



CONTRACT NO. DE/2005/04

**SUPPLY AND INSTALLATION OF ELECTRICAL AND MECHANICAL EQUIPMENT FOR
UPGRADING OF TING KOK ROAD PUMPING STATION NO. 5**

ENVIRONMENTAL MONITORING AND AUDIT

QUARTERLY EM&A SUMMARY REPORT NO. 2

FROM SEPTEMBER TO NOVEMBER 2007

for

Biwater Man Lee Limited

Submitted by

Kingsford Environmental (H.K.) Ltd.

CONTROLLED DOCUMENT

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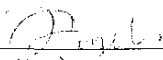
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PROJECT NAME: **Supply and Installation of Electrical and Mechanical Equipment for Upgrading of Ting Kok Road Pumping Station No. 5**

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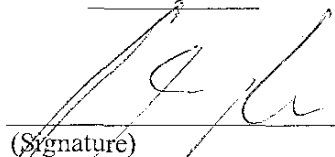
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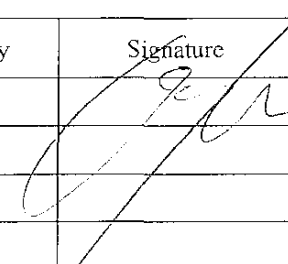
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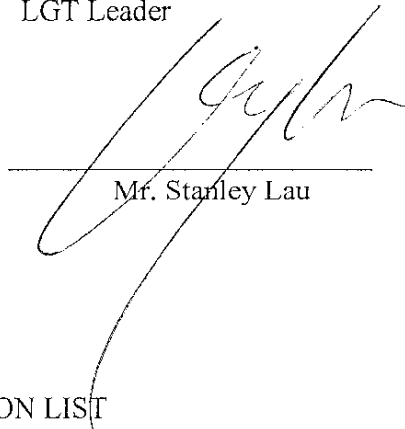
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E&M Contractor (Biwater Man Lee Limited)	Mr. Thomas Jim	1
Independent Checker (Landfill Gas) (CH2M HILL Hong Kong Limited)	Mr. K. S. Lee	1

EXECUTIVE SUMMARY

This is the second Quarterly Environmental Monitoring and Audit (EM&A) Summary Report for the Drainage Services Department Contract No. DE/2005/04 entitled “Supply and Installation of Electrical and Mechanical Equipment for Upgrading of Ting Kok Road Pumping Station No. 5”. Biwater Man Lee Limited has employed an independent Landfill Gas Team (LGT), Kingsford Environmental (H.K.) Limited, to monitor landfill gas parameter and audit the implementation of the landfill gas hazard mitigation measures, as required in the contract.

The LGT’s duties are to review/comment on the contractor’s method statements regarding actions, investigate complaints, provide monthly and quarterly reports on the environmental status, and certification of reports and all submissions under the EP in accordance with the requirement of the Report on Landfill Gas Hazard Assessment as per section 8 and the Environmental Permit. The Independent Checker (Landfill Gas) (IC(LG)) for the project is to review and verify the reports and all submissions under the EP in accordance with the requirement of the Report on Landfill Gas Hazard Assessment as per section 8.2.4.

For the landfill gas monitoring activities, Action and Limit (A/L) Levels are defined levels of impact recorded which represent levels at which a prescribed response is required. Action Limit Level is provided by the baseline monitoring results documented in the baseline monitoring report (Report No. EA01284R002) for the Project. The A/L Level for the methane are 0.5%/1.0%, the A/L Level for the carbon dioxide are 0.5%/1.5% and the A/L Level for the oxygen are 19.0%/18.0%.

In the second quarter (September – November 2007), the major site activities included the installation of E&M equipment Pumping Station and operation and maintenance of E&M equipment at Pumping Station.

In this quarter, weekly site inspection and landfill gas monitoring, as recommended in the Report on Landfill Gas Hazard Assessment as per section 8, were conducted.

No exceedance of monitoring parameters was found and no deficiency was found during the site inspections in this quarter. Thus, the work activities and mitigation measures were in compliance with the environmental protection regulations, contract requirements and the requirement of the environmental permit during this quarter.

Three monthly EM&A meetings were attended for the months of September to November 2007 with all of the parties (DSD, civil and E&M contractors, LGTs, and the IC(LG)) to review the environmental issues and communication between the parties.

There were no complaints received during the quarter.

There was no reporting change during the reporting quarter.

The planned activities for December 2007 – February 2008 as regards E&M equipment are mainly the installation, T&C (if required), operation and maintenance and outstanding work for the following one scheduled site works:- 1) Pumping Station.

1 Introduction

This is the second Quarterly Environmental Monitoring and Audit (EM&A) Summary Report for the Drainage Services Department Contract No. DE/2005/04 entitled “Supply and Installation of Electrical and Mechanical Equipment for Ting Kok Road Pumping Station No.5”. The report was prepared by the Landfill Gas Team, Kingsford Environmental (H.K.) Limited, of the E&M Contractor, Biwater Man Lee Limited. This report is submitted to the Client, the Drainage Services Department, and Independent Checker, CH2M HILL Hong Kong Limited, for the project. In addition, this report is to be submitted to EPD in accordance with the requirement of the environmental permit (EP-212/2005) and Report on Landfill Gas Hazard Assessment as per section 8 (EM&A).

This report presents the summary results of the landfill gas monitoring and environmental auditing of the project activities regarding to the E&M equipment site work conducted during the months of September to November 2007. The various landfill gas parameters at the beginning of each half working day for E&M installation work (i.e. morning and afternoon) was monitored and auditing works including mainly regular site inspections for verification of the mitigation measures implementation as recommended in the Report on Landfill Gas Hazard Assessment was conducted by LGT.

The contact information for the key personnel is shown in Appendix 1.

2 Basic Project Information

The major parties involved in the project with respect to environmental protection are shown in Appendix 1 (Ref.: Report on Landfill Gas Hazard Assessment). These include the Biwater Man Lee Limited, the Landfill Gas Team, the DSD Client, and the Independent Checker (Landfill Gas), or IC(LG) and EPD. A chart showing the duties of the parties regarding inspections and follow-up is also shown.

The management of Biwater Man Lee Limited and project team is shown in Appendix 1. The LGT consists of an LGT Leader and 1-2 landfill gas technicians. The LGT will co-ordinated with the Site Agent of Biwater Man Lee Limited for site inspection.

The site works for the E&M equipment and for testing and commissioning of the various systems has commenced on 15 May 2007 and the schedule to be completed by 21 December 2007. The master construction program schedule is attached in Appendix 2. The major E&M work packages are listed below in Table 1.

Table 1: Master Construction Program for E&M Works

Section	Task Description	Date
I	- Submissions and approval of Major Equipment, Drawing and Design	16 Jan '06 – 15 May '06
II	- Equipment Manufacture and Delivery	15 May '07 – 15 Nov '07
	- Site installation, Public Utilities and T&C	21 Jun '07 – 15 Nov '07

EM&A contact information for the key personnel is shown in Table 2.

Table 2: EM&A Contact Information for Key Personnel

Name	Title	Telephone	Fax
Mr. Thomas Jim (BML)	Site Agent	2671-2350 / 9080-4998	2671-2351
Mr. Tommy Lo (BML)	Deputy Site Agent	2416-2828	2413-6278
Mr. Thomas Jim (BML)	Site Waste Manager / Co-ordinator	2671-2350 / 9080-4998	2671-2351
Mr. K. C. Lau (BML)	Site Supervisor	9056-7887	2413-6278
Mr. Stanley Lau (LEL)	LGT Leader	2612-2817	2614-7012
Ms. Angela Lau (KEL)	LGT Assistance	2612-2817	2614-7012
Mr. C. W. Tse (DSD)	Engineer's Representative	2594-7309	2827-8532
Mr. K. S. Lee (CH2M)	The Independent Checker (Landfill Gas)	2507-2203	2507-2293

3 Environmental Requirements

The works performed for this contract shall comply with the relevant Hong Kong government ordinances, regulations, guidelines, practice notes, etc. as regards environmental protection, as detailed in the Report on Landfill Gas Hazard Assessment, Section 8 (Environmental Monitoring and Audit) and Environmental Permit.

The Report on Landfill Gas Hazard Assessment, Section 8 (Environmental Monitoring and Audit) specifies environmental auditing to ensure that the mitigation measures recommended in the Report on Landfill Gas Hazard Assessment are effectively implemented. A summary of the required environmental protection and mitigation measures for the construction phase extracted from Appendix G of the Project Profile ("Implementation Schedule for Landfill Gas Hazard Mitigation Measures") is attached in Appendix 3.

The environmental aspects for the construction phase include plant noise, dust, water quality, waste materials (including chemicals) and landfill gas hazard. Landfill gas monitoring is required at the beginning of each half working day for the E&M installation work (i.e. morning and afternoon). Since no excavation work is carried out by Biwater Man Lee Limited. Therefore, impact monitoring of landfill gas is to be carried out at selected location (i.e. Pumping Station). Landfill gas parameters to be monitored comprise methane, carbon dioxide and oxygen. In addition, temperature is also recorded. The gas analyzer equipment (Manufacture: Gas Data Model GFM410 Landfill and Serial No. 10239) was used for landfill gas monitoring and the calibration record for the equipment used for landfill gas monitoring is attached in Appendix 4.

For the landfill gas monitoring, Action and Limit (A/L) Levels are defined levels of impact recorded which represent levels at which a prescribed response is required. Action Limited Level is provided by the baseline monitoring results documented in the baseline monitoring report (Report No. EA01284R002) for Project. The Event and Action Plans (EAPs) is to provide, in association with the monitoring and audit activities, procedures for ensuring that if any significant environmental incident (either accidental or through inadequate implementation of mitigation measures) does occur, the cause will be quickly identified and remediated, and the risk of a similar event recurring is reduced. This also applies to the exceedances of A/L criteria identified in the Report on Landfill Gas Hazard Assessment. A summary of the event/action plan for the Project extracted from Report on Landfill Gas Hazard Assessment is attached in Appendix 3.

The Environmental Permit, i.e. section 6.21 of the Particular Specification, is shown in Appendix 5.

4 Implementation Status of Environmental Protection

Weekly site inspections were conducted during this quarter, as required. Frequency of the site inspections depends upon the work activities as regards environmental protection. The site inspections and audits conducted during this quarter are summarized in Table 3.

Table 3: Site Inspections/Audits for September to November 2007

Month	Date of Site Inspections/Audits	
	by ER/LGT/BML	by EPD
Sep 2007	7, 14, 20 and 24	n/a
Oct 2007	2, 12, 16, 26 and 29	n/a
Nov 2007	8, 15, 19 and 27	n/a

The work activities and dates of occurrence of each activity in this quarter are summarized in Table 4.

In the second quarter (September – November 2007), the major site activities included the installation of E&M equipment Pumping Station and operation and maintenance of E&M equipment at Pumping Station.

Table 4: Work Activities from September to November 2007

<i>Pumping Station</i>	
Installations of E&M equipment	4 Jul '07 – 21 Dec '07*
Operation and Maintenance	28 Nov '07 – 21 Dec '07*

* *Scheduled dates only for completion of the activities.*

Noise, air quality, water quality and waste/ chemicals Management

The job nature of the E&M contractor, Biwater Man Lee Limited, is mainly for installation of E&M equipment inside the Pumping Station, all hand-held's breakers, bulldozer, concrete lorry mixer, dump truck and hand-held's poker, vibratory would not be used so that the impact from noise and dust would be low. For water quality, appropriate mitigation measure e.g. regular removal of stagnant water and/or spraying larvicide will be implemented in place, if necessary.

The minor construction waste materials are preferred to be removed promptly from the site. No inert C&D materials will be generated from installation of E&M equipment whereas the minor non-inert C&D waste will be disposed to Tseung Kwan O landfill. Note that the C&D materials should be reduced, reused and recycled if possible, before disposal. Any substance identified as chemical waste would be disposed of properly by a licensed collector. A trip ticket system for the disposal of C&D waste should be conducted as required by the Particular Specification. Rubbish bins are provided on-site for collecting general refuses as necessary. The general refuse would be removed regularly and disposed to landfills by a licensed collector. A proper record of each waste disposal, including the new bar-coded disposal delivery form, would be kept to verify proper handling and disposal.

In this quarter, a refuse bins and waste storage/sorting area were provided for the collection of general refuse and sorting the C&D materials. No C&D waste was disposed during this quarter by the licensed waste collector.

Some accumulation of water was observed in the in chambers at Pumping Station in this quarter. The accumulated water the chambers at Pumping Station were removed accordingly.

In November 2007, a deodourizer with a forced ventilation system was installed to remove odour during operation and maintenance of E&M equipment at Pumping Station. The exhaust of the deodourizer was located in a direction away from the sensitive receivers. The effect of odour is to be insignificant with the implementation of proper mitigation measures.

Landfill Gas Hazard

The installation of E&M equipment is carried out inside the Pumping Station and no excavation work will be carried out by Biwater Man Lee Limited.

Appropriate mitigation measure will be implemented in place e.g. smoking and naked flames are not allowed within the working area and worker is not allowed to work alone at any time in the confined area. In addition, Safety Officer, trained to familiar with gas detection equipment and landfill gas-related hazards, is appointed on site. Also, safe portable instruments, appropriately calibrated and capable of measuring the methane (0-100% LEL and 0-100% by volume), carbon dioxide (0-100%) and oxygen (0-21%) is provided.

For the confined space, welding, flame-cutting or other hot works are only allowed to be carried out in accordance with the requirement of the Report on Landfill Gas Hazard Assessment as per section 6 and mitigation measures for the construction phase extracted from Appendix G of the Project Profile (“Implementation Schedule for Landfill Gas Hazard Mitigation Measures”).

The temporary site offices or buildings that have enclosed spaces with the capacity to accumulate landfill gas, then they are located on an area which has been proven to be free of landfill gas and monitoring manually by the Safety Officer or an approved and appropriately qualified person to ensure that hazardous concentration of landfill gas does not occur; or be raised clear of the ground. Also, adequate fire extinguishing equipment, fire-resistant clothing and breathing apparatus (BA) sets will be made available on site. Lastly, periodic environmental monitoring report with LFG control measures evaluation during construction phase should be provided by contractor.

In this quarter, daily field measurement recording sheet was checked and no exceedances for Action or Limit Level at any locations were recorded during the reporting period. In this quarter, hot works were carried out on the ground floor at Pumping Station and the installation of E&M equipments at Pumping Station were carried out in confined space. Hot works and installation works in confined space were carried out when controlled by a 'permit to work' procedure. In addition, adequate fire extinguishing equipments were made available on site.

5 Landfill Gas Monitoring Results

The landfill gas monitoring by Landfill Gas Team was carried out in September - November 2007 to monitor the landfill gas parameters comprising methane, carbon dioxide and oxygen. Note that temperature is also recorded. The site works of the E&M contractor, Biwater Man Lee Limited, is mainly for installation of E&M equipment inside the Pumping Station and no excavation work is carried out by Biwater Man Lee Limited. Therefore, monitoring locations were selected at Pumping Station.

M3 (existing manholes) monitored by civil contractor (Maeda) was recorded monthly for the analysis of potential risk of hazardous gases and hence; identify any adverse impacts arising from the boreholes in order to protect the workers from potential hazards. Note that M1 (new deep borehole) monitored by civil contractor was dismantled in September 2007, which would not have any significant impacts on site to the E&M contractor, Biwater Man Lee Limited. For the site work of Biwater Man Lee Limited, no excavation work is carried out. In addition, before carrying out any E&M installations, landfill gas monitoring would be performed at the designated working area each day; i.e. morning and afternoon, to ensure the safety at work.

The results are summarized below in Table 5 and the site layout of work areas and the monitoring location code is shown in Appendix 6.

Table 5: Monitoring results by civil contractor (Maeda) at fixed location for September - November 2007

Fixed Monitoring Station	Date of measurement	Flammable gas Methane (%)	Carbon Dioxide (%)	Oxygen (%)	Temp. (°C)	Remarks
M3	25- Sep-07	0.0	0.0	20.7	28.1	1m depth
M3	25- Sep-07	0.0	0.0	20.7	28.1	3m depth
M3	29-Oct-2007	0.0	0.0	20.6	23.4	1m depth
M3	29-Oct-2007	0.0	0.0	20.7	23.4	3m depth
M3	29-Nov-2007	0.0	0.0	20.5	16.8	1m depth
M3	29-Nov-2007	0.0	0.0	20.6	23.4	3m depth

The landfill gas monitoring was carried out according to the working area of E&M installation (inside Pumping Station) at the beginning of each half working day for the E&M installation works (i.e. morning and afternoon).

