

# VALIDATION COMPLETION REPORT

|             |                                                    |
|-------------|----------------------------------------------------|
| Site:       | Land at Greenbooth Road and Edenfield Road, Norden |
| References: | 16-465-R8                                          |
| Date:       | 16 July 2026                                       |
| Client:     | Stonebond Properties Ltd                           |





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## QUALITY ASSURANCE

Report references

16-465-R8

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# CONTENTS

|                                                  |           |
|--------------------------------------------------|-----------|
| <b>1. INTRODUCTION .....</b>                     | <b>3</b>  |
| 1.1. Background .....                            | 3         |
| 1.2. Previous Reports .....                      | 3         |
| 1.3. Objectives .....                            | 4         |
| 1.4. Limitations .....                           | 5         |
| 1.5. Confidentiality .....                       | 5         |
| <b>2. COVER SYSTEM VALIDATION .....</b>          | <b>6</b>  |
| <b>3. CHEMICAL VALIDATION .....</b>              | <b>7</b>  |
| 3.1. Topsoil and Subsoil .....                   | 7         |
| 3.2. Chemical Validation .....                   | 7         |
| <b>4. GAS MEMBRANE VALIDATION .....</b>          | <b>9</b>  |
| 4.1. Summary of Ground Gas Risk Assessment ..... | 9         |
| 4.2. Gas Membrane Validation .....               | 9         |
| <b>5. CONCLUSIONS .....</b>                      | <b>11</b> |
| <b>APPENDIX I: LIMITATIONS</b>                   |           |
| <b>APPENDIX II: GLOSSARY</b>                     |           |
| <b>APPENDIX III: DRAWINGS</b>                    |           |
| <b>APPENDIX IV: CHEMICAL TESTING RESULTS</b>     |           |

## DRAWING LIST

16-465-002 – Proposed Development Plan  
16-465-024 – Ground Gas Mitigation Zoning Plan  
16-465-041 – Integrity Testing Plan  
16-465-042 – POS Validation Location Plan



# 1. INTRODUCTION

## 1.1. BACKGROUND

E3P Ltd has been commissioned by Stonebond Properties Ltd (the client) to produce a Completion Report in relation to the validation of the garden plots and gas membrane installations at their newly constructed site at Land off Greenbooth Road and Edenfield Road, Norden; herein referred to as the site.

Rochdale Council confirmed their general acceptance of the remediation works and subsequent validation works for the proposed residential development, pending the following information:

- Validation of the clean cover system; and,
- Validation of the ground gas protection measures.

Interim validation letters pertaining to the above have been produced previously, however, all outstanding information is included within this report.

All acronyms used within this report are defined in the Glossary presented in APPENDIX II.

## 1.2. PREVIOUS REPORTS

The pertinent previous reports for the site are summarised in Table 1.1.

**Table 1.1 Previous Reports**

|                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|---------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Historic Reports</b>         | <ul style="list-style-type: none"><li>▪ Encia Consulting Ltd – Geoenvironmental Appraisal, Land at Greenbooth Road, Norden; Report Ref: 7112-1, dated June 2006, prepared for Countryside Properties Ltd.</li><li>▪ LK Consult – Geoenvironmental Risk Assessment, Land at Greenbooth Road, Norden; Report Ref: CL602-LKC 20 1618-01, dated September 2020, prepared for Norden Developments Ltd.</li></ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Date of E3P SI &amp; Ref</b> | <ul style="list-style-type: none"><li>▪ E3P Ltd – Phase I Geoenvironmental Site Assessment – Edenfield Road, Norden; Report Ref: 16-465-R1-1, dated December 2022, prepared for Stonebond Group Ltd.</li><li>▪ E3P Ltd – Phase II Geoenvironmental Site Assessment – Land at Greenbooth Road and Edenfield Road, Norden; Report Ref: 16-465-R2-3, dated August 2023, prepared for Stonebond Properties Ltd.</li><li>▪ E3P Ltd – Ground Gas Addendum Report – Land at Greenbooth Road and Edenfield Road, Norden; Report Ref 16-465-R3-1, incorporated into Report Ref: 16-465-R2-3, dated August 2023, prepared for Stonebond Properties Ltd.</li><li>▪ E3P Ltd – Surface Water Management during Construction Plan – Land at Greenbooth Road and Edenfield Road, Norden; Report Ref: 16-465-R5-1, dated August 2023, prepared for Stonebond Properties Ltd.</li></ul> |



|                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|----------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Date of E3P SI &amp; Ref</b><br>...Continued    | <ul style="list-style-type: none"> <li>E3P Ltd – Pile Design Contamination Risk Assessment – Land at Greenbooth Road and Edenfield Road, Norden; incorporated into Report 16-465-R6-1, dated January 2024, prepared for Stonebond Properties Ltd.</li> </ul>                                                                                                                                                                                                                                                                                                                                                         |
| <b>Date of Remediation Strategy &amp; Ref</b>      | <ul style="list-style-type: none"> <li>E3P – Remediation &amp; Enabling Works Strategy, Land at Greenbooth Road and Edenfield Road, Norden; Report Ref: 16-465-R4-1, dated August 2023, prepared for Stonebond Properties Ltd.</li> <li>E3P – Waste Management Strategy Briefing Note, Land at Greenbooth Road and Edenfield Road, Norden; Report Ref: 17-330-L1-1, dated June 2024, prepared for Urban Regen Limited.</li> <li>E3P – Gas Protection Design Report, Land at Greenbooth Road and Edenfield Road, Norden; Report Ref: 16-465-R7-1, dated April 2025, prepared for Stonebond Properties Ltd.</li> </ul> |
| <b>Date of Enabling Works Validation &amp; Ref</b> | <ul style="list-style-type: none"> <li>E3P – Remediation Validation Report, Land at Greenbooth Road and Edenfield Road, Norden; Report ref: 17-330-R1-1, dated January 2025, prepared for Urban Regen Limited.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Material Management Plan</b>                    | <ul style="list-style-type: none"> <li>Urban Regen – Materials Management Plan: Edenfield Road v2.0; QP Declaration Ref: 2024-09-05 08:15:40, dated September 2024, prepared for Stonebond Properties Ltd.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                |

The E3P Remediation and Enabling Works Strategy details the following build phase mitigation requirements:

- Laboratory testing and chemical validation of imported topsoil and subsoil;
- Placement of a 600 mm cover system underlain by a geotextile membrane, using certified material with appropriate validation within all rear garden areas;
- Placement of 300 mm cover system within front gardens deemed to be functional landscaping;
- Placement of a 300 mm clean cover system within areas of soft landscaping and Public Open Space (POS);
- Installation and validation of ground gas mitigation measures; and
- Installation of vapour resistant membranes.

### 1.3. OBJECTIVES

E3P has been instructed to develop a detailed Validation Completion Report associated with the validation of the residential development that will incorporate the following:

- Overview of the validation works undertaken on the development site within the garden and landscaped areas;
- Chemical laboratory analysis undertaken of the imported material; and
- Overview of the validation works undertaken on the development site pertaining to the installation of gas protection measures to Characteristic Situation 2, and vapour resistant membranes, where required.



## **1.4. LIMITATIONS**

The limitations of this report are presented in APPENDIX I.

## **1.5. CONFIDENTIALITY**

E3P has prepared this report solely for the use of the client and those parties with whom a warranty agreement has been executed, or with whom an assignment has been agreed. Should any third party wish to use or rely upon the contents of the report, written approval must be sought from E3P; a charge may be levied against such approval.



## 2. COVER SYSTEM VALIDATION

Independent validation of Plots 1–49 was undertaken between 7<sup>th</sup> August 2025 and 9<sup>th</sup> July 2026.

In total, 19 visits were made during which the depth of the cover system was measured to confirm the installation of a geotextile membrane, 450 mm subsoil (imported) and 150 mm topsoil (imported) in all rear gardens and 150 mm subsoil (imported) and 150 mm topsoil (imported) in all front gardens, soft landscaping and areas of POS, with photographs taken by way of validation.

All material used for the cover system was confirmed chemically suitable for use through chemical analysis, discussed further in Section 3.0. All validation works have been completed in accordance with the specification previously agreed with Rochdale Council.

Table 2.1 below shows the Cover System Validation reference and date of validation for each garden and landscaped area.

**Table 2.1** Summary of Cover System Validations

| PLOT NUMBER                                    | DATE       | REPORT REFERENCE |
|------------------------------------------------|------------|------------------|
| 1-4 (Rear)                                     | 07-08-2025 | V1               |
| 5 (Rear) and 1-2 (Front)                       | 18-08-2025 | V2               |
| 8-10 (Rear) 7-10 (Front)                       | 11-09-2025 | V3               |
| 6 (Front and Rear)                             | 16-09-2025 | V4               |
| 7 (Rear)                                       | 17-09-2025 | V5               |
| 40-49 (Rear)                                   | 28-10-2025 | V6               |
| 40, 42, 43, 45 (Front)* <sup>1</sup>           | 03-11-2025 | V7               |
| 11-12 (Front)                                  | 20-11-2025 | V8               |
| 13-14 (Front) 11-14 (Rear)                     | 02-12-2025 | V9               |
| 15-19 (Front and Rear)                         | 16-01-2026 | V10              |
| 20-21 (Front and Rear)                         | 22-01-2026 | V11              |
| 36-38 (Front) 36-39 (Rear)                     | 16-02-2026 | V12              |
| 39 (Front)                                     | 03-03-2026 | V13              |
| 22-25 (Front and Rear)                         | 16-03-2026 | V14              |
| 33-35 (Front), 33 and 35 (Rear)                | 17-04-2026 | V15              |
| 32 and 34 (Rear)                               | 20-04-2026 | V16              |
| 31 (Front and Rear)                            | 21-05-2026 | V17              |
| 26-30 (Front and Rear)                         | 10-06-2026 | V18              |
| POS Areas<br>(Adjacent to Plots 10, 11 and 27) | 09-07-2026 | V19              |

Notes: \*<sup>1</sup> – NHBC required a minimum 1 in 4 front gardens to undergo depth validation inspections. In total, 39 of 49 front gardens were inspected with Plots 3-5, 32, 41, 44, 46, and 47-49 were not inspected.

The full details of the cover system depths of each plot garden area and landscaped area are detailed within the individual letters issued, as per the report reference listed within Table 2.1. All cover system validation letter reports are available on request.

The POS Validation Location Plan is included as Drawing Ref: 16-465-042 in APPENDIX III.



## 3. CHEMICAL VALIDATION

### 3.1. TOPSOIL AND SUBSOIL

All rear gardens required a 600 mm chemically suitable cover system comprising at least 450 mm subsoil and 150 mm topsoil.

All front gardens, Landscaped areas required a 300 mm cover system comprising 150 mm topsoil and 150 mm subsoil or 300 mm topsoil.

#### **Topsoil**

A total volume of 700 m<sup>3</sup> of topsoil was imported from Freeland Horticulture, Nook Lane Farm, Astley, Manchester, M29 7LW.

#### **Subsoil**

A total volume of 2000m<sup>3</sup> of subsoil was imported from Tong Quarry, Tong Lane, Bacup, OL13 9XA.

The volumes listed above have been provided by Stonebond Properties Ltd and are correct to the best of E3P's knowledge.

Subsoil and topsoil materials were tested prior to use within the proposed cover system to confirm their chemical suitability for use within the development.

### 3.2. CHEMICAL VALIDATION

#### **Topsoil - Freeland Horticulture, Astley**

The topsoil comprised of a manufactured topsoil, which was formed through the blending and processing of clean imported compost and clean imported quarried sand. A composite sample of the topsoil was taken by Freeland Horticulture in May 2025 and submitted for chemical analysis at a UKAS accredited laboratory. Testing comprised of British Standards Topsoil (BS3882) suite, with the results confirming the topsoil was free of contamination and would adhere to current BS3882 specification for "multipurpose grade". A topsoil analysis report, provided by Freeland Horticulture, is presented in APPENDIX IV.

E3P attended the site on the following dates to obtain samples of the stockpiled imported topsoil deposits, which were analysed in accordance with sampling frequencies outlined within the E3P Remediation and Enabling Works Strategy (Topsoil Brownfield Source – 1 per 50 m<sup>3</sup>):

- 7<sup>th</sup> August 2025 – 2 samples (TS101-TS102).
- 2<sup>nd</sup> September 2025 – 4 samples (TS103-TS106).
- 30<sup>th</sup> September 2025 – 1 sample (TS107).
- 15<sup>th</sup> January 2026 – 2 samples (TS108-TS109).
- 17<sup>th</sup> April 2026 – 3 samples (TS110-TS112).
- 10<sup>th</sup> June 2026 – 2 samples (TS113-TS114).



Analysis of the topsoil was undertaken by Eurofins Chemtest Laboratories, and I2 Analytical using UKAS accredited methods, where applicable. The chemical analysis suite comprises heavy metals, sulphates, phenols, speciated Polycyclic Aromatic Hydrocarbons (PAHs), speciated and total Petroleum Hydrocarbons (TPH) and asbestos.

Chemical analysis confirmed that the topsoil deposits were chemically suitable for use within the proposed cover system.

Chemical analysis results are included within lab reports 25-26533, 25-046764, 25-31861, 26-002245, 26-020644, and 26-031527, which are presented in APPENDIX IV. A total of 14 topsoil samples were tested.

### **Subsoil – Tong Quarry, Bacup**

E3P attended the site on the following dates to obtain samples of the stockpiled imported subsoil deposits, which were analysed in accordance with sampling frequencies outlined within the E3P Remediation and Enabling Works Strategy (Subsoil Greenfield Source – 1 per 200m<sup>3</sup>):

- 5th March 2025 – 1 sample (SS101).
- 17th June 2025 – 1 sample (SS102).
- 7th August 2025 – 1 sample (SS103).
- 30th September 2025 – 1 sample (SS104).
- 15th January 2026 – 1 sample (SS105).
- 17th April 2026 – 3 samples (SS106-SS108).
- 10th June 2026 – 2 samples (SS109-SS110).

Analysis of the subsoil was undertaken by Eurofins Chemtest Laboratories using UKAS accredited methods where applicable. The chemical analysis suite comprises heavy metals, sulphates, phenols, speciated Polycyclic Aromatic Hydrocarbons (PAHs), speciated and total Petroleum Hydrocarbons (TPH) and asbestos.

Chemical analysis confirmed that these subsoil deposits were chemically suitable for use within the proposed cover system.

Chemical analysis results are included within lab reports 25-07909, 25-20566, 25-26533, 25-31861, 26-002245, 26-020644, and 26-031527, which are presented in APPENDIX IV. A total of 10 subsoil samples were tested.

All samples were analysed in accordance with the regulatory approved Remediation and Enabling Works Strategy and meet the required Rochdale Council sampling frequencies.

Furthermore, E3P inspected the materials intended for topsoil and subsoil. Chemical analysis identified no contaminant exceedances, therefore it has been determined that the topsoil and subsoil is suitable for utilisation within the proposed cover system.

Laboratory certificates have been attached within the individual garden validation letters and are also included within APPENDIX IV of this report.



## 4. GAS MEMBRANE VALIDATION

### 4.1. SUMMARY OF GROUND GAS RISK ASSESSMENT

The final ground gas risk assessment, which was documented within the E3P Phase II Geoenvironmental Site Assessment, Section 4.3 (Ground Gas Risk Assessment), dated August 2023 (Ref: 16-465-R2-3), confirmed the following:

- The site can be split into two distinct areas: the former Tack Lea Works (Woodhouse Mills) area occupying the northern and central portions of the site and the former Sheppard Mill area in the east and south-eastern part of the site.
- Ground gas monitoring suggests that the site can be predominantly classified as CS1. However, given the presence of a historical landfill located in the eastern section of the Tack Lea Works area, it is recommended that Characteristic Situation 2 (CS2) protection measures should be implemented as a minimum across the site.
- Elevated concentrations of volatile contaminants (naphthalene, TPHs, VOCs, SVOCs, and mercury) have been identified within the Made Ground on-site, which present a potential volatilisation to indoor air risk. Elevated concentrations of volatile contaminants in the northern part of the site are considered to be localised occurrences and therefore these locations can be treated as hotspots. However, elevated concentrations of volatile contaminants have been identified throughout the east and southeast parts of the site and these do not appear to be localised hotspots. Vapour resistant membranes will therefore be required for plots located within the east and southeast parts of the site (Plots 1-10).
- A BGS Radon Report was purchased for the site, which indicated that the northeast and northwest of the site is situated in an area where 1–3% of homes are above the "Action Level" and the rest of the site is situated in an area where 0–1% of homes are above the "Action Level". Therefore, no radon protective measures are necessary for the construction of new dwellings or extensions.

The E3P Drawing 16-465-024 details the plots which required construction with mitigation measures that were compliant with Characteristic Situation CS2 (Plots 11-49, western part of the site), as well as those requiring vapour resistant membranes (Plots 1-10, east and southeast part of the site).

The E3P Drawing 16-465-041 details the plots with vapour resistant membranes which required integrity testing (Plots 1-10).

### 4.2. GAS MEMBRANE VALIDATION

The ground gas membranes were validated with the full details included within the individual letters issued. All gas membrane validation certificates are available on request.

In brief, the works included the validation of the following for each plot:

- General condition of the membrane;
- Verification of the joints;
- Verification of ventilation; and
- Verification of service entries and top hats.



In addition, air lancing integrity testing was conducted by GeoEnginSeer on the vapour resistant membranes installed in Plots 1-10. Integrity testing certificates are available upon request.

Following the completion of the above, E3P can confirm that Plots 11-49 have been installed with gas protection measures in accordance with Characteristic Situation 2, with Plots 1-10 been installed with vapour resistant membranes, all to a good standard of workmanship.



## 5. CONCLUSIONS

On completion of the validation works undertaken in relation to the installation of a chemically suitable cover system and gas protection measures, E3P can confirm that all works were undertaken in strict accordance with the agreed Remediation and Enabling Works Strategy and therefore would deem the site suitable for use as a residential development.

E3P does not consider that any further work is necessary.

**END OF REPORT**

# Appendix I: Limitations





## GENERAL

This report and any associated works (together comprising the "Services") were compiled and carried out by E3P for the client (as present in Section 1) under the E3P "Terms of Business" or with those parties with whom a warranty agreement has been executed, or with whom an assignment has been agreed and outlined in the body of the report.

Unless explicitly agreed otherwise, in writing, this report has been prepared under E3P Standard Terms and Business as included within our proposal to the Client.

Project-specific appointment documents may be agreed upon at our discretion and a charge may be levied for both the time to review and finalise appointment documents and also for associated changes to the appointment terms. E3P reserves the right to amend the fee should any changes to the appointment terms create an increased risk to E3P.

The report needs to be considered in light of the proposal and associated limitations of scope. The report needs to be read in full and isolated sections cannot be used without full reference to other elements of the report and any previous works referenced within the report.

## PHASE 1 GEOENVIRONMENTAL AND PRELIMINARY RISK ASSESSMENTS

Coverage: This section covers reports with the following titles or combination of titles: Phase 1; Desktop Study; Geoenvironmental Assessment; Development Appraisal; Preliminary Environmental Risk Assessment; Constraints Report; Due Diligence Report; Geotechnical Development Review; Environmental Statement; Environmental Chapter; Baseline Environmental Assessment; Project Scope Summary Report (PSSR), Program Environmental Impact Report (PEIR), Geotechnical Development Risk Register; Agricultural Land Assessment; Mineral Safeguarding Assessment; Desk Top Coal Mining Risk Assessment; Hydrogeological Appraisal; Construction Environmental Management Plan; and Site Water Management Plan.

The works undertaken to prepare this report comprised a study of available and easily documented information from a variety of sources (including the Client), together with (where appropriate) a brief walkover inspection of the Site and correspondence with relevant authorities and other interested parties. Due to the short timescales associated with these projects' responses may not have been received from all parties. E3P cannot be held responsible for any disclosures that are provided post-production of our report and will not automatically update our report.

The opinions given in this report have been dictated by the finite data on which they are based and are relevant only for the purpose for which the report was commissioned. The information reviewed should not be considered exhaustive and has been accepted in good faith as providing true and representative data pertaining to site conditions. Should additional information become available which may affect the opinions expressed in this report, E3P reserves the right to review such information and, if warranted, to modify the opinions accordingly.

It should be noted that any risks identified in this report are perceived risks based on the information reviewed. Actual risks can only be assessed following intrusive investigations of the site.

Where mention has been made to the identification of Japanese Knotweed and other invasive plant species and asbestos or asbestos-containing materials, this is for indicative purposes only and does not constitute or replace full and proper surveys completed by suitably qualified and experienced specialists in these fields.

E3P does not warrant work/data undertaken/provided by others.



## INTRUSIVE INVESTIGATION REPORTS

Coverage: The following report titles (or combination) may cover this category of work: Geoenvironmental Site Investigation; Geotechnical Assessment; GIR (Ground Investigation Reports); Preliminary Environmental And Geotechnical Risk Assessment; Preliminary Summary; Coal Mining Risk Assessment, Ground Gas Addendum; and, Geotechnical Risk Register.

The investigation has been undertaken to provide information concerning either:

- The type and degree of contamination present at the site in order to allow a generic quantitative risk assessment to be undertaken; or
- Information on the soil properties present at the site to allow for geotechnical development constraints to be considered.

The scope of the investigation was selected on the basis of the specific development and land use scenario proposed by the Client and may be inappropriate to another form of development or scheme. If the development layout was not known at the time of the investigation the report findings may need revisiting once the development layout is confirmed.

Unless otherwise specified in the scope of works, any site drawing(s) provided in this report is (are) not meant to be an accurate base plan but is (are) used to present the general relative locations of features on, and surrounding, the site. Features (intrusive and sample locations etc) annotated on site plans are not drawn to scale but are centred over the approximate location. Such features should not be used for setting out and should be considered indicative only.

For contamination purposes, the objectives of the investigation are limited to establishing the risks associated with potential contamination sources with the potential to cause harm to human health, building materials, the environment (including adjacent land), or controlled waters.

For geotechnical investigations, the purpose is to broadly consider potential development constraints associated with the physical property of the soils underlying the site within the context of the proposed future or continued use of the site, as stated within the report.

The amount of exploratory work, soil property testing and chemical testing undertaken has necessarily been restricted by various factors which may include accessibility, the presence of services; existing buildings; current site usage or short timescales. The exploratory holes completed assess only a small percentage of the area in relation to the overall size of the Site, and as such can only provide a general indication of conditions.

The number of sampling points and the methods of sampling and testing do not preclude the possible existence of contamination where concentrations may be significantly higher than those actually encountered or ground conditions that vary from those identified. In addition, there may be exceptional ground conditions elsewhere on the site which have not been disclosed by this investigation and which have therefore not been taken into account in this report

The inspection, testing and monitoring records relate specifically to the investigation points and the timeframe that the works were undertaken. They will also be limited by the techniques employed. As part of this assessment, E3P has used reasonable skill and care to extrapolate conditions between these points based on assumptions to develop our interpretation and conclusions.

The assumption made in forming our conclusions is that the ground and groundwater conditions (both chemically and physically) are the same as have been encountered during the works undertaken at the specific points of investigation and at the time of the investigation.



Conditions can change between investigation points both spatially and over time and these interpretations should therefore be considered indicative. The assessment of extreme weather events and their impact on ground conditions is not within the scope of E3P's work.

The risk assessment and opinions provided are based on currently available guidance relating to acceptable contamination concentrations; no liability can be accepted for the retrospective effects of any future changes or amendments to these values. Specific assumptions associated with the risk assessment process have been outlined within the body or associated appendix of the report.

Additional investigations may be required in order to satisfy relevant planning conditions or to resolve any engineering and environmental issues.

Where soil contamination concentrations recorded as part of this investigation are used for commentary on the potential waste classification of soils for disposal purposes, these should be classed as indicative only. Due consideration should be given to the variability of contaminant concentrations taken from targeted samples versus bulk excavated soils and the potential variability of contaminant concentrations between sampling locations. Where major waste disposal operations are considered, targeted waste classification investigations should be designed and the waste classification and any subsequent disposal option agreed upon with licenced subcontractors and/or the relevant regulators.

The results of the asbestos testing are factually reported and interpretation is given as to how this relates to the previous use of the site, the types of ground encountered and site conceptualisation. This does not however constitute a formal asbestos assessment. These results should be treated cautiously and should not be relied upon to provide detailed and representative information on the delineation, type and extent of bulk ACMs and/or trace loose asbestos fibres within the soil matrix at the site.

If costs have been included in relation to additional site works, and/or site remediation works these must be considered as indicative only and must be confirmed by a qualified quantity surveyor.

## **EUROCODE 7: GEOTECHNICAL DESIGN**

On 1st April 2010, BS EN 1997-1:2004 (Eurocode 7: Geotechnical Design – Part 1) became the mandatory baseline standard for geotechnical ground investigations.

In terms of geotechnical design for foundations, slopes, retaining walls and earthworks, EC7 sets guidance on design procedures including specific guidance on the numbers and spacings of boreholes for geotechnical design, there are limits to methods of ground investigation and the quality of data obtained and there are also prescriptive methods of assessing soil strengths and methods of design. Unless otherwise explicitly stated, the work has not been undertaken in accordance with EC7. A standard geotechnical interpretative report will not meet the requirements of the Geotechnical Design Report (GDR) under Eurocode 7. The GDR can only be prepared following confirmation of all structural loads and serviceability requirements. The report is likely to represent a Ground Investigation Report (GIR) under the Eurocode 7 guidance.

