

Facility Information Summary	
AER Reporting Year	2016
Licence Register Number	W0017-04
Name of site	Gortadroma Landfill
Site Location	Gortadroma, Ballyahill, Co. Limerick.
NACE Code	3821
Class/Classes of Activity	Class 1,5,6,7,11,13 of Third Schedule and Class 2,3,4,9,10,11,12,13 of fourth schedule
National Grid Reference (6E, 6 N)	-6.45823, 53.8084
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.	The following waste streams were accepted in the Civic Amenity Site and transferred off site for disposal and recycling in 2016: mixed municipal waste, bulky waste, newspapers, cardboard, plastic bottles, tetrapacks, food & drink cans, glass bottles, textiles, mixed metals and WEEE. A leachate treatment plant and a gas utilisation plant were also in operation at the site in 2016. There was no major infrastructural changes made at the site in 2016. All licence compliance monitoring carried out in 2016 was in compliance with the licence limits. The site received 0 complaints and had one incident in 2016. The incident related to an uncontrolled release and was dealt with immediately upon discovery and the issue was closed out satisfactorily.

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.

John O'Carroll	09/03/2017
Signature	Date
Group/Facility manager	
(or nominated, suitably qualified and experienced deputy)	

AIR-summary template

Lic No:

W0017-04

Year

2016

Answer all questions and complete all tables where relevant

Additional information

- 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

Yes	
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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
- 3 Was all monitoring carried out in accordance with EPA guidance [Basic air monitoring checklist](#) note AG2 and using the basic air monitoring checklist? [AGN2](#)

Yes	
Yes	

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
Utilisation Plant	Carbon monoxide (CO)	Biannual	1400	100 % of values < ELV	1250	mg/Nm3	yes	OTH	36326	Change is due to increase in average measured value
Utilisation Plant	Nitrogen oxides (NOx/NO2)	Biannual	500	100 % of values < ELV	412	mg/Nm3	yes	OTH	12012	Change is due to increase in operating hours of utilisation plant
Utilisation Plant	volumetric flow	Biannual	3000	100 % of values < ELV	3121	Nm3/hour	yes	OTH	NA	Volumetric flow just over the limit

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

AIR-summary template	Lic No:	W0017-04	Year	2016
Continuous Monitoring				

4	Does your site carry out continuous air emissions monitoring?	Yes	
	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	No	
6	Do you have a proactive service agreement for each piece of continuous monitoring equipment?	Yes	
7	Did your site experience any abatement system bypasses? If yes please detail them in table A3 below	No	

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
Utilisation Plant	Carbon monoxide (CO)	1400	15 mins	Daily average < ELV	mg/Nm3	1249	1320	0	0	NA
	SELECT				SELECT					
	SELECT				SELECT					
	SELECT				SELECT					
	SELECT				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

AER Monitoring returns summary template-WATER/WASTEWATER(SEWER) Lic No: W0017-04 Year 2016

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

Yes	
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
	SELECT	SELECT	SELECT			SELECT		SELECT	SELECT	
	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	
Yes	

4 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](#)

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
SW4	Water	Conductivity	discrete	weekly	Weekly	1000	All results < 1.2 x ELV	486	µS/cm @20oC	yes	STRUMENTAL METHOD	Manufacturer method		NA	
SW4	Water	Ammonia (as N)	discrete	weekly	Weekly	0.78	All results < 1.2 x ELV	0.37	mg/L	yes	colourimetry	UKAS		154	
SW4	Water	Suspended Solids	discrete	weekly	Weekly	35	All results < 1.2 x ELV	4.7	mg/L	yes	Gravimetric analysis	Standard methods	2540D	2,000	
SW4	Water	pH	discrete	weekly	Weekly	6 to 9	All results < 1.2 x ELV	6.3	pH units	yes	pH Meter (Electrode)	Manufacturer method		NA	
SW4	Water	Chlorides (as Cl)	discrete	weekly	Weekly	250	NA	25	mg/L	NA	Titration	Standard methods	4500D	10,474	
Treated leahate	Water	pH	composite	weekly	Weekly	6 to 9	All results < 1.2 times ELV, plus 8 from ten results must be < ELV	7.4	pH units	yes	pH Meter (Electrode)	Manufacturer method		NA	
Treated leahate	Water	BOD	composite	weekly	Weekly	25	All results < 1.2 times ELV, plus 8 from ten results must be < ELV	5.1	mg/L	yes	ed Oxygen Meter (Elec	UKAS		61	
Treated leahate	Water	Suspended Solids	composite	weekly	Weekly	35	All results < 1.2 times ELV, plus 8 from ten results must be < ELV	5.8	mg/L	yes	Gravimetric analysis	Standard methods	2540D	70	
Treated leahate	Water	Total phosphorus	composite	weekly	Weekly	2	All results < 1.2 times ELV, plus 8 from ten results must be < ELV	0.22	mg/L	yes	vely Coupled Plasma -	UKAS		3	
Treated leahate	Water	Ammonia (as N)	composite	weekly	Weekly	3	All results < 1.2 times ELV, plus 8 from ten results must be < ELV	0.7	mg/L	yes	colourimetry	UKAS		8	

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?

