

Facility Information Summary	
AER Reporting Year	2013
Licence Register Number	W0071-02
Name of site	Marlinstown Landfill
Site Location	Marlinstown, Mullingar, County Westmeath.
NACE Code	3821
Class/Classes of Activity	A3 ( 2011 )
National Grid Reference (6E, 6 N)	(-) 7.29169 53.5229

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 final capping of the last section of the landfill (phase 2) was completed in early 2012. Ten new gas and leachate extraction wells were installed during these works. Most of these wells have low or intermittent gas levels. The gas extraction figure dropped from an average of 121 m<sup>3</sup>/hr at 27.3% Ch<sub>4</sub> in 2012 to 112.8 m<sup>3</sup>/hr at 25.4% Ch<sub>4</sub> in 2013 for the first 10 months. At the end of October 2013 on the recommendation of our consultants and in consultation with the EPA the flare ignition system was turned off while the flow through the blower was increased to an average of 492m<sup>3</sup>/hr for the last two months. This was to ascertain if landfill gas was migrating off site. There were 12 incidents due to exceeding the limits for Ch<sub>4</sub> and CO<sub>2</sub> during the monthly perimeter gas monitoring.

**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.

 Signature Group/Facility manager (or nominated, suitably qualified and experienced deputy)	25 September 2014 Date
---	---------------------------

**AIR-summary template** Lic No: #REF! Year #REF!

Answer all questions and complete all tables where relevant

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

Additional information	
Yes	Licence requires monitoring for Nox, SO2 and TOC, HCl and HF.

**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](#) note AG2 and using the basic air monitoring checklist? [checklist](#) **AGN2**

SELECT	had been turned off. Our consultants had agreed with the EP
No	ed off while the blower was still on. This was to facilitate a t

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

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

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

<b>AIR-summary template</b>		Lic No:	#REF!	Year	#REF!
<b>Continuous Monitoring</b>					

4	Does your site carry out continuous air emissions monitoring? If yes please review your continuous monitoring data and report the required fields below in Table A2 and compare it to its relevant Emission Limit Value (ELV)	<input type="text" value="SELECT"/>	
5	Did continuous monitoring equipment experience downtime? If yes please record downtime in table A2 below	<input type="text" value="SELECT"/>	
6	Do you have a proactive service agreement for each piece of continuous monitoring equipment?	<input type="text" value="SELECT"/>	
7	Did your site experience any abatement system bypasses? If yes please detail them in table A3 below	<input type="text" value="SELECT"/>	

**Table A2: Summary of average emissions -continuous monitoring**

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

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

AIR-summary template		Lic No:	#REF!	Year	#REF!			
<b>Solvent use and management on site</b>								
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			
<b>Table A4: Solvent Management Plan Summary</b> <b>Total VOC Emission limit value</b>		<a href="#">Solvent regulations</a> 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			
<b>Table A5: Solvent Mass Balance summary</b>								
	(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: #REF! Year #REF!

		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 <b>you do not have</b> licensed emissions you <u>only</u> need to complete table W1 and or W2 for storm water analysis and visual inspections	No	There are 3 surface water monitoring points - SW2 is the US point on the Marlinstown stream. SW3 1km DS and SWS DS at side of landfill. For SWS only NH4 and SS required.
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 <u>only any evidence of contamination noted during visual inspections</u>	Yes	No evidence of contamination

**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
SW2	upstream		Chloride	Half yearly		SELECT	27 - 34.4	mg/L	SELECT	
SW2	upstream		Ammonia (as N)	Half yearly			0.13 - 0.35	mg/L		
SW2	upstream		BOD	Half yearly			0.51 - 2.0	mg/L		
SW3	downstream		Chloride	Half yearly			27 - 49	mg/L		
SW3	downstream		Ammonia (as N)	Half yearly			0.27 - 0.8	mg/L		
SW3	downstream	SELECT	BOD	Half yearly		SELECT	1.9 - 2.3	mg/L	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	SELECT	Additional information
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	SELECT	<a href="#">External/Internal</a> <a href="#">Lab Quality checklist</a> <a href="#">Assessment of results checklist</a>