## **DETAILED QUANTITATIVE RISK ASSESSMENTS AND REMEDIATION AND ENABLING WORK STRATEGY REPORTS**

These reports build upon previous report versions and associated notes. The scope of the investigation, further testing and monitoring and associated risk assessments were selected based on the specific development and land use scenario proposed by the Client and may not be appropriate to another form of development or scheme layout. The risk assessment and opinions provided are based on currently available approaches in the generation of Site Specific Assessment Criteria relating to contamination concentrations and are not considered to represent a risk in a specific land use scenario to a specific receptor. No liability can be accepted for the retrospective effects of any future changes or amendments to these values, associated models or associated guidance.



The outputs of the Detailed Quantitative Risk Assessments are based upon the manipulation of standard risk assessment models. These are our interpretation of the risk assessment criteria.

Before adoption on-site, assessment criteria will need to be discussed and agreed upon with the Regulatory Authorities prior to adoption on site. The regulatory discussion and engagement process may result in an alternative interpretation being determined and agreed. The process and timescales associated with the Regulatory Authority engagement are not within the control of E3P. All costs and programmes presented as a result of this process should be validated by a quantity surveyor and should be presumed to be indicative.

E3P does not accept liability for any subcontract work that has not been completed in strict accordance with an approved E3P Remediation and Enabling Works Strategy.

### **GEOTECHNICAL DESIGN REPORT (GDR)**

The GDR can only be prepared following confirmation of all structural loads and serviceability requirements. All the relevant information needs to be provided to allow for a GDR to be produced.

### **MONITORING (INCLUDING REMEDIATION MONITORING REPORTS AND BUILD PHASE MITIGATION)**

These reports are factual and comprise monitoring, normally groundwater and ground gas and data provided by contractors as part of earthworks or remedial works.

The data is presented and will be compared with assessment criteria.

# Appendix II: Glossary





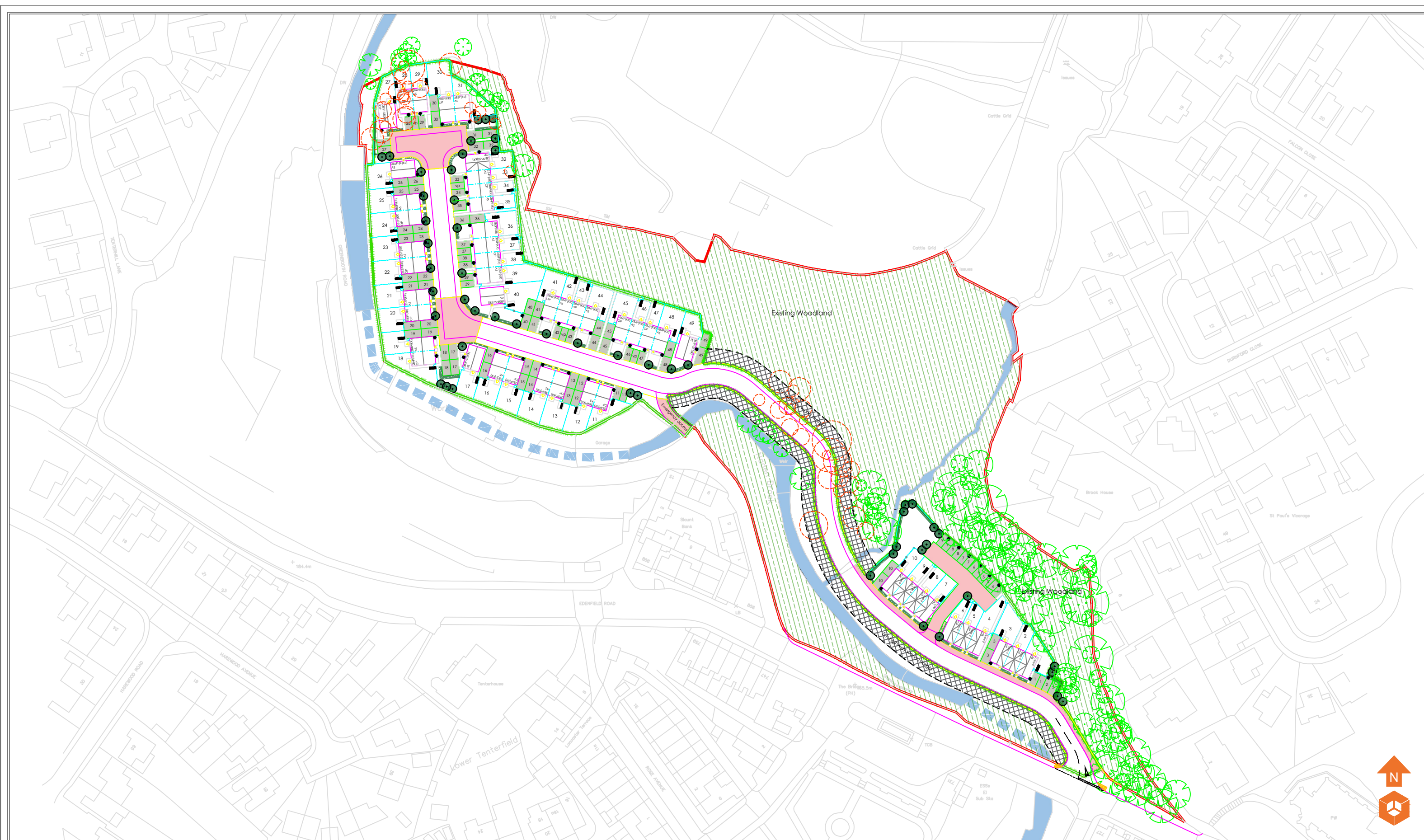
|              |                                                            |                         |                                                      |
|--------------|------------------------------------------------------------|-------------------------|------------------------------------------------------|
| <b>ACM</b>   | Asbestos-containing material                               | <b>MMP</b>              | Materials management plan                            |
| <b>ADS</b>   | Acoustic design statement                                  | <b>ND</b>               | Not detected                                         |
| <b>AST</b>   | Above-ground storage tank                                  | <b>NDP</b>              | Nuclear density probe                                |
| <b>BGS</b>   | British Geological Survey                                  | <b>NMP</b>              | Noise Management Plan                                |
| <b>BSI</b>   | British Standards Institute                                | <b>NPSE</b>             | Noise Policy Statement For England                   |
| <b>BTEX</b>  | Benzene, toluene, ethylbenzene, xylenes                    | <b>NR</b>               | Not recorded                                         |
| <b>MRA</b>   | Mining Remediation Authority                               | <b>PAH</b>              | Polycyclic aromatic hydrocarbon                      |
| <b>CBR</b>   | California bearing ratio                                   | <b>PCB</b>              | Polychlorinated biphenyl                             |
| <b>CIEH</b>  | Chartered Institute of Environmental Health                | <b>PI</b>               | Plasticity index                                     |
| <b>CIRIA</b> | Construction Industry Research Association                 | <b>PID</b>              | Photo ionisation detector                            |
| <b>CLEA</b>  | Contaminated land exposure assessment                      | <b>POS</b>              | Public open space                                    |
| <b>CML</b>   | Council of Mortgage Lenders                                | <b>PPE</b>              | Personnel protective equipment                       |
| <b>CoC</b>   | Contaminants of concern                                    | <b>ProPG</b>            | Professional practice guidance                       |
| <b>CSM</b>   | Conceptual site model                                      | <b>QA</b>               | Quality assurance                                    |
| <b>DNAPL</b> | Dense non-aqueous phase liquid (chlorinated solvents, PCB) | <b>SGV</b>              | Soil guideline value                                 |
| <b>DWS</b>   | Drinking water standard                                    | <b>SPH</b>              | Separate-phase hydrocarbon                           |
| <b>EA</b>    | Environment Agency                                         | <b>SPT</b>              | Standard penetration test                            |
| <b>EQS</b>   | Environmental quality standard                             | <b>SVOC</b>             | Semi-volatile organic compound                       |
| <b>FFL</b>   | Finished floor level                                       | <b>TPH</b>              | Total and speciated petroleum hydrocarbon            |
| <b>GAC</b>   | General assessment criteria                                | <b>TPH CWG</b>          | Total Petroleum Hydrocarbon (Criteria Working Group) |
| <b>GL</b>    | Ground level                                               | <b>UKWIR</b>            | United Kingdom Water Infrastructure Risk             |
| <b>GSV</b>   | Gas screening value                                        | <b>UST</b>              | Underground storage tank                             |
| <b>HCV</b>   | Health criteria value                                      | <b>VCC</b>              | Vibro-concrete column                                |
| <b>ICSM</b>  | Initial conceptual site model                              | <b>VOC</b>              | Volatile organic compound                            |
| <b>LEL</b>   | Lower explosive limit                                      | <b>VRSC</b>             | Vibro-replacement stone columns                      |
| <b>LMRL</b>  | Lower method reporting limit                               | <b>VSC</b>              | Vibro-stone columns                                  |
| <b>LNAPL</b> | Light non-aqueous phase liquid (petrol, diesel, kerosene)  | <b>WHO</b>              | World Health Organisation                            |
| <b>MCV</b>   | Moisture condition value                                   | <b>WRAP</b>             | Waste and Resources Action Programme                 |
| <b>MIBK</b>  | Methyl isobutyl ketone                                     | <b>WTE</b>              | Water table elevation                                |
| <b>m</b>     | Metres                                                     | <b>ppm</b>              | Parts per million                                    |
| <b>km</b>    | Kilometres                                                 | <b>mg/m<sup>3</sup></b> | Milligram per metre cubed                            |
| <b>% v/v</b> | Percent volume in air                                      | <b>m bgl</b>            | Metres below ground level                            |



|                |                                                            |                         |                                         |
|----------------|------------------------------------------------------------|-------------------------|-----------------------------------------|
| <b>mb</b>      | Millibars (atmospheric pressure)                           | <b>m bcl</b>            | Metre below cover level                 |
| <b>l/hr</b>    | Litres per hour                                            | <b>mAOD</b>             | Metres above ordnance datum (sea level) |
| <b>µg/l</b>    | Micrograms per litre (parts per billion)                   | <b>kN/m<sup>2</sup></b> | Kilonewtons per metre squared           |
| <b>ppb</b>     | Parts per billion                                          | <b>µm</b>               | Micrometre                              |
| <b>mg/kg</b>   | Milligrams per kilogram (parts per million)                | <b>SSRT</b>             | Site Specific Remediation Target        |
| <b>PSD</b>     | Particle Size Distribution                                 | <b>DD</b>               | Dry Density                             |
| <b>CL:AIRe</b> | Contaminated Land: Applications in Real Environments       | <b>Mc</b>               | Moisture Content                        |
| <b>ρ</b>       | Bulk Density                                               | <b>GPR</b>              | Ground Penetrating Radar                |
| <b>NDP</b>     | Nuclear Density Probe                                      | <b>FFL</b>              | Finished Floor Level                    |
| <b>LEL</b>     | Lower Explosive Limit                                      | <b>UKWIR</b>            | UK Water Industry Research              |
| <b>CIRIA</b>   | Construction Industry Research and Information Association | <b>LOD</b>              | Limit of Detection                      |
| <b>PFAS</b>    | Per- and Poly-Fluorinated Substances                       | <b>PFOA</b>             | Perfluorooctanoic Acid                  |

# Appendix III: Drawings





|        |  |  |  |  |
|--------|--|--|--|--|
| Notes: |  |  |  |  |
|        |  |  |  |  |

|       |       |            |       |         |
|-------|-------|------------|-------|---------|
| P1    | REVC  | 16.06.2023 | OW    | MW      |
| P1    | REVB  | 20.03.2023 | EB    | RJW     |
| P1    | REVA  | 17.11.2022 | OW    | MD      |
| Phase | Issue | Date       | Drawn | Checked |

|                          |
|--------------------------|
| Client:                  |
| Stonebond Properties Ltd |

|                                                       |
|-------------------------------------------------------|
| Job Title:                                            |
| Land at Greenbooth Road and<br>Edenfield Road, Norden |

|             |
|-------------|
| Job No:     |
| 16-465      |
| Drawing No: |
| 002         |

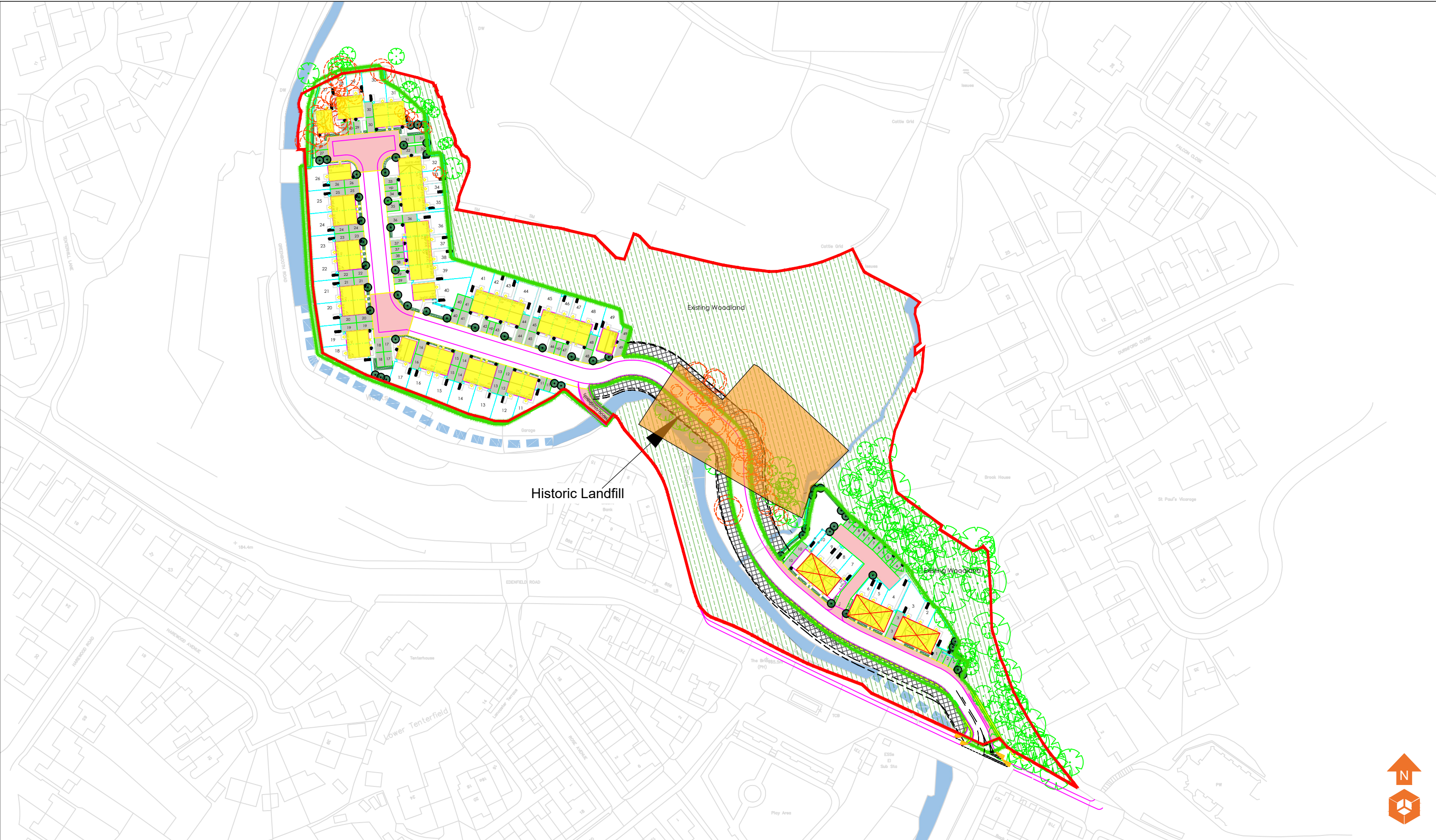
|            |
|------------|
| Date:      |
| 16.06.2023 |
| Scale:     |
| NTS@ A3    |

|                           |
|---------------------------|
| Drawing Title:            |
| Proposed Development Plan |



Environmental Engineering  
Partnership Ltd  
Taylor Road, Trafford Park  
Urmston, Manchester, M41 7JQ  
Tel: 0161 707 9612  
E-mail: info@e3p.co.uk  
Website: www.e3p.co.uk

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Ground Gas

CS2

Vapour Resistant Membranes required.

|        |       |            |       |         |
|--------|-------|------------|-------|---------|
| Notes: |       |            |       |         |
| P1     | REVE  | 02.09.2024 | OW    | MW      |
| P1     | REVD  | 06.06.2023 | OW    | MW      |
| P1     | REVC  | 31.03.2023 | OW    | MW      |
| P1     | REVB  | 28.03.2023 | OW    | MW      |
| P1     | REVA  | 23.03.2023 | OW    | HM      |
| Phase  | Issue | Date       | Drawn | Checked |

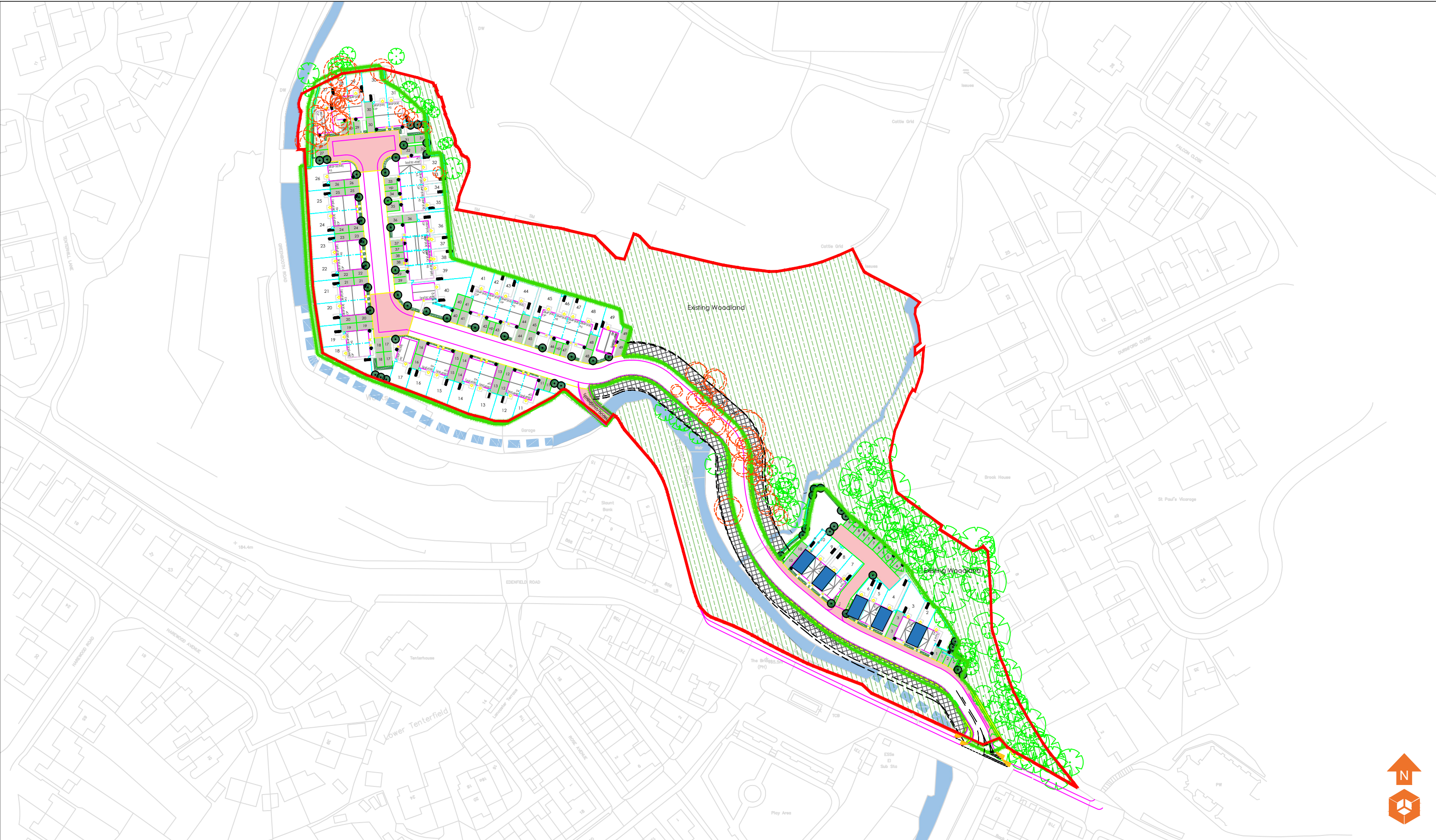
|            |                                            |
|------------|--------------------------------------------|
| Client:    | Stonebond Properties Ltd                   |
| Job Title: | Greenbooth Road and Edenfeild Road, Norden |

|                |                            |
|----------------|----------------------------|
| Job No:        | 16-465                     |
| Drawing No:    | 024                        |
| Date:          | 02.09.2024                 |
| Scale:         | NTS@ A3                    |
| Drawing Title: | Ground Gas Mitigation Plan |



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|                                                                                                                                                                         |                                                                             |                                                        |                                      |                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------|--------------------------------------------------------|--------------------------------------|-------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <div>Integrity</div> <div><div></div>Plots Proposed for Independent Integrity Testing</div>                                                                             | <div>Notes:</div> <div></div>                                               | <div>Client:</div> <div>Stonebond Properties Ltd</div> | <div>Job No:</div> <div>16-465</div> | <div>Date:</div> <div>02.09.2024</div>                      | <div>e3p</div> <div>Environmental Engineering Partnership Ltd<br/>Taylor Road, Trafford Park<br/>Urmston, Manchester, M41 7JQ<br/>Tel: 0161 707 9612<br/>E-mail: info@e3p.co.uk<br/>Website: www.e3p.co.uk</div>                                                                                                                                                                                                                           |
| <div><div>P1</div><div>REVA</div><div>02.09.2024</div><div>OW</div><div>MW</div><div>Phase</div><div>Issue</div><div>Date</div><div>Drawn</div><div>Checked</div></div> | <div>Job Title:</div> <div>Greenbooth Road and Edenfeild Road, Norden</div> | <div>Drawing No:</div> <div>041</div>                  | <div>Scale:</div> <div>NTS@ A3</div> | <div>Drawing Title:</div> <div>Integrity Testing Plan</div> | <div>The client must not amend any drawing, design or other intellectual property produced by E3P Ltd without permission in writing from E3P Ltd in advance of any amendments being made. In the event that such written permission is not obtained in advance of the amendments being made, E3P Ltd shall not be liable for any damage and/or losses occurring as a result of the amended drawing, design or intellectual property.</div> |



|                                                                                                    |                                                                                                                                                                           |            |       |         |  |                                         |      |                        |    |                        |       |                                                                                                                                                                                   |      |       |         |                                                                      |  |                                                    |  |                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|----------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|-------|---------|--|-----------------------------------------|------|------------------------|----|------------------------|-------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|-------|---------|----------------------------------------------------------------------|--|----------------------------------------------------|--|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <div>Key</div> <div><div></div> POS Areas</div> <div><div></div> POS Validation Pit Location</div> | Notes:                                                                                                                                                                    |            |       |         |  | Client:<br><br>Stonebond Properties Ltd |      | Job No:<br>16-465      |    | Date:<br>15.07.2026    |       | Environmental Engineering Partnership Ltd<br>Taylor Road, Trafford Park<br>Urmston, Manchester, M41 7JQ<br>Tel: 0161 707 9612<br>E-mail: info@e3p.co.uk<br>Website: www.e3p.co.uk |      |       |         |                                                                      |  |                                                    |  |                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|                                                                                                    |                                                                                                                                                                           |            |       |         |  |                                         |      | Drawing No:<br><br>042 |    | Scale:<br><br>NTS @ A3 |       |                                                                                                                                                                                   |      |       |         |                                                                      |  |                                                    |  |                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|                                                                                                    | <table><tr><td>P1</td><td>REVA</td><td>15.07.2026</td><td>TG</td><td>MW</td></tr><tr><td>Phase</td><td>Issue</td><td>Date</td><td>Drawn</td><td>Checked</td></tr></table> |            |       |         |  | P1                                      | REVA | 15.07.2026             | TG | MW                     | Phase | Issue                                                                                                                                                                             | Date | Drawn | Checked | Job Title:<br><br>Land at Greenbooth Road and Edenfeild Road, Norden |  | Drawing Title:<br><br>POS Validation Location Plan |  | The client must not amend any drawing, design or other intellectual property produced by E3P Ltd without permission in writing from E3P Ltd in advance of any amendments being made. In the event that such written permission is not obtained in advance of the amendments being made, E3P Ltd shall not be liable for any damage and/or losses occurring as a result of the amended drawing, design or intellectual property. |
| P1                                                                                                 | REVA                                                                                                                                                                      | 15.07.2026 | TG    | MW      |  |                                         |      |                        |    |                        |       |                                                                                                                                                                                   |      |       |         |                                                                      |  |                                                    |  |                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Phase                                                                                              | Issue                                                                                                                                                                     | Date       | Drawn | Checked |  |                                         |      |                        |    |                        |       |                                                                                                                                                                                   |      |       |         |                                                                      |  |                                                    |  |                                                                                                                                                                                                                                                                                                                                                                                                                                 |

# Appendix IV: Chemical Testing Results





Freeland Horticulture Ltd  
Rosedale Nursery  
College Road  
Hextable  
Kent BR8 7LT

Attention: Philippa Lambourne

Our Ref: SLC-1390-SA

23 June 2025

Dear Philippa

***Topsoil Analysis Report: Astley, Greater Manchester Topsoil May 2025***

We have completed the analysis of the topsoil sample recently taken from the above site and it has been forwarded to an approved laboratory for analysis and have the pleasure of reporting our findings. The purpose of the analysis was to determine the suitability of the topsoil for general landscaping purposes and its compliance with the current British Standard for topsoil (BS3882).

