VEOLIA
ENVIRONMENTAL SERVICES
NSW Health Safety Environment and Quality Division

ANNUAL ENVIRONMENTAL MANAGEMENT REPORT

2013-2014

CLYDE TRANSFER TERMINAL

MARCH 2014

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QUALITY INFORMATION

Prepared by:

……
Alex Tomic
Health Safety Environment & Quality Officer

Reviewed and authorised by:

……
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Date: March 2014

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EXECUTIVE SUMMARY

The Annual Environmental Management Report (AEMR) 2013-2014 is the Tenth report prepared to detail the environmental performance of the Clyde Transfer Terminal (the Terminal), operated by Veolia Environmental Services (VES), for the period of 15 January 2013 to 14 January 2014. In accordance with Conditions 58 and 59 of the Conditions of Development Consent (the Consent Conditions), the report provides an assessment and summary of results for the environmental monitoring undertaken at the Terminal to satisfy operational, as well as any construction-related requirements.

In addition, an Environmental Monitoring Program (EMP) and supporting environmental management plans, to manage the environmental performance of the Terminal whilst in operation, are appended to the Operational Environmental Management Plan (OEMP). The OEMP is a working document, which forms the operational guidance document for the Terminal and lists further details of environmental protection measures. It is reviewed on a periodic basis and revised as necessary.

A review of operational related monitoring results demonstrates the level of environmental performance of the Terminal for this reporting period. There were two non conformances in this period, the first relating to a fault with the meteorological data logger resulting in a loss of data. The second non conformance related to the Community Consultative Committee which has not formally held meetings since it dissolved itself in September 2009. Veolia maintains contact with the Chairperson of the Committee, Mr Michael Whelan as required but this was not conducted in the reporting period as there have been no significant changes to operations onsite or any environmental impacts on the local environment.

1. INTRODUCTION

1.1. Background

The Clyde Waste Transfer Terminal (the Terminal) was granted approval to operate under the Clyde Waste Transfer Terminal (Special Provisions) Act 2003 (assented 8 December 2003). 124 of the original 137 Conditions of the Development Consent (the Consent Conditions) dictate the operational requirements of the Terminal.

In addition to the Consent Conditions, an Environmental Protection Licence 11763 (EPL) issued by the Environmental Protection Authority, under the Protection of the Environmental Operations (POEO) Act 1997, also specifies regulatory requirements to be satisfied. The EPL has been in force since 15 January 2004.

In accordance with Conditions 58 and 59 of the Consent Conditions, Veolia Environmental Services (VES) has prepared, and submits the Annual Environmental Management Report (AEMR) for the reporting period of 15 January 2012 to 14 January 2013 to the Department of Planning & Infrastructure (DOPI) and the Office of Environment & Heritage (OEH) which incorporates the Environmental Protection Authority.

Environmental monitoring undertaken at the Terminal in the 2013-2014 reporting period, to satisfy operational requirements of the Consent Conditions, and the results obtained are detailed in this AEMR. Any significant trends or non conformances with the relevant Consent Conditions have been identified and the corrective actions, where applicable, throughout the reporting period are discussed in the subsequent sections.

1.2. Conditions of Development Consent

Conditions 58 and 59 detail the requirements for the Annual Environmental Management Report:

58. The Applicant shall include a report on the Environmental Monitoring Program in the Annual Environmental Management Report. The report must:

(a) summarise the results from the Environmental Monitoring Program over the previous year

(b) *analyse the results in relation to both past performance, and the relevant standards and performance measures of the development*

(c) *identify any emerging trends in the data over the life of the development*

(d) *Include a copy of the detailed monitoring results as an attachment.*

59. Between twelve and fourteen months after the issue date of an environment protection licence for the development, and annually thereafter for the duration of the development, the Applicant shall submit an Annual Environmental Management Report to the Director-General, the EPA and the Community Consultative Committee. The report shall be made available to the public on request to the Applicant. The report may be combined with the Annual Return required by the environment protection licence to be submitted to the EPA. The report must:

(a) *identify all the standards, performance measures, and statutory requirements the development is required to comply with*

(b) *review the environmental performance of the development to determine whether it is complying with the standards, performance measures, and statutory requirements*

(c) *identify each occasion during the previous year when the standards, performance measures, or statutory requirements have not been complied with*

(d) *where any non-compliance is identified, describe the actions or measures taken to ensure compliance, who is responsible for carrying out the actions, and when the actions were (or will be) implemented*

(e) *include a summary of any complaints made about the development, and indicate the actions taken to address the complaints*

(f) *Include a report on the Environmental Monitoring Program as specified in this Consent.*

1.3. Responsibilities

Environmental Management Representative for this reporting period was Toni Soster, NSW Environment Manager - HSEQ, and environmental monitoring was undertaken or supervised by VES Technical and Engineering Staff, Stephen Bernhart (Project Manager – Resource Recovery) and Elena Ivan (Project Manager – Resource Recovery). The daily operation of the Clyde Transfer Terminal is supervised by Site Manager Craig Doorey

Analysis of all samples was performed at Australian Laboratory Services Pty Ltd (NATA accredited laboratories). The Odour Unit Pty Ltd (TOU) was appointed to conduct odour audits.

In accordance with the Consent Conditions, all persons were suitably qualified.

1.4. Chronology of Environmental Monitoring Events

The following table presents a summary of the environmental monitoring and significant construction activities conducted at the Terminal for the 2013-2014 reporting period.

Date(s)	Environmental Monitoring Events
Not Applicable in this reporting period.	Depositional Dust Monitoring at Terminal
21 March 2013 and 27 November 2013	Biannual Odour Audit Monitoring
30 October 2013	Annual Truck Noise Monitoring
13 February 2013 21 May 2013 26 August 2013 18 November 2013	Weather Station Calibration

Table 1. Summary of environmental monitoring conducted at the Terminal

In addition to the above, traffic management, waste volumes recording and pest and vermin controls also form part of the operational monitoring undertaken at the Terminal.

2. ENVIRONMENTAL MONITORING AND MANAGEMENT

Environmental monitoring at the Terminal during the 2013-2014 reporting period was conducted to the schedule contained in the Environmental Management Plan (EMP), which is appended to the Operational Environmental Management Plan (OEMP). This program incorporates all the monitoring requirements of the Consent Conditions and the EPL.

In accordance with Conditions 58 and 59, the following sections report on the monitoring undertaken for each environmental aspect covered by the EMP, and results are analysed against the relevant performance criteria and standards. The location of all environmental monitoring points is provided in the Site Location Plan (refer to Appendix B).

During the reporting period, one non conformances relating to the collection of meteorological data occurred. This was due to a technical fault in the equipment. This will be discussed in further detail in Section 3 – Non Conformance and Complaint Handling.

2.1. Water Quality Monitoring

Water quality monitoring is conducted with the sampling of stormwater in 1 in 2 year storm events to ensure the Terminal's stormwater system collects and discharges the stormwater generated on the site in a controlled manner into the receiving water body, Duck River.

Further details regarding the stormwater quality monitoring and management are provided in the following sub-section.

2.1.1. Stormwater Monitoring

A surface water monitoring point is located at the outlet of the on-site stormwater retention pond. In accordance with the Stormwater Management Plan (SMP) appended to the OEMP, monitoring at this location should be conducted following a 1-in-2 year rainfall event of 34.5 mm/hour.

No monitoring was conducted at this location during this reporting period in the absence of any such rain event. In the event of any equivalent future rain events, stormwater monitoring will be conducted as required and reported in the AEMR.

2.2. Air Quality Monitoring

A limited amount of air quality parameters were monitored during this reporting period to determine if the Terminal's operational activities have any impacts on the ambient air quality. In accordance with the approval granted by the DOP to modify certain air quality monitoring requirements at the Terminal on 1 March 2010, the monitoring scheduled has been revised accordingly.

The following section provides further details regarding air quality monitoring and management practices during this reporting period, and information on the relevant Consent Conditions that have been modified and/or deleted.

2.2.1. Meteorology

In accordance with Consent Condition 91, an automated weather station (Campbell Scientific Model CR10X), which is installed on site, was used to log meteorological data continuously in 15-minute intervals during this reporting period. A daily 24 hour log is also summarised by the weather station. Data is downloaded frequently using PC-400 software. The weather station is calibrated on a quarterly basis. Copies of the calibration records are included in Appendix C1

The following table lists the parameters measured by the weather station and the respective performance measures, standards and statutory requirements.

Parameter	Performance Measure	Standards*	Statutory Requirement
Wind speed	Data correlated with other environmental monitoring results for rainfall events and complaint resolution	**AM-2 & AM-4**	**Condition 91 of the Consent**
Wind direction		**AM-2 & AM-4**	
Sigma Theta		**AM-2 & AM-4**	
Temperature		**AM-4**	
Rainfall		**AM-4**	
Solar Radiation		**AM-4**	
Evaporation		**Standard Type A Pan**	

Table 2. Weather station monitoring requirements

**All methods are specified in the Approved Methods for the Sampling and Analysis of Air Pollutants in NSW*

A summary of the monthly rainfall and evaporation, minimum and maximum monthly temperatures recorded this reporting period are presented in graphs below and in a table in Appendix C1. The monthly 15-minute and 24-hour meteorological data outputs for this reporting period are included in Appendix C2.

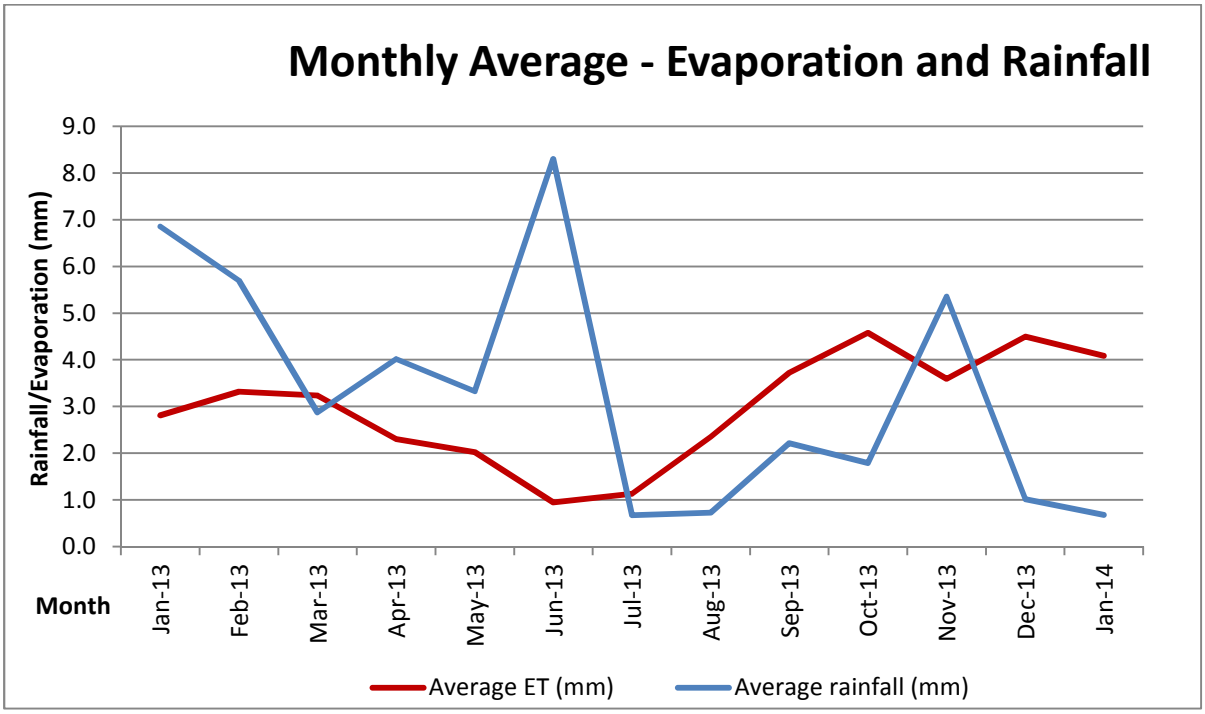

Figure 1. Monthly averages for rainfall and evaporation at the Terminal

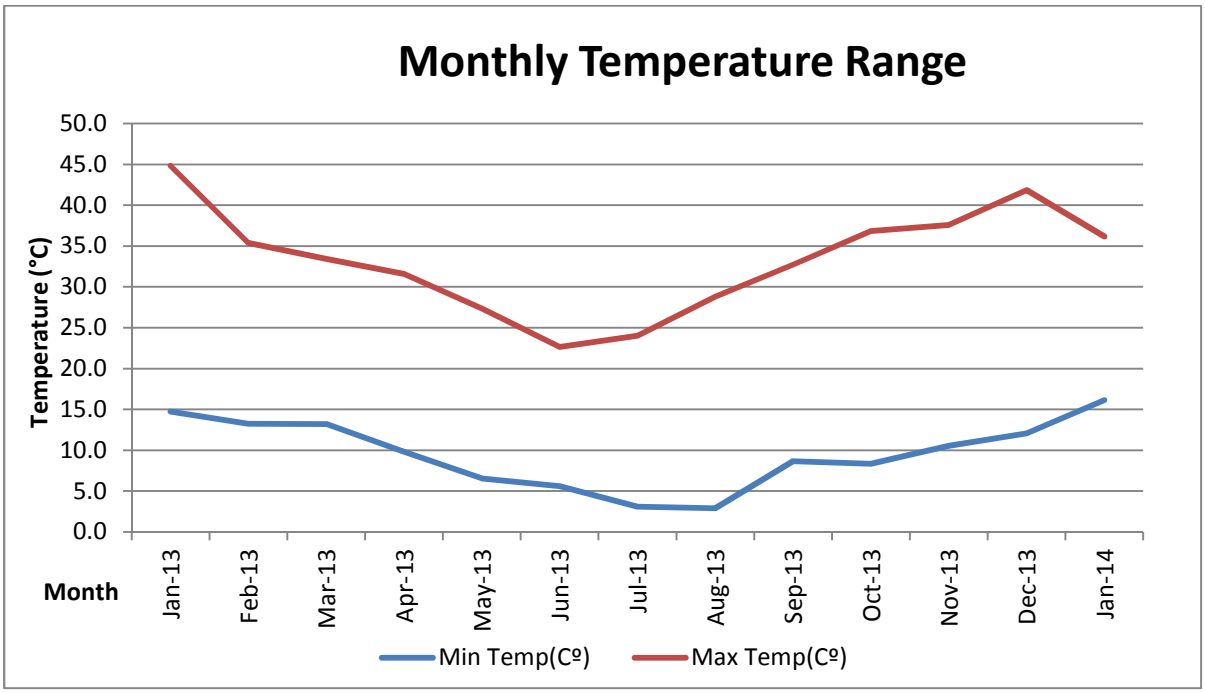

Figure 2. Monthly Temperature maximums and minimums at the Terminal

2.2.2. Dust

Depositional dust (DD) monitoring is no longer required on a monthly basis in accordance with the modification of Condition 49 (approved by the DOP, 1 March 2010), which states that DD monitoring is only required following the receipt of a dust complaint. In such case, DD monitoring will be resumed at the western boundary of the site, at the monitoring location previously established, to assess whether any nuisance dust emissions are as a result of the Terminal's waste operations.

2.2.3. Odour

Odour audits are to be conducted on a quarterly frequency in accordance with Condition 48 (f) for a year following commissioning of the odour control system and six-monthly thereafter The sixth monthly audits commenced in November 2009. All odour audits can be found in Appendix C3. Table 3 provides a summary of odour audit report results.

The Odour Audit was conducted using the ranking scale for the German Standard VDI 3940 'Determination of Odorants in Ambient Air by Field Inspections'. The standard's ranking system is based on the following seven-point intensity scale.

VDI 3940 – Intensity Scale

0	Not Detectable
1	Very Weak
2	Weak
3	Distinct
4	Strong
5	Very Strong
6	Extremely Strong

Assessment Location	21/03/2013 Scale (0-6)	Assessment Location	27/11/2013 Scale (0-6)
1	0	**1**	0
2	2	**2**	0
3	0	**3**	0
4	0	**4**	0
5	0	**5**	0
6	0	**6**	0
7	0	**7**	0
8	0	**8**	0
9	0	**9**	0
10	0		

Table 3. Summary of odour monitoring results 2013-2014

**please note the odour assessment locations on individual maps located in appendix vary due to wind direction.*

During the audit on the March 2013 a weak odour was detected adjacent to the compactor area on site but no odour was detected beyond the boundary. The Odour Unit advised that the odour management system was operating efficiently during both audits. The facility continues to meet the requirements of the Technical framework Assessment and management of odour from stationary sources in NSW (DEC, November 2006). Copies of the two odour reports have been provided in Appendix C2.

Whilst the facility continues to meet the general requirements identified in the Consent Conditions and EPL, VES recognises that fugitive emissions can have an impact in certain circumstances. VES maintains a thorough housekeeping regime, which when combined with the odour management controls in place onsite, help to minimise the likelihood of odour impacts on surrounding neighbours.

2.2.4. Noise

Noise monitoring is undertaken at the Terminal to assess any impact the Terminal's operational activities may have on the background noise levels of the surrounding area, and to ensure that waste vehicles entering the Terminal are not emitting nuisance noise emissions. The following table lists the parameters, respective performance measures, standards and statutory requirements for noise monitoring.

Parameter	Performance Measure (dB(A))	Standards	Statutory Requirement
Day – $L_{Aeq(15minute)}$	44, 40, 41	**Environmental**	**Consent Condition 108,**
		Noise Management -	**EPL Condition L6.1**
Evening – $L_{Aeq(15minute)}$	38, 38, 39	**NSW Industrial Noise Policy**	
Night – $L_{Aeq(15minute)}$	39, 38, 39		
Night – $L_{A1(1minute)}$	56, 54, 52		
Vehicle emissions	89	**ADR 28/01**	**Condition 112 of the Consent**

Table 4. Noise monitoring requirements

Truck Noise Monitoring

In the 2013-2014 reporting period, one round of truck noise monitoring was undertaken in accordance with Condition 112, which reverted to an annual monitoring frequency from quarterly truck noise assessments.

During the 2013-2014 reporting period, noise levels of 88 truck movements were measured by the VES Environmental Graduate and a summary of the results are listed in the table below.

All trucks monitored were between 64 to 83 dB(A), which fell within or below the thresholds outlined for Heavy Goods Vehicles with a GVM >12 t on-road use of 81 to 87 dB (A) in accordance with the Australian Design Rules (ADR) 28/01.

The detailed truck noise monitoring report can be found in Appendix C4 for the 2013-2014 reporting period. There were no registered noise complaints from either industrial or residential neighbours throughout the reporting period.

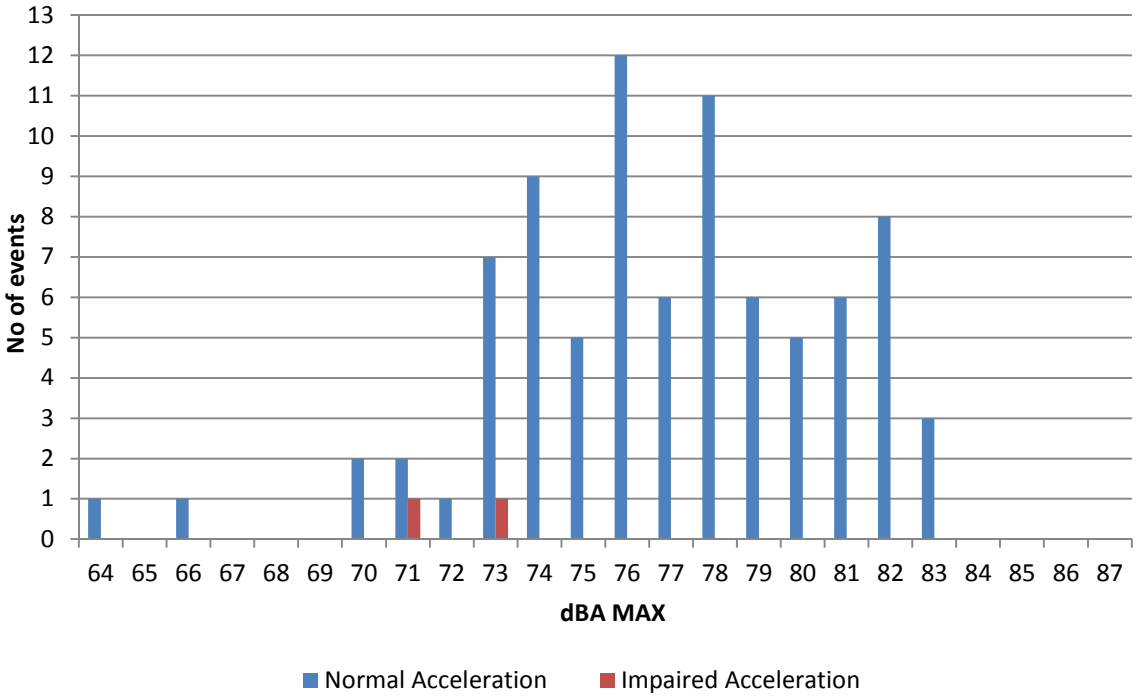

Table 5: Noise level distribution from Truck Noise Monitoring

2.2.5. Traffic

Vehicle movements at the Terminal for this reporting period totalled 86,813. The busiest month being August 2013 with 7,752 vehicle movements. The Traffic Management Plan (TMP) forms part of the OEMP and is implemented in accordance with Consent Conditions 50, 118-124. The traffic movements from the 2013-2014 reporting period are summarised in Table 6.

A monitoring and recording program for transport routes in accordance with Condition 50(b) and (d) is contained in the OEMP. The measures employed to monitor and record the movement of vehicles that access the site include:

- Spot monitoring of vehicles by Site Manager, EMR or Weighbridge Operator, as well as monitoring video surveillance of truck movements on site;
- Recording of any breaches identified through spot monitoring on VES' National Integrated Management System (NIMS) and a site-based traffic offence register;
- Reviewing any complaints related to transport routes; and
- Follow-up action including issuing verbal warnings, as required, to drivers committing traffic offences on site.

Month	Truck Movements
15 to 31 January 2013	4,033
February 2013	6,604
March 2013	7,188
April 2013	7,142
May 2013	7,482
June 2013	6,769
July 2013	7,574
August 2013	7,752
September 2013	7,209
October 2013	7,482
November 2013	7,149
December 2013	7,413
1 to 14 January 2014	3,016
Total	**86,813**

Table 6 – Traffic Movements per month for 2013 to 2014 reporting period.

During the 2013 - 2014 reporting period no traffic offences were recorded at the terminal. In the previous reporting period, a Clyde Site Safety Requirements pamphlet was developed for our customers and other visitors. Additionally, VES NSW developed an updated induction video. Both of these reinforce traffic requirements to drivers using the Clyde Transfer Terminal. Site management and the Resource Recovery Sales Team communicate regularly with customers using the facility to ensure that they are aware of the site safety requirements including traffic controls.

2.2.6. Waste

The Waste Management Plan appended to the OEMP and prepared for the Terminal, in accordance with Conditions 47, 62 – 69, details the procedures for the acceptance and management of waste at the Terminal.

All waste received at the Terminal is recorded and maintained in the Systems, Applications and Products in Data Processing (SAP) software. The program records the vehicles registration, date and time of entry and exit and the gross and tare weight of the vehicle, as well as the nature and origin of waste received by each contractor. Furthermore, the Clyde/Woodlawn Data Administration database is utilised to maintain and record container data for each site including, container status, container weight comparisons and carbon filter

replacement. This information is maintained daily by Site Supervisors and Weighbridge Operators.

Consent Condition 9 requires that waste volumes accepted by the Terminal do not exceed 400,000 tonnes per annum for the first 5 years of operations, with changes to the allowable volume thereafter.

A temporary tonnage increase of up to 500,000 Tonnes per annum until 31st December 2015 was granted by the Minister for Planning and Infrastructure This letter can be found in Appendix A

During this reporting period, the volume of waste accepted at the Terminal was 499450.09 tonnes, as summarised in Table 6 below.

Month	Tonnage
15-31 January 2013	23705.87
1-28 February 2013	39567.38
1-31 March 2013	41649.47
1-30 April 2013	40716.74
1-31 May 2013	41612.64
1-30 June 2013	38019.58
1-31 July 2013	42666.6
1-31 August 2013	42719.31
1-30 September 2013	41405.42
1-31 October 2013	43120.34
1-30 November 2013	42459.18
1-31 December 2013	44347.64
1-14 January 2014	17459.92
TOTAL 2013-2014 Reporting Period	**499450.09**

Table 7. Summary Tonnage per Month during 2012-2013 Reporting Period.

2.2.7. Pest and Vermin

Pests and vermin activity is monitored at the Terminal to ensure that the control measures implemented, to minimise the potential for birds, rodents, flies and other pests, remain effective. The primary means of controlling pest and vermin activity is through good housekeeping measures and daily inspections and checking.

The following table lists the parameters analysed during this reporting period, and the respective performance measures, standards and statutory requirements.

Parameter	Performance Measure	Standard	Statutory Requirement
Litter control **Vermin habitat**	Visual inspection	**VES National Integrated Management System**	**Vermin and Pest Control Plan** **Consent Condition 51, 115-117**

Table 8. Pest and vermin monitoring requirements

The daily visual inspections of the Terminal did not identify any potential vectors harbouring during this reporting period, in addition quarterly monitoring was conducted by a pest controller (Expert Judgement Pest Management Pty Ltd) throughout the reporting period. A plan showing the location of bait stations and service reports are provided in Appendix E.

3. NON CONFORMANCE & COMPLAINTS HANDLING

A review of the environmental performance of the Terminal determined that for the 2012 reporting period there were 2 non-compliances, which are described below with the corrective and preventative actions applied.

3.1. Sampling and analysis of Meteorological Parameters

A non-conformance for condition 88 relating to the sampling and analysis of meteorological parameters occurred during this reporting period. Meteorological data was lost over the period 7th June 2013 to 19 August 2013. The issue was identified on 15 August 2013 and resolved on 19 August 2013, with the issue being a faulty battery.

