Facility Information Summary	
AER Reporting Year	2016
Licence Register Number	w0067-002
Name of site	Rathroeen Landfill, killala Rd, Ballina Mayo
Site Location	
NACE Code	
Class/Classes of Activity	
National Grid Reference (6E, 6 N)	

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.

Completed Landfilling to Cell 3B Rathroeen Landfill in July 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.

Michael Hegarty	25/03/2017
Signature Group/Facility manager (or nominated, suitably qualified and experienced deputy)	Date

AIR-summary template Lic No: w0067-002 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	No	

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		Completed Landfill	
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	

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 therof	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

Continuous Monitoring

4	Does your site carry out continuous air emissions monitoring?	SELECT	
	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	SELECT	
6	Do you have a proactive service agreement for each piece of continuous monitoring equipment?	SELECT	
7	Did your site experience any abatement system bypasses? If yes please detail them in table A3 below	SELECT	

Table A2: Summary of average emissions -continuous monitoring

Emission reference no:	Parameter/ Substance	ELV in licence or any revision therof	Averaging Period	Compliance Criteria	Units of measurement	Annual Emission	Annual maximum	Monitoring Equipment downtime (hours)	Number of ELV exceedences in current reporting year	Comments
	SELECT			SELECT	SELECT					
	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

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	No		

Table A4: Solvent Management Plan Summary
Total VOC Emission limit value

Solvent regulations — Please refer to linked solvent regulations to complete table 5 and 6

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 therof	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) Lic No: w0067-002 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** licenced emissions you only need to complete table W1 and or W2 for storm water analysis and visual inspections	SELECT	
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	SELECT	

