# Condition 17 – Contaminated Land Verification & Validation Report

**Prepared by:**

Red File Projects Ltd (Planning Division),

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London SW19 2RR

Signed: 30 January 2026

**Version / Date:** 29 January 2026

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## 1. Introduction

This Verification and Validation Report has been prepared to support the discharge of Condition 17 relating to land contamination for the approved development at Pulborough, West Sussex. This submission replaces all previous validation material and has been restructured to directly mirror the validation requirements set out in Section 3 of the approved Remediation Method Statement (RMS) dated 28 October 2024, prepared by Dr Richard Wesson.

## 2. Planning Condition & Approved Documents

Condition 17 requires the submission of a verification report demonstrating that the approved remediation scheme has been implemented and validated. The remediation strategy is set out in the approved Remediation Method Statement (RMS). Supporting laboratory certificates, plans, waste transfer documentation and correspondence are provided separately as appendices.

## 3. Summary of Remediation Works Undertaken

Remediation works were undertaken in the identified remedial areas associated with historic lead and PAH contamination. The works comprised removal of existing topsoil, excavation of impacted soils to the depths specified in the RMS, off-site disposal of contaminated material, and reinstatement with certified clean imported topsoil.

## 4. Validation Protocol (RMS §3) – Evidence of Compliance

This section addresses each requirement of RMS Section 3.1 in turn and identifies how compliance has been achieved.

| RMS §3.1 Requirement | Evidence of Compliance |
|---|---|
| Visual validation of excavation depth with photographic evidence | Photographs demonstrate topsoil removal, excavation to the required depths, and exposed formation levels within each remedial area. |
| Sampling of excavation base to confirm contaminant concentrations below GAC | Base validation samples were collected from each remedial area and analysed by a UKAS/MCERTS accredited laboratory. |
| Representative capping/topsoil samples at 1 per plot per layer | As the development comprises a single plot with two discrete remedial areas, representative topsoil samples were collected from each reinstated area. |
| Waste transfer notes for all removed | Waste Transfer Notes confirming lawful |

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| | |
|---|---|
| material | off-site disposal are provided in the appendices. |
| Submission of a validation report to the LPA | This document constitutes the required validation report. |

## 5. Photographic Record

A photographic record is provided within this report to demonstrate each stage of the remediation process. Photographs show topsoil stripping, excavation, base exposure, sampling and reinstatement.




**Fig 1 Waste skip with contaminated soil**



**Fig 2.1 Area 1 excavation to 300mm**




**Fig 2.2 Area 1 sampling**

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**Fig 2.3 Area 1 New Topsoil**




**Fig 2.4 Area 1 New Topsoil Sampling**



**Fig 3.1 Area 2 excavation to 300mm**



**Fig 3.2 Area 2 sampling**

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Fig 3.3 Area 2 New Topsoil




Fig 3.4 Area 2 New Topsoil sampling

## 6. Laboratory Testing – Thresholds & Results

Laboratory testing was undertaken by a UKAS and MCERTS accredited laboratory. Assessment thresholds are derived from Appendix 1 of the RMS. For each sample, the relevant Generic Assessment Criteria (GAC) are summarised alongside the reported results.

All reported concentrations for lead and PAH compounds were below the applicable GACs. Asbestos screening of all soil samples confirmed no detectable asbestos present. No exceedances were identified.

### Laboratory Summary Tables (for ease of review)

The following tables summarise the applicable Generic Assessment Criteria (GAC) from Appendix 1 of the approved Remediation Method Statement alongside the reported laboratory results. This summary is provided to assist Environmental Health and Contaminated Land Officers and does not replace the full laboratory certificates, which are provided separately as appendices.

### Appendix A – Area 1 Base of Excavation Sample

| Determinant | Assessment Criterion (mg/kg) | Assessment Basis | Reported Result (mg/kg) | Compliance |
|---|---|---|---|---|
| Lead | 200 | Residential GAC | <50 | Compliant |

| | | | | |
|---|---|---|---|---|
| Benzo(a)pyrene | 1.0 | PAH GAC (2.5% SOM) | <0.1 | Compliant |
| Total PAHs | 40 | PAH GAC | <5 | Compliant |
| Asbestos | N/A | Qualitative screen | Not Detected | Compliant |

## Appendix B – Area 2 Base of Excavation Sample

| Determinant | Assessment Criterion (mg/kg) | Assessment Basis | Reported Result (mg/kg) | Compliance |
|---|---|---|---|---|
| Lead | 200 | Residential GAC | <45 | Compliant |
| Benzo(a)pyrene | 1.0 | PAH GAC (2.5% SOM) | <0.1 | Compliant |
| Total PAHs | 40 | PAH GAC | <4 | Compliant |
| Asbestos | N/A | Qualitative screen | Not Detected | Compliant |

## Appendix C – Area 1 Imported Topsoil Sample

| Determinant | Assessment Criterion (mg/kg) | Assessment Basis | Reported Result (mg/kg) | Compliance |
|---|---|---|---|---|
| Lead | 200 | Residential GAC | <35 | Compliant |
| Benzo(a)pyrene | 1.0 | PAH GAC (2.5% SOM) | <0.1 | Compliant |
| Total PAHs | 40 | PAH GAC | <3 | Compliant |
| Asbestos | N/A | Qualitative screen | Not Detected | Compliant |

## Appendix D – Area 2 Imported Topsoil Sample

| Determinant | Assessment Criterion (mg/kg) | Assessment Basis | Reported Result (mg/kg) | Compliance |
|---|---|---|---|---|
| Lead | 200 | Residential GAC | <30 | Compliant |
| Benzo(a)pyrene | 1.0 | PAH GAC (2.5% SOM) | <0.1 | Compliant |
| Total PAHs | 40 | PAH GAC | <3 | Compliant |
| Asbestos | N/A | Qualitative screen | Not Detected | Compliant |

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## 7. Data and Information Consistency Review

A cross-check of the remediation method statement, laboratory certificates, plans and waste documentation has been undertaken. No material inconsistencies have been identified that would affect the validity of the remediation or the conclusions of this report.

## 8. Conclusions and Request for Discharge

The remediation works have been carried out in full accordance with the approved Remediation Method Statement. The validation evidence demonstrates that contaminated soils have been appropriately removed, disposed of, and replaced with certified clean material, and that residual soil conditions meet the required assessment criteria.

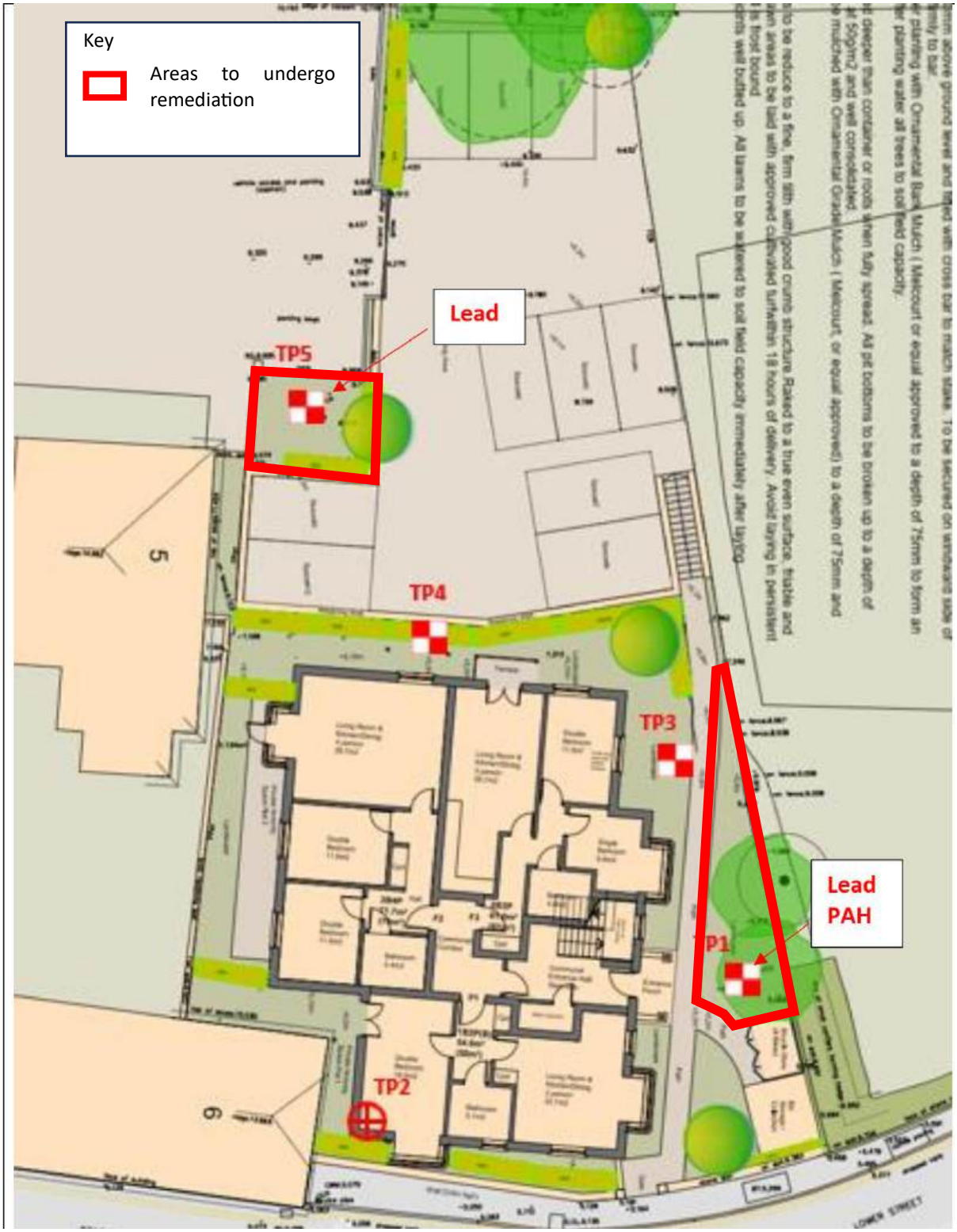
It is therefore respectfully requested that the Local Planning Authority confirms that Condition 17 has been satisfactorily discharged.

## Environmental Health Officer Statement

This report has been prepared specifically to address the Environmental Health Officer's comments regarding validation methodology. Sampling density reflects the single-plot nature of the development, with representative validation samples collected from each distinct remedial area. All results demonstrate compliance with the adopted residential assessment criteria and confirm that the site is suitable for its intended end use.

## Appendices

- Site Plan
- Laboratory Tests
- Waste Transfer Note
- Imported Soil Supplier Certificate
- Remedial Statement


Key
Areas to undergo remediation
Lead
TP5
TP4
TP3
Lead PAH
TP1
TP2
5
9

Unit 7-8 Hawarden Business Park
Manor Road (off Manor Lane)
Hawarden
Deeside
CH5 3US
Tel: (01244) 528777
email: hawardencustomerservices@alsglobal.com
Website: www.alsenvironmental.co.uk

Nieucon Ltd
33 Blundel Lane
Oxshott
Surrey
KT11 2SU

**Attention:** Martie De Villiers

# CERTIFICATE OF ANALYSIS

| | |
|---|---|
| **Date of report Generation:** | 01 December 2025 |
| **Customer:** | Nieucon Ltd |
| **Sample Delivery Group (SDG):** | 251122-51 |
| **Your Reference:** | Ransoms Coppice Hangar |
| **Location:** | Pullsborough |
| **Report No:** | 784442 |
| **Order Number:** | |

We received 1 sample on Saturday November 22, 2025 and 1 of these samples were scheduled for analysis which was completed on Monday December 01, 2025. Accredited laboratory tests are defined within the report, but opinions, interpretations and on-site data expressed herein are outside the scope of ISO 17025 accreditation.

Should this report require incorporation into client reports, it must be used in its entirety and not simply with the data sections alone.

Chemical testing (unless subcontracted) performed at ALS Laboratories (UK) Limited Hawarden.

All sample data is provided by the customer. The reported results relate to the sample supplied, and on the basis that this data is correct.
Incorrect sampling dates and/or sample information will affect the validity of results.
The customer is not permitted to reproduce this report except in full without the approval of the laboratory.

Approved By:

**Justin Keeton**
Business Unit Leader - Land

1291

# CERTIFICATE OF ANALYSIS

**SDG:** 251122-51 **Report Number:** 784442 **Superseded Report:**
**Client Ref.:** Ransoms Coppice Hangar **Location:** Pullsborough

## Received Sample Overview

| Lab Sample No(s) | Customer Sample Ref. | AGS Ref. | Depth (m) | Sampled Date |
|---|---|---|---|---|
| 32499515 | RCH SOIL | ESS1 | 0.40 - 0.45 | 20/11/2025 |

**Only received samples which have had analysis scheduled will be shown on the following pages.**

# CERTIFICATE OF ANALYSIS

**SDG:** 251122-51 **Report Number:** 784442 **Superseded Report:**
**Client Ref.:** Ransoms Coppice Hangar **Location:** Pullsborough

**Results Legend**

X Test

N No Determination Possible

Sample Types -
S - Soil/Solid
UNS - Unspecified Solid
GW - Ground Water
SW - Surface Water
LE - Land Leachate
PL - Prepared Leachate
PR - Process Water
SA - Saline Water
TE - Trade Effluent
TS - Treated Sewage
US - Untreated Sewage
RE - Recreational Water
DW - Drinking Water
Non-regulatory
UNL - Unspecified Liquid
SL - Sludge
G - Gas
OTH - Other

| | | | Lab Sample No(s) | Customer Sample Reference | AGS Reference | Depth (m) | Container | Sample Type |
|---|---|---|---|---|---|---|---|---|
| | | | 32499515 | RCH SOIL | ES51 | 0.40 - 0.45 | 1kg TUB with Handle (ALE260) | S |
| | | | | | | | 250g Amber Jar (ALE210) | S |
| | | | | | | | 60g VOC (ALE215) | S |
| Asbestos ID in Solid Samples | All | NDPs: 0 Tests: 1 | X | | | | | |
| EPH CWG GC (S) | All | NDPs: 0 Tests: 1 | | X | | | | |
| GRO by GC-FID (S) | All | NDPs: 0 Tests: 1 | | | X | | | |
| Metals in solid samples by OES | All | NDPs: 0 Tests: 1 | | X | | | | |
| PAH by GCMS | All | NDPs: 0 Tests: 1 | | X | | | | |
| Sample description | All | NDPs: 0 Tests: 1 | | X | | | | |
| TPH CWG GC (S) | All | NDPs: 0 Tests: 1 | | X | | | | |
| VOC MS (S) | All | NDPs: 0 Tests: 1 | | | X | | | |

# CERTIFICATE OF ANALYSIS

**SDG:** 251122-51 **Report Number:** 784442 **Superseded Report:**
**Client Ref.:** Ransoms Coppice Hangar **Location:** Pullsborough

# Sample Descriptions

## Grain Sizes

| very fine | <0.063mm | fine | 0.063mm - 0.1mm | medium | 0.1mm - 2mm | coarse | 2mm - 10mm | very coarse | >10mm |
|---|---|---|---|---|---|---|---|---|---|

| Lab Sample No(s) | Customer Sample Ref. | Depth (m) | Colour | Description | Inclusions | Inclusions 2 |
|---|---|---|---|---|---|---|
| 32499515 | RCH SOIL | 0.40 - 0.45 | Dark Brown | Sandy Loam | Stones | Vegetation |

These descriptions are only intended to act as a cross check if sample identities are questioned, and to provide a log of sample matrices with respect to MCERTS validation. They are not intended as full geological descriptions.

We are accredited to MCERTS for sand, clay and loam/topsoil, or any of these materials - whether these are derived from naturally ocurring soil profiles, or from fill/made ground, as long as these materials constitute the major part of the sample.

Other coarse granular materials such as concrete, gravel and brick are not accredited if they comprise the major part of the sample.

