

 **Panda**  
**An Animal for Recycling**

*Head office: Beauparc Business Park, Navan, Co. Meath*

*Waste Licence Number W0140-02*

*Annual Environmental Report*

*01<sup>st</sup> January 2008 – 31<sup>st</sup> December 2008*

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## **1.0 Introduction**

Panda were granted their second EPA Waste Licence W0140-2 on the 1<sup>st</sup> April 2005. This precedes the old Licence 140-1. Under this licence Panda will be able to process 165,000 tonnes per annum and operate two in vessel composting units, a new C&D waste recovery building and a civic amenity facility as well as the operations allowed under the old Licence 140-1. Appendix A illustrates the current site layout.

### 1.1 Company details

Licence No:	W0140-2
Name:	Nurendale Limited t/a Panda
Address:	Rathdrinagh Beauparc Co. Meath
Telephone Number:	1850 65 65 65
Fax Number:	046 9024189
Website:	<a href="http://www.panda.ie">www.panda.ie</a>

### 1.2 Management Structure

Eamon Waters is the Managing Director of Panda and Brian McCabe is the General Manager. David Naughton is the Environmental Manager. There are 140 employees either working directly or indirectly at the facility. Appendix B illustrates the organisational structure of the facility.

### 1.3 Financial Provision

A statement from our accountants is provided in Appendix C. At the present time the annual turnover and company assets are sufficient to offset environmental liabilities incurred during the course of operations and in the event that the company is closed.

### 1.4 Environmental Policy

In carrying out our function, Panda acknowledge that our activities impact upon the environment both through routine internal operations and the actions of our staff.

It is Panda's policy to protect the environment during all activities, both on and off-site.

This is achieved by:

- Strategic preparation and implementation of operating procedures (including an emergency response procedure).
- Utilizing BAT (Best Available Technology).
- Actively promoting environmental awareness amongst staff and clients through appropriate training and communication programs.
- Reduce energy use through effective education and awareness and the installation of energy efficient technology where appropriate.
- Implementing a policy of continuous improvement, by means of targeted objectives. All objectives and targets are monitored and up-dated accordingly.

Panda are committed to complying with all relevant environmental regulations and aim to supply a safe competitive and sustainable service with specific regards to the surrounding environment.

## 1.5 Activities

Under the waste licence W0140-2, Panda conducts the following activities:

### **Licensed Waste Disposal Activities, in accordance with the Third Schedule of the Waste Management Acts, 1996 to 2003**

#### **Class 11.**

Blending or mixture prior to submission to any activity referred to in a preceding paragraph of this Schedule.

#### **Class 12.**

Repackaging prior to submission to any activity referred to in a preceding paragraph of this Schedule.

#### **Class 13.**

Storage prior to submission to any activity referred to in a preceding paragraph of this Schedule, other than temporary storage, pending collection, on the premises where the waste concerned is produced.

### ***Licensed Waste Recovery Activities, in accordance with the Fourth Schedule of the Waste Management Acts, 1996 to 2003***

#### **Class 2.**

Recycling or reclamation of organic substances, which are not used as solvents (including composting and other biological transformation processes).

#### **Class 3.**

Recycling or reclamation of metals and metal compounds.

#### **Class 4.**

Recycling or reclamation of other inorganic materials.

#### **Class 11.**

Use of waste obtained from any activity referred to in a preceding paragraph of this Schedule.

### **Class 13.**

Storage of waste intended for submission to any activity referred to in a preceding paragraph of this Schedule, other than temporary storage, pending collection, on the premises where such waste is produced.

The company provides a waste collection service for the domestic, commercial and industrial sectors throughout Ireland and was awarded the “Large Operator of the Year award 2007” and “Runner up” in 2008 from Repak. The facility operates 8am-6.30pm (Monday-Friday) & 9am-2pm (Saturdays). The facility is licensed to accept non-hazardous wastes only and to operate a civic amenity facility.

#### 1.6 Waste Activities carried out at the Facility

Panda operate two different sheds for processing the different waste streams. The bottom shed (2) in the yard is used to segregate the C&D waste entering the site using a shredder, trommel, wind blower, magnet, ballistic separator and a picking line to recover ferrous and non ferrous metals, rubble, timber and inorganic fines. The residuals are sent to landfill. Shovels are used to load the shredder, and a grab is used to pick out large pieces of steel etc and load the waste sent to Landfill.

In the top shed (1) all domestic, commercial and industrial collections of mixed municipal waste and dry recyclables are tipped in their respective sections. Cardboard and plastic is recovered which is already segregated at source, whilst the mixed municipal waste is sent to Landfill or mechanically treated waste is treated in the in-vessel composting system. A shredder, magnet and trommel used for separating the organic fraction. Shovels are used to load the articulated trailers going to landfill and load the in-vessel composting system.

Panda invested in a rock crusher to further process the C&D rubble to suitable size material for use as builders fill.

Panda invested in a flip-flop unit to further process the C&D trommelled fines. This system removes stones, wood, metal and residual material from the fines. This material is then sent as landfill cover. Panda are actively researching methods to further clean the stone and separating the wood from the residual material.

Panda process wood on-site using a shredder and a grab to load the material. The shredded timber is then sent to various outlets for different uses such as the manufacturing of chipboard.

The dual weighbridge was fully completed and operational in October 2006. The second weighbridge was retained as back up for the dual weighbridge.

#### 1.7 Water Usage:

Water is extracted from 2 wells on site and stored in a water storage tank. Water for office and amenities use is taken from public supply and is metered by the council. All other water use on site is taken from the water storage tank.

Water usage on site consists of:

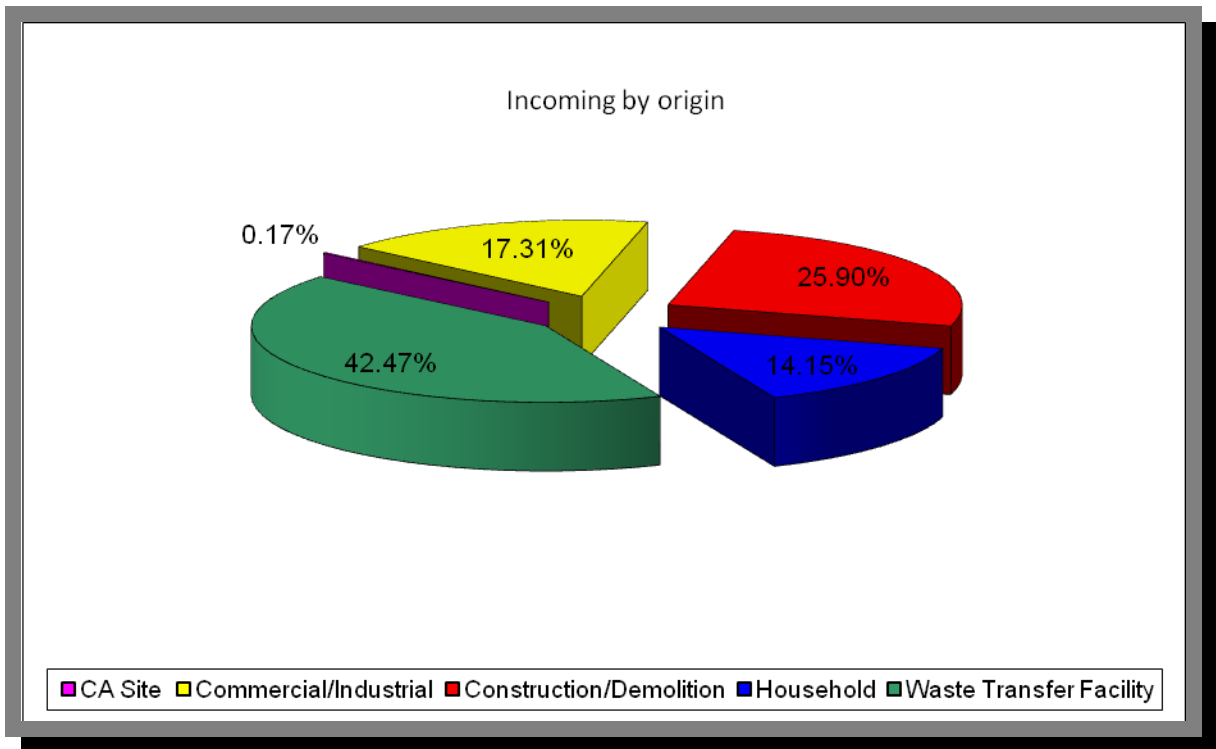
- In-house road sweeper.
- Dust suppression sprayers at doorways into shed one and on the eastern boundary fence between the back-up weighbridge and the retail outlet to the north.
- 2 atomiser units in shed one.
- Dust suppression sprayers in shed 2.
- Dust suppression sprayers at C&D fines extraction point from trammel.
- Hoses on site for dust suppression.
- Sprinkler system on biofilter and in-vessel compost tunnels.
- Truck wash.



## 2.0 Summary Information

### 2.1 Waste Received

The waste received at the facility for 2008 was 203,443.85 tonnes. From the pie chart (Fig 1) it is evident that waste from a Waste Transfer Station is the largest source of Panda's waste collection.



**Fig. 1:** Waste Collected by Panda Waste by Customer profile

### 2.2 Waste Transferred Off-Site for Disposal or Recovery

See Appendix D for the breakdown of the different destinations used for the waste accepted at the facility and of waste removed off site by EWC Code. The installation of the in-vessel composting tunnels reduces the weight of the organic material by 30% therefore decreasing the weight of the organic material sent to landfill as is required under the Landfill Directive.

### 2.3 Waste Recovery Reports

To contribute to the Landfill Directive Panda have invested in a shredder, trommel, magnet and an in-vessel composting system. All municipal waste will be put through the shredder and trommel and the organic fraction of the waste will then be put through the dynamic in-vessel composting system. The material taken from the tunnels is then sent as sub-cover to landfill.

Other materials recovered from these processes are ferrous metals collected by the magnet. The residuals are sent to landfill. Panda are actively researching the RDF market for the residuals.

To reduce the amount of recyclable material sent to landfill, Panda have received planning permission to build a third shed for the purposes of recovering dry recyclables. This would make shed (1) only available to municipal waste. Plastic, paper, cardboard, aluminium cans, steel cans would be baled in this third shed and sent for further processing. This will enable Panda to increase its efforts in encouraging customers to recycle either in the kerbside collection or commercial collections of materials such as paper, cardboard and plastic. The sales team will drive this process by educating the customer base of the materials that can be recovered.

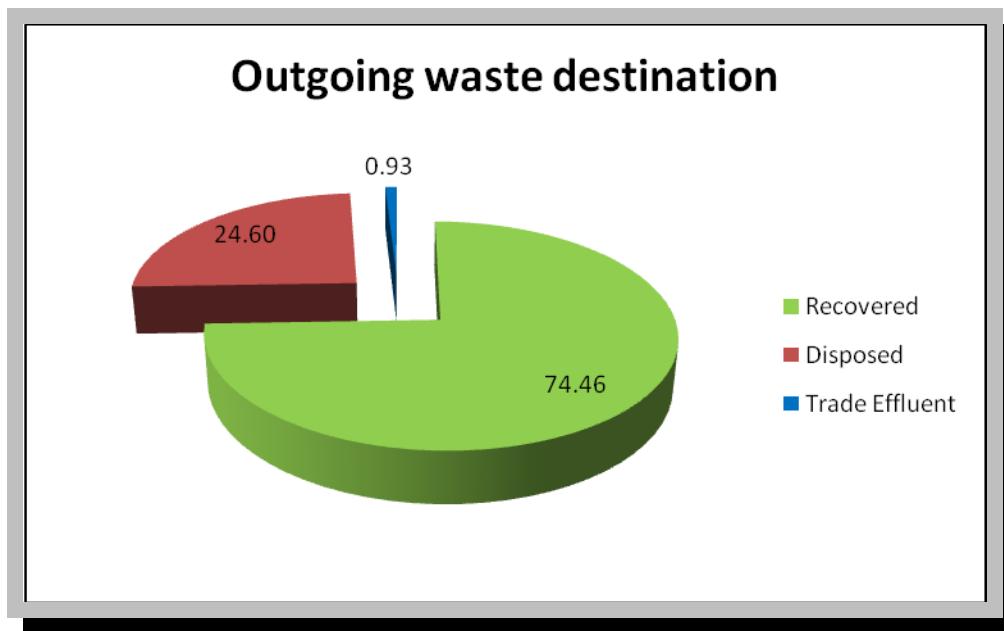
Panda invested in a C&D shed in 2005. A shredder, trommel, magnet, wind shifter and a picking line were purchased so as to divert as much C&D waste away from landfill as possible to reach the “Changing Our Ways 1998” target of diverting 85% away from Landfill by 2013. To date the processing of C&D Waste has been extremely successful. Panda are using the rubble segregated at the facility as a raw material in the use of landfill road construction and as back fill on construction works. The timber that is segregated in the shed is then shredded and reused.

