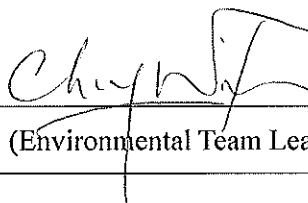


**Contract No. DC/2009/24  
HATS Stage 2A – Upgrading of  
Preliminary Treatment Works at  
Sandy Bay, Cyberport, Wah Fu,  
Aberdeen and Ap Lei Chau**

**Quarterly Environmental  
Monitoring and Audit Report  
July to September 2014**

**(Version 1.0)**

Certified By	 (Environmental Team Leader)
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**REMARKS:**

The information supplied and contained within this report is, to the best of our knowledge, correct at the time of printing.

CINOTECH accepts no responsibility for changes made to this report by third parties

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CE/Harbour Area Treatment Scheme  
Drainage Services Department  
Sewage Services Branch  
Harbour Area Treatment Scheme Division  
5/F, Western Magistracy  
2A Pokfulam Road, Hong Kong

3 December 2014  
By Post

**Attn: Mr. Danny Tang**

Dear Sir,

**Agreement No. CE 8/2009(EP)  
Harbour Area Treatment Scheme (HATS) Stage 2A  
Independent Environmental Checker for Construction Phase – Investigation**

**Contract No. DC/2009/24  
Upgrading of Preliminary Treatment Works at Sandy Bay, Cyberport, Wah Fu, Aberdeen  
and Ap Lei Chau  
Submission of 11<sup>th</sup> Quarterly EM&A Report for July to September 2014 (Version 1.0)**

We refer to the Quarterly EM&A Report for July to September 2014 (version 1.0) received on 26 November and 2 December 2014 and we confirm that we have no further comment.

Yours faithfully  
for MOTT MACDONALD HONG KONG LIMITED

Dr. Anne F Kerr  
Independent Environmental Checker

c.c. Ove Arup & Partners HK Ltd.  
Leader - JEC Joint Venture  
Cinotech Consultants Ltd.

Mr. Ted Y F Tang  
Mr. Patrick Wong  
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Fax: 2370 4377  
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## ABBREVIATION AND ACRONYM

AL Levels	Action and Limit Levels
DSD	Drainage Services Department
E / ER	Engineer/Engineer's Representative
EIA	Environmental Impact Assessment
EM&A	Environmental Monitoring and Audit
EMIS	Environmental Mitigation Implementation Schedule
EP	Environmental Permit
EPD	Environmental Protection Department
ET	Environmental Team
HATS 2A	Harbour Area Treatment Scheme Stage 2A
HVS	High Volume Sampler
IEC	Independent Environmental Checker
RE	Resident Engineer
RH	Relative Humidity
QA/QC	Quality Assurance / Quality Control
SLM	Sound Level Meter
WMP	Waste Management Plan

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## EXECUTIVE SUMMARY

### Introduction

1. This is the 11<sup>th</sup> Quarterly Environmental Monitoring and Audit (EM&A) Report prepared by Cinotech Consultants Limited for DSD Contract No. DC/2009/24 “HATS Stage 2A – Upgrading of Preliminary Treatment Works at Sandy Bay, Cyberport, Wah Fu, Aberdeen and Ap Lei Chau” (The Project) which documents the key information of EM&A of Contract No. DC/2009/24 and environmental monitoring results from Contract DC/2007/24 and DC/2008/09 HATS Stage 2A with same Environmental Permit (Permit No. EP-322/2008/G) for July to September 2014.
2. The site activities undertaken for in the reporting quarter included:

#### *July 2014:*

- Wah Fu PTW – Plant operation, Construction for the FSGT structure;
- Ap Lei Chau PTW – Plant operation, FSGT building construction, Pipe pile construction;
- Aberdeen PTW – Plant operation, Construction for the FSGT structure, Flume channel and chamber construction, Rising Main construction;
- Sandy Bay PTW – Reinstatement works for boundary wall; and
- Cyberport PTW– Installation of fine screen, Installation of DO unit, Inspection trench & trial pit excavation.

#### *August 2014:*

- Wah Fu PTW – Plant operation, Construction for the FSGT structure;
- Ap Lei Chau PTW – Plant operation, FSGT building construction, Pipe pile construction, Relocation of night soil dumping point;
- Aberdeen PTW – Plant operation, Construction for the FSGT structure, Flume channel and chamber construction;
- Sandy Bay PTW – Reinstatement works for boundary wall; and
- Cyberport PTW– Installation of fine screen, Installation of DO unit.

#### *September 2014:*

- Wah Fu PTW – Plant operation, Construction for the FSGT structure;
- Ap Lei Chau PTW – Plant operation, FSGT building construction;
- Aberdeen PTW – Plant operation, Construction for the FSGT structure, Flume channel and chamber construction;
- Sandy Bay PTW – Reinstatement works for tiles; and
- Cyberport PTW– Installation of fine screen, Installation of DO unit.

### Environmental Monitoring Works

3. The environmental monitoring works of the Project was conducted by the ET for the Contract: DC/2007/24, DC/2008/09 & DC/2009/24 under HATS 2A with same Environmental Permit and in accordance with the EM&A Manual. The monitoring results were checked and reviewed. Site audits were conducted once per week. The implementation of the environmental mitigation measures, Event Action Plans and environmental complaint handling procedures were also checked.

## Air Quality and Noise

4. The monitoring of air quality monitoring station at Wah Ming House, Wah Fu Estate (CM\_WF1a) and noise monitoring station at Aegean Terrace (M6a), Wah Ming House (M7a) and Wah Ling House (M8) was handed over to Contract No. DC/2009/24 from Contract No. DC/2007/24 in July 2014. The noise monitoring station at Mei Chun Court, South Horizons (M9) was handed over to Contract No. DC/2009/24 from Contract No. DC/2008/09 on 28 July 2014. The air quality and noise monitoring stations was set up by Cinotech Consultants Limited (ET for this project) to monitor the air quality and noise in the vicinity of the sensitive receivers starting from July 2014.
5. Furthermore, the monitoring of air quality monitoring station at The Arcade, Cyberport (CM\_CB1a) and The Hong Kong Ice and Cold Storage (CM\_AB1a) were handed over to Contract No. DC/2009/24 from Contract No. DC/2007/24 in August 2014. The air quality monitoring stations was set up by Cinotech Consultants Limited (ET for this project) to monitor the air quality in the vicinity of the sensitive receivers starting from August 2014.
6. However, the air quality monitoring at CM\_AB1a had been rejected and could not be continued, the proposed location (CM\_AB1b – Works Site Boundary of Aberdeen PTW) was approved by ER on 22 July 2014. The air quality monitoring stations was set up by Cinotech Consultants Limited (ET for this project) to monitor the air quality and noise in the vicinity of the sensitive receivers starting from August 2014. The location of CM\_AB1b is shown in **Figure 1c-2**.
7. Summary of the non-compliance of the reporting quarter is tabulated in **Table I**.

**Table I Summary Table for Non-compliance Recorded in the Reporting Quarter**

Monitoring Station	Parameter	No. of Exceedance		No. of Exceedance Due to the Project		Action Taken
		Action Level	Limit Level	Action Level	Limit Level	
CM_CB1a	1-hr TSP	0	0	0	0	N/A
	24-hr TSP	0	0	0	0	N/A
CM_WF1a	1-hr TSP	0	0	0	0	N/A
	24-hr TSP	0	0	0	0	N/A
CM_AB1a <sup>(1)</sup>	1-hr TSP	0	0	0	0	N/A
	24-hr TSP	0	0	0	0	N/A
CM_AB1b <sup>(2)</sup>	1-hr TSP	0	0	0	0	N/A
	24-hr TSP	0	0	0	0	N/A
M5	Noise (Day Time)	0	0	0	0	N/A
M6a		0	0	0	0	N/A
M7a		0	0	0	0	N/A
M8		0	0	0	0	N/A
M9		0	0	0	0	N/A

Remark: (1)

### *1-hour TSP Monitoring*

8. All 1-hour TSP monitoring was conducted as scheduled in the reporting quarter. No Action/Limit Level exceedance was recorded.

### *24-hour TSP Monitoring*

9. All 24-hour TSP monitoring was conducted as scheduled in the reporting quarter. No Action/Limit Level exceedance was recorded.

### *Construction Noise*

10. All construction noise monitoring was conducted as scheduled in the reporting quarter. No Action/Limit Level exceedance was recorded.

### **Environmental Complaint and Prosecution**

11. No environmentally related summons, prosecutions or complaints were received for the Project in the reporting quarter.
12. There was no environmental prosecution or notification of summons received while three complaints were already received since the Project commencement. The Complaint Log is presented in **Appendix J**.

### **Environmental Licenses and Permits**

13. Licenses/Permits granted to the Project include the Environmental Permit (EP), Notification of Works under APCO, Water Discharge Licences and Registered as a Chemical Waste Producer for Sandy Bay, Cyberport, Ap Lei Chau, Aberdeen, Wah Fu PTWs sites.

### **Future Key Issues:**

14. Major site activities for the coming two months include:
- Wah Fu PTW: FSGT structure construction, Plant operation;
  - Aberdeen PTW: Construction of FSGT structure, E&M equipment installation, Plant operation, Flume channel and chamber construction;
  - Ap Lei Chau PTW: Plant operation, Construction of FSGT structure, Excavation for wet/dry well;
  - Sandy Bay PTW: Staircase construction, Odour pipe/ drawpit/ ducting construction; and
  - Cyberport PTW: Installation of fine screen, Installation of DO unit, Trial pit excavation.
15. The environmental concerns in coming months are mainly on chemicals storage, surface run off, spillage of wastewater during rainstorm and dust generated from the construction works.



## 1. INTRODUCTION

### Background

- 1.1 The Project ‘HATS Stage 2A – Upgrading of Preliminary Treatment Works at Sandy Bay, Cyberport, Wah Fu, Aberdeen and Ap Lei Chau’ with Contract No: DC/2009/24 mainly comprises the following major works:
- The construction of screens, grit traps, deodourisation rooms, workshop and administration buildings, and modification of existing inlet pumping stations at the preliminary treatment works at Sandy Bay, Cyberport, Wah Fu, Aberdeen and Ap Lei Chau.
- 1.2 The general location plan of the Project is shown in **Figure 1**.
- 1.3 The Project is under Harbour Area Treatment Scheme (HATS) Stage 2A and is a designated project (Register No. : AEIAR-121/2008). The environmental permit: (Permit No. EP-322/2008/G) which was issued on 10<sup>th</sup> October 2012 to the Drainage Services Department (hereinafter called the DSD) as the Permit Holder.
- 1.4 Leader and JEC Joint Venture (hereafter called the LJJV) was commissioned by the DSD to undertake the construction of the Contract No. DC/2009/24 “Upgrading of Preliminary Treatment Works at Sandy Bay, Cyberport, Wah Fu, Aberdeen and Ap Lei Chau”.
- 1.5 Cinotech Consultants Limited was commissioned by LJJV to undertake the Environmental Monitoring and Audit (EM&A) works for the project and was appointed as the Environmental Team (ET) of the Project under Condition 2.1 of the EP.
- 1.6 The construction works at Wah Fu PTW and Ap Lei Chau PTW were commenced in the January 2012.
- 1.7 The construction phase of EM&A programme of the Project commenced in January 2012.
- 1.8 This is the 11<sup>th</sup> quarterly EM&A report summarizing the EM&A works conducted for the Project in July to September 2014.

## 2 PROJECT CHARACTERISTICS

### Project Organization and Contacts of Key Management

- 2.1 Different parties with different levels of involvement in the project organization include:
- Project Proponent – The Drainage Services Department (DSD)
  - Engineer’s Representative (ER) – Ove Arup & Partners Hong Kong Ltd.
  - Contractor – Leader and JEC Joint Venture (LJJV)
  - Environmental Team (ET) – Cinotech Consultants Ltd.
  - Independent Environmental Checker (IEC) – Mott MacDonald Hong Kong Ltd.
- 2.2 The key contacts of the Project and the ET organization chart and are shown in **Appendix A** and **Figure 2**.

### Construction Programme and Synopsis of Work

- 2.3 The construction programme is presented in **Appendix B**. The site activities undertaken during the reporting quarter included:

#### *July 2014:*

- Wah Fu PTW – Plant operation, Construction for the FSGT structure;
- Ap Lei Chau PTW – Plant operation, FSGT building construction, Pipe pile construction;
- Aberdeen PTW – Plant operation, Construction for the FSGT structure, Flume channel and chamber construction, Rising Main construction;
- Sandy Bay PTW – Reinstatement works for boundary wall; and
- Cyberport PTW – Installation of fine screen, Installation of DO unit, Inspection trench & trial pit excavation.

#### *August 2014:*

- Wah Fu PTW – Plant operation, Construction for the FSGT structure;
- Ap Lei Chau PTW – Plant operation, FSGT building construction, Pipe pile construction, Relocation of night soil dumping point;
- Aberdeen PTW – Plant operation, Construction for the FSGT structure, Flume channel and chamber construction;
- Sandy Bay PTW – Reinstatement works for boundary wall; and
- Cyberport PTW – Installation of fine screen, Installation of DO unit.

#### *September 2014:*

- Wah Fu PTW – Plant operation, Construction for the FSGT structure;
- Ap Lei Chau PTW – Plant operation, FSGT building construction;
- Aberdeen PTW – Plant operation, Construction for the FSGT structure, Flume channel and chamber construction;
- Sandy Bay PTW – Reinstatement works for tiles; and
- Cyberport PTW – Installation of fine screen, Installation of DO unit.

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### **3. ENVIRONMENTAL MONITORING & AUDIT REQUIREMENTS**

#### **Monitoring Parameters and Monitoring Locations**

- 3.1 In accordance with the EM&A Manual, 1-hour and 24-hour Total Suspended Particulates (TSP) and Noise monitoring were conducted to monitor the air quality and the impact noise. The general layout plan of the Project and the monitoring locations are shown in **Figures 1, Appendix C** gives details of monitoring requirements.

#### **Monitoring Methodology and Calibration Details**

- 3.2 Monitoring works/equipments were conducted/calibrated regularly in accordance with the Project Specific EM&A Manual. Copies of calibration certificates are attached in the appendices of the Monthly Reports of DC/2007/24, DC/2008/09 and this Project.

#### **Environmental Quality Performance Limits (Action and Limit Levels)**

- 3.3 The environmental quality performance limits, i.e. Action and Limit Levels were derived from the baseline monitoring results. Should the measured environmental quality parameters exceed the Action/Limit Levels, the respective action plans would be implemented. The Action/Limit Levels for each environmental parameter are given in **Appendix D**.

#### **Environmental Mitigation Measures**

- 3.4 Relevant mitigation measures as recommended in the project EIA report have been stipulated in the Project Specific EM&A Manual for the Contractor to implement. A summary of the Environmental Mitigation Implementation Schedule (EMIS) is given in **Appendix G**.

**4. MONITORING RESULTS**

**Weather Conditions**

4.1 The weather conditions during monitoring sessions were mainly sunny and sometimes cloudy. The weather conditions for each individual monitoring session were presented in the field record sheets and they could be found in the Appendices of the corresponding monthly EM&A reports.

**Air Quality**

*1-hr TSP Monitoring and 24-hr TSP Monitoring*

- 4.2 No Action/Limit Level exceedance was recorded in the reporting quarter. Summary of exceedance is presented in **Appendix K**.
- 4.3 **Table 4.1** summarizes the dust monitoring results which were extracted from the monthly reports for the Contract DC/2007/24 and this Project.
- 4.4 The detailed monitoring data and graphical presentations of 1-hour and 24-hour TSP monitoring results could be referred to Appendix E of quarterly report of Contract DC/2007/24 and **Appendix E** of this report.

