

Annual Environmental Report

W0147-01

Ashgrove Plant Ltd.

All the data and information presented in this report has been checked and certified as being accurate. The quality of the information is assured to meet licence requirements.

Steven Tooher

Cuthbert Environmental

ANNUAL ENVIRONMENTAL REPORT

for

ASHGROVE PLANT LTD

Waste Licence – 147-01

2017

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1. INTRODUCTION

Ashgrove Recycling operates a materials recovery facility / waste transfer station at Churchfield Industrial Estate, Cork.

The company began operations in July 2002. The facility is located in an industrial estate north of Cork City. The site prior to construction was a greenfield site in industrial zoned land.

The site occupies 1.1 hectares and consists of a materials recovery building with associated offices and impermeable concreted surfaces. The operations at Ashgrove have positively helped the environment in diverting materials away from unnecessary land filling.

1.1 Facility Details

Licence Registration Number: -	W0147-01
Name: -	Ashgrove Plant Ltd, t/a Ashgrove Recycling
Location: -	John. F. Connolly Road, Churchfield Industrial Estate, Cork.
Reporting Period: -	1 st January – 31 st December 2017

Licensed Waste Activities

Disposal activities as per the Third Schedule of the Waste Management Act 1996	
D13	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 was produced.

Recovery activities as per the Fourth Schedule of the Waste Management Act 1996	
R2	Recycling or reclamation of organic substances which are not used in solvents (including composting and other biological transformation processes). This activity is limited to the recovery of cardboard, paper, wood and plastic.
R3	Recycling or reclamation of metals and metal compounds: This activity is limited to the recovery of steel and metals.
R4	Recycling or reclamation of other inorganic materials: This activity is limited to glass, construction and demolition waste and other inert wastes.
R13	Storage of waste pending any of the operations numbered R 1 to R 12 (excluding temporary storage (being preliminary storage according to the definition of 'collection' in section 5(1)), pending collection, on the site where the waste is produced)".

1.2 Waste Processing at the Facility

The waste streams that are processed at the facility are non-hazardous. The facility does not accept liquid wastes. The majority of waste accepted at the facility is derived from construction and demolition activities, along with a smaller quantity of commercial and industrial waste streams.

Large items and obvious contaminants are manually removed from the waste load and placed in the appropriate segregated stockpiles.

The rest of the waste is loaded into a Powerscreen Trommel 830, which acts as a graded sieve of sorts, allowing material to fall through according to particle size. Material that makes it through the trommel is then subjected to air jets as it falls onto a conveyor belt. These jets remove light objects (eg. small pieces of paper/plastic, polystyrene etc.). The conveyor belt moves underneath a magnet, which removes ferrous metals, and a manned picking station removes any remaining contaminants (wood, plastic, gypsum etc.), which are added to their respective piles. The only material that makes it past the picking station is clean rubble.

Non-mixed loads of C&D material (wood, gypsum etc.) undergo the same visual inspection on entry to the MRB. At this point, based on the level of contamination, a decision is made on whether the material needs to go through the trommel and conveyor system. If not, the material is loaded directly into the appropriate stockpiles.

All other waste types are bulked up and removed off site.

2. Quantity and Composition of Waste

2.1 Waste Processed 2016

Waste In 2016

Construction and Demolition		
Commodity	LoW Code	Tonnes
Mix of Concrete, Bricks, Tiles and Ceramics	17 01 07	3,185.28
Glass	17 02 02	89.92
Bitumen	17 03 02	9.36
Gypsum	17 08 02	161.24
Mixed C&D	17 09 04	7,546.61
Total		10,992.41

Commercial		
Commodity	LoW Code	Tonnes
Plastic Packaging	15 01 02	9.56
Glass Packaging	15 01 07	316.07
Plastic	17 02 03	16.00
Mixed Metals	17 04 07	22.96
Paper and Cardboard	19 12 01	155.86
Canteen Waste	20 01 08	239.68
WEEE	20 01 36	2.20
Biodegradable Waste	20 02 01	190.31
Dry Recyclables	20 03 01	278.08
Mixed Municipal Waste	20 03 01	5,342.88
Bulky Waste	20 03 07	1,620.73
Total		8,194.33

Industrial		
Commodity	LoW Code	Tonnes
Fish Waste	02 02 02	2.66
Total		2.66

Total Waste In: 19,189.4 tonnes

Waste Out 2016

Commodity	LoW Code	Quantity (t)
Interceptor Sludge	13 05 03*	19.44
Wooden Packaging	15 01 03	247.46
Glass Packaging	15 01 07	207.44
Tyres	16 01 03	10.14
Windscreens	16 01 20	24.92
Mix of Concrete, Bricks, Tiles and Ceramics	17 01 07	6,320.86
Wood	17 02 01	325.08
Glass	17 02 02	161.44
Plastic	17 02 03	41.18
Aluminium	17 04 02	12.72
Mixed Metals	17 04 07	1,076.1
Cable	17 04 11	10.72
Soil and Stones	17 05 04	2,271.2
Gypsum	17 08 02	54.66
Paper and Cardboard	19 12 01	319.43
Wood (Shredded)	19 12 07	1,977.99
Textiles	19 12 08	2.24
Other Wastes (from mechanical treatment)	19 12 12	20.22
Canteen Waste	20 01 08	306.4
WEEE	20 01 36	2.48
Biodegradable Waste	20 02 01	300.96
Dry Recyclables	20 03 01	246.66
Mixed Municipal Waste	20 03 01	2592.39
Bulky Waste	20 03 07	1,782.38
Total Waste Out		18,334.51

2.2 Waste Processed 2017

Waste In 2017

Commodity	LoW Code	Total (t)
Cardboard and Paper Packaging	15 01 01	161.80
Plastic Packaging	15 01 02	14.46
Wooden Packaging	15 01 03	0.50
Glass Packaging	15 01 07	352.98
Tyres	16 01 03	1.24
Windscreens	16 01 20	2.38
Mix of Concrete, Bricks, Tiles and Ceramics	17 01 07	4,839.00
Wood (C&D)	17 02 01	1,079.62
Glass (C&D)	17 02 02	28.08
Plastic (C&D)	17 02 03	9.86
Mixed Metals	17 04 07	45.88
Soil and Stones	17 05 04	299.45
Gypsum	17 08 02	181.70
Mixed C&D	17 09 04	8,008.80
Sanitary Waste (Non-hazardous)	18 01 04	8.36
Canteen Waste	20 01 08	27.20
WEEE	20 01 36	9.97
Plastic (Municipal)	20 01 39	5.64
Biodegradable Waste	20 02 01	219.70
Dry Recyclables	20 03 01	283.16
Mixed Municipal Waste (Residual)	20 03 01	4,615.87
Bulky Waste	20 03 07	1,673.91
Total		21,869.56

Waste Out 2017

Commodity	LoW Code	Weight (t)
Cardboard and Paper Packaging	15 01 01	375.86
Plastic Packaging	15 01 02	15.02
Glass Packaging	15 01 07	149.68
Tyres	16 01 03	16.54
Car Batteries	16 06 05	1.24
Concrete	17 01 01	288.72
Rubble	17 01 07	2,975.08
Wood (C&D)	17 02 01	2,523.30
Glass (C&D)	17 02 02	107.20
Plastic (C&D)	17 02 03	17.44
Copper	17 04 01	1.72
Aluminium	17 04 02	17.48
Mixed Metals	17 04 07	1,073.06
Cable	17 04 11	42.24
Soil and Stones	17 05 04	9,103.40
Gypsum	17 08 02	175.98
Plastic and Rubber	19 12 04	9.00
Shredded Timber	19 12 07	10.26
C&D Fines	19 12 12	528.74
Treated Waste	19 12 12	98.62
Canteen Waste	20 01 08	43.08
Textiles	20 01 11	2.30
Plastic (Municipal)	20 01 39	6.72
Green Waste	20 02 01	274.76
Dry Recyclables	20 03 01	231.72
Mixed Municipal Waste (Residual)	20 03 01	6,202.07
Bulky	20 03 07	42.04
Total		24,333.27

3. SUMMARY REPORT ON EMISSIONS

3.1 Emissions to Public Sewers

There are no discharges directly to waters from the facility. Emissions are made to foul and surface water sewers only. Both effluent and surface water discharge are sampled at the facility.

Both effluent types pass through a class 2 interceptor prior to being discharged to the public sewer north of the facility. Foul water is cleaned of petrochemical contamination by passing through a 4000-litre full-retention separator.

3.2 Foul effluent

This consists of process effluent from waste handling activities within the MRF and of discharge (washings and surface water) from the vehicle/skip washing area. The effluent is sampled monthly as per Schedule D5 of licence W0147-01. As can be seen in Table 3.2 below, Ashgrove has had occasional issues with raised sulphate concentrations. The foul drainage was cleaned twice during the year. The most likely source of increased sulphate levels is gypsum (calcium sulphate), which in C&D waste is normally found in plasterboard. Investigations into the best solution for dealing with this problem are ongoing.

Table 3.2. Foul water analysis results for 2017. Grey-shaded figures represent above-limit values.

Test	Limits	Units	Q1 2017			Q2 2017			Q3 2017			Q4 2017		
			January	February	March	April	May	June	July	August	September	October	Novemer	December
			Result			Result			Result			Result		
Ammoniacal Nitrogen	20	mg/L	2.9	0.46	3	10	3.8	3.7	9.7	9.7	4.4	3.4	3.2	4.1
Sulphate	300*	mg/L	450	220	300	270	310	190	270	280	270	100	1600	940
BOD	1000	mg/L	<28.8	82	32	104	124	111	137	61	51	37	50	45
COD	2000	mg/L	187	200	138	402	424	296	388	320	341	198	233	272
Detergents/Surfactants as MBAS	100	mg/L	2.5	0.92	1.8	6.94	2.36	0.77	1.05	9.1	2.11	5.1	5.56	6.8
Oils/Fats/Grease	100	mg/L	<4	6.7	4.4	37	21.3	16.3	12.7	16	25.5	8.5	28.5	9.2
Suspended Solids	300	mg/L	52	104	38	97	50	52	30	56	128	100	70	148
pH	5-10	pH units	7.7	7.5	7.8	8	7.5	7.6	7.7	7.4	6.7	7.6	8	8
Toxicity	20	Toxic Unit	-	-	-	-	-	-	-	-	-	-	-	<1

Note: Toxicity units (tu) = 100/EC₅₀

3.2.1. Foul Effluent – PRTR Reporting

Estimates for the total emissions (kg/year) were derived as follows: An average concentration (mg/L) was calculated for each pollutant listed in Table 3.2 (except for pH and toxicity). This was multiplied by the average daily flow rate, which gave an average daily quantity of materials discharged. This was then multiplied out to represent the total amount discharged in 2017, and converted to kilograms (See Table 3.2.1 below).

Table 3.2.1. Total emissions in 2017

Parameter	Kg/year (Estimate)
Ammoniacal Nitrogen	3.71
Sulphate	330.57
BOD	54.85
COD	216.08
Detergents/Surfactants as MBAS	2.86
Oils/Fats/Grease	12.91
Suspended Solids	58.80

3.3 Surface water effluent

Surface water originates from rainwater and washings coming from hard standing areas on the site and from rainwater roof discharge. Surface water passes through an interceptor prior to discharging to a surface water sewer running west-to-east along the northern boundary of the site. The sewer carries surface water to the treatment plant in Little Island. Table 3.3 below provides the bi-annual sampling results for 2017.

No Emission Limit Values (ELVs) were exceeded.

Table 3.3. Surface water analysis results for 2017

Test	EPA Limits	Units	2017	
			Round 1	Round 2
			Result	
Ammoniacal Nitrogen	-	mg/L	0.539	0.383
BOD	-	mg/L	28	86
TPH	100	mg/L	0.353	0.761
Suspended Solids	-	mg/L	116	696
pH	-	pH Units	7.6	7.9

3.4 Noise Emissions

The only noise emissions emanating from site are due to the operation of the trommel system and the movements of plant/machinery. Trommelling occurs infrequently for a couple of hours within the materials recovery building. Acoustic cladding within the recovery building reduces noise levels at sensitive receptors.

Noise monitoring is conducted onsite bi-annually and relevant reports are submitted to the Agency. Noise reports are attached (see Appendix I). The reports indicate that there was no significant noise production during the two monitoring periods in 2017.

3.5 Dust/Odour Emissions

Dust generation on site is mainly attributable to windblown dust as the site is quite elevated. Vehicular movements within the facility on impermeable surfaces also contribute to dust nuisance. In dry windy conditions and sunny spells the material inside the MRB is sprayed with water using an oscillating misting device. This device also draws upon a deodorising fluid and incorporates that into the spray. Outdoor hardstanding areas are sprayed with a hose.

Dust monitoring on site is conducted three times annually and reports are submitted to the Agency. Dust reports are attached in Appendix II.

3.6 Locations

Surface water sampling is carried out at manhole S20 and foul water monitoring is carried out at the monitoring chamber, both of which are behind the MRB at the northern boundary of the site (see Appendix III).

Noise monitoring is carried out at four locations of the site. Refer to noise monitoring locations in Appendix III.

Dust monitoring is carried out at the four corners of the premises, named D1 to D4 (see Appendix III).