**SOIL SAMPLING & EXAMINATION**

At the time of our sampling visit the topsoil was stored in a stockpile. A series of 10 hand augered trial holes were constructed across the stockpile for the purpose of soil examination and sample collection. As the soil examination confirmed a consistent topsoil composition, the ten samples were combined together to form one composite sample for analysis purposes. The soil was described as dark brown, slightly moist and friable with a well-developed, fine to medium granular structure. The soil contained a low fraction of small stones and no deleterious materials (eg. building waste materials, glass, roots or rhizomes of pernicious weeds) or unusual odours (eg. hydrocarbons) were recorded.

**LABORATORY ANALYSIS**

The topsoil sample was submitted to a UKAS and MCERTS accredited laboratory for routine physical and chemical parameters to confirm the composition and fertility of the soil. The following parameters were determined:

- ⊕ pH & electrical conductivity values;
- ⊕ major plant nutrients (N, P, K, Mg) & organic matter content;
- ⊕ particle size distribution and stone content;
- ⊕ heavy metals & potentially toxic elements (As, Cd, Cr, Cu, Pb, Hg, Ni, Se, Zn, B);
- ⊕ sulphate, sulphur, sulphide;
- ⊕ total cyanide and total (mono) phenols;
- ⊕ speciated PAHs (US EPA16)
- ⊕ banded aromatic and aliphatic petroleum hydrocarbons (C<sub>5</sub>-C<sub>35</sub>).
- ⊕ Asbestos

The results are presented on the attached Certificate of Analysis and an interpretation of the results is given below.

---

Phone: 01322 619161;

*Freeland horticulture Ltd, Registered in England: Rosedale Nursery, College Road, Hextable, Kent BR8 7LT*  
*Company Registration No: 04015968*

**COMMENTS*****pH & Electrical Conductivity (salinity) Values***

The sample was alkaline in nature (pH 8.4) with a pH value that would be considered suitable for general landscaping purposes.

The electrical conductivity (salinity) value using the soil:water extract was (1135 $\mu$ S/cm) indicating that soluble salts are not present at levels that would be harmful to plants.

The electrical conductivity values by CaSO<sub>4</sub> extract (BS3882 requirement) fell below the maximum specified value (3300 $\mu$ S/cm) given in BS3882:2015.

***Organic Matter & Nutrient Status***

The sample was rich in organic matter and all major plant nutrients. No further additions of compost or fertiliser are required, or indeed recommended, for at least the first growing season.

The C:N ratio of the sample was acceptable for general landscape purposes.

***Particle Size Distribution & Stone Content***

The sample contained 73% sand and fell into the sandy loam texture class. This particle size distribution is considered suitable for a broad range of landscape applications, including tree and shrub planting, turfing and seeding.

The sample was Virtually free from stones of 50 mm and upwards in diameter and only contained a slight fraction of smaller stones (12.3%). As such, stones will not restrict the use of the soil for landscaping purposes.

***Potential Contaminants***

We are not aware of any specified contaminant levels set for the proposed end-use of this topsoil. This includes human health, environmental protection and metals considered toxic to plants. In the absence of any site-specific assessment criteria, the concentrations that affect human health have been compared with the 'residential with homegrown produce' land use in the Suitable For Use Levels presented in 'The LQM/CIEH S4UIs' for Human Health Risk Assessment (2015) and DEFRA SP1010: 'Development of Category 4 Screening Levels' for Assessment of Land Affected by Contamination – Policy Companion Document (2014).

Of the potential contaminants determined, none was found at levels that would exceed their respective guideline values.

**CONCLUSION**

The purpose of the analysis was to determine the suitability of the topsoil for general landscaping purposes. From the soil examination and laboratory analysis, the soil is described as an alkaline, non-saline, sandy loam. The organic matter and nutrient levels are acceptable, and no significant contamination was found with respect to the parameters determined. This soil would adhere to the current BS3882 specification for 'multipurpose grade'.

To conclude, based on our findings, the topsoil would be considered well-suited to general landscaping purposes provided the physical condition of the soil is maintained.

---

We hope this report meets with your approval and provides the necessary information. Please do not hesitate to contact the undersigned if you have any queries or comments.

George Longmuir MSc Soil Sci. M.I Soil Sci.

---

|            |                            |
|------------|----------------------------|
| Client     | Freeland Horticulture Ltd  |
| Job Name   | Topsoil Analysis           |
| Site       | Astley, Greater Manchester |
| Month/Year | May 25                     |
| Our Ref    | 1390-SA                    |
| Date       | 23 June 2025               |

#### pH Value & Salinity

|                                                            |       |
|------------------------------------------------------------|-------|
| pH value (1:2.5 soil/water ext)                            | units |
| Electrical Conductivity (1:2.5 soil/water ext)             | µS/cm |
| Electrical Conductivity (1:2.5 soil/CaSO <sub>4</sub> ext) | µS/cm |

#### Composite sample

|      |
|------|
| 8.4  |
| 1135 |
| 2983 |

#### Organic Matter & Nutrient Status

|                          |      |
|--------------------------|------|
| Organic Matter (LOI)     | %    |
| Organic Carbon (Derived) | %    |
| Total Nitrogen           | %    |
| Carbon:Nitrogen Ratio    | :1   |
| Available Phosphorus     | mg/l |
| Available Potassium      | mg/l |
| Available Magnesium      | mg/l |

|       |
|-------|
| 5.6   |
| 3.3   |
| 0.277 |
| 0.6   |
| 40.6  |
| 820   |
| 166   |

#### Particle Size Analysis & Stones

|                      |          |
|----------------------|----------|
| Clay (<0.002mm)      | %        |
| Silt (0.063-0.002mm) | %        |
| Sand (2.0-0.063mm)   | %        |
| Texture Class        | UK Class |

|           |
|-----------|
| 12        |
| 15        |
| 73        |
| SandyLoam |

|                |         |
|----------------|---------|
| Stones 2-20mm  | % by DW |
| Stones 20-50mm | % by DW |
| Stones >50mm   | % by DW |

|      |
|------|
| 11.3 |
| 1.8  |
| 0.9  |

#### Potential Contaminants

|                                                         |       |
|---------------------------------------------------------|-------|
| Total Arsenic (As)                                      | mg/kg |
| Total Cadmium (Cd)                                      | mg/kg |
| Total Chromium (Cr)                                     | mg/kg |
| Hexavalent Chromium (Cr <sup>VI</sup> )                 | mg/kg |
| Total Copper (Cu)                                       | mg/kg |
| Total Lead (Pb)                                         | mg/kg |
| Total Mercury (Hg)                                      | mg/kg |
| Total Nickel (Ni)                                       | mg/kg |
| Total Selenium (Se)                                     | mg/kg |
| Total Zinc (Zn)                                         | mg/kg |
| Total Beryllium (Be)                                    | mg/kg |
| Total Barium (Ba)                                       | mg/kg |
| Total Vanadium (V)                                      | mg/kg |
| Hot Water Soluble Boron (B)                             | mg/kg |
| Total Cyanide (CN)                                      | mg/kg |
| Elemental Sulphur (S)                                   | mg/kg |
| Easily Liberated Sulphide (S <sup>-2</sup> )            | mg/kg |
| Water Soluble Sulphate (SO <sub>4</sub> <sup>-2</sup> ) | mg/l  |
| Total Phenols Index                                     | mg/kg |
| Asbestos Screen                                         | -     |

|      |
|------|
| 6.3  |
| 0.27 |
| 15.6 |
| <0.2 |
| 25.0 |
| 66.1 |
| <0.2 |
| 16.7 |
| 0.16 |
| 68.7 |
| <1   |
| 93.2 |
| 13.0 |
| 1.2  |
| <1   |
| <5   |
| <1   |
| 318  |
| <1   |
| N.D. |

#### Polyaromatic Hydrocarbons

|                |       |
|----------------|-------|
| Naphthalene    | mg/kg |
| Acenaphthylene | mg/kg |
| Acenaphthene   | mg/kg |
| Fluorene       | mg/kg |
| Phenanthrene   | mg/kg |

|       |
|-------|
| 0.1   |
| <0.05 |
| 0.2   |
| 0.2   |
| 1.1   |

|                          |                            |      |
|--------------------------|----------------------------|------|
| Client                   | Freeland Horticulture Ltd  |      |
| Job Name                 | Topsoil Analysis           |      |
| Site                     | Astley, Greater Manchester |      |
| Month/Year               | May 25                     |      |
| Our Ref                  | 1390-SA                    |      |
| Date                     | 23 June 2025               |      |
| Anthracene               | mg/kg                      | 0.2  |
| Fluoranthene             | mg/kg                      | 1.3  |
| Pyrene                   | mg/kg                      | 1.1  |
| Benzo[a]anthracene       | mg/kg                      | 0.6  |
| Chrysene                 | mg/kg                      | 0.6  |
| Benzo[b]fluoranthene     | mg/kg                      | 0.7  |
| Benzo[k]fluoranthene     | mg/kg                      | 0.3  |
| Benzo[a]pyrene           | mg/kg                      | 0.6  |
| Indeno[1,2,3-cd]pyrene   | mg/kg                      | 0.4  |
| Dibenzo[a,h]anthracene   | mg/kg                      | 0.1  |
| Benzo[g,h,i]perylene     | mg/kg                      | <0.1 |
| Total PAHs sum US EPA 16 | mg/kg                      | 8.0  |

#### Banded Petroleum Hydrocarbons

|                                                 |       |       |
|-------------------------------------------------|-------|-------|
| Aliphatic TPH >C <sub>5</sub> -C <sub>6</sub>   | mg/kg | <0.05 |
| Aliphatic TPH >C <sub>6</sub> -C <sub>8</sub>   | mg/kg | <0.05 |
| Aliphatic TPH >C <sub>8</sub> -C <sub>10</sub>  | mg/kg | <0.05 |
| Aliphatic TPH >C <sub>10</sub> -C <sub>12</sub> | mg/kg | <10   |
| Aliphatic TPH >C <sub>12</sub> -C <sub>16</sub> | mg/kg | <10   |
| Aliphatic TPH >C <sub>16</sub> -C <sub>21</sub> | mg/kg | 21.0  |
| Aliphatic TPH >C <sub>21</sub> -C <sub>35</sub> | mg/kg | 170   |
| Aliphatic TPH >C <sub>35</sub> -C <sub>44</sub> | mg/kg | 20.0  |

|                                                |       |       |
|------------------------------------------------|-------|-------|
| Aromatic TPH >C <sub>5</sub> -C <sub>7</sub>   | mg/kg | <0.05 |
| Aromatic TPH >C <sub>7</sub> -C <sub>8</sub>   | mg/kg | <0.05 |
| Aromatic TPH >C <sub>8</sub> -C <sub>10</sub>  | mg/kg | <0.05 |
| Aromatic TPH >C <sub>10</sub> -C <sub>12</sub> | mg/kg | <10   |
| Aromatic TPH >C <sub>12</sub> -C <sub>16</sub> | mg/kg | <10   |
| Aromatic TPH >C <sub>16</sub> -C <sub>21</sub> | mg/kg | 98.0  |
| Aromatic TPH >C <sub>21</sub> -C <sub>35</sub> | mg/kg | 240   |
| Aromatic TPH >C <sub>35</sub> -C <sub>44</sub> | mg/kg | 35.0  |

|                                                                 |       |     |
|-----------------------------------------------------------------|-------|-----|
| Total Petroleum Hydrocarbons (C <sub>5</sub> -C <sub>44</sub> ) | mg/kg | 597 |
|-----------------------------------------------------------------|-------|-----|

#### BTEX

|                |       |       |
|----------------|-------|-------|
| Benzene        | mg/kg | <0.02 |
| Toluene        | mg/kg | <0.2  |
| Ethyl Benzene  | mg/kg | <0.04 |
| m- & p- Xylene | mg/kg | <0.2  |
| o-Xylene       | mg/kg | <0.1  |



# Final Report

---

**Report No.:** 25-07909-1

**Initial Date of Issue:** 17-Mar-2025

**Re-Issue Details:**

**Client** E3P

**Client Address:** Taylor Road  
Trafford Park  
Urmston  
Manchester  
M41 7JQ

**Contact(s):** Mwilson@e3p.co.uk;  
gcalvert@e3p.co.uk

**Project** 16-465 - Edenfield Road, Norden

**Quotation No.:** Q23-31421

**Date Received:** 07-Mar-2025

**Order No.:** 010688

**Date Instructed:** 07-Mar-2025

**No. of Samples:** 1

**Turnaround (Wkdays):** 5

**Results Due:** 13-Mar-2025

**Date Approved:** 17-Mar-2025

**Approved By:**

**Details:** David Smith, Technical Director

**For details about application of accreditation to specific matrix types, please refer to the Table at the back of this report**

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## Results - Soil

**Project: 16-465 - Edenfield Road, Norden**

|                                     |                  |                             |            |              |            |                      |
|-------------------------------------|------------------|-----------------------------|------------|--------------|------------|----------------------|
| <b>Client: E3P</b>                  |                  | <b>Chemtest Job No.:</b>    |            | 25-07909     |            |                      |
| Quotation No.: Q23-31421            |                  | <b>Chemtest Sample ID.:</b> |            | 1943680      |            |                      |
|                                     |                  | Client Sample ID.:          |            | SS101        |            |                      |
|                                     |                  | Sample Type:                |            | SOIL         |            |                      |
|                                     |                  | Date Sampled:               |            | 05-Mar-2025  |            |                      |
|                                     |                  | Time Sampled:               |            | 12:00        |            |                      |
|                                     |                  | Asbestos Lab:               |            | NEW-ASB      |            |                      |
| <b>Determinand</b>                  | <b>HWOL Code</b> | <b>Accred.</b>              | <b>SOP</b> | <b>Units</b> | <b>LOD</b> |                      |
| ACM Type                            |                  | N                           | 2192       |              | N/A        | -                    |
| Asbestos Identification             |                  | U                           | 2192       |              | N/A        | No Asbestos Detected |
| Moisture                            |                  | N                           | 2030       | %            | 0.020      | 13                   |
| Soil Colour                         |                  | N                           | 2040       |              | N/A        | Brown                |
| Other Material                      |                  | N                           | 2040       |              | N/A        | Stones               |
| Soil Texture                        |                  | N                           | 2040       |              | N/A        | Loam                 |
| pH at 20C                           |                  | M                           | 2010       |              | 4.0        | 7.3                  |
| Sulphate (2:1 Water Soluble) as SO4 |                  | M                           | 2120       | g/l          | 0.010      | 0.34                 |
| Total Sulphur                       |                  | U                           | 2175       | %            | 0.010      | 0.28                 |
| Cyanide (Total)                     |                  | M                           | 2300       | mg/kg        | 0.50       | < 0.50               |
| Sulphide (Easily Liberatable)       |                  | N                           | 2325       | mg/kg        | 0.50       | 3.0                  |
| Sulphate (Total)                    |                  | U                           | 2430       | %            | 0.010      | 0.68                 |
| Arsenic                             |                  | M                           | 2455       | mg/kg        | 0.5        | 5.2                  |
| Cadmium                             |                  | M                           | 2455       | mg/kg        | 0.10       | 0.14                 |
| Chromium                            |                  | M                           | 2455       | mg/kg        | 0.5        | 23                   |
| Copper                              |                  | M                           | 2455       | mg/kg        | 0.50       | 200                  |
| Mercury                             |                  | M                           | 2455       | mg/kg        | 0.05       | < 0.05               |
| Nickel                              |                  | M                           | 2455       | mg/kg        | 0.50       | 34                   |
| Lead                                |                  | M                           | 2455       | mg/kg        | 0.50       | 26                   |
| Selenium                            |                  | M                           | 2455       | mg/kg        | 0.25       | 0.56                 |
| Zinc                                |                  | M                           | 2455       | mg/kg        | 0.50       | 68                   |
| Chromium (Hexavalent)               |                  | N                           | 2490       | mg/kg        | 0.50       | < 0.50               |
| Organic Matter                      |                  | M                           | 2625       | %            | 0.40       | 1.3                  |
| Total Organic Carbon                |                  | M                           | 2625       | %            | 0.20       | 0.76                 |
| TPH >C6-C8                          | EH_1D_Total      | N                           | 2670       | mg/kg        | 1.0        | < 1.0                |
| TPH >C8-C10                         | EH_1D_Total      | N                           | 2670       | mg/kg        | 1.0        | < 1.0                |
| TPH >C10-C12                        | EH_1D_Total      | N                           | 2670       | mg/kg        | 1.0        | < 1.0                |
| TPH >C12-C16                        | EH_1D_Total      | N                           | 2670       | mg/kg        | 1.0        | < 1.0                |
| TPH >C16-C21                        | EH_1D_Total      | N                           | 2670       | mg/kg        | 1.0        | 6.0                  |
| TPH >C21-C25                        | EH_1D_Total      | N                           | 2670       | mg/kg        | 1.0        | 8.0                  |
| TPH >C25-C35                        | EH_1D_Total      | N                           | 2670       | mg/kg        | 1.0        | 3.6                  |
| TPH >C35-C40                        | EH_1D_Total      | N                           | 2670       | mg/kg        | 1.0        | < 1.0                |
| Total TPH >C6-C40                   | EH_1D_Total      | U                           | 2670       | mg/kg        | 10         | 18                   |
| Naphthalene                         |                  | M                           | 2800       | mg/kg        | 0.10       | < 0.10               |
| Acenaphthylene                      |                  | N                           | 2800       | mg/kg        | 0.10       | < 0.10               |
| Acenaphthene                        |                  | M                           | 2800       | mg/kg        | 0.10       | < 0.10               |
| Fluorene                            |                  | M                           | 2800       | mg/kg        | 0.10       | < 0.10               |
| Phenanthrene                        |                  | M                           | 2800       | mg/kg        | 0.10       | < 0.10               |

## Results - Soil

**Project: 16-465 - Edenfield Road, Norden**

| <b>Client: E3P</b>       |           | <b>Chemtest Job No.:</b>    |      | 25-07909    |      |        |
|--------------------------|-----------|-----------------------------|------|-------------|------|--------|
| Quotation No.: Q23-31421 |           | <b>Chemtest Sample ID.:</b> |      | 1943680     |      |        |
|                          |           | Client Sample ID.:          |      | SS101       |      |        |
|                          |           | Sample Type:                |      | SOIL        |      |        |
|                          |           | Date Sampled:               |      | 05-Mar-2025 |      |        |
|                          |           | Time Sampled:               |      | 12:00       |      |        |
|                          |           | Asbestos Lab:               |      | NEW-ASB     |      |        |
| Determinand              | HWOL Code | Accred.                     | SOP  | Units       | LOD  |        |
| Anthracene               |           | M                           | 2800 | mg/kg       | 0.10 | < 0.10 |
| Fluoranthene             |           | M                           | 2800 | mg/kg       | 0.10 | < 0.10 |
| Pyrene                   |           | M                           | 2800 | mg/kg       | 0.10 | < 0.10 |
| Benzo[a]anthracene       |           | M                           | 2800 | mg/kg       | 0.10 | < 0.10 |
| Chrysene                 |           | M                           | 2800 | mg/kg       | 0.10 | < 0.10 |
| Benzo[b]fluoranthene     |           | M                           | 2800 | mg/kg       | 0.10 | < 0.10 |
| Benzo[k]fluoranthene     |           | M                           | 2800 | mg/kg       | 0.10 | < 0.10 |
| Benzo[a]pyrene           |           | M                           | 2800 | mg/kg       | 0.10 | < 0.10 |
| Indeno(1,2,3-c,d)Pyrene  |           | M                           | 2800 | mg/kg       | 0.10 | < 0.10 |
| Dibenz(a,h)Anthracene    |           | N                           | 2800 | mg/kg       | 0.10 | < 0.10 |
| Benzo[g,h,i]perylene     |           | M                           | 2800 | mg/kg       | 0.10 | < 0.10 |
| Total Of 16 PAH's        |           | N                           | 2800 | mg/kg       | 2.0  | < 2.0  |
| Total Phenols            |           | M                           | 2920 | mg/kg       | 0.10 | < 0.10 |

## Test Methods

| SOP  | Title                                                              | Parameters included                                                                                                                                                                                                                                                       | Method summary                                                                                                                                                                         | Water Accred. |
|------|--------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|
| 2010 | pH Value of Soils                                                  | pH at 20°C                                                                                                                                                                                                                                                                | pH Meter                                                                                                                                                                               |               |
| 2030 | Moisture and Stone Content of Soils(Requirement of MCERTS)         | Moisture content                                                                                                                                                                                                                                                          | Determination of moisture content of soil as a percentage of its as received mass obtained at <30°C.                                                                                   |               |
| 2040 | Soil Description(Requirement of MCERTS)                            | Soil description                                                                                                                                                                                                                                                          | As received soil is described based upon BS5930                                                                                                                                        |               |
| 2120 | Water Soluble Boron, Sulphate, Magnesium & Chromium                | Boron; Sulphate; Magnesium; Chromium                                                                                                                                                                                                                                      | Aqueous extraction / ICP-OES                                                                                                                                                           |               |
| 2175 | Total Sulphur in Soils                                             | Total Sulphur                                                                                                                                                                                                                                                             | Determined by high temperature combustion under oxygen, using an Eltra elemental analyser.                                                                                             |               |
| 2192 | Asbestos                                                           | Asbestos                                                                                                                                                                                                                                                                  | Polarised light microscopy / Gravimetry                                                                                                                                                |               |
| 2300 | Cyanides & Thiocyanate in Soils                                    | Free (or easy liberatable) Cyanide; total Cyanide; complex Cyanide; Thiocyanate                                                                                                                                                                                           | Alkaline extraction followed by colorimetric determination using Automated Flow Injection Analyser.                                                                                    |               |
| 2325 | Sulphide in Soils                                                  | Sulphide                                                                                                                                                                                                                                                                  | Steam distillation with sulphuric acid / analysis by 'Aquakem 600' Discrete Analyser, using N,N-dimethyl-p-phenylenediamine.                                                           |               |
| 2430 | Total Sulphate in soils                                            | Total Sulphate                                                                                                                                                                                                                                                            | Acid digestion followed by determination of sulphate in extract by ICP-OES.                                                                                                            |               |
| 2455 | Acid Soluble Metals in Soils                                       | Metals, including: Arsenic; Barium; Beryllium; Cadmium; Chromium; Cobalt; Copper; Lead; Manganese; Mercury; Molybdenum; Nickel; Selenium; Vanadium; Zinc                                                                                                                  | Acid digestion followed by determination of metals in extract by ICP-MS.                                                                                                               |               |
| 2490 | Hexavalent Chromium in Soils                                       | Chromium [VI]                                                                                                                                                                                                                                                             | Soil extracts are prepared by extracting dried and ground soil samples into boiling water. Chromium [VI] is determined by 'Aquakem 600' Discrete Analyser using 1,5-diphenylcarbazine. |               |
| 2625 | Total Organic Carbon in Soils                                      | Total organic Carbon (TOC)                                                                                                                                                                                                                                                | Determined by high temperature combustion under oxygen, using an Eltra elemental analyser.                                                                                             |               |
| 2670 | Total Petroleum Hydrocarbons (TPH) in Soils by GC-FID              | TPH (C6–C40); optional carbon banding, e.g. 3-band – GRO, DRO & LRO*TPH C8–C40                                                                                                                                                                                            | Dichloromethane extraction / GC-FID                                                                                                                                                    |               |
| 2800 | Speciated Polynuclear Aromatic Hydrocarbons (PAH) in Soil by GC-MS | Acenaphthene*; Acenaphthylene; Anthracene*; Benzo[a]Anthracene*; Benzo[a]Pyrene*; Benzo[b]Fluoranthene*; Benzo[ghi]Perylene*; Benzo[k]Fluoranthene; Chrysene*; Dibenz[ah]Anthracene; Fluoranthene*; Fluorene*; Indeno[123cd]Pyrene*; Naphthalene*; Phenanthrene*; Pyrene* | Dichloromethane extraction / GC-MS                                                                                                                                                     |               |
| 2920 | Phenols in Soils by HPLC                                           | Phenolic compounds including Resorcinol, Phenol, Methylphenols, Dimethylphenols, 1-Naphthol and TrimethylphenolsNote: chlorophenols are excluded.                                                                                                                         | 60:40 methanol/water mixture extraction, followed by HPLC determination using electrochemical detection.                                                                               |               |

## **Report Information**

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### **Key**

|     |                                                                                                               |
|-----|---------------------------------------------------------------------------------------------------------------|
| U   | UKAS accredited                                                                                               |
| M   | MCERTS and UKAS accredited                                                                                    |
| N   | Unaccredited                                                                                                  |
| S   | This analysis has been subcontracted to a UKAS accredited laboratory that is accredited for this analysis     |
| SN  | This analysis has been subcontracted to a UKAS accredited laboratory that is not accredited for this analysis |
| T   | This analysis has been subcontracted to an unaccredited laboratory                                            |
| I/S | Insufficient Sample                                                                                           |
| U/S | Unsuitable Sample                                                                                             |
| N/E | not evaluated                                                                                                 |
| <   | "less than"                                                                                                   |
| >   | "greater than"                                                                                                |
| SOP | Standard operating procedure                                                                                  |
| LOD | Limit of detection                                                                                            |

This report shall not be reproduced except in full, and only with the prior approval of the laboratory.

