Soil Verification Report

Project Name
Victoria Nurseries

Project Address
Plots 2, 3, 4 and 5
Victoria Nurseries
Victoria Road
Wargrave
RG10 8AG

Client
Palatine Homes Limited

Project Number
24-206.08

Version
1

Prepared on
16 October 2026

Aviron Associates Limited
Geotechnical and Land Contamination Specialists
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Report Quality Management

Project Name	Victoria Nurseries		
Project Address	Plots 2, 3, 4 and 5 Victoria Nurseries, Victoria Road, Wargrave, RG10 8AG		
Project Title	Soil Verification Report		
Client	Palatine Homes Limited		
Project Number	24-206.04		
Version	1		**Date**
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1.0 PROJECT AND SITE INFORMATION

1.1 APPOINTMENT

Aviron Associates Limited (Aviron) was retained by Palatine Homes Limited (the "Client") to prepare a Verification Report for the following premises:

Plots 2, 3, 4 and 5, Victoria Nurseries, Victoria Road, Wargrave, RG10 8AG (hereafter referred to as the "site").

This report proceeds the Discovery Strategy, Remediation Strategy and Verification Plan (DS, RS and VP), dated November 2025 and referenced 24-206.04.

The purpose of this report is to provide a review of remediation excavation and soil verification works at the site. This report shall demonstrate that any previous (or undiscovered) soil contamination has been removed from the subject gardens and that the specified Plots can be considered suitable for residential occupancy without presenting an occupancy exposure risk.

1.2 THE SITE

Table 1.2 presents the site details.

Table 1.2: Site Details	
Site Location	The site is located at number 109 Victoria Road near the junction of Recreation Road, in Wargrave, approximately 5 kilometres (km) to the south-east of Henley on Thames. **Figure 1** is presented as the Site Location Plan.
National Grid Ref.	Centred at approximately 479240 178795.
Recent Land Use	The site comprised Victoria Nurseries, including numerous disused planted beds, glasshouses and dilapidated buildings. A detached single storey building of brick and block construction under a pitched corrugated cement sheet roof is located in the east of the site, previously in use as a store and potting shed. Unmade surfacing is located in the site frontage on Victoria Road. An above ground storage tank (AST) noted in the west of the site (see Figure 4). No obvious staining was observed around the AST which was surrounded by scrub vegetation. Substantial tree stumps were observed in the west of the site. The tree stumps appear to be related to a line of cypress trees, as noted on a Detailed Survey by Survey and Engineering Services (reference 130/501 Topo, dated June 2001). Other cypress trees and a screen of cypress trees are noted on the Detailed Survey in the south and the north-east of the site, however these appear to have been removed. Off-site trees were observed in the vicinity, including what appears to be a poplar to the north-east. The site is shown to slope gently downwards in a north-westerly direction from approximately 55.7 metres (m) above Ordnance Datum (AOD) in the south to 53.0m AOD in the north-west. **Figure 2** is presented as the Pre-Clearance Site Layout Plan.

Table 1.2: Site Details	
	Figure 3 is enclosed as Pre-Clearance Site Photographs taken in July 2024.
Surrounding Land Use	The site is surrounded by residential premises of Victoria Road and Purfield Drive, with Victoria News and a Mace convenience store located to the south-west and north-east of the site respectively.
Proposed Land Use	The proposed development works comprise the removal of the existing buildings and the construction of eight new detached and semi-detached dwellings, with private gardens and parking, as well as a new access road. **Figure 4** is presented as the Proposed Development Plan.

1.3 REMEDIATION ACTION PLAN

The site was previously investigated by Aviron which is reported within our Ground Investigation Report, version 2, referenced 24-206.02 and dated April 2025.

Table 1.3 summarises the pertinent environmental risks providing advice on further works and assessment, which are addressed in the aforementioned DS, RS and VP.

Table 1.3: Environment Risk Summary	
Medium	**Comments/Recommendations**
Soils	Pervasive lead (reworked) Topsoil contamination exists across the site. **Figure 5** is enclosed as a Lead 'Topsoil' Contamination Plan, which provides a visual indication of where re-worked Topsoil has been tested across the site and lead concentrations exceed 200mg/kg. A remedial cover system shall be required comprising 600mm of clean cover to private gardens and 300mm of clean cover to communal gardens/frontage/amenity areas.
	Construction workers should be aware local pockets of soil contamination may exist, which due to the nature of ground investigation cannot always be detected. An area of possible local soil contamination previously unidentified is beneath an Above Ground Storage Tank (AST) formerly used to store heating oil which is shown in **Figures 2** and **3**.
	Ensure material encountered is suitable for desired water main and consult local water authority prior to water main installation.
Landfill (Bio) Ground Gas	Preliminary risk assessment determined a VERY LOW risk from hazardous ground gas ingress and no potential sources of risk were identified. One round of ground gas monitoring has been completed which has reported ambient gas concentrations. Ground gas protection is not considered necessary.
Radon Gas	Groundsure GeoInsight report, reference EMS_1062576_1337103 and dated 6 November 2025 has been consulted to determine the radon protection requirement and indicates the site is located in an area where less than 1% of homes are above the Action Level and that radon protection is not required.

1.4 PROJECT VERIFICATION REQUIREMENT

The DS, RS and VP provided a remediation method which recommended the following actions:

1. Complete discovery inspections to assess any previously undiscovered soil contamination.
2. Test any imported Topsoil to complete garden/soft landscaped areas to confirm chemical suitability.
3. Inspect the construction of clean cover systems to ensure a suitable thickness of 'clean' soils upon a membrane in areas of new soft landscaping and gardens.

1.5 VERIFICATION OBJECTIVES

The objective of this report is to gain regulatory and stake holder approval and written confirmation such that the soil verification (inspection) confirms the absence of contaminative risk to site end users. This report has also been prepared to address the requirements of the Local Planning Authority and also development warranty providers.

2.0 IMPORTED TOPSOIL VERIFICATION INSPECTION

2.1 VERIFICATION INSPECTION: IMPORTED TOPSOIL QUALITY

An Aviron Consultant completed a site visit of 14 September 2026 in order to collect samples of imported Topsoil to confirm the chemical of quality of the material for use within private gardens.

At the time of inspection Topsoil had been imported to the rear of Plots 2 to 5 and Plots 6 to 7, however was yet to be formally levelled and dressed such that confirmation of cover thickness could be made. Therefore, only samples of Topsoil were collected.

During this inspection the Client confirmed that during the course of groundworks no previously undiscovered contamination was identified. Specific 'discovery inspection works' in lieu of the potential for undiscovered contamination beneath the former AST in the rear garden of Plot 2 were discussed, which shall be presented in section 3.0.

Table 3.1 summarises the samples of Topsoil collected and submitted for analysis during the site visit of 14 September 2026.

Table 2.1: Topsoil Geochemical Testing

Sample	Strata Sampled	Notes	Analysis
TS1	Dark brown, grey, silty, humic SAND (Topsoil)	Collected as a composite Topsoil sample from outcropping Topsoil to Plots 2 and 3 which had been placed in gardens to awaiting spreading/laying.	ES-1
TS2	Dark brown, grey, silty, humic SAND (Topsoil)	Collected as a composite Topsoil sample from outcropping Topsoil to Plots 4 and 5 which had been placed in gardens to awaiting spreading/laying.	ES-1
TS3	Dark brown, grey, silty, humic SAND (Topsoil)	Collected as a composite Topsoil sample from outcropping Topsoil to Plots 6 and 7 which had been placed in gardens to awaiting spreading/laying.	ES-1

A composite soil sampling strategy was adopted to provide representative analysis of the in-situ Topsoil. This was deemed most appropriate to enable *en mass* soil quality to be determined as it is likely raking, cultivating and surface preparation would be undertaken prior to laying of turf and formal planting. This would agitate and re-distribute the soil and therefore singular 'spot' samples would be inappropriate and not representative the anticipated re-worked conditions of the soil.

In order to create a composite sample, sub-samples were collected by hand excavation from shallow trial holes and placed within a clean bulk sample bag. The sub-samples within the sampling bag were then

homogenised as best as possible to create *en mass* soil representation from which a specimen sample was collected and placed into pre-labelled glass amber jars.

