

Facility Information Summary

AER Reporting Year	2016
Licence Register Number	W0021-02
Name of site	Derrinnumera Landfill Site
Site Location	Newport, Co. Mayo
NACE Code	A3
Class/Classes of Activity	Class 5 & Class 2,3 &4.
National Grid Reference (6E, 6 N)	293525E,104250N

A description of the activities/processes at the site for the reporting year. This should include information such as production increases or decreases on site, any infrastructural changes, environmental performance which was measured during the reporting year **and an overview of compliance with your licence listing all exceedances of licence limits (where applicable) and what they relate to e.g. air, water, noise.**

Landfill closed since 2012, operating as a Civic Amenity site. No exceedances of licence limits. No non-compliances in 2016.

Declaration:

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.

<i>Hillian Farrell</i>	31/03/2017
Signature	Date
Group/Facility deputy manager	
(or nominated, suitably qualified and experienced deputy)	

AIR-summary template	Lic No: W0021-02	Year: 2016
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Answer all questions and complete all tables where relevant

1 Does your site have licensed air emissions? If yes please complete table A1 and A2 below for the current reporting year and answer further questions. If **you do not have** licenced emissions and **do not complete a solvent management plan** (table A4 and A5) you do not need to complete the tables

No	Additional information
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Periodic/Non-Continuous Monitoring

2 Are there any results in breach of licence requirements? If yes please provide brief details in the comment section of TableA1 below

No	
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3 Was all monitoring carried out in accordance with EPA guidance note AG2 and using the basic air monitoring checklist? [Basic air monitoring checklist](#) AGN2

SELECT	
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Table A1: Licensed Mass Emissions/Ambient data-periodic monitoring (non-continuous)

Emission reference no:	Parameter/ Substance	Frequency of Monitoring	ELV in licence or any revision thereof	Licence Compliance criteria	Measured value	Unit of measurement	Compliant with licence limit	Method of analysis	Annual mass load (kg)	Comments - reason for change in % mass load from previous year if applicable
	SELECT			SELECT		SELECT	SELECT	SELECT		
	SELECT			SELECT		SELECT	SELECT	SELECT		
	SELECT			SELECT		SELECT	SELECT	SELECT		
	SELECT			SELECT		SELECT	SELECT	SELECT		

Note 1: Volumetric flow shall be included as a reportable parameter

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Continuous Monitoring		

4 Does your site carry out continuous air emissions monitoring?

If yes please review your continuous monitoring data and report the required fields below in Table A2 and compare it to its relevant Emission Limit Value (ELV)

5 Did continuous monitoring equipment experience downtime? If yes please record downtime in table A2 below

6 Do you have a proactive service agreement for each piece of continuous monitoring equipment?

7 Did your site experience any abatement system bypasses? If yes please detail them in table A3 below

Table A2: Summary of average emissions -continuous monitoring

Emission reference no:	Parameter/ Substance	ELV in licence or any revision thereof	Averaging Period	Compliance Criteria	Units of measurement	Annual Emission	Annual maximum	Monitoring Equipment downtime (hours)	Number of ELV exceedences in current reporting year	Comments
<input type="text" value="SELECT"/>	<input type="text" value="SELECT"/>	<input type="text" value="SELECT"/>	<input type="text" value="SELECT"/>	<input type="text" value="SELECT"/>	<input type="text" value="SELECT"/>	<input type="text" value="SELECT"/>	<input type="text" value="SELECT"/>	<input type="text" value="SELECT"/>	<input type="text" value="SELECT"/>	<input type="text" value="SELECT"/>
<input type="text" value="SELECT"/>	<input type="text" value="SELECT"/>	<input type="text" value="SELECT"/>	<input type="text" value="SELECT"/>	<input type="text" value="SELECT"/>	<input type="text" value="SELECT"/>	<input type="text" value="SELECT"/>	<input type="text" value="SELECT"/>	<input type="text" value="SELECT"/>	<input type="text" value="SELECT"/>	<input type="text" value="SELECT"/>
<input type="text" value="SELECT"/>	<input type="text" value="SELECT"/>	<input type="text" value="SELECT"/>	<input type="text" value="SELECT"/>	<input type="text" value="SELECT"/>	<input type="text" value="SELECT"/>	<input type="text" value="SELECT"/>	<input type="text" value="SELECT"/>	<input type="text" value="SELECT"/>	<input type="text" value="SELECT"/>	<input type="text" value="SELECT"/>
<input type="text" value="SELECT"/>	<input type="text" value="SELECT"/>	<input type="text" value="SELECT"/>	<input type="text" value="SELECT"/>	<input type="text" value="SELECT"/>	<input type="text" value="SELECT"/>	<input type="text" value="SELECT"/>	<input type="text" value="SELECT"/>	<input type="text" value="SELECT"/>	<input type="text" value="SELECT"/>	<input type="text" value="SELECT"/>

note 1: Volumetric flow shall be included as a reportable parameter.

Table A3: Abatement system bypass reporting table [Bypass protocol](#)

Date*	Duration** (hours)	Location	Reason for bypass	Impact magnitude	Corrective action

* this should include all dates that an abatement system bypass occurred

** an accurate record of time bypass beginning and end should be logged on site and maintained for future Agency inspections please refer to bypass protocol link

Solvent use and management on site

8 Do you have a total Emission Limit Value of direct and fugitive emissions on site? if yes please fill out tables A4 and A5

SELECT

Table A4: Solvent Management Plan Summary		Solvent regulations Please refer to linked solvent regulations to complete table 5 and 6
Total VOC Emission limit value		

Reporting year	Total solvent input on site (kg)	Total VOC emissions to Air from entire site (direct and fugitive)	Total VOC emissions as %of solvent input	Total Emission Limit Value (ELV) in licence or any revision thereof	Compliance
					SELECT
					SELECT

Table A5: Solvent Mass Balance summary								
(I) Inputs (kg)		(O) Outputs (kg)						
Solvent	(I) Inputs (kg)	Organic solvent emission in waste	Solvents lost in water (kg)	Collected waste solvent (kg)	Fugitive Organic Solvent (kg)	Solvent released in other ways e.g.	Solvents destroyed onsite through	Total emission of Solvent to air (kg)
Total								

AER Monitoring returns summary template-WATER/WASTEWATER(SEWER)

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Additional information

1 Does your site have licensed emissions direct to surface water or direct to sewer? If yes please complete table W2 and W3 below for the current reporting year and answer further questions. If **you do not have** licensed emissions you only need to complete table W1 and or W2 for storm water analysis and visual inspections

No	
Yes	

2 Was it a requirement of your licence to carry out visual inspections on any surface water discharges or watercourses on or near your site? If yes please complete table W2 below summarising only any evidence of contamination noted during visual inspections

