

APPENDIX D

54, GREENVALE, ROCHDALE, OL11 5QJ

Professional opinion

Inc. integrated mine entry interpretive assessment



Site plan



Search results



1. Past underground coal mining
Not identified



2. Present underground coal mining
Not identified



3. Future underground coal mining
Not identified



4. Mine entries
Not identified



5. Coal mining geology
Not identified



6. Past opencast coal mining
Not identified



7. Present opencast coal mining
Not identified



8. Future opencast coal mining
Not identified



9. Coal mining subsidence claims
Not identified



10. Mine gas emissions
Not identified



11. Emergency Call Out incidents
Not identified



12. Withdrawal of support
Not identified



13. Working facilities orders
Not identified



14. Payments to copyhold owners
Not identified



Cheshire Brine
Not identified

Coal mining (CON29M) assessment

We consider the property to be acceptably free from coal mining related risk. No further action is required with regards to past coal mining.



Coal mining

CON29M reports are a requirement for conveyancing and are recommended throughout the official Coal Mining Reporting Area. This is the area within which it is deemed prudent to clarify the risk presented by coal mining, using the questions laid out in the Law Society's CON29M form. The need for a CON29M does not always translate to an identification of risk, and reports will often be assessed as free from risk or 'Passed' even though they are within the official Coal Mining Reporting Area.



Coal mining (CON29M)



- Site Outline
- Search buffers in metres (m)
- Mine entries
 - Adits
 - Shafts
 - Calculated 'zone of influence'
- Subsidence claims
 - Awaiting decision
 - Rejected
 - Admitted
 - Deferred
 - Settled
 - Withdrawn
- Probable shallow coal mine workings
- Coal outcrops
- Past shallow coal mine workings

Coal mining (CON29M)

The map above shows relevant, mappable hazards identified that could constitute a risk to the property. It does not necessarily show all features or potential issues identified in this report. Further details of any features shown indicating the location of Mine Entries or Subsidence Claims can be found in the relevant sections of this report (4 and 9 respectively).

Responses to the Law Society CON29M Coal Mining search enquiries are produced using official Coal Authority data and the expert interpretation of Groundsure. This report is prepared in accordance with The Law Society CON29M (2018) Guidance Notes. Additional interpretation and calculation of mine entry zones of influence has also been carried out by Groundsure using Coal Authority and British Geological Survey data.

Please read this report carefully, and in particular any sections flagged with an amber 'i'.





The Law Society

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1. Past underground coal mining



Is the property within the zone of likely physical influence on the surface of past underground coal workings?

- The property does not lie within the potential zone of influence of any recorded underground coal workings.

2. Present underground coal mining



Is the property within the zone of likely physical influence on the surface of present underground coal workings?

- The property does not lie within the boundary of an underground site from which coal is being removed by underground methods.

3. Future underground coal mining



(a) Is the property within any geographical area for which the Coal Authority is determining whether to grant a licence to remove coal by underground methods?

- The property does not lie within the boundary of an underground site for which the Coal Authority is determining whether to grant a licence to remove coal by underground methods.

(b) Is the property within any geographical area for which a licence to remove coal by underground methods has been granted?

- The property does not lie within the boundary of an underground site for which a licence to remove coal by underground methods has been granted.

(c) Is the property within the zone of likely physical influence on the surface of planned future underground coal workings?

- The property does not lie within the zone of likely physical influence on the surface of planned future underground workings.

(d) Has any notice of proposals relating to underground coal mining operations been given under section 46 of

[Back to Summary](#)

Contact us with any questions at:
info@groundsure.com ↗
01273 257 755

Ref: GS-4QR-6ET-M3D-K3F
Your ref: 23154
Grid ref: 386024 413440

the Coal Mining Subsidence Act 1991?

- No notices have been given under Section 46 of the Coal Mining Subsidence Act 1991 stating that the land is at risk of subsidence.

4. Mine entries



Are there any shafts and adits or other entries to underground coal mine workings within the property or within 20 metres of the boundary of the property?

- No coal mine entries are recorded to lie within 20 metres of the property.

5. Coal mining geology



Is there any record of any fault or other line of weakness due to coal mining at the surface within the boundary of the property that has made the property unstable?

- No damage arising from geological faults or other lines of weakness activated by coal mining are recorded within the property.

6. Past opencast coal mining



Is the property situated within the geographical boundary of an opencast site from which coal has been removed in the past by opencast methods?

- The property does not lie within the boundary of an opencast site from which coal was removed by opencast methods.

7. Present opencast coal mining



Is the property within 200 metres of the boundary of an opencast site from which coal is being removed by opencast methods?

- The property does not lie within 200 metres of the boundary of an opencast site from which coal is being removed by opencast methods.

8. Future opencast coal mining



(a) Is the property within 800 metres of the boundary of an opencast site for which the Coal Authority are determining whether to grant a licence to remove coal by opencast methods?



- The property does not lie within 800 metres of the boundary of an opencast site for which the Coal Authority are determining whether to grant a licence to remove coal by opencast methods.

(b) Is the property within 800 metres of the boundary of an opencast site for which a licence to remove coal by opencast methods has been granted?

- The property does not lie within 800 metres of the boundary of an opencast site for which a licence to remove coal by opencast methods has been granted.

9. Coal mining subsidence claims



(a) Has any damage notice or claim for alleged coal mining subsidence damage to the property been given, made or pursued since 31st October 1994?

- We have no evidence of a damage notice or subsidence claim for the property or within 50m of the property since 31st October 1994.

(b) In respect of any such notice or claim has the responsible person given notice agreeing that there is a remedial obligation or otherwise accepted that a claim would lie against them?

- Not applicable.

(c) In respect of any such notice or acceptance has the remedial obligation or claim been discharged?

- Not applicable.

(d) Does any current "Stop Notice" delaying the start of remedial works or repairs affect the property?

- There are no current Stop Notices delaying the start of remedial works or repairs to the property.

(e) Has any request been made under Section 33 of the 1991 Act to execute preventive works before coal is worked, which would prevent the occurrence or reduce the extent of subsidence damage to any buildings, structures or works and, if yes, has any person withheld consent or failed to comply with any such request to execute preventive works?

- There is no record of a request that has been made to carry out preventive works before coal is worked under Section 33 of the Coal Mining Subsidence Act 1991.

NB. Records of damage notices or subsidence claims before 31st October 1994 are excluded from The Coal Authority data from which this search is compiled.

10. Mine gas emissions



Does the Coal Authority have record of any mine gas emission within the boundary of the property being reported that subsequently required action by the Authority to mitigate the effects of the mine gas emission?

- No mine gas emissions are recorded within the boundary of the property.



11. Emergency Surface Hazard Call Out incidents



Have the Coal Authority carried out any work on or within the boundaries of the property following a report of an alleged hazard related to coal mining under the Authority's Emergency Surface Hazard Call Out procedures?

- **No Emergency Surface Hazard Call Out procedures are recorded against the property.**

12. Withdrawal of support



(a) Does the land lie within a geographical area in respect of which a notice of entitlement to withdraw support has been published?

- **The property does not lie in an area where the right to withdraw support has been granted.**

(b) Does the land lie within a geographical area in respect of which a revocation notice has been given under section 41 of the Coal Industry Act 1994?

- **The property does not lie within a geographical area in which a revocation notice has been given under section 41 of the Coal Industry Act 1994.**

13. Working facilities orders



Is the property within a geographical area subject to an order in respect of the working of coal under the Mines (Working Facilities and Support) Acts 1923 and 1966 or any statutory modification or amendment thereof?

- **The property is not in an area where a court order has been issued.**

14. Payments to owners of former copyhold land



(a) Has any relevant notice, which may affect the property, been given?

- **The property does not lie within former copyholder land.**

(b) If yes, has any notice of retained interests in coal and coal mines been given?

- **No notices of retained interests in coal and coal mines been given.**

(c) If yes, has any acceptance notice or rejection notice been served?

- **No acceptance or rejection notices have been served.**

(d) If any such acceptance notice has been served, has any compensation been paid to a claimant?

- **No compensation has been paid to a claimant.**



CON29M notes and guidance

This report is prepared in accordance with [The Law Society Guidance Notes 2018](#); under which all replies to these enquiries are made. Groundsure's Terms and Conditions are applicable at the time the report was produced.

Property owners have the benefit of statutory protection (under the Coal Mining Subsidence Act 1991). This contains provision for the making good, to the reasonable satisfaction of the owner, of physical damage from disused coal mine workings including disused coal mine entries. A leaflet setting out the rights and obligations of either the Coal Authority or other responsible persons under the 1991 Act can be obtained by telephoning 0345 762 6848. Further information can be found on their website:

www.groundstability.com ↗.

The Coal Authority, regardless of responsibility and in conjunction with other public bodies, provide an emergency call out facility in coalfield areas to assess the public safety implications of mining features (including disused mine entries).

The Coal Authority emergency telephone number at all times is 01623 646333.

Responses to The Law Society CON29M (2018) Coal Mining Search enquiries and associated findings and recommendations relating to coal mining risk have been provided by Groundsure Ltd. Groundsure Ltd have additionally provided information relating to the Cheshire Brine Compensation Area, and have compiled all information into this report.

Queries should be made of Groundsure Ltd on 01273 257 755, or via email: info@groundsure.com ↗.

CON29M report limitations

This CON29M (2018) Coal Mining Report has been carried out with reference to all available official Coal Authority licensed data, an extensive collection of abandoned mine plans, maps and records. From this material, we have endeavoured to provide as accurate a report as possible. Any and all analysis and interpretation of licensed Coal Authority data in this report is made by Groundsure

The information provided in this report by Groundsure Ltd has been compiled in response to The Law Society CON29M (2018) Coal Mining search enquiries. The scope of the assessment is limited to interpretation of past, present and future extraction of coal, and does not consider the impact from non-coal mining hazards and/or natural ground stability hazards. The Law Society's Guidance Notes 2018 recommends separate enquiries to the appropriate sources are made with regard to other minerals.

The Report is created by a remote investigation and reviews only information provided by the client (address and site location boundaries) and from the databases of publicly available and/or licensable information that enable a desk-based assessment of the Site. The Report does not include a Site Investigation, nor does Groundsure Ltd make additional specific information requests of the regulatory authorities for any relevant information they may hold.

This report is concerned solely with the Site searched and should not be used in connection with nearby properties, as only known coal mining features that could potentially have a direct influence upon the Site searched are considered relevant; other features present in the general area may have been omitted for ease of reference.

This report is confidential to the client, the client's legal advisor and the client's Mortgage lender, as defined in the Groundsure terms & conditions, and as such may be used by them for conveyancing or related purposes. Groundsure has no liability toward any person or organisation not party to commissioning this report. This report or any part of it is not permitted to be reproduced, copied, altered or in any other way distributed by any other person or organisation.

Additional mine entry assessment is based on and limited to the data supplied by the Coal Authority at the time of production. In order to determine whether a property is within the likely zone of influence of a disused coal mine entry the following is considered: the actual or plotted position of the mine entry, its known or assumed diameter and the thickness of superficial deposits above rockhead. Where these figures are not known, assumptions based on established estimations have been made.



CON29M report licensing

This report contains Data provided by the Coal Authority. Any and all analysis and interpretation of Coal Authority Data in this report is made by Groundsure Limited and is in no way supported, endorsed or authorised by the Coal Authority. The use of the data is restricted to the terms and provisions contained in this report. Data reproduced in this report may be the copyright of the Coal Authority and permission should be sought from Groundsure Limited prior to any re-use. Due to data collection methods and processing time, there may be a period of up to 2 weeks between the Coal Authority updating their data and it appearing within the Groundsure report.

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This report may contain plans and records held by the Coal Authority and made publicly available at the time of inspection which may include British Geological Survey and Ordnance Survey data.



Conveyancing Information Executive and our terms & conditions

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- Conveyancing Information Executive Members shall act in a professional and honest manner at all times in line with the Conveyancing Information Executive Standards and carry out the delivery of the Search with integrity and due care and skill.
- Compliance with the Conveyancing Information Executive Standards will be a condition within the Conveyancing Information Executive Member's Terms and Conditions.
- Conveyancing Information Executive Members will promote the benefits of and deliver the Search to the agreed standards and in the best interests of the customer and associated parties.

Complaints Advice

If you have a query or complaint about your search, you should raise it directly with the search firm, and if appropriate ask for any complaint to be considered under their formal internal complaints procedure.

If you remain dissatisfied with the firm's final response, after your complaint has been formally considered, or if the firm has exceeded the response timescales, you may refer your complaint for consideration under The Property Ombudsman scheme (TPOs). The Ombudsman can award up to £5,000 to you if the Ombudsman finds that you have suffered actual financial loss and/or aggravation, distress or inconvenience as a result of your search provider failing to keep to the Standards.

Please note that all queries or complaints regarding your search should be directed to your search provider in the first instance, not to TPOs.

COMPLAINTS PROCEDURE: If you want to make a complaint, we will:

- acknowledge it within 5 working days of receipt
- normally deal with it fully and provide a final response, in writing, within 20 working days of receipt
- liaise, at your request, with anyone acting formally on your behalf

Complaints should be sent to:

Operations Director, Groundsure Ltd, Nile House, Nile Street, Brighton, BN1 1HW. Tel: 01273 257 755. Email: info@groundsure.com

↗ If you are not satisfied with our final response, or if we exceed the response timescales, you may refer the complaint to The Property Ombudsman scheme (TPOs): Tel: 01722 333306, E-mail: admin@tpos.co.uk ↗ We will co-operate fully with the Ombudsman during an investigation and comply with their final decision.

Groundsure's Terms and Conditions can be viewed online at this link: www.groundsure.com/terms-and-conditions-april-2023/ ↗

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Coal Mining Report Insurance Policy



Coal Mining Report Insurance Policy

The Schedule

Policy Number: The Reference contained in the **Coal Mining Search Report**

Premium: £1.40 inclusive of Insurance Premium Tax at 12%

Property: The property which is the subject of the **Coal Mining Search Report**

Limit of Indemnity: £100,000 increasing by 10% compound per annum on each anniversary of and for the first 10 years following the **Commencement Date**

Commencement Date: The date of the **Coal Mining Search Report**

You/Your:

1. A purchaser of the **Property**
2. A lender providing a **Mortgage** in connection with a purchase of the **Property**
3. A lender providing a **Mortgage** by way of a re-mortgage of the **Property**

Definitions

Where a word is defined below or in the schedule it shall carry the same meaning wherever it appears in bold text in this policy

Insured Use: The continued use of the **Property** as a single house or flat or a single commercial premises

Market Value: The value as determined by a surveyor appointed by agreement between **You** and **Us** or (in default of agreement) the President for the time being of the Royal Institution of Chartered Surveyors

Mortgage: A mortgage or charge secured on the **Property** by an institutional mortgage lender

Coal Mining Search Report: The coal mining search report attached to this policy

Search: An official search comprising a search in form CON29M (2018) being mining searches relating to coal and brine in the area in which the **Property** is situated

We/Our/Us:

Zurich Insurance plc. A public limited company incorporated in Ireland. Registration No. 13460. Registered Office: Zurich House, Ballsbridge Park, Dublin 4, Ireland. UK Branch registered in England and Wales Registration No. BR7985. UK Branch Head Office: The Zurich Centre, 3000 Parkway, Whiteley, Fareham, Hampshire PO15 7JZ.

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Communications may be monitored or recorded to improve our service and for security and regulatory purposes.

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Your Policy

This is a legal document and should be kept in a safe place.

This policy is an agreement between **You** and **Us** and cover is provided subject to the payment of the **Premium**.

You must read this policy and its conditions, exclusions, schedule and any endorsements as one contract. Please read all of them to make sure that they provide the cover **You** require. If they do not, please contact **Us** or **Your** insurance adviser who arranged the policy for **You**.

When **You** take out and make changes to the cover provided by this policy, **You** must take reasonable care to ensure that **You** accurately answer any questions which **We** ask of **You** and that any information **You** give **Us** is accurate. If **You** are taking out this policy for purposes which are mainly related to **Your** trade, business or profession, **You** must also let **Us** know about all facts which are material to **Our** decision to provide **You** with insurance. Failure to meet these obligations could result in this policy being invalidated, a claim not being paid, or an additional premium being charged.

Fair presentation of the risk

a) At inception of this policy and also whenever changes are made to it at **Your** request **You** must:

- i) where **You** have taken out this policy for purposes which are wholly or mainly related to **Your** trade, business or profession, disclose to **Us** all material facts in a clear and accessible manner and not misrepresent any material facts, and
- ii) where **You** have taken out this policy for purposes which are wholly or mainly unrelated to **Your** trade, business or profession, take reasonable care not to misrepresent any material facts.

b) If **You** do not comply with clause a) of this condition **We** may:

- i) avoid this policy which means that **We** will treat it as if it had never existed and refuse all claims where any non-disclosure or misrepresentation by **You** is proven by **Us** to be deliberate or reckless in which case **We** will not return the premium paid by **You**; and
- ii) recover from **You** any amount **We** have already paid for any claims including costs or expenses **We** have incurred.

c) If **You** do not comply with clause a) of this condition and the non-disclosure or misrepresentation is not deliberate or reckless this policy may be affected in one or more of the following ways depending on what **We** would have done if **We** had known about the facts which **You** failed to disclose or misrepresented:

- i) if **We** would not have provided **You** with any cover **We** will have the option to:
 1. avoid the policy which means that **We** will treat it as if it had never existed and repay the premium paid; and
 2. recover from **You** any amount **We** have already paid for any claims including costs or expenses **We** have incurred
- ii) if **We** would have applied different terms to the cover **We** will have the option to treat this policy as if those different terms apply. **We** may recover any payments made by **Us** on claims which have already been paid to the extent that such claims would not have been payable had such additional terms been applied
- iii) if **We** would have charged **You** a higher premium for providing the cover **We** will charge **You** the additional premium which **You** must pay in full.

d) If any insured person, other than **You**, is responsible for a misrepresentation or failure to make a fair presentation of the risk, **We** will invoke the remedies available to **Us** under this condition as against that particular person as if a separate insurance contract had been issued to them leaving the remainder of the policy unaffected.

NB: For the purposes of the duty of disclosure stated in paragraphs a) i) and ii) above the content of the **Coal Mining Search Report** will be deemed to satisfy **Your** disclosure obligations.

Cover

1. **You** are in the process of purchasing the **Property** relying on the **Coal Mining Search Report** and/or
2. **You** (being a lender) have agreed to provide a **Mortgage** in connection with **Your** borrower's purchase or re-mortgage of the **Property** relying on the **Coal Mining Search Report**.

We will pay the following losses sustained by **You** arising out of the **Property** being affected by any matter which would have been revealed by a **Search** had one been carried out on the date of the **Coal Mining Search Report** but which was not revealed by the **Coal Mining Search Report**:



1. any reduction in **Market Value** of the **Property** calculated at the date **You** become aware of the matter(s) and/or loss in connection with a **Mortgage** as a result of such reduction.
2. all other costs and expenses including out of court settlement costs incurred by **Us** or by **You** with **Our** prior written agreement.

Waiver of Breach of Policy Condition

We will not exercise **Our** right to avoid **Our** liability to **You** in respect of loss where **You** have inadvertently breached any term or condition of the policy provided that such breach does not prejudice **Our** rights and remedies under the policy or otherwise directly or indirectly result in or increase the amount of any loss.

Protection for Mortgagees and Successors in Title

We will not avoid **Our** liability to make a payment to **You** solely because another person breaches the terms and conditions of this policy, provided such breach was not committed on **Your** behalf or with **Your** agreement, and **We** will invoke the remedies available to **Us** under the Policy as against that other person as if a separate insurance contract had been issued to them leaving the remainder of the policy unaffected.

Joint Insured

Any party insured under this policy standing in the relation of parent company, subsidiary company, associated company, branch office or joint venture partner to each other will be deemed to be joint insured for the purposes of this policy and jointly liable and responsible for any breach of any terms and conditions of this policy. If there is any inconsistency between this clause and any other term of this policy, this clause shall prevail.

Exclusions

We will not pay for any:

1. amount in excess of the **Limit of Indemnity**.
2. loss which would be recoverable under a household buildings insurance policy.
3. loss arising from any matter that **You** were aware of at the **Commencement Date**.
4. loss if the **Property** is used for any purpose other than the **Insured Use**.

Claims Conditions and How to Claim

1. **You** must:

- i) give **Us** written notice as soon as possible of any potential or actual claim or any circumstances likely to result in a claim. Please provide the policy number, **Your** name, the full address of the **Property** and a brief description of the incident that has occurred. Notifications should be sent to: Speciality Lines Claims Team, Zurich Insurance, 8th Floor, 70 Mark Lane, London, EC3R 7NQ. Email: claims@uk.zurich.com ↗, Enquiry line: telephone 0207 648 3523
- ii) pass all court documents and/or other communications to **Us** as soon as possible after receipt
- iii) not deal with, make any admission of liability or attempt to settle a claim without **Our** prior written agreement.
- iv) agree to and carry out at **Our** expense all things necessary to minimise any loss.
- v) provide all information and assistance that **We** may require to help defend and settle the claim.

2. **We** are entitled to:

- i) decide how to settle or defend a claim and may carry out proceedings in the name of any person insured under this policy, including proceedings for recovering any claim.
- ii) pay to **You** at any time, an amount equal to the **Limit of Indemnity** or any lower amount for which the claim can be settled, after deduction of any sum already paid. **We** may then give up control of and have no further liability in connection with the claim.