Validated

# CERTIFICATE OF ANALYSIS

**SDG:** 251122-51 **Report Number:** 784442 **Superseded Report:**
**Client Ref.:** Ransoms Coppice Hangar **Location:** Pullsborough

| Results Legend | |
|---|---|
| # | ISO17025 accredited. |
| M | mCERTS accredited. |
| aq | Aqueous / settled sample. |
| diss.filt | Dissolved / filtered sample. |
| tot.unfilt | Total / unfiltered sample. |
| * | Subcontracted - refer to subcontractor report for accreditation status. |
| ** | % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery |
| *** | 6:2 FTAB (see appendix) |
| 1-4+§@ | Sample deviation (see appendix) |

| Customer Sample Ref. | RCH SOIL |
|---|---|
| Depth (m) | 0.40 - 0.45 |
| Sample Type | Soil/Solid (S) |
| Date Sampled | 20/11/2025 |
| Sample Time | 15:10:00 |
| Date Received | 22/11/2025 |
| SDG Ref | 251122-51 |
| Lab Sample No.(s) | 32499515 |
| AGS Reference | ESS1 |

| Component | LOD/Units | Method | |
|---|---|---|---|
| Moisture Content Ratio (% of as received sample) | % | PM024 | 20 |
| Lead | <0.7 mg/kg | TM181 | 66.3 M |

# CERTIFICATE OF ANALYSIS

**SDG:** 251122-51 **Report Number:** 784442 **Superseded Report:**
**Client Ref.:** Ransoms Coppice Hangar **Location:** Pullsborough

## PAH by GCMS

**Results Legend**
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- *** 6:2 FTAB (see appendix)
- 1-4+§@ Sample deviation (see appendix)

| Customer Sample Ref. | RCH SOIL |
|---|---|
| Depth (m) | 0.40 - 0.45 |
| Sample Type | Soil/Solid (S) |
| Date Sampled | 20/11/2025 |
| Sample Time | 15:10:00 |
| Date Received | 22/11/2025 |
| SDG Ref | 251122-51 |
| Lab Sample No.(s) | 32499515 |
| AGS Reference | ESS1 |

| Component | LOD/Units | Method | |
|---|---|---|---|
| Naphthalene-d8 % recovery** | % | TM218 | 86 |
| Acenaphthene-d10 % recovery** | % | TM218 | 83.2 |
| Phenanthrene-d10 % recovery** | % | TM218 | 81.9 |
| Chrysene-d12 % recovery** | % | TM218 | 80.5 |
| Perylene-d12 % recovery** | % | TM218 | 83 |
| Naphthalene | <9 µg/kg | TM218 | <9 M |
| Acenaphthylene | <12 µg/kg | TM218 | 23.5 M |
| Acenaphthene | <8 µg/kg | TM218 | <8 M |
| Fluorene | <10 µg/kg | TM218 | <10 M |
| Phenanthrene | <15 µg/kg | TM218 | 127 M |
| Anthracene | <16 µg/kg | TM218 | 25.8 M |
| Fluoranthene | <17 µg/kg | TM218 | 363 M |
| Pyrene | <15 µg/kg | TM218 | 342 M |
| Benz(a)anthracene | <14 µg/kg | TM218 | 169 M |
| Chrysene | <10 µg/kg | TM218 | 213 M |
| Benzo(b)fluoranthene | <15 µg/kg | TM218 | 309 M |
| Benzo(k)fluoranthene | <14 µg/kg | TM218 | 110 M |
| Benzo(a)pyrene | <15 µg/kg | TM218 | 213 M |
| Indeno(1,2,3-cd)pyrene | <18 µg/kg | TM218 | 177 M |
| Dibenzo(a,h)anthracene | <23 µg/kg | TM218 | <23 M |
| Benzo(g,h,i)perylene | <24 µg/kg | TM218 | 171 M |
| PAH, Total Detected USEPA 16 | <118 µg/kg | TM218 | 2240 |

# CERTIFICATE OF ANALYSIS

**SDG:** 251122-51 **Report Number:** 784442 **Superseded Report:**
**Client Ref.:** Ransoms Coppice Hangar **Location:** Pullsborough

## TPH CWG (S)

| Results Legend | |
|---|---|
| # | ISO17025 accredited. |
| M | mCERTS accredited. |
| aq | Aqueous / settled sample. |
| diss.filt | Dissolved / filtered sample. |
| tot.unfilt | Total / unfiltered sample. |
| * | Subcontracted - refer to subcontractor report for accreditation status. |
| ** | % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery |
| *** | 6:2 FTAB (see appendix) |
| 1-4+§@ | Sample deviation (see appendix) |

| Component | LOD/Units | Method | Customer Sample Ref. | | | | |
|---|---|---|---|---|---|---|---|
| | | | RCH SOIL | | | | |
| | | | Depth (m) | 0.40 - 0.45 | | | |
| | | | Sample Type | Soil/Solid (S) | | | |
| | | | Date Sampled | 20/11/2025 | | | |
| | | | Sample Time | 15:10:00 | | | |
| | | | Date Received | 22/11/2025 | | | |
| | | | SDG Ref | 251122-51 | | | |
| | | | Lab Sample No.(s) | 32499515 | | | |
| | | | AGS Reference | ESS1 | | | |
| GRO Surrogate % recovery** | % | TM089 | 97.3 | | | | |
| Aliphatics >C5-C6 (HS_1D_AL) | <10 µg/kg | TM089 | <10 | | | | |
| Aliphatics >C6-C8 (HS_1D_AL) | <10 µg/kg | TM089 | <10 | | | | |
| Aliphatics >C8-C10 (HS_1D_AL) | <10 µg/kg | TM089 | <10 | | | | |
| Aliphatics >C10-C12 (EH_2D_AL_#1) | <1000 µg/kg | TM414 | <1000 # | | | | |
| Aliphatics >C12-C16 (EH_2D_AL_#1) | <1000 µg/kg | TM414 | <1000 # | | | | |
| Aliphatics >C16-C21 (EH_2D_AL_#1) | <1000 µg/kg | TM414 | <1000 # | | | | |
| Aliphatics >C21-C35 (EH_2D_AL_#1) | <1000 µg/kg | TM414 | 4340 # | | | | |
| Aliphatics >C35-C44 (EH_2D_AL_#1) | <1000 µg/kg | TM414 | <1000 | | | | |
| Total Aliphatics >C10-C44 (EH_2D_AR_#1) | <5000 µg/kg | TM414 | <5000 | | | | |
| Total Aliphatics & Aromatics >C10-C44 (EH_2D_Total_#1) | <10000 µg/kg | TM414 | 16600 | | | | |
| Aromatics >EC5-EC7 (HS_1D_AR) | <10 µg/kg | TM089 | <10 | | | | |
| Aromatics >EC7-EC8 (HS_1D_AR) | <10 µg/kg | TM089 | <10 | | | | |
| Aromatics >EC8-EC10 (HS_1D_AR) | <10 µg/kg | TM089 | <10 | | | | |
| Aromatics > EC10-EC12 (EH_2D_AR_#1) | <1000 µg/kg | TM414 | <1000 # | | | | |
| Aromatics > EC12-EC16 (EH_2D_AR_#1) | <1000 µg/kg | TM414 | <1000 # | | | | |
| Aromatics > EC16-EC21 (EH_2D_AR_#1) | <1000 µg/kg | TM414 | 1900 # | | | | |
| Aromatics > EC21-EC35 (EH_2D_AR_#1) | <1000 µg/kg | TM414 | 13200 # | | | | |
| Aromatics >EC35-EC44 (EH_2D_AR_#1) | <1000 µg/kg | TM414 | 1330 | | | | |
| Aromatics > EC40-EC44 (EH_2D_AR_#1) | <1000 µg/kg | TM414 | <1000 | | | | |
| Total Aromatics > EC10-EC44 (EH_2D_AR_#1) | <5000 µg/kg | TM414 | 16600 | | | | |
| Total Aliphatics & Aromatics >C5-C44 (EH_2D_Total_#1+HS_1D_Total) | <10000 µg/kg | TM414 | 16600 | | | | |
| Total Aliphatics >C5-C10 (HS_1D_AL_TOTAL) | <50 µg/kg | TM089 | <50 | | | | |
| Total Aromatics >EC5-EC10 (HS_1D_AR_TOTAL) | <50 µg/kg | TM089 | <50 | | | | |
| GRO >C5-C10 (HS_1D_TOTAL) | <20 µg/kg | TM089 | <20 | | | | |

# CERTIFICATE OF ANALYSIS

**SDG:** 251122-51 **Report Number:** 784442 **Superseded Report:**
**Client Ref.:** Ransoms Coppice Hangar **Location:** Pullsborough

## VOC MS (S)

| Results Legend | |
|---|---|
| # | ISO17025 accredited. |
| M | mCERTS accredited. |
| aq | Aqueous / settled sample. |
| diss.filt | Dissolved / filtered sample. |
| tot.unfilt | Total / unfiltered sample. |
| * | Subcontracted - refer to subcontractor report for accreditation status. |
| ** | % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery |
| *** | 6:2 FTAB (see appendix) |
| 1-4+§@ | Sample deviation (see appendix) |

| Component | LOD/Units | Method | Customer Sample Ref. | |
|---|---|---|---|---|
| | | | Depth (m) | 0.40 - 0.45 |
| | | | Sample Type | Soil/Solid (S) |
| | | | Date Sampled | 20/11/2025 |
| | | | Sample Time | 15:10:00 |
| | | | Date Received | 22/11/2025 |
| | | | SDG Ref | 251122-51 |
| | | | Lab Sample No.(s) | 32499515 |
| | | | AGS Reference | ESS1 |
| | | | | RCH SOIL |
| Dibromofluoromethane** | % | TM116 | 105 | |
| Toluene-d8** | % | TM116 | 93.6 | |
| 4-Bromofluorobenzene** | % | TM116 | 73.1 | |
| Methyl Tertiary Butyl Ether | <0.5 µg/kg | TM116 | <0.5 M | |
| Benzene | <1 µg/kg | TM116 | <1 M | |
| Toluene | <1 µg/kg | TM116 | <1 M | |
| Ethylbenzene | <1 µg/kg | TM116 | <1 M | |
| p/m-Xylene | <2 µg/kg | TM116 | <2 # | |
| o-Xylene | <2 µg/kg | TM116 | <2 M | |
| Sum of Detected Xylenes | <0.02 mg/kg | TM116 | <0.02 | |
| Sum of BTEX | <7 µg/kg | TM116 | <7 | |

# CERTIFICATE OF ANALYSIS

**SDG:** 251122-51 **Report Number:** 784442 **Superseded Report:**
**Client Ref.:** Ransoms Coppice Hangar **Location:** Pullsborough

# Asbestos Identification - Solid Samples

**Results Legend**
**#** ISO17025 accredited.
**M** *m*CERTS accredited.
***** Subcontracted test.
**1-5&♦§@** Sample deviation (see appendix)

| | | Date of Analysis | Analysed By | Comments | Amosite (Brown) Asbestos | Asbestos Actinolite | Asbestos Anthophyllite | Asbestos Tremolite | Chrysotile (White) Asbestos | Crocidolite (Blue) Asbestos | Non-Asbestos Fibre |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Cust. Sample Ref.<br>Depth (m)<br>Sample Type<br>Date Sampled<br>Date Receieved<br>SDG<br>Original Sample<br>Method Number | RCH SOILESS1<br>0.40 - 0.45<br>SOLID<br>20/11/2025 00:00:00<br>22/11/2025 05:00:00<br>251122-51<br>32499515<br>TM048 | 26/11/2025 | Paul Poynton | N/A | Not Detected (#) | Not Detected (#) | Not Detected (#) | Not Detected (#) | Not Detected (#) | Not Detected (#) | Not Detected |

# Table of Results - Appendix

| Method No | Description |
|---|---|
| PM024 | Soil preparation including homogenisation, moisture, screens of soils for Asbestos Containing Material |
| TM048 | Identification of Asbestos in Bulk Material |
| TM089 | Determination of Gasoline Range Hydrocarbons (GRO) by Headspace GC-FID (C4-C12) |
| TM116 | Determination of Volatile Organic Compounds by Headspace / GC-MS |
| TM181 | Determination of Routine Metals in Soil by iCap 6500 Duo ICP-OES |
| TM218 | The determination of PAH in soil samples by GC-MS |
| TM414 | Determination of Speciated Extractable Petroleum Hydrocarbons in Soils by GCxGC-FID |

NA = not applicable.
Chemical testing (unless subcontracted) performed at ALS Laboratories (UK) Limited Hawarden (Method codes TM).

# Test Completion Dates

| | |
|---|---|
| **Lab Sample No(s)** | 32499515 |
| **Customer Sample Ref.** | RCH SOIL |
| **AGS Ref.** | ESS1 |
| **Depth** | 0.40 - 0.45 |
| **Type** | Soil/Solid (S) |
| Asbestos ID in Solid Samples | 26-Nov-2025 |
| EPH CWG GC (S) | 26-Nov-2025 |
| GRO by GC-FID (S) | 27-Nov-2025 |
| Metals in solid samples by OES | 28-Nov-2025 |
| PAH by GCMS | 01-Dec-2025 |
| Sample description | 24-Nov-2025 |
| TPH CWG GC (S) | 27-Nov-2025 |
| VOC MS (S) | 26-Nov-2025 |

# Appendix

1. Results are expressed on a dry weight basis (dried at 35ºC) for all soil analyses except for the following: NRA and CEN Leach tests, flash point LOI, pH, ammonium as NH4 by the BRE method, VOC TICs and SVOC TICs.

2. If sufficient sample is received a sub sample will be retained free of charge for 15 days after analysis is completed (e-mailed) for all sample types unless the sample is destroyed on testing. The prepared soil sub sample that is analysed for asbestos will be retained for a period of 6 months after the analysis date. All bulk samples will be retained for a period of 6 months after the analysis date. All samples received and not scheduled will be disposed of 15 days after the date of receipt unless we are instructed to the contrary. Once the initial period has expired, a storage charge will be applied for each month or part thereof until the client cancels the request for sample storage. ALS reserve the right to charge for samples received and stored but not analysed.

3. With respect to turnaround, we will always endeavour to meet client requirements wherever possible, but turnaround times cannot be absolutely guaranteed due to so many variables beyond our control.

4. We take responsibility for any test performed by sub-contractors (marked with an asterisk). We endeavour to use UKAS/MCERTS Accredited Laboratories, who either complete a quality questionnaire or are audited by ourselves. For some determinands there are no UKAS/MCERTS Accredited Laboratories, in this instance a laboratory with a known track record will be utilised.

5. If no separate volatile sample is supplied by the client, or if a headspace or sediment is present in the volatile sample, the integrity of the data may be compromised.
This will be flagged up as an invalid VOC on the test schedule and the result marked as deviating on the test certificate.

6. NDP - No determination possible due to insufficient/unsuitable sample.

7. Results relate only to the items tested.

8. LoDs (Limit of Detection) for wet tests reported on a dry weight basis are not corrected for moisture content.

9. **Surrogate recoveries** - Surrogates are added to your sample to monitor recovery of the test requested. A % recovery is reported, results are not corrected for the recovery measured. Typical recoveries for organics tests are 70-130%. Recoveries in soils are affected by organic rich or clay rich matrices. Waters can be affected by remediation fluids or high amounts of sediment. Test results are only ever reported if all of the associated quality checks pass; it is assumed that all recoveries outside of the values above are due to matrix affect.

10. Stones/debris are not routinely removed. We always endeavour to take a representative sub sample from the received sample.

11. In certain circumstances the method detection limit may be elevated due to the sample being outside the calibration range. Other factors that may contribute to this include possible interferences. In both cases the sample would be diluted which would cause the method detection limit to be raised.

12. For dried and crushed preparations of soils volatile loss may occur -
e.g volatile mercury.

13. For leachate preparations other than Zero Headspace Extraction (ZHE) volatile loss may occur.

14. For the BSEN 12457-3 two batch process to allow the cumulative release to be calculated, the volume of the leachate produced is measured and filtered for all tests. We therefore cannot carry out any unfiltered analysis.
The tests affected include volatiles GCFID/GCMS and all subcontracted analysis.

15. Analysis and identification of specific compounds using GCFID is by retention time only, and we routinely calibrate and quantify for benzene, toluene, ethylbenzenes and xylenes (BTEX). For total volatiles in the C5-C12 range, the total area of the chromatogram is integrated and expressed as ug/kg or ug/l.
Although this analysis is commonly used for the quantification of gasoline range organics (GRO), the system will also detect other compounds such as chlorinated solvents, and this may lead to a falsely high result with respect to hydrocarbons only.
It is not possible to specifically identify these non-hydrocarbons, as standards are not routinely run for any other compounds, and for more definitive identification, volatiles by GCMS should be utilised.

16. We are accredited to MCERTS for sand, clay and loam/topsoil, or any of these materials - whether these are derived from naturally occurring soil profiles, or from fill/made ground, as long as these materials constitute the major part of the sample. Other coarse granular material such as concrete, gravel and brick are not accredited if they comprise the major part of the sample.

17 Data retention. All records, communications and reports pertaining to the analysis are archived for seven years from the date of issue of the final report.

# General

18. **Tentatively Identified Compounds (TICs)** are non-target peaks in VOC and SVOC analysis. All non-target peaks detected with a concentration above the LoD are subjected to a mass spectral library search. Non-target peaks with a library search confidence of >75% are reported based on the best mass spectral library match. When a non-target peak with a library search confidence of <75% is detected it is reported as “mixed hydrocarbons”. Non-target compounds identified from the scan data are semi-quantified relative to one of the deuterated internal standards, under the same chromatographic conditions as the target compounds. This result is reported as a semi-quantitative value and reported as Tentatively Identified Compounds (TICs). TICs are outside the scope of UKAS accreditation and are not moisture corrected.

19. **Sample Deviations**

If a sample is classed as deviated then the associated results may be compromised.

| | |
|---|---|
| 1 | **Container with Headspace provided for volatiles analysis** |
| 2 | **Incorrect container received** |
| 3 | **Deviation from method** |
| 4 | **Matrix interference** |
| ♦ | **Sample holding time exceeded in laboratory** |
| @ | **Sample holding time exceeded due to late arrival of instructions or samples** |
| § | **Sampled on date not provided** |

20. **Asbestos**

When requested, the individual sub sample scheduled will be analysed in house for the presence of asbestos fibres and asbestos containing material by our documented in house method TM048 based on HSG 248 (2021), which is accredited to ISO17025. If a specific asbestos fibre type is not found this will be reported as “Not detected”. If no asbestos fibre types are found all will be reported as “Not detected” and the sub sample analysed deemed to be clear of asbestos. If an asbestos fibre type is found it will be reported as detected (for each fibre type found). Testing can be carried out on asbestos positive samples, but, due to Health and Safety considerations, may be replaced by alternative tests or reported as No Determination Possible (NDP). The quantity of asbestos present is not determined unless specifically requested.

