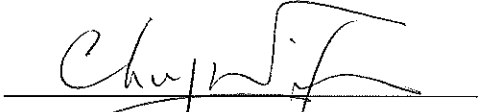


**Contract No. DC/2009/24  
HATS Stage 2A – Upgrading of  
Preliminary Treatment Works at  
Sandy Bay, Cyberport, Wah Fu,  
Aberdeen and Ap Lei Chau**

**Quarterly Environmental  
Monitoring and Audit Report  
October to December 2014**

**(Version 1.0)**

Certified By   
(Environmental Team Leader)

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

27 January 2015  
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 12<sup>th</sup> Quarterly EM&A Report for October to December 2014 (Version 1.0)**

We refer to the revised Quarterly EM&A Report for October to December 2014 (version 1.0) received on 27 January 2015 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. Mr. Ted Y F Tang  
Leader - JEC Joint Venture Mr. Kelvin Cheung / Mr. Patrick Wong  
Cinotech Consultants Ltd. Dr. Priscilla Choy

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 12<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/2009/24 HATS Stage 2A with same Environmental Permit (Permit No. EP-322/2008/G) for October to December 2014.
2. The site activities undertaken for in the reporting quarter included:

#### *October 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, Construction of staircase; and
- Cyberport PTW– Installation of fine screen, Installation of DO unit.

#### *November 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, Construction of staircase; and
- Cyberport PTW– Installation of fine screen, Installation of DO unit.

#### *December 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, Construction of staircase, Construction of Odour pipe; 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 and 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 and approved by EPD on 5 December 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_AB1b	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

*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 & tie in pit pipe laying, 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 & chamber construction, Construction of DO unit concrete plinth.
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 12<sup>th</sup> quarterly EM&A report summarizing the EM&A works conducted for the Project in October to December 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:

#### *October 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, Construction of staircase; and
- Cyberport PTW – Installation of fine screen, Installation of DO unit.

#### *November 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, Construction of staircase; and
- Cyberport PTW – Installation of fine screen, Installation of DO unit.

#### *December 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, Construction of staircase, Construction of Odour pipe; 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 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					
October 2014	CM_CB1a	168	87-271	280	500
	CM_WF1a	167	72-258	285	
	CM_AB1a	161	75-252	283	
November 2014	CM_CB1a	172	69-231	280	
	CM_WF1a	177	73-246	285	
	CM_AB1b	169	82-248	283	
December 2014	CM_CB1a	152	91-264	280	
	CM_WF1a	134	32-240	285	
	CM_AB1b	148	36-252	283	
24 hours TSP					
October 2014	CM_CB1a	58	40-82	178	260
	CM_WF1a	83	47-122	185	
	CM_AB1a	87	64-148	174	
November 2014	CM_CB1a	52	40-65	178	
	CM_WF1a	62	44-79	185	
	CM_AB1b	80	43-101	174	
December 2014	CM_CB1a	85	41-120	178	
	CM_WF1a	89	30-165	185	
	CM_AB1b	109	53-164	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 and this Project.
- 4.8 The construction noise monitoring at the designated locations was conducted by the ET of Contract: DC/2007/24 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 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.)
October 2014	M5	62-65	75.0
	M6a	44-57 <sup>(1)</sup>	
	M7a	52-58	
	M8	55-67	
	M9	52-56	
November 2014	M5	62-63	
	M6a	53-57 <sup>(1)</sup>	
	M7a	52-60	
	M8	56-63	
	M9	45-56	
December 2014	M5	64-69	
	M6a	46-56 <sup>(1)</sup>	
	M7a	55-73	
	M8	57-71	
	M9	53-69	

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>	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.	Please refer to 141003-R02.
	140926-R03	The stagnant water in the wetsep should be cleared regularly at Wah Fu-PTW.	Please refer to 141003-R04.
	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.	Please refer to 141003-R02.
	141003-R02	The bunding should be provided and enhanced to prevent the muddy water runoff to the access road at all PTWs.	Please refer to 141010-R06.
	141003-R04	The stagnant water in the wetsep should be cleared regularly at Wah Fu-PTW.	Please refer to 141010-R03.
	141010-O01	The sediment tank should be provided with adequate capacity for wastewater treatment before discharging out at ALC-PTW.	The sediment tank was provided with adequate capacity for wastewater treatment before discharging out at ALC-PTW.
	141010-O02	The sediment tank was suspected the water leakage at Abd-PTW. The Contractor was reminded to provide the maintenance of the sediment tank and keep it in a good condition.	The maintenance of the sediment tank was provided by the Contractor at Abd-PTW.
	141010-R03	The stagnant water in the WetSep and the sediment tank should be cleared regularly at Wah Fu-PTW and Abd-PTW.	The stagnant water in the WetSep and the sediment tank was cleared at Wah Fu-PTW and Abd-PTW.
	141010-R04	Properly clear the stagnant water at ALC-PTW.	The stagnant water was cleared at ALC-PTW.

	141010-R06	The bunding should be provided to prevent the muddy water overflowing to the access road at ALC-PTW.	The bunding was provided by the Contractor at ALC-PTW.
	141017-R01	Properly clear the stagnant water at Abd-PTW.	The stagnant water was cleared at Abd-PTW.
	141024-R03	The bunding should be provided to prevent the muddy water overflowing to the access road at Abd-PTW.	The bunding was provided by the Contractor at Abd-PTW.
	141031-R02	Properly clear the stagnant water at Abd-PTW.	The stagnant water was cleared at Abd-PTW.
	141107-R04	Properly clear the muddy water at ALC-PTW and the stagnant water at Abd-PTW.	The muddy water at ALC-PTW and the stagnant water at Abd-PTW were cleared.
	141114-R03	Properly clear the stagnant water of the sediment tank regularly at Wah Fu-PTW and the stagnant water at Abd-PTW.	The stagnant water was cleared at Wah Fu-PTW and Abd-PTW.
	141114-R05	The bunding should be provided to prevent the muddy water runoff to the access road at Abd-PTW.	The bunding was provided by the Contractor at Abd-PTW.
	141121-R04	The bunding should be provided to prevent the muddy water runoff to the another side of access road at Abd-PTW.	The bunding was provided to the another side of access road at Abd-PTW.
	141128-R03	Properly clear the stagnant water and oil stained water at ALC-PTW and Abd-PTW.	Please refer to 141205-R01.
	141205-R01	Properly clear the oil stained water and the stagnant water at ALC-PTW and Abd-PTW.	The oil stained water and the stagnant water were cleared at ALC-PTW and Abd-PTW.
	141219-R01	The bunding should be provided and enhanced to prevent the slurry water runoff to the access road at ALC-PTW and Abd-PTW.	The bunding was enhanced at Abd-PTW and the hard paved surface without the slurry was provided by the Contractor at ALC-PTW.
	141223-R02	The bunding should be provided and enhanced to prevent the muddy water runoff to the access road at Sandy Bay-PTW.	The bunding was provided and enhanced at Sandy Bay-PTW.
	141223-R04	Properly clear the stagnant water at ALC-PTW.	The stagnant water was cleared at ALC-PTW.
<b>Air Quality</b>	140926-R02	Properly clear the broken sand bags and dusty materials at Wah Fu-PTW and ALC-PTW.	Please refer to 141003-R03.
	141003-R03	Properly clear the broken sand bags at ALC-PTW.	The broken sand bags were cleared at ALC-PTW.
	141010-R05	The dusty materials should be cleared and covered by impervious materials at Wah Fu-PTW.	The dusty materials were cleared at Wah Fu-PTW.

	141010-R08	The mixing activities should be done in the proper enclosure area at Abd-PTW.	The mixing activities were not observed at Abd-PTW.
	141017-R02	Properly clear the dusty materials at Abd-PTW and ALC-PTW.	Please refer to 141024-R01.
	141024-R01	Properly clear the dusty materials at Abd-PTW.	The dusty materials was cleared at Abd-PTW.
	141031-R01	Properly clear the debris and dusty materials at ALC-PTW.	The dusty materials were cleared at ALC-PTW.
	141107-R03	Properly clear the dusty materials at ALC-PTW.	Please refer to 141114-R01.
	141114-R01	The dusty materials should be cleared properly or covered by impervious material at Wah Fu-PTW, ALC-PTW and Abd-PTW.	The dusty materials were cleared at Wah Fu-PTW and Abd-PTW.
	141121-R01	The dusty materials should be cleared properly or covered by impervious material at Wah Fu-PTW and Abd-PTW.	The dusty materials were cleared at Wah Fu-PTW and Abd-PTW.
	141128-R02	Properly clear the dusty materials at ALC-PTW and Abd-PTW.	The dusty materials were cleared at ALC-PTW and Abd-PTW.
	141205-R02	Properly clear the dusty materials at ALC-PTW and Abd-PTW.	The dusty materials were cleared at ALC-PTW and Abd-PTW.
	141210-R01	Properly clear the dusty materials and debris at Wah Fu-PTW.	The dusty materials and debris were cleared at Wah Fu-PTW.
<b>Waste/ Chemical Management</b>	141003-O01	The oil leakage was observed from the excavator at ALC-PTW. The Contractor was reminded to keep it in a good condition and clear the oil stain properly.	The oil leakage was not observed from the excavator at ALC-PTW. The drip tray was provided for the excavator by the Contractor.
	141010-R07	Properly sort out the construction wastes at Wah Fu-PTW.	The construction wastes were sorted out at Wah Fu-PTW.
	141024-R02	The chemical containers should be provided with the drip tray at Wah Fu-PTW.	The chemical containers were cleared and not observed at Wah Fu-PTW.
	141107-R02	The construction wastes should be sorted out properly at Wah Fu-PTW.	The construction wastes were cleared at Wah Fu-PTW.
	141107-R05	The chemical containers should be provided with the drip tray at Abd-PTW.	The chemical containers were provided with the drip tray at Abd-PTW.
	141114-R02	The chemical containers should be provided with the drip tray at Wah Fu-PTW, ALC-PTW and Abd-PTW.	Please refer to 141121-R02.
	141114-R04	Properly sort out the construction wastes at ALC-PTW.	The construction wastes were sorted out at ALC-PTW.
	141114-R06	Properly clear the oil stain at Abd-PTW.	The oil stain was cleared at Abd-PTW.
	141121-R02	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.
	141121-R03	The recycle bins should be labelled properly for sorting out the general refuse at ALC-PTW.	The recycle bins were labelled properly for sorting out the general refuse at ALC-PTW.



	141128-001	The oil leakage was observed from the PME's at ALC-PTW. The Contractor was reminded to keep them in a good condition.	The oil leakage was not observed from the PME's at ALC-PTW.
	141128-R03	Properly clear the stagnant water and oil stained water at ALC-PTW and Abd-PTW.	Please refer to 141205-R01.
	141128-R04	Properly clear the oil stain at ALC-PTW.	The oil stain was cleared at ALC-PTW.
	141128-R05	The drip tray should be maintained and kept in a good condition at Abd-PTW.	Please refer to 141205-R04.
	141205-R01	Properly clear the oil stained water and the stagnant water at ALC-PTW and Abd-PTW.	The oil stained water and the stagnant water were cleared at ALC-PTW and Abd-PTW.
	141205-R03	The chemical containers should be provided with the drip tray at ALC-PTW and Abd-PTW.	Please refer to 141210-R03.
	141205-R04	The drip tray should be maintained and kept in a good condition at Abd-PTW.	Please refer to 141210-R04.
	141210-R02	Properly clear the oil stain at ALC-PTW and Abd-PTW.	The oil stain was cleared at ALC-PTW and Abd-PTW.
	141210-R03	The chemical containers should be provided with the drip tray at ALC-PTW and Abd-PTW.	The identified chemical containers were not observed at ALC-PTW and Abd-PTW.
	141210-R04	The drip tray should be maintained and kept in a good condition at Abd-PTW.	The equipment with the drip tray was not observed at Abd-PTW.
	141219-R02	The chemical containers should be provided with the drip trays at ALC-PTW and Abd-PTW.	The chemical containers was removed and not observed at ALC-PTW and the drip tray was provided for the chemical containers at Abd-PTW.
	141223-R03	Properly sort out the construction waste at Sandy Bay-PTW.	The construction waste was sorted out at Sandy Bay-PTW.
	<b>Landscape and Visual</b>	140926-R04	The fence should be provided for the existing tree at Wah Fu-PTW.
140926-R05		The maintenance of the existing tree should be provided at Wah Fu-PTW.	Please refer to 141003-R06.
141003-R05		The fence should be provided for the existing tree at Wah Fu-PTW.	The fence was provided for the existing tree at Wah Fu-PTW.
141003-R06		The maintenance of the existing tree should be provided at Wah Fu-PTW.	The maintenance of the existing tree was provided by the Contractor at Wah Fu-PTW.
141107-R01		The fence should be provided for the protection of the existing tree at Wah Fu-PTW.	The fence was provided for the protection of the existing tree at Wah Fu-PTW.
141223-R01		The fence should be provided for the existing tree at Wah Fu-PTW.	The fence was provided for the existing tree at Wah Fu-PTW.
<b>Noise</b>	--	--	--

<b>Permit/ Licenses</b>	--	--	--
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**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 October to December 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 and WetSep regularly and make sure the WetSep is desilted regularly;
- To provide the bunding to prevent the muddy/ slurry water overflow; and
- To avoid accumulation of stagnant / muddy / oil stained / 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 provide the proper enclosure area for mixing activities; and
- To spray water to prevent the dust emission during dust-generation activities.

