

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

Your reference:

Our reference:

HKWSD201/50/107583

Date:

5 October 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.37

We refer to emails of 23 September and 4 October 2021 attaching Monthly EM&A Report No.37 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/lsmt

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Contract No. 13/WSD/16

Mainlaying in Tseung Kwan O

Monthly EM&A Report No. 37 (Period from 1 to 31 August 2021)

August 2021 (Rev. 0)

	Prepared by:	Certified by:
Name	Charlene Lai	Jacky Leung
Position	Environmental Team	Environmental Team Leader
Signature		
Date:	14/09/2021	14/09/2021



Revision History

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

Appendix O

Academic Calendar(s)



CONTENT

1.	Executive Basic Proje	Summary ect Information8
2.	Noise Monitoring 1	
3.	Waste ma	nagement 17
4.	Landfill ga	s monitoring18
5.	•	of Monitoring Exceedance, Complaints, Notification of Summons
6.	EM&A Site	e Inspection38
7.	Future Key	/ Issues 41
8.	Conclusion	n and Recommendations43
Ap	pendix A	Construction Programme
Appendix B Overview of Mainlaying in Tseung Kwan O		Overview of Mainlaying in Tseung Kwan O
, , , , , , , , , , , , , , , , , , , ,		Summary of Implementation Status of Environmental Mitigation
Ap	pendix D	Impact Monitoring Schedule of the Reporting Month
Αp	pendix E	Noise Monitoring Equipment Calibration Certificate
Ap	pendix F	Event/Action Plan for Noise Exceedance
Appendix G Noise Monitoring Data		Noise Monitoring Data
Appendix H Waste Flow Table		Waste Flow Table
Ap	Appendix I Landfill Gas Monitoring Equipment Calibration Certificate	
Ap	Appendix J Landfill Gas Monitoring Data	
Ap	Appendix K Complaint Log and Regulatory Compliance Proforma	
Αŗ	Appendix L Site Inspection Proforma	
Ap	pendix M	Proactive Environmental Protection Proforma
Ap	Appendix N Impact Monitoring Schedule of Next Reporting Month	



EXECUTIVE SUMMARY

Introduction

- A1. Penta-Ocean Concentric Joint Venture (POCJV) is contracted to carry out the Mainlaying in Tseung Kwan O under Contract No. 13/WSD/16 (hereinafter known as "the Project").
- A2. In accordance with the Environmental Monitoring and Audit (EM&A) Manual for the Project, EM&A works should be carried out by Environmental Team (ET), Acuity Sustainability Consulting Limited (ASCL), during the construction phase of the Project.
- A3. This is the 37th 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 August 2021 to 31 August 2021.
- A4. The EM&A programme for this contract has covered environmental monitoring on construction noise level at selected NSRs and Contractor's environmental performance auditing in the aspects of construction dust, construction noise, water quality, waste management, Landscape and Visual and Ecology.

Summary of Main Works Undertaken & Key Mitigation Measures Implemented

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

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



Location	Location	Works Conducted in the reporting month
	Landfill Stage 1 – Area B	Trench excavation and pipe laying were in-progress.
	Cycle Track – Workfront 1	Trench excavation and pipe laying were in-progress.
	Cycle Track – Workfront 2	Trench excavation and pipe laying were in-progress.
	Roundabout – Pit G1A	Demolishing works for road planter were conducted.
	Roundabout – Pit J1A	Trenchless works by hand-shield were conducted.
	Velodrome – Pit M	Rescue pit construction works were conducted.
	Velodrome – Pit P	Pipe jacking preparation works were conducted.
1 works were conducted.		p.ps,g
	Ling Hong Road - Pit Y	Excavation and ELS works for pit Construction were conducted.
	Ling Hong Road - Pit R	 Excavation and ELS works for pit Construction were conducted.
	Po Lam Road South Stage-1	Trench excavation and pipe laying works were conducted.
	Po Lam Road (A0)	Concrete carriageway reinstatement works were conducted.
	Po Lam Road (D1)	Trench backfilling and reinstatement works were conducted.
	Po Lam Road (B5)	Trench excavation and pipe laying works were conducted.
	TKO Primary Service Reservoir	 Trench excavation and pipe laying works were conducted. Trai pit works were conducted.

- A6. The major environmental impacts brought by the above construction works include:
 - Construction dust and noise generation from saw cutting of concrete surface, mainlaying of pipes, TBM break through, excavation and drilling works
 - Waste generation from the construction activities
 - Impact on water quality from construction activities
- A7. The key environmental mitigation measures implemented for the Project in this reporting period associated with the above construction works include:
 - Reduction of construction dust generation from saw cutting of concrete surface, mainlaying of pipes, TBM break through, excavation and



drilling works through regular water spraying and covering dusty materials with tarpaulin sheet

- Reduction of noise from equipment and machinery on-site
- Sorting and storage of general refuse and construction waste
- Treatment of wastewater through water treatment facilities before discharge

Summary of Exceedance & Investigation & Follow-up

- A8. Noise monitoring was conducted in the reporting month for NSR4 Creative Secondary School on 4, 13, 19 and 25 August 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 September 2021 (the next reporting month) for the Project will include the followings:

Location	Location	Forecast Works in Next Reporting Month
Portion H of the Project Site	TKO 137 Pit B	Remedial works for TBM pipe jacking will be conducted.
Portion J of the Project Site	Wan Po Rd – Workfront 1	Trench excavation and pipe laying will be conducted.
	Wan Po Rd – Workfront 2	Trench excavation and pipe laying works will be conducted.
	Wan Po Rd – Workfront 3	Trench excavation and pipe laying works will be conducted.
	Wan Po Rd – Workfront 4	Trench excavation and pipe laying works will be conducted.



Location	Location	Forecast Works in Next Reporting Month
	Wan Po Rd – Pit A	Excavation and ELS works will be conducted.
	Wan Po Rd – Pit B	 Pit excavation works will be continued. Preparation works for pipe jacking will be conducted.
	Wan Po Rd – Pit D	Excavation and ELS works will be conducted.
	Landfill Stage 1 – Area A	900HSV Chamber construction works will be conducted.
	Landfill Stage 1 – Area B	Trench excavation and pipe laying works will be conducted.
	Cycle Track – Workfront 2	Trench excavation and pipe laying works will be conducted.
	Roundabout – Pit G1A	Demolishing works for road planter will be conducted.
	Roundabout – Pit J1A	Trenchless works by hand-shield will be continued.
	Velodrome – Pit L	Trial trench works for alternative method will be continued.
	Velodrome – Pit M	Rescue pit construction works will be continued.
	Velodrome – Pit O	Trial trench works for alternative method will be continued.
	Velodrome – Pit P	MTBM pipe jacking will be commenced.
	Ling Hong Road - Pit Y	Excavation & ELS works for pit construction will be continued.
	Ling Hong Road - Pit R	Trenchless hand-shield pipe jacking works will be conducted.
	Mau Wu Tsai – Workfront 1	 Trench excavation and pipe mainlaying works will be conducted. Construction of Washout Chamber will be conducted.
	Mau Wu Tsai – Workfront 2	Laying of branch pipe will be conducted.
	Po Lam Road South Stage-	Trench backfilling and reinstatement will be continued.
	Po Lam Road (D1)	Trench backfilling and reinstatement will be continued.
	Po Lam Road (B5)	Trench backfilling and reinstatement will be continued.
	Po Lam Road (A0)	TTA works will be shifted to next section A1.
	Tsui Lam Road	Trial pit works will be conducted.
	TKO Primary Service Reservoir	 Trench excavation and pipe laying works will be conducted. Trial pit works will be conducted.



- A14. The major environmental impacts brought by the above construction works will include:
 - Construction dust and noise generation of saw cutting of concrete surface, mainlaying of pipes, drilling activities, TBM break through and excavation works.
 - Waste generation from construction activities
 - Impact on water quality from construction activities
- A15. The key environmental mitigation measures for the Project in the coming reporting period associated with the above construction works will include:
 - Reduction of construction dust generation of saw cutting of concrete surface, mainlaying of pipes, drilling activities and excavation works by regular water spraying and covering of dusty materials with screenings
 - Reduction of noise from equipment and machinery on-site
 - Sorting and storage of general refuse and construction waste
 - Treatment of wastewater through water treatment facilities before discharge

1. Basic Project Information

1.1 Background

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

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

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

1.2 The Reporting Scope

This is the 37th Monthly EM&A Report for the Project which summarizes the key findings of the EM&A programme during the reporting period from 1 August 2021 to 31 August 2021.



1.3 Project Organization

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

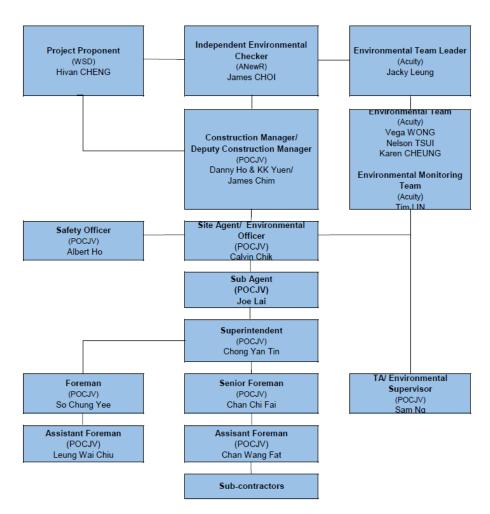


Figure 1.1 Project Organization Chart

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

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



1.4 Summary of Construction Works

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

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

Location	Location	Works Conducted in the reporting month
Portion H of	TKO 137 Pit B	Remedial works for TBM pipe
the Project Site	180 197 1 11 15	jacking were conducted.
	Wan Po Rd – Workfront 1	Pipe trench excavation and pipe
		laying were in-progress.
	Wan Po Rd – Workfront 2	Pipe trench excavation and pipe Inving wore in progress
		laying were in-progress.Pipe trench excavation and pipe
	Wan Po Rd – Workfront 3	laying were in-progress.
	Wan Po Rd – Workfront 4	Pipe trench excavation and pipe
	Wall Fo Nu – Workholit 4	laying were in-progress.
	Wan Po Rd – Pit A	Pit excavation and ELS works were
		in-progress.
	Wan Po Rd – Pit B	Pit excavation works were conducted.
	Wan Po Rd – Pit D	Pit excavation and ELS works were
		in-progress.
	Landfill Stage 1 – Area A	Construction works for 900HSV
Portion J of the Project Site		chamber were conducted.
	Landfill Stage 1 – Area B	Trench excavation and pipe laying
		were in-progress.
	Cycle Track – Workfront 1	Trench excavation and pipe laying
		were in-progress.
	Cycle Track – Workfront 2	Trench excavation and pipe laying
		were in-progress.
	Roundabout – Pit G1A	Demolishing works for road planter
	D 11	were conducted.
	Roundabout – Pit J1A	Trenchless works by hand-shield
	Velodrome – Pit M	were conducted.
	Velodioille	Rescue pit construction works were conducted.
	Velodrome – Pit P	Pipe jacking preparation works were
	13.34.31113	conducted.
	Mau Wu Tsai – Workfront	Trench excavation and pipe laying
	1	works were conducted.
	Ling Hong Road - Pit Y	Excavation and ELS works for pit
		Construction were conducted.



Location	Location	Works Conducted in the reporting month
	Ling Hong Road - Pit R	Excavation and ELS works for pit Construction were conducted.
	Po Lam Road South Stage-1	Trench excavation and pipe laying works were conducted.
	Po Lam Road (A0)	Concrete carriageway reinstatement works were conducted.
	Po Lam Road (D1)	Trench backfilling and reinstatement works were conducted.
	Po Lam Road (B5)	Trench excavation and pipe laying works were conducted.
	TKO Primary Service Reservoir	 Trench excavation and pipe laying works were conducted. Trai pit 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 (Wan Po Road, Wan O Road and Chun Yat Street)	GW-RE0277-21	Until 30 Sep 2021	-
Construction Noise Permit (Tseung Kwan O Area 137, N.T.)	GW-RE0383-21	Until 30 Sep 2021	-
Construction Noise Permit (Hong Kong Velodrome)	GW-RE0494-21	Until 16 Nov 2021	-

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

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



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

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

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

2. Noise Monitoring

2.1 Monitoring Requirements

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

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

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

Impact monitoring for noise impact was conducted in the reporting month for NSR4 – Creative Secondary School on 4, 13, 19 and 25 August 2021 as construction works were conducted within 300m to the noise sensitive receiver. Detailed monitoring results can be found in **Appendix G**.



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

2.2 Noise Monitoring Parameters, Time, Frequency

Impact noise monitoring was conducted weekly in the reporting period between 0700-1900 on normal weekdays. Construction works would follow the requirements as stipulated in the valid CNPs if works have to be conducted during 1900-0700 in all days or any time on Sundays or general holidays.

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

Table 2.1 Noise Monitoring Parameters, Time, Frequency and Duration

Time	Frequency	Duration	Parameters
Daytime: 0700-1900	Once per week	Continuously in $L_{\text{eq }5\text{min}}/L_{\text{eq }3\text{omin}}$ (average of 6 consecutive L_{eq}	$L_{\rm eq}$, L_{10} & L_{90}

2.3 Noise Monitoring Locations

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

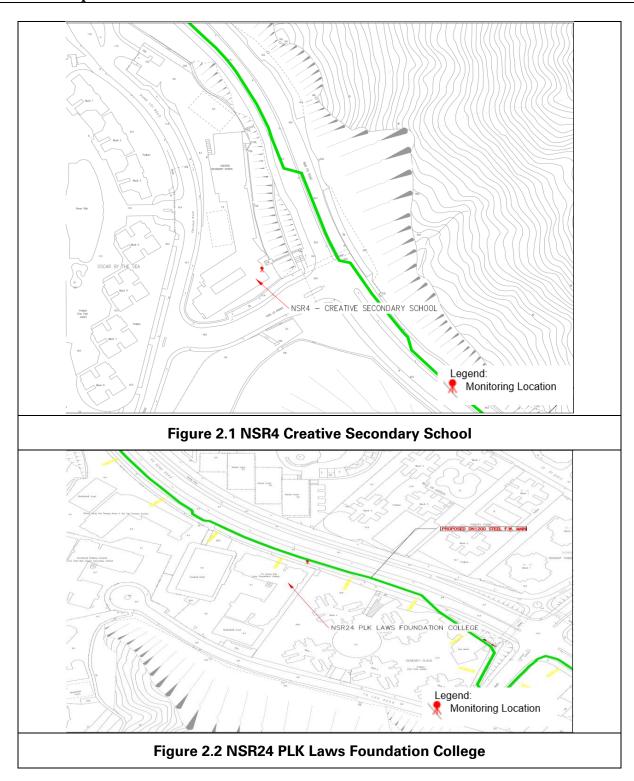
According to the environmental findings detailed in the EIA report and Baseline Monitoring Report, the designated locations for the construction noise monitoring are listed in **Table 2.2** below.

Table 2.2 Noise Monitoring Location

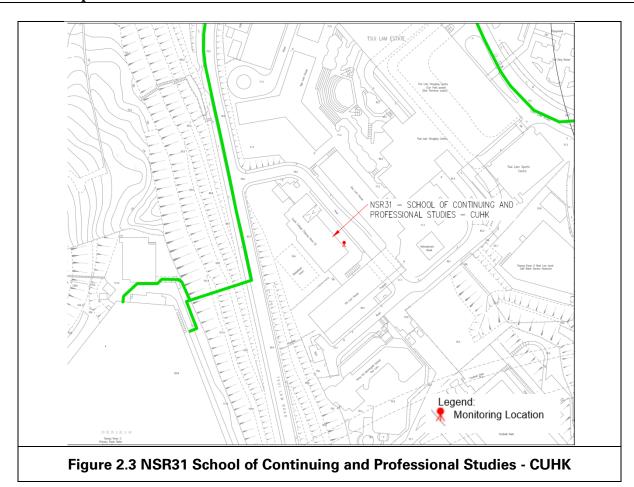
NSR ID	Noise Sensitive Receivers	Monitoring Location	Position
NSR 4	Creative Secondary School	Roof Floor	1 m from facade
NSR 24	PLK Laws Foundation College	Pedestrian Road on Ground Floor	Free-field
NSR 31	School of Continuing and Professional Studies - CUHK	Roof Floor	1 m from facade

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









2.4 Impact Monitoring Methodology

Integrated sound level meters were used for the noise monitoring. The meters were in compliance with the International Electrotechnical Commission Publications 651: 1979 (Type 1) and 804: 1985 (Type 1) specifications. Immediately prior to and following each noise measurement the accuracy of the sound level meters were checked using an acoustic calibrator generating a known sound pressure level at a known frequency. Measurements may be accepted as valid only if the calibration level before and after the noise measurements agree to within 1.0 dB(A). Calibration certificates of the instruments used are presented in **Appendix E**. Noise measurements were not made in the presence of fog, rain, wind with a steady speed exceeding 5 m/s or wind with gusts exceeding 10 m/s. The wind speed would be checked with a portable wind speed meter capable of measuring the wind speed in m/s.



Table 2.3 Impact Noise Monitoring Equipment

Equipment	Brand and Model	Serial Number	Date of Calibration	Calibration Certificate Expiry Date	Detection Limit
Sound Level Meter	Scarlet ST- 11D	820200	18/01/2021	17/01/2022	27-140 dB(A)
Sound Level Meter	NTi XL2	A2A- 13663-E0	09/09/2020	08/09/2021	30-130 dB(A)
Sound Level Meter	Lutron SL- 4033SD	I491835	07/12/2020	06/12/2021	30-130 dB(A)
Sound Level Meter Calibrator	Rion NC-74	34504770	17/11/2020	16/11/2021	Nil
Pocket Wind Meter Anemometer	Kestrel 1000 Wind Meter	Nil	Nil	Nil	Nil

2.5 Action and Limit Levels

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

Table 2.4 Action and Limit Levels for Noise

Time Period	Action Level	Limit Level (dB(A))		
0700-1900 on normal weekdays	When one documented complaint is received from any one of the noise sensitive receivers	 70 dB(A) for school and 65 dB(A) during examination period 		
Notes: (a) Limits specified in the GW-TM and IND-TM for construction and operation noise, respectively.				

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

2.6 Monitoring Results and Observations

Referring to EM&A manual Section 4.1.2, impact monitoring for noise impact was conducted in the reporting month for NSR4 – Creative Secondary School on 4, 13, 19 and 25 August 2021. 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 carried at these two locations in the reporting month.

3. WASTE MANAGEMENT

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

Table 3.1 Quantities of waste generated from the Project

	Quantity					
	Inert C&D Materials Chemical Waste (in '000kg) Non-inert C&D Materials Others, e.g. General Refuse disposed at		Non-inert C&D Materials			
Reporting period			l materials	6		
	'000m3)	(iii oookg)	Landfill (in '000m3)	Paper/card board (in '000kg)	Plastics (in '000kg)	Metals (in '000kg)
August-21	1.223	0.000	0.000	0.048	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, 780 times of monitoring was recorded.

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

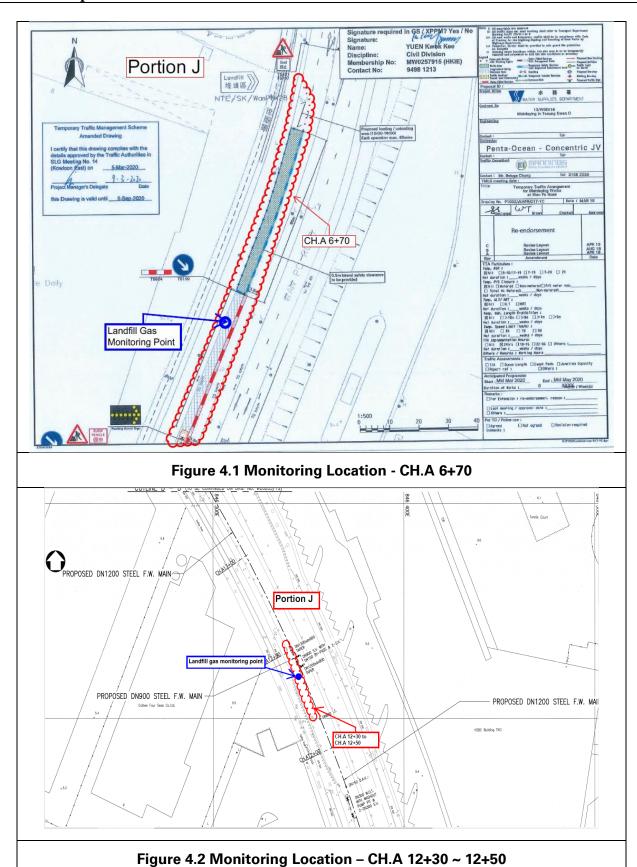
- At the ground surface before excavation commences;
- Immediately before any worker enters the excavation;
- At the beginning of each working day for the entire period when the excavation remains open; and
- Periodically through the working day whilst workers are in the excavation.

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

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

The area required to be monitored for landfill gas in the reporting period are shown in **Figure 4.1** to **Figure 4.20**.







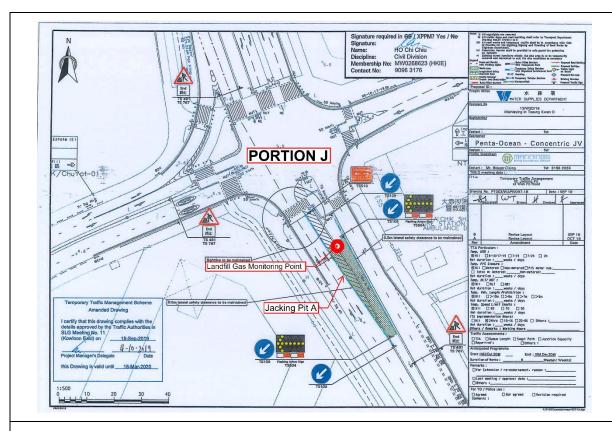


Figure 4.3 Monitoring Location – CH.A 13+50 ~ 14+00 (Pit A)

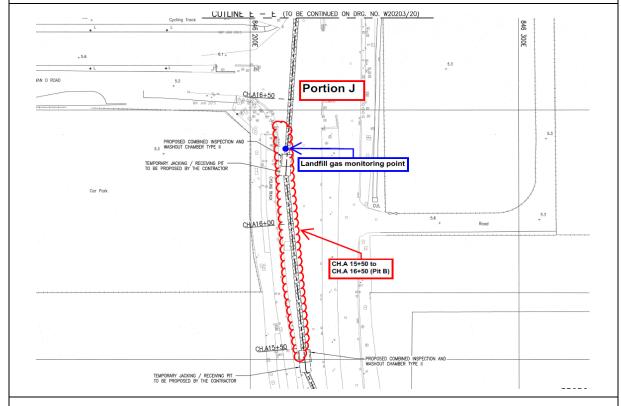
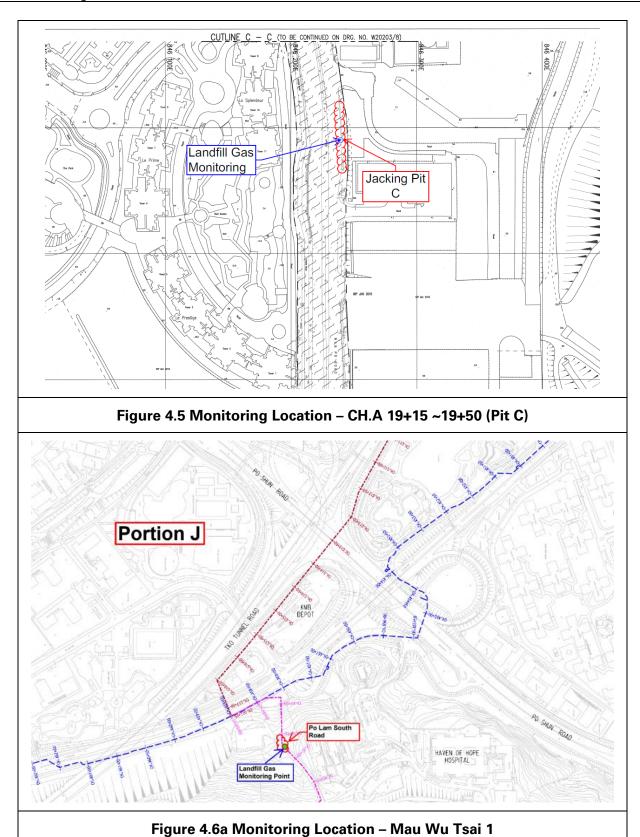


Figure 4.4 Monitoring Location – CH.A 15+50 ~16+50 (Jacking Pit B)







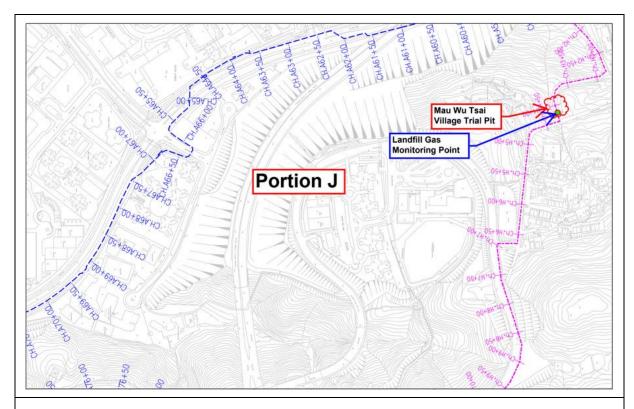


Figure 4.6b Monitoring Location – Mau Wu Tsai 2

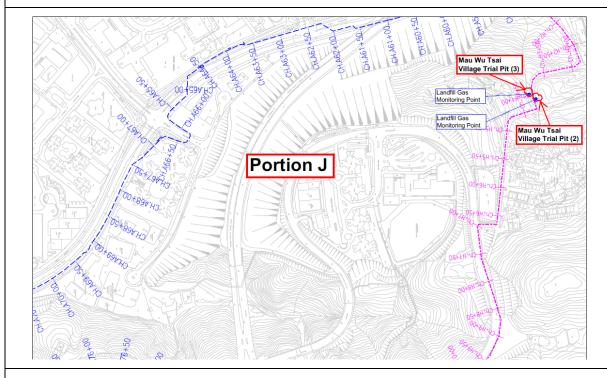


Figure 4.6c Monitoring Location – Mau Wu Tsai 3



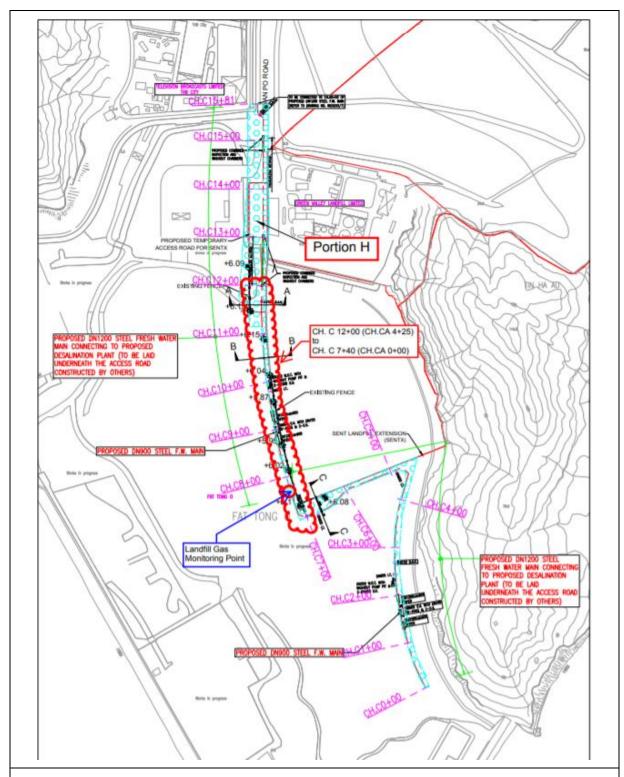


Figure 4.7 Monitoring Location -CH.CA 0+00 to CH.CA 04+25 (CH.C 7+40 ~ 12+00)



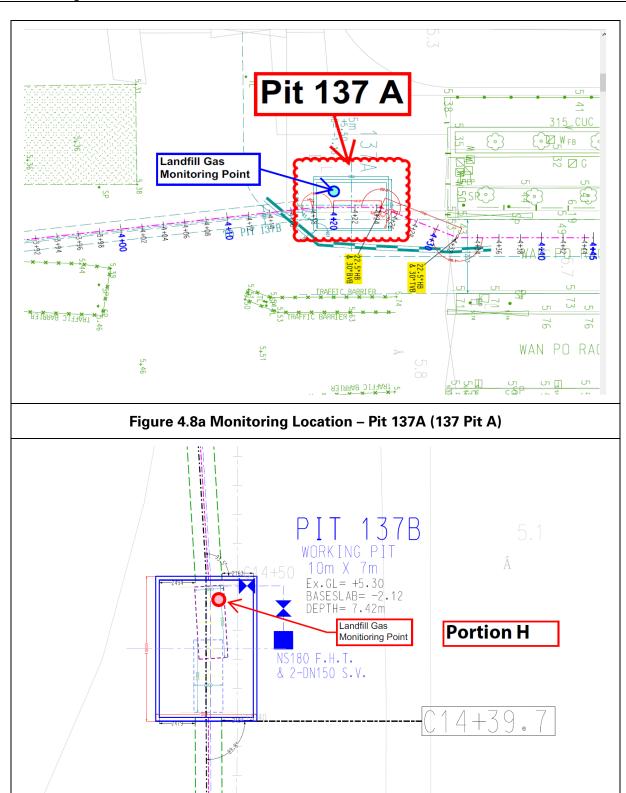


Figure 4.8b Monitoring Location – Pit 137B (137 Pit B)



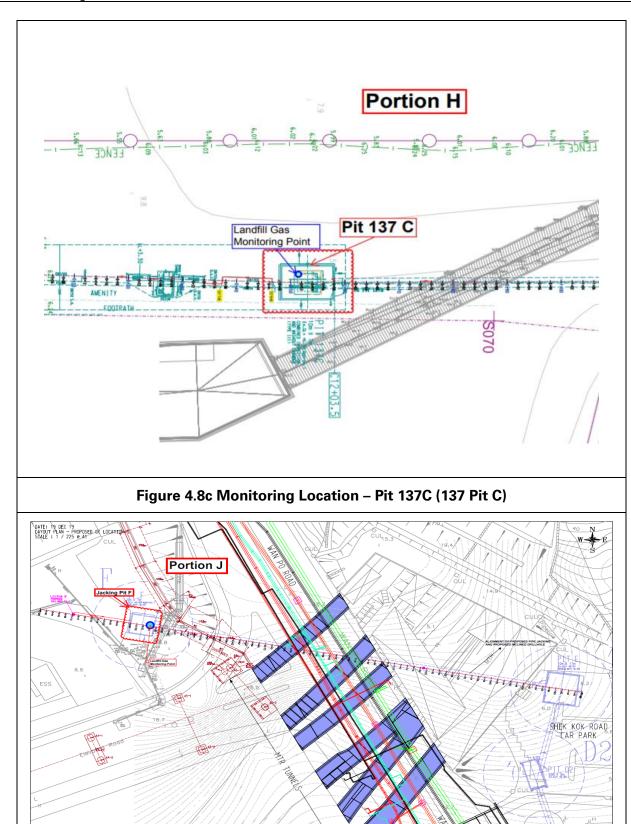


Figure 4.9 Monitoring Location – Jacking Pit F



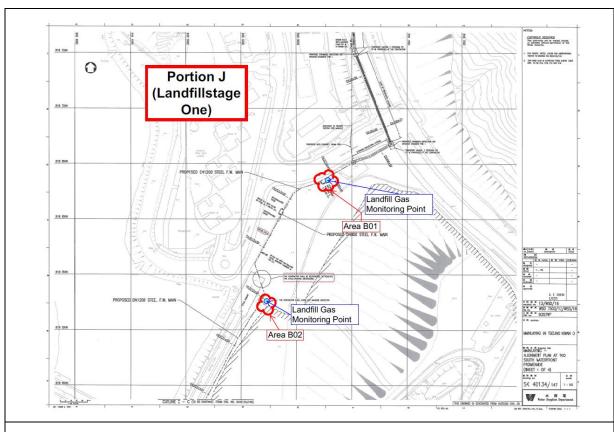


Figure 4.10a Monitoring Location – Landfill Stage 1 (Area B01-B02)

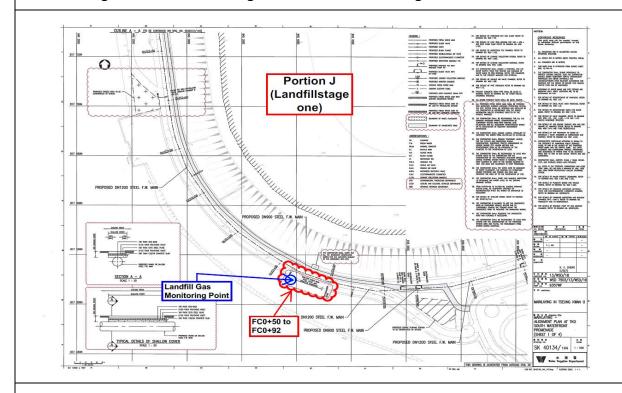


Figure 4.10b Monitoring Location – Landfill Stage 1 (FC0+50-FC0+92)



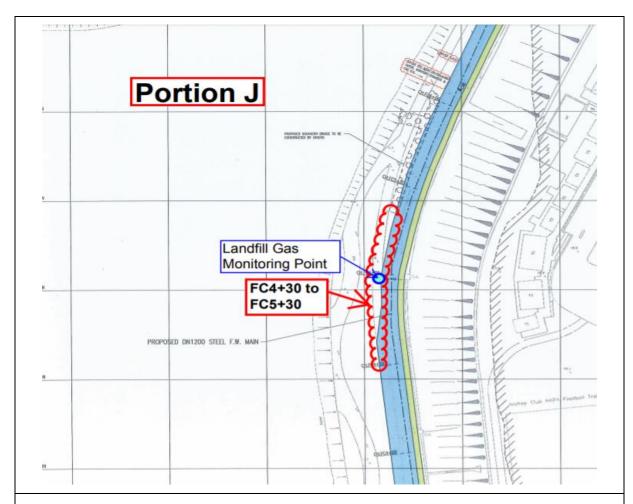


Figure 4.10c Monitoring Location – Landfill Stage 1 (FC4+30-FC5+30)

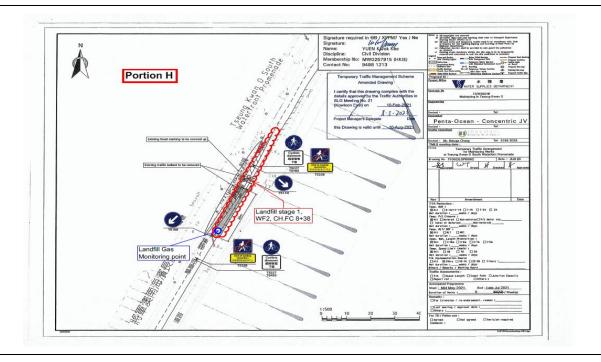


Figure 4.10d Monitoring Location – Landfill Stage 1 (FC8+38)



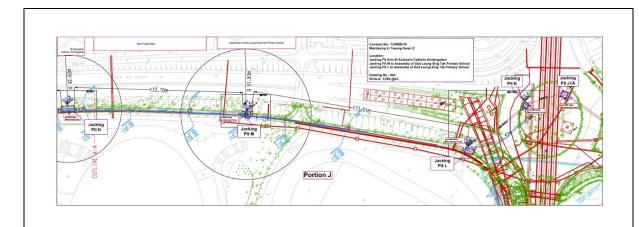


Figure 4.11a Monitoring Location – Pit L-M-N, J1A, K

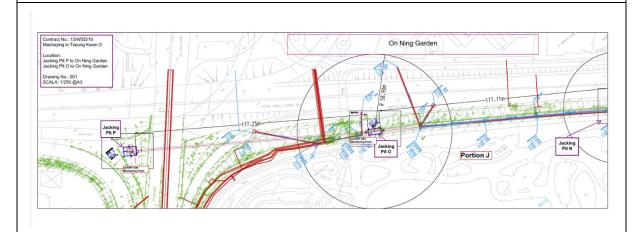


Figure 4.11b Monitoring Location – Pit N-O-P



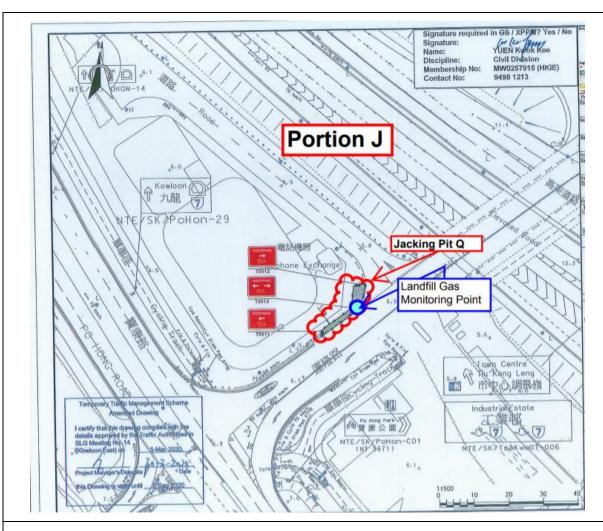


Figure 4.11c Monitoring Location – Pit Q

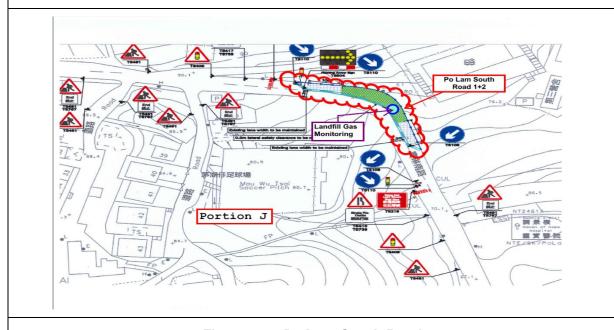


Figure 4.12 Po Lam South Road



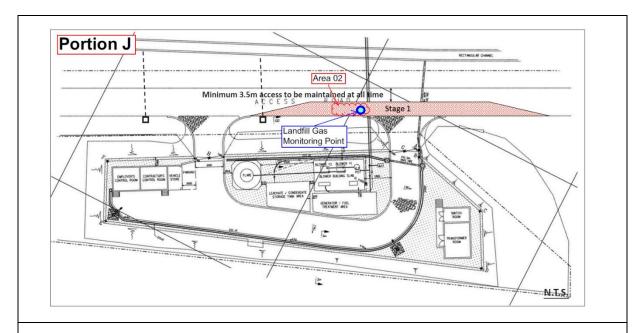


Figure 4.13 Monitoring Location – Area A02

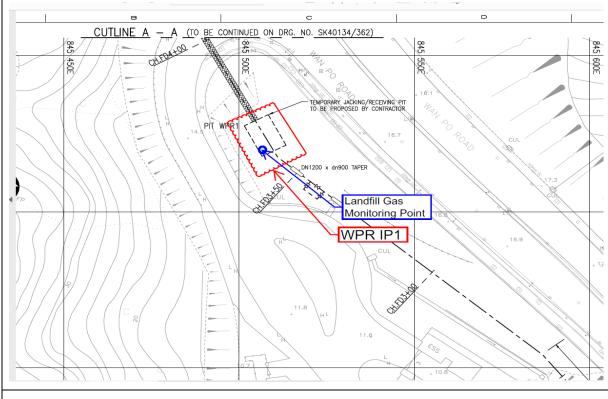


Figure 4.14 Monitoring Location – WPR IP1



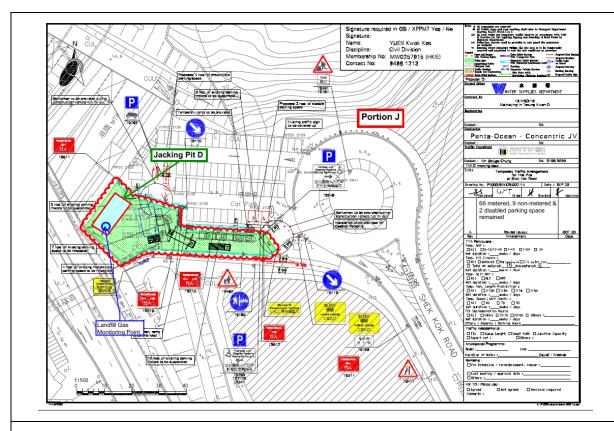


Figure 4.15 Monitoring Location – Jacking Pit D

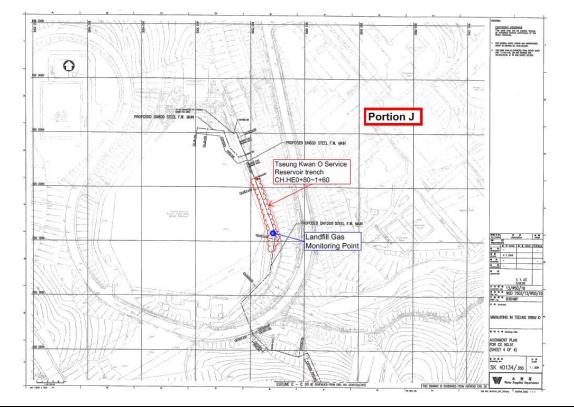


Figure 4.16 Monitoring Location – CH.HE0+80-1+60



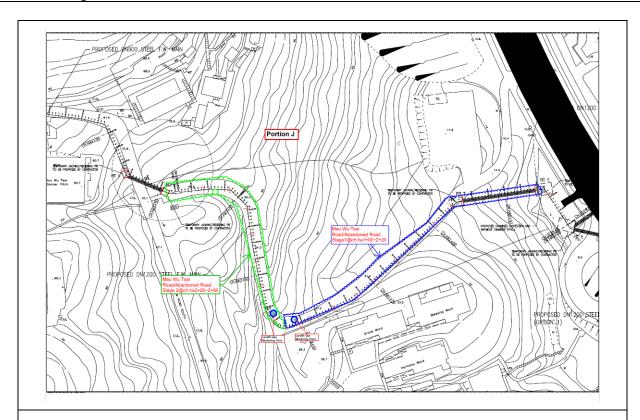


Figure 4.17 Monitoring Location – Mau Wu Tsai Abandoned Road

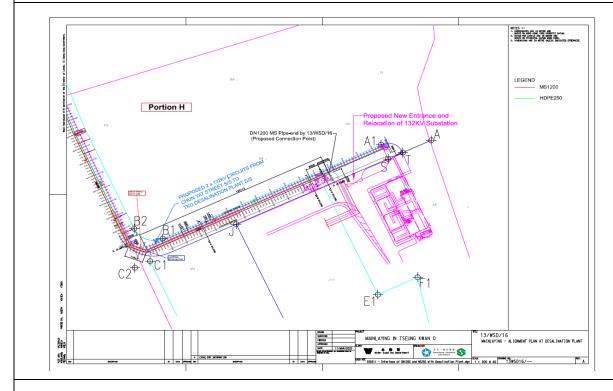


Figure 4.18a Monitoring Location - CH.CT 0+07 ~ 2+58



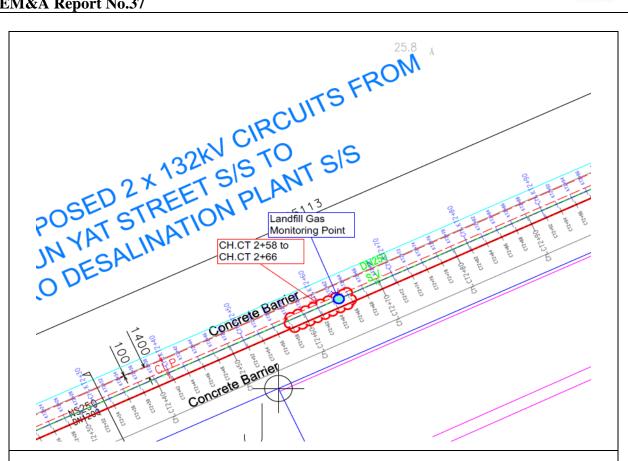


Figure 4.18b Monitoring Location - CH.CT 2+58 ~ 2+66

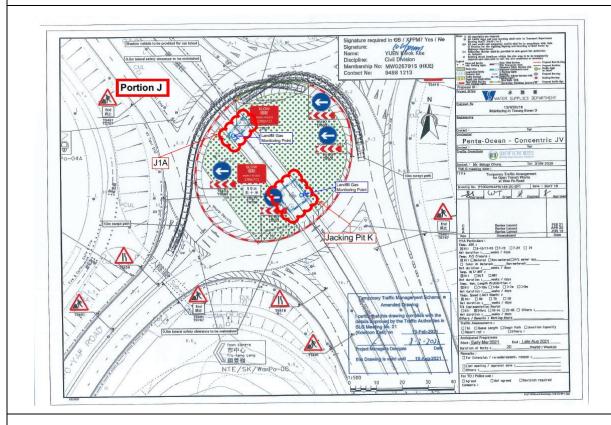


Figure 4.19 Monitoring Location – Pit K



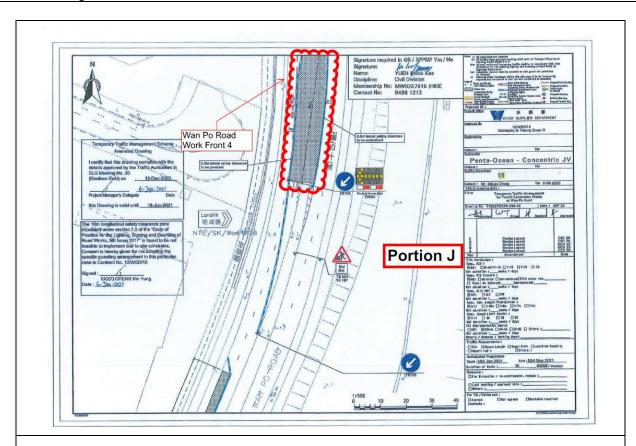


Figure 4.20a Monitoring Location - Wan Po Road 4

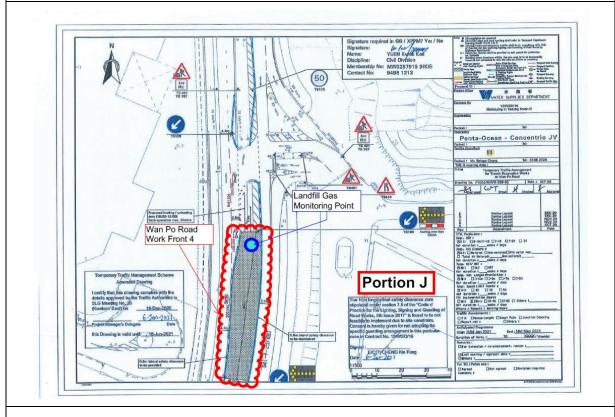


Figure 4.20b Monitoring Location – Wan Po Road 4



4.3 Monitoring Parameters

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

The following parameters were monitored:

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

4.4 Action and Limit Level

Action and Limit Level are provided in Table 4.1.

Table 4.1 Action and Limit Level for Landfill Gas Monitoring Equipment

Parameters	Action Level	Limit Level
Oxygen (O2)	<19% O2	<19% O2
Methane (CH4)	>10% LEL	>80% LEL
Carbon Dioxide (CO2)	>0.5% CO2	>1.5% CO2

4.5 Monitoring Equipment

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

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



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

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

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

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



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

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

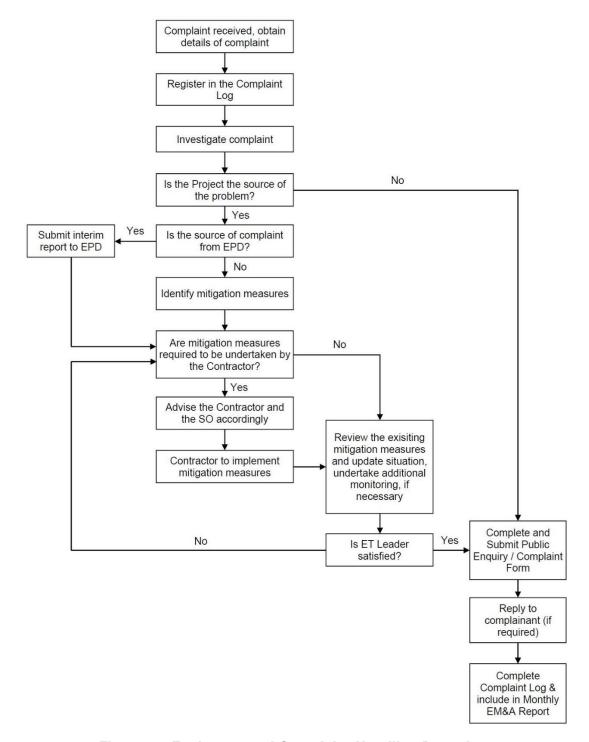


Figure 5.1 Environmental Complaint Handling Procedure



- 5.2 Impact monitoring for noise impact was conducted in the reporting month for NSR4 Creative Secondary School on 4, 13, 19 and 25 August 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 5, 13, 20 and 27 August 2021 at the site portions list in **Table 6.1** below.