**Table 4.1 Summary of 1-hour and 24-hour TSP Monitoring Result in Reporting Quarter**

Reporting Months	Air Quality Monitoring Station	Average $\mu\text{g}/\text{m}^3$	Range $\mu\text{g}/\text{m}^3$	Action Level $\mu\text{g}/\text{m}^3$	Limit Level $\mu\text{g}/\text{m}^3$
1 hour TSP					
July 2014	CM_CB1a	68	38.2-103.0	280	500
	CM_WF1a	70	13.3-220.4	285	
	CM_AB1a	54	10.2-97.9	283	
August 2014	CM_CB1a	59	25.1-87.9	280	
	CM_WF1a	73	45.5-112.4	285	
	CM_AB1b	64	27.5-159.9	283	
September 2014	CM_CB1a	124	43.5-230.8	280	
	CM_WF1a	144	51.9-248.9	285	
	CM_AB1b	130	59.9-230.1	283	
24 hours TSP					
July 2014	CM_CB1a	35	11-57	178	260
	CM_WF1a	33	19-50	185	
	CM_AB1a	36	5-59	174	
August 2014	CM_CB1a	33	18-58	178	
	CM_WF1a	20	13-25	185	
	CM_AB1b	49	30-106	174	
September 2014	CM_CB1a	45	24-91	178	
	CM_WF1a	56	31-125	185	
	CM_AB1b	74	36-149	174	

**Noise**

- 4.5 All construction noise monitoring was conducted as scheduled in the reporting quarter.
- 4.6 No Action/Limit Level exceedance was recorded in the reporting quarter. Summary of exceedance is presented in **Appendix K**.
- 4.7 **Table 4.2** summarizes the noise monitoring results which were extracted from the monthly reports for the Contract DC/2007/24, DC/2008/09 and this Project.
- 4.8 The construction noise monitoring at the designated locations was conducted by the ET of Contract: DC/2007/24, DC/2008/09 and this Project as scheduled in the reporting quarter. The monitoring results and graphical presentation are provided in Appendix D of the quarterly report for Contract DC/2007/24, Appendix J of the quarterly report for Contract DC/2008/09 and **Appendix F** of this report.

**Table 4.2 Summary of Noise Monitoring Result in Reporting Quarter**

Reporting Months	Noise Quality Monitoring Station	Range, dB(A) Leq(30 min.)	Limit Level, dB(A) Leq(30 min.)
July 2014	M5	61-64	75.0
	M6a	52-55 <sup>(1)</sup>	
	M7a	67-69	
	M8	65-68	
	M9	43-57	
August 2014	M5	62-62	
	M6a	48-54 <sup>(1)</sup>	
	M7a	46-71	
	M8	48-63	
	M9	43-56	
September 2014	M5	62-64	
	M6a	49-54 <sup>(1)</sup>	
	M7a	52-70	
	M8	60-67	
	M9	51-55	

Remark: (1) Free-field measurement, +3dB correction.

**5 ENVIRONMENTAL AUDIT**

**Implementation Status of Environmental Mitigation Measures**

5.1 The implementation status of the Environmental Mitigation Implementation Schedule (EMIS) is given in **Appendix G**.

**Site Audit Summary**

5.2 During site inspections in the reporting period, no non-conformance was identified. The observations and recommendations made in each site audit session in the reporting period are summarized in **Table 5.1**.

**Table 5.1 ET’s Observations and Recommendations of Site Audits**

Parameters	Date/Ref. Number	Observations	Follow Up Action
<b>Water Quality</b>	140627-001	The flow meter of the sediment tank at Wah Fu-PTW and the pH meter of the sediment tank at ALC-PTW were mal-functioned. The Contractor was reminded to provide the maintenance of the sediment tanks to ensure the water quality of the sediment tank is fulfilled the requirement of the WPCO’s wastewater discharge license before discharging out.	Please refer to 140704-001.
	140704-001	The pH meter of the sediment tank at ALC-PTW and Abd-PTW were mal-functioned. The Contractor was reminded to provide the maintenance of the sediment tanks to ensure the water quality of the sediment tank is fulfilled the requirement of the WPCO’s wastewater discharge license before discharging out.	The maintenance of the sediment tanks was provided by the Contractor. The pH meter of the sediment tank at ALC-PTW and Abd-PTW are functioning now.
	140704-R02	Properly clear the slurry water at Abd-PTW.	The slurry water was cleared properly at Abd-PTW.
	140725-001	The wet sep at ALC-PTW was mal-functioned. The Contractor was reminded to provide the maintenance of the wet sep or additional wastewater treatment facility if the timely maintenance of the wet sep cannot provide.	The maintenance of the wet sep at ALC-PTW was provided by the Contractor. The wet sep is functioned now at ALC-PTW.
	140725-002	The bunding should be provided at ALC-PTW to prevent the muddy water runoff to the access road.	The bunding was provided at ALC-PTW.
	140725-R04	Properly clear the stagnant water at Cyberport-PTW and ALC-PTW.	Please refer to 140729-R01.

140729-R01	Properly clear the stagnant water at Cyberport-PTW and ALC-PTW.	The stagnant water was cleared at Cyberport-PTW and ALC-PTW.
140808-O01	The slurry water overflowing to the access road was observed at ALC-PTW. The Contractor was reminded to provide the appropriate measures to prevent the slurry water discharging out before bypassing to the wastewater treatment facility for treatment.	The slurry water was not observed and the bunding was provided by the Contractor at ALC-PTW.
140808-R04	Properly clear the stagnant water at all PTWs especially the rain season.	The stagnant water was cleared at the identified location of all PTWs.
140815-R04	Properly clear the stagnant water at all PTWs.	No major accumulation of stagnant water was observed in ALC and Abd- PTWs' area. The stagnant water in Cyberport-PTW was not observed during the site inspection on 22 August 2014.
140822-O02	AquaSed tank should be desilted regularly (Aberdeen-PTW).	Please refer to 140829-O02.
140822-R04	The Contractor is reminded to insert the water pipe into the sedimentation tank before discharging (Wah Fu-PTW).	The unused water pipe was removed and not observed at Wah Fu-PTW.
140829-O02	AquaSed tank should be desilted regularly at Aberdeen-PTW.	AquaSed tank was desilted at Aberdeen-PTW.
140905-R02	The bunding should be maintained properly to prevent the muddy water discharging out at ALC-PTW.	The bunding was enhanced by the Contractor at ALC-PTW.
140905-R03	Properly clear the stagnant water at Abd-PTW.	The stagnant water was cleared at Abd-PTW.
140905-R07	The wheel washing facility should be enhanced to prevent the mud trail be observed at Abd-PTW.	The wheel washing facility was enhanced by the Contractor at Abd-PTW.
140912-R01	The bunding should be provided for the drainage to prevent the runoff water discharging out before flowing into the wastewater treatment facility at Cyberport-PTW.	The site boundary at Cyberport-PTW was confirmed by the Contractor that the drainage was not included within the site boundary under this Project.
140917-R03	The wet sep should be desilted regularly and cleared the stagnant water regularly at Abd-PTW.	The wet sep was desilted regularly and cleared the stagnant water regularly at Abd-PTW.
140926-O01	The muddy water was overflowed near the site exit of Wah Fu-PTW. The Contractor was reminded to provide the bunding to prevent the muddy water overflowing to the access road.	The follow up action will be reported during site inspections in October 2014.
140926-R03	The stagnant water in the wetsep should be cleared regularly at Wah Fu-PTW.	The follow up action will be reported during site inspections in October 2014.

	140926-R06	The bunding should be provided and enhanced to prevent the muddy water runoff to the access road at ALC-PTW and Abd-PTW.	The follow up action will be reported during site inspections in October 2014.	
<b>Air Quality</b>	140711-R01	The dusty materials should be cleared properly or covered by impervious materials at ALC-PTW and Abd-PTW.	Please refer to 140718-R02.	
	140718-R01	The generator should be kept in a good condition at ALC-PTW to prevent the black smoke emission. The Contractor was reminded to provide the maintenance of the generator.	The maintenance of the generator at ALC-PTW was provided by the Contractor.	
	140718-R02	The dusty materials should be cleared properly or covered by impervious materials at ALC-PTW and Abd-PTW.	The dusty material was cleared properly at Abd-PTW and covered by impervious materials at ALC-PTW.	
	140725-R05	Properly clear the dusty material at ALC-PTW and Abd-PTW.	The dusty material was cleared at ALC-PTW and Abd-PTW.	
	140729-R02	Properly clear the dusty material at Abd-PTW.	The dusty material was cleared and sprayed water at Abd-PTW.	
	140808-R03	Properly clear the dusty material at Cyberport-PTW and ALC-PTW.	The dusty material was cleared at Cyberport-PTW and ALC-PTW.	
	140815-R02	Properly clear the dusty materials at ALC-PTW.	Please refer to 140822-R05.	
	140822-R05	Sandy materials and broken sand bags should be cleared and removed (ALC-PTW).	The sandy materials and broken sand bags were cleared at ALC-PTW.	
	140905-R04	The dusty materials should be sprayed with water regularly to prevent the dust emission at Abd-PTW.	Please refer to 140912-R02.	
	140912-R02	The dusty materials and debris should be cleared properly or sprayed with water regularly to prevent the dust emission at ALC-PTW and Abd-PTW.	Please refer to 140917-R02.	
	140917-R02	Properly clear the dusty materials at Wah Fu-PTW and ALC-PTW.	Please refer to 140926-R02.	
	140926-R02	Properly clear the broken sand bags and dusty materials at Wah Fu-PTW and ALC-PTW.	The follow up action will be reported during site inspections in October 2014.	
	140926-R07	The drilling activities should be sprayed with water to prevent the dust emission at ALC-PTW.	No drilling activities was observed at ALC-PTW.	
	<b>Waste/ Chemical Management</b>	140718-R04	The chemical container should be provided with the drip tray at Abd-PTW.	The chemical container was removed and not observed at Abd-PTW.
		140725-O03	The oil leakage of breaker tip was observed at Abd-PTW. The Contractor was reminded to provide the appropriate measure to avoid the oil spillage and clear the oil stain properly.	The breaker tip was removed and not observed at Abd-PTW.



	140808-O02	The oil leakage was observed from the drilling machine at ALC-PTW. The Contractor was reminded to provide the maintenance of the drilling machine.	The drilling machine was removed and not observed at ALC-PTW.
	140808-R05	Properly clear the general refuse at Cyberport-PTW.	The general refuse was cleared at Cyberport-PTW.
	140815-R01	The chemical containers should be provided with the drip tray at ALC-PTW.	Please refer to 140822-O01.
	140815-R03	Properly clear the oil stain at ALC-PTW.	The Contractor has cleared the oil stain in the area.
	140822-O01	Chemical containers should be contained by drip tray to prevent leakage (ALC-PTW).	Please refer to 140829-O01.
	140822-O03	Container with concrete water should be contained by drip tray (Aberdeen-PTW).	The container with concrete water was not observed at Aberdeen-PTW.
	140829-O01	Chemical containers should be contained by drip tray to prevent leakage at ALC-PTW and Wah Fu-PTW.	The chemical containers were not observed at ALC-PTW and Wah Fu-PTW.
	140905-R01	The construction wastes should be sorted out properly at Wah Fu-PTW and Abd-PTW.	The construction wastes were sorted out properly at Wah Fu-PTW and Abd-PTW.
	140905-R06	The chemical containers should be provided with the drip tray and the oil stain should be cleared properly at Abd-PTW.	The chemical containers were provided with the drip tray and the oil stain was cleared properly at Abd-PTW.
	140917-R01	The chemical containers should be provided with the drip tray at Wah Fu-PTW and ALC-PTW.	The chemical containers were cleared and not observed at Wah Fu-PTW and ALC-PTW.
<b>Landscape and Visual</b>	140711-R02	The construction materials should be placed far away from the tree protection area at ALC-PTW.	Please refer to 140718-R03.
	140718-R03	The construction materials should be placed far away from the tree protection area at ALC-PTW.	The construction materials was placed far away from the tree protection area at ALC-PTW.
	140829-R03	The heavy materials should be placed far away from the tree protection area at Sandy Bay Storage Area.	The follow up action will be reported during site inspections in September 2014.
	140829-R03	The heavy materials should be placed far away from the tree protection area at Sandy Bay Storage Area.	Please refer to 140905-R05.
	140905-R05	The heavy materials should be placed far away from the tree protection area at Sandy Bay Storage Area.	Please refer to 140912-R03.
	140912-R03	The heavy materials should be placed far away from the tree protection area at Sandy Bay Storage Area.	The heavy materials were being reduced from the tree protection area at Sandy Bay Storage Area. The moving of the heavy materials is in progress at Sandy Bay Storage Area.

	140926-R04	The fence should be provided for the existing tree at Wan Fu-PTW.	The follow up action will be reported during site inspections in October 2014.
	140926-R05	The maintenance of the existing tree should be provided at Wan Fu-PTW.	The follow up action will be reported during site inspections in October 2014.
<b>Noise</b>	--	--	--
<b>Permit/ Licenses</b>	--	--	--

**Status of Environmental Licensing and Permitting**

5.3 Environmental licenses and permits including the Billing Account for Disposal of Construction Waste, Chemical Waste Producer and Wastewater Discharge were in place and valid during the reporting quarter. A summary status of licenses and permits is given in **Appendix H**.

**Advice on Waste Management Status**

5.4 The amount of wastes generated by the activities of the Project in the reporting period was attached in the appendices of the monthly reports for July to September 2014 and was shown in **Appendix I**.

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**6. NON-COMPLIANCE (EXCEEDANCES) OF THE ENVIRONMENTAL QUALITY PERFORMANCE LIMITS (ACTION AND LIMIT LEVELS)****Summary of Exceedances**

- 6.1 Environmental monitoring works were performed in the reporting quarter and all monitoring results were checked and reviewed. A summary of exceedance is attached in **Appendix K**.
- 6.2 No Action/Limit Level exceedance of 1-hour TSP and 24-hour TSP was recorded in the reporting quarter.
- 6.3 No Action/Limit Level exceedance of Noise was recorded in the reporting quarter.

**Review of the Reasons for and the Implications of Non-compliance**

- 6.4 There was no non-compliance from the site audits in the reporting quarter. The observations and recommendations made in each individual site audit session were presented in **Table 5.1**.

**Summary of action taken in the event of and follow-up on non-compliance**

- 6.5 There was no particular action taken since no non-compliance was observed from the site audits in the reporting quarter.

**7 ENVIRONMENTAL COMPLAINTS**

- 7.1 No environmentally complaint was received for the Project in the reporting quarter. The updated Complaint Log is attached in **Appendix J**.

**8 NOTIFICATION OF SUMMONS AND SUCCESSFUL PROSECUTIONS**

- 8.1 No environmental prosecution was recorded in the reporting quarter.

## 9. COMMENTS, CONCLUSIONS AND RECOMMENDATIONS

### 9.1 Key environmental issues for the coming months include:

- Generation of dust from stockpiles of excavated and dusty materials, unpaved site area and vehicle movement, roadworks, excavation works and loading and unloading dusty materials on-site;
- Noise nuisance from operation of equipment and machinery on-site;
- Provision well maintenance on the storage facilities of chemicals/fuel and chemical waste/waste oil on-site;
- Maintenance of de-silting facilities and drainage system such as U-channels;
- Blockage of U-channel by accumulated silt;
- Ponding water generated in pre-drillings;
- Dust generation should be mitigated by adequate water spraying, especially in dry days;
- Silty surface runoff generated from the site area; and
- Silt and dust getting into the public area by the leaving site vehicles at the site exits without adequate wheel washing facilities.

### 9.2 According to the environmental audit performed in the reporting quarter, the following recommendations were made:

#### *Water Impact*

- To provide the maintenance of the sediment tank, AquaSed tank and wet sep regularly and make sure the AquaSed and wet sep are desilted regularly and the equipment of the sediment tank and wet sep are non-malfunctioned;
- To provide the bunding to prevent the water and muddy/ slurry water overflow;
- To enhance the wheel washing facility;
- To remain good site practice on placing water pipe for wastewater treatment before discharging; and
- To avoid accumulation of stagnant / ponding water on site.