#### *Waste/Chemical Management*

- To provide the maintenance of PMEs to prevent the oil leakage;
- To sort out the construction wastes properly on the site; and
- To provide the labels for the recycle bins for proper assortment of general refuse on the site;
- To provide proper and sufficient storage area or drip trays for oil/ chemical containers on site; and
- To provide the maintenance of the drip tray to prevent the water/ oily water runoff.

#### *Landscape and Visual*

- To provide the fence for protection of the existing tree; and
- To provide the maintenance of the existing tree.

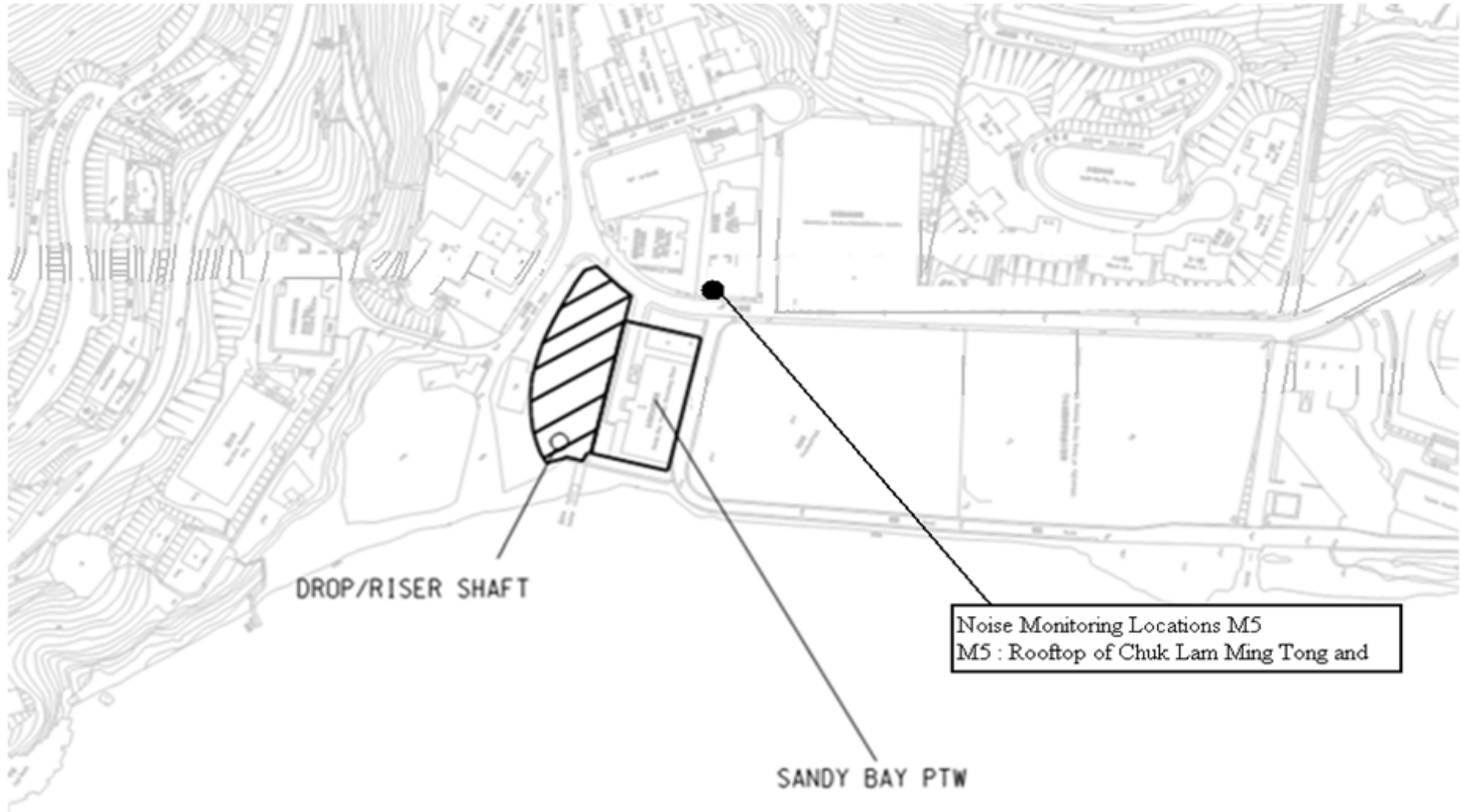
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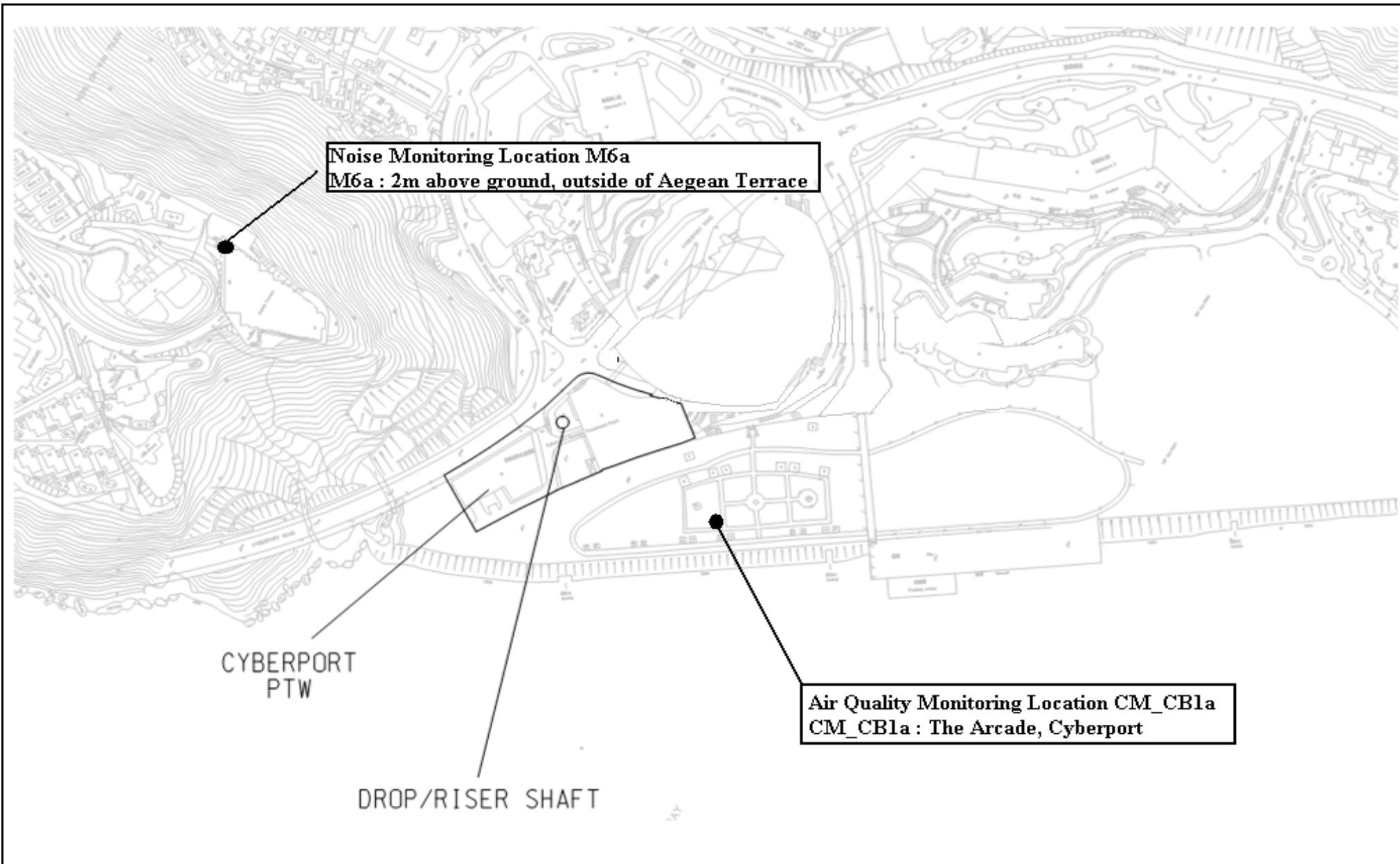
## FIGURES

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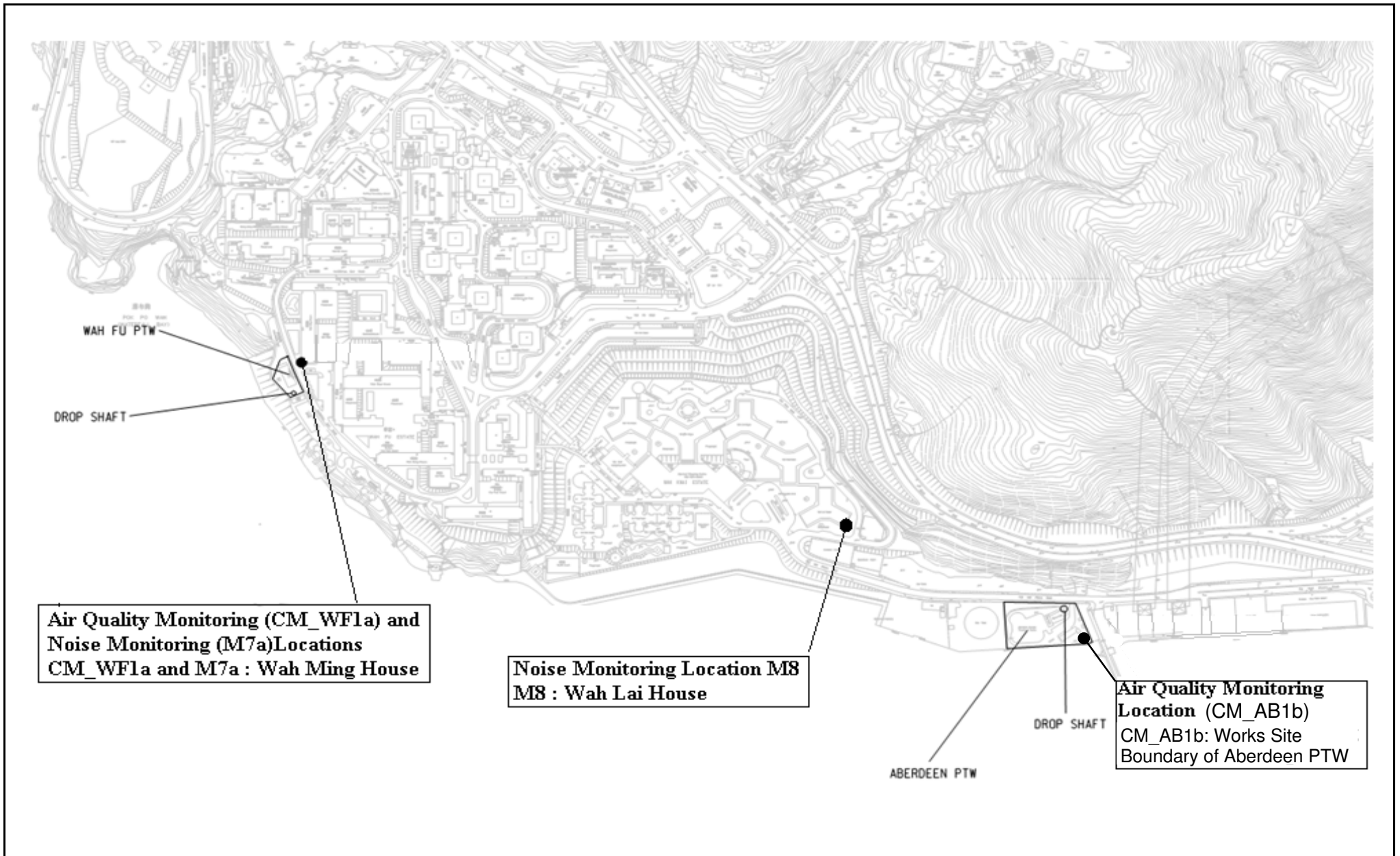
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Title	Contract No: DC/2009/24	Scale	Project	CINOTECH
	HATS 2A - Upgrading of Preliminary Treatment Works at Sandy Bay, Cyberport, Wah Fu, Aberdeen and Ap Lei Chau	N.T.S	No. MA11060	
	General Location Plan of Sandy Bay PTW and Locations of Noise Monitoring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