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

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

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

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

**AER Monitoring returns summary template-WATER/WASTEWATER(SEWER)** Lic No: #REF! Year #REF!

**Continuous monitoring**

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

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

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

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

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

**Table W4: Summary of average emissions -continuous monitoring**

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

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

**Table 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?
						<input type="text" value="SELECT"/>	

\*Measures taken or proposed to reduce or limit bypass frequency

<b>Bund/Pipeline testing template</b>	Lic No:	#REF!	Year	#REF!
---------------------------------------	---------	-------	------	-------

**Bund testing**

dropdown menu click to see options

**Additional information**

- Are you required by your licence to undertake integrity testing on bunds and containment structures? If yes please fill out table B1 below listing **all new bunds and containment structures** on site, in addition to **all bunds which failed the integrity test - all bunding structures which failed including mobile bunds must be listed in the table below, please include all bunds outside the licenced testing period** (mobile bunds and chemstore included)
- 1 Please provide integrity testing frequency period
  - 2 Does the site maintain a register of bunds, underground pipelines (including stormwater and foul), Tanks, sumps and containers? (containers refers to "Chemstore" type units and mobile bunds)
  - 3 How many bunds are on site?
  - 4 How many of these bunds have been tested within the required test schedule?
  - 5 How many mobile bunds are on site?
  - 6 Are the mobile bunds included in the bund test schedule?
  - 7 How many of these mobile bunds have been tested within the required test schedule?
  - 8 How many sumps on site are included in the integrity test schedule?
  - 9 How many of these sumps are integrity tested within the test schedule?
- 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	1 No. leachate lagoon. Observations of levels in tank indicate that there is No leak.
3 years	
No	
0	
0	
0	
SELECT	
No	
SELECT	
SELECT	No Fire water retention pond

**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

15 line with BS8007/EPA Guidance?

16 Are channels/transfer systems to remote containment systems tested?

17 Are channels/transfer systems compliant in both integrity and available volume?

Commentary	
SELECT	
SELECT	
SELECT	

**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
- 1 all underground structures and pipelines on site **which failed the integrity test and all which have not been tested within the integrity test period as specified**
  - 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	
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 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

<b>Groundwater/Soil monitoring template</b>	Lic No:	#REF!	Year	#REF!
---	---------	-------	------	-------

		Comments	
1	Are you required to carry out groundwater monitoring as part of your licence requirements?	yes	6 No. monitoring boreholes around site.
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 <a href="#">Groundwater monitoring template</a> Report (link in cell G8) and submit separately through ALDER as a licensee return AND answer questions 5-12 below.	yes	
5	Is the contamination related to operations at the facility (either current and/or historic)	inconclusive	possible leachate ingress to groundwater
6	Have actions been taken to address contamination issues? If yes please summarise remediation strategies proposed/undertaken for the site	yes	Leachate removal from landfill
7	Please specify the proposed time frame for the remediation strategy	yes	Ongoing
8	Is there a licence condition to carry out/update ELRA for the site?	yes	
9	Has any type of risk assesment been carried out for the site?	yes	In 2005 a risk assesment was carried out.
10	Has a Conceptual Site Model been developed for the site?	yes	Part of the risk assesment above.
11	Have potential receptors been identified on and off site?	yes	
12	Is there evidence that contamination is migrating offsite?	possible	Elevated ammonia levels in groundwater down gradient of site in boggy ground.

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
Quarterly	31	Ammonia		Quarterly	0.31	0.26	mg/l			yes
Quarterly	31	Chloride		Quarterly	14.9	12.6	mg/l			no
Quarterly	31	Conductivity		Quarterly	516	489	mScm-1			data not available
Quarterly	32	Ammonia		Quarterly	0.24	0.22	mg/l			yes
Quarterly	32	Chloride		Quarterly	12.2	11.8	mg/l			no



Groundwater/Soil monitoring template				Lic No:	#REF!	Year	#REF!
Quarterly	32	Conductivity	Quarterly	512	501	mScm-1	data not available

.+ 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*	SW EQS	Upward trend in yearly average pollutant concentration over last 5 years of monitoring data
Quarterly	13	Ammonia		Quarterly	46.5	26.13	mg/l		exceeds A3	yes
Quarterly	13	Chloride		Quarterly	96	58	mg/l		A1	no
Quarterly	13	Conductivity		Quarterly	1935	1574	mScm-1			data not available
Quarterly	14	Ammonia		Quarterly	28	25	mg/l		exceeds A3	yes
Quarterly	14	Chloride		Quarterly	63	53	mg/l		A1	no
Quarterly	14	Conductivity		Quarterly	1053	984	mScm-1			data not available

\*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 Licensed Sites \(EPA 2013\)](#).