3.7 Methods

Foul water sampling is carried out by taking a grab sample from the V notch weir when there is adequate flow. Surface water sampling is also carried out by taking grab samples. Samples are immediately to the laboratory for analysis. ELS Laboratories in Mahon conducts the analyses. The results are compared to the ELVs contained in Schedule C and D of waste licence 147-01.

4. SCHEDULE OF OBJECTIVES AND TARGETS 2017

<u>Objectives</u>	<u>Targets</u>
1. Conduct groundwater analysis	<ul style="list-style-type: none"> • Establish whether another well is required. Install if necessary. • Analyse test results to ascertain whether groundwater has been affected by high sulphate emissions.
2. Restore sulphate compliance/ Complete pipeline integrity test	<ul style="list-style-type: none"> • Get foul drainage cleaned (this should happen on completion of pipeline integrity testing)
3. Progress planning application for MRB extension	<ul style="list-style-type: none"> • Complete application and submit to Cork City Council.
4. Remove unauthorised C&D fill material from the site	<ul style="list-style-type: none"> • Analyse WAC test results from trial holes and determine a suitable destination for the waste. • Organise transport, excavate waste and remove offsite.
5. Carry out integrity test on diesel tank bund.	<ul style="list-style-type: none"> • Remove tank, clean bund and have a contractor conduct a leak test. • Carry out repairs where necessary and obtain a passing certification.

The above will be reviewed regularly and notes compiled regularly to identify needs, etc. At the end of the year these reviews will help the compilation of the progress report.

Objective 1: Conduct groundwater analysis

Advantages to implementing objective	The success of the project will yield several benefits to the environmental performance of the facility.
Target	<ul style="list-style-type: none"> • Establish whether another well is required. Install if necessary. • Analyse test results to ascertain whether groundwater has been affected by high sulphate emissions.
Programme for achieving Target	<ol style="list-style-type: none"> 1. Install concrete pads around existing wells. 2. Take topographic levels from concrete pad and top of standpipe – this will allow groundwater flow direction to be estimated 3. Liaise with EPA about whether a further well should be installed, and where it should be. 4. Install well if required. 5. Take samples and send for analysis. 6. Interpret lab results and submit a report to the EPA
Responsibility for Project	The facility management is responsible for implementing this project.

Expected completion date: May 2018

Objective 2: Restore sulphate compliance/complete drainage integrity test

Advantages to implementing objective	The success of the project will yield several benefits to the environmental performance of the facility.
Target	Complete pipeline and tank integrity test.
Programme for achieving Target	Arrange for Munster Drains to come back onsite and complete the integrity test. They will need to clean the lines/tanks before they test them.
Responsibility for Project	The facility management is responsible for implementing this project.

Expected completion date: June 2018

Objective 3: Progress planning application for MRB extension

Advantages to implementing objective	The success of the project will yield several benefits to the environmental performance of the facility.
Target	Complete application and submit to Cork City Council.
Programme for achieving Target	<ol style="list-style-type: none"> 1. Organise and conduct a meeting with local stakeholders in order to clarify the facility's objectives. Other parties will be able to voice their concerns. 2. Adjust plans accordingly and submit planning application to Cork City Council.
Responsibility for Project	The facility management is responsible for implementing this project.

Expected completion date: August 2018

Objective 4: Remove unauthorised C&D fill material from the site

Advantages to implementing	The success of the project will yield benefits to the environmental performance of the facility.
Target	<ul style="list-style-type: none"> • Analyse WAC test results from trial holes and determine a suitable destination for the waste. • Organise transport, excavate waste and remove offsite.
Programme for achieving Target	<ol style="list-style-type: none"> 1. Complete an analysis report when WAC results from the laboratory are ready. 2. Dependent on the results, a suitable facility will be chosen to accept the waste. 3. The waste will be removed from the ground and transported to the referenced facility. 4. The EPA will be invited onsite to inspect the integrity of the site after the material is removed.
Responsibility for Project	The facility management is responsible for implementing this project.

Lab report expected by the end of April

Excavation and removal expected to be completed by June 2018

Objective 5: Carry out integrity test on diesel tank bund.

Advantages to implementing objective	The success of the project will yield benefits to the environmental performance of the facility.
Target	<ul style="list-style-type: none"> • Remove tank, clean bund and have a contractor conduct a leak test. • Carry out repairs where necessary and obtain a passing certification.
Programme for achieving Target	As above
Responsibility for Project	The Facility management is responsible for the implementation of this programme.

Expected completion date: July 2018

4.1 Progress Review on Targets & Objectives for 2017

2017 Objectives (*progress in italics*)

1. Eliminate odour complaints

- a. No odour complaints were recorded in 2017

2. Eliminate vermin complaints

- a. No vermin complaints were recorded in 2017

3. Eliminate bird complaints

- a. No bird complaints were recorded in 2017

4. Eliminate dust complaints

- a. No dust complaints were recorded in 2017

5. Reduce litter within and around the site vicinity

- a. Litter pick sign-off sheets are being filled in by facility employees, and are being monitored by an environmental consultant.

6. Eliminate ELV exceedances

- a. ELV exceedances have not been eliminated. Investigations into sulphate exceedances are ongoing, and drainage cleaning in 2018 is hoped to have a marked positive effect in this regard.

7. Establish and maintain suitable site infrastructure at the facility

- a. A fuel and pipeline integrity test was started in 2017, but is still awaiting completion. There was a series of miscommunications that led to the test being incomplete. Ashgrove is trying to get the contractor back onsite to complete the test as soon as possible.
- b. Monitoring points have been labelled.
- c. A large fault in the concrete in the MRB was repaired in 2017.

5. COMPLAINTS AND INCIDENTS 2017

- 4 incidents – foul water exceedances (sulphate). See foul water summary above.
- 3 noise complaints were made.
 - These complaints were made when trommelling was occurring onsite. These complaints all occurred within a 2 month period, after which the issue appeared to have been resolved.

5.1 Review of Nuisance Controls

- Outdoor waste processing has ceased. This will alleviate dust and noise issues.
- Fast roller doors have been installed on the MRB – this is also expected to contribute to dust suppression.
- Ashgrove no longer accepts canteen waste, which has been a source of odours in the past.
- Planning permission will be sought for a larger indoor space, which would have a marked positive impact on nuisances.

6. RESOURCE AND ENERGY CONSUMPTION

6.1 Energy Consumption 2017

Type	Consumption and Unit
Electricity	54,422 kWh
Diesel	207,946 Litres

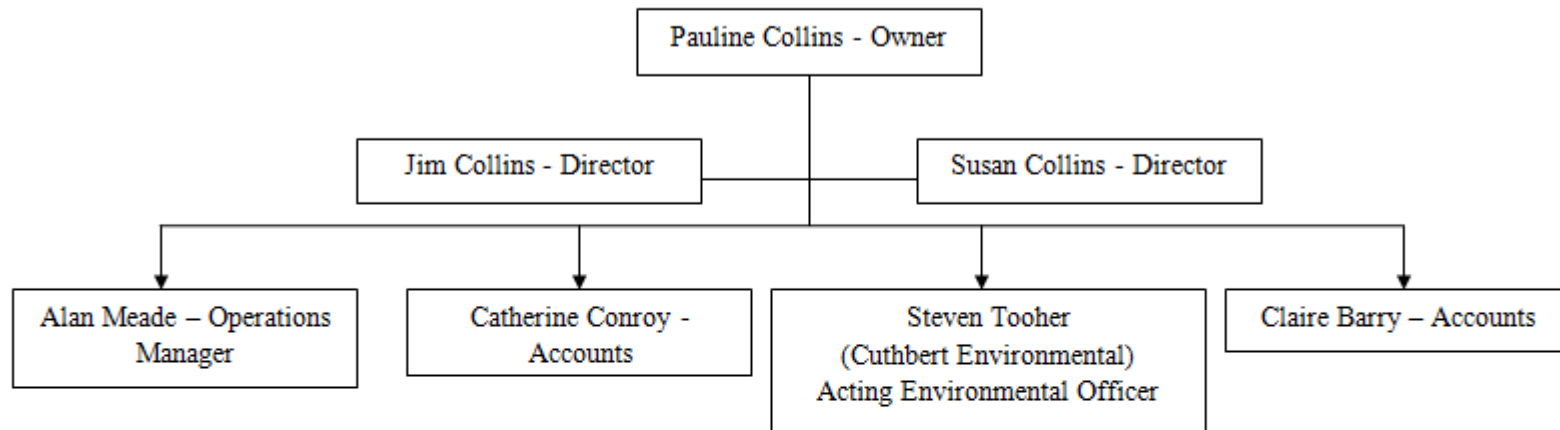
7. FINANCIAL PROVISION

Ashgrove's Decommissioning Management Plan (DMP) has been assessed and approved by the Agency. Financial provision measures for decommissioning are being assessed by the financial manager.

Ashgrove's Environmental Liability Risk Assessment (ELRA) has been submitted and is currently being assessed by the Agency.

8. MANAGEMENT AND STAFFING STRUCTURE

Ashgrove Plant Ltd. – Management Structure



Drivers:

- Kevin McCarthy
- Gary Pardy
- Joseph Collins
- David Wallace
- Anthony Mehigan
- Mark Daly
- Denis Coakley
- Dylan Collins

Yard Operatives:

- Fiodor Goreanski
- Dangiras Rukas
- Donatas Barzdius
- Nicolae Ivanuta

Mechanic:

- Maurice McGrath

9. PROGRAMME FOR PUBLIC INFORMATION

Ashgrove Recycling are fully-committed to providing the general public, neighbouring residences and businesses with information relating to the Environmental Performance of the facility if requested.

The facility has a designated meeting room which can be used for the public if they wish to review various reports, etc.

All information in respect to the operation of the facility is maintained onsite and can be viewed upon request. Furthermore, if an individual wishes to see the facility in operation, it operates an open-door policy and endeavour to provide information to the public in both a timely and accurate manner.

10.DEVELOPMENT/INFRASTRUCTURAL WORKS

10.1 Works in 2017

- A breach in the concrete hardstand inside the MRB was repaired
- A permanent fence was erected along the facility's eastern boundary, as per Agency instructions
- A dust/odour suppression unit was installed inside the MRB

10.2 Procedures Developed in 2017

New procedure for accepting waste from new customers.

If a new customer arrives into Ashgrove, their initial load will be refused and they will be provided with a waste inspection form to fill out. At this point they need only fill out their own details – contact numbers, vehicle registrations etc. They will retain this form until such a time when they have another load of waste that they intend to deliver to Ashgrove. When this time comes, they must contact Ashgrove and inform staff of their intention to deliver waste. A member of staff will then travel to where the waste is located and examine it. They will fill out the rest of the form and sign it. The customer can then keep the form themselves and present it at the weighbridge on delivery, or the Ashgrove representative can deliver the form to the office in anticipation of the customer delivering the waste at a later time. As per the licence, this will only be carried out for the customer's initial delivery of waste. Any future deliveries will be inspected onsite.

10.3 Planned works for 2018

- The plans to construct an extension to the MRB will be submitted for approval, and any works will be dependent on whatever decision is made by the local authority.

APPENDIX I – NOISE REPORTS



Glenside
Environmental
Services
Environmental and
Engineering Consultants

2017 BI-ANNUAL NOISE SURVEY REPORT

for

***Environmental Department
Ashgrove Recycling
Churchfield Industrial Estate
Cork.***

EPA Waste Licence Reg. No. P0147-01

DATE OF SURVEY: 10th May and 26th October 2017

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APPENDIX I: NOISE MONITORING 1/3 OCTAVE DATA

1.0 INTRODUCTION

This report presents the results of the second event of the bi-annual environmental noise survey and impact assessment for 2017 conducted at the Ashgrove waste facility at John F Connelly Road, Churchfield Industrial Estate, Cork.

The survey was carried out to evaluate and assess the noise impacts that the site activities have on the local receiving noise environment and to assess compliance with Schedule D - Noise of Waste Licence Reg. No. W0147-01.

The noise monitoring survey was conducted according to *ISO 1996-2 2007 Acoustics – Description, Measurement and Assessment of Environmental Noise Parts 1-3* and with reference to the 2012 EPA publication, *“Guidance Note for Noise: Licence Applications, Surveys and Assessments in Relation to Scheduled Activities (NG4)”*.

1.1 Experience of Personnel

All aspects of the noise assessment including the measurement of noise levels and the preparation of this report was conducted by Patrick Power B.Sc. MIOA (Member of the Institute of Acoustics), who has over 15 years providing acoustic consultancy and management services, noise monitoring surveys, noise impact assessments and acoustic design services to the Public and Private sectors.

2.0 Regional environmental setting

The facility is located in an industrial zoned area with industrial premises situated along the access road. There are a number of industrial units across the road from the site entrance to the south, while to east there is a large waste processing facility. A glass processing premises is located to the south of the boundary.

3.0 Existing site activities

The subject site is an established waste processing facility, with traffic movements increased in the early morning and evening period. Historically there have been no exceedances of Waste Licence at local sensitive areas. The main noise sources at the facility include traffic movements, compactors, compressors, and tipping of waste. Waste activities at the facility commence after 8am.

3.1 Noise Sensitive Receptors

There are a number of single dwelling located to the north of the facility along Nash’s Boreen. Historically there has been no exceedances of noise limits at these locations with only low level site noise audible.