Table 1 and Fig 2 details the recovery rates of waste leaving Panda’s facility.

**Table 1.** Outgoing destination and recovery rate.

Destination	Tonnes	%
Recovered	151,774.40	75.17
Disposed	50,144.72	24.83
Trade Effluent	1,905.23	0.93

**Fig 2.** Outgoing destination recovery rate.



#### 2.4 Summary report on emissions and interpretation of environmental monitoring

Under Schedule C of the licence W0140-2 Panda monitor emissions from surface water and interceptor SW-1, compost, trade effluent from the composting process, noise and ambient air monitoring. The following sub-headings detail the results from independent laboratories of the different parameters and the emission limit values ELV’s set by the EPA and any incident that may have occurred during the year.

#### *2.4.1 Surface Water*

Surface Water passes through a silt trap and oil interceptor prior to being discharged into holding tanks, which run beside the southern boundary of the facility. The surface water monitoring point was relocated to co-ordinates X/E 297456.080 Y/N 269143.030 as the stream running along the southern boundary was piped as notified to the agency.

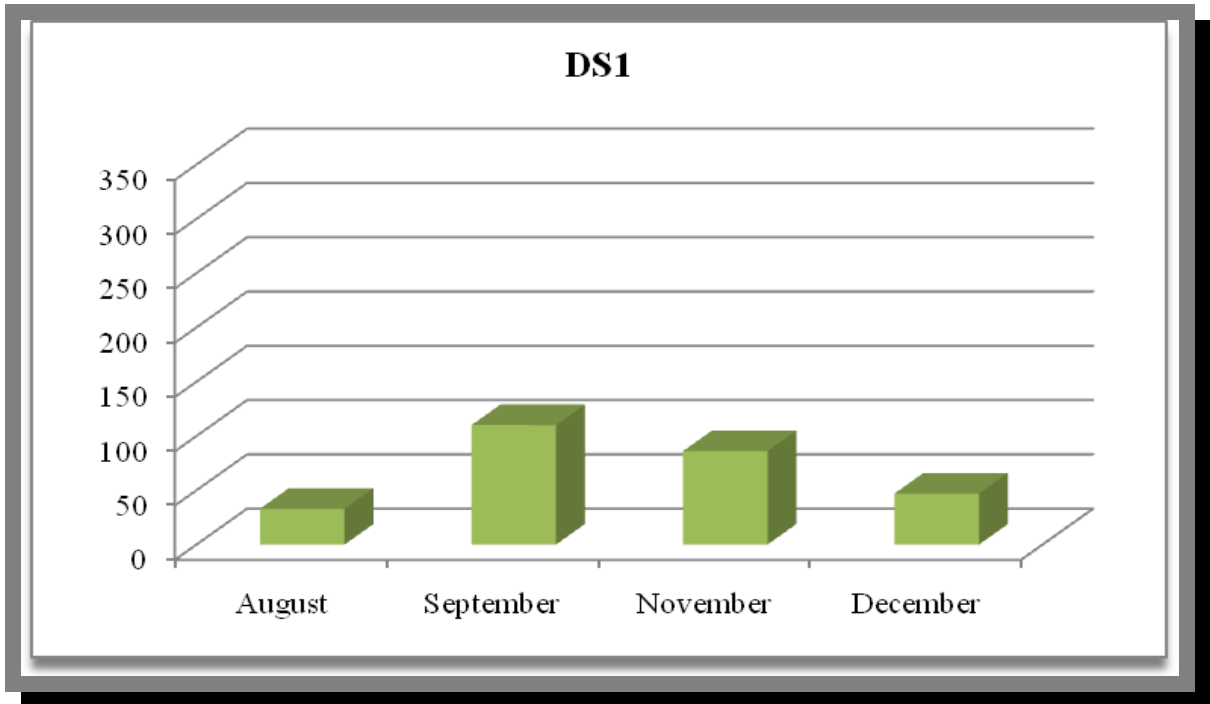
Panda propose to install a wetland system for surface water drainage as set out in the Environmental Targets and Objectives and received planning permission for its construction. A review of our waste licence was submitted to the Agency.

#### *2.4.2 Dust Emissions*

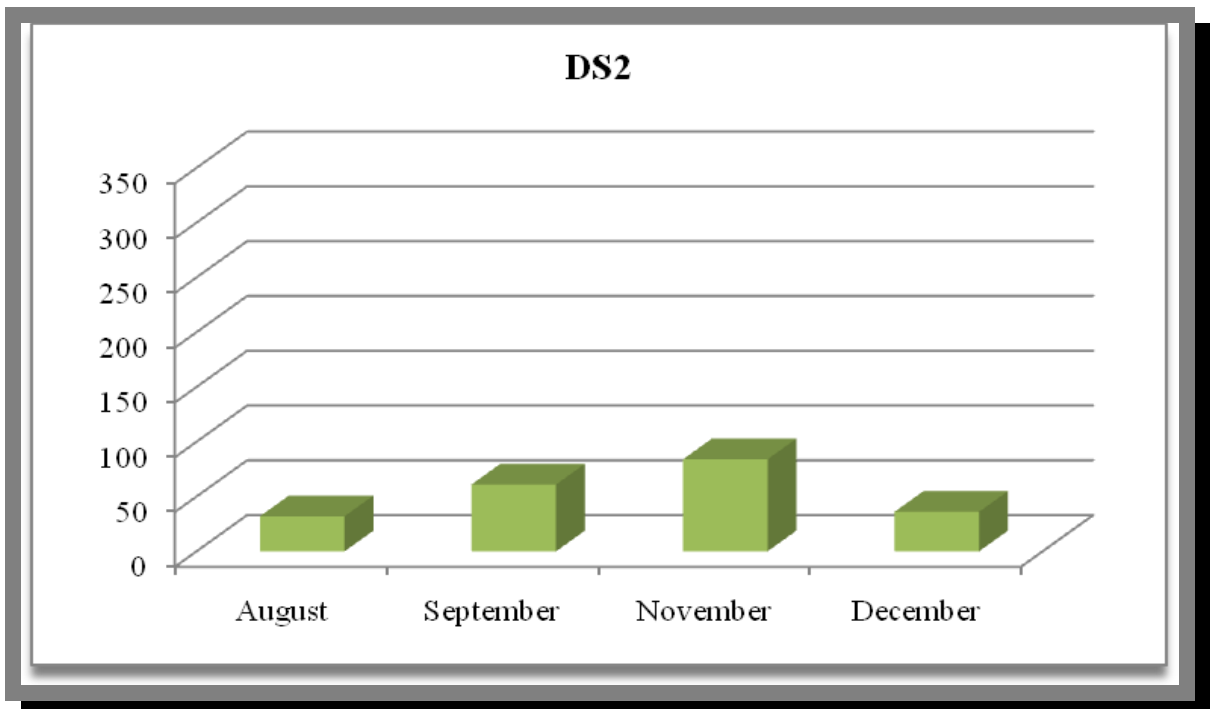
As per schedule B4 for dust deposition limits, there are three sampling locations as shown on drawing No. 2.2.1 of Licence Application Register No. 140-2. There is a fourth sampling site, D4, as required by Condition 6.13.3, as may be amended under Condition 6.16.

As per condition 6.13.1, all waste for disposal, stored overnight at the facility was placed in suitably covered and enclosed containers within the waste transfer buildings and were removed within 48 hours or 72 hours on a bank holiday weekend. In dry weather, the site roads and any other areas used by vehicles were sprayed with water. A dust suppression unit was installed in Shed (2) to ensure dust emissions from the bottom shed are kept to a minimum. Figs 3-6 illustrate dust recordings for 2008.

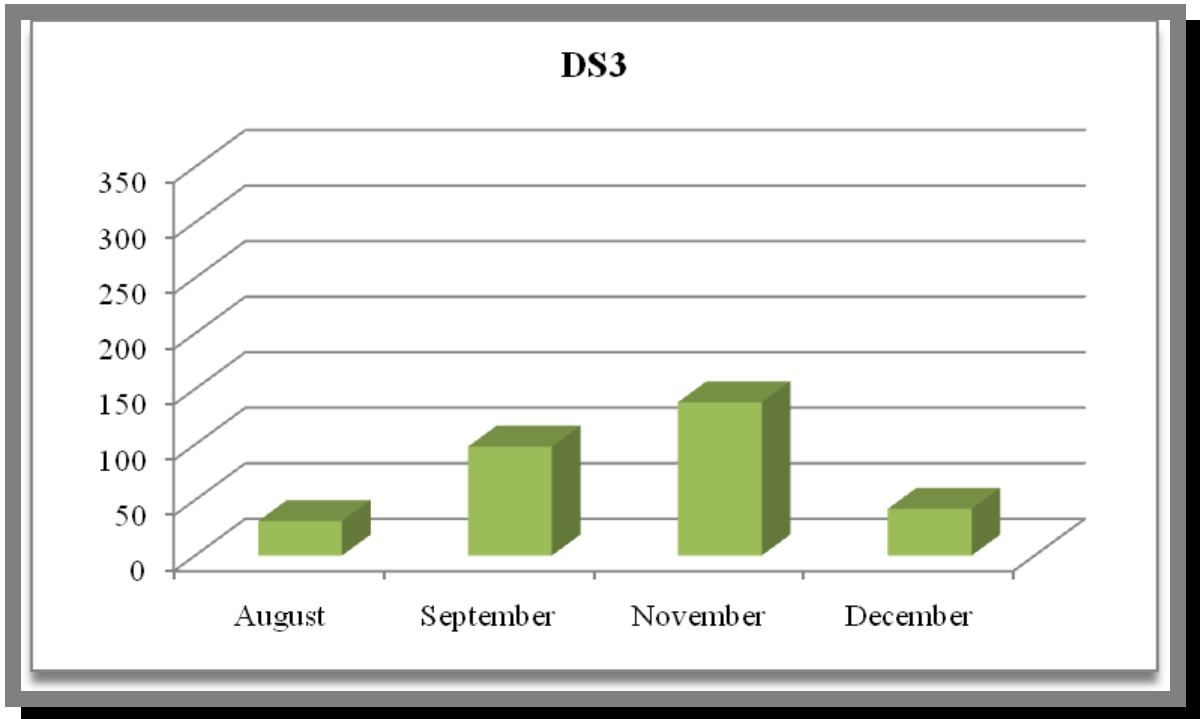
**Fig 3:** Dust emission results for DS1



