MS106 (CARMARTHEN) PERMIT YP3937SH CONDITION 4.2.2 MONITORING

PERMIT CONDITION 4.2.2

Period 2025

For the following activities referenced in schedule 1, table S1.1 (A1 to A4) a report or reports on the performance of the activities over the previous year shall be submitted to Natural Resources Wales by 31 January (or other date agreed in writing by Natural Resources Wales) each year.

The report(s) shall include as a minimum:

a) *A review of the results of the monitoring carried out in accordance with the permit including an interpretative review of that data;*
b) *The annual production / treatment data set out in schedule 4 table S4.2; and*
c) *The performance parameters set out in schedule 4 table S4.3 using the forms specified in table S4.4 of that schedule.*

Interpretative Review of Monitoring Data

The monitoring data for 2025 shows a good level of compliance with the Emissions and monitoring as laid out in Schedule 3 (b).

There were three exceedances in May, July and December 2025, for Phosphorus, Mercury and Total Organic Carbon. Notification was raised and sent to NRW regarding these exceedances.

The exceedance for Phosphorus was 0.07mg/l. The uncertainty for phosphorus is 20.23%, an exceedance of 0.07mg/l is 3.5% above the ELV, this is being considered as significantly within the uncertainty threshold for phosphorus.

As stated in the Schedule 6 notification for the Mercury exceedance this is at such an elevated level that this has been considered a potential rouge result.

The Total Organic Carbon exceedance in December 2025 is within the range of the uncertainty figure for this analysis. That aside the elevated level maybe due to the fact that external carbon sources, pure methanol as an example are being added to the denitrification phases currently taking place on site. The denitrification process was developed to counter the exceedances in 2024 due to elevated total Nitrogen.
Additional process monitoring has been put in place with the intention of identifying any potential elevated levels before they become a risk to the ELV.

Total ammonium as N kg/year and Cadmium as Cd has slightly increased on the previous year's totals but are still well within the permitted parameters.

Interpretative Review of Monitoring Data (cont.)

Total Mercury as Hg has increased on 2024 to 0.330kg and is above the annual limit for this substance in Table S3.3 of 0.274kg but this is due to the elevated result as reported for July 2025 which has been explained above. If the July result was that of an average value then the total Mercury as Hg would be 0.193kg which is below the annual limit and also similar to the previous year's total.

The ratio of abstracted water usage per unit of waste treated via the biological effluent treatment plant has increased by 1.31 m3/tonne, this is attributable to a drier summer period and significantly less total incoming tonnages onto site.

There has been an increase in raw materials used but this is down to the fact that more material was processed via the biological effluent treatment plant and the addition of an external carbon source to aid the denitrification process on site.

Table S4.2: Annual production/treatment	
Parameter	**Units**
Waste disposal and/or recovery	1928.635 Tonnes
Total ammonium as N kg/year	1723.65 Kg/year
Mercury and its compounds as Hg	0.330 Kg/year
Cadmium and its compounds as Cd	0.322 Kg/year
Water treated through the biological effluent plant	0 M^3
Mains water used	0 M^3
Water abstracted from site boreholes	228565 M^3
Abstraction from Tawelan Brook	0 M^3

Table S4.3 Performance parameters		
Parameter	**Frequency of assessment**	**Units**
Biological effluent treatment plant waste treatment throughput	Quarterly	66727.679 M^3
Mains water usage per unit of waste biologically treated	Quarterly	0 M^3
Abstracted water usage per unit of waste biologically treated	Quarterly	3.42 M^3/tonne
Water usage	Annually	0 M^3
Energy usage	Annually	1019.876 MWh
Total raw materials used	Annually	226.525 Tonnes
Generation of residues	Annually	1928.635 Tonnes
Generations of wastewater	Annually	0 M^3

MS106 (CARMARTHEN) PERMIT YP3937SH CONDITION 4.2.2 MONITORING

Schedule 1 Operations Tonnage Breakdown	
Operation / Area	**Tonnes**
Transfer Station	972.445 Tonnes
High Strength Biodegradable Effluent Area	0 Tonnes
Free Oil Separation Area	1383.123 Tonnes
Soluble Oil Facility	4140.257 Tonnes
Biological Treatment Plant, High Strength Biodegradable Effluent Area DAA and Biological Treatment Plant DAA	66727.679 Tonnes
Asbestos transfer station	0 Tonnes
Total	73223.504 Tonnes