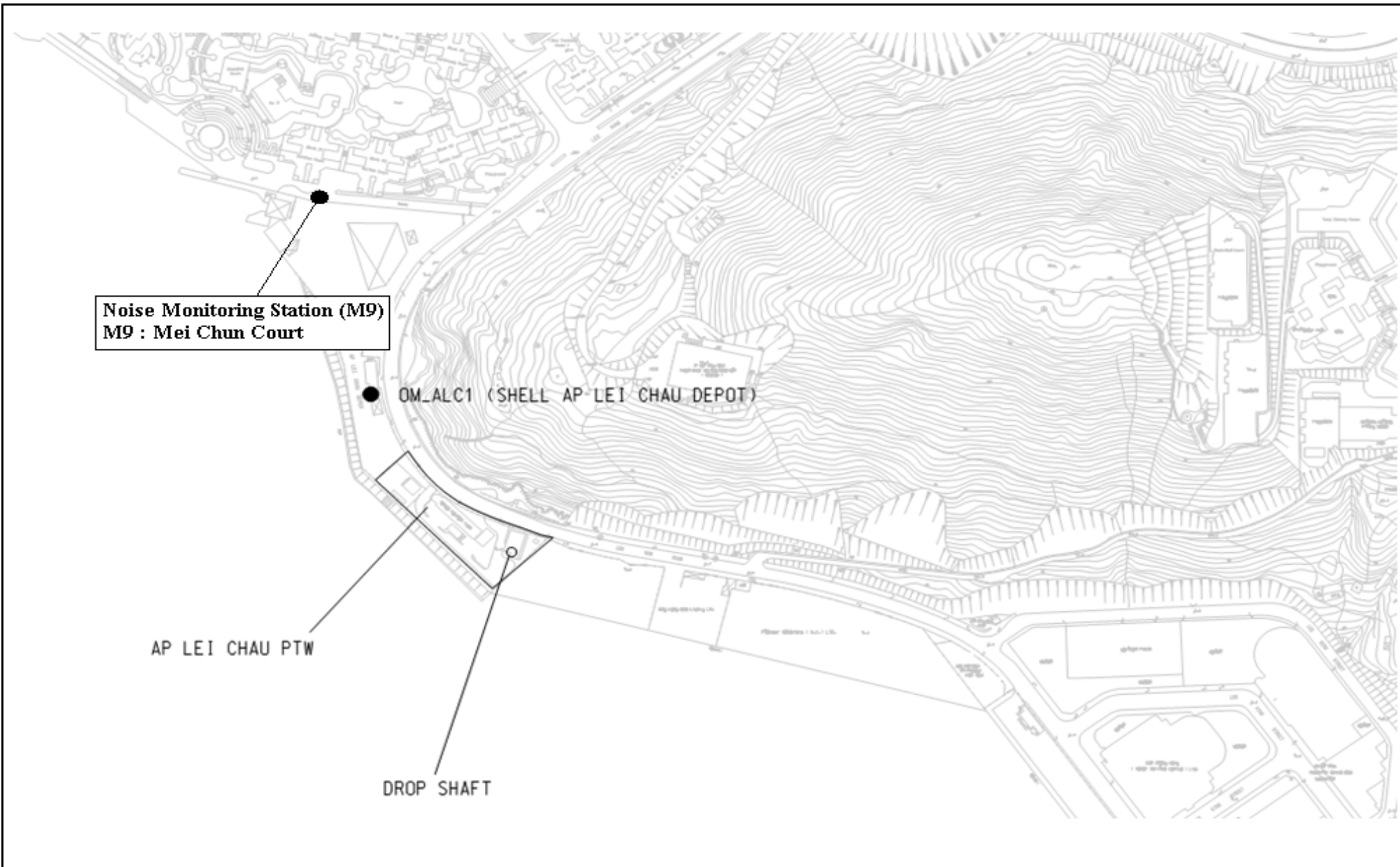
**Air Quality Monitoring (CM\_WF1a) and Noise Monitoring (M7a) Locations**  
 CM\_WF1a and M7a : Wah Ming House

**Noise Monitoring Location M8**  
 M8 : Wah Lai House

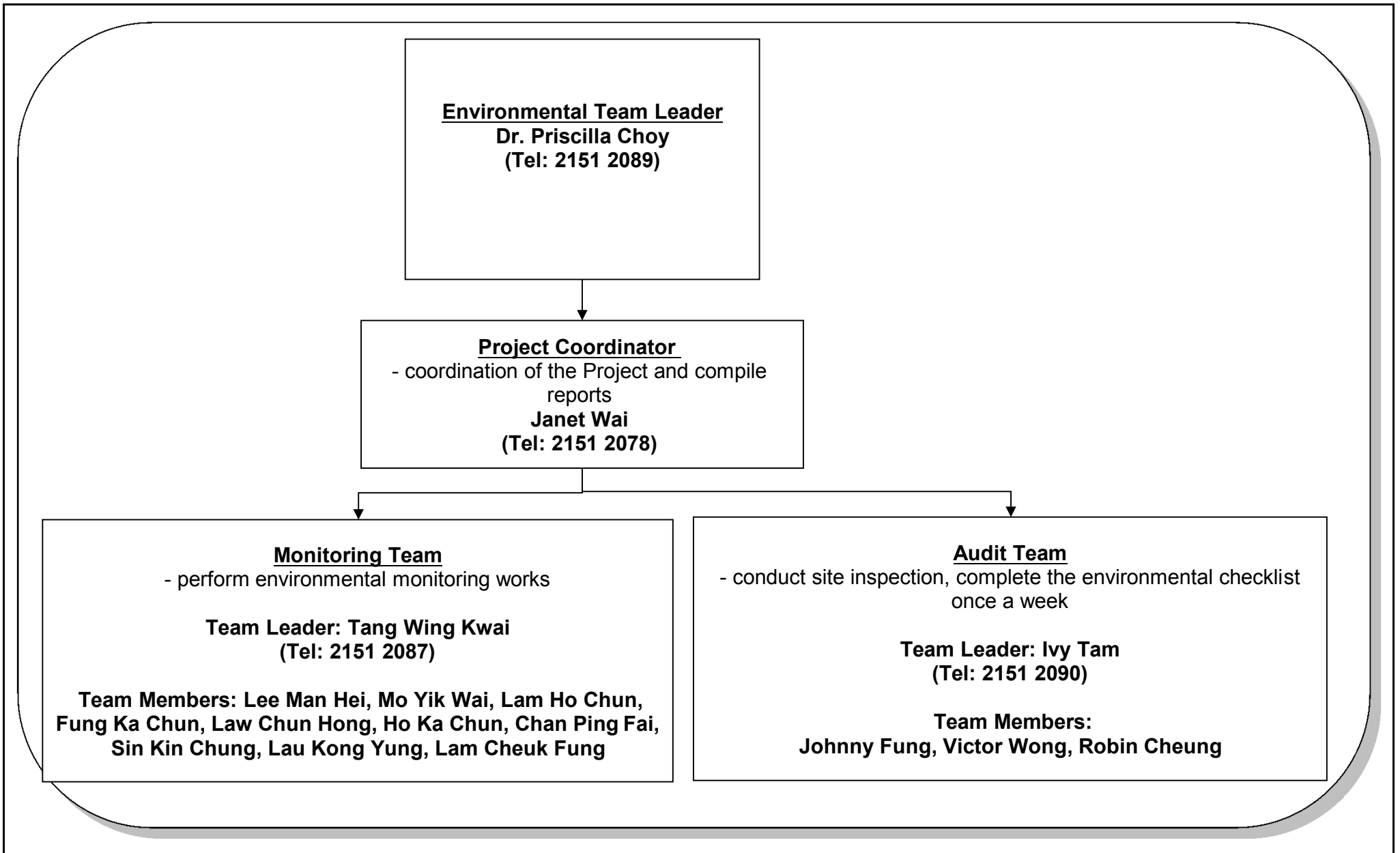
**Air Quality Monitoring Location (CM\_AB1b)**  
 CM\_AB1b: Works Site Boundary of Aberdeen PTW

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




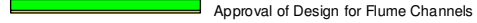






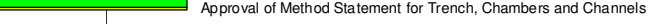











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**APPENDIX B**  
**CONSTRUCTION PROGRAMME**

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Activity ID	Activity Name	% Comp	Original Duration	Early Start	Early Finish	December 2014					January 2015					February 2015				March 2015			
						24	01	08	15	22	29	05	12	19	26	02	09	16	23	02	09	16	23
<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	03-May-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-Jan-15	 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)	100%	0	12-Dec-14 A		 H/O Date_CP-1 (1035 days after start), H/O Date_CP-1 (1035 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	02-Jan-15	 Review / Resubmit of Design for Flume Channels																	
24DCPT00295	Approval of Design for Flume Channels	0%	14	03-Jan-15	16-Jan-15	 Approval of Design for Flume Channels																	
24DCPT00346	Prepare / Submission of Design for permanent concrete plinth for new deodorization unit	0%	30	24-Dec-14	22-Jan-15	 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	23-Jan-15	05-Feb-15	 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	06-Feb-15	19-Feb-15	 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	20-Feb-15	05-Mar-15	 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	06-Mar-15	12-Mar-15	 Approval of Design for permanent concrete plinth for new deodorization unit																	
<b>Method Statement</b>																							
24DCPT02180	Review / Resubmit of Method Statement for Trench, Chambers and Channels	0%	14	09-Sep-14 A	06-Jan-15	 Review / Resubmit of Method Statement for Trench, Chambers and Channels																	
24DCPT02190	Approval of Method Statement for Trench, Chambers and Channels	0%	14	24-Dec-14	06-Jan-15	 Approval of Method Statement for Trench, Chambers and Channels																	
<b>Order / Manufacturing / Shipment / Delivery</b>																							
24DCPT02370	Delivery of 700Ø DI Pipe, valves and accessories	0%	21	13-Jun-14 A	02-Jan-15	 Delivery of 700Ø DI Pipe, valves and accessories																	
<b>Wah Fu</b>																							
<b>Major Technical Data / Civil Works Design</b>																							
24DWFU00190	Approval of RC Design (Fine Screen & Grit Trap Building)	50%	14	18-Jul-12 A	30-Dec-14	 Approval of RC Design (Fine Screen & Grit Trap Building)																	
24DWFU00200	Prepare / Submission of Design for Finishing Works (Fine Screen & Grit Trap Building)	0%	40	01-Jun-14 A	05-Jan-15	 Prepare / Submission of Design for Finishing Works (Fine Screen & Grit Trap Building)																	
24DWFU00210	Review / Approval of ICE for Design of Finishing Works (Fine Screen & Grit Trap Building)	0%	20	06-Jan-15	25-Jan-15	 Review / Approval of ICE for Design of Finishing Works (Fine Screen & Grit Trap Building)																	
24DWFU00220	Comments / Approval of Design for Finishing Works (Fine Screen & Grit Trap Building)	0%	28	26-Jan-15	22-Feb-15	 Comments / Approval of Design for Finishing Works (Fine Screen & Grit Trap Building)																	
24DWFU00230	Review / Resubmit of Design for Finishing Works (Fine Screen & Grit Trap Building)	0%	28	23-Feb-15	22-Mar-15	 Review / Resubmit of Design for Finishing Works (Fine Screen & Grit Trap Building)																	
24DWFU00400	Prepare / Submission of Design for Flume Channels & Chambers	0%	40	31-Dec-14	08-Feb-15	 Prepare / Submission of Design for Flume Channels & Chambers																	
24DWFU00410	Review / Approval of ICE for Design for Flume Channels & Chambers	0%	20	09-Feb-15	28-Feb-15	 Review / Approval of ICE for Design for Flume Channels & Chambers																	
24DWFU00420	Comments / Approval of Design for Flume Channels & Chambers	0%	28	01-Mar-15	28-Mar-15	 Comments / Approval of Design for Flume Channels & Chambers																	
24DWFU00450	Prepare / Submission of Design for Modification of Boundary Fence	0%	40	24-Dec-14	01-Feb-15	 Prepare / Submission of Design for Modification of Boundary Fence																	
24DWFU00460	Review / Approval of ICE for Design of Modification for Boundary Fence	0%	20	02-Feb-15	21-Feb-15	 Review / Approval of ICE for Design of Modification for Boundary Fence																	

Start Date: 25-Jun-11  
 Finish Date: 03-May-18  
 Date Date: 23-Dec-14  
 Run Date: 19-Dec-14