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
SW4	Water	pH	6 to 9	30 minutes	No flow value shall exceed the specific limit.	pH units			0	0	Annual average = 6.3
SW4	Water	Conductivity	1000	30 minutes	No flow value shall exceed the specific limit.	µS/cm @20oC			0	0	Annual average = 488

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
- 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)
- 4 How many bunds are on site?
- 5 How many of these bunds have been tested within the required test schedule?
- 6 How many mobile bunds are on site?
- 7 Are the mobile bunds included in the bund test schedule?
- 8 How many of these mobile bunds have been tested within the required test schedule?
- 9 How many sumps on site are included in the integrity test schedule?
- 10 How many of these sumps are integrity tested within the test schedule?
- 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?

Yes	No new bunds and no test failures in 2016
3 years	
Yes	
1	There are 2 leachate holding lagoons, 4 lagoons in treatment plant, 1 storm water settling tank and 1 fuel bund
All 8	
0	
SELECT	
NA	
0	
0	
Yes	
Yes	
Yes	

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)
	SELECT					SELECT			SELECT	SELECT		SELECT		
	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? [bundling and storage guidelines](#)

- 16 Are channels/transfer systems to remote containment systems tested?
- 17 Are channels/transfer systems compliant in both integrity and available volume?

Commentary	
Yes	
No	
SELECT	Not tested

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

- 1 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**

2 Please provide integrity testing frequency period

*please note integrity testing means water tightness testing for process and foul pipelines (as required under your licence)

Yes	No underground pipes onsite requiring integrity testing
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

Groundwater/Soil monitoring template	Lic No: W0017-04	Year 2016
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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 are no upward trends seen in any of the groundwater monitoring results. In general, there is no observable difference in water quality between the upgradient GW well and the true downgradient GW wells shown below. The average results show good consistency across the site and the monitoring results have been generally consistent over the previous five years. The monitoring data shows that the site is not negatively impacting on the groundwater quality in the immediate vicinity.
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 Report (link in cell G8) and submit separately through ALDER as a licensee return AND answer questions 5-12 below. Groundwater monitoring template	no	
5	Is the contamination related to operations at the facility (either current and/or historic)	SELECT	
6	Have actions been taken to address contamination issues?If yes please summarise remediation strategies proposed/undertaken for the site	SELECT	
7	Please specify the proposed time frame for the remediation strategy	SELECT	
8	Is there a licence condition to carry out/update ELRA for the site?	SELECT	
9	Has any type of risk assesment been carried out for the site?	SELECT	
10	Has a Conceptual Site Model been developed for the site?	SELECT	
11	Have potential receptors been identified on and off site?	SELECT	
12	Is there evidence that contamination is migrating offsite?	SELECT	

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
24/02, 02/06, 28/07, 26/10	Collins Well	conductivity	meter	quarterly	662	609	µS/cm @20oC	800	SW EQS	No
24/02, 02/06, 28/07, 26/10	Collins Well	ammonia	colorimetry	quarterly	0.5	0.44	mg/l	0.065	SW EQS	No
24/02, 02/06, 28/07, 26/10	Collins Well	chloride	titration	quarterly	25	23.3	mg/l	187.5	SW EQS	No
24/02, 02/06, 28/07, 26/10	Collins Well	sulphate	turbidimetry	quarterly	16.7	12.5	mg/l	187.5	SW EQS	No
28/7,	Collins Well	nitrate	colorimetry	annually	< 1.0	< 1.0	mg/l	37.5	SW EQS	No
28/7,	Collins Well	Total P	ICP	annually	<0.12	< 0.12	mg/l	NA	SW EQS	No
							SELECT			SELECT

