>Mini piling works for ELS of jacking pit construction were conducted.</li> </ul>	
	Wan Po Rd – Workfront 3	<ul> <li>Pipe trench excavation and pipe laying were in-progress.</li> </ul>	
	Wan Po Rd – Workfront 4	Pipe trench excavation and pipe laying were in-progress.	
	Wan Po Rd – Pit A	Remedial works for pit was conducted.	
	Wan Po Rd – Pit B	Preparation works for TBM pipe jacking were conducted.	
	Wan Po Rd – Pit D	<ul> <li>Completion of Pit D construction.</li> <li>Preparation works for TBM pipe jacking were conducted.</li> </ul>	
Portion J of the	Landfill Stage 1 – Area A	<ul> <li>Pipe trench excavation and pipe laying were in-progress.</li> <li>Plate load test was conducted.</li> </ul>	
Project Site	Pet Garden's Road	Pipe trench excavation and pipe laying were in-progress.	
	Landfill Stage 1 – Area B	Trench excavation and pipe laying were in-progress.	
	Pung Loi Road – Pit WPR1	Sheetpile driving works for pit ELS were conducted.	
	Roundabout – Pit G1A	Pit excavation and ELS works were conducted.	
	Velodrome – Pit L-M	Trench excavation and pipe laying works were conducted.	
	Velodrome – Pit M	Hand-shield pipe jacking works were conducted.	
	Velodrome – Pit P	TBM pipe jacking works were conducted.	
	Ling Hong Road - Pit Y	Grouting works of cavity between sleeve pipe and MS pipe were conducted.	



Location	Location	Works Conducted in the reporting month
	Ling Hong Road - Pit R	Grouting works of cavity between sleeve pipe and MS pipe were conducted.
	Mau Wu Tsai – Workfront 2	Trench excavation and pipe laying works were conducted.
	Po Lam Road South	Trench excavation and pipe laying works were conducted.
	Po Lam Road (C2)	<ul> <li>Pre-drilling works for mini piling of pipe bridge at Location A westside slope were conducted.</li> </ul>
	Po Lam Road (B4)	Trench rock breaking works were conducted.
	TKO Primary Service Reservoir	Trench excavation and pipe laying works were conducted.

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* (Hong Kong Velodrome)	GW-RE0494-21	Until 16 Nov 2021	_
(Remark* Main Contractor confirmed no night work was conducted in the reporting month)	GW NEO-13-1 ZI	511th 15 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 Monito Report and submitted to EPD under VEP Condition 3.4.				
Impact Monitoring	On-going			
Waste Management				
Mitigation Measures in Waste Monitoring Plan On-going				
Landfill Gas				
Impact Monitoring	On-going On-going			
Environmental Audit				
Site Inspection	On-going On-going			

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

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

# 2. Noise Monitoring

#### 2.1 Monitoring Requirements

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

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 4, 12, 18 and 25 November 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  Leq 5min/Leq 30min  (average of 6  consecutive Leq 5min)	Leq, L <sub>10</sub> & L <sub>90</sub>

#### 2.3 Noise Monitoring Locations

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

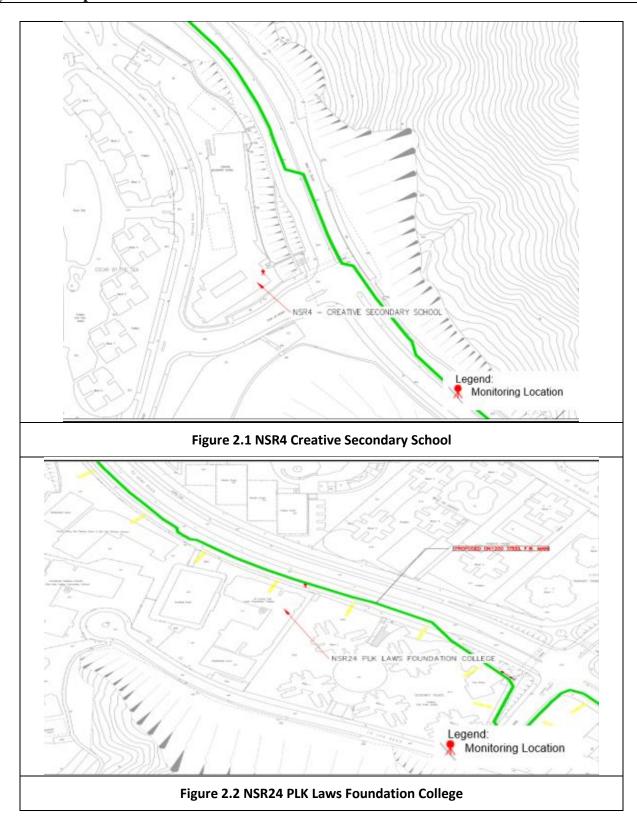
According to the environmental findings detailed in the EIA report and Baseline Monitoring Report, the designated locations for the construction noise monitoring are listed in **Table 2.2** below.

**Table 2.2 Noise Monitoring Location** 

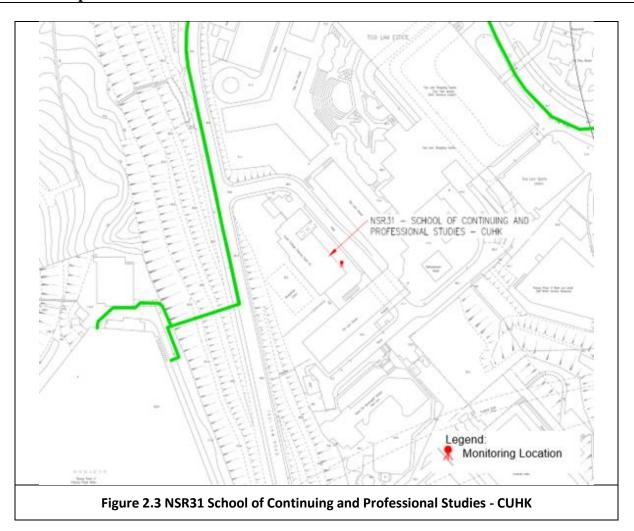
NSR ID	Noise Sensitive Receivers	Monitoring Location	Position
NSR 4	Creative Secondary School	Roof Floor	1 m from facade
NSR 24	PLK Laws Foundation College	Pedestrian Road on Ground Floor	Free-field
NSR 31	School of Continuing and Professional Studies - CUHK	Roof Floor	1 m from facade

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









# 2.4 Impact Monitoring Methodology

Integrated sound level meters were used for the noise monitoring. The meters were in compliance with the International Electrotechnical Commission Publications 651: 1979 (Type 1) and 804: 1985 (Type 1) specifications. Immediately prior to and following each noise measurement the accuracy of the sound level meters was checked using an acoustic calibrator generating a known sound pressure level at a known frequency. Measurements may be accepted as valid only if the calibration level before and after the noise measurements agree to within 1.0 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	NTi XL2	A2A-13661- E0	23/09/2021	22/09/2022	30-130 dB(A)
Sound Level Meter	Svantek 971	96062	05/07/2021	04/07/2022	15-140 dB(A)
Sound Level Meter Calibrator	Pulsar 105	63705	07/08/2021	06/08/2022	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	<ul> <li>70 dB(A) for school and</li> <li>65 dB(A) during examination period</li> </ul>
Notes: (a) Limits specified in the respectively.	GW-TM and IND-TM for construc	tion and operation noise,

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

# 2.6 Monitoring Results and Observations

Referring to EM&A manual Section 4.1.2, impact monitoring for noise impact was scheduled weekly in the reporting month for NSR4 – Creative Secondary School on 4, 12, 18 and 25 November 2021 1. 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 were conducted within 300m radius of NSR24 and NSR31. Thus, no monitoring works was 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 these materials were not disposed of with other inert C&D materials. With reference to relevant handling records and trip tickets of this Project, the quantities of different types of waste generated in the reporting month are summarised in **Table 3.1**. Details of cumulative waste management data are presented as a waste flow table in **Appendix H**.

Table 3.1 Quantities of waste generated from the Project

	Quantity					
Reporting period	Materials	Chemical Waste (in '000kg)	Non-inert C&D Materials			
			Others, e.g. General Refuse disposed at Landfill (in '000m3)	Recycled materials		
				Paper/card board (in '000kg)	Plastics (in '000kg)	Metals (in '000kg)
November-21	2.127	0.000	0.001	0.050	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, 627 times of monitoring was recorded.

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

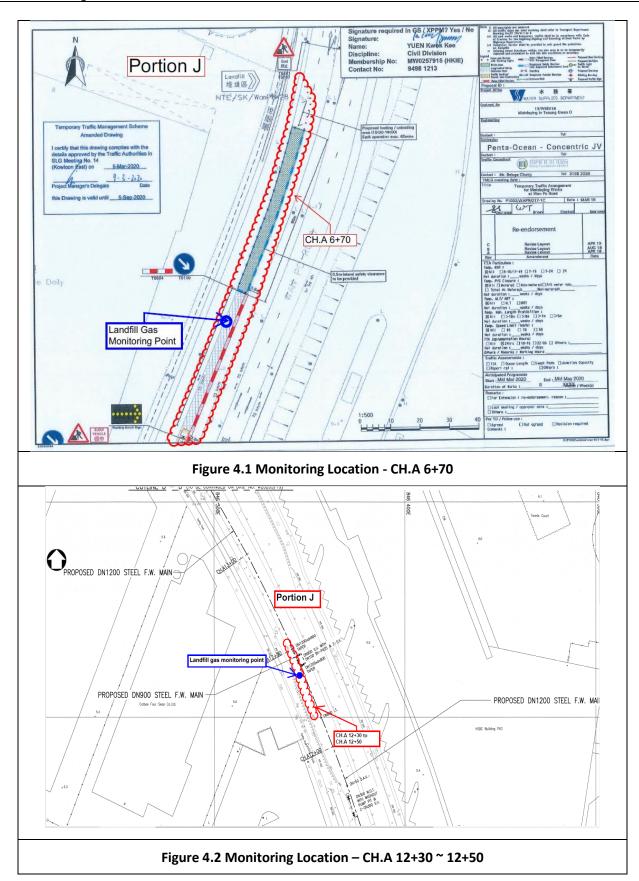
- At the ground surface before excavation commences;
- Immediately before any worker enters the excavation;
- At the beginning of each working day for the entire period when the excavation remains open; and
- Periodically through the working day whilst workers are in the excavation.

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**.







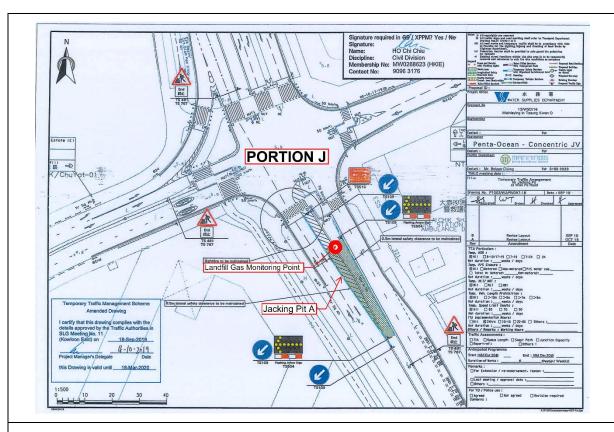


Figure 4.3 Monitoring Location – CH.A 13+50 ~ 14+00 (Pit A)

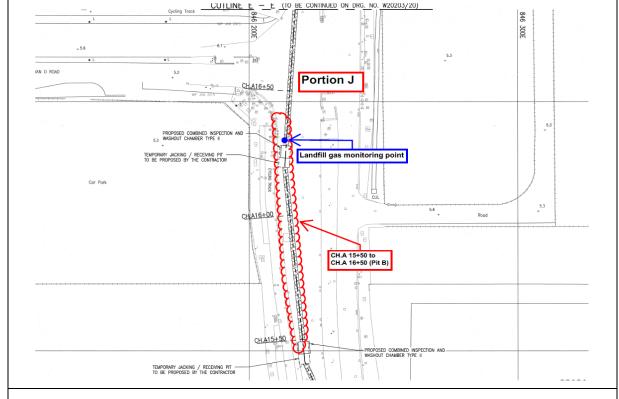


Figure 4.4 Monitoring Location – CH.A 15+50 ~16+50 (Jacking Pit B)



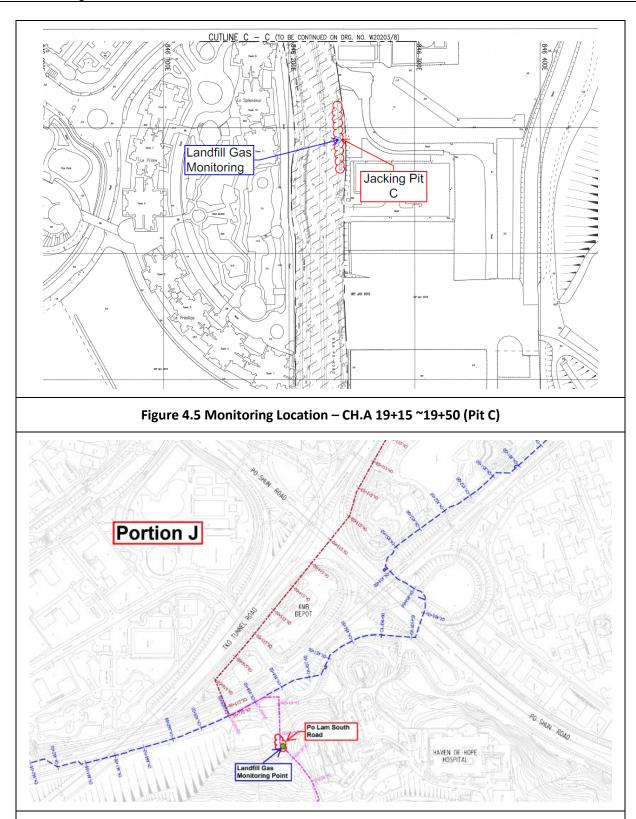


Figure 4.6a Monitoring Location – Mau Wu Tsai 1



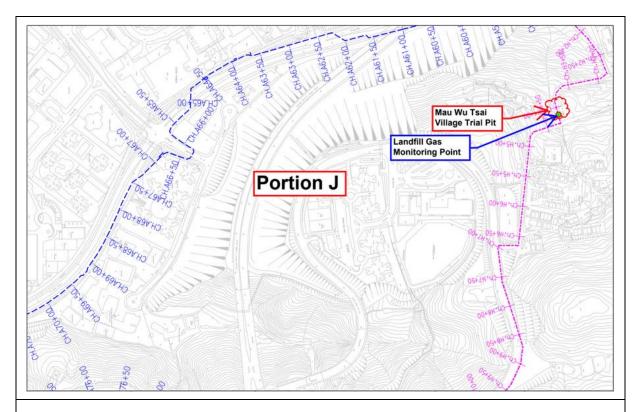


Figure 4.6b Monitoring Location – Mau Wu Tsai 2

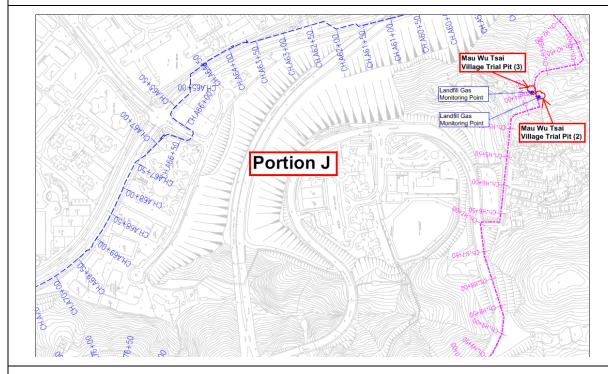
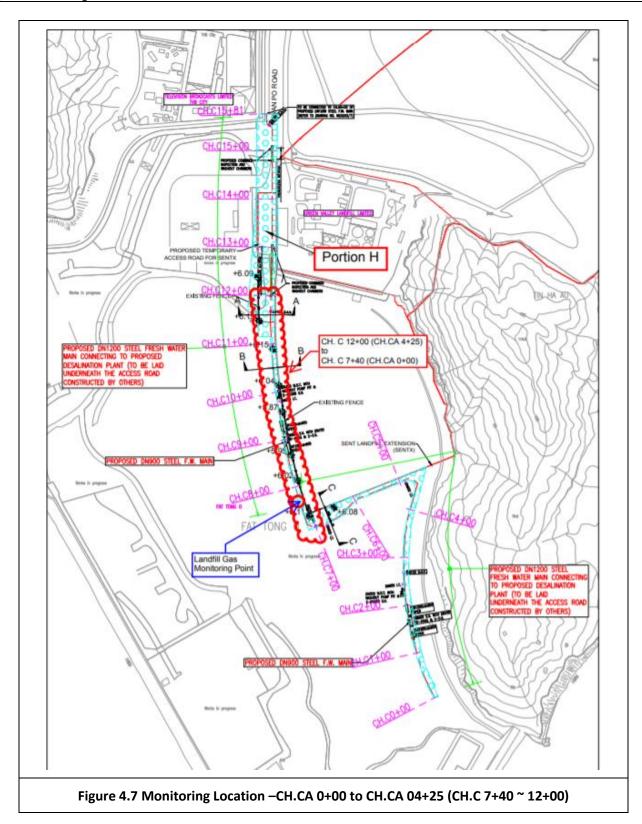
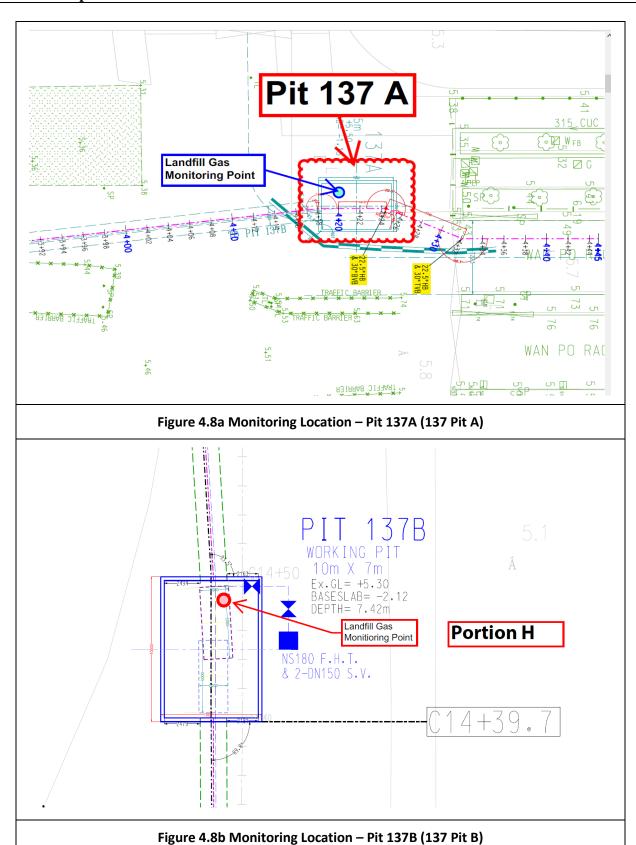


Figure 4.6c Monitoring Location – Mau Wu Tsai 3











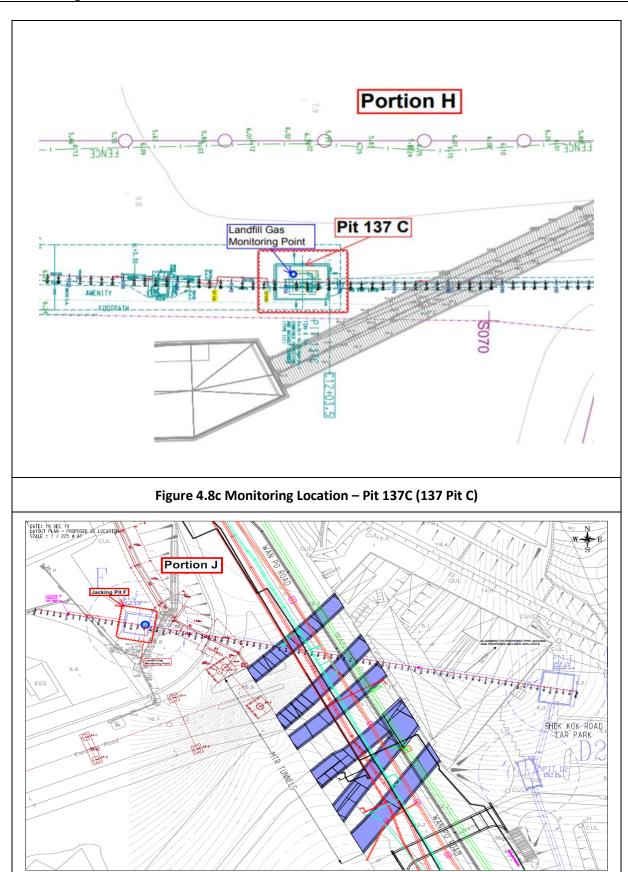
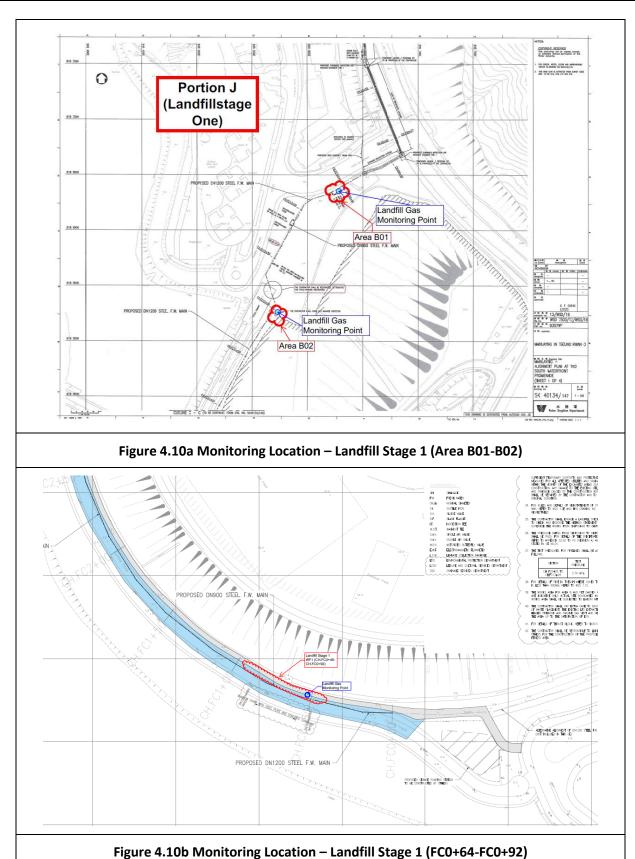


Figure 4.9 Monitoring Location - Jacking Pit F







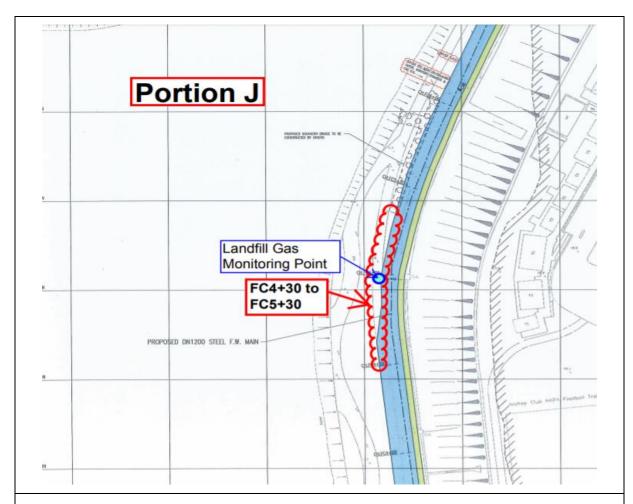


Figure 4.10c Monitoring Location – Landfill Stage 1 (FC4+30-FC5+30)

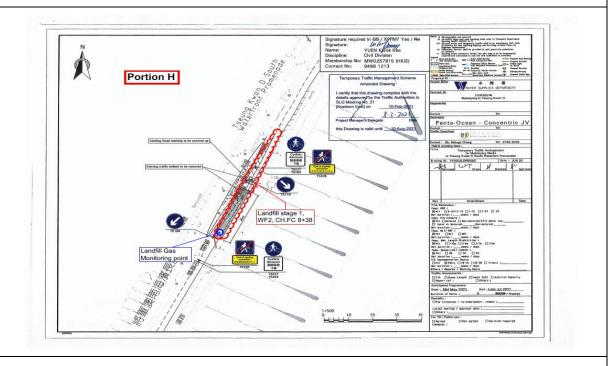


Figure 4.10d Monitoring Location – Landfill Stage 1 (FC8+38)



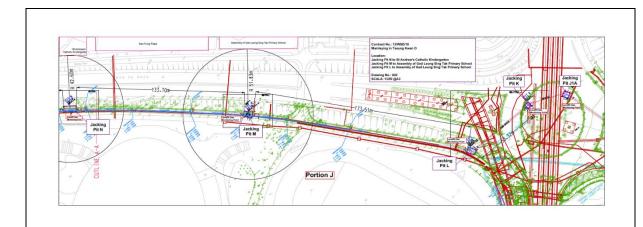


Figure 4.11a Monitoring Location – Pit L-M-N, J1A, K

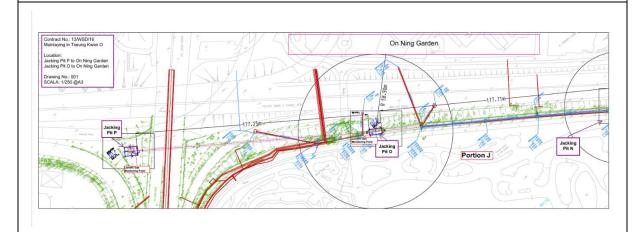


Figure 4.11b Monitoring Location – Pit N-O-P



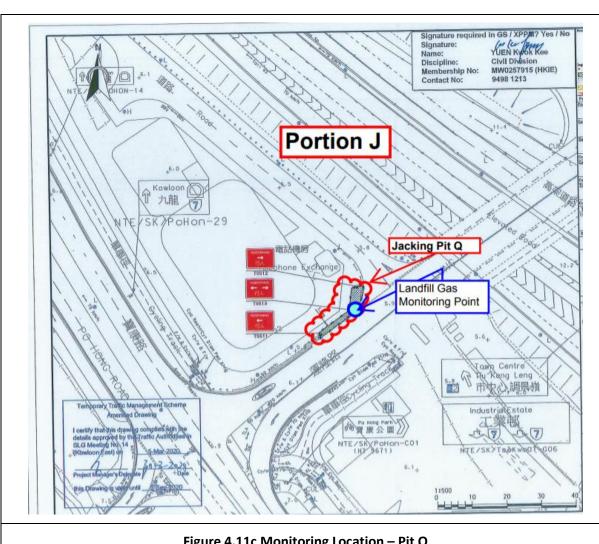


Figure 4.11c Monitoring Location – Pit Q

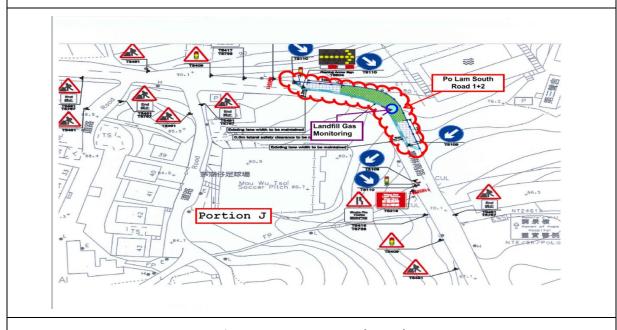


Figure 4.12 Po Lam South Road



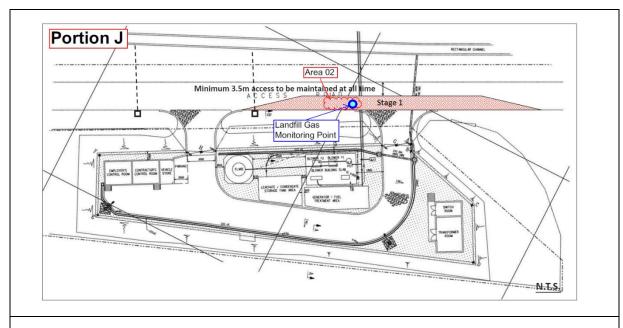


Figure 4.13 Monitoring Location – Area A02

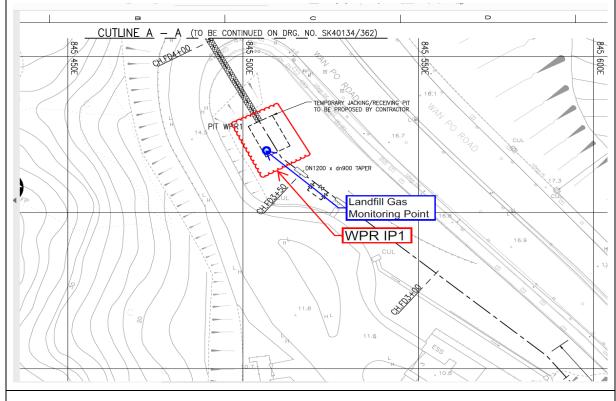
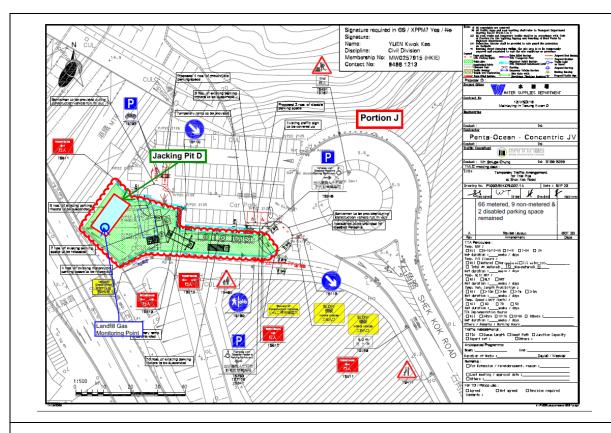


Figure 4.14 Monitoring Location – WPR IP1







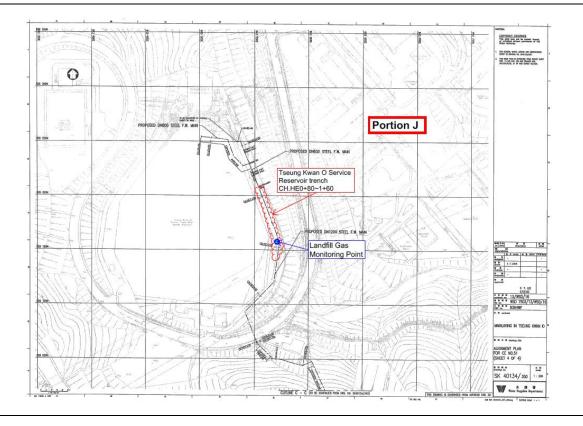


Figure 4.16 Monitoring Location - CH.HE0+80-1+60



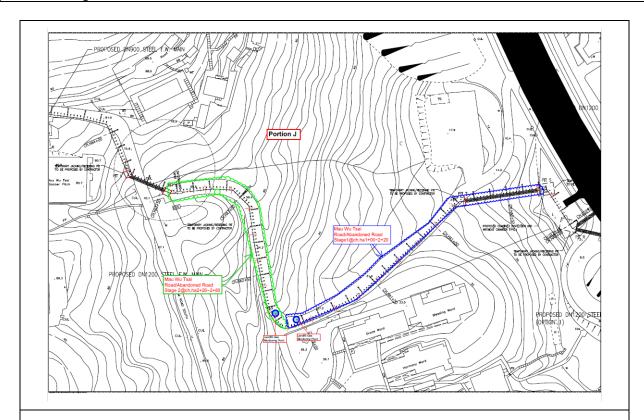


Figure 4.17 Monitoring Location – Mau Wu Tsai Abandoned Road

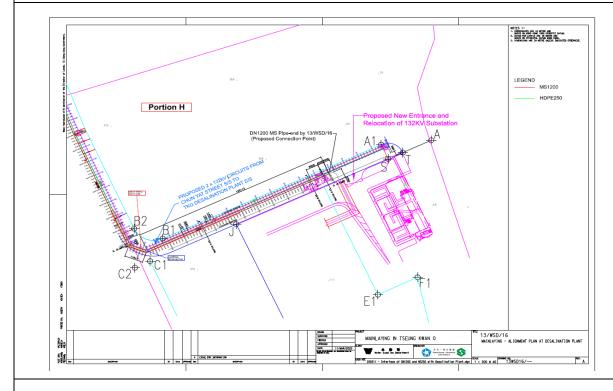


Figure 4.18a Monitoring Location - CH.CT 0+07 ~ 2+58



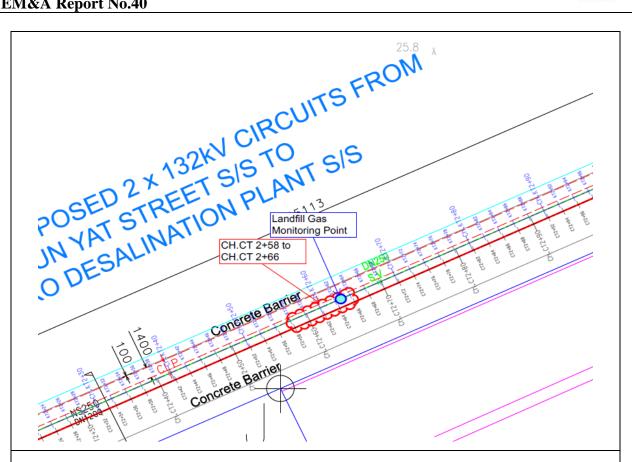


Figure 4.18b Monitoring Location - CH.CT 2+58 ~ 2+66

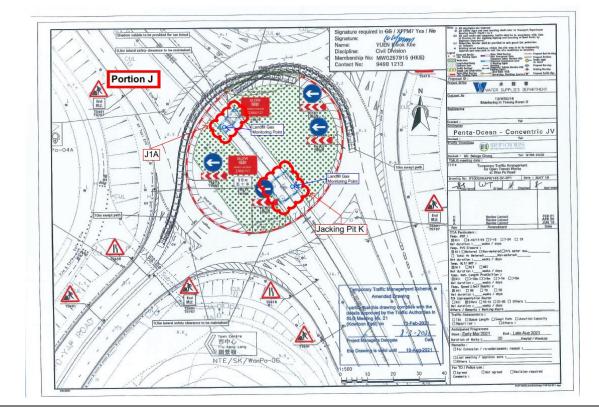


Figure 4.19 Monitoring Location – Pit K



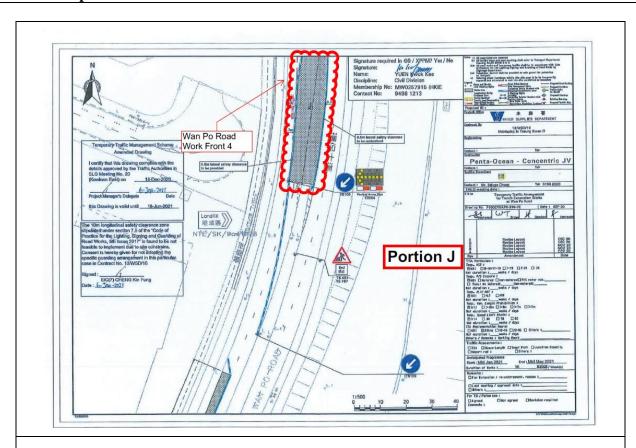


Figure 4.20a Monitoring Location - Wan Po Road 4

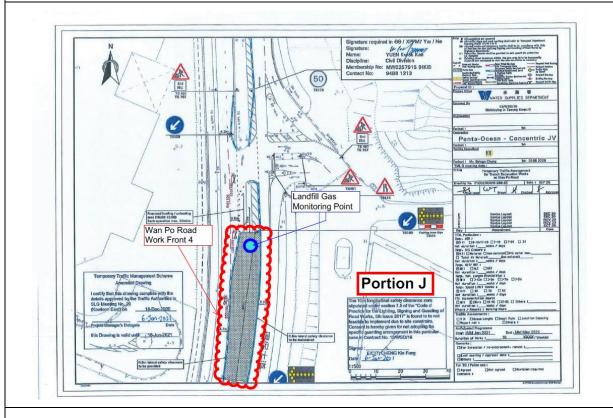


Figure 4.20b Monitoring Location - Wan Po Road 4



#### 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 multi-gas monitoring instruments. The gas monitoring equipment is:

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



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

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

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

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

**Table 4.2 Landfill Gas Monitoring Equipment** 

Equipment	Brand and Model	Calibration Expiry Date
Portable Gas Detector	QRAE III	27 July 2022
MultiRAE Lite	PGM-6208	06 April 2022
Portable Gas Detector	XT-XWHM-Y-OR	08 June 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 627 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:

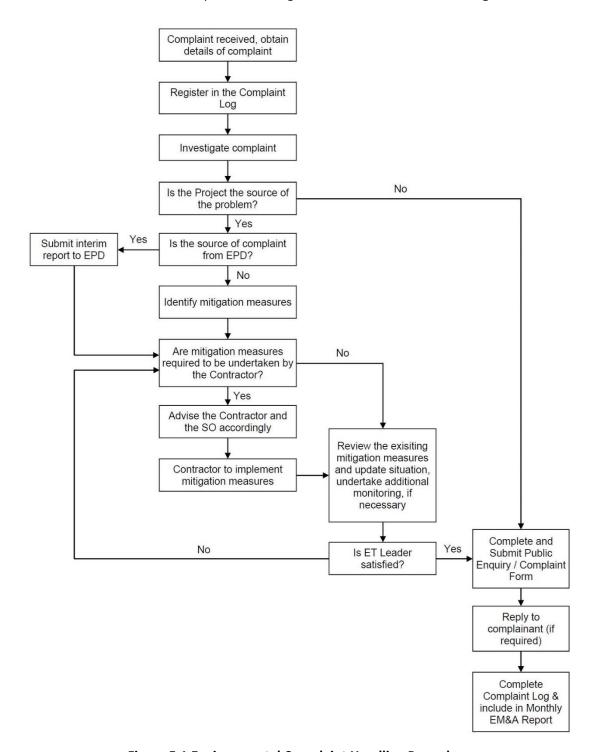


Figure 5.1 Environmental Complaint Handling Procedure



- 5.2 Impact monitoring for noise impact was scheduled in the reporting month for NSR4 Creative Secondary School on 4, 12, 18 and 24 November 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 No project-related environmental complaint was received in the reporting month.
- 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 4, 12, 18 and 24 November 2021 at the site portions list in **Table 6.1** below.

**Table 6.1 Site Inspection Record** 

Date	Inspected Site Portion	Time
04 November 2021	Portion F and J	10:00am – 12:30pm
12 November 2021	Portion J	09:35am – 10:30am
18 November 2021	Portion J	09:15am – 12:00pm
24 November 2021	Portion J	09:30am – 11:30am

- 6.2 One joint site inspection with IEC was carried out on 18 November 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
	1. The outfall of the 1. The outfall of the sedimentation
	sedimentation tank was tank was installed at a correct
	installed at the inaccurate level and no water was discharged
	level. The Main Contractor from the construction site.
04 November	was reminded to rectify of 2. There was no water discharge in
2021	which the outfall should be at work front.
	high level (Pit D) (Wan Po 3. Sandbags were added under
	Road 4) construction boundaries.
	2. The Main Contractor was 4. Chemicals were placed on drip
	reminded that no water tray.



Date	<b>Environmental Observations</b>	Follow-up Status
	should be discharged without treatment at Jacking Pit A and Wan Po Road 4  3. Construction boundaries were not protected by sandbags at Wan Po Road 1.  4. The Main Contractor was reminded that chemicals should be placed on drip tray at Wan Po Road 2.  5. Dusty mitigation measures should be implemented at Wan Po Road 2.	5. Dusty materials were cleaned.
12 November 2021	No NRMM label was observed at the NRMM at Po Lam South Road.	The Excavator was changed and NRMN label was added.
18 November 2021	1. No major observations were no	ted on the reporting day.
24 November 2021	<ol> <li>The Main Contractor was reminded that no water should be discharged without treatment at Pit D and Jacking Pit A.</li> <li>Construction boundaries were observed not protected by sandbags fully at Pit A, Wan Po Road 1</li> </ol>	<ol> <li>There was no water discharge in work front.</li> <li>Sandbags were added under construction boundaries.</li> </ol>

- 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 A	<ul> <li>Site clearance for pipe jacking works will be conducted.</li> <li>Preparation works for pipe laying will be conducted.</li> </ul>
	TKO 137 Pit B	<ul> <li>Site clearance for pipe jacking works will be conducted.</li> <li>Preparation works for pipe laying will be conducted.</li> </ul>
	TKO 137 Pit C	<ul> <li>Site clearance for pipe jacking works will be conducted.</li> <li>Preparation works for pipe laying will be conducted.</li> </ul>
	Wan Po Rd – Workfront 1	<ul> <li>Mini piling works for ELS of receiving pit construction will be conducted.</li> </ul>
Portion J of the Project Site	Wan Po Rd – Workfront 2	<ul> <li>Mini piling works for ELS of jacking pit construction will be conducted.</li> </ul>
	Wan Po Rd – Workfront 3	• Trench excavation and pipe laying works will be conducted.
	Wan Po Rd – Workfront 4	<ul> <li>Trench excavation and pipe laying works will be conducted.</li> </ul>
	Wan Po Rd – Pit A	<ul> <li>Remedial works for pit will be conducted.</li> </ul>
	Wan Po Rd – Pit B	<ul> <li>Preparation works for TBM pipe jacking will be conducted.</li> <li>TBM pipe jacking will be commenced.</li> </ul>
	Wan Po Rd – Pit D	<ul> <li>Preparation works for TBM pipe jacking will be conducted.</li> <li>TBM pipe jacking will be commenced.</li> </ul>
	Landfill Stage 1 – Area A	<ul> <li>Trench excavation and pipe laying works will be conducted.</li> </ul>
	Pet Garden's Road	Trench excavation and pipe laying works will be conducted.
	Landfill Stage 1 – Area B	Trench excavation and pipe laying works will be conducted.
	Pung Loi Road – Pit WPR1	Sheetpile driving works for pit ELS will be conducted.
	Roundabout – Pit G1A	Pit excavation and ELS works will be conducted.
	Velodrome – Pit K	<ul> <li>Preparation works for pipe laying will be conducted.</li> </ul>



Location	Location	Forecast Works in Next Reporting Month
	Velodrome – Pit L-Pit M	Trench excavation and pipe laying works will be conducted.
	Velodrome – Pit M	Hand-shield pipe jacking works will be conducted.
	Velodrome – Pit N	Site clearance works will be conducted.
	Velodrome – Pit O to Pit N	Site clearance works will be conducted.
	Velodrome – Pit P	TBM pipe jacking will be continued.
	Mau Wu Tsai – Workfront 2	<ul> <li>Trench excavation and pipe laying works will be conducted.</li> </ul>
	Po Lam Road South	Trench excavation and pipe laying works will be conducted.
	Po Lam Road (C2)	<ul> <li>Pre-drilling works for mini piling of pipe bridge at Location A westside slope will be conducted.</li> <li>Mini piling works for Location A westside slope will be commenced.</li> </ul>
	Po Lam Road (B4)	Trench rock breaking works will be conducted.
	TKO Primary Service Reservoir	Trench excavation and pipe laying 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, sheetpiling works 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, sheetpiling works 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

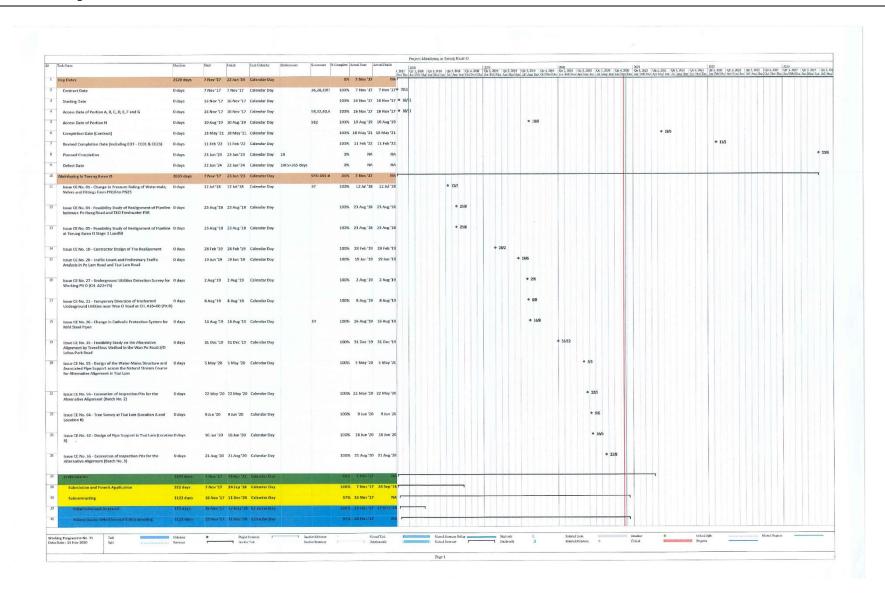
- 8.1 This is the 40<sup>th</sup> monthly Environmental Monitoring and Audit (EM&A) Report presenting the EM&A works undertaken during the period from 1 November 2021 to 30 November 2021, in accordance with the EM&A Manual and the requirement under EP-503/2015/A.
- 8.2 Impact monitoring for noise impact was scheduled in the reporting month for NSR4 Creative Secondary School on 4, 12, 18 and 25 November 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 No project-related environmental complaint was received in the reporting month.
- 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.