Any comments or interpretations are outside the scope of UKAS accreditation.

The Laboratory is not accredited for any sampling activities and reported results relate to the samples 'as received' at the laboratory.

Uncertainty of measurement for the determinands tested are available upon request .

None of the results in this report have been recovery corrected.

All results are expressed on a dry weight basis.

The following tests were analysed on samples 'as received' and the results subsequently corrected to a dry weight basis EPH, VPH, TPH, BTEX, VOCs, SVOCs, PCBs, Phenols.

For all other tests the samples were dried at  $\leq 30^{\circ}\text{C}$  prior to analysis.

All Asbestos testing is performed at the indicated laboratory .

Issue numbers are sequential starting with 1 all subsequent reports are incremented by 1.

|         |                                                                                                                   |
|---------|-------------------------------------------------------------------------------------------------------------------|
| NEW_ASB | Eurofins Chemtest Limited, 11 Depot Road, Newmarket, CB8 0AL                                                      |
| DURHAM  | Eurofins Chemtest Limited, Unit A North Wing, Prospect Business Park, Crookhall Lane, Consett, Co Durham, DH8 7PW |

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### **Sample Deviation Codes**

**As a result of any of the below deviations applying, the test results may be unreliable**

A - Date of sampling not supplied

B - Sample age exceeds stability time (sampling to extraction)

C - Sample not received in appropriate containers

D - Broken Container

E - The required amount of sample for analysis was not received

H - Appropriate cooling measures were not taken for sample transportation

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### **Sample Retention and Disposal**

All soil samples will be retained for a period of 30 days from the date of receipt.

All water samples will be retained for 14 days from the date of receipt.

Charges may apply to extended sample storage.

## **Report Information**

### **Water Sample Category Key for Accreditation**

DW - Drinking Water  
GW - Ground Water  
LE - Land Leachate  
NA - Not Applicable  
PL - Prepared Leachate  
PW - Processed Water  
RE - Recreational Water  
SA - Saline Water  
SW - Surface Water  
TE - Treated Effluent  
TS - Treated Sewage  
UL - Unspecified Liquid

### **Clean Up Codes**

NC - No Clean Up  
MC - Mathematical Clean Up  
FC - Florisil Clean Up

### **HWOL Acronym System**

HS - Headspace analysis  
EH - Extractable hydrocarbons – i.e. everything extracted by the solvent  
CU - Clean-up – e.g. by Florisil, silica gel  
1D - GC – Single coil gas chromatography  
Total - Aliphatics & Aromatics  
AL - Aliphatics only  
AR - Aromatic only  
2D - GC-GC – Double coil gas chromatography  
#1 - EH\_2D\_Total but with humics mathematically subtracted  
#2 - EH\_2D\_Total but with fatty acids mathematically subtracted  
+ - Operator to indicate cumulative e.g. EH+EH\_Total or EH\_CU+HS\_Total

### **Asbestos Tests LOD = LOQ**

Limit of Detection = Limit of Quantification for asbestos results only

If you require extended retention of samples, please email your requirements to:  
[customerservices@chemtest.com](mailto:customerservices@chemtest.com)



# Amended Report

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|                               |                                                                                 |                            |             |
|-------------------------------|---------------------------------------------------------------------------------|----------------------------|-------------|
| <b>Report No.:</b>            | 25-20566-2                                                                      |                            |             |
| <b>Initial Date of Issue:</b> | 26-Jun-2025                                                                     | <b>Date of Re-Issue:</b>   | 07-Jul-2025 |
| <b>Re-Issue Details:</b>      | This report has been revised and directly supersedes 25-20566-1 in its entirety |                            |             |
| <b>Client</b>                 | E3P                                                                             |                            |             |
| <b>Client Address:</b>        | Taylor Road<br>Trafford Park<br>Urmston<br>Manchester<br>M41 7JQ                |                            |             |
| <b>Contact(s):</b>            | Mwilson@e3p.co.uk                                                               |                            |             |
| <b>Project</b>                | 16-465 - Edenfield Road, Norden                                                 |                            |             |
| <b>Quotation No.:</b>         | Q23-31421                                                                       | <b>Date Received:</b>      | 20-Jun-2025 |
| <b>Order No.:</b>             | 011448                                                                          | <b>Date Instructed:</b>    | 27-Jun-2025 |
| <b>No. of Samples:</b>        | 1                                                                               |                            |             |
| <b>Turnaround (Wkdays):</b>   | 5                                                                               | <b>Results Due:</b>        | 03-Jul-2025 |
| <b>Date Approved:</b>         | 07-Jul-2025                                                                     | <b>Subcon Results Due:</b> | 03-Jul-2025 |

**Approved By:**

**Details:** David Smith, Technical Director

**For details about application of accreditation to specific matrix types, please refer to the Table at the back of this report**

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## Results - Soil

**Project: 16-465 - Edenfield Road, Norden**

| <b>Client: E3P</b>                  |             | <b>Chemtest Job No.:</b>    | 25-20566    |       |       |                      |
|-------------------------------------|-------------|-----------------------------|-------------|-------|-------|----------------------|
| <b>Quotation No.: Q23-31421</b>     |             | <b>Chemtest Sample ID.:</b> | 1989563     |       |       |                      |
| <b>Order No.: 011448</b>            |             | <i>Client Sample Ref.:</i>  | SS102       |       |       |                      |
|                                     |             | <i>Client Sample ID.:</i>   | SS102       |       |       |                      |
|                                     |             | <i>Client Reference:</i>    | SS102       |       |       |                      |
|                                     |             | <i>Sample Type:</i>         | SOIL        |       |       |                      |
|                                     |             | <i>Top Depth (m):</i>       | -           |       |       |                      |
|                                     |             | <i>Bottom Depth (m):</i>    | -           |       |       |                      |
|                                     |             | <i>Date Sampled:</i>        | 17-Jun-2025 |       |       |                      |
|                                     |             | <i>Time Sampled:</i>        | 12:00       |       |       |                      |
|                                     |             | <i>Asbestos Lab:</i>        | DURHAM      |       |       |                      |
| Determinand                         | HWOL Code   | Accred.                     | SOP         | Units | LOD   |                      |
| ACM Type                            |             | N                           | 2192        |       | N/A   | -                    |
| Asbestos Identification             |             | U                           | 2192        |       | N/A   | No Asbestos Detected |
| Moisture                            |             | N                           | 2030        | %     | 0.020 | 24                   |
| Soil Colour                         |             | N                           | 2030        |       | N/A   | Brown                |
| Other Material                      |             | N                           | 2030        |       | N/A   | Stones               |
| Soil Texture                        |             | N                           | 2030        |       | N/A   | Sand                 |
| pH at 20C                           |             | M                           | 2010        |       | 4.0   | 6.9                  |
| Sulphate (2:1 Water Soluble) as SO4 |             | M                           | 2120        | g/l   | 0.010 | 0.28                 |
| Total Sulphur                       |             | U                           | 2175        | %     | 0.010 | 0.14                 |
| Cyanide (Total)                     |             | M                           | 2300        | mg/kg | 0.50  | < 0.50               |
| Sulphide (Easily Liberatable)       |             | N                           | 2325        | mg/kg | 0.50  | 2.2                  |
| Sulphate (Total)                    |             | U                           | 2430        | %     | 0.010 | 0.31                 |
| Arsenic                             |             | M                           | 2455        | mg/kg | 0.5   | 2.5                  |
| Cadmium                             |             | M                           | 2455        | mg/kg | 0.10  | < 0.10               |
| Chromium                            |             | M                           | 2455        | mg/kg | 0.5   | 14                   |
| Copper                              |             | M                           | 2455        | mg/kg | 0.50  | 12                   |
| Mercury                             |             | M                           | 2455        | mg/kg | 0.05  | < 0.05               |
| Nickel                              |             | M                           | 2455        | mg/kg | 0.50  | 19                   |
| Lead                                |             | M                           | 2455        | mg/kg | 0.50  | 8.4                  |
| Selenium                            |             | M                           | 2455        | mg/kg | 0.25  | < 0.25               |
| Zinc                                |             | M                           | 2455        | mg/kg | 0.50  | 35                   |
| Chromium (Hexavalent)               |             | N                           | 2490        | mg/kg | 0.50  | < 0.50               |
| Organic Matter                      |             | M                           | 2625        | %     | 0.40  | 2.1                  |
| Total Organic Carbon                |             | M                           | 2625        | %     | 0.20  | 1.2                  |
| TPH >C6-C8                          | EH_1D_Total | N                           | 2670        | mg/kg | 1.0   | < 1.0                |
| TPH >C8-C10                         | EH_1D_Total | N                           | 2670        | mg/kg | 1.0   | < 1.0                |
| TPH >C10-C12                        | EH_1D_Total | N                           | 2670        | mg/kg | 1.0   | < 1.0                |
| TPH >C12-C16                        | EH_1D_Total | N                           | 2670        | mg/kg | 1.0   | < 1.0                |
| TPH >C16-C21                        | EH_1D_Total | N                           | 2670        | mg/kg | 1.0   | < 1.0                |
| TPH >C21-C25                        | EH_1D_Total | N                           | 2670        | mg/kg | 1.0   | < 1.0                |
| TPH >C25-C35                        | EH_1D_Total | N                           | 2670        | mg/kg | 1.0   | < 1.0                |
| TPH >C35-C40                        | EH_1D_Total | N                           | 2670        | mg/kg | 1.0   | < 1.0                |
| Total TPH >C6-C40                   | EH_1D_Total | U                           | 2670        | mg/kg | 10    | < 10                 |
| Naphthalene                         |             | M                           | 2700        | mg/kg | 0.10  | < 0.10               |

## Results - Soil

**Project: 16-465 - Edenfield Road, Norden**

| <b>Client: E3P</b>              |                  | <b>Chemtest Job No.:</b>    | 25-20566    |              |            |        |
|---------------------------------|------------------|-----------------------------|-------------|--------------|------------|--------|
| <b>Quotation No.: Q23-31421</b> |                  | <b>Chemtest Sample ID.:</b> | 1989563     |              |            |        |
| <b>Order No.: 011448</b>        |                  | <i>Client Sample Ref.:</i>  | SS102       |              |            |        |
|                                 |                  | <i>Client Sample ID.:</i>   | SS102       |              |            |        |
|                                 |                  | <i>Client Reference:</i>    | SS102       |              |            |        |
|                                 |                  | <i>Sample Type:</i>         | SOIL        |              |            |        |
|                                 |                  | <i>Top Depth (m):</i>       | -           |              |            |        |
|                                 |                  | <i>Bottom Depth (m):</i>    | -           |              |            |        |
|                                 |                  | <i>Date Sampled:</i>        | 17-Jun-2025 |              |            |        |
|                                 |                  | <i>Time Sampled:</i>        | 12:00       |              |            |        |
|                                 |                  | <i>Asbestos Lab:</i>        | DURHAM      |              |            |        |
| <b>Determinand</b>              | <b>HWOL Code</b> | <b>Accred.</b>              | <b>SOP</b>  | <b>Units</b> | <b>LOD</b> |        |
| Acenaphthylene                  |                  | M                           | 2700        | mg/kg        | 0.10       | < 0.10 |
| Acenaphthene                    |                  | M                           | 2700        | mg/kg        | 0.10       | < 0.10 |
| Fluorene                        |                  | M                           | 2700        | mg/kg        | 0.10       | < 0.10 |
| Phenanthrene                    |                  | M                           | 2700        | mg/kg        | 0.10       | < 0.10 |
| Anthracene                      |                  | M                           | 2700        | mg/kg        | 0.10       | < 0.10 |
| Fluoranthene                    |                  | M                           | 2700        | mg/kg        | 0.10       | < 0.10 |
| Pyrene                          |                  | M                           | 2700        | mg/kg        | 0.10       | < 0.10 |
| Benzo[a]anthracene              |                  | M                           | 2700        | mg/kg        | 0.10       | < 0.10 |
| Chrysene                        |                  | M                           | 2700        | mg/kg        | 0.10       | < 0.10 |
| Benzo[b]fluoranthene            |                  | M                           | 2700        | mg/kg        | 0.10       | < 0.10 |
| Benzo[k]fluoranthene            |                  | M                           | 2700        | mg/kg        | 0.10       | < 0.10 |
| Benzo[a]pyrene                  |                  | M                           | 2700        | mg/kg        | 0.10       | < 0.10 |
| Indeno(1,2,3-c,d)Pyrene         |                  | M                           | 2700        | mg/kg        | 0.10       | < 0.10 |
| Dibenz(a,h)Anthracene           |                  | M                           | 2700        | mg/kg        | 0.10       | < 0.10 |
| Benzo[g,h,i]perylene            |                  | M                           | 2700        | mg/kg        | 0.10       | < 0.10 |
| Total Of 16 PAH's               |                  | M                           | 2700        | mg/kg        | 2.0        | < 2.0  |
| Naphthalene                     |                  | M                           | 2800        | mg/kg        | 0.10       | < 0.10 |
| Acenaphthylene                  |                  | N                           | 2800        | mg/kg        | 0.10       | < 0.10 |
| Acenaphthene                    |                  | M                           | 2800        | mg/kg        | 0.10       | < 0.10 |
| Fluorene                        |                  | M                           | 2800        | mg/kg        | 0.10       | < 0.10 |
| Phenanthrene                    |                  | M                           | 2800        | mg/kg        | 0.10       | < 0.10 |
| Anthracene                      |                  | M                           | 2800        | mg/kg        | 0.10       | < 0.10 |
| Fluoranthene                    |                  | M                           | 2800        | mg/kg        | 0.10       | < 0.10 |
| Pyrene                          |                  | M                           | 2800        | mg/kg        | 0.10       | < 0.10 |
| Benzo[a]anthracene              |                  | M                           | 2800        | mg/kg        | 0.10       | < 0.10 |
| Chrysene                        |                  | M                           | 2800        | mg/kg        | 0.10       | < 0.10 |
| Benzo[b]fluoranthene            |                  | M                           | 2800        | mg/kg        | 0.10       | < 0.10 |
| Benzo[k]fluoranthene            |                  | M                           | 2800        | mg/kg        | 0.10       | < 0.10 |
| Benzo[a]pyrene                  |                  | M                           | 2800        | mg/kg        | 0.10       | < 0.10 |
| Indeno(1,2,3-c,d)Pyrene         |                  | M                           | 2800        | mg/kg        | 0.10       | < 0.10 |
| Dibenz(a,h)Anthracene           |                  | N                           | 2800        | mg/kg        | 0.10       | < 0.10 |
| Benzo[g,h,i]perylene            |                  | M                           | 2800        | mg/kg        | 0.10       | < 0.10 |
| Total Of 16 PAH's               |                  | N                           | 2800        | mg/kg        | 2.0        | < 2.0  |
| Total Phenols                   |                  | M                           | 2920        | mg/kg        | 0.10       | < 0.10 |

## Test Methods

| SOP  | Title                                                               | Parameters included                                                                                                                                                                                                                                                       | Method summary                                                                                                                                                                         | Water Accred. |
|------|---------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|
| 2010 | pH Value of Soils                                                   | pH at 20°C                                                                                                                                                                                                                                                                | pH Meter                                                                                                                                                                               |               |
| 2030 | Moisture and Stone Content of Soils(Requirement of MCERTS)          | Moisture content                                                                                                                                                                                                                                                          | Determination of moisture content of soil as a percentage of its as received mass obtained at <30°C.                                                                                   |               |
| 2120 | Water Soluble Boron, Sulphate, Magnesium & Chromium                 | Boron; Sulphate; Magnesium; Chromium                                                                                                                                                                                                                                      | Aqueous extraction / ICP-OES                                                                                                                                                           |               |
| 2175 | Total Sulphur in Soils                                              | Total Sulphur                                                                                                                                                                                                                                                             | Determined by high temperature combustion under oxygen, using an Eltra elemental analyser.                                                                                             |               |
| 2192 | Asbestos                                                            | Asbestos                                                                                                                                                                                                                                                                  | Polarised light microscopy / Gravimetry                                                                                                                                                |               |
| 2300 | Cyanides & Thiocyanate in Soils                                     | Free (or easy liberatable) Cyanide; total Cyanide; complex Cyanide; Thiocyanate                                                                                                                                                                                           | Alkaline extraction followed by colorimetric determination using Automated Flow Injection Analyser.                                                                                    |               |
| 2325 | Sulphide in Soils                                                   | Sulphide                                                                                                                                                                                                                                                                  | Steam distillation with sulphuric acid / analysis by 'Aquakem 600' Discrete Analyser, using N,N-dimethyl-p-phenylenediamine.                                                           |               |
| 2430 | Total Sulphate in soils                                             | Total Sulphate                                                                                                                                                                                                                                                            | Acid digestion followed by determination of sulphate in extract by ICP-OES.                                                                                                            |               |
| 2455 | Acid Soluble Metals in Soils                                        | Metals, including: Arsenic; Barium; Beryllium; Cadmium; Chromium; Cobalt; Copper; Lead; Manganese; Mercury; Molybdenum; Nickel; Selenium; Vanadium; Zinc                                                                                                                  | Acid digestion followed by determination of metals in extract by ICP-MS.                                                                                                               |               |
| 2490 | Hexavalent Chromium in Soils                                        | Chromium [VI]                                                                                                                                                                                                                                                             | Soil extracts are prepared by extracting dried and ground soil samples into boiling water. Chromium [VI] is determined by 'Aquakem 600' Discrete Analyser using 1,5-diphenylcarbazine. |               |
| 2625 | Total Organic Carbon in Soils                                       | Total organic Carbon (TOC)                                                                                                                                                                                                                                                | Determined by high temperature combustion under oxygen, using an Eltra elemental analyser.                                                                                             |               |
| 2670 | Total Petroleum Hydrocarbons (TPH) in Soils by GC-FID               | TPH (C6–C40); optional carbon banding, e.g. 3-band – GRO, DRO & LRO*TPH C8–C40                                                                                                                                                                                            | Dichloromethane extraction / GC-FID                                                                                                                                                    |               |
| 2700 | Speciated Polynuclear Aromatic Hydrocarbons (PAH) in Soil by GC-FID | Acenaphthene; Acenaphthylene; Anthracene; Benzo[a]Anthracene; Benzo[a]Pyrene; Benzo[b]Fluoranthene; Benzo[ghi]Perylene; Benzo[k]Fluoranthene; Chrysene; Dibenz[ah]Anthracene; Fluoranthene; Fluorene; Indeno[123cd]Pyrene; Naphthalene; Phenanthrene; Pyrene              | Dichloromethane extraction / GC-FID (GC-FID detection is non-selective and can be subject to interference from co-eluting compounds)                                                   |               |
| 2800 | Speciated Polynuclear Aromatic Hydrocarbons (PAH) in Soil by GC-MS  | Acenaphthene*; Acenaphthylene; Anthracene*; Benzo[a]Anthracene*; Benzo[a]Pyrene*; Benzo[b]Fluoranthene*; Benzo[ghi]Perylene*; Benzo[k]Fluoranthene; Chrysene*; Dibenz[ah]Anthracene; Fluoranthene*; Fluorene*; Indeno[123cd]Pyrene*; Naphthalene*; Phenanthrene*; Pyrene* | Dichloromethane extraction / GC-MS                                                                                                                                                     |               |
| 2920 | Phenols in Soils by HPLC                                            | Phenolic compounds including Resorcinol, Phenol, Methylphenols, Dimethylphenols, 1-Naphthol and TrimethylphenolsNote: chlorophenols are excluded.                                                                                                                         | 60:40 methanol/water mixture extraction, followed by HPLC determination using electrochemical detection.                                                                               |               |

## Report Information

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### Key

|     |                                                                                                               |
|-----|---------------------------------------------------------------------------------------------------------------|
| U   | UKAS accredited                                                                                               |
| M   | MCERTS and UKAS accredited                                                                                    |
| N   | Unaccredited                                                                                                  |
| S   | This analysis has been subcontracted to a UKAS accredited laboratory that is accredited for this analysis     |
| SN  | This analysis has been subcontracted to a UKAS accredited laboratory that is not accredited for this analysis |
| T   | This analysis has been subcontracted to an unaccredited laboratory                                            |
| I/S | Insufficient Sample                                                                                           |
| U/S | Unsuitable Sample                                                                                             |
| N/E | not evaluated                                                                                                 |
| <   | "less than"                                                                                                   |
| >   | "greater than"                                                                                                |
| SOP | Standard operating procedure                                                                                  |
| LOD | Limit of detection                                                                                            |

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The Laboratory is not accredited for any sampling activities and reported results relate to the samples 'as received' at the laboratory.  
Uncertainty of measurement for the determinands tested are available upon request .  
None of the results in this report have been recovery corrected.  
All results are expressed on a dry weight basis.  
  
The following tests were analysed on samples 'as received' and the results subsequently corrected to a dry weight basis EPH, VPH, TPH, BTEX, VOCs, SVOCs, PCBs, Phenols.  
For all other tests the samples were dried at  $\leq 30^{\circ}\text{C}$  prior to analysis.  
All Asbestos testing is performed at the indicated laboratory .  
Issue numbers are sequential starting with 1 all subsequent reports are incremented by 1.

NEW\_ASB Eurofins Chemtest Limited, 11 Depot Road, Newmarket, CB8 0AL  
DURHAM Eurofins Chemtest Limited, Unit A North Wing, Prospect Business Park, Crookhall Lane, Consett, Co Durham, DH8 7PW

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### Sample Deviation Codes

**As a result of any of the below deviations applying, the test results may be unreliable**

- A - Date of sampling not supplied
- B - Sample age exceeds stability time (sampling to extraction)
- C - Sample not received in appropriate containers
- D - Broken Container
- E - The required amount of sample for analysis was not received
- H - Appropriate cooling measures were not taken for sample transportation

---

### Sample Retention and Disposal

All soil samples will be retained for a period of 30 days from the date of receipt.  
All water samples will be retained for 14 days from the date of receipt.  
Charges may apply to extended sample storage.