3. If **We** admit liability for a claim but there is a dispute as to the amount to be paid the dispute will be referred to an arbitrator. The arbitrator will be appointed jointly by **You** and **Us** in accordance with the law at the time. **You** may not take any legal action against **Us** over the dispute before the arbitrator has reached a decision.

4. If **You** or anyone acting on **Your** behalf:



- a) makes a fraudulent or exaggerated claim under this policy; or
- b) uses fraudulent means or devices including the submission of false or forged documents in support of a claim whether or not the claim is itself genuine; or
- c) makes a false statement in support of a claim whether or not the claim is itself genuine; or
- d) submits a claim under this policy for loss or damage which **You** or anyone acting on **Your** behalf or in connivance with **You** deliberately caused; or
- e) realises after submitting what **You** reasonably believed was a genuine claim under this policy and then fails to tell **Us** that **You** have not suffered any loss or damage; or
- f) suppresses information which **You** know would otherwise enable **Us** to refuse to pay a claim under this policy

We will be entitled to refuse to pay the whole of the claim and recover any sums that **We** have already paid in respect of the claim.

If any fraud is perpetrated by or on behalf of an insured person and not on behalf of **You** this condition should be read as if it applies only to that insured person's claim and references to this policy should be read as if they were references to the cover effected for that person alone and not to the policy as a whole.

5. If any claim is covered by any other insurance, **We** will not pay for more than **Our** share of that claim.

6. The most **We** will pay for any loss (or all losses in the aggregate), including costs and expenses agreed by **Us** is the **Limit of Indemnity**. Once **We** have paid a loss or losses equal to the amount of the **Limit of Indemnity**, **We** will have no further liability under this policy.

General Conditions

1. Neither **You** (nor anyone acting on **Your** behalf) must disclose the existence of this policy to any other party except **Your** legal and other professional advisers, prospective purchasers, lessees and tenants of the **Property**, their respective mortgagees, legal and other professional advisers.
2. In the UK the law allows both **You** and **Us** to choose the law applicable to the contract. This contract will be subject to the relevant law of England and Wales, Scotland, Northern Ireland, the Isle of Man or the Channel Islands depending upon the Property address stated in the Schedule. If there is any dispute as to which law applies it will be English law. The parties agree to submit to the exclusive jurisdiction of the English courts.
3. Notwithstanding any other terms of this policy **We** will be deemed not to provide cover nor will **We** make any payment or provide any service or benefit to **You** or any other party to the extent that such cover, payment, service, benefit and/or any business or activity of **Yours** would violate any applicable trade or economic sanctions law or regulation.

Cancellation Clause

If **You** have taken out this policy for purposes which are wholly or mainly unrelated to **Your** trade, business or profession, **You** may cancel this policy within 14 days of receiving the policy by writing to **Us** and in such event **We** may, at **Our** discretion, charge **You** for the time that **You** have been on cover. Any refund will be made to the party who paid the premium. If **You** do cancel, **You** may be in breach of the terms of **Your** mortgage or the terms of the contract for the sale of **Your** property. If **You** are in doubt, **You** may wish to seek legal advice prior to cancellation.

Fair Processing and Complaints Procedure

Our Complaints Procedure

Our commitment to customer service

We are committed to providing a high level of customer service. If you feel we have not delivered this, we would welcome the opportunity to put things right for you.

Who to contact in the first instance

Many concerns can be resolved straight away. Therefore in the first instance, please get in touch with your usual contact at Zurich or your broker or insurance intermediary, as they will generally be able to provide you with a prompt response to your satisfaction.

Contact details will be provided on correspondence that we or our representatives have sent you.

Many complaints can be resolved within a few days of receipt

If we can resolve your complaint to your satisfaction within the first few days of receipt, we will do so. Otherwise, we will keep you



updated with progress and will provide you with our decision as quickly as possible.

Next steps if you are still unhappy

If you are not happy with the outcome of your complaint, you may be able to ask the Financial Ombudsman Service to review your case.

We will let you know if we believe the ombudsman service can consider your complaint when we provide you with our decision. The service they provide is free and impartial, but you would need to contact them within 6 months of the date of our decision.

More information about the ombudsman and the type of complaints they can review is available via their website www.financial-ombudsman.org.uk ↗.

You can also contact them as follows:

Post: Financial Ombudsman Service, Exchange Tower, London, E14 9SR

Telephone: 08000 234567 (free on mobile phones and landlines)

Email: complaint.info@financial-ombudsman.org.uk ↗

If the Financial Ombudsman Service is unable to consider your complaint, you may wish to obtain advice from the Citizens Advice Bureau or seek legal advice.

The Financial Services Compensation Scheme (FSCS)

We are covered by the Financial Services Compensation Scheme (FSCS) which means that you may be entitled to compensation if we are unable to meet our obligations to you. Further information is available on www.fscs.org.uk ↗ or by contacting the FSCS directly on 0800 678 1100.

How we use your information

Who controls your personal information

This notice tells you how Zurich Insurance plc ('Zurich'), as data controller, will deal with your personal information. Where Zurich introduces you to a company outside the group, that company will tell you how your personal information will be used.

You can ask for further information about our use of your personal information or complain about its use in the first instance, by contacting our Data Protection Officer at: Zurich Insurance Group, Tri-centre 1, Newbridge Square, Swindon, SN1 1HN or by emailing the Data Protection Officer at GBZ.General.Data.Protection@uk.zurich.com ↗.

If you have any concerns regarding our processing of your personal information, or are not satisfied with our handling of any request by you in relation to your rights, you also have the right to make a complaint to the Information Commissioner's Office. Their address is: First Contact Team, Information Commissioner's Office, Wycliffe House, Water Lane, Wilmslow, SK9 5AF.

What personal information we collect about you

We will collect and process the personal information that you give us by phone, e-mail, filling in forms, including on our website, and when you report a problem with our website. We also collect personal information from your appointed agent such as your trustee, broker, intermediary or financial adviser in order to provide you with the services you have requested and from other sources, such as credit reference agencies and other insurance companies, for verification purposes. We will also collect information you have volunteered to be in the public domain and other industry-wide sources. We will only collect personal information that we require to fulfil our contractual or legal requirements unless you consent to provide additional information. The type of personal information we will collect includes; basic personal information (i.e. name, address and date of birth), occupation and financial details, health and family information, claims and convictions information and where you have requested other individuals be included in the arrangement, personal information about those individuals.

If you give us personal information on other individuals, this will be used to provide you with a quotation and/or contract of insurance and/or provision of financial services. You agree you have their permission to do so. Except where you are managing the contract on another's behalf, please ensure that the individual knows how their personal information will be used by Zurich. More information about this can be found in the 'How we use your personal information' section.

How we use your personal information

We and our selected third parties will only collect and use your personal information (i) where the processing is necessary in connection with providing you with a quotation and/or contract of insurance and/or provision of financial services that you have requested; (ii) to meet our legal or regulatory obligations; or (iii) for our 'legitimate interests'. It is in our legitimate interests to collect



your personal information as it provides us with the information that we need to provide our services to you more effectively including providing you with information about our products and services. We will always ensure that we keep the amount of information collected and the extent of any processing to the absolute minimum to meet this legitimate interest. Examples of the purposes for which we will collect and use your personal information are:

1. to provide you with a quotation and/or contract of insurance;
2. to identify you when you contact us;
3. to deal with administration and assess claims;
4. to make and receive payments;
5. to obtain feedback on the service we provide to you;
6. to administer our site and for internal operations including troubleshooting, data analysis, testing, research, statistical and survey purposes;
7. for fraud prevention and detection purposes.

We will contact you to obtain consent prior to processing your personal information for any other purpose, including for the purposes of targeted marketing unless we already have consent to do so.

Who we share your personal information with

Where necessary, we will share the personal information you gave us for the purposes of providing you with the goods and services you requested with the types of organisations described below:

associated companies including reinsurers, suppliers and service providers;
introducers and professional advisers;
regulatory and legal bodies;
survey and research organisations;
credit reference agencies;
healthcare professionals, social and welfare organisations; and
other insurance companies

Or, in order to meet our legal or regulatory requirements, with the types of organisations described below:

regulatory and legal bodies;
central government or local councils;
law enforcement bodies, including investigators;
credit reference agencies; and
other insurance companies

How we use your personal information for websites and email communications

When you visit one of our websites we may collect information from you such as your email address or IP address. This helps us to track unique visits and monitor patterns of customer website traffic, such as who visits and why they visit.

We use cookies and/or pixel tags on some pages of our website. A cookie is a small text file sent to your computer. A pixel tag is an invisible tag placed on certain pages of our website but not on your computer. Pixel tags usually work together with cookies to assist us to provide you with a more tailored service. This allows us to monitor and improve our email communications and website. Useful information about cookies, including how to remove them, can be found on our websites.

How we transfer your personal information to other countries

Where we transfer your personal information to countries that are outside of the UK and the European Union (EU) we will ensure that it is protected and that the transfer is lawful. We will do this by ensuring that the personal information is given adequate safeguards by using 'standard contractual clauses' which have been adopted or approved by the UK and the EU, or other solutions that are in line with the requirements of European data protection laws.

A copy of our security measures for personal information transfers can be obtained from our Data Protection Officer at: Zurich Insurance Group, Tri-centre 1, Newbridge Square, Swindon, SN1 1HN, or by emailing the Data Protection Officer at GBZ.General.Data.Protection@uk.zurich.com ↗.

How long we keep your personal information for

We will retain and process your personal information for as long as necessary to meet the purposes for which it was originally



collected. These periods of time are subject to legal, tax and regulatory requirements or to enable us to manage our business.

Your data protection rights

You have a number of rights under the data protection laws, namely:

- to access your data (by way of a subject access request);
 - to have your data rectified if it is inaccurate or incomplete;
 - in certain circumstances, to have your data deleted or removed;
 - in certain circumstances, to restrict the processing of your data;
 - a right of data portability, namely to obtain and reuse your data for your own purposes across different services;
 - to object to direct marketing;
 - not to be subject to automated decision making (including profiling), where it produces a legal effect or a similarly significant effect on you;
 - to claim compensation for damages caused by a breach of the data protection legislation.
- if we are processing your personal information with your consent, you have the right to withdraw your consent at any time.

We will, for the purposes of providing you with a contract of insurance, processing claims, reinsurance and targeted marketing, process your personal information by means of automated decision making and profiling where we have a legitimate interest or you have consented to this.

What happens if you fail to provide your personal information to us

If you do not provide us with your personal information, we will not be able to provide you with a contract or assess future claims for the service you have requested.

Fraud prevention and detection

In order to prevent and detect fraud we may at any time:

- check your personal data against counter fraud systems
- use your information to search against various publicly available and third party resources
- use industry fraud tools including undertaking credit searches and to review your claims history
- share information about you with other organisations including but not limited to the police, the Insurance Fraud Bureau (IFB), other insurers and other interested parties.

If you provide false or inaccurate information and fraud is identified, the matter will be investigated and appropriate action taken. This may result in your case being referred to the Insurance Fraud Enforcement Department (IFED) or other police forces and fraud prevention agencies. You may face fines or criminal prosecution. In addition, Zurich may register your name on the Insurance Fraud Register, an industry-wide fraud database.

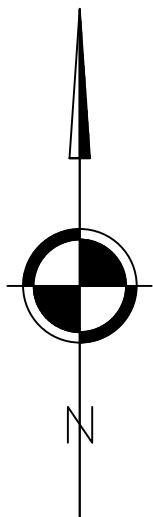
Claims history

We may pass information relating to claims or potential claims to any relevant database. We and other insurers may search these databases when you apply for insurance, when claims or potential claims are notified to us or at time of renewal to validate your claims history or that of any other person or property likely to be involved in the policy or claim.

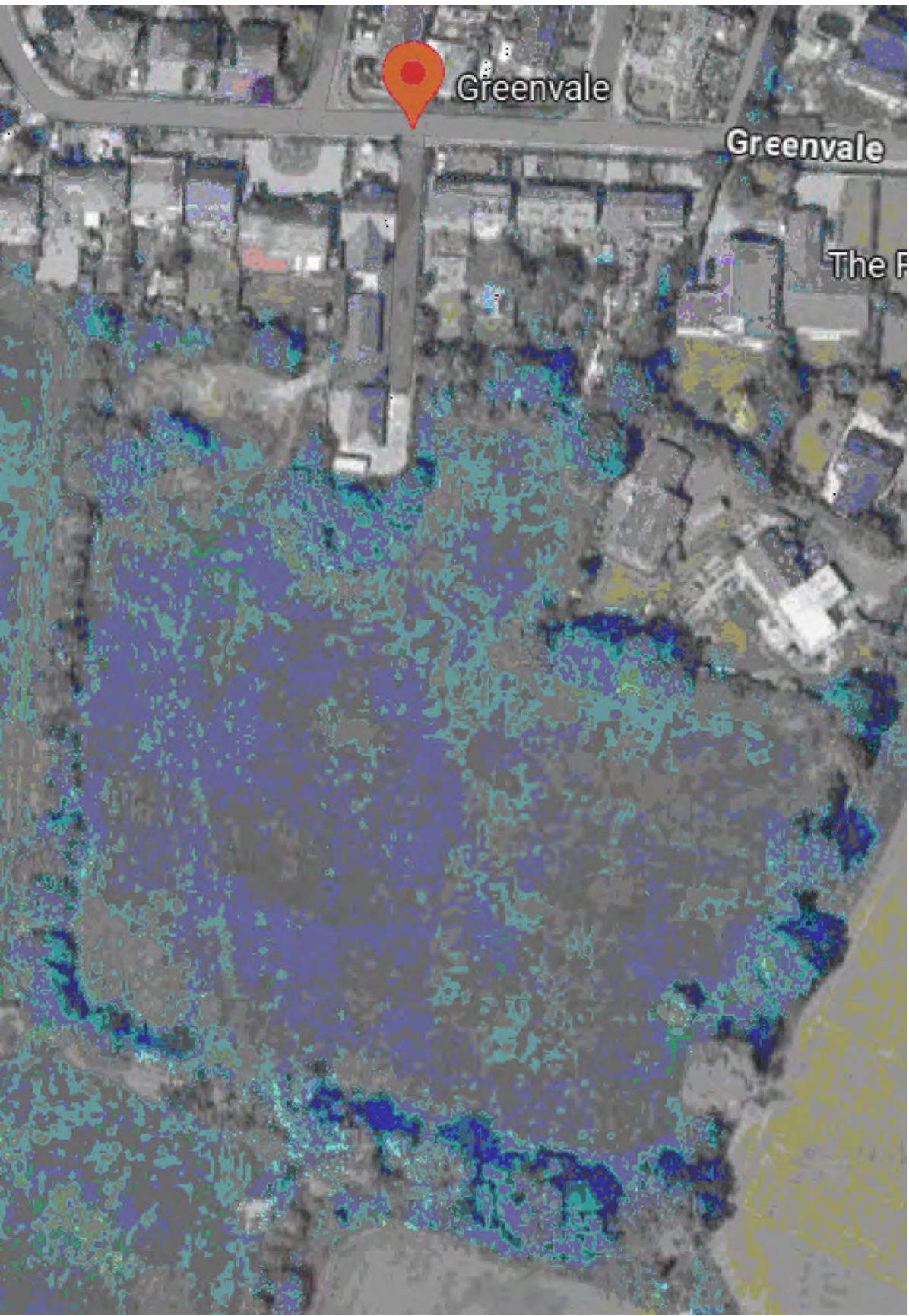
This helps to check information provided and prevent fraudulent claims.



APPENDIX E



- Legend:
- Approx. Site Boundary
 - Security Fence
 - Dry Stone Wall
 - Existing Mature Trees
 - Existing Vegetaion
 - Site Access Point
 - Photo Location and Orientaion
 - Existing Building
 - Hard standing concrete
 - Electricity Mast



Location Image

revision suffix	Revision Details	Date
smas worksafe consultant www.smasltd.com as recognised by SSIP SAFETY SCHEMES IN PROCUREMENT		
Drawing Stage	Drawing Status	
Draft	Comments	Tender
Issued	Information	Construction
Preliminary	Approval	As Built
This drawing is not authorised unless signed as checked & approved		
Client		
Wainhomes (NW) Ltd		
Job title		
Greenvale, Bamford Rochdale		
Drawing title		
Walkover Survey & Photo Location Plan		
REFA CONSULTING ENGINEERS CIVIL • STRUCTURAL GEOTECHNICAL • ENVIRONMENTAL 45 Bridgeman Terrace Wigan, Lancs WN1 1TT Tel: +(01942) 826020 Fax: +(01942) 230816		
Chkd	Appvd	date
		29.11.24
scale		drawn
1:500 @ A1		HG
DRAWING No		rev
23154/03		
© This drawing is the property of REFA and should not be copied, used or its contents divulged without prior written consent		
Any discrepancies to this drawing discovered on site should be reported to REFA immediately. IF IN DOUBT ASK!		

Plan On Proposed S.I. Locations

APPENDIX F

REFA		Photographs	
Site: GREENVALE, ROCHDALE		Report Number: 23154	
Client: WAINHOMES		Sheet: 1/5	
		Survey Date: 28.10.24	
WALKOVER SURVEY PHOTOGRAPHS			
1		2	
3		4	
5		6	

REFA		Photographs	
Site: GREENVALE, ROCHDALE		Report Number: 23154	
Client: WAINHOMES		Sheet: 2/5	
		Survey Date: 28.10.24	
WALKOVER SURVEY PHOTOGRAPHS			
7		8	
9		10	
11		12	



Photographs

Site: GREENVALE, ROCHDALE

Client: WAINHOMES

Report Number:

23154

Sheet:

3/5

Survey Date:

28.10.24

WALKOVER SURVEY PHOTOGRAPHS

13



14



15



16



17



18





Photographs

Site: GREENVALE, ROCHDALE

Client: WAINHOMES

Report Number:

23154

Sheet:

4/5

Survey Date:

28.10.24

WALKOVER SURVEY PHOTOGRAPHS

19



20



21



22



23



24



REFA		Photographs	
Site: GREENVALE, ROCHDALE		Report Number: 23154	
Client: WAINHOMES		Sheet: 5/5	
		Survey Date: 28.10.24	