If during the search of the two ‘pinch’ samples by PLM only 1 or 2 fibres or fibre bundles are seen and identified as asbestos, the term ‘trace asbestos identified’ is reported.

**Identification of Asbestos in Bulk Materials & Soils**

The results for identification of asbestos in bulk materials and soils are obtained from supplied bulk materials and soils which have been examined to determine the presence of asbestos fibres using ALS (Hawarden) in-house method of transmitted/polarised light microscopy and central stop dispersion staining, based on HSG 248 (2021).

The results for identification of asbestos in soils are obtained from a homogenised sub sample which has been examined to determine the presence of asbestos fibres using ALS (Hawarden) in-house method of transmitted/polarised light microscopy and central stop dispersion staining.

| Asbestos Type | Common Name |
|---|---|
| Chrysotile | White Asbestos |
| Amosite | Brown Asbestos |
| Crocidolite | Blue Asbestos |
| Fibrous Actinolite | - |
| Fibrous Anthophyllite | - |
| Fibrous Tremolite | - |

**Visual Estimation Of Fibre Content**

Estimation of fibre content is not permitted as part of our UKAS accredited test other than: - Trace - Where only one or two asbestos fibres were identified.

**Respirable Fibres**

Respirable fibres are defined as fibres of <3 µm diameter, longer than 5 µm and with aspect ratios of at least 3:1 that can be inhaled into the lower regions of the lung and are generally acknowledged to be most important predictor of hazard and risk for cancers of the lung.
Potentially respirable fibres are identified by using a Phase Contrast Microscope.

**Further guidance on typical asbestos fibre content of manufactured products can be found in HSG 264.**
**The identification of asbestos containing materials and soils falls within our schedule of tests for which we hold UKAS accreditation, however opinions, interpretations and all other information contained in the report are outside the scope of UKAS accreditation.**

21. 6:2 FTAB

Recovery of 6:2 FTAB in the quality control samples has been observed to be <50% of the target value. Please note the 6:2 FTAB result is supplied as indicative only.

Unit 7-8 Hawarden Business Park
Manor Road (off Manor Lane)
Hawarden
Deeside
CH5 3US
Tel: (01244) 528777
email: hawardencustomerservices@alsglobal.com
Website: www.alsenvironmental.co.uk

Nieucon Ltd
33 Blundel Lane
Oxshott
Surrey
KT11 2SU

**Attention:** Martie De Villiers

# CERTIFICATE OF ANALYSIS

| | |
|---|---|
| **Date of report Generation:** | 01 December 2025 |
| **Customer:** | Nieucon Ltd |
| **Sample Delivery Group (SDG):** | 251122-51 |
| **Your Reference:** | Ransoms Coppice Hangar Pulborough |
| **Location:** | |
| **Report No:** | 784443 |
| **Order Number:** | |

We received 1 sample on Saturday November 22, 2025 and 1 of these samples were scheduled for analysis which was completed on Tuesday December 02, 2025. Accredited laboratory tests are defined within the report, but opinions, interpretations and on-site data expressed herein are outside the scope of ISO 17025 accreditation.

Should this report require incorporation into client reports, it must be used in its entirety and not simply with the data sections alone.

Chemical testing (unless subcontracted) performed at ALS Laboratories (UK) Limited Hawarden.

All sample data is provided by the customer. The reported results relate to the sample supplied, and on the basis that this data is correct.
Incorrect sampling dates and/or sample information will affect the validity of results.
The customer is not permitted to reproduce this report except in full without the approval of the laboratory.

Approved By:

**Justin Keeton**
Business Unit Leader - Land

# CERTIFICATE OF ANALYSIS

**SDG:** 251122-51 **Report Number:** 784443 **Superseded Report:**
**Client Ref.:** Ransoms Coppice Hangar **Location:** Pulborough

## Received Sample Overview

| Lab Sample No(s) | Customer Sample Ref. | AGS Ref. | Depth (m) | Sampled Date |
|---|---|---|---|---|
| 32499516 | RCH SOIL | ESS1 | 0.40 - 0.45 | 20/11/2025 |

**Only received samples which have had analysis scheduled will be shown on the following pages.**

# CERTIFICATE OF ANALYSIS

**SDG:** 251122-51 **Report Number:** 784443 **Superseded Report:**
**Client Ref.:** Ransoms Coppice Hangar **Location:** Pulborough

**Results Legend**

X Test

N No Determination Possible

Sample Types -
S - Soil/Solid
UNS - Unspecified Solid
GW - Ground Water
SW - Surface Water
LE - Land Leachate
PL - Prepared Leachate
PR - Process Water
SA - Saline Water
TE - Trade Effluent
TS - Treated Sewage
US - Untreated Sewage
RE - Recreational Water
DW - Drinking Water
Non-regulatory
UNL - Unspecified Liquid
SL - Sludge
G - Gas
OTH - Other

| | | | | | |
|---|---|---|---|---|---|
| **Lab Sample No(s)** | | | 32499516 | | |
| **Customer Sample Reference** | | | RCH SOIL | | |
| **AGS Reference** | | | ESS1 | | |
| **Depth (m)** | | | 0.40 - 0.45 | | |
| **Container** | | | 1kg TUB with Handle (ALE260) | 250g Amber Jar (ALE210) | 60g VOC (ALE215) |
| **Sample Type** | | | S | S | S |
| Asbestos ID in Solid Samples | All | NDPs: 0 Tests: 1 | X | | |
| EPH CWG GC (S) | All | NDPs: 0 Tests: 1 | | X | |
| GRO by GC-FID (S) | All | NDPs: 0 Tests: 1 | | | X |
| Metals in solid samples by OES | All | NDPs: 0 Tests: 1 | | X | |
| PAH by GCMS | All | NDPs: 0 Tests: 1 | | X | |
| Sample description | All | NDPs: 0 Tests: 1 | | X | |
| TPH CWG GC (S) | All | NDPs: 0 Tests: 1 | | X | |
| VOC MS (S) | All | NDPs: 0 Tests: 1 | | | X |

# CERTIFICATE OF ANALYSIS

**SDG:** 251122-51 **Report Number:** 784443 **Superseded Report:**
**Client Ref.:** Ransoms Coppice Hangar **Location:** Pulborough

# Sample Descriptions

## Grain Sizes

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **very fine** | <0.063mm | **fine** | 0.063mm - 0.1mm | **medium** | 0.1mm - 2mm | **coarse** | 2mm - 10mm | **very coarse** | >10mm |

| Lab Sample No(s) | Customer Sample Ref. | Depth (m) | Colour | Description | Inclusions | Inclusions 2 |
|---|---|---|---|---|---|---|
| 32499516 | RCH SOIL | 0.40 - 0.45 | Dark Brown | Sandy Loam | Stones | Vegetation |

These descriptions are only intended to act as a cross check if sample identities are questioned, and to provide a log of sample matrices with respect to MCERTS validation. They are not intended as full geological descriptions.

We are accredited to MCERTS for sand, clay and loam/topsoil, or any of these materials - whether these are derived from naturally ocurring soil profiles, or from fill/made ground, as long as these materials constitute the major part of the sample.

Other coarse granular materials such as concrete, gravel and brick are not accredited if they comprise the major part of the sample.

Validated

# CERTIFICATE OF ANALYSIS

**SDG:** 251122-51 **Report Number:** 784443 **Superseded Report:**
**Client Ref.:** Ransoms Coppice Hangar **Location:** Pulborough

**Results Legend**

| | |
|---|---|
| # | ISO17025 accredited. |
| M | mCERTS accredited. |
| aq | Aqueous / settled sample. |
| diss.filt | Dissolved / filtered sample. |
| tot.unfilt | Total / unfiltered sample. |
| * | Subcontracted - refer to subcontractor report for accreditation status. |
| ** | % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery |
| *** | 6:2 FTAB (see appendix) |
| 1-4+§@ | Sample deviation (see appendix) |

| Customer Sample Ref | RCH SOIL |
|---|---|
| Depth (m) | 0.40 - 0.45 |
| Sample Type | Soil/Solid (S) |
| Date Sampled | 20/11/2025 |
| Sample Time | 15:10:00 |
| Date Received | 22/11/2025 |
| SDG Ref | 251122-51 |
| Lab Sample No.(s) | 32499516 |
| AGS Reference | ESS1 |

| Component | LOD/Units | Method | |
|---|---|---|---|
| Moisture Content Ratio (% of as received sample) | % | PM024 | 21 |
| Lead | <0.7 mg/kg | TM181 | 65.2 M |

# CERTIFICATE OF ANALYSIS

**SDG:** 251122-51 **Report Number:** 784443 **Superseded Report:**
**Client Ref.:** Ransoms Coppice Hangar **Location:** Pulborough

## PAH by GCMS

**Results Legend**

| | |
|---|---|
| # | ISO17025 accredited. |
| M | mCERTS accredited. |
| aq | Aqueous / settled sample. |
| diss.filt | Dissolved / filtered sample. |
| tot.unfilt | Total / unfiltered sample. |
| * | Subcontracted - refer to subcontractor report for accreditation status. |
| ** | % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery |
| *** | 6:2 FTAB (see appendix) |
| 1-4+§@ | Sample deviation (see appendix) |

| Customer Sample Ref | RCH SOIL |
|---|---|
| Depth (m) | 0.40 - 0.45 |
| Sample Type | Soil/Solid (S) |
| Date Sampled | 20/11/2025 |
| Sample Time | 15:10:00 |
| Date Received | 22/11/2025 |
| SDG Ref | 251122-51 |
| Lab Sample No.(s) | 32499516 |
| AGS Reference | ESS1 |

| Component | LOD/Units | Method | | |
|---|---|---|---|---|
| Naphthalene-d8 % recovery** | % | TM218 | 86 | |
| Acenaphthene-d10 % recovery** | % | TM218 | 83.1 | |
| Phenanthrene-d10 % recovery** | % | TM218 | 81.8 | |
| Chrysene-d12 % recovery** | % | TM218 | 80.3 | |
| Perylene-d12 % recovery** | % | TM218 | 82 | |
| Naphthalene | <9 µg/kg | TM218 | <9 M | |
| Acenaphthylene | <12 µg/kg | TM218 | 23.3 M | |
| Acenaphthene | <8 µg/kg | TM218 | <8 M | |
| Fluorene | <10 µg/kg | TM218 | <10 M | |
| Phenanthrene | <15 µg/kg | TM218 | 121 M | |
| Anthracene | <16 µg/kg | TM218 | 25.8 M | |
| Fluoranthene | <17 µg/kg | TM218 | 363 M | |
| Pyrene | <15 µg/kg | TM218 | 342 M | |
| Benz(a)anthracene | <14 µg/kg | TM218 | 169 M | |
| Chrysene | <10 µg/kg | TM218 | 212 M | |
| Benzo(b)fluoranthene | <15 µg/kg | TM218 | 310 M | |
| Benzo(k)fluoranthene | <14 µg/kg | TM218 | 110 M | |
| Benzo(a)pyrene | <15 µg/kg | TM218 | 213 M | |
| Indeno(1,2,3-cd)pyrene | <18 µg/kg | TM218 | 177 M | |
| Dibenzo(a,h)anthracene | <23 µg/kg | TM218 | <23 M | |
| Benzo(g,h,i)perylene | <24 µg/kg | TM218 | 172 M | |
| PAH, Total Detected USEPA 16 | <118 µg/kg | TM218 | 2240 | |

# CERTIFICATE OF ANALYSIS

**SDG:** 251122-51 **Report Number:** 784443 **Superseded Report:**
**Client Ref.:** Ransoms Coppice Hangar **Location:** Pulborough

## TPH CWG (S)

**Results Legend**
# ISO17025 accredited.
M mCERTS accredited.
aq Aqueous / settled sample.
diss.filt Dissolved / filtered sample.
tot.unfilt Total / unfiltered sample.
* Subcontracted - refer to subcontractor report for accreditation status.
** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
*** 6:2 FTAB (see appendix)
1-4+§@ Sample deviation (see appendix)

| Component | LOD/Units | Method | Customer Sample Ref | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | RCH SOIL | | | | | |
| | | | Depth (m) | | | | | |
| | | | 0.40 - 0.45 | | | | | |
| | | | Sample Type | | | | | |
| | | | Soil/Solid (S) | | | | | |
| | | | Date Sampled | | | | | |
| | | | 20/11/2025 | | | | | |
| | | | Sample Time | | | | | |
| | | | 15:10:00 | | | | | |
| | | | Date Received | | | | | |
| | | | 22/11/2025 | | | | | |
| | | | SDG Ref | | | | | |
| | | | 251122-51 | | | | | |
| | | | Lab Sample No.(s) | | | | | |
| | | | 32499516 | | | | | |
| | | | AGS Reference | | | | | |
| | | | ESS1 | | | | | |
| GRO Surrogate % recovery** | % | TM089 | 97.3 | | | | | |
| Aliphatics >C5-C6 (HS_1D_AL) | <10 µg/kg | TM089 | <10 | | | | | |
| Aliphatics >C6-C8 (HS_1D_AL) | <10 µg/kg | TM089 | <10 | | | | | |
| Aliphatics >C8-C10 (HS_1D_AL) | <10 µg/kg | TM089 | <10 | | | | | |
| Aliphatics >C10-C12 (EH_2D_AL_#1) | <1000 µg/kg | TM414 | <1000 # | | | | | |
| Aliphatics >C12-C16 (EH_2D_AL_#1) | <1000 µg/kg | TM414 | <1000 # | | | | | |
| Aliphatics >C16-C21 (EH_2D_AL_#1) | <1000 µg/kg | TM414 | <1000 # | | | | | |
| Aliphatics >C21-C35 (EH_2D_AL_#1) | <1000 µg/kg | TM414 | 4341 # | | | | | |
| Aliphatics >C35-C44 (EH_2D_AL_#1) | <1000 µg/kg | TM414 | <1000 | | | | | |
| Total Aliphatics >C10-C44 (EH_2D_AR_#1) | <5000 µg/kg | TM414 | <5000 | | | | | |
| Total Aliphatics & Aromatics >C10-C44 (EH_2D_Total_#1) | <10000 µg/kg | TM414 | 6600 | | | | | |
| Aromatics >EC5-EC7 (HS_1D_AR) | <10 µg/kg | TM089 | <10 | | | | | |
| Aromatics >EC7-EC8 (HS_1D_AR) | <10 µg/kg | TM089 | <10 | | | | | |
| Aromatics >EC8-EC10 (HS_1D_AR) | <10 µg/kg | TM089 | <10 | | | | | |
| Aromatics > EC10-EC12 (EH_2D_AR_#1) | <1000 µg/kg | TM414 | <1000 # | | | | | |
| Aromatics > EC12-EC16 (EH_2D_AR_#1) | <1000 µg/kg | TM414 | <1000 # | | | | | |
| Aromatics > EC16-EC21 (EH_2D_AR_#1) | <1000 µg/kg | TM414 | 900 # | | | | | |
| Aromatics > EC21-EC35 (EH_2D_AR_#1) | <1000 µg/kg | TM414 | 13200 # | | | | | |
| Aromatics >EC35-EC44 (EH_2D_AR_#1) | <1000 µg/kg | TM414 | 1330 | | | | | |
| Aromatics > EC40-EC44 (EH_2D_AR_#1) | <1000 µg/kg | TM414 | <1000 | | | | | |
| Total Aromatics > EC10-EC44 (EH_2D_AR_#1) | <5000 µg/kg | TM414 | 16600 | | | | | |
| Total Aliphatics & Aromatics >C5-C44 (EH_2D_Total_#1+HS_1D_Total) | <10000 µg/kg | TM414 | 16600 | | | | | |
| Total Aliphatics >C5-C10 (HS_1D_AL_TOTAL) | <50 µg/kg | TM089 | <50 | | | | | |
| Total Aromatics >EC5-EC10 (HS_1D_AR_TOTAL) | <50 µg/kg | TM089 | <50 | | | | | |
| GRO >C5-C10 (HS_1D_TOTAL) | <20 µg/kg | TM089 | <20 | | | | | |

# CERTIFICATE OF ANALYSIS

**SDG:** 251122-51 **Report Number:** 784443 **Superseded Report:**
**Client Ref.:** Ransoms Coppice Hangar **Location:** Pulborough