Table W1 Storm water monitoring

Location reference	Location relative to site activities	PRTR Parameter	Licenced 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	ompleted Landfilling to Cell 3B Rathroe		SELECT		SELECT	SELECT	
SW 1	upstream	DO		5.12.2016			7.2	% sat		
SW 1	upstream	Ammonical Nitrogen		5.12.2016			0.324	mg/l N		
SW 1	upstream	BOD		5.12.2016			1	mg/l O2		
SW 1	upstream	COD		5.12.2016			58	mg/l O2		
SW 1	upstream	Chloride		5.12.2016			33.3	mg/l Cl		
SW 1	upstream	Conductivity		5.12.2016			641	mS/cm		
SW 1	upstream	pH		5.12.2016			6.8	pH units		
SW 1	upstream	otal Suspended Solids		5.12.2016			2	mg/l		
SW 1	upstream	Sulphate		5.12.2016			94.9	mg/l SO4		
SW 1	upstream	DO		10.08.2016			6.58	% sat		
SW 1	upstream	Ammonical Nitrogen		10.08.2016			0.064	mg/l N		
SW 1	upstream	BOD		10.08.2016			1	mg/l O2		
SW 1	upstream	COD		10.08.2016			36	mg/l O2		
SW 1	upstream	Chloride		10.08.2016			27.2	mg/l Cl		
SW 1	upstream	Conductivity		10.08.2016			518	mS/cm		
SW 1	upstream	pH		10.08.2016			7.6	pH units		
SW 1	upstream	otal Suspended Solids		10.08.2016			2	mg/l		
SW 1	upstream	Total Phosphourous		10.08.2016			0.07	mg/l P		
SW 1	upstream	Cadmium		10.08.2016			0.5	ug/l		
SW 1	upstream	Calcium		10.08.2016			140	mg/l		
SW 1	upstream	Chromium		10.08.2016			0.7	ug/l		
SW 1	upstream	Copper		10.08.2016			1	ug/l		
SW 1	upstream	Iron		10.08.2016			230	ug/l		
SW 1	upstream	Lead		10.08.2016			0.5	ug/l		
SW 1	upstream	Magnesium		10.08.2016			8	mg/l		
SW 1	upstream	Manganeese		10.08.2016			21	ug/l		
SW 1	upstream	Mercury		10.08.2016			0.1	ug/l		
SW 1	upstream	Potassium		10.08.2016			6	mg/l		
SW 1	upstream	Sulphate		10.08.2016			78.3	mg/l SO4		
SW 1	upstream	Sodium		10.08.2016			14	mg/l		
SW 1	upstream	Alkalinity		10.08.2016			252	mg/l CaCO3		
SW 1	upstream	Zinc		10.08.2016			5	ug/l		
SW 1	upstream	Nickel		10.08.2016			4	ug/l		
SW 1	upstream	Boron		10.08.2016			25	ug/l		
SW 1	upstream	DO		25.05.2016			5.8	% sat		
SW 1	upstream	Ammonical Nitrogen		25.05.2016			0.05	mg/l N		
SW 1	upstream	BOD		25.05.2016			1	mg/l O2		
SW 1	upstream	COD		25.05.2016			46	mg/l O2		
SW 1	upstream	Chloride		25.05.2016			39.8	mg/l Cl		
SW 1	upstream	Conductivity		25.05.2016			518	mS/cm		
SW 1	upstream	pH		25.05.2016			7.5	pH units		
SW 1	upstream	otal Suspended Solids		25.05.2016			2	mg/l		
SW 1	upstream	Sulphate		25.05.2016			52.4	mg/l SO4		
SW 1	upstream	DO		9.03.2016			5.45	% sat		
SW 1	upstream	Ammonical Nitrogen		9.03.2016			0.019	mg/l N		
SW 1	upstream	BOD		9.03.2016			1	mg/l O2		
SW 1	upstream	COD		9.03.2016			29	mg/l O2		
SW 1	upstream	Chloride		9.03.2016			59.1	mg/l Cl		
SW 1	upstream	Conductivity		9.03.2016			580	mS/cm		
SW 1	upstream	pH		9.03.2016			7.6	pH units		
SW 1	upstream	otal Suspended Solids		9.03.2016			2	mg/l		
SW 1	upstream	Sulphate		9.03.2016			53.6	mg/l SO4		
SW 2	onsite	mg/l		10.08.2016			7.21	mg/l		
SW 2	onsite	mg/l N		10.08.2016			1.8	mg/l N		
SW 2	onsite	mg/l O2		10.08.2016			1	mg/l O2		
SW 2	onsite	mg/l O2		10.08.2016			47	mg/l O2		
SW 2	onsite	mg/l Cl		10.08.2016			37.1	mg/l Cl		
SW 2	onsite	mS/cm		10.08.2016			641	mS/cm		
SW 2	onsite	pH units		10.08.2016			7.3	pH units		
SW 2	onsite	mg/l		10.08.2016			2	mg/l		
SW 2	onsite	mg/l P		10.08.2016			0.06	mg/l P		
SW 2	onsite	ug/l		10.08.2016			0.5	ug/l		
SW 2	onsite	mg/l		10.08.2016			156	mg/l		
SW 2	onsite	ug/l		10.08.2016			0.6	ug/l		
SW 2	onsite	ug/l		10.08.2016			1	ug/l		
SW 2	onsite	ug/l		10.08.2016			1006	ug/l		
SW 2	onsite	ug/l		10.08.2016			0.5	ug/l		
SW 2	onsite	mg/l		10.08.2016			11	mg/l		
SW 2	onsite	ug/l		10.08.2016			89	ug/l		
SW 2	onsite	ug/l		10.08.2016			0.1	ug/l		
SW 2	onsite	mg/l		10.08.2016			6	mg/l		
SW 2	onsite	mg/l SO4		10.08.2016			121	mg/l SO4		
SW 2	onsite	mg/l		10.08.2016			21	mg/l		
SW 2	onsite	mg/l CaCO3		10.08.2016			249	mg/l CaCO3		
SW 2	onsite	ug/l		10.08.2016			5	ug/l		
SW 2	onsite	ug/l		10.08.2016			5	ug/l		
SW 2	onsite	mg/l		10.08.2016			26	mg/l		
SW 2	onsite	mg/l		9.03.2016			5.9	mg/l		
SW 2	onsite	mg/l N		9.03.2016			0.02	mg/l N		
SW 2	onsite	mg/l O2		9.03.2016			1	mg/l O2		
SW 2	onsite	mg/l O2		9.03.2016			38	mg/l O2		
SW 2	onsite	mg/l Cl		9.03.2016			39.6	mg/l Cl		
SW 2	onsite	mS/cm		9.03.2016			514	mS/cm		
SW 2	onsite	pH units		9.03.2016			7.4	pH units		
SW 2	onsite	mg/l		9.03.2016			2	mg/l		
SW 2	onsite	mg/l SO4		9.03.2016			52.3	mg/l SO4		
SW 2	onsite	mg/l		25.05.2016			4.65	mg/l		
SW 2	onsite	mg/l N		25.05.2016			2.08	mg/l N		
SW 2	onsite	mg/l O2		25.05.2016			1	mg/l O2		
SW 2	onsite	mg/l O2		25.05.2016			46	mg/l O2		
SW 2	onsite	mg/l Cl		25.05.2016			45.9	mg/l Cl		
SW 2	onsite	mS/cm		25.05.2016			682	mS/cm		
SW 2	onsite	pH units		25.05.2016			6.9	pH units		
SW 2	onsite	mg/l		25.05.2016			2	mg/l		
SW 2	onsite	mg/l SO4		25.05.2016			79.2	mg/l SO4		
SW 3	downstream	DO		10.08.2016			6.93	mg/l		
SW 3	downstream	Ammonical Nitrogen		10.08.2016			0.082	mg/l N		
SW 3	downstream	BOD		10.08.2016			1	mg/l O2		
SW 3	downstream	COD		10.08.2016			32	mg/l O2		
SW 3	downstream	Chloride		10.08.2016			34.6	mg/l Cl		
SW 3	downstream	Conductivity		10.08.2016			577	mS/cm		
SW 3	downstream	pH		10.08.2016			7.9	pH units		