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

HATSS2A Contract No. DC/2009/24

**3 MONTHS ROLLING PROGRAMME**

**DECEMBER 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-Dec-14	UDWP - REVISION 3		

Activity ID	Activity Name	% Comp	Original Duration	Early Start	Early Finish	December 2014					January 2015					February 2015				March 2015				
						24	01	08	15	22	29	05	12	19	26	02	09	16	23	02	09	16	23	
24DWFU00470	Comments / Approval of Design for Modification of Boundary Fence	0%	28	22-Feb-15	21-Mar-15																			Comments / Ap
24DWFU00480	Review / Resubmit of Design for Modification of Boundary Fence	0%	28	22-Mar-15	18-Apr-15																			
<b>Method Statement for Major Works</b>																								
24DWFU02100	Review / Resubmit of Method Statement for Structural Works	0%	14	11-Mar-14 A	06-Jan-15																			Review / Resubmit of Method Statement for Structural Works
24DWFU02110	Approval of Method Statement for Structural Works	0%	14	24-Dec-14	06-Jan-15																			Approval of Method Statement for Structural Works
24DWFU02120	Prepare / Submission of Method Statement for Finishing works	0%	60	24-Jun-14 A	22-Jan-15																			Prepare / Submission of Method Statement for Finishing works
24DWFU02130	Comments / Approval of Method Statement for Finishing works	0%	28	24-Dec-14	20-Jan-15																			Comments / Approval of Method Statement for Finishing works
24DWFU02140	Review / Resubmit of Method Statement for Finishing works	0%	14	21-Jan-15	03-Feb-15																			Review / Resubmit of Method Statement for Finishing works
24DWFU02150	Approval of Method Statement for Finishing works	0%	14	04-Feb-15	17-Feb-15																			Approval of Method Statement for Finishing works
24DWFU02160	Prepare / Submission of Method Statement for Trench, Chambers and Channels	0%	60	31-Jul-14 A	08-Feb-15																			Prepare / Submission of Method Statement for Trench, Chambers and Channels
24DWFU02170	Comments / Approval of Method Statement for Trench, Chambers and Channels	0%	28	09-Feb-15	08-Mar-15																			Comments / Approval of Method Statement
24DWFU02180	Review / Resubmit of Method Statement for Trench, Chambers and Channels	0%	14	09-Mar-15	22-Mar-15																			Review / Res
<b>Material Submission / Approval</b>																								
24DWFU02320	Prepare / Submission of Material Approval for Roller Shutter	0%	28	24-Dec-14	20-Jan-15																			Prepare / Submission of Material Approval for Roller Shutter
24DWFU02330	Review / Approval of Material Approval for Roller Shutter	0%	28	21-Jan-15	17-Feb-15																			Review / Approval of Material Approval for Roller Shutter
24DWFU02340	Review / Resubmit of Material Approval for Roller Shutter	0%	14	18-Feb-15	03-Mar-15																			Review / Resubmit of Material Approval for Roller Shu
24DWFU02350	Approval of Material Approval for Roller Shutter	0%	14	04-Mar-15	17-Mar-15																			Approval of Material Ap
<b>Order / Manufacturing / Shipment / Delivery</b>																								
24DWFU02400	Placing order for Roller Shutter	100%	10	24-Nov-14 A	03-Dec-14 A																			Placing order for Roller Shutter
24DWFU02410	Manufacturing of Roller Shutter	0%	90	04-Dec-14 A	03-Mar-15																			Manufacturing of Roller Shutter
24DWFU02420	Delivery of Roller Shutter	0%	6	04-Mar-15	09-Mar-15																			Delivery of Roller Shutter
24DWFU02430	Placing order for FRP cover/flooring	100%	10	24-Nov-14 A	03-Dec-14 A																			Placing order for FRP cover/flooring
24DWFU02440	Manufacturing of FRP cover/flooring	0%	90	04-Dec-14 A	03-Mar-15																			Manufacturing of FRP cover/flooring
24DWFU02450	Delivery of FRP cover/flooring	0%	30	04-Mar-15	02-Apr-15																			Delivery of FRP cover/flooring
<b>Aberdeen</b>																								
<b>Temporary Works Design</b>																								
24DABN00650	Prepare / Submission of Tech. Data and Shop Drawings for Construction of Temp. Office	0%	20	24-Dec-14	12-Jan-15																			Prepare / Submission of Tech. Data and Shop Drawings for Construction of Temp. Office
24DABN00660	Review / Approval of ICE Design for Construction of Temp. Office	0%	12	13-Jan-15	24-Jan-15																			Review / Approval of ICE Design for Construction of Temp. Office
24DABN00670	Comments / Approval of Tech. Data and Shop Drawings for Construction of Temp. Office	0%	12	25-Jan-15	05-Feb-15																			Comments / Approval of Tech. Data and Shop Drawings for Construction of Temp. Office
24DABN00680	Review / Resubmit of Tech. Data and Shop Drawings for Construction of Temp. Office	0%	14	06-Feb-15	19-Feb-15																			Review / Resubmit of Tech. Data and Shop Drawings for Construction of Temp.
24DABN00690	Approval of Tech. Data and Shop Drawings for Construction of Temp. Office	0%	14	20-Feb-15	05-Mar-15																			Approval of Tech. Data and Shop Drawings for C
<b>Method Statement for Temporary Works</b>																								
24DABN02690	Review / Resubmit of Method Statement for construction of Temp. Office	0%	14	18-Nov-14 A	06-Jan-15																			Review / Resubmit of Method Statement for construction of Temp. Office
24DABN02700	Approval of Method Statement for construction of Temp. Office	0%	14	07-Jan-15	20-Jan-15																			Approval of Method Statement for construction of Temp. Office
<b>Major Technical Data / Civil Works Design</b>																								
24DABN00180	Review / Resubmit of Piling Works Design for Workshop & Admin Building	0%	28	22-Dec-11 A	25-Dec-14																			Review / Resubmit of Piling Works Design for Workshop & Admin Building
24DABN00190	Approval of Piling Works Design for Workshop & Admin Building	0%	14	24-Mar-12 A	01-Jan-15																			Approval of Piling Works Design for Workshop & Admin Building
24DABN00230	Review / Resubmit of RC Design (Workshop & Admin Building)	0%	28	07-Feb-12 A	13-Jan-15																			Review / Resubmit of RC Design (Workshop & Admin Building)
24DABN00240	Approval of RC Design (Workshop & Admin Building)	0%	14	18-Jul-12 A	20-Jan-15																			Approval of RC Design (Workshop & Admin Building)
24DABN00250	Prepare / Submission of Design for Finishing Works (Workshop & Admin Building)	0%	40	21-Jan-15	01-Mar-15																			Prepare / Submission of Design for Finishing Works (Work
24DABN00260	Review / Approval of ICE Design for Finishing Works (Workshop & Admin Building)	0%	20	02-Mar-15	21-Mar-15																			Review / Appro
24DABN00270	Comments / Approval of Design for Finishing Works (Workshop & Admin Building)	0%	28	22-Mar-15	18-Apr-15																			Comments / Approval of Design for Finishing Works (Workshop & Admin Building)
24DABN00300	Prepare / Submission of RC Design (Seawater Pumping Station)	0%	40	01-Oct-14 A	29-Dec-14																			Prepare / Submission of RC Design (Seawater Pumping Station)
24DABN00310	Review / Approval of ICE RC Design (Seawater Pumping Station)	0%	20	30-Dec-14	18-Jan-15																			Review / Approval of ICE RC Design (Seawater Pumping Station)
24DABN00320	Comments / Approval of RC Design (Seawater Pumping Station)	0%	28	19-Jan-15	15-Feb-15																			Comments / Approval of RC Design (Seawater Pumping Station)
24DABN00330	Review / Resubmit of RC Design (Seawater Pumping Station)	0%	28	16-Feb-15	15-Mar-15																			Review / Resubmit of RC De









Activity ID	Activity Name	% Comp	Original Duration	Early Start	Early Finish	December 2014					January 2015					February 2015					March 2015			
						24	01	08	15	22	29	05	12	19	26	02	09	16	23	02	09	16	23	
<b>Civil Works (incl. footing of existing fence modification)</b>																								
24SBY02707	Modification of Existing Effluent Chamber connected to new Flume Chamber	0%	12	24-Dec-14	09-Jan-15	Modification of Existing Effluent Chamber connected to new Flume Chamber																		
24SBY02708	Drawpits, cable ducts and air ducts	0%	68	10-Jan-15	02-Apr-15	Drawpits, cable ducts and air ducts																		
24SBY02709	Installation of air tight multi-part cover in flume channels and chambers	100%	12	24-Nov-14 A	06-Dec-14 A	Installation of air tight multi-part cover in flume channels and chambers																		
<b>Completion of Works in Section 1</b>																								
<b>Submission of Manuals</b>																								
24SBY03060	As-Built Drawings Submission / Approval for Sandy Bay PTW	0%	60	24-Dec-14	21-Feb-15	As-Built Drawings Submission / Approval for Sandy Bay PTW																		
<b>Cyberport PTW</b>																								
<b>Key Dates</b>																								
<b>Time of Completion</b>																								
24CPT01000	Time for Completion of Section 2	0%	1280	31-Aug-11 A	12-Aug-15	Time for Completion of Section 2																		
<b>Interface and Liaison</b>																								
<b>Interface with ST2/DSD</b>																								
24MCPT00090	Application of PMAC/SWAC for Modification of Existing Control Room	0%	0	24-Dec-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		06-Jan-15	Proposed Approval date of PMAC/SWAC for Modification of Existing Control Room, Proposed Approval date of PMAC/SWAC for Modification of Existing Control Room																		
<b>Interface with other contractors</b>																								
24MCPT00110	Liaison with SCS Contractor for the modification of existing water pipe / drainage pipe and flume channel connection	0%	90	15-Mar-14 A	25-Dec-14	Liaison 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		29-Jan-15	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	24-Dec-14	29-Jan-15	Construction of permanent concrete plinth for new deodorization unit																		
<b>Electrical and Mechanical Works</b>																								
<b>Material / Equipment Delivery on Site</b>																								
24CPT02330	Delivery of Stoplog	0%	0		21-Feb-15	Delivery of Stoplog, Delivery of Stoplog																		
24CPT02340	Delivery of Deodorization System	0%	0		28-Jan-15	Delivery of Deodorization System																		
<b>Electrical Works</b>																								
24CPT02451	Cable tray for new deodorization unit	0%	20	16-Feb-15	13-Mar-15	Cable tray for new deodorization unit																		
24CPT02452	Cable laying for new deodorization unit	0%	10	14-Mar-15	25-Mar-15	Cable																		
24CPT02455	E&M miscellaneous works	0%	30	25-Feb-15	31-Mar-15	E&M miscellaneous works																		
<b>HVAC System (Deodorization / Air Conditioning / Ventilation)</b>																								
24CPT02483	Dismantle of existing chemical scrubber at existing DO Room	100%	11	07-Nov-14 A	27-Nov-14 A	Dismantle of existing chemical scrubber at existing DO Room																		
24CPT02490	Installation of new deodorization unit	0%	20	30-Jan-15	25-Feb-15	Installation of new deodorization unit																		
24CPT02491	Installation of accessories for deodorization system	0%	28	16-Feb-15	23-Mar-15	Installation																		
24CPT02500	Installation of air ductwork	0%	20	07-Mar-15	30-Mar-15	Installation																		
<b>Control and Monitoring Services incl. Instrumentation</b>																								
24CPT02529	Installation of supports / hangers for instrumentations	0%	4	24-Dec-14	30-Dec-14	Installation of supports / hangers for instrumentations																		
24CPT02530	Installation of instrumentations	0%	6	31-Dec-14	07-Jan-15	Installation of instrumentations																		
24CPT02531	Equipment installation for monitoring and control system	0%	14	08-Jan-15	23-Jan-15	Equipment installation for monitoring and control system																		
24CPT02539	Install cable tray for monitoring and control system	0%	21	08-Jan-15	31-Jan-15	Install cable tray for monitoring and control system																		
24CPT02540	Cable laying for monitoring and control system	0%	14	02-Feb-15	17-Feb-15	Cable laying for monitoring and control system																		
24CPT02541	Megger test in cables of monitoring and control system	0%	7	18-Feb-15	28-Feb-15	Megger test in cables of monitoring and control system																		
24CPT02550	Cable termination for monitoring and control system	0%	7	02-Mar-15	09-Mar-15	Cable termination for monitoring and control system																		
24CPT02563	PLC programming and SCADA editing	0%	21	06-Oct-14 A	28-Jan-15	PLC programming and SCADA editing																		