\*\*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)

[Groundwater regulations](#) [Drinking water \(private supply\) standards](#) [Drinking water \(public supply\) standards](#) [Surface water EQS](#) [GTV's](#) [Interim Guideline Values \(IGV\)](#)

<b>Groundwater/Soil monitoring template</b>	Lic No:	#REF!	Year	#REF!
---	---------	-------	------	-------

**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:      #REF!      Year      #REF!

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

		Commentary
1	ELRA initial agreement status	In 2005 a risk assesment was carried out. Not sure of agreement status.
	SELECT	
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	
	SELECT	
7	Financial provision for ELRA expiry date	
	Enter expiry date	
8	Closure plan initial agreement status	
	Closure 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	Westmeath Co.
	Other please specify	
13	Financial provision for Closure expiry date	
	Enter expiry date	

**Environmental Management Programme/Continuous Improvement Programme template** Lic No: #REF! Year #REF!

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 is in accordance with regulatory requirements and best landfill practice and to implement a schedule of objectives and targets.
2	Does the EMS reference the most significant environmental aspects and associated impacts on-site	Yes Since the landfill is closed the emphasis is on the management of the gas collection system, the operation of the flare and the
3	Does the EMS maintain an Environmental Management Programme (EMP) as required in accordance with the licence requirements	Yes The main objectives for 2014 are: 1) Fully assess new gas extraction well installed 2012. 2) To carry out a trial to prove if landfill gas is migrating off - site. 3). Consultants to look at
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 Public given environmental data on request.

**Environmental Management Programme (EMP) report**

Objective Category	Target	Status (% completed)	How target was progressed	Responsibility	Intermediate outcomes
Reduction of emissions to Air	New gas extraction wells installed.	100	Works completed	Section Head	Reduced emissions
Reduction of emissions to Air	Permanent capping of Phase 2	100	Works completed	Section Head	Reduced emissions
SELECT		SELECT		SELECT	SELECT

**Noise monitoring summary report** Lic No: #REF! Year #REF!

- 1 Was noise monitoring a licence requirement for the AER period?  
If yes please fill in table N1 noise summary below No
- 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 SELECT
- 3 Does your site have a noise reduction plan SELECT
- 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? SELECT

**Table N1: Noise monitoring summary**

Date of monitoring	Time period	Noise location (on site)	Noise sensitive location -NSL (if applicable)	LA <sub>eq</sub>	LA <sub>90</sub>	LA <sub>10</sub>	LA <sub>max</sub>	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)?
								SELECT	SELECT		SELECT

\*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:

#REF!

Year

#REF!

## Additional information

- 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

Enter date of audit	
Yes	
SELECT	

Energy Use	Previous year	Current year	Production +/- % compared to previous reporting year**	Energy Consumption +/- % vs overall site production*
Total Energy Used (MWHrs)				
Total Energy Generated (MWHrs)				
Total Renewable Energy Generated (MWHrs)				
Electricity Consumption (MWHrs)	47,323	63,263		
Fossil Fuels Consumption:				
Heavy Fuel Oil (m3)				
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

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*	Water Emissions	Water Consumption	Unaccounted for Water:
					Volume Discharged back to environment(m <sup>3</sup> /yr):	Volume used i.e not discharged to environment e.g. released as steam m3/yr	
Groundwater							
Surface water							
Public supply	not measured -very low	not measured -very low					
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

	Total	Landfill	Incineration	Recycled	Other
Hazardous (Tonnes)					
Non-Hazardous (Tonnes)					