SW 3	downstream	otal Suspended Solids		10.08.2016			2	mg/l		
SW 3	downstream	Total Phosphourous		10.08.2016			0.05	mg/l P		
SW 3	downstream	Cadmium		10.08.2016			0.5	ug/l		
SW 3	downstream	Calcium		10.08.2016			150	mg/l		
SW 3	downstream	Chromium		10.08.2016			0.5	ug/l		
SW 3	downstream	Copper		10.08.2016			1	ug/l		
SW 3	downstream	Iron		10.08.2016			130	ug/l		
SW 3	downstream	Lead		10.08.2016			0.5	ug/l		
SW 3	downstream	Magnesium		10.08.2016			10	mg/l		
SW 3	downstream	Manganeese		10.08.2016			5	ug/l		
SW 3	downstream	Mercury		10.08.2016			0.1	ug/l		
SW 3	downstream	Potassium		10.08.2016			6	mg/l		
SW 3	downstream	Sulphate		10.08.2016			50.5	mg/l SO4		
SW 3	downstream	Sodium		10.08.2016			17	mg/l		
SW 3	downstream	Alkalinity		10.08.2016			308	mg/l CaCO3		
SW 3	downstream	Zinc		10.08.2016			5	ug/l		
SW 3	downstream	Nickel		10.08.2016			4	ug/l		
SW 3	downstream	Boron		10.08.2016			28			
SW 3	downstream	DO		25.05.2016			6.3	mg/l		
SW 3	downstream	Ammonical Nitrogen		25.05.2016			0.106	mg/l N		
SW 3	downstream	BOD		25.05.2016			1	mg/l O2		
SW 3	downstream	COD		25.05.2016			22	mg/l O2		
SW 3	downstream	Chloride		25.05.2016			32.4	mg/l Cl		
SW 3	downstream	Conductivity		25.05.2016			623	mS/cm		
SW 3	downstream	pH		25.05.2016			7.9	pH units		
SW 3	downstream	otal Suspended Solids		25.05.2016			2	mg/l		
SW 3	downstream	Sulphate		25.05.2016			44.5	mg/l SO4		
SW 3	downstream	DO		9.03.2016			5.06	mg/l		
SW 3	downstream	Ammonical Nitrogen		9.03.2016			0.023	mg/l N		
SW 3	downstream	BOD		9.03.2016			1	mg/l O2		
SW 3	downstream	COD		9.03.2016			24	mg/l O2		
SW 3	downstream	Chloride		9.03.2016			32.8	mg/l Cl		
SW 3	downstream	Conductivity		9.03.2016			619	mS/cm		
SW 3	downstream	pH		9.03.2016			8.1	pH units		
SW 3	downstream	otal Suspended Solids		9.03.2016			2	mg/l		
SW 3	downstream	Sulphate		9.03.2016			41.1	mg/l SO4		
SW 4	downstream	DO		10.08.2016			6.87	% sat		
SW 4	downstream	Ammonical Nitrogen		10.08.2016			2.55	mg/l N		
SW 4	downstream	BOD		10.08.2016			1	mg/l O2		
SW 4	downstream	COD		10.08.2016			44	mg/l O2		
SW 4	downstream	Chloride		10.08.2016			36.6	mg/l Cl		
SW 4	downstream	Conductivity		10.08.2016			624	mS/cm		
SW 4	downstream	pH		10.08.2016			7.6	pH units		
SW 4	downstream	otal Suspended Solids		10.08.2016			2	mg/l		
SW 4	downstream	Total Phosphourous		10.08.2016			0.05	mg/l P		
SW 4	downstream	Cadmium		10.08.2016			0.5	ug/l		
SW 4	downstream	Calcium		10.08.2016			141	mg/l		
SW 4	downstream	Chromium		10.08.2016			0.5	ug/l		
SW 4	downstream	Copper		10.08.2016			1	ug/l		
SW 4	downstream	Iron		10.08.2016			457	ug/l		
SW 4	downstream	Lead		10.08.2016			0.5	ug/l		
SW 4	downstream	Magnesium		10.08.2016			12	mg/l		
SW 4	downstream	Manganeese		10.08.2016			77	ug/l		
SW 4	downstream	Mercury		10.08.2016			0.1	ug/l		
SW 4	downstream	Potassium		10.08.2016			7	mg/l		
SW 4	downstream	Sulphate		10.08.2016			79.6	mg/l SO4		
SW 4	downstream	Sodium		10.08.2016			22	mg/l		
SW 4	downstream	Alkalinity		10.08.2016			301	mg/l CaCO3		
SW 4	downstream	Zinc		10.08.2016			5	ug/l		
SW 4	downstream	Nickel		10.08.2016			5	ug/l		
SW 4	downstream	boron		10.08.2016			38			
SW 4	downstream	DO		25.05.2016			6.3	% sat		
SW 4	downstream	Ammonical Nitrogen		25.05.2016			2.19	mg/l N		
SW 4	downstream	BOD		25.05.2016			1	mg/l O2		
SW 4	downstream	COD		25.05.2016			48	mg/l O2		
SW 4	downstream	Chloride		25.05.2016			40.3	mg/l Cl		
SW 4	downstream	Conductivity		25.05.2016			649	mS/cm		
SW 4	downstream	pH		25.05.2016			7	pH units		
SW 4	downstream	otal Suspended Solids		25.05.2016			11	mg/l		
SW 4	downstream	Sulphate		25.05.2016			67.3	mg/l SO4		
SW 4	downstream	DO		9.03.2016			4.89	% sat		
SW 4	downstream	Ammonical Nitrogen		9.03.2016			2.54	mg/l N		
SW 4	downstream	BOD		9.03.2016			1	mg/l O2		
SW 4	downstream	COD		9.03.2016			42	mg/l O2		
SW 4	downstream	Chloride		9.03.2016			43.6	mg/l Cl		
SW 4	downstream	Conductivity		9.03.2016			716	mS/cm		
SW 4	downstream	pH		9.03.2016			7.2	pH units		
SW 4	downstream	otal Suspended Solids		9.03.2016			3	mg/l		
SW 4	downstream	Sulphate		9.03.2016			79.8	mg/l SO4		
SW5	downstream	DO		10.08.2016			6.83	mg/l		
SW5	downstream	Ammonical Nitrogen		10.08.2016			0.644	mg/l N		
SW5	downstream	BOD		10.08.2016			1	mg/l O2		
SW5	downstream	COD		10.08.2016			26	mg/l O2		
SW5	downstream	Chloride		10.08.2016			33.2	mg/l Cl		
SW5	downstream	Conductivity		10.08.2016			586	mS/cm		
SW5	downstream	pH		10.08.2016			8.1	pH units		
SW5	downstream	otal Suspended Solids		10.08.2016			2	mg/l		
SW5	downstream	Total Phosphourous		10.08.2016			0.05	mg/l P		
SW5	downstream	Cadmium		10.08.2016			0.5	ug/l		
SW5	downstream	Calcium		10.08.2016			142	mg/l		
SW5	downstream	Chromium		10.08.2016			0.5	ug/l		
SW5	downstream	Copper		10.08.2016			1	ug/l		
SW5	downstream	Iron		10.08.2016			195	ug/l		
SW5	downstream	Lead		10.08.2016			0.5	ug/l		
SW5	downstream	Magnesium		10.08.2016			9	mg/l		
SW5	downstream	Manganeese		10.08.2016			24	ug/l		
SW5	downstream	Mercury		10.08.2016			0.1	ug/l		
SW5	downstream	Potassium		10.08.2016			6	mg/l		
SW5	downstream	Sulphate		10.08.2016			41.8	mg/l SO4		

