

# Walleys Quarry Landfill Site

4 November 2021

We have developed this weekly update to help keep the community of Newcastle under Lyme, and wider area, up-to-date with developments around our regulation of Walleys Quarry landfill.

Walleys Quarry Ltd are responsible for the hydrogen sulphide emissions escaping from their site. As regulator we are committed to making sure the operator tackles the problems at Walleys Quarry, to improve things for everyone, as quickly as possible. Our team of regulators continues to put pressure on the operator to take the necessary measures to resolve the hydrogen sulphide issues.

## News in brief

### Gas well work complete and other updates

Walleys Quarry Ltd has confirmed that they have successfully completed work to install the additional gas wells at the site.

A validation construction quality assurance report for the use of the Posi-shell has been produced by the independent consulting engineers Egniol. We received this on Monday and have sent back some questions to the independent consultant for clarification. Once we receive satisfactory responses we will publish our own report.

Also, later this month, an independent consultant gas specialist will be carrying out another surface gas emissions survey to validate the performance of the Posi-shell capping. We expect a report shortly after and for the operator to act on the recommendations promptly.

We also instructed Walleys Quarry Ltd to submit a revised Gas Management Plan, which incorporates a gas improvement programme, setting out a series of long-term measures for improving landfill gas management at the site. This month we will assess and evaluate this plan.

### Hydrogen sulphide gas capture

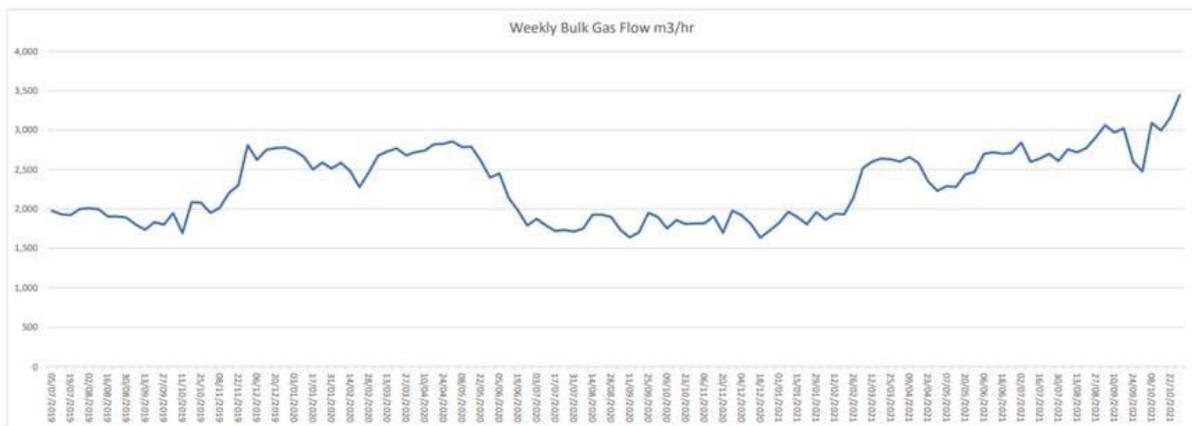
Following the actions we've instructed Walleys Quarry Ltd to take, the volume of hydrogen sulphide gas captured has recently increased to 3,445m<sup>3</sup>/hr (Figures given for 29 October 2021). This is double the amount collected in December 2020.

This is a significant and sustained improvement and means the volume of hydrogen sulphide captured and destroyed has doubled and is not released to the atmosphere.

CLP, the gas contractor has reported this as a record high value for the site. They are now running both engines on full power at 2000 KW electricity 24/7 with two flares in operation.

This trend can be seen in the graph below- Weekly Bulk Gas Flow Chart (m<sup>3</sup>/hr) 2019-2020-2021.

Weekly Bulk Gas Flow Chart (m3/hr) 2019 -2020 -2021



For comparison, the actual gas collected on 18 December 2020 was 1,636 cubic metres per hour. On 29<sup>th</sup> October 2021 this was measured at 3,445 cubic metres per hour.

### Latest hydrogen sulphide levels

For the week from 25 to 31 October, hydrogen sulphide levels were below the World Health Organisation’s (WHO) 24-hour average health guideline level to protect against short-term health effects.

In the same period the hydrogen sulphide levels did not exceed the World Health Organisation’s (WHO) 30- minute average odour annoyance guideline level to protect against short-term odour annoyance at any time. Whilst not directly related, this is reflected in a reduced number of odour reports from the community. During this week we received 105 odour reports to our Incident Communication Service.

Although the hydrogen sulphide levels did not rise above the WHO hydrogen sulphide odour annoyance guideline level this week, we continue to press the operator to take all steps to reduce the hydrogen sulphide and other odours leaving the site wherever possible.

MMF1 - Silverdale Cemetery = 0%

MMF2 - Silverdale Road = 0%

MMF6 - Newcastle-under-Lyme Fire Station = 0%

MMF9 - Galingale View = 0%

We do expect to see some short term increases and decreases in the levels of hydrogen sulphide at times and this is due to a number of reasons such as improvement works on site, changes in the weather and as the seasons change. In particular as we approach autumn air temperatures start to drop so fugitive landfill gas emissions will rise in the atmosphere less readily. With less dispersion, the potential for causing odour nuisance from hydrogen sulphide is greater than in the summer, when the gas is naturally more diluted due to the higher temperatures and rising air. This means the benefits of some of the improvements that have been carried out at Walley’s Landfill, with regards to a reduction in offsite odour nuisance, could be less noticeable in these conditions.

However it is important to note that overall despite short term spikes, the overall trend in the levels of hydrogen sulphide in the ambient air continues to reduce.

### Posi-shell concerns

We responded to some concerns on social media this week about some operational activity on the site which involved driving across the Posi-shell capped area. The operator said that this was necessary to carry out some leachate well monitoring. The area has been repaired already.

We are updating the information on this webpage every week. To receive notifications, email your contact details to: [Engagement\\_WestMids@environment-agency.gov.uk](mailto:Engagement_WestMids@environment-agency.gov.uk) and we will add you to our mailing list.

See [Staffordshire County Council website](#) for information on public health impacts of odours in the Silverdale and wider Newcastle under Lyme area.

Walleys Quarry website: <https://walleysquarry.co.uk/>