



South East New Territories (SENT) Landfill Extension

Monthly Environmental Monitoring & Audit Report No.25 for January 2021

February 2021

ERM

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South East New Territories (SENT) Landfill Extension

Environmental Certification Sheet EP-308/2008/B and FEP-01/308/2008/B

Reference Document/Plan

Monthly Environmental Monitoring & Audit Report No.25

Document/Plan to be Certified/Verified: for January 2021 for South East New Territories (SENT)

Landfill Extension

Date of Report: 4 February 2021

Reference EP Condition

EP Condition: Condition No. 3.4

Four hard copies and one electronic copy of monthly EM&A Report shall be submitted to the Director within 10 working days after the end of the reporting month. The EM&A Reports shall include a summary of all non-compliance (exceedances) of the environmental quality performance limits (Action and Limit Levels). The submissions shall be verified by the IEC. Additional copies of the submission shall be provided to the Director upon request by the Director.

ET Certification

I hereby certify that the above referenced document/plan complies with the above referenced condition of EP-308/2008/B and FEP-01/308/2008/B.

Warder T.

Frank Wan,

Environmental Team Leader:

(ERM Hong-Kong, Limited)

4 February 2021 Date:

IEC Verification

I hereby verify that the above referenced document/plan complies with the above referenced condition of EP-308/2008/B and FEP-01/308/2008/B.

W.K. Chiu,

Independent Environmental Checker:

(Meinhardt Infrastructure and

Environment Limited)

Date: A (2 2021

South East New Territories (SENT) Landfill Extension

Monthly Environmental Monitoring & Audit Report for January 2021

Environmental Resources Management

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Client:		Project No:				
Green Valley Landfill Ltd.			0465169			
Summary:			oruary 20 ved by:)21		
This document presents the Monthly EM&A Report No.25 for January 2021 for <i>South East New Territories (SENT) Landfill</i>		Approved by: Warch T.				
		Frank Wan Partner				
0	Monthly EM&A Report No.25 (for January 2021)	AL	FW	FW	4 Feb 21	
Revision	Description	Ву	Checked	Approved	Date	
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EXECUTIVE SUMMARY

The SENT Landfill Extension (SENTX) forms an integral part in the Strategic Plan in maintaining the continuity of landfill capacity in the Hong Kong for the cost-effective and environmentally satisfactory disposal of waste. ERM-Hong Kong, Limited (ERM) is commissioned to undertake the role of Environmental Team (ET) for the construction, operation/restoration and aftercare of SENTX Project ("the Project") in accordance with the requirements specified in the Environmental Permit (EP), updated Environmental Monitoring and Audit (EM&A) Manual, the approved Environmental Impact Assessment (EIA) Report of the Project taking account of the latest design and other relevant statutory requirements. The construction (not including works related to site clearance and preparation) of the Project commenced on 2 January 2019.

This Monthly EM&A report presents the EM&A works carried out during the period from 1 to 31 January 2021 for the Project in accordance with the updated EM&A Manual.

Exceedance of Action and Limit Levels for Air Quality

No exceedance of Action and Limit Levels for construction air quality monitoring was recorded in the reporting period.

Exceedance of Action and Limit Levels for Noise

No exceedance of Action and Limit Levels for construction noise monitoring was recorded in the reporting period.

Exceedance of Action and Limit Levels for Surface Water Quality

Sampling could not be carried out for all the scheduled impact surface water quality monitoring events during the reporting period due to insufficient flow.

Environmental Complaints, Summons and Prosecutions

There were no complaints, notification of summons or prosecution recorded in the reporting period.

Reporting Change

There was no reporting change in the reporting period.

Future Key Issues

Potential environmental impacts arising from the upcoming construction activities in the next reporting period of February 2021 are mainly associated with dust emission from the exposed area and loading and unloading operation of dusty materials.

1 INTRODUCTION

1.1 BACKGROUND

The SENT Landfill Extension (SENTX) forms an integral part in the Strategic Plan in maintaining the continuity of landfill capacity in the Hong Kong for the cost-effective and environmentally satisfactory disposal of waste. The *Environmental Impact Assessment (EIA) Report* and the associated *Environmental Monitoring and Audit (EM&A) Manual* for the construction, operation, restoration and aftercare of the SENTX (hereafter referred to as "the Project") have been approved under the *Environmental Impact Assessment Ordinance (EIAO)* in May 2008 (Register No.: AEIAR-117/2008) (hereafter referred to as the approved EIA Report) and an Environmental Permit (EP-308/2008) (EP) was granted by the Director of Environmental Protection (DEP) on 5 August 2008.

Since then, applications for Variation of an Environmental Permit (No. VEP-531/2017) were submitted to EPD and the Variation of Environmental Permits (EP-308/2008/A and EP-308/2008/B) were granted on 6 January 2012 and 20 January 2017, respectively, as the Hong Kong SAR Government has decided to reduce the scale of the design scheme of SENTX assessed in the approved EIA Report and SENTX will only receive construction waste. In May 2018, a Further Environmental Permit (FEP) (FEP-01/308/2008/B) was granted to the SENTX's contractor, Green Valley Landfill, Limited (GVL).

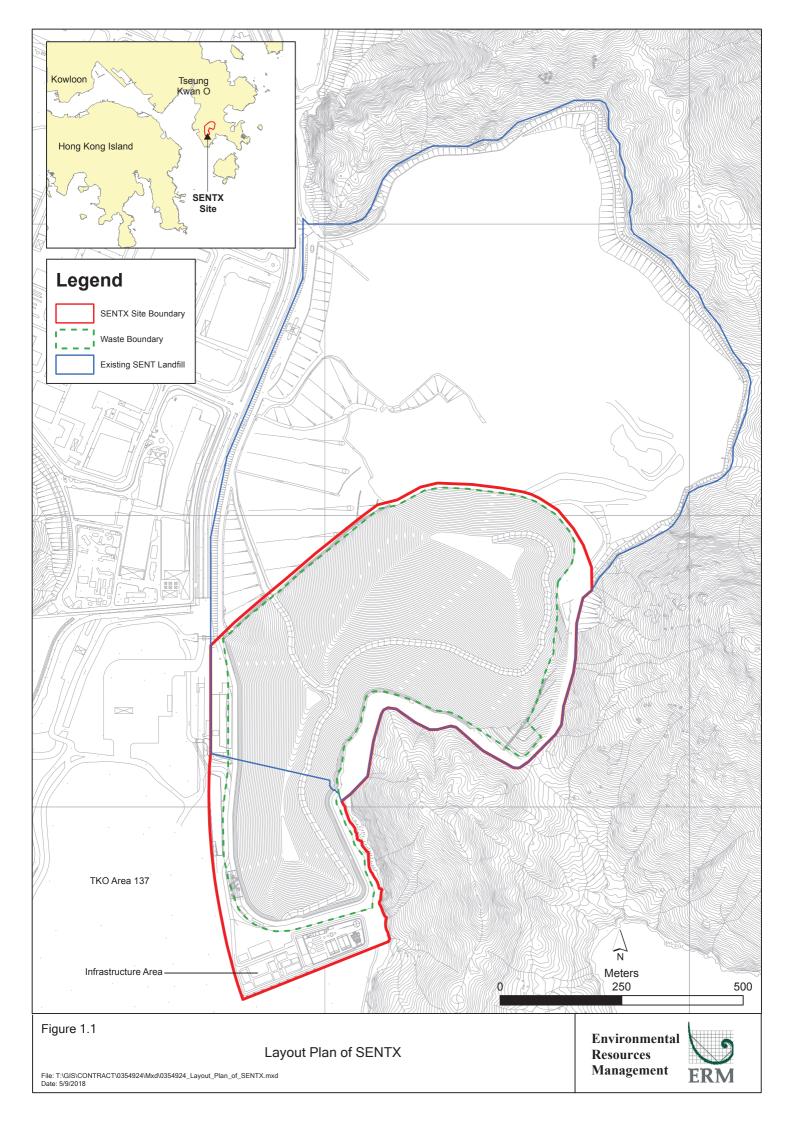
ERM-Hong Kong, Limited (ERM) and Meinhardt Infrastructure and Environment Limited (Meinhardt) are commissioned to undertake the roles of Environmental Team (ET) and the Independent Environmental Checker (IEC), respectively, to undertake the EM&A activities for the Project in accordance with the requirements specified in the EP, updated EM&A Manual (1), approved EIA Report (2) taking account of the latest design and other relevant statutory requirements.

1.2 PROJECT DESCRIPTION

The SENTX is a piggyback landfill, occupying the southern part of the existing SENT Landfill (including its infrastructure area) and 13 ha of Tseung Kwan O (TKO) Area 137. A layout plan of the SENTX is shown in *Figure 1.1*. Under the latest design, the SENTX has a net void capacity of about 6.5 Mm³ and provides an additional lifespan of about 6 years, commencing operation upon exhaustion of the SENT Landfill. The SENTX will receive construction waste only.

⁽¹⁾ ERM (2018). South East New Territories (SENT) Landfill Extension: Environmental Monitoring & Audit Manual

⁽²⁾ ERM (2007). South East New Territories (SENT) Landfill Extension - Feasibility Study: Environmental Impact Assessment Report



The key implementation milestones of the Project are indicatively summarised in *Table 1.1*. The construction works of the Project commenced on 2 January 2019.

 Table 1.1
 Estimated Key Dates of Implementation Programme

Key Stage of the Project	Indicative Date
Start construction	2 January 2019
Commissioning of new infrastructure facilities	2020
Demolition of existing infrastructure facilities	2021
Start waste intake at SENTX	2021 or upon exhaustion of SENT Landfill
Estimated exhaustion date of SENTX	2027
End of aftercare for SENTX	2057

The major construction works of the SENTX includes:

- Site formation at the TKO Area 137 and the existing infrastructure area at SENT Landfill;
- Construction of surface and groundwater drainage systems;
- Construction of the leachate containment and collection systems;
- Construction of new leachate and landfill gas treatment facilities, site offices, maintenance yards at the new infrastructure area;
- Construction of new pipelines to transfer the leachate and landfill gas collected from the existing SENT Landfill to the treatment facilities at the new infrastructure area;
- Construction of the site access and new waste reception facilities; and
- Demolition of the facilities at the existing SENT Landfill infrastructure area.

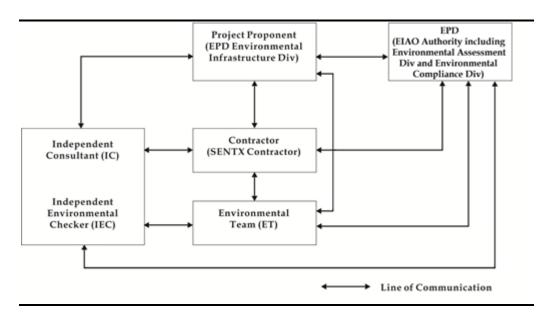
1.3 Scope of the EM&A Report

This is the Monthly EM&A Report for the Project which summarises the key findings of the EM&A programme during the reporting period from 1 to 31 January 2021 for the construction works.

1.4 PROJECT ORGANISATION

The organisation structure of the Project is presented in *Figure 1.2*.

Figure 1.2 Organisation Chart



Contact details of the key personnel are summarised in *Table 1.2* below.

Table 1.2 Contact Information of Key Personnel

Party	Position	Name	Telephone
Contractor	Project Manager	Gary Barnicott	2706 8827
(Green Valley Landfill			
Limited)			
Environmental Team (ET)	ET Leader	Frank Wan	2271 3152
(ERM-Hong Kong, Limited)			
Independent Environmental	IEC	W.K. Chiu	2858 0738
Checker (IEC)			
(Meinhardt Infrastructure			
and Environment Limited)			

1.5 SUMMARY OF CONSTRUCTION WORKS

The programme of the construction is shown in *Annex A*. As informed by the Contractor, the major works carried out in this reporting period include:

- Installation of cables and cable containment at Leachate Treatment Plant (LTP) area;
- Electro-mechanical installation (including pipe) at LTP area;
- Testing and commissioning at LTP;
- Building services works and fitting-out works for infrastructure buildings (EPD building, GVL building and laboratory building);

- Steel members and cladding installation for superstructure of maintenance building;
- Equipment installation for fire services tank room;
- Water main pipe installation for infrastructure buildings;
- Road pavement for the emergency vehicular access (EVA);
- Filling works at the West of Cell 3X;
- Maintenance and improvement of temporary surface water drainage;
- Construction of Cell 3X formation;
- Liner installation at Cell 3X;
- Road pavement for EVA along Western Bund from main entrance;
- Installation of steel members for vehicle washing facilities;
- Underground utilities and pipes installation at waste reception area; and
- Sewerage system works at waste reception area.

The implementation schedule of the mitigation measured recommended in the Updated EM&A Manual is presented in *Annex B*.

1.6 SUMMARY OF EM&A PROGRAMME REQUIREMENTS

The status for all environmental aspects are presented in *Table 1.3*. The EM&A requirements remained unchanged during the reporting period.

Table 1.3 Summary of Status for the Environmental Aspects under the Updated EM&A Manual

Parameters	Status
Air Quality	
Baseline Monitoring	The results of baseline air quality monitoring were reported in
	Baseline Monitoring Report and submitted to EPD under EP
	Condition 3.3
Impact Monitoring	On-going
Noise	
Baseline Monitoring	The results of baseline noise monitoring were reported in
	Baseline Monitoring Report and submitted to EPD under EP
	Condition 3.3
Impact Monitoring	On-going
Surface Water Quality	
Baseline Monitoring	The results of baseline surface water quality monitoring were
	reported in Baseline Monitoring Report and submitted to EPD
	under EP Condition 3.3
Impact Monitoring	On-going
Waste Management	

Parameters	Status				
Waste Monitoring	On-going On-going				
Landscape and Visual					
Baseline Monitoring	The results of baseline landscape and visual monitoring were				
	reported in Baseline Monitoring Report and submitted to EPD				
	under EP Condition 3.3				
Construction Phase Audit	On-going				
Site Environmental Audit					
Regular Site Inspection	On-going On-going				
Complaint Hotline and Email	On-going On-going				
Channel					
Environmental Log Book	On-going				
Groundwater Quality					
Pre-operation Baseline	Commenced on 24 March 2020				
Monitoring					
Landfill Gas					
Pre-operation Baseline	Commenced on 24 March 2020				
Monitoring					
Ambient VOCs, ammonia and	Ambient VOCs, ammonia and H ₂ S				
Pre-operation Baseline	Commenced on 27 May 2020				
Monitoring					

Taking into account the construction works, impact monitoring of air quality, noise, surface water quality and waste management were carried out in the reporting period. The impact monitoring schedule of air quality, noise and surface water quality monitoring are provided in *Annex C*. Groundwater and landfill gas pre-operation baseline monitoring and ambient VOCs, ammonia and H2S pre-operation baseline monitoring were commenced on 24 March 2020 and 27 May 2020 respectively.

The EM&A programme also involved environmental site inspections and related auditing conducted by the ET for checking the implementation of the required environmental mitigation measures recommended in the approved EIA Report and relevant EP submissions. To promote the environmental awareness and enhance the environmental performance of the contractors, environmental trainings and regular environmental management meetings were conducted during the reporting period, which are summarised as below:

- One environmental management meeting was held with the Contractor, ER, ET, IEC and EPD on 21 January 2021; and
- Environmental toolbox trainings on Illegal Dumping and Trip Ticket System were provided on 11 January and 22 January 2021 respectively by the Contractor to the workers.

1.7 STATUS OF STATUTORY ENVIRONMENTAL COMPLIANCE WITH THE ENVIRONMENTAL PERMIT

The status of statutory environmental compliance with the EP conditions under the EIAO, submission status under the EP and implementation status of mitigation measures are presented in *Table 1.4*.

Table 1.4 Status of Submissions required under the EP and Implementation Status of Mitigation Measures

EP	Submission/Implementation Status	Status
Condition		
2.3	Management Organisation of Main	Submitted and accepted by EPD.
	Construction Companies	
2.4	Setting up of Community Liaison Group	Community Liaison Group was set up.
2.5	Submission of Detailed Landfill Gas	Submitted and accepted by EPD on 10
	Hazard Assessment Report	January 2019.
2.6	Submission of Restoration and Ecological	Submitted to EPD on 28 June 2019.
	Enhancement Plan	
2.7	Setting up of Trial Nursery	Trial Nursery works was commenced
	,	on 28 August 2019.
2.8	Advance Screen Planting	Advance Screen Planting works were
	_	completed on 28 June 2019.
2.9	Provision of Multi-layer Composite Liner	Under implementation.
	System	-

1.8 STATUS OF OTHER STATUTORY ENVIRONMENTAL REQUIREMENTS

The environmental licenses and permits (including EP, *Water Pollution Control Ordinance* (WPCO) discharge license, registration as a chemical waste producer, and construction noise permit) that are valid in the reporting period are presented in *Table 1.5*. No non-compliance with environmental statutory requirements was identified.

 Table 1.5
 Status of Statutory Environmental Requirements

	- 43.	
Description	Ref No.	Status
Environmental Permit	EP-308/2008	Granted on 5 August 2008
Variation of Environmental Permit	EP-308/2008/A	Granted on 6 January 2012
	EP-308/2008/B	Granted on 20 January 2017
Further Environmental Permit	FEP-01/308/2008/B	Granted on 16 May 2018
Water Discharge License under	Licence No.: WT00033525-	Validity from 27 March
WPCO (Permit Holder: Chun Wo)	2019	2019 to 31 March 2024
Billing Account for Disposal of	Chit Account Number:	Approved on 28 December
Construction Waste	5001692	2005
Registration as a Chemical Waste	5213-839-C3507-10	Issued on 23 August 2018
Producer (Permit Holder: Chun Wo)		
Registration as a Chemical Waste	5518-839-R2289-06	Issued on 24 October 2019
Producer (Permit Holder: REC)		
Construction Noise Permit (Permit	GW-RE0542-20	Validity from 1 September
Holder: GVL)		2020 to 28 February 2021
Construction Noise Permit (Permit	GW-RE1047-20	Validity from 9 December
Holder: Chun Wo)		2020 to 7 June 2021
Construction Noise Permit (Permit	GW-RE0889-20	Validity from 1 November
Holder: REC)		2020 to 31 March 2021

2 EM&A RESULTS

The EM&A programme for the Project required environmental monitoring for air quality, noise and surface water quality as well as environmental site inspections for air quality, noise, surface water quality, waste management, and landscape and visual impacts. The EM&A requirements and related findings for each component are summarised in the following sections.