Bund/Pipeline testing template

Lic No: w0067-002 Year 2016

Bund testing

dropdown menu click to see options

			Additional information
1	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)	Yes	
2	Please provide integrity testing frequency period	3 years	
3	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)	Yes	
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?		Completed Landfilling to Cell 3B Rathroeen Landfill in July 2016
7	Are the mobile bunds included in the bund test schedule?	SELECT	
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?	SELECT	
12	If yes to Q11 are these failsafe systems included in a maintenance and testing programme?	SELECT	
13	Is the Fire Water Retention Pond included in your integrity test programme?	SELECT	

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)
Leachate Lagoon	reinforced concrete		Leachate			Hydraulic test		2009	Yes	Pass		SELECT		
Chemstore bund	prefabricated		Paint spills			Hydraulic test		2008	Yes	Pass		SELECT		

* Capacity required should comply with 25% or 110% containment rule as detailed in your licence

			Commentary
15	Has integrity testing been carried out in accordance with licence requirements and are all structures tested in line with BS8007/EPA Guidance?	bunding and storage guidelines	SELECT
16	Are channels/transfer systems to remote containment systems tested?		SELECT
17	Are channels/transfer systems compliant in both integrity and available volume?		SELECT

Pipeline/underground structure testing

1	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 withing the integrity test period as specified**	SELECT
2	Please provide integrity testing frequency period	SELECT

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

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

Groundwater/Soil monitoring template	Lic No:	w0067-002	Year	2016

			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 interpretation as an additional section in this AER
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.	SELECT		
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		Please enter interpretation of data here

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
	MW2	pH		Q	7.1	0.00				SELECT
	MW2	Conductivity		Q	0.92	0.00	mScm			
	MW2	Ammonical Nitrogen		Q	0.215	0.00	mg/l N			
	MW2	Sodium		Q	44	0.00	mg/l			
	MW2	Chloride		Q	103	0.00	mg/l Cl			
	MW2	Potassium		Q	14	0.00	mg/l			
	MW2	Faecal Coliforms		Q	10	0.00	No/100ml			
	MW2	Sulphate		Q	52.7	0.00	mg/l SO4			
	MW2	D.O.		Q	4.57	0.00	mg/l			
	MW2	Total Organic Carbon		Q	5.66	0.00	mg/l C			
	MW2	Total Coliforms		Q	120	120.00	No/100ml			
	MW2	Total Or Nitrogen					mg/l N			
	MW2	Total Carbon					mg/l			
	MW2	Total Inorganic Carbon					mg/l			
	MW2	Phenols					mg/l			
	MW2	Iron		Q	727	727	ug/l			
	MW2	Lead		A	0.5	0.5	ug/l			
	MW2	List 1&2 Organics								
	MW2	Magnesium		A	23	23	mg/l			
	MW2	Manganese		A	1222	1222	ug/l			
	MW2	Mercury		Q	0.1	0.1	ug/l			
	MW2	Total Alkalinity		A	403	403	mg/l CaCO3			
	MW2									
	MW2	Total Phosphorous		A	0.07	0.07	mg/l P			
	MW2	Orthophosphate					mg/l PO4			
	MW2	Residue on evaporation								
	MW2	Zinc		A	5	5	ug/l			
	MW2	Fluoride		A	0.5	0.5	mg/l F			
	MW2	Calcium		A	200	200	mg/l			
	MW2	Cadmium		A	0.5	0.5	ug/l			
	MW2	Copper		A	2	2	ug/l			
	MW2	Cyanide		A	9	9	mg/l CN			
	MW2	Total Solids					mg/l			
	MW2	Boron		A	28	28	ug/l			
	MW2	Chromium		A	0.5	0.5	ug/l			
	MW2	Dissolved Nickel					ug/l			
	MW2	Total Nickel		A	1	1	mg/l			
	MW2	nitrate as no3					mg/l			
	MW2	nitrite as no2					mg/l			
	MW2	SVOC		A	1	1	ug/l			
	MW2	VOC		A	1	1	ug/l			
	MW2	Pesticides (OCP)		A	2	2	ug/l			
							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