WALKOVER SURVEY PHOTOGRAPHS

25



26



27



28



29



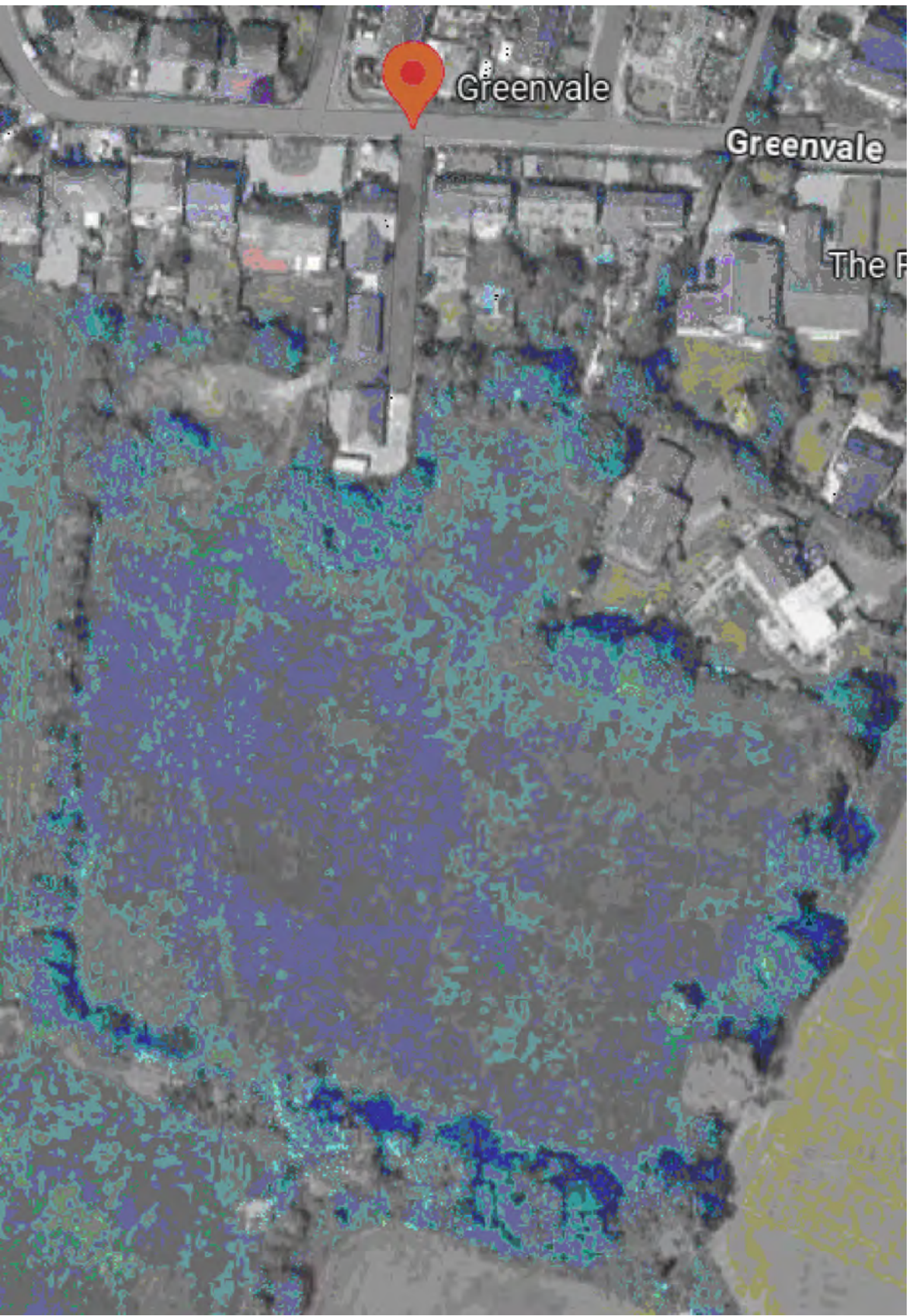
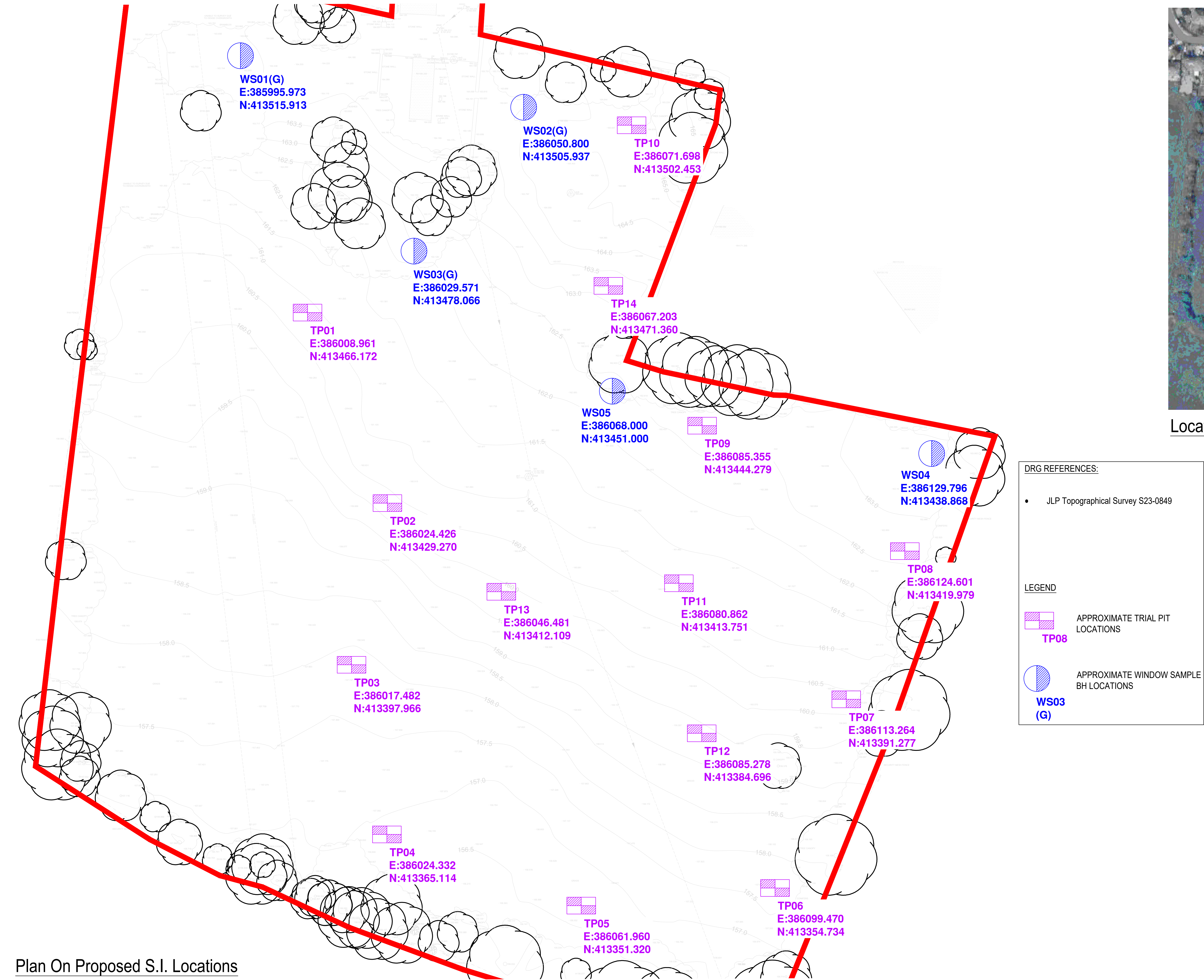
30



31



APPENDIX G



Location Image

DRG REFERENCES:

- JLP Topographical Survey S23-0849

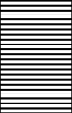
LEGEND

- APPROXIMATE TRIAL PIT LOCATIONS (TP08)
- APPROXIMATE WINDOW SAMPLE BH LOCATIONS (WS03 (G))

A		PLANNING LAYOUT REMOVED	29.11.24
revision suffix	Revision Details		Date
Drawing Stage		Drawing Status	
Draft		Comments	Tender
Issued		Information	Construction
Preliminary		Approval	As Built
This drawing is not authorised unless signed as checked & approved			
Client			
Wainhomes (NW) Ltd			
Job title			
Greenvale, Bamford Rochdale			
Drawing title			
Exploratory Hole Location Plan			
REFA		45 Bridgeman Terrace Wigan, Lancs WN1 1TT Tel: -(01942) 826020 Fax: -(01942) 230816	
CONSULTING ENGINEERS		CIVIL • STRUCTURAL GEOTECHNICAL • ENVIRONMENTAL	
Chkd	Appvd	date	scale
		29.11.24	1:500 @ A2
DRAWING No		23154/01	rev A
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APPENDIX H

		ROBERT E. FRY & ASSOCIATES LTD. 45 Bridgeman Terrace, Wigan, WN1 1TT				Site Greenvale, Rochdale		Number WS01	
Excavation Method Drive-in Windowless Sampler		Dimensions		Ground Level (mOD)		Client Wainhomes (NW)		Job Number 23154	
		Location		Dates 28/10/2024		Engineer		Sheet 1/1	
Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water	Instr
0.20	ES				(0.50)	MADE GROUND: Soft dark brown gravelly sandy clay with occasional yellowish brown coarse sand pockets. Gravel is angular to subrounded fine to coarse of mudstone, sandstone, brick and fragments of glass			
					0.50 (0.20) 0.70				
1.00-1.45	D		2, 1/1, 2, 1, 2		(0.90)	MADE GROUND: Brown mottled grey slightly clayey sandy gravel. Gravel is angular to subrounded fine to coarse of concrete, sandstone and fragments of ceramics			
1.20-1.65	SPT N=6				1.60	MADE GROUND: Very dark grey slightly gravelly slightly sandy silty clay with frequent rootlets and occasional light brown medium to coarse sand pockets. Gravel is angular to subrounded fine to coarse of sandstone, mudstone and concrete ... Slight hydrocarbon odour at 1.20m			
1.20	ES				(0.60)				
2.00-2.45	SPT N=6		1, 1/1, 1, 2, 2		2.20	MADE GROUND: dark grey mottled bottled brown slightly gravelly silty clay. Gravel is angular to subrounded fine to coarse of mudstone and concrete with fragments of plastic			
2.00-2.45	D				(0.60)				
					2.80	Soft grey mottled orangish brown slightly gravelly sandy CLAY with occasional light brown medium to coarse sand pockets. Gravel is subangular to subrounded fine to medium of sandstone and quartz			
3.00-3.40	D		Groundwater ingress(1) at 3.00m.		(0.60)				
3.00-3.40	SPT 50/245		4, 6/12, 12, 13, 13		3.40	Very dense dark brown gravelly clayey medium to coarse SAND. Gravel is angular to subrounded fine to medium of sandstone.			
						Terminated at 3.40m			
Remarks Groundwater recorded at 3.00m Position terminated at 3.395m following SPT refusal at 3.00m. On completion, borehole was installed using 1.5m plain pipe and 1.5m slotted pipe.							Scale (approx) 1:50	Logged By RM	Figure No. 23154.WS01

		ROBERT E. FRY & ASSOCIATES LTD. 45 Bridgeman Terrace, Wigan, WN1 1TT				Site Greenvale, Rochdale		Number WS02	
Excavation Method Drive-in Windowless Sampler		Dimensions		Ground Level (mOD)		Client Wainhomes (NW)		Job Number 23154	
		Location		Dates 28/10/2024		Engineer		Sheet 1/1	
Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water	Instr
0.15	ES				(0.20) 0.20	Dark grey slightly sandy silty CLAY, with frequent rootlets (topsoil)			
					(0.80)	Soft grey mottled orangish brown slightly gravelly silty CLAY with frequent fine to medium sand pockets. Gravel is subangular to subrounded fine to medium of mudstone			
1.00-1.45	D				1.00	Firm brown gravelly slightly sandy CLAY. Gravel is subangular to subrounded fine to coarse of mudstone and sandstone.			
1.20-1.65	SPT N=14		2,3/3,3,4,4		(0.50) 1.50	Firm grey gravelly slightly sandy CLAY. Gravel is subangular to subrounded fine to coarse of mudstone. (Completeley weathered bedrock).			
2.00-2.45	SPT N=19		3,3/4,5,5,5		(1.00) 2.50	Extremly weak, thinnly laminated, grey highly weathered MUDSTONE.			
2.00-2.45	D				(0.90)				
3.00-3.40	SPT 50/245		4,8/12,12,13,13		3.40	Complete at 3.40m			
3.00-3.45	D								
Remarks No groundwater encountered. Position terminated at 3.395m following SPT refusal from 3.00m due to mudstone bedrock. On completion, borehole was installed using 1.00m plain pipe and 2.00m 50mm sorted pipe.							Scale (approx) 1:50	Logged By RM	Figure No. 23154.WS02



ROBERT E. FRY & ASSOCIATES LTD.
45 Bridgeman Terrace,
Wigan, WN1 1TT

Site
Greenvale, Rochdale

Number
WS03

Excavation Method
Drive-in Windowless Sampler

Dimensions

Ground Level (mOD)

Client
Wainhomes (NW)

Job Number
23154

Location

Dates
28/10/2024

Engineer

Sheet
1/1

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water	Instr
0.10 0.10	D ES				(0.20) 0.20	Slightly dark brown silty CLAY with rootlets (topsoil)			
					(0.90)	Firm light grey mottled orangish brown slightly gravelly slightly sandy CLAY with frequent brown medium to coarse sand pockets. Gravel is subrounded to rounded fine to medium of mudstone, siltstone and sandstone			
1.20-1.65	SPT N=15		2,2/3,4,4,4		1.10 (0.70)	Firm dark brown gravelly sandy CLAY with frequent organish brown medium to coarse sand pockets. Gravel is subangular to rounded fine to medium of sandstone and mudstone.			
1.90 2.00-2.45 2.30	D SPT N=10 D		2,2/2,2,3,3		1.80 (1.00)	Stiff brown silty CLAY			
3.00-3.45	SPT N=17		3,3/4,4,4,5		2.80 (0.30) 3.10	Firm dark brown slightly sandy gravelly CLAY. Gravel is subangular to rounded fine of mudstone and siltstone			
					(0.90)	Stiff dark brown slightly gravelly CLAY. Gravel is subrounded fine of mudstone			
4.00-4.41	SPT 50/255		4,7/12,12,13,13		4.00 (0.41) 4.41	Extremely weak, thinly laminated, grey highly weathered MUDSTONE.			
						Complete at 4.41m			

Remarks
No groundwater encountered.
Borehole terminated at 4.405m followinf 4.00m SPT refusal at 4.00m. On completion, borehole was installed using 1.00m plain pipe and 3.00m 50mm slotted pipe.

Scale (approx)
1:50

Logged By
HM

Figure No.
23154.WS03



ROBERT E. FRY & ASSOCIATES LTD.
45 Bridgeman Terrace,
Wigan, WN1 1TT

Site
Greenvale, Rochdale

Number
WS04

Excavation Method Drive-in Windowless Sampler		Dimensions		Ground Level (mOD)		Client Wainhomes (NW)		Job Number 23154	
		Location		Dates 28/10/2024		Engineer		Sheet 1/1	

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
1.20-1.60	SPT 50/245		5,7/12,12,13,13		(0.30)	Dark brown silty SAND with abundant rootlets (topsoil)		
					0.30 (0.20) 0.50	Stiff light brown sandy CLAY		
1.60-2.03	SPT 50/275		13,9/13,13,13,11		(0.70)	Brown slightly gravelly fine to coarse SAND. Gravel is angular to subrounded fine to coarse of sandstone		
					1.20 (0.83)	Extremely weak, thinly laminated grey highly weathered MUDSTONE.		
					2.03	Complete at 2.03m		

Remarks SPT refusal at 1.20m and 1.60m. Position terminated at 2.025m. On completion, borehole was backfilled with arisings. No groundwater encountered.	Scale (approx)	Logged By
	1:50	HM
	Figure No. 23154.WS04	



ROBERT E. FRY & ASSOCIATES LTD.
45 Bridgeman Terrace,
Wigan, WN1 1TT

Site
Greenvale, Rochdale

Number
WS05

Excavation Method Drive-in Windowless Sampler		Dimensions		Ground Level (mOD)		Client Wainhomes (NW)		Job Number 23154	
		Location		Dates 28/10/2024		Engineer		Sheet 1/1	

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
1.20-1.65	SPT N=18		3,3/3,5,4,6		(0.20) 0.20	Soft dark brown slightly sandy silty CLAY with frequent rootlets (topsoil)		
					(1.65)	Firm grey mottled orangish brown slightly gravelly slightly sandy CLAY. Gravel is subangular to subrounded fine to medium of sandstone and mudstone		
2.00-2.31	SPT 50/160		6,8/15,15,20		(1.85) (0.15) 2.00	Extremely weak, thinly laminated grey highly weathered MUDSTONE. Complete at 2.31m		

Remarks No groundwater encountered. Position terminated at 2.31m. On completion, postion was backfilled with arisings.	Scale (approx)	Logged By
	1:50	HM
	Figure No. 23154.WS05	

APPENDIX I



ROBERT E. FRY & ASSOCIATES LTD.
45 Bridgeman Terrace,
Wigan, WN1 1TT

Site
Greenvale, Rochdale

Trial Pit Number
TP01

Excavation Method Trial Pit		Dimensions		Ground Level (mOD)		Client Wainhomes (NW)		Job Number 23154	
		Location		Dates 29/10/2024		Engineer		Sheet 1/1	

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
0.20	D				(0.40)	Dark grey silty CLAY with occasional rootlets (topsoil)		
0.50	D				0.40 (0.30)	Dark grey mottled brown clayey fine to medium SAND		
1.00	HV 36kPa				0.70 (0.40)	Soft brown mottled grey slightly gravelly silty CLAY with low sandstone cobble content. Gravel is subangular to subrounded fine to medium of sandstone and siltstone		
1.00	D				1.10 (0.90)	Very soft light grey sandy gravelly CLAY with low sandstone cobble content. Gravel is angular to subrounded fine to coarse sandstone		
1.30	HV 5kPa				2.00 (0.40)	Light brown silty fine to medium SAND		
1.30	D				2.40	Complete at 2.40m		



Remarks

Vertical, stable and dry

Scale (approx) 1:50	Logged By RM	Figure No. 23154.TP01
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ROBERT E. FRY & ASSOCIATES LTD.
45 Bridgeman Terrace,
Wigan, WN1 1TT

Site
Greenvale, Rochdale

Trial Pit Number
TP02

Excavation Method Trial Pit		Dimensions		Ground Level (mOD)		Client Wainhomes (NW)		Job Number 23154	
		Location		Dates 29/10/2024		Engineer		Sheet 1/1	

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
0.20	D				(0.40)	Dark grey silty CLAY with frequent rootlets (topsoil)		
0.80	HV 36kPa				0.40			
0.80	D				(0.30)	Very soft light brown slightly sandy slightly gravelly CLAY. Gravel is subangular to subrounded fine to coarse of sandstone		
					0.70			
					(0.80)	Soft grey mottled brown slightly gravelly slightly sandy silty CLAY. Gravel is subangular to subrounded fine to coarse of sandstone		
1.70	HV 22kPa		Water strike(1) at 1.60m.		1.50	Soft light grey sandy gravelly CLAY, with occasional light brown fine to coarse sand pockets. Gravel is subangular to subrounded fine to coarse of mudstone and sandstone		Σ1
1.70	D				(0.70)			
2.30	D				2.20	Dark grey weathered bedrock recovered as angular to subrounded fine to coarse gravel of MUDSTONE		
					(0.20)			
					2.40	Complete at 2.40m		



Remarks

Vertical and stable. Groundwater ingress at 1.60m

Scale (approx) 1:50	Logged By RM	Figure No. 23154.TP02
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ROBERT E. FRY & ASSOCIATES LTD.
45 Bridgeman Terrace,
Wigan, WN1 1TT

Site
Greenvale, Rochdale

Trial Pit Number
TP03

Excavation Method Trial Pit		Dimensions		Ground Level (mOD)		Client Wainhomes (NW)		Job Number 23154	
		Location		Dates 29/10/2024		Engineer		Sheet 1/1	

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
0.10	D				(0.30)	Dark grey silty CLAY with frequent rootlets (topsoil)		
					0.30			
					(0.20)	Firm light brown mottled grey slightly gravelly slightly sandy silty CLAY. Gravel is subangular to subrounded fine to coarse of sandstone		
					0.50			
					(0.50)	Soft orangish brown mottled grey slightly gravelly sandy CLAY with brown fine to coarse sand bands. Gravel is angular to subrounded fine to coarse sandstone		
1.20	HV 50kPa				1.00			
1.20	D					Firm grey mottled brown slightly gravelly slightly sandy silty CLAY, with low sandstone cobble content. Gravel is subangular to subrounded fine to coarse of sandstone, mudstone and siltstone		
					(1.20)	... Becoming friable at 1.80m		
2.00	HV 68kPa							
2.00	D				2.20	Complete at 2.20m		



Remarks

Vertical, stable and dry

Scale (approx) 1:50	Logged By RM	Figure No. 23154.TP03
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ROBERT E. FRY & ASSOCIATES LTD.
45 Bridgeman Terrace,
Wigan, WN1 1TT

Site
Greenvale, Rochdale

Trial Pit Number
TP04

Excavation Method Trial Pit		Dimensions		Ground Level (mOD)		Client Wainhomes (NW)		Job Number 23154	
		Location		Dates 29/10/2024		Engineer		Sheet 1/1	

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
0.10	D				(0.20) 0.20	Dark grey silty CLAY with frequent rootlets (topsoil)		
					(0.50)	Soft brown slightly gravelly silty CLAY, with low siltstone cobble content		
					0.70			
					(0.50)	Very soft light grey sandy gravelly CLAY with occasional brown fine to coarse sand pockets. Gravel is subangular to subrounded fine to coarse of sandstone and mudstone		
1.20	D				1.20			
1.40	HV 52kPa					Firm becoming stiff grey mottled brown slightly gravelly slightly sandy silty CLAY with low sandstone cobble content and occasional brown fine to coarse sand pockets. Gravel is subangular to subrounded fine to coarse of sandstone and mudstone		▽1
			Groundwater ingress(1) at 1.80m.		(1.00)			
2.10	HV 58kPa				2.20			
2.10	D				2.30	Dark grey weathered bedrock recovered as angular to subangular fine to coarse gravel of MUDSTONE		
						Complete at 2.30m		



Remarks

Water ingress recorded at 1.80m.
Vertical and stable

Scale (approx) 1:50	Logged By RM	Figure No. 23154.TP04
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ROBERT E. FRY & ASSOCIATES LTD.
45 Bridgeman Terrace,
Wigan, WN1 1TT

Site
Greenvale, Rochdale

Trial Pit Number
TP05

Excavation Method Trial Pit		Dimensions		Ground Level (mOD)		Client Wainhomes (NW)		Job Number 23154	
		Location		Dates 29/10/2024		Engineer		Sheet 1/1	

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
0.20	D				(0.40)	Dark grey silty CLAY with frequent rootlets (topsoil)		
					0.40			
					(0.60)	Soft brown mottled grey slightly sandy slightly gravelly CLAY and occasional brown fine to coarse sand pockets and occasional sandstone boulder content. Gravel is subangular to subrounded fine to coarse sandstone		
1.00	HV 36kPa				1.00			
1.00	D					Soft light grey slightly sandy gravelly silty CLAY, with low sandstone cobble content. Gravel is subangular to subrounded fine to coarse of mudstone and sandstone		
1.40	HV 41kPa				(1.00)			
1.40	D							
1.80	HV 48kPa							
			Seepage(1) at 2.00m.		2.00	Extremely weak, thinly laminated, light grey highly weathered MUDSTONE.		✓1
					(0.30)			
					2.30	Complete at 2.30m		



Remarks

Seepage recorded at 2.00m.
Moved pit slightly to prevent water ingress from a land drain.