**Resource Usage/Energy efficiency summary**      Lic No:      #REF!      Year      #REF!

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					





<b>WASTE SUMMARY</b>	Lic No:	#REF!	Year	#REF!
<b>SECTION A-PRTR ON SITE WASTE TREATMENT AND WASTE TRANSFERS TAB- TO BE COMPLETED BY ALL IPPC AND WASTE FACILITIES</b>		<a href="#">PRTR facility logon</a>	dropdown list click to see options	

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

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

Additional information	
No	Landfill closed

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

SELECT	
SELECT	

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

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

Licensed annual tonnage limit for your site (total tonnes/annum)	EWC code	Source of waste accepted	Description of waste accepted <small>Please enter an accurate and detailed description - which applies to relevant EWC code</small> <a href="#">European Waste Catalogue EWC codes</a>	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 -
	<a href="#">European Waste Catalogue EWC codes</a>		<a href="#">European Waste Catalogue EWC codes</a>								

**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	
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	
SELECT	
SELECT	

6 Does your facility have relevant nuisance controls in place?  
 7 Do you have an odour management system in place for your facility? If no why?  
 8 Do you maintain a sludge register on site?

**SECTION D-TO BE COMPLETED BY LANDFILL SITES ONLY**

**Table 2 Waste type and tonnage-landfill only**

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

**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
										ha	ha	ha	
Whole landfill	1963	2002	No	Public	Non Hazardous		No		No	8	0	8	unlined landfill

WASTE SUMMARY		Lic No:	#REF!	Year	#REF!
---------------	--	---------	-------	------	-------

**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
No	Yes	Yes	Yes	No	Yes	No		Monitoring is carried out for all parameters as per licence

-> 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
ha	ha					
0	0	9			An impermeable geocomposite layer, 800mm subsoil and 200mm top soil for 7 ha. A permeable geocomposite layer for 2 ha.	Capping work completed in April 2012

\*please note this includes daily cover area

**Table 6 Leachate-Landfill only**

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

Yes

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

No

Volume of leachate in reporting year(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

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
201916m3 CH4	0		No	Gas flared using 500 m3/hr flare



| PRTR# : W0071 | Facility Name : Marlinstown Landfill | Filename : Marlinstown PRTR W0071\_2013.xls | Return Year : 2013 |

25/09/2014 12:47

[Guidance to completing the PRTR workbook](#)

# AER Returns Workbook

Version 1.1.18

<b>REFERENCE YEAR</b>	2013
-----------------------	------

## 1. FACILITY IDENTIFICATION

Parent Company Name	Westmeath County Council
Facility Name	Marlinstown Landfill
PRTR Identification Number	W0071
Licence Number	W0071-02

### Waste or IPPC Classes of Activity

No.	class_name
4.13	Storage of waste intended for submission to any activity referred to in a preceding paragraph of this Schedule, other than temporary storage, pending collection, on the premises where such waste is produced.
3.13	Storage prior to submission to any activity referred to in a preceding paragraph of this Schedule, other than temporary storage, pending collection, on the premises where the waste concerned is produced.
3.4	Surface impoundment, including placement of liquid or sludge discards into pits, ponds or lagoons.
3.6	Biological treatment not referred to elsewhere in this Schedule which results in final compounds or mixtures which are disposed of by means of any activity referred to in paragraphs 1. to 10. of this Schedule.
3.7	#####
4.11	Use of waste obtained from any activity referred to in a preceding paragraph of this Schedule.
4.13	Storage of waste intended for submission to any activity referred to in a preceding paragraph of this Schedule, other than temporary storage, pending collection, on the premises where such waste is produced.
4.2	Recycling or reclamation of organic substances which are not used as solvents (including composting and other biological transformation processes).
4.3	Recycling or reclamation of metals and metal compounds.
4.4	Recycling or reclamation of other inorganic materials.
4.9	Use of any waste principally as a fuel or other means to generate energy.
Address 1	Marlinstown Bog
Address 2	Mullingar
Address 3	
Address 4	
	Westmeath
Country	Ireland
Coordinates of Location	-7.29169 53.5229
River Basin District	IEEA
NACE Code	3821
Main Economic Activity	Treatment and disposal of non-hazardous waste
<b>AER Returns Contact Name</b>	Patrick Tighe
<b>AER Returns Contact Email Address</b>	ptighe@westmeathcoco.ie
<b>AER Returns Contact Position</b>	Senior Executive Technician
<b>AER Returns Contact Telephone Number</b>	044 9332128
<b>AER Returns Contact Mobile Phone Number</b>	087 7958143
<b>AER Returns Contact Fax Number</b>	
<b>Production Volume</b>	0.0
<b>Production Volume Units</b>	
<b>Number of Installations</b>	0
<b>Number of Operating Hours in Year</b>	0
<b>Number of Employees</b>	1
<b>User Feedback/Comments</b>	At the end of October 2013 our consultants agreed with the EPA to carry out a pumping trial. This entailed turning the blower on the flare upto maximum rate of 500m3 per hour. At that rate the methane concentration would reduce so significantly so that combustion would not be sustainable. Therefore the ignition source was turned off. Trial was to prove that high flow rates would reduce methane concentrations in our off site perimeter gas wells. For the months of November and December 2013 landfill gas was blown through the flare without ignition. This is the cause of the increase in methane emissions and the introduction of an emission point source for methane.
<b>Web Address</b>	