.+ where average indicates arithmetic mean

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

Table 2: Downgradient Groundwater monitoring results

Groundwater/Soil monitoring template										Lic No:	W0017-04	Year	2016
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			
24/02, 02/06, 28/07, 26/10	GW40	conductivity	meter	quarterly	723	588	µS/cm @20oC	800	SW EQS	no			
24/02, 02/06, 28/07, 26/10	GW40	ammonia	colorimetry	quarterly	0.57	0.45	mg/l	0.065	SW EQS	no			
24/02, 02/06, 28/07, 26/10	GW40	chloride	titration	quarterly	26	18	mg/l	187.5	SW EQS	no			
24/02, 02/06, 28/07, 26/10	GW40	sulphate	turbidimetry	quarterly	41	26	mg/l	187.5	SW EQS	no			
28/7,	GW40	nitrate	colorimetry	annually	< 1.0	< 1.0	mg/l	37.5	SW EQS	no			
28/7,	GW40	Total P	ICP	annually	< 0.12	< 0.12	mg/l	NA	SW EQS	no			
24/02, 02/06, 28/07, 26/10	GW5	conductivity	meter	quarterly	675	537	µS/cm @20oC	800	SW EQS	no			
24/02, 02/06, 28/07, 26/10	GW5	ammonia	colorimetry	quarterly	1.2	0.83	mg/l	0.065	SW EQS	no			
24/02, 02/06, 28/07, 26/10	GW5	chloride	titration	quarterly	25	22	mg/l	187.5	SW EQS	no			
24/02, 02/06, 28/07, 26/10	GW5	sulphate	turbidimetry	quarterly	4.4	2.3	mg/l	187.5	SW EQS	no			
28/7,	GW5	nitrate	colorimetry	annually	< 1.0	< 1.0	mg/l	37.5	SW EQS	no			
28/7,	GW5	Total P	ICP	annually	< 0.12	< 0.12	mg/l	NA	SW EQS	no			
<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.</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 (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 style="text-align: right;"> Groundwater monitoring template Guidance on the Management of Contaminated Land and Groundwater at EPA Licensed Sites (EPA 2013) Surface water EQS Groundwater regulations Drinking water (private supply) standards Drinking water (public supply) standards Interim Guideline Values (IGV) </p>													

Groundwater/Soil monitoring template

Lic No:

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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

Lic No:

W0017-04

Year

2016

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

		Commentary	
1	ELRA initial agreement status	Submitted and not agreed by EPA;	
2	ELRA review status	Review required and completed	
3	Amount of Financial Provision cover required as determined by the latest ELRA	2,949,600	
4	Financial Provision for ELRA status	Submitted and not agreed by EPA;	
5	Financial Provision for ELRA - amount of cover	2,949,600	
6	Financial Provision for ELRA - type	Other please specify	Limerick Co Co financial resources
7	Financial provision for ELRA expiry date	31/12/2044	
8	Closure plan initial agreement status	sure plan submitted and not 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	5,696,344	
12	Financial Provision for Closure - type	Other please specify	Limerick Co Co financial resources
13	Financial provision for Closure expiry date	31/12/2044	

Environmental Management Programme/Continuous Improvement Programme template		Lic No:	W0017-04	Year	2016
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	An EMS is in operation for the site and is updated annually		
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	The EMP also acts as the site manual and assists the site in achieving its targets and objectives. It is updated annually.		
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			

Environmental Management Programme (EMP) report					
Objective Category	Target	Status (% completed)	How target was progressed	Responsibility	Intermediate outcomes
Additional improvements	Completed in 2016	90	100% complete. Water mains has been connected to the site office.	Section Head	Installation of infrastructure
Energy Efficiency/Utility conservation	Completed in 2016	90	100% complete. Landfill gas carrier pipes excavated and raised where required	Section Head	Reduced emissions
Additional improvements	Completed in 2016	90	100% complete. Hedgecutter purchased.	Section Head	Improved Environmental Management Practices

Noise monitoring summary report

Lic No: W0017-04

Year

2016

1 Was noise monitoring a licence requirement for the AER period?

Yes

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?

Noise
Guidance
note NG4

Yes

3 Does your site have a noise reduction plan

No

4 When was the noise reduction plan last updated?

Enter date

5 Have there been changes relevant to site noise emissions (e.g. plant or operational changes) since the last noise survey?

No

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 <u>site</u> compliant with noise limits (day/evening/night)?
26/10/2016	08.00-19.00	M1		44	43	45	79	No	SELECT	traffic, site,birdsong	Yes
26/10/2016	08.00-19.00		M2	42	31	41	70	No		traffic, birdsong	Yes
26/10/2016	08.00-19.00		M3	36	31	337	70	No		traffic, birdsong	Yes
26/10/2016	08.00-19.00		M4	41	30	40	70	No		traffic, birdsong	Yes
26/10/2016	08.00-19.00		M5	36	29	38	63	No		traffic, birdsong	Yes
26/10/2016	08.00-19.00		M7	38	29	38	71	No		site pump, birdsong	Yes
27/10/2016	23.00-05.30	M1		31	24	32	68	No		Site pump, traffic	Yes
27/10/2016	23.00-05.30		M2	31	22	28	65	No		birdsong, distant traffic	Yes
27/10/2016	23.00-05.30		M3	38	22	34	76	No		distant traffic	Yes
27/10/2016	23.00-05.30		M4	32	22	33	60	No		distant traffic	Yes
27/10/2016	23.00-05.30		M5	32	24	33	68	No		distant traffic	Yes
27/10/2016	23.00-05.30		M7	34	23	33	62	No		Site pump, birdsong	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?