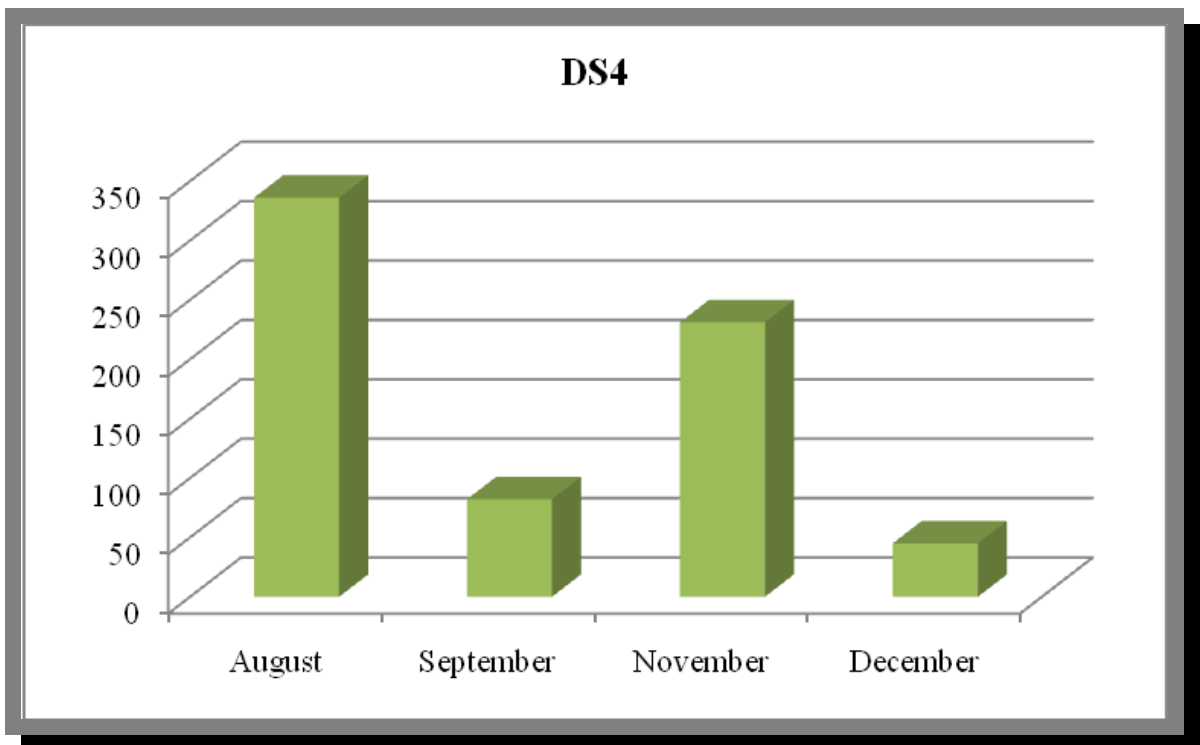
**Fig 4:** Dust emission results for DS2



**Fig 5:** Dust emission results for DS3



**Fig 6:** Dust emission results for DS4



As per Schedule B.4, the dust deposition limit for the site is  $350 \text{ mg m}^{-2} \text{ d}^{-1}$ . In 2008, dust deposition limits were not exceeded.

#### 2.4.3 Noise Emissions

Noise emissions are monitored according to Schedule B.3 and the emission limit values (ELV) set out in Schedule C5 of the licence. An independent competent person was used to conduct the noise sampling throughout the year. A summary of the recorded noise levels for this reporting period is provided in Tables 2-5.

**Table 2:** Recorded Noise Levels dB(A) on 19<sup>th</sup> March 2008– Intervals 30 minutes

Location	Time	Leq	L10	L90	Comments
N1	16.4	50.8	51.2	47.9	N2 road traffic and traffic entering Panda site – non Panda noise source
N2	16.45	50.2	51.3	48	N2 & slip road traffic. Panda waste inaudible at background of 48 dBA
N3	16.5	53.2	54.6	47.8	Slip road and N2 traffic
N4	17.2	61.2	62.3	59.2	Portable motor outside transfer house and trucks
N2 (B)	17.3	52.8	53.9	50.7	Operation inaudible, road traffic dominant from N2 and slip road
N3 (B) <sup>+</sup>	17.35	52.3	53.2	50.1	N2 road traffic and emission from Panda waste just inaudible at background level of 50.1 dBA

**Table 3:** Recorded Noise Levels dB(A) on 17<sup>th</sup> May 2008– Intervals 30 minutes

Location	Time	Leq	L10	L90	Comments
N1	10.4	51.3	52	48.1	N2 road traffic and traffic entering Panda site – non Panda noise source
N2	10.5	49.6	50.2	47	N2 & slip road traffic. Panda waste inaudible at background of 47 dBA
N3	11.15	54.4	55.4	48.3	Slip road and N2 traffic
N4	11.25	60.5	61.8	58.7	Portable motor outside transfer house and trucks
N2 (B)	11.55	53.2	54.7	51.3	Operation inaudible, road traffic dominant from N2 and slip road
N3 (B) <sup>+</sup>	12.1	51.8	52.5	49.2	N2 road traffic and emission from Panda waste just inaudible at background level of 49.2 dBA

**Table 4:** Recorded Noise Levels dB(A) on 25<sup>th</sup> September 2008– Intervals 30 minutes

Location	Time	Leq	L10	L90	Comments
N1	16.4	51.1	51.9	47.8	N2 road traffic and traffic entering Panda site – non Panda noise source
N2	16.55	49.6	50.7	47.4	N2 & slip road traffic. Panda waste inaudible at background of 47.4 dBA
N3	17.2	53.6	54.8	48.5	Slip road and N2 traffic
N4	17.3	61.6	62.5	59.8	Portable motor outside transfer house and trucks
N2 (B)	17.45	52.4	53.2	50.5	Operation inaudible, road traffic dominant from N2 and slip road
N3 (B) <sup>+</sup>	17.55	51.8	53.7	50.8	N2 road traffic and emission from Panda waste just inaudible at background level of 50.8 dBA

**Table 5:** Recorded Noise Levels dB(A) on 12<sup>th</sup> December 2008– Intervals 30 minutes

Location	Time	Leq	L10	L90	Comments
N1	15.3	56.3	58.4	49.8	N2 road traffic and traffic entering Panda site – non Panda noise source
N2	15.4	55.6	57.8	50.1	N2 & slip road traffic. Panda waste in-barely audible at background of 50.1 dBA
N3	16.3	56.1	57.2	50.8	Panda Waste and N2 traffic
N4	16.35	63	64.8	60.1	Portable motor outside transfer house and trucks
N2 (B)	16.45	56.8	58.6	50.7	Operation inaudible, road traffic dominant from N2 and slip road
N3 (B) <sup>+</sup>	16.55	55.1	56.2	50.4	N2 road traffic and emission from Panda waste just audible at background level of 50.4 dBA

As can be seen from the tables above there was no incidents from the monitoring conducted.



#### 2.4.4 Trade Effluent

As part of the monitoring programme Panda must test the trade effluent sent off site for disposal. Table 6 shows the results for the trade effluent tested for 2008.

**Table 6:** Results for Trade effluent sent off site for disposal

Parameter	Units	Result 12/09/08	Result 16/12/08	Result 18/12/08	Result 22/12/08
Ammonia	mg/L as N	972.12	100.96	37.02	99.18
BOD	mg/L	4500	1150	1475	5700
Cadmium	ug/L	<0.09	0.2	<0.09	1.3
Calcium	mg/L	104.4	293.4	255	2706
Chloride	mg/L	417.3	194.4	20.98	1298.41
Cobalt	ug/L	8.7	3.9	4.1	35.4
COD	mg/L	4860	2275	2540	14550
Copper	ug/L	28	37.4	37	127.2
Iron (Total)	ug/L	2730	8546	10160	40660
Lead	ug/L	29.7	17.1	18.2	272.4
Magnesium	mg/L	13.24	29.12	32.85	289.2
Manganese	ug/L	124.3	1015	1098	6308
Mineral Oil	ug/L	784.21	69.26	285.86	196.99
Nickel	ug/L	78.7	36.8	35.7	410.8
pH	pH units	8.4	6.7	6.7	6.4
Solids (Total Suspended)	mg/L	437	171	183	1795
Sulphate	mg/L as SO <sub>4</sub>	<1.39	39397.55	<1.39	72.49
Tin	ug/L	13.9	<2.8	<2.8	19.9

### 2.4.5 Compost Analysis

As part of the monitoring programme Panda must test Compost. Table 7 shows the results for the Compost tested for 2008.

**Table 7** Results for Trade effluent sent off site for disposal

Test Parameter	Units	Result	
		12/09/2008	18/12/2008
Moisture Content	%	51.16	43.36
Organic Matter	%	60.9	79.22
Iron (solid)	ug/Kg		3233060
Arsenic (solid)	ug/Kg	1089	
Boron (solid)	ug/Kg	11400	
Cadmium (solid)	ug/Kg	142	973.43
Calcium	mg/Kg		28108
Chloride	mg/Kg	2632.41	2764.75
Chromium	ug/Kg	15400	
Cobalt	ug/Kg		<1
Copper	ug/Kg	27480	54015
Faecal Coliforms	No/100ml	520	0
Foreign matter	%	33.97	25.52
Lead (solid)	ug/Kg	117500	115392
Magnesium (solid)	mg/Kg		1938
Manganese (solids)	ug/Kg		149473
Mercury	ug/Kg	13	
Nickel (solid)	ug/Kg	31890	17855
Selenium (solid)	ug/Kg	248	
Sulphate (solid)	mg/Kg as SO4	4338.96	3101.1
Tin (solid)	ug/Kg		18358
Total Coliforms	No/100ml	610	170
VOC (solid)	ug/Kg	2192.192	<1
Zinc	ug/Kg	105000	
Semi VOC (Solid)	mg/Kg		<1

### 2.4.6 Biofilter Monitoring

Panda commissioned a consultant to conduct ambient air monitoring on site to test for Bacteria, Hydrogen Sulphide and *Aspergillus fumigatus*. The bed media of the biofilter

and the air handling system were also tested as required under Condition C.1 of the licence.

Round 1 Monitoring Results.

**Table 8.** Airflow rate, temperature and differential pressure measurement results from the biofiltration system.

Measurement Location	Air Velocity (m s <sup>-1</sup> )	Volumetric airflow rate (m <sup>3</sup> s <sup>-1</sup> )	Differential Pressure (Pa)	Temperature (Kelvin)
Duct 1	4.6	0.58	1428	303
Duct 2	6.9	0.87	1526	306
<b>Total</b>	-	<b>1.45</b>	-	-

**Table 9.** Inlet and outlet speciated VOC, Ammonia, Hydrogen sulphide and Mercaptans analysis.

Compound Identity	Inlet conc. (µg m <sup>-3</sup> )	Outlet conc. (µg m <sup>-3</sup> )	Notes
Mercaptans	228	78	66% RE of Mercaptans grouped in concentration
Ammonia	9,107	379	96% RE
Total VOC's	48,200	8,100	83% removal overall
Hydrogen sulphide	128	14	89% removal

**Table 10.** Ambient bioaerosol concentrations at monitoring locations DS1 and DS3.

Sample location	Total Mesophilic bacteria (CFU/m <sup>3</sup> )	Aspergillus fumigatus (CFU/m <sup>3</sup> )
Sample location DS1 (Triplicate sampling)	211	64
Sample location DS3 (Triplicate sampling)	288	92

**Table 11.** Total viable bacteria count on biofilter bed medium.

Sample Id.	Bed Depth (metres)	Result (TVC/kg)
TVC1PWB0608	0.2	1.80*10 <sup>3</sup> cfu/kg
TVC2PWC0608	0.6	8.40*10 <sup>5</sup> cfu/kg

**Table 12.** pH and % Moisture Content.

Parameter	June 2008
Moisture Content (%)	31
pH	5.1

## Round 2 Monitoring Results.

**Table 13.** Airflow rate, temperature and differential pressure measurement results from the biofiltration system.

Measurement Location	Air Velocity (m s <sup>-1</sup> )	Volumetric airflow rate (m <sup>3</sup> s <sup>-1</sup> )	Differential Pressure (Pa)	Temperature (Kelvin)
Duct 1	9.9	1.24	890	300
Duct 2	11.4	1.43	920	301
<b>Total</b>	-	<b>2.67</b>	-	-

