

OSCAR Bioenergy Joint Venture

Contract No. EP/SP/61/10
Organic Resources Recovery
Centre (Phase 1):
*Fourteenth Quarterly EM&A
Summary Report*

1 September 2018 – 30 November 2018

Environmental Resources Management

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Meinhardt Infrastructure and Environment Limited

**Organic Resources Recovery Centre,
Phase I**

14th Quarterly EM&A Summary Report
(1 September 2018 – 30 November 2018)

(February 2019)

Verified by: Helen Cochrane 

Position: Independent Environmental Checker

Date: 4 February 2019

OSCAR Bioenergy Joint Venture

Contract No. EP/SP/61/10
Organic Resources Recovery
Centre (Phase 1):
*Fourteenth Quarterly EM&A
Summary Report*

1 September 2018 - 30 November 2018

Reference 0279222

For and on behalf of ERM-Hong Kong, Limited	
Approved by:	Frank Wan
Signed:	
Position:	Partner
Certified by:	
	(Environmental Team Leader - Mandy To)
Certified by:	
	(Registered Landscape Architect No. R-150 - Albert Chung)
Date:	17 January 2019

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EXECUTIVE SUMMARY

The construction works of *No. EP/SP/61/10 Organic Resources Recovery Centre (Phase I) (the Project)* commenced on 21 May 2015. This is the fourteenth quarterly Environmental Monitoring and Audit (EM&A) summary report presenting the EM&A works carried out during the period from 1 September 2018 to 30 November 2018 in accordance with the EM&A Manual.

Environmental Monitoring and Audit Progress

A summary of the monitoring activities undertaken in this reporting period is listed below:

- Joint Environmental Site Inspection 14 times
- Landscape & Visual Monitoring 6 times

Odour

Odour patrol were conducted by representatives of the Contractor, the ER and Employer (EPD Project Team) during reporting period. No Level 2 Odour Intensity was recorded during odour patrols.

Air samples were also collected from the outlet of the CAPC unit by an independent laboratory (ALS) for olfactometry analysis at the laboratory on 31 August 2018, 5, 12, 19 and 26 October 2018 and 1, 5 and 23 November 2018. The odour level of the samples collected on 31 August 2018, 5, 12, 19 and 26 October 2018 and 1 and 5 November 2018 have exceeded the odour limit stated in Table 2.2 of the EM&A Manual. An investigation of the cause of the exceedance has been carried out. The investigation reports was shown in *Annex I*.

Waste Management

Waste generated from this Project includes inert construction and demolition (C&D) materials (public fill) and non-inert C&D materials (construction wastes).

Environmental Exceedance/Non-conformance/Compliant/Summons and Prosecution

Six exceedances related to odour was recorded during the reporting period.

No non-complacence event was recorded during the reporting period.

One environmental complaint related to odour and no summon/prosecution was received in this reporting period.

ERM-Hong Kong, Limited (ERM) was appointed by OSCAR Bioenergy Joint Venture (the Contractor) as the Environmental Team (ET) to undertake the Environmental Monitoring and Audit (EM&A) programme for the *Contract No. EP/SP/61/10 of Organic Waste Treatment Facilities Phase I*, which the project name has been updated to *Organic Resources Recovery Centre (Phase I) (the Project)* since November 2017.

1.1 PURPOSE OF THE REPORT

This is the fourteenth quarterly EM&A summary report, which summarizes the impact monitoring results and audit findings for the EM&A programme during the reporting period from **1 September 2018 to 30 November 2018**.

1.2 STRUCTURE OF THE REPORT

The structure of the report is as follows:

Section 1 : **Introduction**

It details the scope and structure of the report.

Section 2 : **Project Information**

It summarises background and scope of the Project, site description, project organization, construction programme, the construction works undertaken and the status of Environmental Permits (EP)/licences over the construction phase of the Project.

Section 3 : **Environmental Monitoring Requirements**

It summarises the environmental monitoring including monitoring parameters, monitoring programmes, monitoring frequency, monitoring locations, Action and Limit Levels, Event/ Action Plans, environmental mitigation measures as recommended in the approved EIA report, EP and relevant environmental requirements stated in the Contract Specification.

Section 4 : **Implementation Status on Environmental Mitigation Measures**

It summarises the implementation of environmental protection measures during the reporting period.

Section 5 : **Waste Management**

It summarises the quantity of public fill and construction waste generated in the reporting period

Section 6 : **Environmental Site Inspection**

It summarises the audit findings of the weekly site inspections undertaken within the reporting period.

Section 7 : **Environmental Non-conformance**

It summarises any exceedance of environmental performance standard, and environmental complaints and environmental summons received within the reporting period.

Section 8 : **Conclusions**

2.1**BACKGROUND**

The Organic Resources Recovery Centre (ORRC) Phase I development (hereinafter referred to as “the Project”) is to design, construct and operate a biological treatment facility with a capacity of about 200 tonnes per day and convert source-separated organic waste from commercial and industrial sectors (mostly food waste) into compost and biogas through proven biological treatment technologies.

The environmental acceptability of the construction and operation of the Project had been confirmed by findings of the associated Environmental Impact Assessment (EIA) Study completed in 2009. The Director of Environmental Protection approved this EIA Report under the Environmental Impact Assessment Ordinance (EIAO) (Cap. 499) in February 2010 (Register No.: AEIAR-149/2010) (hereafter referred to as the approved EIA Report). Subsequent Report on Re-assessment on Environmental Implications and Report on Re-assessment on Hazard to Life Implications were completed in 2013, respectively.

An Environmental Permit (EP) (No. EP-395/2010) was issued by the Environmental Protection Department (EPD) to the EPD, the Permit Holder, on 21 June 2010 and varied on 18 March 2013 (No. EP-395/2010/A) and 21 May 2013 (No. EP-395/2010/B), respectively. The Design Build and Operate Contract for the ORRC (Contract No. EP/SP/61/10 Organic Resources Recovery Centre Organic Resources Recovery Centre (Phase I)) was awarded to SITA Waste Services Limited, ATAL Engineering Limited and Ros-Roca, Sociedad Anonima jointly trading as the OSCAR Bioenergy Joint Venture (OSCAR or the Contractor). A Further EP (No. FEP-01/395/2010/B) was issued by the EPD to the OSCAR on 16 February 2015. Variation to both EPs No. EP-395/2010/B and No. FEP-01/395/2010/B were made in December 2015. The latest EPs, No. EP-395/2010/C and No. FEP-01/395/2010/C, were issued by the EPD on 21 December 2015.

Under the requirements of Condition 5 of the EP (No. FEP-01/395/2010/C), an Environmental Monitoring and Audit (EM&A) programme as set out in the Agreement No. CE7/2008 (EP) EM&A Manual (hereinafter referred to as EM&A Manual) is required to be implemented. ERM-Hong Kong, Ltd (ERM) has been appointed by OSCAR as the Environmental Team (ET) to undertake the EM&A programme for the Contract.

The construction works commenced on 21 May 2015 and are scheduled for completion by December 2018.

2.2 GENERAL SITE DESCRIPTION

The Project Site is located at Siu Ho Wan in North Lantau with an area of about 2 hectares. The layout of the upgrading works is illustrated in *Annex A*.

2.3 CONSTRUCTION ACTIVITIES

A summary of the major construction activities undertaken in the reporting period is shown *Table 2.1*. The locations of the construction activities are shown in *Annex B*. The construction programme of the Project is presented in *Annex C*.

Table 2.1 *Summary of Construction Activities Undertaken in the Reporting Period*

Construction Activities Undertaken
<ul style="list-style-type: none">• Building 1 - ABWF/finishing works and BS installation;• Building 2 & 3 - ABWF/finishing works and BS installation;• Electrical installation (cable trays, Local Control panels/switch installation, general cabling works, instrumentation and control installation, lighting, ELV and SCADA installation);• BS works (MVAC, FS, P/D);• Landscaping works;• Systems being operated - waste reception, pre-treatment, CAPCS extraction, the digesters, the centrifuge, the desulphurization, the emergency flare, the CHPs, the ASP and the biological waste water treatment plant;• Process commissioning in progress - waste reception, pre-treatment, CAPCS extraction, the digesters, the centrifuge, the composting tunnels, the desulphurisation, the emergency flare, the CHPs, the ASP and the biological waste water treatment plant (about 60-120d t/d SSOW input).

2.4 PROJECT ORGANISATION AND MANAGEMENT STRUCTURE

The project organisation chart and contact details are shown in *Annex D*.

2.5 STATUS OF ENVIRONMENTAL APPROVAL DOCUMENTS

A summary of the valid permits, licences, and/or notifications on environmental protection for this Project is presented in *Table 2.2*.

Table 2.2 Summary of Environmental Licensing, Notification and Permit Status

Permit/ Licenses/ Notification	Reference	Validity Period	Remarks
Environmental Permit	FEP-01/395/2010/C	Throughout the Contract	Permit granted on 21 December 2015
Notification of Construction Works under the Air Pollution Control (Construction Dust) Regulation	Ref No. 386715	Throughout the Contract	-
Effluent Discharge License	WT00024352-2016	21 May 2015 - 31 May 2020	Approved on 3 June 2016 2015
Construction Noise Permit - P1&P2	GW-RW0637-17 (Superseded CNP GW-RW0351-17)	21 January 2018- 20 July 2018	Approved on 14 December 2017
Construction Noise Permit - P1&P2	GW-RW0229-18 (Superseded CNP GW-RW0637-17)	21 July 2018 - 20 January 2019	Approved on 19 June 2018
Construction Noise Permit - P3	GW-RW0184-18 (Superseded CNP GW-RW0565-17)	1 June 2018 - 30 November 2018	Approved on 17 May 2018
Construction Noise Permit - P5 (Slope)	GW-RW0107-18	30 March 2018 - 29 September 2018	Approved on 20 March 2018
Construction Noise Permit - P5 (Slope)	GW-RW0347-18 (Superseded the GW-RW0107-18)	30 September 2018 - 29 March 2019	Approved on 15 August 2018
Chemical Waste Producer Registration	WPN 5213-961-O2231-01	Throughout the Contract	Approved on 29 April 2015
Waste Disposal Billing Account	Account number: 702310	Throughout the Contract	-

ENVIRONMENTAL MONITORING REQUIREMENT, ENVIRONMENTAL MITIGATION MEASURES

All the relevant environmental mitigation measures listed in the EIA Report and EM&A Manual are summarised in *Annex E*.

According to the EM&A Manual and EP requirement, no air quality, noise and water quality monitoring is required during the construction phase.

According to the EM&A Manual and EP requirement, odour monitoring is required during the commissioning phase.

The odour patrols shall be conducted by an odour patrol team. The odour patrol team will patrol and sniff along an odour patrol route at the site boundary. The implementation of the odour patrol shall be subject to the prevailing weather forecast condition and no odour patrol should be carried out during rainy day. The odour patrol team should be comprised of at least two independent trained personnel / competent persons, who should pass a set of screening tests.

During August 2018, air samples were collected from the outlet of the Centralised Air Pollution Control (CAPC) unit by ALS for measurement of the Odour Intensity by olfactometry analysis at the laboratory. According to the EM&A Manual and EP requirements, it is considered an exceedance if the odour level is more than 220 OU/Nm³. During this reporting period, the odour level of the odour samples collected from the CAPC unit have exceeded the odour limits stated in Table 2.2 of the EM&A Manual. The monitoring results are shown in *Annex H*.

Investigation of the exceedances has been conducted. The investigation report is shown in *Annex I*.

During September 2018, odour patrol were conducted by representatives of the Contractor, the ER and Employer (EPD Project Team) on 3, 5, 7, 10, 12, 14, 17, 19, 21, 24, 26 and 28 September 2018. The Independent Odour Patrol Team, ALS Technichem (HK) Pty Ltd (ALS), has also joined the odour patrol on 10 and 28 September 2018. According to the EM&A Manual and EP requirement, it is considered an exceedance if the odour intensity recorded by the panellists is Level 2 or above. During this reporting period, no Level 2 Odour Intensity was recorded. The odour patrol results are shown in *Annex H*.

No air samples was collected from the outlet of the CAPC unit for measurement of the Odour Intensity in September 2018.

During October 2018, Odour patrol were conducted by representatives of the Contractor, the ER and Employer (EPD Project Team) on 2, 3, 5, 8, 10, 12, 15, 18, 19, 22, 24, 26, 29 and 31 October 2018. The Independent Odour Patrol Team, ALS Technichem (HK) Pty Ltd (ALS), has also joined the odour patrol on 26 October 2018. According to the EM&A Manual and EP requirement, it is considered an exceedance if the odour intensity recorded by the panellists is

Level 2 or above. During this reporting period, no Level 2 Odour Intensity was recorded. The odour patrol results are shown in *Annex H*.

On 5, 12, 19 and 26 October 2018, air samples were also collected from the outlet of the Centralised Air Pollution Control (CAPC) unit by ALS for measurement of the Odour Intensity by olfactometry analysis at the laboratory. According to the EM&A Manual and EP requirements, it is considered an exceedance if the odour level is more than 220 OU/Nm³. On 5, 12, 19 and 26 October 2018, the odour level of the odour samples collected from the CAPC unit have exceeded the odour limits stated in Table 2.2 of the EM&A Manual. The monitoring results are shown in *Annex H*.

Investigation of the exceedances has been conducted. The investigation report is shown in *Annex I*.

During November 2018, odour patrols were conducted by representatives of the Contractor, the ER and Employer (EPD Project Team) on 2, 5, 7, 9, 12, 14, 16, 19, 21, 23, 26, 28 and 30 November 2018. The Independent Odour Patrol Team, ALS Technichem (HK) Pty Ltd (ALS), has also joined the odour patrols on 30 November 2018. According to the EM&A Manual and EP requirements, it is considered an exceedance if the odour intensity recorded by the panellists is Level 2 or above. During this reporting period, no Level 2 Odour Intensity was recorded. The odour patrol results are shown in *Annex H*.

On 1, 5 and 23 November 2018, air samples were also collected from the outlet of the Centralised Air Pollution Control (CAPC) unit by ALS for measurement of the Odour Intensity by olfactometry analysis at the laboratory. According to the EM&A Manual and EP requirements, it is considered an exceedance if the odour level is more than 220 OU/Nm³. On 1 and 5 November 2018, the odour level of the odour samples collected from the CAPC unit have exceeded the odour limits stated in Table 2.2 of the EM&A Manual. No exceedance for the samples collected on 23 November 2018. The laboratory results are shown in *Annex H*.

Investigation of the exceedances has been conducted. The investigation report is shown in *Annex I*.

Bi-weekly landscape and visual audit is required to ensure that the design, implementation and maintenance of landscape and visual mitigation measures recommended in the EIA Report are fully achieved.

***IMPLEMENTATION STATUS ON ENVIRONMENTAL PROTECTION
REQUIREMENTS***

The Contractor has implemented environmental mitigation measures and requirements as stated in the approved EIA Report and EM&A Manual. The implementation status of the measures during the reporting period is summarised in *Annex E*.

Wastes generated from this Project include inert construction and demolition (C&D) materials (public fill) and non-inert C&D materials (construction waste). Construction waste comprises general refuse, metals and paper/cardboard packaging materials. Metals generated from the Project are also grouped into construction waste as the materials were not disposed of with others at public fill. Reference has been made to the Monthly Summary Waste Flow Table prepared by the Contractor (see *Annex F*). With reference to the relevant handling records and trip tickets of this Project, the quantities of different types of waste generated in the reporting month are summarised in *Table 5.1*.

Table 5.1 *Quantities of Waste Generated from the Project*

Month/Year	Quantity			
	Total Inert C&D Materials Generated ^(a)	Non-inert C&D Materials ^(b)		
		C&D Materials Recycled ^(c)	C&D Waste Disposed of at Landfill ^(d)	Chemical Waste
September 2018	765.7 tonnes	15,100.00 kg	41.82 tonnes	0.00 L
October 2018	0.00 tonnes	2,330.00 kg	109.49 tonnes	0.00 L
November 2018	77.71 tonnes	0.00 kg	30.18 tonnes	0.00 L

Notes:

- (a) Inert C&D materials (public fill) include bricks, concrete, building debris, rubble and excavated spoil. In total, 843.41 tonnes of inert C&D material were generated from the Project, of which 325.00 tonnes were reused in this Contract and the remaining 518.41 tonnes were disposed as public fill to Fill Banks at Tuen Mun Area 38. The detailed waste flow is presented in *Annex F*.
- (b) Non-inert C&D materials (construction wastes) include metals, paper / cardboard packaging waste, plastics and other wastes such as general refuse. Metals generated from the Project were grouped into construction wastes as the materials were not disposed of with others at the public fill.
- (c) 10,600.00 kg of metals, 6,830.00 kg of papers/ cardboard packing and 0.00 kg of plastics were sent to recyclers for recycling during the reporting period.
- (d) Construction wastes other than metals, paper/cardboard packaging, plastics and chemicals were disposed of at NENT Landfill by subcontractors.

6.1 WEEKLY SITE AUDITS

Thirteen site inspections were conducted during the reporting period. There was no non-compliance recorded during the site inspections. Follow-up actions were undertaken as reported by the Contractor and observed in the subsequent weekly site inspections conducted in the reporting period.

September 2018

Joint site inspections were conducted by the representatives of the Contractor, ER, IC and ET on 3, 11, 19 and 26 September 2018. The IEC was also present at the joint inspection on 19 September 2018.

October 2018

Joint site inspections were conducted by the representatives of the Contractor, ER, IC and ET on 2, 10, 19, 23 and 30 October 2018. The IEC was also present at the joint inspection on 10 October 2018.

November 2018

Joint site inspections were conducted by the representatives of the Contractor, ER, IC and ET on 3, 7, 15, 20 and 28 November 2018. The IEC was also present at the joint inspection on 28 November 2018.

6.2 LANDSCAPE AND VISUAL AUDIT

Six landscape and visual monitoring site inspections were conducted during the reporting period. Follow-up actions needed to be implemented were recommended to the Contractor and the status of the follow-up actions was reviewed during the subsequent weekly site inspections. It was confirmed that most of the necessary landscape and visual mitigation measures as summarised in *Annex E* were implemented by the Contractor.

In accordance with the EM&A Manual, bi-weekly landscape and visual inspection is required to ensure that the design, implementation and maintenance of landscape and visual mitigation measures recommended in the EIA Report are fully achieved. The onsite inspection of the landscape and visual mitigation measures has commenced since June 2015 during weekly site inspections.

September 2018

Bi-weekly site inspections were conducted on 3 and 17 September 2018.

October 2018

Bi-weekly site inspections were conducted on 8 and 22 October 2018.

November 2018

Bi-weekly site inspections were conducted on 5 and 19 November 2018.

Key landscape and visual mitigation measures implemented in the reporting period included:

- Provide insect prevention measures to the exposed root of retained tree to prevent potential damage due to the exposure.
- Provide the non-moisture holding material around the trees to prevent potential damage.
- Avoid placing machine near the tree protection zone.

6.3

EFFECTIVENESS OF MITIGATION MEASURES AND MONITORING

The mitigation measures recommended in the EIA report and required by the EP are considered effective in minimizing environmental impacts.

The EM&A for the Project was conducted as scheduled during the reporting period. No non-compliance events were observed during site inspections and no exceedances were recorded during this reporting period. The EM&A programme is considered effective.

7 ENVIRONMENTAL NON-CONFORMANCE

7.1 SUMMARY OF ENVIRONMENTAL NON-COMPLIANCE

No non-compliance event was received during the reporting period.

7.2 SUMMARY OF ENVIRONMENTAL COMPLAINT

One odour complaint was received during the reporting period. During the odour patrol conducted by the ER and OSCAR at about 15:00 hrs on 7 September 2018 (Friday), the patrol team received a verbal complaint from a police officer (Mr Cho who works at the Hong Kong Police Siu Ho Wan Vehicle Examination Centre and Weigh Station next to ORRC1) regarding the odour nuisance, flies and mosquitos at the compound. The investigation report is presented in *Annex J*. The complaint was also registered in the cumulative environmental complaint log (see *Annex G*).

7.3 SUMMARY OF ENVIRONMENTAL SUMMON AND SUCCESSFUL PROSECUTION

No summon/prosecution was received during the reporting period. The cumulative summons/prosecution log is shown in *Annex G*.

This EM&A Report presents the EM&A works undertaken during the reporting period from 1 September 2018 to 30 November 2018 in accordance with EM&A Manual and requirements of EP (FEP-01/395/2010/C).

No air quality, noise and water quality monitoring is required during the construction phase.

Odour patrol and monitoring are required during the commissioning phase. No exceedance of odour intensity limit for all odour patrol events. Air samples were also collected at the CAPC unit for olfactometry analysis at the laboratory on 31 August 2018, 5, 12, 19 and 26 October 2018 and 1, 5 and 23 November 2018. The result are shown in *Annex H*. The odour level of the samples collected on 31 August 2018, 5, 12, 19 and 26 October 2018 and 1 and 5 November 2018 have exceeded the odour limit. An investigation of the cause of the exceedance has been carried out. The investigation report was shown in *Annex I*.

Bi-weekly landscape and visual monitoring was conducted in this quarterly period. Most of the necessary landscape and visual mitigation measures recommended in the EIA Report were implemented by the Contractor. Follow-up actions would be implemented by the Contractor to improve protection measures on the retained or to-be transplanted trees.

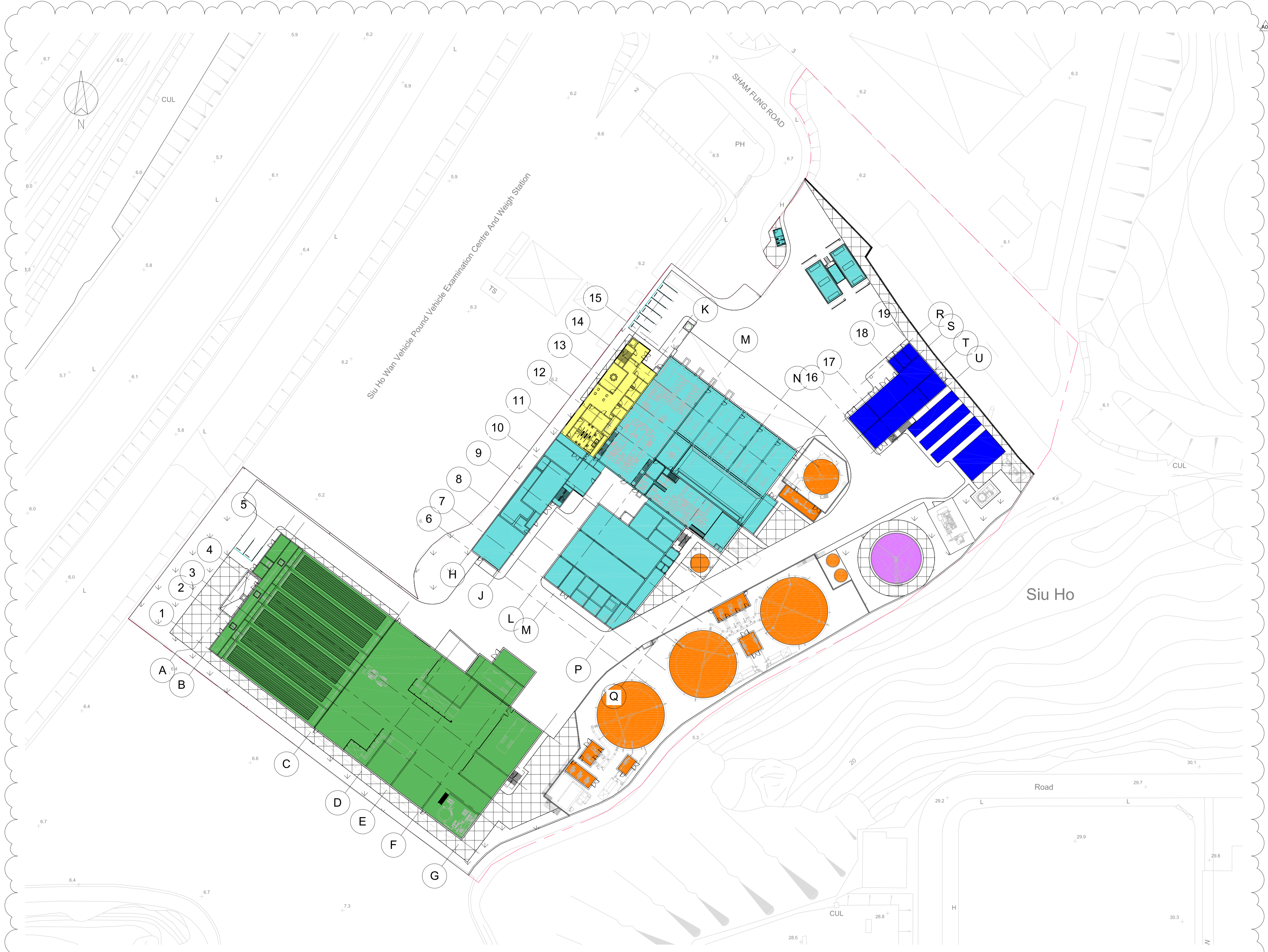
No non-compliance event was recorded during the reporting period.

One complaint related to odour and no summons/prosecution was received during the reporting period. The investigation of the complaint has been carried out. The investigation report was shown in *Annex J*.

The ET will keep track on the EM&A programme to ensure compliance of environmental requirements and the proper implementation of all necessary mitigation measures in the coming periods.

Annex A

Project Layout



A01	05/03/15	CW	MB	IMTECH BACKGROUNDS UPDATED
A00	18/02/15	CW	MB	DRAFT ISSUE
REV	DATE	BY	APP	DESCRIPTION

CLIENT
 ENVIRONMENTAL PROTECTION DEPARTMENT
 GOVERNMENT OF THE HKSAR

CLIENT'S CONSULTANT

 AECOM ASIA CO. LTD.

CONTRACTOR

 OSCAR BIOENERGY JV

LEAD DESIGNER

 Ove Arup & Partners Hong Kong Limited

ENVIRONMENTAL TEAM

 ERM HONG KONG LIMITED

INDEPENDENT CONSULTANTS

 Meinhardt Infrastructure and Environment Limited
 邁達基建築環保工程顧問有限公司

PROJECT
 ORGANIC WASTE TREATMENT FACILITIES
 PHASE 1
 EP/SP/61/10

STATUS
 DRAFT ISSUE

DRAWING TITLE
 SITE LAYOUT

DRAWN CW	CHECKED RS	APPROVED DP
SCALE 1:500@A1 / 1:1000@A3	DATE 12/02/15	
JOB NO. 239956	DRAWING NO. DR-OAP-20-0-CA-1001	REV. A01

Plot Time: 05/03/15 21:20:07
 Plot Location: C:\Users\mathew.brown\Documents\QWTF_Architectural Working Model (Combined) CEH_mathew.brown.rvt

Annex B

Works Location

Annex C

Construction Programme of the Project

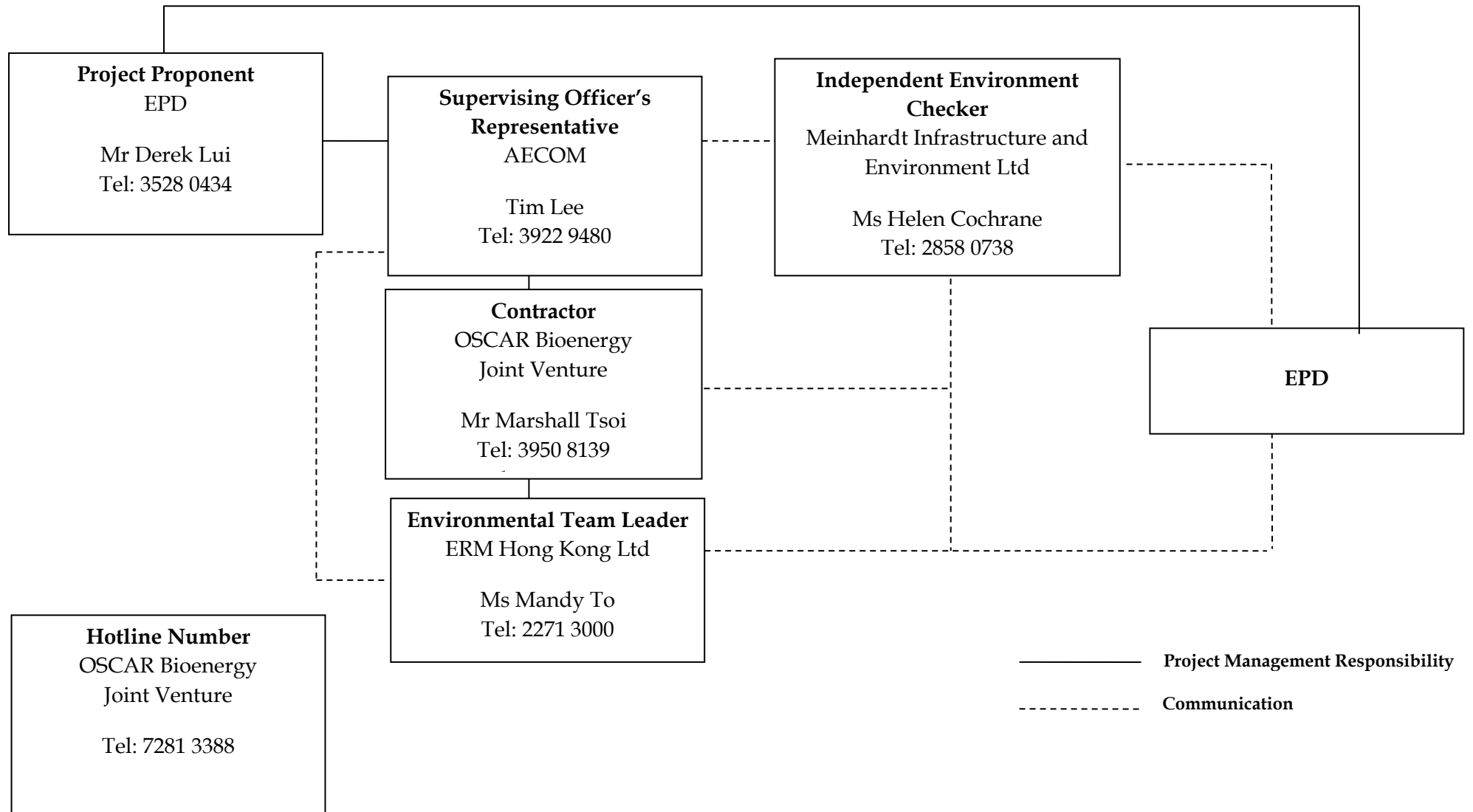
#	Activity ID	Activity Name	BL Project Duration	BL Project Start	BL Project Finish	Remaining Duration	Start	Finish	% Complete	Variance - BL Project Finish Date	2015												2016												2017												2018											
											N	D	J	F	M	A	M	J	Jul	A	S	O	N	D	J	F	M	A	M	J	Jul	A	S	O	N	D	J	F	M	A	M	J	Jul	A	S	O	N	D	J	F	M	A	M	J	Jul	A	S	O
1	Contract No. EP/SP/61/10 - The Design & Construction Works		688	20-Nov-14	17-Mar-17	159	20-Nov-14 A	27-Oct-18		-476																																																
2	Preliminary and Site Establishment		217	20-Nov-14	15-Aug-15	0	20-Nov-14 A	19-Oct-16 A		-349																																																
3	ESum110	Preliminary and Site Establishment	217	20-Nov-14	15-Aug-15	0	20-Nov-14 A	19-Oct-16 A	100%	-349																																																
4	Design		372	20-Nov-14	23-Feb-16	0	20-Nov-14 A	05-Mar-18 A		-601																																																
5	ESum120	Design Criteria and Design Preparation	80	20-Nov-14	27-Feb-15	0	20-Nov-14 A	01-Sep-15 A	100%	-151																																																
6	ESum130	Detailed Design Submission (DDS) - General, Civil, ABWF and Landscape	289	19-Dec-14	23-Feb-16	0	18-Dec-14 A	27-Nov-17 A	100%	-437																																																
7	ESum132	Detailed Design Submission (DDS) - Building 1	151	21-Apr-15	25-Nov-15	0	13-Apr-15 A	27-Jul-16 A	100%	-164																																																
8	ESum134	Detailed Design Submission (DDS) - Building 2	158	12-Mar-15	30-Oct-15	0	12-Mar-15 A	07-Apr-16 A	100%	-106																																																
9	ESum136	Detailed Design Submission (DDS) - Building 3	103	03-Jun-15	29-Oct-15	0	20-Jul-15 A	30-Mar-16 A	100%	-102																																																
10	ESum138	Detailed Design Submission (DDS) - Auxilliary Buildings & Facilities	177	10-Feb-15	29-Oct-15	0	11-Feb-15 A	08-Aug-16 A	100%	-191																																																
11	ESum140	Detailed Design Submission (DDS) - E&M and BS	216	18-Dec-14	04-Nov-15	0	18-Dec-14 A	05-Mar-18 A	100%	-577																																																
12	Procurement		507	12-Feb-15	02-Jul-16	25	01-Mar-15 A	11-May-18		-678																																																
13	ESum150	Procurement, Manufacturing, F.A.T., Shipment & Delivery of E&M Systems Equipment	507	12-Feb-15	02-Jul-16	25	01-Mar-15 A	11-May-18	99.94%	-678																																																
14	Construction		489	13-May-15	31-Dec-16	135	04-May-15 A	26-Sep-18		-513																																																
15	ESum160	Construction of Building #1 (Waste Receiving, Pre-treatment & Administration)	178	19-Aug-15	23-Mar-16	0	02-Sep-15 A	06-Sep-17 A	100%	-431																																																
16	ESum170	Construction of Building #2 (Composting & Maturation, and Link Bridge)	262	23-May-15	11-Apr-16	0	16-Jun-15 A	24-Mar-17 A	100%	-285																																																
17	ESum175	Construction of Building #3 (Energy Centre)	87	30-Oct-15	15-Feb-16	0	24-Mar-16 A	24-Oct-16 A	100%	-205																																																
18	ESum180	Construction of Auxilliary Buildings & Facilities	263	13-May-15	31-Mar-16	0	04-May-15 A	02-Sep-17 A	100%	-424																																																
19	ESum190	ABWF, Finishing and Fitting-out Works to Building #1, #2, #3 and Auxilliary Buildings & Facilities (excl. EEC)	259	23-Dec-15	08-Nov-16	21	21-Mar-16 A	11-May-18	97.1%	-443																																																
20	ESum200	Sitewide, Boundary Wall and Roadworks	326	02-Sep-15	07-Oct-16	34	13-Nov-15 A	28-May-18	98.5%	-482																																																
21	ESum210	Statutory and Utilities Works (excl. Lifting Platform)	148	04-Mar-16	06-Oct-16	102	02-Nov-16 A	17-Aug-18	99.4%	-551																																																
22	ESum215	Green Roof and Landscaping	129	29-Jul-16	31-Dec-16	135	20-Jan-18 A	26-Sep-18	3%	-513																																																
23	E&M and Building Services Installation		229	04-Feb-16	12-Nov-16	59	11-May-16 A	27-Jun-18		-477																																																
24	ESum220	E&M Installation - Mechanical	164	04-Feb-16	25-Aug-16	50	11-May-16 A	15-Jun-18	99.6%	-533																																																
25	ESum222	E&M Installation - Piping	144	24-May-16	12-Nov-16	0	28-Nov-16 A	30-Nov-17 A	100%	-311																																																
26	ESum224	E&M Installation - Electrical, Instrumentation & Control	181	02-Apr-16	08-Nov-16	23	28-Sep-16 A	14-May-18	99.9%	-445																																																
27	ESum226	Building Services Installation (excl. EEC)	125	18-Apr-16	14-Sep-16	59	24-Jun-16 A	27-Jun-18	86.9%	-525																																																
28	ESum230	Energisation of Switchboards / MCC with SAT	1	28-Jul-16	28-Jul-16	0	02-Feb-17 A	26-May-17 A	100%	-244																																																
29	Testing & Commissioning and Completion *Note		232	29-Jul-16	17-Mar-17	193	24-Apr-17 A	30-Dec-18		-588																																																
30	ESum240	Pre-Commissioning	144	29-Jul-16	19-Jan-17	81	24-Apr-17 A	06-Jul-18	61.2%	-533																																																
31	ESum241	System Commissioning	0			50	11-May-18	29-Jun-18	0%																																																	
32	ESum250	Process Commissioning, Performance & Acceptance Testing	119	22-Oct-16	16-Mar-17	127	23-May-18	26-Sep-18	0%	-559																																																
33	KD100360	Completion of the Design and the Works including Testing and Commissioning (Extended Completion Date: 10-Jun-2017 noon)	0		16-Mar-17	0	1-May-18	15-Jan-19 ^a	0%	-589																																																
34	KD100380	Commencement of the Operation	0	17-Mar-17		0	31-Dec-18 ^b		0%	-588																																																

a: The completion of T&C has been postponed to mid-January 2019 tentatively.
b: OSCAR is preparing the commencement of the Operation which will be confirmed by the client during January 2019 tentatively.

Annex D

Project Organization Chart with Contact Details

Project Organization During Construction Phase (with contact details)



Annex E

Implementation Schedule of Mitigation Measures

Annex E Summary of Mitigation Measures Implementation Schedule

EIA Ref.	EM&A Log Ref.	Environmental Protection Measures	Location/ Timing	Status
<i>Summary of Environmental Mitigation Measures in the EIA and EM&A Manual</i>				
A. Air Quality				
3.73	2.5	<p><u>Air Pollution Control (Construction Dust) Regulation & Good Site Practices</u></p> <ul style="list-style-type: none"> • Use of regular watering, with complete coverage, to reduce dust emissions from exposed site surfaces and unpaved roads, particularly during dry weather. • Use of frequent watering for particularly dusty construction areas and areas close to ASRs. • Side enclosure and covering of any aggregate or dusty material storage piles to reduce emissions. Where this is not practicable owing to frequent usage, watering should be applied to aggregate fines. • Open stockpiles should be avoided or covered. Where possible, prevent placing dusty material storage piles near ASRs. • Tarpaulin covering of all dusty vehicle loads transported to, from and between site locations. • Establishment and use of vehicle wheel and body washing facilities at the exit points of the site. • Provision of wind shield and dust extraction units or similar dust mitigation measures at the loading points, and use of water sprinklers at the loading area where dust generation is likely during the loading process of loose material, particularly in dry seasons/ periods. • Imposition of speed controls for vehicles on unpaved site roads. 8 kilometers per hour is the recommended limit. • Where possible, routing of vehicles and positioning of construction plant should be at the maximum possible distance from ASRs. • Every stock of more than 20 bags of cement or dry pulverised fuel ash (PFA) should be covered entirely by impervious sheeting or placed in an area sheltered on the top and the 3 sides. • Cement or dry PFA delivered in bulk should be stored in a closed silo fitted with an audible high level alarm which is interlocked with the material filling line and no overfilling is allowed. • Loading, unloading, transfer, handling or storage of bulk cement or dry PFA should be carried out in a totally enclosed system or facility, and any vent or exhaust should be fitted with an effective fabric filter or equivalent air pollution control system. 	Construction Site / During Construction Period	<>
B. Hazard to Life				
4.102	3.3	<u>Construction Phase</u>	Construction Site / During	√

EIA Ref.	EM&A Log Ref.	Environmental Protection Measures	Location/ Timing	Status
		<ul style="list-style-type: none"> • The number of workers on site during construction stage should be kept at the same level as the assessment. • Construction works should be suspended when delivery of chlorine takes place. • 3m high fence should be constructed along the boundary facing the SHWWTW. • Emergency evacuation procedures should be formulated and the Contractor should ensure all workers on site should be familiar with these procedures as well as the route to escape in case of gas release incident. Relevant Departments, such as Fire Services Department (FSD), should be consulted during the development of Emergency procedures. Diagram showing the escape routes to a safe place should be posted in the site notice boards and at the entrance/exit of site. A copy of the latest version emergency procedures should be dispatched to Tung Chung Fire Station for reference once available. • The emergency procedures should specify means of providing a rapid and direct warning (e.g. Siren and Flashing Light) to construction workers in the event of chlorine gas release in the SHWWTW. • The Contractor should establish a communication channel with the SHWWTW operation personnel and FSD during construction stage. In case of any hazardous incidents in the treatment works, operation personnel of SHWWTW should advise the Contractor to inform construction workers to proceed with emergency procedure. The Contractor should appoint a Liaison Officer to communicate with FSD Incident Commander on site in case of emergency. • Introduction training should be provided to any staff before carryout construction works at the Project site. • Periodic drills should be coordinated and conducted to ensure all construction personnel are familiar with the emergency procedures. Upon completion of the drills, a review on every step taken should be conducted to identify area of improvement. Prior notice of periodic drills should be given to Station Commander of Tung Chung Fire Station. Joint operational exercise with FSD and SHWWTW is recommended. 	Construction Period	
<i>C. Water Quality</i>				
5.44	4.5	<u>Construction site run-off and general construction activities:</u> The mitigation measures as outlined in the ProPECC PN 1/94 Construction Site Drainage should be adopted where applicable.	Construction Site / During Construction Period	<>
5.45	4.5	<u>Excavation of Soil Materials</u> The construction programme should be properly planned to minimise soil excavation, if any, in rainy seasons. This prevents soil erosion from exposed soil surfaces. Any exposed soil surfaces should also be properly protected to minimise dust emission. In areas where a large amount of exposed soils exist, earth bunds or sand bags should be provided. Exposed	Construction Site / During Construction Period	<>

EIA Ref.	EM&A Log Ref.	Environmental Protection Measures	Location/ Timing	Status
		stockpiles should be covered with tarpaulin or impervious sheets at all times. The stockpiles of materials should be placed at locations away from any stream courses so as to avoid releasing materials into the water bodies. Final surfaces of earthworks should be compacted and protected by permanent work.		
5.46	4.5	<u>Accidental spillage of chemicals:</u> Contractor must register as a chemical waste producer if chemical wastes would be produced from the construction activities. The Waste Disposal Ordinance (Cap 354) and its subsidiary regulations in particular the Waste Disposal (Chemical Waste) (General) Regulation should be observed and complied with for control of chemical wastes.	Construction Site / During Construction Period	√
5.47	4.5	Maintenance of vehicles and equipments involving activities with potential for leakage and spillage should only be undertaken within the areas which appropriately equipped to control these discharges.	Construction Site / During Construction Period	√
5.48	4.5	Oils and fuels should only be used and stored in designated areas which have pollution prevention facilities. All fuel tanks and storage areas should be sited on sealed areas in order to prevent spillage of fuels and solvents to the nearby watercourses. All waste oils and fuels should be collected in designated tanks prior to disposal.	Construction Site / During Construction Period	<>
5.49	4.5	Disposal of chemical wastes should be carried out in compliance with the Waste Disposal Ordinance. The Code of Practice on the Packaging, Labelling and Storage of Chemical Wastes published under the Waste Disposal Ordinance details the requirements to deal with chemical wastes. General requirements are given as follows: <ul style="list-style-type: none"> • Suitable containers should be used to hold the chemical wastes to avoid leakage or spillage during storage, handling and transport. • Chemical waste containers should be suitably labeled, to notify and warn the personnel who are handling the wastes, to avoid accidents. • Storage area should be selected at a safe location on site and adequate space should be allocated to the storage area. 	Construction Site / During Construction Period	<>
5.50		Construction solid waste, debris and rubbish on site should be collected, handled and disposed of properly to avoid entering to the nearby watercourses. Stockpiles of cement and other construction materials should be kept covered when not being used. Rubbish and litter from construction sites should also be collected to prevent spreading of rubbish and litter from the site area. It is recommended to clean the construction sites on a regular basis.	Construction Site / During Construction Period	√

EIA Ref.	EM&A Log Ref.	Environmental Protection Measures	Location/ Timing	Status
5.51	4.5	<p><u>Sewage Effluent</u></p> <p>The presence of construction workers generates sewage. It is recommended to provide sufficient chemical toilets in the works areas. The toilet facilities should be more than 30m from any watercourse. A licensed waste collector should be deployed to clean the chemical toilets on a regular basis.</p>	Work site/During the construction period	√
5.52	4.5	<p>Notices should be posted at conspicuous locations to remind the workers not to discharge any sewage or wastewater into the nearby environment during the construction phase of the project. Regular environmental audit on the construction site can provide an effective control of any malpractices and can achieve continual improvement of environmental performance on site.</p>	Work Site / During Construction Period	√
5.53	4.5	<p><u>Nullah Decking</u></p> <p>To minimize the potential water quality impacts from the nullah reconstruction works, the practices outlined below should be adopted where applicable:</p> <ul style="list-style-type: none"> • The proposed works should be carried out within the dry season between October and March when the flow in the open nullah is low. • The use of less or smaller construction plants may be specified to reduce the disturbance to the nullah bed. • Temporary storage of materials (e.g. equipment, filling materials, chemicals and fuel) and temporary stockpile of construction materials should be located well away from the nullah and any water courses during carrying out of the construction works. • Stockpiling of construction materials and dusty materials should be covered and located away from the nullah any water courses. • Construction debris and spoil should be covered up and/or disposed of as soon as possible to avoid being washed into the nullah and nearby water receivers. • Construction activities, which generate large amount of wastewater, should be carried out in a distance away from the nullah, where practicable. • Construction effluent, site run-off and sewage should be properly collected and/or treated. • Any works site inside the nullah should be temporarily isolated, such as by placing of sandbags or silt curtains with lead edge at bottom and properly supported props to prevent adverse impact on the water quality. • Proper shoring may need to be erected in order to prevent soil/mud from slipping into the nullah and nearby watercourse. • Supervisory staff should be assigned to station 	Work Site / During Construction Period	N/A

D. Waste Management

EIA Ref.	EM&A Log Ref.	Environmental Protection Measures	Location/ Timing	Status
6.41	5.4	<p><u>Good Site Practices</u> Recommendations for good site practices during the construction phase would include:</p> <ul style="list-style-type: none"> • Obtain relevant waste disposal permits from appropriate authorities, in accordance with the Waste Disposal Ordinance (Cap. 354) and subsidiary Regulations and the Land (Miscellaneous Provisions) Ordinance (Cap. 28); • Provide staff training for proper waste management and chemical handling procedures; • Provide sufficient waste disposal points and regular waste collection; • Provide appropriate measures to minimize windblown litter and dust during transportation of waste by either covering trucks or by transporting wastes in enclosed containers; • Carry out regular cleaning and maintenance programme for drainage systems, sumps and oil interceptors; • Separate chemical wastes for special handling and disposed of to licensed facility for treatment; and • Employ licensed waste collector to collect waste. 	Work Site / During Construction Period	<>
6.42	5.5	<p><u>Waste Reduction Measures</u> Waste reduction is best achieved at the planning and design stage, as well as by ensuring the implementation of good site practices. Recommendations to achieve waste reduction include:</p> <ul style="list-style-type: none"> • Design foundation works that could minimise the amount of excavated material to be generated; • Provide training to workers on the importance of site cleanliness and appropriate waste management procedures, including waste reduction, reuse and recycling; • Sort out demolition debris and excavated materials from demolition works to recover reusable/ recyclable portions (i.e. soil, broken concrete, metal etc.); • Segregate and store different types of waste in different containers, skips or stockpiles to enhance reuse or recycling of materials and their proper disposal; • Encourage the collection of aluminium cans by providing separate labelled bins to enable this waste to be segregated from other general refuse generated by the workforce; and • Plan and stock construction materials carefully to minimize the amount of waste to be generated and to avoid unnecessary generation of waste. 	Work Site/During Design & Construction Period	√
6.44	5.7	<p><u>Excavated and C&D Materials</u> In order to minimise the impact resulting from collection and transportation of C&D material for off-site disposal, the excavated material arising from site formation and foundation works should be reused on-site as backfilling material and for landscaping works as far as practicable. Other mitigation requirements are listed below:</p> <ul style="list-style-type: none"> • A WMP, which becomes part of the Environmental Management Plan (EMP), should be 	Work Site/During Design & Construction Period	√

EIA Ref.	EM&A Log Ref.	Environmental Protection Measures	Location/ Timing	Status
		<p>prepared in accordance with ETWB TCW No.19/2005;</p> <ul style="list-style-type: none"> • A recording system for the amount of wastes generated, recycled and disposed of (including the disposal sites) should be adopted for easy tracking; and • In order to monitor the disposal of excavated and C&D material at public filling facilities and landfills and to control fly-tipping, a trip-ticket system should be adopted (refer to ETWB TCW No. 31/2004). 		
6.45 - 6.46	5.8 - 5.9	<p>An EMP should be prepared and implemented in accordance with ETWB TCW No. 19/2005 which describes the arrangements for avoidance, reuse, recovery, recycling, storage, collection, treatment and disposal of different categories of waste to be generated from construction activities. The EMP should be submitted to the Supervising Officer (SO) and Supervising Officer's Representative (SOR) for approval. The EMP should be reviewed regularly and updated, preferably on a monthly basis.</p> <p>A system should be devised to work for on-site sorting of excavated and C&D materials and promptly removing all sorted and process materials arising from the construction activities to minimize temporary stockpiling on-site. The system should be included in the EMP identifying the source of generation, estimated quantity, arrangement for on-site sorting, collection, temporary storage areas and frequency of collection by recycling Contractors or frequency of removal off-site.</p>	Work Site/During Design & Construction Period	√
6.47	5.10	<p><u>Chemical Waste</u></p> <p>Should chemical wastes be produced at the construction site, the Contractor would be required to register with EPD as a Chemical Waste Producer and to follow the guidelines stated in the Code of Practice on the Packaging, Labelling and Storage of Chemical Wastes. Good quality containers compatible with the chemical wastes should be used, and incompatible chemicals should be stored separately. Appropriate labels should be securely attached on each chemical waste container indicating the corresponding chemical characteristics of the chemical waste (such as explosive, flammable, oxidizing, irritant, toxic, harmful, or corrosive). The Contractor should employ a licensed collector to transport and dispose of the chemical wastes, to either the CWTC in Tsing Yi, or any other licensed facilities, in accordance with the Waste Disposal (Chemical Waste) General Regulation.</p>	Work Site / During Construction Period	<>
6.48	5.11	<p><u>General Refuse</u></p> <p>General refuse should be stored in enclosed bins or compaction units separated from C&D material. A licensed waste collector should be employed by the contractor to remove general refuse from the site, separately from C&D material. Preferably an enclosed and covered area should be provided to reduce the occurrence of 'wind blown' light material.</p>	Work Site / During Construction Period	√
<i>E. Landscape and Visual</i>				
7.99 & Table 7.7	Table 6.1	<u>Construction Phase</u>	Work site/During Design &	√

EIA Ref.	EM&A Log Ref.	Environmental Protection Measures	Location/ Timing	Status
		<ul style="list-style-type: none"> • Topsoil, where identified, should be stripped and stored for re-use in the construction of the soft landscape works, where practical • Compensatory tree planting should be provided to compensate for felled trees. <ul style="list-style-type: none"> - Compensation tree species shall be chosen from both indigenous and ornamental species - Compensatory tree planting quantities shall be as per DLO approved requirement. • Control of night-time lighting • Erection of decorative screen hoarding compatible with the surrounding setting 	Construction Stages	
<i>F. Noise</i>				
8.25	7.3	<p>Good Site Practice:</p> <ul style="list-style-type: none"> • Only well-maintained plant should be operated on-site and plant should be serviced regularly during the construction program; • Mobile plant, if any, should be sited as far from noise sensitive receivers (NSRs) as possible; • Machines and plant (such as trucks) that may be in intermittent use should be shut down between work periods or should be throttled down to a minimum; • Plant known to emit noise strongly in one direction should, wherever possible, be orientated so that the noise is directed away from the nearby NSRs; and • Material stockpiles and other structures should be effectively utilized, wherever practicable, in screening noise from on-site construction activities. 	Work site/During Design & Construction Stages	√

Remark:

- √ Compliance of Mitigation Measures
- <> Compliance of Mitigation but need improvement
- x Non-compliance of Mitigation Measures
- ▲ Non-compliance of Mitigation Measures but rectified by OSCAR Bioenergy JV
- Δ Deficiency of Mitigation Measures but rectified by OSCAR Bioenergy JV
- N/A Not Applicable in Reporting Period

Annex F

Waste Flow Table

No. EP/SP/61/10 of Organic Resources Recovery Centre (Phase I)
Monthly Summary Waste Flow Table

Month	Actual Quantities of Inert C&D Materials Generated					Actual Quantities of Non-inert C&D Materials (Construction Waste) Generated				
	Total Quantity Generated	Reused in the Contract	Reused in other Projects	Hard Rocks & Large Broken Concrete	Disposed as Public Fill	Metals (see Note 1)	Paper/ cardboard packaging (see Note 1)	Plastics (see Note 2)	Chemical Waste	Others, e.g. general refuse (see Note 3)
	tonne	tonne	tonne	tonne	tonne	kilogram	kilogram	kilogram	Litre	tonne
May 2015	29.58	0.00	0.00	0.00	29.58	0.00	0.00	0.00	0.00	0.00
June 2015	2226.90	0.00	0.00	0.00	2226.90	0.00	0.00	0.00	0.00	9.66
July 2015	2832.27	0.00	0.00	0.00	2832.27	0.00	0.00	0.00	0.00	33.68
August 2015	6657.25	0.00	0.00	0.00	6657.25	0.00	20.00	0.00	0.00	55.06
September 2015	5467.05	0.00	0.00	0.00	5467.05	3480.00	0.00	0.00	0.00	83.81
October 2015	5419.04	0.00	0.00	0.00	5419.04	18710.00	0.00	0.00	0.00	20.45
November 2015	1375.26	0.00	0.00	0.00	1375.26	21610.00	0.00	0.00	0.00	17.38
December 2015	2199.56	75.28	0.00	0.00	2124.28	0.00	41.00	0.00	0.00	21.83
January 2016	4601.43	0.00	0.00	0.00	4601.43	18140.00	50.00	0.00	640.00	20.86
February 2016	4167.01	0.00	0.00	0.00	4167.01	510.00	79.00	0.00	0.00	16.57
March 2016	299.92	41.28	0.00	0.00	258.64	22320.00	75.00	0.00	0.00	22.69
April 2016	3186.37	98.37	0.00	0.00	3088.00	60690.00	77.00	0.00	255.00	37.63
May 2016	1612.33	63.41	0.00	0.00	1548.92	13490.00	35000.00	0.00	0.00	40.76
June 2016	1144.73	30.43	0.00	0.00	1114.30	14600.00	120.00	0.00	0.00	58.34
July 2016	662.76	0.00	0.00	0.00	662.76	13370.00	0.00	0.00	0.00	40.48
August 2016	391.88	0.00	0.00	0.00	391.88	18660.00	84.00	0.00	0.00	61.91
September 2016	324.35	0.00	0.00	0.00	324.35	56800.00	2780.00	0.00	0.00	138.25
October 2016	1561.82	39.00	0.00	0.00	1522.82	40000	9.30	0.00	700.00	114.47
November 2016	897.23	507.94	00.00	0.00	389.76	0.00	123.00	0.00	0.00	154.22
December 2016	2477.95	489.00	0.00	0.00	1988.95	2960.00	93.00	0.00	0.00	136.80

Month	Actual Quantities of Inert C&D Materials Generated					Actual Quantities of Non-inert C&D Materials (Construction Waste) Generated				
	Total Quantity Generated	Reused in the Contract	Reused in other Projects	Hard Rocks & Large Broken Concrete	Disposed as Public Fill	Metals (see Note 1)	Paper/ cardboard packaging (see Note 1)	Plastics (see Note 2)	Chemical Waste	Others, e.g. general refuse (see Note 3)
	tonne	tonne	tonne	tonne	tonne	kilogram	kilogram	kilogram	Litre	tonne
January 2017	2150.92	503.60	0.00	0.00	1647.32	31240.00	21051.00	3630.00	0.00	127.43
February 2017	553.80	440.00	0.00	0.00	113.80	14940.00	18820.00	2880.00	460.00	83.46
March 2017	665.93	460.00	0.00	0.00	205.93	11660.00	29370.00	4400.00	660.00	99.59
April 2017	553.41	220.00	0.00	0.00	333.41	8600.00	25610.00	520.00	700.00	81.83
May 2017	388.82	211.00	0.00	0.00	177.82	1090.00	64.00	0.00	0.00	109.10
June 2017	352.12	104.00	0.00	0.00	248.12	1800.00	16400.00	12030.00	700.00	70.58
July 2017	400.72	165.00	0.00	0.00	235.72	6500.00	12330.00	4690.00	0.00	52.20
August 2017	589.89	202.00	0.00	0.00	387.89	23330.00	27079.00	5220.00	700.00	69.52
September 2017	3347.18	1364.00	0.00	0.00	1983.18	33379.00	29426.00	3990.00	0.00	62.82
October 2017	2384.86	984.00	0.00	0.00	1400.86	11842.00	34071.00	5230.00	0.00	74.13
November 2017	797.42	384.18	0.00	0.00	413.24	20210.00	25225.00	4030.00	0.00	163.03
December 2017	106.32	51.00	0.00	0.00	55.32	17650.00	19520.00	3210.00	0.00	82.23
January 2018	283.65	125.83	0.00	0.00	157.82	12900.00	15600.00	12330.00	0.00	30.93
February 2018	122.31	55.70	0.00	0.00	66.61	10950.00	13260.00	6570.00	0.00	16.95
March 2018	217.06	99.80	0.00	0.00	117.26	12260.00	12120.00	5960.00	0.00	32.53
April 2018	1118.36	460.58	0.00	0.00	657.78	16320.00	12590.00	6280.00	0.00	33.90
May 2018	475.54	198.85	0.00	0.00	276.69	15230.00	11024.00	0.00	0.00	40.02
June 2018	684.10	256.50	0.00	0.00	427.60	14320.00	10260.00	2630.00	0.00	43.01
July 2018	93.99	42.00	0.00	0.00	51.99	11220.00	6200.00	0.00	0.00	59.77
August 2018	528.56	225.00	0.00	0.00	303.56	13620.00	33400.00	26760.00	0.00	44.50
September 2018	765.70	325.00	0.00	0.00	440.70	10600.00	4500.00	0.00	0.00	41.82
October 2018	0.00	0.00	0.00	0.00	0.00	0.00	2330.00	0.00	0.00	109.49
November 2018	77.71 (Note 4)	0.00	0.00	0.00	77.71	0.00	0.00	0.00	0.00	30.18

Total	64210.44	8222.28	0	0	55988.16	605001	418801.3	110360	4815	2643.87
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- Notes:
- (1) Metal and paper/cardboard packaging were collected by recycler for recycling.
 - (2) Plastics refer to plastic bottles/containers, plastic sheets/foam from packaging material collected by recycler for recycling.
 - (3) General refuse was disposed of at NENT by subcontractors.
 - (4) In total, 77.71 tonnes of inert C&D material were disposed as public fill to Fill Bank at Tuen Mun Area 38 and TKO137 in reporting period.

Annex G

Environmental Complaint,
Environmental Summons
and Persecution Log

Annex G Cumulative Complaint and Summons/Prosecutions Log

Reporting Month	Number of Complaints in Reporting Month	Number of Summons/Prosecutions in Reporting Month
May 2015	0	0
June 2015	0	0
July 2015	0	0
August 2015	0	0
September 2015	0	0
October 2015	0	0
November 2015	0	0
December 2015	0	0
January 2016	0	0
February 2016	0	0
March 2016	0	0
April 2016	0	0
May 2016	0	0
June 2016	0	0
July 2016	0	0
August 2016	0	0
September 2016	0	0
October 2016	0	0

Reporting Month	Number of Complaints in Reporting Month	Number of Summons/Prosecutions in Reporting Month
November 2016	0	0
December 2016	0	0
January 2017	0	0
February 2017	0	0
March 2017	0	0
April 2017	0	0
May 2017	0	0
June 2017	0	0
July 2017	0	0
August 2017	0	0
September 2017	0	0
October 2017	0	0
November 2017	0	0
December 2017	0	0
January 2018	0	0
February 2018	0	0
March 2018	0	0
April 2018	0	0
May 2018	0	0
June 2018	0	0

Reporting Month	Number of Complaints in Reporting Month	Number of Summons/Prosecutions in Reporting Month
July 2018	0	0
August 2018	0	0
September 2018	1	0
October 2018	0	0
November 2018	0	0
Overall Total	1	0

Annex H

Odour Monitoring Result

Annex H1



Odour Patrol Result

6. Appendix

Organic Resources Recovery Centre (Phase 1)

Odour Patrol Record Log Sheet

Parameter	Observations
Date	3 / 9 / 2018
Start & End Time (24hr)	From 14:05 To 14:30
Type of Patrol	Weekly / Monthly / Ad hoc / Follow-up / T&C Period Patrol
Weather Condition	Sunny / Cloudy / Windy / Humid / Foggy /
Temperature (°C)	29.9°C
Relative Humidity (%)	82
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	Hot Plastic
Possible Source of Odour	PSV of Biogas Holder
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Follow-up Actions	Remarks
	Centrifuge lower comes out some digestate smell.

	EPD Representative	Employer Representative	Independent Odour Patrol Team	OSCAR Bioenergy JV
Name	Daniel Chan	Patrick ym		Sarah Ho
Signature			N/A	Sarah
Date	3/8/2018	3/8/18		3/9/2018

6. Appendix

Organic Resources Recovery Centre (Phase 1)

Odour Patrol Record Log Sheet

Parameter	Observations
Date	3 / 9 / 2018
Start & End Time (24hr)	From 14:05 To 14:30
Type of Patrol	Weekly / Monthly / Ad hoc / Follow up / T&C Period Patrol
Weather Condition	Sunny / <u>Cloudy</u> / Windy / Humid / Foggy /
Temperature (°C)	29.9°C
Relative Humidity (%)	82
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / <u>7</u> / 8
Intensity of Odour	<u>0</u> / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / <u>8</u>
Intensity of Odour	<u>0</u> / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Follow-up Actions	Remarks



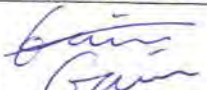
	EPD Representative	Employer Representative	Independent Odour Patrol Team	OSCAR Bioenergy JV
Name	Daniel Choi	Patrick Jm		Sarah Ho
Signature			N/A	Sarah
Date	3/8/2018	3/9/18.		3/9/2018

6. Appendix

Organic Resources Recovery Centre (Phase 1)

Odour Patrol Record Log Sheet

Parameter	Observations
Date	5/9/2018
Start & End Time (24hr)	From 14:00 To 14:27
Type of Patrol	Weekly / Monthly / Ad hoc / Follow-up / T&C Period Patrol
Weather Condition	(Sunny) / Cloudy / Windy / Humid / Foggy /
Temperature (°C)	32.1
Relative Humidity (%)	78
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	Hot Plastic
Possible Source of Odour	PSU of Biogas holder
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	Dewater Digestate Smell / intermittent
Possible Source of Odour	Centrifuge Bld 2
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	Dewater Digestate Smell
Possible Source of Odour	Centrifuge Bld 2
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Follow-up Actions	Remarks
	Centrifuge lower comes out some digestate smell

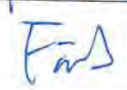

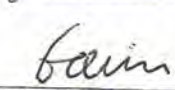
	EPD Representative	Employer Representative	Independent Odour Patrol Team	OSCAR Bioenergy JV
Name	FIONA LAM	Patrick Yim		Gavin Lee
Signature			N/A	
Date	5/9/2018	5/9/18		5/9/2018

6. Appendix

Organic Resources Recovery Centre (Phase 1)

Odour Patrol Record Log Sheet

Parameter	Observations
Date	5/9/2018
Start & End Time (24hr)	From 1400 To 19:27
Type of Patrol	Weekly / Monthly / Ad hoc / Follow up / T&C Period Patrol
Weather Condition	Sunny / Cloudy / Windy / Humid / Foggy /
Temperature (°C)	22.1
Relative Humidity (%)	78
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Follow-up Actions	Remarks


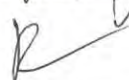

	EPD Representative	Employer Representative	Independent Odour Patrol Team	OSCAR Bioenergy JV
Name	Fiona Lam	Patricia Yim		Gravin Lee
Signature			N/A	
Date	5/9/2018	5/9/18		5/9/18

6. Appendix

Organic Resources Recovery Centre (Phase 1)

Odour Patrol Record Log Sheet

Parameter	Observations
Date	7/9/2018
Start & End Time (24hr)	From 15:05 To 15:30
Type of Patrol	Weekly / Monthly / Ad hoc / Follow-up / T&C Period Patrol
Weather Condition	Sunny / <u>Cloudy</u> / Windy / Humid / Foggy /
Temperature (°C)	33°C
Relative Humidity (%)	76%
Monitoring Point	① / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	① / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / ② / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / ① / 2 / 3 / 4
Characteristic of Odour	Intermittent - Hot Plastic Smell
Possible Source of Odour	PRV of Riggs Holder -
Monitoring Point	1 / 2 / ③ / 4 / 5 / 6 / 7 / 8
Intensity of Odour	① / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / ④ / 5 / 6 / 7 / 8
Intensity of Odour	① / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / ⑤ / 6 / 7 / 8
Intensity of Odour	0 / ① / 2 / 3 / 4
Characteristic of Odour	Intermittent smell of digestate
Possible Source of Odour	Door at Blk 2.
Monitoring Point	1 / 2 / 3 / 4 / 5 / ⑥ / 7 / 8
Intensity of Odour	① / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Follow-up Actions	Remarks
Lower near centrifuge Blk 2, digestate smell.	



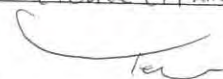
	EPD Representative	Employer Representative	Independent Odour Patrol Team	OSCAR Bioenergy JV
Name	Fiona LAM	Patricia Yim		Terence CHAN
Signature			N/A	
Date	7/9/2018	7/9/18		7/9/2018

6. Appendix

Organic Resources Recovery Centre (Phase 1)

Odour Patrol Record Log Sheet

Parameter	Observations	
Date	7/19/2018	
Start & End Time (24hr)	From	To 15:30
Type of Patrol	Weekly / Monthly / Ad hoc / Follow up / T&C Period Patrol	
Weather Condition	Sunny / <u>Cloudy</u> / Windy / Humid / Foggy /	
Temperature (°C)	33°C	
Relative Humidity (%)	76%	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / <u>7</u> / 8	
Intensity of Odour	0 / <u>1</u> / 2 / 3 / 4	
Characteristic of Odour	Intermittent minor smell of ssow	
Possible Source of Odour	Bld 1 Pretreatment	
Monitoring Point	1 / 2 / <u>3</u> / 4 / 5 / 6 / 7 / 8	
Intensity of Odour	<u>0</u> / 1 / 2 / 3 / 4	
Characteristic of Odour		
Possible Source of Odour		
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8	
Intensity of Odour	0 / 1 / 2 / 3 / 4	
Characteristic of Odour		
Possible Source of Odour		
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8	
Intensity of Odour	0 / 1 / 2 / 3 / 4	
Characteristic of Odour		
Possible Source of Odour		
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8	
Intensity of Odour	0 / 1 / 2 / 3 / 4	
Characteristic of Odour		
Possible Source of Odour		
Follow-up Actions	Remarks	




	EPD Representative	Employer Representative	Independent Odour Patrol Team	OSCAR Bioenergy JV
Name	Fiona LAM	Patrick Yim		Terence CHAN
Signature			N/A	
Date	7/19/2018	7/19/18		7/19/2018

6. Appendix

Organic Resources Recovery Centre (Phase 1)

Odour Patrol Record Log Sheet

Parameter	Observations
Date	10/9/2018
Start & End Time (24hr)	From 16:15 To 16:36
Type of Patrol	Weekly / Monthly / <u>Ac hoc</u> / Follow-up /
Weather Condition	Sunny / <u>Cloudy</u> / Windy / Humid / Foggy /
Temperature (°C)	28.7
Relative Humidity (%)	77.9
Monitoring Point	① / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / ① / 2 / 3 / 4
Characteristic of Odour	Grassy
Possible Source of Odour	Grass & Tree
Monitoring Point	1 / ② / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	① / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / ③ / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	P1 = 0
Possible Source of Odour	P2 = 1 Grassy Grass & Tree
Monitoring Point	1 / 2 / 3 / ④ / 5 / 6 / 7 / 8
Intensity of Odour	0 / ① / 2 / 3 / 4
Characteristic of Odour	Concrete & refuse
Possible Source of Odour	Waste container, construction waste
Monitoring Point	1 / 2 / 3 / 4 / ⑤ / 6 / 7 / 8
Intensity of Odour	0 / ① / 2 / 3 / 4
Characteristic of Odour	Musty of construction material
Possible Source of Odour	Construction material
Monitoring Point	1 / 2 / 3 / 4 / 5 / ⑥ / 7 / 8
Intensity of Odour	① / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Follow-up Actions - Remark	
Refer to the attachment for the monitoring point.	

	EPD Representative	Employer Representative	Independent Odour Patrol Team	OSCAR Bioenergy JV
Name	Daniel Choi	Patrick Yip	Pan Yuen / Allen Pan	Sarah HO
Signature				Sarah
Date	10/9/2018	10/9/18	10/9/2018	10/9/2018



Odour Patrol Survey

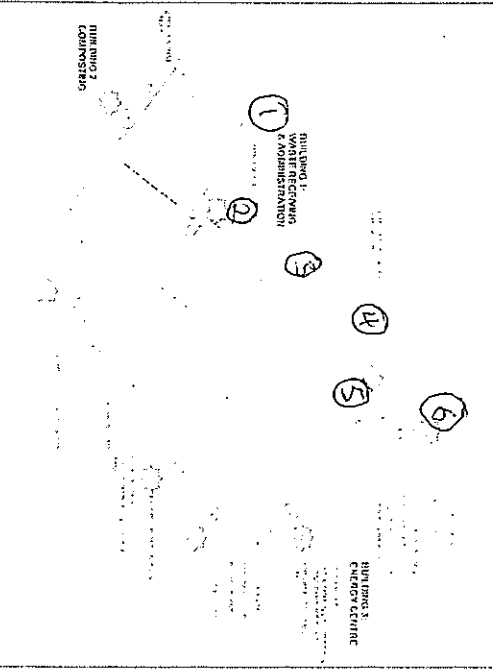
Date: 10-9-18

Weather: Sunny / Fine / Cloud / Rainy

ALS Work Order:

No.	Location ID	Time	Temp (C)	RH (%)	Wind Speed (m/s)	Wind Direction	Odour Intensity	Odour Characteristics	Potential Odour Source	Duration	Direction from the Odour Source
1		16:15	28.7	77.9	0.8	309	P1: 0/1/2/3/4 P2: 0/1/2/3/4	Grassy	Grass & tree	Intermittent / Continuous	Downwind / Upwind / Sidewind
2		16:19	29.2	77.4	0.9	324	P1: 0/1/2/3/4 P2: 0/1/2/3/4	Grassy		Intermittent / Continuous	Downwind / Upwind / Sidewind
3		16:22	28.9	77.4	0	NA	P1: 0/1/2/3/4 P2: 0/1/2/3/4	Grassy		Intermittent / Continuous	Downwind / Upwind / Sidewind
4		16:25	28.9	75.4	1.1	253	P1: 0/1/2/3/4 P2: 0/1/2/3/4	Grassy & refuse		Intermittent / Continuous	Downwind / Upwind / Sidewind
5		16:30	28.9	81.6	0	NA	P1: 0/1/2/3/4 P2: 0/1/2/3/4	Grassy & refuse		Intermittent / Continuous	Downwind / Upwind / Sidewind
6		16:36	29.1	76.8	0	NA	P1: 0/1/2/3/4 P2: 0/1/2/3/4	Mixture of construction material		Intermittent / Continuous	Downwind / Upwind / Sidewind
7							P1: 0/1/2/3/4 P2: 0/1/2/3/4			Intermittent / Continuous	Downwind / Upwind / Sidewind
8							P1: 0/1/2/3/4 P2: 0/1/2/3/4			Intermittent / Continuous	Downwind / Upwind / Sidewind

Location Plan:



Remark for Odour Intensity:

- 0 - Not detected
 - 1 - Slight
 - 2 - Moderate
 - 3 - Strong
 - 4 - Extreme
- No odour perceived or an odour so weak that it cannot be readily characterized or described
 Identifiable odour, slight
 Identifiable odour, moderate
 Identifiable odour, strong
 Severe odour

- ① Possible Odour Sources (No.) / Checkpoint
- ② Assumed Odour Potential (normal operation)

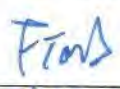


Odour Patrol Team:	
ALS Representative:	P. Allen Poon / P. Pan Yuen

6. Appendix

Organic Resources Recovery Centre (Phase 1)

Odour Patrol Record Log Sheet

Parameter	Observations
Date	12 / 9 / 2018
Start & End Time (24hr)	From 14:05 To 14:37
Type of Patrol	Weekly / Monthly / Ad hoc / Follow-up / T&C Period Patrol
Weather Condition	Sunny / <u>Cloudy</u> / Windy / Humid / Foggy /
Temperature (°C)	28.9
Relative Humidity (%)	65
Monitoring Point	① / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	① / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / ② / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / ① / 2 / 3 / 4
Characteristic of Odour	Hot plastic
Possible Source of Odour	PSV of Biogas Holder
Monitoring Point	1 / 2 / ③ / 4 / 5 / 6 / 7 / 8
Intensity of Odour	① / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / ④ / 5 / 6 / 7 / 8
Intensity of Odour	① / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / ⑤ / 6 / 7 / 8
Intensity of Odour	① / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / ⑥ / 7 / 8
Intensity of Odour	① / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Follow-up Actions	Remarks
In front of the lift lobby with smell of pre-treatment, hot plastic, very musty.	