2.1 AIR QUALITY MONITORING

2.1.1 Monitoring Requirements and Equipment

According to the updated EM&A Manual of the Project, impact air quality monitoring (dust, in term of Total Suspended Particulates (TSP)) was carried out at the two designated monitoring locations (i.e. DM1 and DM2) at a 6-day interval. As there are two existing TSP monitoring stations (i.e. TKO-A1 and TKO-A2a) currently operating by the Civil Engineering and Development Department (CEDD) to monitor the 24-hour TSP levels at the proposed dust monitoring stations for the SENTX, it is considered that the CEDD monitoring data can represent the dust condition of the SENTX during the construction phase.

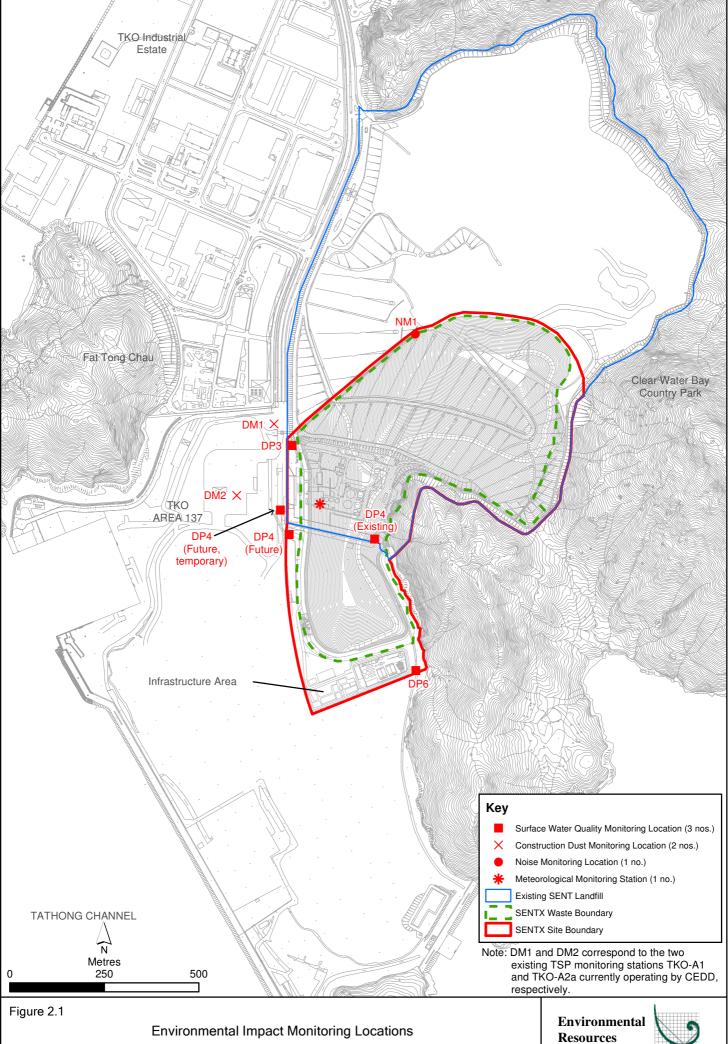
The Action and Limit Levels of the air quality monitoring is provided in *Table 2.1* below.

Table 2.1 Action and Limit Levels for 24-hour TSP

Monitoring Station	Action Level	Limit Level
DM-1 - Site Egress of TKO Area 137 Fill Bank	204 μg m- ³	260 μg m- ³
DM-2A -Combined Reception and Exit Office (CREO) of TKO Area 137 Fill Bank	193 μg m- ³	260 μg m- ³

High volume air samplers (HVSs) in compliance with the specifications listed under Section 3.2.2 of the updated EM&A Manual were used to measure 24-hour TSP levels at the CEDD dust monitoring stations. The HVSs were calibrated upon installation and thereafter at bi-monthly intervals to check the validity and accuracy of the results.

The equipment used in the impact air quality monitoring programme and monitoring locations are summarised in *Table 2.2* and illustrated in *Figure 2.1* respectively. Copies of the calibration certificates for the equipment are presented in *Annex D1*.



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Management



Table 2.2 Dust Monitoring Details

Monitoring Station	Location	Parameter	Frequency and Duration	Monitoring Dates	Equipment
DM1	Site Egress of TKO Area 137 Fill Bank	24-hour TSP	Once every 6 days during the construction	5, 11, 17, 23, 29 January 2021	HVS Greasby 105 (S/N: 9795 (ET/EA/003/18))
DM2	Combined Reception and Exit Office (CREO) of TKO Area 137 Fill Bank		phase of the Project		HVS Andersen G1051 (S/N: 1176 (ET/EA/003/05))

2.1.2 Monitoring Schedule for the Reporting Month

The schedule for air quality monitoring during the reporting period is provided in *Annex C*.

2.1.3 Results and Observations

The monitoring results for 24-hour TSP are summarised in *Table 2.3*. The detailed monitoring results and the graphical presentation of the 24-hour TSP results at each monitoring location are provided in *Annex D2*.

Table 2.3 Summary of 24-hour TSP Monitoring Results in the Reporting Period

Monitoring Station	Average 24-hr TSP Concentration (μg m ⁻³) (Range in bracket)	Action Level (μg/m³)	Limit Level (μg/m³)
DM-1 - Site Egress of TKO Area 137 Fill Bank	111 (105 - 117)	204	260
DM-2A -Combined Reception and Exit Office (CREO) of TKO Area 137 Fill Bank	104 (95 – 115)	193	260

The major dust sources in the reporting period included fugitive dust emission from exposed area in SENTX, as well as nearby operations of the existing SENT landfill and the TKO Area 137 Fill Bank.

All the 24-hour TSP results were below the Action and Limit Levels at the monitoring locations in the reporting period. No action is thus required to be undertaken in accordance with the Event and Action Plan presented in *Annex D3*.

2.1.4 Meteorological Data

Meteorological data obtained from the on-site meteorological monitoring station at the existing SENT landfill (see *Figure 2.1*) were used for the dust monitoring and are shown in *Annex D4*. The meteorological station will be relocated to a new position for SENTX as per the updated EM&A Manual after the new infrastructure area at the SENTX is constructed. It is

considered that meteorological data obtained at the existing the on-site meteorological monitoring station are representative of the Project area and could be used for the construction phase dust monitoring programme for the Project.

2.2 Noise Monitoring

2.2.1 Monitoring Requirements and Equipment

According to the updated EM&A Manual of the Project, impact noise monitoring was conducted weekly at the monitoring location (i.e. NM1) to obtain one set of 30 minutes measurement between 07:00 and 19:00 hours on normal weekdays.

The Action and Limit Levels for construction noise of the Project are provided in *Table 2.4* below.

Table 2.4 Action and Limit Levels for Construction Noise

Time Period	Action Level (a)	Limit Level (b)		
07:00 – 19:00 hrs on normal weekdays	When one documented complaint is 75 dB(A) at received from any one of the noise sensitive receivers (NSRs)			
	or			
	75 dB(A) recorded at the monitoring station			

Notes:

- (a) 75dB(A) along and at about 100m from the SENTX site boundary was set as the Action Level.
- (b) Limits specified in the GW-TM and IND-TM for construction and operational noise, respectively.

Noise monitoring was performed by ALS Technichem (HK) Pty Ltd. (HOKLAS Registration No. 066) using sound level meter at the designated monitoring station NM1 (see *Figure 2.1*) in accordance with the requirements stipulated in the updated EM&A Manual. Acoustic calibrator was deployed to check the sound level meter at a known sound pressure level. Details of the deployed equipment are provided in *Table 2.5*. Copies of the calibration certificates for the equipment are presented in *Annex E1*.

Table 2.5 Noise Monitoring Details

Monitoring Station (1)	Location	Parameter	Frequency and Duration	Monitoring Dates	Equipment
NM1	SENTX Site Boundary (North)	L _{eq (30 min)} measurement between 07:00 and 19:00 hours on normal weekdays (Monday to Saturday)	Once per week for 30 mins during the construction period of the Project	7, 14, 20, 28 January 2021	Sound Level Meter: B&K 2238 (S/N: 2285722) Acoustic Calibrator: Rion NC-74 (S/N: 34657230)

2.2.2 Monitoring Schedule for the Reporting Month

The schedule for noise monitoring during the reporting period is provided in *Annex C*.

2.2.3 Results and Observations

A total of 4 impact noise monitoring events were scheduled during the reporting period. Results for noise monitoring are summarised in *Table 2.6*. The monitoring results and the graphical presentation of the data are provided in *Annex E2*.

Table 2.6 Summary of Construction Noise Monitoring Results in the Reporting Period

Monitoring Station	Measured Noise Level Leq (30 min), dB(A)				
	Average	Range	Action and Limit Level		
NM1	51.1	49.8 - 52.6	75		

Major noise sources identified during the noise monitoring included noise from operations of the existing SENT landfill and the TKO Area 137 Fill Bank, aircrafts and insects.

No Action and Limit Levels exceedance was recorded for construction noise monitoring in the reporting period. No action is thus required to be undertaken in accordance with the Event and Action Plan presented in *Annex E3*.

2.3 SURFACE WATER QUALITY MONITORING

2.3.1 Monitoring Requirements and Equipment

According to the updated EM&A Manual of the Project, impact surface water quality monitoring were carried out at the three designated surface water discharge points (i.e. DP3, DP4 and DP6) weekly to ensure that the SENTX will not cause adverse water quality impact. Temporary relocation of surface

water discharge point DP4 to DP4 (Future, temporary) as an interim arrangement due to site constraints and construction sequence was approved by EPD on 14 May 2019. Surface water quality monitoring was carried out at DP4 (Future, temporary) (i.e. DP4T) from the monitoring event on 16 May 2019. In addition, suspension of impact surface water quality monitoring at DP3 was approved under the Baseline Monitoring Report by EPD on 24 July 2019 until the actual commencement of construction works affecting DP3 in 2021.

Dissolved Oxygen (DO) and pH value were measured in-situ whereas the level of suspended solids (SS) were determined by ALS Technichem (HK) Pty Ltd. (HOKLAS Registration No. 066).

The Action and Limit Levels of the surface water quality impact monitoring are provided in *Table 2.7*.

Table 2.7 Action and Limit Levels for Surface Water Quality

Parameters	Action Level	Limit Level	
	DP4 & DP6		
DO	< 5.80 mg/L	< 5.42 mg/L	
SS	> 11.7 mg/L	> 12.7 mg/L	
pН	> 8.39	> 8.40	

The locations of the monitoring stations for the Project are shown in *Figure 2.1*. All *in situ* monitoring instruments were checked, calibrated and certified by a laboratory accredited under HOKLAS or other international accreditation scheme before use, and subsequently re-calibrated at 3 monthly intervals throughout all stages of the surface water quality monitoring programme. Calibration for a DO meter was carried out before measurement according to the instruction manual of the equipment model. Details of the equipment used in the impact surface water quality monitoring works are provided in *Table 2.8*. Copies of the calibration certificates for the equipment are presented in *Annex F1*.

Table 2.8 Impact Surface Water Quality Monitoring Details

Monitoring Station	Location	Frequency	Monitoring Dates	Parameter	Equipment
DP4 (Future, temporary)	Surface water discharge point DP4	Weekly	7, 14, 20, 28 January 2021	•pH •DO	YSI Professional DSS (S/N: 17B102764)
DP6	Surface water discharge point DP6	•		•SS	

Notes:

- (a) DP4 was temporary relocated to DP4 (Future, temporary) (i.e. DP4T) as an interim discharge point from the monitoring event on 16 May 2019.
- (b) Impact surface water quality monitoring at DP3 was suspended from the monitoring event on 25 July 2019 until the actual commencement of construction works affecting DP3 in 2021.

2.3.2 Monitoring Schedule for the Reporting Month

The schedule for surface water quality monitoring during the reporting period is provided in *Annex C*.

2.3.3 Results and Observations

A total of 4 monitoring events for impact surface water quality monitoring were scheduled at all designated monitoring stations during the reporting period. However, sampling could not be carried out for all scheduled events during the reporting period due to insufficient flow. Details of impact water quality monitoring events are provided in *Annex F2*.

2.4 LANDSCAPE AND VISUAL MONITORING

2.4.1 Monitoring Requirements

According to the updated EM&A Manual of the Project, the monthly landscape and visual audit was conducted on 19 January 2021 to monitor the implementation of the landscape and visual mitigation measures during construction phase.

All relevant environmental mitigation measures listed in the approved EIA Report and the updated EM&A Manual and their implementation status are summarised in *Annex B*.

2.4.2 Results and Observations

The Contractor has implemented environmental mitigation measures as stated in the approved EIA Report and the EM&A Manual.

Regarding the landscape and visual audit, the Contractor was reminded to maintain the advance screen planting works as soon as possible to ensure effective screening of views of project works from the High Junk Peak Trail. The Contractor shall consider the mitigation measures during the design

phase, including the preparation of the Construction Drawings and Detailed Landscape Design Drawings.

2.5 EM&A SITE INSPECTION

Site inspections were carried out on a weekly basis with the Contractor, IEC and ER to monitor the implementation of proper environmental pollution control and mitigation measures for air quality, noise, surface water quality and waste management under the Project. In the reporting period, 4 site inspections were carried out on 7, 14, 21 and 28 January 2021.

Key observations during the site inspections are summarised in *Table 2.9*.

Table 2.9 Key Observations Identified during the Site Inspection in this Reporting Month

The Contractor shall remove the general refuse and construction waste near future EPD building, at future GVL building and around future bioplant building and dispose of the waste
 accumulated at the refuse skips near DP4T and DP6 regularly. The Contractor shall provide drip trays for the chemicals stored at future GVL building and near Cell 2X. The Contractor shall enhance watering around the site, especially near Cell 3X and provide the water truck routing plan for review.
 The Contractor shall display NRMM label on the cherry picker near future maintenance building. The Contractor shall remove the general refuse accumulated along the EVA and dispose of the waste regularly. The Contractor shall provide drip trays for the chemicals stored near EVA. The Contractor shall clean up the oil spillage at the cherry picker near future EPD building, the generator near DP6 and the excavator near Cell 2X and treat the clean-up materials as chemical waste.
 The Contractor shall enhance watering along the Western site boundary to minimise dust impacts. The Contractor shall remove the construction materials/ waste accumulated at LTP drain and near DP6 and dispose of the waste regularly.
 The Contractor shall clean up the oil spillage at the drip tray near DP6 and treat the clean-up materials as chemical waste. The Contractor shall designate an area for concrete truck washing and avoid discharge of wash-water into surrounding water body. The Contractor shall remove the general refuse accumulated near future FS tank, future carpark area, future maintenance building and along EVA and dispose of the waste regularly. The Contractor shall repair/ replace the refuse skip near DP6 to ensure proper waste storage. The Contractor shall spray water when conducting dusty operation near Southern site boundary to ensure the entire surface is wet. The Contractor shall cover the dusty materials accumulated at

The Contractor has rectified all of the observations identified during environmental site inspections in the reporting period. Key environmental deficiencies identified and the corresponding rectification actions are presented in *Table 2.10*.

Table 2.10 Summary of Environmental Deficiencies Identified and Corresponding Rectification Actions

Deficiencies	Rectifications Implemented	Proposed Additional Control Measures				
Surface Water						
Intercepting channels & drainage system	Reviewed drainage plan.	 Addition of channels. Expedite the construction of permanent sediment trap and discharge culverts. 				
DP channels (design & regular silt removal)	 Carried out regular maintenance and cleaning of channels. DP4 channel: Area near the channel was paved with concrete and a bund was built. DP6 channel: Gravel piles on the channel were covered with concrete which serve as blocks for running water and to divide the channel into several sections. A pump was placed in the water zone in the upstream section to pump water to the Wetsep for treatment prior to the discharge to the last section before the weir plate. DP6: Pipes through the gravel piles between different channel sections were covered with geotextiles to block debris and silt. 	N.A.				
Stockpiles & exposed soil	 Installed silt fencing near surface water channel along DP6 channel. 	Improve soil covering.Compaction and cover for stockpiles and soil slopes.				
Wetsep (treatment capacity & number)	 Reviewed Wetsep capacity. Chemicals dosage of the Wetsep was increased to enhance the efficiency. 	Install additional Wetsep.				
Backflow / ponding during heavy rainfall	Raised with EPD (LDG) and CEDD.	N.A.				

2.6 WASTE MANAGEMENT STATUS

The Contractor has registered as chemical waste producer under the Contract. Sufficient numbers of receptacles were available for general refuse collection and sorting.

As informed by the Contractor, waste generated during this reporting period include mainly inert C&D materials. Reference has been made to the waste flow table prepared by the Contractor. The quantities of different types of wastes and imported fill materials are summarised in *Table 2.11*.

Table 2.11 Quantities of Different Waste Generated and Imported Fill Materials

Month/ Year	Inert C&D Materials	Imported Fill (in '000kg) (b) Rock Soil		Inert Construction Waste Re- used (in '000m³)	Non-inert Construction Waste (c) (in '000m³)	Recyclable Materials ^(d) (in '000kg)	Chemical Wastes (in '000kg)
1 - 31 Jan	'000m³) 0.297	0	0	0	0.090	0.090	0
2021	0.277	O	O	O	0.070	0.070	O

Notes:

- (a) Inert construction wastes include hard rock and large broken concrete, and materials disposed as public fill. Density assumption: 1.6 (kg/L) for public fill.
- (b) Imported fill refers to materials generated from other project for on-site reuse.
- (c) Non-inert construction wastes include general refuse disposed at landfill. Density assumption: 0.9 (kg/L) for general refuse.
- (d) Recyclable materials include metals, paper, cardboard, plastics and others.

2.7 IMPLEMENTATION STATUS OF ENVIRONMENTAL MITIGATION MEASURES

A summary of the Environmental Mitigation Implementation Schedule is presented in *Annex B*. The necessary mitigation measures were implemented properly for the Project.