Table W1 Storm water monitoring

Location reference	Location relative to site activities	PRTR Parameter	Licensed Parameter	Monitoring date	ELV or trigger level in licence or any revision thereof*	Licence Compliance criteria	Measured value	Unit of measurement	Compliant with licence	Comments
SW1	upstream	SELECT	BOD mg/l	average of all results		N/A	1	mg/L	SELECT	
SW1	upstream		Suspended Solids mg/l	average of all results		N/A	8.25	mg/L		
SW1	upstream		pH Units	average of all results		N/A	4.59	ph		Located in blanket peat, always shows low Ph.
SW1	upstream		Conductivity @20C uS/cm	average of all results		N/A	110.125	µS/cm @20oC		
SW1	upstream		Ammonia as NH3-N mg/l	average of all results		N/A	0.07	mg/L		
SW1	upstream		Total Phosphorus as P mg/l	average of all results		N/A	0.142	mg/L		
SW1	upstream		Dissolved Oxygen (%)	average of all results		N/A	74.43	%		
SW1	upstream		Orthophosphate as PO4-P mg/l	average of all results		N/A	0.018	mg/L		
SW1	upstream		Dissolved Oxygen (mg/l)	average of all results		N/A	7.21	mg/L		
SW2	downstream		BOD mg/l	average of all results		N/A	1	mg/L		
SW2	downstream		Suspended Solids mg/l	average of all results		N/A	3.67	mg/L		
SW2	downstream		pH Units	average of all results		N/A	6.83	ph		
SW2	downstream		Conductivity @20C uS/cm	average of all results		N/A	241.08	µS/cm @20oC		
SW2	downstream		Ammonia as NH3-N mg/l	average of all results		N/A	0.80	mg/L		
SW2	downstream		Total Phosphorus as P mg/l	average of all results		N/A	0.05	mg/L		
SW2	downstream		Dissolved Oxygen (%)	average of all results		N/A	72.58	%		
SW2	downstream		Orthophosphate as PO4-P mg/l	average of all results		N/A	0.02	mg/L		
SW2	downstream		Dissolved Oxygen (mg/l)	average of all results		N/A	7.09	mg/L		
	SELECT	SELECT	SELECT			SELECT		SELECT	SELECT	

*trigger values may be agreed by the Agency outside of licence conditions

Table W2 Visual inspections-Please only enter details where contamination was observed.

Location Reference	Date of inspection	Description of contamination	Source of contamination	Corrective action	Comments
			SELECT		
			SELECT		

Licensed Emissions to water and /or wastewater(sewer)-periodic monitoring (non-continuous)

3 Was there any result in breach of licence requirements? If yes please provide brief details in the comment section of Table W3 below

No

Additional information

AER Monitoring returns summary template-WATER/WASTEWATER(SEWER) Lic No: W0021-02 Year: 2016

Was all monitoring carried out in accordance with EPA guidance and checklists for Quality of Aqueous Monitoring Data Reported to the EPA? If no please detail what areas require improvement in additional information box [External /Internal Lab Quality checklist](#) [Assessment of results checklist](#) Yes

Table W3: Licensed Emissions to water and /or wastewater (sewer)-periodic monitoring (non-continuous)

Emission reference no:	Emission released to	Parameter/ SubstanceNote 1	Type of sample	Frequency of monitoring	Averaging period	ELV or trigger values in licence or any revision thereof ^{Note 2}	Licence Compliance criteria	Measured value	Unit of measurement	Compliant with licence	Method of analysis	Procedural reference source	Procedural reference standard number	Annual mass load (kg)	Comments
	SELECT	SELECT	SELECT		SELECT		SELECT		SELECT	SELECT	SELECT	SELECT			

Note 1: Volumetric flow shall be included as a reportable parameter

Note 2: Where Emission Limit Values (ELV) do not apply to your licence please compare results against EQS for Surface water or relevant receptor quality standards

Continuous monitoring
 5 Does your site carry out continuous emissions to water/sewer monitoring? Additional Information

If yes please summarise your continuous monitoring data below in Table W4 and compare it to its relevant Emission Limit Value (ELV)

6 Did continuous monitoring equipment experience downtime? If yes please record downtime in table W4 below

7 Do you have a proactive service contract for each piece of continuous monitoring equipment on site?

8 Did abatement system bypass occur during the reporting year? If yes please complete table W5 below

Table W4: Summary of average emissions -continuous monitoring

Emission reference no:	Emission released to	Parameter/ Substance	ELV or trigger values in licence or any revision thereof	Averaging Period	Compliance Criteria	Units of measurement	Annual Emission for current reporting year (kg)	% change +/- from previous reporting year	Monitoring Equipment downtime (hours)	Number of ELV exceedences in reporting year	Comments
	SELECT	SELECT		SELECT	SELECT	SELECT					
	SELECT	SELECT		SELECT	SELECT	SELECT					

note 1: Volumetric flow shall be included as a reportable parameter.

Table W5: Abatement system bypass reporting table

Date	Duration (hours)	Location	Resultant emissions	Reason for bypass	Corrective action*	Was a report submitted to the EPA?	When was this report submitted?
						SELECT	

*Measures taken or proposed to reduce or limit bypass frequency

Bund testing

dropdown menu click to see options

Additional information

Are you required by your licence to undertake integrity testing on bunds and containment structures? If yes please fill out table B1 below listing all **new bunds and containment structures** on site, in addition to all bunds which failed the integrity test - **all bunding structures which failed including mobile bunds must be listed in the table below, please include all bunds outside the licenced testing period** (mobile bunds and chemstore included)

- 1 Please provide integrity testing frequency period
- 2 Does the site maintain a register of bunds, underground pipelines (including stormwater and foul), Tanks, sumps and containers? (containers refers to "Chemstore" type units and mobile bunds)
- 3 How many bunds are on site?
- 4 How many of these bunds have been tested within the required test schedule?
- 5 How many mobile bunds are on site?
- 6 Are the mobile bunds included in the bund test schedule?
- 7 How many of these mobile bunds have been tested within the required test schedule?
- 8 How many sumps on site are included in the integrity test schedule?
- 9 How many of these sumps are integrity tested within the test schedule?

Yes	
3 years	
No	
6	
4	
2	
No	Will be tested in 2017.
1	
0	
0	
Yes	
No	
N/A	

- Please list any sump integrity failures in table B1**
- 11 Do all sumps and chambers have high level liquid alarms?
 - 12 If yes to Q11 are these failsafe systems included in a maintenance and testing programme?
 - 13 Is the Fire Water Retention Pond included in your integrity test programme?

Table B1: Summary details of bund /containment structure integrity test

Bund/Containment structure ID	Type	Specify Other type	Product containment	Actual capacity	Capacity required*	Type of integrity test	Other test type	Test date	Integrity reports maintained on site?	Results of test	Integrity test failure explanation <50 words	Corrective action taken	Scheduled date for retest	Results of retest(if in current reporting year)
Tank 1	reinforced concrete		leachate	450m3		Hydraulic test		Aug-13	Yes	Pass			Due 2017	
Tank 2	reinforced concrete		leachate	450m3		Hydraulic test		Aug-13	Yes	Pass			Due 2017	
Tank 3	reinforced concrete		leachate	450m3		Hydraulic test		Aug-13	Yes	Pass			Due 2017	
Chemstore	prefabricated	metal	household haz material											
Recirculation tank cell 1	prefabricated	plastic	leachate	2.5m3		Other (please specify)	manufacturers		Yes				Due 2017	
Recirculation tank cell 2	prefabricated	plastic	leachate	2.5m3		SELECT	manufacturers		No	SELECT		SELECT	Due 2017	
	SELECT					SELECT			SELECT	SELECT		SELECT		

- * Capacity required should comply with 25% or 110% containment rule as detailed in your licence
- Has integrity testing been carried out in accordance with licence requirements and are all structures tested in line with BS8007/EPA Guidance?
- 15 Are channels/transfer systems to remote containment systems tested?
- 16 Are channels/transfer systems compliant in both integrity and available volume?