Activity ID	Activity Name	% Comp	Original Duration	Early Start	Early Finish	December 2014					January 2015					February 2015					March 2015			
						24	01	08	15	22	29	05	12	19	26	02	09	16	23	02	09	16	23	
24CPT02568	Migration of existing DCS system to newly installed DCS system	0%	54	20-Oct-14	08-Apr-15	[Gantt bar from 20-Oct-14 to 08-Apr-15]																		
24CPT02569	DCS interface with contract DC/2009/10	0%	46	24-Dec-14	18-Feb-15	[Gantt bar from 24-Dec-14 to 18-Feb-15]																		
24CPT02571	Install cable tray for weather and H2S monitoring station	0%	21	24-Dec-14	20-Jan-15	[Gantt bar from 24-Dec-14 to 20-Jan-15]																		
24CPT02572	Cable laying for weather and H2S monitoring station	0%	14	21-Jan-15	05-Feb-15	[Gantt bar from 21-Jan-15 to 05-Feb-15]																		
24CPT02573	Megger test in cables of weather and H2S monitoring station	0%	7	06-Feb-15	13-Feb-15	[Gantt bar from 06-Feb-15 to 13-Feb-15]																		
24CPT02574	Cable termination for weather and H2S monitoring station	0%	7	14-Feb-15	25-Feb-15	[Gantt bar from 14-Feb-15 to 25-Feb-15]																		
24CPT02575	Installation of weather monitoring station	0%	14	06-Feb-15	25-Feb-15	[Gantt bar from 06-Feb-15 to 25-Feb-15]																		
24CPT02576	Installation of H2S monitoring station	0%	35	26-Feb-15	10-Apr-15	[Gantt bar from 26-Feb-15 to 10-Apr-15]																		
<b>Earthing and Lightning System</b>																								
24CPT02580	Modification and installation of earthing and lightning system for newly installed equipment	0%	14	07-Jan-15	22-Jan-15	[Gantt bar from 07-Jan-15 to 22-Jan-15]																		
<b>Preliminary Testing and Commissioning</b>																								
<b>Earthing and Lightning System</b>																								
24CPT02630	Earthing and lightning test	0%	14	23-Jan-15	07-Feb-15	[Gantt bar from 23-Jan-15 to 07-Feb-15]																		
<b>Flume Channels, Chambers and Manhole incl. U/G Utility Works</b>																								
<b>Civil Works for Flume Channel, Chambers and Manhole</b>																								
24CPT03000	Excavation for installation of 700Ø drainage pipe, effluent chamber, flume channels and manholes	0%	7	27-Dec-14	05-Jan-15	[Gantt bar from 27-Dec-14 to 05-Jan-15]																		
24CPT03010	Installation 700Ø drainage pipe	0%	24	06-Jan-15	02-Feb-15	[Gantt bar from 06-Jan-15 to 02-Feb-15]																		
24CPT03020	Formworks for Base Slab of effluent chamber and flume channels	0%	4	20-Jan-15	23-Jan-15	[Gantt bar from 20-Jan-15 to 23-Jan-15]																		
24CPT03030	Rebarworks for Base Slab of effluent chamber and flume channels	0%	6	27-Jan-15	02-Feb-15	[Gantt bar from 27-Jan-15 to 02-Feb-15]																		
24CPT03040	Concrete for Base Slab of effluent chamber and flume channels	0%	5	03-Feb-15	07-Feb-15	[Gantt bar from 03-Feb-15 to 07-Feb-15]																		
24CPT03050	Formworks for walls of effluent chamber and flume channels	0%	4	09-Feb-15	12-Feb-15	[Gantt bar from 09-Feb-15 to 12-Feb-15]																		
24CPT03060	Rebarworks for walls of effluent chamber and flume channels	0%	10	26-Feb-15	09-Mar-15	[Gantt bar from 26-Feb-15 to 09-Mar-15]																		
24CPT03070	Concrete for walls of effluent chamber and flume channels	0%	8	10-Mar-15	18-Mar-15	[Gantt bar from 10-Mar-15 to 18-Mar-15]																		
24CPT03080	Installation of Air Tight Multi-Part Cover in effluent chamber and flume channels	0%	12	19-Mar-15	01-Apr-15	[Gantt bar from 19-Mar-15 to 01-Apr-15]																		
24CPT03090	Formworks for base slab of manholes (2 nos)	0%	4	03-Feb-15	06-Feb-15	[Gantt bar from 03-Feb-15 to 06-Feb-15]																		
24CPT03100	Rebarworks for base slab of manholes (2 nos)	0%	4	03-Feb-15	06-Feb-15	[Gantt bar from 03-Feb-15 to 06-Feb-15]																		
24CPT03110	Concrete for base slab of manholes (2 nos)	0%	4	07-Feb-15	11-Feb-15	[Gantt bar from 07-Feb-15 to 11-Feb-15]																		
24CPT03120	Formworks for walls of manholes (2 nos)	0%	4	12-Feb-15	16-Feb-15	[Gantt bar from 12-Feb-15 to 16-Feb-15]																		
24CPT03130	Rebarworks for walls of manholes (2 nos)	0%	4	23-Feb-15	26-Feb-15	[Gantt bar from 23-Feb-15 to 26-Feb-15]																		
24CPT03140	Concrete for walls of manholes (2 nos)	0%	4	27-Feb-15	03-Mar-15	[Gantt bar from 27-Feb-15 to 03-Mar-15]																		
24CPT03150	Formworks for cover of manholes (2 nos)	0%	5	04-Mar-15	09-Mar-15	[Gantt bar from 04-Mar-15 to 09-Mar-15]																		
24CPT03160	Rebarworks for cover of manholes (2 nos)	0%	4	11-Mar-15	14-Mar-15	[Gantt bar from 11-Mar-15 to 14-Mar-15]																		
24CPT03170	Concrete for cover of manholes (2 nos)	0%	4	16-Mar-15	19-Mar-15	[Gantt bar from 16-Mar-15 to 19-Mar-15]																		
24CPT03200	Installation of draw pits (13nos)	0%	12	19-Mar-15	01-Apr-15	[Gantt bar from 19-Mar-15 to 01-Apr-15]																		
<b>Interface between Civil / ABWF / E&amp;M Works</b>																								
24MCPT00140	Completion of structural works for flume channel	0%	0		18-Mar-15	[Milestone diamond at 18-Mar-15]																		
<b>U/G Utility Works</b>																								
24CPT03250	Excavation for reprovion of water supply pipe to CEPT Complex	0%	7	24-Dec-14	03-Jan-15	[Gantt bar from 24-Dec-14 to 03-Jan-15]																		
24CPT03260	Installation of water supply pipe to CEPT Complex	0%	12	05-Jan-15	17-Jan-15	[Gantt bar from 05-Jan-15 to 17-Jan-15]																		
24CPT03270	Abandonment and Backfilling works on existing water pipe	0%	12	19-Jan-15	31-Jan-15	[Gantt bar from 19-Jan-15 to 31-Jan-15]																		
24CPT03280	Excavation for installation of U/G Odour Pipe from drop shaft	0%	7	02-Feb-15	09-Feb-15	[Gantt bar from 02-Feb-15 to 09-Feb-15]																		
24CPT03285	Construction of pipe trench from drop shaft to existing CPT PTW for odour pipe installation	0%	24	10-Feb-15	12-Mar-15	[Gantt bar from 10-Feb-15 to 12-Mar-15]																		
24CPT03290	Installation of U/G Oduor Pipe from Drop Shaft	0%	20	13-Mar-15	08-Apr-15	[Gantt bar from 13-Mar-15 to 08-Apr-15]																		
<b>Roadworks and Landscaping Works</b>																								
<b>Landscaping Works</b>																								
24CPT04000	Shrubs and Tree planting at CP-3	0%	60	24-Dec-14	10-Mar-15	[Gantt bar from 24-Dec-14 to 10-Mar-15]																		

Activity ID	Activity Name	% Comp	Original Duration	Early Start	Early Finish	December 2014					January 2015					February 2015				March 2015				
						24	01	08	15	22	29	05	12	19	26	02	09	16	23	02	09	16	23	
<b>Completion of Works in Section 2</b>																								
<b>Submission of Manuals</b>																								
24CPT05030	Preparation / Submission of draft O&M manuals	0%	90	28-Dec-14	27-Mar-15																			
<b>Wah Fu PTW</b>																								
<b>Key Dates</b>																								
<b>Time of Completion</b>																								
24WFO1010	Time for Completion of Section 4	0%	1255	31-Aug-11 A	02-Jan-16																			
24WFO1010A	Completion of Works at Section 4 as per contract	0%	0		05-Feb-15*																			
24WFO1010B	Extension of Time Order No.2 - Claim No. PTN/001 - 003 and 004 (Inclement Weather from June to July 2012)	0%	9	06-Feb-15	14-Feb-15																			
24WFO1010C	Extension of Time Order No.3 - Claim No. PTN/001 - 005, 006 and 007 (Inclement Weather from August to October 2012)	0%	1	14-Feb-15	14-Feb-15																			
24WFO1010D	Extension of Time Order No.4 - Claim No. PTN/001 - 008 and 009 (Inclement Weather from November to December 2012)	0%	4	15-Feb-15	18-Feb-15																			
24WFO1010E	Extension of Time Order No. 5 - Claim Nos. PTS/001 - 010 and 011 (Inclement Weather in March 2013 and April 2013)	0%	6	19-Feb-15	24-Feb-15																			
24WFO1010F	Extension of Time Order No. 6 - Claim Nos PTS/001 - 012 and 013 (Inclement Weather from May to July 2013)	0%	15	24-Feb-15	11-Mar-15																			
24WFO1010G	EOT No. 7 - Claim Nos PTS/001-014 and 013 (Inclement Weather from Aug 2013) and Reassessment (Apr-Jul13)	0%	9	11-Mar-15	20-Mar-15																			
24WFO1010H	Extension of Time Order No. 8 - Claim No. PTS/001 - 015 (Inclement Weather in September 2013)	0%	3	20-Mar-15	23-Mar-15																			
<b>Statutory and Utility Applications and Approvals</b>																								
<b>Hong Kong Electric (HEC)</b>																								
24WFO1114	Prepare / Submit Application form to HEC	0%	26	13-Mar-15	15-Apr-15																			
<b>Environmental Protection Department (EPD)</b>																								
24WFO1119	Statutory submission to EPD (Chimney Design)	0%	60	24-Nov-14 A	04-Feb-15																			
24WFO1120	Comment & re-submission to EPD	0%	30	05-Feb-15	14-Mar-15																			
24WFO1121	Approval from EPD	0%	21	16-Mar-15	11-Apr-15																			
<b>Works for Section 4</b>																								
<b>Screen and Grit Trap Building</b>																								
<b>Interface between Civil / ABWF / E&amp;M Works</b>																								
24MFW00210	Partial completion of structural works in preparation to start architectural works	0%	0		03-Mar-15																			
24MFW00220	Partial completion of architectural works in preparation to start E&M works	0%	0		10-Mar-15																			
<b>Civil Works</b>																								
<b>RC Structural Works</b>																								
24WFO2240A40	Formworks for Column and Wall at Elev. +20.32	0%	30	04-Aug-14 A	15-Jan-15																			
24WFO2240A50	Rebarworks for Column and Wall at Elev. +20.32	0%	8	04-Aug-14 A	16-Jan-15																			
24WFO2240A60	Concrete for Column and Wall at Elev. +20.32	0%	1	17-Jan-15	17-Jan-15																			
24WFO2240A61	Formworks for Column, Wall and Roof Slab at Elev. +21.80	0%	10	04-Feb-15	14-Feb-15																			
24WFO2240A62	Rebarworks for Column, Wall and Roof Slab at Elev. +21.80	0%	10	16-Feb-15	02-Mar-15																			
24WFO2240A63	Concrete for Column, Wall and Roof Slab at Elev. +21.80	0%	1	03-Mar-15	03-Mar-15																			
24WFO2240B11	Formworks for Column, Wall and Roof Slab at Elev. +20.32	10%	28	10-Nov-14 A	14-Jan-15																			
24WFO2240B12	Rebarworks for Column, Wall and Roof Slab at Elev. +20.32	20%	12	10-Nov-14 A	02-Feb-15																			
24WFO2240B13	Concrete for Column, Wall and Roof Slab at Elev. +20.32	0%	1	03-Feb-15	03-Feb-15																			
24WFO2240B30	Waterproofing works on Wall	0%	17	04-Feb-15	26-Feb-15																			
24WFO2240B40	Backfilling on FS & GT bldg.	0%	7	18-Feb-15	28-Feb-15																			
24WFO2240B90	Formworks for Stairs	0%	29	04-Mar-15	09-Apr-15																			
24WFO2240C30	Modification of existing outfall chamber to new chamber	0%	45	03-Sep-14 A	17-Jan-15																			
24WFO2240C31	Construction of Chamber	0%	90	19-Jan-15	11-May-15																			
24WFO2260A10	Excavation works prior to construction of new inlet chamber at WF-2	0%	6	19-Jan-15	24-Jan-15																			
24WFO2260A20	Formworks for base slab of inlet chamber	0%	4	26-Jan-15	29-Jan-15																			
24WFO2260A30	Rebarworks for base slab of inlet chamber	0%	4	26-Jan-15	29-Jan-15																			