	EPD Representative	Employer Representative	Independent Odour Patrol Team	OSCAR Bioenergy JV
Name	Fiona Lam	Patrick Jun		Sarah HO
Signature			N/A	
Date	12/9/2018	12/9/18		12/9/2018

6. Appendix

Organic Resources Recovery Centre (Phase 1)

Odour Patrol Record Log Sheet

Parameter	Observations
Date	12/9/2018
Start & End Time (24hr)	From 14:05 To 14:37
Type of Patrol	Weekly / Monthly / Ad hoc / Follow up / T&C Period Patrol
Weather Condition	Sunny / <u>Cloudy</u> / Windy / Humid / Foggy /
Temperature (°C)	28.9
Relative Humidity (%)	65
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / <u>7</u> / 8
Intensity of Odour	<u>0</u> / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / <u>8</u>
Intensity of Odour	<u>0</u> / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Follow-up Actions	REMARKS




	EPD Representative	Employer Representative	Independent Odour Patrol Team	OSCAR Bioenergy JV
Name	Fiona Lam	Domestic		Sarah Ho
Signature			N/A	Sarah
Date	12/9/2018	12/9/18		12/9/2018

6. Appendix

Organic Resources Recovery Centre (Phase 1)

Odour Patrol Record Log Sheet

Parameter	Observations	
Date	14 / 9 / 2018	
Start & End Time (24hr)	From 15:00	To 15:18
Type of Patrol	Weekly / Monthly / Ad hoc / Follow-up / T&C Period Patrol	
Weather Condition	Sunny / Cloudy / Windy / Humid / Foggy /	
Temperature (°C)	29.7	
Relative Humidity (%)	71	
Monitoring Point	① / 2 / 3 / 4 / 5 / 6 / 7 / 8	
Intensity of Odour	① / 1 / 2 / 3 / 4	
Characteristic of Odour		
Possible Source of Odour		
Monitoring Point	1 / ② / 3 / 4 / 5 / 6 / 7 / 8	
Intensity of Odour	0 / ① / 2 / 3 / 4	
Characteristic of Odour	Hot plastic	
Possible Source of Odour	PSV of Biogas Holder	
Monitoring Point	1 / 2 / ③ / 4 / 5 / 6 / 7 / 8	
Intensity of Odour	① / 1 / 2 / 3 / 4	
Characteristic of Odour		
Possible Source of Odour		
Monitoring Point	1 / 2 / 3 / ④ / 5 / 6 / 7 / 8	
Intensity of Odour	① / 1 / 2 / 3 / 4	
Characteristic of Odour		
Possible Source of Odour		
Monitoring Point	1 / 2 / 3 / 4 / ⑤ / 6 / 7 / 8	
Intensity of Odour	① / 1 / 2 / 3 / 4	
Characteristic of Odour		
Possible Source of Odour		
Monitoring Point	1 / 2 / 3 / 4 / 5 / ⑥ / 7 / 8	
Intensity of Odour	① / 1 / 2 / 3 / 4	
Characteristic of Odour		
Possible Source of Odour		
Follow-up Actions	Remark	

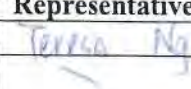
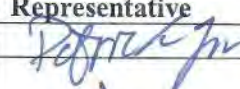
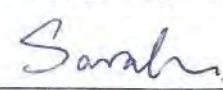
	EPD Representative	Employer Representative	Independent Odour Patrol Team	OSCAR Bioenergy JV
Name	Terence Ng	Patrick Ng		Sarah Ho
Signature			NA	
Date	14/9/2018	14/9/18		14/9/2018

6. Appendix

Organic Resources Recovery Centre (Phase 1)

Odour Patrol Record Log Sheet

Parameter	Observations
Date	14 / 9 / 2018
Start & End Time (24hr)	From 15:00 To 15:18
Type of Patrol	Weekly / Monthly / Ad hoc / Follow-up / T&C Period Patrol
Weather Condition	Sunny / Cloudy / Windy / Humid / Foggy /
Temperature (°C)	29.7
Relative Humidity (%)	11
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Follow-up Actions	Remark


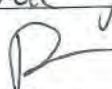
	EPD Representative	Employer Representative	Independent Odour Patrol Team	OSCAR Bioenergy JV
Name	Terence Ng	Patrick		Sarah Ho
Signature			NA	
Date	14 / 9 / 2018	14 / 9 / 18.		14 / 9 / 2018

6. Appendix

Organic Resources Recovery Centre (Phase 1)

Odour Patrol Record Log Sheet

Parameter	Observations
Date	17 / 9 / 2018
Start & End Time (24hr)	From 15:00 To 15:22
Type of Patrol	Weekly / Monthly / Ad hoc / Follow-up / T&C Period Patrol
Weather Condition	Sunny / <u>Cloudy</u> / Windy / Humid / Foggy /
Temperature (°C)	27.1
Relative Humidity (%)	82
Monitoring Point	① / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	① / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / ② / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / ① / 2 / 3 / 4
Characteristic of Odour	Hot Plastic
Possible Source of Odour	PSV of Biogas Holder
Monitoring Point	1 / 2 / ③ / 4 / 5 / 6 / 7 / 8
Intensity of Odour	① / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / ④ / 5 / 6 / 7 / 8
Intensity of Odour	① / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / ⑤ / 6 / 7 / 8
Intensity of Odour	① / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / ⑥ / 7 / 8
Intensity of Odour	① / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Follow-up Actions - Remark	

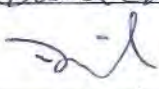
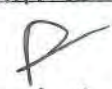
	EPD Representative	Employer Representative	Independent Odour Patrol Team	OSCAR Bioenergy JV
Name	Daniel Choi	Derek Yin		Sarah Ho
Signature			NA	Sarah
Date	17/9/2018	17/9/18		17/9/2018

6. Appendix

Organic Resources Recovery Centre (Phase 1)

Odour Patrol Record Log Sheet

Parameter	Observations
Date	17 / 9 / 2018
Start & End Time (24hr)	From 15:00 To 15:22
Type of Patrol	Weekly / Monthly / Ad-hoc / Follow-up / T&C Period Patrol
Weather Condition	Sunny / Cloudy / Windy / Humid / Foggy /
Temperature (°C)	27.1
Relative Humidity (%)	82
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 0 / 2 / 3 / 4
Characteristic of Odour	SSOW smell
Possible Source of Odour	Pre-treatment skip area
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Follow-up Actions Remark	Point 7: front roller shutter door is broken due to super typhoon "dity".

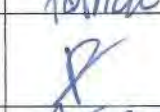
	EPD Representative	Employer Representative	Independent Odour Patrol Team	OSCAR Bioenergy JV
Name	Dance Chan	Darick Yim		Sarah Ho
Signature			NA	Sarah
Date	17/9/2018	17/9/18		17/9/2018

6. Appendix

Organic Resources Recovery Centre (Phase 1)

Odour Patrol Record Log Sheet

Parameter	Observations
Date	19 / 9 / 2018
Start & End Time (24hr)	From 14:00 To 14:24
Type of Patrol	Weekly / Monthly / As-see / Follow-up / T&C Period Patrol
Weather Condition	Sunny / Cloudy / Windy / Humid / Foggy /
Temperature (°C)	29.5
Relative Humidity (%)	73
Monitoring Point	① / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	① / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / ② / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / ① / 2 / 3 / 4
Characteristic of Odour	Hot Plastic
Possible Source of Odour	PSV of Biogas Holder
Monitoring Point	1 / 2 / ③ / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / ① / 2 / 3 / 4
Characteristic of Odour	H ₂ S
Possible Source of Odour	Near to the Biogas Holder
Monitoring Point	1 / 2 / 3 / ④ / 5 / 6 / 7 / 8
Intensity of Odour	① / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / ⑤ / 6 / 7 / 8
Intensity of Odour	① / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / ⑥ / 7 / 8
Intensity of Odour	① / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Follow-up Actions Remark	

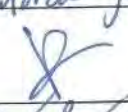
	EPD Representative	Employer Representative	Independent Odour Patrol Team	OSCAR Bioenergy JV
Name	Tess CHAN	Patrick Yum		Sarah Ho
Signature	Tess		NA	Sarah.
Date	18 Sept 2018	19/09/18.		19/9/2018

6. Appendix

Organic Resources Recovery Centre (Phase 1)

Odour Patrol Record Log Sheet

Parameter	Observations
Date	19 / 9 / 2018
Start & End Time (24hr)	From 14:00 To 14:24
Type of Patrol	Weekly / Monthly / Ad hoc / Follow-up / T&C Period Patrol
Weather Condition	Sunny / Cloudy / Windy / Humid / Foggy /
Temperature (°C)	29.5
Relative Humidity (%)	73
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	SSOW smell
Possible Source of Odour	Pre-treatment skip area
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Follow-up Actions Remark	Lobby's SSOW smell is a bit strong.

	EPD Representative	Employer Representative	Independent Odour Patrol Team	OSCAR Bioenergy JV
Name	Tess CHAN	Patrick Yin		Sarah Ho
Signature	Tess		NA	Sarah
Date	19 Sept 2018	19/09/18		19/9/2018

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Organic Resources Recovery Centre (Phase 1)

Odour Patrol Record Log Sheet

Parameter	Observations
Date	21 / 9 / 2018
Start & End Time (24hr)	From 13:36 To 14:00
Type of Patrol	Weekly / Monthly / Ad hoc / Follow-up / T&C Period Patrol
Weather Condition	Sunny / Cloudy / Windy / Humid / Foggy /
Temperature (°C)	30.8
Relative Humidity (%)	62
Monitoring Point	① / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / ① / 2 / 3 / 4
Characteristic of Odour	SSOW smell
Possible Source of Odour	Pre-treatment skip area (damaged door at Bay 1)
Monitoring Point	1 / ② / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / ① / 2 / 3 / 4
Characteristic of Odour	Mixture smell
Possible Source of Odour	PSV of Biogas Holder
Monitoring Point	1 / 2 / ③ / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / ① / 2 / 3 / 4
Characteristic of Odour	SSOW smell
Possible Source of Odour	Pre-treatment
Monitoring Point	1 / 2 / 3 / ④ / 5 / 6 / 7 / 8
Intensity of Odour	① / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / ⑤ / 6 / 7 / 8
Intensity of Odour	① / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / ⑥ / 7 / 8
Intensity of Odour	① / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Follow-up Actions-Remark	

	EPD Representative	Employer Representative	Independent Odour Patrol Team	OSCAR Bioenergy JV
Name	Daniel Chai	Patrick Jun		Sarah Ho
Signature			NA	Sarah
Date	21/9/2018	21/9/18		21/9/2018

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Organic Resources Recovery Centre (Phase 1)

Odour Patrol Record Log Sheet

Parameter	Observations
Date	21 / 9 / 2018
Start & End Time (24hr)	From 13:36 To 14:00
Type of Patrol	Weekly / Monthly / Ad hoc / Follow-up / T&C Period Patrol
Weather Condition	Sunny / Cloudy / Windy / Humid / Foggy /
Temperature (°C)	30.8
Relative Humidity (%)	62
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Follow-up Actions - Remark	
Lobby's has a bit ssow smell.	

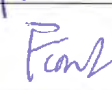
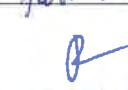
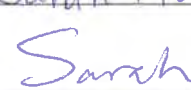
	EPD Representative	Employer Representative	Independent Odour Patrol Team	OSCAR Bioenergy JV
Name	Daniel Choi	Patrick Yim		Sarah Ho
Signature			NA	Sarah
Date	21/9/2018	21/9/18		21/9/2018

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Organic Resources Recovery Centre (Phase 1)

Odour Patrol Record Log Sheet

Parameter	Observations
Date	24/9/2018
Start & End Time (24hr)	From 14:30 To 14:57
Type of Patrol	Weekly / Monthly / Ad hoc / Follow-up / T&C Period Patrol
Weather Condition	Sunny / <u>Cloudy</u> / Windy / Humid / Foggy /
Temperature (°C)	28.3
Relative Humidity (%)	76
Monitoring Point	① / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	① / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / ② / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / ② / 2 / 3 / 4
Characteristic of Odour	Hot Plastic Smell
Possible Source of Odour	PSV of Biogas Holder
Monitoring Point	1 / 2 / ③ / 4 / 5 / 6 / 7 / 8
Intensity of Odour	① / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / ④ / 5 / 6 / 7 / 8
Intensity of Odour	① / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / ⑤ / 6 / 7 / 8
Intensity of Odour	① / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / ⑥ / 7 / 8
Intensity of Odour	① / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Follow-up Actions Remark	




	EPD Representative	Employer Representative	Independent Odour Patrol Team	OSCAR Bioenergy JV
Name	FIONA LAM	Patricia Yim		Sarah Ho
Signature			NA	
Date	24/9/2018	24/9/18.		24/9/2018

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Organic Resources Recovery Centre (Phase 1)

Odour Patrol Record Log Sheet

Parameter	Observations
Date	24/9/2018
Start & End Time (24hr)	From 14:30 To 14:57
Type of Patrol	Weekly / Monthly / Ad hoc / Follow up / T&C Period Patrol
Weather Condition	Sunny / <u>Cloudy</u> / Windy / Humid / Foggy /
Temperature (°C)	28.3
Relative Humidity (%)	76
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / <u>7</u> / 8
Intensity of Odour	<u>0</u> / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / <u>8</u>
Intensity of Odour	<u>0</u> / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Follow-up Actions Remark	Lobby has a bit mixture smell (food waste, hot plastic).



	EPD Representative	Employer Representative	Independent Odour Patrol Team	OSCAR Bioenergy JV
Name	Fiona Lam	Patrick Yau		Sarah HO
Signature			NA	
Date	24/9/2018	24/9/18		24/9/2018

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Organic Resources Recovery Centre (Phase 1)

Odour Patrol Record Log Sheet


Parameter	Observations
Date	26 / 9 / 2018
Start & End Time (24hr)	From 14:00 To 14:38
Type of Patrol	Weekly / Monthly / Ad hoc / Follow-up / T & C Period Patrol
Weather Condition	Sunny / Cloudy / Windy / Humid / Foggy /
Temperature (°C)	30.7
Relative Humidity (%)	66
Monitoring Point	① / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	① / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / ② / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / ① / 2 / 3 / 4
Characteristic of Odour	Hot Plastic (Intermittent)
Possible Source of Odour	PSV of Biogas Holder
Monitoring Point	1 / 2 / ③ / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / ① / 2 / 3 / 4
Characteristic of Odour	Hot Plastic
Possible Source of Odour	Near to Biogas Holder (Slight)
Monitoring Point	1 / 2 / 3 / ④ / 5 / 6 / 7 / 8
Intensity of Odour	Sarah ① / ① / 2 / 3 / 4
Characteristic of Odour	Digestate
Possible Source of Odour	Centrifuge Louver
Monitoring Point	1 / 2 / 3 / 4 / ⑤ / 6 / 7 / 8
Intensity of Odour	① / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / ⑥ / 7 / 8
Intensity of Odour	① / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Follow-up Actions Remark	

	EPD Representative	Employer Representative	Independent Odour Patrol Team	OSCAR Bioenergy JV
Name	PIONA LAM	Patrick Jim		Sarah Ho
Signature			NA	Sarah
Date	26/9/2018	26/9/18		26/9/2018

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Organic Resources Recovery Centre (Phase 1)
Odour Patrol Record Log Sheet

Parameter	Observations
Date	26 / 9 / 2018
Start & End Time (24hr)	From 14:00 To 14:38
Type of Patrol	Weekly / Monthly / Ad-hoc / Follow-up / T & C Period Patrol
Weather Condition	<u>Sunny</u> / Cloudy / Windy / Humid / Foggy /
Temperature (°C)	30.7
Relative Humidity (%)	66
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / <u>7</u> / 8
Intensity of Odour	0 / <u>1</u> / 2 / 3 / 4
Characteristic of Odour	Rubbish smell
Possible Source of Odour	Near to Pre-treatment area
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / <u>8</u>
Intensity of Odour	<u>0</u> / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Follow-up Actions Remark	

	EPD Representative	Employer Representative	Independent Odour Patrol Team	OSCAR Bioenergy JV
Name	Fiona Lam	Patrick Jones		Sarah Ho
Signature			NA	
Date	26/9/2018	26/9/18		26/9/2018

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Organic Resources Recovery Centre (Phase 1)

Odour Patrol Record Log Sheet

Parameter	Observations
Date	28 / 9 / 2018
Start & End Time (24hr)	From 10:02 To 10:18
Type of Patrol	Weekly / Monthly / Ac hoc / Follow-up /
Weather Condition	Sunny / Cloudy / Windy / Humid / Foggy /
Temperature (°C)	29.6
Relative Humidity (%)	57
Monitoring Point	① / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	① / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / ② / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / ② / 2 / 3 / 4
Characteristic of Odour	Plastic
Possible Source of Odour	Biogas Holder
Monitoring Point	1 / 2 / ③ / 4 / 5 / 6 / 7 / 8
Intensity of Odour	① / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / ④ / 5 / 6 / 7 / 8
Intensity of Odour	① / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / ⑤ / 6 / 7 / 8
Intensity of Odour	0 / ① / 2 / 3 / 4
Characteristic of Odour	Grass
Possible Source of Odour	Grass
Monitoring Point	1 / 2 / 3 / 4 / 5 / ⑥ / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Follow-up Actions Remark	

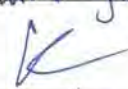
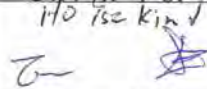
	EPD Representative	Employer Representative	Independent Odour Patrol Team	OSCAR Bioenergy JV
Name	Teresa Ng	Patrick yim	Edwin Wong Ho Tsz kin	Sarah Ho
Signature				Sarah
Date	28/9/2018	28/9/18	28/9/18	28/9/2018

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Organic Resources Recovery Centre (Phase 1)

Odour Patrol Record Log Sheet

Parameter	Observations
Date	28 / 9 / 2018
Start & End Time (24hr)	From 10:02 To 10:18
Type of Patrol	Weekly (Monthly) / Ac hoc / Follow-up /
Weather Condition	Sunny / Cloudy / Windy / Humid / Foggy /
Temperature (°C)	29.6
Relative Humidity (%)	57
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	Garbage
Possible Source of Odour	Rubbish Truck
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Follow-up Actions Remark	

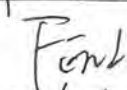
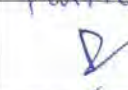
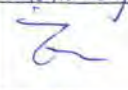
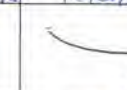
	EPD Representative	Employer Representative	Independent Odour Patrol Team	OSCAR Bioenergy JV
Name	Teresa Ng	Patrick Jan	Edwin Wong H0 isc kin	Sarah Ho
Signature				Sarah
Date	28 / 9 / 2018	28 / 9 / 18	28 / 9 / 18	28 / 9 / 2018

6. Appendix

Organic Resources Recovery Centre (Phase 1)

Odour Patrol Record Log Sheet

Parameter	Observations
Date	28 September 2018
Start & End Time (24hr)	From 17:57 To 18:11 Euxine
Type of Patrol	Weekly / <u>Monthly</u> / Ac hoc / Follow-up /
Weather Condition	<u>Sunny</u> / Cloudy / Windy / Humid / Foggy /
Temperature (°C)	~ 29°C
Relative Humidity (%)	~ 60%
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4 0.8 I.
Characteristic of Odour	Rubbish
Possible Source of Odour	
Monitoring Point	1 / <u>2</u> / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / <u>1</u> / 2 / 3 / 4
Characteristic of Odour	Plastic
Possible Source of Odour	Binocular holder
Monitoring Point	1 / 2 / <u>3</u> / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / <u>1</u> / 2 / 3 / 4
Characteristic of Odour	Garbage
Possible Source of Odour	Rubbish storage area
Monitoring Point	1 / 2 / 3 / <u>4</u> / 5 / 6 / 7 / 8
Intensity of Odour	<u>0</u> / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / <u>5</u> / 6 / 7 / 8
Intensity of Odour	<u>0</u> / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / <u>6</u> / 7 / 8
Intensity of Odour	<u>0</u> / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Follow-up Actions Remark	This is a copy record only and shall refer to ALS report.

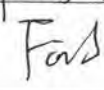


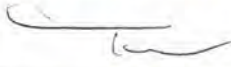
	EPD Representative	Employer Representative	Independent Odour Patrol Team	OSCAR Bioenergy JV
Name	PIONA LAM	Patrick Jym	Edwin Wong / Ho Tsukia	Terence CHAN
Signature				
Date	28/9/2018	28/9/18	28/9/18	28/9/2018

6. Appendix

Organic Resources Recovery Centre (Phase 1)

Odour Patrol Record Log Sheet

Parameter	Observations
Date	28 September 2018
Start & End Time (24hr)	From 17:57 To 18:11 Fruiting
Type of Patrol	Weekly / Monthly / Ac hoc / Follow-up /
Weather Condition	Sunny / Cloudy / Windy / Humid / Foggy /
Temperature (°C)	~29°C
Relative Humidity (%)	~60%
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4 0/1
Characteristic of Odour	Garbage
Possible Source of Odour	Rubber Trunk
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4 0/1
Characteristic of Odour	Garbage
Possible Source of Odour	Rubber Trunk
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Follow up Actions Remark	This is a copy record only and shall refer to A&S Report.

	EPD Representative	Employer Representative	Independent Odour Patrol Team	OSCAR Bioenergy JV
Name	Fiona LAM	Patricia Jim	Edwin Wang / Ho Tsui-lin	Terence CHAN
Signature				
Date	28/9/2018	28/9/18	28/9/18	28/9/2018



CERTIFICATE OF ANALYSIS

CLIENT:	Oscar Bioenergy Joint Venture	WORK ORDER:	HK1847225
CONTACT:	Edwin Wong	LABORATORY:	Hong Kong
ADDRESS:	No. 5, Sham Fung Road, Siu Ho Wan, North Lantau Island, NT, Hong Kong	SUB-BATCH:	0
		DATE OF PATROL:	31 August 2018
		DATE OF ISSUE:	18 September 2018
PROJECT:	Odour Patrol for the Organic Resources Recovery Centre Phase 1 in Siu Ho Wan		
SITE:	Organic Resources Recovery Centre Phase 1 (ORRC1)		

COMMENTS


Date of Odour Patrol: 31 August 2018.

Odour Patrols were conducted by ALS Technichem (HK) Pty Ltd staff during 10:22 – 10:41 and 18:01 – 18:19.

NOTES

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

Results apply to sample(s) as submitted. All pages of this report have been checked and approved for release.


Richard Fung
General Manager - Hong Kong

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1. Summary of Work

The odour patrol was conducted during daytime and evening / night time.

2. Odour Patrol

Odour patrolling is a process to make use of the calibrated olfactory senses (ie the nasal sense) of the patrol members to evaluate the odour and its intensity during a patrol exercise at the site.

Two odour patrol team members from ALS Technichem (HK) Pty Ltd were sent to conduct the patrol work during each session. All members are free from any respiratory diseases during patrol day. None of the members has been working or living in the area in the vicinity of the inspection area.

The odour patrol was conducted during daytime and evening / night time.

The patrol team was required to move slowly from one to the other monitoring locations and use their olfactory senses to detect odour at each location.

The location of odour sources and the areas to be affected by the odour nuisance were identified as much as possible.

During the patrolling, the meteorological and surrounding information are recorded:

- the prevailing weather condition;
- the wind direction;
- the wind speed;
- location where odour is spotted;
- possible source of odour;
- perceived intensity of the odour;
- duration of odour; and
- characteristics of the odour detected

The perceived intensity is to be divided into 5 levels which are ranked in an ascending order as follows:

0	Not detected	No odour perceives or an odour so weak that it cannot be easily characterised or described
1	Slight	Identifiable odour, slight
2	Moderate	Identifiable odour, moderate
3	Strong	Identifiable odour, strong
4	Extreme	Severe odour

The odour patrol location is shown in Appendix 1.



3. Odour Patrol Result:
3.1. Daytime:

Location	Panellist	Weather	Time	T (°C)	RH (%)	WS (m/s)	WD (Degree)	Odour Intensity	Duration of Odour	Direction from Source	On-Site Observation	
											Odour Characteristics	Potential Odour Source
1	1	Cloudy	10:22	28.1	77.8	0.0	NA	0	NA	NA	NA	NA
	2							0				
2	1	Cloudy	10:26	28.4	84.4	0.0	NA	1	Intermittent	NA	Plastic	Biogas Holder Tank Relief Valve
	2							1				
3	1	Cloudy	10:28	28.4	89.7	1.2	000	0	NA	NA	NA	NA
	2							0				
4	1	Cloudy	10:31	29.0	85.1	0.1	297	0	NA	NA	NA	NA
	2							0				
5	1	Cloudy	10:33	28.7	86.0	0.0	NA	0	NA	NA	NA	NA
	2							0				



Location	Panellist	Weather	Time	T (°C)	RH (%)	WS (m/s)	WD (Degree)	Odour Intensity	Duration of Odour	Direction from Source	On-Site Observation	
											Odour Characteristics	Potential Odour Source
6	1	Cloudy	10:36	28.8	84.1	1.6	015	0	NA	NA	NA	NA
	2							0				
7	1	Cloudy	10:39	29.0	88.7	1.6	001	0	NA	NA	NA	NA
	2							0				
8	1	Cloudy	10:41	29.0	84.3	1.2	027	0	NA	NA	NA	NA
	2							0				

Remark:

T: Air Temperature;
 RH: Relative Humidity;
 WD: Wind Direction;
 WS: Wind Speed.



3.2. Evening / Night time:

Location	Panellist	Weather	Time	T (°C)	RH (%)	WS (m/s)	WD (Degree)	Odour Intensity	Duration of Odour	Direction from Source	On-Site Observation	
											Odour Characteristics	Potential Odour Source
1	1	Cloudy	18:01	27.8	82.4	0.0	NA	0	NA	NA	NA	NA
	2							0				
2	1	Cloudy	18:04	27.7	90.9	0.0	NA	1	Intermittent	NA	Plastic	Biogas Holder Tank Relief Valve
	2							1	Intermittent	NA	Plastic	Biogas Holder Tank Relief Valve
3	1	Cloudy	18:06	27.5	94.0	0.0	NA	0	NA	NA	NA	NA
	2							0				
4	1	Cloudy	18:08	27.9	90.7	0.0	NA	0	NA	NA	NA	NA
	2							0				
5	1	Cloudy	18:10	28.0	91.9	0.0	NA	0	NA	NA	NA	NA
	2							1	Continuous	NA	Grassy	The vegetation along the boundary.



Location	Panellist	Weather	Time	T (°C)	RH (%)	WS (m/s)	WD (Degree)	Odour Intensity	Duration of Odour	Direction from Source	On-Site Observation	
											Odour Characteristics	Potential Odour Source
6	1	Cloudy	18:14	28.1	90.8	0.0	NA	0	NA	NA	NA	NA
	2							0				
7	1	Cloudy	18:17	28.4	90.0	0.0	NA	0	NA	NA	NA	NA
	2							0				
8	1	Cloudy	18:19	28.3	90.1	0.7	250	0	NA	NA	NA	NA
	2							0				

Remark:

T: Air Temperature;
 RH: Relative Humidity;
 WD: Wind Direction;
 WS: Wind Speed.



APPENDIX 1 Odour Patrol Route



→ Proposed Patrol Route

8 Possible Odour Sources (No.) / Checkpoint

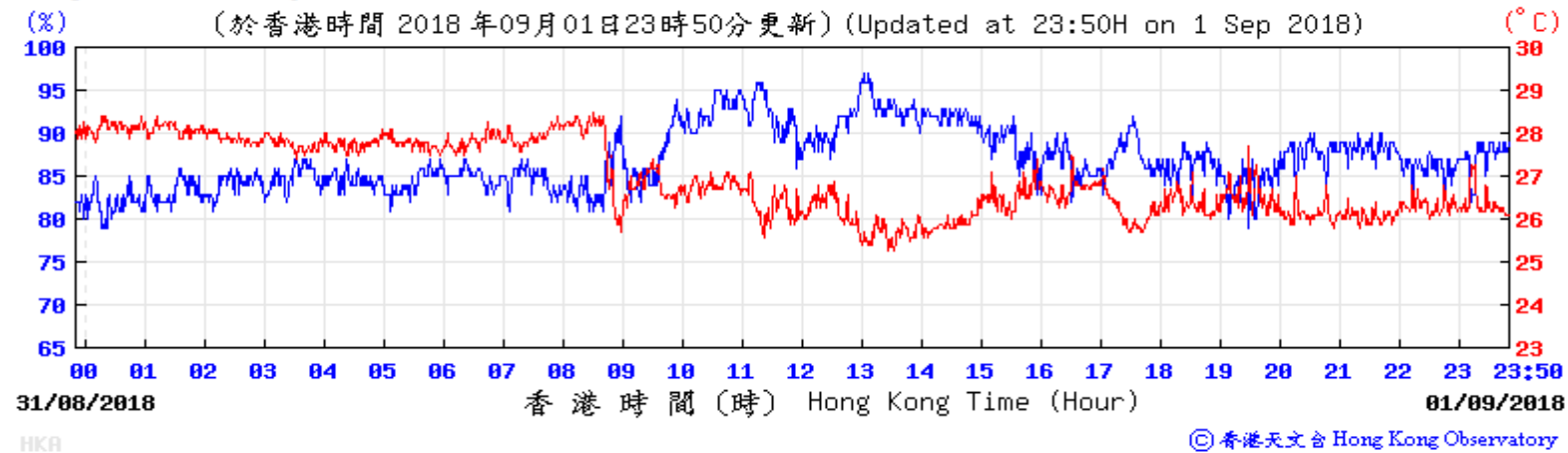
1 Assumed Odour Potential (normal operation)
From 1 (min.) to 3 (max.)



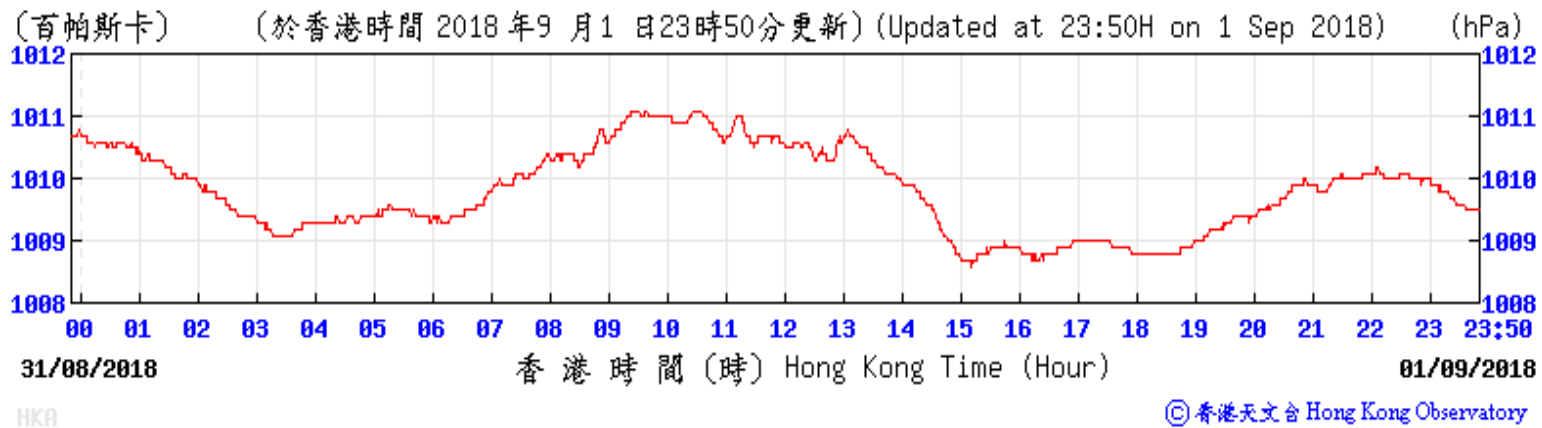
APPENDIX 2

Extract Of Meteorological Observations From Hong Kong Airport Observatory Station

Temperature/Humidity:

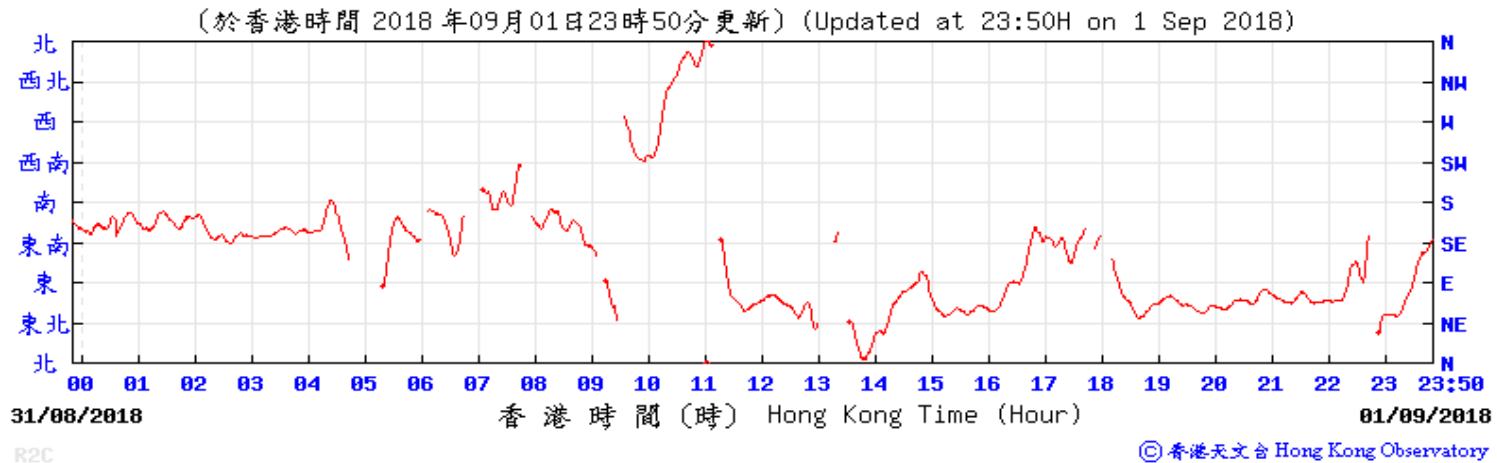


Pressure:

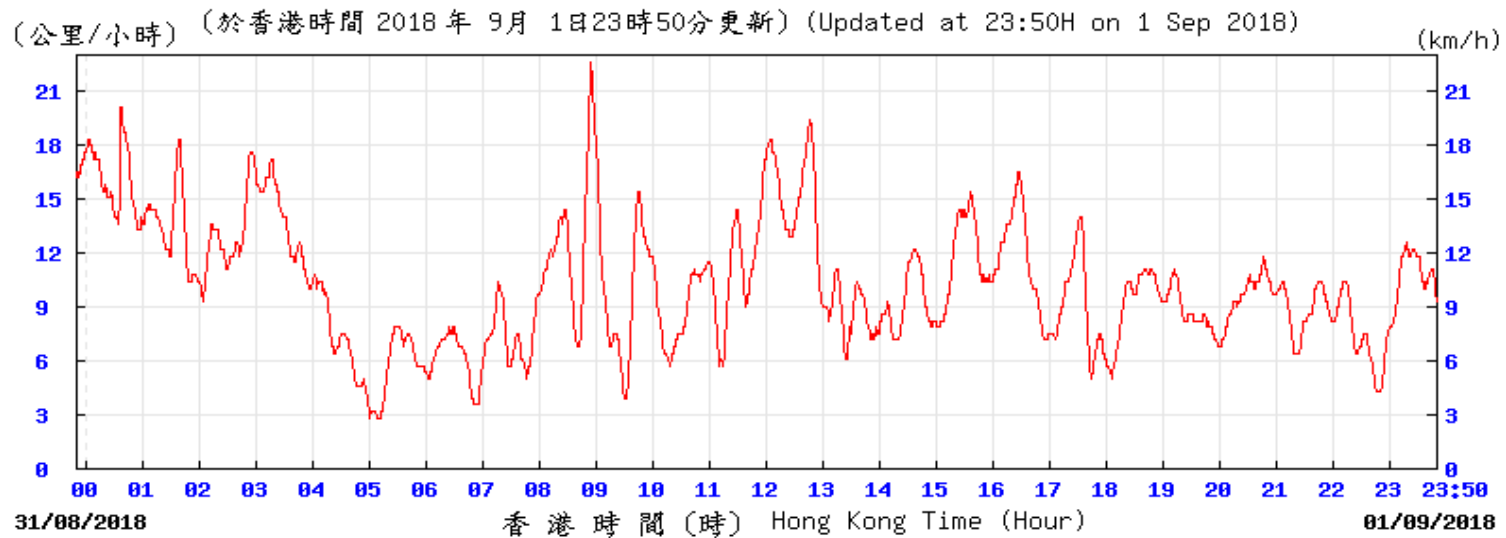




Wind Direction:



Wind Speed:





APPENDIX 3

A3.1. Odour Patrol at Different Locations – Daytime



Location: 1



Location: 2



Location: 3



Location: 4



Location: 5



Location: 6



Location: 7



Location: 8



A3.2. Odour Patrol at Different Locations – Evening / Night time



Location: 1



Location: 2



Location: 3



Location: 4



Location: 5



Location: 6



Location: 7



Location: 8



CERTIFICATE OF ANALYSIS

CLIENT:	Oscar Bioenergy Joint Venture	WORK ORDER:	HK1849200
CONTACT:	Edwin Wong	LABORATORY:	Hong Kong
ADDRESS:	No. 5, Sham Fung Road, Siu Ho Wan, North Lantau Island, NT, Hong Kong	SUB-BATCH:	0
		DATE OF PATROL:	10 September 2018
		DATE OF ISSUE:	18 September 2018
PROJECT:	Ad Hoc Odour Patrol for the Organic Resources Recovery Centre Phase 1 in Siu Ho Wan		
SITE:	Organic Resources Recovery Centre Phase 1 (ORRC1)		

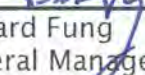
COMMENTS

Ad hoc Odour Patrol was conducted by ALS Technichem (HK) Pty Ltd staff during 16:15 - 16:38 on 10th September 2018.

NOTES

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

Results apply to sample(s) as submitted. All pages of this report have been checked and approved for release.


Richard Fung
General Manager - Hong Kong

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1. Summary of Work

Ad hoc odour patrol service was conducted on 10th September 2018.

2. Odour Patrol

Odour patrolling is a process to make use of the calibrated olfactory senses (ie the nasal sense) of the patrol members to evaluate the odour and its intensity during a patrol exercise at the site.

Two odour patrol team members from ALS Technichem (HK) Pty Ltd were conducted the ad hoc patrol work and the patrol route was guided by the client. All members were free from any respiratory diseases during patrol day. None of the members has been working or living in the area in the vicinity of the inspection area.

The patrol team was required to move slowly from one to the other monitoring locations and used their olfactory senses to detect odour at each location. The location of odour sources and the areas to be affected by the odour nuisance were identified as much as possible.

During the patrolling, the meteorological and surrounding information were recorded:

- the prevailing weather condition;
- the wind direction;
- the wind speed;
- location where odour is spotted;
- possible source of odour;
- perceived intensity of the odour;
- duration of odour; and
- characteristics of the odour detected

The perceived intensity is to be divided into 5 levels which are ranked in an ascending order as follows:

0	Not detected	No odour perceives or an odour so weak that it cannot be easily characterised or described
1	Slight	Identifiable odour, slight
2	Moderate	Identifiable odour, moderate
3	Strong	Identifiable odour, strong
4	Extreme	Severe odour

The ad hoc odour patrol locations were shown in Appendix 1.



3. Result:

Location	Panellist	Weather	Time	T (°C)	RH (%)	WS (m/s)	WD (Deg)	Odour Intensity	Duration of Odour	Direction from Source	On-Site Observation	
											Odour Characteristics	Potential Odour Source
1	1	Cloudy	16:15	28.7	77.9	0.8	309	1	Intermittent	Downwind	Grassy	Trees and grass
	2							1				
2	1	Cloudy	16:19	29.2	77.4	0.9	324	0	NA	NA	NA	NA
	2							0				
3	1	Cloudy	16:22	28.9	77.4	0.0	NA	0	NA	NA	Grassy	Trees and grass
	2							1	Intermittent			
4	1	Cloudy	16:25	28.9	75.4	1.1	253	1	Intermittent	Downwind	Smell of concrete and garbage	Construction waste container
	2							1				
5	1	Cloudy	16:30	28.9	81.6	0.0	NA	1	Intermittent	NA	Musty smell of construction material	Construction material storage zone
	2							1				
6	1	Cloudy	16:36	29.1	76.8	0.0	NA	0	NA	NA	NA	NA
	2							0				

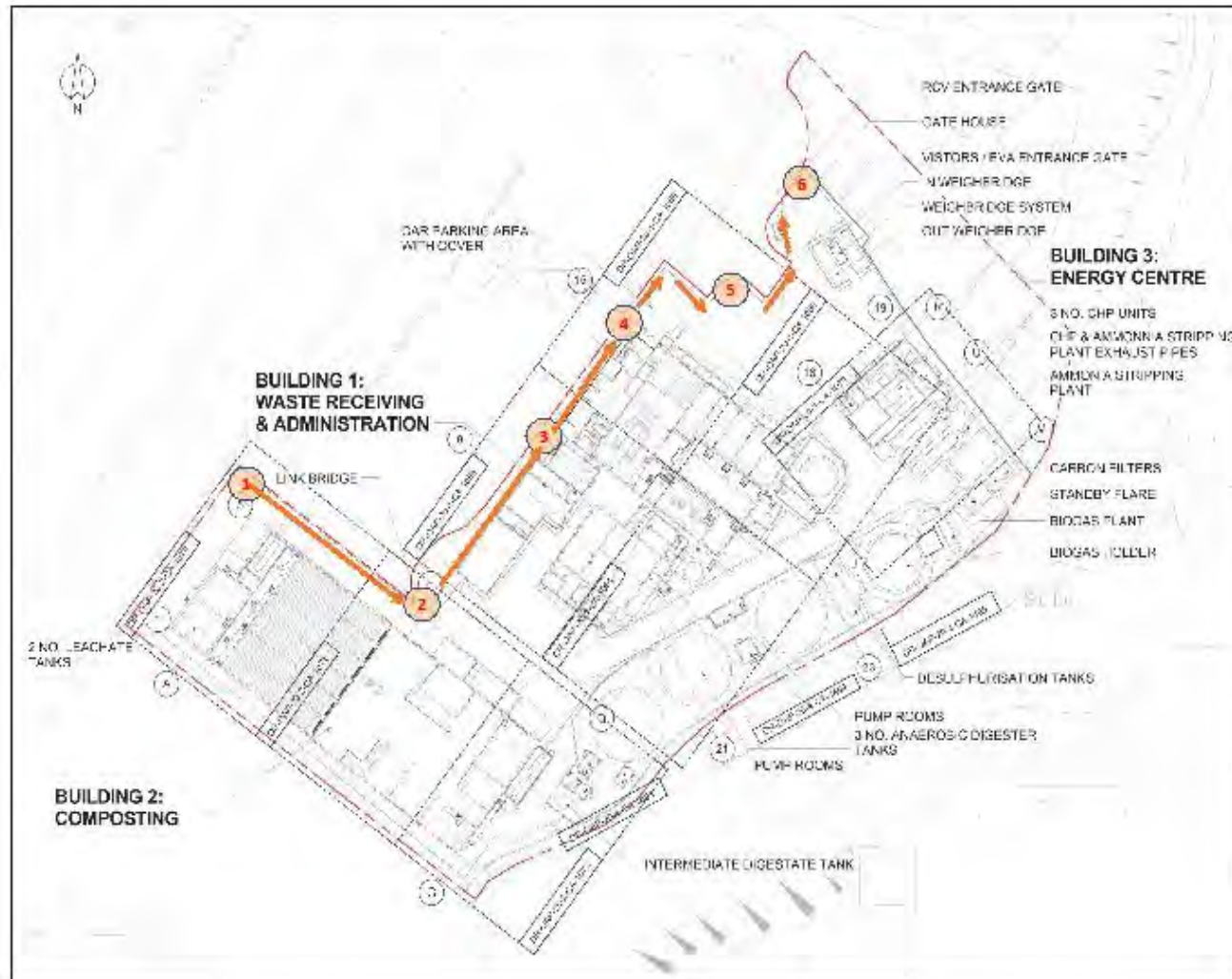
Remark:

- T: Air Temperature;
- RH: Relative Humidity;
- WD: Wind Direction;
- WS: Wind Speed.



APPENDIX 1

Ad hoc Odour Patrol Route



→ Proposed Patrol Route

10 Possible Odour Sources (No.) / Checkpoint

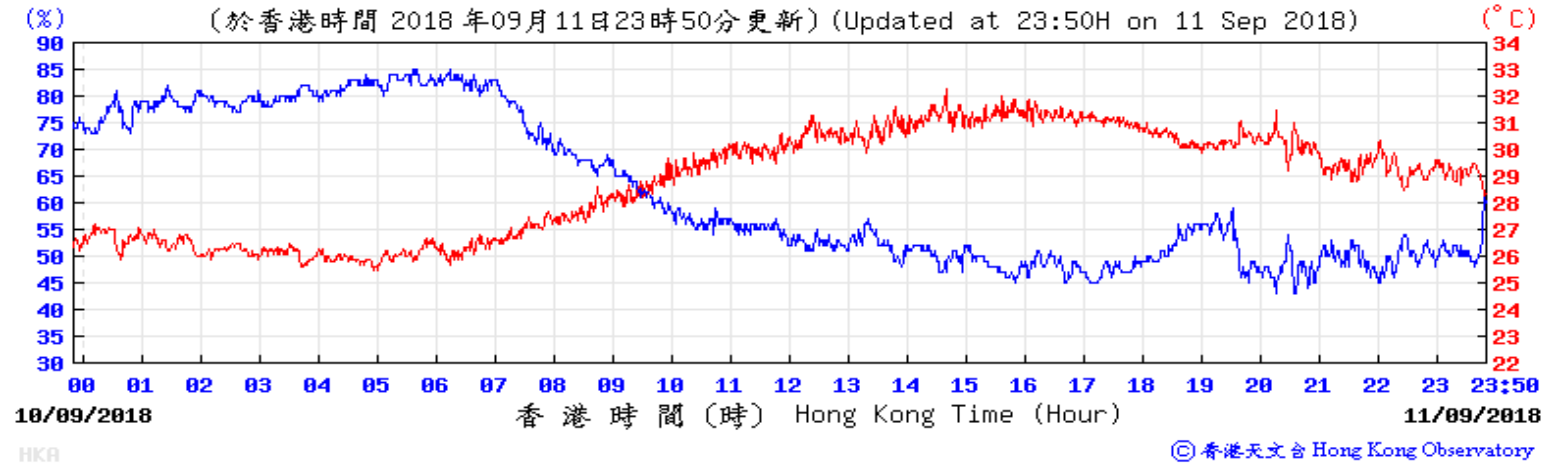
1 Estimated Odour Intensity
From 1 (min.) to 3 (max.)



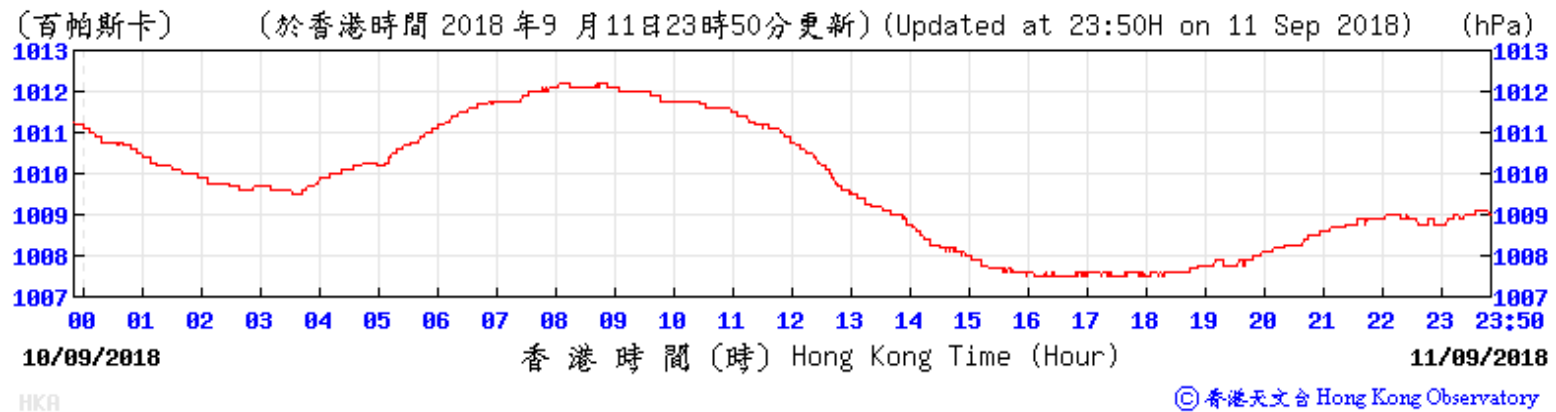
APPENDIX 2

Extract of Meteorological Observations from the Hong Kong Airport Observatory Station

Temperature/Humidity:

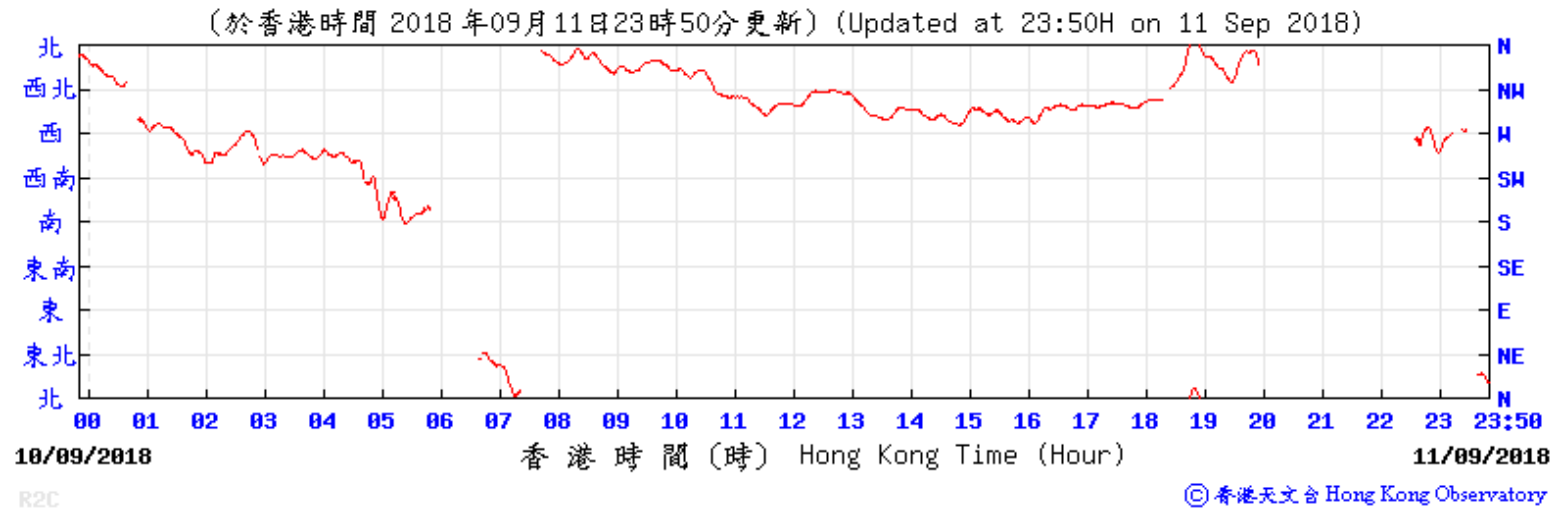


Pressure:

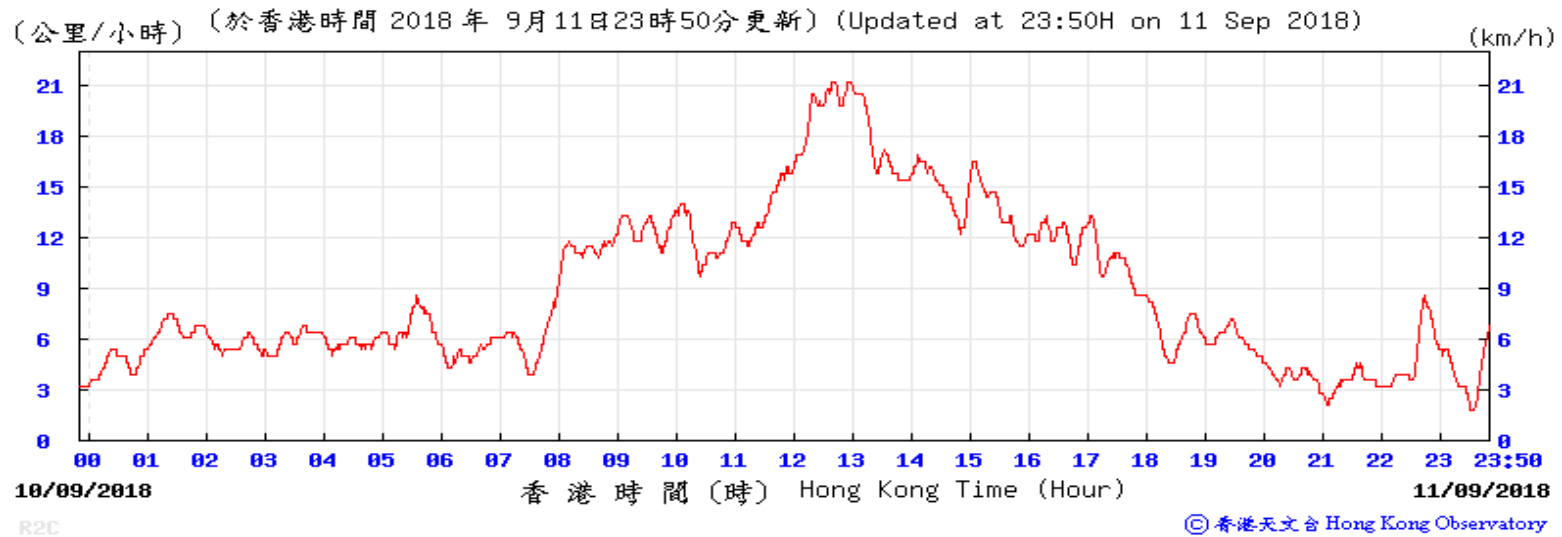




Wind Direction:



Wind Speed:





APPENDIX 3

Photos for the Odour Patrol Locations



Location: 1



Location: 2



Location: 3



Location: 4



Location: 5



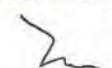
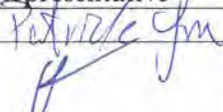

Location: 6

6. Appendix

Organic Resources Recovery Centre (Phase 1)

Odour Patrol Record Log Sheet

Parameter	Observations
Date	2 October 2018
Start & End Time (24hr)	From 14:06 To 14:55
Type of Patrol	Weekly / Monthly / Ac hoc / Follow-up <i>T&C</i>
Weather Condition	<u>Sunny</u> / Cloudy / Windy / Humid / Foggy /
Temperature (°C)	33°C
Relative Humidity (%)	46%
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	Hot plastic smell - intermittent
Possible Source of Odour	PRV of Gas holder
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Follow-up Actions	Remark
Between #73 & #74, ^{at} east of Ferrous Pump room 1 of Jet Mixing Pump Room 1, Leak of digestate between	

	EPD Representative	Employer Representative	Independent Odour Patrol Team	OSCAR Bioenergy JV
Name	Terence Ng	Yat Yee Jim		Terence CHAN
Signature			N/A	
Date	2/10/2018	2/10/18		2/10/2018

6. Appendix

Organic Resources Recovery Centre (Phase 1)

Odour Patrol Record Log Sheet

Parameter	Observations
Date	2 October 2018
Start & End Time (24hr)	From 14:06 To 14:35
Type of Patrol	Weekly / Monthly / Ac hoc / Follow-up + <u>Leak</u>
Weather Condition	<u>Sunny</u> / Cloudy / Windy / Humid / Foggy /
Temperature (°C)	33°C
Relative Humidity (%)	46%
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / <u>7</u> / 8
Intensity of Odour	0 / <u>1</u> / 2 / 3 / 4
Characteristic of Odour	Food waste - Intermittent
Possible Source of Odour	RCV Bay unloading, Gate opening
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / <u>8</u>
Intensity of Odour	<u>0</u> / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Follow-up Actions Remark	


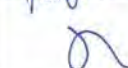
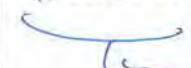
	EPD Representative	Employer Representative	Independent Odour Patrol Team	OSCAR Bioenergy JV
Name	Terence Ng	Yutrick Yim		Terence CHAN
Signature			N/A	
Date	2/10/2018	2/10/18		2/10/2018

6. Appendix

Organic Resources Recovery Centre (Phase 1)

Odour Patrol Record Log Sheet

Parameter	Observations
Date	3 October 2018
Start & End Time (24hr)	From 14:45 To 15:15
Type of Patrol	Weekly / Monthly / Ac hoc / Follow-up / T & C Period
Weather Condition	Sunny / Cloudy / Windy / Humid / Foggy /
Temperature (°C)	27°C
Relative Humidity (%)	66%
Monitoring Point	① / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	① / 1 / 2 / 3 / 4
Characteristic of Odour	Hot Plastic smell
Possible Source of Odour	PRV of Gas Holder - 1
Monitoring Point	1 / ② / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / ① / 2 / 3 / 4
Characteristic of Odour	Plastic smell -
Possible Source of Odour	PRV of Gas Holder
Monitoring Point	1 / 2 / ③ / 4 / 5 / 6 / 7 / 8
Intensity of Odour	① / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / ④ / 5 / 6 / 7 / 8
Intensity of Odour	0 / ① / 2 / 3 / 4
Characteristic of Odour	mixed smell of biogas and digestate - minor -
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / ⑤ / 6 / 7 / 8
Intensity of Odour	① / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / ⑥ / 7 / 8
Intensity of Odour	① / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Follow up Actions Remark	Point 2, the intensity nearly reach "2", a stronger smell than previous.

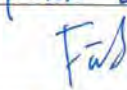
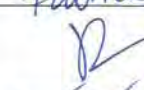

	EPD Representative	Employer Representative	Independent Odour Patrol Team	OSCAR Bioenergy JV
Name	FIONA LAM	Patrick fur		Terence CHAN
Signature			NA	
Date	3/10/2018	3/10/18		3/10/2018

6. Appendix

Organic Resources Recovery Centre (Phase 1)

Odour Patrol Record Log Sheet

Parameter	Observations
Date	3 October 2018
Start & End Time (24hr)	From 14:45 To 15:15
Type of Patrol	Weekly / Monthly / Ad hoc / Follow-up + T & C Period
Weather Condition	<u>Sunny</u> / Cloudy / Windy / Humid / Foggy /
Temperature (°C)	27°C
Relative Humidity (%)	66%
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / <u>7</u> / 8
Intensity of Odour	<u>0</u> / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / <u>8</u>
Intensity of Odour	0 / <u>1</u> / 2 / 3 / 4
Characteristic of Odour	very minor unknown smell.
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Follow-up Actions Remark	

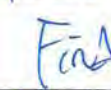

	EPD Representative	Employer Representative	Independent Odour Patrol Team	OSCAR Bioenergy JV
Name	PONA LAM	Patrick Jim		Terence CHAN
Signature			NA	
Date	3/10/2018	3/10/18		3/10/2018

6. Appendix

Organic Resources Recovery Centre (Phase 1)

Odour Patrol Record Log Sheet

Parameter	Observations
Date	5 / 10 / 2018
Start & End Time (24hr)	From 9:32 To 9:54
Type of Patrol	Weekly / Monthly / Ad hoc / Follow-up / T & C Period
Weather Condition	Sunny / Cloudy / Windy / Humid / Foggy /
Temperature (°C)	28.2
Relative Humidity (%)	38
Monitoring Point	① / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	① / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / ② / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / ① / 2 / 3 / 4
Characteristic of Odour	Hot Plastic (Intermittent)
Possible Source of Odour	PSV of Biogas Holder
Monitoring Point	1 / 2 / ③ / 4 / 5 / 6 / 7 / 8
Intensity of Odour	① / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / ④ / 5 / 6 / 7 / 8
Intensity of Odour	① / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / ⑤ / 6 / 7 / 8
Intensity of Odour	① / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / ⑥ / 7 / 8
Intensity of Odour	① / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Follow-up Actions Remark	


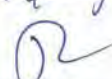
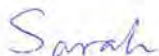
	EPD Representative	Employer Representative	Independent Odour Patrol Team	OSCAR Bioenergy JV
Name	Fiona Lam	Patrick Yim		Sarah Ho
Signature			NA	Sarah
Date	5/10/2018	5/10/18		5/10/2018

6. Appendix

Organic Resources Recovery Centre (Phase 1)

Odour Patrol Record Log Sheet

Parameter	Observations
Date	5/10/2018
Start & End Time (24hr)	From 9:32 To 9:54
Type of Patrol	Weekly / Monthly / Ac hoc / Follow up / T & C Period
Weather Condition	Sunny / Cloudy / Windy / Humid / Foggy /
Temperature (°C)	28.2
Relative Humidity (%)	38
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	SSOW smell (minor)
Possible Source of Odour	Pre-treatment skip area
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Follow up Actions Remark	


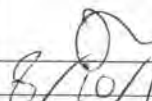

	EPD Representative	Employer Representative	Independent Odour Patrol Team	OSCAR Bioenergy JV
Name	Fiona Lam	Patrick Yim		Sarah Ho
Signature			NA	
Date	5/10/2018	5/10/18		5/10/2018

6. Appendix

Organic Resources Recovery Centre (Phase 1)

Odour Patrol Record Log Sheet

Parameter	Observations
Date	8 October 2018
Start & End Time (24hr)	From 11:00am To 11:12
Type of Patrol	Weekly / Monthly / Ad hoc / Follow-up + T & C Period
Weather Condition	<u>Sunny</u> / Cloudy / Windy / Humid / Foggy /
Temperature (°C)	34°C
Relative Humidity (%)	55%
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	Hot plastic smell
Possible Source of Odour	PRV of Biogas Holder
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	Hot Plastic smell
Possible Source of Odour	PRV of Biogas Holder
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	minor smell of wastewater
Possible Source of Odour	sludge collector truck nearby
Follow-up Actions	Remark



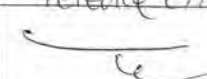
	EPD Representative	Employer Representative	Independent Odour Patrol Team	OSCAR Bioenergy JV
Name	Terence Ng	Patrick Yam		Terence CHAN
Signature			NA	
Date	8 Oct 2018	8/10/18		8/10/2018

6. Appendix

Organic Resources Recovery Centre (Phase 1)

Odour Patrol Record Log Sheet

Parameter	Observations
Date	8 October 2018
Start & End Time (24hr)	From 11:00 To 11:13
Type of Patrol	Weekly / Monthly / Ac hoc / Follow-up T & C Period
Weather Condition	<u>Sunny</u> / Cloudy / Windy / Humid / Foggy /
Temperature (°C)	34°C
Relative Humidity (%)	55%
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / <u>7</u> / 8
Intensity of Odour	0 / <u>1</u> / 2 / 3 / 4
Characteristic of Odour	minor SS&W smell
Possible Source of Odour	Retreatment Hall
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / <u>8</u>
Intensity of Odour	<u>0</u> / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Follow-up Actions Remark	

	EPD Representative	Employer Representative	Independent Odour Patrol Team	OSCAR Bioenergy JV
Name	Teresa Ng	Yan Yim		Terence CHAN
Signature			NA	
Date	8 Oct 2018	8/10/18		8/10/2018

6. Appendix

Organic Resources Recovery Centre (Phase 1)

Odour Patrol Record Log Sheet

Parameter	Observations
Date	10 / 10 / 2018
Start & End Time (24hr)	From 11:30 To 12:03
Type of Patrol	Weekly / Monthly / Ac hoc / Follow-up / T & C Period
Weather Condition	Sunny / <u>Cloudy</u> / Windy / Humid / Foggy /
Temperature (°C)	27.5
Relative Humidity (%)	77
Monitoring Point	① / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	① / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / ② / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / ① / 2 / 3 / 4
Characteristic of Odour	Strong Hot - Plastic Smell
Possible Source of Odour	PSV of Biogas Holder
Monitoring Point	1 / 2 / ③ / 4 / 5 / 6 / 7 / 8
Intensity of Odour	Small ① / ① / 2 / 3 / 4
Characteristic of Odour	Minor Toilet Smell
Possible Source of Odour	Building 1
Monitoring Point	1 / 2 / 3 / ④ / 5 / 6 / 7 / 8
Intensity of Odour	① / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / ⑤ / 6 / 7 / 8
Intensity of Odour	① / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / ⑥ / 7 / 8
Intensity of Odour	① / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Follow-up Actions Remark	



	EPD Representative	Employer Representative	Independent Odour Patrol Team	OSCAR Bioenergy JV
Name	Terence Ng	Patrick Lim		Sarah Ho
Signature			NA	
Date	10 Oct 2018	10/10/18		10/10/2018

6. Appendix

Organic Resources Recovery Centre (Phase 1)

Odour Patrol Record Log Sheet

Parameter	Observations
Date	10 / 10 / 2018
Start & End Time (24hr)	From 11:30 To 12:03
Type of Patrol	Weekly / Monthly / Ac hoc / Follow-up T & C Period
Weather Condition	Sunny / Cloudy / Windy / Humid / Foggy Rainy.
Temperature (°C)	27.5
Relative Humidity (%)	77
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Follow-up Actions Remark	
Monitoring Point 7 & 8 cancelled due to rainy day at 12:03.	


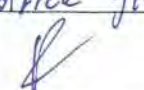
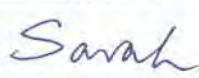
	EPD Representative	Employer Representative	Independent Odour Patrol Team	OSCAR Bioenergy JV
Name	Terence Ng	Derrick Ym		Sarah Ho
Signature			NA	Sarah
Date	10 Oct 2018	10/10/18		10/10/2018

6. Appendix

Organic Resources Recovery Centre (Phase 1)

Odour Patrol Record Log Sheet

Parameter	Observations
Date	12 / 10 / 2018
Start & End Time (24hr)	From 11:25 To 11:52
Type of Patrol	Weekly / Monthly / Ad hoc / Follow-up T & C Period
Weather Condition	<u>Sunny</u> / Cloudy / Windy / Humid / Foggy /
Temperature (°C)	25.9
Relative Humidity (%)	63
Monitoring Point	① / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	① / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / ② / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / ① / 2 / 3 / 4
Characteristic of Odour	Strong Hot Plastic (intermittent)
Possible Source of Odour	PSV of Biogas Holder
Monitoring Point	1 / 2 / ③ / 4 / 5 / 6 / 7 / 8
Intensity of Odour	① / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / ④ / 5 / 6 / 7 / 8
Intensity of Odour	① / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / ⑤ / 6 / 7 / 8
Intensity of Odour	① / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / ⑥ / 7 / 8
Intensity of Odour	① / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
<u>Follow-up Actions - Remark</u>	
Lower has compost smell (intermittent).	

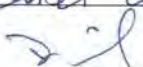

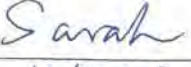
	EPD Representative	Employer Representative	Independent Odour Patrol Team	OSCAR Bioenergy JV
Name	Daniel Choi	Patrick Yim		Sarah Ho
Signature			NA	
Date	12/10/2018	12/10/18.		12/10/18

6. Appendix

Organic Resources Recovery Centre (Phase 1)

Odour Patrol Record Log Sheet

Parameter	Observations
Date	12/10/2018
Start & End Time (24hr)	From 11:25 To 11:52
Type of Patrol	Weekly / Monthly / Ac hoc / Follow-up / T & C Period
Weather Condition	Sunny / Cloudy / Windy / Humid / Foggy /
Temperature (°C)	25.9
Relative Humidity (%)	63
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Follow up Actions Remark	


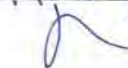
	EPD Representative	Employer Representative	Independent Odour Patrol Team	OSCAR Bioenergy JV
Name	Daniel Choi	Patricia Jwa		Sarah Ho
Signature			NA	
Date	12/10/2018	12/10/18		12/10/18

6. Appendix

Organic Resources Recovery Centre (Phase 1)

Odour Patrol Record Log Sheet

Parameter	Observations
Date	15 / 10 / 2018
Start & End Time (24hr)	From 11:31 To 11:50
Type of Patrol	Weekly / Monthly / Ac hoc / Follow-up / T & C Period
Weather Condition	Sunny / Cloudy / Windy / Humid / Foggy /
Temperature (°C)	26.4
Relative Humidity (%)	77
Monitoring Point	① / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	① / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / ② / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / ① / 2 / 3 / 4
Characteristic of Odour	Hot Plastic (Intermittent)
Possible Source of Odour	PSV of Biogas Holder
Monitoring Point	1 / 2 / ③ / 4 / 5 / 6 / 7 / 8
Intensity of Odour	① / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / ④ / 5 / 6 / 7 / 8
Intensity of Odour	① / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / ⑤ / 6 / 7 / 8
Intensity of Odour	① / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / ⑥ / 7 / 8
Intensity of Odour	0 / ① / 2 / 3 / 4
Characteristic of Odour	Compost & toilet small
Possible Source of Odour	Building 2, portable toilet
Follow-up Actions Remark	

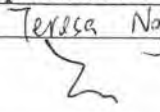
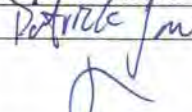
	EPD Representative	Employer Representative	Independent Odour Patrol Team	OSCAR Bioenergy JV
Name	Teresa Ng	Patrick Jua		Sarah HO
Signature			NA	Sarah
Date	15 Oct 2018	15/10/18		15/10/2018

6. Appendix

Organic Resources Recovery Centre (Phase 1)

Odour Patrol Record Log Sheet

Parameter	Observations
Date	15 / 10 / 2018
Start & End Time (24hr)	From 11:30 To 11:50
Type of Patrol	Weekly / Monthly / Ac hoc / Follow-up / T & C Period
Weather Condition	Sunny / <u>Cloudy</u> / Windy / Humid / Foggy /
Temperature (°C)	26.4
Relative Humidity (%)	77
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / <u>7</u> / 8
Intensity of Odour	0 / <u>1</u> / 2 / 3 / 4
Characteristic of Odour	SSOW smell
Possible Source of Odour	Pre-treatment area
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / <u>8</u>
Intensity of Odour	0 / <u>1</u> / 2 / 3 / 4
Characteristic of Odour	Rubbish smell
Possible Source of Odour	Waste Collection Truck
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Follow up Actions Remark	

	EPD Representative	Employer Representative	Independent Odour Patrol Team	OSCAR Bioenergy JV
Name	Teresa Ng	Patricia Lim		Sarah HO
Signature			NA	Sarah
Date	15 Oct 2018	15/10/18		15/10/2018

6. Appendix

Organic Resources Recovery Centre (Phase 1)

Odour Patrol Record Log Sheet

Parameter	Observations
Date	18 October 2018
Start & End Time (24hr)	From 14:05 To 14:30
Type of Patrol	Weekly / Monthly / Ad hoc / Follow up T & C Period Patrol
Weather Condition	Sunny / <u>Cloudy</u> / Windy / Humid / Foggy /
Temperature (°C)	26°C
Relative Humidity (%)	72%
Monitoring Point	① / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	① / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / ② / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / ① / 2 / 3 / 4
Characteristic of Odour	Hot Plastic smell
Possible Source of Odour	PRV of Gas Holder
Monitoring Point	1 / 2 / ③ / 4 / 5 / 6 / 7 / 8
Intensity of Odour	① / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / ④ / 5 / 6 / 7 / 8
Intensity of Odour	① / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / ⑤ / 6 / 7 / 8
Intensity of Odour	0 / ① / 2 / 3 / 4
Characteristic of Odour	minor glass smell
Possible Source of Odour	glass
Monitoring Point	1 / 2 / 3 / 4 / 5 / ⑥ / 7 / 8
Intensity of Odour	① / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Follow-up Actions Remark	Outside the door of Pipe Gallery, smell of compost, from Louver of Pipe Gallery

	EPD Representative	Employer Representative	Independent Odour Patrol Team	OSCAR Bioenergy JV
Name	Fiona Lam	Patricia Lim		Terence CHAN
Signature			NA	
Date	18/10/2018	18/10/18		18/10/2018

6. Appendix

Organic Resources Recovery Centre (Phase 1)

Odour Patrol Record Log Sheet

Parameter	Observations
Date	18 th October 2018
Start & End Time (24hr)	From 14:05 To 14:30
Type of Patrol	Weekly / Monthly / Ad hoc / Follow up T & C Period Patrol
Weather Condition	Sunny <u>Cloudy</u> / Windy / Humid / Foggy /
Temperature (°C)	26°C
Relative Humidity (%)	73%
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / <u>7</u> / 8
Intensity of Odour	0 / <u>1</u> / 2 / 3 / 4
Characteristic of Odour	Smell of SSO, Wastewater
Possible Source of Odour	RCV Bay, Vacuum Truck
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / <u>8</u>
Intensity of Odour	<u>0</u> / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Follow-up Actions	Remark



	EPD Representative	Employer Representative	Independent Odour Patrol Team	OSCAR Bioenergy JV
Name	Fiona Lam	Patricia Lam		Terence Chan
Signature			NA	
Date	18/10/2018	18/10/18		18/10/2018

6. Appendix

Organic Resources Recovery Centre (Phase 1)

Odour Patrol Record Log Sheet

Parameter	Observations
Date	19 / 10 / 2018
Start & End Time (24hr)	From 9:00 To 9:17
Type of Patrol	Weekly / Monthly / Ad-hoc / Follow-up T & C Period
Weather Condition	Sunny / <u>Cloudy</u> / Windy / Humid / Foggy /
Temperature (°C)	24.7
Relative Humidity (%)	70
Monitoring Point	① / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	① / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / ② / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / ① / 2 / 3 / 4
Characteristic of Odour	Hot Plastic
Possible Source of Odour	PSV of Biogas Holder
Monitoring Point	1 / 2 / ③ / 4 / 5 / 6 / 7 / 8
Intensity of Odour	① / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / ④ / 5 / 6 / 7 / 8
Intensity of Odour	① / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / ⑤ / 6 / 7 / 8
Intensity of Odour	0 / ① / 2 / 3 / 4
Characteristic of Odour	minor compost smell
Possible Source of Odour	composting hall
Monitoring Point	1 / 2 / 3 / 4 / 5 / ⑥ / 7 / 8
Intensity of Odour	① / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Follow-up Actions Remark	

	EPD Representative	Employer Representative	Independent Odour Patrol Team	OSCAR Bioenergy JV
Name	TESS CHAN	Terence Chan		Sarah HO
Signature			NA	Sarah
Date	19 Oct 2018	19/10/18		19/10/2018

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Organic Resources Recovery Centre (Phase 1)

Odour Patrol Record Log Sheet

Parameter	Observations
Date	19 / 10 / 2018
Start & End Time (24hr)	From 9:00 To 9:17
Type of Patrol	Weekly / Monthly / Ad-hoc / Follow-up / <u>T & C Period</u>
Weather Condition	Sunny / <u>Cloudy</u> / Windy / Humid / Foggy /
Temperature (°C)	24.7
Relative Humidity (%)	70
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / <u>7</u> / 8
Intensity of Odour	<u>0</u> / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / <u>8</u>
Intensity of Odour	<u>0</u> / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Follow-up Actions Remark	

	EPD Representative	Employer Representative	Independent Odour Patrol Team	OSCAR Bioenergy JV
Name	TESS CHAN	Patrick <i>Chan</i>		Sarah HO
Signature	<i>Tess</i>	<i>P</i>	NA	<i>Sarah</i>
Date	19 Oct 2018	19/10/18		19/10/2018

6. Appendix

Organic Resources Recovery Centre (Phase 1)

Odour Patrol Record Log Sheet

Parameter	Observations
Date	22 October 2018
Start & End Time (24hr)	From 11:31 To 11:47
Type of Patrol	Weekly / Monthly / Ad hoc / Follow-up / T & C Period
Weather Condition	Sunny / Cloudy / Windy / Humid / Foggy /
Temperature (°C)	28°C
Relative Humidity (%)	74%
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	plastic smell
Possible Source of Odour	PSV of Gas Holder
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	plastic smell
Possible Source of Odour	PSV of Gas Holder
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Follow-up Actions - Remark	


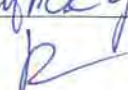
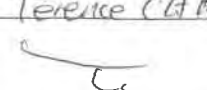
	EPD Representative	Employer Representative	Independent Odour Patrol Team	OSCAR Bioenergy JV
Name	Teresa Ng	Patricia Jim		Terence CHAN
Signature			NA	
Date	22/10/2018	22/10/18		22/10/2018

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Organic Resources Recovery Centre (Phase 1)

Odour Patrol Record Log Sheet

Parameter	Observations
Date	22 October 2018
Start & End Time (24hr)	From 11:31 To 11:47
Type of Patrol	Weekly / Monthly / Ad hoc / Follow-up / T & C Period
Weather Condition	<u>Sunny</u> / Cloudy / Windy / Humid / Foggy /
Temperature (°C)	28°C
Relative Humidity (%)	74%
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	smell of SOW
Possible Source of Odour	Petroleum Hall
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	plastic smell - intermittent
Possible Source of Odour	PSV of Gas Holder
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Follow-up Actions Remark	

	EPD Representative	Employer Representative	Independent Odour Patrol Team	OSCAR Bioenergy JV
Name	Teresa Ng	Patrick Lim		Terence CHAN
Signature			NA	
Date	22/10/2018	22/10/18		22/10/2018

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Organic Resources Recovery Centre (Phase 1)

Odour Patrol Record Log Sheet

Parameter	Observations
Date	24 / 10 / 2018
Start & End Time (24hr)	From 13:57 To 14:22
Type of Patrol	Weekly / Monthly / Ad hoc / Follow-up / T & C Period
Weather Condition	Sunny / <u>Cloudy</u> / Windy / Humid / Foggy /
Temperature (°C)	26.8
Relative Humidity (%)	69
Monitoring Point	① / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / ① / 2 / 3 / 4
Characteristic of Odour	Minor Hot Plastic
Possible Source of Odour	PSV of Biogas Holder
Monitoring Point	1 / ② / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / ① / 2 / 3 / 4
Characteristic of Odour	Hot Plastic
Possible Source of Odour	PSV of Biogas Holder
Monitoring Point	1 / 2 / ③ / 4 / 5 / 6 / 7 / 8
Intensity of Odour	① / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / ④ / 5 / 6 / 7 / 8
Intensity of Odour	① / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / ⑤ / 6 / 7 / 8
Intensity of Odour	① / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / ⑥ / 7 / 8
Intensity of Odour	① / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Follow-up Actions Remark	Louwer ^{part} centrifuge has strong digestate smell.