## VOC MS (S)

**Results Legend**

| | |
|---|---|
| # | ISO17025 accredited. |
| M | mCERTS accredited. |
| aq | Aqueous / settled sample. |
| diss.filt | Dissolved / filtered sample. |
| tot.unfilt | Total / unfiltered sample. |
| * | Subcontracted - refer to subcontractor report for accreditation status. |
| ** | % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery |
| *** | 6:2 FTAB (see appendix) |
| 1-4+§@ | Sample deviation (see appendix) |

| Customer Sample Ref | RCH SOIL |
|---|---|
| Depth (m) | 0.40 - 0.45 |
| Sample Type | Soil/Solid (S) |
| Date Sampled | 20/11/2025 |
| Sample Time | 15:10:00 |
| Date Received | 22/11/2025 |
| SDG Ref | 251122-51 |
| Lab Sample No.(s) | 32499516 |
| AGS Reference | ESS1 |

| Component | LOD/Units | Method | |
|---|---|---|---|
| Dibromofluoromethane** | % | TM116 | 104 |
| Toluene-d8** | % | TM116 | 92.4 |
| 4-Bromofluorobenzene** | % | TM116 | 73.1 |
| Methyl Tertiary Butyl Ether | <0.5 µg/kg | TM116 | <0.5 M |
| Benzene | <1 µg/kg | TM116 | <1 M |
| Toluene | <1 µg/kg | TM116 | <1 M |
| Ethylbenzene | <1 µg/kg | TM116 | <1 M |
| p/m-Xylene | <2 µg/kg | TM116 | <2 # |
| o-Xylene | <2 µg/kg | TM116 | <2 M |
| Sum of Detected Xylenes | <0.02 mg/kg | TM116 | <0.02 |
| Sum of BTEX | <7 µg/kg | TM116 | <7 |

# CERTIFICATE OF ANALYSIS

**SDG:** 251122-51 **Report Number:** 784443 **Superseded Report:**
**Client Ref.:** Ransoms Coppice Hangar **Location:** Pulborough

# Asbestos Identification - Solid Samples

**Results Legend**
- **#** ISO17025 accredited.
- **M** *m*CERTS accredited.
- ***** Subcontracted test.

**1-5&♦§@ Sample deviation (see appendix)**

| | | Date of Analysis | Analysed By | Comments | Amosite (Brown) Asbestos | Asbestos Actinolite | Asbestos Anthophyllite | Asbestos Tremolite | Chrysotile (White) Asbestos | Crocidolite (Blue) Asbestos | Non-Asbestos Fibre |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Cust. Sample Ref.<br>Depth (m)<br>Sample Type<br>Date Sampled<br>Date Receieved<br>SDG<br>Original Sample<br>Method Number | RCH SOILESS1<br>0.40 - 0.45<br>SOLID<br>20/11/2025 00:00:00<br>22/11/2025 05:00:00<br>251122-51<br>32499516<br>TM048 | 26/11/2025 | Paul Poynton | N/A | Not Detected (#) | Not Detected (#) | Not Detected (#) | Not Detected (#) | Not Detected (#) | Not Detected (#) | Not Detected |

# Table of Results - Appendix

| Method No | Description |
|---|---|
| PM024 | Soil preparation including homogenisation, moisture, screens of soils for Asbestos Containing Material |
| TM048 | Identification of Asbestos in Bulk Material |
| TM089 | Determination of Gasoline Range Hydrocarbons (GRO) by Headspace GC-FID (C4-C12) |
| TM116 | Determination of Volatile Organic Compounds by Headspace / GC-MS |
| TM181 | Determination of Routine Metals in Soil by iCap 6500 Duo ICP-OES |
| TM218 | The determination of PAH in soil samples by GC-MS |
| TM414 | Determination of Speciated Extractable Petroleum Hydrocarbons in Soils by GCxGC-FID |

NA = not applicable.
Chemical testing (unless subcontracted) performed at ALS Laboratories (UK) Limited Hawarden (Method codes TM).

# CERTIFICATE OF ANALYSIS

**SDG:** 251122-51 **Report Number:** 784443 **Superseded Report:**
**Client Ref.:** Ransoms Coppice Hangar **Location:** Pulborough

# Test Completion Dates

| | |
|---|---|
| **Lab Sample No(s)** | 32499516 |
| **Customer Sample Ref.** | RCH SOIL |
| **AGS Ref.** | ESS1 |
| **Depth** | 0.40 - 0.45 |
| **Type** | Soil/Solid (S) |
| Asbestos ID in Solid Samples | 26-Nov-2025 |
| EPH CWG GC (S) | 26-Nov-2025 |
| GRO by GC-FID (S) | 27-Nov-2025 |
| Metals in solid samples by OES | 28-Nov-2025 |
| PAH by GCMS | 01-Dec-2025 |
| Sample description | 24-Nov-2025 |
| TPH CWG GC (S) | 27-Nov-2025 |
| VOC MS (S) | 26-Nov-2025 |

# Appendix General

1. Results are expressed on a dry weight basis (dried at 35ºC) for all soil analyses except for the following: NRA and CEN Leach tests, flash point LOI, pH, ammonium as NH4 by the BRE method, VOC TICs and SVOC TICs.

2. If sufficient sample is received a sub sample will be retained free of charge for 15 days after analysis is completed (e-mailed) for all sample types unless the sample is destroyed on testing. The prepared soil sub sample that is analysed for asbestos will be retained for a period of 6 months after the analysis date. All bulk samples will be retained for a period of 6 months after the analysis date. All samples received and not scheduled will be disposed of 15 days after the date of receipt unless we are instructed to the contrary. Once the initial period has expired, a storage charge will be applied for each month or part thereof until the client cancels the request for sample storage. ALS reserve the right to charge for samples received and stored but not analysed.

3. With respect to turnaround, we will always endeavour to meet client requirements wherever possible, but turnaround times cannot be absolutely guaranteed due to so many variables beyond our control.

4. We take responsibility for any test performed by sub-contractors (marked with an asterisk). We endeavour to use UKAS/MCERTS Accredited Laboratories, who either complete a quality questionnaire or are audited by ourselves. For some determinands there are no UKAS/MCERTS Accredited Laboratories, in this instance a laboratory with a known track record will be utilised.

5. If no separate volatile sample is supplied by the client, or if a headspace or sediment is present in the volatile sample, the integrity of the data may be compromised.
This will be flagged up as an invalid VOC on the test schedule and the result marked as deviating on the test certificate.

6. NDP - No determination possible due to insufficient/unsuitable sample.

7. Results relate only to the items tested.

8. LoDs (Limit of Detection) for wet tests reported on a dry weight basis are not corrected for moisture content.

9. **Surrogate recoveries** - Surrogates are added to your sample to monitor recovery of the test requested. A % recovery is reported, results are not corrected for the recovery measured. Typical recoveries for organics tests are 70-130%. Recoveries in soils are affected by organic rich or clay rich matrices. Waters can be affected by remediation fluids or high amounts of sediment. Test results are only ever reported if all of the associated quality checks pass; it is assumed that all recoveries outside of the values above are due to matrix affect.

10. Stones/debris are not routinely removed. We always endeavour to take a representative sub sample from the received sample.

11. In certain circumstances the method detection limit may be elevated due to the sample being outside the calibration range. Other factors that may contribute to this include possible interferences. In both cases the sample would be diluted which would cause the method detection limit to be raised.

12. For dried and crushed preparations of soils volatile loss may occur -
e.g volatile mercury.

13. For leachate preparations other than Zero Headspace Extraction (ZHE) volatile loss may occur.

14. For the BSEN 12457-3 two batch process to allow the cumulative release to be calculated, the volume of the leachate produced is measured and filtered for all tests. We therefore cannot carry out any unfiltered analysis.
The tests affected include volatiles GCFID/GCMS and all subcontracted analysis.

15. Analysis and identification of specific compounds using GCFID is by retention time only, and we routinely calibrate and quantify for benzene, toluene, ethylbenzenes and xylenes (BTEX). For total volatiles in the C5-C12 range, the total area of the chromatogram is integrated and expressed as ug/kg or ug/l.
Although this analysis is commonly used for the quantification of gasoline range organics (GRO), the system will also detect other compounds such as chlorinated solvents, and this may lead to a falsely high result with respect to hydrocarbons only.
It is not possible to specifically identify these non-hydrocarbons, as standards are not routinely run for any other compounds, and for more definitive identification, volatiles by GCMS should be utilised.

16. We are accredited to MCERTS for sand, clay and loam/topsoil, or any of these materials - whether these are derived from naturally occurring soil profiles, or from fill/made ground, as long as these materials constitute the major part of the sample. Other coarse granular material such as concrete, gravel and brick are not accredited if they comprise the major part of the sample.

17 Data retention. All records, communications and reports pertaining to the analysis are archived for seven years from the date of issue of the final report.

18. **Tentatively Identified Compounds (TICs)** are non-target peaks in VOC and SVOC analysis. All non-target peaks detected with a concentration above the LoD are subjected to a mass spectral library search. Non-target peaks with a library search confidence of >75% are reported based on the best mass spectral library match. When a non-target peak with a library search confidence of <75% is detected it is reported as “mixed hydrocarbons”. Non-target compounds identified from the scan data are semi-quantified relative to one of the deuterated internal standards, under the same chromatographic conditions as the target compounds. This result is reported as a semi-quantitative value and reported as Tentatively Identified Compounds (TICs). TICs are outside the scope of UKAS accreditation and are not moisture corrected.

19. **Sample Deviations**

If a sample is classed as deviated then the associated results may be compromised.

| | |
|---|---|
| 1 | **Container with Headspace provided for volatiles analysis** |
| 2 | **Incorrect container received** |
| 3 | **Deviation from method** |
| 4 | **Matrix interference** |
| ♦ | **Sample holding time exceeded in laboratory** |
| @ | **Sample holding time exceeded due to late arrival of instructions or samples** |
| § | **Sampled on date not provided** |

20. **Asbestos**
When requested, the individual sub sample scheduled will be analysed in house for the presence of asbestos fibres and asbestos containing material by our documented in house method TM048 based on HSG 248 (2021), which is accredited to ISO17025. If a specific asbestos fibre type is not found this will be reported as “Not detected”. If no asbestos fibre types are found all will be reported as “Not detected” and the sub sample analysed deemed to be clear of asbestos. If an asbestos fibre type is found it will be reported as detected (for each fibre type found). Testing can be carried out on asbestos positive samples, but, due to Health and Safety considerations, may be replaced by alternative tests or reported as No Determination Possible (NDP). The quantity of asbestos present is not determined unless specifically requested.

If during the search of the two ‘pinch’ samples by PLM only 1 or 2 fibres or fibre bundles are seen and identified as asbestos, the term ‘trace asbestos identified’ is reported.

**Identification of Asbestos in Bulk Materials & Soils**

The results for identification of asbestos in bulk materials and soils are obtained from supplied bulk materials and soils which have been examined to determine the presence of asbestos fibres using ALS (Hawarden) in-house method of transmitted/polarised light microscopy and central stop dispersion staining, based on HSG 248 (2021).

The results for identification of asbestos in soils are obtained from a homogenised sub sample which has been examined to determine the presence of asbestos fibres using ALS (Hawarden) in-house method of transmitted/polarised light microscopy and central stop dispersion staining.

| Asbestos Type | Common Name |
|---|---|
| Chrysotile | White Asbestos |
| Amosiite | Brown Asbestos |
| Crocidolite | Blue Asbestos |
| Fibrous Actinolilite | - |
| Fibrous Anthophyllite | - |
| Fibrous Tremolilite | - |

**Visual Estimation Of Fibre Content**

Estimation of fibre content is not permitted as part of our UKAS accredited test other than: - Trace - Where only one or two asbestos fibres were identified.

**Respirable Fibres**

Respirable fibres are defined as fibres of <3 µm diameter, longer than 5 µm and with aspect ratios of at least 3:1 that can be inhaled into the lower regions of the lung and are generally acknowledged to be most important predictor of hazard and risk for cancers of the lung.
Potentially respirable fibres are identified by using a Phase Contrast Microscope.

**Further guidance on typical asbestos fibre content of manufactured products can be found in HSG 264.**
**The identification of asbestos containing materials and soils falls within our schedule of tests for which we hold UKAS accreditation, however opinions, interpretations and all other information contained in the report are outside the scope of UKAS accreditation.**

21. 6:2 FTAB
Recovery of 6:2 FTAB in the quality control samples has been observed to be <50% of the target value. Please note the 6:2 FTAB result is supplied as indicative only.

Unit 7-8 Hawarden Business Park
Manor Road (off Manor Lane)
Hawarden
Deeside
CH5 3US
Tel: (01244) 528777
email: hawardencustomerservices@alsglobal.com
Website: www.alsenvironmental.co.uk

Nieucon Ltd
33 Blundel Lane
Oxshott
Surrey
KT11 2SU

**Attention:** Martie De Villiers

# CERTIFICATE OF ANALYSIS

| | |
|---|---|
| **Date of report Generation:** | 28 January 2026 |
| **Customer:** | Nieucon Ltd |
| **Sample Delivery Group (SDG):** | 260114-22 |
| **Your Reference:** | Ransoms Coppice Hangar Pulborough |
| **Location:** | |
| **Report No:** | 793241 |
| **Order Number:** | |

We received 1 sample on Friday January 16, 2026 and 1 of these samples were scheduled for analysis which was completed on Wednesday January 28, 2026. Accredited laboratory tests are defined within the report, but opinions, interpretations and on-site data expressed herein are outside the scope of ISO 17025 accreditation.

Should this report require incorporation into client reports, it must be used in its entirety and not simply with the data sections alone.

Chemical testing (unless subcontracted) performed at ALS Laboratories (UK) Limited Hawarden.

All sample data is provided by the customer. The reported results relate to the sample supplied, and on the basis that this data is correct.
Incorrect sampling dates and/or sample information will affect the validity of results.
The customer is not permitted to reproduce this report except in full without the approval of the laboratory.

Approved By:

**Justin Keeton**
Business Unit Leader - Land

# CERTIFICATE OF ANALYSIS

**SDG:** 260114-22 **Report Number:** 793241 **Superseded Report:**
**Client Ref.:** Ransoms Coppice Hangar **Location:** Pulborough

## Received Sample Overview

| Lab Sample No(s) | Customer Sample Ref. | AGS Ref. | Depth (m) | Sampled Date |
|---|---|---|---|---|
| 32499516 | RCH SOIL | ESS1 | 0.20 - 0.40 | 14/01/2026 |

**Only received samples which have had analysis scheduled will be shown on the following pages.**

Validated

# CERTIFICATE OF ANALYSIS

**SDG:** 260114-22 **Report Number:** 793241 **Superseded Report:**
**Client Ref.:** Ransoms Coppice Hangar **Location:** Pulborough

**Results Legend**

X Test

N No Determination Possible

Sample Types -
S - Soil/Solid
UNS - Unspecified Solid
GW - Ground Water
SW - Surface Water
LE - Land Leachate
PL - Prepared Leachate
PR - Process Water
SA - Saline Water
TE - Trade Effluent
TS - Treated Sewage
US - Untreated Sewage
RE - Recreational Water
DW - Drinking Water
Non-regulatory
UNL - Unspecified Liquid
SL - Sludge
G - Gas
OTH - Other

| | | | | | |
|---|---|---|---|---|---|
| **Lab Sample No(s)** | | | 32499516 | | |
| **Customer Sample Reference** | | | RCH SOIL | | |
| **AGS Reference** | | | ESS1 | | |
| **Depth (m)** | | | 0.20 - 0.40 | | |
| **Container** | | | 1kg TUB with Handle (ALE260) | 250g Amber Jar (ALE210) | 60g VOC (ALE215) |
| **Sample Type** | | | S | S | S |
| Asbestos ID in Solid Samples | All | NDPs: 0 Tests: 1 | X | | |
| EPH CWG GC (S) | All | NDPs: 0 Tests: 1 | | X | |
| GRO by GC-FID (S) | All | NDPs: 0 Tests: 1 | | | X |
| Metals in solid samples by OES | All | NDPs: 0 Tests: 1 | | X | |
| PAH by GCMS | All | NDPs: 0 Tests: 1 | | X | |
| Sample description | All | NDPs: 0 Tests: 1 | | X | |
| TPH CWG GC (S) | All | NDPs: 0 Tests: 1 | | X | |
| VOC MS (S) | All | NDPs: 0 Tests: 1 | | | X |

# Sample Descriptions

## Grain Sizes

| very fine | <0.063mm | fine | 0.063mm - 0.1mm | medium | 0.1mm - 2mm | coarse | 2mm - 10mm | very coarse | >10mm |
|---|---|---|---|---|---|---|---|---|---|

| Lab Sample No(s) | Customer Sample Ref. | Depth (m) | Colour | Description | Inclusions | Inclusions 2 |
|---|---|---|---|---|---|---|
| 32499516 | RCH SOIL | 0.20 - 0.40 | Dark Brown | Sandy Loam | Stones | Vegetation |

These descriptions are only intended to act as a cross check if sample identities are questioned, and to provide a log of sample matrices with respect to MCERTS validation. They are not intended as full geological descriptions.

We are accredited to MCERTS for sand, clay and loam/topsoil, or any of these materials - whether these are derived from naturally ocurring soil profiles, or from fill/made ground, as long as these materials constitute the major part of the sample.

Other coarse granular materials such as concrete, gravel and brick are not accredited if they comprise the major part of the sample.