In September, October and November 2007, the number of reading monitored at pumping Station (including hot work and confined space area) were 107, 121 and 122, respectively. Thus, a total 350 numbers of readings at Pumping Station was monitored in this quarter.

No exceedances for Action or Limit Level at any locations were recorded during the reporting period. Refer to field measurement recording sheet and monitoring location in Appendix 6.

6 Summary of Deficiencies and Remedial Actions

There were no deficiencies noted from the site inspections in this quarter (September – November 2007).

7 Summary of Complaints and Remedial Actions

No complaints were received during this quarter (September – November 2007). In the event of complaints, the procedure for handling of the complaints is detailed in the Report on Landfill Gas Hazard Assessment.

8 Comments, Conclusions and Recommendations

The landfill gas monitoring for the coming three months (December 2007 – February 2008) will be continued. In addition, the planned activities for the coming three months (December 2007 – February 2008) as regards E&M equipment consists of installation, T&C (if required), operation and maintenance and outstanding work, as listed below:-

- Pumping Station

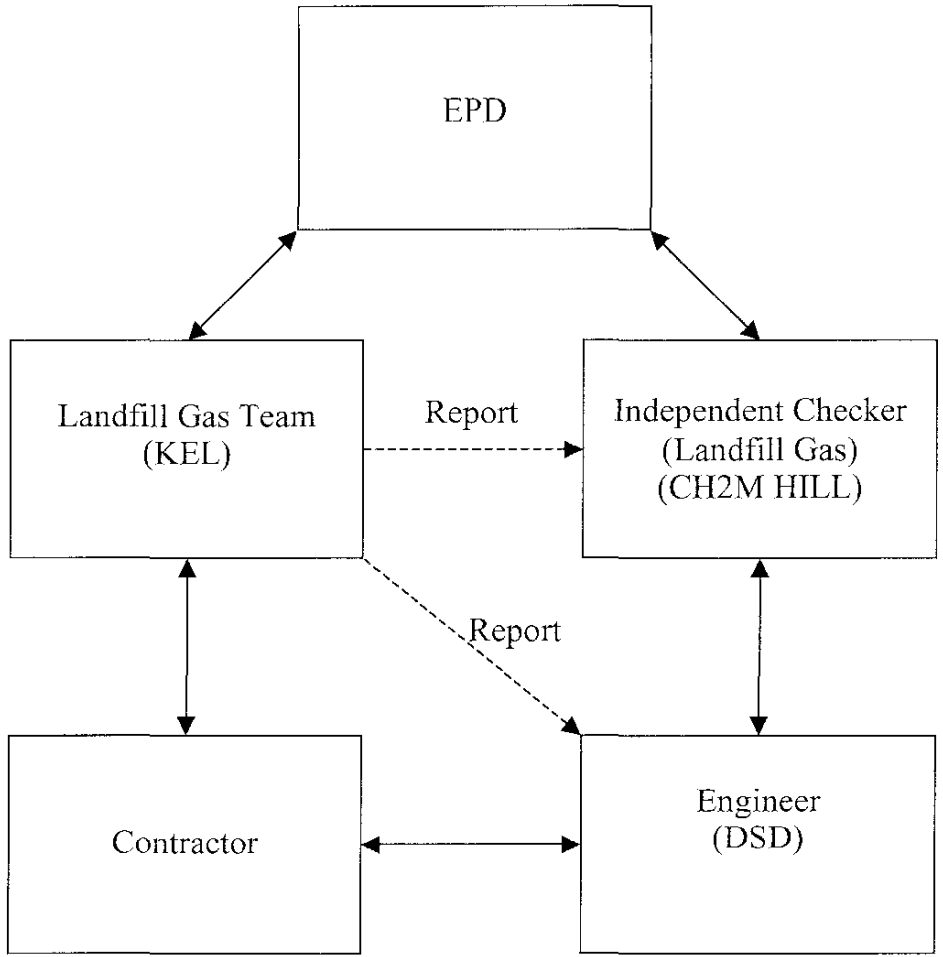
The anticipated landfill gas issues for December 2007 – February 2008 will be as follows:-

- Pumping Station
 - No significant landfill gas issue.

Appendix 1

Reporting Structure

and Contractor Project Management Structure



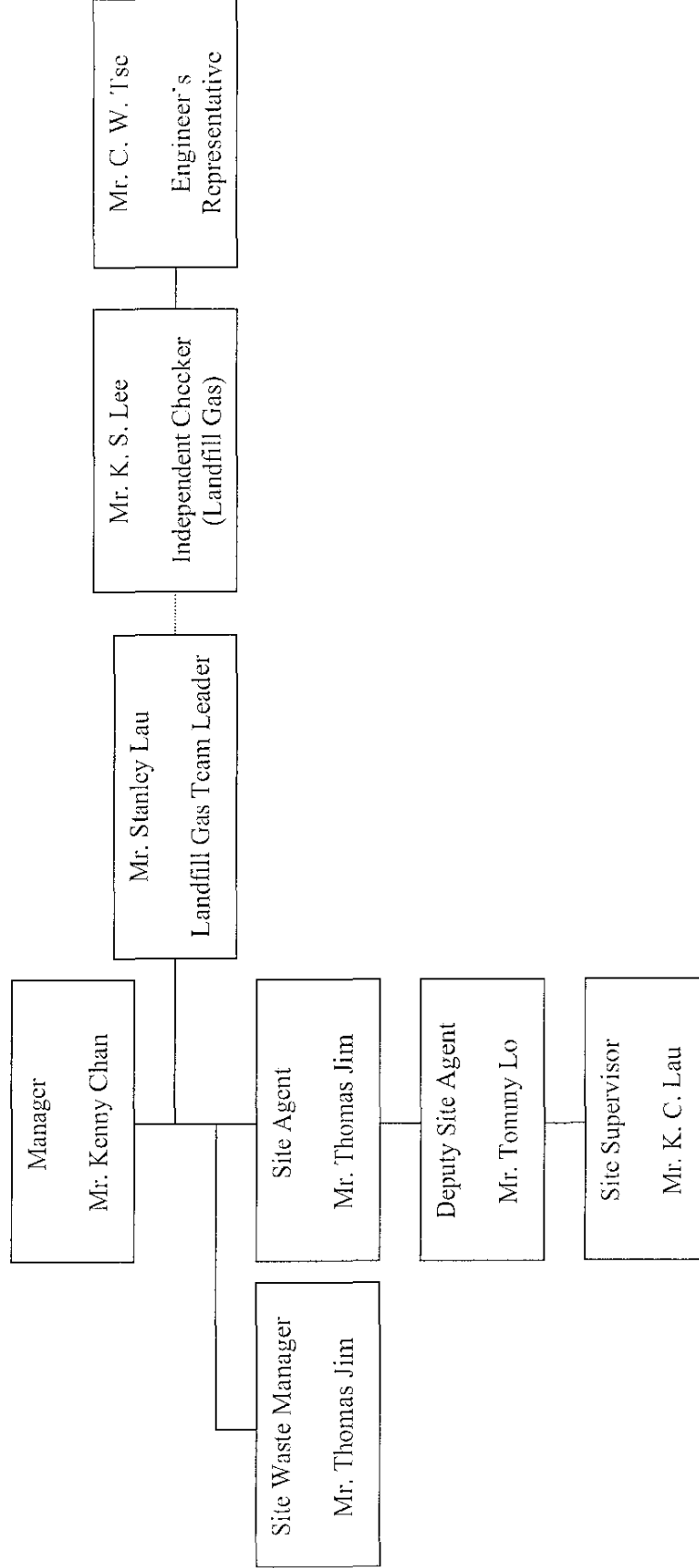
Communication Line
↔

Reporting Line
- - - ->

Upgrading of Ting Kok Road Pumping Station No. 5
Project Organization

CONTRACT NO. DE/2005/04
SUPPLY AND INSTALLATION OF ELECTRICAL AND MECHANICAL EQUIPMENT FOR
UPGRADING OF TING KOK ROAD PUMPING STATION NO. 5

Project Team Organization Chart relevant to EM&A



EM&A Contact Information for Key Personnel

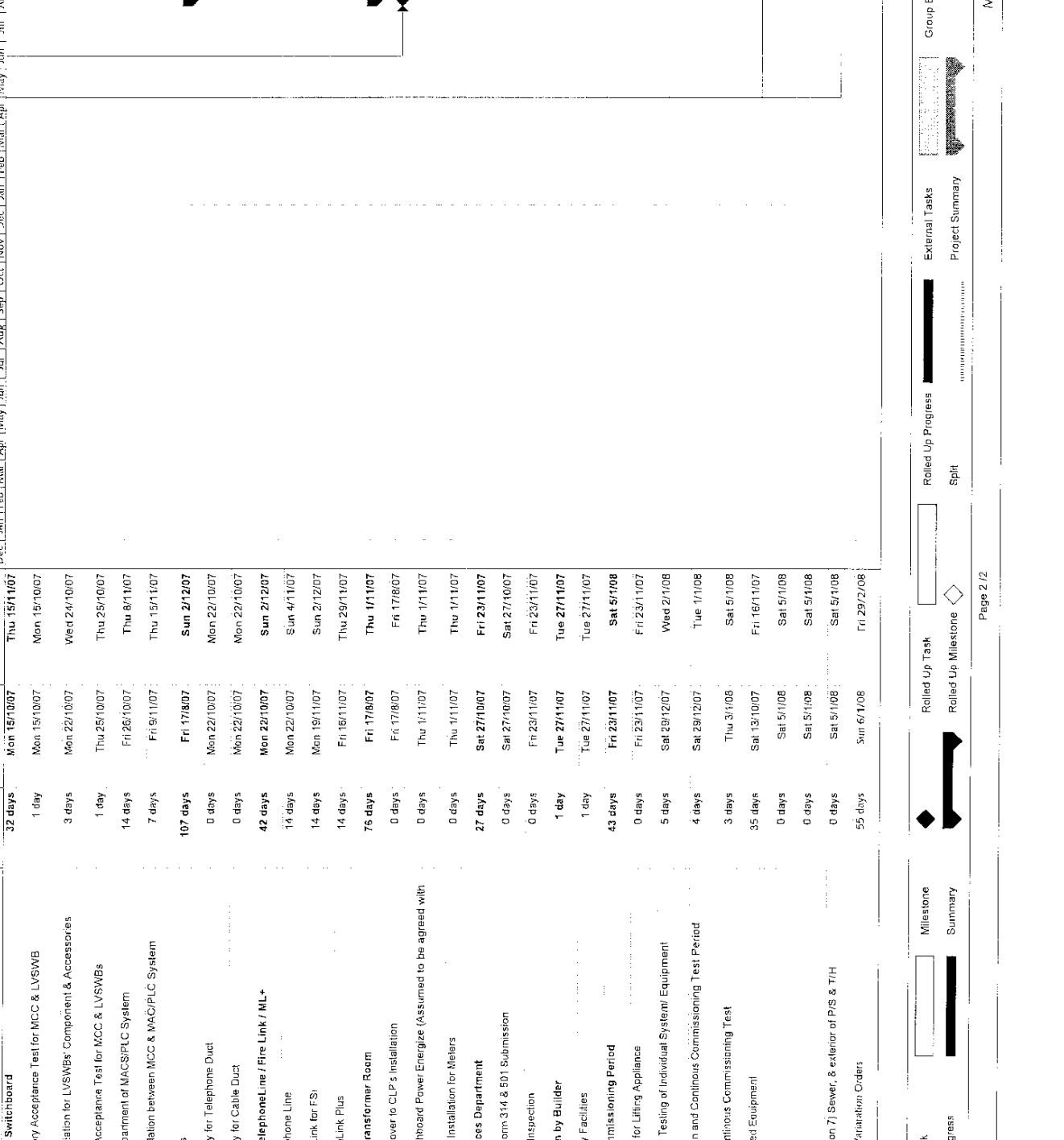
Name	Title	Telephone	Fax
Mr. Thomas Jim (BML)	Site Agent	26712350 / 90804998	26712351
Mr. Tommy Lo (BML)	Deputy Site Agent	24162828	24136278
Mr. Thomas Jim (BML)	Site Waste Manager / Co-ordinator	26712350 / 90804998	26712351
Mr. K. C. Lau (BML)	Site Supervisor	97569316	24136278
Mr. Stanley Lau (KEL)	LGT Leader	2612-2817	2614-7012
Ms. Angela Lau (KEL)	LGT Assistance	2612-2817	2614-7012
Mr. C. W. Tse (DSD)	Engineer's Representative	25947309	28278532
Mr. K. S. Lee (CH2M)	The Independent Checker (Landfill Gas)	2507-2203	2507-2293

Appendix 2

Master Construction Work Program

Contract DE/2005/04
 Supply and Installation of Electrical and Mechanical Equipment for Upgrading of Ting Kok Road Pumping Station No. 5
 WORKS PROGRAMME

ID	Task Name	Start	Duration	Finish	2007																						
					Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct
92	Electrical Switchboard	Mon 15/10/07	32 days	Thu 15/11/07																							
93	Factory Acceptance Test for MCC & LVSWB	Mon 15/10/07	1 day	Mon 15/10/07																							
94	Installation for LVSWBs Component & Accessories	Mon 22/10/07	3 days	Wed 24/10/07																							
95	Site Acceptance Test for MCC & LVSWBs	Thu 25/10/07	1 day	Thu 25/10/07																							
96	Commissioning of MACSP/PLC System	Fri 26/10/07	14 days	Thu 8/11/07																							
97	Simulation between MCC & MAC/PLC System	Fri 9/11/07	7 days	Thu 15/11/07																							
98	Public Utilities	Fri 17/8/07	107 days	Sun 21/12/07																							
99	Availability for Telephone Duct	Mon 22/10/07	0 days	Mon 22/10/07																							
100	Availability for Cable Duct	Mon 22/10/07	0 days	Mon 22/10/07																							
101	PCCW - Telephone Line / Fire Link / ML+	Mon 22/10/07	42 days	Sun 21/12/07																							
102	Telephone Line	Mon 22/10/07	14 days	Sun 4/11/07																							
103	Fire Link for FSI	Mon 19/11/07	14 days	Sun 2/12/07																							
104	MegaLink Plus	Fri 16/11/07	14 days	Thu 29/11/07																							
105	CLP for Transformer Room	Fri 17/8/07	76 days	Thu 1/11/07																							
106	Handover to CLP's Installation	Fri 17/8/07	0 days	Fri 17/8/07																							
107	Switchboard Power Energize (Assumed to be agreed with CLP)	Thu 1/11/07	0 days	Thu 1/11/07																							
108	CLP - Installation for Meters	Thu 1/11/07	0 days	Thu 1/11/07																							
109	Fire Services Department	Sat 27/10/07	27 days	Fri 23/11/07																							
110	FSI Form 314 & 501 Submission	Sat 27/10/07	0 days	Sat 27/10/07																							
111	FSD Inspection	Fri 23/11/07	0 days	Fri 23/11/07																							
112	Flow Diversion by Builder	Tue 27/11/07	1 day	Tue 27/11/07																							
113	Temporary Facilities	Tue 27/11/07	1 day	Tue 27/11/07																							
114	Testing & Commissioning Period	Fri 23/11/07	43 days	Sat 5/1/08																							
115	Lead Test for Lifting Appliance	Fri 23/11/07	0 days	Fri 23/11/07																							
116	Functional Testing of Individual System Equipment	Sat 29/12/07	5 days	Wed 2/1/08																							
117	Preparation and Continuous Commissioning Test Period	Sat 29/12/07	4 days	Tue 1/1/08																							
118	72 Hrs Continuous Commissioning Test	Thu 3/1/08	3 days	Sat 5/1/08																							
119	Other Associated Equipment	Sat 13/1/08	35 days	Fri 16/1/08																							
120	Finish of Section II	Sat 5/1/08	0 days	Sat 5/1/08																							
121	Completion of Contract	Sat 5/1/08	0 days	Sat 5/1/08																							
122	Builder's Completion of (Section 7) Sewer, & extendor of P/S & T/H	Sat 5/1/08	0 days	Sat 5/1/08																							
123	Outstanding Work for P/S & Ventilation Orders	Sun 6/1/08	55 days	Fri 29/2/08																							



Biwater Man Lee Limited

Task Milestone Progress Summary

Rolled Up Progress Split

Group By Summary External Tasks Project Summary

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MWPR#21 POW 071117 Rev11

Appendix 3

EM&A Key Requirements List and Complaint Procedure

charge of the Site.

