

Permit Number: BP3135EB

Operator: Sensient Flavors and Volac International Limited

Facility: Felinfach Effluent Treatment Plant

Form Number: Water1 / 17/08/2022

Reporting of emissions to water for the period from 17/08/2023 to 31/12/2023

Emission Point	Substance / Parameter	Emission		Result ^[1]	Test Method ^[2]	Sample Date and Times ^[3]	Uncertainty ^[4]	
		Limit Value	Reference Period					
W1	Total volume of treated effluent	2,750 m ³ /day	24 hour	2587	MCERTS self-monitoring of effluent flow scheme	30/11/2022	99%	
	Maximum flow rate	37 l/s	instantaneous	29l/s				
	pH range	6-9	instantaneous	7.09 - 8.32			99%	
	Chemical oxygen demand (COD)	180 mg/l	24 hr composite	140	As per the Environmental Agency's Technical Guidance M18 Monitoring of discharges to water and sewer	30/09/2022	98%	
	Biological oxygen demand (BOD)	100 mg/l	24 hr composite	24				
	Total suspended solids	60 mg/l	24 hr composite	57		17/10/2022		
	Colour (platinum – cobalt scale)	No limit set (Hazen units)	24 hr composite	4.88		Colorimetric analysis at 400nm		99%
	Total ammonia	No limit set	24 hr composite	9.04mg/l		As per the Environmental Agency's Technical Guidance M18 Monitoring of discharges to water and sewer	21/12/2022	
	Total nitrogen (Total N)	25 mg/l	24 hr composite	4.02mg/l			21/12/2022	
	Total phosphorus (Total P)	2 mg/l	24 hr composite	16700ug/l				2109/2022

[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.

SignedByron Williams.....
(Authorised to sign as representative of Operator)

Date.....31/01/2023.....

There has been substantial investment in the aeration system in November to allow the process i.e the biological life to mature and be able to adapt so that it could cope with digesting the phosphate available in the process we have already seen the benefits of this with phosphate levels dropping to 1800 ugl and 1890 ugl these levels will hopefully be maintained and keep the process within the phosphate limits without the need of any chemical intervention as well as a considerable drop in power consumption on site.(approx. 45%)

Permit Number: BP3135EB

Operator: Sensient Flavors and Volac International Limited

Facility: Felinfach Effluent Treatment Plant

Form Number: WaterUsage1 / 17/08/2022

Reporting of Water Usage for the year 2023

Water Source	Usage (m ³ /year)	Specific Usage (m ³ /unit output)
Mains water	75	
Site borehole	1825	
River abstraction	na	
TOTAL WATER USAGE	1900	

Operator's comments :

SignedByron Williams.....
(authorised to sign as representative of Operator)

Date.....31/01/23.....

Permit Number: BP3135EB

Operator: Sensient Flavors and Volac International Limited

Facility: Felinfach Effluent Treatment Plant

Form Number: Energy1 / 17/08/2022

Reporting of Energy Usage for the year 2023

Energy Source	Energy Usage		Specific Usage (MWh/unit output)
	Quantity	Primary Energy (MWh)	
Electricity *	MWh	3005	
Natural Gas	MWh		
Gas Oil	tonnes		
Recovered Fuel Oil	tonnes		
TOTAL	-	3005	

* Conversion factor for delivered electricity to primary energy = 2.4

Operator's comments :
The aeration upgrade has seen a significant drop in usage since the installation circa 45%

SignedByron Williams.....
(Authorised to sign as representative of Operator)

Date.....31/01/2023.....

Permit Number: BP3135EB

Operator: Sensient Flavors and Volac International Limited

Facility: Felinfach Effluent Treatment Plant

Form Number: Performance1 / 17/08/2022

Reporting of other performance indicators for the period 01/01/2022 to 31/12/2022

Parameter	Units
Treated liquid effluent discharged at W1	545310m ³
Sludge collected for off-site recovery	35770m ³
Sodium Hydroxide used	438tonnes
Generation of residues	tonnes
Generation of waste water	m ³

Operator's comments :

SignedByron Williams.....
(Authorised to sign as representative of Operator)

Date.....31/01/2023.....