



Matrix Environmental

***AMBIENT ODOUR MONITORING
AT THE
MILLTOWN COMPOST SITE,
MILLTOWNMORE, FETHARD,
Co. TIPPERARY.
Q2 - 2017
W0270-01***

For the Attention of:

Mr David Ronan
Milltown Composting
Milltownmore
Fethard
Co. Tipperary

Prepared by:

Mr. Craig Mallinson
Environmental Consultant

Ref: Odour Monitoring June 2017

UNIT 12, OLD CONNELL WEIR, NEWBRIDGE, CO KILDARE, IRELAND
TELEPHONE: +353 45 436935, FAX: +353 45 431891
VAT No: IE 6872328F

REGISTERED OFFICE: UNIT 12, OLD CONNELL WEIR, NEWBRIDGE, CO KILDARE; REGISTERED NO: 329285

Executive Summary

Matrix Environmental was contracted by Milltown Composting to undertake ambient odour sampling and analysis at their facility at Milltown Mor, Fethard, County Tipperary. An Environmental Consultant subsequently visited the site on the 15th of June 2017 to conduct the monitoring event.

The ambient odour concentrations determined 550 meters downwind and at the biofilter unit were $82\text{ou}_E/\text{m}^3$ and $287\text{ou}_E/\text{m}^3$ respectively. On-site observations made during the monitoring event noted that there was no distinct odour associated with the compost facility at the downwind location.

The recorded levels reflect the on-site meteorological conditions during the sampling period.

This report is certified as accurate and representative of the sampling and associated analysis carried out.

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1.0 INTRODUCTION

In compliance with the requirements of their waste licence (W0270-01) Milltown Compost Ltd are required to carry out ambient odour monitoring on a bi-annual basis.

Matrix Environmental was commissioned to undertake the sampling and reporting. An environmental consultant visited the site on the 15th of June 2017.

This report presents details of the sampling and analytical methodology carried out together with a broad interpretation of the results.

2.0 SCOPE

Table 2.1 shows the scope of the monitoring survey. The scope outlined below was determined in conjunction with staff at the facility, Environmental Consultants within Matrix Environmental and with regards to Schedule C in the waste licence.

Table 2.1: Parameter - Location	
Parameter	Locations
Odour	Biofilter Unit (downwind corner of unit) OD 01
	550 meters downwind of compost yard OD 02

The wind direction on the day of the sampling was from a south-westerly direction.

3.0 METHODOLOGY

Odour Sampling and Olfactometry

Odour Sampling

Samples of gas of approximately 60 litres were collected via Teflon tubing into Nalophane[®] gas sampling bags by means of the "lung principle" method. Using this method, the sample bag is housed in a sealed car buoy that is evacuated using a small air pump. The volume of air removed from the car buoy is replaced by sample gas entering the bag, thus avoiding contamination of sample by pumps or meters. Sampling shall be carried out in accordance with the standard I. S. EN 13725:2003 entitled 'Air Quality – Determination of Odour Concentration by Dynamic Olfactometry'.

Dynamic Olfactometry

The samples were analysed by Dynamic Olfactometry. The instrument used will be an Olfomat-e Olfactometer (Project Research Amsterdam) and the analytical procedures were in accordance with the I. S. EN 13725:2003 using a trained panel of assessors. The odour concentration of the sample is expressed in odour units per cubic metre of gas (ou_E/m^3). These values, sometimes referred to as "dilutions to threshold" are equivalent to the number of times the sample gas required dilution with odour free air to reach the panels odour threshold (i.e. the concentration at which there is a 50% probability of the panellists detecting the odour). The results are expressed in ou_E/m^3 .

Chemical Analysis

Levels of the required parameters were determined calorimetrically using the appropriate Draeger tube and pump. Each analysis was carried out by placing the tube into the pump and pulling a known volume through the tube. The appearance of a discoloration indicates the presence of the species of interest.

4.0 RESULTS

Parameter		Parameter	
Weather	Partly cloudy	Wind speed	25-30 km/hr
Temp	15°C	Wind Direction	Southwesterly
General Air Quality	Good	Bar Pressure	1011 mbar

Locations	Odour Character	Results
OD 01	Waste/Compost Odour	287 ou _E /m ³
OD 02	No distinct odour	82 ou _E /m ³

Sample	Hydrogen Sulphide	Ammonia	Mercapten	Amines
OD 01	<0.2	<5	<0.5	Negative
OD 02	<0.2	<5	<0.5	Negative

5.0 COMMENT

Odour sampling was carried out at two locations in the vicinity of the facility. One sample was taken down wind of the site; one was taken at the biofilter unit. The ambient odour concentrations determined at biofilter unit and downwind location were 287ou_E/m³ and 82ou_E/m³ respectively. On-site observations made during the monitoring event noted that there was no distinct odour associated with the compost facility at the downwind location, a compost odour was noted at the biofilter unit.

The recorded odour levels represent the odour conditions in the vicinity of the facility on the day of sampling and under the specific meteorological conditions of that day. Ambient odour is a combination of both natural and anthropogenic odour emissions.

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Appendix 1

Sample Location Map

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