The reason for the length of time between the error occurring and the fault being identified was due to two factors. A Modem failure meant that the data would need to be manually downloaded by technical staff from the logger, rather than being collected remotely. This coincided with the normal person responsible for collecting the data working off site during this period. To prevent this occurring again, the following corrective actions have been undertaken:

1. Established remote download of data logger where all data is now stored on our weather station contractors website.
2. Remote download occurs weekly (every Friday), and is monitored by the weather station contractor and the VES NSW Technical and Engineering Division. This enables VES to review the data effectively from offsite locations and promptly resolve any issues.
3. Obtaining all available weather data as detailed in condition 88 from Bureau of Meteorology.

Veolia notes that no odour issues occurred during this period. If an Odour issue had occurred where an investigation required meteorological data, Veolia obtained local Bureau of Meteorology data to supplement the missing data from the Clyde Transfer Terminal.

3.2. Community Consultation

A community consultation committee was established at the commencement of the operation, and included representation from local residents, Auburn Council, Veolia and an independent chairperson.

Over time attendance at these meetings dropped with no regular community representation. In September 2009, the committee unanimously resolved to disband on the basis that the site was now fully operational with few issues arising. Indeed, operational impacts on the surrounding community appear to be minimal with no complaints received from external parties during the previous 2 reporting periods.

Since September 2009, VES has maintained a relationship with the Chair of the Community Consultation Committee, Mr Michael Whelan, including holding meetings to provide updates. However during the 2013-2014 reporting period with no significant changes to the operations and no on-going environmental issues or complaints, no meetings were held. Whilst this is a non-conformance, VES considers this to be a technical breach only. VES also notes that other mechanisms are in place to notify stakeholders of environmental impacts from the operations at the Clyde Transfer Terminal including this Annual Environmental Management Report and the Pollution Incident Response Management Plan process required under the Protection of the Environment (General) Regulation 2009.

VES NSW is currently seeking a modification to the consent to allow an annual input rate of 500,000 tonnes per annum to be received at Clyde on a permanent basis. Once this application process has been completed, VES NSW intends to review the current conditions relating the Community Consultation Committee to better reflect the current circumstances.

3.3. Complaints Register

There were no complaints received by VES in this reporting period. If complaints are received, each complaint will be investigated and details will be recorded and actioned through *The Vault* which is VES' National Integrated Management System. The Site Manager will follow up all complaints in accordance with the Pollution Complaints procedure, also located on Hippo Station.

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4. APPENDICES

The following appendices have been included in the Compact Disk Please refer to the Compact Disc for the appendices to the Annual Environmental Management Report:

- Appendix A Tonnage Increase Notification
- Appendix B Environmental Monitoring Locations Plan
- Appendix C Monitoring Data
    - Appendix C1 Meteorological Data
    - Appendix C2 Odour Monitoring Data
    - Appendix C3 Noise Monitoring Data
- Appendix D Pest and Vermin Management
- Appendix E Clyde Transfer Terminal Safety Requirements

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The Hon Brad Hazzard MP
Minister for Planning and Infrastructure
Minister Assisting the Premier on Infrastructure NSW

COPY

12/16133

Mr Doug Dean AM
Managing Director
Veolia Environmental Services
PO Box 71
GRANVILLE NSW 2142

Dear Mr Dean

I refer to your correspondence seeking approval for Veolia to permanently increase the amount of waste that can be accepted at the Clyde Waste Transfer Station from 360,000 tonnes of waste per annum to 500,000 tonnes of waste per annum.

I note the Planning Assessment Commission (PAC) has previously approved Veolia's request to increase waste acceptance at the Woodlawn Bioreactor (landfill). I further note the 360,000 tonne throughput limit imposed upon the Clyde facility was directly related to the restrictions that previously existed at the Woodlawn facility, but which have now been lifted as part of the PAC's approval.

Given the above, and the fact the Clyde facility has an approved environmental capacity of 500,000 tonnes, I hereby grant approval for Veolia to accept up to 500,000 tonnes of waste per year at Clyde for a period of 2 years, to 31 December 2015.

Notwithstanding the above, should Veolia wish to operate permanently at up to 500,000 tonnes per annum at the Clyde Terminal, Veolia will need to seek a formal modification to the approval.

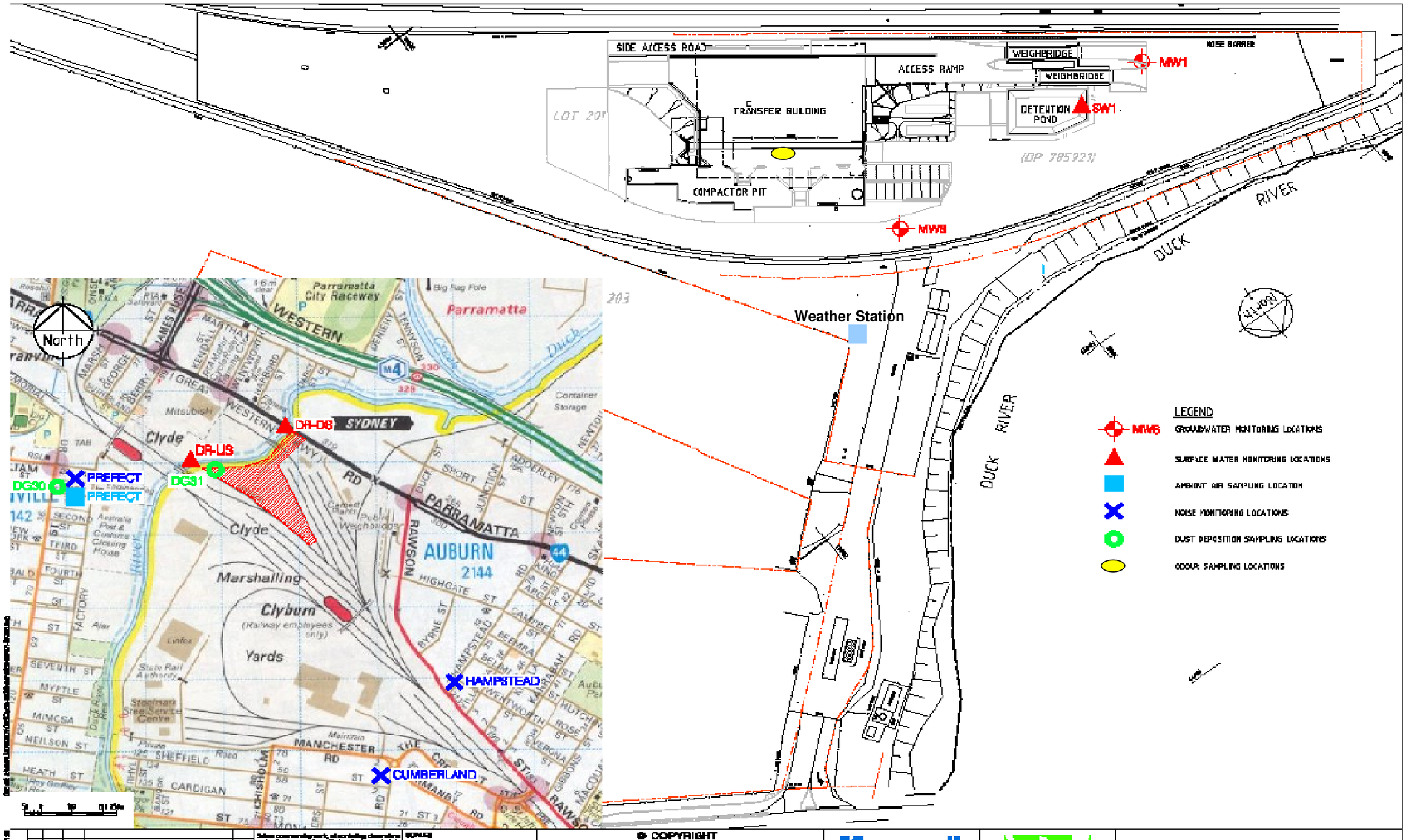
Should you have any further enquiries about this matter, I have arranged for Mr Chris Wilson, Executive Director, Development Assessment Systems and Approvals, to assist. Mr Wilson can be contacted on 02 9228 6192.

Yours sincerely

HON BRAD HAZZARD MP
Minister

03 DEC 2013

Level 31 Governor Macquarie Tower 1 Farrer Place Sydney NSW 2000
Phone (61 2) 9228 5258 Fax (61 2) 9228 5721 Email office@hazzard.minister.nsw.gov.au



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	1	GS	26.JUN		

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Maunsell
Maunsell Australia Pty Ltd
ACN 000 000 000
Consulting Engineers, Planners, Environmental Scientists & Project Managers

WOODLAWN BIOREACTOR ALLIANCE

CLYDE TRANSFER TERMINAL
CLYDE SITE
MONITORING LOCATIONS

SKETCH	10407001-SK895	1

Hydrometric Consulting Services Pty Ltd

ABN 16 091 437 071

18 November 2013

Stephen Bernhart
Environmental Monitoring Officer
Veolia Environmental Services

Re – Quarterly service of weather stations

Dear Stephen,
As per our service agreement, on the 18/11/13 HCS undertook the service, calibration and maintenance of the weather stations located at the Clyde and Horsley Park sites. Field readings were obtained by a combination of a Kestral 3500, compass, Monitor Solar Radiation field unit and HS TBRG calibration device. Details are as follows

Horsley Park

Sensor	**Actual (field)**	**Logger**
Temperature – 10m*	17.1	16.2
2m*	17.1	16.1
Relative Humidity*	68.4	68.3
Wind Speed	4.9 at ground	5.9 at 10 metres
Wind Direction	200	189 (mast bent)
Solar Radiation	110	100
TBRG	2 tips	2 tips
Battery	13.3	

* Note 1: field reading is not inside the radiation shield

Note 2: ignore rainfall tips logged at approximately 0900 as these were testing.

Note 3: the site was polled prior to the visit and was operating satisfactorily.

Note 4: the 10 metre mast is bent as a result of being hit by machinery. This will have an effect on the accuracy of the solar radiation, wind speed and wind direction sensors.

Additional Items

1. Solar panel and components cleaned.
2. Installation sprayed for insects.

Clyde

Sensor	Actual (field)	Logger
Temperature – 10m*	18.9	18.3
2m*	18.9	18.2
Relative Humidity*	68.9	67.8
Wind Speed	2.6 at ground	3.6 at 10 metres
Wind Direction	112	112
Solar Radiation	190	180
TBRG	2 tips	2 tips
Battery	13.1	

* Note 1: field reading is not inside the radiation shield

Note 2: ignore rainfall tips logged at approximately 1010 as these were testing.

Additional Items

1. Installation sprayed for insects.
2. Vegetation trimmed.

Both sites are now polled weekly by HCS and data is downloaded and available on the HCS website.

Should you require any further information on this report please do not hesitate to contact me on 0402 134 092.

Glen Murphy

Hydrometric Consulting Services Pty Ltd

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Hydrometric Consulting Services Pty Ltd

ABN 16 091 437 071

22 May 2013

Stephen Bernhart
Environmental Monitoring Officer
Veolia Environmental Services

Re – Quarterly service of weather stations

Dear Stephen,
As per our service agreement, on the 21/05/13 HCS undertook the service, calibration and maintenance of the weather stations located at the Clyde and Horsley Park sites. Field readings were obtained by a combination of a Kestral 3500, compass, Monitor Solar Radiation field unit and HS TBRG calibration device. Details are as follows

Horsley Park

Sensor	**Actual (field)**	**Logger**
Temperature – 10m	15.0 deg *	14.1 deg
2m	15.0 deg *	13.4 deg
Relative Humidity	58.6%	58.1%
Wind Speed	0.4 m/sec at ground	0.8 m/sec at 10m
Wind Direction	270	270
Solar Radiation	270	190
TBRG	20mm	40 tips (0.5mm per tip)
Battery	13.6v Solar 20.0v	

* Note 1: field reading is not inside the radiation shield

Note 2: ignore rainfall tips logged between 0750 to 0820 as these were testing and calibration.

Note 3: the site was polled prior to the visit and was operating satisfactorily.

Note 4: the 10 metre mast was found to be bent as a result of being hit by machinery. This will have an effect on the accuracy of the solar radiation, wind speed and wind direction sensors.

Additional Items

1. Solar panel and components cleaned.
2. Installation sprayed for insects.

Clyde

Sensor	Actual (field)	Logger
Temperature – 10m	19.7 deg *	19.5 deg
2m	19.7 deg *	19.8 deg
Relative Humidity	38%	37.4%
Wind Speed	2.4 m/sec at ground	3.7 m/sec at 10m
Wind Direction	280	281
Solar Radiation	570 w/sq.m	450 w/sq.m
TBRG	20mm	41 tips (0.5mm per tip)
Battery	13.4v Solar 20.1v	

* Note 1: field reading is not inside the radiation shield

Note 2: ignore rainfall tips logged between 1015 to 1035 as these were testing and calibration.

Note 3: small amount of condensation in cabinet was dried out and the desiccant pack was replaced.

Note 4: the site was polled prior to the visit and was operating satisfactorily.

Additional Items

1. Installation sprayed for insects.

Should you require any further information on this report please do not hesitate to contact me on 0402 134 092.

Glen Murphy

Hydrometric Consulting Services Pty Ltd

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Guildford NSW 2161
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Hydrometric Consulting Services Pty Ltd

ABN 16 091 437 071

15 February 2013

Stephen Bernhart
Environmental Monitoring Officer
Veolia Environmental Services

Re – Quarterly service of weather stations

Dear Stephen,
As per our service agreement, on the 13/02/13 HCS undertook the service, calibration and maintenance of the weather stations located at the Clyde and Horsley Park sites. Field readings were obtained by a combination of a Kestral 3500, compass, Monitor Solar Radiation field unit and HS TBRG calibration device. Details are as follows

Horsley Park

Sensor	**Actual (field)**	**Logger**
Temperature – 10m	19 deg *	19.5 deg
2m	19 deg *	19.6 deg
Relative Humidity	70.5%	67%
Wind Speed	2.4m/s at ground	3.1m/s at 10 metres
Wind Direction	180 deg	178 deg
Solar Radiation	165w/sq.m	130w/sq.m
TBRG	20mm	42 tips (0.5mm per tip)
Battery	13.5v Solar 17.8v	

* Note 1: field reading is not inside the radiation shield

Note 2: ignore rainfall tips logged between 0830 to 0900 as these were testing and calibration.

Note 3: the site was polled prior to the visit and was operating satisfactorily.

Note 4: the 10 metre mast was found to be bent as a result of being hit by machinery. This will have an effect on the accuracy of the solar radiation, wind speed and wind direction sensors.

Additional Items

1. Solar panel and components cleaned.
2. Installation sprayed for insects.

Clyde

Sensor	Actual (field)	Logger
Temperature – 10m	22.8 deg *	21.6 deg
2m	22.8 deg *	22.1 deg
Relative Humidity	70%	64.6%
Wind Speed	1.7 m/sec at ground	2.4 m/sec at 10m
Wind Direction	90	93
Solar Radiation	320 w/sq.m	310 w/sq.m
TBRG	20mm	42 tips (0.5mm per tip)
Battery	13.4v Solar 19.5v	

* Note 1: field reading is not inside the radiation shield

Note 2: ignore rainfall tips logged between 0950 to 1015 as these were testing and calibration.

Note 3: small amount of condensation in cabinet was dried out and the desiccant pack was replaced.

Note 4: the site was polled prior to the visit and was operating satisfactorily.

Additional Items

1. Installation sprayed for insects.
2. Weeds and bush trimmed

Should you require any further information on this report please do not hesitate to contact me on 0402 134 092.

Glen Murphy

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Hydrometric Consulting Services Pty Ltd

ABN 16 091 437 071

27 August 2013

Stephen Bernhart
Environmental Monitoring Officer
Veolia Environmental Services

Re – Quarterly service of weather stations

Dear Stephen,
As per our service agreement, on the 26/08/13 HCS undertook the service, calibration and maintenance of the weather stations located at the Clyde and Horsley Park sites. Field readings were obtained by a combination of a Kestral 3500, compass, Monitor Solar Radiation field unit and HS TBRG calibration device. Details are as follows

Horsley Park

Sensor	**Actual (field)**	**Logger**
Temperature – 10m	12.5 deg *	12.85 deg
2m	12.5 deg *	12.5 deg
Relative Humidity	59.9%	60.0%
Wind Speed	0.5 m/sec at ground	0.5 m/sec at 10m
Wind Direction	275	275
Solar Radiation	370	340
TBRG	10mm	20 tips (0.5mm per tip)
Battery	13.2v Solar 20.1v	

* Note 1: field reading is not inside the radiation shield

Note 2: ignore rainfall tips logged at approximately 0850 as these were testing and calibration.

Note 3: the site was polled prior to the visit and was operating satisfactorily.

Note 4: the 10 metre mast is bent as a result of being hit by machinery. This will have an effect on the accuracy of the solar radiation, wind speed and wind direction sensors.

Additional Items

1. Solar panel and components cleaned.
2. Installation sprayed for insects.

Clyde

Sensor	Actual (field)	Logger
Temperature – 10m	17.0 deg *	15.6 deg
2m	17.0 deg *	16.3 deg
Relative Humidity	49%	46.3%
Wind Speed	2.0 m/sec at ground	2.8 m/sec at 10m
Wind Direction	240	240
Solar Radiation	400 w/sq.m	390 w/sq.m
TBRG	10mm	20 tips (0.5mm per tip)
Battery	13.4v Solar 20.5v	

* Note 1: field reading is not inside the radiation shield

Note 2: ignore rainfall tips logged at approximately 1000 as these were testing and calibration.

Note 3: the modem at the site was found to be faulty on 19/08/13 and was removed and sent to Campbell Scientific for assessment. The data logger was downloaded on both site visits.

Additional Items

1. Installation sprayed for insects.

Should you require any further information on this report please do not hesitate to contact me on 0402 134 092.

Glen Murphy

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Guildford NSW 2161
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Veolia Environmental Services (Australia) Pty Limited

Clyde Waste Transfer Terminal

Odour Audit XXII

Final Report

January 2014

THE ODOUR UNIT PTY LTD

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Project Number: N1473L

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Report Preparation		
Report Prepared By: M. Assal		**Approved By:** T.Schulz
Report Title: Veolia Environmental Services (Australia) Pty Limited Clyde Waste Transfer Terminal – Odour Audit XXII		

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APPENDICES

Appendix A: Odour Extraction System Service Reports (May 2013 – November 2013)

Appendix B: Weather Data Calibration Report (May 2013 – November 2013)

Appendix C: Field Ambient Odour Assessment Plot and Field Sheets (27 November 2013)

Appendix D: NSW Clyde Transfer Terminal Odour Management Procedures

1 INTRODUCTION

The Odour Unit Pty Ltd (TOU) was commissioned by Veolia Environmental Services (Australia) Pty Ltd (VES) to undertake the twenty-second (XXII) Odour Audit at the Clyde Transfer Terminal (the Site) on 27 November 2013. This Odour Audit is the twelfth to be carried out since the commissioning of the new forced air extraction system within the transfer building. Odour Audit XXII covers the 6-month period from May 2013 to November 2013, and was undertaken by a TOU Engineer.

The Odour Audit requirements of the Conditions of Consent – *48(f)* are outlined below:

> *48. The Odour Management Plan must address, but is not necessarily limited to, the following issues:*
>
> *(f) An odour audit program which provides for a comprehensive odour audit of the premises and nearby commercial and residential areas, by an independent, appropriately qualified and experienced person, to be conducted 3-monthly for the initial 24 months of receiving un-containerised waste at the terminal, 3-monthly for the 12 months following commissioning the odour control system subject to MOD-133-11-2006, and 6-monthly thereafter, unless otherwise approved in writing by the Director-General.*

As with previous Audits, Odour Audit XXII focused on issues relating to general housekeeping, fugitive odour emissions from the transfer building, ground level odour impacts, meteorological monitoring, complaints handling and actions on past Odour Audit recommendations. The approach included a general inspection and smoke testing of the transfer building, inspection of the container packing area and site access roads; inspection of the complaint register; review of the site meteorological data log and equipment maintenance/calibration; and an off-site downwind FAOA survey. At the time of this Odour Audit a calm to light wind (0.5 - 2 m/s) from the north/northeast tending to east/northeast was blowing.

2 FINDINGS

2.1 Assessment of General Housekeeping

2.1.1 Transfer Terminal Building

During the Odour Audit visit on 27 November 2013, there were approximately 100-120 tonnes of waste on the floor, according to the Site Manager. This tonnage is considered to be within the normal operational range of the Transfer Terminal Building (TTB) at the time this Odour Audit was being carried out. The TTB floor area not covered by waste material was observed to be reasonably clean, with little evidence of leachate or aged material. General housekeeping procedures of the TTB were good, as observed during several truck-unloading sequences. It was also observed that the site's front-end loaders cleared the floor area of waste on a regular basis, minimising the exposed area of waste.

As with previous audits, and consistent with TOU's experience at other waste transfer stations, there was a weak to distinct level of odour observed within the TTB.

2.1.2 Container Packing Area and Site Roadways

The container packing area and site roadways were clean and well managed with no waste or leachate exposed at the time of this Odour Audit. Similarly to previous Odour Audits, the container compacting/train packing area had a weak odour present but was confined to this area only. The general house-keeping around this area was observed to be of high quality, with no evidence to suggest otherwise. As with previous Odour Audits, the containers are cleaned off-site at Veolia's Woodlawn Bioreactor Facility. The weight of each container is monitored to determine if there is any waste that has not been removed completely from each container, which in turn reduces the likelihood of the containers contributing to the Site's odour levels.

As per the Odour Management Procedures at the Site, following the compaction of waste, all filled containers are completed sealed and remain so whilst at the Site. All containers used are required to be in good condition and unused/returned containers

adequately clean. Provided this practice is sustained at the Site, the Odour Audit has determined that this area continues to remain a minor contributor to odour emissions at the Site.

2.1.3 Odour Extraction System Maintenance

Service documentation was provided and inspected for the maintenance of the odour extraction system (refer **Appendix A**). Service logs were provided from May 2013 to October 2013. Each service log provided showed that the required maintenance was taking place and the odour extraction system overall was operating well. The service logs during this period noted that all required maintenance works such as checking the fan belts and unit operations, greasing bearings, and other routine preventative maintenance. The fan technician however appears to have not recorded exhaust airflow velocities through the stack in the service log reports. This should be undertaken in the next service to confirm that the minimum exit air velocity of 19.1 m/s is been achieved by the system. This was previously identified in the last Audit and should be followed-up (given also the results from smoke testing – see **Section 2.1.7** for details).

Additionally, on the service carried out on 18 July 2013 the fan technician indicated that the Variable Speed Drive (VSD) had tripped on a high DC volt fault. This was reset and unit operations checked. Following this, the operation of the system was recorded as normal and no other issues were noted. The VSD was checked on a later service on 30 August 2013 and found no further faults.

2.1.4 Odour Management Procedures

The Odour Management Procedures (formerly known as the Odour Minimising Procedures) continue to be regularly reviewed at Tool Box meetings and new issues/recommendations are raised with all staff members at these meetings. Following the alternation to the procedures reference, the updated Odour Management Procedure document has been attached to Appendix D for the purposes of this Odour Audit.

2.1.5 Transfer Terminal Building

As indicated in the previous Odour Audit, VES had advised plans to replace the rubber mats that seal the TTB breezeways with fixed metal plates. The auditor was advised that the reason for this new installation is in response to practical issues associated with the rubber mats use in recent times with the mats consistently falling due to waste build-up on the surface (identified in several consecutive Odour Audits) and safety issues and access difficulties during their maintenance. The installation of metal plates was completed in December 2013. **Photos 2.1 & 2.2** show this new installation at the TTB.

Photo 2.1 – New fixed metal plates on the western end of the TTB

Photo 2.2 – New fixed metal plates on the eastern end of the TTB

All doors and roller shutters of the TTB were found to be shut at the time of the Odour Audit, reducing the likelihood of odour impacts detected offsite. Similarly, the louvres on the end walls of the TTB were observed to be permanently shut.

2.1.6 Truck Entrance Plastic Strips

The truck entrance strips of the TTB, used to reduce odour escaping through the opening, were found to be mostly intact with 4-5 panels missing/requiring repair. Action to rectify this should be taken as soon as possible. Experience has determined that these strips contribute to containing odour within the building and therefore require daily check-ups to ensure they are all intact. The Site Manager has previously informed the auditor that sourcing a supplier for the new strips has been difficult, however, will continue to action this matter until a successful outcome is achieved.

2.1.7 Smoke Testing

As per previous audits, smoke testing was carried out within the TTB to assist in determining the effectiveness of the forced air extraction system, as well as the extent to which the TTB has been sealed from leaks. Smoke was released from within the building from three (3) different points within the TTB. **Figure 2.1** shows the three points where the smoke was released. These are identical locations to that of previous Odour Audits.