2.8 SUMMARY OF EXCEEDANCES OF THE ENVIRONMENTAL QUALITY PERFORMANCE LIMIT

The 24-hour TSP monitoring results and construction noise monitoring results complied with the Action and Limit Levels in the reporting period. Impact surface water quality monitoring could not be carried out for all the scheduled events during the reporting period due to insufficient flow.

Cumulative statistics on exceedances is provided in *Annex G*.

2.9 SUMMARY OF COMPLAINTS, NOTIFICATION OF SUMMONS AND SUCCESSFUL PROSECUTIONS

There were no complaints, notification of summons or prosecution recorded in the reporting period.

Statistics on complaints, notifications of summons, successful prosecutions are summarised in <i>Annex G</i> .

3 FUTURE KEY ISSUES

3.1 CONSTRUCTION PROGRAMME FOR THE COMING MONTH

As informed by the Contractor, the major works for the Project in February 2021 will be:

- Excavation and removal of unsuitable fill materials;
- Construction of formation and liner installation of Cell 3X;
- Import of leachate stones;
- Screeding works at LTP;
- Installation of pipes with draw pits and laying Low Voltage (LV) cables for maintenance building and waste reception area;
- Building service and fitting-out works at infrastructure buildings, including LTP and landfill gas (LFG) plant;
- Pavement works at Part X1 area;
- Construction of surface water channels along the road pavement;
- Construction of superstructure and cladding at maintenance building;
- Construction of concrete pits, drainage, sewage and ducting for underground utilities (including LV, extra low voltage (ELV) and water mains);
- Installation of equipment for fire services tank room and water services room;
- Installation of gas and leachate HDPE pipes;
- Installation of equipment for sump house 1, 2 and 3;
- Road pavement construction along the Western perimeter bund;
- Construction of waste reception area, including weighbridge, vehicle washing facilities and guard house;
- Trial nursery at SENT and tree felling at Part X3; and
- Testing and commissioning for LFG plant and LTP.

3.2 KEY ISSUES FOR THE COMING MONTH

Potential environmental impacts arising from the above upcoming construction activities in the next reporting period of February 2021 are

mainly associated with dust emission from the exposed area and loading and unloading operation of dusty materials. The ET will keep track on the construction works to confirm compliance of environmental requirements and the proper implementation of all necessary mitigation measures.

3.3 MONITORING SCHEDULE FOR THE COMING MONTH

The tentative schedules for environmental monitoring in February 2021 are provided in *Annex H*.

4 CONCLUSION AND RECOMMENDATION

This EM&A Report presents the findings of the EM&A activities undertaken during the period from 1 to 31 January 2021 in accordance with the updated EM&A Manual and the requirements of the Environmental Permit (*EP*-308/2008/B).

Air quality (24-hour TSP), noise and water quality (DO, pH and SS) monitoring were carried out in the reporting period. Results for air quality monitoring (24-hour TSP) complied with the Action and Limit Levels in the reporting period. No Action and Limit Levels exceedances were recorded for construction noise monitoring. Impact surface water quality monitoring could not be carried out for all the scheduled events during the reporting period due to insufficient flow.

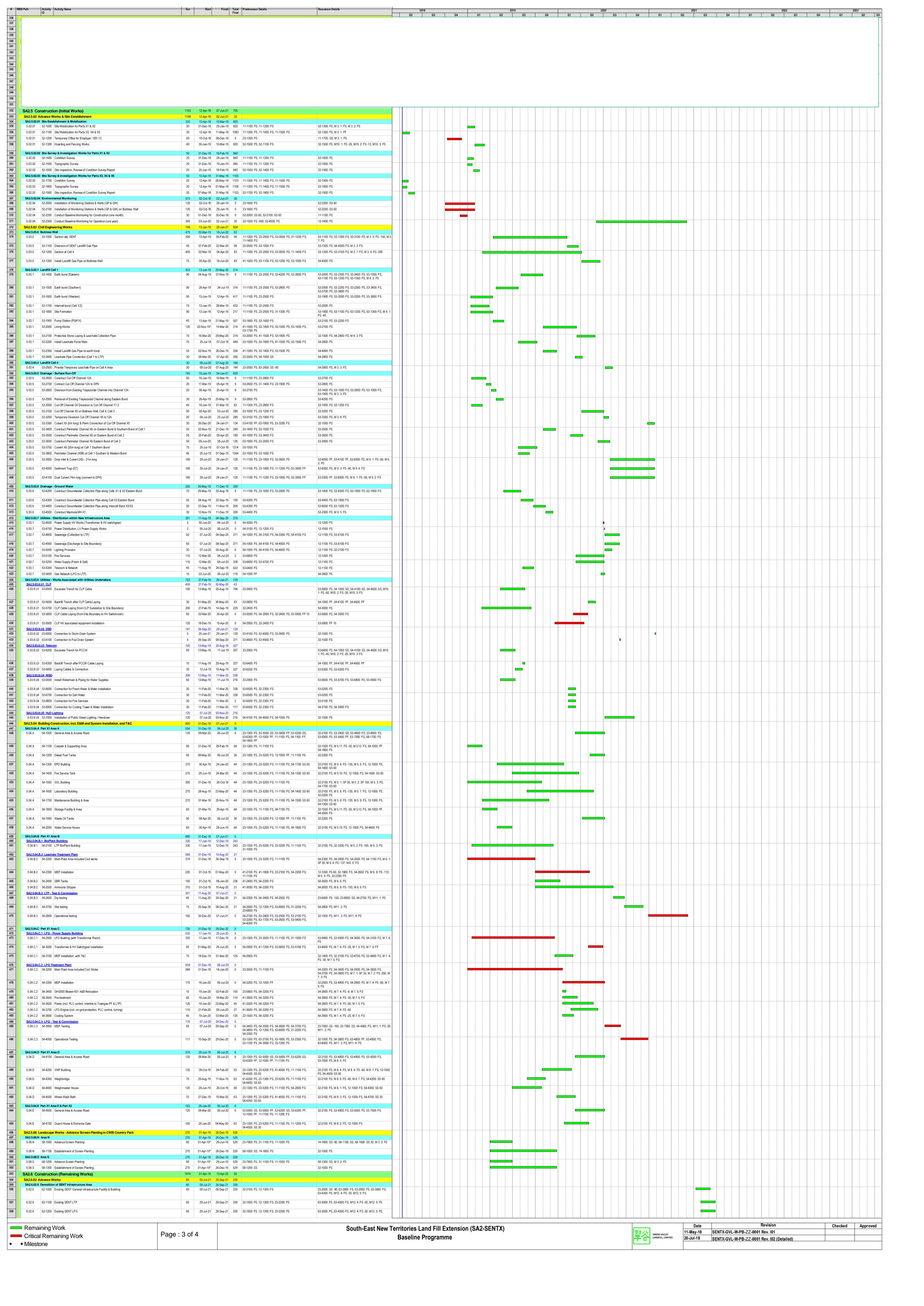
Environmental site inspections were carried out during the reporting period. Recommendations on remedial actions were given to the Contractor for the deficiencies identified during the site inspections.

There were no complaints, notification of summons or prosecution recorded in the reporting period.

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

Annex A

Work Programme



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514 515 516 517 518 519 520 521 522 523 524 525 526 527 528 529 530 531 532 533 534 535 536 537 538 539 540 541 542 543 544 545 546 547 548 549 550 551 552 553		3.2	63-1100	Earth bund (Western)	110	20-Feb-7	.0 08-Jun-20	84 11-1100: FS, 23-2500: FS, 53-1800: FS, 53-1400: FS	
514 515 516 517 518 519 520 521 522 523 524 525 526 527 528 529 530 531 532 533 534 535 536 537 538 539 540 541 542 543 544 545 546 547 548 549 550 551 552 553		5.2	63-1200) Intercell bund (Cell 2/3)	90	09-Jun-	20 06-Sep-20	63-1000: FS 734 11-1100: FS, 23-2500: FS, 53-1800: FS, 53-1400: FS	63-3600: FS, 63-1200: FS 63-1500: FS
515 516 517 518 519 520 521 522 523 524 525 526 527 528 529 530 531 532 533 534 535 536 537 538 539 540 541 542 543 544 545 546 547 548 549 550 551 566	6.03.2			,				53-4400: FS, 63-1100: FS	
516 517 518 519 520 521 522 523 524 525 526 527 528 529 530 531 532 533 534 535 536 537 538 539 540 541 542 543 544 545 546 547 548 549 550 551 552 553		5.2	63-1300) Site Formation	/5	02-Nov-1	3 15-Jan-20	14 11-1100: FS, 23-2500: FS, 53-1800: FS, 53-1400: FS	63-1400: FS, 63-4200: FS
517 518 519 520 521 522 523 524 525 526 527 528 529 530 531 532 533 534 535 536 537 538 539 540 541 542 543 544 545 546 547 548 549 550 551 552 553 554				Pump Station (PS#2X)				84 63-1300: FS, 63-1100: FS	63-1600: FS, 63-1700: FS
518 519 520 521 522 523 524 525 526 527 528 529 530 531 532 533 534 535 536 537 538 539 540 541 542 543 544 545 546 547 548 549 550 551 552 553	6.03.2	5.2	63-1500	D Lining Works	90	01-Oct-20	* 29-Dec-20	710 41-1500: FS, 63-1000: FS, 63-1100: FS, 63-1200: FS	63-1600: FS, M12. 3: FS, 63-2400: FS
519 520 521 522 523 524 525 526 527 528 529 530 531 532 533 534 535 536 537 538 539 540 541 542 543 544 545 546 547 548 549 550 551 552 553				Protective Stone Laying & Leachate Collection Pipe	25	30-Dec-2	.0 23-Jan-21	810 63-1500: FS, 41-1500: FS, 63-1400: FS	32-1600: FS, M12. 3: FS
520 521 522 523 524 525 526 527 528 529 530 531 532 533 534 535 536 537 538 539 540 541 542 543 544 545 546 547 548 549 550 551 552 553 550 551				O Install Leachate Force Main				84 63-1100: FS, 41-1500: FS, 63-1400: FS	54-2800: FS, M12. 3: FS
521 522 523 524 525 526 527 528 529 530 531 532 533 534 535 536 537 538 539 540 541 542 543 544 545 546 547 548 549 550 551 552 553 550 551				Install Landfill Gas Pipe on earth bund				168 41-1500: FS, 63-1000: FS	54-4000: FS, M12. 3: FS
522 523 524 525 526 527 528 529 530 531 532 533 534 535 536 537 538 539 540 541 542 543 544 545 546 547 548 549 550 551 552 553 550 551	SA2.6.0 3			Cell 3 Carth bund (Eastern)			20 02-Feb-22 20 08-Jun-20	9 11-1100: FS, 53-4200: FS, 63-1000: FS, 53-4300: FS	
523 524 525 526 527 528 529 530 531 532 533 534 535 536 537 538 539 540 541 542 543 544 545 546 547 548 549 550 551 552 553				. ,				53-2800: FS, 63-4200: FS	FS -50, M12. 2: FS, 63-2000: FS -45, 63-2200: FS
524 525 526 527 528 529 530 531 532 533 534 535 536 537 538 539 540 541 542 543 544 545 546 547 548 549 550 551 552 553	6.03.3	3.3	63-2000	Earth bund (Western)	110	25-Apr-′	20 12-Aug-20	19 11-1100: FS, 63-1000: FS, 63-1900: FS -45	63-2300: FS, 63-2400: FS, 63-2600: FS, 63-3700: FS,
524 525 526 527 528 529 530 531 532 533 534 535 536 537 538 539 540 541 542 543 544 545 546 547 548 549 550 551 552 550 551	0.00.0		00.0400		405		20 44 0 4 00	700 44 4400 50 00 4000 50 00 4000 50 00 0000 50	63-2100: FS -45
525 526 527 528 529 530 531 532 533 534 535 536 537 538 539 540 541 542 543 544 545 546 547 548 549 550 551 552 553	6.03.3	3.3	63-2100	Intercell bund (Cell 3/4)	105	29-Jun-2) 11-Oct-20	789 11-1100: FS, 63-1000: FS, 63-4200: FS, 63-2000: FS	-45 63-2400: FS
526 527 528 529 530 531 532 533 534 535 536 537 538 539 540 541 542 543 544 545 546 547 548 549 550 551 552 553	6.03.3	3.3	63-2200	Site Formation	75	09-Jun-?	.0 22-Aug-20	9 11-1100: FS, 63-1000: FS, 63-1900: FS	63-2300: FS
527 528 529 530 531 532 533 534 535 536 537 538 539 540 541 542 543 544 545 546 547 548 549 550 551 552 553	6.03.3	3.3	63-2300	Pump Station (PS#3X)				9 63-2200: FS, 63-2000: FS	63-2500: FS, 63-2600: FS
528 529 530 531 532 533 534 535 536 537 538 539 540 541 542 543 544 545 546 547 548 549 550 551 552 553	6.03.3	3.3	63-2400	D Lining Works	100	01-Oct-2*	* 08-Jan-22	435 41-1500: FS, 63-1900: FS, 63-2000: FS, 63-2100: FS, 63-1500: FS	63-2500: FS, M12. 3: FS
529 530 531 532 533 534 535 536 537 538 539 540 541 542 543 544 545 546 547 548 549 550 551 552 553	6.03.3	3.3	63-2500	Protective Stone Laying & Leachate Collection Pipe	25	09-Jan-	.2 02-Feb-22	435 63-2400: FS, 41-1500: FS, 63-2300: FS	32-1700: FS, M12. 3: FS
530 531 532 533 534 535 536 537 538 539 540 541 542 543 544 545 546 547 548 549 550 551 552 553	6.03.3	3.3	63-2600	Install Leachate Force Main	75	07-Oct-:	.0 20-Dec-20	9 63-2000: FS, 41-1500: FS, 63-2300: FS	53-2500: SS -90, 54-2800: FS, M12. 3: FS
531 532 533 534 535 536 537 538 539 540 541 542 543 544 545 546 547 548 549 550 551 552 553				Install Landfill Gas Pipe on earth bund	35	09-Jun-2	.0 13-Jul-20	58 41-1500: FS, 63-1900: FS	54-4000: FS, M12. 3: FS
532 533 534 535 536 537 538 539 540 541 542 543 544 545 546 547 548 549 550 551 552 553	SA2.6.03			Cell 4 Remaining Portion of Buttress Wall			21 13-Apr-23	30 494 62-1000: FS	
533 534 535 536 537 538 539 540 541 542 543 544 545 546 547 548 549 550 551 552 553				D Earth bund (Western) incl. MSE Wall				239 62-1000: FS	63-3000: FS, 63-3100: FS, 63-3200: FS, 63-3400: FS,
534 535 536 537 538 539 540 541 542 543 544 545 546 547 548 549 550 551 552 553	0.00.1		00 2000	Editi build (Noticin) inci. inci.	120	0, 000 2	o roun zz	52 1000.10	63-3800: FS, 63-3900: FS, 63-4100: SS -90, M 9. 6: FS -60, M 9. 7: FS -30, M 9. 8: FS
534 535 536 537 538 539 540 541 542 543 544 545 546 547 548 549 550 551 552 553									W 9. 7. FG -50, W 9. 0. FG
535 536 537 538 539 540 541 542 543 544 545 546 547 548 549 550 551 552 553	6.03.4	3.4	63-3000) Site Formation	120	05-Jan <i>-2</i>	2 04-May-22	239 62-1000: FS, 62-1100: FS, 62-1200: FS, 63-2900: FS, 63-4100: FS	63-3100: FS
536 537 538 539 540 541 542 543 544 545 546 547 548 549 550 551 552 553	6.03.4	5.4	63-3100	Pump Station (PS#4X)	45	05-May-	<u>√</u> 2 18-Jun-22	239 63-3000: FS, 63-2900: FS	63-3300: FS, 63-3400: FS
537 538 539 540 541 542 543 544 545 546 547 548 549 550 551 552 553				Lining Works	135	01-Oct-2	2* 12-Feb-23	0 41-1500: FS, 63-2900: FS	63-3300: FS, M12. 6: FS
538 539 540 541 542 543 544 545 546 547 548 549 550 551 552 553	6.03.4	3.4	63-3300	Protective Stone Laying & Leachate Collection Pipe	60	13-Feb-/	.3 13-Apr-23	0 41-1500: FS, 63-3200: FS, 63-3100: FS	12-1900: FS, 32-1800: FS, M12. 6: FS
539 540 541 542 543 544 545 546 547 548 549 550 551 552 553	6.03.4	3.4	63-3400	Install Leachate Force Main & Remove Temporary Leachate Pipe	30	19-Jun-∕	.2 18-Jul-22	269 41-1500: FS, 63-2900: FS, 63-3100: FS	12-1900: FS, 32-1800: FS, M12. 6: FS
540 541 542 543 544 545 546 547 548 549 550 551 552 553				e - Surface Run-Off			20 03-Feb-22		(0.000 =0
541 542 543 544 545 546 547 548 549 550 551 552 553				Perimeter Channel (X9A) at Cell 2 Western Bund				1054 63-1100: FS	12-1900: FS
542 543 544 545 546 547 548 549 550 551 552 553				Perimeter Channel (X10A) at Cell 2 Western Bund Perimeter Channel (X10A) at Cell 3 Western Bund				1029 63-1100: FS 964 63-2000: FS	63-4000: FS 63-4000: FS
543 544 545 546 547 548 549 550 551 552 553				Perimeter Channel (X10A) at Cell 3 Western Bund Perimeter Channel (X10A) at Cell 4 Western Bund				464 63-2900: FS	63-4000: FS 63-4000: FS
544 545 546 547 548 549 550 551 552 553				Perimeter Channel (X10C) at Cell 4 Western Bund				469 63-2900: FS	63-4000: FS
545 546 547 548 549 550 551 552 553				Connection to Existing DP3				464 63-3900: FS, 63-3600: FS, 63-3700: FS, 63-3800: FS	
546 547 548 549 550 551 552 553	0.00.5		00.4400		00	00.1	24 00 1 104	440, 00,0000, 00,00	20,000, 50
547 548 549 550 551 552 553				Remove Cut-Off Channel C-7 at bottom of Buttress Wall				419 63-2900: SS -90	63-3000: FS
548 549 550 551 552 553				Temporary Channel (X7T) at SENT Infrastructure Area e - Ground Water			20 14-Feb-20 21 30-Nov-21	14 63-1300: FS	63-1900: FS, 63-2100: FS
550 551 552 553			_	Construct Temporary Channel (TC-1), from MH-1 to Existing UC-825				529 23-1900: FS, 11-1300: FS, 62-1000: FS	63-4400: FS
551 552 553	6.03.6	6.6	63-4400	Divert GW at MH-1 to TC-1	5	27-Oct-7	.1 31-Oct-21	529 63-4300: FS	63-4500: FS, M 9. 9: FS
552 553				Reconnection of GWCP across Cell 4				529 62-1100: FS, 62-1200: FS, 63-4400: FS	12-1900: FS
553				- Works Associated with Utilities Undertakers			20 27-Jul-21		
		3.8.U1 6		LFG Generator On-grid Testing			20 27-Jul-21 20 27-Jun-21	655 32-2500: FS, 12-1200: FS, 54-4000: FS	63-4700: FS
007				LFG Generator On-grid Inspection & Verify				655 63-4600: FS	12-1900: FS
		2.6.03.8.U					08-Jan-21		00.4000.50
				Laying Gas Mains (from LFG to Town Gas PF) Gas Meter Relocation & Connection at LFG				855 54-4000: FF 855 63-4800: FS, 54-4000: FS	63-4900: FS 12-1900: FS
				Gas Meter Relocation & Connection at LFG & E&M Works			19 22-Jul-21	· ·	12-1900. FO
559	SA2.6.0	6.04.C P	art X1 A	Area C	661	01-Oct-1	19 22-Jul-21	660	
560	SA2.6.0	.6.04.C.0	2 LFG	Treatment Plant	661	01-Oct-1	19 22-Jul-21	660	12 1000: EC
				O GHS600 Blower 601 C Relocation O Absorption Chiller (Optional)				660 32-1500: FS 1231 54-2200: FS	12-1900: FS 12-1900: FS
				pe Works			19 29-Dec-19 19 03-Dec-20		12-1000.10
564	SA2.6.0	6.08.1 SI	ENT Are	rea - Tree Removal & Transplanting	240	01-Apr-1	19 26-Nov-19	1264	
	-			Access trees condition and select for transplanting				1264 14-1300: FS	68-1100: FS, 68-1200: FS, 68-1400: FS
				Prepare new site to receive trees				1264 68-1000: FS	68-1200: SS
	6.08.1			Transplant selected trees				1264 68-1000: FS, 68-1100: SS	68-1300: FS
	6.08.1 6.08.1			Prune trees prior to removal from Cell 4 Tree Felling - Part X3				1264 68-1200: FS 1384 23-8200: FS, 31-1600: FS, 68-1000: FS	12-1900: FS 12-1900: FS
	6.08.1 6.08.1 6.08.1			Tree Felling - Part X3 Area - Trial Nursery & Tree Planting			19 29-Jul-19 19 03-Dec-20		12-1300. FS
	6.08.1 6.08.1 6.08.1 6.08.1	J.JU.K 0		Trial Nursery				1174 14-1800: FS, 58-1000: SS 30	12-1900: FS, M 3. 2: FS
572	6.08.1 6.08.1 6.08.1 6.08.1 SA2.6.0		00 1000	Landscaping in New Infrastructure Area	150	07-Jul-	20 03 Dec 20	891 54-1000: FS, 23-7600: FS	12-1900: FS