Table 6.1 Site Inspection Record

Date	Inspected Site Portion	Time
05 August 2021	Portion F and J	9:35am – 11:30am
13 August 2021	Portion J	9:30am – 12:00pm
20 August 2021	Portion J	9:30am – 12:00pm
27 August 2021	Portion J	9:20am – 12:00pm

- 6.2 One joint site inspection with IEC was carried out on 27 August 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
Date 05 August 2021	Environmental Observations 1. Gully was not protected by sandbags and geotextile at Wan Po Road 1 and Wan Po Road 4. 2. The Main Contractor was reminded that all wastewater should be properly treated before discharge to drainage systems at Wan Po Road 1 and Wan Po Road 2. 3. Construction boundary was not protected by sandbags fully at Wan Po	Follow-up Status 1. Gully was protected by sandbags and geo-textile. 2. There was no wastewater being discharged from the site. 3. Construction boundary was protected by sandbags fully. 4. Environmental permit was Added.
	Road 4. 4. Environmental permit was not observed at Wan Po Road 4.	
13 August 2021	 Construction boundary was not protected by sandbags at Wan Po Road Dusty materials were found directly next to the water barriers at Wan Po Road 1. These materials should be removed to prevent the escape of the materials to the area outside boundary at Wan Po Road. Gully was not protected by geo-textile and sandbags at Wan Po Road The Main Contractor was reminded that all wastewater should be treated before discharge at Wan Po Road 1. 	 Construction boundary was protected by sandbags. Dusty materials were cleaned. Gully was protected by geotextile and sandbags There was no wastewater being discharged from the site.
20 August 2021	Chemicals were observed not placed in a drip tray at Hong Kong Velodrome (Pit P).	Chemicals were removed in a drip tray.
27 August 2021	No major observations were r	eported.



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



7. FUTURE KEY ISSUES

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

Table 7.1. Key works for the next reporting month

Location	Location	Forecast Works in Next Reporting Month
Portion H of the Project Site	TKO 137 Pit B	Remedial works for TBM pipe jacking will be conducted.
	Wan Po Rd – Workfront 1	Trench excavation and pipe laying will be conducted.
	Wan Po Rd – Workfront 2	Trench excavation and pipe laying works will be conducted.
	Wan Po Rd – Workfront 3	Trench excavation and pipe laying works will be conducted.
	Wan Po Rd – Workfront 4	Trench excavation and pipe laying works will be conducted.
	Wan Po Rd – Pit A	Excavation and ELS works will be conducted.
	Wan Po Rd – Pit B	Pit excavation works will be continued.
		Preparation works for pipe jacking will be conducted.
	Wan Po Rd – Pit D	Excavation and ELS works will be conducted.
	Landfill Stage 1 – Area A	900HSV Chamber construction works will be conducted.
Portion J of the	Landfill Stage 1 – Area B	Trench excavation and pipe laying works will be conducted.
Project Site	Cycle Track – Workfront 2	Trench excavation and pipe laying works will be conducted.
	Roundabout – Pit G1A	Demolishing works for road planter will be conducted.
	Roundabout – Pit J1A	Trenchless works by hand-shield will be continued.
	Velodrome – Pit L	Trial trench works for alternative method will be continued.
	Velodrome – Pit M	Rescue pit construction works will be continued.
	Velodrome – Pit O	Trial trench works for alternative method will be continued.
	Velodrome – Pit P	MTBM pipe jacking will be commenced.
	Ling Hong Road - Pit Y	Excavation & ELS works for pit construction will be continued.
	Ling Hong Road - Pit R	Trenchless hand-shield pipe jacking works will be conducted.
	Mau Wu Tsai – Workfront 1	Trench excavation and pipe mainlaying works will be conducted.



Location	Location	Forecast Works in Next Reporting Month
		Construction of Washout Chamber will be conducted.
	Mau Wu Tsai – Workfront 2	Laying of branch pipe will be conducted.
	Po Lam Road South Stage-	Trench backfilling and reinstatement will be continued.
	Po Lam Road (D1)	Trench backfilling and reinstatement will be continued.
	Po Lam Road (B5)	Trench backfilling and reinstatement will be continued.
	Po Lam Road (A0)	TTA works will be shifted to next section A1.
	Tsui Lam Road	Trial pit works will be conducted.
	TKO Primary Service Reservoir	 Trench excavation and pipe laying works will be conducted. Trial pit works will be conducted.

- 7.2 The major environmental impacts brought by the above construction works will include:
 - Construction dust and noise generation of saw cutting of concrete surface, mainlaying of pipes, drilling activities, TBM break through and excavation works.
 - Waste generation from construction activities
 - Impact on water quality from construction activities
- 7.3 The key environmental mitigation measures for the Project in the coming reporting period associated with the above construction works will include:
 - Dust suppression by regular wetting and water spraying for saw cutting of concrete surface, mainlaying of pipes, drilling activities, TBM break through and excavation works
 - Reduction of noise from equipment and machinery on-site
 - Sorting and storage of general refuse and construction waste
 - Treatment of wastewater with water treatment facilities before discharge
- 7.4 The proactive environmental protection proforma for the next reporting month is listed in **Appendix M**.
- 7.5 Referring to EM&A Manual Section 4.1.2, the impact noise monitoring should be carried out at all the designated monitoring stations when there are project-related construction activities undertaken within a radius of 300m from the monitoring stations.
- 7.6 The tentative impact monitoring schedule for the next reporting month is attached in **Appendix N**.



8. CONCLUSION AND RECOMMENDATIONS

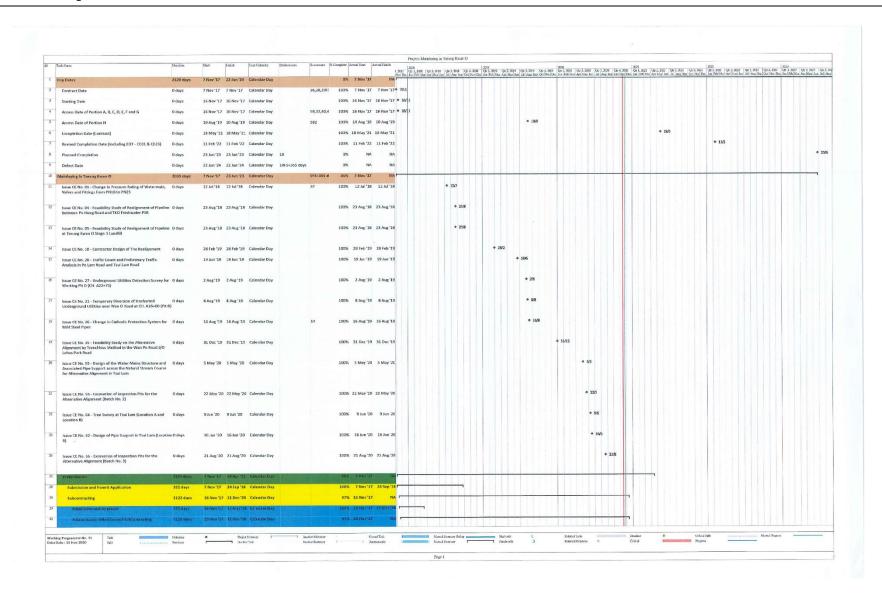
- 8.1 This is the 37th monthly Environmental Monitoring and Audit (EM&A) Report presenting the EM&A works undertaken during the period from 1 August 2021 to 31 August 2021, in accordance with the EM&A Manual and the requirement under EP-503/2015/A.
- 8.2 Impact monitoring for noise impact was conducted in the reporting month for NSR4 Creative Secondary School on 4, 13, 19 and 25 August 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.



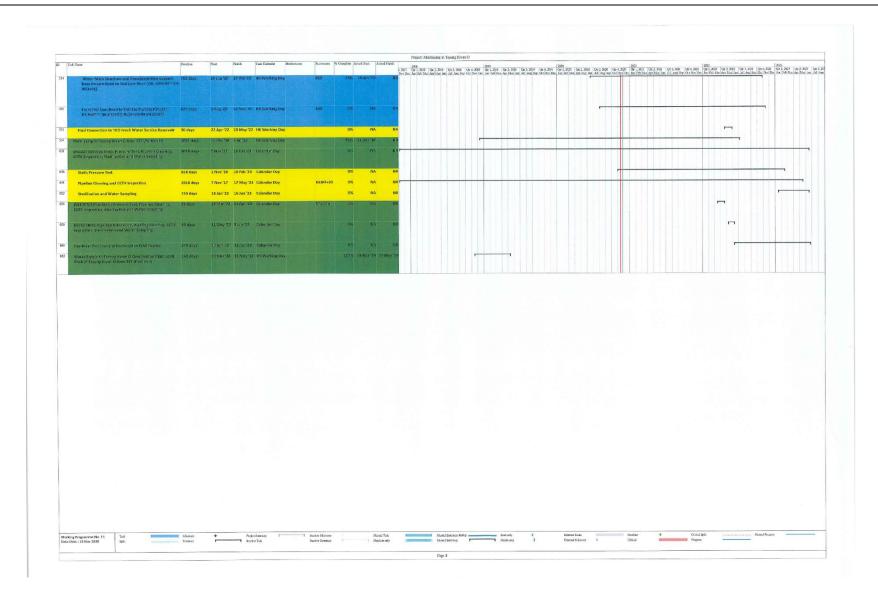
Appendix A

Construction Programme

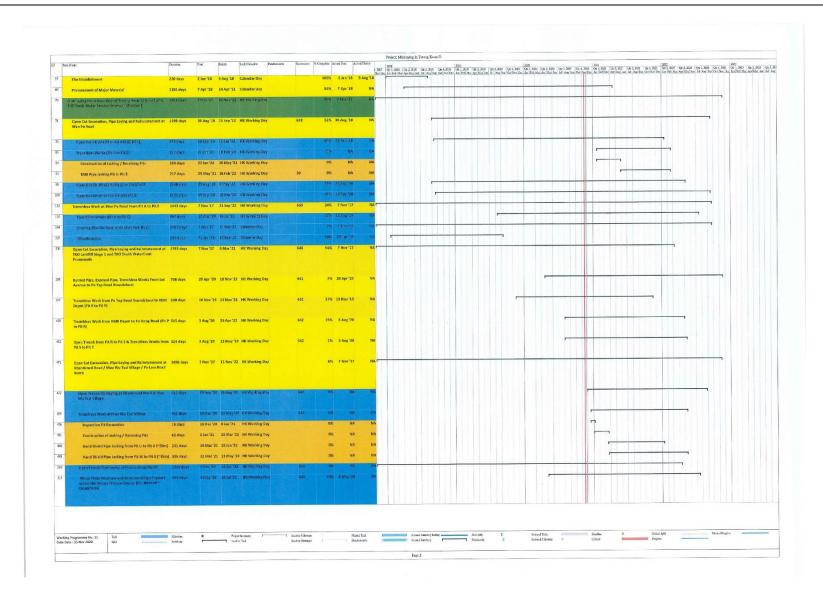




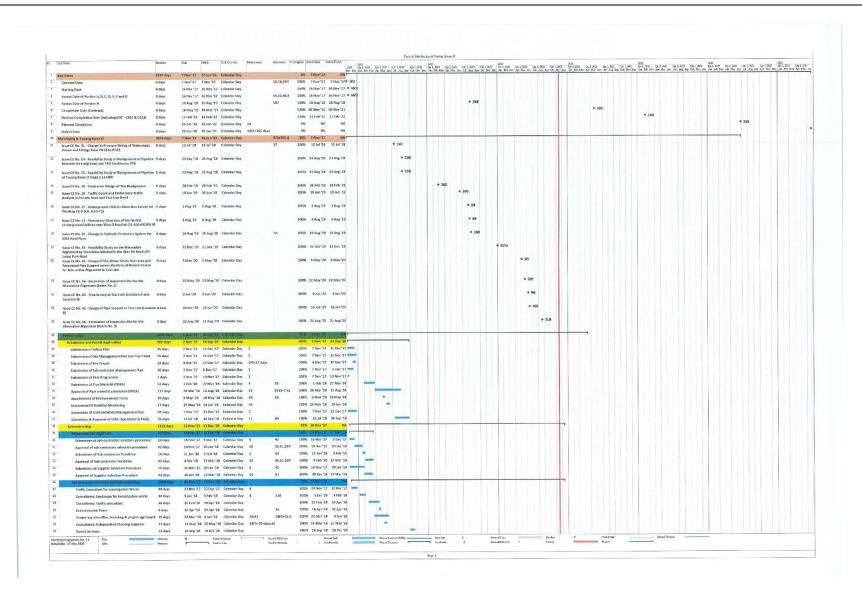




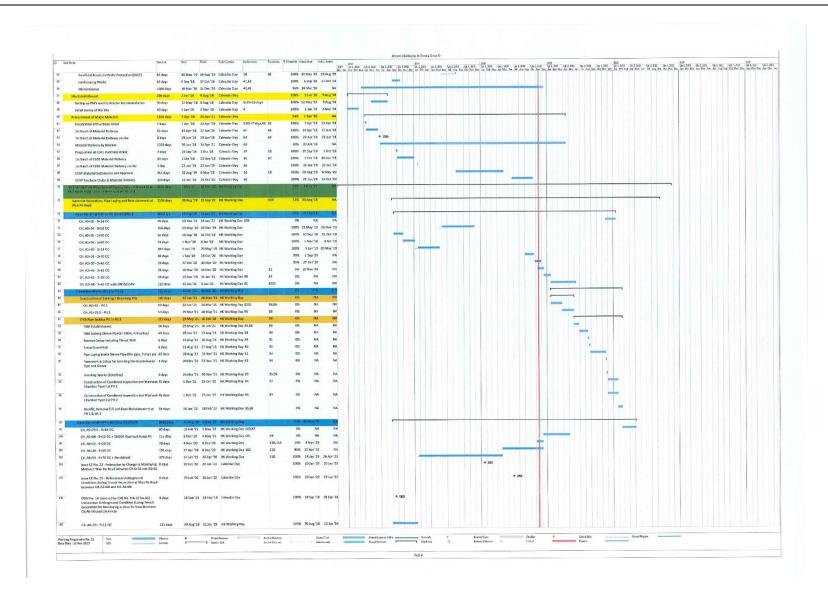




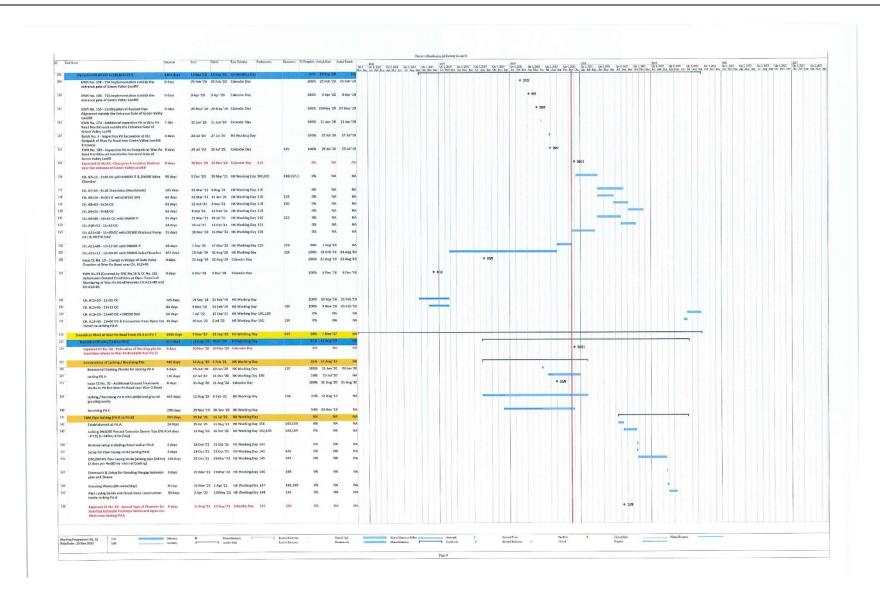




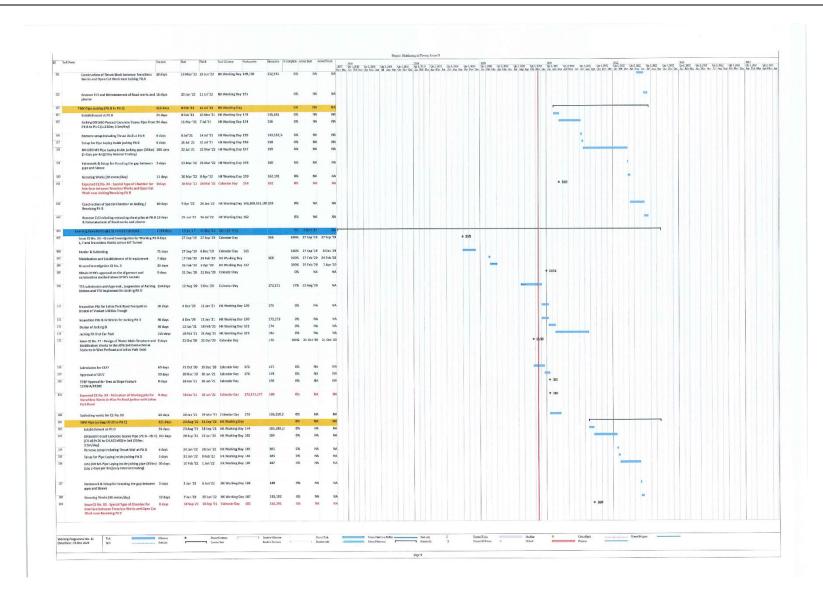




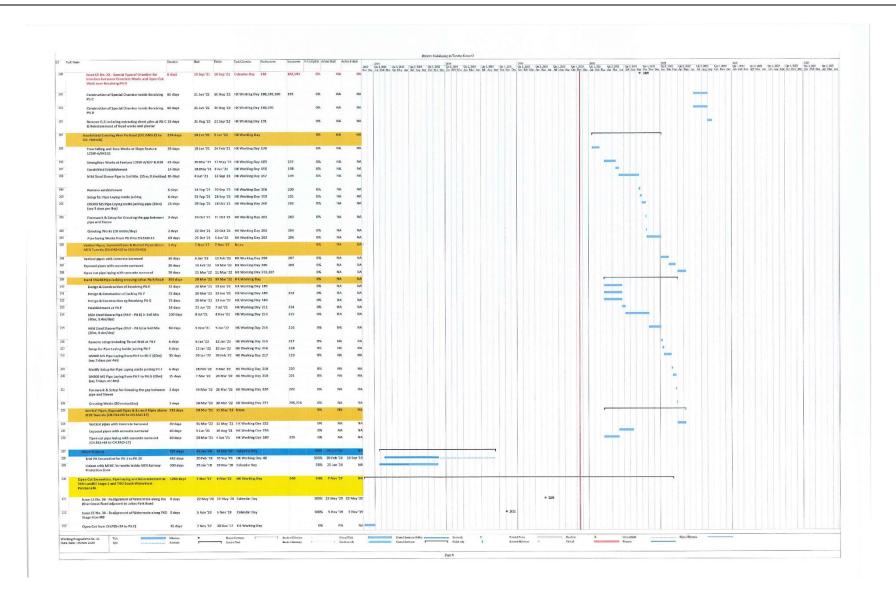




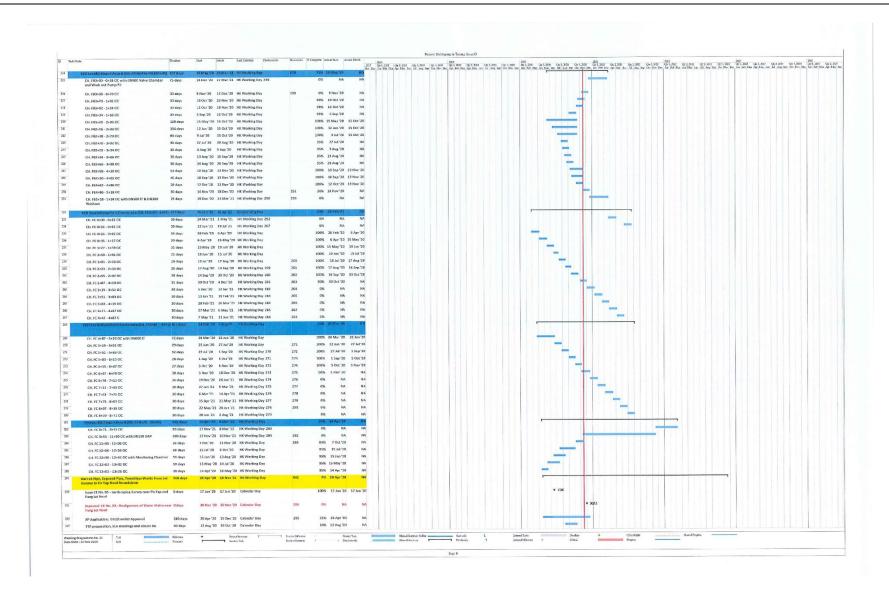




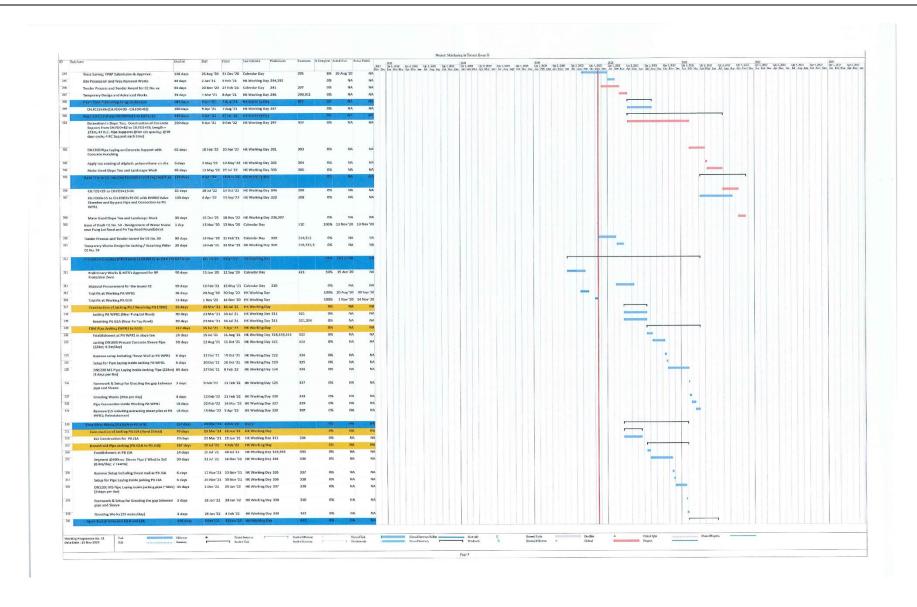




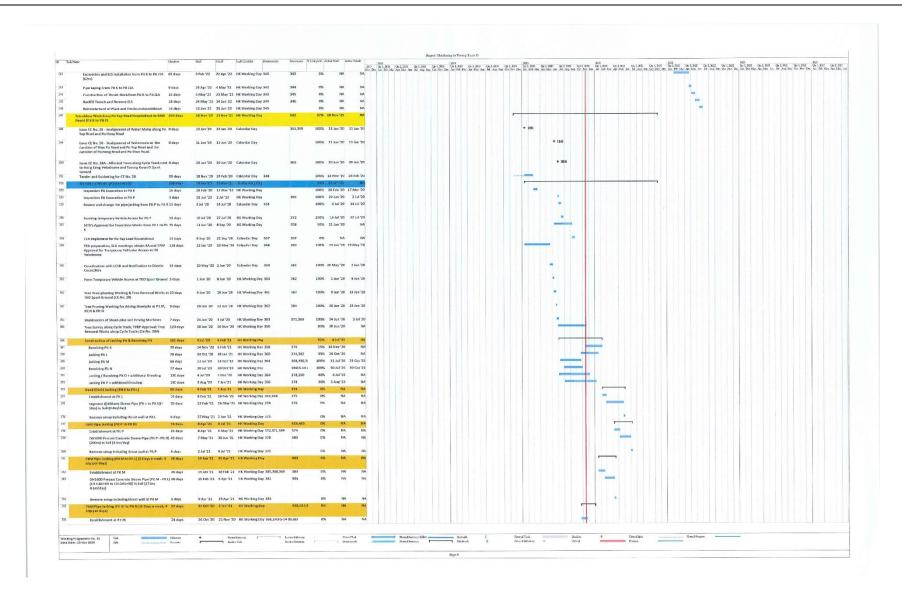




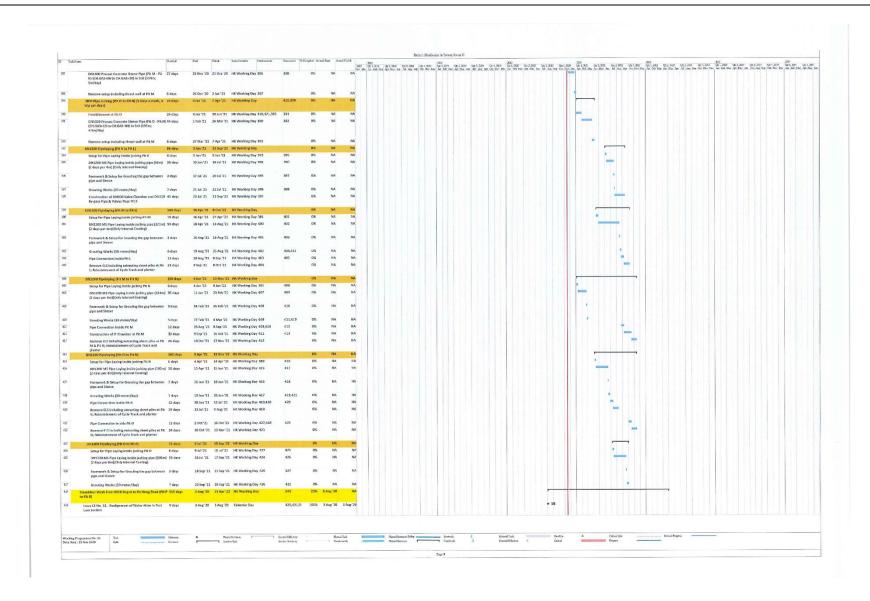




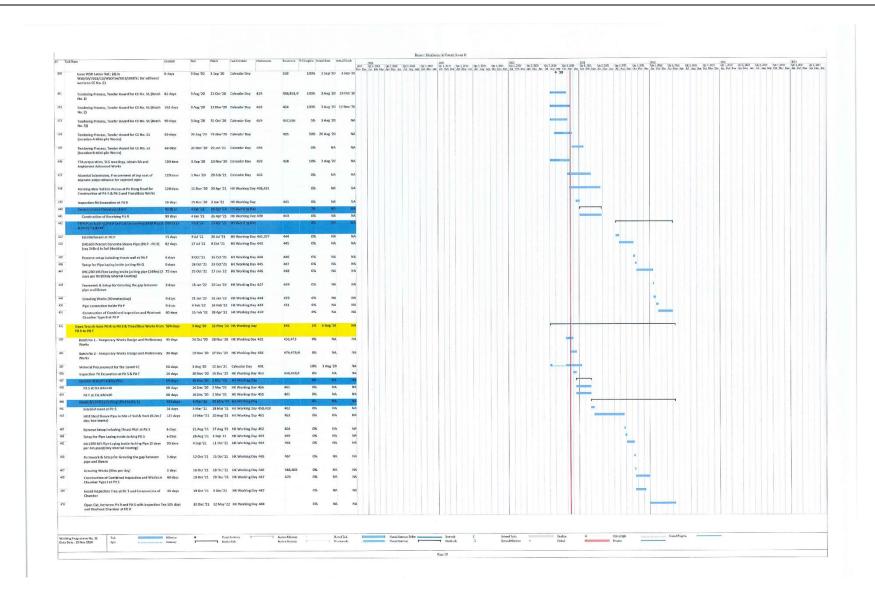




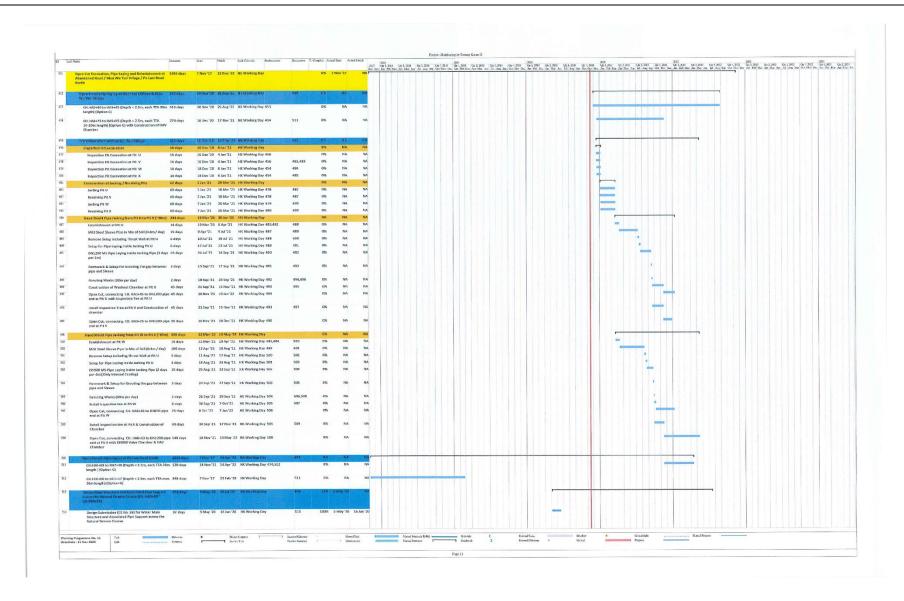




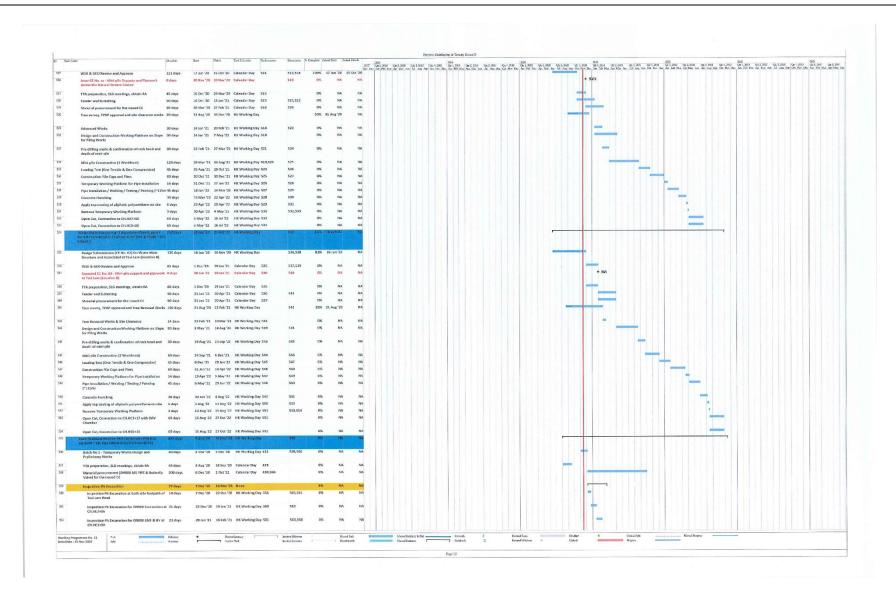




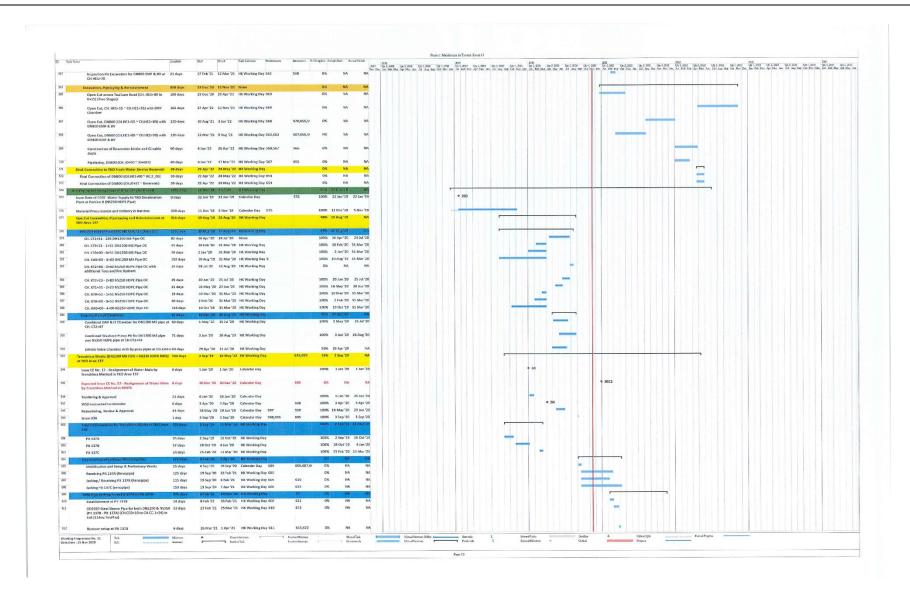




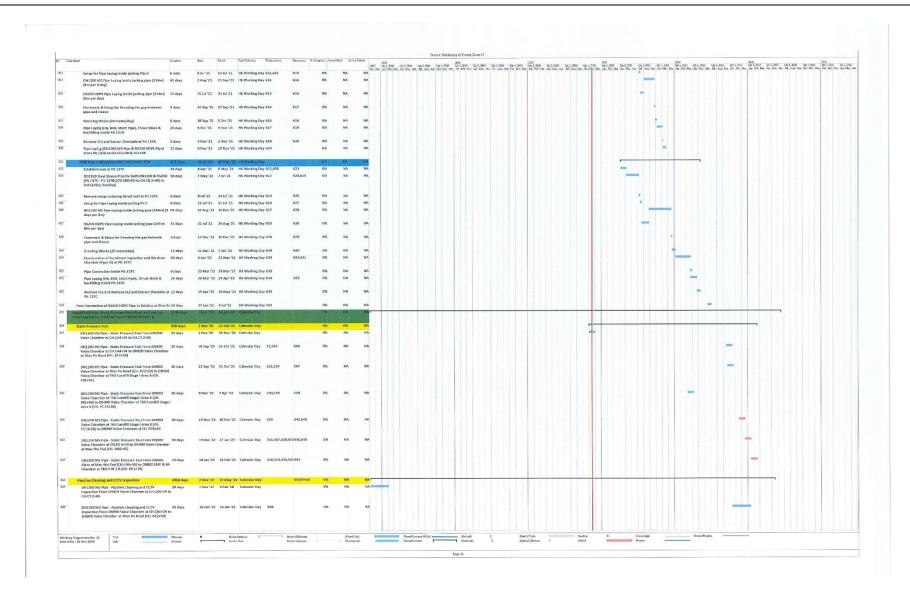




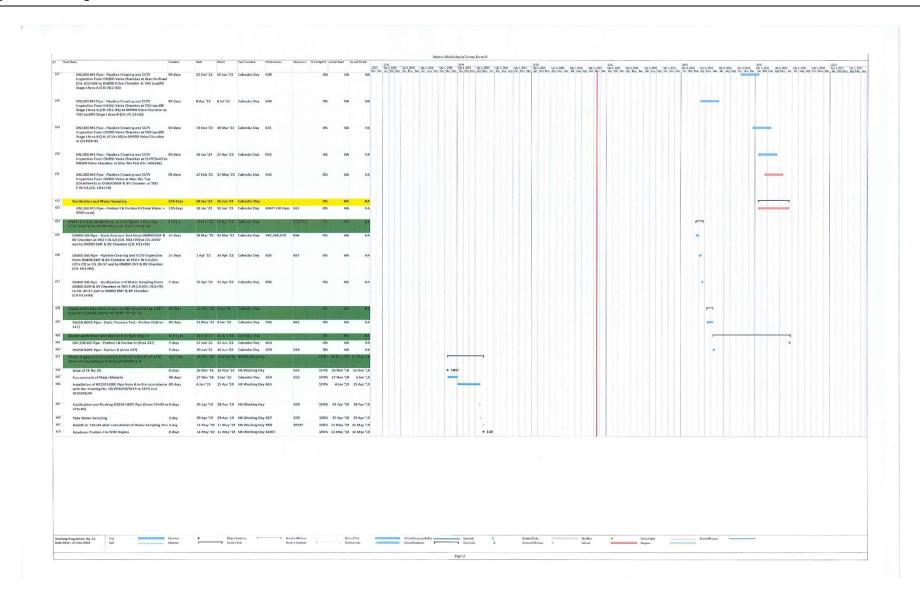














Appendix B

Overview of Mainlaying in Tseung Kwan O



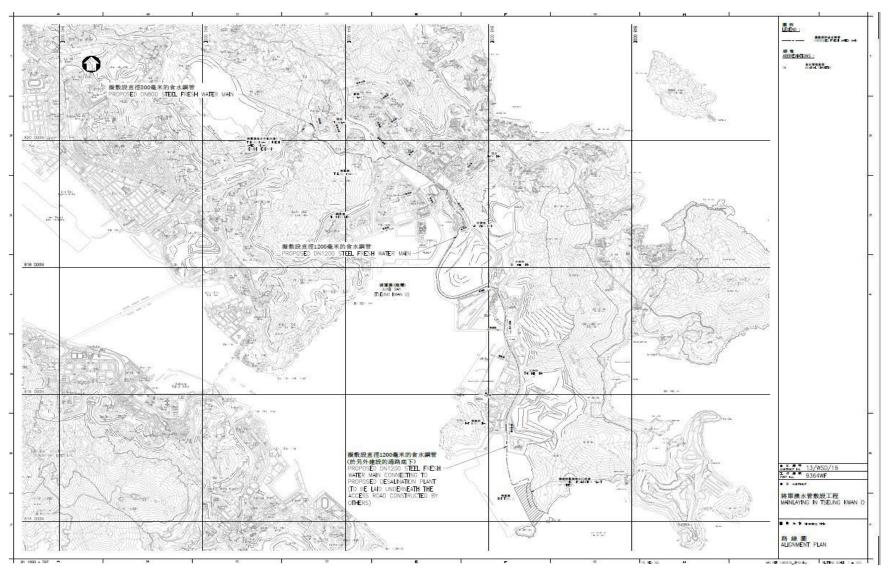


Figure B1. Overview of Mainlaying in TKO



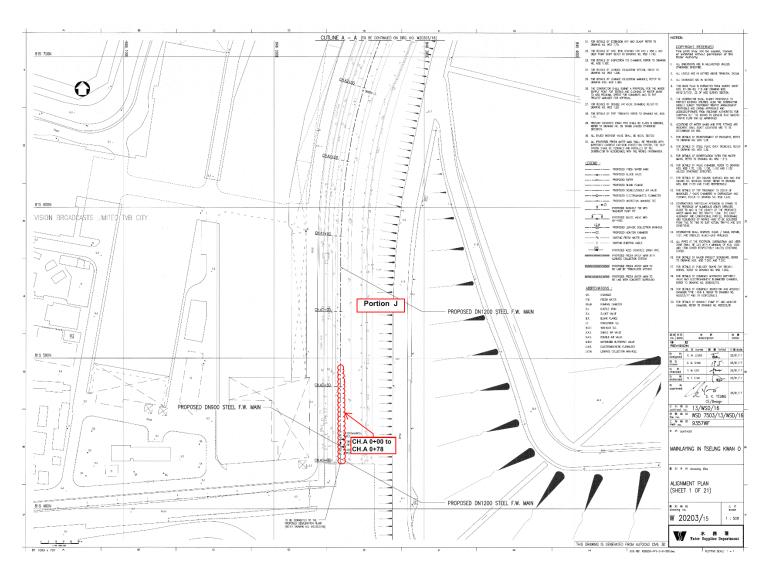


Figure B2. Location Plan for Portion J - CH.A 0+00 to CH.A 0+78



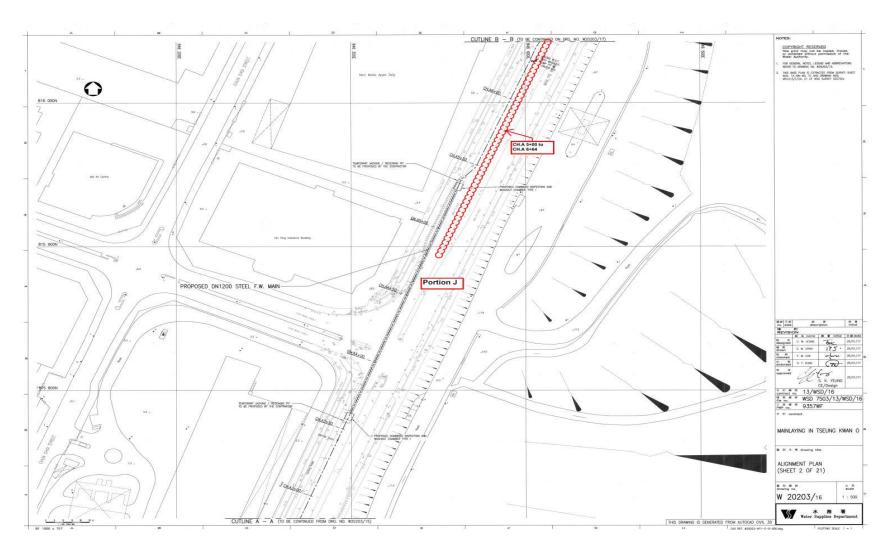


Figure B3a. Location Plan for Portion J - CH.A 5+00 to CH.A 6+64



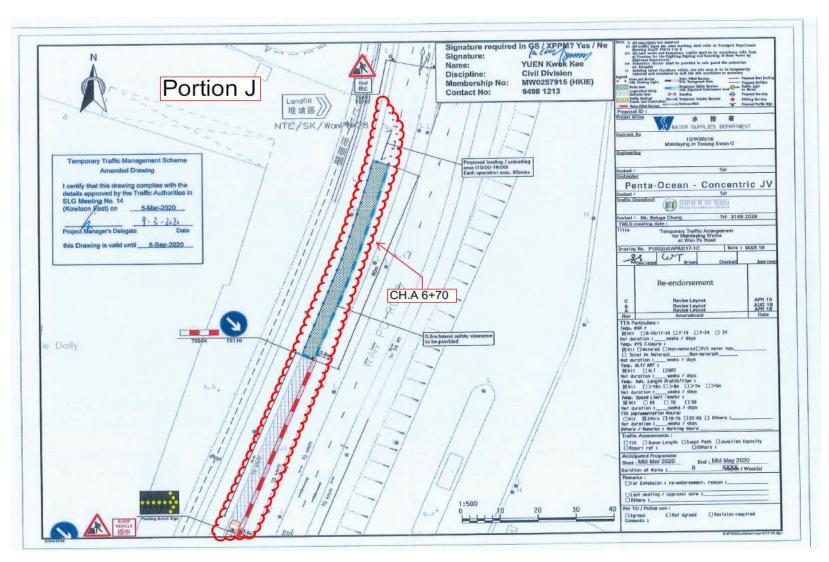


Figure B3b(i). Location Plan for Portion J - CH.A 6+70



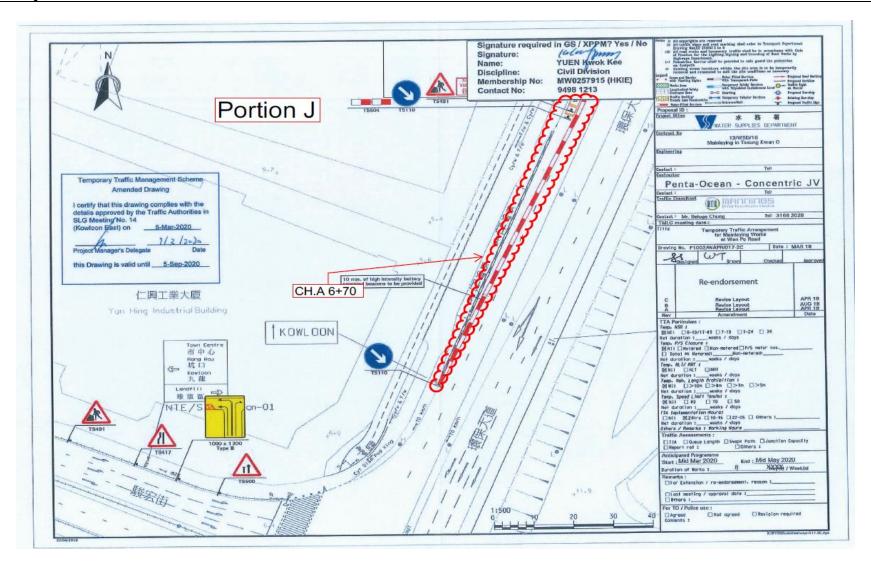


Figure B3b(ii). Location Plan for Portion J - CH.A 6+70



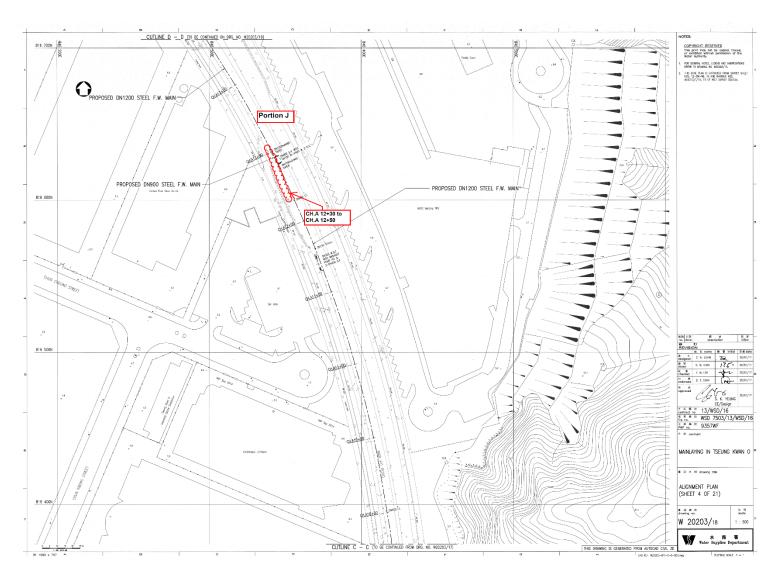


Figure B4. Location Plan for Portion J - CH.A 12+30 to CH.A 12+50



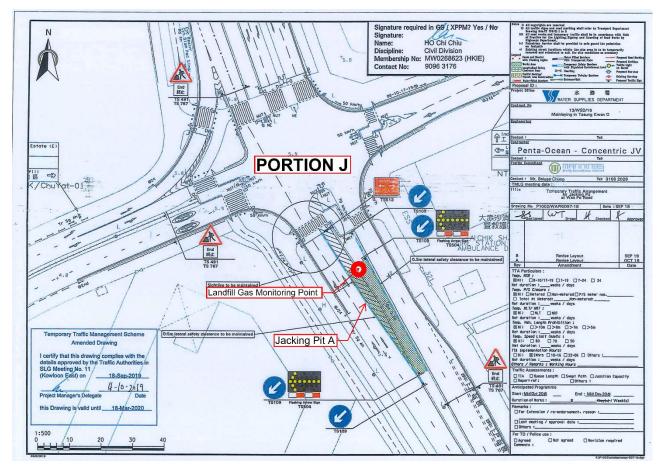


Figure B5. Location Plan for Portion J - CH. A13+50 to CH.A 14+00 (Pit A)



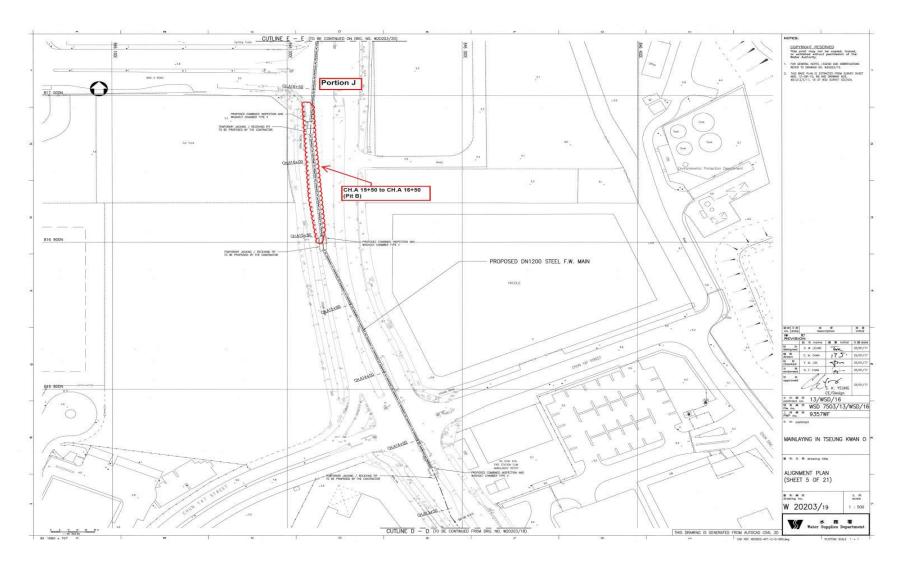


Figure B6. Location Plan for Portion J – CH. A15+50 to CH.A 16+50 (Pit B)



