

## **Review of Asbestos Monitoring at Arnold's Field, Launders Lane**

### ***Purpose of the Report:***

- To provide an overview of the asbestos monitoring carried out by a UKAS accredited consultant in August 2024 around Arnolds Field, Launders Lane, Rainham.

### ***Summary of findings:***

Over 2 monitoring periods on 1 August 2024 and 29 August 2024, the Council commissioned a UKAS accredited consultant to carry out asbestos monitoring on the boundary of Spring Farm Park and New Road/Launders Lane respectfully, whilst fires were occurring on site.

On both occasions, no asbestos fibres were discovered.

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## **Executive Summary**

An intrusive contaminated land study (“soil investigation”) was undertaken by Geo-Environmental Services Limited (GESL) at Arnolds Field, Lauanders Lane, Rainham in September 2023 (with further monitoring between October and December that year).

Following the issue of their report in December 2023, it was recommended, as the result of the discovery of small amounts of asbestos containing material (ACM) within the site, that airborne asbestos monitoring was carried out around the site to investigate if asbestos fibres were being released.

This report discusses the findings of the sampling, undertaken on behalf of the Council in August 2024 by a UKAS accredited consultant. Results of the sampling indicate that no asbestos fibres were present in the ambient air samples taken outside the boundary of the site.

It should be noted that as part of their terms and conditions, the consultant performing the sampling and analysis has required that their details be omitted from any publically available report.

## Introduction

Asbestos was once used in many building and manufacturing products, including insulation, roofing, fireproofing materials, brakes for vehicles, artex and other wallboard materials.

It is still found in many places, but is banned in new building materials.

The health risks relating to asbestos exposure are due to the release of tiny fibres into the air when the material is handled, broken up, drilled, or cut. Inhaling asbestos fibres over prolonged periods of time can cause asbestosis, and is suspected to be responsible for other health issues, particularly lung conditions. Health impacts of asbestos, such as mesothelioma, are most common in those who have been exposed to asbestos at work\*, and there is some evidence to suggest that the families of people working in asbestos exposure-prone professions are also at increased risk (as fibres can be transported home on clothing).

The London Borough of Havering commissioned a UKAS accredited consultant to undertake air sampling around the Arnolds Field site. This was in response to the intrusive contaminated land site investigation commissioned by the Council, and undertaken on the Council's behalf by GESL. GESL's report (from December 2023), indicated that small amounts of ACM were on site, either at surface level or below ground level, and recommended that further investigation carried out to establish if asbestos fibres were leaving the site.

A consultant was contracted to provide UKAS accredited asbestos sampling, including air monitoring. They carried out monitoring at Spring Farm Park on 1 August 2024 and on the New Road/Launders Lane on 29 August 2024. On both occasions, fires were occurring on the site.

\*industries such as factories where workers were processing or manufacturing asbestos based products and goods, railway and vehicle production, and the building or construction industry, particularly from the 1950s to the 1990s.

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## **Methods of sampling:**

Two methods of sampling and analysis were agreed as part of the monitoring exercise:

### **1 PCM – Phase contrast microscopy.**

This is the standard method used for sampling and counting fibres in the air, and picks up all fibres which may be in the air at the sampling location. As this method would identify both asbestos fibres, manmade fibres and vegetation fibres, it cannot be used in isolation to identify if asbestos fibres are present. The second phase of analysis was used to determine the type of fibre (i.e. if asbestos was present or not). 10 static PCM samples were taken on each sampling day, and 2 personal PCM samples for the operatives, and were analysed within days of the samples being taken.

### **2 SEM – Scanning Electron Microscopy.**

This method enables any fibres captured to be differentiated into different types of asbestos fibres and other fibres. Any organic fibres (such as pollen) are destroyed during the laboratory processing of the sample, and are therefore not counted. 5 SEM samples were collected on each occasion, co-locating with some of the static PCM samples. These samples have a longer reporting time as they need to be sent to and processed by an external laboratory.