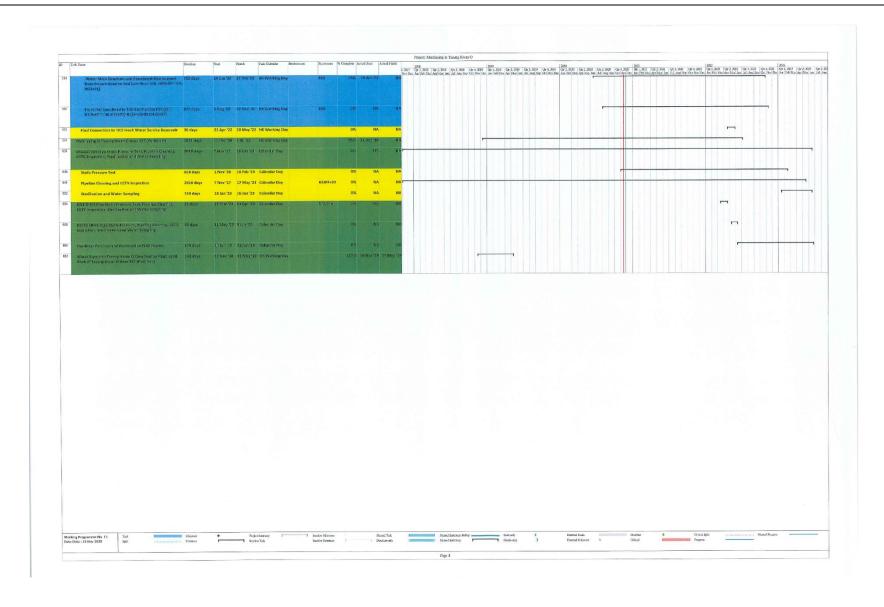
Appendix A

**Construction Programme** 

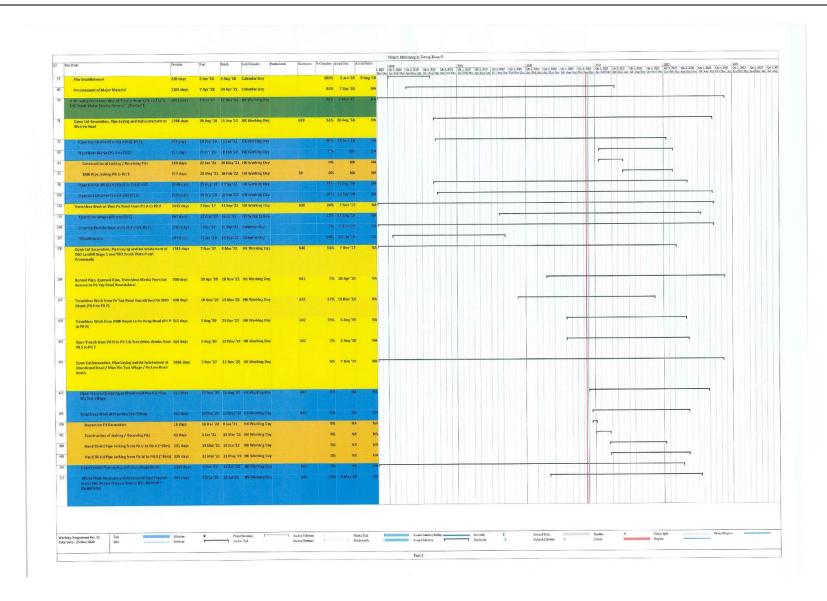




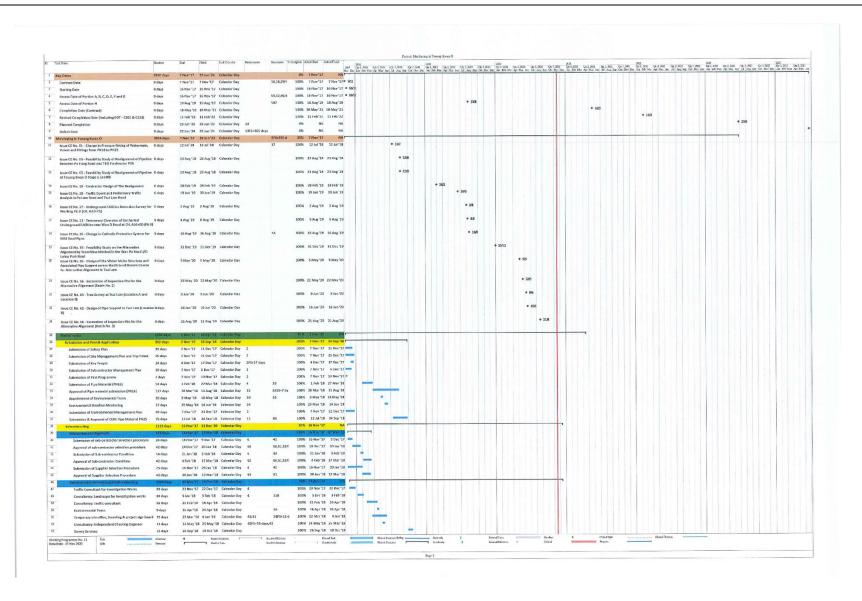




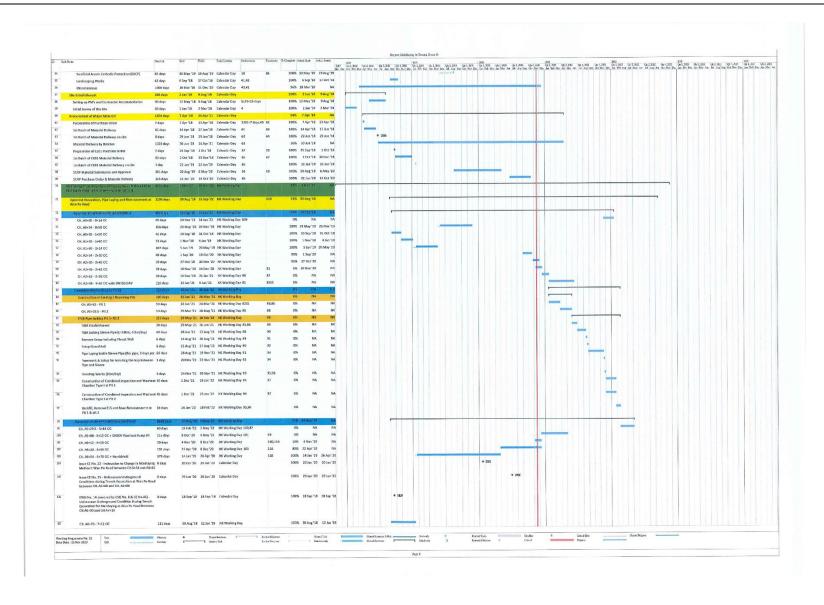




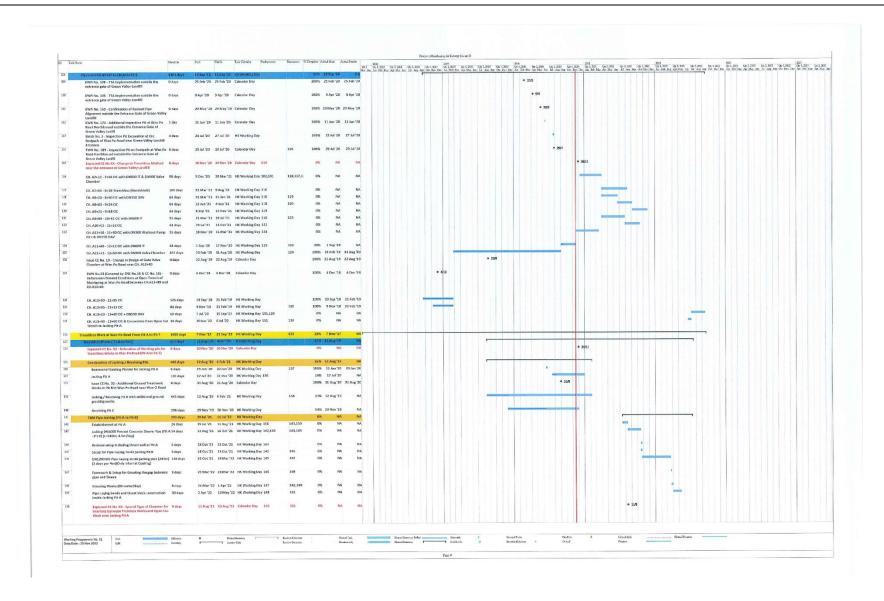




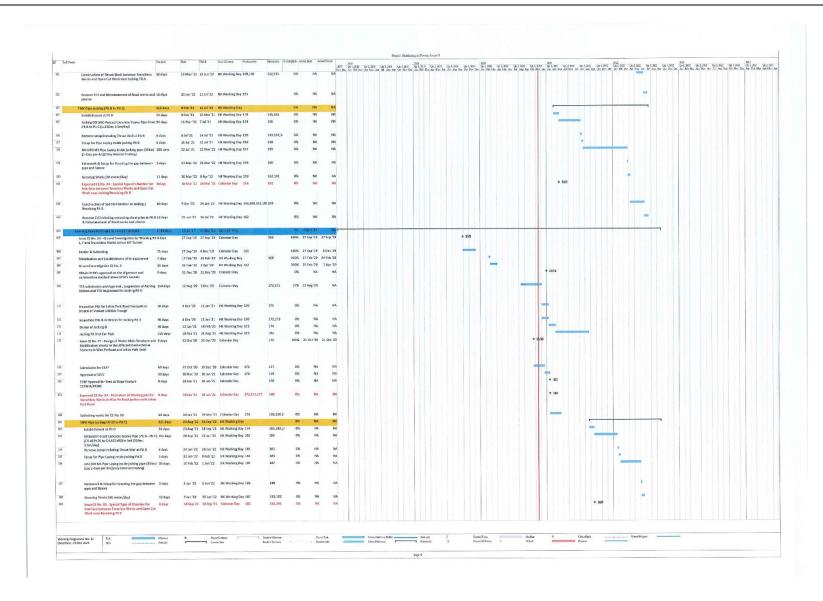




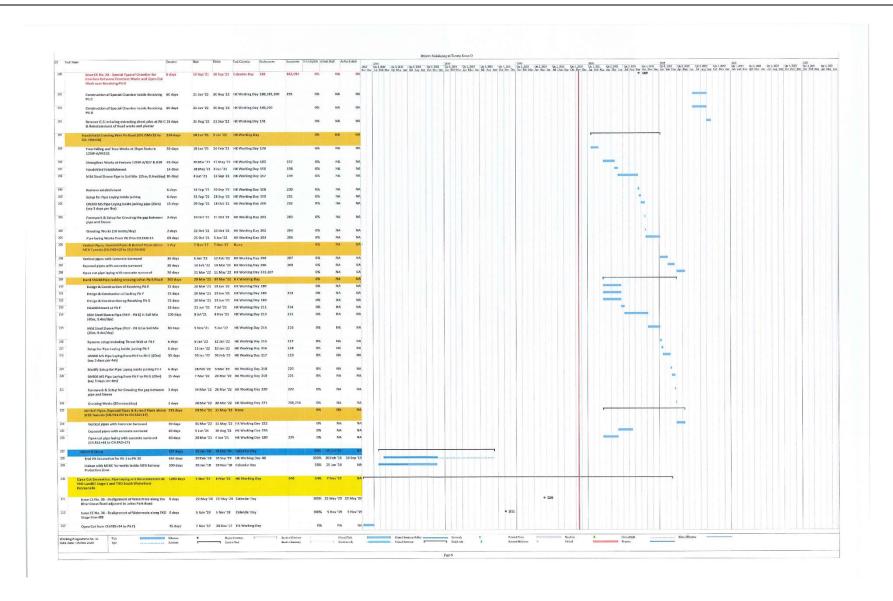




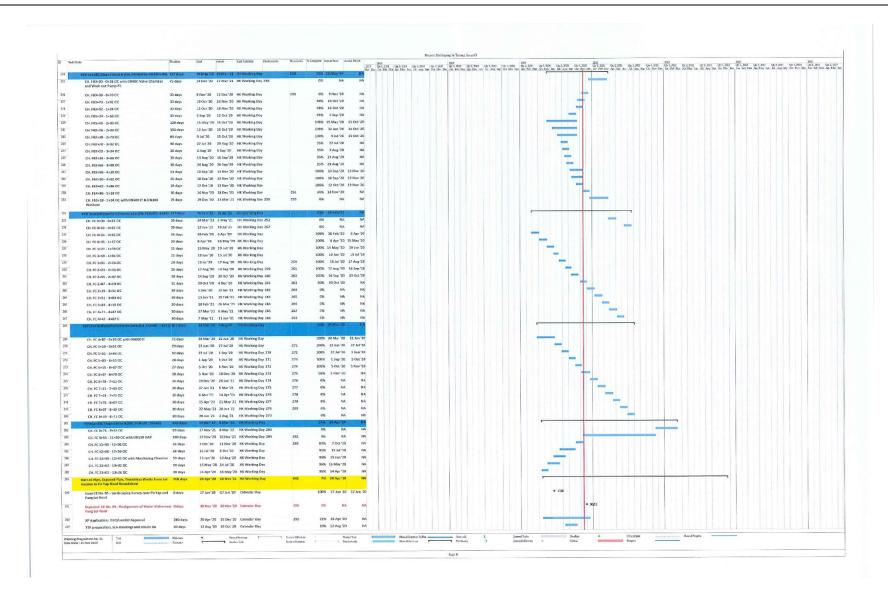




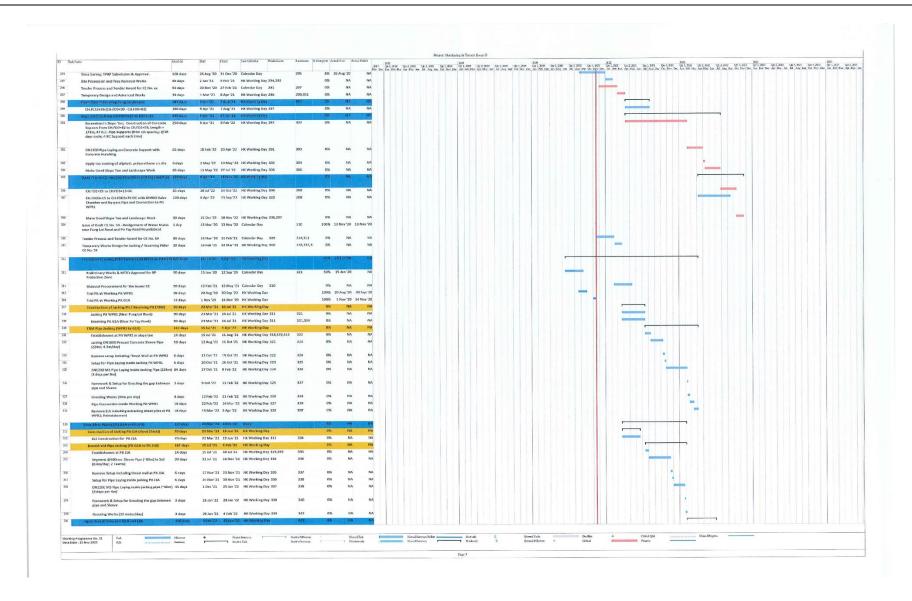




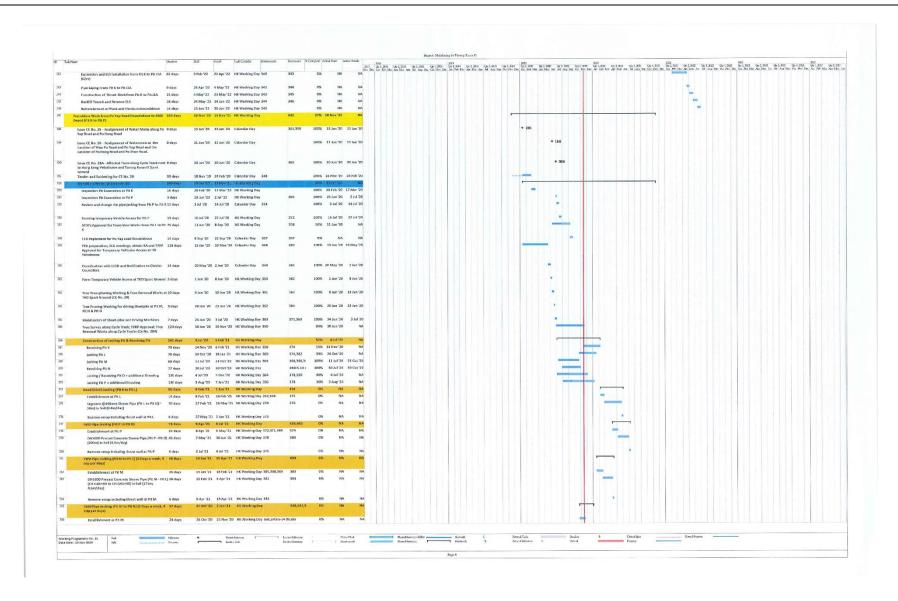




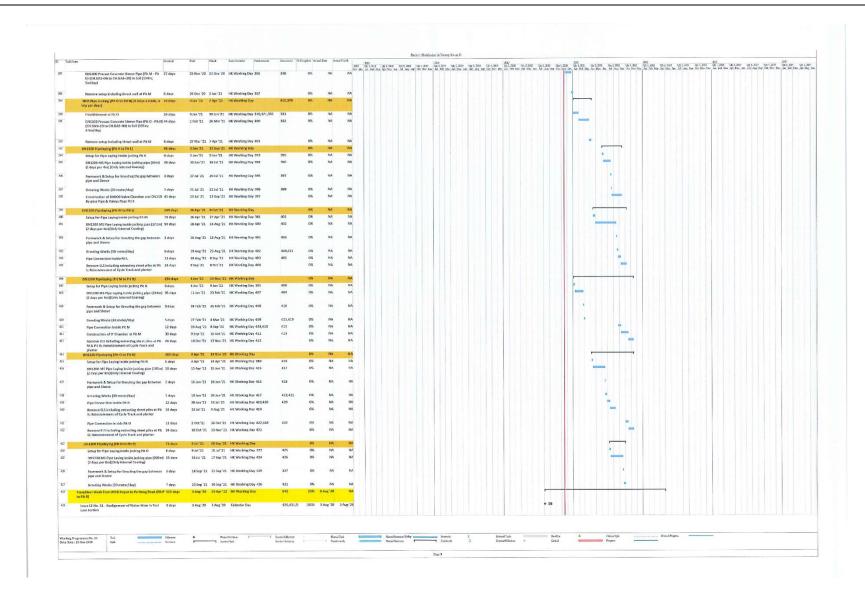




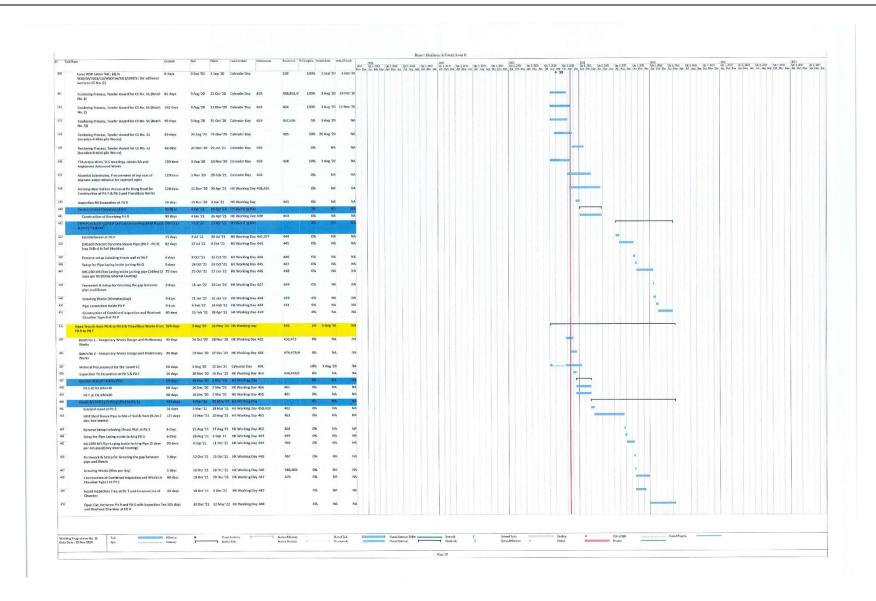




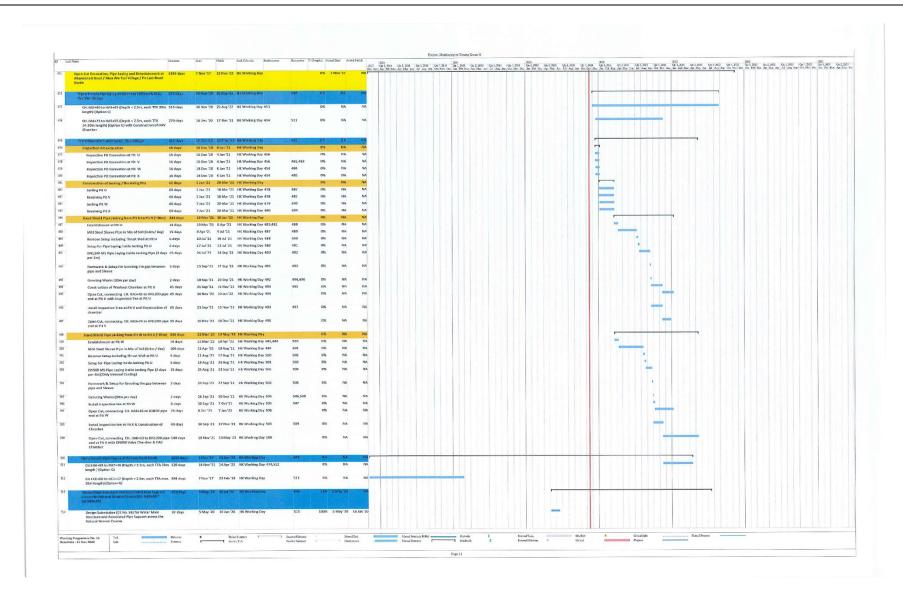




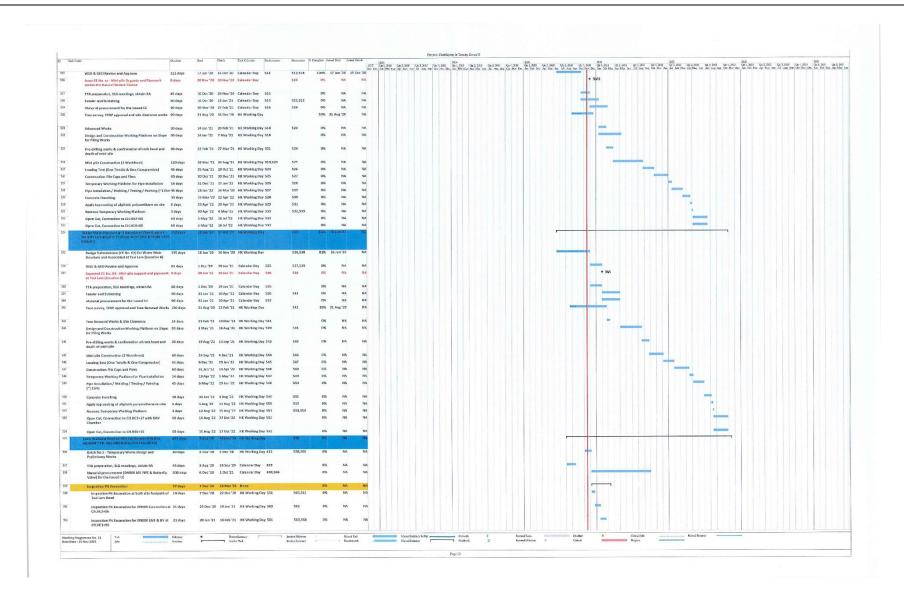




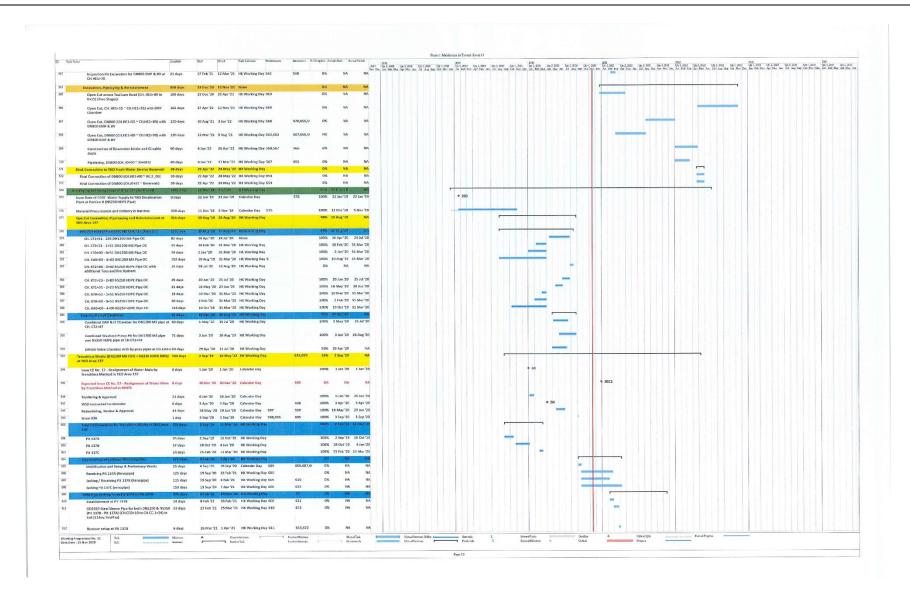




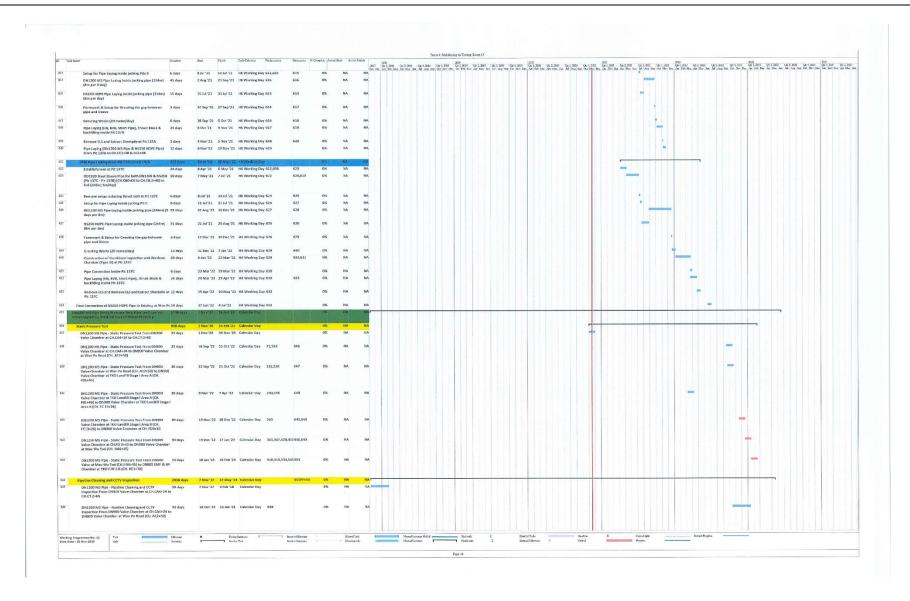




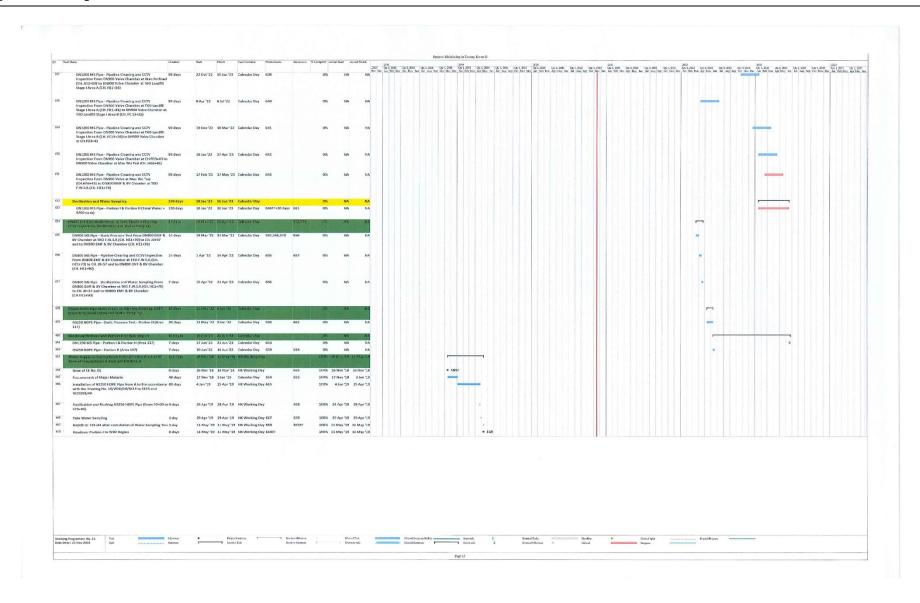














# Appendix B

Overview of Mainlaying in Tseung Kwan O



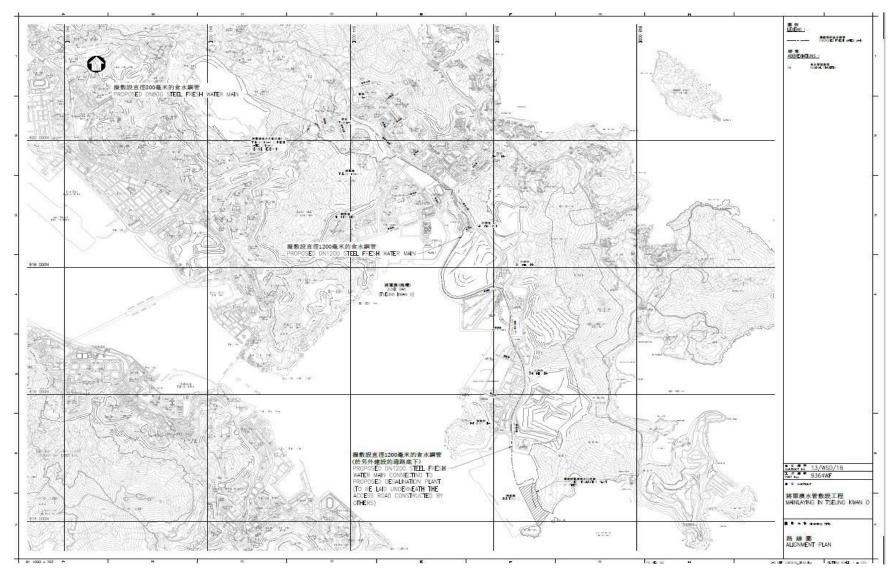


Figure B1. Overview of Mainlaying in TKO



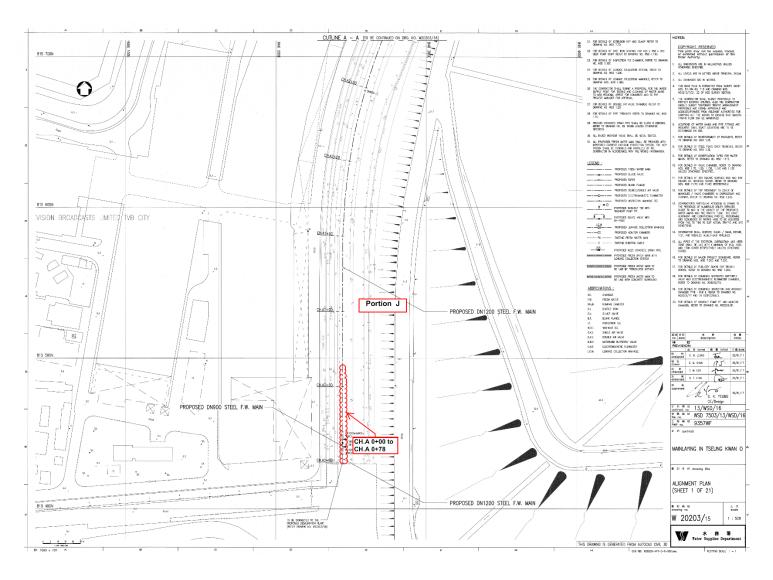


Figure B2. Location Plan for Portion J - CH.A 0+00 to CH.A 0+78



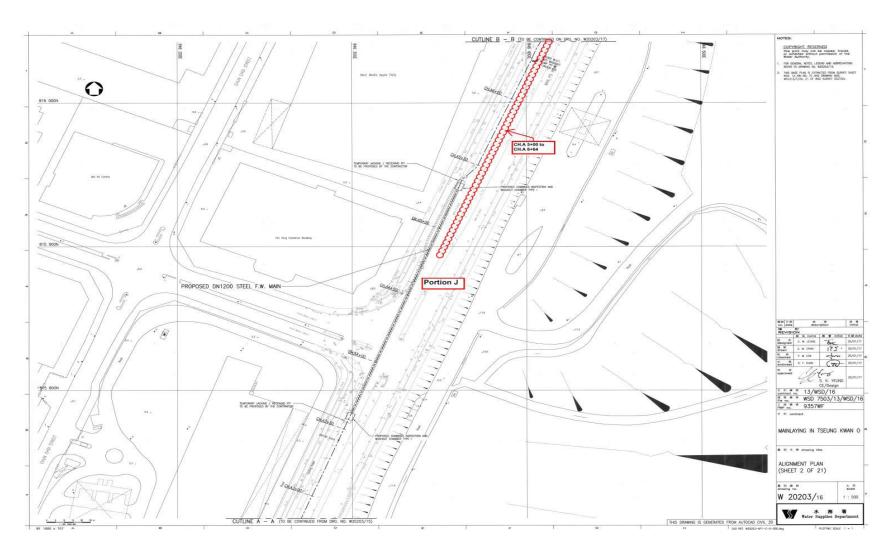


Figure B3a. Location Plan for Portion J - CH.A 5+00 to CH.A 6+64



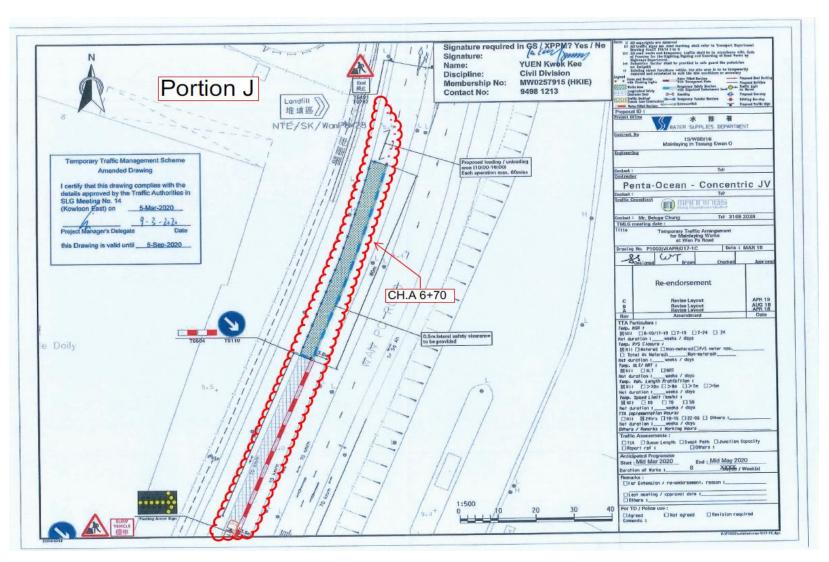


Figure B3b(i). Location Plan for Portion J - CH.A 6+70



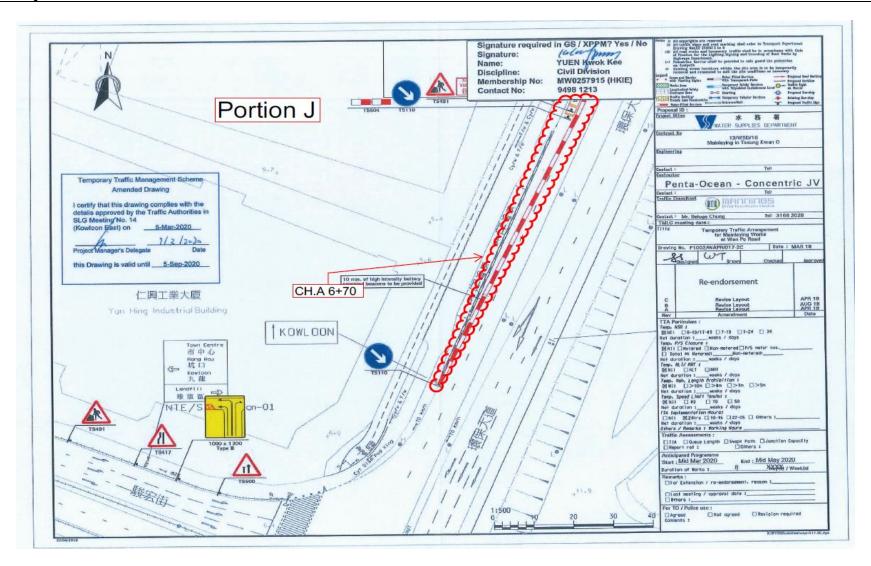


Figure B3b(ii). Location Plan for Portion J - CH.A 6+70



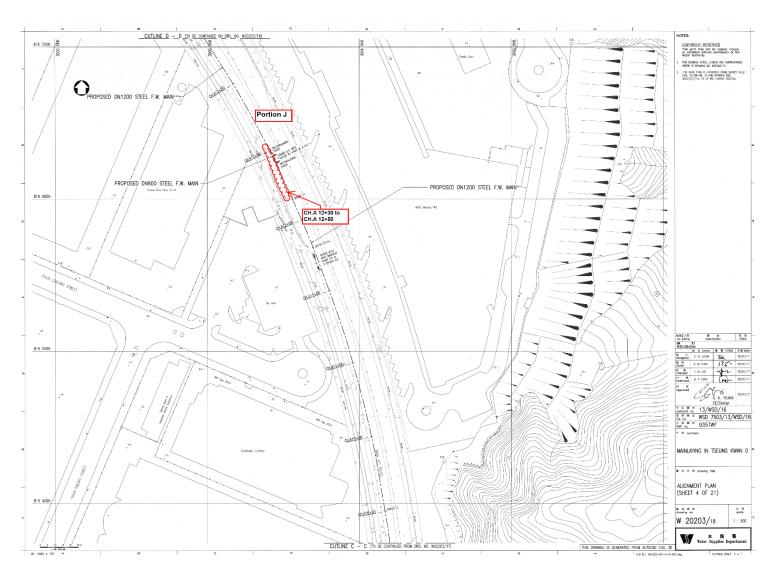


Figure B4. Location Plan for Portion J - CH.A 12+30 to CH.A 12+50



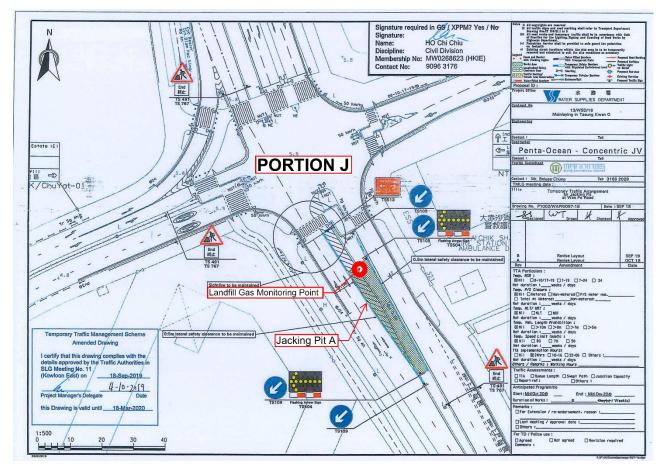


Figure B5. Location Plan for Portion J – CH. A13+50 to CH.A 14+00 (Pit A)



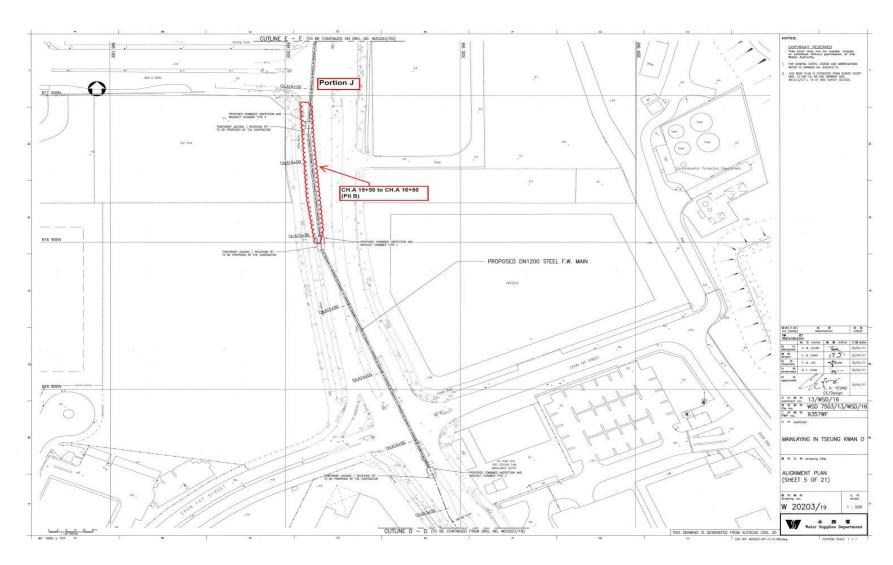


Figure B6. Location Plan for Portion J – CH. A15+50 to CH.A 16+50 (Pit B)



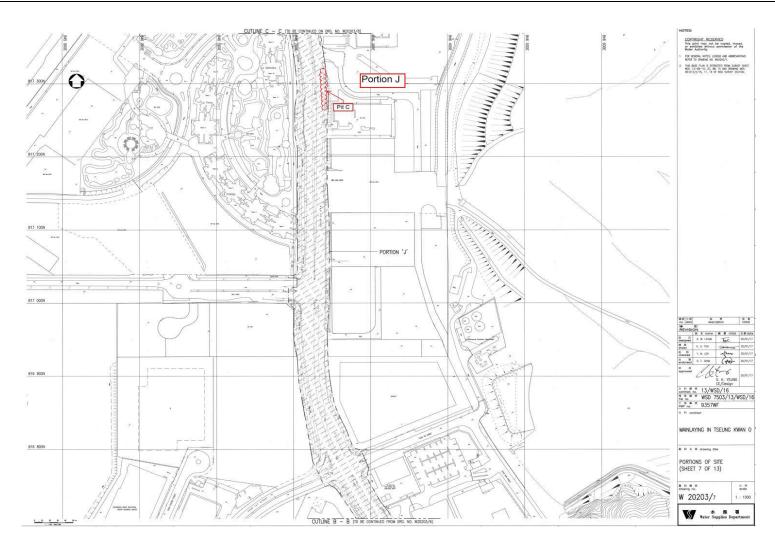


Figure B7. Location Plan for Portion J – CH.A 19+15 to CH.A 19+50 (Pit C)