Yes	
No	
N/A	

Commentary

Pipeline/underground structure testing

Are you required by your licence to undertake integrity testing* on underground structures e.g. pipelines or sumps etc? If yes please fill out table 2 below listing all underground structures and pipelines on site **which failed the integrity test and all which have not been tested within the integrity test period as specified**

- 1 Please provide integrity testing frequency period
- 2 *please note integrity testing means water tightness testing for process and foul pipelines (as required under your licence)

No	
SELECT	

Table B2: Summary details of pipeline/underground structures integrity test

Structure ID	Type system	Material of construction:	Does this structure have Secondary containment?	Type of secondary containment	Type integrity testing	Integrity reports maintained on site?	Results of test	Integrity test failure explanation <50 words	Corrective action taken	Scheduled date for retest	Results of retest(if in current reporting year)
	SELECT	SELECT	SELECT	SELECT	SELECT	SELECT	SELECT				SELECT

Please use commentary for additional details not answered by tables/ questions above

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			Comments	
1	Are you required to carry out groundwater monitoring as part of your licence requirements?	yes	Please provide an interpretation of groundwater monitoring data in the interpretation box below or if you require additional space please include a groundwater/contaminated land monitoring results interpretaion as an additional section in this AER There is a plume of contaminated GW in the downgradient area of the site. This has been investigated on a number of occasions, including by geophysical survey, and relates to waste landfilled prior to licencing. There has been a cut-off wall installed which effects the shallow wells. The plume is reducing both in size and concentration over time and will continue to be monitored as part of the aftercare associated with the site. The groundwater assessment was submitted in 2016.	
2	Are you required to carry out soil monitoring as part of your licence requirements?	no		
3	Do you extract groundwater for use on site? If yes please specify use in comment section	no		
4	Do monitoring results show that groundwater generic assessment criteria such as GTVs or IGVs are exceeded or is there an upward trend in results for a substance? If yes, please complete the Groundwater Monitoring Guideline Template Groundwater monitoring template Report (link in cell G8) and submit separately through ALDER as a licensee return AND answer questions 5-12 below.	SELECT		GW report completed.
5	Is the contamination related to operations at the facility (either current and/or historic)	yes		
6	Have actions been taken to address contamination issues?If yes please summarise remediation strategies proposed/undertaken for the site	yes		Cut-off wall installed and wellpoint GW
7	Please specify the proposed time frame for the remediation strategy	N/A		works complete, operations on-going
8	Is there a licence condition to carry out/update ELRA for the site?	yes		Contained in GW report
9	Has any type of risk assesment been carried out for the site?	yes		Contained in GW report
10	Has a Conceptual Site Model been developed for the site?	yes		Contained in GW report
11	Have potential receptors been identified on and off site?	yes		Contained in GW report
12	Is there evidence that contamination is migrating offsite?	yes		Contained in GW report

Table 1: Upgradient Groundwater monitoring results

Date of sampling	Sample location reference	Parameter/ Substance	Methodology	Monitoring frequency	Maximum Concentration++	Average Concentration+	unit	GTV's*	SELECT**	Upward trend in pollutant concentration over last 5 years of monitoring data
2016	MW1A	pH	accredited lab	quarterly	7.2	6.95	ph			No
2016	MW1A	Conductivity @20C uS/cm	accredited lab	quarterly	820	680.5	us/cm			No
2016	MW1A	Ammonia as NH3-No mg/l	accredited lab	quarterly	0.647	0.218	mg/l			No
2016	MW1A	Total Phosphorus as P mg/l	accredited lab	quarterly	0.06	0.0525	mg/l			No
2016	MW1A	Sodium, total mg/l	accredited lab	quarterly	23	19.55	mg/l			No
2016	MW1A	Chloride mg/l	accredited lab	quarterly	39.5	29.525	mg/l			No

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2016	MW1A	Dissolved Oxygen (%)	accredited lab	quarterly	68.3	26.855	%		No
2016	MW1A	Potassium, total mg/l	accredited lab	quarterly	2	1.9825	mg/l		No
2016	MW1A	Orthophosphate as PO4-P mg/l	accredited lab	quarterly	0.01	0.01	mg/l		No
2016	MW1A	Dissolved Oxygen (mg/l)	accredited lab	quarterly	60.2	25.4475	mg/l		No
2016	MW1A	TON as No mg/l	accredited lab	quarterly	0.1	0.07725	mg/l		No
2016	MW1A	TOC mg/l	accredited lab	quarterly	3.44	2.4475	mg/l		No
2016	MW1A	Copper, total ug/l	accredited lab	Annual	1	1	ug/l		No
2016	MW1A	Residue on Evaporation mg/l	accredited lab	Annual	482	482	mg/l		No
2016	MW1A	Magnesium, total mg/l	accredited lab	Annual	18	18	mg/l		No
2016	MW1A	Sulphate mg/l	accredited lab	Annual	21.4	21.4	mg/l		No
2016	MW1A	Fluoride mg/l	accredited lab	Annual	0.1	0.1	mg/l		No
2016	MW1A	Iron, total ug/l	accredited lab	Annual	671	671	ug/l		No
2016	MW1A	Manganese, total ug/l	accredited lab	Annual	391	391	ug/l		No
2016	MW1A	Zinc, total ug/l	accredited lab	Annual	5	5	ug/l		No
2016	MW1A	Chromium, total ug/l	accredited lab	Annual	0.5	0.5	ug/l		No
2016	MW1A	Calcium, total mg/l	accredited lab	Annual	105	105	mg/l		No
2016	MW1A	Boron ug/l	accredited lab	Annual	14	14	ug/l		No
2016	MW1A	Nickel, total ug/l	accredited lab	Annual	0.6	0.6	ug/l		No
2016	MW1A	Lead, total ug/l	accredited lab	Annual	0.5	0.5	ug/l		No
2016	MW1A	Cadmium, total ug/l	accredited lab	Annual	0.5	0.5	ug/l		No
2016	MW1A	Cyanide (Total) mg/l	accredited lab	Annual	0.009	0.009	mg/l		No
2016	MW1A	Total Coliforms (Filtration) cfu/100ml	accredited lab	Annual	1	1	cfu/100ml		No
2016	MW1A	Faecal Coliforms Filtration cfu/100ml	accredited lab	Annual	1	1	cfu/100ml		No
2016	MW1A	Mercury, total (in water) ug/l	accredited lab	Annual	0.1	0.1	ug/l		No
2016	MW1A	Alkalinity Total mg/l CacO3	accredited lab	Annual	362	362	mg/l		No
							SELECT		SELECT

.+ where average indicates arithmetic mean

Groundwater/Soil monitoring template

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.++ maximum concentration indicates the maximum measured concentration from all monitoring results produced during the reporting year