All samples were sent by courier to the UKAS/MCERTS accredited laboratory, i2 Analytical Limited within ice packed cool boxes for the following analysis:

- Aviron's "**ES-1**" suite of laboratory analysis includes; arsenic, barium, cadmium, total chromium, copper, nickel, zinc, lead, mercury, selenium, water soluble boron, total cyanide, total sulphate, water soluble sulphide, speciated Polycyclic Aromatic Hydrocarbons (PAH), speciated Total Petroleum Hydrocarbons (TPH), Benzene, Toluene, Ethylbenzene, Xylenes (BTEX) and Methyl Tert-Butyl Ether (MTBE), organic matter, total phenols, pH and asbestos.

The analysis chosen provides broad and suitable screening of soil contaminants to enable potential risk to human health to be determined and as later described, all samples recorded chemically acceptable concentrations and the absence of asbestos.

2.2 REMEDIATION TARGETS

Aviron has followed the technical approach on Land Contamination Risk Management (LCRM), accessed on gov.uk website and other available guidance to assess contaminant concentrations. LCRM guidance replaces the Contaminated Land Report 11 (CLR11) "Model Procedures for the Management of Land Contamination" prepared by the Environment Agency in 2004. CLR11, which was withdrawn in 2020, provided guidance on the application of management processes when assessing potentially contaminated land.

Details of the methodology and Aviron's position on the adoption of guidance values is outlined below.

The available chemical data, from soil samples tested, is sorted into appropriate datasets depending on sampling regime and ground conditions. An initial generic quantitative risk assessment is completed upon using the relevant tier 1 screening criteria and where appropriate statistical modelling. Risks to human health shall be initially assessed by comparing soil chemical data against various published screening criteria. These have been sourced from the following and in order of preference:

- Category 4 Screening Levels (C4SLs) prepared by the Department of Environmental Food and Rural Affairs (DEFRA) and published March 2014.
- Phase 2 C4SLs prepared by CL:AIRE and published May 2021.
- Suitable 4 Use Levels (S4ULs) prepared by Land Quality Management/Chartered Institute of Environmental Health (LQM/CEIH) and published December 2014. LQM acknowledgement for use

of S4ULs. *"Copyright Land Quality Management Limited reproduced with permission; Publication Number S4UL3275. All rights reserved".*

- Soil Guidance Values (SGVs) prepared by the Environment Agency (EA)/DEFRA and published 2009.
- Soil Generic Assessment Criteria (GAC) prepared by Environment Industries Commission (EIC)/Association of Geotechnical and Geoenvironmental Specialists (AGS)/Contaminated Land: Application In Real Environments (CL:AIRE) and published 2010.

Aviron has adopted the above hierarchy in response to LCRM recommendations.

2.3 REVIEW OF LABORATORY RESULTS

Laboratory certificates of analysis along with the with the necessary Generic Assessment Criteria (GACs) for 'residential with plant uptake' end use (private gardens) are enclosed within **Appendix I**, which indicate:

- Samples **TS1, TS2** and **TS3** from the in-situ Topsoil, recorded **acceptable determinant/chemical concentrations.**

It is considered that the soil chemistry (and physical nature) of the cover system to the new garden of Plots 2, 3, 4, 5, 6 and 7 is acceptable.

3.0 AST REMOVAL VERIFICATION INSPECTION

An Aviron Consultant attended site on 22 September 2026 to complete a 'discovery' inspection in the area of the former AST (Plot 2).

3.1 AST/HYDROCARBON IMPACTED SOIL INSPECTION

The following section documents the site visit completed on 22 September 2026 in order to confirm the presence or absence of any associated hydrocarbon soil contamination following the removal of the AST, which is shown in **Figure 2** and Photograph 7 of **Figure 3**.

The following was observed:

- The Client had pre-excavated a cuboid pit in the area of the former AST measuring approximately 2m long x 1m wide x 0.6m deep.
- Ground conditions within the inspection pit comprised recently imported Topsoil to all sides of the pit (0.6m thick) and within the base of the pit was an orange geotextile membrane.
- The location of the inspection pit is shown in **Figure 6**.
- Within the base of the pit the membrane was cut in order to inspect 'native' soils beneath at three locations (T1, T2 and T3) which are shown in **Figure 6**.
- To investigate in-situ native soil quality hand pitting was used to determine if hydrocarbons were/are present within in-situ soils following AST removal. Thus, in order to achieve this a shallow hand pit was excavated beneath the overlying membrane.
- Ground conditions were inspected beneath the membrane for the presence or absence of residual hydrocarbon contamination and for the purpose of collecting a soil sample from each position for laboratory analysis.
- No visual or olfactory evidence of hydrocarbon contamination was observed.

Photographs of the inspection pit and T1-T3 sample locations are enclosed within **Appendix II**.

Table 3.1 provides a rationale of exploratory hole positioning (**Figure 6**).

Table 3.1: Verification Trial Holes			
Location	**Rationale**	**Soil Conditions**	**Sample taken at**
T1	Targeted to the area of the former AST where hydrocarbon impacted soils may present an occupancy exposure risk to Plot 2.	Brown, silty, slightly gravelly Clay	0.65m
T2		Brown, silty, slightly gravelly Clay	0.65m
T3		Brown, silty, slightly gravelly Clay	0.65m
P2	To determine presence or absence of Lead.	Brown, silty, slightly gravelly Clay	0.65m

Sample locations T1, T2 and T3 were positioned to enable inspection and sampling of 'native' soils. The sample locations were targeted to garden/soft landscaped areas where a risk of exposure from hydrocarbons (if present) may be expected via the investigation pathway.

Additionally, a composite sample of Clay (P2) was analysed for Lead to determine the presence or absence of Lead in lieu of cover system requirement and the breaking of the membrane to obtain samples T1-T3. Upon completion of sampling, pieces of membrane were replaced beneath the 'cut-holes' to the underside of the main section of the membrane to await backfilling of the inspection pit with 'as-dug' imported Topsoil.

All soil samples were collected from excavated arisings by hand using clean latex gloves. A total of four samples were collected.

The samples were placed into pre-labelled glass amber jars. The samples were identified by labelling each jar with the site name, sample number and sample depth.

All samples were sent by courier to the UKAS/MCERTS accredited laboratory, i2 Analytical Limited for speciated Total Petroleum Hydrocarbons (TPH) and Lead analysis; being the contaminants of concern.

3.2 LABORATORY TEST RESULTS

Laboratory certificates of analysis along with the with the necessary Generic Assessment Criteria (GACs) for 'residential with plant uptake' end use (private gardens) are enclosed within **Appendix I** , which indicate:

- Samples **T1, T2** and **T3** from the in-situ native Clay, recorded **acceptable TPH/hydrocarbon concentrations.**
- Sample **P2** from the in-situ native Clay, recorded **acceptable Lead concentrations**, thus limiting a

potential cross contamination risk between underlying Clay and overlying Topsoil following the cutting of the membrane.

The results indicate the absence of hydrocarbon contamination in soils and thus the absence of an exposure risk to future maintenance workers and end users.

4.0 COVER SYSTEM VERIFICATION INSPECTIONS

The following section documents site visits completed in order to inspect the progression of clean cover system works.

4.1 VERIFICATION INSPECTION: COVER SYSTEM THICKNESS

The means of verification was completed by machine excavated trial holes through the recently placed Topsoil cover in garden areas which are shown on **Figure 6** and described in Table 4.1. The trial holes were dug to enable logging, inspection and dimensioning by the Aviron Consultant as follows:

- Visit 1 – 16 October 2026. Inspection of Plots 2, 3, 4 and 5.

Table 4.1 provides a summary, rationale and cover thickness of trial holes completed.

Table 4.1: Verification Trial Holes – Cover System

Location	Date and Rationale	Evidence of deleterious objects	Thickness of Topsoil (m)	Thickness of sub-soil (m)	Membrane?
P1	Not ready for inspection				
P2	16 October 2026 Private Garden to Plot 2	No evidence of delirious objects in garden or excavated arisings	0.6	0	Yes
P3	16 October 2026 Private Garden to Plot 3	No evidence of delirious objects in garden or excavated arisings	0.6	0	Yes
P4	16 October 2026 Private Garden to Plot 4	No evidence of delirious objects in garden or excavated arisings	0.6	0	Yes
P5	16 October 2026 Private Garden to Plot 5	No evidence of delirious objects in garden or excavated arisings	0.6	0	Yes
P6	Not ready for inspection				
P7	Not ready for inspection				
P8	Not ready for inspection				

Enclosed within **Appendix II** are Site Inspection Photographs of the Trial Holes proving the depth of Topsoil.

