

Company Name:	Tradebe (Gwent) Ltd		
Facility Name:	Gwent Waste Management Centre		
Facility Address:	Corporation Road Newport South Wales NP19 4RD		
Permit Number:	SP3531SK	Issue Date:	26/06/06
Variation Notice:	EA/EPR/SP3531SK/V009	Issue Date:	28/06/21
Activity Performance Report:	01/01/21 – 31/12/21		

a. Review of Monitoring Results

The following measures are monitored on a routine basis as a requirement of the permit. (These do not constitute a complete list of all the monitoring carried out as part of management of the site).

i. Trade Effluent Discharges

Trade Effluent generated by the treatment process is directed into two settlement tanks prior to overflow into the onsite drain for discharge into the local sewer. The Trade Effluent is discharged through a Siemens Magflo meter, which records the instantaneous flow rate ($\text{m}^3/\text{hr}^{-1}$), the cumulative total flow (m^3) and an Aquamatic auto sampler which takes a flow-proportional composite sample over the discharge period (24 hrs). The composite sample is analysed in house once per weekday when effluent is discharged. The composite sample is also sampled weekly by Welsh Water.

NRW report S1 records the high/low analytical results in each quarter and have been submitted to NRW through 2021.

Total effluent produced: 71,508 m^3
 Effluent produced per unit: 0.960 m^3 / te

The effluent discharge monitoring and management systems achieved MCERTs re-certification on 10th May 2017 with most recent audit undertaken 28th July 2021. The Magflo meter is included in our site PPMS system, and receives an annual third-party verification and annual service from an outside contractor.

ii. Site Scrubber Monitoring

The site has three scrubbers that are checked on a daily basis for both alkalinity/acidity and pH and this is used to monitor performance. The results are reported for review at the daily morning meetings and also reported to NRW every six months as a permit requirement via form SC1.

iii. Waste Inputs and Outputs

Waste inputs and outputs are monitored and tracked using SAP which is the system of choice used by Tradebe across all facilities in all countries. It is a fully integrated system and controls waste enquiries, inputs, stock, financial data and analysis from cradle to grave. Reports of waste inputs and outputs are compiled and submitted to NRW as the site returns on a quarterly basis. In summary:

For 2021

Inputs	Hazardous (te)	Non-Hazardous (te)
Treatment Plant	52,450	22,045
Transfer Station	4559	2810
Outputs		
Third Party Disposal	2,834	13,568
Landfill	36	12,694

Quantities are measured by means of the site weighbridge, which is calibrated annually by an external contractor. In 2021 this was carried out in October.

iv. Filtercake Outputs

Filtercake is produced in batches from the treatment process, which is the site's single largest solid output. The ratio of tonnes filtercake produced per tonne of waste treated is a good indicator of both operational and environmental efficiency but is variable dependent upon the types of waste being treated e.g. metal salt, sulphate, phosphate rich wastes will produce more filtercake when compared to landfill leachates or other less-contaminated effluents. The ratio for the last few years is given in the table below and 0.25 is considered an ideal figure:

Year	2013	2014	2015	2016	2017	2018	2019	2020	2021
te filtercake/tonne waste	0.23	0.27	0.26	0.22	0.16	0.14	0.14	0.17	0.17

2021 continued with the trend of the previous 3 years with increases in the volume of wastes that had low solids coupled with more caustic waste streams that required less lime for neutralisation and stricter controls on coagulant usage, resulting in proportionally less filter cake produced per tonne of waste. This accounts for the ongoing reduction of te filtercake/tonne waste through 2021.

b. Annual Improvement Targets (from Management System)

Work continued in 2021 in development of the effluent treatment plant and an engineering company has been chosen to carry out front end engineering. The front-end engineering will allow Tradebe to gain a better understanding of equipment required and cost of the project.

In 2021 attention was paid to the site infra structure and in particular the site bund system. The exterior of the site is made up of several concrete section, all of which are encircled by bund walls, this means that water which lands on any part of the site, is contain within the bund and ultimately ends up undergoing treatment via sites physico/chemical process. Tradebe invested capital in the repair of the encircling bund walls and replacement of the expansion joints between each concrete section. Also, as part of this initiative, another contractor was commissioned to repair the floor in the acid offloading area of the treatment plant and lay an acid resistant screed covering an area of 362m².

c. Annual Production / Treatment Data

The data required by table S5.2 of the site Permit has been reported to NRW on form PI1 in Jan 22. In addition, waste returns are submitted to NRW on a quarterly basis in an electronic format. The data submitted therein was:

Total waste received	74,495 te
Treatment residues disposed to non-hazardous landfill	12,694 te
Treatment residues disposed to hazardous landfill	36 te

d. Performance Parameters

As stated in section (c) above, form PI1 was submitted to NRW for the reporting period. The environmental performance indicators given on this form are:

Effluent discharged to sewer	71,508	m ³
Water used	9298	m ³
Non-hazardous waste sent out	13,568	te
Hazardous waste sent out	2,834	te

e. Site Contamination / Decontamination Notes

No contamination events occurred within 2021

Alex Morris
GWMC Site Manager
26 Jan 22