## 2. PRTR CLASS ACTIVITIES

Activity Number	Activity Name
5(a)	Installations for the recovery or disposal of hazardous waste

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

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

Is it applicable?	No
Have you been granted an exemption ?	
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# : W0071 | Facility Name : Marlinstown Landfill | Filename : Marlinstown PRTR W0071\_2013.xls | Return Year : 2013 |

25/09/2014 12:47

**SECTION A : SECTOR SPECIFIC PRTR POLLUTANTS**

POLLUTANT		METHOD			Please enter all quantities in this section in KGs			
No. Annex II	Name	M/C/E	Method Code	Designation or Description	Flare on site Emission Point 1	T (Total) KG/Year	A (Accidental) KG/Year	F (Fugitive) KG/Year
01	Methane (CH4)	C	OTH	Calculated using gas sim	24820.0	72810.0	0.0	47990.0
03	Carbon dioxide (CO2)	C	OTH	Calculated using gas sim	0.0	118700.0	0.0	118700.0

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

**SECTION B : REMAINING PRTR POLLUTANTS**

POLLUTANT		METHOD			Please enter all quantities in this section in KGs			
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)**

POLLUTANT		METHOD			Please enter all quantities in this section in KGs			
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: Please enter summary data on the quantities of methane flared and / or utilised	Marlinstown Landfill				Facility Total Capacity m3 per hour
	T (Total) kg/Year	M/C/E	Method Code	Designation or Description	
Total estimated methane generation (as per site model)	210000.0	C	Other	Calculated using Gas Sim	N/A
Methane flared	137190.0	C	Other	Calculated using average fl	500.0 (Total Flaring Capacity)
Methane utilised in engines	0.0				0.0 (Total Utilising Capacity)
Net methane emission (as reported in Section A above)	72810.0	C	Other	Methane generated minus n	N/A

5. ONSITE TREATMENT & OFFSITE TRANSFERS OF WASTE

| PRTR# : W0071 | Facility Name : Marlinstown Landfill | Filename : Marlinstown PRTR W0071\_2013.xls | Return Year : 2013 |

25/09/2014 12:47

Please enter all quantities on this sheet in Tonnes

3

Transfer Destination	European Waste Code	Hazardous	Quantity (Tonnes per Year)	Description of Waste	Waste Treatment Operation	Method Used		Location of Treatment	Haz Waste : Name and Licence/Permit No of Next Destination Facility	Non	Haz Waste : Address of Next Destination Facility	Name and License / Permit No. and Address of Final Recoverer / Disposer (HAZARDOUS WASTE ONLY)	Actual Address of Final Destination i.e. Final Recovery / Disposal Site (HAZARDOUS WASTE ONLY)
						Haz Waste : Name and Licence/Permit No of Recover/Disposer	Non Haz Waste : Address of Recover/Disposer		Method Used				
Within the Country	19 07 03	No	457.0	landfill leachate other than those mentioned in 19 07 02	D8	M	Weighed	Offsite in Ireland	Mullingar Waste Water Treatment Plant,D 0008 -01		Clonmore,Mullingar ,Co Westmeath,,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](#)