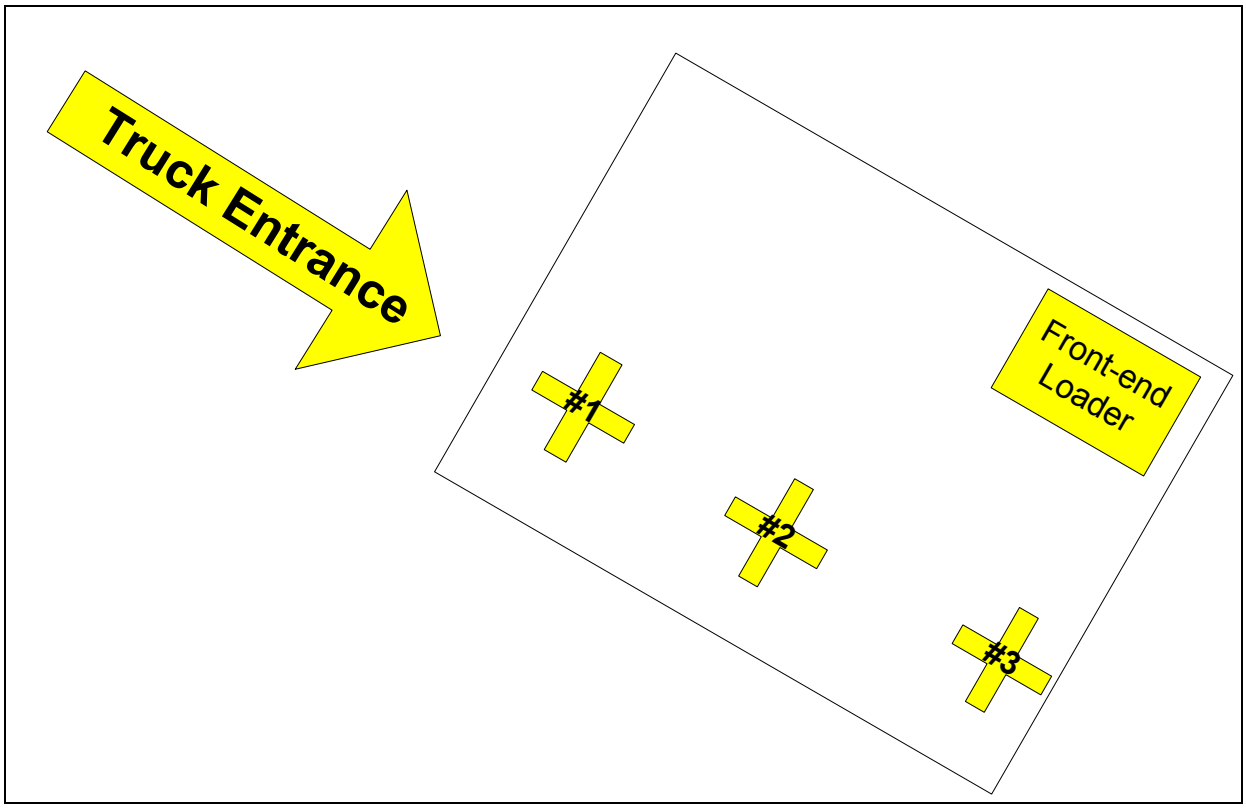


Figure 2.1 - Smoke testing release points within the TTB

Smoke Testing Point #1

Smoke released at this point initially rose gradually moving towards the truck entrance before rising to the roof and moving towards the extraction system. The smoke testing at this point revealed however that not all the smoke was being extracted suggesting that there could be a possibility that the fan extraction system is sub-optimally capturing air from the TTB at this point. This matter should be followed up with the fan technician. In light of this smoke testing result there will be need for the technician to determine if adequate airflow capture is occurring at the overhead air capture points across the entire overhead common collection duct within the TTB. Additionally, the discharge velocity at the fan extraction system stacks should be measured to determine that the minimum exit air velocity of 19.1 m/ is been achieved. This matter will be followed up in the next Odour Audit.

Smoke Testing Point #2

Smoke released at this point revealed a similar result to smoke testing point #1, with sub-optimal air capture was being visually observed. This should be followed up as per previous advice.

Smoke Testing Point #3

Smoke released at this point revealed a similar result to smoke testing point #3, with sub-optimal air capture being visually observed. This should be followed up as per previous advice.

Notwithstanding the above smoke testing results, and based on the fact that no odour complaints have been received by the Site (see **Section 2.2.1**) and the positive Field Ambient Odour Assessment (FAOA) Survey results (**Section 2.3.1**), it appears that there is no significant fugitive odour emission release occurring from the TTB.

2.1.8 Stormwater Retention Pond

The auditor observed that there was no effluent in this pond at the time this Odour Audit was carried out. There was no odour detectable during the Odour Audit visit that could be linked directly back to this pond.

2.2 Odour Complaints Handling and Meteorological Data

2.2.1 Odour Complaints Handling

As advised by the Site Manager, there have been no complaints recorded in the site complaints register since March 2012.

2.2.2 Meteorological Data

The meteorological data provided to the auditor for the period from May 2013 to November 2013 was inspected and found to be in good order. The exception is between the period of 07/06/2013 and 19/08/2013 when the datalogger failed and the data was lost. VES has put in a corrective measure for automated downloads (replacing manual downloads) to enable this issue to be identified more efficiently in

the future. As found in previous Odour Audits, the observations were recorded in 15-minute intervals, and included all parameters necessary to develop a meteorological dataset for odour dispersion modelling.

As indicated Quarterly Service Documents provided by VES, the weather station is located in an accessible area with the solar panel and components regularly cleaned, installation sprayed regularly for insects and trimming of nearby vegetation as required to ensure no overgrowth immediately around the weather station pole. The service logs indicate that servicing of the weather station and required calibrations were being carried out as required in May, August and November 2013 by Hydrometric Consulting Services. The weather data calibration reports for the service visits have been attached in **Appendix B**.

2.3 Field Ambient Odour Assessment Methodology

At present, no Australian Standard exists for field based ambient odour assessment surveys. Consequently, The Odour Unit utilises a method for assessing the ground level impacts of odour emissions using a modified version of the German Standard VDI 3940 (1993) – *'Determination of Odorants in Ambient Air by Field Inspections'*.

Field based ambient odour surveys are considered a valuable odour impact assessment tool as previous experience with ambient odour sampling and subsequent olfactometry testing suggests that accurate and useful ambient odour concentration data is difficult to obtain. Therefore, TOU has adopted a more practical approach based on the field measurement of odour intensity. With this method, calibrated and experienced odour specialists traverse the downwind surrounds of odour sources in a strategically mapped pattern, assessing the presence, character and intensity of any odours encountered and recording these observations along with wind speed and direction.

An ambient odour assessment was performed at the entrance of the Site and off-site locations on 27 November 2013 between 1705 hrs – 1800 hrs. The ambient odour assessment focused off-site as required by the Conditions of Consent on "…..*nearby*

commercial and residential areas….." (Section *48 (f)*). The TOU assessors firstly determined the wind direction using a compass and then assessed downwind locations of the TTB.

The assessors spent a few minutes at each assessment location in order to gauge the effects of any odour impact. If an odour was detected at a location, the assessors attempted to characterise it. The general aim was to determine the extent of the impact of odours off-site and rank their intensity. The ranking scale for the German Standard VDI 3940 '*Determination of Odorants in Ambient Air by Field Inspections*' was used for the intensity assessments. The standard's ranking system is based on the following seven-point intensity scale, as shown in **Table 2.1**.

Table 2.1 - VDI 3882 Odour Intensity Categories

Odour Strength	Intensity Rank (code)	TOU Interpretation (meaning)
Not detectable	0	No odour detected
Very weak	1	Odour detected but not strong enough to be characterised
Weak	2	Odour is weak but just able to be characterised
Distinct	3	Odour is clearly distinct and easily characterised
Strong	4	Strong odour detectable
Very Strong	5	If offensive, observer may consider moving from the area
Extremely Strong	6	Odour is sufficiently over-powering that assessor moves from area

2.3.1 Field Ambient Odour Assessment - Results

The results from the FAOA survey conducted during the Odour Audit found that no odours were detected off-site that could be linked back to the Transfer Terminal Station. The field log sheets and visual survey plot have been attached as **Appendix C.**

3 RECOMMENDATIONS/FOLLOW-UP

3.1 Transfer Terminal Building

The on-going issue with the rubber mats sealing the breezeway of the TTB has been resolved by the installation of fixed metal plates. This installation should be effective in permanently sealing the breezeways and thereby reducing fugitive odour emission release from the TTB. This new installation will be inspected in the next Odour Audit. Additionally, repair and attention of the missing/damaged truck entrance strips should be carried out as soon as a suitable supplier is sourced.

3.2 Compactor Area

The general house-keeping around this area was observed to be of high quality, with no evidence to suggest otherwise. As with previous Odour Audits, the container compacting/train packing area had a weak odour present but it was confined to this area only.

3.3 Odour Extraction System

The service logs indicate that all required maintenance works on the odour extraction system since the last Odour Audit has been carried out successfully, and the system is operating well. The smoke testing did however identify some tendency for sub-optimal capture at several of the ventilation capture points (see **Section 2.1.7** for details) of the TTB. Given the finding in the Odour Audit, it is recommended that a follow-up investigation is carried out to ensure that the system is operating in an optimum condition. Next to this, the stack velocity should be measured in the next fan extraction system service date to confirm that the minimum stack velocity of 19.1 m/s is being achieved.

Overall, this Odour Audit found that the operation and maintenance of the odour management system at the plant were satisfactory, with no evidence to suggest significant fugitive emission release from the Transfer Terminal Station. The next Odour Audit is due in April/June 2014.

Appendix A –

Odour Extraction System Service Reports

(May 2013 – November 2013)

Craig Doorey

From: no-reply@bsa.com.au
Sent: Wednesday, 1 May 2013 1:50 PM
To: service@triple-m.com.au; dblore@bsa.com.au; Craig Doorey
Subject: Field Data Capture Notification - Triple M - NSW - Service Docket

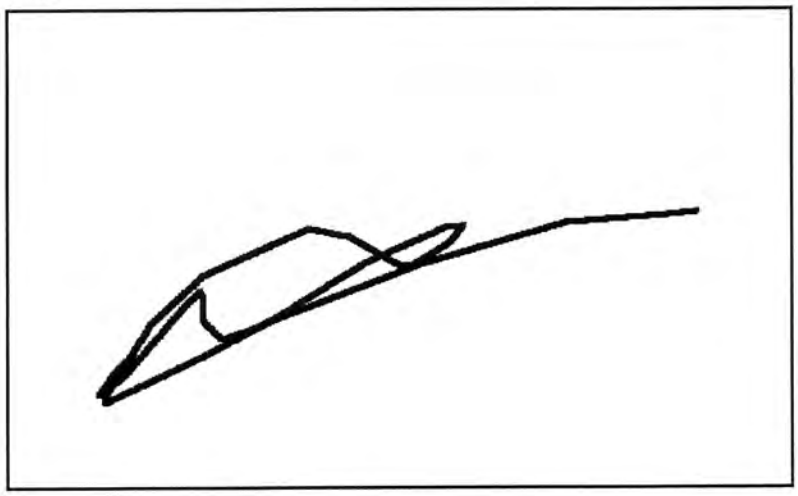
TRIPLE 'M' GROUP OF COMPANIES
'the team you can trust'

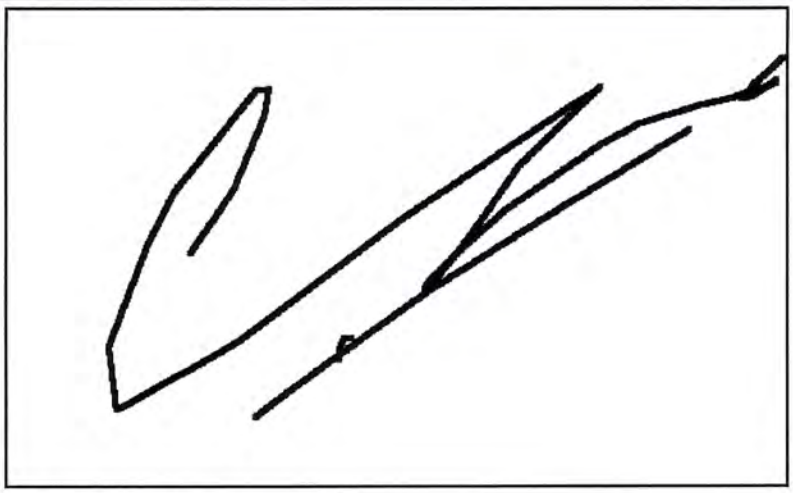
Technical Maintenance Services

'A BSA Limited Company'

Triple M Fire ABN 37 101 246 351 | QLD ABN 81 096 895 288
NSW ABN 50 063 395 013 | Arctick Licence AU03033

Triple M - NSW - Service Docket

ID	4271
Time Start	Wed May 01 2013 13:42:58 GMT+1000 (EST)
Client Details	CLYDE - MAINTENANCE
Address	322 Parramatta Rd, Clyde NSW 2142
Site Contact Telephone Number	02 8868 7401
Type of Service	Preventative Maintenance
Job / Service Call Number	70662
Fault Description	CLYDE WASTE - PM April
Asset Type Affected	AIR DISTRIBUTION
Maintenance Done	
Description of Work Done	Carried out routine maintenance as per schedule for April. Checked belts and unit operations. Will grease all bearings on next visit. No issues found.
Barcode Label Entry Method	Scan
Parts, Materials?	No
Ancilliaries	
Job Status	Completed
Technician's Signature	
Client Signature	

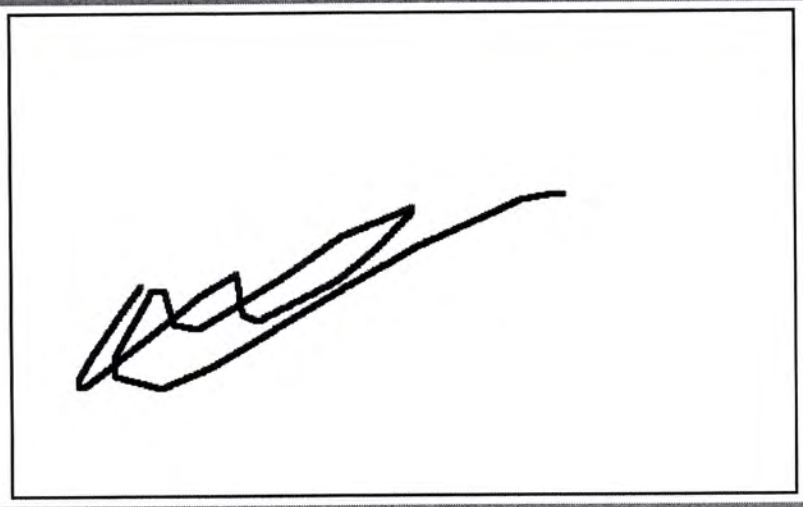


Forwarding Email	craig.doorey@veolia.com.au
User ID	TNSS-MLY

Job Safety Analysis

ID	S4271
Job/Service Call Number	70662
Work to be done	CLYDE WASTE - PM April
Protective Equipment to be Used During Works	Gloves, Safety Glasses, High Visibility Garments, Safety Boots/Shoes
Access / Egress to equipment hazard present?	No
Trips, slips, and falls hazard present?	No
Roof Access hazard present?	No
Working on roof?	No
Remain on walkways and paths	No
Manual Handling?	No
Client/General Public/vehicle control?	No
Electrical works?	No
Mechanical works?	Yes
All isolations complete: electrical, refrigeration, air, water, gas.	1
No work until all moving parts have stopped.	1
Working from heights?	No
Working from a step ladder?	No
Electrical tools & equipment being used?	No
Using HazMat?	No
Welding or oxy cutting?	No
Cooling towers? Bio Hazards?	No
Handling refrigerant?	No

Technician's Signature



Tech Times	
ID	S4271
Job Number	70662
Name of Tech	Mick Lye
Number of Hours	0
Travel Time	0
Charge Rate	Normal Time
Technician Classification	Tradesman

"Email Report"

A **BSA - Technical Maintenance Services** Company

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Craig Doorey

From: no-reply@bsa.com.au
Sent: Tuesday, 21 May 2013 12:55 PM
To: service@triple-m.com.au; dblore@bsa.com.au; Craig Doorey
Subject: Field Data Capture Notification - Triple M - NSW - Service Docket

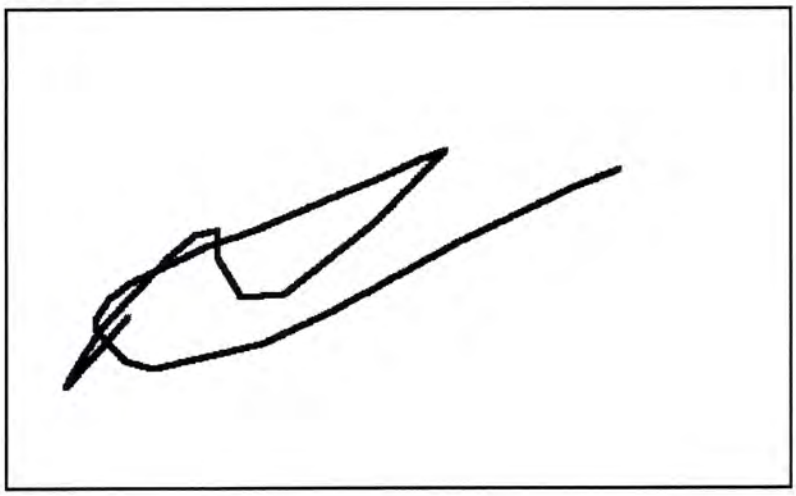
TRIPLE 'M' GROUP OF COMPANIES
'the team you can trust'

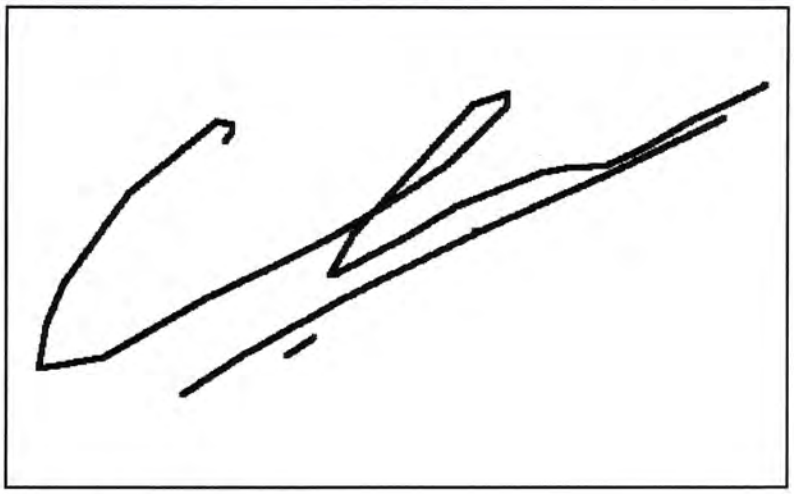
Technical Maintenance Services

'A BSA Limited Company'

Triple M Fire ABN 37 101 246 351 | QLD ABN 81 096 895 288
NSW ABN 50 063 395 013 | Arctick Licence AU03033

Triple M - NSW - Service Docket

ID	4501
Time Start	Tue May 21 2013 12:50:14 GMT+1000 (EST)
Client Details	CLYDE - MAINTENANCE
Address	322 Parramatta Rd, Clyde NSW 2142
Site Contact Telephone Number	02 8868 7401
Type of Service	Service Call - DC
Job / Service Call Number	500162
Fault Description	CLYDE WASTE - PM May
Asset Type Affected	AIR DISTRIBUTION
Maintenance Done	
Description of Work Done	Carried out routine maintenance as per schedule for may. Checked belts and unit operations. Greased all motor and fan bearings this month. No other issues found.
Barcode Label Entry Method	Scan
Parts, Materials?	No
Ancilliaries	
Job Status	Completed
Technician's Signature	
Client Signature	



Forwarding Email	craig.doorey@veolia.com.au
User ID	TNSS-MLY

Job Safety Analysis

ID	S4501
Job/Service Call Number	500162
Work to be done	CLYDE WASTE - PM May
Protective Equipment to be Used During Works	Gloves, Safety Glasses, High Visibility Garments, Face/Dust mask, Safety Boots/Shoes
Access / Egress to equipment hazard present?	No
Trips, slips, and falls hazard present?	No
Roof Access hazard present?	No
Working on roof?	No
Remain on walkways and paths	No
Manual Handling?	No
Client/General Public/vehicle control?	No
Electrical works?	No
Mechanical works?	Yes
All isolations complete: electrical, refrigeration, air, water, gas.	1
No work until all moving parts have stopped.	1
Working from heights?	No
Working from a step ladder?	No
Electrical tools & equipment being used?	No
Using HazMat?	No
Welding or oxy cutting?	No
Cooling towers? Bio Hazards?	No
Handling refrigerant?	No

Technician's Signature

Craig Doorey

From: no-reply@bsa.com.au
Sent: Friday, 28 June 2013 10:46 AM
To: service@triple-m.com.au; dblore@bsa.com.au; Craig Doorey
Subject: Field Data Capture Notification - Triple M - NSW - Service Docket

TRIPLE 'M' GROUP OF COMPANIES
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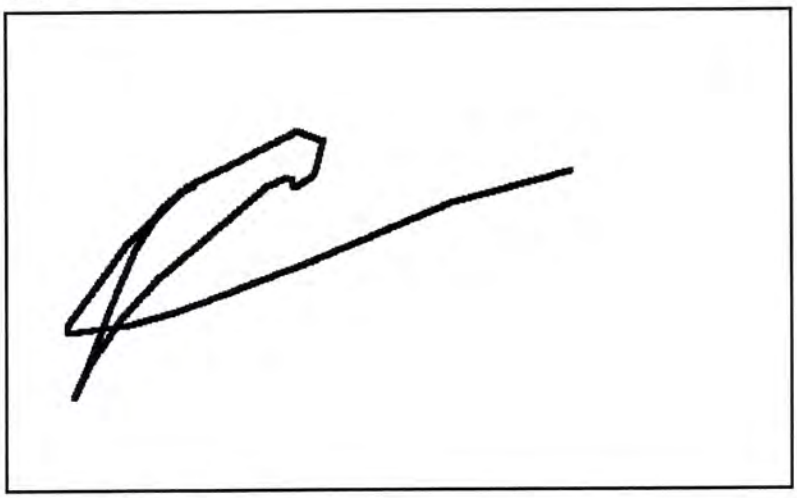
Technical Maintenance Services

'A BSA Limited Company'

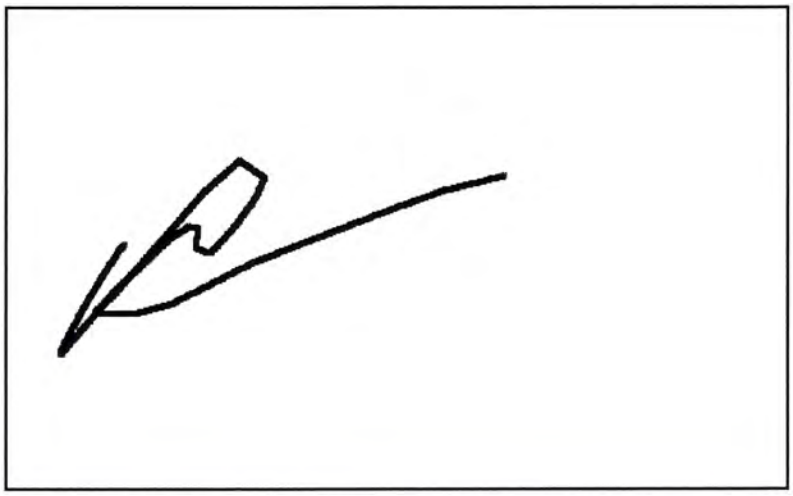
Triple M Fire ABN 37 101 246 351 | QLD ABN 81 096 895 288
NSW ABN 50 063 395 013 | Arctick Licence AU03033

Triple M - NSW - Service Docket

ID	5224
Time Start	Fri Jun 28 2013 10:42:48 GMT+1000 (EST)
Client Details	CLYDE - MAINTENANCE
Address	322 Parramatta Rd, Clyde NSW 2142
Site Contact Telephone Number	02 8868 7401
Type of Service	Preventative Maintenance - PM
Job / Service Call Number	503428
Fault Description	CLYDE WASTE - PM June 6JNM - June Monthly
Asset Type Affected	AIR HANDLING PLANT /UNIT
Maintenance Done	
Description of Work Done	Carried out routine maintenance as per schedule for June. Checked belts and unit operations on fans. No issues found.
Barcode Label Entry Method	Scan
Parts, Materials?	No
Ancilliaries	
Job Status	Completed
Technician's Signature	
Forwarding Email	craig.doorey@veolia.com.au
User ID	TNSS-MLY

Job Safety Analysis

ID	S5224
Job/Service Call Number	503428
Work to be done	CLYDE WASTE - PM June 6JNM - June Monthly
Protective Equipment to be Used During Works	Gloves, Safety Glasses, High Visibility Garments, Safety Boots/Shoes

Access / Egress to equipment hazard present?	No
Trips, slips, and falls hazard present?	No
Roof Access hazard present?	No
Working on roof?	No
Remain on walkways and paths	No
Manual Handling?	No
Client/General Public/vehicle control?	No
Electrical works?	No
Mechanical works?	Yes
All isolations complete: electrical, refrigeration, air, water, gas.	1
No work until all moving parts have stopped.	1
Working from heights?	No
Working from a step ladder?	No
Electrical tools & equipment being used?	No
Using HazMat?	No
Welding or oxy cutting?	No
Cooling towers? Bio Hazards?	No
Handling refrigerant?	No
Technician's Signature	

Tech Times

ID	S5224
Job Number	503428
Date Worked	2013-06-28 10:45:38
Name of Tech	Mick Lye
Number of Hours	0
Charge Rate	Normal Time
Technician Classification	Tradesman

Email Report

A **BSA - Technical Maintenance Services** Company

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Craig Doorey

From: no-reply@bsa.com.au
Sent: Thursday, 18 July 2013 2:21 PM
To: service@triple-m.com.au; dblore@bsa.com.au; Craig Doorey
Subject: Field Data Capture Notification - Triple M - NSW - Service Docket

TRIPLE 'M' GROUP OF COMPANIES
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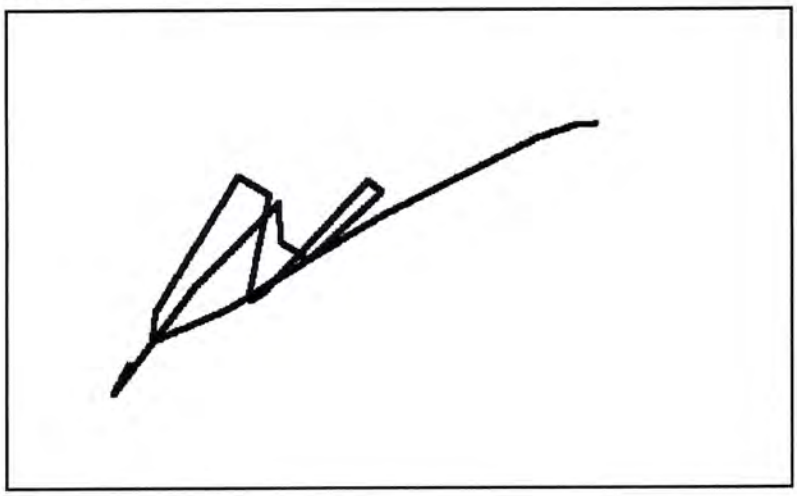
Technical Maintenance Services