#### *Air Quality*

- To remain good site practice on handling excavated or dusty material for dust suppression (e.g. stockpiles of material shall be covered by tarpaulin);
- To spray water to prevent the dust emission during dust-generation activities; and
- To provide the maintenance of the generator regularly and make sure the equipment of the generator in a good condition to prevent the black smoke emission.

#### *Waste/Chemical Management*

- To avoid any discharge or accidental spillage of chemical waste or oil directly from the equipment;
- To avoid any accumulation of the general refuse on the site;
- To sort out the construction wastes properly on the site; and
- To provide proper and sufficient storage area or drip trays for oil/ chemical containers on site.

*Landscape and Visual*

- To avoid any heavy materials placed into tree protection zone;
- To provide the fence for protection of the existing tree; and
- To provide the maintenance of the existing tree.

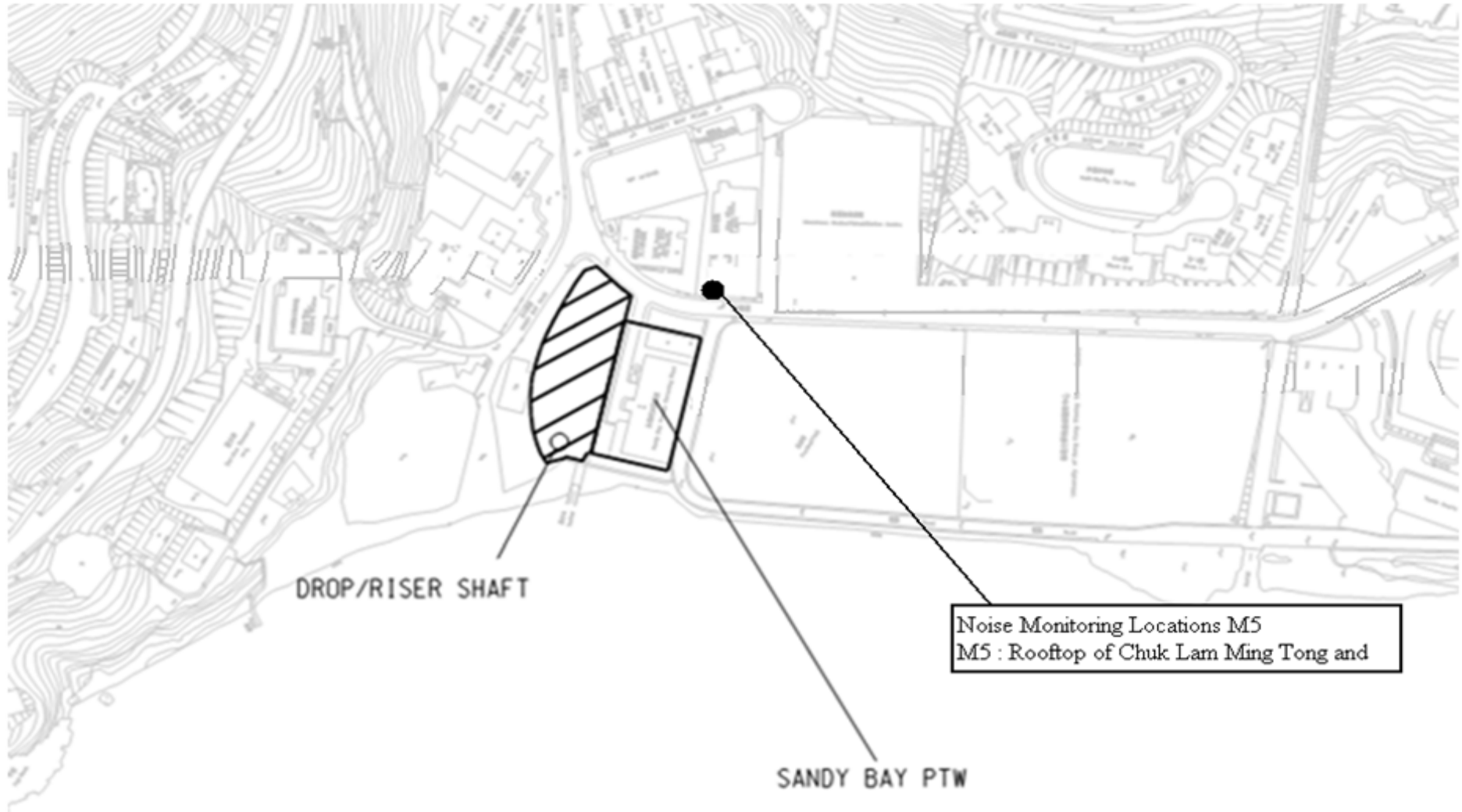
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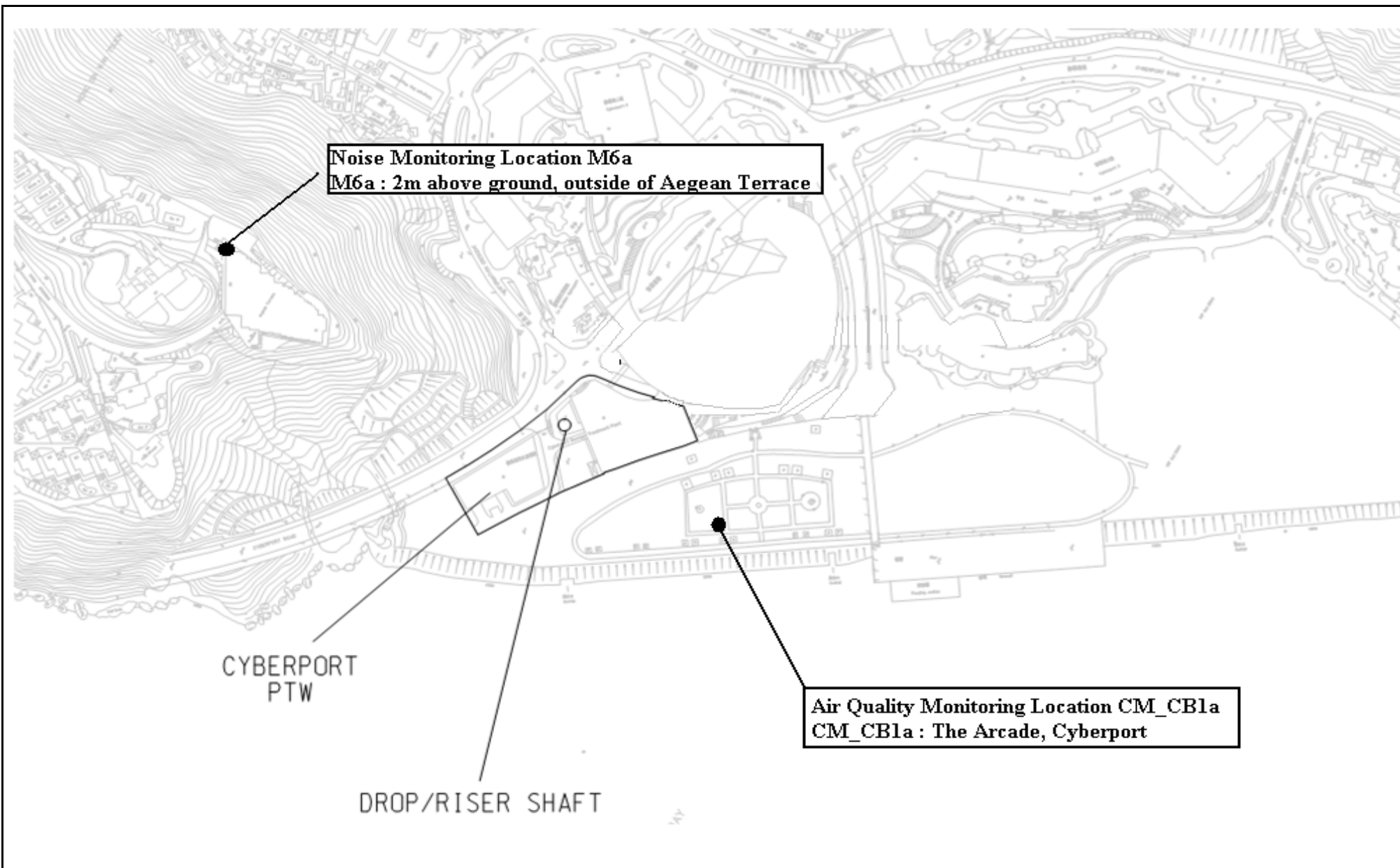
## FIGURES

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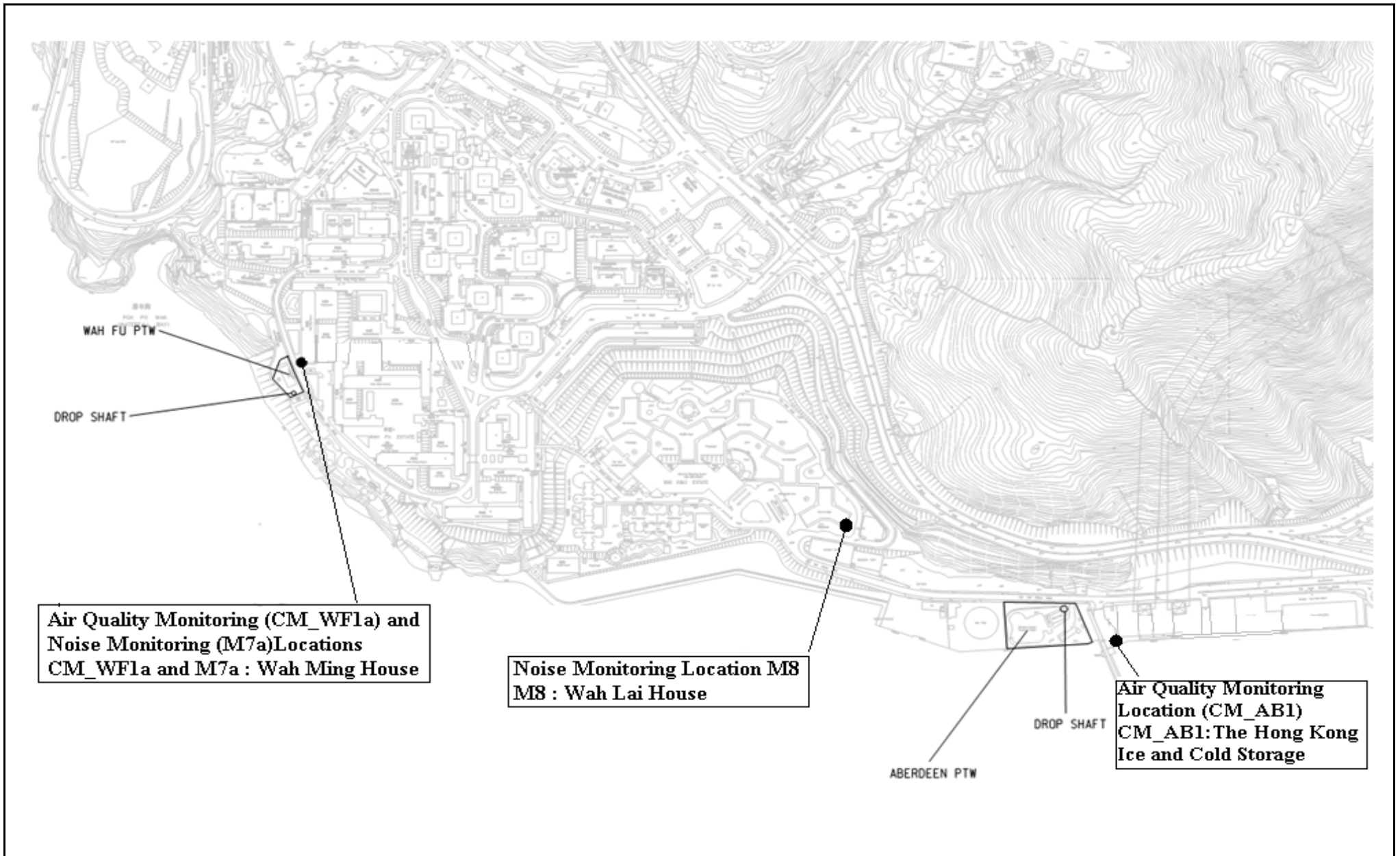


Title	Contract No: DC/2009/24	Scale	Project	CINOTECH
	HATS 2A - Upgrading of Preliminary Treatment Works at Sandy Bay, Cyberport, Wah Fu, Aberdeen and Ap Lei Chau	N.T.S	No. MA11060	
	General Location Plan of Sandy Bay PTW and Locations of Noise Monitoring Stations	Date	Figure	
		01/2012	1a	

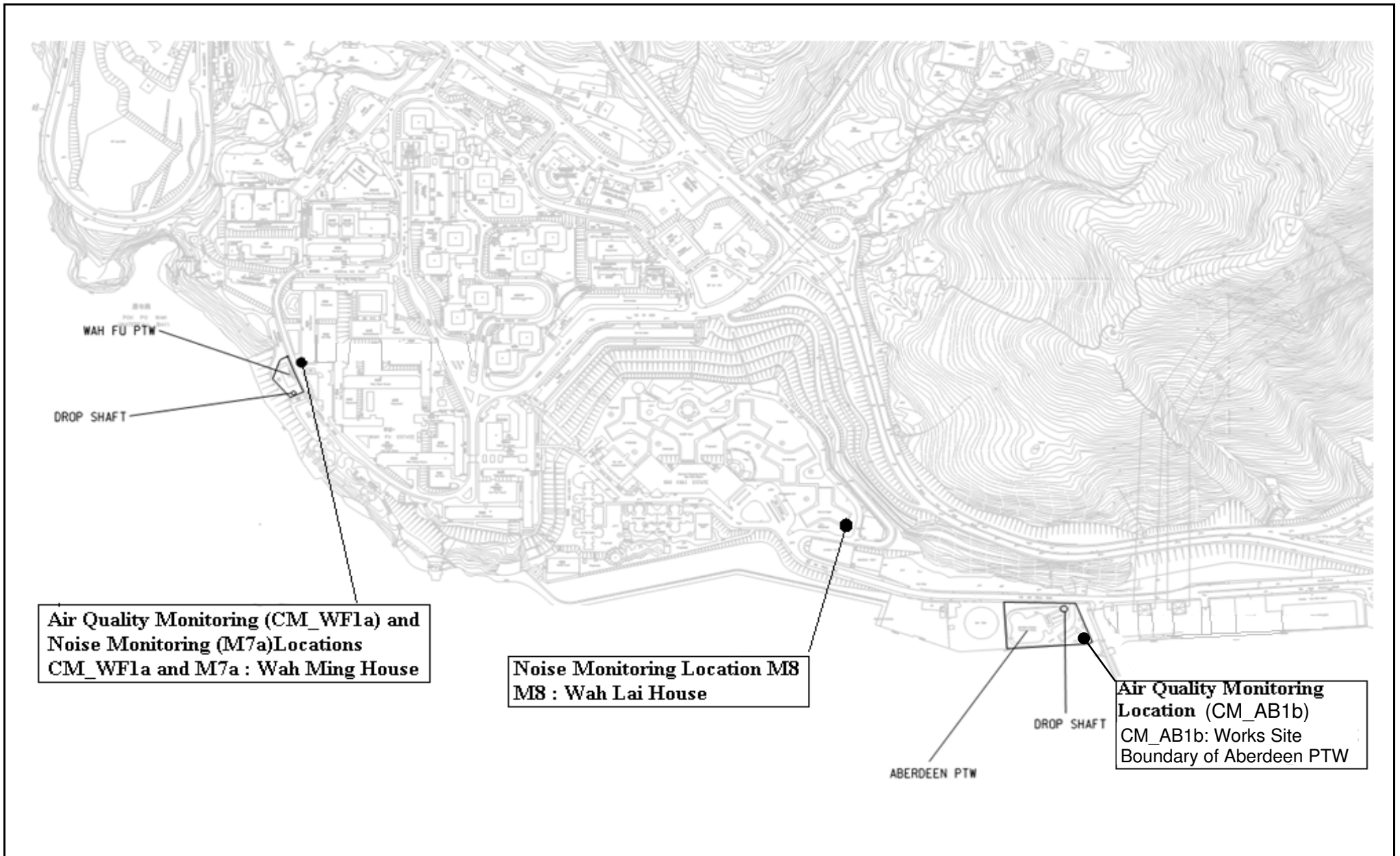


Title	Contract No: DC/2009/24	Scale	Project	CINOTECH
	HATS 2A - Upgrading of Preliminary Treatment Works at Sandy Bay, Cyberport, Wah Fu, Aberdeen and Ap Lei Chau	N.T.S	No. MA11060	
	General Location Plan of Cyberport PTW and Locations of Air Quality and Noise Monitoring Stations	Date	Figure	
		01/2012	1B	