Table 2: Downgradient Groundwater monitoring results

Date of sampling	Sample location reference	Parameter/ Substance	Methodology	Monitoring frequency	Maximum Concentration	Average Concentration	unit	GTV's*	SELECT**	Upward trend in yearly average pollutant concentration over last 5 years of monitoring data
2016	MW24	pH	accredited lab	quarterly	6.6	6.55	ph			No
2016	MW24	Conductivity @20C uS/cm	accredited lab	quarterly	3400	3110	us/cm			No
2016	MW24	Ammonia as NH3-No mg/l	accredited lab	quarterly	197	128.6666667	mg/l			No
2016	MW24	Total Phosphorus as P mg/l	accredited lab	quarterly	0.4	0.3575	mg/l			No
2016	MW24	Sodium, total mg/l	accredited lab	quarterly	302	240.25	mg/l			No
2016	MW24	Chloride mg/l	accredited lab	quarterly	461	389	mg/l			No
2016	MW24	Dissolved Oxygen (%)	accredited lab	quarterly	30.1	14.8125	%			No
2016	MW24	Potassium, total mg/l	accredited lab	quarterly	49	44.875	mg/l			No
2016	MW24	Orthophosphate as PO4-P mg/l	accredited lab	quarterly	0.061	0.023	mg/l			No
2016	MW24	Dissolved Oxygen (mg/l)	accredited lab	quarterly	28.1	14.06	mg/l			No
2016	MW24	TON as No mg/l	accredited lab	quarterly	2.49	0.67575	mg/l			No
2016	MW24	TOC mg/l	accredited lab	quarterly	82.1	56.605	mg/l			No
2016	MW24	Copper, total ug/l	accredited lab	Annual	1	1	ug/l			No
2016	MW24	Residue on Evaporation mg/l	accredited lab	Annual	2060	2060	mg/l			No
2016	MW24	Magnesium, total mg/l	accredited lab	Annual	29	29	mg/l			No
2016	MW24	Sulphate mg/l	accredited lab	Annual	5	5	mg/l			No
2016	MW24	Fluoride mg/l	accredited lab	Annual	0.1	0.1	mg/l			No
2016	MW24	Iron, total ug/l	accredited lab	Annual	48776	48776	ug/l			No
2016	MW24	Manganese, total ug/l	accredited lab	Annual	5073	5073	ug/l			No
2016	MW24	Zinc, total ug/l	accredited lab	Annual	5	5	ug/l			No
2016	MW24	Chromium, total ug/l	accredited lab	Annual	9	9	ug/l			No
2016	MW24	Calcium, total mg/l	accredited lab	Annual	252	252	mg/l			No
2016	MW24	Boron ug/l	accredited lab	Annual	459	459	ug/l			No

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2016	MW24	Nickel, total ug/l	accredited lab	Annual	11	11	ug/l			No
2016	MW24	Lead, total ug/l	accredited lab	Annual	0.5	0.5	ug/l			No
2016	MW24	Cadmium, total ug/l	accredited lab	Annual	0.5	0.5	ug/l			No
2016	MW24	Cyanide (Total) mg/l	accredited lab	Annual	0.009	0.009	mg/l			No
2016	MW24	Total Coliforms (Filtration) cfu/100ml	accredited lab	Annual	8	8	cfu/100ml			No
2016	MW24	Faecal Coliforms Filtration cfu/100ml	accredited lab	Annual	4	4	cfu/100ml			No
2016	MW24	Mercury, total (in water) ug/l	accredited lab	Annual	0.1	0.1	ug/l			No
2016	MW24	Alkalinity Total mg/l CacO3	accredited lab	Annual	1210	1210	mg/l			No
							SELECT			SELECT
<p>*please note exceedance of generic assessment criteria (GAC) such as a Groundwater Threshold Value (GTV) or an Interim Guideline Value (IGV) or an upward trend in results for a substance indicates that further interpretation of monitoring results is required. In addition to completing the above table, please complete the Groundwater Monitoring Guideline Template Report at the link provided and submit separately through ALDER as a licensee return or as otherwise instructed by the EPA. Groundwater monitoring template</p>										
<p>More information on the use of soil and groundwater standards/ generic assessment criteria (GAC) and risk assessment tools is available in the EPA published guidance Guidance on the Management of Contaminated Land and Groundwater at EPA Licensed Sites (EPA 2013). (see the link in G31)</p>										
<p>**Depending on location of the site and proximity to other sensitive receptors alternative Receptor based Water Quality standards should be used in addition to the GTV e.g. if the site is close to surface water compare to Surface Water Environmental Quality Standards (SWEQS). If the site is close to a drinking water supply compare results to the Drinking Water Standards (DWS)</p>							<p>Groundwater regulations Drinking water (private supply) standards Drinking water (public supply) standards Surface water EQS GTV's Interim Guideline Values (IGV)</p>			

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Table 3: Soil results

Date of sampling	Sample location reference	Parameter/ Substance	Methodology	Monitoring frequency	Maximum Concentration	Average Concentration	unit
							SELECT
							SELECT

Where additional detail is required please enter it here in 200 words or less

Environmental Liabilities template

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[Click here to access EPA guidance on Environmental Liabilities and Financial provision](#)

		Commentary	
1	ELRA initial agreement status	Submitted and agreed by EPA	
2	ELRA review status	Review completed	
3	Amount of Financial Provision cover required as determined by the latest ELRA	€2,747,250	
4	Financial Provision for ELRA status	Submitted and not agreed by EPA;	
5	Financial Provision for ELRA - amount of cover	€2,747,250	IPB providing quote for this amount
6	Financial Provision for ELRA - type	Environmental Impairment Liability insurance	
7	Financial provision for ELRA expiry date	Enter expiry date	not agreed yet
8	Closure plan initial agreement status	Closure plan submitted and agreed by EPA	
9	Closure plan review status	Review required and completed	
10	Financial Provision for Closure status	Submitted and not agreed by EPA;	
11	Financial Provision for Closure - amount of cover	Specify	Closure requirements paid out of general revenue budget. All capital works are complete.
12	Financial Provision for Closure - type	Other please specify	Letter of provision
13	Financial provision for Closure expiry date	Enter expiry date	Dirty closure so No date in place for final closure

Environmental Management Programme/Continuous Improvement Programme template	Lic No:	W0021-02	Year	2016
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	Highlighted cells contain dropdown menu click to view	Additional Information
1	Do you maintain an Environmental Mangement System (EMS) for the site. If yes, please detail in additional information	Yes
2	Does the EMS reference the most significant environmental aspects and associated impacts on-site	Yes
3	Does the EMS maintain an Environmental Management Programme (EMP) as required in accordance with the licence requirements	Yes
4	Do you maintain an environmental documentation/communication system to inform the public on environmental performance of the facility, as required by the licence	Yes Available in public office

Environmental Management Programme (EMP) report

Objective Category	Target	Status (% completed)	How target was progressed	Responsibility	Intermediate outcomes
Energy Efficiency/Utility conservation	Continue to maintain both g	100	general maintenance work car	Individual	Improved Environmental Management Practices
Groundwater protection	Comply with licence by comp	100	Contract in place with consulta	Individual	Increased compliance with licence conditions
SELECT		SELECT		SELECT	SELECT

Noise monitoring summary report	Lic No: W0021-02	Year	2016
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- 1 Was noise monitoring a licence requirement for the AER period?
If yes please fill in table N1 noise summary below
- 2 Was noise monitoring carried out using the EPA Guidance note, including completion of the "Checklist for noise measurement report" included in the guidance note as table 6?
- 3 Does your site have a noise reduction plan?
- 4 When was the noise reduction plan last updated?
- 5 Have there been changes relevant to site noise emissions (e.g. plant or operational changes) since the last noise survey?

[Noise Guidance note NG4](#)

Table N1: Noise monitoring summary

Date of monitoring	Time period	Noise location (on site)	Noise sensitive location -NSL (if applicable)	LA _{eq}	LA ₉₀	LA ₁₀	LA _{max}	Tonal or Impulsive noise* (Y/N)	If tonal /impulsive noise was identified was 5dB penalty applied?	Comments (ex. main noise sources on site, & extraneous noise ex. road traffic)	Is site compliant with noise limits (day/evening/night)?
15/10/2015	30 mins		N6	61.9	35.8	67.4	75	No	SELECT	road traffic/dog barking	SELECT
15/10/2015	30 mins		N1	71	36.4	72.4	75	No		road traffic	
15/10/2015	30 mins	N2		43.7	33.6	45.8	92.8	No		truck horn, site traffic	Yes
15/10/2015	30 mins	N5		34.9	32.4	45.8	70.4	No		small stream/birds	Yes

*Please ensure that a tonal analysis has been carried out as per guidance note NG4. These records must be maintained onsite for future inspection

If noise limits exceeded as a result of noise attributed to site activities, please choose the corrective action from the following options?