Annex B

Environmental Mitigation Implementation Schedule

Annex B Environmental Mitigation Implementation Schedule

EIA Ref.	EM&A Ref	Environmental Protection Measures/ Mitigation Measures	Objectives of the Recommended Measure & Main Concerns to address	Location of the Measures	Who to implement the measure?	the m	neasu	mplement re? ⁽¹⁾ O/R A	What requirements or standards for the measure to achieve?	Implementation Status and Remarks
Air Quali	ty - Cons	truction Phase								
4.8.1	AQ1	Blasting	To minimise potential	Blasting area	SENTX		✓		Air Pollution Control	Not applicable.
		 The area within 30m of the blasting area will be wetted prior to blasting. Blasting will not be carried out when the strong wind signal or tropical cyclone warning signal No. 3 or higher is hoisted, unless this is with the express prior permission of the Commissioner of Mines. loose material and stones in the Site 	dust nuisance	and 30m of blasting area	Contractor				(Construction Dust) Regulations	Blasting is not required in the latest landfill design
								O .		
		 loose material and stones in the Site will be removed prior to the blast operation 								
		 During blasting, blast nets, screens and other protective covers will be used to prevent the projection of flying fragments and material resulting from blasting 								
4.8.1	AQ2	Rock Drilling	To minimise potential	Rock drilling	SENTX		✓		Air Pollution Control	Not applicable. Rock
		 Watering will be carried out at the rock drilling activities to avoid fugitive dust emissions. 	dust nuisance	area	Contractor				(Construction Dust) Regulations	drilling is not required in the latest landfill design
(1) D=Desig	gn; C=Const	ruction; O/R=Operation/Restoration; A=Aftercare								

EIA Ref.	EM&A Ref	Environmental Protection Measures/ Mitigation Measures	Objectives of the Recommended Measure & Main Concerns to address	Location of the Measures	Who to implement the measure?		implement sure? (1) O/R A	What requirements or standards for the measure to achieve?	Implementation Status and Remarks
4.8.1	AQ3	 Site Access Road The main haul road will be kept clear of dusty materials or sprayed with water. The main haul road will be paved with aggregate or gravel. Vehicle speed will be limited to 10kph. 	To minimise potential dust nuisance	Main haul road	SENTX Contractor	√		Air Pollution Control (Construction Dust) Regulations HKAQO and EIAO- TM Annex 4	Deficiency of mitigation measures but rectified by the Contractor
4.8.1	AQ4	 Stockpiling of Dusty Materials Any stockpile of dusty materials will be covered entirely by impervious sheeting or placed in an area sheltered on the top and three sides or sprayed with water so as to ensure that the entire surface is wet. 	To minimise potential dust nuisance	All construction works area	SENTX Contractor	✓		Air Pollution Control (Construction Dust) Regulations HKAQO and EIAO- TM Annex 4	Deficiency of mitigation measures but rectified by the Contractor
4.8.1	AQ5	 Loading, unloading or transfer of dusty materials All dusty materials will be sprayed with water immediately prior to any loading, unloading or transfer operation so as to maintain the dusty material wet. 	To minimise potential dust nuisance	All construction works area	SENTX Contractor	✓		Air Pollution Control (Construction Dust) Regulations HKAQO and EIAO- TM Annex 4	Implemented
4.8.1	AQ6	 Site Boundary and Entrance Where a site boundary adjoins a road, street, service lane or other area accessible to the public, hoarding of height not less than 2.4m from 	To minimise potential dust nuisance	Site boundary and entrance	SENTX Contractor	✓		Air Pollution Control (Construction Dust) Regulations HKAQO and EIAO-	Not applicable

EIA Ref.	EM&A Ref	Environmental Protection Measures/ Mitigation Measures	Objectives of the Recommended Measure & Main Concerns to address	Location of the Measures	Who to implement the measure?		implement oure? ⁽¹⁾ O/R A	What requirements or standards for the measure to achieve?	Implementation Status and Remarks
		ground level will be provided along the entire length of that portion of the site boundary except for the site entrance or exit.						TM Annex 4	
4.8.1	AQ7	 Excavation Works Working area of any excavation or earth moving operation will be sprayed with water immediately before, during and immediately after the operation so as to ensure that the entire surface is wet. 	To minimise potential dust nuisance	All construction works area	SENTX Contractor	✓		Air Pollution Control (Construction Dust) Regulations HKAQO and EIAO- TM Annex 4	Deficiency of mitigation measures but rectified by the Contractor
4.8.1	AQ8	 Building Demolition The area where the demolition works are planned to take place will be sprayed with water immediately prior to, during and immediately after the demolition activities. Any dusty materials remaining after a stockpile is removed will be wetted with water and cleared from the surface of roads or street. 	To minimise potential dust nuisance	All construction works area	SENTX Contractor	✓		Air Pollution Control (Construction Dust) Regulations HKAQO and EIAO- TM Annex 4	Not applicable
4.8.1	AQ9	 Construction of the Superstructure of Building Effective dust screens, sheeting or netting will be provided to enclose the scaffolding from the ground level up to the highest level of the scaffolding. 	To minimise potential dust nuisance	All construction works area	SENTX Contractor	✓		Air Pollution Control (Construction Dust) Regulations HKAQO and EIAO- TM Annex 4	Implemented

EIA Ref.	EM&A Ref	Environmental Protection Measures/ Mitigation Measures	Objectives of the Recommended Measure & Main Concerns to address	Location of the Measures	Who to implement the measure?	When to implement the measure? (1)				What requirements or standards for the	Implementation Status and Remarks
						D	С	O/R	A	measure to achieve?	
4.8.1	AQ10	Should a stone crushing plant be needed on site, the control measures recommended in the <i>Best Practicable Means Requirement for Mineral Works</i> (<i>Stone Crushing Plants</i>) <i>BPM 11/1</i> should be implemented.	To minimise potential dust nuisance	Stone crushing plant/ construction phase	SENTX Contractor		✓			Best Practicable Means Requirement for Mineral Works (Stone Crushing Plants) BPM 11/1	Not applicable. Stone crushing plant is not required in the latest landfill design
4.8.1	AQ11	Good site practices such as regular maintenance and checking of the diesel powered mechanical equipment will be adopted to avoid any black smoke emissions and to minimize gaseous emissions.	To minimise potential dust nuisance	All construction works area	SENTX Contractor		✓			HKAQO and EIAO- TM Annex 4	Implemented
4.10.1	AQ12	Dust monitoring once every 6 days	Ensure the dust generated from the project meets the air quality requirement	At monitoring locations shown in <i>Figure 3.2a</i>	SENTX Contractor		✓			HKAQO and EIAO- TM Annex 4	Implemented
4.10.2	AQ41	Monitoring of ambient TSP once every 6 days	Ensure the dust emission from the project meets the dust requirement	At monitoring locations shown in Figure 11.3a	SENTX Contractor		✓	✓		HKAQO and EIAO- TM Annex 4	Implemented
4.10.2	AQ46	Monitoring of meteorological station, continuously	Collect site specific meteorological data	At meteorologica l station shown in Figure 11.3a	SENTX Contractor		✓	✓	✓	-	Implemented

EIA Ref.	EM&A Ref	Environmental Protection Measures/ Mitigation Measures	Objectives of the Recommended Measure & Main Concerns to address	Location of the Measures	Who to implement the measure?			imple: sure? (1) O/R		What requirements or standards for the measure to achieve?	Implementation Status and Remarks
5.7.1	N1	Adopt good site practice listed below: Only well-maintained plant will be operated on-site and plant should be serviced regularly during the construction program;		All construction works area	SENTX Contractor		•			Noise Control Ordinance (NCO) and EIAO-TM Annex 5	Implemented
		Silencers or mufflers on construction equipment should be utilized and will be properly maintained during the construction program;									
		• Mobile plant, if any, will be sited as far from NSRs as possible;									
		Machines and plant (such as trucks) that may be in intermittent use will be shut down between work periods or should be throttled down to a minimum;									
		Plant known to emit noise strongly in one direction will, wherever possible, be orientated so that the noise is directed away from the nearby NSRs; and									
		 Material stockpiles and other structures will be effectively utilised, wherever practicable, in screening noise from on-site construction activities. 									

	Environmental Protection Measures/	Objectives of the	Location of the Measures	Who to			-	What requirements or standards for the	Implementation Status and Remarks
		Measure & Main Concerns to address	12.0 1/2 0. 0	the measure?	D	С	O/R A	measure to achieve?	
N2	Weekly noise monitoring	Ensure noise generated from the project meets the criteria	At monitoring locations shown in Figure 6.4a	SENTX Contractor		✓		Noise Control Ordinance (NCO) and EIAO-TM Annex 5	Implemented
ality – Co	nstruction Phase								
WQ1	Construction Runoff								
	• Exposed soil areas will be minimised			SENTX		✓		ProPECC PN 1/94	Implemented
	to reduce the contamination of runoff and erosion.	water quality impacts arising from the construction works	construction works area	Contractor				EIAO-TM Annex 6	
WQ2	• Perimeter channels will be	-		SENTX	✓	✓		ProPECC PN 1/94	Reminder was given to
	formation works and earthworks and intercepting channels will be provided	arising from the	construction works area	Contractor				Water Pollution Control Ordinance (WPCO)	the Contractor
	for example along the edge of excavation.							EIAO-TM Annex 6	
WQ3	Silt removal facilities, channels and			SENTX		✓		ProPECC PN 1/94	Implemented
		1 , 1		Contractor				WPCO	
	removed regularly to ensure they are functioning properly at all times.	construction works	works area					EIAO-TM Annex 6	
WQ4	Temporary covers such as tarpaulin			SENTX		✓		ProPECC PN 1/94	Implemented
	will also be provided to minimise the generation of high SS runoff.	water quality impacts arising from the construction works	construction works area	Contractor				WPCO	
WQ5	The surface runoff contained any oil	To minimise potential	All	SENTX		√		ProPECC PN 1/94	Not applicable
	Ref N2 Rlity - Co WQ1 WQ2 WQ3	N2 Weekly noise monitoring Weekly noise monitoring WQ1 Construction Runoff • Exposed soil areas will be minimised to reduce the contamination of runoff and erosion. WQ2 • Perimeter channels will be constructed in advance of site formation works and earthworks and intercepting channels will be provided for example along the edge of excavation. WQ3 • Silt removal facilities, channels and manholes will be maintained and the deposited silt and grit should be removed regularly to ensure they are functioning properly at all times. WQ4 • Temporary covers such as tarpaulin will also be provided to minimise the generation of high SS runoff.	Ref Mitigation Measures Recommended Measure & Main Concerns to address N2 Weekly noise monitoring Ensure noise generated from the project meets the criteria WQ1 Construction Phase WQ1 Exposed soil areas will be minimised to reduce the contamination of runoff and erosion. To minimise potential water quality impacts arising from the construction works WQ2 • Perimeter channels will be constructed in advance of site formation works and earthworks and intercepting channels will be provided for example along the edge of excavation. To minimise potential water quality impacts arising from the construction works WQ3 • Silt removal facilities, channels and manholes will be maintained and the deposited silt and grit should be removed regularly to ensure they are functioning properly at all times. To minimise potential water quality impacts arising from the construction works WQ4 • Temporary covers such as tarpaulin will also be provided to minimise the generation of high SS runoff. To minimise potential water quality impacts arising from the construction works	Ref Mitigation Measures Recommended Measure & Main Concerns to address N2 Weekly noise monitoring Ensure noise generated from the project meets the criteria Figure 6.4a Construction Phase WQ1 Construction Runoff • Exposed soil areas will be minimised to reduce the contamination of runoff and erosion. To minimise potential water quality impacts arising from the construction works area To minimise potential water quality impacts arising from the construction works area To minimise potential water quality impacts arising from the construction works area To minimise potential water quality impacts arising from the construction works area To minimise potential water quality impacts arising from the construction works area To minimise potential water quality impacts arising from the construction works area To minimise potential water quality impacts arising from the construction works area To minimise potential water quality impacts arising from the construction works area To minimise potential water quality impacts arising from the construction works area To minimise potential water quality impacts arising from the construction works area To minimise potential water quality impacts arising from the construction works area To minimise potential water quality impacts arising from the construction works area To minimise potential water quality impacts arising from the construction works area To minimise potential water quality impacts arising from the construction works area	Ref Mitigation Measures Recommended Measure & Main Concerns to address the Measures implement the measure? Concerns to address N2 Weekly noise monitoring Ensure noise generated from the project meets the criteria At monitoring locations shown in Figure 6.4a SENTX Contractor shown in Figure 6.4a WQ1 Construction Runoff or the expression. * Exposed soil areas will be minimised to reduce the contamination of runoff and erosion. To minimise potential water quality impacts arising from the constructed in advance of site formation works and intercepting channels will be provided for example along the edge of excavation. To minimise potential vater quality impacts arising from the construction works area All construction works area SENTX Contractor works area WQ3 Silt removal facilities, channels and manholes will be maintained and the deposited silt and grit should be removed regularly to ensure they are functioning properly at all times. To minimise potential water quality impacts arising from the construction works area All construction works area SENTX Contractor works area WQ4 Temporary covers such as tarpaulin will also be provided to minimise the generation of high SS runoff. To minimise potential water quality impacts arising from the construction works area All construction works area SENTX Contractor works area	Ref Mitigation Measures Recommended Measure & Main Concerns to address N2 Weekly noise monitoring Ensure noise generated from the project meets the criteria Ensure noise generated from the project meets the criteria Figure 6.4a To minimise potential water quality impacts arising from the construction works area PWQ1 Perimeter channels will be constructed in advance of site formation works and anthercepting channels will be provided for example along the edge of excavation. WQ3 Silt removal facilities, channels and manholes will be maintained and the deposited silt and grit should be removed regularly to ensure they are functioning properly at all times. WQ4 Temporary covers such as tarpaulin will also be provided to minimise the generation of high SS runoff. Recommended Measure & Main Concerns to address At monitoring SENTX Contractor shown in Figure 6.4a To minimise potential water quality impacts arising from the construction works area To minimise potential water quality impacts arising from the construction works area To minimise potential water quality impacts arising from the construction works area To minimise potential water quality impacts arising from the construction works area To minimise potential water quality impacts arising from the construction works area To minimise potential water quality impacts arising from the construction works area Contractor works area	Ref Mitigation Measures Recommended Measure & Main Concerns to address Ensure noise generated from the project meets the criteria Ensure noise generated from the project meets the criteria Ensure noise generated from the project meets the criteria Ensure noise generated from the project meets the criteria Ensure noise generated from the project meets the criteria Ensure noise generated from the project meets the criteria Ensure noise generated from the project meets the contains shown in Figure 6.4a To minimise potential water quality impacts arising from the construction works area construction works area for example along the edge of excavation. WQ3 • Silt removal facilities, channels and manholes will be maintained and the deposited silt and grit should be removed regularly to ensure they are functioning properly at all times. WQ4 • Temporary covers such as tarpaulin will also be provided to minimise the generation of high SS runoff. Figure 6.4a To minimise potential water quality impacts arising from the construction works area To minimise potential water quality impacts arising from the construction works area To minimise potential water quality impacts arising from the construction works area To minimise potential water quality impacts arising from the construction works area To minimise potential water quality impacts arising from the construction works area To minimise potential water quality impacts arising from the construction works area To minimise potential water quality impacts arising from the construction works area To minimise potential water quality impacts arising from the construction works area To minimise potential water quality impacts arising from the construction works area	Mesure & Main Measures & M	Recommended Measure & Main Concerns to address N2 Weekly noise monitoring Ensure noise generated from the project meets the criteria To minimise potential water quality impacts for example along the edge of exervation generation of high SS runoif. 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W27 Temporary covers such as tarpatulin water quality impacts arising from the construction works area water quality impacts arising from the construction works area water quality impacts arising from the construction works area water quality impacts arising from the construction works area water quality impacts arising from the construction works area water quality impacts arising from the construction works area water quality impacts arising from the construction works area water quality impacts arising from the construction works area water quality impacts arising from the construction works area water quality impacts arising from the construction works area water quality impacts arising from the construction works area water quality impacts arising from the construction works area water quality impacts arising from the construction works area water quality impacts arising from the construction works area water quality impacts arising from the construction works area water quality impacts arising from the construction works area water quality impacts arising from the construction works area water quality impac