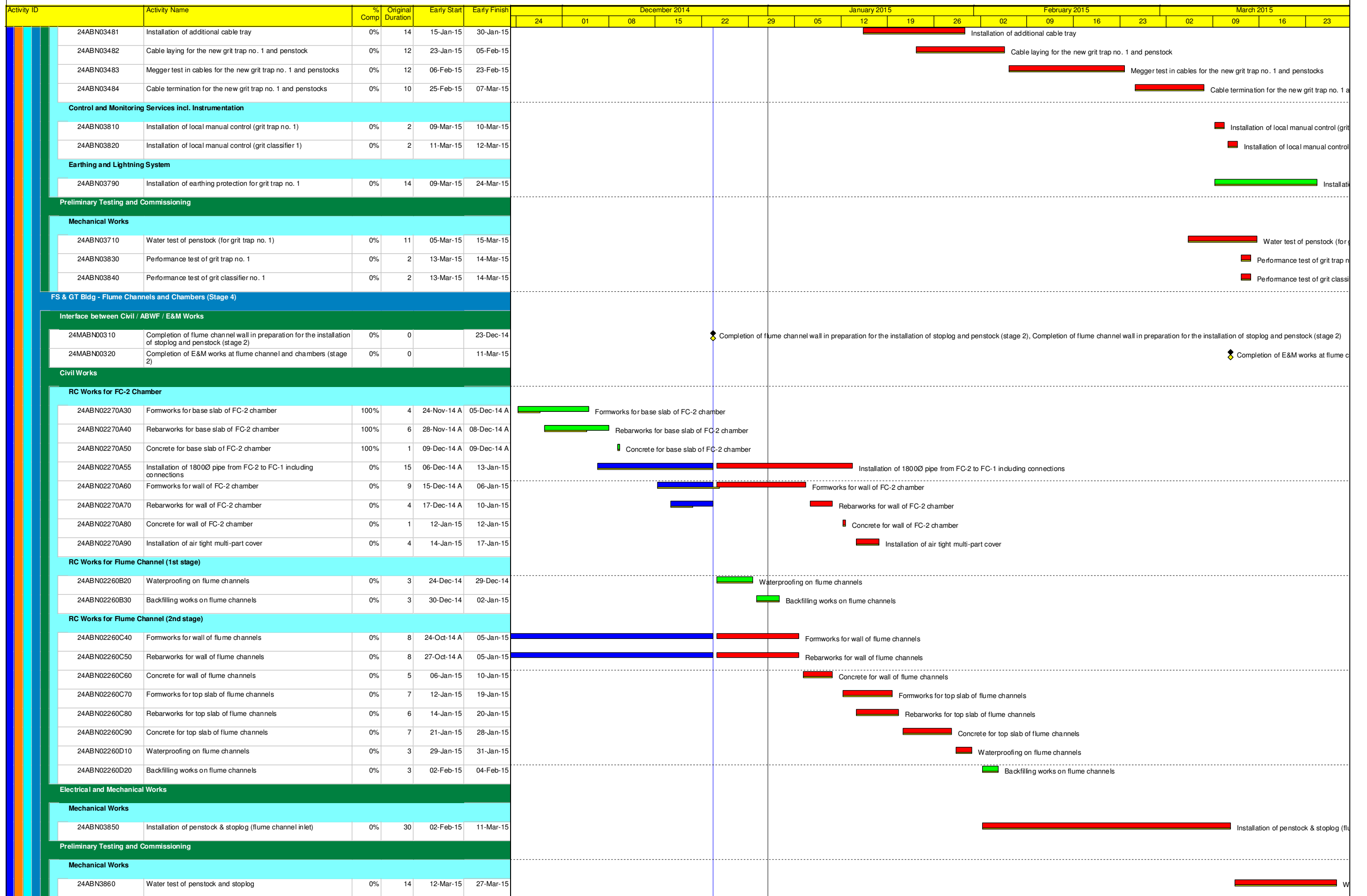






Activity ID	Activity Name	% Comp	Original Duration	Early Start	Early Finish	December 2014					January 2015					February 2015					March 2015				
						24	01	08	15	22	29	05	12	19	26	02	09	16	23	02	09	16	23		
24ABN00300F	Extension of Time Order No. 5 - Claim Nos. PTS/001 - 010 and 011 (Inclement Weather in March 2013 and April 2013)	100%	3	10-Dec-14 A	12-Dec-14 A	Extension of Time Order No. 5 - Claim Nos. PTS/001 - 010 and 011 (Inclement Weather in March 2013 and April 2013)																			
24ABN00300G	Extension of Time Order No. 6 - Claim Nos PTS/001 - 012 and 013 (Inclement Weather from May to July 2013)	100%	22	12-Dec-14 A	02-Jan-15	Extension of Time Order No. 6 - Claim Nos PTS/001 - 012 and 013 (Inclement Weather from May to July 2013)																			
24ABN00300H	EOT No. 7 - Claim Nos PTS/001-014 and 013 (Inclement Weather from Aug 2013) and Reassessment (Apr-Jul13)	0%	8	03-Jan-15	10-Jan-15	EOT No. 7 - Claim Nos PTS/001-014 and 013 (Inclement Weather from Aug 2013) and Reassessment (Apr-Jul13)																			
24ABN00300I	Extension of Time Order No. 8 - Claim No. PTS/001 - 015 (Inclement Weather in September 2013)	0%	5	10-Jan-15	15-Jan-15	Extension of Time Order No. 8 - Claim No. PTS/001 - 015 (Inclement Weather in September 2013)																			
24ABN00301	Revised Completion Date for Section 5 with EoT awarded	0%	0		15-Jan-15	Revised Completion Date for Section 5 with EoT awarded, Revised Completion Date for Section 5 with EoT awarded																			
24ABN00302	Claim for Additional Extension of Time - under review	0%	444	15-Jan-15	02-Apr-16																				
24ABN00310	Time for Completion of Section 6	0%	1309	31-Aug-11 A	03-May-17																				
<b>Interface and Liaison</b>																									
<b>Interface with ST2/DSD</b>																									
24MABN00170	Application of PMAC/SWAC for Demolition of Temp. Channel	0%	0	05-Mar-15																				Application of PMAC/SWAC for Demolition of Temp	
24MABN00180	Proposed Approval date of PMAC/SWAC for Demolition of Temp. Channel	0%	0		18-Mar-15																			Proposed Approval d	
24MABN00200	Application of PMAC/SWAC for Demolition of Existing Temp. Office	0%	0	06-Mar-15																				Application of PMAC/SWAC for Demolition of E	
24MABN00210	Proposed Approval date of PMAC/SWAC for Demolition of Existing Temp. Office	0%	0		19-Mar-15																			Proposed Approval	
<b>Works for Section 5</b>																									
<b>FS &amp; GT Bldg - Fine Screen and Inlet Chamber (Stage 1)</b>																									
<b>Civil Works</b>																									
<b>Temporary Works / Demolition Works</b>																									
24ABN00710A21B	Installation of Structure (incl. enclosure)	100%	12	10-Nov-14 A	29-Nov-14 A	Installation of Structure (incl. enclosure)																			
24ABN00710A21C	Electrical Works (cable laying, termination and connection to existing power supply)	100%	12	01-Dec-14 A	13-Dec-14 A	Electrical Works (cable laying, termination and connection to existing power supply)																			
24ABN00710A21D	Installation of lighting system	100%	6	15-Dec-14 A	18-Dec-14 A	Installation of lighting system																			
24ABN00710A21E	Installation of Ventillation System (Ducting, AC System)	100%	12	01-Dec-14 A	12-Dec-14 A	Installation of Ventillation System (Ducting, AC System)																			
24ABN00710A21F	Installation of Fire Alarm & Fire Fighting System	100%	6	08-Dec-14 A	13-Dec-14 A	Installation of Fire Alarm & Fire Fighting System																			
24ABN00710A21G	T&C of temporary office	0%	12	18-Dec-14 A	17-Mar-15	T&C of temporary office																			
24ABN00710A22	Relocation of existing to new temporary office for DSD/ST2	0%	2	18-Mar-15	19-Mar-15	Relocation of existi																			
24ABN00710A23	Demolition of existing temporary office of DSD/ST2	0%	6	20-Mar-15	26-Mar-15	Dem																			
<b>FS &amp; GT Bldg - Grit Trap No. 1 and FC-1 Chamber (Stage 2)</b>																									
<b>Civil Works</b>																									
<b>RC Works for FC-1 Chamber</b>																									
24ABN00745A45	Installation of 1800Ø pipe from FC-1 to FC-2	20%	30	14-Jul-14 A	30-Jan-15	Installation of 1800Ø pipe from FC-1 to FC-2																			
24ABN00745A47	Installation of permanent 1800Ø dia pipe from FC-1 to FC-3	0%	15	31-Jan-15	17-Feb-15	Installation of permanent 1800Ø dia pipe from FC-1 to FC-3																			
24ABN00745C42	Modification of works on FC-3 chamber (connection of 1800Ø pipe)	0%	30	18-Feb-15	27-Mar-15	M																			
<b>Electrical and Mechanical Works</b>																									
<b>Mechanical Works</b>																									
24ABN03370	Installation of stoplog no. 3 (fine screen outlet chamber)	0%	10	27-Dec-14	08-Jan-15	Installation of stoplog no. 3 (fine screen outlet chamber)																			
24ABN03400	Installation of penstock no. 15 (grit trap no. 1 outlet)	0%	10	09-Jan-15	20-Jan-15	Installation of penstock no. 15 (grit trap no. 1 outlet)																			
24ABN03420	Installation of penstock no. 17 (flowchamber outlet)	0%	10	21-Jan-15	31-Jan-15	Installation of penstock no. 17 (flowchamber outlet)																			
24ABN03690	Installation of penstock no. 10 (flow distribution chamber inlet near grit trap no. 1)	0%	12	02-Feb-15	14-Feb-15	Installation of penstock no. 10 (flow distribution chamber inlet near grit trap no. 1)																			
24ABN03700	Installation of penstock no. 13 (grit trap no. 1 inlet)	0%	12	16-Feb-15	04-Mar-15	Installation of penstock no. 13 (grit trap no. 1 inlet)																			
24ABN03720	Installation of grit trap no. 1	0%	30	27-Dec-14	31-Jan-15	Installation of grit trap no. 1																			
24ABN03730	Installation of grit classifier no. 1	0%	7	02-Feb-15	09-Feb-15	Installation of grit classifier no. 1																			
24ABN03740	Installation of interconnecting pipe for grit classifier no. 1	0%	10	10-Feb-15	24-Feb-15	Installation of interconnecting pipe for grit classifier no. 1																			
24ABN03851	Installation of penstock no. 17 (flow chamber outlet)	0%	15	21-Jan-15	06-Feb-15	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	27-Dec-14	03-Jan-15	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	05-Jan-15	14-Jan-15	Replacement / upgrading the power, control & indication circuitry in existing switchboard (for penstock)																			
24ABN03480	Removal of existing aged cables	0%	7	15-Jan-15	22-Jan-15	Removal of existing aged cables																			





Activity ID	Activity Name	% Comp	Original Duration	Early Start	Early Finish	December 2014					January 2015					February 2015				March 2015				
						24	01	08	15	22	29	05	12	19	26	02	09	16	23	02	09	16	23	
<b>Seawater Pumping Station</b>																								
<b>Civil Works</b>																								
<b>RC Structural Works</b>																								
24ABN02250A10	Excavation for the construction of seawater pumping station and desilting basin	0%	12	24-Dec-14	09-Jan-15	[Red bar from Dec 24 to Jan 9]														Excavation for the construction of seawater pumping station and desilting basin				
24ABN02250A20	Installation of 1000Ø pipe from desilting basin to seawater pumping station	0%	20	10-Jan-15	02-Feb-15	[Red bar from Jan 10 to Feb 2]														Installation of 1000Ø pipe from desilting basin to seawater pumping station				
24ABN02250A30	Formworks for base slab of desilting basin	0%	5	03-Feb-15	07-Feb-15	[Red bar from Feb 3 to Feb 7]														Formworks for base slab of desilting basin				
24ABN02250A40	Rebarworks for base slab of desilting basin	0%	4	05-Feb-15	09-Feb-15	[Red bar from Feb 5 to Feb 9]														Rebarworks for base slab of desilting basin				
24ABN02250A50	Concrete for base slab of desilting basin	0%	4	10-Feb-15	13-Feb-15	[Red bar from Feb 10 to Feb 13]														Concrete for base slab of desilting basin				
24ABN02250A60	Formworks for wall of desilting basin	0%	13	14-Feb-15	04-Mar-15	[Red bar from Feb 14 to Mar 4]														Formworks for wall of desilting basin				
24ABN02250A70	Rebarworks for wall of desilting basin	0%	6	23-Feb-15	28-Feb-15	[Red bar from Feb 23 to Feb 28]														Rebarworks for wall of desilting basin				
24ABN02250A80	Concrete for wall of desilting basin	0%	9	02-Mar-15	11-Mar-15	[Red bar from Mar 2 to Mar 11]														Concrete for wall of desilting basin				
24ABN02250A90	Installation of platform, railings and basket screen	0%	6	12-Mar-15	18-Mar-15	[Red bar from Mar 12 to Mar 18]														Installation of platform				
24ABN02250B10	Installation of air tight multi-part cover	0%	11	19-Mar-15	31-Mar-15	[Red bar from Mar 19 to Mar 31]														Installation of air tight multi-part cover				
24ABN02250B20	Formworks for base slab of seawater pumping station	0%	5	14-Feb-15	23-Feb-15	[Red bar from Feb 14 to Feb 23]														Formworks for base slab of seawater pumping station				
24ABN02250B30	Rebarworks for base slab of seawater pumping station	0%	4	23-Feb-15	26-Feb-15	[Red bar from Feb 23 to Feb 26]														Rebarworks for base slab of seawater pumping station				
24ABN02250B40	Concrete for base slab of seawater pumping station	0%	6	27-Feb-15	05-Mar-15	[Red bar from Feb 27 to Mar 5]														Concrete for base slab of seawater pumping station				
24ABN02250B50	Formworks for wall of seawater pumping station	0%	18	06-Mar-15	26-Mar-15	[Red bar from Mar 6 to Mar 26]														Formworks for wall of seawater pumping station				
24ABN02250B60	Rebarworks for wall of seawater pumping station	0%	8	11-Mar-15	19-Mar-15	[Red bar from Mar 11 to Mar 19]														Rebarworks for wall of seawater pumping station				
24ABN02250B70	Concrete for wall of seawater pumping station	0%	11	20-Mar-15	01-Apr-15	[Red bar from Mar 20 to Apr 1]														Concrete for wall of seawater pumping station				
<b>Electrical and Mechanical Works</b>																								
<b>Material / Equipment Delivery on Site</b>																								
24ABN03570	Delivery of seawater pump	0%	0		23-Feb-15	[Yellow diamond on Feb 23]														Delivery of seawater pump				
<b>Modification at Inlet Pumping Station</b>																								
<b>Interface between Civil / ABWF / E&amp;M Works</b>																								
24MABN00450	Completion of pump modification on Pump no. 2	0%	0		27-Feb-15	[Yellow diamond on Feb 27]														Completion of pump modification on Pump no. 2				
24MABN00460	Completion Date of Dry Season (Oct 2013 to April 2014)	0%	0		27-Feb-15*	[Yellow diamond on Feb 27]														Completion Date of Dry Season (Oct 2013 to April 2014)				
24MABN00470	Start Date of Pump Modification for Pump No. 1 (Sep 2014)	0%	0	28-Feb-15		[Yellow diamond on Feb 28]														Start Date of Pump Modification for Pump No. 1 (Sep 2014)				
24MABN00480	Start of pump modification on Pump no. 1	0%	0	28-Feb-15		[Yellow diamond on Feb 28]														Start of pump modification on Pump no. 1, Start of pump mod				
<b>Modification of Pumps</b>																								
<b>Sewage Pump No. 2</b>																								
24ABN3121	Plinth modification for the installation of new sewage pump no. 2	0%	10	27-Oct-14 A	07-Jan-15	[Blue bar from Oct 27 to Jan 7]														Plinth modification for the installation of new sewage pump no. 2				
24ABN3130	Modification / upgrading of existing power supply	0%	12	31-Oct-14 A	09-Jan-15	[Blue bar from Oct 31 to Jan 9]														Modification / upgrading of existing power supply				
24ABN3140	Installation of new sewage pump no. 2	100%	4	05-Dec-14 A	09-Dec-14 A	[Green bar from Dec 5 to Dec 9]														Installation of new sewage pump no. 2				
24ABN3150	Installation of new pipework and associated valves and flowmeter	0%	16	10-Dec-14 A	26-Jan-15	[Red bar from Dec 10 to Jan 26]														Installation of new pipework and associated valves and flowmeter				
24ABN3160	Power connection	0%	2	27-Jan-15	28-Jan-15	[Red bar from Jan 27 to Jan 28]														Power connection				
24ABN3170	Performance test of sewage pump no. 2	0%	30	29-Jan-15	27-Feb-15	[Red bar from Jan 29 to Feb 27]														Performance test of sewage pump no. 2				
<b>Sewage Pump No. 1</b>																								
24ABN3180	Decommissioning / Demolish sewage pump no. 1 c/w pipework branch	0%	6	28-Feb-15	06-Mar-15	[Green bar from Feb 28 to Mar 6]														Decommissioning / Demolish sewage pump no. 1				
24ABN3181	Plinth modification for the installation of new sewage pump no. 1	0%	10	03-Mar-15	13-Mar-15	[Green bar from Mar 3 to Mar 13]														Plinth modification for the install				
24ABN3190	Modification / upgrading of existing power supply	0%	12	07-Mar-15	20-Mar-15	[Green bar from Mar 7 to Mar 20]														Modification / upg				
24ABN3200	Installation of new sewage pump no. 1	0%	4	14-Mar-15	18-Mar-15	[Green bar from Mar 14 to Mar 18]														Installation of new se				
24ABN3210	Installation of new pipework and associated valves and flowmeter	0%	16	19-Mar-15	09-Apr-15	[Green bar from Mar 19 to Apr 9]														Installation of new se				
<b>Modification of Deodorization System and DCS System</b>																								
<b>Electrical Works</b>																								
24ABN03271	Replacement / upgrading of motor, starter and panel cover in existing switchboard (for deodorizer no. 1)	0%	3	02-Jan-15	05-Jan-15	[Green bar from Jan 2 to Jan 5]														Replacement / upgrading of motor, starter and panel cover in existing switchboard (for deodorizer no. 1)				
24ABN03272	Removal of existing aged cables (for deodorizer no. 1)	0%	5	06-Jan-15	10-Jan-15	[Green bar from Jan 6 to Jan 10]														Removal of existing aged cables (for deodorizer no. 1)				