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4.0 Noise Survey Protocol

4.1 Monitoring Locations

The noise monitoring equipment was located at each receptor with reference to the guidelines in *ISO 1996-2 2007 Acoustics – Description, Measurement and Assessment of Environmental Noise Parts 1-3* and the 2012 EPA publication, “*Guidance Note for Noise: Licence Applications, Surveys and Assessments in Relation to Scheduled Activities (NG4)*”. The monitoring locations are listed below in Table 4.1.

Table 4.1 Monitoring Locations

Location	Description
M1 (E 166056 N 73491)	On roadside close to FÁS training center, east of the Ashgrove recycling facility
M2 (E 165915 N 73549)	At the “old roundabout” to the west of the facility perimeter
M3 (E 166283 N 73727)	Upper Fair Hill Road adjacent to Fair Green
M4 (E 165868 N 73758)	Outside houses on Nash’s Boreen

4.2 Instrumentation and Methodology

Noise measurements were conducted according to the requirements of *ISO 1996-2 2007 Acoustics – Description, Measurement and Assessment of Environmental Noise Parts 1-3* and the 2003 EPA publication, “*Environmental Noise Survey, Guidance Document*”. The measurements were made using calibrated *Bruel and Kjaer 2250 integrating sound level meters* which were calibrated at 94 dB prior to and after use using a calibrated acoustical calibrator model *B&K 4230*. The sound level meters are Class 1 instruments which are in accordance with IEC 61672-1:2002 regulations. The sound level meters were fitted with a windshield during all measurements.

The Serial Numbers of the B&K 2250 Sound Level Meters and B&K Calibration Unit are as follows:

B&K 2250	SN	2638878
B&K 2250	SN	2580079
B&K 4230	SN	1663888

Glenside Environmental

Ashgrove Recycling, John F Connelly Road, Churchfield Industrial Estate, Cork. W0147-01
Bi-Annual Noise Monitoring Survey Report, 2017

4.3 Survey Implementation

The free-field noise measurements were carried out on 10th May and 26th October 2017 when all site activities were occurring normally. In accordance with the requirements of NG4, noise monitoring at each Noise Sensitive Receptor (M1 – M4) was carried out as follows:

Daytime Monitoring (07:00hrs – 19:00hrs)

3 x 30minute sampling periods at each Receptor (4 No) = 6 hour total sampling period

4.3 Meteorological Conditions during Surveys

The prevailing local weather conditions at the time of the surveys were as follows:

Daytime Surveys (07:00hrs – 19:00hrs)

10th May 2017

Clear dry day 15°C with a light westerly breeze with a recorded maximum speed of 1 m/sec.

26th October 2017

Clear, dry, 8°C with a light westerly breeze with a recorded maximum speed of 3 m/sec.

Windspeed and temperature were determined using a *Skywatch* handheld vane anemometer. Meteorological conditions were as observed during the monitoring intervals. Prevailing wind directions were obtained from Met Eireann.

The noise surveys were conducted the equivalent continuous A-Weighted Sound Pressure Level, $L_{Aeq, T}$, over 30-minute monitoring intervals with a Fast time weighting. The L_{Amax} parameter was similarly recorded. A statistical analysis of the measurement results was also simultaneously completed so that the percentile levels, $L_{AN, T}$, for N = 90% and 10% over the specific measurement intervals were also recorded. A 1/3 octave band frequency analysis was also conducted simultaneously during each noise monitoring interval to determine the presence or not, of tonal components associated with site generated noise.

5.0 Survey Results

The environmental noise measurement results recorded at receptors M1 to M4 in the vicinity of the site on 10th May and 26th October 2017 are presented in Tables 5.1 below.

The recorded 1/3 octave band spectra are presented below in Appendix I of this report and demonstrate that there were no tonal components associated with recorded noise measurements as determined according to *ISO 1996-2 2007 Acoustics – Description, Measurement and Assessment of Environmental Noise Part 2 – Annex D*. The presence of tonal components was assessed by determining if any 1/3 octave band exceeded the levels of adjacent bands as follows:

- 15dB in low frequency one-third octave bands (25Hz to 125Hz);
- 8dB in middle frequency bands (160Hz to 400Hz), and;
- 5dB in high frequency bands (500Hz to 10,000Hz)

Table 5.1 Daytime Noise Monitoring Survey Results

Monitoring Location	Date/Time	L _{Aeq, 30min}	L _{A90, 30min}	L _{A10, 30min}
	10/05/2017	dB(A)	dB(A)	dB(A)
M1 10/05/2017	11:02-11:32	62.2	60.7	65.1
	11:32-12:02	64.1	60.9	66.8
	12:32-13:02	66.7	61.5	64.3
M2 10/05/2017	13:10-13:40	60.3	54.3	62.7
	13:40-14:10	63.2	54.9	63.2
	14:10-14:40	62.4	53.1	62.8
M3 10/05/2017	14:45-15:15	63.8	56.3	64.9
	15:15-15:45	67.1	55.7	65.1
	15:45-16:15	66.7	54.2	64.8
M4 10/05/2017	16:23-16:53	51.1	44.3	52.9
	16:53-17:23	50.7	43.9	52.7
	17:23-17:53	51.3	44.4	51.8

Monitoring Location	Date/Time	L _{Aeq, 30min}	L _{A90, 30min}	L _{A10, 30min}
	26/10/2017	dB(A)	dB(A)	dB(A)
M1 25/10/2017	09:20-09:50	63.4	61.3	63.5
	09:50-10:20	65.1	59.3	63.1
	10:20-10:50	59.4	58.7	61.4
M2 25/10/2017	11:02-11:32	57.9	55.6	62.3
	11:32-12:02	60.3	53.6	61.7
	12:02-12:32	56.2	57.4	60.3
M3 25/10/2017	12:40-13:10	63.2	54.3	64.3
	13:10-13:40	62.3	53.9	63
	13:40-15:10	61.9	56.1	62.7
M4 25/10/2017	15:23-15:53	50.3	44.2	52.3
	15:53-16:23	51.3	43.5	55.6
	16:23-16:53	52.3	43.7	55.7

6.0 Evaluation of Results

Location M1

Measurements at location M1 were recorded on the location of the old roundabout outside entrance to the Ashgrove facility. Intermittent truck movements associated with the Ashgrove facility contributed to the ambient levels while regular movements to local industrial areas also influenced the noise levels. Distant traffic noise established the background noise level.

Operational noise from the Ashgrove facility was not considered significant with intermittent vehicle movement contributing. The L_{Aeq} was noted to be relatively steady over the 3 measurement periods and recorded at 59.4dB(A) to 66.7dB(A).

Location M2

Local traffic movements within the industrial estate close to the entrance of the Ashgrove facility, contributed to the ambient noise levels at M2. The noise associated with the Ashgrove activities were not considered significant at this location. The average noise level was recorded at 56.2dB(A) to 63.2dB(A) and the L_{90} was in the range 53.1dB(A) to 57.4dB(A).

Location M3

At location M3 the traffic on the Upper Fairhill Road was the dominant source of noise. The high L_{AF10} levels are an indication of traffic noise. There was no contribution from the Ashgrove facility at this location. The L_{Aeq} was recorded from 61.9dB(A) to 67.1dB(A). The L_{90} was recorded at 53.9 to 56.3dB(A).

Location M4

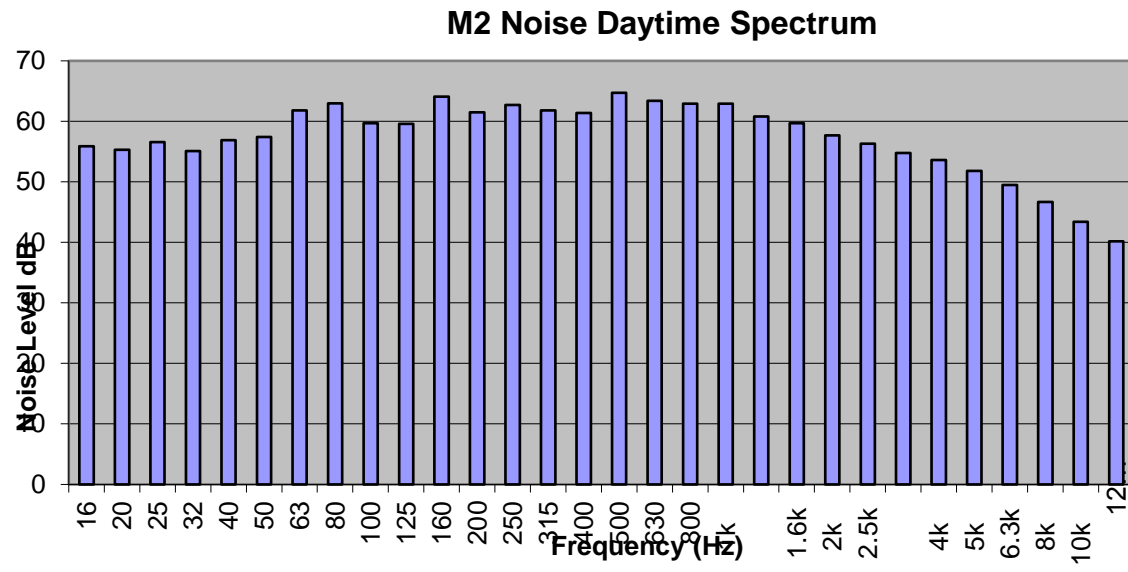
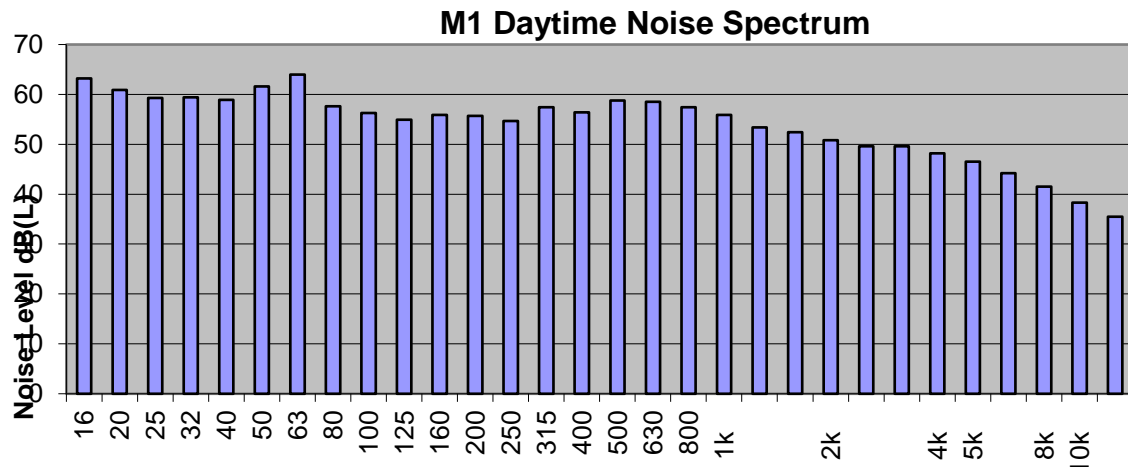
There was no noise audible from the Ashgrove facility at his location. The average noise levels were influenced by intermittent local passing traffic and the background levels were influenced by the distant traffic from the Mallow Road. The L_{Aeq} was recorded between 50.3dB(A) and 52.3dB(A) and the L_{90} was 43.5dB(A) to 44.4dB(A) over the 3 measurement intervals.

7.0 CONCLUSIONS

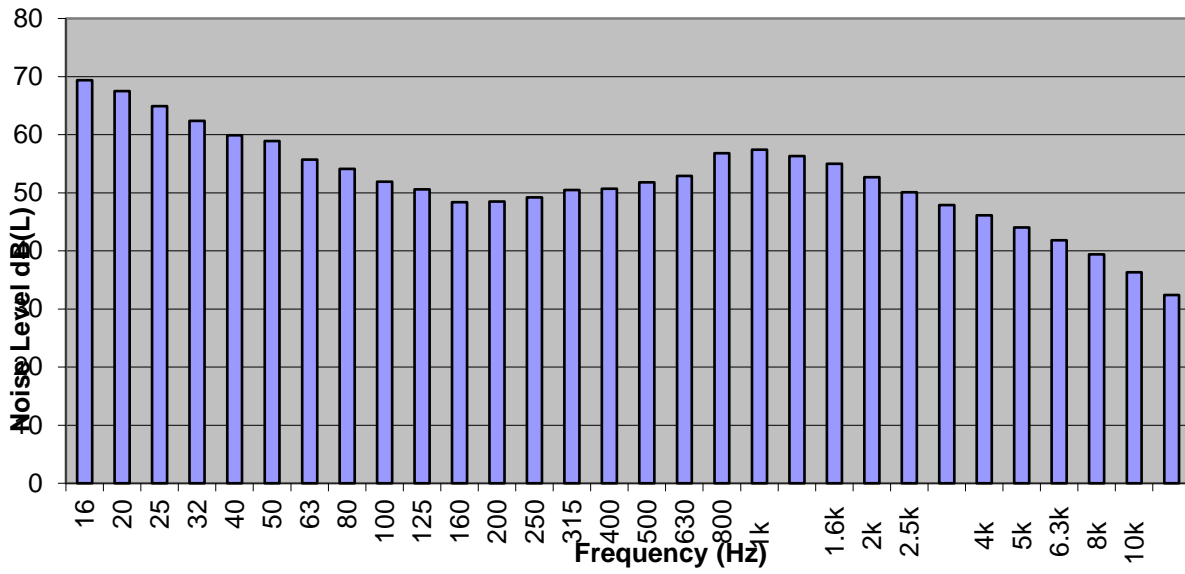
There was no audible noise from the facility at the monitoring. In conclusion the noise levels emanating from the Ashgrove facility are considered not to be impacting on local sensitive areas.

