

WALLEYS QUARRY

PRESS INFORMATION

Date: 09.12.2021

Title: Leachate – Collection and Treatment

Walleys Quarry is a highly engineered modern facility comprised of individually engineered “cells”. These are designed for the containment and capture of wastes, either those imported for landfill deposition or those generated on site as part of this activity. Within each cell accumulations of rainwater and liquors generated through the degradation of wastes builds up, requiring monitoring and management. This liquor is termed leachate.

To manage the leachate at Walleys Quarry, it is necessary to be able to monitor its accumulation and level within each cell. This is undertaken at regular intervals, in line with the requirements set out within our permit issued through the regulator, the Environment Agency through the measurement of the leachate depth from the base of the cell. As leachate accumulates continuously through the life of the facility it is necessary to remove the material for treatment and disposal.

At Walleys Quarry this is primarily achieved through the onsite “Leachate Treatment Plant” (LTP) and onsite Trade Effluent Discharge Consent. Leachate is captured through low points, termed sumps within each engineered cell and pumped through to the LTP for treatment. The aim of which is to treat the leachate in line with the Trade Effluent Discharge to sewer.

Leachate, pumped from the landfill is collected from each cell as necessary and pumped to an initial holding tank, termed the Balancing Tank. This tank helps to manage the incoming leachate to the plant, ensuring there is an even and stable flow.

From the balancing tank, leachate is pumped through to a large treatment tank, termed the Biological Reactor. Within this tank, the main treatment of the site’s leachate is achieved. Bacteria, attuned to the treatment of leachate from Walleys Quarry work to breakdown and lower the level of contaminants within the liquors.

As this is a natural process, undertaken by living bacteria the conditions need to be monitored and managed to ensure the conditions within the tank remain comfortable for the bacteria to thrive. As well as temperature, pH is maintained so that the conditions are “just right” to keep the bacteria under optimal conditions and therefore effectively and efficiently treating the sites leachate.

Once the leachate has been treated and the liquor is in line with our trade effluent consent it can be discharged to sewer. The process of treatment through the LTP and discharge to sewer is controlled through a PLC, which is networked and therefore able to be monitored and controlled remotely to Walleys Quarry. This is monitored and supported on a 24-hour a day basis by our team of specialist contractors.

Last Thursday Jo Churchill parliamentary under-secretary of state at the Department for Environment, Food and Rural Affairs visited Walleys Quarry.

Jo was shown around site, taking in various landfill engineering, such as new gas management systems, and was particularly interested in the Posi-Shell, a clay-based protective coating that covers landfill sites to prevent emissions.

Nigel Bowen, CEO of Walleys Quarry, said the visit was 'extremely worthwhile and allowed us to show her the work that Walleys Quarry has been undertaking to minimise any effect the landfill could have on the local community.'

ENDS

For press information please contact press@walleysquarry.co.uk

Notes to editors:

Website: <https://www.walleysquarry.co.uk>

About Walleys Quarry:

Walleys Quarry in Newcastle-Under-Lyme, Staffordshire is a landfill site, offering safe disposal of waste that cannot otherwise be re-used or recycled.