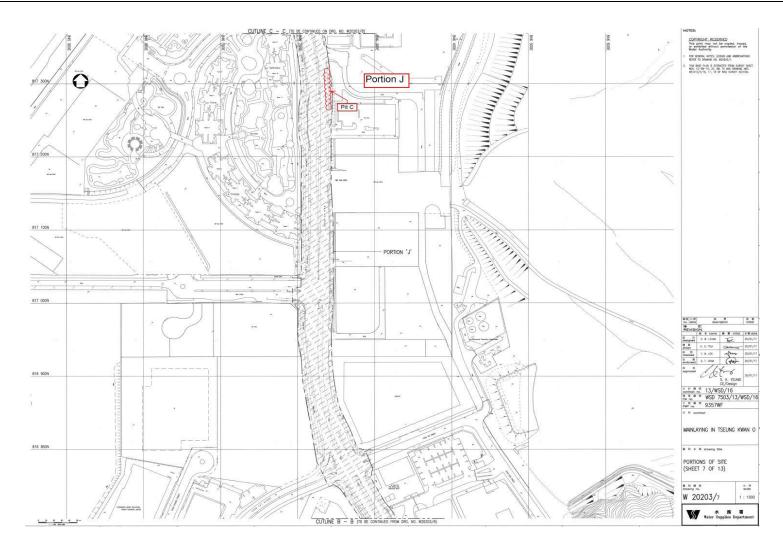


Figure B7. Location Plan for Portion J – CH.A 19+15 to CH.A 19+50 (Pit C)



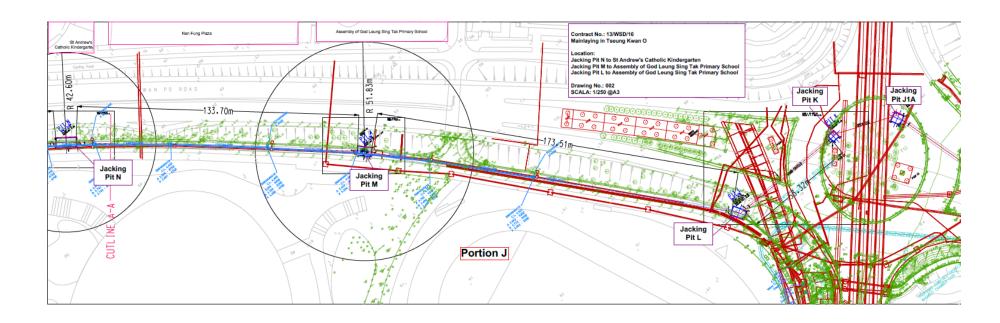


Figure B8a. Location Plan for Portion J - Pit L-M-N, K, J1A



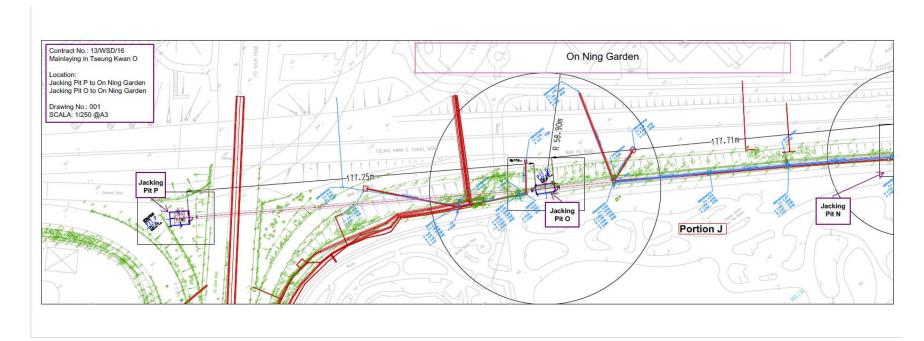


Figure B8b. Location Plan for Portion J – Pit N-O-P



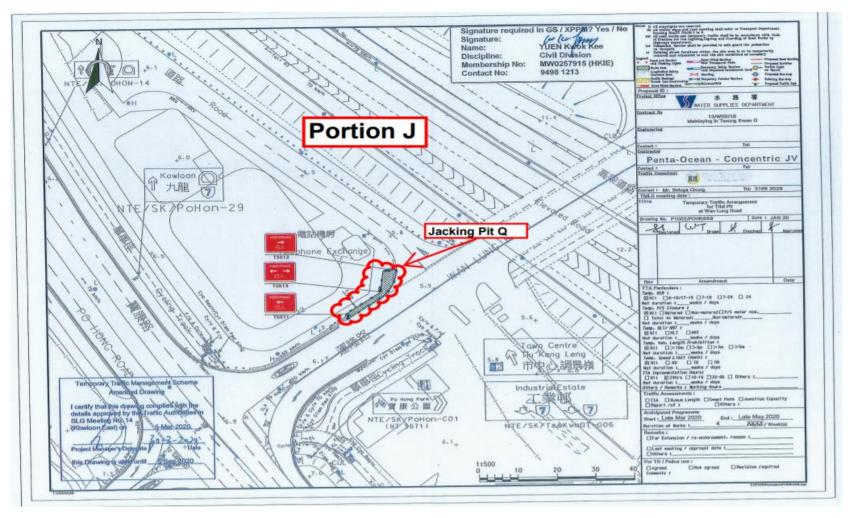


Figure B8c. Location Plan for Portion J – Pit Q



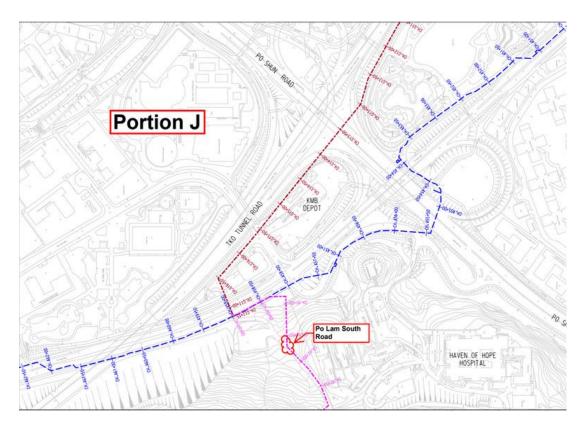


Figure B9a. Location Plan for Mau Wu Tsai 1

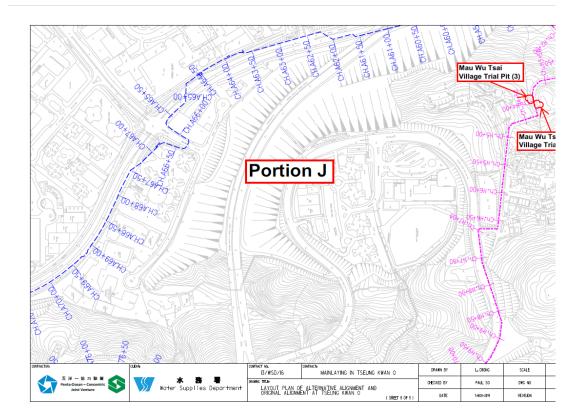


Figure B9b. Location Plan for Mau Wu Tsai 2 & 3



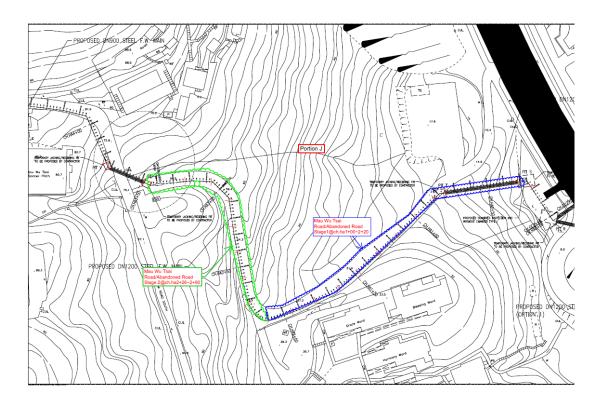


Figure B9c. Abandoned Mau Wu Tsai Road

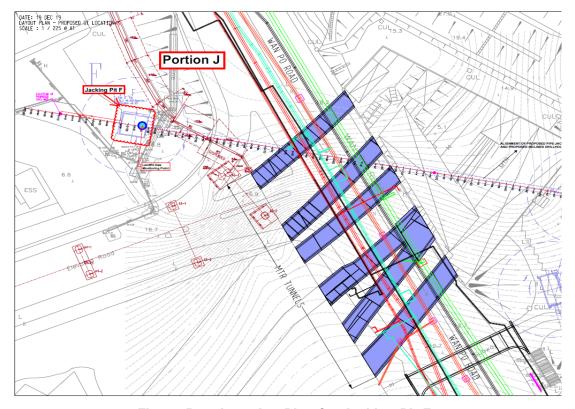


Figure B10. Location Plan for Jacking Pit F



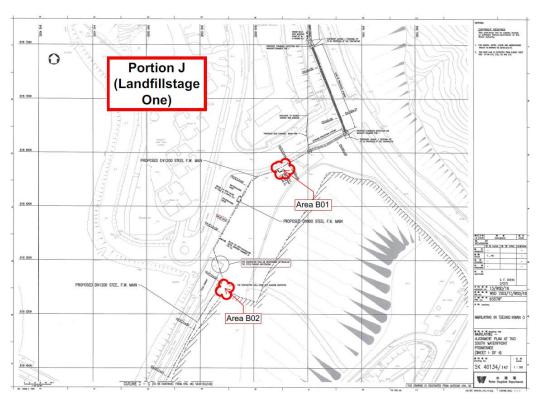


Figure B11a. Location Plan - Landfill Stage 1 (Area B01-B02)

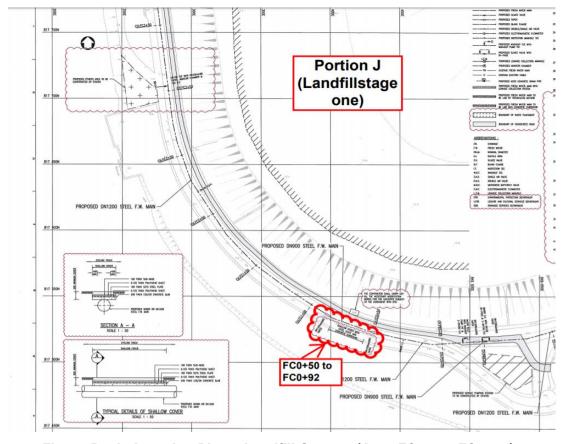


Figure B11b. Location Plan – Landfill Stage 1 (Area FC0+50 -FC0+92)



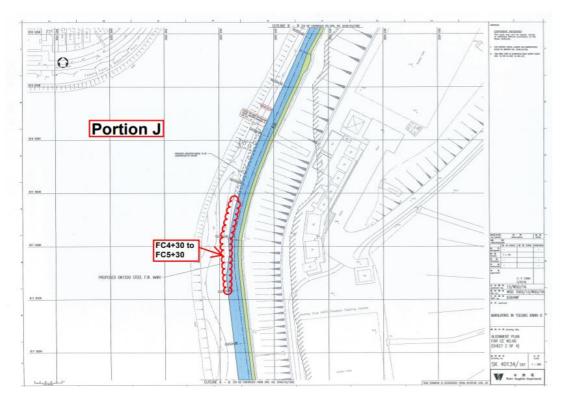


Figure B11c. Location Plan - Landfill Stage 1 (Area FC4+30 -FC5+30)

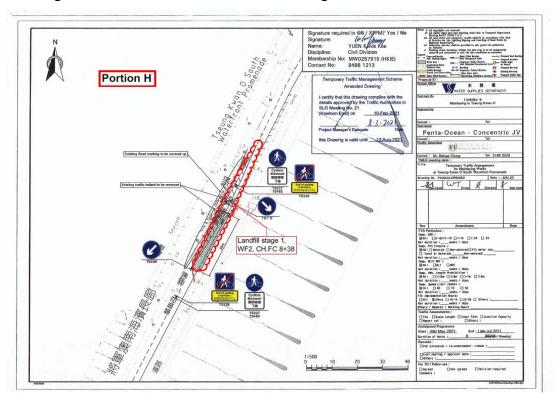


Figure B11d. Location Plan – Landfill Stage 1 (Area FC8+38)



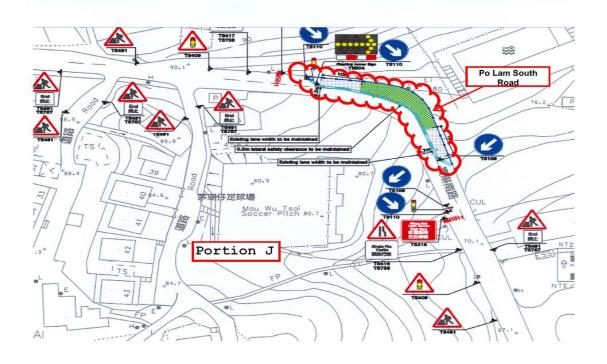


Figure B12. Monitoring Location - Po Lam South Road

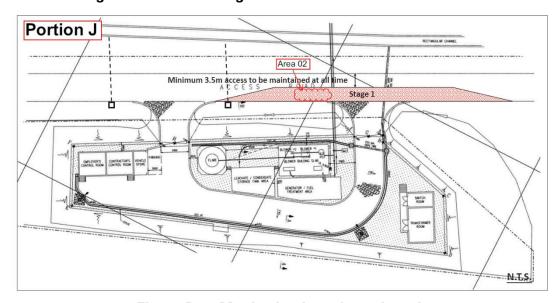


Figure B13. Monitoring Location - Area A02



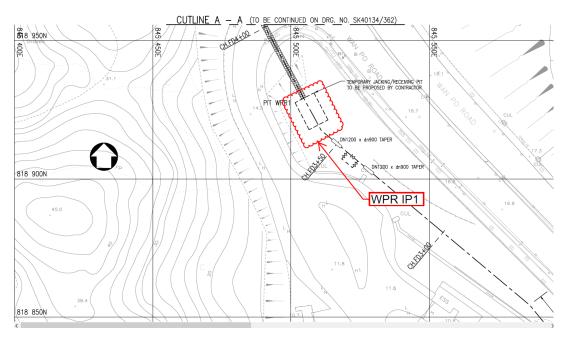


Figure B14. Location Plan for WPR IP1

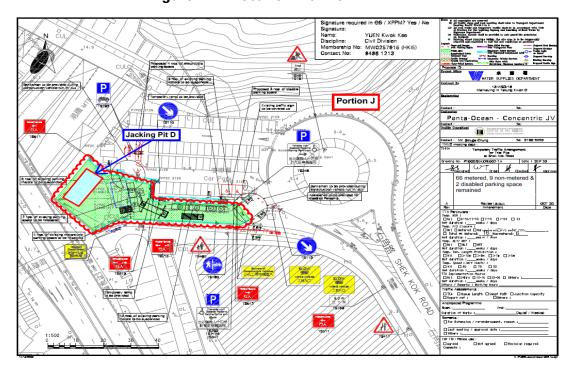


Figure B15. Location Plan for Jacking Pit D



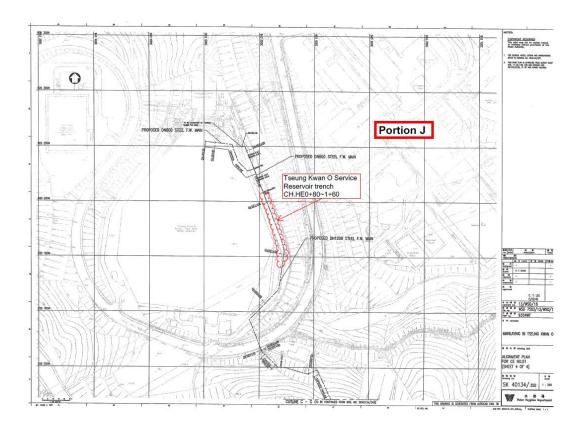


Figure B16. Location Plan for CH.HE0+80-1+60

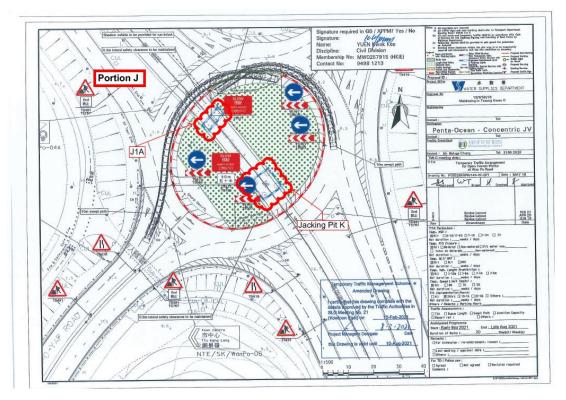


Figure B17. Location Plan for Pit K



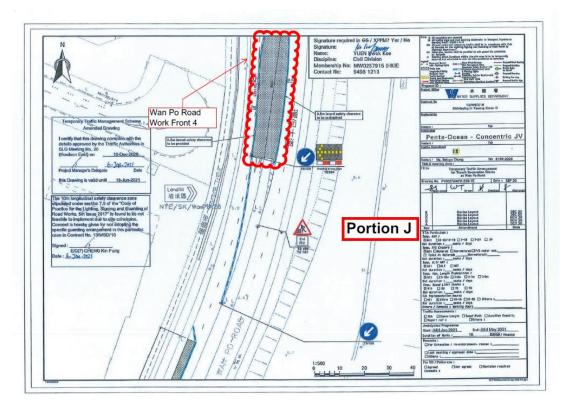


Figure B18a. Location Plan for Wan Po Road 4

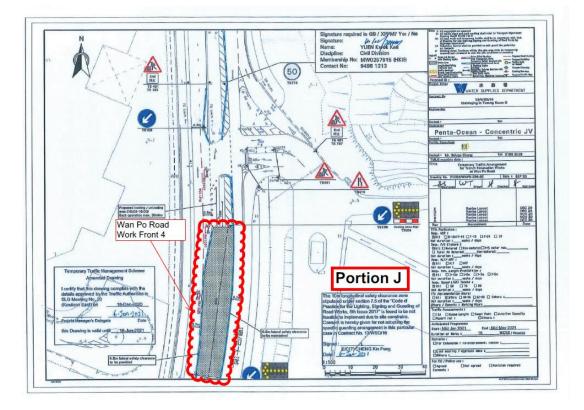


Figure B18b. Location Plan for Wan Po Road 4



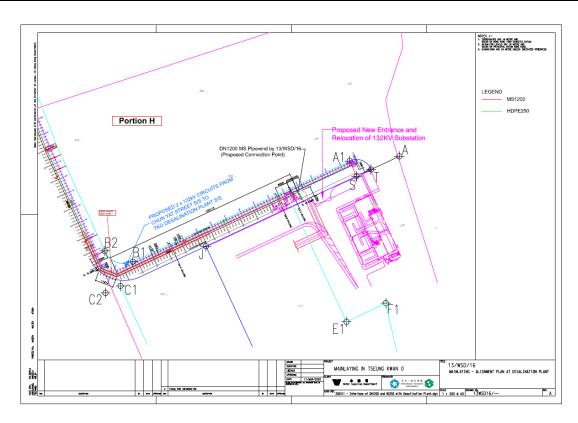


Figure B19a. Location Plan for CH.CT 0+07 - 2+58

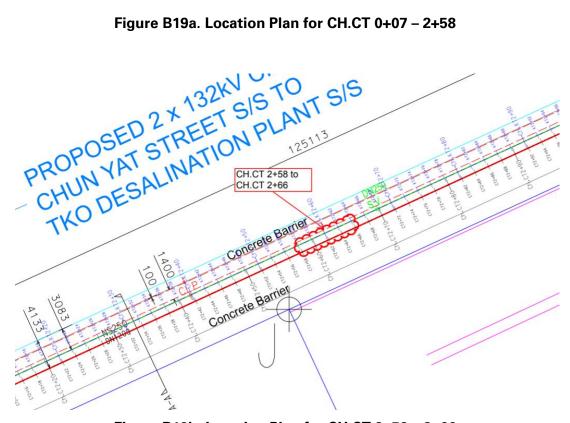


Figure B19b. Location Plan for CH.CT 2+58 - 2+66



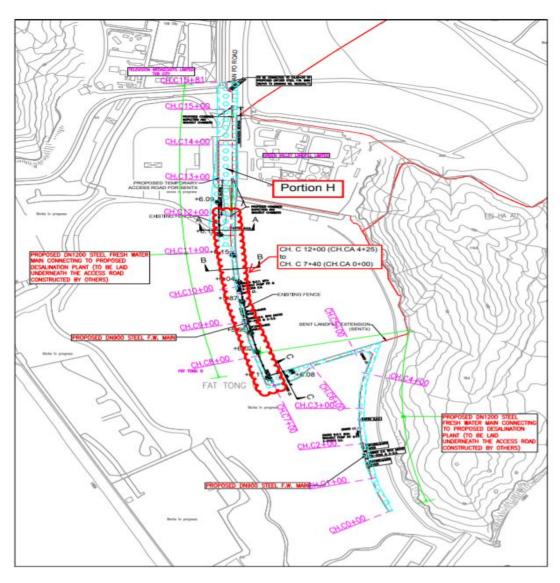


Figure B20. Location Plan for Portion H– CH.C 7+40~CH.C 12+00 (CH.CA 0+00 ~ CH.CA4+25)



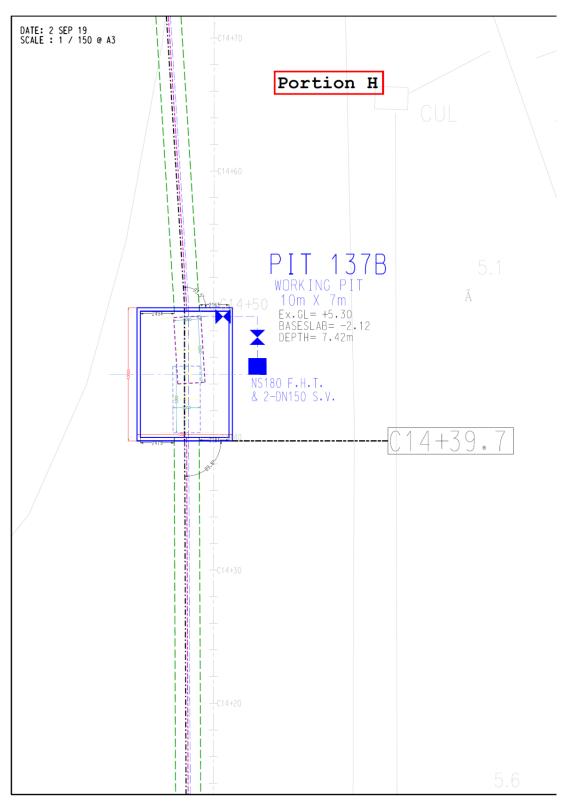


Figure B21a. Location Plan for Portion H- Pit 137B



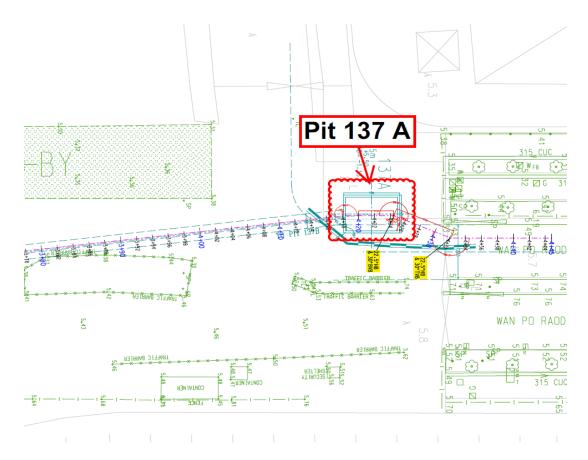


Figure B21b. Location Plan for Portion H- Pit 137A

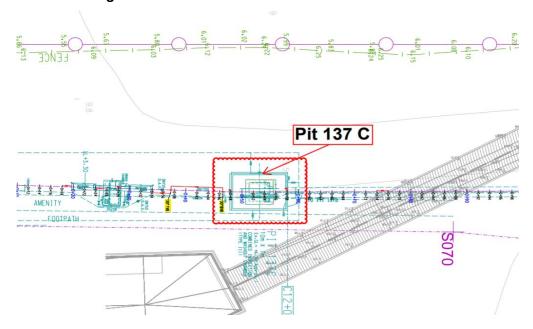


Figure B21c. Location Plan for Portion H- Pit 137C



Appendix C

Summary of Implementation Status of Environmental Mitigation



EIA Reference	Recommended Environmental Protection	Objectives of the recommended measures	Implementation	Impler Stage	nentat	ion	Implementation	Relevant Legislation & Guidelines
LIA HOIOI CHOO	Measures/ Mitigation Measures	& main concerns to address	Agent	D	С	0	status	
Air Quality		auuress						
S4.8.1	Impervious dust screen or sheeting will be provided to enclose scaffolding from the ground floor level of building for construction of superstructure of the new buildings.	Land site/ During Construction	Contractor(s)		✓		N/A	Air Pollution Control (Construction Dust)
S4.8.1	Impervious sheet will be provided for skip hoist for material transport.	Land site/ During Construction, particularly dry season	Contractor(s)		1		NA	
S4.8.1	The area where dusty work takes place should be sprayed with water or a dust suppression chemical immediately prior to, during and immediately after dusty activities as far as practicable.	Land site/ During Construction	Contractor(s)		✓		Implemented, reminder issued.	
S4.8.1	All dusty materials should be sprayed with water or a dust suppression chemical immediately prior to any loading, unloading or transfer operation.	Land site/ During Construction	Contractor(s)		✓		Implemented, 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)		✓		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	



FIA Deference	Recommended Environmental Protection	Objectives of the recommended measures	Implementation	Imple: Stage	mentat	ion	Implementation	Relevant Legislation & Guidelines
EIA Reference	Measures/ 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)	✓	√		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)		1		Implemented	
S4.8.1	Temporary stockpiles of dusty materials will be either covered entirely by impervious sheets or sprayed with water to maintain the entire surface wet all the time.	Land site/ During construction	Contractor(s)		√		Rectified after observed.	
S4.8.1	Stockpiles of more than 20 bags of cement, dry pulverised fuel ash and dusty construction materials will be covered entirely by impervious sheeting sheltered on top and 3-sides.	Land site/ During construction	Contractor(s)		✓		Implemented	
S4.8.1	All exposed areas will be kept wet always to minimise dust emission.	Land site/ During construction	Contractor(s)		✓		Implemented	
S4.8.1	Ultra-low-sulphur diesel (ULSD) will be used for all construction plant on-site, as defined as diesel fuel containing not more than 0.005% sulphur by weight) as stipulated in Environment, Transport and Works Bureau Technical Circular (ETWB-TC(W)) No 19/2005 on Environmental Management on Construction Sites.	Land site/ During construction/ During Operation	Contractor(s)		✓	~	Implemented	Environment, Transport and Works Bureau Technical Circular (ETWB- TC(W)) No 19/2005 on Environmental Management on Construction Sites



EIA Reference	Recommended Environmental Protection	Objectives of the recommended measures	Implementation	Impler Stage	Implementation Stage Implementation		Implementation	Relevant Legislation & Guidelines
EIA Neierelice	Measures/ Mitigation Measures	& main concerns to address	Agent	D	С	0	status	
S4.8.1	The engine of the construction equipment during idling will be switched off.	Land site/ During construction	Contractor(s)		✓		Implemented	
S4.8.1	Concrete batching plant will be required on site. control measures recommended in the Guidance Note on a Best Practicable Means for Cement Works (Concrete Batching Plant) (BPM 3/2 (93)) will be implemented. The control measures recommended in the Guidance Note on a Best Practicable Means for Cement Works (Concrete Batching Plant) (BPM 3/2 (93)) will be	Land site/ During construction	Contractor(s)		✓		N/A	Guidance Note on a Best
S4.8.1	Regular maintenance of construction equipment deployed on-site will be conducted to prevent black smoke emission.	Land site/ During construction	Contractor(s)		√		Implemented	
S4.10	To ensure proper implementation of the recommended dust mitigation measures and good construction site practices during the construction phase, environmental site audits on weekly basis is recommended throughout the construction period.	Land site/ During construction	Contractor(s)/ Environmenta I Team (ET) & Independent Environmenta I Checker (IEC)		~		Implemented	



EIA Reference	Recommended Environmental Protection	Objectives of the recommended measures &	Implementation	Implen Stage	nentat	ion	Implementation status	Relevant Legislation &
	Measures/ Mitigation Measures	main concerns to address	Agent	D	С	0		Guidelines
Noise								
S5.7	Only well-maintained plant will be operated on-site and plant will be serviced regularly during the construction phase.	All area/ During construction	Contractor(s)		✓		Implemented	A Practical Guide for the Reduction of Noise from Construction Works,
S5.7	Silencers or mufflers on construction equipment will be utilised and will be properly maintained during the construction phase.	Noise control/ During construction	Contractor(s)		√		N/A	A Practical Guide for the Reduction of Noise from Construction Works,
S5.7	Mobile plant, if any, will be sited as far away from NSRs as possible.	Noise control/ During construction	Contractor(s)		✓		Implemented	A Practical Guide for the Reduction of Noise from Construction Works,
S5.7	Machines and plant (such as trucks) that may be in intermittent use will be shut down between work periods or will be throttled down to a minimum.	Noise control/ During construction	Contractor(s)		✓		Implemented	A Practical Guide for the Reduction of Noise from Construction Works,
S5.7	Plants known to emit noise strongly in one direction will, wherever possible, be orientated so that the noise is directed away from the nearby NSRs.	Noise control/ During construction	Contractor(s)		✓		Implemented	A Practical Guide for the Reduction of Noise from Construction Works,
S5.7	Material stockpiles and other structures will be effectively utilised, wherever practicable, in screening noise from on-site construction activities.	Noise control/ During construction	Contractor(s)		✓		N/A	A Practical Guide for the Reduction of Noise from Construction Works,
S5.7	Use of Quite Powered Mechanical Equipment (QPME).	Noise control/ During construction	Contractor(s)		✓		Implemented	A Practical Guide for the Reduction of Noise from Construction Works,
S5.7	Movable noise barriers of 3m in height with skid footing should be used and located within a few metres of stationary plant and mobile plant such that the line of sight to the NSR is blocked by the barriers. The length of the barrier should be at least five times greater	Noise control/ During construction	Contractor(s)		✓		N/A	A Practical Guide for the Reduction of Noise from Construction Works,



EIA Reference	Recommended Environmental Protection	Objectives of the recommended measures &	Implementation	Impler Stage	nentat	ion	Implementation status	Relevant Legislation &
	Measures/ Mitigation Measures	main concerns to address	Agent	D	С	0		Guidelines
	than its height. The noise barrier material							
	should have a superficial surface density of at							
	least 7 kg m ⁻² and have no openings or gaps.							
S5.7	The noise insulating sheet should be deployed	Noise control/	Contractor(s)		✓		N/A	A Practical Guide for
	such that there would be no opening or gaps	During						the Reduction of Noise
	on the joints.	construction						from Construction Works,
S5.7	Construction activities (e.g. excavation/shoring,	Noise control/	Contractor(s)		✓		Implemented	A Practical Guide for
	reinstatement (asphalt), and pipe jacking) will be	During						the Reduction of Noise
	planned and carried out in sequence, such that	construction						from Construction
	items of PME proposed for these activities will							Works
	not be operated simultaneously.							
S5.7	PMEs will not be used at the works areas near	Noise control /	Contractor(s)		✓		Implemented	A Practical Guide for
	educational institutions with residual impact	During						the Reduction of
	(ie the "influence area" within a radius of	construction						Noise from
	40m) during school hours in order to reduce							Construction Works
	impact to the educational institutions.		0	 	/		21/4	
S5.7	Noise enclosures or acoustic sheds would be	Noise control/	Contractor(s)	✓	V		N/A	
	used to cover stationary PME such as	Pre-						
	generators. Portable/Movable noise enclosure made of	construction/						
		During						
	material with superficial surface density of at	construction						
	least 7 kg m ⁻² may be used for screening the noise from operation of the saw/groover,							
	concrete.							
S5.9	Sawcutting pavement, breaking up of	Noise control/	Contractor(s)	1	1		Implemented	
00.0	pavement, excavation /shoring, pipe laying,	Pre-	Contractor(s)				Implemented	
	backfilling, reinstatement (concrete) and	construction/						
	pipe jacking shall be scheduled outside the	During						
	examination period.	construction						
	examination period.	CONSTRUCTION				1		



EIA Reference	Recommended Environmental Protection	Objectives of the recommended measures &	Implementation	Imple Stage	mentat	ion	Implementation status	Relevant Legislation &
	Measures/ Mitigation Measures	main concerns to address	Agent	D	С	0		Guidelines
S5.9	In view the duration of noise exceedance at Creative Secondary School, PLK Laws Foundation College, TKO Kei Tak Primary School and School of Continuing and Professional Studies-CUHK is limited to 8 weeks, the construction work in the influence areas near the four schools shall be scheduled during long school holidays (eg summer holiday, Easter holiday or Christmas holiday, etc) as far as practicable. Scheduling the construction work for the four schools.	Noise control/ Pre- construction/ During construction	Contractor(s)	✓	•		Implemented	
S5.10	A noise monitoring programme shall be implemented for the construction phase.	Designated monitoring stations as defined in EM&A Manual/During construction phase	Environmental Team (ET)		✓		Implemented	
S5.10	The effectiveness of on-site control measures could also be evaluated through the regular site audits.	All facilities/ During construction	Contractor(s)/ Environment al Team (ET) & Independent Environment al Checker (IEC)		~		Implemented	-



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



EIA Reference	Recommended Environmental Protection Measures/ Mitigation Measures	Objectives of the recommended measures &	Implementati on Agent	Imple Stage	mentat	ion	Implementation status	Relevant Legislation &
	ivieasures/ iviitigation ivieasures	main concerns to address	on Agent	D	С	0		Guidelines
S6.9	Silt removal facilities such as silt traps or sedimentation facilities will be provided to remove silt particles from runoff to meet the requirements of the TM standard under the WPCO. The design of silt removal facilities will be based on the guidelines provided in ProPECC PN 1/94. All drainage facilities and erosion and sediment control structures will be inspected on a regular basis and maintained to confirm proper and efficient operation at all times and particularly during rainstorms. Deposited silt and grit will be removed regularly.	Land site & drainage/ During construction	Contractor(s)		•		Implemented, rectified after observatiom	ProPECC PN 1/94 TM Standard under the WPCO
S6.9	Earthworks to form the final surfaces will be followed up with surface protection and drainage works to prevent erosion caused by rainstorms.	Land site & drainage/ During construction	Contractor(s)		√		Implemented	-
S6.9	Appropriate surface drainage will be designed and provided where necessary.	Land site & drainage/ During construction	Contractor(s)		√		Implemented	-
S6.9	The precautions to be taken at any time of year when rainstorms are likely together with the actions to be taken when a rainstorm is imminent or forecasted and actions to be taken during or after rainstorms are summarised in Appendix A2 of ProPECC PN 1/94.	Land site & drainage/ During construction	Contractor(s)		√		Implemented	ProPECC PN 1/94
S6.9	Oil interceptors will be provided in the drainage system where necessary and regularly emptied to prevent the release of oil and grease into the storm water drainage system after accidental spillages.	Land site & drainage/ During construction	Contractor(s)		✓		N/A	-
S6.9	Temporary and permanent drainage pipes and culverts provided to facilitate runoff discharge, if any, will be adequately designed for the controlled release of storm flows.	Land site & drainage/ During construction	Contractor(s)		√		N/A	-



EIA Reference	Recommended Environmental Protection	Objectives of the recommended measures &	Implementati on Agent	Imple Stage	ementa	tion	Implementation status	Relevant Legislation & Guidelines
	Measures/ Mitigation Measures	main concerns to address	on 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)		✓		N/A	-
S6.9	Appropriate numbers of portable toilets shall be provided by a licensed contractor to serve the construction workers over the construction site to prevent direct disposal of sewage into the water environment.	Land site & drainage/ During construction	Contractor(s)		✓		Implemented	-
S6.9 and S6.12	The sterilization water should be dechlorinated with total residual chlorine (TRC) level below 1 mg/L before discharge to public sewer. In situ testing of TRC should also be conducted for the discharge of chlorinated water for pipeline disinfection to ensure sufficient dechlorination before discharge to public sewer.	Sterilization of water mains prior to commissioning	Contractor(s)		•	1	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)		1	1	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)		√	√	Implemented, rectified after observation	-



EIA Reference	Recommended Environmental Protection Measures/ Mitigation Measures	Objectives of the recommended measures &	Implementati on Agent	Impler Stage	nentati	on	Implementation status	Relevant Legislation & Guidelines
	ivicasures/ iviitigation ivicasures	main concerns to address	on Agent	D	С	Ο		Guidelliles
S6.12	Regular site inspections will be carried out in order to confirm that regulatory requirements are being met and that contractors are implementing the standard site practice and mitigation measures as proposed to reduce potential impacts to water quality.	During construction	Contractor(s)/ Environment al Team (ET) & Independent Environment al Checker (IEC)		*		Implemented	-



EIA Reference	Recommended Environmental Protection	Objectives of the recommended measures &	Implementation	Impler Stage	nentat	ion	Implementation Status	Relevant Legislation & Guidelines
	Measures/ Mitigation Measures	main concerns to address	Agent	D	С	0		Guidelines
Waste Manage				1				
S8.5	Nomination of approved personnel to be responsible for standard site practices, arrangements for collection and effective disposal to an appropriate facility of all wastes generated at the site.	Contract mobilisation/ During construction	Contractor(s)		*		Implemented	-
S8.5	Training of site personnel in proper waste management and chemical handling procedures. Training will be provided to workers on the concepts of site cleanliness and appropriate waste management procedures, including waste reduction, reuse and recycling at the beginning of the construction works.	Contract mobilisation/ During construction	Contractor(s)		*		Implemented	-
S8.5	Provision of sufficient waste disposal points and regular collection for disposal.	All area/ During construction/ During operation	Contractor(s)		√	V	Implemented	DEVB TC(W) No. 8/2010, Enhanced Specification for Site Cleanliness and Tidiness.
S8.5	Appropriate measures to reduce windblown litter and dust transportation of waste by either covering trucks or by transporting wastes in enclosed containers.	All area/ During construction	Contractor(s)		✓		Implemented	DEVB TC(W) No. 8/2010, Enhanced Specification for Site Cleanliness and Tidiness.
S8.5	A waste management plan (WMP) as stated in the "ETWB TC(W) No. 19/2005, Environmental Management on Construction Sites" for the amount of waste generated, recycled and disposed of (including the disposal sites) will be established and implemented during the construction phase as part of the Environmental Management Plan (EMP). The Contractor will be required to prepare the EMP and submits it to the Architect/ Engineer under the Contract for approval prior to implementation.	All area/ During construction	Contractor(s)		*		Implemented	ETWB TC(W) No. 19/2005, Environmental Management on Construction Sites
S8.5	Separation of chemical wastes for special handling and appropriate treatment at the Chemical Waste Treatment Centre at Tsing Yi.	All area/ During construction	Contractor(s)		√		N/A	Chapters 2 & 3 Code of Practice on the Packaging Labelling & Storage of



EIA Reference	Recommended Environmental Protection	Objectives of the recommended measures &	Implementation	Implen Stage	nentat	ion	Implementation Status	(Cap 354), Section 35 Waste Disposal Ordinance (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,
	Measures/ Mitigation Measures	main concerns to address	Agent	D	С	0		Guidelines
								published under the Waste Disposal Ordinance (Cap 354), Section 35
S8.5	Regular cleaning and maintenance programme for drainage systems, sumps and oil interceptors.	Land site/ During construction	Contractor(s)		~		Implemented. Reminder issued.	•
S8.5	A recording system for the amount of wastes generated/ recycled and disposal sites. The tripticket system will be included as one of the contractual requirements and implemented by the contractor(s).	Land site/ During construction	Contractor(s)		*		Implemented	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)		✓		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)		√		Implemented	Management of Construction and Demolition Material
S8.5	Any unused chemicals and those with remaining functional capacity will be recycled as far as possible.	Land site/ During construction	Contractor(s)		√		N/A	-
S8.5	Use of reusable non-timber formwork to reduce the amount of C&D materials.	All areas/ During construction	Contractor(s)		√		N/A	of Tropical Hard Wood
S8.5	Prior to disposal of construction waste, wood, steel and other metals will be separated to the extent practical, for re-use and/or recycling to reduce the quantity of waste to be disposed of to landfill.	All areas/ During construction	Contractor(s)		√		Implemented	DEVB TC(W) No. 6/2010, Trip Ticket System for Disposal of Construction & Demolition Materials
S8.5	Proper storage and site practices to reduce the potential for damage or contamination of construction materials.	All areas/ During construction	Contractor(s)		*		Implemented, rectified after observation.	-



EIA Reference	Measures / Mitigation Measures	recommended measures & Implementation		Implementation Stage			Implementation Status	Relevant Legislation &
		main concerns to address	Agent	D	С	0		Guidelines
							Reminder issued.	
S8.5	Plan and stock construction materials carefully to reduce amount of waste generated and avoid unnecessary generation of waste.	All areas/ During construction	Contractor(s)		✓		Implemented	-
S8.5	A Sediment Quality Report (SQR) for sampling and chemical testing of the sediment will be prepared and submitted to the EPD for approval. The approved detailed sampling and chemical testing will be carried out prior to the commencement of the dredging activities to confirm the sediment disposal method.	Marine works/ During construction	Contractor(s)		•		N/A	ETWB TC(W) No. 34/2002 and Dumping at Sea Ordinance (DASO)
S8.5	The management of dredged/ excavated sediment management requirement from <i>ETWB TC(W) No.</i> 34/2002 will be incorporated in the Specification of the Contract Documents.	Marine works/ During construction	WSD/ Contractor(s)		√		Implemented	ETWB TC(W) No. 34/2002 and Dumping at Sea Ordinance (DASO)
S8.5	The contractor will open a billing account with EPD in accordance with the Waste Disposal (Charges for Disposal of Construction Waste) Regulation for the payment of disposal charges.	Contract mobilisation/ During construction	Contractor(s)		✓		Implemented	Cap 354N Waste Disposal (Charges for Disposal of Construction Waste) Regulation
S8.5	A trip-ticket system will be established in accordance with DEVB TC(W) No. 6/2010 to monitor the reuse of surplus excavated materials off-site and disposal of construction waste and general refuse at transfer facilities/landfills, and to control fly-tipping.	Contract mobilisation/ During construction	Contractor(s)		✓		Implemented	DEVB TC(W) No. 6/2010, Trip Ticket System for Disposal of Construction & Demolition Materials
S8.5	The project proponent will also conduct regular inspection of the waste management measures implemented on site as described in the Waste Management Plan.	All area/ During construction	Contractor(s)/ Environmen tal Team (ET) & Independent Environmen tal Checker		~		Implemented	ETWB TC(W) No. 19/2005, Environmental Management on Construction Sites



EIA Reference	Recommended Environmental Protection Measures/ Mitigation Measures	Objectives of the recommended measures & Implementation		Imple: Stage		tion	Implementation Status	Relevant Legislation &
		main concerns to address	Agent	D	С	0		Guidelines
			(IEC)					
S8.5	A recording system (similar to summary table as shown in Annex 5 and Annex 6 of Appendix G of ETWB TC(W) No. 19/2005) for the amount of waste generated, recycled and disposed of (including the disposal sites) will be established during the construction phase.	All area/ During construction	Contractor(s)		✓		Implemented	Annex 5 and Annex 6 of Appendix G of ETWB TC(W) No. 19/2005
S8.5	Inert C&D materials (public fill) will be reused within the Project as far as practicable.	All area/ During construction	Contractor(s)		✓		Implemented	-
S8.5	Public fill and construction waste shall be segregated and stored in different containers or skips to facilitate reuse or recycling of materials and their proper disposal.	All area/ During construction	Contractor(s)		✓		Implemented	-
S8.5	Specific areas of the work site will be designated for such segregation and storage if immediate use is not practicable.	All area/ During construction	Contractor(s)		V		Implemented	-
S8.5	To reduce the potential dust and water quality impacts of site formation works, C&D materials will be wetted as quickly as possible to the extent practice after filling.	All area/ During construction	Contractor(s)		√		Implemented, reminder issued.	Air Pollution Control (Construction Dust) Regulation (Cap 311R); WPCO (Cap 358)
S8.5	Open stockpiles of excavated/ fill materials or construction wastes on-site should be covered with tarpaulin or similar fabric.	Land site/ During Construction, particularly dry season	Contractor(s)		√		Rectified after observation.	Air Pollution Control (Construction Dust) Regulation (Cap 311R)
S8.5	Chemical waste container shall be suitable for the substance they are holding, resistant to corrosion, maintained in a good condition, and securely closed.	All area/ During construction/ During operation	Contractor(s)/ WSD		✓	√	Implemented	Waste Disposal (Chemical Waste) (General) Regulation; Code of Practice on the Packaging, Handling and Storage of Chemical Wastes
S8.5	Chemical waste container shall have a capacity of less than 450 L unless the specifications have been approved by the EPD.	All area/ During construction/ During operation	Contractor(s)/ WSD		*	√	Implemented	Waste Disposal (Chemical Waste) (General) Regulation; Code of Practice on the Packaging, Handling and Storage of



EIA Reference	Recommended Environmental Protection Measures/ Mitigation Measures	Objectives of the recommended measures &	Implementation	Implementation Stage			Implementation Status	Relevant Legislation &
		main concerns to address	Agent	D	С	0		Guidelines
								Chemical Wastes
S8.5	A label in English and Chinese shall be displayed on the chemical container in accordance with instructions prescribed in Schedule 2 of the Regulations.	All area/ During construction/ During operation	Contractor(s)/ WSD		✓	*	Implemented	Waste Disposal (Chemical Waste) (General) Regulation; Code of Practice on the Packaging, Handling and Storage of Chemical Wastes
S8.5	Storage areas for chemical waste shall be enclosed on at least 3 sides.	All area/ During construction/ During operation	Contractor(s)/ WSD		•	V	Implemented	Waste Disposal (Chemical Waste) (General) Regulation; Code of Practice on the Packaging, Handling and Storage of Chemical Wastes
S8.5	Storage areas for chemical waste shall have an impermeable floor and bunding, of capacity to accommodate 110% of the volume of the largest container or 20% by volume of the chemical waste stored in that area, whichever is the greatest.	All area/ During construction/ During operation	Contractor(s)/ WSD		•	*	Implemented	Waste Disposal (Chemical Waste) (General) Regulation; Code of Practice on the Packaging, Handling and Storage of Chemical Wastes
S8.5	Storage areas for chemical waste shall have adequate ventilation.	All area/ During construction/ During operation	Contractor(s)/ WSD		✓	✓	Implemented	Waste Disposal (Chemical Waste) (General) Regulation; Code of Practice on the Packaging, Handling and Storage of Chemical Wastes
S8.5	Storage areas for chemical waste shall be covered to prevent rainfall entering (water collected within the bund must be tested and disposed of as chemical waste, if necessary).	All area/ During construction/ During operation	Contractor(s)/ WSD		✓	✓	Implemented	Waste Disposal (Chemical Waste) (General) Regulation; Code of Practice on the Packaging, Handling and Storage of Chemical Wastes



EIA Reference	Recommended Environmental Protection Measures/ Mitigation Measures	Objectives of the recommended measures & main concerns to address	Implementation Agent	Imple Stage	mentat	ion	Implementation Status	Relevant Legislation & Guidelines
				D	С	0		
S8.5	Storage areas for chemical waste shall be arranged so that incompatible materials are appropriately separated.	All area/ During construction/ During operation	Contractor(s)/ WSD		✓	✓	Implemented	Waste Disposal (Chemical Waste) (General) Regulation; Code of Practice on the Packaging, Handling and Storage of Chemical Wastes
S8.5	General refuse will be stored in enclosed bins or compaction units separately from construction and chemical wastes.	All area/ During construction/ During operation	Contractor(s)/ WSD		*	•	Implemented	Waste Disposal (Chemical Waste) (General) Regulation; Code of Practice on the Packaging, Handling and Storage of Chemical Wastes
S8.5	Adequate number of waste containers will be provided to avoid over-spillage of waste.	All area/ During construction/ During operation	Contractor(s)/ WSD		V	✓	Implemented	DEVB TC(W) No. 8/2010 Enhanced Specification for Site Cleanliness and Tidiness.
S8.5	A reputable waste collector will be employed by the Contractor to remove general refuse from the site, separately from construction and chemical wastes, on a daily basis to minimise odour, pest and litter impacts.	All area/ During construction/ During operation	Contractor(s)/ WSD		✓	*	Implemented	-
S8.5	Recycling bins will be provided at strategic locations within the Site to facilitate recovery of recyclable materials (including aluminium can, waste paper, glass bottles and plastic bottles) from the Site. Materials recovered will be sold for recycling.	All area/ During construction/ During operation	Contractor(s)/ WSD		✓	✓	Implemented	-
S8.5	To avoid any odour and litter impact, accurate number of portable toilets will be provided for workers on-site.	All area/ During construction	Contractor(s)		√		Implemented	-
S8.5	The burning of refuse on construction sites is prohibited by law.	All area/ During construction			√		Implemented	Air Pollution Control Ordinance (Cap 311)
S8.7	To facilitate monitoring and control over the contractors' performance on waste	All facilities/ During construction	ET/ IEC		✓		Implemented	-



	FIA Rataranca	Recommended Environmental Protection	Objectives of the recommended measures &	Implementation	Implementation Stage		on	Implementation Status	Relevant Legislation & Guidelines
	ivieasures/ iviitigation ivieasures	main concerns to address	Agent	D	C	0		Guidelliles	
		management, a waste inspection and audit							
		programme will be implemented throughout							
		the construction phase.							