**Table 14.** Inlet and outlet speciated VOC, Ammonia, Hydrogen sulphide and Mercaptans analysis.

Compound Identity	Inlet conc. (µg m <sup>-3</sup> )	Outlet conc. (µg m <sup>-3</sup> )	Notes
Mercaptans	312	112	64% RE of Mercaptans grouped in concentration
Ammonia	28,833	1,517	95% RE
Total VOC's	15,289	4,238	72% removal overall
Hydrogen sulphide	89	<4.5	95% removal

**Table 15.** pH and % Moisture Content.

Parameter	November 2008
Moisture Content (%)	42
pH	6.2

#### 2.4.7 Bund Integrity

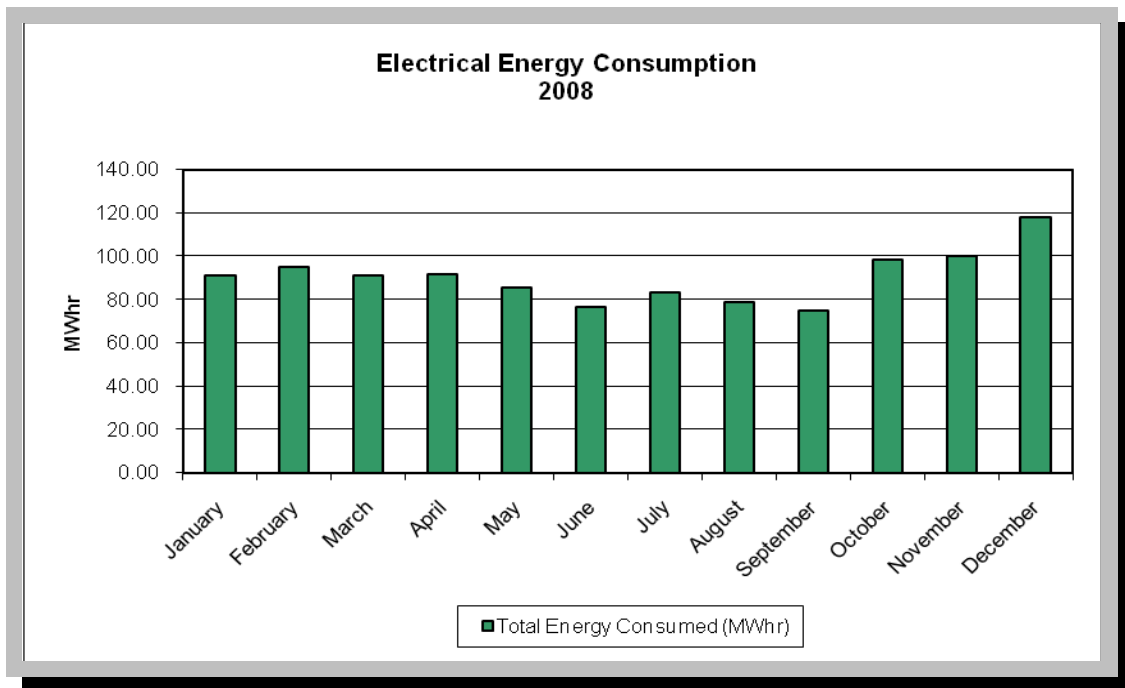
The Bund Integrity Test was carried out in July 2006. It was determined that the capacity of the road diesel bund is adequate per the licence requirement. The capacity of the inadequately sized bund has now been increased and re-testing of the bund is scheduled for mid 2009.

### 2.4.8 Summary of resource and energy consumption

A summary of the resource and energy consumption by Panda between Jan-Dec 2008 is provided in Table 8.

#### 2.4.8.1 Electricity

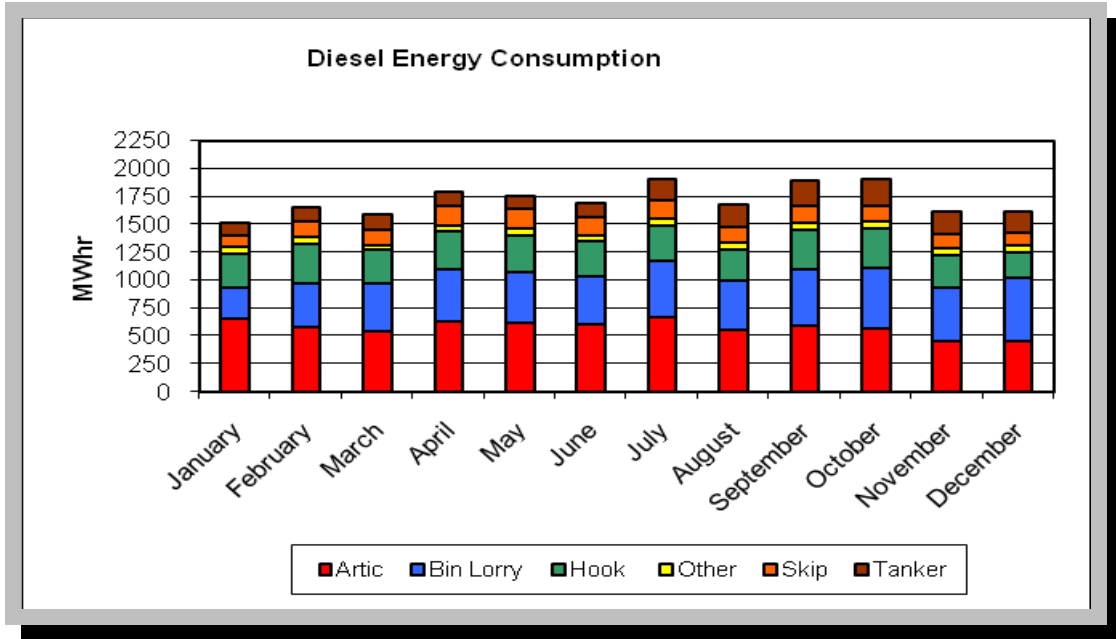
Fig 7. Shows the electrical energy consumption for the period January 2008 – December 2008. It is clear to see that the energy consumption is higher in the winter months than the summer months.



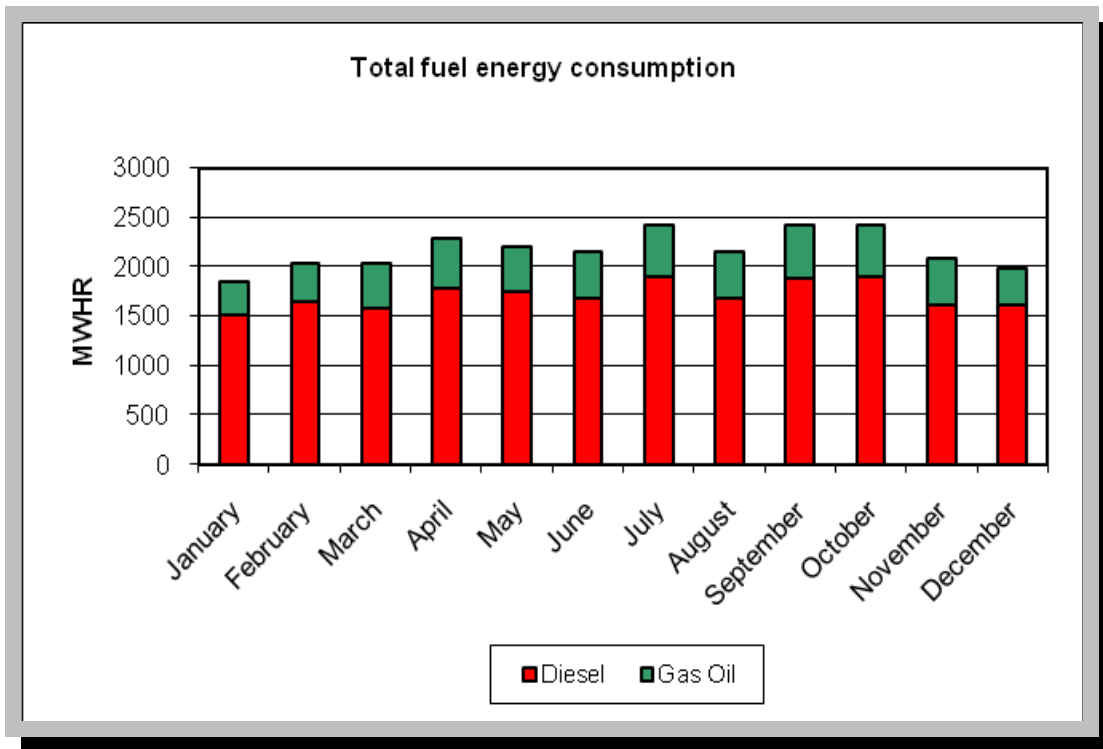
**Fig 7.** Bar chart of electrical energy consumption for the year 2008

#### 2.4.8.2 Fuel

Figs 8 and 9 illustrate bar charts of the fuel power consumption for 2008. It can be seen that the road fleet fuel energy consumption rises in the second half of the year.



**Fig 8.** Bar Chart of Fuel Energy Consumption 2008.



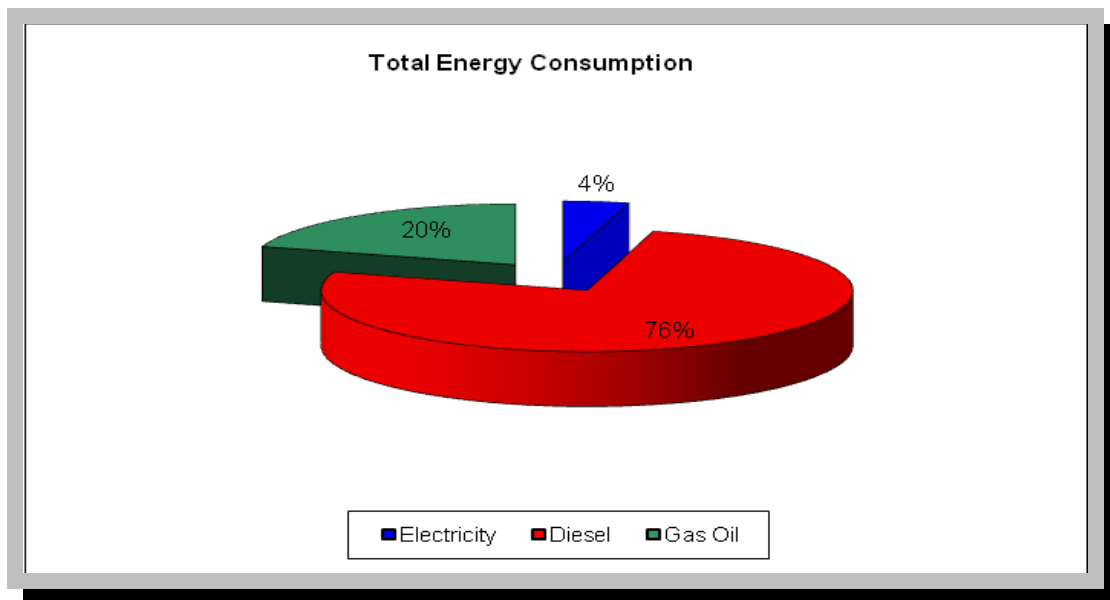
**Fig 9.** Bar Chart of Fuel Energy Consumption for 2008.

2.4.8.3 Summary

The table and Fig. below shows a summary of the energy consumption, and tonnes of carbon dioxide produced.

	<b>Consumption (MWhr)</b>	<b>%</b>	<b>tCO2</b>
Electricity	1086.44	4.00	76.49
Diesel	20626.95	75.87	5156.74
Gas Oil	5475.26	20.14	1368.81
<b>Total</b>	<b>27188.64</b>		<b>6602.04</b>

**Table 16.** Summary of Energy Consumption 2008.



**Fig 10.** Total Energy Consumption.

## 2.5 Site infrastructure

Panda acquired land at the southern and Eastern boundary of the site so as to complete the surface water run off drainage on site and to add building three at the southern end of the facility.