Validated

# CERTIFICATE OF ANALYSIS

**SDG:** 260114-22 **Report Number:** 793241 **Superseded Report:**

**Client Ref.:** Ransoms Coppice Hangar **Location:** Pulborough

**Results Legend**

| | |
|---|---|
| # | ISO17025 accredited. |
| M | mCERTS accredited. |
| aq | Aqueous / settled sample. |
| diss.filt | Dissolved / filtered sample. |
| tot.unfilt | Total / unfiltered sample. |
| * | Subcontracted - refer to subcontractor report for accreditation status. |
| ** | % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery |
| *** | 6:2 FTAB (see appendix) |
| 1-4+§@ | Sample deviation (see appendix) |

| Component | LOD/Units | Method | Customer Sample Ref: RCH SOIL<br>Depth (m): 0.20 - 0.40<br>Sample Type: Soil/Solid (S)<br>Date Sampled: 14/01/2026<br>Sample Time: 15:10:00<br>Date Received: 16/01/2026<br>SDG Ref: 260114-22<br>Lab Sample No.(s): 32499516<br>AGS Reference: ESS1 |
|---|---|---|---|
| Moisture Content Ratio (% of as received sample) | % | PM024 | 21 |
| Lead | <0.7 mg/kg | TM181 | 64.2 M |

# CERTIFICATE OF ANALYSIS

**SDG:** 260114-22 **Report Number:** 793241 **Superseded Report:**
**Client Ref.:** Ransoms Coppice Hangar **Location:** Pulborough

## PAH by GCMS

**Results Legend**

| | |
|---|---|
| # | ISO17025 accredited. |
| M | mCERTS accredited. |
| aq | Aqueous / settled sample. |
| diss.filt | Dissolved / filtered sample. |
| tot.unfilt | Total / unfiltered sample. |
| * | Subcontracted - refer to subcontractor report for accreditation status. |
| ** | % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery |
| *** | 6:2 FTAB (see appendix) |
| 1-4+§@ | Sample deviation (see appendix) |

| Component | LOD/Units | Method | Customer Sample Ref: RCH SOIL<br>Depth (m): 0.20 - 0.40<br>Sample Type: Soil/Solid (S)<br>Date Sampled: 14/01/2026<br>Sample Time: 15:10:00<br>Date Received: 16/01/2026<br>SDG Ref: 260114-22<br>Lab Sample No.(s): 32499516<br>AGS Reference: ESS1 |
|---|---|---|---|
| Naphthalene-d8 % recovery** | % | TM218 | 81 |
| Acenaphthene-d10 % recovery** | % | TM218 | 84.1 |
| Phenanthrene-d10 % recovery** | % | TM218 | 82.8 |
| Chrysene-d12 % recovery** | % | TM218 | 80.3 |
| Perylene-d12 % recovery** | % | TM218 | 73 |
| Naphthalene | <9 µg/kg | TM218 | <9 M |
| Acenaphthylene | <12 µg/kg | TM218 | 24.0 M |
| Acenaphthene | <8 µg/kg | TM218 | <8 M |
| Fluorene | <10 µg/kg | TM218 | <10 M |
| Phenanthrene | <15 µg/kg | TM218 | 121 M |
| Anthracene | <16 µg/kg | TM218 | 25.9 M |
| Fluoranthene | <17 µg/kg | TM218 | 360 M |
| Pyrene | <15 µg/kg | TM218 | 341 M |
| Benz(a)anthracene | <14 µg/kg | TM218 | 168 M |
| Chrysene | <10 µg/kg | TM218 | 212 M |
| Benzo(b)fluoranthene | <15 µg/kg | TM218 | 316 M |
| Benzo(k)fluoranthene | <14 µg/kg | TM218 | 119 M |
| Benzo(a)pyrene | <15 µg/kg | TM218 | 213 M |
| Indeno(1,2,3-cd)pyrene | <18 µg/kg | TM218 | 177 M |
| Dibenzo(a,h)anthracene | <23 µg/kg | TM218 | <23 M |
| Benzo(g,h,i)perylene | <24 µg/kg | TM218 | 170 M |
| PAH, Total Detected USEPA 16 | <118 µg/kg | TM218 | 2220 |

# CERTIFICATE OF ANALYSIS

**SDG:** 260114-22 **Report Number:** 793241 **Superseded Report:**
**Client Ref.:** Ransoms Coppice Hangar **Location:** Pulborough

## TPH CWG (S)

**Results Legend**
- # ISO17025 accredited.
- M mCERTS accredited.
- aq Aqueous / settled sample.
- diss.filt Dissolved / filtered sample.
- tot.unfilt Total / unfiltered sample.
- * Subcontracted - refer to subcontractor report for accreditation status.
- ** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
- *** 6:2 FTAB (see appendix)
- 1-4+§@ Sample deviation (see appendix)

| Component | LOD/Units | Method | Customer Sample Ref: RCH SOIL<br>Depth (m): 0.20 - 0.40<br>Sample Type: Soil/Solid (S)<br>Date Sampled: 14/01/2026<br>Sample Time: 15:10:00<br>Date Received: 16/01/2026<br>SDG Ref: 260114-22<br>Lab Sample No.(s): 32499516<br>AGS Reference: ESS1 | | | | | |
|---|---|---|---|---|---|---|---|---|
| GRO Surrogate % recovery** | % | TM089 | 98.3 | | | | | |
| Aliphatics >C5-C6 (HS_1D_AL) | <10 µg/kg | TM089 | <10 | | | | | |
| Aliphatics >C6-C8 (HS_1D_AL) | <10 µg/kg | TM089 | <10 | | | | | |
| Aliphatics >C8-C10 (HS_1D_AL) | <10 µg/kg | TM089 | <10 | | | | | |
| Aliphatics >C10-C12 (EH_2D_AL_#1) | <1000 µg/kg | TM414 | <1000 # | | | | | |
| Aliphatics >C12-C16 (EH_2D_AL_#1) | <1000 µg/kg | TM414 | <1000 # | | | | | |
| Aliphatics >C16-C21 (EH_2D_AL_#1) | <1000 µg/kg | TM414 | <1000 # | | | | | |
| Aliphatics >C21-C35 (EH_2D_AL_#1) | <1000 µg/kg | TM414 | 4301 # | | | | | |
| Aliphatics >C35-C44 (EH_2D_AL_#1) | <1000 µg/kg | TM414 | <1000 | | | | | |
| Total Aliphatics >C10-C44 (EH_2D_AR_#1) | <5000 µg/kg | TM414 | <5000 | | | | | |
| Total Aliphatics & Aromatics >C10-C44 (EH_2D_Total_#1) | <10000 µg/kg | TM414 | 6500 | | | | | |
| Aromatics >EC5-EC7 (HS_1D_AR) | <10 µg/kg | TM089 | <10 | | | | | |
| Aromatics >EC7-EC8 (HS_1D_AR) | <10 µg/kg | TM089 | <10 | | | | | |
| Aromatics >EC8-EC10 (HS_1D_AR) | <10 µg/kg | TM089 | <10 | | | | | |
| Aromatics > EC10-EC12 (EH_2D_AR_#1) | <1000 µg/kg | TM414 | <1000 # | | | | | |
| Aromatics > EC12-EC16 (EH_2D_AR_#1) | <1000 µg/kg | TM414 | <1000 # | | | | | |
| Aromatics > EC16-EC21 (EH_2D_AR_#1) | <1000 µg/kg | TM414 | 900 # | | | | | |
| Aromatics > EC21-EC35 (EH_2D_AR_#1) | <1000 µg/kg | TM414 | 13100 # | | | | | |
| Aromatics >EC35-EC44 (EH_2D_AR_#1) | <1000 µg/kg | TM414 | 1330 | | | | | |
| Aromatics > EC40-EC44 (EH_2D_AR_#1) | <1000 µg/kg | TM414 | <1000 | | | | | |
| Total Aromatics > EC10-EC44 (EH_2D_AR_#1) | <5000 µg/kg | TM414 | 16600 | | | | | |
| Total Aliphatics & Aromatics >C5-C44 (EH_2D_Total_#1+HS_1D_Total) | <10000 µg/kg | TM414 | 16900 | | | | | |
| Total Aliphatics >C5-C10 (HS_1D_AL_TOTAL) | <50 µg/kg | TM089 | <50 | | | | | |
| Total Aromatics >EC5-EC10 (HS_1D_AR_TOTAL) | <50 µg/kg | TM089 | <50 | | | | | |
| GRO >C5-C10 (HS_1D_TOTAL) | <20 µg/kg | TM089 | <20 | | | | | |

# CERTIFICATE OF ANALYSIS

**SDG:** 260114-22 **Report Number:** 793241 **Superseded Report:**
**Client Ref.:** Ransoms Coppice Hangar **Location:** Pulborough

## VOC MS (S)

**Results Legend**

| | |
|---|---|
| # | ISO17025 accredited. |
| M | mCERTS accredited. |
| aq | Aqueous / settled sample. |
| diss.filt | Dissolved / filtered sample. |
| tot.unfilt | Total / unfiltered sample. |
| * | Subcontracted - refer to subcontractor report for accreditation status. |
| ** | % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery |
| *** | 6:2 FTAB (see appendix) |
| 1-4+§@ | Sample deviation (see appendix) |

| Component | LOD/Units | Method | Customer Sample Ref: RCH SOIL<br>Depth (m): 0.20 - 0.40<br>Sample Type: Soil/Solid (S)<br>Date Sampled: 14/01/2026<br>Sample Time: 15:10:00<br>Date Received: 16/01/2026<br>SDG Ref: 260114-22<br>Lab Sample No.(s): 32499516<br>AGS Reference: ESS1 |
|---|---|---|---|
| Dibromofluoromethane** | % | TM116 | 104 |
| Toluene-d8** | % | TM116 | 92.4 |
| 4-Bromofluorobenzene** | % | TM116 | 73.1 |
| Methyl Tertiary Butyl Ether | <0.5 µg/kg | TM116 | <0.5 M |
| Benzene | <1 µg/kg | TM116 | <1 M |
| Toluene | <1 µg/kg | TM116 | <1 M |
| Ethylbenzene | <1 µg/kg | TM116 | <1 M |
| p/m-Xylene | <2 µg/kg | TM116 | <2 # |
| o-Xylene | <2 µg/kg | TM116 | <2 M |
| Sum of Detected Xylenes | <0.02 mg/kg | TM116 | <0.02 |
| Sum of BTEX | <7 µg/kg | TM116 | <7 |

# CERTIFICATE OF ANALYSIS

**SDG:** 260114-22 **Report Number:** 793241 **Superseded Report:**
**Client Ref.:** Ransoms Coppice Hangar **Location:** Pulborough

# Asbestos Identification - Solid Samples

| Results Legend | |
|---|---|
| # | ISO17025 accredited. |
| M | *m*CERTS accredited. |
| * | Subcontracted test. |
| 1-5&♦§@ | Sample deviation (see appendix) |

| | | Date of Analysis | Analysed By | Comments | Amosite (Brown) Asbestos | Asbestos Actinolite | Asbestos Anthophyllite | Asbestos Tremolite | Chrysotile (White) Asbestos | Crocidolite (Blue) Asbestos | Non-Asbestos Fibre |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Cust. Sample Ref.<br>Depth (m)<br>Sample Type<br>Date Sampled<br>Date Received<br>SDG<br>Original Sample<br>Method Number | RCH SOILESS1<br>0.20 - 0.40<br>SOLID<br>14/01/2026 00:00:00<br>16/01/2026 05:00:00<br>260114-22<br>32499516<br>TM048 | 20/02/2026 | Paul Poynton | N/A | Not Detected (#) | Not Detected (#) | Not Detected (#) | Not Detected (#) | Not Detected (#) | Not Detected (#) | Not Detected |

# Table of Results - Appendix

| Method No | Description |
|---|---|
| PM024 | Soil preparation including homogenisation, moisture, screens of soils for Asbestos Containing Material |
| TM048 | Identification of Asbestos in Bulk Material |
| TM089 | Determination of Gasoline Range Hydrocarbons (GRO) by Headspace GC-FID (C4-C12) |
| TM116 | Determination of Volatile Organic Compounds by Headspace / GC-MS |
| TM181 | Determination of Routine Metals in Soil by iCap 6500 Duo ICP-OES |
| TM218 | The determination of PAH in soil samples by GC-MS |
| TM414 | Determination of Speciated Extractable Petroleum Hydrocarbons in Soils by GCxGC-FID |

NA = not applicable.
Chemical testing (unless subcontracted) performed at ALS Laboratories (UK) Limited Hawarden (Method codes TM).

# CERTIFICATE OF ANALYSIS

**SDG:** 260114-22 **Report Number:** 793241 **Superseded Report:**
**Client Ref.:** Ransoms Coppice Hangar **Location:** Pulborough

# Test Completion Dates

| | |
|---|---|
| **Lab Sample No(s)** | 32499516 |
| **Customer Sample Ref.** | RCH SOIL |
| **AGS Ref.** | ESS1 |
| **Depth** | 0.20 - 0.40 |
| **Type** | Soil/Solid (S) |
| Asbestos ID in Solid Samples | 22-Jan-2026 |
| EPH CWG GC (S) | 22-Jan-2026 |
| GRO by GC-FID (S) | 22-Jan-2026 |
| Metals in solid samples by OES | 24-Jan-2026 |
| PAH by GCMS | 20-Jan-2026 |
| Sample description | 22-Jan-2026 |
| TPH CWG GC (S) | 22-Jan-2026 |
| VOC MS (S) | 22-Jan-2026 |

10:22:44 23/01/2026

# Appendix General

1. Results are expressed on a dry weight basis (dried at 35ºC) for all soil analyses except for the following: NRA and CEN Leach tests, flash point LOI, pH, ammonium as NH4 by the BRE method, VOC TICs and SVOC TICs.

2. If sufficient sample is received a sub sample will be retained free of charge for 15 days after analysis is completed (e-mailed) for all sample types unless the sample is destroyed on testing. The prepared soil sub sample that is analysed for asbestos will be retained for a period of 6 months after the analysis date. All bulk samples will be retained for a period of 6 months after the analysis date. All samples received and not scheduled will be disposed of 15 days after the date of receipt unless we are instructed to the contrary. Once the initial period has expired, a storage charge will be applied for each month or part thereof until the client cancels the request for sample storage. ALS reserve the right to charge for samples received and stored but not analysed.

3. With respect to turnaround, we will always endeavour to meet client requirements wherever possible, but turnaround times cannot be absolutely guaranteed due to so many variables beyond our control.

4. We take responsibility for any test performed by sub-contractors (marked with an asterisk). We endeavour to use UKAS/MCERTS Accredited Laboratories, who either complete a quality questionnaire or are audited by ourselves. For some determinands there are no UKAS/MCERTS Accredited Laboratories, in this instance a laboratory with a known track record will be utilised.

5. If no separate volatile sample is supplied by the client, or if a headspace or sediment is present in the volatile sample, the integrity of the data may be compromised. This will be flagged up as an invalid VOC on the test schedule and the result marked as deviating on the test certificate.

6. NDP - No determination possible due to insufficient/unsuitable sample.

7. Results relate only to the items tested.

8. LoDs (Limit of Detection) for wet tests reported on a dry weight basis are not corrected for moisture content.

9. **Surrogate recoveries** - Surrogates are added to your sample to monitor recovery of the test requested. A % recovery is reported, results are not corrected for the recovery measured. Typical recoveries for organics tests are 70-130%. Recoveries in soils are affected by organic rich or clay rich matrices. Waters can be affected by remediation fluids or high amounts of sediment. Test results are only ever reported if all of the associated quality checks pass; it is assumed that all recoveries outside of the values above are due to matrix affect.

10. Stones/debris are not routinely removed. We always endeavour to take a representative sub sample from the received sample.

11. In certain circumstances the method detection limit may be elevated due to the sample being outside the calibration range. Other factors that may contribute to this include possible interferences. In both cases the sample would be diluted which would cause the method detection limit to be raised.

12. For dried and crushed preparations of soils volatile loss may occur - e.g volatile mercury.

13. For leachate preparations other than Zero Headspace Extraction (ZHE) volatile loss may occur.

14. For the BSEN 12457-3 two batch process to allow the cumulative release to be calculated, the volume of the leachate produced is measured and filtered for all tests. We therefore cannot carry out any unfiltered analysis.
The tests affected include volatiles GCFID/GCMS and all subcontracted analysis.

15. Analysis and identification of specific compounds using GCFID is by retention time only, and we routinely calibrate and quantify for benzene, toluene, ethylbenzenes and xylenes (BTEX). For total volatiles in the C5-C12 range, the total area of the chromatogram is integrated and expressed as ug/kg or ug/l.
Although this analysis is commonly used for the quantification of gasoline range organics (GRO), the system will also detect other compounds such as chlorinated solvents, and this may lead to a falsely high result with respect to hydrocarbons only.
It is not possible to specifically identify these non-hydrocarbons, as standards are not routinely run for any other compounds, and for more definitive identification, volatiles by GCMS should be utilised.

16. We are accredited to MCERTS for sand, clay and loam/topsoil, or any of these materials - whether these are derived from naturally occurring soil profiles, or from fill/made ground, as long as these materials constitute the major part of the sample. Other coarse granular material such as concrete, gravel and brick are not accredited if they comprise the major part of the sample.