EIA Ref.	EM&A Ref	Environmental Protection Measures/ Mitigation Measures	Objectives of the Recommended	Location of the Measures	Who to implement			implement	What requirements or standards for the	Implementation Status and Remarks	
			Measure & Main Concerns to address		the measure?	D	C	O/R A	measure to achieve?		
		and grease will pass through the oil	water quality impacts	construction	Contractor				WPCO		
		interceptors.	arising from the construction works	works area					EIAO-TM Annex 6		
6.8.1	WQ6	• All sewer and drains will be sealed to	To minimise potential				✓		ProPECC PN 1/94	Not applicable	
		prevent building debris, soil etc from entering public sewers/drains before	water quality impacts arising from the	area at existing SENT	Contractor				WPCO		
		commencing any demolition works	demolition works	Landfill					EIAO-TM Annex 6		
6.8.1	WQ7	During the excavation works for the	To minimise potential	Tunnel boring	SENTX		✓		ProPECC PN 1/94	Not applicable.	
		twin drainage tunnels, the recycle water for cooling the cutter head of	water quality impacts arising from the	sites	Contractor	Contractor				WPCO	Excavation of drainage tunnels is not required
		the TBM will be conveyed to the sedimentation tanks for treatment and most of the treated water will be reused, where applicable and as much as possible, in the boring operations.	tunnel works						EIAO-TM Annex 6	in the latest landfill design.	
6.8.1	WQ8	• The fuel and waste lubricant oil from	To minimise potential	SENTX Site	SENTX		✓		ProPECC PN 1/94	Implemented	
		the on-site maintenance of machinery and equipment will be collected by a	water quality impacts arising from improper		Contractor				WPCO		
		licensed chemical waste collector.	handling of fuel and oil						Waste Disposal Ordinance (WDO)		
6.8.1	WQ9	Implementation of excavation	To minimise	All	SENTX		✓		ProPECC PN 1/94	Implemented	
		schedules, lining and covering of excavated stockpiles	contaminated stormwater run-off	construction works	Contractor				WPCO		
		excavated stockpiles	from the SENTX Site	WOIKS					EIAO-TM Annex 6		
6.13	WQ10	Monitoring of surface water quality	To minimise potential	SENTX Site	SENTX		✓		WPCO	Implemented	
		will be conducted on a regular basis as stated in the EM&A Manual.	water quality impacts on surface water arising from the construction works		Contractor				Water-TM		

EIA Ref.	EM&A Ref	Environmental Protection Measures/ Mitigation Measures	Objectives of the Recommended Measure & Main	Location of the Measures	Who to implement the measure?			implement sure? (1) O/R A	What requirements or standards for the measure to achieve?	Implementation Status and Remarks
			Concerns to address		the measure.			O/ IC 71	measure to active.	
6.8.2	WQ11	Sewage Effluents								
		• Sufficient chemical toilets will be provided for the construction workforce.	To minimise potential water quality impacts arising from the sewage effluents	SENTX Site	SENTX Contractor		✓		WPCO	Implemented
6.8.2	WQ12	• Untreated sewage will not be allowed	To minimise potential	SENTX Site	SENTX		✓		WPCO	Implemented
		to discharge into the surrounding water body.	water quality impacts arising from the sewage effluents		Contractor				WDO	
6.8.2	WQ13	A licensed waste collector will be	To minimise potential	SENTX Site	SENTX		✓		WPCO	Implemented
		employed to clean the chemical toilets on a regular basis.	water quality impacts arising from the sewage effluents		Contractor				WDO	
Waste Ma	nagement	- Construction Phase								
7.6.1	WM1	All the necessary waste disposal permits are obtained prior to the commencement of construction work.	To ensure compliance with relevant statutory requirements	Before construction works commence	SENTX Contractor	✓	✓		WDO	Implemented
7.6.1	WM2	Management of Waste Disposal								
		The construction contractor will open a	To ensure that	SENTX Site	SENTX		✓		WDO	Implemented
		billing account with the EPD. Every construction waste or public fill load to be transferred to the Government waste disposal facilities such as public fill reception facilities, sorting facilities,	adverse environmental impacts are prevented		Contractor				Waste Disposal (Charges for Disposal of Construction Waste) Regulation;	
		landfills will required a valid "chit" which contains the information of the account holder to facilitate waste							Works Bureau Technical Circular No.31/2004; and	

EIA Ref.	EM&A Ref	Environmental Protection Measures/ Mitigation Measures	Objectives of the Recommended Measure & Main	Location of the Measures	Who to implement the measure?	When to the mea D C	o implement sure? (1) O/R A	What requirements or standards for the measure to achieve?	Implementation Status and Remarks
			Concerns to address		the measure.	<i>D</i> C	O/K A	measure to acmeve:	
		transaction recording and billing to the waste producer. A trip-ticket system will also be established to monitor the disposal of construction waste at the SENT Landfill and to control fly-tipping. The trip-ticket system will be included as one of the contractual requirements and implemented by the contractor.						Annex 5 and Annex 6 of Appendix G of ETWBTC No. 19/2005)	
		A recording system for the amount of waste generated, recycled and disposed of (including the disposal sites) will be established.							
7.6.1	WM3	Measures for the Reduction of Construction Waste Generation							
		Inert and non-inert construction waste	To reduce	SENTX Site	SENTX	✓		WDO	Deficiency of
		will be segregated and stored in different containers or skips to facilitate reuse or recycling of the inert waste and proper disposal of the non-inert construction waste. Specific areas of the work site will be designated for such segregation and storage if immediate use is not practicable.	construction waste generation		Contractor			EIAO-TM Annex 7	mitigation measures but rectified by the Contractor
7.6.1	WM4	Chemical Waste							
		The construction contractor will register	To ensure proper	SENTX Site	SENTX	✓		WDO	Implemented
		as a chemical waste producer with the EPD. Chemical waste will be handled in accordance with the <i>Code of Practice on the Packaging, Handling and Storage of</i>	handling of chemical waste		Contractor			Code of Practice on the Packaging, Handling and Storage of Chemical Wastes	

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		Chemical Wastes.								
7.6.1	WM5	Sewage								
		An adequate number of portable toilets will be provided at the site to ensure that sewage from site staff is properly collected. The portable toilets will be desludged and maintained regularly by a specialist contractor.		SENTX Site	SENTX Contractor		✓		WDO EIAO-TM Annex 7	Implemented
7.6.1 and	WM6	General Refuse								
SENTX latest design		General refuse will be stored in enclosed bins separately from construction and chemical wastes. The general refuse will be delivered to a transfer station or other landfill, separately from construction and chemical wastes, on a daily basis to reduce odour, pest and litter impacts.	To ensure proper handling of general refuse	SENTX Site	SENTX Contractor		✓		WDO EIAO-TM Annex 7	Deficiency of mitigation measures but rectified by the Contractor
		Recycling bins will be provided at strategic locations to facilitate recovery of aluminium can and waste paper from the SENTX Site. Materials recovered will be sold for recycling.								
7.6.1	WM7	Staff Training								
		At the commencement of the construction works, training will be provided to workers on the concepts of site cleanliness and on appropriate waste management procedures, including	To ensure that adverse environmental impacts are prevented	SENTX Site	SENTX Contractor		✓			Implemented

EIA Ref.	EM&A Ref	Environmental Protection Measures/ Mitigation Measures	Objectives of the Recommended Measure & Main Concerns to address	Location of the Measures	Who to implement the measure?	the n		implement ure? ⁽¹⁾ O/R A	What requirements or standards for the measure to achieve?	Implementation Status and Remarks
		waste reduction, reuse and recycling.								
7.8	WM8	Environmental Monitoring & Audit Requirements Weekly audits of the waste management practices will be carried out during the construction phase. The audits examine all aspects of waste management including waste generation, storage, recycling, transport and disposal.	To ensure that adverse environmental impacts are prevented	SENTX Site	SENTX Contractor		✓		WDO	Implemented
Landfill G	as Hazar	ds – Design and Construction Phase								
8.6.2 and SENTX latest design	LFG1	Precautionary measures to be adopted by the contractors at the Project site and the adjacent development site within the landfill consultation zone are outlined in Paragraphs 8.3 to 8.49 of EPD's Landfill Gas Hazard Assessment Guidance Notes (the Guidance Note). Those precautionary measures applicable to the SENTX will be confirmed in the detailed Qualitative Landfill Gas Hazard Assessment to be submitted by the contractor.	-	All construction works area	SENTX Contractor		✓		Paragraphs 8.3 to 8.49 of EPD's Landfill Gas Hazards Assessment Guidance Note EIAO-TM Annex 7	Implemented
8.6.2	LFG2	Monitoring will be undertaken when construction works are carried out in confined space within the consultation zone with reference to the monitoring requirements and procedures specified in Paragraphs 8.23 to 8.28 of EPD's <i>Guidance Note</i> will be followed.	To protect workers from landfill gas risk	Confined space within the construction works area	SENTX Contractor		✓			Implemented

EIA Ref.	EM&A Ref	Environmental Protection Measures/ Mitigation Measures	Objectives of the Recommended	Location of the Measures	Who to implement			impler sure? (1)		What requirements or standards for the	Implementation Status and Remarks
			Measure & Main Concerns to address		the measure?	D	С	O/R	A	measure to achieve?	
		In the event of the trigger levels being exceeded, it is recommended that a person, such as the Safety Officer, is nominated, with deputies, to be responsible for dealing with any emergency which may occur due to landfill gas. In an emergency situation, the nominated person, or his deputies, shall have the necessary authority and shall ensure that the confined space is evacuated and the necessary works implemented for reducing the concentrations of gas. The appropriate organisations shall be contact.									
8.6.3	LFG4	Implementation of engineering measures according to Contract Specification requirements. These measures will include the placement of liner and installation of landfill gas management system to contain, manage and control landfill gas.	To protect workers from landfill gas risk	SENTX Site	SENTX Contractor	✓	√	√	✓	EIAO-TM Annex 7	Implemented
8.6.3	LFG5	Engineering measures to significant engineering measures will be required in the design of the SENTX to protect the staff working in the infrastructure area. These measures include a combination of passive and active systems (examples are recommended in EPD's <i>Guidance Notes</i>). Landfill gas monitoring boreholes will be installed at the edge of the waste slope	Ü	Infrastructure Area	SENTX Contractor	✓	√			EPD's Landfill Gas Hazards Assessment Guidance Note EIAO-TM Annex 7	Implemented

EIA Ref.	EM&A Ref	Environmental Protection Measures/ Mitigation Measures	Objectives of the Recommended Measure & Main Concerns to address	Location of the Measures	Who to implement the measure?		asure? (1)	t What requirements or standards for the measure to achieve?	Implementation Status and Remarks
		between the waste and the new infrastructure area to monitor the migration of landfill gas, if any.							
Ecology -	Construc	tion Phase							
9.10.2	EC1	 Measures to control construction runoff: Exposed soil areas will be minimised to reduce the contamination of runoff and erosion; To prevent stormwater runoff from washing across exposed soil surfaces, perimeter channels will be constructed in advance of site formation works and earthworks 	To minimise potential water quality impacts affecting ecological resources		SENTX Contractor	~		EIAO-TM Annex 16 ProPECC PN 1/94 Water Pollution Control Ordinance (WPCO) EIAO-TM Annex 6	Implemented Reminder was given to the Contractor
		 and intercepting channels will be provided for example along the edge of excavation; Silt removal facilities, channels and manholes will be maintained and the deposited silt and grit will be removed regularly to ensure they are functioning properly at all times; Temporary covers such as tarpaulin will also be provided to minimise the generation of high suspended solids runoff; 						-	Implemented Implemented

		Objectives of the	Location of the Measures	Who to			-	nent	What requirements or standards for the	Implementation Status and Remarks
1101	Thinguist Medaute	Measure & Main Concerns to address	the Weastres	the measure?				A	measure to achieve?	Status and Remarks
	The surface runoff contained any oil and grease will pass through the oil interceptors; and,								-	Not applicable
	 Control measures, including implementation of excavation schedules, lining and covering of excavated stockpiles will be implemented to minimise contaminated stormwater run-off from the SENTX site. 								-	Implemented
EC2	Good Construction Practice:									
	 Fences along the boundary of the SENTX Site will be erected before the commencement of works to prevent vehicle movements, and encroachment of personnel, onto adjacent areas. 	To minimise potential ecological impacts arising from the Project	SENTX Site	SENTX Contractor		✓			EIAO-TM Annex 16	Implemented
	 The work site boundaries will be regularly checked to ensure that they are not breached and that damage does not occur to surrounding areas. 									
EC9	Environmental Monitoring & Audit Requirements	m	CENTEN.	OED HED		,	,	,	FIAO TM A 16	
	The implementation of the ecological mitigation measures should be checked as part of the environmental monitoring and audit procedures during the	To ensure that adverse ecological impacts are prevented	SEN1X	SENTX Contractor		V	✓	•	EIAU-1NI Annex 16	Implemented
	Ref EC2	The surface runoff contained any oil and grease will pass through the oil interceptors; and, Control measures, including implementation of excavation schedules, lining and covering of excavated stockpiles will be implemented to minimise contaminated stormwater run-off from the SENTX site. EC2 Good Construction Practice: Fences along the boundary of the SENTX Site will be erected before the commencement of works to prevent vehicle movements, and encroachment of personnel, onto adjacent areas. The work site boundaries will be regularly checked to ensure that they are not breached and that damage does not occur to surrounding areas. EC9 Environmental Monitoring & Audit Requirements The implementation of the ecological mitigation measures should be checked as part of the environmental monitoring	Ref Mitigation Measures Recommended Measure & Main Concerns to address - The surface runoff contained any oil and grease will pass through the oil interceptors; and, - Control measures, including implementation of excavation schedules, lining and covering of excavated stockpiles will be implemented to minimise contaminated stormwater run-off from the SENTX site. EC2 Good Construction Practice: - Fences along the boundary of the SENTX Site will be erected before the commencement of works to prevent vehicle movements, and encroachment of personnel, onto adjacent areas The work site boundaries will be regularly checked to ensure that they are not breached and that damage does not occur to surrounding areas. EC9 Environmental Monitoring & Audit Requirements The implementation of the ecological mitigation measures should be checked as part of the environmental monitoring	Ref Mitigation Measures Recommended Measure & Main Concerns to address * The surface runoff contained any oil and grease will pass through the oil interceptors; and, * Control measures, including implementation of excavation schedules, lining and covering of excavated stockpiles will be implemented to minimise contaminated stormwater run-off from the SENTX site. * Fences along the boundary of the SENTX Site will be erected before the commencement of works to prevent vehicle movements, and encroachment of personnel, onto adjacent areas. * The work site boundaries will be regularly checked to ensure that they are not breached and that damage does not occur to surrounding areas. * EC9 * Environmental Monitoring & Audit Requirements The implementation of the ecological mitigation measures should be checked as part of the environmental monitoring	Recommended Measures Ex Main Concerns to address * The surface runoff contained any oil and grease will pass through the oil interceptors; and, * Control measures, including implementation of excavation schedules, lining and covering of excavated stockpiles will be implemented to minimise contaminated stormwater run-off from the SENTX site. **Fences along the boundary of the SENTX Site will be erected before the commencement of works to prevent vehicle movements, and encroachment of personnel, onto adjacent areas. **To minimise potential ecological impacts arising from the Project** **To minimise potential ecological impacts arising from the Project** **To minimise potential ecological impacts arising from the Project** **To minimise potential ecological impacts arising from the Project** **To minimise potential ecological impacts arising from the Project** **To minimise potential ecological impacts arising from the Project** **To ensure that they are not breached and that damage does not occur to surrounding areas. **To ensure that adverse ecological impacts are prevented as part of the environmental monitoring and everse ecological impacts are prevented as part of the environmental monitoring and everse ecological impacts are prevented and the environmental monitoring and everse ecological impacts are prevented and everse ecological impacts are preven	Recommended Measures implement the measure? Definition Measure & Main Concerns to address * The surface runoff contained any oil and grease will pass through the oil interceptors; and, * Control measures, including implementation of excavation schedules, lining and covering of excavated stockpiles will be implemented to minimise contaminated stormwater run-off from the SENTX site. **Fences along the boundary of the SENTX Site will be erected before the commencement of works to prevent vehicle movements, and encroachment of personnel, onto adjacent areas. **The work site boundaries will be regularly checked to ensure that they are not breached and that damage does not occur to surrounding areas. **ECI Environmental Monitoring & Audit Requirements To ensure that adverse ecological impacts are prevented as part of the environmental monitoring impacts are prevented as a part of the environmental monitoring impacts are prevented and that damage does not occur to surrounding areas. **To ensure that adverse ecological impacts are prevented as a part of the environmental monitoring impacts are prevented as a part of the environmental monitoring and covering the measures should be checked and that the original to the environmental monitoring and covering the measures should be checked and part of the environmental monitoring and covering the measures and the property of the property of the measures and the property of t	Recommended Measures implement the measure? Do Commended Measure & Main Concerns to address * The surface runoff contained any oil and grease will pass through the oil interceptors; and, * Control measures, including implementation of excavation schedules, lining and covering of excavated stockpiles will be implemented to minimise contaminated stormwater run-off from the SENTX site. * Fences along the boundary of the SENTX Site will be erected before the commencement of works to prevent vehicle movements, and encroachment of personnel, onto adjacent areas. * The work site boundaries will be regularly checked to ensure that they are not breached and that damage does not occur to surrounding areas. **ECS** Environmental Monitoring & Audit Requirements To ensure that adverse ecological impacts are prevented in macutary of the environmental monitoring as part of the environmental monitoring as a part of the environmental monitoring and corrected Measure & Main Concerns to address. **Formula Measure & Main Concerns to address.** **Formula Measure & Main Measure & Main Measure & M	Recommended Measures Recommended Measures Implement the measure? Potential Measure & Main Concerns to address Potential Measure & Measure & Main Concerns to address Potential Measure &	Recommended Measures Main Concerns to address	Recommended Measures Main Concerns to address **Inferior surface runoff contained any oil and grease will pass through the oil interceptors; and, **Control measures, including implementation of excavation schedules, lining and covering of excavated stockplies will be implemented to minimise contaminated stormwater runoff from the SENTX site will be erected before the commencement of works to adjacent areas. **Prescribed The work site boundaries will be rected do not adjacent areas.** **Project** **To ensure that adamage does not occur to surrounding areas.** **To ensure that adaverse ecological mingtation measures should be checked in mitgation measures should be checked in a part of the environmental monitoring as part of the environmental monitorin