EIA Reference	Recommended Environmental Protection Measures/ Mitigation Measures	Objectives of the recommended measures & Agent		Stage			Implementation Status	Relevant Legislation & Guidelines
		main concerns to address	Agent	D	С	0		dudennes
	Ecology		T	1 ,	1	ı	T	
S9.7	For slope mitigation works within the Clear Water Bay Country Park, to avoid tree felling and damages to trees, the exact locations of the flexible barrier foundation plates, soil nails and rock dowels can be adjusted during detailed design, and a setback distance from existing trees is recommended to be maintained as far as practical. A detailed specification describing the exact locations of the flexible barrier foundation plates, soil nails and rock dowels will be prepared to illustrate how the setback distance from existing trees would be implemented for tree avoidance.	Slope mitigation works area/ During detailed design/ During construction	Contractor(s)		•		Implemented	-
S9.7	Pruning of tree canopies along the alignment of the flexible barriers shall be limited to a minimum.	Slope mitigation works area/ During construction	Contractor(s)		√		Implemented	
S9.7	The alignment of flexible barriers shall be optimized to preserve all species of conservation interest and minimize the impact to the existing vegetation as far as practicable. All individuals of <i>Marsdenia lachnostoma</i> within the slope mitigation areas shall be retained <i>in- situ</i> , by positioning the alignment of flexible barrier at a minimum 1.5m in a radius away from these individuals.	Slope mitigation works area/ During detailed design/ During construction	Contractor(s)	•	~		N/A	-
S9.7 and 9.10	At the detailed design stage prior to the commencement of the slope mitigation works, a vegetation survey shall be carried out at the slope mitigation areas within the Clear Water Bay Country Park to assess the condition and identify the location of each individual of <i>Marsdenia lachnostoma</i> and other flora species of conservation interest that may be directly affected by the construction works.	Slope mitigation works area/ During detailed design/ During construction	Contractor(s)	*	✓		Implemented	-
S9.7	Temporary fencing will be installed to fence off	Slope mitigation works	Contractor(s)		✓		N/A	-



EIA Reference	Measures / Mitigation Measures	Objectives of the recommended measures &	Implementation Agent	Implementation Stage				Relevant Legislation & Guidelines
	_	main concerns to address	Agent	D	С	0		Galacinics
	the concerned species either in groups of individually within the works area and in the close proximity to prevent from being damaged and disturbed during construction. A sign identifying the site shall be attached to the fence and flagging tape shall be attached to the individuals to visualize their locations.	area/ During construction						
S9.7 and S9.10	A specification for fencing and demarcating individuals of <i>Marsdenai lachnostoma</i> (or other flora species of conservation interest, if found) adjacent to the proposed alignment of the flexible barriers will be prepared to protect the species.	Slope mitigation works area/ During construction	Contractor(s)		√		N/A	-
S9.7	Induction training shall also be provided to all site personnel in order to brief them on this flora of conservation interest including the locations and their importance.	Slope mitigation works area/ During construction	Contractor(s)		√		N/A	-
S9.7	The resident site supervisory staff will closely monitor the conditions of concerned individuals during construction of flexible barriers in the close proximity.	Slope mitigation works area/ During construction	Contractor(s)		√		N/A	-
S9.7	Erect fences along the boundary of the works area before the commencement of works to prevent vehicle movements and encroachment of personnel onto adjacent areas.	All area/ During construction	Contractor(s)		✓		Implemented	-
S9.7	Regularly check the work site boundaries to ensure that they are not breached and that damage does not occur to surrounding areas.	All area/ During construction	Contractor(s)/ Environmental Team (ET)		~		Implemented	-
S9.7	Avoid any damage and disturbance, particularly those caused by filling and illegal dumping, to the surrounding habitats through proper management of waste disposal.	All area/ During construction	Contractor(s)		~		Implemented	-

Contract No. 13/WSD/16 Mainlaying in Tseung Kwan O Monthly EM&A Report No.37



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

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



EIA Reference	Recommended Environmental Protection	Objectives of the recommended measures &	Implementation	Imple Stage	mentat	ion		Relevant Legislation &
	Measures/ Mitigation Measures	main concerns to address	Agent	D	С	0		Guidelines
	Landscape & Visual							
S11.10 & 11.11	The construction area and area allowed for temporary structures, such as the contractor's office, will be minimized to a practical minimum. (MM1)	All area/ Detailed design/ During construction/ During operation	WSD/ Contractor(s)	*	✓	✓	Implemented	-
S11.10 & 11.11	At the detailed design stage, the design team will seek to minimize the landscape footprint of the Project and above ground facilities, while satisfying all other requirements. (MM2)	All area/ Detailed design/ During construction/ During operation	WSD/ Contractor(s)	√	1	V	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)	V	*	✓	Implemented	-
S11.10 & 11.11	All trees within the Project Site or the potential slope mitigation works area will be carefully protected during construction according to DEVB TCW No. 10/2013 – Tree Preservation (MM4)	All area/ Detailed design/ During construction/ During operation	WSD/ Contractor(s)	*	✓	✓	Implemented	ETWB TCW No. 3/2006 - Tree Preservation.
S11.10 & 11.11	No tree within the Country Park will be felled. Trees within the Site unavoidably affected by the works will be transplanted where necessary and practical. For trees that need to be felled, compensatory planting will be provided to the satisfaction of relevant Government	All area/ Detailed design/ During construction/ During operation	WSD/ Contractor(s)	✓		✓	Implemented	DEVB TC(W) No. 10/2013



EIA Reference	Recommended Environmental Protection Measures/ Mitigation Measures	Objectives of the recommended measures &	Implementation Agent	Imple Stage	mentat	ion		Relevant Legislation & Guidelines
	ineasures/ initigation ineasures	main concerns to address	Agent	D	С	0		Guidelilles
	departments. A compensatory tree planting proposal including locations of tree compensation will be submitted to seek relevant government department's approval, in accordance with DEVB TC(W) No. 10/2013. (MM5)							
S11.10 & 11.11	Any slope mitigation works necessary to address natural terrain hazards, will be minimized to minimize any potential environmental impact to the Country Park e.g. soil nailing and rock stabilization will aim to avoid existing trees e.g. should any restoration of vegetation be necessary, the best planting matrix with native species will be established, with the aim of resembling the existing vegetation. (MM6)	All area/ Detailed design/ During construction/ During operation	WSD/ Contractor(s)	•	•	•	N/A	
S11.10 & 11.11	Dredging works for the installation of intake structures and outfall diffusers should be minimized to avoid or reduce any potential environmental impacts to as low as reasonably practicable (ALARP). The intake and outfall structures (e.g. intake openings and diffuser heads) will be prefabricated and transferred to site for installation. (MM7)	All area/ Detailed design/ During construction/ During operation	WSD/ Contractor(s)	V	✓	✓	N/A	
S11.10 & 11.11	All night-time lighting will be reduced to a practical minimum both in terms of number of level and will be hooded and directional. (MM8)units and lux level and will be hooded and directional. (MM8)	All area/ Detailed design/ During construction/ During operation	WSD/ Contractor(s)	√	✓	✓	Implemented	-

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



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



EIA Reference	Recommended Environmental Protection	Objectives of the recommended measures &	Implementation	Imple: Stage	nentat	ion	Implementation Status	Relevant Legislation &
	Measures/ Mitigation Measures	main concerns to address	Agent	D	С	0		Guidelines
S12.7	Monitoring for landfill gas should be undertaken in all excavations, manholes, chambers (particularly during pipe jacking) and any confined spaces through the use of an intrinsically safe portable instrument, appropriately calibrated and capable of measuring the concentrations of methane. carbon dioxide and oxygen.	All area/ Detailed design/ During construction/ During operation	Contractor(s)	*	✓	*	Implemented	
S12.7	Monitoring frequency and areas to be monitored should be specified prior to commencement of groundwork, either by the Safety Officer, or by an appropriately qualified person. All measurements should be recorded and documented.	All area/ Detailed design/ During construction/ During operation	Contractor(s)	*	✓	\	Implemented	
S12.7	Proceed drilling with adequate care and precautions against the potential hazards which may be encountered.	All area/ Detailed design/ During construction/ During operation	Contractor(s)	✓	√	✓	Implemented	
S12.7	Prior to the commencement of the site works, the drilling contractor should devise a 'method-of- working' statement covering all normal and emergency procedures (including but not limited to number of operatives, experience and special skills of operatives, normal method of operations, emergency procedures, supervisors responsibilities, storage and use of safety equipment, safety procedures and signs, barriers and guarding). The site supervisor and all operatives must be familiar with this statement.	All area/ During construction/ During operation	Contractor(s)	*	V	V	Implemented	
S12.7	Where below ground service entries are necessary to the Incoming Switchgear Room, 132 kV Substation and Chlorine Store (I) and (II), the entry point should be sealed to prevent gas entry. In addition, any below grade cable trenches entering the Incoming Switchgear Room and 132 kV Substation can become the	All area/ Detailed design/ During construction/ During operation	Contractor(s)	✓	√	*	N/A	



EIA Reference	Recommended Environmental Protection Measures/ Mitigation Measures	Objectives of the recommended measures &	Implementation Agent	Imple: Stage	mentat	ion	Implementation Status	Relevant Legislation & Guidelines
	ivieasures/ iviitigation ivieasures	main concerns to address	Agent	D	С	0		Guidennes
	pathway for landfill gas and hence grilled metal covers should be used.							
S12.7	It is recommended regular landfill gas monitoring should be carried out at the Incoming Switchgear Room, 132 kV Substation and Chlorine Store (I) and (II). The monitoring frequency will be monthly for the first year of operation. If the monitoring results show no sign of landfill gas migration, reduce the monitoring frequency to once every six months.	All area/ Detailed design/ During construction/ During operation	Contractor(s)	*	*	~	N/A	
S12.7	The manholes and utility pits within the Project Site and along the fresh water mains. Each manhole/ utility pit should be monitored with two measurements (at mid depth and base). Each measurement should be monitored for a minimum of 10 minutes. A steady reading and peak reading should be recorded at each manhole/ utility pit and for each measurement. The need for venting the manhole/ utility pit and further monitoring will be reviewed after the initial monitoring.	All area/ Detailed design/ During construction/ During operation	Contractor(s)	~	✓	V	Implemented	
S12.7	All construction, operation and maintenance personnel working on-site as well as visitors should be made aware of the hazards of landfill gas and its possible presence on-site. This should be achieved through a combination of posting warning signs in prominent places and also by access to detailed information on landfill gas hazards and the designs and procedural means by which these hazards are being minimized on-site.	All area/ Detailed design/ During construction/ During operation	Contractor(s)	•	~	*	Implemented	

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



Appendix D

Impact Monitoring Schedule of the Reporting Month



			Aug-21			
Sun	Mon	Tue	Wed	Thu	Fri	Sat
	2	3	Noise Impact Monitoring	5	6	7
					Noise Impact Monitoring	14
15	16	17	18	Noise Impact Monitoring	20	21
			Noise Impact Monitoring	26	27	28
29	30	31				

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



Appendix E

Noise Monitoring Equipment Calibration Certificate





CALIBRATION CERTIFICATE

Certificate Informa	tion			
Date of Issue	17-Nov-2020		Certificate Nun	ber MLCN203081S
Customer Informati	on			
Company Name Address	Acuity Sustainabil Unit 1908, Nos. 30 Kwai Chung, N.T.	11-305 Castle Peak		
Equipment-under-T	est (EUT)			
Description	Sound Level Calib	rator		
Manufacturer	Rion	ideo		
Model Number	NC-74			
Serial Number	34504770			
Equipment Number				
Calibration Particul	ar			
Date of Calibration	17-Nov-2020			
Calibration Equipment	4231(MLTE008) /	AV200063 / 23-Ju	n-23	
	1357(MLTE190) /			
			5	
Calibration Procedure	MLCG00, MLCG1	5		
Calibration Conditions	Laboratory T	emperature	23 °C ± 5 °C	
	R	elative Humidity	55% ± 25%	
	EUT S	tabilizing Time	Over 3 hours	
	W	/arm-up Time	Not applicable	
	Pe	ower Supply	Internal battery	
Calibration Results	Calibration data we	ere detailed in the o	continuation pages.	
	Calibration result w			
Approved By & Date				A A STATE OF THE S
		/	K.O. Lo	17-Nov-2020
Statements	A William Committee on the Committee of		Seattle State of the Control of the	17-1101-2020
Calibration equipment used	for this calibration are tr	aceable to national / i	nternational standards	AND STATE OF THE S
The results on this Calibrati	on Certificate only relate	to the values measure	ed at the time of the calibration and	the uncertainties quoted will
not include allowance for th	e EUT long term drift, v.	ariation with environn	nental changes, vibration and shock	during transportation,
overloading, mishandling, n	ususe, and the capacity of Limited shall not be liab	or any other laboratory	to repeat the measurement.	T.
MaxLab Calibration Centre	is assent by Mart at October	libration Centre Limit	ed. No part of this Certificate may	be reproduced without the
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Page 1 of 2

護債校正中心有限公司 MaxLab Calibration Centre Limited 香港新界裝滿華星街 16-18 號保盈工業大廈 9 樓 B 室 Unit B, 9/F., Boldwin Industrial Bidg., 16-18 Wah Sing Street, Kwa Chung, N.T., Hong Kong, Tel: (852) 2116 1330. Fox. (852) 2264 6480. Email: info@maxlab.com.lik





Certificate No.

MLCN203081S

Calibration Data				
EUT Setting	Standard Reading	EUT Error from Setting	Calibration Uncertainty	EUT Specification
94 dB	94.0 dB	0.0 dB	0.20 dB	± 0.3 dB

- END -

Calibrated By: Date:

Dan 17-Nov-20

Checked By: Date:

K.O. Lo 17-Nov-20

Page 2 of 2





CERTIFICATE OF CALIBRATION

NO. 20200519040

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



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

4. Measuring up limit: 140 dBA

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

Type of Calibrator_B&K 42 11

Sound Pressure Level 93.8 CB

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

Nominal	Fre	quency weight	ing/dB	Nominal	Frequency weighting / dB				
frequency /Hz	A	С	Z	frequency /Hz		С	z		
10	-71.0	-14.4	-0.9	1000	0.0	-0.1	-0.3		
20	-50.4	-6.1	-0.1	2000	1.2	-0.2	0.2		
31.5	-39.a	-3.1	0.0	4000	1.0	-0.9	0.3		
63	-26.2	-0.9	0.3	80.08	-1.0	-3.2	-0.5		
12	-16.0	-0.3	21	12500	-4.5	-6.4	-0.7		
250	-8.6	-0.1	0.1	16000	-9.6	-11.5	-1.3		
500	3.7	-0.1	0.1	20000	-23.9	-25.9	-0.8		



6. Self-generated noise

Microphone replaced by electrical input signal device

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

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

Reference sound level 90.0 dB

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

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

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

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

9. Tone burst response(A Weighting):

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

10. Peak C sound level (500Hz)

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

12. Oronload Indication: Pass

12 Statistical analysis function

Sween signal maximum indicated sound level: 112.0 40

Sweep amplitude: 40 di

Scan cycle ime 60 S: Measu em nt period: 180 S.

Iten's	Measured value/dB	Theoretical calculated value/dB	Error/dB
LAeq,T	103.2	103.2	0.0





Certificate of Calibration

Description:

Sound Level Meter

Manufacturer:

NTi Audio

Type No.:

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

Microphone:

ACO 7052 (Serial No.: 73912)

Preamplifier:

NTi Audio MA220 (Serial No.: 5735)

Submitted by:

Customer:

Acuity Sustainability Consulting Limited

Address:

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

Cheung Sha Wan, Kowloon, Hong Kong

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

Within

☐ Outside

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

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

Date of receipt: 08 September 2020

Date of calibration: 09 September 2020

Calibrated by:

Certified by:

Date of issue: 09 September 2020

Mr. Ng Yan Wa Laboratory Manager

Certificate No.: APJ20-104-CC001

Page 1 of 4

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



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

1. Calibration Precaution:

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

2. Calibration Conditions:

 Air Temperature:
 23.8 °C

 Air Pressure:
 1008 hPa

 Relative Humidity:
 62.5 %

3. Calibration Equipment:

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

4. Calibration Results

Sound Pressure Level

Reference Sound Pressure Level

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

Linearity

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

Time Weighting

Setting of Unit-under-test (UUT)				Applied value		UUT Reading,	IEC 61672 Class 1
Range, dB	Freq.	Weighting	Time Weighting	Level, dB	Prequency, Hz.	dR	Specification, dB
30-130	ďB∆	SPL.	Fast Slow	94	1000	94.0 	Re." =0.3

Certificate No.: APJ20-104-CC001

Page 2 of 4

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Homepopous http://www.co.lab.com



Frequency Response

Linear Response

Setu	ing of Unit	t-under-f	est (UUT)	Appi	lied value	CUT Reading,	HCC 61672 Class 1
Range, dB	Freq. W	eighting	Time Weighting	Level, dB	Frequency, Hz	dB	Specification, dB
					31.5	94.3	±2.0
					63	94.3	±1.5
					125	94.3	±1.5
					250	94.2	±1.4
30-130	dВ	SPL	Fast	94	500	94.1	+1.4
					1000	94.0	Ref
					2000	93.8	.11.6
					4000	93.6	±1.6
					8030	93.4	-2.1; -3.1

A-weighting

Sett.	ing of Uni	t-under-t	est (UUT)	Applied value		UUT Reading,	HC 61672 Class 1
Range, dB	Freq. W	eighting	Lime Weighting	Level, dB	Frequency, Hz	ďΒ	Specification, dB
					31.5	54.8	-39.4 \(\)2.0
					63	68.0	-26.2 _1.5
					125	78.1	-16.1=1.5
					250	85.5	-8.5±1.4
30-130	dBA	IBA SPL	Fast	94	500	90.8	-3.2 ±1.4
					1000	94.0	Ref`
					2000	95.0	+1.2 ±1.6
					4000	91.6	±1.0 ±1.5
					8000	92,3	-1.1 =2.1; -3.1

C-weighting

Sett	ing of Uni	t-under-t	est (UUT)	Applied value		CUI Reading,	1EC 61672 Class 1
Range, dB	Freq. W	eighting	Time Weighting	Level, dB	Frequency, Hz	dB	Specification, dB
					31.5	91.2	-3.0 12.0
					63	93.4	-0.8±1.5
					125	94.1	-0.2 ±1.5
					250	94.1	-0.0 ±1.4
30-130	dBC	SPL	Fast	94	:500	94.1	-0.0 ±1.4
					1000	94.0	Ref
					2000	93.6	-0.23:1.6
					4000	92.8	-0.8±1.6
					8000	90.4	-3.0+2.1; -3.1

Certificate No.: APJ20-104-CC001



Page 3 of 4 .

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5. Calibration Results Applied

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

Uncertainties of Applied Value:

94 cB	31.5 Hz	± 0.05
	63 Hz	± 0.05
	125 Hz	<u>1</u> 0.05
	250 Hz	上 0.05
	500 Hz	+ 0.05
	1000 Hz	± 0.05
	2000 Hz	≘ 0.05
	4000 11z	+ 0.05
	8000 Hz	+ 0.10
104 dB	1000 Hz	± 0.05
114 dB	1000 Hz	± 0.05

The uncertainties are evaluated for a 95% confidence level,

Note:

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

Certificate No.: APJ20-104-CC001



Page 4 of 4





Certificate of Calibration	
for	
Description: Sound Level Meter	
Manufacturer: Lutron	
Type No.: SL-40335D (Seriai No.: 1491835)	
Submitted by:	
Customer: Acuity Su tainability Consulting Limited	/
Address: Unit 1'08, Nos. 301-305 Castle Peak Road, Kva i Chung, VA	Т.
Upon receipt for calibration, the instrument was found to be:	
☑ Within ☐ Outside	
the allowable tolerance.	
The test equipment used for calibration of traceable to National Standards via: - The Government of The Hong Kong Special Administrative Region Standard & Calibration Laboratory	n
Date of receipt: 02 December 2020	
Date of calibration: 27 December 2520	
Calibrated by: Calibrated by: Calibrated by: Mr. Ng Yan Wa Laboratory Manager	
Date of issue: 07 December 2020	

Certificate No.: APJ20-145 CC001



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1. Calibration Precaution:

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

2. Calibration Conditions:

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

3. Calibration Equipment:

Type Serial No. Calibration Report Number Tracea 312 to

Multifunction Calibrator B&K 4225 2288467 AV200041 HOKI AS

4. Calibration Results

Sound Pressure Level

Reference Sound Pressure Level

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

Linearity

Sett	ing of Un	it-under-t	est (UUT)	Apr	ied 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
40-140	dBA	SPL	Fası	104	1000	104.0	±0.3
				114		114.0	±0.3

Time Weighting

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

Certificate No.: APJ20-140-CC001

(A+A) *Lp g 2 of 4

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Frequency Response

A-weighting

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

C-weighting

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

Certificate No.: APJ20-141 CC001

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5. Calibration Results Applied

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

Uncertainties of Applied Value:

94 dB	31.5 Hz	± 0.05
	63 Hz	± 1.10
	125 Hz	± 5.05
	250 Hz	± 0.00
	500 Hz	± 0.10
	1000 Hz	± 0.05
	2000 Hz	± 0.05
104 dB	1000 Hz	± 0.05
114 dB	1000 Hz	± 0.05

The uncertainties are evaluated for 195% confidence level.

Note:

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

Certificate No.: APJ 20-140 CC001

TESTING LABORATES (A+A) *L

Page 4 of 4

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

Methods Used in Calibration and Testing

Wind Speed

The Kestrel Weather & Environmental Meter impeller installed in this unit was individually tested in a subsonic wind tunnel operating at approximately 300 fpm (1.5 m/s) and 1200 fpm (6.1 m/s) monitored by a Gill Instruments Model 1350 ultrasonic time-of-flight anemometer. The Standard's maximum combined uncertainty is +/-1.04% within the airspeed range 706.6 to 3023.9 fpm (3.59 to 19.93 m/s), and +/-1.66% within the airspeed range 166.6 to 706.6 fpm (0.86 to 3.59 m/s).

Temperature:

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

Direction / Heading

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

Relative Humidity:

Relative humidity receives a two-point calibration in humidity and temperature controlled chambers at 75.3% RH and 32.8% RH at 25° C. The calibration tanks are monitored with an Edgetech Model 2002 DewPrime II Standard Chilled Mirror Hygrometer. Following calibration, performance is further verified at an RH of approximately 43.2% against the Edgetech Hygrometer. The Edgetech Hygrometer is calibrated annually and is traceable to NIST with a maximum relative expanded uncertainty of 4/–0.2% RH.

Barometric Pressure:

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

Approved By:

Michael Naughton, Engineering Manager

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



2000	2500	3000	3600	3500 OT	4000	4200	のおめ数 4260 :	4300	4500	B¢ll jettes	SENSOI ACCURACY (+1.)*	HESOLUTION	SPECIFICATION RANGE	OPERATIONAL RANGE	терия в при в В при в при
											Larger of 3% of	C.1 m/s 5 ht/min C.1 kraviti	0,6 to 40,0 m/g 118 to 7,874 filtrin 2,2 to 144,0 km/h	0.6 to 60.0 mls 116 to 11.611 f/min 2.2 to 216.0 km/h	mph .5 kt after impelier statup, Off-aris accuracy -1% Q:5° off-artis: -2% Q:10°; -3% Q:1
•	10	٥	•	0	ø	0	9		új	0	reading, least significant digit of 20 filmin	0.1 mah G.1 knote	1.3 to 89.5 mph 1.2 to 77.8 knots	1.3 to 134.2 mph 1.2 to 116,6 knots	Collibration crift = 1% effect 100 hours use at 16 MPH 7 mts. Rephasement Impoller (NK PI 0801) field inetally without tools (US Patent 5,783,783). What speed calibration and testing
												1 B" 9.1 F/B"	9 to 12 B* 2-131.2*	0 to 12 B* 2-198.9 F/S*	should be done with blangle on imperior located at the lop front face of the Kestrel, *F/S only in Ballistics units. Beaution not available in Ballistics units.
							:								Hermotically scaled, precision the miscolimanted externally and the analysis leaded (US Patent 5,339,645) for rapid response. Affiliary of 2.2 mphil miscolimanted provides featbast response and reduction of insolation effect. Calibration onthrough the miscolimanted or may also
•	4		•	•	•	•		•	٠		0.6 °C	0.1 °F 0.1 °D	-20.0 to 156.0 °F -29.0 to 70.0 °C	14.0.0 to 131.0 °F -10,0 to 55,0 °C	reagenage and reduction or translation office. Configuration only in engage in the mission may associate the description of the configuration of water as smow by submerging thermistic position that createrial—services imperiar prior to taking submerged measurements and one or humbidity.
															sensor membrane is free of figual water prior to briging humbing-based measurements offs submersion.
											:				Polymer capacitive humidity sensor mounted in thin-wallert chamber axis mail to case for rapit, accurate response (US Patent 0.207.074). To achieve stated scouracy, unit must be
		ø	ø	ø	9			•	•		3.0 %RH	0.1 %RH	S to 95% non-conducting	0 to 100%	permitted to equilibrate to external temperature when exposed to large, rapid temperature changes and be kept out of direct sunlight. Calibration 44th 41-2% over 24 months. Humid
														0.50 to 48.87 hHg	sensor may be recalibrated at factory or in field using Kestrel Humbling Cathoration Kill (N.K. 0802). More thile aliesn pieneresistive prospure sensor with sepand-order temperature correction.
											03 InHg	0.91 InHg	8.86 to 32.49 inhip 300.0 to 1100.0 hPaimba 4.35 to 15.95 PS1	19.0 to 1654.7 hPajmbar	Pressure sensor may be recalibrated at factory or in Reid. Adjustable reference a blude all display of station pressure or before this pressure corrected to MSL. Keetrel 4200 display
	۰		۰	۰	•	3	0	•	a	•	1.0 hPajmba: 0.01 PSI	0.1 hPojmbar 0.01 PS	and 32.0 to 195.9 °F	0,64 to 24.00 PSi and	station pressure on a decisional series. Kestral 2500 and 3500 display continuously upda Bross-hour barametric pressure trans indicator; rising rapidly, rising, standy, falling, falling
								:					0.0 to 85.0 °C	14.9 to 131.0 °F -10.9 to 55.0 °C	repidly. Kestrel 4000 series dischays pressure trend through graphing function. PSI chapter Kestrel 4000 series only.
											. 6*	1* 1/16th Cordinal	0 to 360°	O to 360°	2-axis solid-state magneturasistiva sonsor mounted perpendicular to until plana. Accuracy samsor deportivant upon entito vertical position. Self-calibration rautine atiminates magnetis arror from battarios or unit a na must be un affer every fult prover-down (extery ramavario
										•		Scale			change). Readout indicates direction to which the back of the unit is pointed when held in vertical orientation. Declination/variation adjustable for True North readout.
				3500					SERCES SERVE	anni i da seno da se	LATED MEA	September 1997	NTS SPECIFICATION	SENSORS	
2000	2500	3000	3500	DT	1000	4200	4250	4300	4500	Ball istics	COURACY (+1-)*	O.001 IBS/FI ^A	RANGE Refer to Banges for	EMPLOYED Temperature	ASTES
							•				0.0033 kg/m ³	0.904 kg/m²	Gensors Employed	Relative Humidity Pressure	Missa of air per unit volume
											0.0671	Tichn Traibe Traibe	Refer to Ranges to:	Air Flow User Input (Duet	Volume of air flowing through an opening. Automatically calculated from Air Valocity may externed and user-specified duct these (circle or rectangle) and dimordions (units:
						•					4,2	C.1 mi/s 1 L/s	Sensors Employed	Shape & Size)	ft, cm or m). Maximum duct dimension input: 258.0 in (21.5 ft) 655.0 cm 6.55 m.
				•				۰	ø		typical: 23,6 ft 7,2 m max: 46,2 t	1 It 1 m	typical; 750 ki 1100 mBar	Prossure User input (Reference	Height above Mean Sea Level ("NSL"). Temperature compensated pressure (become first temperature requires accurate reference benometic processor to prodece may insure ob solido sociarsey. Both accuracy paced corresponds to a reference pressure anywhere from 850 to
											14,7 m 0.07 lgHg	O.DI InHg	max: 366 to 750 mBar	Pressure)	Air greasure that would be greased in identical sandtions at MSL. Station presoure
	•		•	4		• .	p	•	•		2.4 hPojmbor 0.03 PS1	0.1 hPelmber 0.01 PSi	Roler to Rangos for Sensors Employed		e compensated for it call plevation provided by reference attitude. Required accurate reference attitude to produce maximum absolute accuracy.
												temph 1 filterin	Releato Rangos for	Wind Speed	Effective wind relative to a larget or travel direction. Autoroxylching headwind/ioliwind
										•	0.071	0.1 kmih 0.1 m/s 0.1 knots	Sensors Employed	Compass	Falls attor.
				•							3.2 °F 1.9 °C	9.1 °F 0.1 °C	Refer to Ranges for Sensors Employed	Temporaturo Reistre Hurridity Prossure	Difference between dry built temperature and wat built temperature. When spraying, indi- exaporation rate and droplet telema. Safe range for postcide spraying is 4 to 16 TH I 2 to 10.
						٠	8	•			225 ft 89 m	1 ft 2 m	Refer to Ranges for Sensors Employed	Temperature Relative Humidity	Local air density converted to equivalent alevallos abovo sca lavol le a uniform sayor consciting of the international Standard Agresphere.
						_					3.4 °F	D.1 "F	15 to 95 % RH Refer to Range for	Pressure Temperaturo	Temperature that a volume of air must be coaled to at constant pressure for the water was present to condurate lists date and form on a solid datiface. Can also be considered to be t
			•	•	ю	"		•		•	1.9 °C	0.1 *C	Temperature Sensor	Relative Humidity Wind Space	water-to-air daturation temperature.
								٠			0,01 statřím 0.08 kg/m2/hr	0.01 br8 ³ mr 0.01 kg/m²/hr	Refer to Ranges for Geneuro Employed	Temporature Relative Hurridity Pressure User Input (Concrete Temporature)	The late st which missions is lost from the surface of cuting concrete. Requires seen necessariement on enthyr of concrete temperature to exhain of which an accurate IR or probe the amount of IF or "C, and included]. Readings should be taken 20 to these above pour surface with the the mission strated, and weeking of for 6-10 sections, using health average function.
		а			9				ø		7.0°F 4.0°G	0.1 °F	Refer to Ranges for Sensors Employed	Temporalule Reletive Humidity	Perceived temperature resulting from the combined effect of temperature and relative humidity. Calculated based on NWS Heat Index (HS tables, Measurement varge limited by
											.a gpp	0.1 gpp	Refer to Ranges for	Temperature Relative Humidity	extent of published reside. Mass of water vapor in a mass of etc.
											.04 g/kg	6.01 g/kg	Sendora Employed Refer to Ranges for	Pressure Temporaturo	The ralie, expressed as a percentage, of measured air density to the air density of a step.
							•				0.0026	0.001	Sensors Employed	Reletive Humidity Pressure	atmosphere as defined by the ICAO.
									٠		3.2 °F	0.1 TF 0.1 TC	Refer to Ranges for	Temperature Raistive Humidity	Famparative indicated by a sting psyctrometer. Due to nature of the psyctrometric rate it waters at system this approximates the the amorphamic well-stable improximation. The the amorphamic web bub temporature is the temperature a parcel of air would have if see!
											1,810	u. e	Senzora Employed	Pressure	adic beliculty to constrain the imperature is the temperature of superating into £.
									_	_	1.6 °F	0.1 TF	Refer to Ranges for	Wind Speed	Parcained femperature resulting from combined effect of wind speed and temperature, Calculated based on the NWS Wind Chill Temperature (WCT) Index, revised 2001, with w
• .	•	•	•		•	•	•	•	•	•	2° 0.0	0.1 °C	Sensors Employed	Temperature	ageed adjusted by a factor of 1.5 to yield equivalent results to wind speed measured at 10 above ground. Measurement range limited by extent of published tables.
								Signal Si		ADDIT	ONAL SPE			880000	
•			•												cklight. Manual activation with auto-off. V models only/ cleareturninescont backlight. Manual activation with suits-off.
						•	•	•	•	•	Mutilfunction, mutt-dig	i det emospopopo	matrix display. Choice of a	viation great or visible	red (NV models only) electroluntinescent backlight. Automatic or manual activation,
•		•							•	•					ond. Relative humidity and all madeurements which include RH in their calculation may requ Display apticize away 1 second.
		٠	٠										Gust and Average Wind m		
								•			Max and average wind headwind/tallwind win			endently of data loggin	ng of other values, along with all other wind-related functions: air valueity, crosswind,
					4000	3700	3200	3850	2900	9 2500	Minimum, maximum, a	verage and logged I	history stored and displaye	d for every measured settable from 2 second	value. Large capacity data logger with graphical displey. Manual and auto data storage. Is to 12 hours, overwice on or off. Logs even when display off except for 2 and 5 occupi
						points		points		points	intervals (cade version	4.18 and later). Det	to capeally shown. S-232) or Bluetceth data to		
					•	0		•	•	•	Bluetoeth Data Trans	for Option: Adjucts	stito power consumption as litting. Employs Divotocily	nd radio range from up	to 38 ft 9 meters, individual unt 10 and 4 digit Pill code preprogrammed for easy identific
•	9		•	9			٠				Roal time hours:minut Roal time hours:minut	ps:saconds clack, ca	atandar, automatic temp-ye:	er adjustmont.	
•	•		۰	•			ė,		•		After 45 minutes of no User-selectable = 15 o English, French, Germ	or 60 minutes with no	o key presses or disabled.		
•	•	. 0	•	•	•		9	:	;		CE certified, RoHS an	d WEEE compliant.	ind Adually tested to NIST	craceable standards (vititan corificate of teats available at additional charge). Regional Value Content and Teriff Code Transformation recultements for NAFTA Professesce
•	•	8	•	•	٠	۰	•	•	•	•	Orterior E.		hours. Bettery life reduced		
-	•	-		-	•			٠	٠						y backlight or filicetooth radio transmission use.
:	:	. 4		•	•			. :	9		MIL-STD-810g, Transi Watercroof dP07 and		6.5 Procedure IV: unit only	knipact may damage i	regis casible impeller.
	-						8		•		14" F to 131" F I -10 1	C to 55 °C Messure	emants may be taken beyo new exacens provionment	nd the limits of the spe or the minimum time n	rational temporalision range of the display and batteries by maintaining the unit within the occasion to lake reading.
	•						-		•		22.0 °F to 140.0 °F 1				
		•		a	7	•	-	_			4.8 × 1.9 × 1.1 in / 12.1 5.0 × 1.8 × 1.1 in / 12.1	2 4,8 x 2.8 cm, 3,6	oz / 102 g (including slip-c	in covar .	

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



Appendix F

Event/Action Plan for Noise Exceedance





Event and Action Plan for Construction Noise Monitoring

Event	Action									
	ET	IEC	ER	Contractor						
Action Level	 Carry out investigation to identify the source and cause of the complaint/ exceedance(s) Notify IEC, ER, and Contractor and report the results of investigation to the Contractor, ER and the IEC Discuss with the Contractor and IEC for remedial measures require If the complaint is related to the Project, conduct additional monitoring for checking mitigation effectiveness and report the findings and results to the IEC, ER and the Contractor 		 Confirm receipt of Notification of Exceedance in writing Require Contractor to propose remedial measures for the analysed noise problem Ensure remedial measures are properly implemented 	 Submit noise mitigation proposals, if required, to the IEC and ER Implement noise mitigation proposals. 						
imit Level	1. Notify IEC, ER, EPD and Contract 2. Identify the source(s) of impact by reviewing all the relevant monitor data and the corresponding construction activities. Exceedance should also be confirmed by immediate verification in the field far as practical. 3. Repeat measurement to confirm findings 4. Increase monitoring frequency 5. Carry out analysis of Contractor's working procedures to determine possible mitigation to be implemed 6. inform IEC, ER and EPD the cause actions taken for the exceedances 7. Assess effectiveness of Contractor' remedial actions and keep IEC, EF ER informed of the results 8. If exceedance stops, cease addition monitoring.	Contractor on the potential remedial actions 2. Review Contractor's remedial actions to assure their effectiveness and advise the ER &ET accordingly 3. Supervise the implementation of the remedial measures ated. &	1. Confirm receipt of notification of exceedance in writing 2. Notify Contractor 3. Require Contractor to propose remedial measures for the analyzed noise problem 4. Ensure remedial measures are properly implemented 5. If exceedance continuous, consider what portion of the work is responsible and instruct the Contractor to stop that portion of work until the exceedance is aborted	Take immediate action to avoid further exceedance Identify practicable measures to minimize the noise impact. Submit proposals for remedial actions to ER within three working days of notification Implement the agreed proposals Resubmit proposal if problem still not under control Stop the relevant portion of works as determined by the ER until the exceedance is abated						



Appendix G

Noise Monitoring Data

Contract No. 13/WSD/16 Mainlaying in Tseung Kwan O Monthly EM&A Report No.37



					Leq-5min	, dB(A)			T	L ₁₀ 30 _{mins} ,	120 .	Limit	
Date	Time	Weather	Reading (1)	Reading (2)	Reading (3)	Reading (4)	Reading (5)	Reading (6)	L _{eq-30min} , dB(A)	dB(A)	4D(A)	Level, dB(A)	
04/08/2021	11:15 - 11:45	cloudy	67.8	67.1	68.2	69.9	67.2	69.1	68.3	71.3	59.7	70.0	NTi XL2 13663
13/08/2021	11:01 - 11:31	sunny	68.6	69.6	68.7	68.3	69.0	65.2	68.4	71.8	59.4	70.0	NTi XL2 13663
19/08/2021	11:30 - 12:00	sunny	68.6	67.7	65.5	67.6	65.1	62.7	66.6	69.7	60.8	70.0	NTi XL2 13663
25/08/2021	11:10 - 11:40	cloudy	66.9	68.2	68.3	68.8	67.0	66.7	67.7	70.7	59.6	70.0	NTi XL2 13663

Remarks:

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



Appendix H

Waste Flow Table



Monthly Summary Waste Flow Table

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

Monthly Summary Waste Flow Table for August 2021

		Actual Quantities o	f <u>Inert</u> Construction Wa	ste Generated Mo	onthly		
Month	Total Quantity Generated (see Note 4)	Hard Rock and Large Broken Concrete (see Note 3)	Reused in the Contract	Reused in other Projects	Disposed of as Public Fill	Imported Fill (see Note 1)	
	$(in '000m^3)$	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000m ³)	
2018	1.157	0.063	0.000	0.000	1.157	0.518	
2019	5.178	0.043	2.211	0.000	2.520	3.200	
2020	13.173	1.506	0.291	0.000	12.878	1.323	
Jan 2021	2.438	0.120	0.000	0.000	2.438	0.127	
Feb-2021	1.702	0.224	0.000	0.000	1.702	0.537	
Mar-2021	2.780	0.163	0.000	0.000	2.780	1.361	
Apr-2021	2.338	0.271	0.222	0.000	2.116	0.629	
May-2021	2.265	0.125	0.360	0.000	1.906	0.340	
Jun-2021	2.017	0.135	0.221	0.000	1.796	1.148	
Jul-2021	2.003	0.059	0.109	0.000	1.894	1.352	
Aug-2021	1.223	0.026	0.455	0.000	1.223	0.590	
Total for 2021	16.766	1.123	1.367	0.000	15.855	6.084	

Contract No. 13/WSD/16 Mainlaying in Tseung Kwan O Monthly EM&A Report No.37



		Actual Quantities of	Non-inert Constructio	on Waste Generated Mo	nthly	
Month	Metals	Paper/ cardboard packaging	Plastics (see Note 2)	Chemical Waste	Others, e.g. General Refuse disposed at Landfill	
l	(in '000kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000m ³)	
2018	0.000	0.417	0.000	0.000	0.139	
2019	0.000	0.062	0.000	0.000	0.102	
2020	0.000	0.606	0.000	0.000	0.043	
Jan 2021	0.000	0.065	0.000	0.000	0.006	
Feb-2021	0.000	0.058	0.000	0.000	0.012	
Mar-2021	0.000	0.055	0.000	0.000	0.002	
Apr-2021	0.000	0.045	0.000	0.000	0.008	
May-2021	0.000	0.049	0.000	0.000	0.006	
Jun-2021	0.000	0.051	0.000	0.000	0.000	
Jul-2021	0.000	0.052	0.000	0.000	0.005	
Aug-2021	0.000	0.048	0.000	0.000	0.000	
Total for 2021	0.000	0.423	0.000	0.000	0.039	

Notes:

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

Contract No. 13/WSD/16 Mainlaying in Tseung Kwan O Monthly EM&A Report No.37



- "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. "Total Quantity Generated" also includes non-inert general wastes.
- 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
 - K. Wah Quarry Company Limited: (Soil) 557.51 m³ (1115.02 tonnes/18 cars) K. Wah Quarry Company Limited: (Sub-base) 32.68 m³ (65.36 tonnes/1 cars)
 - ii.

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

Type of C&D Materials	Description of C&D Materials	C&D Waste Disp osed (Volume) (m³)
	Bentonite	18.00
	Broken Concrete	18.30
	Broken Rock	7.55
	Mixed Construction Waste (>50% inert)	7.05
Inert	Building Debris	
mert	Mixed Rock and Soil	850.65
	Reclaimed Asphalt Pavement	71.00
	Slurry	61.60
	Soil	189.05
	TOTAL =	1223.20
Non-inert	TOTAL =	0.00



Appendix I

Landfill Gas
Equipment
Certificate

Monitoring Calibration





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

Calibration Report - Gas Detector

n,	Calibrat	ion Report - Gas	Detector	d.
1	PGM-2500) (QRAÊ III) LEL	/O2/CO/H2S	at .
UNIT INFORMAT	TON .			
		1		
Customer: Penta Oce	an Construction Co Ltd	Serial #: M02A0 Firmware: V2.		QRAE III LEL/02/CO/H2S
		Cal date : 28-Jul-		
SENSOR DATA :				
	LEL sensor (ME)	O2 sensor	CO sensor (Tox1)	H2S sensor (Tox2)
Calibration dates:	28-Jul-2021	28-Jul-2021	28-Jul-2021	28-Jul-2021
After Calibration levels		17.90%	50 ppm	10.1 ppm
Alarm levels (Low): Alarm levels (High):	10.00% 20.00%	19.50% 23.50%	35 ppm 200 ppm	10 ppm 20 ppm
TWA Level;	20.0076	20.0076	35 ppm	10 ppm
STEL Level:			100 ppm	15 ppm
Status:				
Pump Speed	. Low	Back Light	Manual]
Clock	Yes	Measure	Average	
LEL Gas Selection			14	. *
LEL Calibration Gas	Methane	LEL measurement Gas	Methane	1
LEL Custom Gas	LEL_custom_gas	LEL Custom Factor	1.0	
Gas types used : 4-G	as Mix: (18% O2, 50ppm C	CO, 10ppm H2S, 50% LE	L CH4, BAL N2)	Gas lot #1412983 Cyl# 15
*** Fresh Air Calibrat	ion is highly recommended	to proceed prior for mea	surement each time.	
			-	
Replaced Parts:				
Notes:				
The unit was calibrated	and checked under good	working condition		·
				. ,
**Next calibration due	or before 27 July 2022			
(降)到	£)2)			
Serviced by Tedds	Wong			
	mational Ltd			



Honeywell Protection Through Detection 1349 Moffett Park Drive,

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

www.raesystems.com

Calibration and Test Certificate

Product Name:

MultiRAE Lite

Model Number:

PGM-6208

Serial Number:

M01C031772

Calibration/Inspection Date:

6/4/2021

Calibration Gases:

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

Test Results:

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

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

Approved By:

36-05-51832593

ISO 9001 CERTIFIED



Appendix J

Landfill Gas Monitoring Data

Contract No. 13/WSD/16 Mainlaying in Tseung Kwan O Monthly EM&A Report No.37



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 C

Date of measurement:

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

3-2021		Weather condition	Balance gas	Flammable	Carbon	0 00	T	
י ויירניייי א			(%)	gas (methane %)	monoxide(%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
3 2001	0830	I_Five	0	ĝ.	Ů.	20.9	29/999	7.3.
5-2021	1330	Five	C	0	0			2.7
2021	1799	Fire	0	Û	0			¥.Y
2021		Fire	8	0	Q P			2.5
3-20Ll		Fire	0	0	9			2-7
3-2021	1647	Fine	Ş	0	j	20.4	31/996	2.5
							/	
·							1	
						<u> </u>	/	
							//	
		 	 				/	
	5 - 201 5 - 201 5 - 201 5 - 201 6 - 201 6 - 201	5-2021 1930 5-2021 1700 5-2021 0848 5-2021 1848	5-2021 1880 Five 5-2021 1700 Five 5-2021 0840 Five 5-2021 1840 Five	5-221 1887 Five 0 3-221 1900 Five 0 5-221 0848 Five 6 3-201 1848 Five 0	5-2021 1850 Five 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	5-221 1837 Five 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	5-201 1550 Five 0 0 0 20.9 5-201 1700 Five 0 0 0 0 20.9 5-201 0545 Five 6 0 0 2.3 5-201 1547 Five 0 0 0 0 20.9	5-201 1887 Five 0 0 0 209 51/997 5-201 1700 Five 0 0 0 209 51/996 5-201 0897 Five 0 0 0 203 64/996 -201 1897 Five 0 0 0 203 64/996

Name & Designation

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Date

Field Operator:

THM HOLKEING

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2-8-2021

Laboratory Staff:

Checked by:

CF. chan (Foreman)

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7-8-2021

ENVIRONMENTAL RESOURCES MANAGEMENT

13

ENVIRONMENTAL PROTECTION DEPARTMENT



Contract no. 13/WSD/16

Mainlaying in Tseung Kwan O

Penta-Ocean - Concentric Joint Venture

Landfill Gas Monitoring -Field Measurement Recording Sheet

Name of site:

13/WSD/16 - Mainlaying in Tseung Kwan O

Date of measurement:

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

Sample location	Date of measurement	Sampling time	Monitoring wells / Surface Gas Emission							
			Weather condition	Balance gas (%)	Flammable gas (methane %)	Carbon monoxide(%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)	
CH FC 8+38	2-8-2021	} <u>.5</u> 5	Fine.	0	D.		204	/	2-5	
		13:55	The	٥	C	5	26,9	/	2-5	
CH.FC 2+64	2-8-2021	9:00	Fine	c	0	0	20,9	/	2.5	
		14:00	Fine	0	ê	8	209	/	5 ~\$	
Pap	2-8-2021	9:15	Fine	0	0	0	2.00 ನಿ	/	2.5	
	1	14:15	Fine	0	ō	0	20%		2-5	
Pit C	2-8-201	9:25	Fine	ò	. 0	C	263	/	\$	
		14 - 25	Fine	5	0	С	9 م2		8	
157 Pit C	2-8-204	9:45	Fine	0	0	Ĉ	20.9	1	7	
	The state of the s	14:45	Fine	r,	Ö	ε	20.9	/	7	
137 Pit B	2-8-201	9:55	Fine	ซ	b	0	28,9		8.8	
		i4≥55	Fine	0	0	3	20.9	/	8-8	
137 Pit A	2-8-2021	10:05	Fine	ò	0		209	/	8-3	
		15:05	Fine	6	0	0	20.9	/	8.3	

Name & Designation

<u>Signature</u>

Date

Field Operator:

AM HOI KAIIAGA

2-8-2021

Laboratory Staff:

Checked by:

San No GA

1

2-8-2021

ENVIRONMENTAL RESOURCES MANAGEMENT



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	· · ·							
			Weather condition	Balance gas (%)	Flammable gas (methane %)	Carbon monoxide(%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)	
WPRI	2-8-201	10:15	1-7-ve	ь	0	5	20.9	29 / 999	28_	
		15-15	Fire	8	6	0	20.9	। / পণ্	2.8	
WPR 2	2-8-2021	102 25	Fine	D	0	0	20.9	29 / 999	3.5	
		15= 25	Fine	0	0	6	26.5	31 / 997	3.5	
WPR 3	2-8 2001	10-45	Fine	0	C	t	20.9	29 / 998	2.8	
		15:45	Fine	0	ũ	0	20,9	51 / 996	2.8	
PiLA	2-8-2021	In: 55	Fire_	C	C	Ü	20.9	36 / 999	5	
		15:55	Fine	0	3		20.9	31 / 996	5	
Pit B	2-8-2021	11:05	Fire	D	ū	0	20.9	31 / 997	3.6	
		16:05	Fine	0	t	D	22,9	30/998	3,6	
								1/		
								<u> </u>		
				1		İ	İ	/		

Name & Designation

Signature

<u>Date</u>

Field Operator:

TAM HOLKSWING

- Ginn

2-8-2021

Laboratory Staff:

Checked by:

San No

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2-8-201

ENVIRONMENTAL RESOURCES MANAGEMENT

Environmental Protection Department

13



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

Landfill Gas Monitoring -Field Measurement Recording Sheet

Name of site:

13/WSD/16 - Mainlaying in Tseung Kwan O

Date of measurement:

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

Sample location	Date of measurement	Sampling time			Monitoring w	ells / Surface G	as Emission		· · · · · · · · · · · · · · · · · · ·
			Weather condition	Balance gas (%)	Flammable gas (methane %)	Carbon monoxide(%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
Aria A	3-8-2021	0830	File	0	0	0	20.5	27/947	XX
	3-8-021	1330	#. J. e	Ĵ	0	o .	20.9	28/996	3.5
P =	3-8-25-1	1700	Fire	y .	0	9	20.4	21/998	y.y
Acea 8	7-1-2021	0847	<u> </u>	2	Ü	C	20.9	27/997	2.5
	3-3-2021	1348	F.nc	0	ů	G	20-9	28/996	2.5
	3-8-2021	1645	t ine	0	Ç	C .	7.9.4	27/995	1.7
				 				 	
	 								
					 	ļ			

Name & Designation

Signature

<u>Date</u>

Field Operator:

TEMM HIM KEEME

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3-8-2021

Laboratory Staff:

Checked by:

Fichan (Foremon)

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3-8-2021.