** please explain the reason for not taking action/resolution of noise issues?
2015 data used as No changes to operational practice/machinery occurred. No noise complaints received.

Resource Usage/Energy efficiency summary

Lic No:

W0021-02

Year

2016

- 1 When did the site carry out the most recent energy efficiency audit? Please list the recommendations in table 3 below
- 2 Is the site a member of any accredited programmes for reducing energy usage/water conservation such as the SEAI programme linked to the right? If yes please list them in additional information
- 3 Where Fuel Oil is used in boilers on site is the sulphur content compliant with licence conditions? Please state percentage in additional information

Additional information	
Enter date of audit	
No	
SELECT	

Table R1 Energy usage on site				
Energy Use	Previous year	Current year	Production +/- % compared to previous reporting year**	Energy Consumption +/- % vs overall site production*
Total Energy Used (MWHrs)	160.996	168.58		
Total Energy Generated (MWHrs)				
Total Renewable Energy Generated (MWHrs)	785	149.16		
Electricity Consumption (MWHrs)				
Fossil Fuels Consumption:				
Heavy Fuel Oil (m3)	0	0		
Light Fuel Oil (m3)	0.79	0.7		
Natural gas (m3)	0	0		
Coal/Solid fuel (metric tonnes)	0	0		
Peat (metric tonnes)	0	0		
Renewable Biomass	0	0		
Renewable energy generated on site	785MWHrs	149.16		

* where consumption of energy can be compared to overall site production please enter this information as percentage increase or decrease compared to the previous reporting year.

** where site production information is available please enter percentage increase or decrease compared to previous year

Table R2 Water usage on site					Water Emissions	Water Consumption	
Water use	Water extracted Previous year m3/yr.	Water extracted Current year m3/yr.	Production +/- % compared to previous reporting year**	Energy Consumption +/- % vs overall site production*	Volume Discharged back to environment(m ³ /yr):	Volume used i.e not discharged to environment e.g. released as steam m3/yr	Unaccounted for Water:
Groundwater	0	0					
Surface water	0	0					
Public supply	150	150					
Recycled water	0	0					
Total	0	0					

* where consumption of water can be compared to overall site production please enter this information as percentage increase or decrease compared to the previous reporting year.

** where site production information is available please enter percentage increase or decrease compared to previous year

Table R3 Waste Stream Summary					
	Total	Landfill	Incineration	Recycled	Other
Hazardous (Tonnes)		0	0		
Non-Hazardous (Tonnes)		0	0		

Resource Usage/Energy efficiency summary	Lic No: W0021-02	Year	2016
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Table R4: Energy Audit finding recommendations								
Date of audit	Recommendations	Description of Measures proposed	Origin of measures	Predicted energy savings %	Implementation date	Responsibility	Completion date	Status and comments
			SELECT					
			SELECT					
			SELECT					

Table R5: Power Generation: Where power is generated onsite (e.g. power generation facilities/food and drink industry) please complete the following information

	Unit ID	Unit ID	Unit ID	Unit ID	Station Total
Technology					
Primary Fuel					
Thermal Efficiency					
Unit Date of Commission					
Total Starts for year					
Total Running Time					
Total Electricity Generated (GWH)					
House Load (GWH)					
KWH per Litre of Process Water					
KWH per Litre of Total Water used on Site					

WASTE SUMMARY	Lic No:	W0021-02	Year	2016
SECTION A-PRTR ON SITE WASTE TREATMENT AND WASTE TRANSFERS TAB- TO BE COMPLETED BY ALL IPPC AND WASTE FACILITIES		PRTR facility logon	dropdown list click to see options	
PRTR submitted				

SECTION B- WASTE ACCEPTED ONTO SITE-TO BE COMPLETED BY ALL IPPC AND WASTE FACILITIES

Were any wastes accepted onto your site for recovery or disposal or treatment prior to recovery or disposal within the boundaries of your facility ?; (waste generated within your boundaries is to be captured through PRTR reporting)
 1 If yes please enter details in table 1 below

Additional Information	
No	

2 Did your site have any rejected consignments of waste in the current reporting year? If yes please give a brief explanation in the additional information

No	
----	--

3 Was waste accepted onto your site that was generated outside the Republic of Ireland? If yes please state the quantity in tonnes in additional information

No	
----	--

Table 1 Details of waste accepted onto your site for recovery, disposal or treatment (do not include wastes generated at your site, as these will have been reported in your PRTR workbook)

Licensed annual tonnage limit for your site (total tonnes/annum)	EWC code European Waste Catalogue EWC codes	Source of waste accepted	Description of waste accepted Please enter an accurate and detailed description - which applies to relevant EWC code European Waste Catalogue EWC codes	Quantity of waste accepted in current reporting year (tonnes)	Quantity of waste accepted in previous reporting year (tonnes)	Reduction/ Increase over previous year +/- %	Reason for reduction/ increase from previous reporting year	Packaging Content (%)- only applies if the waste has a packaging component	Disposal/Recovery or treatment operation carried out at your site and the description of this operation	Quantity of waste remaining on site at the end of reporting year (tonnes)	Comments -

SECTION C-TO BE COMPLETED BY ALL WASTE FACILITIES (waste transfer stations, Composters, Material recovery facilities etc) EXCEPT LANDFILL SITES

4 Is all waste processing infrastructure as required by your licence and approved by the Agency in place? If no please list waste processing infrastructure required onsite

SELECT	

5 Is all waste storage infrastructure as required by your licence and approved by the Agency in place? If no please list waste storage infrastructure required onsite

SELECT	

6 Does your facility have relevant nuisance controls in place?

SELECT	
SELECT	
SELECT	

7 Do you have an odour management system in place for your facility? If no why?

8 Do you maintain a sludge register on site?

SECTION D-TO BE COMPLETED BY LANDFILL SITES ONLY

Table 2 Waste type and tonnage-landfill only

Waste types permitted for disposal	Authorised/licenced annual intake for disposal (tpa)	Actual intake for disposal in reporting year (tpa)	Remaining licensed capacity at end of reporting year (m3)	Comments
N/A	0	0	0	Landfill Closed

Table 3 General information-Landfill only

Area ID	Date landfilling commenced	Date landfilling ceased	Currently landfilling	Private or Public Operated	Inert or non-hazardous	Predicted date to cease landfilling	Licence permits asbestos	Is there a separate cell for asbestos?	Accepted asbestos in reporting year	Total disposal area occupied by waste	Lined disposal area occupied by waste	Unlined area	Comments on liner type
										SELECT UNIT	SELECT UNIT	SELECT UNIT	
N/A	circa 1974	Apr-12	No	Public	Non Hazardous	Ceased	No	No	No				

Table 4 Environmental monitoring-landfill only [Landfill Manual-Monitoring Standards](#)

WASTE SUMMARY	Lic No:	W0021-02	Year	2016
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Was meteorological monitoring in compliance with Landfill Directive (LD) standard in reporting year +	Was leachate monitored in compliance with LD standard in reporting year	Was Landfill Gas monitored in compliance with LD standard in reporting year	Was SW monitored in compliance with LD standard in reporting year	Have GW trigger levels been established	Were emission limit values agreed with the Agency (ELVs)	Was topography of the site surveyed in reporting year	Has the statement under SS3(A)(5) of WMA been submitted in reporting year	Comments
Yes	Yes	Yes	Yes	Yes	No	No	No	GW report completed in 2016 with trigger levels

+ please refer to Landfill Manual linked above for relevant Landfill Directive monitoring standards