EIA Ref.	EM&A Ref	Environmental Protection Measures/ Mitigation Measures	Objectives of the Recommended	Location of the Measures	Who to implement	the	meas	implement sure? (1)	What requirements or standards for the	Implementation Status and Remarks
			Measure & Main Concerns to address		the measure?	D	С	O/R A	measure to achieve?	
		construction period.								
Landscape	e and Visu	aal - Construction Phase								
10.6.5	LV1	CM1 - The construction area and area allowed for the contractor's office, leachate treatment plant and laboratory areas will be minimised to a practical minimum, to avoid impacts on adjacent landscape.	To minimise the landscape and visual impacts	SENTX Site	SENTX Contractor		✓		EIAO-TM Annex 18 and ETWBC 3/2006	Implemented
10.6.5	LV2	CM2 - Topsoil, where identified, will be stripped and stored for re-use in the construction of the soft landscape works, where practical. The Contract Specification will include storage and reuse of topsoil as appropriate.	To minimise the landscape and visual impacts	All construction works area	SENTX Contractor		✓		EIAO-TM Annex 18	Not applicable
10.6.5	LV3	CM3 - All existing trees at the edges of the landfill will be carefully protected during construction. Detailed Tree Protection Specification will be provided in the Contract Specification. Under this Specification, the Contractor will be required to submit, for approval, a detailed working method statement for the protection of trees prior to undertaking any works adjacent to all retained trees, including trees in Contractor's works areas.	To minimise the landscape and visual impacts	Potential impacted area	SENTX Contractor		✓		EIAO-TM Annex 18 and ETWBC 3/2006	Not applicable
10.6.5	LV4	CM4 - Trees unavoidably affected by the works will be transplanted, where necessary and practical. A detailed Tree	landscape and visual	Potential impacted area	SENTX Contractor	✓	✓		EIAO-TM Annex 18 and ETWBC 3/2006	Implemented

EIA Ref.	EM&A Ref	Environmental Protection Measures/ Mitigation Measures	Objectives of the Recommended Measure & Main Concerns to address	Location of the Measures	Who to implement the measure?			implement sure? (1) O/R A	What requirements or standards for the measure to achieve?	Implementation Status and Remarks
		Transplanting Specification will be provided in the Contract Specification, if applicable. Sufficient time for necessary tree root and crown preparation periods will be allowed in the project programme.								
10.6.5 and SENTX latest design	LV5	CM5 - Within 3 months of taking possession of the SENTX Site, the Contractor will plant advance screen planting of native species at Light Standard size at 1.5m centres along the High Junk Peak Trail so as to screen views of the Works from the trail. Tree planting locations will be agreed with AFCD. Works will be completed within 9 months of taking possession of the SENTX Site.	To minimise the landscape and visual impacts	At High Junk Peak Hiking Trail	SENTX Contractor		•		EIAO-TM Annex 18	Implemented
10.6.5	LV6	CM6 - The Contractor's office, leachate treatment plant and laboratory will be given an aesthetic treatment in earth tones to reduce their visual impact and albedo and blend them into the surrounding landscape.	To minimise the landscape and visual impacts	Infrastructure area	SENTX Contractor	✓	✓		EIAO-TM Annex 18	Not applicable
10.6.5	LV7	CM7 - The Contractor's office, leachate treatment plant and laboratory will be surrounded by a minimum of 5m wide and 0.75m high earth bund on the west and south sides planted with a dense screen of tree and shrub vegetation. Additional tree planting will be provided in unused spaces with thin infrastructure	To minimise the landscape and visual impacts	Infrastructure area	SENTX Contractor	✓	✓		EIAO-TM Annex 18 and ETWBC 7/2002	Not applicable

EIA Ref.	EM&A Ref	Environmental Protection Measures/ Mitigation Measures	Objectives of the Recommended	Location of the Measures	Who to implement			implement ure? ⁽¹⁾	What requirements or standards for the	Implementation Status and Remarks
			Measure & Main Concerns to address		the measure?	D	С	O/R A	measure to achieve?	
		site, along access roads and in and around car parks. This will be supplemented with shrub planting, where appropriate.								
10.6.5	LV8	CM8 - Planting trials will be carried out in an on-site nursery prior to implementation of the first phase of restoration to establish the best planting matrix and management intensity of the recommended plant materials for the restoration.	To minimise the landscape and visual impacts	SENTX Site	SENTX Contractor		✓		EIAO-TM Annex 18	Implemented
11.4.1 and SENTX latest design	LV9	During the preparation of the detailed landscape design plan, the design submission will be audited against the recommendation proposed in the <i>ER Report</i> by the Registered Landscape Architect from the ET.	To ensure the implementation of mitigation measures proposed in this EIA Report	SENTX Site	SENTX Contractor/E T	✓	✓		EIAO-TM Annex 18	Implemented

Annex C

Monitoring Schedule for This Reporting Period

South East New Territories (SENT) Landfill Extension EM&A Impact Monitoring Schedule during Construction Phase

January 2021

Sun	Mon	Tue	Wed	Thu	Fri	Sat
					1	2
3	4	5	6	7	8	9
		Dust Monitoring		Surface Water Monitoring (pm)	-	
				Noise Monitoring (pm)		
10	11	12	13	14	15	16
	Dust Monitoring			Surface Water Monitoring (pm)		
				Noise Monitoring (pm)		
17	18	19		21	22	23
Dust Monitoring			Surface Water Monitoring (pm)			Dust Monitoring
			Noise Monitoring (pm)			
24	25	26	27	28	29	30
				Surface Water Monitoring (pm)	Dust Monitoring	
				Noise Monitoring (pm)		
31						

Note

Impact dust monitoring will be conducted at two monitoring stations (DM1 and DM2) under the on-going EM&A programme TKO Area 137 Fill Bank and the results will be shared with SENTX.

Air Quality

Calibration Certificates for Dust Monitoring Equipment



東業德勤測試顧問有限公司 ETS-TESTCONSULT LTD.

8/F Block B, Veristrong Industrial Centre, 34-36 Au Pui Wan Street, Fo Tan, Hong Kong

T: +852 2695 8318 F: +852 2695 3944 E: etl@ets-testconsult.com

Calibration Report of High Volume Air Sampler

Manufacturer

Graseby 105

Date of Calibration

02 December 2020

Serial No.

9795 (ET/EA/003/18)

Calibration Due Date

01 February 2021

Method

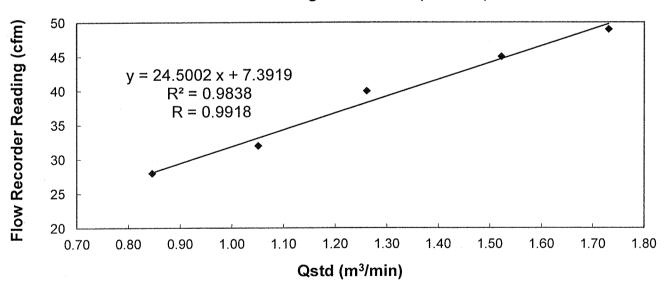
Five-point calibration by using standard calibration kit Tisch TE-5025A refer to the

Operations Manual

Results

Flow recorder rea	49	45	40	32	28	
Qstd (Actual flow rate, m³/min)		1.73	1.52	1.26	1.05	0.85
Pressure :	765.06 mm Hg		Temp.:	293	K	

Sampler 9795 Calibration Curve Site: Tseung Kwan O 137 (TKO-A1)



Acceptance Criteria: Correlation coefficient (r) of the calibration curve greater than 0.990 after a 5-point calibration

The high volume sampler complies* / does not comply* with the specified requirements and is deemed acceptable*/ unacceptable* for use.

Calibrated by:

CHAN, Wai Man (Technician) Checked by

LAU, Chi Leung

(Environmental Team Leader)

- END OF REPORT -



東業德勤測試顧問有限公司 ETS-TESTCONSULT LTD.

8/F Block B, Veristrong Industrial Centre 34-36 Au Pui Wan Street, Fo Tan, Hong Kong

T: +852 2695 8318 F: +852 2695 3944 E: etl@ets-testconsult.com

Calibration Report of High Volume Air Sampler

Manufacturer

Andersen G1051

Date of Calibration

02 December 2020

Serial No.

1176 (ET/EA/003/05)

Calibration Due Date

01 February 2021

Method

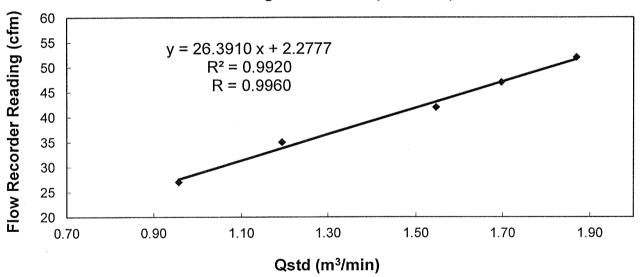
Based on Operations Manual for the 5-point calibration using standard calibration kit

manufactured by Tisch TE-5025 A

Results

Flow recorder read	52	47	42	35	27	
Qstd (Actual flow r	ate, m³/min)	1.87	1.70	1.55	1.19	0.96
Pressure: 765.06 mm Hg			Temp.:	293	K	

Sampler 1176 Calibration Curve Site: Tseung Kwan O 137 (TKO-A2a)



Acceptance Criteria: Correlation coefficient (r) of the calibration curve greater than 0.990 after a 5-point calibration

The high volume sampler complies* / does not comply* with the specified requirements and is deemed acceptable* / unacceptable * for use.

Calibrated by:

CHAN, Wai Man (Technician) Checked by:

LAU, Chi Leung

(Environmental Team Leader)

- END OF REPORT -

24-hour TSP Monitoring Results

Table D2.1 24-hour TSP Monitoring Results at DM1

Start Date	Start Time	Finish Date	Finish Time	Weather	24-hour TSP (μg/m3)
5 Jan 21	8:00	6 Jan 21	8:00	Fine	107
11 Jan 21	11:36	12 Jan 21	11:36	Cloudy	114
17 Jan 21	12:00	18 Jan 21	12:00	Fine	110
23 Jan 21	8:00	24 Jan 21	8:00	Fine	117
29 Jan 21	14:05	30 Jan 21	14:05	Fine	105
				Average	111
				Min	105
				Max	117

Note:

DM1 corresponds to the existing TSP monitoring station TKO-A1 currently operating by CEDD.

Figure D2.1 Graphical Presentation for 24-hr TSP Monitoring at DM1

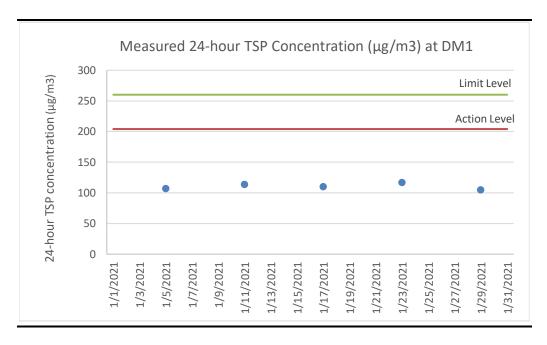


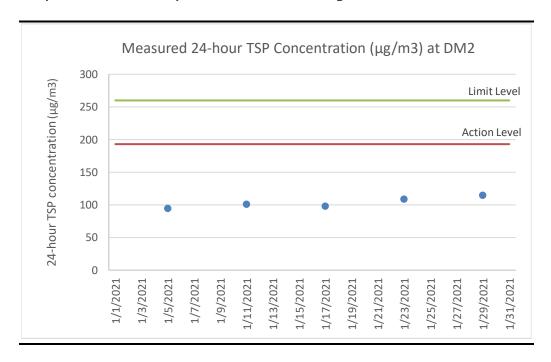
Table D2.2 24-hour TSP Monitoring Results at DM2

Start Date	Start Time	Finish Date	Finish Time	Weather	24-hour TSP (μg/m3)
5 Jan 21	8:00	6 Jan 21	8:00	Fine	95
11 Jan 21	11:30	12 Jan 21	11:30	Cloudy	101
17 Jan 21	12:00	18 Jan 21	12:00	Fine	98
23 Jan 21	8:00	24 Jan 21	8:00	Fine	109
29 Jan 21	14:15	30 Jan 21	14:15	Fine	115
				Average	104
				Min	95
				Max	115

Note:

DM2 corresponds to the existing TSP monitoring station TKO-A2a currently operating by CEDD.

Figure D2.2 Graphical Presentation for 24-hr TSP Monitoring at DM2



Event and Action Plan for Dust Monitoring

Annex D3 Event and Action Plan for Dust Monitoring During Construction Phase

Action								
Event	ET	IEC	Contractor					
Action Level								
Exceedance for one sample	 Identify the source(s) and investigate the cause(s) of exceedance Prepare Notification of Exceedance within 24 hours Inform Contractor, IEC and Project Proponent whether the cause of exceedance is due to the Project Repeat measurement to confirm finding if exceedance is due to the Project Increase monitoring frequency to daily if exceedance is due to the Project and continue until the monitoring results reduce to below action level 	 Verify the Notification of Exceedance Check monitoring data submitted by ET Check Contractor's working methods 	 Rectify any unacceptable practice Amend working methods if appropriate 					
Exceedance for two or more consecutive samples	 Identify the source(s) and investigate the cause(s) of exceedance Prepare Notification of Exceedance within 24 hours Inform Contractor, IEC and Project Proponent whether the cause of exceedance is due to the Project Discuss with Contractor and IEC for remedial measures required Ensure remedial measures are properly implemented If exceedance continues, arrange meeting with Contractor & IEC Continue monitoring at daily intervals if exceedance is due to the Project If no exceedance for 3 consecutive days, cease additional monitoring 	Check monitoring data submitted by ET	 Submit proposals for remedial measures to IEC Implement the agreed proposals Amend proposal if appropriate 					

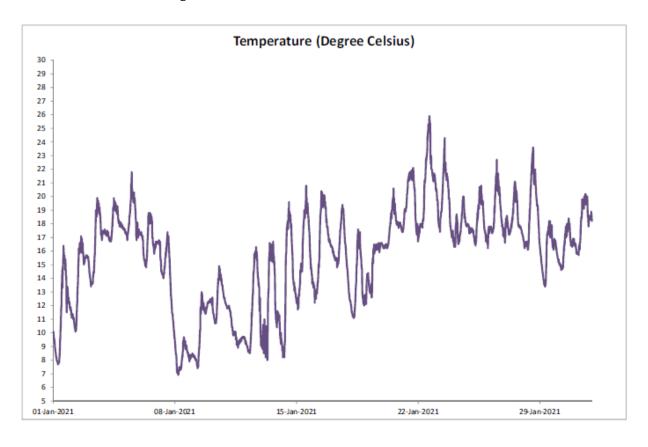
		Action	
Event	ET	IEC	Contractor
Limit Level			
Exceedance for one sample	 Identify the source(s) and investigate the cause(s) of exceedance Prepare Notification of Exceedance within 24 hours Inform Contractor, IEC, Project Proponent and EPD whether the cause of exceedance is due to the Project Discuss with Contractor and IEC for remedial measures required Ensure remedial measures are properly implemented Repeat measurement to confirm finding if exceedance is due to the Project Increase monitoring frequency to daily if exceedance is due to the Project and continue until the monitoring results reduce to below limit level 	Check monitoring data submitted by ETCheck Contractor's working methods	 Take immediate action to avoid further exceedance Submit proposals for remedial measures to IEC Implement the agreed proposals Amend proposal if appropriate
Exceedance for two or more consecutive samples	 Identify source(s) and investigate the cause(s) of exceedance Prepare Notification of Exceedance within 24 hours Inform Contractor, IEC, Project Proponent and EPD the causes & actions taken for the exceedances Discuss with Contractor and IEC for remedial measures required Ensure remedial measures are properly implemented Continue monitoring at daily intervals if exceedance is due to the Project If no exceedance for 3 consecutive days, cease additional monitoring If exceedance due to the Project continues, consider what portion of the work is responsible and stop that portion of work until the exceedance is abated 		 Take immediate action to avoid further exceedance Submit proposals for remedial measures to IEC Implement the agreed proposals Resubmit proposals if problem still not under control

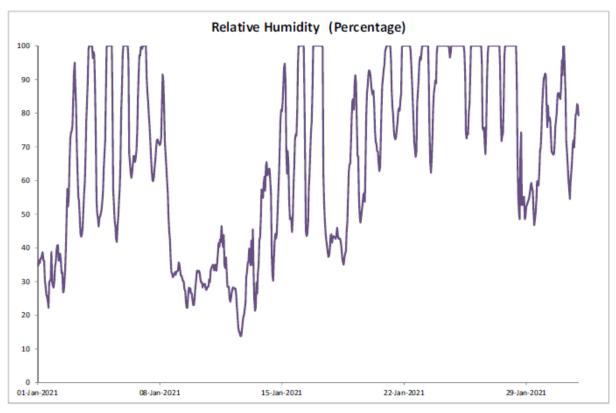
ENVIRONMENTAL RESOURCES MANAGEMENT

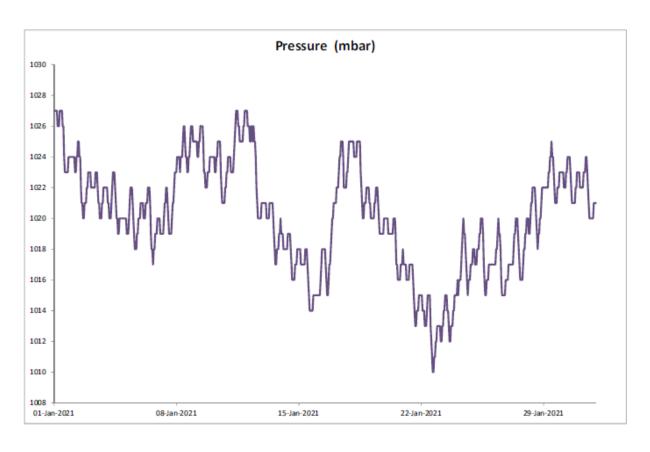
GREEN VALLEY LANDFILL LTD.