- 6.21.8 The Contractor shall display a copy of these Environmental Permits (including the most updated Environmental Permit) on the Site at all vehicular site entrances/exits or at convenient location or as directed by the Engineer for public information at all times. The Contractor shall ensure that most updated information about the Environmental Permit, including any amended Permits, are displayed at such locations.
- 6.21.9 In accordance with the Permits as shown in Appendix VII, the Contractor shall establish an Landfill Gas Team (hereinafter referred to in this Clause as the "LGT") after handover of the Site from the Civil Contractor to undertake monitoring, analysis and reporting of landfill gas and other relevant works required by the Permits.
- 6.21.10 The Contractor shall provide assistance to LGT to undertake the landfill gas monitoring and audit and accompany joint site inspection undertaken by the LGT.
- 6.21.11 The LGT should report to the Contractor and be led and managed by the LGT Leader. The LGT Leader and the LGT should be employed to conduct the E&MA programme and ensure the Contractor's compliance with the project's landfill gas requirements during construction. The LGT Leader should be an independent party from the Contractor and has relevant professional qualifications, or have sufficient relevant experience in landfill gas hazards subject to approval of the ER and the EPD.
- 6.21.12 The duties and responsibilities of the LGT are defined in Appendix E Clause 8.2.2 of Project Profile (as mentioned in the EP) of Upgrading of Ting Kok Road Pumping Station No.5 which include the followings:
- (a) to monitor various landfill gas parameters as required;
 - (b) to analyse the landfill gas monitoring and audit data and review the success of EM&A programme to cost-effectively confirm the adequacy of mitigation measures implemented and to identify any adverse impacts arising;
 - (c) to carry out regular site inspection to investigate and audit the Contractor's site practice, equipment and work methodologies with respect to landfill gas hazard, and effect proactive action to pre-empt problems;
 - (d) to carry out monthly EM&A report, quarterly E&MA summary report and final E&MA review report;
 - (d) to audit and prepare audit reports on the landfill gas monitoring data and its conditions;
 - (e) to report on the landfill gas monitoring and audit results to the relevant parties, the Engineer and EPD or its delegated representative;
 - (f) to recommend suitable mitigation measures to the Contractor in accordance with the Event and Action Plan; and
 - (g) to adhere to the procedures for carrying out complaint investigation.

Event and Action Plan (EAP) for Landfill Gas

The Event and Action Plan for landfill gas detected in utilities and any on-site areas following construction are shown in the table below.

Event and Action Plan for Landfill Gas

Parameter	Level	Action
Oxygen	<19%	- Ventilate to restore oxygen to >19%
	<18%	- Stop works - Evacuate personnel/prohibit entry - Increase ventilation to restore oxygen to >19%
Methane	>10% LEL (i.e. >0.5% by volume)	- Post "No Smoking" signs - Prohibit hot works - Ventilate to restore methane to <10% LEL
	>20% LEL (i.e. >1% by volume)	- Stop works - Evacuate personnel/prohibit entry - Increase ventilation to restore oxygen to <10% LEL
Carbon Dioxide	>0.5%	- Ventilate to restore carbon dioxide to <0.5%
	>1.5%	- Post "No Smoking" signs - Prohibit hot works - Increase ventilate to restore carbon dioxide to <0.5%

*Appendix G
Implementation Schedule for LFG Hazard Mitigation Measures*

Section	Environmental Protection Measures	Location	Implementation Agent	Implementation Stage	Relevant Legislation & Guidelines
6.1	<p>Safety Officer, trained in the use of gas detection equipment and landfill gas-related hazards, should be appointed on site throughout the ground works phase. The Safety Officer should be provided with intrinsically safe portable instruments, appropriately calibrated and capable of measuring the following gases in the ranges indicated:</p> <p style="margin-left: 40px;">methane 0-100% LEL and 0-100% by volume; carbon dioxide 0-100%, and oxygen 0-21%</p>				<i>Code of Practice on Safety and Health at Work in Confined Space,</i>
6.2	No smoking and naked flames should be allowed.	Within the work site	Contractor	Construction	<i>Landfill Gas Hazard Assessment Guidance Note (EPD/TR8/97)</i>
6.2	No worker should work alone at any time in the confined area or any excavation trenches.				
6.2	Construction equipment should be equipped with a vertical exhaust at least 0.6m above ground level and/or with spark arrestors.				
6.2	Electrical motors and electrical extension cords should be explosion-proof or intrinsically safe.				
6.2	Welding, flame-cutting or other hot works should only be carried out in trenches or confined spaces when controlled by a 'permit to work' procedure, properly authorized by the Safety Officer.				
6.2	Forced ventilation should be required for workers, if in a trench deeper than 1m.				

Appendix G
Implementation Schedule for LFG Hazard Mitigation Measures

Section	Environmental Protection Measures	Location	Implementation Agent	Implementation Stage	Relevant Legislation & Guidelines
6.2	During piping assembly or conducting construction, all valves/seals should be closed as installed to prevent the migration of gases through the pipeline/conduit. Forced ventilation and gas monitoring should be performed before staff entering and working in large diameter pipe.				
6.2	The Safety Officer should set down the monitoring frequency and areas prior to commencement of construction works.				
6.2	Daily and routine monitoring should be carried out in all excavations.				
6.2	All measurements in excavations should be made with the extended monitoring tube located not more than 10mm from the exposed ground surface. Monitoring should be performed properly to make sure that the area is free of landfill gas before any man enters the area.				
6.2	For excavations deeper than 1m, measurements should be carried out: <ul style="list-style-type: none"> • at the ground surface before excavation commences; • immediately before any worker enters the excavation; • at the beginning of each half working day (i.e. morning and afternoon) for the entire period the excavation remains open; and • periodically through the working day whilst workers are in the excavation. 	Within the work site	Contractor	Construction	<i>Landfill Gas Hazard Assessment Guidance Note (EPD/TR8/97)</i>
6.2	For excavations between 300mm and 1m deep, measurements should be carried out: <ul style="list-style-type: none"> • directly after the excavation has been completed; and • periodically whilst the excavation remains open. 				

*Appendix G
Implementation Schedule for LFG Hazard Mitigation Measures*

Section	Environmental Protection Measures	Location	Implementation Agent	Implementation Stage	Relevant Legislation & Guidelines
6.2	The landfill gas precautionary measures involved with excavation and piping works should be included in the Safety Plan.				
6.3	The cracks on the ground level at the working area should be monitored during ground-works construction				
6.4	<p>Where there are any temporary site offices, or any other buildings that have enclosed spaces with the capacity to accumulate landfill gas, then they should either:</p> <ul style="list-style-type: none"> • Be located on an area which has been proven to be free of landfill gas and monitored manually by the Safety Officer or an approved and appropriately qualified person to ensure that hazardous concentration of landfill gas does not occur; or • Be raised clear of the ground. If buildings are raised clear of the ground, a minimum, clear separation distance should be 500mm. 	Within the work site	Contractor	Construction	<i>Landfill Gas Hazard Assessment Guidance Note (EPD/TR8/97)</i>
6.5	Such offices or buildings should be provided with some kinds of control of gas by mechanical means e.g. forced ventilation using fans or blowers.				
6.6	Adequate fire extinguishing equipment, fire-resistant clothing and breathing apparatus (BA) sets should be made available on site.				
6.7	Periodic environmental monitoring report with LFG control measures evaluation during construction phase should be provided by contractor and submitted to SP/DSD and EPD.				

Appendix G

Implementation Schedule for LFG Hazard Mitigation Measures

Section	Environmental Protection Measures	Location	Implementation Agent	Implementation Stage	Relevant Legislation & Guidelines
7.1	When service voids, manholes or inspection chambers within the proposed site are entered for maintenance, monitoring and a checklist system of safety requirements should be performed before entry	Manhole/ chamber			
7.2	A procedure should be developed as part of the station operation to respond to gas detector alarms. The detection system should be maintained and calibrated regularly in accordance with the manufacturer's recommendations. In the event of a power failure, the detectors should have an 8-hour battery back-up system, and the procedures should indicate for manual monitoring in the station in the event of prolonged power failure (of longer than 8 hours).	Pumping station			
7.3	Forced ventilation should be used if methane of more than 0.5 % (by volume) in the internal atmosphere (e.g. in service voids, manholes, inspection chambers or rooms as mentioned above) is detected.		DSD	Operation	Code of Practice on Safety and Health at Work in Confined Spaces
7.4	No person should enter or remain in any confined spaces or trenches where the carbon dioxide concentration exceeds 1.5 % (by volume).	Manhole/ chamber/ Pumping station			
7.5	Oxygen concentration should be monitored and no person should enter or remain in any confined spaces or trenches where the oxygen content of air has fallen below 18 % by volume.				
7.6	All the access to these confined spaces would be restricted only to authorize personnel who should be aware of the LFG hazard. No member of general public should be permitted or allowed to access these confined spaces, manholes or inspection chambers.				

Landfill Gas Complaint


Landfill gas complaint should be referred to the LGT Leader for action. The LGT Leader should undertake the following procedures upon receipt of any complaint:

- log complaint and date of receipt onto the complaint database and inform the IC(LG) and the ER immediately;
- investigate the complaint to determine its validity, and assess whether the source of the problem is due to works activities;
- identify mitigation measures in consultation with the IC(LG) if a complaint is valid and due to works;
- advise the Contractor if mitigation measures are required;
- review the Contractor's response to identified mitigation measures, and the updated situation;
- if the complaint is transferred from the EPD, submit interim report to the EPD on status of the complaint investigation and follow-up action within the time frame assigned by the EPD;
- undertake additional monitoring and audit to verify the situation if necessary, and review that circumstances leading to the complaint do not recur;
- report investigation results and subsequent actions to complainant (if the source of complaint is EPD, the results should be reported within the timeframe assigned by the EPD); and
- record the complaint, investigation, the subsequent actions and the results in the monthly EM&A reports.

Appendix 4

Calibration records for equipment used for landfill gas monitoring

TEST DATE AND CONDITIONS	
Date	27/07/2007
Atmospheric Pressure	996 mB
Ambient Temp	19 °C
Envionics Serial No.	3268

GAS DATA LTD Pegasus House Seven Stars Estate Wheler Rd Coventry CV3 4LB Tel 02476303311 Fax 02476307711	
---	---

GFM410 FINAL INSPECTION & CALIBRATION CERTIFICATE

INSTRUMENT DETAILS	
Serial No	Customer
10239	science international corporation

INSTRUMENT CHECKS			
Keyboard	✓	Pump Flow	400 cc/min
Display Contrast	✓	Pump Flow @ -200mB	300 cc/min
Clock Set / Running	✓	S/W Version	G410.0022/0004
Labels Fitted	✓	Recalibration Date	27/7/2008

GAS CHECKS							
Calibration Gas		Instrument Gas Channels Read					
Gas Type	Applied Conc.	CH4 (%)	tol. (% vol.)	CO2 (%)	tol. (% vol.)	O2 (%)	tol. (% vol.)
N2	100%	0.0	0.0	0.0	0.0	0.0	+0.1
CH4	5 %	5.1	+/-0.3	0.0	0.0	0.0	+0.1
	60%	59.2	+/-3.0	0.0	0.0	0.0	+0.1
CO2	5%	0.0	0.0	4.9	+/-0.3	0.0	+0.1
	40%	0.0	0.0	39.4	+/-3.0	0.0	+0.1
AIR (20.9% O2, 400ppm CO2)	100%	0.0	0.0	0.0	+0.1	20.9	+/-0.5

PRESSURE CHECKS							
Calibration Pressure		Instrument Pressure Channels Read					
Pressure @	Applied Pressure	Atmospheric [Ap] (mB)	tol. (mB)	Static [Sp] (mB)	tol. (mB)		
All ports	current atmospheric	996	+/-2.0	0	0.0		
Ap port (internal)	+800mB(a)	800	+/-5.0	0	0.0		
	+1200mB(a)	1200	+/-5.0	0	0.0		
Gas IN port	+400mB(g)	996	n/a	400	+/-2.0		
	-400mB(g)	996	n/a	-399	+/-2.0		

TEST DATE AND CONDITIONS	
Date	27/07/2007
Atmospheric Pressure	996 mB
Ambient Temp	19°C
Enviro-nics Serial No.	3268

GAS DATA LTD

Pegasus House
 Seven Stars Estate
 Wheler Rd
 Coventry
 CV3 4LB
 Tel 02476303311 Fax 02476307711



GFM410 FINAL INSPECTION & CALIBRATION CERTIFICATE

FLOW CHECKS

OPTIONAL GAS CHECKS							
Calibration Gas		Instrument Gas Channels Read					
Gas Type	Applied Conc.	Label Range					tol. (% vol.)
N2	100%						0.0
							+/- 5.0
							+/- 5.0
							+/- 5.0
							+/- 5.0
							+/- 5.0

OPTIONAL TEMPERATURE CHECK

PACKING							
Instrument	✓	AC Powered Battery Charger		UK	EUR	US	
Gas Sample Pipe	✓	Manual	✓	Carry Case			✓
Spares Pot	✓	Allen Key	✓				
USB Lead		PC Software					
Vane Anemometer		Extra Items					

TESTED ps sarkaria APPROVED [Signature]

Appendix 5

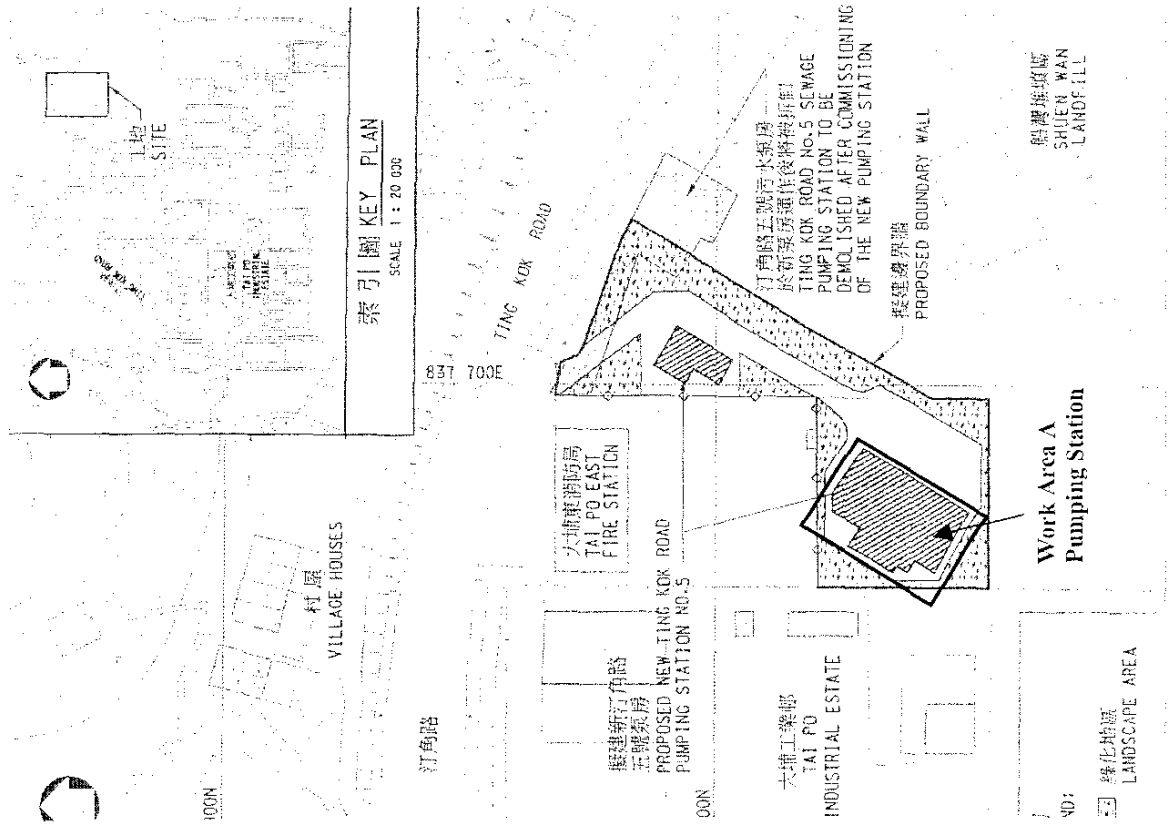
Permit

- **Environmental Permit (Same as in June 2006 Report)**
- **Notification from EPD regarding The Completion of Registration as a Chemical Waste Producer (Same as in June 2007 Report)**