	EPD Representative	Employer Representative	Independent Odour Patrol Team	OSCAR Bioenergy JV
Name	Teresa Ng	Patricia Ym		Sarah HO
Signature			NA	Sarah
Date	24 / 10 / 2018	24 / 10 / 18		24 / 10 / 2018

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Organic Resources Recovery Centre (Phase 1)

Odour Patrol Record Log Sheet

Parameter	Observations
Date	24/10/2018
Start & End Time (24hr)	From 13:57 To 14:22
Type of Patrol	Weekly / Monthly / Ad hoc / Follow up / T & C Period
Weather Condition	Sunny / <u>Cloudy</u> / Windy / Humid / Foggy /
Temperature (°C)	26.8
Relative Humidity (%)	69
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / <u>7</u> / 8
Intensity of Odour	0 / <u>1</u> / 2 / 3 / 4
Characteristic of Odour	Rubbish smell, minor hot plastic
Possible Source of Odour	Pre-treatment skip area, PSV of Biogas Holder
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / <u>8</u>
Intensity of Odour	<u>0</u> / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	
Intensity of Odour	
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	
Intensity of Odour	
Characteristic of Odour	
Possible Source of Odour	
Follow-up Actions Remark	




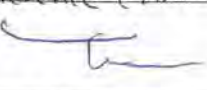
	EPD Representative	Employer Representative	Independent Odour Patrol Team	OSCAR Bioenergy JV
Name	Teresa Ng	Patrick Yam		Sarah HO
Signature			NA	
Date	24/10/2018	24/10/18.		24/10/2018

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Organic Resources Recovery Centre (Phase 1)

Odour Patrol Record Log Sheet

Parameter	Observations
Date	26 October 2018
Start & End Time (24hr)	From 10:05 To 10:20
Type of Patrol	Weekly / Monthly / Ad-hoc / Follow-up / T&C Period Patrol
Weather Condition	(Sunny) Cloudy / Windy / Humid / Foggy /
Temperature (°C)	~28°C
Relative Humidity (%)	~74%
Monitoring Point	① / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	① / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / ② / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / ① / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	Plastic Biogas Holder -
Monitoring Point	1 / 2 / ③ / 4 / 5 / 6 / 7 / 8
Intensity of Odour	① / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / ④ / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4 / 20
Characteristic of Odour	
Possible Source of Odour	grass.
Monitoring Point	1 / 2 / 3 / 4 / ⑤ / 6 / 7 / 8
Intensity of Odour	0 / ① / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	grass
Monitoring Point	1 / 2 / 3 / 4 / 5 / ⑥ / 7 / 8
Intensity of Odour	0 / ① / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	rubbish / plastic process hall. fan
Follow-up Actions - Remarks	
This is a copy record only. Please refer to the final report from ALS.	

	EPD Representative	Employer Representative	Independent Odour Patrol Team	OSCAR Bioenergy JV
Name	Fiona Lam	Bill Chen	Edwin, Tsz kin	Terence Chan
Signature				
Date	26/10/2018	26/10/2018	26/10/2018	26/10/2018

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Organic Resources Recovery Centre (Phase 1)

Odour Patrol Record Log Sheet

Parameter	Observations
Date	26 October 2018
Start & End Time (24hr)	From 10:05 To 10:20
Type of Patrol	Weekly / Monthly / Ad-hoc / Follow-up / T&C Period Patrol
Weather Condition	Sunny / Cloudy / Windy / Humid / Foggy /
Temperature (°C)	~ 28°
Relative Humidity (%)	~ 78%
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4 180
Characteristic of Odour	Exhaust gas
Possible Source of Odour	Vehicle
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4 081
Characteristic of Odour	rubbish
Possible Source of Odour	rubbish Truck
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Follow-up Actions - Remarks	
This is a copy record only. Please refer to the final report from ALS.	

	EPD Representative	Employer Representative	Independent Odour Patrol Team	OSCAR Bioenergy JV
Name	Fiona LAM	Bill CHEN	Edwin, Tsz kin	Terence CHAN
Signature				
Date	26/10/2018	26/10/2018	26/10/2018	26/10/2018

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Organic Resources Recovery Centre (Phase 1)

Odour Patrol Record Log Sheet

Parameter	Observations
Date	26 October 2018
Start & End Time (24hr)	From 18:03 To 18:15
Type of Patrol	Weekly / Monthly / Ad hoc / Follow-up / T & C Period
Weather Condition	Sunny / Cloudy / Windy / Humid / Foggy / Night
Temperature (°C)	~ 27°C
Relative Humidity (%)	~ 80%
Monitoring Point	① 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / ① / 2 / 3 / 4
Characteristic of Odour	Grass
Possible Source of Odour	Grass
Monitoring Point	1 / ② / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / ① / 2 / 3 / 4
Characteristic of Odour	Plastic
Possible Source of Odour	Biogas Holder
Monitoring Point	1 / 2 / ③ / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4 Odor
Characteristic of Odour	Plastic
Possible Source of Odour	Biogas Holder
Monitoring Point	1 / 2 / 3 / ④ / 5 / 6 / 7 / 8
Intensity of Odour	① 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / ⑤ / 6 / 7 / 8
Intensity of Odour	① 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / ⑥ / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4 Odor
Characteristic of Odour	Rubbish
Possible Source of Odour	Process hall Fan
Follow-up Actions- Remark	This is a copy record only. Please refer to the final report from ALS.





	EPD Representative	Employer Representative	Independent Odour Patrol Team	OSCAR Bioenergy JV
Name	FIONA LAM	Philip Cheung	Edwin, Tszkin	Terence CHAN
Signature				
Date	26/10/2018	26/10/18	26/10/18	26/10/2018

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Organic Resources Recovery Centre (Phase 1)

Odour Patrol Record Log Sheet

Parameter	Observations
Date	26 October 2018
Start & End Time (24hr)	From 18:03 To 18:15
Type of Patrol	Weekly / Monthly / Ad hoc / Follow-up / T & C Period
Weather Condition	Sunny / Cloudy / Windy / Humid / Foggy / Night
Temperature (°C)	~ 27°C
Relative Humidity (%)	~ 80%
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	Rubbish
Possible Source of Odour	Plant
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Follow-up Actions Remark	
This is a copy record only. Please refer to the final report from ALS	


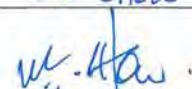
	EPD Representative	Employer Representative	Independent Odour Patrol Team	OSCAR Bioenergy JV
Name	Fiona Lam	Philip Cheung	Edwin, Tszkin	Terence Chan
Signature				
Date	26/10/2018	26/10/18	26/10/18	26/10/2018

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Organic Resources Recovery Centre (Phase 1)

Odour Patrol Record Log Sheet


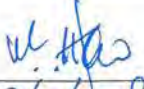
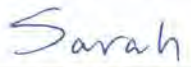
Parameter	Observations
Date	29 / 10 / 2018
Start & End Time (24hr)	From 11:32 To 11:55
Type of Patrol	Weekly / Monthly / Ad hoc / Follow up / T & C Period
Weather Condition	<u>Sunny</u> / Cloudy / Windy / Humid / Foggy /
Temperature (°C)	26.5
Relative Humidity (%)	30
Monitoring Point	① / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	① / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / ② / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / ① / 2 / 3 / 4
Characteristic of Odour	Hot Plastic
Possible Source of Odour	PSV of Biogas Holder
Monitoring Point	1 / 2 / ③ / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / ① / 2 / 3 / 4
Characteristic of Odour	Rubbish smell & Hot Plastic
Possible Source of Odour	WCV, PSV of Biogas Holder
Monitoring Point	1 / 2 / 3 / ④ / 5 / 6 / 7 / 8
Intensity of Odour	① / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / ⑤ / 6 / 7 / 8
Intensity of Odour	① / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / ⑥ / 7 / 8
Intensity of Odour	① / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Follow up Actions Remark	

	EPD Representative	Employer Representative	Independent Odour Patrol Team	OSCAR Bioenergy JV
Name	FIONA LAM	C L CHOW		Sarah HO
Signature			NA	Sarah
Date	29/10/2018	29/10/2018		29/10/2018

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Organic Resources Recovery Centre (Phase 1)
Odour Patrol Record Log Sheet

Parameter	Observations
Date	29 / 10 / 2018
Start & End Time (24hr)	From 11:32 To 11:55
Type of Patrol	Weekly / Monthly / Ad hoc / Follow-up / T & C Period
Weather Condition	Sunny / Cloudy / Windy / Humid / Foggy /
Temperature (°C)	26.5
Relative Humidity (%)	30
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Follow-up Actions Remark	


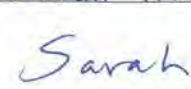
	EPD Representative	Employer Representative	Independent Odour Patrol Team	OSCAR Bioenergy JV
Name	Fiona Lam	CL Cheu		Sarah Ho
Signature			NA	
Date	29/10/2018	29/10/2018		29/10/2018

6. Appendix

Organic Resources Recovery Centre (Phase 1)

Odour Patrol Record Log Sheet

Parameter	Observations
Date	31 / 10 / 2018
Start & End Time (24hr)	From 11:01 To 11:26
Type of Patrol	Weekly / Monthly / Ad hoc / Follow-up T & C Period
Weather Condition	<u>Sunny</u> / Cloudy / Windy / Humid / Foggy /
Temperature (°C)	25.5
Relative Humidity (%)	32
Monitoring Point	① / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	① / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / ② / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / ① / 2 / 3 / 4
Characteristic of Odour	Hot Plastic (Intermittent)
Possible Source of Odour	PsV of Biogas Holder
Monitoring Point	1 / 2 / ③ / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / ① / 2 / 3 / 4
Characteristic of Odour	Grass, sewage, hot plastic smell (minor)
Possible Source of Odour	Tree, truck, psV of Biogas Holder
Monitoring Point	1 / 2 / 3 / ④ / 5 / 6 / 7 / 8
Intensity of Odour	0 / ① / 2 / 3 / 4
Characteristic of Odour	Digestate smell (minor)
Possible Source of Odour	Mixing Unit
Monitoring Point	1 / 2 / 3 / 4 / ⑤ / 6 / 7 / 8
Intensity of Odour	① / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / ⑥ / 7 / 8
Intensity of Odour	① / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Follow-up Actions Remark	

	EPD Representative	Employer Representative	Independent Odour Patrol Team	OSCAR Bioenergy JV
Name	Fiona Lam	Patrick Ym		Sarah Ho
Signature			NA	
Date	31/10/2018	31/10/18		31/10/2018

6. Appendix

Organic Resources Recovery Centre (Phase 1)

Odour Patrol Record Log Sheet

Parameter	Observations
Date	31 / 10 / 2018
Start & End Time (24hr)	From 11:01 To 11:26
Type of Patrol	Weekly / Monthly / Ad hoc / Follow-up / T & C Period
Weather Condition	Sunny / Cloudy / Windy / Humid / Foggy /
Temperature (°C)	25.5
Relative Humidity (%)	32
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Follow-up Actions Remark	

	EPD Representative	Employer Representative	Independent Odour Patrol Team	OSCAR Bioenergy JV
Name	Fiona Lam	Patrick Ym		Sarah HO
Signature			NA	Sarah
Date	31/10/2018	31/10/18		31/10/2018



CERTIFICATE OF ANALYSIS

CLIENT:	Oscar Bioenergy Joint Venture	WORK ORDER:	HK1856263
CONTACT:	Edwin Wong	LABORATORY:	Hong Kong
ADDRESS:	No. 5, Sham Fung Road, Siu Ho Wan, North Lantau Island, NT, Hong Kong	SUB-BATCH:	0
		DATE OF PATROL:	26 October 2018
		DATE OF ISSUE:	5 November 2018
PROJECT:	Odour Patrol for the Organic Resources Recovery Centre Phase 1 in Siu Ho Wan		
SITE:	Organic Resources Recovery Centre Phase 1 (ORRC1)		


COMMENTS

Date of Odour Patrol: 26 October 2018.
Odour Patrols were conducted by ALS Technichem (HK) Pty Ltd staff during 10:05- 10:20 and 18:03 - 18:15.

NOTES

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

Results apply to sample(s) as submitted. All pages of this report have been checked and approved for release.


Richard Fung
General Manager - Hong Kong

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1. Summary of Work

The odour patrol was conducted during daytime and evening / night time.

2. Odour Patrol

Odour patrolling is a process to make use of the calibrated olfactory senses (ie the nasal sense) of the patrol members to evaluate the odour and its intensity during a patrol exercise at the site.

Two odour patrol team members from ALS Technichem (HK) Pty Ltd were sent to conduct the patrol work during each session. All members are free from any respiratory diseases during patrol day. None of the members has been working or living in the area in the vicinity of the inspection area.

The odour patrol was conducted during daytime and evening / night time.

The patrol team was required to move slowly from one to the other monitoring locations and use their olfactory senses to detect odour at each location.

The location of odour sources and the areas to be affected by the odour nuisance were identified as much as possible.

During the patrolling, the meteorological and surrounding information are recorded:

- the prevailing weather condition;
- the wind direction;
- the wind speed;
- location where odour is spotted;
- possible source of odour;
- perceived intensity of the odour;
- duration of odour; and
- characteristics of the odour detected

The perceived intensity is to be divided into 5 levels which are ranked in an ascending order as follows:

0	Not detected	No odour perceives or an odour so weak that it cannot be easily characterised or described
1	Slight	Identifiable odour, slight
2	Moderate	Identifiable odour, moderate
3	Strong	Identifiable odour, strong
4	Extreme	Severe odour

The odour patrol location is shown in Appendix 1.



3. Odour Patrol Result:
3.1. Daytime:

Work Order: HK1856263

Location	Panelist	Weather	Time	T (°C)	RH (%)	WS (m/s)	WD (Degree)	Odour Intensity	Duration of Odour	Direction from Source	On-Site Observation	
											Odour Characteristics	Potential Odour Source
1	1	Sunny	10:05	27.8	72.8	0.9	025	0	NA	NA	NA	NA
	2							0				
2	1	Sunny	10:06	29.8	69.8	0.7	329	1	Continuous	Downwind	Plastic	Biogas Holder Tank Relief Valve
	2							1				
3	1	Sunny	10:08	29.2	70.2	0	NA	0	NA	NA	NA	NA
	2							0				
4	1	Sunny	10:10	28.2	70.0	0	NA	1	Intermittent	NA	Grassy	Vegetation
	2							0				
5	1	Sunny	10:12	28.0	74.7	0.2	312	1	Continuous	Side wind	Grassy	Vegetation
	2							1				



Work Order: HK1856263

Location	Panelist	Weather	Time	T (°C)	RH (%)	WS (m/s)	WD (Degree)	Odour Intensity	Duration of Odour	Direction from Source	On-Site Observation	
											Odour Characteristics	Potential Odour Source
6	1	Sunny	10:14	29.4	89.8	1.2	335	1	Intermittent	Upwind	Garbage and plastic	Process Hall Exhaust Fan
	2							1				
7	1	Sunny	10:16	28.6	74.1	0.9	349	1	Intermittent	Side wind	Vehicle exhaust gas	Vehicles
	2							0				
8	1	Sunny	10:20	30.3	75.4	0.4	323	0	NA	NA	Garbage	Garbage Truck
	2							1				

Remark:

T: Air Temperature;
 RH: Relative Humidity;
 WD: Wind Direction;
 WS: Wind Speed.



3.2. Evening / Night time:

Location	Panelist	Weather	Time	T (°C)	RH (%)	WS (m/s)	WD (Degree)	Odour Intensity	Duration of Odour	Direction from Source	On-Site Observation	
											Odour Characteristics	Potential Odour Source
1	1	Cloudy	18:03	27.5	77.2	0.8	007	1	Continuous	Side wind	Grassy	Vegetation
	2							1				
2	1	Cloudy	18:04	27.4	79.5	0.8	349	1	Continuous	Downwind	Plastic	Biogas Holder Tank Relief Valve
	2							1				
3	1	Cloudy	18:05	27.1	79.4	0.6	349	0	NA	Downwind	Plastic	Biogas Holder Tank Relief Valve
	2							1				
4	1	Cloudy	18:07	27.4	80.9	0	NA	0	NA	NA	NA	NA
	2							0				
5	1	Cloudy	18:09	27.1	83.1	0.6	343	0	NA	NA	NA	NA
	2							0				



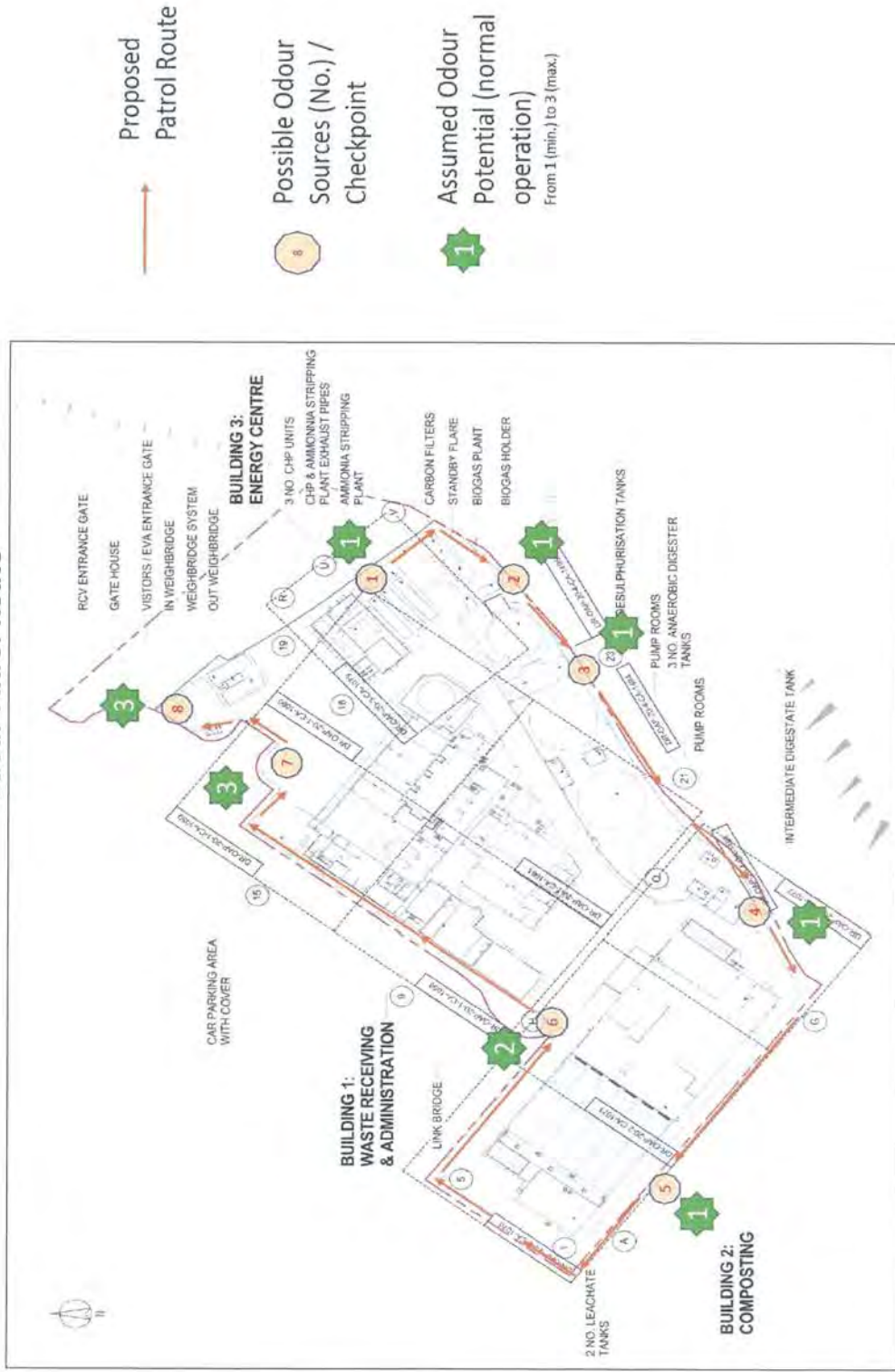
Location	Panelist	Weather	Time	T (°C)	RH (%)	WS (m/s)	WD (Degree)	Odour Intensity		Duration of Odour	Direction from Source	On-Site Observation	
												Odour Characteristics	Potential Odour Source
6	1	Cloudy	18:11	27.1	83.4	0.9	329	0	NA	Continuous	Upwind	Garbage	Process Hall Exhaust Fan
	1												
7	1	Cloudy	18:14	27.2	82.3	0.9	343	0	NA	NA	NA	NA	NA
	0												
8	1	Cloudy	18:15	27.5	82.6	0	NA	1	Intermittent	Intermittent	NA	Garbage	From the plant
	1												

Remark:

T: Air Temperature;
 RH: Relative Humidity;
 WD: Wind Direction;
 WS: Wind Speed.



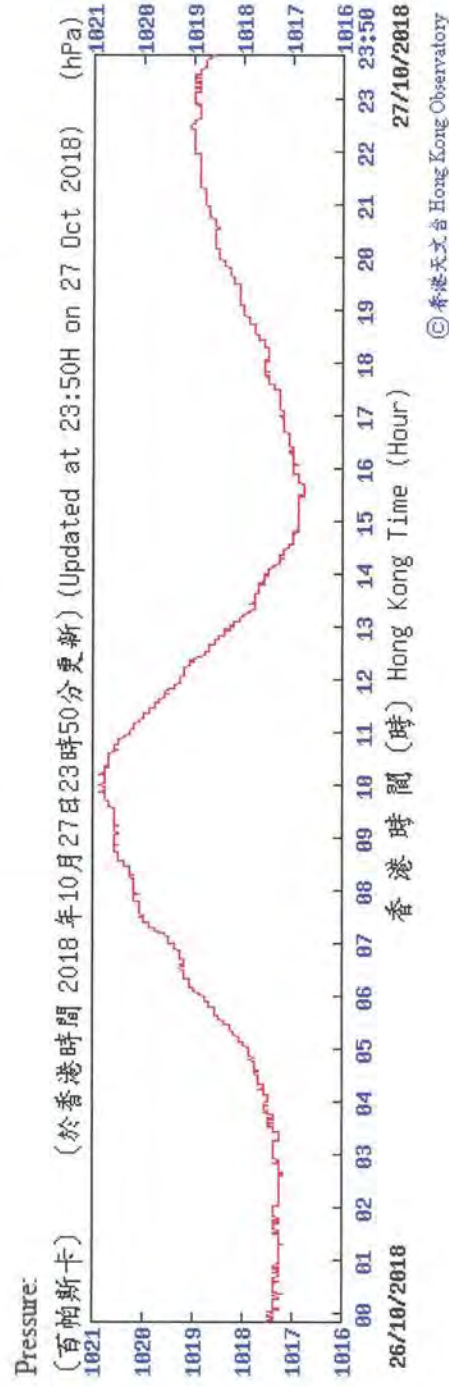
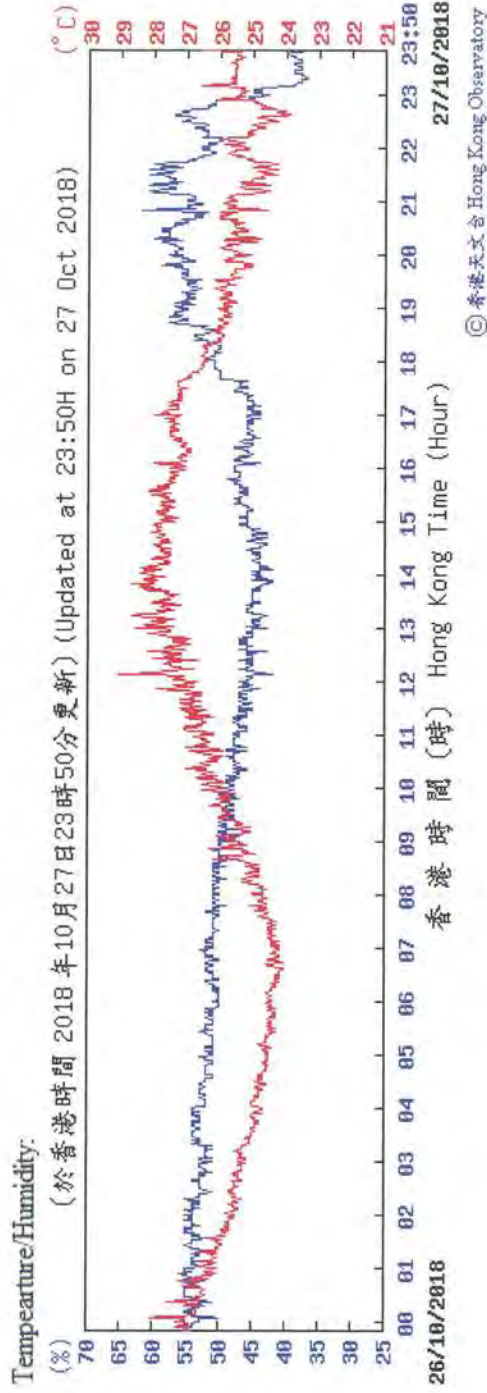
APPENDIX 1 Odour Patrol Route





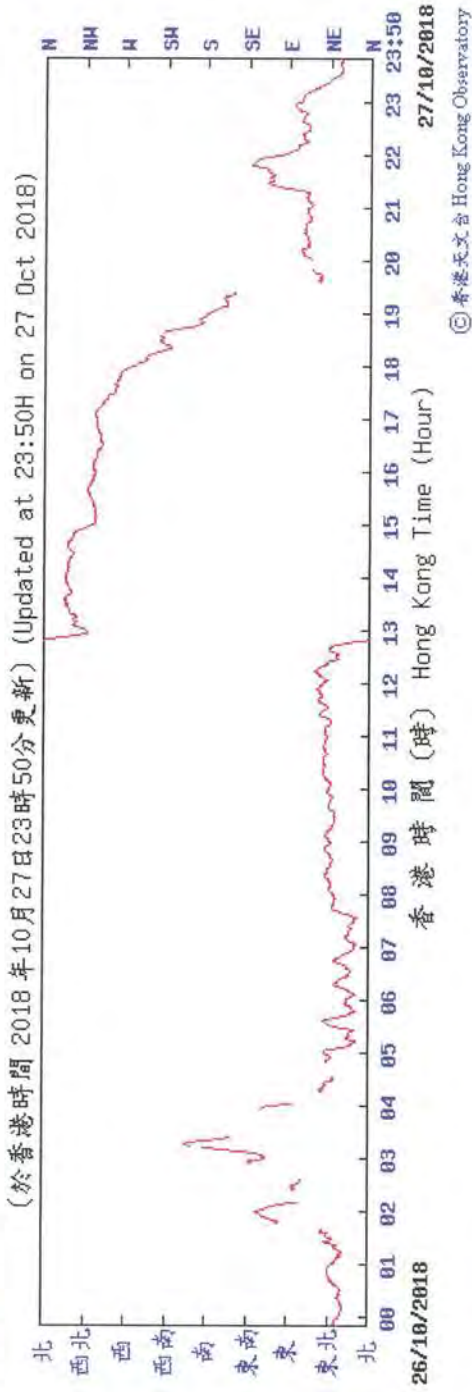
APPENDIX 2

Extract Of Meteorological Observations from Hong Kong Airport Observatory Station

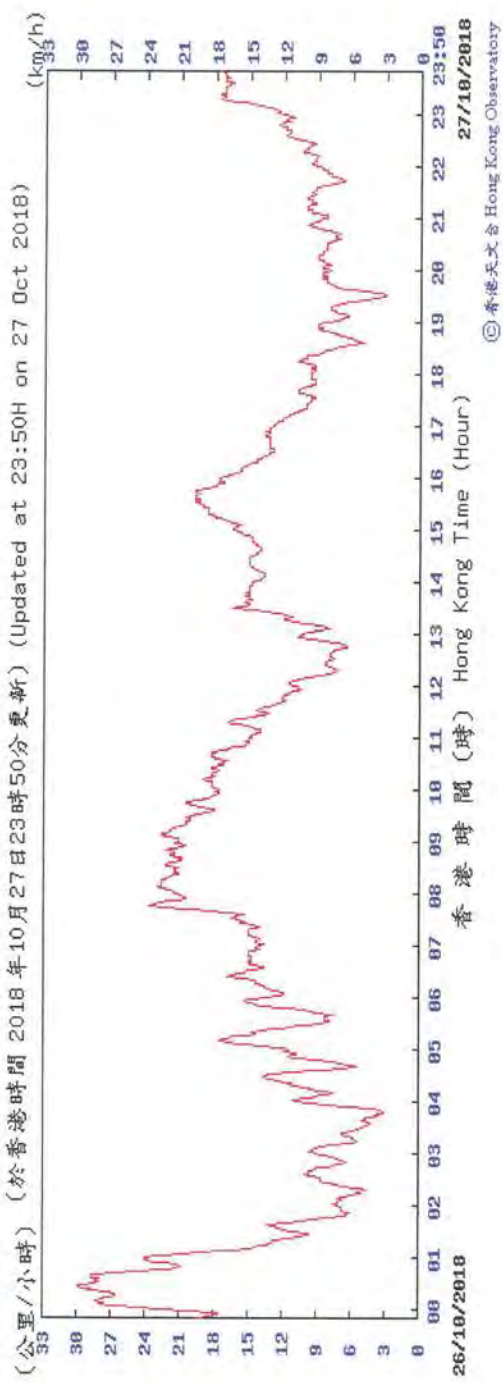




Wind Direction:



Wind Speed



APPENDIX 3

A3.1. Odour Patrol at Different Locations – Daytime



Location: 1



Location: 2



Location: 3



Location: 4



Location: 5



Location: 6



Location: 7



Location: 8



A3.2. Odour Patrol at Different Locations – Evening / Night time



Location: 1



Location: 2



Location: 3



Location: 4



Location: 5



Location: 6



Location: 7




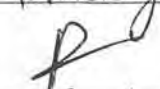
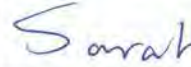
Location: 8

6. Appendix

Organic Resources Recovery Centre (Phase 1)

Odour Patrol Record Log Sheet

Parameter	Observations
Date	2 / 11 / 2018
Start & End Time (24hr)	From 14:00 To 14:25
Type of Patrol	Weekly / Monthly / Ad hoc / Follow-up / T & C Period
Weather Condition	Sunny / <u>Cloudy</u> / Windy / Humid / Foggy /
Temperature (°C)	24.6
Relative Humidity (%)	62
Monitoring Point	① / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	① / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / ② / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / ① / 2 / 3 / 4
Characteristic of Odour	Hot Plastic
Possible Source of Odour	PSV of Biogas Holder
Monitoring Point	1 / 2 / ③ / 4 / 5 / 6 / 7 / 8
Intensity of Odour	① / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / ④ / 5 / 6 / 7 / 8
Intensity of Odour	① / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / ⑤ / 6 / 7 / 8
Intensity of Odour	0 / ① / 2 / 3 / 4
Characteristic of Odour	Minor compost smell
Possible Source of Odour	Composting Hall
Monitoring Point	1 / 2 / 3 / 4 / 5 / ⑥ / 7 / 8
Intensity of Odour	① / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Follow-up Actions - Remark	



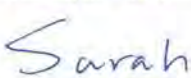
	EPD Representative	Employer Representative	Independent Odour Patrol Team	OSCAR Bioenergy JV
Name	Daniel Chor	Patrick Jm		Sarah HO
Signature			NA	
Date	2/11/2018	2/11/18		2/11/2018

6. Appendix

Organic Resources Recovery Centre (Phase 1)

Odour Patrol Record Log Sheet

Parameter	Observations
Date	2 / 11 / 2018
Start & End Time (24hr)	From 14:00 To 14:25
Type of Patrol	Weekly / Monthly / Ad hoc / Follow up / T & C Period
Weather Condition	Sunny / <u>Cloudy</u> / Windy / Humid / Foggy /
Temperature (°C)	24.6
Relative Humidity (%)	62
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / <u>7</u> / 8
Intensity of Odour	<u>0</u> / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / <u>8</u>
Intensity of Odour	0 / <u>1</u> / 2 / 3 / 4
Characteristic of Odour	SSOW smell
Possible Source of Odour	Waste Collection Truck
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Follow-up Actions Remark	

	EPD Representative	Employer Representative	Independent Odour Patrol Team	OSCAR Bioenergy JV
Name	Daniel Choi	Patricia Jm		Sarah Ho
Signature			NA	
Date	2/11/2018	2/11/18		2/11/2018

6. Appendix

Organic Resources Recovery Centre (Phase 1)

Odour Patrol Record Log Sheet

Parameter	Observations
Date	5 / 11 / 2018
Start & End Time (24hr)	From 14:04 To 14:29
Type of Patrol	Weekly / Monthly / Ad hoc / Follow-up T & C Period
Weather Condition	<u>Sunny</u> / Cloudy / Windy / Humid / Foggy /
Temperature (°C)	27.3
Relative Humidity (%)	65
Monitoring Point	① / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / ① / 2 / 3 / 4
Characteristic of Odour	Hot gas smell
Possible Source of Odour	CHP
Monitoring Point	1 / ② / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / ② / 2 / 3 / 4
Characteristic of Odour	Hot Plastic
Possible Source of Odour	PSV of Biogas Holder
Monitoring Point	1 / 2 / ③ / 4 / 5 / 6 / 7 / 8
Intensity of Odour	③ / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / ④ / 5 / 6 / 7 / 8
Intensity of Odour	0 / ④ / 2 / 3 / 4
Characteristic of Odour	Digestate Smell
Possible Source of Odour	IDT
Monitoring Point	1 / 2 / 3 / 4 / ⑤ / 6 / 7 / 8
Intensity of Odour	⑤ / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / ⑥ / 7 / 8
Intensity of Odour	0 / ⑥ / 2 / 3 / 4
Characteristic of Odour	Digestate Smell
Possible Source of Odour	IDT
Follow-up Actions Remark	


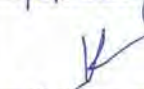

	EPD Representative	Employer Representative	Independent Odour Patrol Team	OSCAR Bioenergy JV
Name	TESS CHAN	Patricia Jim		Sarah HO
Signature	Tess	P	NA	Sarah
Date	05 Nov 2018	5/11/18		5/11/2018

6. Appendix

Organic Resources Recovery Centre (Phase 1)

Odour Patrol Record Log Sheet

Parameter	Observations
Date	5 / 11 / 2018
Start & End Time (24hr)	From 14:04 To 14:29
Type of Patrol	Weekly / Monthly / Ad hoc / Follow-up - T & C Period
Weather Condition	Sunny / Cloudy / Windy / Humid / Foggy /
Temperature (°C)	27.3
Relative Humidity (%)	65
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	Minor Hot Plastic
Possible Source of Odour	PSV of Biogas Holder
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Follow-up Actions Remark	



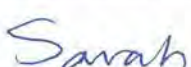
	EPD Representative	Employer Representative	Independent Odour Patrol Team	OSCAR Bioenergy JV
Name	JESS CHAN	Patrick Ym		Sarah HO
Signature			NA	
Date	05 Nov 2018	5/11/18.		5/11/2018

6. Appendix

Organic Resources Recovery Centre (Phase 1)

Odour Patrol Record Log Sheet

Parameter	Observations
Date	7 / 11 / 2018
Start & End Time (24hr)	From 11:05 To 11:28
Type of Patrol	Weekly / Monthly / Ad hoc / Follow-up / T & C Period
Weather Condition	Sunny / Cloudy / Windy / Humid / Foggy /
Temperature (°C)	26.3
Relative Humidity (%)	70
Monitoring Point	① / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	① / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / ② / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / ① / 2 / 3 / 4
Characteristic of Odour	Hot Plastic
Possible Source of Odour	PSV of Biogas Holder
Monitoring Point	1 / 2 / ③ / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / ① / 2 / 3 / 4
Characteristic of Odour	Hot Plastic, wastewater smell
Possible Source of Odour	PSV of Biogas Holder, Building 1
Monitoring Point	1 / 2 / 3 / ④ / 5 / 6 / 7 / 8
Intensity of Odour	0 / ① / 2 / 3 / 4
Characteristic of Odour	Digestate smell, wastewater smell
Possible Source of Odour	Mixing Unit, Collection chamber
Monitoring Point	1 / 2 / 3 / 4 / ⑤ / 6 / 7 / 8
Intensity of Odour	① / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / ⑥ / 7 / 8
Intensity of Odour	① / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Follow-up Actions Remark	



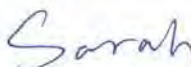
	EPD Representative	Employer Representative	Independent Odour Patrol Team	OSCAR Bioenergy JV
Name	Fiona Lam	Patrick Jun		Sarah HO
Signature			NA	
Date	7/11/2018	7/11/18.		7/11/2018

6. Appendix

Organic Resources Recovery Centre (Phase 1)

Odour Patrol Record Log Sheet

Parameter	Observations
Date	7 / 11 / 2018
Start & End Time (24hr)	From 11:05 To 11:28
Type of Patrol	Weekly / Monthly / Ad hoc / Follow up - T & C Period
Weather Condition	Sunny / Cloudy / Windy / Humid / Foggy /
Temperature (°C)	26.3
Relative Humidity (%)	70
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Follow-up Actions Remark	


	EPD Representative	Employer Representative	Independent Odour Patrol Team	OSCAR Bioenergy JV
Name	Fiona Lam	Patrick Yip		Sarah Ho
Signature			NA	
Date	7/11/2018	7/11/18		7/11/2018

6. Appendix

Organic Resources Recovery Centre (Phase 1)

Odour Patrol Record Log Sheet

Parameter	Observations
Date	9 / 11 / 2018
Start & End Time (24hr)	From 11:30 To 11:45
Type of Patrol	Weekly / Monthly / Ad hoc / Follow-up T & C Period
Weather Condition	Sunny / Cloudy / Windy / Humid / Foggy /
Temperature (°C)	25.3
Relative Humidity (%)	58
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	Hot
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	Hot Plastic
Possible Source of Odour	PSV of Biogas Holder
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Follow up Actions Remark	



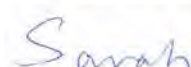
	EPD Representative	Employer Representative	Independent Odour Patrol Team	OSCAR Bioenergy JV
Name	Tess CHAN	Derrick Lim		Sarah Ho
Signature	Tess		NA	Sarah
Date	9 Nov 2018	9/11/18		9/11/2018

6. Appendix

Organic Resources Recovery Centre (Phase 1)

Odour Patrol Record Log Sheet

Parameter	Observations
Date	9 / 11 / 2018
Start & End Time (24hr)	From 11:30 To 11:45
Type of Patrol	Weekly / Monthly / Ad hoc / Follow up - T & C Period
Weather Condition	Sunny / Cloudy / Windy / Humid / Foggy
Temperature (°C)	25.3
Relative Humidity (%)	58
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Follow-up Actions Remark	



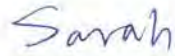
	EPD Representative	Employer Representative	Independent Odour Patrol Team	OSCAR Bioenergy JV
Name	Tess CHAN	Patrick Yma		Sarah Ho
Signature			NA	
Date	P Nov 2018	9/11/18		9/11/2018

6. Appendix

Organic Resources Recovery Centre (Phase 1)

Odour Patrol Record Log Sheet

Parameter	Observations
Date	12 / 11 / 2018
Start & End Time (24hr)	From 14:03 To 14:26
Type of Patrol	Weekly / Monthly / Ad hoc / Follow-up T & C Period
Weather Condition	Sunny / Cloudy / Windy / Humid / Foggy /
Temperature (°C)	27
Relative Humidity (%)	73
Monitoring Point	① / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	① / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / ② / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / ① / 2 / 3 / 4
Characteristic of Odour	Hot Plastic
Possible Source of Odour	PSV of Bins Holder
Monitoring Point	1 / 2 / ③ / 4 / 5 / 6 / 7 / 8
Intensity of Odour	① / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / ④ / 5 / 6 / 7 / 8
Intensity of Odour	① / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / ⑤ / 6 / 7 / 8
Intensity of Odour	① / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / ⑥ / 7 / 8
Intensity of Odour	① / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Follow-up Actions Remark	



	EPD Representative	Employer Representative	Independent Odour Patrol Team	OSCAR Bioenergy JV
Name	Daniel Choi	Vatank Jona		Sarah HO
Signature			NA	
Date	12/11/18	12/11/18		12/11/2018

6. Appendix

Organic Resources Recovery Centre (Phase 1)

Odour Patrol Record Log Sheet

Parameter	Observations
Date	12 / 11 / 2018
Start & End Time (24hr)	From 14:03 To 14:26
Type of Patrol	Weekly / Monthly / Ad hoc / Follow up / T & C Period
Weather Condition	<u>Sunny</u> / Cloudy / Windy / Humid / Foggy /
Temperature (°C)	27
Relative Humidity (%)	73
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / <u>7</u> / 8
Intensity of Odour	<u>0</u> / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / <u>8</u>
Intensity of Odour	<u>0</u> / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Follow-up Actions Remark	


	EPD Representative	Employer Representative	Independent Odour Patrol Team	OSCAR Bioenergy JV
Name	Daniel Choi	Tobias Jun		Sarah HO
Signature			NA	Sarah
Date	12/11/18	12/11/18		12/11/2018

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Organic Resources Recovery Centre (Phase 1)

Odour Patrol Record Log Sheet

Parameter	Observations
Date	14 / 11 / 2018
Start & End Time (24hr)	From 11:30 To 11:54
Type of Patrol	Weekly / Monthly / Ad hoc / Follow-up / T & C Period
Weather Condition	Sunny / Cloudy / Windy / Humid / Foggy /
Temperature (°C)	25.3
Relative Humidity (%)	69
Monitoring Point	① / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	① / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / ② / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / ① / 2 / 3 / 4
Characteristic of Odour	Hot Plastic
Possible Source of Odour	PSV of Biogas Holder
Monitoring Point	1 / 2 / ③ / 4 / 5 / 6 / 7 / 8
Intensity of Odour	① / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / ④ / 5 / 6 / 7 / 8
Intensity of Odour	① / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / ⑤ / 6 / 7 / 8
Intensity of Odour	① / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / ⑥ / 7 / 8
Intensity of Odour	0 / ① / 2 / 3 / 4
Characteristic of Odour	Minor Hot plastic
Possible Source of Odour	PSV of Biogas Holder
Follow up Actions Remark	


	EPD Representative	Employer Representative	Independent Odour Patrol Team	OSCAR Bioenergy JV
Name	Daniel Choi			Sarah HO
Signature		NA	NA	Sarah
Date	14/11/2018			14/11/2018

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Organic Resources Recovery Centre (Phase 1)

Odour Patrol Record Log Sheet

Parameter	Observations
Date	14 / 11 / 2018
Start & End Time (24hr)	From 11:30 To 11:54
Type of Patrol	Weekly / Monthly / Ad hoc / Follow-up T & C Period
Weather Condition	Sunny / <u>Cloudy</u> / Windy / Humid / Foggy /
Temperature (°C)	25.3
Relative Humidity (%)	69
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / <u>7</u> / 8
Intensity of Odour	<u>0</u> / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / <u>8</u>
Intensity of Odour	<u>0</u> / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Follow-up Actions Remark	Main lobby (U turn location) has rubbish smell.


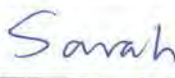
	EPD Representative	Employer Representative	Independent Odour Patrol Team	OSCAR Bioenergy JV
Name	Daniel Choi			Sarah HO
Signature		NA	NA	Sarah
Date	14/11/2018			14/11/2018

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Organic Resources Recovery Centre (Phase 1)

Odour Patrol Record Log Sheet

Parameter	Observations
Date	16 / 11 / 2018
Start & End Time (24hr)	From 11:40 To 12:05
Type of Patrol	Weekly / Monthly / Ad hoc / Follow-up T & C Period
Weather Condition	<u>Sunny</u> / Cloudy / Windy / Humid / Foggy /
Temperature (°C)	25.5
Relative Humidity (%)	75
Monitoring Point	① / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	① / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / ② / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / ① / 2 / 3 / 4
Characteristic of Odour	Hot plastic (Intermittent)
Possible Source of Odour	PSV of Biogas Holder
Monitoring Point	1 / 2 / ③ / 4 / 5 / 6 / 7 / 8
Intensity of Odour	① / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / ④ / 5 / 6 / 7 / 8
Intensity of Odour	0 / ① / 2 / 3 / 4
Characteristic of Odour	Wastewater (very minor)
Possible Source of Odour	Building 2
Monitoring Point	1 / 2 / 3 / 4 / ⑤ / 6 / 7 / 8
Intensity of Odour	① / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / ⑥ / 7 / 8
Intensity of Odour	① / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Follow up Actions Remark	



	EPD Representative	Employer Representative	Independent Odour Patrol Team	OSCAR Bioenergy JV
Name	Fiona Lam			Sarah Ho
Signature		NA	NA	
Date	16/11/2018			16/11/2018

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Organic Resources Recovery Centre (Phase 1)

Odour Patrol Record Log Sheet

Parameter	Observations
Date	16 / 11 / 2018
Start & End Time (24hr)	From 11:40 To 12:05
Type of Patrol	Weekly / Monthly / Ad hoc / Follow-up / T & C Period
Weather Condition	<u>Sunny</u> / Cloudy / Windy / Humid / Foggy /
Temperature (°C)	25.5
Relative Humidity (%)	75
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	Rubbish smell
Possible Source of Odour	Pre-treatment skip area
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Follow-up Actions Remark	



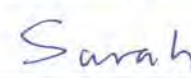
	EPD Representative	Employer Representative	Independent Odour Patrol Team	OSCAR Bioenergy JV
Name	FINA LAM			Sarah HO
Signature		NA	NA	
Date	16/11/2018			16/11/2018

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Organic Resources Recovery Centre (Phase 1)

Odour Patrol Record Log Sheet

Parameter	Observations
Date	19/11/2018
Start & End Time (24hr)	From 11:30 To 11:56
Type of Patrol	Weekly / Monthly / Ad hoc / Follow-up T & C Period
Weather Condition	<u>Sunny</u> / Cloudy / Windy / Humid / Foggy /
Temperature (°C)	25.9
Relative Humidity (%)	55
Monitoring Point	① / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	① / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / ② / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / ① / 2 / 3 / 4
Characteristic of Odour	Hot Plastic
Possible Source of Odour	PSV of Biogas Holder
Monitoring Point	1 / 2 / ③ / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / ① / 2 / 3 / 4
Characteristic of Odour	Digestate Smell
Possible Source of Odour	Around AD 1 Area
Monitoring Point	1 / 2 / 3 / ④ / 5 / 6 / 7 / 8
Intensity of Odour	① / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / ⑤ / 6 / 7 / 8
Intensity of Odour	0 / ① / 2 / 3 / 4
Characteristic of Odour	compost smell
Possible Source of Odour	composting Hall, lower of pipe gallery
Monitoring Point	1 / 2 / 3 / 4 / 5 / ⑥ / 7 / 8
Intensity of Odour	① / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Follow-up Actions Remark	



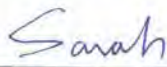
	EPD Representative	Employer Representative	Independent Odour Patrol Team	OSCAR Bioenergy JV
Name	Fiona Lam	Patricia Yim		Sarah HO
Signature			NA	
Date	19/11/2018	19/11/18		19/11/2018

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Organic Resources Recovery Centre (Phase 1)

Odour Patrol Record Log Sheet

Parameter	Observations
Date	19 / 11 / 2018
Start & End Time (24hr)	From 11:30 To 11:56
Type of Patrol	Weekly / Monthly / Ad hoc / Follow up / T & C Period
Weather Condition	<u>Sunny</u> / Cloudy / Windy / Humid / Foggy /
Temperature (°C)	25.9
Relative Humidity (%)	55
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / <u>7</u> / 8
Intensity of Odour	<u>0</u> / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / <u>8</u>
Intensity of Odour	0 / <u>1</u> / 2 / 3 / 4
Characteristic of Odour	Smoking smell
Possible Source of Odour	Staff
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Follow-up Actions Remark	


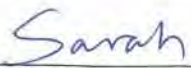
	EPD Representative	Employer Representative	Independent Odour Patrol Team	OSCAR Bioenergy JV
Name	Fiona Lam	Patrick Jun		Sarah HO
Signature			NA	
Date	19/11/2018	19/11/18		19/11/2018

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Organic Resources Recovery Centre (Phase 1)

Odour Patrol Record Log Sheet


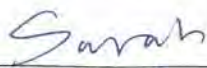
Parameter	Observations
Date	21 / 11 / 2018
Start & End Time (24hr)	From 11:33 To 11:55
Type of Patrol	Weekly / Monthly / Ad hoc / Follow-up T & C Period
Weather Condition	<u>Sunny</u> / Cloudy / Windy / Humid / Foggy /
Temperature (°C)	26.2
Relative Humidity (%)	71
Monitoring Point	① / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	① / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / ② / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / ① / 2 / 3 / 4
Characteristic of Odour	Hot Plastic
Possible Source of Odour	PSV of Biogas Holder
Monitoring Point	1 / 2 / ③ / 4 / 5 / 6 / 7 / 8
Intensity of Odour	① / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / ④ / 5 / 6 / 7 / 8
Intensity of Odour	① / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / ⑤ / 6 / 7 / 8
Intensity of Odour	① / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / ⑥ / 7 / 8
Intensity of Odour	① / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Follow-up Actions Remark	
Centrifuge lower has strong digestate smell.	

	EPD Representative	Employer Representative	Independent Odour Patrol Team	OSCAR Bioenergy JV
Name	FIONA LAM			Sarah HO
Signature		NA	NA	
Date	21/11/2018			21 / 11 / 2018

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Organic Resources Recovery Centre (Phase 1)
Odour Patrol Record Log Sheet

Parameter	Observations
Date	21 / 11 / 2018
Start & End Time (24hr)	From 11:37 To 11:55
Type of Patrol	Weekly / Monthly / Ad hoc / Follow up / T & C Period
Weather Condition	<u>Sunny</u> / Cloudy / Windy / Humid / Foggy /
Temperature (°C)	26.2
Relative Humidity (%)	71
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / <u>7</u> / 8
Intensity of Odour	<u>0</u> / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / <u>8</u>
Intensity of Odour	<u>0</u> / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Follow-up Actions Remark	



	EPD Representative	Employer Representative	Independent Odour Patrol Team	OSCAR Bioenergy JV
Name	Fiona Lam			Sarah Ho
Signature		NA	NA	
Date	21/11/2018			21/11/2018

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Organic Resources Recovery Centre (Phase 1)

Odour Patrol Record Log Sheet

Parameter	Observations
Date	23 Nov 2018
Start & End Time (24hr)	From 10:30 To 10:47
Type of Patrol	Weekly / Monthly / Ad hoc / Follow-up T & C Period
Weather Condition	<u>Sunny</u> / Cloudy / Windy / Humid / Foggy /
Temperature (°C)	25°C
Relative Humidity (%)	54%
Monitoring Point	① / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	① / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / ② / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / ① / 2 / 3 / 4
Characteristic of Odour	Plastic smell
Possible Source of Odour	PSV of Gas Holder
Monitoring Point	1 / 2 / ③ / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / ① / 2 / 3 / 4
Characteristic of Odour	Smell of food waste
Possible Source of Odour	Opening of maintenance platform gate
Monitoring Point	1 / 2 / 3 / ④ / 5 / 6 / 7 / 8
Intensity of Odour	① / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / ⑤ / 6 / 7 / 8
Intensity of Odour	① / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / ⑥ / 7 / 8
Intensity of Odour	① / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Follow-up Actions Remark	

	EPD Representative	Employer Representative	Independent Odour Patrol Team	OSCAR Bioenergy JV
Name	David Choi	/		Terence CHAN
Signature		/	NA	
Date	23/11/2018	/		23/11/2018

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Organic Resources Recovery Centre (Phase 1)

Odour Patrol Record Log Sheet



Parameter	Observations
Date	23 Nov 2018
Start & End Time (24hr)	From 10:30 To 10:47
Type of Patrol	Weekly / Monthly / Ad hoc / Follow up - T & C Period
Weather Condition	Sunny / Cloudy / Windy / Humid / Foggy /
Temperature (°C)	25°c
Relative Humidity (%)	54%
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Follow-up Actions Remark	

	EPD Representative	Employer Representative	Independent Odour Patrol Team	OSCAR Bioenergy JV
Name	Daniel Choi	/		Terence CHAN
Signature	nil	/	NA	/
Date	23/11/2018	/		23/11/2018

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Organic Resources Recovery Centre (Phase 1)
Odour Patrol Record Log Sheet

Parameter	Observations
Date	26 / 11 / 2018
Start & End Time (24hr)	From 13:36 To 14:01
Type of Patrol	Weekly / Monthly / Ad hoc / Follow-up / T&C Period Patrol
Weather Condition	Sunny / <u>Cloudy</u> / Windy / Humid / Foggy /
Temperature (°C)	23.6
Relative Humidity (%)	66
Monitoring Point	① / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	① / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / ② / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / ① / 2 / 3 / 4
Characteristic of Odour	Strong Hot Plastic (Intermittent) (nearly 2)
Possible Source of Odour	PSV of Biogas Holder
Monitoring Point	1 / 2 / ③ / 4 / 5 / 6 / 7 / 8
Intensity of Odour	① / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / ④ / 5 / 6 / 7 / 8
Intensity of Odour	① / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / ⑤ / 6 / 7 / 8
Intensity of Odour	0 / ① / 2 / 3 / 4
Characteristic of Odour	Grass Smell
Possible Source of Odour	Plant
Monitoring Point	1 / 2 / 3 / 4 / 5 / ⑥ / 7 / 8
Intensity of Odour	① / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Follow-up Actions	


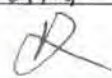
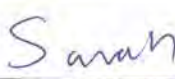
	EPD Representative	Employer Representative	Independent Odour Patrol Team	OSCAR Bioenergy JV
Name	Fiona Lam	Patrick Jun		Sarah HO
Signature			NA	Sarah
Date	26/11/2018	26/11/18.		26/11/2018

6. Appendix

Organic Resources Recovery Centre (Phase 1)

Odour Patrol Record Log Sheet

Parameter	Observations
Date	26 / 11 / 2018
Start & End Time (24hr)	From 13:36 To 14:01
Type of Patrol	Weekly / Monthly / Ad hoc / Follow-up / T&C Period Patrol
Weather Condition	Sunny / <u>Cloudy</u> / Windy / Humid / Foggy /
Temperature (°C)	23.6
Relative Humidity (%)	66
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / <u>7</u> / 8
Intensity of Odour	<u>0</u> / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / <u>8</u>
Intensity of Odour	<u>0</u> / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Follow-up Actions	



	EPD Representative	Employer Representative	Independent Odour Patrol Team	OSCAR Bioenergy JV
Name	Fiona Lam	Patricia Jim		Sarah Ho
Signature			NA	
Date	26/11/2018	26/11/18		26/11/2018

6. Appendix

Organic Resources Recovery Centre (Phase 1)

Odour Patrol Record Log Sheet

Parameter	Observations
Date	28 / 11 / 2018
Start & End Time (24hr)	From 11:26 To 11:44
Type of Patrol	Weekly / Monthly / Ad-hoc / Follow-up / T&C Period Patrol
Weather Condition	Sunny / <u>Cloudy</u> / Windy / Humid / Foggy /
Temperature (°C)	23.2
Relative Humidity (%)	74
Monitoring Point	① / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	① / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / ② / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / ① / 2 / 3 / 4
Characteristic of Odour	Minor Hot Plastic
Possible Source of Odour	PSV of Biogas Holder
Monitoring Point	1 / 2 / ③ / 4 / 5 / 6 / 7 / 8
Intensity of Odour	① / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / ④ / 5 / 6 / 7 / 8
Intensity of Odour	0 / ① / 2 / 3 / 4
Characteristic of Odour	Compost smell
Possible Source of Odour	Mixing Unit
Monitoring Point	1 / 2 / 3 / 4 / ⑤ / 6 / 7 / 8
Intensity of Odour	0 / ① / 2 / 3 / 4
Characteristic of Odour	Grass smell
Possible Source of Odour	Tree
Monitoring Point	1 / 2 / 3 / 4 / 5 / ⑥ / 7 / 8
Intensity of Odour	① / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Follow-up Actions	Centrifuge lower with digestate smell (minor).

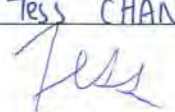
	EPD Representative	Employer Representative	Independent Odour Patrol Team	OSCAR Bioenergy JV
Name	Tess CHAN			Sarah HO
Signature		NA	NA	
Date	28 Nov 2018			28/11/2018

6. Appendix

Organic Resources Recovery Centre (Phase 1)

Odour Patrol Record Log Sheet

Parameter	Observations
Date	28 / 11 / 2018
Start & End Time (24hr)	From 11:26 To 11:44
Type of Patrol	Weekly / Monthly / Ad hoc / Follow up / T&C Period Patrol
Weather Condition	Sunny / <u>Cloudy</u> / Windy / Humid / Foggy /
Temperature (°C)	23.2
Relative Humidity (%)	74
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	sewage smell
Possible Source of Odour	Main Gate Channel
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Follow-up Actions	




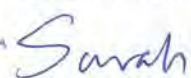
	EPD Representative	Employer Representative	Independent Odour Patrol Team	OSCAR Bioenergy JV
Name	Tess CHAN			Sarah HO
Signature		NA	NA	Sarah
Date	28 Nov 2018			28 / 11 / 2018

6. Appendix

Organic Resources Recovery Centre (Phase 1)

Odour Patrol Record Log Sheet

Parameter	Observations
Date	30 / 11 / 2018
Start & End Time (24hr)	From 11:21 To 11:40
Type of Patrol	Weekly / <u>Monthly</u> / Ad hoc / Follow-up / T&C Period
Weather Condition	<u>Sunny</u> / Cloudy / Windy / Humid / Foggy /
Temperature (°C)	24.6
Relative Humidity (%)	59.6
Monitoring Point	① / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	① / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / ② / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / ① / 2 / 3 / 4
Characteristic of Odour	Plastic
Possible Source of Odour	Biogas Holder resealed valve
Monitoring Point	1 / 2 / ③ / 4 / 5 / 6 / 7 / 8
Intensity of Odour	① / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / ④ / 5 / 6 / 7 / 8
Intensity of Odour	① / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / ⑤ / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	P1: 0 P2: 1 Grass
Possible Source of Odour	Grass
Monitoring Point	1 / 2 / 3 / 4 / 5 / ⑥ / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	P1: 0 P2: 1 Garbage
Possible Source of Odour	Process hall
Follow-up Actions	




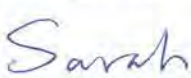
	EPD Representative	Employer Representative	Independent Odour Patrol Team	OSCAR Bioenergy JV
Name	Fiona Lam	Patrick Yim	Pan Yuen / Edwin Wong	Sarah HO
Signature				
Date	30/11/2018	30/11/18	30/11/2018	30/11/2018

6. Appendix

Organic Resources Recovery Centre (Phase 1)

Odour Patrol Record Log Sheet



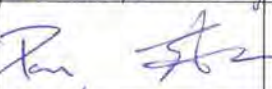
Parameter	Observations
Date	30 / 11 / 2018
Start & End Time (24hr)	From 11:21 To 11:40
Type of Patrol	Weekly / <u>Monthly</u> / Ad hoc / Follow-up / T&C Period
Weather Condition	<u>Sunny</u> / Cloudy / Windy / Humid / Foggy /
Temperature (°C)	24.6
Relative Humidity (%)	59.6
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / <u>7</u> / 8
Intensity of Odour	0 / <u>1</u> / 2 / 3 / 4
Characteristic of Odour	Garbage
Possible Source of Odour	Unloading Bay
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / <u>8</u>
Intensity of Odour	<u>0</u> / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Follow-up Actions	

	EPD Representative	Employer Representative	Independent Odour Patrol Team	OSCAR Bioenergy JV
Name	Fiona Lam	Patrick Jun	Pan YUEN / Edwin Wong	Sarah HO
Signature				
Date	30/11/2018	30/11/2018	30/11/2018	30/11/2018

6. Appendix

Organic Resources Recovery Centre (Phase 1)
Odour Patrol Record Log Sheet

Parameter	Observations
Date	30 / 11 / 2018
Start & End Time (24hr)	From 17:55 To 18:16
Type of Patrol	Weekly / Monthly / Ad hoc / Follow-up / T&C Period
Weather Condition	Sunny / Cloudy / Windy / Humid / Foggy /
Temperature (°C)	23.5
Relative Humidity (%)	67.8
Monitoring Point	① / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	① / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / ② / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / ① / 2 / 3 / 4
Characteristic of Odour	Plastic
Possible Source of Odour	Biogas Holder Relief Valve
Monitoring Point	1 / 2 / ③ / 4 / 5 / 6 / 7 / 8
Intensity of Odour	① / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / ④ / 5 / 6 / 7 / 8
Intensity of Odour	0 / ① / 2 / 3 / 4
Characteristic of Odour	Biogas
Possible Source of Odour	Composting Building
Monitoring Point	1 / 2 / 3 / 4 / ⑤ / 6 / 7 / 8
Intensity of Odour	0 / ① / 2 / 3 / 4
Characteristic of Odour	Ammonia
Possible Source of Odour	Process Hall
Monitoring Point	1 / 2 / 3 / 4 / 5 / ⑥ / 7 / 8
Intensity of Odour	0 / ① / 2 / 3 / 4
Characteristic of Odour	compost
Possible Source of Odour	Process Hall
Follow-up Actions	

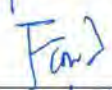


	EPD Representative	Employer Representative	Independent Odour Patrol Team	OSCAR Bioenergy JV
Name	Fiona Lam	Philip Cheung	Pan Yuen / Edwin Ng	Sarah HO
Signature				Sarah
Date	30/11/2018	30/11/2018	30/11/2018	30/11/2018

6. Appendix

Organic Resources Recovery Centre (Phase 1)

Odour Patrol Record Log Sheet

Parameter	Observations
Date	30 / 11 / 2018
Start & End Time (24hr)	From 17:55 To 18:16
Type of Patrol	Weekly / Monthly / Ad hoc / Follow-up / T&C Period
Weather Condition	Sunny / Cloudy / Windy / Humid / Foggy /
Temperature (°C)	23.5
Relative Humidity (%)	67.8
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Follow-up Actions	

	EPD Representative	Employer Representative	Independent Odour Patrol Team	OSCAR Bioenergy JV
Name	Fiona Lam	Philip Cheung	Pan Yuen / Edwin	Sarah HO
Signature				Sarah
Date	30/11/2018	30/11/2018	30/11/2018	30/11/2018



CERTIFICATE OF ANALYSIS

CLIENT:	Oscar Bioenergy Joint Venture	WORK ORDER:	HK1862874
CONTACT:	Mr Edwin Wong	LABORATORY:	Hong Kong
ADDRESS:	No. 5, Sham Fung Road, Siu Ho Wan, North Lantau Island, NT, Hong Kong	SUB-BATCH:	0
		DATE OF PATROL:	30 November 2018
		DATE OF ISSUE:	14 December 2018
PROJECT:	Odour Patrol for the Organic Resources Recovery Centre Phase 1 in Siu Ho Wan		
SITE:	Organic Resources Recovery Centre Phase 1 (ORRC1)		


COMMENTS

Date of Odour Patrol: 30 November 2018.
Odour Patrols were conducted by ALS Technichem (HK) Pty Ltd staff during 11:21 – 11:40 and 17:55 – 18:16.

NOTES

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

Results apply to sample(s) as submitted. All pages of this report have been checked and approved for release.


Richard Fung
General Manager - Hong Kong

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1. Summary of Work

The odour patrol was conducted during daytime and evening / night time.

2. Odour Patrol

Odour patrolling is a process to make use of the calibrated olfactory senses (ie the nasal sense) of the patrol members to evaluate the odour and its intensity during a patrol exercise at the site.

Two odour patrol team members from ALS Technichem (HK) Pty Ltd were sent to conduct the patrol work during each session. All members are free from any respiratory diseases during patrol day. None of the members has been working or living in the area in the vicinity of the inspection area.

The odour patrol was conducted during daytime and evening / night time.

The patrol team was required to move slowly from one to the other monitoring locations and use their olfactory senses to detect odour at each location.

The location of odour sources and the areas to be affected by the odour nuisance were identified as much as possible.

During the patrolling, the meteorological and surrounding information are recorded:

- the prevailing weather condition;
- the wind direction;
- the wind speed;
- location where odour is spotted;
- possible source of odour;
- perceived intensity of the odour;
- duration of odour; and
- characteristics of the odour detected

The perceived intensity is to be divided into 5 levels which are ranked in an ascending order as follows:

0	Not detected	No odour perceives or an odour so weak that it cannot be easily characterised or described
1	Slight	Identifiable odour, slight
2	Moderate	Identifiable odour, moderate
3	Strong	Identifiable odour, strong
4	Extreme	Severe odour

The odour patrol location is shown in Appendix 1.



3. Odour Patrol Result:
3.1. Daytime:

Location	Panellist	Weather	Time	T (°C)	RH (%)	WS (m/s)	WD (Degree)	Odour Intensity	Duration of Odour	Direction from Source	On-Site Observation	
											Odour Characteristics	Potential Odour Source
1	1	Sunny	11:21	24.6	59.6	1.2	194	0	NA	NA	NA	NA
	2							0				
2	1	Sunny	11:23	24.5	57.7	1.3	116	1	Continuous	Upwind	Plastic	Biogas Holder Tank Relief Valve
	2							1	Continuous	Upwind	Plastic	Biogas Holder Tank Relief Valve
3	1	Sunny	11:25	25.7	60.8	0	NA	0	NA	NA	NA	NA
	2							0				
4	1	Sunny	11:28	24.5	50.6	1.2	119	0	NA	NA	NA	NA
	2							0				
5	1	Sunny	11:30	25.8	52.6	0.9	306	0	NA	NA	NA	NA
	2							1	Intermittent	Side wind	Grassy	Nearby vegetation



Location	Panellist	Weather	Time	T (°C)	RH (%)	WS (m/s)	WD (Degree)	Odour Intensity	Duration of Odour	Direction from Source	On-Site Observation	
											Odour Characteristics	Potential Odour Source
6	1	Sunny	11:34	23.7	52.8	2.9	099	0	NA	NA	NA	NA
	2							1	Intermittent	Side wind	Garbage	Process Hall
7	1	Sunny	11:37	25.4	53.2	1.9	104	1	Continuous	Side wind	Garbage	Unloading Bay
	2							1	Continuous	Side wind	Garbage	Unloading Bay
8	1	Sunny	11:40	25.2	56.6	2.4	086	0	NA	NA	NA	NA
	2							0				

Remark:

- T: Air Temperature;
- RH: Relative Humidity;
- WD: Wind Direction;
- WS: Wind Speed.



3.2. Evening / Night time:

Location	Panellist	Weather	Time	T (°C)	RH (%)	WS (m/s)	WD (Degree)	Odour Intensity	Duration of Odour	Direction from Source	On-Site Observation	
											Odour Characteristics	Potential Odour Source
1	1	Fine	17:55	23.5	67.8	0.7	296	0	NA	NA	NA	NA
	2							0				
2	1	Fine	17:57	21.9	77.6	0.4	014	1	Continuous	Upwind	Plastic	Biogas Holder Tank Relief Valve
	2							1	Continuous	Upwind	Plastic	Biogas Holder Tank Relief Valve
3	1	Fine	18:00	21.5	80.8	0	NA	0	NA	NA	NA	NA
	2							0				
4	1	Fine	18:02	24.3	76.5	0	NA	1	Intermittent	NA	Decayed Food	Composting Building
	2							1	Intermittent	NA	Decayed Food	Composting Building
5	1	Fine	18:06	22.8	75.1	0.5	301	1	Continuous	Side wind	Urine	Process Hall
	2							1	Continuous	Side wind	Urine	Process Hall



Location	Panellist	Weather	Time	T (°C)	RH (%)	WS (m/s)	WD (Degree)	Odour Intensity	Duration of Odour	Direction from Source	On-Site Observation	
											Odour Characteristics	Potential Odour Source
6	1	Fine	18:10	23.0	69.8	1.0	086	1	Continuous	Side wind	Decay Food	Process Hall
	2							1	Continuous	Side wind	Decay Food	Process Hall
7	1	Fine	18:14	22.8	69.8	0	NA	0	NA	NA	NA	NA
	2							0				
8	1	Fine	18:16	23.3	78.1	0	NA	0	NA	NA	NA	NA
	2							0				

Remark:

T: Air Temperature;
 RH: Relative Humidity;
 WD: Wind Direction;
 WS: Wind Speed.



APPENDIX 1 Odour Patrol Route



→ Proposed Patrol Route

8 Possible Odour Sources (No.) / Checkpoint

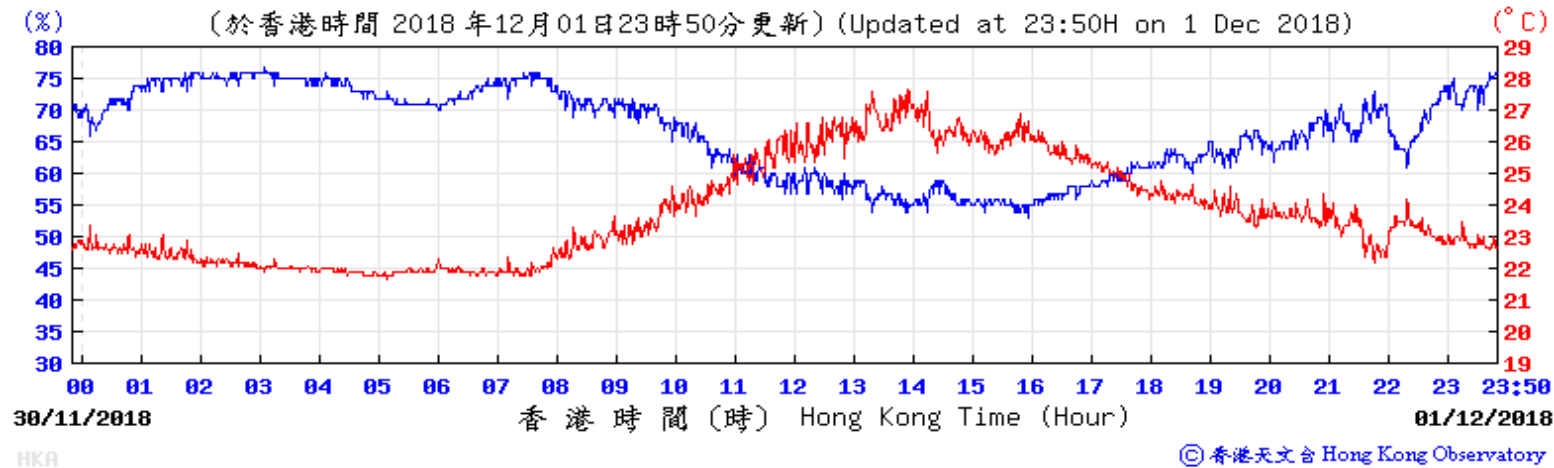
1 Assumed Odour Potential (normal operation)
From 1 (min.) to 3 (max.)