APPENDIX I

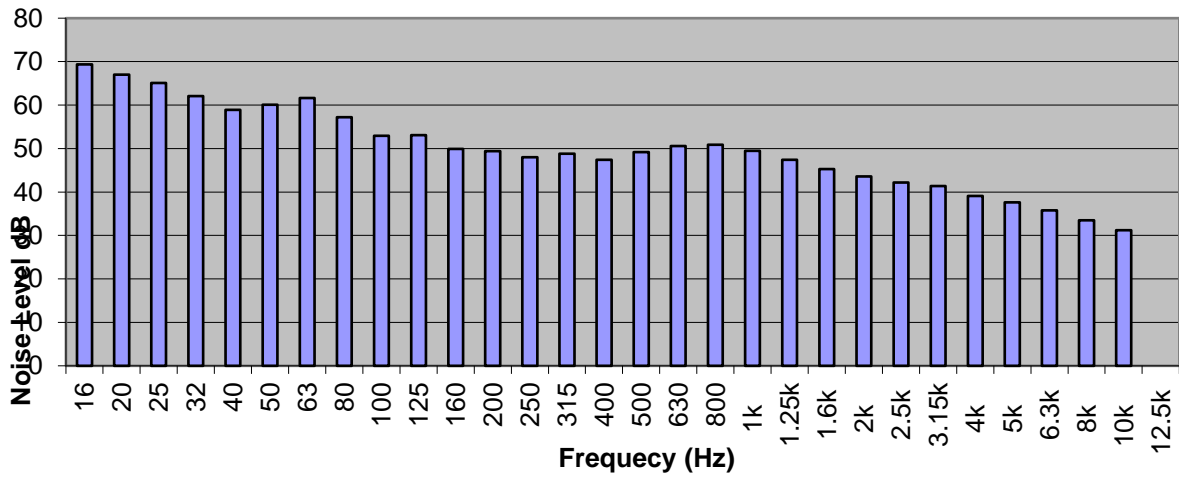
NOISE FREQUENCY SPECTRUM DATA



M3 Daytime Noise Spectrum



M4 Daytime Noise Spectrum



APPENDIX II: DUST REPORTS

**ASHGROVE PLANT LTD
t/a ASHGROVE RECYCLING
CHURCHFIELD INDUSTRIAL ESTATE
CHURCHFIELD
CORK**

WASTE LICENSE 147-1

**DUST MONITORING
January/ February 2017**

1 INTRODUCTION

The Environmental Protection Agency (EPA) issued Ashgrove Recycling a waste licence (register number 147-1) at Churchfield Industrial Estate, Churchfield, Cork, on 28th March 2002.

Waste licence Number 147-1 obliges the licensee to facilitate the monitoring of all designated sampling locations at Ashgrove Recycling. In order to fulfil these environmental compliance commitments in 2016 Ashgrove Recycling delegated to Cuthbert Environmental staff to complete annual monitoring. ELS Ltd were awarded the contract to perform the laboratory analysis of the dust samples that were collected. Cuthbert Environmental will interpret the environmental monitoring data collected and compiled to produce environmental reports for submission to the EPA.

This report represents the dust monitoring for Jan/ Feb 2017 and it addresses dust levels in relation to EPA established trigger levels and other national and international standards. The report is divided into three sections:

- Section one is a brief introduction;
- Section two analyses and discusses the quality of the air at dust monitoring locations;
- Section three draws overall conclusions on the quality of the air and makes recommendations where necessary.

2 DUST MONITORING

Dust monitoring was carried out at four locations; D1, D2, D3 and D4 as described in Table 2.1 below.

Table 2.1: Dust Monitoring Locations

Site	Description
D1	South East
D2	North West
D3	South West
D4	North East

2.1 Monitoring Results

Dust monitoring results for each of the four sampling locations are presented in Table 2.1. The full analysis datasets issued by ELS Ltd are included in Appendix 1.

Dust deposition was measured in accordance with VDI 2119: Measurement of Dust Using a Bergerhoff Dust Deposition Gauge. The gauges consist of a collecting jar positioned at 1.5 meters above ground level with a bird guard around the collecting jar.

Dust monitoring was carried out during January/ February (13th Jan to the 13th Feb 2017)

Total dust deposition was determined and expressed as mg/m²/day.

TABLE 2.1.1: Monitoring Results

SAMPLE	TOTAL DUST mg/m ² /day	LIMIT
D1	148	350 mg/m ² /day
D2	249	
D3	59	
D4	61	

3 CONCLUSIONS AND RECOMMENDATIONS

Schedule C2 of Waste Licence Number 142-1 sets a limit 350 mg/m²/day for total dust deposited.

Dust deposition levels at all locations analysed during Jan/ Feb 2017 were within the set limit in the licence and the EPA Best Practice limit for dust deposition of 350 mg/m²/day at all dust monitoring locations.

There are no indications that the site is causing a dust nuisance.

APPENDIX 1

ELS Datasheets for 2017 – Ashgrove Recycling



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email: info@elsltd.com

Contact Name	Toddy Cuthbert	Report Number	107345 - 1
Address	Cuthbert Environmental Cork	Sample Number	107345/001
Tel No	021 4975683	Date of Receipt	13/02/2017
Customer PO	Per Batch	Date Started	13/02/2017
Quotation No	QN006351	Received or Collected	Hand
Customer Ref	Ashgrove Dust D1	Date of Report	23/02/2017
		Sample Type	Other

CERTIFICATE OF ANALYSIS

TEST	ANALYTE	SUB	METHOD	LOQ	SPEC	RESULT	UNITS	ACCRED.	OOS
Bergerhoff (Total Solids mg/jar)									
	Bergerhoff (Total Solids)		EW131	1.0		53.5	mg/jar		

Signed :

23/02/2017

Domenico Giliberti-Technical Manager

NOTES

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Contact Name	Toddy Cuthbert	Report Number	107345 - 1
Address	Cuthbert Environmental Cork	Sample Number	107345/002
Tel No	021 4975683	Date of Receipt	13/02/2017
Customer PO	Per Batch	Date Started	13/02/2017
Quotation No	QN006351	Received or Collected	Hand
Customer Ref	Ashgrove Dust D2	Date of Report	23/02/2017
		Sample Type	Other

CERTIFICATE OF ANALYSIS

TEST	ANALYTE	SUB	METHOD	LOQ	SPEC	RESULT	UNITS	ACCRED.	OOS
Bergerhoff (Total Solids mg/jar)									
	Bergerhoff (Total Solids)		EW131	1.0		89.9	mg/jar		

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23/02/2017

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email: info@elsltd.com

Contact Name	Toddy Cuthbert	Report Number	107345 - 1
Address	Cuthbert Environmental Cork	Sample Number	107345/003
Tel No	021 4975683	Date of Receipt	13/02/2017
Customer PO	Per Batch	Date Started	13/02/2017
Quotation No	QN006351	Received or Collected	Hand
Customer Ref	Ashgrove Dust D3	Date of Report	23/02/2017
		Sample Type	Other

CERTIFICATE OF ANALYSIS

TEST	ANALYTE	SUB	METHOD	LOQ	SPEC	RESULT	UNITS	ACCRED.	OOS
Bergerhoff (Total Solids mg/jar)									
	Bergerhoff (Total Solids)		EW131	1.0		21.3	mg/jar		

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23/02/2017

Domenico Giliberti-Technical Manager

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email: info@elsltd.com

Contact Name	Toddy Cuthbert	Report Number	107345 - 1
Address	Cuthbert Environmental Cork	Sample Number	107345/004
Tel No	021 4975683	Date of Receipt	13/02/2017
Customer PO	Per Batch	Date Started	13/02/2017
Quotation No	QN006351	Received or Collected	Hand
Customer Ref	Ashgrove Dust D4	Date of Report	23/02/2017
		Sample Type	Other

CERTIFICATE OF ANALYSIS

TEST	ANALYTE	SUB	METHOD	LOQ	SPEC	RESULT	UNITS	ACCRED.	OOS
Bergerhoff (Total Solids mg/jar)									
	Bergerhoff (Total Solids)		EW131	1.0		22.2	mg/jar		

Signed :

23/02/2017

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**ASHGROVE PLANT LTD
t/a ASHGROVE RECYCLING
CHURCHFIELD INDUSTRIAL ESTATE
CHURCHFIELD
CORK**

WASTE LICENSE 147-1

**DUST MONITORING
July/ August 2017**

1 INTRODUCTION

The Environmental Protection Agency (EPA) issued Ashgrove Recycling a waste licence (register number 147-1) at Churchfield Industrial Estate, Churchfield, Cork, on 28th March 2002.

Waste licence Number 147-1 obliges the licensee to facilitate the monitoring of all designated sampling locations at Ashgrove Recycling. In order to fulfil these environmental compliance commitments in 2017 Ashgrove Recycling delegated to Cuthbert Environmental staff to complete annual monitoring. ELS Ltd were awarded the contract to perform the laboratory analysis of the dust samples that were collected. Cuthbert Environmental will interpret the environmental monitoring data collected and compiled to produce environmental reports for submission to the EPA.

This report represents the dust monitoring for July/ August 2017 and it addresses dust levels in relation to EPA established trigger levels and other national and international standards. The report is divided into three sections:

- Section one is a brief introduction;
- Section two analyses and discusses the quality of the air at dust monitoring locations;
- Section three draws overall conclusions on the quality of the air and makes recommendations where necessary.

2 DUST MONITORING

Dust monitoring was carried out at four locations; D1, D2, D3 and D4 as described in Table 2.1 below.

Table 2.1: Dust Monitoring Locations

Site	Description
D1	South East
D2	North West
D3	South West
D4	North East

2.1 Monitoring Results

Dust monitoring results for each of the four sampling locations are presented in Table 2.1. The full analysis datasets issued by ELS Ltd are included in Appendix 1.

Dust deposition was measured in accordance with VDI 2119: Measurement of Dust Using a Bergerhoff Dust Deposition Gauge. The gauges consist of a collecting jar positioned at 1.5 meters above ground level with a bird guard around the collecting jar.

Dust monitoring was carried out during July/ August (28th July to the 28th August 2017)

Total dust deposition was determined and expressed as mg/m²/day.

TABLE 2.1.1: Monitoring Results

SAMPLE	TOTAL DUST mg/m ² /day	LIMIT
D1	178	350 mg/m ² /day
D2	44	
D3	260	
D4	71	

3 CONCLUSIONS AND RECOMMENDATIONS

Schedule C2 of Waste Licence Number 142-1 sets a limit 350 mg/m²/day for total dust deposited.

Dust deposition levels at all locations analysed during July/ August 2017 were within the set limit in the licence and the EPA Best Practice limit for dust deposition of 350 mg/m²/day at all dust monitoring locations.

There are no indications that the site is causing a dust nuisance.

APPENDIX 1

ELS Datasheets for 2017 – Ashgrove Recycling



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email: info@elsltd.com

Contact Name	Toddy Cuthbert	Report Number	115907 - 1
Address	Cuthbert Environmental	Sample Number	115907/001
	Cork	Date of Receipt	28/08/2017
		Date Started	28/08/2017
Tel No	021 4975683	Received or Collected	Hand
Customer PO	Per Batch	Date of Report	06/09/2017
Quotation No	QN006351	Sample Type	Other
Customer Ref	Ashgrove Dust D1		

CERTIFICATE OF ANALYSIS

TEST	ANALYTE	SUB	METHOD	LOQ	SPEC	RESULT	UNITS	ACCRED.	OOS
Bergerhoff (Total Solids mg/jar)									
	Bergerhoff (Total Solids)		EW131	1.0		64.3	mg/jar		

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Domenico Giliberti-Technical Manager

06/09/2017

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Contact Name	Toddy Cuthbert	Report Number	115907 - 1
Address	Cuthbert Environmental Cork	Sample Number	115907/002
Tel No	021 4975683	Date of Receipt	28/08/2017
Customer PO	Per Batch	Date Started	28/08/2017
Quotation No	QN006351	Received or Collected	Hand
Customer Ref	Ashgrove Dust D2	Date of Report	06/09/2017
		Sample Type	Other

CERTIFICATE OF ANALYSIS

TEST	ANALYTE	SUB	METHOD	LOQ	SPEC	RESULT	UNITS	ACCRED.	OOS
Bergerhoff (Total Solids mg/jar)									
	Bergerhoff (Total Solids)		EW131	1.0		15.9	mg/jar		

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email: info@elsltd.com

Contact Name	Toddy Cuthbert	Report Number	115907 - 1
Address	Cuthbert Environmental	Sample Number	115907/003
	Cork	Date of Receipt	28/08/2017
		Date Started	28/08/2017
Tel No	021 4975683	Received or Collected	Hand
Customer PO	Per Batch	Date of Report	06/09/2017
Quotation No	QN006351	Sample Type	Other
Customer Ref	Ashgrove Dust D3		

CERTIFICATE OF ANALYSIS

TEST	ANALYTE	SUB	METHOD	LOQ	SPEC	RESULT	UNITS	ACCRED.	OOS
Bergerhoff (Total Solids mg/jar)									
	Bergerhoff (Total Solids)		EW131	1.0		94.0	mg/jar		

Signed :

06/09/2017

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Contact Name	Toddy Cuthbert	Report Number	115907 - 1
Address	Cuthbert Environmental	Sample Number	115907/004
	Cork	Date of Receipt	28/08/2017
		Date Started	28/08/2017
Tel No	021 4975683	Received or Collected	Hand
Customer PO	Per Batch	Date of Report	06/09/2017
Quotation No	QN006351	Sample Type	Other
Customer Ref	Ashgrove Dust D4		

CERTIFICATE OF ANALYSIS

TEST	ANALYTE	SUB	METHOD	LOQ	SPEC	RESULT	UNITS	ACCRED.	OOS
Bergerhoff (Total Solids mg/jar)									
	Bergerhoff (Total Solids)		EW131	1.0		25.7	mg/jar		

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06/09/2017

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CHURCHFIELD INDUSTRIAL ESTATE
CHURCHFIELD
CORK**

WASTE LICENSE 147-1

**DUST MONITORING
October/ November 2017**

1 INTRODUCTION

The Environmental Protection Agency (EPA) issued Ashgrove Recycling a waste licence (register number 147-1) at Churchfield Industrial Estate, Churchfield, Cork, on 28th March 2002.

