

Client



Jones
JONES BROTHERS (HENLLAN) LTD

Remediation Contractor



envirotreat®

Site Background & History

The former Techboard Facility was based on the Rassau Industrial Estate in Ebbw Vale. Techboard was a purpose-built manufacturer of hardboard and lauded as the largest venture capital backed greenfield development at the time.

The facility closed in 2002 and the site was acquired by the Welsh Government in 2017.

The site has been leased from the Welsh Government by TVR as a base for their sports car manufacturing following refurbishment of the existing buildings.

The site is shown in Figures 1 and 2 below.

Figure 1 – Techboard Site



Figure 2 – Techboard Site



Site Investigation

The facility housed a number of machine pits - some of these pits were the subject of an intrusive site investigation in 2018, which confirmed the visible presence of cement bound asbestos fragments.

A further investigation was carried out in February 2021 which focused on all 18 machine pits. All samples returned a positive asbestos result with chrysotile cement bound fragments recorded in the majority of the samples up to 6.3%.

Envirotrat attended site in October 2021 and collected samples of the stockpiled materials to confirm potential asbestos fibre content and to evaluate other potential contaminants. Results confirmed asbestos fibre content to be <0.006% with slightly elevated TPH concentrations.

Visible asbestos fragments were noted during sampling as shown in Figure 3 below:

Figure 3 – Visible Asbestos Fragments



Remediation Strategy

To ensure a fully sustainable approach was employed and in accordance with the Welsh Government's Zero Waste to Landfill, Envirotreat proposed that once the visible asbestos has been removed and validated, the soils would be suitable for re-use in an area allocated for soft landscaping beneath an appropriate membrane and capping layer.

On this basis and in line with the findings of the site investigations and sampling carried out by Envirotreat, the following remediation strategy was agreed:

- Hand picking of visible asbestos fragments
- Soil treatment to address TPH contamination
- Validation
- Emplacement of validated soils into the landscaping area

Hand Picking of Visible Asbestos Fragments

Visible cement bound asbestos fragments were picked by hand by a licensed asbestos subcontractor using the following procedure:

- The stockpiles were initially sprayed using water and a fibre suppressant
- Smaller manageable volumes of soil were removed from the stockpile using an excavator (circa 10m³) and set down on a clean area (whilst still spraying with fibre suppressant)
- Visible asbestos fragments were picked by hand and placed into double lined heavy duty plastic sacks
- Reassurance air monitoring was carried out throughout the picking process
- The plastic sacks were secured with tape and placed into the lined skip to await disposal.
- Once complete samples were collected for validation purposes

The process is shown in Figures 4 and 5 below.

Figure 4 – Site Set up



Figure 5 – Hand Picking Operations



All bagged asbestos fragments were placed in a lined skip for disposal at a suitably licensed receiver site – this is shown in Figure 6 below.

Figure 6 – Bagged Asbestos in Lined Skip



Soil Treatment

A dry mix bentonite E-Clay was utilised for this project to address the identified TPH contamination and to also ensure the treated soil was suitable for reuse in the intended location.

Following completion of the asbestos picking, the dry mix E-Clay was added to the soil using an excavator as shown in Figure 7 below. On completion several validation samples were collected and submitted to a UKAS/MCERTS laboratory for appropriate analysis.

Figure 7 – Soil Treatment



Emplacement of Validated Soils

The treated and validated soil was emplaced into voids allocated for soft landscaping, covered with an anti-dig membrane, and capped with 600 mm of clean soil. This is shown in Figures 8 – 10 below.

Figure 8 – Soil Emplacement



Figure 10 – Installation of Membrane and Clean Cover



Figure 9 – Emplaced Soil



Validation

Envirotrear has completed the designated remediation works at the former Techboard Facility, Rassau Industrial Estate, Ebbw Vale, in accordance with the requirements of the agreed Remediation Method Statement.

The remediation works comprised hand picking of cement bound asbestos fragments and E-Clay stabilisation of a hydrocarbon impacted soil stockpile.

All validation results for the asbestos picked soils were fully compliant. The leachate results for the E-Clay treated soils were below the remediation target criteria.

The Validation and Verification Report confirmed the site remediation works have been carried out successfully in accordance with the agreed Remediation Method Statement.