Scale (approx) 1:50	Logged By RM	Figure No. 23154.TP05
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ROBERT E. FRY & ASSOCIATES LTD.
45 Bridgeman Terrace,
Wigan, WN1 1TT

Site
Greenvale, Rochdale

Trial Pit Number
TP06

Excavation Method Trial Pit		Dimensions		Ground Level (mOD)		Client Wainhomes (NW)		Job Number 23154	
		Location		Dates 29/10/2024		Engineer		Sheet 1/1	

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
0.15	D				(0.30)	Dark grey silty CLAY with frequent rootlets (topsoil)		
					0.30			
0.90	HV 42kPa				(0.70)	Soft to firm light brown mottled grey slightly sandy gravelly silty CLAY, with high sandstone cobble content and occasional brown fine to coarse sand pockets. Gravel is angular to subrounded fine to medium of sandstone		
0.90	D				1.00			
1.20	HV 41kPa				(0.40)	Soft to firm dark brown mottled grey slightly sandy slightly gravelly silty CLAY with high sandstone cobble content and frequent brown fine to coarse sand pockets. Gravel is subangular to subrounded fine to coarse of sandstone		
					1.40			
1.90	HV 31kPa				(0.80)	Soft dark brown mottled grey gravelly sandy CLAY, with high sandstone cobble content. Gravel is angular to subrounded fine to coarse of mudstone and sandstone		
1.90	D		Seepage(1) at 2.00m.		2.20			
					(0.20)	Extremely weak, thinly laminated highly weathered MUDSTONE		
					2.40			
						Complete at 2.40m		

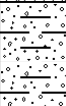


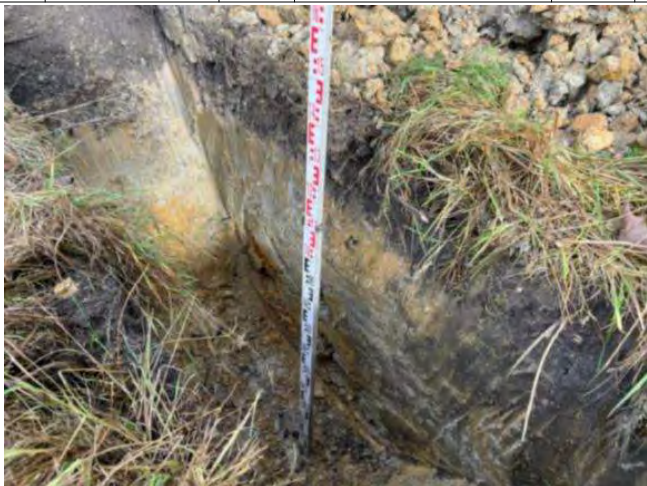
Remarks

Seepasge recorded at 2.00m.
Verticle and stable. Land drain at 0.50m

Scale (approx) 1:50	Logged By RM	Figure No. 23154.TP06
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Excavation Method Trial Pit	Dimensions	Ground Level (mOD)	Client Wainhomes (NW)	Job Number 23154
	Location	Dates 29/10/2024	Engineer	Sheet 1/1

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
0.10	D				(0.30) 0.30	Dark grey silty CLAY with frequent rootlets (topsoil)		
0.90 0.90	HV 18kPa D				(0.70) 1.00 (0.40) 1.40	Very soft light brown slightly gravelly sandy CLAY with low sandstone cobble content and frequent light brown fine to coarse sand lenses. Gravel is angular to subrounded fine to coarse of sandstone and mudstone Orangish light brown sandy clayey angular to subrounded fine to coarse GRAVEL of sandstone, with occasional sandstone boulders and high sandstone cobble content. (Potentially weathered sandstone bedrock- Old Lawrence Rock)	 	
						Complete at 1.40m		



Remarks Pit terminated at 1.40m due to suspected bedrock. Vertical, stable and dry		
Scale (approx) 1:50	Logged By RM	Figure No. 23154.TP07



ROBERT E. FRY & ASSOCIATES LTD.
45 Bridgeman Terrace,
Wigan, WN1 1TT

Site
Greenvale, Rochdale

Trial Pit Number
TP08

Excavation Method Trial Pit		Dimensions		Ground Level (mOD)		Client Wainhomes (NW)		Job Number 23154	
		Location		Dates 29/10/2024		Engineer		Sheet 1/1	

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
0.20	D				(0.35) 0.35	Dark grey silty CLAY with frequent rootlets (topsoil)		
0.90	D				(0.65) 1.00	Firm light brown mottled grey slightly sandy gravelly CLAY, with frequent sandstone cobbles. Gravel is angular to subrounded fine to coarse of sandstone and mudstone ...Becoming friable at 0.60m		
1.40	D				(0.50) 1.50	Orangish yellow slightly sandy clayey angular to subrounded fine to coarse GRAVEL of sandstone with occasional sandstone cobbles. (Potentially weathered sandstone bedrock- Old Lawrence Rock)		
						Complete at 1.50m		



Remarks

Terminated at 1.50m due to suspected sandstone bedrock. Vertical, stable and dry

Scale (approx) 1:50	Logged By RM	Figure No. 23154.TP08
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ROBERT E. FRY & ASSOCIATES LTD.
45 Bridgeman Terrace,
Wigan, WN1 1TT

Site
Greenvale, Rochdale

Trial Pit Number
TP09

Excavation Method Trial Pit		Dimensions		Ground Level (mOD)		Client Wainhomes (NW)		Job Number 23154	
		Location		Dates 29/10/2024		Engineer		Sheet 1/1	

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
0.20	D				(0.30) 0.30	Dark grey slightly gravelly slightly sandy silty CLAY. Gravel is angular to subrounded fine to coarse of siltstone (topsoil)		
0.90 0.90	HV 40kPa D				(0.80) 1.10	Soft grey mottled brown slightly gravelly slightly sandy silty CLAY with low sandstone cobble content and occasional orangish brown fine to coarse sand pockets. Gravel is angular to subrounded fine to coarse of mudstone and sandstone		
1.30	HV 70kPa				(1.00) 2.10	Firm becoming stiff dark brown slightly gravelly slightly sandy silty CLAY with low sandstone cobble content and occasional orangish brown fine to coarse sand pockets. Gravel is subangular to subrounded fine to coarse of sandstone and mudstone		
1.70 2.00	D HV 88kPa		Seepage(1) at 2.10m.			Complete at 2.10m		∇1



Remarks

Seepage at 2.10m.
Terminated at 2.10m due to boulder at the base. Vertical and stable.

Scale (approx) 1:50	Logged By RM	Figure No. 23154.TP09
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ROBERT E. FRY & ASSOCIATES LTD.
45 Bridgeman Terrace,
Wigan, WN1 1TT

Site
Greenvale, Rochdale

Trial Pit Number
TP10

Excavation Method Trial Pit		Dimensions		Ground Level (mOD)		Client Wainhomes (NW)		Job Number 23154	
		Location		Dates 29/10/2024		Engineer		Sheet 1/1	

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
0.20	D				(0.40)	Dark grey slightly sandy silty CLAY with frequent rootlets (topsoil)		
0.60	HV 38kPa				0.40			
					(0.70)	Soft light brown slightly gravelly sandy CLAY, with low sandstone cobble content and frequent orangish brown fine to coarse sand lenses. Gravel is angular to subrounded fine to coarse of sandstone and mudstone		
1.00	D				1.10			
					(0.50)	Firm dark brown mottled grey slightly gravelly sandy CLAY, with low sandstone cobble content. Gravel is angular to subrounded fine to coarse of sandstone and mudstone		∇1
			Groundwater ingress(1) at 1.50m.		1.60			
					(0.30)	Extremley weak, thinnly laminated, grey highly weathered MUDSTONE.		
					1.90	Complete at 1.90m		



Remarks

Water ingress at 1.50m.
Terminated at 1.90m due to mudstone bedrock.

Scale (approx) 1:50	Logged By RM	Figure No. 23154.TP10
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ROBERT E. FRY & ASSOCIATES LTD.
45 Bridgeman Terrace,
Wigan, WN1 1TT

Site
Greenvale, Rochdale

Trial Pit Number
TP11

Excavation Method Trial Pit		Dimensions		Ground Level (mOD)		Client Wainhomes (NW)		Job Number 23154	
		Location		Dates 29/10/2024		Engineer		Sheet 1/1	

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
0.10	D				(0.30)	Dark grey silty CLAY with frequent rootlets (topsoil)		
					0.30			
					(0.70)	Soft light brown mottled orangish brown grey slightly gravelly slightly sandy silty CLAY, with occasional light brown fine to coarse sand pockets.		
0.90	HV 40kPa							
0.90	D				1.00	Firm dark brown mottled grey gravelly slightly sandy silty CLAY, with frequent sandstone cobble content. Gravel is angular to subrounded fine to coarse of sandstone, siltstone and mudstone		
1.20	HV 70kPa							
1.50	HV 110kPa				(1.00)	... Becoming stiff and friable below 1.30m		
					2.00	Complete at 2.00m		



Remarks

Terminated at 2.00m due to vevry slow excavating through stiff clays. Vertical, stable and dry

Scale (approx) 1:50	Logged By RM	Figure No. 23154.TP11
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ROBERT E. FRY & ASSOCIATES LTD.
45 Bridgeman Terrace,
Wigan, WN1 1TT

Site
Greenvale, Rochdale

Trial Pit Number
TP12

Excavation Method Trial Pit		Dimensions		Ground Level (mOD)		Client Wainhomes (NW)		Job Number 23154	
		Location		Dates 29/10/2024		Engineer		Sheet 1/1	

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
0.20	D				(0.40)	Dark grey silty CLAY with occasional rootlets (topsoil)		
0.90	HV 68kPa				0.40			
0.90	D				(0.30)	Soft light brown mottled grey slightly gravelly sandy CLAY, with frequent light brown fine to coarse sand pockets. Gravel is subangular to subrounded fine to coarse of sandstone		
1.30	HV 70kPa				0.70			
					(0.60)	Firm brown mottled grey slightly gravelly slightly sandy CLAY with occasional light brown fine to coarse sand pockets. Gravel is subangular to subrounded fine to coarse of sandstone		
1.90	D		Seepage(1) at 2.00m.		1.30			
					(0.50)	Firm grey mottled dark brown slightly gravelly slightly sandy CLAY, with occasional sandstone cobbles. Gravel is angular to subrounded fine to coarse of sandstone and mudstone		
					1.80			
					(0.70)	Extremely weak, thinly laminated, grey highly weathered MUDSTONE. ... Becoming soft at 1.90m		∇1
					2.50	Complete at 2.50m		



Remarks

Seepage recorded at 2.00m.
Terminated at 2.50m due to mudstone bedrock. Vertical and stable.

Scale (approx) 1:50	Logged By RM	Figure No. 23154.TP12
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ROBERT E. FRY & ASSOCIATES LTD.
45 Bridgeman Terrace,
Wigan, WN1 1TT

Site
Greenvale, Rochdale

Trial Pit Number
TP13

Excavation Method Trial Pit		Dimensions		Ground Level (mOD)		Client Wainhomes (NW)		Job Number 23154	
		Location		Dates 29/10/2024		Engineer		Sheet 1/1	

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
0.15	D				(0.30)	Dark grey silty CLAY with frequent rootlets (topsoil)		
0.80	HV 56kPa				0.30	Firmish light brown mottled grey slightly gravelly slightly sandy silty CLAY, with low sandstone cobble content		
0.80	D				(0.70)			
					1.00	Firm becoming stiff dark brown mottled grey gravelly slightly sandy silty CLAY, with frequent sandstone cobbles and occasional grey fine to coarse sand lenses. Gravel is angular to subrounded fine to coarse of sandstone and mudstone		
					(1.10)			
2.00	D				2.10	Complete at 2.10m		



Remarks

Vertical, stable and dry

Scale (approx) 1:50	Logged By RM	Figure No. 23154.TP13
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ROBERT E. FRY & ASSOCIATES LTD.
45 Bridgeman Terrace,
Wigan, WN1 1TT

Site
Greenvale, Rochdale

Trial Pit Number
TP14

Excavation Method Trial Pit		Dimensions		Ground Level (mOD)		Client Wainhomes (NW)		Job Number 23154	
		Location		Dates 29/10/2024		Engineer		Sheet 1/1	

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
0.30	D				(0.40) 0.40	Dark grey silty CLAY with frequent rootlets (topsoil)		
0.90 0.90 1.10	HV 36kPa D HV 60kPa				(0.70) 1.10	Soft brown mottled grey slightly gravelly slightly sandy silty CLAY with occasional orange fine to coarse sand pockets. Gravel is angular to subrounded fine to coarse of sandstone.		
					(0.80)	Extremely weak, thinnly laminated, grey highly weathered MUDSTONE.		
1.80	D				1.90	Complete at 1.90m		



Remarks

Land drain at 0.90m - water ingress associated
Terminated at 1.90m due to rock at base of pit.

Scale (approx) 1:50	Logged By RM	Figure No. 23154.TP14
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APPENDIX J



Robert E Fry & Associates Ltd
45 Bridgeman Terrace
WN1 1TT

i2 Analytical Ltd.
7 Woodshots Meadow,
Croxley Green
Business Park,
Watford,
Herts,
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e: rm@refa.co.uk

t: 01923 225404

f: 01923 237404

e: reception@i2analytical.com

Analytical Report Number : 24-051423

Project / Site name:	Greenvale, Rochdale	Samples received on:	01/11/2024
Your job number:	23154	Samples instructed on / Analysis started on:	01/11/2024
Your order number:		Analysis completed by:	12/11/2024
Report Issue Number:	1	Report issued on:	12/11/2024
Samples Analysed:	10 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

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

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: 24-051423
Project / Site name: Greenvale, Rochdale

Lab Sample Number	366851	366852	366853	366854	366855
Sample Reference	WS01	WS01	WS02	TP01	TP02
Sample Number	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)	0.20	1.20	0.15	0.20	0.20
Date Sampled	29/10/2024	29/10/2024	29/10/2024	29/10/2024	29/10/2024
Time Taken	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Test Limit of detection	Test Accreditation Status		

Stone Content	%	0.1	NONE	3.7	< 0.1	< 0.1	< 0.1	< 0.1
Moisture Content	%	0.01	NONE	19	28	29	46	33
Total mass of sample received	kg	0.1	NONE	0.9	0.1	0.5	0.9	0.8

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	MJN	-	MJN	MJN	MJN

General Inorganics

pH (L099)	pH Units	N/A	MCERTS	7.7	6.9	5.6	6.4	6
Total Cyanide	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Water Soluble Sulphate as SO ₄ 16hr extraction (2:1)	mg/kg	2.5	MCERTS	790	1300	33	140	47
Water Soluble SO ₄ 16hr extraction (2:1 Leachate Equivalent)	mg/l	1.25	MCERTS	397	625	16.4	68.5	23.6
Sulphide	mg/kg	1	MCERTS	3.7	7.7	< 1.0	1.2	< 1.0
Organic Matter	%	0.1	MCERTS	-	-	-	-	-
Total Organic Carbon (TOC) - Automated	%	0.1	MCERTS	1.9	3.5	3.9	6.3	4.7
Total Organic Carbon (TOC) - Manual	%	0.1	MCERTS	-	-	-	-	-

Total Phenols

Total Phenols (monohydric)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
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Speciated PAHs

Naphthalene	mg/kg	0.05	MCERTS	0.1	0.06	< 0.05	0.07	0.05
Acenaphthylene	mg/kg	0.05	MCERTS	0.05	< 0.05	< 0.05	< 0.05	< 0.05
Acenaphthene	mg/kg	0.05	MCERTS	0.2	0.06	< 0.05	< 0.05	< 0.05
Fluorene	mg/kg	0.05	MCERTS	0.15	< 0.05	< 0.05	< 0.05	< 0.05
Phenanthrene	mg/kg	0.05	MCERTS	1.5	0.38	0.32	0.31	0.14
Anthracene	mg/kg	0.05	MCERTS	0.37	0.08	0.06	0.06	< 0.05
Fluoranthene	mg/kg	0.05	MCERTS	2.4	0.66	0.67	0.67	0.35
Pyrene	mg/kg	0.05	MCERTS	2.2	0.59	0.59	0.6	0.33
Benzo(a)anthracene	mg/kg	0.05	MCERTS	1	0.28	0.27	0.32	0.18
Chrysene	mg/kg	0.05	MCERTS	1.3	0.35	0.37	0.35	0.2
Benzo(b)fluoranthene	mg/kg	0.05	ISO 17025	1.2	0.38	0.37	0.41	0.28
Benzo(k)fluoranthene	mg/kg	0.05	ISO 17025	0.61	0.15	0.19	0.15	0.07
Benzo(a)pyrene	mg/kg	0.05	MCERTS	1.1	0.3	0.31	< 0.05	0.24
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	0.57	0.16	0.15	0.16	0.09
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	0.15	< 0.05	< 0.05	< 0.05	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	0.61	0.16	0.16	0.18	0.11

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	0.8	ISO 17025	13.6	3.62	3.47	3.28	2.04
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Analytical Report Number: 24-051423
Project / Site name: Greenvale, Rochdale

Lab Sample Number				366851	366852	366853	366854	366855
Sample Reference				WS01	WS01	WS02	TP01	TP02
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.20	1.20	0.15	0.20	0.20
Date Sampled				29/10/2024	29/10/2024	29/10/2024	29/10/2024	29/10/2024
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Test Limit of detection	Test Accreditation Status					

Heavy Metals / Metalloids

Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	14	14	20	22	18
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	0.6	< 0.2	< 0.2	0.7	< 0.2
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	330	46	16	25	21
Copper (aqua regia extractable)	mg/kg	1	MCERTS	100	32	31	45	37
Lead (aqua regia extractable)	mg/kg	1	MCERTS	240	71	93	110	90
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	0.4	0.3	< 0.3	< 0.3	< 0.3
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	150	27	10	20	14
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	190	110	69	120	73

Petroleum Hydrocarbons

TPHCWG - Aliphatic >EC5 - EC6 HS_1D_AL	mg/kg	0.01	MCERTS	< 0.010	< 0.010	-	-	-
TPHCWG - Aliphatic >EC6 - EC8 HS_1D_AL	mg/kg	0.01	MCERTS	< 0.010	< 0.010	-	-	-
TPHCWG - Aliphatic >EC8 - EC10 HS_1D_AL	mg/kg	0.01	MCERTS	< 0.010	< 0.010	-	-	-
TPHCWG - Aliphatic >EC10 - EC12 EH_CU_1D_AL	mg/kg	1	MCERTS	< 1.0	< 1.0	-	-	-
TPHCWG - Aliphatic >EC12 - EC16 EH_CU_1D_AL	mg/kg	2	MCERTS	4.5	< 2.0	-	-	-
TPHCWG - Aliphatic >EC16 - EC21 EH_CU_1D_AL	mg/kg	8	MCERTS	13	< 8.0	-	-	-
TPHCWG - Aliphatic >EC21 - EC35 EH_CU_1D_AL	mg/kg	8	MCERTS	48	< 8.0	-	-	-
TPHCWG - Aliphatic >EC35 - EC44 EH_CU_1D_AL	mg/kg	8.4	NONE	19	< 8.4	-	-	-
TPHCWG - Aliphatic >EC5 - EC35 EH_CU+HS_1D_AL	mg/kg	10	NONE	65	< 10	-	-	-
TPHCWG - Aliphatic >EC5 - EC44 EH_CU+HS_1D_AL	mg/kg	10	NONE	84	< 10	-	-	-

TPHCWG - Aromatic >EC5 - EC7 HS_1D_AR	mg/kg	0.01	MCERTS	< 0.010	< 0.010	-	-	-
TPHCWG - Aromatic >EC7 - EC8 HS_1D_AR	mg/kg	0.01	MCERTS	< 0.010	< 0.010	-	-	-
TPHCWG - Aromatic >EC8 - EC10 HS_1D_AR	mg/kg	0.02	MCERTS	< 0.020	< 0.020	-	-	-
TPHCWG - Aromatic >EC10 - EC12 EH_CU_1D_AR	mg/kg	1	MCERTS	< 1.0	< 1.0	-	-	-
TPHCWG - Aromatic >EC12 - EC16 EH_CU_1D_AR	mg/kg	2	MCERTS	5.6	< 2.0	-	-	-
TPHCWG - Aromatic >EC16 - EC21 EH_CU_1D_AR	mg/kg	10	MCERTS	22	< 10	-	-	-
TPHCWG - Aromatic >EC21 - EC35 EH_CU_1D_AR	mg/kg	10	MCERTS	53	12	-	-	-
TPHCWG - Aromatic >EC35 - EC44 EH_CU_1D_AR	mg/kg	8.4	NONE	22	< 8.4	-	-	-
TPHCWG - Aromatic >EC5 - EC35 EH_CU+HS_1D_AR	mg/kg	10	NONE	80	12	-	-	-
TPHCWG - Aromatic >EC5 - EC44 EH_CU+HS_1D_AR	mg/kg	10	NONE	100	12	-	-	-

VOCS

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

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

Analytical Report Number: 24-051423
Project / Site name: Greenvale, Rochdale

Lab Sample Number				366856	366857	366858	366859	366860
Sample Reference				TP04	TP06	TP08	TP11	TP14
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.10	0.15	0.20	0.10	0.30
Date Sampled				29/10/2024	29/10/2024	29/10/2024	29/10/2024	29/10/2024
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)				Units	Test Limit of detection	Test Accreditation Status		

Stone Content	%	0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Moisture Content	%	0.01	NONE	50	41	31	23	28
Total mass of sample received	kg	0.1	NONE	0.5	0.6	0.5	0.5	0.1