Waste licence Number 147-1 obliges the licensee to facilitate the monitoring of all designated sampling locations at Ashgrove Recycling. In order to fulfil these environmental compliance commitments in 2017 Ashgrove Recycling delegated to Cuthbert Environmental staff to complete annual monitoring. ELS Ltd were awarded the contract to perform the laboratory analysis of the dust samples that were collected. Cuthbert Environmental will interpret the environmental monitoring data collected and compiled to produce environmental reports for submission to the EPA.

This report represents the dust monitoring for Oct/ Nov 2017 and it addresses dust levels in relation to EPA established trigger levels and other national and international standards. The report is divided into three sections:

- Section one is a brief introduction;
- Section two analyses and discusses the quality of the air at dust monitoring locations;
- Section three draws overall conclusions on the quality of the air and makes recommendations where necessary.

2 DUST MONITORING

Dust monitoring was carried out at four locations; D1, D2, D3 and D4 as described in Table 2.1 below.

Table 2.1: Dust Monitoring Locations

Site	Description
D1	South East
D2	North West
D3	South West
D4	North East

2.1 Monitoring Results

Dust monitoring results for each of the four sampling locations are presented in Table 2.1. The full analysis datasets issued by ELS Ltd are included in Appendix 1.

Dust deposition was measured in accordance with VDI 2119: Measurement of Dust Using a Bergerhoff Dust Deposition Gauge. The gauges consist of a collecting jar positioned at 1.5 meters above ground level with a bird guard around the collecting jar.

Dust monitoring was carried out during October/ November (19th October to the 17th November 2017)

Total dust deposition was determined and expressed as mg/m²/day.

TABLE 2.1.1: Monitoring Results

SAMPLE	TOTAL DUST mg/m ² /day	LIMIT
D1	79	350 mg/m ² /day
D2	35	
D3	276	
D4	37	

3 CONCLUSIONS AND RECOMMENDATIONS

Schedule C2 of Waste Licence Number 142-1 sets a limit 350 mg/m²/day for total dust deposited.

Dust deposition levels at all locations analysed during Oct/ Nov 2017 were within the set limit in the licence and the EPA Best Practice limit for dust deposition of 350 mg/m²/day at all dust monitoring locations.

There are no indications that the site is causing a dust nuisance.

APPENDIX 1

ELS Datasheets for 2017 – Ashgrove Recycling




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email: info@elsltd.com

Contact Name	Toddy Cuthbert	Report Number	120108 - 1
Address	Cuthbert Environmental	Sample Number	120108/001
	Cork	Date of Receipt	17/11/2017
		Date Started	17/11/2017
Tel No	021 4975683	Received or Collected	Hand
Customer PO	Per Batch	Date of Report	23/11/2017
Quotation No	QN006351	Sample Type	Other
Customer Ref	Ashgrove Dust D1		

CERTIFICATE OF ANALYSIS

TEST	ANALYTE	SUB	METHOD	LOQ	SPEC	RESULT	UNITS	ACCRED.	OOS
Bergerhoff (Total Solids mg/jar)									
	Bergerhoff (Total Solids)		EW131	1.0		26.8	mg/jar		

Signed :  _____ 23/11/2017
Domenico Giliberti-Technical Manager

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Contact Name	Toddy Cuthbert	Report Number	120108 - 1
Address	Cuthbert Environmental	Sample Number	120108/002
	Cork	Date of Receipt	17/11/2017
		Date Started	17/11/2017
Tel No	021 4975683	Received or Collected	Hand
Customer PO	Per Batch	Date of Report	23/11/2017
Quotation No	QN006351	Sample Type	Other
Customer Ref	Ashgrove Dust D2		

CERTIFICATE OF ANALYSIS

TEST	ANALYTE	SUB	METHOD	LOQ	SPEC	RESULT	UNITS	ACCRED.	OOS
Bergerhoff (Total Solids mg/jar)									
	Bergerhoff (Total Solids)		EW131	1.0		12.0	mg/jar		

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23/11/2017

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Contact Name	Toddy Cuthbert	Report Number	120108 - 1
Address	Cuthbert Environmental	Sample Number	120108/003
	Cork	Date of Receipt	17/11/2017
		Date Started	17/11/2017
Tel No	021 4975683	Received or Collected	Hand
Customer PO	Per Batch	Date of Report	23/11/2017
Quotation No	QN006351	Sample Type	Other
Customer Ref	Ashgrove Dust D3		

CERTIFICATE OF ANALYSIS

TEST	ANALYTE	SUB	METHOD	LOQ	SPEC	RESULT	UNITS	ACCRED.	OOS
Bergerhoff (Total Solids mg/jar)									
	Bergerhoff (Total Solids)		EW131	1.0		93.6	mg/jar		



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Contact Name	Toddy Cuthbert	Report Number	120108 - 1
Address	Cuthbert Environmental	Sample Number	120108/004
	Cork	Date of Receipt	17/11/2017
Tel No	021 4975683	Date Started	17/11/2017
Customer PO	Per Batch	Received or Collected	Hand
Quotation No	QN006351	Date of Report	23/11/2017
Customer Ref	Ashgrove Dust D4	Sample Type	Other

CERTIFICATE OF ANALYSIS

TEST	ANALYTE	SUB	METHOD	LOQ	SPEC	RESULT	UNITS	ACCRED.	OOS
Bergerhoff (Total Solids mg/jar)									
	Bergerhoff (Total Solids)		EW131	1.0		12.5	mg/jar		



Signed :

23/11/2017

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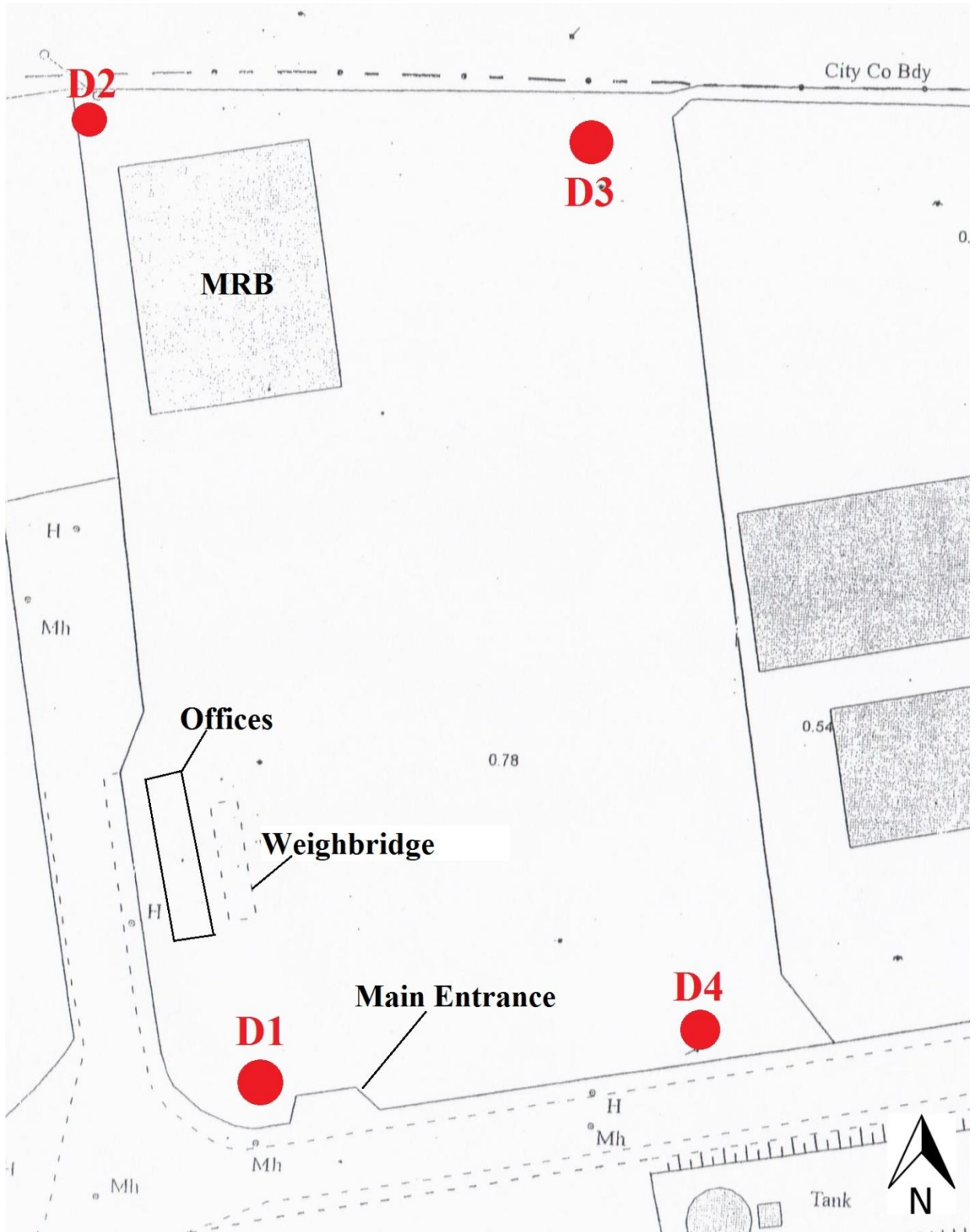
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APPENDIX III: MONITORING LOCATIONS

