

## 12 Land Contamination Assessment

### 12.1 Introduction

This chapter presents the findings of the land contamination assessment of the impacts from the proposed Stabling Sidings at Hung Hom Freight Yard. The Project covers the modification works of Hung Hom Station (HUH) and construction of Kai Tak Station (KAT) and Diamond Hill Station (DIH) based on the HHS option during the construction phase.

A Contamination Assessment Plan (CAP) has been prepared and was approved by EPD on 11 October 2011 (as attached in **Appendix 12.1**) to identify potential land contamination sites within the intrusive works area under this Project and. Under the CAP, a review of previous land contamination studies within the Project boundary has been conducted. Site investigations results within the project boundary were found under two approved Contamination Assessment Reports (CARs) for SCL (TAW-HUH) and SCL (MKK-HUH) and findings of the review are summarized in **Section 12.3**. The CARs for SCL (TAW-HUH) and SCL (MKK-HUH) referred in this Project had been carried out under *Guidance Notes for Investigation Remediation of Contaminated Sites of Petrol Filling Stations, Boatyards, and Car Repairing/Dismantling Workshops* and were endorsed by EPD. For the purpose of land contamination study under this project, the CARs have also been reviewed and the findings adopted in this Project are consistent with the requirements stipulated in the PG.

### 12.2 Legislation and Standards

Legislation and non-statutory guidance for carrying out the land contamination assessment is provided in the following:

- Technical Memorandum on Environmental Impact Assessment Process (TM-EIA);
- Practice Guide (PG) for Investigation and Remediation of Contaminated Land
- Guidance Notes for Contaminated Land Assessment and Remediation; and
- Guidance Manual for Use of Risk-Based Remediation Goals (RBRGs) for Contaminated Land Management, EPD.

### 12.3 Background Information

As discussed in **Section 12.1**, the findings of site investigation for SCL (MKK-HUH) and SCL (TAW-HUH) have been reviewed. According to the CAR for SCL (MKK-HUH) and SCL (TAW-HUH), a total of 24 boreholes and 8 trial pits were drilled for soil and groundwater sampling at Hung Hom and Diamond Hill within or in close proximity to current Study Area for the 240 soil and 22 groundwater samples collected. No exceedance of RBRG (industrial) level was found and the summary of SI works and laboratory testing results are presented in **Table 12.1** below.

For Kai Tak Works Site, the CAR of SCL (TAW-HUH) indicated that the de-contamination works within North Apron Area of Kai Tak Airport was completed under Environmental Permit EP007/1998 and thus further site investigation of contaminated soils/ groundwater for that KAT Works Site would not be required.

**Table 12.1** Summary of SI Works and laboratory results

Study Area of SCL (HHS)	Drillhole Reference	Sampling Method	No. of Sample Tested		Compliance to Industrial RBRGs
			Soil	Groundwater	
Hung Hom	2209/SCL/EDH249(P)	Borehole	10	1	All sample results indicated compliance
	2209/SCL/ETT103	Trial Pit	3	0	
	11203/SCL/EB121	Borehole	3	0	
	11202/SCL/EDH138	Borehole	10	1	
	11202/SCL/EDH139	Borehole	14	1	
	11202/SCL/EDH140	Borehole	14	1	
	11202/SCL/EDH141	Borehole	16	1	
	11202/SCL/EDH142	Trial Pit	3	0	
	11202/SCL/EDH143	Borehole	13	1	
	11202/SCL/EDH144	Borehole	13	1	
	11203/SCL/EB146	Borehole	5	1	
	2209/SCL/ETT165	Trial Pit	3	0	
	11203/SCL/EB140	Borehole	5	1	
	11203/SCL/EB141	Borehole	5	1	
	2209/SCL/ETT102	Trial Pit	3	0	
	2209/SCL/EDH244	Borehole	11	1	
	11202/SCL/ETP027	Trial Pit	3	0	
	11202/SCL/ETP012	Borehole	11	1	
	11202/SCL/ETP042	Trial Pit	3	0	
	11202/SCL/ETP043	Trial Pit	3	0	
	11202/SCL/ETP044	Trial Pit	3	0	
	2209/SCL/EDH231	Borehole	7	1	
	2209/SCL/EDH229(P)	Borehole	6	1	
2209/SCL/EDH124(P)	Borehole	5	0		
2209/SCL/EDH257	Borehole	6	1		
Diamond Hill	2209/SCL/EDH036	Borehole	11	1	
	2209/SCL/EDH037(P)	Borehole	11	1	
	2209/SCL/EDH039	Borehole	9	1	
	2209/SCL/EDH042	Borehole	7	1	
	2209/SCL/EDH043	Borehole	7	1	
	2209/SCL/EDH045	Borehole	7	1	
	2209/SCL/EDH046(P)	Borehole	10	1	
<b>Total No. of Samples taken</b>			<b>240</b>	<b>22</b>	

## 12.4 Potentially Contaminated Sites

As discussed in **Section 12.3**, CARs of SCL (MKK-HUH) and SCL (TAW-HUH) have been reviewed and results indicated that no exceedance of RBRG levels for industrial purpose was found in all the soil and groundwater samples collected in respective areas.

A site survey was also conducted on 28 June 2011 for the current study to verify findings of desktop review and to visit the track area in the Hung Hom Freight Yard at the eastern portion of the Hung Hom Works Site which has not been surveyed in previous land contamination studies. No additional land contamination hotspot was observed and further

site investigation was not considered necessary. No land contamination issues due to the Project would be anticipated.

### **12.5 Conclusion**

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A land contamination assessment has been conducted for the Project. A Contamination Assessment Plan (CAP) (as attached in **Appendix 12.1**) has also been prepared and submitted to EPD in August 2011 to review findings of previous site investigations and set out the requirements for a contamination evaluation of the Project. No adverse land contamination impacts would be anticipated within or in close proximity to the Project site boundary.