'A BSA Limited Company'

Triple M Fire ABN 37 101 246 351 | QLD ABN 81 096 895 288
NSW ABN 50 063 395 013 | Arctick Licence AU03033

Triple M - NSW - Service Docket

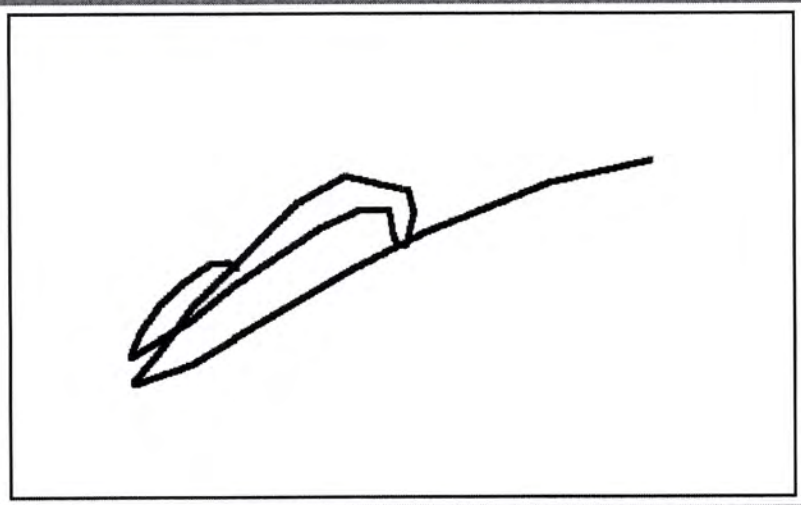
ID	5119
Time Start	Thu Jul 18 2013 14:16:38 GMT+1000 (EST)
Client Details	CLYDE - MAINTENANCE
Address	322 Parramatta Rd, Clyde NSW 2142
Site Contact Name	BIKRAM SINGH
Site Contact Telephone Number	02 8868 7401
Type of Service	Preventative Maintenance - PM
Job / Service Call Number	508076
Fault Description	CLYDE WASTE - PM July
Asset Type Affected	AIR HANDLING PLANT/UNIT
Maintenance Done	
Description of Work Done	Carried out routine maintenance as per schedule for July. Checked belts and unit operations of fans. Found both VSD's tripped on high dc volt fault. Reset faults and checked unit operations. Both running as per normal and no other issues found. Possible cause could have been a power surge to the area or blackout.
Barcode Label Entry Method	Scan
Parts, Materials?	No
Ancilliaries	
Job Status	Completed
Technician's Signature	

Client Signature	
Forwarding Email	craig.doorey@veolia.com.au
User ID	TNSS-MLY

Job Safety Analysis

ID	S5119
Job/Service Call Number	508076
Work to be done	CLYDE WASTE - PM July
Protective Equipment to be Used During Works	Gloves, Safety Glasses, High Visibility Garments, Face/Dust mask, Safety Boots/Shoes
Access / Egress to equipment hazard present?	No
Trips, slips, and falls hazard present?	No
Roof Access hazard present?	No
Working on roof?	No
Remain on walkways and paths	No
Manual Handling?	No
Client/General Public/vehicle control?	No
Electrical works?	No
Mechanical works?	Yes
All isolations complete: electrical, refrigeration, air, water, gas.	1
No work until all moving parts have stopped.	1
Working from heights?	No
Working from a step ladder?	No
Electrical tools & equipment being used?	No
Using HazMat?	No
Welding or oxy cutting?	No
Cooling towers? Bio Hazards?	No
Handling refrigerant?	No

Technician's Signature



Tech Times

ID	S5119
Job Number	508076
Name of Tech	Mick Lye
Number of Hours	0
Charge Rate	Normal Time
Technician Classification	Tradesman

Email Report

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Craig Doorey

From: no-reply@bsa.com.au
Sent: Friday, 30 August 2013 12:30 PM
To: service@triple-m.com.au; dblore@bsa.com.au; Craig Doorey
Subject: Field Data Capture Notification - Triple M - NSW - Service Docket

TRIPLE 'M' GROUP OF COMPANIES
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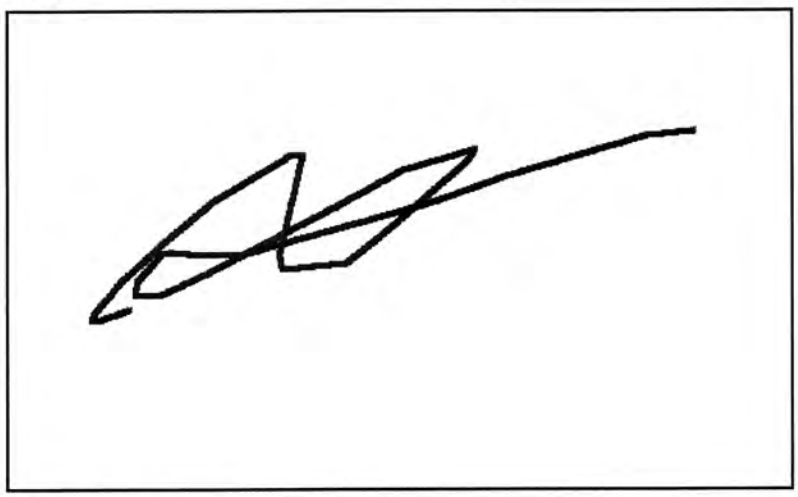
Technical Maintenance Services

'A BSA Limited Company'

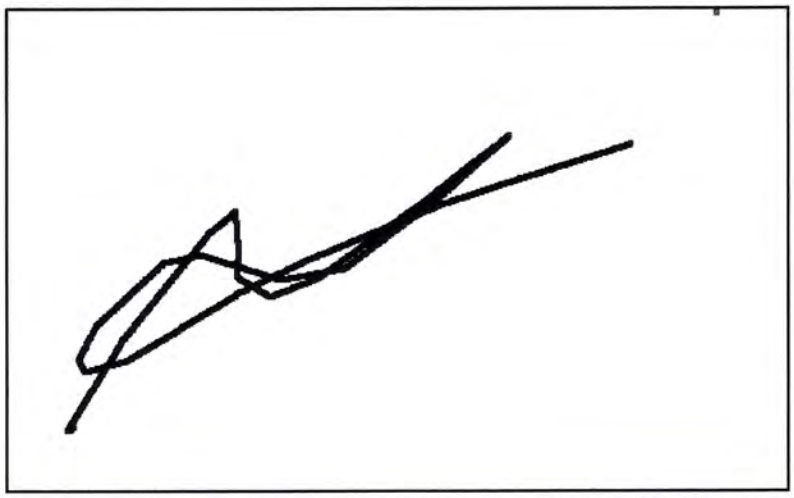
Triple M Fire ABN 37 101 246 351 | QLD ABN 81 096 895 288
NSW ABN 50 063 395 013 | Arctick Licence AU03033

Triple M - NSW - Service Docket

ID	6289
Time Start	Fri Aug 30 2013 12:26:38 GMT+1000 (EST)
Client Details	CLYDE - MAINTENANCE
Address	322 Parramatta Rd, Clyde NSW 2142
Site Contact Name	BIKRAM SINGH
Site Contact Telephone Number	02 8868 7401
Customer Ref Number	
Type of Service	Preventative Maintenance - PM
Job / Service Call Number	511169
Fault Description	CLYDE WASTE - PM August 8AUM - August Monthly Main
Asset Type Affected	AIR HANDLING PLANT /UNIT
Maintenance Done	
Description of Work Done	Carried out routine maintenance as per schedule for August. Checked belts and unit operations. Checked VSD for any faults after last month but all clear. No issues found, all belts still in good condition and fans running as normal.
Barcode Label Entry Method	Scan
Parts, Materials?	No
Ancilliaries	
Job Status	Completed
Technician's Signature	
Forwarding Email	craig.doorey@veolia.com.au
User ID	TNSS-MLY

Job Safety Analysis

ID	S6289
Job/Service Call Number	511169
Work to be done	CLYDE WASTE - PM August 8AUM - August Monthly Main

Protective Equipment to be Used During Works	Gloves, Safety Glasses, High Visibility Garments, Safety Boots/Shoes
Access / Egress to equipment hazard present?	No
Trips, slips, and falls hazard present?	No
Roof Access hazard present?	No
Working on roof?	No
Remain on walkways and paths	No
Manual Handling?	No
Client/General Public/vehicle control?	No
Electrical works?	No
Mechanical works?	Yes
All isolations complete: electrical, refrigeration, air, water, gas.	1
No work until all moving parts have stopped.	1
Working from heights?	No
Working from a step ladder?	No
Electrical tools & equipment being used?	No
Using HazMat?	No
Welding or oxy cutting?	No
Cooling towers? Bio Hazards?	No
Handling refrigerant?	No
Technician's Signature	

Tech Times

ID	S6289
Job Number	511169
Name of Tech	Mick Lye
Number of Hours	0
Travel Time	0
Charge Rate	Normal Time
Technician Classification	Tradesman

Email Report

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Craig Doorey

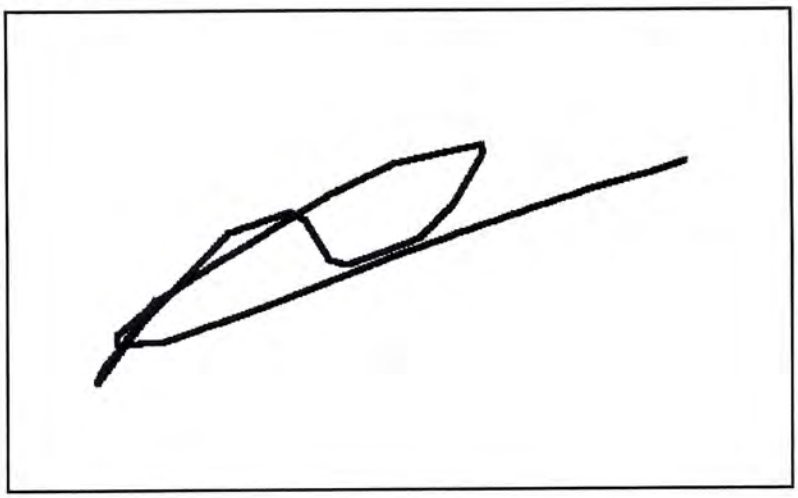
From: no-reply@bsa.com.au
Sent: Monday, 30 September 2013 1:09 PM
To: service@triple-m.com.au; Craig Doorey
Subject: Field Data Capture Notification - Triple M - NSW - Service Docket

SECURE

Technical Maintenance Services

bsa | SERVICE CUSTOMISED REPORTING

Triple M - NSW - Service Docket

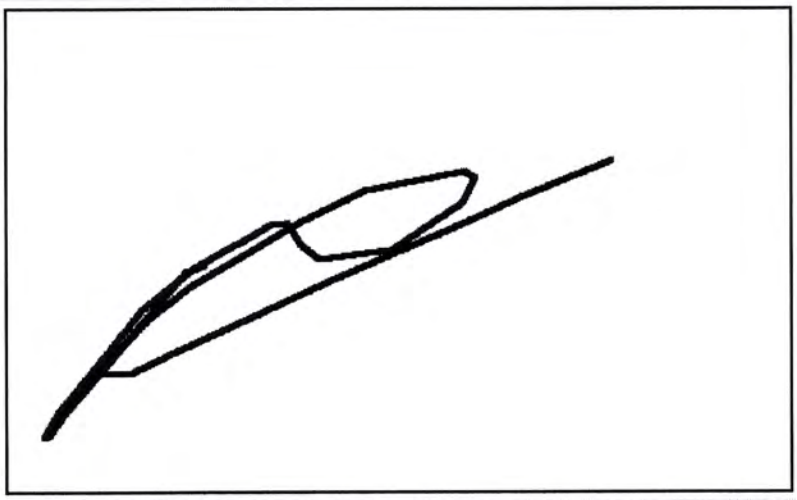
ID	250
Time Start	Mon Sep 30 2013 13:05:02 GMT+1000 (EST)
Client Details	CLYDE WASTE
Address	322 Parramatta Rd Clyde NSW 2142
Site Contact Name	BIKRAM SINGH
Site Contact Telephone Number	02 8868 7401
Customer Ref Number	4502301049
Type of Service	Preventative Maintenance - PM
Job / Service Call Number	515210
Fault Description	CLYDE WASTE - PM September 9SEM - September Monthly Maintena
Asset Type Affected	FANS ALL TYPE
Description of Work Done	Carried out routine maintenance as per schedule for September. Checked belts and fan operations. Belts still in good condition and fans are operational. Will grease all bearings next month.
Barcode Label Entry Method	Scan
Parts, Materials?	No
Job Status	Completed
Technician's Signature	
Client Signature	

Forwarding Email	craig.doorey@veolia.com.au
User ID	TMS-MLY

Job Safety Analysis

ID	S250
Job/Service Call Number	515210
Work to be done	CLYDE WASTE - PM September 9SEM - September Monthly Maintena
Protective Equipment to be Used During Works	Gloves, Safety Glasses, High Visibility Garments, Safety Boots/Shoes
Access / Egress to equipment hazard present?	No
Trips, slips, and falls hazard present?	No
Roof Access hazard present?	No
Working on roof?	No
Remain on walkways and paths	No
Manual Handling?	No
Client/General Public/vehicle control?	No
Electrical works?	No
Mechanical works?	Yes
All isolations complete: electrical, refrigeration, air, water, gas.	1
No work until all moving parts have stopped.	1
Working from heights?	No
Working from a step ladder?	No
Electrical tools & equipment being used?	No
Using HazMat?	No
Welding or oxy cutting?	No
Cooling towers? Bio Hazards?	No
Handling refrigerant?	No

Technician's Signature



Tech Times	
ID	S250
Job Number	515210
Name of Tech	Mick Lye
Number of Hours	0
Charge Rate	Normal Time
Technician Classification	Tradesman

Craig Doorey

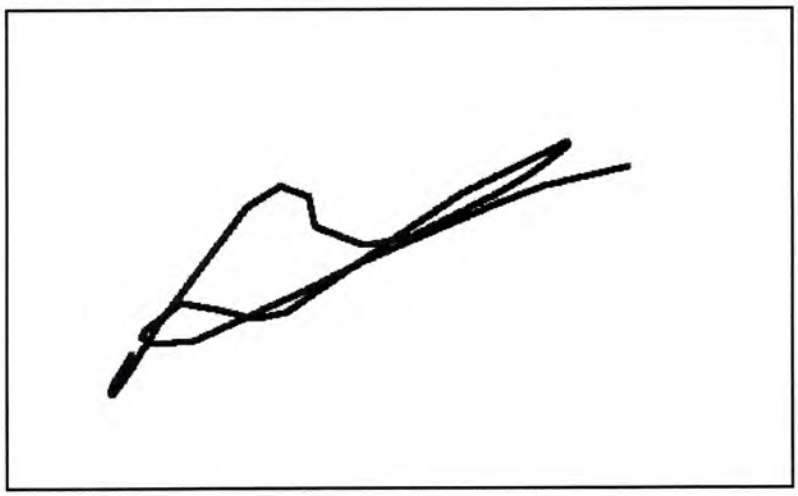
From: no-reply@bsa.com.au
Sent: Friday, 25 October 2013 1:29 PM
To: service@triple-m.com.au; Craig Doorey
Subject: Field Data Capture Notification - Triple M - NSW - Service Docket

SECURE

Technical Maintenance Services

bsa | SERVICE CUSTOMISED REPORTING

Triple M - NSW - Service Docket

ID	919
Time Start	Fri Oct 25 2013 14:19:04 GMT+1100 (EST)
Client Details	CLYDE WASTE
Address	2144
Site Contact Name	BIKRAM SINGH
Site Contact Telephone Number	02 8868 7401
Customer Ref Number	4502301049
Type of Service	Preventative Maintenance - PM
Job / Service Call Number	519792
Fault Description	CLYDE WASTE - PM October L1 - MONTHLY - TBA
Asset Type Affected	AIR HANDLING PLANTUNIT
Description of Work Done	Carried routine maintenance as per schedule for October. Checked belts and unit operations. Greased all motor and fan bearings and checked operation on start up. No issues found and belts are still fine.
Barcode Label Entry Method	Scan
Parts, Materials?	No
Job Status	Completed
Technician's Signature	
Forwarding Email	craig.doorey@veolia.com.au
User ID	TMS-MLY

Job Safety Analysis

ID	S919
Job/Service Call Number	519792
Work to be done	CLYDE WASTE - PM October L1 - MONTHLY - TBA

Protective Equipment to be Used During Works	Gloves, Safety Glasses, High Visibility Garments, Safety Boots/Shoes
Access / Egress to equipment hazard present?	No
Trips, slips, and falls hazard present?	No
Roof Access hazard present?	No
Working on roof?	No
Remain on walkways and paths	No
Manual Handling?	No
Client/General Public/vehicle control?	No
Electrical works?	No
Mechanical works?	Yes
All isolations complete: electrical, refrigeration, air, water, gas.	1
No work until all moving parts have stopped.	1
Working from heights?	No
Working from a step ladder?	No
Electrical tools & equipment being used?	No
Using HazMat?	No
Welding or oxy cutting?	No
Cooling towers? Bio Hazards?	No
Handling refrigerant?	No
Technician's Signature	

Tech Times

ID	S919
Job Number	519792
Name of Tech	Mick Lye
Number of Hours	0
Charge Rate	Normal Time
Technician Classification	Tradesman

Appendix B –

Weather Data Calibration Reports

(May 2013 - November 2013)

Hydrometric Consulting Services Pty Ltd

ABN 16 091 437 071

22 May 2013

Stephen Bernhart
Environmental Monitoring Officer
Veolia Environmental Services

Re – Quarterly service of weather stations

Dear Stephen,
As per our service agreement, on the 21/05/13 HCS undertook the service, calibration and maintenance of the weather stations located at the Clyde and Horsley Park sites. Field readings were obtained by a combination of a Kestral 3500, compass, Monitor Solar Radiation field unit and HS TBRG calibration device. Details are as follows

Horsley Park

Sensor	**Actual (field)**	**Logger**
Temperature – 10m	15.0 deg *	14.1 deg
2m	15.0 deg *	13.4 deg
Relative Humidity	58.6%	58.1%
Wind Speed	0.4 m/sec at ground	0.8 m/sec at 10m
Wind Direction	270	270
Solar Radiation	270	190
TBRG	20mm	40 tips (0.5mm per tip)
Battery	13.6v Solar 20.0v	

* Note 1: field reading is not inside the radiation shield

Note 2: ignore rainfall tips logged between 0750 to 0820 as these were testing and calibration.

Note 3: the site was polled prior to the visit and was operating satisfactorily.

Note 4: the 10 metre mast was found to be bent as a result of being hit by machinery. This will have an effect on the accuracy of the solar radiation, wind speed and wind direction sensors.

Additional Items

1. Solar panel and components cleaned.
2. Installation sprayed for insects.

Clyde

Sensor	Actual (field)	Logger
Temperature – 10m	19.7 deg *	19.5 deg
2m	19.7 deg *	19.8 deg
Relative Humidity	38%	37.4%
Wind Speed	2.4 m/sec at ground	3.7 m/sec at 10m
Wind Direction	280	281
Solar Radiation	570 w/sq.m	450 w/sq.m
TBRG	20mm	41 tips (0.5mm per tip)
Battery	13.4v Solar 20.1v	

* Note 1: field reading is not inside the radiation shield

Note 2: ignore rainfall tips logged between 1015 to 1035 as these were testing and calibration.

Note 3: small amount of condensation in cabinet was dried out and the desiccant pack was replaced.

Note 4: the site was polled prior to the visit and was operating satisfactorily.

Additional Items

1. Installation sprayed for insects.

Should you require any further information on this report please do not hesitate to contact me on 0402 134 092.

Glen Murphy

Hydrometric Consulting Services Pty Ltd

2 Autumn Place
Guildford NSW 2161
Tele 98924588 Fax 98924599
Email glenmurf@ozemail.com.au

44 Colo Rd
Colo Vale NSW 2575
Tele 48895102 Fax 48895103
Email steves@mitmania.net.au

www.hydrometric.com.au

Hydrometric Consulting Services Pty Ltd

ABN 16 091 437 071

27 August 2013

Stephen Bernhart
Environmental Monitoring Officer
Veolia Environmental Services

Re – Quarterly service of weather stations

Dear Stephen,
As per our service agreement, on the 26/08/13 HCS undertook the service, calibration and maintenance of the weather stations located at the Clyde and Horsley Park sites. Field readings were obtained by a combination of a Kestral 3500, compass, Monitor Solar Radiation field unit and HS TBRG calibration device. Details are as follows

Horsley Park

Sensor	**Actual (field)**	**Logger**
Temperature – 10m	12.5 deg *	12.85 deg
2m	12.5 deg *	12.5 deg
Relative Humidity	59.9%	60.0%
Wind Speed	0.5 m/sec at ground	0.5 m/sec at 10m
Wind Direction	275	275
Solar Radiation	370	340
TBRG	10mm	20 tips (0.5mm per tip)
Battery	13.2v Solar 20.1v	

* Note 1: field reading is not inside the radiation shield

Note 2: ignore rainfall tips logged at approximately 0850 as these were testing and calibration.

Note 3: the site was polled prior to the visit and was operating satisfactorily.

Note 4: the 10 metre mast is bent as a result of being hit by machinery. This will have an effect on the accuracy of the solar radiation, wind speed and wind direction sensors.

Additional Items

1. Solar panel and components cleaned.
2. Installation sprayed for insects.

Clyde

Sensor	Actual (field)	Logger
Temperature – 10m	17.0 deg *	15.6 deg
2m	17.0 deg *	16.3 deg
Relative Humidity	49%	46.3%
Wind Speed	2.0 m/sec at ground	2.8 m/sec at 10m
Wind Direction	240	240
Solar Radiation	400 w/sq.m	390 w/sq.m
TBRG	10mm	20 tips (0.5mm per tip)
Battery	13.4v Solar 20.5v	

* Note 1: field reading is not inside the radiation shield

Note 2: ignore rainfall tips logged at approximately 1000 as these were testing and calibration.

Note 3: the modem at the site was found to be faulty on 19/08/13 and was removed and sent to Campbell Scientific for assessment. The data logger was downloaded on both site visits.

Additional Items

1. Installation sprayed for insects.

Should you require any further information on this report please do not hesitate to contact me on 0402 134 092.

Glen Murphy

Hydrometric Consulting Services Pty Ltd

2 Autumn Place
Guildford NSW 2161
Tele 98924588 Fax 98924599
Email glenmurf@ozemail.com.au

44 Colo Rd
Colo Vale NSW 2575
Tele 48895102 Fax 48895103
Email steves@mitmania.net.au

www.hydrometric.com.au

Hydrometric Consulting Services Pty Ltd

ABN 16 091 437 071

18 November 2013

Stephen Bernhart
Environmental Monitoring Officer
Veolia Environmental Services

Re – Quarterly service of weather stations

Dear Stephen,
As per our service agreement, on the 18/11/13 HCS undertook the service, calibration and maintenance of the weather stations located at the Clyde and Horsley Park sites. Field readings were obtained by a combination of a Kestral 3500, compass, Monitor Solar Radiation field unit and HS TBRG calibration device. Details are as follows

Horsley Park

Sensor	**Actual (field)**	**Logger**
Temperature – 10m*	17.1	16.2
2m*	17.1	16.1
Relative Humidity*	68.4	68.3
Wind Speed	4.9 at ground	5.9 at 10 metres
Wind Direction	200	189 (mast bent)
Solar Radiation	110	100
TBRG	2 tips	2 tips
Battery	13.3	

* Note 1: field reading is not inside the radiation shield

Note 2: ignore rainfall tips logged at approximately 0900 as these were testing.

Note 3: the site was polled prior to the visit and was operating satisfactorily.

Note 4: the 10 metre mast is bent as a result of being hit by machinery. This will have an effect on the accuracy of the solar radiation, wind speed and wind direction sensors.

Additional Items

1. Solar panel and components cleaned.
2. Installation sprayed for insects.

Clyde

Sensor	Actual (field)	Logger
Temperature – 10m*	18.9	18.3
2m*	18.9	18.2
Relative Humidity*	68.9	67.8
Wind Speed	2.6 at ground	3.6 at 10 metres
Wind Direction	112	112
Solar Radiation	190	180
TBRG	2 tips	2 tips
Battery	13.1	

* Note 1: field reading is not inside the radiation shield

Note 2: ignore rainfall tips logged at approximately 1010 as these were testing.

Additional Items

1. Installation sprayed for insects.
2. Vegetation trimmed.

Both sites are now polled weekly by HCS and data is downloaded and available on the HCS website.

Should you require any further information on this report please do not hesitate to contact me on 0402 134 092.