## **Report Information**

### **Water Sample Category Key for Accreditation**

DW - Drinking Water  
GW - Ground Water  
LE - Land Leachate  
NA - Not Applicable  
PL - Prepared Leachate  
PW - Processed Water  
RE - Recreational Water  
SA - Saline Water  
SW - Surface Water  
TE - Treated Effluent  
TS - Treated Sewage  
UL - Unspecified Liquid

### **Clean Up Codes**

NC - No Clean Up  
MC - Mathematical Clean Up  
FC - Florisil Clean Up

### **HWOL Acronym System**

HS - Headspace analysis  
EH - Extractable hydrocarbons – i.e. everything extracted by the solvent  
CU - Clean-up – e.g. by Florisil, silica gel  
1D - GC – Single coil gas chromatography  
Total - Aliphatics & Aromatics  
AL - Aliphatics only  
AR - Aromatic only  
2D - GC-GC – Double coil gas chromatography  
#1 - EH\_2D\_Total but with humics mathematically subtracted  
#2 - EH\_2D\_Total but with fatty acids mathematically subtracted  
+ - Operator to indicate cumulative e.g. EH+EH\_Total or EH\_CU+HS\_Total

### **Asbestos Tests LOD = LOQ**

Limit of Detection = Limit of Quantification for asbestos results only

If you require extended retention of samples, please email your requirements to:  
[customerservices@chemtest.com](mailto:customerservices@chemtest.com)



# Final Report

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**Report No.:** 25-26533-1

**Initial Date of Issue:** 26-Aug-2025

**Re-Issue Details:**

**Client** E3P

**Client Address:** Taylor Road  
Trafford Park  
Urmston  
Manchester  
M41 7JQ

**Contact(s):** Mwilson@e3p.co.uk

**Project** 16-465 - Edenfield Road, Norden

**Quotation No.:** Q23-31421

**Date Received:** 12-Aug-2025

**Order No.:** 011892

**Date Instructed:** 12-Aug-2025

**No. of Samples:** 3

**Turnaround (Wkdays):** 5

**Results Due:** 18-Aug-2025

**Date Approved:** 26-Aug-2025

**Approved By:**

**Details:** David Smith, Technical Director

**For details about application of accreditation to specific matrix types, please refer to the Table at the back of this report**

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## Results - Soil

**Project: 16-465 - Edenfield Road, Norden**

|                                     |                  |                             |            |              |             |                      |
|-------------------------------------|------------------|-----------------------------|------------|--------------|-------------|----------------------|
| <b>Client: E3P</b>                  |                  | <b>Chemtest Job No.:</b>    |            | 25-26533     | 25-26533    | 25-26533             |
| <b>Quotation No.: Q23-31421</b>     |                  | <b>Chemtest Sample ID.:</b> |            | 2013499      | 2013500     | 2013501              |
| <b>Order No.: 011892</b>            |                  | <i>Client Sample Ref.:</i>  |            | SS103        | TS101       | TS102                |
|                                     |                  | <i>Client Sample ID.:</i>   |            | SS103        | TS101       | TS102                |
|                                     |                  | <i>Client Reference:</i>    |            | SS103        | TS101       | TS102                |
|                                     |                  | <i>Sample Type:</i>         |            | SOIL         | SOIL        | SOIL                 |
|                                     |                  | <i>Top Depth (m):</i>       |            | -            | -           | -                    |
|                                     |                  | <i>Bottom Depth (m):</i>    |            | -            | -           | -                    |
|                                     |                  | <i>Date Sampled:</i>        |            | 07-Aug-2025  | 07-Aug-2025 | 07-Aug-2025          |
|                                     |                  | <i>Time Sampled:</i>        |            | 12:00        | 12:00       | 12:00                |
|                                     |                  | <i>Asbestos Lab:</i>        |            | DURHAM       | DURHAM      | DURHAM               |
| <b>Determinand</b>                  | <b>HWOL Code</b> | <b>Accred.</b>              | <b>SOP</b> | <b>Units</b> | <b>LOD</b>  |                      |
| ACM Type                            |                  | N                           | 2192       |              | N/A         | -                    |
| Asbestos Identification             |                  | U                           | 2192       |              | N/A         | No Asbestos Detected |
| Moisture                            |                  | N                           | 2030       | %            | 0.020       | 7.4                  |
| Soil Colour                         |                  | N                           | 2030       |              | N/A         | Brown                |
| Other Material                      |                  | N                           | 2030       |              | N/A         | Stones               |
| Soil Texture                        |                  | N                           | 2030       |              | N/A         | Sand                 |
| pH at 20C                           |                  | M                           | 2010       |              | 4.0         | 7.7                  |
| Sulphate (2:1 Water Soluble) as SO4 |                  | M                           | 2120       | g/l          | 0.010       | 0.44                 |
| Total Sulphur                       |                  | U                           | 2175       | %            | 0.010       | 0.15                 |
| Cyanide (Total)                     |                  | M                           | 2300       | mg/kg        | 0.50        | < 0.50               |
| Sulphide (Easily Liberatable)       |                  | N                           | 2325       | mg/kg        | 0.50        | 2.6                  |
| Sulphate (Total)                    |                  | U                           | 2430       | %            | 0.010       | 0.43                 |
| Arsenic                             |                  | M                           | 2455       | mg/kg        | 0.5         | 3.3                  |
| Cadmium                             |                  | M                           | 2455       | mg/kg        | 0.10        | 0.12                 |
| Chromium                            |                  | M                           | 2455       | mg/kg        | 0.5         | 14                   |
| Copper                              |                  | M                           | 2455       | mg/kg        | 0.50        | 14                   |
| Mercury                             |                  | M                           | 2455       | mg/kg        | 0.05        | < 0.05               |
| Nickel                              |                  | M                           | 2455       | mg/kg        | 0.50        | 24                   |
| Lead                                |                  | M                           | 2455       | mg/kg        | 0.50        | 12                   |
| Selenium                            |                  | M                           | 2455       | mg/kg        | 0.25        | 0.77                 |
| Zinc                                |                  | M                           | 2455       | mg/kg        | 0.50        | 38                   |
| Chromium (Hexavalent)               |                  | N                           | 2490       | mg/kg        | 0.50        | < 0.50               |
| Organic Matter                      |                  | M                           | 2625       | %            | 0.40        | 1.3                  |
| Total Organic Carbon                |                  | M                           | 2625       | %            | 0.20        | 0.77                 |
| TPH >C6-C8                          | EH_1D_Total      | N                           | 2670       | mg/kg        | 1.0         | < 1.0                |
| TPH >C8-C10                         | EH_1D_Total      | N                           | 2670       | mg/kg        | 1.0         | < 1.0                |
| TPH >C10-C12                        | EH_1D_Total      | N                           | 2670       | mg/kg        | 1.0         | < 1.0                |
| TPH >C12-C16                        | EH_1D_Total      | N                           | 2670       | mg/kg        | 1.0         | < 1.0                |
| TPH >C16-C21                        | EH_1D_Total      | N                           | 2670       | mg/kg        | 1.0         | < 1.0                |
| TPH >C21-C25                        | EH_1D_Total      | N                           | 2670       | mg/kg        | 1.0         | < 1.0                |
| TPH >C25-C35                        | EH_1D_Total      | N                           | 2670       | mg/kg        | 1.0         | < 1.0                |
| TPH >C35-C40                        | EH_1D_Total      | N                           | 2670       | mg/kg        | 1.0         | < 1.0                |
| Total TPH >C6-C40                   | EH_1D_Total      | U                           | 2670       | mg/kg        | 10          | < 10                 |

## Results - Soil

**Project: 16-465 - Edenfield Road, Norden**

|                          |           |                      |      |       |      |             |             |             |
|--------------------------|-----------|----------------------|------|-------|------|-------------|-------------|-------------|
| Client: E3P              |           | Chemtest Job No.:    |      |       |      | 25-26533    | 25-26533    | 25-26533    |
| Quotation No.: Q23-31421 |           | Chemtest Sample ID.: |      |       |      | 2013499     | 2013500     | 2013501     |
| Order No.: 011892        |           | Client Sample Ref.:  |      |       |      | SS103       | TS101       | TS102       |
|                          |           | Client Sample ID.:   |      |       |      | SS103       | TS101       | TS102       |
|                          |           | Client Reference:    |      |       |      | SS103       | TS101       | TS102       |
|                          |           | Sample Type:         |      |       |      | SOIL        | SOIL        | SOIL        |
|                          |           | Top Depth (m):       |      |       |      | -           | -           | -           |
|                          |           | Bottom Depth (m):    |      |       |      | -           | -           | -           |
|                          |           | Date Sampled:        |      |       |      | 07-Aug-2025 | 07-Aug-2025 | 07-Aug-2025 |
|                          |           | Time Sampled:        |      |       |      | 12:00       | 12:00       | 12:00       |
|                          |           | Asbestos Lab:        |      |       |      | DURHAM      | DURHAM      | DURHAM      |
| Determinand              | HWOL Code | Accred.              | SOP  | Units | LOD  |             |             |             |
| Naphthalene              |           | M                    | 2800 | mg/kg | 0.10 | < 0.10      | 0.59        | 0.23        |
| Acenaphthylene           |           | N                    | 2800 | mg/kg | 0.10 | < 0.10      | < 0.10      | 0.12        |
| Acenaphthene             |           | M                    | 2800 | mg/kg | 0.10 | < 0.10      | 0.41        | 0.22        |
| Fluorene                 |           | M                    | 2800 | mg/kg | 0.10 | < 0.10      | 0.32        | 0.22        |
| Phenanthrene             |           | M                    | 2800 | mg/kg | 0.10 | < 0.10      | 2.4         | 1.7         |
| Anthracene               |           | M                    | 2800 | mg/kg | 0.10 | < 0.10      | 0.61        | 0.42        |
| Fluoranthene             |           | M                    | 2800 | mg/kg | 0.10 | < 0.10      | 3.4         | 2.4         |
| Pyrene                   |           | M                    | 2800 | mg/kg | 0.10 | < 0.10      | 2.9         | 2.2         |
| Benzo[a]anthracene       |           | M                    | 2800 | mg/kg | 0.10 | < 0.10      | 1.3         | 1.1         |
| Chrysene                 |           | M                    | 2800 | mg/kg | 0.10 | < 0.10      | 1.5         | 1.2         |
| Benzo[b]fluoranthene     |           | M                    | 2800 | mg/kg | 0.10 | < 0.10      | 1.8         | 1.4         |
| Benzo[k]fluoranthene     |           | M                    | 2800 | mg/kg | 0.10 | < 0.10      | 0.64        | 0.50        |
| Benzo[a]pyrene           |           | M                    | 2800 | mg/kg | 0.10 | < 0.10      | 1.3         | 1.1         |
| Indeno(1,2,3-c,d)Pyrene  |           | M                    | 2800 | mg/kg | 0.10 | < 0.10      | 0.92        | 0.68        |
| Dibenz(a,h)Anthracene    |           | N                    | 2800 | mg/kg | 0.10 | < 0.10      | < 0.10      | < 0.10      |
| Benzo[g,h,i]perylene     |           | M                    | 2800 | mg/kg | 0.10 | < 0.10      | 0.98        | 0.70        |
| Total Of 16 PAH's        |           | N                    | 2800 | mg/kg | 2.0  | < 2.0       | 19          | 14          |
| Total Phenols            |           | M                    | 2920 | mg/kg | 0.10 | < 0.10      | 0.18        | 0.61        |

## Test Methods

| SOP  | Title                                                              | Parameters included                                                                                                                                                                                                                                                       | Method summary                                                                                                                                                                         | Water Accred. |
|------|--------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|
| 2010 | pH Value of Soils                                                  | pH at 20°C                                                                                                                                                                                                                                                                | pH Meter                                                                                                                                                                               |               |
| 2030 | Moisture and Stone Content of Soils(Requirement of MCERTS)         | Moisture content                                                                                                                                                                                                                                                          | Determination of moisture content of soil as a percentage of its as received mass obtained at <30°C.                                                                                   |               |
| 2120 | Water Soluble Boron, Sulphate, Magnesium & Chromium                | Boron; Sulphate; Magnesium; Chromium                                                                                                                                                                                                                                      | Aqueous extraction / ICP-OES                                                                                                                                                           |               |
| 2175 | Total Sulphur in Soils                                             | Total Sulphur                                                                                                                                                                                                                                                             | Determined by high temperature combustion under oxygen, using an Eltra elemental analyser.                                                                                             |               |
| 2192 | Asbestos                                                           | Asbestos                                                                                                                                                                                                                                                                  | Polarised light microscopy / Gravimetry                                                                                                                                                |               |
| 2300 | Cyanides & Thiocyanate in Soils                                    | Free (or easy liberatable) Cyanide; total Cyanide; complex Cyanide; Thiocyanate                                                                                                                                                                                           | Alkaline extraction followed by colorimetric determination using Automated Flow Injection Analyser.                                                                                    |               |
| 2325 | Sulphide in Soils                                                  | Sulphide                                                                                                                                                                                                                                                                  | Steam distillation with sulphuric acid / analysis by 'Aquakem 600' Discrete Analyser, using N,N-dimethyl-p-phenylenediamine.                                                           |               |
| 2430 | Total Sulphate in soils                                            | Total Sulphate                                                                                                                                                                                                                                                            | Acid digestion followed by determination of sulphate in extract by ICP-OES.                                                                                                            |               |
| 2455 | Acid Soluble Metals in Soils                                       | Metals, including: Arsenic; Barium; Beryllium; Cadmium; Chromium; Cobalt; Copper; Lead; Manganese; Mercury; Molybdenum; Nickel; Selenium; Vanadium; Zinc                                                                                                                  | Acid digestion followed by determination of metals in extract by ICP-MS.                                                                                                               |               |
| 2490 | Hexavalent Chromium in Soils                                       | Chromium [VI]                                                                                                                                                                                                                                                             | Soil extracts are prepared by extracting dried and ground soil samples into boiling water. Chromium [VI] is determined by 'Aquakem 600' Discrete Analyser using 1,5-diphenylcarbazine. |               |
| 2625 | Total Organic Carbon in Soils                                      | Total organic Carbon (TOC)                                                                                                                                                                                                                                                | Determined by high temperature combustion under oxygen, using an Eltra elemental analyser.                                                                                             |               |
| 2670 | Total Petroleum Hydrocarbons (TPH) in Soils by GC-FID              | TPH (C6–C40); optional carbon banding, e.g. 3-band – GRO, DRO & LRO*TPH C8–C40                                                                                                                                                                                            | Dichloromethane extraction / GC-FID                                                                                                                                                    |               |
| 2800 | Speciated Polynuclear Aromatic Hydrocarbons (PAH) in Soil by GC-MS | Acenaphthene*; Acenaphthylene; Anthracene*; Benzo[a]Anthracene*; Benzo[a]Pyrene*; Benzo[b]Fluoranthene*; Benzo[ghi]Perylene*; Benzo[k]Fluoranthene; Chrysene*; Dibenz[ah]Anthracene; Fluoranthene*; Fluorene*; Indeno[123cd]Pyrene*; Naphthalene*; Phenanthrene*; Pyrene* | Dichloromethane extraction / GC-MS                                                                                                                                                     |               |
| 2920 | Phenols in Soils by HPLC                                           | Phenolic compounds including Resorcinol, Phenol, Methylphenols, Dimethylphenols, 1-Naphthol and TrimethylphenolsNote: chlorophenols are excluded.                                                                                                                         | 60:40 methanol/water mixture extraction, followed by HPLC determination using electrochemical detection.                                                                               |               |

## Report Information

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|     |                                                                                                               |
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| I/S | Insufficient Sample                                                                                           |
| U/S | Unsuitable Sample                                                                                             |
| N/E | not evaluated                                                                                                 |
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| >   | "greater than"                                                                                                |
| SOP | Standard operating procedure                                                                                  |
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### Sample Retention and Disposal

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RE - Recreational Water  
SA - Saline Water  
SW - Surface Water  
TE - Treated Effluent  
TS - Treated Sewage  
UL - Unspecified Liquid

### **Clean Up Codes**

NC - No Clean Up  
MC - Mathematical Clean Up  
FC - Florisil Clean Up

### **HWOL Acronym System**

HS - Headspace analysis  
EH - Extractable hydrocarbons – i.e. everything extracted by the solvent  
CU - Clean-up – e.g. by Florisil, silica gel  
1D - GC – Single coil gas chromatography  
Total - Aliphatics & Aromatics  
AL - Aliphatics only  
AR - Aromatic only  
2D - GC-GC – Double coil gas chromatography  
#1 - EH\_2D\_Total but with humics mathematically subtracted  
#2 - EH\_2D\_Total but with fatty acids mathematically subtracted  
+ - Operator to indicate cumulative e.g. EH+EH\_Total or EH\_CU+HS\_Total

### **Asbestos Tests LOD = LOQ**

Limit of Detection = Limit of Quantification for asbestos results only

If you require extended retention of samples, please email your requirements to:  
[customerservices@chemtest.com](mailto:customerservices@chemtest.com)

e3p  
Taylor Road  
Urmston  
Manchester

i2 Analytical Ltd.  
7 Woodshots Meadow,  
Croxley Green  
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## **Analytical Report Number : 25-046764**

|                             |                       |                                                        |            |
|-----------------------------|-----------------------|--------------------------------------------------------|------------|
| <b>Project / Site name:</b> | Edenfield Road Norden | <b>Samples received on:</b>                            | 02/09/2025 |
| <b>Your job number:</b>     | 16 465                | <b>Samples instructed on/<br/>Analysis started on:</b> | 02/09/2025 |
| <b>Your order number:</b>   | 12154                 | <b>Analysis completed by:</b>                          | 08/09/2025 |
| <b>Report Issue Number:</b> | 1                     | <b>Report issued on:</b>                               | 08/09/2025 |
| <b>Samples Analysed:</b>    | 4 soil samples        |                                                        |            |



**Signed:**

Anna Goc  
PL Head of Reporting Team  
**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.

Analytical Report Number: 25-046764  
Project / Site name: Edenfield Road Norden  
Your Order No: 12154

|                                         |               |                            |                              |               |
|-----------------------------------------|---------------|----------------------------|------------------------------|---------------|
| Lab Sample Number                       | 666973        | 666974                     | 666975                       | 666976        |
| Sample Reference                        | TS103         | TS104                      | TS105                        | TS106         |
| Sample Number                           | None Supplied | None Supplied              | None Supplied                | None Supplied |
| Water Matrix                            | N/A           | N/A                        | N/A                          | N/A           |
| Depth (m)                               | None Supplied | None Supplied              | None Supplied                | None Supplied |
| Date Sampled                            | 02/09/2025    | 02/09/2025                 | 02/09/2025                   | 02/09/2025    |
| Time Taken                              | None Supplied | None Supplied              | None Supplied                | None Supplied |
| Analytical Parameter<br>(Soil Analysis) | Units         | Test Limit of<br>detection | Test Accreditation<br>Status |               |

|                               |    |      |      |      |       |       |       |
|-------------------------------|----|------|------|------|-------|-------|-------|
| Stone Content                 | %  | 0.1  | NONE | 19.4 | < 0.1 | < 0.1 | < 0.1 |
| Moisture Content              | %  | 0.01 | NONE | 16   | 20    | 19    | 19    |
| Total mass of sample received | kg | 0.1  | NONE | 1.4  | 1.5   | 1.3   | 1.5   |

#### Asbestos

|                                        |      |     |           |              |              |              |              |
|----------------------------------------|------|-----|-----------|--------------|--------------|--------------|--------------|
| Asbestos in Soil Detected/Not Detected | Type | N/A | ISO 17025 | Not-detected | Not-detected | Not-detected | Not-detected |
| Asbestos Analyst ID                    | N/A  | N/A | N/A       | MBI          | MBI          | MBI          | MBI          |
| Analysis completed                     | N/A  | N/A | N/A       | 05/09/2025   | 05/09/2025   | 05/09/2025   | 05/09/2025   |

#### General Inorganics

|                                                                  |          |      |        |       |       |       |       |
|------------------------------------------------------------------|----------|------|--------|-------|-------|-------|-------|
| pH (L099)                                                        | pH Units | N/A  | MCERTS | 8.2   | 8.3   | 7.9   | 8.2   |
| Total Cyanide                                                    | mg/kg    | 1    | MCERTS | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Total Sulphate as SO <sub>4</sub>                                | mg/kg    | 50   | MCERTS | 800   | 690   | 730   | 760   |
| Water Soluble SO <sub>4</sub> 1hr extraction                     | mg/kg    | 2.5  | MCERTS | 300   | 170   | 210   | 240   |
| Water Soluble SO <sub>4</sub> (2:1 Leach. Equiv.) 1hr extraction | mg/l     | 1.25 | MCERTS | 151   | 86.3  | 107   | 118   |
| Sulphide                                                         | mg/kg    | 1    | MCERTS | 4.6   | 5.2   | 7.5   | 38    |
| Total Sulphur                                                    | mg/kg    | 50   | MCERTS | 670   | 870   | 750   | 850   |
| Total Organic Carbon (TOC) - Automated                           | %        | 0.1  | MCERTS | 3     | 4     | 3.3   | 4     |

#### Total Phenols

|                            |       |   |        |       |       |       |       |
|----------------------------|-------|---|--------|-------|-------|-------|-------|
| Total Phenols (monohydric) | mg/kg | 1 | MCERTS | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
|----------------------------|-------|---|--------|-------|-------|-------|-------|

#### Speciated PAHs

|                        |       |      |           |        |        |        |      |
|------------------------|-------|------|-----------|--------|--------|--------|------|
| Naphthalene            | mg/kg | 0.05 | MCERTS    | 0.11   | 0.79   | 0.05   | 0.25 |
| Acenaphthylene         | mg/kg | 0.05 | MCERTS    | < 0.05 | < 0.05 | < 0.05 | 0.07 |
| Acenaphthene           | mg/kg | 0.05 | MCERTS    | 0.42   | 0.55   | 0.14   | 0.96 |
| Fluorene               | mg/kg | 0.05 | MCERTS    | 0.35   | 0.35   | 0.11   | 1.5  |
| Phenanthrene           | mg/kg | 0.05 | MCERTS    | 4      | 2.8    | 0.86   | 8.4  |
| Anthracene             | mg/kg | 0.05 | MCERTS    | 1      | 0.71   | 0.29   | 5.1  |
| Fluoranthene           | mg/kg | 0.05 | MCERTS    | 4.8    | 4.1    | 1.7    | 11   |
| Pyrene                 | mg/kg | 0.05 | MCERTS    | 4.4    | 3.9    | 1.6    | 8.2  |
| Benzo(a)anthracene     | mg/kg | 0.05 | MCERTS    | 2.3    | 2.1    | 0.92   | 4.6  |
| Chrysene               | mg/kg | 0.05 | MCERTS    | 2.4    | 2.1    | 0.92   | 4    |
| Benzo(b)fluoranthene   | mg/kg | 0.05 | ISO 17025 | 2.5    | 2.3    | 1.2    | 2.4  |
| Benzo(k)fluoranthene   | mg/kg | 0.05 | ISO 17025 | 1      | 0.95   | 0.41   | 1.7  |
| Benzo(a)pyrene         | mg/kg | 0.05 | MCERTS    | 2.1    | 2      | 0.91   | 1.5  |
| Indeno(1,2,3-cd)pyrene | mg/kg | 0.05 | MCERTS    | 1      | 0.96   | 0.47   | 1.7  |
| Dibenz(a,h)anthracene  | mg/kg | 0.05 | MCERTS    | 0.2    | 0.22   | 0.11   | 0.18 |
| Benzo(ghi)perylene     | mg/kg | 0.05 | MCERTS    | 1.2    | 1.2    | 0.55   | 1.7  |

#### Total PAH

|                             |       |     |           |      |    |      |      |
|-----------------------------|-------|-----|-----------|------|----|------|------|
| Speciated Total EPA-16 PAHs | mg/kg | 0.8 | ISO 17025 | 27.8 | 25 | 10.3 | 53.3 |
|-----------------------------|-------|-----|-----------|------|----|------|------|

Analytical Report Number: 25-046764  
Project / Site name: Edenfield Road Norden  
Your Order No: 12154

|                                         |               |                            |                              |               |
|-----------------------------------------|---------------|----------------------------|------------------------------|---------------|
| Lab Sample Number                       | 666973        | 666974                     | 666975                       | 666976        |
| Sample Reference                        | TS103         | TS104                      | TS105                        | TS106         |
| Sample Number                           | None Supplied | None Supplied              | None Supplied                | None Supplied |
| Water Matrix                            | N/A           | N/A                        | N/A                          | N/A           |
| Depth (m)                               | None Supplied | None Supplied              | None Supplied                | None Supplied |
| Date Sampled                            | 02/09/2025    | 02/09/2025                 | 02/09/2025                   | 02/09/2025    |
| Time Taken                              | None Supplied | None Supplied              | None Supplied                | None Supplied |
| Analytical Parameter<br>(Soil Analysis) | Units         | Test Limit of<br>detection | Test Accreditation<br>Status |               |

#### Heavy Metals / Metalloids

|                                   |       |     |        |       |       |       |       |
|-----------------------------------|-------|-----|--------|-------|-------|-------|-------|
| Arsenic (aqua regia extractable)  | mg/kg | 1   | MCERTS | 5.7   | 7.2   | 8.5   | 7.2   |
| Cadmium (aqua regia extractable)  | mg/kg | 0.2 | MCERTS | < 0.2 | 0.3   | 0.3   | 0.3   |
| Chromium (hexavalent)             | mg/kg | 1.8 | MCERTS | <1.8  | <1.8  | <1.8  | <1.8  |
| Chromium (III) by IC              | mg/kg | 1   | NONE   | 10    | 13    | 11    | 16    |
| Chromium (aqua regia extractable) | mg/kg | 1   | MCERTS | 10    | 13    | 11    | 16    |
| Copper (aqua regia extractable)   | mg/kg | 1   | MCERTS | 48    | 36    | 45    | 34    |
| Lead (aqua regia extractable)     | mg/kg | 1   | MCERTS | 40    | 44    | 52    | 37    |
| Mercury (aqua regia extractable)  | mg/kg | 0.3 | MCERTS | < 0.3 | < 0.3 | < 0.3 | < 0.3 |
| Nickel (aqua regia extractable)   | mg/kg | 1   | MCERTS | 11    | 15    | 13    | 17    |
| Selenium (aqua regia extractable) | mg/kg | 1   | MCERTS | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Zinc (aqua regia extractable)     | mg/kg | 1   | MCERTS | 63    | 73    | 77    | 68    |