Table 5 Capping-Landfill only

Area uncapped*	Area with temporary cap	Area with final cap to LD Standard m ² ha, a	Area capped other	Area with waste that should be permanently capped to date under licence	What materials are used in the cap	Comments
SELECT UNIT	SELECT UNIT					
0		39,000m ²	approx 42,000m ²	39,000m ²	1mm lldpe liner and .5m soil	

*please note this includes daily cover area

Table 6 Leachate-Landfill only

9 Is leachate from your site treated in a Waste Water Treatment Plant?

Yes

10 Is leachate released to surface water? If yes please complete leachate mass load information below

No

Volume of leachate in reporting year(m ³)	Leachate (BOD) mass load (kg/annum)	Leachate (COD) mass load (kg/annum)	Leachate (NH ₃ -N) mass load (kg/annum)	Leachate (Chloride) mass load kg/annum	Leachate treatment on-site	Specify type of leachate treatment	Comments
33375.3					N/A		

Please ensure that all information reported in the landfill gas section is consistent with the Landfill Gas Survey submitted in conjunction with PRTR returns

Table 7 Landfill Gas-Landfill only

Gas Captured&Treated by LFG System m ³	Power generated (MW / KWh)	Used on-site or to national grid	Was surface emissions monitoring performed during the reporting year?	Comments
251,298 m ³ ch ₄	168.58	national grid	No	mix of flare and engine. Surface emissions carried out in 2013.



[Guidance to completing the PRTR workbook](#)

PRTR Returns Workbook

Version 1.1.19

REFERENCE YEAR	2016
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1. FACILITY IDENTIFICATION

Parent Company Name	Mayo County Council
Facility Name	Derrinnumera Landfill Facility
PRTR Identification Number	W0021
Licence Number	W0021-02

Classes of Activity

No.	class_name
-	Refer to PRTR class activities below

Address 1	Derrinnumera/Drumilra (Townlands)
Address 2	Newport
Address 3	
Address 4	
	Mayo
Country	Ireland
Coordinates of Location	-7.4634 53.8497
River Basin District	IEWE
NACE Code	3821
Main Economic Activity	Treatment and disposal of non-hazardous waste
AER Returns Contact Name	Killian Farrell
AER Returns Contact Email Address	kfarrell@mayococo.ie
AER Returns Contact Position	Deputy landfill Manager
AER Returns Contact Telephone Number	098-41632
AER Returns Contact Mobile Phone Number	087-9155475

AER Returns Contact Fax Number	098-41676
Production Volume	0.0
Production Volume Units	
Number of Installations	0
Number of Operating Hours in Year	0
Number of Employees	5
User Feedback/Comments	Site is operating as a CA site. No waste is accepted to landfill since closure in 2012. The landfill gas being experienced and utilised or flared at the site is much lower than that predicted by GASSIM. This is resulting in a higher emission calculation.
Web Address	

2. PRTR CLASS ACTIVITIES

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

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

Is it applicable?	No
Have you been granted an exemption ?	
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) ?	No
--	----

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

SECTION A : SECTOR SPECIFIC PRTR POLLUTANTS

RELEASES TO AIR					Please enter all quantities in this section in KGs			
No. Annex II	POLLUTANT Name	M/C/E	METHOD Method Used		Emission Point 1	QUANTITY		
			Method Code	Designation or Description		T (Total) KG/Year	A (Accidental) KG/Year	F (Fugitive) KG/Year
01	Methane (CH4)	C	OTH	Flare/engine	547134.0	547134.0	0.0	0.0
03	Carbon dioxide (CO2)	M	CRM	Gassim	2057649.0	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

RELEASES TO AIR					Please enter all quantities in this section in KGs			
No. Annex II	POLLUTANT Name	M/C/E	METHOD Method Used		Emission Point 1	QUANTITY		
			Method Code	Designation or Description		T (Total) KG/Year	A (Accidental) KG/Year	F (Fugitive) KG/Year
					0.0	0.0	0.0	0.0

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

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

RELEASES TO AIR					Please enter all quantities in this section in KGs			
Pollutant No.	POLLUTANT Name	M/C/E	METHOD Method Used		Emission Point 1	QUANTITY		
			Method Code	Designation or Description		T (Total) KG/Year	A (Accidental) KG/Year	F (Fugitive) KG/Year
					0.0	0.0	0.0	0.0

* 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 utilised 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:	Derrinnumera Landfill Facility					
Please enter summary data on the quantities of methane flared and / or utilised	T (Total) kg/Year	M/C/E	Method Used		Facility Total Capacity m3 per hour	
	Total estimated methane generation (as per site model)	706667.32	M	CRM	Gassim 2.5	N/A
	Methane flared	94813.0	C	OTH	Bernard Hyde Spreadsheet.	250.0 (Total Flaring Capacity)
	Methane utilised in engine/s	64720.0	C	OTH	Bernard Hyde Spreadsheet.	(Total Utilising Capacity)
	Net methane emission (as reported in Section A above)	547134.0	C	oth	subtraction	N/A