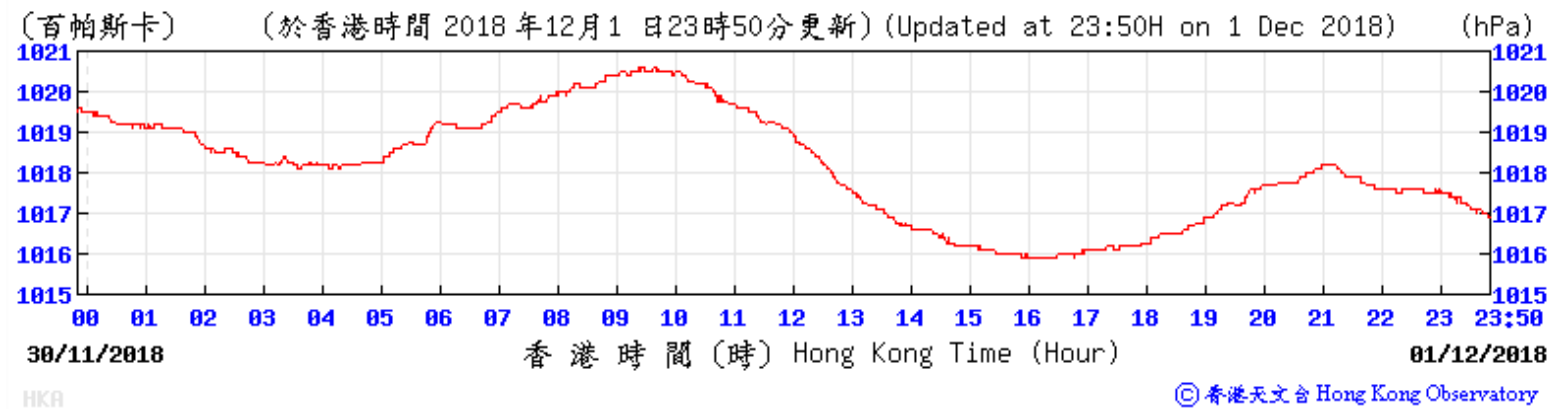
APPENDIX 2

Extract Of Meteorological Observations From Hong Kong Airport Observatory Station

Temperature/Humidity:

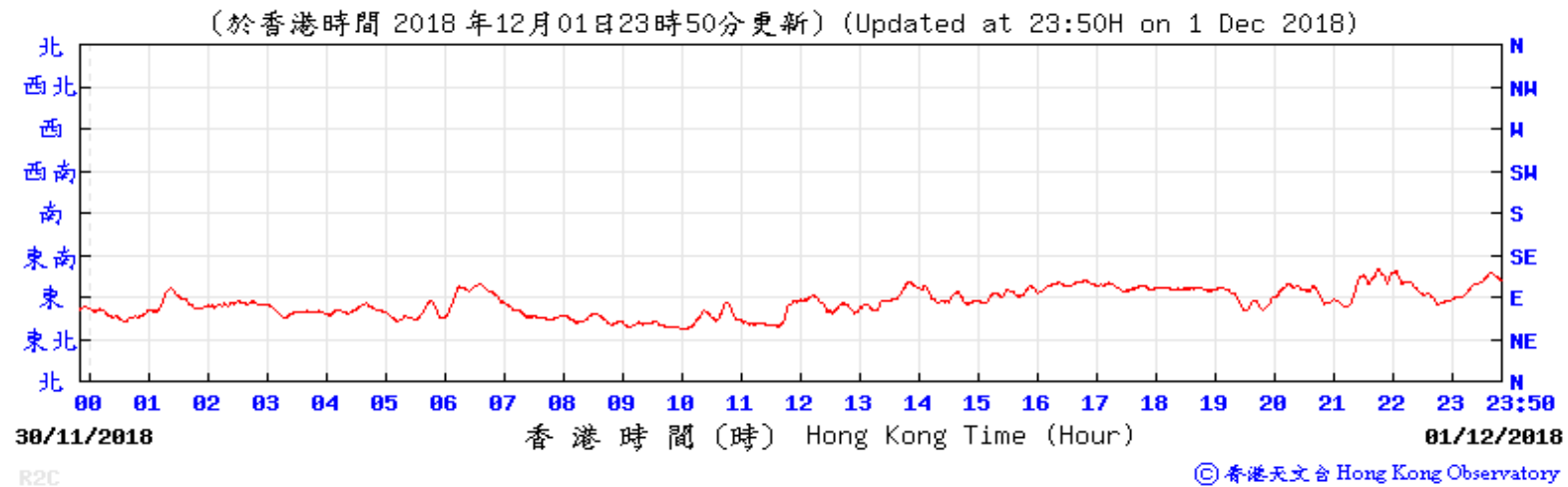


Pressure:

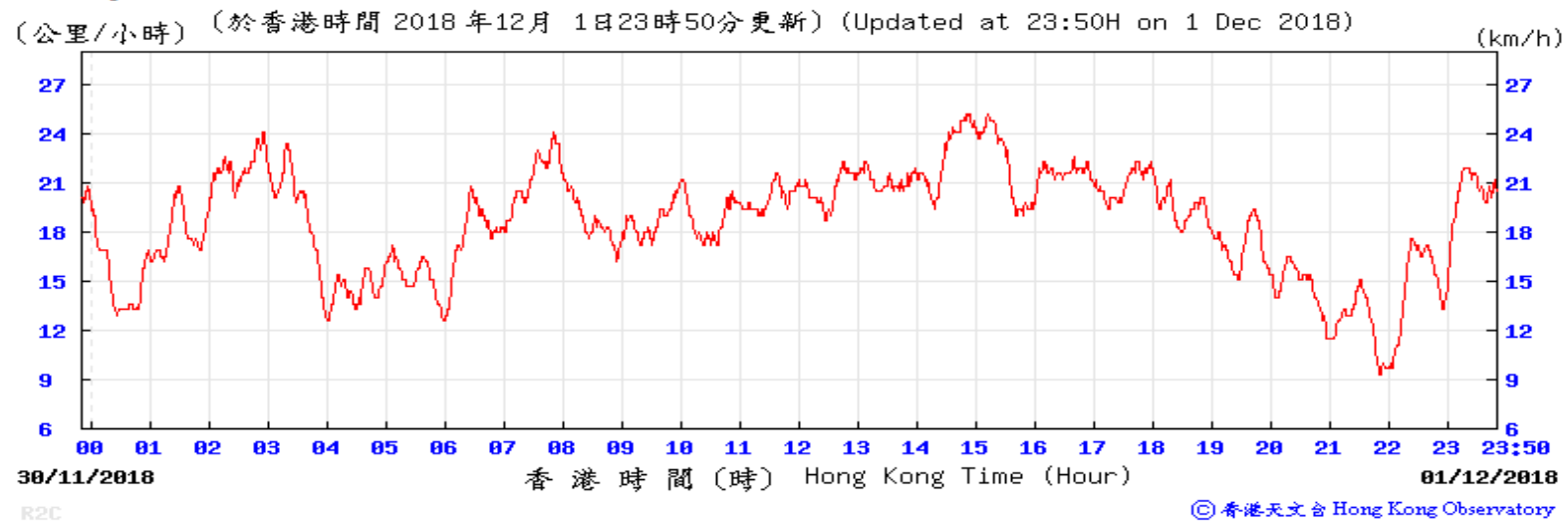




Wind Direction:



Wind Speed:



APPENDIX 3

A3.1. Odour Patrol at Different Locations – Daytime



Location: 1



Location: 2



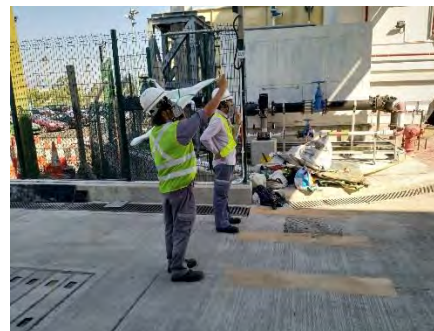
Location: 3



Location: 4



Location: 5



Location: 6



Location: 7



Location: 8



A3.2. Odour Patrol at Different Locations – Evening / Night time



Location: 1



Location: 2



Location: 3



Location: 4



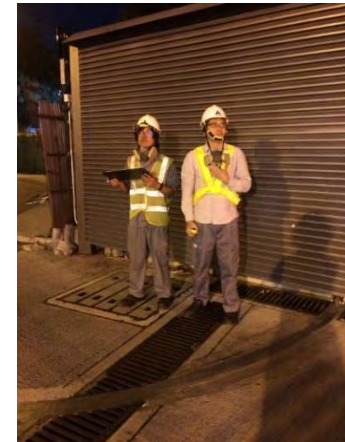
Location: 5



Location: 6



Location: 7

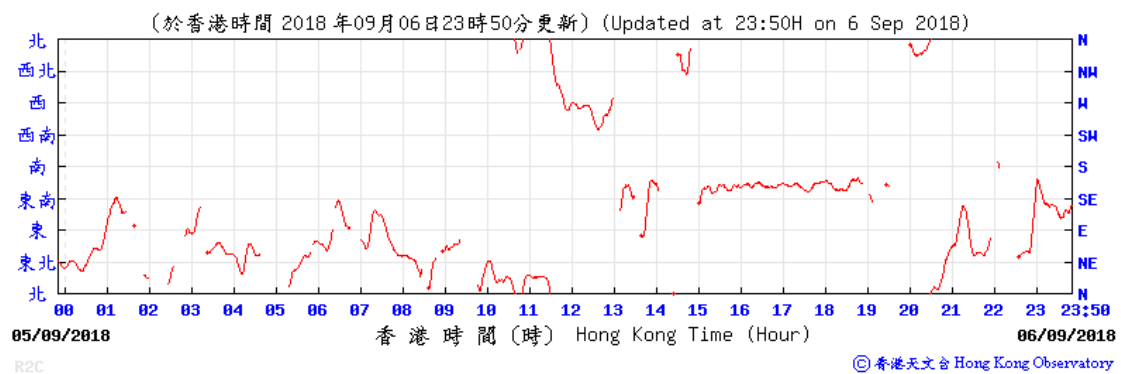
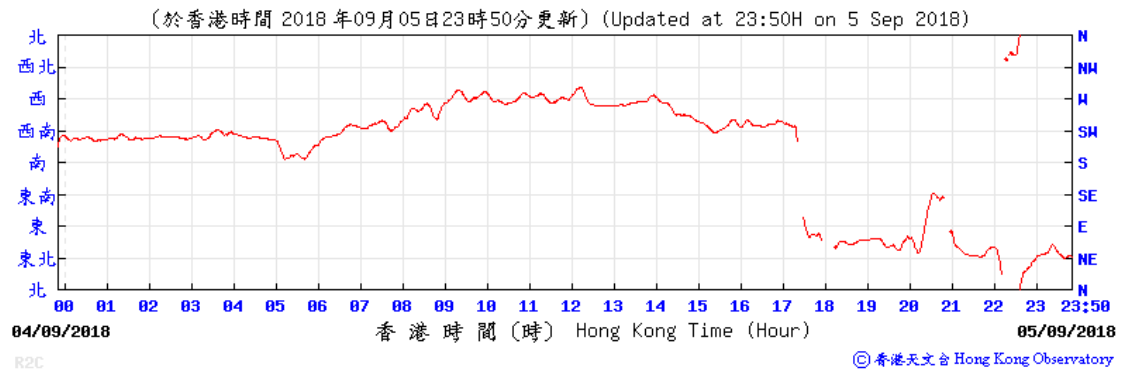
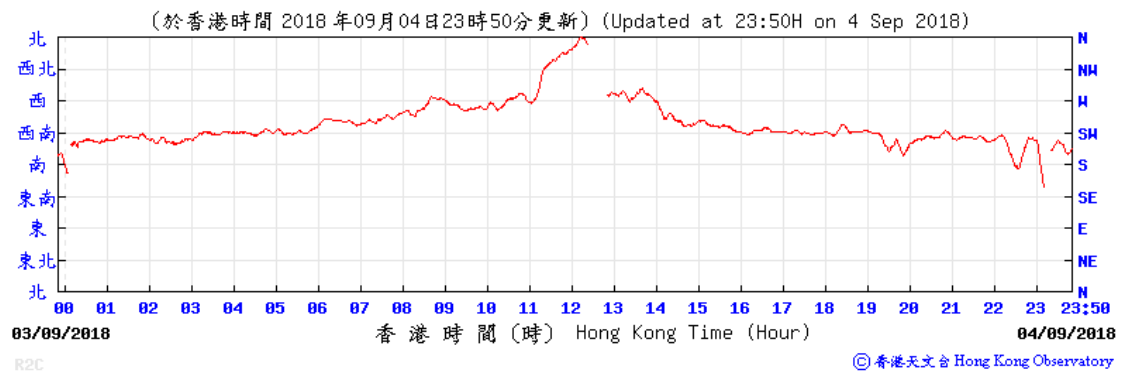
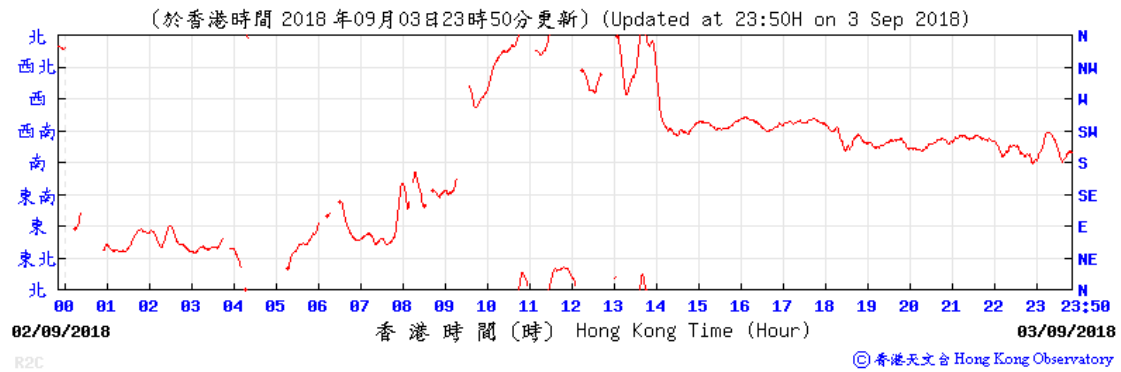


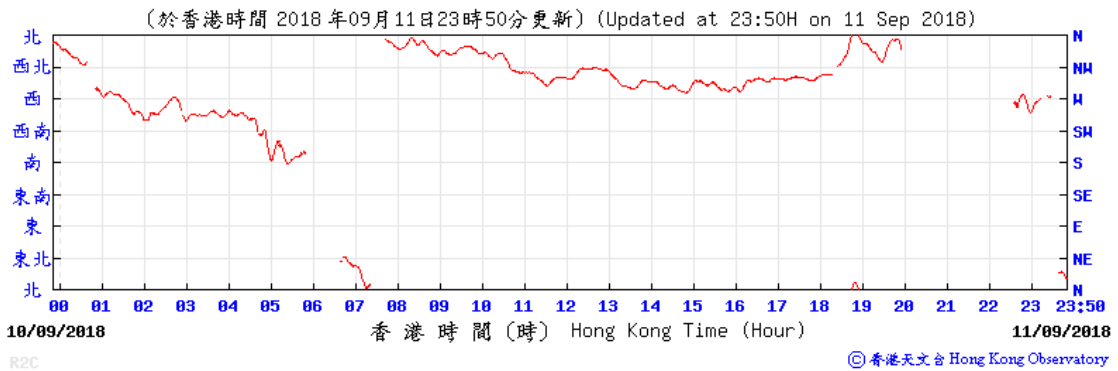
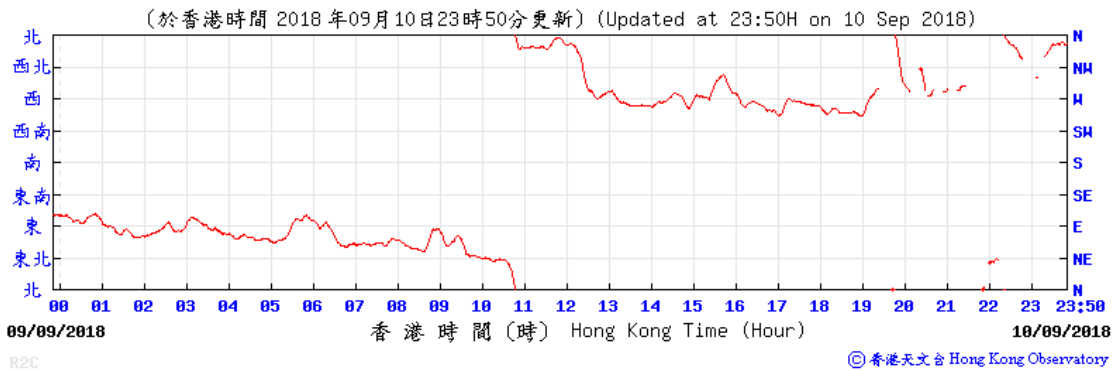
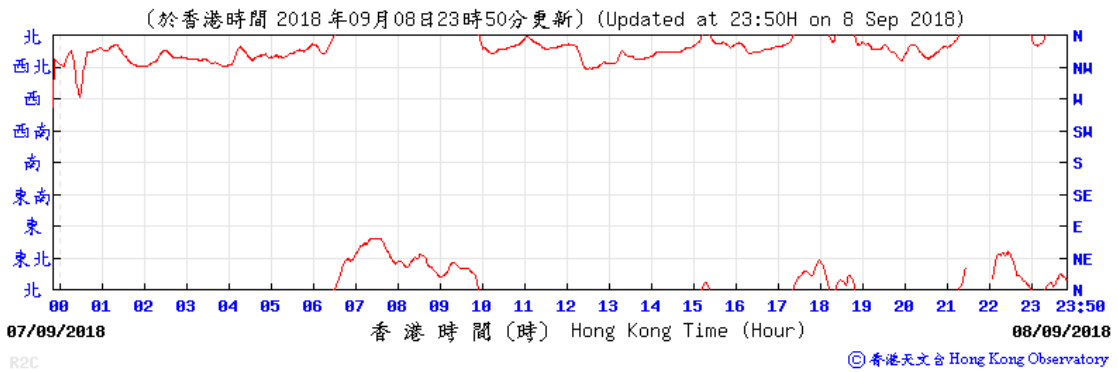
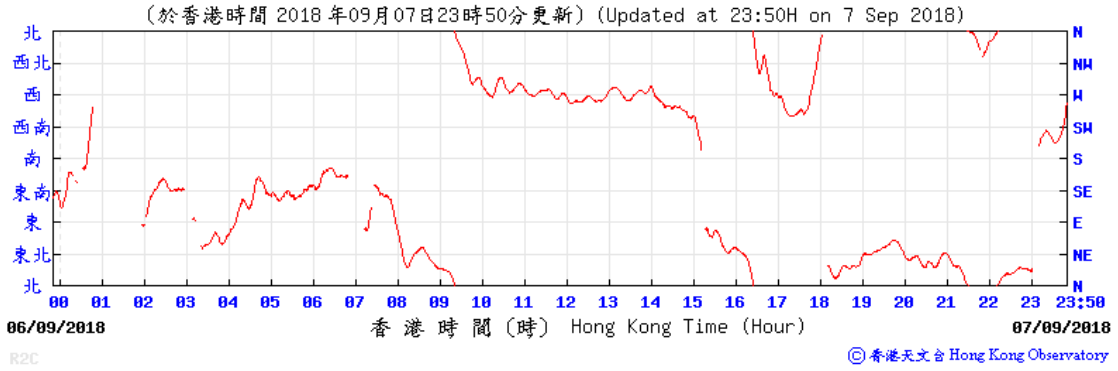
Location: 8

Annex H2

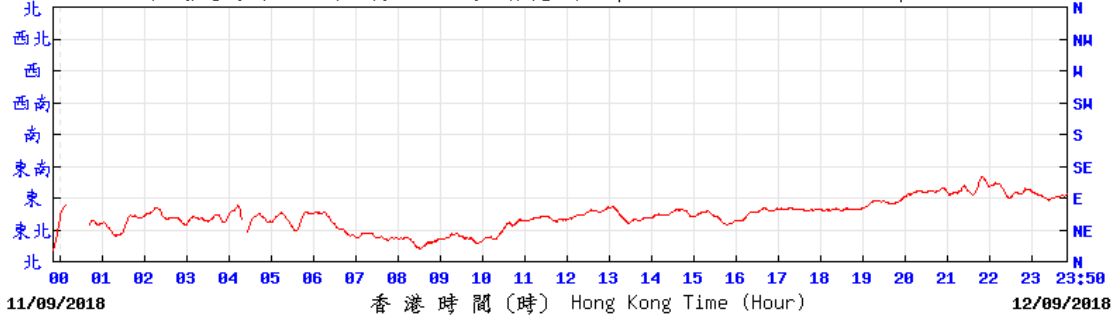
Local Wind Direction and Wind Speed

Wind Direction





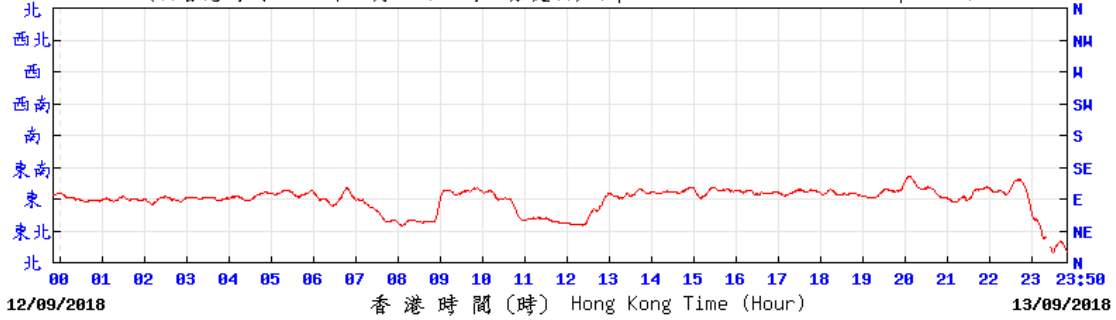
(於香港時間 2018 年09月12日23時50分更新) (Updated at 23:50H on 12 Sep 2018)



R2C

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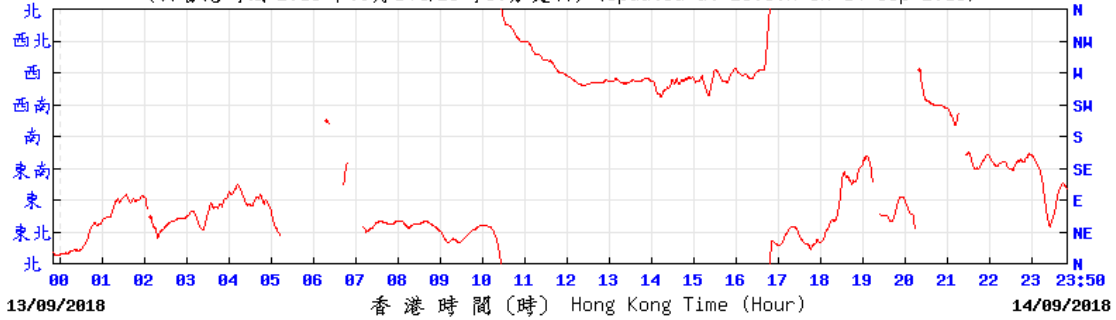
(於香港時間 2018 年09月13日23時50分更新) (Updated at 23:50H on 13 Sep 2018)



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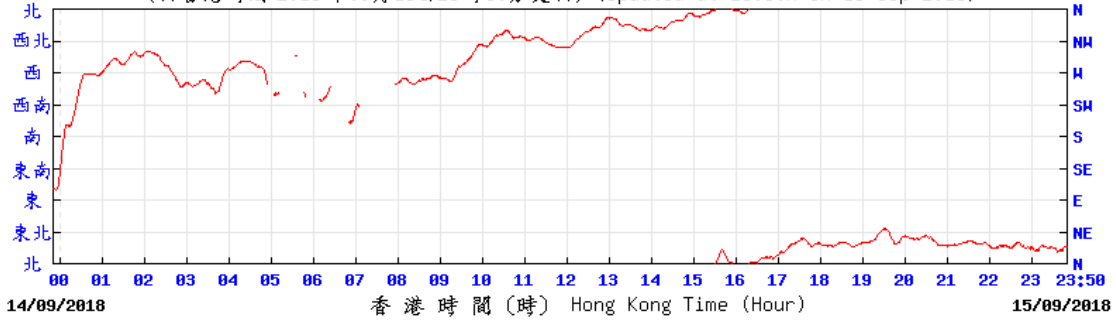
(於香港時間 2018 年09月14日23時50分更新) (Updated at 23:50H on 14 Sep 2018)



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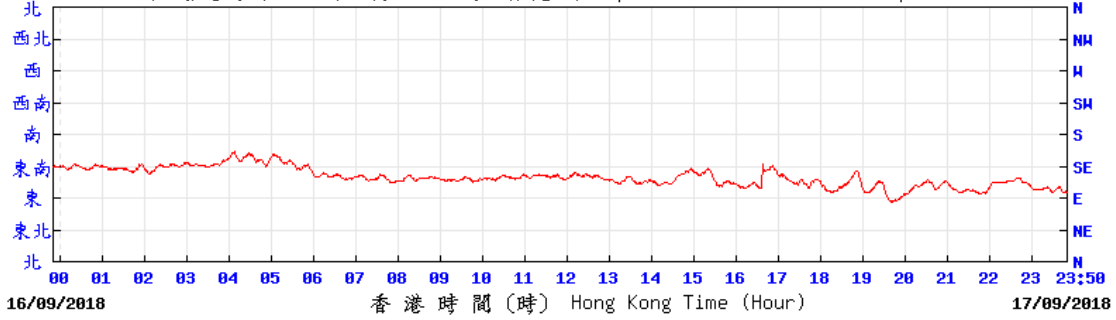
(於香港時間 2018 年09月15日23時50分更新) (Updated at 23:50H on 15 Sep 2018)



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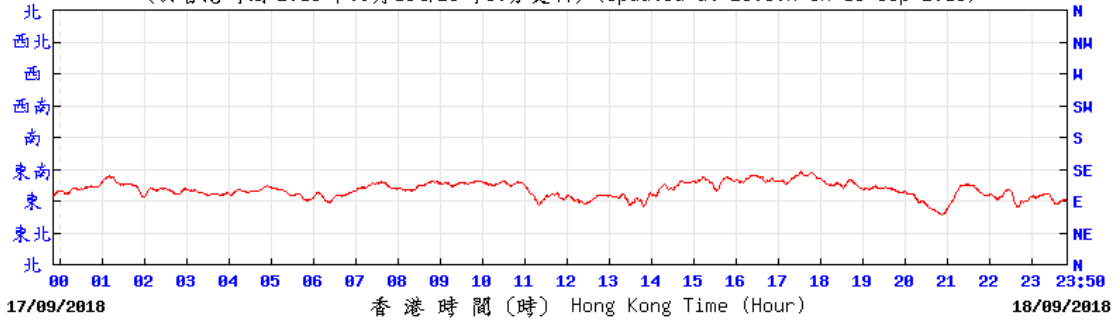
(於香港時間 2018 年09月17日23時50分更新) (Updated at 23:50H on 17 Sep 2018)



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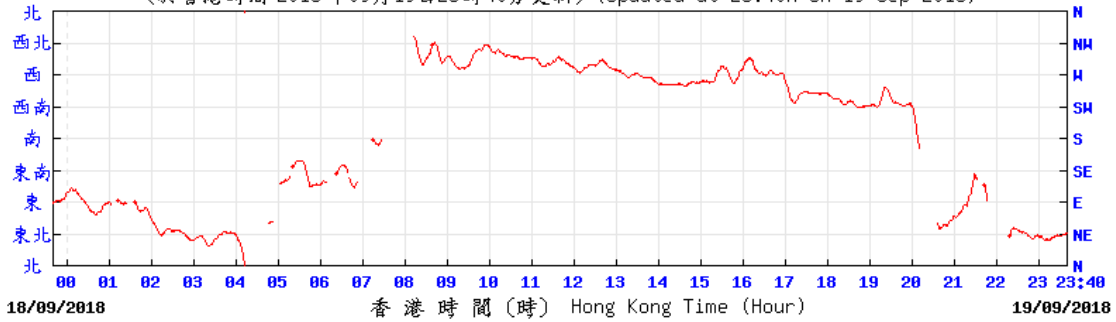
(於香港時間 2018 年09月18日23時50分更新) (Updated at 23:50H on 18 Sep 2018)



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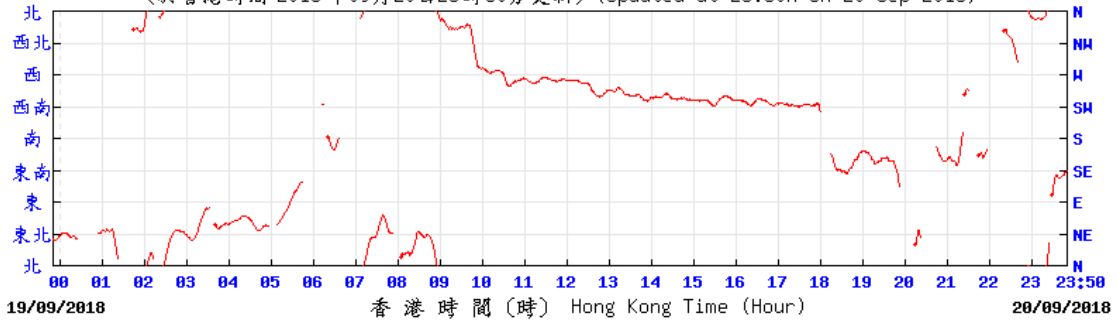
(於香港時間 2018 年09月19日23時40分更新) (Updated at 23:40H on 19 Sep 2018)



R2C

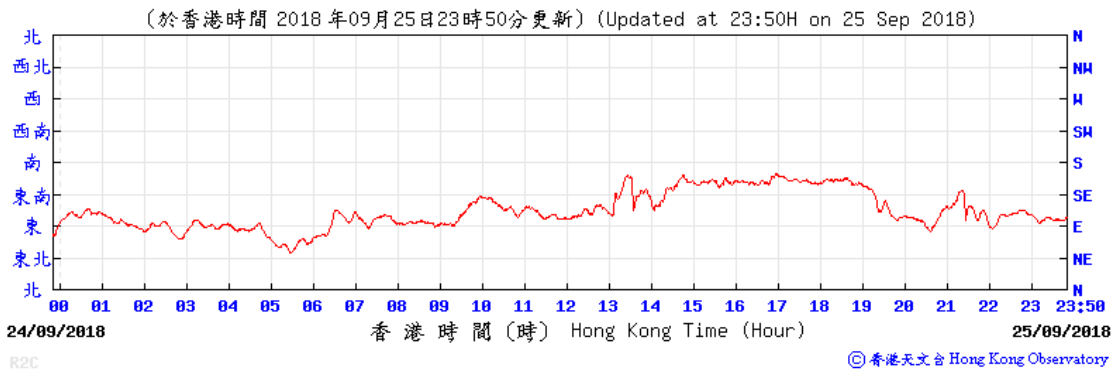
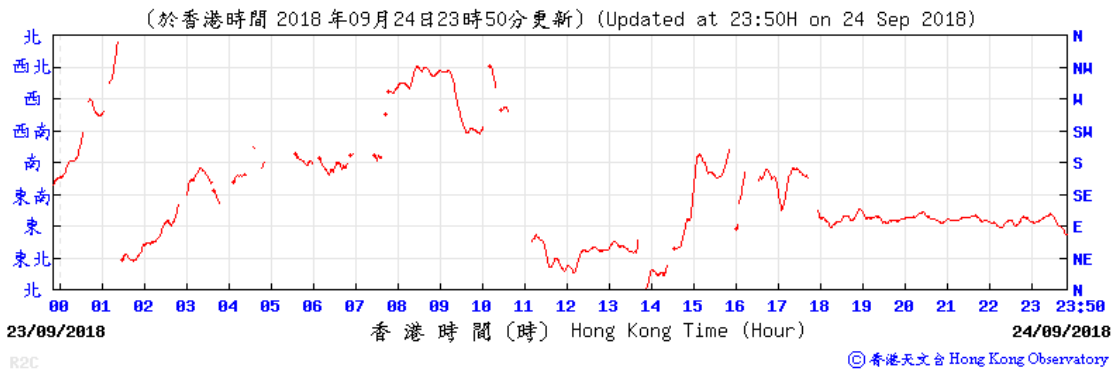
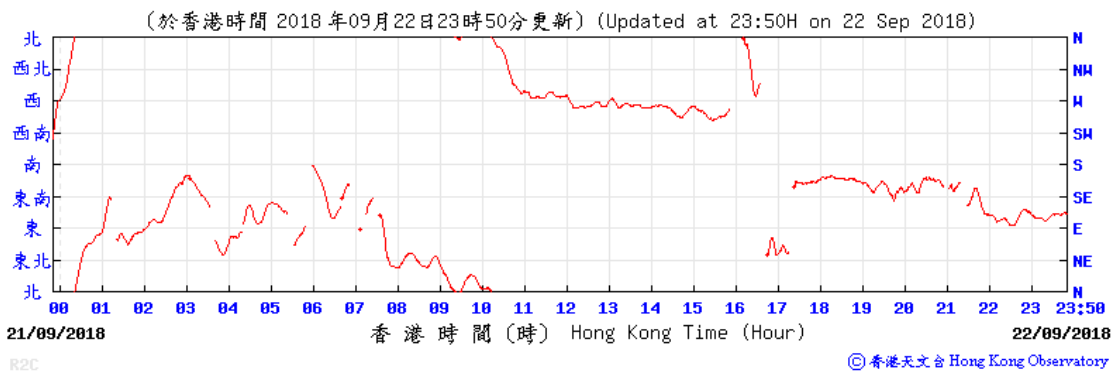
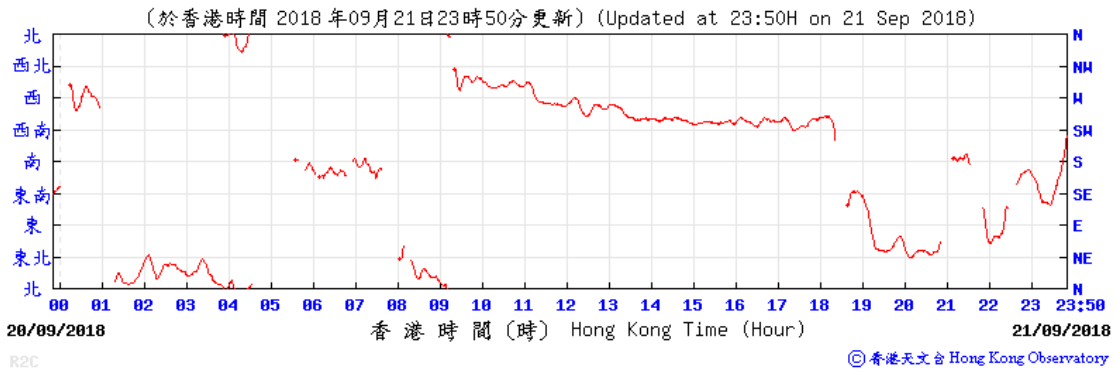
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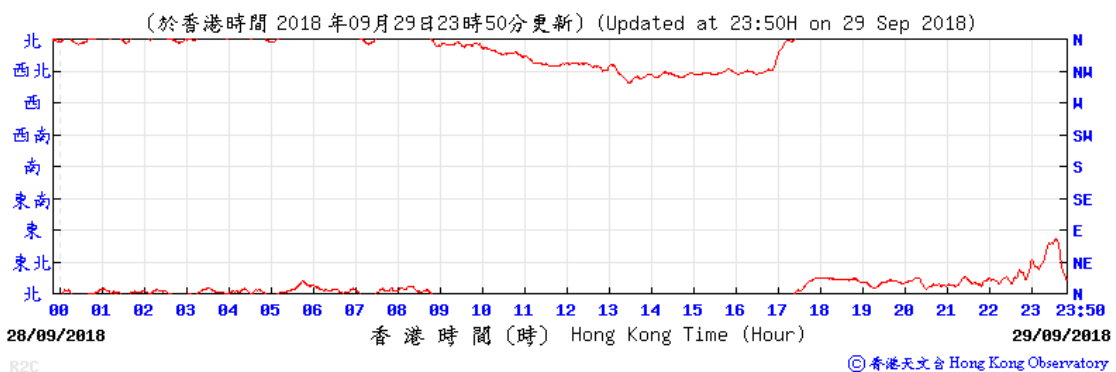
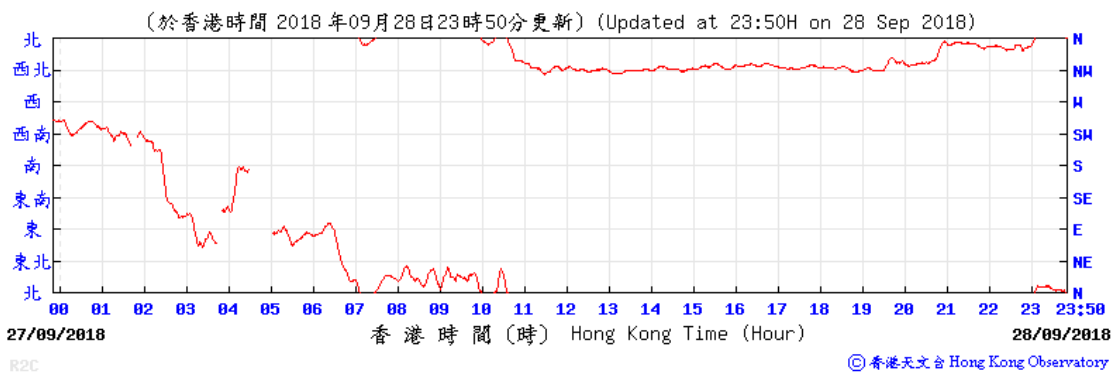
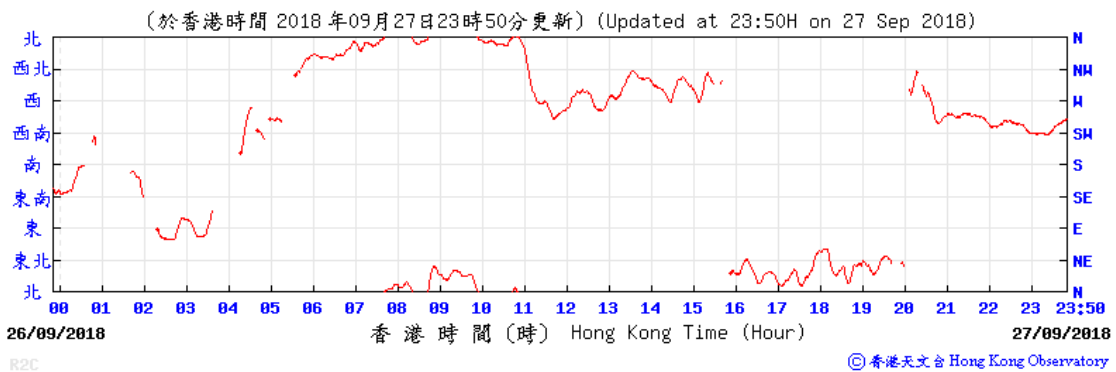
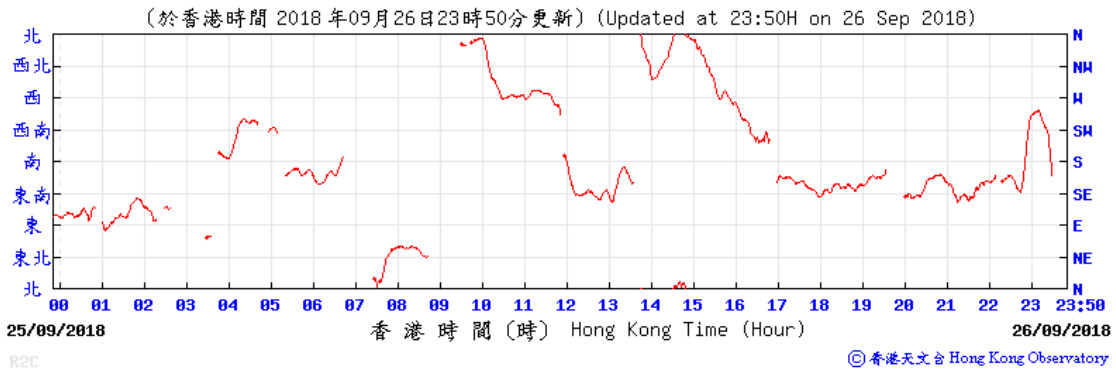
(於香港時間 2018 年09月20日23時50分更新) (Updated at 23:50H on 20 Sep 2018)



R2C

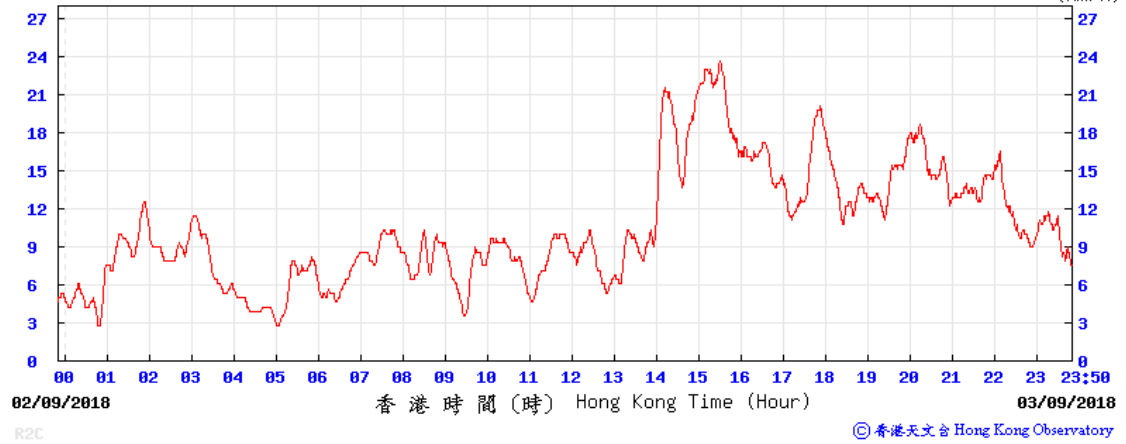
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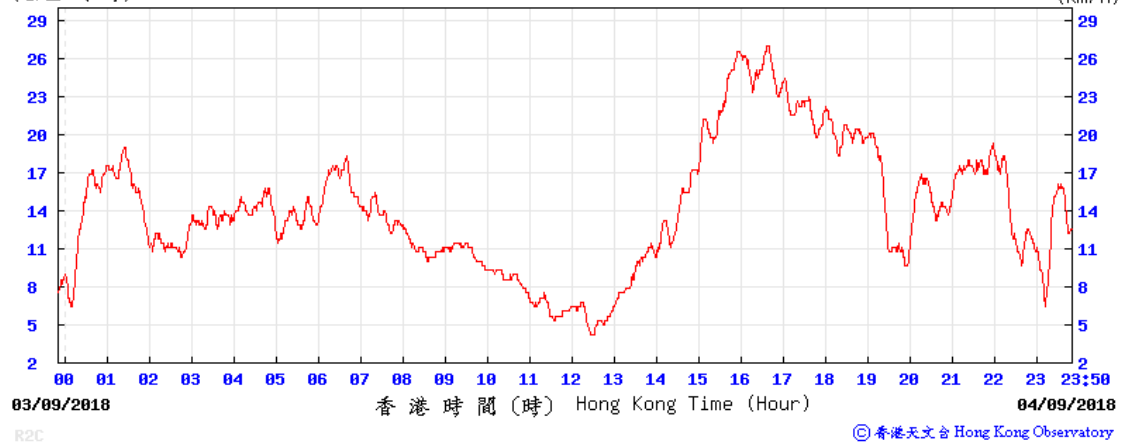


Wind Speed

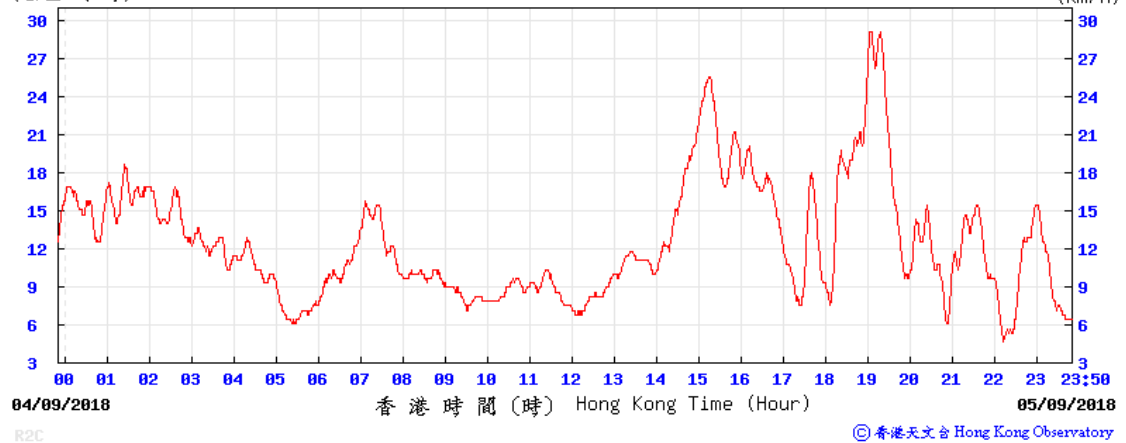
(公里/小時) (於香港時間 2018 年 9 月 3 日 23 時 50 分更新) (Updated at 23:50H on 3 Sep 2018)



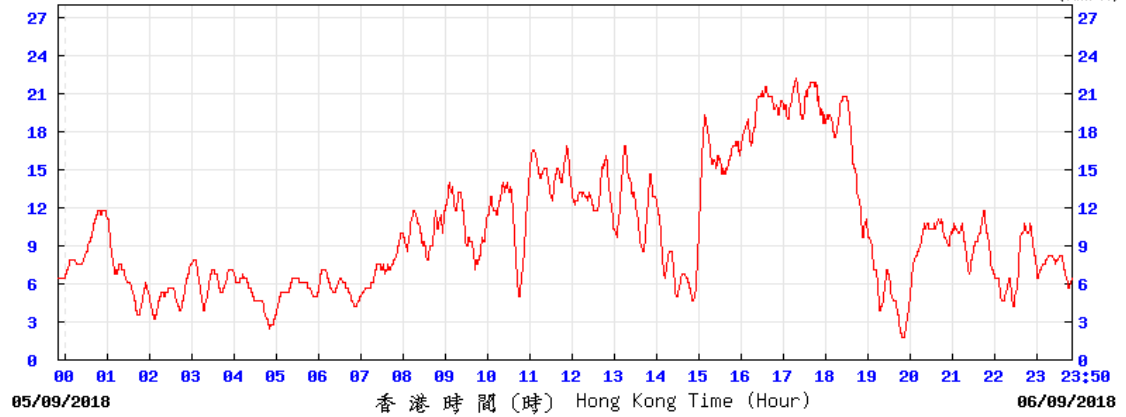
(公里/小時) (於香港時間 2018 年 9 月 4 日 23 時 50 分更新) (Updated at 23:50H on 4 Sep 2018)



(公里/小時) (於香港時間 2018 年 9 月 5 日 23 時 50 分更新) (Updated at 23:50H on 5 Sep 2018)



(公里/小時) (於香港時間 2018 年 9 月 6 日 23 時 50 分更新) (Updated at 23:50H on 6 Sep 2018) (km/h)



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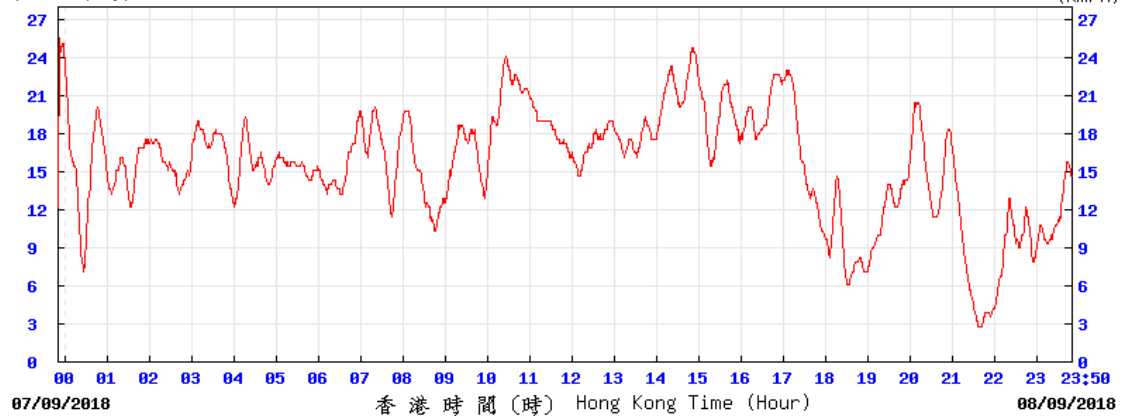
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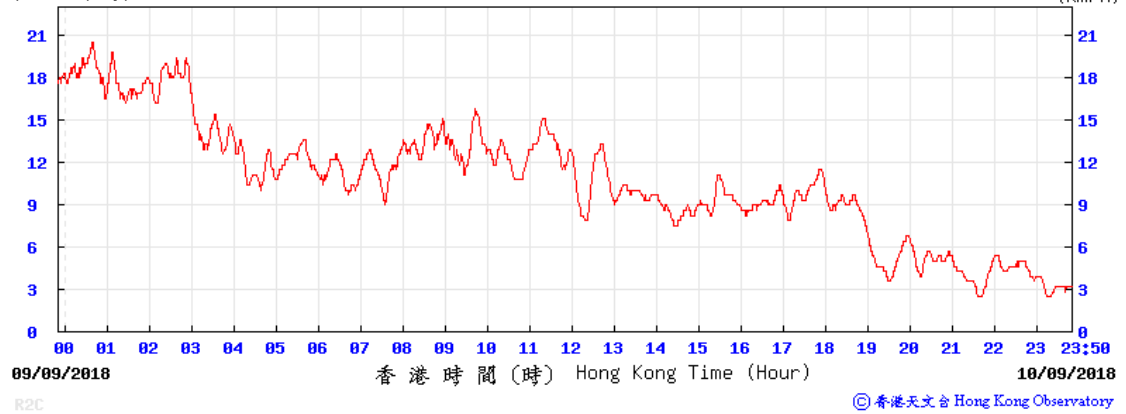
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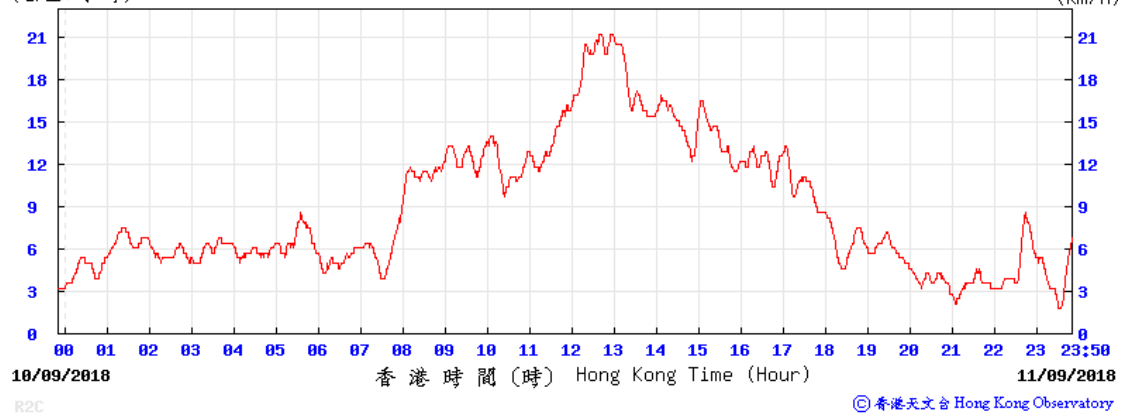
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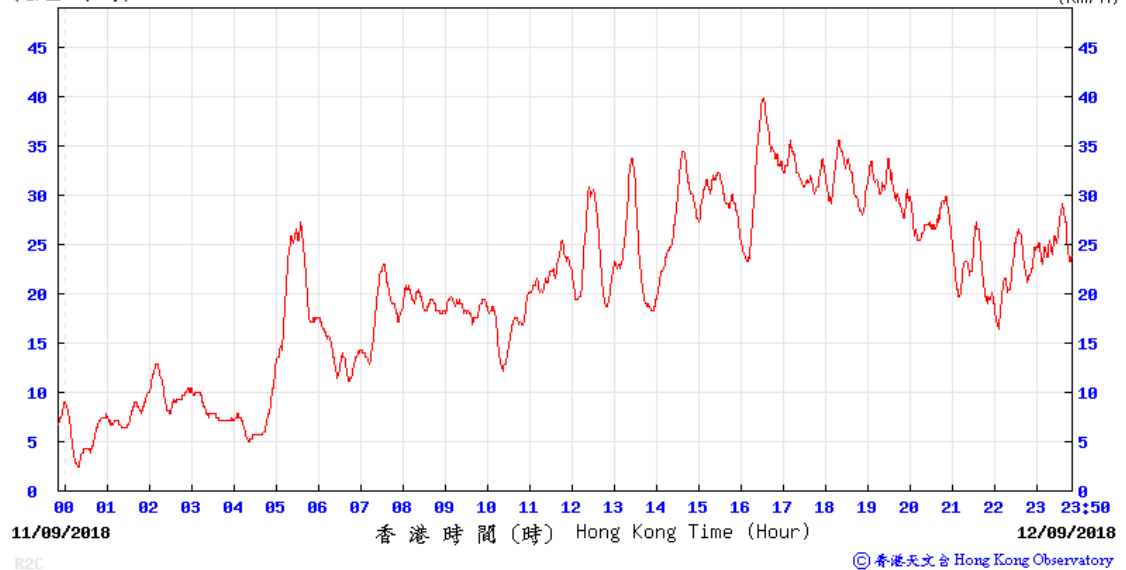
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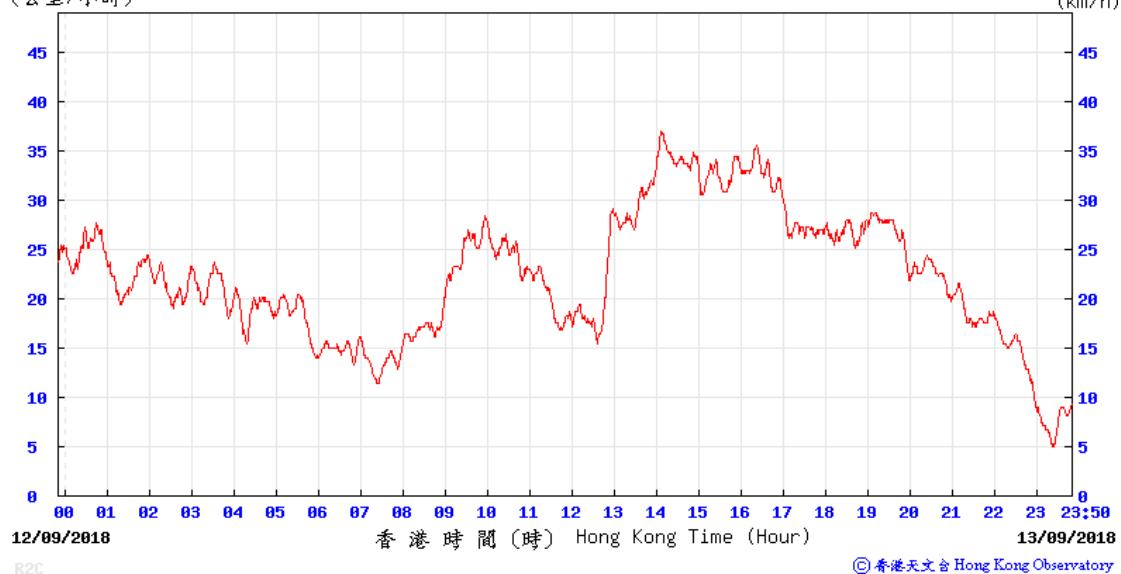
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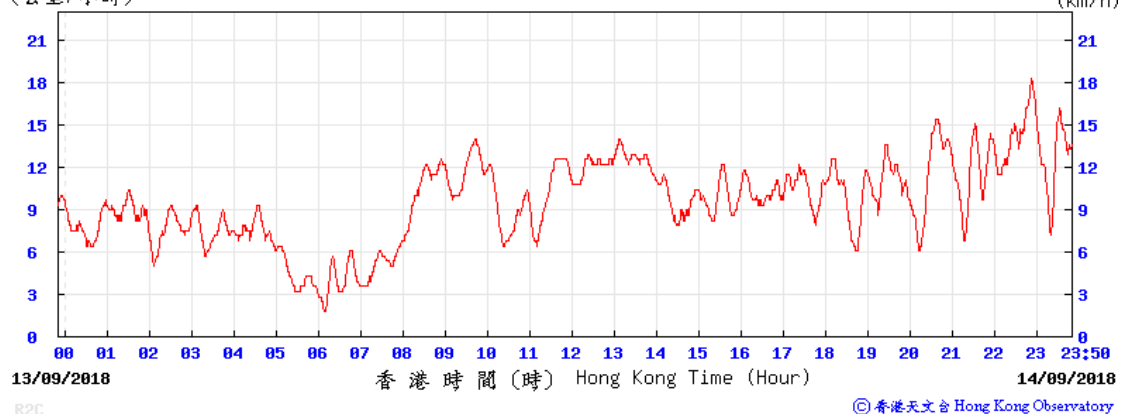
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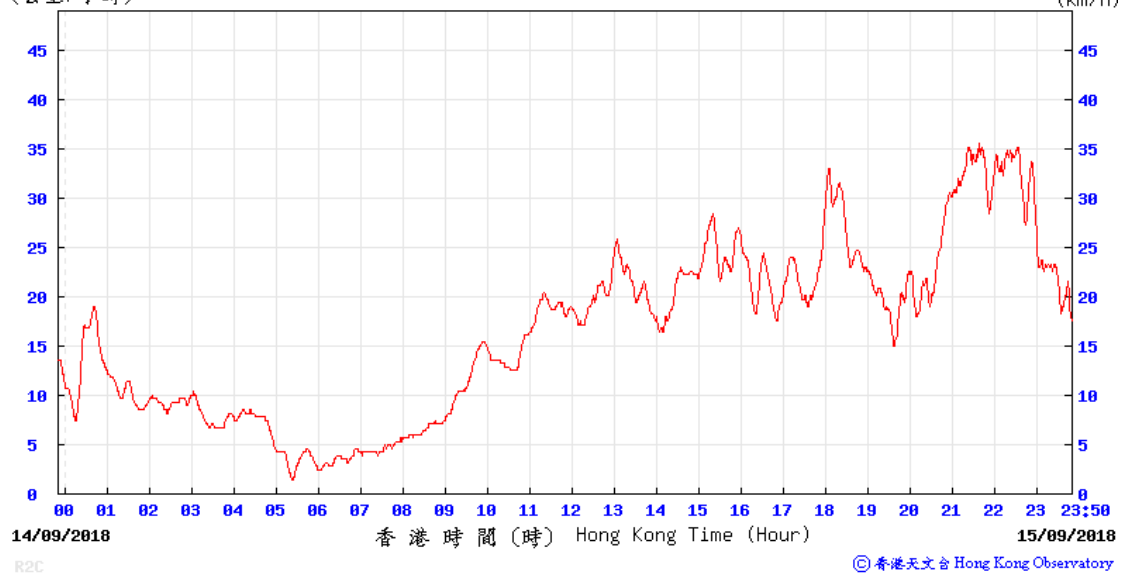
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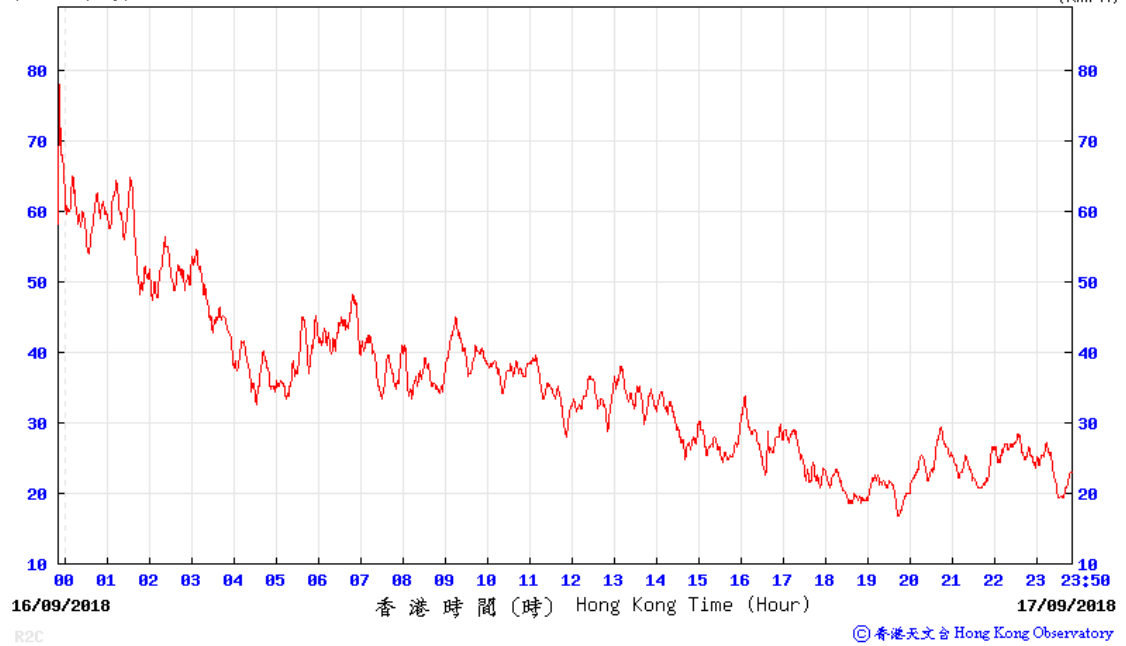
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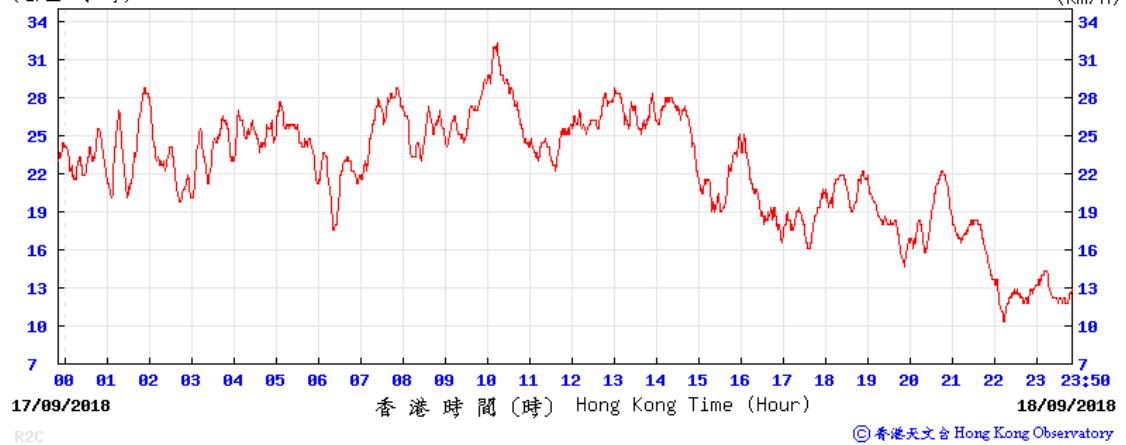
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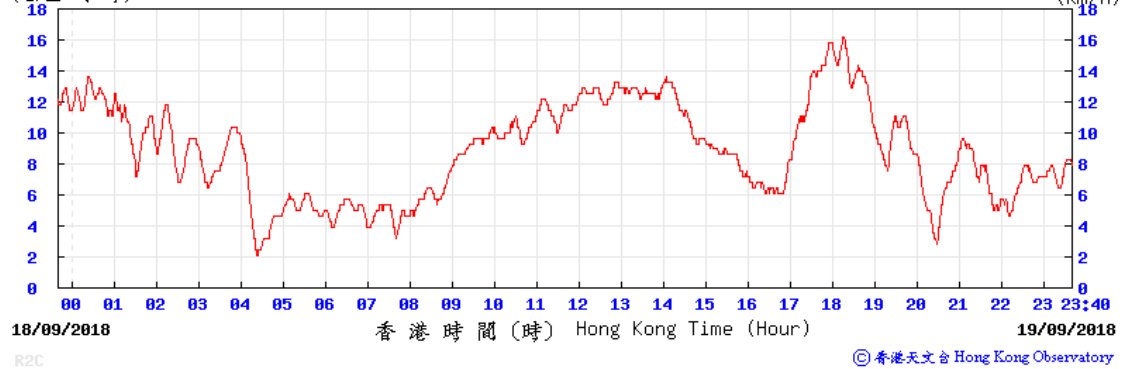
(公里/小時) (於香港時間 2018 年 9 月 17 日 23 時 50 分更新) (Updated at 23:50H on 17 Sep 2018) (km/h)



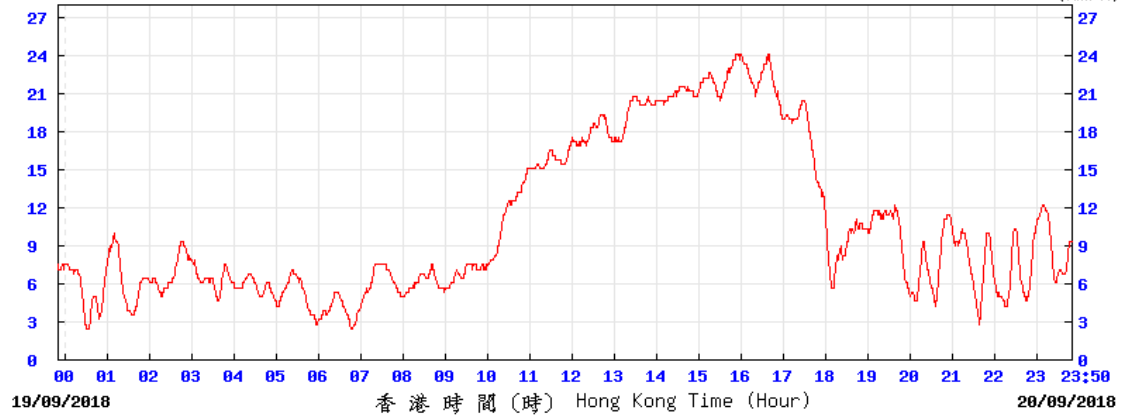
(公里/小時) (於香港時間 2018 年 9 月 18 日 23 時 50 分更新) (Updated at 23:50H on 18 Sep 2018) (km/h)



(公里/小時) (於香港時間 2018 年 9 月 19 日 23 時 40 分更新) (Updated at 23:40H on 19 Sep 2018) (km/h)



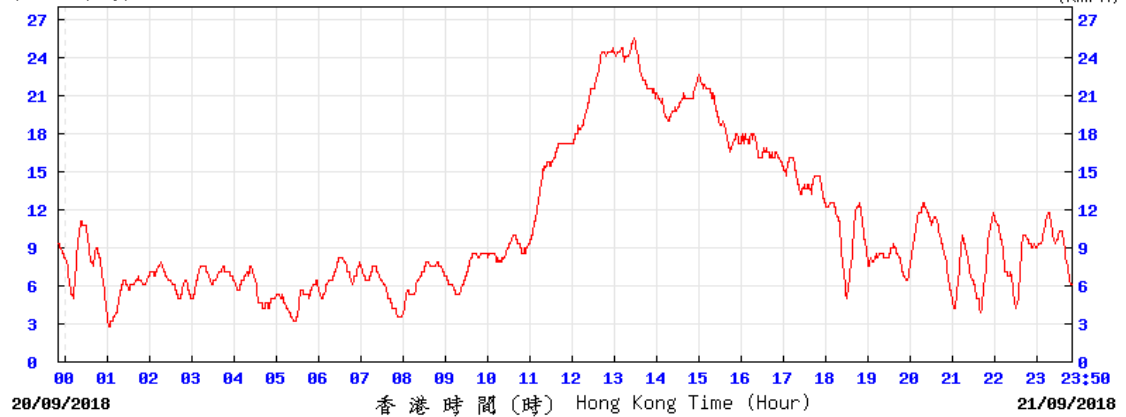
(公里/小時) (於香港時間 2018 年 9 月 20 日 23 時 50 分更新) (Updated at 23:50H on 20 Sep 2018) (km/h)



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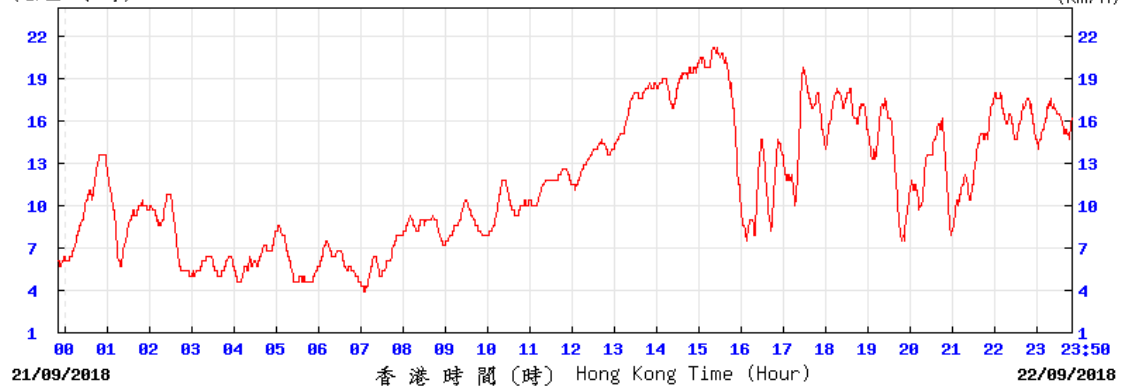
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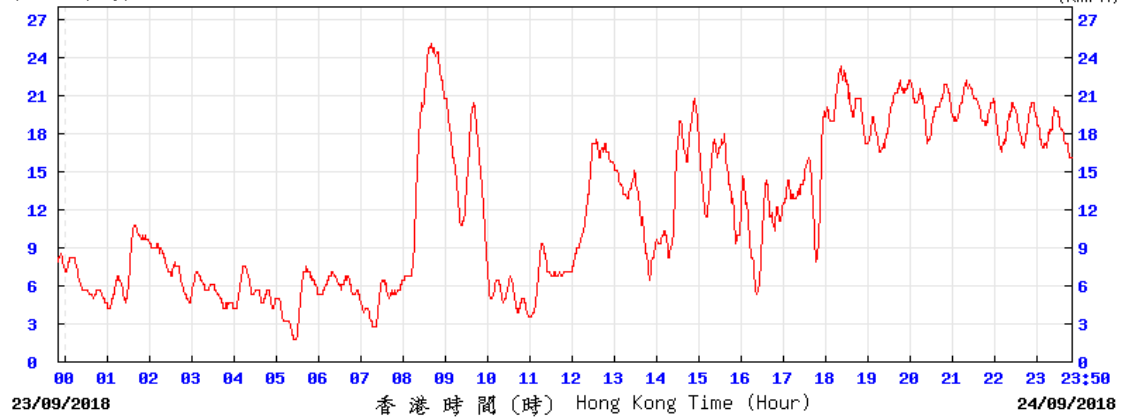
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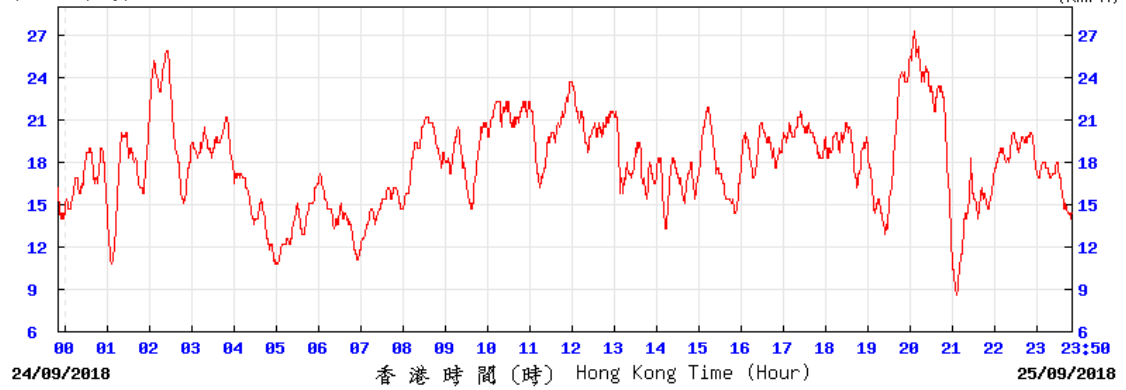
(公里/小時) (於香港時間 2018 年 9 月 24 日 23 時 50 分更新) (Updated at 23:50H on 24 Sep 2018) (km/h)