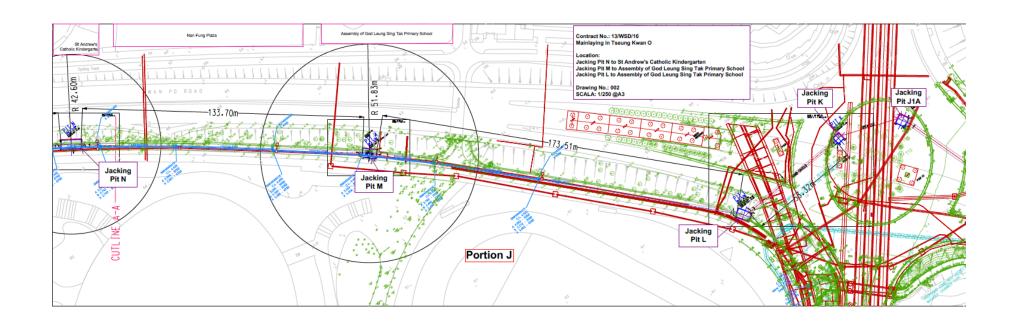


Figure B8a. Location Plan for Portion J – Pit L-M-N, K, J1A





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



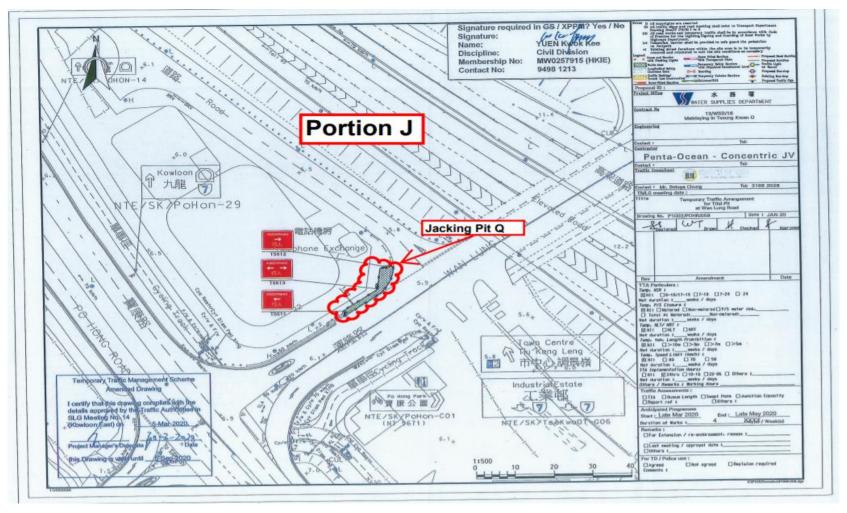


Figure B8c. Location Plan for Portion J - Pit Q



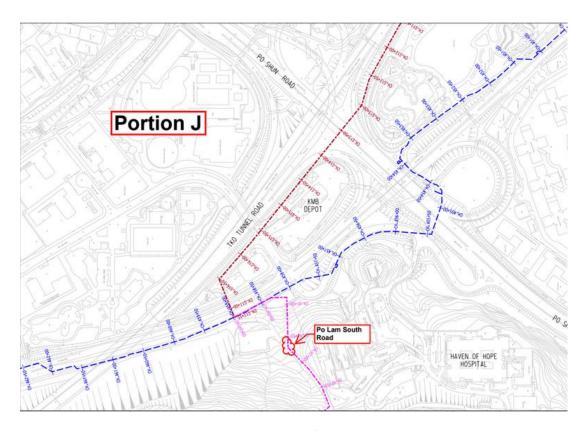


Figure B9a. Location Plan for Mau Wu Tsai 1

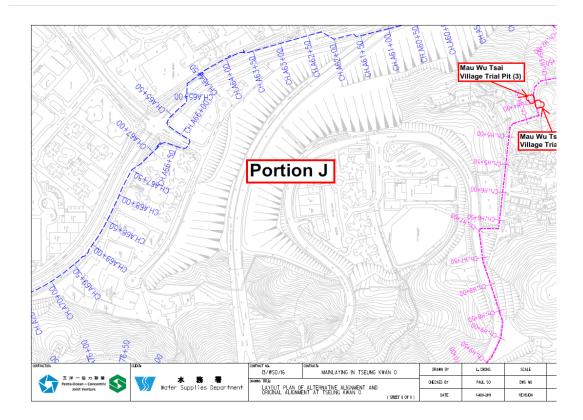


Figure B9b. Location Plan for Mau Wu Tsai 2 & 3



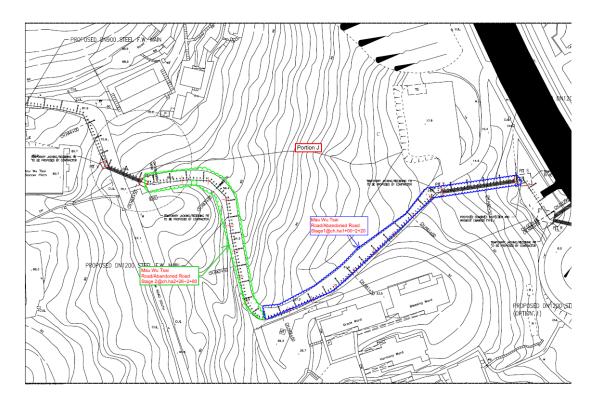


Figure B9c. Abandoned Mau Wu Tsai Road

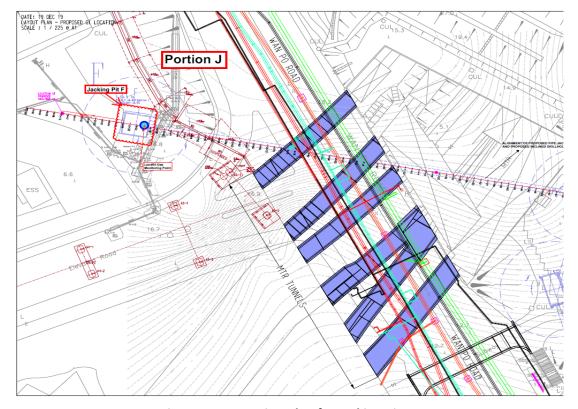


Figure B10. Location Plan for Jacking Pit F



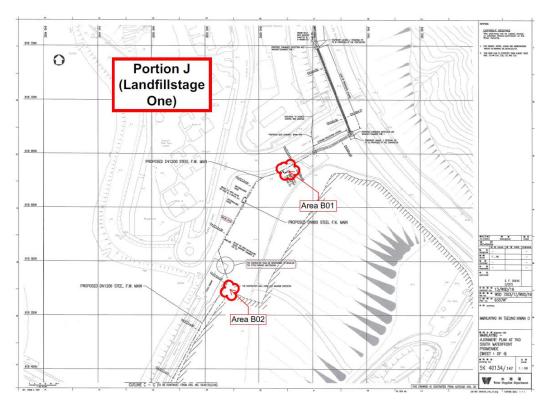


Figure B11a. Location Plan - Landfill Stage 1 (Area B01-B02)

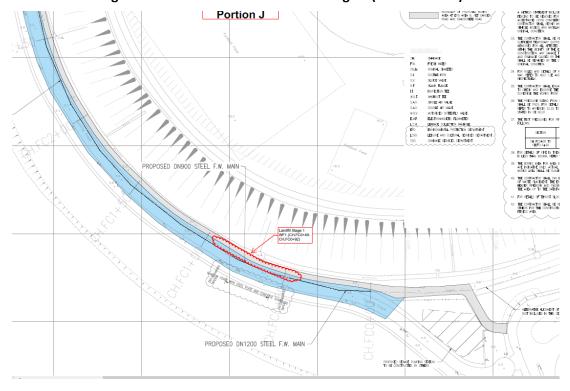


Figure B11b. Location Plan - Landfill Stage 1 (Area FC0+42 -FC0+92)



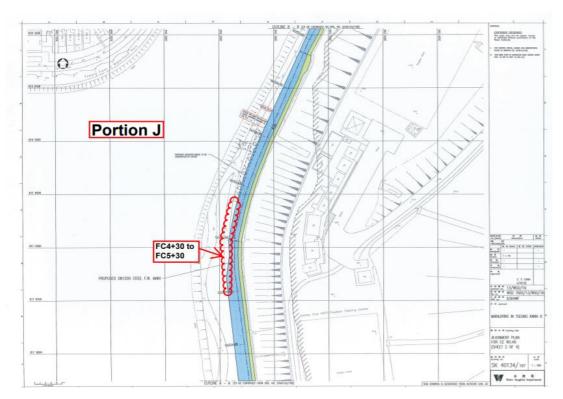


Figure B11c. Location Plan - Landfill Stage 1 (Area FC4+30 -FC5+30)

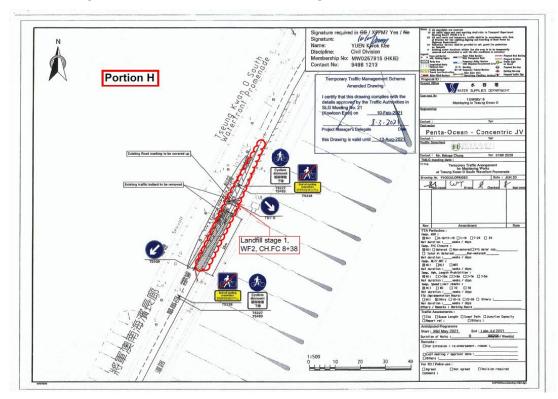


Figure B11d. Location Plan – Landfill Stage 1 (Area FC8+38)



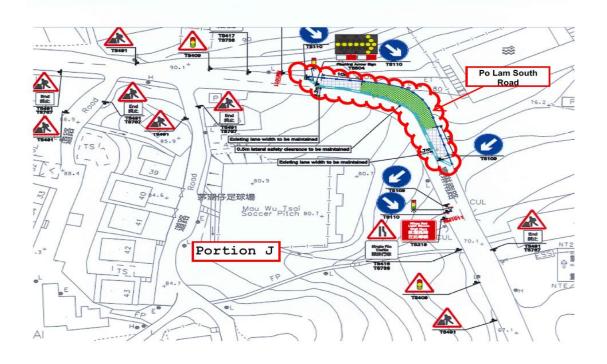


Figure B12. Monitoring Location – Po Lam South Road

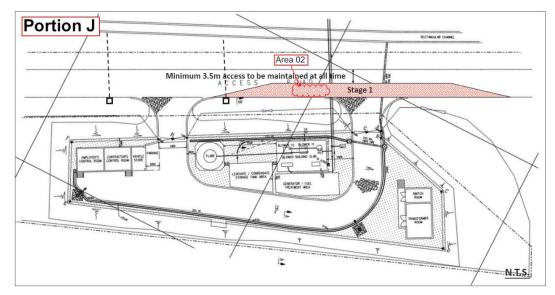


Figure B13. Monitoring Location – Area A02



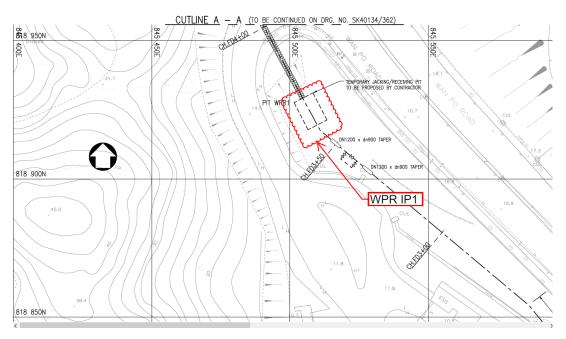


Figure B14. Location Plan for WPR IP1

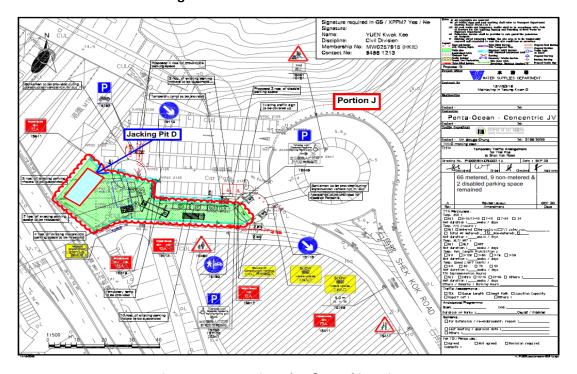


Figure B15. Location Plan for Jacking Pit D



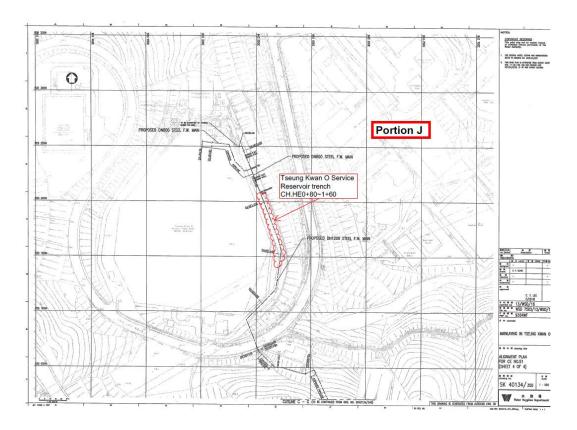


Figure B16. Location Plan for CH.HE0+80-1+60

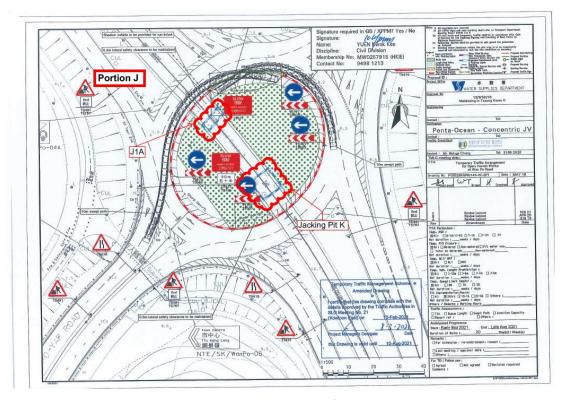


Figure B17. Location Plan for Pit K



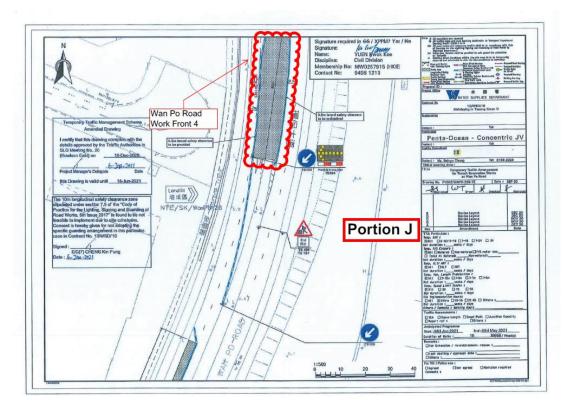


Figure B18a. Location Plan for Wan Po Road 4

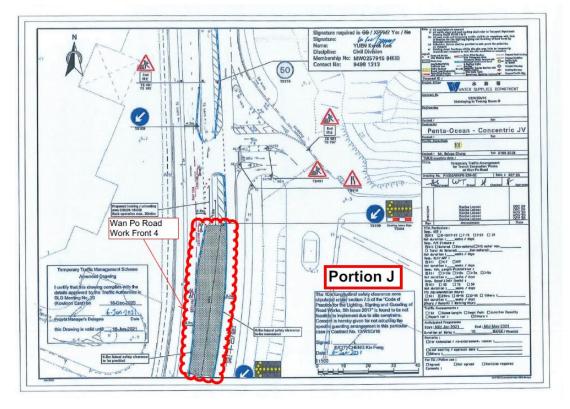


Figure B18b. Location Plan for Wan Po Road 4



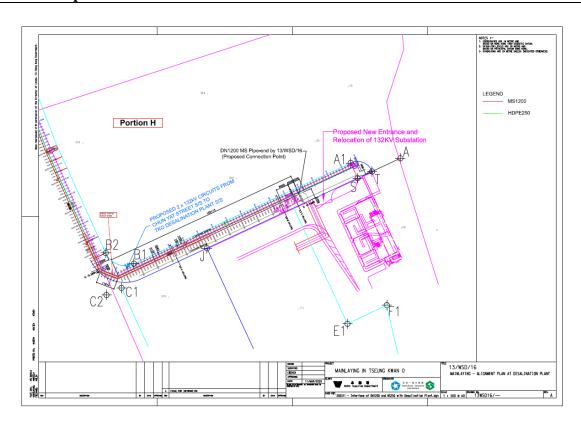


Figure B19a. Location Plan for CH.CT 0+07 - 2+58

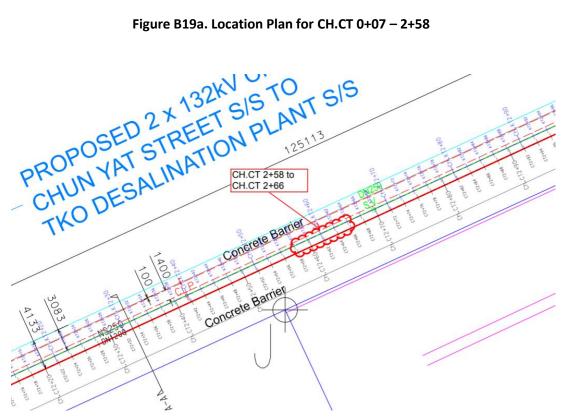


Figure B19b. Location Plan for CH.CT 2+58 - 2+66



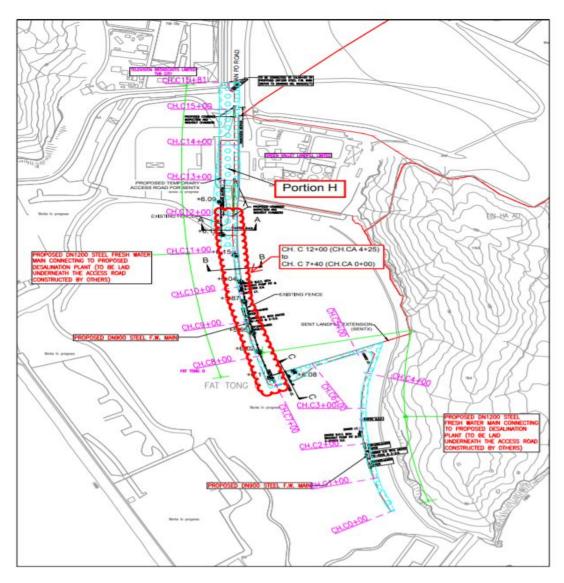


Figure B20. Location Plan for Portion H– CH.C 7+40 $^{\sim}$ CH.C 12+00 (CH.CA 0+00  $^{\sim}$  CH.CA4+25)



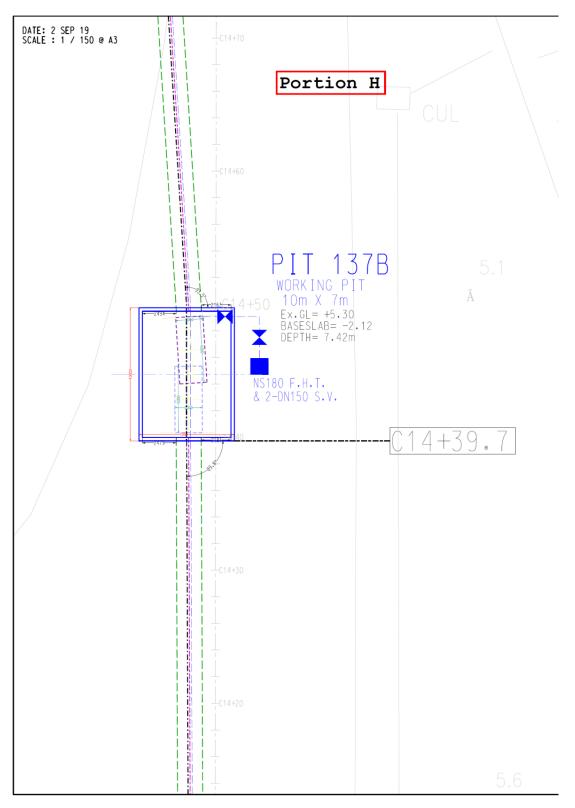


Figure B21a. Location Plan for Portion H- Pit 137B



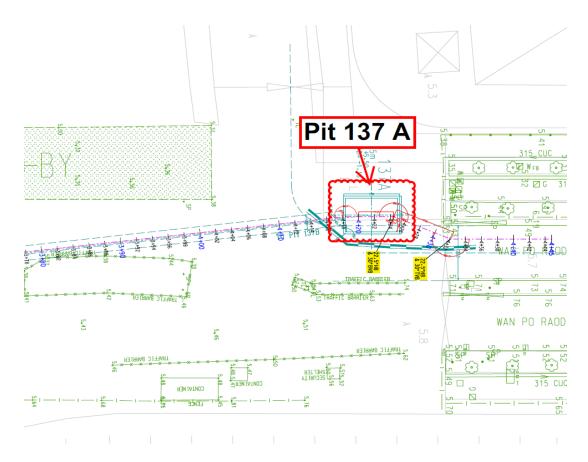


Figure B21b. Location Plan for Portion H- Pit 137A

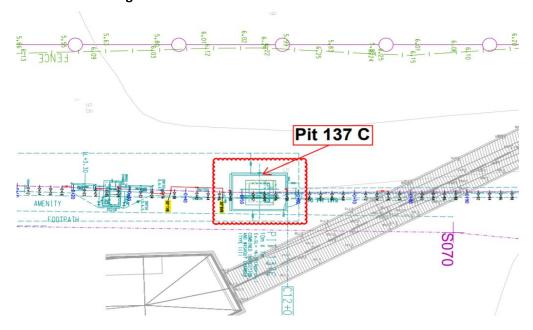


Figure B21c. Location Plan for Portion H- Pit 137C



# Appendix C

Summary of Implementation Status of Environmental Mitigation



EIA Reference	Recommended Environmental Protection Measures/	Objectives of the recommended measures &	Implementation	Implem	entatio	n Stage	Implementation	Relevant Legislation & Guidelines
LIA Reference	Mitigation Measures	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)		<b>√</b>		N/A	Air Pollution Control (Construction Dust)
54.8.1	Impervious sheet will be provided for skip hoist for material transport.	Land site/ During Construction, particularly dry season	Contractor(s)		<b>√</b>		N/A	
S4.8.1	The area where dusty work takes place should be sprayed with water or a dust suppression chemical immediately prior to, during and immediately after dusty activities as far as practicable.	Land site/ During Construction	Contractor(s)		<b>√</b>		Reminder issued.	
54.8.1	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)		✓		Reminder issued.	
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)		<b>✓</b>		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/	Objectives of the recommended measures &	Implementation	Implen	nentatio	on Stage	Implementation	Relevant Legislation & Guidelines
EIA Reference	Mitigation Measures	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)	<b>✓</b>	<b>√</b>		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)		<b>✓</b>		Implemented, reminder issued.	
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)		1		Reminder and observation issued. Rectified after observation.	
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)		<b>✓</b>		N/A	
S4.8.1	All exposed areas will be kept wet always to minimise dust emission.	Land site/ During construction	Contractor(s)		<b>V</b>		Reminder issued.	
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)		<b>V</b>	<b>~</b>	Implemented	Environment, Transport and Works Bureau Technical Circular (ETWB- TC(W)) No 19/2005 on Environmental Management on Construction Sites



EIA Reference	Recommended Environmental Protection Measures/	Objectives of the recommended measures &	Implementation	Implem	mplementation Stag	n Stage	Implementation	Relevant Legislation & Guidelines
EIA Reference	Mitigation Measures	main concerns to address	Agent	D C O status  Implemented  N/A  Implemented	status			
S4.8.1	The engine of the construction equipment during idling will be switched off.	Land site/ During construction	Contractor(s)		<b>✓</b>		Implemented	
S4.8.1	Concrete batching plant will be required on site. control measures recommended in the Guidance Note on a Best Practicable Means for Cement Works (Concrete Batching Plant) (BPM 3/2 (93)) will be implemented. The control measures recommended in the Guidance Note on a Best Practicable Means for Cement Works (Concrete Batching Plant) (BPM 3/2 (93)) will be implemented.	Land site/ During construction	Contractor(s)		<b>✓</b>		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)		<b>√</b>		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)/ Environmental Team (ET) & Independent Environmental Checker (IEC)		~		Implemented	



EIA Reference	Recommended Environmental Protection Measures/	Objectives of the recommended measures & main concerns to	Implementation	Implem Stage	ementation e		Implementation status	Relevant Legislation & Guidelines  A Practical Guide for the Reduction of Noise from Construction Works,  A Practical Guide for the Reduction of Noise from Construction Works,  A Practical Guide for the Reduction of Noise from Construction Works,  A Practical Guide for the Reduction of Noise from Construction Works,  A Practical Guide for the Reduction of Noise from Construction Works,  A Practical Guide for the Reduction of Noise from Construction Works,  A Practical Guide for the Reduction of Noise from Construction Works,  A Practical Guide for the Reduction of Noise from Construction Works,  A Practical Guide for the Reduction of Noise from Construction Works,  A Practical Guide for the Reduction of Noise from Construction Works,  A Practical Guide for the Reduction of Noise from Construction Works,
	Mitigation Measures	address	Agent	D	С	0		Guidelines
Noise								
\$5.7	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)		<b>✓</b>		Implemented	Reduction of Noise from
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)		<b>✓</b>		N/A	Reduction of Noise from
S5.7	Mobile plant, if any, will be sited as far away from NSRs as possible.	Noise control/ During construction	Contractor(s)		<b>✓</b>		Implemented	Reduction of Noise from
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)		<b>✓</b>		Implemented	Reduction of Noise from
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)		<b>✓</b>		Implemented	Reduction of Noise from
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)		<b>*</b>		N/A	Reduction of Noise from
S5.7	Use of Quite Powered Mechanical Equipment (QPME).	Noise control/ During construction	Contractor(s)		<b>√</b>		Implemented	Reduction of Noise from
S5.7	Movable noise barriers of 3m in height with skid footing should be used and located within a few metres of stationary plant and mobile plant such that the line of sight to the NSR is blocked by the barriers. The length of the barrier should be at least five times greater than its height. The noise barrier material should have a superficial surface density of at least 7 kg m <sup>-2</sup> and have no openings or gaps.	Noise control/ During construction	Contractor(s)		<b>√</b>		N/A	Reduction of Noise from
S5.7	The noise insulating sheet should be deployed such that there would be no opening or gaps on the joints.	Noise control/ During construction	Contractor(s)		✓		N/A	A Practical Guide for the Reduction of Noise from Construction Works,
S5.7	Construction activities (e.g. excavation/shoring, reinstatement (asphalt), and pipe jacking) will be planned and carried out in sequence, such that items of	Noise control/ During construction	Contractor(s)		<b>*</b>		Implemented	A Practical Guide for the Reduction of Noise from Construction Works



EIA Reference	Recommended Environmental Protection Measures/	Objectives of the recommended measures & main concerns to	Implementation	Implem Stage	nentatio	n	Implementation status	Relevant Legislation &
	Mitigation Measures	address	Agent	D	С	0		Guidelines
	PME proposed for these activities will not be operated simultaneously.							
S5.7	PMEs will not be used at the works areas near educational institutions with residual impact (ie the "influence area" within a radius of 40m) during school hours in order to reduce impact to the educational institutions.	Noise control / During construction	Contractor(s)		<b>✓</b>		Implemented	A Practical Guide for the Reduction of Noise from Construction Works
\$5.7	Noise enclosures or acoustic sheds would be used to cover stationary PME such as generators.  Portable/Movable noise enclosure made of material with superficial surface density of at least 7 kg m <sup>-2</sup> may be used for screening the noise from operation of the saw/groover, concrete.	Noise control/ Pre- construction/ During construction	Contractor(s)		<b>✓</b>		N/A	
S5.9	Sawcutting pavement, breaking up of pavement, excavation /shoring, pipe laying, backfilling, reinstatement (concrete) and pipe jacking shall be scheduled outside the examination period.	Noise control/ Pre- construction/ During construction	Contractor(s)	~	<b>√</b>		Implemented	
S5.9	In view the duration of noise exceedance at Creative Secondary School, PLK Laws Foundation College, TKO Kei Tak Primary School and School of Continuing and Professional Studies-CUHK is limited to 8 weeks, the construction work in the influence areas near the four schools shall be scheduled during long school holidays (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)	<b>✓</b>	•		Implemented	
\$5.10	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)		<b>✓</b>		Implemented	
\$5.10	The effectiveness of on-site control measures could also be evaluated through the regular site audits.	All facilities/ During construction	Contractor(s)/ Environmental Team (ET) & Independent Environmental Checker (IEC)		<b>✓</b>		Implemented	-



EIA Reference	Recommended Environmental Protection Measures/ Mitigation Measures	Objectives of the recommended measures & main concerns to	Implementatio n Agent	Implem Stage	entatio	n	Implementation status	Relevant Legislation & Guidelines
	iviligation ivieasures	address	II Agent	D	С	0		Guidennes
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)		<b>*</b>		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)		1		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	-
\$6.9	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)		<b>√</b>		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)		<b>√</b>		N/A	-
\$6.9	No soil waste is allowed to be disposed overboard.	Marine Dredging/ During construction	Contractor(s)		<b>√</b>		N/A	-



EIA Reference	Recommended Environmental Protection Measures/	Objectives of the recommended measures & main concerns to	Implementatio	Implem Stage	entatio	n	Implementation status	Relevant Legislation & Guidelines
	Mitigation Measures	address	n 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)		<b>✓</b>		Implemented, observation and reminder issued. Rectified after observation.	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)		<b>√</b>		Implemented, observation issued. Rectified after observation.	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)		<b>√</b>		N/A	-
\$6.9	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/	Objectives of the recommended measures & main concerns to	Implementatio	Impler Stage	nentatio	n	Implementation status	Relevant Legislation &
	Mitigation Measures	address	n Agent	D	С	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)		<b>√</b>		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)		<b>✓</b>		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)		<b>√</b>	<b>✓</b>	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)		<b>√</b>	<b>*</b>	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)		<b>√</b>	<b>√</b>	Implemented. Observation and reminder issued. Rectified after observation.	-



EIA Reference	Recommended Environmental Protection Measures/ Mitigation Measures	Objectives of the recommended measures & main concerns to	Implementatio n Agent	Implem Stage	entatio	n	Implementation status	Relevant Legislation & Guidelines
	ivilligation ivieasures	address	ii Ageiit	D	С	0		
\$6.12	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)/ Environmental Team (ET) & Independent Environmental Checker (IEC)		<b>~</b>		Implemented	-



	Recommended Environmental Protection Measures/	Objectives of the recommended	Implementation	Implen	nentatio	n Stage	Implementation	Delevent Legislation 9
EIA Reference	Mitigation Measures	measures & main concerns to address	Agent	D	С	0	Status	Relevant Legislation & Guidelines
Waste Manager	ment							·
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)		<b>✓</b>		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)		<b>\</b>		Implemented	-
\$8.5	Provision of sufficient waste disposal points and regular collection for disposal.	All area/ During construction/ During operation	Contractor(s)		<b>V</b>	<b>√</b>	Implemented	DEVB TC(W) No. 8/2010, Enhanced Specification for Site Cleanliness and Tidiness.
\$8.5	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)		<b>✓</b>		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)		<b>√</b>		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)		<b>*</b>		N/A.	Chapters 2 & 3 Code of Practice on the Packaging, Labelling & Storage of Chemical Wastes published under the Waste Disposal Ordinance (Cap 354), Section 35
S8.5	Regular cleaning and maintenance programme for	Land site/ During construction	Contractor(s)		✓		Implemented.	Waste Disposal Ordinance



	Decommended Environmental Dystostics Na/	Objectives of the recommended	Implementation	Impler	nentatio	n Stage	Implementation	Relevant Legislation & Guidelines  (Cap 354)  DEVB TC(W) No. 6/2010, Trip Ticket System for Disposal of Construction & Demolition Materials  WBTC 32/92, The Use of Tropical Hard Wood on Construction Site  ETWB TCW No. 33/2002, Management of Construction and Demolition Material Including Rock  -  WBTC 32/92, The Use of Tropical Hard Wood on Construction Site  DEVB TC(W) No. 6/2010, Trip Ticket System for Disposal of Construction & Demolition Materials  -
EIA Reference	Recommended Environmental Protection Measures/ Mitigation Measures	measures & main concerns to address	Implementation Agent	D	С		Status	_
	drainage systems, sumps and oil interceptors.							(Cap 354)
S8.5	A recording system for the amount of wastes generated/ recycled and disposal sites. The trip-ticket system will be included as one of the contractual requirements and implemented by the contractor(s).	Land site/ During construction	Contractor(s)		<b>✓</b>		Implemented	Trip Ticket System for Disposal of Construction &
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)		<b>✓</b>		Implemented	Tropical Hard Wood on
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)		<b>✓</b>		Implemented	Management of Construction and Demolition Material
\$8.5	Any unused chemicals and those with remaining functional capacity will be recycled as far as possible.	Land site/ During construction	Contractor(s)		<b>1</b>		N/A	-
\$8.5	Use of reusable non-timber formwork to reduce the amount of C&D materials.	All areas/ During construction	Contractor(s)		<b>✓</b>		N/A	Tropical Hard Wood on
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)		<b>✓</b>		Implemented	Trip Ticket System for Disposal of Construction &
S8.5	Proper storage and site practices to reduce the potential for damage or contamination of construction materials.	All areas/ During construction	Contractor(s)		<b>✓</b>		Implemented, rectified after observation.	-
\$8.5	Plan and stock construction materials carefully to reduce amount of waste generated and avoid unnecessary generation of waste.	All areas/ During construction	Contractor(s)		<b>✓</b>		Implemented	-
\$8.5	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)		<b>✓</b>		N/A	ETWB TC(W) No. 34/2002 and Dumping at Sea Ordinance (DASO)



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EIA Reference	Recommended Environmental Protection Measures/ Mitigation Measures	measures & main concerns to address	Implementation Agent	D	С	0	Status	Relevant Legislation & Guidelines
\$8.5	The management of dredged/ excavated sediment management requirement from ETWB TC(W) No. 34/2002 will be incorporated in the Specification of the Contract Documents.	Marine works/ During construction	WSD/ Contractor(s)		<b>✓</b>		Implemented	ETWB TC(W) No. 34/2002 and Dumping at Sea Ordinance (DASO)
\$8.5	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)		<b>✓</b>		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)/ Environmental Team (ET) & Independent Environmental Checker (IEC)		✓		Implemented	ETWB TC(W) No. 19/2005, Environmental Management on Construction Sites
S8.5	A recording system (similar to summary table as shown in Annex 5 and Annex 6 of Appendix G of ETWB TC(W) No. 19/2005) for the amount of waste generated, recycled and disposed of (including the disposal sites) will be established during the construction phase.	All area/ During construction	Contractor(s)		✓		Implemented	Annex 5 and Annex 6 of Appendix G of ETWB TC(W) No. 19/2005
S8.5	Inert C&D materials (public fill) will be reused within the Project as far as practicable.	All area/ During construction	Contractor(s)		✓		Implemented	-
\$8.5	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	-
\$8.5	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)		<b>✓</b>		Implemented	-
\$8.5	To reduce the potential dust and water quality impacts of site formation works, C&D materials will be wetted as	All area/ During construction	Contractor(s)		✓		Observation issued. Rectified after	Air Pollution Control (Construction Dust)



EIA Reference	Recommended Environmental Protection Measures/ Mitigation Measures	Objectives of the recommended measures & main concerns to address	Implementation Agent	Implem	entatio	n Stage	Implementation	Relevant Legislation & Guidelines
				D	С		Status	
	quickly as possible to the extent practice after filling.						observation.	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)		<b>√</b>		Rectified after observation.	Air Pollution Control (Construction Dust) Regulation (Cap 311R)
\$8.5	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		<b>✓</b>	<b>✓</b>	Implemented	Waste Disposal (Chemical Waste) (General) Regulation; Code of Practice on the Packaging, Handling and Storage of Chemical Wastes
\$8.5	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		<b>✓</b>	<b>✓</b>	Implemented	Waste Disposal (Chemical Waste) (General) Regulation; Code of Practice on the Packaging, Handling and Storage of Chemical Wastes
\$8.5	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		<b>✓</b>	<b>√</b>	Implemented	Waste Disposal (Chemical Waste) (General) Regulation; Code of Practice on the Packaging, Handling and Storage of Chemical Wastes
\$8.5	Storage areas for chemical waste shall be enclosed on at least 3 sides.	All area/ During construction/ During operation	Contractor(s)/ WSD		<b>√</b>	<b>√</b>	Implemented	Waste Disposal (Chemical Waste) (General) Regulation; Code of Practice on the Packaging, Handling and Storage of Chemical Wastes
\$8.5	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		<b>✓</b>	<b>✓</b>	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	All area/ During construction/	Contractor(s)/		✓	✓	Implemented	Waste Disposal (Chemical



	Recommended Environmental Protection Measures/	Objectives of the recommended measures & main concerns to address		Implen	nentatio	n Stage	Implementation	Relevant Legislation & Guidelines
EIA Reference	Mitigation Measures		Implementation Agent	D	С		Status	
	ventilation.	During operation	WSD					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		<b>✓</b>	<b>✓</b>	Implemented	Waste Disposal (Chemical Waste) (General) Regulation; Code of Practice on the Packaging, Handling and Storage of Chemical Wastes
\$8.5	Storage areas for chemical waste shall be arranged so that incompatible materials are appropriately separated.	All area/ During construction/ During operation	Contractor(s)/ WSD		<b>√</b>	<b>✓</b>	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		<b>√</b>	<b>✓</b>	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		<b>√</b>	<b>√</b>	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		<b>√</b>	<b>√</b>	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		<b>✓</b>	<b>✓</b>	Implemented	-



	Recommended Environmental Protection Measures/	Objectives of the recommended	Implementation	Implementation Stage		Implementation	Relevant Legislation &	
EIA Reference	Mitigation Measures	measures & main concerns to address	Agent	D	С	0	Status	Guidelines
S8.5	To avoid any odour and litter impact, accurate number of portable toilets will be provided for workers on-site.	All area/ During construction	Contractor(s)		✓		Implemented	-
S8.5	The burning of refuse on construction sites is prohibited by law.	All area/ During construction	Contractor(s)		✓		Implemented	Air Pollution Control Ordinance (Cap 311)
S8.7	To facilitate monitoring and control over the contractors' performance on waste management, a waste inspection and audit programme will be implemented throughout the construction phase.	All facilities/ During construction	ET/IEC		<b>√</b>		Implemented	-



	B	Objectives of the recommended		Implem	nentatio	n Stage	Implementation	Relevant Legislation & Guidelines
EIA Reference	Recommended Environmental Protection Measures/ Mitigation Measures	measures & main concerns to address	Implementation Agent	D	С	0	Status	
	Ecology					•		
\$9.7	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)	~	<b>✓</b>		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)		<b>✓</b>		Implemented	
\$9.7	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>insitu</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)	1	•		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)	<b>√</b>	<b>✓</b>		Implemented	-
S9.7	Temporary fencing will be installed to fence off 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.	Slope mitigation works area/ During construction	Contractor(s)		<b>✓</b>		N/A	-



	December and of Faring was asked Durchestian Massaures /	Objectives of the recommended	lucus la una a untanti a un	Implen	nentatio	n Stage	Implementation	
EIA Reference	Mitigation Measures	measures & main concerns to address	Implementation Agent	D	С	0	Status	Relevant Legislation & Guidelines
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)		<b>*</b>		N/A	-
\$9.7	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)		<b>✓</b>		N/A	-
\$9.7	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)		<b>√</b>		N/A	-
\$9.7	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)		<b>✓</b>		Implemented	-
\$9.7	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)		<b>√</b>		Implemented	-
\$9.7	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)		<b>√</b>		Implemented	-
\$9.7	Reinstate temporarily affected areas, particularly the habitats of plantation and shrubland-grassland immediately after completion of construction works, through on-site tree/shrub planting. The tree/shrub species will be chosen with reference to those in the surrounding area.	All area/ During construction	Contractor(s)		<b>√</b>		N/A	-
\$9.7	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)		<b>✓</b>		N/A	-



		Objectives of the recommended		Implen	nentatio	n Stage	Implementation	
EIA Reference		measures & main concerns to	Implementation Agent	D	С		Status	Relevant Legislation & 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)	<b>✓</b>	<b>✓</b>	<b>√</b>	Implemented	-
\$11.10 & 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)	<b>*</b>	<b>√</b>	<b>√</b>	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)	<b>√</b>	•	•	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)	<b>V</b>	<b>√</b>	<b>√</b>	Implemented, reminder issued.	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 departments.  A compensatory tree planting proposal including locations of tree compensation will be submitted to seek relevant government department's approval, in	All area/ Detailed design/ During construction/ During operation	WSD/ Contractor(s)	•	<b>~</b>	<b>*</b>	Implemented	DEVB TC(W) No. 10/2013



	Recommended Environmental Protection Measures/	Objectives of the recommended	Implementation	ementation Implementati	nentatio	n Stage	Implementation	
EIA Reference	Mitigation Measures meas	measures & main concerns to address	Agent	D	С	0	Status	Relevant Legislation & Guidelines
	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)	<b>✓</b>	<b>√</b>	•	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)	<b>√</b>	<b>✓</b>	•	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)	<b>V</b>	<b>✓</b>	<b>✓</b>	Implemented	-



	December ded Environmental Bustostica Macause /	Objectives of the recommended	llaurantatian	Implen	nentatio	n Stage	Implementation	
EIA Reference	Recommended Environmental Protection Measures/ Mitigation Measures	measures & main concerns to address	Implementation Agent	D	С	1	Status	Relevant Legislation & Guidelines
	Landfill Gas Hazard			•				
\$12.7	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)	<b>✓</b>	<b>*</b>	<b>*</b>	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)	<b>√</b>	<b>√</b>	<b>√</b>	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)	<b>✓</b>	<b>*</b>	•	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)	<b>✓</b>	<b>√</b>	<b>√</b>	Implemented	
\$12.7	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)	<b>✓</b>	<b>✓</b>	<b>*</b>	Implemented	
\$12.7	Monitoring for landfill gas should be undertaken in all excavations, manholes, chambers (particularly during pipe jacking) and any confined spaces through the use of an intrinsically safe portable instrument, appropriately calibrated and capable of measuring the concentrations	All area/ Detailed design/ During construction/ During operation	Contractor(s)	<b>✓</b>	<b>✓</b>	<b>*</b>	Implemented	



		Objectives of the recommended		Implen	nentatio	n Stage	Implementation	
EIA Reference	Recommended Environmental Protection Measures/ Mitigation Measures	measures & main concerns to address	Implementation Agent	D	С		Status	Relevant Legislation & Guidelines
	of methane. carbon dioxide and oxygen.							
S12.7	Monitoring frequency and areas to be monitored should be specified prior to commencement of groundwork, either by the Safety Officer, or by an appropriately qualified person. All measurements should be recorded and documented.	All area/ Detailed design/ During construction/ During operation	Contractor(s)	<b>→</b>	<b>√</b>	<b>✓</b>	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)	<b>*</b>	<b>V</b>	<b>V</b>	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)	•	~	<b>✓</b>	Implemented	
S12.7	Where below ground service entries are necessary to the Incoming Switchgear Room, 132 kV Substation and Chlorine Store (I) and (II), the entry point should be sealed to prevent gas entry. In addition, any below grade cable trenches entering the Incoming Switchgear Room and 132 kV Substation can become the pathway for landfill gas and hence grilled metal covers should be used.	All area/ Detailed design/ During construction/ During operation	Contractor(s)	<b>*</b>	<b>*</b>	~	N/A	
S12.7	It is recommended regular landfill gas monitoring should be carried out at the Incoming Switchgear Room, 132 kV Substation and Chlorine Store (I) and (II). The monitoring frequency will be monthly for the first year of operation. If the monitoring results show no sign of landfill gas migration, reduce the monitoring frequency to once every six months.	All area/ Detailed design/ During construction/ During operation	Contractor(s)	-	<b>*</b>	<b>✓</b>	N/A	
S12.7	The manholes and utility pits within the Project Site and along the fresh water mains. Each manhole/ utility	All area/ Detailed design/ During construction/ During	Contractor(s)	<b>*</b>	<b>1</b>	<b>√</b>	Implemented	



	Recommended Environmental Protection Measures/	Objectives of the recommended	Implementation	Implen	nentatio	n Stage	Implementation	
EIA Reference	Mitigation Measures	measures & main concerns to address	Agent	D	С	0	Status	Relevant Legislation & Guidelines
	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.	operation						
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)	<b>✓</b>	•	•	Implemented	

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



# Appendix D

Impact Monitoring Schedule of the Reporting Month



			Nov-21			
Sun	Mon	Tue 2	Wed 3	Thu	Fri 5	Sat 6
				Noise Impact Monitoring		
				11	Noise Impact Monitoring	13
14				Noise Impact Monitoring		20
			24	Noise Impact Monitoring	26	27
	29	30				

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



Appendix E

Noise Monitoring Calibration Certificate

Equipment



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

## Certificate of Calibration

for

Description:	Sound	Level	Meter

Manufacturer: NTi Auaio

Type No.: XL2 (Serial No.: A24-13661-E0)

Microphone: ACO 7052 (Serial No.: 73912)

Preamplifier: NTi Audio MA220 (M2211) (Serial No.:5735)

Supmitted by:

Customer: A wity Sustainability Consulting Limited

Address: Unit C, 1 LF, Ford Glory Plaza, No. 37-39 W ng Hong

Street Cheung Sha Wan, Kowloon

Upon receipt for calibration, the instrument was found to be: ☑ Within (31.5 Hz - 8k Hz) ☐ Outside the allowable tolerance. The test equipment used for calibration are traceable to National Standards via: The Government of The Hong Kong Special Administrative Region Standard & Calibration Laboratory Date of receipt: 17 September 2021 Date of calibration: 23 September 2021 Calibrated by: Certified by: Calibration Tech vician Mr. Ng Yan Wa aboratory Manager Date of issue. 27 September 2021 Page 1 of 4 Certificate No.: APJ?1-085 CC001

Room 422, Leader In Ius trial Centre, 57-59 Au Pui Wan Street , Fo Tan, Shatin, N.T., Hong Kong

Tel: (852) 2668 3423 Fax: (852) 2668 6946



## (**A+A**) \* L Acoustics and Air Testing Laboratory Co. Ltd. 聲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: 24.0 °C
Air Pressure: 1001 hPa
Relative Humidity: 55.7 %

#### 3. Calibration Equipment:

**Multifunction Calibrator** 

Type Serial No. Calibration Report Number

B&K 42: 6 2288467 AV200041 HOK J.S

#### 4. Calibration Results

Sound Pressure Level

Reference Sound Fressare Level

Set ing of Unit-under-test (UUT)			App	lied value	UUT Reading,	IEC 61672 Class 1	
Range, dE	Freq.	Weighting	Time Weighting	Level, dB	Frequency, Hz	dB	Specification, dB
30-130	αBA	SPI	Fast	94	1000	94.0	±0.4

#### Linearity

Setting of Unit-under-test (UUT)			App	lied value	UUT Reading.	IEC 61672 Class 1	
Range, dB	Freq. V	Veighting	Time Weighting	Level, aB	Frequency, Hz	dB	Specification, dB
				94		94.0	Ref
30-130	dBA	SPL	Fast	104	1000	104.0	±0.3
				114		114.0	±0.3

Time Weigning

Set	Setting of Unit-under-test (UUT)				lied value	UUT Reading,	IEC 61672 Class 1
Range, d'S	Freq. V	Weighting	Cime Weighting	Level, dB	Frequency, Hz	dB	Specification, dB
32-130	dBA	SPL	Fast	94	1000	94.0	Ref
37-130	UDA	OF L	Slow	5/4	1000	94.0	±0.3

Certificate No.: APJ21-085 CC001

(A+A)\*L Pay 2 of 4

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### (A+A)\*L

#### Acoustics and Air Testing Laboratory Co. Ltd.

8學及空氣測試實驗室有限公司

Frequency Response

Linear Response

Sett	ing of Unit	-under-t	est (UUT)	Appl	ed value	UUT Reading,	IEC 61672 Class 1
Range, dB	Freq. We	ighting	Time Weighting	Level, dr.	Frequency, Hz	dB	Specification, dB
				~	31.5	94.1	±2.0
					63	94.1	±1.5
					125	94.1	±1.5
					250	94.0	+1.4
30-130	dB	SPL	Fast	94	500	94.0	±1.4
					1000	94.0	Ref
					2000	94.3	51.6
			//		4000	95.1	-1.6
					8000	94.3	±2/1; -3.1

A-weighting

Sett	ing of Unit-under-t	est (UUI)	App	ied value	UUT Read in g,	IEC 61672 Class 1
Range, dB	Freq. Weighting	Time Weighting	Level, dB	Frequency, Hz	dB	Specification, dB
				31.5	54.7	-39.4 ±2.0
				63	67.9	-26.2 ±1.5
				125	75.0	-16.1 ±1.5
				250	85.4	-8.6 ±1.4
30-130	∂BA SPL	Fast	94	500	90.8	-3.2 ±1.4
				1000	94.0	Ref
	/ /			2000	95.5	+1.2 ±1.6
- 1				4000	96.1	+1.0±1.6
				8000	93.9	-1.1+2.1; -3.1

C-weighting

Sett	ing of Unit-under-t	est (UUT)	App	lied value	UUT Reading,	IEC 61672 Class 1
Range, dB	Freq. Weighting	Tine Weighting	Level, dB	Frequency, Hz	dB	Specification, dB
				31.5	91.1	-3.0±2.0
				63	93.3	-0.8 ±1.5
			?	125	93.9	-0.2 ±1.5
				250	94.0	-0.0 ±1.4
30-130	dBC SPL	Fost	94	500	94.0	-0.0 ±1.4
	7 -			1000	94.0	Ref
				2000	94.2	-0.2 ±1.6
		)/		4000	94.3	-0.8 ±1.6
		//		8000	91.3	-3.0 +2.1: -3.1

Certificate No.: APJ71-085-CC001

STESTING LABORATOR (A+A) \*L

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Room 422, Leader In Ju, Irial 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-l



## (A+A)\* L Acoustics and Air Testing Laboratory Co. Ltd. 聲學及空氣測試實驗室有限公司

#### 5. Calibration Results Applied

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

Uncertainties of Applied Value:

94 dB	31.5 Hz	± 0.05
	63 Hz	± 1.05
	125 Hz	+ 0.05
	250 Hz	4 0.05
	500 Hz	± 0.05
	1000 Hz	± 0.05
	2000 Hz	± 0.05
	4000 Hz	± 0.05
	8000 Hz	± 0.10
104 dB	1000 Hz	± 0.05
114 dB	1000 Hz	± 0.05

The uncertainties are evaluated for a 15% 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 environment I changes, vibration and shock during transportation, overloading, mis-handling, or the capability of any other laboratory to repeat the calibration. (A+A)\*L shall not be liable for any loss or damage resulting from the use of the equipment.