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
	MW3	D.O.		Q	4.89	0.00	mg/l			SELECT
	MW3	pH		Q	6.7	0.00				
	MW3	Conductivity		Q	0.889	0.00	mScm			
	MW3	Ammonical Nitrogen		Q	0.324	0.00	mg/l N			
	MW3	Total Or Nitrogen					mg/l N			
	MW3	Chloride		Q	36.1	0.00	mg/l Cl			
	MW3	Total Carbon					mg/l			
	MW3	Total Inorganic Carbon					mg/l			
	MW3	Total Organic Carbon		Q	4.94	0.00	mg/l C			
	MW3	Mercury		A	0.1	0.00	ug/l			
	MW3	Faecal Coliforms		Q	10	0.00	No/100ml			
	MW3	Total Coliforms		Q	1000	0.00	No/100ml			
	MW3	Sodium		Q	14.4	0.00	mg/l			
	MW3	Potassium		Q	10	0.00	mg/l			
	MW3	Phenols					mg/l			
	MW3	Total Phosphorous		A	0.05	0.05	mg/l P			
	MW3	Boron		A	25	25	ug/l			
	MW3	Cadmium		A	0.5	0.5	ug/l			
	MW3	Calcium		A	236	236	mg/l			
	MW3	Chromium		A	0.5	0.5	ug/l			
	MW3	Copper		A	1	1	ug/l			
	MW3	Iron		A	5833	5833	ug/l			
	MW3	Lead		A	0.5	0.5	ug/l			
	MW3	Magnesium		A	14	14	mg/l			
	MW3	Manganese		A	344	344	ug/l			
	MW3	Dissolved Nickel					ug/l			
	MW3	Total Nickel		A	0.8	0.8	mg/l			
	MW3	Zinc		A	5	5	ug/l			
	MW3	List 1&2 Organics								
	MW3	Total Alkalinity		A	473	473	mg/l CaCO3			
	MW3	Sulphate		Q	56.6	0.00	mg/l SO4			
	MW3	Orthophosphate					mg/l PO4			
	MW3	Residue on evaporation								
	MW3	Fluoride		A	0.2	0.2	mg/l F			
	MW3	Cyanide		A	9	9	mg/l CN			
	MW3	Total Solids					mg/l			
	MW3	nitrate as no3					mg/l			
	MW3	nitrite as no2					mg/l			
	MW3	SVOC		A	1	1	ug/l			
	MW3	VOC		A	1	1	ug/l			
	MW3	Pesticides (OCP)		A	2	2	ug/l			
	MW3						SELECT			SELECT

*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.

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) Guidance on the Management of Contaminated Land and Groundwater at EPA Licenced Sites (EPA 2013).

**Depending on location of the site and proximity to other sensitive receptors alternative Reception 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)

Surface water EQS | Groundwater regulations GTVs | Drinking water (private supply) standards | Drinking water (public supply) standards | Interim Guideline Values (IGV)

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:	w0067-002	Year	2016

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	SELECT		
3	Amount of Financial Provision cover required as determined by the latest ELRA	Specify		
4	Financial Provision for ELRA status	SELECT		
5	Financial Provision for ELRA - amount of cover	Specify		
6	Financial Provision for ELRA - type	nsurance with Environmental Impairment Liability cover,		Completed Landfilling to Cell 3B Rathroeen Landfill in July 2016
7	Financial provision for ELRA expiry date	Enter expiry date		
8	Closure plan initial agreement status	losure plan submitted and agreed by EPA		
9	Closure plan review status	SELECT		
10	Financial Provision for Closure status	SELECT		
11	Financial Provision for Closure - amount of cover	Specify		
12	Financial Provision for Closure - type	nsurance with Environmental Impairment Liability cover,		
13	Financial provision for Closure expiry date	Enter expiry date		

Environmental Management Programme/Continuous Improvement Programme template

Lic No: w0067-002 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	
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	

Environmental Management Programme (EMP) report

Objective Category	Target	Status (% completed)	How target was progressed	Responsibility	Intermediate outcomes
Reduction of emissions to Air	Reduce odours feom Cell 3A	100	Permanent Cap installed	Section Head	Reduced emissions
Energy Efficiency/Utility conservation	Gas Utilisation	40	Grid connection approved	Section Head	SELECT
SELECT		SELECT		SELECT	SELECT

Noise monitoring summary report	Lic No:	w0067-002	Year	2016

1	Was noise monitoring a licence requirement for the AER period? If yes please fill in table N1 noise summary below	Yes
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? Completed Landfilling to Cell 3B Rathroeen Landfill in July 2016	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 site compliant with noise limits (day/evening/night)?
24/08/2016	13.25-13.55	N1		44	40	46		No	SELECT	Road traffic	SELECT
24/08/2016	12.45-13.15	N4		49	44	52		No		Road traffic	
24/08/2016	14.04-14.34	N6		53	45	56		No		Road traffic	
24/08/2016	14.42-15.12	N7		54	43	58		No		Road traffic	
24/08/2016	23.56-00.26	N1		44	40	53		No		Road traffic	
24/08/2016	23.20-23.50	N4		45	42	49		No		Road traffic	
24/08/2016	22.43-23.13	N6		46	44	52		No		Road traffic	
24/08/2016	22.00-22.30	N7		45	40	49		No		Road traffic	

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: w0067-002 Year 2016

			Additional information
1	When did the site carry out the most recent energy efficiency audit? Please list the recommendations in table 3 below	Enter date of audit	
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	No	
3	Where Fuel Oil is used in boilers on site is the sulphur content compliant with licence conditions? Please state percentage in additional information	SELECT	