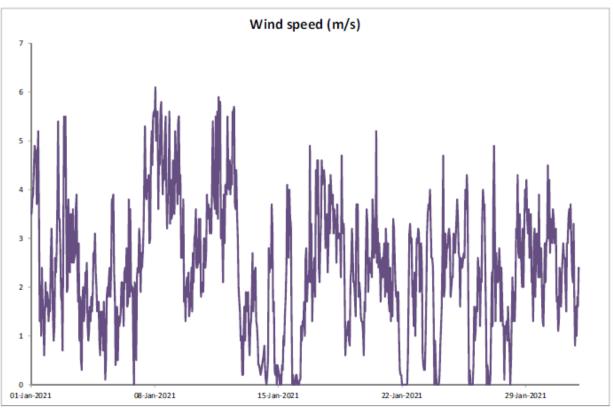
Meteorological Data

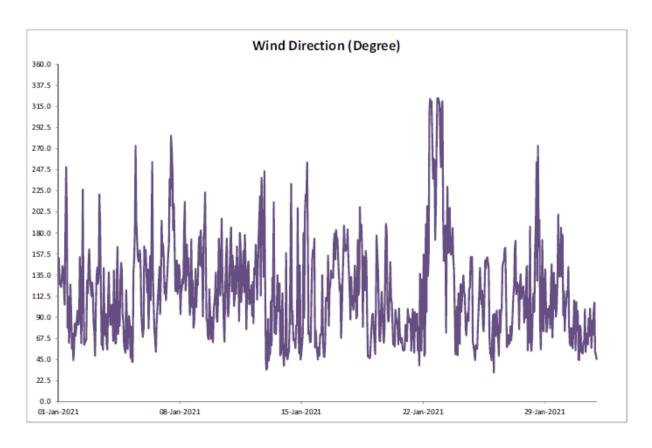
Annex D4 Meteorological Data

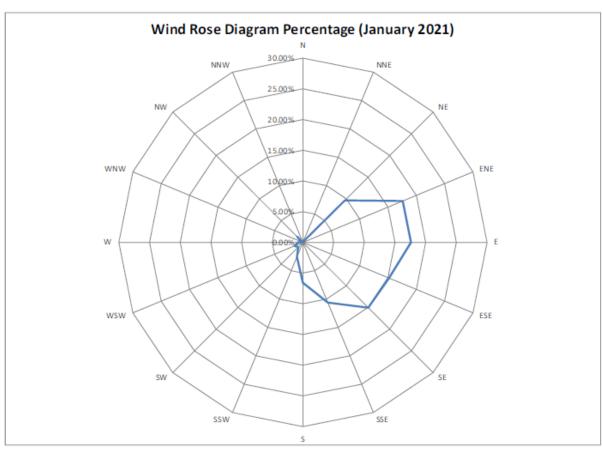


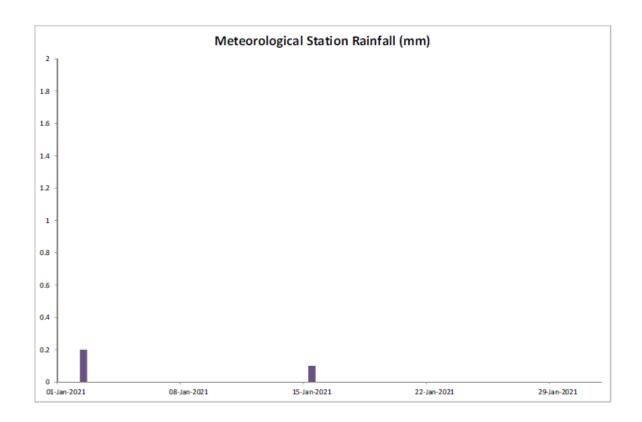












Annex E

Noise

Annex E1

Calibration Certificates for Noise Monitoring Equipment



Sun Creation Engineering Limited

Calibration & Testing Laboratory

Certificate of Calibration 校正證書

Certificate No.:

C203574

證書編號

ITEM TESTED / 送檢項目 (Job No. / 序引編號: IC20-1324)

Date of Receipt / 收件日期: 19 June 2020

Description / 儀器名稱

Integrating Sound Level Meter (EQ009)

Manufacturer / 製造商

Brüel & Kjær

Model No. / 型號 Serial No. / 編號

2238 2285722

Supplied By / 委託者

Action-United Environmental Services and Consulting

Unit A, 20/F., Gold King Industrial Building, 35-41 Tai Lin Pai Road, Kwai Chung, N.T.

TEST CONDITIONS / 測試條件

Temperature / 温度 :

 $(23 \pm 2)^{\circ}$ C

Relative Humidity / 相對濕度 : $(50 \pm 25)\%$

Line Voltage / 電壓 :

TEST SPECIFICATIONS / 測試規範

Calibration check

DATE OF TEST / 測試日期

29 June 2020

TEST RESULTS / 測試結果

The results apply to the particular unit-under-test only.

The results do not exceed manufacturer's specification.

The results are detailed in the subsequent page(s).

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

- The Government of The Hong Kong Special Administrative Region Standard & Calibration Laboratory
- The Bruel & Kjaer Calibration Laboratory, Denmark
- Agilent Technologies / Keysight Technologies
- Fluke Everett Service Center, USA

Tested By

測試

K P Cheuk Assistant Engineer

Certified By 核證

K C Lee Engineer Date of Issue 簽發日期

6 July 2020

The test equipment used for calibration is traceable to the National Standards as specified in this certificate. This certificate shall not be reproduced except in full, without the prior written approval of this laborator

本證書所載校正用之測試器材均可溯源至國際標準。局部複印本證書需先獲本實驗所書面批准。

Sun Creation Engineering Limited - Calibration & Testing Laboratory c/o 4/F, 1 Hing On Lane, Tuen Mun, New Territories, Hong Kong 輝創工程有限公司 - 校正及檢測實驗所

c/o 香港新界屯門興安里一號四樓

Tel/電話: (852) 2927 2606

Fax/傳真: (852) 2744 8986

E-mail/電郵: callab@suncreation.com

Website/網址: www.suncreation.com

Page 1 of 4



Sun Creation Engineering Limited

Calibration & Testing Laboratory

Certificate of Calibration 校正證書

Certificate No.:

C203574

證書編號

1. The unit-under-test (UUT) was allowed to stabilize in the laboratory for over 12 hours, and switched on to warm up for over 10 minutes before the commencement of the test.

2. Self-calibration using laboratory acoustic calibrator was performed before the test from 6.1.1.2 to 6.4.

3. The results presented are the mean of 3 measurements at each calibration point.

4. Test equipment:

Equipment ID

Description

Certificate No.

CL280 CL281 40 MHz Arbitrary Waveform Generator

Multifunction Acoustic Calibrator

C200258

CDK1806821

5. Test procedure: MA101N.

6. Results:

6.1 Sound Pressure Level

6.1.1 Reference Sound Pressure Level

6.1.1.1 Before Self-calibration

UUT Setting				Applied	Value	UUT
Range	Parameter	Frequency	Time	Level	Freq.	Reading
(dB)		Weighting	Weighting Weighting		(kHz)	(dB)
52 - 132	L_{AFP}	A	F	94.00	1	93.8

6.1.1.2 After Self-calibration

	UUT Setting			Applied Value		UUT	IEC 60651
Range	Parameter	Frequency	Time	Level	Freq.	Reading	Type 1 Spec.
(dB)		Weighting	Weighting	(dB)	(kHz)	(dB)	(dB)
52 - 132	L_{AFP}	A	F	94.00	1	94.0	± 0.7

6.1.2 Linearity

	UUT Setting				d Value	UUT
Range	Parameter	Frequency	Time	Level Freq.		Reading
(dB)		Weighting	Weighting	(dB)	(kHz)	(dB)
52 - 132	L_{AFP}	A	F	94.00	1	94.0 (Ref.)
				104.00		104.0
				114.00		114.0

IEC 60651 Type 1 Spec. : \pm 0.4 dB per 10 dB step and \pm 0.7 dB for overall different.

The test equipment used for calibration is traceable to the National Standards as specified in this certificate. This certificate shall not be reproduced except in full, without the prior written approval of this laboratory.

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6.2 Time Weighting

6.2.1 Continuous Signal

COLLEGE	- CITALING UD DIGITAL								
		Applied Value		UUT	IEC 60651				
Range	Parameter	Frequency	Time	Level	Freq.	Reading	Type 1 Spec.		
(dB)		Weighting	Weighting	(dB)	(kHz)	(dB)	(dB)		
52 - 132	L_{AFP}	A	F	94.00	1	94.0	Ref.		
	L_{ASP}		S			94.0	± 0.1		
	L_{AIP}		I			94.1	± 0.1		

6.2.2 Tone Burst Signal (2 kHz)

	UUT	Setting		Applied Value		UUT	IEC 60651
Range	Parameter	Frequency	Time	Level	Burst	Reading	Type 1 Spec.
(dB)		Weighting	Weighting	(dB)	Duration	(dB)	(dB)
32 - 112	L_{AFP}	A	F	106.0	Continuous	106.0	Ref.
	L _{AFMax}				200 ms	105.0	-1.0 ± 1.0
	L_{ASP}		S		Continuous	106.0	Ref.
	L _{ASMax}				500 ms	102.0	-4.1 ± 1.0

6.3 Frequency Weighting

6.3.1 A-Weighting

71- Weighting								
	UUT	Setting		Applied Value		UUT	IEC 60651	
Range	Parameter	Frequency	Time	Level Freq.		Reading	Type 1 Spec.	
(dB)		Weighting	Weighting	(dB)		(dB)	(dB)	
52 - 132	L_{AFP}	A	F	94.00	31.5 Hz	54.5	-39.4 ± 1.5	
					63 Hz	67.8	-26.2 ± 1.5	
					125 Hz	77.8	-16.1 ± 1.0	
					250 Hz	85.3	-8.6 ± 1.0	
					500 Hz	90.8	-3.2 ± 1.0	
					1 kHz	94.0	Ref.	
					2 kHz	95.2	$+1.2 \pm 1.0$	
					4 kHz	95.0	$+1.0 \pm 1.0$	
					8 kHz	92.8	-1.1 (+1.5 ; -3.0)	
					12.5 kHz	89.7	-4.3 (+3.0 ; -6.0)	

The test equipment used for calibration is traceable to the National Standards as specified in this certificate. This certificate shall not be reproduced except in full, without the prior written approval of this laboratory.

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Sun Creation Engineering Limited

Calibration & Testing Laboratory

Certificate of Calibration 校正證書

Certificate No.:

C203574

證書編號

6.3.2 C-Weighting

	UUT	Setting		Applied Value		UUT	IEC 60651	
Range	Parameter	Frequency	Time	Level	Freq.	Reading	Type 1 Spec.	
(dB)		Weighting	Weighting	(dB)		(dB)	(dB)	
52 - 132	L_{CFP}	С	F	94.00	31.5 Hz	90.9	-3.0 ± 1.5	
					63 Hz	93.2	-0.8 ± 1.5	
					125 Hz	93.8	-0.2 ± 1.0	
					250 Hz	94.0	0.0 ± 1.0	
					500 Hz	94.0	0.0 ± 1.0	
					1 kHz	94.0	Ref.	
					2 kHz	93.8	-0.2 ± 1.0	
					4 kHz	93.2	-0.8 ± 1.0	
					8 kHz	90.9	-3.0 (+1.5 ; -3.0)	
					12.5 kHz	87.8	-6.2 (+3.0 ; -6.0)	

6.4 Time Averaging

UUT Setting				Applied Value					UUT	IEC 60804
Range	Parameter	Frequency	Integrating	Frequency	Burst	Burst	Burst	Equivalent	Reading	Type 1
(dB)		Weighting	Time	(kHz)	Duration	Duty	Level	Level	(dB)	Spec.
					(ms)	Factor	(dB)	(dB)		(dB)
32 - 112	L_{Aeq}	A	10 sec.	4	1	1/10	110.0	100	99.9	± 0.5
						$1/10^{2}$		90	89.6	± 0.5
			60 sec.			$1/10^{3}$		80	79.1	± 1.0
			5 min.			1/10 ⁴		70	69.2	± 1.0

Remarks: - UUT Microphone Model No.: 4188 & S/N: 2812706

- Mfr's Spec. : IEC 60651 Type 1 & IEC 60804 Type 1

- Uncertainties of Applied Value : 94 dB : 31.5 Hz - 125 Hz : \pm 0.35 dB

250 Hz - 500 Hz : ± 0.30 dB 1 kHz : ± 0.20 dB 2 kHz - 4 kHz : ± 0.35 dB 8 kHz : ± 0.45 dB

12.5 kHz : $\pm 0.70 \text{ dB}$ 104 dB : 1 kHz : $\pm 0.10 \text{ dB}$ (Ref. 94 dB) 114 dB : 1 kHz : $\pm 0.10 \text{ dB}$ (Ref. 94 dB)

114 dB : 1 kHz : \pm 0.10 dB (Ref. 94 dB) Burst equivalent level : \pm 0.2 dB (Ref. 110 dB continuous sound level)

- The uncertainties are for a confidence probability of not less than 95 %.

Note

Only the original copy or the laboratory's certified true copy is valid.

The values given in this Certificate only relate to the values measured at the time of the test and any uncertainties quoted will not include allowance for the equipment long term drift, variations with environment changes, vibration and shock during transportation, overloading, mis-handling, or the capability of any other laboratory to repeat the measurement. Sun Creation Engineering Limited shall not be liable for any loss or damage resulting from the use of the equipment.

The test equipment used for calibration is traceable to the National Standards as specified in this certificate. This certificate shall not be reproduced except in full, without the prior written approval of this laboratory.

本證書所載校正用之測試器材均可溯源至國際標準。局部複印本證書需先獲本實驗所書面批准。

Sun Creation Engineering Limited – Calibration & Testing, Laboratory c/o 4/F, 1 Hing On Lane, Tuen Mun, New Territories, Hong Kong 輝創工程有限公司 - 校正及檢測實驗所 c/o 香港新界屯門興安里一號四樓



Sun Creation Engineering Limited

Calibration & Testing Laboratory

Certificate of Calibration 校正證書

Certificate No.:

C204289

證書編號

ITEM TESTED / 送檢項目 (Job No. / 序引編號: IC20-1324)

Date of Receipt / 收件日期: 30 July 2020

Description / 儀器名稱

Sound Calibrator (EO086)

Manufacturer / 製造商

Rion

Model No. / 型號

NC-74 34657230

Serial No./編號 Supplied By / 委託者

Action-United Environmental Services and Consulting

Unit A, 20/F., Gold King Industrial Building, 35-41 Tai Lin Pai Road, Kwai Chung, N.T.

TEST CONDITIONS / 測試條件

Temperature / 温度 : $(23 \pm 2)^{\circ}$ C

Relative Humidity / 相對濕度 : $(50 \pm 25)\%$

Line Voltage / 電壓

TEST SPECIFICATIONS / 測試規範

Calibration check

DATE OF TEST / 測試日期

2 August 2020

TEST RESULTS / 測試結果

The results apply to the particular unit-under-test only.

The results do not exceed manufacturer's specification.

The results are detailed in the subsequent page(s).

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

- The Government of The Hong Kong Special Administrative Region Standard & Calibration Laboratory
- The Bruel & Kjaer Calibration Laboratory, Denmark
- Agilent Technologies / Keysight Technologies
- Fluke Everett Service Center, USA

Tested By 測試

H T Wong

Assistant Engineer

Certified By

Date of Issue 簽發日期

3 August 2020

核證 Engineer

The test equipment used for calibration is traceable to the National Standards as specified in this certificate. This certificate shall not be reproduced except in full, without the prior

written approval of this laboratory 本證書所載校正用之測試器材均可溯源至國際標準。局部複印本證書需先獲本實驗所書面批准。

Sun Creation Engineering Limited - Calibration & Testing, Laboratory c/o 4/F, 1 Hing On Lane, Tuen Mun, New Territories, Hong Kong 輝創工程有限公司 - 校正及檢測實驗所

c/o 香港新界屯門興安里一號四樓

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輝創工程有限公司

Sun Creation Engineering Limited

Calibration & Testing Laboratory

Certificate of Calibration 校正證書

Certificate No.:

C204289

證書編號

1. The unit-under-test (UUT) was allowed to stabilize in the laboratory for over 12 hours before the commencement of the test.

2. The results presented are the mean of 3 measurements at each calibration point.

3. Test equipment:

Equipment ID CL130 CL281

TST150A

Description

Universal Counter

Measuring Amplifier

Multifunction Acoustic Calibrator

Certificate No.