All depth measurement in table 4.1 were completed using a standard tape measure. The levelling staff has been applied to the photographs visually demonstrate with a larger measuring scale.

It is concluded that a suitable cover system has been constructed which required a minimum of 600mm/0.6m (private gardens) 'cover' upon a geotextile membrane.

The physical inspection confirms the absence of deleterious objects within the cover system.

5.0 RISK ASSESSMENT

5.1 METHODOLOGY

A Conceptual Site Model (CSM) has been prepared in accordance with LCRM based on the information obtained as part of this verification exercise which in turn was derived from previous risk assessment works. Possible risks associated with potential sources of contamination and sensitive receptors identified have been assessed via a source-pathway-receptor (SPR) model in accordance with current UK protocols. A risk may only exist where a plausible SPR linkage is presented and where the quantity or concentration of a contaminant is sufficient to pose harm. Under the statutory definition "Contamination" may only exist where contaminants pose a risk of harm to a receptor. Risk may be defined as a function of the likelihood and severity of any adverse effects resulting from a contamination event. This risk classification has been assessed in accordance with CIRIA C552. A summary of how risk is derived and the associated definition is presented in tables 5.1.1 and 5.1.2.

Table 5.1.1: Risk Ratings Matrix

	Consequence			
Probability	**Severe**	**Medium**	**Mild**	**Minor**
High Likelihood	Very high risk	High risk	Moderate Risk	Moderate/low risk
Likely	High risk	Moderate Risk	Moderate/low risk	Low risk
Low Likelihood	Moderate Risk	Moderate/low risk	Low risk	Very low risk
Unlikely	Moderate/low risk	Low risk	Very low risk	Very low risk

Table 5.1.2: Risk Ratings Definition

Risk Rationale	Definition
Very high risk	A high probability that severe harm could occur to determined receptor from identified contaminant - OR - evidence exists that severe harm to receptor is currently occurring. Urgent investigation and remediation should be considered. If demonstrated this risk is likely to result in substantial liability.
High risk	Harm is likely to occur to determined receptor from identified contaminant. Urgent investigation and short-term risk minimisation remediation followed by longer term fit for purpose remediation should be considered. If demonstrated this risk is likely to result in substantial liability.
Moderate Risk	It is possible that harm could occur to a determined receptor from identified contaminant. It is relatively unlikely that any harm would be severe or should harm occur it is likely to be relatively mild.
Moderate/low risk	It is possible that harm could occur to a determined receptor from identified contaminant. It is unlikely that any harm would be severe or should harm occur it is probable to be relatively mild.
Low risk	It is possible that harm could occur to a determined receptor from identified contaminant. It is unlikely that such harm, if indeed present, would at worst be mild.
Very low risk	There is a low possibility that harm could occur to a receptor. In such event the harm would not be severe.

5.2 SUMMARY OF POLLUTANT LINKAGES FOR PROPOSED LAND USE - CSM

The initial CSM is based upon the proposed site end use and the information currently consulted relating to various risk sources and plausible pollutant linkages and is presented within Table 5.2.

Table 5.2: Conceptual Site Model (for plausible pollutant linkage pathways)

Source	Receptor	Pathway	Probability	Consequence	Risk & Justification
Native TPH Soil Contamination (AST/Plot 2)	Construction workers	Direct contact	Unlikely	Minor	Very Low No visual or olfactory evidence of hydrocarbons within native Clay soils about the position of the former AST in the garden of Plot 2. Samples submitted TPH analysis (T1-T3) recorded acceptable TPH concentrations.
	End users	Direct contact	Unlikely	Minor	
	Adjacent land users	Direct contact via run-off	Unlikely	Minor	
	Soft landscaping	Root uptake	Unlikely	Minor	
	Water supply pipes	Direct contact	Unlikely	Minor	
	Buildings & infrastructure	Direct contact	Unlikely	Minor	
Native Lead Soil Contamination	Construction workers	Direct contact	Unlikely	Minor	Very Low Suitable cover system in place upon geotextile membrane acting as a capillary break to prevent soil mixing between imported 'clean' soil and any underlying Made Ground
	End users	Direct contact	Unlikely	Minor	
	Adjacent land users	Direct contact via run-off	Unlikely	Minor	
	Soft landscaping	Root uptake	Unlikely	Minor	
	Water supply pipes	Direct contact	Unlikely	Minor	
	Buildings & infrastructure	Direct contact	Unlikely	Minor	
Contaminants within imported Topsoil to new gardens	End users Soft Landscaping	Direct contact	Unlikely	Minor	Very Low All concentrations of determinants recorded at acceptable concentrations within imported soil.

It is considered that soil conditions at **Plots 2, 3, 4 and 5** present a **VERY LOW** risk and no further assessment of these Plots is considered necessary.

6.0 CONCLUSIONS

6.1 PLOTS 2, 3, 4 + 5 - COMPLETE

The imported Topsoil used within the cover system sampled as TS1, TS2 and TS3 recorded acceptable soil chemistry.

No previously undiscovered soil contamination has been reported by the Client and the 'discovery inspection' about the area of the former AST/Plot 2 has recorded the absence of hydrocarbon (TPH) contamination.

A thickness of 600mm/0.6m of clean cover has been constructed within completed private gardens to Plots 2, 3, 4 and 5 as verified within the corresponding trial holes.

It is considered that in-situ soils within soft landscaped areas do not present a chemical risk to human health from dermal contact, ingestion, inhalation or gassing via organic degradation.

The completed gardens and soft landscaping are considered fit for purpose and no further assessment is considered necessary.

6.2 PLOTS 1, 6, 7 + 8 – OUTSTANDING

Any 'newly' imported Topsoil imported to site, required to complete the gardens of Plots 1, 6, 7 and 8 shall need to be similarly sampled and tested. It is envisaged a comparatively small volume of Topsoil shall be necessary as Plots 6 and 7 have Topsoil laid, the garden to Plot 8 is small (and may be hard landscape) and thus only a 'bulk' volume of Topsoil to the garden of Plot 1 shall be necessary.

A similar verification trial hole excavation exercise shall be necessary to prove the cover systems to gardens of Plots 1, 6, 7 and 8 to verify the necessary 0.6m/600mm of 'clean' imported Topsoil upon a geotextile membrane.

7.0 PROJECT INSTRUCTION AND LIMITATIONS

7.1 SCOPE OF WORKS

The following scope of work was undertaken in accordance with an agreed proposal prior to the works:

- Attend site as instructed to complete a site inspection, collect soil samples for verification analysis.
- All soil samples shall be collected in accordance with the instruction and ground conditions and submitted to UKAS/MCERTS accredited laboratories for testing.
- Prepare a Verification Report to document the exercise and determine if the site is suitable for use.

Aviron has relied upon information received from the Client and their agents as accurate, unless contradicted by written documentation or site observations.

7.2 PUBLISHED GUIDANCE

This report follows the technical approach presented on Land contamination risk management (LCRM), accessed on gov.uk website. The guidance replaced the Contaminated Land Report 11 (CLR11) "Model Procedures for the Management of Land Contamination" prepared by the Environment Agency in 2004. CLR11, which was withdrawn in 2020, provided guidance on the application of management processes when assessing potentially contaminated land.

This project and report have been designed to fulfil the information requirements set out in LCRM. This report is additionally prepared in accordance with current guidance notes, standards and practices as set out by the Environment Agency and statutory organisations in order to establish potential and significant contaminant linkages as defined in Part IIA of the Environmental Protection Act 1990.

7.3 LIMITATIONS

Aviron's scope of work has been designed to meet the timeframe and budgets. As such it may follow that further work would be prudent upon evaluation of the ground conditions. The scope of work provided shall provide a view of site conditions and understanding of potential geo-environmental risks and possible mitigation procedures.