#### Petroleum Hydrocarbons

|                                                          |       |      |        |         |         |         |         |
|----------------------------------------------------------|-------|------|--------|---------|---------|---------|---------|
| TPHCWG - Aliphatic >EC5 - EC6 <sub>HS_ID_AL</sub>        | mg/kg | 0.01 | MCERTS | < 0.010 | < 0.010 | < 0.010 | < 0.010 |
| TPHCWG - Aliphatic >EC6 - EC8 <sub>HS_ID_AL</sub>        | mg/kg | 0.01 | MCERTS | < 0.010 | < 0.010 | < 0.010 | < 0.010 |
| TPHCWG - Aliphatic >EC8 - EC10 <sub>HS_ID_AL</sub>       | mg/kg | 0.01 | MCERTS | < 0.010 | < 0.010 | < 0.010 | < 0.010 |
| TPHCWG - Aliphatic >EC10 - EC12 <sub>EH_CU_ID_AL</sub>   | mg/kg | 1    | MCERTS | < 1.0   | < 1.0   | < 1.0   | < 1.0   |
| TPHCWG - Aliphatic >EC12 - EC16 <sub>EH_CU_ID_AL</sub>   | mg/kg | 2    | MCERTS | 2.3     | 2.3     | 2.2     | 2.1     |
| TPHCWG - Aliphatic >EC16 - EC21 <sub>EH_CU_ID_AL</sub>   | mg/kg | 8    | MCERTS | < 8.0   | < 8.0   | < 8.0   | < 8.0   |
| TPHCWG - Aliphatic >EC21 - EC35 <sub>EH_CU_ID_AL</sub>   | mg/kg | 8    | MCERTS | 30      | 35      | 31      | 44      |
| TPHCWG - Aliphatic >EC5 - EC35 <sub>EH_CU+HS_ID_AL</sub> | mg/kg | 10   | NONE   | 33      | 37      | 33      | 46      |

|                                                         |       |      |        |         |         |         |         |
|---------------------------------------------------------|-------|------|--------|---------|---------|---------|---------|
| TPHCWG - Aromatic >EC5 - EC7 <sub>HS_ID_AR</sub>        | mg/kg | 0.01 | MCERTS | < 0.010 | < 0.010 | < 0.010 | < 0.010 |
| TPHCWG - Aromatic >EC7 - EC8 <sub>HS_ID_AR</sub>        | mg/kg | 0.01 | MCERTS | < 0.010 | < 0.010 | < 0.010 | < 0.010 |
| TPHCWG - Aromatic >EC8 - EC10 <sub>HS_ID_AR</sub>       | mg/kg | 0.02 | MCERTS | < 0.020 | < 0.020 | < 0.020 | < 0.020 |
| TPHCWG - Aromatic >EC10 - EC12 <sub>EH_CU_ID_AR</sub>   | mg/kg | 1    | MCERTS | < 1.0   | < 1.0   | < 1.0   | < 1.0   |
| TPHCWG - Aromatic >EC12 - EC16 <sub>EH_CU_ID_AR</sub>   | mg/kg | 2    | MCERTS | < 2.0   | < 2.0   | < 2.0   | 4.1     |
| TPHCWG - Aromatic >EC16 - EC21 <sub>EH_CU_ID_AR</sub>   | mg/kg | 10   | MCERTS | < 10    | < 10    | < 10    | 29      |
| TPHCWG - Aromatic >EC21 - EC35 <sub>EH_CU_ID_AR</sub>   | mg/kg | 10   | MCERTS | 26      | 33      | 31      | 72      |
| TPHCWG - Aromatic >EC5 - EC35 <sub>EH_CU+HS_ID_AR</sub> | mg/kg | 10   | NONE   | 26      | 33      | 31      | 100     |

#### VOCs

|                                    |       |   |        |       |       |       |       |
|------------------------------------|-------|---|--------|-------|-------|-------|-------|
| MTBE (Methyl Tertiary Butyl Ether) | µg/kg | 5 | MCERTS | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| Benzene                            | µg/kg | 5 | MCERTS | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| Toluene                            | µg/kg | 5 | MCERTS | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| Ethylbenzene                       | µg/kg | 5 | MCERTS | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| p & m-Xylene                       | µg/kg | 8 | MCERTS | < 8.0 | < 8.0 | < 8.0 | < 8.0 |
| o-Xylene                           | µg/kg | 5 | MCERTS | < 5.0 | < 5.0 | < 5.0 | < 5.0 |

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

**Analytical Report Number : 25-046764**

**Project / Site name: Edenfield Road Norden**

\* 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 *                  |
|-------------------|------------------|---------------|---------------|---------------------------------------|
| 666973            | TS103            | None Supplied | None Supplied | Brown loam with vegetation and stones |
| 666974            | TS104            | None Supplied | None Supplied | Brown loam with gravel and vegetation |
| 666975            | TS105            | None Supplied | None Supplied | Brown loam with gravel and vegetation |
| 666976            | TS106            | None Supplied | None Supplied | Brown loam with gravel and vegetation |

**Analytical Report Number : 25-046764**

**Project / Site name: Edenfield Road Norden**

**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            |
| Total organic carbon (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               |
| Sulphide in soil                                                                           | Determination of sulphide in soil by acidification and heating to liberate hydrogen sulphide, trapped in an alkaline solution then assayed by ion selective electrode | In-house method                                                                                        | L010-PL       | D                  | MCERTS               |
| Moisture Content                                                                           | Moisture content, determined gravimetrically (up to 30°C)                                                                                                             | In-house method                                                                                        | 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               |
| Total sulphate (as SO <sub>4</sub> in soil)                                                | Determination of total sulphate in soil by extraction with 10% HCl followed by ICP-OES                                                                                | 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               |
| Sulphate, water soluble, in soil (1hr extraction)                                          | Sulphate, water soluble, in soil (1hr extraction)                                                                                                                     | In-house method                                                                                        | L038B         | D                  | MCERTS               |
| Cr(VI) in soils by Ion chromatography                                                      | Determination of hexavalent chromium in alkaline soil extract by use of ion chromatography with spectrophotometric detection                                          | In-house method                                                                                        | L130B         | W                  | NONE                 |
| 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                 |
| Hexavalent chromium in soil                                                                | Determination of hexavalent chromium in soil by extraction in NaOH and addition of 1,5 diphenylcarbazide followed by colorimetry                                      | In-house method                                                                                        | L080-PL       | W                  | MCERTS               |
| 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               |

**Analytical Report Number : 25-046764**

**Project / Site name: Edenfield Road Norden**

**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 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               |
| 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 30°C.**

**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.**

Quality control parameter failure associated with individual result applies to calculated sum of individuals.

The result for sum should be interpreted with caution

\*U/S g- Unsuitable for analysis due to high colour intensity.

**Analytical Report Number : 25-046764**

**Project / Site name: Edenfield Road Norden**

This deviation report indicates the sample and test deviations that apply to the samples submitted for analysis. Please note that the associated result(s) may be unreliable and should be interpreted with care.

Key: a - No sampling date b - Incorrect container/Insufficient material provided c - Holding time d - Headspace e - Temperature

| Sample ID | Other ID | Sample Type | Lab Sample Number | Sample Deviation | Test Name                       | Test Ref | Test Deviation |
|-----------|----------|-------------|-------------------|------------------|---------------------------------|----------|----------------|
| TS103     | N/A      | S           | 666973            | b                | Asbestos identification in Soil | A001B    | b              |
| TS104     | N/A      | S           | 666974            | b                | Asbestos identification in Soil | A001B    | b              |
| TS105     | N/A      | S           | 666975            | b                | Asbestos identification in Soil | A001B    | b              |
| TS106     | N/A      | S           | 666976            | b                | Asbestos identification in Soil | A001B    | b              |



# Final Report

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**Report No.:** 25-31861-1

**Initial Date of Issue:** 10-Oct-2025

**Re-Issue Details:**

**Client** E3P

**Client Address:** Taylor Road  
Trafford Park  
Urmston  
Manchester  
M41 7JQ

**Contact(s):** Mwilson@e3p.co.uk

**Project** 16-465 - Edenfield Road, Norden

**Quotation No.:** Q23-31421

**Date Received:** 01-Oct-2025

**Order No.:** 012359

**Date Instructed:** 01-Oct-2025

**No. of Samples:** 2

**Turnaround (Wkdays):** 5

**Results Due:** 07-Oct-2025

**Date Approved:** 10-Oct-2025

**Approved By:**

**Details:** David Smith, Technical Director

**For details about application of accreditation to specific matrix types, please refer to the Table at the back of this report**

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## Results - Soil

**Project: 16-465 - Edenfield Road, Norden**

|                                     |             |                      |      |       |       |                      |                      |
|-------------------------------------|-------------|----------------------|------|-------|-------|----------------------|----------------------|
| Client: E3P                         |             | Chemtest Job No.:    |      |       |       | 25-31861             | 25-31861             |
| Quotation No.: Q23-31421            |             | Chemtest Sample ID.: |      |       |       | 2035133              | 2035134              |
| Order No.: 012359                   |             | Client Sample Ref.:  |      |       |       | SS104                | TS107                |
|                                     |             | Client Sample ID.:   |      |       |       | SS104                | TS107                |
|                                     |             | Client Reference:    |      |       |       | SS104                | TS107                |
|                                     |             | Sample Type:         |      |       |       | SOIL                 | SOIL                 |
|                                     |             | Top Depth (m):       |      |       |       | -                    | -                    |
|                                     |             | Bottom Depth (m):    |      |       |       | -                    | -                    |
|                                     |             | Date Sampled:        |      |       |       | 30-Sep-2025          | 30-Sep-2025          |
|                                     |             | Time Sampled:        |      |       |       | 12:00                | 12:00                |
|                                     |             | Asbestos Lab:        |      |       |       | DURHAM               | DURHAM               |
| Determinand                         | HWOL Code   | Accred.              | SOP  | Units | LOD   |                      |                      |
| ACM Type                            |             | N                    | 2192 |       | N/A   | -                    | -                    |
| Asbestos Identification             |             | U                    | 2192 |       | N/A   | No Asbestos Detected | No Asbestos Detected |
| Moisture                            |             | N                    | 2030 | %     | 0.020 | 11                   | 14                   |
| Soil Colour                         |             | N                    | 2030 |       | N/A   | Brown                | Brown                |
| Other Material                      |             | N                    | 2030 |       | N/A   | None                 | None                 |
| Soil Texture                        |             | N                    | 2030 |       | N/A   | Sand                 | Sand                 |
| pH at 20C                           |             | M                    | 2010 |       | 4.0   | 8.3                  | 8.2                  |
| Sulphate (2:1 Water Soluble) as SO4 |             | M                    | 2120 | g/l   | 0.010 | 0.083                | 0.091                |
| Total Sulphur                       |             | U                    | 2175 | %     | 0.010 | 0.035                | 0.056                |
| Cyanide (Total)                     |             | M                    | 2300 | mg/kg | 0.50  | 0.50                 | < 0.50               |
| Sulphide (Easily Liberatable)       |             | N                    | 2325 | mg/kg | 0.50  | 2.7                  | 2.9                  |
| Sulphate (Total)                    |             | U                    | 2430 | %     | 0.010 | 0.082                | 0.076                |
| Arsenic                             |             | M                    | 2455 | mg/kg | 0.5   | 1.8                  | 1.9                  |
| Cadmium                             |             | M                    | 2455 | mg/kg | 0.10  | < 0.10               | < 0.10               |
| Chromium                            |             | M                    | 2455 | mg/kg | 0.5   | 7.0                  | 10                   |
| Copper                              |             | M                    | 2455 | mg/kg | 0.50  | 9.8                  | 11                   |
| Mercury                             |             | M                    | 2455 | mg/kg | 0.05  | 0.05                 | 0.05                 |
| Nickel                              |             | M                    | 2455 | mg/kg | 0.50  | 6.6                  | 6.7                  |
| Lead                                |             | M                    | 2455 | mg/kg | 0.50  | 18                   | 20                   |
| Selenium                            |             | M                    | 2455 | mg/kg | 0.25  | 0.35                 | 0.32                 |
| Zinc                                |             | M                    | 2455 | mg/kg | 0.50  | 28                   | 31                   |
| Chromium (Hexavalent)               |             | N                    | 2490 | mg/kg | 0.50  | < 0.50               | < 0.50               |
| Organic Matter                      |             | M                    | 2625 | %     | 0.40  | 5.6                  | 12                   |
| Total Organic Carbon                |             | M                    | 2625 | %     | 0.20  | 3.3                  | 7.2                  |
| TPH >C6-C8                          | EH_1D_Total | N                    | 2670 | mg/kg | 1.0   | < 1.0                | 2.0                  |
| TPH >C8-C10                         | EH_1D_Total | N                    | 2670 | mg/kg | 1.0   | < 1.0                | 20                   |
| TPH >C10-C12                        | EH_1D_Total | N                    | 2670 | mg/kg | 1.0   | < 1.0                | 8.8                  |
| TPH >C12-C16                        | EH_1D_Total | N                    | 2670 | mg/kg | 1.0   | < 1.0                | 16                   |
| TPH >C16-C21                        | EH_1D_Total | N                    | 2670 | mg/kg | 1.0   | < 1.0                | 97                   |
| TPH >C21-C25                        | EH_1D_Total | N                    | 2670 | mg/kg | 1.0   | < 1.0                | 420                  |
| TPH >C25-C35                        | EH_1D_Total | N                    | 2670 | mg/kg | 1.0   | < 1.0                | 220                  |
| TPH >C35-C40                        | EH_1D_Total | N                    | 2670 | mg/kg | 1.0   | < 1.0                | 57                   |
| Total TPH >C6-C40                   | EH_1D_Total | U                    | 2670 | mg/kg | 10    | < 10                 | 840                  |
| Naphthalene                         |             | M                    | 2800 | mg/kg | 0.10  | < 0.10               | < 0.10               |

## Results - Soil

**Project: 16-465 - Edenfield Road, Norden**

|                          |           |                      |      |       |      |             |             |
|--------------------------|-----------|----------------------|------|-------|------|-------------|-------------|
| Client: E3P              |           | Chemtest Job No.:    |      |       |      | 25-31861    | 25-31861    |
| Quotation No.: Q23-31421 |           | Chemtest Sample ID.: |      |       |      | 2035133     | 2035134     |
| Order No.: 012359        |           | Client Sample Ref.:  |      |       |      | SS104       | TS107       |
|                          |           | Client Sample ID.:   |      |       |      | SS104       | TS107       |
|                          |           | Client Reference:    |      |       |      | SS104       | TS107       |
|                          |           | Sample Type:         |      |       |      | SOIL        | SOIL        |
|                          |           | Top Depth (m):       |      |       |      | -           | -           |
|                          |           | Bottom Depth (m):    |      |       |      | -           | -           |
|                          |           | Date Sampled:        |      |       |      | 30-Sep-2025 | 30-Sep-2025 |
|                          |           | Time Sampled:        |      |       |      | 12:00       | 12:00       |
|                          |           | Asbestos Lab:        |      |       |      | DURHAM      | DURHAM      |
| Determinand              | HWOL Code | Accred.              | SOP  | Units | LOD  |             |             |
| Acenaphthylene           |           | N                    | 2800 | mg/kg | 0.10 | < 0.10      | < 0.10      |
| Acenaphthene             |           | M                    | 2800 | mg/kg | 0.10 | < 0.10      | < 0.10      |
| Fluorene                 |           | M                    | 2800 | mg/kg | 0.10 | < 0.10      | < 0.10      |
| Phenanthrene             |           | M                    | 2800 | mg/kg | 0.10 | 0.35        | 0.62        |
| Anthracene               |           | M                    | 2800 | mg/kg | 0.10 | < 0.10      | 0.15        |
| Fluoranthene             |           | M                    | 2800 | mg/kg | 0.10 | 0.59        | 1.0         |
| Pyrene                   |           | M                    | 2800 | mg/kg | 0.10 | 0.55        | 0.93        |
| Benzo[a]anthracene       |           | M                    | 2800 | mg/kg | 0.10 | 0.26        | 0.49        |
| Chrysene                 |           | M                    | 2800 | mg/kg | 0.10 | 0.24        | 0.44        |
| Benzo[b]fluoranthene     |           | M                    | 2800 | mg/kg | 0.10 | 0.21        | 0.62        |
| Benzo[k]fluoranthene     |           | M                    | 2800 | mg/kg | 0.10 | 0.14        | 0.25        |
| Benzo[a]pyrene           |           | M                    | 2800 | mg/kg | 0.10 | 0.28        | 0.43        |
| Indeno(1,2,3-c,d)Pyrene  |           | M                    | 2800 | mg/kg | 0.10 | 0.21        | 0.33        |
| Dibenz(a,h)Anthracene    |           | N                    | 2800 | mg/kg | 0.10 | < 0.10      | 0.10        |
| Benzo[g,h,i]perylene     |           | M                    | 2800 | mg/kg | 0.10 | 0.18        | 0.36        |
| Total Of 16 PAH's        |           | N                    | 2800 | mg/kg | 2.0  | 3.0         | 5.7         |
| Total Phenols            |           | M                    | 2920 | mg/kg | 0.10 | < 0.10      | < 0.10      |

## Test Methods

| SOP  | Title                                                              | Parameters included                                                                                                                                                                                                                                                        | Method summary                                                                                                                                                                         | Water Accred. |
|------|--------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|
| 2010 | pH Value of Soils                                                  | pH at 20°C                                                                                                                                                                                                                                                                 | pH Meter                                                                                                                                                                               |               |
| 2030 | Moisture and Stone Content of Soils(Requirement of MCERTS)         | Moisture content                                                                                                                                                                                                                                                           | Determination of moisture content of soil as a percentage of its as received mass obtained at <30°C.                                                                                   |               |
| 2120 | Water Soluble Boron, Sulphate, Magnesium & Chromium                | Boron; Sulphate; Magnesium; Chromium                                                                                                                                                                                                                                       | Aqueous extraction / ICP-OES                                                                                                                                                           |               |
| 2175 | Total Sulphur in Soils                                             | Total Sulphur                                                                                                                                                                                                                                                              | Determined by high temperature combustion under oxygen, using an Eltra elemental analyser.                                                                                             |               |
| 2192 | Asbestos                                                           | Asbestos                                                                                                                                                                                                                                                                   | Polarised light microscopy / Gravimetry                                                                                                                                                |               |
| 2300 | Cyanides & Thiocyanate in Soils                                    | Free (or easy liberatable) Cyanide; total Cyanide; complex Cyanide; Thiocyanate                                                                                                                                                                                            | Alkaline extraction followed by colorimetric determination using Automated Flow Injection Analyser.                                                                                    |               |
| 2325 | Sulphide in Soils                                                  | Sulphide                                                                                                                                                                                                                                                                   | Steam distillation with sulphuric acid / analysis by 'Aquakem 600' Discrete Analyser, using N,N-dimethyl-p-phenylenediamine.                                                           |               |
| 2430 | Total Sulphate in soils                                            | Total Sulphate                                                                                                                                                                                                                                                             | Acid digestion followed by determination of sulphate in extract by ICP-OES.                                                                                                            |               |
| 2455 | Acid Soluble Metals in Soils                                       | Metals, including: Arsenic; Barium; Beryllium; Cadmium; Chromium; Cobalt; Copper; Lead; Manganese; Mercury; Molybdenum; Nickel; Selenium; Vanadium; Zinc                                                                                                                   | Acid digestion followed by determination of metals in extract by ICP-MS.                                                                                                               |               |
| 2490 | Hexavalent Chromium in Soils                                       | Chromium [VI]                                                                                                                                                                                                                                                              | Soil extracts are prepared by extracting dried and ground soil samples into boiling water. Chromium [VI] is determined by 'Aquakem 600' Discrete Analyser using 1,5-diphenylcarbazine. |               |
| 2625 | Total Organic Carbon in Soils                                      | Total organic Carbon (TOC)                                                                                                                                                                                                                                                 | Determined by high temperature combustion under oxygen, using an Eltra elemental analyser.                                                                                             |               |
| 2670 | Total Petroleum Hydrocarbons (TPH) in Soils by GC-FID              | TPH (C6–C40); optional carbon banding, e.g. 3-band – GRO, DRO & LRO*TPH C8–C40                                                                                                                                                                                             | Dichloromethane extraction / GC-FID                                                                                                                                                    |               |
| 2800 | Speciated Polynuclear Aromatic Hydrocarbons (PAH) in Soil by GC-MS | Acenaphthene*; Acenaphthylene; Anthracene*; Benzo[a]Anthracene*; Benzo[a]Pyrene*; Benzo[b]Fluoranthene*; Benzo[ghi]Perylene*; Benzo[k]Fluoranthene; Chrysene*; Dibenzo[ah]Anthracene; Fluoranthene*; Fluorene*; Indeno[123cd]Pyrene*; Naphthalene*; Phenanthrene*; Pyrene* | Dichloromethane extraction / GC-MS                                                                                                                                                     |               |
| 2920 | Phenols in Soils by HPLC                                           | Phenolic compounds including Resorcinol, Phenol, Methylphenols, Dimethylphenols, 1-Naphthol and TrimethylphenolsNote: chlorophenols are excluded.                                                                                                                          | 60:40 methanol/water mixture extraction, followed by HPLC determination using electrochemical detection.                                                                               |               |

## **Report Information**

| <b>Key</b> |                                                                                                               |
|------------|---------------------------------------------------------------------------------------------------------------|
| U          | UKAS accredited                                                                                               |
| M          | MCERTS and UKAS accredited                                                                                    |
| N          | Unaccredited                                                                                                  |
| S          | This analysis has been subcontracted to a UKAS accredited laboratory that is accredited for this analysis     |
| SN         | This analysis has been subcontracted to a UKAS accredited laboratory that is not accredited for this analysis |
| T          | This analysis has been subcontracted to an unaccredited laboratory                                            |
| I/S        | Insufficient Sample                                                                                           |
| U/S        | Unsuitable Sample                                                                                             |
| N/E        | not evaluated                                                                                                 |
| <          | "less than"                                                                                                   |
| >          | "greater than"                                                                                                |
| SOP        | Standard operating procedure                                                                                  |
| LOD        | Limit of detection                                                                                            |

*Text example* All items indicated in italic font represent customer-supplied information that may not be independently verified by the laboratory

This report shall not be reproduced except in full, and only with the prior approval of the laboratory.

Any comments or interpretations are outside the scope of UKAS accreditation.

The Laboratory is not accredited for any sampling activities and reported results relate to the samples 'as received' at the laboratory.

Uncertainty of measurement for the determinands tested are available upon request .

None of the results in this report have been recovery corrected.

All results are expressed on a dry weight basis.

The following tests were analysed on samples 'as received' and the results subsequently corrected to a dry weight basis EPH, VPH, TPH, BTEX, VOCs, SVOCs, PCBs, Phenols.

For all other tests the samples were dried at  $\leq 30^{\circ}\text{C}$  prior to analysis.

All Asbestos testing is performed at the indicated laboratory .

Issue numbers are sequential starting with 1 all subsequent reports are incremented by 1.

Where analysis is performed on a dried and crushed sample, it has been prepared by crushing all of the sample. If material has been removed prior to crushing, or by request of the client, this will be stated on the report.

NEW\_ASB Eurofins Chemtest Limited, 11 Depot Road, Newmarket, CB8 0AL

DURHAM Eurofins Chemtest Limited, Unit A North Wing, Prospect Business Park, Crookhall Lane, Consett, Co Durham, DH8 7PW

## **Sample Deviation Codes**

**As a result of any of the below deviations applying, the test results may be unreliable**

- A - Date of sampling not supplied
- B - Sample age exceeds stability time (sampling to extraction)
- C - Sample not received in appropriate containers
- D - Broken Container
- E - The required amount of sample for analysis was not received
- H - Appropriate cooling measures were not taken for sample transportation

## **Sample Retention and Disposal**

All soil samples will be retained for a period of 30 days from the date of receipt.

All water samples will be retained for 14 days from the date of receipt.

Charges may apply to extended sample storage.

## **Report Information**

### **Water Sample Category Key for Accreditation**

---

DW - Drinking Water (Non-Regulatory)  
GW - Ground Water  
LE - Land Leachate  
NA - Not Applicable  
PL - Prepared Leachate  
PW - Processed Water  
RE - Recreational Water  
SA - Saline Water  
SW - Surface Water  
TE - Treated Effluent  
TS - Treated Sewage  
UL - Unspecified Liquid

### **Clean Up Codes**

---

NC - No Clean Up  
MC - Mathematical Clean Up  
FC - Florisil Clean Up

### **HWOL Acronym System**

---

HS - Headspace analysis  
EH - Extractable hydrocarbons – i.e. everything extracted by the solvent  
CU - Clean-up – e.g. by Florisil, silica gel  
1D - GC – Single coil gas chromatography  
Total - Aliphatics & Aromatics  
AL - Aliphatics only  
AR - Aromatic only  
2D - GC-GC – Double coil gas chromatography  
#1 - EH\_2D\_Total but with humics mathematically subtracted  
#2 - EH\_2D\_Total but with fatty acids mathematically subtracted  
+ - Operator to indicate cumulative e.g. EH+EH\_Total or EH\_CU+HS\_Total

### **Asbestos Tests LOD = LOQ**

---

Limit of Detection = Limit of Quantification for asbestos results only

If you require extended retention of samples, please email your requirements to:  
[cs@etuki.eurofins.com](mailto:cs@etuki.eurofins.com)

e3p  
Taylor Road  
Urmston  
Manchester

i2 Analytical Ltd.  
7 Woodshots Meadow,  
Croxley Green  
Business Park,  
Watford,  
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WD18 8YS

t:  
e: mwilson@e3p.co.uk

t: 01923 225404  
f: 01923 237404  
e: info-i2analytical@normecgroup.com

## **Analytical Report Number : 26-002245**

|                             |                        |                                                        |            |
|-----------------------------|------------------------|--------------------------------------------------------|------------|
| <b>Project / Site name:</b> | Edenfield Road, Norden | <b>Samples received on:</b>                            | 16/01/2026 |
| <b>Your job number:</b>     | 16 465                 | <b>Samples instructed on/<br/>Analysis started on:</b> | 16/01/2026 |
| <b>Your order number:</b>   | 13103                  | <b>Analysis completed by:</b>                          | 26/01/2026 |
| <b>Report Issue Number:</b> | 1                      | <b>Report issued on:</b>                               | 26/01/2026 |
| <b>Samples Analysed:</b>    | 3 soil samples         |                                                        |            |



**Signed:**

Adam Fenwick  
Customer Relationship Manager  
**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.