DUST MONITORING LOCATIONS



EFFLUENT MONITORING LOCATIONS

Drainage System Map

Surveyed 1975-1991
Revised 2007
Levelled 1974-1983



Surface Water
Monitoring
Point

FW Monitoring Chamber

Oil Interceptor

Separator Tank

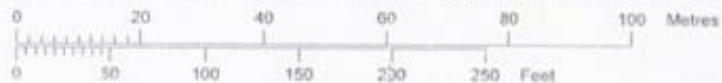
Power-wash

— Foul Water

- - - Surface Water

○ ● Manhole

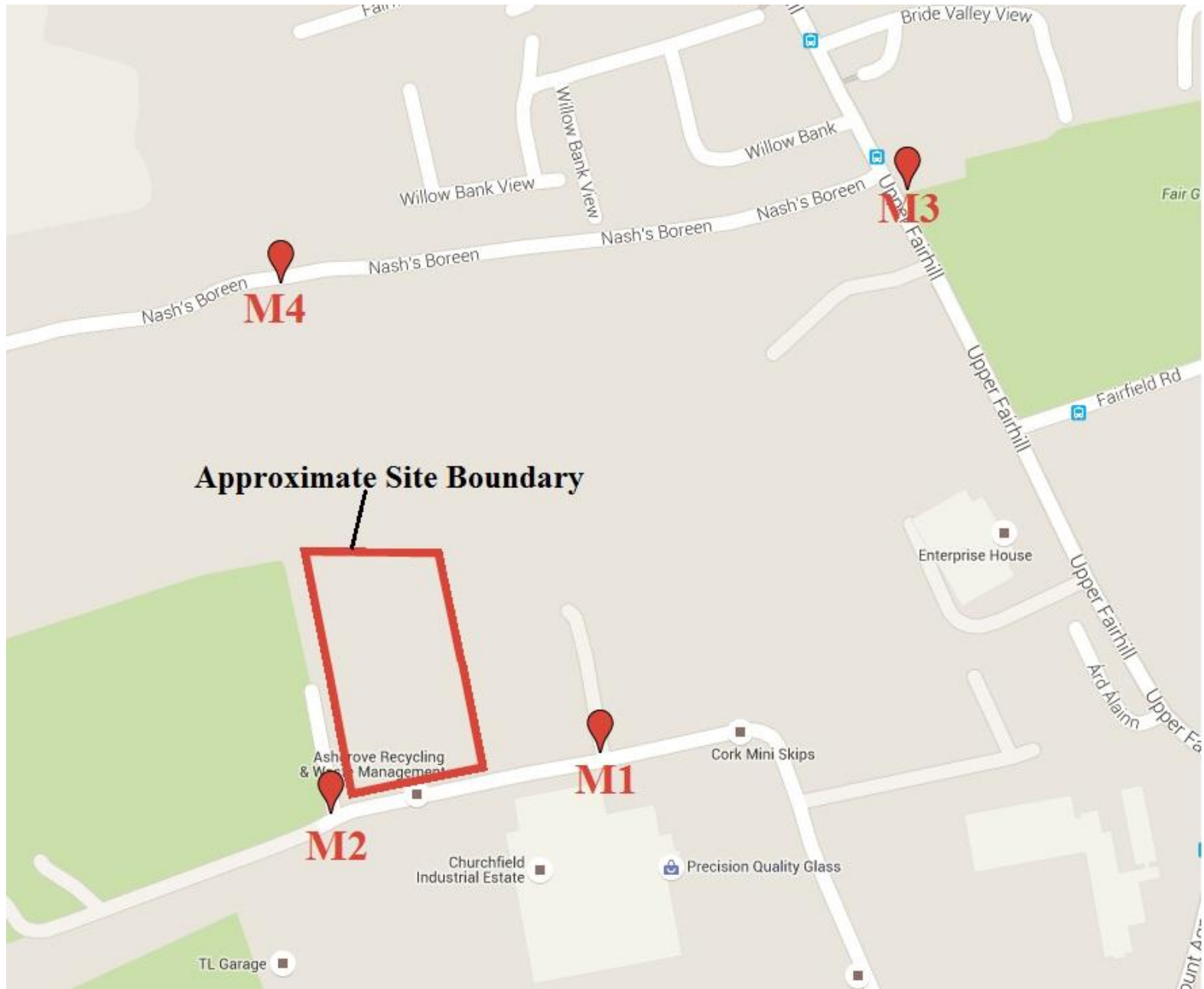
Scale - 1:1,000
Scale - 1:1,000



Plot Ref. No. 1338126_1_6
Plot Date 29-OCT-2008



NOISE MONITORING LOCATIONS



APPENDIX IV: EFFLUENT MONITORING RESULTS

FOUL WATER



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Contact Name	Toddy Cuthbert	Report Number	106609 - 1
Address	Cuthbert Environmental	Sample Number	106609/001
	Cork	Date of Receipt	25/01/2017
		Date Started	25/01/2017
Tel No	021 4975683	Received or Collected	Hand
Customer PO	Per Batch	Date of Report	07/02/2017
Quotation No	QN006324	Sample Type	Waste Water
Customer Ref	Ashgrove Foul		

CERTIFICATE OF ANALYSIS

TEST	ANALYTE	SUB	METHOD	LOQ	SPEC	RESULT	UNITS	ACCRED.	OOS
Ammonia									
	Ammonia as NH4		EW154M-1	0.045		3.746	mg/l NH4	INAB	
	Ammonia (as N)		EW154M-1	0.035		2.9	mg/l N	INAB	
AQ2-UP2									
	Sulphate		EW154M-1	5.0		450	mg/L		
BOD									
	BOD		EW001	1		<28.8	mg/L	INAB	
<i>Analyst BOD Comment: Result was outside range for the dilutions used</i>									
COD									
	COD		EW094	8		187	mg/L	INAB	
Detergents as MBAS (Sub1)									
	Detergents/Surfactants as MBAS	*	Default	0.21		2.50	mg/L		
Oils Fats Grease (OFG)									
	Oils Fats Grease (OFG)		EW004	4.0		<4.0	mg/L		
Suspended Solids									
	Suspended Solids		EW013	5		52	mg/L	INAB	
Titralab									
	pH		EW153			7.7	pH Units	INAB	

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Contact Name	Toddy Cuthbert	Report Number	107658 - 1
Address	Cuthbert Environmental	Sample Number	107658/001
	Cork	Date of Receipt	20/02/2017
		Date Started	20/02/2017
Tel No	021 4975683	Received or Collected	Hand
Customer PO	Per Batch	Date of Report	06/03/2017
Quotation No	QN006324	Sample Type	Waste Water
Customer Ref	Ashgrove Foul 200217		

CERTIFICATE OF ANALYSIS

TEST	ANALYTE	SUB	METHOD	LOQ	SPEC	RESULT	UNITS	ACCRED.	OOS
Ammonia									
	Ammonia as NH4		EW154M-1	0.045		0.590	mg/l NH4	INAB	
	Ammonia (as N)		EW154M-1	0.035		0.46	mg/l N	INAB	
AQ2-UP2									
	Sulphate		EW154M-1	5.0		220	mg/L		
BOD									
	BOD		EW001	1		82	mg/L	INAB	
COD									
	COD		EW094	8		200	mg/L	INAB	
Detergents as MBAS (Sub1)									
	Detergents/Surfactants as MBAS	*	Default	0.21		0.92	mg/L		
Oils Fats Grease (OFG)									
	Oils Fats Grease (OFG)		EW004	4.0		6.7	mg/L		
Suspended Solids									
	Suspended Solids		EW013	5		104	mg/L	INAB	
Titralab									
	pH		EW153			7.5	pH Units	INAB	

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06/03/2017

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Contact Name	Toddy Cuthbert	Report Number	108876 - 1
Address	Cuthbert Environmental	Sample Number	108876/001
	Cork	Date of Receipt	20/03/2017
		Date Started	20/03/2017
Tel No	021 4975683	Received or Collected	Hand
Customer PO	Per Batch	Date of Report	03/04/2017
Quotation No	QN006324	Sample Type	Waste Water
Customer Ref	Ashgrove Foul		

CERTIFICATE OF ANALYSIS

TEST	ANALYTE	SUB	METHOD	LOQ	SPEC	RESULT	UNITS	ACCRED.	OOS
Ammonia									
	Ammonia as NH4		EW154M-1	0.045		3.888	mg/l NH4	INAB	
	Ammonia (as N)		EW154M-1	0.035		3.0	mg/l N	INAB	
AQ2-UP2									
	Sulphate		EW154M-1	5.0		300	mg/L		
BOD									
	BOD		EW001	1		32	mg/L	INAB	
COD									
	COD		EW094	8		138	mg/L	INAB	
Detergents as MBAS (Sub1)									
	Detergents/Surfactants as MBAS	*	Default	0.21		1.80	mg/L		
Oils Fats Grease (OFG)									
	Oils Fats Grease (OFG)		EW004	4.0		4.4	mg/L		
Suspended Solids									
	Suspended Solids		EW013	5		38	mg/L	INAB	
Titralab									
	pH		EW153			7.8	pH Units	INAB	

Domenico *J. Liberti*

Signed :

03/04/2017

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Contact Name	Toddy Cuthbert	Report Number	110678 - 1
Address	Cuthbert Environmental	Sample Number	110678/001
	Cork	Date of Receipt	27/04/2017
		Date Started	27/04/2017
Tel No	021 4975683	Received or Collected	Hand
Customer PO	Per Batch	Date of Report	15/05/2017
Quotation No	QN006324	Sample Type	Waste Water
Customer Ref	Ashgrove Foul		

CERTIFICATE OF ANALYSIS

TEST	ANALYTE	SUB	METHOD	LOQ	SPEC	RESULT	UNITS	ACCRED.	OOS
Ammonia									
	Ammonia as NH4		EW154M-1	0.045		13.470	mg/l NH4		
	Ammonia (as N)		EW154M-1	0.035		10	mg/l N		
AQ2-UP2									
	Sulphate		EW154M-1	5.0		270	mg/L		
BOD									
	BOD		EW001	1		104	mg/L	INAB	
COD									
	COD		EW094	8		402	mg/L	INAB	
Detergents as MBAS (Sub1)									
	Detergents/Surfactants as MBAS	*	Default	0.21		6.94	mg/L		
Oils Fats Grease (OFG)									
	Oils Fats Grease (OFG)		EW004	4.0		37.0	mg/L		
Suspended Solids									
	Suspended Solids		EW013	5		97	mg/L	INAB	
Titralab									
	pH		EW153			8.0	pH Units	INAB	

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15/05/2017

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Contact Name	Toddy Cuthbert	Report Number	111955 - 1
Address	Cuthbert Environmental	Sample Number	111955/001
	Cork	Date of Receipt	29/05/2017
		Date Started	29/05/2017
Tel No	021 4975683	Received or Collected	Hand
Customer PO	Per Batch	Date of Report	07/06/2017
Quotation No	QN006324	Sample Type	Waste Water
Customer Ref	Ashgrove Foul		

CERTIFICATE OF ANALYSIS

TEST	ANALYTE	SUB	METHOD	LOQ	SPEC	RESULT	UNITS	ACCRED.	OOS
Ammonia									
	Ammonia as NH4		EW154M-1	0.045		4.955	mg/l NH4	INAB	
	Ammonia (as N)		EW154M-1	0.035		3.8	mg/l N	INAB	
AQ2-UP2									
	Sulphate		EW154M-1	5.0		310	mg/L		
BOD									
	BOD		EW001	1		124	mg/L	INAB	
COD									
	COD		EW094	8		424	mg/L	INAB	
Detergents as MBAS (Sub1)									
	Detergents/Surfactants as MBAS	*	Default	0.21		2.36	mg/L		
Oils Fats Grease (OFG)									
	Oils Fats Grease (OFG)		EW004	4.0		21.3	mg/L		
Suspended Solids									
	Suspended Solids		EW013	5		50	mg/L	INAB	
Titralab									
	pH		EW153			7.5	pH Units	INAB	

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07/06/2017

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Contact Name	Toddy Cuthbert	Report Number	112281 - 1
Address	Cuthbert Environmental	Sample Number	112281/001
	Cork	Date of Receipt	07/06/2017
		Date Started	07/06/2017
Tel No	021 4975683	Received or Collected	Hand
Customer PO	Per Batch	Date of Report	21/06/2017
Quotation No	QN006324	Sample Type	Waste Water
Customer Ref	Ashgrove Foul		

CERTIFICATE OF ANALYSIS

TEST	ANALYTE	SUB	METHOD	LOQ	SPEC	RESULT	UNITS	ACCRED.	OOS
Ammonia									
	Ammonia as NH4		EW154M-1	0.045		4.762	mg/l NH4	INAB	
	Ammonia (as N)		EW154M-1	0.035		3.7	mg/l N	INAB	
AQ2-UP2									
	Sulphate		EW154M-1	5.0		190	mg/L		
BOD									
	BOD		EW001	1		111	mg/L	INAB	
COD									
	COD		EW094	8		296	mg/L	INAB	
Detergents as MBAS (Sub1)									
	Detergents/Surfactants as MBAS	*	Default	0.21		0.77	mg/L		
Oils Fats Grease (OFG)									
	Oils Fats Grease (OFG)		EW004	4.0		16.3	mg/L		
Suspended Solids									
	Suspended Solids		EW013	5		52	mg/L	INAB	
Titralab									
	pH		EW153			7.6	pH Units	INAB	

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Signed :

21/06/2017

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Contact Name	Toddy Cuthbert	Report Number	114320 - 1
Address	Cuthbert Environmental	Sample Number	114320/001
	Cork	Date of Receipt	20/07/2017
		Date Started	20/07/2017
Tel No	021 4975683	Received or Collected	Hand
Customer PO	Per Batch	Date of Report	02/08/2017
Quotation No	QN006324	Sample Type	Waste Water
Customer Ref	Ashgrove Foul		

CERTIFICATE OF ANALYSIS

TEST	ANALYTE	SUB	METHOD	LOQ	SPEC	RESULT	UNITS	ACCRED.	OOS
Ammonia									
	Ammonia as NH4		EW154M-1	0.045		12.433	mg/l NH4		
	Ammonia (as N)		EW154M-1	0.035		9.7	mg/l N		
AQ2-UP2									
	Sulphate		EW154M-1	5.0		270	mg/L		
BOD									
	BOD		EW001	1		137	mg/L	INAB	
COD									
	COD		EW094	8		388	mg/L	INAB	
Detergents as MBAS (Sub1)									
	Detergents/Surfactants as MBAS	*	Default	0.21		1.05	mg/L		
Oils Fats Grease (OFG)									
	Oils Fats Grease (OFG)		EW004	4.0		12.7	mg/L		
Suspended Solids									
	Suspended Solids		EW013	5		30	mg/L	INAB	
Titralab									
	pH		EW153			7.7	pH Units	INAB	

Signed :

02/08/2017

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Contact Name	Toddy Cuthbert	Report Number	115906 - 1
Address	Cuthbert Environmental	Sample Number	115906/001
	Cork	Date of Receipt	28/08/2017
		Date Started	28/08/2017
Tel No	021 4975683	Received or Collected	Hand
Customer PO	Per Batch	Date of Report	14/09/2017
Quotation No	QN006324	Sample Type	Waste Water
Customer Ref	Ashgrove Foul		