Glen Murphy

Hydrometric Consulting Services Pty Ltd

2 Autumn Place
Guildford NSW 2161
Tele 98924588 Fax 98924599
Email glenmurf@ozemail.com.au

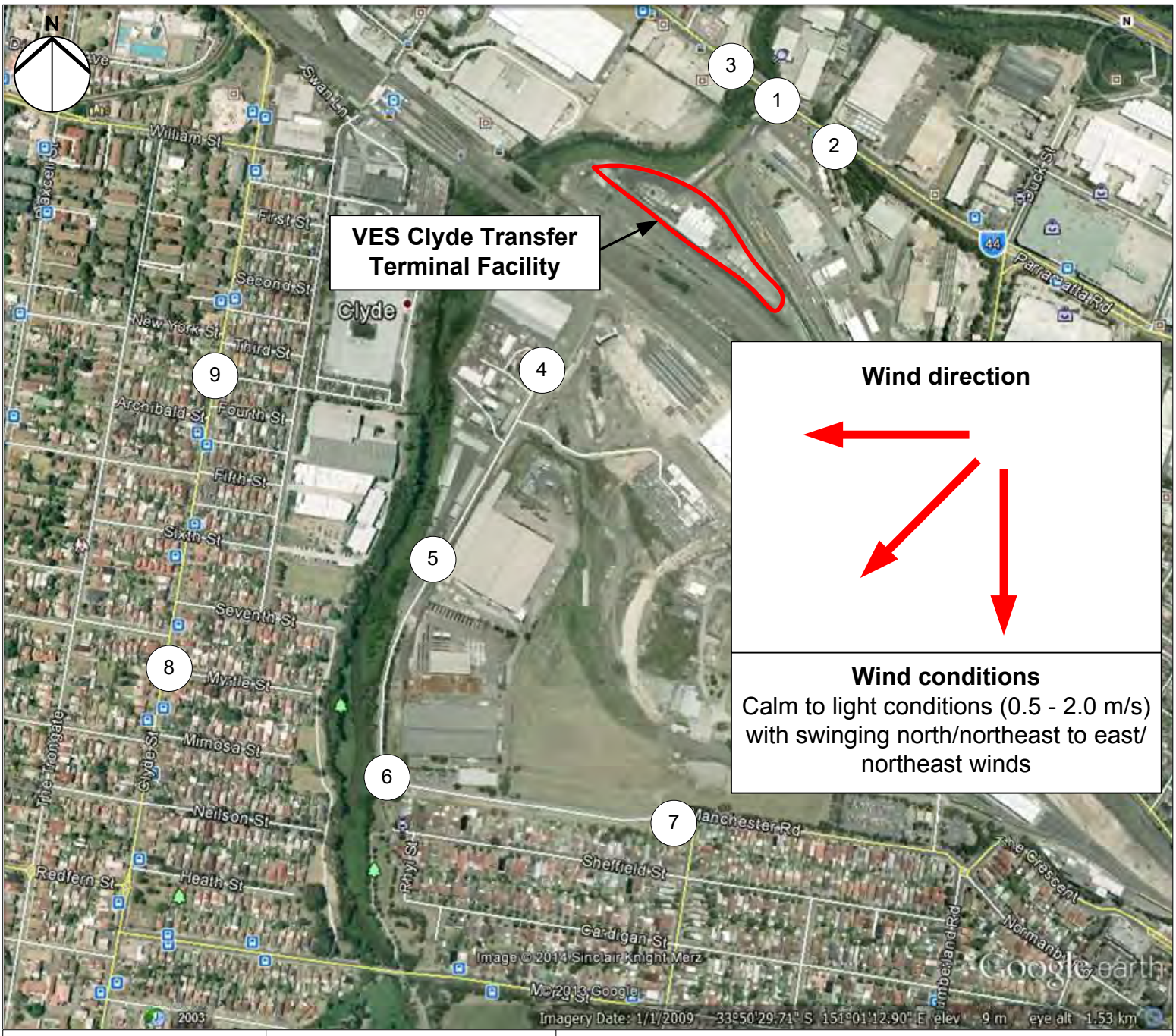
44 Colo Rd
Colo Vale NSW 2575
Tele 48895102 Fax 48895103
Email steves@mitmania.net.au

www.hydrometric.com.au

Appendix C –

Field Ambient Odour Assessment Map Plot and Field Logsheet

(27 November 2013)



DESCRIPTION

Field Ambient Odour Assessment Survey
Modified German Standard VDI 3940

LEGEND

German Intensity Scale VDI3882

- 0 Not detectable
- 1 Very weak
- 2 Weak
- 3 Distinct
- 4 Strong
- 5 Very strong
- 6 Extremely strong

VEOLIA ENVIRONMENTAL SERVICES

Veolia Environmental Services (Australia) Pty Ltd
Clyde Transfer Terminal, Clyde NSW
Field Ambient Odour Assessment Survey

Survey Date: 27/11/2013
Survey Time Period: 1707 hrs – 1800 hrs

THE ODOUR UNIT PTY LTD
Bay 4 Suite 3011 Australian Technology Park
2 Locomotive Street,
EVELEIGH, NSW 2015
Phone: (02) 9209 4420 – Fax: (02) 9209 4421
www.odourunit.com.au

DRAWN BY	M.ASSAL	14/01/2014
CHECKED	A.SCHULZ	14/01/2013
APPROVED	M.ASSAL	15/01/2013

Odour Audit XXII

Field Ambient Odour Assessment Survey

Plot No. N1473-XXII

Job No. N1473L

THE ODOUR UNIT PTY LIMITED

Bay 4 Suite 3011
Australian Technology Park
2 Locomotive Street
EVELEIGH, NSW 2015

Phone: +61 2 9209 4420
Facsimile: +61 2 9209 4421
Email: info@odourunit.com.au
Internet: www.odourunit.com.au
ABN: 53 091 165 061

Field Ambient Odour Assessment Log Sheet

Date: 27/11/2013 **Assessor:** M. Assal **Weather Conditions:** Calm to light conditions (0.5 – 2.0 m/s) with swinging north/northeast to east/northeast winds

Reference: Plot No. 1473-XXII							
GRIF REF. POSITION	**TIME (hrs)**	**WIND DIRECTION**	**WIND SPEED (m/s)**	**ODOUR PRESNT (Y/N)**	**ODOUR CHARACTER**	**VDI 3940 INTENSITY SCALE 0-6**	**COMMENTS**
1	1707	E/NE	0.5 -1.5	N	-	0	-
2	1711	E/NE	0.5 - 1.5	N	-	0	-
3	1716	N/NE to E/NE	0.5 – 2.0	N	-	0	-
4	1735	N/NE	1.0 - 1.5	N	-	0	Transfer Terminal Station in line of site
5	1740	E/NE	1.0 - 1.5	N	-	0	-
6	1745	E/NE	1.0 – 2.0	N	-	0	-
7	1750	N/NE to E/NE	1.0 – 1.5	N	-	0	-
8	1755	NE/E	0.5 – 1.5	N	-	0	-
9	1800	NE/E	0.5 – 1.5	N	-	0	-

Appendix D –

NSW Clyde Transfer Terminal Odour Management Procedures

NSW Clyde Transfer Terminal Odour Management

Aim:

The processing of putrescible waste at the Clyde Transfer Terminal may generate some localised odours. This procedure has been developed in an effort to reduce the likelihood of offensive odours leaving the site boundary by providing Site Operators with clear regular tasks to eliminate the source of any potential odours.

This procedure is also aimed to effectively maintain and operate the Clyde Transfer Terminal Odour Control System, in accordance with design specifications and approved Conditions of Development Consent, to ensure maximum efficiencies and minimise the risk of any adverse impact on surrounding commercial and residential areas.

Responsibility:

It is the responsibility of the Clyde Facility Manager and Environmental Management Representative to ensure that this procedure is communicated to Site Operators and that the procedure is followed.

It is the responsibility of the Site Operators to ensure that actions mirror this procedure.

Procedure:

Task	Reason for action
1. Only fully enclosed and appropriately sealed vehicles will be permitted to dispose of waste at the Terminal;	Remove a potential source of odour from site entry .
2. The Odour Control System is to be operated when waste is present on the Terminal building floor.	Remove a potential source of odour.
3. The Dust Suppression System (DSS) will be operated as required to minimise the potential for particulates to become airborne;	Remove a potential source of odour.

Task	Reason for action
4. Collect any solid waste from the floor of the compactor pit area. Shovel any waste matter into a container or into the mouth of the Compactor.	Remove a potential source of odour.
5. Waste is to be loaded into the compactors on a first-in/first-out basis. This is provided that where a load is identified as offensive (due to odours or dust), that load will be prioritised for compaction and loaded into sealed containers. For all waste, loading into the containers must be done in a timely fashion.	Remove a potential source of odour.
6. All waste received at the terminal will be compacted and containerised in a timely fashion to ensure the tipping floor is clear of waste where possible;	Remove a potential source of odour.
7. Following the compaction of waste, all containers are to be sealed immediately.	Remove a potential source of odour.
8. Misting sprays to be used as required	To minimise the potential for particulates to become airborne.
9. Hose down any liquid waste residue that falls onto pit floor area into the leachate drainage.	Remove a potential source of odour by storing leachate liquid in dedicated tank (not to be treated as stormwater).
10. The leachate retention tank ventilation system to be channelled back through the building's extraction system	Remove a potential source of odour
11. The compactor pit area will be inspected daily to ensure the area is free from residual waste and debris. Remove all waste from the rear and inside of the compactor.	Reduce likelihood of compactor failure and subsequent build-up of waste on site. Remove a potential source of odour.
12. Clean out all drains located in the compactor pit area weekly. Remove any solid matter and check the pollution socks for replacement.	Reduce likelihood of drainage blocking up. Remove a potential source of odour.
13. Collect any waste matter that may fall from Waste vehicles and dispose in the appropriate manner, such as waste bins.	Remove a potential source of odour.

Task	Reason for action
14. Ensure adequate maintenance schedules are in place to reduce the likelihood of system failures or breakdown. andMaintain records in accordance with manufacturer's recommendations;	To ensure that maintenance is recorded sufficiently inline with COC needs
15. Housekeeping, including street sweeping and high pressure water jetting is undertaken routinely to remove build up of any waste material on hard surfaces on the road and weighbridge.	Remove build up of any waste material which may cause an odour.
16. Ensure through Veolia's monitoring regimes occur by internal and external process	This is so odour control measures remain effective and capable of minimising offensive odours from the site;

End of Procedure

Veolia Environmental Services (Australia) Pty Limited

Clyde Waste Transfer Terminal

Odour Audit XXI

April 2013

THE ODOUR UNIT PTY LTD

ABN 5309 116 5061
ACN 091 165 061

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Locomotive Workshop
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Project Number: N1473

Report Revision		
Revision Number	**Date**	**Description**
Draft V1	16.04.2013	Issued to client for review
Final Report	17.04.2013	Final report issued
Report Preparation		
Report Prepared By: M. Assal		**Approved By:** T.Schulz
Report Title: Veolia Environmental Services (Australia) Pty Limited Clyde Waste Transfer Terminal – Odour Audit XXI		

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APPENDICES

Appendix A: Odour Extraction System Service Reports (December 2012 – April 2013)

Appendix B: Weather Data Calibration Report (November 2012 & February 2013)

Appendix C: Field Ambient Odour Assessment Plot and Field Sheets (21 March 2013)

1 INTRODUCTION

The Odour Unit Pty Ltd (TOU) was commissioned by Veolia Environmental Services (Australia) Pty Ltd (VES) to undertake the twenty first Odour Audit at the Clyde Transfer Terminal (CTT) on 21 March 2013. This Odour Audit is the eleventh to be carried out since the commissioning of the new forced air extraction system within the transfer building. Odour Audit XXI covers the 6-month period from November 2012 to April 2013. The audit was carried out by TOU's Engineer Michael Assal.

Odour Audit requirements of the Conditions of Consent – *48(f)* are outlined below:

> *48. The Odour Management Plan must address, but is not necessarily limited to, the following issues:*
>
> *(f) An odour audit program which provides for a comprehensive odour audit of the premises and nearby commercial and residential areas, by an independent, appropriately qualified and experienced person, to be conducted 3-monthly for the initial 24 months of receiving un-containerised waste at the terminal, 3-monthly for the 12 months following commissioning the odour control system subject to MOD-133-11-2006, and 6-monthly thereafter, unless otherwise approved in writing by the Director-General.*

As with previous Audits, Odour Audit XXI focused on issues relating to general housekeeping, fugitive odour emissions from the transfer building, ground level odour impacts, meteorological monitoring, complaints handling and actions on past Odour Audit recommendations. The approach included a general inspection and smoke testing of the transfer building, inspection of the container packing area and site access roads; inspection of the complaint register; review of the site meteorological data log and equipment maintenance/calibration; and an off-site downwind field ambient odour survey. At the time of this Audit a light wind from the north/northeast tending to north/northwest was blowing.

2 FINDINGS

2.1 Assessment of General Housekeeping

2.1.1 Transfer Terminal Building

During the Audit visit on 21 March 2013, there were approximately 100-120 tonnes of waste on the floor, according to the Site Manager. This tonnage is considered to be within the normal operational range of the Transfer Terminal Building at the time this Audit was being carried out. The Transfer Terminal Building floor area not covered by waste material was observed to be reasonably clean, with no evidence of leachate or aged material. General housekeeping procedures of the Transfer Terminal Building were good, as observed during a truck-unloading sequence. It was also observed that the site's front-end loaders cleared the floor area of waste on a regular basis, minimising the exposed area of waste.

As with previous audits, and consistent with TOU's experience at other waste transfer stations, there was a weak to distinct level of odour observed within the building.

2.1.2 Container Packing Area and Site Roadways

The container packing area and site roadways were clean and well managed with no waste or leachate exposed at the time of this audit. The container compacting/train packing area had a weak odour present but it was confined to this area only. The general house-keeping around this area was observed to be of high quality, with no evidence to suggest otherwise.

As with previous audits, the containers are cleaned offsite at Veolia's Woodlawn facility. The weight of each container is monitored to determine if there is any waste that has not been removed completely from each container, which in turn reduces the likelihood of the containers contributing to the site's odour levels.

2.1.3 Odour Extraction System Maintenance

Service documentation was provided and inspected for the maintenance of the odour extraction system (refer **Appendix A**). Service logs were provided from December 2012 to April 2013. Each service log provided showed that the required maintenance was taking place and the odour extraction system was operating well.

The service logs during this period noted that replacements were carried out on the flexible fan connection on the exhaust fans and fan belts. This required work was noted in the previous Audit. The fan technician has indicated in the service logs that the replacements were carried out successfully, and the system is operating well. The fan technician however appears to have not recorded exhaust airflow velocities through the stack in the service log reports. This should be done in the next service to confirm that the minimum exit air velocity of 19.1 m/s is been achieved by the system. The Site Manager also informed the auditor that cleaning of the odour extraction system (also noted in the previous Audit) was cleaned successfully.

2.1.4 Odour Minimising Procedures

The odour minimisation procedures continue to be regularly reviewed at Tool Box meetings and new issues/recommendations are raised with all staff members at these meetings.

2.1.5 Transfer Terminal Building

Inspection of the Transfer Terminal Building revealed that most of the rubber mats that seal the breezeways were in place, with five (5) mats identified as fallen down and three (3) requiring repair/replacement. These were located on the northern, eastern and western sides of the Transfer Terminal Building. The auditor was advised by the Site Manager during the Audit that this is mostly caused by waste build-up on the mats, leading them to fall down or become faulty. This is most problematical on the northwestern side of the building. The auditor was advised that VES plan to install a metal plate at this location in an attempt to address this issue. This new setup will be inspected in the next Audit.

All doors and roller shutters of the Transfer Terminal Building were found to be shut at the time of the Audit, reducing the likelihood of odour impacts detected offsite. Similarly, the louvres on the end walls of the Transfer Terminal Building were observed to be permanently shut.

2.1.6 Truck Entrance Plastic Strips

The truck entrance strips of the Transfer Terminal Building, used to reduce odour escaping through the opening, were found to be mostly intact with 4-5 panels missing/requiring repair. Action to rectify this should be taken as soon as possible. Experience has determined that these strips contribute to containing odour within the building and therefore require daily check-ups to ensure they are all intact. The Site Manager informed the auditor that sourcing a supplier for the new strips has been difficult, and will continue to action this matter until a successful outcome is achieved.

2.1.7 Smoke Testing

As per previous audits, smoke testing was carried out within the Transfer Terminal Building to assist in determining the effectiveness of the forced air extraction system, as well as the extent to which the Transfer Terminal Building has been sealed from leaks. Smoke was released from within the building from three (3) different points within the Transfer Terminal Building. **Figure 2.1** shows the three points where the smoke was released. These are identical locations to that of previous audits.

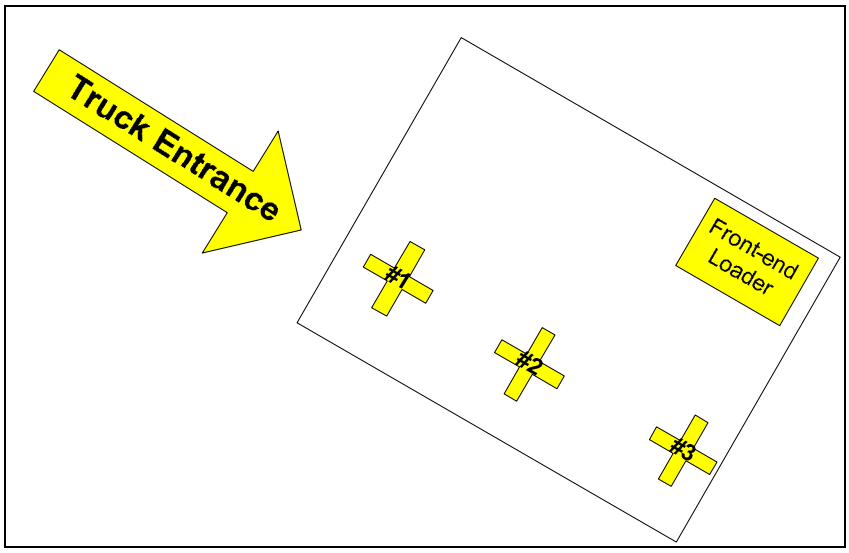


Figure 2.1 - Smoke testing release points within the Transfer Terminal Building

Smoke Testing Point #1

Smoke released at this point initially rose gradually moving towards the truck entrance before rising to the roof and moving towards the extraction system. No smoke was observed to escape the building. The smoke testing at this point revealed that there could be a possibility that the western section (closet to the truck entrance) of the fan extraction collection system is sub-optimally capturing air than the eastern section (furthest from the truck entrance). The reason for this should be investigated. The auditor advised the Site Manager of this during the audit visit.

Smoke Testing Point #2

Smoke released from the second point initially moved upwards in eddies and was gradually drawn into the extraction system.

Smoke Testing Point #3

Smoke testing was carried out at the truck entrance and the smoke was observed to initially move upwards towards the roof and then towards the extraction fan. There was no observed movement towards the truck entrance.

The overall finding of the smoke testing was that the extraction system is working at a satisfactory capacity, with no evidence to suggest fugitive odour released from the Transfer Terminal building

2.1.8 Stormwater Retention Pond

The auditor observed that there was no effluent in this pond at the time this Audit was carried out. There was no odour detectable during the audit visit that could be linked directly back to this pond.

2.2 Odour Complaints Handling and Meteorological Data

2.2.1 Odour Complaints Handling

As advised by the Site Manager, there have been no complaints recorded in the site complaints register since March 2012.

2.2.2 Meteorological Data

The meteorological data provided to the auditor for the period from November 2012 to April 2013 was inspected and found to be in good order. As previously, observations were recorded in 15-minute intervals, and included all parameters necessary to develop a meteorological dataset for odour dispersion modelling.

The weather station is located in an accessible area with no vegetation overgrown immediately around the weather station pole, as indicated by the Quarterly Service Documents provided by VES. Servicing and calibrations were carried out as required in November 2012 and February 2013 by Hydrometric Consulting Services. The weather data calibration reports for both service visits are attached in **Appendix B**.

2.3 Field Ambient Odour Assessment Methodology

At present, no Australian Standard exists for field based ambient odour assessment surveys. Consequently, The Odour Unit utilises a method for assessing the ground level impacts of odour emissions using a modified version of the German Standard VDI 3940 (1993) – *'Determination of Odorants in Ambient Air by Field Inspections'*.

Field based ambient odour surveys are considered a valuable odour impact assessment tool as previous experience with ambient odour sampling and subsequent

olfactometry testing suggests that accurate and useful ambient odour concentration data is difficult to obtain. Therefore, TOU has adopted a more practical approach based on the field measurement of odour intensity. With this method, calibrated and experienced odour specialists traverse the downwind surrounds of odour sources in a strategically mapped pattern, assessing the presence, character and intensity of any odours encountered and recording these observations along with wind speed and direction.

An ambient odour assessment was performed both on-site and offsite of the Clyde facility on 21 March 2013 between 1050 hrs – 1200 hrs. The ambient odour assessment focused offsite as required by the Conditions of Consent on "…..*nearby commercial and residential areas…..*" (Section *48 (f)*). The TOU assessors firstly determined the wind direction using a compass and then assessed downwind locations of the Transfer Terminal Building.

The assessors spent a few minutes at each assessment location in order to gauge the effects of any odour impact. If an odour was detected at a location, the assessors attempted to characterise it. The general aim was to determine the extent of the impact of odours off-site and rank their intensity. The ranking scale for the German Standard VDI 3940 '*Determination of Odorants in Ambient Air by Field Inspections'* was used for the intensity assessments. The standard's ranking system is based on the following seven-point intensity scale, as shown in **Table 2.1**.

Table 2.1 - VDI 3882 Odour Intensity Categories		
Odour Strength	**Intensity Rank (code)**	**TOU Interpretation (meaning)**
Not detectable	0	No odour detected
Very weak	1	Odour detected but not strong enough to be characterised
Weak	2	Odour is weak but just able to be characterised
Distinct	3	Odour is clearly distinct and easily characterised
Strong	4	Strong odour detectable
Very Strong	5	If offensive, observer may consider moving from the area
Extremely Strong	6	Odour is sufficiently over-powering that assessor moves from area

2.3.1 Field Ambient Odour Assessment - Results

The results from the FAOA survey conducted during this Audit found that no odours were detected offsite that could be linked back to the Transfer Terminal Station. The field log sheets and odour impact map are attached as **Appendix C.**

3 RECOMMENDATIONS/FOLLOW-UP

3.1 Transfer Terminal Building

As found in this Audit, the rubber mats continue to be an issue at the site. The auditor was advised by the Site Manager during the Audit that this is mostly caused by waste build-up on the mats, leading them to fall down or become faulty. This is most problematical on the northwestern side of the building. The auditor was advised that VES plan to install a metal plate at this location in an attempt to address this issue. This new setup will be inspected in the next Audit. Next to this, the fallen mats identified around the breezeway in this Audit should be returned to the intended position and secured, and that those that are faulty be repaired. Additionally, repair and attention of the missing/damaged truck entrance strips should be carried out as soon as a suitable supplier is sourced.

3.2 Compactor Area

The general house-keeping around this area was observed to be of high quality, with no evidence to suggest otherwise. As with previous Audits, the container compacting/train packing area had a weak odour present but it was confined to this area only.

3.3 Odour Extraction System

The service logs indicate that all required maintenance works on the odour extraction system since the last Audit has been carried out successfully, and the system is operating well. The Audit smoke testing did however identify some tendency for sub-optimal capture at some of the ventilation extraction points (see **Section 2.1.7** for details) of the Transfer Terminal Building. This was identified in the previous Audit, and thought to be related to maintenance works at that time. Given the finding in this Audit, it is recommended that a follow-up investigation is carried out to ensure that the system is operating in an optimum condition. Next to this, the stack velocity during the next service should be recorded to confirm that the minimum stack velocity of 19.1 m/s has been achieved by the system.

Overall, this Audit found that the operation and maintenance of the odour management system at the plant were satisfactory, with no evidence to suggest significant fugitive emission release from the Transfer Terminal Station.

The next Audit is due in October/November 2013.

Appendix A –

Odour Extraction System Service Reports

(December 2012 – April 2013)

Michael Assal

From: Craig Doorey <Craig.Doorey@veolia.com.au>
Sent: Thursday, 21 March 2013 9:51 AM
To: Michael Assal
Subject: FW: Field Data Capture Notification - Triple M - NSW - Service Docket

Clyde fan

Regards,

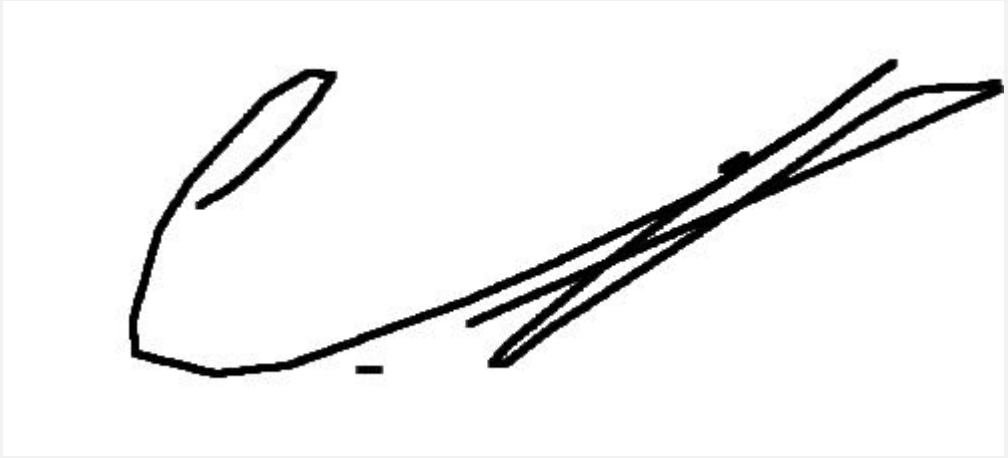
Craig Doorey

VEOLIA ENVIRONMENTAL SERVICES ENCOURAGES YOU TO PLEASE CONSIDER THE ENVIRONMENT BEFORE PRINTING THIS E-MAIL

From: no-reply@bsa.com.au [mailto:no-reply@bsa.com.au]
Sent: Friday, December 28, 2012 12:57 PM
To: service@triple-m.com.au; dblore@bsa.com.au; Craig Doorey
Subject: Field Data Capture Notification - Triple M - NSW - Service Docket

ID	1297
Time Start	Fri Dec 28 2012 12:51:13 GMT+1100 (EST)
Client Details	VEOLIA ENVIRONMENTAL SERVICES
Address	Clyde
Site Contact Name	Craig Doorey
Site Contact Telephone Number	02 8868 7401
Customer Ref Number	CT45-02163699
Type of Service	Quoted Call
Job / Service Call Number	31441
Fault Description	Flexible Connections on 2 Exhaust - TMSQ992
Asset Type Affected	EXTRACTION SYSTEM
Description of Work Done	Carried out replacement of flexible fan connection on exhaust fans as per quote.