17 Data retention. All records, communications and reports pertaining to the analysis are archived for seven years from the date of issue of the final report.

18. **Tentatively Identified Compounds (TICs)** are non-target peaks in VOC and SVOC analysis. All non-target peaks detected with a concentration above the LoD are subjected to a mass spectral library search. Non-target peaks with a library search confidence of >75% are reported based on the best mass spectral library match. When a non-target peak with a library search confidence of <75% is detected it is reported as “mixed hydrocarbons”. Non-target compounds identified from the scan data are semi-quantified relative to one of the deuterated internal standards, under the same chromatographic conditions as the target compounds. This result is reported as a semi-quantitative value and reported as Tentatively Identified Compounds (TICs). TICs are outside the scope of UKAS accreditation and are not moisture corrected.

19. **Sample Deviations**

If a sample is classed as deviated then the associated results may be compromised.

| | |
|---|---|
| 1 | **Container with Headspace provided for volatiles analysis** |
| 2 | **Incorrect container received** |
| 3 | **Deviation from method** |
| 4 | **Matrix interference** |
| ♦ | **Sample holding time exceeded in laboratory** |
| @ | **Sample holding time exceeded due to late arrival of instructions or samples** |
| § | **Sampled on date not provided** |

20. **Asbestos**
When requested, the individual sub sample scheduled will be analysed in house for the presence of asbestos fibres and asbestos containing material by our documented in house method TM048 based on HSG 248 (2021), which is accredited to ISO17025. If a specific asbestos fibre type is not found this will be reported as “Not detected”. If no asbestos fibre types are found all will be reported as “Not detected” and the sub sample analysed deemed to be clear of asbestos. If an asbestos fibre type is found it will be reported as detected (for each fibre type found). Testing can be carried out on asbestos positive samples, but, due to Health and Safety considerations, may be replaced by alternative tests or reported as No Determination Possible (NDP). The quantity of asbestos present is not determined unless specifically requested.

If during the search of the two ‘pinch’ samples by PLM only 1 or 2 fibres or fibre bundles are seen and identified as asbestos, the term ‘trace asbestos identified’ is reported.

**Identification of Asbestos in Bulk Materials & Soils**

The results for identification of asbestos in bulk materials and soils are obtained from supplied bulk materials and soils which have been examined to determine the presence of asbestos fibres using ALS (Hawarden) in-house method of transmitted/polarised light microscopy and central stop dispersion staining, based on HSG 248 (2021).

The results for identification of asbestos in soils are obtained from a homogenised sub sample which has been examined to determine the presence of asbestos fibres using ALS (Hawarden) in-house method of transmitted/polarised light microscopy and central stop dispersion staining.

| Asbestos Type | Common Name |
|---|---|
| Chrysotile | White Asbestos |
| Amosiite | Brown Asbestos |
| Crocidolite | Blue Asbestos |
| Fibrous Actinolilite | - |
| Fibrous Anthophyllite | - |
| Fibrous Tremolilite | - |

**Visual Estimation Of Fibre Content**

Estimation of fibre content is not permitted as part of our UKAS accredited test other than: - Trace - Where only one or two asbestos fibres were identified.

**Respirable Fibres**

Respirable fibres are defined as fibres of <3 µm diameter, longer than 5 µm and with aspect ratios of at least 3:1 that can be inhaled into the lower regions of the lung and are generally acknowledged to be most important predictor of hazard and risk for cancers of the lung.
Potentially respirable fibres are identified by using a Phase Contrast Microscope.

**Further guidance on typical asbestos fibre content of manufactured products can be found in HSG 264.**
**The identification of asbestos containing materials and soils falls within our schedule of tests for which we hold UKAS accreditation, however opinions, interpretations and all other information contained in the report are outside the scope of UKAS accreditation.**

21. 6:2 FTAB
Recovery of 6:2 FTAB in the quality control samples has been observed to be <50% of the target value. Please note the 6:2 FTAB result is supplied as indicative only.

Unit 7-8 Hawarden Business Park
Manor Road (off Manor Lane)
Hawarden
Deeside
CH5 3US
Tel: (01244) 528777
email: hawardencustomerservices@alsglobal.com
Website: www.alsenvironmental.co.uk

Nieucon Ltd
33 Blundel Lane
Oxshott
Surrey
KT11 2SU

**Attention:** Martie De Villiers

# CERTIFICATE OF ANALYSIS

| | |
|---|---|
| **Date of report Generation:** | 28 January 2026 |
| **Customer:** | Nieucon Ltd |
| **Sample Delivery Group (SDG):** | 260114-22 |
| **Your Reference:** | Ransoms Coppice Hangar Pulborough |
| **Location:** | |
| **Report No:** | 793242 |
| **Order Number:** | |

We received 1 sample on Friday January 16, 2026 and 1 of these samples were scheduled for analysis which was completed on Wednesday January 28, 2026. Accredited laboratory tests are defined within the report, but opinions, interpretations and on-site data expressed herein are outside the scope of ISO 17025 accreditation.

Should this report require incorporation into client reports, it must be used in its entirety and not simply with the data sections alone.

Chemical testing (unless subcontracted) performed at ALS Laboratories (UK) Limited Hawarden.

All sample data is provided by the customer. The reported results relate to the sample supplied, and on the basis that this data is correct.
Incorrect sampling dates and/or sample information will affect the validity of results.
The customer is not permitted to reproduce this report except in full without the approval of the laboratory.

Approved By:

**Justin Keeton**
Business Unit Leader - Land

# CERTIFICATE OF ANALYSIS

**SDG:** 260114-22 **Report Number:** 793242 **Superseded Report:**
**Client Ref.:** Ransoms Coppice Hangar **Location:** Pulborough

## Received Sample Overview

| Lab Sample No(s) | Customer Sample Ref. | AGS Ref. | Depth (m) | Sampled Date |
|---|---|---|---|---|
| 32499517 | RCH SOIL | ESS1 | 0.20 - 0.40 | 14/01/2026 |

**Only received samples which have had analysis scheduled will be shown on the following pages.**

# CERTIFICATE OF ANALYSIS

**SDG:** 260114-22 **Report Number:** 793242 **Superseded Report:**
**Client Ref.:** Ransoms Coppice Hangar **Location:** Pulborough

**Results Legend**

X Test

N No Determination Possible

Sample Types -
S - Soil/Solid
UNS - Unspecified Solid
GW - Ground Water
SW - Surface Water
LE - Land Leachate
PL - Prepared Leachate
PR - Process Water
SA - Saline Water
TE - Trade Effluent
TS - Treated Sewage
US - Untreated Sewage
RE - Recreational Water
DW - Drinking Water
Non-regulatory
UNL - Unspecified Liquid
SL - Sludge
G - Gas
OTH - Other

| | | | | | |
|---|---|---|---|---|---|
| **Lab Sample No(s)** | | | 32499517 | | |
| **Customer Sample Reference** | | | RCH SOIL | | |
| **AGS Reference** | | | ESS1 | | |
| **Depth (m)** | | | 0.20 - 0.40 | | |
| **Container** | | | 1kg TUB with Handle (ALE260) | 250g Amber Jar (ALE210) | 60g VOC (ALE215) |
| **Sample Type** | | | S | S | S |
| Asbestos ID in Solid Samples | All | NDPs: 0 Tests: 1 | X | | |
| EPH CWG GC (S) | All | NDPs: 0 Tests: 1 | | X | |
| GRO by GC-FID (S) | All | NDPs: 0 Tests: 1 | | | X |
| Metals in solid samples by OES | All | NDPs: 0 Tests: 1 | | X | |
| PAH by GCMS | All | NDPs: 0 Tests: 1 | | X | |
| Sample description | All | NDPs: 0 Tests: 1 | | X | |
| TPH CWG GC (S) | All | NDPs: 0 Tests: 1 | | X | |
| VOC MS (S) | All | NDPs: 0 Tests: 1 | | | X |

# CERTIFICATE OF ANALYSIS

**SDG:** 260114-22 **Report Number:** 793242 **Superseded Report:**
**Client Ref.:** Ransoms Coppice Hangar **Location:** Pulborough

# Sample Descriptions

## Grain Sizes

| very fine | <0.063mm | fine | 0.063mm - 0.1mm | medium | 0.1mm - 2mm | coarse | 2mm - 10mm | very coarse | >10mm |
|---|---|---|---|---|---|---|---|---|---|

| Lab Sample No(s) | Customer Sample Ref. | Depth (m) | Colour | Description | Inclusions | Inclusions 2 |
|---|---|---|---|---|---|---|
| 32499517 | RCH SOIL | 0.20 - 0.40 | Dark Brown | Sandy Loam | Stones | Vegetation |

These descriptions are only intended to act as a cross check if sample identities are questioned, and to provide a log of sample matrices with respect to MCERTS validation. They are not intended as full geological descriptions.

We are accredited to MCERTS for sand, clay and loam/topsoil, or any of these materials - whether these are derived from naturally ocurring soil profiles, or from fill/made ground, as long as these materials constitute the major part of the sample.

Other coarse granular materials such as concrete, gravel and brick are not accredited if they comprise the major part of the sample.

Validated

# CERTIFICATE OF ANALYSIS

**SDG:** 260114-22 **Report Number:** 793242 **Superseded Report:**

**Client Ref.:** Ransoms Coppice Hangar **Location:** Pulborough

**Results Legend**

| | |
|---|---|
| # | ISO17025 accredited. |
| M | mCERTS accredited. |
| aq | Aqueous / settled sample. |
| diss.filt | Dissolved / filtered sample. |
| tot.unfilt | Total / unfiltered sample. |
| * | Subcontracted - refer to subcontractor report for accreditation status. |
| ** | % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery |
| *** | 6:2 FTAB (see appendix) |
| 1-4+§@ | Sample deviation (see appendix) |

| Component | LOD/Units | Method | Customer Sample Ref: RCH SOIL<br>Depth (m): 0.20 - 0.40<br>Sample Type: Soil/Solid (S)<br>Date Sampled: 14/01/2026<br>Sample Time: 15:15:00<br>Date Received: 16/01/2026<br>SDG Ref: 260114-22<br>Lab Sample No.(s): 32499517<br>AGS Reference: ESS1 |
|---|---|---|---|
| Moisture Content Ratio (% of as received sample) | % | PM024 | 22 |
| Lead | <0.7 mg/kg | TM181 | 65.1 M |

# CERTIFICATE OF ANALYSIS

**SDG:** 260114-22 **Report Number:** 793242 **Superseded Report:**
**Client Ref.:** Ransoms Coppice Hangar **Location:** Pulborough

## PAH by GCMS

**Results Legend**
# ISO17025 accredited.
M mCERTS accredited.
aq Aqueous / settled sample.
diss.filt Dissolved / filtered sample.
tot.unfilt Total / unfiltered sample.
* Subcontracted - refer to subcontractor report for accreditation status.
** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
*** 6:2 FTAB (see appendix)
1-4+§@ Sample deviation (see appendix)

| Customer Sample Ref | RCH SOIL |
|---|---|
| Depth (m) | 0.20 - 0.40 |
| Sample Type | Soil/Solid (S) |
| Date Sampled | 14/01/2026 |
| Sample Time | 15:15:00 |
| Date Received | 16/01/2026 |
| SDG Ref | 260114-22 |
| Lab Sample No.(s) | 32499517 |
| AGS Reference | ESS1 |

| Component | LOD/Units | Method | |
|---|---|---|---|
| Naphthalene-d8 % recovery** | % | TM218 | 83 |
| Acenaphthene-d10 % recovery** | % | TM218 | 83.1 |
| Phenanthrene-d10 % recovery** | % | TM218 | 83.8 |
| Chrysene-d12 % recovery** | % | TM218 | 79.3 |
| Perylene-d12 % recovery** | % | TM218 | 74 |
| Naphthalene | <9 µg/kg | TM218 | <9 M |
| Acenaphthylene | <12 µg/kg | TM218 | 23.0 M |
| Acenaphthene | <8 µg/kg | TM218 | <8 M |
| Fluorene | <10 µg/kg | TM218 | <10 M |
| Phenanthrene | <15 µg/kg | TM218 | 124 M |
| Anthracene | <16 µg/kg | TM218 | 24.9 M |
| Fluoranthene | <17 µg/kg | TM218 | 363 M |
| Pyrene | <15 µg/kg | TM218 | 343 M |
| Benz(a)anthracene | <14 µg/kg | TM218 | 169 M |
| Chrysene | <10 µg/kg | TM218 | 214 M |
| Benzo(b)fluoranthene | <15 µg/kg | TM218 | 317 M |
| Benzo(k)fluoranthene | <14 µg/kg | TM218 | 117 M |
| Benzo(a)pyrene | <15 µg/kg | TM218 | 212 M |
| Indeno(1,2,3-cd)pyrene | <18 µg/kg | TM218 | 169 M |
| Dibenzo(a,h)anthracene | <23 µg/kg | TM218 | <22 M |
| Benzo(g,h,i)perylene | <24 µg/kg | TM218 | 170 M |
| PAH, Total Detected USEPA 16 | <118 µg/kg | TM218 | 2200 |

# CERTIFICATE OF ANALYSIS

**SDG:** 260114-22 **Report Number:** 793242 **Superseded Report:**
**Client Ref.:** Ransoms Coppice Hangar **Location:** Pulborough

## TPH CWG (S)

**Results Legend**
# ISO17025 accredited.
M mCERTS accredited.
aq Aqueous / settled sample.
diss.filt Dissolved / filtered sample.
tot.unfilt Total / unfiltered sample.
* Subcontracted - refer to subcontractor report for accreditation status.
** % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
*** 6:2 FTAB (see appendix)
1-4+§@ Sample deviation (see appendix)

| Component | LOD/Units | Method | Customer Sample Ref | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | RCH SOIL | | | | | |
| | | | Depth (m) | | | | | |
| | | | 0.20 - 0.40 | | | | | |
| | | | Sample Type | | | | | |
| | | | Soil/Solid (S) | | | | | |
| | | | Date Sampled | | | | | |
| | | | 14/01/2026 | | | | | |
| | | | Sample Time | | | | | |
| | | | 15:15:00 | | | | | |
| | | | Date Received | | | | | |
| | | | 16/01/2026 | | | | | |
| | | | SDG Ref | | | | | |
| | | | 260114-22 | | | | | |
| | | | Lab Sample No.(s) | | | | | |
| | | | 32499517 | | | | | |
| | | | AGS Reference | | | | | |
| | | | ESS1 | | | | | |
| GRO Surrogate % recovery** | % | TM089 | 97.3 | | | | | |
| Aliphatics >C5-C6 (HS_1D_AL) | <10 µg/kg | TM089 | <10 | | | | | |
| Aliphatics >C6-C8 (HS_1D_AL) | <10 µg/kg | TM089 | <10 | | | | | |
| Aliphatics >C8-C10 (HS_1D_AL) | <10 µg/kg | TM089 | <10 | | | | | |
| Aliphatics >C10-C12 (EH_2D_AL_#1) | <1000 µg/kg | TM414 | <1000 # | | | | | |
| Aliphatics >C12-C16 (EH_2D_AL_#1) | <1000 µg/kg | TM414 | <1000 # | | | | | |
| Aliphatics >C16-C21 (EH_2D_AL_#1) | <1000 µg/kg | TM414 | <1000 # | | | | | |
| Aliphatics >C21-C35 (EH_2D_AL_#1) | <1000 µg/kg | TM414 | 4300 # | | | | | |
| Aliphatics >C35-C44 (EH_2D_AL_#1) | <1000 µg/kg | TM414 | <1000 | | | | | |
| Total Aliphatics >C10-C44 (EH_2D_AR_#1) | <5000 µg/kg | TM414 | <5000 | | | | | |
| Total Aliphatics & Aromatics >C10-C44 (EH_2D_Total_#1) | <10000 µg/kg | TM414 | 6500 | | | | | |
| Aromatics >EC5-EC7 (HS_1D_AR) | <10 µg/kg | TM089 | <10 | | | | | |
| Aromatics >EC7-EC8 (HS_1D_AR) | <10 µg/kg | TM089 | <10 | | | | | |
| Aromatics >EC8-EC10 (HS_1D_AR) | <10 µg/kg | TM089 | <10 | | | | | |
| Aromatics > EC10-EC12 (EH_2D_AR_#1) | <1000 µg/kg | TM414 | <1000 # | | | | | |
| Aromatics > EC12-EC16 (EH_2D_AR_#1) | <1000 µg/kg | TM414 | <1000 # | | | | | |
| Aromatics > EC16-EC21 (EH_2D_AR_#1) | <1000 µg/kg | TM414 | 800 # | | | | | |
| Aromatics > EC21-EC35 (EH_2D_AR_#1) | <1000 µg/kg | TM414 | 13100 # | | | | | |
| Aromatics >EC35-EC44 (EH_2D_AR_#1) | <1000 µg/kg | TM414 | 930 | | | | | |
| Aromatics > EC40-EC44 (EH_2D_AR_#1) | <1000 µg/kg | TM414 | <1000 | | | | | |
| Total Aromatics > EC10-EC44 (EH_2D_AR_#1) | <5000 µg/kg | TM414 | 4600 | | | | | |
| Total Aliphatics & Aromatics >C5-C44 (EH_2D_Total_#1+HS_1D_Total) | <10000 µg/kg | TM414 | 4900 | | | | | |
| Total Aliphatics >C5-C10 (HS_1D_AL_TOTAL) | <50 µg/kg | TM089 | <50 | | | | | |
| Total Aromatics >EC5-EC10 (HS_1D_AR_TOTAL) | <50 µg/kg | TM089 | <50 | | | | | |
| GRO >C5-C10 (HS_1D_TOTAL) | <20 µg/kg | TM089 | <20 | | | | | |