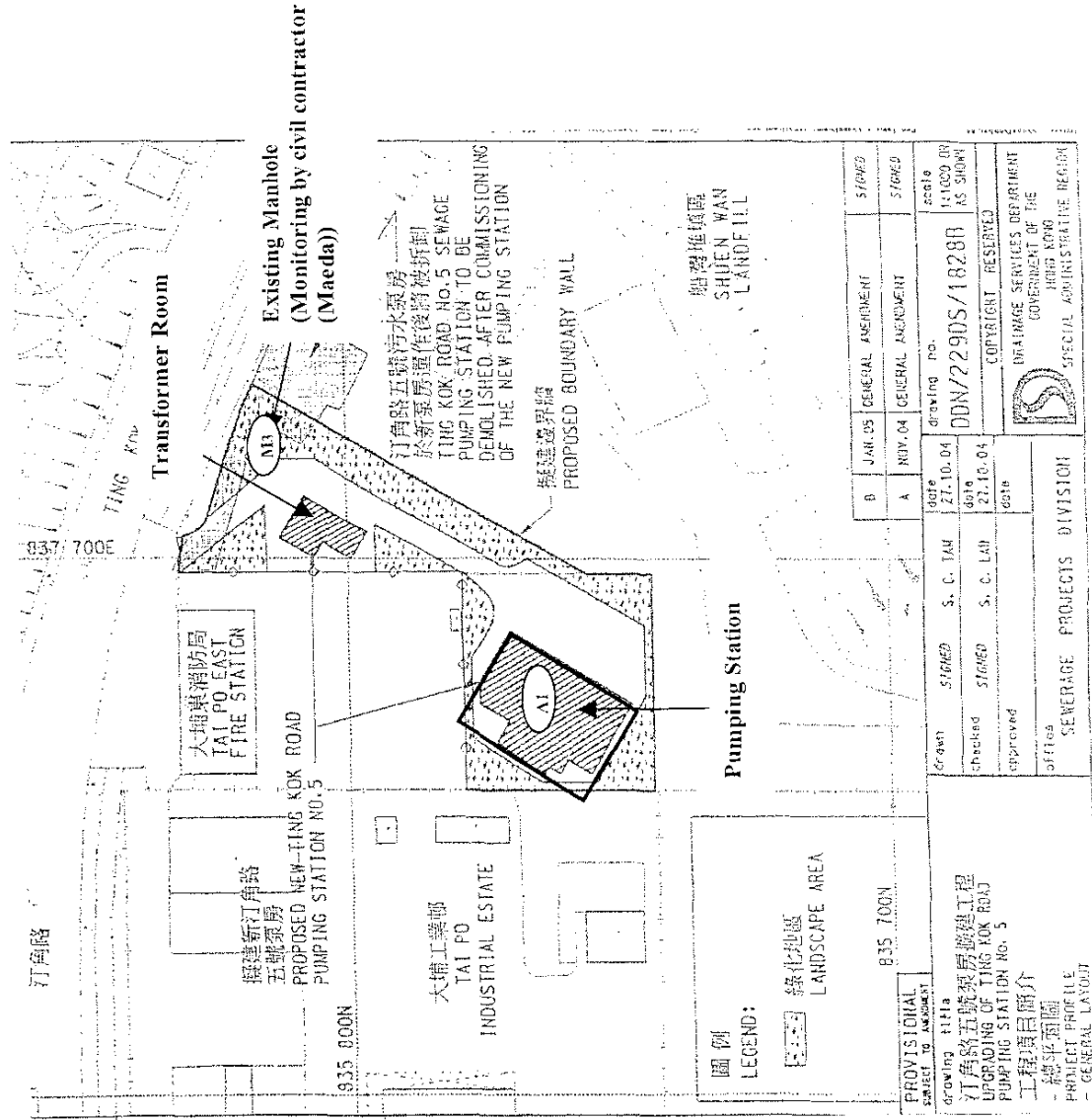
Appendix 6

Site Layout of Work Areas and Landfill Gas Monitoring Results

Upgrading Ting Kok Road Pumping Station No. 5 – E&M Works EM&A Site Inspection – September – November 2007 Site Layout



Upgrading Ting Kok Road Pumping Station No. 5 – E&M Works Landfill Gas Monitoring – September – November 2007 Site Layout



B	JAN. 05	GENERAL AGREEMENT	STAMPED
A	NOV. 04	GENERAL AGREEMENT	STAMPED

drawn	STAMPED	S. C. TAN	date	27.10.04
checked	STAMPED	S. C. LIU	date	27.10.04
approved			date	

drawing no.	DDN/2290S/1828B
scale	1:1000 OR AS SHOWN
COPYRIGHT RESERVED	
ENTRANCE SERVICES DEPARTMENT GOVERNMENT OF THE HONG KONG	
SPECIAL AGENTS' PRACTICE REGION	

PROJECT TO AMEND	835 700N
PROVISIONAL	
drawing title	汀角路五號泵房擴建工程 UPGRADING OF TING KOK ROAD PUMPING STATION NO. 5
PROJECT PROFILE	工程項目簡介
GENERAL LAYOUT	總平面圖

圖例:
綠化地區
LANDSCAPE AREA

Pumping Station

Transformer Room

Existing Manhole
(Monitoring by civil contractor
(Maeda))

大埔東消防局
TAI PO EAST
FIRE STATION

擬建新汀角路
五號泵房
PROPOSED NEW-TING KOK ROAD
PUMPING STATION NO. 5

大埔工業部
TAI PO
INDUSTRIAL ESTATE

汀角路五號污水泵房
於新泵房運作後將被拆卸
TING KOK ROAD NO. 5 SEWAGE
PUMPING STATION TO BE
DEMOLISHED AFTER COMMISSIONING
OF THE NEW PUMPING STATION

擬建邊界牆
PROPOSED BOUNDARY WALL

船灣堆填區
SHUEN WAN
LANDFILL

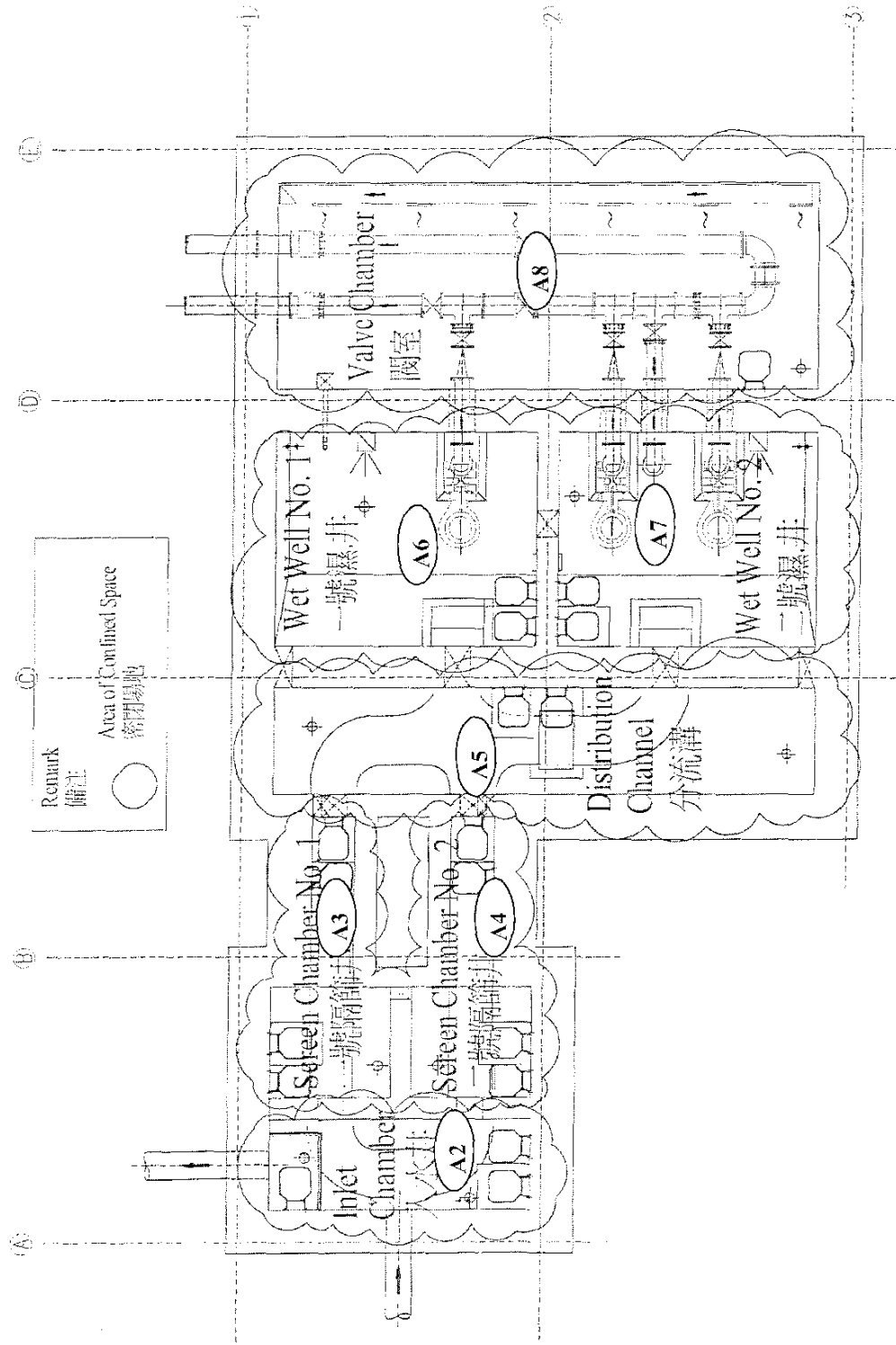
汀角路

TING KOK ROAD

700E

935 000N

Upgrading Ting Kok Road Pumping Station No. 5 – E&M Works
 Landfill Gas Monitoring – September – November 2007
 Pumping Station Layout - Confined Space




Landfill Gas Monitoring – Field Measurement Recording Sheet

Name of Site: DE/2005/04- Ting Kok Road Pumping Station No. 5
Date of measurement: 1 September 2007

Sampling equipment used:	Dates calibrated
Gas Data	27 / 07 / 2007
Model GFM410 Landfill	
Serial No. 10239	

Sample location	Date of measurement	Sampling time	Weather condition	Perimeter on-site and/or off-site monitoring holes				Temp (°C)	Remark
				Balance gas (%)	Flammable gas (methane %)	Carbon dioxide (%)	Oxygen (%)		
A1	1 Sep 2007	9:02	Sunny	79.2	0.0	0.0	20.7	30	
A1	1 Sep 2007	13:01	Sunny	79.2	0.0	0.0	20.7	31	

Field Technician:  (Site Agent)

Checked by:  (RSO)


Landfill Gas Monitoring – Field Measurement Recording Sheet

Name of Site: DE/2005/04- Ting Kok Road Pumping Station No. 5
 Date of measurement: 3 September 2007

Sampling equipment used:	Dates calibrated
Gas Data	27 / 07 / 2007
Model GFM410 Landfill	
Serial No. 10239	

Sample location	Date of measurement	Sampling time	Weather condition	Perimeter on-site and/or off-site monitoring holes							Remark
				Balance gas (%)	Flammable gas (methane %)	Carbon dioxide (%)	Oxygen (%)	Temp (°C)			
A1	3 Sep 2007	8:57	Sunny	79.2	0.0	0.0	20.7	30			
A2	3 Sep 2007	9:00	Sunny	79.3	0.0	0.0	20.6	30			Confined space
A1	3 Sep 2007	12:56	Sunny	79.2	0.0	0.0	20.7	31			
A2	3 Sep 2007	13:00	Sunny	79.3	0.0	0.0	20.6	31			Confined space

Field Technician: _____ (Site Agent)


Checked by:  _____ (RSO)


Landfill Gas Monitoring – Field Measurement Recording Sheet

Name of Site: DE/2005/04- Ting Kok Road Pumping Station No. 5
 Date of measurement: 4 September 2007

Sampling equipment used:	Dates calibrated
Gas Data	27 / 07 / 2007
Model GFM410 Landfill	
Serial No. 10239	

Sample location	Date of measurement	Sampling time	Weather condition	Perimeter on-site and/or off-site monitoring holes							Temp (°C)	Remark
				Balance gas (%)	Flammable gas (methane %)	Carbon dioxide (%)	Oxygen (%)					
A1	4 Sep 2007	8:48	Sunny	79.2	0.0	0.0	20.7		29			
A2	4 Sep 2007	8:50	Sunny	79.3	0.0	0.0	20.6		29	Confined space		
A3	4 Sep 2007	8:54	Sunny	79.3	0.0	0.0	20.6		29	Confined space		
A5	4 Sep 2007	8:57	Sunny	79.3	0.0	0.0	20.6		29	Confined space		
A8	4 Sep 2007	9:00	Sunny	79.2	0.0	0.0	20.7		29	Confined space		
A1	4 Sep 2007	12:46	Rain	79.2	0.0	0.0	20.7		30			
A2	4 Sep 2007	12:50	Rain	79.2	0.0	0.0	20.7		30	Confined space		
A3	4 Sep 2007	12:53	Rain	79.2	0.0	0.0	20.7		30	Confined space		
A5	4 Sep 2007	12:56	Rain	79.2	0.0	0.0	20.7		30	Confined space		
A8	4 Sep 2007	13:00	Rain	79.2	0.0	0.0	20.7		30	Confined space		
A1	4 Sep 2007	14:57	Overcast	79.0	0.0	0.0	20.9		30	Hot Work		

Field Technician:  (Site Agent)

Checked by:  (RSO)

Landfill Gas Monitoring – Field Measurement Recording Sheet

Name of Site: DE/2005/04- Ting Kok Road Pumping Station No. 5
 Date of measurement: 5 September 2007

Sampling equipment used:	Dates calibrated
Gas Data	27 / 07 / 2007
Model GFM410 Landfill	
Serial No. 10239	

Sample location	Date of measurement	Sampling time	Weather condition	Perimeter on-site and/or off-site monitoring holes							Remark
				Balance gas (%)	Flammable gas (methane %)	Carbon dioxide (%)	Oxygen (%)	Temp (°C)			
A1	5 Sep 2007	8:49	Sunny	79.2	0.0	0.0	20.7	29			
A2	5 Sep 2007	8:52	Sunny	79.3	0.0	0.0	20.6	29		Confined space	
A3	5 Sep 2007	8:56	Sunny	79.3	0.0	0.0	20.6	29		Confined space	
A5	5 Sep 2007	8:59	Sunny	79.3	0.0	0.0	20.6	29		Confined space	
A1	5 Sep 2007	12:49	Sunny	79.2	0.0	0.0	20.7	30			
A2	5 Sep 2007	12:53	Sunny	79.2	0.0	0.0	20.7	30		Confined space	
A3	5 Sep 2007	12:56	Sunny	79.2	0.0	0.0	20.7	30		Confined space	
A5	5 Sep 2007	13:00	Sunny	79.2	0.0	0.0	20.7	30		Confined space	


Field Technician: (Site Agent)
Checked by: (RSO)


Landfill Gas Monitoring – Field Measurement Recording Sheet

Name of Site: DE/2005/04- Ting Kok Road Pumping Station No. 5
 Date of measurement: 6 September 2007

Sampling equipment used:	Dates calibrated
Gas Data	27 / 07 / 2007
Model GFM410 Landfill	
Serial No. 10239	

Sample location	Date of measurement	Sampling time	Weather condition	Perimeter on-site and/or off-site monitoring holes						Remark
				Balance gas (%)	Flammable gas (methane %)	Carbon dioxide (%)	Oxygen (%)	Temp (°C)		
A1	6 Sep 2007	8:50	Sunny	79.3	0.0	0.0	20.6	29		
A2	6 Sep 2007	8:53	Sunny	79.3	0.0	0.0	20.6	29		Confined space
A4	6 Sep 2007	8:57	Sunny	79.3	0.0	0.0	20.6	29		Confined space
A5	6 Sep 2007	9:00	Sunny	79.3	0.0	0.0	20.6	29		Confined space
A1	6 Sep 2007	12:47	Sunny	79.2	0.0	0.0	20.7	30		
A2	6 Sep 2007	12:52	Sunny	79.2	0.0	0.0	20.7	30		Confined space
A4	6 Sep 2007	12:56	Sunny	79.2	0.0	0.0	20.7	30		Confined space
A5	6 Sep 2007	13:00	Sunny	79.2	0.0	0.0	20.7	30		Confined space

Field Technician:  (Site Agent)


Checked by:  (RSO)


Landfill Gas Monitoring – Field Measurement Recording Sheet

Name of Site: DE/2005/04- Ting Kok Road Pumping Station No. 5
 Date of measurement: 7 September 2007

Sampling equipment used:	Dates calibrated
Gas Data	27 / 07 / 2007
Model GFM410 Landfill	
Serial No. 10239	