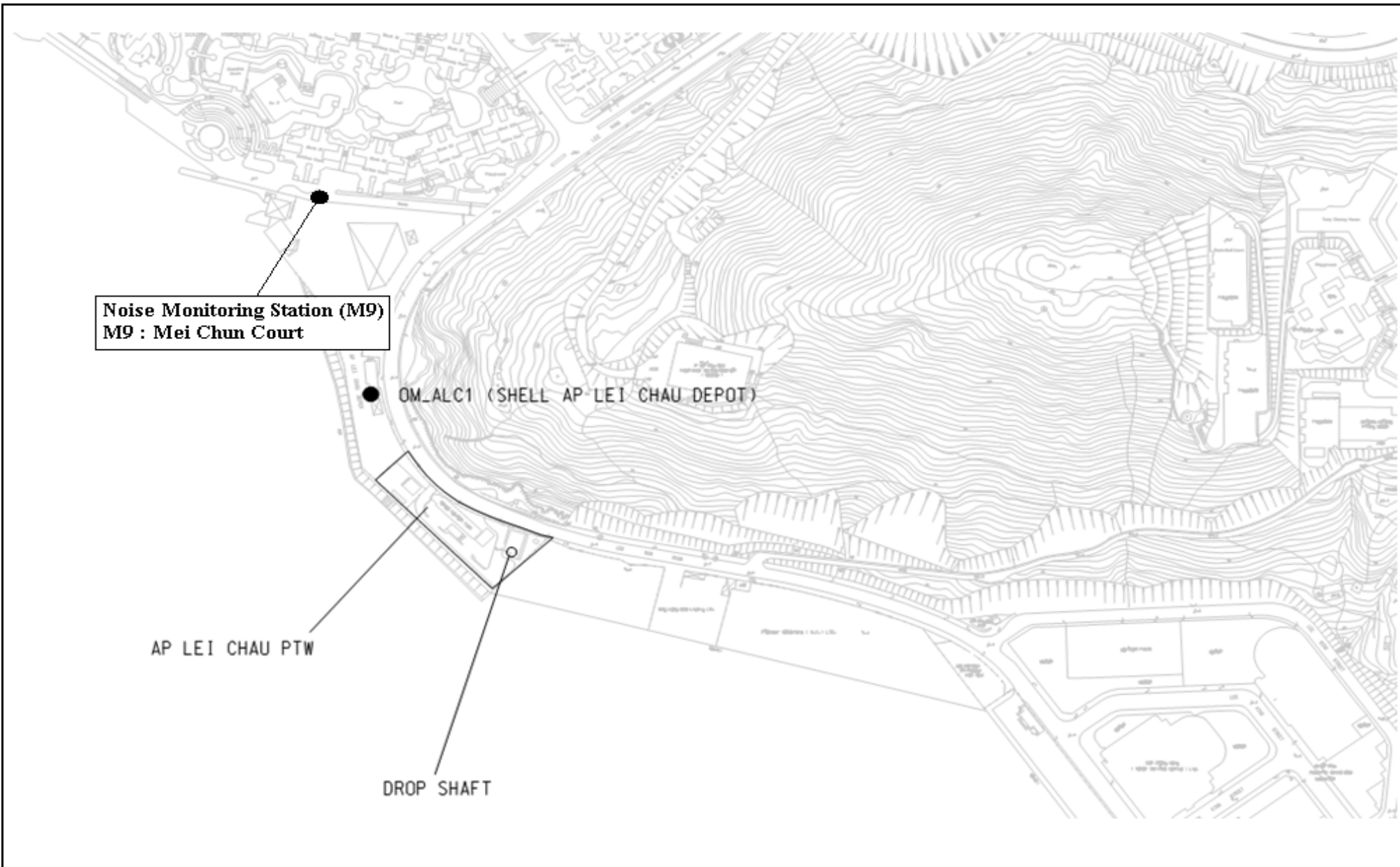




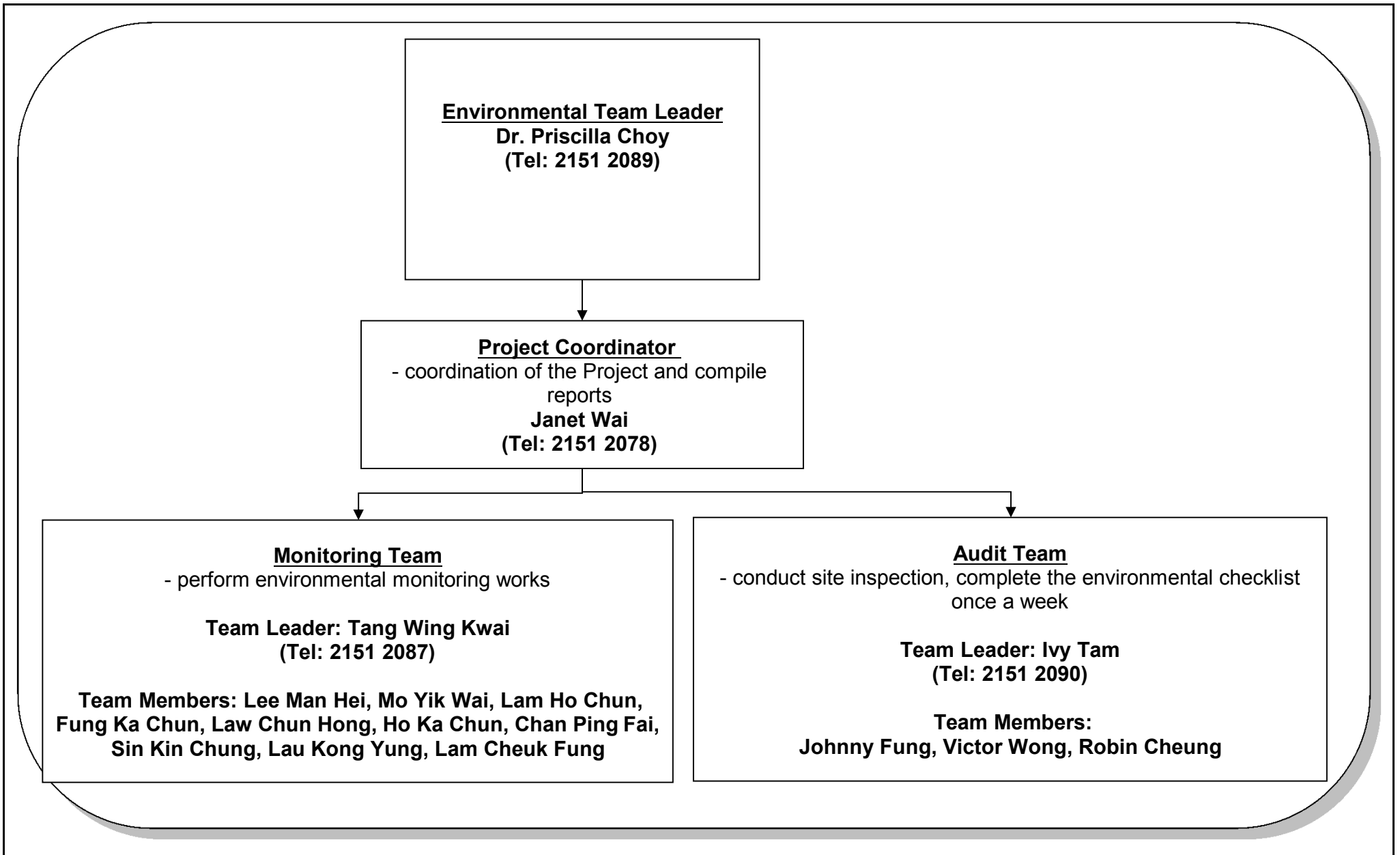
Title	Contract No: DC/2009/24	Scale	Project	CINOTECH
	HATS 2A - Upgrading of Preliminary Treatment Works at Sandy Bay, Cyberport, Wah Fu, Aberdeen and Ap Lei Chau	N.T.S	No. MA11060	
	Location of Wah Fu and Aberdeen PTW and Locations of Air Quality and Noise Monitoring Locations	Date	Figure	
		1/2012	1C-1	



Title	Contract No: DC/2009/24	Scale	Project	CINOTECH
	HATS 2A - Upgrading of Preliminary Treatment Works at Sandy Bay, Cyberport, Wah Fu, Aberdeen and Ap Lei Chau	N.T.S	No. MA11060	
	Location of Wah Fu and Aberdeen PTW and Locations of Air Quality and Noise Monitoring Locations	Date	Figure	
		07/2014	1C-2	



Title	Contract No: DC/2009/24	Scale	Project	CINOTECH
	HATS 2A - Upgrading of Preliminary Treatment Works at Sandy Bay, Cyberport, Wah Fu, Aberdeen and Ap Lei Chau	N.T.S	No. MA11060	
	Locations of AP LEI CHAU PTW and the Noise Monitoring Location	Date	Figure	
		1/2012	1D	



Title	Contract No. DC/2009/24 HATS Stage 2A – Upgrading of Preliminary Treatment Works at Sandy Bay, Cyberport, Wah Fu, Aberdeen and Ap Lei Chau ET's Organization Chart	Scale	N.T.S	Project No.	MA11060	CINOTECH
		Date	Jul-13	Figure	2	

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**APPENDIX A  
CONTACT DETAILS OF THE PROJECT  
ORGANISATION**

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## Appendix A - Contact Details of the Project Organization

<b>Party</b>	<b>Role</b>	<b>Name</b>	<b>Position</b>	<b>Phone No.</b>
Drainage Services Department	Project Proponent	Mr. P. K. Kwok	Senior Engineer 2	2159 3403
Ove Arup & Partners Hong Kong Ltd	Engineer's Representative	Mr. Ted Tang	Principal Resident Engineer	2370-4311
	Coordinator	Ms. Natalie Kwok	Resident Engineer	6794 8844
Cinotech	Environmental Team	Dr. Priscilla Choy	ET Leader	2151 2089
		Ms. Janet Wai	Project Coordinator & Audit Team Leader	2151 2078
Mott MacDonald	Independent Environmental Checker	Dr. Anne Kerr	Independent Environmental Checker	2828 5757
Leader and JEC Joint Venture	Contractor	Mr. Kelvin Cheung	Site Agent	9656 8865
		Mr. Patrick Wong	Environmental Officer	9019 7270

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**APPENDIX B**  
**CONSTRUCTION PROGRAMME**

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Activity ID	Activity Name	% Comp	Original Duration	Early Start	Early Finish	September 2014					October 2014					November 2014				December 2014			
						25	01	08	15	22	29	06	13	20	27	03	10	17	24	01	08	15	22
<b>DSD - HATSS2 Upgrading of PTW (DC/2009/24)</b>																							
<b>Particulars</b>																							
<b>Key Dates</b>																							
Commencement / Completion																							
24GEN00020	Time for Completion of Project	0%	1309	31-Aug-11 A	29-Mar-17																		
<b>Portion of the Site (MILESTONE)</b>																							
<b>Sandy Bay PTW</b>																							
Possession / Vacation of Portions																							
24MSBY00025	Vacation Date_SBY-T1 (30 days after H/O of ALC-T2)	0%	0		03-Oct-14	◆ Vacation Date_SBY-T1 (30 days after H/O of ALC-T2), Vacation Date_SBY-T1 (30 days after H/O of ALC-T2)																	
<b>Cyberport PTW</b>																							
Possession / Vacation of Portions																							
24MCPT00010	H/O Date_CP-1 (1035 days after start)	0%	0	24-Sep-14		◆ H/O Date_CP-1 (1035 days after start)																	
<b>Wah Fu PTW</b>																							
Possession / Vacation of Portions																							
24MWFU00030	H/O Date_WF-2 (914 days after start)	0%	0	24-Sep-14		◆ H/O Date_WF-2 (914 days after start)																	
<b>Civil &amp; Geo. Submission</b>																							
<b>Contractor's Design, Submission / Approval &amp; Procurement</b>																							
<b>Technical Information &amp; Drawings</b>																							
<b>Cyberport</b>																							
<b>Major Technical Data / Civil Works Design</b>																							
24DCPT00294	Review / Resubmit of Design for Flume Channels	0%	28	28-Jul-13 A	03-Oct-14	Review / Resubmit of Design for Flume Channels																	
24DCPT00295	Approval of Design for Flume Channels	0%	14	04-Oct-14	17-Oct-14	Approval of Design for Flume Channels																	
24DCPT00300	Prepare / Submission of Design for pipe trench from drop shaft to existing CPT PTW for odour pipe installation	0%	40	24-Apr-14 A	24-Sep-14	Prepare / Submission of Design for pipe trench from drop shaft to existing CPT PTW for odour pipe installation																	
24DCPT00310	Review / Approval of ICE Design for pipe trench from drop shaft to existing CPT PTW for odour pipe installation	0%	20	25-Sep-14	14-Oct-14	Review / Approval of ICE Design for pipe trench from drop shaft to existing CPT PTW for odour pipe installation																	
24DCPT00320	Comments / Approval of Design for pipe trench from drop shaft to existing CPT PTW for odour pipe installation	0%	28	15-Oct-14	11-Nov-14	Comments / Approval of Design for pipe trench from drop shaft to existing CPT PTW for odour pipe installation																	
24DCPT00330	Review / Resubmit of Design for pipe trench from drop shaft to existing CPT PTW for odour pipe installation	0%	28	12-Nov-14	09-Dec-14	Review / Resubmit of Design for pipe trench from drop shaft to existing CPT PTW for odour pipe installation																	
24DCPT00340	Approval of Design for pipe trench from drop shaft to existing CPT PTW for odour pipe installation	0%	14	10-Dec-14	23-Dec-14	Approval of Design for pipe trench from drop shaft to existing CPT PTW for odour pipe installation																	
24DCPT00346	Prepare / Submission of Design for permanent concrete plinth for new deodorization unit	0%	30	01-Mar-14 A	25-Sep-14	Prepare / Submission of Design for permanent concrete plinth for new deodorization unit																	
24DCPT00347	Review / Approval of ICE Design for permanent concrete plinth for new deodorization unit	0%	14	26-Sep-14	09-Oct-14	Review / Approval of ICE Design for permanent concrete plinth for new deodorization unit																	
24DCPT00348	Comments / Approval of Design for permanent concrete plinth for new deodorization unit	0%	14	10-Oct-14	23-Oct-14	Comments / Approval of Design for permanent concrete plinth for new deodorization unit																	
24DCPT00349	Review / Resubmit of Design for permanent concrete plinth for new deodorization unit	0%	14	24-Oct-14	06-Nov-14	Review / Resubmit of Design for permanent concrete plinth for new deodorization unit																	
24DCPT00350	Approval of Design for permanent concrete plinth for new deodorization unit	0%	7	07-Nov-14	13-Nov-14	Approval of Design for permanent concrete plinth for new deodorization unit																	
<b>Method Statement</b>																							
24DCPT02160	Prepare / Submission of Method Statement for Trench, Chambers and Channels	0%	60	23-Feb-14 A	01-Oct-14	Prepare / Submission of Method Statement for Trench, Chambers and Channels																	
24DCPT02170	Comments / Approval of Method Statement for Trench, Chambers and Channels	0%	28	24-Sep-14	21-Oct-14	Comments / Approval of Method Statement for Trench, Chambers and Channels																	
24DCPT02180	Review / Resubmit of Method Statement for Trench, Chambers and Channels	0%	14	22-Oct-14	04-Nov-14	Review / Resubmit of Method Statement for Trench, Chambers and Channels																	
24DCPT02190	Approval of Method Statement for Trench, Chambers and Channels	0%	14	05-Nov-14	18-Nov-14	Approval of Method Statement for Trench, Chambers and Channels																	
24DCPT02200	Prepare / Submission of Method Statement for pipe trench for odour pipe installation	0%	60	24-May-14 A	22-Oct-14	Prepare / Submission of Method Statement for pipe trench for odour pipe installation																	
24DCPT02210	Comments / Approval of Method Statement for pipe trench for odour pipe installation	0%	28	24-Sep-14	21-Oct-14	Comments / Approval of Method Statement for pipe trench for odour pipe installation																	
24DCPT02220	Review / Resubmit of Method Statement for pipe trench for odour pipe installation	0%	14	22-Oct-14	04-Nov-14	Review / Resubmit of Method Statement for pipe trench for odour pipe installation																	
24DCPT02230	Approval of Method Statement for pipe trench for odour pipe installation	0%	14	05-Nov-14	18-Nov-14	Approval of Method Statement for pipe trench for odour pipe installation																	