Certificate No.: APJ21-085-CC001

CATA TO S

Page 4 of 4

Room 422, Leader In Justrial 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



## Certificate of Calibration

for

Description:

Sound Level Meter

Manufacturer:

SVANTEN

Type No.:

971 (Serial No.: 95062)

Microphone:

ACG 7532 E (Serial No.: 78090)

Preamplifier:

SV ANTEK SV 18 (Serial No.:103808)

Supmitted by:

Customer:

Acui y Sustainability Consulting Limited

Address:

Unit 1908, Nos. 301-305 Castle Peak Road,

Kwai Chung, N.T.

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

**☑** Within (31.5 Hz to ¼ Hz)

☐ Outside

the allowable tolerance.

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

- The Government of The Hong Kong Special Admini tra ive Region Standard & Calibration Laboratory

Date of receipt: 2 July 2021

Date of calibration: 5 July 2021

Calibrated by:\_\_\_

Calibration Tec in cian

Certified by:

Mr. Ng Yan Wa aboratory Manager

Date of is. ue. July 2021

Certificate No.: APJ?1-029 CC001

A) \*1 2 1 of 4

Room 422, Leader Indus' rial 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



#### 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 of each calibration point.

#### 2. Calibration Conditions:

Air Temperature: 24.2°C Air Pressure: 1004 hPa Relative Humidity: 60.8 %

#### 3. Calibration Equipment:

Calibration Rep Serial No. ype Traceable to Number B& ( 422) 2288467 HOKLAS

Multifunction Calibrator

AV200041

#### 4. Calibration Results

Sound Pressure Level

Reference Sound Pressure Level

Set	ng of U	nit-under-t	est (UUT)	App	lied value	UUT Reading,	IEC 61672 Class		
Range, dB	Freq.	Weighting	Tim. Weighting	Level, aB	Frequency, Hz	dB	Specification, dB		
20-140	αВА	SPI.	Fast	94	1000	94.0	±0.4		

#### Linearity

Sett	ing of Un	it-under-t	est (UUT)	Apr	lied value	UUT Reading,	IEC 61672 Class 1
Range, dB	Freq. W	eighting	Time Weighting	Level, AB Frequency, Hz		dB	Specification, dB
				94		94.0	Ref
20-140	dBA	SPL	Fası	104	1000	104.0	±0.3
				114		114.0	±0.3

Time Weigning

Setti	ng ca Uni	t-under-t	est (UUT)	Appl	licd value	UUT Reading,	IEC 61672 Class 1
Range, dF	req. W	eighting	7 ine Weighting	Level, dB	Frequency, Hz	dB	Specification, dB
20-140	dBA	SPL	Fast	94	1000	94.0	Ref
26 140	UDA	51 12	Slow	94	1000	94.0	±0.3

Certificate No.: 1PJ21-029-CC001

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 



### (A+A)\*L

#### Acoustics and Air Testing Laboratory Co. Ltd.

聲學及空氣測試實驗室有限公司

Frequency Response

Linear Response

Sett	ing of Uni	t-under-t	est (UUT)	Appl	i d value	UUT Reading,	IEC 61672 Class 1						
Range, dB	Freq. Weighting Ti		Freq. Weighting Time Weighting		Freq. Weighting Time Weighting			Freq. Weighting Time Weighting Level, dF			crequency, Hz	dB	Specification, dB
				4	31,5	94.1	±2.0						
				^	63	94.1	±1.5						
					125	94.1	±1.5						
20-140	dB	SPL	Fast	94	250	94.1	±1.4						
	a.D		1 431		500	94.1	±1.4						
					1000	94.0	Ref						
					2000	93.8	±1.6						
	-				4000	93.3	-1/5						

A-weighting

Sett	ing of Unit-under-t	est (UU'')	Appl	ied value	UUT Read in 3,	IEC 61672 Class
Range, dB	Freq. Weighting	Time V'eighting	Level, dB			Specification, dB
				31.5	54.9	-39.4 ±2.0
				63	68.0	-26.2 ±1.5
	^	Fast		125	78.0	-16.1 ±1.5
20-140	dBA SPL		94	250	85.4	-8.6 ±1.4
20 110	dDA STE		74	500	90.8	-3.2 ±1.4
		->		1000	94.0	Ref
	//			2000	95.0	+1.2 ±1.6
				4000	94.3	+1.0±1.6

C-weighting

Sett	ing of Uni	t-unde- ¿	est (UUT)	A) pl	i d value	UUT Reading,	IEC 61672 Class 1
Range, dB	c, dB Freq. Weighting Tin		Freq. Weighting Time Weighting		Frequency, Hz	dB	Specification, dB
					31.5	91.1	-3.0±2.0
				//	63	93.3	-0.8 ±1.5
					125	93.9	-0.2 ±1.5
20-140	dBC	SPL	Fast	94	250	94.1	-0.0 ±1.4
20 110	und	OI L	1 431	> 24	500	94.1	-0.0 ±1.4
					1000	94.0	Ref
					2000	93.6	-0.2 ±1.6
					4000	92.5	-0.8±1.6

Certificate No.: APJ21-029-CC001

Room 422, Leader Industrial 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





#### 

#### 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	± 0.15
	63 Hz	± 0.10
	125 Hz	± 1.05
	250 Hz	± 0.05
	500 Hz	± 0.05
	1000 Hz	± 0.05
	2000 Hz	± 0.05
	4000 Hz	± 0.05
104 dB	1000 Hz	± 0.05
114 dB	1000 Hz	± 0.05

The uncertainties are evaluated for a 95% confidence level.

#### Note:

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

Certificate No.: 4P.121-020-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 Page 4 of 4

| AR TESTING (A) \*L | 2





#### **CALIBRATION CERTIFICATE**

Certificate Informat	ion				
Date of Issue	7-Aug-2021		C	Certificate Number	MLCN212053S
Customer Informati	on				
Company Name		bility Consulting Lim	ited		
Address		ord Glory Plaza,			
	Nos. 37-39 Win				
	Cheung Sha Wa	an, Kowloon, HK			
Equipment-under-T	est (EUT)				
Description	Acoustic Calibr	ator			
Manufacturer	Pulsar				
Model Number	105				
Serial Number	63705				
Equipment Number	<u></u>				
Calibration Particul	ar				
Date of Calibration	7-Aug-2021				
Calibration Equipment		8) / AV200063 / 23-Ju			
	1357(MLTE190	0) / MLEC21/05/02 / 2	6-May-22		
Calibration Procedure	MLCG00, MLC	VC15			
Calibration Conditions	Laboratory	Temperature	23 °C ± 5 55% ± 259		
	EUT	Relative Humidity Stabilizing Time	Over 3 hou		
	LUI	Warm-up Time	Not applie		
		Power Supply	Internal ba		
Calibration Results	Calibration data	were detailed in the			
		esults were within EU			
Approved By & Date					
			16	K.O. Lo	7-Aug-2021
Statements	Social Section	TO SERVICE A SECURITY OF	A CONTRACTOR		
<ul> <li>Calibration equipment used</li> </ul>	for this calibration a	are traceable to national / i	nternational st	andards	
<ul> <li>The results on this Calibrat</li> </ul>	on Certificate only re	elate to the values measur	ed at the time	of the calibration and the u	
not include allowance for the overloading, mishandling, r					ng transportation,
<ul> <li>MaxLab Calibration Centre</li> </ul>					
<ul> <li>The copy of this Certificate</li> </ul>	is owned by MaxLai	b Calibration Centre Limi			eproduced without the
prior written approval of M	axLab Calibration Co	entre Limited.			

Page 1 of 2

萬 儀 校 正 中 心 有 限 公 司 MaxLab Calibration Centre Limited 香港新界葵涌筆星街 16-18 號保盈工業大廈 9 棲 B 室 Unit 6, 9/F, Boldwin Industrial Bidg., 18-18 Wah Sing Street, Kwai Chung, N.T., Hong Kong Tel: (852) 2116 1389 Fax: (852) 2264 6480 Email: info@maxlab.com.hk





Certificate No.

MLCN212053S

Calibration Data				THE RESERVE
EUT Setting	Standard Reading	EUT Error from Setting	Calibration Uncertainty	EUT Specification
94 dB	93.9 dB	-0.1 dB	0.20 dB	± 0.2 dB

- END -

Calibrated By: Date:

Keneth 7-Aug-21 Checked By: Date:

K.O. Lo 7-Aug-21

Page 2 of 2

萬 儀 校 正 中 心 有 限 公 司 MaxLab Calibration Centre Limited 香港新界葵涌華星街 16-18 號保盈工業大厦 9 櫻 B 室 Unit B, 9/F., Boldwin Industrial Bidg., 16-16 Wah Sing Street Kwai Chung, N.T., Hong Kong Tel: (852) 2116 1380 Fax: (852) 2264 6480 Email: info@maxlab.com.hk







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) menitored by a Gill Instruments Model 1350 ultrasonic time-of-flight anamometer. The Standard's maximum combined uncertainty is +/-1.04% within the airspeed range 706.6 to 3923.9 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 Eutechnics 4600 Precision Thermometer or a standard Kestrel 4000 Weather & 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 4/– 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 eccuracy 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 calibration uncertainty at room temperature.

#### Approved By:

Michael Naughton, Engineering Manager

The exclosed Kestral Weather & Environmental Meter was manufactured by Nessen-Kesterman Co. at its facilities located at 21 Creek Circle, Boothwyn, PA 19061 USA.



2000	2500	3000	3600	3500 OT	4000	4200	4260	4300	4500	B¢ll lettes	ACCURACY (41.)*	HESOLUTION	SPECIFICATION RANGE	RANGE	NOTES
											Larger of 3% of roading, least	C.1 m/s \$ Minuh 0.1 km/h	0,6 to 40,0 m/s 118 to 7,874 fb/min 2,2 to 144,0 km/h	0.6 to 60.0 mls 118 to 11,611 fV/min 2.2 to 216.0 km/h	mph   .5 kt after Impelier statup. Off-axis accuracy -1% Q 5° off-axis; -2% Q 10°; -3% Q.
•	•	۰	•	0	۰	۵	9	•	ø		significant digit or 20 Rimin	0.1 knots 1 B* 9.1 F/S*	1.3 to 39.5 mph 1.2 to 77.8 knots 9 to 12.8* 2-131.2*	1.2 to 116,6 knots 0 to 12 B	Califeration of it = 106 after 100 hours use at 18 MPH [7 mis. Replacement impolar (NK P 0801) field installs without book (US Pazent 8,783,783). What speed cauliforation and testing should be come with stangle on triplefal located at the lop front face of like Kestrel.
									:			9.1 F/G*	243121	2-198.9 F/S*	*FIS only in Ballistics units. Besufurt not available in Ballistics units.  Hermotically scaled, precision the mistor mounted externally and the unally isolated (US)
•	٠	,	•	•		•		•	•	•	0.9 °F 0.6 °C	0.1 °F 0.5 °C	-20.0 to 156.0 °F -29.9 to 70.0 °C	14.9.9 to 131.0 °F -10,0 to 55,0 °C	Patent (3,303,645) for rail of response. Afferow of 2.2 mph) if mis or greater provides farebut expense and reduction of inscission affect. Calibration or rit resignable. The misses may also be used to measure inegeneture of water or series by submissigning thermistor portion into material—service impeter prior to taking submission assurements and none insulfact entry misses.
															sübmersbin.  Polymer babodilive humidily sensor mounted in thin-walled chamber sciental to case for
		o	ø	ø	•	. •		٠		• .	3.0 %RH	0.1 %RH	5 to 95% non-conducting	@ to 100%	ragit, accurate response (US Patert 8,207.074). To achieve stated accuracy, unit must be permitted to equilibrate to extend to be captured to extend to extend to extend to the captured to th
													6.66 to 32.49 inhip 300.0 to 1100.0 hPaimbe	0.30 to 48.87 hHg 10.0 to 1654.7	More lithic sticon piezorosistive pressure sensor with second-order temperature connection. Pressure sensor may be recalizated at factory or in field. Adjustable reference at buildo all
	٠		•	٠	•	9		•	•	•	03 inHg 1.0 hPalmbar 0.01 PSI	0.01 lnHg 0.1 hPolymbar 0.01 PS	4.35 to 15.95 PS1 and 32.9 to 185.9 °F 0.0 to 85.0 °C	hPajmbar 0,64 to 24.00 PSt and 14.9 to 131.0 °F -10.6 to 55.0 °C	display of station pressure or barceretriz pressure connected to MSE. Keater (ACC display either presenter on a dedicate seem, Network 1000 and 35CC display cent accusing a present the present of the state of th
											. 5*	1" 1/16th Cordinal	0 to 360°	□ le 360°	2-axis solid-state magnetoredistive sensor mounted perpendicular to until plane. Accuracy sensor departions upon units vertical position. Self-calibration routine elimin sice magnetic error from battarios or tinit and must be true offer every (n) power-down (cottery remaind of
	enero-s		versoone	e es e se e e	Ter Terrorian	uouo-	est principe	*******			· · · · · · · · · · · · · · · · · · ·	Scalo		person and the second s	change). Readout indicates direction to which the back of the unit is pointed when held in vertical orientation. De chalips/yoristion adjustable for Trus North readout.
2000	2590	3000	3600	3500	4000	4200	4250	4300	4500	ALCU	LATED MEA	SUREME RESOLUTION	N IS SPECIFICATION RANGE	SENSORS EMPLOYED	NOTES
				ы			,				0.0002 RAT <sup>2</sup> 0.0033 kg/m <sup>2</sup>	0.001 lbs/ft <sup>6</sup> 0.904 kg/m <sup>2</sup>	Refer to Flanges for Consort Employed	Temperature Relative Humoty	Moss of sit per unit volume
											-	Tishn Timbe	Notes to Rendes for	Pressure Air Flow	Volume of air flowing through an opening. Automatically colouisted from Air Volocity
						•					0,0671	1 m²/m 0.1 m²/s 1 L/s	Sensors Employed	User Input (Duet Shape & Size)	measurement and user-specified duct shape [circle or rectangle) and dimensions (units: it, orner m). Maximum duct dimension input: 288.0 in (21.8 %) 865.3 cm   6.55 m.
				•				۰			· typical: 23,6 ft 7.2 m max: 46,2 €	s it f m	typical; 750 ki 1100 mBar	Prossuro Usar i pput (Referenci Prossuro)	assurably, Both aboutesty apoets corresponds to a seturation pressura anywhere from each
					,						0.07 loHg 2.4 hPolmbar	0.01 kiHg 0.1 hPolysbar	max: 366 to 750 mBar Roler to Rangos for	Pressure	1100 mBBs. Air pressure that would be present in identical conditions at MBL. Station presource compensated for it call plevation provided by reference attitude. Requires accurate referen
									•		0.03 PSI	0.01 PSi temph 1 Effection 0.1 km/sh	Sensors Employed  Relea to Ranges for  Sensors Employed	Atthine) West Speed Compass	attiade to produce maximum ebsolute accuracy.  Effective wind relative to a larget or travel direction. Autorswitching headwindfelliveled helicative.
											32°F	0,1 m/s 0,1 knots 0,1 °F	Refer to Ranges for	Temporature	Difference between dry bulb temperature and wat bulb temperature. When spraying, indi
				•							1.0 °C	0.1 °C	Sensors Employed Refer to Ranges for	Reistive Hurridity Prossure Temperature	exaposation rate and droplet Hebra. Sate range for posticide spraying is 4 to 16 °F   2 to C. Local air density convenied to equivalent alevallor above sea toyol in a uniform type.
					٠	٠		•	۰		59 m	1 m 0.1 %	Sensons Employed 15 to 95 % RH	Relative Humidity Pressure Temperature	consisting of the International Standard Atmosphera.  Temperature that a volume of air must be cooled to at constant pressure for the water way.
		*	•	•		a		•		•	1.9 °C	0.1 %	Rofer to Range for Temperature Sensor	Relative Humidity Wind Space	present to sonderne into date and form on a solid surface. Can also be considered to be water-to-air outuration temperature.
								٠			0,01 state <sup>2</sup> /mr 0.05 kg/m2/mr	0.01 brit <sup>3</sup> ste 0.01 kg/m³/hr	Refer to Ranges for Geneuro Employed	Temporature Relative Hurridity Pressure User Input (Concrete Temporature)	The late of which michigal is high from the surface of curing pomorals. Requires user necessarions of one-phy of noncolor between the relating which is sourced fill or probe their moment of (File of Co., as I included). Readings should be taken 20 includes shours pour surface with the their relation shielded, and wereged for 6-10 seconds using build-in averaging function.
		8	•		9	•		2	9		7.0°F 4.0°O	0.1 °F 0.1 °C	Refer to Ranges for Sensors Employed	Temporaluió Reletive Humidity	Perceived temperature resulting from the combined effect of temperature and relative humpidity. Calculated based on NVS Heat Index (HS tables. Measurement range limited to extend of published tealers.
•							•				.3 gpp .04 g/kg	0.1 gpp 0.01 g/kg	Refer to Ranges for Sensors Employed	Temperature Relative Humidity Pressure	Mass of water vapor in a mass of sir.
	•										0.0026	0.904	Refer to Ranges for Sensors Employed	Temporature Reletive Humidity Prescure	The raile, expressed as a percentage, of measured air density to the air density of a step aircosphere as defined by the IGAO.
								•	•		3.2 °F 18 °C	0.1 TF 0.1 °C	Refer to Ranges for Sensors Employed	Temperature Relative Humidity	Temparature indicated by a siling psychrometer. Due to nature of the psychrometric rate if water-sit system, this approximates the thermodynamic well-culb temperature. The the emodynamic well-culb temperature is the foregranulure a parcel of air would have if one
														Prossura	adis batically to saturation temperature was water evaporating into £.
•	•	•	•		•	•	•	•	•	•	1.6.7F 0.9 °C	0.1 TF 0.1 TC	Refor to Ranges for Sensors Employed	Wand Speed Temperature	Parcained temperature resulting from combined effect of wind speed and temperature, Catastield tassed in the WYS WKN Chill Temperature (WXT) Index, revised 2001, with in speed adjusted by a factor of 1.5 to yield equivalent results to wind speed measured at 16 slaver ground, Measurement range limited by extent of published failed.
ation.										ADDIT	ONAL SPE	CIFICATIO	ONS	8405273	
• ;															cklight. Menual cotivation with auto-off. V modele only) electroluminescent beoklight, Manual activation with suite-off,
								•	•	•	Mutilfunction, multi-dig	i manachzome data	matrix display. Chaics of a	viaben green or visible	red (NV models only) electroluminescent backlight. Automatic or manual activation.
•		•			•			•							ond. Relative humidity and all enabetremente welch include RH in their ealeulation may requ Display applatas every 1 second.
•	•	٠											Gust and Average Wand m		
					•	•		•			headwind/tallwind, win	d chill, WBGT, TWL	avaperation reta,		ng of other values, along with all other wind-related functions: alreading, crosswind,
					4000		32DD		2900	2500 points	Minimum, maximum, a Minimawaya History et intervals feeds version	ray be reset indepor	idontly, Auto-stone interval	d for every measured : settable from 2 second	value. Large capacity data logger with graphical display. Manuel and euto data Storage. Is to 12 hours, overwoite en or off. Loga even when display off except for 2 and 5 occand
					prenti	polats	poine	. points	ports	poiss	Recures optional PC i	nterface (USB or RE	3-232) or Bluetooth data to	ansfar option and prov of radio sange from up	rided zoftware. Go 38 tr j Simelens, Individual Unt ID and 4-digil PAN code prepregrammed for easy identific
,	,			•							and data security when Roal time hours; minute	paling and transm s dock.	litting, Employs Bluetooth	Berlai Port Protecti for	deta transmission.
	÷	٠			•		٠	•	•	•	After 45 minutes of no	ray prosses.	otondar, automotic loap-ye	er adjustmont.	
A					•		9				English, French, Germ	an Italian Spanish.	key presses or disabled.	teriornalita elameta este Ar	without coefficients of toute would be a tout things of changes
::-		d d	•	•		•		•		•	Designed and manufact Orterior 8.	tured in the USA fro	m US and Imported comp	onorits. Compiles with	ntitan corificate of teats available at additional charge). Regional Value Content and Teriff Code Transformation recultements for NAFTA Professeo
đ	•	8	. • .	. •							CF2032, ene, includes		ours. Bettery life reduced		
	_	_	٠.		•	•		٠	•		,		oluded Average life, 460 h 6.5 Procedure IV: walt only		y backlight or fluctooth radio transmission use.
•			9		:		•		9	•	Waterproof d P07 and	NEMA-S).			replaceable trapellar.  rational temperature range of the display and betteries by maintaining the unit within the
•		a	8	a	•	•	9	8	۰		14" F to 131" F   -10 "C operational range and -22.0 "F to 140.0 "F (-	exposing it to the m	mante maly be taken beyo ava exacme environment f	or the minimum time n	receive empty along range of the display with determining managering the unit within the occessory to take reading.
•		4	•	9		-	-	•	-	•		x 4,8 x 2.8 cm, 3,6	oz / 102 g (including slip-o	n 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	<ol> <li>Carry out investigation to identify the source and cause of the complaint/ exceedance(s)</li> <li>Notify IEC, ER, and Contractor and report the results of investigation to the Contractor, ER and the IEC</li> <li>Discuss with the Contractor and IEC for remedial measures require</li> <li>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</li> </ol>		<ol> <li>Confirm receipt of Notification of Exceedance in writing</li> <li>Require Contractor to propose remedial measures for the analysed noise problem</li> <li>Ensure remedial measures are properly implemented</li> </ol>	<ol> <li>Submit noise mitigation proposals, if required, to the IEC and ER</li> <li>Implement noise mitigation proposals.</li> </ol>
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. Exceedanc should also be confirmed by immediate verification in the field far as practical. 3. Repeat measurement to confirm findings 4. Increase monitoring frequency 5. Carry out analysis of Contractor's working procedures to determine possible mitigation to be impleme 6. inform IEC, ER and EPD the cause actions taken for the exceedances 7. Assess effectiveness of Contractor' remedial actions and keep IEC, 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** 



					Leq-5min	, dB(A)			T	L <sub>10</sub> 30 <sub>mins</sub> ,	120	Limit	
Date	Time	Weather	Reading (1)	Reading (2)	Reading (3)	Reading (4)	Reading (5)	Reading (6)	L <sub>eq-30min</sub> , dB(A)	dB(A)	AD(A)		Noise Meter
04/11/2021	15:00 - 15:30	Sunny	67.4	66.5	68	66.9	66.8	65.9	67.0	70.1	58.9	70.0	NTi XL2 13661
12/11/2021	11:01 - 11:31	Sunny	68.7	66.4	69.6	66.4	65.7	65.7	67.4	71.2	56.7	70.0	NTi XL2 13661
18/11/2021	10:45 - 11:15	Sunny	69.9	68.4	67.8	66.8	67.0	66.9	67.9	71.6	56.6	70.0	Svantek 971
25/11/2021	14:40 - 15:10	Fine	67.4	64.8	67.3	70.3	66.4	66.7	67.5	70.4	60.8	70.0	NTi XL2 13661

Remarks:

<sup>\*</sup>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 November 2021** 

	Actual Quantities of <u>Inert</u> Construction Waste Generated Monthly							
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 <sup>3</sup> )	(in '000m <sup>3</sup> )	(in '000m <sup>3</sup> )	(in '000m <sup>3</sup> )	(in '000m <sup>3</sup> )	(in '000m <sup>3</sup> )		
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		
Aug-2021	1.223	0.026	0.455	0.000	1.223	0.590		
Sep-2021	2.584	0.097	0.911	0.000	1.673	0.746		
Oct-2021	1.857	0.060	0.252	0.000	1.605	0.653		
Nov-2021	2.127	0.099	0.000	0.000	1.950	0.177		
Total for 2021	23.334	1.379	2.530	0.000	21.083	7.660		



	Actual Quantities of Non-inert Construction Waste Generated Monthly						
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 <sup>3</sup> )		
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		
Aug-2021	0.000	0.048	0.000	0.000	0.000		
Sep-2021	0.000	0.037	0.000	0.000	0.002		
Oct-2021	0.000	0.042	0.000	0.000	0.002		
Nov-2021	0.000	0.050	0.000	0.000	0.001		
Total for 2021	0.000	0.552	0.000	0.000	0.044		

#### 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.



- 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) 0 m<sup>3</sup> (0 tonnes/0 cars)
  - ii. K. Wah Quarry Company Limited: (Sub-base) 176.795 m<sup>3</sup> (353.59 tonnes/7 car)

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 Disposed (Volume) (m³)
	Bentonite	28.80
	Broken Concrete	53.05
	Broken Rock	45.90
	Mixed Construction Waste (>50% inert)	0.00
Inort	Building Debris	0.00
Inert	Mixed Rock and Soil	1051.55
	Reclaimed Asphalt Pavement	98.95
	Slurry	218.00
	Soil	453.45
	TOTAL =	1949.70
Non-inert	TOTAL =	12.25



## Appendix I

Landfill Gas Monitoring Equipment Calibration Certificate





香港新界葵涌葵昌路58-70 號永祥工業大廈10樓B室 Unit B, 10/F., Wing Cheung Industrial Building, 58-70 Kwai Cheong Road, Kwai Chung, New Territories, HK Tel: (852) 2751 7770 Fax: (852) 2756 2051 B-mail: rotter@rotter.com.hk

#### Calibration Report - Gas Detector

Campation Report - Gas Detector								
1	PGM-2500	) (QRAÊ III) LEL	/O2/CO/H2S	at .				
UNIT INFORMAT	ION :			:				
Customer: Penta Oce	an Construction Co Ltd	Serial # : M02A0 Firmware : V2. Cal date : 28-Jul-	12 Sensor:	QRAE III LEL/O2/CO/H2S Teddy				
SENSOR DATA:				+				
Calibration dates: After Calibration levels	LEL sensor (ME) 28-Jul-2021 50%	<u>O2 sensor</u> 28-Jul-2021 17.90%	CO sensor (Tox1) 28-Jul-2021 50 ppm	H2S sensor (Tox2) 28-Jul-2021 10.1 ppm				
Alarm levels (Low): Alarm levels (High): TWA Level; STEL Level:	10.00% 19.50% 20.00% 23.50%		35 ppm 200 ppm 35 ppm 100 ppm	10 ppm 20 ppm 10 ppm 15 ppm				
Status: Pump Speed Clock LEL Gas Selection	Low Yes	Back Light Measure	Manual Average					
LEL Calibration Gas LEL Custom Gas	Methane LEL_custom_gas	LEL measurement Gas LEL Custom Factor	Methane 1.0					
	as Mix: (18% O2, 50ppm C			Gas lot #1412983 Cyl# 15				
Replaced Parts:	Notes ingrify recommended	ro process pror for mea	·					
Notes: The unit was calibrated	l and checked under good	working condition						
Serviced by	m or before 27 July 2022  Wong  Triational Ltd			. ,				



## Honeywell Protection Through Detection 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( N2)	20210508
3	Oxygen(O2)	18%		
4	Methane( CH, )	50%LEL		
5	Sulfur Dioxide(SO <sub>2</sub> )	5ppm	Nitrogen(N2)	20210114
6	Carbon Dioxide(CO2)	5000ppm	Nitrogen( N2)	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 <sub>2</sub>	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:

36-05-51832593

ISO 9001 CERTIFIED



		Calib	ration C	ertificate	6	FLOR
	Ce	rt. Ref. No.: BW/XT/4	TH/16428	Date: 2021	06 08 EXP	-08/06/202
Customer:	Victory Trenchless F	Engineering Co., Ltd.		Purchase Orde	er No.: P-17-0488	10 Sept. 11
	Let 1477B,			Date 2017	11 09 INVOICE	NO: AP
	77 Ping Che,					. NO.
	Fanling, N.T.			Email: emily@v	tecnk.com	
Attn:	Ms Emily Fung	Tel: 3525 8	826	Fax: 3525 1088	Mob	ile Phone
User Detai	ls:					
Gas Detect Calibration	or Model: XT-XW Record:	HM-Y-OR Seria	MA217-0	22158	Pump S/N: 56310	
	Inpectio	on before calibration		Visual	inspection	Functional Test
Basic Unit	t - Case, Clip & Di	splay etc.			OK	OK
Battery an	d charge etc.				OK	OK
Motorized	Pump				OK	OK
Other item	18					
	ype of Sensor			Exp	piry Date	
Oxygen Se	100.00					
CO & H2S	Sensor					
Combustit	ole(LEL) Sensor					
Type o	f calibration	Date of calibration	H2S (ppm)	CO (ppm	n) O2 (%)	) LEL (%)
th Calibratic	on.	2021 06 08	25	100	18	50
	Result of Cali	bration	ОК	ок	ок	ОК
alibration	n Cost: /As nor	attached invoice)	F.O.C	1		
alibration	remarks: Oxygen Warranty	sensor replaced by new one y: Oxygen Sensor I years wa	erranty			
Next cali	bration date	of this instrument	will be :	2022	06 08	
JSERS M AND FOL	UST READ THI LOW THEIR O	IMPORTANT NO E OPERATOR'S MAN WN SAFETY SUPER	JUAL THORC	UGHLY BEFOR	RE OPERATING T	THIS EQUIPMENT
All gas det is accurate .S.T. Stand	as the test gas u	tation on the market re sed. BW Technologies	equires periodi s quality test gr	c calibration to a ases are made to	ccurately measure the highest accurac	gas. Calibration is only cy and trace-ability to l
Calibrate	ed By:	Sara Tse	Service	e Hotline: 2592	2120 Ms. Tse - 5	Service Dept.
Asi	Unit B, 1/F Kw	ndustrial Saf , Hing Yip Centre, 31 Hi un Tong, Kowloon, Hong el:2592 2100 Fax: 3165	ing Yip Street, Kong	pment		hnologies 科技



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-2500P (QRAE III)	28 JUL 2021

					Monitoring well	s / Surface G	as Emissio	'n	·
Sample location	Date of measurement	Sampling time	Weather condition	Balance gas (%)	Flammable gas (methame %)	Carbon monoxide( %)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
Area A	1/11/2021	0830	Fine / Batn	0	0	- 0	20.9	25 / 1010	5.5
		1330	Fine / Rain	0	0	0	20.9	26 / 1009	5.5
		1700	Fine / Rain	Ö	0	0	20.9	26 / 1008	5.5
Area B	1/11/2021	0845	Fine / Rain	0	0	0	20.9	25 / 1008	2.5
		1345	Fine / Rain	0	0	0	20.9	26 / 1009	2.5
		1645	Fine / Rain	0	0	0	20.9	25 / 1008	2.5
	1					1	1		

Name & Designation <u>Signature</u> Date Dash Ip (Safety Office [Renopipe]) Field Operator: 01/11/21 Laboratory Staff: Sun ( T.A.) Checked by: 01/11/21



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

Penta-Ocean - Concentric Joint Venture

Wan Po Road Gas Monitoring - Field Measurement Recording Sheet

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

Date of measurement:

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

					Monitoring well:	s / Surface G	as Emissic	n	
Sample location	Date of measurement	Sampling time	Weather condition	Balance gas (%)	Flammable gas (methame %)	Carbon monoxide( %)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
WPRTTA 1	1/11/2014	0830	Fine / Bain	0	0	0	203	25/10/1	3.5
		1330	Fine / Rain	0	0	0	20,3	24/1911	3.5
		1700	Fine / Rain ~	0	0	0	20.3	26/1008	3.5
WPRTTA 2	1/4/2011	0845	Fine / Bain	0	0	0	209	26 11009	3.8
		1345	Fine / Ram	0	0	0	20.9	27/209	3.8
		1645	Fine / Rain	0	0	0	20.3	26 /1008	3.8
WPRTTA 3	(75/2shA	0845	Fine / Rain	0	0	0	20.3	25/1009	4.3
		1345	Fine / Rain	0	0	0	201	27/1010	4.3
		1645	Fine / Ratin	0	0	0	20.9	26/100%.	4.3
WPRTTA 4	1/11/2004	0845	Fine / Rain	0	0	0	209	26/1003	4
	\	1345	Fine / Rain	0	0	0	20.3	26/1009	4
		1645	Fine / Rain	0	0	0	7. 5	28 11050	4

Name & Designation Signature Date

Field Operator:

Dash tp (Safety Office [Renopipe])

111/200

Laboratory Staff:

Checked by:

翟偉傑

DOTV RSO.

1/11/2021



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

Penta-Ocean - Concentric Joint Venture

Wan Po Road Gas Monitoring - Field Measurement Recording Sheet

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

Date of measurement:

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

			Monitoring wells / Surface Gas Emission							
Sample location	Date of measurement	Sampling time	Weather condition	Balance gas (%)	Flammable gas (methame %)	Carbon monoxide( %)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)	
WPR PITA	1/11/2001	0830	Fine / Rain	0	0	0	20.9	2.S 1/515	13	
		1330	Fine / Rain	0	0	0	20.9	26/1012	3	
		1700	Fine /-Rain	0	0	0	20.9	24 11012	100	
SHR PIT D	1/11/2021	0845	Fine / Rain	0	0	0	20.9	28/10/3		
	,	1345	Fine / Rain	0	0	0	20.9	28/1013	12.2	
		1645	Fine / Rain	0	0	0	20.9	3/10:2	17.3.	

Name & Designation

Dash Ip (Safety Office [Renopipe])

Laboratory Staff:

Field Operator:

Checked by:

停傑 RSO PULT

Signature

<u>Date</u>

l I i t 72.62.

111 /2029



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-2500P (QRAE III)	28 JUL 2021

<u>Date</u>

Sample location	Date of measurement	Sampling time	Monitoring wells / Surface Gas Emission							
			Weather condition	Balance gas (%)	Flammable gas (methame %)	Carbon monoxide( %)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)	
Area A	2/11/2021	0830	Fine / Rain	0	0	0	20.9	24 / 1009	5.5	
		1330	Fine / Rain	0	0	0	20.9	24 / 1009	5.5	
		1700	Fine / Ratin	0	0	0	20.9	25 / 1008	5.5	
Area 8	2/11/2021	0845	Fine / Rain	0	0	0	20.9	24 / 1010	2.5	
		1345	Fine / Rain	0	0	0	20.9	26 / 1009	2.5	
		1645	Fine / Bain	0	0	0	20.9	26 / 1008	2.5	
			<u> </u>			ļ				
	1 F		i	1		I				

Name & Designation Signature

Field Operator: Dash Ip (Safety Office [Renopipe]) 02/11/21

Laboratory Staff:

Checked by: Som Ng. (T.A.) 02/11/21



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

Penta-Ocean - Concentric Joint Venture

Wan Po Road Gas Monitoring - Field Measurement Recording Sheet

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

Date of measurement:

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

Sample location	Date of measurement	Sampling time	Monitoring wells / Surface Gas Emission							
			Weather condition	Balance gas (%)	Flammable gas (methame %)	Carbon monoxide( %)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)	
WPRTTA 1	2/11/2001	0830	Fine / Rain	0	0	0	265 S	29-11008	3.5	
		1330	Fine / Rain	0	0	0	208	25/1008	3.5	
		1700	Fine / Rain	0	0	0	20.5	26/1008.	3.5	
WPRTTA 2	2/11/2011	0845	Fine / Rain	0	0	0	26.4	78/1003	3.8	
		1345	Fine / Rain	0	0	0	20.9	26/1009	3.8	
		1645	Fine / Rain-	0	0	0	209	16/10A	3.8	
WPRTTA 3	2/11/2021	0845	Fine / Rair	0	0	0	20 9	2411008	4.3	
	į	1345	Fine / Bain	0	0	0	265	25/1008	4.3	
		1645	Fine / Rain	0	0	0	209	28 11009	4.3	
WPRTTA 4	2/11/2021	0845	Fine / Rain	0	0	0	269	244/00%	4	
		1345	Fine / Rain	0	0	0	209	25//0/5	4	
	j i	1645	Fine / Rain	0	0	0	3.67	25/1009	4	

Name & Designation

Signature

<u>Date</u>

Field Operator:

Dash Ip (Safety Office [Renopipe])

Laboratory Staff:

Checked by:

程停條 KSO POCTV



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

Penta-Ocean - Concentric Joint Venture

Wan Po Road Gas Monitoring - Field Measurement Recording Sheet

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

Date of measurement:

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

					Monitoring wells	s / Surface G	as Emissic	on	
Sample location	Date of measurement	Sampling time	Weather condition	Balance gas (%)	Flammable gas (methame %)	Carbon monoxide( %)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
WPR PITA	2/11/2021	0830	Fine / Rain	0	0	0	20.9	24 1/012	3
		1330	Fine / Rain	0	0	0	20.9	25/10/2	13
		1700	Fine / Rain	0	0	0	20.9	25/103	13
SHR PIT D	2/11/2021	0845	Fine / Ratin	0	0	0	20.9	75- 11014	12.7.
		1345	Fine / Bain	0	0	0	20.9	25 11014	12.2
		1645	Fine / Rain	0	0	0	20.9	78 1003	(7)

Name & Designation

<u>Signature</u>

Date

Field Operator:

Dash Ip (Safety Office [Renopipe])

Laboratory Staff:

Checked by:

星偉傑 RSO NOCTV



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-2500P (QRAE III)	28 JUL 2021

				Monitoring wells / Surface Gas Emission								
Sample location	Date of measurement	Sampling time	Weather condition	Balance gas (%)	Flammable gas (methame %)	Carbon monoxide( %)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)			
Area A	3/11/2021	0830	Fine / Rain	0	0	0	20.9	24 / 1008	5.5			
		1330	Fine / Ratin	0	0	0	20.9	25 / 1009	5.5			
		1700	Fine / Barn	0	0	0	20.9	25 / 1009	5.5			
Area B	3/11/2021	0845	Fine / Rain	0	0	0	20.9	24 / 1010	2.5			
		1345	Fine / Bain	0	0	0	20.9	25 / 1009	2.5			
		1645	Fine / Rain	0	0	0	20.9	25 / 1008	2.5			
									-			
	<del> </del>	·-··							<u> </u>			

Name & Designation Signature <u>Date</u> Dash Ip (Safety Office (Renopipe]) 03/11/21 Field Operator: Laboratory Staff: CA.T) il mal 03/11/21 Checked by:



Contract no. 13/WSD/16

Mainlaying in Tseung Kwan O

Penta-Ocean - Concentric Joint Venture

Wan Po Road Gas Monitoring - Field Measurement Recording Sheet

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

Date of measurement:

Sampling equipment used:	Dates calibrated
PGM-2500P (QRAE III)	28 JUL 2021
<del></del>	

					Monitoring wells	s / Surface G	as Emissic	n	
Sample location	Date of measurement	Sampling time	Weather condition	Balance gas (%)	Flammable gas (methame %)	Carbon monoxide( %)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
WPRTTA 1	2/11/2021	0830	Fine / Rain	0	0	0	205	23//00K	3.5
		1330	Fine /-Rain	0	0	0	268	26/10%	3.5
		1700	Fine / Bain	0	0	0	203	28/1009	3.5
WPRTTA 2	3/1:12021	0845	Fine / Rain	0	0	0	203	2611010	3.8
	,	1345	Fine / Rain	0	0	0	5,000	25/10/9	3.8
		1645	Fine / Rain*	0	0	0	26.5	2811009	3.8
WPRTTA 3	3/11/2001	0845	Fine / Ratñ "	0	0	0	209	28/1009	4.3
		1345	Fine / Raim	0	0	0	709	25/1007	4.3
		1645	Fine / Rain	0	0	0	50.5	24 11008	4.3
WPRTTA 4	3/11/2001	0845	Fine / Rain	0	0	0	20.9	24/1008	4
		1345	Fine / Rain	0	0	0	203	25/1003	4
		1645	Fine / Bain	0	0	0	200	28/1003	4

Name & Designation

Signature

Date

Field Operator:

Dash Ip (Safety Office [Renopipe])

3/11/2024

Laboratory Staff:

Checked by:

置常像 pocal PSO



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

Penta-Ocean - Concentric Joint Venture

Wan Po Road Gas Monitoring - Field Measurement Recording Sheet

Date of measurement:

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

Dates calibrated
28 JUL 2021

Monitoring wells / Surface Gas Emission Date of Temp (°C) / Carbon Sample location Sampling time Weather Balance Flammable gas Remark Oxygen measurement monoxide( Pressure condition gas (%) (methame %) (%) Depth (m) %) (mbar) WPR PITA Fine / Rain 3/11/122 0830 0 0 0 20.9 24 11012 1330 Fine / Bain 0 0 0 20.9 12 24 1/00 1700 Fine / Rain 0 0 0 20.9 SHR PIT D 3/11/2021 0845 Fine / Rain o 0 0 20.9 127 1345 Fine / Rain 0 0 0 20.9 24. 1 1014 12.2 0 1645 Fine / Rain 0 0 20.9 12.2

Name & Designation

Dash Ip (Safety Office [Renopipe])

Laboratory Staff:

Field Operator:

Checked by:

翟像像 Onoix Wal Kit PECTV

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

Date of measurement:

Sampling equipment used:	Dates calibrated
PGM-2500P (QRAE III)	28 JUL 2021
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	Ĭ I				Monitoring well:	s / Surface G	as Emissic	n	
Sample location	Date of measurement	Sampling time	Weather condition	Balance gas (%)	Flammable gas (methame %)	Carbon monoxide( %)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
Area A	4/11/2021	0830	Fine / Rain	0	0	0	20.9	24 / 1009	5.5
		1330	Fine / Rain	0	0	0	20.9	25 / 1008	5.5
		1700	Fine / Rain	0	0	О	20.9	25 / 1008	5.5
Area B	4/11/2021	0845	Fine / Rain	0	0	0	20.9	25 / 1009	2.5
		1345	Fine / Rain	0	0	0	20.9	26 / 1008	2.5
		1645	Fine / Rain	0	0	0	20.9	26 / 1010	2.5
			·						
									}

Name & Designation

Signature

<u>Date</u>

Field Operator:

Dash Ip (Safety Office [Renopipe])

04/11/21

Laboratory Staff:

Checked by:

San y (T.A.)