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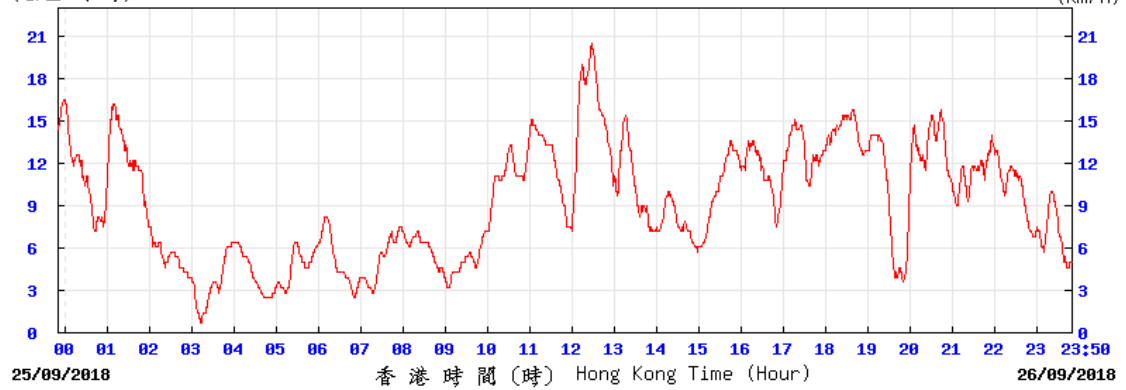
(公里/小時) (於香港時間 2018 年 9 月 25 日 23 時 50 分更新) (Updated at 23:50H on 25 Sep 2018) (km/h)



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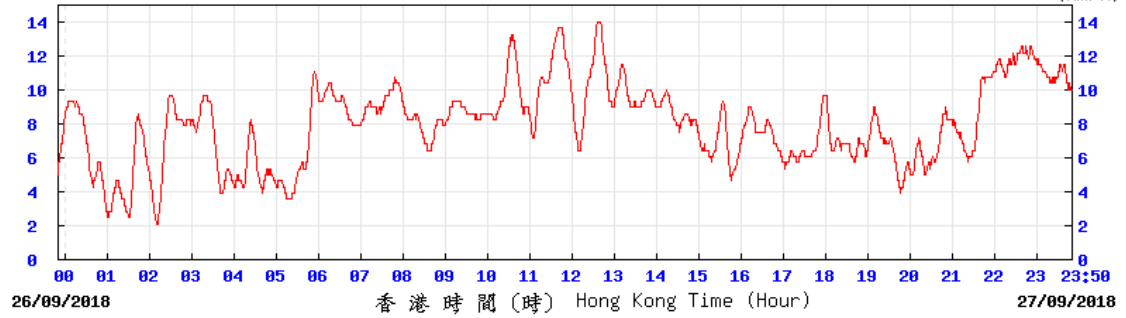
(公里/小時) (於香港時間 2018 年 9 月 26 日 23 時 50 分更新) (Updated at 23:50H on 26 Sep 2018) (km/h)



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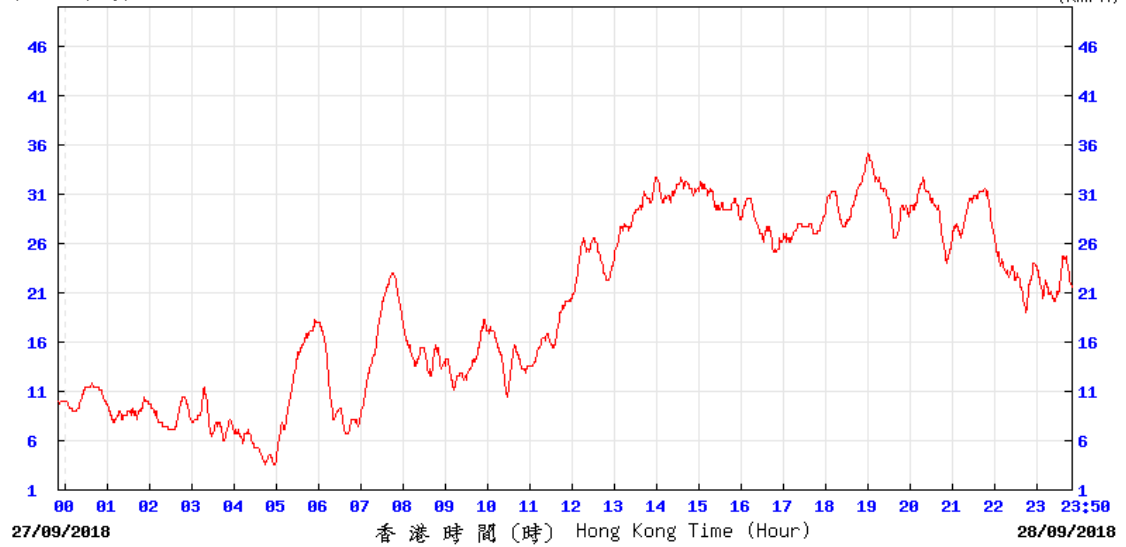
(公里/小時) (於香港時間 2018 年 9 月 27 日 23 時 50 分更新) (Updated at 23:50H on 27 Sep 2018) (km/h)



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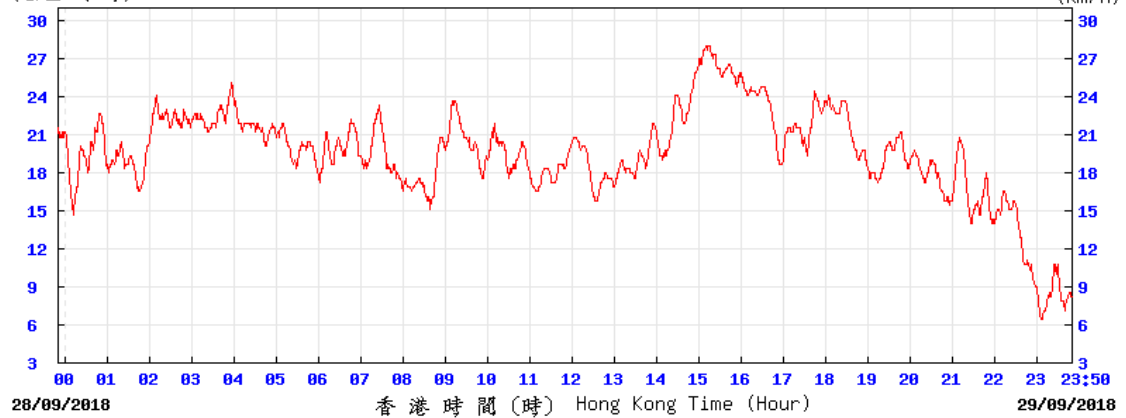
(公里/小時) (於香港時間 2018 年 9 月 28 日 23 時 50 分更新) (Updated at 23:50H on 28 Sep 2018) (km/h)



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(公里/小時) (於香港時間 2018 年 9 月 29 日 23 時 50 分更新) (Updated at 23:50H on 29 Sep 2018) (km/h)

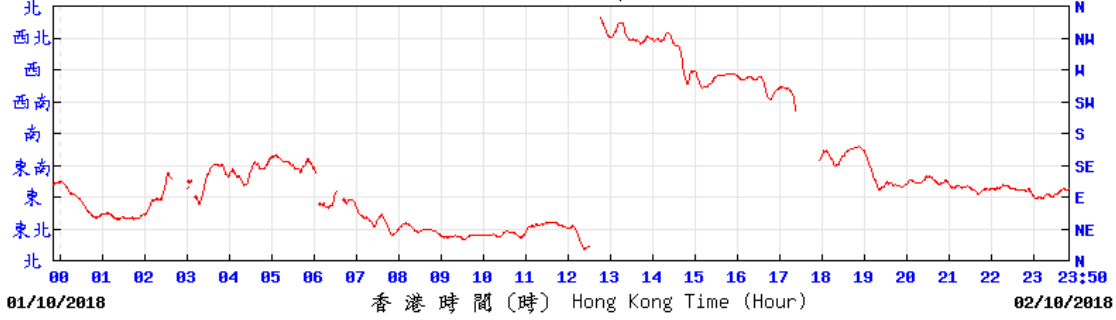


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Wind Direction

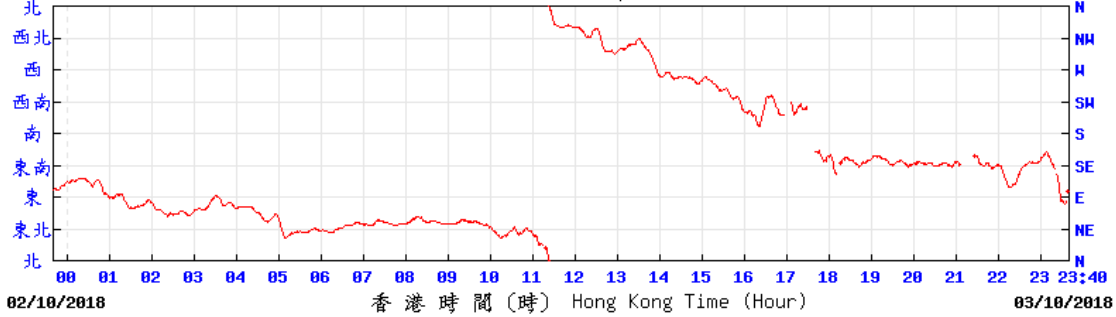
(於香港時間 2018 年10月02日23時50分更新) (Updated at 23:50H on 2 Oct 2018)



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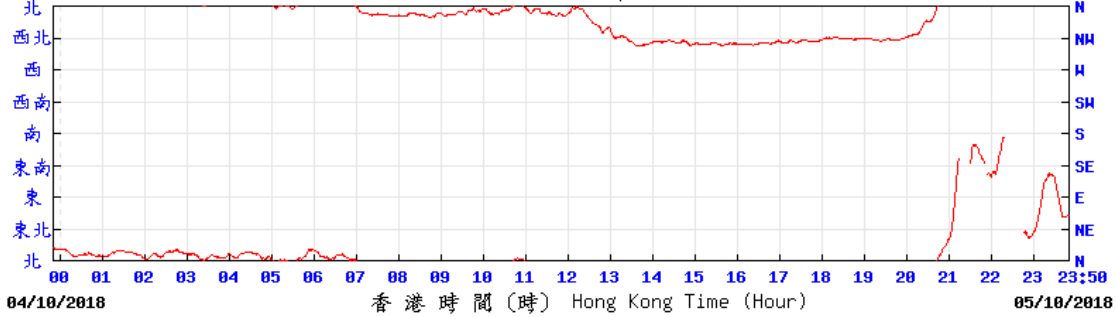
(於香港時間 2018 年10月03日23時40分更新) (Updated at 23:40H on 3 Oct 2018)



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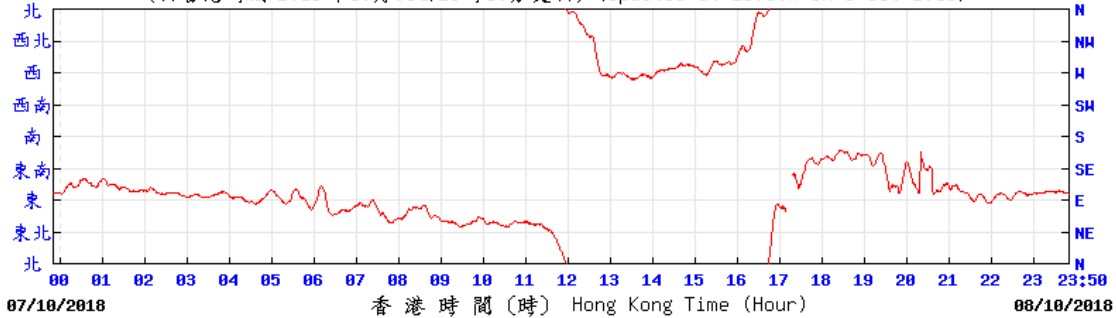
(於香港時間 2018 年10月05日23時50分更新) (Updated at 23:50H on 5 Oct 2018)



R2C

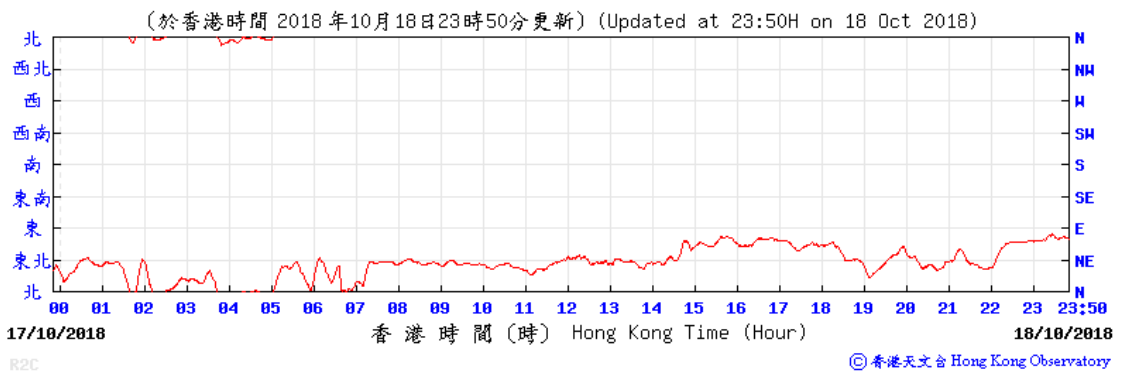
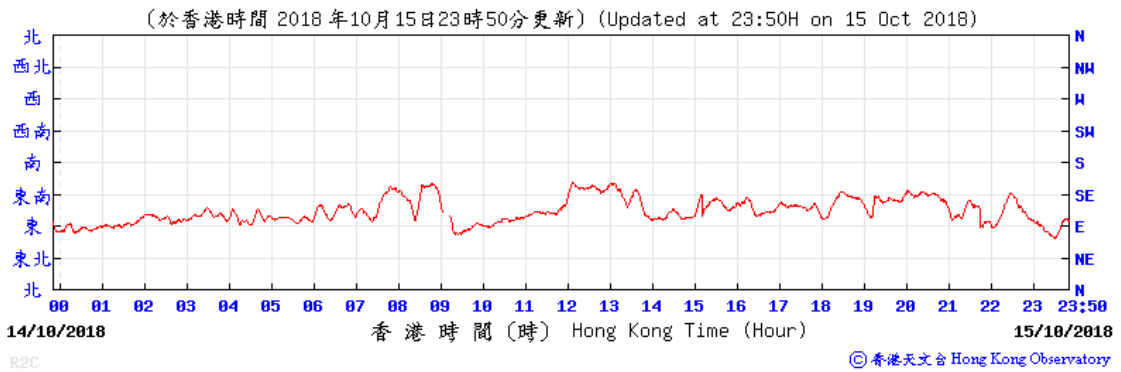
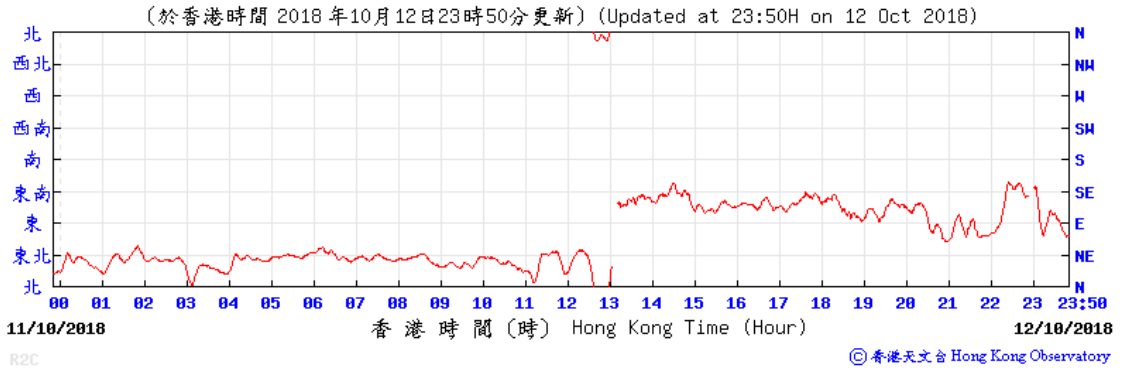
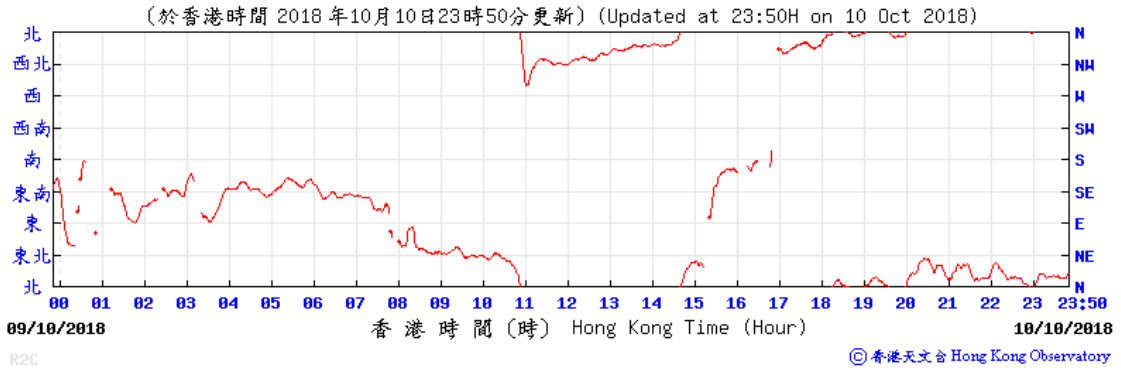
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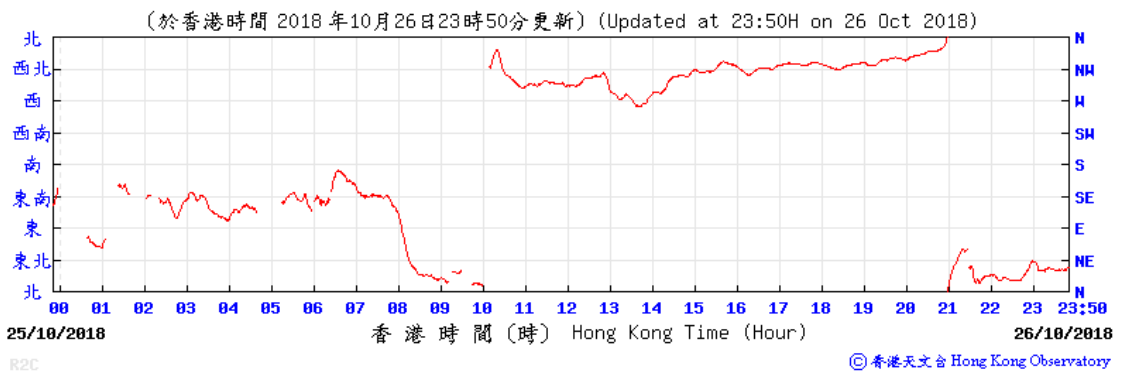
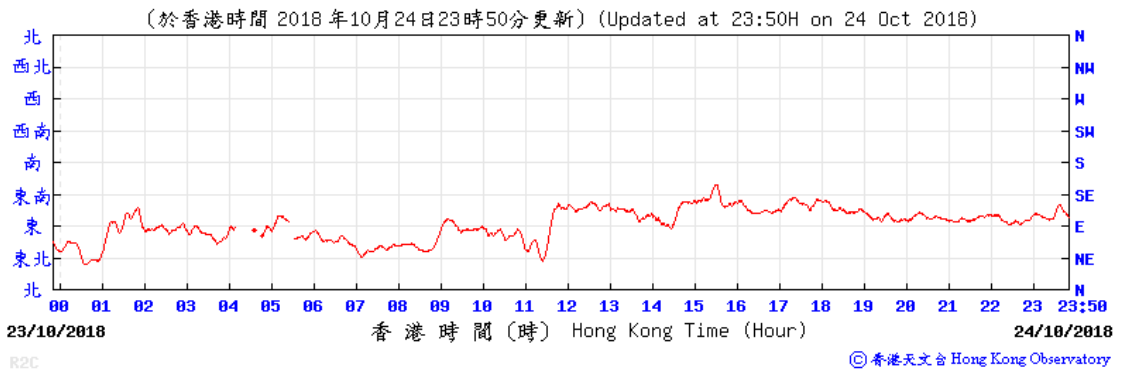
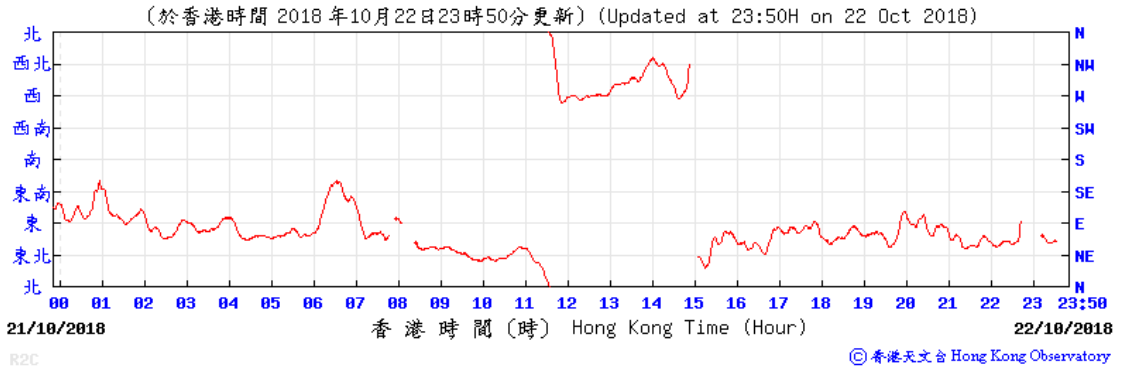
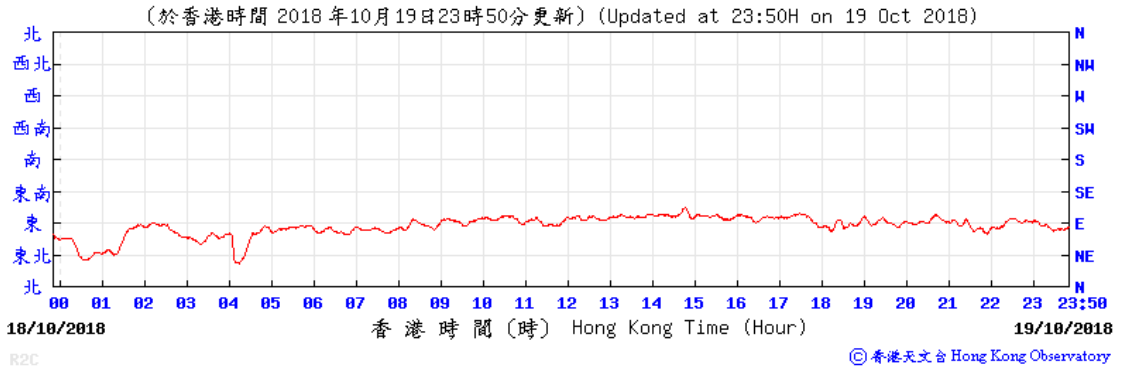
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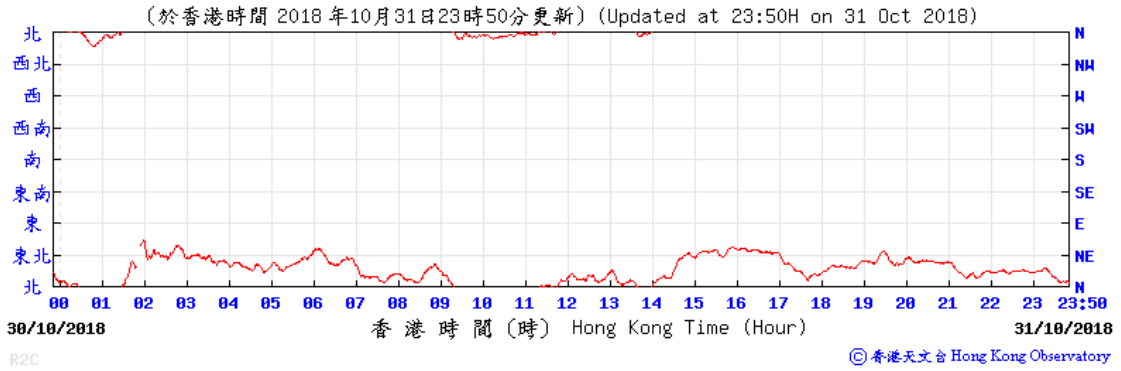
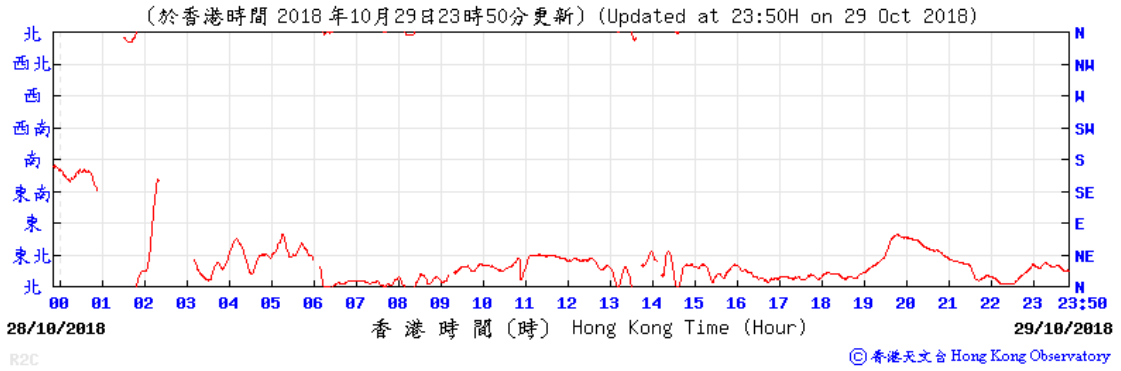


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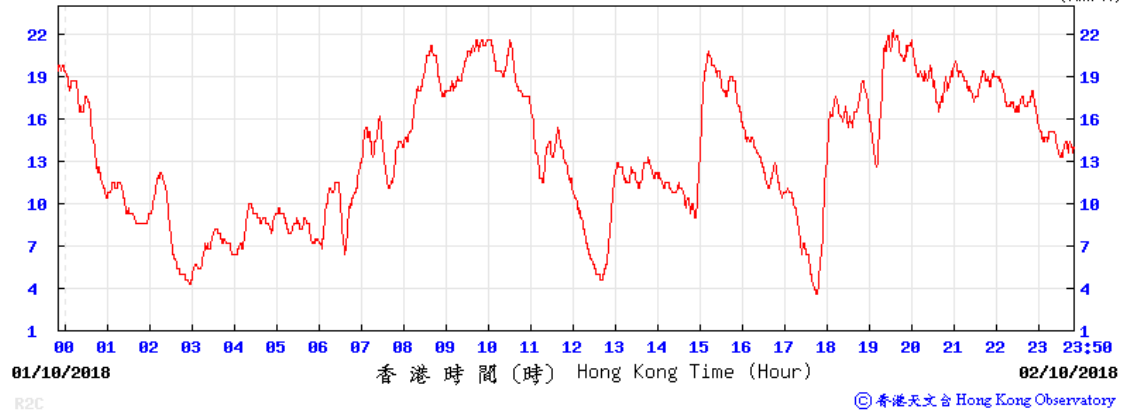




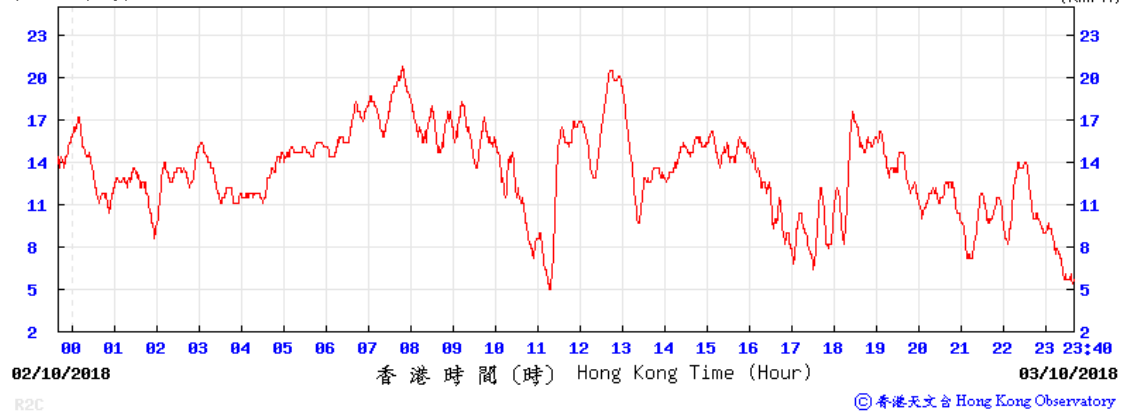


Wind Speed

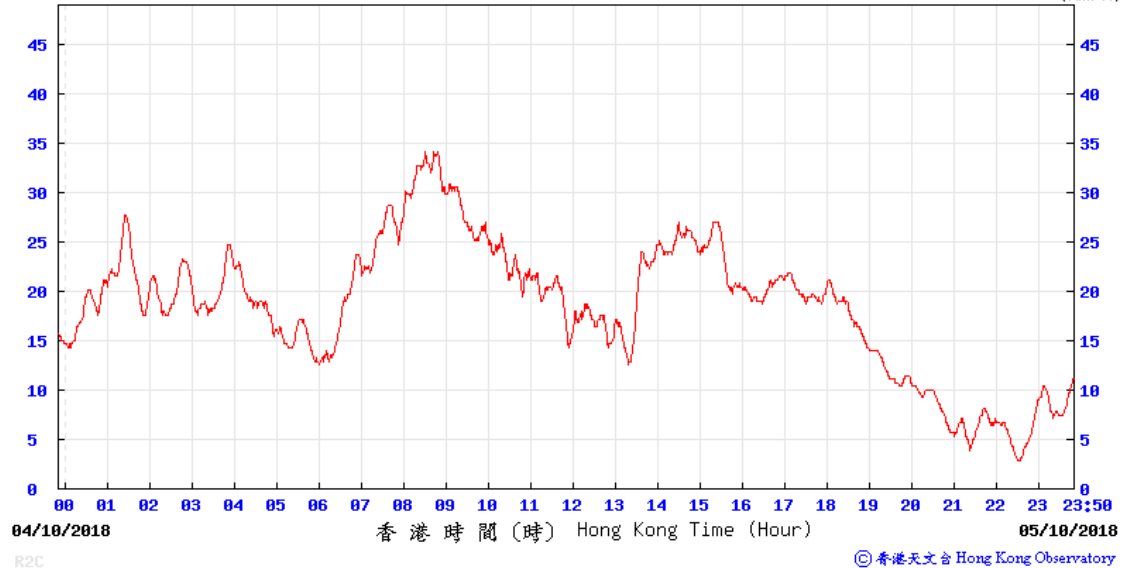
(公里/小時) (於香港時間 2018 年10月 2日23時50分更新) (Updated at 23:50H on 2 Oct 2018) (km/h)



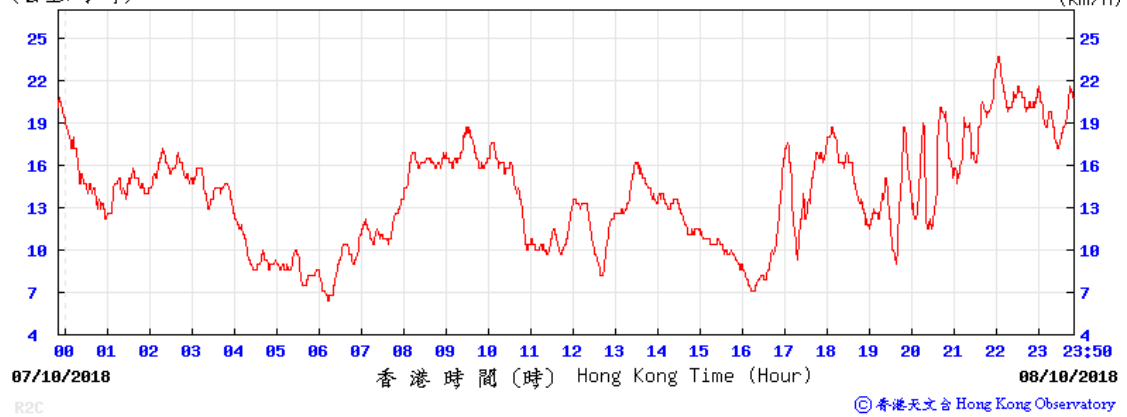
(公里/小時) (於香港時間 2018 年10月 3日23時40分更新) (Updated at 23:40H on 3 Oct 2018) (km/h)



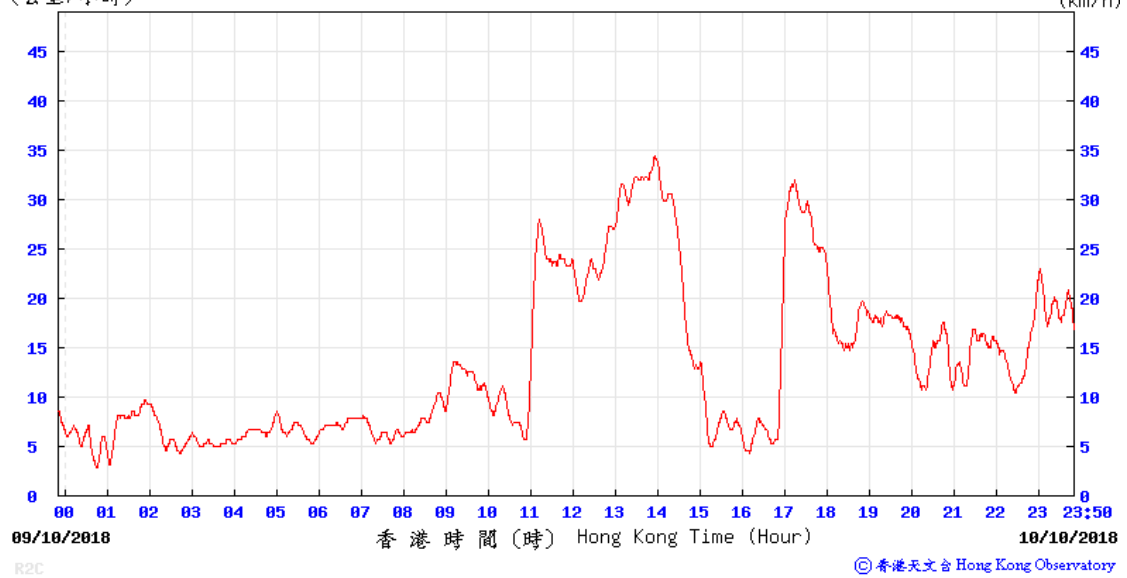
(公里/小時) (於香港時間 2018 年10月 5日23時50分更新) (Updated at 23:50H on 5 Oct 2018) (km/h)



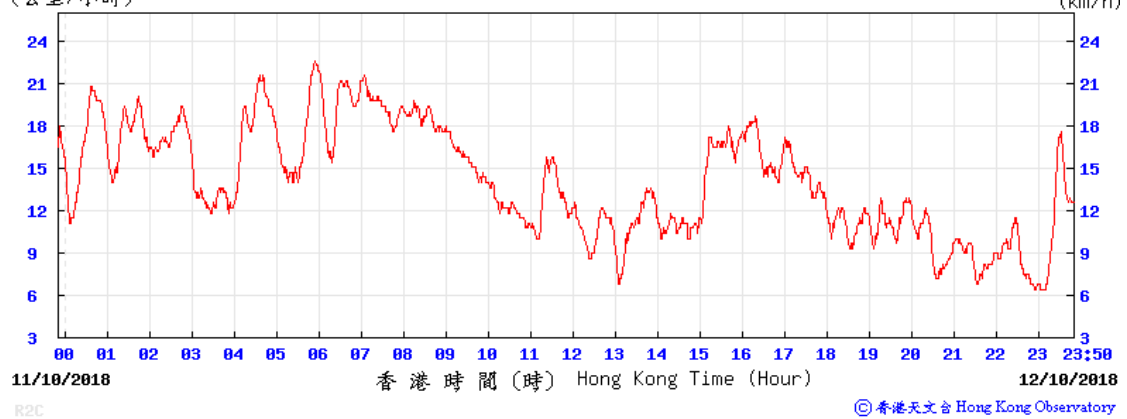
(公里/小時) (於香港時間 2018 年10月 8日23時50分更新) (Updated at 23:50H on 8 Oct 2018) (km/h)



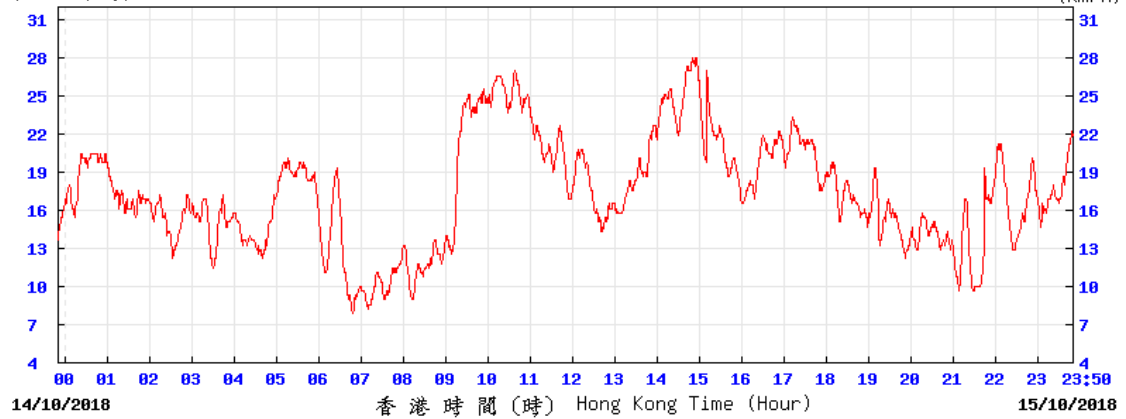
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(公里/小時) (於香港時間 2018 年10月12日23時50分更新) (Updated at 23:50H on 12 Oct 2018) (km/h)

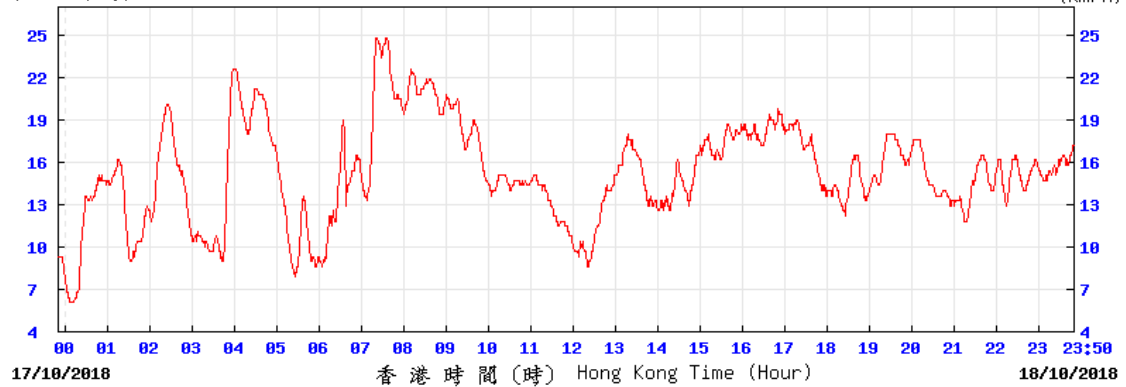


(公里/小時) (於香港時間 2018 年10月15日23時50分更新) (Updated at 23:50H on 15 Oct 2018) (km/h)



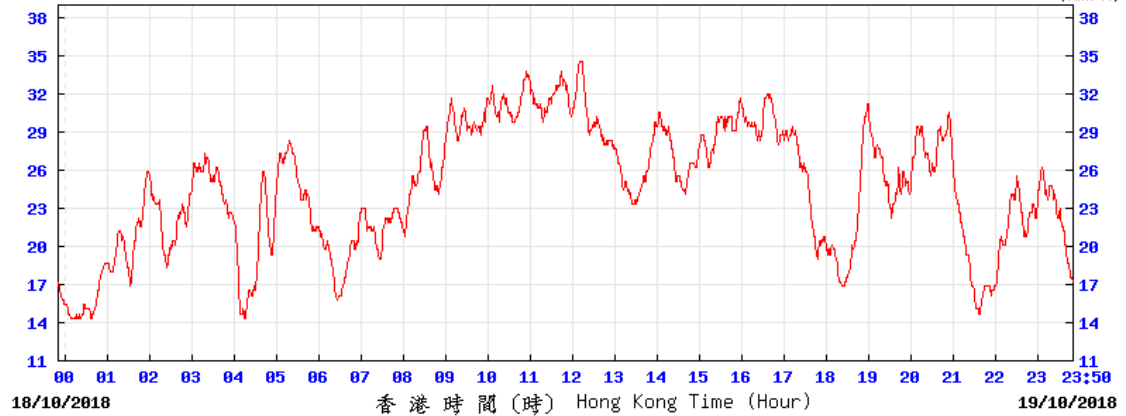
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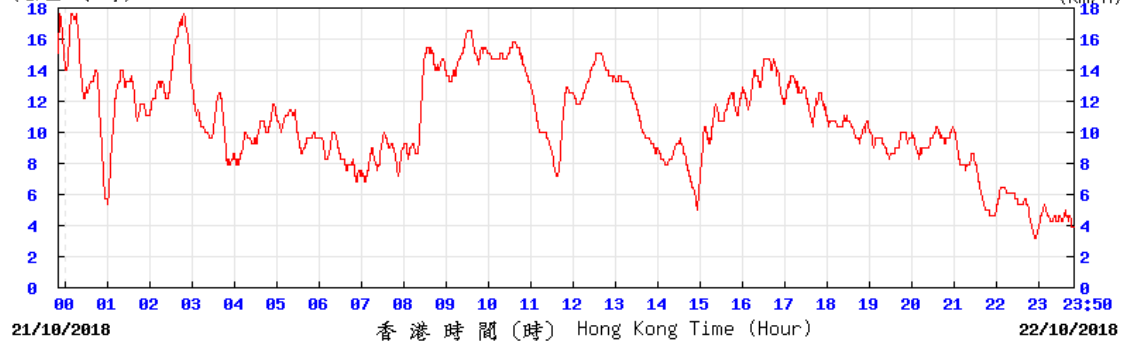
R2C ©香港天文台 Hong Kong Observatory

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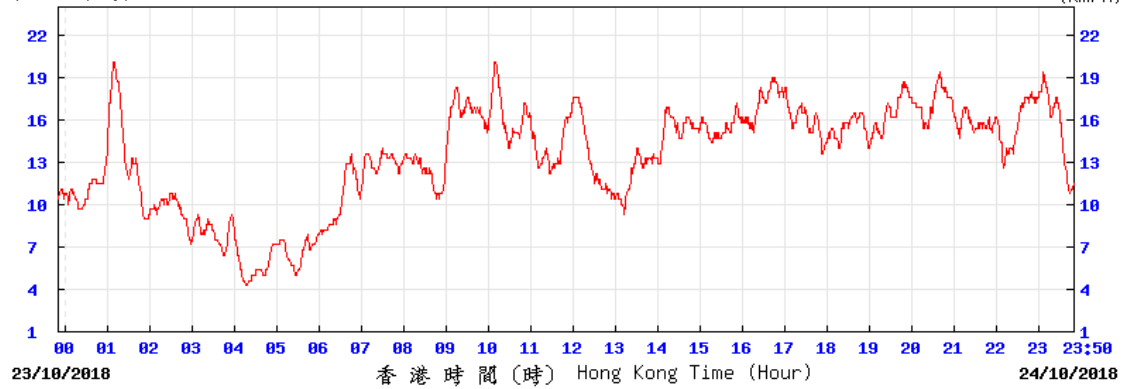
R2C ©香港天文台 Hong Kong Observatory

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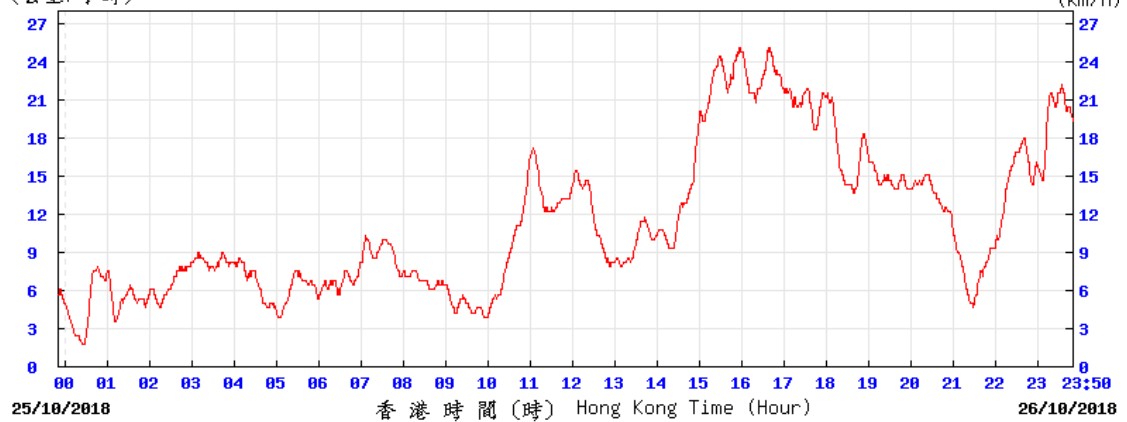
R2C ©香港天文台 Hong Kong Observatory

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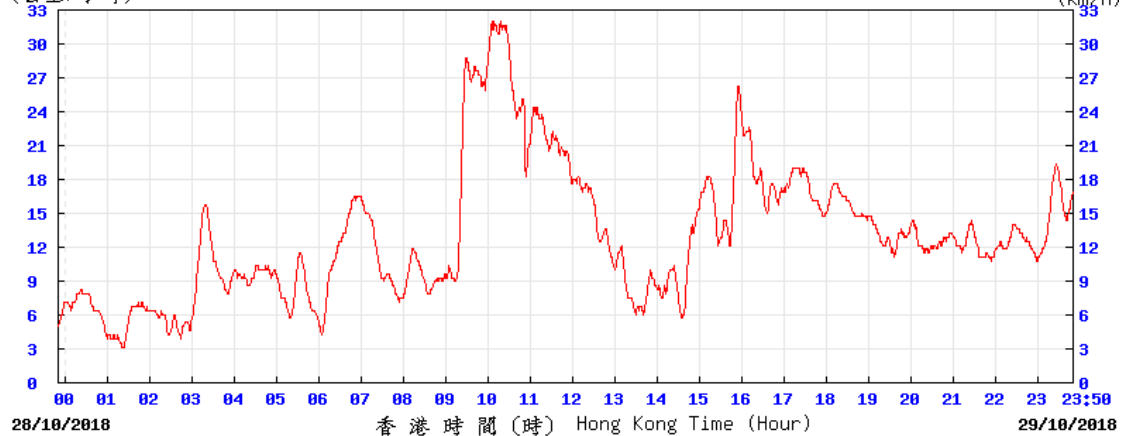
R2C ©香港天文台 Hong Kong Observatory

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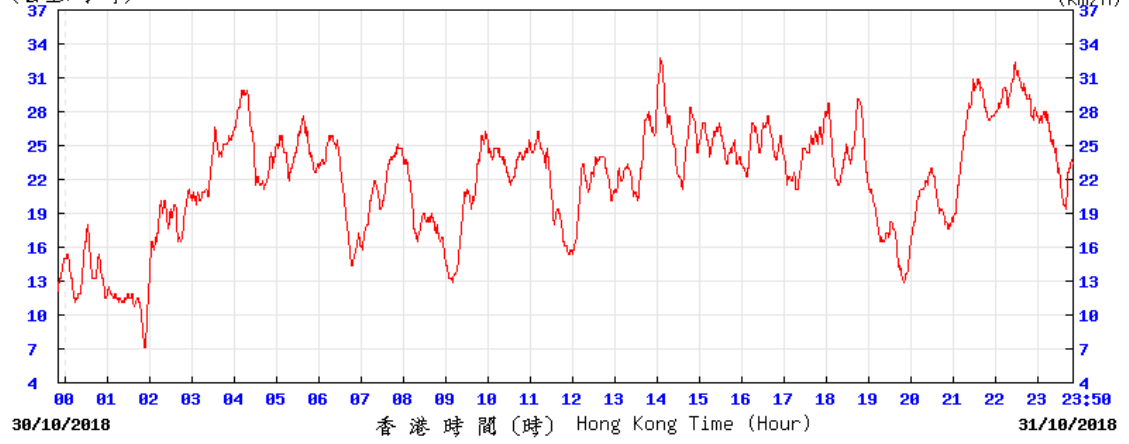
R2C ©香港天文台 Hong Kong Observatory

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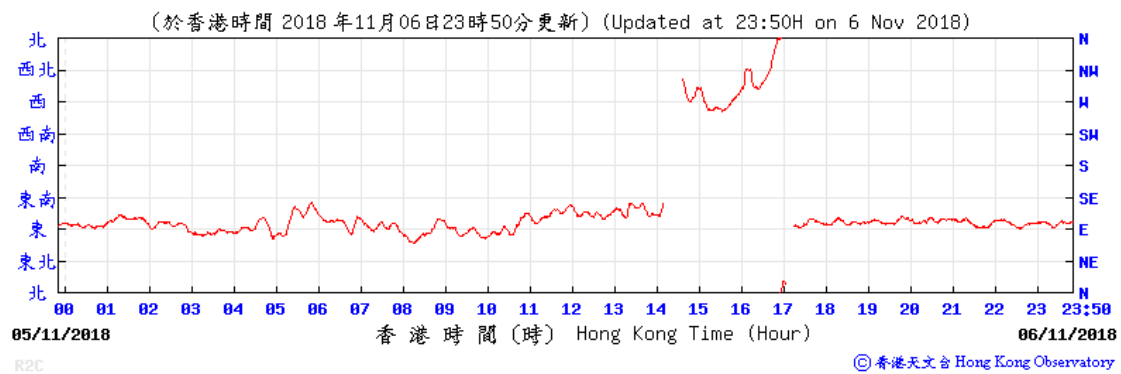
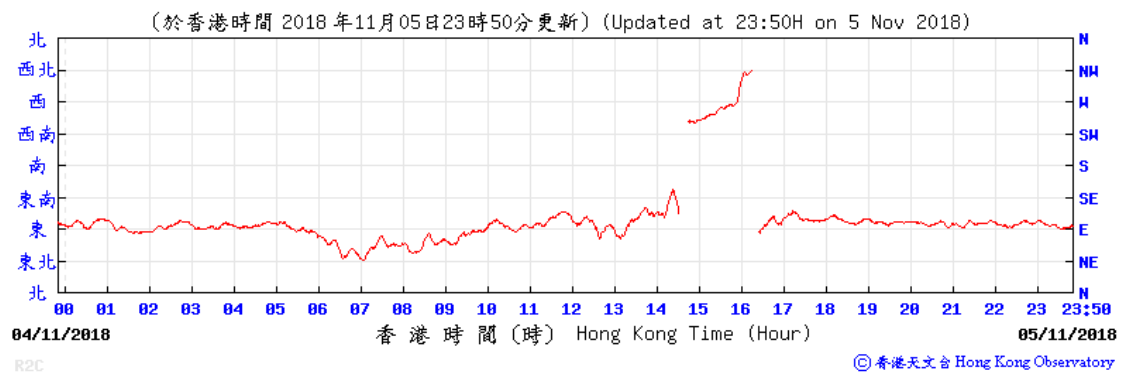
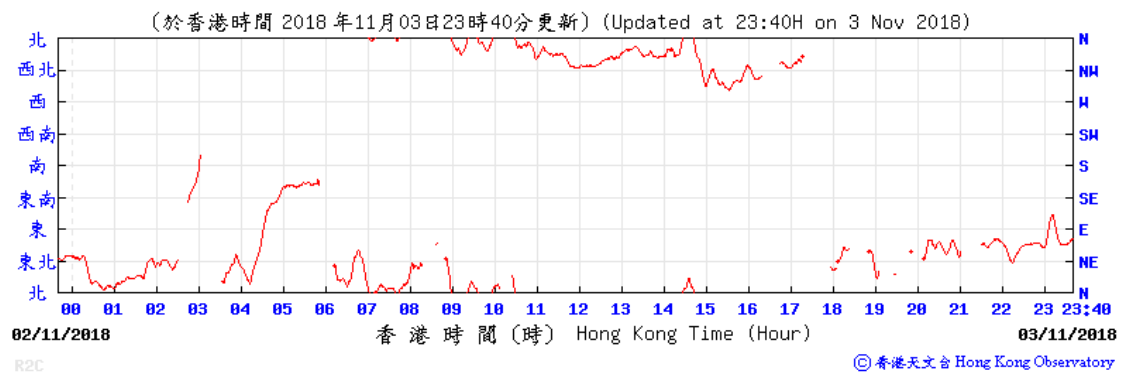
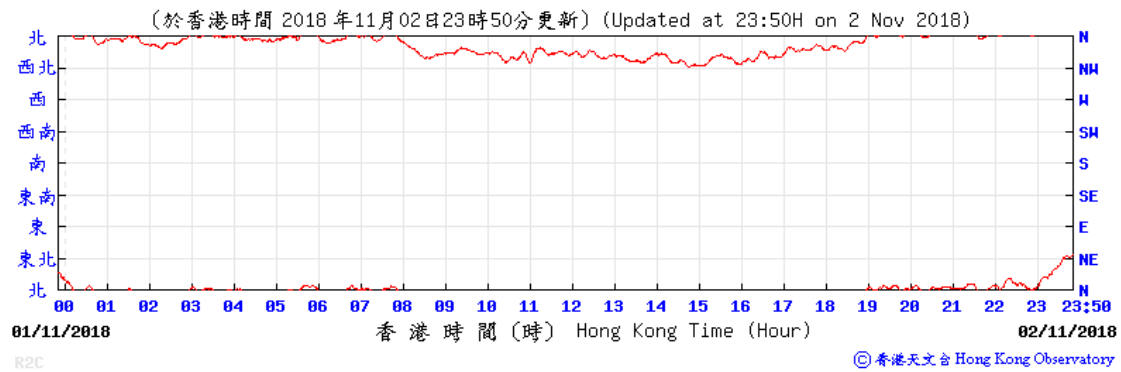
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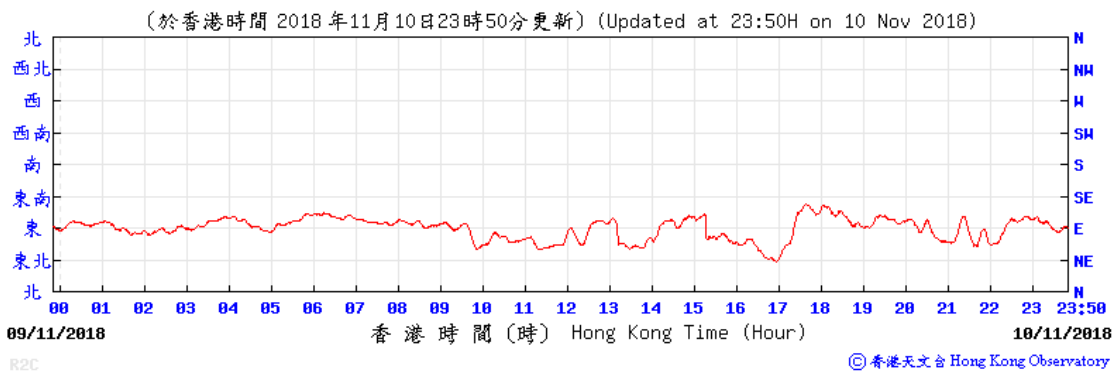
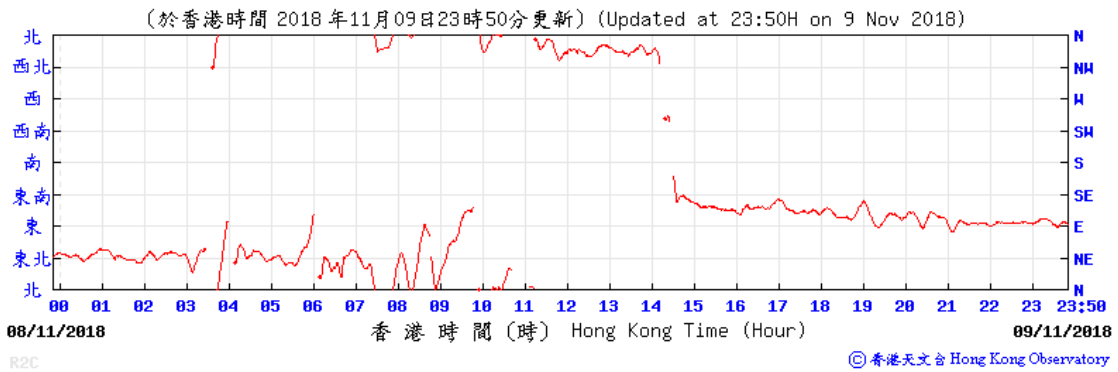
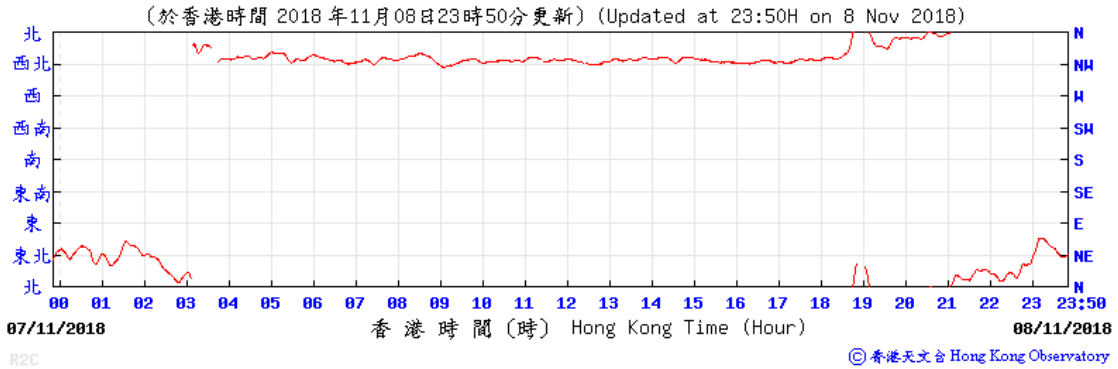
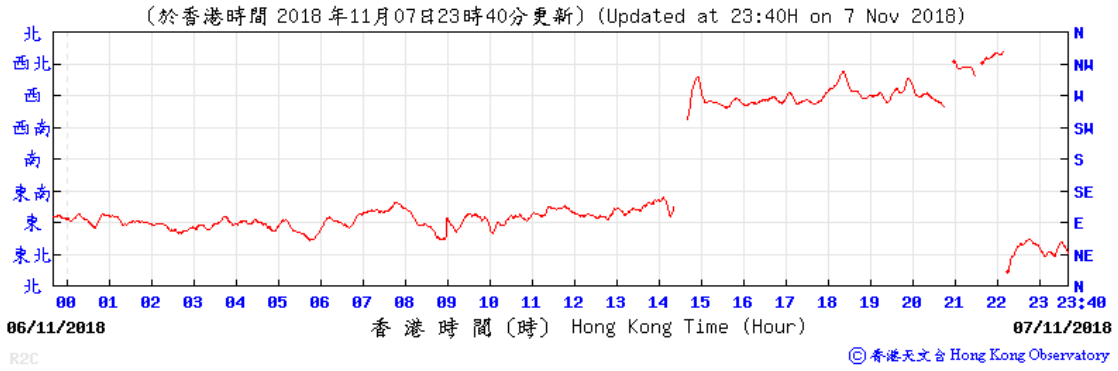


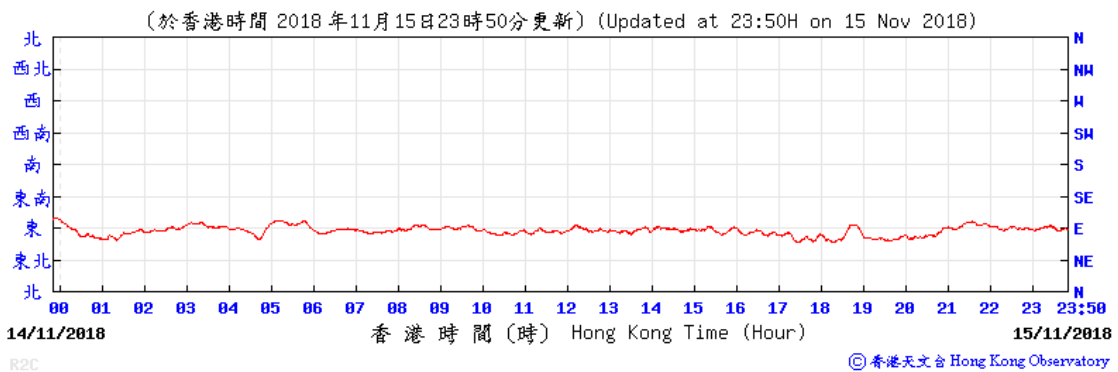
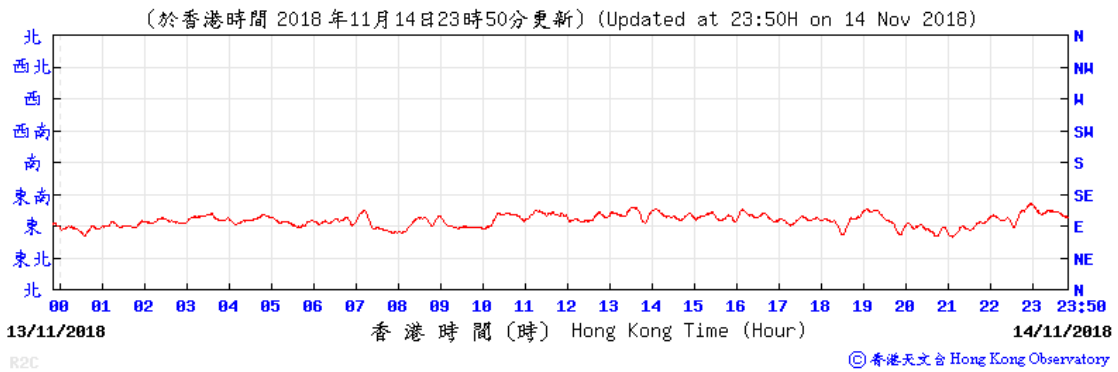
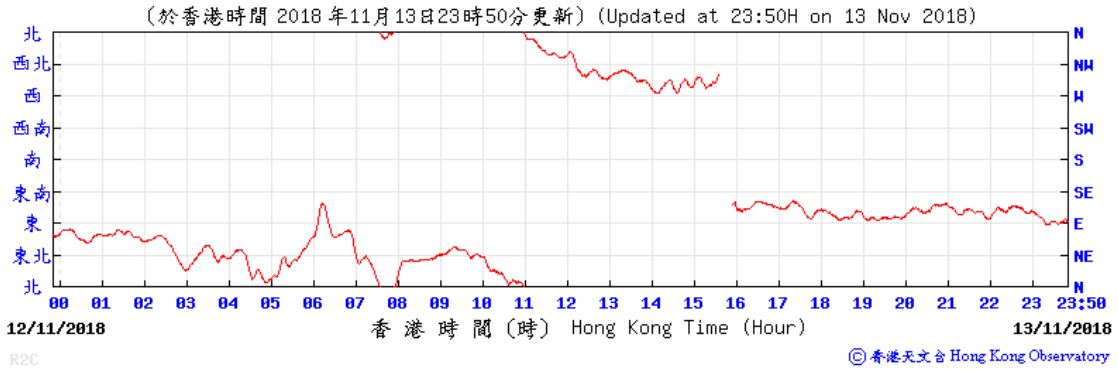
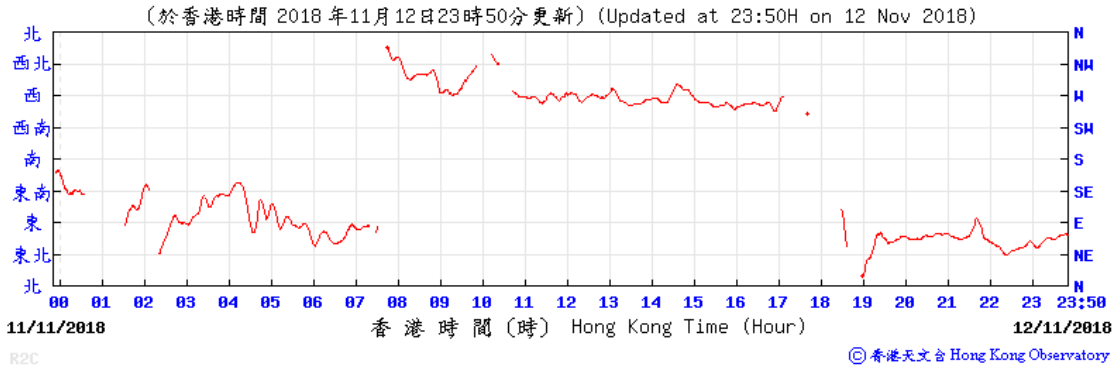
R2C

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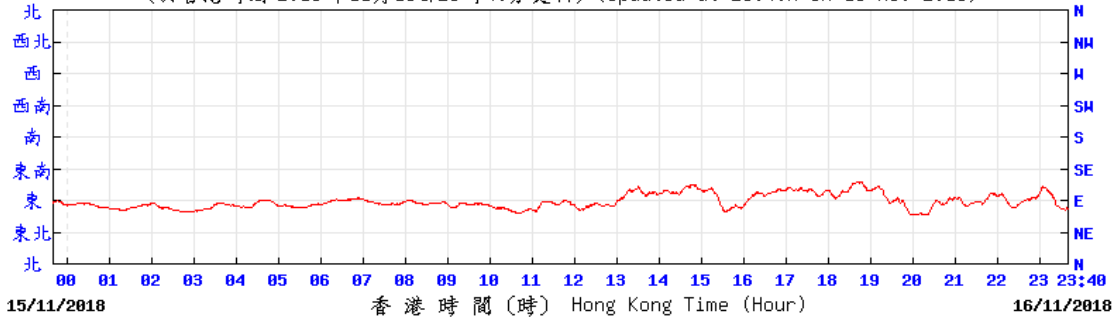
Wind Direction







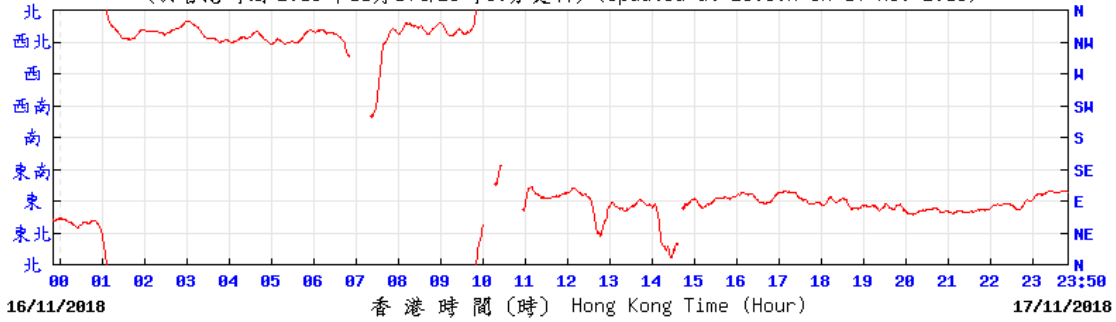
(於香港時間 2018 年11月16日23時40分更新) (Updated at 23:40H on 16 Nov 2018)



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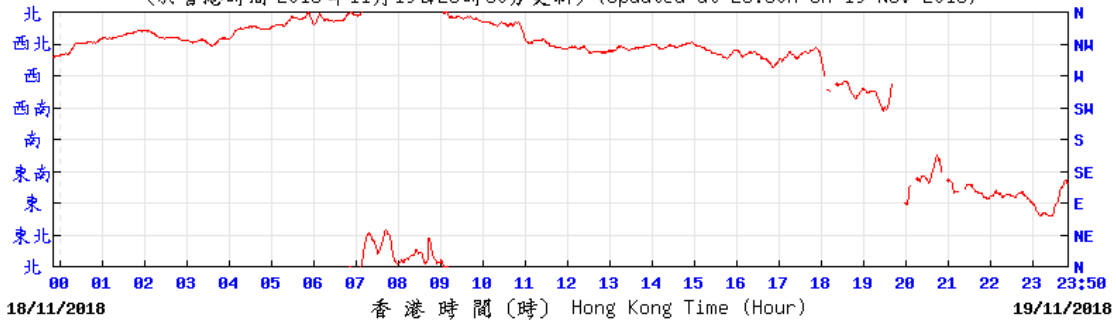
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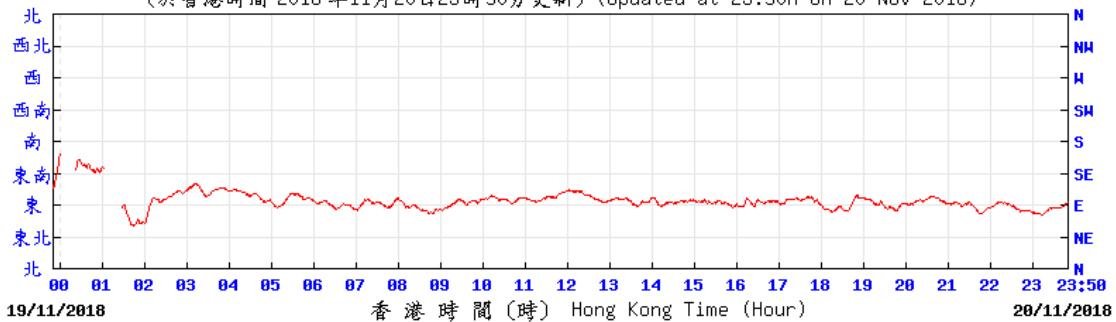
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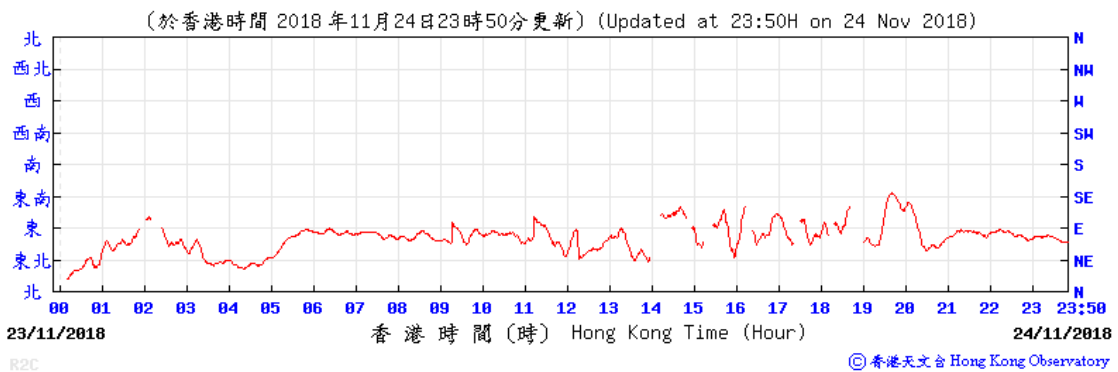
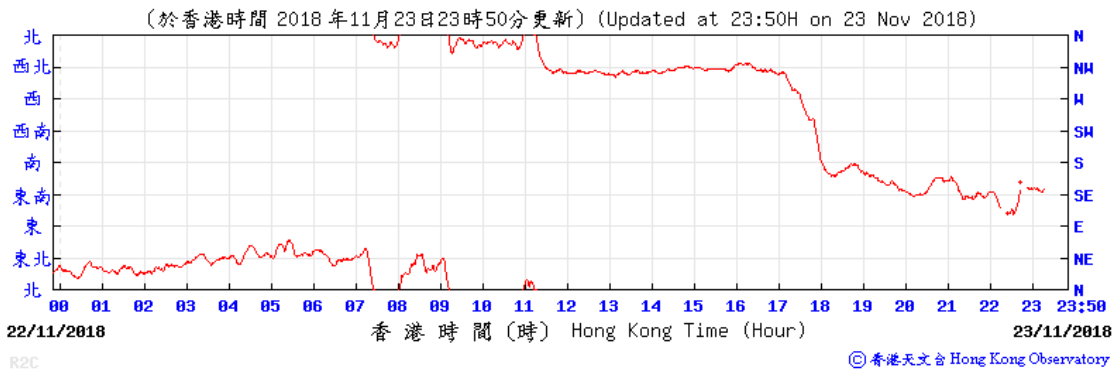
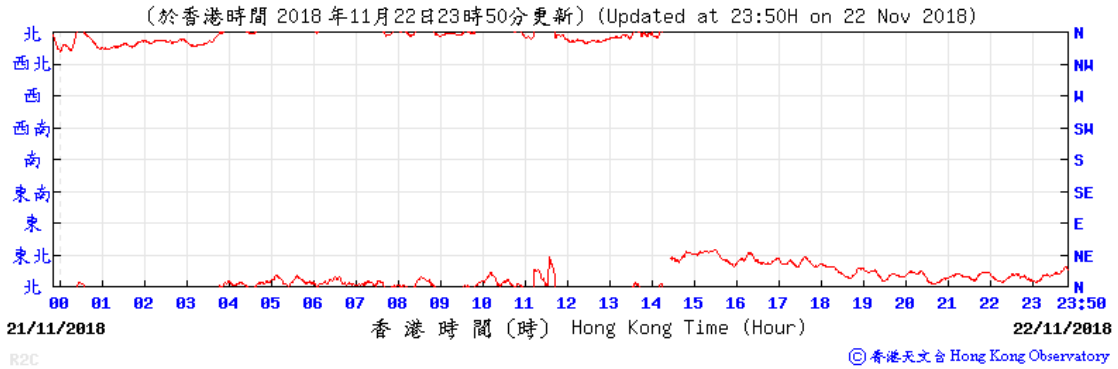
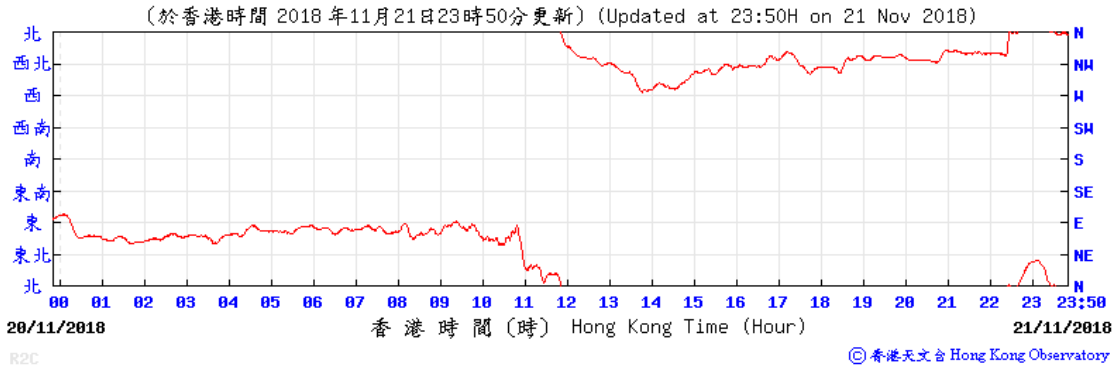
©香港天文台 Hong Kong Observatory