### 2.5.1 *In-place*

The current site infrastructure is outlined below (List 1). Table 17 details the waste processing equipment used on site, together with the associated duty capacities

#### **List 1:** Current site infrastructure

1. Office block
2. Truck wash
3. 2 x Weighbridge and associated office.
4. 1 x Waste processing building (2800 m<sup>2</sup>)
5. 1 x Waste processing building (2600 m<sup>2</sup>)
6. 2 x Dust suppression system
7. 2 x In-vessel Composting Tunnels
8. Ancillary ESB building
9. Canteen & toilets and associated waste water treatment system.
10. Water reservoir (350 m<sup>3</sup>) capacity
11. Fencing around the site
12. Tyre Bay



**Table 17: Waste processing equipment**

Description	Duty Capacity
<b>Shed 1</b>	
1 x M&J 2000 Shredder	50 Tonnes per hour
1 x Trommel	50 Tonnes per hour
1 x Magnet	20 Tonnes per hour
2 x Composting Tunnels	60 Tonnes per day
<b>Shed 2</b>	
1 x M&J 4000 Shredder	100 Tonnes per hour
1 x Trommel	100 Tonnes per hour
1 x Magnet	20 Tonnes per hour
1 x Nihot	50 tonnes per hour
1 x Ballistic Separator	15 Tonnes per hour
<b>Outside</b>	
1 x Flip Flop	70 tonnes per hour
2 x Magnet	20 Tonnes per hour
1 x Wind Shifter	20 Tonnes per hour
1 x Rubble Crusher	50 Tonnes per day
1 x Flip Flop (Not in use)	50 tonnes per hour
1 x Single Drum Separator	40 tonnes per hour
1 x Baler (Not in use)	20 Tonnes per hour
<b>Mobile</b>	
3 x Volvo L120	1 x Kobelco Track
1 x Teleporter	2 x Hoists
1 x Volvo L60	2 x Forklift
1 x Fuchs Grab	1 x Shunter
1 x JCB Grab	1 x Scarab Roadsweeper
1 x Doppstadt Shredder	30 tonnes per hour

There is sufficient back up if the shredder; a loading shovel or an excavator breaks down. The stone crusher is only used intermittently and therefore back up is not required. In the

event that there is a major problem with the trommel or composting tunnels (i.e. if it can't be fixed within 48 hrs), unprocessed waste will be transferred to other approved waste processing facilities.

### *2.5.2 Planned Infra-structure*

Proposed infrastructure is outlined in List 2. It is anticipated that the majority of the proposed infrastructure will be in-place by late 2009 or early 2010, with the bring centre being built at a later date.

**List 2:** Proposed infrastructure:

1. Wetland for surface water run off
2. Waste processing Shed 3, 4,320 m2.

### 2.6 Progress Report on Proposals Developed to Minimise Water Demand & Trade Effluent Discharge

To minimise the water demand on site Panda are investigating collecting the rainwater from the roof and using this in the road sweeper to clean the yard. This would constitute a significant reduction in usage on site as the road sweeper is running ten hours per day.

### 2.7 PRTR Emission.

Panda's PRTR emission return is provided in Appendix E.

## **3.0 Environmental objectives and targets – 2009**

**Objective:** Improve Surface Water Quality on site

**Target:** To recycle surface water run off and improve the quality of the discharge

PWS are proposing two large- scale development/ infrastructural projects for the current year. Both involve the development of the new land purchased in 2005. The first project is to construct the wetland to complete the surface drainage works on site as specified in an audit carried out by the Agency in September 2005. The wetland will also eliminate

any heavy metals entering the stream. The installation of this technology should improve the surface water samples coming from the main yard.

**Responsibilities:** The project manager for this will be David Naughton who will be advised by specialists in the area of wetland systems. The Environmental Dept will measure the success of the project by sampling the parameters as set in Condition C.2.2

**Objective:** Build a third shed for Recyclable/compostable Materials

**Target:** To divert material from Landfill and increase the recycling rate of the Facility  
Panda received planning permission in 2007 to construct a third shed on the purchased land at the southern part of the site. The shed will be used to recycle material such as paper, cardboard, aluminium, steel and plastic and to further process compost in material suitable for land reclamation. With the third shed it is hoped to recover more packaging waste and therefore achieve PWS targets on recycling packaging waste and therefore comply with government and EU targets. It would be hoped to have the shed in working order by the end of the year, however it will depend on the licence review process and the approval of the Agency. The architects and engineers will work closely with the Managing Director on this project.

**Responsibilities:** Eamon Waters will manage the construction issues along with the engineers contracted for the project. Eamon Waters, David Naughton and David Jervis will research the different technologies available to recycle the different waste streams. David Naughton will keep the EPA up to date with the developments.

**Objective:** Upgrade the waste process activities in shed 2

**Target:** To re-arrange the equipment in shed 2 to include the wood shredder. This will mean that waste processing associated with shredder will be relocated to inside shed 2. By re-arranging the process and moving the shredder inside, Panda will be in compliance with condition 8.8 of our waste licence. The expected completion date will be towards the end of 2009.

**Responsibilities:** Mr David Jervis (Operations Manager) will be responsible for the re-organisation of the equipment. David Naughton (Environmental Manager) will aid David Jervis in supervising the project to ensure that all works will be carried out in accordance

with PWS's waste licence and in accordance with the appropriate National and European legislation and protocols.

**Objective:** Reduce energy demand in the yard.

**Target:** To reduce the lighting in the yard when the site is not operational, therefore reducing energy consumption in the yard.

**Responsibilities:** The Environmental Manager in conjunction with the Electrical Consultant will ensure completion of the changeover with an anticipated completion date of mid April.

### 3.1 Completion of Environmental Targets & Objectives 2008

Panda will endeavour to complete the targets not already completed in 2008. The targets not met in 2008 were due to the delay in reviewing Panda the licence application lodged in May 2007, therefore delaying the construction of this large scale construction project. These targets should be completed by the end of the year (2009).

### 3.2 Summary of reported incidents and complaints

#### 3.2.1. *Reported Incidents Summary*

#### **31<sup>st</sup> March 2008**

There were non-compliances noted following an audit conducted by the Agency on 27<sup>th</sup> February 2008 (Audit report reference no. W0140-02/nc13ap.doc). A full non-compliance schedule was sent to the Agency on the 31<sup>st</sup> March 2008.

#### **5<sup>th</sup> November 2008**

A spill of Mixed Municipal Waste occurred between the facility and Knockharley Landfill heading North on the N2. Panda staff immediately cleaned up the spill. Upon completion of the investigation, it was found that the driver had not followed procedures in that he did not cover the load before leaving the facility. This was evident after reviewing CCTV footage. A report of the incident was sent to the Agency on the 5<sup>th</sup> November 2008.

### 3.2.2 Complaints:

#### **11<sup>th</sup> January 2008**

The Agency informed Panda that there was an odour emanating from the facility that morning and on the 10<sup>th</sup> January 2008. The complaint was made by Ms Helen Kierans of Boyne Waste.

**Actions taken:** When Panda were informed of the complaint, David Naughton immediately conducted an investigation, wind direction recorded that day on the “Daily Odour & Biofilter Assessment” was noted and also the “Daily Inspections of Boundaries & Site” sheets were reviewed. The wind direction on the dates in question was verified with Met Eireann. The wind direction on those days in question was blowing in the opposite direction to that of Ms. Helen Kierans.

#### **7<sup>th</sup> February 2008**

The Agency informed Panda that there was an odour emanating from the facility all day on the 6<sup>th</sup> February 2008 and was particularly strong at 17.00. The complaint was made by Ms Helen Kierans of Boyne Waste.

**Actions Taken:** Panda investigated the compliant. Panda refuted the complaint that there was an odour emanating from the facility all day. The odour at the site at 17.00 was found to be malodorous load of waste that entered the facility. This was tipped immediately in the MMW building where it was covered with c30cm woodchip as the landfill was closed. This load was sent to the landfill the following morning once the landfill reopened.

#### **27<sup>th</sup> May 2008**

The Agency notified Panda that they had received a complaint from Mr Gerry Lynch of dust coming from the facility on the 21<sup>st</sup> April 2008, 2<sup>nd</sup> May 2008 and the 25<sup>th</sup> May 2008. Mr. Lynch also complained of noise coming from the facility early in the morning. Mr. Lynch also complained of a foul odour emanating from the facility.

**Actions Taken:** Panda investigated the compliant and responded by refuting the compliant. Numerous reasons were given as to why the compliant was refuted as per letter to the Agency and Mr Lynch dated the 28<sup>th</sup> May 2008 reference No PWS-EPA-09-08.

#### **4<sup>th</sup> June 2008**

The Agency notified Panda that they had received a complaint from Ms Helen Kierans of Boyne Waste regarding an odour emanating from the facility on the 3<sup>rd</sup> June 2008 at 17.15

**Actions Taken:** Panda investigated the complaint. The “Daily Inspections of Boundaries & Site” and the “Daily Odour & Biofilter Assessment” were inspected. It was noted that there was no odour recorded. All staff in Panda are instructed to report an odour issues to the Environmental Department. On this occasion no such report was made. Logistical staff was interviewed, to ascertain if there were the possibility of any malodorous loads entering the facility, no such instance occurred.

#### **1<sup>st</sup> July 2008**

The Agency notified Panda that they had received a complaint from Ms. Helen Kierans of Boyne Waste regarding a bad odour that day since 14.00 and Ms. Kierans also stated that the odour was very bad the previous day.

**Actions Taken:** Panda conducted an investigation into the cause for this complaint. After reviewing all monitoring records and from speaking with staff, no there was no evidence of odour emanating from the facility. The Agency recommended that the Environmental Manager visit the complainant’s residence, which he did do. The complainant stated that she was concerned for the health of her kids. The Environmental Manager left his mobile number with the complainant and requested that Ms. Kierans contact the facility or the Environmental Manager in future as per the “See something, Say something” document published by the Agency in relation of how to make an environmental complaint.

#### **24<sup>th</sup> October 2008**

The Agency notified Panda that they had received a complaint (name held with the inspector) regarding odours and litter from trucks en-route to our facility.

**Actions Taken:** The Operations Manager and weighbridge staff conducted the initial investigations for the week in question. CCTV footage was reviewed along with the checks on the nuisance monitoring sheets. As no vehicle registration was given and no evidence of such negligence was uncovered in the investigation, the contents of the complaint could not be verified. Upon return of the Environmental Manager from annual

leave, the investigation was reviewed and the came outcome was reached. This complaint from the Agency was circulated to all drivers.

### 3.3 Review of nuisance controls

#### 3.3.1 *Odour*

There are two rotary atomiser-fogging units at either end of building one, used to sort the mixed municipal waste. These spray odour suppression liquid. A sprinkling system is on each doorway into shed 1 and between the back-up weighbridge and commercial premise on the western boundary of the facility. This sprinkling system is connected to the odour suppression liquid.

The yard foreman is responsible for controlling the odour-suppressing units. This involves controlling the concentration of odour suppressant in order to provide adequate odour control. There is a power washer available to wash odorous bins. All drivers are responsible for washing their own compactors or skips. Each day, the environmental officer conducts an inspection of the site. A daily odour assessment of the biofilter is carried out and a record of this is filed in the environmental office.

#### 3.3.2 *Noise*

There were four noise survey's done 2008. Noise levels from operations at Panda were inaudible as background noise from the N2 and the slip road to the north of the facility was the dominant source of noise. In general, the noise emissions were in the main steady, with no tonal or impulsive noise from the works audible at any of the nearest locations.

#### 3.3.3. *Dust*

A water tanker is available for controlling dust outside the waste transfer station. Dust analysis was carried out four times this year. Dust inside building one is dampened using the rotary atomiser fogging units. A dust suppression system was installed in shed (2) in 2005 and along the western boundary between the back-up weighbridge and the commercial premise in 2008.

#### *3.3.4. Vermin*

A file on vermin control is maintained in the environmental office. A sub-contractor is used to control any vermin on site.