Sample location	Date of measurement	Sampling time	Weather condition	Perimeter on-site and/or off-site monitoring holes							Remark
				Balance gas (%)	Flammable gas (methane %)	Carbon dioxide (%)	Oxygen (%)	Temp (°C)			
A1	7 Sep 2007	8:51	Sunny	79.2	0.0	0.0	20.7	30			
A2	7 Sep 2007	8:54	Sunny	79.3	0.0	0.0	20.6	30			Confined space
A4	7 Sep 2007	8:57	Sunny	79.3	0.0	0.0	20.6	30			Confined space
A5	7 Sep 2007	9:00	Sunny	79.2	0.0	0.0	20.7	30			Confined space
A1	7 Sep 2007	12:50	Sunny	79.2	0.0	0.0	20.7	31			
A2	7 Sep 2007	12:54	Sunny	79.2	0.0	0.0	20.7	31			Confined space
A4	7 Sep 2007	12:57	Sunny	79.2	0.0	0.0	20.7	31			Confined space
A5	7 Sep 2007	13:00	Sunny	79.2	0.0	0.0	20.7	31			Confined space

Field Technician:  (Site Agent)


Checked by:  (RSO)


Landfill Gas Monitoring – Field Measurement Recording Sheet

Name of Site: DE/2005/04- Ting Kok Road Pumping Station No. 5
 Date of measurement: 10 September 2007

Sampling equipment used:	Dates calibrated
Gas Data	27 / 07 / 2007
Model GFM410 Landfill	
Serial No. 10239	

Sample location	Date of measurement	Sampling time	Weather condition	Perimeter on-site and/or off-site monitoring holes							Remark
				Balance gas (%)	Flammable gas (methane %)	Carbon dioxide (%)	Oxygen (%)	Temp (°C)			
A1	10 Sep 2007	8:50	Sunny	79.2	0.0	0.0	20.7	30			
A3	10 Sep 2007	8:53	Sunny	79.3	0.0	0.0	20.6	30			Confined space
A5	10 Sep 2007	8:57	Sunny	79.3	0.0	0.0	20.6	30			Confined space
A6	10 Sep 2007	9:00	Sunny	79.3	0.0	0.0	20.6	30			Confined space
A1	10 Sep 2007	12:50	Sunny	79.2	0.0	0.0	20.7	30			
A3	10 Sep 2007	12:53	Sunny	79.2	0.0	0.0	20.7	30			Confined space
A5	10 Sep 2007	12:56	Sunny	79.2	0.0	0.0	20.7	30			Confined space
A6	10 Sep 2007	13:00	Sunny	79.2	0.0	0.0	20.7	30			Confined space

Field Technician:  (Site Agent)

Checked by:  (RSO)

Landfill Gas Monitoring -- Field Measurement Recording Sheet

Name of Site: DE/2005/04- Ting Kok Road Pumping Station No. 5
 Date of measurement: 11 September 2007

Sampling equipment used:	Dates calibrated
Gas Data	27 / 07 / 2007
Model GFM410 Landfill	
Serial No. 10239	

Sample location	Date of measurement	Sampling time	Weather condition	Perimeter on-site and/or off-site monitoring holes							Remark
				Balance gas (%)	Flammable gas (methane %)	Carbon dioxide (%)	Oxygen (%)	Temp (°C)			
A1	11 Sep 2007	8:49	Sunny	79.3	0.0	0.0	20.6	30			
A3	11 Sep 2007	8:53	Sunny	79.3	0.0	0.0	20.6	30	Confined space		
A5	11 Sep 2007	8:56	Sunny	79.3	0.0	0.0	20.6	30	Confined space		
A6	11 Sep 2007	9:00	Sunny	79.3	0.0	0.0	20.6	30	Confined space		
A1	11 Sep 2007	12:49	Sunny	79.2	0.0	0.0	20.7	31			
A3	11 Sep 2007	12:53	Sunny	79.2	0.0	0.0	20.7	31	Confined space		
A5	11 Sep 2007	12:57	Sunny	79.2	0.0	0.0	20.7	31	Confined space		
A6	11 Sep 2007	13:00	Sunny	79.2	0.0	0.0	20.7	31	Confined space		

Field Technician: (Site Agent)

Checked by: (RSO)

Landfill Gas Monitoring – Field Measurement Recording Sheet

Name of Site: DE/2005/04- Ting Kok Road Pumping Station No. 5
 Date of measurement: 12 September 2007

Sampling equipment used:	Dates calibrated
Gas Data	27 / 07 / 2007
Model GFM410 Landfill	
Serial No. 10239	

Sample location	Date of measurement	Sampling time	Weather condition	Perimeter on-site and/or off-site monitoring holes						Remark
				Balance gas (%)	Flammable gas (methane %)	Carbon dioxide (%)	Oxygen (%)	Temp (°C)		
A1	12 Sep 2007	8:48	Sunny	79.2	0.0	0.0	20.7	30		
A3	12 Sep 2007	8:52	Sunny	79.3	0.0	0.0	20.6	30	Confined space	
A5	12 Sep 2007	8:55	Sunny	79.3	0.0	0.0	20.6	30	Confined space	
A6	12 Sep 2007	8:58	Sunny	79.3	0.0	0.0	20.6	30	Confined space	
A1	12 Sep 2007	12:49	Sunny	79.2	0.0	0.0	20.7	31		
A3	12 Sep 2007	12:52	Sunny	79.2	0.0	0.0	20.7	31	Confined space	
A5	12 Sep 2007	12:56	Sunny	79.2	0.0	0.0	20.7	31	Confined space	
A6	12 Sep 2007	13:00	Sunny	79.2	0.0	0.0	20.7	31	Confined space	

Field Technician:  (Site Agent)

Checked by:  (RSO)

Landfill Gas Monitoring – Field Measurement Recording Sheet

Name of Site: DE/2005/04- Ting Kok Road Pumping Station No. 5
 Date of measurement: 13 September 2007

Sampling equipment used:	Dates calibrated
Gas Data	27 / 07 / 2007
Model GFM410 Landfill	
Serial No. 10239	

Sample location	Date of measurement	Sampling time	Weather condition	Perimeter on-site and/or off-site monitoring holes							Remark
				Balance gas (%)	Flammable gas (methane %)	Carbon dioxide (%)	Oxygen (%)	Tcmp (°C)			
A1	13 Sep 2007	8:49	Sunny	79.2	0.0	0.0	20.7	30			
A3	13 Sep 2007	8:53	Sunny	79.3	0.0	0.0	20.6	30	Confined space		
A5	13 Sep 2007	8:56	Sunny	79.3	0.0	0.0	20.6	30	Confined space		
A6	13 Sep 2007	9:00	Sunny	79.3	0.0	0.0	20.6	30	Confined space		
A1	13 Sep 2007	12:48	Sunny	79.2	0.0	0.0	20.7	31			
A3	13 Sep 2007	12:52	Sunny	79.2	0.0	0.0	20.7	31	Confined space		
A5	13 Sep 2007	12:56	Sunny	79.2	0.0	0.0	20.7	31	Confined space		
A6	13 Sep 2007	12:59	Sunny	79.3	0.0	0.0	20.6	30	Confined space		

9

Field Technician: _____ (Site Agent)

Checked by:  _____ (RSO)

Landfill Gas Monitoring – Field Measurement Recording Sheet

Name of Site: DE/2005/04- Ting Kok Road Pumping Station No. 5
 Date of measurement: 14 September 2007

Sampling equipment used:	Dates calibrated
Gas Data	27 / 07 / 2007
Model GFM410 Landfill	
Serial No. 10239	

Sample location	Date of measurement	Sampling time	Weather condition	Perimeter on-site and/or off-site monitoring holes						Remark
				Balance gas (%)	Flammable gas (methane %)	Carbon dioxide (%)	Oxygen (%)	Temp (°C)		
A1	14 Sep 2007	8:53	Sunny	79.2	0.0	0.0	20.7	30		
A3	14 Sep 2007	8:57	Sunny	79.3	0.0	0.0	20.6	30	Confined space	
A1	14 Sep 2007	12:54	Sunny	79.2	0.0	0.0	20.7	31		
A3	14 Sep 2007	12:58	Sunny	79.2	0.0	0.0	20.7	31	Confined space	

Field Technician: [Signature]
 (Site Agent)

Checked by: [Signature]
 (RSO)

Landfill Gas Monitoring – Field Measurement Recording Sheet

Name of Site: DE/2005/04- Ting Kok Road Pumping Station No. 5
 Date of measurement: 17 September 2007

Sampling equipment used:	Dates calibrated
Gas Data	27 / 07 / 2007
Model GFM410 Landfill	
Serial No. 10239	

Sample location	Date of measurement	Sampling time	Weather condition	Perimeter on-site and/or off-site monitoring holes					Temp (°C)	Remark
				Balance gas (%)	Flammable gas (methane %)	Carbon dioxide (%)	Oxygen (%)			
A1	17 Sep 2007	8:58	Sunny	79.2	0.0	0.0	20.7		31	
A1	17 Sep 2007	13:00	Sunny	79.2	0.0	0.0	20.7		31	


Field Technician: _____ (Site Agent)
 Checked by: _____ (RSO)

Landfill Gas Monitoring – Field Measurement Recording Sheet

Name of Site: DE/2005/04- Ting Kok Road Pumping Station No. 5
 Date of measurement: 18 September 2007

Sampling equipment used:	Dates calibrated
Gas Data	27 / 07 / 2007
Model GFM410 Landfill	
Serial No. 10239	

Sample location	Date of measurement	Sampling time	Weather condition	Perimeter on-site and/or off-site monitoring holes						Remark
				Balance gas (%)	Flammable gas (methane %)	Carbon dioxide (%)	Oxygen (%)	Temp (°C)		
A1	18 Sep 2007	8:52	Sunny	79.3	0.0	0.0	20.6	31		
A4	18 Sep 2007	8:55	Sunny	79.3	0.0	0.0	20.6	31		Confined space
A6	18 Sep 2007	8:59	Sunny	79.3	0.0	0.0	20.6	31		Confined space
A1	18 Sep 2007	12:52	Sunny	79.2	0.0	0.0	20.7	32		
A4	18 Sep 2007	12:56	Sunny	79.3	0.0	0.0	20.6	32		Confined space
A6	18 Sep 2007	13:00	Sunny	79.3	0.0	0.0	20.6	32		Confined space

Field Technician:  (Site Agent)

Checked by:  (RSO)

Landfill Gas Monitoring – Field Measurement Recording Sheet

Name of Site: DE/2005/04- Ting Kok Road Pumping Station No. 5
 Date of measurement: 19 September 2007

Sampling equipment used: Gas Data	Dates calibrated 27 / 07 / 2007
Model GFM410 Landfill	
Serial No. 10239	

Sample location	Date of measurement	Sampling time	Weather condition	Perimeter on-site and/or off-site monitoring holes						Remark
				Balance gas (%)	Flammable gas (methane %)	Carbon dioxide (%)	Oxygen (%)	Temp (°C)		
A1	19 Sep 2007	8:58	Sunny	79.3	0.0	0.0	20.6	30		
A1	19 Sep 2007	12:57	Sunny	79.2	0.0	0.0	20.7	30		

Field Technician: _____ (Site Agent)

Checked by: _____ (RSO)


Landfill Gas Monitoring – Field Measurement Recording Sheet

Name of Site: DE/2005/04- Ting Kok Road Pumping Station No. 5
 Date of measurement: 20 September 2007

Sampling equipment used: Gas Data	Dates calibrated 27 / 07 / 2007
Model GFM410 Landfill	
Serial No. 10239	

Sample location	Date of measurement	Sampling time	Weather condition	Perimeter on-site and/or off-site monitoring holes						Remark
				Balance gas (%)	Flammable gas (methane %)	Carbon dioxide (%)	Oxygen (%)	Temp (°C)		
AI	20 Sep 2007	8:59	Sunny	79.3	0.0	0.0	20.6	30		
AI	20 Sep 2007	13:00	Sunny	79.2	0.0	0.0	20.7	31		

Field Technician: _____


 (Site Agent)

Checked by: _____


 (RSO)

Landfill Gas Monitoring – Field Measurement Recording Sheet

Name of Site: DE/2005/04- Ting Kok Road Pumping Station No. 5
 Date of measurement: 21 September 2007

Sampling equipment used:	Dates calibrated
Gas Data	27 / 07 / 2007
Model GEM410 Landfill	
Serial No. 10239	

Sample location	Date of measurement	Sampling time	Weather condition	Perimeter on-site and/or off-site monitoring holes						
				Balance gas (%)	Flammable gas (methane %)	Carbon dioxide (%)	Oxygen (%)	Temp (°C)	Remark	
A1	21 Sep 2007	9:00	Sunny	79.2	0.0	0.0	20.7	30		
A1	21 Sep 2007	13:00	Sunny	79.2	0.0	0.0	20.7	31		

Field Technician: _____
 (Site Agent)

Checked by: _____
 (RSO)

Landfill Gas Monitoring – Field Measurement Recording Sheet

Name of Site: DE/2005/04- Ting Kok Road Pumping Station No. 5
 Date of measurement: 24 September 2007

Sampling equipment used:	Dates calibrated
Gas Data	27 / 07 / 2007
Model GFM410 Landfill	
Serial No. 10239	

Sample location	Date of measurement	Sampling time	Weather condition	Perimeter on-site and/or off-site monitoring holes						Remark
				Balance gas (%)	Flammable gas (methane %)	Carbon dioxide (%)	Oxygen (%)	Temp (°C)		
A1	24 Sep 2007	8:55	Rain	79.2	0.0	0.0	20.7	28		
A6	24 Sep 2007	8:59	Rain	79.2	0.0	0.0	20.7	28	Confined space	
A1	24 Sep 2007	12:57	Rain	79.2	0.0	0.0	20.7	28		
A6	24 Sep 2007	13:00	Rain	79.2	0.0	0.0	20.7	28	Confined space	

Field Technician: (Site Agent)

Checked by: (RSO)

Landfill Gas Monitoring – Field Measurement Recording Sheet

Name of Site: DE/2005/04- Ting Kok Road Pumping Station No. 5
 Date of measurement: 25 September 2007

Sampling equipment used:	Dates calibrated
Gas Data	27 / 07 / 2007
Model GFM410 Landfill	
Serial No. 10239	

Sample location	Date of measurement	Sampling time	Weather condition	Perimeter on-site and/or off-site monitoring holes						Remark
				Balance gas (%)	Flammable gas (methane %)	Carbon dioxide (%)	Oxygen (%)	Temp (°C)		
A1	25 Sep 2007	8:57	Rain	79.2	0.0	0.0	20.7	29		
A8	25 Sep 2007	9:00	Rain	79.2	0.0	0.0	20.7	29		Confined space
A1	25 Sep 2007	12:54	Overcast	79.2	0.0	0.0	20.7	30		
A8	25 Sep 2007	12:58	Overcast	79.2	0.0	0.0	20.7	30		Confined space

Field Technician:  _____ (Site Agent)
 Checked by:  _____ (RSO)

Landfill Gas Monitoring – Field Measurement Recording Sheet

Name of Site: DE/2005/04- Ting Kok Road Pumping Station No. 5
 Date of measurement: 27 September 2007

Sampling equipment used:	Dates calibrated
Gas Data	27 / 07 / 2007
Model GFM410 Landfill	
Serial No. 10239	

Sample location	Date of measurement	Sampling time	Weather condition	Perimeter on-site and/or off-site monitoring holes						
				Balance gas (%)	Flammable gas (methane %)	Carbon dioxide (%)	Oxygen (%)	Temp (°C)	Remark	
A1	27 Sep 2007	8:57	Sunny	79.2	0.0	0.0	20.7	30		
A2	27 Sep 2007	9:00	Sunny	79.2	0.0	0.0	20.7	30	Confined space	
A1	27 Sep 2007	12:55	Sunny	79.2	0.0	0.0	20.7	31		
A2	27 Sep 2007	13:00	Sunny	79.2	0.0	0.0	20.7	31	Confined space	

Field Technician: _____

 (Site Agent)

Checked by: _____

 (RSO)

Landfill Gas Monitoring – Field Measurement Recording Sheet

Name of Site: DE/2005/04- Ting Kok Road Pumping Station No. 5
 Date of measurement: 2 October 2007

Sampling equipment used:	Dates calibrated
Gas Data	27 / 07 / 2007
Model GFM410 Landfill	
Serial No. 10239	

Sample location	Date of measurement	Sampling time	Weather condition	Perimeter on-site and/or off-site monitoring holes						Remark
				Balance gas (%)	Flammable gas (methane %)	Carbon dioxide (%)	Oxygen (%)	Temp (°C)		
A1	2 Oct 2007	8:53	Rain	79.2	0.0	0.0	20.7	28		
A8	2 Oct 2007	8:57	Rain	79.2	0.0	0.0	20.7	28	Confined space	
A1	2 Oct 2007	12:52	Rain	79.2	0.0	0.0	20.7	29		
A8	2 Oct 2007	12:58	Rain	79.2	0.0	0.0	20.7	29	Confined space	