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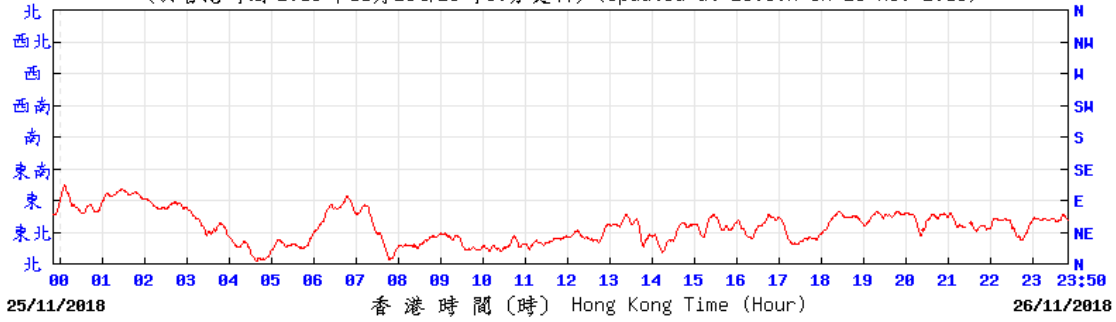


R2C

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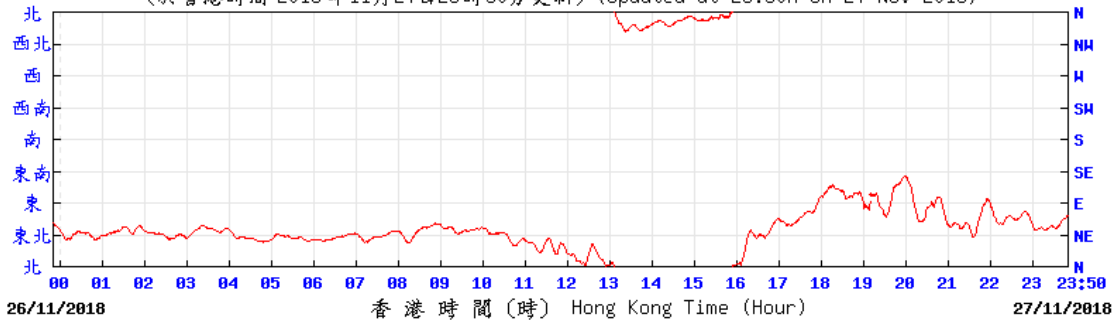
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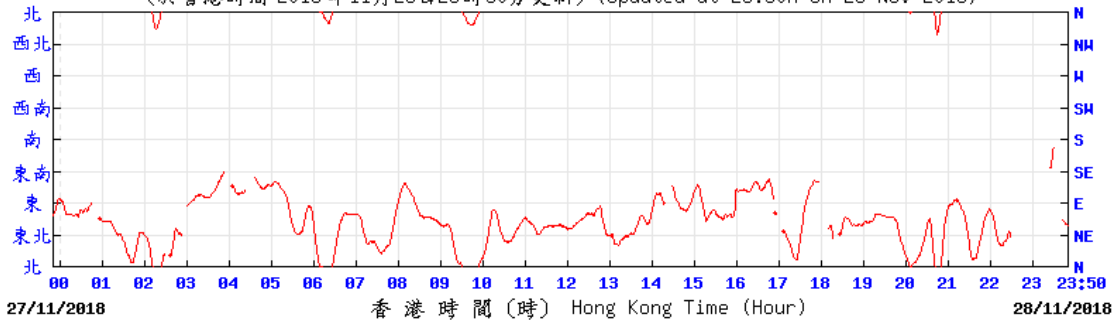
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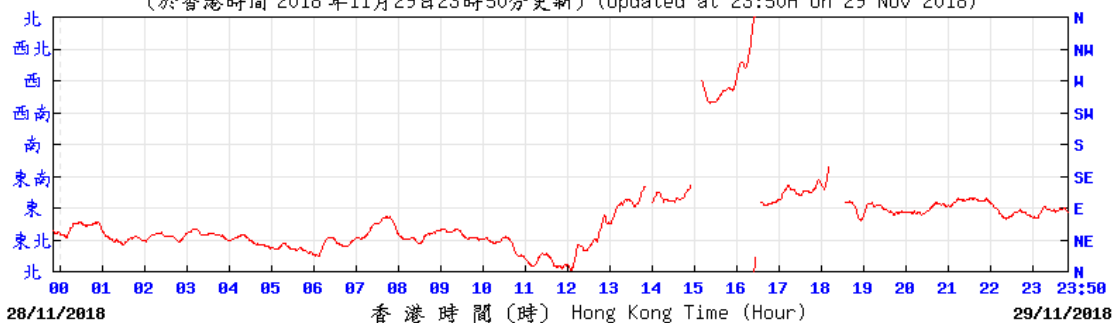
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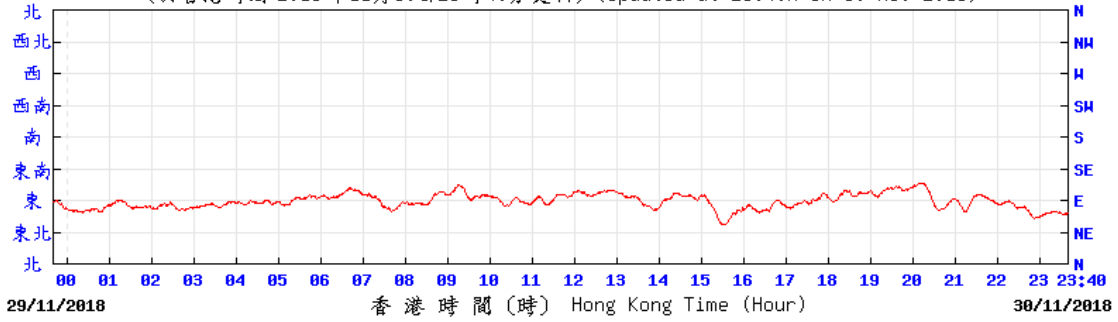
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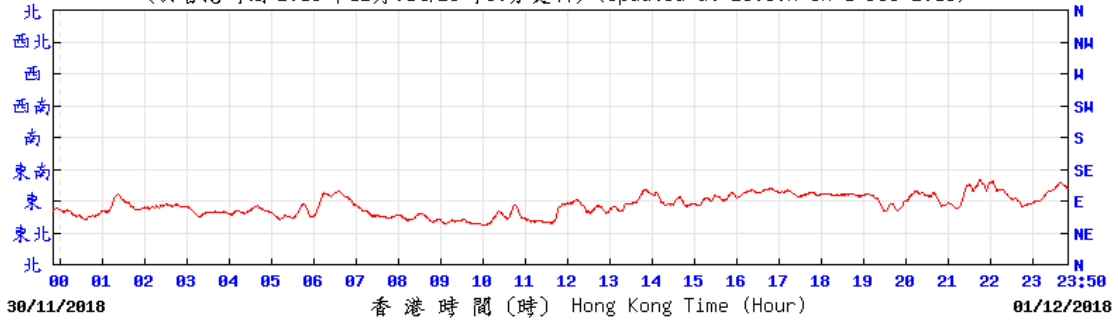
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R2C

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(於香港時間 2018 年12月01日23時50分更新) (Updated at 23:50H on 1 Dec 2018)

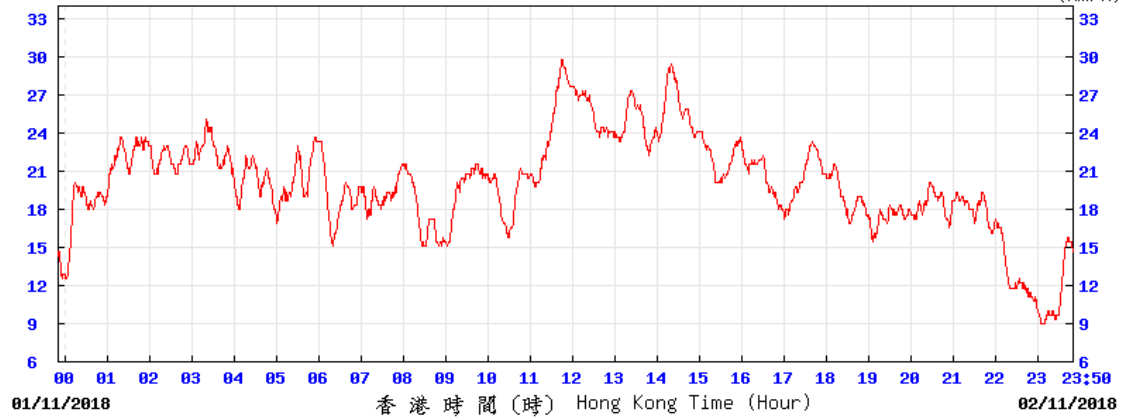


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Wind Speed

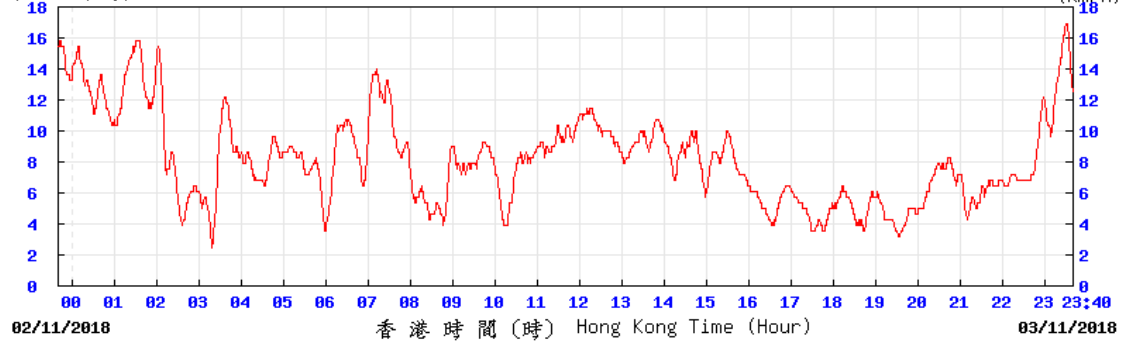
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R2C

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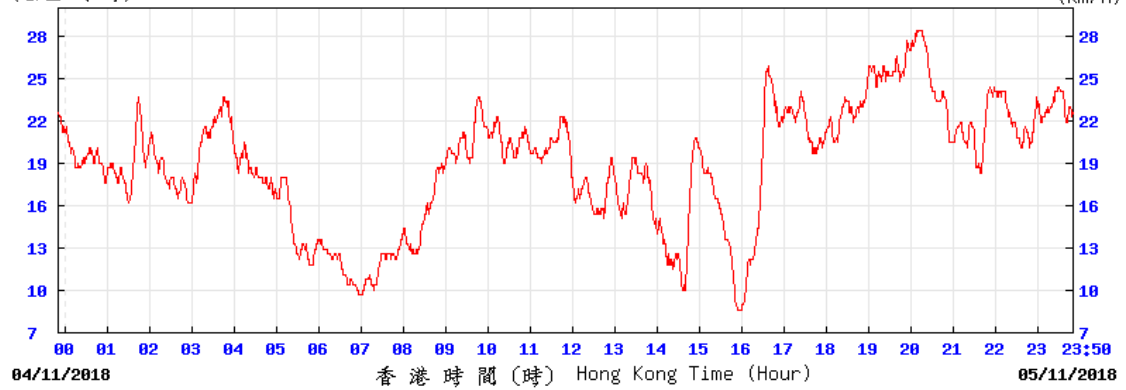
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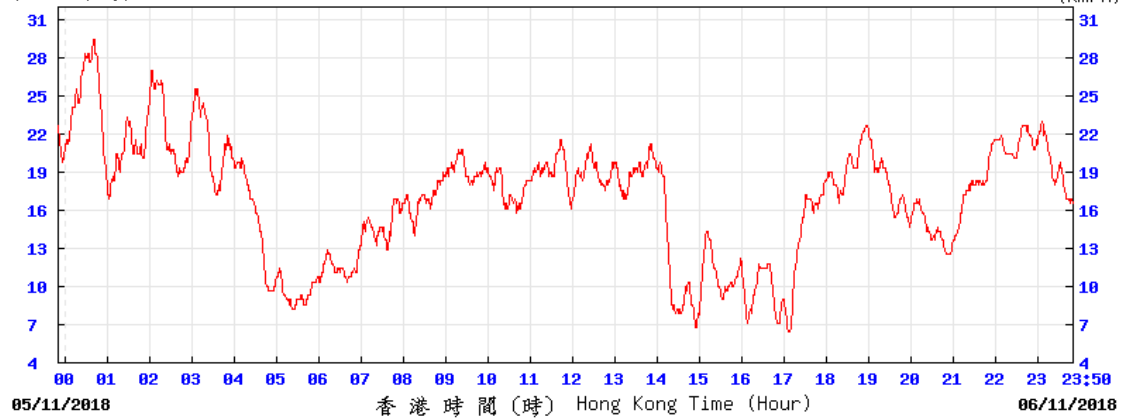
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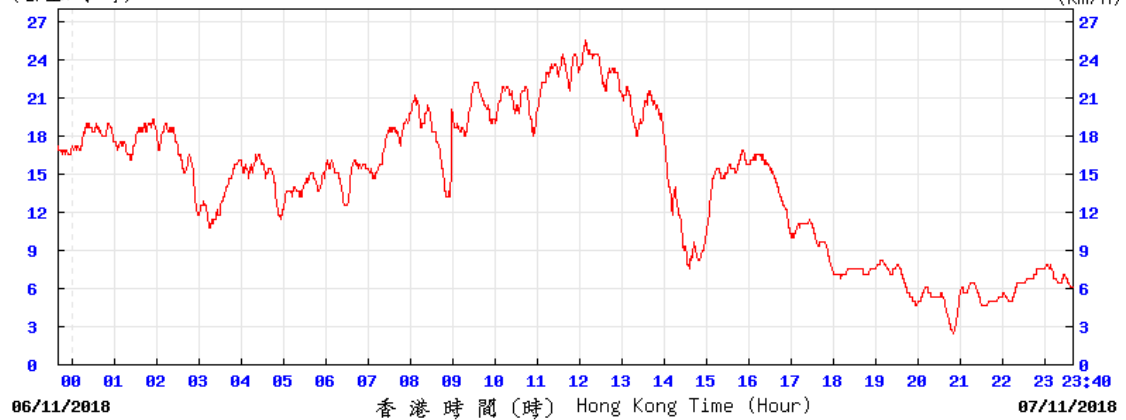
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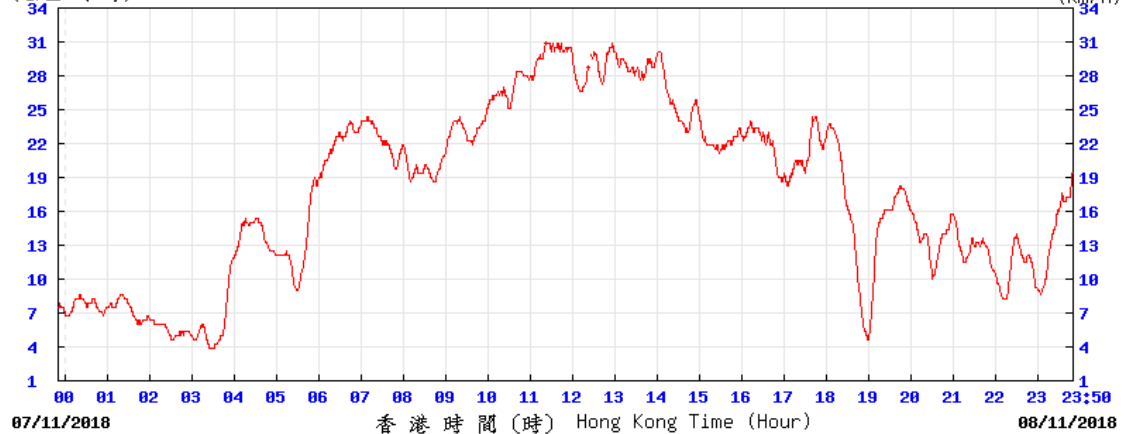
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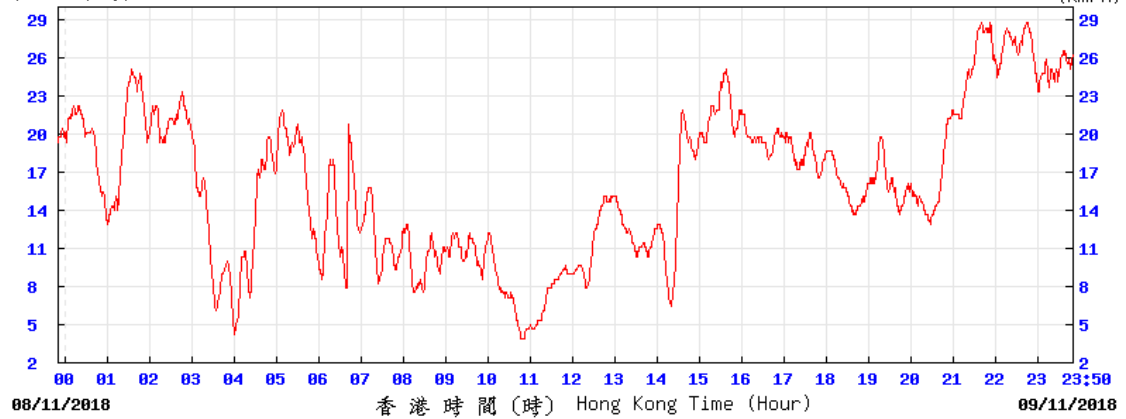
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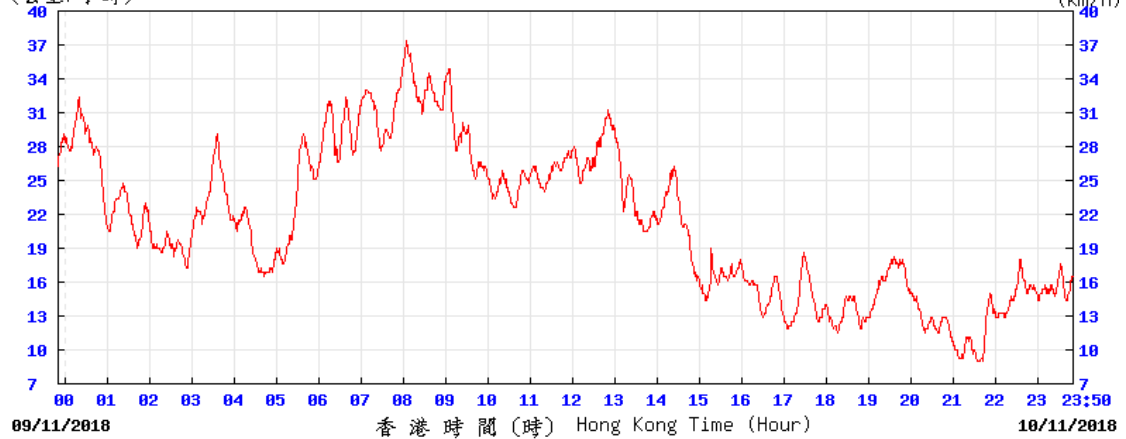
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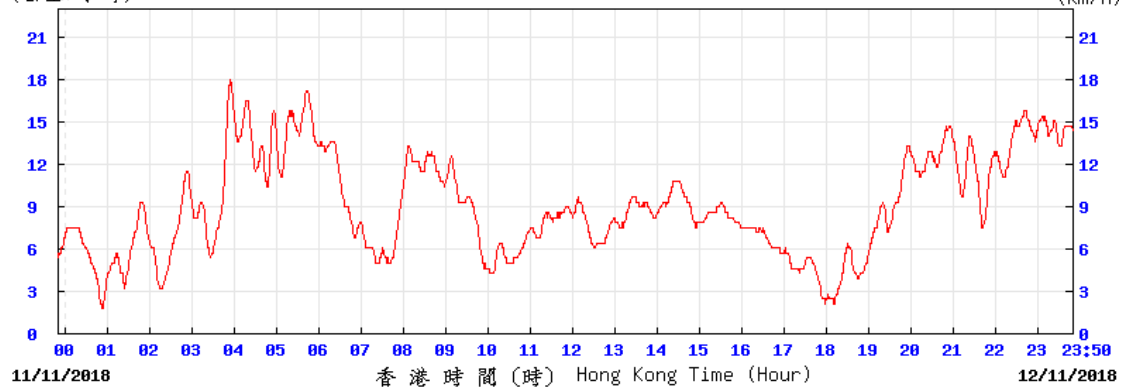
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R2C

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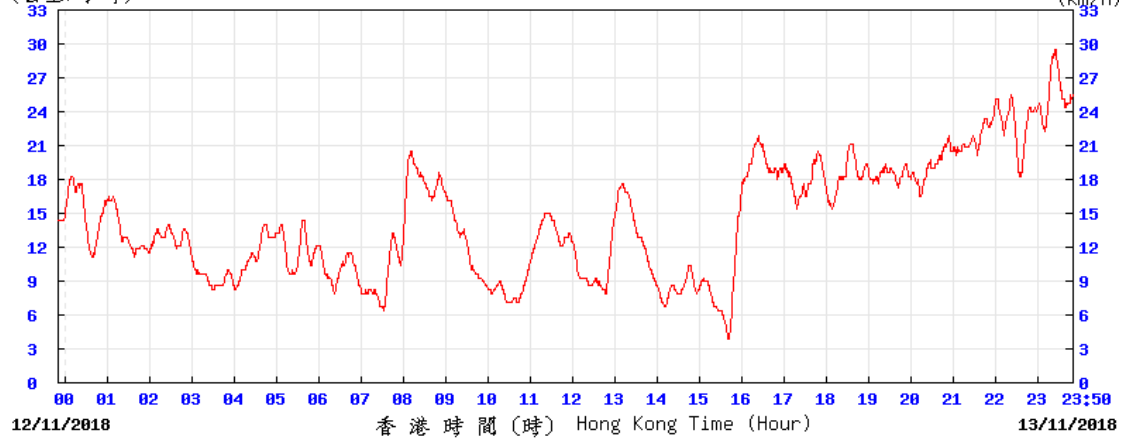
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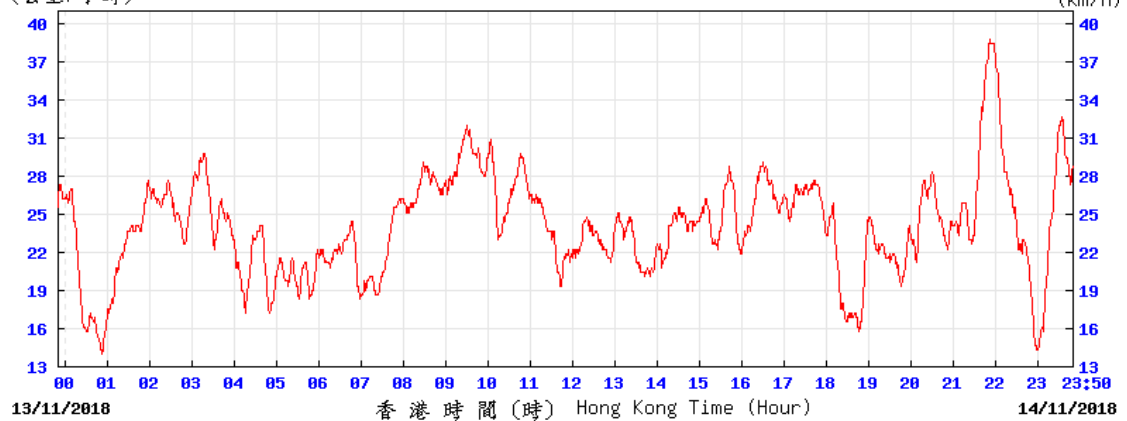
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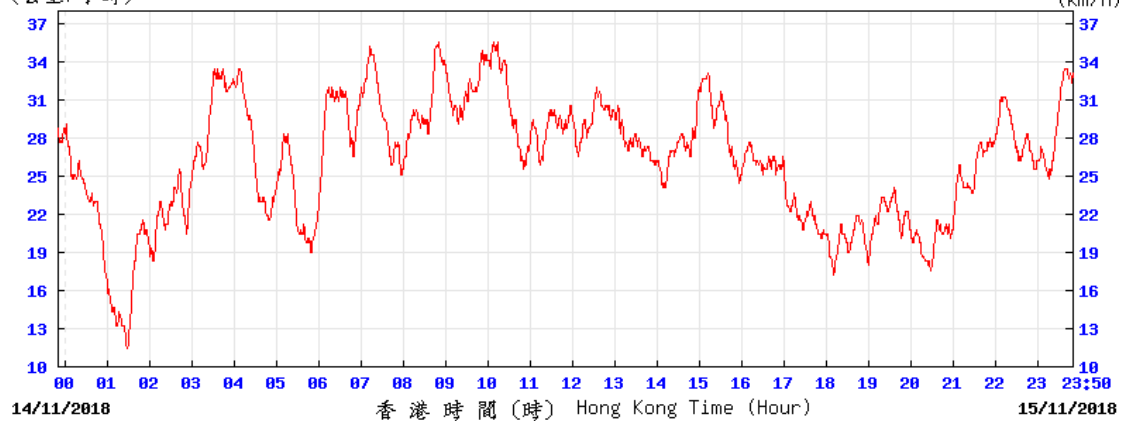
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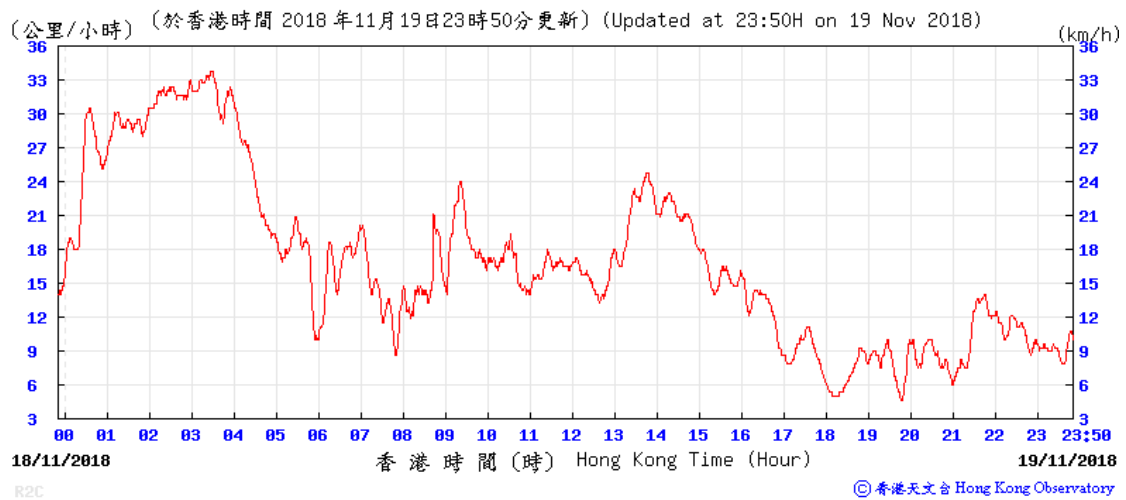
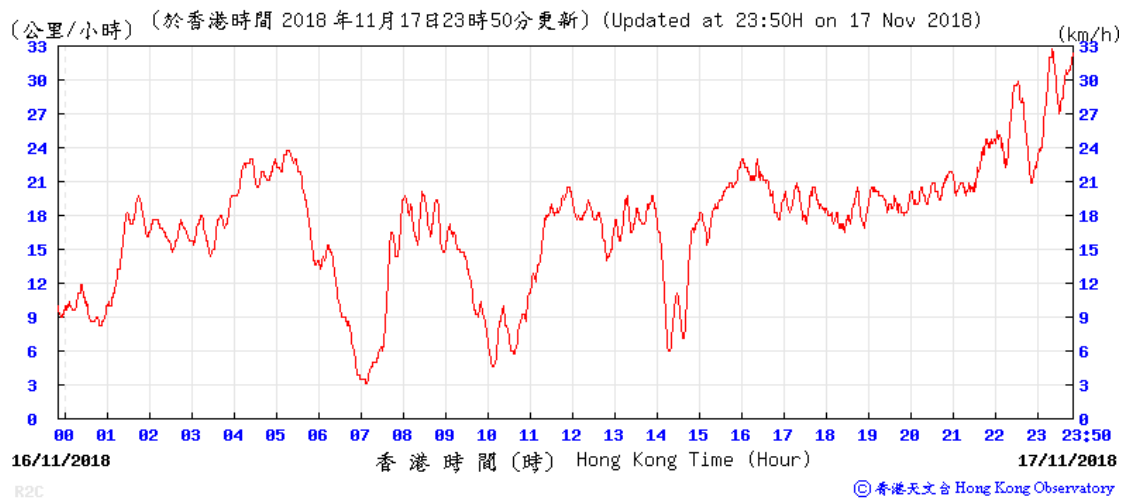
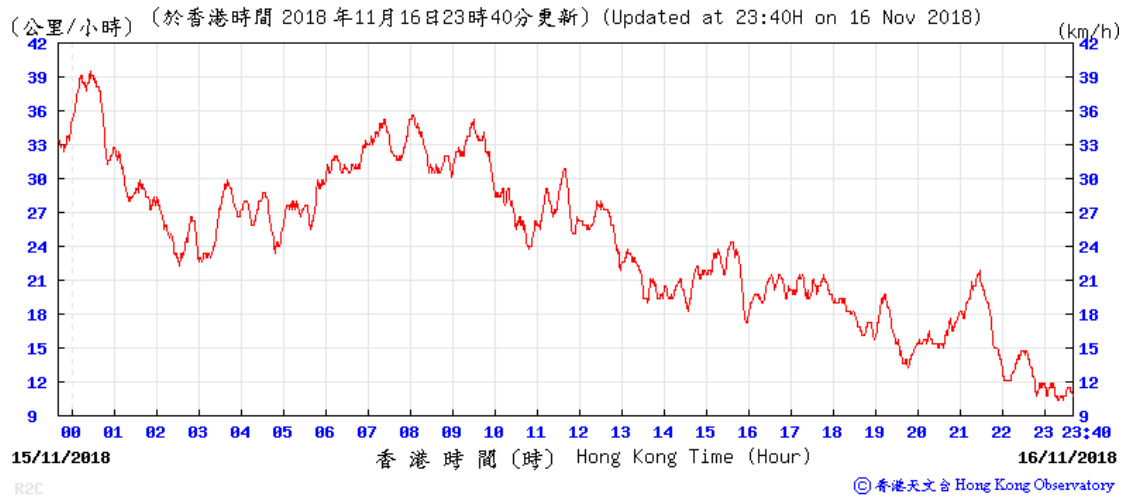
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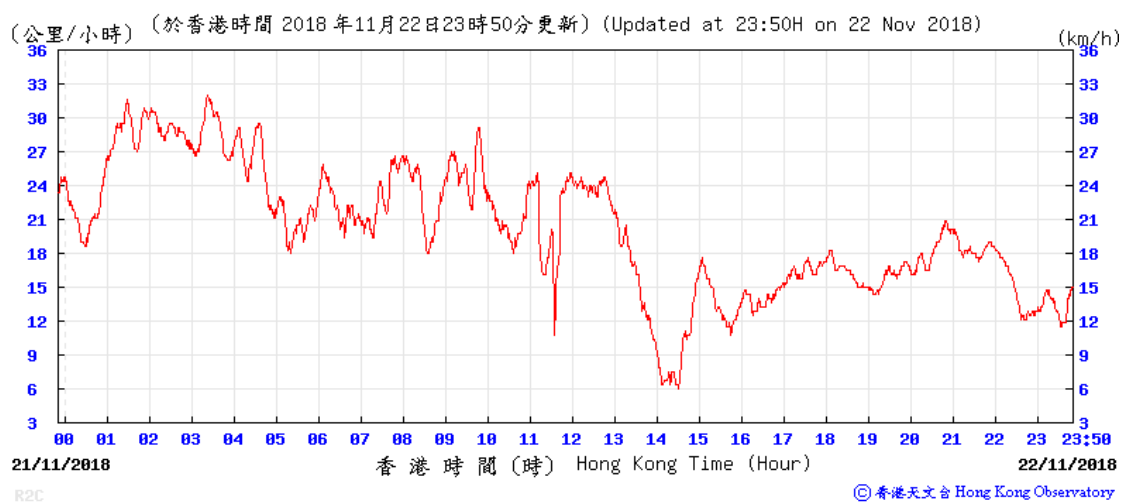
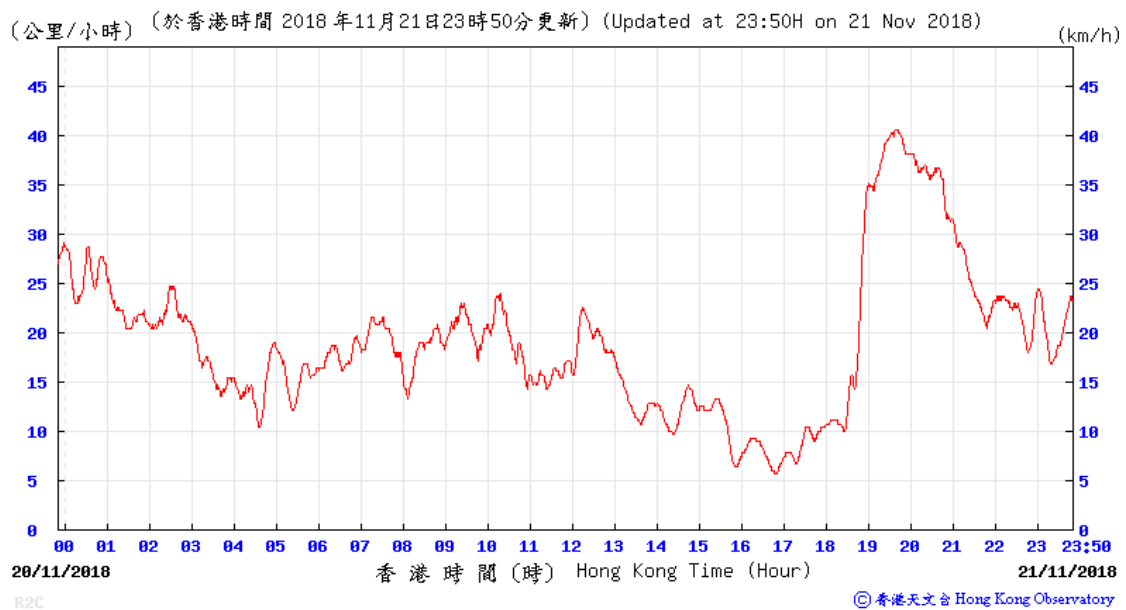
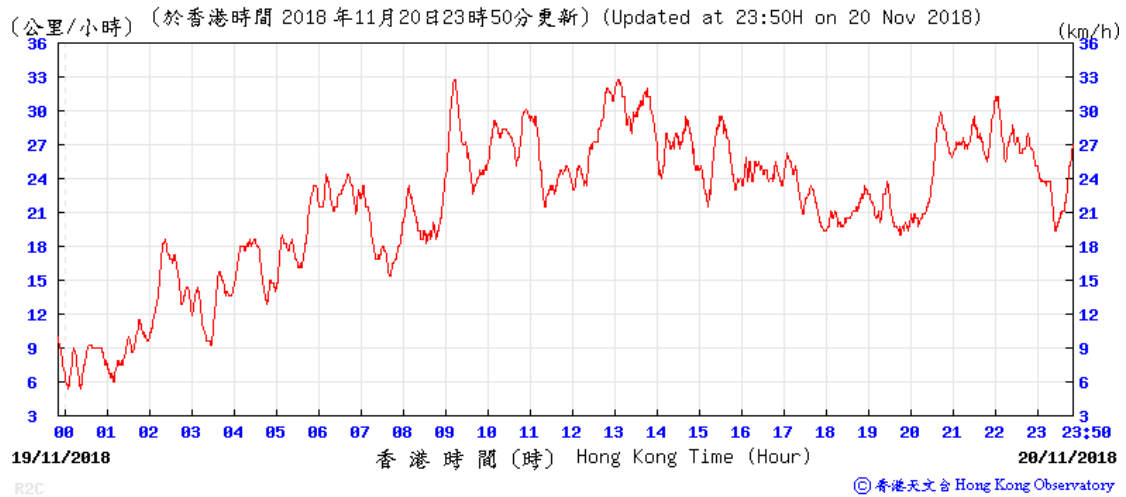
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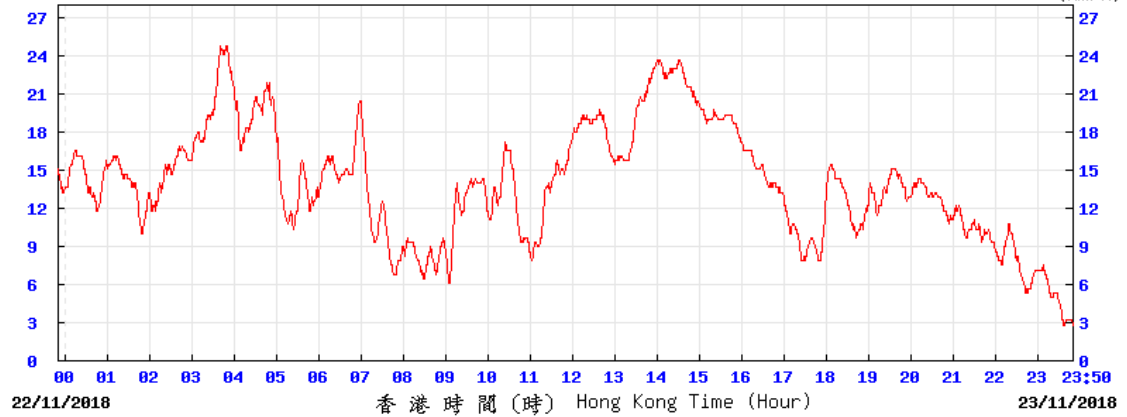
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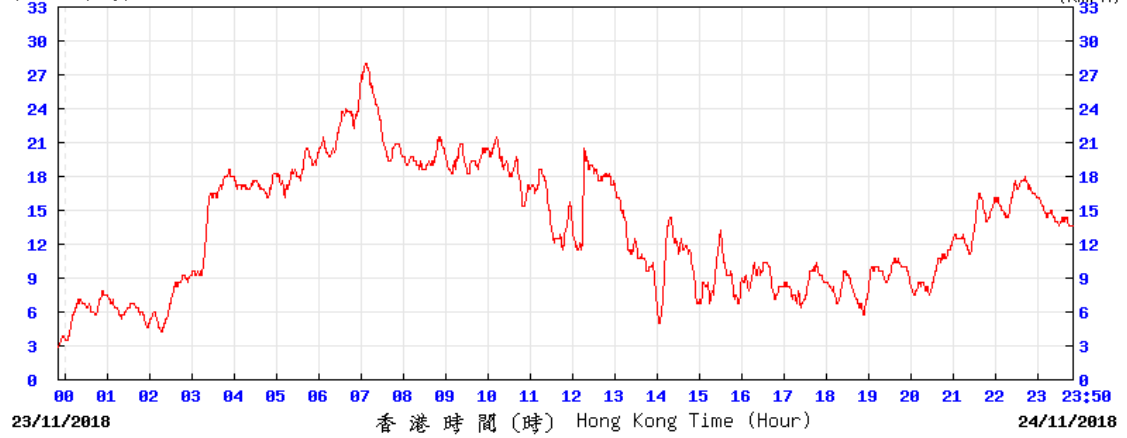


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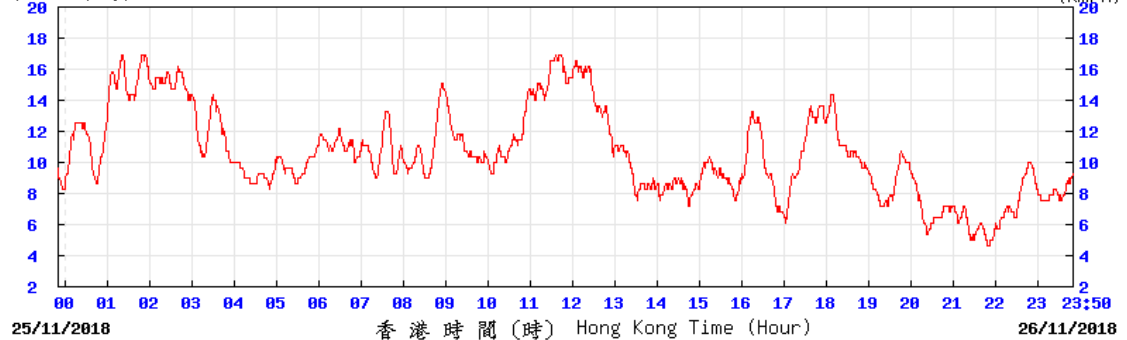
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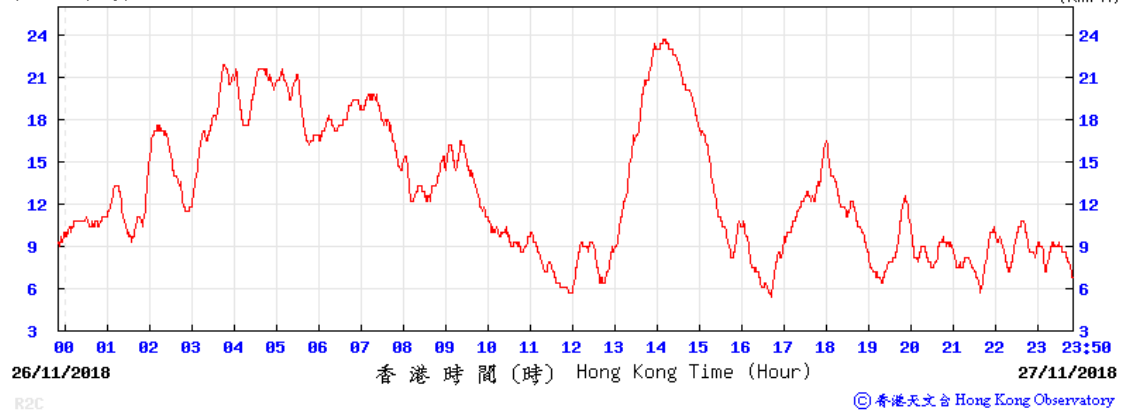
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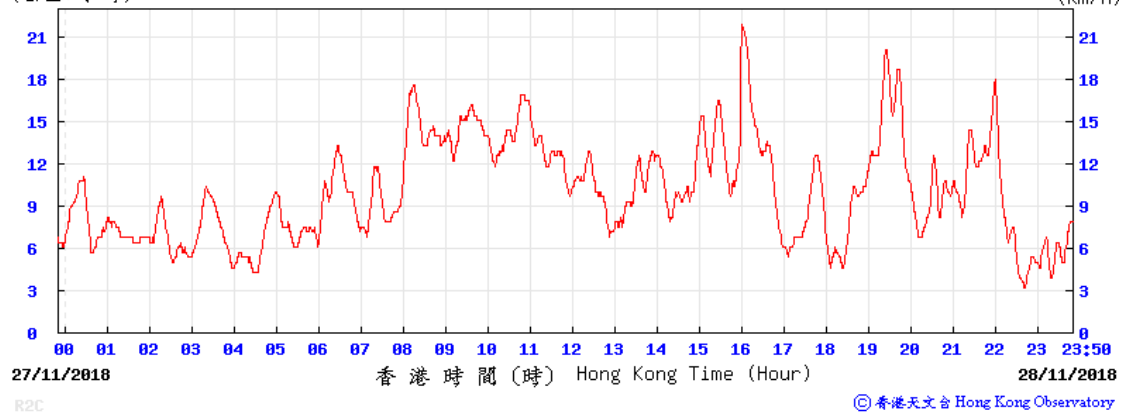


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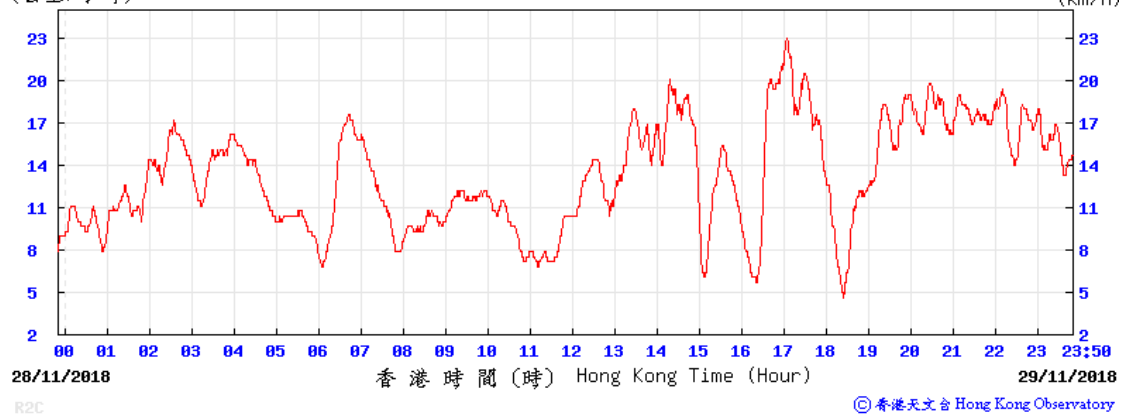
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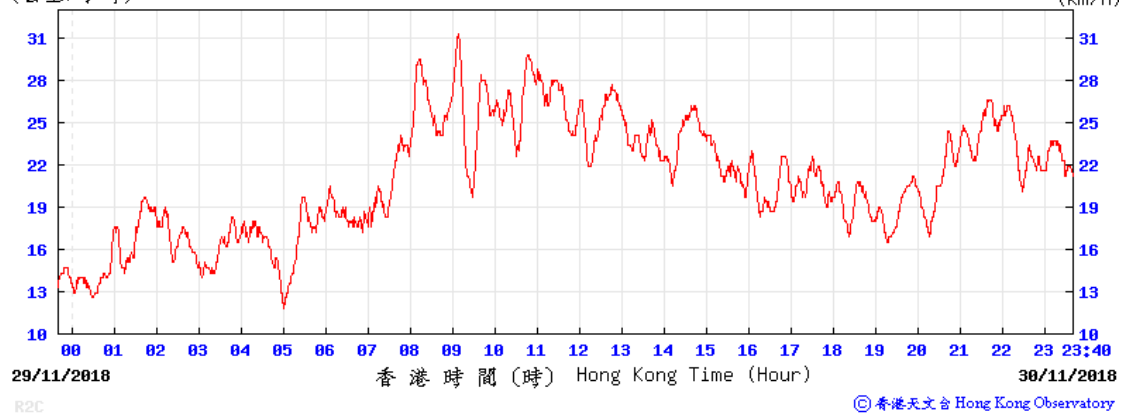
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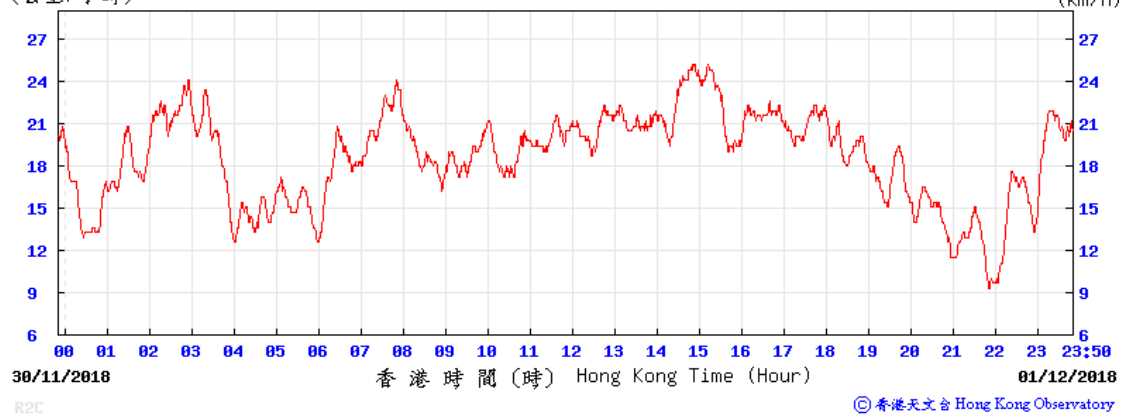
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(公里/小時) (於香港時間 2018 年11月30日23時40分更新) (Updated at 23:40H on 30 Nov 2018) (km/h)



(公里/小時) (於香港時間 2018 年12月 1日23時50分更新) (Updated at 23:50H on 1 Dec 2018) (km/h)



Annex H3

Laboratory Analysis Result



CERTIFICATE OF ANALYSIS

CLIENT:	Oscar Bioenergy Joint Venture	WORK ORDER:	HK1853489
CONTACT:	Mr Edwin Wong	LABORATORY:	Hong Kong
ADDRESS:	No. 5, Sham Fung Road, Siu Ho Wan, North Lantau Island, NT, Hong Kong	SUB-BATCH:	0
		DATE RECEIVED:	5 October 2018
		DATE OF ISSUE:	11 October 2018
PROJECT:	Odour Monitoring for the Organic Resources Recovery Centre Phase 1 in Siu Ho Wan	SAMPLE TYPE:	Air
SITE:	Organic Resources Recovery Centre Phase 1 (ORRC1)	NO OF SAMPLES:	3
PO:	---		

COMMENTS


Air sample(s) were collected by ALS Technichem (HK) staff on 5th October, 2018 at the Organic Resources Recovery Centre Phase 1 (ORRC1) in Siu Ho Wan for Odour Monitoring.

The sample(s) were analysed and reported on an as received basis.

NOTES

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

Results apply to sample(s) as submitted. All pages of this report have been checked and approved for release.


Richard Fung
General Manager - Hong Kong

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METHOD STATEMENT

A. Odour Concentration

1. Odour Sampling

Odour gas sample was collected by passive sampling technique. A Nalophan™ sampling bag was placed inside an air-tight sampler and then drawn to vacuum. Approximately 60 litre of gas sample was collected into the sampling bag for testing.

The odour sample was collected at the Organic Recovery Resources Centre Phase 1 (ORRC1) and sampling location was shown in Appendix A3.

2. Olfactometry Testing

Odour concentration was determined by a Forced-choice Dynamic Olfactometer in accordance with the European Standard Method (EN13725).

This European Standard specifies a method for the objective determination of the odour concentration of a gaseous sample using dynamic olfactometry with human assessors and the emission rate of odours emanating from point sources, area sources with outward flow and area sources without outward flow.

This European Standard is applicable to the measurement of odour concentration of pure substances, defined mixtures and undefined mixtures of gaseous odorants in air or nitrogen, using dynamic olfactometry with a panel of human assessors being the sensor.

The unit of measurement is the odour unit per cubic metre: OU_E/m^3 . The odour concentration is measured by determining the dilution factor required to reach the detection threshold. The odour concentration at the detection threshold is by definition 1 OU_E/m^3 . The odour concentration is then expressed in terms of multiples of the detection threshold. The range of measurement including pre-dilution prior to the olfactometry analysis is typically from 10^1 OU_E/m^3 to 10^7 OU_E/m^3 .

Olfactometry Testing was performed by using the Scentroid™ SS600 Olfactometer. The testing was performed by at least five qualified panellists who have been selected through an n-butanol screening test.

All testing finished within 24 hours after sample receipt.



RESULT

1. Odour Concentration

Sample ID	Location	Sampling Date	Sampling Time	LOR (OU _e /Nm ³)	Odour Concentration (OU _e /Nm ³)	Characteristics of the odour detected of the gas sample	Volumetric Flow Rate (Nm ³ /min)	Emission rate (OU _e /hr)
HK1853489-001	CAPC Unit	5-Oct-18	11:05 - 11:10	11	1204	Smell of Garbage	1295	93,550,000
HK1853489-002	CAPC Unit	5-Oct-18	11:11 - 11:18	11	1087	Smell of Garbage	1295	84,460,000
HK1853489-003	Field Blank	5-Oct-18	--	11	<11	--	--	--

Remark:

1. LOR denotes limit of reporting.
2. The collected sample volume of the gas bag is sufficient for olfactometry analysis.
3. Field Blank containing pure nitrogen gas was collected and filled by ALS staff on site.
4. The volumetric flow rate value for calculation of the emission rate was provided by the client.



APPENDIX 1

A1. SITE CONDITIONS AND OBSERVATION

Location	Date	Time	Ambient Temperature (°C)	Relative Humidity (%)	Ambient Pressure (hPa)	Wind Speed (m/s)	Wind Direction (Degree)	Direction from Source ¹	Duration of Odour	On-Site Observation		Weather Condition
										Odour Nature	Possible Source	
CAPC Unit	5-10-18	11:05 -11:11	28.0	41.1	1010.9	1.3	306	NA	NA	No odour was smelled.	NA	Sunny

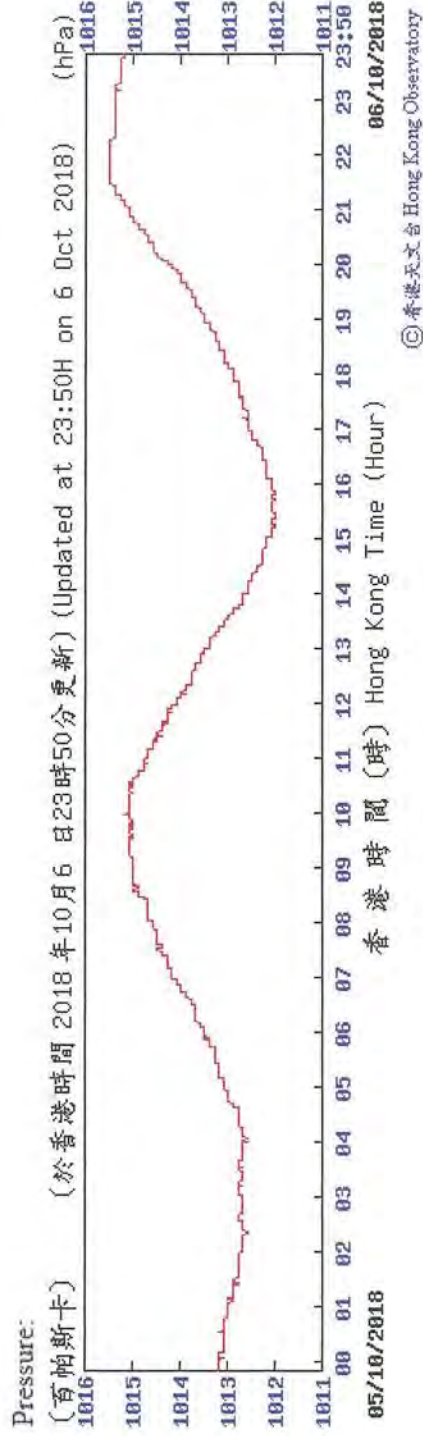
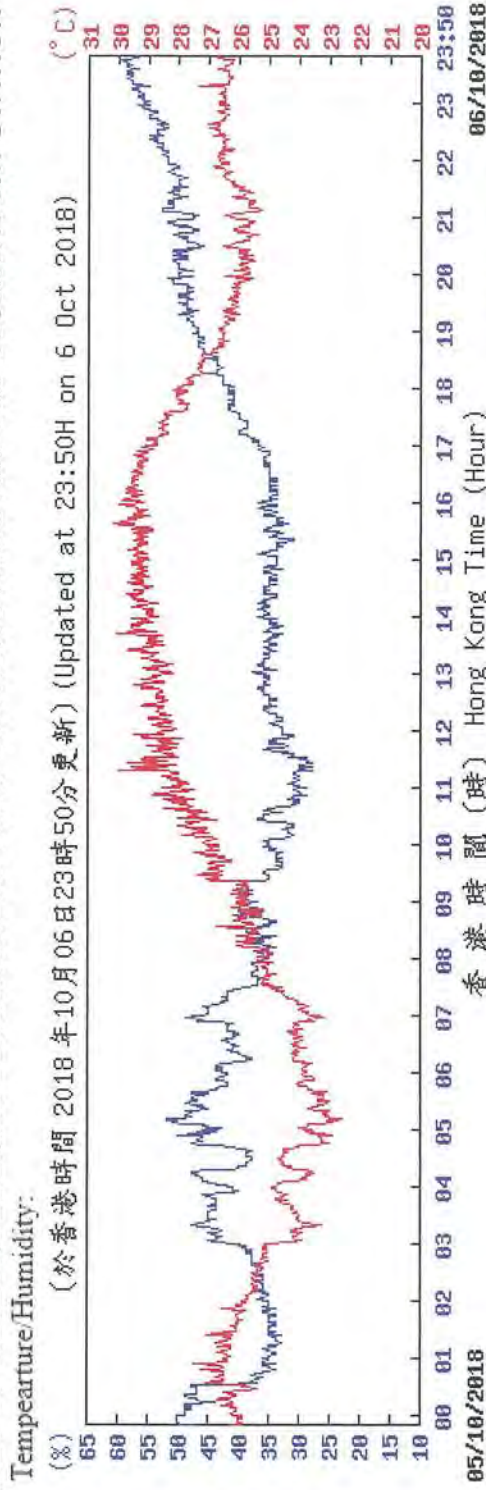
Note:

1. It was assumed that the exhaust of the CAPC Unit was from the odour source.



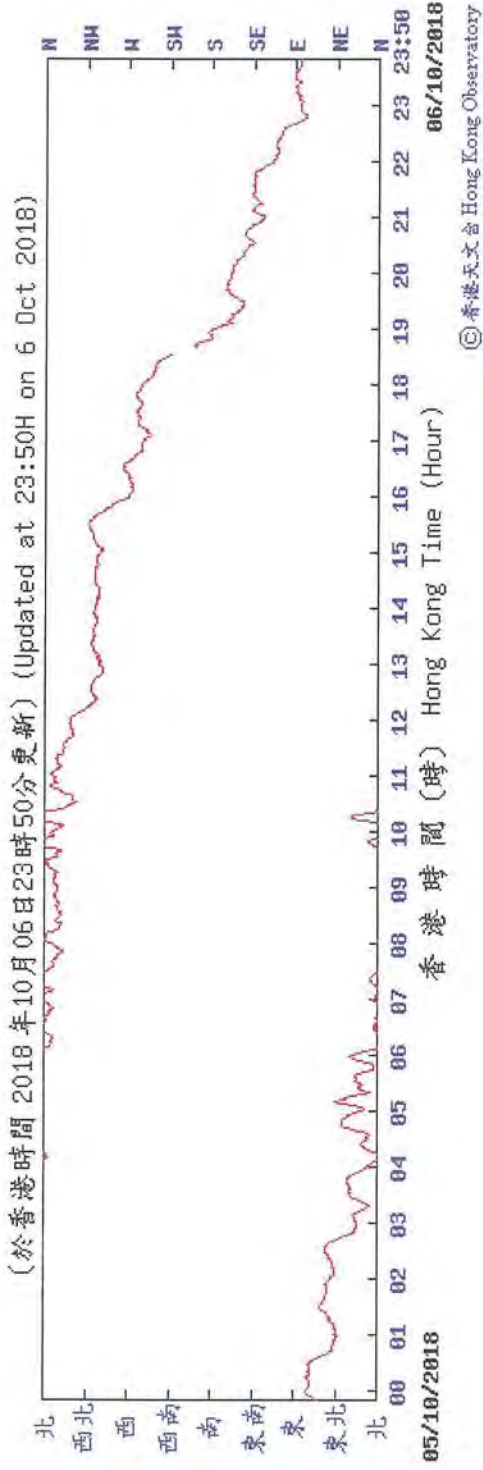
APPENDIX 2

A2. EXTRACT OF METEOROLOGICAL OBSERVATIONS FROM THE HONG KONG AIRPORT OBSERVATORY STATION

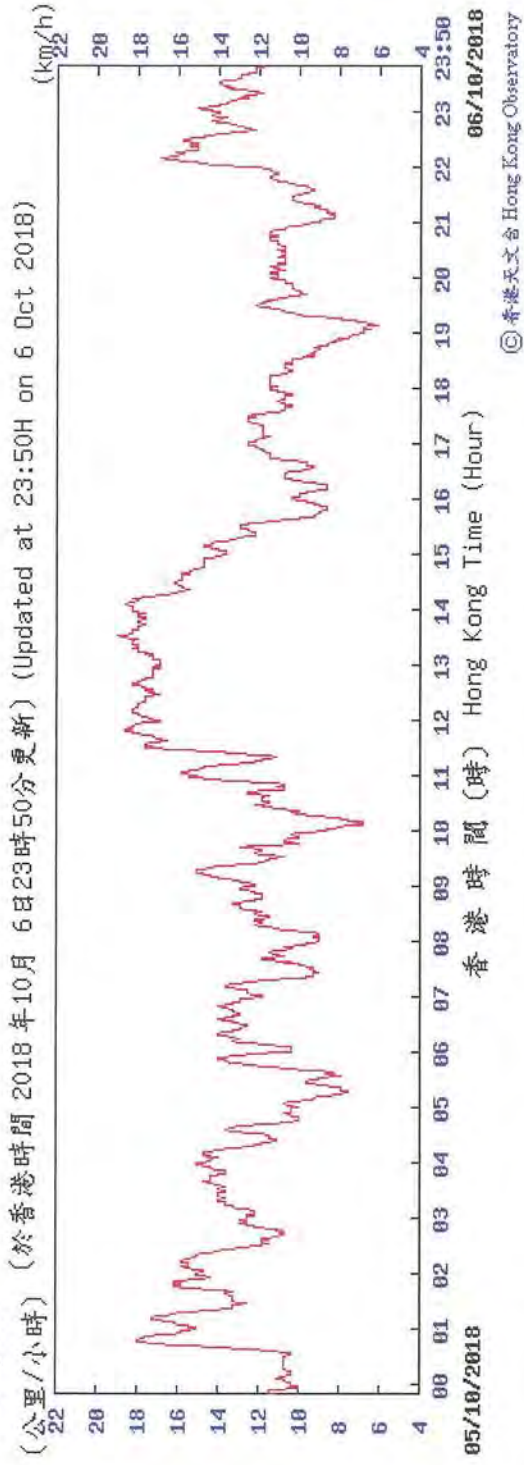




Wind Direction:



Wind Speed:



APPENDIX 3

A3. PHOTO OF THE SAMPLING LOCATION





CERTIFICATE OF ANALYSIS

CLIENT:	Oscar Bioenergy Joint Venture	WORK ORDER:	HK1854516
CONTACT:	Mr Edwin Wong	LABORATORY:	Hong Kong
ADDRESS:	No. 5, Sham Fung Road, Siu Ho Wan, North Lantau Island, NT, Hong Kong	SUB-BATCH:	0
		DATE RECEIVED:	12 October 2018
		DATE OF ISSUE:	18 October 2018
PROJECT:	Odour Monitoring for the Organic Resources Recovery Centre Phase 1 in Siu Ho Wan	SAMPLE TYPE:	Air
SITE:	Organic Resources Recovery Centre Phase 1 (ORRC1)	NO OF SAMPLES:	3
PO:	---		

COMMENTS

Air sample(s) were collected by ALS Technichem (HK) staff on 12th October, 2018 at the Organic Resources Recovery Centre Phase 1 (ORRC1) in Siu Ho Wan for Odour Monitoring.

The sample(s) were analysed and reported on an as received basis.

NOTES

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

Results apply to sample(s) as submitted. All pages of this report have been checked and approved for release.


Richard Fung
General Manager - Hong Kong

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METHOD STATEMENT

A. Odour Concentration

1. Odour Sampling

Odour gas sample was collected by passive sampling technique. A Nalophan™ sampling bag was placed inside an air-tight sampler and then drawn to vacuum. Approximately 60 litre of gas sample was collected into the sampling bag for testing.

The odour sample was collected at the Organic Recovery Resources Centre Phase 1 (ORRC1) and sampling location was shown in Appendix A3.

2. Olfactometry Testing

Odour concentration was determined by a Forced-choice Dynamic Olfactometer in accordance with the European Standard Method (EN13725).

This European Standard specifies a method for the objective determination of the odour concentration of a gaseous sample using dynamic olfactometry with human assessors and the emission rate of odours emanating from point sources, area sources with outward flow and area sources without outward flow.

This European Standard is applicable to the measurement of odour concentration of pure substances, defined mixtures and undefined mixtures of gaseous odorants in air or nitrogen, using dynamic olfactometry with a panel of human assessors being the sensor.

The unit of measurement is the odour unit per cubic metre: OU_E/m^3 . The odour concentration is measured by determining the dilution factor required to reach the detection threshold. The odour concentration at the detection threshold is by definition 1 OU_E/m^3 . The odour concentration is then expressed in terms of multiples of the detection threshold. The range of measurement including pre-dilution prior to the olfactometry analysis is typically from 10^1 OU_E/m^3 to 10^7 OU_E/m^3 .

Olfactometry Testing was performed by using the Scentroid™ SS600 Olfactometer. The testing was performed by at least five qualified panellists who have been selected through an n-butanol screening test.

All testing finished within 24 hours after sample receipt.



RESULT

1. Odour Concentration

Sample ID	Location	Sampling Date	Sampling Time	LOR (OU _e /Nm ³)	Odour Concentration (OU _e /Nm ³)	Characteristics of the odour detected of the gas sample	Volumetric Flow Rate (Nm ³ /min)	Emission rate (OU _e /hr)
HK1854516-001	CAPC Unit	12-Oct-18	15:08 – 15:12	11	2107	Smell of Garbage	1820	230,000,000
HK1854516-002	CAPC Unit	12-Oct-18	15:12 – 15:16	11	2463	Smell of Garbage	1820	269,000,000
HK1854516-003	Field Blank	12-Oct-18	--	11	<11	--	--	--

Remark:

- 1. LOR denotes limit of reporting.
- 2. The collected sample volume of the gas bag is sufficient for olfactometry analysis.
- 3. Field Blank containing pure nitrogen gas was collected and filled by ALS staff.
- 4. The volumetric flow rate value for calculation of the emission rate was provided by the client.



APPENDIX 1

A1. SITE CONDITIONS AND OBSERVATION

Location	Date	Time	Ambient Temperature (°C)	Relative Humidity (%)	Ambient Pressure (hPa)	Wind Speed (m/s)	Wind Direction (Degree)	Direction from Source ¹	Duration of Odour	On-Site Observation		Weather Condition
										Odour Nature	Possible Source	
CAPC Unit	12-10-18	15:08 -15:16	25.2	62.1	1012.7	2.0	109	NA	NA	No odour was smelled.	NA	Sunny

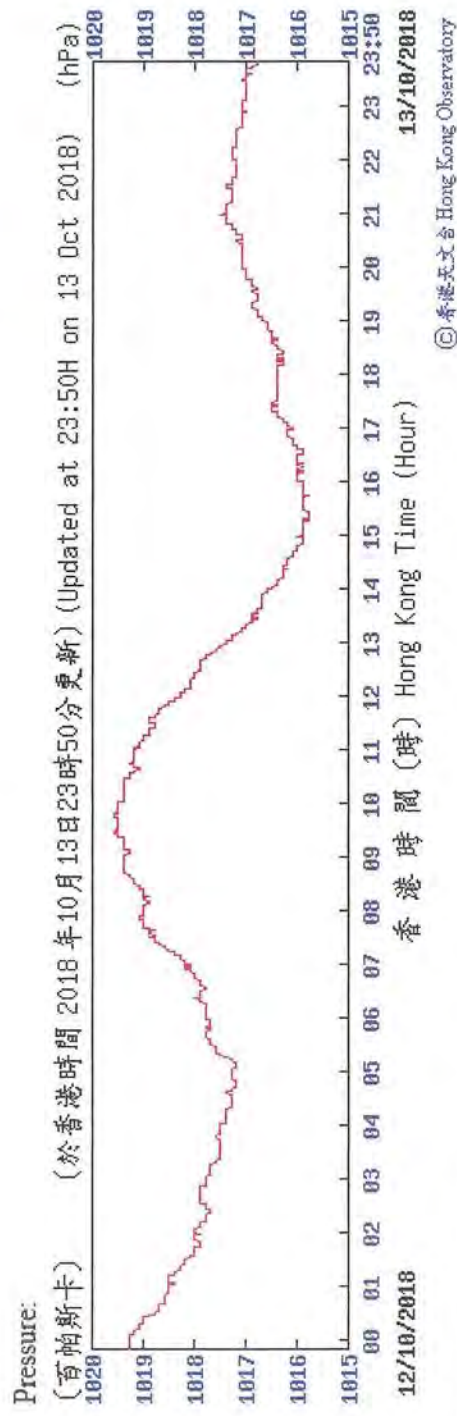
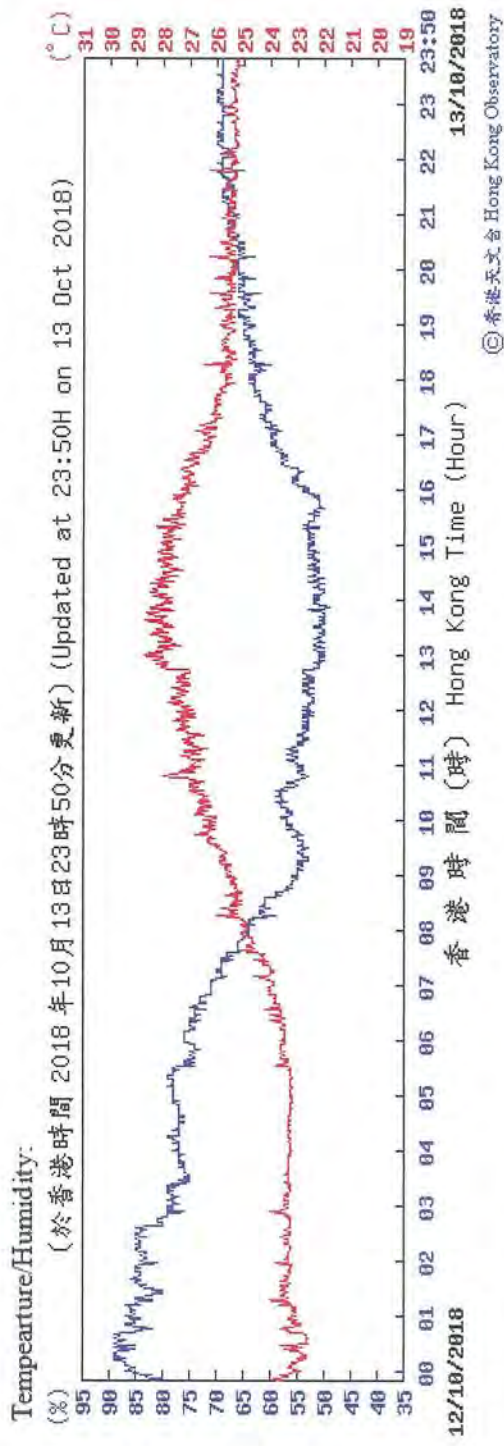
Note:

1. It was assumed that the exhaust of the CAPC Unit was from the odour source.



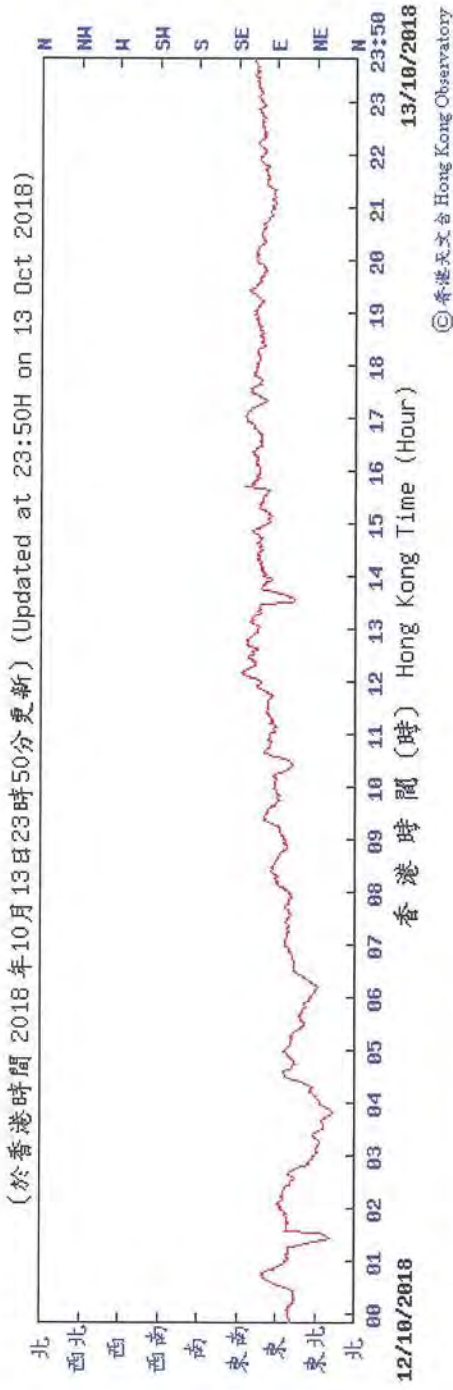
APPENDIX 2

A2. EXTRACT OF METEOROLOGICAL OBSERVATIONS FROM THE HONG KONG AIRPORT OBSERVATORY STATION

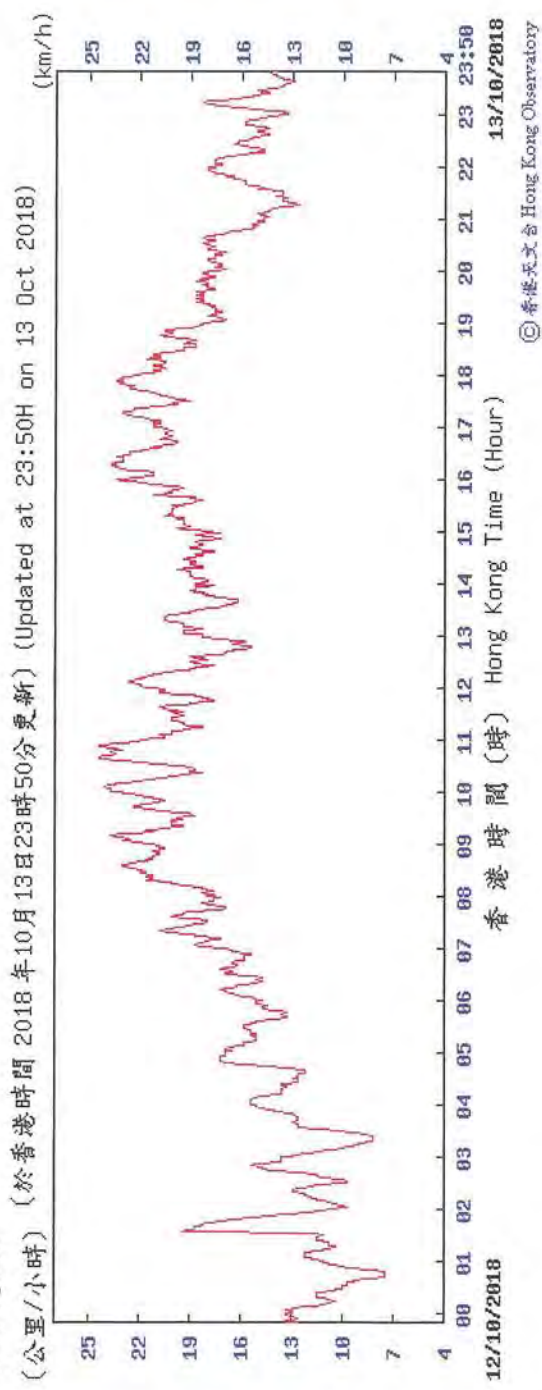




Wind Direction:



Wind Speed:



APPENDIX 3

A3. PHOTO OF THE SAMPLING LOCATION





CERTIFICATE OF ANALYSIS

CLIENT:	Oscar Bioenergy Joint Venture	WORK ORDER:	HK1855605
CONTACT:	Mr Edwin Wong	LABORATORY:	Hong Kong
ADDRESS:	No. 5, Sham Fung Road, Siu Ho Wan, North Lantau Island, NT, Hong Kong	SUB-BATCH:	0
		DATE RECEIVED:	19 October 2018
		DATE OF ISSUE:	29 October 2018
PROJECT:	Odour Monitoring for the Organic Resources Recovery Centre Phase 1 in Siu Ho Wan	SAMPLE TYPE:	Air
SITE:	Organic Resources Recovery Centre Phase 1 (ORRC1)	NO OF SAMPLES:	3
PO:	---		

COMMENTS


Air sample(s) were collected by ALS Technichem (HK) staff on 19th October, 2018 at the Organic Resources Recovery Centre Phase 1 (ORRC1) in Siu Ho Wan for Odour Monitoring.