ENVIRONMENTAL RESOURCES MANAGEMENT



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	, 9								
			Weather condition	Balance gas (%)	Flammable gas (methane %)	Carbon monoxide(%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)		
CH.FC 8438	3-8-204	8-55	Rne	b	Э	Ð	209	27 / 997	2.5		
		13-55	Fire	Ö	0	0	7.6.3	29 / 997	2.5		
CH-FC 6764	3-8-2ml	9:00	Fixe	. 3	0	Ð	209	28 / 996	کی5		
		14 -00	Fine.	0	9	0	28,9	21 / 997	2,5		
PitD	3-8-2021	9:15	Fine	0	0	6	209	26/995	2.5		
		4-14-15	Fine	O	C	0	20.9	27/996	2.5		
PrtC	3-8-2021	વે∶25	Fine	0,	0	0	20.9	27/996	ş		
		14-25	Finz	0	0	Û	24.9	28 / 997	8		
137 PLC	3-8-2021	9-45	Fine	0	0	0	209	28 / Î95	7		
	1	14245	Fine.	ð	0	ð	209	28 / 996	7		
137 PH B	3-8-2021	9:55	Fine	ō	ð	0	20.9	21 / 996	3.5		
		4-55	Fine.	0	C	0	28.9	28/997	8.6		
137 Pa A	3-8-2021	lesos	tine	õ	đ	Û	2.3	27 / 995	8.3		
		1505	Five.	0	0	0	20.9	27 / 995	8.3		

Date

Field Operator:

Name & Designation
TAM HELKEUNZ,

3-8-2021

Laboratory Staff:

Checked by:

San Als. (7.A.)

3-8-2021

Environmental Resources Management



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 (methane %)	Carbon monoxide(%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)	
NPR 1	3-8-2021	losts	Fine	0	6		20.9	27 / 997	2.8	
		15:15	Fine	6		n	20,5	28 / 996	2.8	
WPR Z	3-8-2021	10:25	Fire	9	0		و. م2	27 / 99 %	3.5	
		15:25	Fine	0	6	0	9.62	28 / 998	35	
WPR 3	3-8-2021	10245	Fine		o	\$	20.9	27 / 997	2.8	
		15:45	Fre	0		0	20,4	28 / 991	8-2	
Pit A	3-8-2021	10:55	Fine	3	0	0	20.9	28 / 996	5	
		15:55	Fine	- ર	0	0	ي.20.٩	28 / 998	5	
Pit B	3-8-2021	11:05	Fine	0	0	0	20.9	28 / 998	3.6	
		16205	Fine.	5			20.9	27 / 997	3.6	
								1		
								//	-	

Name & Designation

Signature

Field Operator:

3-8-2021

Laboratory Staff:

Checked by:

3-8-201

ENVIRONMENTAL RESOURCES MANAGEMENT



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

Landfill Gas Monitoring -Field Measurement Recording Sheet

Name of site:

13/WSD/16 - Mainlaying in Tseung Kwan O

Date of measurement:

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

Sample location	Date of measurement	Sampling time	Monitoring wells / Surface Gas Emission						
			Weather condition	Balance gas (%)	Flammable gas (methane %)	Carbon monoxide(%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
Area A	4-8-204	0830	8.4	a	0	0	20,5	20 / 946	7.7
	4-3-204	1330	Flaz	ĉ	0	J	20.4	51/194	7.7
ж	4-8-204	[700	Fine	0	Ĵ	0	20.9	28/993	22
Aroa B	4-8-204	0847	Fire	0	0	8	20.4	24/996	2.5
	4-1-121	(743)	File	ı j	٥	C	20.9	31 /994	2,7
	4-8-104	1645	Fire	3	ů	C	20.9	28/993	1.5
								/,	
			-					/	
				 				/,	

Name & Designation

<u>Signature</u>

Date

Field Operator:

TAM HOLKELAS

4-8-2021

Laboratory Staff:

Checked by:

C.F. chan (Foreman)

(Ap)

4-8-2021

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
ļ	

Sample location	Date of measurement		Sampling time	Monitoring wells / Surface Gas Emission							
			Weather condition	Balance gas (%)	Flammable gas (methane %)	Carbon monoxide(%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)		
CH.FC 8F38	48-200	8:55	Fine	0	0	5	20.9	30/ 994	2.5		
		js-56	Fine	e	0	0	<u> ک</u> مع	ડા/ ૧૧૬	2.5		
CHIFC OTH	4-8-2021	9:00	Fine	c	0	c	אַשב	29/ 936	2.5		
		Co: 41	Fine	0	. 2	0	20.9	31/995	25		
PitD	4-8-2021	925	Fire			0	200	29 / 995	2.5		
		14-15	Fine	ก	0	ee	209	31/994	2.5		
PitC	4-8-2021	9:25	Five	0	5	0	20.9	30/ 994	Ş.		
		14-25	tine	0	3	00	20.9	31/ 995	8		
137 PitC	4-8-2021	9:45	Fine	3	6	0	26.9	30/993	7		
	ļ	14:45	- Fine	. 0	6	0	28,9	31/994	7		
137 Pa B	14-8-2021	4:55	Fine	0		0	25.9	30 / 994	3-8		
	1	14-55	Fine	0	0	. 0	20.9	30/995	3.6		
137 Pit A	48-2021	10:05	Fine	0	3	0	20,9	35 / 998	8.3		
		5:05	Fine.	ာ	0	o	209	30 / 995	& .>		

Name & Designation

<u>Date</u> 4-8-222 [

TAM HOLKERYS Field Operator:

Laboratory Staff:

Checked by:

Son No (7A.)

4-8-20

ENVIRONMENTAL RESOURCES MANAGEMENT



Contract no. 13/WSD/16 Mainfaying 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							
	1		Weather condition	Balance gas (%)	Flammable gas (methane %)	Carbon monoxide(%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)	
WAR !	4-8-2021	logis	Fir.	0		6	20.9	29 / 996	2-8	
		15-15	Pre	ō	0	0	20.9	31 / 955	2.8	
NPR Z	4-8-2021	10:25	Fine	٥	0	6	20.9	29 / 996	3.5	
		15:25	Fine	٥	5	0	20.9	31 / 155	3.5	
WAR 3	4-8-2021	10:45	Fine	ხ	0	6	20.9	29 / 995	2-8	
		15745	Fine		υ	6	20.9	31 / 996	2-8	
Prt. 19	4-8-201	10:55	Fine	٥	6	0	20.9	30 / 984	5	
	ì	15-55	Fine	0	0		26.9	31 / 995	. 5	
Pit B	48-201	11:05	Fine		3	0	20.)	31 / 994	3,6	
_	<u> </u>	ib>©	Fine		C	<u> </u>	2019	30 / 915	3,6	
			-					/,		
								//		

Name & Designation
TANN Hell (SUAF)

Signature

<u>Date</u> 4-3-2の

Field Operator:

Checked by:

Laboratory Staff:

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4-8-201

ENVIRONMENTAL RESOURCES MANAGEMENT

ENVIRONMENTAL PROTECTION DEPARTMENT

13



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

Landfill Gas Monitoring -Field Measurement Recording Sheet

Name of site:

13/WSD/16 - Mainlaying in Tseung Kwan O

Date of measurement:

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

Sample location	Date of measurement	Sampling time	Monitoring wells / Surface Gas Emission							
			Weather condition	Balance gas	Flammable gas (methane %)	Carbon monoxide(%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)	
Apriad	7-8-2021	0330	F:ve	0	. 0	ð.	20.4	27/996	7.4	
	y-8-2021	1330	Fire	C	Ĉ	0	20.4	22/447	55	
	7-8-204	1707	Fire	ĵ.	0	0	20.9	27/995	2.5	
ATRAB	5-8-2021	084r	Fire	0	ą.	0	20.9	27/996	2.5	
	y-8-2024	(34)	Fire	0	Ü	0	20.9	28/995	25	
	12-9-101	1697	Five	Q	0	0	20.9	27/195	2.)	
								 		
								1 /		
	 									
				-	·	<u> </u>		/		
-								+ - /-		
								/	i	

Name & Designation

Signature

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x-8-2021

Field Operator:

Laboratory Staff:

Checked by:

(Fichan (Foreman)

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5-8-2021.

ENVIRONMENTAL RESOURCES MANAGEMENT



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 (methane %)	Carbon monoxide(%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)			
&TAS 97. NO	58-2021	8-55	Fine		3		70 î	28 / 945	2.5			
		13:55	Fine	0	0		209	28 / ૧૧૬	25			
C4.FC 0H64	5-8-201	9:00	Fire	6	0	Q.	25.9	28 / 995	2.5			
		إلوده	Fine	9	9	5	209	28 / Jif	2-5			
Pito	5-8-2021	૧ ા >	Fine	0	0	0	20,9	27/995	2.5			
		5انها(Fire	0	9	00	20.9	27/ 994	7.5			
Pitc.	58-2021	9:25	Fa	0	9	ē	20.9	28 / 995	ğ			
		14:25	Fine	0	C C	. 5	20,9	27/990	Ş			
137 PT-C	5-8-204	9 ઃધ્≿	Fine	0	ລ	Ü	20.9	28/996	7			
		14:45	Fine	9	D.	8	_2ა.9	24/996	7			
137 PAB	5-8-2021	9:55	Fue	G	ð	3	28.9	27 / 945	5 (
		14:95	Fine	0	٥	o	₽.ა⊆	28/794	8.6			
137 PitA	5-8-2021	10:05	Time	0	19	0	20.9	28/996	8-3			
		Ì5 =05	Fine.	Ü	0	5	<u> 19</u>	28 / 995	8.3			

<u>Date</u>

Field Operator:

TAM HOLKAUAH

5-8-2021

Laboratory Staff:

Checked by:

Sam No (7.8)

13

5-8-2021

Environmental Resources Management



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 (methane %)	Carbon monoxide(%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)	
UPR 1	5-8-2021	losts	Fine	0		0	20.9	27 / 996	2.8	
		15-, 15	Fine	٥	0	0	20.9	28 / 995	2.8	
WPR 2	5-8-254	10.25	Fine	0	ū	0	.2a .9	27 / 995	315	
		15 25	Pive	٥	5	0	20.9	28 / 996	3.5	
WPR 3	5-8-201	10:45	Pive	0	0	0	20.9	28 / 996	2.8	
		15=45	Fine		0	5	Poc	28 / 995	2-8	
PAL A	5-8-2021	16:55	Fine	3	U	ò	22.9	28 / 985	5	
)S::55	Fine	0		0	20,9	28/996	5	
Pit D	5-8-2021	11:05	Fine	a	0	0	20.9	27 / 996	3.6	
		16205	Fine	9	0	0	209	28 / 995	5.6	
								1		
								/		
								/		

Name & Designation

Signature

<u>Date</u> 5-8-201/

Field Operator:

Checked by:

Laboratory Staff:

Som Ms (7.A)

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5-2-2021

ENV.RORMENTAL RESOURCES MANAGEMENT



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

Landfill Gas Monitoring -Field Measurement Recording Sheet

Name of site:

13/WSD/16 - Mainlaying in Tseung Kwan O

Date of measurement:

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

Sample location	Date of measurement	Sampling time	Monitoring wells / Surface Gas Emission							
			Weather condition	Balance gas (%)	Flammable gas (methane %)	Carbon monoxide(%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)	
Area A	6-8-2021	0337	Fine	0	0	0	20.9	28/148	7.7	
	6-8-224	1350	First	3	0	0	20.9	29/197	7.2	
	6-8-204	1733	the	0_	0	0	20.9	28/146	7.5	
Acra B	6-8-2021	(B4)	Fine	9	Q	0	20.9	28/399	2,5	
	6-8-2021	1345	Fire	0	0	0	20-3	29/997	2.5	
	6-8-2021	1591	Fine	0	0	0	20.9	28/998	2.7	
								1,		
								/		
								1		

Name & Designation

Signature

Date

Field Operator:

CAM HOI KEWAS

Comments of the second

6-8-2021

Laboratory Staff:

Checked by:

Ficher (Foreman)

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6-8-2021

ENVIRONMENTAL RESOURCES MANAGEMENT

ENV:RONMENTALP3CTECTION 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 measurement	Sampling time	ing Monitoring wells / Surface Gas Emission								
			Weather condition	Balance gas (%)	Flammable gas (methane %)	Carbon monoxide(%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)		
CHFC 8+38	6-8-2021	8-55	tine	3	0	3	20.9	28 / 996	2.5		
		13:55	Films	0	0	ô	20.9	39/_597	2-5		
04FC 6464	6-8-2021	9 300	٢٠٠٤	5	0	à	20,9	27 / 996	2.5		
		14:00	tive		0	. 0	Zo.3	29/ 994	2.5		
PitD	6-8-2021	9=15	Fine		0	0	20.4	28/ 977	¥.5		
		4-15	Five	0	Ö	3	209	ደ ዓ/ የ ጓገ	2.5		
Pete	6-8-2021	9:25	Fine	C C	0	0	209	27/91	g g		
]ધ-રક	Fine	0	0	0	269	29/997	Ŝ.		
137 PREC	68-2021	વ:45	Fine	0	0	6	269	23/976	7		
		14:43	Five	0		0	24.9	28 / 997	7		
137 P.E.B	b-3-2021	9:55	Five	0	0	5	20.4	28 / 991	8.6		
		14:55	Fine	3	٥	٥	20.9	29 / 996	9.6		
137 Fith	6-8-2001	10=05	Fine	3	2	ĉ	20-9	27 / 996	8.3		
		15:45	Fine	0	0	ð	20.3	21 / 995	a-3		

Name & Designation

Date

Field Operator:

TAMA HOL KEWAR

68.2021

Laboratory Staff:

Checked by:

(-8-2021

ENVIRONMENTAL RESOURCES MANAGEMENT



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 (methane %)	Carbon monoxide(%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)	
NPR 1	lns-8-3	10:15	Fire	Б	0	C	20.9	29 / 997	2.8	
	(15-15	Five Five	0	0	D	20.5	79 / 998	2.8	
WPR 2	6-8-201	16525	Fine	D	2	0	20,9	29 / 997	3.5	
		15-25	Fine	6	00	lb	20.9	29 / 997	3.5	
WER 3	6-8-2021	10245	Fire	D D	0	0	259	28 / 998	2.8	
		15:45	Fine	0	ь	0	20.7	28 / 997	2.8	
Pit A	6-8-2021	10:55	Pine	0	0	0	اگرینے	29 / 998	5	
		15:55	Fine		0	0	20.1	29 / 998	5	
Pit Is.	b-8-coru	1 2 25	تهو	0	b	Ů	20.9	28/997	3.6	
		16.0%	Phe	ð	0	0	20.9	2%/996-	3,6	
								/		
								1		
			Į.	i			ļ	/		

Name & Designation

ture

Date

Field Operator:

TAIN HOL KELING

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6-8-202

Laboratory Staff:

Checked by:

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ENVIRONMENTAL RESOURCES MANAGEMENT



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

Date of measurement:

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

Sample location	Date of measurement			Sampling time	Monitoring wells / Surface Gas Emission							
			Weather condition	Balance gas (%)	Flammable gas (methane %)	Carbon monoxide(%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)			
	7-8-2021	0836	Fine	9	ů.	0	20,3	28/100	7.5			
	7-8-2011	1330	Fine	0	ů	Û	20.9	24/1901	2.5			
0	7-8-204	1704	FIR	0	. 0	2	25.9	29/1000	7.2			
Arza 5	7-8-2021	o gay	tive.	ľ	<u>j</u>	8	20.4	28 / 1901	2.5			
	7-8-2021	1347	Fine	Ů.	j j	<u> </u>	2.9	29/1001	2.5			
	1-2-1921	1645	Fine	8	0	0	20.8	24/1000	2.4			

	 						, .	1				
					-			-/-				
								 				

Name & Designation

Signature

<u>Date</u>

Field Operator:

TAM Hel HELLAR

Tai.

7-8-2021

Laboratory Staff:

Checked by:

(Fichan (Foreman)

for.

7-8-2021

ENVIRONMENTAL RESOURCES 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

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)
cuic 8th	7-8-2021	8:55	Fine	0	0	0	20.9	ZE / Land	2.5
		3-55	Fine	6	0	0	20.9	29 / isot	2.5
CH FC 0+64	7-8-2021	9200	Fue	0	0	6	20.9	18/ 1001	2.5
		14200	Fine	0	v	o	که۵	79 / 1001	2.5
Pald	7-8-2021	વ-15	Five	. 6		6	209	78 / 1000	25
		14:15	Fine	0	6		26.9	29/ 1000	75
Pitc	7-8-2021	9:25	Fire	ಲ	0	0	20.5	78 / leal	ş
		14:25	Fine	0	0	C	20.9	79 / 1200	8
137 Pac	7-8-2021	9 拱:45	Fine	ච	6	0	20.5	28 / 1001	7
		14=45	Fine	0	0	0	20.9	29 / 100	7
137 PT&B	7-8-2021	9 - 55	Fine	0	6	0	20.9	28 / 1001	8.6
· .		4:55	Fine	0	Ð	0	20,9	29 / 1001	8-6
IST PIE A.	1-8-2021	10:05	Fine	0	0	0	20.9	21/1-00	8-3
		15205	Fine	0	0	C	20.9	21/ 1007	3.3

Name & Designation

TAM HE KAWG

Signature Date

Tan- 1-8-200

Laboratory Staff:

Field Operator:

Checked by:

CAIT). El mos

ENVIRONMENTAL RESOURCES MANAGEMENT

ENVIRONMENTAL PROTECTION DEPARTMENT

13



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

Penta-Ocean - Concentric Joint Venture

Landfill Gas Monitoring -Field Measurement Recording Sheet

Name of site:

13/WSD/16 - Mainlaying in Tseung Kwan O

Date of measurement:

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

Sample location	Date of measurement	Sampling time	ling Monitoring wells / Surface Gas Emission							
			Weather condition	Balance gas	Flammable gas (methane %)	Carbon monoxide(%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)	
WPR I	7-3-204	10:15	Free	0	0	0	209	Zi / 100 c	28	
		15=15	Fine	р	۰	0	20.9	29 / Ivoi	2. %	
WAK 5	1-8-2-21	10:25	Fire		<u> </u>		2471	29 / 1001	3.5	
		15:25	Fine		0	ē	20.9	30 / 1001	3.5	
LIPR 3	7-8-2021	10245	Fine	o	0		25.9	30 / 1000	2.8	
		15=45	Fre		ð	0	20.9	20 / 1001	2.8	
PILA	7-8-201	10:55	Fine		9	.0	20.9	29/1001	5	
	1	15255	Fine	a		0	20.9	30/1602	5	
PH B	7-8-2001	11:05	Fac	0	0		20.9	100 / 1001	3.6	
		16205	- true	C	0	v	20.9	29/1000	ط.خ.	
~		_								
								/.		
						<u> </u>		/		
				1		1	1	/	ļ	

Name & Designation

Signature

Date

Field Operator: (AM HOLKE

Care

7-8-2021

Laboratory Staff:

Checked by:

Soun Na. (T.A.)

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7-8-2021

ENVIRONMENTAL RESOURCES MANAGEMENT

Environmental Protection Department



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

Landfill Gas Monitoring -Field Measurement Recording Sheet

Name of site:

13/WSD/16 - Mainlaying in Tseung Kwan O

Date of measurement:

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

Sample location	Date of measurement	Sampling time	, o								
			Weather condition	Balance gas (%)	Flammable gas (methane %)	Carbon monoxide(%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)		
Area A	9-8-204	0830	Fine	٥	0	0	20.9	29/10:6	2.2		
	19-8-2021	1330	Fine	٥	0	0	20.9	30/1004	5.8		
	9-8-2021	1700	Fine	2	0	0	20.4	30 / 1004	5.5		
Area B	9-8-2021	7780	Fine	ĵ	0	0	20.3	29/1006	2.7		
	9-8-2021	1747	Fine	υ	0	o	22.9	36 / 1904	2.5		
	9-8-2021	1645	Fine	3	O .	0	20.9	30/1004	2.5		
											
											
			 								
			 			+- 	 	 	<u> </u>		

Name & Designation

Da

13

Field Operator:

TAM HOLKEWIG

Pare

9-2-2021

Laboratory Staff:

Checked by:

Y. T. OHONG (site superintendent) T.

9-8-2021

Environmental Resources Management



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 (methane %)	Carbon monoxide(%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)	
CH.FC 3438	9-8-2021	8-55	أشتهو	ò	0	6	20.9	29 / 1605	2.5	
		年から	Fine		0	0	2.03	_20 / loo6	2.5	
CH.FC OH64	9-8-2021	9:20	Fine	0	0	0	<u>ا.مح</u>	29 / (205	2.5	
		14:00	Fine	9	0	0	209	30 / 1006	2.5	
PitD	9-8-204	૧:15	Fine	Ö	0	0	20.3	30 / 1004	2.5	
		14:15	Fine	٥		0	2019	30/1006	2,5	
PitC	9-8-204	9:25	Fine			n	209	29 / locy	%	
		الإ:ك	-True.	0	D	9	2,3	29/1005	8	
137 Ptc	9-8-2021	9 🕰 45	Fine	D	U	G	203	le / 1005	٦	
		14:45	Fine	0	ð	6	20.9	30/1006	٦	
137 Pil 15	9-8-201	9:55	Fal	D	9	0	20.5	30 / 1004	8.6	
		14:55	Fine	O	3	6	209	30/1005	8.6	
137 PiLA	9-8-2021	10 = 05	Fine	0	٥	6	20.9	27/1005	8.3	
		15 = 85	tine	0	O	0	20-9	30 / 1005	8-3	

Name & Designation

Field Operator:

TAM HOLKELING

Signature

<u>Date</u> 9-8-2021

Laboratory Staff:

Checked by:

9-8-202

ENVIRONMENTAL RESOURCES MANAGEMENT



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	• -							
			Weather condition	Balance gas (%)	Flammable gas (methane %)	Carbon monoxide(%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)	
UPR 1	9-8-2021	10-15	Fire	9	0		20.9	30 / too5	2,8	
		15=15	Ew.	0	6	О	20.9	30/1005	28	
WPR Z	9-8-2021	[6:25	Fine	9	a	0 -	209	30 / 1064	35	
		15=25	Fine	0	c	. 6	20.9	30/1006	3.5	
WPR 3	9-8-2021	10:45	Fine	0	0	C	20.9	30/1006	2.8	
		15:45	Fine	0	0	c	20.9	30 / lon4	2.8	
Pit A	9-8-202	18:55	Fine		0	6	209	30 / 1004	5	
		15=55	Fine	0	0		20.9	30 / 1005	5	
PH B	9-8-2021	11:05	Fine	е	O	ć	26.9	30 / pug	3.6	
		16-05	Fine	0	0		20,9	27/1004	3,6	
								1.		
								1 /		

Name & Designation

Signature Date

TAM HOI KELLAG

Chan

9-8-2021

Laboratory Staff:

Field Operator:

Checked by:

. AL (TA)

4.

9-8-202

ENVIRONMENTAL RESOURCES MANAGEMENT

Environmental Protection Department

13



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

Landfill Gas Monitoring -Field Measurement Recording Sheet

Name of site:

13/WSD/16 - Mainlaying in Tseung Kwan O

Date of measurement:

Sampling equipment used:	Dates calibrated
PGM-2500 (QRAE III)	28 Jul 2021
1131	

Sample location	Date of measurement	1	1		Sampling time	Monitoring wells / Surface Gas Emission							
			Weather condition	Balance gas (%)	Flammable gas (methane %)	Carbon monoxide(%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)				
Area A	10-8-221	0830	Finz	O.	0	0	20.4	24/1006	3.3				
	10-3-2021	1330	Fine	0	0	9	20.9	24/1007	5-5				
	10-8-2021	1700	Fire	0	0	0	20.9	30/1008	7.7.				
ATER B	10-8-2021	0847	Fine	0	0	3	20.3	29/1006	2.5				
	10-8-2024	1345	Five	9	٥	0	20.4	29/ (228	2.5				
	10-8-2021	1645	Fine	3	0	٥	20.9	30/ 1004	2.5				
	7525			İ				/					
								/					
			<u>:</u>	 									

Name & Designation

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13

Field Operator:

TAM Her KBING

lez.

10-8-2021

Laboratory Staff:

Checked by:

Y. T. CHONG (Site superintendent) Ti

10-8-2021

ENVIRONMENTAL RESOURCES MANAGEMENT



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 (methane %)	Carbon monoxide(%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)	
CH.FC 8+38	10-8-2021	3-55	Fine.	٥	5	0	26.9	29 / 1005	Z.5	
		13753	Fine	0	0	· 6	209	I9 / 1005	2.5	
CAFC O+64	10-8-2021	9:00	Fine	0	9	0	20.9	29 / 1005	2.5	
		4:00	Fine	୬	0	G	200	29 / 1006	2.5	
Pito	10-8-2021	9:15	Fine	6 .	0	0	20,9	30 / 1000	2.5	
		14215	Fine	9	Ö	0	20.9	99 / 1005	2,5	
PREC	10-8-2021	9:15	Fine	0	0	6	೯೦,9	30/1006	8	
		14:25	Fire	O	و	0	20.9	30 / 1006	\$	
137 P&C	10-8-2021	वः ५ 5	Fine	0	0	0	<i>و</i> ه ۵	3- / 1005	7	
		الإدلاح	Fine	C	G	ō	209	79 / hook	٦	
137 Pic B	10-8-2021	૧ે - 55	Fine	o	G	0	82.9	29/1:5	3.8	
		14255	Fine	٥	0		20.9	50/1006	2.4	
BJ Pit A	10-8-20rd	10.05	Fine	0	٥	0	25.9	30 / 1006	3.3	
		15=05	Fine	٥	0	٥	20,1	27 / 1005	8.5	

Name & Designation

Signature

<u>Date</u>

Field Operator:

TAM HO! KEWIN

Com

10-6-20-1

Laboratory Staff:

Checked by:

CA.T). EM maz

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10-8-2021

Environmental Resources Management



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 (methane %)	Carbon monoxide(%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
WAL I	164-202	10215	Fine	0	0	٥	20.9	30 / 1006	2.8ٌ
		15:15	Fine	0	0	0	9.0 ح	30 / 1005	2.3
WPR Z	10-8-201	10:15	Fine	0	0		20.9	30 / 1006	3.5
		5.25	Fine	Ó	0		20.9	7a / 1004	3.<
bar 3	10-8-2021	10:45	Fine		0	σ	20.9	2,0 / looS	<u>></u> ,8
		15-44	Fire	0	t	. 0	209	30/1004	2,8
Přt. A	10-2-201	16-55	Fine	0	ð	0	20.5	30 / 1005	5
•	<u> </u>	15755	Fine	٥	0	0 .	20.9	30 / laus	.5.
PT. B	10-8-2021	11:05	Fine	0	0		209	2,0 / 100[3.6
		16-05	الجرور	G	0	. 0	20.4	19/1006	36
						1		//	
								ļ/	
	1				1				

Name & Designation

Signature 5

<u>Date</u>

Field Operator:

TAM HOLKENKY

maya Letan

10-8-2001

Laboratory Staff:

Checked by:

(A5) By mac

4

10-8-2021

ENVIRONMENTAL RESCURCES MANAGEMENT



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

Penta-Ocean - Concentric Joint Venture

Landfill Gas Monitoring -Field Measurement Recording Sheet

Name of site:

13/WSD/16 - Mainlaying in Tseung Kwan O

Date of measurement:

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

Sample location	Date of measurement	Sampling time	Monitoring wells / Surface Gas Emission							
		-	Weather condition	Balance gas (%)	Flammable gas (methane %)	Carbon monoxide(%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)	
Area A	11-8-2021	0830	Fine	Û	G	ů.	20.5	28/(019	7.7	
	11-8-2021	1330	Fine	. 0	č	g	25.9	30 / 1008	7.5	
	11-8-2021	1720	Fine	0	0	0	20.9	71/1006	5.5	
Area B	11-8-204	6843	Fire	O	ō	0	20.4	28/1009	2.5	
	11-8-2021	1345	Fire	0	C	0	20.9	30 / 003	2.8	
	11-8-2021	1647	Fine	0	0	0	20.9	31/1006	2.5	
								//		
								1/,		
								/		
		:								

Name & Designation

Signature

Date

Field Operator:

GAM HOLKEUNG

11-8-2021

Laboratory Staff:

Checked by:

Y. T. OPONG (Site Superintendent) 72

1505-8-17

ENVIRONMENTAL RESOURCES MANAGEMENT



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	. •							
			Weather condition	Balance gas	Flammable gas (methane %)	Carbon monoxide(%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)	
O1.FC 8+33	11-8-2021	8:55	ine.	D	С	6	5.6.9	28 / look	- Z-C	
		13=55	Fine	D	t	G	253	29 / 1007	2.5	
CHIFC OFF	1-8-2021	9:60	Fine	0	5	O O	2.0.€	28 / 1008	2:5	
		34-00	Fine	D	٥	0	20.5	28 / 1008	2-5	
PAFD	11-8-2021	9:15	Fine	O	0	0	20.4	28 / 1006	2-5	
		14:15	Fine	8	บ	b	28.9	29/1006	2.5	
FLC	11-8-2021	9:25	Fine	σ	0	0	20.9	28 / 1008	B	
 		lu: VS	Fire	ט	c	๖	20.5	78 / lost	8	
137 PAC _	11-8-2024	વ ાપડ	Fre	0		0	20 S	78 / 1007	7	
	:	4:45	Fine	٥	0	0	2×-d	29 / 1007	7	
137 PTUS	11-8-201	9255	Fine	o	0	0	٩٫ڡد	28 / 1008	8,6	
		14:55	Fine	0	0	0	20.9	29 / 6009	ક્રા	
13782A	11-8-5251	كفيوا	PAR	0	0	ō	ی جد	28 / 6009	8-3	
		15:45	Fine	C	0	0	2001	27 / 6008	8.3	

Name & Designation

Signature

Field Operator:

TAM HOI KAMA

Tro. .

11-8-2021

Date

Laboratory Staff:

Checked by:

San No (TiA)

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11-8-202/

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 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)	
WOR!	11-8-201	10:15	Fine		0	ō	26.9	29 / 100°	2-8	
		15-15	Fine	0		a	20.9	30 / 1009	2.8	
WPR 2	11-8-3051	10025	Fine	0	0	٥	20.9	29 / 1008	3.5	
		15:25	Fine	6	0	3	20.9	30 / 1007	3.5	
WPR 3	11-8-201	10245	tine	0	0	Ü	20.9	29 / 1007	2.8	
		15:45	Fire	0	0	0	20.9	3i / lo&	2,\$	
Pat A	11-8-2021	10-55	Fine	6	<u> </u>	0	20.9	30 / log1	. 3	
		15:55	Fine	0	0	10	209	30 / 1009	5	
PH. IS	11-8-2021	11:05	Fine	0	6	0	20.9	30 / 1008	3.6	
		15:05	Fine	0	0	9	20.9	29/1001	3.6	
								/		
•								/		

Name & Designation

<u>Date</u>

TAMI HOLKEWIA Field Operator:

11-8-2021

Laboratory Staff:

Checked by:

Sam Ng. (7.2)

Signature

11-8-2021

ENVIRONMENTAL RESOURCES MANAGEMENT



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

Name of site:

13/WSD/16 - Mainlaying in Tseung Kwan O

Date of measurement:

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

Sample location	Date of measurement	Sampling time	Monitoring wells / Surface Gas Emission							
			Weather condition	Balance gas (%)	Flammable gas (methane %)	Carbon monoxide(%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)	
Area A	12-8-264	در لا ق	Fire	0	0	0	20.4	29/1010	7.7	
	12-8-2021	1330	Fire	0	0	0	20.5	31 / 1008	2.2	
	12-8-24	1700	Fine	0	v	ů	20.9	29/1007	3.5	
Area B	12-8-221	0845	Fine	Ú	0	ű.	20.9	29/1010	2.5	
	12 - 2 - 20L1	1347	Fine	v	0	Ů	20.9	31/ 1008	2. \	
	12-8-2021	1947	Fine	0	0	0	20.4	29/ 1007	2.3	
								-/,		
								/		
		<u> </u>					<u> </u>	1		
					 	 	·	1 - 7	1	

Name & Designation

Signature

Date

Field Operator:

TAM HOLKBUAK

Com

12-8-2021

Laboratory Staff:

Checked by:

7-7. CHONG (Sife superintendent) Ti

15-8-505

13

Environmental Resources Management



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 (methane %)	Carbon monoxide(%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)	
(H.FC 8438	12-8-2021	8:55	Fine	0	0	5	2 c9	29/1009	2.5	
		13:75	Fine	6		0	20.9	31 / 168	2-5	
CH.FC OTH	12-8-201	পি:৩৩	Fine	0	5	5	209	Z9 / 1008	2.5	
		14:00	Fine	0	5	5	20.9	31/1009	2.5	
Pad	12-8-2021	9:15	Fine	0	٥		20.9	29/1010	2.5	
		્રાયા	Fine	0			20,9	31/1008	2.5	
Pit C	12-8-2021	9:25	Fine	0	9		20.9	29/1007	8	
		14:25	Fine	U	0	0	20.9	31/1009	8	
Brito	12-8-201	9=45	Fine	6		0	20.9	30/1008	7	
		14:45	Fine	0	9	0	20.9	31/1010	7	
137 PHB	12-8-2021	9:55	Fine		0	0	26,9	30/1009	8.6	
		4155	Fine	0	0	D	P. 05-	31/1010	8.6	
137 PTLA	12-8-2021	10:05	Fine	0	0	0	209	20/1009	8.3	
		15:05	Fine		0	0	259	31/1608	8.5	

Name & Designation

Signature D

Field Operator:

7AM HOI KEWIK

7. (2. [2-8-202]

Laboratory Staff:

Checked by:

San No. (T.A.)

Ac,

12-8-2021

ENVIRONMENTAL RESOURCES MANAGEMENT



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	* -							
			Weather condition	Balance gas (%)	Flammable gas (methane %)	Carbon monoxide(%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)	
WPR I	12-8-20-1	اه ۽ اح	Fine		0	0	20.9	30 / 1009	2⋅8	
		15-15	Fine	0	O O	0	20.9	3) / 1010	2.8	
WPRZ	12-8-2021	10:25	Fine	0	0		20.9	30 / 1008	3.5	
		15:25	Fire			0	20.9	31 / 1009	3.5	
WPR 3	12-8-2021	10:45	Fine	6	0		20.9	31/100	2.8	
		15:45	Fine	0	5	٥	20,9	31 / 1007	2-8	
Pit A	12-8-2021	10:55	Fine	0	\$	0	20,9	30/108	5	
		15:22	Fine		0	0	20.3	31/109	5	
Pit 13	12-8-2021) 1205	Fine	Ü	0	0	<u>ځه.</u> ٩	31/107	3.6	
		16265	Fre	u	0	0	20.9	29/1010	3.6	
			,					1		
								1		
								/		
								/		

Name & Designation

Signature

<u>Date</u>

Field Operator:

TAGE HOLKEWAR

Tan

12-8-2021

Laboratory Staff:

Checked by:

Soun Ne. (T.A.)

J.

12-8-2021

ENVIRONMENTAL RESOURCES MANAGEMENT

ENVIRONMENTAL PROTECTION DEPARTMENT

13



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

Penta-Ocean - Concentric Joint Venture

Landfill Gas Monitoring -Field Measurement Recording Sheet

Name of site:

13/WSD/16 - Mainlaying in Tseung Kwan O

Date of measurement:

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

Sample location	Date of measurement	Sampling time							
		-	Weather condition	Balance gas (%)	Flammable gas (methane %)	Carbon monoxide(%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
Atea A	13-8-2021	0850	Fire	Ü	٥	0	20.9	29/1007	3.4
	13-2-221	1330	Fire	0	0	0	20.9	28/1004	3.5
	13-8-2021	1700	FILE	Ü	Ú	ů	20.9	28/1004	5.5
Area B	13-8-2011	e \$45	Fine	0	g	0	20.9	29/1007	1.5
	17-8-2021	1345	Fine	j.	0	Ç	20.5	28/1704	1.8
	13-3-221	1645	Fine	Ø .	٥	0	20.9	18/ 1004	2.5
								/	
								//	
					-	 		 	

13

Name & Designation

<u>Date</u>

Field Operator:

13-8-2021

Laboratory Staff:

Checked by:

Y. T. (Honda (lite superimendent) 7:

ENVIRONMENTAL RESOURCES MANAGEMENT



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 (methane %)	Carbon monoxide(%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)	
CH.FC 8438	15-8-2021	8:55	Fine	0	0		2c.\	29/1006	るよ	
		13255	Ene.			5	20.5	28 / 1097	2.5	
CH. FC 0+84	13-8-2021	9:00	Fine	6	0	c	269	29 / loe5	2.5	
		14:00	Fine	6	D	. 0	20.9	28 / 1006	2.5	
PitD	13-8-2021	9:15	Fine	ε	ð	0	209	29/1004	2-5	
		14.45	tine	6	6	0	2:9	28 / [007	2.5	
Fitc	13-8-2021	9:25	Toe	0	6		20.9	29/1005	8	
		14:25	Fine	27	0	0	20.9	29/1006	8	
137 Ptc	13-8-2011	9:45	Fine	0	0	0	20,9	28 / 1007	3	
		14:45	Fine	0	9	0	20.9	29 / 1006	7	
137 Pit B	13-8-2021	9:55	Fine	0	c	c	ک م <i>ک</i>	29 / 1907	8.6	
		14:55	Fine	0	0	0	که.٩	28 / 1004	8,6	
137 FHA	13-8-2021	10-05	Fine	0	C	0	20.9	29 / 1005	8.3	
		15:05	Fine	0	c	0	20.9	29/1005	8.3	

Name & Designation

Signature

Date

Field Operator:

TAM HOLKEWAR

13-8-2021

Laboratory Staff:

Checked by:

15-8-2021

ENVIRONMENTAL RESOURCES MANAGEMENT



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 (methane %)	Carbon monoxide(%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)	
WPRI	13-8-2021	10=15	Fine	0	6	à	20.9	29 / 1006	₹.8	
		15=15	t _{īne}	0	ð	0	209	30 / 1005	2.8	
HPR 2	13-2-2021	10:25	Fine	0	o	о	2,9	Jo / Jap	3-5	
-		15-25	Fine	0	0	0	20.9	3c / 1007	35	
WTR_3	13-8-201	10245	Fine	0	9	0	20.9	30 / 1005	2.8	
		15: 45	Fine	0	0		4.02	29/1006	2.8	
Pith	13-8-201	10:55	Fine	0	0	0	20.4	30/1005	_ 5	
		15=55	Fine		9	0	20.9	29/1006	5	
Fit B	13-8-2021	11:05	Fine	0	a	0	209	31/1006	3.6	
		16=05	Fine	ə	0	6	20.9	24/1907	ها خ	
								/		
								/		
		T						/		

Name & Designation

Signature

<u>Date</u>

Field Operator:

TAM HOLKERAK I

Tain

13-8-2021

Laboratory Staff:

Checked by:

Sun No [7.A]

- t.

13-8-201

ENVIRONMENTAL RESOURCES MANAGEMENT

Environmental Protection Department

13



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

Penta-Ocean - Concentric Joint Venture

Landfill Gas Monitoring -Field Measurement Recording Sheet

Name of site:

13/WSD/16 - Mainlaying in Tseung Kwan O

Date of measurement:

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

Sample location	Date of measurement	Sampling time	Monitoring wells / Surface Gas Emission						
			Weather condition	Balance gas (%)	Flammable gas (methane %)	Carbon monoxide(%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
Area A	14-8-02	6 330	Fire	. 0	0	Q	20.9	26/1006	2.3
	14-3-2021	1330	Fine	e)	0	0	20.6	27/1066	5.5
	14-8-2021	1700	Fine	S	0	0	20.4	27/1008	3.5
Area B	14-8-1021	5843	Fine	0	0	0	20.5	26/1006	2-5
	14-8-2021	1345	Fire	O.	0	0	20,4	2-1/1006	2.5
	14-8-204	1647	Fire	0	0	0	20.5	27/1007	2.3
					1			 	
					<u>:</u>			-/-	
						1,7-3		/	
		<u> </u>						1 /	

Name & Designation

Signature

<u>Date</u>

Field Operator:

TAM HOI KBUNG

Cha.

14-8-2021

Laboratory Staff:

Checked by:

Y. T. (HONG (sire superintendent) To

14-8-2024

ENVIRONMENTAL RESOURCES MANAGEMENT



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							
			Weather condition	Balance gas (%)	Flammable gas (methane %)	Carbon monoxide(%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
CH.FC 2438	14-8-2021	8:55	Fine	0	a	0	20.9	27 / 1006	2.5
		13-55	Fine	0	ð	0	20.9	26 / 100b	2.5
CH,FC 0464	14-8-2021	9200	Fine	0	0	. 0	25.9	i] / 1005	<u> ጉ</u> Տ
		14:00	Fine	0	6	0	20,9	26/1006	2.5
PH.D	14-8-2021	9-15	Fine	0	0	D	که،۹	27 / 100	کد
		14:15	Fine	0	σ	0	26.9	26/1005	2-5
Pit C	14-8-2621	9:25	Fine	0	0	0	28.9	27 / 100	8
		4:25	Fine	1 0	O	0	20.5	2 to / 100 lo	3
137 PEC	14-2-201	9-45	Fine	0	6	0	٩. مت	27/1005	7
		14:45	Fine	0	0	6	209	26 / Josh	1
137 Pitb	14.8-2021	9:55	Fire	0	0		20.9	27 / 1005	8.6
		14:45	Fore	0	,	0	24,9	27 / Jac'S	€″و
137 P&A	14-8-2021	10:05	Fine	0	9	0	20,9	26/lock	8.3
		15-65	Fine	Ō	٥	6	20,9	27/1005	8.3

Name & Designation

Signature

<u>Date</u>

Field Operator:

PAM HOL KEWAL

100

74-8-2021

Laboratory Staff:

Checked by:

C. N. (T.B.)

Jz.

48-2021

ENVIRONMENTAL RESOURCES MANAGEMENT

Environmental Protection Department



Contract no. 13/WSD/16

Mainlaying in Tseung Kwan O

Penta-Ocean - Concentric Joint Venture

Landfill Gas Monitoring -Field Measurement Recording Sheet

Name of site:

13/WSD/16 - Mainlaying in Tseung Kwan O

Date of measurement:

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

Sample location	Date of measurement	Sampling time									
			Weather condition	Balance gas (%)	Flammable gas (methane %)	Carbon monoxide(%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)		
WPR I	14-8-201	(5:15	Fine	9		0	209	27 / 100 6	2.8		
		1525	Fine	0	0	0	269	27 /]44	2,8		
WPR Z	14-8-201	10:25	Fine	g	8	0	20.9	28 / 1007	3.5		
		15:25	Fine	0	0	G	209	27 / 1007	3,5		
NPR3	14-8-12	10:45	Fine	Ø	О		209	28/1005	2.8		
		15=45	Fine	9	0	0	20.9	27 / 1006	2.8		
PTE A	14-8-2021	0.55	Fire	0	0	0	۹.ه2	27 / lorb	5		
		5:55	Fine	0	0		20.9	28 / 1007	. 5		
P.L.B	14-8-2021	11:05	Fine	O	0	c	و م2	29 / 1007	3. L		
		16265	Fine	0	0	0	20.3	27/1006	3.6		
								/			
								/,	1		
								/			

Name & Designation

Field Operator:

Checked by:

TAM Ha Kradh Tan 14-8-2021 Sam Ng (T.R.) Ac. 14-8-2021

Laboratory Staff:

ENVIRONMENTAL RESOURCES MANAGEMENT



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 (methane %)	Carbon monoxide(%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
AreaA	16-8-21	0830	Rain	0	0		20,9	29//0/3	5,5
	/	1330	Rain	0	0	0	20.9	31/1011	3,5
		1700	Rasin	0	0		20,9	30/10/0	5.5
AreaB	(6-3-21	0845	Rain	0		Ō.	20,9	29/10/3	2,5
	,	1345	ROGIN		0	O	20.9	32//0/2	2.5
		1645	Rain	0	l	0	20.9	30 / 1011	2.5
	-							· /,	
								,	
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						 	_	//	-
	 				 			/	1
	+				1			/	
						ļ		1	

Name & Designation

Signature

Date

Field Operator:

TAM HOLKERAR

Ten

16-8-21

Laboratory Staff:

Checked by:

Y.T. CHONG (SITE Superintendent)

TI

16-8-21

ENVIRONMENTAL RESOURCES 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
	1

Sample location	Date of measurement	Sampling time	Monitoring wells / Surface Gas Emission							
			Weather condition	Balance gas (%)	Flammable gas (methane %)	Carbon monoxide(%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)	
CH.F C8t28	16-8-21	0855	RASIN	0	0	0	که ۵۲	29/1013	2.5	
		1355	Roin	Ō	0	0	2°.G	31/1012	2.5	
CH.FCOHY	16-8-71	1900	RAIN	0	0	Q	2.00	29/1013	2.5	
		1400	Ram	Ü	0	0	2.9	31 / 1011	2.5	
PitD	16-8-21	1915	480in	0	0	0	20.0	29/192	2.5	
		1415	Rain	0	0	0	20 9	31/1011	2.5	
Prt C	16-8-21	0925	kem	0	0	<u> </u>	20.9	29/[a3	8	
	`	425	Ram	0	0	<u> </u>	20.G	31/1012	8	
37R+C	16-8-21	0945	Rain	0	0	<u> </u>	209	29/1013	7	
		late	bain	0	0	ĥ	209	31 / 10H	7	
(37 Pif B	16-8-51	0955	Dain	<u> </u>	0	0	20.9	29/193	કે.6	
L		1455	Rain	0	0	0	20.9	31 / 1012	8-6	
137Prt A	16-8-21	1005	RAN	0	0	0	20,3	29/(013	8.3	
		1505	BUM	0	0	0	20,9	31 / 1011	3 ⋅3	

Name & Designation

Signature

Date

Field Operator:

TAM Ho! KEWIG

(94-

16-7-21

Laboratory Staff:

Checked by:

Sam NJs. (T.A.)

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16-8-2021

ENVIRONMENTAL RESOURCES MANAGEMENT



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 (methane %)	Carbon monoxide(%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)	
WPR1	16-821	1915	Rogin	0	0	n	20,9	30 / 1013	2.8	
		1515	Rain	C	Ŏ	0	20.9	31 / 1011	2.8	
WPR2	16-8-21	1025	ROW	0	0	Ô	DOG	30/1013	3,5	
·		1525	Rain	0	0	٥	20,9	91/1011	3.5	
WPR3	16-3-21	1045	ROVIN	0	0	0	20.9	20/0/3	2.8	
		1545	Rown	0	0	· Ō	20,9	31/01	2.8	
Pit A	16-8-21	1055	Roin	0	0)0,0	30/(93	5	
~	1	1555	Roin	C	L C	i _ ŏ	20.9	3//01	5	
PrtB_	16-8-21	1105	Roin	O	1 0	Ŏ	20.9	30/1013	316	
		1605	RAN.	0	. 0	0	20.9	31/10/1	3.6	
					<u> </u>					
		<u> </u>			 	ļ				
				<u> </u>	1			 		
				:				/		

Name & Designation

Signature

TAM HOLKAWA

Laboratory Staff:

Field Operator:

Checked by:

Sam Ng. (T.A)

ENVIRONMENTAL RESOURCES MANAGEMENT



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 (methane %)	Carbon monoxide(%)	Oxygen (%)	Temp (°C) / Pressure (mbar)		
AreaA	17-8-21	0830	Fine	0	0	0	20,9	29/10/1	5.5	
1186 00 11	JV.	1330	Fine	0	0	0	20,9	33/10/0_	5.5 5.5	
	-	(700	Fine	0	0	0	20,0	31/1008	55	
AreaB	17-8-2/	0845	Fine	0	0	0	20,0	20/ 1011	2.5	
		1345	Fine	0	0	L 0	20,9	33/ 1009	25	
		1645	Fine	0	0	0	209	31/60/	2.5	
						<u> </u>		//		
							ļ <u></u>	/,		
		ļ <u></u>	<u> </u>				· · · · · · · · · · · · · · · · · · ·	1	<u> </u>	
				 	 	 		1 /	<u> </u>	
							!	/,		
							1	/		
	ļ	<u> </u>						 	-	

Name & Designation

Signature

Date

Field Operator:

TAM HOLKELAG

Tal

17-8-21

13

Laboratory Staff:

Checked by:

Y. T. CHONG (Site superintendent)

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17-8-21

ENVIRONMENTAL RESOURCES MANAGEMENT



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	Carbon monoxide(%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
1	_				(methane %)	(, 1,		Trobbaro (mour)) ()
CHIECSTS	17-8-21	0855	Fine	0	0	0	20,9	31/1011	2.5
		1355	Fine	0	Ò	0	909	33/1010	2,5
CH.FC 0+64	17-8-21	1900	Fine	0	0	0	20.9	21/1011	25
	,	1400	Fine	0	0	1 0	20.9	33/1009	2,5
Pí+D	17-8-21	0915	fine	0	0	Ŏ	20,9	31 / 1011	2.5
		1415	Fine	0	0		20,9	33/ (6(0	2.5
Prt C	17-8-21	0925	Fine	0	0	0	20.9	3(/)01	8
l		1425	Fine	0	0	0	30,0	J3 / (이o	s ²
137P/t C	17-8-11	6945	Fine	0	0	Ó	20.9	31 / 1011	_ 7
		1445	Fine		0	D D) P. Q	33 / (0(0	প
137P+ B	17-8-21	0455	Fine	<u>ŏ</u>	00	U	20,9	1101, / 16	8.6
L.		1455	Frne	0	0	0	20,6	33/1009	8.6
137 PT+ A	17-8-21	७०५	Fine	0	0	0	20,9	31 / (0)1	đ.3
į	l,	[505	Fine	0	1 0	0	20.4	33 / 1009	8.3.