#### *3.3.5. Flies*

Good housekeeping practices are used to prevent fly infestations. The yard is kept clean using a road sweeper 10 hours a day and all waste for disposal is removed from the facility within 48 hours, or 72 hours in the case of a bank holiday weekends.

#### *3.3.6. Birds*

In order to avoid having birds as a nuisance, litter control is practised at all times and no waste is stored outside.

#### *3.3.7. Litter*

A designated member of staff carries out litter inspections of the facility three times a day.

### **4.0 Development of Procedures on Site**

The Emergency Response Procedure (ERP) has been implemented to reflect the changes of the company and update useful contact telephone numbers. Both Health and Safety and the Environment are covered under the ERP.

There was a revision of the odour-monitoring sheet to include a map of the facility to make it easier to position possible nuisances on the facility. General weather conditions and wind direction are obtained through Met Eireann on a daily basis.

Recycling certificates are issued to customers, on request, so that they can determine their recycling on a monthly basis. There is one for C&D Recycling and one for Packaging Waste.



## **5.0 Pollution Emission Register**

After consulting the PERL list Panda are not using any substance that is listed at present.

## **6.0 Report on Programme for Public Information**

Panda have commissioned a web designer to update the company's website. One of the features is a page dedicated to the environment where facility licences and permits including (W0140-2), the waste collection permits, Environmental Policy and Health and Safety Statement can be downloaded. There will also be a calendar available for the kerbside collections. Over the Christmas period 2008 Panda put advertisements in all the local newspapers to inform customers of the schedule of bin collections over the Christmas Period. Panda also issued all domestic customers with a Christmas calendar showing collection days over that period. If there were any change to a domestic run or route, this would also be advertised in the local media.

Advertisements are taken out regularly in the local newspapers informing customers of the services that Panda offer. There is also a large advertisement in the golden pages, which is available to the general public. Regular tours of the site are given to schools and to anybody whom requests one.

During the reporting period there were no requests from members of the public to inspect any Environmental Records.

The information in the Annual Environmental Report is true and accurate representation of the activities conducted by Panda in 2008

Signed: \_\_\_\_\_

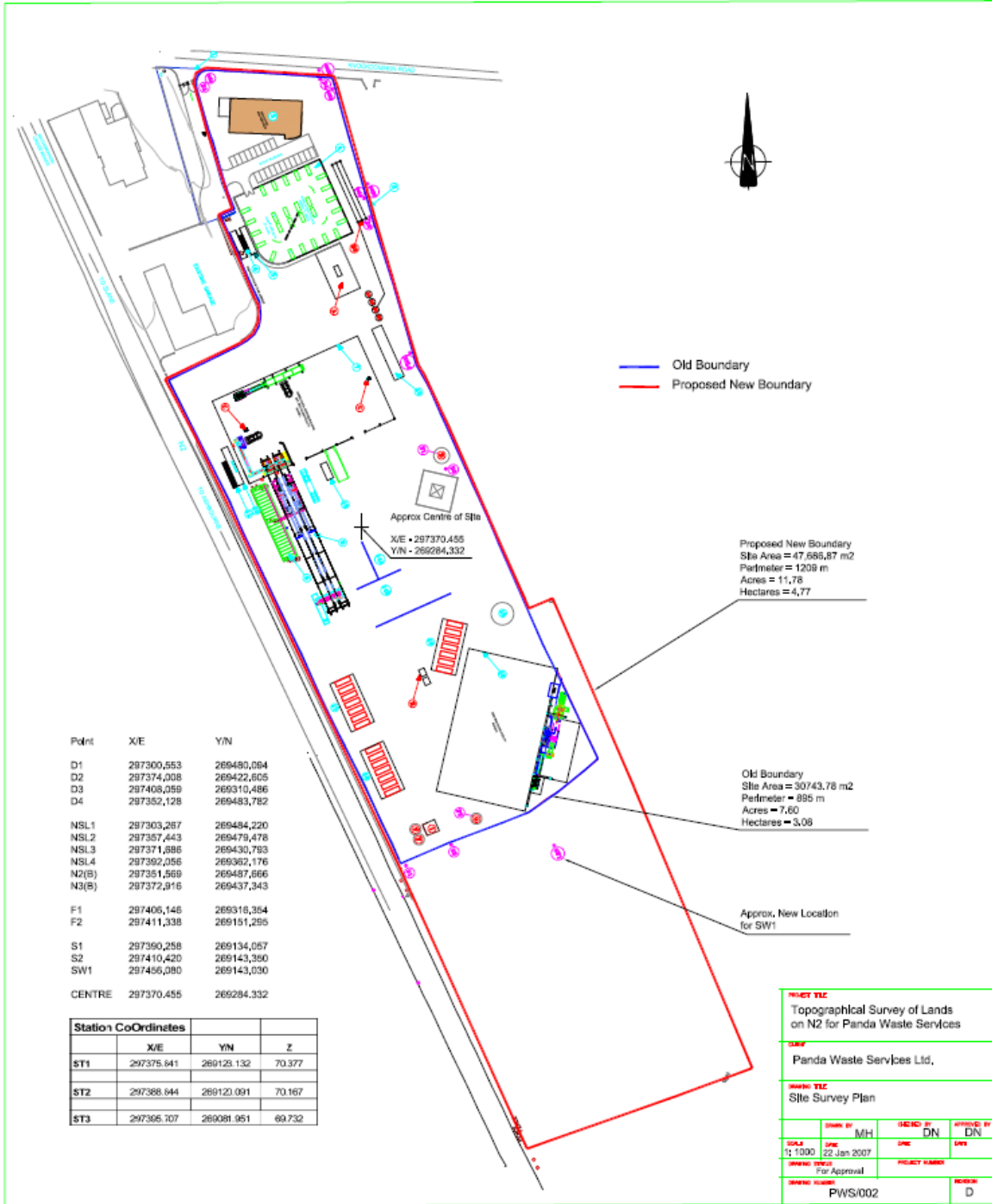
Date: \_\_\_\_\_

David Naughton

Environmental Manager

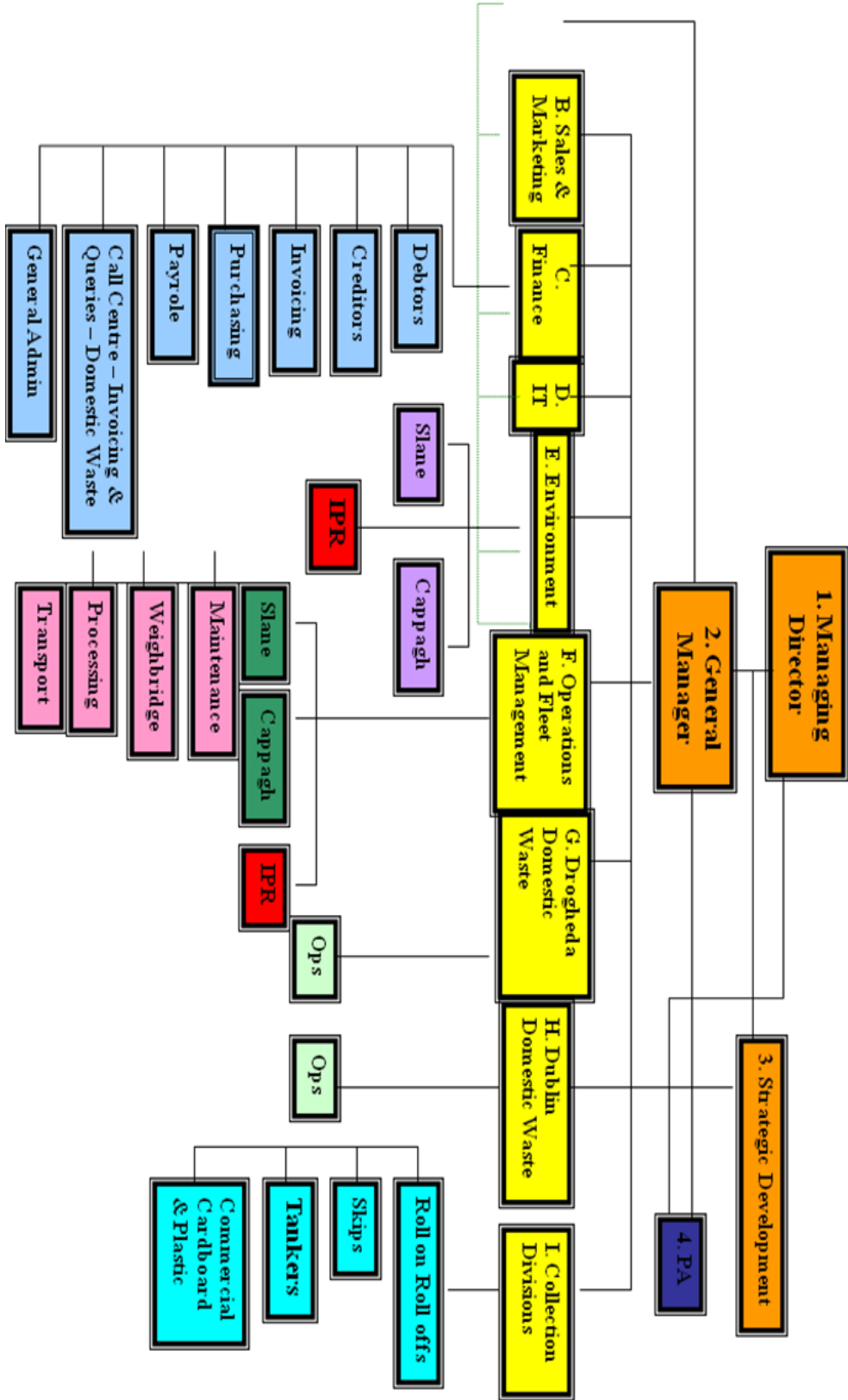
# Appendix A

Site Layout



# Appendix B

## Organisational Structure



# Appendix C

## Financial Statement



Fagan Lynch Donnellan  
Chartered Accountants & Registered Auditors

Our Ref: VL/LL

23<sup>rd</sup> March 2009

Environmental Protection Agency,  
McCumiskey House,  
Richview,  
Clonskeagh Road,  
Dublin 14.

**Re: Nurendale Ltd – T/A Panda Waste.**

Dear Sir,

We act as Auditors and Taxation Agents for the above and have acted in this capacity in excess of 10 years.

We wish to confirm as follows:

1. Statutory Accounts have been filed for all years up to 31.12.2007 with Companies Office.  
Accounts and Tax Returns have also been filed with Inspector of Taxes for all years to 31st December 2007.
2. The company trades profitably and is on a very sound financial footing.

Further information is available on request.