SELECT

** please explain the reason for not taking action/resolution of noise issues?

Any additional comments? (less than 200 words)

Resource Usage/Energy efficiency summary

Lic No:

W0017-04

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

2006	
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)	625.4	235.5		
Total Energy Generated (MWHrs)	6776	7640		
Total Renewable Energy Generated (MWHrs)				
Electricity Consumption (MWHrs)	625.4	235.5		
Fossil Fuels Consumption:				
Heavy Fuel Oil (m3)	0.8	1.2		
Light Fuel Oil (m3)				
Natural gas (m3)				
Coal/Solid fuel (metric tonnes)				
Peat (metric tonnes)				
Renewable Biomass				
Renewable energy generated on site				

* 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							
Surface water							
Public supply							
Recycled water							
Total							

* 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				
Non-Hazardous (Tonnes)	14,260.00				

Resource Usage/Energy efficiency summary	Lic No: W0017-04	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
2006	Install electricity generation plant to generate electricity from landfill gas	Installation of 1MW g	energy audit		Jun-09	Landfill Manager	Jun-09	Complete
2006	Install DO probe to control aerators in LTP.	Link DO probe to aera	energy audit	20	Jun-07	Landfill Manager	Jun-07	Complete
2006	Consider installation of air diffusion system in LTP.	Install alternative aera	energy audit		2013	Landfill Manager		Ongoing

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	Gas combustion engine				
Primary Fuel	Landfill gas				
Thermal Efficiency	42.60%				
Unit Date of Commission	2009				
Total Starts for year					
Total Running Time	7776 hrs				
Total Electricity Generated (GWH)	7.64				
House Load (GWH)	0.235				
KWH per Litre of Process Water					
KWH per Litre of Total Water used on Site					

Complaints and Incidents summary template Lic No: W0017-04 Year 2016

Complaints

Have you received any environmental complaints in the current reporting year? If yes please complete summary details of complaints received on site in table 1 below

No	Additional information
----	------------------------

Table 1 Complaints summary

Date	Category	Other type (please specify)	Brief description of complaint (Free txt <20 words)	Corrective action < 20 words	Resolution status	Resolution date	Further information
	SELECT				SELECT		
	SELECT				SELECT		
	SELECT				SELECT		
	SELECT				SELECT		
Total complaints open at start of reporting year		0					
Total new complaints received during reporting year		0					
Total complaints closed during reporting year		0					
Balance of complaints end of reporting year		0					

Incidents

Have any incidents occurred on site in the current reporting year? Please list all incidents for current reporting year in Table 2 below

Yes	Additional information
-----	------------------------

*For information on how to report and what constitutes an incident [What is an incident](#)

Table 2 Incidents summary

Date of occurrence	Incident nature	Location of occurrence	Incident category*please refer to guidance	Receptor	Cause of incident	Other cause(please specify)	Activity in progress at time of incident	Communication	Occurrence	Corrective action<20 words	Preventative action <20 words	Resolution status	Resolution date	Likelihood of reoccurrence
28.07.2016	Uncontrolled release	Licenced discharge point (ty	1. Minor	Water	Plant or equipment issues		Normal activities	EPA	New	Repair of equipment	NA	Complete	05.08.2016	Low
Total number of incidents current year														1
Total number of incidents previous year														4
% reduction/increase														-400%

WASTE SUMMARY	Lic No:	W0017-04	Year	2016
SECTION A-PRTR ON SITE WASTE TREATMENT AND WASTE TRANSFERS TAB- TO BE COMPLETED BY ALL IPPC AND WASTE FACILITIES		PRTR facility login		dropdown list click to see options

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

Additional Information

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 **1 to be captured through PRTR reporting**)

Yes	
-----	--

If yes please enter details in table 1 below

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)	EWG code	Source of waste accepted	Description of waste accepted Please enter an accurate and detailed description which applies to relevant EWG code	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 -
130,000	20 03 01	20- MUNICIPAL WASTES (HOUSEHOLD WASTE AND SIMILAR COMMERCIAL, INDUSTRIAL AND INSTITUTIONAL WASTES) INCLUDING SEPARATELY COLLECTED FRACTIONS	mixed municipal European Waste Catalogue EWC codes	344.37	378.45	-9%	NA		D5- Specially engineered landfill	0	Waste removed off-site for disposal
50,000	17 05 04	17- CONSTRUCTION AND DEMOLITION WASTES (INCLUDING EXCAVATED SOIL FROM CONTAMINATED SITES)	soil & stone	1,972.08	229.30	88%			R5-Recycling/reclamation or other inorganic materials which includes soil cleaning resulting in recovery of the soil and recycling of inorganic construction materials	0	
50,000	17 03 02		Bituminous C&D	0.00	457.94	-100%	Landfill closed and stopped accepting waste stream		D5- Specially engineered landfill	0	
5,000	20 01 39	20- MUNICIPAL WASTES (HOUSEHOLD WASTE AND SIMILAR COMMERCIAL, INDUSTRIAL AND INSTITUTIONAL WASTES) INCLUDING SEPARATELY COLLECTED FRACTIONS	plastic bottles	4.72	3.32	29%	NA		R5-Recycling/reclamation or other inorganic materials which includes soil cleaning resulting in recovery of the soil and recycling of inorganic construction materials	0	
5,000	20 01 01	20- MUNICIPAL WASTES (HOUSEHOLD WASTE AND SIMILAR COMMERCIAL, INDUSTRIAL AND INSTITUTIONAL WASTES) INCLUDING SEPARATELY COLLECTED FRACTIONS	tetrapaks	0.85	0.90	-6%	NA		R5-Recycling/reclamation or other inorganic materials which includes soil cleaning resulting in recovery of the soil and recycling of inorganic construction materials	0	
5,000	20 01 01	20- MUNICIPAL WASTES (HOUSEHOLD WASTE AND SIMILAR COMMERCIAL, INDUSTRIAL AND INSTITUTIONAL WASTES) INCLUDING SEPARATELY COLLECTED FRACTIONS	newspapers magazines	6.68	9.50	-29%	NA		R3-Recycling/reclamation or organic substances which are not used as solvents(including composting asanother biological transformation processes)which includes gasification and pyralisis	0	
5,000	20 01 02	20- MUNICIPAL WASTES (HOUSEHOLD WASTE AND SIMILAR COMMERCIAL, INDUSTRIAL AND INSTITUTIONAL WASTES) INCLUDING SEPARATELY COLLECTED FRACTIONS	Glass	4.24	0.84	500%	NA		R5-Recycling/reclamation or other inorganic materials which includes soil cleaning resulting in recovery of the soil and recycling of inorganic construction materials	0	