Analytical Report Number: 26-002245  
Project / Site name: Edenfield Road, Norden  
Your Order No: 13103

|                                         |               |                            |                              |
|-----------------------------------------|---------------|----------------------------|------------------------------|
| Lab Sample Number                       | 803694        | 803695                     | 803696                       |
| Sample Reference                        | TS108         | TS109                      | SS105                        |
| Sample Number                           | None Supplied | None Supplied              | None Supplied                |
| Water Matrix                            | N/A           | N/A                        | N/A                          |
| Depth (m)                               | None Supplied | None Supplied              | None Supplied                |
| Date Sampled                            | 15/01/2026    | 15/01/2026                 | 15/01/2026                   |
| Time Taken                              | None Supplied | None Supplied              | None Supplied                |
| Analytical Parameter<br>(Soil Analysis) | Units         | Test Limit of<br>detection | Test Accreditation<br>Status |

|                               |     |      |      |       |       |         |
|-------------------------------|-----|------|------|-------|-------|---------|
| Stone Content                 | %   | 0.1  | NONE | < 0.1 | < 0.1 | 58.9    |
| Moisture Content              | %   | 0.01 | NONE | 21    | 24    | 9.6     |
| Total mass of sample received | kg  | 0.1  | NONE | 0.9   | 0.8   | 1.1     |
| Whole Sample Crushed          | N/A | N/A  | NONE | -     | -     | Crushed |

#### 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       | MWI          | MWI          | MWI          |
| Analysis completed                     | N/A  | N/A | N/A       | 22/01/2026   | 22/01/2026   | 22/01/2026   |

#### General Inorganics

|                                                                 |          |      |        |       |       |       |
|-----------------------------------------------------------------|----------|------|--------|-------|-------|-------|
| pH (L099)                                                       | pH Units | N/A  | MCERTS | 8.5   | 8.2   | 7.1   |
| Total Cyanide                                                   | mg/kg    | 1    | MCERTS | < 1.0 | < 1.0 | < 1.0 |
| Water Soluble Sulphate as SO <sub>4</sub> 16hr extraction (2:1) | mg/kg    | 2.5  | MCERTS | 370   | 400   | 200   |
| Water Soluble SO <sub>4</sub> 16hr extraction (2:1)             | mg/l     | 1.25 | MCERTS | 183   | 199   | 100   |
| Total Organic Carbon (TOC) - Automated                          | %        | 0.1  | MCERTS | 3.1   | 5.2   | 0.8   |

#### Total Phenols

|                            |       |   |        |       |     |       |
|----------------------------|-------|---|--------|-------|-----|-------|
| Total Phenols (monohydric) | mg/kg | 1 | MCERTS | < 1.0 | 6.6 | < 1.0 |
|----------------------------|-------|---|--------|-------|-----|-------|

#### Speciated PAHs

|                        |       |      |           |      |        |        |
|------------------------|-------|------|-----------|------|--------|--------|
| Naphthalene            | mg/kg | 0.05 | MCERTS    | 0.11 | < 0.05 | 0.1    |
| Acenaphthylene         | mg/kg | 0.05 | MCERTS    | 0.16 | < 0.05 | < 0.05 |
| Acenaphthene           | mg/kg | 0.05 | MCERTS    | 0.26 | < 0.05 | < 0.05 |
| Fluorene               | mg/kg | 0.05 | MCERTS    | 0.52 | < 0.05 | < 0.05 |
| Phenanthrene           | mg/kg | 0.05 | MCERTS    | 2.7  | 0.29   | 0.21   |
| Anthracene             | mg/kg | 0.05 | MCERTS    | 0.72 | 0.07   | < 0.05 |
| Fluoranthene           | mg/kg | 0.05 | MCERTS    | 2.7  | 0.57   | 0.3    |
| Pyrene                 | mg/kg | 0.05 | MCERTS    | 2.3  | 0.59   | 0.25   |
| Benzo(a)anthracene     | mg/kg | 0.05 | MCERTS    | 1.1  | 0.26   | 0.16   |
| Chrysene               | mg/kg | 0.05 | MCERTS    | 1    | 0.32   | 0.13   |
| Benzo(b)fluoranthene   | mg/kg | 0.05 | ISO 17025 | 1.1  | 0.39   | 0.17   |
| Benzo(k)fluoranthene   | mg/kg | 0.05 | ISO 17025 | 0.44 | 0.16   | 0.06   |
| Benzo(a)pyrene         | mg/kg | 0.05 | MCERTS    | 0.98 | 0.31   | 0.13   |
| Indeno(1,2,3-cd)pyrene | mg/kg | 0.05 | MCERTS    | 0.46 | 0.2    | 0.07   |
| Dibenz(a,h)anthracene  | mg/kg | 0.05 | MCERTS    | 0.08 | < 0.05 | < 0.05 |
| Benzo(ghi)perylene     | mg/kg | 0.05 | MCERTS    | 0.5  | 0.21   | 0.05   |

#### Total PAH

|                             |       |     |           |      |      |      |
|-----------------------------|-------|-----|-----------|------|------|------|
| Speciated Total EPA-16 PAHs | mg/kg | 0.8 | ISO 17025 | 15.3 | 3.38 | 1.64 |
|-----------------------------|-------|-----|-----------|------|------|------|

Analytical Report Number: 26-002245  
 Project / Site name: Edenfield Road, Norden  
 Your Order No: 13103

|                                         |               |                            |                              |
|-----------------------------------------|---------------|----------------------------|------------------------------|
| Lab Sample Number                       | 803694        | 803695                     | 803696                       |
| Sample Reference                        | TS108         | TS109                      | SS105                        |
| Sample Number                           | None Supplied | None Supplied              | None Supplied                |
| Water Matrix                            | N/A           | N/A                        | N/A                          |
| Depth (m)                               | None Supplied | None Supplied              | None Supplied                |
| Date Sampled                            | 15/01/2026    | 15/01/2026                 | 15/01/2026                   |
| Time Taken                              | None Supplied | None Supplied              | None Supplied                |
| Analytical Parameter<br>(Soil Analysis) | Units         | Test Limit of<br>detection | Test Accreditation<br>Status |

#### Heavy Metals / Metalloids

|                                   |       |     |        |                       |                       |       |
|-----------------------------------|-------|-----|--------|-----------------------|-----------------------|-------|
| Arsenic (aqua regia extractable)  | mg/kg | 1   | MCERTS | 5.1                   | 5.1                   | 7.3   |
| Cadmium (aqua regia extractable)  | mg/kg | 0.2 | MCERTS | < 0.2                 | < 0.2                 | < 0.2 |
| Chromium (hexavalent)             | mg/kg | 1.8 | MCERTS | U/S <sup>*U/S g</sup> | U/S <sup>*U/S g</sup> | < 1.8 |
| Chromium (hexavalent) by IC       | mg/kg | 1.8 | NONE   | < 1.80                | < 1.80                | -     |
| Chromium (aqua regia extractable) | mg/kg | 1   | MCERTS | 15                    | 12                    | 19    |
| Copper (aqua regia extractable)   | mg/kg | 1   | MCERTS | 28                    | 28                    | 27    |
| Lead (aqua regia extractable)     | mg/kg | 1   | MCERTS | 39                    | 39                    | 19    |
| Mercury (aqua regia extractable)  | mg/kg | 0.3 | MCERTS | < 0.3                 | < 0.3                 | < 0.3 |
| Nickel (aqua regia extractable)   | mg/kg | 1   | MCERTS | 12                    | 12                    | 20    |
| Selenium (aqua regia extractable) | mg/kg | 1   | MCERTS | < 1.0                 | < 1.0                 | 1.4   |
| Zinc (aqua regia extractable)     | mg/kg | 1   | MCERTS | 70                    | 75                    | 50    |

#### Petroleum Hydrocarbons

|                                                    |       |      |        |        |        |        |
|----------------------------------------------------|-------|------|--------|--------|--------|--------|
| TPH (>EC5 - EC10) <sub>HS_1D_TOTAL</sub>           | mg/kg | 1    | NONE   | < 1.0  | < 1.0  | < 1.0  |
| TPH (>EC5 - EC6) <sub>HS_1D_TOTAL</sub>            | mg/kg | 0.1  | NONE   | < 0.1  | < 0.1  | < 0.1  |
| TPH (>EC6 - EC8) <sub>HS_1D_TOTAL</sub>            | mg/kg | 0.01 | MCERTS | < 0.01 | < 0.01 | < 0.01 |
| TPH (>EC8 - EC10) <sub>HS_1D_TOTAL</sub>           | mg/kg | 0.02 | MCERTS | < 0.02 | < 0.02 | < 0.02 |
| TPH (>EC10 - EC12) <sub>EH_CU_1D_TOTAL</sub>       | mg/kg | 2    | MCERTS | < 2.0  | < 2.0  | < 2.0  |
| TPH (>EC12 - EC16) <sub>EH_CU_1D_TOTAL</sub>       | mg/kg | 4    | MCERTS | < 4.0  | < 4.0  | < 4.0  |
| TPH (>EC16 - EC21) <sub>EH_CU_1D_TOTAL</sub>       | mg/kg | 10   | MCERTS | < 10   | < 10   | < 10   |
| TPH (>EC21 - EC35) <sub>EH_CU_1D_TOTAL</sub>       | mg/kg | 10   | MCERTS | 35     | 11     | < 10   |
| TPH (>EC35 - EC40) <sub>EH_CU_1D_TOTAL</sub>       | mg/kg | 10   | MCERTS | 13     | < 10   | < 10   |
| TPH Total >EC5 - EC40 <sub>EH_CU+HS_1D_TOTAL</sub> | mg/kg | 10   | NONE   | 61     | 14     | < 10   |
| TPH (EC10 - EC40) <sub>EH_CU_1D_TOTAL</sub>        | mg/kg | 10   | MCERTS | 61     | 14     | < 10   |

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

**Analytical Report Number : 26-002245**

**Project / Site name: Edenfield Road, Norden**

\* 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 *                           |
|-------------------|------------------|---------------|---------------|------------------------------------------------|
| 803694            | TS108            | None Supplied | None Supplied | Brown loam and clay with gravel and vegetation |
| 803695            | TS109            | None Supplied | None Supplied | Brown loam and clay with gravel and vegetation |
| 803696            | SS105            | None Supplied | None Supplied | Brown clay and sand with stones                |

**Analytical Report Number : 26-002245**

**Project / Site name: Edenfield Road, Norden**

**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            |
| Total organic carbon (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               |
| Sulphate, water soluble, in soil (16hr extraction)                     | Sulphate, water soluble, in soil (16hr extraction)                                                                                                  | In-house method                                                                                        | L038B         | D                  | MCERTS               |
| Hexavalent chromium in soil by Ion Chromatography                      | Determination of hexavalent chromium in alkaline soil extract by use of ion chromatography with spectrophotometric detection                        | In-house method                                                                                        | L130B         | W                  | NONE                 |
| 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               |
| Total petroleum hydrocarbons by GC-FID in soil                         | Determination of total petroleum hydrocarbons in soil by GC-FID                                                                                     | In-house method                                                                                        | L076B         | D                  | MCERTS               |
| Total petroleum hydrocarbons by GC-FID/GC-MS HS in soil (Summed Bands) | Determination of total petroleum hydrocarbons in soil by GC-FID/GC-MS HS (Summed Bands).                                                            | Calculation                                                                                            | L076B/L088-PL | D/W                | NONE                 |
| Hexavalent chromium in soil                                            | Determination of hexavalent chromium in soil by extraction in NaOH and addition of 1,5 diphenylcarbazide followed by colorimetry                    | In-house method                                                                                        | L080-PL       | W                  | MCERTS               |
| 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               |
| Total petroleum hydrocarbons by HS-GC-MS in soil                       | Determination of total petroleum hydrocarbons in soil by HS-GC/MS                                                                                   | 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                 |

**Analytical Report Number : 26-002245**

**Project / Site name: Edenfield Road, Norden**

**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 |
|----------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------|---------------|--------------------|----------------------|
| Whole Sample Crushed | Either: Client specific preparation instructions - sample(s) crushed whole prior to analysis OR Sample unsuitable for standard preparation and therefore crushed whole prior to analysis | In house method, applicable to dry samples only | L019B         | D                  | 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.**

Quality control parameter failure associated with individual result applies to calculated sum of individuals.

The result for sum should be interpreted with caution

\*U/S g- Unsuitable for analysis due to high colour intensity.

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## **Analytical Report Number : 26-020644**

|                             |                        |                                                        |            |
|-----------------------------|------------------------|--------------------------------------------------------|------------|
| <b>Project / Site name:</b> | Edenfield Road, Norden | <b>Samples received on:</b>                            | 20/04/2026 |
| <b>Your job number:</b>     | 16 465                 | <b>Samples instructed on/<br/>Analysis started on:</b> | 20/04/2026 |
| <b>Your order number:</b>   | 13884                  | <b>Analysis completed by:</b>                          | 28/04/2026 |
| <b>Report Issue Number:</b> | 1                      | <b>Report issued on:</b>                               | 28/04/2026 |
| <b>Samples Analysed:</b>    | 6 soil samples         |                                                        |            |



**Signed:**

Anna Goc  
PL Head of Reporting Team  
**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.

**Analytical Report Number: 26-020644**  
**Project / Site name: Edenfield Road, Norden**  
**Your Order No: 13884**

|                                         |               |                            |                              |               |               |
|-----------------------------------------|---------------|----------------------------|------------------------------|---------------|---------------|
| Lab Sample Number                       | 895015        | 895016                     | 895017                       | 895018        | 895019        |
| Sample Reference                        | TS110         | TS111                      | TS112                        | SS106         | SS107         |
| Sample Number                           | None Supplied | None Supplied              | None Supplied                | None Supplied | None Supplied |
| Water Matrix                            | N/A           | N/A                        | N/A                          | N/A           | N/A           |
| Depth (m)                               | None Supplied | None Supplied              | None Supplied                | None Supplied | None Supplied |
| Date Sampled                            | 17/04/2026    | 17/04/2026                 | 17/04/2026                   | 17/04/2026    | 17/04/2026    |
| Time Taken                              | None Supplied | None Supplied              | None Supplied                | None Supplied | None Supplied |
| Analytical Parameter<br>(Soil Analysis) | Units         | Test Limit of<br>detection | Test Accreditation<br>Status |               |               |

|                               |    |      |      |       |       |       |       |      |
|-------------------------------|----|------|------|-------|-------|-------|-------|------|
| Mass of stone >10mm           | %  | 0.1  | NONE | < 0.1 | < 0.1 | < 0.1 | < 0.1 | 31.4 |
| Moisture Content              | %  | 0.01 | NONE | 24    | 23    | 23    | 14    | 12   |
| Total mass of sample received | kg | 0.1  | NONE | 0.8   | 0.6   | 0.6   | 0.8   | 0.6  |

#### Asbestos

|                                        |      |     |           |              |              |              |              |              |
|----------------------------------------|------|-----|-----------|--------------|--------------|--------------|--------------|--------------|
| Asbestos in Soil Detected/Not Detected | Type | N/A | ISO 17025 | Not-detected | Not-detected | Not-detected | Not-detected | Not-detected |
| Asbestos Analyst ID                    | N/A  | N/A | N/A       | CAD          | CAD          | CAD          | CAD          | CAD          |
| Analysis completed                     | N/A  | N/A | N/A       | 27/04/2026   | 27/04/2026   | 27/04/2026   | 27/04/2026   | 27/04/2026   |

#### General Inorganics

|                                                                 |          |      |        |       |       |       |       |       |
|-----------------------------------------------------------------|----------|------|--------|-------|-------|-------|-------|-------|
| pH (L099)                                                       | pH Units | N/A  | MCERTS | 8.1   | 8     | 7.9   | 6.9   | 6.7   |
| Total Cyanide                                                   | mg/kg    | 1    | MCERTS | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Water Soluble Sulphate as SO <sub>4</sub> 16hr extraction (2:1) | mg/kg    | 2.5  | MCERTS | 160   | 190   | 170   | 300   | 260   |
| Water Soluble SO <sub>4</sub> 16hr extraction (2:1)             | mg/l     | 1.25 | MCERTS | 79.5  | 92.7  | 85.9  | 149   | 131   |
| Total Organic Carbon (TOC) - Automated                          | %        | 0.1  | MCERTS | 3.1   | 2.4   | 2.4   | 1.1   | 0.9   |

#### Total Phenols

|                            |       |   |        |       |       |       |       |       |
|----------------------------|-------|---|--------|-------|-------|-------|-------|-------|
| Total Phenols (monohydric) | mg/kg | 1 | MCERTS | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
|----------------------------|-------|---|--------|-------|-------|-------|-------|-------|

#### Speciated PAHs

|                        |       |      |           |        |        |        |        |        |
|------------------------|-------|------|-----------|--------|--------|--------|--------|--------|
| Naphthalene            | mg/kg | 0.05 | MCERTS    | < 0.05 | < 0.05 | < 0.05 | < 0.05 | < 0.05 |
| Acenaphthylene         | mg/kg | 0.05 | MCERTS    | < 0.05 | < 0.05 | < 0.05 | < 0.05 | < 0.05 |
| Acenaphthene           | mg/kg | 0.05 | MCERTS    | 0.05   | < 0.05 | < 0.05 | < 0.05 | < 0.05 |
| Fluorene               | mg/kg | 0.05 | MCERTS    | 0.06   | < 0.05 | < 0.05 | < 0.05 | < 0.05 |
| Phenanthrene           | mg/kg | 0.05 | MCERTS    | 0.43   | 0.25   | 0.14   | 0.07   | 0.07   |
| Anthracene             | mg/kg | 0.05 | MCERTS    | 0.11   | < 0.05 | 0.05   | < 0.05 | < 0.05 |
| Fluoranthene           | mg/kg | 0.05 | MCERTS    | 0.55   | 0.44   | 0.3    | < 0.05 | < 0.05 |
| Pyrene                 | mg/kg | 0.05 | MCERTS    | 0.49   | 0.41   | 0.28   | < 0.05 | < 0.05 |
| Benzo(a)anthracene     | mg/kg | 0.05 | MCERTS    | 0.28   | 0.23   | 0.16   | < 0.05 | < 0.05 |
| Chrysene               | mg/kg | 0.05 | MCERTS    | 0.26   | 0.23   | 0.18   | 0.05   | < 0.05 |
| Benzo(b)fluoranthene   | mg/kg | 0.05 | ISO 17025 | 0.28   | 0.27   | 0.19   | < 0.05 | < 0.05 |
| Benzo(k)fluoranthene   | mg/kg | 0.05 | ISO 17025 | < 0.05 | 0.09   | 0.11   | < 0.05 | < 0.05 |
| Benzo(a)pyrene         | mg/kg | 0.05 | MCERTS    | 0.25   | 0.22   | < 0.05 | < 0.05 | < 0.05 |
| Indeno(1,2,3-cd)pyrene | mg/kg | 0.05 | MCERTS    | 0.14   | 0.13   | 0.12   | < 0.05 | < 0.05 |
| Dibenz(a,h)anthracene  | mg/kg | 0.05 | MCERTS    | < 0.05 | < 0.05 | < 0.05 | < 0.05 | < 0.05 |
| Benzo(ghi)perylene     | mg/kg | 0.05 | MCERTS    | 0.14   | < 0.05 | < 0.05 | < 0.05 | < 0.05 |

#### Total PAH

|                             |       |     |           |      |      |      |        |        |
|-----------------------------|-------|-----|-----------|------|------|------|--------|--------|
| Speciated Total EPA-16 PAHs | mg/kg | 0.8 | ISO 17025 | 3.04 | 2.26 | 1.53 | < 0.80 | < 0.80 |
|-----------------------------|-------|-----|-----------|------|------|------|--------|--------|

Analytical Report Number: 26-020644  
Project / Site name: Edenfield Road, Norden  
Your Order No: 13884

|                                         |               |                            |                              |               |               |
|-----------------------------------------|---------------|----------------------------|------------------------------|---------------|---------------|
| Lab Sample Number                       | 895015        | 895016                     | 895017                       | 895018        | 895019        |
| Sample Reference                        | TS110         | TS111                      | TS112                        | SS106         | SS107         |
| Sample Number                           | None Supplied | None Supplied              | None Supplied                | None Supplied | None Supplied |
| Water Matrix                            | N/A           | N/A                        | N/A                          | N/A           | N/A           |
| Depth (m)                               | None Supplied | None Supplied              | None Supplied                | None Supplied | None Supplied |
| Date Sampled                            | 17/04/2026    | 17/04/2026                 | 17/04/2026                   | 17/04/2026    | 17/04/2026    |
| Time Taken                              | None Supplied | None Supplied              | None Supplied                | None Supplied | None Supplied |
| Analytical Parameter<br>(Soil Analysis) | Units         | Test Limit of<br>detection | Test Accreditation<br>Status |               |               |

#### Heavy Metals / Metalloids

|                                   |       |     |        |                       |                       |                       |       |       |
|-----------------------------------|-------|-----|--------|-----------------------|-----------------------|-----------------------|-------|-------|
| Arsenic (aqua regia extractable)  | mg/kg | 1   | MCERTS | 3                     | 3.3                   | 3.1                   | 5.5   | 4.8   |
| Cadmium (aqua regia extractable)  | mg/kg | 0.2 | MCERTS | < 0.2                 | < 0.2                 | < 0.2                 | < 0.2 | < 0.2 |
| Chromium (hexavalent)             | mg/kg | 1.8 | MCERTS | U/S <sup>*U/S g</sup> | U/S <sup>*U/S g</sup> | U/S <sup>*U/S g</sup> | < 1.8 | < 1.8 |
| Chromium (hexavalent) by IC       | mg/kg | 1.8 | NONE   | < 1.80                | < 1.80                | < 1.80                | -     | -     |
| Chromium (aqua regia extractable) | mg/kg | 1   | MCERTS | 8.9                   | 9                     | 7.9                   | 18    | 21    |
| Copper (aqua regia extractable)   | mg/kg | 1   | MCERTS | 13                    | 14                    | 11                    | 14    | 16    |
| Lead (aqua regia extractable)     | mg/kg | 1   | MCERTS | 15                    | 16                    | 13                    | 17    | 13    |
| Mercury (aqua regia extractable)  | mg/kg | 0.3 | MCERTS | < 0.3                 | < 0.3                 | < 0.3                 | < 0.3 | < 0.3 |
| Nickel (aqua regia extractable)   | mg/kg | 1   | MCERTS | 9.3                   | 9.7                   | 8.8                   | 28    | 34    |
| Selenium (aqua regia extractable) | mg/kg | 1   | MCERTS | < 1.0                 | 1.1                   | < 1.0                 | < 1.0 | < 1.0 |
| Zinc (aqua regia extractable)     | mg/kg | 1   | MCERTS | 37                    | 40                    | 34                    | 55    | 63    |

#### Petroleum Hydrocarbons

|                                                    |       |      |        |        |        |        |        |        |
|----------------------------------------------------|-------|------|--------|--------|--------|--------|--------|--------|
| TPH (>EC5 - EC10) <sub>HS_1D_TOTAL</sub>           | mg/kg | 1    | NONE   | < 1.0  | < 1.0  | < 1.0  | < 1.0  | < 1.0  |
| TPH (>EC5 - EC6) <sub>HS_1D_TOTAL</sub>            | mg/kg | 0.1  | NONE   | < 0.1  | < 0.1  | < 0.1  | < 0.1  | < 0.1  |
| TPH (>EC6 - EC8) <sub>HS_1D_TOTAL</sub>            | mg/kg | 0.01 | MCERTS | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| TPH (>EC8 - EC10) <sub>HS_1D_TOTAL</sub>           | mg/kg | 0.02 | MCERTS | < 0.02 | < 0.02 | < 0.02 | < 0.02 | < 0.02 |
| TPH (>EC10 - EC12) <sub>EH_CU_1D_TOTAL</sub>       | mg/kg | 2    | MCERTS | < 2.0  | < 2.0  | < 2.0  | < 2.0  | < 2.0  |
| TPH (>EC12 - EC16) <sub>EH_CU_1D_TOTAL</sub>       | mg/kg | 4    | MCERTS | < 4.0  | < 4.0  | < 4.0  | < 4.0  | 5.5    |
| TPH (>EC16 - EC21) <sub>EH_CU_1D_TOTAL</sub>       | mg/kg | 10   | MCERTS | < 10   | < 10   | < 10   | < 10   | < 10   |
| TPH (>EC21 - EC35) <sub>EH_CU_1D_TOTAL</sub>       | mg/kg | 10   | MCERTS | < 10   | < 10   | < 10   | < 10   | < 10   |
| TPH (>EC35 - EC40) <sub>EH_CU_1D_TOTAL</sub>       | mg/kg | 10   | MCERTS | < 10   | < 10   | < 10   | < 10   | < 10   |
| TPH Total >EC5 - EC40 <sub>EH_CU+HS_1D_TOTAL</sub> | mg/kg | 10   | NONE   | < 10   | < 10   | < 10   | 14     | 26     |
| TPH (EC10 - EC40) <sub>EH_CU_1D_TOTAL</sub>        | mg/kg | 10   | MCERTS | < 10   | < 10   | < 10   | 14     | 26     |