Name & Designation

Signature

13

Date

Field Operator:

TAM HOL KAING

Ton 17-8-21

Laboratory Staff:

Checked by:

Sam Ng. (7.A.)

17-8-21

ENVIRONMENTAL RESOURCES MANAGEMENT



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 1	Date of measurement	i					Sampling time	Monitoring wells / Surface Gas Emission							
			Weather condition	Balance gas (%)	Flammable gas (methane %)	Carbon monoxide(%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)						
WPR	17-8-21	1015	Pine	0	0	0	200	3 / 101	2,8						
ì		1515	FMR	1 0	Q	0	20.01	33 / 1010	2.8						
WPR2	17-8-21	1025	Fine	0	\bigcirc	<u> </u>	20,9	31/1011	315						
	1000	1525	Fine	-	Q	Q	204	33/1009	3,5						
WPR3	17-8-21	1045	Fine	<u>Q</u>	10	<u> </u>	204	31 / 10(1)	2.8						
		345	Fine	0	0		20.9	33 / 1010,	2.8						
Pt+ A	17-3-21	1055	Fine	<u> </u>	0	0	209	31/1011	5						
	1 1 0 3 7	1555	Fine	Ŏ	2	Q	20.9	33/(cl0	5,						
PitB	17-8-21	1105	FINE	0	0	0	204	31 / 100	3.6						
	<u> </u>	1605	Fine	· · · · ·	0	0	20.9	33 / (00)	3.6						
				1											
	<u> </u>		 		ļ			/	ļ						
								4	-						
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Name & Designation

Field Operator:

Tan 17-8-21

Laboratory Staff:

Checked by:

17-8-201

ENVIRONMENTAL RESOURCES MANAGEMENT



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 (methane %)	Carbon monoxide(%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)	
AreaA	18-8-21	0830	Fine	0	0	0	20,9	30/ 1004	55	
111 COC. 1		1330	Pine	0	0	0	20.9	33/1008	<i>S</i> £\$^	
		1700	Fine	0	C	0	20.9	31/1007	5.5	
AreaB	18-8-2[0.845	Pine Pine	0	0	0	20,9	32//00/	2,5	
		1645	Fine	0	0	0	20.9	31/106	2,5	
								/		
						!		/		
								1,		
		<u> </u>					 	+. J _T		

Name & Designation

Signature

<u>Date</u>

Field Operator:

"TAM HOLKBUAK

7000

18-8-21

Laboratory Staff:

Checked by:

Y. T. CHONGO (site superimtendent)

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18-8-21

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 measurement	Sampling time	Monitoring wells / Surface Gas Emission							
			Weather condition	Balance gas (%)	Flammable gas (methane %)	Carbon monoxide(%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)	
CH . FC 8 128	18-8-21	0855	Fine	0	0	0	20,9	30 / 1009	2.5	
		1355	Fine	0	0	0	20,9	31/100	2.5	
CHIEC D+64	18-8-21	0900	FINZ	0	0	0	20,9	30 / (004	2.5	
		1400	Fine	0	_ 0	l 0	20,9	31/007	2.5	
Pi+D	18-8-21	0915	Fine	0	0	00	209	30 / 1009	2,5	
		1415	Erne	0	0	0	30,9	31/(∞/	کړ2	
Pit C	18-8-21	0925	Fine	0	0		20.9	30 / (000	9	
		1425	Fine		Q	. 0	20,9	31 / [00]	8	
137Pst C	18-8-21	0945	Fine	0	0	10	30.9	30/1009	7	
		1445	Fine	0	0	<u>୍</u>	26,0	31 / (007	7	
137Pit B	18-8-21	0955	Fine	0	0	0	20,94	30 / 1009	8.6	
		1455	Fine_	0	<u> </u>	<u> </u>	20,9	31 / (00)	8,6	
137PHA	18-8-21	[005]	i Fine	0	<u> </u>	0.	209	30 / 604	8.3	
		1505	Fine	0	0	L Q	10,4	31/(007	£3	

Name & Designation

Signature

Date

Field Operator:

TAM Hot Kaulis

Educ

18-8-21

Laboratory Staff:

Checked by:

Sm Mr (T.P.)

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(8-8-2)

ENVIRONMENTAL RESOURCES MANAGEMENT



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 (methane %)	Carbon monoxide(%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)	
WPRI	18-8-2(1015	Fine	0	0	0	20,9	30/1008	2.8	
		15/5	Fine	1 0	0	0	20,9	31 / 1007	2.8	
WPR2	18-8-21	/025	Fine	0	0	<u> </u>	20.9	30/1008	3.5	
		1525	rme	0	0	<u> </u>	20,9	31 / 1007	3,5	
WPR3	18-8-21	1045	Fine	0	0	U	20.9	30/1008	2.8	
		1545	Pine	0	0	0	20,9	3//007	2.8	
Pit A	18-8-21	1055	Fine	1 0	0	0	20,9	30/1003	5	
	1	1595	Fme	0	0	0	20.9	3 / /007	5	
PitB	18-8-21	1/05	Fine	0	0	0	20.9	30 / 1008	36	
<u>.</u>		1605	Fine.	D O	D	0	20.9	31/1007	3.6.	
	1									
	_							/	<u> </u>	
-				1				/	! !	
								/	1	

Name & Designation

Field Operator:

Signature Date $(3\mu - 3 - 2)$

Laboratory Staff:

Checked by:

ENVIRONMENTAL RESOURCES MANAGEMENT



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 (methane %)	Carbon monoxide(%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
Area A	19-8-21	0830	Rain	0	0	0	20.9	30/1009	5,5 5,5
		1330	Rain	0	Õ	0	20,9	32/1007	5.5
		1700	Rain		0	<u> </u>	20.9	30 / 1006	5.5
AreaB	19-8-21	0845	Rain	0			20,9	29/1009	2,5
		1345	Rain	Q	0		20.9	32/100/	2.5
		1645	Rain	Ď.	0	0	20,9	30/1008	2.5
								/	
								/	
								/	-

Name & Designation

Signature

<u>Date</u>

Field Operator:

TRAM HOLL WALN'S

Toler

19-8-21

Laboratory Staff:

Checked by:

Y. T. atoms (site superintendent)

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19-8-21

ENVIRONMENTAL RESOURCES 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
	•

Sample location	Date of measurement	Sampling time	g Monitoring wells / Surface Gas Emission							
			Weather condition	Balance gas (%)	Flammable gas (methane %)	Carbon monoxide(%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)	
CHIFC 8+38	19-8-21	0855	Rain	0	0	0	20,4	29/1009	2,5	
		1355	Rain	0	0	ก	20,4	31/(00)	2.5	
CH FC 0+64	19-3-21	0900	Roin	0	Ŏ	Õ	20.9	129/1009	2.5	
		1400	Rain	0	0	0	20.9	31 / (00)	2.5	
Pi+D	19-8-21	0915	Rosn	0	0	Q	20,9	29/109	2.5	
		1415	Rain	1 0	0	0	209	31/100/	2,5	
Pî+ C	19-8-21	0925	Rain	0	0	o	10.9	29/1004	-	
		1425	Rain	0	Ò	Q	20,9	31/100/	8	
137 PHC	9-8-2	0945	Rain	0	0	0	20.9	29/(009	7	
		1445	Rain	C	0	Q	20.0	31 / (00)	ו י	
1377:+B	19-8-21	0955	Rosh	0	0	0	20.9	20/1009	8.6	
		1455	Rain	0		0	20.9	31/1007	8.6	
137 Pit A	(4-8-21	1005	ROIN	0	0	0	19.9	29/1004	8.3	
	, , , , , , , , , , , , , , , , , , , ,	1505	Rain	0	l ō	1 0	20.9	31/1001	8.3	

Name & Designation

Signature

Date

Field Operator:

TAM HU KANG

an

19-8-21

Laboratory Staff:

Checked by:

Sam Le. (7.A)

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19-8-21

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 measurement	Sampling time								
			Weather condition	Balance gas (%)	Flammable gas (methane %)	Carbon monoxide(%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Dopth (m)	
WPRI	19-8-21	1015	Rain	0	0	0	20,9	30/1009	2.7	
	ì.	1515	Rain		Ŏ	O	20,0	31/1008	2,8	
WPR2	19-8-21	[025	Rain	0	0	0	20,9	20/1009	3.5	
	,	1535	Rain	O	0		20,01	3(/(00)	3,5	
WPR3	19-8-2	1045	Rotin	0	0		20.0	20/ (000)	2,8	
	'	1545	Rollin	10	0	.0	20.G	31/1007	2.8	
7(+1)	19-3-21	1055	Rain	0	0	0)o,q	30/1009	5	
		1555	RAIN	0	0	0	20.9	31/(00)	5	
PITB	(4-8-21	1105	Rajn	0	0	0	20.9	30 / 000	3 16	
	,	1605	RMN.	0	0	0	20.9	3(/(007-	3.6	
				ļ				/		
	i			<u> </u>		<u> </u>		/		
			}					/		
]			

Name & Designation

Signature D

Field Operator:

ZAM HOT KEWIG,

Tear

19-8-21

Laboratory Staff:

Checked by:

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19-8-2021

ENVIRONMENTAL RESOURCES MANAGEMENT



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 (methane %)	Carbon monoxide(%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)	
Area A	20-8-21	0870	Fine	0	0	0	20.9	30 / 1010	5,5	
// XXXX	0.0	1330	Pine	Ö	0	0	20.9	33 / 1009	5,5	
		1700	Fine	0	0	0	20,9	31 / 1007	5.5 1.5	
AreaB	20-8-21	0845 1345	Fine Fine	0	0	, o	20.9 20.9	30 / 1011 33 / 1008	2.5	
		1645	Fine.	Ŏ	Ö	Ů.	20,9	31/1006	2,5	
								/		
								1		
								//		
								1		

Name & Designation

<u>Date</u>

Field Operator:

TAM HOLKAWA

Signature 7000.

20-8-21

Laboratory Staff:

Checked by:

Y. T. CHONG (SITE Superintendent)

7

20-8-21

ENVIRONMENTAL RESOURCES MANAGEMENT



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 (methane %)	Carbon monoxide(%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
CHFC 8 +38	21-8-21	0855	Fine	0	0	0	20,9	31 / 1010	2.5
	,	1355	FINR	0	0	0	20.9	33/100/	2.5
CHIFCOHY	71-8-1	0100	Fine	0	0	0	20,9	31/100	2,5
		1400	Fine	0	0	0	20,9	33 / [008	25
P(+D	20-8-21	0915	Fine	.0	0	0	20,9	31/600	5
		1415	Fine		0	0	20,9	33/1009	3
Pit C	20-8-21	0925	Fine	0	0	00	20.9	31/100	ð
		1425	Fine	0	0	0.	200	33 / 1009	8
137Pi+C	20-8-21	0945	Fine	0	0	0	20,9	31 / 1009	7
		1445	Fine	0	0	0	20.9	33 / 1008	1 7
137Pi+ B	20-8-21	0955	Fine	0	0		209	3(/)0/0	8.6
		1455	Fina	0	, c	0	20.01	33 / 00/	8.6
1378+A	20-8-21	1005	Fine	0	0	0	20.9	31 / 1000	8.3
	1	505	Pine.	0	0	Ô	200	33 / 1000	8-3

Name & Designation

Signature

Date

Field Operator:

"TAM HOLKEWA ...

Bur

20-8-2

Laboratory Staff:

Checked by:

Sun N. (T.A.)

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20-8-21

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 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)
WPRI	20-8-21	015	Fine	0	0	0	20.9	32/1010	2.8
		1515	Fine	0	. 0	0	20.9	33/1009	2.8
WPR2	20-8-21	1025	Fine	0	D	0	20,9	32 / 1010	3.5
	'	1525	Fme	0	0	0	20,9	33 / 100g	3,5
WPR3	20-8-21	1045	Fine	0		0	20.9	32 / 106	2.8
•		1545	Fine	0	0	Ď.	20,9	33/ 1008	2.8
Pit i	20-8-21	1055	Fine	0	0	0	20,9	32/100	5
		1555	FIRE	0	0	0	20.9	73 / loof	5
Prf B	20-8-21	1/05	Fine	0	0	0	20.9	32 / 1010	3.6
		1605	Frne	0	0	0	2001	33/1029	3.6.
								/	
				ì					ŀ

Name & Designation

Date

Field Operator:

TAM HOLKBING 1

Laboratory Staff:

Checked by:

Sam Ng. (7.12.)

ENVIRONMENTAL RESOURCES MANAGEMENT



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 time				Monitoring wells / Surface Gas Emission						
	-	Weather condition	Balance gas (%)	Flammable gas (methane %)	Carbon monoxide(%)	Oxygen (%)	Temp (°C) / Pressure (mbar)			
Aread	21-8-21	0830	Fine	0	0	0	20,9	30/1009	55	
		1330	Fine	Ö	0	0	20,0	33/1008	5.5	
		1700	Eine	0 _	0	0	70,9	32/ 1007	5,5 2.5	
AreaB	21-8-21	0345 1345	Fine Fine	0	0	0	20.9	33 / 1003 33 / 1003	2.5	
		1645	Fine	0	0	0	20.9	31/1006	2.5	
								/		
									:	
	-							/		
	<u> </u>				1			1		

Name & Designation

Signature

Date

Field Operator:

TAM HO! KEWA

aun

21-8-21

Laboratory Staff:

21-8-21

Checked by:

Y.T. CHONG (site superintendent)

21-0

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 measurement	Sampling time		Monitoring wells / Surface Gas Emission					
			Weather condition	Balance gas (%)	Flammable gas (methane %)	Carbon monoxide(%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
CHIFC & F38	21-2-21	0855	Fine	0	0	0	20,9	31 / 1009	25
		1355	Fine	0	0	0	20,9	13 / (00)	2.5
CH.FC Otby	71-8-71	0900	Fine	0	0	0	20,9	31 / 1004	2.5
		1400	Fine	0	0		20.9	33 / (00)	1.5
→;+D	21-8-21	0915	FME	0		0	20,01	31/6004	5
		1415	Pine	0	<u> </u>	 	20.5	33/100/	5
Pit C	∑(-} <u>}</u> -∏	0915	Cine_	0	<u> </u>	ŏ	20.5	31/1009	\ \&
		1425	PINE	0	1 0	0	20.4	33 / 1008	7
137 PH C	21-8-21	0945	Fine	0		0	70.9	31 / 1009	1
	<u> </u>	1445	Fine	0	0	0	25.01	33 / (007	
13794B	121-8-71	ე955	Fine	0	0	0	20,0	31 / 1009	24
		1455	Frme	0	<u> </u>	Q	7,01	33/1008	8.6
1371PHA	21-7-21	1005	Fame	0	10		30.7	3 / 009	8-3
		1505	Fine	C	<u> </u>	L 0	ا ۳۰۰	133 / 100	6.3

Name & Designation

Signature

Date

Field Operator:

TAM HOT KELING

Then

21-8-21

Laboratory Staff:

Checked by:

Som Mg. (7,A)

21-8-21

ENVIRONMENTAL RESOURCES MANAGEMENT



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: Date of measurement: 13/WSD/16 - Mainlaying in Tseung Kwan O

mile of cite.	10/11/00/10	mainaying or	13cung swan

Sample location	Date of measurement	Sampling time			Monitoring w	vells / Surface (ras Emission		
			Weather condition	Balance gas (%)	Flammable gas (methane %)	Carbon monoxide(%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
WPR	21-8-51	015	Fine	0	<u></u>	0	20,9	31/1009	2,8
		j5[5]	Fme	0	<u> </u>	0	20.6	32/1008	2.8
WPR1	21-8-21	1025	Fine	0	0	0	20,0	31/(009)	315
		1526	Fine	0	0	Ď	20,9	31/1008	3,5
WPR3	21-8-21	1045	Fine	0	0	ő	20.9	21//009	28
		1545	Fine		0	NO NO	700	32 / 1008	2.8

NPR1	21-8-21	1025	Fine	0	0	0	20,0	31/009	315	
		1529	Fine	0	0	ñ	20,9	32/(008	3,5	
NPR3	21-8-21	1045	Fine	O		ŏ	20.9	21//009	28	
	,	1545	Fine	О	0	O .	20.0	32/1008	28	
PitA.	17(-8-51	1055	Fine	0	. O	0	20,0	31 //004	ゔ	
•		1555	Fine	0	0 1	0	20,6	131/1008	5	
Pit B	21-8-21	1105	Fine	ñ	0	0	20,0	31//009	3.6	
	1	1005	Fine	Ŏ	0	Ŏ	20,9	32//008	3,6	
								/		
								1		
								/		
								/		

Name & Designation

Signature

<u>Date</u>

Field Operator:

TOM HOT KEWAS

Can

21-8-21

Laboratory Staff:

Checked by:

Sun Na (TIA)

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2-8-202

ENVIRONMENTAL RESOURCES MANAGEMENT

ENVIRONMENTAL PROTECTION DEPARTMENT

Sampling equipment used:

PGM-2500P (QRAE III)

Dates calibrated

28 Jul 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

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)	
ArenA	23-8-21	0830	Fine	0	0	0	20,9	30 / 100	5.5	
.3 <u>-1</u> 2 -: X-4		1330	Pine	0	Ð	Ð	20.9	34/ 100b	5,5 5,5	
	i	1700	Fine	0	C	0	20.9	32/1006	5.5 2.5	
AreaB	23-8-2	1700	Fine	0	_0	0	20.9	30/1007	272	
		1345	Fine	0-	0	0	20.9	34/ 1006	2.5	
		1645	Fine	0	0	Đ.	20.9	32/ 1006	2.5	
					ļ					
								/		
					ļ	<u> </u>		/		
								/		
	ļ							/		
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	-				 			/		

Name & Designation

Signature

Date

Field Operator:

TAM HELL KAWA

Ton.

23-8-202

Laboratory Staff:

Checked by:

Y- Tilling (site superintendent)

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23-8-21

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 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)
OH-FC 8+3X	2-8-21	0855	Fine	0	0	0	209	31/101	25
		1355	Pine	0	D	Lo	20,9	27/1005	25
CH.FC0+64	23-8-21	0900	Fine	0	0	0	20,9	31/100	2.5
		1400	Fine	0	10	0	20,01	33/(005	2,5
PrtD	23-8-21	09(5	Fine	0	0	0	20.9	31 / 1007	5
		1415	Fine Fine	0		0	20.4	33 / 1405	5
PHC	23-8-21	09215	Pine_	0	Q	0	20.9	3(/ (60)	Ž
,		1425	Fine		0	0	20.9	23 / 1005	y.
137P(+C	23-8-21	0945	Fine	<u>l ŏ</u>	0	0	20,0 20,0	9 / 00	7
		1445	Fine	l . ă	0	0	20,4	23/5005	7.
137Pit B	23-8-21	096ና	Fine	0			50'0	3//(60)	8-6
		1455	Fine	0	1_0_	ð	20.0	37 / (005	3,6
(37 PSF A	23-8-21	1005	Fine	0	Č		20,0	31/(00)	€.3
		1505	Fine		0	<u> </u>	1 200	33 / 1055	الح وال

Name & Designation

Signature

<u>Date</u>

Field Operator:

in Hol Kainla

(24.

23-8-21

Laboratory Staff:

Checked by:

CAJ & mac

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27-8-21

ENVIRONMENTAL RESOURCES 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

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)	
WPRI	23-82	015	Fine	0	0	0	20,9	32/1007	2,8	
		1515	Pine	0	0	0	20,9	33/1006	2.8	
WPR2	23-8-21	1025	Fine	0	0	0	20.6	32//007	3,5	
		1525	Fine	10	0	0	20,9	33/1006	3,5	
WPR 3	23~8-2(1045	Fine	Ō	0	0	20,9	32/1007	2,8	
		1545	Pme	0	0	0	20,9	33/ 1006	2.8	
Pr+A	23-8-2	1055	Fine Fine	0	0	0	20,9	32 / 1007	5	
	,	1555	Fine	0	0	0	20,9	33 / 1006	3	
PitB	23-8-21	1105	Fine	0	0	0	20,9	32/1007	3.6	
		1605	Fine	0	0	0	20,9	33 / /006	3.6	
					ļ			<u> </u>		
					ļ <u>.</u>					
				1				1	<u> </u>	
]								

Name & Designation

Signature

<u>Date</u>

Field Operator:

TAM HO! KEUNG

(Aim

23-8-21

Laboratory Staff:

Checked by:

Som 1/2. (7.A)

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23-8-20

Environmental Resources Management



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 (methane %)	Carbon monoxide(%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	
AreaA	24-8-2	0830	Rosin	0	0	O	20.9	30/108	5,5
	-1-	1330	Rain	Ô	0	0	20,9	32/1005	5.5
		1700	Rain	0	0	0	20,9	31/1004	5.5 5.5 2.5 2.5
Area B	24-8-21	0845	Rain	0	0	0	20.9	30/ (008	2.5
		1345 1645		0	0	0	20.9	32/1007	2.5
		1645	Rain	0	0	_ 0 _	20,9	31/1006	25
								/	-
							<u> </u>	ļ <i>!</i>	
			ļ <u> </u>			<u> </u>		1,	
	ļ							1	
					 			 	
					ļ	<u> </u>		1	

Name & Designation

Signature

Date

Field Operator:

AM HO! KERWICE

Tan

24-8-21

Laboratory Staff:

Checked by:

Y. T. CHONG (site seperintendent)

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13

24-8-2

ENVIRONMENTAL RESOURCES MANAGEMENT



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 (methane %)	Carbon monoxide(%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
CH. FC 8+38	24-8-2	0855	Rosn	0	0	0	20,9	30/1008	25
	1	1355	RAIN	0	0	0	20,9	32/100]	2.5
CH.FC0+64	24-8-21	0300	Rain	0 .	0		20,9	30 / [00]	2.5
	, ,	1400	Rasn	0	0		20,9	32 / 1007	2.5
PitD	24-1-2	09.15	Roin	0	0	Ō	20,9	20 / (00)	7
	:	1415	Roin	0	0	0	20.9	37 / (00)	5
Prt C	74-8-21	1925	Rain	- 6	<u>.</u>	0	20,0	20 / (008	ğ
		1425	ROSA	Ŏ	1 0	0	20,0	32 / (00)	<u> </u>
137 At C	24-3-21	0945	Rasin	0	Ŏ	0	20,0	30 / (00)	7
		1445	Rain	0	ŏ	l 0	20.9	32/1007	7,
1377XFB	24-1 21	0959	Rogn	0	0	<u> </u>	20.9	30 / (60)	8.6
	T	1459	Rain	0	l 0	0	20,9	32/1007	8.6
BIPH A	24-8-21	1005	Rein	0	0	0	20,9	30 / 1008	8,5
	1	1905	Roan.	0	0	0	26,9	72/1007	8.3

Name & Designation

Signature

Date

Field Operator:

TAM HELL KASING

Then

24-8-21

Laboratory Staff:

Checked by:

Som No. (Till)

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24-8-21

ENVIRONMENTAL RESOURCES 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

Sample location	Date of measurement	Sampling time	Monitoring wells / Surface Gas Emission							
			Weather condition	Balance gas (%)	Flammable gas (methane %)	Carbon monoxide(%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)	
WPR	24-8-21	015	Rain	0	0	0	20,9	31 / 1008	2.8	
	· ·	1515	Roan	0	0	0	20,9	32 / 1006	2,8	
WPR2	24-8-2	1025	Rain	0	0	0	3 0.G	31 / 1008	3.5	
		1525	Roon	0	0	ō	20,9	32 / Toob	315	
WPR3	24-8-21	1045	Rain	0	1 0	. 0	209	31 / ion/	2,8	
	-	545	Rain	C	0	0	20,9	32/1000	2,8	
PitA	24-8-21	1055	Rain	0	Ð	0) 0,હ	31/1008	5	
	1	1555	Rain	0	0	0	20,0	22/ Con	5	
Pî+B	24-8-21	1105	Rain	0	<u> </u>	0	20.0	3(/100)	3.6	
	· · · · · · · · · · · · · · · · · · ·	1605	ROSM	0	0	. 0	20,4	132/ 1006	7.6	
								/		
								/		
	<u></u>				ļ	1		/		
	·	1						/		

Name & Designation

I TRAN HOLKSUNG

Signature

94-8-2

Laboratory Staff:

Field Operator:

Checked by:

Som Ng. (7.A.)

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24-8-202

ENV:RONMENTAL RESOURCES MANAGEMENT



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							
		Weather condition	Balance gas (%)	Flammable gas (methane %)	Carbon monoxide(%)	Oxygen (%)	Temp (°C) / Pressure (mbar)		
25-8-21	0830	Rain	0	0	0	20.9	32//009	5.5	
J		Rain	0	0	0	20.9	35/ /007	5.5	
	1700	Rain	0	0	0	20.9	33/ 1006	5.5	
25-8-21	0845		0	0	0	200	32/1009	2.5	
· · · · ·	1345		0	D	0	20.9	34/1008	2.5	
	1645	Rain.	C	0	O	20.9	32/ 1000	2,5	
							/		
							/		
							1		
					<u></u>				
							/		
!							1		
:			1				/		
	25-8-2	25-8-21 083c 133c 1700	measurement time Weather condition 25-8-2 083c Rain 1700 Rain 1700 Rain 1700 Rain 1345 Rain 1345 Rain 1345 Rain	measurement time	Measurement time Weather condition Weather condition (%) Balance gas (methane %) 25-8-2	Measurement time Weather condition Weather condition Weather condition Rain Measurement time Weather condition Weather condition Raince gas (%) Raince gas (methane %) Carbon monoxide(%) Raince gas (methane %) Rain	Measurement time Weather condition Weather condition Weather condition Rain Carbon Carbo		

Name & Designation

Signature

Date

Field Operator:

TAM HOLKEWAR

(a.

25-8-2/

Laboratory Staff:

Checked by:

Y. T. 440NG (Site superintendent)

7

25-8-2

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
ı	

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)
WPRI	25-8-2	1015	Rain	0	0	0	20,4	33/109	۵.8
·		15(5)	Rain	0	0	Ö	209	35 / 1007	2.8
WPR2	25-8-2	1025	Rain	0	0	0	209	34/1008	3.5° 3.5°
	<u>'</u>	: ।५२५	Rain	0		0	209	35 / (007)	3.5
WPR3	25-8-21	1045	Rain	0	0	0	209	34/1005	2.8
		1545	Rain	0	0	0	209	35/1007	2,8
PitA	25-8-21	[055	Rain	- 0	<u> </u>	0	20,9	134 / (005	5
		555	Rain	<u> </u>	Q	0	20,9	35 / (05)	5
PITB	25-8-21	1105	Roin	<u>0</u>	0	0	20,9	34 / 1009	3.6
		1605	REGION	C	0	0	20,9	35 / 1007	3.6
	1		<u> </u>					<u> </u>	
	1			-				 	
					1			/;	
								L/	

Name & Designation

Signature

<u>Date</u>

Field Operator:

TAM HO KEWAR

Laboratory Staff:

Checked by:

25-8-2021

ENVIRONMENTAL RESOURCES MANAGEMENT



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:

Date of measurement:

13/WSD/16 - Mainlaying in Tseung Kwan O

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 (methane %)	Carbon monoxide(%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)	
CH.FC 8+38	25-8-2	0855	Rain	0	0	0	20,9	32/1009	2,5	
		1365	POIN	0	0	0	20,9	35/1008	2.5	
CH.FC 0+64	25-8-21	0900	ROGIN	0	 	0	200	32/1009	2.5	
		400	Roîn	0	Ð		209	25/1008	2.5	
PitD	25-8-21	6915	Roin	0	0	0	20.9	32/1009	5	
	<u>'</u>	1415	Roin	0	0		20,0	35/ loof		
PotC	25-8-21	0925	Raîn	0	0	0	20,9	32/1005	8	
		1425	ROUN	0	0	0	20,9	35/608	8	
1377+C	25-8-2	0945	ROIN	0	<u> </u>	Q	20.G	37/1000	7	
		1645	ROWN	0	0	0	20.9	35/1008	7 ,	
137Pet B	25-8-21	O955	Rotin	0	0	0	20.9	32/1003	8.6	
		1455	Rain	0 -	0	0	20.9	35/608	8.6	
137 P.+A	25-8-21	1005	RONIN	0	0	0	20.1	32/009	8.3	
		505	Rain	0	0	0	20.9	35 / 100/	8.3	

Name & Designation

Signature

Date

Field Operator:

LAM HOL KOWIN

(Ou.

25-8-21

Laboratory Staff:

Checked by:

San He (7.6)

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25-8-21

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 Monitoring wells measurement time						ills / Surface Gas Emission			
			Weather condition	Balance gas (%)	Flammable gas (methane %)	Carbon monoxide(%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)	
Area A	26-8-21	0830	Rain	0	0	0	20,9	30/1011	5.5	
		1330	Roûn	0	0	0	20,0	33 / 1008	5.5	
		1700	Rain	0	.0_		20.9	31/1007	5,5	
AreaB	26-8-21	0845	Rain	0	D	0	20.9	30 / 1012	2.5	
		1345	Raîn	0	0	0	20.9	33/1009	2.5	
		1645	Rain.	Ď	0	0	20,9	31/1008	2-5	
						<u> </u>		 		
	<u> </u>				1			//		
								///		
								/		
								/		

Name & Designation

Signature

Date

Field Operator:

TAM Hai KEIWA

70h

26-8-21

Laboratory Staff:

Checked by:

Y 7 CHONG (Site sweet intendent)

26-8-2

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ENVIRONMENTAL RESOURCES MANAGEMENT



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 (methane %)	Carbon monoxide(%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
CH.FC SH38	26-8-21	0855	Rain	0	0	0	20,9	30/1011	2.5
		1355	Raîn		Ô	0	20,9	33/1009	2.5
CH.FC 0+64	26-8-21	0900	Rain	Ö	O	0	20,9	30/1011	2.5
		1400	Rain	Ō	0	0	20.9	33/1010	2.5
Pi+D	26-8-2	0915	Rain	0		0	20,9	30/1011	5
		1415	Roūvi	0	0	0	20,9	33/1010	5
PitC	26-8-21	0925	Raîn	0	0	0	20,0	30/1011	8
		1425	Rain	0	0	0	20.0	33/1005	8
137Pi+C.	26-8-21	0945	Raîn	0	0		20,9	30/1011	7
		1445	ROWN	0	0	0	20,9	73/1010	7
137Pi+B	26-8-21	0955	Rain	0	0	0	20,9	30/1011	8.6
		1455	RAGI	0	10	L	20,9	33 / [009	કે.6
1377;+ A	26-8-21	1005	Rain	0	0	ĹÒ	20,9	[30 / call	8.3
,		1505	ROWN	- 0	0	0	20,4	133 / 1010	8.3

Name & Designation

Signature

Date

Field Operator:

JAM HOL KELING

Thon

26-8-21

Laboratory Staff:

Checked by:

San No. (7.80)

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26-8-21

ENVIRONMENTAL RESOURCES MANAGEMENT



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 (methane %)	Carbon monoxide(%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
WPRI	26-8-21	1015	Rain	0	0	0	20,9	32 / 011	2.8
,		1515	Rain	0	0	0	20,9	33/1009	2.8
WPRZ	26-8-21	1025	Rain	0	Ö	0	20,9	32 / 611	3.5
	,	1 5 25	Rain	0	0	Ω	20,9	33 / 1009	3.5
WPR3	26-8-21	1045	Roin	0	0	Ö	20,0	34/1011	2.8
		1545	Roga	Ð	0	L 0	20,9	33 / 1009	2.8
Pit A	26-8-21	1055	Rain	0	0	Õ	20,9	32 / (0(()	5
		1555	Roin	Ď	0	0	20,6	33 / 1010	5
Pat B	26-8-21	1/05	RAIN	0	0	0	20.9	32/101	316
		1605	Roin	Ō	0	0	20,9	33/ (010	3.6
								/	
								/	
								l l	
								/	

Name & Designation

Signature

Date

Field Operator:

Laboratory Staff:

Checked by:

26-8-201

Environmental Resources Management



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 (methane %)	Carbon monoxide(%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)	
Area A	27-8-21	0830	Rain	e e	0	0	209	27/ 1012	5.5	
1112.9 \ 1	1.00.00	1330	Rogn	0	0	0	20.9	29/ 1010	5.5	
		1700	Raîn	0	0		20.9	28/1008	5.5 2.5	
Area B	27-8-2	0845	Rain	0	0	0	20.9	27/1011		
		1345 1645	Rain	0	0	0	20,9 20,9	29 / 1010 28 / 1008	2.5	
								/		
								1		

Name & Designation

Signature

Date

Field Operator:

TAM Hed Krauly

(au

27-8-21

Laboratory Staff:

Checked by:

Y. T. CHONG (Site superintendent)

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27-8-2

ENVIRONMENTAL RESOURCES 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

Sample location	Date of measurement	Sampling time	Monitoring wells / Surface Gas Emission						
			Weather condition	Balance gas (%)	Flammable gas (methane %)	Carbon monoxide(%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
CH.FC 8438	27-8-21	0855	Rain	0	0	0	209	27/1012	2.5
		1355	Rain	0	ō	0	20.9	29/1011	2.5
CH.FC 0-164	27-8-21	0900	Roan	0	L_0_	0	200	23/ (0/2	2.5
1		400	Rain	0	0	0	20.9	29/1011	2.5
Pit D	27-8-21	0915	Roin	0	0	0	20.9	27/1012	5
	1	1415	Rain	0	0	1 0	209	179/1010	5
Pi+C	27-8-21	0925	Roan	0	0	0	20.9	28 / (017	8
		1425	Rain	0		0	20.9	101/94	8
137 Pit C	27-8-2(0945	Rain	0		0	20.9	27 / (012	(
		1445	Rain	0	0	٥	20,9	29 / 10(2	7
137PitB	27-8-21	0955	Roin	0	<u> </u>	-0	20,4	JB / 1017	9,6
		1455	Roin_	0	L ŏ	C	20,9	29 / rolo	3-6
137 Pat A	27-8-21	1005	Rann	0		0	20.9	78 / 1812	8-3
,	"	1505	Rain.	0	Ŏ] 0	20.9	29 / 1010	8-3

Name & Designation

Signature

Date

Field Operator:

TAM Hol KOWE

27-8-21

Laboratory Staff:

Checked by:

Sam 16 (78)

A.

17-8-21

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:
Date of measurement:

13/WSD/16 - Mainlaying in Tseung Kwan O

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 (methane %)	Carbon monoxide(%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Dopth (m)	
WPRI	27-8-2	1015	Rain	0	0	0	209	28/1012	3.8	
		1515	Rain	0	O	0	20.9	29/1011	2.8	
WPRI	27-8-21	(025	Rain		0	0	20,9	27/1012	3.5	
		1525	Rain	Ó	0	1 0	20,9	29/1010	3.5	
WPR3	27-8-21	1045	Rosin	0	0	0	20.9	27/1012	28	
		1545	ROGN	0	0	0	20.9	29/1010	2.8	
PitA	27-8-21	1055	Roan	0	1 0	ρ	20,9	29 / 1017	5	
		1555	kaîn	D	0		20,9	29/1011	5	
Pit B	27-8-21	1105	Rain	0	0	0	20.9	27/1012	3/6	
		1605	Rain	0	0	0	20,9	29 / 1011	3.6	
								/		
								1		
								/		
			ì		1		1	1 /		

Name & Designation

Signature

Date

Field Operator:

TAM HUI KEWIG

Tan

27-8-2

Laboratory Staff:

Checked by:

Sam Na (7A)

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27-8-201

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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 measurement	Sampling time	Monitoring wells / Surface Gas Emission						
			Weather condition	Balance gas (%)	Flammable gas (methane %)	Carbon monoxide(%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
Area A	20-8-2	0830	Rain	0	0	0	209	28 / 1011	5,5
		1330	ROGIN	0	0	. 0	20.9	30/1009	5.5
		1700	Rain	0	0	0	20.9	28/(011	કર્સ
AreaB	28-8-21	0845	Rain	0	0	0	20.9	29/1008	2.5
		1346	Rosn	0	0	Ð	20.9	30 / 1011	2.5
		1645	Rain	0	0	0	20.9	18/1009	2.5
								/,	
								/	<u> </u>
				1				1	

Name & Designation

Signature

<u>Date</u>

Field Operator:

72M Ha Kamb

To.

28-8-2

Laboratory Staff:

Checked by:

Soun Als

المرجعة .

13

28-8-201

ENVIRONMENTAL RESOURCES MANAGEMENT



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 (methane %)	Carbon monoxide(%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
CH.FC 8+38	28-8-21	0855	Roûn	0	.0		20,9	28/ (co)c	7.5
		1355	Rasin	0		0	20.9	30 / ioli	2.5
(H.FC 0+64	23-8-2	0900	Rain	0			20,0	21 / 13/1	2.5
		1400	Ram	0		0	20.9	30 / 1012	2.5
PitD_	28-8-21	0915	Roûn_	0	Ö	0	20.9	24/10/2	<i>J</i>
		1415	Roin	0	0	0	20.9	30 / Loi2	5
Pi+C	28-8-21	0925	Rain	_ 0 _		0	20 ₋ C	28 / 1019	<u> </u>
		1425	Roin	0		0	209	30 /1010	- 8
137 B+C	28-8-51	0945	Roan	0	1 0	Ď	20.9	28 / 1989	1
		1445	Rain	0	6	0	2, 9	30 / 1009	7
1377+B	78-9-51	0955	Roin	1_0_	0	0	20,9	101/ 8	8-1
		455	RAIN	<u> </u>	0	0	20 G	30 / 1012	8-1
137PHA	78-8-5	1005	Rain	0	0	0	20.G	28/[010	8.3
	,	1595	Roseri		$\Gamma = C$. 0	20,4	30 /1011	3.3

Name & Designation

Signature

Date

Field Operator:

TAM HOLKEWIG

7a.

28-8-2/

Laboratory Staff:

Checked by:

Sm Na (7,90

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28-3-202

ENVIRONMENTAL RESOURCES MANAGEMENT



Contract no. 13/WSD/16
Mainkaying 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 (methane %)	Carbon monoxide(%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
WPRI	23-3-21	1015	Rain	0	0	0	209	28/ [0]]	3.8
	,	1515	Rain	0	0	0	209	30 / 1010	2-8
WPR2	28-8-21	1025	Rain	0	0	0	209	28/1011	3,5
		1525	Rain		0	0	20.9	30 / 1005	3.5
WPR 3	28-2-21	1045	Rain	0	0	С	20.0	28/10/2	2.8
	,	1545	Pain	_0	0	0	20.9	30 / 1009	<u>28</u>
PitA	28-8-21	1055	Rain	0	0		20.9	18/ (012	
		1555	Raîn	1 0	<u> </u>	0	20.0	30 / 1009	5;
Prt B	28-8-21	1105	Raih	0	0	0	20,9	28/1011	3.6
		1605	Rain	0	C	5	20,9	20/10/0	3,6
								/	
			-		ļ			/,	
	ļ . <u> </u>				 	ļ		 	
	i	l .							

Name & Designation

Signature

<u>Date</u>

Field Operator:

TAM HOLLKEWIG

Children

28-8-21

Laboratory Staff:

Checked by:

CAJ. ela maz

A

28-8-2021

ENVIRONMENTAL RESOURCES MANAGEMENT

ENVIRONMENTAL PROTECTION DEPARTMENT



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

Landfill Gas Monitoring -Field Measurement Recording Sheet

Name of site:

13/WSD/16 - Mainlaying in Tseung Kwan O

Date of measurement:

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

Sample location	Date of measurement	Sampling time	Monitoring wells / Surface Gas Emission						
			Weather condition	Balance gas (%)	Flammable gas (methane %)	Carbon monoxide(%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	
AreaA	30-8-21	0830	Fine	0	0	0	20,9	29/1011	5,5
	1 2	1330	Fine	Ö	0	0	20,0	33/109	3.5
		1700	Fine	Ð	0	0	20.9	21/1008	3.5 5.5
AreaB	30-8-2	0845	Fine Fine	C 0	0	0	20,9 20,9	33 / 1009	2,5
		1645	FIOR	0	0	ŏ	20.9	31/1008	2.5
								/	
			***					/	
								1	
							ļ <u>.</u>	 	<u> </u>

Name & Designation

Signature

Date

Field Operator:

TAM HOLKSWY,

(75)

30-3-21

Laboratory Staff:

Checked by:

Y. T. 46WG (site superintendent)

 \neg

30-8-21

ENVIRONMENTAL RESOURCES 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

Sample location	Date of measurement	Sampling time	Monitoring wells / Surface Gas Emission						
			Weather condition	Balance gas (%)	Flammable gas (methane %)	Carbon monoxide(%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
CH.FC 8+38	30-8-21	0855	Fine	0	0	0	20.9	29/1011	2,5
		1355	Fine		Ð	0	20,9	133/1009	2.5
CH.FC 0+64	30-8-21	0900	Fine	8	0		20,9	29/1011	2,5
		1400	Fine	1	୍ ତ	0	20.9	33 / (DOS	2,5
Pot D	311-8-21	0915	Fine	0	<u> </u>	<u></u>	209	29/1011	5
		1415	Fine		0	0	20.9	33/(003	5
PrfC	31-3-21	0925	Pink	0	0-	0	20,9	29 / 1010.	8
		1425	Fine	0	<u> </u>	Q	20.9	33 / 608	8
137 PH C	30-8-21	0945	Fine	0	0	Ô	20.9	19/1211	
		1445	Fine_	₽	0	0	20.9	33/1009	
137 PH B	30-4-21	0955	Eine	0	<u> </u>		200	29/ (010	8.6
		1455	Fine	6	Ŭ.	<u> </u>	20.9	33/ 007	8-6
137 PA A	30-8-21	1005	FINE	0	Ď	<u> </u>	20,9	29/61	8.3
		1505	Fine	0	Ø	0	20.9	133 / 100k	8.3

Name & Designation

Signature

<u>Date</u>

Field Operator:

- TAKK HOT KEWIG

Caus

30-8-21

Laboratory Staff:

Checked by:

San Na (TA)

*

30-8-20-1

ENVIRONMENTAL RESOURCES MANAGEMENT

ENVIRONMENTAL PROTECTION DEPAREMENT

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

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)
WPRI	30-8-21	1015	Fine	0	0	0	20,9	30 / 1011	2.8
	1	1515	Fine	0	ð		20,9	133/1009	2.8
WPRZ	30-2-21	1025	Fine	0	0	<u> </u>	20.9	30/1011	3.5
		1525	Fine	0	0	ŏ	20.9	23/1010	3.5
WPR 3	30-8-21	1045	Fine		0	- ō	200	30/10/2	2.8
	'	1545	Fine	0	0	,	20.9	33/ (608	2.8
Pit A	30-8-21	1055	Fine	0	0	_ <u> </u>	20.9	30 / 1011	ゟ
		1555	Fine	6		0	20.9	33/1007	3-G
PAT B	30-2-21	1105	Fine	0	0	0	20.9	30/011	
	İ	1605	Fine	0		1 0	છ.લ	33/ 1029	3.6
						L		1	
								L	
								<i>!</i> :	
	1	l				1		/	

Name & Designation

Signature

TAM Had Kawas

Date

Laboratory Staff:

Field Operator:

Checked by:

\$ 30-8-2001

ENVIRONMENTAL RESOURCES MANAGEMENT

ENVIRONMENTAL PROTECTION DEPARTMENT

13



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

Penta-Ocean - Concentric Joint Venture

Landfill Gas Monitoring -Field Measurement Recording Sheet

Name of site:

13/WSD/16 - Mainlaying in Tseung Kwan O

Date of measurement:

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

Sample location	Date of measurement	Sampling time		Monitoring wells / Surface Gas Emission						
			Weather condition	Balance gas (%)	Flammable gas (methane %)	Carbon monoxide(%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)	
Area A	31-08-2021	-0830	Rain	0	0	0	20,9	28/ 10/1	5,5	
	31-08-24	1330	Rain	0	0	0	20,9	29//0/0	5.5	
	31-8-21	1700	Rain	0	0	0	20.9	28//008	5,5	
Area B	31-8-21	0845	Rain	0	v		20.9	28/10/1	2.5	
	,	1345	Rain	0	0	. 0	20.9	29/10/0	2.5	
		1645	Rain	0	. 0	0	20.9	28/1009	2,5	
			i					/		
			<u> </u>					/		
			I					/		
	1					-		 		
						†····		1		

Name & Designation

Signature

Date

Field Operator:

TAM HOLKBURG

31-8-21

Laboratory Staff:

Checked by: Y. T. CHIMY (Site Superintendent)

31-8-21

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 measurement	Sampling time	Monitoring wells / Surface Gas Emission						
		:	Weather condition	Balance gas (%)	Flammable gas (methane %)	Carbon monoxide(%)	Oxygen (%)	Temp (°C) / Pressure (mbar)	Remark Depth (m)
CH.FC 8+38	31-3-21	0855	Rain	0	0	0	20,9	28/10/1	2.5
	,	1355	Rain	0	Ŏ	0	20,9	30/1009	2.5
CH.FC 0 +64	31-8-2(8900	Rain	0	0	0	20.4	28/104	2.5
		1400	Rain	0	0	0	23.9	30/1008	2.5
PitD	31-8-21	0915	Rain	0	0	0	20,0	2.8/10/1	- 5
		1415	Rain	0	0	0	70.9	30/1009	5
Pi+C	31-8-51	0425	Rain	L 0	0	0	20,0	28 //0/0	ि ४
		1425	Rain		U 0	Ŏ	20,0	30 / 1009	F
137 PrfC	31-4-51	0945	Rain	0	0	0	20. q	28 / /0//	7
		1445	Rain	0	0	0	20.9	30 / 1001	7,
137 Pi+B	31-8-21	0435	Roin	Ô	<u> </u>	0	20,9	28/10/1	86
		<u>1455</u>	Rain	0	L Õ	0	20.9	30/1009	8.6
137 B+A	31-8-21	10 05	Rain	ð	Ò	ŏ	20.9	28//011	8.3
		1505	Rain	60	C	0	20.9	30/1008	8.3

Name & Designation

Signature

Date

Field Operator:

TOM HULLONG

Toin

31-8-5

Laboratory Staff:

Checked by:

Burn No (7.A)

1

31-8-20nl

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

	Remark Depth (m)
29/1011	2.8
30/10/0	2.8_
29 / 1011 30 / 1009	_3,5
30/1009	35
29/ (01/	_2.8 <u></u>
	2.8
29/1011	_ 5
30/10/0	_5
	3.b
30 / /204	3.6
ļ	
/	
/,	
	29 / 19(1 30 / 100 1 1

Name & Designation

Signature

Date

Field Operator:

"TAM Hot Kandik

7000

31-8-21

Laboratory Staff:

Checked by:

lem No. (J.A.)