Start Date: 25-Jun-11  
 Finish Date: 29-Mar-18  
 Date Date: 23-Sep-14  
 Run Date: 26-Sep-14

- Primary Baseline
- Actual Work
- Critical Remaining Work
- Baseline Milestone
- Current Bar Labels
- Milestone

HATSS2A Contract No. DC/2009/24

**3 MONTHS ROLLING PROGRAMME**

**SEPTEMBER 2014**

DETAILED WORKS PROGRAMME - DC/2009/24			
Date	Revision	Checked	Approved
30-Mar-12	DWP - REVISION 0		
14-Dec-12	DWP - REVISION 2		
17-Jun-14	DWP - REVISION 3 (S5, 6 & 7)		
23-Sep-14	UDWP - REVISION 3		













Activity ID	Activity Name	% Comp	Original Duration	Early Start	Early Finish	September 2014				October 2014				November 2014				December 2014						
						25	01	08	15	22	29	06	13	20	27	03	10	17	24	01	08	15	22	
24CPT01000	Time for Completion of Section 2	0%	1280	31-Aug-11 A	18-May-15																			
<b>Interface and Liaison</b>																								
<b>Interface with ST2/DSD</b>																								
24MCPT00090	Application of PMAC/SWAC for Modification of Existing Control Room	0%	0	03-Oct-14																◆ Application of PMAC/SWAC for Modification of Existing Control Room, Application of PMAC/SWAC for Modification of Existing Control Room				
24MCPT00100	Proposed Approval date of PMAC/SWAC for Modification of Existing Control Room	0%	0	16-Oct-14																◆ Proposed Approval date of PMAC/SWAC for Modification of Existing Control Room, Proposed Approval date of PMAC/SWAC for Modification of Existing C				
<b>Interface with other contractors</b>																								
24MCPT00110	Liason with SCS Contractor for the modification of existing water pipe / drainage pipe and flume channel connection	0%	90	15-Mar-14 A	25-Sep-14	■ Liason with SCS Contractor for the modification of existing water pipe / drainage pipe and flume channel connection																		
<b>Works for Section 2</b>																								
<b>Modification Inside Cyberport PTW Complex incl. Deodorization Room</b>																								
<b>Interface between Civil / ABWF / E&amp;M Works</b>																								
24MCPT00130	Completion of permanent concrete plinth for new deodorization unit	0%	0	11-Nov-14																◆ Completion of permanent concrete plinth for new deodorization unit				
<b>Civil Works</b>																								
<b>Construction of Plinth for DO Unit Installation</b>																								
24CPT02303	Construction of permanent concrete plinth for new deodorization unit	0%	29	09-Oct-14	11-Nov-14															■ Construction of permanent concrete plinth for new deodorization unit				
<b>Electrical and Mechanical Works</b>																								
<b>Material / Equipment Delivery on Site</b>																								
24CPT02320	Delivery of Penstock	0%	0	22-Nov-14																◆ Delivery of Penstock				
24CPT02330	Delivery of Stoplog	0%	0	22-Nov-14																◆ Delivery of Stoplog				
24CPT02340	Delivery of Deodorization System	0%	0	29-Oct-14																◆ Delivery of Deodorization System				
24CPT02350	Delivery of Control Panel	0%	0	14-Dec-14																◆ Delivery of Control Panel				
24CPT02360	Delivery of Instruments	0%	0	05-Oct-14																◆ Delivery of Instruments				
24CPT02370	Delivery of DCS Control System	0%	0	30-Sep-14																◆ Delivery of DCS Control System, Delivery of DCS Control System				
24CPT02380	Delivery of Weather & H2S monitoring station	0%	0	20-Nov-14																◆ Delivery of Weather & H2S monitoring station				
<b>Electrical Works</b>																								
24CPT02431	Cable tray for installation for the modification of existing MCC (Switchboard)	0%	12	17-May-14 A	09-Oct-14	■ Cable tray for installation for the modification of existing MCC (Switchboard)																		
24CPT02432	Cabling works for the modification of existing MCC (Switchboard)	0%	6	03-Jun-14 A	16-Oct-14	■ Cabling works for the modification of existing MCC (Switchboard)																		
24CPT02433	Megger test for the modification of existing MCC (Switchboard)	0%	2	16-Jun-14 A	18-Oct-14	■ Megger test for the modification of existing MCC (Switchboard)																		
24CPT02434	Cable termination for the modification of existing MCC (Switchboard)	0%	2	20-Oct-14	21-Oct-14	■ Cable termination for the modification of existing MCC (Switchboard)																		
24CPT02435	Cable tray for installation for installation of UPS system	0%	14	10-Oct-14	25-Oct-14	■ Cable tray for installation for installation of UPS system																		
24CPT02436	Cable laying for UPS system	0%	10	27-Oct-14	06-Nov-14	■ Cable laying for UPS system																		
24CPT02437	Megger test in cables of UPS system	0%	7	07-Nov-14	14-Nov-14	■ Megger test in cables of UPS system																		
24CPT02438	Cable termination for UPS system	0%	5	15-Nov-14	20-Nov-14	■ Cable termination for UPS system																		
24CPT02439	Install electrical equipment incl. local manual control, lighting, sockets, etc.	0%	10	15-Dec-14	27-Dec-14	■ Install electrical equipment incl. local manual control, lighting, sockets, etc.																		
24CPT02451	Cable tray for new deodorization unit	0%	20	28-Nov-14	20-Dec-14	■ Cable tray for ne																		
24CPT02452	Cable laying for new deodorization unit	0%	10	22-Dec-14	05-Jan-15	■ Cable laying for new deodorization unit																		
<b>HVAC System (Deodorization / Air Conditioning / Ventilation)</b>																								
24CPT02482	Air ductwork diversion in temporary carbon filter incl. T&C	100%	14	12-May-14 A	23-Aug-14 A	■ Air ductwork diversion in temporary carbon filter incl. T&C																		
24CPT02483	Dismantle of existing chemical scrubber at existing DO Room	0%	11	24-Sep-14	08-Oct-14	■ Dismantle of existing chemical scrubber at existing DO Room																		
24CPT02490	Installation of new deodorization unit	0%	20	12-Nov-14	04-Dec-14	■ Installation of new deodorization unit																		
24CPT02491	Installation of accessories for deodorization system	0%	28	28-Nov-14	02-Jan-15	■ Installation of accessories for deodorization system																		
24CPT02500	Installation of air ductwork	0%	20	15-Dec-14	09-Jan-15	■ Installation of air ductwork																		
<b>Control and Monitoring Services incl. Instrumentation</b>																								
24CPT02529	Installation of supports / hangers for instrumentations	0%	4	24-Sep-14	27-Sep-14	■ Installation of supports / hangers for instrumentations																		
24CPT02530	Installation of instrumentations	0%	6	06-Oct-14	11-Oct-14	■ Installation of instrumentations																		
24CPT02531	Equipment installation for monitoring and control system	0%	14	13-Oct-14	28-Oct-14	■ Equipment installation for monitoring and control system																		
24CPT02539	Install cable tray for monitoring and control system	0%	21	13-Oct-14	05-Nov-14	■ Install cable tray for monitoring and control system																		











Activity ID	Activity Name	% Comp	Original Duration	Early Start	Early Finish	September 2014					October 2014					November 2014				December 2014				
						25	01	08	15	22	29	06	13	20	27	03	10	17	24	01	08	15	22	
24ABN00745A60	Rebarworks for wall of chamber FC-1	80%	15	14-Jul-14 A	15-Oct-14	Rebarworks for wall of chamber FC-1																		
24ABN00745A70	Concrete for wall of chamber FC-1	0%	6	16-Oct-14	22-Oct-14	Concrete for wall of chamber FC-1																		
24ABN00745C42	Modification of works on FC-3 chamber (connection of 1800Ø pipe)	0%	30	18-Nov-14	22-Dec-14	Modification of works on FC-3 chamber (connection of 1800Ø pipe)																		
<b>Electrical and Mechanical Works</b>																								
<b>Mechanical Works</b>																								
24ABN03370	Installation of stoplog no. 3 (fine screen outlet chamber)	0%	10	01-Dec-14	11-Dec-14	Installation of stoplog no. 3 (fine screen outlet chamber)																		
24ABN03400	Installation of penstock no. 15 (grit trap no. 1 outlet)	0%	10	12-Dec-14	23-Dec-14	Installation of penstock no. 15 (grit trap no. 1 outlet)																		
24ABN03720	Installation of grit trap no. 1	0%	30	01-Dec-14	07-Jan-15	Installation of grit trap no. 1																		
24ABN03851	Installation of penstock no. 17 (flow chamber outlet)	0%	15	23-Oct-14	08-Nov-14	Installation of penstock no. 17 (flow chamber outlet)																		
<b>Electrical Works</b>																								
24ABN03478	Replacement / upgrading of motor starter and panel cover in existing switchboard (grit trap 1 & classifier 1)	0%	6	01-Dec-14	06-Dec-14	Replacement / upgrading of motor starter and panel cover in existing switchboard (grit trap 1 & classifier 1)																		
24ABN03479	Replacement / upgrading the power, control & indication circuitry in existing switchboard (for penstock)	0%	9	08-Dec-14	17-Dec-14	Replacement / upgrading the power, control & indication circuitry in existing switchboard (for penstock)																		
24ABN03480	Removal of existing aged cables	0%	7	18-Dec-14	27-Dec-14	Removal of existing aged cables																		
24ABN03481	Installation of additional cable tray	0%	14	18-Dec-14	06-Jan-15	Installation of additional cable tray																		
<b>FS &amp; GT Bldg - Flume Channels and Chambers (Stage 4)</b>																								
<b>Interface between Civil / ABWF / E&amp;M Works</b>																								
24MABN00310	Completion of flume channel wall in preparation for the installation of stoplog and penstock (stage 2)	0%	0		23-Sep-14	Completion of flume channel wall in preparation for the installation of stoplog and penstock (stage 2)																		
24MABN00320	Completion of E&M works at flume channel and chambers (stage 2)	0%	0		20-Dec-14	Completion of E&M works at flume channel and chambers (stage 2)																		
<b>Civil Works</b>																								
<b>RC Works for FC-2 Chamber</b>																								
24ABN02270A30	Formworks for base slab of FC-2 chamber	0%	4	24-Sep-14	27-Sep-14	Formworks for base slab of FC-2 chamber																		
24ABN02270A40	Rebarworks for base slab of FC-2 chamber	0%	6	29-Sep-14	07-Oct-14	Rebarworks for base slab of FC-2 chamber																		
24ABN02270A50	Concrete for base slab of FC-2 chamber	0%	1	08-Oct-14	08-Oct-14	Concrete for base slab of FC-2 chamber																		
24ABN02270A55	Installation of 1800Ø pipe from FC-2 to FC-1 including connections	0%	15	09-Oct-14	25-Oct-14	Installation of 1800Ø pipe from FC-2 to FC-1 including connections																		
24ABN02270A60	Formworks for wall of FC-2 chamber	0%	9	27-Oct-14	05-Nov-14	Formworks for wall of FC-2 chamber																		
24ABN02270A70	Rebarworks for wall of FC-2 chamber	0%	4	06-Nov-14	10-Nov-14	Rebarworks for wall of FC-2 chamber																		
24ABN02270A80	Concrete for wall of FC-2 chamber	0%	1	11-Nov-14	11-Nov-14	Concrete for wall of FC-2 chamber																		
24ABN02270A90	Installation of air tight multi-part cover	0%	4	12-Nov-14	15-Nov-14	Installation of air tight multi-part cover																		
<b>RC Works for Flume Channel (1st stage)</b>																								
24ABN02260A50	Formworks for wall of flume channels	100%	24	05-Jul-14 A	30-Aug-14 A	Formworks for wall of flume channels																		
24ABN02260A60	Rebarworks for wall of flume channels	100%	24	14-Jul-14 A	03-Sep-14 A	Rebarworks for wall of flume channels																		
24ABN02260A70	Concrete for wall of flume channels	100%	1	04-Sep-14 A	04-Sep-14 A	Concrete for wall of flume channels																		
24ABN02260A80	Formworks for top slab of flume channels	100%	14	05-Sep-14 A	22-Sep-14 A	Formworks for top slab of flume channels																		
24ABN02260A90	Rebarworks for top slab of flume channels	100%	14	05-Sep-14 A	22-Sep-14 A	Rebarworks for top slab of flume channels																		
24ABN02260B10	Concrete for top slab of flume channels	100%	1	23-Sep-14 A	23-Sep-14 A	Concrete for top slab of flume channels																		
24ABN02260B20	Waterproofing on flume channels	0%	3	24-Sep-14	26-Sep-14	Waterproofing on flume channels																		
24ABN02260B30	Backfilling works on flume channels	0%	3	27-Sep-14	30-Sep-14	Backfilling works on flume channels																		
<b>RC Works for Flume Channel (2nd stage)</b>																								
24ABN02260C05	ELS / Excavation for the construction of Flume Channels	100%	40	11-Aug-14 A	06-Sep-14 A	ELS / Excavation for the construction of Flume Channels																		
24ABN02260C10	Formworks for base slab of flume channels	100%	12	03-Sep-14 A	17-Sep-14 A	Formworks for base slab of flume channels																		
24ABN02260C20	Rebarworks for base slab of flume channels	100%	12	08-Sep-14 A	22-Sep-14 A	Rebarworks for base slab of flume channels																		
24ABN02260C30	Concrete for base slab of flume channels	100%	1	23-Sep-14 A	23-Sep-14 A	Concrete for base slab of flume channels																		
24ABN02260C40	Formworks for wall of flume channels	0%	8	24-Sep-14	04-Oct-14	Formworks for wall of flume channels																		
24ABN02260C50	Rebarworks for wall of flume channels	0%	8	26-Sep-14	07-Oct-14	Rebarworks for wall of flume channels																		
24ABN02260C60	Concrete for wall of flume channels	0%	5	08-Oct-14	13-Oct-14	Concrete for wall of flume channels																		
24ABN02260C70	Formworks for top slab of flume channels	0%	7	14-Oct-14	21-Oct-14	Formworks for top slab of flume channels																		