The information used in this report has been derived from the site investigation, which in turn were based on known current and historical land uses identified at the site and surrounding area, available to Aviron at the time of the investigation.

The selected intrusive investigation locations were based on available data and are intended to inform the site-specific risk assessment. As such, only the areas assessed through these investigation points are considered in this report. It should therefore be acknowledged that portions of the site remain unexamined, and it is possible that conditions exist in these areas which could not be identified due to the limitations of available evidence, time, or budget constraints.

This report has been prepared in accordance with current legislation, statutory guidance, and industry best practices at the time of issue. Should relevant regulations or guidance change following publication, the content and conclusions of this report should be reviewed in light of those changes.

Furthermore, if a significant period elapses between the issue date of this report and its application, changes in site conditions may occur. In particular, the findings of the site inspection may no longer be valid if the site's use or condition has changed during the intervening period.

8.0 REFERENCES AND OTHER SOURCES OF INFORMATION

Aviron. Reports listed in section 1.0.

BS EN ISO 22475-1 Geotechnical investigation and testing - sampling methods and groundwater measurements.

BS10175: 2011. British Standards Institute. Investigation of Potentially Contaminated Land - Code of Practice

LQM/CIEH: Paul Nathanail, Caroline McCaffrey, Andy Gillett, Richard Ogden and Judith Nathanail. 2014. The LQM/CIEH S4ULs for Human Health Risk Assessment. Land Quality Press, Nottingham. ISBN 978-0-9931084-0-2. "Copyright Land Quality Management Limited reproduced with permission; Publication number S4UL3275. All rights reserved"

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SR2: Human health toxicological assessment of contaminants in soil, Science Report SC050021/SR2, Environment Agency, August 2008.

SR7: Compilation of Data for Priority Organic Pollutants for Derivation of Soil Guideline Values, Science Report SC050021/SR7, Environment Agency, November 2008.

Environment Agency. July 2005. Guidance on Requirements for Land Contamination Reports.

Figures

1 Site Location Plan

2 Pre-Clearance Site Layout Plan

3 Pre-Clearance Site Photographs

4 Proposed Development Plan

5 Lead 'Topsoil' Contamination Plan

6 Verification Sample Plan



Legend

Site Boundary

Notes

Figure 1

Drawing Title

Existing Site Layout and Location Plan

Project Number	24-206.08

Project Title

Victoria Nurseries, Victoria Road, Wargrave, RG10 8AG

Drawn By	DN
Checked By	JB
Scale	NTS

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Legend

- Photo Direction
- Oil Tank
- Corrugated Cement (Asbestos) Sheets

Notes

Figure 2

Drawing Title

Existing Site Layout Plan

Project Number	24-206.08
Project Title	Victoria Nurseries, Victoria Road, Wargrave, RG10 8AG
Drawn By	DN
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Scale	NTS

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Photo 1



Photo 2



Photo 3



Photo 4



Photo 5



Photo 6



Photo 7

Photo 7

Legend

Notes

Figure 4

Drawing Title

Site Photos (as of 19/07/2024)

Project Number	24-206.08
Project Title	Victoria Nurseries, Victoria Road, Wargrave, RG10 8AG
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Legend

Notes

Figure 4

Drawing Title

Proposed Landscaping Plan

Project Number	24-206.08

Project Title

Victoria Nurseries, Victoria Road, Wargrave, RG10 8AG

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Legend

'Contaminated' Location

'Uncontaminated' Location

Notes

Where re-worked Topsoil was not tested, denotation is not made.

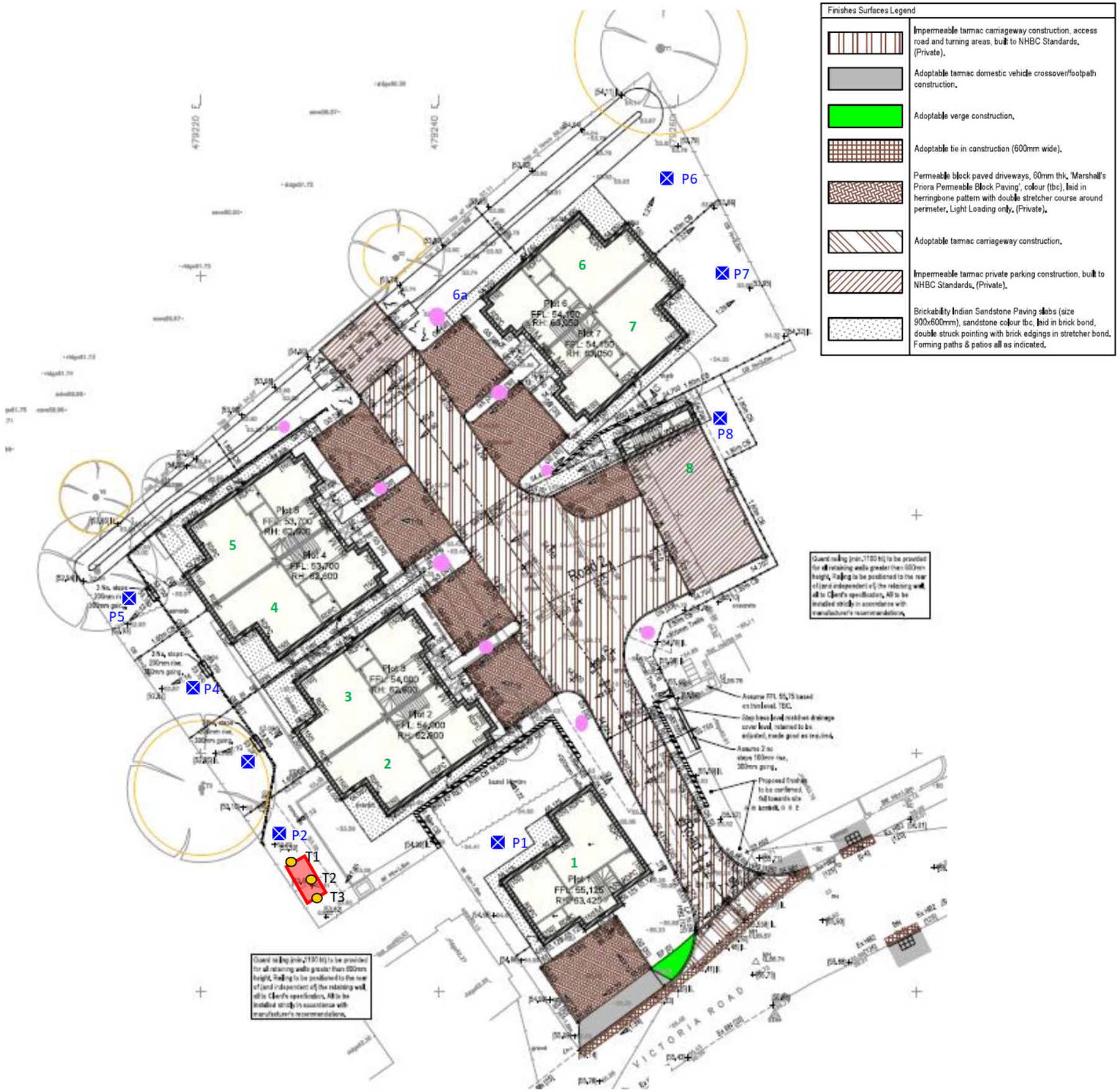
Figure 5

Drawing Title

Lead 'Topsoil' Contamination Plan

Project Number	24-206.08
Project Title	Victoria Nurseries, Victoria Road, Wargrave, RG10 8AG
Drawn By	DN
Checked By	JB
Scale	NTS

Aviron Associates Limited - Badgemore House - Gravel Hill - Henley on Thames - RG9 4NR - T: 01491 413 722 - M: 07787 771 686 - E: james@aviron.co.uk



Legend

- AST
- AST Verification Sample
- Cover System Verification Hand Pit

Notes

Figure 6

Drawing Title

Remediation and Verification Plan

Project Number	24-206.08
Project Title	Victoria Nurseries, Victoria Road, Wargrave, RG10 8AG
Drawn By	DN
Checked By	JB
Scale	NTS

Aviron Associates Limited - Badgemore House - Gravel Hill - Henley on Thames - RG9 4NR - T: 01491 413 722 - M: 07787 771 686 - E: james@aviron.co.uk

Appendices

I Laboratory Certificates of Analysis and Assessment Criteria

II Verification Photographs

Appendix

I Laboratory Certificates of Analysis and Assessment Criteria

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Analytical Report Number : 26-051118

Project / Site name:	Victoria Nurseries, Victoria Road, Wargrave, RG10 8AG	**Samples received on:**	16/09/2026
Your job number:	24-206.04	**Samples instructed on/ Analysis started on:**	16/09/2026
Your order number:	24-206.04	**Analysis completed by:**	30/09/2026
Report Issue Number:	1	**Report issued on:**	01/10/2026
Samples Analysed:	3 soil samples		

[redacted]

Signed:

Eric Crociquia
Customer Service
For & on behalf of i2 Analytical Ltd.