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	MJN	MJN	MJN	MJN	-

General Inorganics

pH (L099)	pH Units	N/A	MCERTS	5.6	6.2	5.8	6.7	5.8
Total Cyanide	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Water Soluble Sulphate as SO ₄ 16hr extraction (2:1)	mg/kg	2.5	MCERTS	88	62	84	31	200
Water Soluble SO ₄ 16hr extraction (2:1 Leachate Equivalent)	mg/l	1.25	MCERTS	43.9	31	42	15.3	98.8
Sulphide	mg/kg	1	MCERTS	1.8	< 1.0	2.1	< 1.0	1.5
Organic Matter	%	0.1	MCERTS	16	-	-	-	-
Total Organic Carbon (TOC) - Automated	%	0.1	MCERTS	-	6	4	2.6	3.5
Total Organic Carbon (TOC) - Manual	%	0.1	MCERTS	9.1	-	-	-	-

Total Phenols

Total Phenols (monohydric)	mg/kg	1	MCERTS	1	1.2	< 1.0	< 1.0	< 1.0
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Speciated PAHs

Naphthalene	mg/kg	0.05	MCERTS	0.06	0.07	< 0.05	< 0.05	0.06
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Acenaphthene	mg/kg	0.05	MCERTS	0.08	0.06	< 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	0.49	0.4	0.45	< 0.05	0.26
Anthracene	mg/kg	0.05	MCERTS	0.1	0.1	0.07	< 0.05	0.05
Fluoranthene	mg/kg	0.05	MCERTS	0.95	0.69	0.87	0.05	0.43
Pyrene	mg/kg	0.05	MCERTS	0.83	0.6	0.77	0.05	0.38
Benzo(a)anthracene	mg/kg	0.05	MCERTS	0.43	0.31	0.4	< 0.05	0.18
Chrysene	mg/kg	0.05	MCERTS	0.48	0.37	0.49	< 0.05	0.21
Benzo(b)fluoranthene	mg/kg	0.05	ISO 17025	0.52	0.49	0.57	< 0.05	0.23
Benzo(k)fluoranthene	mg/kg	0.05	ISO 17025	0.25	0.18	0.26	< 0.05	0.09
Benzo(a)pyrene	mg/kg	0.05	MCERTS	0.4	0.33	0.42	< 0.05	0.18
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	0.21	0.17	0.22	< 0.05	0.1
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	0.06	< 0.05	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	0.23	0.18	0.26	< 0.05	0.09

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	0.8	ISO 17025	5.08	3.96	4.84	< 0.80	2.25
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Analytical Report Number: 24-051423
Project / Site name: Greenvale, Rochdale

Lab Sample Number				366856	366857	366858	366859	366860
Sample Reference				TP04	TP06	TP08	TP11	TP14
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.10	0.15	0.20	0.10	0.30
Date Sampled				29/10/2024	29/10/2024	29/10/2024	29/10/2024	29/10/2024
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Test Limit of detection	Test Accreditation Status					

Heavy Metals / Metalloids

Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	27	19	21	15	16
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	1	0.6	< 0.2	< 0.2	< 0.2
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	33	19	20	20	15
Copper (aqua regia extractable)	mg/kg	1	MCERTS	43	34	38	25	27
Lead (aqua regia extractable)	mg/kg	1	MCERTS	150	88	110	51	77
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	23	17	17	16	12
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	150	92	130	47	62

Petroleum Hydrocarbons

TPHCWG - Aliphatic >EC5 - EC6 HS_1D_AL	mg/kg	0.01	MCERTS	-	-	-	-	-
TPHCWG - Aliphatic >EC6 - EC8 HS_1D_AL	mg/kg	0.01	MCERTS	-	-	-	-	-
TPHCWG - Aliphatic >EC8 - EC10 HS_1D_AL	mg/kg	0.01	MCERTS	-	-	-	-	-
TPHCWG - Aliphatic >EC10 - EC12 EH_CU_1D_AL	mg/kg	1	MCERTS	-	-	-	-	-
TPHCWG - Aliphatic >EC12 - EC16 EH_CU_1D_AL	mg/kg	2	MCERTS	-	-	-	-	-
TPHCWG - Aliphatic >EC16 - EC21 EH_CU_1D_AL	mg/kg	8	MCERTS	-	-	-	-	-
TPHCWG - Aliphatic >EC21 - EC35 EH_CU_1D_AL	mg/kg	8	MCERTS	-	-	-	-	-
TPHCWG - Aliphatic >EC35 - EC44 EH_CU_1D_AL	mg/kg	8.4	NONE	-	-	-	-	-
TPHCWG - Aliphatic >EC5 - EC35 EH_CU+HS_1D_AL	mg/kg	10	NONE	-	-	-	-	-
TPHCWG - Aliphatic >EC5 - EC44 EH_CU+HS_1D_AL	mg/kg	10	NONE	-	-	-	-	-

TPHCWG - Aromatic >EC5 - EC7 HS_1D_AR	mg/kg	0.01	MCERTS	-	-	-	-	-
TPHCWG - Aromatic >EC7 - EC8 HS_1D_AR	mg/kg	0.01	MCERTS	-	-	-	-	-
TPHCWG - Aromatic >EC8 - EC10 HS_1D_AR	mg/kg	0.02	MCERTS	-	-	-	-	-
TPHCWG - Aromatic >EC10 - EC12 EH_CU_1D_AR	mg/kg	1	MCERTS	-	-	-	-	-
TPHCWG - Aromatic >EC12 - EC16 EH_CU_1D_AR	mg/kg	2	MCERTS	-	-	-	-	-
TPHCWG - Aromatic >EC16 - EC21 EH_CU_1D_AR	mg/kg	10	MCERTS	-	-	-	-	-
TPHCWG - Aromatic >EC21 - EC35 EH_CU_1D_AR	mg/kg	10	MCERTS	-	-	-	-	-
TPHCWG - Aromatic >EC35 - EC44 EH_CU_1D_AR	mg/kg	8.4	NONE	-	-	-	-	-
TPHCWG - Aromatic >EC5 - EC35 EH_CU+HS_1D_AR	mg/kg	10	NONE	-	-	-	-	-
TPHCWG - Aromatic >EC5 - EC44 EH_CU+HS_1D_AR	mg/kg	10	NONE	-	-	-	-	-

VOCs

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

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

Analytical Report Number : 24-051423

Project / Site name: Greenvale, Rochdale

* 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 *
366851	WS01	None Supplied	0.2	Brown loam and clay with gravel and vegetation
366852	WS01	None Supplied	1.2	Brown loam and clay with vegetation
366853	WS02	None Supplied	0.15	Brown loam and clay with gravel and vegetation
366854	TP01	None Supplied	0.2	Brown loam and clay with gravel and vegetation
366855	TP02	None Supplied	0.2	Brown loam and clay with gravel and vegetation
366856	TP04	None Supplied	0.1	Brown loam and clay with gravel and vegetation
366857	TP06	None Supplied	0.15	Brown loam and clay with gravel and vegetation
366858	TP08	None Supplied	0.2	Brown loam and clay with gravel and vegetation
366859	TP11	None Supplied	0.1	Brown loam and clay with gravel and vegetation
366860	TP14	None Supplied	0.3	Brown loam and clay with gravel and vegetation

Analytical Report Number : 24-051423
Project / Site name: Greenvale, Rochdale

Water matrix abbreviations:
Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Waters (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
Organic matter 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	L023B	D	MCERTS
Total organic carbon 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	L023B	D	MCERTS
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
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/GC-MS HS in soil	Determination of total petroleum hydrocarbons in soil by GC-FID/GC-MS HS with carbon banding aliphatic and aromatic	In-house method	L076B/L088-PL	D/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

Analytical Report Number : 24-051423
Project / Site name: Greenvale, Rochdale

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

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
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

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.

Information in Support of Analytical Results

List of HWOL Acronyms and Operators

Acronym	Descriptions
HS	Headspace Analysis
MS	Mass spectrometry
FID	Flame Ionisation Detector
GC	Gas Chromatography
EH	Extractable Hydrocarbons (i.e. everything extracted by the solvent(s))
CU	Clean-up - e.g. by Florisil®, silica gel
1D	GC - Single coil/column gas chromatography
2D	GC-GC - Double coil/column gas chromatography
Total	Aliphatics & Aromatics
AL	Aliphatics
AR	Aromatics
#1	EH_2D_Total but with humics mathematically subtracted
#2	EH_2D_Total but with fatty acids mathematically subtracted
_	Operator - underscore to separate acronyms (exception for +)
+	Operator to indicate cumulative e.g. EH+HS_Total or EH_CU+HS_Total

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

APPENDIX K



TEST CERTIFICATE

DETERMINATION OF LIQUID AND PLASTIC LIMITS

Tested in Accordance with: BS EN ISO 17892-12:2018+A2:2022,
cl 5.3.14, 5.5, Fall Cone Method, 1 Pt Test, BS 1377-2:2022,
cl 5.3, 6

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB



4041

Client: Robert E Fry & Associates Ltd
Client Address: 45 Bridgeman Terrace, WN1 1TT

Client Reference: 24132
Job Number: 24-051794-1
Date Sampled: 29/10/2024
Date Received: 01/11/2024
Date Tested: 14/11/2024
Sampled By: Not Given

Contact: Rachael Mawdsley
Site Address: Greenvale, Rochdale

Testing carried out at i2 Analytical Limited, ul. Pionierow, 41-711 Ruda Slaska, Poland

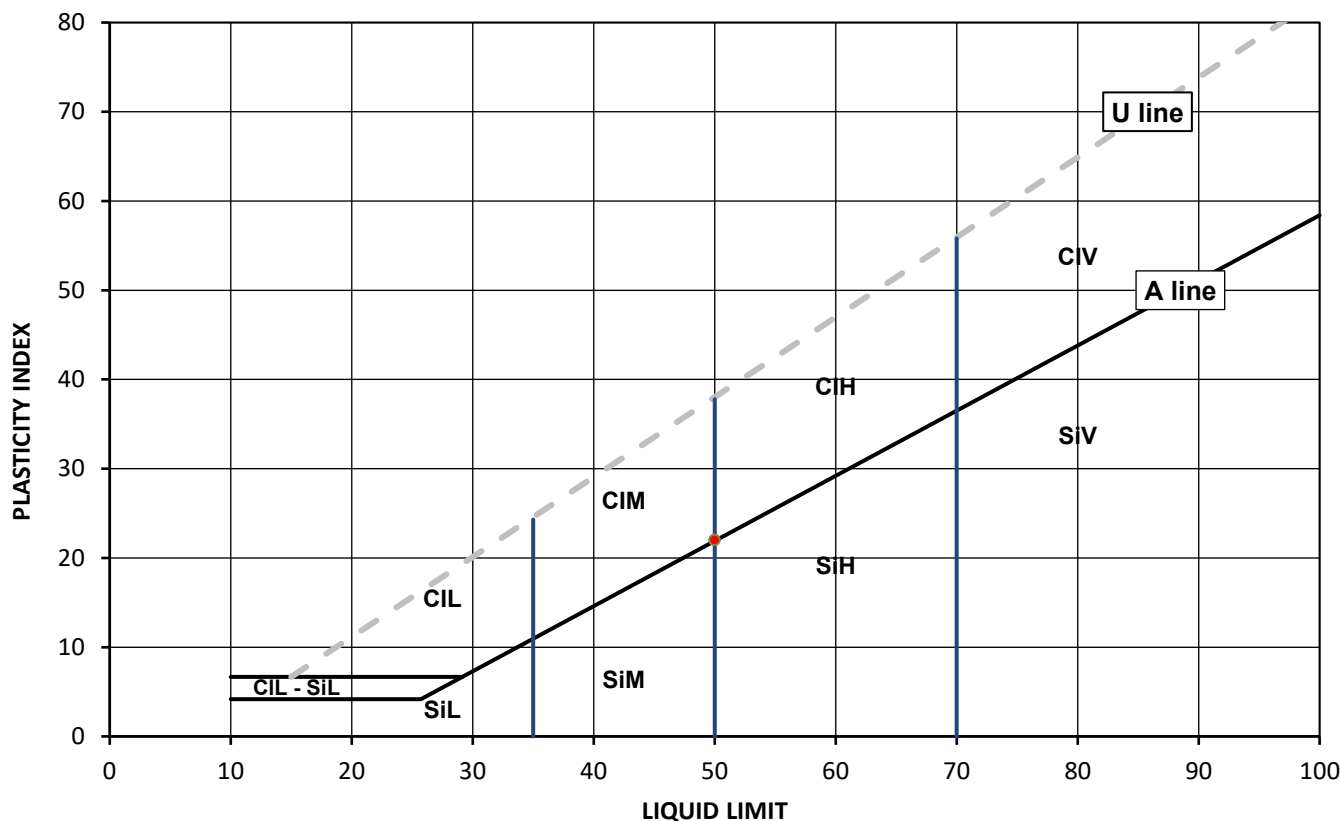
Test Results:

Laboratory Reference: 368814
Hole No.: WS01
Sample Reference: Not Given
Sample Description: Yellowish grey slightly gravelly slightly sandy silty CLAY

Depth Top [m]: 1.20
Depth Base [m]: Not Given
Sample Type: D

Sample Preparation: Tested after washing to remove >0.425 mm;
Cone Type: 80g/30deg

As Received Water Content [W] %	Corrected Liquid Limit [WL] %	Correlation Factor	Plastic Limit [Wp] %	Plasticity Index [Ip] %	Liquidity index [IL] % #	Consistency index [IC] % #	% Passing 425µm BS Test Sieve
30.3	50	1.000	28	22	0.09	0.91	81



Legend, based on BS EN ISO 14688 2:2018 Geotechnical investigation and testing – Identification and classification of soil

		Plasticity	Liquid Limit
Cl	Clay	L Low	below 35
Si	Silt	M Medium	35 to 50
		H High	50 to 70
		V Very high	exceeding 70
		O Organic	append to classification for organic material (eg ClHO)

Note: Water Content by BS EN 17892-1:2014+A1:2022, BS 1377-2:2022; Correlation Factor by Clayton C.R.I and Jukes A.W (1978); # Non accredited

Remarks:

Signed:

Katarzyna Koziel
Geotechnical Reporting Team Leader
for and on behalf of i2 Analytical Ltd

Opinions and interpretations expressed herein are outside of the scope of the UKAS Accreditation. This report may not be reproduced other than in full without the prior written approval of the issuing laboratory. The results included within the report relate only to the sample(s) submitted for testing.



TEST CERTIFICATE

DETERMINATION OF LIQUID AND PLASTIC LIMITS

Tested in Accordance with: BS EN ISO 17892-12:2018+A2:2022,
cl 5.3.14, 5.5, Fall Cone Method, 1 Pt Test, BS 1377-2:2022,
cl 5.3, 6

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Client Reference: 24132
Job Number: 24-051794-1
Date Sampled: 29/10/2024
Date Received: 01/11/2024
Date Tested: 14/11/2024
Sampled By: Not Given

Contact: Rachael Mawdsley
Site Address: Greenvale, Rochdale

Testing carried out at i2 Analytical Limited, ul. Pionierow, 41-711 Ruda Slaska, Poland

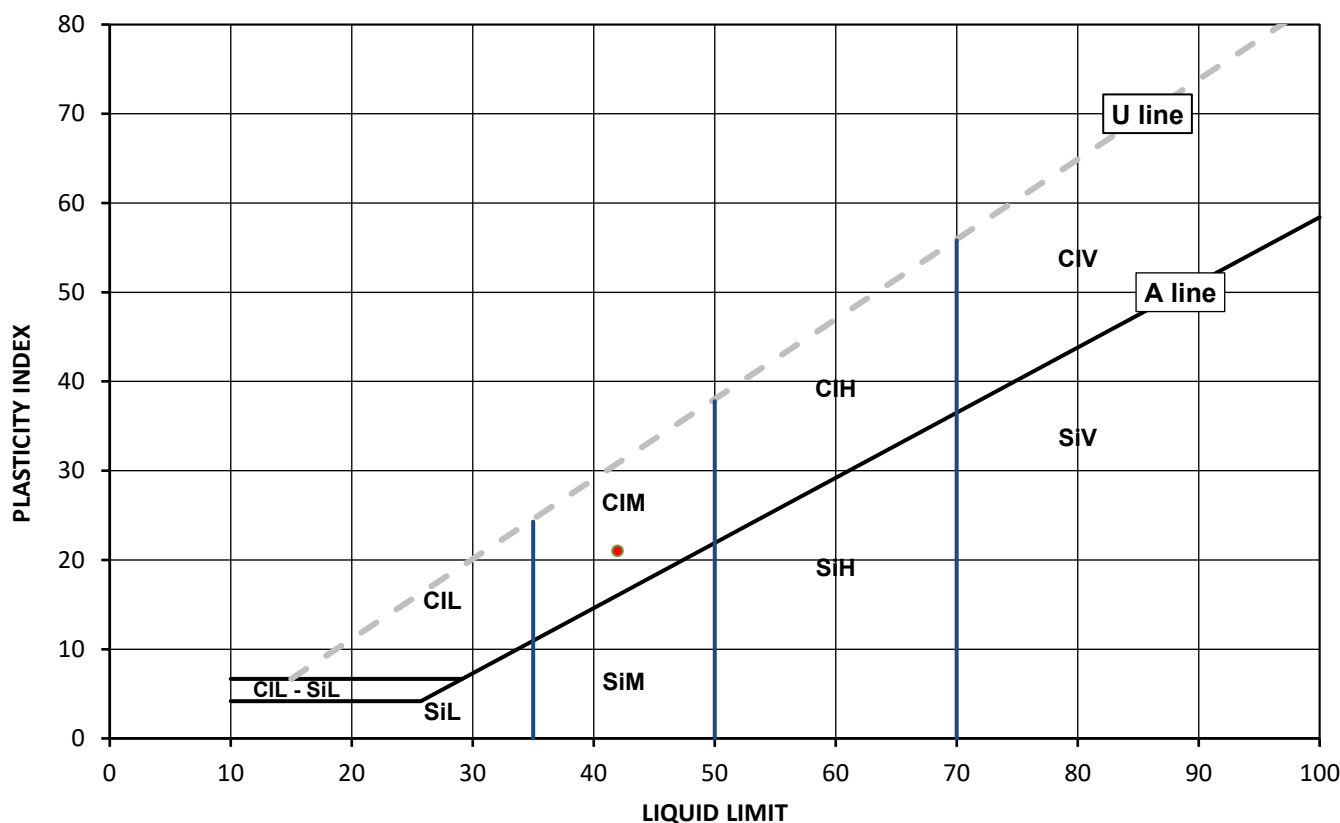
Test Results:

Laboratory Reference: 368815
Hole No.: WS03
Sample Reference: Not Given
Sample Description: Brownish grey slightly gravelly sandy CLAY

Depth Top [m]: 2.30
Depth Base [m]: Not Given
Sample Type: D

Sample Preparation: Tested after >0.425 mm removed by hand;
Cone Type: 80g/30deg

As Received Water Content [W] %	Corrected Liquid Limit [WL] %	Correlation Factor	Plastic Limit [Wp] %	Plasticity Index [Ip] %	Liquidity index [IL] % #	Consistency index [IC] % #	% Passing 425µm BS Test Sieve
22.8	42	1.039	21	21	0.10	0.90	99



Legend, based on BS EN ISO 14688 2:2018 Geotechnical investigation and testing – Identification and classification of soil

	Plasticity	Liquid Limit
Cl	Clay	below 35
Si	Silt	35 to 50
	L Low	50 to 70
	M Medium	exceeding 70
	H High	append to classification for organic material (eg ClHO)
	V Very high	
	O Organic	

Note: Water Content by BS EN 17892-1:2014+A1:2022, BS 1377-2:2022; Correlation Factor by Clayton C.R.I and Jukes A.W (1978); # Non accredited

Remarks:

Signed:

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TEST CERTIFICATE

DETERMINATION OF LIQUID AND PLASTIC LIMITS

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cl 5.3.14, 5.5, Fall Cone Method, 1 Pt Test, BS 1377-2:2022,
cl 5.3, 6

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Client Reference: 24132
Job Number: 24-051794-1
Date Sampled: 29/10/2024
Date Received: 01/11/2024
Date Tested: 14/11/2024
Sampled By: Not Given

Contact: Rachael Mawdsley
Site Address: Greenvale, Rochdale

Testing carried out at i2 Analytical Limited, ul. Pionierow, 41-711 Ruda Slaska, Poland