5. ONSITE TREATMENT & OFFSITE TRANSFERS OF WASTE

Please enter all quantities on this sheet in Tonnes

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: Name and Licence/Permit No of Recover/Disposer	Haz Waste : Address of Next Destination Facility Non Haz Waste: Address of Recover/Disposer	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					
Within the Country	02 01 04	No	40.0	Farm Plastic	R3	M	Weighed	Offsite in Ireland	IFFPG,Exempt	Waverly Road,,Dublin,10,Ireland		
Within the Country	15 01 02	No	26.46	plastic packaging	R3	M	Weighed	Offsite in Ireland	Barna Waste,W0106-02	Carrowbrowne Headford Road ,,Galway,,Ireland		
Within the Country	15 01 02	No	24.04	plastic packaging	R3	M	Weighed	Offsite in Ireland	Barna Waste,W0106-02	Carrowbrowne Headford Road ,,Galway,,Ireland		
Within the Country	15 01 05	No	9.1	composite packaging	R3	M	Weighed	Offsite in Ireland	Barna Waste,W0106-02	Carrowbrowne Headford Road ,,Galway,,Ireland		
Within the Country	15 01 10	Yes	2.26	packaging containing residues of or contaminated by dangerous substances	R1	M	Weighed	Offsite in Ireland	RILTA,W0192-02	Grants Drive,402 Greenogue Business Park rathcoole,Dublin,,Ireland	RILTA,W0192-02,grants drive,402 greenogue Business Park rathcoole,Dublin,,Ireland	grants drive,402 greenogue Business Park rathcoole,Dublin,,Ireland
Within the Country	16 01 03	No	10.18	end-of-life tyres	R5	M	Weighed	Offsite in Ireland	Midlands scrap metal,WFP-TN-11003-02	Annagh,,Birr co Offaly,,Ireland		
Within the Country	16 01 07	Yes	0.4	oil filters	R9	M	Weighed	Offsite in Ireland	RILTA,W0192-02	Grants Drive,402 Greenogue Business Park rathcoole,Dublin,,Ireland	ENVA,W0184-01,Clonminam Industrial estate,,Portlaoise Co. Laois,,Ireland	,,,,,Ireland
To Other Countries	16 05 04	Yes	0.86	gases in pressure containers (including halons) containing dangerous substances	R4	M	Weighed	Abroad	ENVA,W0184-01	Clonminam Industrial Estate,,Portlaoise Co.Laois,,Ireland	Recyfuel SA,BE 459735458,Zoning dHein,,Engis,B4480,Belgium	,,,,,Belgium
Within the Country	17 08 02	No	5.6	gypsum-based construction materials other than those mentioned in 17 08 01	R5	M	Weighed	Offsite in Ireland	Barna Waste,W0106-02	Carrowbrowne Headford Road ,,Galway,,Ireland		
Within the Country	19 07 03	No	25788.52	landfill leachate other than those mentioned in 19 07 02	D9	M	Weighed	Offsite in Ireland	Rathroeen landfill site,W0067-02	Killala Road,,Ballina Co.Mayo,,Ireland		
Within the Country	19 07 03	No	7586.78	landfill leachate other than those mentioned in 19 07 02	D9	M	Weighed	Offsite in Ireland	Swinford WWTP,D0068-01 (Applied)	Swinford ,,Co.Mayo,,Ireland		
Within the Country	20 01 01	No	139.72	paper and cardboard	R3	M	Weighed	Offsite in Ireland	Bourke Waste,wfp/mo/08/0004/01	Clogher,,Westport,,Ireland		
Within the Country	20 01 01	No	115.64	paper and cardboard	R3	M	Weighed	Offsite in Ireland	McGraths Waste Ltd,wfp-10-0015-02	Turlough,,Castlebar,,Ireland		
Within the Country	20 01 02	No	69.9	glass	R5	M	Weighed	Offsite in Ireland	Rehab Recycling,03/02	Ballymount,,Dublin,,Ireland		
Within the Country	20 01 02	No	15.0	glass	R5	M	Weighed	Offsite in Ireland	Midlands scrap metal,WFP-TN-11003-02	Annagh,,Birr co Offaly,,Ireland		
Within the Country	20 01 10	No	20.16	clothes	R3	M	Weighed	Offsite in Ireland	Textile Recycling Ltd,WPR-014	Unit 504A Greenogue Business Park Rathcoole,Dublin,24,Ireland		
Within the Country	20 01 21	Yes	0.747	fluorescent tubes and other mercury-containing waste	R4	M	Weighed	Offsite in Ireland	KMK metal,W0113-02	Cappincur Industrial estate,Daingean Road,Tullamore Co. Offaly,,Ireland	KMK metal,W0113-02,Cappincur Industrial estate Daingean road,,Tullamore Co. Offaly,,Ireland	,,,,,Ireland
Within the Country	20 01 23	Yes	17.882	discarded equipment containing chlorofluorocarbons	R4	M	Weighed	Offsite in Ireland	KMK metal,W0113-02	Cappincur Industrial estate,Daingean Road,Tullamore Co. Offaly,,Ireland	KMK metal,W0113-02,Cappincur Industrial estate Daingean road,,Tullamore Co. Offaly,,Ireland	,,,,,Ireland
Within the Country	20 01 25	No	0.84	edible oil and fat	R3	M	Weighed	Offsite in Ireland	Frylite,CW227	Kilcolgan,,Galway,,Ireland		
Within the Country	20 01 26	Yes	6.9	oil and fat other than those mentioned in 20 01 25	R9	M	Weighed	Offsite in Ireland	RILTA,W0192-02	Grants Drive,402 Greenogue Business Park rathcoole,Dublin,,Ireland	ENVA,W0184-01,Clonminam Industrial estate,,Portlaoise Co. Laois,,Ireland	,,,,,Ireland

To Other Countries	20 01 27	Yes	8.64	paint, inks, adhesives and resins containing dangerous substances	R1	M	Weighed	Abroad	Ecosafe systems(SRCL),W0054-02	Unit 1A Allied Industrial Estate Kylemore Road,,Dublin,,10,Ireland	Recyfuel SA,BE 459735458,Zoning Industrial dHein,,Engis,B4480,Belgium,,,,,Belgium
Within the Country	20 01 33	Yes	3.0	batteries and accumulators included in 16 06 01, 16 06 02 or 16 06 03 and unsorted batteries and accumulators containing these batteries	R4	M	Weighed	Offsite in Ireland	RILTA,W0192-02	Grants Drive,402 Greenogue Business Park rathcoole,Dublin,,Ireland	RILTA,W0192-02,grants drive,402 greenogue Business Park rathcoole,Dublin,,Ireland grants drive,402 greenogue Business Park rathcoole,Dublin,,Ireland
Within the Country	20 01 33	Yes	1016.0	batteries and accumulators included in 16 06 01, 16 06 02 or 16 06 03 and unsorted batteries and accumulators containing these batteries	R4	M	Weighed	Offsite in Ireland	KMK metal,W0113-02	Cappincur Industrial estate,Daingean Road,Tullamore Co. Offaly,,Ireland	KMK metal,W0113-02,Cappincur Industrial estate Daingean road,,Tullamore Co. Offaly,,Ireland,,,,,Ireland
Within the Country	20 01 34	No	0.96	batteries and accumulators other than those mentioned in 20 01 21, 20 01 33	R4	M	Weighed	Offsite in Ireland	KMK metal,W0113-02	Cappincur Industrial estate,Daingean Road,Tullamore Co. Offaly,,Ireland	KMK metal,W0113-02,Cappincur Industrial estate Daingean road,,Tullamore Co. Offaly,,Ireland,,,,,Ireland
Within the Country	20 01 36	No	34.035	discarded electrical and electronic equipment other than those mentioned in 20 01 21, 20 01 23 and 20 01 35	R4	M	Weighed	Offsite in Ireland	KMK metal,W0113-02	Cappincur Industrial estate,Daingean Road,Tullamore Co. Offaly,,Ireland	
Within the Country	20 01 36	No	31.414	discarded electrical and electronic equipment other than those mentioned in 20 01 21, 20 01 23 and 20 01 35	R4	M	Weighed	Offsite in Ireland	KMK metal,W0113-02	Cappincur Industrial estate,Daingean Road,Tullamore Co. Offaly,,Ireland	
Within the Country	20 01 36	No	93.165	discarded electrical and electronic equipment other than those mentioned in 20 01 21, 20 01 23 and 20 01 35	R4	M	Weighed	Offsite in Ireland	KMK metal,W0113-02	Cappincur Industrial estate,Daingean Road,Tullamore Co. Offaly,,Ireland	
Within the Country	20 01 38	No	792.46	wood other than that mentioned in 20 01 37	R13	M	Weighed	Offsite in Ireland	Rathroen landfill site,W0067-02	Killala Road,,Ballina Co.Mayo,,Ireland	
Within the Country	20 01 39	No	53.08	plastics	R3	M	Weighed	Offsite in Ireland	Barna Waste,W0106-02	Carrowbrowne Headford Road ,,Galway,,Ireland	
Within the Country	20 01 40	No	152.04	metals	R4	M	Weighed	Offsite in Ireland	Galway Metal,WFP-11-G-0005-01	Oranmore,,Galway,,Ireland	
Within the Country	20 01 40	No	6.64	metals	R4	M	Weighed	Offsite in Ireland	Barna Waste,W0106-02	Carrowbrowne Headford Road ,,Galway,,Ireland	
Within the Country	20 01 40	No	21.08	metals	R4	M	Weighed	Offsite in Ireland	Galway Metal,WFP-11-G-0005-01	Oranmore,,Galway,,Ireland	
Within the Country	20 02 01	No	25.48	biodegradable waste	R3	M	Weighed	Offsite in Ireland	Barna Waste,W0106-02	Carrowbrowne Headford Road ,,Galway,,Ireland	
Within the Country	20 03 01	No	957.0	mixed municipal waste	D5	M	Weighed	Offsite in Ireland	Rathroen landfill site,W0067-02	Killala Road,,Ballina Co.Mayo,,Ireland	
Within the Country	20 03 01	No	771.54	mixed municipal waste plastics (except 8.2 packaging)	D5	M	Weighed	Offsite in Ireland	McGraths Waste Ltd,wfp-10-0015-02	Turrough,,Castlebar,,Ireland	
Within the Country	02 01 04	No			R3	M	Weighed	Offsite in Ireland	FRS,Exempt	Derryvale,,Roscrea Co. Tipperary,,Ireland	