Barcode Label Entry Method	Scan
Parts, Materials?	No
Ancilliaries	
Job Status	Completed
Technician's Signature	

Client Signature	
Forwarding Email	craig.doorey@veolia.com.au
User ID	TNSS-MLY

Job Safety Analysis

ID	S1297
Job/Service Call Number	31441
Work to be done	Flexible Connections on 2 Exhaust - TMSQ992
Protective Equipment to be Used During Works	Gloves, Long Pants, Safety Glasses, Long Sleeve Shirt, High Visibility Garments, Face/Dust mask, Safety Boots/Shoes

Access / Egress to equipment hazard present?	No
Trips, slips, and falls hazard present?	No
Roof Access hazard present?	No
Working on roof?	No
Remain on walkways and paths	No
Manual Handling?	Yes
Use and maintain correct posture.	1
Minimize distance the load is to be moved/lifted.	1
Client/General Public/vehicle control?	No
Electrical works?	No
Mechanical works?	Yes

All isolations complete: electrical, refrigeration, air, water, gas.	1
No work until all moving parts have stopped.	1
Working from heights?	No
Working from a step ladder?	No
Electrical tools & equipment being used?	No
Using HazMat?	No
Welding or oxy cutting?	No
Cooling towers? Bio Hazards?	No
Handling refrigerant?	No

Technician's Signature	
Post Photos?	
ID	**S1297**
Job Number	31441

Photo	
ID	S1297
Job Number	31441

Photo	

Tech Times	
ID	S1297
Job Number	31441
Date Worked	2012-12-28 12:55:37

Name of Tech	Greg broad
Technician Classification	Tradesman
ID	**S1297**
Job Number	31441
Date Worked	2012-12-28 12:55:15
Name of Tech	Mick lye
Technician Classification	Tradesman

Email Report

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Michael Assal

From: Craig Doorey <Craig.Doorey@veolia.com.au>
Sent: Thursday, 21 March 2013 9:52 AM
To: Michael Assal
Subject: FW: Field Data Capture Notification - Triple M - NSW - Service Docket

Clyde Fan

Regards,

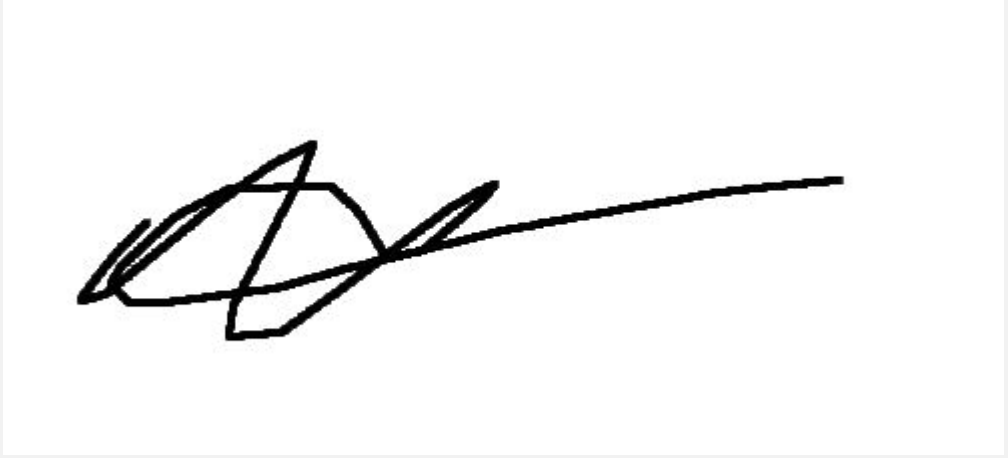
Craig Doorey

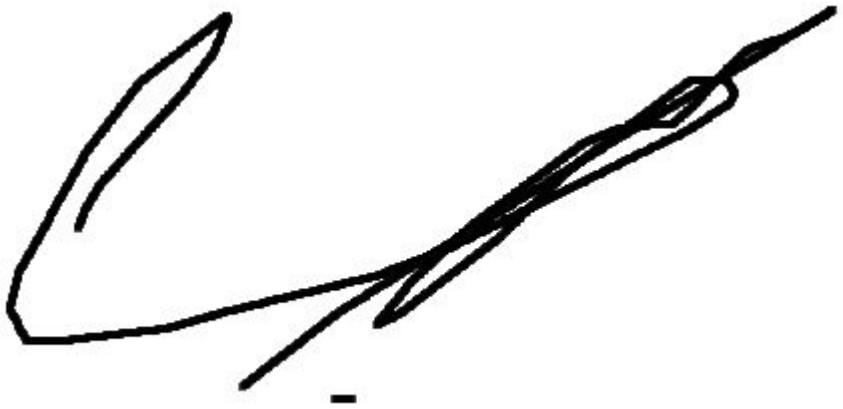
VEOLIA ENVIRONMENTAL SERVICES ENCOURAGES YOU TO PLEASE CONSIDER THE ENVIRONMENT BEFORE PRINTING THIS E-MAIL

From: no-reply@bsa.com.au [mailto:no-reply@bsa.com.au]
Sent: Friday, December 28, 2012 1:14 PM
To: service@triple-m.com.au; dblore@bsa.com.au; Craig Doorey
Subject: Field Data Capture Notification - Triple M - NSW - Service Docket

Triple M - NSW - Service Docket

ID	2646
Time Start	Fri Dec 28 2012 13:07:43 GMT+1100 (EST)
Client Details	CLYDE - MAINTENANCE
Address	322 Parramatta Rd, Clyde NSW 2142
Site Contact Telephone Number	02 8868 7401
Type of Service	Preventative Maintenance
Job / Service Call Number	49960
Fault Description	CLYDE WASTE - PM November
Asset Type Affected	EXTRACTION SYSTEM
Maintenance Done	
Description of Work Done	Carried out routine maintenance as per schedule for November. Checked belts and unit operations. Cleaning will be

	started shortly to be ready for belt replacement.
Barcode Label Entry Method	Scan
Parts, Materials?	No
Ancilliaries	
Job Status	Completed
Technician's Signature	

Client Signature	
Forwarding Email	craig.doorey@veolia.com.au
User ID	TNSS-MLY

Job Safety Analysis

ID	S2646
Job/Service Call Number	49960
Work to be done	CLYDE WASTE - PM November
Protective Equipment to be Used During Works	Gloves, Safety Glasses, Face/Dust mask, Safety Boots/Shoes

Access / Egress to equipment hazard present?	No
Trips, slips, and falls hazard present?	No
Roof Access hazard present?	No
Working on roof?	No
Remain on walkways and paths	No
Manual Handling?	No
Client/General Public/vehicle control?	No
Electrical works?	No
Mechanical works?	Yes
All isolations complete: electrical, refrigeration, air, water, gas.	1
No work until all moving parts have stopped.	1

Working from heights?	No
Working from a step ladder?	No
Electrical tools & equipment being used?	No
Using HazMat?	No
Welding or oxy cutting?	No
Cooling towers? Bio Hazards?	No
Handling refrigerant?	No
Technician's Signature	

Tech Times	
ID	S2646
Job Number	49960
Date Worked	2012-11-30 13:12:14
Name of Tech	Mick lye
Technician Classification	Tradesman

Email Report

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Michael Assal

From: Craig Doorey <Craig.Doorey@veolia.com.au>
Sent: Thursday, 21 March 2013 9:52 AM
To: Michael Assal
Subject: FW: Field Data Capture Notification - Triple M - NSW - Service Docket

Clyde Fan

Regards,

Craig Doorey

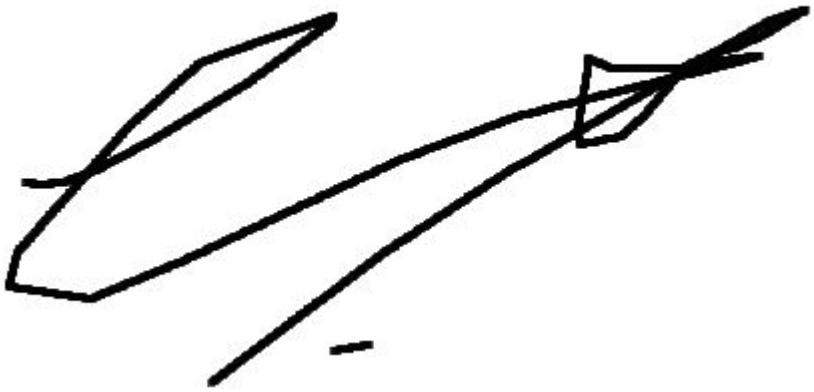
VEOLIA ENVIRONMENTAL SERVICES ENCOURAGES YOU TO PLEASE CONSIDER THE ENVIRONMENT BEFORE PRINTING THIS E-MAIL

From: no-reply@bsa.com.au [mailto:no-reply@bsa.com.au]
Sent: Friday, December 28, 2012 1:23 PM
To: service@triple-m.com.au; dblore@bsa.com.au; Craig Doorey
Subject: Field Data Capture Notification - Triple M - NSW - Service Docket

Triple M - NSW - Service Docket

ID	2875
Time Start	Fri Dec 28 2012 13:19:08 GMT+1100 (EST)
Client Details	CLYDE - MAINTENANCE
Address	322 Parramatta Rd, Clyde NSW 2142
Site Contact Name	Craig Doorey
Site Contact Telephone Number	02 8868 7401
Customer Ref Number	4502301049
Type of Service	Preventative Maintenance
Job / Service Call Number	52697
Fault Description	CLYDE WASTE - PM December
Asset Type Affected	EXTRACTION SYSTEM

Maintenance Done	
Description of Work Done	Carried out routine maintenance as per schedule for December. Checked unit operations. New belts have been fitted and flex connections now replaced. No issues found.
Barcode Label Entry Method	Scan
Parts, Materials?	No
Ancilliaries	
Job Status	Completed
Technician's Signature	

Client Signature	
Forwarding Email	craig.doorey@veolia.com.au
User ID	TNSS-MLY

Job Safety Analysis

ID	S2875
Job/Service Call Number	52697
Work to be done	CLYDE WASTE - PM December
Protective Equipment to be Used During Works	Gloves, Safety Glasses, High Visibility Garments, Face/Dust mask, Safety Boots/Shoes

Access / Egress to equipment hazard present?	No
Trips, slips, and falls hazard present?	No
Roof Access hazard present?	No
Working on roof?	No
Remain on walkways and paths	No
Manual Handling?	No
Client/General Public/vehicle control?	No
Electrical works?	No
Mechanical works?	Yes
All isolations complete: electrical, refrigeration, air, water, gas.	1
No work until all moving parts have stopped.	1

Working from heights?	No
Working from a step ladder?	No
Electrical tools & equipment being used?	No
Using HazMat?	No
Welding or oxy cutting?	No
Cooling towers? Bio Hazards?	No
Handling refrigerant?	No
Technician's Signature	

Tech Times	
ID	**S2875**
Job Number	52697
Date Worked	2012-12-28 13:21:37
Name of Tech	Mick lye
Technician Classification	Tradesman

Email Report

A **BSA - Technical Maintenance Services** Company

BSA Ltd - All rights reserved.

Michael Assal

From: Craig Doorey <Craig.Doorey@veolia.com.au>
Sent: Thursday, 21 March 2013 9:52 AM
To: Michael Assal
Subject: FW: Field Data Capture Notification - Triple M - NSW - Service Docket

Clyde Fan

Regards,

Craig Doorey

VEOLIA ENVIRONMENTAL SERVICES ENCOURAGES YOU TO PLEASE CONSIDER THE ENVIRONMENT BEFORE PRINTING THIS E-MAIL

From: no-reply@bsa.com.au [mailto:no-reply@bsa.com.au]
Sent: Wednesday, February 13, 2013 11:28 AM
To: service@triple-m.com.au; dblore@bsa.com.au; Craig Doorey
Subject: Field Data Capture Notification - Triple M - NSW - Service Docket

Triple M - NSW - Service Docket

ID	3178
Time Start	Wed Feb 13 2013 11:21:35 GMT+1100 (EST)
Client Details	CLYDE - MAINTENANCE
Address	322 Parramatta Rd, Clyde NSW 2142
Site Contact Name	Craig Doorey
Site Contact Telephone Number	02 8868 7401
Customer Ref Number	4502301049
Type of Service	Preventative Maintenance
Job / Service Call Number	57139
Fault Description	CLYDE WASTE - PM January
Asset Type Affected	EQUIPMENT NOT SELECTED

Maintenance Done	
Description of Work Done	Carried out routine maintenance as per schedule for January. Checked belts and unit operations. Flexible connections are working well and new belts are still in good condition.
Barcode Label Entry Method	Scan
Parts, Materials?	No
Ancilliaries	
Job Status	Completed

Technician's Signature

Client Signature	
Forwarding Email	craig.doorey@veolia.com.au
User ID	TNSS-MLY

Job Safety Analysis	
ID	S3178
Job/Service Call Number	57139

Work to be done	CLYDE WASTE - PM January
Protective Equipment to be Used During Works	Gloves, Safety Glasses, High Visibility Garments, Face/Dust mask, Safety Boots/Shoes
Access / Egress to equipment hazard present?	No
Trips, slips, and falls hazard present?	No
Roof Access hazard present?	No
Working on roof?	No
Remain on walkways and paths	No
Manual Handling?	No
Client/General Public/vehicle control?	No
Electrical works?	No
Mechanical works?	Yes

All isolations complete: electrical, refrigeration, air, water, gas.	1
No work until all moving parts have stopped.	1
Working from heights?	No
Working from a step ladder?	No
Electrical tools & equipment being used?	No
Using HazMat?	No
Welding or oxy cutting?	No
Cooling towers? Bio Hazards?	No
Handling refrigerant?	No

Technician's Signature	

Tech Times	
ID	S3178
Job Number	57139
Name of Tech	Mick lye
Technician Classification	Tradesman

Email Report

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Michael Assal

From: Craig Doorey <Craig.Doorey@veolia.com.au>
Sent: Thursday, 21 March 2013 9:52 AM
To: Michael Assal
Subject: FW: Field Data Capture Notification - Triple M - NSW - Service Docket

Clyde Fan

Regards,

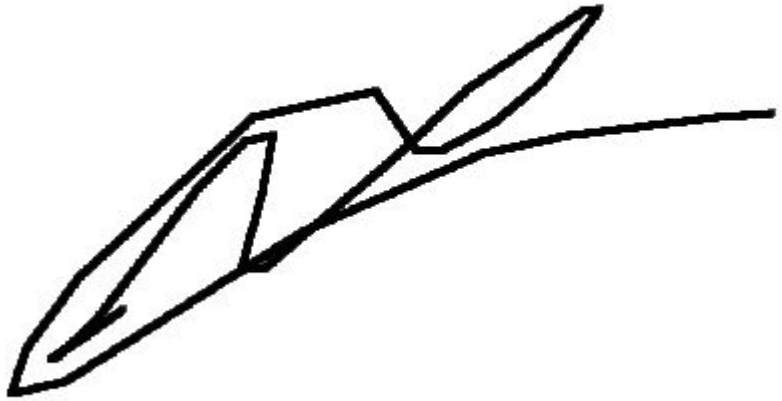
Craig Doorey

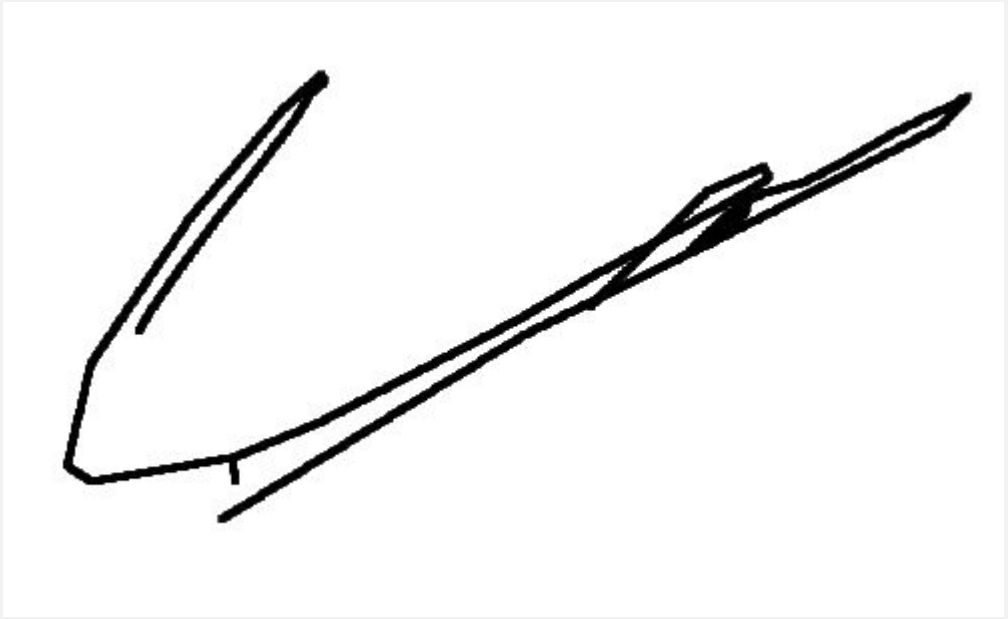
VEOLIA ENVIRONMENTAL SERVICES ENCOURAGES YOU TO PLEASE CONSIDER THE ENVIRONMENT BEFORE PRINTING THIS E-MAIL

From: no-reply@bsa.com.au [mailto:no-reply@bsa.com.au]
Sent: Wednesday, March 06, 2013 2:28 PM
To: service@triple-m.com.au; dblore@bsa.com.au; Craig Doorey
Subject: Field Data Capture Notification - Triple M - NSW - Service Docket

Triple M - NSW - Service Docket

ID	3480
Time Start	Wed Mar 06 2013 14:24:51 GMT+1100 (EST)
Client Details	CLYDE - MAINTENANCE
Address	322 Parramatta Rd, Clyde NSW 2142
Site Contact Telephone Number	02 8868 7401
Customer Ref Number	4502301049
Type of Service	Preventative Maintenance
Job / Service Call Number	61333
Fault Description	CLYDE WASTE - PM February
Asset Type Affected	EQUIPMENT NOT SELECTED
Maintenance Done	

Description of Work Done	Carried out routine maintenance as per schedule for February. Checked belts and unit operations. All belts are still in good condition and flex connections are working well.
Barcode Label Entry Method	Scan
Parts, Materials?	No
Ancilliaries	
Job Status	Completed
Technician's Signature	

Client Signature	
Forwarding Email	craig.doorey@veolia.com.au
User ID	TNSS-MLY
Job Safety Analysis	
ID	**S3480**
Job/Service Call Number	61333

Work to be done	CLYDE WASTE - PM February
Protective Equipment to be Used During Works	Gloves, Safety Glasses, High Visibility Garments, Safety Boots/Shoes
Access / Egress to equipment hazard present?	No
Trips, slips, and falls hazard present?	No
Roof Access hazard present?	No
Working on roof?	No
Remain on walkways and paths	No
Manual Handling?	No
Client/General Public/vehicle control?	No
Electrical works?	No
Mechanical works?	Yes

All isolations complete: electrical, refrigeration, air, water, gas.	1
No work until all moving parts have stopped.	1
Working from heights?	No
Working from a step ladder?	No
Electrical tools & equipment being used?	No
Using HazMat?	No
Welding or oxy cutting?	No
Cooling towers? Bio Hazards?	No
Handling refrigerant?	No

Technician's Signature	

Tech Times	
ID	**S3480**
Job Number	61333
Date Worked	2013-03-06 14:27:14
Name of Tech	Mick lye

Technician Classification	Tradesman

Email Report

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Michael Assal

Subject: FW: Field Data Capture Notification - Triple M - NSW - Service Docket

Craig Doorey

VEOLIA ENVIRONMENTAL SERVICES ENCOURAGES YOU TO PLEASE CONSIDER THE ENVIRONMENT BEFORE PRINTING THIS E-MAIL

From: no-reply@bsa.com.au [mailto:no-reply@bsa.com.au]
Sent: Wednesday, April 10, 2013 12:08 PM
To: service@triple-m.com.au; dblore@bsa.com.au; Craig Doorey
Subject: Field Data Capture Notification - Triple M - NSW - Service Docket

Triple M - NSW - Service Docket	
ID	3757
Time Start	Wed Apr 10 2013 12:03:04 GMT+1000 (EST)
Client Details	CLYDE - MAINTENANCE

Address	322 Parramatta Rd\r\nClyde NSW 2142
Site Contact Telephone Number	02 8868 7401
Customer Ref Number	4502301049
Type of Service	Preventative Maintenance
Job / Service Call Number	65668
Fault Description	CLYDE WASTE - PM March 3MAM
Asset Type Affected	AIR DISTRIBUTION
Maintenance Done	
Description of Work Done	Carried out routine maintenance as per schedule for March. Checked belts and fan operations. All working and no issues found.
Barcode Label Entry Method	Scan
Parts, Materials?	No
Ancilliaries	

Job Status	Completed
Technician's Signature	
Client Signature	
Forwarding Email	craig.doorey@veolia.com.au
User ID	TNSS-MLY

Job Safety Analysis

ID	S3757
Job/Service Call Number	65668
Work to be done	CLYDE WASTE - PM March 3MAM
Protective Equipment to be Used During Works	Gloves, Safety Glasses, High Visibility Garments, Face/Dust mask, Safety Boots/Shoes
Access / Egress to equipment hazard present?	No

Trips, slips, and falls hazard present?	No
Roof Access hazard present?	No
Working on roof?	No
Remain on walkways and paths	No
Manual Handling?	No
Client/General Public/vehicle control?	No
Electrical works?	No
Mechanical works?	Yes
All isolations complete: electrical, refrigeration, air, water, gas.	1
No work until all moving parts have stopped.	1
Working from heights?	No

Working from a step ladder?	No
Electrical tools & equipment being used?	No
Using HazMat?	No
Welding or oxy cutting?	No
Cooling towers? Bio Hazards?	No
Handling refrigerant?	No
Technician's Signature	

Tech Times	
ID	S3757
Job Number	65668
Name of Tech	Mick Lye

Number of Hours	0
Travel Time	0
Charge Rate	Normal Time
Technician Classification	Tradesman

Email Report

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Appendix B -

Weather Data Calibration Report

(November 2012 & February 2013)

Hydrometric Consulting Services Pty Ltd

ABN 16 091 437 071

30 November 2012

Stephen Bernhart
Environmental Monitoring Officer
Veolia Environmental Services

Re – Quarterly service of weather stations

Dear Stephen,
As per our service agreement, on the 29/11/12 HCS undertook the service, calibration and maintenance of the weather stations located at the Clyde and Horsley Park sites. Field readings were obtained by a combination of a Kestral 3500, compass, Monitor Solar Radiation field unit and HS TBRG calibration device. Details are as follows

Horsley Park

Sensor	**Actual (field)**	**Logger**
Temperature – 10m	23 deg *	21.1 deg
2m	23 deg *	21.3 deg
Relative Humidity	80%	84%
Wind Speed	0.7m/s at ground	0.8m/s at 10 metres
Wind Direction	300 deg	300 deg
Solar Radiation	240 w/sq.m	240 w/sq.m
TBRG	20mm	41 tips (0.5mm per tip)
Battery	13.4v Solar 18.9v	

* Note 1: field reading is not inside the radiation shield

Note 2: ignore rainfall tips logged between 0815 to 0905 as these were testing and calibration.

Note 3: the site was polled prior to the visit and was operating satisfactorily.

Note 4: the 10 metre mast was found to be bent as a result of being hit by machinery. A quotation for the supply and installation of a new mast will be supplied.

Additional Items

1. Solar panel and components cleaned.
2. Installation sprayed for insects.

Clyde

Sensor	Actual (field)	Logger
Temperature – 10m	28.0 deg *	24.3 deg
2m	28.0 deg *	24.5 deg
Relative Humidity	64.5%	65.4%
Wind Speed	1.1 m/sec at ground	1.7 m/sec at 10m
Wind Direction	210	211
Solar Radiation	350 w/sq.m	350 w/sq.m
TBRG	20mm	42 tips (0.5mm per tip)
Battery	13.4v Solar 20.2v	

* Note 1: field reading is not inside the radiation shield

Note 2: ignore rainfall tips logged between 1000 to 1023 as these were testing and calibration.

Note 3: there was no condensation inside the cabinet.

Note 4: the site was polled prior to the visit and was operating satisfactorily.

Additional Items

1. Installation sprayed for insects.
2. Weeds and bush trimmed

Should you require any further information on this report please do not hesitate to contact me on 0402 134 092.

Glen Murphy

Hydrometric Consulting Services Pty Ltd

2 Autumn Place
Guildford NSW 2161
Tele 98924588 Fax 98924599
Email glenmurf@ozemail.com.au

44 Colo Rd
Colo Vale NSW 2575
Tele 48895102 Fax 48895103
Email steves@mitmania.net.au

www.hydrometric.com.au

Hydrometric Consulting Services Pty Ltd

ABN 16 091 437 071

15 February 2013

Stephen Bernhart
Environmental Monitoring Officer
Veolia Environmental Services

Re – Quarterly service of weather stations

Dear Stephen,
As per our service agreement, on the 13/02/13 HCS undertook the service, calibration and maintenance of the weather stations located at the Clyde and Horsley Park sites. Field readings were obtained by a combination of a Kestral 3500, compass, Monitor Solar Radiation field unit and HS TBRG calibration device. Details are as follows

Horsley Park

Sensor	**Actual (field)**	**Logger**
Temperature – 10m	19 deg *	19.5 deg
2m	19 deg *	19.6 deg
Relative Humidity	70.5%	67%
Wind Speed	2.4m/s at ground	3.1m/s at 10 metres
Wind Direction	180 deg	178 deg
Solar Radiation	165w/sq.m	130w/sq.m
TBRG	20mm	42 tips (0.5mm per tip)
Battery	13.5v Solar 17.8v	

* Note 1: field reading is not inside the radiation shield

Note 2: ignore rainfall tips logged between 0830 to 0900 as these were testing and calibration.

Note 3: the site was polled prior to the visit and was operating satisfactorily.

Note 4: the 10 metre mast was found to be bent as a result of being hit by machinery. This will have an effect on the accuracy of the solar radiation, wind speed and wind direction sensors.

Additional Items

1. Solar panel and components cleaned.
2. Installation sprayed for insects.

Clyde

Sensor	Actual (field)	Logger
Temperature – 10m	22.8 deg *	21.6 deg
2m	22.8 deg *	22.1 deg
Relative Humidity	70%	64.6%
Wind Speed	1.7 m/sec at ground	2.4 m/sec at 10m
Wind Direction	90	93
Solar Radiation	320 w/sq.m	310 w/sq.m
TBRG	20mm	42 tips (0.5mm per tip)
Battery	13.4v Solar 19.5v	

* Note 1: field reading is not inside the radiation shield

Note 2: ignore rainfall tips logged between 0950 to 1015 as these were testing and calibration.