WASTE SUMMARY		Lic No: W0017-04		Year: 2016				
5,000	20 01 05	20- MUNICIPAL WASTES (HOUSEHOLD WASTE AND SIMILAR COMMERCIAL, INDUSTRIAL AND INSTITUTIONAL WASTES) INCLUDING SEPARATELY COLLECTED FRACTIONS	food cans	0.57	0.12	475%	R4- Recycling/reclamation of metals and metal compounds	0
5,000	20 01 05	20- MUNICIPAL WASTES (HOUSEHOLD WASTE AND SIMILAR COMMERCIAL, INDUSTRIAL AND INSTITUTIONAL WASTES) INCLUDING SEPARATELY COLLECTED FRACTIONS	drink cans	0.41	0.06	683%	R4- Recycling/reclamation of metals and metal compounds	0
5,000	20 01 01	20- MUNICIPAL WASTES (HOUSEHOLD WASTE AND SIMILAR COMMERCIAL, INDUSTRIAL AND INSTITUTIONAL WASTES) INCLUDING SEPARATELY COLLECTED FRACTIONS	cardboard	7.72	6.76	14%	R3-Recycling/reclamation or organic substances which are not used as solvents(including composting asanother biological transformation processes)which includes gasification and pyrolysis	0
5,000	20 01 40	20- MUNICIPAL WASTES (HOUSEHOLD WASTE AND SIMILAR COMMERCIAL, INDUSTRIAL AND INSTITUTIONAL WASTES) INCLUDING SEPARATELY COLLECTED FRACTIONS	mixed metals	8.90	9.82	-9%	R4- Recycling/reclamation of metals and metal compounds	0
5,000	20 01 11	20- MUNICIPAL WASTES (HOUSEHOLD WASTE AND SIMILAR COMMERCIAL, INDUSTRIAL AND INSTITUTIONAL WASTES) INCLUDING SEPARATELY COLLECTED FRACTIONS	textiles	1.12	0.68	64%	R5-Recycling/reclamation or other inorganic materials which includes soil celaning resulting in recovery of the soil and recycling of inorganic construction materials	0
5000	20 03 07	20- MUNICIPAL WASTES (HOUSEHOLD WASTE AND SIMILAR COMMERCIAL, INDUSTRIAL AND INSTITUTIONAL WASTES) INCLUDING SEPARATELY COLLECTED FRACTIONS	bulky waste	119.48	110.1	9%	R13-Storage of waste pending any of the operations numbered R1 to R12 (excluding temporary storage)	Waste removed off-site for disposal
5,000	20 01 36	(HOUSEHOLD WASTE AND SIMILAR COMMERCIAL, INDUSTRIAL AND INSTITUTIONAL WASTES) INCLUDING SEPARATELY	WEEE	12.28	0	100%	R13-Storage of waste pending any of the operations numbered R1 to R12 (excluding temporary storage)	0
5000	20 02 01		Garden waste	12.68	8.51	33%	R4- Recycling/reclamation of met	0

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 on site

SELECT	
--------	--

6 Does your facility have relevant nuisance controls in place?

SELECT	
--------	--

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

SELECT	
--------	--

8 Do you maintain a sludge register on site?

SELECT	
--------	--

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
Municipal Solid Waste (household & commercial)	NA	0	0	remaining built capacity

WASTE SUMMARY				Lic No:	W0017-04	Year	2016

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
										m2	m2	m2	
Cells 1 to 16	Mar-90	Jun-14	1	Public	Non Hazardous	2014	No	No	No	157,684	136,844	20,800	As per licence requirement

WASTE SUMMARY	Lic No:	W0017-04	Year	2016
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Table 4 Environmental monitoring-landfill only [Landfill Manual-Monitoring Standards](#)