CERTIFICATE OF ANALYSIS

TEST	ANALYTE	SUB	METHOD	LOQ	SPEC	RESULT	UNITS	ACCRED.	OOS
Ammonia									
	Ammonia as NH4		EW154M-1	0.045		12.505	mg/l NH4		
	Ammonia (as N)		EW154M-1	0.035		9.7	mg/l N		
AQ2-UP2									
	Sulphate		EW154M-1	5.0		280	mg/L		
BOD									
	BOD		EW001	1		61	mg/L	INAB	
COD									
	COD		EW094	8		320	mg/L	INAB	
Detergents as MBAS (Sub1)									
	Detergents/Surfactants as MBAS	*	Default	0.21		9.10	mg/L		
Oils Fats Grease (OFG)									
	Oils Fats Grease (OFG)		EW004	4.0		16.0	mg/L		
Suspended Solids									
	Suspended Solids		EW013	5		56	mg/L	INAB	
Titralab									
	pH		EW153			7.4	pH Units	INAB	

Domenico Giliberti

Signed :

14/09/2017

Domenico Giliberti-Technical Manager

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email: info@elsltd.com



DETAILED IN SCOPE REG NO. 1111

Contact Name	Toddy Cuthbert	Report Number	117063 - 1
Address	Cuthbert Environmental	Sample Number	117063/001
	Cork	Date of Receipt	20/09/2017
		Date Started	20/09/2017
Tel No	021 4975683	Received or Collected	Hand
Customer PO	Per Batch	Date of Report	10/10/2017
Quotation No	QN006324	Sample Type	Waste Water
Customer Ref	Ashgrove Foul 20/09/17		

CERTIFICATE OF ANALYSIS

TEST	ANALYTE	SUB	METHOD	LOQ	SPEC	RESULT	UNITS	ACCRED.	OOS
Ammonia									
	Ammonia as NH4		EW154M-1	0.045		5.643	mg/l NH4	INAB	
	Ammonia (as N)		EW154M-1	0.035		4.4	mg/l N	INAB	
AQ2-UP2									
	Sulphate		EW154M-1	5.0		270	mg/L	INAB	
BOD									
	BOD		EW001	1		51	mg/L	INAB	
COD									
	COD		EW094	8		341	mg/L	INAB	
Detergents as MBAS (Sub1)									
	Detergents/Surfactants as MBAS	*	Default	0.21		2.11	mg/L		
Oils Fats Grease (OFG)									
	Oils Fats Grease (OFG)		EW004	4.0		25.5	mg/L	INAB	
Suspended Solids									
	Suspended Solids		EW013	5		128	mg/L	INAB	
Titralab									
	pH		EW153			6.7	pH Units	INAB	

Domenico *J. Liberti*

Signed :

10/10/2017

Domenico Giliberti-Technical Manager

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DETAILED IN SCOPE REG NO. 1111

Contact Name	Toddy Cuthbert	Report Number	118562 - 1
Address	Cuthbert Environmental	Sample Number	118562/001
	Cork	Date of Receipt	19/10/2017
		Date Started	19/10/2017
Tel No	021 4975683	Received or Collected	Hand
Customer PO	Per Batch	Date of Report	06/11/2017
Quotation No	QN006324	Sample Type	Waste Water
Customer Ref	Ashgrove Foul		

CERTIFICATE OF ANALYSIS

TEST	ANALYTE	SUB	METHOD	LOQ	SPEC	RESULT	UNITS	ACCRED.	OOS
Ammonia									
	Ammonia as NH4		EW154M-1	0.045		4.339	mg/l NH4	INAB	
	Ammonia (as N)		EW154M-1	0.035		3.4	mg/l N	INAB	
AQ2-UP2									
	Sulphate		EW154M-1	5.0		100	mg/L	INAB	
BOD									
	BOD		EW001	1		37	mg/L	INAB	
COD									
	COD		EW094	8		192	mg/L	INAB	
Detergents as MBAS (Sub1)									
	Detergents/Surfactants as MBAS	*	Default	0.21		5.10	mg/L		
Oils Fats Grease (OFG)									
	Oils Fats Grease (OFG)		EW004	4.0		8.5	mg/L	INAB	
Suspended Solids									
	Suspended Solids		EW013	5		100	mg/L	INAB	
Titralab									
	pH		EW153			7.6	pH Units	INAB	

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06/11/2017

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Contact Name	Toddy Cuthbert	Report Number	120526 - 1
Address	Cuthbert Environmental	Sample Number	120526/001
	Cork	Date of Receipt	27/11/2017
		Date Started	27/11/2017
Tel No	021 4975683	Received or Collected	Hand
Customer PO	Per Batch	Date of Report	14/12/2017
Quotation No	QN006324	Sample Type	Waste Water
Customer Ref	Ashgrove Foul		

CERTIFICATE OF ANALYSIS

TEST	ANALYTE	SUB	METHOD	LOQ	SPEC	RESULT	UNITS	ACCRED.	OOS
Ammonia									
	Ammonia as NH4		EW154M-1	0.045		4.155	mg/l NH4		
	<i>Tested by unaccredited WW method EW175</i>								
	Ammonia (as N)		EW154M-1	0.035		3.2	mg/l N		
AQ2-UP2									
	Sulphate		EW154M-1	5.0		1600	mg/L		
BOD									
	BOD		EW001	1		50	mg/L	INAB	
COD-Chemical Oxygen Demand									
	COD		EW184	8		233	mg/L	INAB	
Detergents as MBAS (Sub1)									
	Detergents/Surfactants as MBAS	*	Default	0.21		2.56	mg/L		
Oils Fats Grease (OFG)									
	Oils Fats Grease (OFG)		EW004	4.0		28.5	mg/L	INAB	
Suspended Solids									
	Suspended Solids		EW013	5		70	mg/L	INAB	
Titralab									
	pH		EW153			8.0	pH Units	INAB	

Signed :

14/12/2017

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Contact Name	Toddy Cuthbert	Report Number	121411 - 1
Address	Cuthbert Environmental	Sample Number	121411/001
	Cork	Date of Receipt	12/12/2017
		Date Started	12/12/2017
Tel No	021 4975683	Received or Collected	Hand
Customer PO	Per Batch	Date of Report	02/01/2018
Quotation No	QN006324	Sample Type	Waste Water
Customer Ref	Ashgrove Foul		

CERTIFICATE OF ANALYSIS

TEST	ANALYTE	SUB	METHOD	LOQ	SPEC	RESULT	UNITS	ACCRED.	OOS
Ammonia									
	Ammonia as NH4		EW154M-1	0.045		5.293	mg/l NH4	INAB	
	Ammonia (as N)		EW154M-1	0.035		4.1	mg/l N	INAB	
AQ2-UP2									
	Sulphate		EW154M-1	5.0		940	mg/L		
	<i>Tested by unaccredited WW method EW175</i>								
BOD									
	BOD		EW001	1		45	mg/L	INAB	
COD-Chemical Oxygen Demand									
	COD		EW184	8		272	mg/L	INAB	
Detergents as MBAS (Sub1)									
	Detergents/Surfactants as MBAS	*	Default	0.21		6.80	mg/L		
Oils Fats Grease (OFG)									
	Oils Fats Grease (OFG)		EW004	4.0		9.2	mg/L	INAB	
Suspended Solids									
	Suspended Solids		EW013	5		148	mg/L	INAB	
Titralab									
	pH		EW153			8.0	pH Units	INAB	

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Signed :

02/01/2018

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SURFACE WATER



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DETAILED IN SCOPE REG NO. 1111

Contact Name	Toddy Cuthbert	Report Number	117062 - 1
Address	Cuthbert Environmental	Sample Number	117062/001
	Cork	Date of Receipt	20/09/2017
		Date Started	20/09/2017
Tel No	021 4975683	Received or Collected	Hand
Customer PO	Per Batch	Date of Report	06/10/2017
Quotation No	QN006324	Sample Type	Surface Waters
Customer Ref	Ashgrove SW		

CERTIFICATE OF ANALYSIS

TEST	ANALYTE	SUB	METHOD	LOQ	SPEC	RESULT	UNITS	ACCRED.	OOS
Ammonia									
	Ammonia (as N)		EW154M-1	0.007		0.539	mg/l N	INAB	
	Ammonium (as NH4)(Calc)		EW154M-1	0.009		0.694	mg/l NH4	INAB	
BOD									
	BOD		EW001	1.0		28	mg/L	INAB	
GCFID TPH Split									
	TPH >C20 - C40 (MO)		EO063	10		353	ug/L		
Suspended Solids									
	Suspended Solids		EW013	5		116	mg/L	INAB	
Titralab									
	pH		EW153	0.0		7.6	pH Units	INAB	

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Signed :

06/10/2017

Domenico Giliberti-Technical Manager

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Contact Name	Toddy Cuthbert	Report Number	118563 - 1
Address	Cuthbert Environmental	Sample Number	118563/001
	Cork	Date of Receipt	19/10/2017
		Date Started	19/10/2017
Tel No	021 4975683	Received or Collected	Hand
Customer PO	Per Batch	Date of Report	01/11/2017
Quotation No	QN006324	Sample Type	Surface Waters
Customer Ref	Ashgrove SW		

CERTIFICATE OF ANALYSIS

TEST	ANALYTE	SUB	METHOD	LOQ	SPEC	RESULT	UNITS	ACCRED.	OOS
Ammonia									
	Ammonia (as N)		EW154M-1	0.007		0.383	mg/l N	INAB	
	Ammonium (as NH4)(Calc)		EW154M-1	0.009		0.493	mg/l NH4	INAB	
BOD									
	BOD		EW001	1.0		86	mg/L	INAB	
GCFID TPH Split									
	TPH >C20 - C40 (MO)		EO063	10		761	ug/L		
Suspended Solids									
	Suspended Solids		EW013	5		696	mg/L	INAB	
Titralab									
	pH		EW153	0.0		7.9	pH Units	INAB	

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Signed :

01/11/2017

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FOUL WATER TOXICITY

Client: Ashgrove Recycling

Address:
Churchfield Industrial Estate,
John F Connolly Road,
Churchfield,
Cork

Customer Sample: Final Waste 01/12/17

Certificate Number: 1750005131217

Date Received: 05/12/17

Lab ID: 1750005

Certificate Date: 13/12/17

Order Number: N/A

Test Date: 09/12/17

Aquatic Toxicity Test Results:

Test Parameters	Concentration % Vol./Vol.	Toxic Units	95% Confidence Limits % Vol./Vol.	Method Of Calculation
48 HR EC ₅₀ to Daphnia magna	>100	<1	N/A	Daphnia EC ₅₀ Calculation Programme

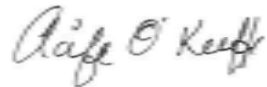
Test Methods:

Based on ISO 6341:2012: Determination of the inhibition of the mobility of Daphnia magna

Sample Information:

Sampled By:	Customer
Sampling Procedure	N/A
Lab ID	1750004
Date of Analysis	11/12/17
Storage Conditions	Frozen
Temperature	22.1
PH (at 25°C)	8.790
Dissolved Oxygen (mg/l)	7.66
Dissolved Oxygen (% Saturation)	86
Conductivity (µs/cm at 25°C)	2.82
Salinity (ppt at 20°C)	1.3

Reported By:



Aoife O'Keeffe

(Laboratory Analyst)

APPENDIX V: PRTR



Environmental Protection Agency

| PRTR# : W0147 | Facility Name : Ashgrove Recycling | Filename : W0147_2017.xls | Return Year : 2017 |

[Guidance to completing the PRTR workbook](#)

PRTR Returns Workbook

Version 1.1.19

REFERENCE YEAR	2017
-----------------------	------

1. FACILITY IDENTIFICATION

Parent Company Name	Ashgrove Plant Ltd., t/a Ashgrove Recycling
Facility Name	Ashgrove Recycling
PRTR Identification Number	W0147
Licence Number	W0147-01

Classes of Activity

No.	class_name
-	Refer to PRTR class activities below

Address 1	Churchfield Industrial Estate
Address 2	Churchfield
Address 3	Cork
Address 4	
	Cork
Country	Ireland
Coordinates of Location	-8.49543 51.9133
River Basin District	IESW
NACE Code	3832
Main Economic Activity	Recovery of sorted materials
AER Returns Contact Name	Steven Tooher
AER Returns Contact Email Address	steventooher@ashgroverecycling.ie
AER Returns Contact Position	Consultant

AER Returns Contact Telephone Number	0214304420
AER Returns Contact Mobile Phone Number	0876113595
AER Returns Contact Fax Number	-
Production Volume	0.0
Production Volume Units	
Number of Installations	1
Number of Operating Hours in Year	3284
Number of Employees	20
User Feedback/Comments	Releases to Wastewater or Sewer - these figures are estimates based on average parameter concentrations (from monthly grab samples) and average daily flow rates. Any differences from last year are likely due to the inconsistencies associated with grab sampling.
Web Address	

2. PRTR CLASS ACTIVITIES

Activity Number	Activity Name
50.1	General
5(c)	Installations for the disposal of non-hazardous waste
50.1	General

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. WASTE IMPORTED/ACCEPTED ONTO SITE

[Guidance on waste imported/accepted onto site](#)

Do you import/accept waste onto your site for on-site treatment (either recovery or disposal activities) ?	Yes
--	-----

This question is only applicable if you are an IPPC or Quarry site

5. ONSITE TREATMENT & OFFSITE TRANSFERS OF WASTE

| PRTR# : W0147 | Facility Name : Ashgrove Recycling | Filename : W0147_2017.xls | Return Year : 2017 |