 $\checkmark$ 



Contract no. 13/WSD/16 Mainlaying in Tseung Kwan O Penta-Ocean - Concentric Joint Venture

Wan Po Road Gas Monitoring - Field Measurement Recording Sheet

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

Date of measurement:

Sampling equipment used:	Dates calibrated		
PGM-2500P (QRAE III)	28 JUL 2021		
n*+			

					Monitoring well	s / Surface G	as Emissic	on .	
Sample location	Date of measurement	Sampling time	Weather condition	Balance gas (%)	Flammable gas (methame %)	Carbon monoxide( %)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
WPRTTA 1	4/11/2001	0830	Fine / Rain	0	0	0	268	24/125	3.5
		1330	Fine / Rain	0	0	0	25.9	74/1000	3.5
		1700	Fine / Bain	0	0	0	2.6 9	15/1010	3.5
WPRTTA 2	4/11/2021	0845	Fine / Bain	0	0	0	20 9	23 (100)	3.8
		1345	Fine / Rain	0	0	0	20,9	7611009	3.8
		1645	Fine / Rain	0	0	0	20.5	36/1003	3.8
WPRTTA 3	4/11/2001	0845	Fine / Rain	0	0	0	20.9	24 1/30	4.3
		1345	Fine / Ratin	0	0	0	20.8	25/1009	4.3
		1645	Fine / Rain	0	0	0	20.9	28/10-9	4.3
WPRTTA 4	4/11/2021	0845	Fine / Rain "	0	0	0	203	23//008	4
		1345	Fine / Ratin	0	0	0	20, 3	25/1010	4
		1645	Fine / Rain	0	0	0	20.3	24 1/009	4

Name & Designation

Signature

<u>Date</u>

Field Operator:

Dash Ip (Safety Office [Renopipe])

4/11/2021

Laboratory Staff:

Checked by:

程¢傑 Chok Wai Kit: RSO pocify



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

Penta-Ocean - Concentric Joint Venture

Wan Po Road Gas Monitoring - Field Measurement Recording Sheet

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

Date of measurement:

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

			Monitoring wells / Surface Gas Emission						
Sample location	Date of measurement	Sampling time	Weather condition	Balance gas (%)	Flammable gas (methame %)	Carbon monoxide( %)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
WPR PITA	4/11/2021	0830	Fine / Bain	0	0	0	20.9	24/1013	13
		1330	Fine / Ráin	0	0	0	20.9	14 1/014	13
		1700	Fine / Rain	0	0	0	20.9	25/1014	(3)
SHR PIT D	4/11/2001	0845	Fine / Rath	0	0	0	20.9	25/1014	12.2
		1345	Fine / Rain	0	0	0	20.9	25/10/4	12
		1645	Fine / Rain	0	0	0	20.9	78 1104	1 7 7

Name & Designation

Field Operator:

Dash Ip (Safety Office [Renopipe])

Laboratory Staff:

Checked by:

<u>Signature</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

Date of measurement:

Sampling equipment used:	Dates calibrated
PGM-2500P (QRAE III)	28 JUL 2021
	, ,

					Monitoring well	s / Surface G	as Emissio	n	
Sample location	Date of measurement	Sampling time	Weather condition	Balance gas (%)	Flammable gas (methame %)	Carbon monoxide( %)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
Area A	5/11/2021	0830	Fine / Rain	0	0	0	20.9	25 / 1010	5.5
		1330	Fine / Rain	0	0	0	20.9	25 / 1009	5.5
		1700	Fine / Rain	0	0	0	20.9	26 / 1008	5.5
Area B	5/11/2021	0845	Fine / Rain	0	0	0	20.9	25 / 1009	2.5
		1345	Fine / Bain	0	0	0	20.9	25 / 1008	2.5
		1645	Fine / Rain	0	0	0	20.9	26 / 1010	2.5
									1
	1								

Name & Designation

Field Operator:

Dash Ip (Safety Office [Renopipe])

Laboratory Staff:

Checked by:

San Ms. (7,A.)

Signature

Date

05/11/21



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

Penta-Ocean - Concentric Joint Venture

Wan Po Road Gas Monitoring - Field Measurement Recording Sheet

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

Date of measurement:

Sampling equipment used:	Dates calibrated
PGM-2500P (QRAE III)	28 JUL 2021
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					Monitoring well:	s / Surface G	as Emissic	n	
Sample location	Date of measurement	Sampling time	Weather condition	Balance gas (%)	Flammable gas (methame %)	Carbon monoxide( %)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
WPRTTA 1	5/11/2001	0830	Fine / Rain	0	0	0	208	241700%	3.5
		1330	Fine / Baití	0	0	0	209	28/10:0	3.5
		1700	Fine / Rain	0	0	0	206	28/10/0	3.5
WPRTTA 2	5/11/201	0845	Fine / Bain	0	0	0	289	n\$: (a) n	3.8
		1345	Fine / Rain	0	0	0	205	25/1009	3.8
	}	1645	Fine / Bain	0	0	0	20.5	24.7.100 8.	3.8
WPRTTA 3	5/11/2011	0845	Fine / Rain	0	0	0	2005	25/1009	4.3
		1345	Fine / Rain	0	0	0	200	15/100%.	4.3
		1645	Fine / Rain	0	0	0	20.3	26/10.0	4.3
WPRTTA 4	4/10/2011	0845	Fine / Bañn	0	0	0	20.5	2411007	4
		1345	Fine / Bain	0	0	0	20.9	2811010	4
		1645	Fine / Rain	0	0	0	28.4	2811do	4

Name & Designation

<u>Date</u>

Field Operator:

Dash Ip (Safety Office [Renopipe])

Laboratory Staff:

Checked by:

程律傑 Chak Wai Kit KSD PECTU



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

Penta-Ocean - Concentric Joint Venture

Wan Po Road Gas Monitoring - Field Measurement Recording Sheet

Date of measurement:

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

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

Monitoring wells / Surface Gas Emission Date of Carbon Temp (°C) / Sample location Sampling time Weather Balance Flammable gas Remark Oxygen measurement monoxide( Pressure condition gas (%) (methame %) (%) Depth (m) %) (mbar) 5/11/2024 WPR PITA 0830 Fine / Rain 0 0 0 20.9 25/100 1330 Fine / Rain 0 0 0 20.9 13 1700 Fine / Rain 0 0 20.9 SHR PIT D 5/11/202 0845 Fine / Rain 0 0 0 20.9 12.2 1345 Fine / Rain 0 0 0 20.9 24 /105 0 0 1645 Fine / Rain 0 20.9 12.2

Name & Designation

**Signature** 

Date

Field Operator:

Dash Ip (Safety Office [Renopipe])

Laboratory Staff:

Checked by:

程像傑 Chek Wai Kit RSO PECTV /////



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-2500P (QRAE III)	28 JUL 2021

				Monitoring wells / Surface Gas Emission							
Sample location	Date of measurement	Sampling time	Weather condition	Balance gas (%)	Flammable gas (methame %)	Carbon monoxide( %)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)		
Area A	6/11/2021	0830	Fine / Rain	0	0	0	20.9	25 / 1008	5.5		
		1330	Fine / Baiń	0	0	0	20.9	27 / 1010	5.5		
		1700	Fine / Rath	0	0	0	20.9	27 / 1009	5.5		
Area B	6/11/2021	0845	Fine / Rafn	0	0	0	20.9	26 / 1009	2.5		
		1345	Fine / Rain	0	0	0	20.9	28 / 1008	2.5		
		1645	Fine / Rañí	0	0	0	20.9	27 / 1010	2.5		
							1				

Name & Designation Signature

06/11/21

<u>Date</u>

Laboratory Staff:

Checked by: Sorvey (T.A.)

Dash Ip (Safety Office [Renopipe])

Field Operator:



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

Penta-Ocean - Concentric Joint Venture

Wan Po Road Gas Monitoring - Field Measurement Recording Sheet

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

Date of measurement:

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

		· <del>•</del>			Monitoring wells	s / Surface G	as Emissio	on .	
Sample location	Date of measurement	Sampling time	Weather condition	Balance gas (%)	Flammable gas (methame %)	Carbon monoxide( - %)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
WPRTTA 1	6/4/2021	0830	Fine / Rain	0	0	0	2.3	2817658	3.5
		1330	Fine / Bain	0	0	0	208	26/1004	3.5
		1700	Fine / Rain	0	0	0	20.3	27/11010	3.5
WPRTTA 2	6/11/2021	0845	Fine / Bain	0	0	0	208	24/1008	3.8
		1345	Fine / Rain	0	0	0	208	28/1001	3.8
		1645	Fine / Rain	0	0	0	2001	26/10/0	3.8
WPRTTA 3	6/11/2021	0845	Fine / Rain	0	0	0	20.3	28/1009	4.3
	,	1345	Fine / Rain	0	0	0	2003	28/100	4.3
		1645	Fine / Rain	0	0	0	268	26/10/0	4.3
WPRTTA 4	6/11/2021	0845	Fine / Rain	0	0	0	203	26. 11009	4
	(	1345	Fine / Baiti	0	0	0	20.5	28/10/8	4
		1645	Fine / Bain	0	0	0	200	27/1/010	4

Name & Designation

Signature

Field Operator:

Dash Ip (Safety Office [Renopipe])

Laboratory Staff:

Checked by:

程偉傑 Crok Wai sit Co POCIV

6/11/2021 6/11/2021



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

Penta-Ocean - Concentric Joint Venture

Wan Po Road Gas Monitoring - Field Measurement Recording Sheet

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

Date of measurement:

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

			Monitoring wells / Surface Gas Emission						
Sample location	Date of measurement	Sampling time	Weather condition	Balance gas (%)	Flammable gas (methame %)	Carbon monoxide( %)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
WPR PITA	6/1/1/2021	0830	Fine / Rain	0	0	0	20.9	<b>34</b> 0112c	:3
		1330	Fine / Bain	0	0	0	20.9	2× //o12	1.5
		1700	Fine / Rain	0	O	0	20.9	25/1013	13
SHR PIT D	6/11/2021	0845	Fine / Rain	0	0	0	20.9	25/1014	12.02
		1345	Fine / Rain	0	0	0	20.9	26/1014	12.2
		1645	Fine / Rain	0	0	0	20.9	23/10:2	

Name & Designation

Signature /-

<u>Date</u>

Field Operator:

Dash Ip (Safety Office [Renopipe])

6/11/20

Laboratory Staff:

Checked by:

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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-2500P (QRAE III)	28 JUL 2021

,		Date of Sampling time			Monitoring wells	/ Surface G	as Emissio	in	
Sample location	Date of measurement		Weather condition	Balance gas (%)	Flammable gas (methame %)	Carbon monoxide( %)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
Area A	8/11/2021	0830	Fine / Rain	0	0	0	20.9	18 / 1008	5.5
		1330	Fine / Ráin	0	0	0	20.9	21 / 1010	5.5
i		1700	Fine / Rain	0	0	0	20.9	22 / 1009	5.5
Area B	8/11/2021	0845	Fine /_Rain	0	0	0	20.9	19 / 1009	2.5
		1345	Fine /_Rain	0	0	0	20.9	21 / 1008	2.5
		1645	Fine / Bain	0	0	0	20.9	22 / 1009	2.5
							ļ		
I				ļ			-		

 Name & Designation
 Signature
 Date

 Field Operator:
 Dash Ip (Safety Office [Renopipe])
 ○ 08/11/21

 Laboratory Staff:
 Checked by:
 Sam Ng (T.A.)
 → 08/11/21



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

Penta-Ocean - Concentric Joint Venture

Wan Po Road Gas Monitoring - Field Measurement Recording Sheet

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

Date of measurement:

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

					Monitoring well:	s / Surface G	as Emissic	าก	
Sample location	Date of measurement	Sampling time	Weather condition	Balance gas (%)	Flammable gas (methame %)	Carbon monoxide( %)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
WPRTTA 1	8/11/2021	0830	Fine / Bain	0	0	0	]0 \	18/1008	3.5
		1330	Fine / Rain	0	0	0	20 14	24 //009	3.5
		1700	Fine / Rain	0	0	0	20%	2011009	3.5
WPRTTA 2	8/11/2011	0845	Fine / Rain	0	0	0	20.19	Des (1008	3.8
		1345	Fine / Rain "	0	0	0	720.8	21/1009	3.8
		1645	Fine / Aaîñ	0	0	0	203	21 /1008.	3.8
WPRTTA 3	8/11/2021	0845	Fine / Rain	0	0	0	208	21 //008	4.3
		1345	Fine / Raint	0	0	0	20.9	22 /1005	4.3
		1645	Fine / Rain	0	0	0	20.9	20. 1 In a?	4.3
WPRTTA 4	811112021	0845	Fine / Bain	0	О	0	20.9	18/100	4
		1345	Fine / Rain	0	0	0	205	20/1009	4
		1645	Fine / Bain	0	0	0	20.31	24 / /003	4

Name & Designation

<u>Signature</u>

<u>Date</u>

Field Operator:

Dash Ip (Safety Office [Renopipe])

Laboratory Staff:

Checked by:

程律像 Coa Walkin RD POCTV



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

Penta-Ocean - Concentric Joint Venture

Wan Po Road Gas Monitoring - Field Measurement Recording Sheet

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

Date of measurement:

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

			Monitoring wells / Surface Gas Emission								
Sample location	Date of measurement	Sampling time	Weather condition	Balance gas (%)	Flammable gas (methame %)	Carbon monoxide( %)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)		
WPR PITA	8/11/2021	0830	Fine / Rain	0	0	0	20.9	19/1012	13		
		1330	Fine / Batin	0	0	0	20.9	20 /1012	13		
		1700	Fine / Bain	0	0 "	0	20.9	25 / 19/3.	13,		
SHR PIT D	8/11/2021	0845	Fine / Rain	0	0	0	20.9	75 17nis	(2.7.		
		1345	Fine / Rain	0	0	0	20.9	21/1014	12.2		
		1645	Fine / Rain	0	0	0	20.9	201/04	12.2-		

Name & Designation

Dash Ip (Safety Office [Renopipe])

Laboratory Staff:

Field Operator:

Checked by:

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30 pocrv

<u>Date</u>

8/11/2021



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

Date of measurement:

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

					Monitoring well	s / Surface G	as Emissio	n	
Sample location	Date of measurement	Sampling time	Weather condition	Balance gas (%)	Flammable gas (methame %)	Carbon monoxide( %)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
Area A	9/11/2021	0830	Fine / Rain	0	0	0	20.9	17 / 1009	5.5
		1330	Fine / Ratin	0	0	0	20.9	19 / 1010	5.5
		1700	Fine / Ratin	0	0	0	20.9	21 / 1011	5 <i>.</i> 5
Area B	9/11/2021	0845	Fine / Rain	0	0	0	20.9	18 / 1009	2.5
		1345	Fine / Raiń	0	0	0	20.9	21 / 1010	2.5
		1645	Fine / Bain	0	0	0	20.9	21/1009	2.5
		****							

 Name & Designation
 Signature
 Date

 Field Operator:
 Dash Ip (Safety Office [Renopipe])
 ♥
 09/11/21

 Laboratory Staff:
 Checked by:
 Sam Ab. Cr,A.)
 ♥
 09/11/21



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

Penta-Ocean - Concentric Joint Venture

Wan Po Road Gas Monitoring - Field Measurement Recording Sheet

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

Date of measurement:

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

	Date of measurement				Monitoring well:	s / Surface G	as Emissic	n.	
Sample location		Sampling time	Weather condition	Balance gas (%)	Flammable gas (methame %)	Carbon monoxide( %)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
WPRTTA 1	9//11/2001	0830	Fine / Rain	0	0	0	25.1	78 1/00X	3.5
		1330	Fine / Ram	0	0	0	20.3	19/1008	3.5
•		1700	Fine / Rain	0	0	0	20.9	20/1008	3.5
WPRTTA 2	9111/2011	0845	Fine / Rain	0	0	0	209	1911008	3.8
	,	1345	Fine / Rain	0	0	0	20.	30/100	3.8
-		1645	Fine / Bain	0	0	0	20.3	20/1009	3.8
WPRTTA 3	9/11/2021	0845	Fine / Rain	0	0	0	20.9	18/1009	4.3
		1345	Fine / Rain	0	0	0	20.3	19/1010	4.3
		1645	Fine / Rain "	0	0	0	20,9	20/10/0	4.3
WPRTTA 4	9/11/2021	0845	Fine / Rain	0	0	0	203	20 /10:8	4
	, ,	1345	Fine / Rain	0	0	0	26.9	21/1009	4
		1645	Fine / Ratin	0	0	0	229.	25 / 1009	4

Name & Designation

Field Operator:

Dash Ip (Safety Office [Renopipe])

Laboratory Staff:

Checked by:

翟偉傑 PSO PECOV

<u>Signature</u>

<u>Date</u>

9/11/202



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

Penta-Ocean - Concentric Joint Venture

Wan Po Road Gas Monitoring - Field Measurement Recording Sheet

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

Date of measurement:

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

			Monitoring wells / Surface Gas &						
Sample location	Date of measurement	Sampling time	Weather condition	Balance gas (%)	Flammable gas (methame %)	Carbon monoxide( %)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
WPR PITA	9/11/2021	0830	Fine / Rain	0	0	0	20.9	19 / (013	ĺЗ
		1330	Fine / Rain	0	0	0	20.9	19/10/4	r.
		1700	Fine / Rain	0	0	0	20.9	20/1014	13
SHR PIT D	9/11/200	0845	Fine / Rain	0	0	0	20.9	18/1/013	12.2
	\	1345	Fine / Rain	0	0	0	20.9	19/1/012	17.2
		1645	Fine / Rain	0	0	0	20.9	19 /1012	120

Name & Designation

<u>Signature</u>

<u>Date</u>

Field Operator:

Dash Ip (Safety Office [Renopipe])

Laboratory Staff:

Checked by:

翟偉傑 RSC POCTV



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-2500P (QRAE III)	28 JUL 2021

	Date of measurement	Sampling time	Monitoring wells / Surface Gas Emission								
Sample location			Weather condition	Balance gas (%)	Fiammable gas (methame %)	Carbon monoxide( %)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)		
Area A	10/11/2021	0830	Fine / Rain	0	0	0	20.9	19 / 1009	5.5		
		1330	Fine / Bain	0	0	0	20.9	22 / 1011	5.5		
		1700	Fine / Rain	0	0	0	20.9	23 / 1011	5.5		
Area B	10/11/2021	0845	Fine / Bain	0	0	0	20.9	19 / 1009	2.5		
		1345	Fine / Ráin	0	0	0	20.9	21 / 1010	2.5		
		1645	Fine / Rain	0	0	0	20.9	22 / 1011	2.5		
		·· <del>··</del> ··			1						

 Name & Designation
 Signature
 Date

 Field Operator:
 Dash Ip (Safety Office [Renopipe])
 10/11/21

 Laboratory Staff:
 Checked by:
 Soun My. (7.A.)
 10/11/21



Contract no. 13/WSD/16
Mainlaying in Tseung Kwan O
Penta-Ocean - Concentric Joint Venture

Wan Po Road Gas Monitoring - Field Measurement Recording Sheet

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

Date of measurement:

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

					Monitoring well:	s / Surface G	as Emissio	าก	
Sample location	Date of measurement	Sampling time	Weather condition	Balance gas (%)	Flammable gas (methame %)	Carbon monoxide( %)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
WPRTTA 1	10/11/20	0830	Fine / Rain	0	0	0	2009	2011009	3.5
		1330	Fine / Rain	0	0	0	20.9	21 (1000	3.5
		1700	Fine / Rain	0	0	0	3	21/16/0	3.5
WPRTTA 2	10/11/2011	0845	Fine / Bain	0	0	0	200	1911008	3.8
		1345	Fine / Rain ~	0	0	0	20 %	2/////010/	3.8
		1645	Fine / Rain	0	0	0	20.3	20 /1009	3.8
WPRTTA 3	10/11/2021	0845	Fine / Rain	0	0	0	26.3	19/1009	4.3
		1345	Fine / Rain	0	0	0	209	211/011	4.3
		1645	Fine / Rain	0	0	0	20.3	20/1011	4.3
WPRTTA 4	10/1/2021	0845	Fine / Báin	0	0	0	20.5	19/1009.	4
		1345	Fine / Rain	0	0	0	76	21 (1000	4
1		1645	Fine / Rain	0	0	0	205	9و01112	4

Name & Designation

Field Operator:

Dash Ip (Safety Office [Renopipe])

Laboratory Staff:

Checked by:

翟偉傑 RSO POCTV

ignature

<u>Date</u>

10/11/2021



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

Penta-Ocean - Concentric Joint Venture

Wan Po Road Gas Monitoring - Field Measurement Recording Sheet

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

Date of measurement:

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

			Monitoring wells / Surface Gas Emission								
Sample location	Date of measurement	Sampling time	Weather condition	Balance gas (%)	Flammable gas (methame %)	Carbon monoxide( %)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)		
WPR PITA	10/11/2020	0830	Fine / Rain	0	0	0	20.9	20 11013	(3)		
		1330	Fine / Bain	0	0	0	20.9	2011013	13		
		1700	Fine / Rain	0	0	0	20.9	2111014	Ō		
SHR PIT D	10/11/2021	0845	Fine / Rain	0	0	0	20.9	19/1/012	122		
	,	1345	Fine / Rain	О	0	0	20.9	20 11012	17.2		
		1645	Fine / Rain	0	0	0	20.9	71/1013	12.2		

Name & Designation

<u>Signature</u> بــر Date

Field Operator:

Dash Ip (Safety Office [Renopipe])

10/11/202

Laboratory Staff:

Checked by:

翟偉傑. Chak Wai Kix Cy

POC.F.



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-2500P (QRAE III)	28 JUL 2021

					Monitoring well	s / Surface G	as Emissic	n	
Sample location	Date of measurement	Sampling time	Weather condition	Balance gas (%)	Flammable gas (methame %)	Carbon monoxide( %)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
Area A	11/11/2021	0830	Fine / Rain	0	0	0	20.9	18 / 1009	5.5
	1	1330	Fine / Rain	0	0	0	20.9	23 / 1011	5.5
		1700	Fine / Rain	0	0	0	20.9	21 / 1011	5.5
Area B	11/11/2021	0845	Fine / Rain	0	0	0	20.9	19 / 1009	2.5
		1345	Fine / Rain	0	0	0	20.9	23 / 1010	2.5
		1645	Fine / Ratin	0	0	0	20.9	22 / 1011	2.5

Name & Designation

Signature

<u>Date</u>

Field Operator:

Dash Ip (Safety Office [Renopipe])

11/11/21

Laboratory Staff:

Checked by:

Som Wy (TA)



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

Penta-Ocean - Concentric Joint Venture

Wan Po Road Gas Monitoring - Field Measurement Recording Sheet

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

Date of measurement:

Sampling equipment used:	Dates calibrated
PGM-2500P (QRAE III)	28 JUL 2021
	1

-					Monitoring well	s / Surface G	as Emissic	n	
Sample location	Date of measurement	Sampling time	Weather condition	Balance gas (%)	Flammable gas (methame %)	Carbon monoxide( %)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
WPRTTA 1	11/11/2021	0830	Fine / Bain	0	0	0	243	20/1508	3.5
		1330	Fine / Rain	0	0	0	362	21/10/3	3.5
	1	1700	Fine / Rain	0	0	0	205	21/1009	3.5
WPRTTA 2	1/11/2011	0845	Fine / Barn	0	0	0	`to \$	2011009	3.8
		1345	Fine / Rain	0	0	0	20°	22/16/0	3.8
		1645	Fine / Ram	0	0	0	20 5	21/1008	3.8
WPRTTA 3	11/11/2021	0845	Fine / Rain	0	0	0	20.5	14/1007	4.3
	'	1345	Fine / Rain	0	0	0	28.3	26//008	4.3
		1645	Fine / Rain	0	0	0	26 3	21/10/10.	4.3
WPRTTA 4	11/11/2021	0845	Fine / Bain	0	0	0	20.9	19/10.0.	4
		1345	Fine / Rain	0	0	0	76.5	28 /1010	4
		1645	Fine / Rain	0	0	0	20.0	2: 11008	4

Name & Designation

Date

Field Operator:

Dash Ip (Safety Office [Renopipe])

11/11/2021

Laboratory Staff:

Checked by:

程像傑 Chak Wai Kit KSO POCJV

4/11/2021

<u>Signature</u>



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

Penta-Ocean - Concentric Joint Venture

Wan Po Road Gas Monitoring - Field Measurement Recording Sheet

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

Date of measurement:

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

			Monitoring wells / Surface Gas Emission							
Sample location	Date of measurement	Sampling time	Weather condition	Balance gas (%)	Flammable gas (methame %)	Carbon monoxide( %)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)	
WPR PITA	11 1 i 1/2 was	0830	Fine / Bain	0	0	0	20.9	20 110H	13	
		1330	Fine / Rain	0	0	0	20.9	211/0:3	13	
		1700	Fine / Ram	0	0	0	20.9	24 Gora	+ 3	
SHR PIT D	11/11/2021	0845	Fine / Rain	0	0	0	20.9	2 ( 1 in 4	(2.2.	
		1345	Fine / Barin	0	0	0	20.9	21 /10:3	12.2	
		1645	Fine / Bain	0	0	0	20.9	21 //013	12.2	

Name & Designation

Dash Ip (Safety Office [Renopipe])

Laboratory Staff:

Field Operator:

Checked by: Checked by: Checked by:

1.731.75

11/11/2027

<u>Date</u>

<u>Signature</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-2500P (QRAE III)	28 JUL 2021					

	}	Date of Sampling time neasurement			Monitoring well	s / Surface G	as Emissic	on	
Sample location	Date of measurement		Weather condition	Balance gas (%)	Flammable gas (methame %)	Carbon monoxide( %)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
Area A	12/11/2021	0830	Fine / Rain	0	0	0	20.9	21 / 1010	5.5
		1330	Fine / Rain	0	0	0	20.9	22 / 1009	5.5
	T	1700	Fine / Rain	0	0	0	20.9	22 / 1010	5.5
Area B	12/11/2021	0845	Fine / Raiń	0	0	0	20.9	21 / 1009	2.5
		1345	Fine / Rain	0	0	0	20.9	22 / 1010	2.5
		1645	Fine / Rain	0	0	0	20.9	22 / 1009	2.5
		<u>.</u>			<u> </u>				
	1			1		1	1		Į.

Name & Designation
Signature
Date

Date

Date

12/11/21

Laboratory Staff:

Field Operator:

Checked by: Som Mg. (7.A.)



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

Penta-Ocean - Concentric Joint Venture

Wan Po Road Gas Monitoring - Field Measurement Recording Sheet

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

Date of measurement:

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

					Monitoring well	s / Surface G	as Emissic	n	
Sample location	Date of measurement	Sampling time	Weather condition	Balance gas (%)	Flammable gas (methame %)	Carbon monoxide( %)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
WPRTTA 1	12.111.12021	0830	Fine / Rain	0	0	0	2.0.	20//010	3.5
		1330	Fine / Bain	0	0	0	209	21/1003	3.5
		1700	Fine / Rain	0	0	0	2.9	21 /1009.	3.5
WPRTTA 2	12.111 (2001	0845	Fine / Bain	0	0	0	20,9	21/1003	3.8
		1345	Fine / Rain	0	0	0	20.9	201 (01t)	3.8
		1645	Fine / Bain	0	0	0	209	22.1 Loos	3.8
WPRTTA 3	12/11/12001	0845	Fine / Bain	0	0	0	50.3	20 //010	4.3
	, ,	1345	Fine / Rain	0	0	0	203	21/100	4.3
		1645	Fine /.Rain	0	0	0	103	1009	4.3
WPRTTA 4	(2/11/200)	0845	Fine / Rain **	0	0	0	203	21//009	4
		1345	Fine / Rain	0	0	0	200	22/1/0/0	4
		1645	Fine / Bain	0	0	0	289	22//003	4

Name & Designation

<u>Signature</u>

<u>Date</u>

Field Operator:

Dash tp (Safety Office [Renopipe])

12/11/2021

Laboratory Staff:

Checked by:

翟偉傑 RSO fOCTV



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

Penta-Ocean - Concentric Joint Venture

Wan Po Road Gas Monitoring - Field Measurement Recording Sheet

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

Date of measurement:

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

	Î		Monitoring wells / Surface Gas Emi						
Sample location	Date of measurement	Sampling time	Weather condition	Balance gas (%)	Flammable gas (methame %)	Carbon monoxide( %)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
WPR PITA	12/11/202	0830	Fine / Rain	0	0	0	20.9	2 <i>8 ∏</i> 01³	13
		1330	Fine / Rain	0	0	0	20.9	21/1/013	13
		1700	Fine / Rain	0	0	0	20.9	21/1014	13
SHR PIT Đ	12.11:12024	0845	Fine / Rain	0	0	0	20.9	20 /1014	
		1345	Fine / Bain	0	0	0	20.9	20 1:000	12.7
		1645	Fine / Rain	0	0	0	20.9	21/10/5	/2.2.

Name & Designation

**Signature** 

Date

Field Operator:

Dash Ip (Safety Office [Renopipe])

Laboratory Staff:

Checked by:

程像像 RSO POCJV



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-2500P (QRAE III)	28 JUL 2021
*****	

	T				Monitoring well	s / Surface G	as Emissio	n	
Sample location	Date of measurement	Sampling time	Weather condition	Balance gas (%)	Flammable gas (methame %)	Carbon monoxide( %)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
Area A	13/11/2021	0830	Fine / Rain	0	0	0	20.9	20 / 1008	5.5
		1330	Fine / Rain	0	0	0	20.9	21 / 1008	5.5
	1	1700	Fine / Rain	0	0	Ö	20.9	21 / 1008	5.5
Area B	13/11/2021	0845	Fine / Rath	0	0	0	20.9	21 / 1009	2.5
		1345	Fine / Bain	0	0	0	20.9	22 / 1009	2.5
		1645	Fine / Rain	0	0	0	20.9	22 / 1009	2.5
			-		1		1		
<u> </u>									

 Name & Designation
 Signature
 Date

 Field Operator:
 Dash ip (Safety Office [Renopipe])
 13/11/21

 Laboratory Staff:
 Checked by:
 Som No. (T.A.)
 13/11/21



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

Penta-Ocean - Concentric Joint Venture

Wan Po Road Gas Monitoring - Field Measurement Recording Sheet

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

Date of measurement:

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

					Monitoring wells	s / Surface G	as Emissic	n	
Sample location	Date of measurement	Sampling time	Weather condition	Balance gas (%)	Flammable gas (methame %)	Carbon monoxide( %)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
WPRTTA 1	13/16/2001	0830	Fine / Baln	0	0	0	303	Jan / LinoK	3.5
		1330	Fine / Rain	0	0	0	263	2177308	3.5
		1700	Fine / Rain	0	0	0	208	211100	3.5
WPRTTA 2	13/11/2021	0845	Fine / Rain	0	0	0	26.5	21/909	3.8
		1345	Fine / Rain	0	0	0	26.3	25   1010	3.8
		1645	Fine / Ratin	0	0	0	20.3	25 (610)	3.8
WPRTTA 3	13/11/2521	0845	Fine / Bain	0	0	0	75.7	2011003	4.3
		1345	Fine / Rain	0	0	0	200	21/76:0	4.3
		1645	Fine / Rain	0	0	0	20.9	24 /1010	4.3
WPRTTA 4	13/11 (202)	0845	Fine / Rain	0	0	0	2029	19/1/058	4
		1345	Fine / Rain	0	0	0	26.9	20/1003	4
		1645	Fine / Rain	0	0	0	26.8	2011003	4

Name & Designation

<u>Signature</u>

<u>Date</u>

Field Operator:

Dash Ip (Safety Office [Renopipe])

13/11/2021

Laboratory Staff:

Checked by:

程律保 Chair Wai Kin RSO POCTV Mut



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

Penta-Ocean - Concentric Joint Venture

Wan Po Road Gas Monitoring - Field Measurement Recording Sheet

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

Date of measurement:

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

			Monitoring wells / Surface Gas Emission								
Sample location	Date of measurement	Sampling time	Weather condition	Balance gas (%)	Flammable gas (methame %)	Carbon monoxide( %)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)		
WPR PITA	13/11/2021	0830	Fine / Rain	0	0	0	20.9	21 / for4	्र		
		1330	Fine / Rain	0	0	0	20.9	22 /1013	١3		
		1700	Fine / Bain	0	0	0	20.9	22/10/3	- <del>-</del>		
SHR PIT D	13111 /sou	0845	Fine / Raim	0	0	0	20.9	21 / 1014	12-2		
		1345	Fine / Rain	0	0	0	20.9	21 /10B.	2.7		
		1645	Fine / Rain	0	0	0	20.9	20/10/3	13.74.		

Name & Designation

Signature

<u>Date</u>

Field Operator:

Dash Ip (Safety Office [Renopipe])

Laboratory Staff:

Checked by:

程偉傑 RSO FOCTV



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-2500P (QRAE III)	28 JUL 2021

<u>Date</u>

	-				Monitoring well:	s / Surface G	as Emissio	n	
Sample location	Date of measurement	Sampling time	Weather condition	Balance gas (%)	Flammable gas (methame %)	Carbon monoxide( %)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
Area A	15/11/2021	0830	Fine / Bain	0	0	0	20.9	21 / 1008	5.5
		1330	Fine / Rain	0	0	0	20.9	21/1008	5.5
		1700	Fine / Raîń	0	0	0	20.9	22 / 1008	5.5
Area B	15/11/2021	0845	Fine / Rain	0	0	0	20.9	22 / 1009	2.5
		1345	Fine / Rain	0	0	0	20.9	23 / 1009	2.5
		1645	Fine / Rain	0	0	0	20.9	22 / 1009	2.5
		·							

Name & Designation Signature

Dash Ip (Safety Office [Renopipe]) 15/11/21

Laboratory Staff:

Field Operator:

Checked by: Som Ng (T.A.)



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

Penta-Ocean - Concentric Joint Venture

Wan Po Road Gas Monitoring - Field Measurement Recording Sheet

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

Date of measurement:

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

					Monitoring well:	s / Surface G	as Emissio	1				
Sample location	Date of measurement	Sampling time	Weather condition	Balance gas (%)	Flammable gas (methame %)	Carbon monoxide( %)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)			
WPRTTA 1	1514 Dea	0830	Fine / Rain	0	0	0	209	8e01) 1C	3.5			
		1330	Fine / Rain	0	0	0	203	21/10%	3.5			
		1700	Fine / Rain	0	0	0	208	791 (50)	3.5			
WPRTTA 2	181 1 2000)	0845	Fine / Bain ~	0	0	0	208	201/009	3.8			
		1345	Fine / Bain	0	0	0	26.5	72.1 /0/0	3.8			
		1645	Fine / Bain	0	0	0	20.%	23/1069	3.8			
WPRTTA 3	18 Lil 12023	0845	Fine / Bain	0	0	0	20.9	72.7700	4.3			
		1345	Fine / Bain	0	0	0	20.3	2371009	4.3			
		1645	Fine / Rain	0	0	0	25.9	28/100	4.3			
WPRTTA 4	15/11/2021	0845	Fine / Rain	0	0	0	20.3	21 1008	4			
		1345	Fine / Rain	0	0	0	28.9	22/2508	4			
		1645	Fine / Rain	0	0	0	26-1	22/1008	4			

Name & Designation

Signature

<u>Date</u>

Field Operator:

Dash Ip (Safety Office [Renopipe])

Laboratory Staff:

Checked by:

程度傑 Chair Wai Kit RSO POUTU



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

Penta-Ocean - Concentric Joint Venture

Wan Po Road Gas Monitoring - Field Measurement Recording Sheet

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

Date of measurement:

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

			Monitoring wells / Surface Gas Emission							
Sample location	Date of measurement	Sampling time	Weather condition	Balance gas (%)	Flammable gas (methame %)	Carbon monoxide( %)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)	
WPR PITA	15/11/2021	0830	Fine / Rain	0	0	0	20.9	21 / /0/3	13	
		1330	Fine / Rain	0	0	0	20.9	23/1014	12	
		1700	Fine / Rain	0	0	0	20.9	22/194	3.3	
SHR PIT D	15/11/2001	0845	Fine / Batín	0	0	0	20.9	20/10/2	12.2	
		1345	Fine / Rain	0	0	0	20.9	21 1100	12.2.	
		1645	Fine / Bain	0	0	0	20.9	21/1/03	12-2-	

Name & Designation

Signature

<u>Date</u>

Field Operator:

Dash |p (Safety Office [Renopipe])

5/11/2001

Laboratory Staff:

Checked by:

程停保 PC

DOCTV



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 (GRAGE 11)	11. 7.1
*****	

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)		
Pit B	八- 川 - 2021	98-04	Rain / Fine /	Ü		6	20.7	257 999	= 3		
	15-11-21	13:05	This.	ال ا	5	ü	1.0.8	31/997	Ÿ		
	15-11-7-1	17:05	I imser	5	2	ů ů	20. }	30 / 536	3		
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					<u> </u>			<del>                                     </del>			
								/			

Name & Designation Signature Date

Field Operator: Chun VU47 Ch; [Wellcon) CP | 15\_1 - 2021

Laboratory Staff:
Checked by: POCJV | 15 - 11 - 2021

ENVIRONMENTAL RESOURCES MANAGEMENT INVIRONMENTAL 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-2500P (QRAE III)	28 JUL 2021

					Monitoring wells	s / Surface G	as Emissio	in	
Sample location	Date of measurement	Sampling time	Weather condition	Balance gas (%)	Flammable gas (methame %)	Carbon monoxide( %)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
Area A	16/11/2021	0830	Fine / Rain	0	0	0	20.9	21 / 1010	5.5
		1330	Fine / Rain	0	0	0	20.9	23 / 1009	5.5
		1700	Fine / Rain	0	0	0	20.9	23 / 1010	5.5
Area B	16/11/2021	0845	Fine / Rain	0	0	0	20.9	21 / 1009	2.5
		1345	Fine / Rain	0	0	0	20.9	24 / 1010	2.5
		1645	Fine / Bain	0	0	0	20.9	22 / 1009	2.5
				1					
<del></del>			1						

 Name & Designation
 Signature
 Date

 Field Operator:
 Dash Ip (Safety Office [Renopipe])
 →
 16/11/21

 Laboratory Staff:
 Checked by:
 Sam Ng. (7,13)
 →
 16/11/21



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

Penta-Ocean - Concentric Joint Venture

Wan Po Road Gas Monitoring - Field Measurement Recording Sheet

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

Date of measurement:

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

	-		Monitoring wells / Surface Gas Emission							
Sample location	Date of measurement	Sampling time	Weather condition	Balance gas (%)	Flammable gas (methame %)	Carbon monoxide( %)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)	
WPRTTA 1	16/11/26/1	0830	Fine / Rain	0	0	0	,20.5	22/1008	3.5	
		1330	Fine / Rain	0	0	0	209	141/010	3.5	
		1700	Fine / Bain	0	0	0	205	74 / Hat O.	3.5	
WPRTTA 2	16/11/2ex	0845	Fine / Rain 1	0	0	0	202	20 (16ch	3.8	
		1345	Fine / Ram	0	0	0	20,5	23/1010	3.8	
!		1645	Fine / Baiñ	0	0	0	203	2 ! /10,59	3.8	
WPRTTA 3	16/11/201	0845	Fine / Rain	0	0	0	26.9	22/1009	4.3	
	,	1345	Fine / Bain ~	0	0	0	20.9	25/1010	4.3	
		1645	Fine / Rain	0	0	0	26.5	24 (1010	4.3	
WPRTTA 4	16111/2021	0845	Fine / Rain	0	0	0	205	21//00%.	4	
		1345	Fine / Rain	0	0	0	70.1	23/10/c	4	
		1645	Fine / Bain	0	0	0	203	20(7)619	4	

Name & Designation

Signature

<u>Date</u>

Field Operator:

Dash Ip (Safety Office [Renopipe])

16/11/2021

Laboratory Staff:

Checked by:

在厚原 Chair Wai Kir POCTV



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

Penta-Ocean - Concentric Joint Venture

Wan Po Road Gas Monitoring - Field Measurement Recording Sheet

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

Date of measurement:

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

			1		Monitoring wells	s / Surface G	as Emissic	on	
Sample location	Date of measurement	Sampling time	Weather condition	Balance gas (%)	Flammable gas (methame %)	Carbon monoxide( %)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
WPR PITA	16/11/2014	0830	Fine / Bain	0	0	0	20.9	22 / 10:4	/3
		1330	Fine / Ratin	0	0	0	20.9	24 /1014	13.
		1700	Fine / Bain	0	0	0	20.9	24 //0/3	13
SHR PIT D	16/11/20x	0845	Fine / Rain C	0	0	0	20.9	22 110,4	12.2
	·	1345	Fine / Rain	0	0	0	20.9	24 1/04	12.1
		1645	Fine / Bain	0	0	0	20.9	24//015	122.