C203952 CDK1806821 C201309

5. Results:

4.

5.1 Sound Level Accuracy

Test procedure: MA100N.

200000			
UUT Measured Value		Mfr's Spec.	Uncertainty of Measured Value
Nominal Value	(dB)	(dB)	(dB)
94 dB, 1 kHz	94.1	± 0.3	± 0.2

5.2 Frequency Accuracy

1 requestey recuracy			
UUT Nominal Value	Measured Value	Mfr's	Uncertainty of Measured Value
(kHz)	(kHz)	Spec.	(Hz)
1	1 002	1 kHz + 1 %	+ 1

Remark: The uncertainties are for a confidence probability of not less than 95 %.

Note

Only the original copy or the laboratory's certified true copy is valid.

The values given in this Certificate only relate to the values measured at the time of the test and any uncertainties quoted will not include allowance for the equipment long term drift, variations with environment changes, vibration and shock during transportation, overloading, mis-handling, or the capability of any other laboratory to repeat the measurement. Sun Creation Engineering Limited shall not be liable for any loss or damage resulting from the use of the equipment.

The test equipment used for calibration is traceable to the National Standards as specified in this certificate. This certificate shall not be reproduced except in full, without the prior written approval of this laboratory.

本證書所載校正用之測試器材均可溯源至國際標準。局部複印本證書需先獲本實驗所書面批准。

Annex E2

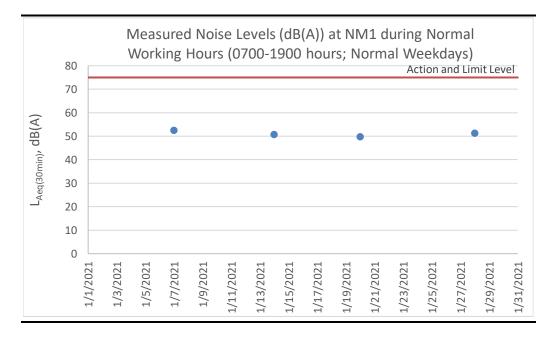
Noise Monitoring Results

Table E2.1 Measured Noise Levels (dB(A)) at NM1 during Normal Working Hours (0700-1900 hours; Normal Weekdays)

Date	Start Time	Finish Time	Weather	$L_{10~(30min)}$	$L_{90~(30min)}$	Leq (30min)
7 Jan 21	14:52	15:22	Sunny	53.5	49.5	52.6
14 Jan 21	14:38	15:08	Sunny	52.5	46.5	50.7
20 Jan 21	14:49	15:19	Sunny	51.5	46.5	49.8
28 Jan 21	14:32	15:02	Sunny	52.5	49.0	51.3
					Average	e 51.1
					Miı	1 49.8
					Max	x 52.6

Correction of +3 dB(A) was made for free field measurements.

Figure E2.1 Graphical Presentation for Noise Monitoring at NM1



Annex E3

Event and Action Plan for Noise Monitoring

Annex E3 Event and Action Plan for Construction Noise

Event		Action	
	ET	IEC	Contractor
Action Level	 Identify the source(s) and investigate the cause(s) of exceedance and complaint Prepare Notification of Exceedance within 24 hours Inform Contractor, IEC and Project Proponent whether the cause of exceedance is due to the Project Discuss with Contractor and IEC for remedial measures required Ensure remedial measures are properly implemented Have additional monitoring if exceedance is due to the Project. If exceedance stops, cease additional monitoring 	 Verify the Notification of Exceedance Check monitoring data submitted by ET Discuss with ET and Contractor on proposed remedial measures Review proposals on remedial measures Audit the implementation of the remedial measures Audit the effectiveness of the implemented remedial measures 	 Submit proposals for remedial measures to IEC Implement the agreed proposals
Limit Level	 Identify the source(s) and investigate the cause(s) of exceedance and complaint Prepare Notification of Exceedance within 24 hours Inform Contractor, IEC, Project Proponent and EPD whether the cause of exceedance is due to the Project Analyse the operation of SENTX and investigate the causes of exceedance Provide interim report to Contractor, IEC, Project Proponent and EPD the causes of the exceedances Discuss with Contractor and IEC for remedial measures required Ensure remedial measures are properly implemented Report the remedial measures implemented and the additional monitoring results to Contactor, IEC, Project Proponent and EPD Have additional monitoring if exceedance is due to the Project. If exceedance stops, cease additional monitoring 	 Verify the Notification of Exceedance Check monitoring data submitted by ET Discuss with ET and Contractor on proposed remedial measures Review proposals on remedial measures Audit the implementation of the remedial measures Audit the effectiveness of the implemented remedial measures 	 Take immediate measures to avoid further exceedance Submit proposals for remedial measures to IEC within 3 working days of notification Implement the agreed proposals Resubmit proposals if problem still not under control Stop the relevant activity of works as determined by the Project Proponent until the exceedance is abated

Surface Water Quality

Calibration Certificates for Surface Water Quality Monitoring Equipment



ALS Technichem (HK) Pty Ltd

11/F, Chung Shun Knitting Centre 1-3 Wing Yip Street, Kwai Chung N.T., Hong Kong

T: +852 2610 1044 | F: +852 2610 2021

REPORT OF EQUIPMENT PERFORMANCE CHECK/CALIBRATION

CONTACT: BEN TAM WORK ORDER: HK2047209

CLIENT: ACTION UNITED ENVIRONMENT SERVICES AND

CONSULTING

ADDRESS: RM A 20/F., GOLD KING IND BLDG, SUB-BATCH: 0

NO. 35-41 TAI LIN PAI ROAD,

KWAI CHUNG, N.T. HONG KONG

DATE RECEIVED: 07-Dec-2020

DATE OF ISSUE: 16-Dec-2020

SPECIFIC COMMENTS

Equipment information (Brand name, Model No., Serial No. and Equipment No.) is provided by client.

The performance of the equipment stated in this report is checked with independent reference material and results compared against a calibrated secondary source.

The "Tolerance Limit" quoted is the acceptance criteria applicable for similar equipment used by the laboratory or quoted from relevant international standards.

The "Next Calibration Date" is recommended according to best practice principle as practised by the laboratory or quoted from relevant international standards.

The validity of equipment/ meter performance only applies to the result(s) stated in the report.

Equipment Type: Multifunctional Meter
Service Nature: Performance Check

Scope: Conductivity, Dissolved Oxygen, pH Value, Turbidity, Salinity and Temperature

Brand Name/ Model No.: YSI Professional DSS

Serial No./ Equipment No.: 17B102764/17B100758 (EQW019)

Date of Calibration: 15-December-2020

GENERAL COMMENTS

This is the Final Report and supersedes any preliminary report with this batch number.

Ms. Lin Wai Yu, Iris

Assistant Manager - Inorganic

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REPORT OF EQUIPMENT PERFORMANCE CHECK/CALIBRATION

WORK ORDER: HK2047209

SUB-BATCH: 0

DATE OF ISSUE: 16-Dec-2020

CLIENT: ACTION UNITED ENVIRONMENT SERVICES AND CONSULTING

Equipment Type: Multifunctional Meter

Brand Name/ Model No.:

YSI Professional DSS

Serial No./ Equipment No.:

17B102764/17B100758 (EQW019)

Date of Calibration: 15-December-2020 Date of Next Calibration: 15-March-2021

PARAMETERS:

Conductivity Method Ref: APHA (21st edition), 2510B

Expected Reading (µS/cm)	Displayed Reading (μS/cm)	Tolerance (%)
146.9	147.3	+0.3
6667	6742	+1.1
12890	13050	+1.2
58670	54437	-7.2
	Tolerance Limit (%)	±10.0

Dissolved Oxygen

Method Ref: APHA (21st edition), 45000: G

Expected Reading (mg/L)	Displayed Reading (mg/L)	Tolerance (mg/L)
3.77	3.71	-0.06
5.63	5.51	-0.12
8.18	8.22	+0.04
	Tolerance Limit (mg/L)	±0.20

pH Value Method Ref: APHA (21st edition), 4500H: B

Expected Reading (pH unit)	Displayed Reading (pH unit)	Tolerance (pH unit)		
4.0	4.07	+0.07		
7.0	7.12	+0.12		
10.0	10.01	+0.01		
	Tolerance Limit (pH unit)	±0.20		

Remark: "Displayed Reading" presents the figures shown on item under calibration / checking regardless of equipment precision or significant figures.

Ms. Lin Wai Yu, Iris

Assistant Manager - Inorganic

REPORT OF EQUIPMENT PERFORMANCE CHECK/CALIBRATION

WORK ORDER: HK2047209

SUB-BATCH: 0

DATE OF ISSUE: 16-Dec-2020

CLIENT: ACTION UNITED ENVIRONMENT SERVICES AND CONSULTING

Equipment Type: Multifunctional Meter

Brand Name/ Model No.:

YSI Professional DSS

Serial No./ Equipment No.:

17B102764/17B100758 (EQW019)

Date of Calibration: 15-December-2020 Date of Next Calibration: 15-March-2021

PARAMETERS:

Turbidity Method Ref: APHA (21st edition), 2130B

Expected Reading (NTU)	Displayed Reading (NTU)	Tolerance (%)
0	0.18	
4	4.08	+2.0
40	42.18	+5.5
80	79.02	-1.2
400	412.86	+3.2
800	793.47	-0.8
	Tolerance Limit (%)	±10.0

Salinity Method Ref: APHA (21st edition), 2520B

Expected Reading (ppt)	Displayed Reading (ppt)	Tolerance (%)		
0	0.00			
10	10.86	+8.6		
20	21.69	+8.5		
30	32.83	+9.4		
	Tolerance Limit (%)	±10.0		

Remark: "Displayed Reading" presents the figures shown on item under calibration / checking regardless of equipment precision or significant figures.

Ms. Lin Wai Yu, Iris

Assistant Manager - Inorganic

REPORT OF EQUIPMENT PERFORMANCE CHECK/CALIBRATION

WORK ORDER: HK2047209

SUB-BATCH: 0

DATE OF ISSUE: 16-Dec-2020

CLIENT: ACTION UNITED ENVIRONMENT SERVICES AND CONSULTING

Equipment Type: Multifunctional Meter

Brand Name/ Model No.:

YSI Professional DSS

Serial No./ Equipment No.:

17B102764/17B100758 (EQW019)

Date of Calibration: 15-December-2020 Date of Next Calibration: 15-March-2021

PARAMETERS:

Temperature Method Ref: Section 6 of International Accreditation New Zealand Technical

Guide No. 3 Second edition March 2008: Working Thermometer Calibration Procedure.

Expected Reading (°C)	Displayed Reading (°C)	Tolerance (°C)		
10.5	10.3	-0.2		
20.0	20.1	+0.1		
39.5	39.4	-0.1		
	Tolerance Limit (°C)	±2.0		

Remark: "Displayed Reading" presents the figures shown on item under calibration / checking regardless

of equipment precision or significant figures.

/ V·

Ms. Lin Wai Yu, Iris

Assistant Manager - Inorganic

Surface Water Quality Monitoring Results

Table F2.1 Surface Water Quality Monitoring Results at DP4T

Date	Time	Weather	Water	Water	Water	Dissolved	pН	Suspended	Remarks
		Condition	Appearance	Condition	Temperature	Oxygen (DO)		Solids (SS)	
					(°C)	(mg/L)		(mg/L)	
7 Jan 21	14:32	Sunny		Unable to	collect water sam	ple due to insuff	icient flow		-
14 Jan 21	14:30	Sunny		Unable to	collect water sam	ple due to insuff	icient flow		-
20 Jan 21	14:28	Sunny		Unable to collect water sample due to insufficient flow					-
28 Jan 21	14:20	Sunny		Unable to	collect water sam	ple due to insuff	icient flow		-
					Average	? -	-	-	-
	Min -							-	-
Max									-
Notes: DP4	was tempo	rarv relocated t	to DP4 (Future, t	emporary) (i.e	. DP4T) as an int	erim discharge p	oint from th	e monitoring ev	rent on 16 May 2019.

Table F2.2 Surface Water Quality Monitoring Results at DP6

Date	Time	Weather	Water	Water	Water	Dissolved	pН	Suspended	Remarks
		Condition	Appearance	Condition	Temperature	Oxygen (DO)		Solids (SS)	
					(°C)	(mg/L)		(mg/L)	
7 Jan 21	14:19	Sunny		Unable to	collect water san	ple due to insuff	icient flow		-
14 Jan 21	14:16	Sunny		Unable to collect water sample due to insufficient flow					-
20 Jan 21	14:13	Sunny		Unable to	collect water san	ple due to insuff	icient flow		-
28 Jan 21	14:07	Sunny		Unable to	collect water san	ple due to insuff	icient flow		-
					Average	<u> </u>	-	-	-
					Mir	1 -	-	-	-
					Max				-

Event and Action Plan for Surface Water Quality Monitoring

Annex F3 Event and Action Plan for Surface Water Quality During Construction Phase

Event	Action				
	ET	IEC	Contractor		
Action Level being exceeded by one sampling day	 Repeat <i>in situ</i> measurement to confirm findings Identify the source(s) and investigate the cause(s) of exceedance Prepare Notification of Exceedance within 24 hours Inform Contractor, IEC and Project Proponent whether the cause of exceedance is due to the Project Repeat measurement on the next day of exceedance if exceedance is due to the Project 	 Verify the Notification of Exceedance Check monitoring data submitted by ET Check Contractor's working methods 	Rectify any unacceptable practice Amend working methods if appropriate		
Action Level being exceeded by two consecutive sampling days	 Repeat <i>in situ</i> measurement to confirm findings Identify the source(s) and investigate the cause(s) of exceedance Prepare Notification of Exceedance within 24 hours Inform Contractor, IEC and Project Proponent whether the cause of exceedance is due to the Project Discuss with Contractor and IEC for remedial measures required Ensure remedial measures are properly implemented Increase the monitoring frequency to daily if exceedance is due to the Project and continue until no exceedance of Action Level 	 Verify the Notification of Exceedance Check monitoring data submitted by ET Check Contractor's working methods Discuss with ET Leader and Contractor on proposed remedial measures Review proposals on remedial measures Audit the implementation of the remedial measures Audit the effectiveness of the implemented remedial measures 	 Submit proposals for remedial measures to IEC Implement the agreed proposals Amend proposal if appropriate 		

Event	Action					
	ET	IEC	Contractor			
Limit Level being exceeded by two consecutive sampling days	 Repeat <i>in situ</i> measurement to confirm findings Identify source(s) of impact and cause(s) of exceedance Prepare the Notification of Exceedance within 24 hours Inform Contractor, IEC, Project Proponent and EPD whether the cause of exceedance is due to the Project Discuss with Contractor and IEC for remedial measures required Ensure remedial measures are properly implemented Increase the monitoring frequency to daily if exceedance is due to the Project until no exceedance of Limit Level 	 Verify the Notification of Exceedance Check monitoring data submitted by ET Check Contractor's working methods Discuss with ET and Contractor on proposed remedial measures Review proposals on remedial measures Audit the implementation of the remedial measures Audit the effectiveness of the implemented remedial measures 	 Critically review the working methods Rectify unacceptable practice Check all plant and equipment Consider changes of working methods Discuss with the ET and IEC and propose mitigation measures to the IEC Implement the agreed mitigation measures 			
Limit Level being exceeded by more than two consecutive sampling days	 Repeat <i>in situ</i> measurement to confirm findings Identify source(s) of impact and cause(s) of exceedance Prepare the Notification of Exceedance within 24 hours Inform Contractor, IEC, Project Proponent and EPD whether the cause of exceedance is due to the Project Check monitoring data, all plant, equipment and Contractor's working methods Discuss with Contractor and IEC for remedial measures required Ensure mitigation measures are implemented Increase the monitoring frequency to daily if exceedance is due to the Project until no exceedance of Limit Level for two consecutive days 	 Verify the Notification of Exceedance Check monitoring data submitted by ET Check Contractor's working methods Discuss with ET and Contractor on proposed remedial measures Review proposals on remedial measures Audit the implementation of the remedial measures Audit the effectiveness of the implemented remedial measures 	 Critically review the working methods Rectify unacceptable practice Check all plant and equipment Consider changes of working methods Discuss with the ET and IEC and propose mitigation measures Implement the agreed mitigation measure As directed by the Project Proponent, slow down or stop all or part of the construction activities 			

ENVIRONMENTAL RESOURCES MANAGEMENT

GREEN VALLEY LANDFILL LTD.

Annex G

Cumulative Statistics on Exceedances, Environmental Complaints, Notification of Summons and Status of Prosecutions

 Table G1
 Cumulative Statistics on Exceedances

		Total No. recorded in this reporting period	Total No. recorded since project commencement
Air Quality (24-hr TSP)	Action	0	0
	Limit	0	0
Noise	Action	0	0
	Limit	0	0
Surface Water Quality	Action	0	0
•	Limit	0	47

Table G2 Cumulative Statistics on Complaints, Notifications of Summons and Successful Prosecutions

Reporting Period	Cumulative Statistics			
	Complaints	Notifications of Summons	Prosecutions	
This Reporting Period (1 – 31 January 2021)	0	0	0	
Total no. received since project commencement	1	0	0	

Annex H

Monitoring Schedule for the Next Reporting Period

South East New Territories (SENT) Landfill Extension EM&A Impact Monitoring Schedule during Construction Phase

February 2021

Sun	Mon	Tue	Wed	Thu	Fri	Sat
	1	2	3	4	5	6
				Surface Water Monitoring (pm)		
				Noise Monitoring (pm)		
				Dust Monitoring		
7	8	9	10	11	12	13
		Surface Water Monitoring (pm)	Dust Monitoring			
		Noise Monitoring (pm)				
14	15	16	17	18	19	20
		Dust Monitoring	Surface Water Monitoring (pm)			
			Noise Monitoring (pm)			
21	22	23	24	25	26	27
	Dust Monitoring			Surface Water Monitoring (pm)		
				Noise Monitoring (pm)		
28						
Dust Monitoring						

Note

Impact dust monitoring will be conducted at two monitoring stations (DM1 and DM2) under the on-going EM&A programme TKO Area 137 Fill Bank and the results will be shared with SENTX.