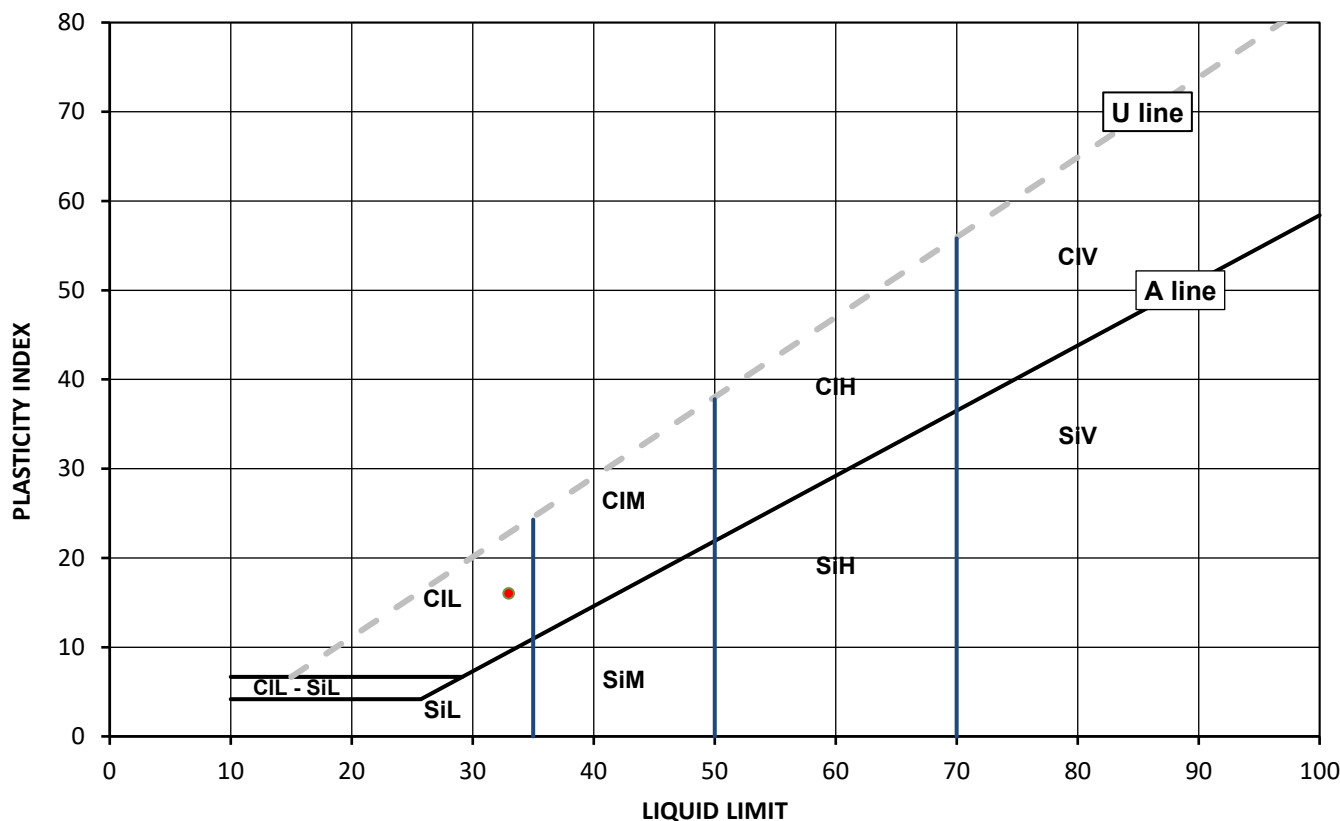
Test Results:

Laboratory Reference: 368816
Hole No.: TP04
Sample Reference: Not Given
Sample Description: Brownish grey slightly gravelly very sandy CLAY

Depth Top [m]: 1.20
Depth Base [m]: Not Given
Sample Type: D

Sample Preparation: Tested after washing to remove >0.425 mm;
Cone Type: 80g/30deg

As Received Water Content [W] %	Corrected Liquid Limit [WL] %	Correlation Factor	Plastic Limit [Wp] %	Plasticity Index [Ip] %	Liquidity index [IL] % #	Consistency index [IC] % #	% Passing 425µm BS Test Sieve
16.0	33	1.015	17	16	-0.06	1.06	81



Legend, based on BS EN ISO 14688 2:2018 Geotechnical investigation and testing – Identification and classification of soil

	Plasticity	Liquid Limit
Cl	Clay	below 35
Si	Silt	35 to 50
	L	Low
	M	Medium
	H	High
	V	Very high
	O	Organic
		append to classification for organic material (eg ClHO)

Note: Water Content by BS EN 17892-1:2014+A1:2022, BS 1377-2:2022; Correlation Factor by Clayton C.R.I and Jukes A.W (1978); # Non accredited

Remarks:

Signed:

Katarzyna Koziel
Geotechnical Reporting Team Leader
for and on behalf of i2 Analytical Ltd

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TEST CERTIFICATE

DETERMINATION OF LIQUID AND PLASTIC LIMITS

Tested in Accordance with: BS EN ISO 17892-12:2018+A2:2022,
cl 5.3.14, 5.5, Fall Cone Method, 1 Pt Test, BS 1377-2:2022,
cl 5.3, 6

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Date Tested: 14/11/2024
Sampled By: Not Given

Contact: Rachael Mawdsley
Site Address: Greenvale, Rochdale

Testing carried out at i2 Analytical Limited, ul. Pionierow, 41-711 Ruda Slaska, Poland

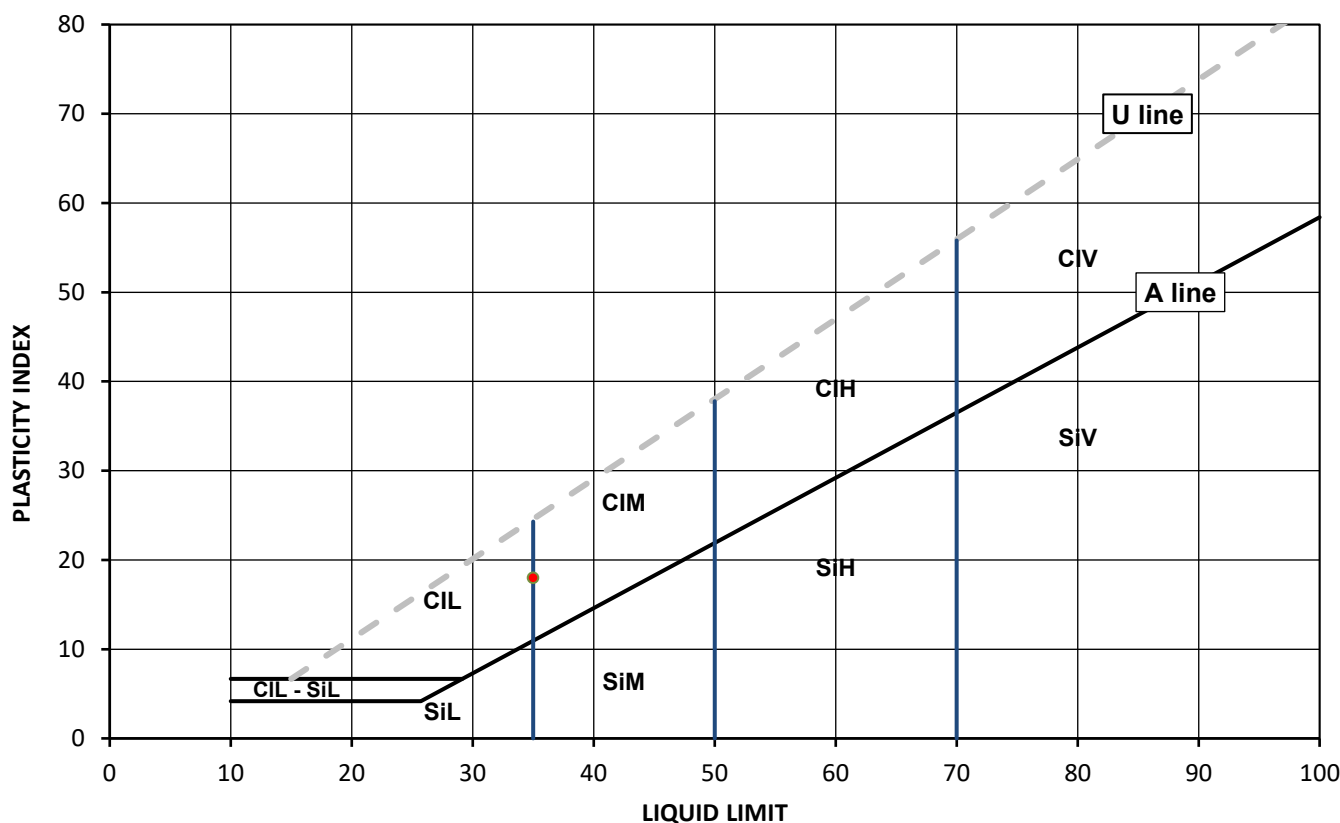
Test Results:

Laboratory Reference: 368817
Hole No.: TP05
Sample Reference: Not Given
Sample Description: Brownish grey slightly gravelly sandy CLAY

Depth Top [m]: 1.40
Depth Base [m]: Not Given
Sample Type: D

Sample Preparation: Tested after washing to remove >0.425 mm;
Cone Type: 80g/30deg

As Received Water Content [W] %	Corrected Liquid Limit [WL] %	Correlation Factor	Plastic Limit [Wp] %	Plasticity Index [Ip] %	Liquidity index [IL] % #	Consistency index [IC] % #	% Passing 425µm BS Test Sieve
23.9	35	1.030	17	18	0.39	0.61	80



Legend, based on BS EN ISO 14688 2:2018 Geotechnical investigation and testing – Identification and classification of soil

		Plasticity	Liquid Limit
Cl	Clay	L Low	below 35
Si	Silt	M Medium	35 to 50
		H High	50 to 70
		V Very high	exceeding 70
		O Organic	append to classification for organic material (eg ClHO)

Note: Water Content by BS EN 17892-1:2014+A1:2022, BS 1377-2:2022; Correlation Factor by Clayton C.R.I and Jukes A.W (1978); # Non accredited

Remarks:

Signed:

Katarzyna Koziel
Geotechnical Reporting Team Leader
for and on behalf of i2 Analytical Ltd

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TEST CERTIFICATE

DETERMINATION OF LIQUID AND PLASTIC LIMITS

Tested in Accordance with: BS EN ISO 17892-12:2018+A2:2022,
cl 5.3.14, 5.5, Fall Cone Method, 1 Pt Test, BS 1377-2:2022,
cl 5.3, 6

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB



4041

Client: Robert E Fry & Associates Ltd
Client Address: 45 Bridgeman Terrace, WN1 1TT

Client Reference: 24132
Job Number: 24-051794-1
Date Sampled: 29/10/2024
Date Received: 01/11/2024
Date Tested: 14/11/2024
Sampled By: Not Given

Contact: Rachael Mawdsley
Site Address: Greenvale, Rochdale

Testing carried out at i2 Analytical Limited, ul. Pionierow, 41-711 Ruda Slaska, Poland

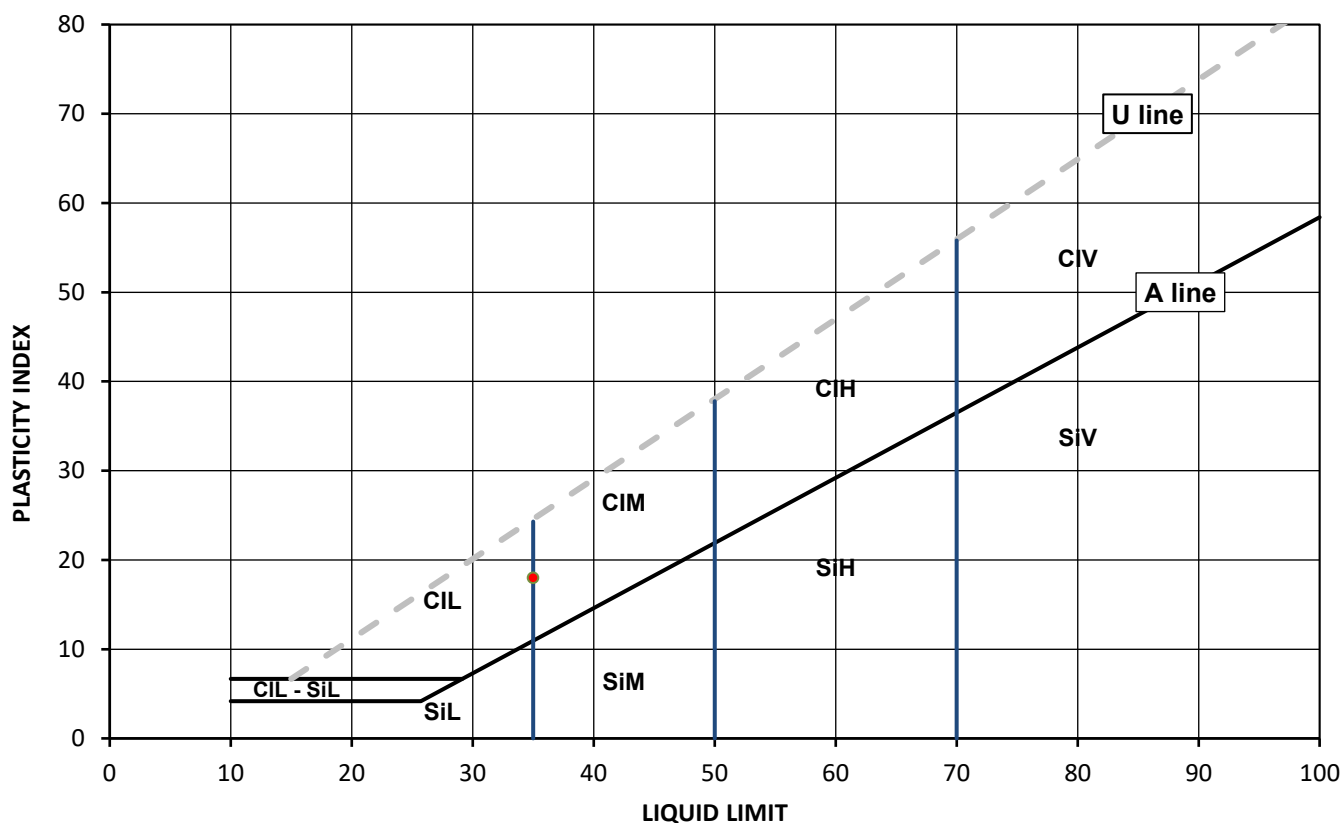
Test Results:

Laboratory Reference: 368818
Hole No.: TP06
Sample Reference: Not Given
Sample Description: Brownish grey slightly gravelly sandy CLAY

Depth Top [m]: 1.90
Depth Base [m]: Not Given
Sample Type: D

Sample Preparation: Tested after washing to remove >0.425 mm;
Cone Type: 80g/30deg

As Received Water Content [W] %	Corrected Liquid Limit [WL] %	Correlation Factor	Plastic Limit [Wp] %	Plasticity Index [Ip] %	Liquidity index [IL] % #	Consistency index [IC] % #	% Passing 425µm BS Test Sieve
14.7	35	1.030	17	18	-0.11	1.11	68



Legend, based on BS EN ISO 14688 2:2018 Geotechnical investigation and testing – Identification and classification of soil

		Plasticity	Liquid Limit
Cl	Clay	L Low	below 35
Si	Silt	M Medium	35 to 50
		H High	50 to 70
		V Very high	exceeding 70
		O Organic	append to classification for organic material (eg ClHO)

Note: Water Content by BS EN 17892-1:2014+A1:2022, BS 1377-2:2022; Correlation Factor by Clayton C.R.I and Jukes A.W (1978); # Non accredited

Remarks:

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TEST CERTIFICATE

DETERMINATION OF LIQUID AND PLASTIC LIMITS

Tested in Accordance with: BS EN ISO 17892-12:2018+A2:2022,
cl 5.3.14, 5.5, Fall Cone Method, 1 Pt Test, BS 1377-2:2022,
cl 5.3, 6

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4041

Client: Robert E Fry & Associates Ltd
Client Address: 45 Bridgeman Terrace, WN1 1TT

Client Reference: 24132
Job Number: 24-051794-1
Date Sampled: 29/10/2024
Date Received: 01/11/2024
Date Tested: 14/11/2024
Sampled By: Not Given

Contact: Rachael Mawdsley
Site Address: Greenvale, Rochdale

Testing carried out at i2 Analytical Limited, ul. Pionierow, 41-711 Ruda Slaska, Poland

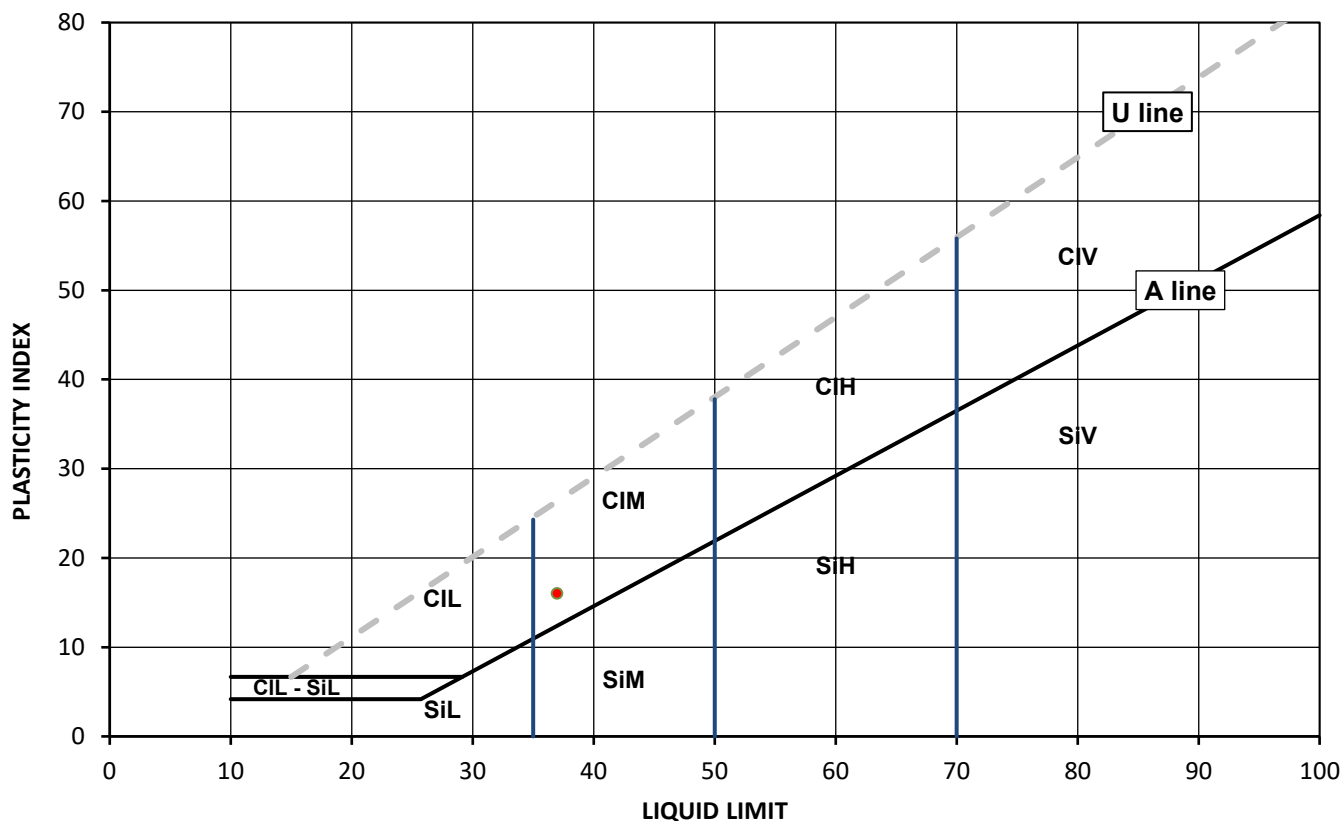
Test Results:

Laboratory Reference: 368819
Hole No.: TP07
Sample Reference: Not Given
Sample Description: Brownish grey sandy CLAY

Depth Top [m]: 0.90
Depth Base [m]: Not Given
Sample Type: D

Sample Preparation: Tested in natural condition;
Cone Type: 80g/30deg

As Received Water Content [W] %	Corrected Liquid Limit [WL] %	Correlation Factor	Plastic Limit [Wp] %	Plasticity Index [Ip] %	Liquidity index [IL] % #	Consistency index [IC] % #	% Passing 425µm BS Test Sieve
27.6	37	1.000	21	16	0.44	0.56	100



Legend, based on BS EN ISO 14688 2:2018 Geotechnical investigation and testing – Identification and classification of soil

	Plasticity	Liquid Limit
Cl	Clay	below 35
Si	Silt	35 to 50
	L Low	50 to 70
	M Medium	exceeding 70
	H High	
	V Very high	
	O Organic	append to classification for organic material (eg ClHO)

Note: Water Content by BS EN 17892-1:2014+A1:2022, BS 1377-2:2022; Correlation Factor by Clayton C.R.I and Jukes A.W (1978); # Non accredited

Remarks:

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TEST CERTIFICATE

DETERMINATION OF LIQUID AND PLASTIC LIMITS

Tested in Accordance with: BS EN ISO 17892-12:2018+A2:2022,
cl 5.3.14, 5.5, Fall Cone Method, 1 Pt Test, BS 1377-2:2022,
cl 5.3, 6

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4041

Client: Robert E Fry & Associates Ltd
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Client Reference: 24132
Job Number: 24-051794-1
Date Sampled: 29/10/2024
Date Received: 01/11/2024
Date Tested: 14/11/2024
Sampled By: Not Given

Contact: Rachael Mawdsley
Site Address: Greenvale, Rochdale

Testing carried out at i2 Analytical Limited, ul. Pionierow, 41-711 Ruda Slaska, Poland