Name & Designation

Signature

<u>Date</u>

Field Operator:

Dash Ip (Safety Office [Renopipe])

16/11/2021

Laboratory Staff:

Checked by:

瞿偉傑 KSO POCTV

MM

16/11/2011



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 - 1600 (QRAC m.)	1.8-7-21				
/					

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)		
Pit B	16-11-2021	01-05	Rain //Fine	Ď	8	ë.	20-9	7.9/499	47		
•	16.11-24	#3:05	Fine	ð	£°	ä	20.5	36/997	Ÿ		
	16211234	17:10	Fierer	- 6	i)		70.3	21/197			
	-				<u>:</u>				<u>'</u>		
		1						//			
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							1	<del>                                     </del>			
								- /			
								/			
			<u> </u>								

	<u>Name</u>	& Designation	Signature	<u>Date</u>	
Field Operator: Ch	an War Chi	[Wellcon ) CP	12 	/6-11 -2021	
Laboratory Staff:		المستحدث ال	[] []	gy w	
Checked by:	程律供 Chall Wei Kir	POCJV		16 - 11 - 2021	
ENVIRONMENTAL RESOURCES MA	NAG2MENT		Name and	40	ENVIRONMENTAL PROTECTION DEPART



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-2500P (QRAE III)	28 JUL 2021

			Monitoring wells / Surface Gas Emission						
Sample location	Date of measurement	Sampling time	Weather condition	Balance gas (%)	Flammable gas (methame %)	Carbon monoxide( %)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
Area A	17/11/2021	0830	Fine / Ratin	0	0	0	20.9	23/1011	5.5
		1330	Fine / Barin	0	0	0	20.9	23/1012	5.5
		1700	Fine / Rain	0	0	0	20.9	24/1012	5.5
Area B	17/11/2021	0845	Fine / Rain	0	0	0	20.9	23/1012	2.5
		1345	Fine / Rain	0	0	0	20.9	24/1012	2.5
		1645	Fine / Bain	0	0	0	20.9	24/1011	2.5
			1						

 Name & Designation
 Signature
 Date

 Field Operator:
 Dash Ip (Safety Office {Renopipe})
 17/11/21

 Laboratory Staff:
 ✓
 ✓

 Checked by:
 ✓
 ✓



Contract no. 13/WSD/16 Mainlaying in Tseung Kwan O Penta-Ocean - Concentric Joint Venture

Wan Po Road Gas Monitoring - Field Measurement Recording Sheet

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

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

			Monitoring wells / Surface Gas Emission							
Sample location	Date of measurement	Sampling time	Weather condition	Balance gas (%)	Flammable gas (methame %)	Carbon monoxide( %)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)	
WPRTTA 1	17/11/2021	0830	Fine / Raim	0	0	0	20.8	23/1010	3.5	
		1330	Fine / Bain	0	0	0	20.9	24/1009		
		1700	Fine / Rain	0	0	0	20.5	24/1009	3.5	
WPRTTA 2	17/11/2021	0845	Fine / Rain	0	0	0	205	22.//010	3.8	
		1345	Fine / Rain	0	0	0	20,9	24 //011	3.8	
		1645	Fine / Rain	0	0	0	20.9	25./1010.	3.8	
WPRTTA 3	17/11/2021	0845	Fine / Bain	0	0	0	20 3	23 /1011	4.3	
		1345	Fine / Path	0	0	0	20.9	23/1010	4.3	
		1645	Fine / Rain	0	0	0	20-8	24/1010		
WPRTTA 4	17/11/2021	0845	Fine / Ratin	0	0	0	20.9	74/1008	4	
		1345	Fine / Barin	0	0	0	20.9	24/1808.	4	
		1645	Fine / Rain	0	0	0	20.9	23 /ioin	4	

	Name & Designation	Signature	<u>Date</u>
Field Operator:	Dash Ip (Safety Office [Renopipe])	4	17/11/2021
Laboratory Staff:			
Checked by:			17/11/2021



Contract no. 13/WSD/16 Mainlaying in Tseung Kwan O Penta-Ocean - Concentric Joint Venture

Wan Po Road Gas Monitoring - Field Measurement Recording Sheet

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

Date of measurement:

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

			Monitoring wells / Surface Gas Emission							
Sample location	Date of measurement	Sampling time	Weather condition	Balance gas (%)	Flammable gas (methame %)	Carbon monoxide( %)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)	
WPR PITA	17/11/2021	0830	Fine / Bain	0	0	0	20.9	23/1012	13	
		1330	Fine / Balin	0	0	0	20.9	24/1011	13	
		1700	Fine / Bain	0	0	0	20.9	23/1011	13	
		<b></b>								

Name & Designation Signature Date Field Operator: 17/11/2021 Dash Ip (Safety Office [Renopipe]) Laboratory Staff: Checked by: 17/11/2021



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

Date of measurement:

Sampling equipment used:	Dates calibrated
PGM -1 Sto/ (RAT-111)	28-7-21
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Sample location	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)
Pit B	<u> </u>	00:09	Rain / Fine	5	е	č	20 Y	24/ 111	4
	11-11-2	13.206	Tiri-	e <sup>i</sup>	- G	.2	76 9	36/ 344	Ψ
	17-11-21	17:5%	Time	à à	Ŏ.	3	2£ Ÿ	23/496	Ÿ
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						1			
								/	
			-	-	1			\-\	



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-2500P (QRAE III)	28 JUL 2021		
· · · · · · · · · · · · · · · · · · ·			

					Monitoring well:	/ Surface G	as Emissic	in	
Sample location	Date of measurement	Sampling time	Weather condition	Balance gas (%)	Flammable gas (methame %)	Carbon monoxide( %)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
Area A	18/11/2021	0830	Fine / Rain	0	0	0	20.9	21/1013	5.5
		1330	Fine / Batin	0	0	0	20.9	24/1012	5.5
		1700	Fine / Batn	0	0	0	20.9	23/1011	5.5
Area B	18/11/2021	0845	Fine / Rain	0	0	0	20.9	20 / /ort	2.5
		1345	Fine / Rain	0	0	0	20.9	23/1012	2.5
		1645	Fine / Rain	0	0	0	20.9	21//013	2.5
v								,	

 Name & Designation
 Signature
 Date

 Field Operator:
 Dash Ip (Safety Office [Renopipe])
 18/11/21

 Laboratory Staff:
 Checked by:
 San No.
 18/11/21



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

Penta-Ocean - Concentric Joint Venture

Wan Po Road Gas Monitoring - Field Measurement Recording Sheet

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

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

		···			Monitoring well:	s / Surface G	as Emissic	n	
Sample location	Date of measurement	Sampling time	Weather condition	Balance gas (%)	Flammable gas (methame %)	Carbon monoxide( %)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
WPRTTA 1	18/11/2021	0830	Fine / Bain	0	0	0	2eS	21 /1009	3.5
		1330	Fine / Bain	0	0	0	70 Å	23/1011	3.5
		1700	Fine / Rain	0	0	0	20.1	23./1010	3.5
WPRTTA 2	18/11/2021	0845	Fine / Rain	0	0	0	20.9	21/010	3.8
		1345	Fine / Rain	0	0	0	20,7	23/1011	3.8
		1645	Fine / Bain	0	0	0	20.9	22/1009	3.8
WPRTTA 3	18/11/2021	0845	Fine / Rain	0	0	0	20.9	12/1010.	4.3
		1345	Fine / Rain	0	0	0	20.9	22 /1011	4.3
		1645	Fine / Rain	0	0	0	20.9	23./100	4.3
WPRTTA 4	18/11/2021	0845	Fine / Rain	0	0	0	20.9	21/1012	4
		1345	Fine / Rain	0	0	0	20.9	23 / meta	ე 4
		1645	Fine Rain	0	0	0	20.9	23/011	4

	Name & Designation	Signature	<u>Date</u>
Field Operator:	Dash Ip (Safety Office [Renopipe])	$\Phi$	18/11/2021
Laboratory Staff:			
Checked by:			18/11/2021



Contract no. 13/WSD/16 Mainlaying in Tseung Kwan O Penta-Ocean - Concentric Joint Venture

Wan Po Road Gas Monitoring - Field Measurement Recording Sheet

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

Date of measurement:

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

					Monitoring well	s / Surface G	as Emissio	on	
Sample location	Date of measurement	Sampling time	Weather condition	Balance gas (%)	Flammable gas (methame %)	Carbon monoxide( %)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
WPR PITA	18/11/2021	0830	Fine / Rain	0	0	0	20.9	21//011	13
		1330	Fine / Rain	0	0	0	20.9	23/1912	13
		1700	Fine / Rain	0	0	0	20.9	23/1012	13
			Į.					···········	
							ļ		

Name & Designation Signature <u>Date</u> Field Operator: Dash Ip (Safety Office [Renopipe]) 18/11/2021 Laboratory Staff: Checked by: 18/11/2021



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

Date of measurement:

Sampling equipment used:	Dates calibrated
POM - EXCO (BRAGA)	7.8 - 7 - 7.4
7	, ,

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)	
Pit B	/4 - / - 2021	58:05	Rain //Fine	₽.		3	le. L	74/949	Ý	
	18-11-21	13:15	Fine	و	0	!	70 9	21/413	ý	
	11-11-2	月沈	Fine	2	J.	<u>.</u>	20 ₹	25/396	7	
								1/		
								/		
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								/		

Name & Designation

**Signature** 

**Date** 

Field Operator: Chan Was the [Wellcon) CP

(2 - 1) -2021

Laboratory Staff:

Checked by:

POCJV

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-2500P (QRAE III)	28 JUL 2021

					Monitoring well:	s / Surface G	as Emissic	n	
Sample location	Date of measurement	Sampling time	Weather condition	Balance gas (%)	Flammable gas (methame %)	Carbon monoxide( %)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
Area A	19/11/2021	0830	Fine / Rain	0	0	0	20.9	22/1011	5.5
	13.00	1330	Fine / Barin	0	0	0	20.9	24 /1012	5.5
		1700	Fine / Barin	0	0	0	20.9	23./1011	5.5
Area B	19/11/2021	0845	Fine / Bain	0	0	0	20.9	23 /1009	2.5
		1345	Fine / Bain	0	0	0	20.9	23/1010	2.5
		1645	Fine / Rain	0	0	0	20.9	23/1010	
								-	
	1				1				

 Name & Designation
 Signature
 Date

 Field Operator:
 Dash Ip (Safety Office [Renopipe])
 19/11/21

 Laboratory Staff:
 Checked by:
 19/11/21



Contract no. 13/WSD/16 Mainlaying in Tseung Kwan O Penta-Ocean - Concentric Joint Venture

Wan Po Road Gas Monitoring - Field Measurement Recording Sheet

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

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

					Monitoring well	s / Surface G	as Emissio	n	
Sample location	Date of measurement	Sampling time	Weather condition	Balance gas (%)	Flammable gas (methame %)	Carbon monoxide( %)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
WPRTTA 1	19/11/2021	0830	Fine / Rain	0	0	0	20.9	22/1010	3.5
		1330	Fine / Baim	0	0	0	20-9	23 //011	3.5
		1700	Fine / Rain	0	0	0	209	24//011	3.5
WPRTTA 2	19/11/2021	0845	Fine / Rain	0	0	0	205	22//011	3.8
		1345	Fine / Bain	0	0	0	209	23/1010	3.8
		1645	Fine / Rain	0	0	0	20,5	23 //010.	3.8
WPRTTA 3	19/11/2021	0845	Fine / Rain	0	0	0	20.9	21/1/010.	4.3
		1345	Fine / Rain	0	0	0	20.0	27/1013	4.3
		1645	Fine / Rain	0	0	0	20.9	20 1/012	4.3
WPRT⊤A 4	19/11/2021	0845	Fine / Batin	0	0	0	20 9	2.7 / /013	4
		1345	Fine / Rain	0	0	0	20.9	23/1012	4
		1645	Fine / Bain	0	0	0	20.Ĵ	23//012.	4

	Name & Designation	<u>Signature</u>	<u>Date</u>
Field Operator:	Dash Ip (Safety Office [Renopipe])	<del>\$\frac{1}{2}</del>	19/11/2021
Laboratory Staff:			
Checked by:			19/11/2021



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

Penta-Ocean - Concentric Joint Venture

Wan Po Road Gas Monitoring - Field Measurement Recording Sheet

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

Date of measurement:

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

		Monitoring wells / Surface Gas Emission						n	
Sample location	Date of measurement	Sampling time	Weather condition	Balance gas (%)	Flammable gas (methame %)	Carbon monoxide( %)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
WPR PITA	19/11/2021	0830	Fine / Rain	0	0	0	20.9	22/1011	13
		1330	Fine / Rain	0	0	0	20.9	23/1011	13
		1700	Fine / Rain	0	0	0	20.9	23/1012	13
***************************************									
		<del> </del>							
			1	1					

Name & Designation <u>Signature</u> Date Field Operator: Dash Ip (Safety Office [Renopipe]) 19/11/2021 Laboratory Staff: 19/11/2021 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

Date of measurement:

Sampling equipment used:	Dates calibrated
PSM-200 (RAE 41)	1-1-2
	'

Sample location	Date of measurement	Sampling time			Monitoring v	vells / Surface C	as Emission		
			Weather condition	Balance gas (%)	Flammable gas (methane %)	Carbon monoxide(%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
Pit B	19- 11-2021	s\$:70	Rain (Fine)	Ü	0	ð.	20. 7	3,9/939	7
	19-11-72	13:05	Jan Jan	ð	o/	Lar	20 Y	30 / 992	ÿ
	19-11-31	17:08	Fine	, S	)	D	20.9	30/29/2	Ÿ
		}						1	
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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-2500P (QRAE III)	28 JUL 2021

-1					Monitoring well:	/ Surface G	as Emissic	n	
Sample location	Date of measurement	Sampling time	Weather condition	Balance gas (%)	Flammable gas (methame %)	Carbon monoxide( %)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
Area A	20/11/2021	0830	Fine / Rain	0	0	0	20.9	22/1010	5.5
		1330	Fine / Rain	0	0	0	20.9	23/1009	5.5
		1700	Fine / Rain	0	0	0	20.9	24/1011	5.5
Area 🕏	20/11/2021	0845	Fine / Bain	0	0	0	20.9	23//009	2.5
		1345	Fine / Rain	0	0	0	20.9	25/1009	2.5
		1645	Fine / Raim	0	0	0	20.9	23/1010	2.5
					1			•	
	)					<u> </u>	}		

Name & Designation

<u>Signature</u>

<u>Date</u> 20/11/21

Field Operator:

Dash Ip (Safety Office [Renopipe])

Laboratory Staff:

Checked by:

San No

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20/11/21



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

Penta-Ocean - Concentric Joint Venture

Wan Po Road Gas Monitoring - Field Measurement Recording Sheet

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

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

					Monitoring wells	s / Surface G	as Emissio	n	
Sample location	Date of measurement	Sampling time	Weather condition	Balance gas (%)	Flammable gas (methame %)	Carbon monoxide( %)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
WPRTTA 1	20/11/2021	0830	Fine / Bain	0	0	0	268	23 //010	3.5
		1330	Fine / Rain	0	0	0	205	24/1011	3.5
		1700	Fine / Rain	0	0	0	208	24/1011	3.5
WPRTTA 2	20/11/2021	0845	Fine / Rain	0	0	0	20-5	23/1012	3.8
		1345	Fine / Bain	0	0	0	20.9	25.//011	3.8
		1645	Fine / Rain	0	0	0	20.8	24/101	3.8
WPRTTA 3	20/11/2021	0845	Fine / Rain	0	0	О	20,9	23/1010	4.3
		1345	Fine / Rain	0	0	0	20.9	24/1010	4.3
		1645	Fine / Rain	0	0	0	20.9	210/1011	4.3
WPRTTA 4	20/11/2021	0845	Fine / Rain	0	0	0	20.9	2/4/1011	4
		1345	Fine / Bain	0	0	0	709	24/1012	4
		1645	Fine / Rain	0	0	0	205	24 //012	4

	Name & Designation	<u>Signature</u>	<u>Date</u>
Field Operator:	Dash Ip (Safety Office [Renopipe])	<del>**</del>	20/11/2021
Laboratory Staff:			
Checked by:			20/11/2021



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

Penta-Ocean - Concentric Joint Venture

Wan Po Road Gas Monitoring - Field Measurement Recording Sheet

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

Date of measurement:

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

			Monitoring wells / Surface Gas Emission						
Sample location	Date of measurement	Sampling time	Weather condition	Balance gas (%)	Flammable gas (methame %)	Carbon monoxíde( %)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
WPR PITA	20/11/2021	0830	Fine / Bain	0	0	0	20.9	23 / 1012.	13
		1330	Fine / Rain	0	0	0	20.9	251/012	13
		1700	Fine / Barin	0	0	0	20.9	24/10/0	13
								·	
	1								
ļ									

Name & Designation Signature <u>Date</u> Field Operator: Dash Ip (Safety Office [Renopipe]) 20/11/2021 Laboratory Staff: Checked by: 20/11/2021



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
REM-2 too (QRAZ m)	24-7.21
	·

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)	
Pit B	ງ.∂ - ↑∜ - 2021	70:80	Rain (Fine)	9	Ó	9	20.9	28 / 599	G	
	DE-11-7:	76551	Figure	ن	è	ی	20.8	20 / 397	Ş	
	1.0 - 1.00	1245	Fak	O .	)	2	10 %	28/ 136	à	
		}	-				<u> </u>	1		
								/		
			.			<u> </u>		<del>/,</del>		
								1 /	<u> </u>	
		-				-		/		
								1:-/-		
					-			1 /		
						1		7	· ·	

	<u>Nam</u>	e & Designat	ion Si	gnature	<u>Date</u>		
Field Operator:	Chan word	; [Wellcon)	CP C		Ja- 11 - 2021		
Laboratory Staff:	即拾漩		1		1 <sup>1</sup> / <sup>3</sup>		
Checked by:	程律族 Chek Wai Kir	POCJV	Mille	40	90 - 11 -2021	1	
ENVIRONMENTAL RESOURCES	MANAGEMENT		/ P = 0	13	3	ENVIRONMENTAL PROTECTION DEPARTS	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-2500P (QRAE III)	28 JUL 2021
	7000016-

					Monitoring well	s / Surface G	as Emissio	n	
Sample location	Date of measurement	Sampling time	Weather condition	Balance gas (%)	Flammable gas (methame %)	Carbon monoxide( %)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
Area A	22/11/2021	0830	Fine / Rain	0	0	0	20.9	18 //011	5.5
		1330	Fine / Bain	0	0	0	20.9	20/1011	5.5
		1700	Fine / Rain	0	0	0	20.9	20/1010	5.5
Area B	22/11/2021	0845	Fine / Bain	0	0	0	20.9	19/1012.	2.5
		1345	Fine / Rain	0	0	0	20.9	21//011	2.5
		1645	Fine / Rain	0	0	0	20.9	20/10/0	2.5
12.77									
İ			1	1			1		

Name & Designation

<u>Signature</u>

<u>Date</u>

Field Operator:

Dash Ip (Safety Office [Renopipe])

22/11/21

Laboratory Staff:

Checked by:

San Je

S

22/11/21



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

Penta-Ocean - Concentric Joint Venture

Wan Po Road Gas Monitoring - Field Measurement Recording Sheet

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

Sampling equipment used:	Dates calibrated				
PGM-2500P (QRAE III)	28 JUL 2021				
	1				

				"	Monitoring wells	s / Surface G	as Emissic	on	
Sample location	Date of measurement	Sampling time	Weather condition	Balance gas (%)	Flammable gas (methame %)	Carbon monoxide( %)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
WPRTTA 1	22/11/2021	0830	Fine / Rain	0	0	0	20\$	<b>勝月回</b> 日	3.5
		1330	Fine / Bain	0	0	0	20.5	21 /10:2	3.5
		1700	Fine / Barin	0	0	0	2a i	24 //0//	3.5
WPRTTA 2	22/11/2021	0845	Fine / Rain	0	0	0	205	18/10/0	3.8
		1345	Fine / Rain	0	0	0	20.9	20 /1011	3.8
		1645	Fine / Bain	0	0	0	20.3	21/1011	3.8
WPRTTA 3	22/11/2021	0845	Fine / Bain	0	0	0	20.9	20/1010	4.3
		1345	Fine / Bain	0	0	0	203	21/1012	4.3
		1645	Fine / Rain	0	0	0	20°	22/1012.	4.3
WPRTTA 4	22/11/2021	0845	Fine / Rain	0	0	0	200	19/1011	4
		1345	Fine / Bain	0	0	0	20.9	21/1012	4
		1645	Fine / Barin	0	0	0	20.9	20/1011	4

	Name & Designation	<u>Signature</u>	<u>Date</u>
Field Operator:	Dash Ip (Safety Office [Renopipe])	<b>\$</b>	22/11/2021
Laboratory Staff:			
Checked by:			22/11/2021



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

Penta-Ocean - Concentric Joint Venture

Wan Po Road Gas Monitoring - Field Measurement Recording Sheet

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

Date of measurement:

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

			Monitoring welfs / Surface Gas Emission						
Sample location	Date of measurement	Sampling time	Weather condition	Balance gas (%)	Flammable gas (methame %)	Carbon monoxide( %)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
WPR PITA	22/11/2021	0830	Fine / Refin	0	0	0	20.9	17/1013	13
		1330	Fine / Rain	0	0	0	20.9	19/10/5.	13
		1700	Fine / Rain	0	0	0	20.9	20/1014	13
Í									

Name & Designation Signature <u>Date</u> Field Operator: Dash Ip (Safety Office [Renopipe]) 22/11/2021 Laboratory Staff: 22/11/2021 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
PGM - 1500 (6RA-11)	21-7-21
	.,,

1. 1.	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)	
Pit B	)2- 11 - 2021	73:60	Rain / Fine	Ĩ.	ċ	Ĉ.	20. 9	24/ 111	7	
	22-11-21	<b>₫</b> 3÷ ; (	Tilka	5	)	ð	2.0	5 / jr		
	22-11-21	265 (1-	Finan	Ú.	Ü	D)	20 4	17/12/	ζ	
								/	···	
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								/		
			<del></del>					<del>                                     </del>		
		-								
					<u> </u>			/		
				-				<del>                                     </del>		
				<del>-                                    </del>				<del>                                     </del>		

	<u>Name</u>	& Designation	<u>Signature</u>	<u>Date</u>	
Field Operator:	Chan went chi	[ Wellcon ) CP	e	72-11 - 2021	
Laboratory Staff:			1		
Checked by:	翟偉傑 Chak Wai Kit	POCJV		72 - 11 -202	1
ENVIRONMENTAL RESQUEC	65 MANAGEMENT	7	/	40	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-2500P (QRAE III)	28 JUL 2021
	i

	Date of measurement	Sampling time	Monitoring wells / Surface Gas Emission							
Sample location			Weather condition	Balance gas (%)	Flammable gas (methame %)	Carbon monoxide( %)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)	
Area A	23/11/2021	0830	Fine / Baim	0	0	0	20.9	15/1011	5.5	
		1330	Fine / Rain	0	0	0	20.9	16/1012	5.5	
	l l	1700	Fine / Rain	0	0	0	20.9	16 /1017	5.5	
Area B	23/11/2021	0845	Fine / Rain	0	0	_ 0	20.9	15/1011	2.5	
		1345	Fine / Rain	0	0	0	20.9	15 //011	2.5	
		1645	Fine / Rain	0	0	0	20.9	16/1010.	2.5	
(	1			I	1	3	[	l	i	

	Name & Designation	<u>Signature</u>	<u>Date</u>
Field Operator:	Dash (p (Safety Office [Renopipe])	<del>\</del>	23/11/21
Laboratory Staff:			
Checked by:	San Us	A.	23/11/21



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

Penta-Ocean - Concentric Joint Venture

Wan Po Road Gas Monitoring - Field Measurement Recording Sheet

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

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

			Monitoring wells / Surface Gas Emission							
Sample location	Date of measurement	Sampling time	Weather condition	Balance gas (%)	Flammable gas (methame %)	Carbon monoxide( %)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)	
WPRTTA 1	23/11/2021	0830	Fine / Bain	0	0	0	209	15/1011	3.5	
•		1330	Fine / Rain	0	0	0	208	16/1012	3.5	
		1700	Fine / Rain	0	0	0	201	16./1012	3.5	
WPRTTA 2	23/11/2021	0845	Fine / Rain	0	0	0	20.9	15/10,0	3.8	
		1345	Fine / Rain	0	0	0	20,9	18/1011	3.8	
		1645	Fine / Bain	0	0	0	20.9	18/1009	3.8	
WPRTTA 3	23/11/2021	0845	Fine / Rain	0	0	0	209	19/100	4.3	
		1345	Fine / Rain	0	0	0	20.9	16/1012	4.3	
		1645	Fine / Bain	0	0	0	2019	16 /1010	4.3	
WPRTTA 4	23/11/2021	0845	Fine / Bain	0	0	0	209	16/1010	4	
		1345	Fine / Rain	0	0	0	20.	15/1009	4	
· · · · · · · · · · · · · · · · · · ·		1645	Fine / Rain	0	0	0	2119	16.1100	4	

	Name & Designation	Signature	<u>Date</u>
Field Operator:	Dash Ip (Safety Office [Renopipe])	<b>\$</b>	23/11/2021
Laboratory Staff:			
Checked by:			23/11/2021



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

Penta-Ocean - Concentric Joint Venture

Wan Po Road Gas Monitoring - Field Measurement Recording Sheet

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

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

			Monitoring wells / Surface Gas Emission							
Sample location	Date of measurement	Sampling time	Weather condition	Balance gas (%)	Flammable gas (methame %)	Carbon monoxide( %)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)	
WPR PITA	23/11/2021	0830	Fine / Rain	0	0	0	20.9	151/012.	13	
		1330	Fine / Rain	0	0	0	20.9	16/1013	13	
		1700	Fine / Rain	0	0	0	20.9	16/1013.	13	
								VI.40-11.		
<b>)</b>			1	1					1	

	Name & Designation	<u>Signature</u>	<u>Date</u>
Field Operator:	Dash Ip (Safety Office [Renopipe])	<del>\</del>	23/11/2021
Laboratory Staff:			
Checked by:			23/11/2021



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

Date of measurement:

Sampling equipment used:	Dates calibrated
PEM-1500 (1876-111)	24-7-21
	<u> </u>

Date of measurement	Sampling time								
		Weather condition	Balance gas (%)	Flammable gas (methane %)	Carbon monoxide(%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)	
23- コー2021	03705	Rain / Fine	Ĉ	C	0	76,8	5.2 / 331	- 3	
23-11-21	13:05	Tille	ty.	Ů.	Ũ			- · · · · · · · · · · · · · · · · · · ·	
23 11 - 21	17:06	Fine		\$	<i>(i)</i>	7.6 . Y	1-1/194	4	
							//		
							/		
			<u> </u>				/		
	23-11-2021	23-11-2021 (13.65)	measurement time  Weather condition  23-11-2021 GRain / Fine	measurement time	measurement time	measurement   time	Measurement time	Measurement time	

Name & Designation Signature Date

Field Operator: Chan Wat (At [Wellcon] CP 2021

Laboratory Staff:
Checked by: 具像像 POCJV 27 - /1 - 2021

ENVIRONMENTAL RESCURCES MANAGEMENT 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-2500P (QRAE III)	28 JUL 2021

			Monitoring wells / Surface Gas Emission							
Sample location	Date of measurement	Sampling time	Weather condition	Balance gas (%)	Flammable gas (methame %)	Carbon monoxide( %)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)	
Area A	24/11/2021	0830	Fine / Rain	0	0	0	20.9	18/1011	5.5	
		1330	Fine / Plain	0	0	0	20.9	19 /1011	5.5	
		1700	Fine / Rain	0	0	0	20.9	19 /1012	5.5	
Area B	24/11/2021	0845	Fine / Bain	0	0	0	20.9	19/1010	2.5	
		1345	Fine / Bain	0	0	0	20.9	20 /1011	2.5	
		1645	Fine / Rain	0	0	0	20.9	20 /1010	2.5	
			-		ļ					
			1							

 Name & Designation
 Signature
 Date

 Field Operator:
 Dash Ip (Safety Office [Renopipe])
 24/11/21

 Laboratory Staff:
 Checked by:
 24/11/21



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

Penta-Ocean - Concentric Joint Venture

Wan Po Road Gas Monitoring - Field Measurement Recording Sheet

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

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

					Monitoring well	s / Surface G	as Emissic	n	
Sample location	Date of measurement	Sampling time	Weather condition	Balance gas (%)	Flammable gas (methame %)	Carbon monoxide( %)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
WPRT⊤A 1	24/11/2021	0830	Fine / Rain	0	0	0	20.9	18 //011	3.5
		1330	Fine / Bain	0	0	0	20.9	19/10/2	3.5
		1700	Fine / Rain	0	0	0	20.8	20.11012	3.5
WPRTTA 2	24/11/2021	0845	Fine / Bain	0	0	0	20.9	17/1011	3.8
		1345	Fine / Rain	0	0	0	20.9	19/1011	3.8
		1645	Fine / Bain	О	0	0	20.5	19 /1000.	3.8
WPRTTA 3	24/11/2021	0845	Fine / Rain	О	0	0	20.9	18 // pil	4.3
		1345	Fine / Bain	0	0	0	20.9	19 /1011	4.3
		1645	Fine / Bain	0	0	0	20.9	20/1012	4.3
WPRTTA 4	24/11/2021	0845	Fine / Refin	0	0	0	20.5	19 (1010	4
		1345	Fine / Rain	0	0	0	20.9	19/1010	4
		1645	Fine / Bain	0	0	0	20.5	20/1011	4

	Name & Designation	<u>Signature</u>	<u>Date</u>
Field Operator:	Dash Ip (Safety Office [Renopipe])	<del>V</del>	24/11/2021
Laboratory Staff:			
Checked by:			24/11/2021



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

Penta-Ocean - Concentric Joint Venture

Wan Po Road Gas Monitoring - Field Measurement Recording Sheet

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

Date of measurement:

Sampling equipment used:	Dates calibrated
PGM-2500P (QRAE III)	28 JUL 2021
	110,772

			Monitoring wells / Surface Gas Emission						
Sample location	Date of measurement	Sampling time	Weather condition	Balance gas (%)	Flammable gas (methame %)	Carbon monoxide( %)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
WPR PITA	24/11/2021	0830	Fine / Rain	Ö	0	0	20.9	18/10/2.	13
		1330	Fine / Patin	0	0	0	20.9	20/1012	13
		1700	Fine / Rain	0	0	0	20.9	2011011	13
								,	
	1								

Name & Designation Signature <u>Date</u> **♦** Field Operator: Dash Ip (Safety Office [Renopipe]) 24/11/2021 Laboratory Staff: Checked by: 24/11/2021



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

Date of measurement:

Sampling equipment used:	Dates calibrated
PGM. 2500 (CRAHII)	28-7-21

Sample location	Date of measurement	Sampling time	Monitoring wells / Surface Gas I				as Emission			
			Weather condition	Balance gas (%)	Flammable gas (methane %)	Carbon monoxide(%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)	
Pit B	24-11-2021	18:05	Rain / Fine	0	E	£.	20.8	29/ 644	q	
	24-11-21	13 M 201	Fine	8	8	P	20 5	31/697	Ŷ	
<del></del>	h4-11-21	17 : 16	Fine_	<u> </u>	į. į. <u>.    </u>	C <sup>2</sup>	20,8	31 / 996	7	
								/		
								/		
								1		
								/		
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								/		
								/		

Name & Designation Signature Date

Field Operator: [Wellcon) CP 74-11 - 2021

Laboratory Staff:
Checked by: POCJV Checked kills 13-11 - 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
PGM-2500P (QRAE III)	28 JUL 2021

					Monitoring well:	s / Surface G	as Emissic	n	
Sample location	Date of measurement	Sampling time	Weather condition	Balance gas (%)	Flammable gas (methame %)	Carbon monoxide( %)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
Area A	25/11/2021	0830	Fine / Rain	0	0	0	20.9	19/1012	5.5
		1330	Fine / Rain	0	0	0	20.9	21/1010	5.5
		1700	Fine / Bain	0	0	0	20.9	21/1011	5.5
Area B	25/11/2021	0845	Fine / Rain	0	0	0	20.9	20/1011	2.5
		1345	Fine / Bain	0	0	0	20.9	24/1011	2.5
		1645	Fine / Rain	0	0	О	20.9	21 /100	2.5

	Name & Designation	<u>Signature</u>	<u>Date</u>
Field Operator:	Dash Ip (Safety Office [Renopipe])	<b>\$</b>	25/11/21
Laboratory Staff:			
Checked by:	Sam 1/3	\$	25/11/21



Contract no. 13/WSD/16
Mainlaying in Tseung Kwan O
Penta-Ocean - Concentric Joint Venture

Wan Po Road Gas Monitoring - Field Measurement Recording Sheet

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

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

		·	Monitoring wells / Surface Gas Emission							
Sample location	Date of measurement	Sampling time	Weather condition	Balance gas (%)	Flammable gas (methame %)	Carbon monoxide( %)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)	
WPRTTA 1	25/11/2021	0830	Fine / Bain	0	0	0	7.0.3	19/1011	3.5	
		1330	Fine / Rain	0	0	0	209	20/1012	3.5	
		1700	Fine / Rain	0	0	0	703 \$	21 /1010	3.5	
WPRTTA 2	25/11/2021	0845	Fine / Barin	0	0	0	20.5	20/1011	3.8	
		1345	Fine / Bain	0	0	0	20.5	21/102	3.8	
		1645	Fine / Raim	0	0	0	205	21 /1012	3.8	
WPRTTA 3	25/11/2021	0845	Fine / Rain	0	0	0	205	20/1011	4.3	
		1345	Fine / Bain	0	0	0	20.5	250 /1011	4.3	
		1645	Fine / Rain	0	0	0	ોઇ.૧ે	21/1010	4.3	
WPRTTA 4	25/11/2021	0845	Fine / Rain	0	0	0	20.9	19/1011	4	
		1345	Fine / Bain	0	0	0	20.9	21/1002	4	
·		1645	Fine / Rain	0	0	0	205	21 /1002	4	

	Name & Designation	<u>Signature</u>	<u>Date</u>
Field Operator:	Dash Ip (Safety Office [Renopipe])	<del>0</del>	25/11/2021
Laboratory Staff:			
Checked by:			25/11/2021



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

Penta-Ocean - Concentric Joint Venture

Wan Po Road Gas Monitoring - Field Measurement Recording Sheet

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

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

			Monitoring wells / Surface Gas Emission						
Sample location	Date of measurement	Sampling time	Weather condition	Balance gas (%)	Flammable gas (methame %)	Carbon monoxide( %)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
WPR PITA	25/11/2021	0830	Fine / Rain	0	0	0	20.9	1911013	13
		1330	Fine / Rain	0	0	0	20.9	20/1012	13
		1700	Fine / Rain	0	0	0	20.9	20/1013	13
								Ţ	

	Name & Designation	<u>Signature</u>	<u>Date</u>
Field Operator:	Dash Ip (Safety Office [Renopipe])	<b>&amp;</b>	25/11/2021
Laboratory Staff:			
Checked by:			25/11/2021



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:

ী3/WSD/16 - Mainlaying in Tseung Kwan O

Date of measurement:

Sampling equipment used:	Dates calibrated
79M -250- (2/2/18/11)	28-7-21

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)	
Pit B	つぶ - 計 - 2021	70:30	Rain (Fine	ć	θ	Ů.	20 9	16 / 181	Ÿ	
	25-11-21	13-05	fina		<i>\$</i> 2		120 \$	22/ 778	p	
	2X = 0, = 2/1.	17:05	Fire.	ι)	1	٠	20.7	22/ / /	j	
			:	1				/		
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								/		
		Į						/		
	A							/		



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-2500P (QRAE III)	28 JUL 2021

Sample location	Date of measurement	Sampling time	Monitoring wells / Surface Gas Emission							
			Weather condition	Balance gas (%)	Flammable gas (methame %)	Carbon monoxide( %)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)	
Area A	26/11/2021	0830	Fine / Bain	0	0	0	20.9	19/1011	5.5	
		1330	Fine / Bain	0	0	0	20.9	21 /1012	5.5	
		1700	Fine / Barin	0	0	0	20.9	22/1012	5.5	
Area B	26/11/2021	0845	Fine / Rain	0	0	0	20.9	20/1011	2.5	
		1345	Fine / Bain	0	0	0	20.9	21/1012	2.5	
		1645	Fine / Bain	0	0	0	20.9	21/1012.	2.5	
								-		
			<u>                                     </u>							
			[						1	

Name & Designation

Signature

Date

Field Operator:

Dash Ip (Safety Office [Renopipe])

2

26/11/21

Laboratory Staff:

Checked by:

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A

26/11/21



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

Penta-Ocean - Concentric Joint Venture

Wan Po Road Gas Monitoring - Field Measurement Recording Sheet

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

Date of measurement:

Sampling equipment used:	Dates calibrated					
PGM-2500P (QRAE III)	28 JUL 2021					
***						
***						

			Monitoring wells / Surface Gas Emission							
Sample location	Date of measurement	Sampling time	Weather condition	Balance gas (%)	Flammable gas (methame %)	Carbon monoxide( %)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)	
WPRTTA 1	26/11/2021	0830	Fine / Rain	0	0	0	203	20/1012	3.5	
		1330	Fine / Rain	0	0	0	20.9	21/1012	3.5	
		1700	Fine / Raim	0	0	0	205	24 /1011	3.5	
WPRTTA 2	26/11/2021	0845	Fine / Rain	0	. 0	0	20.5	20/1010	3.8	
		1345	Fine / Rain	0	0	0	20.3	25/1011	3.8	
		1645	Fine / Bain	0	0	0	20.5	21/1011	3.8	
WPRTTA 3	26/11/2021	0845	Fine / Bein	0	0	0	20.9	21/100	4.3	
		1345	Fine / Bain	0	0	0	20.9	20/1010	4.3	
		1645	Fine / Rain	0	0	0	20.9	20/1010		
WPRTTA 4	26/11/2021	0845	Fine / Rain	0	0	0	20.9	19/011	4	
		1345	Fine / Barn	0	0	0	20.9	20/1012	4	
		1645	Fine / Rain	0	0	0	203	20 (1012	4	

	Name & Designation	<u>Signature</u>	<u>Date</u>
Field Operator:	Dash Ip (Safety Office [Renopipe])	₽	26/11/2021
Laboratory Staff:			
Checked by:			26/11/2021

Acuity Sustainability Consulting Limited



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

Penta-Ocean - Concentric Joint Venture

Wan Po Road Gas Monitoring - Field Measurement Recording Sheet

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

Date of measurement:

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

				Monitoring wells / Surface Gas Emission							
Sample location	Date of measurement	Sampling time	Weather condition	Balance gas (%)	Flammable gas (methame %)	Carbon monoxide( %)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)		
WPR PITA	26/11/2021	0830	Fine / Rafin	0	0	0	20.9	1911013	13		
		1330	Fine / Rain	0	0	0	20.9	21/10/4	13		
		1700	Fine / Raim	0	0	0	20.9	21//013	13		
	1					]					

Name & Designation Signature <u>Date</u>  $\Phi$ Dash Ip (Safety Office [Renopipe]) Field Operator: 26/11/2021 Laboratory Staff: 26/11/2021 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 Kwaп О

Date of measurement:

Sampling equipment used:	Dates calibrated
PGX -7 STO (GRAZILI)	24 Jul 424

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)		
Pit B	2-6-71 -2021	of::t	Rain //Fine	.0	Ċ	ð	5.2. 1	8/78			
	26-11-21	13:05	- Proper	ð	c)	45	20. 4	22/338	4		
	36 11. 21	17 35	Jan S. W. Jan	Ö	<i>2</i>	0	77	27/594	7		
		:									
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								/			
								/			
		-			<u> </u>	-	-	1			

	Name & Designation	<u>Signature</u>	<u>Date</u>		
Field Operator:	[Wellcon) CP -ch	un rai Si	21 - 11 - 2021		
Laboratory Staff:	翟偉傑	e la sa	A. Carrier and Car		
Checked by:	POCJV POCJV	AND)	7/ 11 - 2021		
ENVIRONMENTAL RESOURCES MANAGEMENT			12	ENVIRONMENTAL PROTECTION DEPARTM	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-2500P (QRAE III)	28 JUL 2021

		Date of Sampling time		Monitoring wells / Surface Gas Emission							
Sample location	Date of measurement		Weather condition	Balance gas (%)	Flammable gas (methame %)	Carbon monoxide( %)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)		
Агеа А	27/11/2021	0830	Fine / Bain	0	0	0	20.9	20/1012	5.5		
		1330	Fine / Rain	0	0	0	20.9	21 //012	5.5		
		1700	Fine / Bain	0	0	0	20.9	21/1011	5.5		
Area B	27/11/2021	0845	Fine / Rain	0	0	0	20.9	21/1010	2.5		
		1345	Fine / Rain	0	0	0	20.9	22 /1010	2.5		
		1645	Fine / Rain	0	0	0	20.9	22-/1911	2.5		
	L							, , ,			
		***********									

 Name & Designation
 Signature
 Date

 Field Operator:
 Dash Ip (Safety Office [Renopipe])
 27/11/21

 Laboratory Staff:
 Checked by:
 27/11/21



Contract no. 13/WSD/16
Mainlaying in Tseung Kwan O
Penta-Ocean - Concentric Joint Venture

Wan Po Road Gas Monitoring - Field Measurement Recording Sheet

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

Date of measurement:

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

		· · · · · · · · · · · · · · · · · · ·			Monitoring wells	s / Surface G	as Emissio	n	
Sample location	Date of measurement	Sampling time	Weather condition	Balance gas (%)	Flammable gas (methame %)	Carbon monoxide( %)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
WPRTTA 1	27/11/2021	0830	Fine / Bain	0	0	0	20.5	20 //011	3.5
		1330	Fine / Rain	0	0	0	203	21 /1012	3.5
		1700	Fine / Bain	0	0	0	205	21/1010	3.5
WPRTTA 2	27/11/2021	0845	Fine / Bain	0	0	0	203	19/1013	3.8
		1345	Fine / Bain	0	0	0	20.5	21/1012	3.8
		1645	Fine / Rain	0	0	0	Zē.¶	20./1012	3.8
WPRTTA 3	27/11/2021	0845	Fine / Bain	0	0	0	20.5	20 //012	4.3
		1345	Fine / Bain	0	0	0	20.9	20 /101	4.3
		1645	Fine / Refin	0	0	0	20.5	21/100	4.3
WPRTTA 4	27/11/2021	0845	Fine / Rain	0	0	0	20.9	21/1010	4
		1345	Fine / Bain	0	0	0	20.9	20/1009	4
		1645	Fine / Rain	0	0	0	20.9	20/1010	4

	Name & Designation	Signature	<u>Date</u>
Field Operator:	Dash Ip (Safety Office [Renopipe])	<b>₽</b> .	27/11/2021
Laboratory Staff:			
Checked by:			27/11/2021



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

Penta-Ocean - Concentric Joint Venture

Wan Po Road Gas Monitoring - Field Measurement Recording Sheet

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

Date of measurement:

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

			Monitoring wells / Surface Gas Emission							
Sample location	Date of measurement	Sampling time	Weather condition	Balance gas (%)	Flammable gas (methame %)	Carbon monoxide( %)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)	
WPR PITA	27/11/2021	0830	Fine / Ratin	0	0	0	20.9	1911013	13	
		1330	Fine / Bain	0	0	0	20.9	22/1014	13	
		1700	Fine / Rain	0	0	0	20.9	21/1013	13	

Name & Designation Signature <u>Date</u> Field Operator: Dash Ip (Safety Office [Renopipe]) 27/11/2021 Laboratory Staff: 27/11/2021 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

Date of measurement:

Sampling equipment used:	Dates calibrated
Par tro (CMC-0)	2.1 35 27
/	

Sample location	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)	
Pit B	- 2021	23-05	Rain / Fine		9	v	10. 7	14/119	?	
	γ <del>) =</del> (1 − 2 )	13篇178	E HARL	9		0	J. 1	15/ 198	ſ	
	27-11-21	14111V	July -	d.	U		76. 3	5-1 57	, i	
			<u> </u>		1			//		
								/		
								/-		
							· · · · · · · · · · · · · · · · · · ·	7		

Name & Designation

Signature

Date

Field Operator:

[ Wellcon ) CP

7-7-11-2021

Laboratory Staff:

Checked by:

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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-2500P (QRAE III)	28 JUL 2021

Sample location		Date of Sampling time	Monitoring wells / Surface Gas Emission							
	Date of measurement		Weather condition	Balance gas (%)	Flammable gas (methame %)	Carbon monoxide( %)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)	
Area A	29/11/2021	0830	Fine / Bain	0	0	0	20.9	21/1011	5.5	
		1330	Fine / Rain	0	0	0	20.9	22 /1012	5.5	
	1	1700	Fine / Bain	0	0	0	20.9	22 /1011	5.5	
Area B	29/11/2021	0845	Fine / Bain	0	0	0	20.9	19/1012.	2.5	
		1345	Fine / Rain	0	0	0	20.9	21 /1911	2.5	
		1645	Fine / Rain	0	0	0	20.9	20 //011	2.5	
		-								
<del>.</del>										
	1 1				1		l		1	

 Name & Designation
 Signature
 Date

 Field Operator:
 Dash Ip (Safety Office [Renopipe])
 29/11/21

 Laboratory Staff:
 Checked by:
 29/11/21



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

Penta-Ocean - Concentric Joint Venture

Wan Po Road Gas Monitoring - Field Measurement Recording Sheet

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

Date of measurement:

Sampling equipment used:	Dates calibrated
PGM-2500P (QRAE III)	28 JUL 2021
- <del> </del>	

					Monitoring well:	s / Surface G	as Emissio	n	
Sample location	Date of measurement	Sampling time	Weather condition	Balance gas (%)	Flammable gas (methame %)	Carbon monoxide( %)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
WPRTTA 1	29/11/2021	0830	Fine / Rain	ð	0	0	20.9	21/ 1011	3.5
***		1330	Fine / Rain	0	0	0	20.9	20/1012	3.5
		1700	Fine / Rain	0	0	0	209	21/m/oll	3.5
WPRTTA 2	29/11/2021	0845	Fine / Bain	0	0	0	20.4	20/1011	3.8
		1345	Fine / Rain	0	0	0	20.9	21 /101-2	3.8
		1645	Fine / Rain	0	0	0	20.9	21/1012	3.8
WPRTTA 3	29/11/2021	0845	Fine / Rain	0	0	0	26.9	20/1011	4.3
		1345	Fine / Bain	0	0	0	20.9	21/1011	4.3
		1645	Fine / Rain	0	0	0	20.9	21/1012	4.3
WPRTTA 4	29/11/2021	0845	Fine / Rain	0	0	0	20.9	19/1009	4
		1345	Fine / Rain	0	0	0	20.9	21 /1010	4
	1	1645	Fine / Rain	0	0	0	20.9	2n linit	4

	Name & Designation	<u>Signature</u>	<u>Date</u>
Field Operator:	Dash Ip (Safety Office [Renopipe])	₩	29/11/2021
Laboratory Staff:			
Checked by:			29/11/2021



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

Penta-Ocean - Concentric Joint Venture

Wan Po Road Gas Monitoring - Field Measurement Recording Sheet

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

Date of measurement:

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

			Monitoring wells / Surface Gas Emission						
Sample location	Date of measurement	Sampling time	Weather condition	Balance gas (%)	Flammable gas (methame %)	Carbon monoxide( %)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
WPR PITA	29/11/2021	0830	Fine / Rain	0	0	0	20.9	21/1012	13
		1330	Fine / Raim	0	0	0	20.9	22/10/3	13
		1700	Fine / Raim	0	0	0	20.9	22/10/3	13
			j			l			

	Name & Designation	<u>Signature</u>	<u>Date</u>
Field Operator:	Dash Ip (Safety Office [Renopipe])	$\Phi$	29/11/2021
Laboratory Staff:			
Checked by:			29/11/2021



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

Date of measurement:

Sampling equipment used:	Dates calibrated
POM-100 (GRAC)	28 34 24

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)
Pit B	D1- 11 -2021	03-0t	Rain (Fine	0	C	Ü	10.4	20 / 758	9
	29-11-21	#3:05	Tirz.	W	ō.	Ωγ	10 4	22/371	9
	14-11- Li	17:45	Fire	5.		Ü		22/11/1	7
								- /	
								/	
				Ì				/	
			10.00						
		<u> </u>						/	

 Name & Designation
 Signature
 Date

 Field Operator:
 [Wellcon] CP
 10 - 10 - 2021

 Laboratory Staff:
 24 - 10 - 2021

 Checked by:
 POCJV
 10 - 10 - 2021

ENVIRONMENTAL RESCURCES MANAGEMENT

Environmental Protection Department



Dates calibrated

Contract no. 13/WSD/16 Maintaying in Tseung Kwan O Penta-Ocean - Concentric Joint Venture

Landfill Gas Monitoring - Field Measurement Recording Sheet

Date of measurement:

PGM-2500P (QRAE III) 28 JUL 2021 Name of site: 13/WSD/16 - Mainlaying in Tseung Kwan O

Sampling equipment used:

					Monitoring wells	s / Surface G	as Emissic	n	
Sample location	Date of measurement	Sampling time	Weather condition	Balance gas (%)	Flammable gas (methame %)	Carbon monoxide( %)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
Area A	30/11/2021	0830	Fine / Rain	0	0	0	20.9	19/1012	5.5
		1330	Fine / Ratin	0	0	0	20.9	20/1011	5.5
		1700	Fine / Ratin	0	0	0	20.9	20/1012	5.5
Area B	30/11/2021	0845	Fine / Bain	0	0	0	20.9	20/1011	2.5
	:	1345	Fine / Rain	0	0	0	20.9	20 /1011	2.5
		1645	Fine / Bain	0	0	_ 0	20.9	20/1012	2.5
			ł						
			1						

Name & Designation Signature Date Dash Ip (Safety Office [Renopipe]) Field Operator: 30/11/21 Laboratory Staff: Sam Ny. Checked by: 30/11/21



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

Penta-Ocean - Concentric Joint Venture

Wan Po Road Gas Monitoring - Field Measurement Recording Sheet

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

Date of measurement:

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

			Monitoring wells / Surface Gas Emission								
Sample location	Date of measurement	Sampling time	Weather condition	Baiance gas (%)	Flammable gas (methame %)	Carbon monoxide( %)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)		
WPRTTA 1	30/11/2021	0830	Fine / Raim	0	0	0	20.9	20/1010	3.5		
		1330	Fine / Baim	0	0	0	20.%	20/1011	3.5		
		1700	Fine / Rain	0	0	0	20.9	19/1011	3.5		
WPRTTA 2	30/11/2021	0845	Fine / Bain	. 0	0	0	20.9	18/1011	3.8		
		1345	Fine / Rain	0	0	0	20.9	19/100	3.8		
		1645	Fine / Rain	0	0	0	20.5	20/1010			
WPRTTA 3	30/11/2021	0845	Fine / Barn	0	O	0	20.9	19/10:1	· 4.3		
	<u> </u>	1345	Fine / Bain	0	0	0	20.9	21 /1010	4.3		
		1645	Fine / Rain	0	0	0	20.8	20/1010	4.3		
WPRTTA 4	30/11/2021	0845	Fine / Rain	0	0	0	20.3	20 //011	. 4		
		1345	Fine / Rain	0	0	0	20.9	20//00	4		
		1645	Fine / Rain	0	0	0	204	23/1010	4		

	Name & Designation	<u>Signature</u>	<u>Date</u>
Field Operator:	Dash Ip (Safety Office [Renopipe])	· ₽	30/11/2021
Laboratory Staff:			
Checked by:			30/11/2021



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

Penta-Ocean - Concentric Joint Venture

Wan Po Road Gas Monitoring - Field Measurement Recording Sheet

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

Date of measurement:

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

Sample location			Monitoring wells / Surface Gas Emission							
	Date of measurement	Sampling time	Weather condition	Balance gas (%)	Flammable gas (methame %)	Carbon monoxide( %)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)	
WPR PITA	30/11/2021	0830	Fine / Rain	0	0	0	20.9	1911013	13	
		1330	Fine / Ratin	0	0	0	20.9	21/10/3.	13	
		1700	Fine / Rain	0	0	0	20.9	21//012	13	
	***									
		2011								
	i i		1							

Name & Designation <u>Signature</u> <u>Date</u> Field Operator: Dash Ip (Safety Office [Renopipe]) 30/11/2021 Laboratory Staff: Checked by: 30/11/2021



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

Name & Designation

Date of measurement:

Sampling equipment used:	Dates calibrated
XT-XWHM-Y-OR	2021/6/8

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)
137 Pit B	18-11-2021	830	Rain / Fine	0	0	0	20,9	29/1010	SEJ
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Envikonmental Resources Ma	NAGEMENT		13	Environmental Protection Department
Checked by:	POCJV		2021	
Laboratory Staff:				
Field Operator:	Fung Che Keung [VTEC) CP	37	(8-1/-2021	

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
XT-XWHM-Y-OR	2021/6/8
	1

Sample location	Date of measurement	Sampling time			Monitoring wells / Surface Gas Emission					
		į	Weather condition	Balance gas (%)	Flammable gas (methane %)	Carbon monoxide(%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)	
137 Pit B	17-11-2021	830	Rain / Fine	0	e2_	0	70,9	29/1011	Ses	
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Name & Designation

<u>Signature</u>

<u>Date</u>

Field Operator:

Fung Che Keung [VTEC) CP

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17 -//-2021

Laboratory Staff:

Checked by:

POCJV

- 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
XT-XWHM-Y-OR	2021/6/8
	· · · · · · · · · · · · · · · · · · ·

Sample location	Date of measurement	Sampling time			Monitoring v	veils / Surface C	as Emission		
			Balance gas (%)	Flammable gas (methane %)	Carbon monoxide(%)		Temp (°C) / Pressure (mbar)	Remark Depth (m)	
137 Pit B	(6 (1-2021	830	Rain / Fine	0	0	0	20,9	30/1009	5.8
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Name & Designation

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<u>Date</u>

Field Operator:

Fung Che Keung [VTEC] CP

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16-11-2021

Laboratory Staff:

Checked by:

POCJV

- 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: XT-XWHM-Y-OR	Dates calibrated 2021/6/8
	20211010

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)		
137 Pit B	[S-/(-2021	8:30	Rain / Fine	0	0	0	20,9	27/199	5.5	
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Name & Designation

Signature

<u>Date</u>

Field Operator:

Fung Che Keung [VTEC] CP

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15-11-2021

Laboratory Staff:

Checked by:

POCJV

- 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
XT-XWHM-Y-OR	2021/6/8

Sample location	Date of measurement	Sampling time								
			Weather condition	Balance gas (%)	Flammable gas (methane %)	Carbon monoxide(%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)	
137 Pit B	[3-1/-2021	830	Rain / Fine	0	0	-2	20,9	30/1009	\$.5°	
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Name & Designation

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Field Operator:

Fung Che Keung [VTEC) CP

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Laboratory Staff:

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ENVIRONMENTAL RESOURCES MANAGEMENT

ENVIRONMENTAL PROTECTION DEPARTMENT



Contract no. 13/WSD/16
Main(aying in Tseung Kwan O
Penta-Ocean - Concentric Joint Venture

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Landfill Gas Monitoring -Field Measurement Recording Sheet

Name of site:

13/WSD/16 - Mainlaying in Tseung Kwan O

Date of measurement:

Sampling equipment used:	Dates calibrated
XT-XWHM-Y-OR	2021/6/8

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)		
137 Pit B	12-11 -2021	830	Rain / Fine	0	0		20.9	28/1013	5-5	
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Name & Designation

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<u>Date</u>

Field Operator:

Fung Che Keung [VTEC) CP

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Laboratory Staff:

Checked by:

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- 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
XT-XWHM-Y-OR	2021/6/8

Sample location	Date of measurement	Sampling time	ling Monitoring wells / Surface Gas Emission							
		1		Weather condition	Balance gas (%)	Flammable gas (methane %)	Carbon monoxide(%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
137 Pit B	[( - (( -2021	870	Rain / Fine	0	8	0	20.9	30/100	5.5	
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Name & Designation

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<u>Date</u>

Field Operator:

Fung Che Keung [VTEC) CP

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Laboratory Staff:

Checked by:

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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
XT-XWHM-Y-OR	2021/6/8

Sample location	Date of measurement	Sampling time									ļ
			Weath		Balance gas	Flammable gas (methane %)	Carbon monoxide(%)			p (°C) / .re (mbar)	Remark Depth (m)
137 Pit B	16-11-2021	830	Rain /	Fine	0		. O	20-9	291	<u>/ tol4</u>	5.5
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Field Operator:

Fung Che Keung [VTEC) CP

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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	
XT-XWHM-Y-OR	2021/6/8	

Sample location	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)
137 Pit B	G-//-2021	330	Rain / Fine	0	0	0	20-9	29/1009	5-5
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	Name & Designation	Signature	<u>Date</u>	
Field Operator:	Fung Che Keung [VTEC) CP	34	9 - ( /- 2021	
Laboratory Staff:				
Checked by:	POCJV		2021	
ENVIRONMENTAL RESOURCES	MANAGEMENT	<del>_</del>		ENDORSON CENT A PROTECTION DOLLARS OF THE

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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
XT-XWHM-Y-OR	2021/6/8
	l"

Sample location	Date of measurement	Sampling time	Monitoring wells / Surface Gas Emission							
		condition (%) g	Flammable gas (methane %)	Carbon monoxide(%)	Oxygen (%)		p (°C) / ure (mbar)	Remark Depth (m)		
137 Pit B	8 - 1/ -2021	830	Rain / Fine	<b>W</b> O	0	0	20,7	29	/ 1010	5-5
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Name & Designation

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Date

Field Operator:

Fung Che Keung [VTEC) CP

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Laboratory Staff:

Checked by:

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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
XT-XWHM-Y-OR	2021/6/8
•	

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)		
137 Pit B	6-1/-2021	830	Rain / Fine	0	-0-	0	2019	3/ / io01	5.5	
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Name & Designation

Signature

Date

Field Operator:

Fung Che Keung [VTEC) CP

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6-11-2021

Laboratory Staff:

Checked by:

POCJV

- 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
XT-XWHM-Y-OR	2021/6/8

Sample location	Date of measurement	Sampling time			Monitoring v	vells / Surface C	as Emission		
			Weather condition	Balance gas (%)	Flammable gas (methane %)	Carbon monoxide(%)	Oxygen (%)	Temp (°C) / Pressure (mbar	Remark Depth (m)
137 Pit B	5-11-2021	830	Rain / Fine	20.7	0	0	20,9	30/ (008	5.5
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Name & Designation

Signature

<u>Date</u>

Field Operator:

Fung Che Keung [VTEC] CP

36

5-11 -2021

Laboratory Staff:

Checked by:

POCJV

- 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
XT-XWHM-Y-OR	2021/6/8

Sample location	Date of measurement	Sampling time	Monitoring wells / Surface Gas Emission						
			Weather condition	Balance gas (%)	Flammable gas (methane %)	Carbon monoxide(%)		Temp (°C) / Pressure (mbar)	Remark Depth (m)
137 Pit B	4- [1 -2021	877	Rain / Fine	.0	ಾ	67	20.9	29/ (00)	5.5
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Name & Designation

Signature

Date

Field Operator:

Fung Che Keung [VTEC) CP

32

4-11-2021

Laboratory Staff:

Checked by:

POCJV

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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:

l	Sampling equipment used:	Dates calibrated	ļ
	XT-XWHM-Y-OR	2021/6/8	
7			

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)
137 Pit B	3 - i ( - 2021	8 30	Rain / Fine	2	0	ق _	20.9	29/1009	5.5
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Name & Designation

Signature

Date

Field Operator:

Fung Che Keung [VTEC) CP

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Laboratory Staff:

Checked by:

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- 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
XT-XWHM-Y-OR	2021/6/8

Sample location	Date of measurement	Sampling time	Monitoring wells / Surface Gas Emission						
			Weather condition	Balance gas (%)	Flammable gas (methane %)	Carbon monoxide(%)		Temp (°C) / Pressure (mbar)	Remark Depth (m)
137 Pit B	2 - (/ -2021	832	Rain / Fine	0	0	0	20.9	29/1006	C-5
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	Name & Designation	<u>Signature</u>	<u>Date</u>	
Field Operator:	Fung Che Keung [VTEC) CP	32	2- (/-2021	
Laboratory Staff:				
Checked by:	POCJV		2021	
Environmental Resources M	ANAGEMENT			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
XT-XWHM-Y-OR	2021/6/8

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)
137 Pit B	<u> </u>	§ 30	Rain / Fine	0	0	O	70.7	27/1006	5.5
								/ / / / / / / / / / / / / / / / / / / /	
								/	
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Name & Designation

Date

Field Operator:

Fung Che Keung [VTEC) CP

36

Signature

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Laboratory Staff:

Checked by:

POCJV

- 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

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

Compliant confirm	Date of Sampling time		Monitoring wells/ Surface Gas Emission	Depth (m)	Remark
Sampling Location	Measurement	Sampling time	Carbon Dioxide (%)	Deptili (iii)	Kemark
Агеа А	1 -11-2021	8:30	0.0416		
		13:30	8,6417	5.5	
		17:00	o.c4.5		
Area B	-11-2021	8:45	0,0414		
	·	13:45	٥ ( ١٤ ٤ ع م ١٤ ع م ١٤ ع م ١٤ ع م	2.5	
		16:45	8149.0		
Pit D	Pit D   -11-2021		0,0412		
		14:10	0.0419	12.2	
137 Pit B	ı -11 <b>-202</b> 1	9:45	0.0410	_	
		14:45	6/149.0	8,0	
WPR 1	ì -11-2021	10:05	9.04[7]		
1		15:05	5,1400	3.5	
WPR 2	\ -11-2021	10:15	0.6413	- 3	
		15:15	ځېدای ي	3.&	
WPR 4	: -11-2021	10:25	0.ci42e		
		15:25	ઉ <b>ે</b> પાંઠ	4.3	_
WPR 3	\ -11-2021	10:45	0.64(2	4.	
	•	15:45	c.Diti.	٠,	

Name & Designation Signature Date

Field Operator: Laboratory Staff: Checked by: ( -11 - 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
Pit A	1 -11-2021 10:55 15:55		و. کالالغ 6.0415 -	(3.	
				-,	
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Name & Designation
Signature
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Field Operator:
Laboratory 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

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

2 - 11 - 2021

Sampling Location	Date of Measurement	Sampling time	Monitoring wells/ Surface Gas Emission Carbon Dioxide (%)	Depth (m)	Remark
Area A	211-2021	8:30			
		13:30	0.9421	<del>5</del> .5	
İ		17:00	0.0412	J.,	
Area B	2 -11-2021	8:45	0.0417		
		13:45	0/141/0	2.5	
		16:45	0,04()		
Pit D	2 -11-2021	9:10	9.0414	1.2	
		14:10	0.0415	12-2	
137 Pit B	2 -11-2021	9:45	8140.0	2	
		14:45	5/jij0, c	8	
WPR 1	1 -11-2021	10:05	0.0420	_	
		15:05	0.0417	3.5	
WPR 2	s11-2021	10:15	0.6412		
		15:15	0,0410	3.8	
WPR 4	Ղ -11-2021	10:25	0.0416	Lis	
		15:25	०,०५१४		
WPR 3	١1-2021 ع	10:45	9.0416		
		15:45	0,0420	Li	

Name & Designation Signature Date

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
Pit A	2 -11-2021	10:55	्राभेध	13	
		15:55	७.०५।६		
1					
	-				
				•	
		·			

Name & Designation

Signature

Date

2 - 11 - 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	3 -11-2021	8:30	. 5. 0408		
		13:30	0.6413	5.5	į
		17:00	برا به در ه		
Area B	3-11-2021	8:45	ه ۱۷۵٫ ه		
		13:45	0.0413	2,5	
		16:45	0.5465.		
Pit D	<i>3</i> <b>-</b> 11-2021	9:10	0.0411	12.2	
i 1		14:10	Dights		
137 Pit B	3 -11-2021	9:45	७, अंस १६		
		14:45	كالمؤهري	8	
WPR 1	3 -11-2021	10:05	71.0412		
		15:05	0 146.8	3.5	
WPR 2	3 -11-2021	10:15	O.cup.o		
		15:15	o chil	3 - Š	
WPR 4	11-2021- ي	10:25	0,0446		
		15:25	6,6421	4-3	
WPR 3	-11-2021	10:45	F140.0	1	
		15:45	8,470,0	lf	

Name & Designation

<u>Signature</u>

Date ·

2021 - 11 - ق

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
Pit A	3-11-2021	10:55	بالهادي	1.2	
		15:65	0.6416.	13	
				<u>.</u>	
					-
1					
			-		1
					-
		·			

	Name & Designation	Signature	<u>Date</u>	
ield Operator:			3	- 11 - 2021
aboratory Staff:				
Checked by:				



Contract no. 13/WSD/16 Main:aying 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
Area A	4 -11-2021	8:30	3140,c		
1		13:30	ح اچان و	5.5	
1		17:00	0.0417	2,7	
Area B	<sup>4</sup> -11-2021	8:45	v à4a8		
		13:45	0.6410	2.5	
		16:45	21400		
Pit D	Pit D 4 -11-2021	9:10	0.041!	1- 5	
		14:10	7,200	15.5	
137 Pit B	<sup>14</sup> -11-2021	9:45	7.400		
		14:45	0,su%	8	
WPR 1	4 -11-2021	10:05	0.04(1		
		15:05	0.6417	3.5	
WPR 2	4 -11-2021	10:15	والمنه		
		15:15	8 45 n	ક, દ	
WPR 4	-11-2021	10:25	e-6422	, .	
		15:25	0.1415	4	
WPR 3	4 -11-2021	10:45	9:40.0	1 2	
		15:45	o.c)1/8	4.3	

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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
Pit A	4 -11-2021	10:55	c-0417	i a	
		15:55	s airis	13.	
					<u> </u>
					<del></del>
					-
					<del>                                     </del>

Name & Designation
Signature
Date
4-11 - 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	5 -11-2021	8:30	0.0415		
		13:30	० ६५(६	5.5	
		17:00	0 0416		
Area B	ς-11 <b>-</b> 2021	8:45	7/44.0		
	•	13:45	0.0417	2.5	
		16:45	3,64(4		
-			3/04/13		
			0.04:3		
Pit D	5 -11-2021	9:10	0 0142	12.2	
		14:10	0.6415		
137 Pit B	5 -11-2021	9:45	e 3448	^	
		14:45	0.341	8	
WPR 1	5-11-2021	10:05	FILLS		
İ		15:05	5.NH15	3.5	
WPR 2	5-11-2021	10:15	7,045		
		15:15	0.0247	3.8	
WPR 4	5-11-2021	10:25	9,5419	;	
		15:25	0.0720	4	
WPR 3	5 -11-2021	10:45	0.8427	43	
		15:45	0.041-	4.>	

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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
Pit A	5 -11-2021	10:55		1.7	
		15:55	0.6421	13	
					<b>_</b>
					<del></del>
					+
					ĺ
			_		

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 Signature
 Date

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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
Area A 6 -11-2021	8:30	C-04/			
		13:30	P/+3-0	5.5	
		17:00	8/45.0		
Area B	6 -11-2021	8:45	d i + 3, c		
		13:45	5,6415	25	
		16:45	- £417		
`					
Pit D 6 -11-2021	9:10	0.044	12,2		
		14:10	0.04(3	12.4-	
137 Pit B	( -11-2021	9:45	0.041.3	. 8	
		14:45	0,04:15		
WPR 1	( -11-2021	10:05	0.04;2	_	
		15:05	0.0219	3.5	
WPR 2	€ -11-2021	10:15	3.0418	<b>~</b> 0	
		15:15	0,0421	₹.8 	
WPR 4	€ -11-2021	10:25	5-6419	y	
		15:25	7,500	Ц.	
WPR 3	( -11-2021	10:45	c, x <del>-</del> 2.0	4.3	
	·	15:45	0.0413		

Name & Designation

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Date ·

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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
Pit A	6 -11-2021	10:55	0.0416	13.	
		15:55	41450		
ľ					
j	1		-	•	

Name & Designation

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<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 M01C031772	6/4/2021

Sampling Location	Date of Measurement	Sampling time	Monitoring wells/ Surface Gas Emission Carbon Dioxide (%)	Depth (m)	Remark
Area A	a -11-2021	8:30	e offit		
	_	13:30	0.041.	3.5	
		17:00	0.6417		
Area B	8 -11 <b>-</b> 2021	8:45	0.0415		1
		13:45	0.0415	2.5	
		16:45	0.0412		
			को		
Pit D	Pit D 8 -11-2021	9:10	\$9.5°C	12.2	
		14:10	0.0412	12.0	
137 Pit B	8-11-2021	9:45	c.0415		
		14:45	¢.04 <del>1</del> 4	8	
WPR 1	§ -11-2021	10:05	0 ci4 7	2 5	
		15:05	1145.0	3-5	
WPR 2	ষ −11-2021	10:15	0.0416		
1		15:15	5.0415	3.8	
WPR 4	<u> </u>	10:25	0.014(4	4	
		15:25	0.0415	~ · · · · · · · · · · · · · · · · · · ·	
WPR 3	8 -11-2021	10:45	0.0421	. 2	
	15	15:45	0.0416	4.3	

Name & Designation

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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
Pit A	g -11-2021	10:55	ع . وبناج	. =	
	15:55	0.0465	13		
					-
į					
1					
					-
					İ
		<u> </u>	<del>                                     </del>		

Name & Designation

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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
Area A	9 -11-2021	8:30	. ج رياديو		
		13:30	ი ე <u>ა</u> :13	S-5	
		17:00	7 143 0		
Area B	q -11-2021	8:45	گردخان د		
	'	13:45	حرّ: الجَارة = ٥	25	İ
		16:45	0.04.6		
Pit D	ने <b>-11-20</b> 21	9:10	©,04-5 <del>1</del>	12.2	
		14:10	0.044		
137 Pit B	4 -11-2021	9:45	o, 5 <sup>14</sup> 0 <sup>9</sup>	8	
		14:45	3. NH. =		
WPR 1	ዓ -11-2021	10:05	0 246		
		15:05	0.0415	3.2	
WPR 2	9 -11-2021	10:15	9.04.0	7.0	
		15:15	3.0445	3.8	
WPR 4	9 -11-2021	10:25	0.0440	4.	
		15:25	0.04.7	Ц	
WPR 3	9 -11-2021	10:45	3,414	1 _ :	
	15:4	15:45	3,0414.	4.3	

Name & Designation

<u>Signature</u>

<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
Pit A	e -11-2021	10:55	0,040	13	
		15:55	0:045		
					+
,					
					-

 Name & Designation
 Signature
 Date

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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
Area A	Area A (9 -11-2021	8:30	3,0408		
		13:30	0.0413	5.5	
		17:00	0.040		
Area B	io -11-2021	8:45	0.0 <sup>4</sup> 4 c <sup>2</sup> 4		
		13:45	0.0415	25	
		16:45	0.0416		
	-				
Pit D	Pit D [0-11-2021	9:10	0,040		
		14:10	इ. हिस्से इ	12.2	
137 Pit B	is -11-2021	9:45	Porio, o	8	
		14:45	6.044	0	
WPR 1	lo -11-2021	10:05	0.045	· -	
		15:05	ەبىئان. ج	3/2	
WPR 2	(0 -11-2021	10:15	5.041.0	3 6	
		15:15	0.04[5	3.8	
WPR 4	10 -11-2021	10:25	E 0420	4	
		15:25	0.8412	*	
WPR 3	io -11-2021	10:45	3,04,5	4,3	
	1	15:45	०,८५१४	ч.,	

Name & Designation

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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
Pīt A	10 -11-2021	10:55	0.04()	. 2	
		15:55	0.04%	13	
					<u> </u>
			·		

Name & 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

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	11-2021	8:30	8140.5		
ļ		13:30	0.0411	2.5	
		17:00	6.6417		
Area B	11-11-2021	8:45	2.0412		
		13:45	٥٥٥١٤٦٥	2.5	i
		16:45	0,0416	2.3	
Pit D	1: -11-2021	9:10	3.946		
		14:10	c. 04/4	12.2	
137 Pit B	(-11-2021	9:45	3.6439	c	
		14:45	0.cp (r	8	
WPR 1	<u> </u>	10:05	0.6450		
		15:05	البان،ه	3.5	
WPR 2	11-2021	10:15	وبيلوه		
		15:15	0.04/5	3.8	
WPR 4	[1-11-2021	10:25	0.0425	1	
		15:25	2,6415	Ъ	
WPR 3	i\-11-2021	10:45	0.04/6	1. 2	
		15:45	a. তুমার .	4.3	

Name & Designation

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(լ - 11 - 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
Pit A	H -11-2021	10:55	6 0421	١3	
		15:55	3.0 <sup>6</sup> 45		
					1
1					
			·		
					_ <u>_</u>
1		Į.			

lame & Designation	Signature	<u>Date</u>
		<u> 11 - 2021</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

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	12-11-2021	8:30	80400		
		13:30	c 10413	5.5	
		17:00	0.6412		
Area B	12-11-2021	8:45	8,0448		
	_	13:45	5.64iS	2.5	
		16:45	૭.હમ્સંડ		
	* .				
Pit D	(2-11-2021	9:10	0.04cq		
		14:10	0.04(2	12.2	
137 Pit B	(z11-2021	9:45	6.0405	8	
-		14:45	0.10:41.11	3	
WPR 1	ኒ-11-2021	10:05	6,0+10	2 4-	
		15:05	व <u>०५। ५</u>	3.5	
WPR 2	1211-2021	10:15	0.04(2	~ D	
ŀ		15:15	<b>り</b> (中)	3.8	
WPR 4	اک -11-2021	10:25	5:0415	L.	
	15:25	0.0412			
WPR 3	(2-11-2021	10:45	2)جلاره	i. 7	1
		15:45	F/F0.3	4.3	

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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	

(と - 11 - 2021

Sampling Location	Date of Measurement	Sampling time	Monitoring wells/ Surface Gas Emission Carbon Dioxide (%)	Depth (m)	Remark
Pit A	2 -11-2021	10:55	0 ·9ri(Z	13	
	15:55	15:55	6.8415	· >	
		-			
	.,				
					1
					1

Name & 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

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	13-11-2021	8:30	. 6.0413		
		13:30	c.04!3	5.5	
		17:00	0.3417	J.,	
Area B	3 -11-2021	8:45	2040.0		
	•	13:45	0,64/3	2.5	
		16:45	6,04%		
-					
Pit D	۱۵ <b>-11-202</b> 1	9:10	0.0409		
		14:10	2.94.4	12.2	
137 Pit B	(3 -11-2021	9:45	1140.0		
i		14:45	6.04.14	8	
WPR 1	ও -11-2021	10:05	E, e4173		
		15:05	6.0415	3.5	
WPR 2	(3 -11-2021	10:15	0/4/0		
		15:15	0.6412	3/8	
WPR 4	(3-11-2021	10:25	0.04-11		
l		15:25	c. 2415	- 4	
WPR 3	13 -11-2021	10:45	ن رنبر آخ	1.2	
			ن رولد إنه	لبرع	

Name & Designation

Signature

<u>Date</u>

13 - 11 - 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
Pit A	13-11-2021	10:55	0,0413	. 2	
		15:55	0.0415	13	
-					
					<u> </u>
					+

Name & Designation

Signature

<u>ate</u>

13 - 11 - 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	15 -11-2021	8:30	- 5 OH3a		
		13:30	5,543	5.5	
		17:00	کاربن <sub>ه ر</sub> ه		
Area B	i5 -11-2021	8:45	3,046!		
		13:45	a.0413	2٠۶	
1		16:45	0 0415		
·		-			
Pit D	15 -11-2021	9:10	5,94fs	12.2	
		14:10	०.७५/व		
137 Pit B	15 -11-2021	9:45	3,0419	8	
		14:45	0.0415		
WPR 1	ls -11-2021	10:05	C.54to	<i>š.</i> 5	
		15:05	ं,र्डम्ट	2:3	
WPR 2	15 -11-2021	10:15	0.04(5	3.8	
		15:15	٥.٥٤١٥	>. 6	
WPR 4	15 -11-2021	10:25	0,0471	Ĺų ·	
		15:25	0.647		
WPR 3	15 -11-2021	10:45	0.024(3	4,3	
		15:45	1.8415		

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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 M01C031772	6/4/2021

Sampling Location	Date of Measurement	Sampling time	Monitoring wells/ Surface Gas Emission Carbon Dioxide (%)	Depth (m)	Remark
Pit A	15 -11-2021	10:55	0-34(5	13	
		15:55	6.0411		
Pit B	15-11-2021	11:05	5.0410	9	
		16:65	0,140.0	1.	
		-			
					1.
					-

 Name & Designation
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 Date

 (5 - 11 - 2021)
 (5 - 11 - 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

tes calibrated
4/2021

Sampling Location	Date of Measurement	Sampling time	Monitoring wells/ Surface Gas Emission  Carbon Dioxide (%)	Depth (m)	Remark
Area A	is -11-2021	8:30	ن بالن و		
		13:30	6:140.0	5,5	İ
		17:00	०.०भ?		
Area B	ių -11-2021	8:45	8545.5	-	
	v	13:45	6.0413	2.5	
		16:45	ها (ښن و		
Pit D	!6 -11-2021	9:10	βρός, ο	13,2	
		14:10	2,64,4		
137 Pit B	!6 -11-2021	9:45	F1+10.0	8	
		14:45	0.446		
WPR 1	11-2021 - ا	10:05	2.04]2	3.5	
		15:05	0,04(3	<i>7</i> 13	
WPR 2	6 -11-2021	10:15	ક.ઇમાર્ષ્ટ	3.8	
		15:15	ढ. ० <del>५</del> । १ु	) (0	
WPR 4	16 -11-2021	10:25	0.5477	4	
		15:25	5.6420		
WPR 3	16 -11-2021	10:45	0.β0, 0	ليح	
		15:45	ويزاني و	7.7	<u> </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
Pit A	i6 -11-2021	10:55	5.042)	(3	
		15:55	5 12 to 12		
Pit B	\6-11 <b>-</b> 2021	11:05	5 0+15	•	
		16:05	2 947	<del>-</del> 7	

Name & Designation

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<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

Dates calibrated
6/4/2021

Sampling Location	Date of Measurement	Sampling time	Monitoring wells/ Surface Gas Emission Carbon Dioxide (%)	Depth (m)	Remark
Area A	17 -11-2021	8:30	2.047		
		13:30	0.5413	5-5	
		17:00	ه رونېدر ۲		
Area B	₹7-11-2021	8:45	ુ . હત્ત્ર્ય ફ		
		13:45	٥ د منډي ح	2.5	
		16:45	C:0416		
2					
137 Pit B	7 -11-2021	9:45	) mid!	ş	
1		14:45	49 440.0	<i>y</i>	
WPR 1	17-11-2021	10:05	9.5415	٦ ~	
		15:05	১.৬৸7	3.5	
WPR 2	7-11-2021	10:15	2.0411	3.8	
		15:15	0.8412	>. c	
WPR 4	11-2021 - דו	10:25	g.6¥P1	4	
		15:25	6,4407	4	
WPR 3	7 -11-2021	10:45	8,3415	4,3	
İ		15:45	¢,c415	1()	

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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
Pit A	\7 -11-2021	10:55	ع بخانه ک	.7	
	,	15:55	2040s. C	13.	
Pit B	(7 -11-2021	11:05	111/10.0	۵	
		16:05	5.04/6	9	
<u>.</u>					
		,			İ
		-			
i					

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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 M01C031772	6/4/2021

Canadian Lagation	Sampling Location Date of Sa		Sampling time Monitoring wells/ Surface Gas Emission		Remark
Sampling Location	Measurement	Sampling line	Carbon Dioxíde (%)	Depth (m)	Kemark
Area A	ıs -11-2021	8:30	8240, c		
		13:30	8 .6 <sup>14</sup> 13	5.5	
		17:00	0.0418		
Area B	18 -11-2021	8:45	8/ 4/0,0		
		13:45	c,04 <sup>(3</sup>	2,5	
		16:45	ठ.० <b>५</b> ।\$		
· ·					
137 Pit B	<sub>₹ -11-2021</sub>	9:45	0.6413		
	-	14:45	د ۱۴۹۱ ح	8	
WPR 1	/8 -11-2021	10:05	0.6411	7.5	
		15:05	co#i3	»:>	
WPR 2	19 -11-2021	10:15	c.offix	3-8	
		15:15	C (AT :		
WPR 4	<sup>'ç</sup> -11-2021	10:25	९,०६४ ६	).	
		15:25	2143.3	4	
WPR 3	18 -11-2021	10:45	6.0415	, 7	
	15:45	6.8 <sup>1</sup> 45	4.3	l	

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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
Pit A	18 -11-2021	10:55	c-3H0	iz	
1		15:55	0:04/5	ر ا	
Pit B	լջ -11 <b>-</b> 2021	11:05	e. e4; !	9	
		16:05	0,546		
					_ ·
					İ

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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	<u>'ণু -11-2021</u>	8:30	. <sub>6.95</sub> ,		
		13:30	4.07(2	5.5	
		17:00	۸,04,6		
Area B	iq -11-2021	8:45	و .ولا: ۲		
		13:45	0.041)	2,5	
		16:45	७,७५९		
	-				
	-				
WPR 1	i9 -11-2021	10:05	ه ،دنباري		
ì		15:05	1120,0	3.5	
WPR 2	II -11-2021	10:15	0.64(15	3,8	
		15:15	3.0019		
WPR 4			ے اِبْدہ ہ	ц.	
-		15:25	وَنان ه		
WPR 3	(9 -11-2021	10:45	6.0414		
		15:45	0,0419	4.>	

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<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
Pit A	ነት -11-2021	10:55	0.6421	5.7	1
1		15:55	٥ ر د کړ لام	13	
Pit B	19 -11-2021	11:05	2,049	Q	
		16:05	9:04/18	\ 	
·					

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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
Area A	Area A 2º -11-2021		V:04{2_		
		13:30	مړيانۍ و	5.5	
		17:00	3.9416		
Area B	. zo -11-2021	8:45	३०५४म		
		13:45	وتابان و	2.5	
		16:45	ه ایکن ه		
			·		
WPR 1	WPR 1 2c -11-2021		0.0410		
		15:05	০.১৮ছে	3.5	
WPR 2	11-2021 - <sub>2</sub> ه	10:15	0,3413		
	-	15:15	0.0415	3-3.	
WPR 4	20 -11-2021	10:25	0,8412		
		15:25	5.0425	4	
WPR 3	211-2021	10:45	4140.8	1 2	
		15:45	ا دیان	4.3	

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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	

Date of Measurement	Sampling time	Monitoring wells/ Surface Gas Emission Carbon Dioxide (%)	Depth (m)	Remark
Pit A 2.6 -11-2021		agu IÇ		
	15:55	د والم الم	13	
<sub>70</sub> -11-2021	11:05	0,644	Q	
	16:05	3.0410		
	,			_
		Measurement Sampling time  2.6 -11-2021 10:55	Measurement         Sampling time         Carbon Dioxide (%)           2.6 -11-2021         10:55         ag416           15:55         5.9420           25 -11-2021         11:05         3,642	Measurement         Sampling time         Carbon Dioxide (%)           2.6 -11-2021         10:55         agulf           15:55         c.6425           20 -11-2021         11:05         getti

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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
Area A	22 -11-2021	8:30	. e. o+zi		
		13:30	9.0416	5.5	
		17:00	1960	<u>-</u>	
Area B	22 -11-2021	8:45	5°04°0°.		
		13:45	e 0112 <u>1</u>	25	
		16:45	ئا <sup>ما</sup> د ده	·	
WPR 1	3z-11-2021	10:05	3,64(!	· · · · · · · · · · · · · · · · · · ·	
		15:05	21,512	3.5	
WPR 2	27 -11-2021	10:15	J.0485	3.8	
		15:15	5.8415	3.8	
WPR 4	22 -11-2021	10:25	و. تاجده	4	
	15:25		و ر <sup>ه ن</sup> ميذ	٩	
WPR 3	22 -11-2021	10:45	c.@413	4.3	
		15:45	2.6414	¬./	

Name & Designation Signature Date - 11 - 2021



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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
Pit A	22 -11-2021	10:55	0.0415	, -	
		15:55	0.045	!5	
Pit B	շշ -11-2021	11:05	004/1	٩	
		16:05	૭.હમ્ <u>ય</u> ાં		
				· ::	
		,,,			
		1			

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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	

23 - 11 - 2021

Sampling Location	Date of Measurement	Sampling time	Monitoring wells/ Surface Gas Emission Carbon Dioxide (%)	Depth (m)	Remark
Area A	<sup>25</sup> -11-2021	8:30	3,640		
į		13:30	e v=21	5.5	
		17:00	0.6417		
Area B	23 -11-2021	8:45	0.01173		
		13:45	طابده. ٥	2.5	
		16:45	०,५५%	_	
		·	<u> </u>		
WPR 1	<u> 2</u> 3 -11-2021	10:05	0.0110		
		15:05	0.0415	3.5	
WPR 2	23 -11-2021 10:15	73 -11-2021	0.6417		
		15:15	0.443	3.8	
WPR 4	23-11-2021	10:25	e.su(\$		
		15:25	6.04.21	4	
WPR 3	23 -11-2021	10:45	5,641	4.3	
	15:45		8.8217	41.7	

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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
Pit A	<sub>13</sub> -11-2021	10:55	£140.5	: 7	
	•	15:55	T; 410, 0	13	
Pit B	11-2021 - رَحَ	11:05	0.8415	4	-
	·	16:05	છે.દ−કે દે	, T	

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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
Area A	24 -11-2021	8:30	- D.0444		
		13:30	E. O. 7	5-5	
		17:00	P.445.0		
Area B	건( -11-2021	8:45	9:0422		
:		13:45	0.0412	2.5	
j		16:45	e.0414		
			45		
1			·		
WPR 1	24 -11-2021	10:05	0.6411		
	-,	15:05	9,440.0	3,5	
WPR 2	շч -11-2021	10:15	خاباه، ه		
	-,	15:15	0.424	8,2	
WPR 4	य <u>६</u> -11-2021	10:25	0.0415		
		15:25	و منبوه	4	
WPR 3	24 -11-2021	1C:45	¢ n 15	i	
	15:45	7 1-49.0	4.3		

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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
Pit A	과 -11-2021	10:55	0.6€1Z	13	
		15:55	0.0415		
Pit B	24 -11-2021	11:05	ક . ઉપરો પં	9	
		16:05	e,ett/5		
					-
		1			
			<del>                                     </del>		

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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
Area A	11-2021 ج	8:30	0,042		
		13:30	6.041.7	5.5	
		17:00	7140,0		
Area B	11-2021 - کد	8:45	2,940.6	2.5	
	13:45	2.0411	2.3		
!		16:45	c.9415		
			::		
		-			
WPR 1	25 -11-2021	10:05	2.6410	· ·	
		15:05	5,6412	3,5	
WPR 2	25 -11-2021	10:15	0.0413	3.8	
		15:15	e.di.i 7	7.0	
WPR 4	<u> 15 -11-2021</u>	10:25	ક.ડ્યાર	4	
		15:25	0 x34 {5		
WPR 3	<b>ತ</b> ≲ -11-2021	10:45	6.44.3	ä.5	
	15:45	15:45	ما اجود ه		

Name & Designation Signature Date

Field Operator: Laboratory Staff: Checked by: 25 - 11 - 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
Pit A	ರ್11-2021	10:55	٥,وله ال	ί>	
	_	15:55	٩٣٥.٥	()	
Pit B	25 -11-2021	11:05	r Stil	ą	
		16:05	0:6416	ſ	
					ļ <u>.</u>
-					
					-
		.n-			

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 Date

 25 - 11 - 2021
 25 - 11 - 2021



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

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

0 " 1 "	Date of	Date of Sampling time	Monitoring wells/ Surface Gas Emission	Depth (m)	Remark
Sampling Location	Measurement	Sampling time	Carbon Dioxide (%)		
Area A	ے -11-2021	8:30	C 10/4.22		
	·	13:30	والهنون و	5.5	
		17:00	0.0417		
Area B	z6 -11-2021	8:45	6.34.68		
		13:45	څ نېال چ	2.5	
İ		16:45	0.04[4		
_					
WPR 1	ช⁄11-2021	10:05	0.04%	3.5	
		15:05	0.042		
WPR 2	16 -11-2021	10:15	المراجعة الم	- ^	
		15:15	0.044%	3.8	
WPR 4	26 -11-2021	10:25	0.04[7]	, ·	
		15:25	1143.0	ц .	
WPR 3	د -11-2021	10:45	0.8415	4,3	
		15:45	0.0415	4.)	