The sample(s) were analysed and reported on an as received basis.

NOTES

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

Results apply to sample(s) as submitted. All pages of this report have been checked and approved for release.


Richard Fung
General Manager, Hong Kong

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METHOD STATEMENT

A. Odour Concentration

1. Odour Sampling

Odour gas sample was collected by passive sampling technique. A Nalophan™ sampling bag was placed inside an air-tight sampler and then drawn to vacuum. Approximately 60 litre of gas sample was collected into the sampling bag for testing.

The odour sample was collected at the Organic Recovery Resources Centre Phase 1 (ORRC1) and sampling location was shown in Appendix A3.

2. Olfactometry Testing

Odour concentration was determined by a Forced-choice Dynamic Olfactometer in accordance with the European Standard Method (EN13725).

This European Standard specifies a method for the objective determination of the odour concentration of a gaseous sample using dynamic olfactometry with human assessors and the emission rate of odours emanating from point sources, area sources with outward flow and area sources without outward flow.

This European Standard is applicable to the measurement of odour concentration of pure substances, defined mixtures and undefined mixtures of gaseous odorants in air or nitrogen, using dynamic olfactometry with a panel of human assessors being the sensor.

The unit of measurement is the odour unit per cubic metre: OU_E/m^3 . The odour concentration is measured by determining the dilution factor required to reach the detection threshold. The odour concentration at the detection threshold is by definition 1 OU_E/m^3 . The odour concentration is then expressed in terms of multiples of the detection threshold. The range of measurement including pre-dilution prior to the olfactometry analysis is typically from 10^1 OU_E/m^3 to 10^7 OU_E/m^3 .

Olfactometry Testing was performed by using the Scentroid™ SS600 Olfactometer. The testing was performed by at least five qualified panellists who have been selected through an n-butanol screening test.

All testing finished within 24 hours after sample receipt.



RESULT

1. Odour Concentration

Sample ID	Location	Sampling Date	Sampling Time	LOR (OU _e /Nm ³)	Odour Concentration (OU _e /Nm ³)	Characteristics of the odour detected of the gas sample	Volumetric Flow Rate (Nm ³ /min)	Emission rate (OU _e /hr)
HK1855605-001	CAPC Unit	19-Oct-18	11:01 – 11:05	11	2273	Smell of Garbage	1250	170,000,000
HK1855605-002	CAPC Unit	19-Oct-18	11:06 – 11:09	11	2273	Smell of Garbage	1250	170,000,000
HK1855605-003	Field Blank	19-Oct-18	--	11	<11	--	--	--

Remark:

1. LOR denotes limit of reporting.
2. The collected sample volume of the gas bag is sufficient for olfactometry analysis.
3. Field Blank containing pure nitrogen gas was collected and filled by ALS staff.
4. The volumetric flow rate value for calculation of the emission rate was provided by the client.



APPENDIX 1

A1. SITE CONDITIONS AND OBSERVATION

Location	Date	Time	Ambient Temperature (°C)	Relative Humidity (%)	Ambient Pressure (hPa)	Wind Speed (m/s)	Wind Direction (Degree)	Direction from Source ¹	Duration of Odour	On-Site Observation		Weather Condition
										Odour Nature	Possible Source	
CAPC Unit	19-10-18	11:01 -11:09	25.7	67.5	1013.5	1.5	113	NA	NA	No odour was smelled.	NA	Sunny

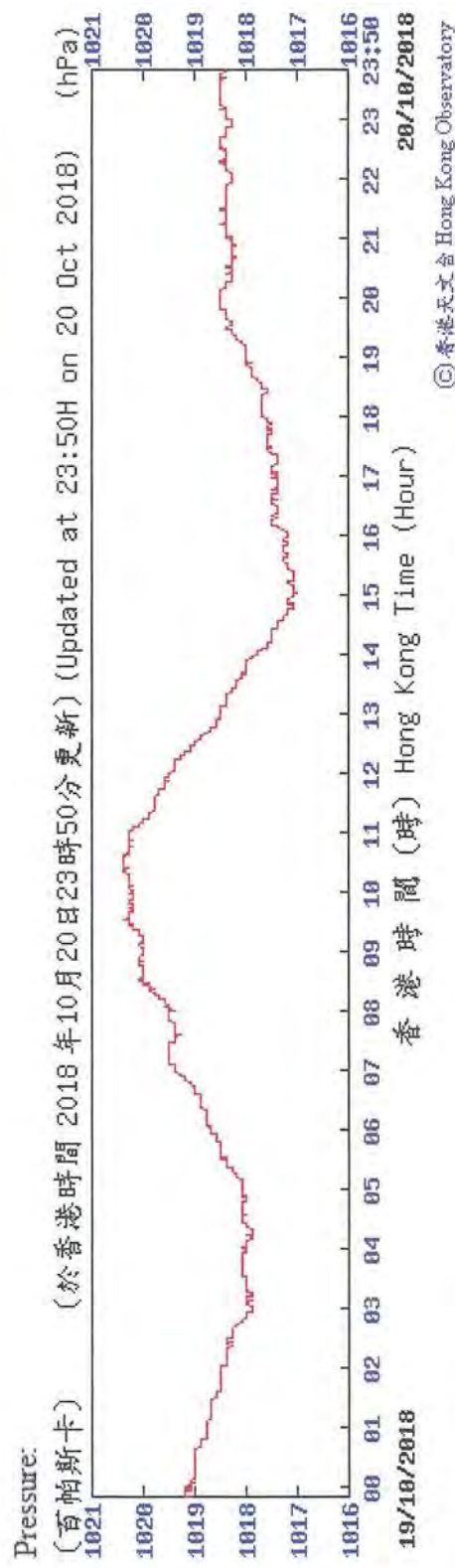
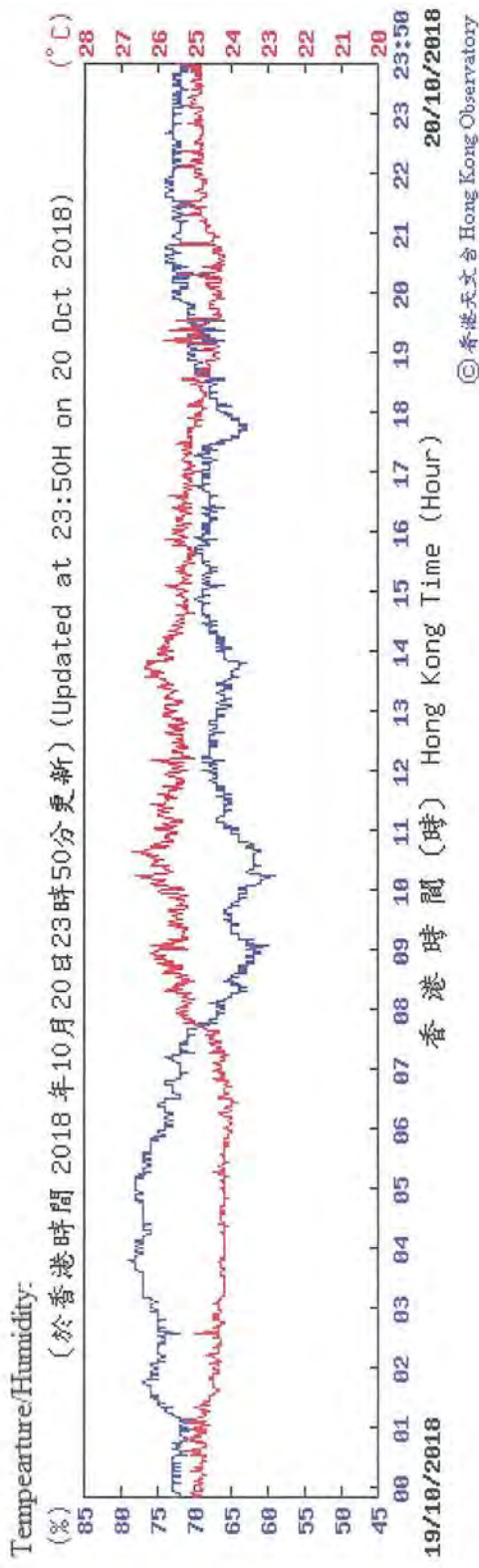
Note:

1. It was assumed that the exhaust of the CAPC Unit was from the odour source.



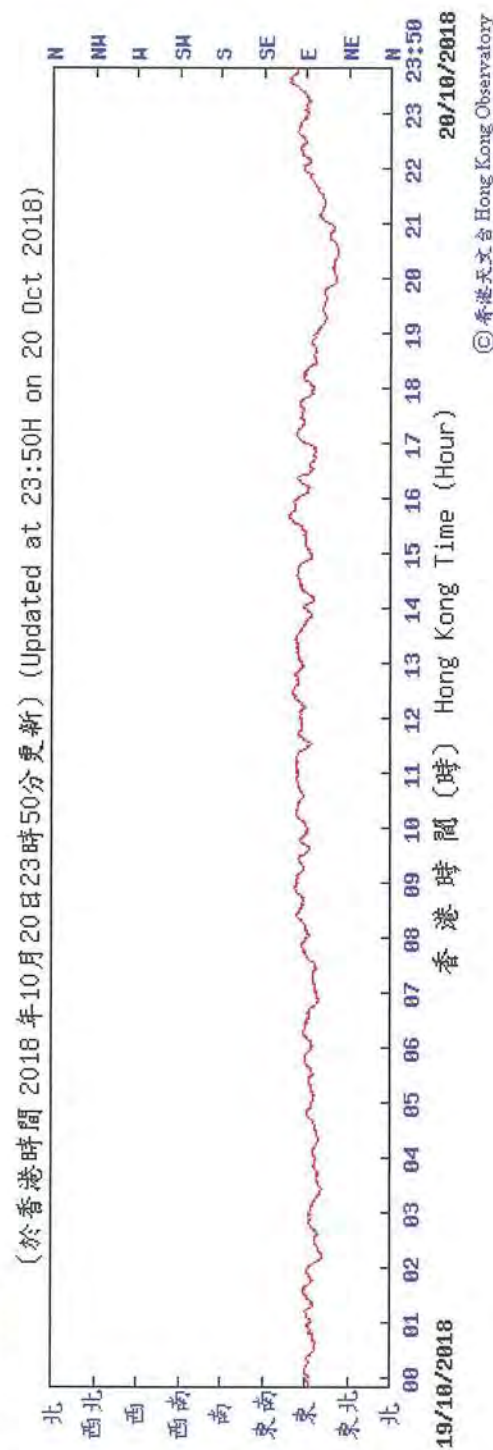
APPENDIX 2

A2. EXTRACT OF METEOROLOGICAL OBSERVATIONS FROM THE HONG KONG AIRPORT OBSERVATORY STATION

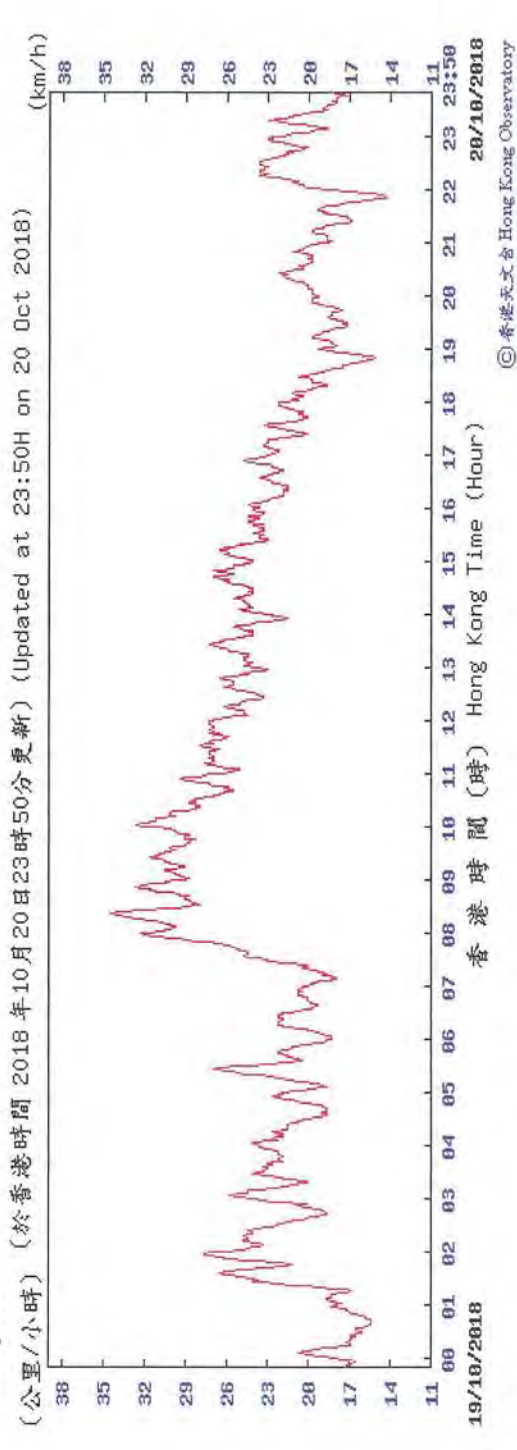




Wind Direction:



Wind Speed:



APPENDIX 3

A3. PHOTO OF THE SAMPLING LOCATION





CERTIFICATE OF ANALYSIS

CLIENT:	Oscar Bioenergy Joint Venture	WORK ORDER:	HK1856261
CONTACT:	Mr Edwin Wong	LABORATORY:	Hong Kong
ADDRESS:	No. 5, Sham Fung Road, Siu Ho Wan, North Lantau Island, NT, Hong Kong	SUB-BATCH:	0
		DATE RECEIVED:	26 October 2018
		DATE OF ISSUE:	29 October 2018
PROJECT:	Odour Monitoring for the Organic Resources Recovery Centre Phase 1 in Siu Ho Wan	SAMPLE TYPE:	Air
SITE:	Organic Resources Recovery Centre Phase 1 (ORRC1)	NO OF SAMPLES:	3
PO:	---		

COMMENTS


Air sample(s) were collected by ALS Technichem (HK) staff on 26th October, 2018 at the Organic Resources Recovery Centre Phase 1 (ORRC1) in Siu Ho Wan for Odour Monitoring.

The sample(s) were analysed and reported on an as received basis.

NOTES

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

Results apply to sample(s) as submitted. All pages of this report have been checked and approved for release.


Richard Fung
General Manager - Hong Kong

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METHOD STATEMENT

A. Odour Concentration

1. Odour Sampling

Odour gas sample was collected by passive sampling technique. A Nalophan™ sampling bag was placed inside an air-tight sampler and then drawn to vacuum. Approximately 60 litre of gas sample was collected into the sampling bag for testing.

The odour sample was collected at the Organic Recovery Resources Centre Phase 1 (ORRC1) and sampling location was shown in Appendix A3.

2. Olfactometry Testing

Odour concentration was determined by a Forced-choice Dynamic Olfactometer in accordance with the European Standard Method (EN13725).

This European Standard specifies a method for the objective determination of the odour concentration of a gaseous sample using dynamic olfactometry with human assessors and the emission rate of odours emanating from point sources, area sources with outward flow and area sources without outward flow.

This European Standard is applicable to the measurement of odour concentration of pure substances, defined mixtures and undefined mixtures of gaseous odorants in air or nitrogen, using dynamic olfactometry with a panel of human assessors being the sensor.

The unit of measurement is the odour unit per cubic metre: OU_e/m^3 . The odour concentration is measured by determining the dilution factor required to reach the detection threshold. The odour concentration at the detection threshold is by definition 1 OU_e/m^3 . The odour concentration is then expressed in terms of multiples of the detection threshold. The range of measurement including pre-dilution prior to the olfactometry analysis is typically from 10^1 OU_e/m^3 to 10^7 OU_e/m^3 .

Olfactometry Testing was performed by using the Scentroid™ SS600 Olfactometer. The testing was performed by at least five qualified panellists who have been selected through an n-butanol screening test.

All testing finished within 24 hours after sample receipt.

**RESULT****1. Odour Concentration**

Sample ID	Location	Sampling Date	Sampling Time	LOR (OU _f /Nm ³)	Odour Concentration (OU _f /Nm ³)	Characteristics of the odour detected of the gas sample	Volumetric Flow Rate (Nm ³ /min)	Emission rate (OU _f /hr)
HK1856261-001	CAPC Unit	26-Oct-18	10:35 - 10:40	11	1817	Smell of Garbage	1760	192,000,000
HK1856261-002	CAPC Unit	26-Oct-18	10:40 - 10:44	11	1668	Smell of Garbage	1760	176,000,000
HK1856261-003	Field Blank	26-Oct-18	--	11	<11	--	--	--

Remark:

1. LOR denotes limit of reporting.
2. The collected sample volume of the gas bag is sufficient for olfactometry analysis.
3. Field Blank containing pure nitrogen gas was collected and filled by ALS staff.
4. The volumetric flow rate value for calculation of the emission rate was provided by the client.



APPENDIX 1

A1. SITE CONDITIONS AND OBSERVATION

Location	Date	Time	Ambient Temperature (°C)	Relative Humidity (%)	Ambient Pressure (hPa)	Wind Speed (m/s)	Wind Direction (Degree)	Direction from Source ¹	Duration of Odour	On-Site Observation		Weather Condition
										Odour Nature	Possible Source	
CAPC Unit	26-10-18	10:35 -10:44	29.3	67.3	1016.5	0.9	293	NA	NA	No odour was smelled.	NA	Sunny

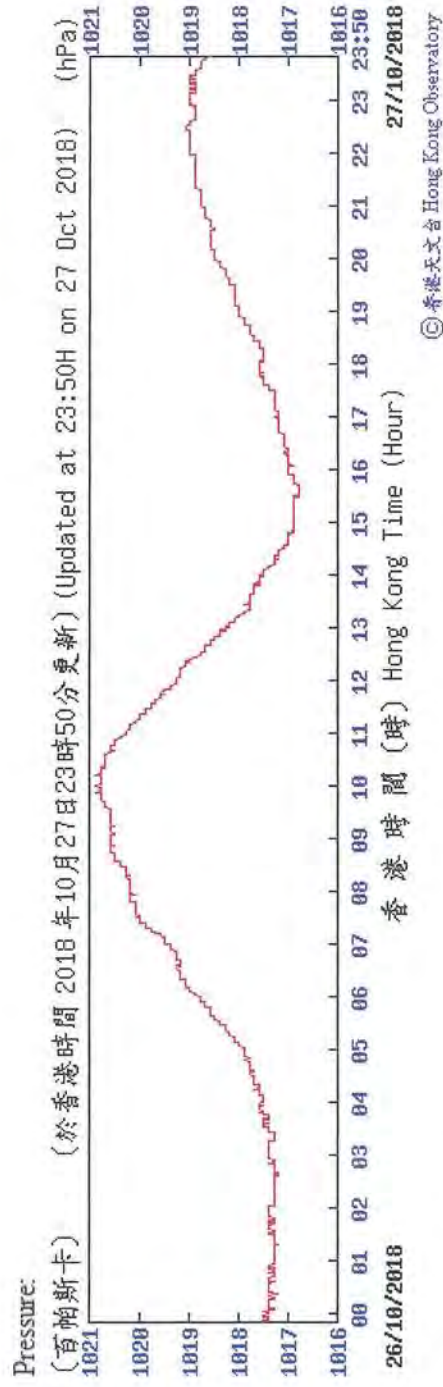
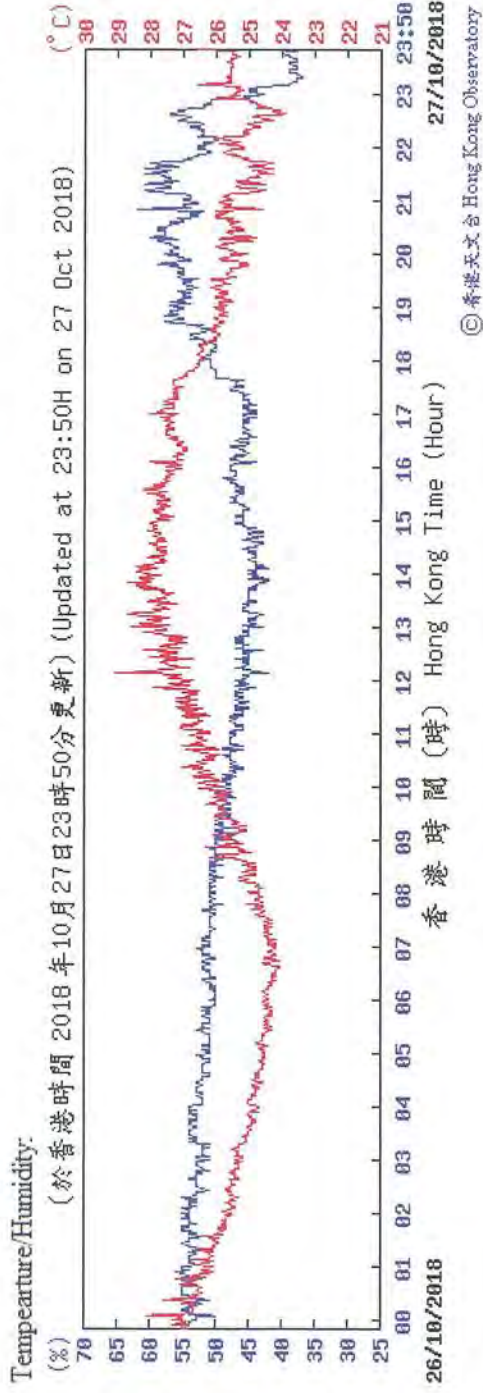
Note:

1. It was assumed that the exhaust of the CAPC Unit was from the odour source.



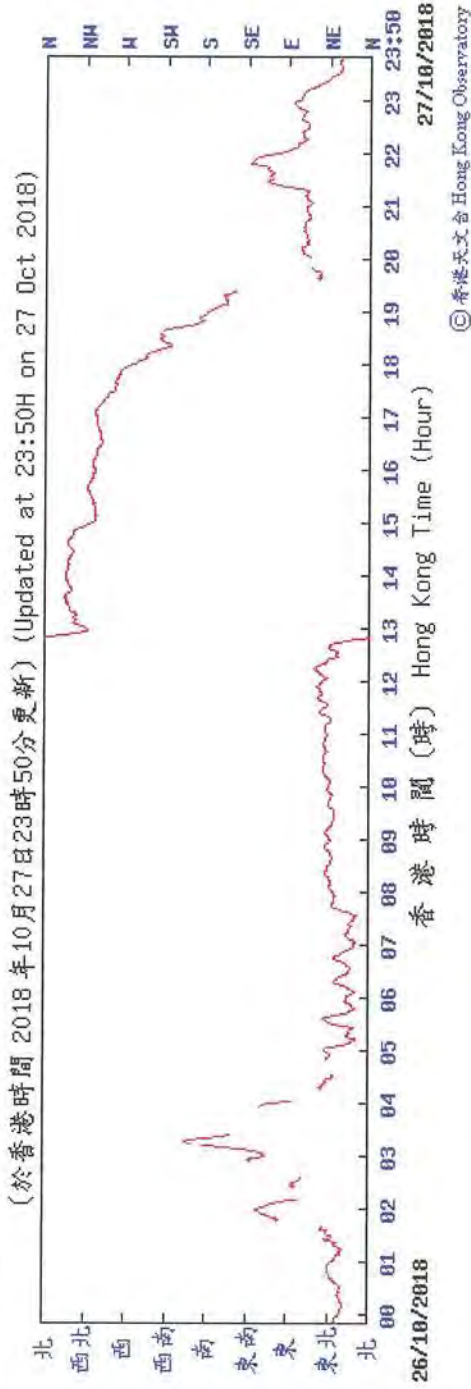
APPENDIX 2

A2. EXTRACT OF METEOROLOGICAL OBSERVATIONS FROM THE HONG KONG AIRPORT OBSERVATORY STATION

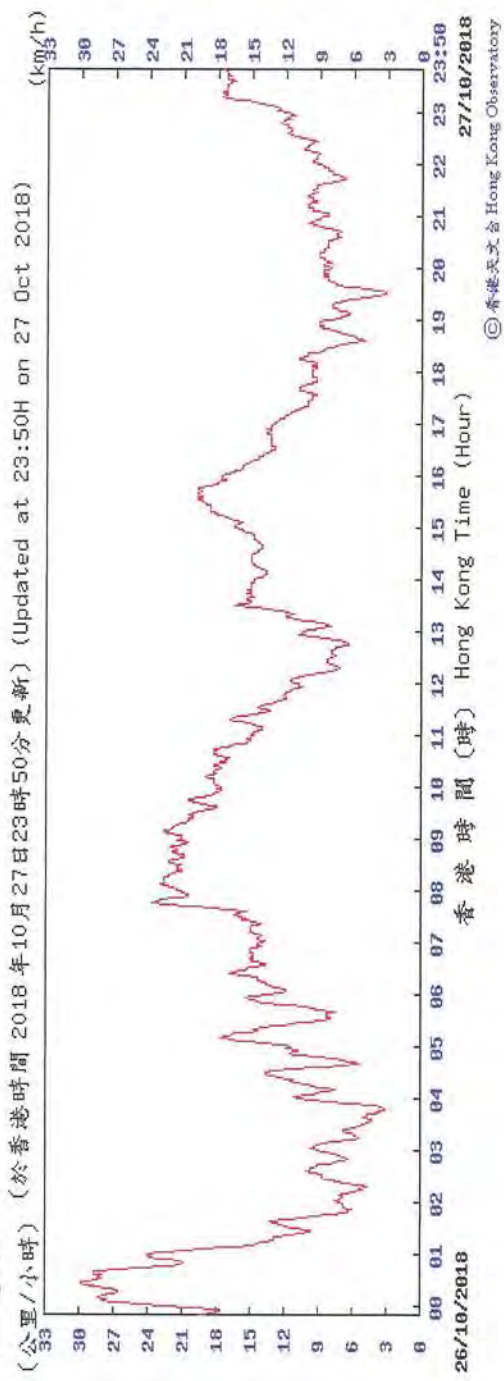




Wind Direction:



Wind Speed:



APPENDIX 3

A3. PHOTO OF THE SAMPLING LOCATION





CERTIFICATE OF ANALYSIS

CLIENT:	Oscar Bioenergy Joint Venture	WORK ORDER:	HK1857944
CONTACT:	Mr Edwin Wong	LABORATORY:	Hong Kong
ADDRESS:	No. 5, Sham Fung Road, Siu Ho Wan, North Lantau Island, NT, Hong Kong	SUB-BATCH:	0
		DATE RECEIVED:	1 November 2018
		DATE OF ISSUE:	9 November 2018
PROJECT:	Odour Monitoring for the Organic Resources Recovery Centre Phase 1 in Siu Ho Wan	SAMPLE TYPE:	Air
SITE:	Organic Resources Recovery Centre Phase 1 (ORRC1)	NO OF SAMPLES:	3
PO:	---		

COMMENTS


Air sample(s) were collected by ALS Technichem (HK) staff on 1st November, 2018 at the Organic Resources Recovery Centre Phase 1 (ORRC1) in Siu Ho Wan for Odour Monitoring.

The sample(s) were analysed and reported on an as received basis.

NOTES

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

Results apply to sample(s) as submitted. All pages of this report have been checked and approved for release.


Richard Fung
General Manager - Hong Kong

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METHOD STATEMENT

A. Odour Concentration

1. Odour Sampling

Odour gas sample was collected by passive sampling technique. A Nalophan™ sampling bag was placed inside an air-tight sampler and then drawn to vacuum. Approximately 60 litre of gas sample was collected into the sampling bag for testing.

The odour sample was collected at the Organic Recovery Resources Centre Phase 1 (ORRC1) and sampling location was shown in Appendix A3.

2. Olfactometry Testing

Odour concentration was determined by a Forced-choice Dynamic Olfactometer in accordance with the European Standard Method (EN13725).

This European Standard specifies a method for the objective determination of the odour concentration of a gaseous sample using dynamic olfactometry with human assessors and the emission rate of odours emanating from point sources, area sources with outward flow and area sources without outward flow.

This European Standard is applicable to the measurement of odour concentration of pure substances, defined mixtures and undefined mixtures of gaseous odorants in air or nitrogen, using dynamic olfactometry with a panel of human assessors being the sensor.

The unit of measurement is the odour unit per cubic metre: OU_E/m^3 . The odour concentration is measured by determining the dilution factor required to reach the detection threshold. The odour concentration at the detection threshold is by definition 1 OU_E/m^3 . The odour concentration is then expressed in terms of multiples of the detection threshold. The range of measurement including pre-dilution prior to the olfactometry analysis is typically from 10^1 OU_E/m^3 to 10^7 OU_E/m^3 .

Olfactometry Testing was performed by using the Scentroid™ SS600 Olfactometer. The testing was performed by at least five qualified panellists who have been selected through an n-butanol screening test.

All testing finished within 24 hours after sample receipt.



RESULT

1. Odour Concentration

Sample ID	Location	Sampling Date	Sampling Time	LOR (OU _e /Nm ³)	Odour Concentration (OU _e /Nm ³)	Characteristics of the odour detected of the gas sample	Volumetric Flow Rate (Nm ³ /min)	Emission rate (OU _e /hr)
HK1857944-001	CAPC Unit	1-Nov-18	11:08 - 11:12	11	1283	Smell of Garbage	1746	134,000,000
HK1857944-002	CAPC Unit	1-Nov-18	11:13 - 11:16	11	1016	Smell of Garbage	1746	106,000,000
HK1857944-003	Field Blank	1-Nov-18	--	11	<11	--	--	--

Remark:

1. LOR denotes limit of reporting.
2. The collected sample volume of the gas bag is sufficient for olfactometry analysis.
3. Field Blank containing pure nitrogen gas was collected and filled by ALS staff.
4. The volumetric flow rate value for calculation of the emission rate was provided by the client.



APPENDIX 1

A1. SITE CONDITIONS AND OBSERVATION

Location	Date	Time	Ambient Temperature (°C)	Relative Humidity (%)	Ambient Pressure (hPa)	Wind Speed (m/s)	Wind Direction (Degree)	Direction from Source'	Duration of Odour	On-Site Observation		Weather Condition
										Odour Nature	Possible Source	
CAPC Unit	1-11-18	11:08 -11:16	26.4	41.1	1011.1	2.8	313	NA	NA	No odour was smelled.	NA	Sunny

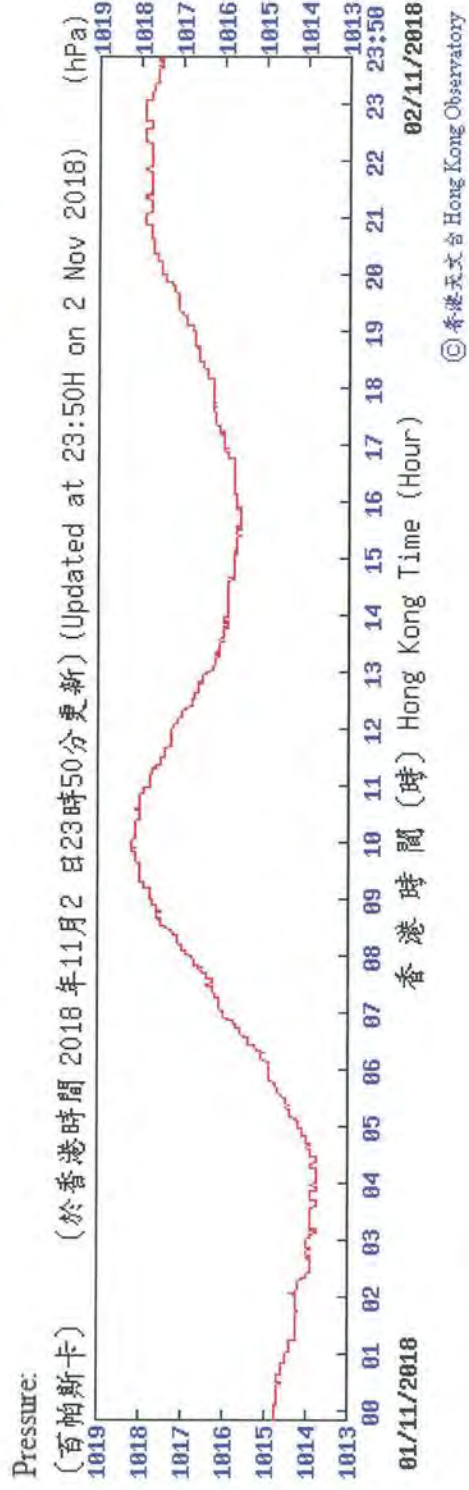
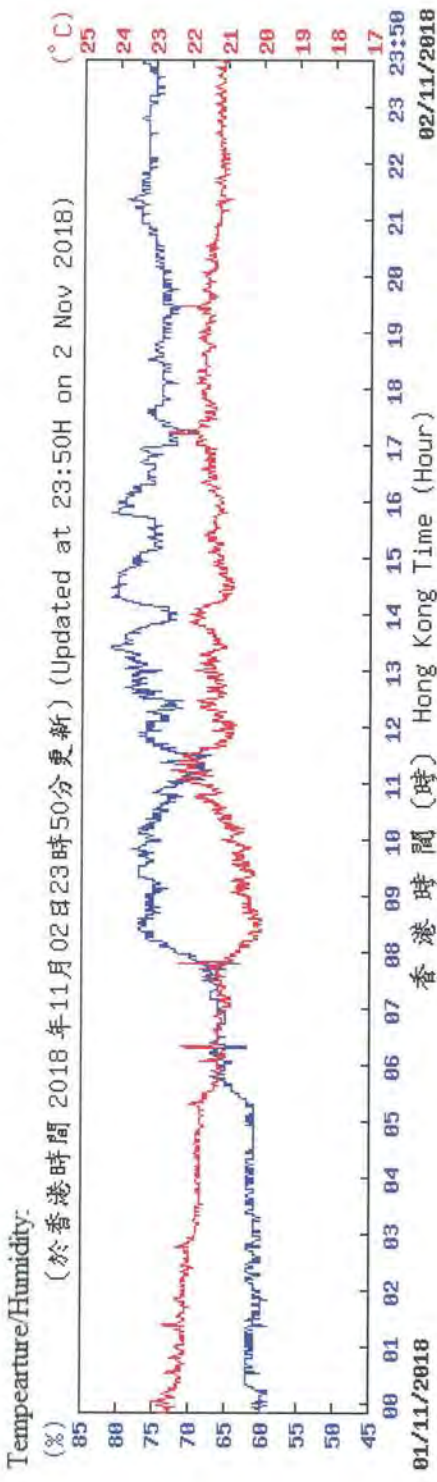
Note:

1. It was assumed that the exhaust of the CAPC Unit was from the odour source.



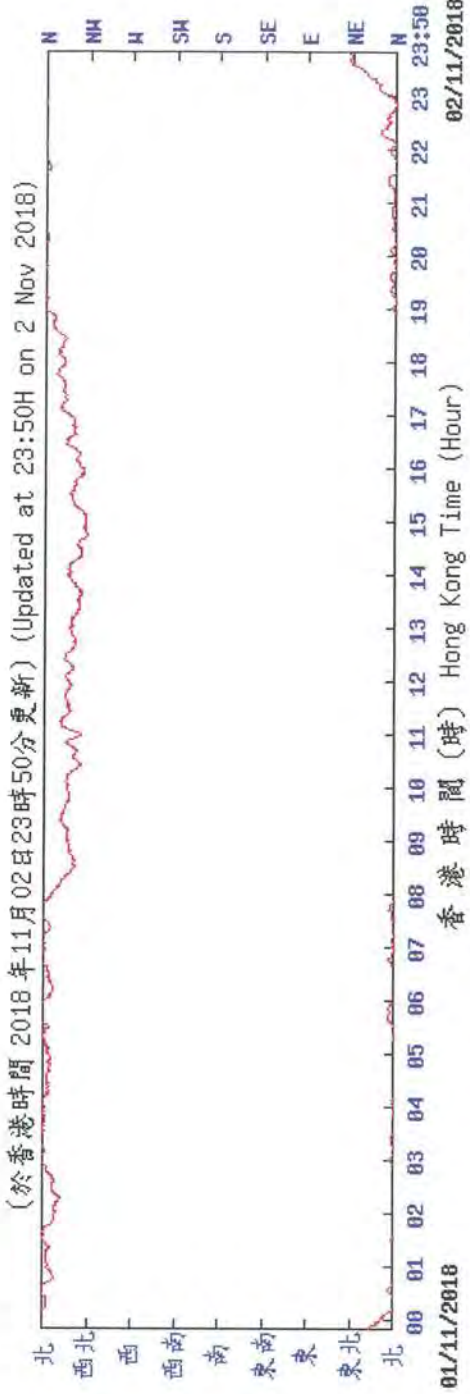
APPENDIX 2

A2. EXTRACT OF METEOROLOGICAL OBSERVATIONS FROM THE HONG KONG AIRPORT OBSERVATORY STATION

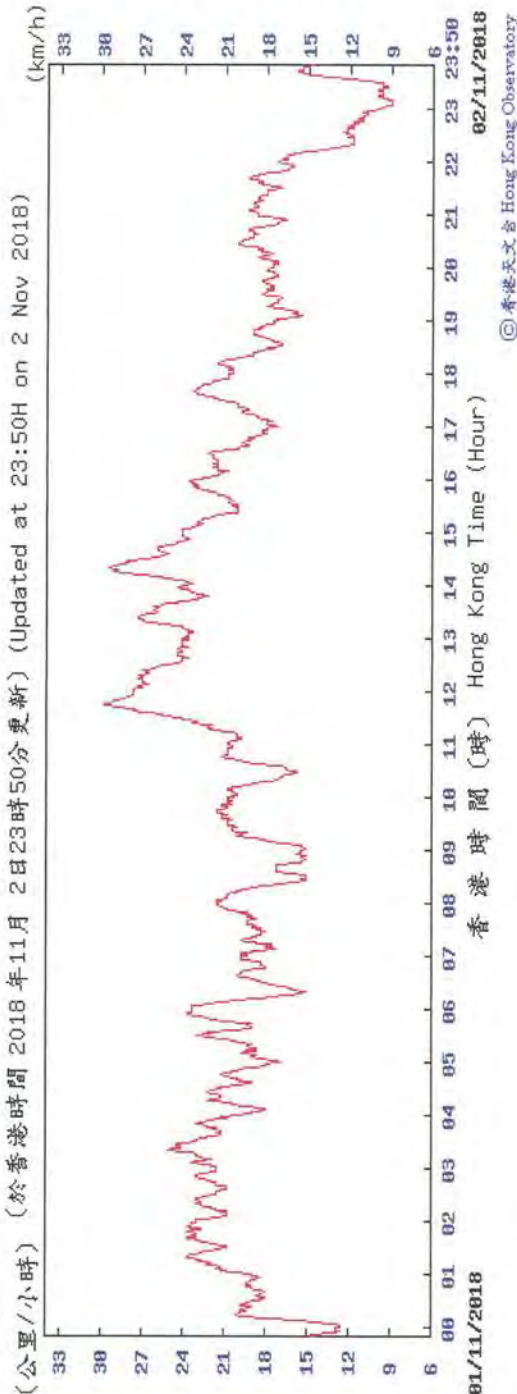




Wind Direction:



Wind Speed:



APPENDIX 3

A3. PHOTO OF THE SAMPLING LOCATION





CERTIFICATE OF ANALYSIS

CLIENT:	Oscar Bioenergy Joint Venture	WORK ORDER:	HK1857945
CONTACT:	Mr Edwin Wong	LABORATORY:	Hong Kong
ADDRESS:	No. 5, Sham Fung Road, Siu Ho Wan, North Lantau Island, NT, Hong Kong	SUB-BATCH:	0
		DATE RECEIVED:	5 November 2018
		DATE OF ISSUE:	9 November 2018
PROJECT:	Odour Monitoring for the Organic Resources Recovery Centre Phase 1 in Siu Ho Wan	SAMPLE TYPE:	Air
SITE:	Organic Resources Recovery Centre Phase 1 (ORRC1)	NO OF SAMPLES:	5
PO:	---		

COMMENTS

Air sample(s) were collected by ALS Technichem (HK) staff on 5th November, 2018 at the Organic Resources Recovery Centre Phase 1 (ORRC1) in Siu Ho Wan for Odour Monitoring.

The sample(s) were analysed and reported on an as received basis.

NOTES

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

Results apply to sample(s) as submitted. All pages of this report have been checked and approved for release.


Richard Fung
General Manager - Hong Kong

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METHOD STATEMENT

A. Odour Concentration

1. Odour Sampling

Odour gas sample was collected by passive sampling technique. A Nalophan™ sampling bag was placed inside an air-tight sampler and then drawn to vacuum. Approximately 60 litre of gas sample was collected into the sampling bag for testing.

The odour sample was collected at the Organic Recovery Resources Centre Phase 1 (ORRC1) and sampling location was shown in Appendix A3.

2. Olfactometry Testing

Odour concentration was determined by a Forced-choice Dynamic Olfactometer in accordance with the European Standard Method (EN13725).

This European Standard specifies a method for the objective determination of the odour concentration of a gaseous sample using dynamic olfactometry with human assessors and the emission rate of odours emanating from point sources, area sources with outward flow and area sources without outward flow.

This European Standard is applicable to the measurement of odour concentration of pure substances, defined mixtures and undefined mixtures of gaseous odorants in air or nitrogen, using dynamic olfactometry with a panel of human assessors being the sensor.

The unit of measurement is the odour unit per cubic metre: OU_E/m^3 . The odour concentration is measured by determining the dilution factor required to reach the detection threshold. The odour concentration at the detection threshold is by definition 1 OU_E/m^3 . The odour concentration is then expressed in terms of multiples of the detection threshold. The range of measurement including pre-dilution prior to the olfactometry analysis is typically from 10^1 OU_E/m^3 to 10^7 OU_E/m^3 .

Olfactometry Testing was performed by using the Scentroid™ SS600 Olfactometer. The testing was performed by at least five qualified panellists who have been selected through an n-butanol screening test.

All testing finished within 24 hours after sample receipt.



RESULT

1. Odour Concentration

Sample ID	Location	Sampling Date	Sampling Time	LOR (OU _e /Nm ³)	Odour Concentration (OU _e /Nm ³)	Characteristics of the odour detected of the gas sample	Volumetric Flow Rate (Nm ³ /min)	Emission rate (OU _e /hr)
HK1857945-001	CAPC Unit	5-Nov-18	11:11 – 11:14	11	1016	Smell of Garbage	1793.8	109,000,000
HK1857945-002	CAPC Unit	5-Nov-18	11:15 – 11:17	11	1016	Smell of Garbage	1793.8	109,000,000
HK1857945-003	CAPC Unit	5-Nov-18	11:31 – 11:35	11	1016	Smell of Garbage	2027.6	124,000,000
HK1857945-004	CAPC Unit	5-Nov-18	11:36 – 11:40	11	933	Smell of Garbage	2027.6	114,000,000
HK1857945-005	Field Blank	5-Nov-18	--	11	<11	--	--	--

Remark:

1. LOR denotes limit of reporting.
2. The collected sample volume of the gas bag is sufficient for olfactometry analysis.
3. Field Blank containing pure nitrogen gas was collected and filled by ALS staff.
4. The volumetric flow rate value for calculation of the emission rate was provided by the client.



APPENDIX 1

A1. SITE CONDITIONS AND OBSERVATION

Location	Date	Time	Ambient Temperature (°C)	Relative Humidity (%)	Ambient Pressure (hPa)	Wind Speed (m/s)	Wind Direction (Degree)	Direction from Source ¹	Duration of Odour	On-Site Observation		Weather Condition
										Odour Nature	Possible Source	
CAPC Unit	5-11-18	11:11 - 11:40	25.5	67.3	1015.5	2.5	330	NA	NA	No odour was smelled.	NA	Cloudy

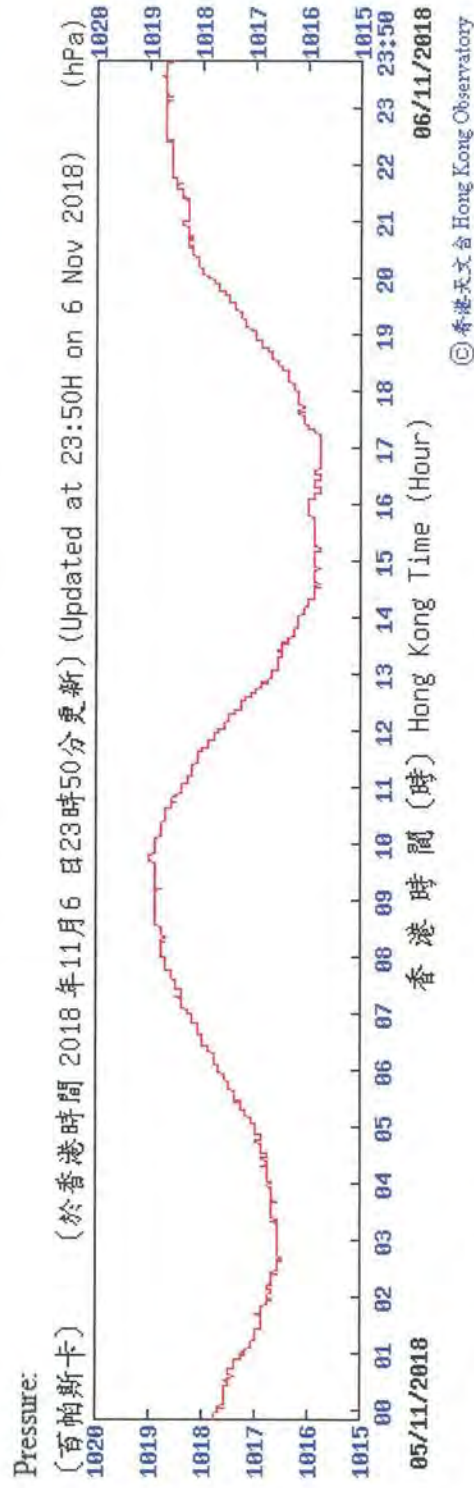
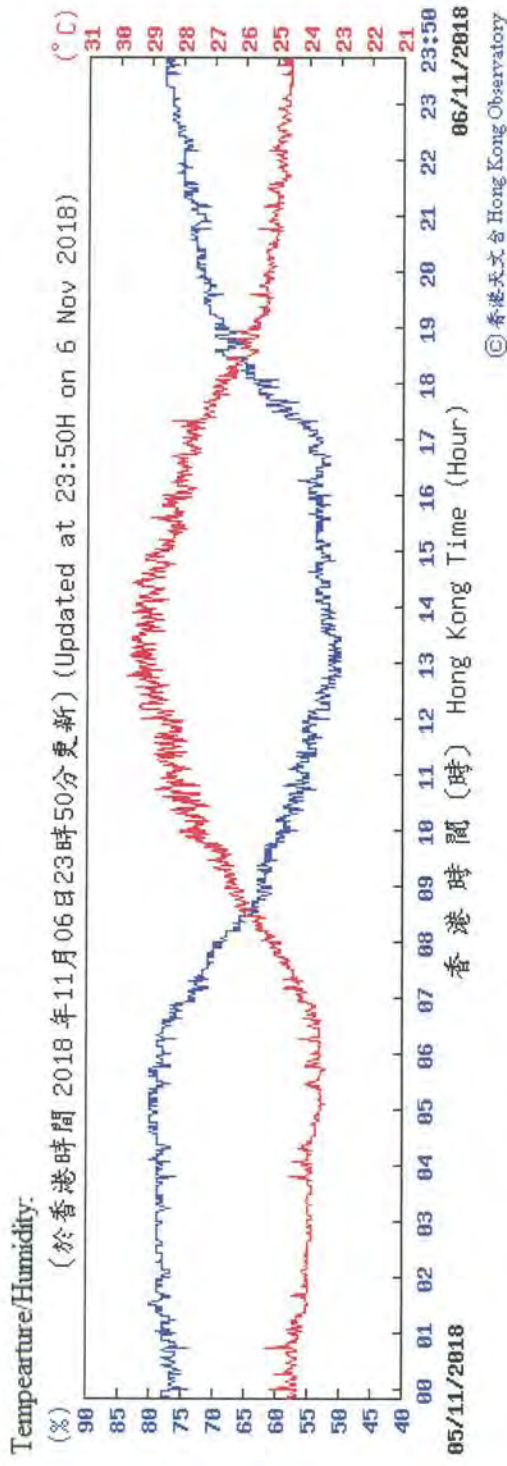
Note:

1. It was assumed that the exhaust of the CAPC Unit was from the odour source.



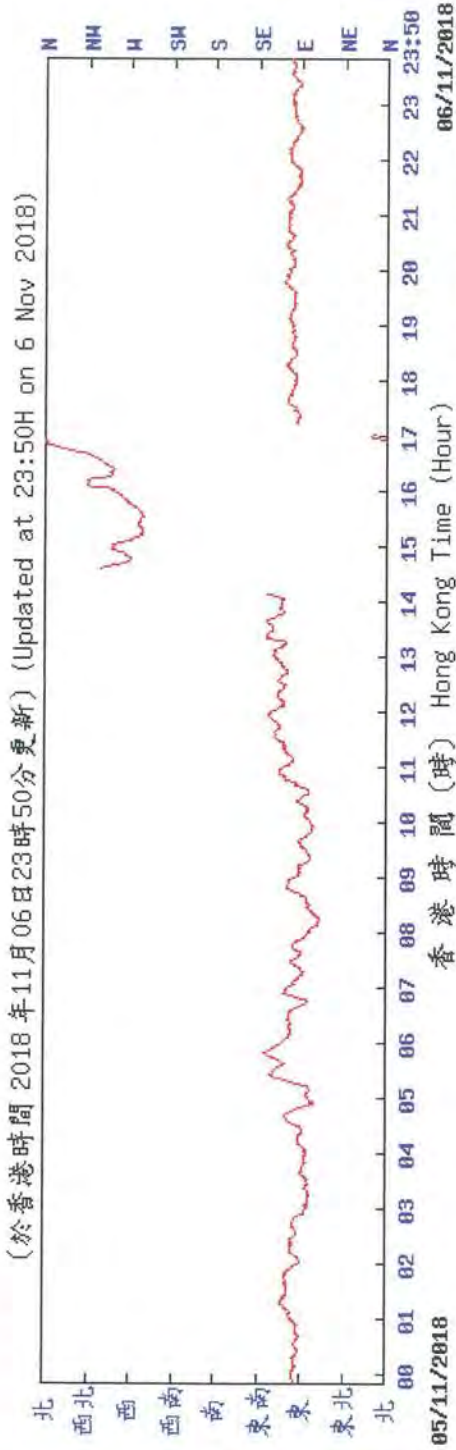
APPENDIX 2

A2. EXTRACT OF METEOROLOGICAL OBSERVATIONS FROM THE HONG KONG AIRPORT OBSERVATORY STATION

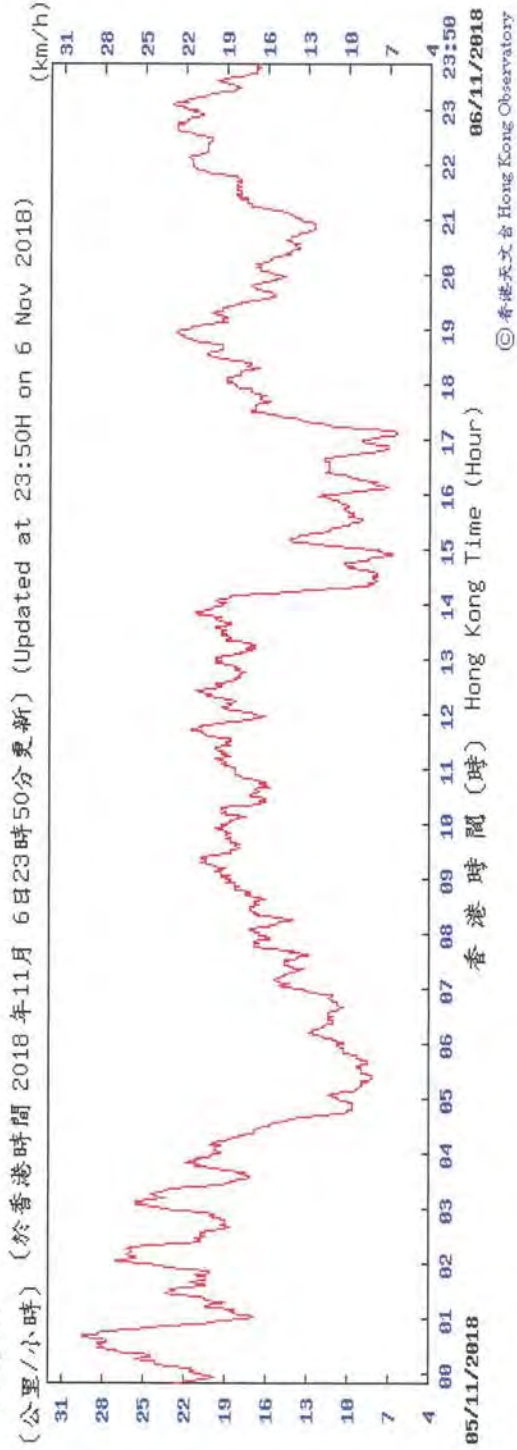




Wind Direction:



Wind Speed:



APPENDIX 3

A3. PHOTO OF THE SAMPLING LOCATION





CERTIFICATE OF ANALYSIS

CLIENT:	Oscar Bioenergy Joint Venture	WORK ORDER:	HK1861624
CONTACT:	Mr Edwin Wong	LABORATORY:	Hong Kong
ADDRESS:	No. 5, Sham Fung Road, Siu Ho Wan, North Lantau Island, NT, Hong Kong	SUB-BATCH:	0
		DATE RECEIVED:	23 November 2018
		DATE OF ISSUE:	26 November 2018
PROJECT:	Odour Monitoring for the Organic Resources Recovery Centre Phase 1 in Siu Ho Wan	SAMPLE TYPE:	Air
SITE:	Organic Resources Recovery Centre Phase 1 (ORRC1)	NO OF SAMPLES:	3
PO:	---		

COMMENTS

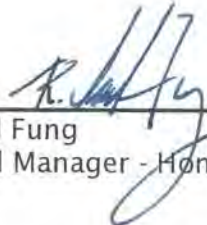
Air sample(s) were collected by ALS Technichem (HK) staff on 23rd November, 2018 at the Organic Resources Recovery Centre Phase 1 (ORRC1) in Siu Ho Wan for Odour Monitoring.

The sample(s) were analysed and reported on an as received basis.

NOTES

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

Results apply to sample(s) as submitted. All pages of this report have been checked and approved for release.


Richard Fung
General Manager - Hong Kong

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METHOD STATEMENT

A. Odour Concentration

1. Odour Sampling

Odour gas sample was collected by passive sampling technique. A Nalophan™ sampling bag was placed inside an air-tight sampler and then drawn to vacuum. Approximately 60 litre of gas sample was collected into the sampling bag for testing.

The odour sample was collected at the Organic Recovery Resources Centre Phase 1 (ORRC1) and sampling location was shown in Appendix A3.

2. Olfactometry Testing

Odour concentration was determined by a Forced-choice Dynamic Olfactometer in accordance with the European Standard Method (EN13725).

This European Standard specifies a method for the objective determination of the odour concentration of a gaseous sample using dynamic olfactometry with human assessors and the emission rate of odours emanating from point sources, area sources with outward flow and area sources without outward flow.

This European Standard is applicable to the measurement of odour concentration of pure substances, defined mixtures and undefined mixtures of gaseous odorants in air or nitrogen, using dynamic olfactometry with a panel of human assessors being the sensor.

The unit of measurement is the odour unit per cubic metre: OU_E/m^3 . The odour concentration is measured by determining the dilution factor required to reach the detection threshold. The odour concentration at the detection threshold is by definition 1 OU_E/m^3 . The odour concentration is then expressed in terms of multiples of the detection threshold. The range of measurement including pre-dilution prior to the olfactometry analysis is typically from 10^1 OU_E/m^3 to 10^7 OU_E/m^3 .

Olfactometry Testing was performed by using the Scentroid™ SS600 Olfactometer. The testing was performed by at least five qualified panellists who have been selected through an n-butanol screening test.

All testing finished within 24 hours after sample receipt.



RESULT

1. Odour Concentration

Sample ID	Location	Sampling Date	Sampling Time	LOR (OU _e /Nm ³)	Odour Concentration (OU _e /Nm ³)	Characteristics of the odour detected of the gas sample	Volumetric Flow Rate (Nm ³ /min)	Emission rate (OU _e /hr)
HK1861624-001	CAPC Unit	23-Nov-18	11:08 – 11:13	11	134	Smell of garbage and bleach	1075.5	8,650,000
HK1861624-002	CAPC Unit	23-Nov-18	11:14 – 11:19	11	144	Smell of garbage and bleach	1075.5	9,290,000
HK1861624-003	Field Blank	23-Nov-18	--	11	<11	--	--	--

Remark:

1. LOR denotes limit of reporting.
2. The collected sample volume of the gas bag is sufficient for olfactometry analysis.
3. Field Blank containing pure nitrogen gas was collected and filled by ALS staff.
4. The volumetric flow rate value for calculation of the emission rate was provided by the client.



APPENDIX 1

A1. SITE CONDITIONS AND OBSERVATION

Location	Date	Time	Ambient Temperature (°C)	Relative Humidity (%)	Ambient Pressure (hPa)	Wind Speed (m/s)	Wind Direction (Degree)	Direction from Source ¹	Duration of Odour	On-Site Observation		Weather Condition
										Odour Nature	Possible Source	
CAPC Unit	23-11-18	11:08 - 11:19	20.9	63.8	1021.1	1.0	316	NA	NA	No odour was smelled.	NA	Sunny

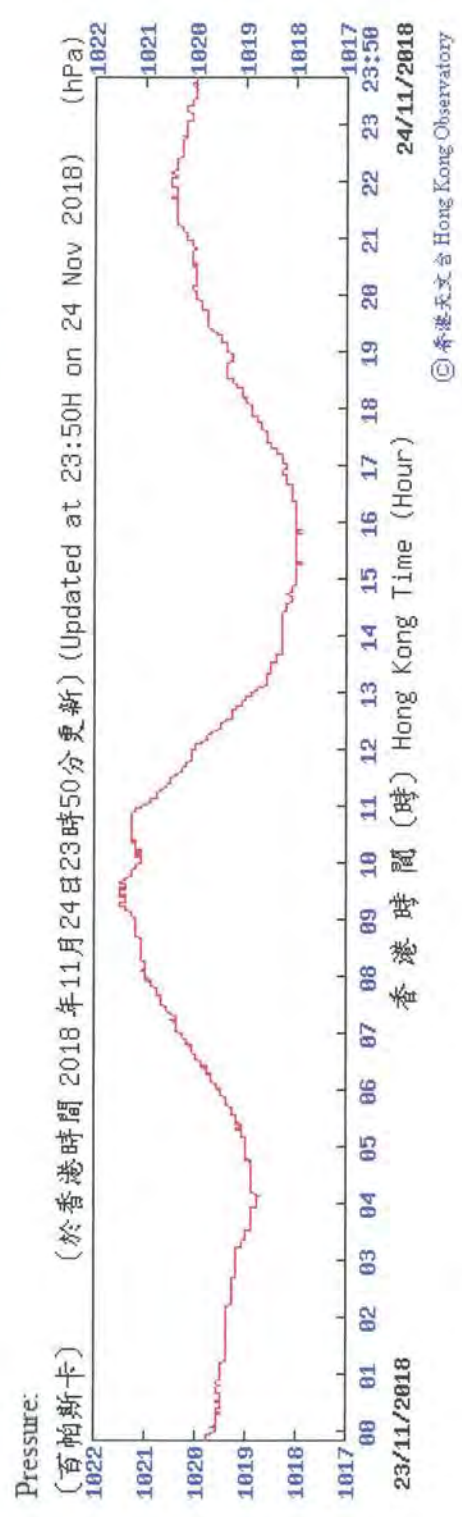
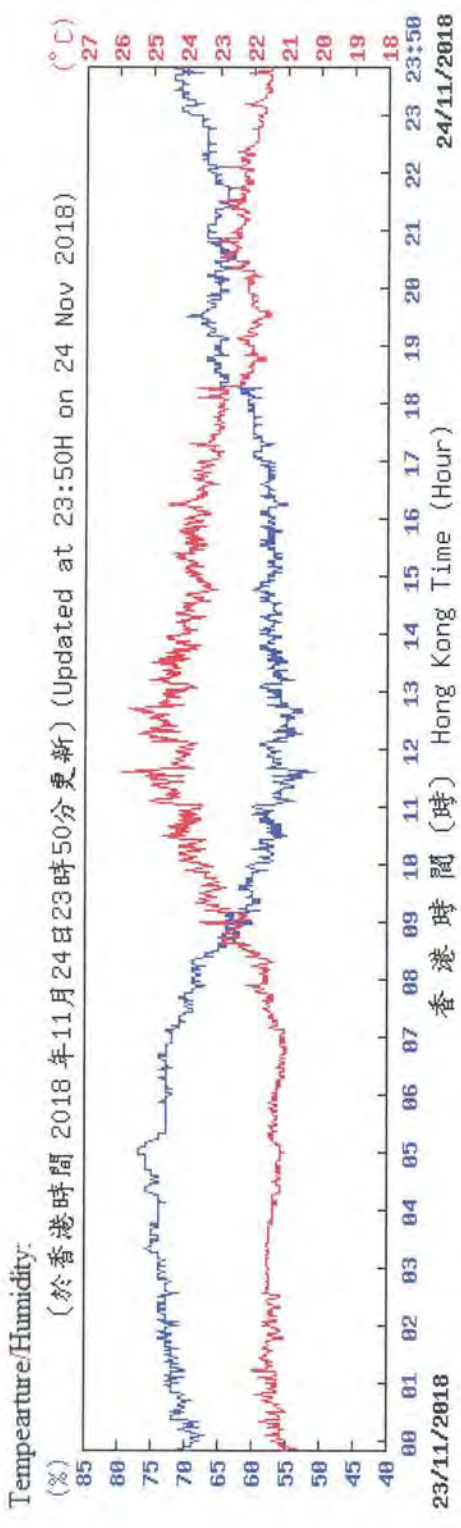
Note:

1. It was assumed that the exhaust of the CAPC Unit was from the odour source.



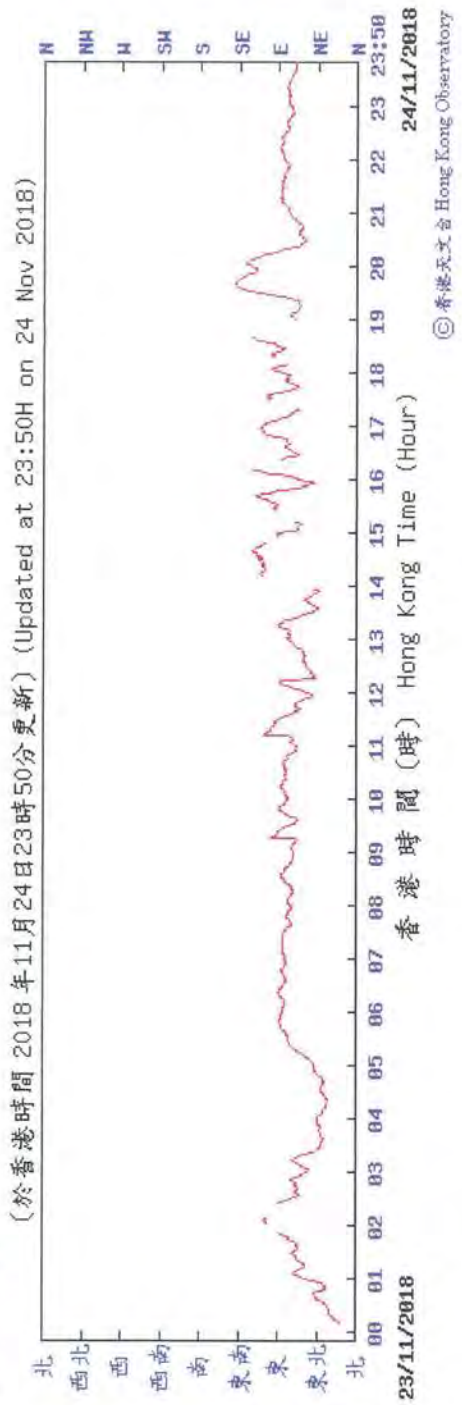
APPENDIX 2

A2. EXTRACT OF METEOROLOGICAL OBSERVATIONS FROM THE HONG KONG AIRPORT OBSERVATORY STATION

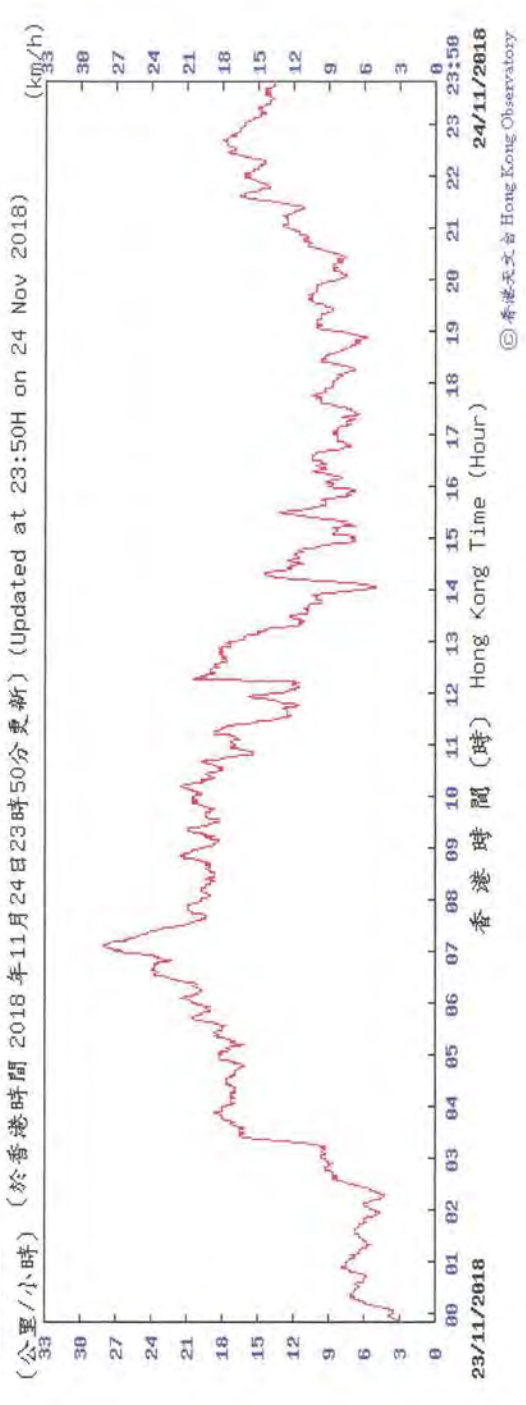




Wind Direction:



Wind Speed:



APPENDIX 3

A3. PHOTO OF THE SAMPLING LOCATION



Annex H4

Action and Limit Levels for Odour Nuisance

Odour Intensity Level

Level	Odour Intensity
0	Not detected. No odour perceived or an odour so weak that it cannot be easily
1	Slight identifiable odour, and slight chance to have odour
2	Moderate identifiable odour, and moderate chance to have odour
3	Strong identifiable, likely to have odour nuisance
4	Extreme severe odour, and unacceptable odour level

Action and Limit Levels for Odour Nuisance

Parameter	Action Level	Limit Level
Odour Nuisance (from odour patrol)	When one documented compliant is received ⁽¹⁾ , or Odour Intensity of 2 is measured from odour patrol.	Two or more documented complaints are received ⁽¹⁾ within a week; or Odour intensity of 3 or above is measured from odour patrol.

Note:

- (1) Once the compliant is received by the Project Proponent (EPD), the Project Proponent would investigate and verify the complaint whether it is related to the potential odour emission from the OWTF and its on-site wastewater treatment unit.

Event and Action Plan for Odour Monitoring

EVENT	ACTION	
	Person-in-charge of Odour	Project Proponent ⁽¹⁾
ACTION LEVEL		
Exceedance of action level (Odour Patrol)	<ol style="list-style-type: none"> 1. Identify source/reason of exceedance; 2. Repeat odour patrol to confirm finding. 	<ol style="list-style-type: none"> 1. Carry out investigation to identify the source/reason of exceedance. Investigation should be completed within 2 weeks; 2. Rectify any unacceptable practice; 3. Implement more mitigation measures if necessary; 4. Inform DSD or the operator of the Siu Ho Wan Sewage Treatment Works (SHWSTW) if exceedance is considered to be caused by the operation of the SHWSTW. 5. Inform North Lantau Refuse Transfer Station (NLTS) operator if exceedance is considered to be caused by the operation of NLTS.

EVENT	ACTION	
	Person-in-charge of Odour	Project Proponent ⁽¹⁾
Exceedance of action level (Odour Complaints)	<ol style="list-style-type: none"> 1. Identify source/reason of exceedance; 2. Carry out odour patrol to determinate odour intensity. 	<ol style="list-style-type: none"> 1. Carry out investigation and verify the complaint whether it is related to potential odour emission from the nearby SHWSTW; 2. Carry out investigation to identify the source/reason of exceedance. Investigation should be completed within 2 weeks; 3. Rectify any unacceptable practice; 4. Implement more mitigation measures if necessary; 5. Inform DSD or the operator of the SHWSTW if exceedance is considered to be caused by the operation of the SHWSTW.

EVENT	ACTION	
	Person-in-charge of Odour	Project Proponent ⁽¹⁾
LIMIT LEVEL		
Exceedance of Limit level	<ol style="list-style-type: none"> 1. Identify source/reason of exceedance; 2. Inform EPD; 3. Repeat odour patrol to confirm findings; 4. Increase odour patrol frequency to bi-weekly; 5. Assess effectiveness of remedial action and keep EPD informed of the results; 6. If exceedance stops, cease additional odour patrol. 	<ol style="list-style-type: none"> 1. Carry out investigation to identify the source/reason of exceedance. Investigation should be completed within 2 week; 2. Rectify any unacceptable practice; 3. Formulate remedial actions; 4. Ensure remedial actions properly implemented; 5. If exceedance continues, consider what more/enhanced mitigation measures should be implemented;

Note: ⁽¹⁾Project Proponent shall identify an implementation agent

Annex I

Investigation Report

Investigation Report of Environmental Non-Compliance

Date	20 December 2018
Time	11:30 a.m.
Monitoring Location	ORRC 1 Building 1 roof (Shown in Appendix A)
Weather	Fine
Parameter	Water quality (WPCO Effluent Discharge License attached as Appendix B)
Incident Description	<ol style="list-style-type: none"> 1. Concentrated sulphuric acid (98%) is used in two acid Chemical Scrubber of Central Air Pollution Control System (CAPCS) of the ORRC1. The sulphuric acid is stored in 2 places within the Facility, in which one is a bulk storage tank (approximate 7.63 m³) at ground floor and another is a day tank (approximate 0.64 m³) at the roof of Building 1. 2. On 20 December 2018 at around 11:00 a.m., OSCAR observed some liquid on the roof of Building 1 near the sulphuric acid day tank. After testing with pH paper, it was confirmed the liquid was concentrated sulphuric Acid. It was estimated about 2 litres of sulphuric acid leaked within the bund wall of H₂SO₄ day tank. 3. OSCAR immediately fenced off the area and used absorbents to remove the acid. Large amount of water was used to flush the area as final clean-up.
Action Taken / Action to be Taken See photos in Appendix B	<ol style="list-style-type: none"> 1. OSCAR immediately fenced off the area and used absorbents to remove the free acid. OSCAR also used sand bags to contain the area. The removal of free sulphuric acid was completed at around 12:00 noon. The area was cleaned up by flushing the area with large amount of water. 2. ET collected water sample at the stormwater terminal discharge point under the supervision of EPD project team's and ER's on 20 December 2018 at around 12:00 noon, and checked the pH using pH paper and the pH was approximate 1-2. A water sample was also sent to ALS for laboratory analysis. The analysis results (Appendix D) showed that it did not comply with the standards stipulated in the WPCO Effluent Discharge License. 3. OSCAR provided sand bags at the stormwater terminal discharge point to prevent the contaminated water getting into the DSD nullah, and arranged a vacuum tanker to pump the contaminated water in the stormwater drain back to the wastewater treatment plant of the Facility. OSCAR reported that water sample was taken at the last sump pit of stormwater channel within the site at around 6:00 p.m. and tested with pH paper and the pH was approximate 7.