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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/2009/24	<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_AB1b<sup>(2)</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
			DC/2009/24	M6a <sup>(1)</sup> (Cyberport PTW): Aegean Terrace M7a <sup>(1)</sup> (Wah Fu PTW): Wah Ming House M8 (Aberdeen PTW): Wah Lai House M9 (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: Relocation of the air quality monitoring station was verified by IEC on 15 July 2014; and approved by ER on 22 July 2014 and approved by EPD on 5 December 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_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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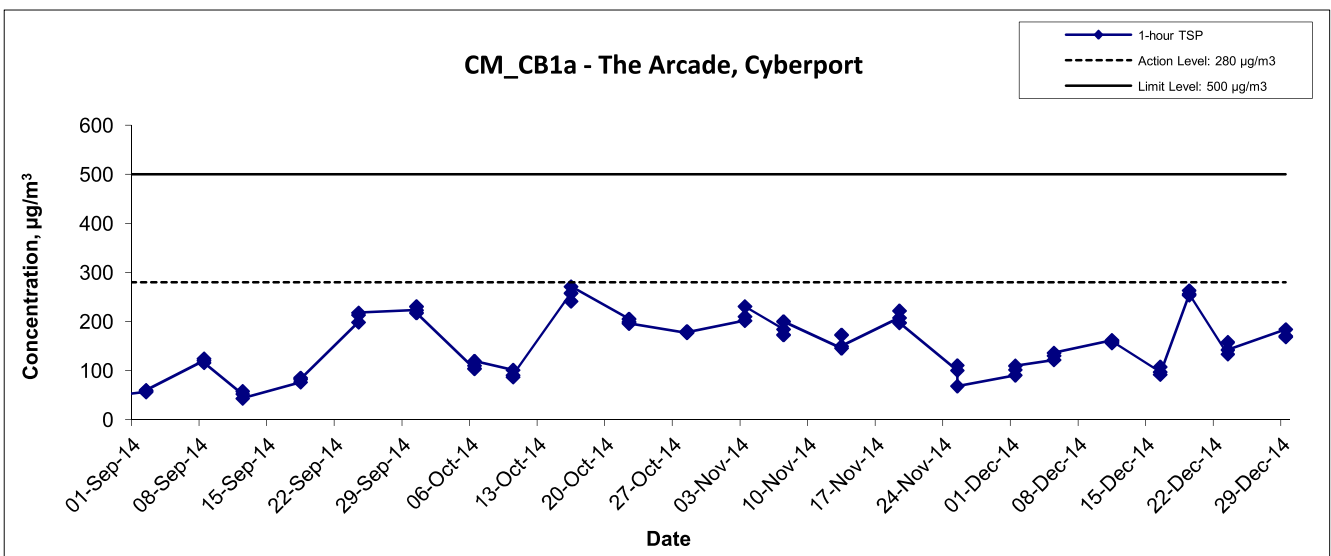
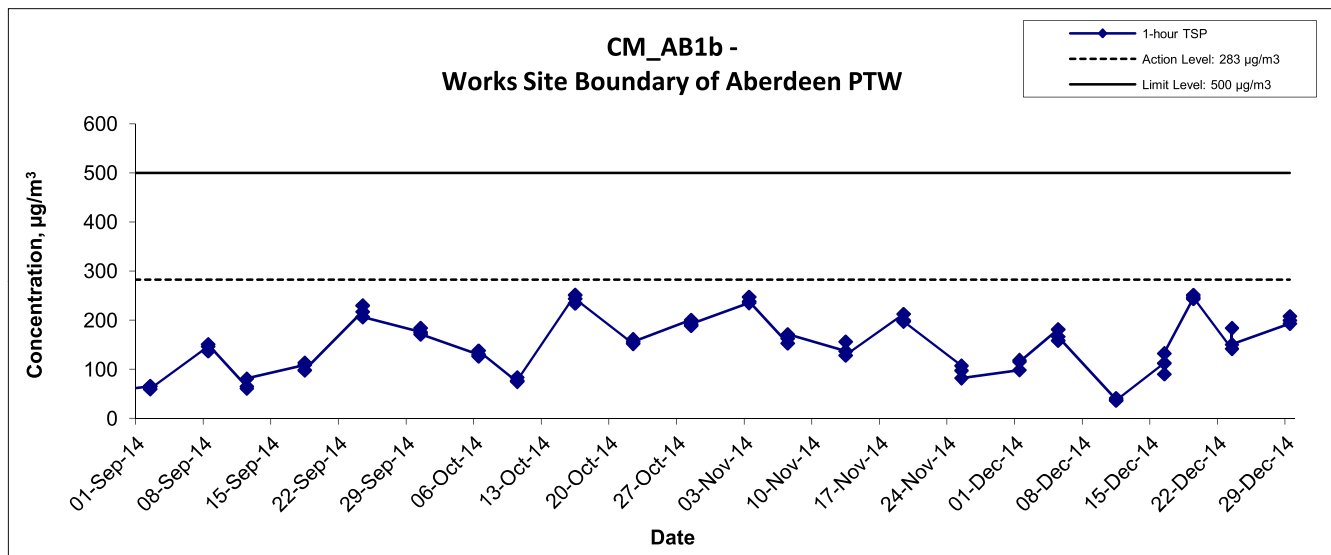
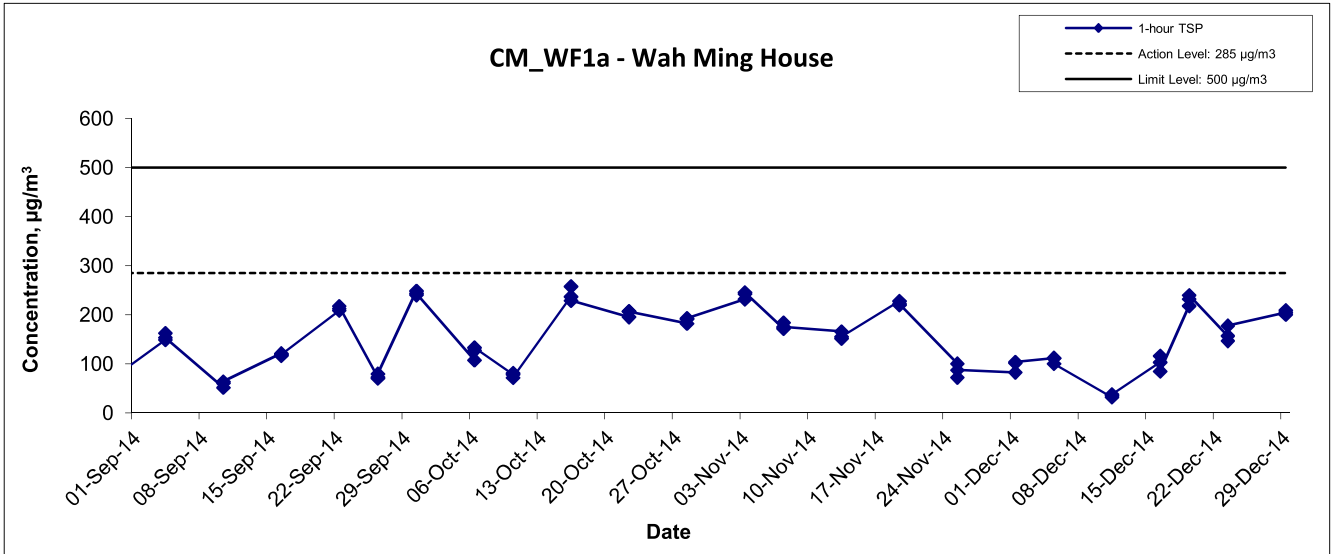
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**APPENDIX E  
GRAPHICAL PRESENTATION OF AIR  
QUALITY MONITORING RESULTS**

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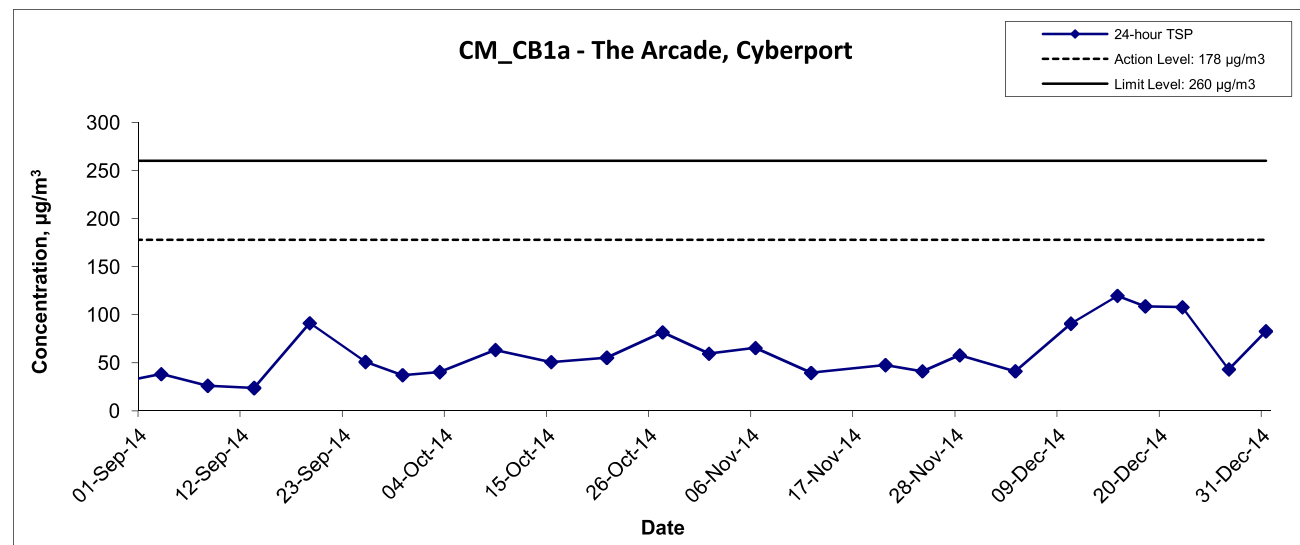
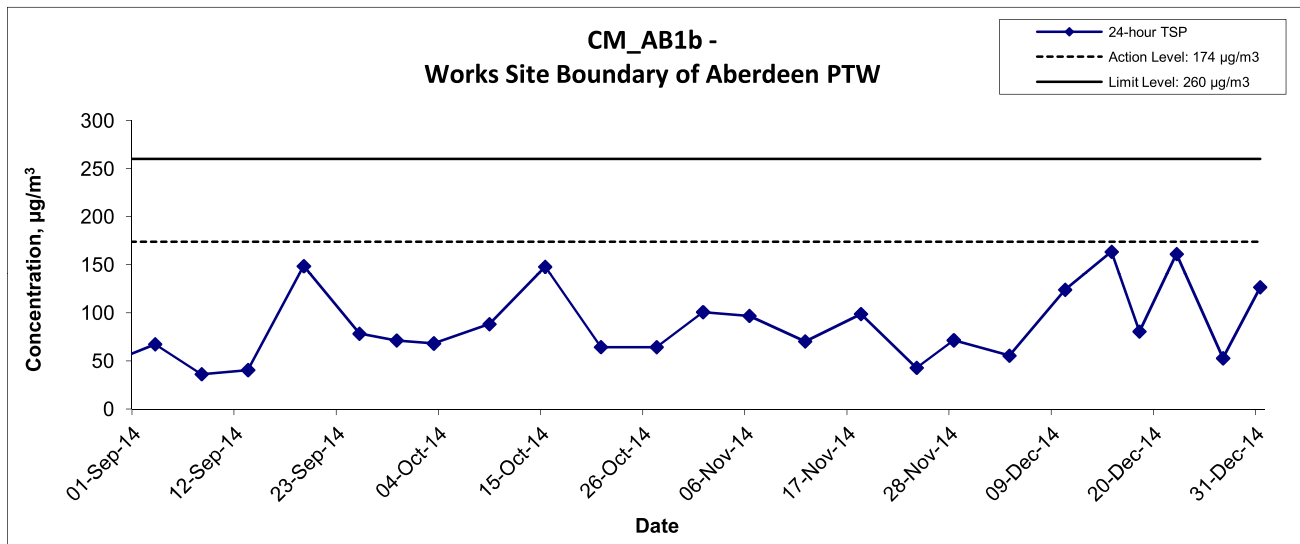
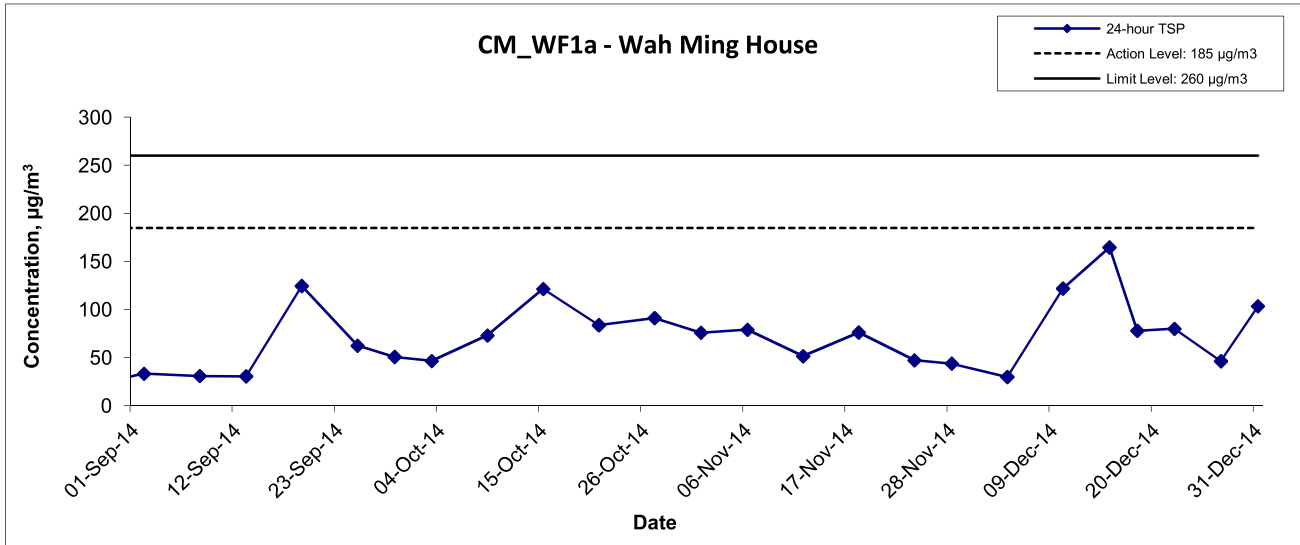
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### 1-hr TSP Concentration Levels