Name & Designation

Signature

Date ·

26 - 11 - 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)	Remarl
Pît A	26 -11-2021	10:55	C.0141 Z	13	
	15:55	المنافع والم	()		
Pit B	Pit B 26 -11-2021	11:05	ے پیش ج	e).	
		16:05	3.640}	<u> </u>	
		<del></del>			
					1
		-			

Name & Designation

Signature

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26 - 11 - 2021



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

Penta-Ocean - Concentric Joint Venture

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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	Area A 27 -11-2021	8:30	خ کېلغه ه		
		13:30	\$ \$ \strain 1	2.2	
		17:00	7 آپاه، ه		:
Area B	27 -11-2021	8:45	₹ابنوره		
		13:45	<b>૦.૭</b> ધા (	2.5	
		16:45	240,0		
	-				
WPR 1	11-2021 קב	10:05	s.c417	3.5	ľ
		15:05	0.8410		
WPR 2	27 -11-2021	10:15	0.0411	3.8	
		15:15	0.0415	~ 0	
WPR 4	27 -11-2021	10:25	0,4412	Ц .	
		15:25	8.64.7		
WPR 3	27 -11-2021	10:45	0,46,0	4.3	
		15:45	5 8i+!5	,	

Name & Designation Signature

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11 - 2021 - 11



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
Pit A	27-11-2021	10:55	0.045		
,	15:55	3.04(5	!3		
Pit B	27 -11-2021	11:05	Q:0\\;\\	ą	
		16:05	ુ.હપ્સંક		
		<u> </u>			
		-			
		ļ			

Name & Designation

<u>Signature</u>

<u>Date</u>

داً - 11 - 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
Агеа А	29-11-2021	8:30	0.7413		
		13:30	2.24.9	5.5	
		17:00	ુ. હવ[ન		
Area B	2.5 -11-2021	8:45	0.8415		
		13:45	0.0413	2.5	1
		16:45	0.0-11 <sub>0</sub>		
		·			
WPR 1 26	1 29 -11-2021	10:05	ونباه. و	3.5	
		15:05	9-5-9	> '>	
WPR 2	zr -11-2021	10:15	\$1,0×1,5	3.8	
		15:15	0.0 <sup>1</sup> -0.5	3.0	
WPR 4	29 -11-2021	10:25	8/14/0.3	24	
		15:25	0.04[7	<u>د</u>	
WPR 3	29 -11-2021	10:45	3/42.0	4.3	
		15:45	૩.૦૫૨૧	4.7	

Name & Designation

<u>Signature</u>

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29 - 11 - 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
Pit A	2โ -11-2021	10:55	0.041	13	
		15:55	9:40,5	1)	
Pit B	29 -11-2021	11:05	2:048	9	
		16:05	5 اشبه ق		
			7.7		

Name & Designation

Signature

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29 - 11 - 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	

30 - 11 - 2021

Sampling Location	Date of	Compling time	Monitoring wells/ Surface Gas Emission	Dante (m)	D
Sampling Location	Measurement	Sampling time	Carbon Dioxide (%)	Depth (m)	Remark
Area A	11-2021-دژ	8:30	3040,0		
		13:30	د ایسان ۵	5.5	
		17:00	7,44,0	3.3	
Area B	30 -11-2021	8:45	0.0418		
		13:45	0.0413	25	
		16:45	المام و المام و المام و المام و المام و المام و المام و المام و المام و المام و المام و المام و المام و المام و		
-					
WPR 1	3ა -11-2021	10:05	0 WH3		
		15:05	ō 4415	3,2	
WPR 2	ჳ₀ -11-2021	10:15	0.6421		
		15:15	6,3416	3.8	
WPR 4	5c -11-2021	10:25	e ,049,6	,	
		15:25	م باشائه ه	Ċ.	
WPR 3	3 <sub>9</sub> -11-2021	10:45	T140.0	J	
		15:45	0.6412	76.2	

Name & Designation 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

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
Pit A	30 -11-2021	10:55 15:55	o.0412	13	
	-				

Name & Designation Signature Date
Field Operator:
Laboratory Staff:

Signature Date
30-11-2021

Checked by:



Appendix K

Complaint Log and Regulatory Compliance Proforma



## **Statistical Summary of Environmental Complaints**

Reporting Period	Environmental Complaint Statistics		
	Frequency	Cumulative	Complaint Nature
01 November 2021 - 30 November 2021	0	3	N/A

#### **Statistical Summary of Environmental Summons**

Reporting Period	Environmental Summons Statistics			
	Frequency	Cumulative	Details	
01 November 2021 - 30 November 2021	0	0	N/A	

#### **Statistical Summary of Environmental Prosecution**

Reporting Period	Environmental Prosecution Statistics		
	Frequency	Cumulative	Details
01 November 2021 - 30 November 2021	0	0	N/A



Appendix L

Site Inspection Proforma



	Contract no. 13/WSD/16 Mainlaying in Ts	
	WEEKLY ENVIRONMENTAL INSPECTION	
	den Date: 04/11/201 Inspected by: ET: Charleus Lai Contractor: 04/01/5	WSD. Trany kin for IEC: N/A
Inspect	ion line: 00-00 = 12. 50	
Condi	tton Stunny Fine Overcast Drizzle Rein	Storm
Тетр	erature 29 C Humidity Figh Modern	Low
Wind	Calm Light Breeze Strong	
Γ		N/A Yes No Photo/Remarks
	General  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	
1.01	Are dusty materials, such as excavated materials, building debris and construction	[ (Ob) 5)
100	materials, and exposed earth surface properly covered to prevent dust emission?	Restournment Restaurnment Lanauteurs de
1.02	Are screenings, enclosures, water spraying or vacuum cleaning devices provided to dusty construction works for dust suppression?	063(3)
1.03	Are funes or smoke emitting plants or construction activities shielded by a screen?	
1.50	and runes of single containing plants of consulterior activities sincided by a scient	m fumer small
1.04	Are whoel-washing facilities with high-pressure water jets provided at all site exits?	
1.05	Is wheel-washing provided to all vehicles leaving the site?	ИПП
1.06	Are road section near the site exit free from dusty material?	[ ] seminder(3)
1.07	Are all main haul roads inside the site paved or sprayed with water to minimize dust	Paved.
1.00	emission during vehicle movement?	
1.00	Are water spraying provided immediately prior to any loading or transfer of dusty materials?	Obs (5)
1.09	Are covers provided to all dump trucks carrying dusty materials when entering and leaving the site?	Mo dump finds
1.10	Are the working areas for uprooting of trees, shrubs, or vegetation or the removal of	
	boulders, poles, pillars sprayed with water to maintain the entire surface wet?	
1.11	Is exposed earth properly treated within six months after the last construction activity on site?	
1.12	Does the operation of plants on site free form dark smoke emission?	B.NRMM la



	Acuity Sustainal				
	Sustainability				
	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?			- 2	73
1.14	Are stock of more than 20 bags of cement or day PFA covered or sheltered on top and 3 sides?				15.5.3
1.15	Are de-bagging, batching and mixing processes of bagged cement carried 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?				
1.17	Is open burning prohibited?		$\overline{\Box}$		
2.00	Construction Noise (Airborne)				
2.01	Are quiet plants adopted on site?				/ DAME (ALM
2.02	Are the PMEs operating on site well-maintained to minimize the generation of excessive niose?				inspection
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?		П	П	2 no resit to
2.05	Are moveable barriers provided to screen NSRs from plant or noisy operations?				NEW TO NOK
2.06	Are silencers, mufflers and enclosures provided to plants?			П	
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 site?				
2.11	Are valid noise emission label(s) affixed to all air compressors operating on site?				
2.12	Arc 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	Arc valid construction noise permit(s) displayed at all vehicular exits?				
3.00	Water Quality	- Indiana	7		
3.01	Is effluent discharge license obtained for wastewater discharge from site?				
3.02	is offluent discharged according to the effluent discharge license?				0b (h
3.03	Is wastewater discharge from site properly treated prior to discharge?	П			sh (r)

Page 2 of 6



	Contract no. 13/WSD/16 Mainlaying in Tso	eung Kwa N/A	n O Yes	No	Photo/Remarks
3.04	Are perimeter channels provided to intercept storm runoff from outside the site?				3
				Ш	018(3)
3.05	Are sand/silt removal facilities such as sand/silt traps and sediment basins provided to remove sand/silt particles from runoff?				= <del>0 (3(P)</del>
3.06	Is surface runoff diverted to sedimentation facilities?	$\overline{}$	$\overline{\Box}$	П	さからいり (新)
			<u> </u>	Ш	30,007 (341)
3.07	Is the drainage system properly maintained?				no milder (1)
3.08	Are construction works carefully programmed to minimize soil exeavation works during	П		П	
2.00	rainy seasons?				
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 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,			П	
	backfilled in short sections after excavation?			Ш	
3.13	Are open stockpiles of construction materials on site covered by tarpaulin or similar fabric during construction?				ous (5)
3.14	Is runoff from wheel-washing facilities avoided?				
3.15	Is oil leakage or spillage prevented?				olas (4) Nen
3.16	Are there any measures to prevent the release of oil and grease into the storm drainage system?				Obstup (4) non
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?				reminder (4)
3.19	Are all fuel tanks and storage areas provided with locks and be sited on scaled areas.	П		П	
	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			П	······································
	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?	K	П	П	
4.00	Waste Management				
4.01	is a trip-ticket system implemented to monitor the disposal of C&D and solid wastes at public filling facilities and landfills?	П			
			Lucional		

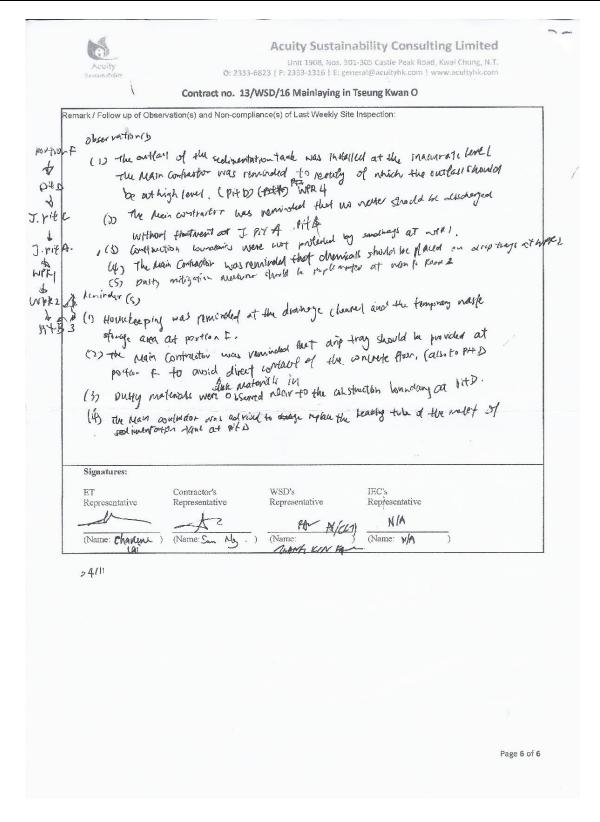


	Contract no. 13/WSD/16 Mainlaying in	Tseung Kw	an O		
		N/A	Yes	No	Photo/Remarks
4.02	is a recording system implemented to record the amount of wastes generated, recycled a disposed of?	nd 🔲			
4.03	is the Contractor registered as a chemical waste producer?				
4.04	Are chemical waste separated from other waste and collected by a licensed chemical was collector?	ste			
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?				Management
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?	$\top \Box$			
4.11	Is an impermeable floor and bunding, of capacity to accommodate 110% of the volume of the chemical waste stored in that area, whichever is a greatest, provide?				
4.12	Are a routine cleaning and maintenance programme implemented for drainage systems, sur pits, and oil interceptors?	np			remainder (11)
4.13	Are sufficient general refuse disposal/collection points provided on site?				
4.14	Is general refuse disposed of properly and regularly?				reminder (17
4.15	Are appropriate measures adopted to minimize windblown litter and dust during transportation waste?	of			
4.16	Are individual collectors for aluminum cans, plastic bottles and packaging material and off paper provided to encourage waste segregation?	ice 🔲			
4.17	Are C&D wastes sorted on site?				
4.18	Are C&D waste disposed of properly?				reminder (17
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 contamination?	or			Obs (4)
4.22	is a dumping license obtained to deliver public fill to public filling areas?				photograph and a second
	4/11				



	O: 2333-6823 [ F: 2333-1316 ] E: gener.				
	Contract no. 13/WSD/16 Mainlaying in Ts	N/A	Yes	No	Photo/Remarks
5.00	Landscape and Visual				
	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?				SEPTEMBER STATE OF THE SEPTEMBER STATE OF THE
5.04	is grass hydroseeding provided to slopes as soon as the completion of works?				
5.05	Are damages to trees outside site houndary due construction works avoided?				*
5.06	Is excavation works carried out manually instead of machinery operation within 2.5m vicinity of any preserved trees?				
	Are the retained and transplanted tree(s) properly protected and in good conditions?				
5.08	Are surgery works carried out for damaged trees?				
	Ecology  Is site runoff properly treated to prevent any silly runoff?				ols (7)
6.02	Are silt trap installed and well-maintained?				
6.03	Are stockpiles properly covered to avoid generating silty runoff?				Sbs(5)
6.04	Are construction works restricted to works area which are clearly defined?				
1	Overall Is the EM&A properly implemented in general?		$\angle$		7
	4111				
					. 13







	Contract no. 13/WSD/16 Mainlaying in Ts	seung Kwan O
	WEEKLY ENVIRONMENTAL INSPECTION	N CHECKLIST
Inspectio	20 A A A	WSD: Tocka Chun IBC MA
	n Time: 841335 - (0156	184. 184
Weathe		Storm Hazy
Тешрег	nture 28 C Humidity High Moderat	is Lew
Wind		
		N/A Yes No Photo/Remarks
		NA 1 ES NO PHOTO REMAINS
	General	
	s the current Environmental Permit displayed conspicuously at all vehicle site attrances/exits for public's information at any time?	
	s ET Leader's log-book kept readily available for inspections?	
	Construction Dust  Are dusty materials, such as excavated materials, building debris and construction	Feminaler Co
	naterials, and exposed earth surface properly covered to prevent dust emission?	
	Are screenings, enclosures, water spraying or vacuum cleaning devices provided to dusty	- Reminder C
	onstruction works for dust suppression?	
1.03	Are fames or smoke emitting plants or construction activities shielded by a screen?	No fame Isnou
		antity that
1.04	Are wheel-washing facilities with high-pressure water jets provided at all site exits?	mentel
1.05	s wheel-washing provided to all vehicles leaving the site?	
1.00	a whole-washing provided to an volitors for mg the site.	
1.06	Are road section near the site exit free from dusty material?	
	Are all main haul roads inside the site paved or sprayed with water to minimize dust	To gove de
	mission during vehicle movement?  Are water spraying provided immediately prior to any loading or transfer of dusty	No frankly
	are water spraying provided infinediately prior to any roading of dataset of dasky	under of d
	Are covers provided to all dump trucks carrying dusty materials when entering and	mo dum to
	caving the site?  Are the working areas for uprooting of trees, shrubs, or vegetation or the removal of	
	oulders, poles, pillars sprayed with water to maintain the entire surface wet?	
	s exposed earth properly treated within six months after the last construction activity on ite?	
	Does the operation of plants on site free form dark smoke emission?	065 (1)



-	Contract no. 1	3/WSD/16 Mainlaying in	Tseun	g Kwa N/A	n O Yes	No	Photo/Remarks	
				1074	103	140	I II O TO A CONTROL	
1.13	Are vehicles travelling at speed not exceeding 15km/l	nr within the site?		7				
1.14	Are stock of more than 20 bags of cement or day PI sides?	A covered or sheltered on top a	nd 3					
1.15	Are de-bagging, batching and mixing processes of ba areas?	gged cement carried out in shelte	rod [	/		П		
1.16	Are hoarding of at least 2.4m high provided along the accessible by the public?	site boundary adjoining areas		1				
1.17	Is open burning prohibited?							
2.00	Construction Noise (Airborne)				<b></b> ,	-	lake	9
2.01	Are quiet plants adopted on site?				M		(noise labo	
2.02	Are the PMEs operating on site well-maintained to m niose?	inimize the generation of excessi	ve [				(require	
2.03	Are plants throttled down or turned off when not in u	se?	<b>—</b> [					_
2.04	Are the plants known to emit noise strongly in one di NSRs?	rection oriented to face away fror		M			1 tren on y	
2.05	Are moveable barriers provided to screen NSRs from	plant or noisy operations?		DAY.			I near as	
2.06	Are silencers, mufflers and enclosures provided to pla	mts?		7				
2.07	Are the hoods, cover panels and inspection hatches o	PMFs closed during operation?						
2.08	Are purposely-built site hoarding construction with a the site boundary?	ppropriate materials provided alo	ng [				-	
2.09	Are noisy operation properly scheduled to minimize nearby sensitive receivers?	exposure and cumulative impacts	to [		Z			
2.10	Are valid noise emission label(s) affixed to all hand-	neld breakers operating on site?		Z				
2.11	Are valid noise emission label(s) affixed to all air cor	npressors operating on site?		$\overline{Z}$				
2.12	Are all construction noise permit(s) applied for percu				Z			
2.13	Are construction noise permit(s) applied for general of hours?	construction works during restrict	ed [		Z			
	Are valid construction noise permit(s) displayed at al	l vehicular exits?						
3.00 3.01	Water Quality Is effluent discharge license obtained for wastewater	discharge from site?					with the Management and American	
3.02	is effluent discharged according to the effluent discharged	arge license?		Z			Zino water	
3.03	Is wastewater discharge from site properly treated pri	or to discharge?		1			) observe	٨.
12	///							



	Contract no. 13/WSD/16 Mainlaying in Tse	N/A	Yes	No	Photo/Remarks
			2 00		11000100100100
3.04	Are perimeter channels provided to intercept storm runoff from outside the site?				No naturalis
3.05	Are sand/silt removal facilities such as sand/silt traps and sediment basins provided to remove sand/silt particles from runoff?		П		observed.
3.06	Is surface runoff diverted to sedimentation facilities?	Z			
3.07	Is the drainage system properly maintained?				
3.08	Are construction works carefully programmed to minimize soil excavation works during	П	7	П	
3.09	rainy seasons?  Are exposed soil surface protected by paving as soon as possible to reduce the potential of	П		П	
3.10	soil erosion?  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?		T		
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?			П	
3.15	Is oil leakage or spillage prevented?				
3.16	Are there any measures to prevent the release of oil and grease into the storm drainage system?				
3.17	Are the oil interceptors/ grease traps properly maintained?				
3.18	Are debris and rubbish generated on site collected, handled and disposed of properly to avoid them entering the streams?				
3.19	Are all fuel tanks and storage areas provided with locks and be sited on sealed areas, within bunds of capacity equal to 110% of the storage capacity of the largest tank?		Z		
3.20	Arc tanks, containers, storage area bunded and the locations locked as far as possible from the sensitive watercourse and stormwater drains?		Z		
3.21	Are sufficient chemical toilets provided on site to handle sewage from construction work force?	П			
3.22	Are sewage disposal and toilet maintenance of the portable chemical toilets provided by the fivensed contractors?	П	7	П	
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?				

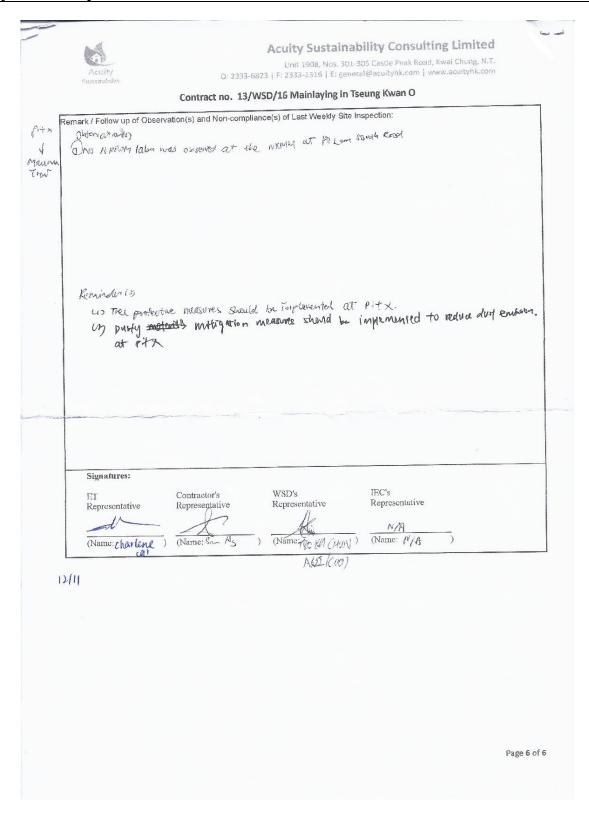


	Contract no. 13/WSD/16 Mainlaying in Ts	eung Kwa N/A	Yes	No	Photo/Romarks
4.02	Is a recording system implemented to record the amount of wastes generated, recycled and			П	
	disposed of?				
4.03	Is the Contractor registered as a chemical waste producer?		/		
4.04	Are chemical waste superated from other waste and collected by a licensed chemical waste collector?				ALPERT TO THE PARTY OF THE PART
4.05	Are trip tickets for chemical waste disposal available for inspection?				
4.06	s chemical waste reused and recycled on site as far as practicable?	Z			
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?		1		
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 property and regularly?		Z		
4.15	Are appropriate measures adopted to minimize windblown litter and dust during transportation of waste?		Z		
4.16	Are individual collectors for aluminum cans, plastic bottles and packaging material and office	П		П	
4.17	paper provided to encourage waste segregation?  Are C&D wastes sorted on site?	П		一	W-1000
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&I) 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			Ħ	
4.22	contamination? Is a dumping license obtained to deliver public fill to public filling areas?		T		
			lamend .		



Landscape and Visual  Are Is site hoarding provided?  Are vegetation disturbance minimized or soil protected to reduce potential soil crosion?	N/A	Yes	No	Photo/Remarks
Are Is site hoarding provided?			THE STATE OF THE S	***************************************
		-		
Are vegetation disturbance minimized or soil protected to reduce potential soil crosion?			П	
	W	7		
Is construction light oriented away from the sensitive receivers?		П		
Is grass hydroseeding provided to slopes as soon as the completion of works?	A	$\overline{\Box}$	$\overline{\Box}$	
Are damages to trees outside site boundary due construction works avoided?				neuwelire
Is excavation works carried out manually instead of machinery operation within 2.5m vicinity of any preserved trees?				
Are the retained and transplanted tree(s) properly protected and in good conditions?				
Are surgery works carried out for damaged trees?				
Ecology	7	Name and	-	1 14
is site runoff properly treated to prevent any silly runoff?				No water M discharged o reprinty day
Are silt trap installed and well-maintained?				
Are stockpiles properly covered to avoid generating silty runoff?		Ø		
Are construction works restricted to works area which are clearly defined?				
Overall Is the EM&A properly implemented in general?				
1				
	is excessation works carried out manually instead of machinery operation within 2.5m vicinity of any preserved trees?  Are the retained and transplanted tree(s) properly protected and in good conditions?  Are surgery works carried out for damaged trees?  Ecology  Is site runoff properly treated to prevent any silly runoff?  Are silt trap installed and well-maintained?  Are stockpiles properly covered to avoid generating silly runoff?  Are construction works restricted to works area which are clearly defined?  Dverall  Is the EM&A properly implemented in general?	Is excessation works carried out manually instead of machinery operation within 2.5m vicinity of any preserved trees?  Are the retained and transplanted tree(s) properly protected and in good conditions?  Are surgery works carried out for damaged trees?  Ecology  Is site runoff properly treated to prevent any silly runoff?  Are silt trap installed and well-maintained?  Are stockpiles properly covered to avoid generating silfy runoff?  Are construction works restricted to works area which are clearly defined?  Deerall  Is the EM&A properly implemented in general?	Is excessation works carried out manually instead of machinery operation within 2.5m vicinity of any preserved trees?  Are the retained and transplanted tree(s) properly protected and in good conditions?  Are surgery works carried out for damaged trees?  Ecology  Is site runoff properly treated to prevent any silly runoff?  Are silt trap installed and well-maintained?  Are stockpiles properly covered to avoid generating silly runoff?  Are construction works restricted to works area which are clearly defined?  Deerall  Is the EM&A properly implemented in general?	Is excess at on works carried out manually instead of machinery operation within 2.5m vicinity of any preserved trees?  Are the retained and transplanted tree(s) properly protected and in good conditions?  Are surgery works carried out for damaged trees?  Ecology  Is site runoff properly treated to prevent any silly runoff?  Are silt trap installed and well-maintained?  Are stockpiles properly covered to avoid generating silty runoff?  Are construction works restricted to works area which are clearly defined?  Deerall  Is the EM&A properly implemented in general?







	Contract no. 13/WSD/16 Mainlaying in T	seung Kwan O
	WEEKLY ENVIRONMENTAL INSPECTIO	N CHECKLIST
Inspection Da	inspected by: HT: Chr. Cont. Con.	wso Yip du keung BC: Louis kuran
	me: 69-15 - 12 200 Connector: Skin 1/3	EC. Louis Knan
Weather Condition	Sumny Fine Overcast Drizzle Rain	Storn Hazy
Temperature	e 23/C Humidity High Modere	ate Low
Wind	Colm. Light Breeze Strong	
		N/A Yes No Photo/Remarks
		N/A Yes No Photo/Remarks
0.00 Gen		
	e current Environmental Permit displayed conspicuously at all vehicle site ances/exits for public's information at any time?	
0.02 Is F.7	T Leader's log-book kept readily available for inspections?	
100 00	struction Dust	
	dusty materials, such as excavated materials, building debris and construction	reminder (7
	erials, and exposed earth surface properly covered to prevent dust emission?	
	screenings, enclosures, water spraying or vacuum cleaning devices provided to dusty struction works for dust suppression?	Maria de la compania del compania del compania de la compania de la compania de la compania de la compania del compania de
		(em indion ()
1.03 Are	fumes or smoke emitting plants or construction activities shielded by a screen?	wofume/sa
		lower plan
1.04 Are	wheel-washing facilities with high-pressure water jets provided at all site exits?	construyion art
1.05 Is wi	neel-washing provided to all vehicles leaving the site?	
1.06 Are i	road section near the site exit free from dusty material?	
	all main haul roads inside the site paved or sprayed with water to minimize dust	D David
	ssion during vehicle movement? water spraying provided immediately prior to any loading or transfer of dusty	1000 to 1000 to 1+2
	rials?	of distry metering
	covers provided to all dump trucks carrying dusty materials when entering and ing the site?	1 1 abdump tour
1.10 Are 1	the working areas for uproofing of frees, shrubs, or vegetation or the removal of	ппп
	dors, poles, pillars sprayed with water to maintain the entire surface wor?  posed 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?	D D CORMETABLE
		,



	Acuty O: 2333-6823   F: 2333-1316   E: general Contract no. 13/WSD/16 Mainlaying in Tse	eung Kwan O
T	Contraction	N/A Yes No Photo/Remarks
.13	are vehicles travelling at speed not exceeding 15km/hr within the site?	
	Are stock of more than 20 bags of cement or day PFA covered or sheltered on top and 3 ides?	
- 1	Are de-bagging, batching and mixing processes of bagged coment carried out in sheltered areas?	
	Are hoseding of at least 2.4m high provided along the site boundary adjoining areas	
1.17	is open burning prohibited?	I later
	Construction Noise (Airborne)	Noise laber
	Are quiet plants adopted on site?	/ Renter.
2.02	Are the PMEs operating on site well-maintained to minimize the generation of excessive niose?	a signistion
	Are plants throttled down or turned off when not in use?	Z D
2.04	Are the plants known to emit noise strongly in one direction oriented to face away from NSRs?	1 xo valego
2.05	Are moveable barriers provided to screen NSRs from plant or noisy operations?	
2.08	Are sileneers, 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 hearding construction with appropriate materials provided along the site boundary?	
2.09	Are noisy operation properly scheduled to minimize exposure and cumulative impacts to nearby sensitive receivers?	
2.10	Are valid noise emission label(s) affixed to all hand-held breakers operating on site?	
2.11	Are valid noise emission label(s) affixed to all air compressors operating on site?	
2.12		
2.13	hours?	
2.14	Are valid construction noise permit(s) displayed at all vehicular exits?	
3.00 3.01	the state of the s	
3.03	Is effluent discharged according to the effluent discharge license?	W Sischery
3.03	Is wastewater discharge from site properly treated prior to discharge?	
	MI	and the second s



		al@acuityhk.com   www.acuityhk.com
	Contract no. 13/WSD/16 Mainlaying in Ts	
		N/A Yes No 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?	D D Mo vote
3.07	Is the drainage system properly maintained?	
3.08	Are construction works carefully programmed to minimize soil excavation works during miny seasons?	ПАП
3.09	Are exposed soil surface protected by paving as soon as possible to reduce the potential of	prompt pr
	soil erosion?	1 smuder 17
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 larpaulin or similar fabric during construction?	
3.14	Is runoff from wheel-washing facilities avoided?	ППП
3.15	Is oil leakage or spillage prevented?	DA D muder C3
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?	Z
3.18	Are debris and rubbish generated on site collected, handled and disposed of property to avoid them entering the streams?	
	Are all fluel 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?	, greandoire
3.21	Are sufficient chemical toilers provided on site to handle sewage from construction work force?	
3.22	Are sewage disposal and toilet maintenance of the portable chemical toilets provided by	
	the ficensed contractors?  Is concrete washing water properly collected and treated prior to discharge?	
1.00	Waste Management	
4.01	is a trip-licket system implemented to menitor the disposal of C&D and solid wastes at public filling facilities and landfills?	
	12(1)	

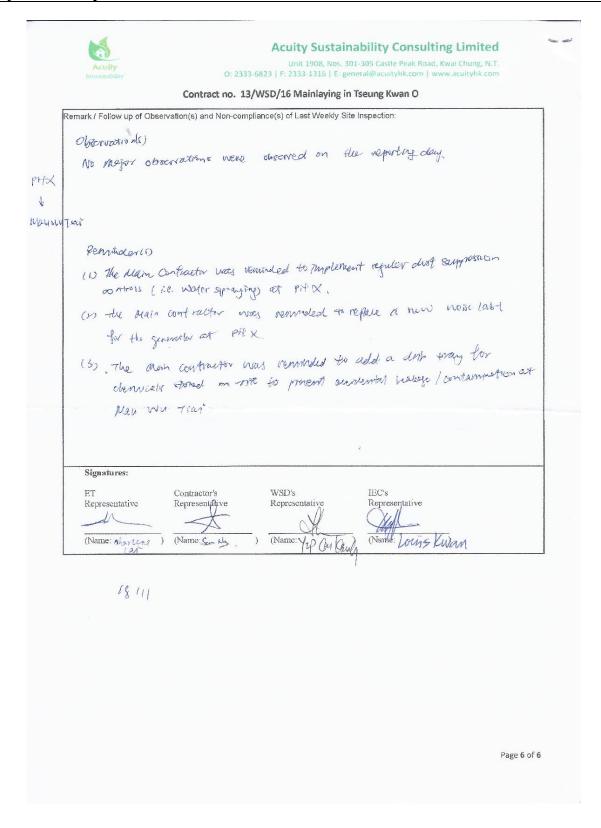


	Contract no. 13/WSD/16 Mainlaying in Tse	l@acuityhk.com   www.acuityhk.com
	Contract no. 13/WSD/16 Walling in 15	N/A Yes No Photo/Remarks
4.02 Is	a recording system implemented to record the amount of wastes generated, recycled and	ППП
di	sposed of?	
	the Contractor registered as a chemical waste producer?	
	re chemical waste separated from other waste and collected by a licensed chemical waste offector?	7 1 1 1
4.05	are trip tickets for chemical waste disposal available for inspection?	
4.06	s 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	s the chemical waste storage area enclosed on at least 3 sides and adequately ventilated?	
	is an impermeable floor and bunding, of capacity to accommodate 110% of the volume of the largest container or of 20% by volume of the chemical waste stored in that area, whichever is the greatest, provide?	
	Are a routine cleaning and maintenance programme implemented for drainage systems, sum pits, and oil interceptors?	
4.13	Are sufficient general refuse disposal/collection points provided on site?	
	is general refuse disposed of properly and regularly?	
	Are appropriate measures adopted to minimize windblown litter and dust during transportation waste?	
4.16	Are individual collectors for aluminum cans, plastic bottles and packaging material and offi paper provided to encourage waste segregation?	
4.17		
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?	700_
4.2	O Are public fill and C&D waste reuse on site as far as practicable to avoid disposal off-site?	
4.2	1 Are the construction materials stored properly to minimize the potential for damage pontamination?	or
4.2	2 is a dumping liceuse obtained to deliver public fill to public filling areas?	
L	1814	



	Acuity Unit 1908, Nos. 301-3 Sustainability O: 2333-6823   F: 2333-1316   E: general				tyhk.com
	Contract no. 13/WSD/16 Mainlaying in Ts	eung Kwa	n O Yes	No	Photo/Remarks
	Lundscape and Visual  Are Is site hoarding provided?				
	•	4		Ш	
5.02	Are vegetation disturbance minimized or soil protected to reduce potential soil erosion?				barners /
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	Arc damages to trees outside site boundary due construction works avoided?				
5.06	Is executation 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?			П	
6.00	Ecology	,			A O water
6.01	Is site runoff properly treated to prevent any silly runoff?				no water dishaye
6.02	Are silt trap installed and well-maintained?	D			
6.03	Are stockpiles properly covered to avoid generating silty rouoff?				1
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?				
	18111				







	Contract no. 13/WSD/16 Mainlaying in Ts	eung Kwan O
	WEEKLY ENVIRONMENTAL INSPECTION	CHECKLIST
		on their section countries
	n Date: 24/11/20 Inspected by: ET: LRI (MA) (ore: on Time: 4-35-11-30	wsb: <u>f.k.Chm</u> iec: <u>MA</u>
Weathe		
Conditi		Sto un Hazy
Тетрег		e Low
Wind	Calm Light Breeze Strong	
		N/A Yes No Photo/Remarks
0.00	General	
100110000	is the current Environmental Permit displayed conspicuously at all vehicle site	
	entrances/exits for public's information at any time?	
U.U2	's ET Leader's log-book kept readily available for inspections?	
	Construction Dust	
	Are dusty materials, such as excavated materials, building debris and construction materials, and exposed earth surface properly covered to prevent dust emission?	
	Are screenings, enclosures, water spraying or vacuum cleaning devices provided to dusty	NI dury and
	construction works for dust suppression?	overly observed
1.03	Are fumes or smoke emitting plants or construction activities shielded by a screen?	are frame from
		emitting plas
1.04	Are wheel-washing facilities with high-pressure water jets provided at all site exits?	autivities of
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	I leaved
	emission during vehicle movement?	pawed
	Are water spraying provided immediately prior to any loading or transfer of dusty materials?	Molaulay 1 than dusty another
in a second	Are covers provided to all dump trucks carrying dusty materials when entering and	Nochmy fml
1.10	leaving the site?  Are the working areas for uprooting of trees, shrubs, or vegetation or the removal of	
Same	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?	
Superior P	Does the operation of plants on site free form dark smoke emission?	TO TO CARAMA
		MKMMb
241	el .	



531	Acothy 0: 2333-6823   F: 2333-1316   E: general  Contract no. 13/WSD/16 Mainlaying in Tse	
_	Contractio. 25/1005/100 A.	N/A Yes No Photo/Remarks
	a sei a sahin sha sita?	
13 1	re vehicles travelling at speed not exceeding 15km/hr within the site?	
	are stock of more than 20 bags of coment or day PFA covered or sheltered on top and 3	
.15 A	dos? re de-bagging, batching and mixing processes of bagged cement carried out in sheltered	
.16	reas?  Are hoarding of at least 2.4m high provided along the site boundary adjoining areas	
	ccessible by the public? s open burning prohibited?	
	Construction Noise (Airhorne)	M Morrelabe
	Are quiet plants adopted on site?	T \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \
. 1	Are the PMEs operating on site well-maintained to minimize the generation of excessive niose?	I mysular majorition
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	C Mo visit-to N
	NSRs?	Meer to case
2.05	Are moveable barriers provided to screen NSRs from plant or noisy operations?	
2.06	Are silencers, mufflers and enclosures provided to plants?	
2.07	Are the hoods, cover panels and inspection hatches of PMEs closed during operation?	
2.08	Are purposely-built site hoarding construction with appropriate materials provided along the site boundary?	
2.09	Arc noisy operation properly scheduled to minimize exposure and cumulative impacts to hearby sensitive receivers?	
2.10	Are valid noise emission label(s) affixed to all hand-held breakers operating on site?	
2.11	Are valid noise emission label(s) affixed to all air compressors operating on site?	
2.12		
2.13	Are construction noise permit(s) applied for general construction works during restricted hours?	
2.14	14/2) displayed at all volvioular exits?	
3.00		
3.01		
3.02		3 bs (1)
3.03	Is wastewater discharge from site properly treated prior to discharge?	
24/		



	Contract no. 13/WSD/16 Mainlaying in Ts	eung Kwa	an O		
		N/A	Yes	No	Photo/Remarks
3.04	Are perimeter channels provided to intercept storm runoff from outside the site?				865 (2)
3.05	Are sand/silt removal facilities such as sand/silt traps and sediment hasins provided to remove sand/silt particles from runoff?				And the second s
3.06	Is surface runoff diverted to sedimentation facilities?				obsun
3.07	Is the drainage system properly maintained?				
3.08	Are construction works carefully programmed to minimize soil excavation works during rainy seasons?	П		П	
3.09	Are exposed soil surface protected by paving as soon as possible to reduce the potential of soil erosion?		<u></u>	П	
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?			一	
3.13	Are open stockpiles of construction materials on site covered by tarpaulin or similar fabric during construction?	$\overline{\Box}$		П	
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?		1		
3.17	Are the oil interceptors/ grease traps properly maintained?				
3.18	Are debris and rubbish generated on site collected, handled and disposed of properly to avoid them entering the streams?				
3.19	Are all fuel tanks and storage areas provided with locks and be sited on sealed areas, within bunds of capacity equal to 110% of the storage capacity of the largest tank?		Q		
3.20	Are tanks, containers, storage area bunded and the locations locked as far as possible from the sensitive watercourse and stormwater drains?				
3.21	Are sufficient chemical toilets provided on site to handle sewage from construction work force?		D		
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?				

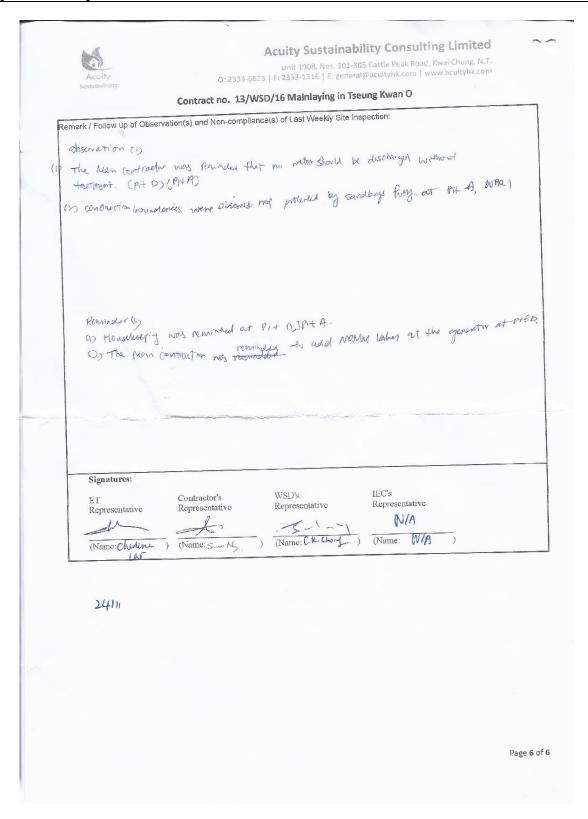


2	PARTICULAR V	305 Castle Peak Road, Kwai Chung, N.T. ral@acuityhk.com   www.acuityhk.com
	Contract no. 13/WSD/16 Mainlaying in T	N/A Yes No Photo/Remarks
4.02	a recording system implemented to record the amount of wastes generated, recycled an	
d	isposed of?	ПППП
	s the Contractor registered as a chemical waste producer?	
	Are chemical waste separated from other waste and collected by a licensed chemical was	te
4.05	ollector? Are trip tickels for chemical waste disposal available for inspection?	
100	Is chemical waste roused and recycled on site as far as practicable?	
4.06	is chemical waste roused and rossold and analysis	
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?	
111	Is an impermeable floor and bunding, of capacity to accommodate 110% of the volume of	the
	targest container or of 20% by volume of the chemical waste stored in that area, whichever is	
4:12	Are a routine cleaning and maintenance programme implemented for drainage systems, st	omp
	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?	
4.18	Are appropriate measures adopted to minimize windblown litter and dust during transportation	en of
	wasts?  Are individual collectors for aluminum cans, plastic bottles and packaging material and co	office C
4.16	paper provided to encourage waste segregation?	
4.1	7 Are C&D wastes sorted on site?	
4.1	B Are C&D waste disposed of properly?	
4.1	9 Are unused C&D materials or chemicals recycled or reused to reduce the quantity of waste	
4.2	O Are public fill and C&D waste rouse on site as far as practicable to avoid disposal off-site?	
4.2	1 Are the construction materials stored properly to minimize the potential for dama contamination?	ge or
4.2	2 Is a dumping license obtained to deliver public fill to public filling areas?	
24	tu.	



	Acuity O: 2333-6823   F: 2333-1316   E: gener	ral@acuityh	k.com	www.acu	ityhk,com
	Contract no. 13/WSD/16 Mainlaying in Ts			- Internation	
		N/A	Yes	No	Photo/Remarks
5.00	Landscape and Visual				
5.01	Are is site hoarding provided?		П		
5.02	Are vegetation disturbance minimized or soil protected to reduce potential soil erosion?				
		Щ		Ш	
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?		П	П	
5.05	Are damages to trees outside site boundary due construction works avoided?	7			
5.00		Ш		Ш	
5.06	is exeavation 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?			П	
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?				obsw
6.02	Are silt trap installed and well-maintained?			一	
6.03	Are stockpiles properly covered to avoid generating silty runoff?				
6.04	Are construction works restricted to works area which are clearly defined?				Manual Annual Annual Annual Annual Annual Annual Annual Annual Annual Annual Annual Annual Annual Annual Annua
	Overall		4		
7.01	Is the EM&A properly implemented in general?	Ш		Ш	
					Page 5 o







## Appendix M

# Proactive Environmental Protection Proforma



#### **Proactive Environmental Protection for the Next Reporting Month**

Reporting Period	Activity	Major Environmental Impact	Environmental Mitigation Measure
1 December 2021 - 31 December 2021	<ul> <li>Excavation of trench</li> <li>Mainlaying of pipe</li> <li>Sheetpiling</li> <li>Backfilling of the trench</li> <li>Work fronts for open trench</li> <li>Work fronts for pipe jacking</li> </ul>	Construction dust and noise generation; construction wastes; impact of water quality	<ul> <li>Dust suppression by regular wetting and water spraying</li> <li>Reduction of noise from equipment and machinery on-site</li> <li>Sorting and storage of general refuse and construction waste</li> <li>Treatment of water with water treatment facilities before discharge</li> </ul>



## Appendix N

Impact Monitoring Schedule of Next Reporting Month (Tentative)



			Dec-21			
Sun	Mon	Tue	Wed	Thu	Fri	Sat
			Noise Impact Monitoring	2	3	4
	6	7	Noise Impact Monitoring			11
12	13	14	15	16	Noise Impact Monitoring	18
19		Noise Impact Monitoring			24	25
26	27	28	29	30	Noise Impact Monitoring	

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



Appendix O

Academic Calendar(s)



	С	RE/	TIV	E SI	CO	ND/	ARY	SCHOOL CALENDAR 2021-2022	
	Su	Мо	Tu	We	Th	Fr	Sa		
August	15	16	17	18	19	20	21	19-20 Orientation Day	
	22	23	24	25	26	27	28	23/08 First School Day	
	29	30	31						
September				1	2	3	4		
	5	6	7	8	9	10	11		
	12	13	14	15	16	17	18	17/9 Swimming Gala	
	19	20	21		23	24	25	22/9 The following Day of Mid-Autumn Festival	
	26	27	28	29	30			25/9 School Open Day 30/9 1st PD day	
October							2	1/10 National Day of the People's Republic of China	
	3	4	5	6	7	8	9		1
	10	11	12	13	14	15	16	14/10 Chung Yeung Festival	
	17	18	19	20	21	22	23	15-23/10 Term break	
	24	25	26	27	28	29	30		1
	31								1
November	- 01	1	2	3	4	5	6	4/11 University Fair	1
tovellibei	7	8	9	10	11	12	13	The state of the s	1
	14	15	16	17	18	19	20	15/11 2nd PD Day, 19/11 Sports Day	+
+	21	22	23	24	25	26	27		1
<del>- +</del>	28	29	30	24	25	20	21		+
Docomb	28	29	30	4	2	2	4		+
December		_	-	1	2	3	4	11/12 Musical Performance	+
+	5	6	7	8	9	10	11	11/12 Musical Performance	+
	12	13	14	15	16	17	18	17/12 Creative Christmas Festival	+
	19	20	21	22	23	24	25	25/12 Christmas Holiday. 20/12-3/1 Christmas & New Year Holiday	+
	<u>26</u>	27	28	29	30	<u>31</u>		27/12 The first weekday after Christmas Day	4
January							1	1/1 New Year's Day	4
	2	3	4	5	6	7	8		
	9	10	11	12	13	14	15		
	16	17	18	19	20	21	22		
	23	24	25	26	27	28	29	28/1 Creative Chinese Festival	
	30	31							
February						4	5	1-3/2 Chinese Lunar New Year	
	6	7	8	9	10	11	12	31/1-9/2 Chinese Lunar New Year Holiday	1
	13	14	15	16	17	18	19		
	20	21	22	23	24	25	26		
	27	28							1
March			1	2	3	4	5		1
Wildreit	6	7	8	9	10	11	12		
	13	14	15	16	17	18	19	12-19/3 Creative Week	+
	20	21	22	23	24	25	26	12-13/3 Greative Week	+
	27	28	29	30	31	23	20		+
A 1	21	28	29	30	31	4	_		+
April	_				_	1	2	FM Object Micro Footback	+
	3	4	5	6	7	8	9	5/4 Ching Ming Festival	+
	10	11	12	13	14	15	16	15/4 Good Friday. 16/4 Holy Saturday	+
	17	18	<u>19</u>	20	21	22	_	18/4 Easter Monday.15/4-22/4 Easter Holiday.	╀
	24	25	26	27	28	29	30	25/4-03/05 HKDSE Core subjects Exam	4
May	- 1	2	3	4	5	6	7	2/5 Labour Day	4
	8	9	10	11	12	13	14	9/5 Buddha's Birthday	4
	15	16	17	18	19	20	21		1
	22	23	24	25	26	27	28	25/5 School Self-Evaluation Day.	_
	29	30	31						
				1	2	3	4	3/6 Tuen Ng Festival. 2/6 Graduation	
June	5	6	7	8	9	10	11		
	12	13	14	15	16	17	18		1
	19	20	21	22	23	24	25		1
	26	27	28	29	30			30/6 Achievement Celebration	1
			-			1	2	01/07 HKSAR Establishment Day	1
July	3	4	5	6	7	8	9	4/7-14/8 Summer Holiday	1
,	10	11	12	13	14	15	16		1
+	17	18	19	20	21				1
-						22	23		+
-	24	<u>25</u>	<u>26</u>	<u>27</u>	28	<u>29</u>	<u>30</u>		+
	<u>31</u>								+
August	_	1	2	3	4	5	6		4
	7	8	9	<u>10</u>	11	<u>12</u>	<u>13</u>	12/08 New Staff Meeting	4
	14	15	16	17	18	19	20	16-17/08 Staff Meeting	4
	21	22	23	24	25	26	27		4
	28	30	31						
	Scho	ol Holi	iday		Public	Holic	day		
			opme				_		_

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