SEAI - Large Industry Energy Network (LIEN)

Table R1 Energy usage on site

Energy Use	Previous year	Current year	Production +/- % compared to previous reporting year**	Completed Landfilling to Cell 3B Rathroeen Landfill in July 2016
Total Energy Used (MWHrs)				
Total Energy Generated (MWHrs)				
Total Renewable Energy Generated (MWHrs)				
Electricity Consumption (MWHrs)	131250	123142		
Fossil Fuels Consumption:				
Heavy Fuel Oil (m3)				
Light Fuel Oil (m3)	7240	8320		
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	620	296					
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)					
Non-Hazardous (Tonnes)					

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					

Complaints and Incidents summary template

Lic No: w0067-002 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	Yes	Additional information: Completed Landfilling to Cell 3B Rathroeen Landfill in July 2016

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
01/04/2016	Odour		Resident complaining of o	ongoing	Ongoing		
	SELECT				SELECT		
	SELECT				SELECT		
	SELECT				SELECT		
	SELECT				SELECT		

Total complaints open at start of reporting year	
Total new complaints received during reporting year	
Total complaints closed during reporting year	
Balance of complaints end of reporting year	

Incidents

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

Total number of incidents current year	

WASTE SUMMARY Lic No: w0067-002 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

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

			Additional Information
1	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)	SELECT	
	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)

Licenced 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 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
Non Hazardous	45,000	31,659		
			0	

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
										SELECT UNIT	SELECT UNIT	SELECT UNIT
Cell 3 B	Feb-14		Yes	Public	Non Hazardous	01/07/2016	No	No	No			

Table 4 Environmental monitoring-landfill only Landfill Manual-Monitoring Standards

Was meterological 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	No	No	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
SELECT UNIT	SELECT UNIT					
12000	8000 (Cell 3 B)	72000	0	72000	1mm lldpe liner	nil

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

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
84103							

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
1190003	No	0	Yes	No

Guidance to completing the PRTR workbook

PRTR Returns Workbook

Version 1.1.19

REFERENCE YEAR	2016

1. FACILITY IDENTIFICATION

Parent Company Name	Mayo County Council
Facility Name	Rathroeen Landfill
PRTR Identification Number	W0067
Licence Number	W0067-02

Classes of Activity

No.	class_name
-	Refer to PRTR class activities below

Address 1	Rathroeen
Address 2	Ballina
Address 3	
Address 4	
	Mayo
Country	Ireland
Coordinates of Location	-6.11271 52.9597
River Basin District	IEWE
NACE Code	3821
Main Economic Activity	Treatment and disposal of non-hazardous waste
AER Returns Contact Name	Michael Hegarty
AER Returns Contact Email Address	mhegarty@mayococo.ie
AER Returns Contact Position	Assistant Landfill Manager
AER Returns Contact Telephone Number	0872046722
AER Returns Contact Mobile Phone Number	0872046722
AER Returns Contact Fax Number	09624056
Production Volume	0.0
Production Volume Units	
Number of Installations	0
Number of Operating Hours in Year	0
Number of Employees	6
User Feedback/Comments	In Releases to Air Tab, the figure for Methane is negative. This is due to the difference between the Gassim model being used (estimated) by Tobins Consulting Engineers in 2008, and the measured figures from the LFG model and flowrates at the site.
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

Guidance on waste imported/accepted onto site

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

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# : W0067 | Facility Name : Rathroeen Landfill | Filename : AER 2016.xls | Return Year : 2016 | 31/07/2017 15:32

SECTION A : SECTOR SPECIFIC PRTR POLLUTANTS

RELEASES TO AIR					Please enter all quantities in this section in KGs			
POLLUTANT		METHOD			QUANTITY			
			Method Used					
No. Annex II	Name	M/C/E	Method Code	Designation or Description	Emission Point 1	T (Total) KG/Year	A (Accidental) KG/Year	F (Fugitive) KG/Year
03	**Carbon dioxide (CO2)**	E	OTH	.	2779566.0	2779566.0	0.0	0.0
01	Methane (CH4)	M	OTH	.	-321099.0	Completed Landfilling to Ce	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			
POLLUTANT		METHOD			QUANTITY			
			Method Used					
No. Annex II	Name	M/C/E	Method Code	Designation or Description	Emission Point 1	T (Total) KG/Year	A (Accidental) KG/Year	F (Fugitive) KG/Year
					0.0	0.0	0.0	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		METHOD			QUANTITY			
			Method Used					
Pollutant No.	Name	M/C/E	Method Code	Designation or Description	Emission Point 1	T (Total) KG/Year	A (Accidental) KG/Year	F (Fugitive) KG/Year
					0.0	0.0	0.0	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: Rathroeen Landfill