Title	Contract No. DC/2009/24	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	
	Graphical Presentation of 1-hour TSP Monitoring Results	Date	Appendix	
		Dec 14	E	

### 24-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 24-hour TSP Monitoring Results	Scale N.T.S	Project No. MA11060	
	Date Dec 14	Appendix E	

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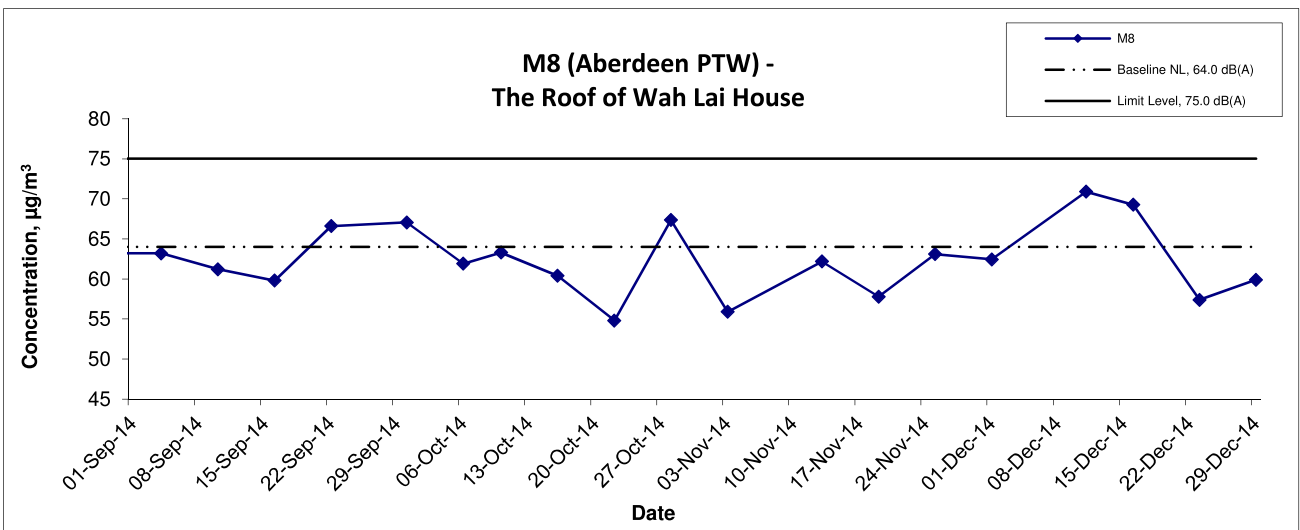
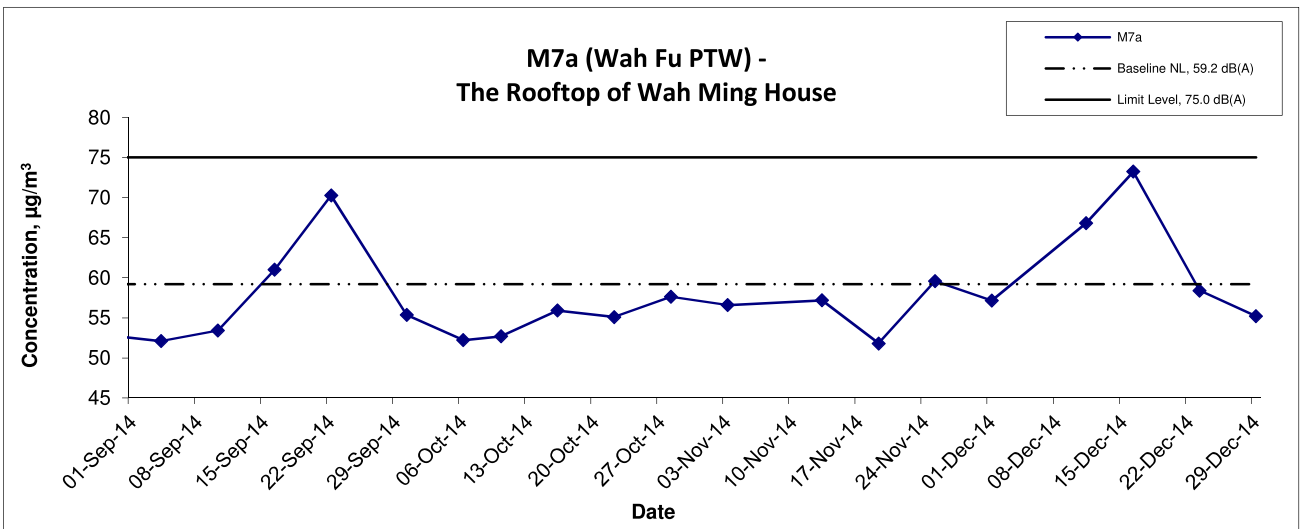
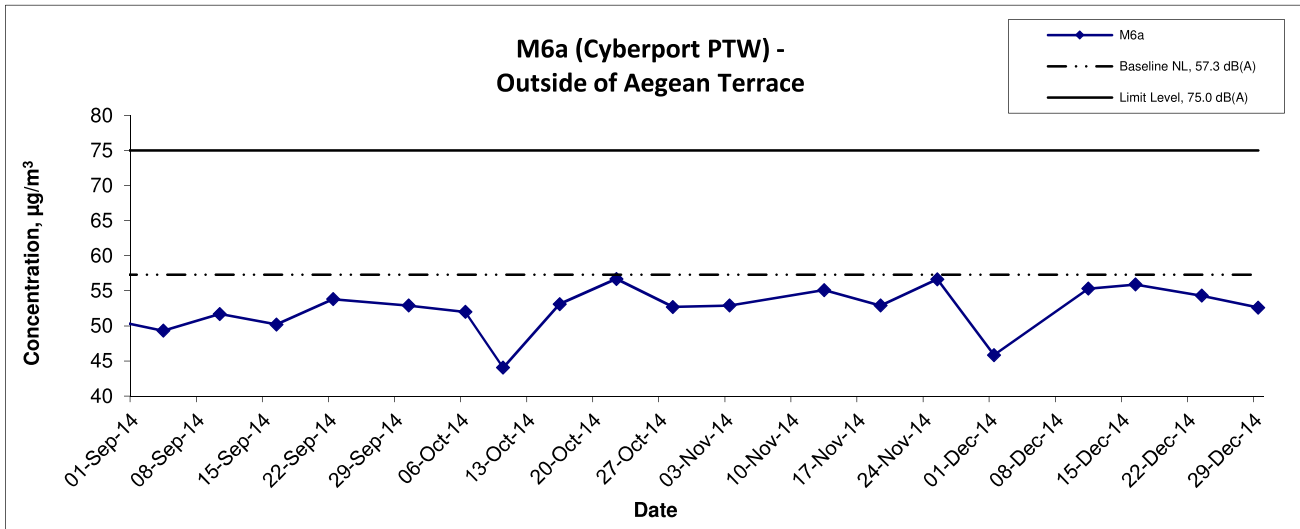
**APPENDIX F  
GRAPHICAL PRESENTATION OF  
NOISE MONITORING RESULTS**

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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, Abredeeen and Ap Lei Chau  
Graphical Presentation of Noise Monitoring Result

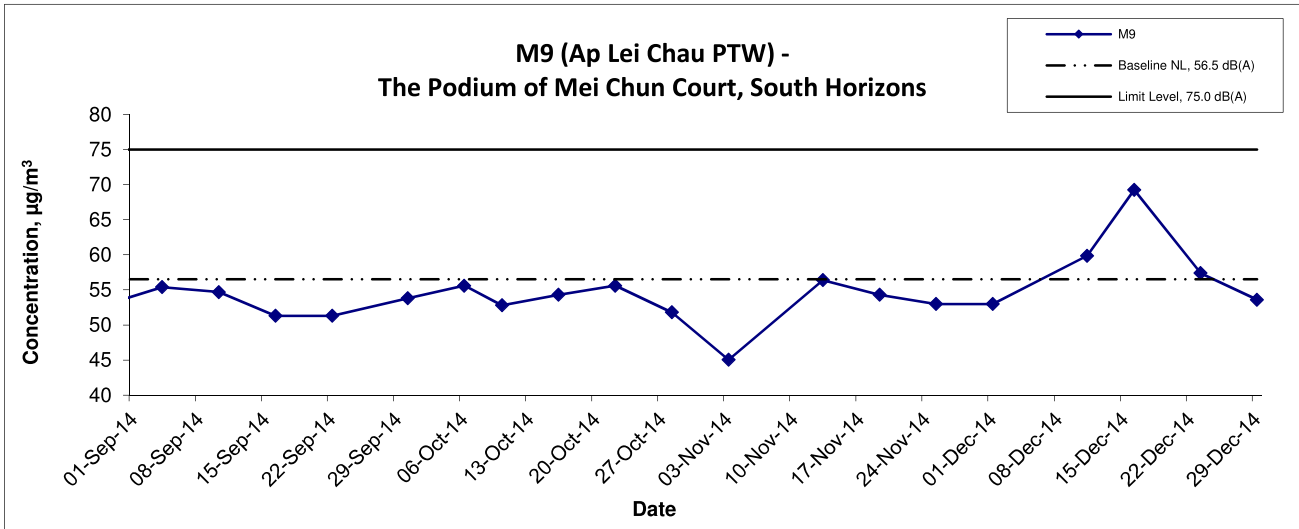
Scale N.T.S  
Date Dec 14

Project No. MA11060  
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	CINOTECH
	Date Dec 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	
<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 until 23/11/2014
11588	24/8/2014	23/11/2014	Location: Aberdeen PTW	Valid until 23/11/2014
11585	24/8/2014	23/11/2014	Location: Wah Fu PTW	Valid until 23/11/2014
11817	24/11/2014	23/2/2015	Location: Ap Lei Chau	Valid
11818	24/11/2014	23/2/2015	Location: Aberdeen PTW	Valid
11815	24/11/2014	23/2/2015	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	0.10015	0	0	0	0.10015	0	0	0	0	0	0.02241	0.13192
NOV	0.42011	0	0	0	0.420110	0	0	0	0	0	0.02648	0.12216
DEC	0.397495	0	0	0	0.397495	0	0	0	0	0	0.00992	0.12536
TOTAL	9.906675	0.000000	0.000000	0.000000	9.906675	0.000000	17.430000	0.070000	0.070000	0.900000	0.224260	6.471626

Forecast of Total Quantities of C&D materials to be Generated from the Contracts *											
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]
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 to 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:** October to December 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:** October to December 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)**