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**APPENDIX C  
MONITORING REQUIREMENTS**

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## APPENDIX C – Monitoring Requirements

Type of Monitoring	Parameter	Frequency	Monitored by	Locations of Measurement
Air Quality	1-hour TSP	3 times / 6-day	DC/2007/24	<b>CM_CB1a<sup>(1)</sup></b> : The Arcade, Cyberport <b>CM_WF1a<sup>(1)</sup></b> : Wah Ming House, Wah Fu Estate <b>CM_AB1a<sup>(2)</sup></b> : The Hong Kong Ice and Cold Storage, formally known as Dairy Farm Ice and Cold Storage
	24-hour TSP	Once / 6-day		
	1-hour TSP	3 times / 6-day	DC/2009/24	<b>CM_CB1a<sup>(1)(3)</sup></b> : The Arcade, Cyberport <b>CM_WF1a<sup>(1)(4)</sup></b> : Wah Ming House, Wah Fu Estate <b>CM_AB1b<sup>(5)</sup></b> : Works Site Boundary of Aberdeen PTW
	24-hour TSP	Once / 6-day		
Noise	$L_{eq}$ (30 min.) dB(A) (0700 to 1900 hrs. on weekdays) / $L_{eq}$ (5 min.) dB(A) (During restricted hours)	Once / week	DC/2007/24	M5 (Sandy Bay PTW): Chuk Lam Ming Tong M6a <sup>(1)</sup> (Cyberport PTW): Aegean Terrace M7a <sup>(1)</sup> (Wah Fu PTW): Wah Ming House M8 (Aberdeen PTW): Wah Lai House
			DC/2008/09	M9 <sup>(6)</sup> (Ap Lei Chau PTW): Mei Chun Court, South Horizons
			DC/2009/24	M6a <sup>(1)(4)</sup> (Cyberport PTW): Aegean Terrace M7a <sup>(1)(4)</sup> (Wah Fu PTW): Wah Ming House M8 <sup>(4)</sup> (Aberdeen PTW): Wah Lai House M9 <sup>(7)</sup> (Ap Lei Chau PTW): Mei Chun Court, South Horizons

### Remarks:

- 1: Refer to the monthly report of DC/2007/24, revision to the original monitoring location in EM&A Manual was made and was verified by IEC on 19 November 2009 and subsequently approved by EPD on 27 November 2009.
- 2: The air quality monitoring was carried out by the ET of DC/2007/24 before August 2014.
- 3: The air quality monitoring station was handed over to this project starting from August 2014 and the air quality monitoring was carried out by the ET of this project from August 2014.



- 4: The air quality and noise monitoring station were handed over to this project starting from July 2014 and the air quality and noise monitoring were carried out by the ET of this project from July 2014.
- 5: Relocation of the air quality monitoring station was verified by IEC on 15 July 2014 and approved by ER on 22 July 2014.
- 6: The noise monitoring was carried out by the ET of DC/2008/09 before 28 July 2014.
- 7: The noise monitoring was handed over to this project from 28 July 2014 and carried out by the ET this project starting from 28 July 2014.

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**APPENDIX D  
ACTION AND LIMIT LEVELS**

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## Appendix D Action and Limit Levels

**Table D-1 Action and Limit Levels for 1-Hour TSP and 24-Hour TSP**

Monitoring Stations	Action Level ( $\mu\text{g}/\text{m}^3$ )		Limit Level ( $\mu\text{g}/\text{m}^3$ )	
	1-hour	24-hour	1-hour	24-hour
CM_CB1a	280	178	500	260
CM_WF1a	285	185		
CM_AB1a	283	174		
CM_AB1b	283	174		

**Table D-2 Action and Limit Level for Construction Noise**

Monitoring Stations	Time Period	Action Level	Limit Level in dB(A)
M5 M6a M7a M8 M9	0700-1900 hours on normal weekdays	When one documented complaint is received	75 <sup>(1)</sup>

Remark: 1: 70dB(A) and 65 dB(A) for schools during normal teaching periods and school examination periods, respectively.

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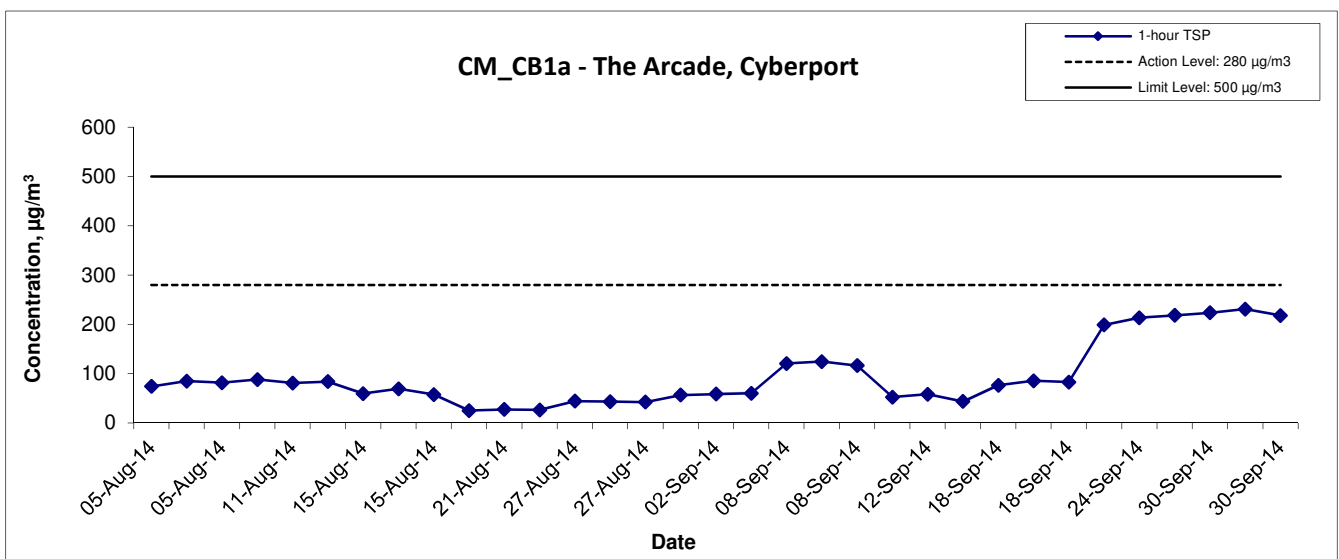
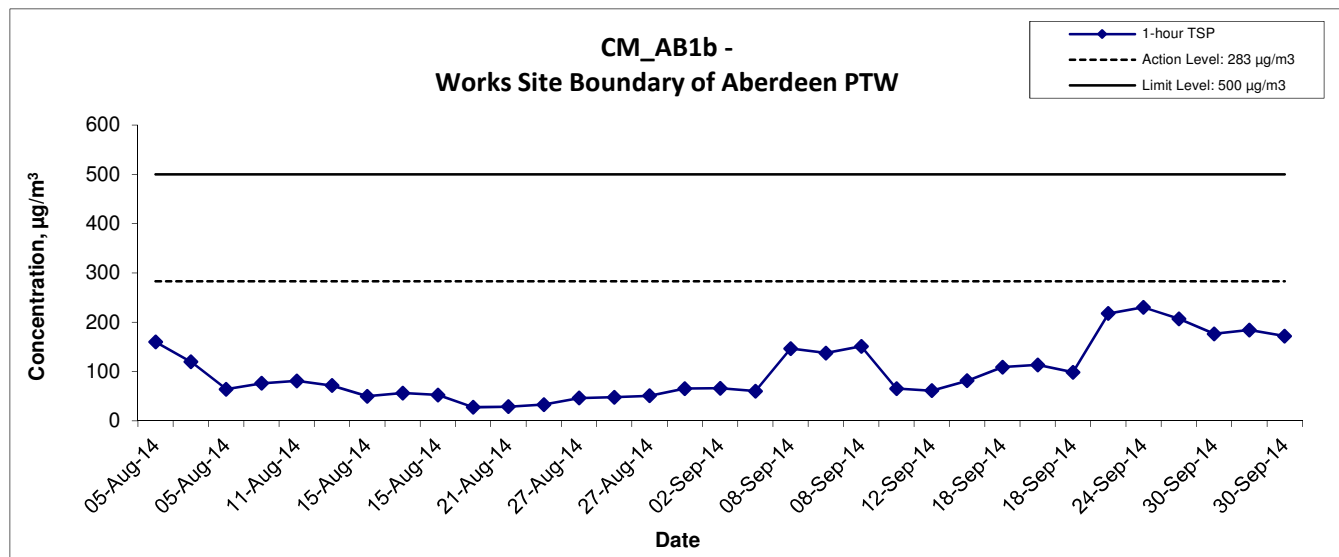
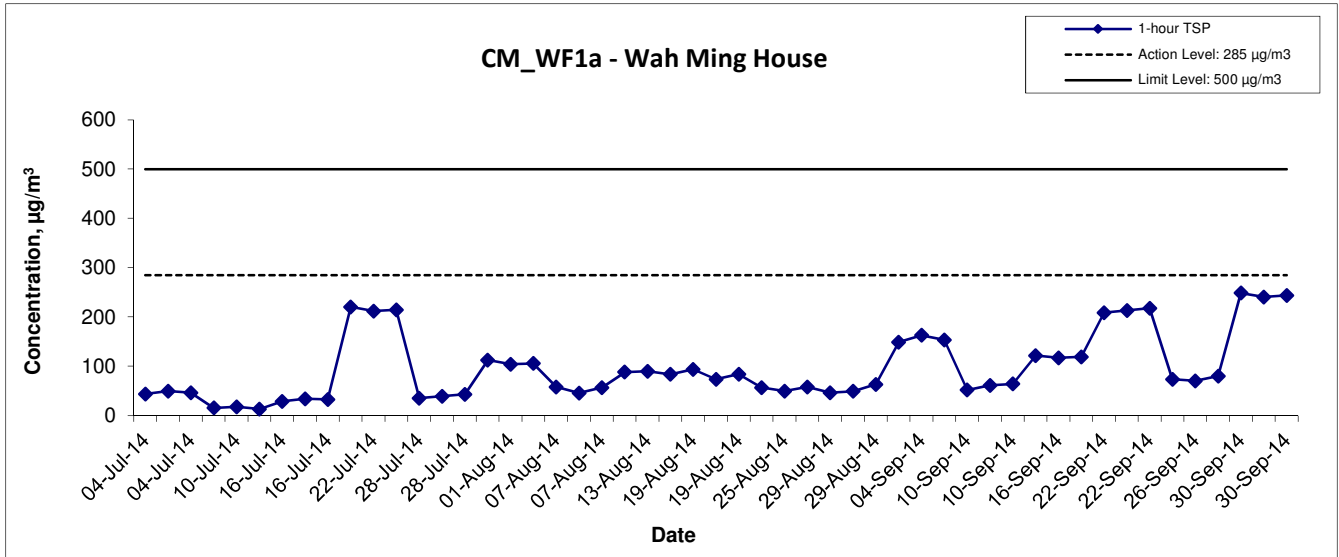
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**APPENDIX E  
GRAPHICAL PRESENTATION OF AIR  
QUALITY MONITORING RESULTS**

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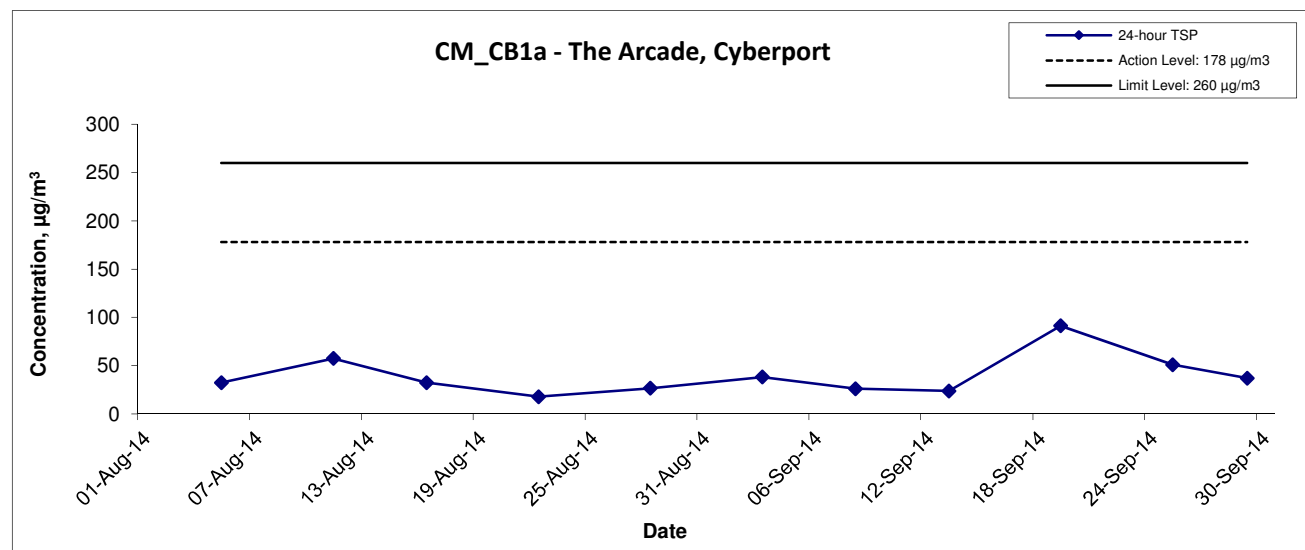
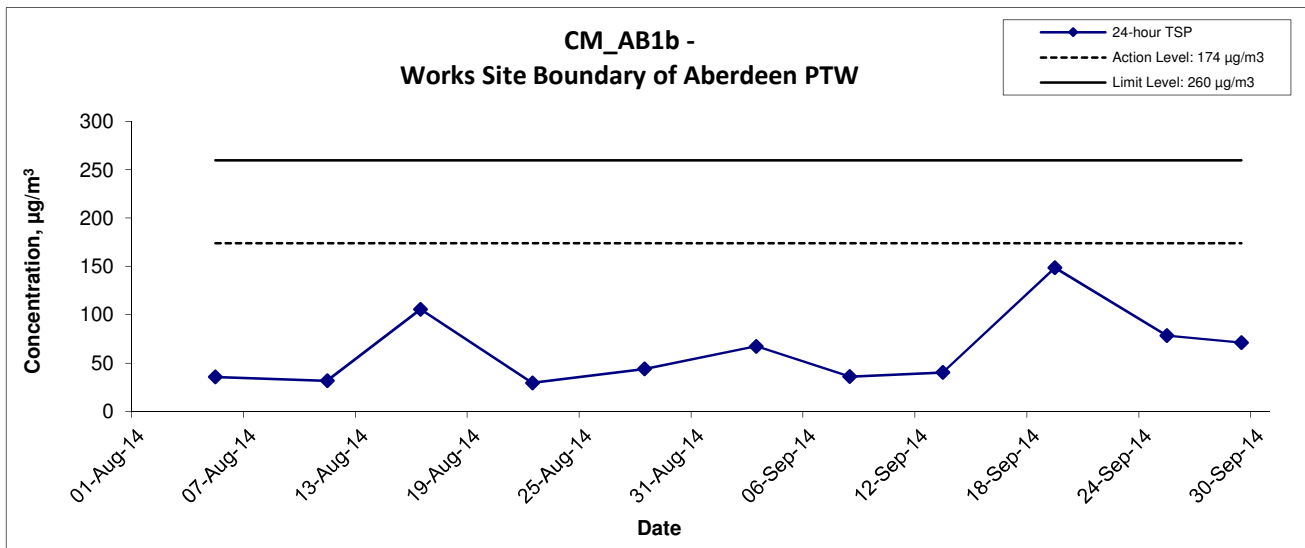
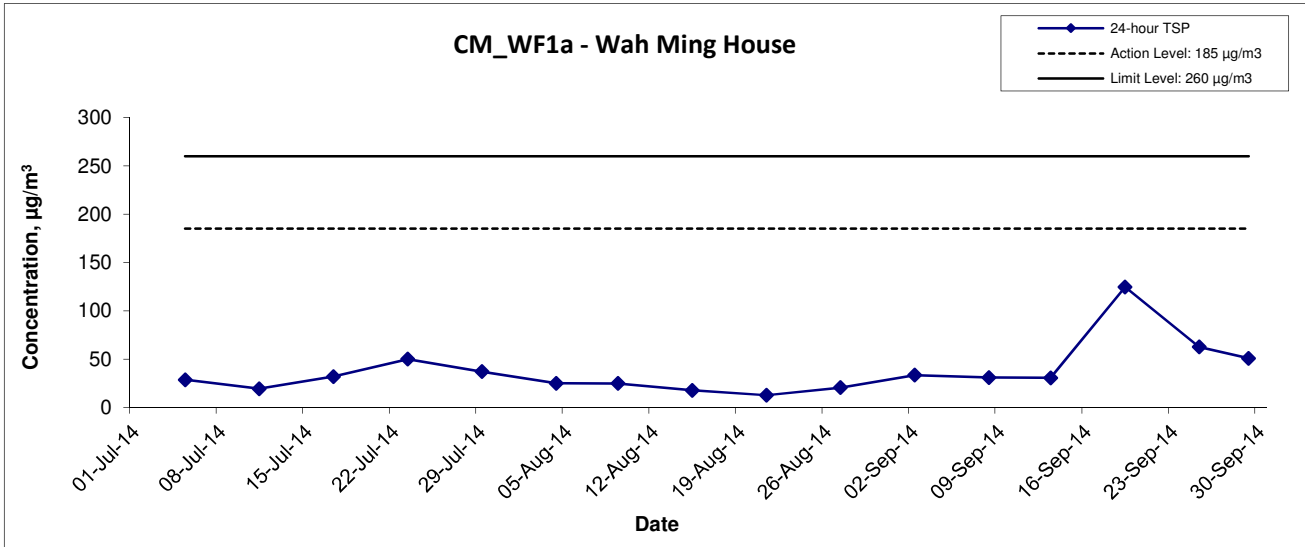
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### 1-hr TSP Concentration Levels