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**	
			Method Code	**Designation or Description**		
Total estimated methane generation (as per site model)	636398.9	C	Calculated	Gassim Lite	N/A	
Methane flared	957498.0	M	Measured	Landfill Gas Model	650.0	(Total Flaring Capacity)
Methane utilised in engine/s	0.0				0.0	(Total Utilising Capacity)
Net methane emission (as reported in Section A above)	-321099.0	C	Calculated	Calculated	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	**15 01 02**	**No**	28.98	plastic packaging (Pet & HDPE)	R5	M	Weighed	Offsite in Ireland	Barna Waste ,W0106-02	Carrowbrown,headford Road,Galway,Galway,Ireland		
Within the Country	15 01 02	No	1.3	plastic packaging (polystyrene)	R5	M	Weighed	Offsite in Ireland	Barna Waste ,W0106-02	Carrowbrown,headford Road,Galway,Galway,Ireland		
Within the Country	15 01 04	No	6.92	metallic packaging	R4	M	Weighed	Offsite in Ireland	Barna Waste ,W0106-02	Carrowbrown,headford Road,Galway,Galway,Ireland		
Within the Country	15 01 04	No	10.94	metallic packaging	R5	M	Weighed	Offsite in Ireland	Galway Metal ,WFP-11-g-0005-01	Oranmore,Galway ,Galway,Galway,Ireland		
Within the Country	15 01 05	No	3.3	composite packaging (tetra Paks)	R5	Complet	Weighed	Offsite in Ireland	Barna Waste ,W0106-02	Carrowbrown,headford Road,Galway,Galway,Ireland		
Within the Country	16 01 03	No	8.86	end-of-life tyres	R5	M	Weighed	Offsite in Ireland	Midland Scrap Metals,NWCPO-08-01118-02	Annagh,Birr,Offally,R42RT68, Ireland		
To Other Countries	16 05 04	Yes	1.56	gases in pressure containers (including halons) containing dangerous substances	D10	M	Weighed	Abroad	Eco Safe Systems,W0054-02	Unit 1,Allied Ind Est,Kylemore Rd,Dublin 10,Ireland	Recyfuel,SA BE 459735458,Zoning Ind Est,D'Hein,Eingis,B4480,Belgium	Zoning Ind Est,D'Hein,Eingis,B4480,Belgium
Within the Country	17 02 01	No	89.2	wood	R3	M	Weighed	Offsite in Ireland	Rathroeen Landfill,W0067-2	Rathroeen Landfill,Killala Road,Ballina,Ballina,Ireland		
Within the Country	17 08 02	No	10.92	gypsum-based construction materials other than those mentioned in 17 08 01	R5	M	Weighed	Offsite in Ireland	Barna Waste ,W0106-02	Carrowbrown,headford Road,Galway,Galway,Ireland		
Within the Country	17 08 02	No	0.0	gypsum-based construction materials other than those mentioned in 17 08 01	R5	M	Weighed	Offsite in Ireland	Barna Waste ,W0106-02	Carrowbrown,headford Road,Galway,Galway,Ireland		
Within the Country	19 07 03	No	36680.0	landfill leachate other than those mentioned in 19 07 02	D9	M	Volume Calculation	Offsite in Ireland	Mayo County Council,D0016-01	Beleek,Ballina,Mayo ,Mayo,Ireland		
Within the Country	20 01 01	No	80.5	paper and cardboard (cardboard)	R5	M	Weighed	Offsite in Ireland	McGraths Industrial Waste,NWCPO-09003002-03	Turlough,Castlebar,Mayo,Mayo,Ireland		
Within the Country	20 01 01	No	131.58	paper & cardboard (paper)	R5	M	Weighed	Offsite in Ireland	Stanley Bourke Bourke Waste ,","	" ","Westport,Mayo," ",Ireland		
Within the Country	20 01 02	No	59.26	glass	R5	M	Weighed	Offsite in Ireland	Rehab Recycling Ltd,Exempt	Cork,,,,,,,Ireland		
Within the Country	20 01 02	No	13.22	glass (window Glass)	R5	M	Weighed	Offsite in Ireland	Midland Scrap Metals,NWCPO-08-01118-02	Annagh,Birr,Offally,R42RT68, Ireland		
Within the Country	20 01 10	No	18.99	clothes	R3	M	Weighed	Offsite in Ireland	Textile Recycling,WPR 14	Belgard Road,Tallaght,Tallaght,Dublin ,Ireland		
Within the Country	20 01 21	Yes	0.84	fluorescent tubes and other mercury-containing waste	R4	M	Weighed	Offsite in Ireland	KMK Metals,W0113-02	Cappinure Ind Estate,Daingean Rd,Tullamore,Offaly,Ireland	KMK Metals,W0113-02,Cappinure Ind Est,Daingean Rd,Tullamore,Offaly,Ireland	Cappinure Ind Est,Daingean Rd,Tullamore,Offaly,Ireland
Within the Country	20 01 25	No	0.24	edible oil and fat	R9	M	Weighed	Offsite in Ireland	Greyhound Recycling,W0047	Crag Avenue,Clondalkin Industrial Estate,Dublin 22,Dublin ,Ireland		
Within the Country	20 01 26	Yes	4.92	oil and fat other than those mentioned in 20 01 25	R9	M	Weighed	Offsite in Ireland	Rialta,W0192-02	Greenouge Ind Estate,Rathcoole,Dublin,Dublin,Ireland	Enva,W0184-01,Clonminam Ind Est,Portlaoise,Laoise,Laoise,Ireland	Clonminam Ind Est,Portlaoise,Laoise,Laoise,Ireland
To Other Countries	20 01 27	Yes	15.24	paint, inks, adhesives and resins containing dangerous substances	D10	M	Weighed	Abroad	Eco Safe Systems,W0054-02	Unit 1,Allied Ind Est,Kylemore Rd,Dublin 10,Ireland	Recyfuel,SA BE 459735458,Zoning Ind Est,D'Hein,Eingis,B4480,Belgium	Zoning Ind Est,D'Hein,Eingis,B4480,Belgium
Within the Country	20 01 32	No	0.0	medicines other than those mentioned in 20 01 31	D10	M	Weighed	Offsite in Ireland	Eco Safe Systems,W0054-02	Unit 1,Allied Ind Est,Kylemore Rd,Dublin 10,Ireland		
Within the Country	20 01 33	Yes	3.6	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 Metals,W0113-02	Cappinure Ind Estate,Daingean Rd,Tullamore,Offaly,Ireland	KMK Metals,W0113-02,Cappinure Ind Est,Daingean Rd,Tullamore,Offaly,Ireland	Cappinure Ind Est,Daingean Rd,Tullamore,Offaly,Ireland
Within the Country	20 01 33	Yes	3.9	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	Rialta,W0192-02	Greenouge Ind Estate,Rathcoole,Dublin,Dublin,Ireland	Rialta ,W0192-02,Greenouge Ind Es,Rathcoole,Dublin,Dublin,Ireland	Greenouge Ind Es,Rathcoole,Dublin,Dublin,Ireland
Within the Country	20 01 36	No	182.1	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 Metals,W0113-02	Cappinure Ind Estate,Daingean Rd,Tullamore,Offaly,Ireland		
Within the Country	20 01 36	No	0.0	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 Metals,W0113-02	Cappinure Ind Estate,Daingean Rd,Tullamore,Offaly,Ireland		
Within the Country	20 01 39	No	40.82	plastics (Hard plastics)	R5	M	Weighed	Offsite in Ireland	Barna Waste ,W0106-02	Carrowbrown,headford Road,Galway,Galway,Ireland		
Within the Country	20 01 40	No	105.42	metals (scrap metals)	R4	M	Weighed	Offsite in Ireland	Galway Metal ,WFP-11-g-0005-01	Oranmore,Galway ,Galway,Galway,Ireland		
Within the Country	20 02 01	No	0.0	biodegradable waste (green waste)	R5	M	Weighed	Offsite in Ireland	Barna Waste ,W0106-02	Carrowbrown,headford Road,Galway,Galway,Ireland		
Within the Country	20 03 01	No	0.0	mixed municipal waste	D1	M	Weighed	Offsite in Ireland	Rathroeen Landfill,W0067-2	Rathroeen Landfill,Killala Road,Ballina,Ballina,Ireland		
Within the Country	20 03 03	No	0.0	m	D1	M	Weighed	Offsite in Ireland	Mayo County Councils Area Offices,EXM	Arás An Chontae,The Mall,Castlebar,Mayo,Ireland		