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

[Link to previous years waste data](#)

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

[Link to Waste Guidance](#)

A survey of landfill sites to determine the quantity of methane flared and or recovered in utilisation plants for 2016

Please choose from the drop down menu the license number for your site	W0021
Please choose from the drop down menu the name of the landfill site	Derrinnumera Landfill Facility
Please enter the number of flares operational at your site in 2016	1
Please enter the number of engines operational at your site in 2016	1
Total methane flared	94,813 kg/year
Total methane utilised in engines	64,720 kg/year

Please note that the closing date for receipt of completed surveys is 31/03/2017

Introduction

The Office of Environmental Sustainability (OES) of the Environmental Protection Agency acts as the inventory agency in Ireland with responsibility for compiling and reporting national greenhouse gas inventories to the European Commission and the United Nations Framework Convention on Climate Change. In addition to meeting international commitments Ireland's national greenhouse gas inventory informs national agencies and Government departments as they face the challenge to curb emissions and meet Ireland's emission reduction targets under the Effort Sharing Decision (No. 406/2009/EC). The national inventory also informs data suppliers, making them aware of the importance of their contributions to the inventory process and a means of identifying areas where input data may be improved.

It is on this basis that the Environmental Protection Agency is asking landfill operators to partake in this survey so that the most up to date information on methane flaring and recovery in utilisation plants at landfill sites is used in calculating the contribution of the landfill sector to national greenhouse gas emissions

The Environmental Protection Agency wishes to thank you for partaking in this survey. If you have any questions about the survey and how to complete it please view the "Help sheet" worksheet. If however, your query is not answered by viewing the "Help sheet" worksheet please contact:

LFGProject@epa.ie

Once completed please send the completed file as an attachment clearly stating the name and or license number of the landfill site (e.g. W000 Xanadu landfill_2015) to:

LFGProject@epa.ie

to be filled in by licensee calculated by spreadsheet

Flare No. 1

Flare type ? If "other" enter flare description here

Is the flare an open or enclosed flare ? Rated flare capacity ? m3/hr

Month /year commissioned ?

Month decommissioned if decommissioned in 2016 ?

What is the function of the flare ? If "other" enter flare function here

Monthly	Method M/C/E	Runtime days/month	Runtime hrs/day	Downtime hrs	Total runtime hrs/month	Average Inlet Pressure (mbg)	Average Inlet Temp ° C	Average Flow Rate (m ³ /hr)	Average CH ₄ %v/v	Average CO ₂ %v/v	Average O ₂ %v/v	Combustion efficiency (%)	Total CH ₄ m ³	Total CH ₄ kgs
January	MCE	31	24.0	272.0	472	-125	10	70	49.00	31.20	1.50	98.0	15,866	9,603
February	MCE	29	24.0	240.0	456	-44	10	60	53.50	29.00	1.00	98.0	14,345	9,474
March	MCE	31	24.0	0.0	744	-70	10	50	40.00	30.20	1.80	98.0	14,582	9,373
April	MCE	30	24.0	26.0	694	-65	10	60	45.10	26.00	1.00	98.0	18,404	11,892
May	MCE	31	24.0	21.0	723	-85	10	50	43.00	27.00	1.10	98.0	15,234	9,636
June	MCE	30	24.0	0.0	720	-95	10	75	51.00	32.50	1.00	98.0	26,989	16,888
July	MCE	31	24.0	0.0	744	-69	10	50	43.00	29.00	1.00	98.0	15,676	10,086
August	MCE	31	24.0	0.0	744	-73	10	50	49.00	31.00	1.00	98.0	17,863	11,445
September	MCE	30	24.0	360.0	360	-93	10	50	58.00	32.00	1.00	98.0	10,231	6,416
October	MCE	31	24.0	744.0	0	-50	10	30	60.00	32.00	1.00	98.0	0	0
November	MCE	30	24.0	720.0	0	-85	10	50	60.00	31.00	1.00	98.0	0	0
December	MCE	31	24.0	744.0	0	-105	10	50	50.00	30.00	1.00	98.0	0	0
Total					5,657								149,191	94,813

Please note: Only fill the "Yearly" table if data is not available or cannot be calculated nor estimated on a monthly basis

Yearly	Method M/C/E	Runtime days/year	Runtime hrs/day	Downtime hrs	Total runtime hrs/year	Average Inlet Pressure (mbg)	Average Inlet Temp ° C	Average Flow Rate m ³ /hr	Average CH ₄ %v/v	Average CO ₂ %v/v	Average O ₂ %v/v	Combustion efficiency (%)	Total CH ₄ m ³	Total CH ₄ kgs
2016					0		10					98.0	0	0

to be filled in by licensee calculated by spreadsheet

Engine No. 1

Engine type ? Other ▼

If "other" enter engine description here

Month /year comissioned ? November ▼ 2014 ▼

Month decomissioned if decomissioned in 2016 ? Select ▼

Monthly	Method M/C/E	Runtime days/month	Runtime hrs/day	Downtime hrs	Total runtime hrs/month	Average Inlet Pressure (mbg)	Average Inlet Temp ° C	Average Flow Rate (m ³ /hr)	Average CH ₄ %v/v	Average CO ₂ %v/v	Average O ₂ %v/v	Combustion efficiency (%)	Total CH ₄ m ³	Total CH ₄ kgs
January	MCE	31	24	472	272	-125	10	100	49.00	31.20	1.50	98.0	13,061	7,906
February	MCE	29	24	456	240	-44	10	100	53.50	29.00	1.00	98.0	12,583	8,311
March	MCE	31	24	744	0	-70	10	100	40.00	30.20	1.80	98.0	0	0
April	MCE	30	24	694	26	-65	10	100	45.10	26.00	1.00	98.0	1,149	743
May	MCE	31	24	723	21	-85	10	100	43.00	27.00	1.10	98.0	885	560
June	MCE	30	24	720	0	-95	10	100	51.00	32.50	1.00	98.0	0	0
July	MCE	31	24	744	0	-69	10	100	43.00	29.00	1.00	98.0	0	0
August	MCE	31	24	744	0	-73	10	100	49.00	31.00	1.00	98.0	0	0
September	MCE	30	24	213	507	-93	10	100	58.20	32.00	1.00	98.0	28,917	18,133
October	MCE	31	24	427	317	-50	10	100	60.00	32.00	1.00	98.0	18,640	12,235
November	MCE	30	24	468	252	-85	10	100	60.00	31.00	1.00	98.0	14,818	9,373
December	MCE	31	24	498	246	-105	10	100	50.00	30.00	1.00	98.0	12,054	7,460
Total					1,881								102,107	64,720

Please note: Only fill the "Yearly" table if data is not available or cannot be calculated nor estimated on a monthly basis

Yearly	Method M/C/E	Runtime days/year	Runtime hrs/day	Downtime hrs	Total runtime hrs/year	Average Inlet Pressure (mbg)	Average Inlet Temp ° C	Average Flow Rate m ³ /hr	Average CH ₄ %v/v	Average CO ₂ %v/v	Average O ₂ %v/v	Combustion efficiency (%)	Total CH ₄ m ³	Total CH ₄ kgs
2016					0	Select	10					98.0	0	0