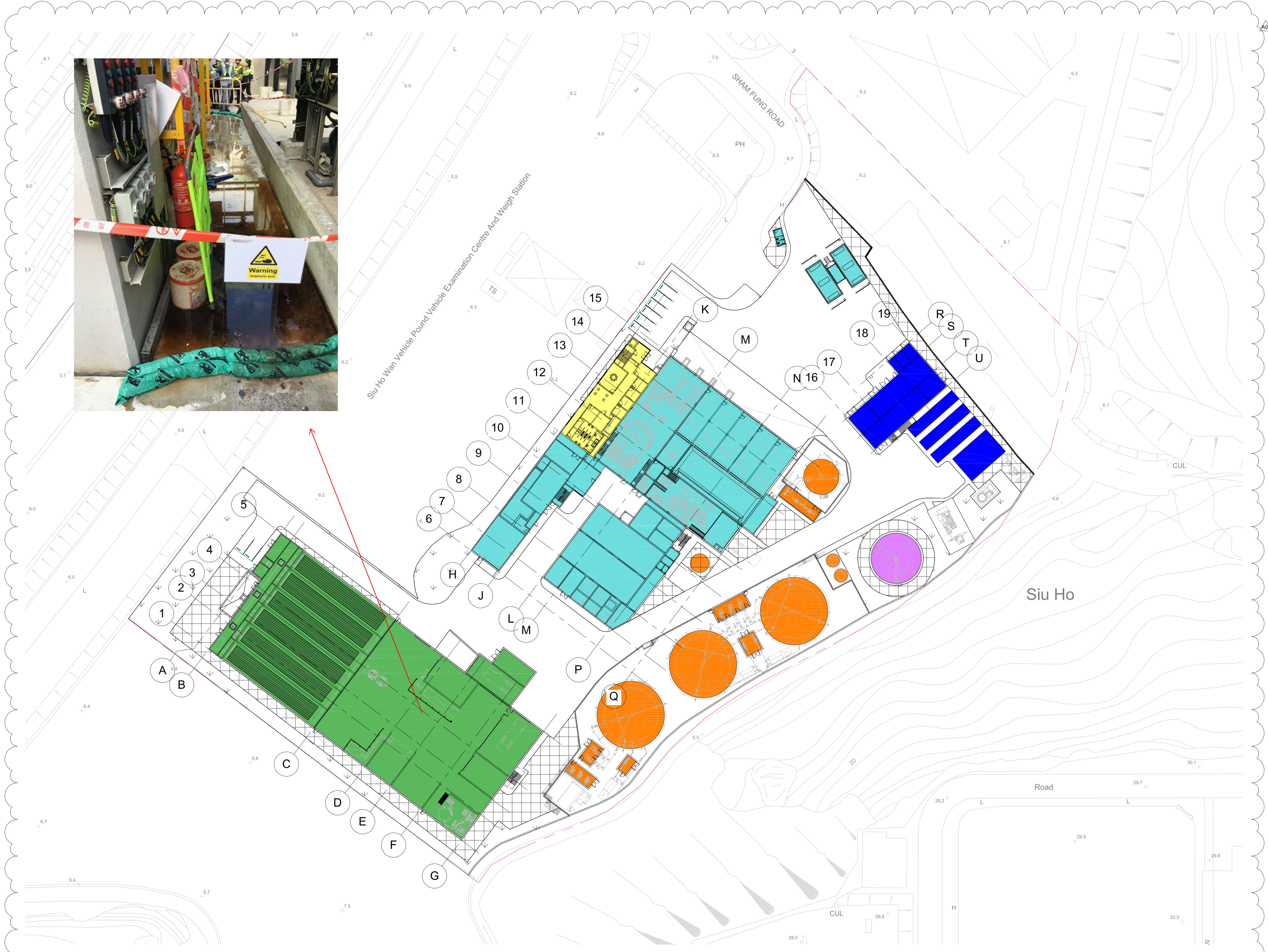
	<ol style="list-style-type: none"> 4. ET collected another water sample at the stormwater terminal discharge point under the supervision of EPD project team's and ER's on 21 December 2018, and checked the pH using pH paper and the pH was 7, which complied with the standard of WPCO Effluent Discharge License. The official results were shown in Appendix D. 5. One of the potential reason for this incident may duo to the improper training to the workers of chemical spillage. OSCAR has conducted the training to relevant workers and staffs on properly clean up procedures for the chemical spillage. Training record was shown in Appendix E. 6. The level sensor in the H₂SO₄ day tank was fixed and the chemical dosing system was also completely checked on 21 Dec 2018. The system has been put back to operation on 22 December 2018.
<p>Remedial Works and Follow-up Actions</p>	<ol style="list-style-type: none"> 1. Chemical spill drill has been scheduled within January 2019 by OSCAR. 2. OSCAR will conduct the training regularly to relevant workers and staffs on properly clean up procedures for the chemical spillage.

Prepared by: Leah Pak, ET Representatives

Date 9-January-2019

Appendix A

Project Layout



A01	05/03/15	CW	MB	IMTECH BACKGROUNDS UPDATED
A00	18/02/15	CW	MB	DRAFT ISSUE
REV	DATE	BY	APP	DESCRIPTION

CLIENT
 ENVIRONMENTAL PROTECTION DEPARTMENT
 GOVERNMENT OF THE HKSAR

CLIENT'S CONSULTANT

 AECOM ASIA CO. LTD.

CONTRACTOR

 OSCAR BIOENERGY JV

LEAD DESIGNER

 Ove Arup & Partners Hong Kong Limited

ENVIRONMENTAL TEAM

 ERM HONG KONG LIMITED

INDEPENDENT CONSULTANTS

 Meinhardt Infrastructure and Environment Limited
 邁達基建環保工程顧問有限公司

PROJECT
 ORGANIC WASTE TREATMENT FACILITIES
 PHASE 1
 EP/SP/61/10

STATUS
 DRAFT ISSUE

DRAWING TITLE
 SITE LAYOUT

DRAWN CW	CHECKED RS	APPROVED DP
SCALE 1:500@A1 / 1:1000@A3	DATE 12/02/15	
JOB NO. 239956	DRAWING NO. DR-OAP-20-0-CA-1001	REV. A01

Plot Time: 05/03/15 21:20:07
 Plot Location: C:\Users\matthew.brown\Documents\OWTF_Architectural Working Model (Combined).DWG_matthew.brown.rvt

Appendix B

Effluent Discharge License

本署檔號
OUR REF: (8) in EP/RW/0000372289
來函檔號
YOUR REF:
電話
TEL NO. 2417 6064
圖文傳真
FAX NO. 2411 3073
電子郵件:
E-MAIL:
網址:
HOME PAGE: <http://www.epd.gov.hk>

**Environmental Protection Department
Environmental Compliance Division
Regional Office (West)**

8/F, Tsuen Wan Government Offices,
38 Sai Lau Kok Road,
Tsuen Wan, New Territories



環境保護署
環保法規管理科
區域辦事處(西)
新界荃灣西樓角路38號
荃灣政府合署8樓

BY REGISTERED POST

- 3 JUN 2016

SITA WASTE SERVICES LIMITED,
ATAL ENGINEERING LIMITED and
ROS-ROCA, SOCIEDAD ANONIMA jointly trading as
OSCAR BIOENERGY JOINT VENTURE
Room 702, 7/F., Lee Garden Two,
28 Yun Ping Road, Causeway Bay, Hong Kong.
Attn: Marshall TSOI

Dear Sir/Madam,

**Water Pollution Control Ordinance (Cap. 358)
North Western Water Control Zone
Issue of Licence**

I refer to your application received on 22 April 2016 for a licence made under Section 19 of the Water Pollution Control Ordinance ("the Ordinance"), Chapter 358, for the discharge/deposit from your premises as stated in your application. A licence pursuant to Section 20 is enclosed. Your attention is drawn to the details, terms and conditions subject to which the licence is granted. You should note, in particular, the stipulated sampling, treatment and disposal requirements and should also read the notes at the back of the licence.

Please note that granting of this licence to you does not imply that the discharge from your premises is in compliance with the required limits as stipulated in the licence. It is your responsibility to ensure that the terms and conditions of the licence are complied with.

You are reminded that it is an offence to contravene any of the provisions specified in the licence. The offender is liable to a fine of \$200,000 and to imprisonment for 6 months.

If you are aggrieved by any of the terms and conditions of the licence, you may appeal to the Appeal Board by lodging a notice of appeal under Section 29 of the Ordinance in the prescribed manner and form within 21 days after receipt of this licence.

Should you have any enquiry, please feel free to contact Mr. LAW Yui Hung at 2417 6086.

Yours faithfully,

(LAM Ka-ho)

for Director of Environmental Protection

Encl.: Discharge Licence

掛號郵件

昇達廢料處理有限公司、
安樂工程有限公司 及
ROS-ROCA, SOCIEDAD ANONIMA 聯合經營的
OSCAR BIOENERGY JOINT VENTURE
香港 銅鑼灣 恩平道28號
利園二期 7/F 702室
經辦人: Marshall TSOI

先生／女士：

《水污染管制條例》(第358章) 西北部水質管制區 發出排污牌照事宜

你根據香港法例第 358 章《水污染管制條例》（「本條例」）第 19 條，於二零一六年四月二十二日就你的申請所述處所排放的污水／沉積物向本署遞交的牌照申請書已經收悉。現寄上根據本條例第 20 條簽發的牌照。請留意發出牌照的細節、條款及條件，尤須注意有關取樣、處理及排放等事宜的規定，另請細讀牌照背頁的附註。

獲簽發本牌照並不表示從你的處所排出的污水或污染物質已達到牌照所規定的排放限度。你必須採取必要措施，以確保符合牌照中的條款及條件。

請注意，任何人違反牌照的任何條文，均屬違法，可處罰款二十萬元及監禁六個月。

如你對牌照所載的條款及條件感到不滿，可於收到本牌照後 21 天內，按本條例第 29 條的規定，使用訂明的方式及表格，向上訴委員會遞交上訴通知書，提出上訴。

如有查詢，請致電 2417 6086 與本署羅銳雄 先生聯絡。

環境保護署署長
(林嘉豪 代行)

附件：排污牌照

二零一六年五月 日



Licence No. : WT00024352-2016
 牌照編號 : WT00024352-2016

This Licence is Valid to : 30/06/2021
 本牌照有效期至：二零二一年六月三十日

ENVIRONMENTAL PROTECTION DEPARTMENT
 環境保護署

WATER POLLUTION CONTROL ORDINANCE (CAP. 358)

水污染管制條例(第358章)

LICENCE PURSUANT TO SECTION 15/20/23A*

按第15 / 20/ 23A*條簽發的牌照

The Director of Environmental Protection ("the Authority") grants this licence under the Water Pollution Control Ordinance ("the Ordinance") on the terms and conditions stated below.

環境保護署署長(「監督」)按下列的條款及條件，根據水污染管制條例(「本條例」)批給此牌照。

- 3 JUN 2016

Date

日期

(LAM Ka-ho)

For the Authority

監督(林嘉豪 代行)

PART A 甲部 : GENERAL TERMS 一般條款

Name of Licensee ("the Licensee") 持牌人名稱(「持牌人」)	SITA WASTE SERVICES LIMITED, ATAL ENGINEERING LIMITED and ROS-ROCA, SOCIEDAD ANONIMA jointly trading as OSCAR BIOENERGY JOINT VENTURE 昇達廢料處理有限公司、安樂工程有限公司及 ROS-ROCA, SOCIEDAD ANONIMA 聯合經營的 OSCAR BIOENERGY JOINT VENTURE
Discharge Premises ("the premises") 排放處所(「處所」)	Organic Waste Treatment Facilities Phase 1 at Sham Fung Road, Siu Ho Wan, North Lantau 北大嶼山小蠔灣深豐路有機資源回收中心第一期
Water Control Zone 水質管制區	North Western 西北部
Discharge Category 排放種類	Discharge of Industrial / Commercial / Institutional* Trade Effluent 工業/商業/機構* 污水排放
Nature of Discharge and Wastewater Treatment Facilities 排放性質及廢水處理設施	Effluent arising from organic waste treatment processes and other site facilities 由有機廢物處理工序及其他設施所產生的污水 Oil & grease removal, solids removal, ammonia removal and biological treatment 隔除油脂、隔除固體、除氨及生物處理
Discharge Point(s) 排放點	Communal foul sewer 公用污水渠
Sampling Point(s) 取樣點	Treated effluent storage tank 經處理污水的儲存缸

*Delete as appropriate
將不適用者刪去

PART B 乙部 : SPECIFIC CONDITIONS 特別條件

B1. Limitations on Discharge 排放限制

The quantity and composition of any discharge from the premises shall not exceed the limits stated in the table below^(Note a). All figures are upper limits unless otherwise indicated. All units are expressed as concentration in milligramme per litre unless otherwise stated.

任何源自處所之排放的量和成份不得超過下表所列的限度^(附註 a)。除另予表明外，所有數字均為上限。除另予說明外，所有單位均以毫克/升的濃度表示。

Determinand 測量物	Limit 限度
Flow Rate (m ³ / day) 流量 (立方米/日)	685
pH (pH units) 酸鹼值 (pH 單位)	6-10 #
Suspended Solids 懸浮固體	800
Biochemical Oxygen Demand (5 days, 20°C) 生化需氧量 (5 天, 20°C)	800
Chemical Oxygen Demand 化學需氧量	2000
Oil & Grease 油脂	40
Total Nitrogen 總氮	200
Total Phosphorus 總磷	50
Surfactants (total) 表面活性劑 (總量)	25

Range 上下限

B2. Self-monitoring and Reporting 自行監測及報告

The Licensee shall perform self-monitoring as and when required by the Authority.

持牌人須在監督要求時進行自行監測。

The Licensee shall sample the discharge at the Sampling Point(s) and, at his own expense carry out analyses in accordance with the sample type and measurement frequency specified for each determinand named below:-

持牌人須在取樣點為排放抽取樣本，並依照下列指定的測量物、取樣形式及頻率，自資予以分析。

Determinand 測量物	Unit 單位	Sample Type 取樣形式	Frequency 頻率
pH (pH units) 酸鹼值 (pH 單位)	mg/L 毫克/升	Grab 隨意取集	Daily 每日
Suspended Solids 懸浮固體	mg/L 毫克/升	Grab 隨意取集	Monthly 每一個月一次
Biochemical Oxygen Demand (5 days, 20°C) 生化需氧量 (5 天, 20°C)	mg/L 毫克/升	Grab 隨意取集	Monthly 每一個月一次
Chemical Oxygen Demand 化學需氧量	mg/L 毫克/升	Grab 隨意取集	Monthly 每一個月一次
Oil & Grease 油脂	mg/L 毫克/升	Grab 隨意取集	Monthly 每一個月一次
Total Nitrogen 總氮	mg/L 毫克/升	Grab 隨意取集	Monthly 每一個月一次
Total Phosphorus 總磷	mg/L 毫克/升	Grab 隨意取集	Monthly 每一個月一次
Surfactants (total) 表面活性劑 (總量)	mg/L 毫克/升	Grab 隨意取集	Monthly 每一個月一次

Results of these monitoring shall be summarized in a report on a Monthly/~~Bi-monthly~~/Quarterly* basis and shall be submitted to the Authority:

所有監測結果須以摘要形式，每一個月/~~兩個月~~/~~三個月~~*作出報告，並須呈交監督審閱。

*Delete as appropriate
將不適用者刪去

1. The Discharge 排放

C1.1 The discharge shall not contain polychlorinated biphenyls (PCB), polyaromatic hydrocarbon (PAH), fumigant, pesticide or toxicant, chlorinated hydrocarbons, flammable or toxic solvents, calcium carbide; any substance likely to damage the sewer or to interfere with any of the treatment processes, or to be harmful to the health and safety of any personnel engaged in the operation or maintenance of a sewerage system; waste liable to form scum or deposits in any part of the drainage or sewerage system, or the waters of Hong Kong; waste liable to form discolouration in any parts of the waters of Hong Kong; sludge, floatable substances or solids larger than 10 mm; and sludge or solid refuse of any kind.

排放不得含有多氯聯苯、聚芳烴、薰蒸劑、殺蟲劑或毒劑、氯化烴、可燃的或有毒的溶劑、碳化鈣；會損毀污水渠結構或干擾任何處理程序的物質，或有損操作及維修排污系統人員健康及安全的任何物質；足以在排水或排污系統，或香港水域任何範圍內形成浮渣或沉積物的廢物；足以在香港水域任何範圍內形成變色的廢物；污泥、漂浮物質或體積超越 10 毫米的固體；及任何種類的污泥或固體垃圾。

C1.2 No discharge shall bypass the wastewater treatment facilities, the Sampling Point(s) or the Discharge Point(s) unless it is unavoidable to prevent loss of life, personal injury or severe property damage or no feasible alternative exists.

除非避免人命傷亡或嚴重財物損失或無其他可行代替辦法，排放不得繞流不經其廢水處理設施，取樣點或排放點。

C1.3 Dilution of the discharge to achieve compliance with the limits contained in this licence is prohibited.

不得將排放稀釋，以求達到本牌照內所訂的限度。

C2. Flow Measurement 量度流量

The Licensee shall determine the flow rate of the discharge by installing, operating and maintaining a continuous flow measuring device with an accuracy certified by its manufacturer to be within plus or minus 3 percent of the actual flow, and calibrating the flow measuring device regularly according to manufacturer's recommendations. If no such device is installed, the Licensee shall determine the flow rate through using calculation methods agreed by the Authority, by making reference to the amount of water used in the premises being served by mains supply and other sources, less process consumption and any other losses.

持牌人必須設置、操作及保養一個連續性流量計作為測定排放的流量率之方法，其準確程度須經製造商證實為不超逾或低於真正流量的 3%，並應根據製造商建議的方法，定期校準流量計。如沒有設置該設備，持牌人須依照監督同意的計算方法，根據處所由自來水及其他水源供應的總用水量減去工序耗水量及其他耗水量來測定流量率。

C3. Treatment 處理

C3.1 The Licensee shall provide necessary wastewater treatment facilities, and shall engage personnel with adequate qualification and experience to properly operate and maintain all wastewater treatment facilities at all times. Standby equipment shall be provided to guard against failure of major treatment equipment.

持牌人須提供必需的廢水處理設施，並須僱用有足夠資格及經驗的人士，時常妥善操作及保養所有廢水處理設施。主要處理設施須配有後備裝置，以應付故障發生。

C3.2 In the event of loss of efficiency of operation, or failure of all or part of the wastewater treatment facility, the Licensee shall take all reasonable steps to the extent necessary to maintain compliance with this licence. Such steps shall remain until operation of the wastewater treatment facility is restored or an alternative method of treatment is provided.

倘若部份或整個廢水處理設施操作失靈或發生故障，持牌人須採取所有必要的合理措施，以求達到符合本牌照的規定。此等措施須維持至廢水處理設施恢復如常操作或有其他代替的處理方法可供採用為止。

C3.3 If the wastewater treatment facilities are not properly operated and maintained to the satisfaction of the Authority, the Licensee shall take immediate and effective remedial actions as required by the Authority.

倘若廢水處理設施的操作及保養未能令監督滿意，持牌人須按監督之規定，採取即時及有效的補救行動。

C4. Disposal 棄置

Sludges, screenings, solids, oil and grease, filter backwash, or other pollutants removed in the course of treatment shall be disposed of in a proper manner^(Note b & c).

處理過程中所產生的污泥、隔濾物、固體、油脂、過濾器回洗或其他污染物，必須妥善地棄置^(附註 b 及 c)。

C5. Monitoring 監測

C5.1 The Licensee shall provide and maintain suitable facility such as an inspection chamber, manhole or sampling valve at each Sampling Point to enable duly authorized officer(s) of the Authority to take samples of the discharge at any time from the premises.

持牌人須在每一個取樣點提供及保養適當的設施，例如檢查槽，沙井或取樣閥，以確保獲監督授權的人員隨時可在處所內抽取排放樣本。

C5.2 For self-monitoring, “grab samples” shall be taken during the period when the determinand to be analyzed for is likely to be present in its maximum concentration. “Composite samples” shall include samples taken over daily duration of the discharge.

在自行監測中，「隨意取集樣本」須在測量物的濃度很可能是最高的那段時間內抽取。「綜合樣本」須包含在每日排放期間不同時候所抽取的樣本。

C5.3 For self-monitoring, all samples shall be analyzed in accordance with the most updated analytical methods used by the Government Chemist ^(Note d).

在自行監測中，所有樣本均須按照政府化驗師所採用的最新分析方法予以分析 ^(附註 d)。

C6. Records and Reporting 紀錄及報告

C6.1 The Licensee shall keep the following records in the premises for inspection by duly authorized officer(s) of the Authority:

持牌人須在處所內保存下列紀錄，以備獲監督授權的人員隨時查閱：

- (i) records of flow rate, nature and composition of the discharge;
排放流量率、性質及成份的紀錄；
- (ii) updated records of all monitoring information, including all laboratory analytical results relating to samples taken, all original chart recordings for continuous flow and pH monitoring; and
所有最新監測資料的紀錄，包括所有關於已取樣本的檢驗分析結果、所有連續性流量及酸鹼值監測記錄圖表的正本；及
- (iii) records of all desludging and degreasing operation, and records of corresponding disposal operation.
所有清除污泥和清理隔油池廢物工序的紀錄，及其棄置工序的紀錄。

Copies of all such records shall be submitted to the Authority upon request.

在監督要求時，須向監督呈交所有該等紀錄的副本。

C6.2 The Licensee shall notify and explain to the Authority within 24 hours upon the occurrence of an accidental discharge or any emergency bypass or an overflow of untreated effluent or an operation upset which places the discharge in a temporary state of non-compliance with this licence. The Licensee shall within 7 days following the incident, submit to the Authority a detailed report in writing on the cause and duration of the non-compliance and steps taken or to be taken to reduce, eliminate, or prevent recurrence of such non-compliance. Reporting in accordance with this Condition does not relieve the Licensee of any obligations imposed by this licence.

倘若有未經處理的污水意外排放、緊急繞流或溢滿的事件或操作失靈，引至排放出現短暫不符合牌照規定的情況，持牌人須在事發後 24 小時內立即知會監督並予以解釋。持牌人須在事故發生後 7 天內，以書面報告，詳述事件的起因、違反牌照條件的時間及為減少、消除或防止類似事件再次發生所採取或將會採取的措施，送交監督審閱。然而，按照本條件的規定提交報告並不表示持牌人可獲免除承擔本牌照內所載的任何責任。

C7. Operation Manual 操作手冊

The Licensee shall prepare an operation manual which shall include, as a minimum, operating procedures, inspection programme and repair and maintenance programme for the wastewater treatment facilities. The operation manual shall be kept at the aforesaid wastewater treatment facilities and a copy of the manual shall be submitted to the Authority upon request.

持牌人須擬備廢水處理設施的操作手冊。手冊內容須最低限度包括操作程序、檢查、維修及保養工作計劃表。該手冊須保存在上述廢水處理設施內。持牌人須在監督要求時，呈交手冊副本乙份。

C8. Notification of Change 更改通知

The Licensee shall notify the Authority in writing within 14 days of any changes or proposed changes in the processes of manufacture or the nature of the raw materials used or of any other circumstances which may alter the nature and composition of the discharge or may result in the permanent cessation of the discharge.

倘若持牌人更改或擬更改其生產程序、或所用原料的性質、或有其他足以改變其排放的性質及成份或可導致永久性終止排放的事情，必須在 14 日內以書面通知監督。

- (a) For the purposes of determining compliance with the limits stated in Specific Condition B1, samples shall be taken by the duly authorized officer(s) of the Authority at the Sampling Point(s) or any other points from which the samples so taken are regarded by the Authority as being representative of the quality of the discharge. When any single sample analyzed for a determinand is proved not complying with corresponding limit set out in the table, the discharge is deemed to have failed to comply with Specific Condition B1.
 為確定排放是否符合特別條件第 B1 項內所列的限度，獲監督授權的人員須在取樣點或在監督認為可以抽取到具代表性的樣本的任何其他位置抽取樣本。只要在任何一個經分析的樣本中，證實任何一個測量物不符合表中所列的相應限度時，排放即被視為不符合特別條件第 B1 項。
- (b) An example of proper disposal method for sludge is sending dewatered sludge to landfill for disposal.
 妥善棄置污泥方法中的一個例子是將脫水後的污泥運往堆填區棄置。
- (c) Proper disposal of grease trap waste includes but is not limited to employing registered grease trap waste collector to conduct the disposal work. All registered collectors should have a Certificate of Registration issued by the Environmental Protection Department. The most updated list of the registered collectors can be obtained from the Environmental Protection Department.
 妥善的隔油池廢物棄置方法包括卻不限於聘用已登記的隔油池廢物收集商進行有關的棄置工作。所有已登記的隔油池廢物收集商，均領有由環境保護署發出的登記證明書。已登記的隔油池廢物收集商最新名單，可向環境保護署索取。
- (d) The Licensee may make reference to Annex 1 of the <Technical Memorandum on Effluent Standards> for analytical methods used by the Government Chemist.
 持牌人可參照「流出物標準技術備忘錄」附件 1 有關政府化驗師所採用的分析方法。
- (e) The Licensee shall keep this licence in the premises and make it available at all times for inspection by duly authorized officer(s) of the Authority.
 持牌人須在處所內保存此牌照，以備獲監督授權的人員隨時查閱。
- (f) (i) The Licensee shall allow duly authorized officer(s) of the Authority to enter the premises for the purposes of inspection, sampling, records examination or any other duties authorized by Section 37 and Section 38 of the Ordinance.
 持牌人須准許獲監督授權的人員進入處所內進行檢查、抽取樣本、審查紀錄或執行其他根據本條例第 37 及第 38 條所授權的職務。
 (ii) Where the premises has security measures in force which would require proper identification and clearance before entry, the Licensee shall make necessary arrangements such that upon presentation of evidence of identity and of authorization, duly authorized officer(s) will be permitted to enter, without delay, for the purposes of performing duties.
 倘若由於處所的保安理由而需先行鑑定來人的身份，持牌人必須作出必要的安排，以便獲授權人員在出示身份證明及授權文件後，即可內進執行其職務而不致受延誤。
- (g) (i) For a licence granted under Section 15 of the Ordinance, the Licensee may, not less than 2 months before expiry of the licence, apply under Section 19 of the Ordinance for a new licence. The Authority may grant the licence or otherwise.
 持有根據本條例第 15 條所批給牌照的人士，可於牌照屆滿前不少於 2 個月內，根據本條例第 19 條的規定，申請一面新牌照。監督可批給或拒絕批給牌照。
 (ii) For a licence granted under Section 20 or 23A of the Ordinance, the Licensee may, not more than 4 months and not less than 2 months before expiry of the licence, apply under Section 23 or 23A respectively of the Ordinance for renewal of licence. The Authority may renew the licence or otherwise.
 持有根據本條例第 20 條或第 23 A 條所批給牌照的人士，可於牌照屆滿前不多於 4 個月及不少於 2 個月內，根據本條例的第 23 或 23 A 條的規定，申請牌照續期。監督可將牌照續期或拒絕將牌照續期。
- (h) Under Section 24 of the Ordinance, the Authority may by notice in writing, impose new or amended terms and conditions on this licence or cancel this licence. Under Section 25, 26 and 27 of the Ordinance, a Licensee whose licence has been so varied or cancelled may be entitled to compensation.
 根據本條例第 24 條的規定，監督可以書面通知，向本牌照施加新訂或經修訂的條款及條件，或取消本牌照。根據本條例第 25、26 及 27 條的規定，被更改或取消牌照的持牌人可能會獲得補償。
- (i) Under Section 28 of the Ordinance, the Licensee may apply to the Authority for a variation of this licence.
 根據本條例第 28 條的規定，持牌人可向監督申請更改本牌照。
- (j) Under Section 49 of the Ordinance, this licence shall not be construed as a dispensation from the requirements of any other Ordinance except where that other Ordinance so provides.
 根據本條例第 49 條的規定，本牌照並不得解釋為豁免符合任何其他條例的規定，除非該其他條例如此訂定。

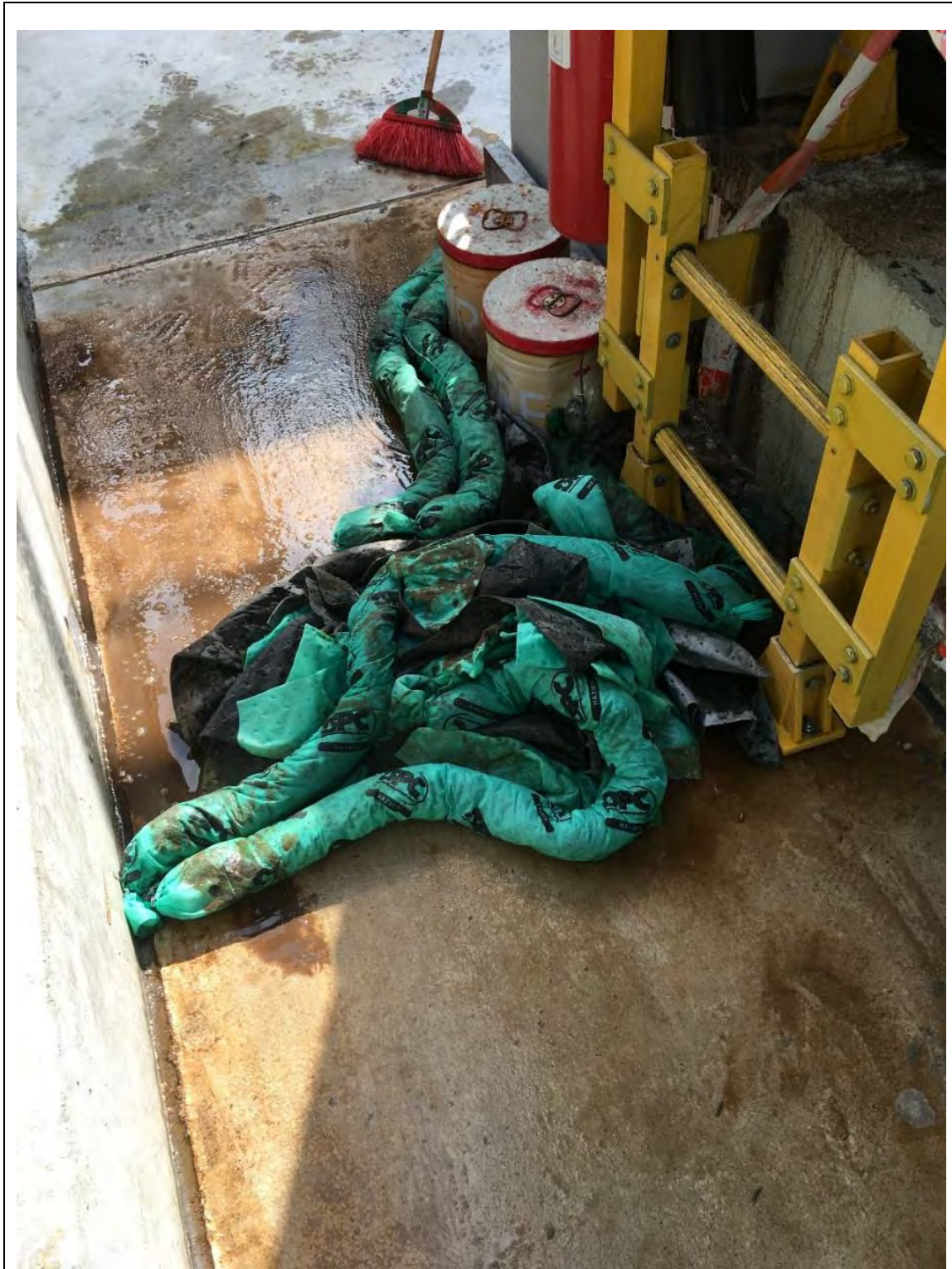
Appendix C

Photographs Taken On-Site



Chemical leakage observed on Building 1 roof.





The area was fenced off and absorbents were provided directly.





Water sample was collected at the stormwater terminal discharge point on 20 December 2018, and the pH tested with pH paper was approximate 1-2.



Sand bags were provided at the stormwater terminal discharge point.





Vacuum tanker was arranged to pump all the residue in the storm water pipeline back to the site wastewater treatment system.





Water sample was collected at the stormwater terminal discharge point on 21 December 2018, and the pH tested with pH paper was approximate 7.

Appendix D

Laboratory Result

EP/SP/61/10 – ORGANIC RESOURCES RECOVERY CENTRE PHASE 1

Date	pH	COD
20 December 2018	1.6	44
21 December 2018	7.3	13



CERTIFICATE OF ANALYSIS

Client	: OSCAR BIOENERGY JOINT VENTURE	Laboratory	: ALS Technichem (HK) Pty Ltd	Page	: 1 of 4
Contact	: LEAH PAK	Contact	: Richard Fung	Work Order	: HK1865960
Address	: FLAT/RM 702, 7/F, LEE GARDEN TWO, 28 YUN PING ROAD, CAUSEWAY BAY, HONG KONG	Address	: 11/F., Chung Shun Knitting Centre, 1 - 3 Wing Yip Street, Kwai Chung, N.T., Hong Kong		
E-mail	: leah.pak@oscarbionenergy.hk	E-mail	: richard.fung@alsglobal.com		
Telephone	: ---	Telephone	: +852 2610 1044		
Facsimile	: ---	Facsimile	: +852 2610 2021		
Project	: ORGANIC RESOURCES RECOVERY CENTRE (PHASE 1)			Date Samples Received	: 20-Dec-2018
Order number	: ---	Quote number	: HKE/2461/2018	Issue Date	: 28-Dec-2018
C-O-C number	: ---			No. of samples received	: 1
Site	: ---			No. of samples analysed	: 1

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This document has been signed by those names that appear on this report and are the authorised signatories.

<i>Signatories</i>	<i>Position</i>	<i>Authorised results for</i>
		
Fung Lim Chee, Richard	General Manager	Inorganics



General Comments

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. All pages of this report have been checked and approved for release. When sampling time information is not provided by the client, sampling dates are shown without a time component. In these instances, the time component has been assumed by the laboratory for processing purposes. Testing period is from 20-Dec-2018 to 28-Dec-2018.

Key: LOR = Limit of reporting; CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.

Specific Comments for Work Order: HK1865960

Sample(s) were received in ambient condition.

Water sample(s) analysed and reported on as received basis.

EA002 - Calibration range of pH value is 4.0 - 10.0. Results exceeding this range is for reference only.

EA002 - pH value is reported as at 25°C.



Analytical Results

Sub-Matrix: WATER

				Client sample ID	P1-Outlet	---	---	---	---
				Client sampling date / time	[20-Dec-2018]	---	---	---	---
Compound	CAS Number	LOR	Unit	HK1865960-001	---	---	---	---	---
EA/ED: Physical and Aggregate Properties									
EA002: pH Value	---	0.1	pH Unit	1.6	---	---	---	---	---
EP: Aggregate Organics									
EP026C: Chemical Oxygen Demand	---	5	mg/L	44	---	---	---	---	---



CERTIFICATE OF ANALYSIS

Client	: OSCAR BIOENERGY JOINT VENTURE	Laboratory	: ALS Technichem (HK) Pty Ltd	Page	: 1 of 3
Contact	: LEAH PAK	Contact	: Richard Fung	Work Order	: HK1866184
Address	: FLAT/RM 702, 7/F, LEE GARDEN TWO, 28 YUN PING ROAD, CAUSEWAY BAY, HONG KONG	Address	: 11/F., Chung Shun Knitting Centre, 1 - 3 Wing Yip Street, Kwai Chung, N.T., Hong Kong		
E-mail	: leah.pak@oscarbionenergy.hk	E-mail	: richard.fung@alsglobal.com		
Telephone	: ---	Telephone	: +852 2610 1044		
Facsimile	: ---	Facsimile	: +852 2610 2021		
Project	: ORGANIC RESOURCES RECOVERY CENTRE (PHASE 1)			Date Samples Received	: 21-Dec-2018
Order number	: ---	Quote number	: HKE/1413b/2017	Issue Date	: 02-Jan-2019
C-O-C number	: ---			No. of samples received	: 1
Site	: ---			No. of samples analysed	: 1

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This document has been signed by those names that appear on this report and are the authorised signatories.

<i>Signatories</i>	<i>Position</i>	<i>Authorised results for</i>
	General Manager	Inorganics
Fung Lim Chee, Richard	General Manager	Inorganics



General Comments

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. All pages of this report have been checked and approved for release. When sampling time information is not provided by the client, sampling dates are shown without a time component. In these instances, the time component has been assumed by the laboratory for processing purposes. Testing period is from 21-Dec-2018 to 02-Jan-2019.

Key: LOR = Limit of reporting; CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.

Specific Comments for Work Order: HK1866184

Sample(s) were received in ambient condition.

Water sample(s) analysed and reported on as received basis.

EA002 - Calibration range of pH value is 4.0 - 10.0. Results exceeding this range is for reference only.

EA002 - pH value is reported as at 25°C.



Analytical Results

Sub-Matrix: WATER

				Client sample ID	P1-Outlet	---	---	---	---
				Client sampling date / time	[21-Dec-2018]	---	---	---	---
Compound	CAS Number	LOR	Unit	HK1866184-001	---	---	---	---	---
EA/ED: Physical and Aggregate Properties									
EA002: pH Value	---	0.1	pH Unit	7.3	---	---	---	---	---
EP: Aggregate Organics									
EP026C: Chemical Oxygen Demand	---	5	mg/L	13	---	---	---	---	---

Appendix E

Training Record

Training Attendance List 訓練出席記錄

Date 日期: 8-1-2018 Time 時間: 08:00-8:30

Tutor 講者: Chris CHOW/ YUEN Lok Hei/ Edmond LUK/ Zero HSIEH/ Sarah HO/ WONG Ho Wai, Howard/ Terence Chan/ Henry Lee Venue 地點: CCR

Subject 主題: Chemical Spill Emergency Response Content 內容: _____

* Please complete the details below in Chinese or English 請以 '中文' 或 '英文' 填寫下列各項

Staff No. 職員編號	Name (Print) 姓名 (正楷)	Position 職位	Signature 簽名	Staff No. 職員編號	Name (Print) 姓名 (正楷)	Position 職位	Signature 簽名
Team A	Chris CHOW			Team B	YUEN Lok Hei		
OS00033	Leung Kwok Yin	P & C technician		OS00061	Cheung Sze Chun, Jeff	P & C technician	
OS00120	Shek Ka Ming	P & C technician		OS00116	Chan Chung Lim, William	P & C technician	
OS00034	Yu Tai Wai, David	Crane operator		OS00040	Wong Yuen Man	Crane operator	
OS00099	Rabindra GURUNG	Non-Skilled Worker		OS00057	Gurung Puspan	Non-Skilled Worker	
OS00117	Naveed Mehmood	Non-Skilled Worker				Non-Skilled Worker	
OS00050	Cheung Lap Yeung Billy	Mobile Plant Operator		OS00077	Gurung, Kul Raj	Mobile Plant Operator	
OS00060	Rana, Indra Bahadur	Mobile Plant Operator		OS00067	Baljit-Singh	Mobile Plant Operator	
Team C	Edmond LUK			Team D	Zero HSIEH		
OS00023	LAI Ho Kei	P & C technician		OS00015	CHAN Tai Cheong	P & C technician	
OS00009	Kimmy CHAN	P & C technician					
OS00048	Ho Leung Chun Kit, Johnny	P & C technician		OS00029	Leung Kwok Wing	Crane operator	
OS00046	Deng Jia Ho	Crane operator		OS00115	Gurung Prabesh	Non-Skilled Worker	
OS00082	Gurung, Atit	Non-Skilled Worker		OS00109	Khan Ayaz Ahmed	Non-Skilled Worker	
OS00086	SHAH Sarwar	Mobile Plant Operator		OS00070	Ng Cheuk Hung	Mobile Plant Operator	
OS00081	Gurung, Jiwan	Mobile Plant Operator		OS00044	Jagroop-Singh	Mobile Plant Operator	
Day	Howard Wong						
OS00016	Gavin Lee	Assistant Engineer					

Tutor's Signature 講者簽名:

** Filing: Yes/ No

Annex J

Investigation Report for Environmental Complaint

Investigation Report of Environmental Complaint

Ref. No.: ORRC-EC-001-20180907

Project	ORRC1
Date	7 September 2018
Time	3:30 p.m.
EPD Reference No	N/A
Description of the Complaint	<p>During the odour patrol conducted by the Employer (EPD Project Team, ER (AECOM) and OSCAR at about 3 pm on 7 September 2018 (Friday), the patrol team received a verbal complaint from a police officer (Mr Cho who works at the Hong Kong Police Siu Ho Wan Vehicle Examination Centre and Weigh Station next to ORRC1, hereafter referred to as the Compound) regarding odour nuisance, flies and mosquitos at the Compound. It is understood that the complainant has also notified the FEHD.</p> <p>ER notified the ET in the in the morning of 8 September 2018 (Saturday).</p>
Site Activity Summary	<p>Based on the site information on 7 September 2018, finishing work, BS installation, electrical installation (cable trays, Local Control panels/switch installation, general cabling works, instrumentation and control installation, lighting , ELV and SCADA installation) and process commissioning (waste reception, pre-treatment, CAPCS extraction, the digesters, the centrifuge, the composting tunnels, the desulphurisation, the emergency flare, the CHPs, the ASP and the biological waste water treatment plant) were conducted at the area next to the Compound.</p>
Actions taken/ to be taken	<p>The following actions have been taken/will be taken:</p> <ol style="list-style-type: none"> 1. Further to the scheduled joint odour patrol conducted by OSCAR, ER(AECOM) and Employer (EPD Project Team Team) on 7 September 2018, an extra joint odour patrol was conducted by OSCAR, ER (AECOM), ET (ERM), Employer (EPD Project Team Team) and the Independent Odour Patrol Team (ALS) on 10 September 2018. The odour patrol results and photographic records are shown in Appendix A. 2. The construction waste skip (which was identified as the

OSCAR Bioenergy Joint Venture
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	<p>potential source of the odour nuisance and flies) was moved away from the site boundary next to the Compound on 11 September 2018, and the storage area next to the original location of the construction waste skip had been properly cleaned. The photographic records are shown in Appendix B.</p> <p>3. An investigation of the potential mosquito generation locations was conducted on 11 September 2018 by OSCAR, ER (AECOM) and ET (ERM). The photographs of the surveyed potential mosquito generation locations are shown in Appendix C.</p> <p>4. The frequency pest control at the Facility will be increased from twice a week to three times a week.</p>
Remarks	-

Prepared by: Leah Pak, ET Representative
 Date: 5-October-2018

Appendix A

Odour Patrol

Appendix A1


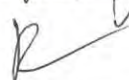

Odour Patrol Result

6. Appendix

Organic Resources Recovery Centre (Phase 1)

Odour Patrol Record Log Sheet

Parameter	Observations
Date	7/9/2018
Start & End Time (24hr)	From 15:05 To 15:30
Type of Patrol	Weekly / Monthly / Ad hoc / Follow-up / T&C Period Patrol
Weather Condition	Sunny / <u>Cloudy</u> / Windy / Humid / Foggy /
Temperature (°C)	33°C
Relative Humidity (%)	76%
Monitoring Point	① / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	① / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / ② / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / ① / 2 / 3 / 4
Characteristic of Odour	Intermittent - Hot Plastic Smell
Possible Source of Odour	PRV of Riggs Holder -
Monitoring Point	1 / 2 / ③ / 4 / 5 / 6 / 7 / 8
Intensity of Odour	① / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / ④ / 5 / 6 / 7 / 8
Intensity of Odour	① / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / 3 / 4 / ⑤ / 6 / 7 / 8
Intensity of Odour	0 / ① / 2 / 3 / 4
Characteristic of Odour	Intermittent smell of digestate
Possible Source of Odour	Door at Blk 2
Monitoring Point	1 / 2 / 3 / 4 / 5 / ⑥ / 7 / 8
Intensity of Odour	① / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Follow-up Actions	Remarks
Lower near centrifuge Blk 2, digestate smell.	

	EPD Representative	Employer Representative	Independent Odour Patrol Team	OSCAR Bioenergy JV
Name	Fiona LAM	Patricia Yim		Terence CHAN
Signature			N/A	
Date	7/9/2018	7/9/18		7/9/2018

6. Appendix

Organic Resources Recovery Centre (Phase 1)

Odour Patrol Record Log Sheet

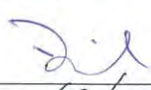


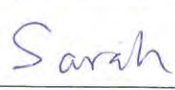
Parameter	Observations	
Date	7/19/2018	
Start & End Time (24hr)	From	To 15:30
Type of Patrol	Weekly / Monthly / Ad hoc / Follow up / T&C Period Patrol	
Weather Condition	Sunny / <u>Cloudy</u> / Windy / Humid / Foggy /	
Temperature (°C)	33°C	
Relative Humidity (%)	76%	
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / <u>7</u> / 8	
Intensity of Odour	0 / <u>1</u> / 2 / 3 / 4	
Characteristic of Odour	Intermittent minor smell of ssow	
Possible Source of Odour	Bld 1 Pretreatment	
Monitoring Point	1 / 2 / <u>3</u> / 4 / 5 / 6 / 7 / 8	
Intensity of Odour	<u>0</u> / 1 / 2 / 3 / 4	
Characteristic of Odour		
Possible Source of Odour		
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8	
Intensity of Odour	0 / 1 / 2 / 3 / 4	
Characteristic of Odour		
Possible Source of Odour		
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8	
Intensity of Odour	0 / 1 / 2 / 3 / 4	
Characteristic of Odour		
Possible Source of Odour		
Monitoring Point	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8	
Intensity of Odour	0 / 1 / 2 / 3 / 4	
Characteristic of Odour		
Possible Source of Odour		
Follow-up Actions	Remarks	

	EPD Representative	Employer Representative	Independent Odour Patrol Team	OSCAR Bioenergy JV
Name	Fiona LAM	Patrick Yim		Terence CHAN
Signature			N/A	
Date	7/19/2018	7/19/18		7/19/2018

6. Appendix

Organic Resources Recovery Centre (Phase 1)
Odour Patrol Record Log Sheet

Parameter	Observations
Date	10/9/2018
Start & End Time (24hr)	From 16:15 To 16:36
Type of Patrol	Weekly / Monthly / <u>Ad hoc</u> / Follow-up /
Weather Condition	Sunny / <u>Cloudy</u> / Windy / Humid / Foggy /
Temperature (°C)	28.7
Relative Humidity (%)	77.9
Monitoring Point	① / 2 / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / ① / 2 / 3 / 4
Characteristic of Odour	Grassy
Possible Source of Odour	Grass & Tree
Monitoring Point	1 / ② / 3 / 4 / 5 / 6 / 7 / 8
Intensity of Odour	① / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Monitoring Point	1 / 2 / ③ / 4 / 5 / 6 / 7 / 8
Intensity of Odour	0 / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	P1 = 0 P2 = 1 Grassy Grass & Tree
Monitoring Point	1 / 2 / 3 / ④ / 5 / 6 / 7 / 8
Intensity of Odour	0 / ① / 2 / 3 / 4
Characteristic of Odour	Concrete & refuse
Possible Source of Odour	Waste container, construction waste
Monitoring Point	1 / 2 / 3 / 4 / ⑤ / 6 / 7 / 8
Intensity of Odour	0 / ① / 2 / 3 / 4
Characteristic of Odour	Musty of construction material
Possible Source of Odour	Construction material
Monitoring Point	1 / 2 / 3 / 4 / 5 / ⑥ / 7 / 8
Intensity of Odour	① / 1 / 2 / 3 / 4
Characteristic of Odour	
Possible Source of Odour	
Follow-up Actions Remark	
Refer to the attachment for the monitoring point.	

	EPD Representative	Employer Representative	Independent Odour Patrol Team	OSCAR Bioenergy JV
Name	Daniel Choi	Patrick Yip	Pan Tuen / Allen Pan	Sarah Ho
Signature				
Date	10/9/2018	10/9/18	10/9/2018	10/9/2018



Odour Patrol Survey

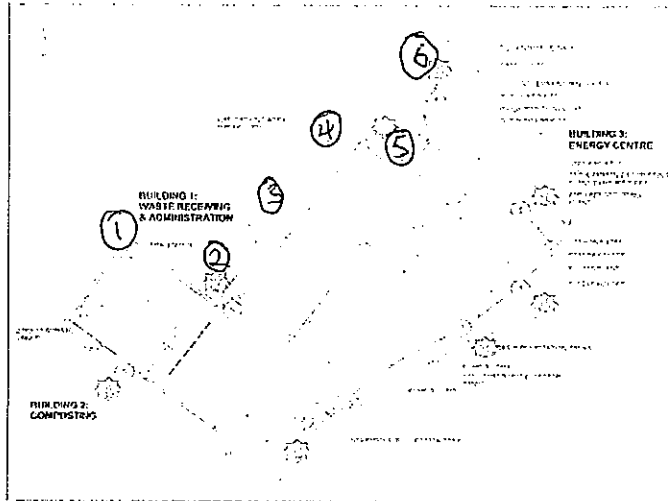
Date: 10-9-18

Weather: Sunny / Fine / Cloudy / Rainy

ALS Work Order: _____

No.	Location ID	Time	Temp (C)	RH (%)	Wind Speed (m/s)	Wind Direction	Odour Intensity	Odour Characteristics	Potential Odour Source	Duration	Direction from the Odour Source
-		09:00	22.0	69	11.1	N	0 / 1 / 2 / 3 / 4	sewage / rotten-egg smell, decayed vegetables / ammoniacal / dischargeable odour / putrefaction / sharp / pungent / fishy / irritating / furt / vinegar	Sediment / Water sewage / floating debris / material / others	Intermittent / Continuous	Downwind / Upwind / Sidewind
1		16:15	28.7	77.9	0.8	309	P1: 0 / 1 / 2 / 3 / 4 P2: 0 / 1 / 2 / 3 / 4	Grassy	Grass & tree	Intermittent / Continuous	Downwind / Upwind / Sidewind
2		16:19	29.2	77.4	0.9	324	P1: 0 / 1 / 2 / 3 / 4 P2: 0 / 1 / 2 / 3 / 4			Intermittent / Continuous	Downwind / Upwind / Sidewind
3		16:22	28.9	77.4	0	NA	P1: 0 / 1 / 2 / 3 / 4 P2: 0 / 1 / 2 / 3 / 4	Grassy	Grass & tree	Intermittent / Continuous	Downwind / Upwind / Sidewind
4		16:25	28.9	75.4	1.1	253	P1: 0 / 1 / 2 / 3 / 4 P2: 0 / 1 / 2 / 3 / 4	concrete & refuse	Waste / Contaminated construction waste	Intermittent / Continuous	Downwind / Upwind / Sidewind
5		16:30	28.9	81.6	0	NA	P1: 0 / 1 / 2 / 3 / 4 P2: 0 / 1 / 2 / 3 / 4	Mixture of Construction Material		Intermittent / Continuous	Downwind / Upwind / Sidewind
6		16:36	29.1	76.8	0	NA	P1: 0 / 1 / 2 / 3 / 4 P2: 0 / 1 / 2 / 3 / 4			Intermittent / Continuous	Downwind / Upwind / Sidewind
7							P1: 0 / 1 / 2 / 3 / 4 P2: 0 / 1 / 2 / 3 / 4			Intermittent / Continuous	Downwind / Upwind / Sidewind
8							P1: 0 / 1 / 2 / 3 / 4 P2: 0 / 1 / 2 / 3 / 4			Intermittent / Continuous	Downwind / Upwind / Sidewind
							P1: 0 / 1 / 2 / 3 / 4 P2: 0 / 1 / 2 / 3 / 4			Intermittent / Continuous	Downwind / Upwind / Sidewind
							P1: 0 / 1 / 2 / 3 / 4 P2: 0 / 1 / 2 / 3 / 4			Intermittent / Continuous	Downwind / Upwind / Sidewind

Location Plan:



Remark for Odour Intensity:

- 0 - Not detected
 - 1 - Slight
 - 2 - Moderate
 - 3 - Strong
 - 4 - Extreme
- No odour perceived or an odour so weak that it cannot be readily characterized or described
 Identifiable odour, slight
 Identifiable odour, moderate
 Identifiable odour, strong
 Severe odour

- Proposed Patrol Route
- Possible Odour Sources (No.) / Checkpoint
- Assumed Odour Potential (normal operation)

Odour Patrol Team:

ALS Representative: Pan Yuen ()

P1: Allen Poon
 P2: Pan Yuen



CERTIFICATE OF ANALYSIS

CLIENT:	Oscar Bioenergy Joint Venture	WORK ORDER:	HK1849200
CONTACT:	Edwin Wong	LABORATORY:	Hong Kong
ADDRESS:	No. 5, Sham Fung Road, Siu Ho Wan, North Lantau Island, NT, Hong Kong	SUB-BATCH:	0
		DATE OF PATROL:	10 September 2018
		DATE OF ISSUE:	18 September 2018
PROJECT:	Ad Hoc Odour Patrol for the Organic Resources Recovery Centre Phase 1 in Siu Ho Wan		
SITE:	Organic Resources Recovery Centre Phase 1 (ORRC1)		

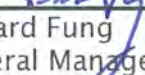
COMMENTS

Ad hoc Odour Patrol was conducted by ALS Technichem (HK) Pty Ltd staff during 16:15 - 16:38 on 10th September 2018.

NOTES

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

Results apply to sample(s) as submitted. All pages of this report have been checked and approved for release.


Richard Fung
General Manager - Hong Kong

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1. Summary of Work

Ad hoc odour patrol service was conducted on 10th September 2018.

2. Odour Patrol

Odour patrolling is a process to make use of the calibrated olfactory senses (ie the nasal sense) of the patrol members to evaluate the odour and its intensity during a patrol exercise at the site.

Two odour patrol team members from ALS Technichem (HK) Pty Ltd were conducted the ad hoc patrol work and the patrol route was guided by the client. All members were free from any respiratory diseases during patrol day. None of the members has been working or living in the area in the vicinity of the inspection area.

The patrol team was required to move slowly from one to the other monitoring locations and used their olfactory senses to detect odour at each location. The location of odour sources and the areas to be affected by the odour nuisance were identified as much as possible.

During the patrolling, the meteorological and surrounding information were recorded:

- the prevailing weather condition;
- the wind direction;
- the wind speed;
- location where odour is spotted;
- possible source of odour;
- perceived intensity of the odour;
- duration of odour; and
- characteristics of the odour detected

The perceived intensity is to be divided into 5 levels which are ranked in an ascending order as follows:

0	Not detected	No odour perceives or an odour so weak that it cannot be easily characterised or described
1	Slight	Identifiable odour, slight
2	Moderate	Identifiable odour, moderate
3	Strong	Identifiable odour, strong
4	Extreme	Severe odour

The ad hoc odour patrol locations were shown in Appendix 1.



3. Result:

Location	Panellist	Weather	Time	T (°C)	RH (%)	WS (m/s)	WD (Deg)	Odour Intensity	Duration of Odour	Direction from Source	On-Site Observation	
											Odour Characteristics	Potential Odour Source
1	1	Cloudy	16:15	28.7	77.9	0.8	309	1	Intermittent	Downwind	Grassy	Trees and grass
	2							1				
2	1	Cloudy	16:19	29.2	77.4	0.9	324	0	NA	NA	NA	NA
	2							0				
3	1	Cloudy	16:22	28.9	77.4	0.0	NA	0	NA	NA	Grassy	Trees and grass
	2							1	Intermittent			
4	1	Cloudy	16:25	28.9	75.4	1.1	253	1	Intermittent	Downwind	Smell of concrete and garbage	Construction waste container
	2							1				
5	1	Cloudy	16:30	28.9	81.6	0.0	NA	1	Intermittent	NA	Musty smell of construction material	Construction material storage zone
	2							1				
6	1	Cloudy	16:36	29.1	76.8	0.0	NA	0	NA	NA	NA	NA
	2							0				

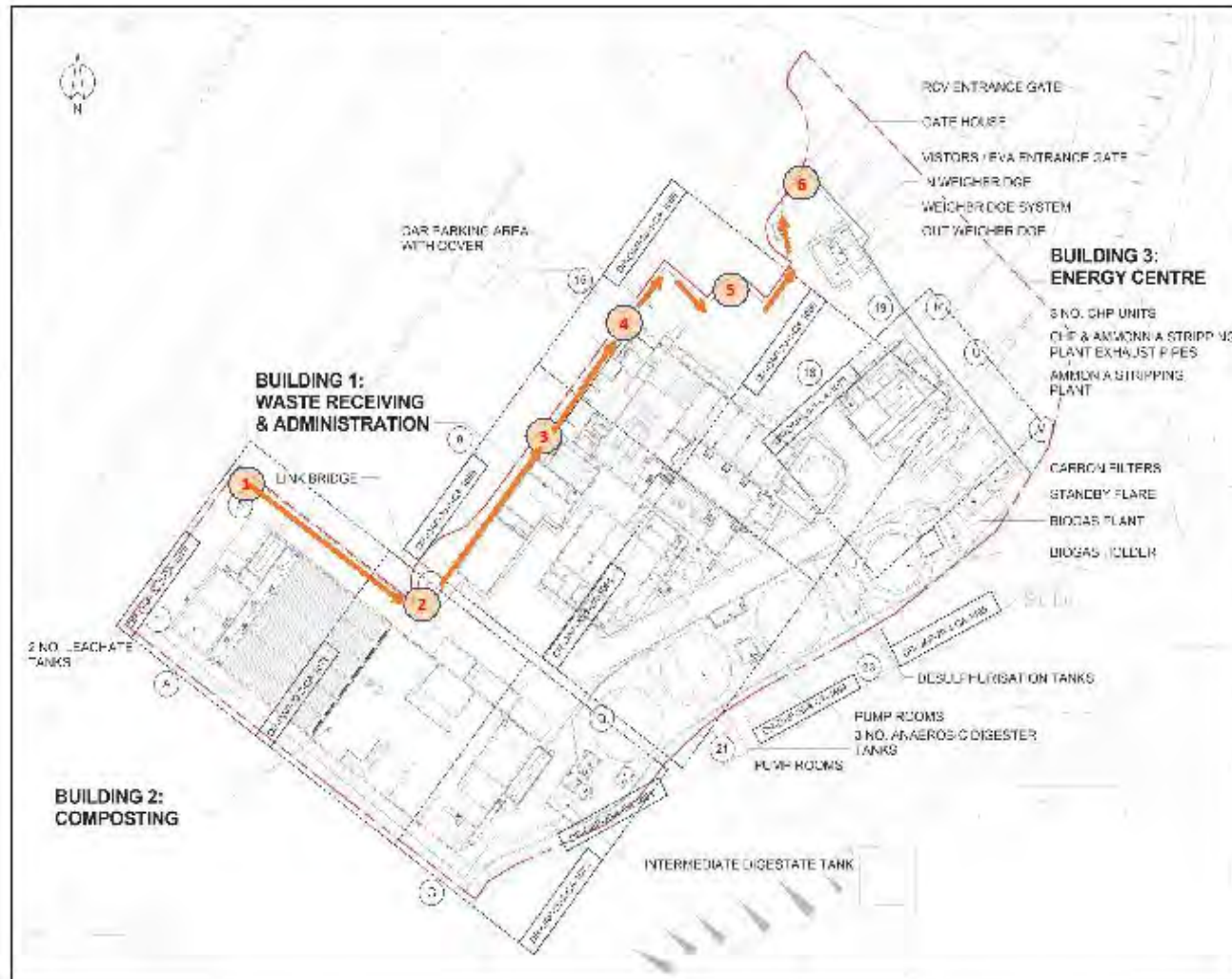
Remark:

- T: Air Temperature;
- RH: Relative Humidity;
- WD: Wind Direction;
- WS: Wind Speed.



APPENDIX 1

Ad hoc Odour Patrol Route



→ Proposed Patrol Route

10 Possible Odour Sources (No.) / Checkpoint

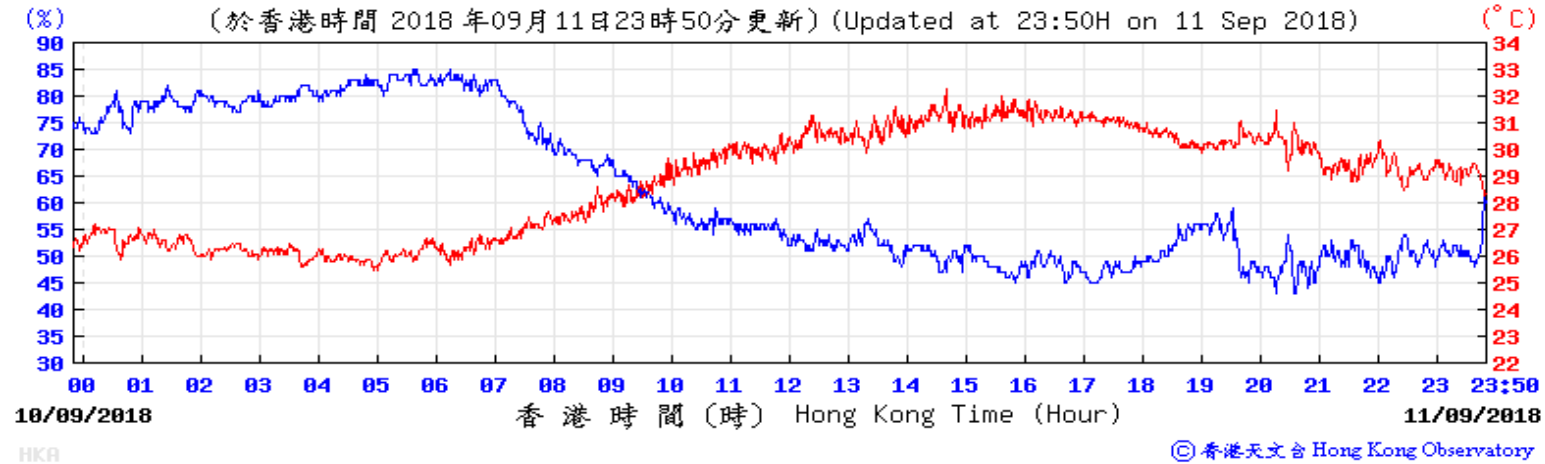
1 Estimated Odour Intensity
From 1 (min.) to 3 (max.)



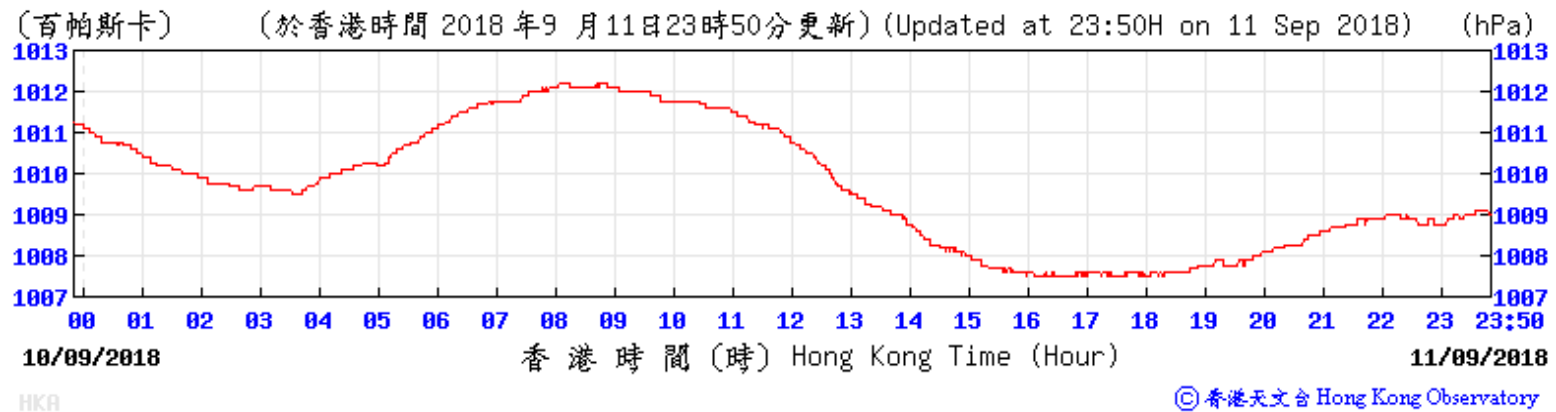
APPENDIX 2

Extract of Meteorological Observations from the Hong Kong Airport Observatory Station

Temperature/Humidity:

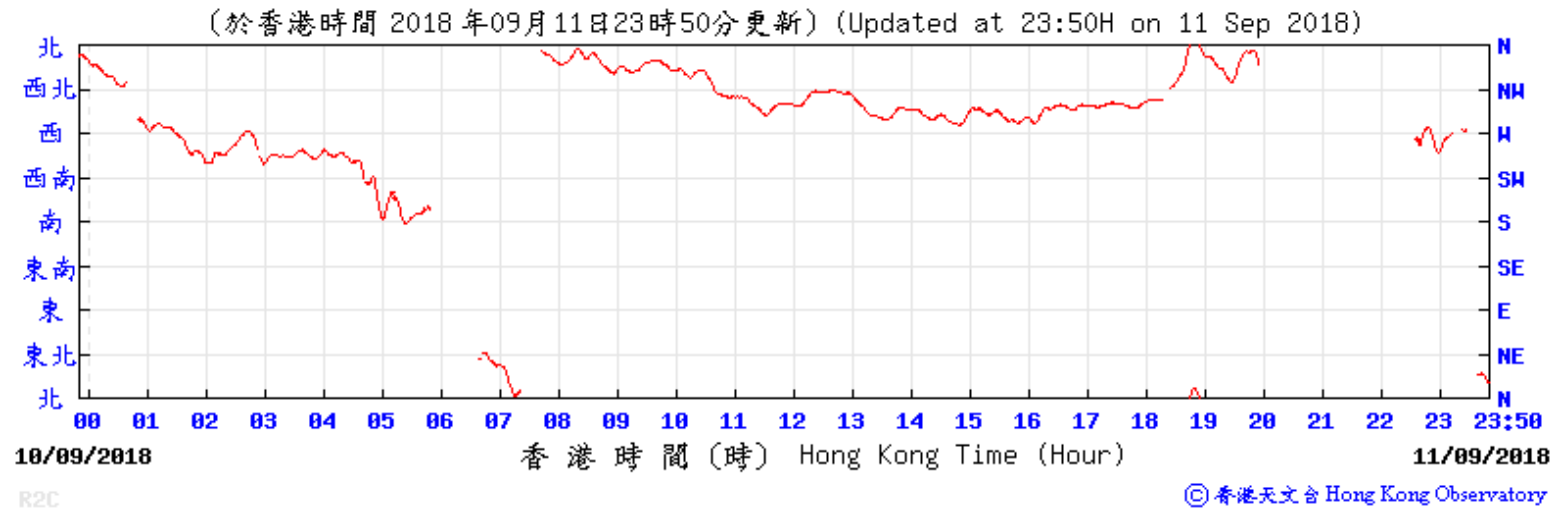


Pressure:

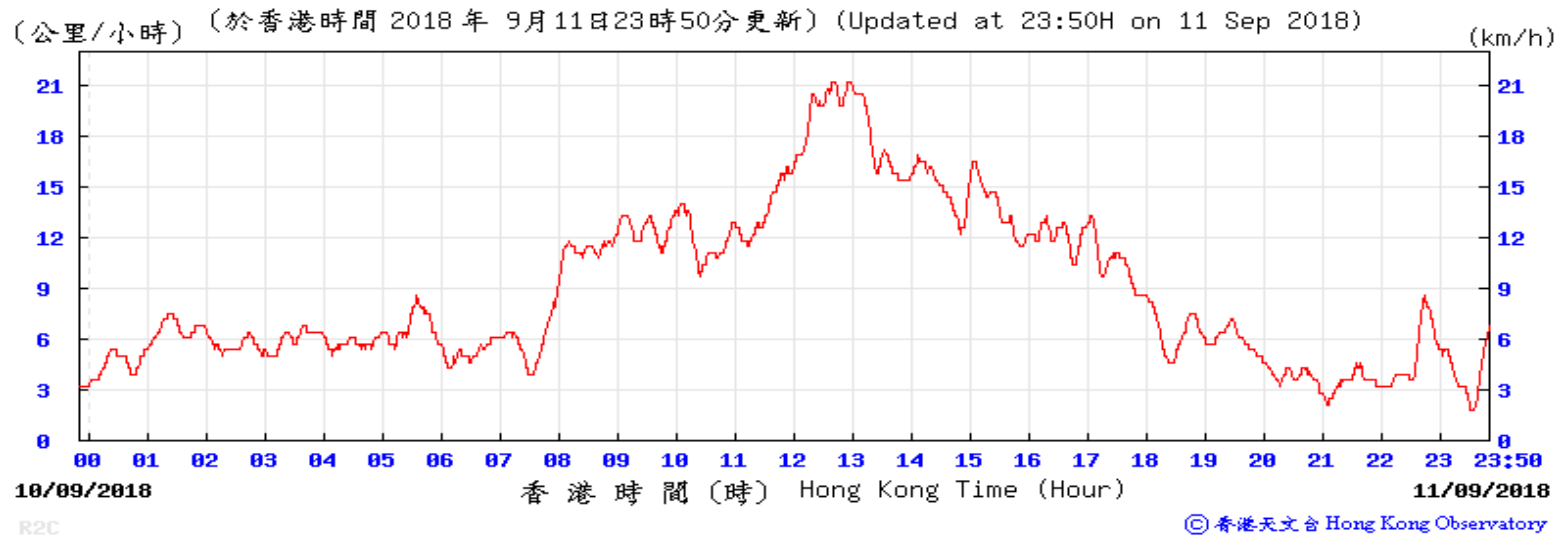




Wind Direction:



Wind Speed:



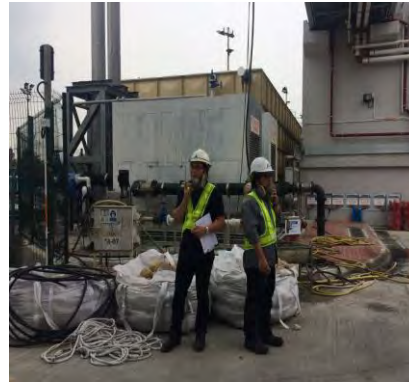


APPENDIX 3

Photos for the Odour Patrol Locations



Location: 1



Location: 2



Location: 3



Location: 4



Location: 5



Location: 6

Appendix A2

Odour Patrol Photo Record













Appendix B

Photo Record

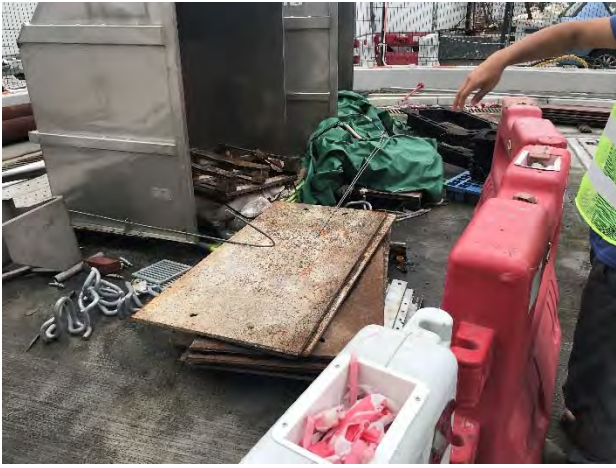
Before



After



Construction waste skip was relocated.



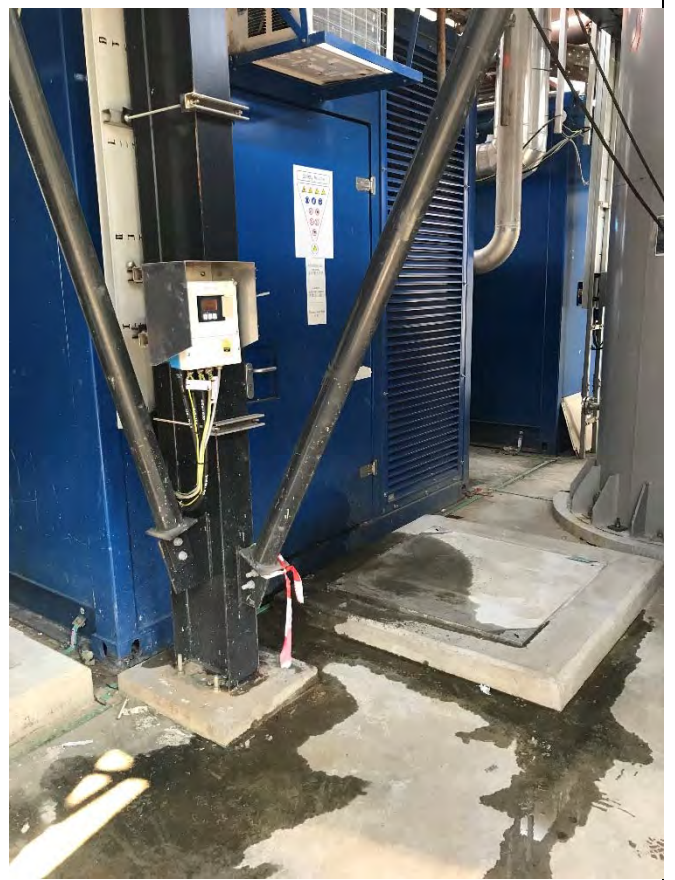
Storage area was properly cleaned up.

Appendix C

Mosquito Control Points



Near Building 1



Near CHP



Link Bridge



Building 1 Roof



All surface channel