Field Technician: *(Signature)* (Site Agent)

Checked by: *(Signature)* (RSO)

Landfill Gas Monitoring – Field Measurement Recording Sheet

Name of Site: DE/2005/04- Ting Kok Road Pumping Station No. 5
 Date of measurement: 3 October 2007

Sampling equipment used:	Dates calibrated
Gas Data	27 / 07 / 2007
Model GFM410 Landfill	
Serial No. 10239	

Sample location	Date of measurement	Sampling time	Weather condition	Perimeter on-site and/or off-site monitoring holes								Remark
				Balance gas (%)	Flammable gas (methane %)	Carbon dioxide (%)	Oxygen (%)	Temp (°C)				
A1	3 Oct 2007	8:44	Rain	79.3	0.0	0.0	20.6	27	Confined space			
A6	3 Oct 2007	8:48	Rain	79.3	0.0	0.0	20.6	27	Confined space			
A7	3 Oct 2007	8:51	Rain	79.2	0.0	0.0	20.7	27	Confined space			
A8	3 Oct 2007	8:57	Rain	79.3	0.0	0.0	20.6	27	Confined space			
A1	3 Oct 2007	12:50	Overcast	79.2	0.0	0.0	20.7	28				
A6	3 Oct 2007	12:53	Overcast	79.2	0.0	0.0	20.7	28	Confined space			
A7	3 Oct 2007	12:56	Overcast	79.2	0.0	0.0	20.7	28	Confined space			
A8	3 Oct 2007	12:59	Overcast	79.2	0.0	0.0	20.7	28	Confined space			

Field Technician: (Site Agent)
Checked by: (RSO)

Landfill Gas Monitoring – Field Measurement Recording Sheet

Name of Site: DE/2005/04- Ting Kok Road Pumping Station No. 5
 Date of measurement: 4 October 2007

Sampling equipment used:	Dates calibrated
Gas Data	27 / 07 / 2007
Model GFM410 Landfill	
Serial No. 10239	

Sample location	Date of measurement	Sampling time	Weather condition	Perimeter on-site and/or off-site monitoring holes					Remark
				Balance gas (%)	Flammable gas (methane %)	Carbon dioxide (%)	Oxygen (%)	Temp (°C)	
A1	4 Oct 2007	8:55	Fine	79.2	0.0	0.0	20.7	29	
A8	4 Oct 2007	8:58	Fine	79.2	0.0	0.0	20.7	29	Confined space
A1	4 Oct 2007	12:53	Fine	79.2	0.0	0.0	20.7	30	
A8	4 Oct 2007	12:57	Fine	79.2	0.0	0.0	20.7	30	Confined space

Field Technician: _____ (Site Agent)

Checked by: _____ (RSO)

Landfill Gas Monitoring – Field Measurement Recording Sheet

Name of Site: DE/2005/04- Ting Kok Road Pumping Station No. 5
 Date of measurement: 5 October 2007

Sampling equipment used:	Dates calibrated
Gas Data	27 / 07 / 2007
Model GFM410 Landfill	
Serial No. 10239	

Sample location	Date of measurement	Sampling time	Weather condition	Perimeter on-site and/or off-site monitoring holes					Temp (°C)	Remark
				Balance gas (%)	Flammable gas (methane %)	Carbon dioxide (%)	Oxygen (%)			
A1	5 Oct 2007	8:55	Sunny	79.2	0.0	0.0	20.7		29	
A8	5 Oct 2007	8:58	Sunny	79.3	0.0	0.0	20.6		29	Confined space
A1	5 Oct 2007	12:54	Sunny	79.2	0.0	0.0	20.7		32	
A8	5 Oct 2007	12:59	Sunny	79.2	0.0	0.0	20.7		32	Confined space

Field Technician:  (Site Agent) Checked by:  (RSO)

Landfill Gas Monitoring – Field Measurement Recording Sheet

Name of Site: DE/2005/04- Ting Kok Road Pumping Station No. 5
 Date of measurement: 8 October 07

Sampling equipment used:	Dates calibrated
Gas Data	27 / 07 / 2007
Model GFM410 Landfill	
Serial No. 10239	

Sample location	Date of measurement	Sampling time	Weather condition	Perimeter on-site and/or off-site monitoring holes							Remark
				Balance gas (%)	Flammable gas (methane %)	Carbon dioxide (%)	Oxygen (%)	Temp (°C)			
A1	8 Oct 2007	8:52	Sunny	79.2	0.0	0.0	20.7	30			
A5	8 Oct 2007	8:55	Sunny	79.3	0.0	0.0	20.6	30		Confined space	
A8	8 Oct 2007	8:58	Sunny	79.3	0.0	0.0	20.6	30		Confined space	
A1	8 Oct 2007	15:47	Sunny	79.3	0.0	0.0	20.6	31			
A5	8 Oct 2007	12:50	Sunny	79.3	0.0	0.0	20.6	31		Confined space	
A6	8 Oct 2007	12:52	Sunny	79.2	0.0	0.0	20.7	31		Confined space	
A7	8 Oct 2007	12:55	Sunny	79.2	0.0	0.0	20.7	31		Confined space	
A8	8 Oct 2007	12:59	Sunny	79.2	0.0	0.0	20.7	31		Confined space	

Field Technician: (Site Agent)
Checked by: (RSO)

Landfill Gas Monitoring – Field Measurement Recording Sheet

Name of Site: DE/2005/04- Ting Kok Road Pumping Station No. 5
 Date of measurement: 9 October 2007

Sampling equipment used:	Dates calibrated
Gas Data	27 / 07 / 2007
Model GFM410 Landfill	
Serial No. 10239	

Sample location	Date of measurement	Sampling time	Weather condition	Perimeter on-site and/or off-site monitoring holes						Temp (°C)	Remark
				Balance gas (%)	Flammable gas (methane %)	Carbon dioxide (%)	Oxygen (%)				
A1	9 Oct 2007	8:51	Sunny	79.2	0.0	0.0	20.7			27	
A6	9 Oct 2007	8:54	Sunny	79.3	0.0	0.0	20.6			27	Confined space
A7	9 Oct 2007	8:57	Sunny	79.3	0.0	0.0	20.6			27	Confined space
A1	9 Oct 2007	12:50	Sunny	79.2	0.0	0.0	20.7			28	
A6	9 Oct 2007	12:53	Sunny	79.2	0.0	0.0	20.7			28	Confined space
A7	9 Oct 2007	12:57	Sunny	79.2	0.0	0.0	20.7			28	Confined space

Field Technician: _____
 (Site Agent)

Checked by: _____
 (RSO)

Landfill Gas Monitoring – Field Measurement Recording Sheet

Name of Site: DE/2005/04- Ting Kok Road Pumping Station No. 5
 Date of measurement: 10 October 2007

Sampling equipment used:	Dates calibrated
Gas Data	27 / 07 / 2007
Model GFM410 Landfill	
Serial No. 10239	

Sample location	Date of measurement	Sampling time	Weather condition	Perimeter on-site and/or off-site monitoring holes					Temp (°C)	Remark
				Balance gas (%)	Flammable gas (methane %)	Carbon dioxide (%)	Oxygen (%)			
A1	10 Oct 2007	8:57	Sunny	79.2	0.0	0.0	20.7		26	
A1	10 Oct 2007	12:58	Sunny	79.2	0.0	0.0	20.7		28	

Field Technician: _____
 (Site Agent)

Checked by: _____
 (RSO)

Landfill Gas Monitoring – Field Measurement Recording Sheet

Name of Site: DE/2005/04- Ting Kok Road Pumping Station No. 5
 Date of measurement: 11 October 2007

Sampling equipment used:	Dates calibrated
Gas Data	27 / 07 / 2007
Model GFM410 Landfill	
Serial No. 10239	

Sample location	Date of measurement	Sampling time	Weather condition	Perimeter on-site and/or off-site monitoring holes					Temp (°C)	Remark
				Balance gas (%)	Flammable gas (methane %)	Carbon dioxide (%)	Oxygen (%)			
A1	11 Oct 2007	8:50	Sunny	79.2	0.0	0.0	20.7		26	
A7	11 Oct 2007	8:55	Sunny	79.3	0.0	0.0	20.6		26	Confined space
A8	11 Oct 2007	8:58	Sunny	79.2	0.0	0.0	20.7		26	Confined space
A1	11 Oct 2007	12:48	Sunny	79.2	0.0	0.0	20.7		27	
A7	11 Oct 2007	12:54	Sunny	79.2	0.0	0.0	20.7		27	Confined space
A8	11 Oct 2007	12:58	Sunny	79.2	0.0	0.0	20.7		27	Confined space

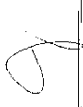
Field Technician:  (Site Agent) Checked by:  (RSO)

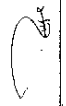
Landfill Gas Monitoring -- Field Measurement Recording Sheet

Name of Site: DE/2005/04- Ting Kok Road Pumping Station No. 5
 Date of measurement: 12 October 2007

Sampling equipment used:	Dates calibrated
Gas Data	27 / 07 / 2007
Model GFM410 Landfill	
Serial No. 10239	

Sample location	Date of measurement	Sampling time	Weather condition	Perimeter on-site and/or off-site monitoring holes						Remark
				Balance gas (%)	Flammable gas (methane %)	Carbon dioxide (%)	Oxygen (%)	Temp (°C)		
A1	12 Oct 2007	8:47	Sunny	79.2	0.0	0.0	20.7	24		
A7	12 Oct 2007	8:51	Sunny	79.3	0.0	0.0	20.6	24	Confined space	
A8	12 Oct 2007	8:55	Sunny	79.2	0.0	0.0	20.7	24	Confined space	
A1	12 Oct 2007	12:45	Sunny	79.2	0.0	0.0	20.7	26		
A7	12 Oct 2007	12:50	Sunny	79.3	0.0	0.0	20.6	26	Confined space	
A8	12 Oct 2007	12:57	Sunny	79.2	0.0	0.0	20.7	26	Confined space	

Field Technician:  (Site Agent)

Checked by:  (RSO)

Landfill Gas Monitoring – Field Measurement Recording Sheet

Name of Site: DE/2005/04- Ting Kok Road Pumping Station No. 5
 Date of measurement: 15 October 2007

Sampling equipment used:	Dates calibrated
Gas Data	27 / 07 / 2007
Model GFM410 Landfill	
Serial No. 10239	

Sample location	Date of measurement	Sampling time	Weather condition	Perimeter on-site and/or off-site monitoring holes							Remark
				Balance gas (%)	Flammable gas (methane %)	Carbon dioxide (%)	Oxygen (%)	Temp (°C)			
A1	15 Oct 2007	8:54	Sunny	79.2	0.0	0.0	20.7	26			
A4	15 Oct 2007	8:57	Sunny	79.3	0.0	0.0	20.6	26			Confined space
A1	15 Oct 2007	12:50	Sunny	79.2	0.0	0.0	20.7	27			
A4	15 Oct 2007	12:53	Sunny	79.2	0.0	0.0	20.7	27			Confined space
A8	15 Oct 2007	12:57	Sunny	79.2	0.0	0.0	20.7	27			Confined space

Field Technician: _____
 (Site Agent)


Checked by: _____
 (RSO)


Landfill Gas Monitoring – Field Measurement Recording Sheet

Name of Site: DE/2005/04- Ting Kok Road Pumping Station No. 5
 Date of measurement: 17 October 2007

Sampling equipment used:	Dates calibrated
Gas Data	27 / 07 / 2007
Model	GF M410 Landfill
Serial No.	10239

Sample location	Date of measurement	Sampling time	Weather condition	Perimeter on-site and/or off-site monitoring holes					Temp (°C)	Remark
				Balance gas (%)	Flammable gas (methane %)	Carbon dioxide (%)	Oxygen (%)			
A1	17 Oct 2007	8:50	Sunny	79.2	0.0	0.0	20.7	25		
A4	17 Oct 2007	8:55	Sunny	79.3	0.0	0.0	20.6	25	Confined space	
A1	17 Oct 2007	12:55	Sunny	79.2	0.0	0.0	20.7	26		
A4	17 Oct 2007	12:58	Sunny	79.2	0.0	0.0	20.7	26	Confined space	

Field Technician:  _____
 (Site Agent)

Checked by:  _____
 (RSO)

Landfill Gas Monitoring – Field Measurement Recording Sheet

Name of Site: DE/2005/04- Ting Kok Road Pumping Station No. 5
 Date of measurement: 18 October 2007

Sampling equipment used:	Dates calibrated
Gas Data	27 / 07 / 2007
Model GFM410 Landfill	
Serial No. 10239	

Sample location	Date of measurement	Sampling time	Weather condition	Perimeter on-site and/or off-site monitoring holes					Temp (°C)	Remark
				Balance gas (%)	Flammable gas (methane %)	Carbon dioxide (%)	Oxygen (%)			
A1	18 Oct 2007	8:50	Sunny	79.2	0.0	0.0	20.7		25	
A4	18 Oct 2007	8:54	Sunny	79.3	0.0	0.0	20.6		25	Confined space
A1	18 Oct 2007	12:55	Sunny	79.2	0.0	0.0	20.7		27	
A4	18 Oct 2007	12:57	Sunny	79.2	0.0	0.0	20.7		27	Confined space

Field Technician: _____
 (Site Agent)

Checked by: _____
 (RSO)

Landfill Gas Monitoring – Field Measurement Recording Sheet

Name of Site: DE/2005/04- Ting Kok Road Pumping Station No. 5
 Date of measurement: 22 October 2007

Sampling equipment used:	Dates calibrated
Gas Data	27 / 07 / 2007
Model GFM410 Landfill	
Serial No. 10239	

Sample location	Date of measurement	Sampling time	Weather condition	Perimeter on-site and/or off-site monitoring holes						
				Balance gas (%)	Flammable gas (methane %)	Carbon dioxide (%)	Oxygen (%)	Temp (°C)	Remark	
A1	22 Oct 2007	8:55	Sunny	79.2	0.0	0.0	20.7	27		
A3	22 Oct 2007	8:58	Sunny	79.2	0.0	0.0	20.7	27	Confined space	
A1	22 Oct 2007	12:57	Sunny	79.2	0.0	0.0	20.7	27		
A3	22 Oct 2007	13:00	Sunny	79.2	0.0	0.0	20.7	27	Confined space	

Field Technician: _____
 (Site Agent)


Checked by: _____
 (RSO)


Landfill Gas Monitoring – Field Measurement Recording Sheet

Name of Site: DE/2005/04- Ting Kok Road Pumping Station No. 5
 Date of measurement: 23 October 2007

Sampling equipment used:	Dates calibrated
Gas Data	27 / 07 / 2007
Model GFM410 Landfill	
Serial No. 10239	

Sample location	Date of measurement	Sampling time	Weather condition	Perimeter on-site and/or off-site monitoring holes					Temp (°C)	Remark
				Balance gas (%)	Flammable gas (methane %)	Carbon dioxide (%)	Oxygen (%)			
A1	23 Oct 2007	8:55	Rain	79.2	0.0	0.0	20.7		27	
A3	23 Oct 2007	9:00	Rain	79.2	0.0	0.0	20.7		27	Confined space
A1	23 Oct 2007	12:54	Overcast	79.2	0.0	0.0	20.7		28	
A3	23 Oct 2007	12:57	Overcast	79.2	0.0	0.0	20.7		28	Confined space

Field Technician:  (Site Agent)

Checked by:  (RSO)

Landfill Gas Monitoring – Field Measurement Recording Sheet

Name of Site: DE/2005/04- Ting Kok Road Pumping Station No. 5
 Date of measurement: 24 October 2007

Sampling equipment used:	Dates calibrated
Gas Data	27 / 07 / 2007
Model GFM410 Landfill	
Serial No. 10239	

Sample location	Date of measurement	Sampling time	Weather condition	Perimeter on-site and/or off-site monitoring holes						Temp (°C)	Remark
				Balance gas (%)	Flammable gas (methane %)	Carbon dioxide (%)	Oxygen (%)				
A1	24 Oct 2007	8:49	Sunny	79.2	0.0	0.0	20.7			28	
A7	24 Oct 2007	8:55	Sunny	79.3	0.0	0.0	20.7			28	Confined space
A8	24 Oct 2007	8:57	Sunny	79.2	0.0	0.0	20.7			28	Confined space
A1	24 Oct 2007	12:45	Sunny	79.2	0.0	0.0	20.7			29	
A7	24 Oct 2007	12:54	Sunny	79.2	0.0	0.0	20.7			29	Confined space
A8	24 Oct 2007	12:57	Sunny	79.2	0.0	0.0	20.7			29	Confined space

Field Technician: [Signature] (Site Agent)

Checked by: [Signature] (RSO)