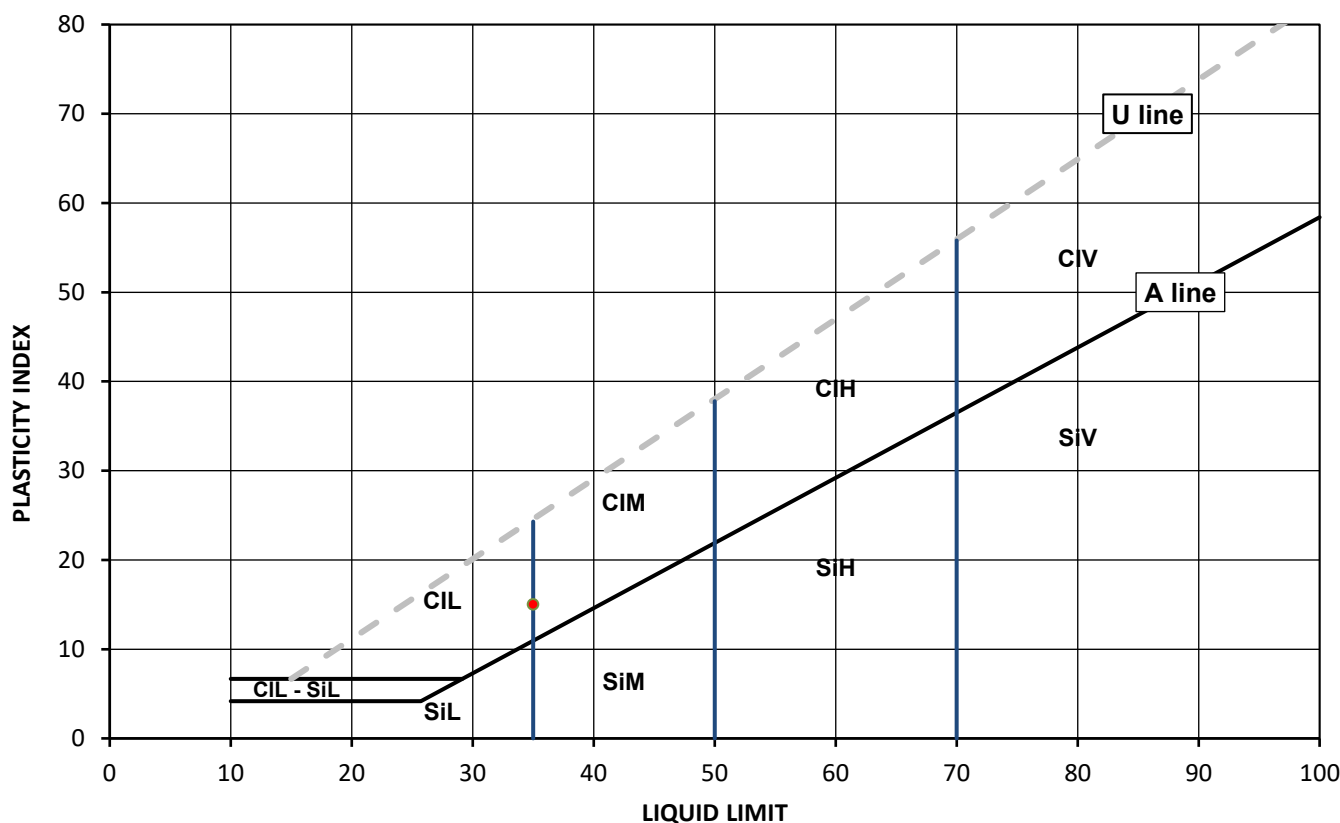
Test Results:

Laboratory Reference: 368820
Hole No.: TP08
Sample Reference: Not Given
Sample Description: Brownish grey slightly gravelly sandy CLAY

Depth Top [m]: 1.40
Depth Base [m]: Not Given
Sample Type: D

Sample Preparation: Tested after washing to remove >0.425 mm;
Cone Type: 80g/30deg

As Received Water Content [W] %	Corrected Liquid Limit [WL] %	Correlation Factor	Plastic Limit [Wp] %	Plasticity Index [Ip] %	Liquidity index [IL] % #	Consistency index [IC] % #	% Passing 425µm BS Test Sieve
12.9	35	1.015	20	15	-0.47	1.47	84



Legend, based on BS EN ISO 14688 2:2018 Geotechnical investigation and testing – Identification and classification of soil

	Plasticity	Liquid Limit
Cl	Clay	below 35
Si	Silt	35 to 50
	L	Low
	M	Medium
	H	High
	V	Very high
	O	Organic
		append to classification for organic material (eg ClHO)

Note: Water Content by BS EN 17892-1:2014+A1:2022, BS 1377-2:2022; Correlation Factor by Clayton C.R.I and Jukes A.W (1978); # Non accredited

Remarks:

Signed:

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TEST CERTIFICATE

DETERMINATION OF LIQUID AND PLASTIC LIMITS

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cl 5.3.14, 5.5, Fall Cone Method, 1 Pt Test, BS 1377-2:2022,
cl 5.3, 6

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Client Reference: 24132
Job Number: 24-051794-1
Date Sampled: 29/10/2024
Date Received: 01/11/2024
Date Tested: 14/11/2024
Sampled By: Not Given

Contact: Rachael Mawdsley
Site Address: Greenvale, Rochdale

Testing carried out at i2 Analytical Limited, ul. Pionierow, 41-711 Ruda Slaska, Poland

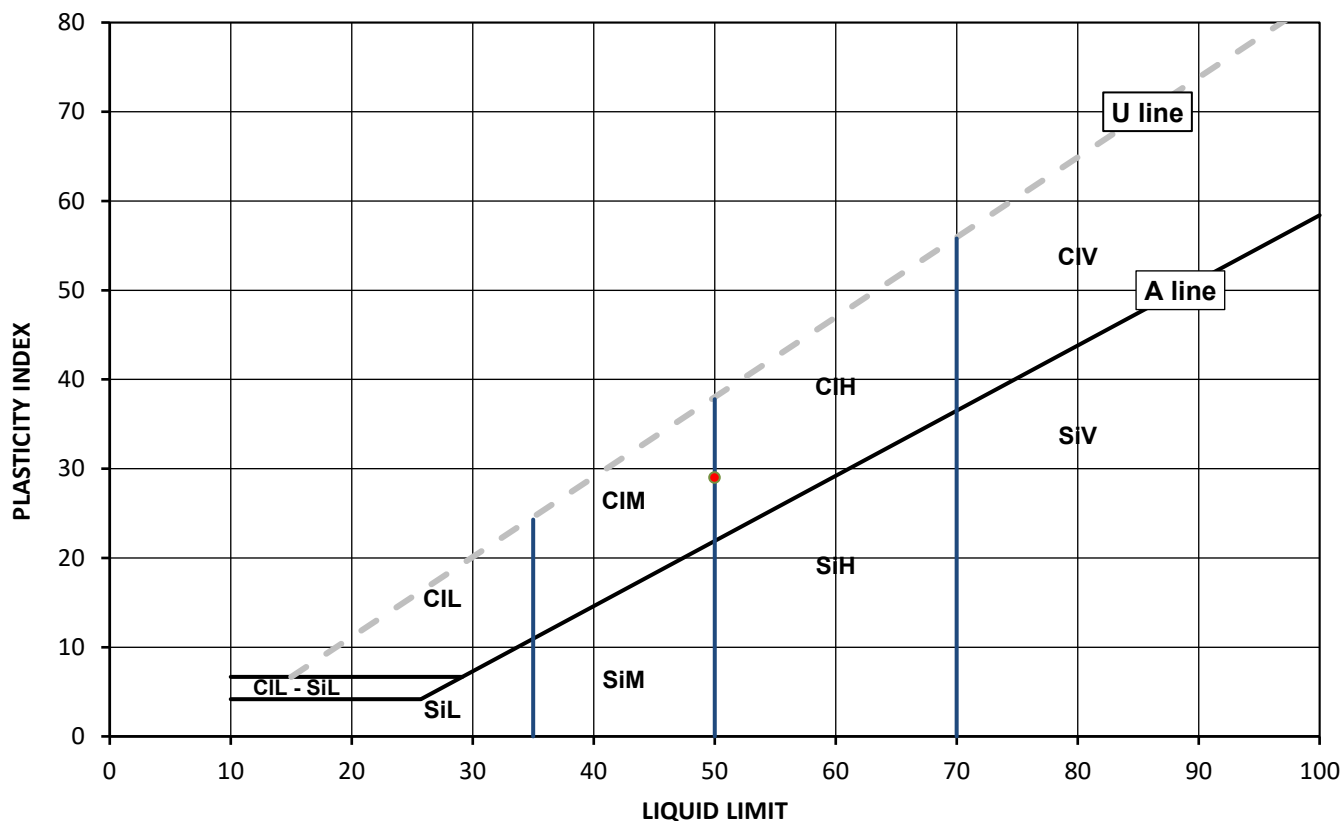
Test Results:

Laboratory Reference: 368821
Hole No.: TP09
Sample Reference: Not Given
Sample Description: Brown slightly gravelly slightly sandy CLAY

Depth Top [m]: 1.70
Depth Base [m]: Not Given
Sample Type: D

Sample Preparation: Tested after >0.425 mm removed by hand;
Cone Type: 80g/30deg

As Received Water Content [W] %	Corrected Liquid Limit [WL] %	Correlation Factor	Plastic Limit [Wp] %	Plasticity Index [Ip] %	Liquidity index [IL] % #	Consistency index [IC] % #	% Passing 425µm BS Test Sieve
20.8	50	1.039	21	29	0.00	1.00	84



Legend, based on BS EN ISO 14688 2:2018 Geotechnical investigation and testing – Identification and classification of soil

		Plasticity	Liquid Limit
Cl	Clay	L Low	below 35
Si	Silt	M Medium	35 to 50
		H High	50 to 70
		V Very high	exceeding 70
		O Organic	append to classification for organic material (eg ClHO)

Note: Water Content by BS EN 17892-1:2014+A1:2022, BS 1377-2:2022; Correlation Factor by Clayton C.R.I and Jukes A.W (1978); # Non accredited

Remarks:

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TEST CERTIFICATE

DETERMINATION OF LIQUID AND PLASTIC LIMITS

Tested in Accordance with: BS EN ISO 17892-12:2018+A2:2022,
cl 5.3.14, 5.5, Fall Cone Method, 1 Pt Test, BS 1377-2:2022,
cl 5.3, 6

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB



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Client: Robert E Fry & Associates Ltd
Client Address: 45 Bridgeman Terrace, WN1 1TT

Client Reference: 24132
Job Number: 24-051794-1
Date Sampled: 29/10/2024
Date Received: 01/11/2024
Date Tested: 14/11/2024
Sampled By: Not Given

Contact: Rachael Mawdsley
Site Address: Greenvale, Rochdale

Testing carried out at i2 Analytical Limited, ul. Pionierow, 41-711 Ruda Slaska, Poland

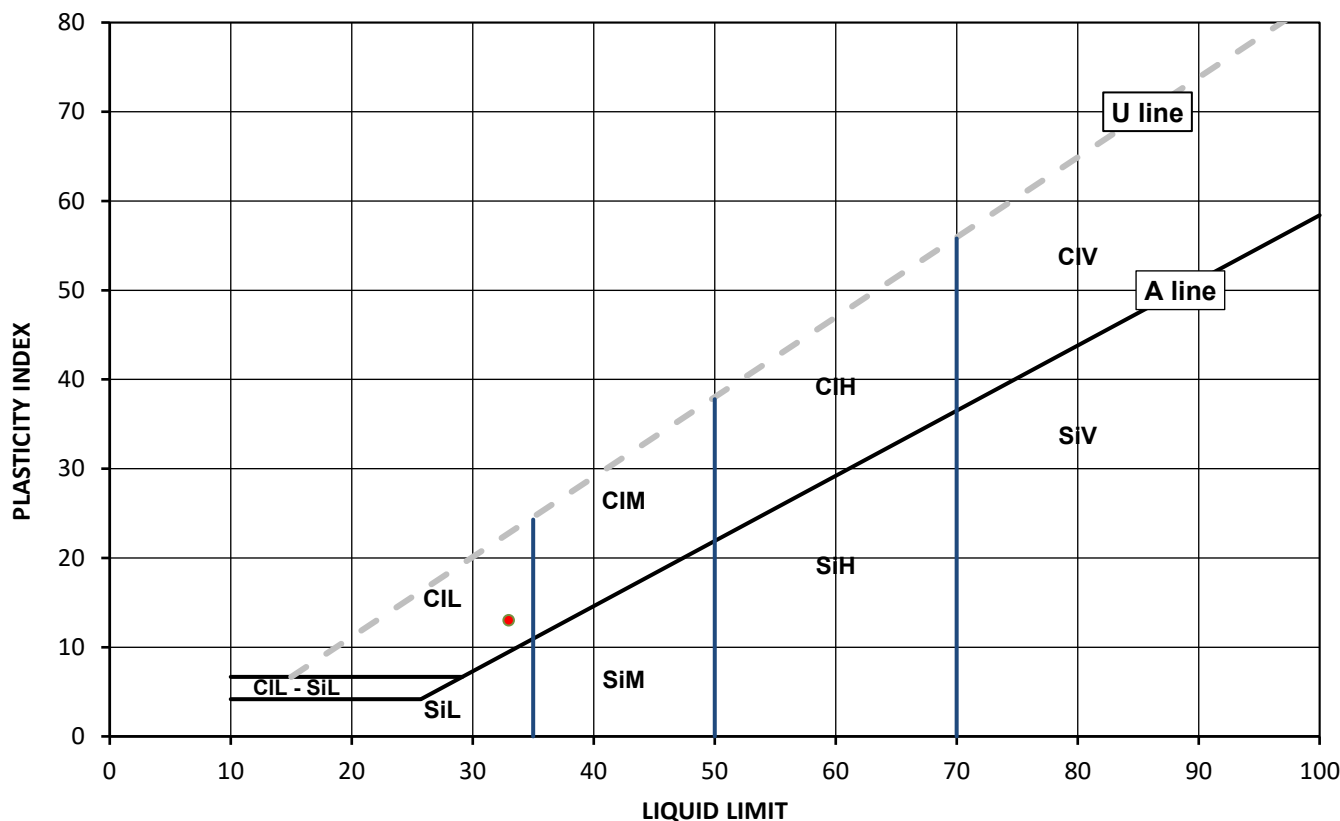
Test Results:

Laboratory Reference: 368822
Hole No.: TP10
Sample Reference: Not Given
Sample Description: Brownish white slightly gravelly very sandy CLAY

Depth Top [m]: 1.00
Depth Base [m]: Not Given
Sample Type: D

Sample Preparation: Tested after washing to remove >0.425 mm;
Cone Type: 80g/30deg

As Received Water Content [W] %	Corrected Liquid Limit [WL] %	Correlation Factor	Plastic Limit [Wp] %	Plasticity Index [Ip] %	Liquidity index [IL] % #	Consistency index [IC] % #	% Passing 425µm BS Test Sieve
24.0	33	1.000	20	13	0.31	0.69	77



Legend, based on BS EN ISO 14688 2:2018 Geotechnical investigation and testing – Identification and classification of soil

Plasticity		Liquid Limit
Cl	Clay	below 35
Si	Silt	35 to 50
		50 to 70
		exceeding 70
		append to classification for organic material (eg ClHO)

Note: Water Content by BS EN 17892-1:2014+A1:2022, BS 1377-2:2022; Correlation Factor by Clayton C.R.I and Jukes A.W (1978); # Non accredited

Remarks:

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TEST CERTIFICATE

DETERMINATION OF LIQUID AND PLASTIC LIMITS

Tested in Accordance with: BS EN ISO 17892-12:2018+A2:2022,
cl 5.3.14, 5.5, Fall Cone Method, 1 Pt Test, BS 1377-2:2022,
cl 5.3, 6

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB



4041

Client: Robert E Fry & Associates Ltd
Client Address: 45 Bridgeman Terrace, WN1 1TT

Client Reference: 24132
Job Number: 24-051794-1
Date Sampled: 29/10/2024
Date Received: 01/11/2024
Date Tested: 14/11/2024
Sampled By: Not Given

Contact: Rachael Mawdsley
Site Address: Greenvale, Rochdale

Testing carried out at i2 Analytical Limited, ul. Pionierow, 41-711 Ruda Slaska, Poland

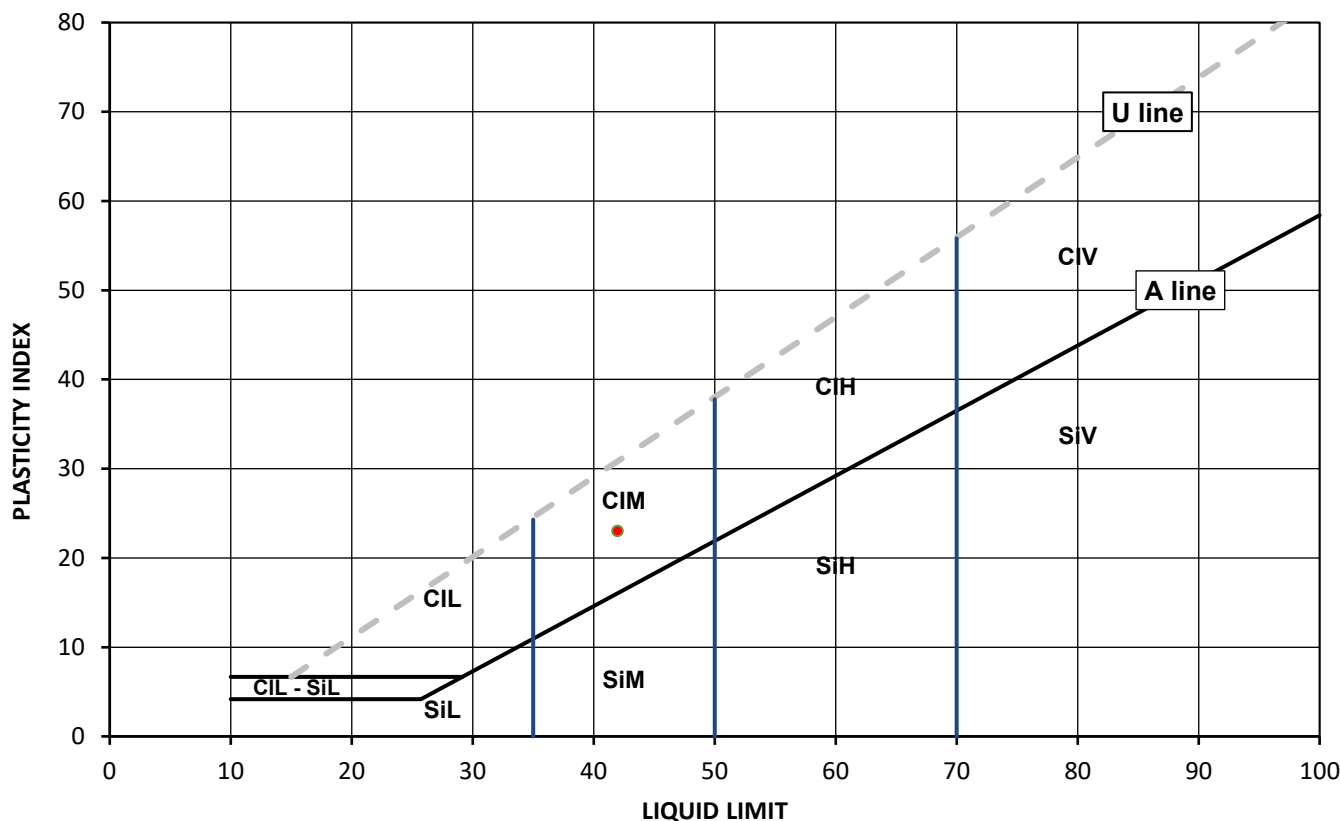
Test Results:

Laboratory Reference: 368823
Hole No.: TP14
Sample Reference: Not Given
Sample Description: Brownish grey gravelly sandy CLAY

Depth Top [m]: 1.80
Depth Base [m]: Not Given
Sample Type: D

Sample Preparation: Tested after washing to remove >0.425 mm;
Cone Type: 80g/30deg

As Received Water Content [W] %	Corrected Liquid Limit [WL] %	Correlation Factor	Plastic Limit [Wp] %	Plasticity Index [Ip] %	Liquidity index [IL] % #	Consistency index [IC] % #	% Passing 425µm BS Test Sieve
22.7	42	1.039	19	23	0.17	0.83	63



Legend, based on BS EN ISO 14688 2:2018 Geotechnical investigation and testing – Identification and classification of soil

		Plasticity	Liquid Limit
Cl	Clay	L Low	below 35
Si	Silt	M Medium	35 to 50
		H High	50 to 70
		V Very high	exceeding 70
		O Organic	append to classification for organic material (eg ClHO)

Note: Water Content by BS EN 17892-1:2014+A1:2022, BS 1377-2:2022; Correlation Factor by Clayton C.R.I and Jukes A.W (1978); # Non accredited

Remarks:

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SUMMARY REPORT

SUMMARY OF CLASSIFICATION TEST RESULTS

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB



Environmental Science

Tested in Accordance with:

4041

Client: Robert E Fry & Associates Ltd

Client Address: 45 Bridgeman Terrace, WN1 1TT

Contact: Rachael Mawdsley

Site Address: Greenvale, Rochdale

Testing carried out at i2 Analytical Limited, ul. Pionierow, 41-711 Ruda Slaska, Poland

BS EN ISO 17892-12:2018+A2:2022, cl 5.3.14, 5.5, Fall Cone Method, 1 Pt Test, BS 1377-2:2022, cl 5.3, 6. Correlation Factor by Clayton C.R.I and Jukes A.W (1978). W by BS EN ISO 17892-1:2014+A1:2022.