31-8-2001

Environmental Resources Management

ENVIRONMENTAL PROTECTION DEPARTMENT



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

Penta-Ocean - Concentric Joint Venture

Landfill Gas Monitoring - Field Measurement Recording Sheet

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

Sampling equipment used:	Dates calibrated
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	ъ −8−2021	8:30	0.0421		
		13:30	6.0422	5.5	
		17:00	0.0431	313	
Area B	⋷-8-2021	8:45	C, o429		
		13:45	0,0433	25	
		16:45	9.0412		
CH.FC 8+38	2 -8-2021	8:55	0.6439		
		13:55	0:046z	2.5	
CH.FC 0+64	2 -8-2021	9:00	0.0417	_	
		14:00	6.0432	2.5	
Pit D	2-8-2021	9:15	0.0437		
		14:15	0:0445	2J	
Pit C	Ն-8-2021	9:25	6.0452	_	
		14:25	0.0463	δ.	
137 Pit C	_{1.} -8-2021	9:45	0.0451	7	
		14:45	0.0473	· · · · · · · · · · · · · · · · · · ·	
137 Pit B	っ -8-2021	9:55	PoHa.o		
		14:55	0.0432	2.6	
137 Pit A	レ-8-2021	10:05	0.0433	0.3	
		15:05	6,045	8.3	

Name & Designation

Ting Wai Kin (Safety Officer [Renopipe])

Signature A

<u>Date</u>

2-8-2021



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

Penta-Ocean - Concentric Joint Venture

Landfill Gas Monitoring - Field Measurement Recording Sheet

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

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

Sampling Location	Date of Measurement	Sampling time	Monitoring wells/ Surface Gas Emission Carbon Dioxide (%)	Depth (m)	Remark
WPR 1	<u></u> 2-8-2021	10:15	0.0439		
	15:15	0,6436	2.8		
WPR 2	Z-8-2021	10:25	م زودلر ک	7 -	
		15:25	0.0459	3,5	
WPR 3	Ղ -8-2021	10:45	0,0471		
ì		15:45	0.0462	2.8	
Pit A	28-2021	10:55	0,0472	5	
		15:55	0,0456		
Pit B	2-8-2021	11:05	0.6456		
		16:05	0.0490	گ,3	
			-		
					1
					1

Name & Designation

Ting Wai Kin (Safety Officer [Renopipe])

Signature A Date

Z-8-2021



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	3 -8-2021	8:30	0.0431		
		13:30	62433	5-	
		17:00	0.८५६₹	5.5	
Area B	3 -8-2021	8:45	0.6456		
1		13:45	6.6341	2.5	}
		16:45	0.0432	۷٠}	
CH.FC 8+38	8-2021 ح	8:55	0.0431	_	
		13:55	4 2 كان ع	2.5	
CH.FC 0+64	3 -8-2021	9:00	0, ¹ t32	2.5	
		14:00	0.0444		
Pit D	8-2021 ح	9:15	0.0452	2.7	
	-	14:15	0,0467		
Pit C	-8-2021	9:25	0,0472		
		14:25	Q 45.0	\$	
137 Pit C	3 -8-2021	9:45	0.e45 b	7	
		14.45	o. c48]	J	
137 Pit B	3 -8-2021	9:55	0.0479	2 (
		14:55	3,0458	8-2	
137 Pit A	3 -8-2021	10:05	0.0477		
		15:05	0.0461	813	

Name & Designation

Ting Wai Kin (Safety Officer [Renopipe])

Signature

Date

3-8-2021



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

Penta-Ocean - Concentric Joint Venture

Landfill Gas Monitoring - Field Measurement Recording Sheet

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

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

Sampling Location	Date of Measurement	Sampling time	Monitoring wells/ Surface Gas Emission Carbon Dioxide (%)	Depth (m)	Remark
WPR 1	3 -8-2021	10:15	5.0479	_	
	15:15	0.0454	2-8		
WPR 2	3 -8-2021	10:25	0.043		
		15:25	6. Di4 50	315	
WPR 3	3 -8-2021	10:45	3.6455		
		15:45	1740.0	28	
Pit A	3 -8-2021	10:55	g.c ⁽⁴ 8)	5	
		15:55	0.0465		
Pit B		11:05	0.2471	_	1
		16:05	0.0456	2.6	
			-		

Name & Designation

Ting Wai Kin (Safety Officer [Renopipe])

Signature A <u>Date</u>

3-8-2021



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

Penta-Ocean - Concentric Joint Venture

Landfill Gas Monitoring - Field Measurement Recording Sheet

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

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

O	Date of Same	Sampling time	Monitoring wells/ Surface Gas Emission	Depth (m)	Remark
Sampling Location	Measurement	Sampling time	Carbon Dioxide (%)		
Агеа А	<u> </u> -8-2021	8:30	0.8422		
	"	13:30	C.0437	5.5	
		17:00	0.6419		
Area B	4 -8-2021	8:45	0.0433		
· 		13:45	0.0444	2.5	
		16:45	0.6452		
CH.FC 8+38	1.FC 8+38 4-8-2021	8:55	0.0439	0	
	·	13:55	0.0460	2.5	1
CH.FC 0+64	4 -8-2021	9:00	0,6448		
		14:00	0,0430	2.5	
Pit D	4-8-2021	9:15	0.041.0	2.5	
		14:15	0.0451	2 .,	
Pit C	4 -8-2021	9:25	ξα <i>ψ</i> ο, α	2	
		14:25	0.0429	8	
137 Pit C	4 -8-2021	9:45	0.04.30	=	
		14.45	5.6442		
137 Pit B	4 -8-2021	9:55	0,0454	.8′ (
		14:55	0.9479	ا الح	
137 Pit A	4 -8-2021	10:05	0,9491	83	
		15:05	2,0451	J./	

Name & Designation

Ting Wai Kin (Safety Officer [Renopipe])

Signature A Date

4 -8-2021



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

Penta-Ocean - Concentric Joint Venture

Landfill Gas Monitoring - Field Measurement Recording Sheet

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

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

Sampling Location	Date of Measurement	Sampling time	Monitoring wells/ Surface Gas Emission Carbon Dioxide (%)	Depth (m)	Remark
WPR 1	4 -8-2021	10:15	010451	2.8	
[15:15	6,0452	2-0		
WPR 2	4-8-2021	10:25	6,0453	2	
	'	15:25	5140,0	35	
WPR 3	4 -8-2021	10:45	0,0421	- 0	
	11111	15:45	0.0431	2.8	
Pit A	4 -8-2021	10:55	6:0452	٠	
	15:55	0.6469	5		
Pit B	4 -8-2021	11:05	6.0417	3.6	
		16:05	01014] يا		

Name & Designation

Ting Wai Kin (Safety Officer [Renopipe])

Signature A Date

4 -8-2021



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

Penta-Ocean - Concentric Joint Venture

Landfill Gas Monitoring - Field Measurement Recording Sheet

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

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

Sampling Location	Date of Measurement	Sampling time	Monitoring wells/ Surface Gas Emission Carbon Dioxide (%)	Depth (m)	Remark
Area A	5 -8-2021	8:30	0.0466		
ŧ		13:30	\$.6457	55	
	17:00	0.0458			
Area B	5 -8-2021	8:45	5140.0		
		13:45	0.0439	2,5	
	16:45	0.6451			
CH.FC 8+38	5 -8-2021	8:55	0.0437		
		13:55	o. 5455	2,5	
CH.FC 0+64	CH.FC 0+64 5 -8-2021	5-8-2021 9:00 0.0449			
		14:00	0.0451	2.5	
Pit D	5 -8-2021	9:15	0,0431	2.5	
		14:15	2540.0	2.3	
Pit C	5 -8-2021	9:25	0,0437		
		. 14:25	5.0 458	\$	
137 Pit C	5 -8-2021	9:45	8.6472	7	
		14:45	0.0463	[
137 Pit B	5 -8-2021	9:55	c.0457	o (
		14:55	0.0441	8.6	
137 Pit A	5 -8-2021	10:05	0.0472	27	
	15:05	15:05	0.043c	8.3	

Name & Designation

Ting Wai Kin (Safety Officer [Renopipe])

Signature A <u>Date</u>

5 -8-2021



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

Penta-Ocean - Concentric Joint Venture

Landfill Gas Monitoring - Field Measurement Recording Sheet

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

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

Date of	Sampling tîme	Monitoring wells/ Surface Gas Emission Carbon Dioxide (%)	Depth (m)	Remark
	10:15			
5 -0-2021			2.8	
£ 8 2021				
3-0-2021			3,5	
5-8-2021				
0 0 2021			2.8	
Pit A 5 -8-2021	10:55		+	
	15:55		5	
5-8-2021	11:05			
	16:05	0.0426	3,€	
				
		<u> </u>		
	Measurement 5 -8-2021 5 -8-2021 5 -8-2021 5 -8-2021	Measurement Sampling time ½ -8-2021 10:15 15:15 15:15 5 -8-2021 10:25 15:25 15:25 5 -8-2021 10:45 15:45 15:55 5 -8-2021 11:05	Measurement Sampling time Carbon Dioxide (%) \$ -8-2021 10:15 \$.0421 \$ 15:15 \$.0421 \$.0421 \$ -8-2021 10:25 \$.0466 \$ -8-2021 10:45 \$.0433 \$ -8-2021 10:45 \$.0421 \$ -8-2021 10:55 \$.0451 \$ -8-2021 11:05 \$.0457	Measurement Sampling time Carbon Dioxide (%) Depti (iii) \$ -8-2021 10:15 6.0421 2.8 5 -8-2021 10:25 6.6465 3.5 5 -8-2021 10:45 6.6421 3.5 5 -8-2021 10:45 6.6421 2.8 5 -8-2021 10:55 6.6421 5 5 -8-2021 10:55 6.6421 5 5 -8-2021 11:05 6.6421 3

Name & Designation

Ting Wai Kin (Safety Officer [Renopipe])

Signature A Date

5-8-2021

.



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	Sampling time	Monitoring wells/ Surface Gas Emission	Depth (m)	Remark
Sampling Location		Carbon Dioxide (%)			
Area A	€ -8-2021	8:30	०,६६त।		
		13:30	0.0443	55	
		17:00	0.0452		
Агеа В	Ĝ -8-2021	8:45	6.043		
		13:45	0.6 42	2.5	
		16:45	0.0456		
CH.FC 8+38 (-8-202	(₃ -8-2021	8:55	0.0412	25	
		13:55	٥, ٥٤٤٤		
CH.FC 0+64 6	િ -8-2021	9:00	٥, ٥ نوټۍ 6	7	
		14:00	0,3471	2,5	
Pit D	(, -8-2021	9:15	0.0431	2,5	
	_	14:15	0.0464		
Pit C	6 -8-2021	9:25	0.0451		
	•	14:25	0.0467	}	
137 Pit C	€-8 - 2021	9:45	0.0431		
		14.45	0.0471	7	
137 Pit B	(-8-2021	9:55	0.0431	0.7	
	•	14:55	0.04 (2	8.6	
137 Pit A	ն -8-2021	10:05	0.045	0.3	
		15:05	०.८५५९	8.3	

Name & Designation

Ting Wai Kin (Safety Officer [Renopipe])

Signature A <u>Date</u>

6 -8-2021



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

Penta-Ocean - Concentric Joint Venture

Landfill Gas Monitoring - Field Measurement Recording Sheet

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

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

Sampling Location	Date of Measurement	Sampling time	Monitoring wells/ Surface Gas Emission Carbon Dioxide (%)	Depth (m)	Remark
WPR 1	6 -8-2021	10:15	1240:0	2.8	
		15:15	0.0465	2-4	
WPR 2	(-8-2021	10:25	০,৩৭1।		
	15:25	عرولا عر	315		
WPR 3	€ -8-2021	10:45	00421	- 5	
		15:45	0.0459	28	
Pit A	6 -8-2021	10:55	0.0421		
		15:55	0.0422	5	
Pit B	ઈ -8-2021	11:05	ا دَباق، ٥		
		16:05	0.0437	3.6	
l l					

Name & Designation

Ting Wai Kin (Safety Officer [Renopipe])

Signature A Date

[-8-2021



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

Penta-Ocean - Concentric Joint Venture

Landfill Gas Monitoring - Field Measurement Recording Sheet

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

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

Sampling Location	Date of Measurement	Sampling time	Monitoring wells/ Surface Gas Emission Carbon Dioxide (%)	Depth (m)	Remark
Area A	7 -8-2021	8:30	0.0421		
	"	13:30	0.0417	5.5	
		17:00	0, 14 4 9		
Area B	7 -8-2021	8:45	૭, રૂપર્પ		
		13:45	0.0431	2,5	
1		16:45	0.045 }		
CH.FC 8+38 7 -8-2021	8:55	ე. 0421	2.5		
		13:55	0.0401	213	
CH.FC 0+64 7-8-2021	7-8-2021	9:00	0.0422	2.5	
		14:00	0,0481	215	
Pit D	7-8-2021	9:15	0.6773°	- 25	ì
		14:15	0,0465		
Pit C	7 -8-2021	9:25	0.0457	•	
		14:25	5.0489	3	
137 Pit C	7 -8-2021	9:45	0.5433	_	
		14:45	0,642!	7	
137 Pit B	າ -8-2021	9:55	00,481	2/	
		14:55	0.0479	8.6	
137 Pit A	7 -8-2021	10:05	0.0487	8,5	
		15:05	0.01735	4,>	

Name & Designation

Ting Wai Kin (Safety Officer [Renopipe])

Signature A Date

7 -8-2021



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

Penta-Ocean - Concentric Joint Venture

Landfill Gas Monitoring - Field Measurement Recording Sheet

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

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

Sampling Location	Date of Measurement	Sampling time	Monitoring wells/ Surface Gas Emission Carbon Dioxide (%)	Depth (m)	Remark
WPR 1	7 -8-2021	10:15	0.0462	. 0	
	Į į	15:15	9,5479	2.8	
WPR 2	7 -8-2021	10:25	0.0463		
İ		15:25	0 0459	3.5	
WPR 3	7 -8-2021	10:45	٥.٥١٤٦٤	28	
		15:45	7 OHO 7	±-0	
Pit A	7-8-2021	10:55	1540.0	5	
		15:55	0,0440		
Pit B	7 -8-2021	11:05	0.0438	3,6	
	<u> </u>	16:05	0.0457		
					-

Name & Designation

Ting Wai Kin (Safety Officer [Renopipe])

Signature A Date

7 -8-2021



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	

Compline Leastion	Date of	Sampling time	Monitoring wells/ Surface Gas Emission	Depth (m)	Remark
Sampling Location	Measurement	Sampling time	Carbon Dioxide (%)		
Area A	9 -8-2021	8:30	0.0462		
İ		13:30	0.0407	\$15	
		17:00	0.0439		
Area B	° -8-2021	8:45	o. o48 /		
1		13:45	0.0470	2,5	
		16:45	0.0449		
CH.FC 8+38 9 -8-2021	8:55	6.049[ר ד		
		13:55	0.0421	212	
CH.FC 0+64	ې -8-2021	9:00	6,0470	~ L	
		14:00	0,0421	2.5	
Pit D	⁴ -8-2021	9:15	6,0419	2.5	
		14:15	3,0427	7-7	
Pít C	9 -8-2021	9:25	D. 01467_	_	
		14:25	०.०५५५	8	
137 Pit C	Ŷ -8-2021	9:45	0.0(163	7	
		14.45	0.0452		
137 Pit B	۹ -8-2021	9:55	0.042	0.1	
·		14:55	0.0427	9.6	
137 Pit A	૧ -8-2021	10:05	6.0459	3. 3	
	'	15:05	6,0436	0.7	

Name & Designation

Ting Wai Kin (Safety Officer [Renopipe])

Signature A <u>Date</u>

ິ່ງ -8-2021



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

Penta-Ocean - Concentric Joint Venture

Landfill Gas Monitoring - Field Measurement Recording Sheet

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

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

Date of Measurement	Sampling time	Monitoring wells/ Surface Gas Emission Carbon Dioxide (%)	Depth (m)	Remark
ે -8-2021	10:15	ə.c439	_	
WPR 1 9 -8-2021	15:15	0,0462	Z-X	
9 -8-2021	10:25	0,0437	3-	
WPR 2 9 -8-2021	15:25	0.0468	*>	
9 -8-2021	10:45		- ~	
WPR 3 9 -8-2021	15:45	0.0431	2.8	
Pit A 9 -8-2021	10:55	0.0459		
	15:55	0,04,70] 5	
9 -8-2021	11:05	a.oul5		
· · · · · · · · · · · · · · · · · · ·	16:05	0,0465	3.6	
· **				
	ን -8-2021 ዓ -8-2021 ዓ -8-2021 ዓ -8-2021	Measurement 10:15 7 -8-2021 10:15 15:15 10:25 15:25 10:45 15:45 10:55 15:55 11:05	Measurement Sampling time Carbon Dioxide (%)	Measurement Sampling time Carbon Dioxide (%) Depth (iii) γ -8-2021 10:15 3.64.3γ 2.8 9 -8-2021 10:25 4.64.7γ 35 9 -8-2021 10:45 0.04.76 2.8 9 -8-2021 10:45 0.04.76 2.8 9 -8-2021 10:55 0.04.59 5 15:55 0.04.70 5 9 -8-2021 11:05 3.04.15 3.04.15

Name & Designation

Ting Wai Kin (Safety Officer [Renopipe])

Signature A Date

9 -8-2021



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	ქი -8-2021	8:30	0,0422		
	,,,	13:30	0.0445	5:2	
i		17:00	0.0416		
Area B	ls -8-2021	8:45	0.6463		
		13:45	0,0420	2.5	
		16:45	0.0436		
CH.FC 8+38	lo -8-2021	8:55	0.0452	2,6	
		13:55	0.044]		
CH.FC 0+64 % -8-2021	9:00	٥، ١٠٠١ ک	2.5		
		14:00	0:0426		
Pit D	· -8-2021	9:15	0.0459	2.5	
		14:15	0.0424	1.0	
Pit C	ts -8-2021	9:25	0.0433	8	
•		14:25	0.0459	δ	
137 Pit C	১ -8-2021	9:45	0.0456	7	1
Ì		14:45	0.0444	- (
137 Pit B	/a -8-2021	9:55	٠ با ١٢٠٥٠. ٥	0 (
		14:55	0.0479	8-6	
137 Pit A	্১ -8-2021	10:05	0.0462	8.>	
ļ	15:05	15:05	0:0461	2/>	

Name & Designation

Ting Wai Kin (Safety Officer [Renopipe])

Signature A

Date

(6 -8-2021



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

Penta-Ocean - Concentric Joint Venture

Landfill Gas Monitoring - Field Measurement Recording Sheet

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

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

Sampling Location	Date of Measurement	Sampling time	Monitoring wells/ Surface Gas Emission Carbon Dioxide (%)	Depth (m)	Remark
WPR 1	(0 -8-2021	10:15	6.0410		
	•	15:15	0:0421	2.8	
WPR 2	i s -8 -2021	10:25	3.0467	7 =	
		15:25	0.6440	315	
WPR 3	(。-8-2021	10:45	0.0451	2.8	
	15:45	0.0454	Z 10		
Pit A to -8-2021	10:55	0,0423	<u></u>		
		15:55	0 0422	5	
Pit B	†o -8-2021	11:05	<u>0</u> ,७45 ⁶		
		16:05	0.0406	3.6	

Name & Designation

Ting Wai Kin (Safety Officer [Renopipe])

Signature A Date

10 -8-2021



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	Ji -8-2021	8:30	5.3485		
		13:30	0.0413	5.5	
		17:00	0 0417		
Агеа В	1 -8-2021	8:45	0.0445		
		13:45	0.0485	2.5	
		16:45	0.0416		
CH.FC 8+38 i1 -8-2021	8:55	0,0455			
		13:55	0.8435	2,5	
CH.FC 0+64 11 -8-20	11 -8-2021	9:00	0,0490	25	
		14:00	٥٠٥٤٢١٥٥	20	
Pit D	Pit D 11-8-2021 9:15 0.0495	0.0495	3 ~		
		14:15	0,0445	7.5	
Pit C	ii -8-2021	9:25	5.0462		
	• •	14:25	0.0481	3	
137 Pit C	_t	9:45	c:0475	7	
		14:45	0.0414		
137 Pit B	l+ -8-2021	9:55	D. မိမို၅န	77.1	
		14:55	0.0414	8.6	
137 Pit A	(+ -8-2021	10:05	८.७५१०	7.	
		15:05	0.0 455	۵.5	

Name & Designation

Ting Wai Kin (Safety Officer [Renopipe])

Signature A

<u>Date</u>

!1 -8-2021



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

Penta-Ocean - Concentric Joint Venture

Landfill Gas Monitoring - Field Measurement Recording Sheet

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

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

Sampling Location	Date of Measurement	Sampling time	Monitoring wells/ Surface Gas Emission Carbon Dioxide (%)	Depth (m)	Remark
WPR 1	[] -8-2021	10:15	0.0471	2-}	
			0.0451	2-8	
WPR 2	11 -8-2021	10:25	20402	7 5	
		15:25	0.0452	3.5	
WPR 3	· -8-2021	10:45	0.0 445		
	15:45	0.0454	28		
Pit A 11 -8-2021	10:55	0.0450	_		
		15:55	0.0455	5	
Pit B	1 -8-2021	11:05	0.0410		
		16:05	0.0460	3.6	
		<u> </u>			

Name & Designation

Ting Wai Kin (Safety Officer [Renopipe])

Signature A Date

11-8-2021



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	

Commiss I postion	Date of	Sampling time	Monitoring wells/ Surface Gas Emission	Depth (m)	Remark
Sampling Location	Measurement	Sampling time	Carbon Dioxide (%)		T COLLING
Area A	し -8-2021	8:30	\$\$P\$3. a		
		13:30	7.640.0	5.5	
		17:00	0.0410		
Area B	に-8-2021	8:45	8740.0		
		13:45	0.0434	2.5	
		16:45	0.0461		
CH.FC 8+38 12-8-2021	8:55	0:0485			
	13:55	0.0443	2.5		
CH.FC 0+64 12, -8-2021	12 -8-2021	9:00	0.0409	` -	
;	,-	14:00	०.०१५५ ।	٧.5	
Pit D	t2 -8-2021	9:15	0,0419	~ "	
·		14:15	0.0451	2.5	
Pit C	12 -8-2021	9:25	9,0429	0	
		14:25	0.0425	8	
137 Pit C	โบ -8-2021	9:45	٥٠٥ لالوا	7	
		14:45	6.0450		
137 Pit B	12 -8-2021	9:55	0.0434	2 , {	
	1 =	14:55	0.6415	G-1 b	
137 Pit A	2 -8-2021	10:05	0.0418	3 -	
		15:05	0.5450	እ -ን	j

Name & Designation

Ting Wai Kin (Safety Officer [Renopipe])

Signature A <u>Date</u>

12 -8-2021



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

Penta-Ocean - Concentric Joint Venture

Landfill Gas Monitoring - Field Measurement Recording Sheet

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

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

Sampling Location	Date of Measurement	Sampling time	Monitoring wells/ Surface Gas Emission Carbon Dioxide (%)	Depth (m)	Remark
WPR 1	12 -8-2021	10:15	0.0410		
		15:15	0.6452	2.8	
WPR 2	ル-8-2021	10:25	0.8424	35	
		15:25	6.0455	20	
WPR 3	しょ-8-2021	10:45	ې(۵،۵ ت	e.	
		15:45	0.0454	ر ک	
Pit A	12-8-2021	10:55	2) 40,0		
	15:55	0.6465	5		
Pit B	12-8-2021	11:05	6.0463	3, 6	
		16:05	0.0472		
		<u> </u>			

Name & Designation

Ting Wai Kin (Safety Officer [Renopipe])

Signature A <u>Date</u>

-8-2021



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

Penta-Ocean - Concentric Joint Venture

Landfill Gas Monitoring - Field Measurement Recording Sheet

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

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

Committee Longton	Date of	Sampling time	Monitoring wells/ Surface Gas Emission	Depth (m)	Remark
Sampling Location	Measurement	Sampling time	Carbon Dioxide (%)		T.CITICIT.
Area A	13 -8-2021	8:30	0.0439		
		13:30	0.0438	5.5	
		17:00	0.0447		
Area B	13 -8-2021	8:45	0.0454		
		13:45	15.0	2 5	
		16:45	2,0465	2 -	
CH.FC 8+38	13 -8-2021	8:55	5.067		
		13:55	0.0429	2-5	
CH.FC 0+64	i³ -8-2021	9:00	0.0466		Ì
		14:00	0.047}	2.5	
Pit D	ひ -8-2021	9:15	0.0432	. "	
		14:15	0,0467	2.5	
Pit C	^{[}} -8-2021	9:25	0.0425		
		14:25	0,0462	8	
137 Pit C	[⁵ -8-2021	9:45	9.0438	-1	
		14:45	0.0445	7	
137 Pit B	(3 -8-2021	9:55	5.5 F.5°.0		
		14.55	0.0420	ð.[,	
137 Pit A	13 -8-2021	10:05	5,0462		
		15:05	0.0431	8.3	

Name & Designation

Ting Wai Kin (Safety Officer [Renopipe])

Signature A

<u>Date</u>

い -8-2021



Contract no. 13/WSD/16

Mainlaying in Tseung Kwan O

Penta-Ocean - Concentric Joint Venture

Landfill Gas Monitoring - Field Measurement Recording Sheet

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

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

Sampling Location	Date of Measurement	Sampling time	Monitoring wells/ Surface Gas Emission Carbon Dioxide (%)	Depth (m)	Remark
WPR 1	13 -8-2021	10:15	0.0452	0.	
		15:15	0.0426	2.8	
WPR 2	13 -8-2021	10:25	6.8422	7 (-	
		15:25	8440,0	3.5	
WPR 3	13 -8-2021	10:45	9,439	- 3	
	· -	15:45	0,0445	2-8	
Pit A	\3 -8-2021	10:55	c.645Q	5	
		15:55	0.0421		
Pit B	(シ-8-2021	11:05	0.0468		
	-	16:05	0.0412	3.6	
,					

Name & Designation

Ting Wai Kin (Safety Officer [Renopipe])

Signature

<u>Date</u>

(3-8-2021



Contract no. 13/WSD/16
Maintaying 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	J4 -8-2021	8:30	0.0402		
		13:30	0.0459	5.5	
		17:00	0.0422		
Area B	4 -8-2021	8:45	٥٠٥ لاء لا		
		13:45	0,0452	2.5	
		16:45	0,0418		
CH.FC 8+38	4 -8-2021	8:55	0.0457		
	13:55	0,0433	2.5		
CH.FC 0+64	f4 -8-2021	9:00	0.0432	2.5	
		14:00	०,८५१५	<u></u>	
Pit D	(i ₄ -8-2021	9:15	[3.00	2.5	
		14:15	0.0470		
Pit C	[4 -8-2021	9:25	0.0420	9	
		14:25	0.0469	8	
137 Pit C	4 -8-2021	9:45	0.0453	7	
		14:45	0.0422		
137 Pit B	14 -8-2021	9:55	0.0479	8.6	
		14:55	٥٠٠٥ و	0 - 4	
137 Pit A	ļu -8-2021	10:05	ৢ ৽ ১৭ৗ৻ৢ	8-3	
		15:05	0.0413	0.1	

Name & Designation

Ting Wai Kin (Safety Officer [Renopipe])

Signature A

<u>Date</u>

l4-8-2021



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	

Measurement	Sampling time	Monitoring wells/ Surface Gas Emission Carbon Dioxide (%)	Depth (m)	Remark
14 -8-2021	10:15	m. n. 4 6 2	- 0	
9	15:15	0.0472	2.8	
j4 -8-2021	10:25		₹,₹	
	15:25	0.0468	>'>	
/4 -8-2021	10:45	0.8479	2 2	
. '	15:45	0.0406	Ζ-ε	
14 -8-2021	10:55	0.0477] r	
	15:55		5	
I4 -8-2021	11:05	0.0470	→ (
	16:05	6.٥ لم كرا	<u>ک</u> , اد	
	i4 -8-2021 i4 -8-2021 i4 -8-2021	15:15 14 -8-2021 10:25 15:25 14 -8-2021 10:45 15:45 14 -8-2021 10:55 15:55 14 -8-2021 11:05	15:15 0.04726 16:4-8-2021 10:25 0.0426 15:25 0.046 8 14-8-2021 10:45 0.0479 15:45 0.0406 14-8-2021 10:55 0.0477 15:55 0.0467	15:15 0.0472 28 14-8-2021 10:25 0.0426 3.5 15:25 0.0468 14-8-2021 10:45 0.0479 2.8 14-8-2021 10:55 0.0406 14-8-2021 10:55 0.0407 14-8-2021 11:05 0.0470 3.6

Name & Designation

Ting Wai Kin (Safety Officer [Renopipe])

Signature A Date

14-8-2021



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] ₆ -8-2021	8:30	804/4[r	
	-	13:30	00422	5	
		17:00	0.0429		
Area B	16 -8-2021	8:45	9,0459		
		13:45	5,6463	2.5	ļ
		16:45	0,0410		
CH.FC 8+38	6 -8-2021	8:55	0.0420	2.5	
		13:55	3.0472	4.2	
CH.FC 0+64	{ -8-2021	9:00	0.6431	25	
		14:00	0.6426		
Pit D	6 -8-2021	9:15	0,043	2.5	
1		14:15	5.0447	1 4.3	
Pit C	16 -8-2021	9:25	0 0462	_	
		14:25	०,०५२०	8	
137 Pit C	lb -8-2021	9:45		_	
ļ		14:45	o-०५३ ⁹	7	
137 Pit B	L -8-2021	9:55	0.0466		
		14:55	6.0.4.5.1	8.6	
137 Pit A	ib -8-2021	10:05	0,0437		
		15:05	0.0427	8-ን	

Name & Designation

Ting Wai Kin (Safety Officer [Renopipe])

Signature A <u>Date</u>

f6 -8-2021



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

Penta-Ocean - Concentric Joint Venture

Landfill Gas Monitoring - Field Measurement Recording Sheet

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

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

Sampling Location	Date of Measurement	Sampling time	Monitoring wells/ Surface Gas Emission Carbon Dioxide (%)	Depth (m)	Remark
WPR 1)L -8-2021	10:15	0.0490	- 6	
	, ,	15:15	0.0401	2.8	
WPR 2	\ ₆ -8-2021	10:25	0 س لاء کے	3	
1	1.0	15:25	0,0476	3,5	·
WPR 3	6 -8-2021	10:45	80+160	- ^	
	, -	15:45	P 5 40.0	2.8	
Pit A 16 -8-2021	<u> </u>	10:55	ح کی با تان د		
	·	15:55	F, Fa, e	5	
Pit B	\⊌ -8-2021	11:05	0.0429		
		16:05	७.०५५५	3,6	
		_			
					- 1

Name & Designation

Ting Wai Kin (Safety Officer [Renopipe])

Signature A

Date

6 -8-2021



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	17 -8-2021	8:30	0.0429		
	•	13:30	0.0439	5,5	
		17:00	0.dk7		
Area B	(1 -8-2021	8:45	<u> </u>		
	13:45	ح ـ ـ ت با ۵، څ	2,5		
		16:45	ð:042Š		
CH.FC 8+38 (1 -8-2021	(1 -8-2021	8:55	0.0430	2.5	
		13:55	ه ۵ کالا کال ۲	<i>ـــ</i> ئ	
CH.FC 0+64	(7 -8-2021	9:00	6.0432	2.5	1
		14:00	6.6461	2.5	
Pit D	17 -8-2021	9:15	0.0430		
	•	14:15	2.040.0	2.5	
Pit C	7 -8-2021	9:25			
		14:25	45400	8	
137 Pit C	(7 -8-2021	9:45	0.0437	7	
		14:45	0.0429		
137 Pit B	(η -8-2021	9:55	0,04c4	8.6	
	·	14:55	0.0426	2.0	
137 Pit A	(7 -8-2021	10:05	0.04H2_	8.3	
		15:05	0.0449		

Name & Designation

Ting Wai Kin (Safety Officer [Renopipe])

Signature A <u>Date</u>

(7 -8-2021

Field Operator: Laboratory Staff: Checked by:

Acuity Sustainability Consulting Limited



Contract no. 13/WSD/16

Mainlaying in Tseung Kwan O

Penta-Ocean - Concentric Joint Venture

Landfill Gas Monitoring - Field Measurement Recording Sheet

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

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

Sampling Location	Date of Measurement	Sampling time	Monitoring wells/ Surface Gas Emission Carbon Dioxide (%)	Depth (m)	Remark
WPR 1	\7 -8-2021	10:15	0.0422	- 7	
	'	15:15	0.045	2.8	
WPR 2	17 -8-2021	10:25	0.0447	3.5	
		15:25	0.0452	3.5	
WPR 3	17 -8-2021	10:45	0.9442	2-8	
		15:45	50403	2-8	
Pit A 17 -8-2021	10:55	3.0419			
	. -	15:55	0.6422	5	
Pit B	17 -8-2021	11:05	٥,٥٤١٨		
		16:05	0.0430	3.6	
.,					
					!

Name & Designation

Ting Wai Kin (Safety Officer [Renopipe])

Signature

<u>Date</u>

[7 -8-2021

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	18-8-2021	8:30	0.0427	_	
		13:30	0. D'430	5,5	
		17:00	0.0432		_
Area B	ίδ -8-2021	8:45	0.0418	3.5	
		13:45	0.0423	5-2	
Ì		16:45	0.9470		
CH.FC 8+38	i∂ -8-2021	8:55		1.5	
	13:55	0.0412			
CH.FC 0+64	CH FC 0+64 3 -8-2021	9:00		2.5	
		14:00	0.0423	2.13	
Pit D	18 -8-2021	9:15	0,0439	5.2	
ĺ		14:15	٥, ۵4 24		
Pit C	/8 -8-2021	9:25		∂	
		14:25	5.6411	<u> </u>	
137 Pit C) ₈ -8-2021	9:45	0,0439	7	
		14:45	5.042 <u>0</u>		
137 Pit B	/8 -8-2021	9:55	<u>0,0 42k</u>	2	
	-	14:55	0.0411	8,6	
137 Pit A	/8-2021	10:05	0.0414	8.3	
18		15:05	2640.0	J.,	

Name & Designation

Ting Wai Kin (Safety Officer [Renopipe])

Signature A <u>Date</u>

/8 -8-2021



Contract no. 13/WSD/16

Mainlaying in Tseung Kwan O

Penta-Ocean - Concentric Joint Venture

Landfill Gas Monitoring - Field Measurement Recording Sheet

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

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

Sampling Location	Date of Measurement	Sampling time	Monitoring wells/ Surface Gas Emission Carbon Dioxide (%)	Depth (m)	Remark
WPR 1	(8 -8-2021	10:15	<u>0.5414</u>	Z-8	
		15:15	0.0436	2-0	
WPR 2	/8-8-2021	10:25	0,0407	_	
		15:25	0.0 452	3.5	
WPR 3	(8 -8-2021	10:45	0.0426		
		15:45	6.0439	5'8	
Pit A 18 -8-2021	18 -8-2021	10:55	0.0470	5	
	•	15:55	0,04,2		
Pit B	/8 -8-2021	11:05	0.0473	3, 6	ļ
1 1 2		16:05	90406		
					+
					1

Name & Designation

Ting Wai Kin (Safety Officer [Renopipe])

Signature A

(3 -8-20

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]প -8-2021	8:30	ō, 544s		
	ŧ	13:30	0.0457	5.5	
		17:00	ত, ৬৭%	<u></u>	<u> </u>
Area B	!§ -8-2021	8:45	0.0460		
İ		13:45	०.०५५०	2.5	
		16:45	_{०. छ} पल		
CH.FC 8+38	(9 -8-2021	8:55	0.0426	2.5	
		13.55			
CH.FC 0+64 19 -	19 -8-2021	9:00	3.0432	2.5	
	, .	14:00	0,24:18		
Pit D	!٩ -8-2021	9:15	0.0427	25	
		14:15	[crio.a	<i>L</i> 3	
Pit C	ام -8-2021	9:25	0.0433	8-	
		14:25	2.0415		
137 Pit C	/ ⁴ -8-2021	9:45	3.0406	7	
	• •	14:45	5.0408	`	
137 Pit B	(% -8-2021	9:55	٥٠٥ لايت	3.6	
		14:55	7540.0		
137 Pit A	[1-8-2021	10:05	69 40.0	8.)	-
		15:05	0.0413		

Name & Designation

Ting Wai Kin (Safety Officer [Renopipe])

| 7 -8-2021

Field Operator: Laboratory Staff:

Checked by:

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

Dates calibrated
6/4/2021

Sampling Location	Date of Measurement	Sampling time	Monitoring wells/ Surface Gas Emission Carbon Dioxide (%)	Depth (m)	Remark
WPR 1	19 -8-2021	10:15	0.0463		
		15:15	0.0425	2.8	
WPR 2	19 -8-2021	10:25	0.043	3.5	
		15:25	0.0426	3.5	
WPR 3	I9-8-2021	10:45	7440.0	- r	
		15:45	0.0429	28	
Pit A	(% -8-2021	10:55		5	
	' -	15:55	0.0414		
Pit B	(૧ -8-2021	11:05	0.0438		
1 ((2		16:05	7540,0	3, 6	
	<u> </u>				
		<u> </u>			
		<u> </u>			

Name & Designation

Ting Wai Kin (Safety Officer [Renopipe])

<u>Signature</u>

19 -8-2021



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	-8-2021	8:30	0.0444		ļ
	, ,	13:30	0.0438	5.5	
		17:00	3,0417		
Area B	-8-2021	8:45	०.०५६उ		
		13:45	0,0423	2.5	
		16:45	<u>0.0</u> 43c		<u> </u>
CH.FC 8+38	z∘ -8-2021	8:55	o.644	2.5	Ì
•		13:55	0.0424	۷۰۵	
CH.FC 0+64	₂₀ -8-2021	9:00		2.5	
		14:00	3.5 WZ6		
Pit D	-8-2021 مر	9:15	\$240.0	5	
		14:15	०.७४५३		
Pit C	20 -8-2021	9:25	0.0439	8	
1 11 0		14:25	8/4°0,0	<u> </u>	
137 Pit C	8-2021 م	9:45	6.0476	7	
		14:45	0.0450		
137 Pit B	8-2021- دخ	9:55	6 0449	8.6	
		14:55	5.6434	5.6	
137 Pit A	ยง -8-2021	10:05	0.0450	8-3	
		15:05	6,8420	<u> </u>	

Name & Designation

Ting Wai Kin (Safety Officer [Renopipe])

Signature

<u>Date</u>

26-8-2021



Contract no. 13/WSD/16

Mainlaying in Tseung Kwan O

Penta-Ocean - Concentric Joint Venture

Landfill Gas Monitoring - Field Measurement Recording Sheet

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

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

Sampling Location	Date of Measurement	Sampling time	Monitoring wells/ Surface Gas Emission Carbon Dioxide (%)	Depth (m)	Remark
WPR 1	20 -8-2021	10:15	0.0442		
		15:15	0.0457	2.8	
WPR 2	-8-2021 مح	10:25	C.0 ¹ 4 72	_	
		15:25	0.0416	3.5	
WPR 3	2.6 -8-2021	10:45	7 رَ الله الله	2.0	
j		15:45	2,540.0	2.8	
Pit A	2-₀ -8-2021	10:55	0.0438	-	
		15:55	0 0/40/4	5	
Pit B	2o -8-2021	11:05	0.07+59	3.6	
		16:05	0.0412		

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

Signature A <u>Date</u>

Za-8-2021



Contract no. 13/WSD/16

Mainlaying in Tseung Kwan O

Penta-Ocean - Concentric Joint Venture

Landfill Gas Monitoring - Field Measurement Recording Sheet

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

Dates calibrated
6/4/2021

Sampling Location	Date of Measurement	Sampling time	Monitoring wells/ Surface Gas Emission Carbon Dioxide (%)	Depth (m)	Remark
Area A	21 -8-2021	8:30	0.0447		
	,	13:30	و , ه لاي ۲	5.5	
		17:00	6.0439		
Area B	21 -8-2021	8:45	1170.5		
1	•	13:45	c e 43e	2-5	
		16:45	و بناده ۲		
CH.FC 8+38	ار -8-2021	8:55	c.c424	2,5	
		13:55	6,543,0		
CH.FC 0+64	ม -8-2021	9:00	C.0 445	2,5	
		14:00	७, इ.५०५	213	
Pit D	21 -8-2021	9:15	<u>6.041</u>	_	
	•	14:15	0.0439	5	
Pit C	₂₄ -8-2021	9:25	c .6444	8	
		14:25	0.5432	· · · · · · · · · · · · · · · · · · ·	
137 Pit C	ว(-8-2021	9:45	<u> </u>	7	ļ
ì		14:45	6.644c		<u> </u>
137 Pit B	21 -8-2021	9:55	<u>0,0 Yzi</u>	8.6	
		14:55	ο,υ434		_
137 Pit A	zi -8-2021	10:05	0.0445	8.3	
		15:05	a, 0424		

Name & Designation

Ting Wai Kin (Safety Officer [Renopipe])

Signature A Date

기 -8-2021

Field Operator: Laboratory Staff:



Contract no. 13/WSD/16

Mainlaying in Tseung Kwan O

Penta-Ocean - Concentric Joint Venture

Landfill Gas Monitoring - Field Measurement Recording Sheet

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

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

Sampling Location	Date of Measurement	Sampling time	Monitoring wells/ Surface Gas Emission Carbon Dioxide (%)	Depth (m)	Remark
WPR 1	Zı -8-2021	10:15	0,643)	22	
		15:15	0.04(39	ZR	
WPR 2	2 -8-2021	10:25	P460, 0	35	
		15:25	0.01454		
WPR 3	دا-8-2021	10:45	D. 440.	28	
		15:45	3.0451		
Pit A	24 -8-2021	10:55	c.044(۲	
		15:55	0.0415	5	
Pit B	기 -8-2021	11:05	e .2419	3, 6	
		16:05	0.0429		
		-			
					
	•				

Name & Designation

Ting Wai Kin (Safety Officer [Renopipe])

Signature A Date

Zi -8-2021



Contract no. 13/WSD/16

Mainlaying in Tseung Kwan O

Penta-Ocean - Concentric Joint Venture

Landfill Gas Monitoring - Field Measurement Recording Sheet

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

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

Sampling Location	Date of Measurement	Sampling time	Monitoring wells/ Surface Gas Emission Carbon Dioxide (%)	Depth (m)	Remark
Area A	23 - 8-2021	8:30	0.6424		İ
		13:30	0,04[4	5.5	
		17:00	۵. <i>৫</i> ५ ک۲		
Area B	23-8-2021	8:45	ક.જ્યુરે દે		
		13:45	0,0416	2.5	
		16:45	6,642		
CH.FC 8+38	ι> -8-2021	8:55	0,0442	45	
		13:55	0,0412	۳)	
CH.FC 0+64	23-8-2021	9:00	• क.ठध्यभूष		
		14:00	०००पद्ध	2.5	
Pit D	z3 -8-2021	9:15	0.04(2	2	Ì
		14:15	0.0429		
Pit C	23 -8-2021	9:25	9.0436		
		14:25	8145,0	8	
137 Pit C	₁₂₃ -8-2021	9:45	0,0 445	~-	
		14:45	0.0467	7	
137 Pit B	23 -8-2021	9:55	०,७५२५	_	
		14:55	9-3465	8.6	
137 Pit A	23 -8-2021	10:05	0.0421	8.3	
		15:05	و ۱۹۵۰ م	-3,7	

Name & Designation

Ting Wai Kin (Safety Officer [Renopipe])

Signature A Date

₂₃ -8-2021



Contract no. 13/WSD/16

Mainlaying in Tseung Kwan O

Penta-Ocean - Concentric Joint Venture

Landfill Gas Monitoring - Field Measurement Recording Sheet

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

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

Sampling Location	Date of Measurement	Sampling time	Monitoring wells/ Surface Gas Emission Carbon Dioxide (%)	Depth (m)	Remark
WPR 1	-8-2021	10:15			
	15:15	8545.3	2.8		
WPR 2	±J -8-2021	10:25	p.0614	3.5	
, ,	15:25	0.0429			
WPR 3	℧ -8-2021	10:45	& .G.43.8	2.8	
!		15:45	3.6436		
Pit A	Pit A8-2021	10:55	C.0444	5	
		15:55	m 0432		
Pit B	23 -8-2021	11:05		3,6	
		16:05	7145.0	ط بد	
	<u></u>				<u> </u>
	•				
			.		

