

Permit Number: **EPR/AB3233DW**

Operator: **GP Biotec Ltd**

Facility: **Great Porthamel Farm AD Plant**

Form Number: **Air 1 / 30/01/23**

**Reporting of emissions to air for the year 2022**

Emission Point	Substance / Parameter	Emission		Result <sup>[1]</sup>	Test Method <sup>[2]</sup>	Sample Date and Times <sup>[3]</sup>	Uncertainty <sup>[4]</sup>
		Limit Value	Reference Period				
A1 CHP Exhaust	Oxides of Nitrogen (NO and NO2 expressed as NO2)	500mg/m <sup>3</sup>	Hourly mean	497	BS EN 14792	17/01/2023 13:26 – 14:26	149
	Carbon Monoxide	1400mg/m <sup>3</sup>	Hourly mean	987	BS EN 15058	17/01/2023 13:26 – 14:26	197
	Sulphur Dioxide	350mg/m <sup>3</sup>	Hourly mean	0.41	BS EN 14791	17/01/2023 13:26 – 14:26	0.035
	Total VOC's (including methane)	1000mg/m <sup>3</sup>	Hourly mean	1362	BS EN 12619	17/01/2023 13:26 – 14:26	545
A2 CHP Exhaust	Oxides of Nitrogen (NO and NO2 expressed as NO2)	500mg/m <sup>3</sup>	Hourly mean	393	BS EN 14792	17/01/2023 11:31 – 12:31	118
	Carbon Monoxide	1400mg/m <sup>3</sup>	Hourly mean	778	BS EN 15058	17/01/2023 11:31 – 12:31	156
	Sulphur Dioxide	350mg/m <sup>3</sup>	Hourly mean	0.64	BS EN 14791	17/01/2023 11:31 – 12:31	0.057
	Total VOC's (including methane)	1000mg/m <sup>3</sup>	Hourly mean	999	BS EN 12619	17/01/2023 11:31 – 12:31	400
A3 Emergency Flare Stack <sup>Note5</sup>	Oxides of Nitrogen (NO and NO2 expressed as NO2)	150mg/m <sup>3</sup>	Hourly mean	N/A	BS EN 14792	N/A	N/A
	Total Volatile Organic Compounds (VOCs)	10mg/m <sup>3</sup>	Hourly mean	N/A	BS EN 12619	N/A	N/A
	Carbon Monoxide	50mg/m <sup>3</sup>	Hourly mean	N/A	BS EN 15058	N/A	N/A

**[1] The result given is the maximum value (or the minimum value in the case of a limit that is expressed as a minimum) obtained during the reporting period, expressed in the same terms as the emission limit value. Where the emission limit value is expressed as a range, the result is given as the 'minimum – maximum' measured values.**

- [2] Where an internationally recognised standard test method is used the reference number is given. Where another method that has been formally agreed with Natural Resources Wales is used, then the appropriate identifier is given. In other cases the principal technique is stated, for example gas chromatography.
- [3] For non-continuous measurements the date and time of the sample that produced the result is given. For continuous measurements the percentage of the process operating time covered by the result is given.
- [4] The uncertainty associated with the quoted result at the 95% confidence interval, unless otherwise stated.
- [5] Monitoring of flare emissions is only necessary when the flare operated in excess of 10% of the time

Signed

A handwritten signature in black ink, consisting of several fluid, overlapping strokes.

(Authorised to sign as representative of Operator)

Date 30/01/2023

Permit Number: **EPR/AB3233DW**

Operator: **GP Biotec Ltd**

Facility: **Great Porthamel Farm AD Plant**

Form Number: **Water 1 / 30/01/2023**

**Reporting of emissions to water (other than to sewer) and land for the year 2022**

<b>Parameter</b>	<b>Units</b>	<b>Result</b>
Batches of water tested for discharge criteria (ammonia, pH, and/or visual check)	number	<b>0</b>
Batches of water passed all tests and discharged to surface water	number	<b>0</b>
Batches of water failed one or more test not released to surface water	number	<b>0</b>

Signed .....  .....  
(Authorised to sign as representative of Operator)

**Date: 30/01/2023**

Permit Number: **EPR/AB3233DW**

Operator: **GP Biotec Ltd**

Facility: **Great Porthamel Farm AD Plant**

Form Number: **Performance1 30/01/2023**

**Reporting of other performance indicators for the year 2022**

<b>Parameter</b>	<b>Units</b>	<b>Result</b>
Waste treated (total)	tonnes	<b>71,691.65</b>
Animal waste treated	tonnes	<b>58,343.70</b>
Biogas produced by AD facility	M <sup>3</sup>	<b>3,991,160</b>
Power output – Electricity generated	MWh	<b>8,575.25</b>
Energy efficiency	MWh/m <sup>3</sup> biogas	<b>72.88%</b>
Electrical energy exported to the grid	MWh	<b>7,125.69</b>
Electrical energy drawn from the grid	MWh	<b>384.6</b>
Water usage (mains water and any other sources, specify separately)	m <sup>3</sup>	<b>55.568</b>
Operational time of emergency flare	% of operational time	<b>7.4</b>
Amount of biogas combusted in the CHP unit per day	m <sup>3</sup> /day	<b>10,560</b>

**Operator's comments:**

**GP Biotec installation AD site has continued to perform well throughout 2022 with the site biological health remaining stable within the optimum operating parameters and therefore consistent output.**

**Water collected in W1 was sucked out and recirculated through the AD process, used as liquid input.**



Signed .....  
(Authorised to sign as representative of Operator)

Date: 30/01/2023