# CERTIFICATE OF ANALYSIS

**SDG:** 260114-22 **Report Number:** 793242 **Superseded Report:**
**Client Ref.:** Ransoms Coppice Hangar **Location:** Pulborough

## VOC MS (S)

**Results Legend**

| | |
|---|---|
| # | ISO17025 accredited. |
| M | mCERTS accredited. |
| aq | Aqueous / settled sample. |
| diss.filt | Dissolved / filtered sample. |
| tot.unfilt | Total / unfiltered sample. |
| * | Subcontracted - refer to subcontractor report for accreditation status. |
| ** | % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery |
| *** | 6:2 FTAB (see appendix) |
| 1-4+§@ | Sample deviation (see appendix) |

| Component | LOD/Units | Method | Customer Sample Ref: RCH SOIL<br>Depth (m): 0.20 - 0.40<br>Sample Type: Soil/Solid (S)<br>Date Sampled: 14/01/2026<br>Sample Time: 15:15:00<br>Date Received: 16/01/2026<br>SDG Ref: 260114-22<br>Lab Sample No.(s): 32499517<br>AGS Reference: ESS1 |
|---|---|---|---|
| Dibromofluoromethane** | % | TM116 | 102 |
| Toluene-d8** | % | TM116 | 91.4 |
| 4-Bromofluorobenzene** | % | TM116 | 72.1 |
| Methyl Tertiary Butyl Ether | <0.5 µg/kg | TM116 | <0.5 M |
| Benzene | <1 µg/kg | TM116 | <1 M |
| Toluene | <1 µg/kg | TM116 | <1 M |
| Ethylbenzene | <1 µg/kg | TM116 | <1 M |
| p/m-Xylene | <2 µg/kg | TM116 | <2 # |
| o-Xylene | <2 µg/kg | TM116 | <2 M |
| Sum of Detected Xylenes | <0.02 mg/kg | TM116 | <0.02 |
| Sum of BTEX | <7 µg/kg | TM116 | <7 |

# CERTIFICATE OF ANALYSIS

**SDG:** 260114-22 **Report Number:** 793242 **Superseded Report:**
**Client Ref.:** Ransoms Coppice Hangar **Location:** Pulborough

# Asbestos Identification - Solid Samples

| Results Legend | |
|---|---|
| # | ISO17025 accredited. |
| M | *m*CERTS accredited. |
| * | Subcontracted test. |
| 1-5&♦§@ | Sample deviation (see appendix) |

| | | Date of Analysis | Analysed By | Comments | Amosite (Brown) Asbestos | Asbestos Actinolite | Asbestos Anthophyllite | Asbestos Tremolite | Chrysotile (White) Asbestos | Crocidolite (Blue) Asbestos | Non-Asbestos Fibre |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Cust. Sample Ref.<br>Depth (m)<br>Sample Type<br>Date Sampled<br>Date Received<br>SDG<br>Original Sample<br>Method Number | RCH SOILESS1<br>0.20 - 0.40<br>SOLID<br>14/01/2026 00:00:00<br>16/01/2026 05:00:00<br>260114-22<br>32499517<br>TM048 | 22/01/2026 | Paul Poynton | N/A | Not Detected (#) | Not Detected (#) | Not Detected (#) | Not Detected (#) | Not Detected (#) | Not Detected (#) | Not Detected |

# Table of Results - Appendix

| Method No | Description |
|---|---|
| PM024 | Soil preparation including homogenisation, moisture, screens of soils for Asbestos Containing Material |
| TM048 | Identification of Asbestos in Bulk Material |
| TM089 | Determination of Gasoline Range Hydrocarbons (GRO) by Headspace GC-FID (C4-C12) |
| TM116 | Determination of Volatile Organic Compounds by Headspace / GC-MS |
| TM181 | Determination of Routine Metals in Soil by iCap 6500 Duo ICP-OES |
| TM218 | The determination of PAH in soil samples by GC-MS |
| TM414 | Determination of Speciated Extractable Petroleum Hydrocarbons in Soils by GCxGC-FID |

NA = not applicable.
Chemical testing (unless subcontracted) performed at ALS Laboratories (UK) Limited Hawarden (Method codes TM).

# CERTIFICATE OF ANALYSIS

**SDG:** 260114-22 **Report Number:** 793242 **Superseded Report:**
**Client Ref.:** Ransoms Coppice Hangar **Location:** Pulborough

# Test Completion Dates

| | |
|---|---|
| **Lab Sample No(s)** | 32499517 |
| **Customer Sample Ref.** | RCH SOIL |
| **AGS Ref.** | ESS1 |
| **Depth** | 0.20 - 0.40 |
| **Type** | Soil/Solid (S) |
| Asbestos ID in Solid Samples | 22-Jan-2026 |
| EPH CWG GC (S) | 22-Jan-2026 |
| GRO by GC-FID (S) | 22-Jan-2026 |
| Metals in solid samples by OES | 24-Jan-2026 |
| PAH by GCMS | 20-Jan-2026 |
| Sample description | 22-Jan-2026 |
| TPH CWG GC (S) | 22-Jan-2026 |
| VOC MS (S) | 22-Jan-2026 |

10:22:44 23/01/2026

# Appendix General

1. Results are expressed on a dry weight basis (dried at 35ºC) for all soil analyses except for the following: NRA and CEN Leach tests, flash point LOI, pH, ammonium as NH4 by the BRE method, VOC TICs and SVOC TICs.

2. If sufficient sample is received a sub sample will be retained free of charge for 15 days after analysis is completed (e-mailed) for all sample types unless the sample is destroyed on testing. The prepared soil sub sample that is analysed for asbestos will be retained for a period of 6 months after the analysis date. All bulk samples will be retained for a period of 6 months after the analysis date. All samples received and not scheduled will be disposed of 15 days after the date of receipt unless we are instructed to the contrary. Once the initial period has expired, a storage charge will be applied for each month or part thereof until the client cancels the request for sample storage. ALS reserve the right to charge for samples received and stored but not analysed.

3. With respect to turnaround, we will always endeavour to meet client requirements wherever possible, but turnaround times cannot be absolutely guaranteed due to so many variables beyond our control.

4. We take responsibility for any test performed by sub-contractors (marked with an asterisk). We endeavour to use UKAS/MCERTS Accredited Laboratories, who either complete a quality questionnaire or are audited by ourselves. For some determinands there are no UKAS/MCERTS Accredited Laboratories, in this instance a laboratory with a known track record will be utilised.

5. If no separate volatile sample is supplied by the client, or if a headspace or sediment is present in the volatile sample, the integrity of the data may be compromised. This will be flagged up as an invalid VOC on the test schedule and the result marked as deviating on the test certificate.

6. NDP - No determination possible due to insufficient/unsuitable sample.

7. Results relate only to the items tested.

8. LoDs (Limit of Detection) for wet tests reported on a dry weight basis are not corrected for moisture content.

9. **Surrogate recoveries** - Surrogates are added to your sample to monitor recovery of the test requested. A % recovery is reported, results are not corrected for the recovery measured. Typical recoveries for organics tests are 70-130%. Recoveries in soils are affected by organic rich or clay rich matrices. Waters can be affected by remediation fluids or high amounts of sediment. Test results are only ever reported if all of the associated quality checks pass; it is assumed that all recoveries outside of the values above are due to matrix affect.

10. Stones/debris are not routinely removed. We always endeavour to take a representative sub sample from the received sample.

11. In certain circumstances the method detection limit may be elevated due to the sample being outside the calibration range. Other factors that may contribute to this include possible interferences. In both cases the sample would be diluted which would cause the method detection limit to be raised.

12. For dried and crushed preparations of soils volatile loss may occur - e.g volatile mercury.

13. For leachate preparations other than Zero Headspace Extraction (ZHE) volatile loss may occur.

14. For the BSEN 12457-3 two batch process to allow the cumulative release to be calculated, the volume of the leachate produced is measured and filtered for all tests. We therefore cannot carry out any unfiltered analysis.
The tests affected include volatiles GCFID/GCMS and all subcontracted analysis.

15. Analysis and identification of specific compounds using GCFID is by retention time only, and we routinely calibrate and quantify for benzene, toluene, ethylbenzenes and xylenes (BTEX). For total volatiles in the C5-C12 range, the total area of the chromatogram is integrated and expressed as ug/kg or ug/l.
Although this analysis is commonly used for the quantification of gasoline range organics (GRO), the system will also detect other compounds such as chlorinated solvents, and this may lead to a falsely high result with respect to hydrocarbons only.
It is not possible to specifically identify these non-hydrocarbons, as standards are not routinely run for any other compounds, and for more definitive identification, volatiles by GCMS should be utilised.

16. We are accredited to MCERTS for sand, clay and loam/topsoil, or any of these materials - whether these are derived from naturally occurring soil profiles, or from fill/made ground, as long as these materials constitute the major part of the sample. Other coarse granular material such as concrete, gravel and brick are not accredited if they comprise the major part of the sample.

17 Data retention. All records, communications and reports pertaining to the analysis are archived for seven years from the date of issue of the final report.

18. **Tentatively Identified Compounds (TICs)** are non-target peaks in VOC and SVOC analysis. All non-target peaks detected with a concentration above the LoD are subjected to a mass spectral library search. Non-target peaks with a library search confidence of >75% are reported based on the best mass spectral library match. When a non-target peak with a library search confidence of <75% is detected it is reported as “mixed hydrocarbons”. Non-target compounds identified from the scan data are semi-quantified relative to one of the deuterated internal standards, under the same chromatographic conditions as the target compounds. This result is reported as a semi-quantitative value and reported as Tentatively Identified Compounds (TICs). TICs are outside the scope of UKAS accreditation and are not moisture corrected.

19. **Sample Deviations**

If a sample is classed as deviated then the associated results may be compromised.

| | |
|---|---|
| 1 | **Container with Headspace provided for volatiles analysis** |
| 2 | **Incorrect container received** |
| 3 | **Deviation from method** |
| 4 | **Matrix interference** |
| ♦ | **Sample holding time exceeded in laboratory** |
| @ | **Sample holding time exceeded due to late arrival of instructions or samples** |
| § | **Sampled on date not provided** |

20. **Asbestos**
When requested, the individual sub sample scheduled will be analysed in house for the presence of asbestos fibres and asbestos containing material by our documented in house method TM048 based on HSG 248 (2021), which is accredited to ISO17025. If a specific asbestos fibre type is not found this will be reported as “Not detected”. If no asbestos fibre types are found all will be reported as “Not detected” and the sub sample analysed deemed to be clear of asbestos. If an asbestos fibre type is found it will be reported as detected (for each fibre type found). Testing can be carried out on asbestos positive samples, but, due to Health and Safety considerations, may be replaced by alternative tests or reported as No Determination Possible (NDP). The quantity of asbestos present is not determined unless specifically requested.

If during the search of the two ‘pinch’ samples by PLM only 1 or 2 fibres or fibre bundles are seen and identified as asbestos, the term ‘trace asbestos identified’ is reported.

**Identification of Asbestos in Bulk Materials & Soils**

The results for identification of asbestos in bulk materials and soils are obtained from supplied bulk materials and soils which have been examined to determine the presence of asbestos fibres using ALS (Hawarden) in-house method of transmitted/polarised light microscopy and central stop dispersion staining, based on HSG 248 (2021).

The results for identification of asbestos in soils are obtained from a homogenised sub sample which has been examined to determine the presence of asbestos fibres using ALS (Hawarden) in-house method of transmitted/polarised light microscopy and central stop dispersion staining.

| Asbestos Type | Common Name |
|---|---|
| Chrysotile | White Asbestos |
| Amosiite | Brown Asbestos |
| Crocidolite | Blue Asbestos |
| Fibrous Actinolilite | - |
| Fibrous Anthophyllite | - |
| Fibrous Tremolilite | - |

**Visual Estimation Of Fibre Content**

Estimation of fibre content is not permitted as part of our UKAS accredited test other than: - Trace - Where only one or two asbestos fibres were identified.

**Respirable Fibres**

Respirable fibres are defined as fibres of <3 µm diameter, longer than 5 µm and with aspect ratios of at least 3:1 that can be inhaled into the lower regions of the lung and are generally acknowledged to be most important predictor of hazard and risk for cancers of the lung.
Potentially respirable fibres are identified by using a Phase Contrast Microscope.

**Further guidance on typical asbestos fibre content of manufactured products can be found in HSG 264.**
**The identification of asbestos containing materials and soils falls within our schedule of tests for which we hold UKAS accreditation, however opinions, interpretations and all other information contained in the report are outside the scope of UKAS accreditation.**

21. 6:2 FTAB
Recovery of 6:2 FTAB in the quality control samples has been observed to be <50% of the target value. Please note the 6:2 FTAB result is supplied as indicative only.

**Waste Pre Treatment Transfer Note**
Hoare Construction Group Ltd t/a SCS Waste
Unit 9, Hangar 3
Waste Carrier License: CBDU231153
VAT No: 812 5667 30

# Waste Transfer Note

# DELIVERY

**Account No. L125**

LB WASTE MANAGEMENT LTD
LOVELL HOUSE
ST NICHOLAS STREET
PE30 1LY

**SITE ADDRESS**

IAN ROBINSON
SWAN CORNER SHOP
STATION ROAD
PULBOROUGH
RH20 1AH

SITE CONTACT: IAN ROBINSON
SITE TEL: 07712544367

| | |
|---|---|
| **Ticket No.** | 20593 |
| **Date** | 03/11/2025 |
| **Order Number** | 324039 |

**Skip Details**

| | | | |
|---|---|---|---|
| **Skip Size** | 2 YARD SKIP | **Area** | Horsham |
| **Waste Type** | MIXED C&D | **SIC Code** | 38.11 |
| **EWC Code** | 17 09 04 | **Time On site:** | 07:49 |
| **Vehicle Reg** | MM23 FNH | **Time Off Site:** | 07:50 |
| **Driver** | DAVE WARD | | |

**Special Instructions**

**HAULIER** HOARE CONSTRUCTION GROUP LTD T/A SCS WASTE

**Waste Carrier Licence No:** CBDU231153

**Waste Carrier Signature:**

**Print Name:** DAVE WARD

**Date:** 03/11/2025

**An electronic copy of this Waste Transfer Note is available on request.**

**Warning -** Under the Duty of Care Environmental Protection Act 1990, the hirer is responsible for informing the driver of the contents of the skip..

**The following wastes should not be put in a skip, unless by prior arrangement**
Asbestos, Gas Bottles, Battery, Fridges, Freezers, Aerosols of any kind, Liquid Wastes, containers that have had or are partially full of any of the following; Oil, Paint, Varnishes, Solvents, any other Chemicals, Plasterboard, Fluorescent Tubes, Televisions, Computer Monitors, Tyres, Mattresses.

**Should any of these items be found in a skip, Additional charges will be payable.**

**It is an offence to overload skips or to set fire to materials in the skip.**
You are responsible for the container whilst on hire. Any damage caused during this period will be charged to the Hirer. If the skip/container is stolen, replacement costs will be the responsibility of the Hirer. Any unauthorised relocation which results in damage or obstruction of access to our skip will be liable to a surcharge. Hirers ordering vehicles off the public highway do so entirely at their own risk. Our Hire period is 14 days. Waiting times are calculated after 30 minutes and wasted journeys are costed on milage. When requesting our vehicles to leave the public highway, we do not accept any liability for any damage to either private property and/or public access i.e. kerbs. pavements ,manholes etc

**Full Terms and Conditions are available on request**

For & on behalf of the customer, I have read and accept the Terms and Conditions. I agree to the waste description (EWC) and that the waste transferred is as stated above. I confirm I have fulfilled my duty to apply the waste hierarchy by regulation 12 of the Waste ( England and Wales ) Regulations 2011.