Yours faithfully,

  
FAGAN LYNCH DONNELLAN

Newbridge House, Athlumney, Navan, Co. Meath  
Tel: (046) 9023021 Fax: (046) 9029341 e-mail: info@fld.ie  
John Fagan FCA Vincent Lynch FCA Mark McCartney FCCA

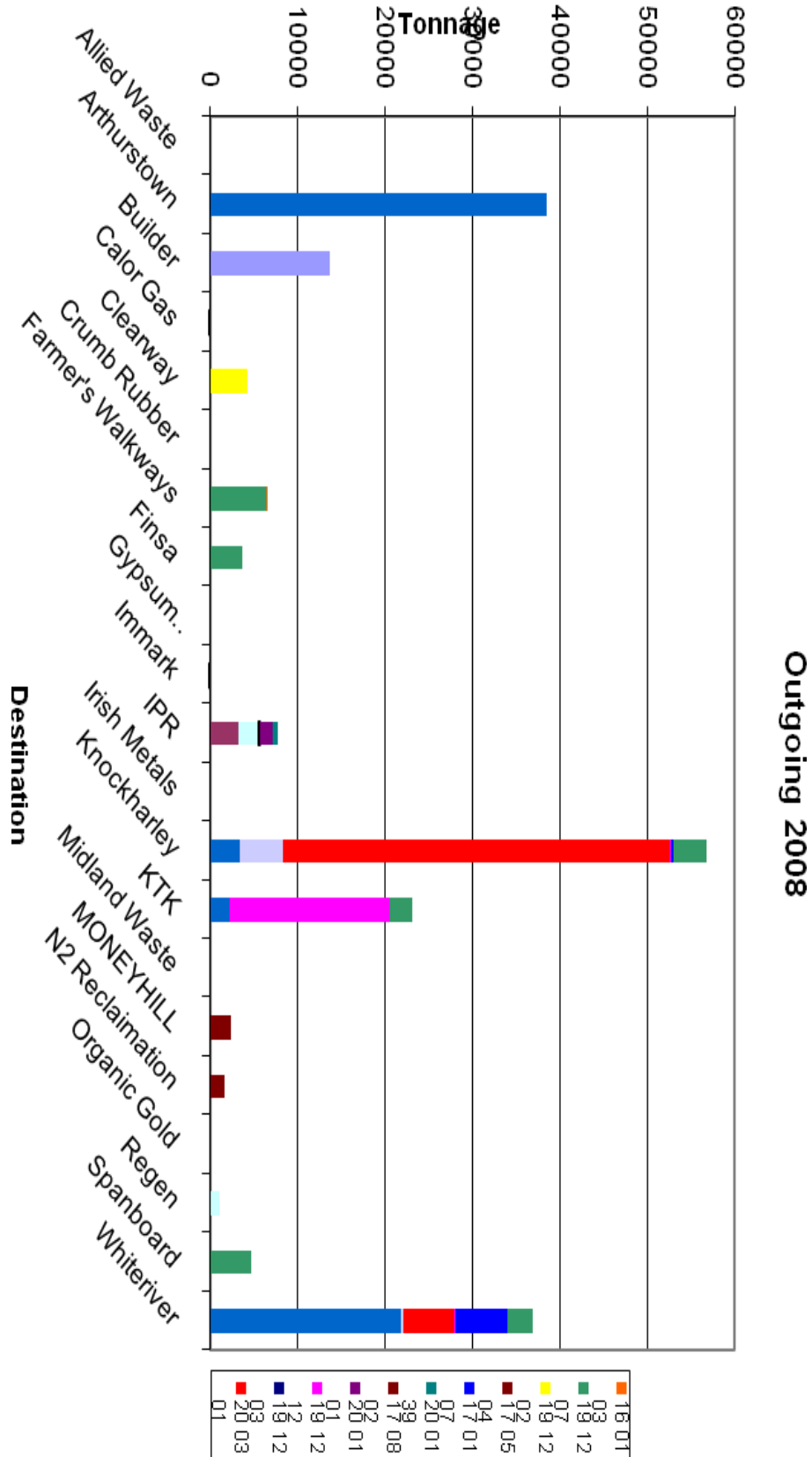


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# Appendix D

Destinations





Destination	Builders Fill	Cardboard	Dry Recyclable Material	Electrical Goods	Gas cylinders	Mechanically Separated Waste	Mechanically Treated Waste	Mixed Dry Recyclables	Mixed Municipal waste	Non Ferrous Metal
Allied Waste	17 01 07	15 01 01	20 03 01	20 01 36	16 01 06	19 12 12	19 12 12	20 03 01	20 03 01	19 12 03
Arthurstown						38549.69				
Builder	13747.84									
Calor Gas					1.78					
Cleanway										54.78
Crumb Rubber										
Farmer's Walkways										
Finsa										
Gypsum Recycling Ireland										
Immark				2.3						
IPR		3274.07	2401.92					5.64		
Irish Metals										4.18
Knockharley						3423.22	4877.48		44403.26	
KTK						2163.22				
Midland Waste										
MONEYHILL										
N2 Reclamation										
Organic Gold										
Regen			1136.58							
Spanboard										
Whiteriver						21789.88	398.48		5741.46	
<b>Grand Total</b>	<b>13747.84</b>	<b>3274.07</b>	<b>3538.5</b>	<b>2.3</b>	<b>1.78</b>	<b>65926.01</b>	<b>5275.96</b>	<b>5.64</b>	<b>50144.72</b>	<b>58.96</b>

Destination	Off-specification Compost	Paper	Plaster Board	Plastic	Rubble	Soil & stones	Steel out	Timber-out	Tyres	Grand Total
Allied Waste	19 12 12	20 01 01	17 08 02	20 01 39	17 01 07	17 05 04	19 12 02	19 12 07	16 01 03	18.48
Arthurstown								18.48		38549.69
Builder										13747.84
Calor Gas										1.78
Cleanway							4263.34			4318.12
Crumb Rubber									47.18	47.18
Farmer's Walkways								6582.4	7.28	6599.68
Finsa								3750.08		3750.08
Gypsum Recycling Ireland			88.66							88.66
Immark										2.3
IPR		1478.96		551.72						7712.31
Irish Metals										4.18
Knockharley	25.5				262.86			3869.1		56861.42
KTK	18306.6							2686.66		23156.48
Midland Waste								199.5		199.5
MONEYHILL						2394.9				2394.9
N2 Reclamation						1657.28				1657.28
Organic Gold								121.3		121.3
Regen										1136.58
Spanboard								4666.8		4666.8
Whiteriver	177.34				5970.52			2801.98		36879.66
<b>Grand Total</b>	<b>18509.44</b>	<b>1478.96</b>	<b>88.66</b>	<b>551.72</b>	<b>6233.38</b>	<b>4052.18</b>	<b>4263.34</b>	<b>24696.3</b>	<b>54.46</b>	<b>201919.12</b>

# Appendix E

## PRTR Emissions



## AER Returns Worksheet

Version 1.1.03

<b>REFERENCE YEAR</b>	2008
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### 1. FACILITY IDENTIFICATION

Parent Company Name	Nurendale Ltd trading as Panda Waste Services Ltd.,
Facility Name	Nurendale Limited trading as Panda Waste Services Limited
PRTR Identification Number	W0140
Licence Number	W0140-02

#### Waste or IPPC Classes of Activity

No.	class_name
4.4	Recycling or reclamation of other inorganic materials.
4.11	Use of waste obtained from any activity referred to in a preceding paragraph of this Schedule. Storage of waste intended for submission to any activity referred to in a preceding paragraph of this Schedule, other than temporary storage, pending collection, on the premises where such waste is produced.
4.13	Blending or mixture prior to submission to any activity referred to in a preceding paragraph of this Schedule.
3.11	Repackaging prior to submission to any activity referred to in a preceding paragraph of this Schedule.
3.12	Storage prior to submission to any activity referred to in a preceding paragraph of this Schedule, other than temporary storage, pending collection, on the premises where the waste concerned is produced.
3.13	Recycling or reclamation of organic substances which are not used as solvents (including composting and other biological transformation processes).
4.2	Recycling or reclamation of metals and metal compounds.
4.3	

Address 1	Rathdrinagh
Address 2	Beauparc
Address 3	Navan
Address 4	County Meath
Country	Ireland
Coordinates of Location	566700.000
River Basin District	IEEA
NACE Code	3832
Main Economic Activity	Recovery of sorted materials
<b>AER Returns Contact Name</b>	David Naughton
<b>AER Returns Contact Email Address</b>	david.naughton@panda.ie
<b>AER Returns Contact Position</b>	Environmental Manager
<b>AER Returns Contact Telephone Number</b>	1850 65 65 65
<b>AER Returns Contact Mobile Phone Number</b>	
<b>AER Returns Contact Fax Number</b>	046 9024189
<b>Production Volume</b>	0.0
<b>Production Volume Units</b>	
<b>Number of Installations</b>	0
<b>Number of Operating Hours in Year</b>	0
<b>Number of Employees</b>	0
<b>User Feedback/Comments</b>	
<b>Web Address</b>	www.panda.ie

### 2. PRTR CLASS ACTIVITIES

Activity Number	Activity Name
5c	Installations for the disposal of non-hazardous waste

### 3. SOLVENTS REGULATIONS (S.I. No. 543 of 2002)

Is it applicable?	No
Have you been granted an exemption?	No
If applicable which activity class applies (as per Schedule 2 of the regulations)?	
Is the reduction scheme compliance route being used?	

4.1 RELEASES TO AIR

[ PRTR# : W0140 | Facility Name : Nurendale Limited trading as Panda Waste Services Limited | Filename : AER PRTR Emission.xls | Return Year : 2008 ]

25/03/2009 09:40

SECTION A : SECTOR SPECIFIC PRTR POLLUTANTS

POLLUTANT		METHOD			QUANTITY			
No. Annex II	Name	M/C/E	Method Code	Designation or Description	Emission Point 1	T (Total) KG/Year	A (Accidental) KG/Year	F (Fugitive) KG/Year
06	Ammonia (NH3)	M	alt	GCMS/ton chromatography		73.0 0.0	73.0 0.0	0.0 0.0

\* Select a row by double-clicking on the Pollutant Name (Column B) then click the delete button

SECTION B : REMAINING PRTR POLLUTANTS

POLLUTANT		METHOD			QUANTITY			
No. Annex II	Name	M/C/E	Method Code	Designation or Description	Emission Point 1	T (Total) KG/Year	A (Accidental) KG/Year	F (Fugitive) KG/Year
						0.0	0.0	0.0

\* Select a row by double-clicking on the Pollutant Name (Column B) then click the delete button

SECTION C : REMAINING POLLUTANT EMISSIONS (As required in your Licence)

POLLUTANT		METHOD			QUANTITY				
Pollutant No.	Name	M/C/E	Method Code	Designation or Description	Emission Point 1	Emission Point 2	T (Total) KG/Year	A (Accidental) KG/Year	F (Fugitive) KG/Year
220	Mercaptans	M	alt	GCMS/ton chromatography			6.6	0.0	6.6
237	Volatile organic compounds (as TOC)	M	alt	GCMS/ton chromatography			369.16	0.0	369.16
215	Hydrogen sulphide	M	alt	Jetrome Analyser			0.34	0.0	0.34

\* Select a row by double-clicking on the Pollutant Name (Column B) then click the delete button

Additional Data Requested from Landfill operators

For the purposes of the National Inventory on Greenhouse Gases, landfill operators are requested to provide summary data on landfill gas (Methane) flared or utilized on their facilities to accompany the figures for total methane generated. Operators should only report their Net methane (CH4) emission to the environment under T (Total) KG/yr for Section A: Sector specific PRTR pollutants above. Please complete the table below:

Landfill:		METHOD			QUANTITY				
Please enter summary data on the quantities of methane flared and / or utilised		M/C/E	Method Code	Designation or Description	Emission Point 1	Emission Point 2	T (Total) kg/Year	A (Accidental) kg/Year	F (Fugitive) kg/Year
Nurendale Limited trading as Panda Waste Services Limited									
T (Total) kg/Year									
Total estimated methane generation (as per site model)							0.0		
Methane flared							0.0		
Methane utilised in engine							0.0		
Net methane emission (as reported in Section A above)							0.0		

4.2 RELEASES TO WATERS

[ PRTR# : W0140 | Facility Name : Nurendale Limited trading as Panda Waste Services Limited | Filename : AER PRTR Emission.xls | Return Year : 2008 ]

25/03/2009 09:46

SECTION A : SECTOR SPECIFIC PRTR POLLUTANTS

Data on ambient monitoring of storm/surface water or groundwater, conducted as part of your licence requirements, should NOT be submitted under AER / PRTR Reporting as this on

POLLUTANT		METHOD			QUANTITY			
No. Annex II	Name	M/C/E	Method Code	Designation or Description	Emission Point 1	T (Total) KG/Year	A (Accidental) KG/Year	F (Fugitive) KG/Year
						0.0	0.0	0.0

\* Select a row by double-clicking on the Pollutant Name (Column B) then click the delete button