08/04/2018 12:43

Please enter all quantities on this sheet in Tonnes

51

Transfer Destination	European Waste Code	Hazardous	Quantity (Tonnes per Year)	Description of Waste	Waste Treatment Operation	Method Used		Location of Treatment	Haz Waste : Name and Licence/Permit No of Next Destination Facility	Non	Haz Waste : Address of Next Destination Facility	Name and License / Permit No. and Address of Final Recoverer / Disposer (HAZARDOUS WASTE ONLY)	Actual Address of Final Destination I.e. Final Recovery / Disposal Site (HAZARDOUS WASTE ONLY)
						M/C/E	Method Used		Haz Waste : Name and Licence/Permit No of Recover/Disposer	Non Haz Waste: Address of Recover/Disposer			
Within the Country	19 12 04	No	9.0	plastic and rubber	R5	M	Weighed	Offsite in Ireland	Irish Polymer Extrusions Ltd.,WFP-LS-13-0001-01		Unit 20,Day Road Business Park,Mountmellick,Laois,Ireland	Rilta Environmental Ltd.,W0192-03,Block 402 Grant's Drive,Greenogue Business Park,Rathcoole,Co. Dublin,Ireland	Block 402 Grant's Drive,Greenogue Business Park,Rathcoole,Co. Dublin,Ireland
Within the Country	17 04 02	No	17.48	aluminium	R4	M	Weighed	Offsite in Ireland	Cork Metal Co. Ltd.,WFP-CK-10-0067-02		Dublin Hill.,Cork,,Ireland		
Within the Country	16 06 05	No	1.24	other batteries and accumulators other wastes (including mixtures of materials) from mechanical treatment of wastes other than those mentioned in 19 12	R4	M	Weighed	Offsite in Ireland	Cork Metal Co. Ltd.,WFP-CK-10-0067-02		Dublin Hill.,Cork,,Ireland		
Within the Country	19 12 12	No	24.52	11 other wastes (including mixtures of materials) from mechanical treatment of wastes other than those mentioned in 19 12	R10	M	Weighed	Offsite in Ireland	Dublin Waste to Energy,W0232		Pigeon House Road,,Dublin 4,Ireland		
Within the Country	19 12 12	No	504.22	11 cables other than those mentioned in 17 04	R10	M	Weighed	Offsite in Ireland	Drehid Waste Management Facility,W0201-03		Killina Upper,Co. Kildare,,Ireland		
Within the Country	17 04 11	No	42.24	10	R4	M	Weighed	Offsite in Ireland	Cork Metal Co. Ltd.,WFP-CK-10-0067-02		Dublin Hill.,Cork,,Ireland		
Within the Country	20 01 08	No	43.08	biodegradable kitchen and canteen waste	R3	M	Weighed	Offsite in Ireland	Acorn Recycling,W0249-01		Tipperary,,Ireland		
Within the Country	15 01 01	No	375.86	paper and cardboard packaging	R12	M	Weighed	Offsite in Ireland	Cork Recycling Company Ltd.,WFP-CK-09-0022-02		Lehenaghmore,Togher,Cork ,,Ireland		
Within the Country	17 04 01	No	1.72	copper, bronze, brass	R4	M	Weighed	Offsite in Ireland	Cork Metal Co. Ltd.,WFP-CK-10-0067-02		Dublin Hill.,Cork,,Ireland		
Within the Country	20 03 01	No	231.72	mixed municipal waste	R12	M	Weighed	Offsite in Ireland	Mallow Contracts Ltd.,W0266-01		Ballyhillogue,Mourne Abbey,Mallow Co. Cork,,Ireland		
Within the Country	15 01 07	No	149.68	glass packaging	R5	M	Weighed	Offsite in Ireland	Glassco Rehab,WFP-KE-08-0357-01		Naas,Co. Kildare,,Ireland		
Within the Country	20 02 01	No	26.04	biodegradable waste	R12	M	Weighed	Offsite in Ireland	Donal Murphy,WFP-CK-10-0054-01		Caher,Connagh,Ballineen,Cork,Ireland		
Within the Country	20 02 01	No	248.72	biodegradable waste	R3	M	Weighed	Offsite in Ireland	CTO Environmental Solutions Ltd.,WFP-CK-09-0018-03		Rostellan,Midleton,Co. Cork,,Ireland		
Within the Country	17 08 02	No	175.98	gypsum-based construction materials other than those mentioned in 17 08 01	R5	M	Weighed	Offsite in Ireland	Allied Waste Facility,WFP-KE-08-0347-01		Naas Ind. Est.,Naas ,Co. Kildare,,Ireland		
Within the Country	20 03 07	No	42.04	bulky waste	R12	M	Weighed	Offsite in Ireland	Glanway Ltd.,WFP-KK-14-0001-01		Port,Gorteens,Slieverue Co. Kilkenny,,Ireland		
Within the Country	17 04 07	No	1073.06	mixed metals	R4	M	Weighed	Offsite in Ireland	Cork Metal Co. Ltd.,WFP-CK-10-0067-02		Dublin Hill.,Cork,,Ireland		
Within the Country	20 03 01	No	1267.75	mixed municipal waste	R1	M	Weighed	Offsite in Ireland	Dublin Waste to Energy,W0232		Pigeon House Road,,Dublin 4,Ireland		
Within the Country	20 03 01	No	3046.52	mixed municipal waste	D5	M	Weighed	Offsite in Ireland	Drehid Waste Management Facility,W0201-03		Killina Upper,Co. Kildare,,Ireland		
Within the Country	20 03 01	No	1601.56	mixed municipal waste	R12	M	Weighed	Offsite in Ireland	Glanway Ltd.,WFP-KK-14-0001-01		Port,Gorteens,Slieverue Co. Kilkenny,,Ireland		
Within the Country	20 03 01	No	286.24	mixed municipal waste	R12	M	Weighed	Offsite in Ireland	Thortons recycling,W0044-02		Road,Ballyfermot,Dublin 10,Dublin 10,Ireland		

Within the Country	20 01 39	No	6.72 plastics	R3	M	Weighed	Offsite in Ireland	Irish Polymer Extrusions Ltd,WFP-LS-13-0001-01	Unit 20,Day Road Business Park,Mountmellick,Laois,Ireland and Unit 20,Day Road Business Park,Mountmellick,Laois,Ireland
Within the Country	17 02 03	No	17.44 plastic	R3	M	Weighed	Offsite in Ireland	Irish Polymer Extrusions Ltd,WFP-LS-13-0001-01	Lehenaghmore,Togher,Cork
Within the Country	15 01 02	No	15.02 plastic packaging	R12	M	Weighed	Offsite in Ireland	Cork Recycling Company Ltd,WFP-CK-09-0022-02	...Ireland
Within the Country	17 02 02	No	107.2 glass	R5	M	Weighed	Offsite in Ireland	Gannon Concrete Ltd,WFP-WM-2009-0007-01	Kilbeggan,Co. Westmeath,...,Ireland
Within the Country	17 01 01	No	288.72 concrete mixture of concrete, bricks, tiles and ceramics other than those mentioned in 17	R5	M	Weighed	Offsite in Ireland	Brian McSweeney,WFP-CK-13-0132-01	Coolowen,Blarney,Co. Cork,...,Ireland
Within the Country	17 01 07	No	68.48 01 06 mixture of concrete, bricks, tiles and ceramics other than those mentioned in 17	R5	M	Weighed	Offsite in Ireland	George Lynch,COR-CK-16-0096-01	..Coachford,Co. Cork,...Ireland
Within the Country	17 01 07	No	211.54 01 06 mixture of concrete, bricks, tiles and ceramics other than those mentioned in 17	R5	M	Weighed	Offsite in Ireland	Mallow Contracts Ltd.,W0266-01	Ballyhillogue,Mourme Abbey,Mallow Co. Cork,...,Ireland
Within the Country	17 01 07	No	517.78 01 06 mixture of concrete, bricks, tiles and ceramics other than those mentioned in 17	R5	M	Weighed	Offsite in Ireland	Donal Murphy,WFP-CK-10-0054-01	Caher,Connagh,Ballineen,Cork,Ireland
Within the Country	17 01 07	No	162.02 01 06 mixture of concrete, bricks, tiles and ceramics other than those mentioned in 17	R5	M	Weighed	Offsite in Ireland	Mallow Contracts Ltd.,WFP-CK-15-0157-01	Newcastle,Blarney,Co. Cork,...,Ireland
Within the Country	17 01 07	No	554.78 01 06 mixture of concrete, bricks, tiles and ceramics other than those mentioned in 17	R5	M	Weighed	Offsite in Ireland	Fitzpatrick Plant Sales Ltd.,WFP-CK-11-0104-01	Barryscoort,Carrigtohill,Co. Cork,...,Ireland
Within the Country	17 01 07	No	1460.48 01 06 mixture of concrete, bricks, tiles and ceramics other than those mentioned in 17	R5	M	Weighed	Offsite in Ireland	Mallow Contracts Ltd.,WFP-CK-12-0116-01	Kilmartin Lower,Donoughmore,Co. Cork,...,Ireland
Within the Country	19 12 07	No	10.26 wood other than that mentioned in 19 12 06	R12	M	Weighed	Offsite in Ireland	Midleton Skip Hire Ltd.,WFP-CK-15-0150-01	Knockgriffin,Midleton Co. Cork,...,Ireland
Within the Country	17 05 04	No	646.34 in 17 05 03 soil and stones other than those mentioned	R10	M	Weighed	Offsite in Ireland	Ballynagran Landfill Ltd.,W0165-02	Ballynagran,Coolbeg and Kilcandra,Co Wicklow,...,Ireland
Within the Country	17 05 04	No	120.2 in 17 05 03 soil and stones other than those mentioned	R10	M	Weighed	Offsite in Ireland	Conhor Construction,WFP-CK-14-0137-01	Lanes Yard,Aherla,Co. Cork,...,Ireland
Within the Country	17 05 04	No	19.26 in 17 05 03 soil and stones other than those mentioned	R10	M	Weighed	Offsite in Ireland	Fitzpatrick Plant Sales Ltd.,WFP-CK-11-0104-01	Barryscoort,Carrigtohill,Co. Cork,...,Ireland
Within the Country	17 05 04	No	716.18 in 17 05 03 soil and stones other than those mentioned	R10	M	Weighed	Offsite in Ireland	Sean Harnedy,WFP-CK-15-0146-01	Gortnagark,Killeagh,Co. Cork,...,Ireland
Within the Country	17 05 04	No	417.22 in 17 05 03 soil and stones other than those mentioned	R10	M	Weighed	Offsite in Ireland	David Crowley,WFP-CK-17-0172-01	Baurleigh,Bandon,Co. Cork,...,Ireland
Within the Country	17 05 04	No	16.3 in 17 05 03 soil and stones other than those mentioned	R10	M	Weighed	Offsite in Ireland	Kereen Quarries Ltd.,COR-WD-14-0001-01	Lower,Cappoquin,Co. Waterford,...,Ireland
Within the Country	17 05 04	No	1599.26 in 17 05 03 soil and stones other than those mentioned	R10	M	Weighed	Offsite in Ireland	Finbarr O'Neill,WFP-CK-11-0106-01	Poulavone,Ballincollig,Co. Cork,...,Ireland
Within the Country	17 05 04	No	5568.64 in 17 05 03 soil and stones other than those mentioned	R10	M	Weighed	Offsite in Ireland	George Lynch,COR-CK-16-0096-01	..Coachford,Co. Cork,...,Ireland
Within the Country	20 01 11	No	2.3 textiles other wastes (including mixtures of materials) from mechanical treatment of wastes other than those mentioned in 19 12	R3	M	Weighed	Offsite in Ireland	Textile Recycling Ltd,WNCP0-08-01225-02	Ashfield,Naas Road,Clondalkin,Dublin 22,Ireland
Within the Country	19 12 12	No	98.62 11	R1	M	Weighed	Offsite in Ireland	Dublin Waste to Energy,W0232	Pigeon House Road,...,Dublin 4,Ireland Carrigdownane
Within the Country	16 01 03	No	16.54 end-of-life tyres	R3	M	Weighed	Offsite in Ireland	Crossmore Transport Ltd,WFP-CK-11-0099-02	Upper,Rockmills,Kildorrery Co. Cork,...,Ireland
Within the Country	17 02 01	No	317.74 wood	R12	M	Weighed	Offsite in Ireland	Donal Murphy,WFP-CK-10-0054-01	Caher,Connagh,Ballineen,Cork,Ireland
Within the Country	17 02 01	No	1122.5 wood	R12	M	Weighed	Offsite in Ireland	Cork Recycling Company Ltd,WFP-CK-09-0022-02	Lehenaghmore,Togher,Cork
Within the Country	17 02 01	No	732.3 wood	R12	M	Weighed	Offsite in Ireland	Midleton Skip Hire Ltd.,WFP-CK-15-0150-01	...Ireland Knockgriffin,Midleton Co. Cork,...,Ireland

Within the Country	17 02 01	No	350.76 wood	R12	M	Weighed	Offsite in Ireland	Clonmel Waste Disposal Ltd.,WFP-T-11-0001-03	Lawlesstown,Clonmel,Co. Tipperary,,Ireland
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* Select a row by double-clicking the Description of Waste then click the delete button

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[Link to previous years waste data](#)

[Link to previous years waste summary data & percentage change](#)

[Link to Waste Guidance](#)