Standard Geotechnical, Asbestos and Chemical Testing Laboratory located at: ul. Pionierów 39, 41-711 Ruda Śląska, Poland.

Accredited tests are defined within the report, opinions and interpretations expressed herein are outside the scope of accreditation.

Standard sample disposal times, unless otherwise agreed with the laboratory, are :

soils	- 4 weeks from reporting
leachates	- 2 weeks from reporting
waters	- 2 weeks from reporting
asbestos	- 6 months from reporting
air	- once the analysis is complete

Excel copies of reports are only valid when accompanied by this PDF certificate.

Retention period for records and reports is minimum 6 years from the date of issue of the final report.
Some records may be kept for longer according to other legal/best practice requirements.

Any assessments of compliance with specifications are based on actual analytical results with no contribution from uncertainty of measurement.
Application of uncertainty of measurement would provide a range within which the true result lies.
An estimate of measurement uncertainty can be provided on request.

This certificate should not be reproduced, except in full, without the express permission of the laboratory.
The results included within the report are representative of the samples submitted for analysis.

Analytical Report Number: 26-051118
Project / Site name: Victoria Nurseries, Victoria Road, Wargrave, RG10 8AG
Your Order No: 24-206.04

Lab Sample Number				1051280	1051281	1051282
Sample Reference				TS1	TS2	TS3
Sample Number				None Supplied	None Supplied	None Supplied
Water Matrix				N/A	N/A	N/A
Depth (m)				0.10	0.10	0.10
Date Sampled				14/09/2026	14/09/2026	14/09/2026
Time Taken				None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Test Limit of detection	Test Accreditation Status			
Mass of stone >10mm	%	0.1	NONE	< 0.1	3.3	< 0.1
Moisture Content	%	0.01	NONE	9	9	8.8
Total mass of sample received	kg	0.1	NONE	0.6	0.6	0.5
Asbestos						
Asbestos in Soil Detected/Not Detected	Type	N/A	ISO 17025	Not-detected	Not-detected	Not-detected
Asbestos Analyst ID	N/A	N/A	N/A	CAD	CAD	CAD
Analysis completed	N/A	N/A	N/A	24/09/2026	24/09/2026	24/09/2026
General Inorganics						
pH (L099)	pH Units	N/A	MCERTS	7.1	7.3	7.7
Total Cyanide	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0
Total Sulphate as SO_4	mg/kg	50	MCERTS	4500	6400	5400
Water Soluble Sulphate as SO_4 16hr extraction (2:1)	mg/kg	2.5	MCERTS	3600	970	3500
Water Soluble SO_4 16hr extraction (2:1 Leachate Equivalent	mg/l	1.25	MCERTS	1790	487	1740
Total Sulphur	mg/kg	50	MCERTS	2100	1700	1600
Organic Matter (automated)	%	0.1	MCERTS	7.2	7	8.4
Total Phenols						
Total Phenols (monohydric)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0
Speciated PAHs						
Naphthalene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05
Acenaphthylene	mg/kg	0.05	MCERTS	0.14	0.18	0.13
Acenaphthene	mg/kg	0.05	MCERTS	0.09	0.06	0.13
Fluorene	mg/kg	0.05	MCERTS	0.1	0.12	0.15
Phenanthrene	mg/kg	0.05	MCERTS	1.3	1.3	1.2
Anthracene	mg/kg	0.05	MCERTS	0.43	0.35	0.39
Fluoranthene	mg/kg	0.05	MCERTS	3.5	2.6	2.3
Pyrene	mg/kg	0.05	MCERTS	3.1	2.3	2
Benzo(a)anthracene	mg/kg	0.05	MCERTS	2	1.6	1.3
Chrysene	mg/kg	0.05	MCERTS	1.8	1.4	1.3
Benzo(b)fluoranthene	mg/kg	0.05	ISO 17025	2.4	2	1.7
Benzo(k)fluoranthene	mg/kg	0.05	ISO 17025	1.3	0.99	0.96
Benzo(a)pyrene	mg/kg	0.05	MCERTS	2.2	1.8	1.6
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	1.1	0.93	0.8
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	0.25	0.21	0.17
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	1.3	1.1	0.98
Total PAH						
Speciated Total EPA-16 PAHs	mg/kg	0.8	ISO 17025	21	16.9	15.1

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Analytical Report Number: 26-051118
Project / Site name: Victoria Nurseries, Victoria Road, Wargrave, RG10 8AG
Your Order No: 24-206.04

Lab Sample Number				1051280	1051281	1051282
Sample Reference				TS1	TS2	TS3
Sample Number				None Supplied	None Supplied	None Supplied
Water Matrix				N/A	N/A	N/A
Depth (m)				0.10	0.10	0.10
Date Sampled				14/09/2026	14/09/2026	14/09/2026
Time Taken				None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Test Limit of detection	Test Accreditation Status			
Heavy Metals / Metalloids						
Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	11	11	10
Boron (water soluble)	mg/kg	0.2	MCERTS	4.5	4.2	3.4
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	0.6	0.2	0.3
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	21	19	19
Copper (aqua regia extractable)	mg/kg	1	MCERTS	41	38	35
Lead (aqua regia extractable)	mg/kg	1	MCERTS	110	89	280
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	0.3	0.4	< 0.3
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	15	13	14
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	140	130	200
Petroleum Hydrocarbons						
TPHCWG - Aliphatic >EC5 - EC6 $_{HS_1D_AL}$	mg/kg	0.01	MCERTS	< 0.010	< 0.010	< 0.010
TPHCWG - Aliphatic >EC6 - EC8 $_{HS_1D_AL}$	mg/kg	0.01	MCERTS	< 0.010	< 0.010	< 0.010
TPHCWG - Aliphatic >EC8 - EC10 $_{HS_1D_AL}$	mg/kg	0.01	MCERTS	< 0.010	< 0.010	< 0.010
TPHCWG - Aliphatic >EC10 - EC12 $_{EH_CU_1D_AL}$	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0
TPHCWG - Aliphatic >EC12 - EC16 $_{EH_CU_1D_AL}$	mg/kg	2	MCERTS	< 2.0	< 2.0	< 2.0
TPHCWG - Aliphatic >EC16 - EC21 $_{EH_CU_1D_AL}$	mg/kg	8	MCERTS	< 8.0	< 8.0	< 8.0
TPHCWG - Aliphatic >EC21 - EC35 $_{EH_CU_1D_AL}$	mg/kg	8	MCERTS	10	20	16
TPHCWG - Aliphatic >EC5 - EC35 $_{EH_CU+HS_1D_AL}$	mg/kg	10	NONE	10	20	16
TPHCWG - Aromatic >EC5 - EC7 $_{HS_1D_AR}$	mg/kg	0.01	MCERTS	< 0.010	< 0.010	< 0.010
TPHCWG - Aromatic >EC7 - EC8 $_{HS_1D_AR}$	mg/kg	0.01	MCERTS	< 0.010	< 0.010	< 0.010
TPHCWG - Aromatic >EC8 - EC10 $_{HS_1D_AR}$	mg/kg	0.02	MCERTS	< 0.020	< 0.020	< 0.020
TPHCWG - Aromatic >EC10 - EC12 $_{EH_CU_1D_AR}$	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0
TPHCWG - Aromatic >EC12 - EC16 $_{EH_CU_1D_AR}$	mg/kg	2	MCERTS	< 2.0	< 2.0	< 2.0
TPHCWG - Aromatic >EC16 - EC21 $_{EH_CU_1D_AR}$	mg/kg	10	MCERTS	< 10	< 10	< 10
TPHCWG - Aromatic >EC21 - EC35 $_{EH_CU_1D_AR}$	mg/kg	10	MCERTS	33	33	41
TPHCWG - Aromatic >EC5 - EC35 $_{EH_CU+HS_1D_AR}$	mg/kg	10	NONE	33	33	41
VOCs						
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0
Benzene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0
Toluene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0
Ethylbenzene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0
p & m-Xylene	µg/kg	8	MCERTS	< 8.0	< 8.0	< 8.0
o-Xylene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0

U/S = Unsuitable Sample I/S = Insufficient Sample ND = Not detected

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Analytical Report Number : 26-051118
Project / Site name: Victoria Nurseries, Victoria Road, Wargrave, RG10 8AG

* These descriptions are only intended to act as a cross check if sample identities are questioned. The major constituent of the sample is intended to act with respect to MCERTS validation. The laboratory is accredited for sand, clay and loam (MCERTS) soil types. Data for unaccredited types of solid should be interpreted with care.