SECTION B : REMAINING PRTR POLLUTANTS

POLLUTANT		METHOD			QUANTITY			
No. Annex II	Name	M/C/E	Method Code	Designation or Description	Emission Point 1	T (Total) KG/Year	A (Accidental) KG/Year	F (Fugitive) KG/Year
						0.0	0.0	0.0

\* Select a row by double-clicking on the Pollutant Name (Column B) then click the delete button

SECTION C : REMAINING POLLUTANT EMISSIONS (as required in your Licence)

POLLUTANT		METHOD			QUANTITY			
Pollutant No.	Name	M/C/E	Method Code	Designation or Description	Emission Point 1	T (Total) KG/Year	A (Accidental) KG/Year	F (Fugitive) KG/Year
						0.0	0.0	0.0

\* Select a row by double-clicking on the Pollutant Name (Column B) then click the delete button

4.3 RELEASES TO WASTEWATER OR SEWER

[ PRTR# : W0140 | Facility Name : Nurendale Limited trading as Panda Waste Services Limited | File : 25/03/2009 09:46

SECTION A : PRTR POLLUTANTS

POLLUTANT		METHOD			QUANTITY			
No. Annex II	Name	M/C/E	Method Code	Designation or Description	Emission Point 1	T (Total) KG/Year	A (Accidental) KG/Year	F (Fugitive) KG/Year
06	Ammonia (NH3)	M	AB	Colorimetry		576.9	576.9	0.0
18	Cadmium and compounds (as Cd)	M	AB	ICPMS		0.0007	0.0007	0.0
79	Chlorides (as Cl)	M	AB	Colorimetry		919.79	919.79	0.0
20	Copper and compounds (as Cu)	M	AB	ICPMS		0.11	0.11	0.0
23	Lead and compounds (as Pb)	M	AB	ICPMS		0.16	0.16	0.0
22	Nickel and compounds (as Ni)	M	AB	ICPMS		0.267	0.267	0.0

\* Select a row by double-clicking on the Pollutant Name (Column B) then click the delete button

SECTION B : REMAINING POLLUTANT EMISSIONS (as required in your Licence)

POLLUTANT		METHOD			QUANTITY			
Pollutant No.	Name	M/C/E	Method Code	Designation or Description	Emission Point 1	T (Total) KG/Year	A (Accidental) KG/Year	F (Fugitive) KG/Year
303	BOD	M	AB	Electrometry		6108.55	6108.55	0.0
305	Calcium	M	AB	ICPMS		1599.82	1599.82	0.0
356	Cobalt	M	AB	ICPMS		0.025	0.025	0.0
306	COD	M	AB	Colorimetry		11538.55	11538.55	0.0
357	Iron	M	AB	ICPMS		29.58	29.58	0.0
320	Magnesium	M	AB	ICPMS		173.57	173.57	0.0
321	Manganese (as Mn)	M	AB	ICPMS		4.07	4.07	0.0
324	Mineral oils	C	SCC	GC-FID		0.636	0.636	0.0
343	Sulphate	M	AB	Colorimetry		18799.57	18799.57	0.0
240	Suspended Solids	M	AB	Filtration/Drying @ 104C		1231.73	1231.73	0.0
358	Tb	M	AB	ICPMS		0.016	0.016	0.0

\* Select a row by double-clicking on the Pollutant Name (Column B) then click the delete button

4.4 RELEASES TO LAND

| PRTR# : W0140 | Facility Name : Nurendale Limited trading as Panda Waste Services Limited | Filename : AER PRTR Emission.xls | Return Year :

25/03/2009 09:46

SECTION A : PRTR POLLUTANTS

RELEASES TO LAND								
No. Annex II	POLLUTANT Name	M/C/E	METHOD		QUANTITY			
			Method Used	Designation or Description	Emission Point 1	T (Total) KG/Year	A (Accidental) KG/Year	
						0.0	0.0	0.0

\* Select a row by double-clicking on the Pollutant Name (Column B) then click the delete button

SECTION B : REMAINING POLLUTANT EMISSIONS (as required in your Licence)

RELEASES TO LAND								
Pollutant No.	POLLUTANT Name	M/C/E	METHOD		QUANTITY			
			Method Used	Designation or Description	Emission Point 1	T (Total) KG/Year	A (Accidental) KG/Year	
						0.0	0.0	0.0

\* Select a row by double-clicking on the Pollutant Name (Column B) then click the delete button

5. ONSITE TREATMENT & OFFSITE TRANSFERS OF WASTE

| PRTR# : W0140 | Facility Name : Nurendale Limited trading as Panda Waste Services Limited | Filename : AER PRTR Emission.xls | Return Year : 2008

25/03/2009 09:46

Transfer Destination	European Waste Code	Hazardous	Quantity T/Year	Description of Waste	Waste Treatment Operation	Method Used		Location of Treatment	Name and Licence / Permit No. of Recycler / Disposer / Broker	Address of Recycler / Disposer / Broker	Name and Address of Final Destination i.e. Final Recovery / Disposal Site (HAZARDOUS WASTE ONLY)	Licence / Permit No. of Final Destination i.e. Final Recovery / Disposal Site (HAZARDOUS WASTE ONLY)
						M/C/E	Method Used					
Within the Country	17 01 07	No	13747.84	Mixture of concrete, bricks, tiles and ceramics	R13	M	Weighed	Offsite in Ireland	Builders	Various		
Within the Country	15 01 01	No	3274.07	Paper and Cardboard	R13	M	Weighed	Offsite in Ireland	Irish Packaging recycling Wpr 021/2	Ballymount Rd, Walkinstown, D12		
Within the Country	20 03 01	No	2407.56	Mixed Dry Recyclables	R13	M	Weighed	Offsite in Ireland	Irish Packaging recycling Wpr 021/2	Ballymount Rd, Walkinstown, D12		
To Other Countries	20 03 01	No	1136.58	Mixed Dry Recyclables	R13	M	Weighed	Abroad	Regen, NJ 44110	Newry, Co Down		
Within the Country	20 01 36	No	2.3	Electrical Goods	R13	M	Weighed	Offsite in Ireland	Immsack W0185-01	Rathcoole, Co. Dublin		
Within the Country	16 05 05	No	1.78	Gas Cylinders	R13	M	Weighed	Offsite in Ireland	Calor Gas	N/A		
Within the Country	19 12 12	No	38549.69	Mechanically Separated Waste	R13	M	Weighed	Offsite in Ireland	Athurston W0004-03	Kill Co. Kildare		
Within the Country	19 12 12	No	3423.22	Mechanically Separated Waste	R13	M	Weighed	Offsite in Ireland	Knockharley W0146-02	Navan, Co. Meath		
Within the Country	19 12 12	No	2163.22	Mechanically Separated Waste	R13	M	Weighed	Offsite in Ireland	KTK Landfill W0081-03	Kill Co. Kildare		
Within the Country	19 12 12	No	21789.88	Mechanically Separated Waste	R13	M	Weighed	Offsite in Ireland	Whitewier Landfill W0060-02	Colon, Co. Louth		
Within the Country	19 12 12	No	4877.48	Mechanically Separated Waste	R13	M	Weighed	Offsite in Ireland	Knockharley W0146-02	Navan, Co. Meath		
Within the Country	19 12 12	No	398.48	Mechanically Separated Waste	R13	M	Weighed	Offsite in Ireland	Whitewier Landfill W0060-02	Colon, Co. Louth		
Within the Country	20 03 01	No	44403.26	Mixed Municipal Waste	R13	M	Weighed	Offsite in Ireland	Knockharley W0146-02	Navan, Co. Meath		
Within the Country	20 03 01	No	5741.46	Mixed Municipal Waste	R13	M	Weighed	Offsite in Ireland	Whitewier Landfill W0060-02	Colon, Co. Louth		
Within the Country	19 12 03	No	54.78	Non Ferrous Metals	R13	M	Weighed	Offsite in Ireland	Cleanway 984 510	Portadown, Co. Armagh		
Within the Country	19 12 03	No	4.18	Non Ferrous Metals	R13	M	Weighed	Offsite in Ireland	Irish Metal Refineries WMP 2008/10	Duleek, Co. Meath		
Within the Country	19 12 12	No	25.5	Off Spec Compost	R13	M	Weighed	Offsite in Ireland	Knockharley W0146-02	Navan, Co. Meath		
Within the Country	19 12 12	No	18306.6	Off Spec Compost	R13	M	Weighed	Offsite in Ireland	KTK Landfill W0081-03	Kill Co. Kildare		
Within the Country	19 12 12	No	177.34	Off Spec Compost	R13	M	Weighed	Offsite in Ireland	Whitewier Landfill W0060-02	Colon, Co. Louth		
Within the Country	20 01 01	No	1479.0	Paper and Cardboard	R13	M	Weighed	Offsite in Ireland	Irish Packaging recycling Wpr 021/2	Ballymount Rd, Walkinstown, D12		
Within the Country	17 08 02	No	88.66	Plasterboard	R13	M	Weighed	Offsite in Ireland	Gypsum Recycling Ireland WMP 238/2006	Rathcoffey, Co. Kildare		
Within the Country	20 01 39	No	551.72	Plastic	R13	M	Weighed	Offsite in Ireland	Irish Packaging recycling Wpr 021/2	Ballymount Rd, Walkinstown, D12		
Within the Country	17 01 07	No	262.86	Rubble	R13	M	Weighed	Offsite in Ireland	Knockharley W0146-02	Navan, Co. Meath		
Within the Country	17 01 07	No	5970.5	Rubble	R13	M	Weighed	Offsite in Ireland	Whitewier Landfill W0060-02	Colon, Co. Louth		
Within the Country	17 05 04	No	2394.9	Soil and Stones	R13	M	Weighed	Offsite in Ireland	Moneyhill WMP 2005/43	Garrinstown, Co. Meath		
Within the Country	17 05 04	No	1657.28	Soil and Stones	R13	M	Weighed	Offsite in Ireland	N2 Reclamation WMP 2004/53	Damn View, Johnstown, Slane, Co. Meath		
Within the Country	19 12 02	No	4263.3	Steel	R13	M	Weighed	Offsite in Ireland	Cleanway 984 510	Portadown, Co. Armagh		
Within the Country	19 12 07	No	18.48	Timber	R13	M	Weighed	Offsite in Ireland	Allied Waste Wp1-150-2006	Navan, Co. Meath		
Within the Country	19 12 07	No	6582.4	Timber	R13	M	Weighed	Offsite in Ireland	Finnis Farm Products P0022-	Various		
Within the Country	19 12 07	No	3750.08	Timber	R13	M	Weighed	Offsite in Ireland	02	Scariff, Co. Clare		
Within the Country	19 12 07	No	3869.1	Timber	R13	M	Weighed	Offsite in Ireland	Knockharley W0146-02	Navan, Co. Meath		
Within the Country	19 12 07	No	2666.66	Timber	R13	M	Weighed	Offsite in Ireland	KTK Landfill W0081-03	Kill Co. Kildare		
Within the Country	19 12 07	No	199.5	Timber	R13	M	Weighed	Offsite in Ireland	Midland Waste W0131/02	Cionnagadden, Navan, Co. Meath		
Within the Country	19 12 07	No	121.3	Timber	R13	M	Weighed	Offsite in Ireland	Organic Gold WMP 2002/26	Wilkinstown, Co. Meath		
Within the Country	19 12 07	No	4666.8	Timber	R13	M	Weighed	Offsite in Ireland	Spanboard Products WMEX 10-01	Coleraine, Northern Ireland		
Within the Country	19 12 07	No	2801.99	Timber	R13	M	Weighed	Offsite in Ireland	Whitewier Landfill W0060-02	Colon, Co. Louth		
Within the Country	16 01 03	No	47.18	Tyres	R13	M	Weighed	Offsite in Ireland	Crumb Rubber Wp2007/01	Dundalk, Co. Louth		
Within the Country	16 01 03	No	7.28	Tyres	R13	M	Weighed	Offsite in Ireland	Farmers	Various		

\* Select a row by double-clicking the Description of Waste then click the delete button