Name & Designation

Ting Wai Kin (Safety Officer [Renopipe])

Signature A

<u>Date</u>

23 -8-2021

Field Operator: Laboratory Staff: Checked by:

Acuity Sustainability Consulting Limited



Contract no. 13/WSD/16

Mainlaying in Tseung Kwan O

Penta-Ocean - Concentric Joint Venture

Landfill Gas Monitoring - Field Measurement Recording Sheet

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

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

Sampling Location	Date of Measurement	Sampling time	Monitoring wells/ Surface Gas Emission Carbon Dioxide (%)	Depth (m)	Remark
Area A	객 -8-2021	8:30	o 11/18		
		13:30	0,431	5.5	
		17:00	٥٠ تو کولی		
Area B	24 -8-2021	8:45	0,0435		
		13:45	.0405	25	
-		16:45	31400	(س)	
CH.FC 8+38 24 -8-2021	8:55	<u>० ०५३७ </u>	_		
	13:55	0.0426	2.5		
CH.FC 0+64 24 -8-2021	9:00	0,642,0			
	-1	14:00	C 445 2	ఒర	
Pit D	บ่า -8-2021	9:15	0,0 4h		
	•	14:15	6.0429	5	
Pit C	zq -8-2021	9:25	9140-0		
		14:25	۵،۵۲۰۶	8	
137 Pit C	24 -8-2021	9:45	0.0418	7	
		14:45	ያንተታር		
137 Pit B	१५ -8-2021	9:55	0.0427	3.6	
	,	14:55	٥ - ١٥ کاباح ی	a.6	
137 Pit A	z¥ -8-2021	10:05	0.0429	8.3	
	-	15:05	a o445	a. 5	

Name & Designation

Ting Wai Kin (Safety Officer [Renopipe])

Signature # <u>Date</u>

-8-2021



Contract no. 13/WSD/16

Mainlaying in Tseung Kwan O

Penta-Ocean - Concentric Joint Venture

Landfill Gas Monitoring - Field Measurement Recording Sheet

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

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

Sampling Location	Date of Measurement	Sampling time	Monitoring wells/ Surface Gas Emission Carbon Dioxide (%)	Depth (m)	Remark
WPR 1	8-2021-ئاچ	10:15	0,047.5		
		15:15	0,0429	2.5	
WPR 2	24 -8-2021	10:25	0 0426		
		15:25	9,0474	3/2	
WPR 3	과 -8-2021	10:45	0.0426		
		15:45	0.0431	2.8	
Pit A 24 -8-2021	10:55	0.0 ¹ +2 ^Q	_		
	-,	15:55	0,0437	5	
Pit B	24 -8-2021	11:05	०.३५५७	3.6	
		16:05	0.0425		
		-			

Name & Designation

Ting Wai Kin (Safety Officer [Renopipe])

Signature A <u>Date</u> 2∳ -8-2021



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	75-8-2021	8:30	7040.0		
		13:30	o. 8 43 ⁵⁴	5.5	1
i		17:00	0.0412		
Area B 25 -8-2021	8:45	8040.0			
		13:45	٥.٥ لبا نړه	5.2	
		16:45	3.0411		
CH.FC 8+38 25 -8-2021	8:55	0,0419	2.5		
	13:55	0.0420			
CH.FC 0+64 25 -8-2021	9:00	0.0426	2.5		
		14:00	0246.0		
Pit D	75 -8-2021	9:15		5	
		14:15	5,0434	,	
Pit C	25 -8-2021	9:25	0.0439	0	
		14:25	9140.0	<u> </u>	
137 Pit C	z5 -8-2021	9:45	0,0437	7	ĺ
		14:45	6.6417		
137 Pit B	25 -8-2021	9:55	0,0424	3.6	
		14:55	95400	0.6	
137 Pit A	_ک چ -8-2021	10:05	0.9432	ð.}	
	-	15:05	7.0447	5->	

Name & Designation

Ting Wai Kin (Safety Officer [Renopipe])

Signature A <u>Date</u>

25 -8-2021

Field Operator: Laboratory Staff:



Contract no. 13/WSD/16

Mainlaying in Tseung Kwan O

Penta-Ocean - Concentric Joint Venture

Landfill Gas Monitoring - Field Measurement Recording Sheet

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

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

Sampling Location	Date of Measurement	Sampling time	Monitoring wells/ Surface Gas Emission Carbon Dioxide (%)	Depth (m)	Remark
WPR 1	13 -8 - 2021	10:15	0.0+1K	- A	
		15:15	6. 0435	23	
WPR 2 >5 -8-2021	10:25	B. o 425	3.5		
	15:25	26.04.32	2.0		
WPR 3	25 -8-2021	10:45	o.0458	28	
		15:45	8 .0 428	40	
Pit A 25 -8-2021	15 -8-2021	10:55	6.0463	_	
		15:55	د <u>رو</u> لم عج	5	
Pit B	25 -8-2021	11:05	6.0425		
		16:05	0.0462	3.6	
			 		

Name & Designation

Ting Wai Kin (Safety Officer [Renopipe])

Date 2r e

्य -8-2021



Contract no. 13/WSD/16

Mainlaying in Tseung Kwan O

Penta-Ocean - Concentric Joint Venture

Landfill Gas Monitoring - Field Measurement Recording Sheet

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

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

Sampling Location	Date of Measurement	Sampling time	Monitoring wells/ Surface Gas Emission Carbon Dioxide (%)	Depth (m)	Remark
Area A	2 8-2021	8:30	0.0427		
		13:30	_{0,0} ակղ	5 . S	
		17:00	o,04,13		
Area B	ا 8-2021	8:45	9.0409		
		13:45	0.0418	2.5	
		16:45	0.0437		
CH.FC 8+38	8:55	0,0425	2.5		
	13:55	5546.0	2-3		
CH.FC 0+64 74 -8-2021	9:00	0.0437	z.5		
		14:00	3,0439	20	
Pit D	Հ 8-2021	9:15	ه ۱۵۰۰ کا	5	
		14:15	0,0410		
Pit C	ے 4 -8-2021	9:25	G, 1340 5		
		14:25	0.0725	8	
137 Pit C	z6 -8-2021	9:45	0.0462	7	
1		14:45	0,0407		
137 Pit B	v −8-2021	9:55	0 . JHE . 0	0 (
		14:55	0.0427	8.6	
137 Pit A	ル -8-2021	10:05	6,440,0	8.3	
		15:05	3.0447	۵۰>	

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

Field Operator: Laboratory Staff:

Checked by:

26 -8-2021



Contract no. 13/WSD/16

Mainlaying in Tseung Kwan O

Penta-Ocean - Concentric Joint Venture

Landfill Gas Monitoring - Field Measurement Recording Sheet

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

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

Sampling Location	Date of Measurement	Sampling time	Monitoring wells/ Surface Gas Emission Carbon Dioxide (%)	Depth (m)	Remark
WPR 1	್ರ -8-2021	10:15	0.0427	. 3	
		15:15	0.6447	7.8	
WPR 2 16 -8-2021	10:25	6,5443	35		
		15:25	0.3419	30	
WPR 3	26 -8-2021	10:45	0 0 4 20	7.8	
		15:45	0.0428	4-0	
Pit A 1/2 -8-2021	10:55	0,8446			
		15:55	0,0437	2	
Pit B	ൂ -8-2021	11:05	5145.0	3.6	
		1.6:05	0.2429		
· · ·					

Name & Designation

Ting Wai Kin (Safety Officer [Renopipe])

Signature A <u>Date</u>

ال -8-2021

Field Operator: Laboratory Staff:



Contract no. 13/WSD/16

Mainlaying in Tseung Kwan O

Penta-Ocean - Concentric Joint Venture

Landfill Gas Monitoring - Field Measurement Recording Sheet

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

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

Sampling Location	Date of Measurement	Sampling time	Monitoring wells/ Surface Gas Emission Carbon Dioxide (%)	Depth (m)	Remark
Area A	zī -8-2021	8:30	0.6466		
.		13:30	0.0426	5.5	
		17:00	o. 34 o5		
Area B	27 -8-2021	8:45	0.6412		
		13:45	C 5 5 4 5	2.5	
1		16:45	٥ به به د رو		
CH.FC 8+38 27 -8-2021	8:55	0.5429	2.5		
		13:55	०, ८ १५५।	2.5	
CH.FC 0+64	นา -8-2021	9:00	5,0430	2.5	
		14:00	PH'0.9		
Pit D	77 -8-2021	9:15	0,0415	5	
		14:15	0.0426		
Pit C	27 -8-2021	9:25	6,6450	8	
		14:25	0.04:7	8	
137 Pit C	27 -8-2021	9:45	०,० ५२१	٦	
		14:45	c,ċ\121		
137 Pit B	2-7 -8-2021	9:55	0.2459	2.6	
		14:55	2.0436	8.6	
137 Pit A	27 -8-2021	10:05	7446.0	8.3	
		15:05	0.043	0.5	

Name & Designation

Ting Wai Kin (Safety Officer [Renopipe])

Signature A Date

27 -8-2021

Field Operator: Laboratory Staff:



Contract no. 13/WSD/16

Mainlaying in Tseung Kwan O

Penta-Ocean - Concentric Joint Venture

Landfill Gas Monitoring - Field Measurement Recording Sheet

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

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

Sampling Location	Date of Measurement	Sampling time	Monitoring wells/ Surface Gas Emission Carbon Dioxide (%)	Depth (m)	Remark
WPR 1	27 -8-2021	10:15	ه زيادې تو	2-8	
		15:15	5.0438	2-0	
WPR 2	21 -8-2021	10:25	0.0437	3.5	
		15:25	, 6421		
WPR 3	27 -8-2021	10:45	0,0422	2.8	
	15:45	0,0410	L'6		
Pit A	21 -8-2021	10:55	0,0427	5	
		15:55	0.0416		
Pit B	21-8-2021	11:05	304 39	- (
		16:05	ه و لمالم لم	3.6.	
		-		.,	

Name & Designation

Ting Wai Kin (Safety Officer [Renopipe])

Signature A <u>Date</u>

27 -8-2021



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	z8 -8-2021	8:30	0.0448		
-		13:30	0.0430	5,5	
		17:00	3.04(7)		
Area B	18 -8-2021	8:45	84 th 8		
		13:45	5,8439	z-S	
		16:45	0.0436	د - ب	
CH.FC 8+38	z∛ -8-2021	8:55	a .a415		
		13:55	0,6451	2-5	
CH.FC 0+64 28 -8-2021	9:00	9 1409			
		14:00	0.0414	2.5	
Pit D	28 -8-2021	9:15	0.5424		
		14:15	7740.0	J	
Pit C	Pit C 28 -8-2021 9:25	0.0408			
		14:25	0.0432	8	
137 Pit C	8-2021 -8- <u>کر</u>	9:45	0.2440.		
		14:45	0.6429	7	
137 Pit B	ւ& -8-2021	9:55	9.547		
		14:55	1540.0	8.6	
137 Pit A	ર∛ -8-2021	10:05	0.8432		
		15:05	0.0421	8.3	

Name & Designation

Ting Wai Kin (Safety Officer [Renopipe])

Signature

<u>Date</u>

Z₹ -8-2021

Field Operator: Laboratory Staff:



Contract no. 13/WSD/16

Mainlaying in Tseung Kwan O

Penta-Ocean - Concentric Joint Venture

Landfill Gas Monitoring - Field Measurement Recording Sheet

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

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

Sampling Location	Date of Measurement	Sampling time	Monitoring wells/ Surface Gas Emission Carbon Dioxide (%)	Depth (m)	Remark
WPR 1	28 -8-2021	10:15	٥٫٥١٤٤٦		
		15:15	0.041	5-8	
WPR 2 및 -8-2021	10:25	0_04(8	3		
		15:25	0-0407	35	
WPR 3	z8 -8-2021	10:45	T440.0	2-8	
	15:45	0.0437	1.0		
Pit A 3 -8-2021	10:55	०,० ५३९	5		
		15:55	0.0428	3	
Pit B	zε -8-2021	11:05	9:0437	3, 6	
		16:05	د ، خ لا لوک		
				4	
					
			-		

Name & Designation

Ting Wai Kin (Safety Officer [Renopipe])

<u>Date</u>

28 -8-2021

Field Operator: Laboratory Staff:



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

Landfill Gas Monitoring - Field Measurement Recording Sheet

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

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

Sampling Location	Date of Measurement	Sampling fime	Monitoring wells/ Surface Gas Emission Carbon Dioxide (%)	Depth (m)	Remark
Area A 35 -8-2021	8:30	6.0438			
		13:30	0.043!	32	
		17:00	0.0417		
Area B	პა -8-2021	8:45	0.0445		
		13:45	o 043.5	25	
		16:45	0.0437		
CH.FC 8+38	კ _ა -8-2021	8:55	0.0435	3.5	
_	13:55	0,0417	کے		
CH.FC 0+64 30 -8-2021	9:00	0 0409			
1		14:00	0.0434	2.5	
Pit D	30 -8-2021	9:15	0.0415		
		14:15	0.0441	5	
Pit C	30 -8-2021	9:25	0,0444	0	
	· .	14:25	0.6425	8	
137 Pit C	გ _ი -8-2021	9:45	c_v 429	٦	
İ	20	14:45	०,०५५३	,	
137 Pit B	პა -8-2021	9:55	0.049	3.	
		14:55	0.0434	8.6	
137 Pit A	პა -8-2021	10:05	6,0 ¹ (7)	8.3	
		15:05	0 0455	₹>	

Name & Designation

Ting Wai Kin (Safety Officer [Renopipe])

Signature A Date

კ_ი -8-2021



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 Measuremer		Sampling time	Monitoring wells/ Surface Gas Emission Carbon Dioxide (%)	Depth (m)	Remark
WPR 1	30 -8-2021	10:15	To 40.0	~ a	
		15:15	0,0428	5-8	
WPR 2	.3o -8-2021	10:25	ه .ن لبرا ل	7 1	
		15:25	0.0 40 Z	3.5	
WPR 3	8-2021- مذ	10:45	o . ১ ५ 3 7	n 2	
		15:45	0.0431	2.}	
Pit A	3c -8-2021	10:55	0.6408	-	
		15:55	0.0419	5	
Pit B	36 -8-2021	11:05	1,245.0	- (
		16:05	9240.0	3′.6	

Name & Designation

Ting Wai Kin (Safety Officer [Renopipe])

Signature A Date

30 -8-2021

Field Operator: Laboratory Staff:



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

Penta-Ocean - Concentric Joint Venture

Landfill Gas Monitoring - Field Measurement Recording Sheet

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

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

Sampling Location	Date of Measurement	Sampling time	Monitoring wells/ Surface Gas Emission Carbon Dioxide (%)	Depth (m)	Remark
Area A	3(-8-2021	8:30	1546,0		
		13:30	0,0476	5.5	
		17:00	e. 6142		
Area B	8-2021 -8	8:45	٥٠٥٤٤٤		
		13:45	0.0427	2.5	
		16:45	0.0452	23	
CH.FC 8+38	31 -8-2021	8:55	0,0445	_	
		13:55	1140.0	2.5	
CH.FC 0+64	31 -8-2021	9:00	5,0428		
	7 1	14:00	0.0433	2.5	
Pit D	5 i -8-2021	9:15	8549.0	~	
		14:15	0.0449	5	
Pit C	거 -8-2021	9:25	0.0426		
		14:25	0.0463	\$	
137 Pit C	3≀ -8-2021	9:45	0.0431		
		14:45	0.0457	7	
137 Pit B	ვ (-8-2021	9:55	٥،٥٤٦١	0.7	
	•	14:55	o .a 143x	8.6	
137 Pit A	8-2021 -8	10:05	0.0419		
ĺ		15:05	0.0488	&.>	

Name & Designation

Ting Wai Kin (Safety Officer [Renopipe])

Signature

3 -8-2021

Field Operator: Laboratory Staff:



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

Penta-Ocean - Concentric Joint Venture

Landfill Gas Monitoring - Field Measurement Recording Sheet

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

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

Sampling Location Date of Measurement Sampling to		Sampling time	Monitoring wells/ Surface Gas Emission Carbon Dioxide (%)	Depth (m)	Remark
WPR 1	3; -8-2021	10:15	G,g 434		
		15:15	0.0437	2.8	
WPR 2	31 -8-2021	10:25	P540.0		
		15:25	8)40,0	3.5	
WPR 3	31-8-2021	10:45	0.0407		
		15:45	0.0428	2.8	
Pít A	8-2021 -8-	10:55	3.0144Z		
		15:55	جا ا با ن ه	2	
Pit B	3) -8-2021	11:05	6,845	- /	
		16:05	C140.0	3,6	
		<u> </u>			

Name & Designation

Ting Wai Kin (Safety Officer [Renopipe])

<u>Date</u>

3) -8-2021

Field Operator: Laboratory Staff:



Appendix K

Complaint Log and Regulatory Compliance Proforma



Statistical Summary of Environmental Complaints

Reporting Period	Environmental Complaint Statistics						
	Frequency	Cumulative	Complaint Nature				
01 August 2021 - 31 August 2021	0	3	N/A				

Statistical Summary of Environmental Summons

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

Statistical Summary of Environmental Prosecution

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



Appendix L

Site Inspection Proforma





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

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

WEEKLY ENVIRONMENTAL INSPECTION CHECKLIST

Inspection Date: 05/08/2021 Inspected by: ET: Charle Inspection Time: 09/35 - (1/34)	ene La- 1004 WSD: Teane kin Fai 1004 WSD: Teane kin Fai
Weather	V
Condition Sunny Find Overcast Drizzle	Rain Storm Hazy
Temperature 2 C Humidity High	Moderate Low
Wind Culm Light Breeze Strong	
	N/A Yes No Photo/Remarks
0.00 General	
0.01 Is the current Environmental Permit displayed conspicuously at all vehicle site	0 bs(4)
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	Drity materials
1.01 Are dusty materials, such as excavated materials, building debris and construction	" Veneture
materials, and exposed earth surface property covered to prevent dust emission?	hove morrower
1.02 Are screenings, enclosures, water spraying or vacuum cleaning devices provided construction works for dust suppression?	to dusty party another are went to write
construction works for dust suppression:	dust en 3200
1.03 Are filmes or smoke emitting plants or construction activities shielded by a scree	
1.50 Proceedings of solutions of constitution activities sinciated by a solution	n? Mfym/smoke entholy/lant/ourstantion
*	emilony plant/og a spractive
1.04 Are wheel-washing facilities with high pressure water jets provided at all site ex	its?
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 of	dust paved
emission during vehicle movement? 1.08 Are water spraying provided immediately prior to any loading or transfer of dust	y Judy melenal wery
materials?	Refuct 10 Court
1.09 Are covers provided to all dump trucks carrying dusty materials when entering a	nd The Thirty is
leaving the site?	
1.10 Are the working areas for uprooting of trees, shrubs, or vegetation or the remova	lof
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 act site?	ivity on
1.12 Does the operation of plants on site free form dark smoke emission?	VRIMM (4Ley
,	Live de Charle
4.	
051 9 K	

Page 1 of 6





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

	Contract no. 13/WSD/16 Mainlaying in Tseung Kwan O								
		N/A	Yes	No	Photo/Remarks				
1.13	Are vehicles travelling at speed not exceeding 15km/ar within the site?								
1.14	Are stock of more than 20 bags of cement or day PFA covered or sheltered on top and 3 sides?				,				
1.15	Arc 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?								
2.00	Construction Noise (Airborne)								
2.01	Are quiet plants adopted on site?		\square		(poselaber				
2.02	Are the PMEs operating on site well-maintained to minimize the generation of excessive n.ose?				(regular Inspection				
2.03	Are plants throffled down or turned off when not in use?		\square						
2.04	Are the plants known to emit noise strongly in one direction oriented to face away from NSRs?	/			YNO VISATED				
2.05	Are moveable barriers provided to screen NSRs from plant or noisy operations?				marto NSR				
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?		7						
2.08	Are purposely-built site boarding 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?								
	Are valid noise emission label(s) affixed to all air compressors operating on site?								
2.12	Are all construction noise permit(s) applied for percussive piling work?		Z						
2.13	Are construction noise permit(s) applied for general construction works during restricted hours?								
2.14	Are valid construction noise permit(s) displayed at all vehicular exits?								
3.00	Water Quality								
3.01	is ctlluent discharge license obtained for wastewater discharge from site?		/						
3.02	Is effluent discharged according to the effluent discharge license?				065 (2)				
3.03	Is wastewater discharge from site properly treated prior to discharge?				61.(72)				

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Page 2 of 6





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

	Contract no. 13/WSD/16 Mainlaying in Tseung Kwan O							
		N/A	Yes	No	Photo/Remarks			
3.04	Are perimeter channels provided to intercept storm runoff from outside the site?				063 (3)			
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?		2 7		obstin			
3.07	Is the drainage system properly maintained?				ok ())			
3.08	Are construction works carefully programmed to minimize soil excavation works during rainy seasons?							
3.09	Are exposed soil surface protected by paving as soon as possible to reduce the potential of soil erosion?	-	/					
3 10	Are temporary access roads protected by crushed gravel?							
3.11	Are exposed slope surfuce properly protected?							
3.12	Is trench excavation avoided in the wet season as far as practicable, or if necessary, backfilled in short sections after excavation?							
3.13	Are open stockpiles of construction materials on site covered by tarpaulin or similar fabric during construction?							
3.14	Is runo.? from wheel-washing facilities avoided?		Ļ		PRINCES AND ADDRESS OF THE PRINCES O			
3.15	Is oil leakage or spillage prevented?		/		(diptry nen	holer (1)		
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?				ven inder(3)			
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	Are tanks, containers, storage area bunded and the locations locked as far as possible from the sensitive watercourse and stormwater drains?					2		
3.21	Are sufficient chemical toilets provided on site to handle sewage from construction work force?		1					
3.22	Are sewage disposal and toilet maintenance of the portable cliemical toilets provided by the licensed contractors?				· constant de la cons			
	Is concrete washing water properly collected and treated prior to discharge?							
4.01	Waste Management Is a trip-ticket system implemented to monitor the disposal of C&D and solid wastes at public filling facilities and landfills?							

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Page 3 of 6

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

-	Contract no. 13/WSD/16 Mainlaying in Ts	eung Kwa	in O		
		N/A	Yes	No	Photo/Remarks
4.02	is a recording system implemented to record the amount of wastes generated, recycled and disposed of?				
4.03	Is the Contractor registered as a chemical waste producer?				
4.04	Are chemical waste separated from other waste and collected by a licensed chemical waste collector?	\square			
4 05	Are trip tickets for chemical waste disposal available for inspection?				
4.06	Is chemical waste reused and recycled on site as far as practicable?	/			
4.07	Are all containers for chemical waste properly labelled?				
4.08	Is chemical waste storage area used solely for storage of chemical waste and properly labelled?		1		
4.09	Are incompatible chemical wastes stored in different areas?				
4.10	is the chemical waste storage area enclosed or at least 3 sides and adequately ventilated?		7		
4.11	is an impermeable floor and bunding, of capacity to accommodate 110% of the volume of the largest container or of 20% by volume of the chemical waste stored in that area, whichever is the greatest, provide?		1		
4.12	Are a routine cleaning and maintenance programme implemented for drainage systems, sump pits, and oil interceptors?				remider (1)(3
4.13	Are sufficient general refuse disposal/collection points provided on site?		\Box		
4.14	is general refuse disposed of properly and regularly?		\Box		
4.15	Are appropriate measures adopted to minimize windblown litter and dust during transportation of waste?		\square		
4.16	Are individual collectors for aluminum cans, plastic bottles and packaging material and office paper provided to encourage waste segregation?		/		
4.17	Arc C&D wastes sorted on site?				
4.18	Are C&D waste disposed of property!		Q		
4.19	Are unused C&D materials or chemicals recycled or reused to reduce the quantity of waste?		Ĺ		
4.20	Are public fill and C&D waste reuse on site as far as practicable to avoid disposal off-site?				
4.21	Are the construction materials stored properly to minimize the potential for damage or contamination?		/		
4.22	Is a dumping I cense obtained to deliver public fill to public filling areas?		Z		

05/08

Page 4 of 6





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

	Contract no. 13/WSD/16 Mainlaying in Ts	N/A	Yes	No	Photo/Remarks
= 00					7000
	Landscape and Visual				
5.01	Are Is sile hoarding provided?				
5.02	Are vegetation disturbance minimized or soil protected to reduce potential soil crosion?		\Box		
5.03	is construction light oriented away from the sensitive receivers?				
5.04	ls grass hydroseeding provided to slopes us soon as the completion of works?	1			
5.05	Are damages to trees outside site boundary due construction works avoided?		Z		
5.06	Is excavation works carried out manually instead of machinery operation within 2.5m vicinity of any preserved trees?	1			
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?	\Box			
6.00	Ecology				
	ls site tunoff properly treated to prevent any silly runoff?				obsin
	Are silt trap installed and well-maintained?				# obs (1)
6.03	Are stockpiles properly covered to avoid generating silty runoff?	J. A.			
	Are construction works restricted to works area which are clearly defined?		1		-
7.00	Overall				
7.01	Is the EM&A properly implemented in general?				



Page 5 of 6





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

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

Remark / Follow up of Observation(s) and Non-compliance(s) of Last Weekly Site Inspection: observaction (1) (1) Growing was not protested by sandbogs in the temportry WTR1, WPR4
(2) The Meir Confinetion was reminded that all wasternatur should be properly freeten before discharge to drawing systems at WTR1, 2 Portion F (3) construction boundary may not protected by sandray energy was WPRZ (4) Ehrisonnerta, fermy was not observed at wiky. WPR4 (1) Regular attening of drip tray should be conducted at fortion F. (3) unitinction meterials shall are be placed on the planter rack at worl (3) Houselept has reminded at note 4 Signatures: Contractor's WSD's IEC's Representative MA (Name: Charlene LON (Name: Som As (Name: MA

05/08

Page 6 of 6





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

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

WEEKLY ENVIRONMENTAL INSPECTION CHECKLIST

	WEEKLY ENVIRONMENTAL INSPECTIO	N CHECK	LIST			
	on Date: 13 08/2021 Inaperted by: ET OUNTEROLD Contractor: SUMMY	WSD:	C.k.U	norf	-	
Weath	75.70				1000	
Condit	ion Sunny Fine Overcasi Drizzle Rain	Ste	orni	Hazy		
Тетре	rature 29 C Humidity Ligh Modern	te .o	w			
Wind	Calm Light Breeze Strong					
		N/A	Yes	No	Photo/Remarks	
0.00	General					
0.01	Is the current Environmental Permit displayed conspicuously at all vehicle site entrances/exits for public's information at any time?					
0.02	Is ET Leader's log-book kept readily available for inspections?		7			
1.00	Construction Dust		11		metrala	
1.01	Are dusty materials, such as excavated materials, building debris and construction materials, and exposed earth surface properly covered to prevent dust emission?	20KM/5			Compartion, Compartion with purverised free	
1.02	Are screenings, enclosures, water spraying or vacuum cleaning devices provided to dusty				screening.	
	construction works for dust suppression?				Screening.	
1.03	Are fumes or smoke emitting plants or construction activities shielded by a screen?				No fume /similar	
					Constitution	
1.04	Are wheel-washing facilities with high-pressure water jets provided at all site exits?					
1.05	Is wheel-washing provided to all vehicles leaving the site?	7				
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					
	emission during vehicle movement?			Ш	paved.	
1.08	Are water spraying provided immediately prior to any loading or transfer of dusty materials?				were tept wet	to
1.09	Are covers provided to all dump trucks carrying dusty materials when entering and				uny dut ensi	3-1
	leaving the site?				Nochmotruki	
1.10	Are the working areas for uprooting of trees, shrubs, or vegetation or the removal of				OSENVEN.	
	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?		Z		(NRMM) luber	
	3/08					

Page 1 of 6





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

	Contract no. 13/WSD/16 Mainlaying in Tseung Kwan O						
		N/A	Yes	No	Photo/Remarks		
1.13	Are vehicles travelling at speed not exceeding 15km/hr within the site?	/			· ·		
1.14	Are stock of more than 20 bags of cemen, or day PFA covered or sheltered on top and 3 sides?						
1.15	Are de-bagging, batching and mixing processes of bagged cement carried ou: in sheltered areas?						
1.16	Are hoarding of at leas: 2.4m high provided along the site boundary adjoining areas accessible by the public?		П	$\overline{\Box}$			
1.17	Is open burning prohibited?						
2.00	Construction Noise (Airborne)						
2.01	Are quiet plants adopted on site?		1		/ame later		
2.02	Are the PMEs operating on site well-maintained to minimize the generation of excessive niose?		7		Kelvlav		
2.03	Are plants throuled down or turned off when not in use?		7		1. [10/(6.)		
2.04	Are the plants known to emit noise strongly in one direction oriented to face away from NSRs?				1 port to		
2.05	Arc moveable barriers provided to screen NSRs from plant or noisy operations?				Gerto nie.		
2.06	Are silencers, mufflers and enclosures provided to plants?						
2.07	Are the hoods, cover panels and inspection hatches of PMEs closed during operation?						
2.08	Are purposely-built site hoarding construction with appropriate materials provided along the site boundary?						
2.09	Are noisy operation properly scheduled to minimize exposure and cumulative impacts to						
2.10	nearby sensitive receivers?	Ш		Ш			
	Are valid noise emission label(s) affixed to all hand-held breakers operating on site?						
2.11	Are valid noise emission label(s) affixed to all air compressors operating on site?						
2.12	Are all construction noise permit(s) applied for percussive piling work?						
2.13	Are construction noise permit(s) applied for general construction works during restricted hours?		Z				
2.14	Are valid construction noise permit(s) displayed at all vehicular exits?	П		П			
3.00	Water Quality						
3.01	Is effluent discharge license obtained for wastewater discharge from site?						
3.02	Is effluent discharged according to the effluent discharge license?				065(4)		
3.03	ls wastewater discharge from sile properly treated prior to discharge?		П	П	Obelan		

13/08

Page 2 of 6





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

	Contract no. 13/WSD/16 Mainlaying in Ts	N/A	Yes	No	Photo/Remarks
		N/A	res	.80	rnoto/Remarks
3.C4	Are perimeter channels provided to intercept storm rarsoff from outside the site?				Ohs (1)
3.C5	Are sand/s1t removal facilities such as sand/silt traps and sediment basins provided to canove sand/silt particles from runoff?				
3.06	ls surface runoff diverted to sedimentation facilities?				Obs LUD
3.07	Is the drainage system properly maintained?				Oh (1)
3.08	Are construction works carefully programmed to minimize soil excavation works during rainy seasons?				
3.09	Are exposed soil surface protected by paving as soon as possible to reduce the potential of soil crosion?		7		
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, back/filled in short sections after excevation?				
3.13	Are open stockpiles of construction materials on site covered by tarpaulin or similar fabric during construction?		\square		
3.14	Is runoff from wheel-washing facilities avoided?				
3.15	ls 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 he sited on sealed areas, within bunds of capacity equal to 110% of the storage capacity of the largest tank?				
3.20	Are tanks, containers, storage area bunded and the locations locked as far as possible from the sensitive watercourse and stormwater drains?		Z		
3.21	Are sufficient chemical toilets provided on site to handle sewage from construction work force?		\square		
3.22	Are sewage disposal and toilet maintenance of the portable chemical toilets provided by the licensed contractors?		/		
	is concrete washing water properly collected and treated prior to discharge?				N
	Waste Management Is a trip ticket system implemented to monitor the disposal of C&D and solid wastes at public filling facilities and landfills?			П	

(3108

Page 3 of 6





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

	Contract no. 13/WSD/16 Mainlaying in Ts	eung Kwa	an O		
		N/A	Yes	No	Photo/Remarks
4.02	is a recording system implemented to record the amount of wastes generated, recycled and disposed of?				
4.03	Is the Contractor registered as a chemical waste producer?				
4.04	Are chemical waste separated from other waste and collected by a licensed chemical waste collecter?				
4.05	Are trip tickets for chemical waste disposal available for inspection?				
4.06	is chemical was:e reused and recycled on site as far as practicable?				
4.07	Are all containers for chemical waste properly labelled?				
4.08	Is chemical waste storage area used solely for storage of chemical waste and properly labelled?				
4.09	Are incompatible chemical wastes stored in different areas?				
4.10	is the chemical waste storage area enclosed on at least 3 sides and adequately ventilated?				
4.11	is an impermeable floor and bunding, of capacity to accommodate 110% of the volume of the largest container or of 20% by volume of the chemical waste stored in that area, whichever is the greatest, provide?				
4.12	Are a routine cleaning and maintenance programme implemented for dramage systems, sump pits, and oil interceptors?				
4.13	Are sufficient general refuse disposal/collection points provided on site?				
4.14	is general refuse disposed of properly and regularly?				
4.15	Are appropriate measures adopted to minimize windblown litter and dust during transportation of waste?				
	Are individual collectors for aluminum cans, plustic bottles and packaging material and office paper provided to encourage waste segregation?				
	Are C&D wastes sorted on site?				
4.18	Are C&D waste disposed of property?				
4.19	Are unused C&D materials or chemicals recycled or reused to reduce the quantity of waste?		MI		
	Are public fill and C&D waste reuse on site as far as practicable to avoid disposal off-site?				
	Are the construction materials stored properly to minimize the potential for damage or contamination?				obs (2)
4.22	ls a dumping license obtained to deliver public fill to public filling areas?				

13/08

Page 4 of 6





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

	Contract no. 13/WSD/16 Mainlaying in Ts	seung Kwa	ın O		
		N/A	Yes	No	Photo/Remarks
5.00	Landscape and Visual				
5.01	Are Is site hoarding provided?				
5.02	Are vegetation disturbance minimized or soil protected to reduce potential soil erosion?				
5.03	is construction light oriented away from the sensitive receivers?				
5.04	is grass hydroseeding provided to slopes as soon as the completion of works?				
5.05	Are damages to trees outside site boundary due construction works avoided?		1		
5.06	is excavation works carried out manually instead of machinery operation within 2.5m vicinity of any preserved trees?				-
5.07	Are the retained and transplanted tree(s) properly protected and in good conditions?				
5.08	Are surgery works carried out for damaged trees?	2			
6.00	Ecology				
6.01	Is site tuno∏ properly treated to prevent any silly runo∏?				obs (4)
6.02	Are silt trap inscalled and well-maintained?				
6.03	Are stockpiles properly covered to avoid generating silty runoff?				065 (2)
	Are construction works restricted to works area which are clearly defined?		7		
7.00	Overall				
7.01	Is the EM&A properly implemented in general?				

13/08

Page 5 of 6





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

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

Remark / Follow up of Observation(s) and Non-compliance(s) of Last Weekly Site Inspection: WK1 observations A (1) Construction bundley was not protected by sandleys. It notes PHX (1) purpy queenens were found directly nixt to the water barres cut with 1. These materials shall be prepared to prevent the customication cange except of the melande to the open outside boundary. Larry (1) only was not potential by geotestale & sandbeys at with The man Contractor was reminded that all wasternator should be trested before discharge at with. Signatures: Contractor's IEC's Representative Representative (Name: (Name: Kainy (Name:

Page 6 of 6



Acuity Sustainability

Acuity Sustainability Consulting Limited

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

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

WEEKLY ENVIRONMENTAL INSPECTION CHECKLIST

	WEEKLT ENVIRONMENTAL INSPECTION	
	on Date: 2.0 08 2224 Inspected by: ET CHANGE LA On Time: 94:30 - 12:00	WSD AN WAI TAL
Veather Conditi Conditi	on Sunny Fine Deeross Diszle Rain	Soom Hazy
-		N/A Yes No Photo/Remarks
	General Is the current Environmental Permit displayed conspicuously at all vehicle site	
.02	entrances/exits for public's information at any time? Is 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?	
.02	Are screenings, enclosures, water spraying or vacuum cleaning devices provided to dusty construction works for dust suppression?	Surpenings, enclosures
1.03	Are fumes or smoke emitting plants or construction activities shielded by a screen?	
1.04	Are wheel-washing facilities with high-pressure water jets provided at all site exits?	
1.05	is wheel-washing provided to all vehicles leaving the site?	
1.06	Are road section near the site exit free from dusty material?	
1.07	Are all main haul roads inside the site paved or sprayed with water to minimize dust emission during vehicle movement?	D panel
	Are water spraying provided immediately prior to any loading or transfer of dusty materials?	Distributed on the control of the co
	Are covers provided to all dump trucks carrying dusty materials when entering and leaving the site?	observation is
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?	ARMUlaty

20/08

Page 1 of 6





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

	Contract no. 13/WSD/16 Mainlaying in Ts		in U	×1-	DE
		N/A	Yes	No	Photo/Remarks
1.13	Are vehicles travelling at speed not exceeding 15km/hr within the site?				
1.14	Are stock of more than 20 bags of cement or day PFA covered or sheltered on top and 3 sides?				
1.15	Are the bagging, batching and mixing processes of bagged cement earried out in sheltered areas?				-
1.16	Are hearding of at least 2.4m high provided along the site boundary adjoining areas accessible by the public?	1			
1.17	is open burning prohibited?				
2.00	Construction Noise (Airborne)				
2.01	Are quiet plants adopted on site?				conut labor
2.02	Are the PMEs operating on site well-maintained to minimize the generation of excessive mose?		7		regular
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?	/	-1		2 Nouritto
2.05	Are moveable harriers provided to screen NSRs from plant or noisy operations?) near-to worl
2.06	Are silencers, multlers and enclosures provided to plants?				
2.07	Are the hoods, cover panels and inspection hatches of PMEs closed during operation?		1		
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 hearby sensitive receivers?				4
2.10	Are valid noise emission label(s) affixed to all hand-held breakers operating on site?				
2.11	Are valid noise emission label(s) affixed to all air compressors operating on site?				
2.12	Are all construction noise permit(s) applied for percussive piling work?				
2 13	Are construction noise permit(s) applied for general construction works during restricted hours?				
2.14	Are valid construction noise permit(s) displayed at all vehicular exits?				
3.00	Water Quality				
3.01	is effluent discharge license obtained for wastewater discharge from site?		1		
3.02	is effluent discharged according to the effluent discharge license?		/		
3.03	is wastewater discharge from site properly treated prior to discharge?				

20108

Page 2 of 6





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

	Contract no. 13/WSD/16 Mainlaying in Ts	eung Kwa	n O		
		N/A	Yes	No	Photo/Remarks
3 04	Are perimeter channels provided to intercept storm runoff from outside the site?		1		
3.05	Are sand/silt removal facilities such as sand/silt traps and sediment busins provided to remove sand/silt particles from runoff?		/		
3.06	is surface runoff diverted to sedimentation facilities?				
3.07	is the drainage system properly maintained?				
3.08	Are construction works carefully programmed to minimize soil excavation works during	一		$\overline{\Box}$	
3.09	rainy seasons? Are expused soil surface protected by paving as soon as possible to reduce the potential of			一	~~~
3.10	soil crosion? Are temporary access roads protected by crushed gravel?			一	
3.11	Are exposed slope surface properly protected?		П		
3.12	Is trench excavation avoided in the wet season as far as practicable, or if necessary,				
3.13	backfilled in short sections after excavation? Are open stockpiles of construction materials on site covered by tarpaulin or similar fabric.				
3.14	furing construction? Is runoff from wheel-washing facilities avoided?		Ħ		
3.15	Is oil leakage or spillage prevented?			一	olally
3.16	Are there any measures to prevent the release of oil and grease into the storm drainage			$\overline{\Box}$	013(1)
3.17	system? Are the oil interceptors/ grease traps properly maintained?			H	
3.18	Are debris and rubbish generated on site collected, handled and disposed of properly to				reminderers
3.19	avoid them entering the streams? Are all fuel tanks and storage areas provided with locks and be sited on scaled areas, within bunds of capacity equal to 110% of the storage capacity of the largest tank?				
3.20	Are tanks, containers, storage area bunded and the locations locked as far as possible from the sensitive watercourse and stormwater drains?				
3.21	Are sufficient chemical toilets provided on site to handle sewage from construction work torce?				
3.22	Are sewage disposal and toilet maintenance of the portable chemical toilets provided by the licensed contractors ⁹				
3.23	Is concrete washing water properly collected and treated prior to discharge?				
4.00 4.01	Waste Management Is a trip-ticket system implemented to monitor the disposal of C&D and solid wastes at public filling facilities and landfills?				

20/08

Page 3 of 6





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

	Contract no. 13/WSD/16 Mainlaying in Ts	eung Kwa	n O		
		N/A	Yes	No	Photo/Remarks
4.02	is a recording system implemented to record the amount of wastes generated, recycled and disposed of?				
4.03	is the Contractor registered as a chemical waste producer?				
4.04	Are chemical waste separated from other waste and collected by a licensed chemical waste collector?	7			
4.05	Are trip tickets for chemical waste disposal available for inspection?	7			
4.05	is chemical waste reused and recycled on site us far as practicable?	1			
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?		Z		
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?		Z		
4.11	is an imperimeable floor and bunding, of capacity to accommodate 110% of the volume of the largest container or of 20% by volume of the chemical waste stored in that area, whichever is the greatest, provide?				
4.12	Are a routine cleaning and maintenance programme implemented for drainage systems, sump- pits, and oil interceptors?		Z		
4.13	Are sufficient general refuse disposal/collection points provided on site?		/		
4.14	is general refuse disposed of properly and regularly?	Ļ	\square		reminderen
4.15	Are appropriate measures adopted to minimize windblown litter and dust during transportation of waste?		\square		
4.16	Are individual collectors for aluminum cans, plastic bottles and packaging material and office paper provided to encourage waste segregation?		Z		
4.17	Are C&D wastes sorted on site?		Z		
4.18	Are C&D waste disposed of properly?				-
4.19	Are unused C&D materials or chemicals recycled or reused to reduce the quantity of waste?				·
4.20	Are public fill and C&D waste reuse on site as far as practicable to avoid disposal off-site?				
4.21	Are the construction materials stored properly to minimize the potential for damage or contamination?				
4.22	is a dumping license obtained to deliver public fill to public filling areas?				

20/08

Page 4 of 6





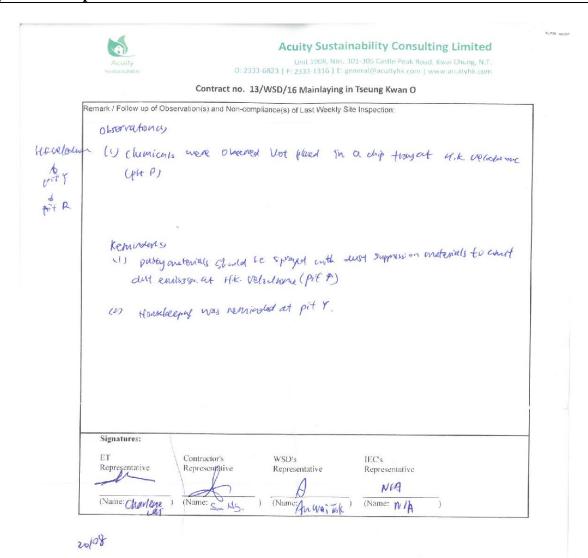
Unit 1908, Nos. 301 305 Castle Peak Road, Kwai Chung, N.T. O: 2333-6823 | F: 2333-1316 | E: general@acuityhk.com | www.acuityhk.com

	Contract no. 13/WSD/16 Mainlaying in Ts	eung Kwa	an O		
		N/A	Yes	No	Photo/Remarks
5.00	Landscape and Visual				
5.01	Are Is site hoarding provided?				
5.02	Are vegetation disturbance minimized or soil protected to reduce potential soil erosion?		7		
5.03	is construction light oriented away from the sensitive receivers?	7			
5.04	is grass hydroseeding provided to slopes as soon as the completion of works?	/			
5.05	Are damages to trees outside site boundary due construction works avoided?		/		
5.06	is excavation works carried out manually instead of machinery operation within 2.5m vicinity of my preserved trees?				
5.07	Are the retained and transplanted tree(s) properly protected and in good conditions?				1
5.08	Are surgery works carried out for damaged trees?				
6.00	Ecology				*
6.01	Is site nineff properly treated to prevent any silly runoff?				
6.02	Are silt trap installed and well-maintained?	Z			
3.03	Are stockpiles properly covered to avoid generating silty runoff?				(Management of the Control of the Co
6.04	Are construction works restricted to works area which are clearly defined?				
7.00	Overall				
7.01	s the EM&A properly implemented in general?				

20/08

Page 5 of 6





Page 6 of 6





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

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

WEEKLY ENVIRONMENTAL INSPECTION CHECKLIST

Inspecti	on Date: 27/18/2011 Inspected by: ET: Awherita On Time: 09:20-12/00 Contractor: Sanny	WSD.	Alex L	vah Evan	
Weath			_		
Conditi	on Sumy Fine Overcast Drizzle Rain	Str	orm	Hazy	
Тетре	rature 27 C Humildity Litigh Moderat	te Lo	w		
Wind	Cadru Light Breeze Strong				

		N/A	Yes	No	Photo/Remarks
0.00	General				
	Is the current Environmental Permit displayed conspicuously at all vehicle site entrances/exits for public's information at any time?		Y	Ш	
0.02	Is ET Leader's log-book kept readily available for inspections?			$\overline{\Box}$	
				Ш	
1.00	Construction Dust				pully materials
1.01	Are dusty materials, such as excavated materials, building debris and construction				were test must to
	materials, and exposed earth surface properly covered to prevent dust emission?	ا ا			TOTAL BOX (1 CANAL STATE)
1.02	Are screenings, enclosures, water spraying or vacuum cleaning devices provided to dusty	,	-		No WIFT
	construction works for dust suppression?				observed
					6 Denes
1.03	Are fumes or smoke emitting plants or construction activities shielded by a screen?			Philippotics county archae	No funci smoke
					constitut plant
					BOXNED DIVINI
1.04	Are wheel-washing facilities with high-pressure water jets provided at all site exits?		$\overline{}$		
					MATERIA DE LA CONTRACTION DEL CONTRACTION DE LA CONTRACTION DE LA CONTRACTION DE LA CONTRACTION DE LA CONTRACTION DE LA CONTRACTION DE LA CONTRACTION DE LA CONTRACTION DE LA CONTRACTION DE LA CONTRACTION DE LA CONTRACTION DE LA CONTRACTION DE LA CONTRACTION DE LA CONTRACTION DE LA CONTRACTION DE LA CONTRACTION DE LA CONTRACTION DE LA CONTRACTION DE LA
1.05	Is wheel-washing provided to all vehicles leaving the site?		\Box	П	
				<u> </u>	
1.06	Are road section near the site exit free from dusty material?		7		
1.07	Are all main haul roads inside the site paved or sprayed with water to minimize dust		\equiv		1 Å
	emission during vehicle movement?				p and of
1.08	Are water spraying provided immediately prior to any loading or transfer of dusty				autymetering
	materials?				were supt wet to
1.09	Are covers provided to all dump trucks carrying dusty materials when entering and				My down truly
	leaving the site?		Ш		o 65-unleal
1.10	Are the working areas for uprooting of trees, shrubs, or vegetation or the removal of		$\overline{}$		
i	boulders, poles, pillars sprayed with water to maintain the entire surface wet?		Ш	Ш	-
1.11	Is exposed earth properly treated within six months after the last construction activity on				
	site?				
1.12	Does the operation of plants on site free form dark smoke emission?				NRMM (ater
		╽┕┙	4		1/
L		L	************		

1718

Page 1 of 6





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	Contract no. 13/WSD/16 Mainlaying in Ts	eung Kwa	n O		
	·	N/A	Yes	No	Photo/Remarks
1.13	Are vehicles travelling at speed not exceeding 15km/hr within the site?				
1.14	Are stock of more than 20 bags of cement or day PFA covered or sheltered on top and 3 sides?				6
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?				
2.00	Construction Noise (Airborne)				
2.01	Are quiet plants adopted on site?		1		[wixelabel
2.02	Are the PMEs operating on site well-maintained to minimize the generation of excessive niose?		/		/ regular
2.03	Are plants throttled down or turned off when not in use?				
2.04	Are the plants known to emit noise strongly in one direction oriented to face away from NSRs?				2 no visit to
2.05	Are moveable barriers provided to screen NSRs from plant or noisy operations?				Just y
2.06	Are silencers, mufflers and enclosures provided to plants?				
2.07	Are the hoods, cover panels and inspection hatches of PMEs closed during operation?		/		
2.08	Are purposely-built site hoarding construction with appropriate materials provided along the site boundary?				
2.09	Are noisy operation properly scheduled to minimize exposure and cumulative impacts to nearby sensitive receivers?				A second
2.10	Are valid noise emission label(s) affixed to all hand-held breakers operating on site?				
2.11	Are valid noise emission label(s) affixed to all air compressors operating on site?				
2.12	Are all construction noise permit(s) applied for percussive piling work?		\square		
2.13	Are construction noise permit(s) applied for general construction works during restricted hours?				
2.14	Are valid construction noise permit(s) displayed at all vehicular exits?				
3.00	Water Quality				
3.01	is effluent discharge license obtained for wastewater discharge from site?				
3.02	Is effluent discharged according to the effluent discharge license?				1 Newster
3.03	Is wastewater discharge from site properly treated prior to discharge?)

8 MS

Page 2 of 6





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Contract no. 13/WSD/16 Mainlaying in Tseung Kwan O Photo/Remarks 3.04 Are perimeter channels provided to intercept storm runoff from outside the site? 3.05 Are sand/silt removal facilities such as sand/silt traps and sediment basins provided to remove sand/silt particles from runoff? 3.06 Is surface runoff diverted to sedimentation facilities? inschape Is the drainage system properly maintained? 3.08 Are construction works carefully programmed to minimize soil excavation works during rainy seasons? 3.09 Are exposed soil surface protected by paving as soon as possible to reduce the potential of 3.10 Are temporary access roads protected by crushed gravel? Your is porte 3.11 Are exposed slope surface properly protected? Is trench excavation avoided in the wet season as far as practicable, or if necessary, backfilled in short sections after excavation? 3.13 Are open stockpiles of construction materials on site covered by tarpaulin or similar fabric denymen Co during construction? 3.14 Is runoff from wheel-washing facilities avoided? 3.15 Is oil leakage or spillage prevented? reminder 18 3.16 Are there any measures to prevent the release of oil and grease into the storm drainage verwider (10) 3.17 Are the oil interceptors/ grease traps properly maintained? 3.18 Are debris and rubbish generated on site collected, handled and disposed of properly to avoid them entering the streams? 3.19 Are all fuel tanks and storage areas provided with locks and be sited on sealed areas, within bunds of capacity equal to 110% of the storage capacity of the largest tank? 3.20 Are tanks, containers, storage area bunded and the locations locked as far as possible from the sensitive watercourse and stormwater drains? 3.21 Are sufficient chemical toilets provided on site to handle sewage from construction work 3.22 Are sewage disposal and toilet maintenance of the portable chemical toilets provided by 3.23 Is concrete washing water properly collected and treated prior to discharge? 4.00 Waste Management is a trip-ticket system implemented to monitor the disposal of C&D and solid wastes at publi filling facilities and landfills?

2718

Page 3 of 6





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	Contract no. 13/WSD/16 Mainlaying in Ts	eung Kwa	an O		
		N/A	Yes	No	Photo/Remarks
4.02	Is a recording system implemented to record the amount of wastes generated, recycled and disposed of?				
	is the Contractor registered as a chemical waste producer?				
4.04	Are chemical waste separated from other waste and collected by a licensed chemical waste collector?				
4.05	Are trip tickets for chemical waste disposal available for inspection?	/			
4.06	Is chemical waste reused and recycled on site as far as practicable?	\square			
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?				
=	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 argest 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	Arc sufficient general refuse disposal/collection points provided on site?		\angle		
4.14	Is general refuse disposed of properly and regularly?				nominally (3)
4.15	Are appropriate measures adopted to minimize windblown litter and dust during transportation of waste?				
	Are individual collectors for aluminum cans, plastic bottles and packaging material and office paper provided to encourage waste segregation?				
	Arc C&D wastes sorted on site?				
4.18	Are C&D waste disposed of properly?		/		
	Are unused C&D materials or chemicals recycled or reused to reduce the quantity of waste?				
	Are public fill and C&D waste reuse on site as far as practicable to avoid disposal off-site?		/		
	Are the construction materials stored properly to minimize the potential for damage or contamination?				remindentes
4.22	is a dumping license obtained to deliver public fill to public filling areas?		\nearrow		

2718

Page 4 of 6





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	Contract no. 13/WSD/16 Mainlaying in Ts	seung Kwa	n O		
		N/A	Yes	No	Photo/Remarks
5.00	Landscape and Visual				
5.01	Are Is site hearding provided?				
5.02	Are vegetation disturbance minimized or soil protected to reduce potential soil crosion?		1		Newmore C 3
5.03	Is construction light oriented away from the sensitive receivers?	/			***************************************
5.04	Is grass hydroseeding provided to slopes as soon as the completion of works?				
5.05	Are damages to trees outside site boundary due construction works avoided?		1		
5.06	is executation works carried out manually instead of machinery operation within 2.5m vicinity of any preserved trees?				Management
5.07	Are the retained and transplanted tree(s) properly protected and in good conditions?		Z		
5.08	Are surgery works carried out for damaged trees?				
6.00	Ecology				
	is site runoff properly treated to prevent any silly runoff?				Mischarge
	Are silt trap installed and well-maintained?				****
6.03	Are stockpiles properly covered to avoid generating silty runoff?				
6.04	Are construction works restricted to works area which are clearly defined?		<u></u>		
7.00	Overall				
7.01	is the EM&A properly implemented in general?		\angle		

2718

Page 5 of 6





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

Remark / Follow up of Observation(s) and Non-compliance(s) of Last Weekly Site Inspection: Remindercy PHD (1) Chemicals should be Stored in adult tray to priment oil leakage at Pit D (1) The Main confidence was remoded to consider machinery storage in the 7 A construction site (digger). (pif D) Housebeer was reminded and the hair contractor was reminded voil to place materials on natural stopes (ryclation covered areas (Pil.D) ration to inditi tige troa A observation(D (1) his major observations were reported on the reporting day Signatures: Contractor's WSD's IEC's Representative Representative Representative (Name: Chalen) (Name: 5 . 1/2) (Name: B/CLS), WSD.

2718

Page 6 of 6



Appendix M

Proactive Environmental Protection Proforma



Proactive Environmental Protection for the Next Reporting Month

Reporting Period	Activity	Major Environmental Impact	Environmental Mitigation Measure
1 September 2021 - 30 September 2021	 Excavation of trench Mainlaying of pipe Backfilling of the trench Work fronts for open trench Work fronts for pipe jacking 	Construction dust and noise generation; construction wastes; impact of water quality	 Dust suppression by regular wetting and water spraying Reduction of noise from equipment and machinery on- site Sorting and storage of general refuse and construction waste Treatment of water with water treatment facilities before discharge



Appendix N

Impact Monitoring Schedule of Next Reporting Month (Tentative)



			Sep-21			
		I -	3ep-21	l	le s	le -
340	Mon	Tue	Wed 1	Noise Impact Monitoring	Fri 3	5at 4
	6	7	S		Noise Impact Monitoring	11
12	13	14	15	Noise Impact Monitoring	17	18
		21	2	Noise Impact Monitoring	24	25
26	27	28	29	Noise Impact Monitoring		

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



Appendix O

Academic Calendar(s)



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

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