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 S53(A)(5) of WMA been submitted in reporting year	Comments
Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	

+ 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 m2 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
m2	m2		m2			
0	0	167,000	0	0	as per licence condition 10.3.1	

*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

Yes

Volume of leachate in reporting year(m3)	Leachate (BOD) mass load (kg/annum)	Leachate (COD) mass load (kg/annum)	Leachate (NH4) mass load (kg/annum)	Leachate (Chloride) mass load kg/annum	Leachate treatment on-site	Specify type of leachate treatment	Comments
11,988	61	NA	8	NA	Yes	Extended aeration	

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 m3	Power generated (MW / KWh)	Used on-site or to national grid	Was surface emissions monitoring performed during the reporting year?	Comments
2,939,461	7639661	Both	SELECT	m ³ of methane



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[Guidance to completing the PRTR workbook](#)

PRTR Returns Workbook

Version 1.1.10

REFERENCE YEAR 2016

1. FACILITY IDENTIFICATION

Parent Company Name	Limerick City & County Council
Facility Name	Gortadroma Landfill Site
PRTR Identification Number	W0017
Licence Number	W0017-04

Classes of Activity	
No.	class_name
-	Refer to PRTR class activities below

Address 1	Gortadroma
Address 2	Ballyhahill
Address 3	
Address 4	
Country	Ireland
Coordinates of Location	-6.45823 53.8084
River Basin District	IEGBNISH
NACE Code	3821
Main Economic Activity	Treatment and disposal of non-hazardous waste
AER Returns Contact Name	JOHN O CARROLL
AER Returns Contact Email Address	john.ocarroll@limerick.ie
AER Returns Contact Position	Landfill Manager
AER Returns Contact Telephone Number	069-82355
AER Returns Contact Mobile Phone Number	087 7565449
AER Returns Contact Fax Number	
Production Volume	0.0
Production Volume Units	
Number of Installations	1
Number of Operating Hours in Year	2210
Number of Employees	2
User Feedback/Comments	Release to water- 50% +/- variation for iron,magnesium,orthophosphate,potaasium,sodium,sulphate,suspended solids and TON, reason, all results recorded are less than results recorded in 2015 with the exception of Iron which is still within A2 MAC as specified in EC (Quality of surface water intended for the abstraction of drinking water) Regs 1988 [SI No. 294 of 1989] and the volume of Surface Water discharged was 165,893 m3 less than 2015 due to less rainfall.Release to air, 50% +/- variation in Sulphur oxides and Carbon monoxide from the utilisation engine -all emissions results recorded were within licence limits.
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?	
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

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

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

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

4.1 RELEASES TO AIR [Link to previous years emissions data](#)

| PRTR# : W0017 | Facility Name : Gortadroma Landfill Site | Filename : W0017_2016.xlsm | Return Year : 2016 |

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SECTION A : SECTOR SPECIFIC PRTR POLLUTANTS

RELEASES TO AIR		METHOD			Please enter all quantities in this section in KG:			
No. Annex I	POLLUTANT Name	M/C/E	Method Used		Emission Point 1	T (Total) KG/Year	A (Accidental) KG/Year	F (Fugitive) KG/Year
			Method Code	Designation or Description				
01	Methane (CH4)	C	OTH	Total estimated methane generated minus(methane flared + utilised)	1189279.0	1189279.0	0.0	0.0
03	Carbon dioxide (CO2)	C	OTH		9850149.0	9850149.0	0.0	0.0
08	Nitrogen oxides (NOx/NO2)	M	OTH		2028.0	2028.0	0.0	0.0
11	Sulphur oxides (SOx/SO2)	M	OTH		2400.0	2400.0	0.0	0.0
02	Carbon monoxide (CO)	M	OTH		6150.3	6150.3	0.0	0.0
86	Particulate matter (PM10)	M	OTH		3.74	3.74	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		METHOD			Please enter all quantities in this section in KG:			
No. Annex I	POLLUTANT Name	M/C/E	Method Used		Emission Point 1	T (Total) KG/Year	A (Accidental) KG/Year	F (Fugitive) KG/Year
			Method Code	Designation or Description				
						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		METHOD			Please enter all quantities in this section in KG:			
Pollutant No.	POLLUTANT Name	M/C/E	Method Used		Emission Point 1	T (Total) KG/Year	A (Accidental) KG/Year	F (Fugitive) KG/Year
			Method Code	Designation or Description				
						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:		Gortadroma Landfill Site			
Please enter summary data on the quantities of methane flared and / or utilised		M/C/E	Method Used		Facility Total Capacity m3 per hour
T (Total) kg/Year			Method Code	Designation or Description	
Total estimated methane generation (as per site model)	3154179.0	C	OTH	Landgem	N/A
Methane flared	297166.0	M	OTH	Landfill Gas Survey	1500.0 (Total Flaring Capacity)
Methane utilised in engines	1667734.0	M	OTH	Landfill Gas Survey	650.0 (Total Utilising Capacity)
Net methane emission (as reported in Section A above)	1189279.0	C	OTH	Total estimated methane generated minus(methane flared + utilised)	N/A