Note 3: small amount of condensation in cabinet was dried out and the desiccant pack was replaced.

Note 4: the site was polled prior to the visit and was operating satisfactorily.

Additional Items

1. Installation sprayed for insects.
2. Weeds and bush trimmed

Should you require any further information on this report please do not hesitate to contact me on 0402 134 092.

Glen Murphy

Hydrometric Consulting Services Pty Ltd

2 Autumn Place
Guildford NSW 2161
Tele 98924588 Fax 98924599
Email glenmurf@ozemail.com.au

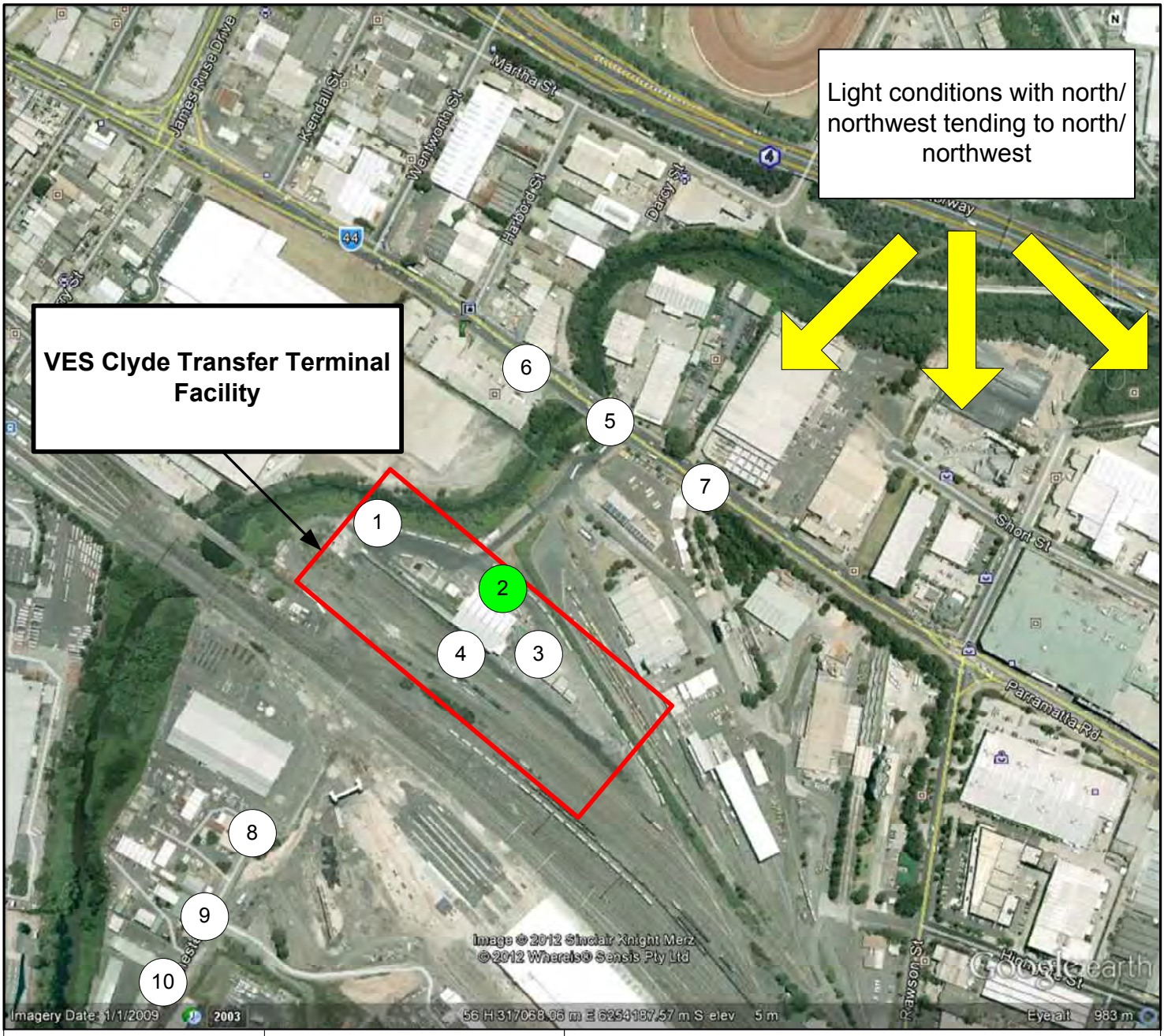
44 Colo Rd
Colo Vale NSW 2575
Tele 48895102 Fax 48895103
Email steves@mitmania.net.au

www.hydrometric.com.au

Appendix C –

Field Ambient Odour Assessment Plot and Field Sheet

(21 March 2013)



DESCRIPTION

Field Ambient Odour Assessment Survey
Modified German Standard VDI 3940

LEGEND

German Intensity Scale VDI3882

- 0 Not detectable
- 1 Very weak
- 2 Weak
- 3 Distinct
- 4 Strong
- 5 Very strong
- 6 Extremely strong

VEOLIA ENVIRONMENTAL SERVICES

Veolia Environmental Services
Clyde Transfer Terminal, Clyde NSW
Field Ambient Odour Assessment Survey

Date: 21/03/2013
Time: 1050 hrs – 1200 hrs

THE ODOUR UNIT PTY LTD
Aust Tech Park, Locomotive Workshop,
Suite 16012, 2 Locomotive Street,
EVELEIGH, NSW 2015
Phone: (02) 9209 4420 – Fax: (02) 9209 4421
www.odourunit.com.au

DRAWN BY	M.ASSAL	11/04/2013
CHECKED	M.ASSAL	11/04/2013
APPROVED	T. SCHULZ	11/04/2013

Odour Audit XX

Field Ambient Odour Assessment Survey

DRAWING No. N1473-XXI

JOB No. N1473L

THE ODOUR UNIT PTY LIMITED

THE ODOUR UNIT

Australian Technology Park
Locomotive Workshop
Suite 16012
2 Locomotive Street
Eveleigh NSW 2015

Phone: +61 2 9209 4420
Facsimile: +61 2 9209 4421
Email: info@odourunit.com.au
Internet: www.odourunit.com.au
ABN: 53 091 165 061

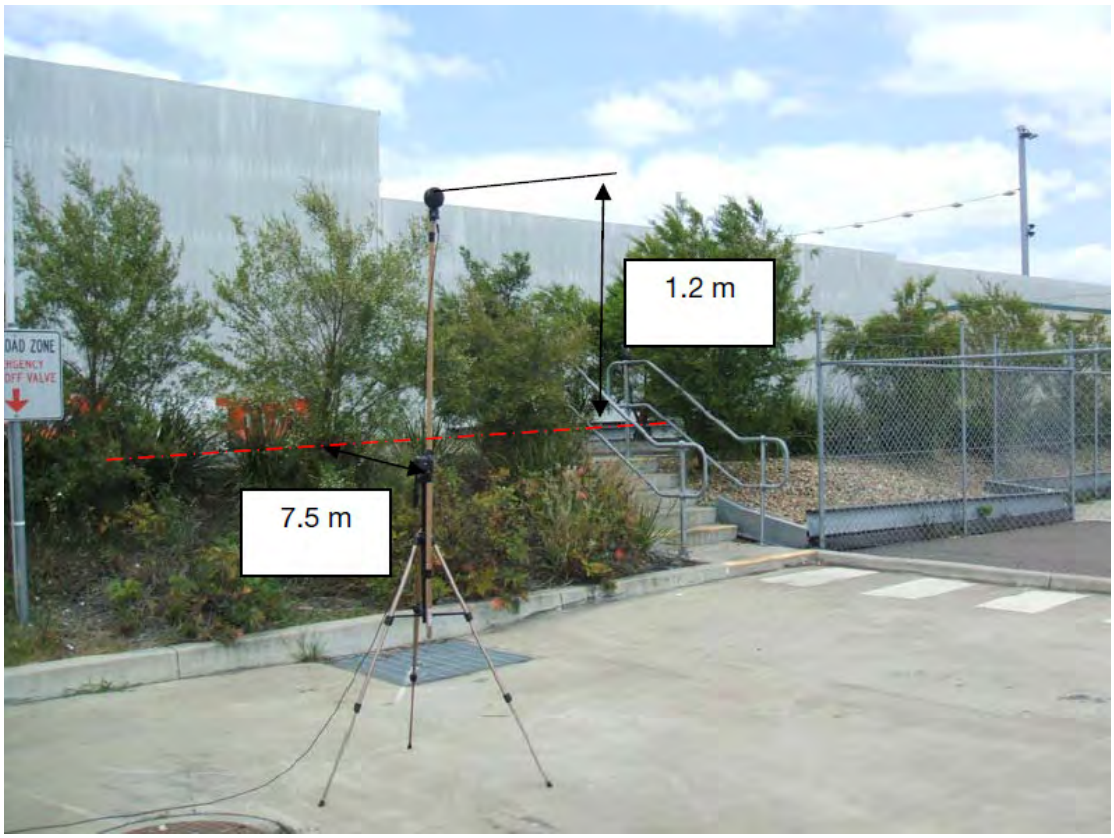
Form 22 - Field Ambient Odour Assessment Log Sheet (Page 1 of 1)

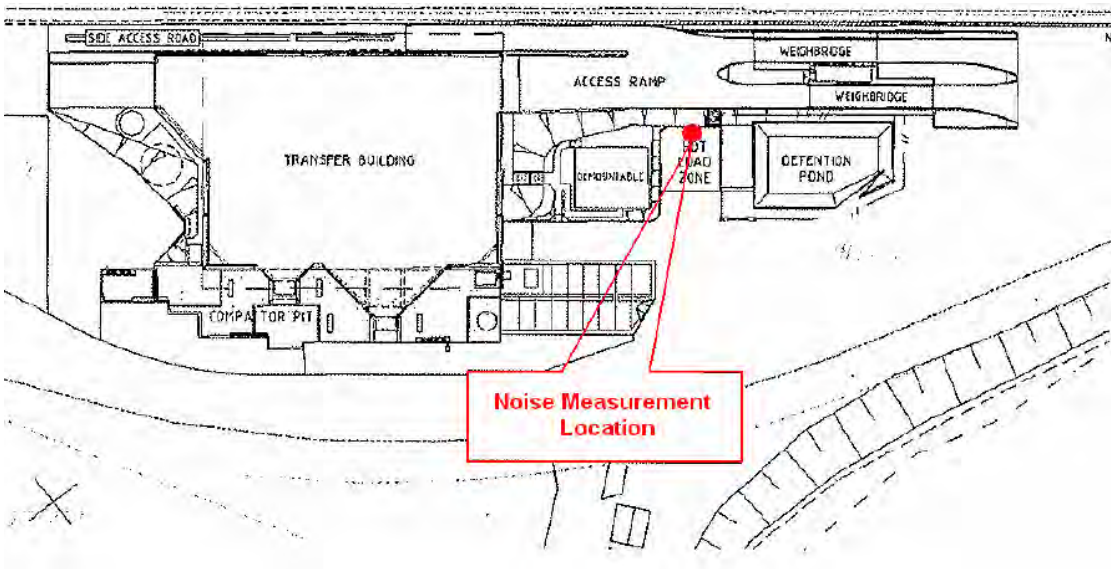
Date: 21/03/2013 **Assessor:** M. Assal **Weather Conditions:** Light conditions with north/northeast tending to north/northwest

Reference: Drawing No. 1473-XXI

GRIF REF. POSITION	TIME (hrs)	WIND DIRECTION	WIND SPEED (m/s)	ODOUR PRESNT (Y/N)	ODOUR CHARACTER	VDI 3940 INTENSITY SCALE 0-6	COMMENTS
1	1050	N/NE	1-2	N	-	0	-
2	1100	N/NE	1-2	Y	Garbage/Municipal Solid Waste	2	▪ Intermittent detection; and ▪ Within vicinity of the compactor area
3	1110	N/NE	1-2	N	-	0	-
4	1115	N/NE	1-2	N	-	0	-
5	1120	N/NE	1-2	N	-	0	-
6	1125	N/NE	1-2	N	-	0	-
7	1132	N/NW	1-2	N	-	0	-
8	1150	N/NW	1-3	N	-	0	-
9	1155	N/NW	1-2	N	-	0	-
10	1200	N/NW	1-2	N	-	0	-

Truck Noise Monitoring Location





Sound Level Meter

Instrument **Sound Pro**
Serial No. **BJH070015**

airmet
Air-Met Scientific Pty Ltd
1300 137 067

Item	Test	Pass	Comments
Battery	Charge Condition	✓	
	Battery Holder	✓	
	Alkaline Battery	✓	
	Cover	✓	
	Output	✓	
Switch/Keypad	Operation	✓	
Display	Intensity	✓	
	Operation	✓	
Microphone	Type	✓	
	Socket	✓	
	Plug	✓	
PCB	Condition	✓	
Calibrator	Condition	✓	
	Battery Holder	✓	
	IVAC Output	✓	
	Frequency	✓	
A Weighting	Operation	✓	
C Weighting	Operation	✓	
Software	Version		
Datalogger	Operation	✓	
Download	Operation	✓	
Other Tests			

Certificate of Calibration

This is to certify that the above instrument has been calibrated to the following specifications:

Frequency	dB	Volts AC	Certified	Calibration Equipment	Instrument Reading Before	After
1Khz	114dB	1 Vac	NATA	QE6080185	114.0dB	114.0dB

Calibrated by: **Jacob Arnott**

Calibration date: **29/10/2013**

Next calibration due: **27/04/2014**

Date : **30/10/2013**

Clyde L67 Report

Waste Disposal Insta	Trans.Date	Gross_Wtime	License No	Customer Name
W-2CLYTRA	30.10.2013	0:10:02	BV02JR	Enfield Bulk
W-2CLYTRA	30.10.2013	0:16:26	AZ54YF	Remondis
W-2CLYTRA	30.10.2013	0:14:35	AA52WJ	Enfield RearLift
W-2CLYTRA	30.10.2013	0:39:05	BP93PW	City of Sydney Council - Cleansing
W-2CLYTRA	30.10.2013	0:41:47	BS67NE	Remondis
W-2CLYTRA	30.10.2013	0:42:34	WTRANS	Enfield Bulk
W-2CLYTRA	30.10.2013	0:43:27	AK39DP	Sydney Waste Pty Ltd
W-2CLYTRA	30.10.2013	1:08:35	WTRANS	Enfield Bulk
W-2CLYTRA	30.10.2013	1:22:45	BL30SD	Sydney Waste Pty Ltd
W-2CLYTRA	30.10.2013	1:38:25	WTRANS	Enfield Bulk
W-2CLYTRA	30.10.2013	1:39:01	AN48WY	Dimeo Waste Services Pty Ltd
W-2CLYTRA	30.10.2013	1:36:44	URM037	United Resource Management
W-2CLYTRA	30.10.2013	1:41:58	YCP248	Ku-ring-gai Council
W-2CLYTRA	30.10.2013	1:48:42	BS31PE	Enfield FrontLift
W-2CLYTRA	30.10.2013	1:51:59	URM024	United Resource Management
W-2CLYTRA	30.10.2013	1:57:32	AZ41AD	Enfield RearLift
W-2CLYTRA	30.10.2013	2:03:13	URM023	United Resource Management
W-2CLYTRA	30.10.2013	2:04:47	STINKS	Enfield RearLift
W-2CLYTRA	30.10.2013	2:12:55	BI10VG	Enfield Bulk
W-2CLYTRA	30.10.2013	2:09:33	BH82RI	Enfield RearLift
W-2CLYTRA	30.10.2013	2:14:30	AF26TL	Enfield FrontLift
W-2CLYTRA	30.10.2013	2:15:21	BJ26CR	Dimeo Waste Services Pty Ltd
W-2CLYTRA	30.10.2013	2:30:42	AA42JJ	Ku-ring-gai Council
W-2CLYTRA	30.10.2013	2:35:58	YJU365	Remondis
W-2CLYTRA	30.10.2013	2:34:49	BLM007	Enfield FrontLift
W-2CLYTRA	30.10.2013	2:40:26	WTRANS	Enfield Bulk
W-2CLYTRA	30.10.2013	2:44:09	AB30BI	Capital City Waste Services
W-2CLYTRA	30.10.2013	2:46:43	BP50LB	Dimeo Waste Services Pty Ltd
W-2CLYTRA	30.10.2013	2:51:20	BB23JH	Enfield RearLift
W-2CLYTRA	30.10.2013	2:58:26	BN52RX	Enfield RearLift
W-2CLYTRA	30.10.2013	2:59:22	URM076	United Resource Management
W-2CLYTRA	30.10.2013	3:08:05	YRE280	Remondis
W-2CLYTRA	30.10.2013	3:13:14	WTRANS	Enfield Bulk
W-2CLYTRA	30.10.2013	3:14:41	BR53ZQ	City of Sydney Council - Cleansing
W-2CLYTRA	30.10.2013	3:23:05	BV02JR	Enfield Bulk
W-2CLYTRA	30.10.2013	3:25:08	BU28YX	Dimeo Waste Services Pty Ltd
W-2CLYTRA	30.10.2013	3:23:53	BP10AW	Enfield FrontLift
W-2CLYTRA	30.10.2013	3:34:57	BK18BD	Enfield Bulk
W-2CLYTRA	30.10.2013	3:46:30	BR03WA	Remondis
W-2CLYTRA	30.10.2013	3:50:29	BB23JH	Enfield RearLift
W-2CLYTRA	30.10.2013	4:10:13	BL30SD	Sydney Waste Pty Ltd
W-2CLYTRA	30.10.2013	4:12:46	AM46VY	Remondis
W-2CLYTRA	30.10.2013	4:10:57	AV18XT	Enfield FrontLift
W-2CLYTRA	30.10.2013	4:14:33	AQ97PD	Parramatta City Council Depot
W-2CLYTRA	30.10.2013	4:15:10	URM037	United Resource Management
W-2CLYTRA	30.10.2013	4:21:16	BR07PK	Dimeo Waste Services Pty Ltd
W-2CLYTRA	30.10.2013	4:20:26	BB61FD	Remondis
W-2CLYTRA	30.10.2013	4:23:23	BN30GB	Canterbury City Council
W-2CLYTRA	30.10.2013	4:25:39	BLM007	Enfield FrontLift
W-2CLYTRA	30.10.2013	4:27:31	BJ60DO	JJ Richards & Sons

Waste Disposal Insta	Trans.Date	Gross_Wtime	License No	Customer Name
W-2CLYTRA	30.10.2013	4:30:33	BS31PE	Enfield FrontLift
W-2CLYTRA	30.10.2013	4:32:20	BN73GB	Canterbury City Council
W-2CLYTRA	30.10.2013	4:35:00	WTRANS	Enfield Bulk
W-2CLYTRA	30.10.2013	4:39:26	AM46VY	Remondis
W-2CLYTRA	30.10.2013	4:40:42	BS53NV	Ku-ring-gai Council
W-2CLYTRA	30.10.2013	4:41:14	YCP248	Ku-ring-gai Council
W-2CLYTRA	30.10.2013	4:45:33	BP01LI	Canterbury City Council
W-2CLYTRA	30.10.2013	4:44:25	BP02LI	Canterbury City Council
W-2CLYTRA	30.10.2013	4:43:49	AA43JJ	Ku-ring-gai Council
W-2CLYTRA	30.10.2013	4:47:08	AJ00XP	Enfield Bulk
W-2CLYTRA	30.10.2013	4:46:30	AF26TL	Enfield FrontLift
W-2CLYTRA	30.10.2013	4:59:22	BV02JR	Enfield Bulk
W-2CLYTRA	30.10.2013	5:00:11	BI54ZO	Enfield FrontLift
W-2CLYTRA	30.10.2013	5:01:09	BI10VG	Enfield Bulk
W-2CLYTRA	30.10.2013	5:05:08	AZ42EB	JJ Richards & Sons
W-2CLYTRA	30.10.2013	5:03:57	BB61FD	Remondis
W-2CLYTRA	30.10.2013	5:12:14	BR35PO	Remondis
W-2CLYTRA	30.10.2013	5:11:20	AV17XT	Enfield FrontLift
W-2CLYTRA	30.10.2013	5:13:37	BG05HG	Strathfield Municipal Council
W-2CLYTRA	30.10.2013	5:17:38	BI22FV	Earthpower
W-2CLYTRA	30.10.2013	5:15:19	CAL068	Enfield RearLift
W-2CLYTRA	30.10.2013	5:22:30	BF48RO	Remondis
W-2CLYTRA	30.10.2013	5:31:16	YES468	United Resource Management
W-2CLYTRA	30.10.2013	5:30:15	AR09AM	Enfield FrontLift
W-2CLYTRA	30.10.2013	5:32:09	BN51HK	Pioneer Waste - Hooklift
W-2CLYTRA	30.10.2013	5:34:14	URM003	United Resource Management
W-2CLYTRA	30.10.2013	5:40:42	ZEW210	Enfield FrontLift
W-2CLYTRA	30.10.2013	5:39:59	WTRANS	Enfield Bulk
W-2CLYTRA	30.10.2013	5:38:29	AA42JJ	Ku-ring-gai Council
W-2CLYTRA	30.10.2013	5:48:05	URM020	United Resource Management
W-2CLYTRA	30.10.2013	5:45:32	URM037	United Resource Management
W-2CLYTRA	30.10.2013	5:51:24	BD88RL	Enfield FrontLift
W-2CLYTRA	30.10.2013	5:56:14	URM059	United Resource Management
W-2CLYTRA	30.10.2013	6:04:33	YRE280	Remondis
W-2CLYTRA	30.10.2013	6:12:59	AW77WH	Remondis
W-2CLYTRA	30.10.2013	6:11:00	AZ77RA	Enfield RearLift
W-2CLYTRA	30.10.2013	6:10:25	BR21TB	Enfield FrontLift
W-2CLYTRA	30.10.2013	6:13:38	AZ54YF	Remondis
W-2CLYTRA	30.10.2013	6:21:43	BN51HK	Pioneer Waste - Hooklift
W-2CLYTRA	30.10.2013	6:20:27	AY88AM	Auburn Council
W-2CLYTRA	30.10.2013	6:30:53	AH64WY	Strathfield Municipal Council
W-2CLYTRA	30.10.2013	6:41:19	BI10VG	Enfield Bulk
W-2CLYTRA	30.10.2013	7:01:53	BF15LP	Leichhardt Council
W-2CLYTRA	30.10.2013	7:03:41	BF39ZP	JJ Richards & Sons
W-2CLYTRA	30.10.2013	7:02:51	AJ49HH	Strathfield Municipal Council
W-2CLYTRA	30.10.2013	7:06:28	BG05HG	Strathfield Municipal Council
W-2CLYTRA	30.10.2013	7:10:16	AF38AL	Capital City Waste Services
W-2CLYTRA	30.10.2013	7:12:40	BL63RQ	Strathfield Municipal Council
W-2CLYTRA	30.10.2013	7:22:00	AV18XT	Enfield FrontLift
W-2CLYTRA	30.10.2013	7:25:26	AY89AM	Auburn Council
W-2CLYTRA	30.10.2013	7:29:11	AW61ZP	Auburn Council
W-2CLYTRA	30.10.2013	7:32:06	BN29GB	Canterbury City Council
W-2CLYTRA	30.10.2013	7:37:18	BK18BD	Enfield Bulk
W-2CLYTRA	30.10.2013	7:41:00	BE48SD	Ashfield Council

Waste Disposal Insta	Trans.Date	Gross_Wtime	License No	Customer Name
W-2CLYTRA	30.10.2013	7:46:21	AP47PT	Canterbury City Council
W-2CLYTRA	30.10.2013	7:50:46	BV28PW	JJ Richards & Sons
W-2CLYTRA	30.10.2013	7:54:37	YCP248	Ku-ring-gai Council
W-2CLYTRA	30.10.2013	7:53:27	AY88AM	Auburn Council
W-2CLYTRA	30.10.2013	7:59:17	YHL615	Auburn Council
W-2CLYTRA	30.10.2013	8:02:43	BM20BL	Pioneer Waste - Frontlift
W-2CLYTRA	30.10.2013	8:01:04	AY75CT	Auburn Council
W-2CLYTRA	30.10.2013	8:01:59	AA43JJ	Ku-ring-gai Council
W-2CLYTRA	30.10.2013	8:11:11	BE47SD	Ashfield Council
W-2CLYTRA	30.10.2013	8:23:49	BB21FO	JJ Richards & Sons
W-2CLYTRA	30.10.2013	8:29:27	BN56QO	Canterbury City Council
W-2CLYTRA	30.10.2013	8:33:56	AA64JF	Ku-ring-gai Council
W-2CLYTRA	30.10.2013	8:41:58	BF41VN	Burwood Council
W-2CLYTRA	30.10.2013	8:48:03	BH63QY	Parramatta City Council Depot
W-2CLYTRA	30.10.2013	8:49:57	YRE280	Remondis
W-2CLYTRA	30.10.2013	8:55:57	BJ60DO	JJ Richards & Sons
W-2CLYTRA	30.10.2013	8:58:13	ZGJ863	Burwood Council - Trade Waste Servi
W-2CLYTRA	30.10.2013	8:57:11	BN31GB	Canterbury City Council
W-2CLYTRA	30.10.2013	8:59:41	AY29JL	Auburn Council
W-2CLYTRA	30.10.2013	9:01:45	BP02LI	Canterbury City Council
W-2CLYTRA	30.10.2013	9:02:52	AV19XT	Enfield FrontLift
W-2CLYTRA	30.10.2013	9:11:47	BF15LP	Leichhardt Council
W-2CLYTRA	30.10.2013	9:10:20	AC29AE	Ku-ring-gai Council
W-2CLYTRA	30.10.2013	9:07:41	AY89AM	Auburn Council
W-2CLYTRA	30.10.2013	9:11:12	GAL211	Waste Free (Aust) Pty Ltd
W-2CLYTRA	30.10.2013	9:13:12	AZ41AD	Enfield RearLift
W-2CLYTRA	30.10.2013	9:16:07	AY73LY	Remondis
W-2CLYTRA	30.10.2013	9:17:15	BH82RI	Enfield RearLift
W-2CLYTRA	30.10.2013	9:17:07	URM037	United Resource Management
W-2CLYTRA	30.10.2013	9:21:22	AT67VJ	Enfield FrontLift
W-2CLYTRA	30.10.2013	9:21:48	BE10HN	Angove's Waste Management
W-2CLYTRA	30.10.2013	9:25:32	URM008	United Resource Management
W-2CLYTRA	30.10.2013	9:35:19	BN18VS	Enfield RearLift
W-2CLYTRA	30.10.2013	9:31:07	BP01LI	Canterbury City Council
W-2CLYTRA	30.10.2013	9:30:11	BN30GB	Canterbury City Council
W-2CLYTRA	30.10.2013	9:32:56	AB90AN	Auburn Council
W-2CLYTRA	30.10.2013	9:36:26	AZ80TU	Remondis
W-2CLYTRA	30.10.2013	9:39:13	BD88RL	Enfield FrontLift
W-2CLYTRA	30.10.2013	9:47:05	AQ85CP	JJ Richards & Sons
W-2CLYTRA	30.10.2013	9:44:26	AR10LS	The Hills Shire Council
W-2CLYTRA	30.10.2013	9:47:50	BE24HU	Canterbury City Council
W-2CLYTRA	30.10.2013	9:48:54	BI54ZO	Enfield FrontLift
W-2CLYTRA	30.10.2013	9:57:11	BB23JH	Enfield RearLift
W-2CLYTRA	30.10.2013	9:54:52	AV71JG	Remondis
W-2CLYTRA	30.10.2013	9:56:48	AU41PT	United Resource Management-Hunters
W-2CLYTRA	30.10.2013	9:55:47	AW61ZP	Auburn Council
W-2CLYTRA	30.10.2013	10:00:16	AR09LS	The Hills Shire Council
W-2CLYTRA	30.10.2013	10:01:04	AW67CF	Burwood Council
W-2CLYTRA	30.10.2013	10:02:58	BD18ER	Enfield FrontLift
W-2CLYTRA	30.10.2013	10:01:30	AG66LI	Ku-ring-gai Council
W-2CLYTRA	30.10.2013	10:08:25	AZ99PF	Remondis
W-2CLYTRA	30.10.2013	10:10:02	AR11LS	The Hills Shire Council
W-2CLYTRA	30.10.2013	10:11:46	AA66JF	Ku-ring-gai Council
W-2CLYTRA	30.10.2013	10:14:26	AR38AI	The Hills Shire Council