Landfill Gas Monitoring – Field Measurement Recording Sheet

Name of Site: DE/2005/04- Ting Kok Road Pumping Station No. 5
 Date of measurement: 25 October 2007

Sampling equipment used:	Dates calibrated
Gas Data	27 / 07 / 2007
Model GFM410 Landfill	
Serial No. 10239	

Sample location	Date of measurement	Sampling time	Weather condition	Perimeter on-site and/or off-site monitoring holes					Temp (°C)	Remark
				Balance gas (%)	Flammable gas (methane %)	Carbon dioxide (%)	Oxygen (%)			
A1	25 Oct 2007	8:47	Sunny	79.2	0.0	0.0	20.7		28	
A6	25 Oct 2007	8:52	Sunny	79.3	0.0	0.0	20.6		28	Confined space
A7	25 Oct 2007	8:56	Sunny	79.3	0.0	0.0	20.6		28	Confined space
A8	25 Oct 2007	9:00	Sunny	79.2	0.0	0.0	20.7		28	Confined space
A1	25 Oct 2007	12:46	Sunny	79.2	0.0	0.0	20.7		29	
A6	25 Oct 2007	12:51	Sunny	79.2	0.0	0.0	20.7		29	Confined space
A7	25 Oct 2007	12:55	Sunny	79.2	0.0	0.0	20.7		29	Confined space
A8	25 Oct 2007	12:59	Sunny	79.2	0.0	0.0	20.7		29	Confined space

Field Technician: _____
 (Site Agent)


Checked by: _____
 (RSO)


Landfill Gas Monitoring – Field Measurement Recording Sheet

Name of Site: DE/2005/04- Ting Kok Road Pumping Station No. 5
 Date of measurement: 26 October 2007

Sampling equipment used:	Dates calibrated
Gas Data	27 / 07 / 2007
Model GFM410 Landfill	
Serial No. 10239	

Sample location	Date of measurement	Sampling time	Weather condition	Perimeter on-site and/or off-site monitoring holes						Remark
				Balance gas (%)	Flammable gas (methane %)	Carbon dioxide (%)	Oxygen (%)	Temp (°C)		
A1	26 Oct 2007	8:47	Sunny	79.2	0.0	0.0	20.7	29		
A6	26 Oct 2007	8:50	Sunny	79.3	0.0	0.0	20.6	29		Confined space
A7	26 Oct 2007	8:54	Sunny	79.3	0.0	0.0	20.6	29		Confined space
A8	26 Oct 2007	8:58	Sunny	79.2	0.0	0.0	20.7	29		Confined space
A1	26 Oct 2007	12:48	Sunny	79.2	0.0	0.0	20.7	30		
A6	26 Oct 2007	12:51	Sunny	79.2	0.0	0.0	20.7	30		Confined space
A7	26 Oct 2007	12:55	Sunny	79.2	0.0	0.0	20.7	30		Confined space
A8	26 Oct 2007	12:58	Sunny	79.2	0.0	0.0	20.7	30		Confined space

Field Technician:  _____
 (Site Agent)

Checked by:  _____
 (RSO)


Landfill Gas Monitoring – Field Measurement Recording Sheet

Name of Site: DE/2005/04- Ting Kok Road Pumping Station No. 5
 Date of measurement: 29 October 2007

Sampling equipment used:	Dates calibrated
Gas Data	27 / 07 / 2007
Model GFM410 Landfill	
Serial No. 10239	

Sample location	Date of measurement	Sampling time	Weather condition	Perimeter on-site and/or off-site monitoring holes					Remark
				Balance gas (%)	Flammable gas (methane %)	Carbon dioxide (%)	Oxygen (%)	Temp (°C)	
A1	29 Oct 2007	8:45	Sunny	79.2	0.0	0.0	20.7	27	
A6	29 Oct 2007	8:48	Sunny	79.3	0.0	0.0	20.6	27	Confined space
A7	29 Oct 2007	8:52	Sunny	79.3	0.0	0.0	20.6	27	Confined space
A8	29 Oct 2007	8:57	Sunny	79.2	0.0	0.0	20.7	27	Confined space
A1	29 Oct 2007	12:47	Sunny	79.2	0.0	0.0	20.7	28	
A6	29 Oct 2007	12:50	Sunny	79.2	0.0	0.0	20.7	28	Confined space
A7	29 Oct 2007	12:55	Sunny	79.2	0.0	0.0	20.7	28	Confined space
A8	29 Oct 2007	12:57	Sunny	79.2	0.0	0.0	20.7	28	Confined space

Field Technician:  _____
 (Site Agent)

Checked by:  _____
 (RSO)


Landfill Gas Monitoring – Field Measurement Recording Sheet

Name of Site: DE/2005/04- Ting Kok Road Pumping Station No. 5
 Date of measurement: 30 October 2007

Sampling equipment used:	Dates calibrated
Gas Data	27 / 07 / 2007
Model GFM410 Landfill	
Serial No. 10239	

Sample location	Date of measurement	Sampling time	Weather condition	Perimeter on-site and/or off-site monitoring holes							Remark
				Balance gas (%)	Flammable gas (methane %)	Carbon dioxide (%)	Oxygen (%)	Temp (°C)			
A1	30 Oct 2007	8:48	Sunny	79.2	0.0	0.0	20.7	25			
A6	30 Oct 2007	8:52	Sunny	79.3	0.0	0.0	20.6	25	Confined space		
A7	30 Oct 2007	8:56	Sunny	79.3	0.0	0.0	20.6	25	Confined space		
A8	30 Oct 2007	8:59	Sunny	79.2	0.0	0.0	20.7	25	Confined space		
A1	30 Oct 2007	12:45	Sunny	79.2	0.0	0.0	20.7	26			
A6	30 Oct 2007	12:48	Sunny	79.2	0.0	0.0	20.7	26	Confined space		
A7	30 Oct 2007	12:52	Sunny	79.2	0.0	0.0	20.7	26	Confined space		
A8	30 Oct 2007	12:56	Sunny	79.2	0.0	0.0	20.7	26	Confined space		

Field Technician: _____
 (Site Agent)


Checked by:  _____
 (RSO)

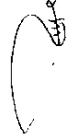
Landfill Gas Monitoring – Field Measurement Recording Sheet

Name of Site: DE/2005/04- Ting Kok Road Pumping Station No. 5
 Date of measurement: 31 October 2007

Sampling equipment used:		Dates calibrated
Gas Data		27 / 07 / 2007
Model GFM410 Landfill		
Serial No. 10239		

Sample location	Date of measurement	Sampling time	Weather condition	Perimeter on-site and/or off-site monitoring holes								Remark
				Balance gas (%)	Flammable gas (methane %)	Carbon dioxide (%)	Oxygen (%)	Temp (°C)				
A1	31 Oct 2007	8:48	Sunny	79.2	0.0	0.0	20.7	25				
A6	31 Oct 2007	8:51	Sunny	79.3	0.0	0.0	20.6	25	Confined space			
A7	31 Oct 2007	8:55	Sunny	79.3	0.0	0.0	20.6	25	Confined space			
A8	31 Oct 2007	8:58	Sunny	79.3	0.0	0.0	20.6	25	Confined space			
A1	31 Oct 2007	12:48	Sunny	79.2	0.0	0.0	20.7	25				
A6	31 Oct 2007	12:51	Sunny	79.2	0.0	0.0	20.7	25	Confined space			
A7	31 Oct 2007	12:55	Sunny	79.2	0.0	0.0	20.7	25	Confined space			
A8	31 Oct 2007	12:57	Sunny	79.2	0.0	0.0	20.7	25	Confined space			

Field Technician:  (Site Agent)


Checked by:  (RSO)

Landfill Gas Monitoring – Field Measurement Recording Sheet

Name of Site: DE/2005/04- Ting Kok Road Pumping Station No. 5
 Date of measurement: 2 November 2007

Sampling equipment used:	Dates calibrated
Gas Data	27 / 07 / 2007
Model GFM410 Landfill	
Serial No. 10239	

Sample location	Date of measurement	Sampling time	Weather condition	Perimeter on-site and/or off-site monitoring holes						Remark
				Balance gas (%)	Flammable gas (methane %)	Carbon dioxide (%)	Oxygen (%)	Temp (°C)		
A1	2 Nov 2007	8:51	Sunny	79.3	0.0	0.0	20.6	20		
A3	2 Nov 2007	8:55	Sunny	79.3	0.0	0.0	20.6	20		Confined space
A6	2 Nov 2007	8:58	Sunny	79.2	0.0	0.0	20.7	20		Confined space
A1	2 Nov 2007	12:50	Sunny	79.2	0.0	0.0	20.7	21		
A3	2 Nov 2007	12:54	Sunny	79.2	0.0	0.0	20.7	21		Confined space
A6	2 Nov 2007	12:57	Sunny	79.2	0.0	0.0	20.7	21		Confined space

Field Technician:  _____
 (Site Agent)


Checked by:  _____
 (RSO)


Landfill Gas Monitoring – Field Measurement Recording Sheet

Name of Site: DE/2005/04- Ting Kok Road Pumping Station No. 5
 Date of measurement: 3 November 2007

Sampling equipment used:	Dates calibrated
Gas Data	27 / 07 / 2007
Model GFM410 Landfill	
Serial No. 10239	

Sample location	Date of measurement	Sampling time	Weather condition	Perimeter on-site and/or off-site monitoring holes					Temp (°C)	Remark
				Balance gas (%)	Flammable gas (methane %)	Carbon dioxide (%)	Oxygen (%)			
A1	3 Nov 2007	8:59	Sunny	79.2	0.0	0.0	20.7		21	
A1	3 Nov 2007	12:56	Sunny	79.2	0.0	0.0	20.7		23	

Field Technician:  _____
 (Site Agent)


Checked by:  _____
 (RSO)

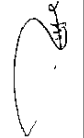
Landfill Gas Monitoring – Field Measurement Recording Sheet

Name of Site: DE/2005/04- Ting Kok Road Pumping Station No. 5
 Date of measurement: 5 November 2007

Sampling equipment used:	Dates calibrated
Gas Data	27 / 07 / 2007
Model GFM410 Landfill	
Serial No. 10239	

Sample location	Date of measurement	Sampling time	Weather condition	Perimeter on-site and/or off-site monitoring holes					Temp (°C)	Remark
				Balance gas (%)	Flammable gas (methane %)	Carbon dioxide (%)	Oxygen (%)			
A1	5 Nov 2007	8:51	Sunny	79.2	0.0	0.0	20.7	23		
A3	5 Nov 2007	8:55	Sunny	79.3	0.0	0.0	20.6	23	Confined space	
A4	5 Nov 2007	8:58	Sunny	79.2	0.0	0.0	20.7	23	Confined space	
A1	5 Nov 2007	12:52	Sunny	79.2	0.0	0.0	20.7	25		
A3	5 Nov 2007	12:55	Sunny	79.2	0.0	0.0	20.7	25	Confined space	
A4	5 Nov 2007	12:58	Sunny	79.2	0.0	0.0	20.7	25	Confined space	

Field Technician:  _____
 (Site Agent)

Checked by:  _____
 (RSO)

Landfill Gas Monitoring – Field Measurement Recording Sheet

Name of Site: DE/2005/04- Ting Kok Road Pumping Station No. 5
 Date of measurement: 6 November 07

Sampling equipment used:	Dates calibrated:
Gas Data	27 / 07 / 2007
Model GFM410 Landfill	
Serial No. 10239	

Sample location	Date of measurement	Sampling time	Weather condition	Perimeter on-site and/or off-site monitoring holes					Temp (°C)	Remark
				Balance gas (%)	Flammable gas (methane %)	Carbon dioxide (%)	Oxygen (%)			
A1	6 Nov 2007	8:52	Sunny	79.2	0.0	0.0	20.7		25	
A8	6 Nov 2007	8:56	Sunny	79.3	0.0	0.0	20.6		25	
A1	6 Nov 2007	15:51	Sunny	79.2	0.0	0.0	20.7		26	
A8	6 Nov 2007	12:57	Sunny	79.2	0.0	0.0	20.7		26	

Field Technician: _____
 (Site Agent)

Checked by: 
 (RSO)

Landfill Gas Monitoring – Field Measurement Recording Sheet

Name of Site: DE/2005/04- Ting Kok Road Pumping Station No. 5
 Date of measurement: 7 November 07

Sampling equipment used:	Dates calibrated
Gas Data	27 / 07 / 2007
Model GFM410 Landfill	
Serial No. 10239	

Sample location	Date of measurement	Sampling time	Weather condition	Perimeter on-site and/or off-site monitoring holes					Temp (°C)	Remark
				Balance gas (%)	Flammable gas (methane %)	Carbon dioxide (%)	Oxygen (%)			
AI	7 Nov 2007	8:55	Sunny	79.2	0.0	0.0	20.7		24	
AI	7 Nov 2007	12:55	Sunny	79.2	0.0	0.0	20.7		25	

Field Technician: _____
 (Site Agent)

Checked by: _____
 (RSO)

Landfill Gas Monitoring – Field Measurement Recording Sheet

Name of Site: DE/2005/04- Ting Kok Road Pumping Station No. 5
 Date of measurement: 8 November 2007

Sampling equipment used:	Dates calibrated
Gas Data	27 / 07 / 2007
Model GFM410 Landfill	
Serial No. 10239	

Sample location	Date of measurement	Sampling time	Weather condition	Perimeter on-site and/or off-site monitoring holes					Temp (°C)	Remark
				Balance gas (%)	Flammable gas (methane %)	Carbon dioxide (%)	Oxygen (%)			
A1	8 Nov 2007	8:50	Sunny	79.2	0.0	0.0	20.7		22	
A3	8 Nov 2007	8:53	Sunny	79.3	0.0	0.0	20.6		22	
A4	8 Nov 2007	8:57	Sunny	79.3	0.0	0.0	20.6		22	
A1	8 Nov 2007	12:51	Sunny	79.2	0.0	0.0	20.7		23	
A3	8 Nov 2007	12:55	Sunny	79.2	0.0	0.0	20.7		23	
A4	8 Nov 2007	12:58	Sunny	79.2	0.0	0.0	20.7		23	

Field Technician: _____
 (Site Agent)

Checked by: _____
 (RSO)

Landfill Gas Monitoring – Field Measurement Recording Sheet

Name of Site: DE/2005/04- Ting Kok Road Pumping Station No. 5
 Date of measurement: 9 November 2007

Sampling equipment used:	Dates calibrated
Gas Data	27 / 07 / 2007
Model GFM410 Landfill	
Serial No. 10239	

Sample location	Date of measurement	Sampling time	Weather condition	Perimeter on-site and/or off-site monitoring holes					Temp (°C)	Remark
				Balance gas (%)	Flammable gas (methane %)	Carbon dioxide (%)	Oxygen (%)			
A1	9 Nov 2007	8:50	Sunny	79.2	0.0	0.0	20.7	26		
A7	9 Nov 2007	8:55	Sunny	79.3	0.0	0.0	20.6	26	Confined space	
A8	9 Nov 2007	8:58	Sunny	79.2	0.0	0.0	20.7	26	Confined space	
A1	9 Nov 2007	12:48	Sunny	79.2	0.0	0.0	20.7	26		
A7	9 Nov 2007	12:54	Sunny	79.2	0.0	0.0	20.7	26	Confined space	
A8	9 Nov 2007	12:58	Sunny	79.2	0.0	0.0	20.7	26	Confined space	

Field Technician: _____ (Site Agent)

Checked by: _____ (RSO)

Landfill Gas Monitoring – Field Measurement Recording Sheet

Name of Site: DE/2005/04- Ting Kok Road Pumping Station No. 5
Date of measurement: 10 November 2007

Sampling equipment used:	Dates calibrated
Gas Data	27 / 07 / 2007
Model GFM410 Landfill	
Serial No. 10239	

Sample location	Date of measurement	Sampling time	Weather condition	Perimeter on-site and/or off-site monitoring holes					Temp (°C)	Remark
				Balance gas (%)	Flammable gas (methane %)	Carbon dioxide (%)	Oxygen (%)	Temp (°C)		
A1	10 Nov 2007	8:57	Sunny	79.2	0.0	0.0	20.7	24		
A1	10 Nov 2007	12:55	Sunny	79.2	0.0	0.0	20.7	25		

Field Technician: _____
(Site Agent)

Checked by: _____
(RSO)

Landfill Gas Monitoring – Field Measurement Recording Sheet

Name of Site: DE/2005/04- Ting Kok Road Pumping Station No. 5
 Date of measurement: 12 November 2007

Sampling equipment used:	Dates calibrated
Gas Data	27 / 07 / 2007
Model GFM410 Landfill	
Serial No. I0239	