4.2 RELEASES TO WATERS [Link to previous years emissions data](#)

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SECTION A : SECTOR SPECIFIC PRTR POLLUTANTS

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

RELEASES TO WATERS					Please enter all quantities in this section in KGs				
No. Annex II	POLLUTANT Name	M/C/E	Method Used		SW4(Storm Water Outlet)	Treated Leachate Discharge	T (Total) KG/Year	QUANTITY	
			Method Code	Designation or Description	Emission Point 1	Emission Point 2		A (Accidental) KG/Year	F (Fugitive) KG/Year
18	Cadmium and compounds (as Cd)	M	CRM	UKAS	0.25	0.0	0.25	0.0	0.0
19	Chromium and compounds (as Cr)	M	CRM	UKAS	0.84	0.0	0.84	0.0	0.0
20	Copper and compounds (as Cu)	M	CRM	UKAS	3.8	0.0	3.8	0.0	0.0
21	Mercury and compounds (as Hg)	M	CRM	UKAS	0.04	0.0	0.04	0.0	0.0
22	Nickel and compounds (as Ni)	M	CRM	UKAS	3.8	0.0	3.8	0.0	0.0
23	Lead and compounds (as Pb)	M	CRM	UKAS	2.53	0.0	2.53	0.0	0.0
24	Zinc and compounds (as Zn)	M	CRM	UKAS	7.61	0.0	7.61	0.0	0.0
61	Anthracene	M	CRM	UKAS	0.42	0.0	0.42	0.0	0.0
62	Benzene	M	CRM	UKAS	0.42	0.0	0.42	0.0	0.0
34	1,2-dichloroethane (EDC)	M	CRM	UKAS	0.42	0.0	0.42	0.0	0.0
91	Benzo(g,h,i)perylene	M	CRM	UKAS	0.42	0.0	0.42	0.0	0.0
65	Ethyl benzene	M	CRM	UKAS	0.42	0.0	0.42	0.0	0.0
88	Fluoranthene	M	CRM	UKAS	0.42	0.0	0.42	0.0	0.0
43	Hexachlorobutadiene (HCBd)	M	CRM	UKAS	0.42	0.0	0.42	0.0	0.0
42	Hexachlorobenzene (HCB)	M	CRM	UKAS	0.42	0.0	0.42	0.0	0.0
68	Naphthalene	M	CRM	UKAS	0.84	0.0	0.84	0.0	0.0
49	Pentachlorophenol (PCP)	M	CRM	UKAS	0.42	0.0	0.42	0.0	0.0
73	Toluene	M	CRM	UKAS	0.42	0.0	0.42	0.0	0.0
12	Total nitrogen	M	CRM	UKAS	0.0	0.0	0.0	0.0	0.0
76	Total organic carbon (TOC) (as total C or COD/3)	M	CRM	UKAS	5501.74	0.0	5501.74	0.0	0.0
13	Total phosphorus	M	CRM	UKAS	50.78	2.75	53.53	0.0	0.0
60	Vinyl chloride	M	CRM	UKAS	0.21	0.0	0.21	0.0	0.0
79	Chlorides (as Cl)	M	OTH	Standard methods for the measurement of water & waste waters	10372.9	0.0	10372.9	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 WATERS					Please enter all quantities in this section in KGs			
No. Annex II	POLLUTANT Name	M/C/E	Method Used		Emission Point 1	T (Total) KG/Year	A (Accidental) KG/Year	F (Fugitive) KG/Year
			Method Code	Designation or Description				
					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 WATERS					Please enter all quantities in this section in KGs				
Pollutant No.	POLLUTANT Name	M/C/E	Method Used		SW4(Storm Water Outlet)	Treated Leachate Discharge	T (Total) KG/Year	QUANTITY	
			Method Code	Designation or Description	Emission Point 1	Emission Point 2		A (Accidental) KG/Year	F (Fugitive) KG/Year
238	Ammonia (as N)	M	CRM	UKAS	181.98	7.79	189.77	0.0	0.0
306	COD	M	OTH	Standard methods for the measurement of water & waste waters	16505.22	0.0	16505.22	0.0	0.0
374	Boron	M	CRM	UKAS	97.33	0.0	97.33	0.0	0.0
305	Calcium	M	CRM	UKAS	33856.88	0.0	33856.88	0.0	0.0
357	Iron	M	CRM	UKAS	486.69	0.0	486.69	0.0	0.0
320	Magnesium	M	CRM	UKAS	2623.9	0.0	2623.9	0.0	0.0
321	Manganese (as Mn)	M	CRM	UKAS	87.6	0.0	87.6	0.0	0.0
327	Nitrate (as N)	M	CRM	UKAS	1286.56	0.0	1286.56	0.0	0.0
387	Ortho-phosphate (as P)	M	CRM	UKAS	253.92	0.0	253.92	0.0	0.0
338	Potassium	M	CRM	UKAS	1557.41	0.0	1557.41	0.0	0.0
341	Sodium	M	CRM	UKAS	7194.58	0.0	7194.58	0.0	0.0
343	Sulphate	M	CRM	UKAS	11849.9	0.0	11849.9	0.0	0.0
240	Suspended Solids	M	OTH	Standard methods for the measurement of water & waste waters	2188.0	74.56	2262.56	0.0	0.0
303	BOD	M	CRM	UKAS	562.7	62.57	625.27	0.0	0.0
379	Total Oxidised Nitrogen (TON)	M	CRM	UKAS	338.56	0.0	338.56	0.0	0.0