Waste Disposal Insta	Trans.Date	Gross_Wtime	License No	Customer Name
W-2CLYTRA	30.10.2013	10:18:47	AT92MN	Leichhardt Council
W-2CLYTRA	30.10.2013	10:16:48	BN73GB	Canterbury City Council
W-2CLYTRA	30.10.2013	10:20:50	BP10AW	Enfield FrontLift
W-2CLYTRA	30.10.2013	10:19:28	AR21LS	The Hills Shire Council
W-2CLYTRA	30.10.2013	10:20:09	AA63JF	Ku-ring-gai Council
W-2CLYTRA	30.10.2013	10:21:46	AY29JL	Auburn Council
W-2CLYTRA	30.10.2013	10:25:08	YRE280	Remondis
W-2CLYTRA	30.10.2013	10:25:49	URM175	United Resource Management-Hunters
W-2CLYTRA	30.10.2013	10:31:36	AF26TL	Enfield FrontLift
W-2CLYTRA	30.10.2013	10:32:28	BE74KO	Hornsby Council
W-2CLYTRA	30.10.2013	10:34:58	AE62ND	Ashfield Council
W-2CLYTRA	30.10.2013	10:39:21	BD95ZZ	Enfield RearLift
W-2CLYTRA	30.10.2013	10:40:49	AA52WJ	Enfield RearLift
W-2CLYTRA	30.10.2013	10:41:21	BE93DJ	Hornsby Council
W-2CLYTRA	30.10.2013	10:45:46	BH77MA	JJ Richards & Sons
W-2CLYTRA	30.10.2013	10:46:09	BL54KN	Ashfield Council
W-2CLYTRA	30.10.2013	10:47:35	BJ59DO	JJ Richards & Sons
W-2CLYTRA	30.10.2013	10:48:54	AY75CT	Auburn Council
W-2CLYTRA	30.10.2013	10:49:57	YBN779	Ku-ring-gai Council
W-2CLYTRA	30.10.2013	10:51:29	BE21KN	Hornsby Council
W-2CLYTRA	30.10.2013	11:00:43	BF15LP	Leichhardt Council
W-2CLYTRA	30.10.2013	10:56:33	AR49AI	The Hills Shire Council
W-2CLYTRA	30.10.2013	10:59:37	URM023	United Resource Management
W-2CLYTRA	30.10.2013	11:00:08	AC56XB	Ku-ring-gai Council
W-2CLYTRA	30.10.2013	11:13:14	BS57EF	Remondis
W-2CLYTRA	30.10.2013	11:11:06	YMF778	Pioneer Waste - Frontlift
W-2CLYTRA	30.10.2013	11:15:20	GG169	Hornsby Council
W-2CLYTRA	30.10.2013	11:24:36	BB46JJ	Parramatta City Council Depot
W-2CLYTRA	30.10.2013	11:30:59	AR97WK	The Hills Shire Council
W-2CLYTRA	30.10.2013	11:29:24	BQ60WN	JJ Richards & Sons
W-2CLYTRA	30.10.2013	11:27:43	AR48AI	The Hills Shire Council
W-2CLYTRA	30.10.2013	11:30:04	BE47SD	Ashfield Council
W-2CLYTRA	30.10.2013	11:33:27	AV18XT	Enfield FrontLift
W-2CLYTRA	30.10.2013	11:33:50	BE48SD	Ashfield Council
W-2CLYTRA	30.10.2013	11:36:36	BR21TB	Enfield FrontLift
W-2CLYTRA	30.10.2013	11:37:51	BD49ZB	Hornsby Council
W-2CLYTRA	30.10.2013	11:38:16	BN29GB	Canterbury City Council
W-2CLYTRA	30.10.2013	11:41:35	BE94DJ	Hornsby Council
W-2CLYTRA	30.10.2013	11:49:11	AB70UW	Enfield RearLift
W-2CLYTRA	30.10.2013	11:48:35	AE45PX	Ashfield Council
W-2CLYTRA	30.10.2013	11:47:48	BE73KP	Hornsby Council
W-2CLYTRA	30.10.2013	11:49:46	BE20KN	The Hills Shire Council
W-2CLYTRA	30.10.2013	11:54:06	AY73LY	Remondis
W-2CLYTRA	30.10.2013	11:56:21	BE57KP	Hornsby Council
W-2CLYTRA	30.10.2013	11:55:30	AU57QJ	Enfield FrontLift
W-2CLYTRA	30.10.2013	12:02:11	BV27PW	JJ Richards & Sons
W-2CLYTRA	30.10.2013	12:00:48	AU57QJ	Enfield FrontLift
W-2CLYTRA	30.10.2013	12:05:05	WUK075	Hornsby Council
W-2CLYTRA	30.10.2013	12:13:29	BU43PS	Enfield FrontLift
W-2CLYTRA	30.10.2013	12:14:23	YPY937	Ku-ring-gai Council
W-2CLYTRA	30.10.2013	12:22:29	AP73YU	JJ Richards & Sons
W-2CLYTRA	30.10.2013	12:21:33	AV17XT	Enfield FrontLift
W-2CLYTRA	30.10.2013	12:27:06	URM233	United Resource Management
W-2CLYTRA	30.10.2013	12:29:19	AB02JZ	JJ Richards & Sons

Waste Disposal Insta	Trans.Date	Gross_Wtime	License No	Customer Name
W-2CLYTRA	30.10.2013	12:28:15	BE11HT	Hornsby Council
W-2CLYTRA	30.10.2013	12:45:09	YOT208	Remondis
W-2CLYTRA	30.10.2013	12:44:24	BN56QO	Canterbury City Council
W-2CLYTRA	30.10.2013	12:49:26	AZ54YF	Remondis
W-2CLYTRA	30.10.2013	12:48:36	YIQ467	Enfield RearLift
W-2CLYTRA	30.10.2013	12:52:51	BL17SA	Auburn Council
W-2CLYTRA	30.10.2013	12:51:39	BD97ZZ	Enfield RearLift
W-2CLYTRA	30.10.2013	12:56:06	YXC545	JJ Richards & Sons
W-2CLYTRA	30.10.2013	12:55:20	BP02LI	Canterbury City Council
W-2CLYTRA	30.10.2013	13:03:47	BM38QL	JJ Richards & Sons
W-2CLYTRA	30.10.2013	13:05:36	AR35AI	The Hills Shire Council
W-2CLYTRA	30.10.2013	13:10:15	AJ00XP	Enfield Bulk
W-2CLYTRA	30.10.2013	13:10:51	AO24JO	Enfield FrontLift
W-2CLYTRA	30.10.2013	13:15:19	ZJD148	United Resource Management
W-2CLYTRA	30.10.2013	13:13:21	YBN779	Ku-ring-gai Council
W-2CLYTRA	30.10.2013	13:20:18	URM037	United Resource Management
W-2CLYTRA	30.10.2013	13:38:00	BP52VH	Ashfield Council
W-2CLYTRA	30.10.2013	13:38:51	AQ85CP	JJ Richards & Sons
W-2CLYTRA	30.10.2013	13:51:51	BN18VS	Enfield RearLift
W-2CLYTRA	30.10.2013	13:50:34	BJ59DO	JJ Richards & Sons
W-2CLYTRA	30.10.2013	14:02:20	AW67CF	Burwood Council
W-2CLYTRA	30.10.2013	14:07:39	AB30BI	Capital City Waste Services
W-2CLYTRA	30.10.2013	14:11:57	URM076	United Resource Management
W-2CLYTRA	30.10.2013	14:11:16	AP47PT	Canterbury City Council
W-2CLYTRA	30.10.2013	14:13:45	BN30GB	Canterbury City Council
W-2CLYTRA	30.10.2013	14:15:58	AZ77RA	Enfield RearLift
W-2CLYTRA	30.10.2013	14:14:58	AU57QJ	Enfield FrontLift
W-2CLYTRA	30.10.2013	14:24:18	YRE280	Remondis
W-2CLYTRA	30.10.2013	14:21:37	BQ56WN	JJ Richards & Sons
W-2CLYTRA	30.10.2013	14:18:19	BP01LI	Canterbury City Council
W-2CLYTRA	30.10.2013	14:22:17	AN48WY	Dimeo Waste Services Pty Ltd
W-2CLYTRA	30.10.2013	14:23:48	WTRANS	Enfield Bulk
W-2CLYTRA	30.10.2013	14:29:19	AV00SO	JJ Richards & Sons
W-2CLYTRA	30.10.2013	14:28:37	BN31GB	Canterbury City Council
W-2CLYTRA	30.10.2013	14:31:08	BE93DJ	Hornsby Council
W-2CLYTRA	30.10.2013	14:34:35	AR10LS	The Hills Shire Council
W-2CLYTRA	30.10.2013	14:36:32	AR38AI	The Hills Shire Council
W-2CLYTRA	30.10.2013	14:38:28	BE24HU	Canterbury City Council
W-2CLYTRA	30.10.2013	14:51:07	AW36CB	Enfield FrontLift
W-2CLYTRA	30.10.2013	14:52:11	BE21KN	Hornsby Council
W-2CLYTRA	30.10.2013	14:55:07	BD18ER	Enfield FrontLift
W-2CLYTRA	30.10.2013	14:57:22	BE74KO	Hornsby Council
W-2CLYTRA	30.10.2013	14:58:59	BE73KP	Hornsby Council
W-2CLYTRA	30.10.2013	15:00:09	BE94DJ	Hornsby Council
W-2CLYTRA	30.10.2013	15:02:36	URM040	United Resource Management
W-2CLYTRA	30.10.2013	15:05:11	BE57KP	Hornsby Council
W-2CLYTRA	30.10.2013	15:12:25	BU43PS	Enfield FrontLift
W-2CLYTRA	30.10.2013	15:14:48	BE20KN	The Hills Shire Council
W-2CLYTRA	30.10.2013	15:18:13	AR35AI	The Hills Shire Council
W-2CLYTRA	30.10.2013	15:24:37	URM066	United Resource Management
W-2CLYTRA	30.10.2013	15:23:51	AR11LS	The Hills Shire Council
W-2CLYTRA	30.10.2013	15:27:34	AR09LS	The Hills Shire Council
W-2CLYTRA	30.10.2013	15:32:47	AR48AI	The Hills Shire Council
W-2CLYTRA	30.10.2013	15:48:48	AR21LS	The Hills Shire Council

Waste Disposal Insta	Trans.Date	Gross_Wtime	License No	Customer Name
W-2CLYTRA	30.10.2013	16:07:44	BL63SB	Enfield Bulk
W-2CLYTRA	30.10.2013	16:13:37	BD49ZB	Hornsby Council
W-2CLYTRA	30.10.2013	16:25:24	AR49AI	The Hills Shire Council
W-2CLYTRA	30.10.2013	17:35:13	BF85GP	Edco Contracting Group P/L
W-2CLYTRA	30.10.2013	18:20:05	BK54YO	Edco Contracting Group P/L
W-2CLYTRA	30.10.2013	18:40:22	BG99MI	Transpacific Cleanaway
W-2CLYTRA	30.10.2013	18:47:05	UXC834	Edco Contracting Group P/L
W-2CLYTRA	30.10.2013	19:47:38	STINKS	Enfield RearLift
W-2CLYTRA	30.10.2013	20:20:30	BV02JR	Enfield Bulk
W-2CLYTRA	30.10.2013	20:44:52	WTRANS	Enfield Bulk
W-2CLYTRA	30.10.2013	21:13:47	BA11SO	Remondis
W-2CLYTRA	30.10.2013	21:38:24	BV02JR	Enfield Bulk
W-2CLYTRA	30.10.2013	22:06:47	CAL068	Enfield RearLift
W-2CLYTRA	30.10.2013	22:23:56	WTRANS	Enfield Bulk
W-2CLYTRA	30.10.2013	22:48:45	AN63FI	Enfield Bulk
W-2CLYTRA	30.10.2013	9:18:21	BP50LB	Dimeo Waste Services Pty Ltd
W-2CLYTRA	30.10.2013	23:05:12	BN52RX	Enfield RearLift
W-2CLYTRA	30.10.2013	9:17:36	BP93PW	City of Sydney Council - Cleansing
W-2CLYTRA	30.10.2013	9:17:17	BJ26CR	Dimeo Waste Services Pty Ltd
W-2CLYTRA	30.10.2013	23:20:53	WTRANS	Enfield Bulk
W-2CLYTRA	30.10.2013	9:16:58	URM003	United Resource Management
W-2CLYTRA	30.10.2013	9:16:41	BU28YX	Dimeo Waste Services Pty Ltd
W-2CLYTRA	30.10.2013	9:16:27	ZHV518	Capital City Waste Services

Time	Company	Make	Lift Type	Registration	Exhaust Location	L_A Max (dBA)	Impeded Movement	Comments
7:25	TPI	Dennis	Side	BN29GB	Front Right	78.0	N	
7:32	Veolia	Volvo	Hook	BK18BD	Front Right	74.2	N	
7:38	TPI	Iveco	Side	BE48PD	Front Right	80.8	N	Ashfield Council
7:41	TPI	Iveco	Side	AP47PD	Front Right	76.2	N	
7:46	JJ Richards	Iveco	Side	BV28BW	Front Right	75.3	N	
7:50	Veolia	Mitsubishi	Rear	VCP748	Front Left	71.3	N	Small truck
7:52	Auburn Council	Iveco	Side	AY88AM	Front Right	81.3	N	
7:56	Auburn Council	Hino	Sweeper	YHL615	Front Right	69.6	N	Small truck
7:58	Pioneer Waste	N/A	Front	BM26BL	Front Right	74.7	N	No vehicle manufacturer badge observed
7:58	Auburn Council	Iveco	Side	BY75CT	Front Right	81.8	N	
8:00	Veolia	Mitsubishi	Rear	AA43GG	Front Left	73.3	N	Small truck
8:08	TPI	Iveco	Side	BE47SD	Front Right	78.7	N	Ashfield Council
8:19	JJ Richards	Iveco	Rear	BB21FD	Front Right	77.7	N	
8:27	TPI	Dennis	Side	BN56QQ	Front Right	77.6	N	
8:31	Veolia	Iveco	Side	AA64JF	Front Right	77.8	N	Kuringgai Council
8:40	Burwood Council	Iveco	Side	BF43VN	Front Right	75.6	N	
8:43	Parrmatta Council	Hino	Rear	BH63QY	Front Right	65.9	N	
8:44	Remondis	Volvo	Front	YRE820	Front Left	82.0	N	
8:53	Burwood Council	Iveco	Rear	ZGJ863	Front Right	75.9	N	
8:53	TPI	Dennis	Side	BN33GB	Front Right	80.7	N	
8:54	Auburn Council	Iveco	Rear	AV39JL	Front Right	76.6	N	
8:55	TPI	Dennis	Side	BP02LI	Front Right	76.2	N	
8:59	Veolia	Volvo	Front	AY19XT	Front Right	79.1	N	
9:02	TPI	Volvo	Tip Over Axle	BF15LP	Front Left	76.9	N	B-Double
9:02	Veolia	Iveco	Rear	AC29AR	Front Right	75.5	N	
9:03	Auburn Council	Iveco	Side	AV89AM	Front Right	80.9	N	
9:06	TPI	Iveco	Rear	GAL211	Front Right	73.0	N	
9:08	Veolia	Volvo	Rear	AZ41AP	Front Left	73.8	N	
9:10	Remondis	Mercedes	Front	AY73LY	Front Right	79.4	N	
9:11	Veolia	Isuzu	Rear	BH82HI	Front Right	72.0	N	
9:13	URM	Hino	Rear	URM037	Front Right	74.2	N	
9:17	Veolia	Volvo	Front	AT67VT	Front Right	77.8	N	
9:17	AWM	N/A	Rear	BE10HV	Front Right	76.7	N	No vehicle manufacturer badge observed
9:20	URM	Hino	Rear	URM008	Front Left	75.3	N	
9:26	Veolia	Isuzu	Rear	BN18VS	Front Right	73.5	N	
9:27	TPI	Dennis	Rear	BP01LZ	Front Right	77.9	N	
9:27	TPI	Dennis	Side	BN30GB	Front Right	75.9	N	
9:28	Auburn Council	Isuzu	Rear	AB90AM	Front Left	77.0	N	
9:32	Remondis	Mercedes	Rear	AZ80TU	Front Right	72.6	N	
9:38	Veolia	Volvo	Front	BD88RL	Front Left	81.5	N	
9:40	JJ Richards	Iveco	Rear	AE85CP	Front Right	79.9	N	
9:41	TPI	Iveco	Side	AR10LS	Front Right	72.8	N	
9:44	TPI	Isuzu	Rear	BE24HU	Front Right	72.5	N	
9:44	Veolia	Volvo	Front	BI54ZO	Front Left	78.3	N	
9:47	Veolia	Isuzu	Rear	BB23JH	Front Left	73.6	N	
9:50	Remondis	Mercedes	Front	AV71JG	Front Right	76.2	N	
9:52	URM	N/A	Side	AU41PT	Front Right	79.4	N	No vehicle manufacturer badge observed
9:52	Auburn Council	Iveco	Side	AM61ZP	Front Right	79.8	N	
9:53	TPI	Iveco	Side	AR09LS	Front Right	81.0	N	
9:57	Burwood Council	Iveco	Side	AW67LS	Front Left	77.5	N	
9:58	Veolia	Volvo	Front	BD18ER	Front Right	79.6	N	
9:58	Veolia	Iveco	Side	AG66WI	Front Right	78.1	N	
10:00	Remondis	Mercedes	Front	AZ99PF	Front Right	75.5	N	
10:05	TPI	Iveco	Side	AR11LS	Front Right	76.4	N	
10:09	Veolia	Iveco	Side	AA66JF	Front Right	79.9	N	
10:10	TPI	Iveco	Side	AR38AI	Front Right	78.4	N	
10:11	TPI	Dennis	Rear	AT87MN	Front Right	75.6	N	
10:11	TPI	Iveco	Side	BN73GB	Front Right	77.3	N	
10:12	Veolia	Volvo	Front	BP10AW	Front Left	73.3	N	
10:13	TPI	Iveco	Side	AR21LS	Front Right	82.1	N	
10:14	Veolia	Iveco	Side	AA63JF	Front Right	78.8	N	
10:14	Auburn Council	Iveco	Rear	AY21YL	Front Right	74.4	N	
10:15	Remondis	Volvo	Front	YRE280	Front Left	82.6	N	
10:16	URM	Iveco	Side	URM175	Front Right	78.9	N	
10:25	Veolia	Mitsubishi	Front	AF26TL	Front Right	73.9	N	
10:27	TPI	Iveco	Side	BE74RD	Front Right	80.9	N	
10:29	Ashfield Council	Isuzu	Rear	AE62ND	Front Left	75.2	N	
10:31	Veolia	Isuzu	Rear	BD95ZZ	Front Right	73.7	N	
10:35	Veolia	Iveco	Rear	AA52WJ	Front Right	82.2	N	
10:39	TPI	Iveco	Side	BE93DJ	Front Right	82.5	N	
10:39	JJ Richards	Iveco	Front	BH77MA	Front Right	76.0	N	
10:39	Ashfield Council	Hino	Rear	BL54PM	Front Right	72.0	Y	
10:40	JJ Richards	Iveco	Rear	BJ59DD	Front Right	76.7	N	
10:43	Auburn Council	Iveco	Side	AY75CT	Front Right	81.6	N	
10:45	Veolia	Iveco	Side	VBN774	Front Right	81.9	N	
10:46	TPI	Iveco	Side	BE21KN	Front Right	76.3	N	
10:49	TPI	Volvo	Tip Over Axle	BF15LP	Front Left	83.4	N	B-double, Max noise level due to air release
10:50	TPI	Iveco	Side	AR49AI	Front Right	73.8	N	
10:50	URM	Iveco	Rear	URM023	Front Right	79.9	N	
10:51	Veolia	Iveco	Side	AL56XB	Front Right	73.0	Y	
11:05	Remondis	Mercedes	Rear	BS57IP	Front Right	72.9	N	
11:06	Pioneer Waste	N/A	Front	YMF778	Front Right	75.1	N	
11:10	Hornsby Council	Mitsubishi	Rear	GG169	Front Right	63.8	N	Small truck
11:22	Parrmatta Council	Hino	Rear	PB46GG	Front Left	69.8	N	
11:23	TPI	Iveco	Rear	AR97WK	Front Right	70.6	N	

Time	Company	Make	Lift Type	Registration	Exhaust Location	L_A Max (dBA)	Impeded Movement	Comments
11:24	JJ Richards	Iveco	Rear	BQ60WN	Front Right	77.8	N	
11:25	TPI	Iveco	Side	AR48AI	Front Right	82.1	N	
11:26	Ashfield Council	Iveco	Side	BE47SD	Front Right	78.9	N	

SERVICE REPORT

Date: 7/2/13

Service Performed by:

Service No: 7205

EXPERT JUDGEMENT
PEST MANAGEMENT PTY LTD

PO Box A25, ENFIELD SOUTH NSW 2133
enquiries@expertjudgementpest.com.au
Telephone: (02) 9715 5270
Fax: (02) 9715 5370
ABN 63 081 548 861

CT45023816 37

An invoice will be sent for payment within 7 days of this service.

Property Detail: Clyde Transfer Terminal
322 Parramatta rd.
Auburn

Service Provided: To all areas

SERVICE REPORT: Treated internal areas of office & kitchen by using Maxforce cockroach gel & paint ant bait. Treated Terminal & external areas by using Termidor spray & Racumin paste rodent bait.

Customer Signature

Serviceman Signature

SERVICE REPORT

Date: 8/5/13

Service Performed by:

EXPERT JUDGEMENT
PEST MANAGEMENT PTY LTD
PO Box A25, ENFIELD SOUTH NSW 2133
enquiries@expertjudgementpest.com.au
Telephone: (02) 9715 5270
Fax: (02) 9715 5370
ABN 63 081 548 861

Service No: 7328

4502458698

An invoice will be sent for payment within 7 days of this service.

Property Detail: Clyde Transfer Terminal
322 Parramatta rd.
Auburn

Service Provided: Ongoing Treatment to all areas for Cockroach, rodents & ants.

SERVICE REPORT: Treated internal areas by injecting Maxforce cockroach gel & racumin paste rodent bait. Treated external areas by using Termidor barrier spray & racumin paste rodent bait.

Customer Signature

Serviceman Signature

SERVICE REPORT

Date: 14/8/13

Service Performed by:

Service No: 7448

EXPERT JUDGEMENT
PEST MANAGEMENT PTY LTD

PO Box A25, ENFIELD SOUTH NSW 2133
enquiries@expertjudgementpest.com.au
Telephone: (02) 9715 5270
Fax: (02) 9715 5370
ABN 63 081 548 861

cT45-0254603

An invoice will be sent for payment within 7 days of this service.

Property Detail: Clyde Transfer Terminal
322 Parramatta rd.
Auburn

Service Provided: To all areas

SERVICE REPORT: Treated all effected areas by MSing Baban rodent bait & bait stations. Termidor border spray.
Treated offices area by misting Maxforce Cockroach gel.

X

Customer Signature

Serviceman Signature

SERVICE REPORT

Date: 27/11/13

Service Performed by:

Service No: 7578

EXPERT JUDGEMENT
PEST MANAGEMENT PTY LTD

PO Box A25, ENFIELD SOUTH NSW 2133
enquiries@expertjudgementpest.com.au
Telephone: (02) 9715 5270
Fax: (02) 9715 5370
ABN 63 081 548 861

cT45-02643395

An invoice will be sent for payment within 7 days of this service.

Property Detail: Clyde Transfer Terminal
322 Parramatta rd.
Auburn

Service Provided: To all areas

SERVICE REPORT: Treated all areas by using Maxforce cockroach gel, Termidor border spray to external areas, Rokum rodent bait & copper dust spot spray.

Customer Signature

Serviceman Signature