Sample location	Date of measurement	Sampling time	Weather condition	Perimeter on-site and/or off-site monitoring holes							Remark
				Balance gas (%)	Flammable gas (methane %)	Carbon dioxide (%)	Oxygen (%)	Temp (°C)			
A1	12 Nov 2007	8:42	Sunny	79.2	0.0	0.0	20.7	22			
A3	12 Nov 2007	8:45	Sunny	79.3	0.0	0.0	20.6	22		Confined space	
A4	12 Nov 2007	8:50	Sunny	79.2	0.0	0.0	20.7	22		Confined space	
A8	12 Nov 2007	8:53	Sunny	79.2	0.0	0.0	20.7	22		Confined space	
A1	12 Nov 2007	12:45	Sunny	79.2	0.0	0.0	20.7	24			
A3	12 Nov 2007	12:47	Sunny	79.2	0.0	0.0	20.7	24		Confined space	
A4	12 Nov 2007	12:51	Sunny	79.2	0.0	0.0	20.7	24		Confined space	
A8	12 Nov 2007	12:55	Sunny	79.2	0.0	0.0	20.7	24		Confined space	

Field Technician: [Signature]
 (Site Agent)

Checked by: [Signature]
 (RSO)

Landfill Gas Monitoring – Field Measurement Recording Sheet

Name of Site: DE/2005/04- Ting Kok Road Pumping Station No. 5
 Date of measurement: 13 November 2007

Sampling equipment used:	Dates calibrated
Gas Data	27 / 07 / 2007
Model GFM410 Landfill	
Serial No. 10239	

Sample location	Date of measurement	Sampling time	Weather condition	Perimeter on-site and/or off-site monitoring holes					Temp (°C)	Remark
				Balance gas (%)	Flammable gas (methane %)	Carbon dioxide (%)	Oxygen (%)	Temp (°C)		
A1	13 Nov 2007	8:50	Sunny	79.2	0.0	0.0	20.7	24		
A7	13 Nov 2007	8:53	Sunny	79.3	0.0	0.0	20.6	24	Confined space	
A8	13 Nov 2007	8:57	Sunny	79.3	0.0	0.0	20.6	24	Confined space	
A1	13 Nov 2007	12:47	Sunny	79.2	0.0	0.0	20.7	25		
A7	13 Nov 2007	12:51	Sunny	79.2	0.0	0.0	20.7	25	Confined space	
A8	13 Nov 2007	12:56	Sunny	79.2	0.0	0.0	20.7	25	Confined space	

Field Technician: _____
 (Site Agent)

Checked by: _____
 (RSO)

Landfill Gas Monitoring – Field Measurement Recording Sheet

Name of Site: DE/2005/04- Ting Kok Road Pumping Station No. 5
 Date of measurement: 14 November 2007

Sampling equipment used:	Dates calibrated
Gas Data	27 / 07 / 2007
Model GFM410 Landfill	
Serial No. 10239	

Sample location	Date of measurement	Sampling time	Weather condition	Perimeter on-site and/or off-site monitoring holes						Remark
				Balance gas (%)	Flammable gas (methane %)	Carbon dioxide (%)	Oxygen (%)	Temp (°C)		
A1	14 Nov 2007	8:50	Sunny	79.2	0.0	0.0	20.7	25		
A6	14 Nov 2007	8:53	Sunny	79.2	0.0	0.0	20.7	25	Confined space	
A7	14 Nov 2007	8:56	Sunny	79.2	0.0	0.0	20.7	25	Confined space	
A1	14 Nov 2007	12:51	Sunny	79.2	0.0	0.0	20.7	26		
A6	14 Nov 2007	12:55	Sunny	79.2	0.0	0.0	20.7	26	Confined space	
A7	14 Nov 2007	12:58	Sunny	79.2	0.0	0.0	20.7	26	Confined space	

Field Technician: [Signature]
 (Site Agent)

Checked by: [Signature]
 (RSO)

Landfill Gas Monitoring – Field Measurement Recording Sheet

Name of Site: DE/2005/04- Ting Kok Road Pumping Station No. 5
 Date of measurement: 15 November 2007

Sampling equipment used:	Dates calibrated
Gas Data	27 / 07 / 2007
Model GFM410 Landfill	
Serial No. 10239	

Sample location	Date of measurement	Sampling time	Weather condition	Perimeter on-site and/or off-site monitoring holes						Temp (°C)	Remark
				Balance gas (%)	Flammable gas (methane %)	Carbon dioxide (%)	Oxygen (%)				
A1	15 Nov 2007	8:50	Sunny	79.2	0.0	0.0	20.7			26	
A6	15 Nov 2007	8:55	Sunny	79.2	0.0	0.0	20.7			26	Confined space
A7	15 Nov 2007	8:59	Sunny	79.2	0.0	0.0	20.7			26	Confined space
A1	15 Nov 2007	12:50	Sunny	79.2	0.0	0.0	20.7			27	
A6	15 Nov 2007	12:53	Sunny	79.2	0.0	0.0	20.7			27	Confined space
A7	15 Nov 2007	12:57	Sunny	79.2	0.0	0.0	20.7			27	Confined space

Field Technician: [Signature]
 (Site Agent)

Checked by: [Signature]
 (RSO)

Landfill Gas Monitoring – Field Measurement Recording Sheet

Name of Site: DE/2005/04- Ting Kok Road Pumping Station No. 5
 Date of measurement: 16 November 2007

Sampling equipment used:	Dates calibrated
Gas Data	27 / 07 / 2007
Model GFM410 Landfill	
Serial No. 10239	

Sample location	Date of measurement	Sampling time	Weather condition	Perimeter on-site and/or off-site monitoring holes					Temp (°C)	Remark
				Balance gas (%)	Flammable gas (methane %)	Carbon dioxide (%)	Oxygen (%)			
A1	16 Nov 2007	8:50	Sunny	79.2	0.0	0.0	20.7		25	
A6	16 Nov 2007	8:53	Sunny	79.3	0.0	0.0	20.6		25	Confined space
A8	16 Nov 2007	8:56	Sunny	79.2	0.0	0.0	20.7		25	Confined space
A1	16 Nov 2007	12:45	Sunny	79.2	0.0	0.0	20.7		26	
A6	16 Nov 2007	12:50	Sunny	79.2	0.0	0.0	20.7		26	Confined space
A8	16 Nov 2007	12:55	Sunny	79.2	0.0	0.0	20.7		26	Confined space

Field Technician: _____
 (Site Agent)

Checked by: _____
 (RSO)

Landfill Gas Monitoring – Field Measurement Recording Sheet

Name of Site: DE/2005/04- Ting Kok Road Pumping Station No. 5
 Date of measurement: 17 November 2007

Sampling equipment used:		Dates calibrated
Gas Data		27 / 07 / 2007
Model GFM410 Landfill		
Serial No. 10239		

Sample location	Date of measurement	Sampling time	Weather condition	Perimeter on-site and/or off-site monitoring holes						Temp (°C)	Remark
				Balance gas (%)	Flammable gas (methane %)	Carbon dioxide (%)	Oxygen (%)				
AI	17 Nov 2007	8:58	Sunny	79.2	0.0	0.0	20.7			26	
AI	17 Nov 2007	12:56	Sunny	79.2	0.0	0.0	20.7			27	

Field Technician:  _____
 (Site Agent)

Checked by:  _____
 (RSO)

Landfill Gas Monitoring – Field Measurement Recording Sheet

Name of Site: DE/2005/04- Ting Kok Road Pumping Station No. 5
Date of measurement: 19 November 2007

Sampling equipment used:	Dates calibrated
Gas Data	27 / 07 / 2007
Model GFM410 Landfill	
Serial No. 10239	

Sample location	Date of measurement	Sampling time	Weather condition	Perimeter on-site and/or off-site monitoring holes						
				Balance gas (%)	Flammable gas (methane %)	Carbon dioxide (%)	Oxygen (%)	Temp (°C)	Remark	
A1	19 Nov 2007	8:49	Sunny	79.2	0.0	0.0	20.7	23		
A7	19 Nov 2007	8:52	Sunny	79.2	0.0	0.0	20.7	23	Confined space	
A8	19 Nov 2007	8:56	Sunny	79.2	0.0	0.0	20.7	23	Confined space	
A1	19 Nov 2007	12:47	Sunny	79.2	0.0	0.0	20.7	24		
A7	19 Nov 2007	12:50	Sunny	79.2	0.0	0.0	20.7	24	Confined space	
A8	19 Nov 2007	12:55	Sunny	79.2	0.0	0.0	20.7	24	Confined space	

Field Technician: [Signature]
(Site Agent)

Checked by: [Signature]
(RSO)

Landfill Gas Monitoring – Field Measurement Recording Sheet

Name of Site: DE/2005/04- Ting Kok Road Pumping Station No. 5
 Date of measurement: 20 November 2007

Sampling equipment used:	Dates calibrated
Gas Data	27 / 07 / 2007
Model GFM410 Landfill	
Serial No. 10239	

Sample location	Date of measurement	Sampling time	Weather condition	Perimeter on-site and/or off-site monitoring holes						Remark
				Balance gas (%)	Flammable gas (methane %)	Carbon dioxide (%)	Oxygen (%)	Temp (°C)		
A1	20 Nov 2007	8:50	Sunny	79.2	0.0	0.0	20.7	21		
A2	20 Nov 2007	8:53	Sunny	79.3	0.0	0.0	20.6	21	Confined space	
A8	20 Nov 2007	8:57	Sunny	79.2	0.0	0.0	20.7	21	Confined space	
A1	20 Nov 2007	12:51	Sunny	79.2	0.0	0.0	20.7	22		
A2	20 Nov 2007	12:56	Sunny	79.2	0.0	0.0	20.7	22	Confined space	
A8	20 Nov 2007	13:00	Sunny	79.2	0.0	0.0	20.7	22	Confined space	

Field Technician: _____
 (Site Agent)


Checked by:  _____
 (RSO)

Landfill Gas Monitoring – Field Measurement Recording Sheet

Name of Site: DE/2005/04- Ting Kok Road Pumping Station No. 5
 Date of measurement: 22 November 2007

Sampling equipment used:	Dates calibrated
Gas Data	27 / 07 / 2007
Model GFM410 Landfill	
Serial No. 10239	

Sample location	Date of measurement	Sampling time	Weather condition	Perimeter on-site and/or off-site monitoring holes						Temp (°C)	Remark
				Balance gas (%)	Flammable gas (methane %)	Carbon dioxide (%)	Oxygen (%)	Temp (°C)	Remark		
A1	22 Nov 2007	8:54	Sunny	79.2	0.0	0.0	20.7	23			
A7	22 Nov 2007	8:56	Sunny	79.2	0.0	0.0	20.7	23	Confined space		
A8	22 Nov 2007	9:00	Sunny	79.2	0.0	0.0	20.7	23	Confined space		
A1	22 Nov 2007	12:51	Sunny	79.2	0.0	0.0	20.7	24			
A7	22 Nov 2007	12:55	Sunny	79.2	0.0	0.0	20.7	24	Confined space		
A8	22 Nov 2007	12:58	Sunny	79.2	0.0	0.0	20.7	24	Confined space		

Field Technician:  (Site Agent)

Checked by:  (RSO)

Landfill Gas Monitoring – Field Measurement Recording Sheet

Name of Site: DE/2005/04- Ting Kok Road Pumping Station No. 5
 Date of measurement: 23 November 2007

Sampling equipment used:	Dates calibrated
Gas Data	27 / 07 / 2007
Model: GFM410 Landfill	
Serial No. 10239	

Sample location	Date of measurement	Sampling time	Weather condition	Perimeter on-site and/or off-site monitoring holes						Remark
				Balance gas (%)	Flammable gas (methane %)	Carbon dioxide (%)	Oxygen (%)	Temp (°C)		
A1	23 Nov 2007	8:46	Sunny	79.2	0.0	0.0	20.7	23		
A3	23 Nov 2007	8:50	Sunny	79.3	0.0	0.0	20.6	23		Confined space
A4	23 Nov 2007	8:53	Sunny	79.2	0.0	0.0	20.7	23		Confined space
A7	23 Nov 2007	8:56	Sunny	79.3	0.0	0.0	20.6	23		Confined space
A8	23 Nov 2007	8:59	Sunny	79.2	0.0	0.0	20.7	23		Confined space
A1	23 Nov 2007	12:45	Sunny	79.2	0.0	0.0	20.7	24		
A3	23 Nov 2007	12:47	Sunny	79.2	0.0	0.0	20.7	24		Confined space
A4	23 Nov 2007	12:52	Sunny	79.2	0.0	0.0	20.7	24		Confined space
A7	23 Nov 2007	12:56	Sunny	79.2	0.0	0.0	20.7	24		Confined space
A8	23 Nov 2007	13:00	Sunny	79.2	0.0	0.0	20.7	24		Confined space

Field Technician:  (Site Agent)

Checked by:  (RSO)

Landfill Gas Monitoring – Field Measurement Recording Sheet

Name of Site: DE/2005/04- Ting Kok Road Pumping Station No. 5
 Date of measurement: 24 November 2007

Sampling equipment used:	Dates calibrated
Gas Data	27 / 07 / 2007
Model GFM410 Landfill	
Serial No. 10239	

Sample location	Date of measurement	Sampling time	Weather condition	Perimeter on-site and/or off-site monitoring holes					Temp (°C)	Remark
				Balance gas (%)	Flammable gas (methane %)	Carbon dioxide (%)	Oxygen (%)			
A1	24 Nov 2007	9:01	Sunny	79.2	0.0	0.0	20.7		24	
A1	24 Nov 2007	12:58	Sunny	79.2	0.0	0.0	20.7		25	


Field Technician: (Site Agent)
Checked by: (RSO)


Landfill Gas Monitoring – Field Measurement Recording Sheet

Name of Site: DE/2005/04- Ting Kok Road Pumping Station No. 5
 Date of measurement: 26 November 2007

Sampling equipment used:	Dates calibrated
Gas Data	27 / 07 / 2007
Model GFM410 Landfill	
Serial No. 10239	

Sample location	Date of measurement	Sampling time	Weather condition	Perimeter on-site and/or off-site monitoring holes					Temp (°C)	Remark
				Balance gas (%)	Flammable gas (methane %)	Carbon dioxide (%)	Oxygen (%)			
A1	26 Nov 2007	8:50	Sunny	79.2	0.0	0.0	20.7		23	
A2	26 Nov 2007	8:55	Sunny	79.3	0.0	0.0	20.6		23	Confined space
A8	26 Nov 2007	8:58	Sunny		0.0	0.0	20.7		23	Confined space
A1	26 Nov 2007	12:45	Sunny	79.2	0.0	0.0	20.7		24	
A2	26 Nov 2007	12:58	Sunny	79.3	0.0	0.0	20.6		24	Confined space
A8	26 Nov 2007	13:01	Sunny	79.2	0.0	0.0	20.7		24	Confined space

Field Technician:  _____ (Site Agent)

Checked by:  _____ (RSO)

Landfill Gas Monitoring – Field Measurement Recording Sheet

Name of Site: DE/2005/04- Ting Kok Road Pumping Station No. 5
 Date of measurement: 28 November 2007

Sampling equipment used:	Dates calibrated
Gas Data	27 / 07 / 2007
Model GFM410 Landfill	
Serial No. 10239	

Sample location	Date of measurement	Sampling time	Weather condition	Perimeter on-site and/or off-site monitoring holes					Remark
				Balance gas (%)	Flammable gas (methane %)	Carbon dioxide (%)	Oxygen (%)	Temp (°C)	
A1	28 Nov 2007	8:56	Sunny	79.2	0.0	0.0	20.7	18	
A1	28 Nov 2007	12:55	Sunny	79.2	0.0	0.0	20.7	20	

Field Technician: _____ (Site Agent)
Checked by: _____ (RSO)

Landfill Gas Monitoring – Field Measurement Recording Sheet

Name of Site: DE/2005/04- Ting Kok Road Pumping Station No. 5
 Date of measurement: 29 November 2007

Sampling equipment used:	Dates calibrated
Gas Data	27 / 07 / 2007
Model GFM410 Landfill	
Serial No. 10239	

Sample location	Date of measurement	Sampling time	Weather condition	Perimeter on-site and/or off-site monitoring holes					
				Balance gas (%)	Flammable gas (methane %)	Carbon dioxide (%)	Oxygen (%)	Temp (°C)	Remark
AI	29 Nov 2007	8:59	Sunny	79.2	0.0	0.0	20.7	18	
AI	29 Nov 2007	12:57	Sunny	79.2	0.0	0.0	20.7	20	

Field Technician:  (Site Agent) Checked by:  (RSO)

Appendix 7

Deficiency Investigation Reports

(Not Applicable)

Appendix 8

Complaint Reports

(Not Applicable)