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

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

Completed Landfilling to Cell 3B Rathroeen Landfill in July 2016

Please choose from the drop down menu the license number for your site	
Please choose from the drop down menu the name of the landfill site	
Please enter the number of flares operational at your site in 2016	
Please enter the number of engines operational at your site in 2016	
Total methane flared	0 kg/year
Total methane utilised in engines	0 kg/year

Please note that the closing date for reciept 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

It is on this basis that the Environmental Protection Agency is asking landfill operators to partake in this survey so that the most uptodate information on methane flaring and recovery in utilisation

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 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 ? — **l flare capacity ?** — **m3/hr**

Month /year comissioned ?

Month decomissioned if decomissioned in 2016 ?

What is the function of the flare — **Completed Land** — **nter flare function here**

Monthly	Method M/C/E	Runtime days/month	Runtime hrs/day	Downtime hrs	otal runtim hrs/month	verage Inle essure (mb	Average Inlet Temp ◦ C	verage Flo Rate (m^3/hr	Average CH %v/v	Average CO %v/v	Average O_2 %v/v	Combustion fficiency (%	Total CH_4 m^3	Total CH_4 kgs
January	M	31	24.0	2.0	742	-48	10	520	39.70	28.10	2.80	98.0	150,115	98,737
February	E	28	24.0	0.0	672	-50	10	500	40.00	28.00	2.50	98.0	131,712	86,453
March	E	31	24.0	0.0	744	-40	10	480	36.00	26.00	2.50	98.0	125,992	83,557
April	E	30	24.0	0.0	720	-38	10	460	40.00	27.00	3.00	98.0	129,830	86,280
May	M	31	24.0	2.0	742	-35	10	454	38.10	26.20	1.80	98.0	125,780	83,845
June	E	30	24.0	0.0	720	-40	10	440	36.00	28.00	2.80	98.0	111,767	74,123
July	E	31	24.0	0.0	744	-50	10	430	35.00	28.00	2.60	98.0	109,733	72,026
August	E	31	24.0	0.0	744	-53	10	480	36.00	29.00	2.50	98.0	125,992	82,441
September	M	30	24.0	2.0	718	-65	10	500	39.90	30.00	2.50	98.0	140,376	90,705
October	E	31	24.0	0.0	744	-65	10	400	40.00	28.00	2.50	98.0	116,659	75,380
November	E	30	24.0	0.0	720	-58	10	345	37.00	25.00	2.00	98.0	90,070	58,629
December	M	31	24.0	2.0	742	-64	10	320	43.40	28.30	2.00	98.0	100,988	65,323
Total					8,752								1,459,014	957,499
Average total		365	24			-50.5	10	444.0833	38.425				1,494,798	

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

Yearly	Method M/C/E	Runtime days/year	Runtime hrs/day	Downtime hrs	otal runtim hrs/year	verage Inle essure (mb	Average Inlet Temp ◦ C	verage Flo Rate m^3/hr	Average CH %v/v	Average CO %v/v	Average O_2 %v/v	Combustion fficiency (%	Total CH_4 m^3	Total CH_4 kgs
2016					0		10					98.0	0	0