Stone content of a sample is calculated as the % weight of the stones not passing a 10 mm sieve. Results are not corrected for stone content.

Lab Sample Number	Sample Reference	Sample Number	Depth (m)	Sample Description *
1051280	TS1	None Supplied	0.1	Brown loam and sand with vegetation and gravel
1051281	TS2	None Supplied	0.1	Brown loam and sand with stones and vegetation
1051282	TS3	None Supplied	0.1	Brown loam and sand with vegetation and gravel

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Analytical Report Number : 26-051118
Project / Site name: Victoria Nurseries, Victoria Road, Wargrave, RG10 8AG

Water matrix abbreviations:
Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Waters Heating/Cooling (PrW) DI Process Water (DI PrW)
Final Sewage Effluent (FSE) Landfill Leachate (LL)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
Asbestos identification in Soil	Asbestos Identification with the use of polarised light microscopy in conjunction with dispersion staining techniques	In-house method based on HSG 248, 2021	A001B	D	ISO 17025
Organic matter (Automated) in soil	Determination of organic matter in soil by oxidising with potassium dichromate followed by titration with iron (II) sulphate (Walkley Black Method)	In-house method	L009B	D	MCERTS
Moisture Content (Wet Weight)	Moisture content (% wet weight), determined gravimetrically (up to 30°C)	In-house-procedure based on BS EN 12880:2000	L019B	W	NONE
Stones content of soil	Standard preparation for all samples unless otherwise detailed. Gravimetric determination of stone > 10 mm as % dry weight	In-house method based on British Standard Methods and MCERTS requirements.	L019B	D	NONE
Metals in soil by ICP-OES	Determination of metals in soil by aqua-regia digestion followed by ICP-OES	In-house method based on MEWAM 2006 Methods for the Determination of Metals in Soil	L038B	D	MCERTS
Boron, water soluble, in soil	Determination of water soluble boron in soil by hot water extract followed by ICP-OES	In-house method based on Second Site Properties version 3	L038B	D	MCERTS
Total sulphate (as SO4 in soil)	Determination of total sulphate in soil by extraction with 10% HCl followed by ICP-OES	In-house method	L038B	D	MCERTS
Sulphate, water soluble, in soil (16hr extraction)	Sulphate, water soluble, in soil (16hr extraction)	In-house method	L038B	D	MCERTS
Total Sulphur in soil	Determination of total sulphur in soil by extraction with aqua-regia, potassium bromide/bromate followed by ICP-OES	In-house method	L038B	D	MCERTS
Speciated PAHs and/or Semi-volatile organic compounds in soil	Determination of semi-volatile organic compounds (including PAH) in soil by extraction in dichloromethane and hexane followed by GC-MS	In-house method based on USEPA 8270	L064B	D	MCERTS
BTEX and/or Volatile organic compounds in soil	Determination of volatile organic compounds in soil by headspace GC-MS	In-house method based on USEPA 8260	L073B	W	MCERTS
Total petroleum hydrocarbons with carbon banding by GC-FID in soil	Determination of total petroleum hydrocarbons in soil by GC-FID with carbon banding aliphatic and aromatic	In-house method	L076B	D	MCERTS
Total petroleum hydrocarbons with carbon banding by GC-FID/GC-MS HS in soil (Summed Bands)	Determination of total petroleum hydrocarbons in soil by GC-FID/GC-MS HS with carbon banding aliphatic and aromatic (Summed Bands).	Calculation	L076B/L088-PL	D/W	NONE
Monohydric phenols in soil	Determination of phenols in soil by extraction with sodium hydroxide followed by distillation followed by colorimetry	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton	L080-PL	W	MCERTS
Total cyanide in soil	Determination of total cyanide by distillation followed by colorimetry	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton	L080-PL	W	MCERTS

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Analytical Report Number : 26-051118
Project / Site name: Victoria Nurseries, Victoria Road, Wargrave, RG10 8AG

Water matrix abbreviations:
Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Waters Heating/Cooling (PrW) DI Process Water (DI PrW)
Final Sewage Effluent (FSE) Landfill Leachate (LL)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
Total petroleum hydrocarbons with carbon banding by HS-GC/MS in soil	Determination of total petroleum hydrocarbons in soil by HS-GC/MS with carbon banding aliphatic and aromatic	In-house method	L088-PL	W	MCERTS
pH in soil (automated)	Determination of pH in soil by addition of water followed by automated electrometric measurement	In-house method	L099-PL	D	MCERTS
Soil Descriptions	Textural classification	In-house method	L019B	W	NONE

For method numbers ending in 'UK' or 'A' analysis have been carried out in our laboratory in the United Kingdom (Watford).
For method numbers ending in 'F' analysis have been carried out in our laboratory in the United Kingdom (East Kilbride).
For method numbers ending in 'PL' or 'B' analysis have been carried out in our laboratory in Poland.
Soil analytical results are expressed on a dry weight basis. Where analysis is carried out on as-received the results obtained are multiplied by a moisture correction factor that is determined gravimetrically using the moisture content which is carried out at a maximum of 30oC.
Unless otherwise indicated, site information, order number, project number, sampling date, time, sample reference and depth are provided by the client. The instructed on date indicates the date on which this information was provided to the laboratory.

Where coal tar is reported as "indicative/not indicative", PAH source attribution has been assessed using the ratio of parent PAHs to alkylated PAHs to indicate a likely pyrogenic (coal tar–related) or petrogenic (bitumen-related) origin. This assessment is independent of total residue and/or benzo(a)pyrene concentrations and is provided for indicative purposes only; it represents a single line of evidence and does not, in isolation, constitute confirmation or classification as hazardous under WM3 guidance.

Quality control parameter failure associated with individual result applies to calculated sum of individuals.
The result for sum should be interpreted with caution

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e: info-i2analytical@normecgroup.com

Analytical Report Number : 26-052429

Project / Site name:	Victoria Nurseries, Victoria Road, Wargrave, RG10 8AG	**Samples received on:**	23/09/2026
Your job number:	24-206.04	**Samples instructed on/ Analysis started on:**	23/09/2026
Your order number:	24-206.04	**Analysis completed by:**	01/10/2026
Report Issue Number:	1	**Report issued on:**	01/10/2026
Samples Analysed:	4 soil samples		

[redacted]

Signed:

Eric Crociquia
Customer Service
For & on behalf of i2 Analytical Ltd.

Standard Geotechnical, Asbestos and Chemical Testing Laboratory located at: ul. Pionierów 39, 41-711 Ruda Śląska, Poland.

Accredited tests are defined within the report, opinions and interpretations expressed herein are outside the scope of accreditation.

Standard sample disposal times, unless otherwise agreed with the laboratory, are :

soils	- 4 weeks from reporting
leachates	- 2 weeks from reporting
waters	- 2 weeks from reporting
asbestos	- 6 months from reporting
air	- once the analysis is complete

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Retention period for records and reports is minimum 6 years from the date of issue of the final report.
Some records may be kept for longer according to other legal/best practice requirements.