Title Contract No. DC/2009/24 HATS 2A – Upgrading of Preliminary Treatment Works at Sandy Bay, Cyberport, Wah Fu, Aberdeen and Ap Lei Chau Graphical Presentation of 1-hour TSP Monitoring Results	Scale N.T.S	Project No. MA11060	
	Date Sep 14	Appendix E	

### 24-hr TSP Concentration Levels



<b>Title</b> Contract No. DC/2009/24 HATS 2A – Upgrading of Preliminary Treatment Works at Sandy Bay, Cyberport, Wah Fu, Aberdeen and Ap Lei Chau Graphical Presentation of 24-hour TSP Monitoring Results	<b>Scale</b> N.T.S	<b>Project No.</b> MA11060	
	<b>Date</b> Sep 14	<b>Appendix</b> E	

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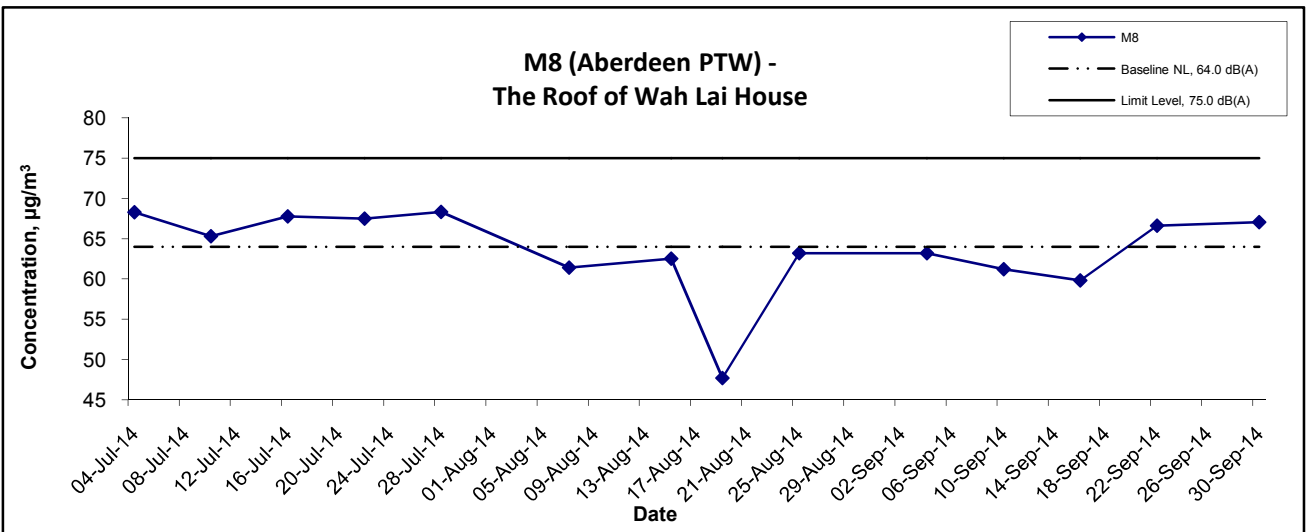
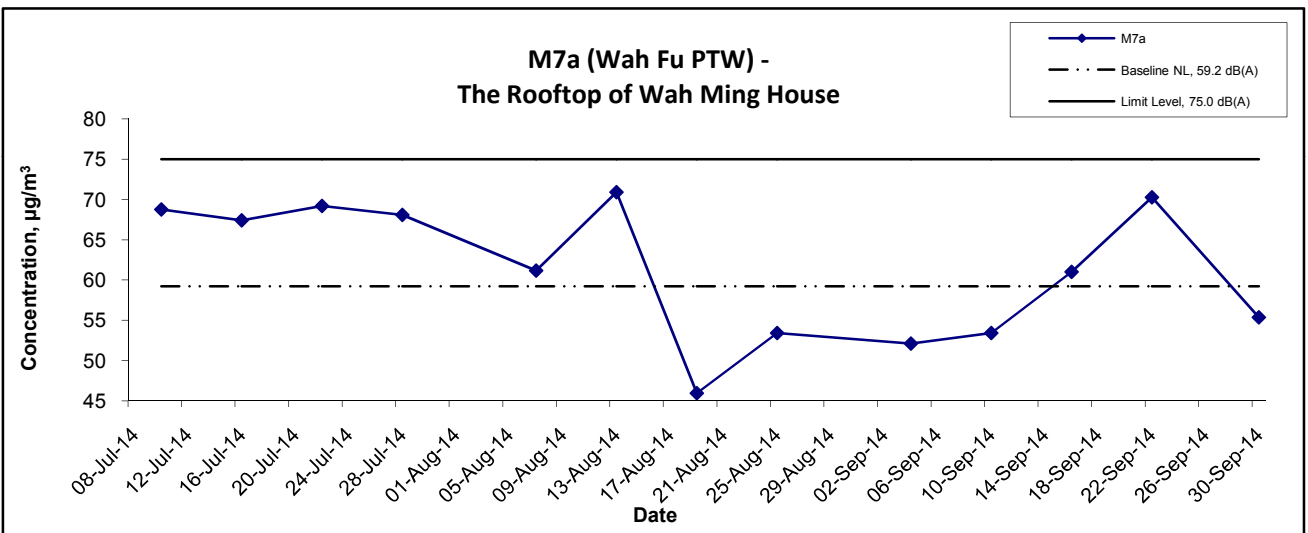
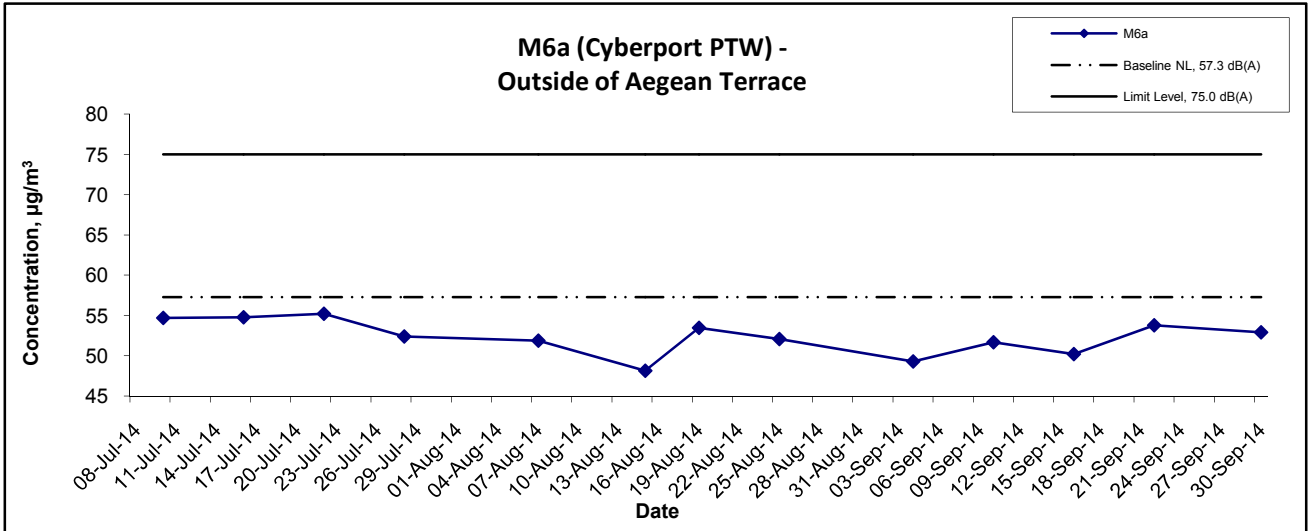
**APPENDIX F  
GRAPHICAL PRESENTATION OF  
NOISE MONITORING RESULTS**

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## Noise Levels

(0700-1900 hrs on Normal Weekdays)

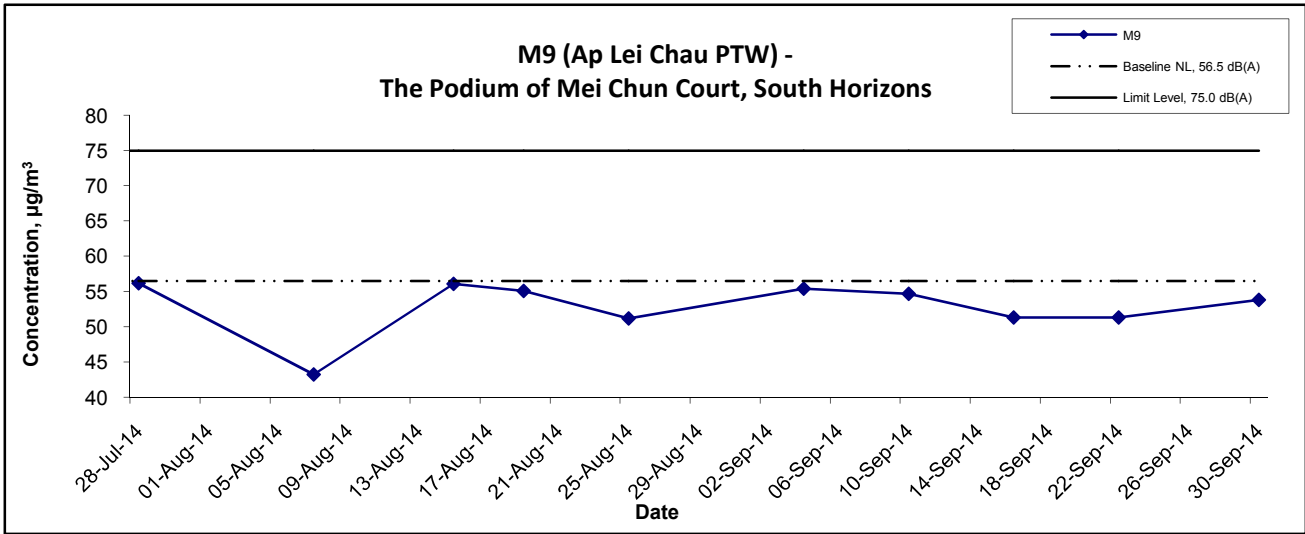


Title Contract No. DC/2009/24 HATS 2A – Upgrading of Preliminary Treatment Works at Sandy Bay, Cyberport, Wah Fu, Abredeen and Ap Lei Chau Graphical Presentation of Noise Monitoring Result	Scale	N.T.S	Project No.	MA11060	CINOTECH
	Date	Sep 14	Appendix	F	



## Noise Levels

**(0700-1900 hrs on Normal Weekdays)**



Title Contract No. DC/2009/24 HATS 2A – Upgrading of Preliminary Treatment Works at Sandy Bay, Cyberport, Wah Fu, Abredeen and Ap Lei Chau Graphical Presentation of Noise Monitoring Result	Scale N.T.S	Project No. MA11060	<h1 style="margin: 0;">CINOTECH</h1>
	Date Sep 14	Appendix F	

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**APPENDIX G  
IMPLEMENTATION STATUS OF  
ENVIRONMENTAL MITIGATION  
MEASURES (EMIS)**

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**APPENDIX G IMPLEMENTATION SCHEDULE OF ENVIRONMENTAL MITIGATION MEASURES (EMIS)**

<b>EIA Ref.</b>	<b>Recommended Mitigation Measures</b>	<b>Location of the measure</b>	<b>Implementation Status</b>
<b>A</b>	<b>Air Quality</b>		
3.74	Skip hoist for material transport should be totally enclosed by impervious sheeting.	All construction sites	N/A
	Vehicle washing facilities should be provided at every vehicle exit point.		^
	The area where vehicle washing takes place and the section of the road between the washing facilities and the exit point should be paved with concrete, bituminous materials or hardcore.		^
	Where a site boundary adjoins a road, streets or other areas accessible to the public, hoarding of not less than 2.4 m high from ground level should be provided along the entire length except for a site entrance or exit.		^
	Use of regular watering, with complete coverage, to reduce dust emissions from exposed site surfaces and unpaved roads, particularly during dry weather.		^
	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 shall be applied to aggregate fines.		#
	Open stockpiles shall 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.		^
	Imposition of speed controls for vehicles on unpaved site roads. Ten kilometers per hour is the recommended limit.		^
	Every stock of more than 20 bags of cement should be covered entirely by impervious sheeting placed in an area sheltered on the top and the 3 sides.		^
	Every vehicle should be washed to remove any dusty materials from its body and wheels before leaving the construction sites.		*
3.74	Instigation of an environmental monitoring and auditing program to monitor the construction process in order to enforce controls and modify method of work if dusty conditions arise.	All construction sites	*

EIA Ref.	Recommended Mitigation Measures	Location of the measure	Implementation Status
<b>B</b>	<b>Airborne Noise</b>		
4.56– 4.61	Use of quiet PME, movable barriers and acoustic mats.	All construction sites	^
4.67	Only well-maintained plant shall be operated on-site and plant shall be serviced regularly during the construction program.		^
	Silencers or mufflers on construction equipment shall be utilized and shall be properly maintained during the construction program.		^
	Mobile plant, if any, shall be sited as far away from NSRs as possible.		^
	Machines and plant (such as trucks) that may be in intermittent use shall be shut down between works periods or shall be throttled down to a minimum.		^
4.67	Plant known to emit noise strongly in one direction shall, wherever possible, be orientated so that the noise is directed away from the nearby NSRs.		^
	Material stockpiles and other structures shall be effectively utilized, wherever practicable, in screening noise from on-site construction activities.		^
<b>C</b>	<b>Water Quality</b>		
6.349 to 6.375	Construction Site Runoff and General Construction Activities The mitigation measures as outlined in the ProPECC PN 1/94 Construction Site Drainage should be adopted where applicable.	All construction sites	*
6.376	Effluent Discharge There is a need to apply to EPD for a discharge licence for discharge of effluent from the construction site under the WPCO. The discharge quality must meet the requirements specified in the discharge licence. If monitoring of the treated effluent quality from the works areas is required during the construction phase of the Project, the monitoring should be carried out in accordance with the WPCO license which is under the ambit of regional office (RO) of EPD. Minimum distances of 100 m should be maintained between the discharge points of construction site effluent and the existing saltwater intakes.		*
6.377	Accidental Spillage of Chemicals  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)		^