**Print Name:** Brooks Hill

**Signature:**

**BA1**

# analysis report

TS0620/10 v2.1

Test Date 06/07/2020

Sample received 26/06/2020

ULTIMATE TOPSOIL
YOU'RE IN SAFE HANDS

Client:
George Davis
New ton lodge
Clifton Reynes
Olney
Bucks. MK46 5DS

Sample taken from:
Topsoil
-
-
-
-

| concentration mg $l^{-1}$ | | |
|---|---|---|
| Phosphorus | Potassium | Magnesium |
| **P** | **K** | **Mg** |
| 27 | 129 | 84 |

| Index | | |
|---|---|---|
| Phosphorus | Potassium | Magnesium |
| **P** | **K** | **Mg** |
| 3 | 2 | 2 |

| Total Nitrogen |
|---|
| **N %w/w** |
| 0.16 |

| **pH** |
|---|
| 6.8 |

| Determinand | Method |
|---|---|
| pH | potentiometrically BS1377- 3 section 9 |
| Phosphorous (P) | Extracted with Sodium bicarbonate then determined colourimetrically |
| Potassium (K) | Extracted in ammonium nitrate then flame AAS |
| Magnesium (Mg) | Extracted in ammonium nitrate then flame AAS |
| Total Nitrogen (N) | Combustion technique |

Comments

Report authorised by:
N. Fahey.
Laboratory manager



Contaminated Land Solutions
Tel: 0117 369 0156
Email: richard@wessonenvironmental.co.ukWeb: www.wessonenvironmental.co.uk

**Address: Ransoms, Station Road, Pulborough, West Sussex**

**Date: 28th October 2024**

**Planning application reference: DC/22/1059**

# Remediation Method Statement

## 1.1 Background

A site investigation was carried out by Wesson Environmental in July 2024. This encountered 2 hotspots where lead was elevated above GAC in the trial pits TP01 and TP05. PAH compounds were also elevated above GAC in the former location.

# 2 Remedial measures

## 2.1 Shallow soils

The current data indicates that contamination of site soils is by contaminants that are unlikely to form a vapour phase. Therefore, the risks to future site users will occur where there is potential for contact with site soils or dust generation. This appears to occur in 2 hotspots. Therefore, we propose that soils are excavated in the areas as shown in figure 2. Because the data indicates that a rapid decline in contaminant concentration occurs with depth, it is proposed that removal of 300mm of soil will be sufficient. The excavation and fill should therefore be as follows:

1. Soils must be excavated to a depth that will allow the cover system to be placed as described below. The excavation should be supervised to ensure removal of contaminated soils.
2. The base of the excavated areas should be sampled and tested to ensure that contaminants described above are no longer present.
3. The cover system will comprise a minimum of 300mm depth comprising:
    a. 150mm of topsoil
    b. 200mm of subsoil.
    c. Alternatively, fill comprising of topsoil only is acceptable.

4. All imported subsoils and topsoils should be suitable for proposed use of the site for residential housing. It is recommended that in the case of topsoils that these comply with BS3882:2015. Validation of soils must take place after placement on site (see 3.1). Concentrations of potential contaminants present must be below the guideline values in Appendix 1. The laboratory analysis must also include a screen for asbestos.
5. The base of the excavation should be compacted prior to placement of capping.

# 3 Validation

## 3.1 Soils

1. The depth of excavation in the garden areas should be visually validated and photographic evidence produced to show adequate removal of soils has taken place. This should include photographs taken during the excavation.
2. Sampling from the base of the excavation should place to ensure that concentrations of the contaminants of concern (lead and PAH compounds) are below GAC
3. Representative samples of the capping soils shall be collected at a rate of 1 sample per plot following emplacement. If separate topsoil and sub soil is placed, then sampling should be at the rate of 1 sample per plot per layer i.e. 1 sample of topsoil per plot and 1 sample of subsoil per plot. Each sample shall be forwarded to a UKAS and MCERTS accredited laboratory for analysis of the determinands in Appendix 1 plus asbestos screen. Concentrations must be below the concentrations detailed in tables Appendix 1.
4. Waste transfer notes must be obtained for all materials going off site and should be included in the validation report.
5. A validation report shall be produced and submitted to the LPA including details of the above.

# 4 Discovery strategy

Care should be taken during excavation or working of the site to investigate any soils, which appear by eye or odour to be contaminated or of different character to those analysed. In the event of any discovery of potentially contaminated soils or materials, it should be quarantined and reported to the most senior member of site staff for action. The location, type and quantity must be recorded, and the Local Authority Contaminated Land Officer notified immediately, and approval must be sought prior to implementing any proposed mitigation action.

The discovery strategy must remain on site at all times and must demonstrate a clear allocation of responsibility for reporting and dealing with contamination. A copy of the strategy must be placed on the health & safety notice board and /or displayed in a prominent area where all site staff are able to take note of and consult the document at any time. Any member of the workforce entering the site to undertake any excavation must be made aware of the potential to discover contamination and the discovery strategy.

**Dr. Richard Wesson**



**Wesson Environmental**

## Appendix 1

## List of determinands and relevant guideline values

**Table 1. Contaminant thresholds.**

| Inorganics | | |
|---|---|---|
| **RESIDENTIAL WITH PLANT UPTAKE** | | |
| **Determinand** | GAC | Source |
| **Arsenic** | 37 | LQM/CIEH S4UL |
| **Barium** | 1300 | CLEA |
| **Beryllium** | 1.7 | LQM/CIEH S4UL |
| **Boron (water-soluble)** | 290 | LQM/CIEH S4UL |
| **Cadmium** | 11 | LQM/CIEH S4UL |
| **Chromium** | 910 | LQM/CIEH S4UL |
| **Copper** | 2400 | LQM/CIEH S4UL |
| **Lead** | 210 | C4SL |
| **Mercury** | 40 | LQM/CIEH S4UL |
| **Nickel** | 180 | LQM/CIEH S4UL |
| **Selenium** | 250 | LQM/CIEH S4UL |
| **Vanadium** | 410 | LQM/CIEH S4UL |
| **Zinc** | 3700 | LQM/CIEH S4UL |
| **Asbestos** | None | |

| PAH Compounds | | | | |
|---|---|---|---|---|
| **RESIDENTIAL WITH PLANT UPTAKE** | | | | |
| Determinand | **1% SOM** | **2.5% SOM** | **6% SOM** | **Source** |
| Acenaphthene | 210 | 510 | 1100 | LQM/CIEH S4UL |
| Acenaphthylene | 170 | 420 | 920 | LQM/CIEH S4UL |
| Anthracene | 2400 | 5400 | 11000 | LQM/CIEH S4UL |
| Benzo(a)Anthracene | 7.2 | 11 | 13 | LQM/CIEH S4UL |
| Benzo(a)Pyrene | 2.2 | 2.7 | 3 | LQM/CIEH S4UL |
| Benzo(b/k)fluoranthene | 2.6 | 3.3 | 3.7 | LQM/CIEH S4UL |
| Benzo(ghi)Perylene | 320 | 340 | 350 | LQM/CIEH S4UL |
| Benzo(k)fluoranthene | 77 | 93 | 100 | LQM/CIEH S4UL |
| Chrysene | 15 | 22 | 27 | LQM/CIEH S4UL |
| Dibenzo(ah)Anthracene | 0.24 | 0.28 | 0.3 | LQM/CIEH S4UL |
| Fluoranthene | 280 | 560 | 890 | LQM/CIEH S4UL |
| Fluorene | 170 | 400 | 860 | LQM/CIEH S4UL |
| Indeno(123-cd)Pyrene | 27 | 36 | 41 | LQM/CIEH S4UL |
| Naphthalene | 2.3 | 5.6 | 13 | LQM/CIEH S4UL |
| Phenanthrene | 95 | 220 | 440 | LQM/CIEH S4UL |
| Pyrene | 620 | 1200 | 2000 | LQM/CIEH S4UL |

| TPH Compounds | | | | |
|---|---|---|---|---|
| **RESIDENTIAL WITH PLANT UPTAKE** | | | | |
| **Determinand** | **1% SOM** | **2.5% SOM** | **6% SOM** | **Source** |
| **TPH (C5-C6 aliphatic)** | 42 | 78 | 160 | LQM/CIEH S4UL |
| **TPH (C6-C8 aliphatic)** | 100 | 230 | 530 | LQM/CIEH S4UL |
| **TPH (C8-C10 aliphatic)** | 27 | 65 | 150 | LQM/CIEH S4UL |
| **TPH (C10-C12 aliphatic)** | 130 | 330 | 760 | LQM/CIEH S4UL |
| **TPH (C12-C16 aliphatic)** | 1100 | 2400 | 4300 | LQM/CIEH S4UL |
| **TPH (C16-C21 aliphatic)** | 65000 | 92000 | 110000 | LQM/CIEH S4UL |
| **TPH (C21-C35 aliphatic)** | 65000 | 92000 | 110000 | LQM/CIEH S4UL |
| | | | | |
| **TPH (C6-C7 aromatic)** | 70 | 140 | 300 | LQM/CIEH S4UL |
| **TPH (C7-C8 aromatic)** | 130 | 290 | 660 | LQM/CIEH S4UL |
| **TPH (C8-C10 aromatic)** | 34 | 83 | 190 | LQM/CIEH S4UL |
| **TPH (C10-C12 aromatic)** | 74 | 180 | 380 | LQM/CIEH S4UL |
| **TPH (C12-C16 aromatic)** | 140 | 330 | 660 | LQM/CIEH S4UL |
| **TPH (C16-C21 aromatic)** | 260 | 540 | 930 | LQM/CIEH S4UL |
| **TPH (C21-C35 aromatic)** | 1100 | 1500 | 1700 | LQM/CIEH S4UL |

| BTEX Compounds | | | | |
|---|---|---|---|---|
| **RESIDENTIAL WITH PLANT UPTAKE** | | | | |
| **Determinand** | **1% SOM** | **2.5% SOM** | **6% SOM** | Source |
| **Benzene** | 0.087 | 0.17 | 0.37 | LQM/CIEH S4UL |
| **EthylBenzene** | 47 | 110 | 260 | LQM/CIEH S4UL |
| **M/P Xylene** | 56 | 130 | 310 | LQM/CIEH S4UL |
| **O Xylene** | 60 | 140 | 330 | LQM/CIEH S4UL |
| **Toluene** | 130 | 290 | 660 | LQM/CIEH S4UL |

**Appendix 2**

**Figures**

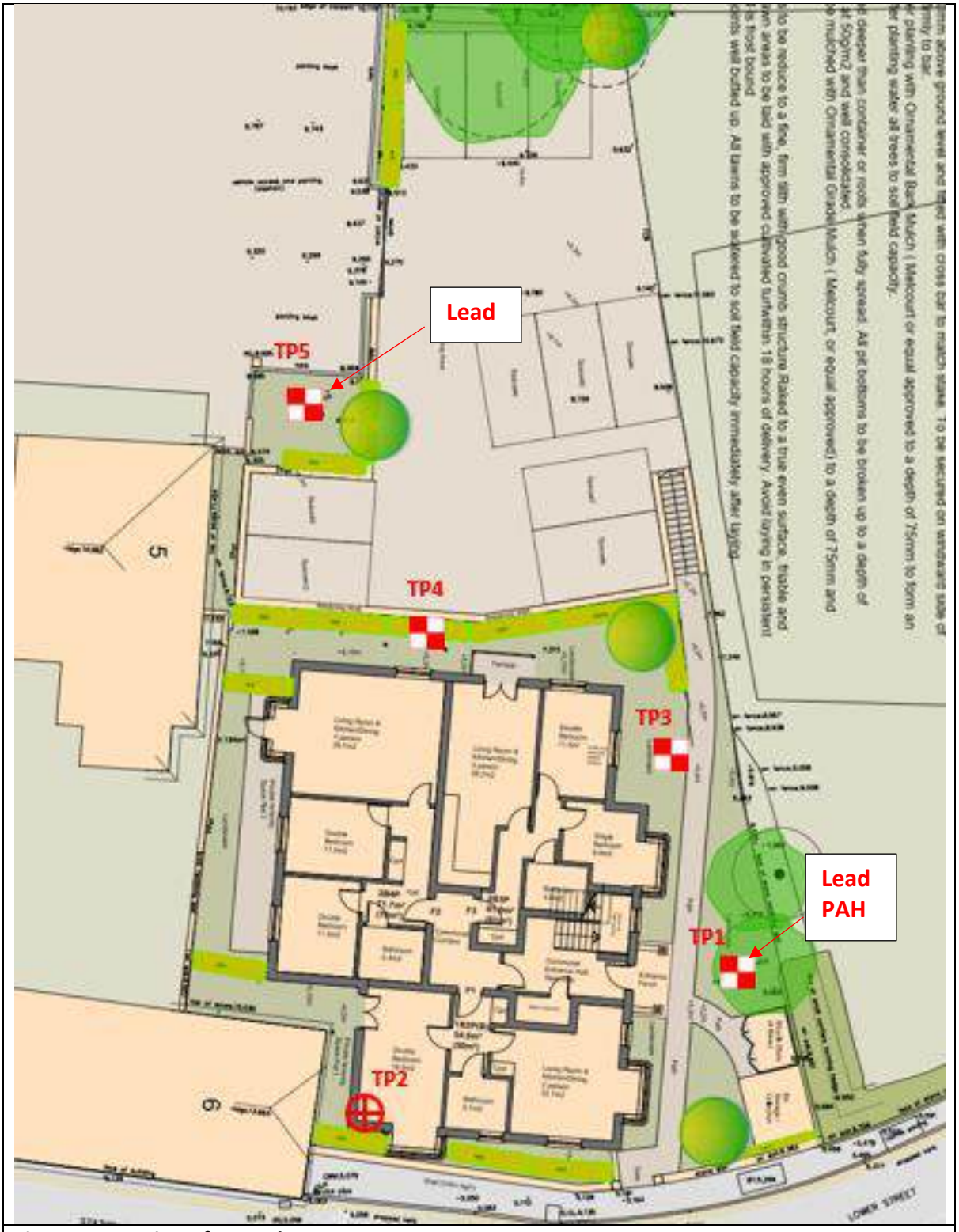



**Figure 1. Location of exceedances**

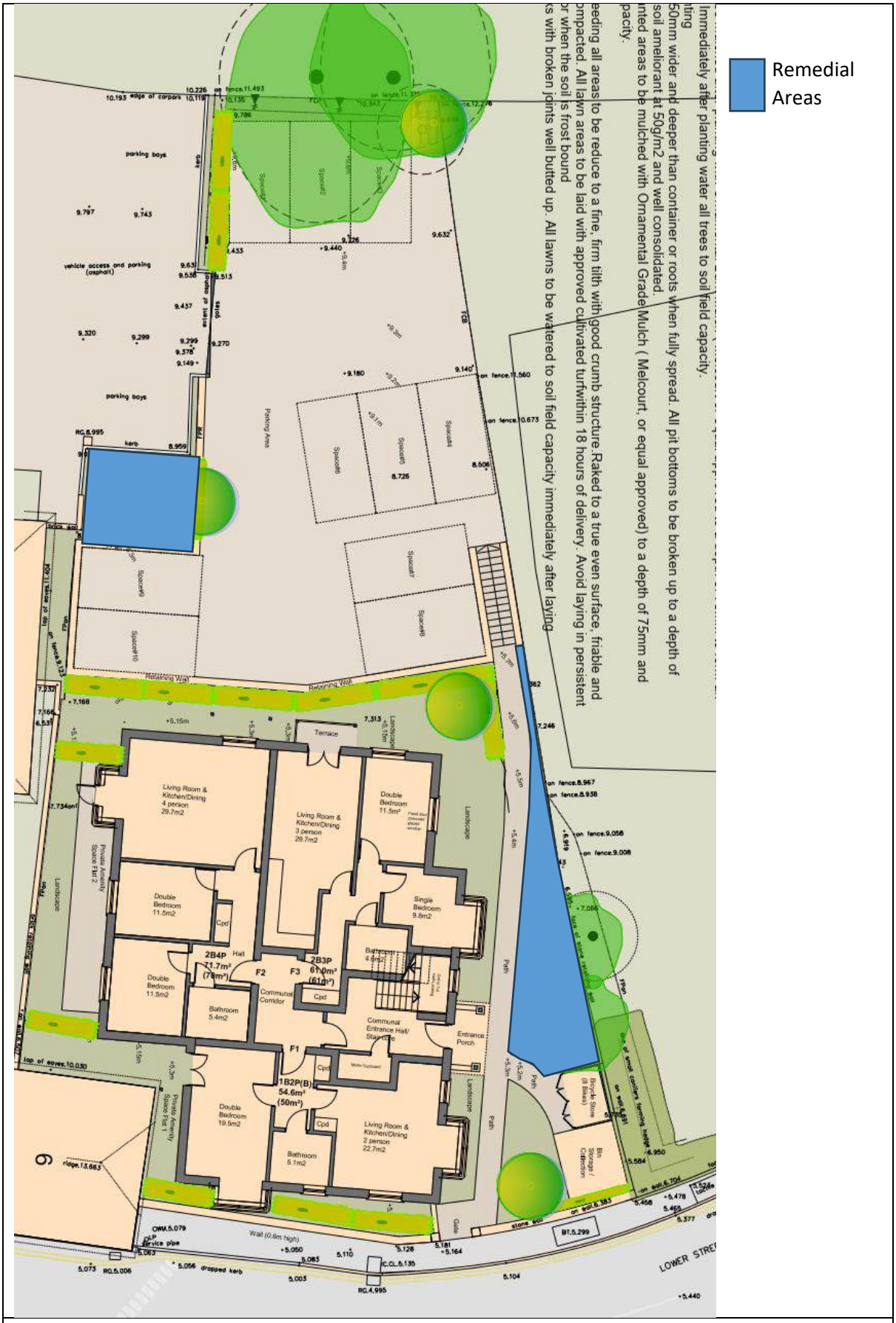



**Figure 2. Remedial Areas**