5. ONSITE TREATMENT & OFFSITE TRANSFERS OF WASTE

| PRTR# : W0017 | Facility Name : Gortadroma Landfill Site | Filename : W0017_2016.xlsm | Return Year : 2016 |

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Please enter all quantities on this sheet in Tonnes

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Transfer Destination	European Waste Code	Hazardous	Quantity (Tonnes per Year)	Description of Waste	Waste Treatment Operation	Method Used		Location of Treatment	Licence/Permit No 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: Name and Licence/Permit No of Recover/Disposer		
Within the Country	15 01 01	No	7.72	paper and cardboard packaging	R3	M	Weighed	Offsite in Ireland	CLEAN IRELAND RECYCLING,W0253-01	Cree ,Kilrush ,County Clare,,,Ireland	LUDDENMORE,GRANGE,KI LMALLOCK,COUNTY LIMERICK,Ireland	
Within the Country	15 01 04	No	0.57	metallic packaging	R4	M	Weighed	Offsite in Ireland	MR. BINMAN,W0061-03	LUDDENMORE,GRANGE,KI LMALLOCK,COUNTY LIMERICK,Ireland		
Within the Country	15 01 04	No	0.41	metallic packaging	R4	M	Weighed	Offsite in Ireland	MR. BINMAN,W0061-03	Cree ,Kilrush ,County Clare,,,Ireland		
Within the Country	15 01 05	No	0.85	composite packaging	R5	M	Weighed	Offsite in Ireland	CLEAN IRELAND RECYCLING,W0253-01	Cree ,Kilrush ,County Clare,,,Ireland		
Within the Country	20 01 01	No	6.68	Newspapers & Magazines	R3	M	Weighed	Offsite in Ireland	CLEAN IRELAND RECYCLING,W0253-01	Cree ,Kilrush ,County Clare,,,Ireland		
Within the Country	20 01 02	No	4.24	glass	R5	M	Weighed	Offsite in Ireland	MR. BINMAN,W0061-03	LUDDENMORE,GRANGE,KI LMALLOCK,COUNTY LIMERICK,Ireland		
To Other Countries	20 01 11	No	1.12	textiles	R5	M	Weighed	Abroad	COOKSTOWN TEXTILE RECYCLERS,W0113-04	ROAD,RANDALSTOWN,CO UNTY ANTRIM,Ireland		
Within the Country	20 01 36	No	8.48	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 RECYCLERS,W0113-04	EST.,TULLAMORE,COUNTY OFFALY,Ireland		
Within the Country	20 01 39	No	4.72	plastics	R5	M	Weighed	Offsite in Ireland	CLEAN IRELAND RECYCLING,W0253-01	Cree ,Kilrush ,County Clare,,,Ireland		
Within the Country	20 01 40	No	8.9	Mixed Scrap Metal	R4	M	Weighed	Offsite in Ireland	UNITED METALS,NWCPO-10-05657-01	Park,Ballysimon,Limerick,,,Ireland		
Within the Country	20 03 01	No	344.37	mixed municipal waste	D1	M	Weighed	Offsite in Ireland	CLEAN IRELAND RECYCLING,W0253-01	Cree ,Kilrush ,County Clare,,,Ireland		
Within the Country	20 03 07	No	119.48	bulky waste	D1	M	Weighed	Offsite in Ireland	CLEAN IRELAND RECYCLING,W0253-01	Cree ,Kilrush ,County Clare,,,Ireland		
Within the Country	19 07 03	No	5210.65	landfill leachate other than those mentioned in 19 07 02	D8	M	Weighed	Offsite in Ireland	Castletroy Waste Water Treatment Plant,DO019-01	Castletroy ,Limerick,,,Ireland		
Within the Country	19 07 03	No	9050.2	landfill leachate other than those mentioned in 19 07 02	D8	M	Weighed	Onsite of generati	Newcastle West Waste Water Treatment Plant,DO108-01	Newcastle West ,County Limerick,,,Ireland		
Within the Country	20 01 35	Yes	3.8	discarded electrical and electronic equipment other than those mentioned in 20 01 21 and 20 01 23 containing hazardous components	R4	M	Weighed	Offsite in Ireland	KMK METAL RECYCLERS,W0113-04	EST.,TULLAMORE,COUNTY OFFALY,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](#)