Client Reference: 24132

Job Number: 24-051794-1

Date Sampled: 29/10/2024

Date Received: 01/11/2024

Date Tested: 14/11/2024

Sampled By: Not Given

Test results

Laboratory Reference	Hole No.	Sample				Description	Remarks	W	Liquid & Plastic Limit								Density		
		Reference	Depth Top	Depth Base	Type				% Passing 425um	WL*	Correlation Factor	Wp	Ip	Cone type	Sample Preparation	bulk	dry	PD	
			m	m					%	%		%	%			Mg/m3	Mg/m3	Mg/m3	
368814	WS01	Not Given	1.20	Not Given	D	Yellowish grey slightly gravelly slightly sandy silty CLAY	Atterberg 1 Point	30.3	81	50	1.000	28	22	80g/30 deg	WR				
368815	WS03	Not Given	2.30	Not Given	D	Brownish grey slightly gravelly sandy CLAY	Atterberg 1 Point	22.8	99	42	1.039	21	21	80g/30 deg	R				
368816	TP04	Not Given	1.20	Not Given	D	Brownish grey slightly gravelly very sandy CLAY	Atterberg 1 Point	16.0	81	33	1.015	17	16	80g/30 deg	WR				
368817	TP05	Not Given	1.40	Not Given	D	Brownish grey slightly gravelly sandy CLAY	Atterberg 1 Point	23.9	80	35	1.030	17	18	80g/30 deg	WR				
368818	TP06	Not Given	1.90	Not Given	D	Brownish grey slightly gravelly sandy CLAY	Atterberg 1 Point	14.7	68	35	1.030	17	18	80g/30 deg	WR				
368819	TP07	Not Given	0.90	Not Given	D	Brownish grey sandy CLAY	Atterberg 1 Point	27.6	100	37	1.000	21	16	80g/30 deg	N				
368820	TP08	Not Given	1.40	Not Given	D	Brownish grey slightly gravelly sandy CLAY	Atterberg 1 Point	12.9	84	35	1.015	20	15	80g/30 deg	WR				
368821	TP09	Not Given	1.70	Not Given	D	Brown slightly gravelly slightly sandy CLAY	Atterberg 1 Point	20.8	84	50	1.039	21	29	80g/30 deg	R				
368822	TP10	Not Given	1.00	Not Given	D	Brownish grey slightly gravelly very sandy CLAY	Atterberg 1 Point	24.0	77	33	1.000	20	13	80g/30 deg	WR				
368823	TP14	Not Given	1.80	Not Given	D	Brownish grey gravelly sandy CLAY	Atterberg 1 Point	22.7	63	42	1.039	19	23	80g/30 deg	WR				

Note: # Non accredited; NP - Non plastic; N - Tested in natural condition, R - Tested after >0.425mm removed by hand, WR - Tested after washing to remove >425mm; * - One point liquid limit corrected as per the report Correlation Factor by Clayton C.R.I and Jukes A.W (1978)

Comments:

Signed:

Katarzyna Koziel

Katarzyna Koziel
Geotechnical Reporting Team Leader
for and on behalf of i2 Analytical Ltd

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SUMMARY REPORT

DETERMINATION OF WATER CONTENT

Tested in Accordance with: BS EN ISO 17892-1:2014+A1:2022, BS 1377-2: 2022, clause 4.1

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB



Environmental Science

4041

Client: Robert E Fry & Associates Ltd

Client Address:
45 Bridgeman Terrace, WN1 1TT

Contact: Rachael Mawdsley
Site Address: Greenvale, Rochdale

Testing carried out at i2 Analytical Limited, ul. Pionierow, 41-711 Ruda Slaska, Poland

Client Reference: 24132

Job Number: 24-051794-1

Date Sampled: 29/10/2024

Date Received: 01/11/2024

Date Tested: 14/11/2024

Sampled By: Not Given

Test results

Laboratory Reference	Hole No.	Sample				Description	Remarks	WC											
		Reference	Depth Top m	Depth Base m	Type														
368814	WS01	Not Given	1.20	Not Given	D	Yellowish grey slightly gravelly slightly sandy silty CLAY		30.3											
368815	WS03	Not Given	2.30	Not Given	D	Brownish grey slightly gravelly sandy CLAY		22.8											
368816	TP04	Not Given	1.20	Not Given	D	Brownish grey slightly gravelly very sandy CLAY		16.0											
368817	TP05	Not Given	1.40	Not Given	D	Brownish grey slightly gravelly sandy CLAY		23.9											
368818	TP06	Not Given	1.90	Not Given	D	Brownish grey slightly gravelly sandy CLAY		14.7											
368819	TP07	Not Given	0.90	Not Given	D	Brownish grey sandy CLAY		27.6											
368820	TP08	Not Given	1.40	Not Given	D	Brownish grey slightly gravelly sandy CLAY		12.9											
368821	TP09	Not Given	1.70	Not Given	D	Brown slightly gravelly slightly sandy CLAY		20.8											
368822	TP10	Not Given	1.00	Not Given	D	Brownish grey slightly gravelly very sandy CLAY		24.0											
368823	TP14	Not Given	1.80	Not Given	D	Brownish grey gravelly sandy CLAY		22.7											

Comments:

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Signed:

Katarzyna Koziel

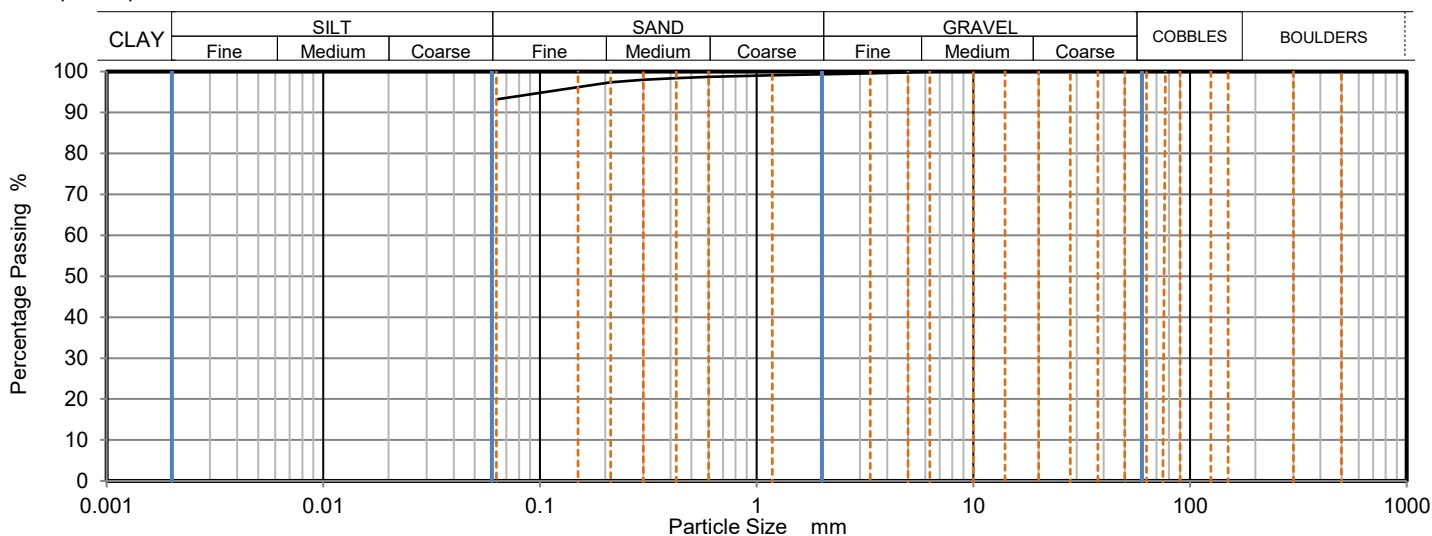
Katarzyna Koziel
Geotechnical Reporting Team Leader
for and on behalf of i2 Analytical Ltd



4041

**TEST CERTIFICATE****DETERMINATION OF PARTICLE
SIZE DISTRIBUTION**Tested in Accordance with: BS EN ISO 17892-4:2016,
BS 1377-2:2022 cl. 10i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EBClient: Robert E Fry & Associates Ltd
Client Address: 45 Bridgeman Terrace, WN1 1TTClient Reference: 24132
Job Number: 24-051794-1
Date Sampled: 29/10/2024
Date Received: 01/11/2024
Date Tested: 14/11/2024
Sampled By: Not GivenContact: Rachael Mawdsley
Site Address: Greenvale, Rochdale

Testing carried out at i2 Analytical Limited, ul. Pionierow, 41-711 Ruda Slaska, Poland

Test Results:Laboratory Reference: 368824
Hole No.: WS03
Sample Reference: Not Given
Sample Description: Brownish grey slightly sandy CLAY
Sample Preparation: Sample was quartered, oven dried at 108.6 °C and broken down by hand.Depth Top [m]: 1.90
Depth Base [m]: Not Given
Sample Type: D

Sieving		Sedimentation	
Particle Size mm	% Passing	Particle Size mm	% Passing
500	100		
300	100		
150	100		
125	100		
90	100		
75	100		
63	100		
50	100		
37.5	100		
28	100		
20	100		
14	100		
10	100		
6.3	100		
5	100		
3.35	100		
2	99		
1.18	99		
0.6	99		
0.425	98		
0.3	98		
0.212	97		
0.15	96		
0.063	93		

Sample Proportions	% dry mass
Very coarse	0.00
Gravel	1.00
Sand	6.00
Fines <0.063 mm	93.00

Grading Analysis	
D100	mm
D60	mm
D30	mm
D10	mm
Uniformity Coefficient	
Curvature Coefficient	

Uniformity and Curvature Coefficient calculated in accordance with BS EN ISO 14688-2:2018

Note: Tested in Accordance with ISO 17892 -4, by sieving on as received or wet sample

Remarks:

Signed:

Katarzyna Koziel
Geotechnical Reporting Team Leader
for and on behalf of i2 Analytical Ltd

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SUMMARY REPORT

DETERMINATION OF BULK DENSITY - IMMERSION IN FLUID METHOD

Tested in Accordance with: BS EN ISO 17892-2: 2014: Clause 5.2

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB



Environmental Science

4041

Client: Robert E Fry & Associates Ltd

Client Address:
45 Bridgeman Terrace, WN1 1TT

Contact: Rachael Mawdsley
Site Address: Greenvale, Rochdale

Testing carried out at i2 Analytical Limited, ul. Pionierow, 41-711 Ruda Slaska, Poland

Client Reference: 24132

Job Number: 24-051794-1

Date Sampled: 29/10/2024

Date Received: 01/11/2024

Date Tested: 23/11/2024

Sampled By: Not Given

Test results

Laboratory Reference	Hole No.	Sample				Description	Remarks	Bulk density Mg/m3	Dry density Mg/m3	WC %	Preparation		
		Reference	Depth Top m	Depth Base m	Type								
368816	TP04	Not Given	1.20	Not Given	D	Brownish grey slightly gravelly very sandy CLAY		2.17	1.87	15.7			
368817	TP05	Not Given	1.40	Not Given	D	Brownish grey slightly gravelly sandy CLAY		2.08	1.75	19.0			
368818	TP06	Not Given	1.90	Not Given	D	Brownish grey slightly gravelly sandy CLAY		2.21	1.94	13.8			
368819	TP07	Not Given	0.90	Not Given	D	Brownish grey sandy CLAY		1.95	1.56	24.8			
368821	TP09	Not Given	1.70	Not Given	D	Brown slightly gravelly slightly sandy CLAY		1.96	1.59	23.2			
368822	TP10	Not Given	1.00	Not Given	D	Brownish grey slightly gravelly very sandy CLAY		1.93	1.55	24.9			
368823	TP14	Not Given	1.80	Not Given	D	Brownish grey gravelly sandy CLAY		1.96	1.57	25.4			
368814	WS01	Not Given	1.20	Not Given	D	Yellowish grey slightly gravelly slightly sandy silty CLAY		1.86	1.45	28.4			
368815	WS03	Not Given	2.30	Not Given	D	Brownish grey slightly gravelly sandy CLAY		2.05	1.66	23.3			

Note: WC - Water Content by BS EN ISO 17892-1:2014+A1:2022, BS-1377:2022

Comments:

Signed:

Katarzyna Koziel

Katarzyna Koziel
Geotechnical Reporting Team Leader
for and on behalf of i2 Analytical Ltd

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APPENDIX L

Ground Gas Monitoring Record

Borehole	Gas Flow (l/hr)	Borehole Pressure (Pa)	Methane (% v/v)		Methane (%LEL*)		Carbon Dioxide (%v/v)		Oxygen (%v/v)		Nitrogen (%v/v)		Depth to water (m bgl)	Atmospheric Pressure (mB)	Comments
			Initial	Steady	Initial	Steady	Initial	Steady	Initial	Steady	Initial	Steady			
WS01	0.0		0.0	0.0			8.2	8.2	13.1	13.0			2.50	980	
WS02	0.0		0.0	0.0			4.2	4.2	17.0	16.9			2.00	982	
WS03	0.0		0.0	0.0			5.3	5.2	16.0	15.7			DRY	980	

Notes:

Monitoring should be for not less than 3 Minutes. However, if high concentrations of gases initially recorded, monitoring should be for up to 10 mins.

* LEL = Explosive Limit = 5%v/v

ND - Not Detected

Relevant Information at times of monitoring

Monitored by: Weather : Equipment used: Visible signs of vegetation stress: Boreholes sampled for laboratory analysis: Other comments / observations:	HM Sunny & Frosty	Contract:	Greenvale, Bamford
		Date:	22.11.2024
		Job No.	23154
		Sheet No.	1



Robert E Fry Associates
 45 Bridgeman Terrace, Wigan, WN1 1TT

Ground Gas Monitoring Record

Borehole	Gas Flow (l/hr)	Borehole Pressure (Pa)	Methane (% v/v)		Methane (%LEL*)		Carbon Dioxide (%v/v)		Oxygen (%v/v)		Nitrogen (%v/v)		Depth to water (m bgl)	Atmospheric Pressure (mB)	Comments
			Initial	Steady	Initial	Steady	Initial	Steady	Initial	Steady	Initial	Steady			
WS01	0.0		0.0	0.0			0.0	0.0	19.6	19.7			1.22	997	
WS02	0.0		0.0	0.0			0.0	0.0	20.0	20.0			G.L	997	Well Flooded
WS03	0.0		0.0	0.0			0.0	0.0	16.0	15.7			DRY	997	

Notes:

Monitoring should be for not less than 3 Minutes. However, if high concentrations of gases initially recorded, monitoring should be for up to 10 mins.

* LEL = Explosive Limit = 5%v/v

ND - Not Detected

Relevant Information at times of monitoring

Monitored by: Weather : Equipment used: Visible signs of vegetation stress: Boreholes sampled for laboratory analysis: Other comments / observations:	HM Clear / Sunny & Wet	Contract:	Greenvale, Bamford
		Date:	06.12.2024
		Job No.	23154
		Sheet No.	2



Robert E Fry Associates
45 Bridgeman Terrace, Wigan, WN1 1TT

Ground Gas Monitoring Record

Borehole	Gas Flow (l/hr)	Borehole Pressure (Pa)	Methane (% v/v)		Methane (%LEL*)		Carbon Dioxide (%v/v)		Oxygen (%v/v)		Nitrogen (%v/v)		Depth to water (m bgl)	Atmospheric Pressure (mB)	Comments
			Initial	Steady	Initial	Steady	Initial	Steady	Initial	Steady	Initial	Steady			
WS01	0.0		0.0	0.0			0.0	0.0	19.3	19.6			0.00	997	
WS02	0.0		0.0	0.0			0.0	0.0	19.7	20.1			0.00	995	
WS03	0.0		0.0	0.0			0.0	0.0	19.9	20.1			0.08	995	

Notes:

Monitoring should be for not less than 3 Minutes. However, if high concentrations of gases initially recorded, monitoring should be for up to 10 mins.

* LEL = Explosive Limit = 5%v/v

ND - Not Detected

Relevant Information at times of monitoring

Monitored by: Weather : Equipment used: Visible signs of vegetation stress: Boreholes sampled for laboratory analysis: Other comments / observations:	RM Lightly raining	Contract:	Greenvale, Bamford
		Date:	20.12.24
		Job No.	23154
		Sheet No.	3



Robert E Fry Associates
45 Bridgeman Terrace, Wigan, WN1 1TT

Ground Gas Monitoring Record

Borehole	Gas Flow (l/hr)	Borehole Pressure (Pa)	Methane (% v/v)		Methane (%LEL*)		Carbon Dioxide (%v/v)		Oxygen (%v/v)		Nitrogen (%v/v)		Depth to water (m bgl)	Atmospheric Pressure (mB)	Comments
			Initial	Steady	Initial	Steady	Initial	Steady	Initial	Steady	Initial	Steady			
WS01	0.0		0.0	0.0			0.1	0.1	19.7	19.7			1.28	960	
WS02	0.0		0.0	0.0			0.0	0.0	19.7	19.6			G.L	961	Well Flooded
WS03	0.0		0.0	0.0			0.0	0.0	19.8	19.9			0.50	960	

Notes:

Monitoring should be for not less than 3 Minutes. However, if high concentrations of gases initially recorded, monitoring should be for up to 10 mins.

* LEL = Explosive Limit = 5%v/v

ND - Not Detected

Relevant Information at times of monitoring

Monitored by: Weather : Equipment used: Visible signs of vegetation stress: Boreholes sampled for laboratory analysis: Other comments / observations:	HM Clear & Snowy	Contract:	Greenvale, Bamford
		Date:	20.12.24
		Job No.	23154
		Sheet No.	4



Robert E Fry Associates
45 Bridgeman Terrace, Wigan, WN1 1TT

Ground Gas Monitoring Record

Borehole	Gas Flow (l/hr)	Borehole Pressure (Pa)	Methane (% v/v)		Methane (%LEL*)		Carbon Dioxide (%v/v)		Oxygen (%v/v)		Nitrogen (%v/v)		Depth to water (m bgl)	Atmospheric Pressure (mB)	Comments
			Initial	Steady	Initial	Steady	Initial	Steady	Initial	Steady	Initial	Steady			
WS01	0.0	0.0	0.0	0.0	NA	NA	0.0	0.0	19.4	19.7	0.0	0.0	0.00	1000	NA
WS02	0.0	0.0	0.0	0.0	NA	NA	0.0	0.0	19.6	19.8	0.0	0.0	0.00	999	NA
WS03	0.0	0.0	0.0	0.0	NA	NA	0.0	0.0	19.7	19.8	0.0	0.0	0.00	999	NA

Notes:

Monitoring should be for not less than 3 Minutes. However, if high concentrations of gases initially recorded, monitoring should be for up to 10 mins.

* LEL = Explosive Limit = 5%v/v

ND - Not Detected

Relevant Information at times of monitoring

Monitored by: Weather : Equipment used: Visible signs of vegetation stress: Boreholes sampled for laboratory analysis: Other comments / observations:	RM Dry	Contract:	Greenvale, Bamford
		Date:	20.01.2025
		Job No.	23154
		Sheet No.	5



Robert E Fry Associates
 45 Bridgeman Terrace, Wigan, WN1 1TT

Ground Gas Monitoring Record

Borehole	Gas Flow (l/hr)	Borehole Pressure (Pa)	Methane (% v/v)		Methane (%LEL*)		Carbon Dioxide (%v/v)		Oxygen (%v/v)		Nitrogen (%v/v)		Depth to water (m bgl)	Atmospheric Pressure (mB)	Comments
			Initial	Steady	Initial	Steady	Initial	Steady	Initial	Steady	Initial	Steady			
WS01	0.0	0.0	0.0	0.0	NA	NA	0.0	0.0	20.0	20.0	0.0	0.0	2.10	1002	NA
WS02	0.0	0.0	0.0	0.0	NA	NA	0.0	0.0	20.3	19.9	0.0	0.0	0.10	1002	NA
WS03	0.0	0.0	0.0	0.0	NA	NA	0.0	0.0	19.6	19.9	0.0	0.0	0.45	1002	NA

Notes:

Monitoring should be for not less than 3 Minutes. However, if high concentrations of gases initially recorded, monitoring should be for up to 10 mins.

* LEL = Explosive Limit = 5%v/v

ND - Not Detected

Relevant Information at times of monitoring

Monitored by: Weather : Equipment used: Visible signs of vegetation stress: Boreholes sampled for laboratory analysis: Other comments / observations:	SCB Overcast	Contract:	Greenvale, Bamford
		Date:	30.01.2025
		Job No.	23154
		Sheet No.	6



Robert E Fry Associates
 45 Bridgeman Terrace, Wigan, WN1 1TT

APPENDIX M



KEY

	Approximate Site Boundary
	Deep Strip
	Deep Strip (Tree Roots)
	Piled Plots
	Standard Strip
	Hotspot
	CS2 Gas Protective Measures

NOTES

Layout info
Name: Proposed Site Layout
Rev: C

INFO

B	Updated planning layout and drawing format	AW	20.03.25	
A	Updated to latest planning layout	AW	10.03.25	
Rev.	Description	By	Date	
Revision History				
45 Bridgeman Terrace Wigan Lancashire WN1 1TT 01942 626020 Info@refa.co.uk www.refa.co.uk				
Client				
Wainhomes (NW) Ltd				
Greenvale, Bramford Rochdale				
Drawing				
Development Constraints Plan				
Sheet Size	Scale at Sheet Size	Date	Drawn By	Checked By
A3	nts	28.11.24	HG	
Project Number		Drawing Number		Current Revision
23154		23154/02		B