Any assessments of compliance with specifications are based on actual analytical results with no contribution from uncertainty of measurement.
Application of uncertainty of measurement would provide a range within which the true result lies.
An estimate of measurement uncertainty can be provided on request.

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The results included within the report are representative of the samples submitted for analysis.

Analytical Report Number: 26-052429
Project / Site name: Victoria Nurseries, Victoria Road, Wargrave, RG10 8AG
Your Order No: 24-206.04

Lab Sample Number				1058609	1058610	1058611	1058612
Sample Reference				T1	T2	T3	P2
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied
Water Matrix				N/A	N/A	N/A	N/A
Depth (m)				0.65	0.65	0.65	0.65
Date Sampled				22/09/2026	22/09/2026	22/09/2026	22/09/2026
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Test Limit of detection	Test Accreditation Status				
Mass of stone >10mm	%	0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1
Moisture Content	%	0.01	NONE	12	13	13	20
Total mass of sample received	kg	0.1	NONE	0.4	0.4	0.4	0.7
Heavy Metals / Metalloids							
Lead (aqua regia extractable)	mg/kg	1	MCERTS	-	-	-	4.8
Petroleum Hydrocarbons							
TPHCWG - Aliphatic >EC5 - EC6 $_{HS_1D_AL}$	mg/kg	0.01	MCERTS	< 0.010	< 0.010	< 0.010	-
TPHCWG - Aliphatic >EC6 - EC8 $_{HS_1D_AL}$	mg/kg	0.01	MCERTS	< 0.010	< 0.010	< 0.010	-
TPHCWG - Aliphatic >EC8 - EC10 $_{HS_1D_AL}$	mg/kg	0.01	MCERTS	< 0.010	< 0.010	< 0.010	-
TPHCWG - Aliphatic >EC10 - EC12 $_{EH_CU_1D_AL}$	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	-
TPHCWG - Aliphatic >EC12 - EC16 $_{EH_CU_1D_AL}$	mg/kg	2	MCERTS	< 2.0	< 2.0	< 2.0	-
TPHCWG - Aliphatic >EC16 - EC21 $_{EH_CU_1D_AL}$	mg/kg	8	MCERTS	< 8.0	< 8.0	< 8.0	-
TPHCWG - Aliphatic >EC21 - EC35 $_{EH_CU_1D_AL}$	mg/kg	8	MCERTS	< 8.0	< 8.0	< 8.0	-
TPHCWG - Aliphatic >EC5 - EC35 $_{EH_CU+HS_1D_AL}$	mg/kg	10	NONE	< 10	< 10	< 10	-
TPHCWG - Aromatic >EC5 - EC7 $_{HS_1D_AR}$	mg/kg	0.01	MCERTS	< 0.010	< 0.010	< 0.010	-
TPHCWG - Aromatic >EC7 - EC8 $_{HS_1D_AR}$	mg/kg	0.01	MCERTS	< 0.010	< 0.010	< 0.010	-
TPHCWG - Aromatic >EC8 - EC10 $_{HS_1D_AR}$	mg/kg	0.02	MCERTS	< 0.020	< 0.020	< 0.020	-
TPHCWG - Aromatic >EC10 - EC12 $_{EH_CU_1D_AR}$	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	-
TPHCWG - Aromatic >EC12 - EC16 $_{EH_CU_1D_AR}$	mg/kg	2	MCERTS	< 2.0	< 2.0	< 2.0	-
TPHCWG - Aromatic >EC16 - EC21 $_{EH_CU_1D_AR}$	mg/kg	10	MCERTS	11	< 10	< 10	-
TPHCWG - Aromatic >EC21 - EC35 $_{EH_CU_1D_AR}$	mg/kg	10	MCERTS	16	< 10	< 10	-
TPHCWG - Aromatic >EC5 - EC35 $_{EH_CU+HS_1D_AR}$	mg/kg	10	NONE	27	< 10	< 10	-
VOCs							
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	-
Benzene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	-
Toluene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	-
Ethylbenzene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	-
p & m-Xylene	µg/kg	8	MCERTS	< 8.0	< 8.0	< 8.0	-
o-Xylene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	-

U/S = Unsuitable Sample I/S = Insufficient Sample ND = Not detected

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The results included within the report are representative of the samples submitted for analysis.

Analytical Report Number : 26-052429
Project / Site name: Victoria Nurseries, Victoria Road, Wargrave, RG10 8AG

* These descriptions are only intended to act as a cross check if sample identities are questioned. The major constituent of the sample is intended to act with respect to MCERTS validation. The laboratory is accredited for sand, clay and loam (MCERTS) soil types. Data for unaccredited types of solid should be interpreted with care.

Stone content of a sample is calculated as the % weight of the stones not passing a 10 mm sieve. Results are not corrected for stone content.

Lab Sample Number	Sample Reference	Sample Number	Depth (m)	Sample Description *
1058609	T1	None Supplied	0.65	Brown clay and sand with gravel
1058610	T2	None Supplied	0.65	Brown clay and sand with gravel
1058611	T3	None Supplied	0.65	Brown clay and sand with gravel and vegetation
1058612	P2	None Supplied	0.65	Brown clay and sand with gravel

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The results included within the report are representative of the samples submitted for analysis.

Analytical Report Number : 26-052429
Project / Site name: Victoria Nurseries, Victoria Road, Wargrave, RG10 8AG

Water matrix abbreviations:
Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Waters Heating/Cooling (PrW) DI Process Water (DI PrW)
Final Sewage Effluent (FSE) Landfill Leachate (LL)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
Moisture Content (Wet Weight)	Moisture content (% wet weight), determined gravimetrically (up to 30°C)	In-house-procedure based on BS EN 12880:2000	L019B	W	NONE
Stones content of soil	Standard preparation for all samples unless otherwise detailed. Gravimetric determination of stone > 10 mm as % dry weight	In-house method based on British Standard Methods and MCERTS requirements.	L019B	D	NONE
BTEX and/or Volatile organic compounds in soil	Determination of volatile organic compounds in soil by headspace GC-MS	In-house method based on USEPA 8260	L073B	W	MCERTS
Total petroleum hydrocarbons with carbon banding by GC-FID in soil	Determination of total petroleum hydrocarbons in soil by GC-FID with carbon banding aliphatic and aromatic	In-house method	L076B	D	MCERTS
Total petroleum hydrocarbons with carbon banding by GC-FID/GC-MS HS in soil (Summed Bands)	Determination of total petroleum hydrocarbons in soil by GC-FID/GC-MS HS with carbon banding aliphatic and aromatic (Summed Bands).	Calculation	L076B/L088-PL	D/W	NONE
Total petroleum hydrocarbons with carbon banding by HS-GC/MS in soil	Determination of total petroleum hydrocarbons in soil by HS-GC/MS with carbon banding aliphatic and aromatic	In-house method	L088-PL	W	MCERTS
Soil Descriptions	Textural classification	In-house method	L019B	W	NONE
Metals in soil by ICP-OES	Determination of metals in soil by aqua-regia digestion followed by ICP-OES	In-house method based on MEWAM 2006 Methods for the Determination of Metals in Soil	L038B	D	MCERTS

For method numbers ending in 'UK' or 'A' analysis have been carried out in our laboratory in the United Kingdom (Watford).
For method numbers ending in 'F' analysis have been carried out in our laboratory in the United Kingdom (East Kilbride).
For method numbers ending in 'PL' or 'B' analysis have been carried out in our laboratory in Poland.
Soil analytical results are expressed on a dry weight basis. Where analysis is carried out on as-received the results obtained are multiplied by a moisture correction factor that is determined gravimetrically using the moisture content which is carried out at a maximum of 30oC.
Unless otherwise indicated, site information, order number, project number, sampling date, time, sample reference and depth are provided by the client. The instructed on date indicates the date on which this information was provided to the laboratory.

Where coal tar is reported as "indicative/not indicative", PAH source attribution has been assessed using the ratio of parent PAHs to alkylated PAHs to indicate a likely pyrogenic (coal tar–related) or petrogenic (bitumen-related) origin. This assessment is independent of total residue and/or benzo(a)pyrene concentrations and is provided for indicative purposes only; it represents a single line of evidence and does not, in isolation, constitute confirmation or classification as hazardous under WM3 guidance.