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

**Analytical Report Number: 26-020644**  
**Project / Site name: Edenfield Road, Norden**  
**Your Order No: 13884**

|                                         |               |                            |                              |  |
|-----------------------------------------|---------------|----------------------------|------------------------------|--|
| Lab Sample Number                       | 895020        |                            |                              |  |
| Sample Reference                        | SS108         |                            |                              |  |
| Sample Number                           | None Supplied |                            |                              |  |
| Water Matrix                            | N/A           |                            |                              |  |
| Depth (m)                               | None Supplied |                            |                              |  |
| Date Sampled                            | 17/04/2026    |                            |                              |  |
| Time Taken                              | None Supplied |                            |                              |  |
| Analytical Parameter<br>(Soil Analysis) | Units         | Test Limit of<br>detection | Test Accreditation<br>Status |  |

|                               |    |      |      |       |
|-------------------------------|----|------|------|-------|
| Mass of stone >10mm           | %  | 0.1  | NONE | < 0.1 |
| Moisture Content              | %  | 0.01 | NONE | 13    |
| Total mass of sample received | kg | 0.1  | NONE | 0.6   |

#### Asbestos

|                                        |      |     |           |              |
|----------------------------------------|------|-----|-----------|--------------|
| Asbestos in Soil Detected/Not Detected | Type | N/A | ISO 17025 | Not-detected |
| Asbestos Analyst ID                    | N/A  | N/A | N/A       | CAD          |
| Analysis completed                     | N/A  | N/A | N/A       | 27/04/2026   |

#### General Inorganics

|                                                                 |          |      |        |       |
|-----------------------------------------------------------------|----------|------|--------|-------|
| pH (L099)                                                       | pH Units | N/A  | MCERTS | 7     |
| Total Cyanide                                                   | mg/kg    | 1    | MCERTS | < 1.0 |
| Water Soluble Sulphate as SO <sub>4</sub> 16hr extraction (2:1) | mg/kg    | 2.5  | MCERTS | 230   |
| Water Soluble SO <sub>4</sub> 16hr extraction (2:1)             | mg/l     | 1.25 | MCERTS | 114   |
| Total Organic Carbon (TOC) - Automated                          | %        | 0.1  | MCERTS | 1.1   |

#### Total Phenols

|                            |       |   |        |       |
|----------------------------|-------|---|--------|-------|
| Total Phenols (monohydric) | mg/kg | 1 | MCERTS | < 1.0 |
|----------------------------|-------|---|--------|-------|

#### Speciated PAHs

|                        |       |      |           |        |
|------------------------|-------|------|-----------|--------|
| Naphthalene            | mg/kg | 0.05 | MCERTS    | < 0.05 |
| Acenaphthylene         | mg/kg | 0.05 | MCERTS    | < 0.05 |
| Acenaphthene           | mg/kg | 0.05 | MCERTS    | < 0.05 |
| Fluorene               | mg/kg | 0.05 | MCERTS    | < 0.05 |
| Phenanthrene           | mg/kg | 0.05 | MCERTS    | 0.08   |
| Anthracene             | mg/kg | 0.05 | MCERTS    | < 0.05 |
| Fluoranthene           | mg/kg | 0.05 | MCERTS    | 0.06   |
| Pyrene                 | mg/kg | 0.05 | MCERTS    | 0.06   |
| Benzo(a)anthracene     | mg/kg | 0.05 | MCERTS    | < 0.05 |
| Chrysene               | mg/kg | 0.05 | MCERTS    | < 0.05 |
| Benzo(b)fluoranthene   | mg/kg | 0.05 | ISO 17025 | < 0.05 |
| Benzo(k)fluoranthene   | mg/kg | 0.05 | ISO 17025 | < 0.05 |
| Benzo(a)pyrene         | mg/kg | 0.05 | MCERTS    | < 0.05 |
| Indeno(1,2,3-cd)pyrene | mg/kg | 0.05 | MCERTS    | < 0.05 |
| Dibenz(a,h)anthracene  | mg/kg | 0.05 | MCERTS    | < 0.05 |
| Benzo(ghi)perylene     | mg/kg | 0.05 | MCERTS    | < 0.05 |

#### Total PAH

|                             |       |     |           |        |
|-----------------------------|-------|-----|-----------|--------|
| Speciated Total EPA-16 PAHs | mg/kg | 0.8 | ISO 17025 | < 0.80 |
|-----------------------------|-------|-----|-----------|--------|

Analytical Report Number: 26-020644  
 Project / Site name: Edenfield Road, Norden  
 Your Order No: 13884

|                                         |               |                            |                              |  |
|-----------------------------------------|---------------|----------------------------|------------------------------|--|
| Lab Sample Number                       | 895020        |                            |                              |  |
| Sample Reference                        | SS108         |                            |                              |  |
| Sample Number                           | None Supplied |                            |                              |  |
| Water Matrix                            | N/A           |                            |                              |  |
| Depth (m)                               | None Supplied |                            |                              |  |
| Date Sampled                            | 17/04/2026    |                            |                              |  |
| Time Taken                              | None Supplied |                            |                              |  |
| Analytical Parameter<br>(Soil Analysis) | Units         | Test Limit of<br>detection | Test Accreditation<br>Status |  |

#### Heavy Metals / Metalloids

|                                   |       |     |        |       |
|-----------------------------------|-------|-----|--------|-------|
| Arsenic (aqua regia extractable)  | mg/kg | 1   | MCERTS | 4.6   |
| Cadmium (aqua regia extractable)  | mg/kg | 0.2 | MCERTS | < 0.2 |
| Chromium (hexavalent)             | mg/kg | 1.8 | MCERTS | < 1.8 |
| Chromium (hexavalent) by IC       | mg/kg | 1.8 | NONE   | -     |
| Chromium (aqua regia extractable) | mg/kg | 1   | MCERTS | 18    |
| Copper (aqua regia extractable)   | mg/kg | 1   | MCERTS | 15    |
| Lead (aqua regia extractable)     | mg/kg | 1   | MCERTS | 14    |
| Mercury (aqua regia extractable)  | mg/kg | 0.3 | MCERTS | < 0.3 |
| Nickel (aqua regia extractable)   | mg/kg | 1   | MCERTS | 29    |
| Selenium (aqua regia extractable) | mg/kg | 1   | MCERTS | < 1.0 |
| Zinc (aqua regia extractable)     | mg/kg | 1   | MCERTS | 52    |

#### Petroleum Hydrocarbons

|                                                  |       |      |        |        |
|--------------------------------------------------|-------|------|--------|--------|
| TPH (>EC5 - EC10) <small>HS_1D_TOTAL</small>     | mg/kg | 1    | NONE   | < 1.0  |
| TPH (>EC5 - EC6) <small>HS_1D_TOTAL</small>      | mg/kg | 0.1  | NONE   | < 0.1  |
| TPH (>EC6 - EC8) <small>HS_1D_TOTAL</small>      | mg/kg | 0.01 | MCERTS | < 0.01 |
| TPH (>EC8 - EC10) <small>HS_1D_TOTAL</small>     | mg/kg | 0.02 | MCERTS | < 0.02 |
| TPH (>EC10 - EC12) <small>EH_CU_1D_TOTAL</small> | mg/kg | 2    | MCERTS | < 2.0  |
| TPH (>EC12 - EC16) <small>EH_CU_1D_TOTAL</small> | mg/kg | 4    | MCERTS | 7.1    |
| TPH (>EC16 - EC21) <small>EH_CU_1D_TOTAL</small> | mg/kg | 10   | MCERTS | 13     |
| TPH (>EC21 - EC35) <small>EH_CU_1D_TOTAL</small> | mg/kg | 10   | MCERTS | 14     |
| TPH (>EC35 - EC40) <small>EH_CU_1D_TOTAL</small> | mg/kg | 10   | MCERTS | < 10   |

|                                                        |       |    |      |    |
|--------------------------------------------------------|-------|----|------|----|
| TPH Total >EC5 - EC40 <small>EH_CU+HS_1D_TOTAL</small> | mg/kg | 10 | NONE | 36 |
|--------------------------------------------------------|-------|----|------|----|

|                                                 |       |    |        |    |
|-------------------------------------------------|-------|----|--------|----|
| TPH (EC10 - EC40) <small>EH_CU_1D_TOTAL</small> | mg/kg | 10 | MCERTS | 36 |
|-------------------------------------------------|-------|----|--------|----|

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

**Analytical Report Number : 26-020644**

**Project / Site name: Edenfield Road, Norden**

\* 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 *                           |
|-------------------|------------------|---------------|---------------|------------------------------------------------|
| 895015            | TS110            | None Supplied | None Supplied | Brown clay and sand with gravel and vegetation |
| 895016            | TS111            | None Supplied | None Supplied | Brown clay and sand with gravel and vegetation |
| 895017            | TS112            | None Supplied | None Supplied | Brown clay and sand with gravel and vegetation |
| 895018            | SS106            | None Supplied | None Supplied | Brown clay and sand with gravel                |
| 895019            | SS107            | None Supplied | None Supplied | Brown clay and sand with stones                |
| 895020            | SS108            | None Supplied | None Supplied | Brown clay and sand with gravel and vegetation |

**Analytical Report Number : 26-020644**

**Project / Site name: Edenfield Road, Norden**

**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            |
| Total organic carbon (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               |
| Sulphate, water soluble, in soil (16hr extraction)                     | Sulphate, water soluble, in soil (16hr extraction)                                                                                                  | In-house method                                                                                        | L038B         | D                  | MCERTS               |
| Hexavalent chromium in soil by Ion Chromatography                      | Determination of hexavalent chromium in alkaline soil extract by use of ion chromatography with spectrophotometric detection                        | In-house method                                                                                        | L130B         | W                  | NONE                 |
| 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               |
| Total petroleum hydrocarbons by GC-FID in soil                         | Determination of total petroleum hydrocarbons in soil by GC-FID                                                                                     | In-house method                                                                                        | L076B         | D                  | MCERTS               |
| Total petroleum hydrocarbons by GC-FID/GC-MS HS in soil (Summed Bands) | Determination of total petroleum hydrocarbons in soil by GC-FID/GC-MS HS (Summed Bands).                                                            | Calculation                                                                                            | L076B/L088-PL | D/W                | NONE                 |
| Hexavalent chromium in soil                                            | Determination of hexavalent chromium in soil by extraction in NaOH and addition of 1,5 diphénylcarbazide followed by colorimetry                    | In-house method                                                                                        | L080-PL       | W                  | MCERTS               |
| 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               |
| Total petroleum hydrocarbons by HS-GC-MS in soil                       | Determination of total petroleum hydrocarbons in soil by HS-GC/MS                                                                                   | 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               |

**Analytical Report Number : 26-020644**

**Project / Site name: Edenfield Road, Norden**

**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 |
|----------------------|-------------------------------|-----------------------------|---------------|--------------------|----------------------|
| 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.

Quality control parameter failure associated with individual result applies to calculated sum of individuals.

The result for sum should be interpreted with caution

\*U/S g- Unsuitable for analysis due to high colour intensity.

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## **Analytical Report Number : 26-031527**

|                             |                        |                                                        |            |
|-----------------------------|------------------------|--------------------------------------------------------|------------|
| <b>Project / Site name:</b> | Edenfield Road, Norden | <b>Samples received on:</b>                            | 11/06/2026 |
| <b>Your job number:</b>     | 16-465                 | <b>Samples instructed on/<br/>Analysis started on:</b> | 11/06/2026 |
| <b>Your order number:</b>   | 14317                  | <b>Analysis completed by:</b>                          | 18/06/2026 |
| <b>Report Issue Number:</b> | 1                      | <b>Report issued on:</b>                               | 18/06/2026 |
| <b>Samples Analysed:</b>    | 4 soil samples         |                                                        |            |



**Signed:**  
\_\_\_\_\_  
Rachel Chappell  
Key Account Manager  
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.

Analytical Report Number: 26-031527  
Project / Site name: Edenfield Road, Norden  
Your Order No: 14317

|                                         |               |                            |                              |               |
|-----------------------------------------|---------------|----------------------------|------------------------------|---------------|
| Lab Sample Number                       | 948782        | 948783                     | 948784                       | 948785        |
| Sample Reference                        | TS113         | TS114                      | SS109                        | SS110         |
| Sample Number                           | None Supplied | None Supplied              | None Supplied                | None Supplied |
| Water Matrix                            | N/A           | N/A                        | N/A                          | N/A           |
| Depth (m)                               | None Supplied | None Supplied              | None Supplied                | None Supplied |
| Date Sampled                            | 10/06/2026    | 10/06/2026                 | 10/06/2026                   | 10/06/2026    |
| Time Taken                              | None Supplied | None Supplied              | None Supplied                | None Supplied |
| Analytical Parameter<br>(Soil Analysis) | Units         | Test Limit of<br>detection | Test Accreditation<br>Status |               |

|                               |    |      |      |       |       |     |      |
|-------------------------------|----|------|------|-------|-------|-----|------|
| Mass of stone >10mm           | %  | 0.1  | NONE | < 0.1 | < 0.1 | 35  | 34.2 |
| Moisture Content              | %  | 0.01 | NONE | 24    | 25    | 9.7 | 9.2  |
| Total mass of sample received | kg | 0.1  | NONE | 1.2   | 1.1   | 1.2 | 1.2  |

#### Asbestos

|                                        |      |     |           |              |              |              |              |
|----------------------------------------|------|-----|-----------|--------------|--------------|--------------|--------------|
| Asbestos in Soil Detected/Not Detected | Type | N/A | ISO 17025 | Not-detected | Not-detected | Not-detected | Not-detected |
| Asbestos Analyst ID                    | N/A  | N/A | N/A       | KKR          | KKR          | KKR          | KKR          |
| Analysis completed                     | N/A  | N/A | N/A       | 18/06/2026   | 18/06/2026   | 18/06/2026   | 18/06/2026   |

#### General Inorganics

|                                                                 |          |      |        |       |       |       |       |
|-----------------------------------------------------------------|----------|------|--------|-------|-------|-------|-------|
| pH (L099)                                                       | pH Units | N/A  | MCERTS | 7.8   | 8.1   | 6.9   | 6.8   |
| Total Cyanide                                                   | mg/kg    | 1    | MCERTS | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Water Soluble Sulphate as SO <sub>4</sub> 16hr extraction (2:1) | mg/kg    | 2.5  | MCERTS | 120   | 89    | 1300  | 1300  |
| Water Soluble SO <sub>4</sub> 16hr extraction (2:1)             | mg/l     | 1.25 | MCERTS | 59.3  | 44.4  | 668   | 648   |
| Total Organic Carbon (TOC) - Automated                          | %        | 0.1  | MCERTS | 2.8   | 3     | 0.6   | 0.6   |

#### Total Phenols

|                            |       |   |        |       |       |       |       |
|----------------------------|-------|---|--------|-------|-------|-------|-------|
| Total Phenols (monohydric) | mg/kg | 1 | MCERTS | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
|----------------------------|-------|---|--------|-------|-------|-------|-------|

#### Speciated PAHs

|                        |       |      |           |        |        |        |        |
|------------------------|-------|------|-----------|--------|--------|--------|--------|
| Naphthalene            | mg/kg | 0.05 | MCERTS    | < 0.05 | < 0.05 | < 0.05 | < 0.05 |
| Acenaphthylene         | mg/kg | 0.05 | MCERTS    | < 0.05 | < 0.05 | < 0.05 | < 0.05 |
| Acenaphthene           | mg/kg | 0.05 | MCERTS    | < 0.05 | < 0.05 | < 0.05 | < 0.05 |
| Fluorene               | mg/kg | 0.05 | MCERTS    | < 0.05 | < 0.05 | < 0.05 | 0.09   |
| Phenanthrene           | mg/kg | 0.05 | MCERTS    | 0.1    | 0.25   | 0.15   | 0.39   |
| Anthracene             | mg/kg | 0.05 | MCERTS    | < 0.05 | 0.07   | < 0.05 | 0.12   |
| Fluoranthene           | mg/kg | 0.05 | MCERTS    | 0.22   | 0.4    | 0.08   | 0.45   |
| Pyrene                 | mg/kg | 0.05 | MCERTS    | 0.21   | 0.38   | 0.09   | 0.39   |
| Benzo(a)anthracene     | mg/kg | 0.05 | MCERTS    | 0.13   | 0.19   | < 0.05 | 0.17   |
| Chrysene               | mg/kg | 0.05 | MCERTS    | 0.1    | 0.21   | < 0.05 | 0.19   |
| Benzo(b)fluoranthene   | mg/kg | 0.05 | ISO 17025 | 0.17   | 0.26   | < 0.05 | 0.18   |
| Benzo(k)fluoranthene   | mg/kg | 0.05 | ISO 17025 | 0.08   | 0.12   | < 0.05 | 0.09   |
| Benzo(a)pyrene         | mg/kg | 0.05 | MCERTS    | 0.12   | 0.22   | < 0.05 | 0.17   |
| Indeno(1,2,3-cd)pyrene | mg/kg | 0.05 | MCERTS    | 0.08   | 0.12   | < 0.05 | 0.08   |
| Dibenz(a,h)anthracene  | mg/kg | 0.05 | MCERTS    | < 0.05 | < 0.05 | < 0.05 | < 0.05 |
| Benzo(ghi)perylene     | mg/kg | 0.05 | MCERTS    | 0.1    | 0.15   | < 0.05 | 0.09   |

#### Total PAH

|                             |       |     |           |      |      |        |      |
|-----------------------------|-------|-----|-----------|------|------|--------|------|
| Speciated Total EPA-16 PAHs | mg/kg | 0.8 | ISO 17025 | 1.31 | 2.37 | < 0.80 | 2.41 |
|-----------------------------|-------|-----|-----------|------|------|--------|------|

Analytical Report Number: 26-031527  
Project / Site name: Edenfield Road, Norden  
Your Order No: 14317

|                                         |               |                            |                              |               |
|-----------------------------------------|---------------|----------------------------|------------------------------|---------------|
| Lab Sample Number                       | 948782        | 948783                     | 948784                       | 948785        |
| Sample Reference                        | TS113         | TS114                      | SS109                        | SS110         |
| Sample Number                           | None Supplied | None Supplied              | None Supplied                | None Supplied |
| Water Matrix                            | N/A           | N/A                        | N/A                          | N/A           |
| Depth (m)                               | None Supplied | None Supplied              | None Supplied                | None Supplied |
| Date Sampled                            | 10/06/2026    | 10/06/2026                 | 10/06/2026                   | 10/06/2026    |
| Time Taken                              | None Supplied | None Supplied              | None Supplied                | None Supplied |
| Analytical Parameter<br>(Soil Analysis) | Units         | Test Limit of<br>detection | Test Accreditation<br>Status |               |

#### Heavy Metals / Metalloids

|                                   |       |     |        |                      |                      |       |       |
|-----------------------------------|-------|-----|--------|----------------------|----------------------|-------|-------|
| Arsenic (aqua regia extractable)  | mg/kg | 1   | MCERTS | 3.1                  | 3                    | 4.6   | 4.6   |
| Cadmium (aqua regia extractable)  | mg/kg | 0.2 | MCERTS | < 0.2                | < 0.2                | < 0.2 | < 0.2 |
| Chromium (hexavalent)             | mg/kg | 1.8 | MCERTS | U/S <sup>U/S g</sup> | U/S <sup>U/S g</sup> | < 1.8 | < 1.8 |
| Chromium (hexavalent) by IC       | mg/kg | 1.8 | NONE   | < 1.80               | < 1.80               | -     | -     |
| Chromium (aqua regia extractable) | mg/kg | 1   | MCERTS | 9.3                  | 9.2                  | 19    | 20    |
| Copper (aqua regia extractable)   | mg/kg | 1   | MCERTS | 15                   | 20                   | 21    | 12    |
| Lead (aqua regia extractable)     | mg/kg | 1   | MCERTS | 16                   | 18                   | 15    | 17    |
| Mercury (aqua regia extractable)  | mg/kg | 0.3 | MCERTS | < 0.3                | < 0.3                | < 0.3 | < 0.3 |
| Nickel (aqua regia extractable)   | mg/kg | 1   | MCERTS | 10                   | 9.8                  | 34    | 36    |
| Selenium (aqua regia extractable) | mg/kg | 1   | MCERTS | < 1.0                | < 1.0                | < 1.0 | < 1.0 |
| Zinc (aqua regia extractable)     | mg/kg | 1   | MCERTS | 40                   | 41                   | 65    | 65    |

#### Petroleum Hydrocarbons

|                                              |       |      |        |        |        |        |        |
|----------------------------------------------|-------|------|--------|--------|--------|--------|--------|
| TPH (>EC5 - EC10) <sub>HS_ID_TOTAL</sub>     | mg/kg | 1    | NONE   | < 1.0  | < 1.0  | < 1.0  | < 1.0  |
| TPH (>EC5 - EC6) <sub>HS_ID_TOTAL</sub>      | mg/kg | 0.1  | NONE   | < 0.1  | < 0.1  | < 0.1  | < 0.1  |
| TPH (>EC6 - EC8) <sub>HS_ID_TOTAL</sub>      | mg/kg | 0.01 | MCERTS | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| TPH (>EC8 - EC10) <sub>HS_ID_TOTAL</sub>     | mg/kg | 0.02 | MCERTS | < 0.02 | < 0.02 | < 0.02 | < 0.02 |
| TPH (>EC10 - EC12) <sub>EH_CU_ID_TOTAL</sub> | mg/kg | 2    | MCERTS | < 2.0  | < 2.0  | < 2.0  | < 2.0  |
| TPH (>EC12 - EC16) <sub>EH_CU_ID_TOTAL</sub> | mg/kg | 4    | MCERTS | < 4.0  | < 4.0  | 8      | 6.4    |
| TPH (>EC16 - EC21) <sub>EH_CU_ID_TOTAL</sub> | mg/kg | 10   | MCERTS | < 10   | < 10   | 13     | 15     |
| TPH (>EC21 - EC35) <sub>EH_CU_ID_TOTAL</sub> | mg/kg | 10   | MCERTS | < 10   | 14     | 45     | 45     |
| TPH (>EC35 - EC40) <sub>EH_CU_ID_TOTAL</sub> | mg/kg | 10   | MCERTS | < 10   | < 10   | 11     | 10     |

|                                                    |       |    |      |      |    |    |    |
|----------------------------------------------------|-------|----|------|------|----|----|----|
| TPH Total >EC5 - EC40 <sub>EH_CU+HS_ID_TOTAL</sub> | mg/kg | 10 | NONE | < 10 | 17 | 76 | 77 |
|----------------------------------------------------|-------|----|------|------|----|----|----|

|                                             |       |    |        |      |    |    |    |
|---------------------------------------------|-------|----|--------|------|----|----|----|
| TPH (EC10 - EC40) <sub>EH_CU_ID_TOTAL</sub> | mg/kg | 10 | MCERTS | < 10 | 17 | 76 | 77 |
|---------------------------------------------|-------|----|--------|------|----|----|----|

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

**Analytical Report Number : 26-031527**

**Project / Site name: Edenfield Road, Norden**

\* 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 *                           |
|-------------------|------------------|---------------|---------------|------------------------------------------------|
| 948782            | TS113            | None Supplied | None Supplied | Brown loam and sand with gravel and vegetation |
| 948783            | TS114            | None Supplied | None Supplied | Brown loam and sand with vegetation and gravel |
| 948784            | SS109            | None Supplied | None Supplied | Brown clay and sand with gravel and stones     |
| 948785            | SS110            | None Supplied | None Supplied | Brown clay and sand with gravel and stones     |

**Analytical Report Number : 26-031527**

**Project / Site name: Edenfield Road, Norden**

**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            |
| Total organic carbon (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               |
| Sulphate, water soluble, in soil (16hr extraction)                     | Sulphate, water soluble, in soil (16hr extraction)                                                                                                  | In-house method                                                                                        | L038B         | D                  | MCERTS               |
| Hexavalent chromium in soil by Ion Chromatography                      | Determination of hexavalent chromium in alkaline soil extract by use of ion chromatography with spectrophotometric detection                        | In-house method                                                                                        | L130B         | W                  | NONE                 |
| 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               |
| Total petroleum hydrocarbons by GC-FID in soil                         | Determination of total petroleum hydrocarbons in soil by GC-FID                                                                                     | In-house method                                                                                        | L076B         | D                  | MCERTS               |
| Total petroleum hydrocarbons by GC-FID/GC-MS HS in soil (Summed Bands) | Determination of total petroleum hydrocarbons in soil by GC-FID/GC-MS HS (Summed Bands).                                                            | Calculation                                                                                            | L076B/L088-PL | D/W                | NONE                 |
| Hexavalent chromium in soil                                            | Determination of hexavalent chromium in soil by extraction in NaOH and addition of 1,5 diphenylcarbazide followed by colorimetry                    | In-house method                                                                                        | L080-PL       | W                  | MCERTS               |
| 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               |
| Total petroleum hydrocarbons by HS-GC-MS in soil                       | Determination of total petroleum hydrocarbons in soil by HS-GC/MS                                                                                   | 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               |

Analytical Report Number : 26-031527

Project / Site name: Edenfield Road, Norden

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 |
|----------------------|-------------------------------|-----------------------------|---------------|--------------------|----------------------|
| 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 30°C.

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.

Quality control parameter failure associated with individual result applies to calculated sum of individuals.

The result for sum should be interpreted with caution

\*U/S g- Unsuitable for analysis due to high colour intensity.