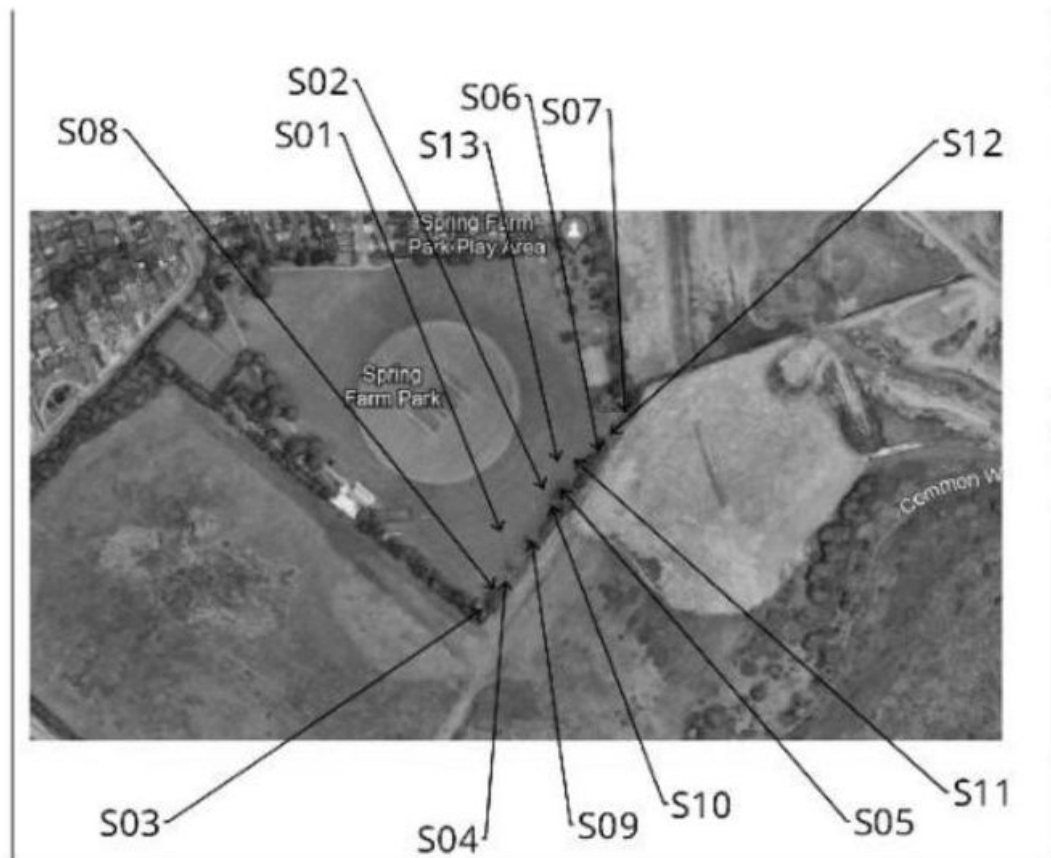
# Sampling Strategy

## ***1 August 2024.***

Monitors were set up on the boundary of Spring Farm Park with the land known locally as the “Moretti Land” to the south east of the park. Sampling was attempted on the Moretti Land, however despite being able to gain access, the land was too uneven and overgrown for the analysts to safely set up their monitoring equipment along the boundary with Arnolds Field.

Therefore it was decided that the next best location that day was to set up the monitoring along the boundary with Spring Park Farm. See Fig 1.1 for the location of the 10 monitoring locations along the boundary. Two personal monitors were also carried by the analysts present on site during the duration of the sampling exercise. One sample point (S01) was the “field blank”, which was not exposed to the air.

During this monitoring, smoke was emanating from the Launderers Lane site, but blowing towards New Road, to the South West of Spring Park Farm.



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personal monitors were also carried by the analysts present on site during the monitoring exercise. One sample point (S014) was the “field blank”, which was not exposed to the air.

Smoke was still emanating from the site, blowing towards the South East, where the monitoring locations were situated.



Fig 1.2 Sampling locations 29 August 2024

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# Results

## *Background*

The recognised controlled limit for asbestos fibre monitoring governed by HSE/WHO is 0.01(0.010) fibres/cm<sup>3</sup>.

The control limit refers to the concentration of asbestos fibres in any localised atmosphere, measured and averaged over a continuous period of time, in accordance with the 1997 World Health Organisation's recommended method.

Fibres/cm<sup>3</sup> (f/cm<sup>3</sup>) and fibres/ml (f/ml) of air are an interchangeable unit of measurement and full results from the monitoring can be found in the reports provided by the consultant.

## *Summary:*

**1 August 2024.** Less than 0.01 fibres/ml of air (f/ml) were recorded on the static PCM samples. No asbestos fibres were detected in the SEM samples.

**29 August 2024** Less than 0.01 f/ml were recorded at the 10 static PCM samples. Whilst up to 6 reportable fibres were detected within the SEM samples, these were not asbestos fibres but other machine made mineral fibres. Considering the location of the sampling locations, these are more likely to be traffic generated as a result of road and vehicle wear and tear.

## **Conclusion**

The monitoring carried out by the Council's contracted UKAS accredited consultant in August 2024, reported that at the time of monitoring, whilst there were fires occurring on the Arnolds Field site, no asbestos fibres were detected by the sampling performed.

Therefore the risk of respirable asbestos fibres reaching the neighbouring residential areas and users of the park has been interpreted as minimal, and not of significant concern.

Should the site be redeveloped, the appropriate safeguarding measures will be need to be taken to minimise the release of asbestos fibres into the air, particularly to those who may be developing the site. However the risk of the undisturbed ACM leaving the boundary of the site is low providing the appropriate control measures are carried out.

## **Limitations**

Guidance for asbestos monitoring does not detail how to monitor asbestos in community settings, but for enclosed spaces, with specific reference to work place monitoring. Therefore in order to provide a cost effective sampling strategy the consultant suggested monitoring across the boundary of the site, to investigate if any ACM would be detected.

Due to health and safety restrictions, the analysts were only able to carry out 12 air tests per day.



## **Appendix 1:**

Redacted consultant report

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## Appendix 2

Further information regarding asbestos and the health impacts can be found at the following links:

NHS information about asbestosis:

<https://www.nhs.uk/conditions/asbestosis/>

NHS information about mesothelioma

<https://www.nhs.uk/conditions/mesothelioma/>

Cancer Research – Risks & Causes of Mesothelioma

<https://www.cancerresearchuk.org/about-cancer/mesothelioma/risks-causes>

UK Health Security Agency Guidance on Asbestos: Toxicological Overview

<https://www.gov.uk/government/publications/asbestos-properties-incident-management-and-toxicology/asbestos-toxicological-overview#ref-5>

World Health Organisation key facts re Asbestos

<https://www.who.int/news-room/fact-sheets/detail/asbestos>

Monitoring techniques for asbestos

<https://www.gov.uk/guidance/monitoring-ambient-air-techniques-and-standards#asbestos>

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