Quality control parameter failure associated with individual result applies to calculated sum of individuals.
The result for sum should be interpreted with caution

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SOIL CONTAMINATION INTERPRETATIVE GUIDANCE

GENERIC ASSESSMENT CRITERIA (GACs)

PRIVATE GARDENS (Residential with Homegrown Produce)				
Determinand	**1% SOM (mg/kg)**	**2.5% SOM (mg/kg)**	**6% SOM (mg/kg)**	**Source/Criteria**
Arsenic	37	27	27	C4SL/LQM S4UL
Boron	290	290	290	LQM S4UL
Cadmium	11	11	11	LQM S4UL
Chromium (III)	910	910	910	LQM S4UL
Copper	2,400	2,400	2,400	LQM S4UL
Mercury (organic)	1.2	1.2	1.2	LQM S4UL
Nickel	180	180	180	LQM S4UL
Lead	200	200	200	LQM S4UL
Selenium	250	250	250	LQM S4UL
Zinc	3,700	3,700	3,700	LQM S4UL
Free Cyanide	34	34	34	ATRISK
Acenaphthene	210	510	1,100	LQM S4UL
Acenaphthylene	170	420	920	LQM S4UL
Anthracene	2,400	5,400	11,000	LQM S4UL
Benzo(a)anthracene	7.2	11	13	LQM S4UL
Benzo(a)pyrene	2.2	2.7	3	LQM S4UL
Benzo(b)fluoranthene	2.6	3.3	3.7	LQM S4UL
Benzo(ghi)perylene	320	340	350	LQM S4UL
Benzo(k)fluoranthene	77	93	100	LQM S4UL
Chrysene	15	22	27	LQM S4UL
Dibenz(ah)anthracene	0.24	0.28	0.3	LQM S4UL
Fluoranthene	280	560	890	LQM S4UL
Fluorene	170	400	860	LQM S4UL
Indeno(123-cd)pyrene	27	36	41	LQM S4UL
Naphthalene	2.3	5.6	13	LQM S4UL

PRIVATE GARDENS (Residential with Homegrown Produce)				
Determinand	**1% SOM (mg/kg)**	**2.5% SOM (mg/kg)**	**6% SOM (mg/kg)**	**Source/Criteria**
Phenanthrene	95	220	440	LQM S4UL
Pyrene	620	1,200	2,000	LQM S4UL
Phenols	280	550	1,100	LQM S4UL
Benzene	0.087	0.17	0.37	LQM S4UL
Toluene	130	290	660	LQM S4UL
Ethylbenzene	47	110	260	LQM S4UL
o-xylene	60	140	330	LQM S4UL
m-xylene	59	140	320	LQM S4UL
p-xylene	56	130	310	LQM S4UL
Aliphatic C >5-6	42	78	160	LQM S4UL
Aliphatic C >6-8	100	230	530	LQM S4UL
Aliphatic C >8-10	27	65	150	LQM S4UL
Aliphatic C >10-12	130	330	760	LQM S4UL
Aliphatic C >12-16	1,100	2,400	4,300	LQM S4UL
Aliphatic C >16-35	65,000	92,000	110,000	LQM S4UL
Aromatic C 5-7 (benzene)	70	140	300	LQM S4UL
Aromatic C>7-8 (toluene)	130	290	660	LQM S4UL
Aromatic C >8-10	34	83	190	LQM S4UL
Aromatic C >10-12	74	180	380	LQM S4UL
Aromatic C >12-16	140	330	660	LQM S4UL
Aromatic C >16-21	260	540	930	LQM S4UL
Aromatic C >21-35	1,100	1,500	1,700	LQM S4UL
Asbestos	ND	ND	ND	Aviron Adopted Value

Notes:

Barium EIC Generic Acceptance Criteria (EIC GAC) is 1300mg/kg (Residential). Chromium is assumed to be chromium III (not chromium IV). Cyanide GAC is 'residential with produce'. ND – Not Detected.

GENERIC QUANTITATIVE RISK ASSESSMENT

The purpose of a tier 2 GQRA is to determine the suitability of the site for proposed development and end use.

The site investigation shall collect soil samples whereby determinant chemical measured in the soil through laboratory analysis have been compared with guidance values which are appropriate to the receptor under consideration. The guidance values or screening criteria applied shall be industry adopted generic values which following a screening of the laboratory analysis shall determine whether or not a site is contaminated, as defined under Part IIA of the EPA 1990 and specification in regard of the proposed development and identified receptors.

Where exceedances of guidance values or recorded a GQRA is can be used to appraise risk and make recommendations in regard of further investigation, remediation and/or tier 3 Detailed Quantitative Risk Assessment (DQRA).

GUIDANCE USED FOR ASSESSING SOIL CONTAMINATION

Aviron has followed the technical approach on Land Contamination Risk Management (LCRM), accessed on gov.uk website and other available guidance to assess contaminant concentrations.

Details of the methodology and Aviron's position on the adoption of guidance values is outlined below.

The available chemical data, from soil samples tested, is sorted into appropriate datasets depending on sampling regime and ground conditions. An initial GQRA is completed using the relevant and industry available screening criteria and where appropriate, statistical modelling. Risks to human health shall be initially assessed by comparing soil chemical data against various published screening criteria. These have been sourced from the following and in order of preference:

- Category 4 Screening Levels (C4SLs) prepared by the Department of Environmental Food and Rural Affairs (DEFRA) and published March 2014.
- Phase 2 C4SLs prepared by CL:AIRE and published May 2021.
- Suitable 4 Use Levels (S4ULs) prepared by Land Quality Management/Chartered Institute of Environmental Health (LQM/CEIH) and published December 2014. LQM acknowledgement for use of S4ULs. "Copyright Land Quality Management Limited reproduced with permission; Publication Number S4UL3275. All rights reserved".
- Soil Guidance Values (SGVs) prepared by the Environment Agency (EA)/DEFRA and published 2009.
- Soil Generic Assessment Criteria (GAC) prepared by Environment Industries Commission (EIC)/Association of Geotechnical and Geoenvironmental Specialists (AGS)/Contaminated Land: Application In Real Environments (CL:AIRE) and published 2010.

Aviron have adopted the above hierarchy in response to LCRM recommendations.

Appendix

II Verification Photographs

VERIFICATION TRIAL HOLE PHOTOGRAPHS

Plot 2

Project Number	24-206.08	**Project Title**	Victoria Nurseries, Victoria Road, Wargrave, RG10 8AG	**Taken By**	CD	**Date**	22/09/2026



Inspection Pit (Former AST)



T1



T2



T3

VERIFICATION TRIAL HOLE PHOTOGRAPHS

Plot 2

Project Number	24-206.08	**Project Title**	Victoria Nurseries, Victoria Road, Wargrave, RG10 8AG	**Taken By**	OC	**Date**	16/10/2026



Plot 2 Position



Plot 2 Depth



Plot 2 Membrane

VERIFICATION TRIAL HOLE PHOTOGRAPHS

Plot 3

Project Number	24-206.08	**Project Title**	Victoria Nurseries, Victoria Road, Wargrave, RG10 8AG	**Taken By**	OC	**Date**	16/10/2026



Plot 3 Position



Plot 3 Depth



Plot 3 Membrane

VERIFICATION TRIAL HOLE PHOTOGRAPHS

Plot 4

Project Number	24-206.08	**Project Title**	Victoria Nurseries, Victoria Road, Wargrave, RG10 8AG	**Taken By**	OC	**Date**	16/10/2026



Plot 4 Position



Plot 4 Depth



Plot 4 Membrane

VERIFICATION TRIAL HOLE PHOTOGRAPHS

Plot 5

Project Number	24-206.08	**Project Title**	Victoria Nurseries, Victoria Road, Wargrave, RG10 8AG	**Taken By**	OC	**Date**	16/10/2026



Plot 5 Position



Plot 5 Depth



Plot 5 Membrane

AVIRON ASSOCIATES LIMITED

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We continuously work hard to ensure our services are the most technically competent, efficient and viable in our market place. Our years of experience of vastly varied sites and projects compliment our ability to deliver assured and effective Ground Investigations and Risk Assessments of both Brownfield, Greenfield and Currently Developed Land.

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