EIA Ref.	Recommended Mitigation Measures	Location of the measure	Implementation Status
	Regulation should be observed and complied with for control of chemical wastes.		
6.378	Any service shop and maintenance facilities should be located on hard standings within a bunded area, and sumps and oil interceptors should be provided. Maintenance of vehicles and equipment involving activities with potential for leakage and spillage should only be undertaken within the areas appropriately equipped to control these discharges.		*
6.379	<p>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:</p> <ul style="list-style-type: none"> <li>• Suitable containers should be used to hold the chemical wastes to avoid leakage or spillage during storage, handling and transport.</li> <li>• Chemical waste containers should be suitably labelled, to notify and warn the personnel who are handling the wastes, to avoid accidents.</li> <li>• Storage area should be selected at a safe location on site and adequate space should be allocated to the storage area.</li> </ul>		*
6.380	<p>Construction Works in Close Proximity of Storm Drains or Seafront:</p> <p>To minimize the potential water quality impacts from the construction works located at or near any watercourse, the practices outlined below should be adopted where applicable.</p> <ul style="list-style-type: none"> <li>• The use of less or smaller construction plants may be specified to reduce the disturbance to the storm water courses or marine environment.</li> <li>• Temporary storage of materials (e.g. equipment, filling materials, chemicals and fuel) and temporary stockpile of construction materials should be located well away from any water courses during carrying out of the construction works.</li> <li>• Stockpiling of construction materials and dusty materials should be covered and located away from any water courses.</li> <li>• Construction debris and spoil should be covered up and/or disposed of as soon as possible to avoid being washed into the nearby water receivers.</li> <li>• Construction activities, which generate large amount of wastewater, should be carried out in a distance away from the waterfront, where practicable.</li> <li>• Proper shoring may need to be erected in order to prevent soil/mud from slipping into the storm culvert or sea.</li> </ul>	All construction sites	^

EIA Ref.	Recommended Mitigation Measures	Location of the measure	Implementation Status
<b>D</b>	<b>Waste Management</b>		
9.107	Reusable steel or concrete panel shutters, fencing and hoarding and signboard should be used as a preferred alternative to items made of wood, to minimize wastage of wood. Attention should be paid to WBTC No. 19/2001 - Metallic Site Hoardings and Signboards to reduce the amount of timber used on construction sites. Metallic alternatives to timber are readily available and should be used rather than new timber. Precast concrete units should be adopted wherever feasible to minimize the use of timber formwork.	All construction sites	^
9.109	All waste materials should be segregated into categories covering: <ul style="list-style-type: none"> <li>• excavated materials suitable for reuse on-site;</li> <li>• excavated materials suitable for public filling facilities;</li> <li>• remaining C&amp;D waste for landfill;</li> <li>• chemical waste; and</li> <li>• general refuse for landfill.</li> </ul>	All construction sites	^
9.113	Sort C&D waste from demolition of existing facilities to recover recyclable portions such as metals.	All construction sites	^
	Segregation and storage of different types of waste in different containers, skips or stockpiles to enhance reuse or recycling of materials and their proper disposal.		^
	Encourage collection of aluminium cans, PET bottles and paper by providing separate labelled bins to enable these wastes to be segregated from other general refuse generated by the work force.		^
	Any unused chemicals or those with remaining functional capacity shall be recycled.		^
	Proper storage and site practices to minimize the potential for damage or contamination of construction materials.		*
9.115	Nomination of an approved person, such as a site manager, to be responsible for good site practices, arrangements for collection and effective disposal to an appropriate facility, of all wastes generated at the site.	All construction sites	^
	Training of site personnel in proper waste management and chemical waste handling procedures.		^
9.115	Develop and provide toolbox talk for on-site sorting of C&D materials to enhance worker's awareness in handling, sorting, reuse and recycling of C&D materials.	All construction sites	^
	Provision of sufficient waste disposal points and regular collection of waste.		^
	Regular cleaning and maintenance programme for drainage systems, sumps and oil		^

EIA Ref.	Recommended Mitigation Measures	Location of the measure	Implementation Status
	interceptors.		
9.125	Bentonite slurries used in diaphragm wall construction should be reconditioned and reused wherever practicable. The disposal of residual used bentonite slurry should follow the good practice guidelines stated in ProPECC PN 1/94 "Construction Site Drainage".	All construction sites	N/A
9.131	Adequate number of portable toilets at temporary works areas or the PTWs to ensure that sewage from site staff would be properly collected.		^
9.133	General refuse should be stored in enclosed bins, skips or compaction units separating from C&D material and disposed of at designated landfill.		*
9.135	The recyclable component of the municipal waste generated by the workforce, such as aluminium cans, paper and cleansed plastic containers should be separated from other waste. Provision and collection of recycling bins for different types of recyclable waste should be set up by the Contractor. The Contractor should also be responsible for arranging recycling companies to collect these materials.		^
9.137	If chemical wastes are produced at the construction site, the Contractor would be required to register with the 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, corrosive, etc. The Contractor shall use a licensed collector to transport and dispose of the chemical wastes, to either the approved Chemical Waste Treatment Centre, or another licensed facility, in accordance with the Waste Disposal (Chemical Waste) (General) Regulation.		*
9.142	Prior to excavation of the marine deposit layer, the deposit should be tested in accordance with the ETWB TC(W) No. 34/2002 and the results should be presented in a Preliminary Sediment Quality Report. The marine deposit should be disposed of at the disposal site designated by the Marine Fill Committee (MFC) or Director of Environmental Protection (DEP) depending on the test results.		N/A

<b>EIA Ref.</b>	<b>Recommended Mitigation Measures</b>	<b>Location of the measure</b>	<b>Implementation Status</b>
<b>E</b>	<b>Terrestrial Ecology</b>		
10.94	To implement effective noise mitigation measures as recommended in Section 4 of EIA.	All construction sites	N/A
10.95	Dust control practices such as regular watering, complete coverage of any aggregate or dusty material storage piles, and re-schedule of dusty activities during high-wind conditions as well as other measures recommended in Section 3 of EIA, should be implemented.		^
10.96	Fences/hoardings should be erected and installed along the boundary of the works areas.		^
10.97	Standard good site practices as suggested in Section 10 of EIA should be implemented.		N/A
10.98	Provision of proper drainage system and runoff control measures such as use of sand/silt traps, oil/grease separators, sedimentation tanks, etc.		^
<b>F</b>	<b>Landscape and Visual</b>		
Table 13.7	Topsoil, where identified, should be stripped and stored for re-use in the construction of the soft landscape works, where practical.	All construction sites	^
	Existing trees to be retained on site should be carefully protected during construction.		#
	Trees unavoidably affected by the works should be transplanted where practical.		^
	Compensatory tree planting should be provided to compensate for felled trees.		^
	Control of night-time lighting.		^
Table 13.7	Erection of decorative screen hoarding compatible with the surrounding setting.	All construction sites	N/A
<b>G</b>	<b>Marine Ecology</b>		
11.137	To minimize the potential indirect impacts on water quality from construction site runoff and various construction activities, the practices outlined in ProPECC PN 1/94 Construction Site Drainage should be adopted.	All construction sites	^
<b>H</b>	<b>Hazard to Life</b>		
14A.201	Limiting use of cranes in terms of locations, lifting height, swing angle and setting up safety zone.	Exact location will be determined on construction site by the engineer	^



Remarks:	^ Compliance of mitigation measure;
	N/A Not Applicable;
	* Recommendation was made during site audit but improved/rectified by the contractor.
	# Recommendation was made during site audit and to be improved / rectified by the contractor.
	X Non-compliance of mitigation measure;
	• Non-compliance but rectified by the contractor;

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**APPENDIX H  
SUMMARY OF ENVIRONMENTAL  
LICENSES AND PERMITS**

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Appendix H - Summary of Environmental Licenses and Permits

Permit Number	Valid Period		Details	Status
	From	To		
<b>Water Discharge License</b>				
WT000116 29-2012	N/A	31/1/2017	Location: Sandy Bay PTW	Valid
WT000116 33-2012	N/A	31/1/2017	Location: Cyber Port PTW	
WT000116 32-2012	N/A	31/1/2017	Location: Ap Lei Chau	
WT000162 42-2013	N/A	31/3/2017	Location: Aberdeen PTW	
WT000168 37-2013	N/A	31/8/2018	Location: Wah Fu PTW	
WT000116 27-2012	N/A	31/1/2017	Location: Wah Fu PTW	Expiry
<b>Notification of Works Under APCO</b>				
334694	6/9/2011	N/A	All PTWs	N/A
<b>Registered Chemical Waste Producer</b>				
5218-171- L2783-01	14/12/2011	N/A	Location: Sandy Bay PTW	Valid
5218-171- L2783-02	30/12/2011	N/A	Location: Cyber Port PTW	
5218-174- L2783-03	30/12/2011	N/A	Location: Ap Lei Chau	
5218-173- L2783-04	30/12/2011	N/A	Location: Aberdeen PTW	
5218-172- L2783-05	30/12/2011	N/A	Location: Wah Fu PTW	
<b>Special Waste Admission Ticket</b>				
11587	24/8/2014	23/11/2014	Location: Ap Lei Chau	Valid
11588	24/8/2014	23/11/2014	Location: Aberdeen PTW	Valid
11585	24/8/2014	23/11/2014	Location: Wah Fu PTW	Valid

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**APPENDIX I  
SUMMARY OF AMOUNT OF WASTE  
GENERATED IN THE REPORTING  
PERIOD**

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Name of Department: DSD

Name of Contract : Harbour Area Treatment Scheme Stage 2A – Upgrading of Preliminary Treatment Works  
at Sandy Bay, Cyberport, Wah Fu, Ap Lei Chau and Aberdeen

Contract No. : DC/2009/24

**APPENDIX I MONTHLY SUMMARY WASTE FLOW TABLE FOR 2014 (YEAR)**

Month	Actual Quantities of Inert C&D Materials Generated Monthly						Actual Quantities of C&D Wastes Generated Monthly					
	Total Quantity Generated	Hard Rock and Broken Concrete (4)	Reused in the Contract	Reused in other Projects	Disposal as Public Fill	Import Fill	Metals	Paper / Cardboard Packaging	Plastics (3)	Chemical Waste	Other, e.g. general refuse	Special Waste
	[in '000m <sup>3</sup> ]	[in '000m <sup>3</sup> ]	[in '000m <sup>3</sup> ]	[in '000m <sup>3</sup> ]	[in '000m <sup>3</sup> ]	[in '000m <sup>3</sup> ]	[in '000kg]	[in '000kg]	[in '000kg]	[in '000kg]	[in '000m <sup>3</sup> ]	[in '000ton]
Year2012	1.002910	0.000000	0.000000	0.000000	1.002910	0.000000	6.680000	0.070000	0.070000	0.100000	0.014000	2.406456
Year2013	4.264035	0.000000	0.000000	0.000000	4.264035	0.000000	10.750000	0.000000	0.000000	0.350000	0.064890	2.232710
JAN	0.433305	0	0	0	0.433305	0	0	0	0	0.06	0.00796	0.2032
FEB	0.040615	0	0	0	0.040615	0	0	0	0	0	0.00334	0.16182
MAR	1.061525	0	0	0	1.061525	0	0	0	0	0	0.00929	0.17807
APR	0.368995	0	0	0	0.368995	0	0	0	0	0	0.00434	0.15738
MAY	0.31617	0	0	0	0.316170	0	0	0	0	0	0.00862	0.15547
JUNE	0.07655	0	0	0	0.07655	0	0	0	0	0.39	0.01304	0.14019
SUB-TOTAL	2.297160	0.000000	0.000000	0.000000	2.297160	0.000000	0.000000	0.000000	0.000000	0.450000	0.046590	0.996130
JULY	0.039665	0	0	0	0.039665	0	0	0	0	0	0.01133	0.15237
AUG	0.3106	0	0	0	0.3106	0	0	0	0	0	0.01921	0.13892
SEPT	1.07455	0	0	0	1.07455	0	0	0	0	0	0.00943	0.1656
OCT	0											
NOV	0											
DEC	0											
TOTAL	8.988920	0.000000	0.000000	0.000000	8.988920	0.000000	17.430000	0.070000	0.070000	0.900000	0.165450	6.092186

Forecast of Total Quantities of C&D materials to be Generated from the Contracts *											
Total Quantity Generated	Hard Rock and Broken	Reused in the Contract	Reused in other Projects	Disposal as Public Fill	Import Fill	Metals	Paper / Cardboard Packaging	Plastics (3)	Chemical Waste	Other, e.g. general refuse	Special Waste
[in '000m <sup>3</sup> ]	[in '000m <sup>3</sup> ]	[in '000m <sup>3</sup> ]	[in '000m <sup>3</sup> ]	[in '000m <sup>3</sup> ]	[in '000m <sup>3</sup> ]	[in '000kg]	[in '000kg]	[in '000kg]	[in '000kg]	[in '000m <sup>3</sup> ]	[in '000ton]
19.77	1.544	1.73	0	16.496	0	30	1	1	4	0.956	9.6

- Notes :
- (1) The performance targets are given in PS Clause 6(14).
  - (2) Plastics refer to plastic bottles / containers, plastic sheets / foam from packaging material.
  - (3) The contractor shall also submit the latest forecast of the total amount of C&D materials expected to be generated from the Works, together with a breakdown of the nature where total amount of C&D materials expected to be generated from the Works is equal to or exceeding 50,000m<sup>3</sup>. (PS Clause 5(4)(b) refers).  
[Delete Note (4) and the table above on the forecast, where inapplicable].
  - \* (4) The assumed density (kg/m<sup>3</sup>) for both C&D material and general refuse.  
C&D material 2000kg/m<sup>3</sup>  
General refuse 1.0 tonnes/m<sup>3</sup>
  - (5) Conversion factors for reporting purpose:  
in-situ: rock = 2.5 tonnes/m<sup>3</sup> ; soil = 2.0 tonnes/m<sup>3</sup>  
excavated: rock = 2.0 tonnes/m<sup>3</sup> ; soil = 1.8 tonnes/m<sup>3</sup>  
broken concrete and bitumen = 2.5 tonnes/m<sup>3</sup>  
C&D Waste = 1.0 tonnes/m<sup>3</sup>  
bentonite slurry = 2.8 tonnes/m<sup>3</sup>  
Paper = 800kg/m<sup>3</sup>  
Chemical = 800kg/m<sup>3</sup>  
Special waste = 1.2 tonnes/m<sup>3</sup>

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**APPENDIX J  
COMPLAINT LOG**

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**APPENDIX J – COMPLAINT LOG**

**Reporting Period:** July to September 2014

**Remarks:** No environmental complaint was received in the reporting quarter.

Log Ref.	Location	Received Date	Details of Complaint	Investigation/Mitigation Action	Status
N.A.	N.A.	N.A.	N.A.	N.A.	N.A.

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**APPENDIX K  
SUMMARY OF EXCEEDANCE**

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## **APPENDIX K – SUMMARY OF EXCEEDANCE**

**Reporting Period:** July to September 2014

- a) Exceedance Report for 1-hr TSP (NIL)**
- b) Exceedance Report for 24-hr TSP (NIL)**
- c) Exceedance Report for Construction Noise on normal week days (NIL)**